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# Profi lierung

oder wir machen Profile





Das Familienunternehmen wurde im Jahre 1959 in Leinzell unter dem Namen Maria A. Kühn Kunststoffwerk gegründet und begann dort mit der Produktion von Weich-PVC Profilen.

Im Jahr 1964 verlegte die Firma Ihren Standort in eine neu erstellte Produktionshalle nach Mögglingen, Ostalbkreis.

In den Jahren 1965, 1966 und 1974 wurde die Produktionsfläche den Anforderungen entsprechend erweitert. Ein eigener Werkzeug- und Sondermaschinenbau, Spritzguß für den Eigenbedarf, Konfektionsabteilung etc. wurden angegliedert.

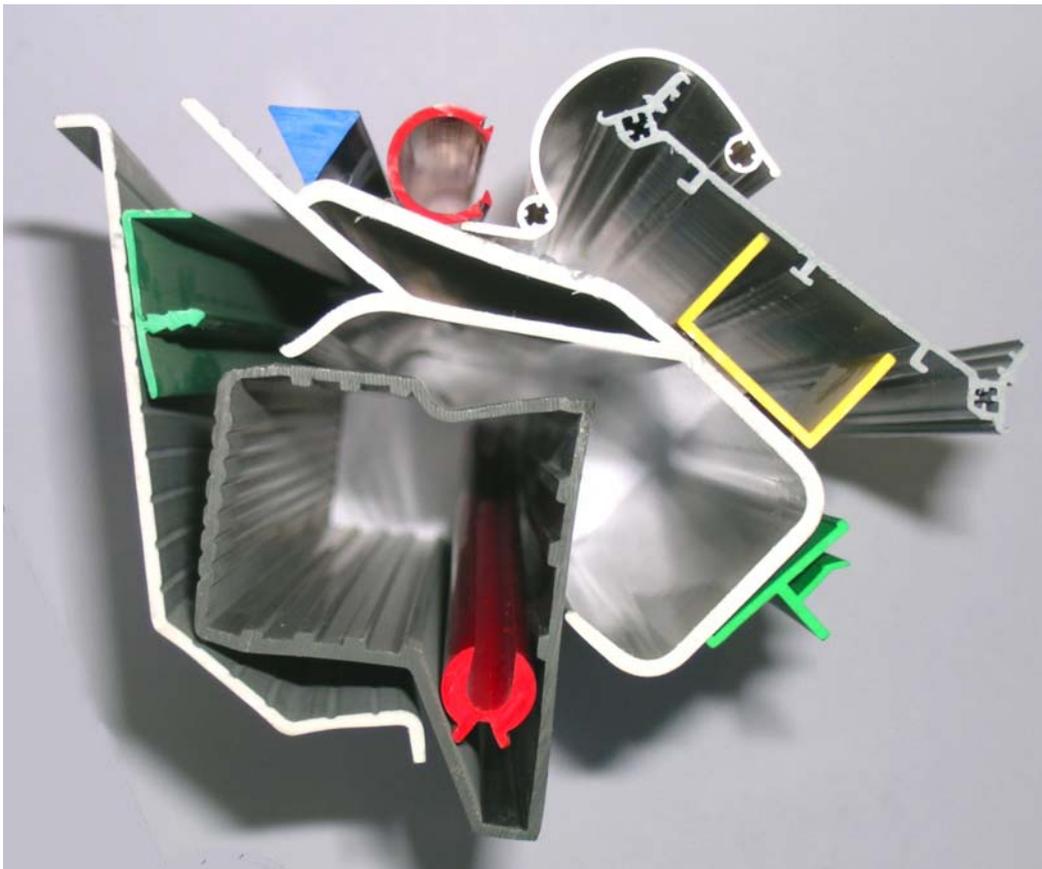
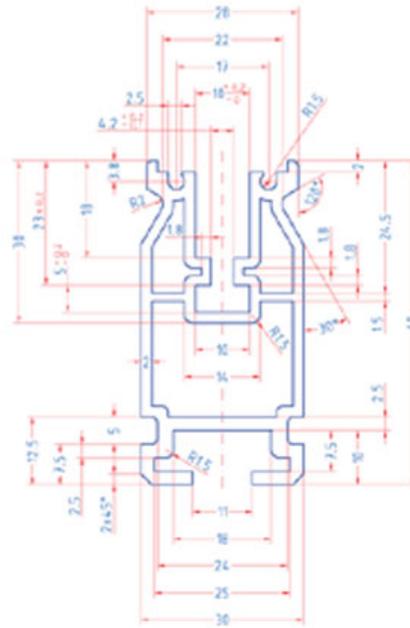
Heute werden auf ca. 3600 m<sup>2</sup>, Kunststoffprofile, Extrusionswerkzeuge, Stanzwerkzeuge, Spritzgußformen und Sondermaschinen gefertigt.



## Profile

Eine Übersicht über die bei uns verfügbaren Werkzeuge zur Profilverstellung finden Sie im "**Profilkatalog**", ebenso Hinweise zu Toleranzen und eine Programmübersicht.

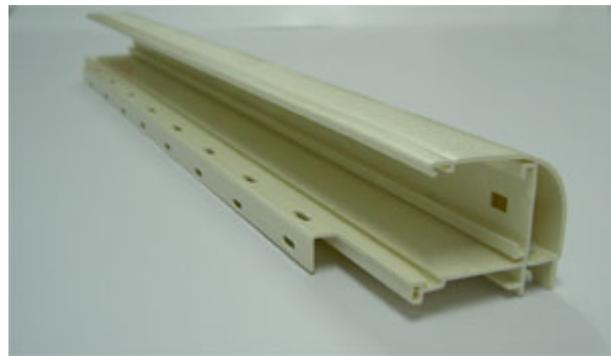
Die im Profilssektor hauptsächlich zur Verarbeitung kommenden Thermoplaste finden Sie unter "**Werkstoffe**" mit Material-Datenblättern im PDF-Format.



**Bohren, Fräsen, Stanzen,  
oder thermisches Umformen.**



Durch entsprechende  
Bearbeitungsschritte,  
**online** oder **offline**, werden aus  
"Profilhalbzeugen" **Fertigteile**.



In Kombination mit weiteren Fertigteilen  
entstehen "**Baugruppen**".



Mit unseren umfangreichen Erfahrungen  
in der Profilmachbearbeitung,  
sind wir in der Lage fast alle  
Wünsche in Nach- und  
Weiterbearbeitung durchzuführen.

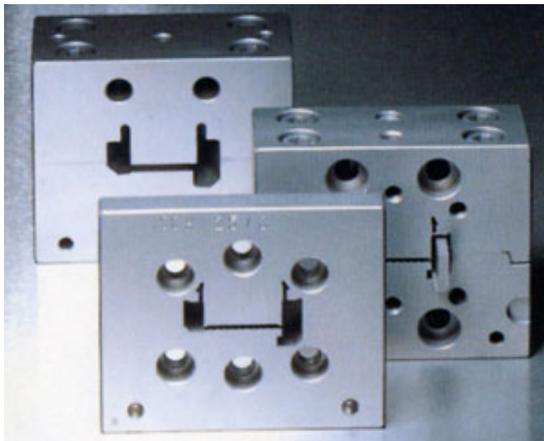


## Werkzeugbau

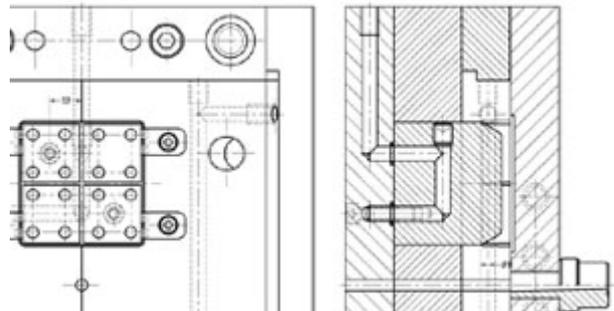
Auf modernen NC-Maschinen  
fertigen wir im eigenen Werkzeugbau



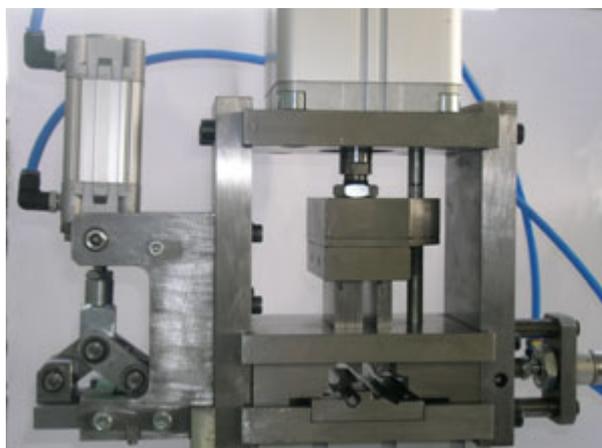
Extrusionswerkzeuge und Kalibrierblöcke



Spritzgießformen



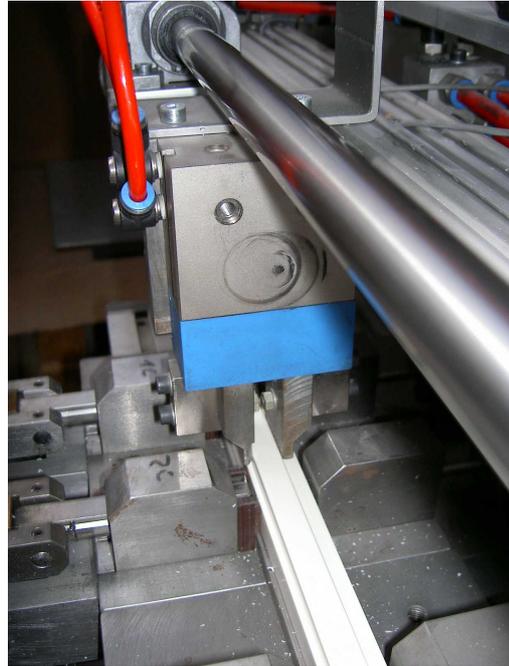
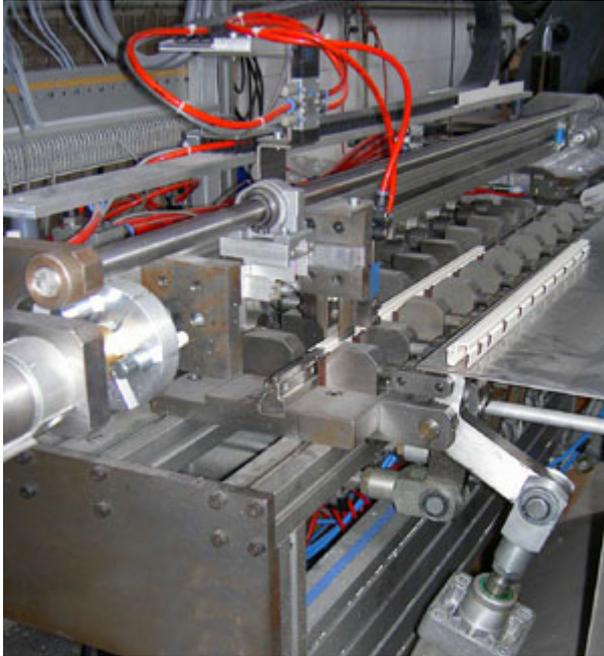
Stanzwerkzeuge und Vorrichtungen  
für online- und offline Bearbeitung



## Sondermaschinen

Unsere Sondermaschinen für die **online** und **offline** Nachbearbeitung bauen wir inklusive Steuerung selbst.

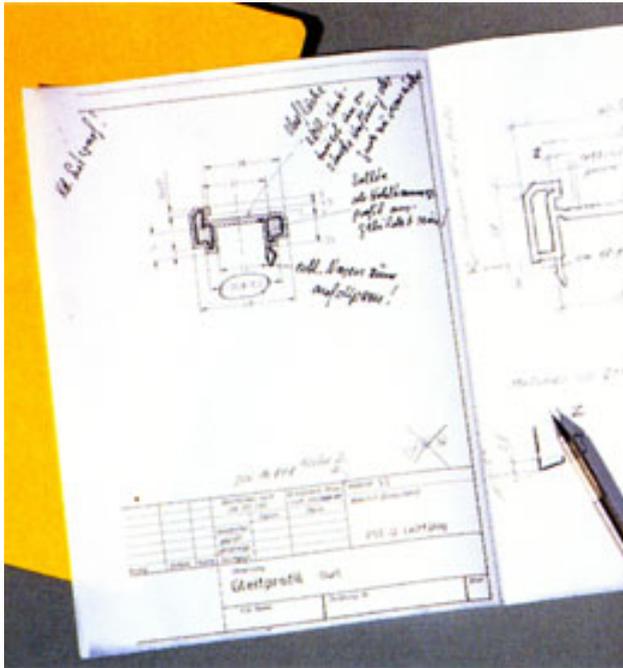
Sie werden in der Regel "**modular**" aufgebaut. Dies ermöglicht bei evtl. fällig werdenden Produktänderungen eine hohe Flexibilität und kurze Umrüstzeiten.



Um auf **Änderungswünsche** oder **Produktvarianten** unserer Kunden, schnell und flexibel reagieren zu können, werden alle Sondermaschinen zwischenzeitlich mit **frei programmierbaren Steuerungen** ausgestattet.



## Beratung



Wenn Sie neue Profile oder Profilsysteme entwickeln, sollten Sie sich bereits in der Planungsphase mit uns in Verbindung setzen. Nur wenn die Kompetenz des Kunden auf seinem Fachgebiet, unser Know-How in der Profilgestaltung, Profilverfertigung und der in Frage kommenden Werkstoffe, bereits zu Beginn der Planung verzahnt werden, erreichen wir optimale Lösungen.

Unsere Technik berät Sie gerne auch vor Ort

Senden Sie uns Ihre Zeichnungen, Skizzen oder CAD-Dateien (DXF oder Iges-Format) via Post, Fax oder E-Mail.

Angaben über gewünschten Toleranzen, Einsatzzweck und Einbausituation sind hilfreich. Angaben über sinnvolle und machbare Toleranzen finden Sie auf der Seite Profilkatalog unter dem Link Toleranzen.

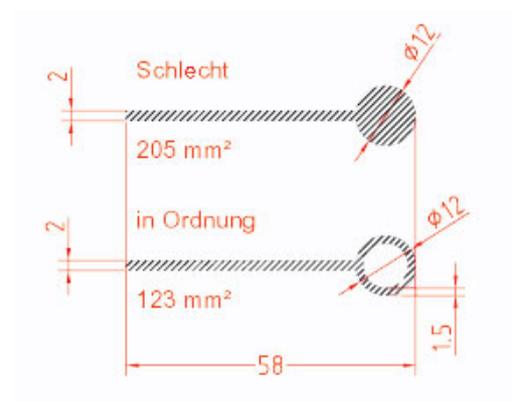
Wir freuen uns auf Ihre Anfragen.

## Tips zur Profilgestaltung

Profile sollten mit möglichst gleichen Wanddicken ausgeführt werden.

Materialanhäufungen wie im oberen Profil sollten vermieden und wenn möglich durch Kammern ersetzt werden, wobei bei einer geschlossenen Hohlkammer die Wanddicke im Verhältnis zu den Vollprofilelementen noch reduziert werden sollte. Siehe unteres Profil.

Wie aus nebenstehender Skizze ersichtlich, ergibt sich dann zusätzlich eine nicht unerhebliche Material und Kostenersparnis. (vergleiche Querschnitt 205 zu 123 mm<sup>2</sup>)



**Übersicht über die bei kühnplast  
verarbeiteten Werkstoffe**

		Vynilchlorid			Styrol / Acrylat			
<b>Kurzzeichen</b> nach DIN 7728 / ISO 1043 Bezeichnung Chemischer Aufbau		<b>PVC-U</b> Hart-PVC	<b>PVC-ABS Blend</b>	<b>PVC-P</b> Weich-PVC	<b>PS</b> Polystyrol	<b>SB</b> Styrol-Butadien Copolymer	<b>ABS</b> Acrylnitril-Butadien-Styrol Copolymer	<b>PMMA</b> Polymethylmethacrylat
		☺	☺☺	☺	☹	☹	☺	☹
<b>Handelsnamen</b> (Markennamen) und typische Endungen		Vestolit Hostalit Vinnolit Etinox Polanvyl Corvic		Vestolit Vinnolit Etinox Polanvyl Corvic	Vestyron Sternite	Vestyron Styroplus Superflex	Terluran Cycolac Novodur	Plexiglas Oroglas
<b>Mechanische Eigenschaften</b>	<b>Einheiten</b>							
Rohdichte	g/ cm <sup>3</sup>	1,4	1,3-1,38	1,16-1,38	1,05	1,03	1,04-1,06	1,15
Zugfestigkeit	N/ mm <sup>2</sup>	45-50		25-30	40-50	25	32-45	-38
Elastizitätsmodul	N/ mm <sup>2</sup>	3000-3200	3000 - 3600		~3300	1900	2000	1700
Kerbschlagzähigkeit	+23°C kJ/ m <sup>2</sup>	30			2		35	64
Izod	-30°C kJ/ m <sup>2</sup>	5			2		25	
Kerbschlagzähigkeit	+23°C kJ/ m <sup>2</sup>					9	kB	
Charpy	-40°C kJ/ m <sup>2</sup>					5	kB	
<b>Thermische Eigenschaften</b>								
Vicat-Erweichungstemperatur B / 50	°C	-78	82-102	-40	90	90	98	93
Therm. Längenausdehnungskoeff.	10 <sup>-5</sup> x K <sup>-1</sup>	8		15	8	8	8-11	7
Wärmeleitfähigkeit	W / mK	0,16		0.16	0,16	0,16	0,17	0,19

**Übersicht über die bei kühnplast  
verarbeiteten Werkstoffe**

		Polyolefine			Polyamide		
<b>Kurzzeichen</b> nach DIN 7728 / ISO 1043 Bezeichnung Chemischer Aufbau		<b>PP</b> Polypropylen	<b>PP TV 30</b> Polypropylen 30% talkumverstärkt	<b>PE-LD</b> Polyethylen niedriger Dichte (weich-PE)	<b>PA 6</b> Polyamid 6 Homopolykondensat aus ε-Caprolactam (Polycaprolactam)	<b>PA 12</b> Polyamid 12 Homopolykondensat aus ω-Laurinlactam (Polylaurinlactam) leitfähig	<b>PA 12-Elastomere</b> thermoplastische Polyamid-Elastomere
		☹	☹	☹	☹	☹	☹
<b>Handelsnamen</b> (Markennamen) und typische Endungen		Daplen Hostalen Vestolen	Daplen Hostalen Vestolen	Lupolen Hostalen Moplen Vestolen	Ultramid Zytel Grilon Durethan Vestamid	Vestamid Grilamid Rilsan	Vestamid
<b>Mechanische Eigenschaften</b>	<b>Einheiten</b>						
Rohdichte	g/ cm <sup>3</sup>	0,90-0,91	1,14	0,917-0,92	1,13	1,06	1,01
Zugfestigkeit	N/ mm <sup>2</sup>	36	28,5	9	40	42	28
Elastizitätsmodul	N/ mm <sup>2</sup>	1350	3130	200	1400	1500	210
Kerbschlagzähigkeit	+23°C kJ/ m <sup>2</sup>	8	22,6	kB	25	-9	kB
Izod	-30°C kJ/ m <sup>2</sup>	2	3,4	kB	3	7	kB
Kerbschlagzähigkeit	+23°C kJ/ m <sup>2</sup>	13	16	kB			
Charpy	-40°C kJ/ m <sup>2</sup>	3	2,6	kB			
<b>Thermische Eigenschaften</b>							
Vicat-Erweichungstemperatur B / 50	°C	72-95	74	40	180	140	
Therm. Längenausdehnungskoeff.	10 <sup>-5</sup> x K <sup>-1</sup>	10-20	7-12	25	8	16	14-16
Wärmeleitfähigkeit	W / mK	0,22	0,41	~0,35	0,29	0,23	

**Übersicht über die bei kühnplast  
verarbeiteten Werkstoffe**

		höherwertige Kunststoffe					
<b>Kurzzeichen</b> nach DIN 7728 / ISO 1043 Bezeichnung Chemischer Aufbau		<b>PPO</b> Polyphenylenoxid modifiziert	<b>PC</b> Polycarbonat	<b>POM</b> Polyoxymethylen, Polyacetal	<b>PVDF</b> Polyvinylidenfluorid	<b>CA</b> Celluloseacetat	<b>CAB</b> Celluloseacetobutyrat
		☹	☹	☹	☺	☹	☹
<b>Handelsnamen</b> (Markennamen) und typische Endungen		Noryl Xyron	Macrolon (GE) Lexan (US) Orgalan	Ultraform Hostaform Delrin	Kynar Dyflor	Bergacell Cellolux Cellidor	Cellidor Tenite Butyrate
<b>Mechanische Eigenschaften</b>	<b>Einheiten</b>						
Rohdichte	g/ cm <sup>3</sup>	1,1	1,2	1,41-1,42	1,78	1,3	1,18
Zugfestigkeit	N/ mm <sup>2</sup>	45	>60	62-70	50	38	26
Elastizitätsmodul	N/ mm <sup>2</sup>	2400	2300	2800-3200	2100	2200	1600
Kerbschlagzähigkeit	+23°C kJ/ m <sup>2</sup>	25	60	7	35	23	30-35
Izod	-30°C kJ/ m <sup>2</sup>	14		6	16		
Kerbschlagzähigkeit	+23°C kJ/ m <sup>2</sup>	>15	>30				
Charpy	-40°C kJ/ m <sup>2</sup>						
<b>Thermische Eigenschaften</b>							
Vicat-Erweichungstemperatur B / 50	°C	110	145	150	166	74-110	65-111
Therm. Längenausdehnungskoeff.	10 <sup>-5</sup> x K <sup>-1</sup>	7	7	11	13	10-12	10-14
Wärmeleitfähigkeit	W / mK	0,16	0,2	0,37	0,15	0,22	0,21

**Übersicht über die bei kühnplast  
verarbeiteten Werkstoffe**

		Thermoplastische Elastomere		Metalle zum Eigenschaftsvergleich	
<b>Kurzzeichen</b> nach DIN 7728 / ISO 1043 Bezeichnung Chemischer Aufbau		<b>TPE</b> thermoplastisches Elastomere SBS / SEBS Copolymere Styrol-Butadien-Styrol Styrol-Ethylen-Butylen-Styrol	<b>TPU</b> thermoplastisches Polyurethan-Elastomere	<b>Stahl</b>	<b>Aluminium</b>
		☺	☹		
<b>Handelsnamen</b> (Markennamen) und typische Endungen		Sofprene Forprene Evoprene Megol	Elastollan Desmopan		
<b>Mechanische Eigenschaften</b>	<b>Einheiten</b>				
Rohdichte	g/ cm <sup>3</sup>	0,96-1,19	1,14-12	7,85	2,7
Zugfestigkeit	N/ mm <sup>2</sup>	~5-7	30-40	370-1100	200-400
Elastizitätsmodul	N/ mm <sup>2</sup>	2	6-700	210 00	70 000
Kerbschlagzähigkeit	+23°C				
Izod	-30°C				
Kerbschlagzähigkeit	+23°C				
Charpy	-40°C				
<b>Thermische Eigenschaften</b>					
Vicat-Erweichungstemperatur B / 50	°C				
Therm. Längenausdehnungskoeff.	10 <sup>-5</sup> x K <sup>-1</sup>		15	1,2	2,4
Wärmeleitfähigkeit	W / mK		1,7		

	Mechanische Kennwerte						Thermische Kennwerte	
	Rohichte	Zugfestigkeit	Zug-E-Modul	Biege-E-Modul	Schlagzähigkeit	Kerbschlagzähigkeit	Vicat-Erweichungstemperatur	linearer Wärmeausdehnungskoeffizient
Einheit	g/cm <sup>3</sup>	N/mm <sup>2</sup>	N/mm <sup>2</sup>	N/mm <sup>2</sup>	KJ/m <sup>2</sup>	KJ/m <sup>2</sup>	°C	K <sup>-1</sup> x 10 <sup>-6</sup>
Norm alt							(DIN 53 460)	
Norm	DIN 53 479	DIN 53 455	DIN 53 457	DIN 53 457	DIN 53 453	DIN 53 453	DIN ISO 306	
							Verfahren B	
Kunststoff								
PVC hart	1,4	40-45	2600	2500	o.B.	20-30	80	80
PP	0,92	33	1350	1300	>20-o.B. <sup>1)</sup>	2-8 <sup>1)</sup>	90	110-170
PP TV 30	1,06	28	2450	2350	>25-o.B. <sup>1)</sup>	2,5-24 <sup>1)</sup>	73	110-170
PS	1,03	25	1900	—	90-100 <sup>1)</sup>	8-12 <sup>1)</sup>	89	80
ABS	1,05	45	2000	—	150-o.B. <sup>1)</sup>	25-35 <sup>1)</sup>	98	80-110

<sup>1)</sup> niedriger Wert -30°C, hoher Wert +23°C

Die angegebenen Werte entsprechen dem derzeitigen Stand der Erkenntnisse und Erfahrungen. Sie können jedoch nur als unverbindlicher Hinweis angesehen werden und stellen keine rechtlich verbindliche Zusicherung bestimmter Eigenschaften dar. Da die Möglichkeiten und Bedingungen für die Anwendung des Produktes sehr unterschiedlich sind, können wir bei falschem Umgang mit diesem nicht haftbar gemacht werden.



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**PVC-U Std 3 (PVC-hart, erhöht schlagzäh)**

Formmasse DIN 7748-PVC-U, EDP, 078-25-26

<b>Mechanische-, Thermische- und Elektrische Eigenschaften</b>			
	<b>Einheit</b>	<b>Norm</b>	<b>Werte</b>
Rohdichte	g/cm <sup>3</sup>	DIN 53 479	1,4
Zugfestigkeit	N/mm <sup>2</sup>	DIN 53 455	40-45
Zug-E-Modul	N/mm <sup>2</sup>	DIN 53 457	2600
Biege-E-Modul	N/mm <sup>2</sup>	DIN 53 457	2500
Schlagzähigkeit	KJ/m <sup>2</sup>	DIN 53 453	ohne Bruch
Kerbschlagzähigkeit	KJ/m <sup>2</sup>	DIN 53 453	20-30
Vicat Erweichungstemperatur	°C	DIN ISO 306 Verfahren B	78
Linearer Wärmeausdehnungskoeffizient	K <sup>-1</sup> x 10 <sup>-6</sup>		70-80
Spezifischer Durchgangswiderstand	Ohm x cm		≈ 10 <sup>13</sup>
Oberflächenwiderstand	Ohm		10 <sup>15</sup> ->10 <sup>16</sup>

Der VC-Gehalt liegt innerhalb der internationalen Normen (nicht über 10 ppm)  
 (Richtlinie 78/142/EWG des Rates der Europäischen Gemeinschaft)

Die von uns eingesetzten Stabilisatoren, Gleitmittel und Modifier entsprechen der Empfehlung der Kunststoff-Kommission des Bundesgesundheitsamtes (BGA) zur Herstellung von Trinkwasserleitungsrohren aus PVC-hart (E, KTW-Empfehlung Teil 1.3.1 Polyvinylchlorid, stand 12.08.1976), bzw. der Empfehlung A II der Kunststoff-Kommission des Bundesgesundheitsamtes (BGA) für die Herstellung von Lebensmittelverpackungen und liegen unterhalb der erlaubten Einsatzmenge.

**PVC-U kann in verschiedenen Stabilisierungen, z.B. in Pb oder CaZn, UV-beständig, in UL 94 VO etc., je nach Einsatzzweck modifiziert werden.**

**Die angegebenen Werte entsprechen dem derzeitigen Stand der Erkenntnisse und Erfahrungen. Sie können jedoch nur als unverbindlicher Hinweis angesehen werden und stellen keine rechtlich verbindliche Zusicherung bestimmter Eigenschaften dar. Da die Möglichkeiten und Bedingungen für die Anwendung des Produktes sehr unterschiedlich sind, können wir bei falschem Umgang mit diesem nicht haftbar gemacht werden.**



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### PVC-P WStd 2 (PVC-weich)

<b>Mechanische-, Thermische- und Elektrische Eigenschaften</b>			
	<b>Einheit</b>	<b>Norm</b>	<b>Werte*)</b>
Rohdichte	g/cm <sup>3</sup>	DIN 53 479	1,2-1,3
Härte	shore A	DIN 53 505	65 - 97°
Zugfestigkeit	N/mm <sup>2</sup>	DIN 53 455	18-30
Zug-E-Modul	N/mm <sup>2</sup>	DIN 53 457	—
Biege-E-Modul	N/mm <sup>2</sup>	DIN 53 457	—
Schlagzähigkeit	KJ/m <sup>2</sup>	DIN 53 453	ohne Bruch
Kerbschlagzähigkeit	KJ/m <sup>2</sup>	DIN 53 453	ohne Bruch
Vicat Erweichungstemperatur	°C	DIN ISO 306 Verfahren B	—
Linearer Wärmeausdehnungskoeffizient	K <sup>-1</sup> x 10 <sup>-6</sup>		150-201
Spezifischer Durchgangswiderstand	Ohm x cm		10 <sup>14</sup> -10 <sup>15</sup>
Oberflächenwiderstand	Ohm		10 <sup>11</sup> ->10 <sup>12</sup>

\*) Werte je nach Weichmachergehalt

Der VC-Gehalt liegt innerhalb der internationalen Normen (nicht über 10 ppm)  
 (Richtlinie 78/142/EWG des Rates der Europäischen Gemeinschaft)

**Die angegebenen Werte entsprechen dem derzeitigen Stand der Erkenntnisse und Erfahrungen. Sie können jedoch nur als unverbindlicher Hinweis angesehen werden und stellen keine rechtlich verbindliche Zusicherung bestimmter Eigenschaften dar. Da die Möglichkeiten und Bedingungen für die Anwendung des Produktes sehr unterschiedlich sind, können wir bei falschem Umgang mit diesem nicht haftbar gemacht werden.**



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**PVC-ABS-Blend H-V 86-A \*)**

<b>Mechanische-, Thermische- und Elektrische Eigenschaften</b>			
	<b>Einheit</b>	<b>Norm</b>	<b>Werte</b>
Rohdichte	g/cm <sup>3</sup>	DIN 53 479	1,4
Zugfestigkeit	N/mm <sup>2</sup>	DIN 53 455	40-45
Zug-E-Modul	N/mm <sup>2</sup>	DIN 53 457	2900
Biege-E-Modul	N/mm <sup>2</sup>	DIN 53 457	2800
Schlagzähigkeit	KJ/m <sup>2</sup>	DIN 53 453	ohne Bruch
Kerbschlagzähigkeit	KJ/m <sup>2</sup>	DIN 53 453	20-30
Vicat Erweichungstemperatur	°C	DIN ISO 306 Verfahren B	86 *)
Linearer Wärmeausdehnungskoeffizient	K <sup>-1</sup> x 10 <sup>-6</sup>		70-80
Spezifischer Durchgangswiderstand	Ohm x cm		≈ 10 <sup>13</sup>
Oberflächenwiderstand	Ohm		10 <sup>15</sup> ->10 <sup>16</sup>

**\*) weitere Modifizierungen auch in H-V 90-A; H-V 92-A und H-V 96-A möglich  
 die Kennziffern 86 bis 96 stehen für die jeweilige Vicat Erweichungstemperatur**

Die angegebenen Werte entsprechen dem derzeitigen Stand der Erkenntnisse und Erfahrungen. Sie können jedoch nur als unverbindlicher Hinweis angesehen werden und stellen keine rechtlich verbindliche Zusicherung bestimmter Eigenschaften dar. Da die Möglichkeiten und Bedingungen für die Anwendung des Produktes sehr unterschiedlich sind, können wir bei falschem Umgang mit diesem nicht haftbar gemacht werden.



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<b>PP</b>
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<b>Physikalische- und Mechanische-Eigenschaften</b>				
		<b>Einheit</b>	<b>Norm</b>	<b>Werte</b>
Dichte		kg/m <sup>3</sup>	ISO 1183	910
Schlagzähigkeit	Charpy (+23°C)	kJ/m <sup>2</sup>	ISO 179/1eA	o.B.
Schlagzähigkeit	Charpy (-30°C)	kJ/m <sup>2</sup>	ISO 179/1eA	15
Streckspannung	(50 mm/min)	Mpa	ISO 527-2	36
Streckdehnung	(50 mm /min)	%	ISO 527-2	12
Zug E-Modul	(1 mm /min)	Mpa	ISO 527-2	1350
Vicat Erweichungstemperatur B (50 N)		°C	ISO 306	95

PP ist ein hochwärmestabilisiertes Propylen-Homopolymerisat für die Extrusion von Profilen.

**Die angegebenen Werte entsprechen dem derzeitigen Stand der Erkenntnisse und Erfahrungen. Sie können jedoch nur als unverbindlicher Hinweis angesehen werden und stellen keine rechtlich verbindliche Zusicherung bestimmter Eigenschaften dar. Da die Möglichkeiten und Bedingungen für die Anwendung des Produktes sehr unterschiedlich sind, können wir bei falschem Umgang mit diesem nicht haftbar gemacht werden.**



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 Fax 07174-6380  
 E-Mail: kuehnplast@t-online.de

<b>PP TV 30</b>
-----------------

<b>Physikalische- und Mechanische-Eigenschaften</b>				
		<b>Einheit</b>	<b>Norm</b>	<b>Werte</b>
Dichte		kg/m <sup>3</sup>	ISO 1183	1140
Schlagzähigkeit	Charpy (+23°C)	kJ/m <sup>2</sup>	ISO 179/1eA	o.B.
Schlagzähigkeit	Charpy (-20°C)	kJ/m <sup>2</sup>	ISO 179/1eA	16
Streckspannung	(50 mm/min)	Mpa	ISO 527-2	28
Streckdehnung	(50 mm /min)	%	ISO 527-2	4,5
Zug E-Modul	(1 mm /min)	Mpa	ISO 527-2	3100
Vicat Erweichungstemperatur B (50 N)		°C	ISO 306	74

PP TV 30 - UVS ist ein mit 30% Talkum verstärktes hochwärmestabilisiertes Propylen-Ethylen-Block-Copolymerisat für die Extrusion von Profilen.

**Die angegebenen Werte entsprechen dem derzeitigen Stand der Erkenntnisse und Erfahrungen. Sie können jedoch nur als unverbindlicher Hinweis angesehen werden und stellen keine rechtlich verbindliche Zusicherung bestimmter Eigenschaften dar. Da die Möglichkeiten und Bedingungen für die Anwendung des Produktes sehr unterschiedlich sind, können wir bei falschem Umgang mit diesem nicht haftbar gemacht werden.**



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<b>PE - LD</b>
----------------

1810 E

<b>Physikalische-, Mechanische- und Thermische- Eigenschaften</b>			
	<b>Einheit</b>	<b>Norm</b>	<b>Werte <sup>1)</sup></b>
Rohdichte	g/cm <sup>3</sup>	ISO 1183	0,92
Zug-E-Modul	Mpa	ISO 527 - 2	200
Streckspannung	Mpa	ISO 527 - 2	9
Izod-Schlagzähigkeit (+23°C)	kJ/m <sup>2</sup>	ISO 180/1C	NB
Izod-Schlagzähigkeit (-30°C)	kJ/m <sup>2</sup>	ISO 180/1C	NB
Izod-Kerbschlagzähigkeit (+23°C)	kJ/m <sup>2</sup>	ISO 180/1A	NB
Shore-D-Härte		ISO 868	45
Vicat Erweichungstemperatur A/50 (10/N)	°C	ISO 306	92
Formbeständigkeitstemperatur (HDT)	°C	ISO 75 HDT/B (0,45 Mpa)	41

**Die angegebenen Werte entsprechen dem derzeitigen Stand der Erkenntnisse und Erfahrungen. Sie können jedoch nur als unverbindlicher Hinweis angesehen werden und stellen keine rechtlich verbindliche Zusicherung bestimmter Eigenschaften dar.**

**Da die Möglichkeiten und Bedingungen für die Anwendung des Produktes sehr unterschiedlich sind, können wir bei falschem Umgang mit diesem nicht haftbar gemacht werden.**



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<b>PS</b>
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<b>Physikalische-, Mechanische- und Thermische- Eigenschaften</b>			
	<b>Einheit</b>	<b>Norm</b>	<b>Werte <sup>1)</sup></b>

	<b>Einheit</b>	<b>Norm</b>	<b>Werte <sup>1)</sup></b>
Rohdichte	g/cm <sup>3</sup>	ISO 1183	1,06
Zug-E-Modul	Mpa	ISO 527 - 2	1900
Reißfestigkeit	Mpa	ISO 527	25
Charpy Schlagzähigkeit (+23°C)	kJ/m <sup>2</sup>	ISO 179/1eA	NB
Charpy Schlagzähigkeit (-40°C)	kJ/m <sup>2</sup>	ISO 179/1eA	65
Charpy-Kerbschlagzähigkeit (+23°C)	kJ/m <sup>2</sup>	ISO 179	9
Charpy-Kerbschlagzähigkeit (-40°C)	kJ/m <sup>3</sup>	ISO 180	5
Vicat Erweichungstemperatur (VST/B/50)	°C	ISO 306	90
Formbeständigkeitstemperatur (HDT)	°C	ISO 75 HDT/A	80

**Die angegebenen Werte entsprechen dem derzeitigen Stand der Erkenntnisse und Erfahrungen. Sie können jedoch nur als unverbindlicher Hinweis angesehen werden und stellen keine rechtlich verbindliche Zusicherung bestimmter Eigenschaften dar.**

**Da die Möglichkeiten und Bedingungen für die Anwendung des Produktes sehr unterschiedlich sind, können wir bei falschem Umgang mit diesem nicht haftbar gemacht werden.**



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<b>ABS</b>
------------

<b>Physikalische- und Mechanische-Eigenschaften</b>			
	Einheit	Norm	Werte
Dichte	g/cm <sup>3</sup>	ISO 1183	1,03
Streckspannung (50 mm/min)	Mpa	ISO 527-2	40
Streckdehnung (50 mm /min)	%	ISO 527-2	2,5
Zug E-Modul (1 mm /min)	Mpa	ISO 527-2	1500
Charpy Schlagzähigkeit (+23°C)	kJ/m <sup>2</sup>	ISO 179/1eA	NB
Charpy Schlagzähigkeit (-30°C)	kJ/m <sup>2</sup>	ISO 179/1eA	NB
Charpy-Kerbschlagzähigkeit (+23°C)	kJ/m <sup>2</sup>	ISO 179	34
Charpy-Kerbschlagzähigkeit (-30°C)	kJ/m <sup>3</sup>	ISO 179	19
Izod-Kerbschlagzähigkeit (+23°C)	kJ/m <sup>2</sup>	ISO 180/4A	42
Kugeldruckhärte	Mpa	ISO 2039-1	85
Vicat Erweichungstemperatur B (50 N)	°C	ISO 306	101
Formbeständigkeitstemperatur (HDT)	°C	ISO 75 *)	101

Erhöht schlagzähe und wärmeformbeständige ABS-Type für die Extrusion von Profilen.

\*) Bf (0,45 Mpa)

**Die angegebenen Werte entsprechen dem derzeitigen Stand der Erkenntnisse und Erfahrungen. Sie können jedoch nur als unverbindlicher Hinweis angesehen werden und stellen keine rechtlich verbindliche Zusicherung bestimmter Eigenschaften dar. Da die Möglichkeiten und Bedingungen für die Anwendung des Produktes sehr unterschiedlich sind, können wir bei falschem Umgang mit diesem nicht haftbar gemacht werden.**



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## PC-ABS-Blend

<b>Physikalische- und Mechanische-Eigenschaften</b>			
	<b>Einheit</b>	<b>Norm</b>	<b>Werte</b>
Dichte	g/cm <sup>3</sup>	ISO 1183	1,18
Streckspannung (50 mm/min)	Mpa	ISO 527-2	65
Streckdehnung (50 mm /min)	%	ISO 527-2	4,5
Zug E-Modul (1 mm /min)	Mpa	ISO 527-2	2800
Charpy-Kerbschlagzähigkeit (+23°C)	kJ/m <sup>2</sup>	ISO 179	48
Charpy-Kerbschlagzähigkeit (-30°C)	kJ/m <sup>3</sup>	ISO 179	13
Izod-Kerbschlagzähigkeit (+23°C)	kJ/m <sup>2</sup>	ISO 180/1A	45
Kugeldruckhärte	Mpa	ISO 2039-1	113
Vicat Erweichungstemperatur B (50 N)	°C	ISO 306	108
Formbeständigkeitstemperatur (HDT)	°C	ISO 75 *)	102

Erhöht schlagzähe und wärmeformbeständige ABS-Type für die Extrusion von Profilen.

\*) Be (0,45 Mpa)

**Die angegebenen Werte entsprechen dem derzeitigen Stand der Erkenntnisse und Erfahrungen. Sie können jedoch nur als unverbindlicher Hinweis angesehen werden und stellen keine rechtlich verbindliche Zusicherung bestimmter Eigenschaften dar.**

**Da die Möglichkeiten und Bedingungen für die Anwendung des Produktes sehr unterschiedlich sind, können wir bei falschem Umgang mit diesem nicht haftbar gemacht werden.**



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## Polyamid PA 6

B5

<b>Physikalische-, Mechanische-, Thermische- und Elektrische Eigenschaften</b>			
	Einheit	Norm	Werte <sup>1)</sup>
Rohdichte	g/cm <sup>3</sup>	ISO 1183	1,13
Wasseraufnahme <sup>2)</sup>	%		9 - 10
Feuchtigkeitsaufnahme <sup>3)</sup>	%		2,6 - 3,6
Viskositätszahl	ml/g	ISO 307	320
Zug-E-Modul	Mpa	ISO 527 - 2	3000 *)
Zugfestigkeit	Mpa	ISO 527 - 2	90 **)
Charpy-Schlagzähigkeit +23°C	kJ/m <sup>2</sup>	ISO 179	NB
Charpy-Kerbschlagzähigkeit +23°C	kJ/m <sup>2</sup>	ISO 179	9
Kugeldruckhärte	Mpa	ISO 2039-1	150 ***)
Brennbarkeitsklasse	Stufe	IEC 707 / UL 94	94HB
HDT-B Formbeständigkeitstemperatur	°C	ISO 75-2	>160
Dielektrizitätszahl 1 MHz		IEC 250	3,5
Dielektrischer Verlustfaktor 1 MHz	E <sup>-4</sup>	IEC 250	0,023
Spezifischer Durchgangswiderstand	Ω x cm	IEC 93	10 <sup>15</sup>
Spezifischer Oberflächenwiderstand	Ω	IEC 93	10 <sup>12</sup>
Elektrische Durchschlagfestigkeit 1 mm	KV / mm	IEC 243 T1	- - -
Vergleichszahl Griechwegbildung	CTI	DIN/IEC 112	600

<sup>1)</sup> Trocken, Feuchtigkeitsgehalt < 0,1%

**Feucht:** \*) 1000; \*\*) 45; \*\*\*) 70

<sup>2)</sup> Max. Sättigung bei 23°C

<sup>3)</sup> Nach Lagerung im Normklima 23°C/50% r.LF.

**Die angegebenen Werte entsprechen dem derzeitigen Stand der Erkenntnisse und Erfahrungen. Sie können jedoch nur als unverbindlicher Hinweis angesehen werden und stellen keine rechtlich verbindliche Zusicherung bestimmter Eigenschaften dar.**

**Da die Möglichkeiten und Bedingungen für die Anwendung des Produktes sehr unterschiedlich sind, können wir bei falschem Umgang mit diesem nicht haftbar gemacht werden.**



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<b>Polyamid PA 12 (erhöhte elektrische Leitfähigkeit; antstatisch)</b>
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L-R3-Ei sw

<b>Physikalische-, Mechanische-, Thermische- und Elektrische Eigenschaften</b>			
	<b>Einheit</b>	<b>Norm</b>	<b>Werte <sup>1)</sup></b>
Rohdichte	g/cm <sup>3</sup>	ISO 1183	1,06
Wasseraufnahme <sup>2)</sup>	%		1,2
Feuchtigkeitsaufnahme <sup>3)</sup>	%		0,5
Viskositätszahl	ml/g	ISO 307	- - -
Zug-E-Modul	Mpa	ISO 527 - 2	1500
Streckspannung	Mpa	ISO 527 - 2	42
Charpy-Schlagzähigkeit +23°C	kJ/m <sup>2</sup>	ISO 179	NB
Charpy-Schlagzähigkeit -30°C	kJ/m <sup>2</sup>	ISO 179	NB
Charpy-Kerbschlagzähigkeit +23°C	kJ/m <sup>2</sup>	ISO 179	21
Charpy-Kerbschlagzähigkeit -30°C	kJ/m <sup>2</sup>	ISO 179	9
Brennbarkeitsklasse	Stufe	IEC 707 / UL 94	94HB
HDT-B Formbeständigkeitstemperatur	°C	ISO 75-2	130
Spezifischer Durchgangswiderstand	Ω x cm	IEC 93	10 <sup>3</sup>
Spezifischer Oberflächenwiderstand	Ω	IEC 93	10 <sup>3</sup>

<sup>1)</sup> Trocken, Feuchtigkeitsgehalt < 0,1%

<sup>2)</sup> Max. Sättigung bei 23°C

<sup>3)</sup> Nach Lagerung im Normklima 23°C/50% r.LF.

**Die angegebenen Werte entsprechen dem derzeitigen Stand der Erkenntnisse und Erfahrungen. Sie können jedoch nur als unverbindlicher Hinweis angesehen werden und stellen keine rechtlich verbindliche Zusicherung bestimmter Eigenschaften dar.**

**Da die Möglichkeiten und Bedingungen für die Anwendung des Produktes sehr unterschiedlich sind, können wir bei falschem Umgang mit diesem nicht haftbar gemacht werden.**



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## TPE-M

<b>Physikalische- und Mechanische-Eigenschaften</b>			
	<b>Einheit</b>	<b>Norm</b>	<b>Werte</b>
Dichte	g/cm <sup>3</sup>	DIN 53 457	1,18
Härte	shore A, 15sec.	DIN 53 505	80°
Einreißfestigkeit, ungekerbt	kN/m	DIN 53 515	40
Modul	100 %, MPa	DIN 53 504	3,4
	200 %, Mpa		4,4
Reißfestigkeit	Mpa	DIN 53 504	8,2
Reißdehnung	%	DIN 53 504	650
Abriebfestigkeit,	mm <sup>3</sup>	DIN 53 516	230
Druckverformungsrest, 72h 23° C	%	DIN 53 517	35
	24h 70° C		61

Bei den TPE-M Produkten handelt es sich um Compounds auf SEBS-Basis mit sehr guten elastischen Eigenschaften und gummiähnlichem Aussehen. Sie sind für die Co-Extrusion mit Polyolefinen geeignet. Sie verfügen über ausgezeichnete UV-Beständigkeit.

**Die angegebenen Werte entsprechen dem derzeitigen Stand der Erkenntnisse und Erfahrungen. Sie können jedoch nur als unverbindlicher Hinweis angesehen werden und stellen keine rechtlich verbindliche Zusicherung bestimmter Eigenschaften dar. Da die Möglichkeiten und Bedingungen für die Anwendung des Produktes sehr unterschiedlich sind, können wir bei falschem Umgang mit diesem nicht haftbar gemacht werden.**

## Profilkatalog - Allgemeines

Unser Profilkatalog ist im PDF-Format erstellt. Die Profile sind weitestgehend Maßstab 1:1, bezogen auf das Format DIN A 4 wiedergegeben.

Die Zuordnung zu den jeweiligen Einsatzgebieten (Links) erfolgte nach dem ursprünglichen Verwendungszweck der Profile. Dies schließt jedoch nicht aus, daß Sie in dem einen oder anderen Katalogteil auch Profile finden, die sich durchaus auch für einen Einsatz in anderen Anwendungsgebieten eignen.

Die PDF-Dateien können Sie normalerweise direkt auf Ihrem Rechner speichern, so daß sich ein zeitaufwendiges Herunterladen in den meisten Fällen erübrigt. Sollten Sie über keinen "Acrobat Reader" verfügen, so finden Sie auf der Seite "Profilkatalog" einen Link zum Herunterladen des Programms.

Die Profilwerkzeuge der im Katalog gezeigten Profile sind generell in unserem Besitz. Ein Teil der Profile ist jedoch durch Exklusivitäts-Recht unserer Kunden geschützt. Auf Anfrage bekommen Sie gerne nähere Auskünfte.

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## Toleranzen

Für extrudierte Profile aus thermoplastischen Kunststoffen kommt heute üblicherweise für die Allgemeintoleranzen für Maße, Form und Lage die DIN 16941 zur Anwendung.

Grenzabmaße für Längenmaße (Profilquerschnitt) nach dieser Norm sind in untenstehender Tabelle zu sehen.

Die Reihen 2 und 3 kommen in der Regel für "harte", die Reihe 4 für "weiche" Kunststoffe zur Anwendung.

Toleranzreihe	Nennmaßbereich										
	bis 3	über 3 bis 6	über 6 bis 10	über 10 bis 18	über 18 bis 30	über 30 bis 50	über 50 bis 80	über 80 bis 120	über 120 bis 180	über 180 bis 250	über 250 bis 320
2A und 2B	±0,3	±0,4	±0,5	±0,6	±0,7	±0,8	±1	±1,2	±1,4	±1,7	±2
3A und 3B	±0,4	±0,6	±0,7	±0,8	±1	±1,2	±1,5	±1,9	±2,3	±2,8	±3,5
4A und 4B	±0,5	±0,7	±0,9	±1,1	±1,4	±1,8	±2,3	±2,9	±3,6	±4,5	±5,6

Einzelne Funktionsmaße können jedoch je nach Profilkonfiguration auch mit wesentlich engeren Toleranzen gefertigt werden.

Die Toleranzen für die Fertigungslängen der Profile liegen bis 1000 mm bei ± 2mm, über 1000 mm bei ca. 5% der Fertigungslänge.

---

## Programmübersicht Profilssektor

### Rohre

Rohre bis 85 mm Außen-Ø, Verformte Rohre, z.B. gebogen, aufgetüllt, mit Außen- und Innenkonen an den Enden, Ausstanzungen und/oder Inneneinstichen etc.

### Rechteck- und Quadratrohre

### Rundstäbe Prismenstäbe

### Schlagleisten Winkel-, H- und U-Profile

### Rolladenführungsschienen gebogen

### Umleimer

**Schläuche** in Sonderabmessungen

### Dichtungsprofile, Keder, Bänder und Rundschnüre

### Spezial- und Sonderprofile

für vielfältigste Einsatzgebiete, siehe Branchenaufschlüsselung im Profil-Katalog

### Lieferlängen

Hartprofile als Stangenware bis 6000 mm mit einer Längentoleranz von  $\pm 20$  mm. Engere Toleranzen und Kurzlängen von 10 bis 250 mm auf Anfrage. Flachprofile auch auf Rollen.

Weichprofile als Rollenware oder abgelängt, Längentoleranz auf Anfrage je nach Härte.

### Nachbearbeitung

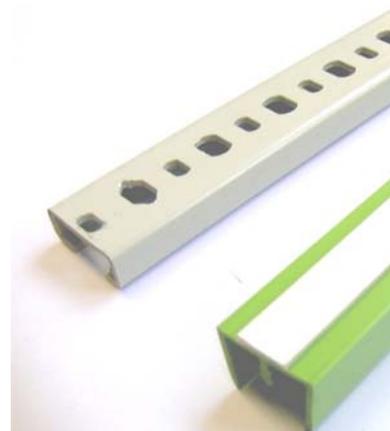
Alle Hart-Profile können On-Line mit fortlaufenden, gleichmäßigen Ausstanzungen und Bohrungen versehen werden

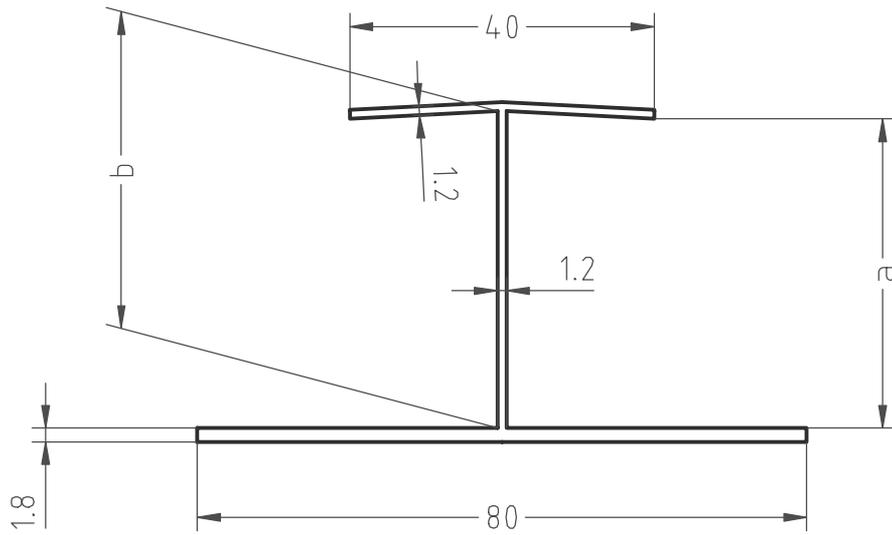
### Ausrüstung

Fast alle Profile können On-Line auch mit entsprechenden Selbstklebebandern und / oder Schutzfolien ausgerüstet werden

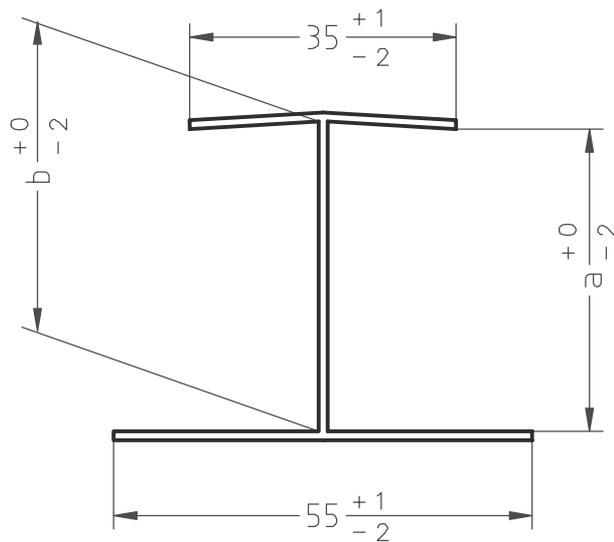
### Farben

in PVC alle gängigen RAL Farben, auch bei Kleinserien möglich, bei anderen Werkstoffen Standardfarben bzw. Sondereinfärbungen bei entsprechendem Serienumfang



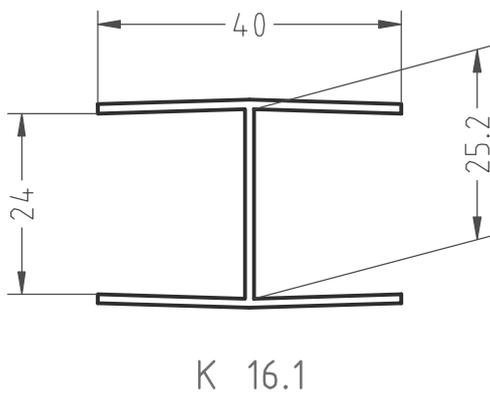
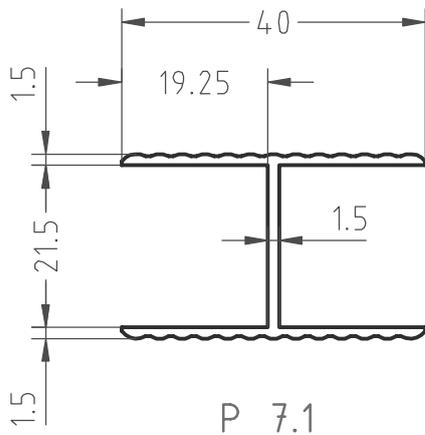


Profilnummer	Maß a	Maß b
A 10.1	41	42
A 10.2	51	52
A 10.3	61	62

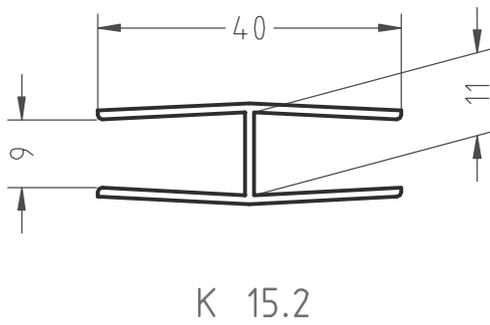
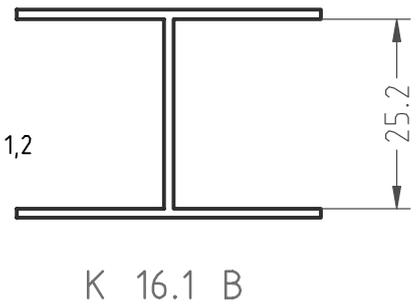


Profilnummer	Maß a	Maß b	Maß s
A 2.1	50	51	1,2
A 2.2	60	61	1,2
A 2.3	80	81	1,5
A 2.4	40	41	1,2
A 2.5	55	56	1,2

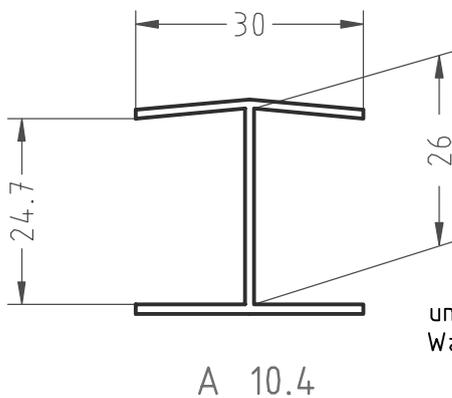
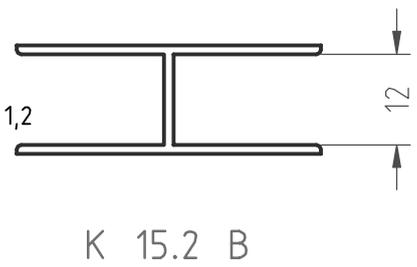
Profilnummer	Maß a	Maß b	Maß s
A 2.6	65	66	1,2



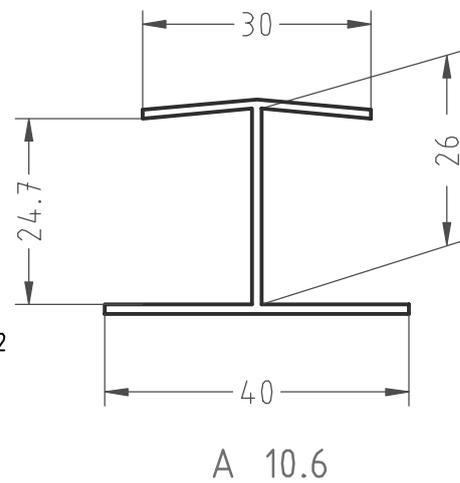
unbemaßte  
Wanddicke = 1,2

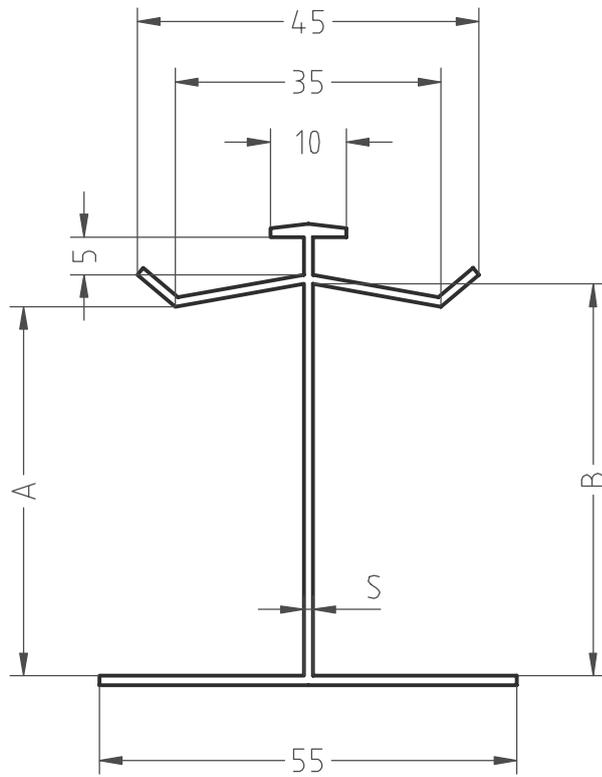


unbemaßte  
Wanddicke = 1,2

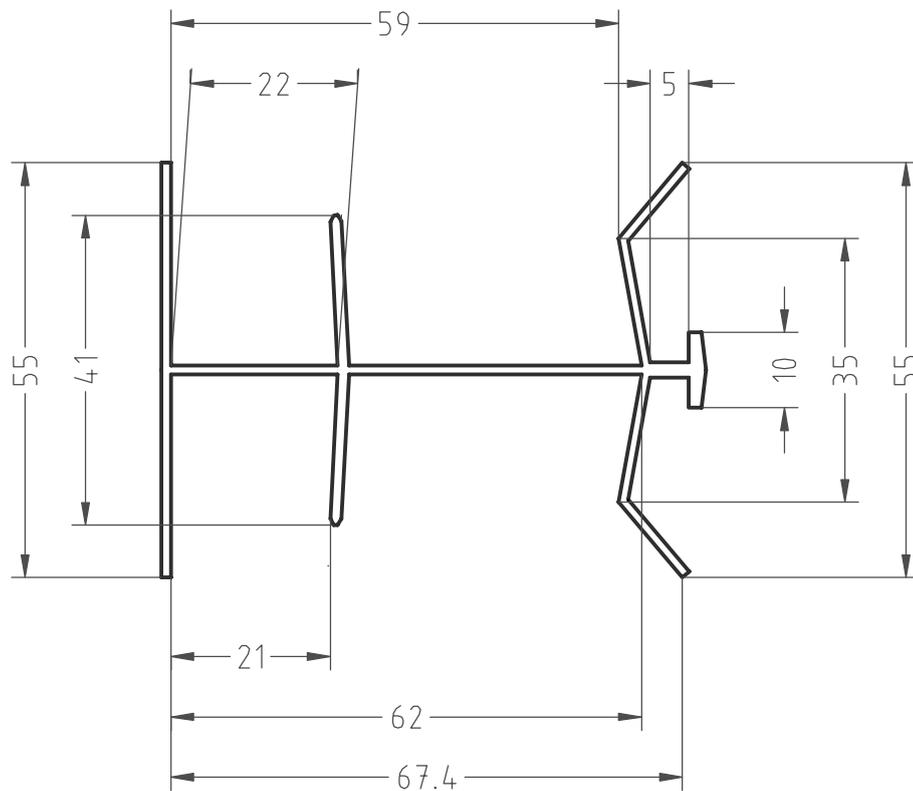


unbemaßte  
Wanddicke = 1,2

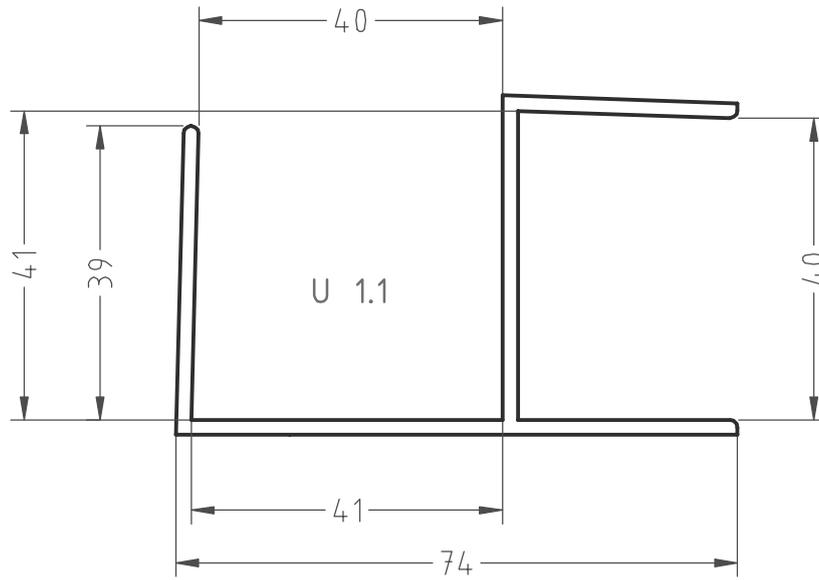




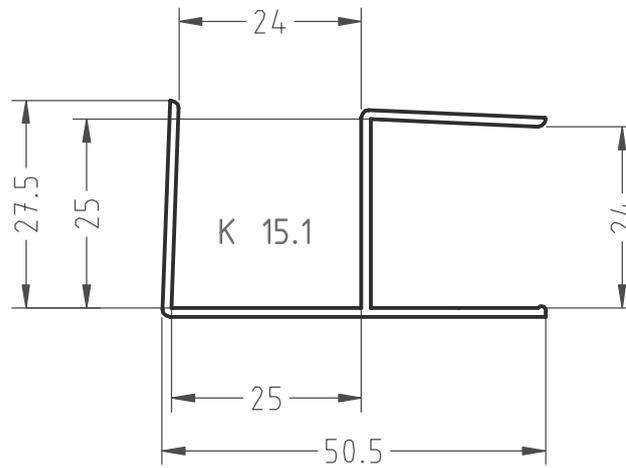
Profilnummer	Maß A	Maß B	Maß S
A 2.8	49	52	1,2
A 2.9	59	62	1,2
A 2.10	79	82	1,2



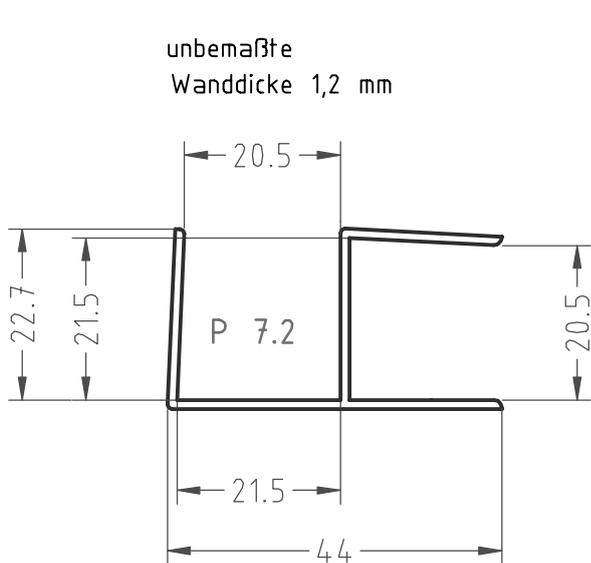
A 2.11



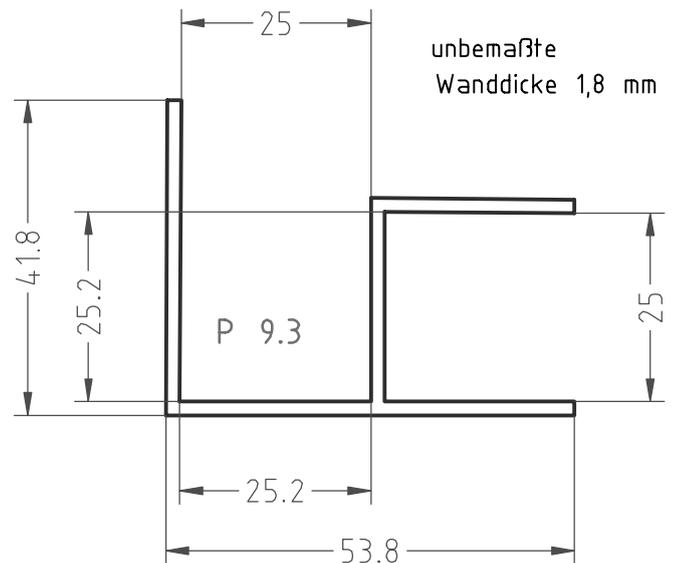
unbemaßte  
Wanddicke 2 mm



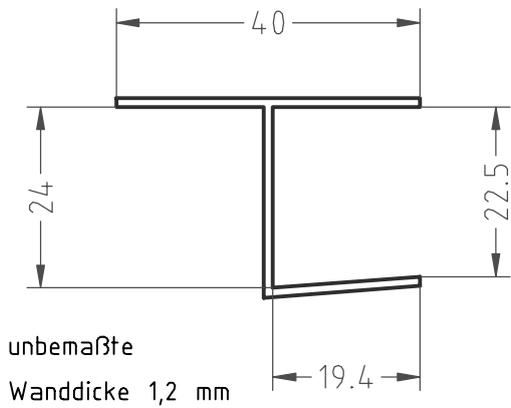
unbemaßte  
Wanddicke 1,2 mm



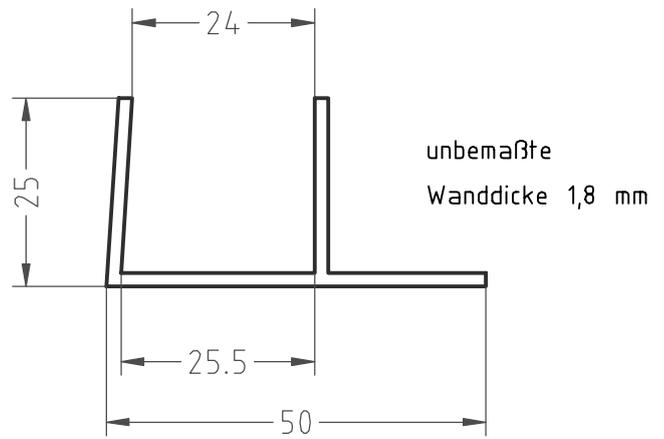
unbemaßte  
Wanddicke 1,2 mm



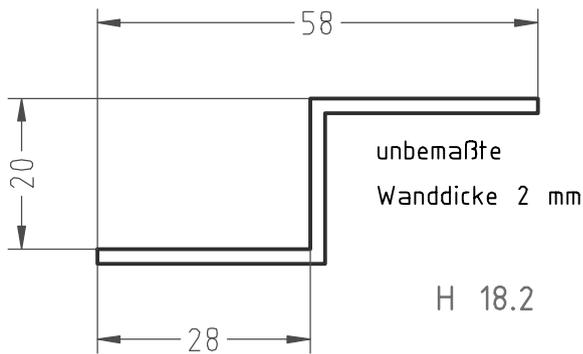
unbemaßte  
Wanddicke 1,8 mm



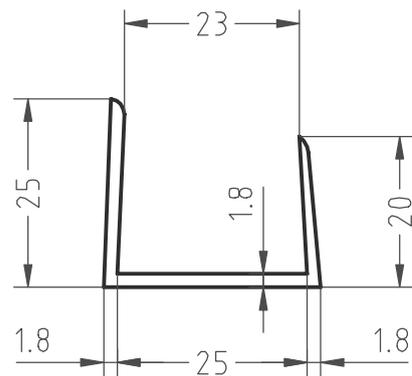
Sch 7.2



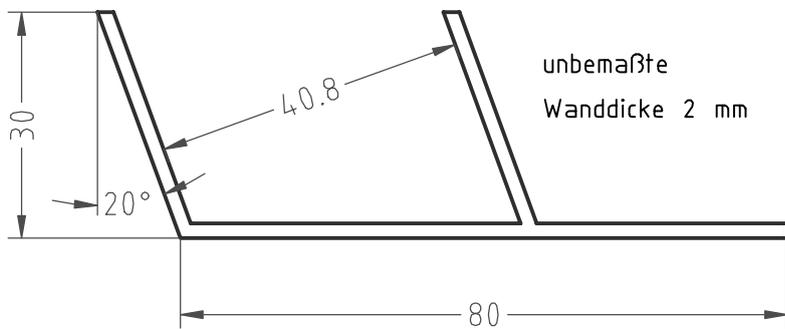
U 1.2



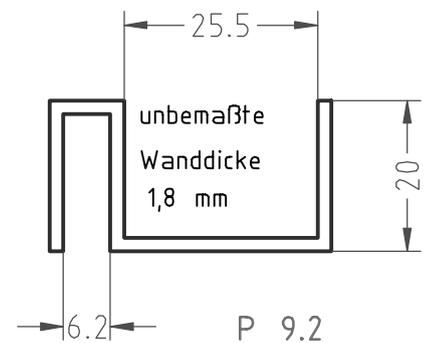
H 18.2



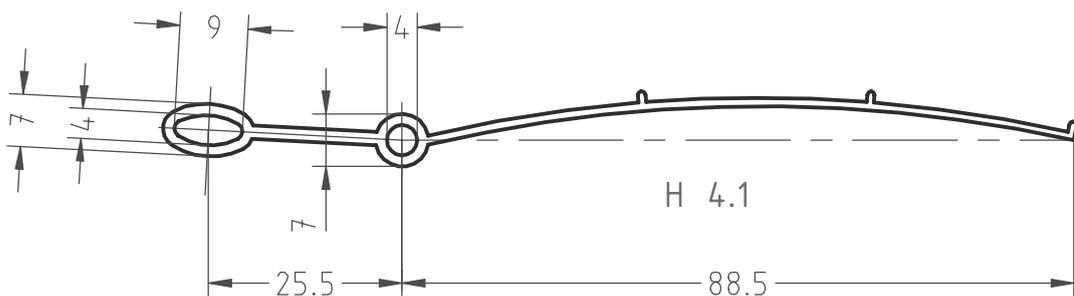
P 9.1



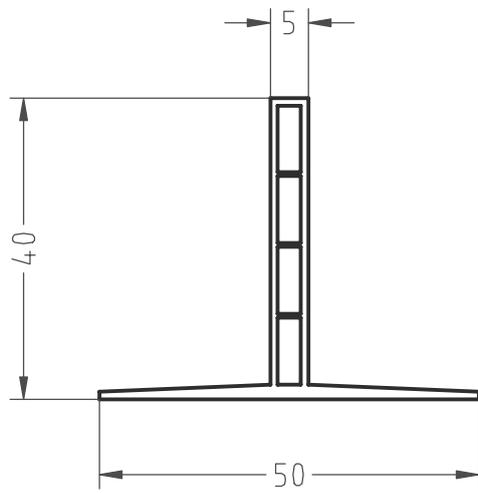
H 18.1



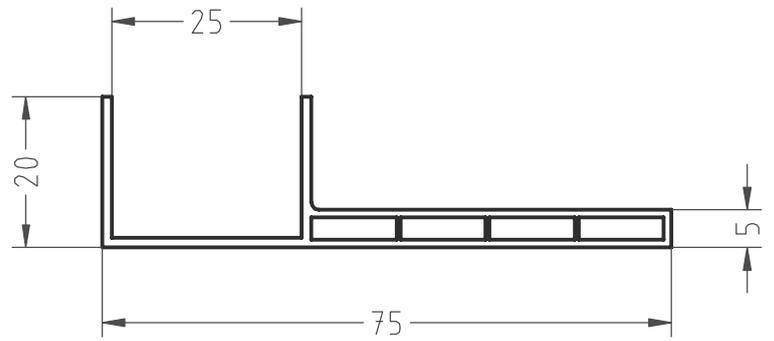
P 9.2



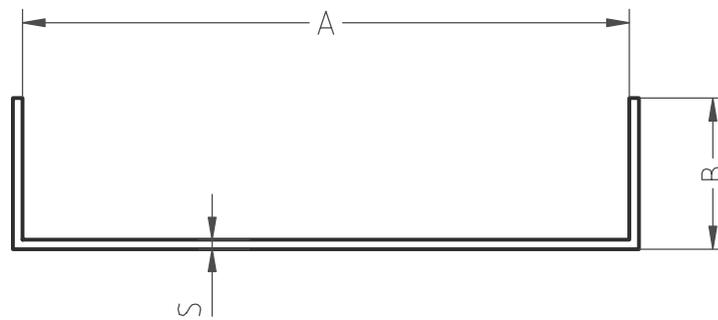
H 4.1



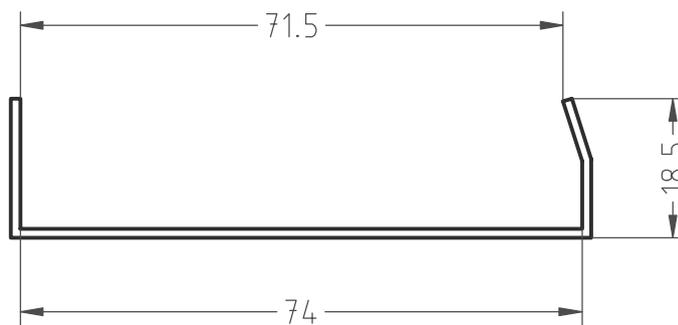
U 1.3



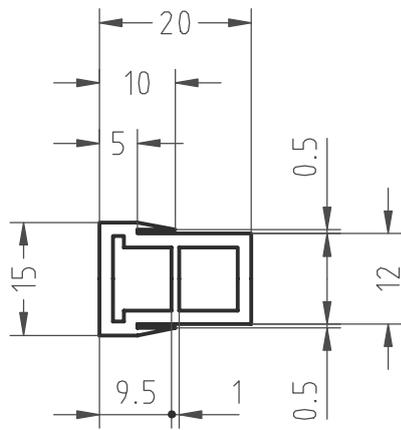
U 1.4



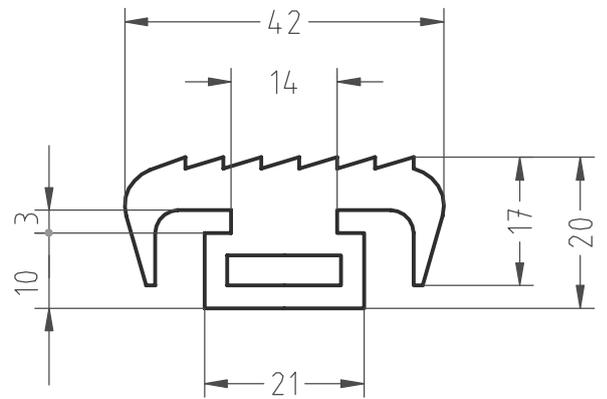
Profilnummer	Maß A	Maß B	Maß S
E 12.3	26	20	2
K 0.5-43	43,6	20	1,2
K 0.5	50,8	20	1,2
K 0.6	60,8	20	1,2
K 0.7	80,8	20	1,2
K 0.8	40,8	20	1,2
H 18.16	65	20	1,2
U 8.1	80,2	50	1,4
U 8.2	100,2	50	1,4
U 8.3	60,2	33	1,4
SCH 23.1	60,5	50	1,4



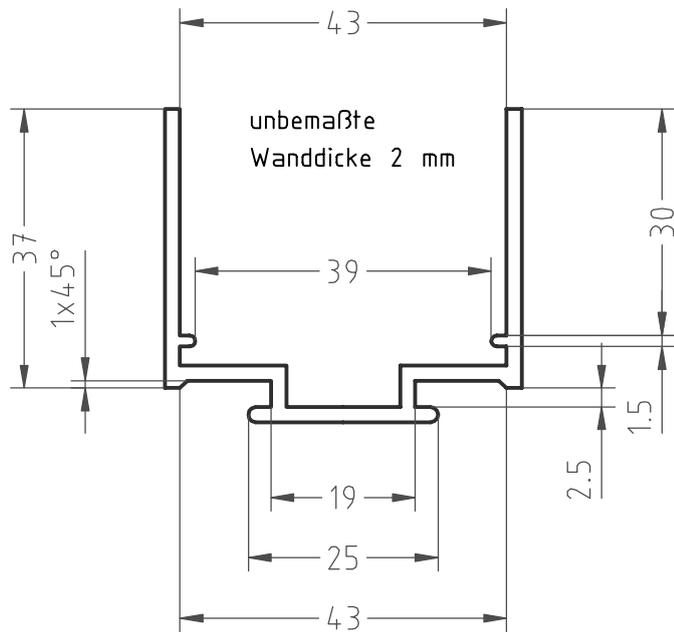
K 0.7 Sch



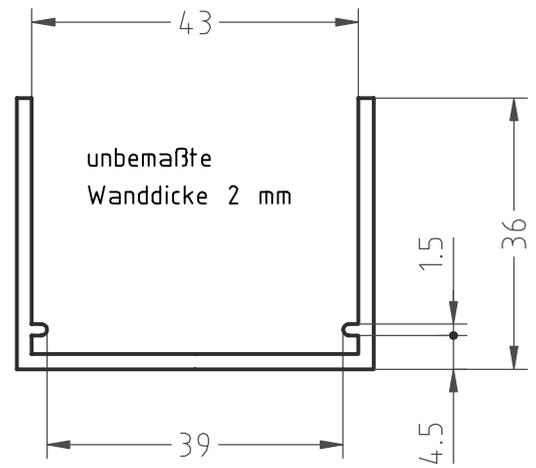
A 10.5



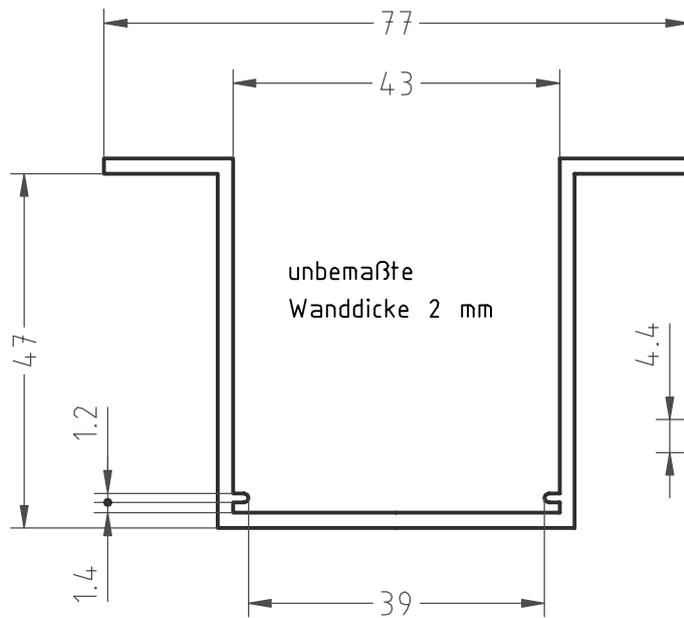
S 10.7



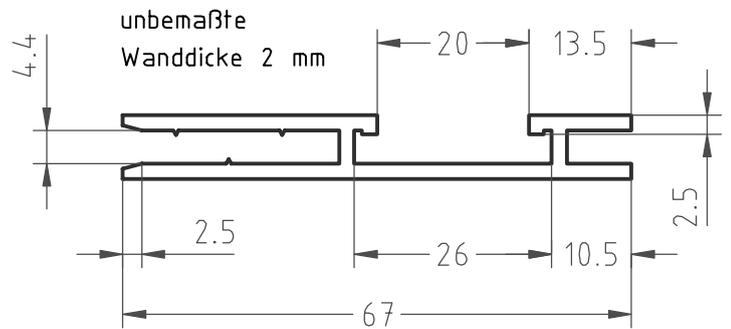
H 18.3



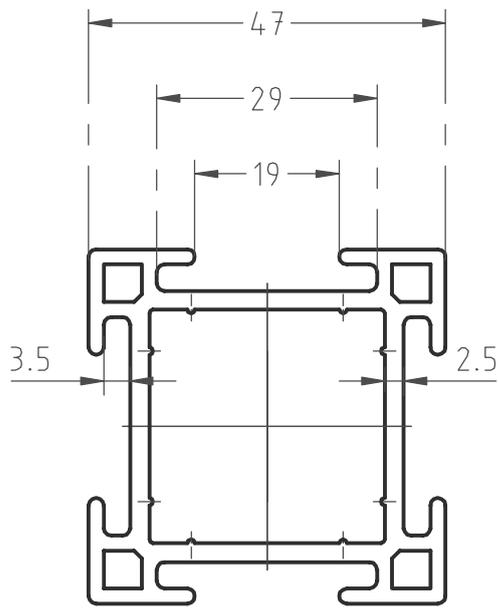
H 18.6



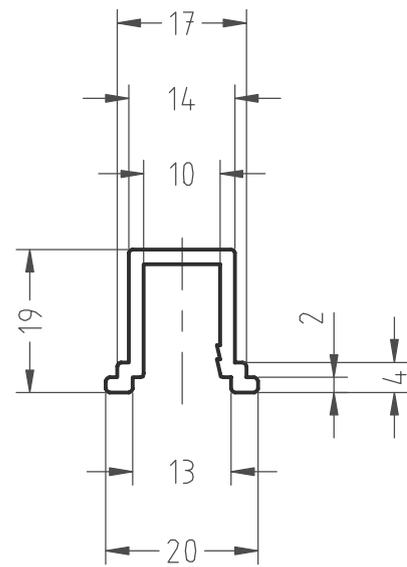
H 18.4



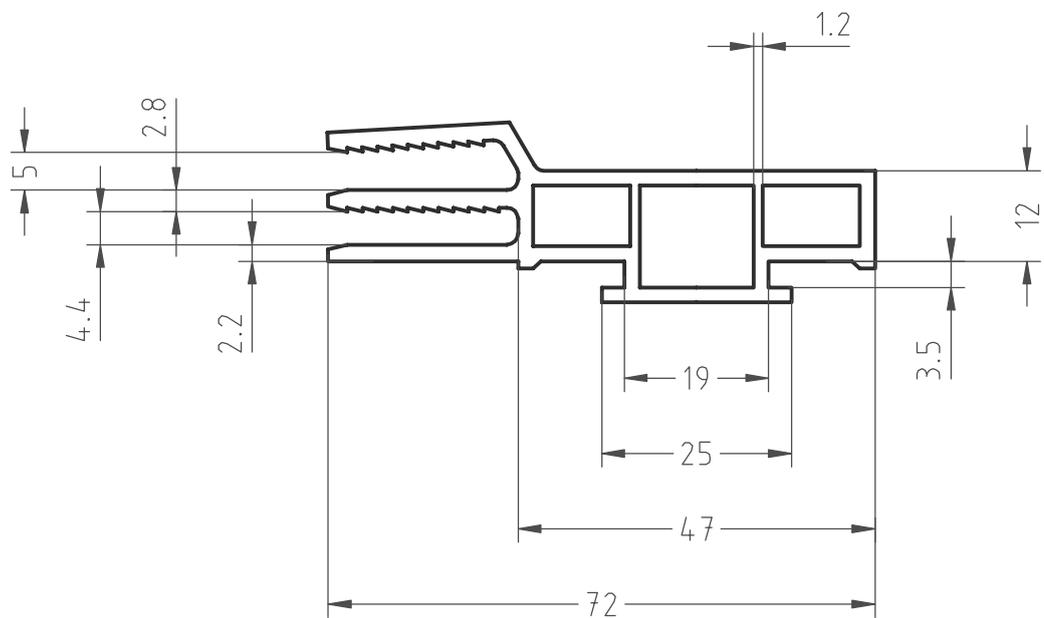
H 18.5



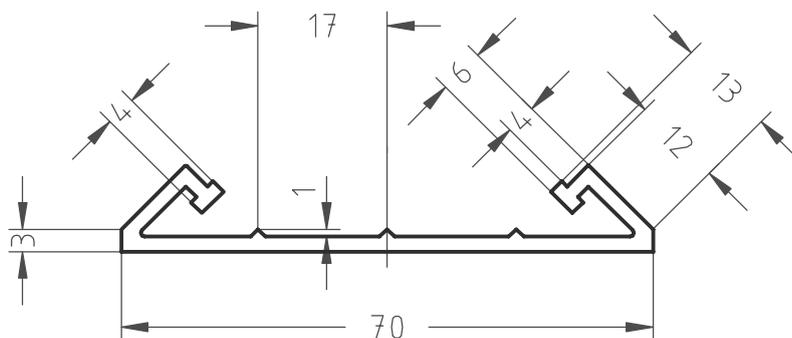
H 18.10



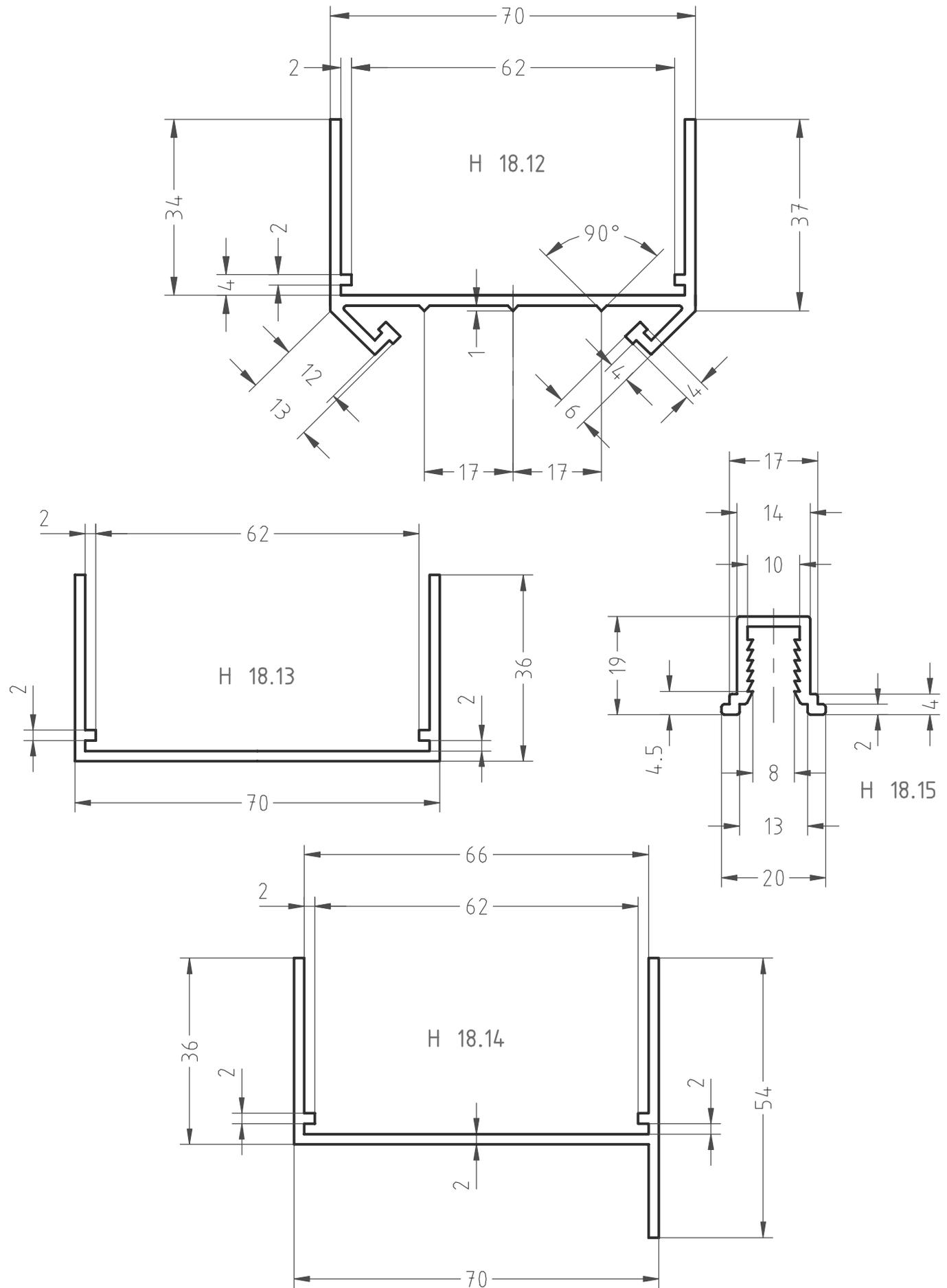
H 18.9

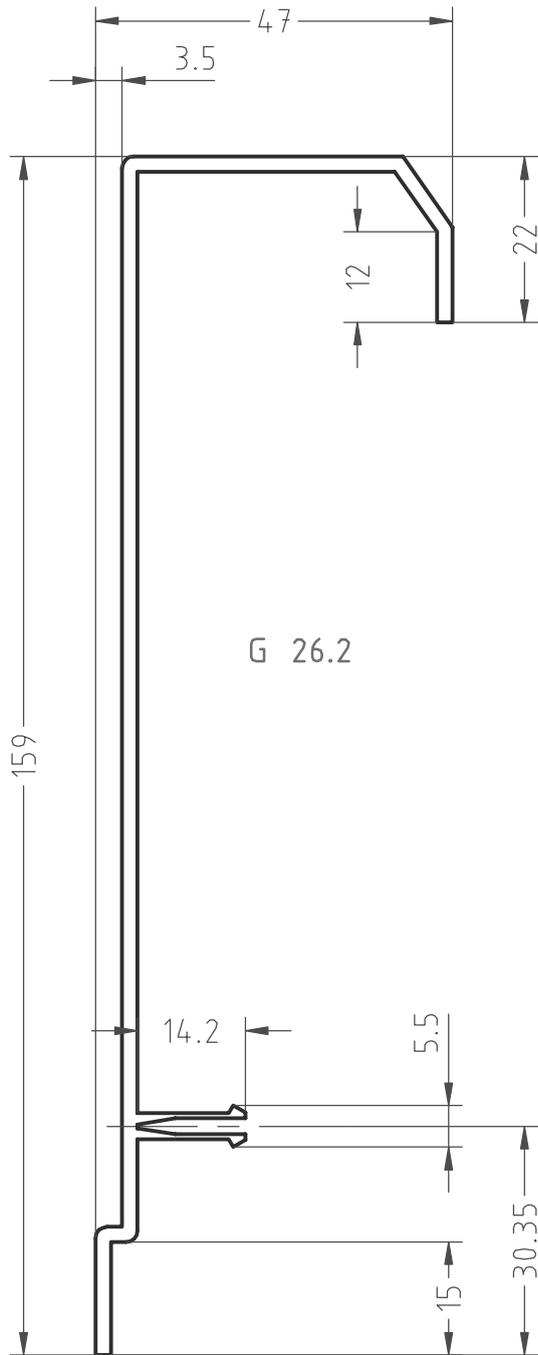


H 18.8

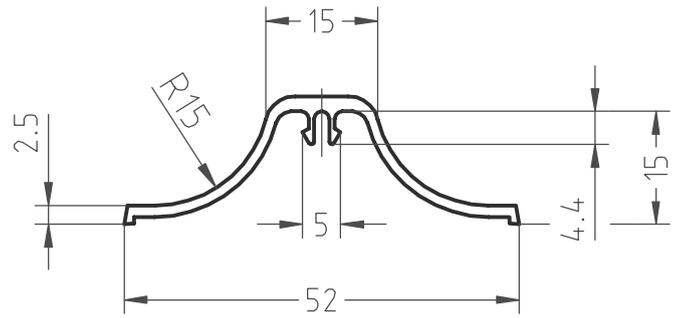


H 18.11

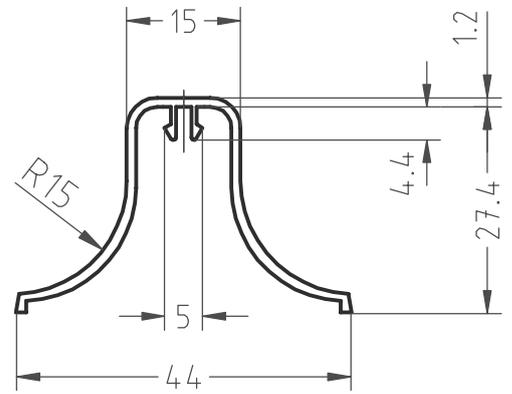




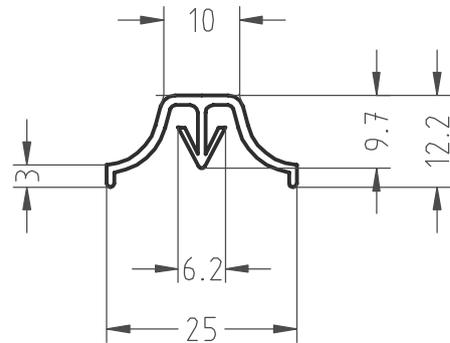
G 26.2



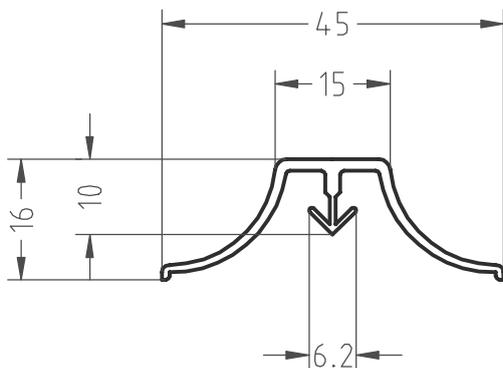
G 26.1



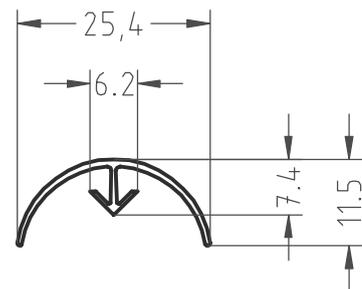
G 26.4



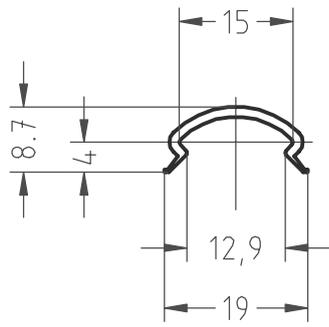
A 13.1



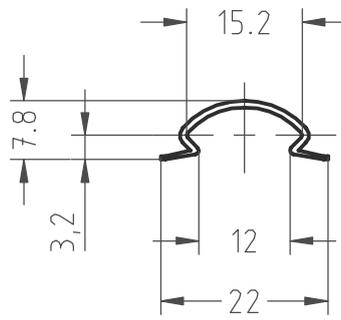
A 13.4



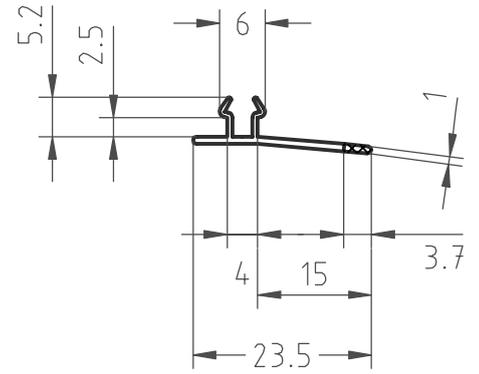
A 13.3



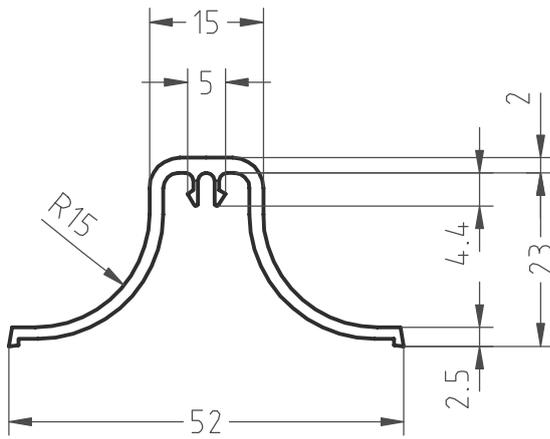
B 7.1



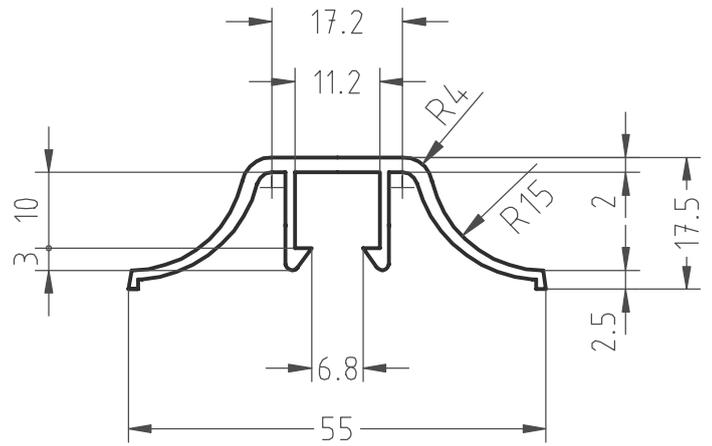
B 7.2



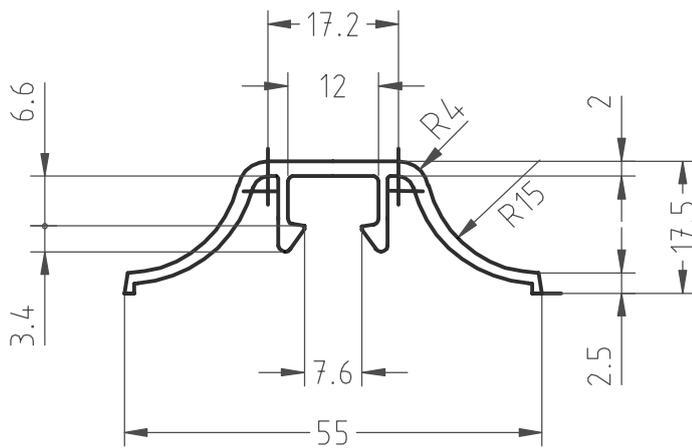
B 29.1



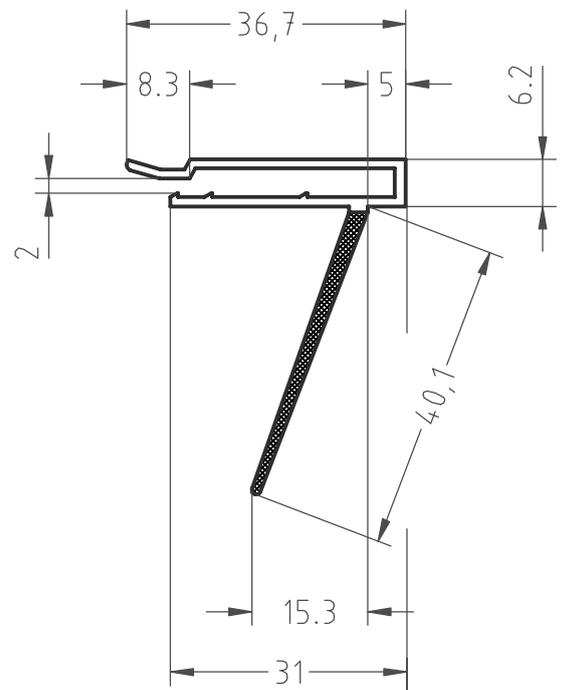
G 26.7



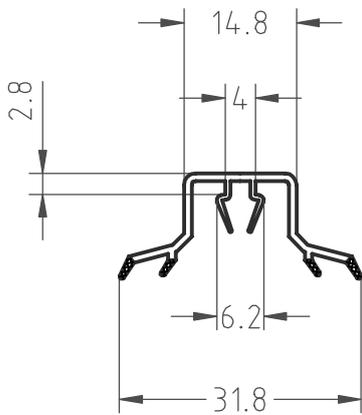
G 26.8



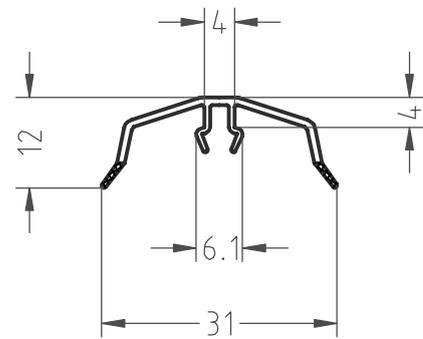
G 26.8-2



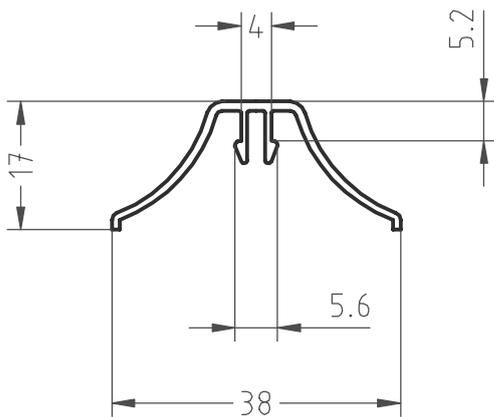
Sch 22.1



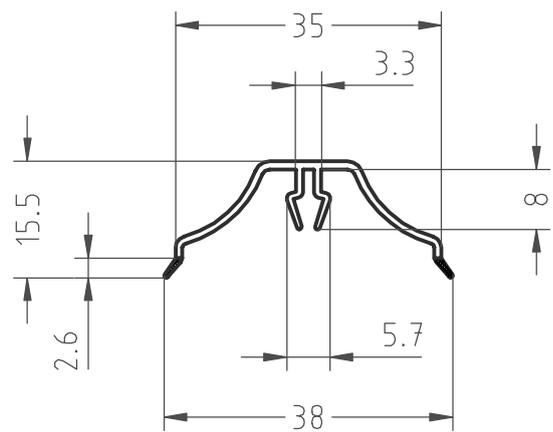
B 29.2



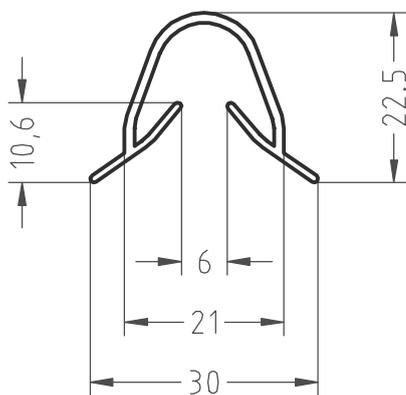
B 29.3



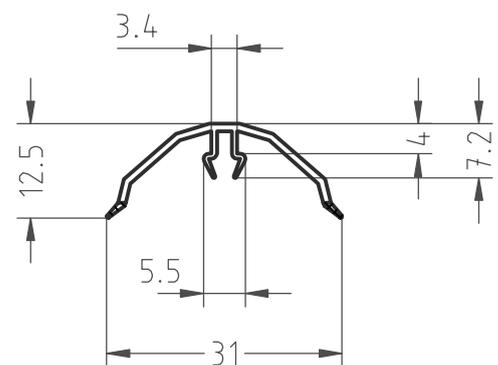
B 29.4



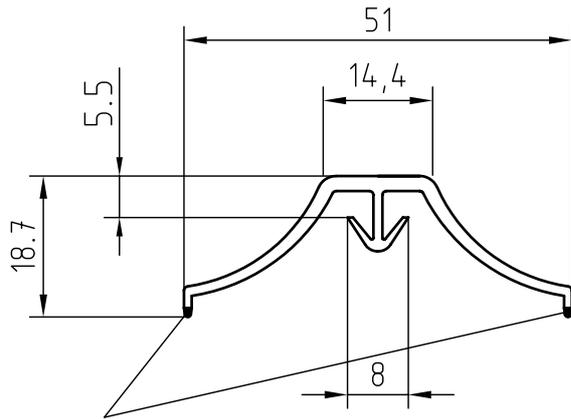
B 57.1



B 51.1

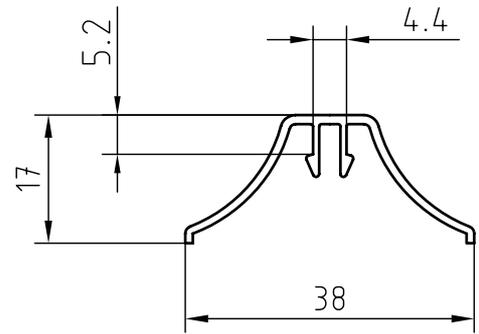


B 57.2

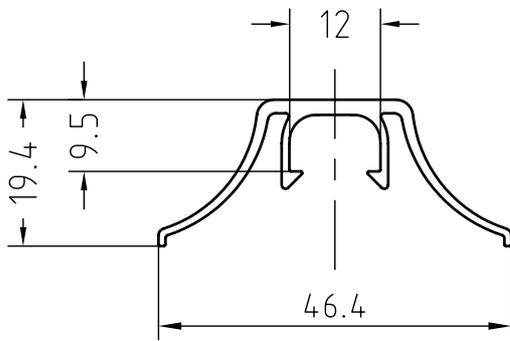


Weichlippe in TPU

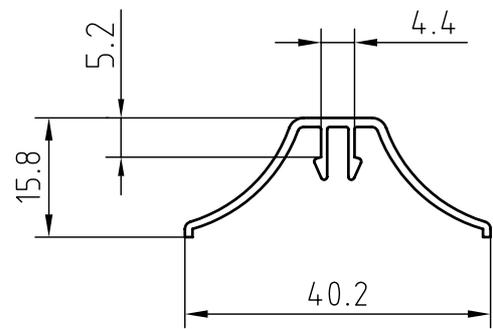
B 57.3



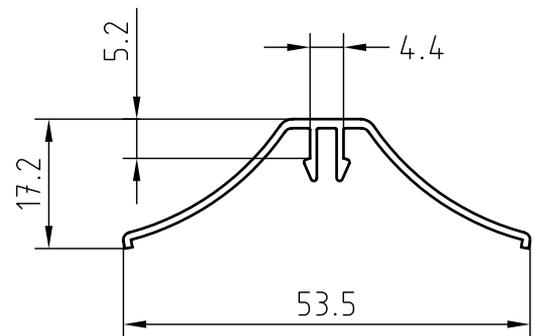
D 34.1



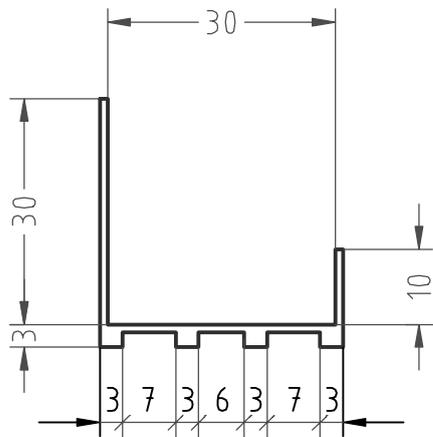
K 0.29



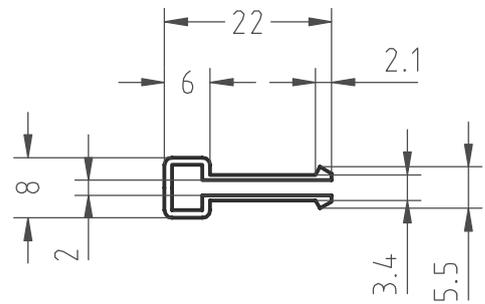
D 34.2



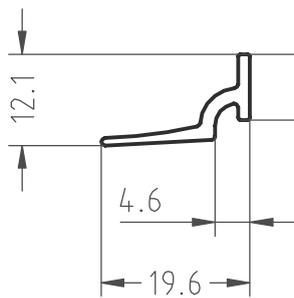
D 34.3



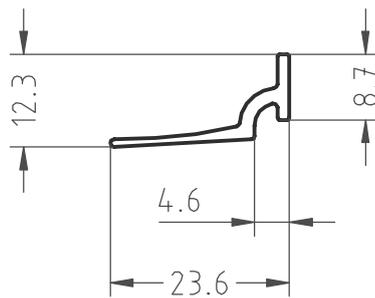
M 1.5



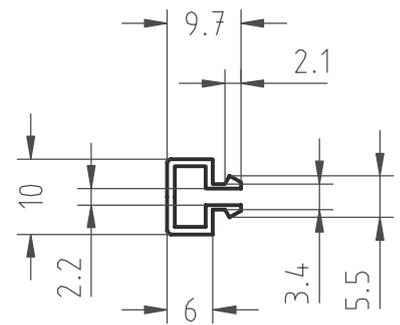
G 26.5



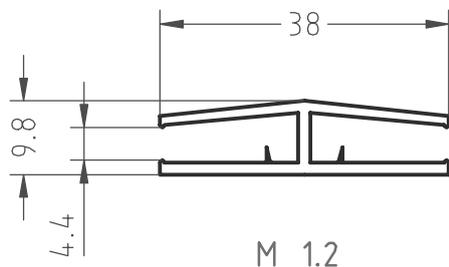
G 26.9



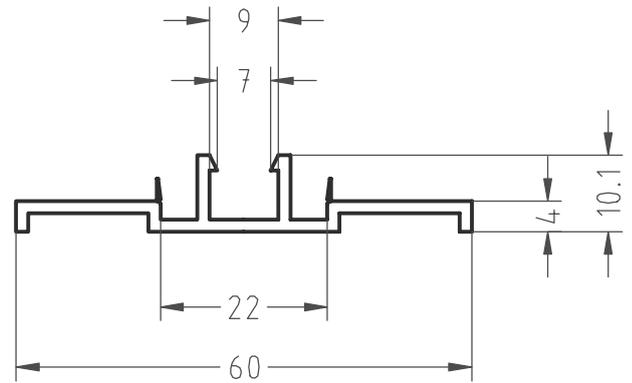
G 26.10



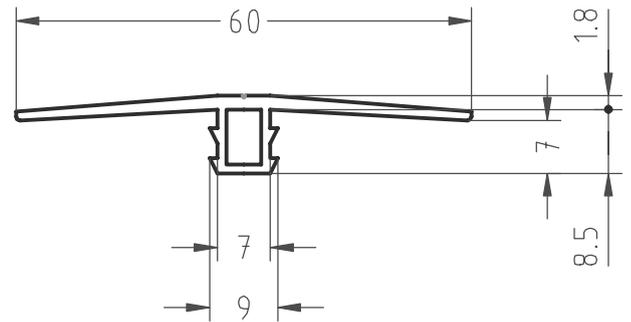
G 26.3



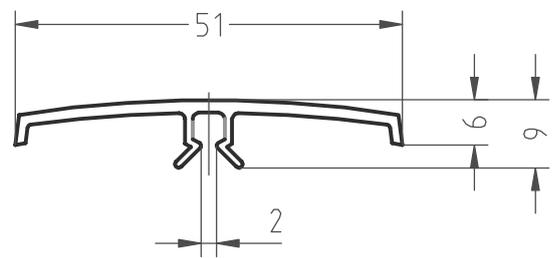
M 1.2



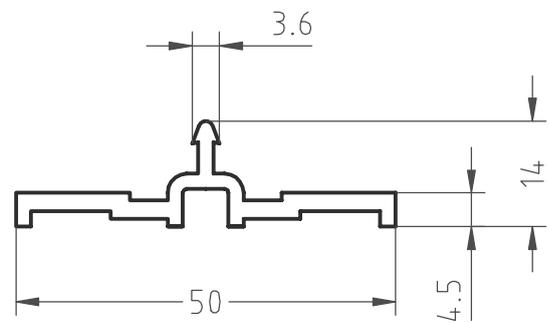
M 1.3



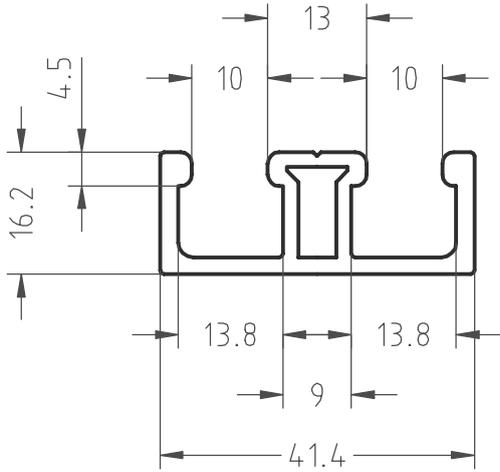
M 1.4



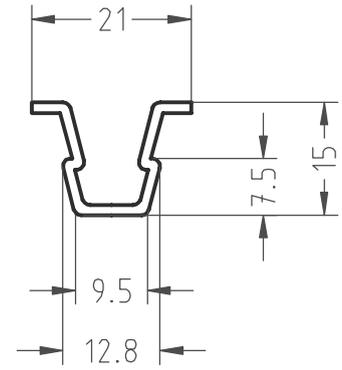
M 1.8



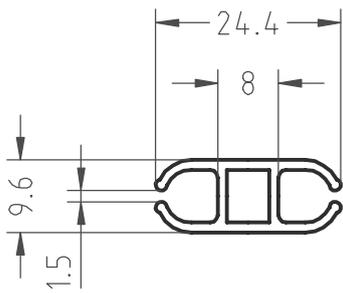
M 1.7



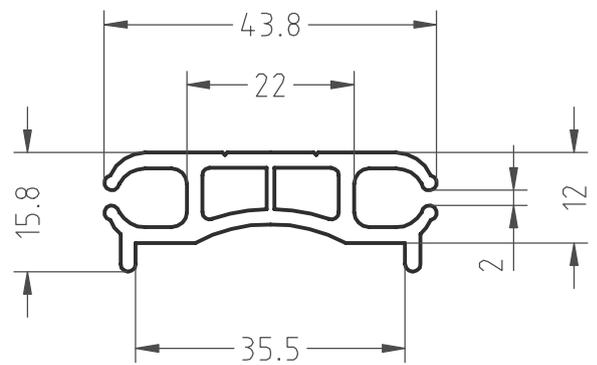
M 1.1



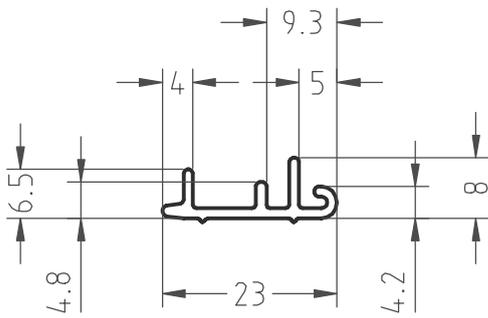
S 1.15



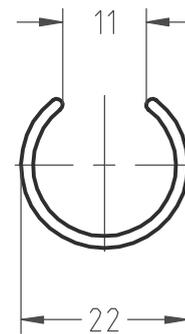
A 15.1



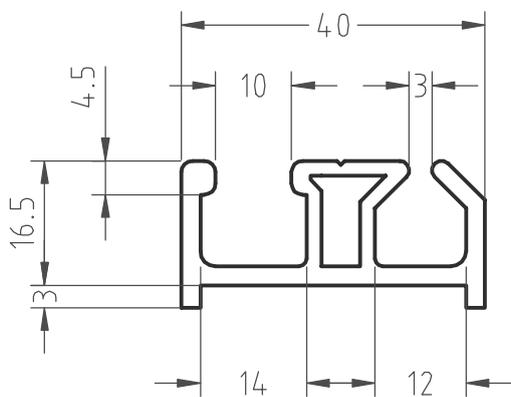
M 1.6



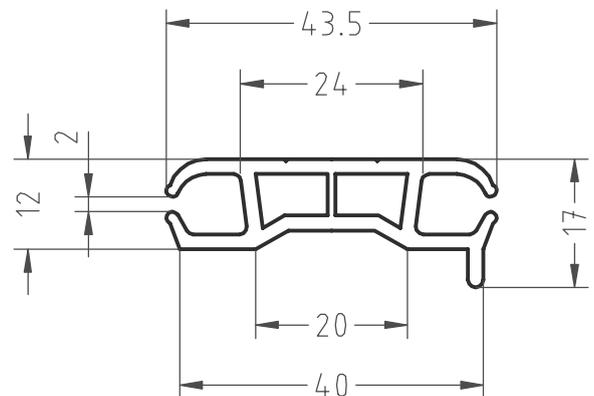
A 13.2



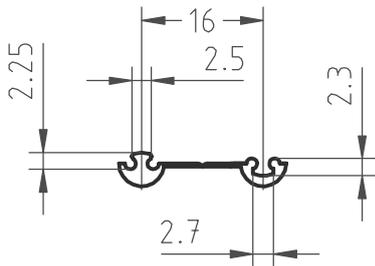
G 6.2



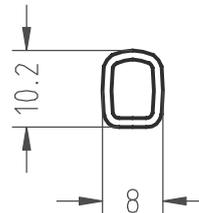
I 5.1



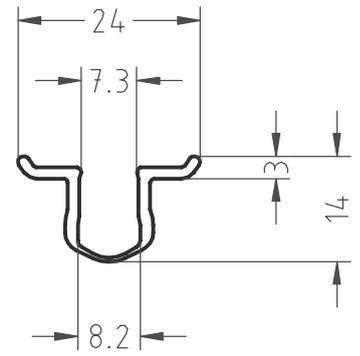
G 6.1



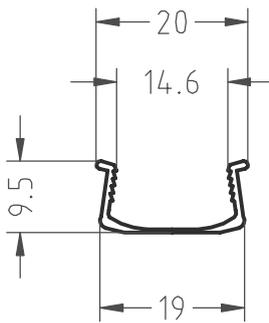
K 0.15



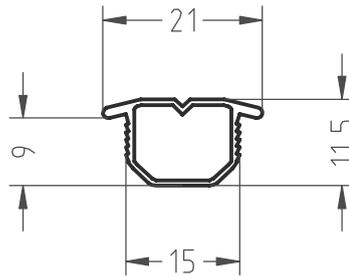
G 6.3



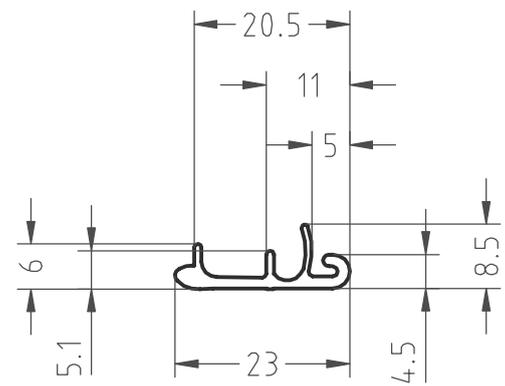
G 6.4



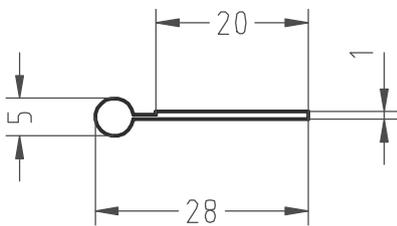
F 25.1



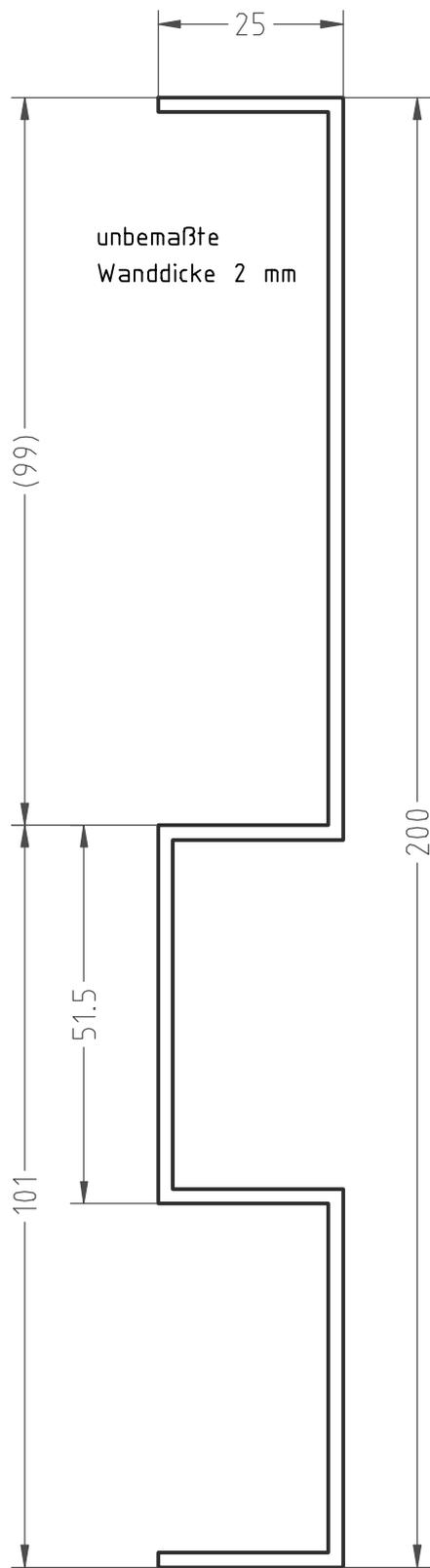
F 25.2



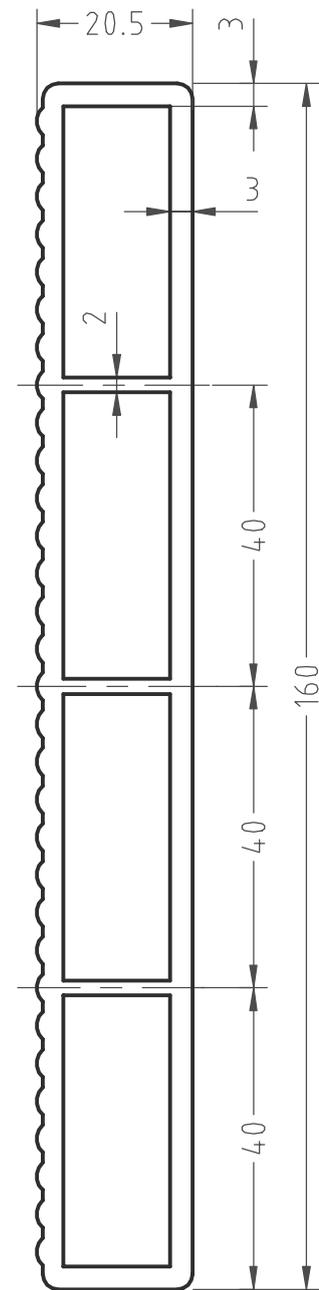
G 23.1



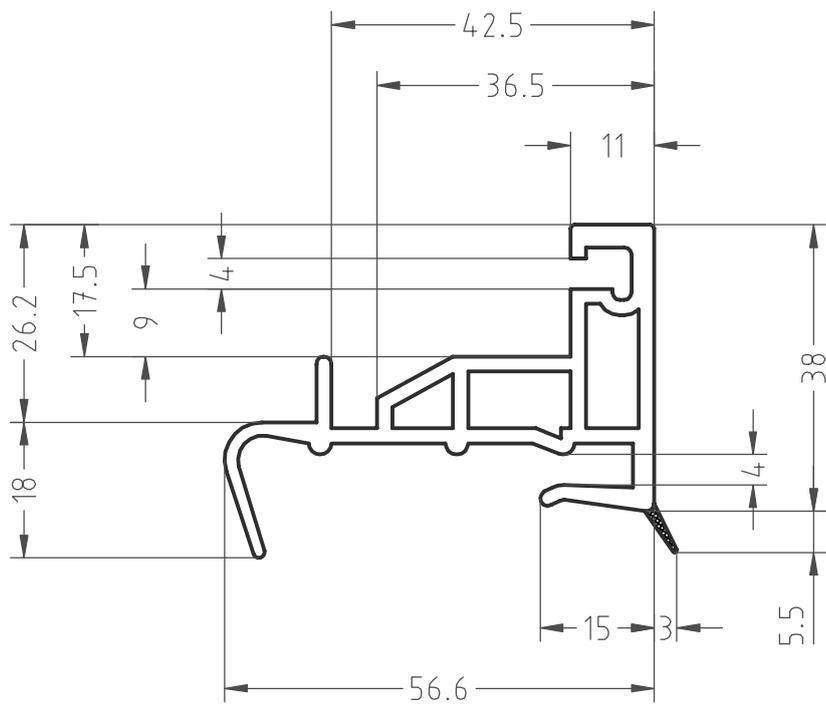
G 6.5



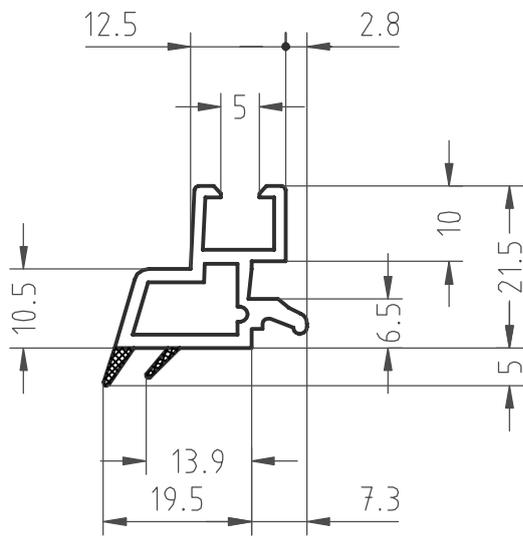
D 8.1



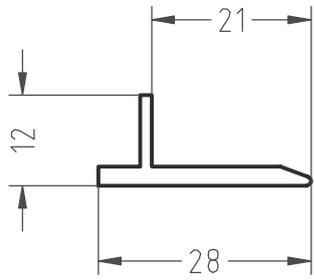
0 1.3



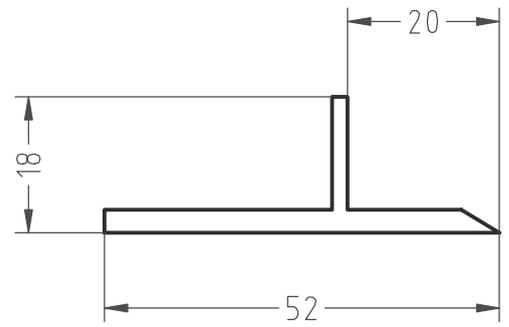
G 26.11



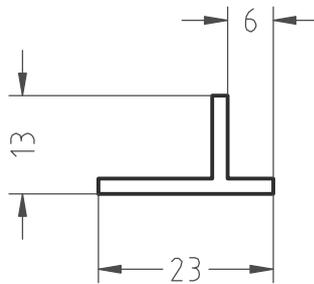
G 26.12



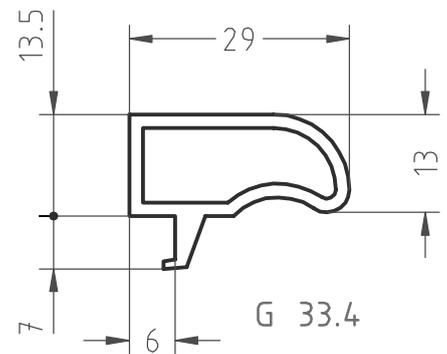
D 9.1



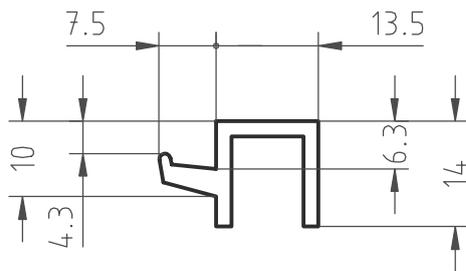
G 33.1



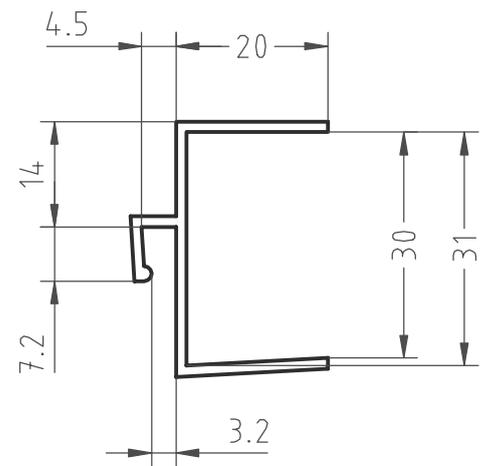
D 9.2



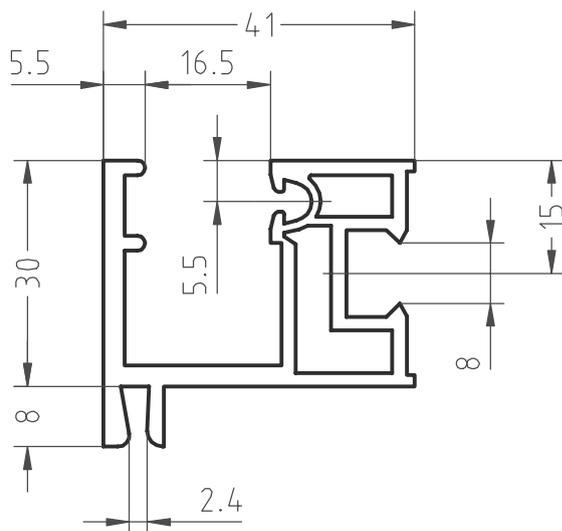
G 33.4



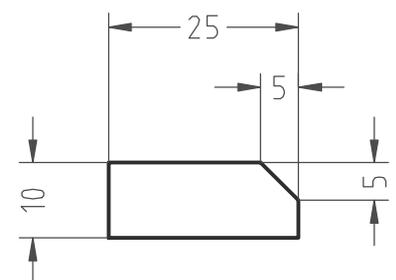
G 33.7



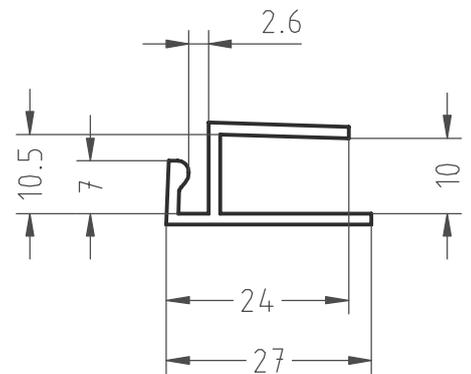
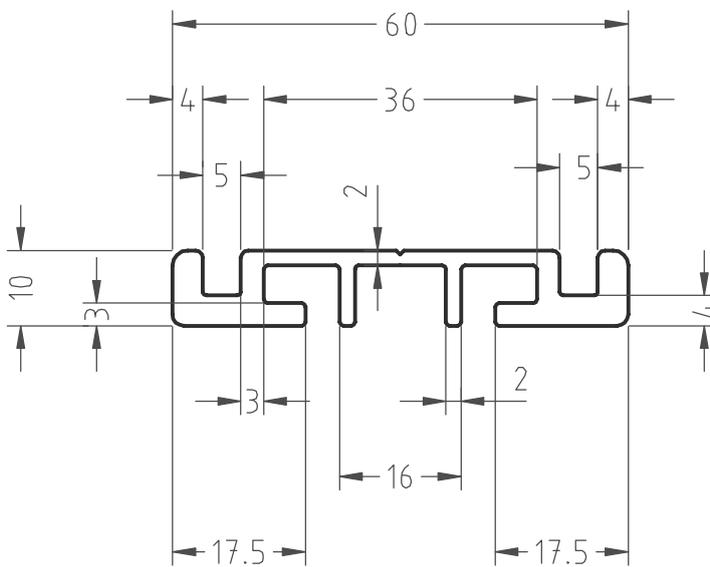
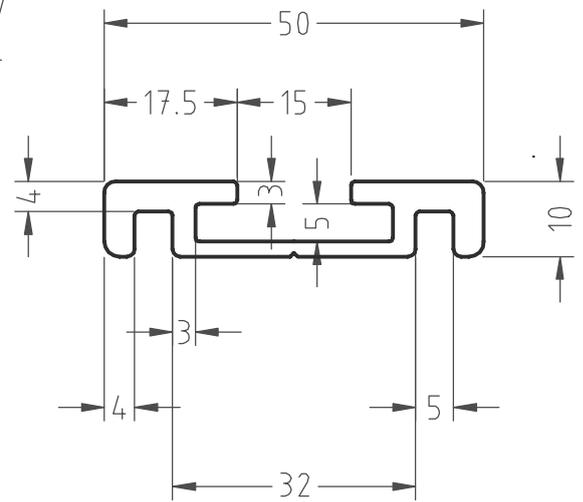
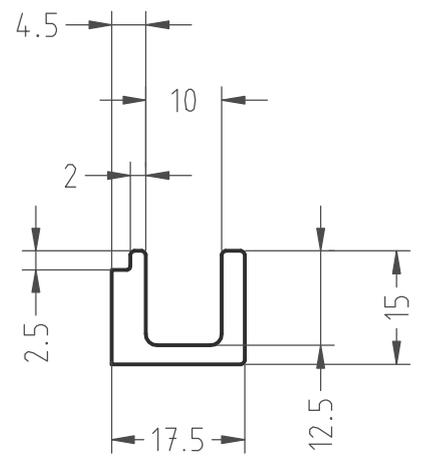
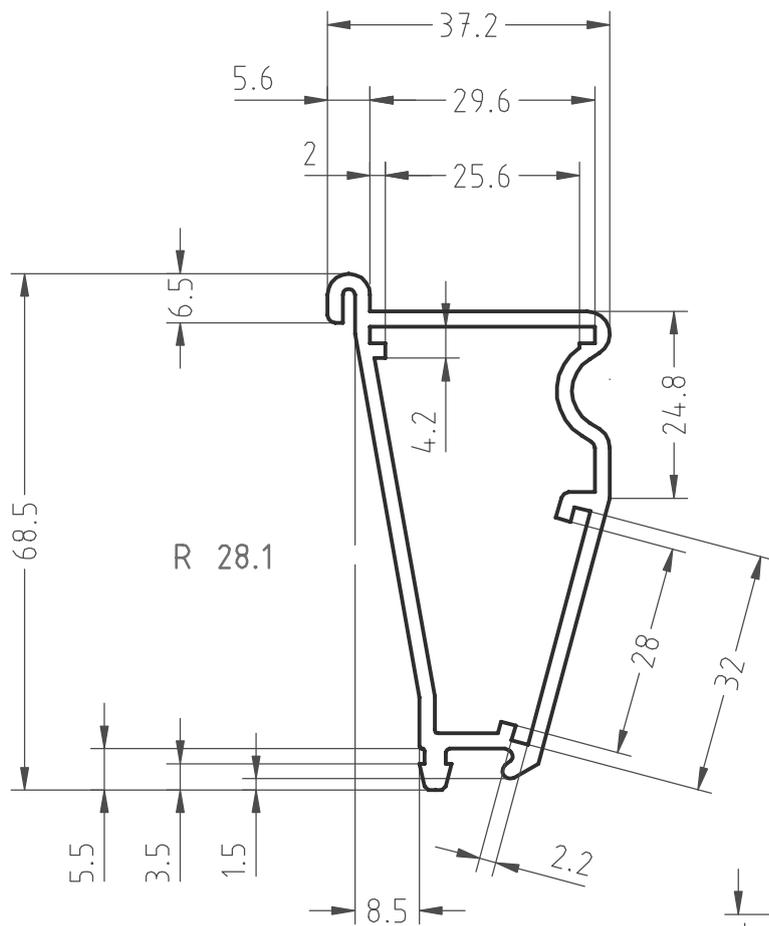
W 6.1

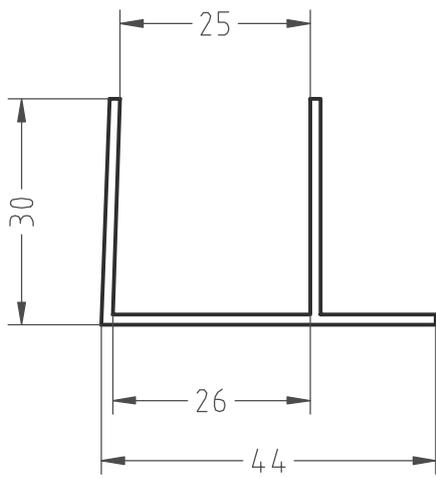


B 3.2

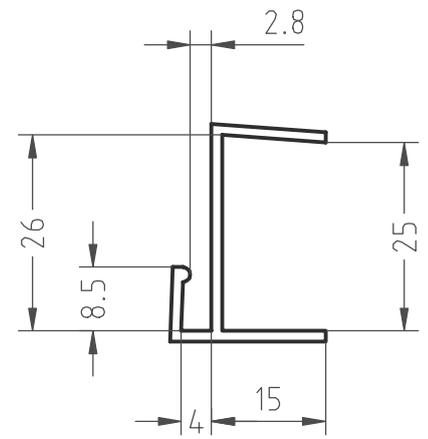


G 33.2

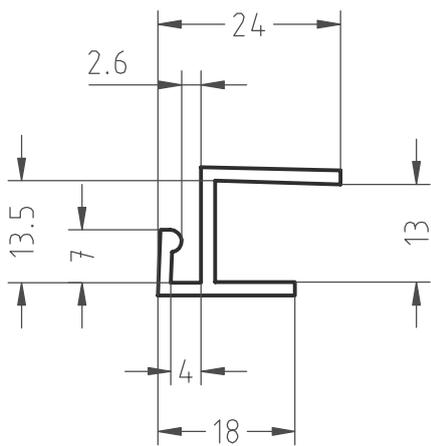




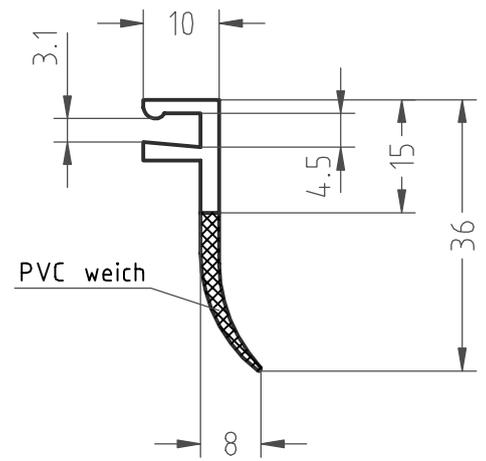
B 3.8



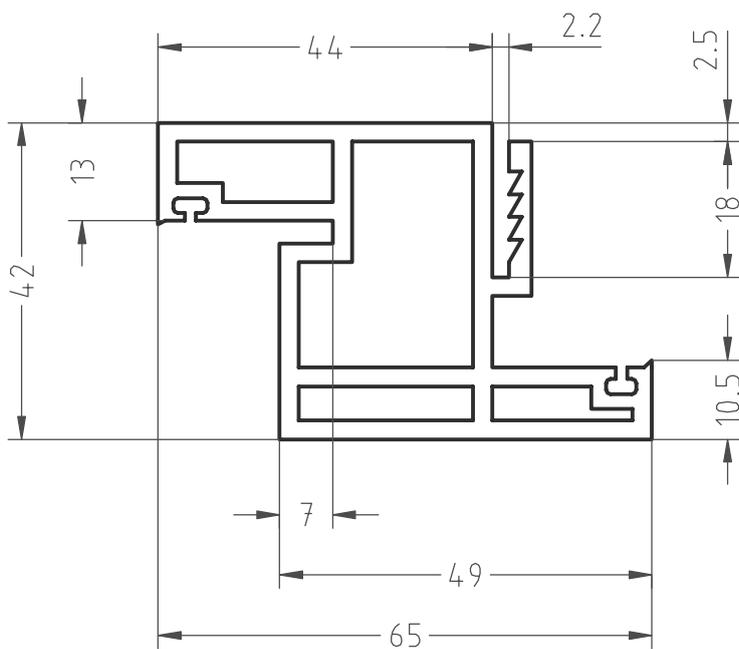
B 3.7



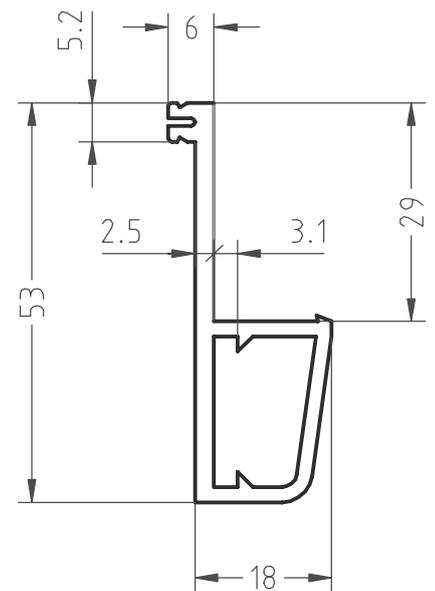
B 3.3



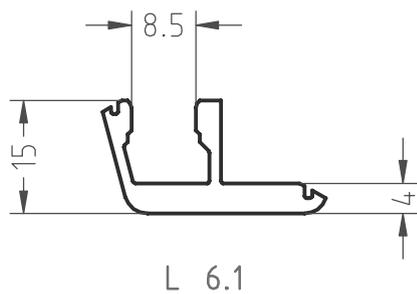
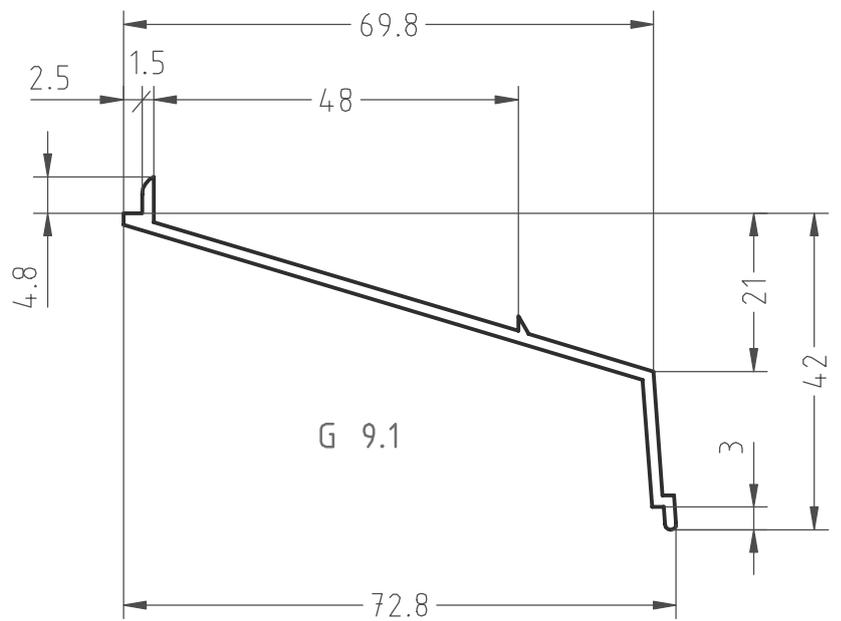
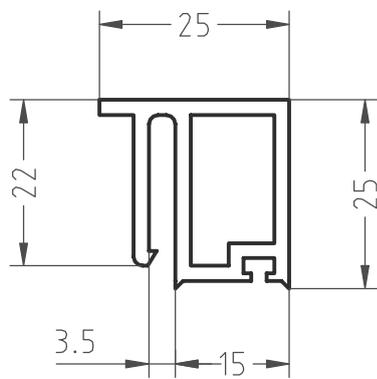
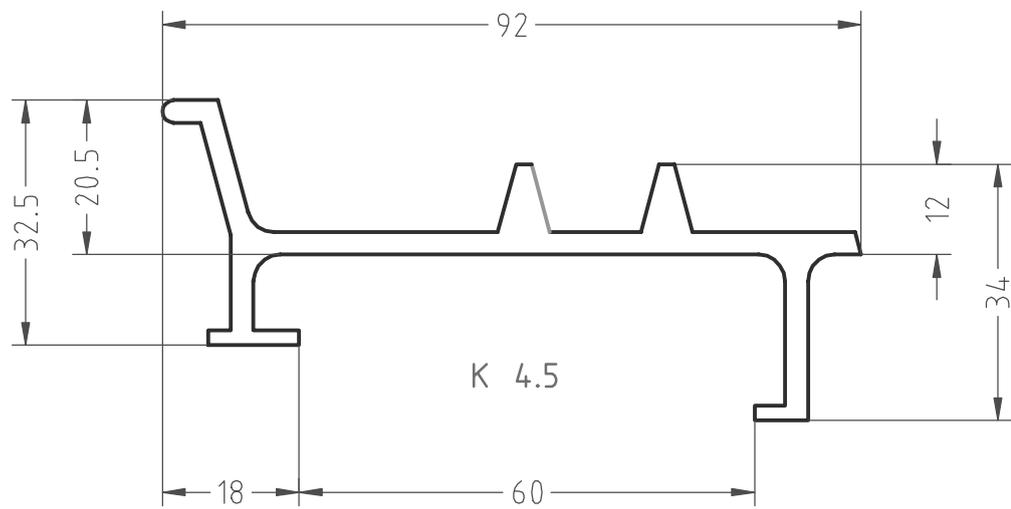
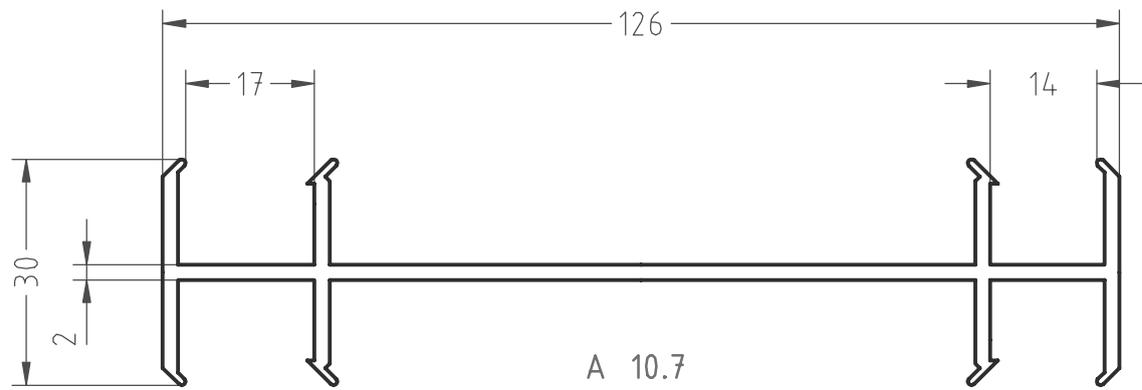
B 3.5

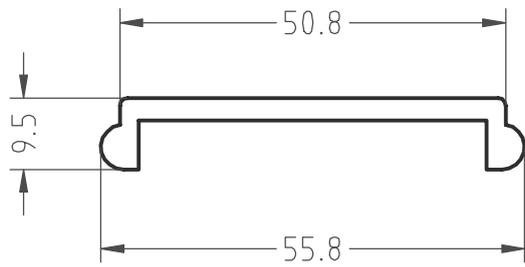


G 33.5

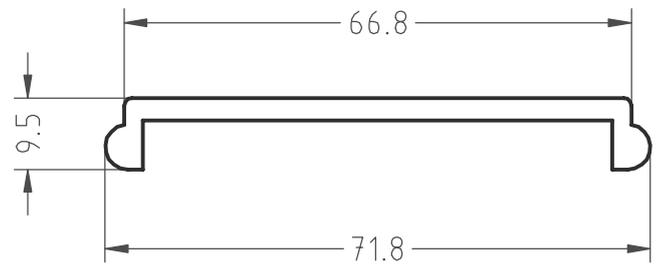


N 12.1

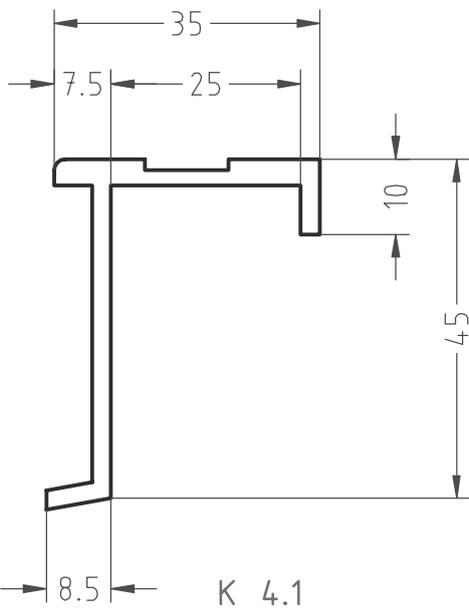




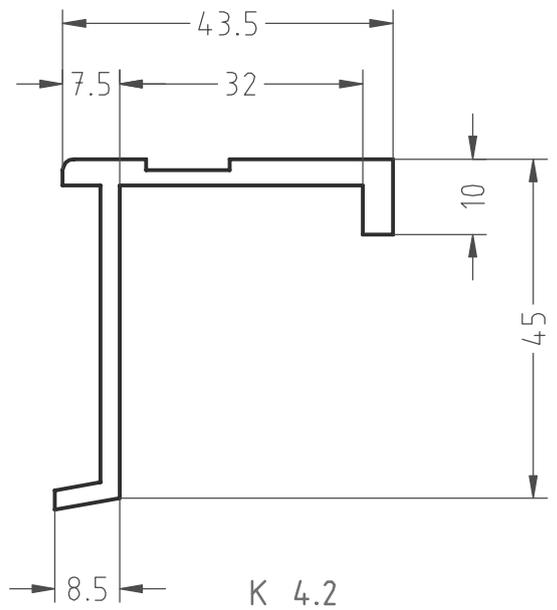
K 4.3



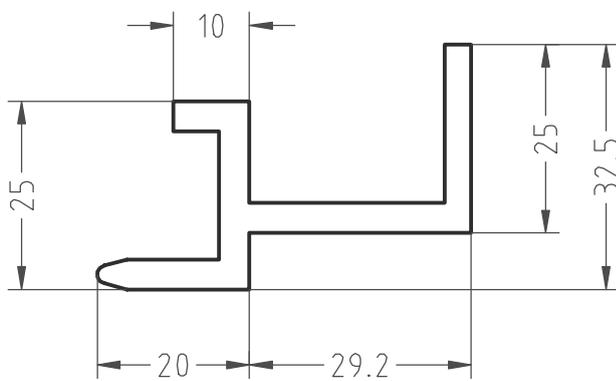
K 4.4



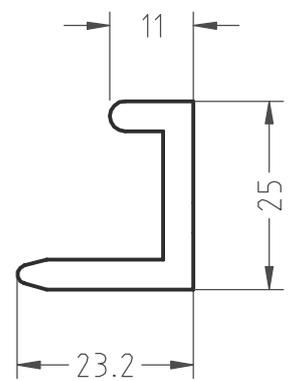
K 4.1



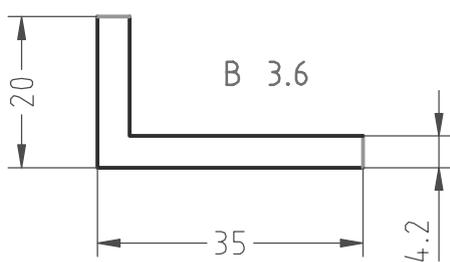
K 4.2



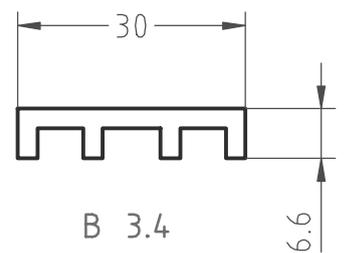
K 4.104



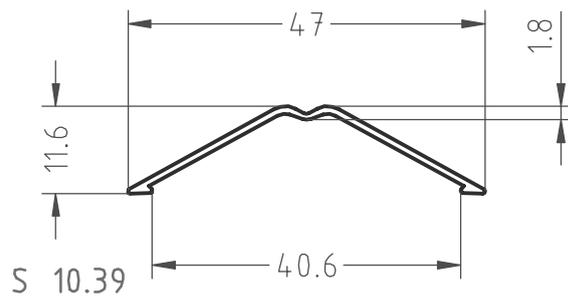
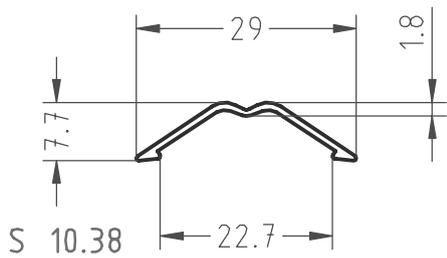
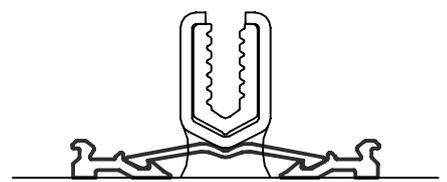
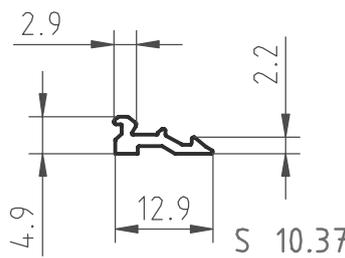
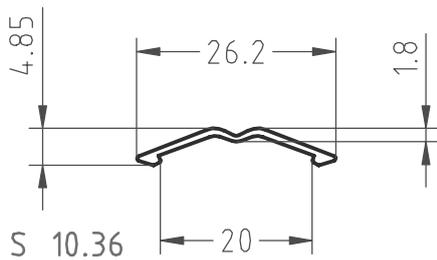
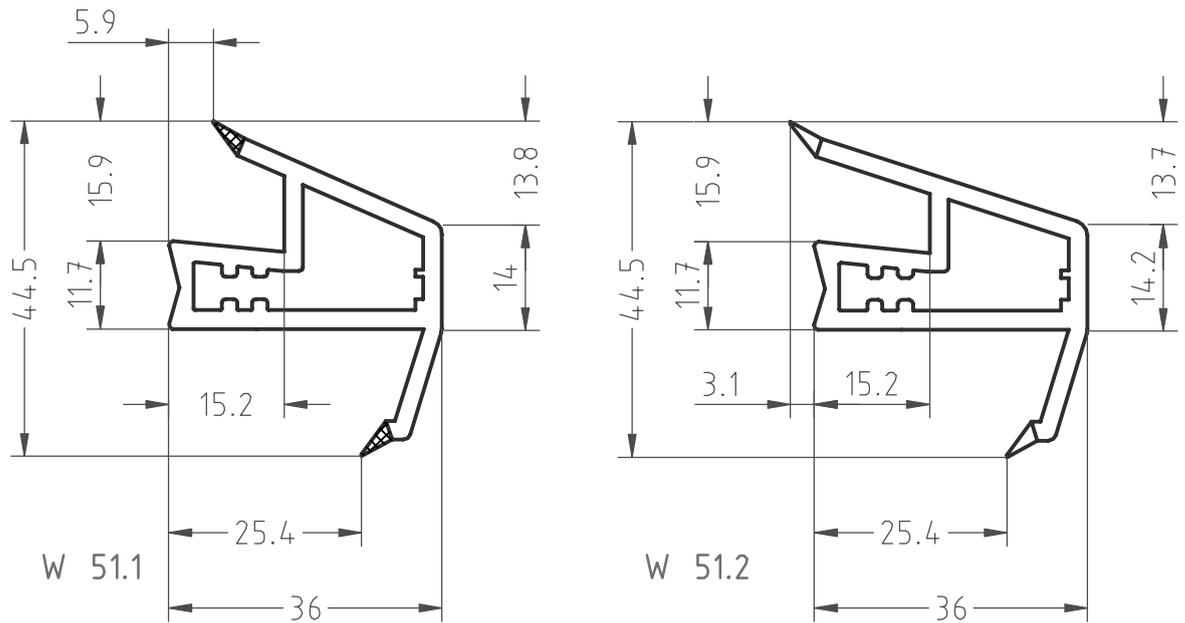
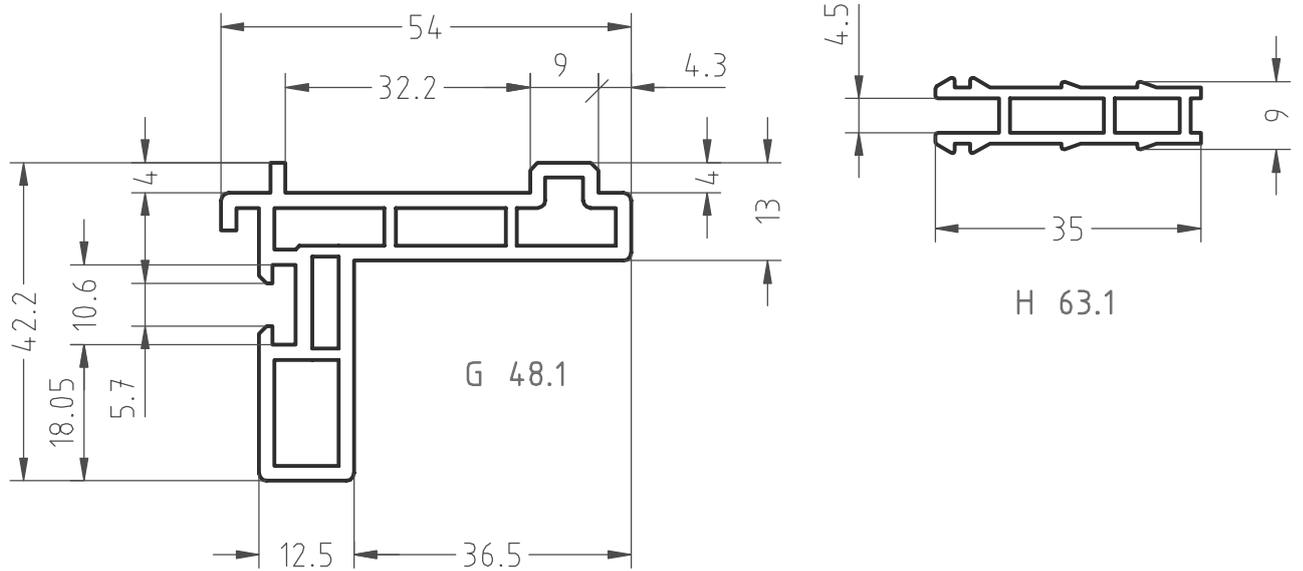
K 4.105

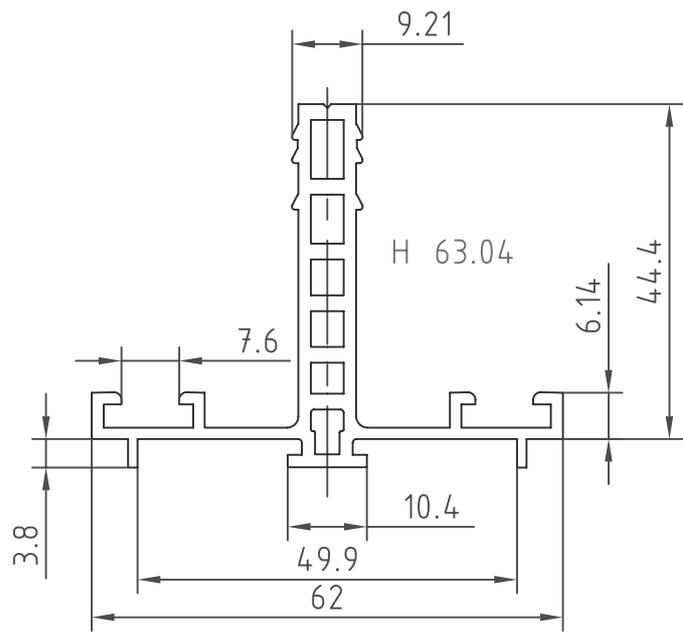
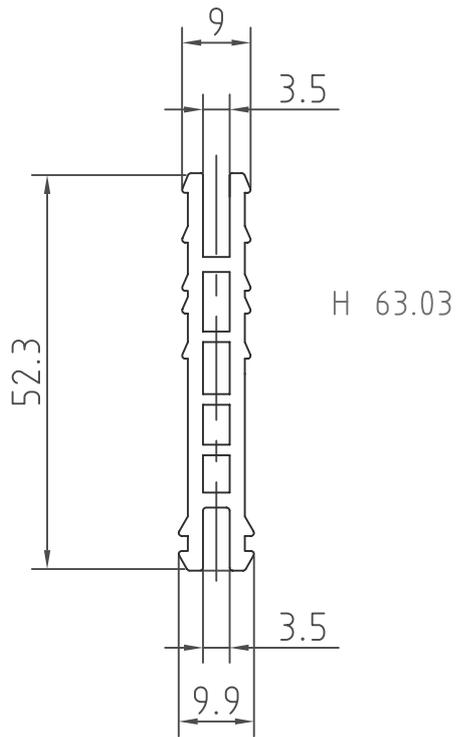


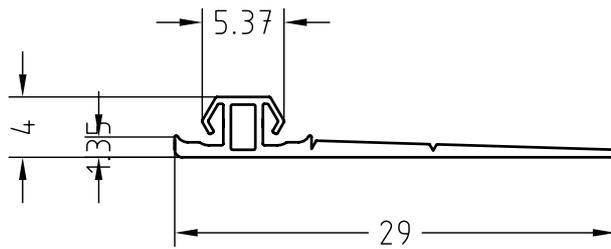
B 3.6



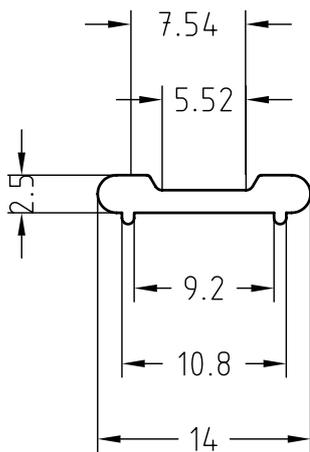
B 3.4



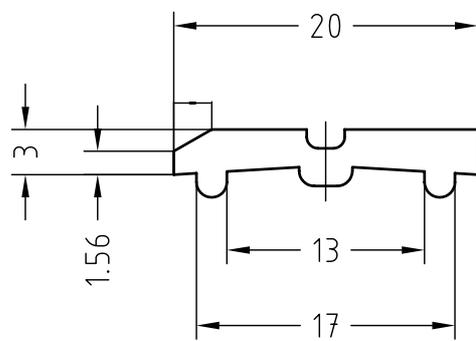




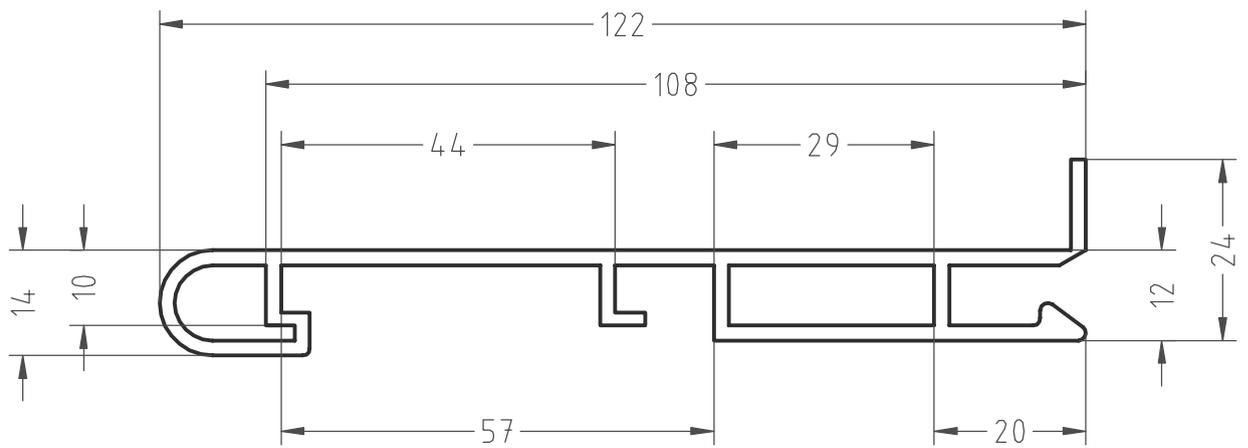
G 58.1



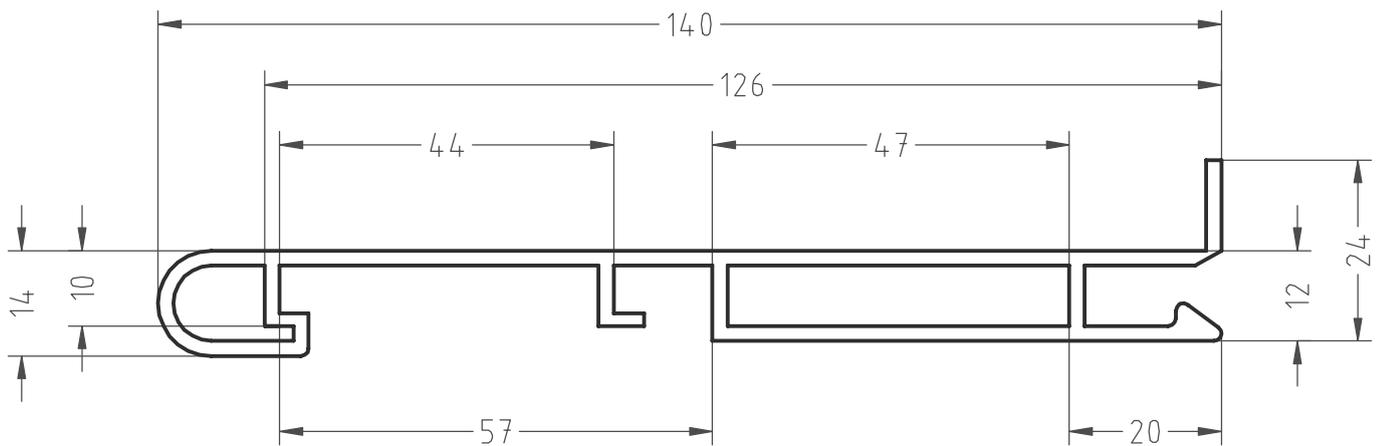
S 10.41



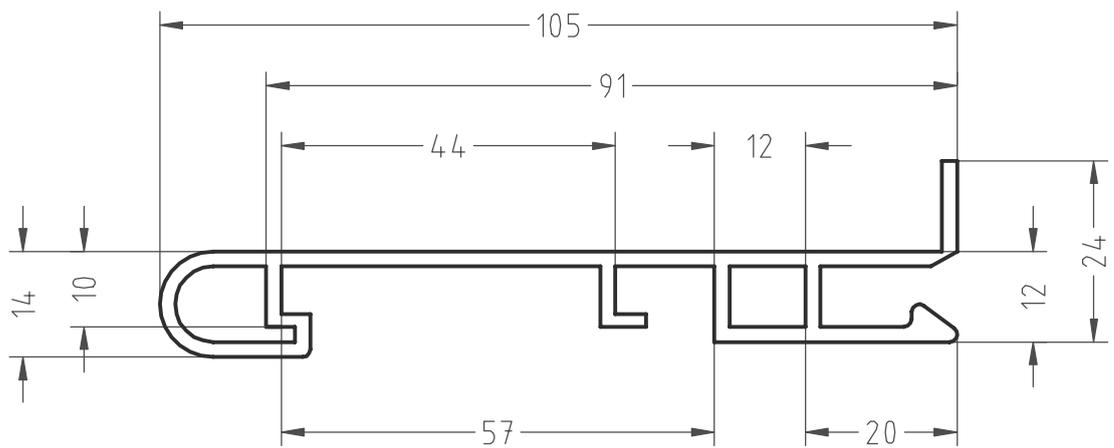
S 10.42



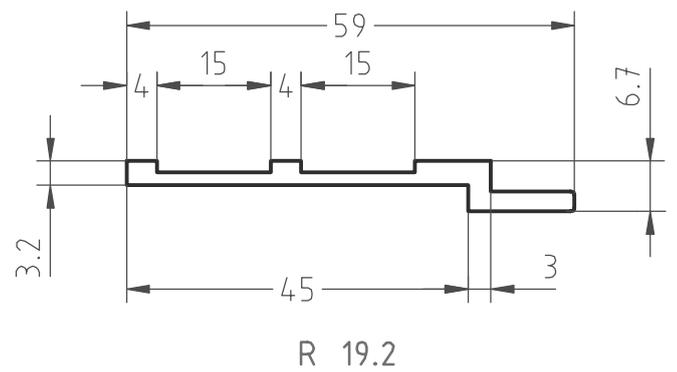
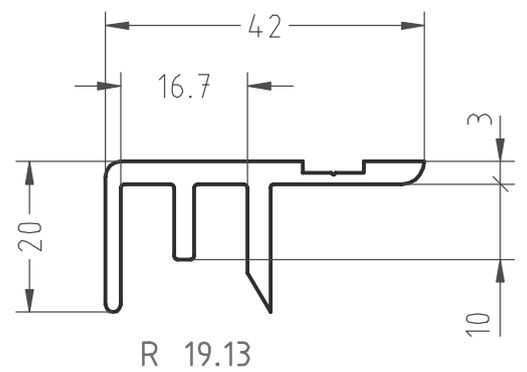
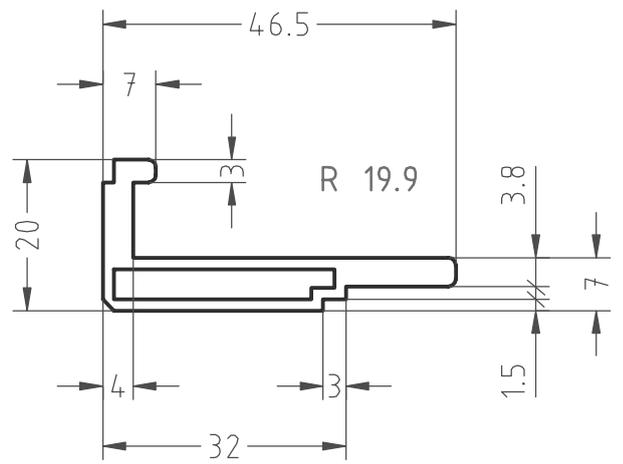
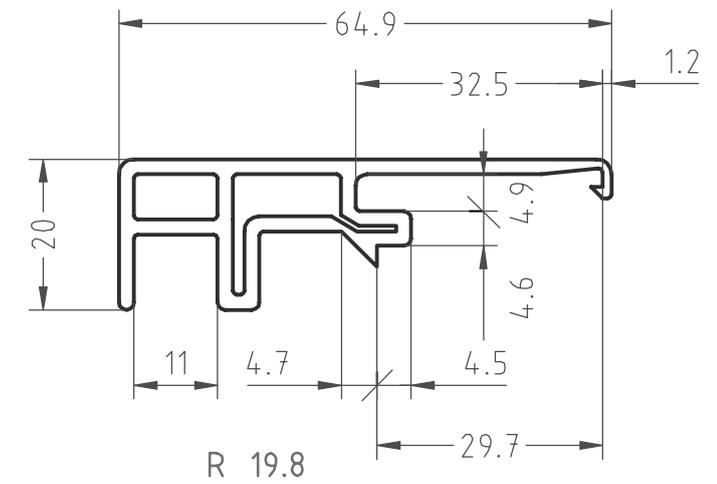
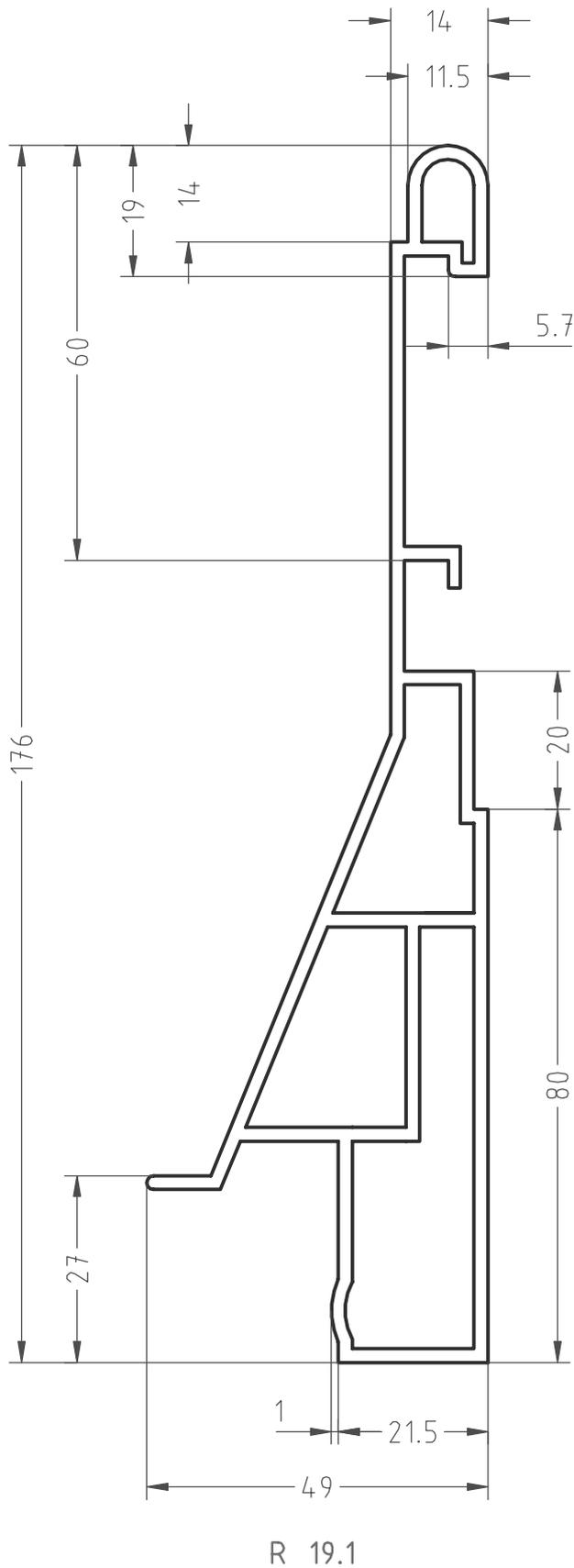
R 19.5

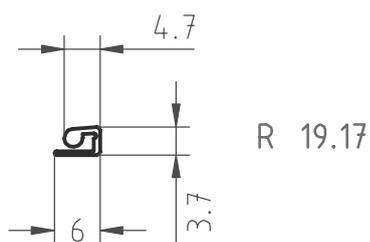
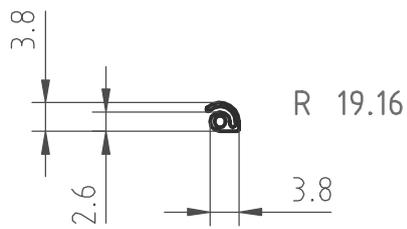
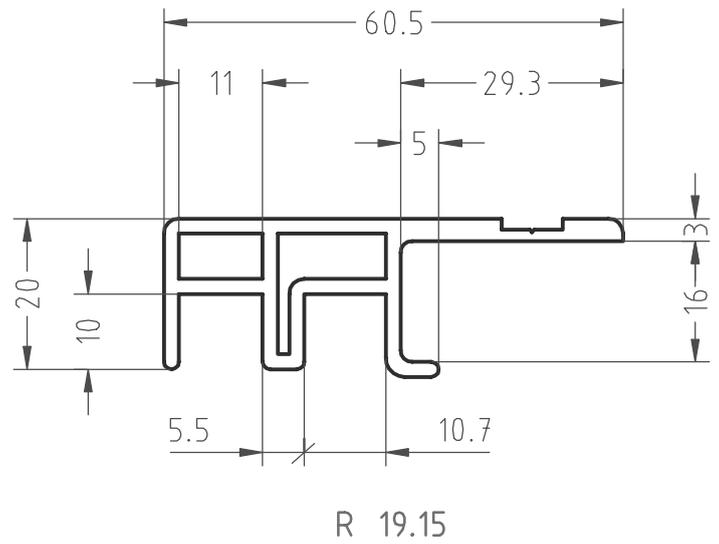
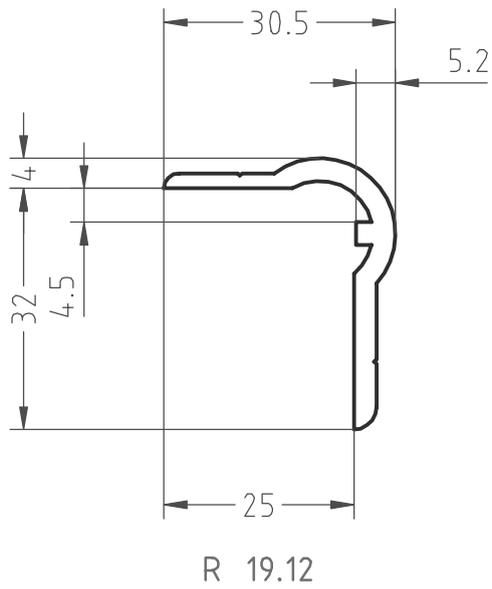
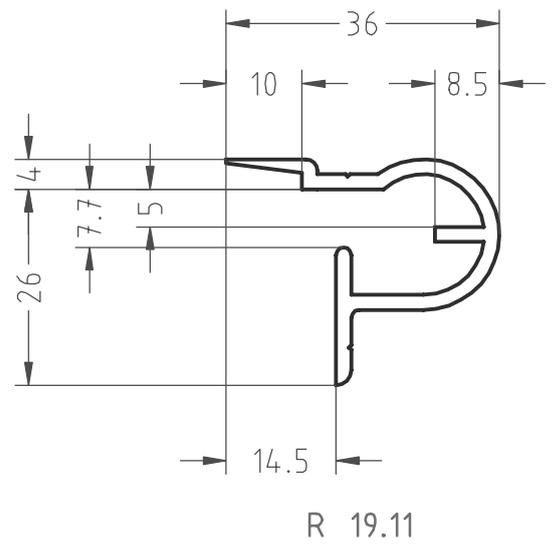
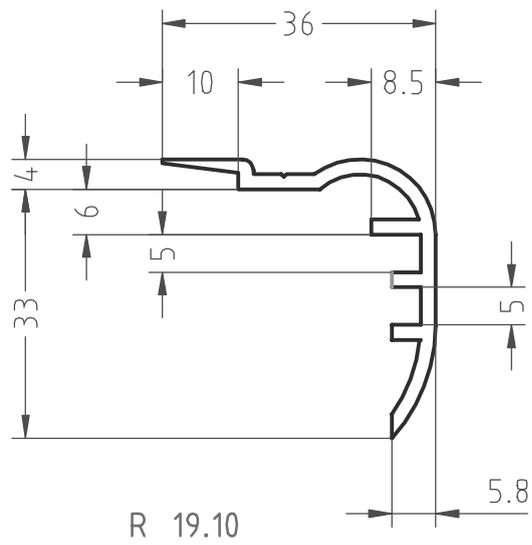


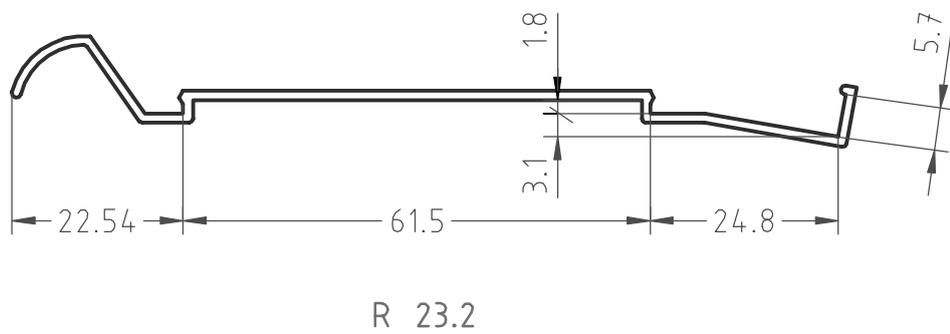
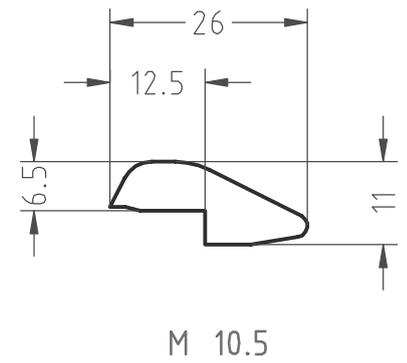
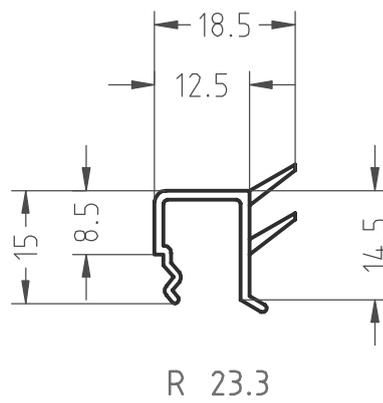
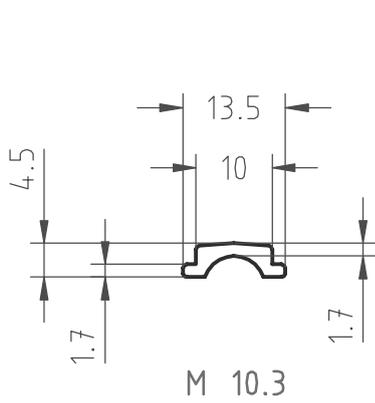
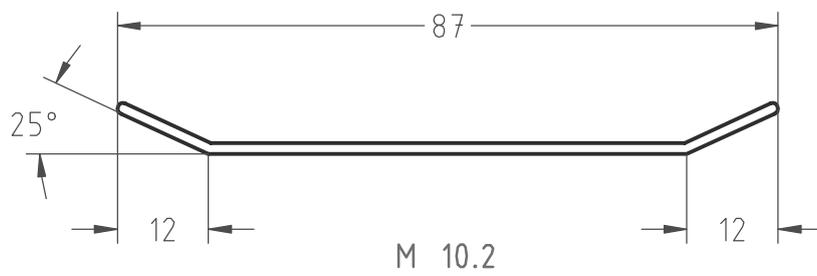
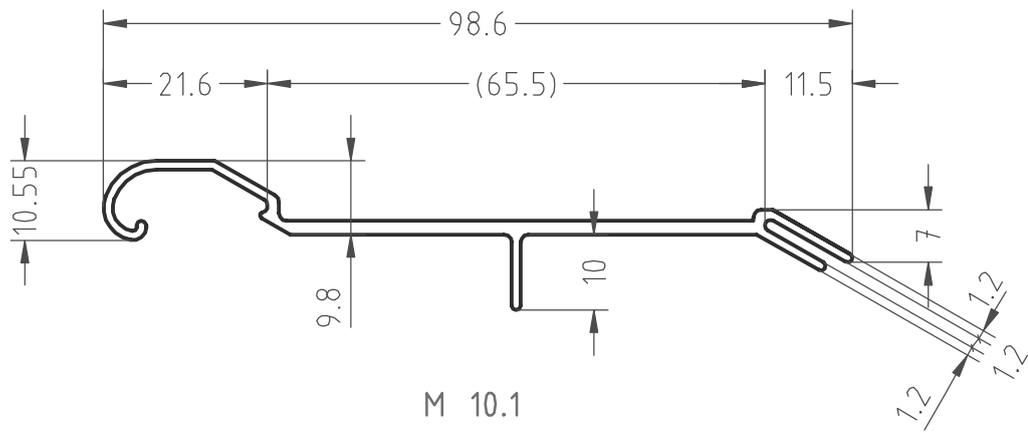
R 19.6

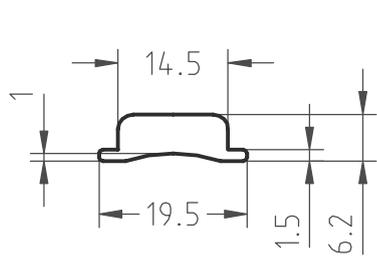


R 19.7

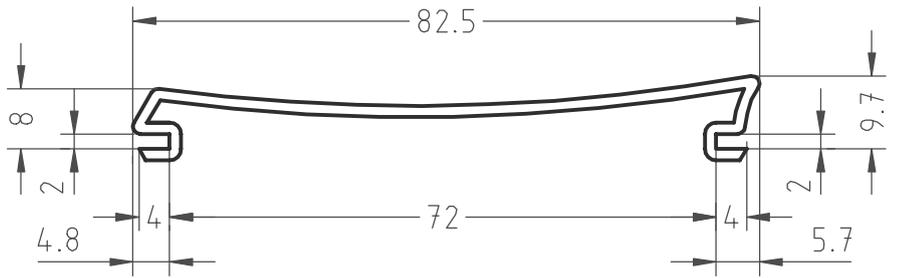




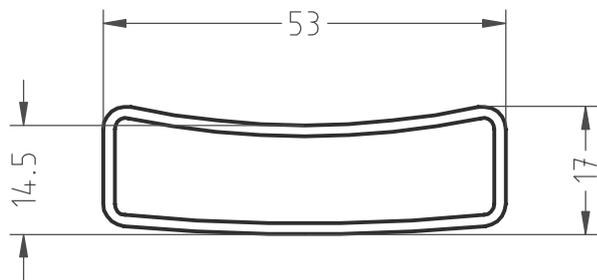




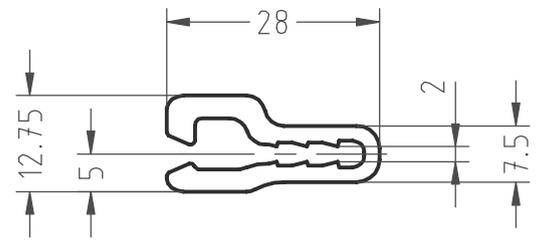
R 23.1



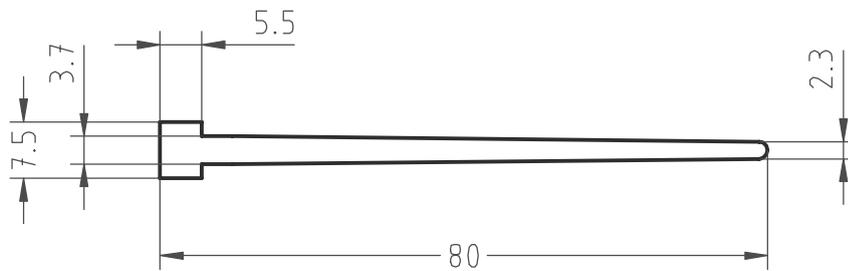
S 1.29



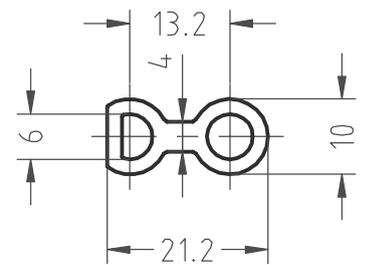
R 41.2



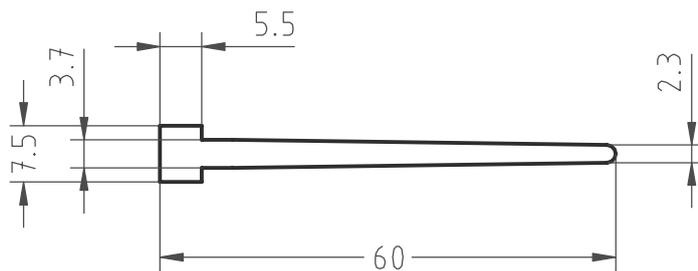
R 41.1



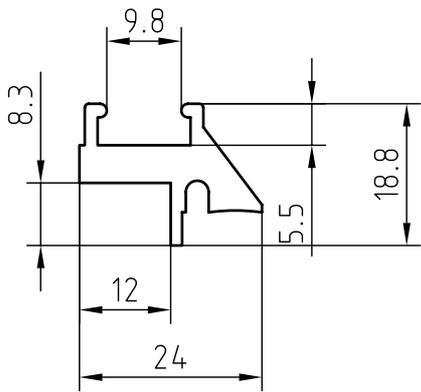
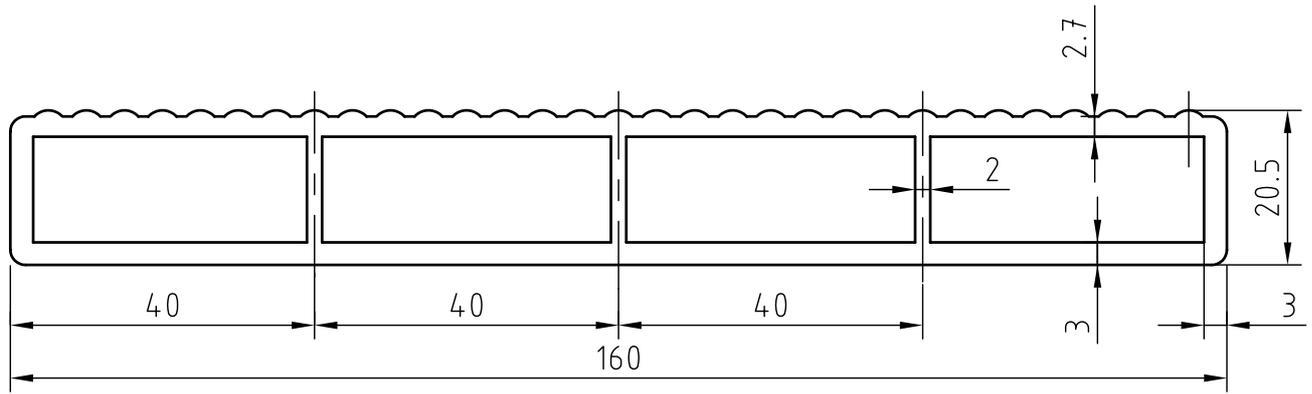
M 10.7



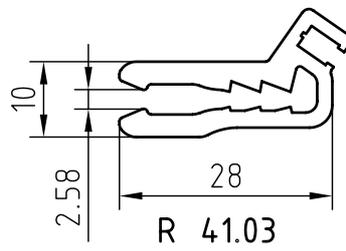
R 44.4

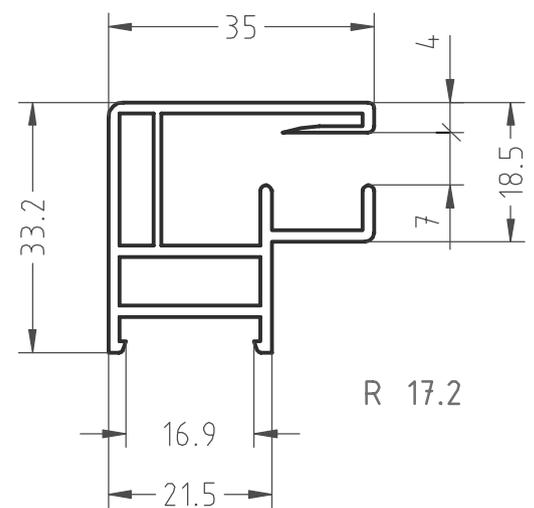
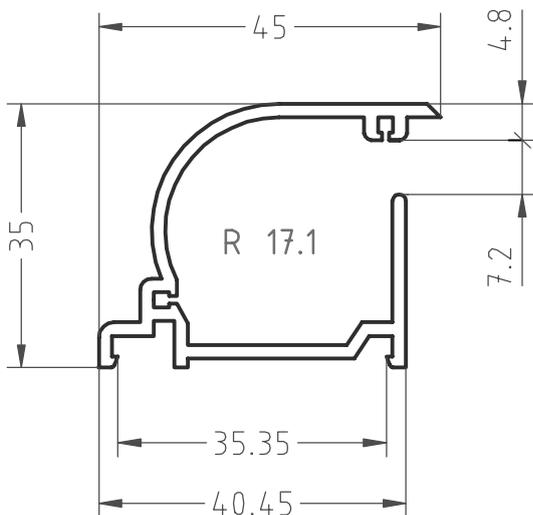
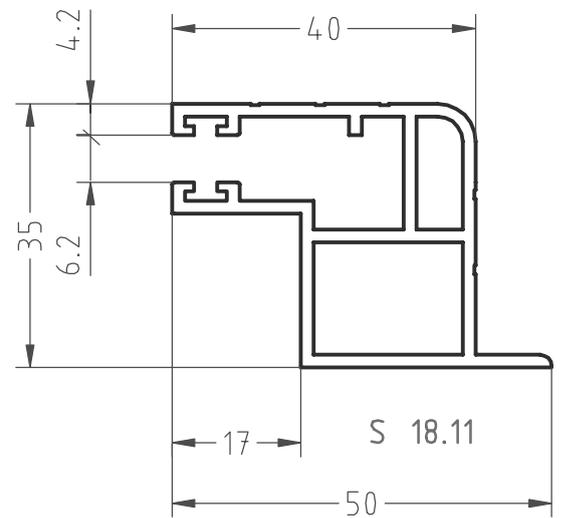
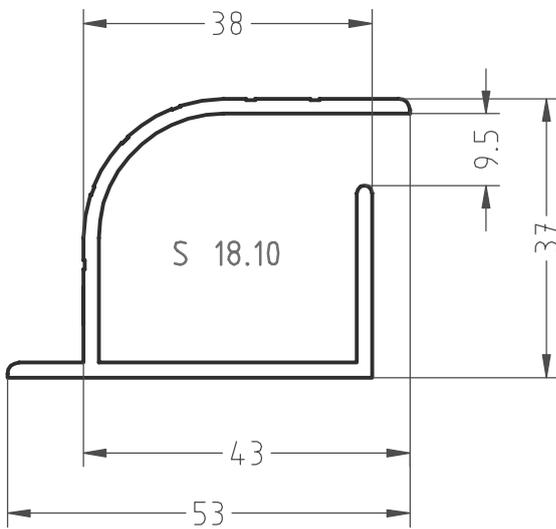
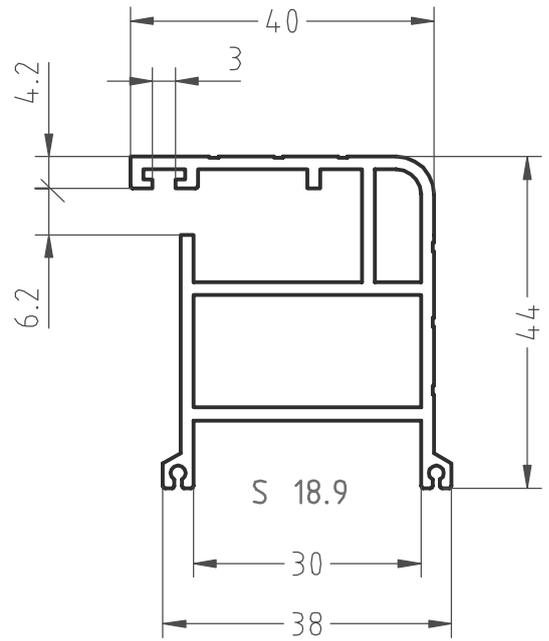
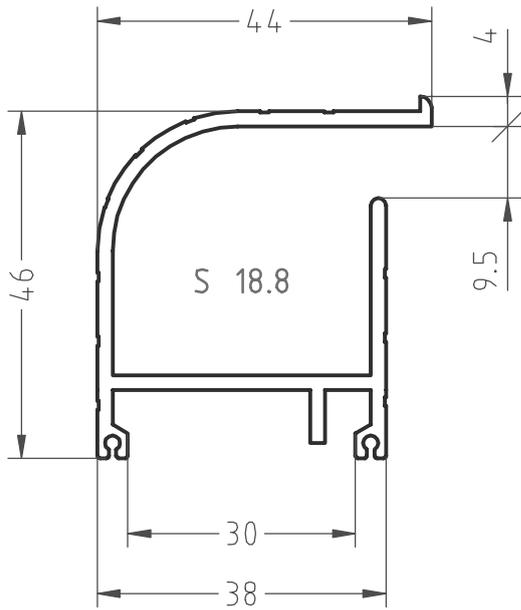


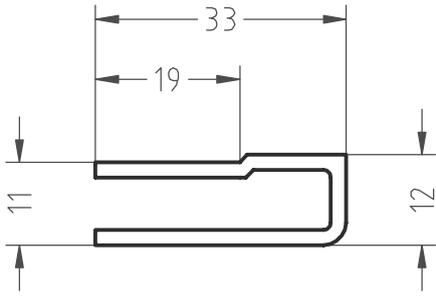
M 10.6



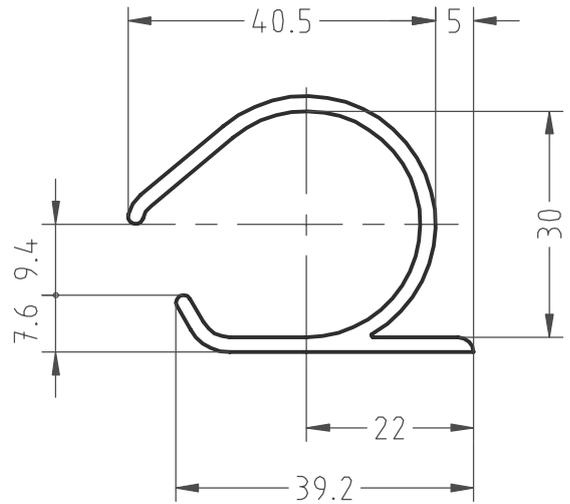
H 74.01



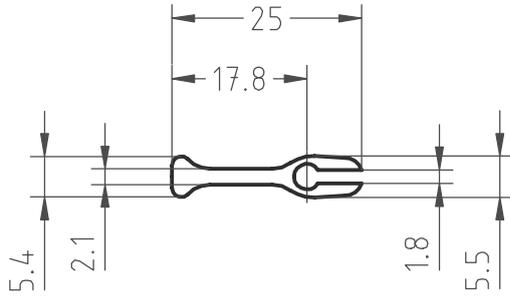




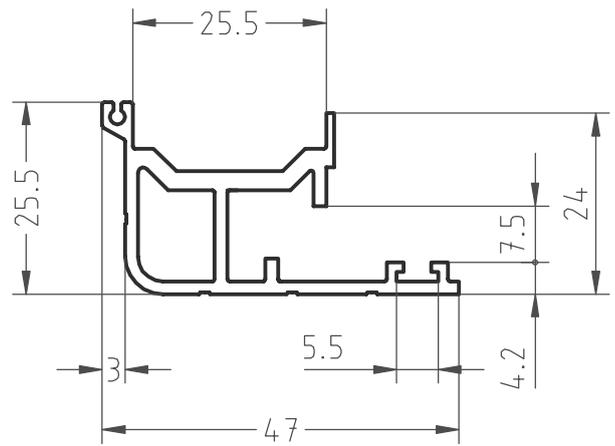
S 18.1



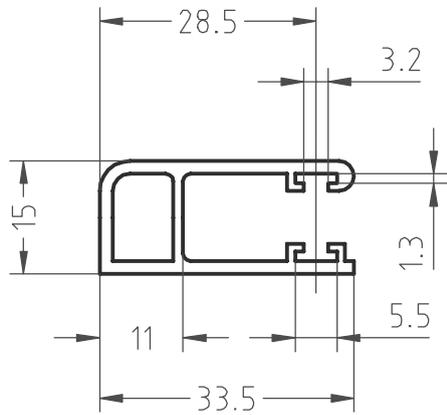
S 18.5



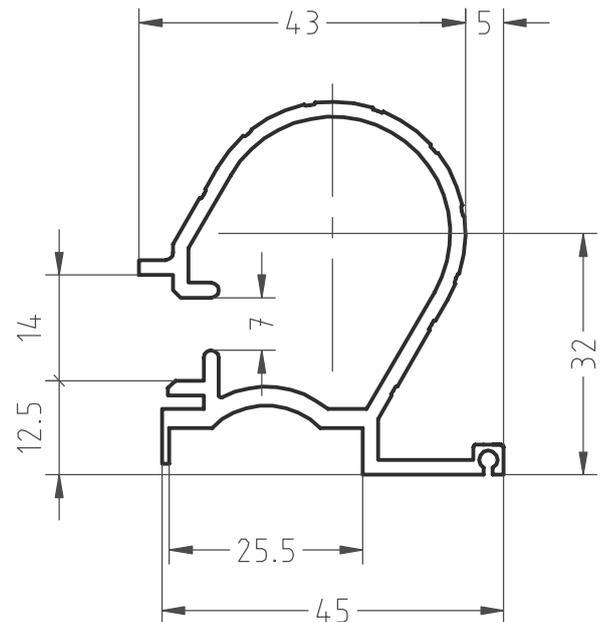
S 18.3



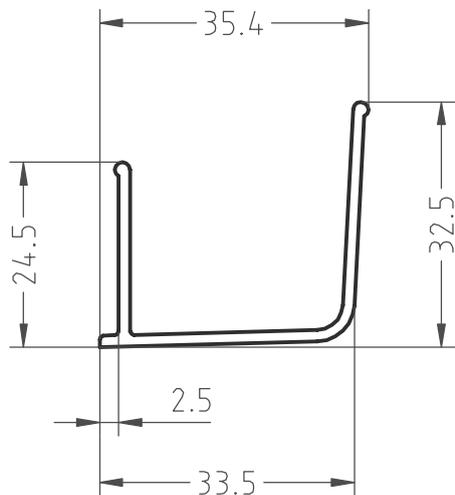
S 18.6



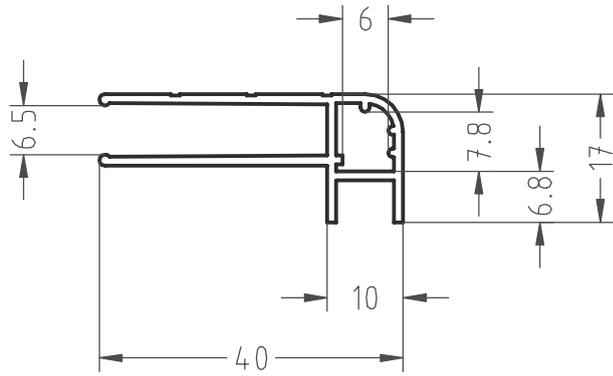
S 18.4



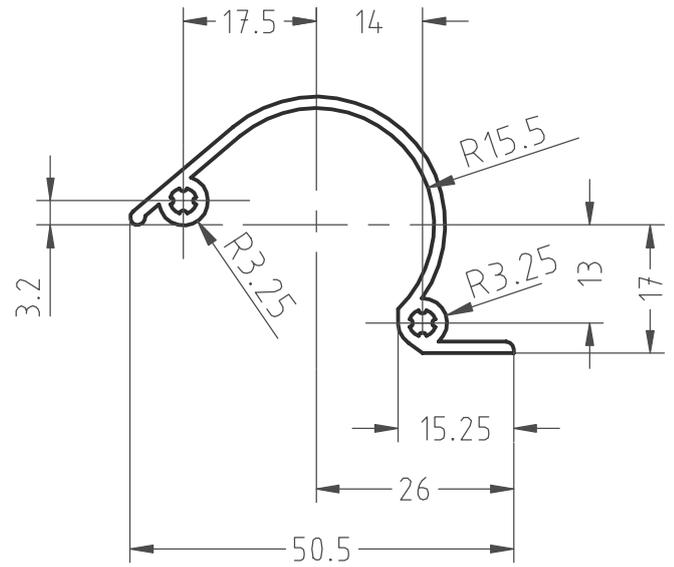
S 18.7



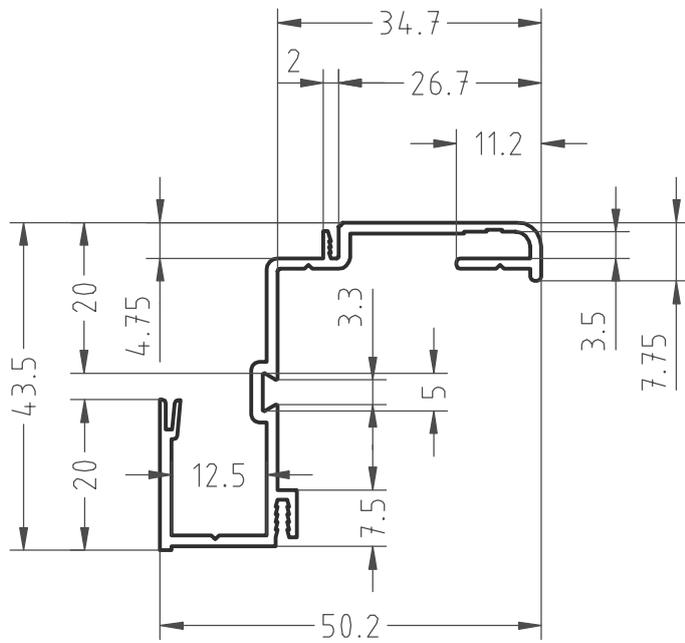
S 18.17



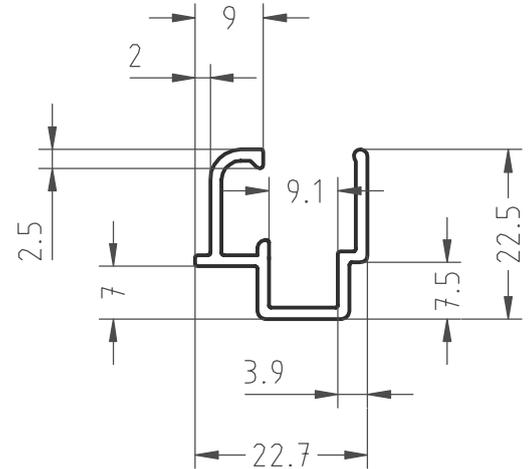
S 18.13



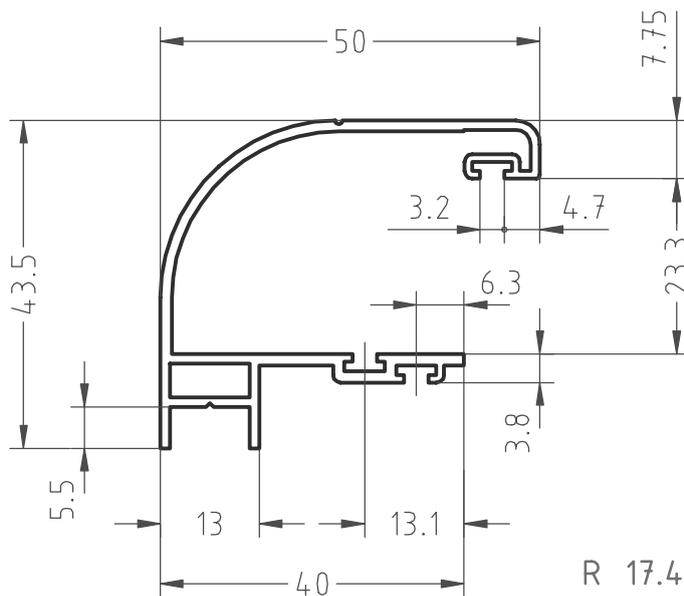
S 18.14



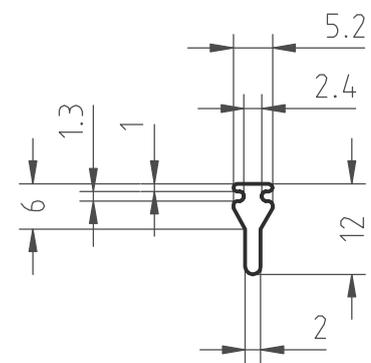
R 17.3



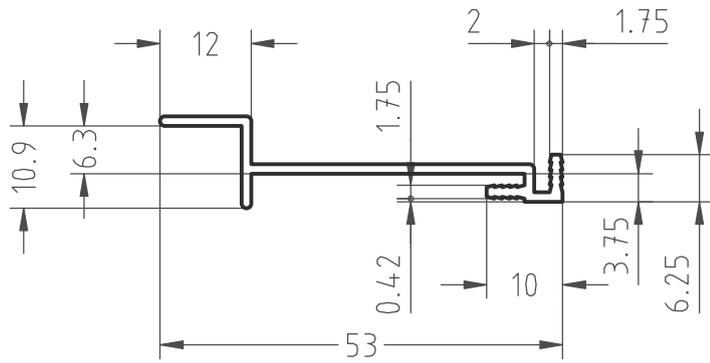
S 18.18



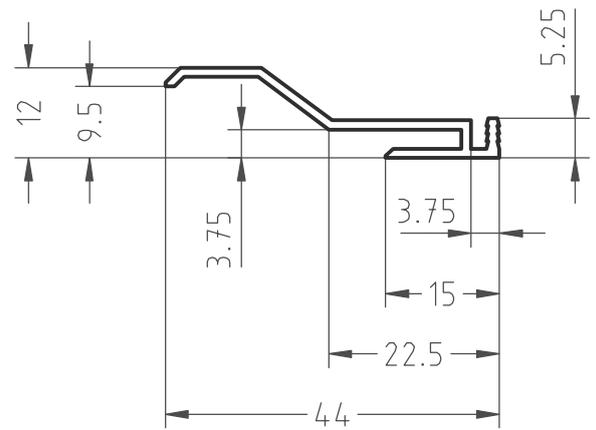
R 17.4



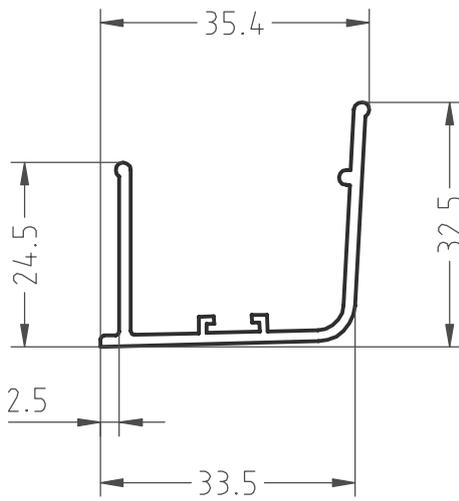
S 18.15



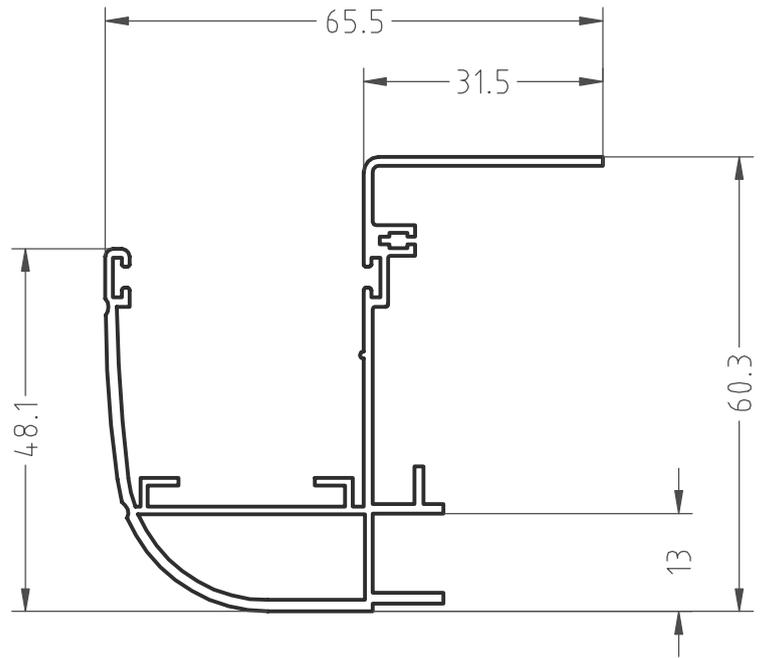
R 17.5



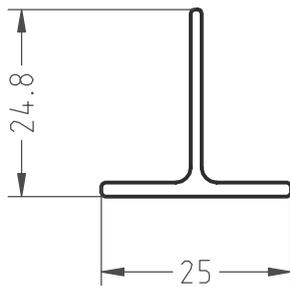
R 17.6



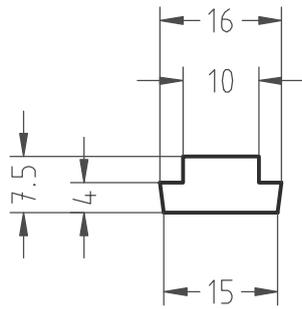
S 18.19



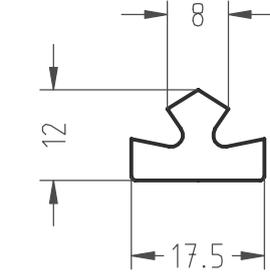
S 18.20



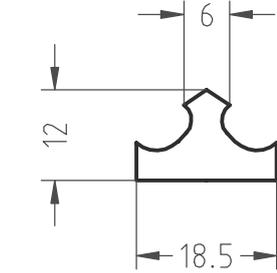
S 18.21



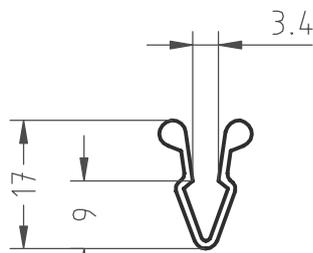
M 7.1



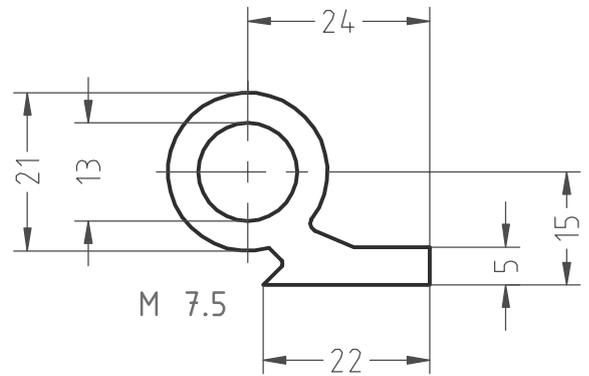
M 7.2



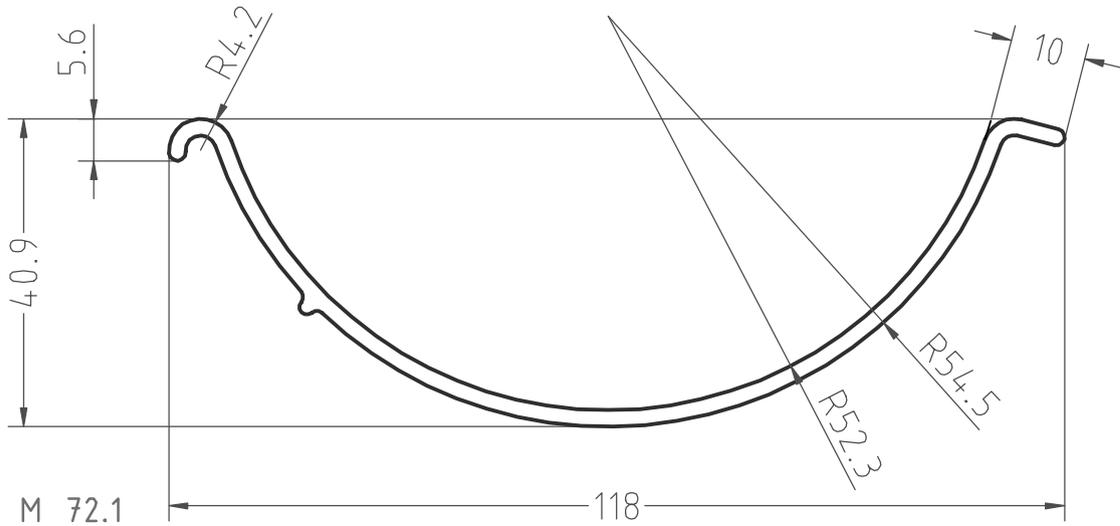
M 7.3



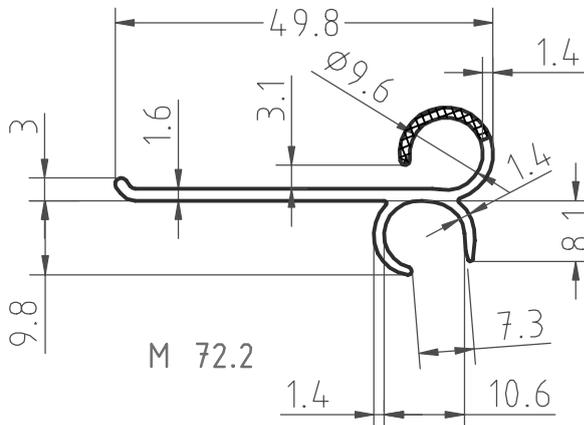
M 7.4



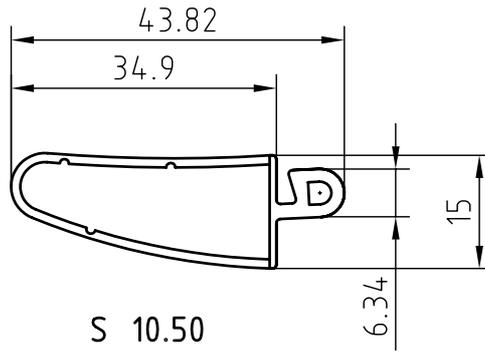
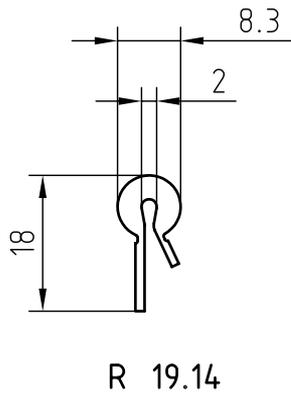
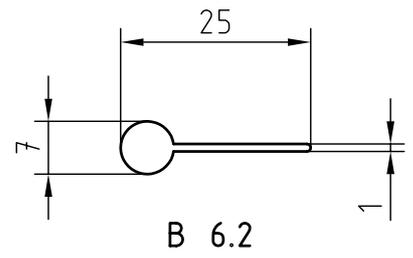
M 7.5

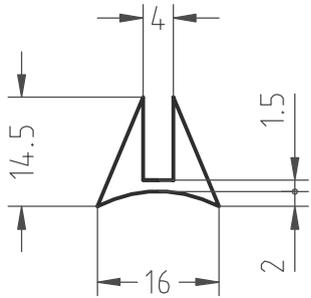
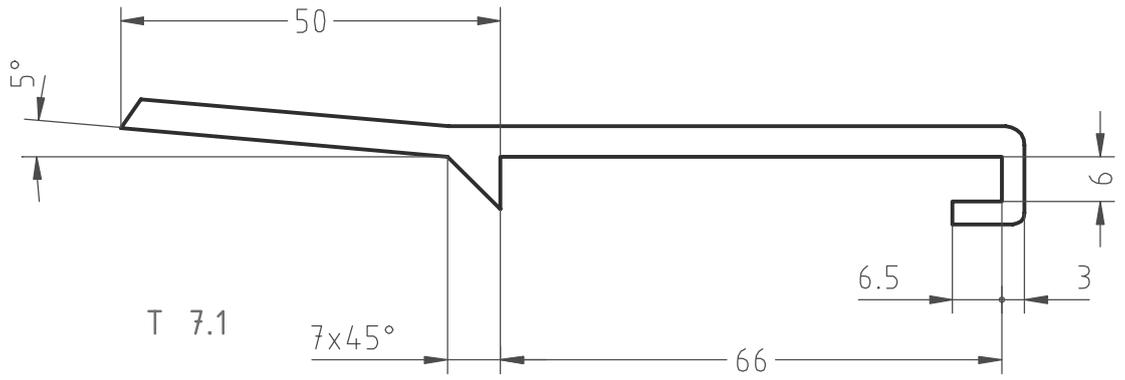


M 72.1

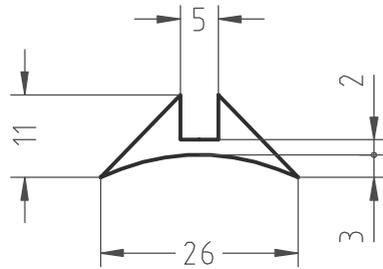


M 72.2

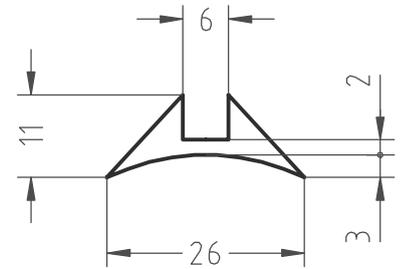




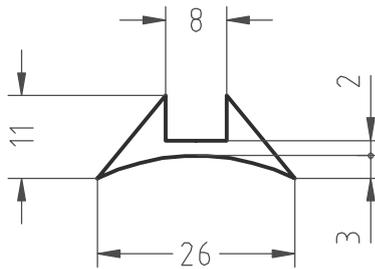
S15/F4



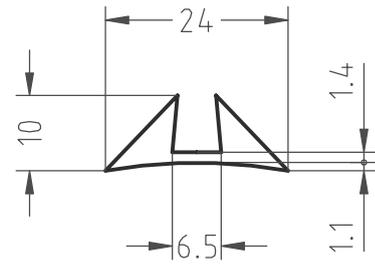
S15/F5



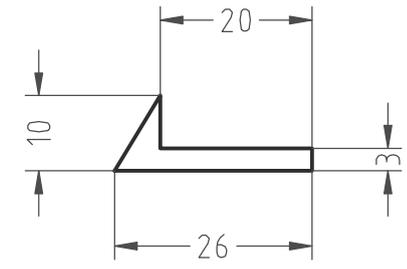
S15/F6



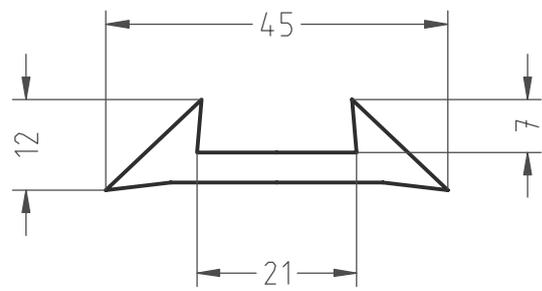
S15/F8



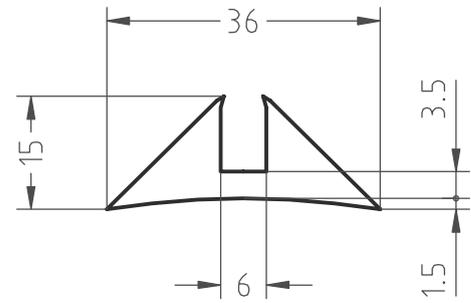
W 40.1



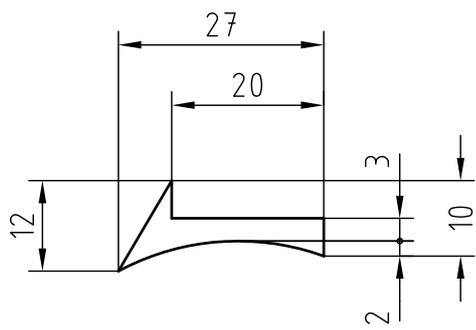
S15/G15



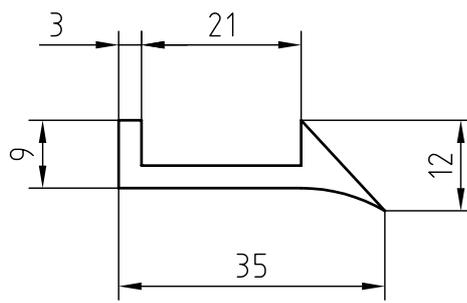
S15/F21



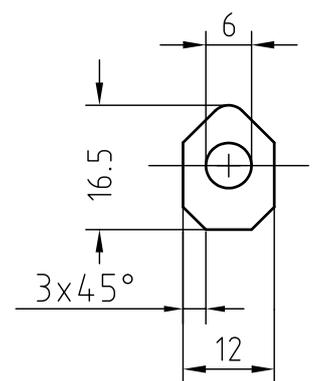
S15/F6-36



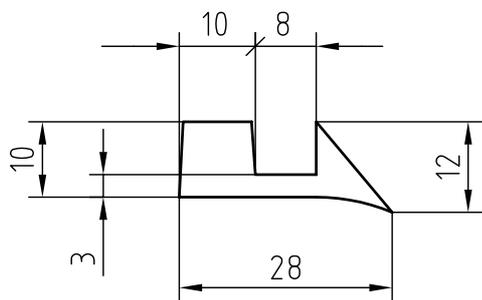
N 16.1



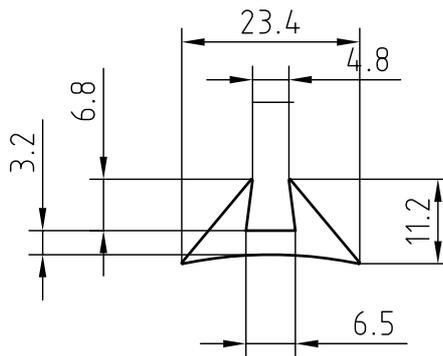
S15/G21



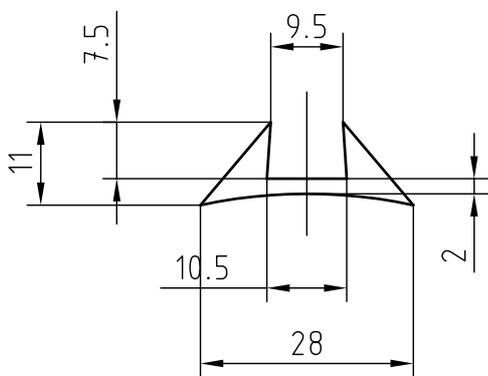
T 14.1



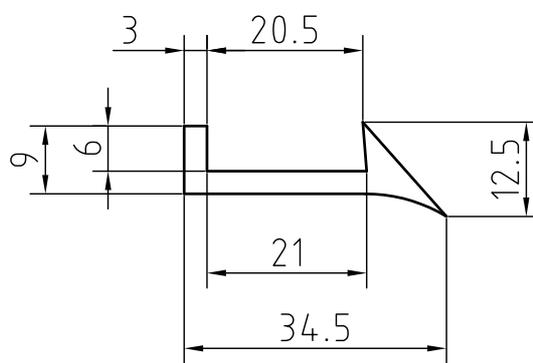
S15/G8



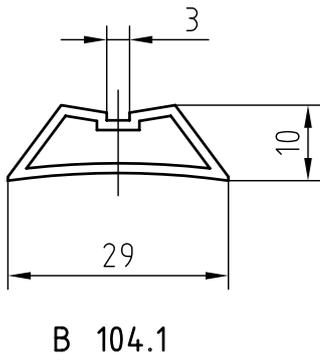
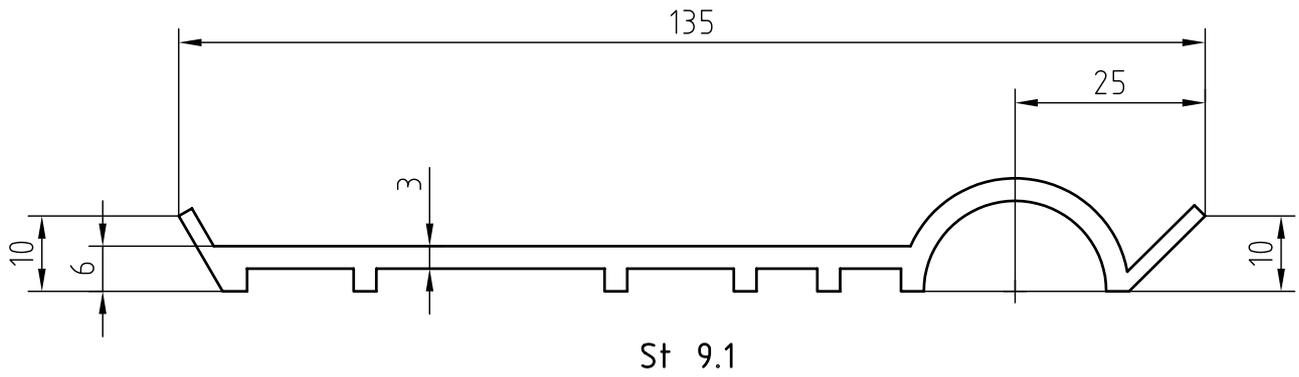
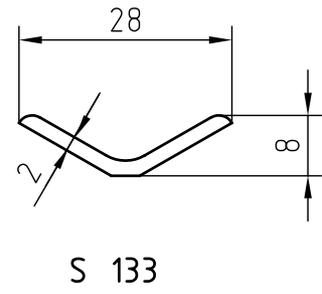
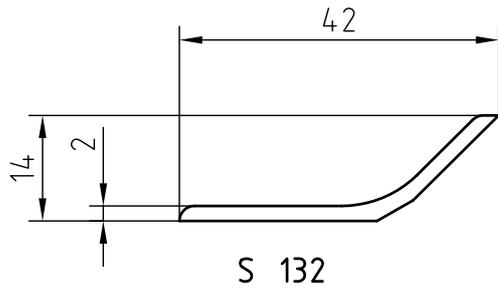
M 26.1

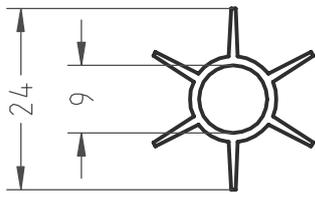


T 14.02

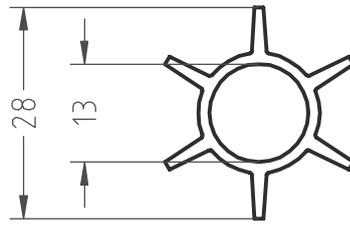


T 14.03

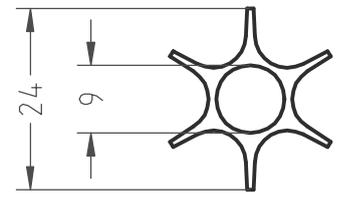




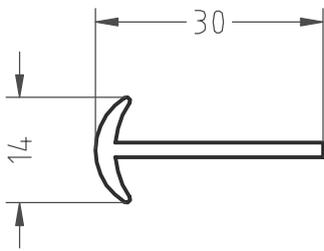
B 43.1



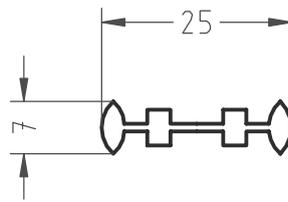
B 43.4



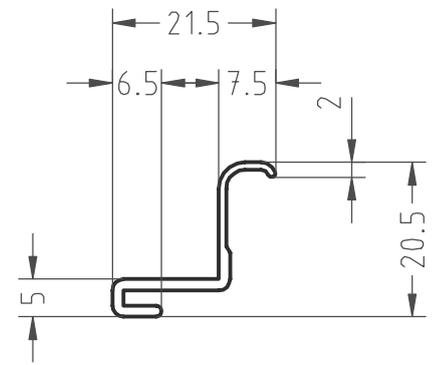
B 43



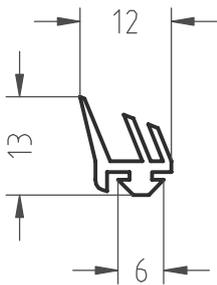
K 7.1



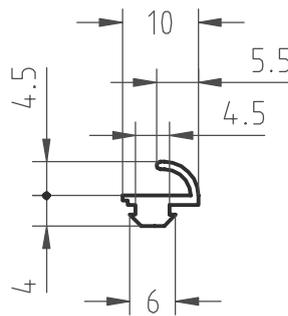
S 311



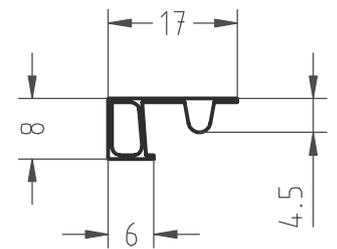
S 10.12



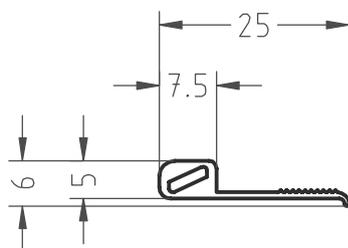
S 10.3



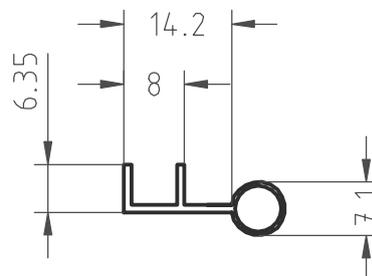
S 10.4



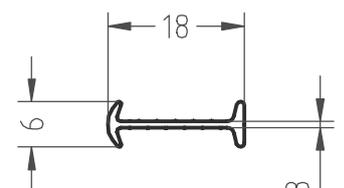
St 3.1



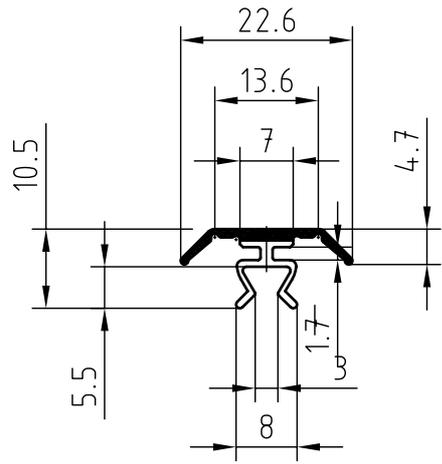
S 201



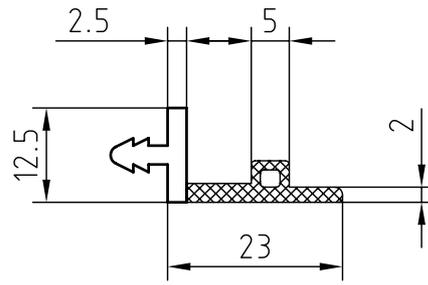
K 0.13



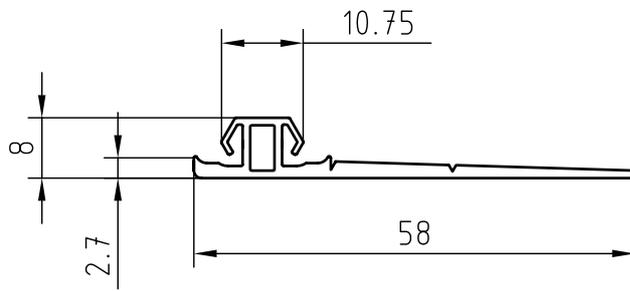
H 26.1



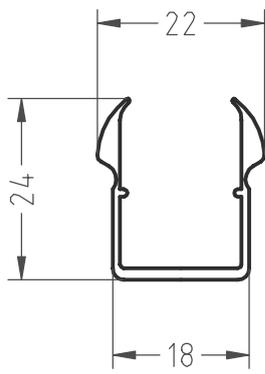
E 30.2



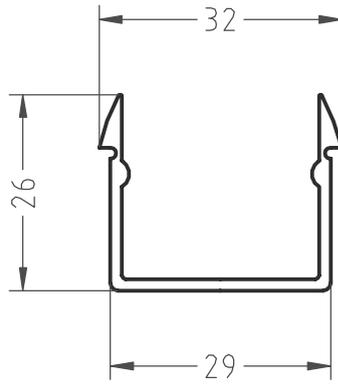
E 31.03



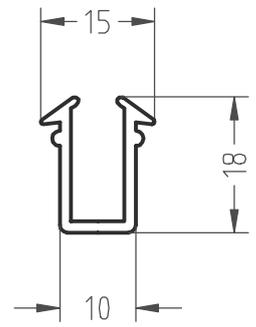
G 58.01



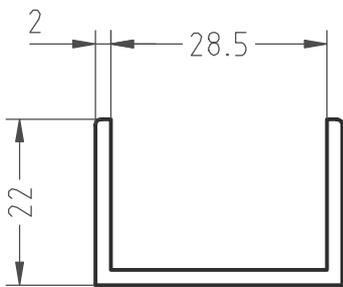
S 305



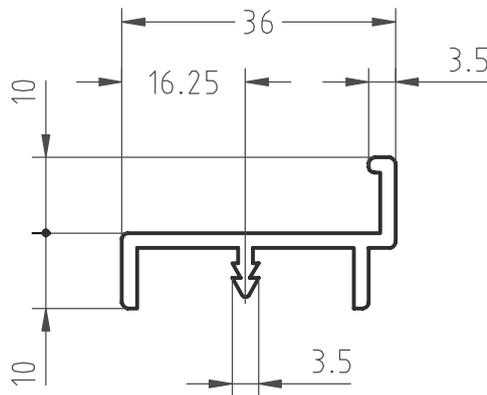
S 306



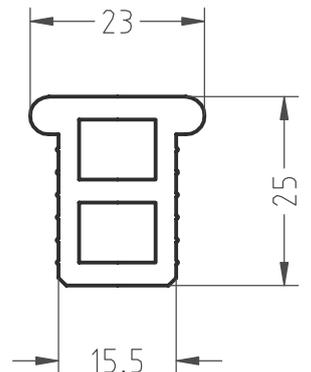
Sch 16.1



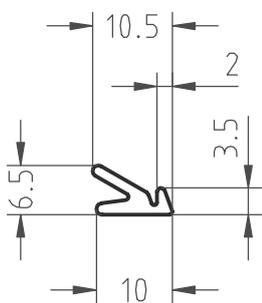
Sch 16.2



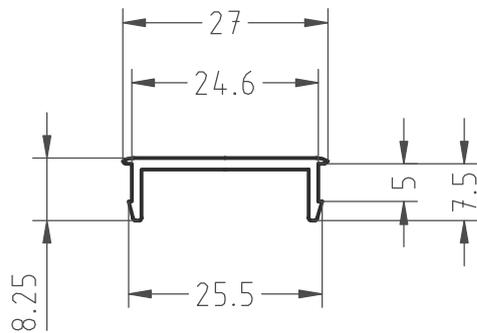
Sch 16.3



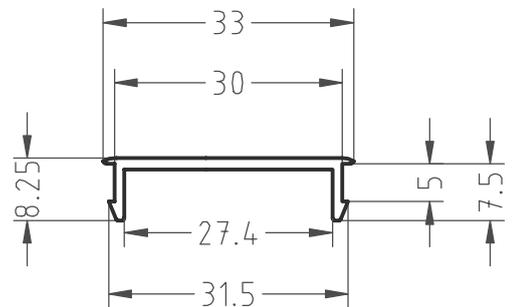
P 10.1



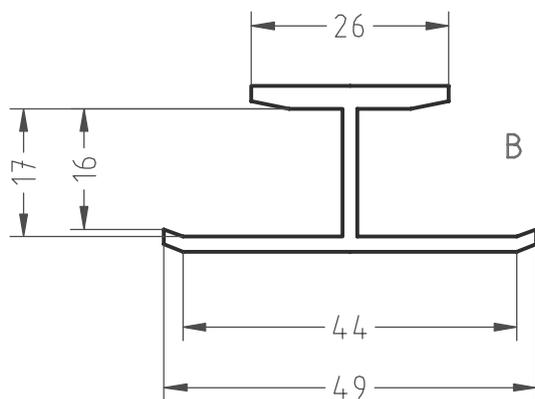
M 32.1



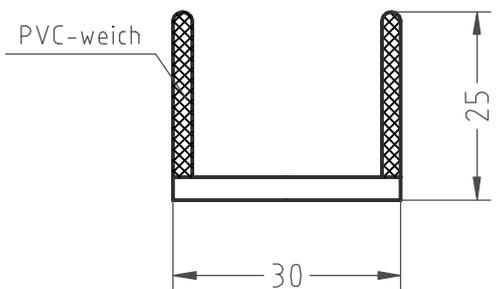
C 12.1



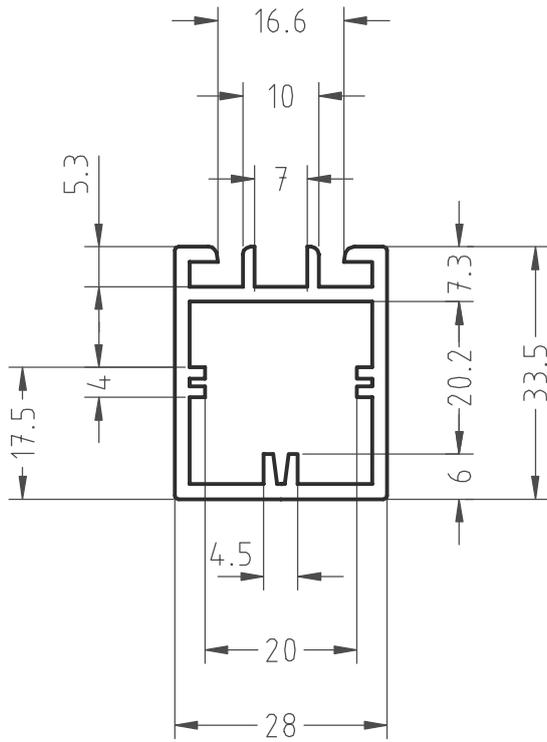
C 12.2



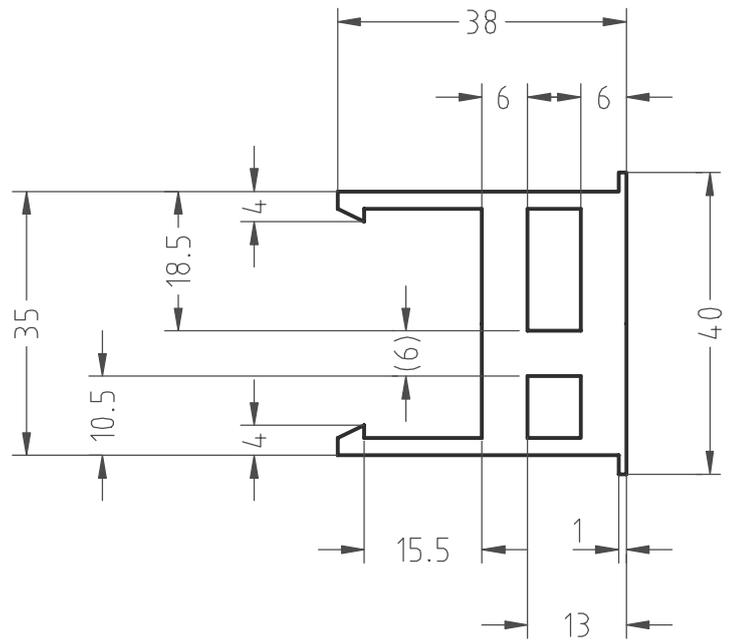
B 30.1



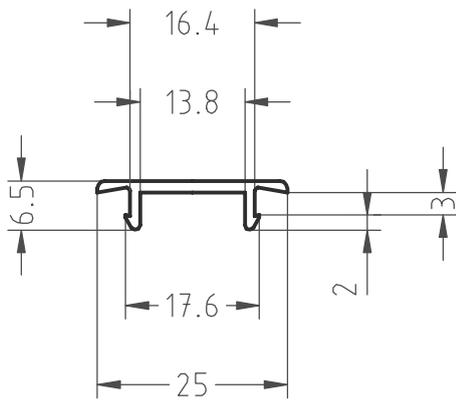
E 31.2



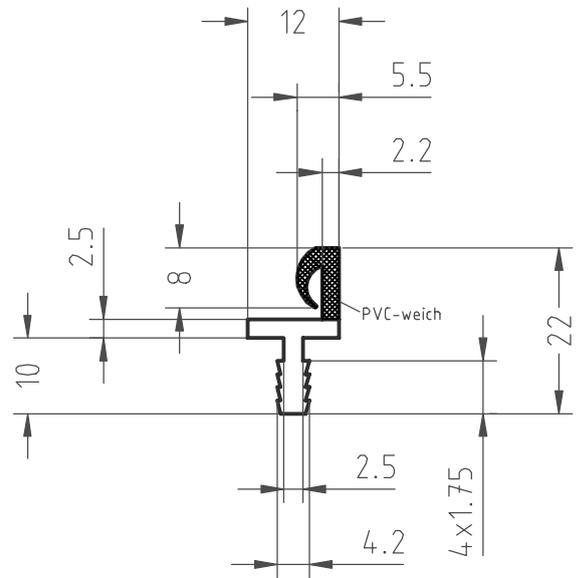
SCH 16.4



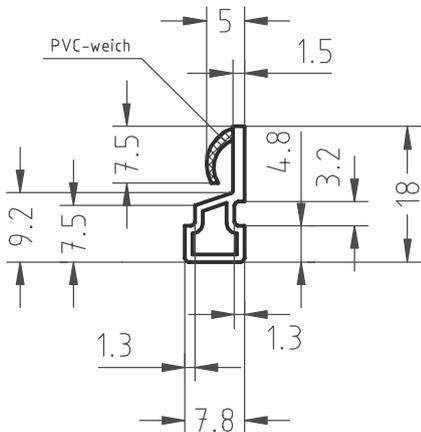
SCH 16.5



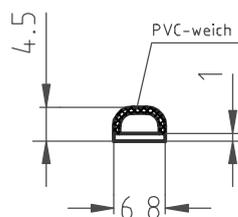
SCH 16.6



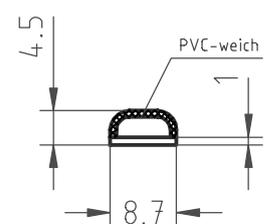
E 31.1



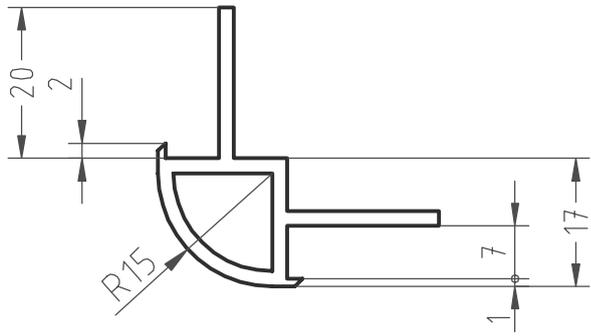
R 16.9



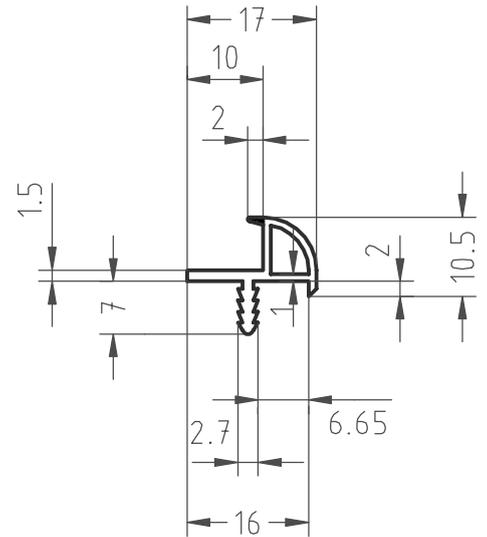
Sch 16.7



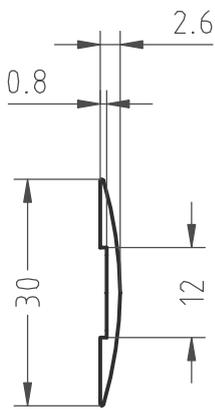
Sch 16.8



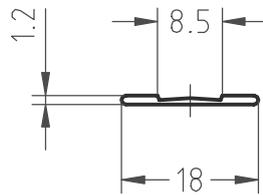
W 18.1



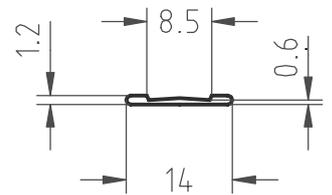
W 18.5



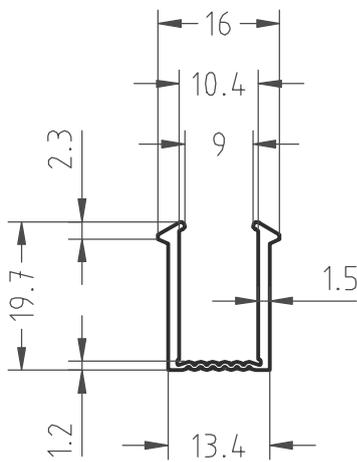
H 43.1



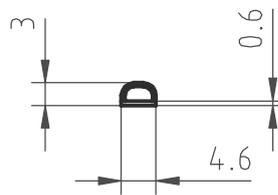
M 46.1



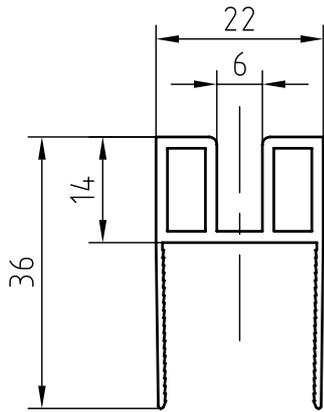
M 46.2



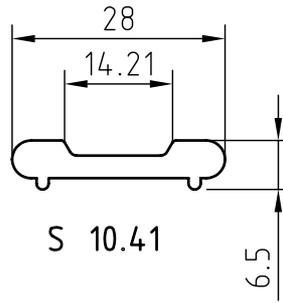
C 12.3



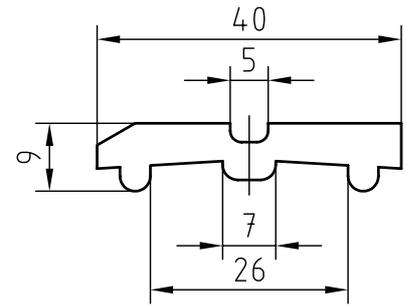
Sch 16.9



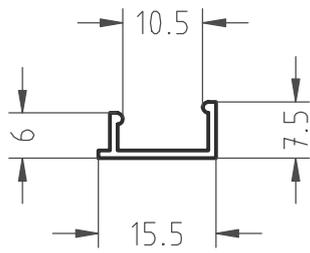
K 76.01



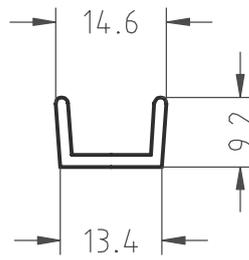
S 10.41



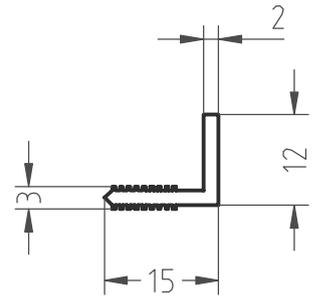
S 10.42



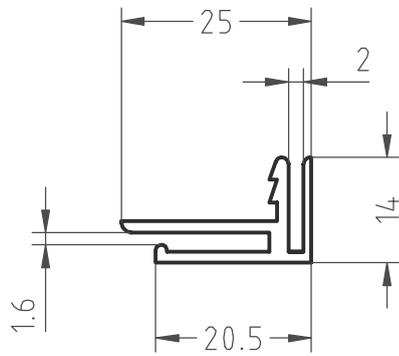
R 6.2



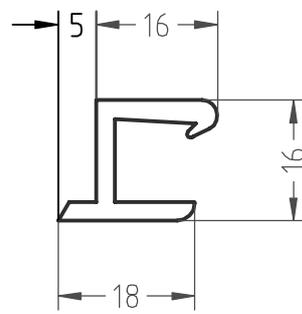
S 11.1



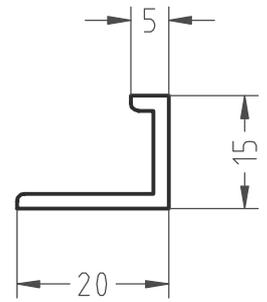
W 8.1



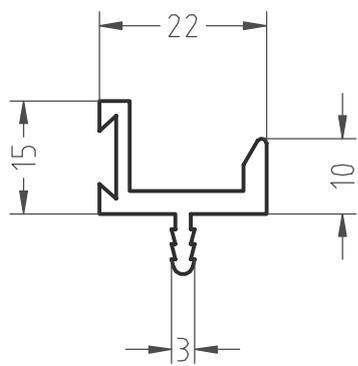
R 6.3



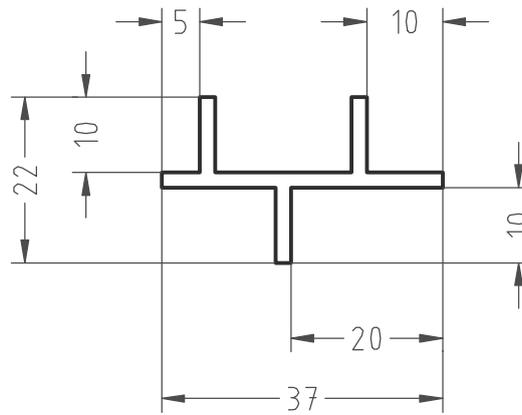
R 6.4



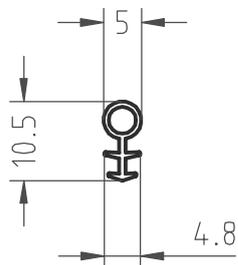
R 6.5



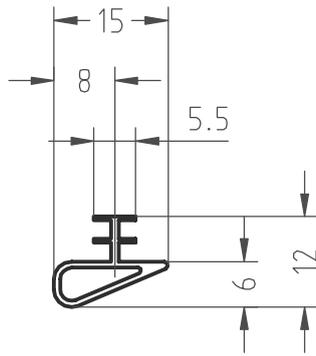
W 8.2



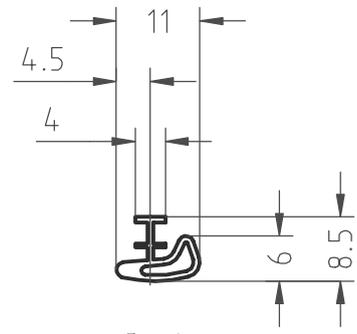
T 24.1



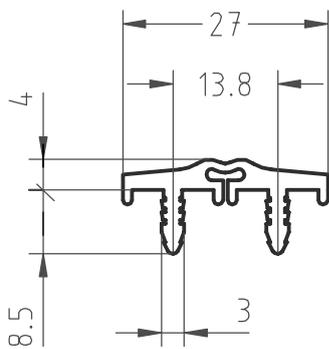
K 0.10



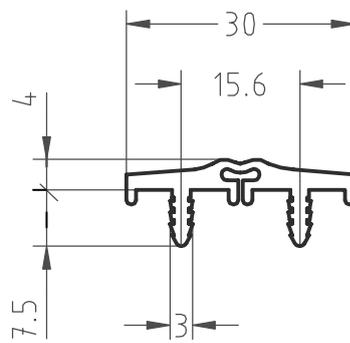
H 17.1



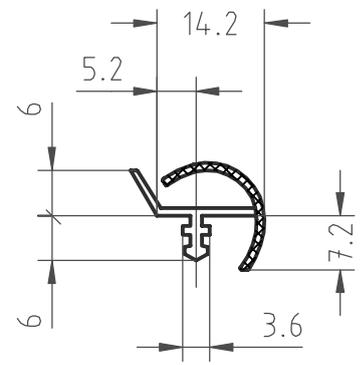
P 6.2



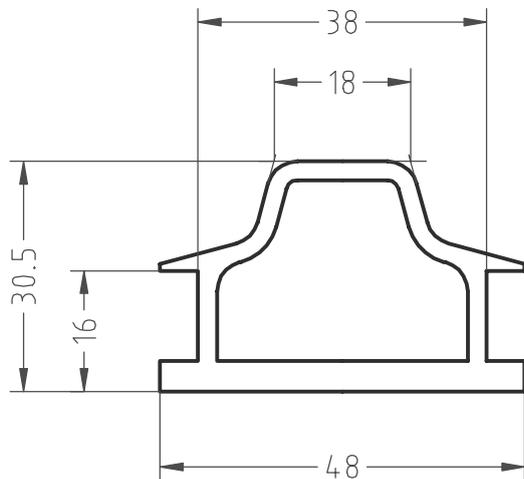
M 19.1



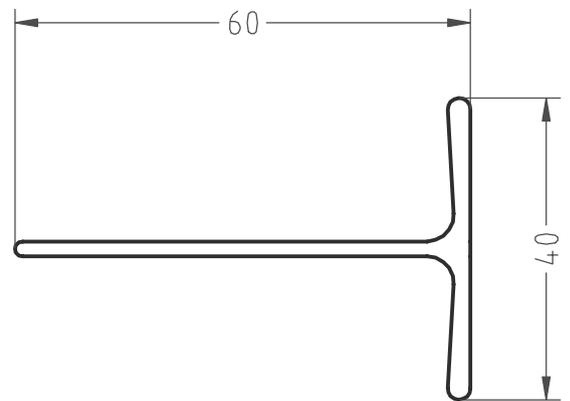
M 19.2



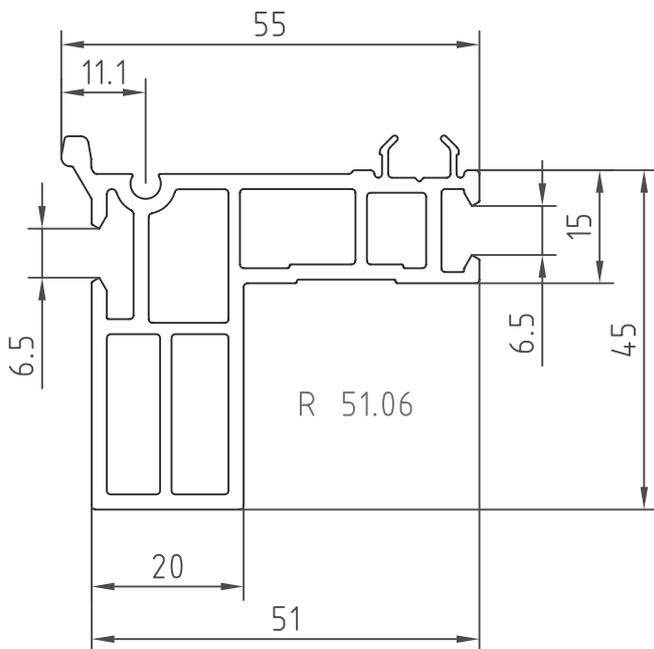
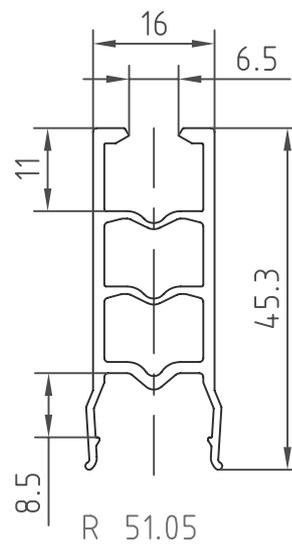
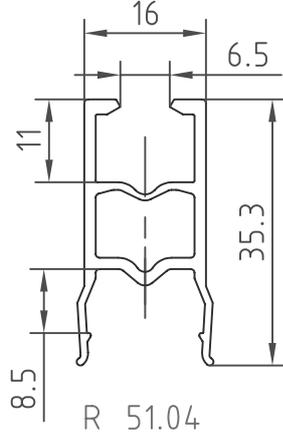
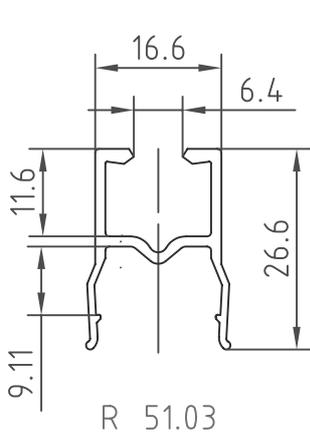
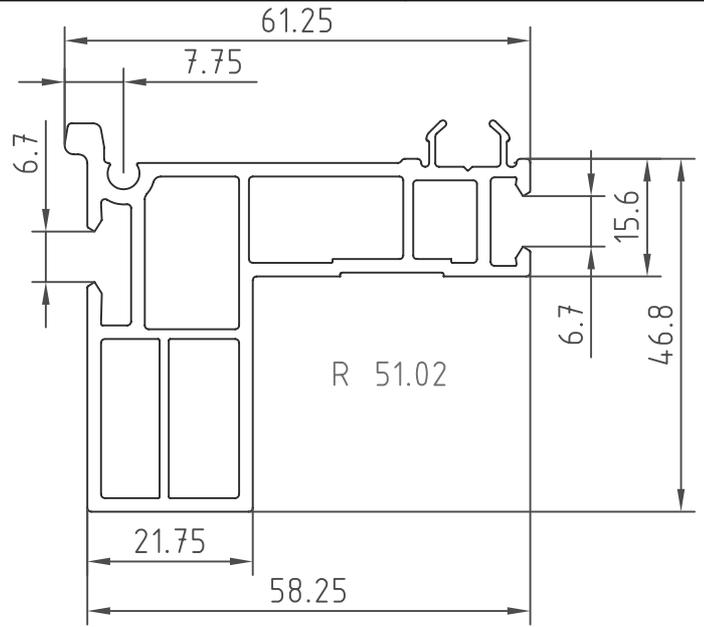
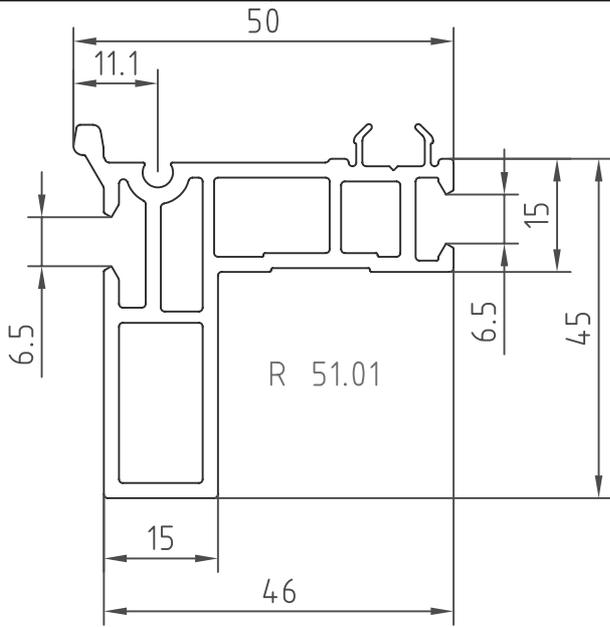
F 7.1

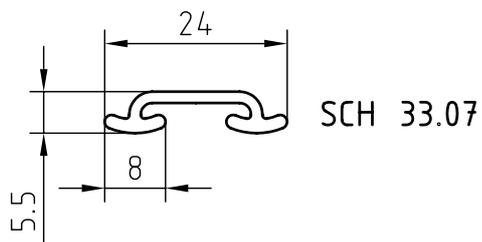
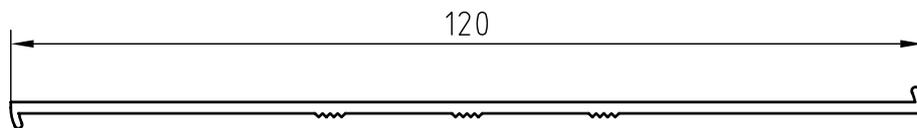
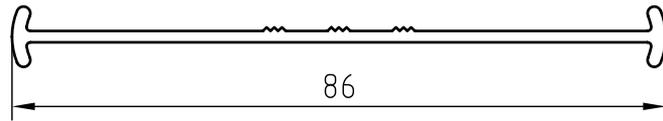
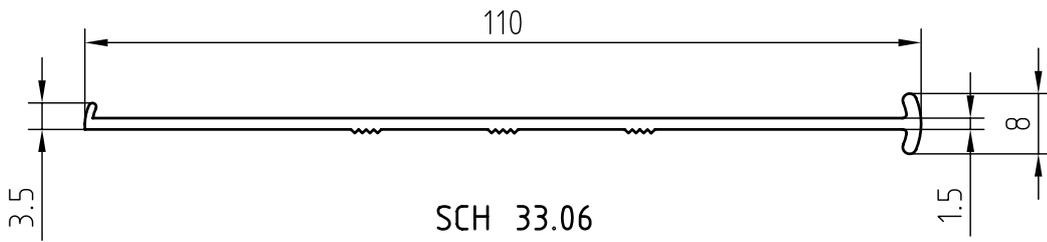


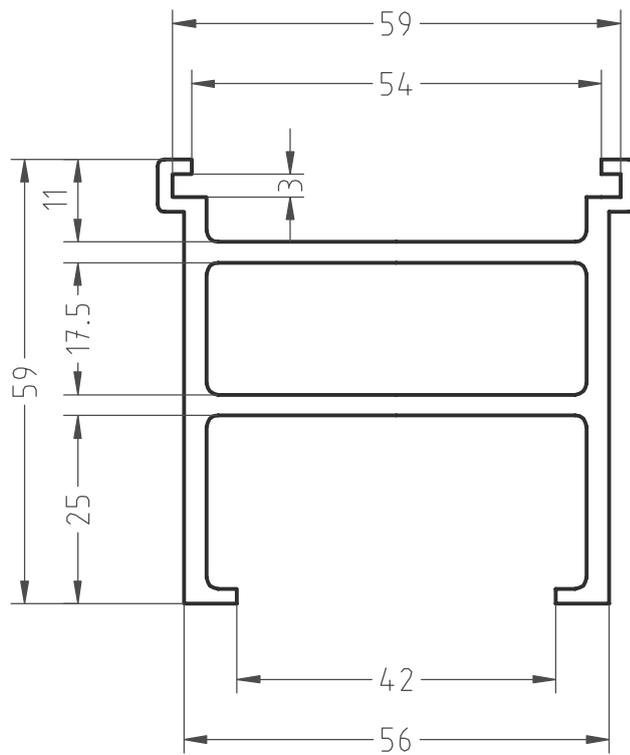
M 19.3



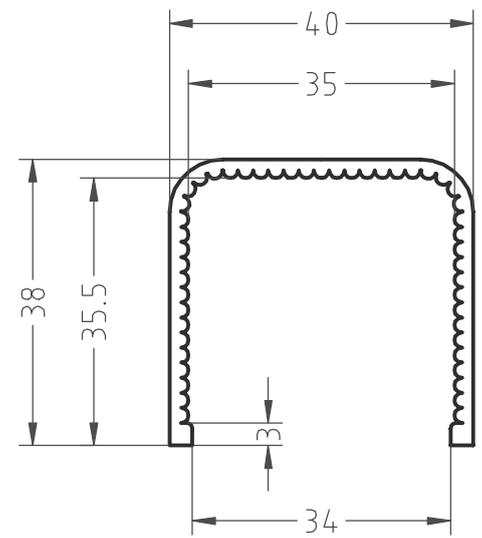
E 14



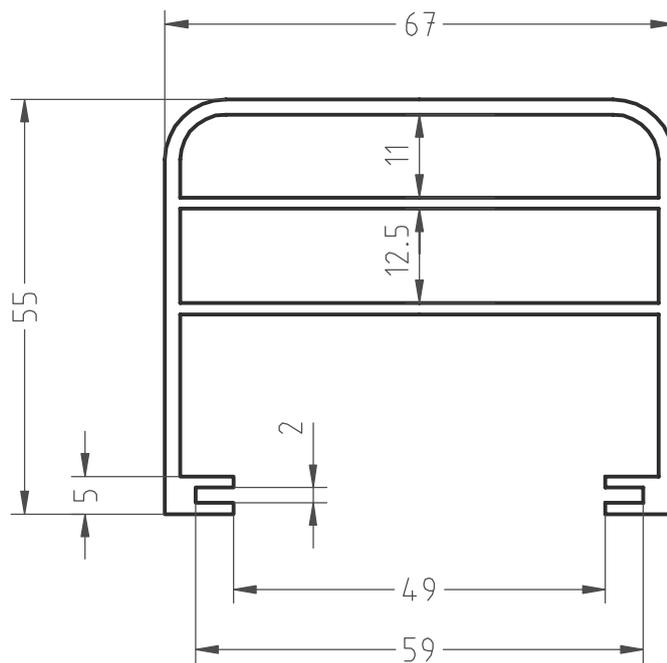




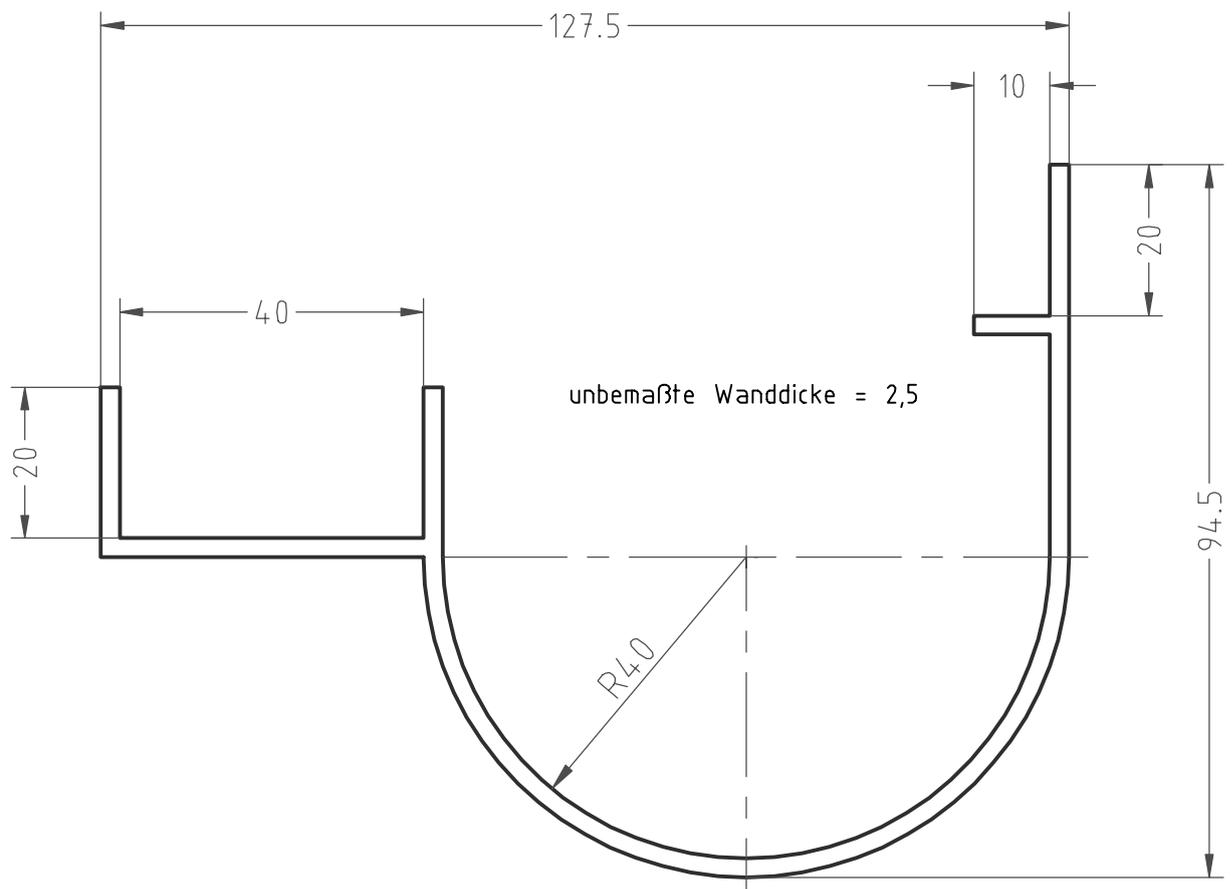
D 4.2



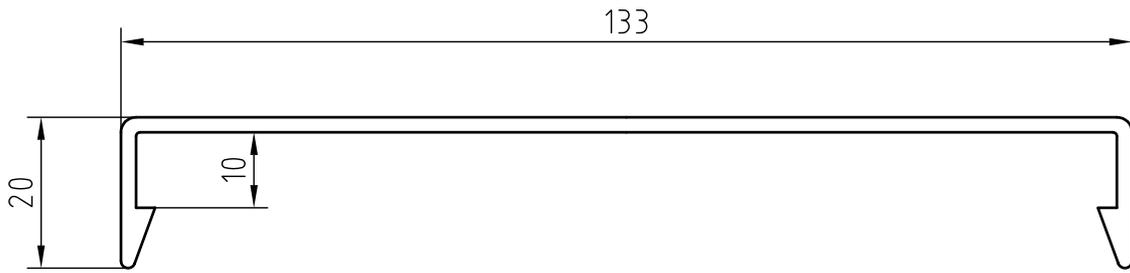
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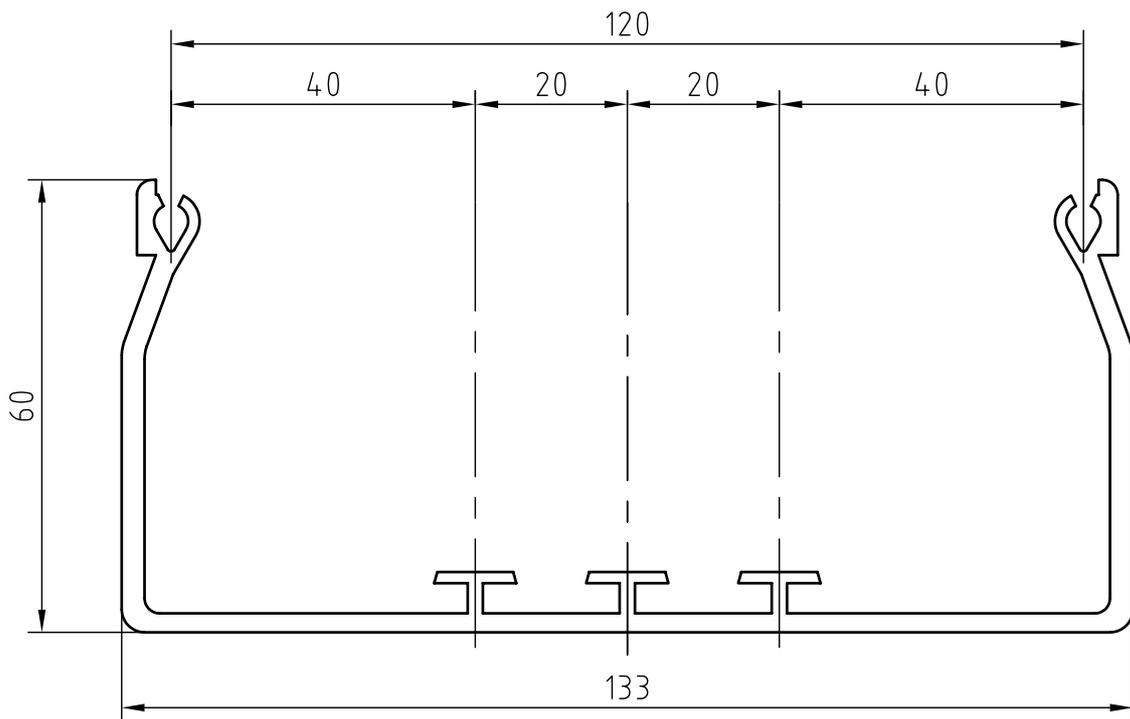
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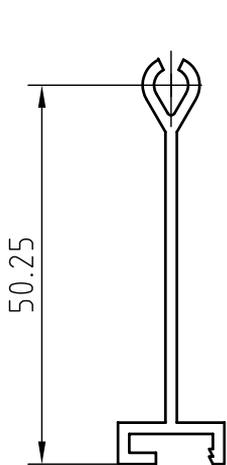
A 14.1



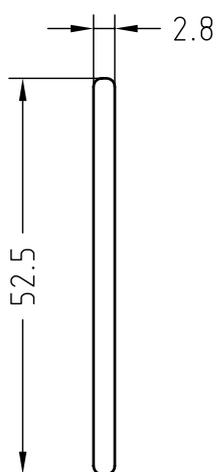
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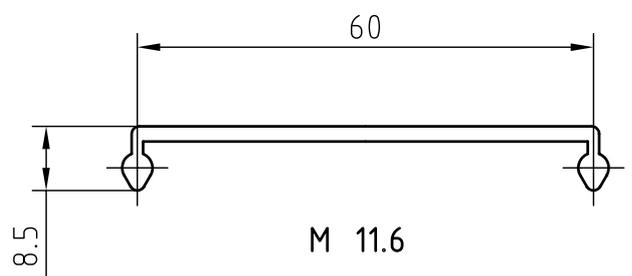
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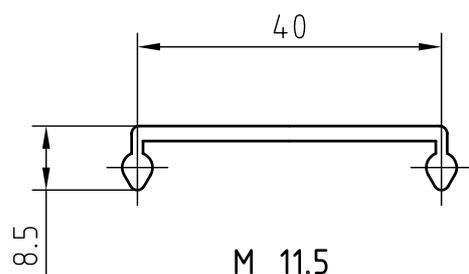
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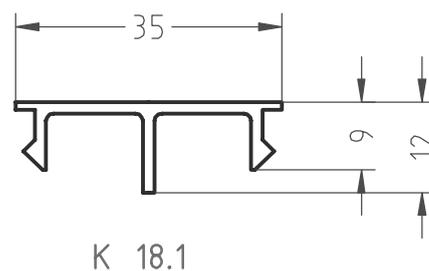
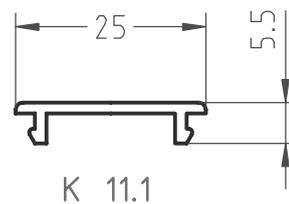
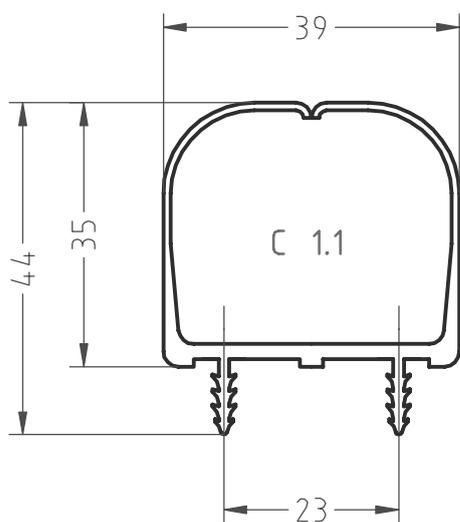
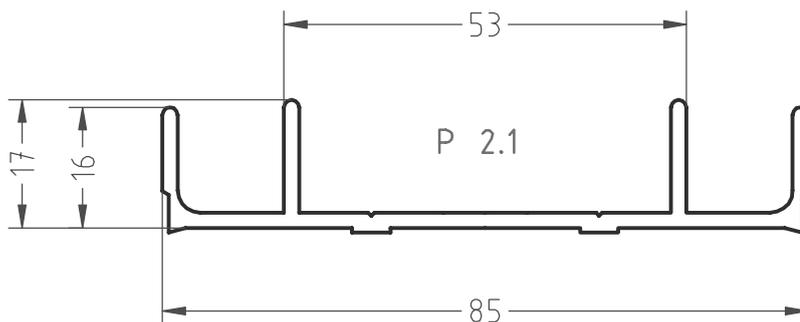
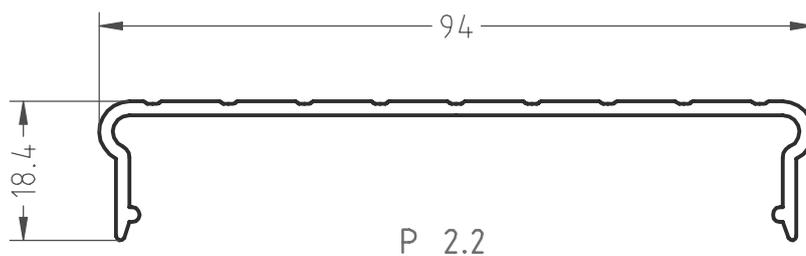
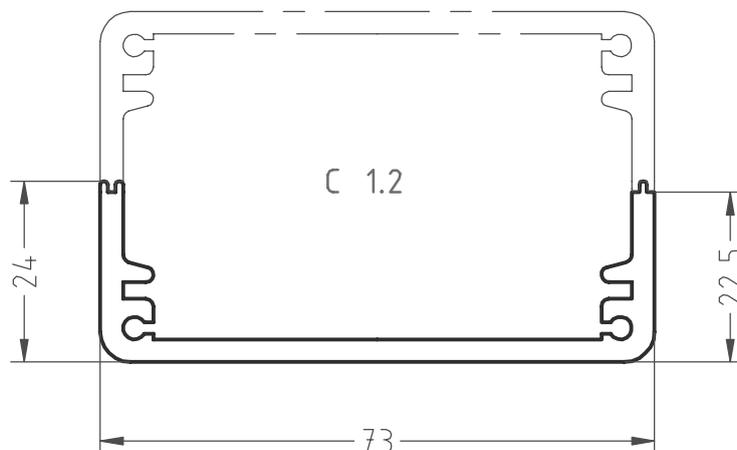
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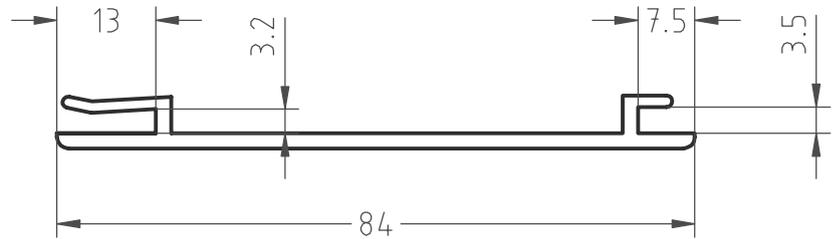
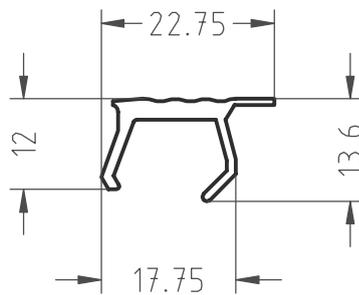
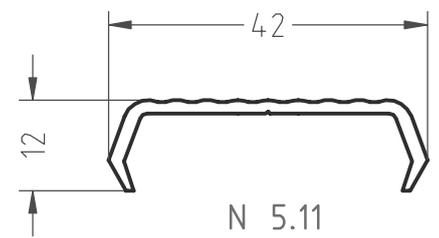
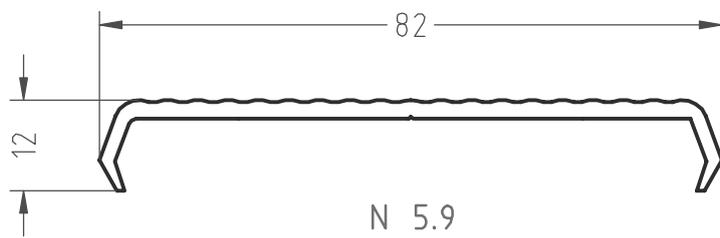
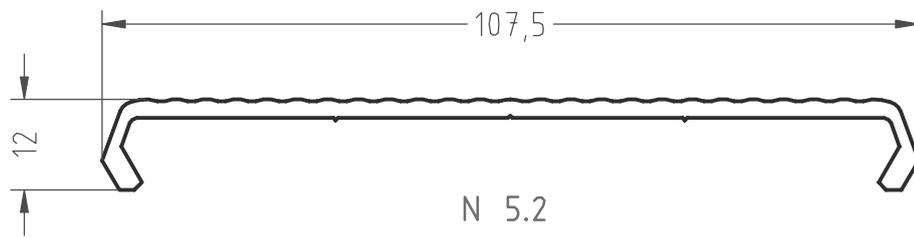


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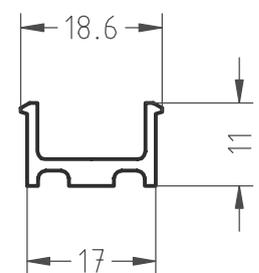
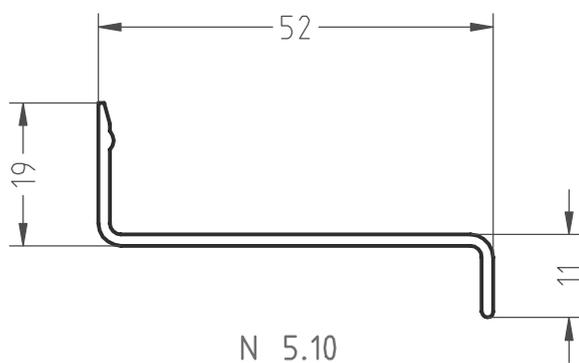
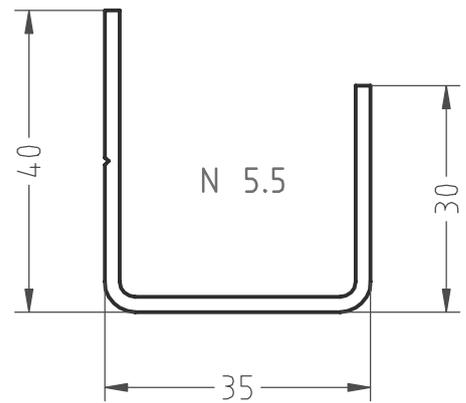
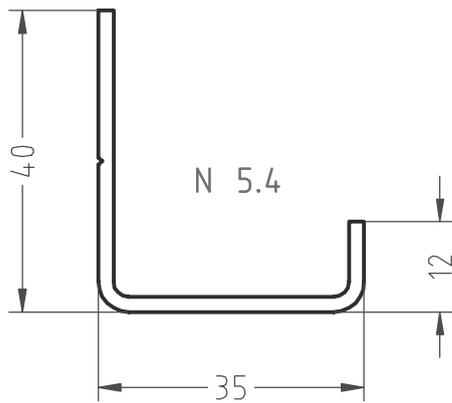
M 11.5





N 5.8

W 17.1



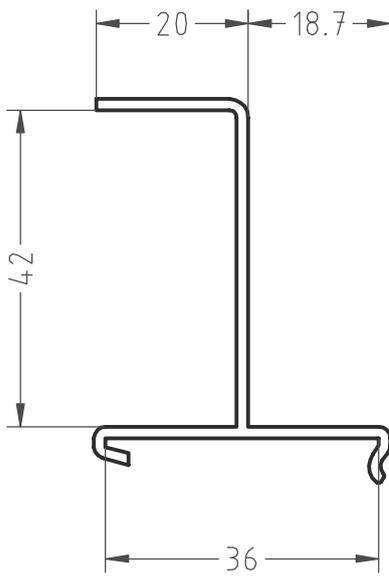
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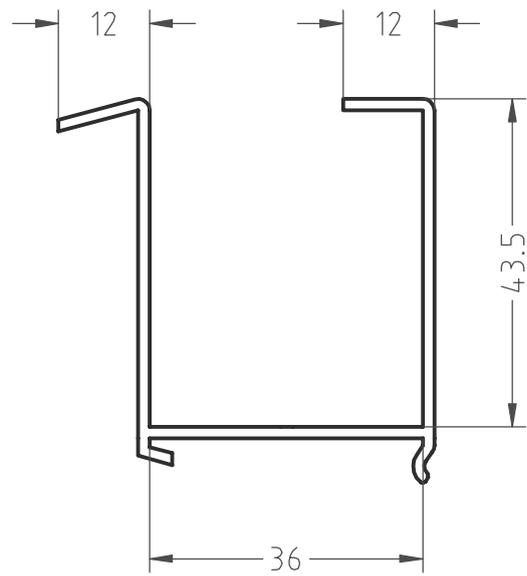
kühnplast

Brüstungskanal - Deckel  
Trenstege

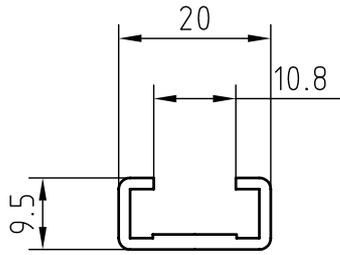
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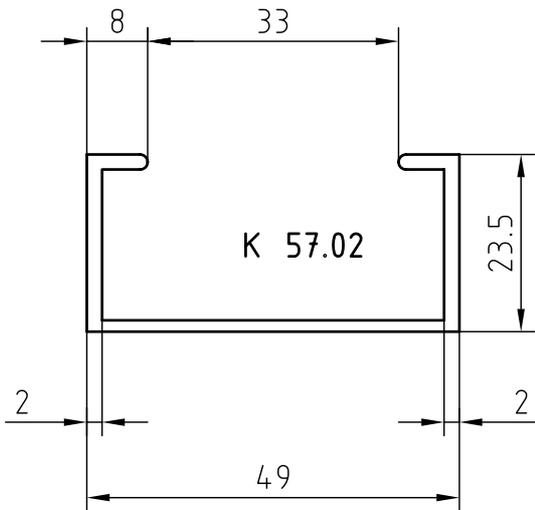
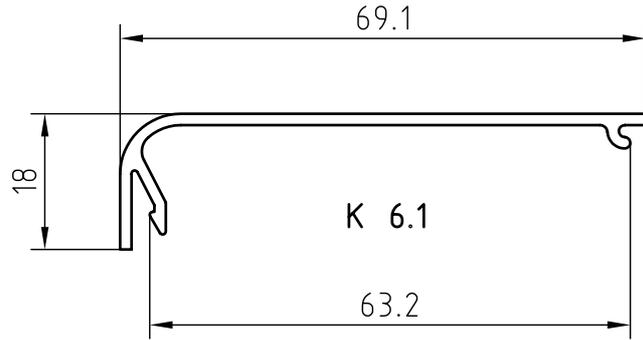
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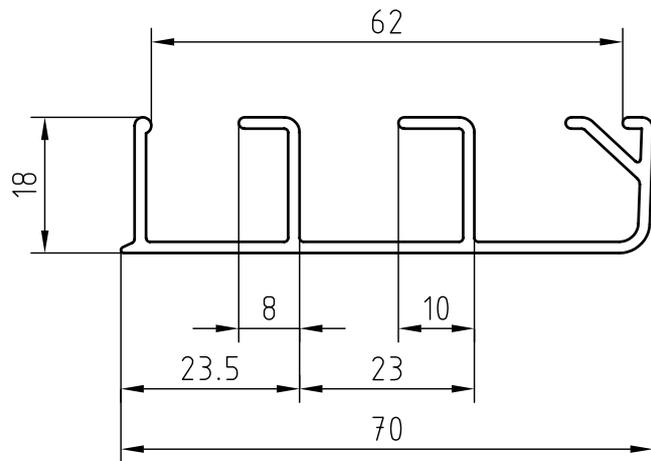
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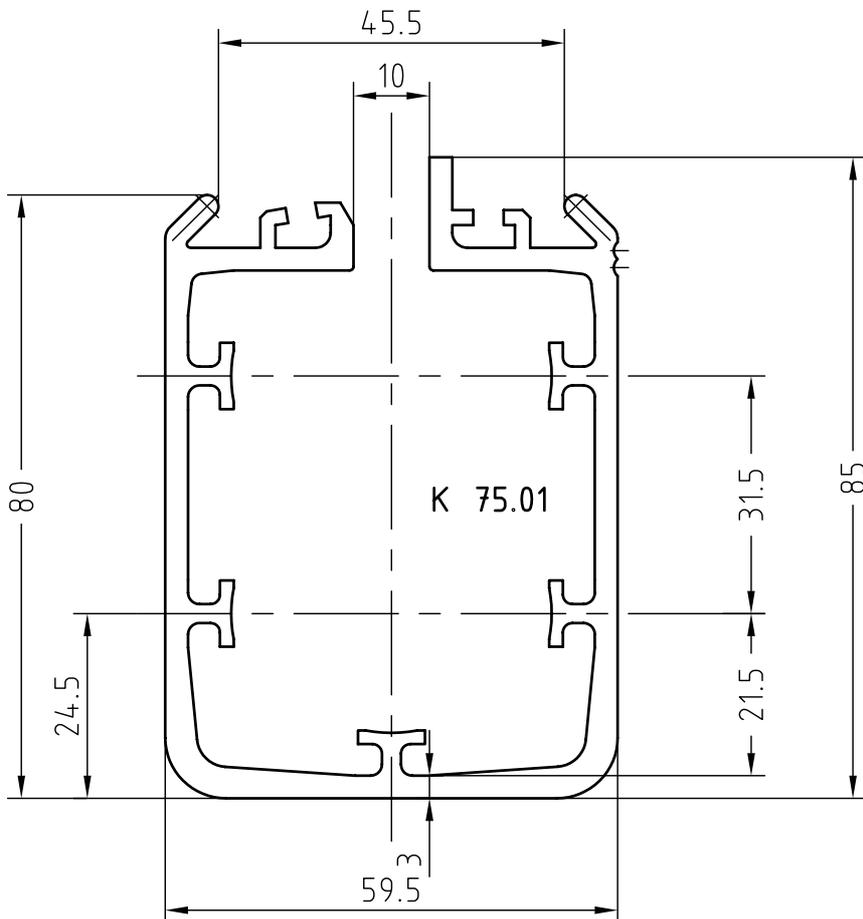
K 6.3



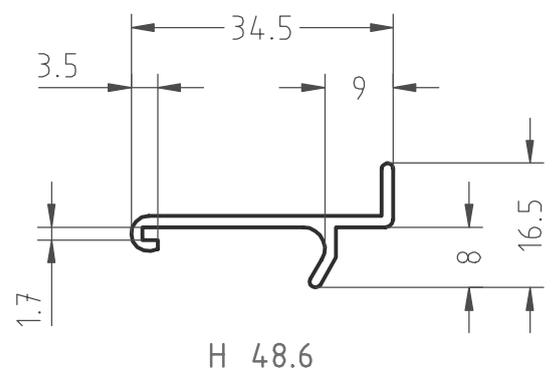
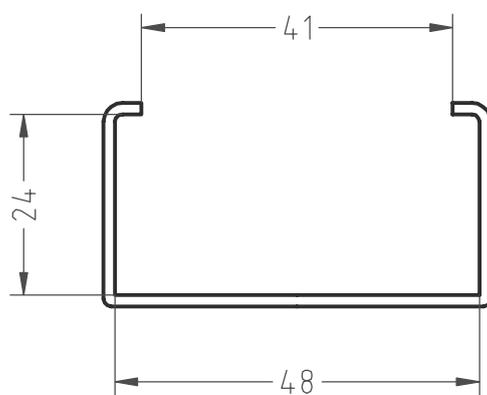
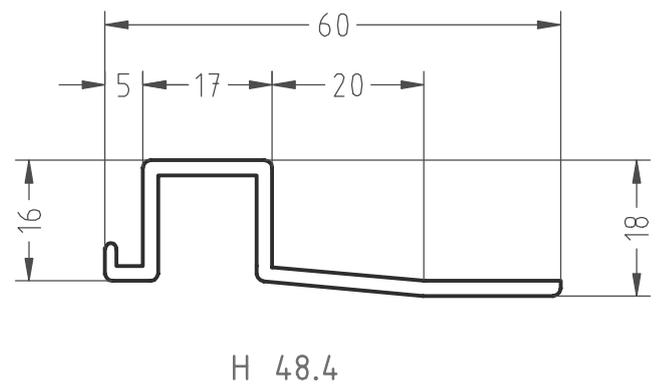
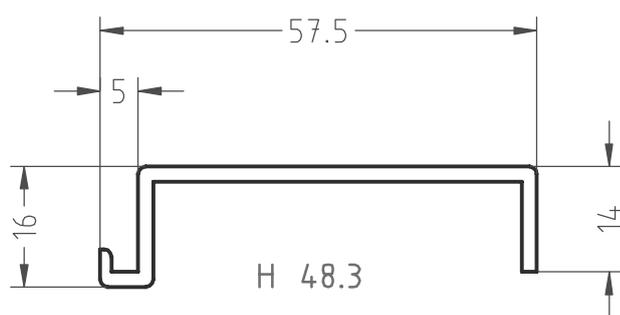
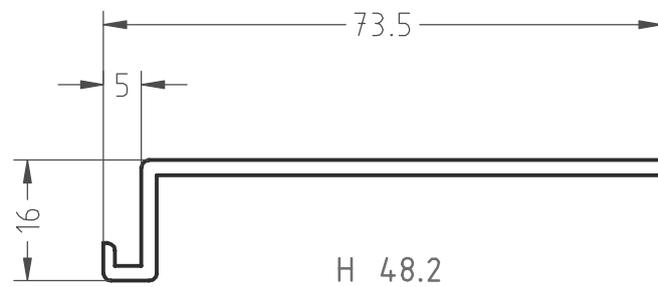
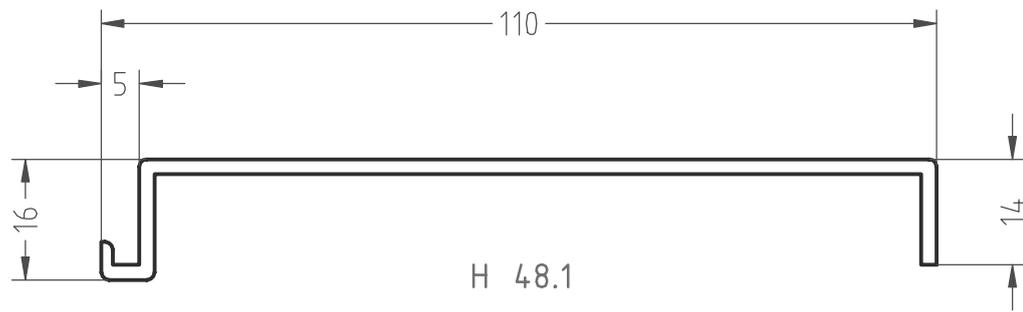
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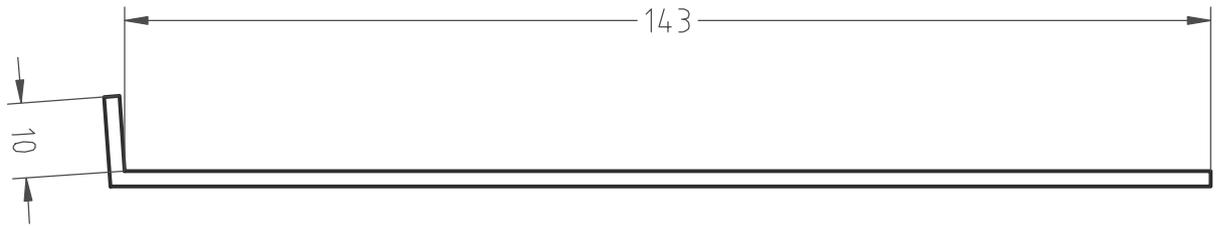


K 6.2

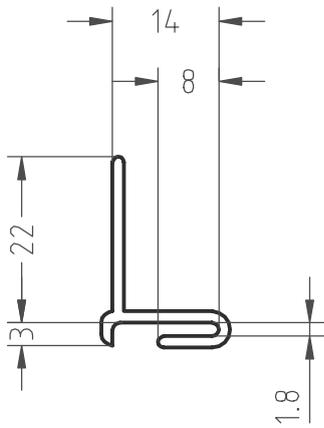


K 75.01

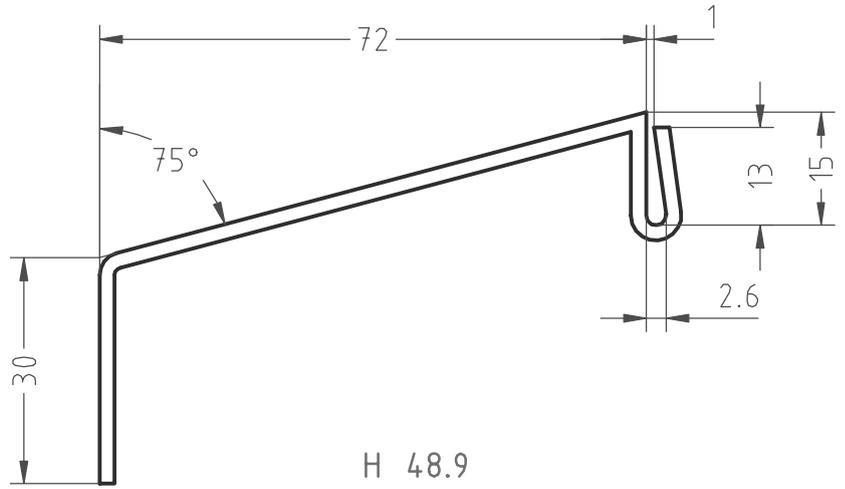




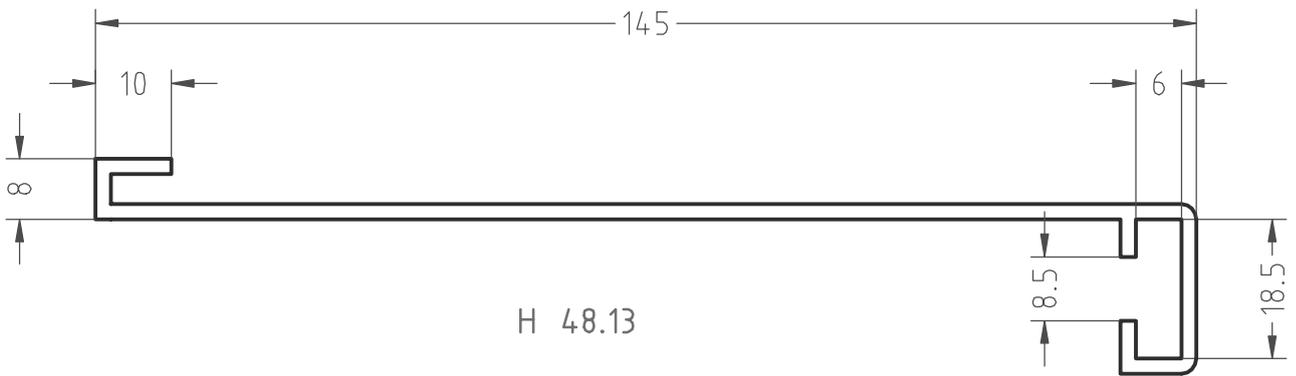
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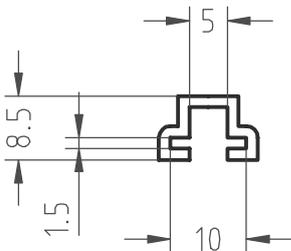
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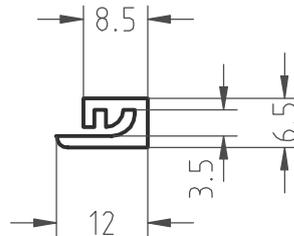
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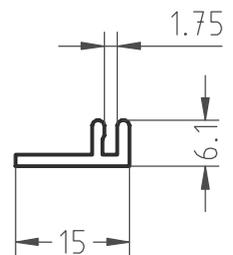
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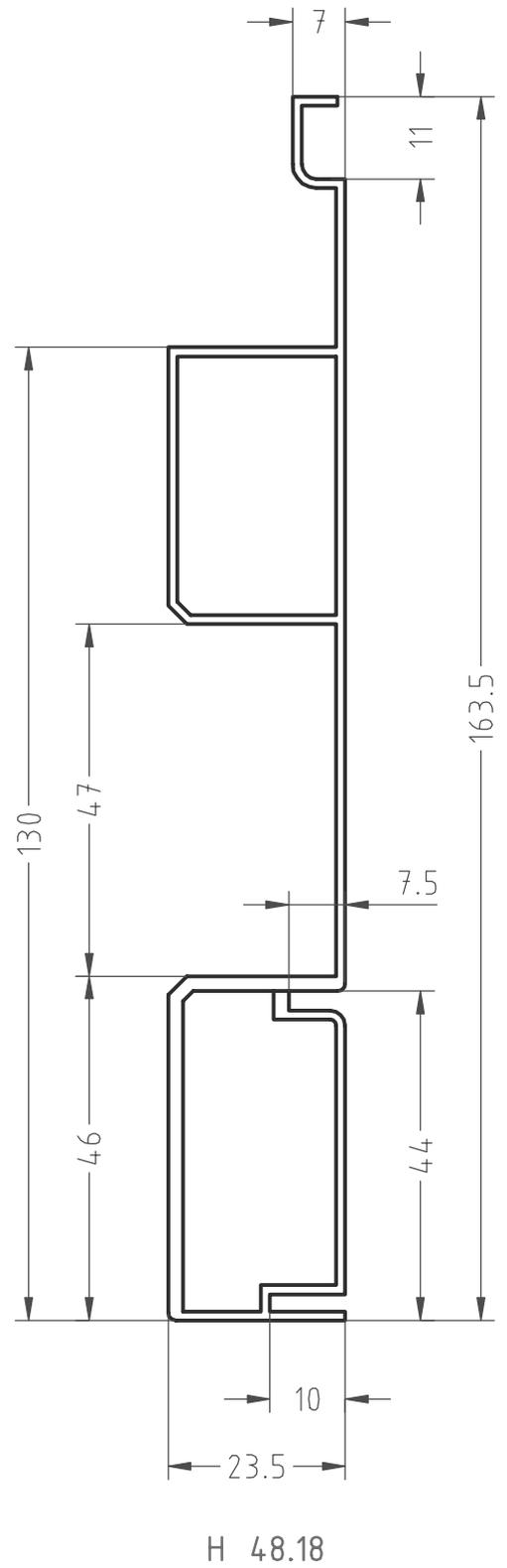
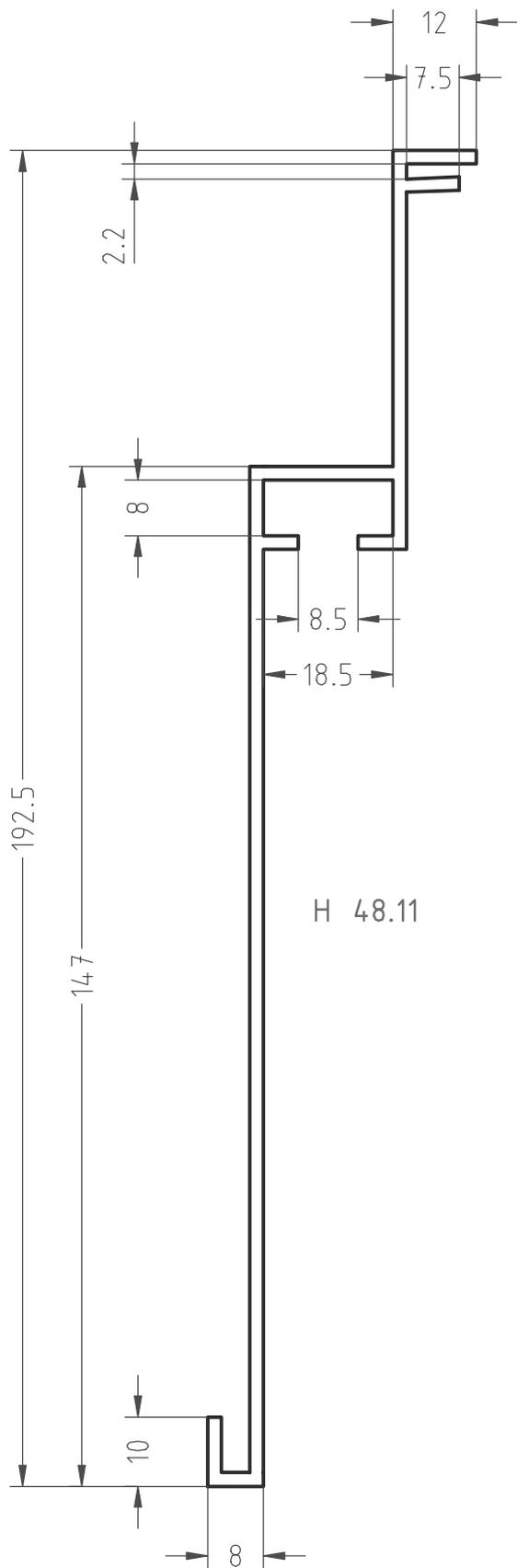
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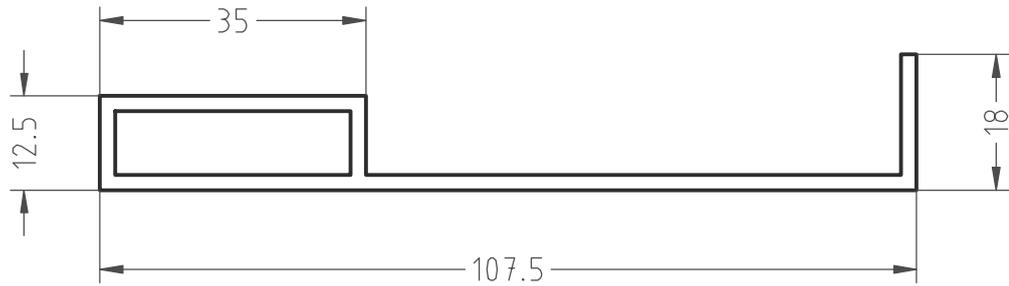


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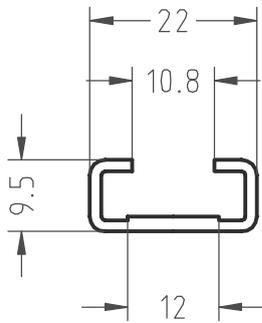


E 16.1

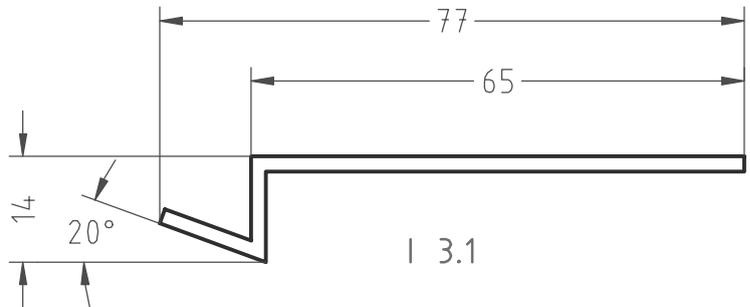




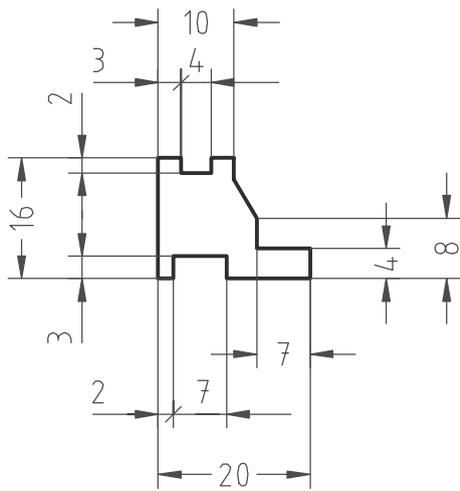
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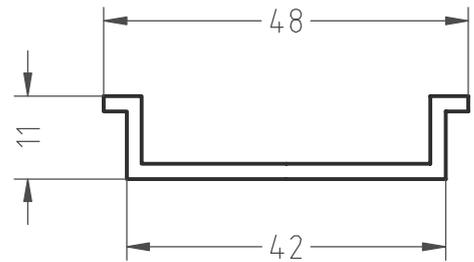
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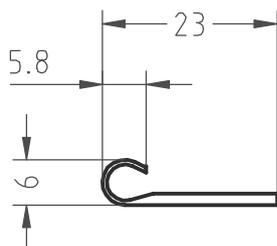
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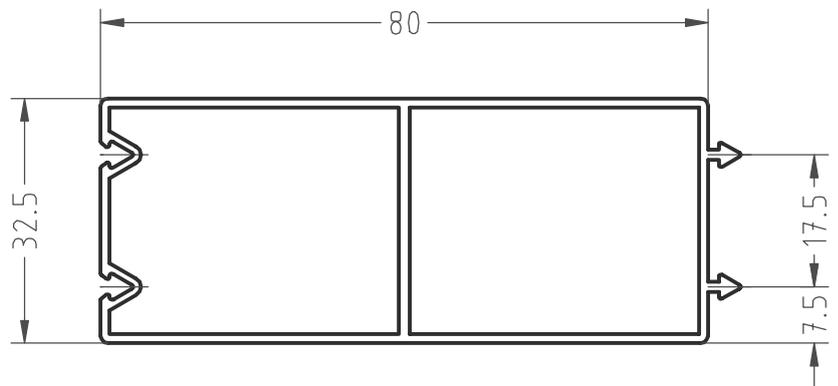
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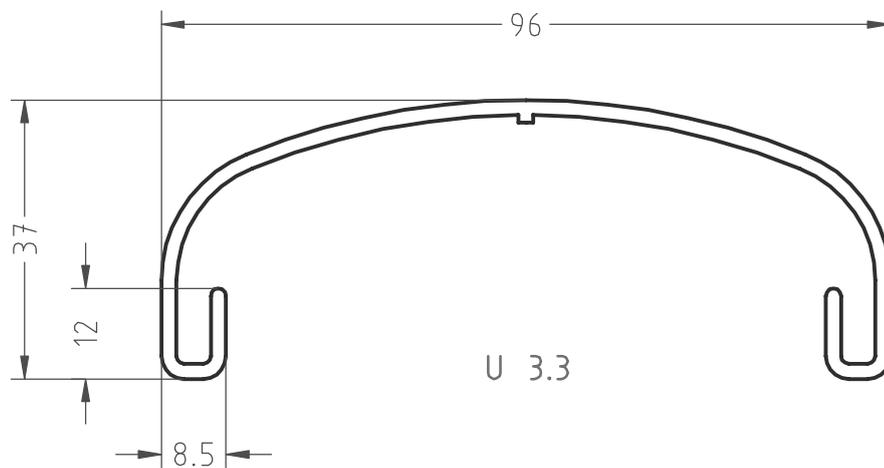
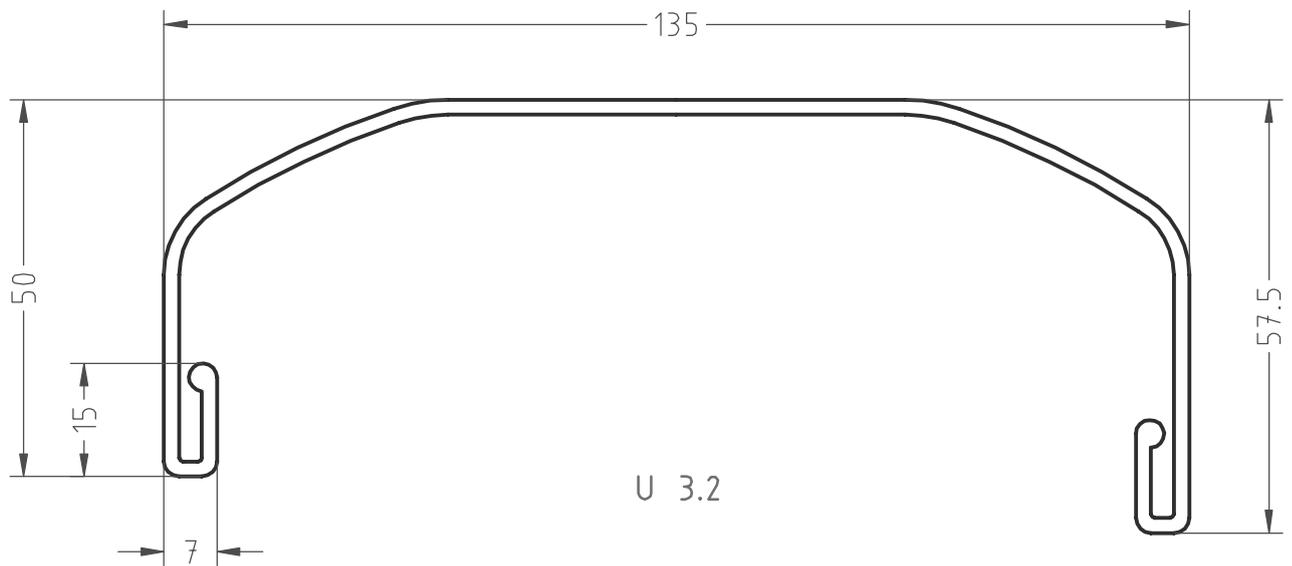
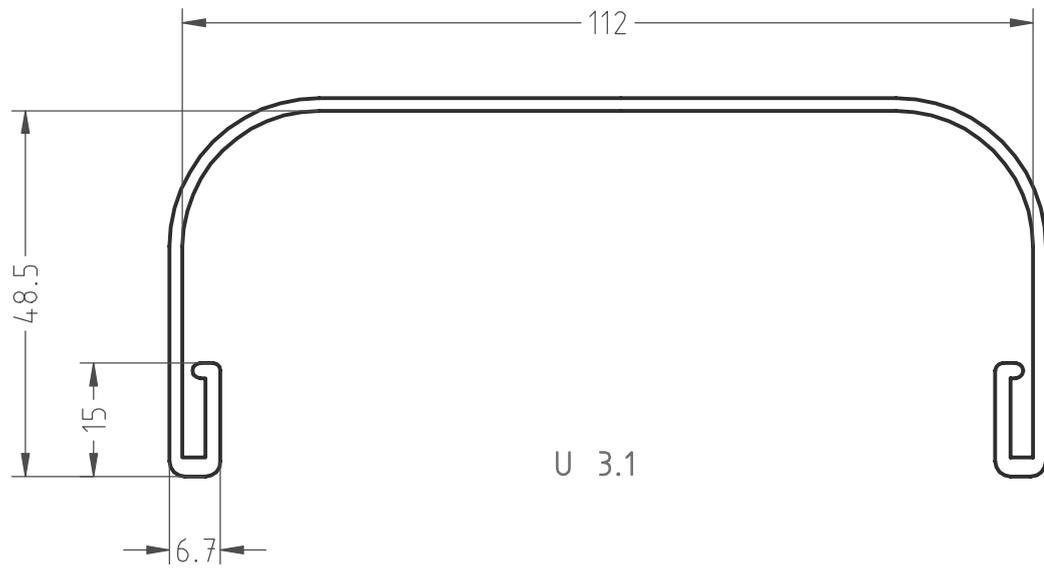
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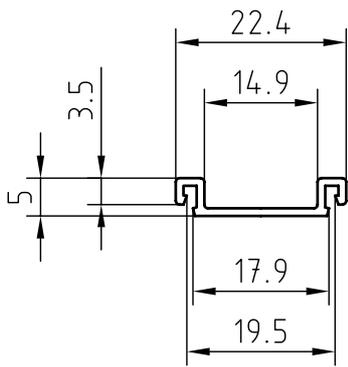


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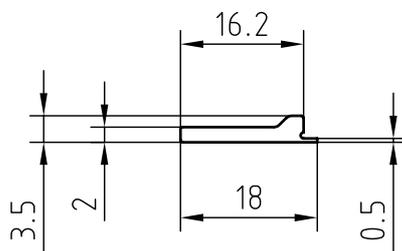


Sch 36.1

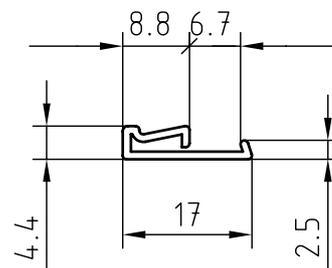




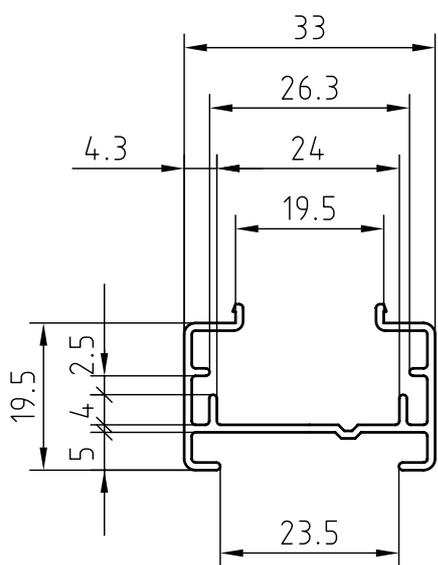
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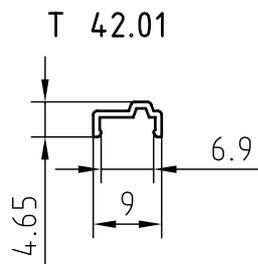
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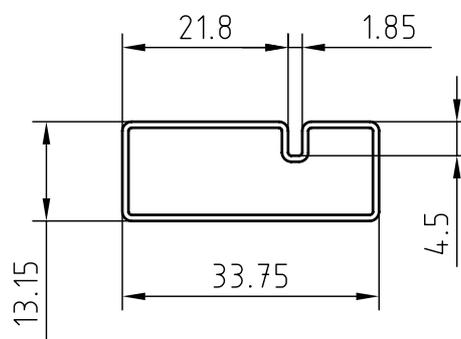
S 16.5



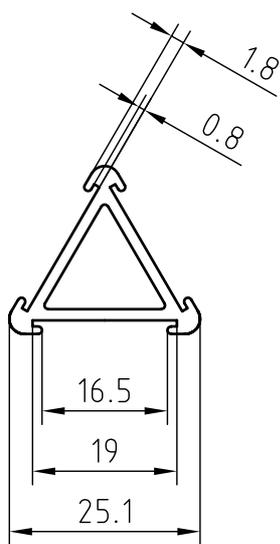
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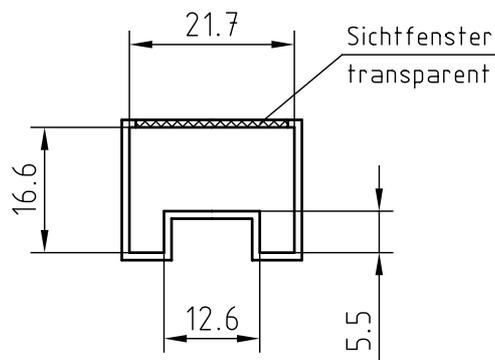
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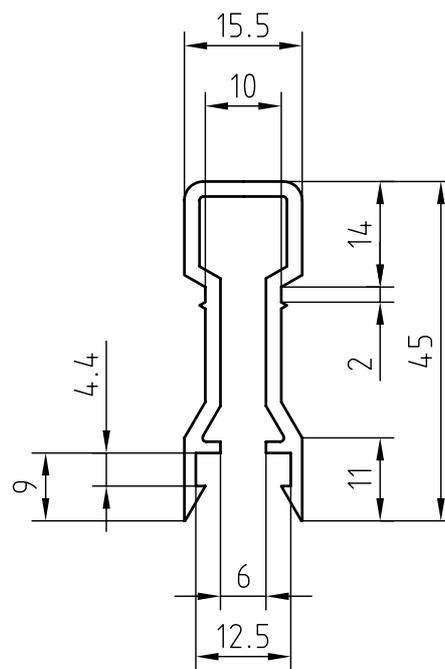
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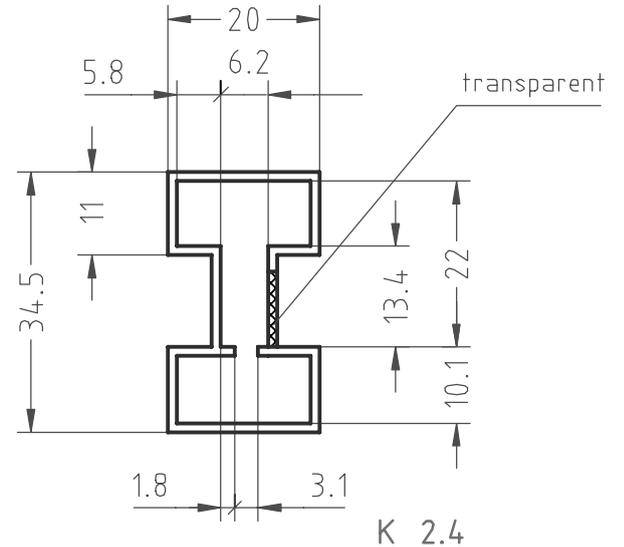
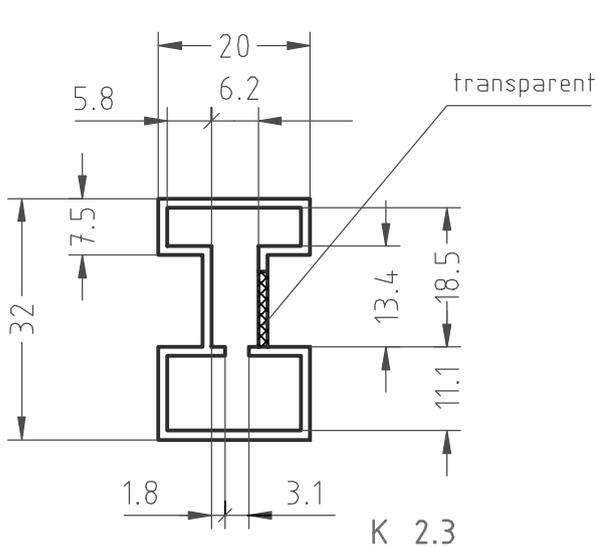
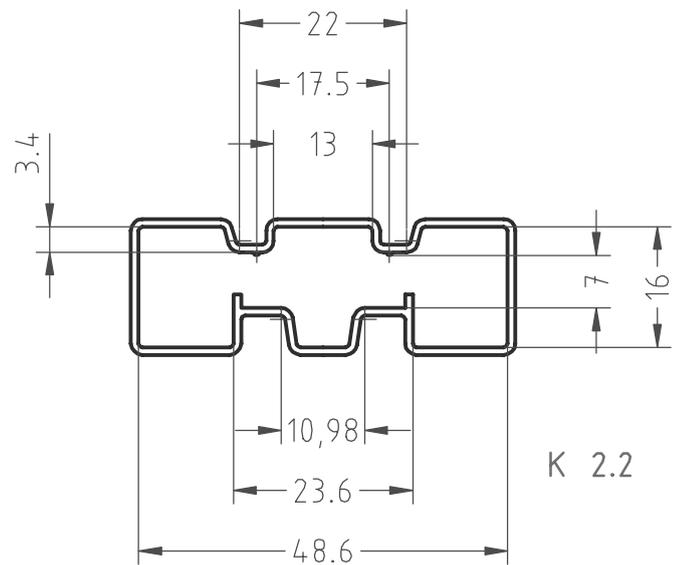
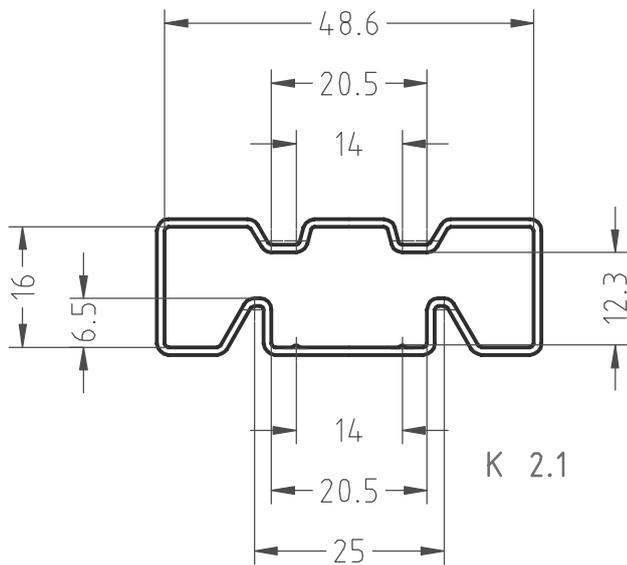
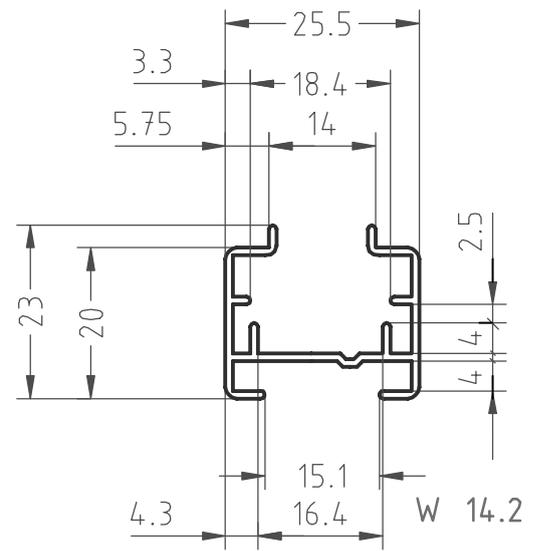
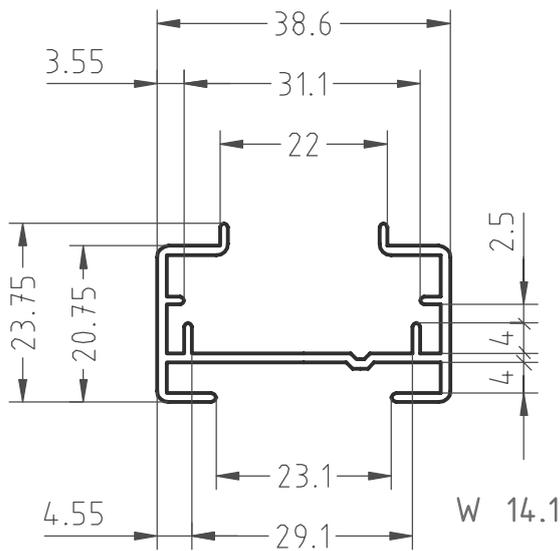
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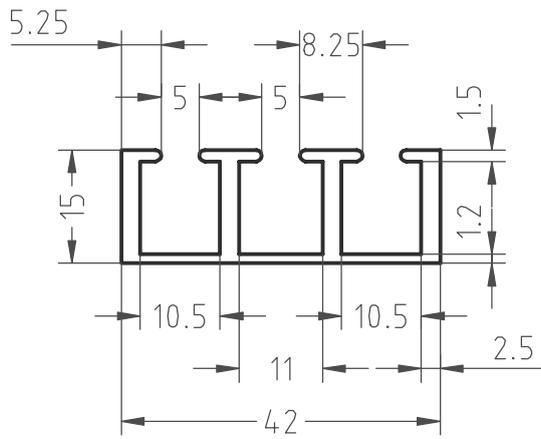


K 2.5

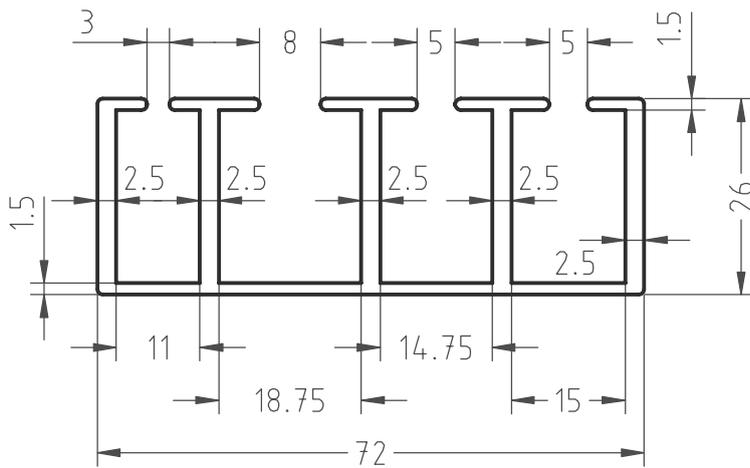


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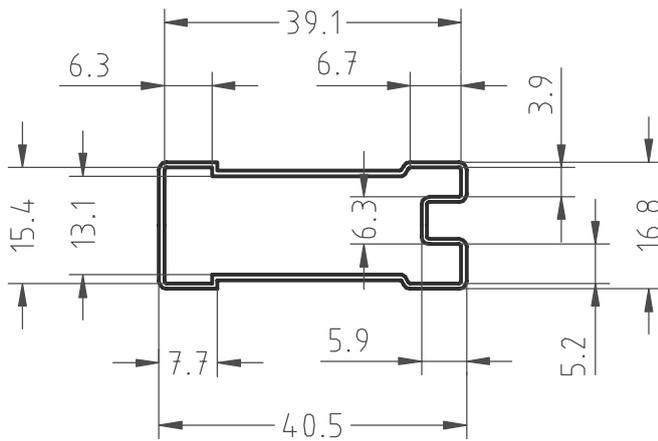




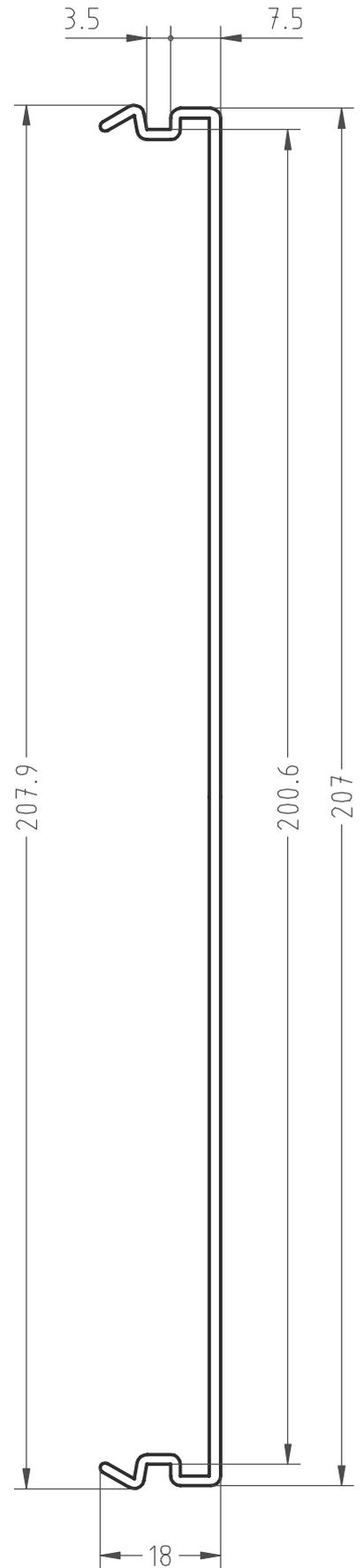
G 38.1



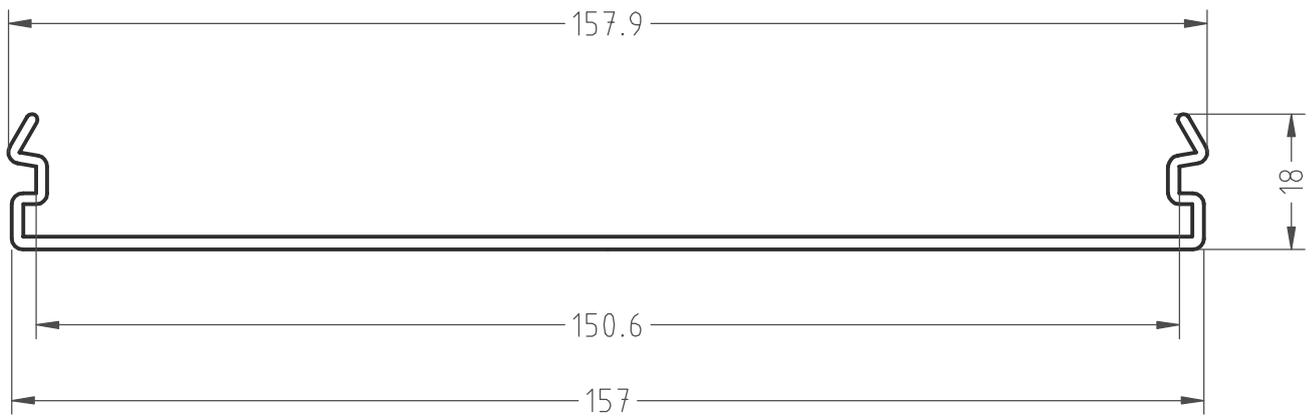
G 38.2



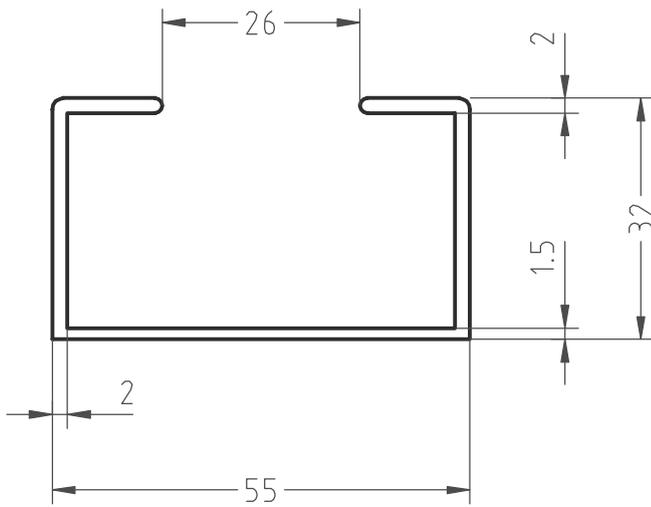
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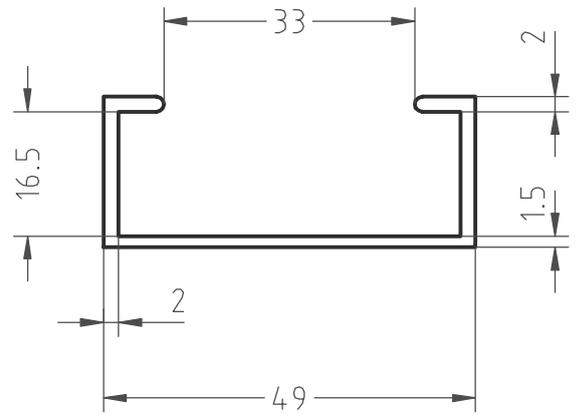
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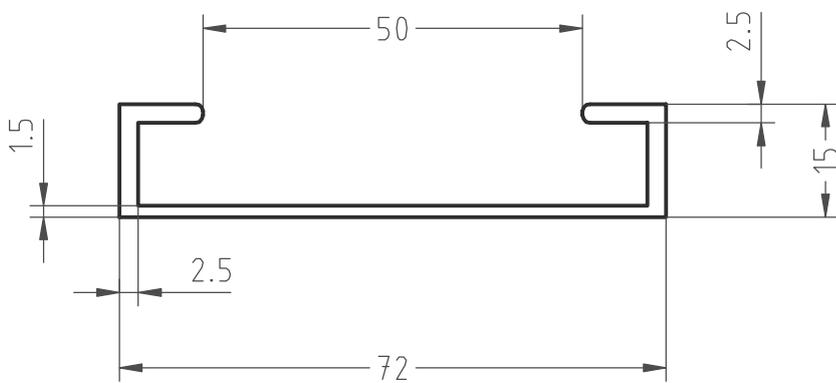
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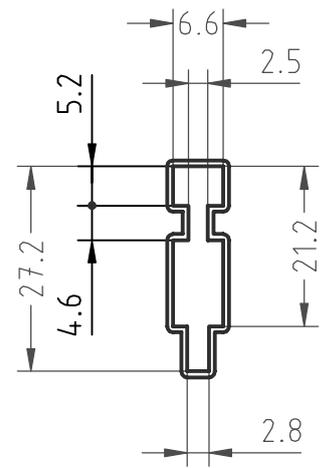
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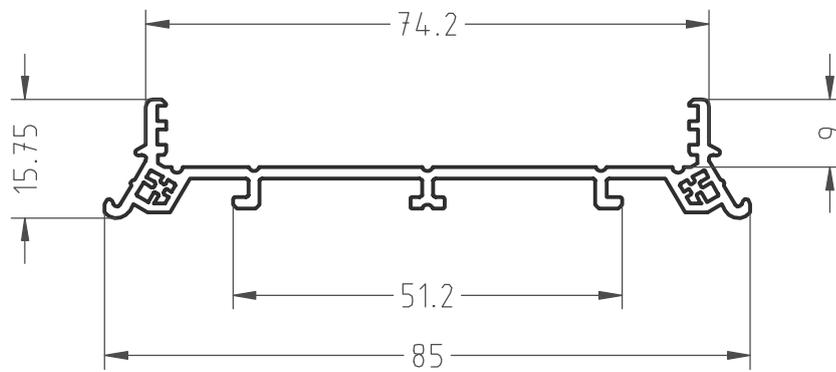
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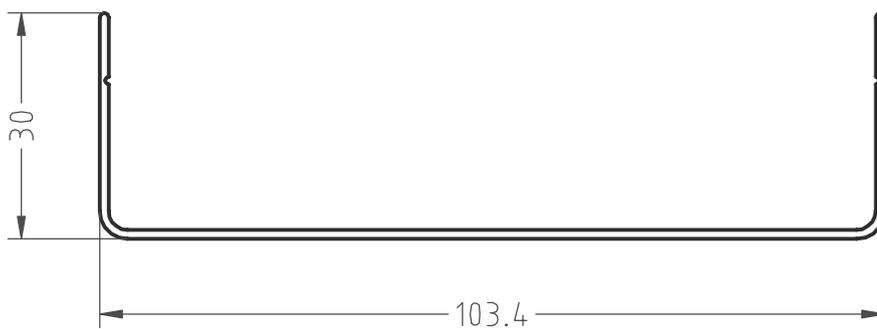
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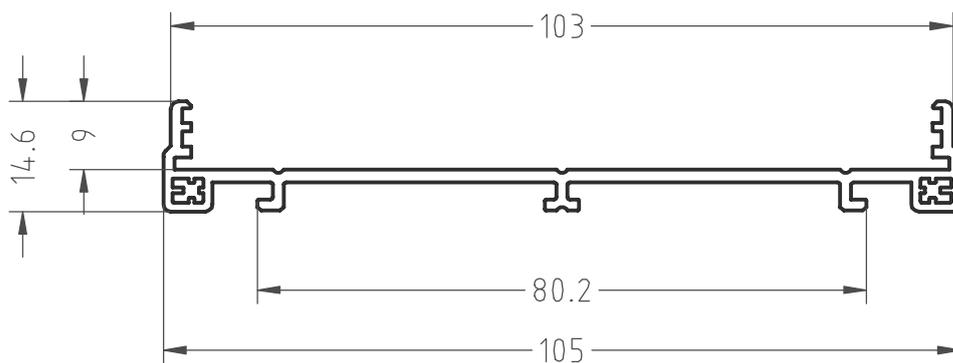
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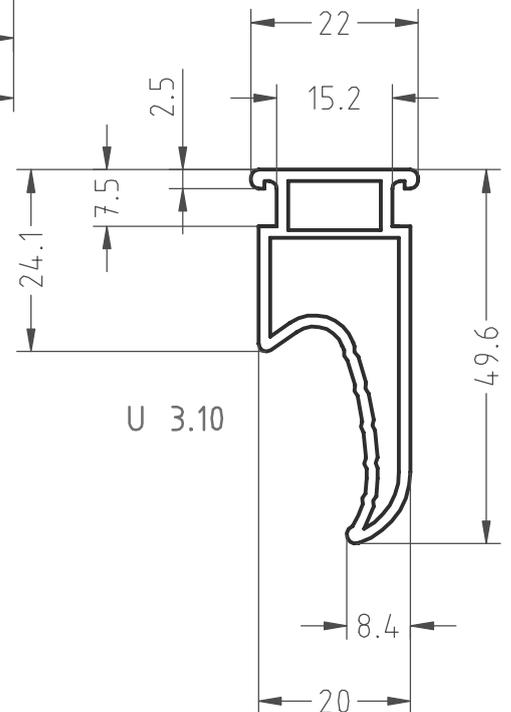
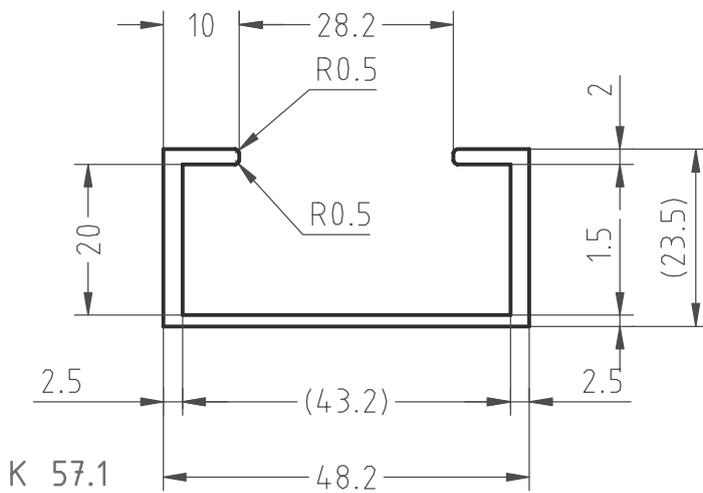
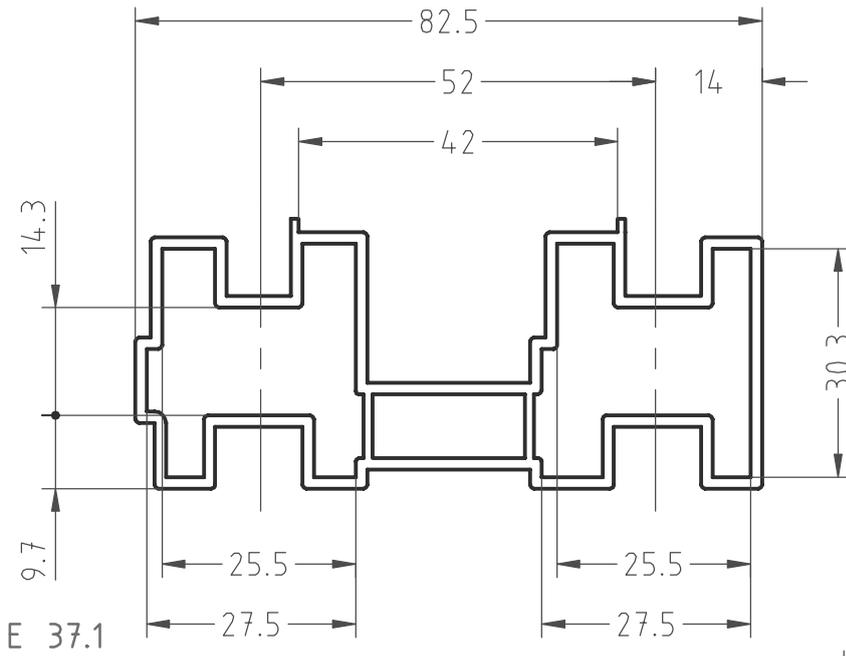
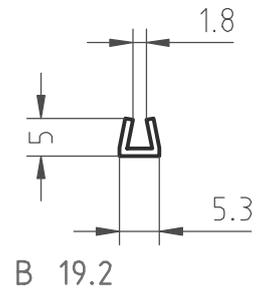
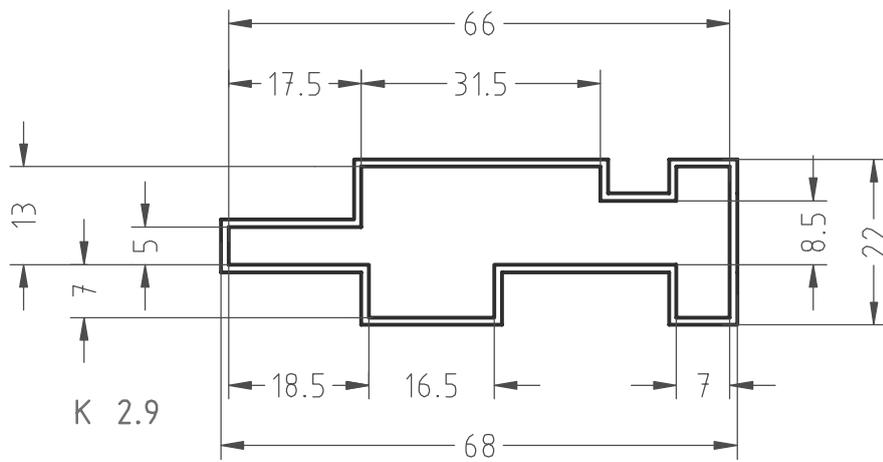
W 48.1

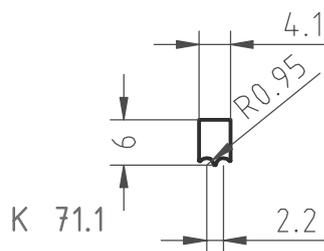
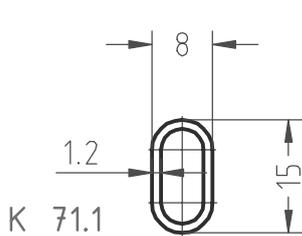
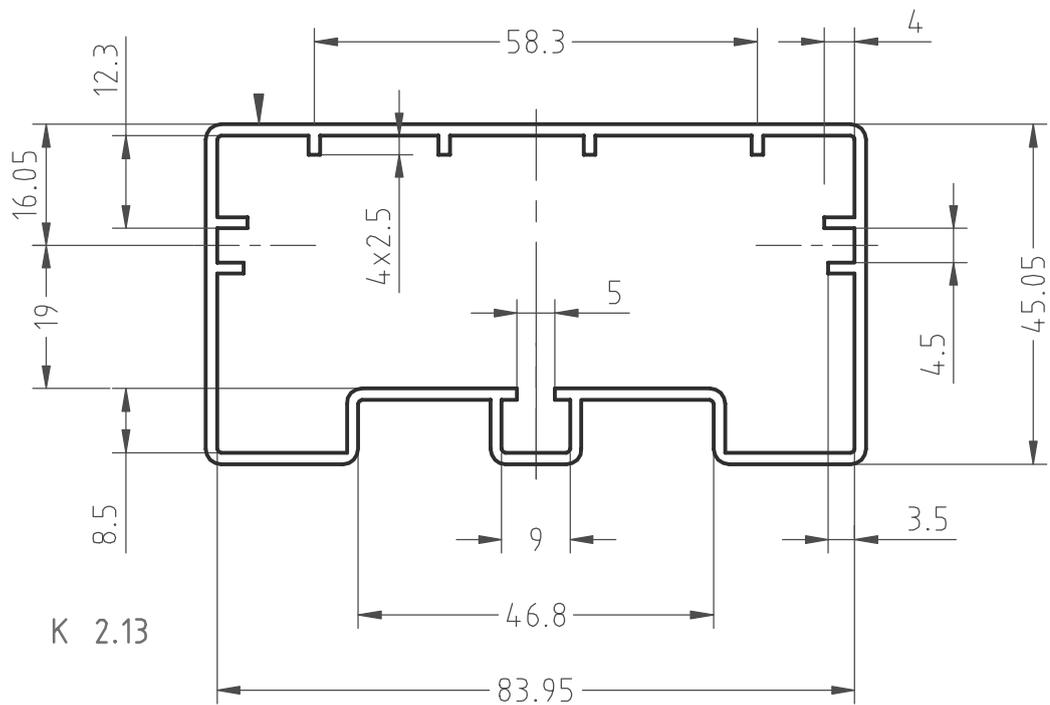
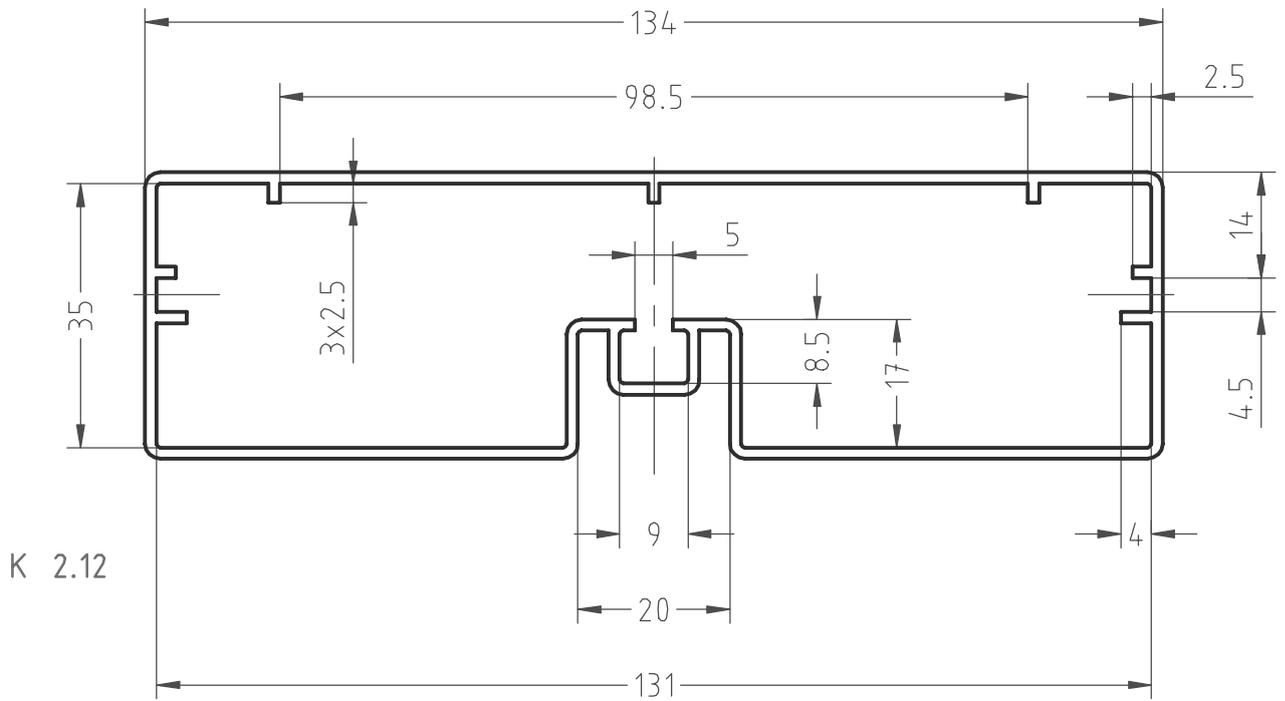


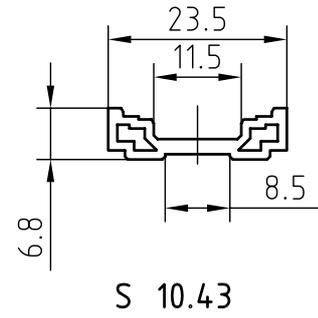
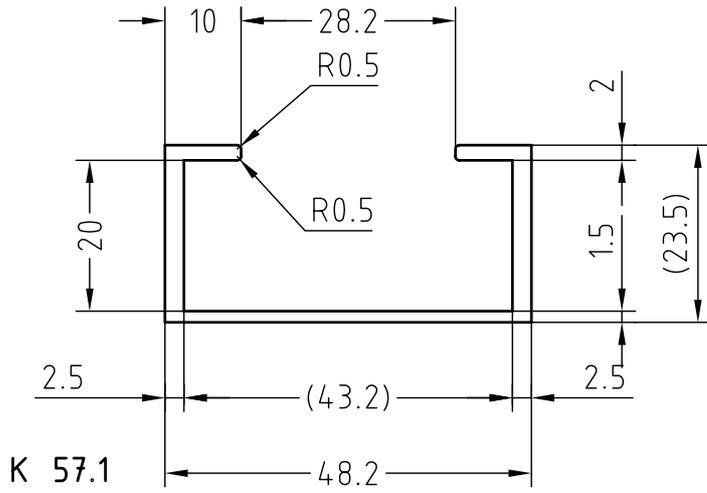
W 48.2

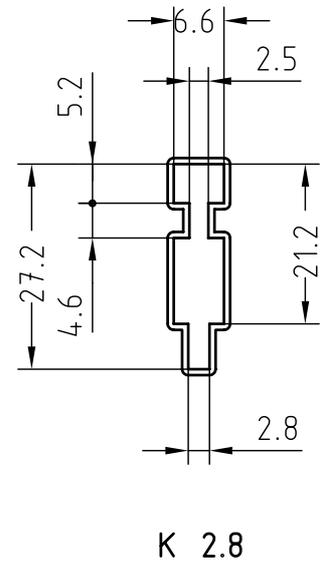
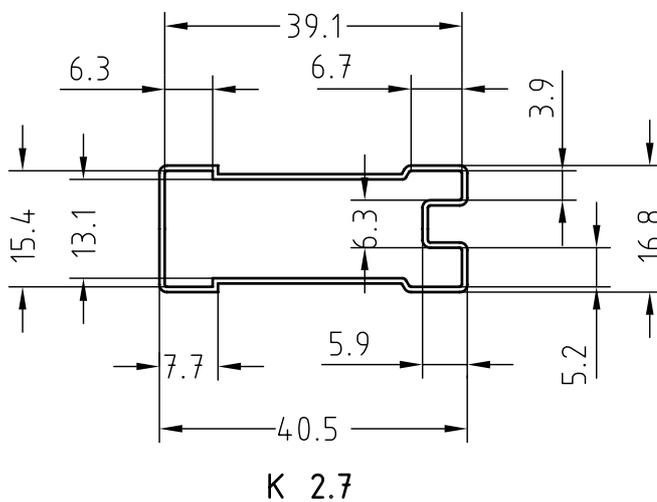
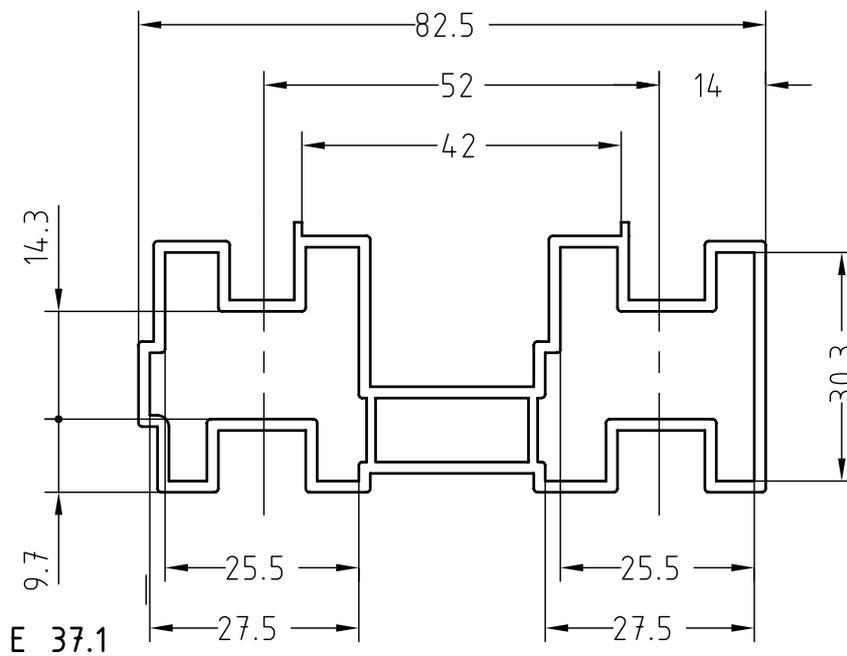
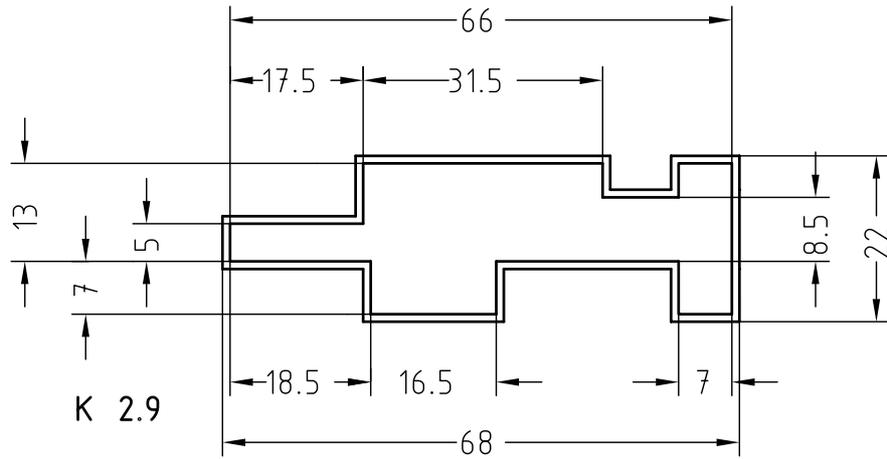


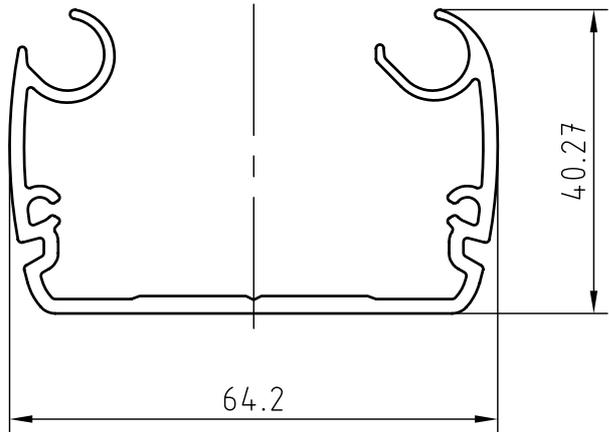
W 48.3



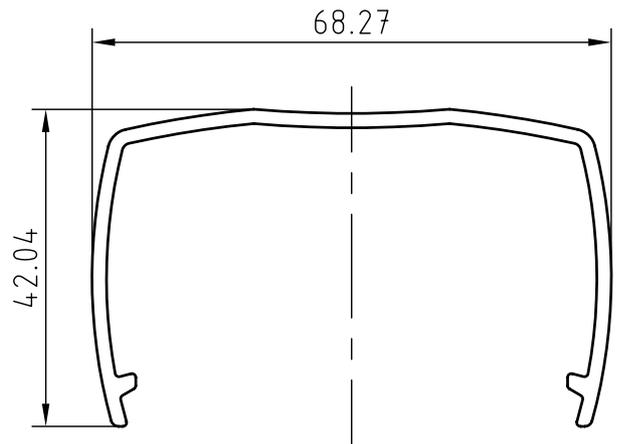




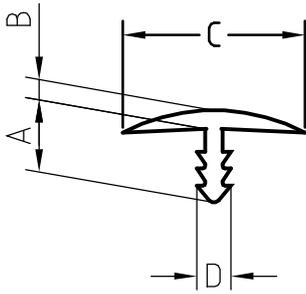




S 10.45

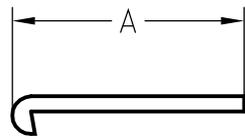


S 10.46



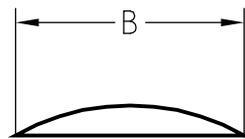
## Typ KITU

Breite C von 13 - 30 mm  
Maße auf Anfrage



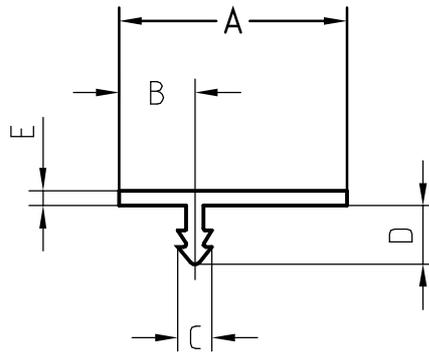
## Typ KITU

Breite A von 13 - 40 mm  
Maße auf Anfrage



## Typ KITU

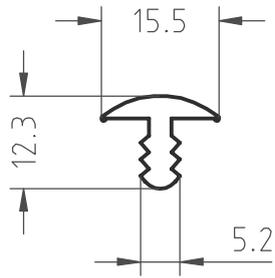
Breite B von 18 - 30 mm  
Maße auf Anfrage



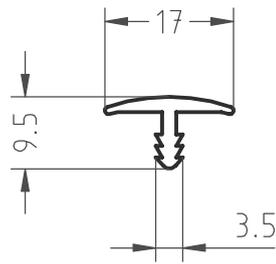
Profil-Nr.	Maße				
	A	B	C	D	E
G 21.8	20	10	3,5	4,5	2,5
G 22.1	22	11	3,5	6	2
G 22.2	30	15	3,5	7	2
G 31.2	32	16	4	6,5	2
H 23.7	24	12	3,5	6	1,8
H 23.8	20	10	3	5	1,8
H 23.9	13,5	6,75	2,8	6	2
H 23.22	10	5	2	5	1
H 23.23	16,8	8,4	3	8	1,8
H 23.25	19	9,5	2,8	8	2
W 39.14	20	6	3,6	4,4	3
Z 10.5	60	8	3,5	9	2,5
St 4.2	13	6,5	2,2	5,5	1,5
St 4.3	18	9	2	5,5	1,5

Maße sind Werkzeug-Nennmaße

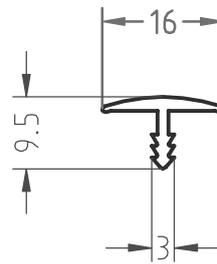
Diese können je nach Werkstoff und shore Härte im Profil abweichen



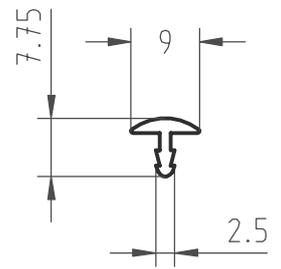
C 6.1



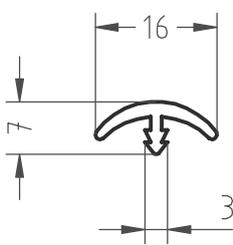
G 21.19



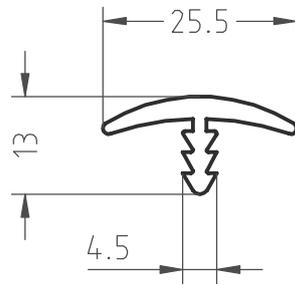
H 23.10



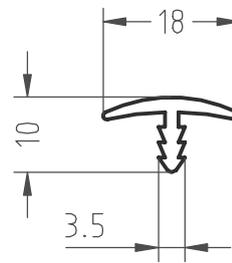
Sch 2.1



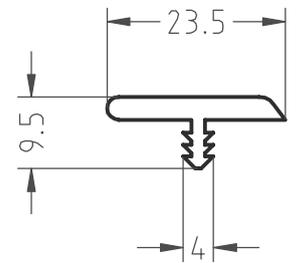
S 110



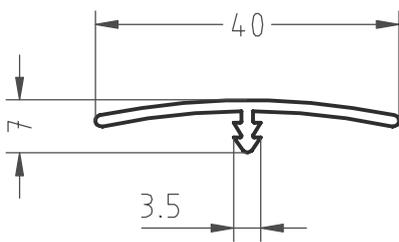
S 192



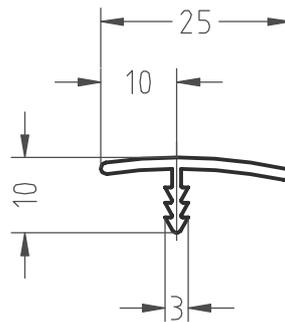
W 15.1



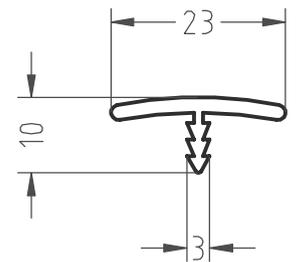
N 11.1



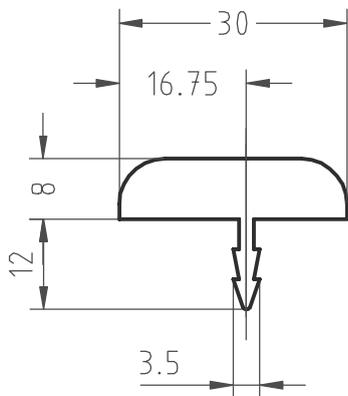
H 23.6



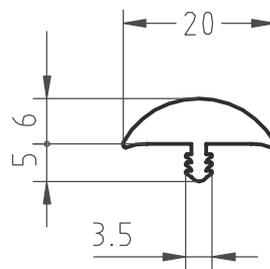
H 23.17



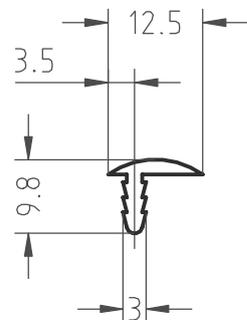
S 199



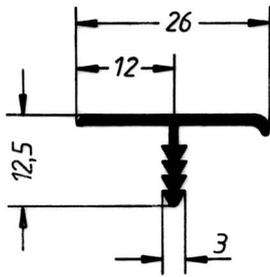
M 13.1



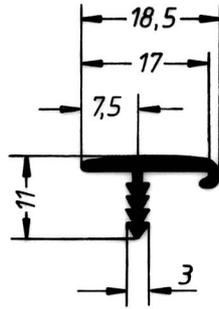
M 33.15



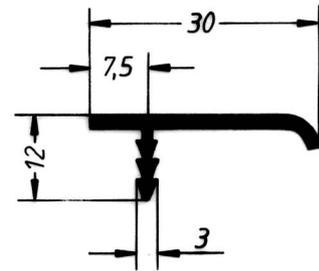
G 45.1



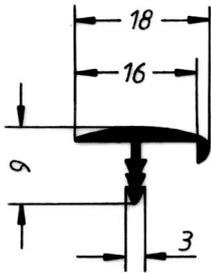
S 122



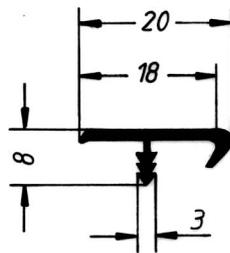
S 123



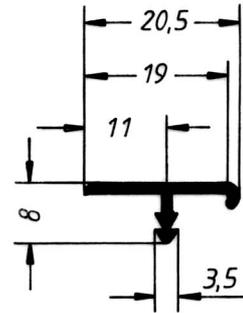
Z 10.4



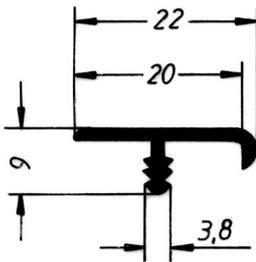
H 23.11



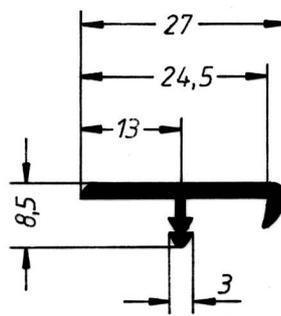
S 154



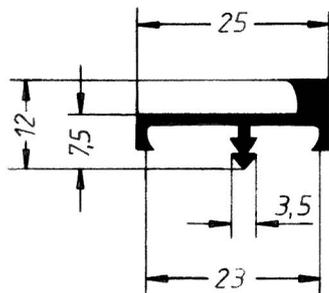
S 155



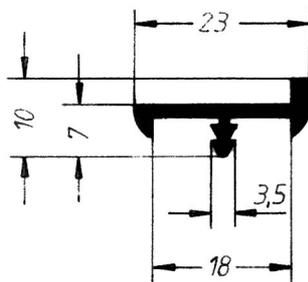
N 8.1



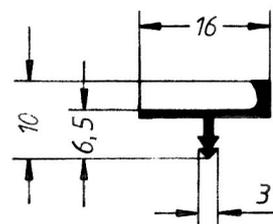
S 196



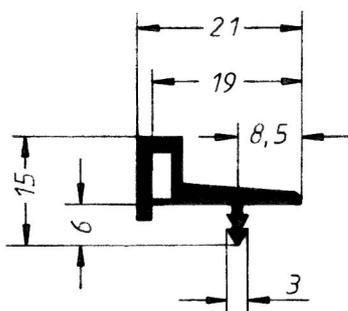
A 11.3



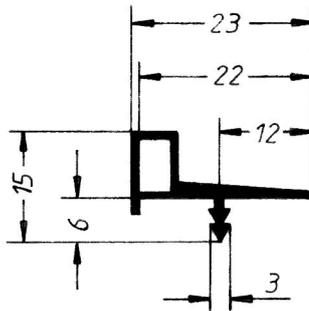
F 19.5



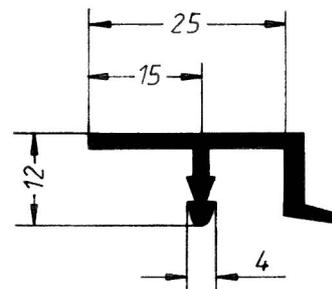
G 21.13



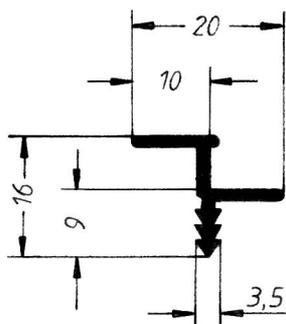
A 11.6



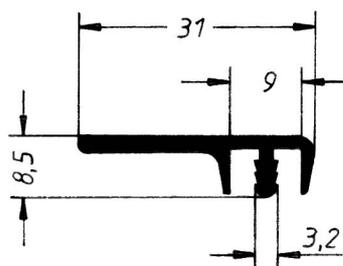
A 11.6a



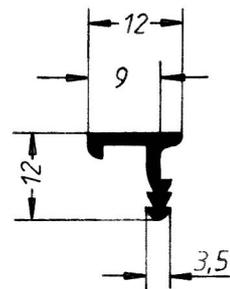
G 9.2



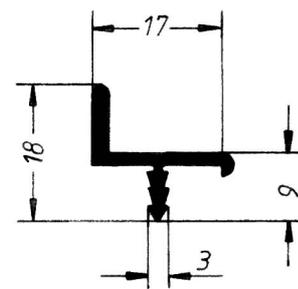
A 11.1



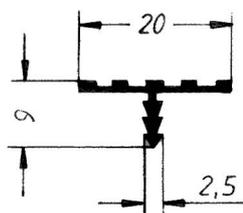
E 4.2



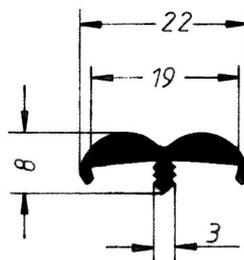
S 109



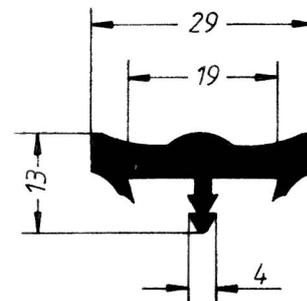
St 4.1



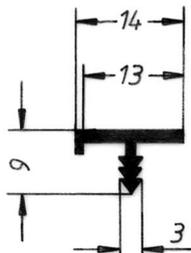
H 42.5



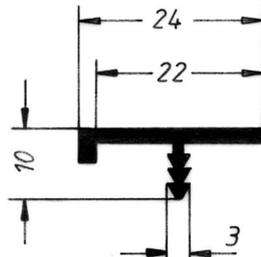
K 26.3



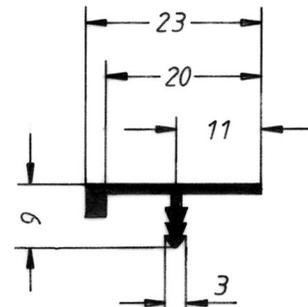
N 3.1



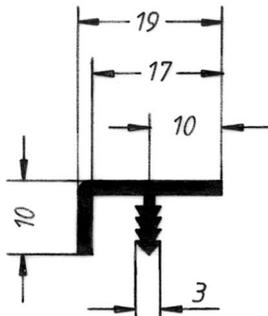
G 21.12



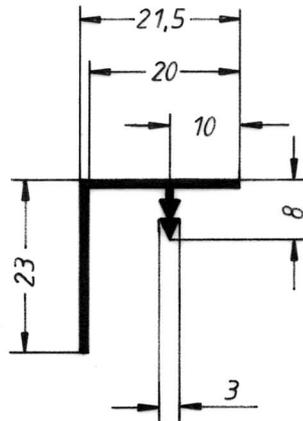
K 0.4



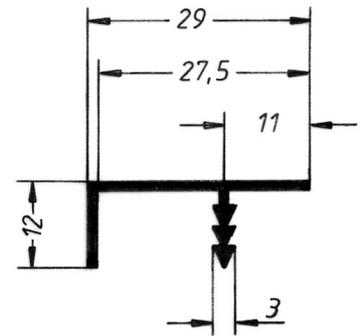
S 120



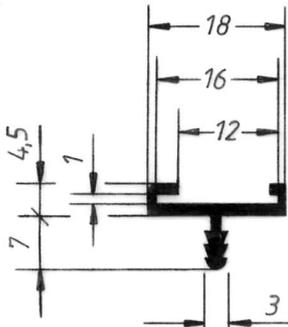
G 21.2



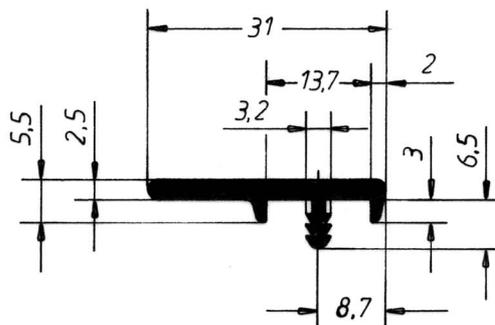
H 23.12



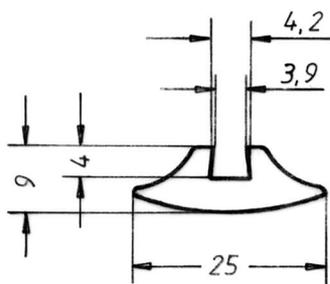
W 40.2



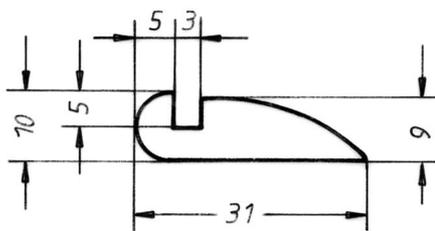
N 8.2



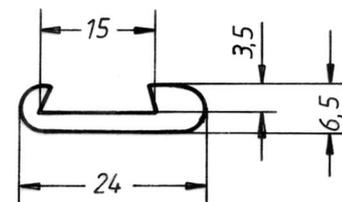
E 4.3



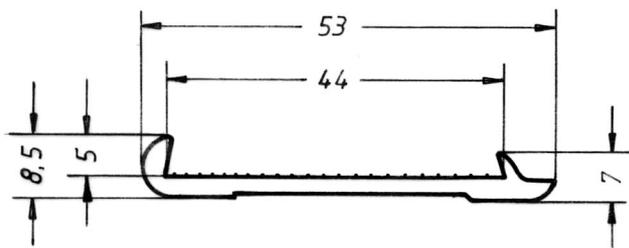
H 36.2



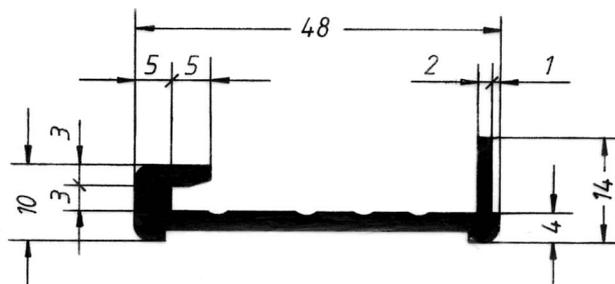
H 36.3



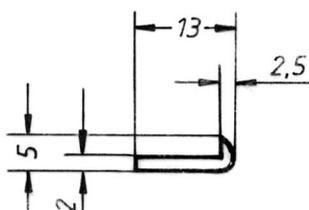
H 36.4



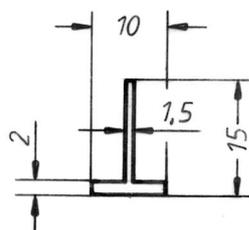
H 36.1



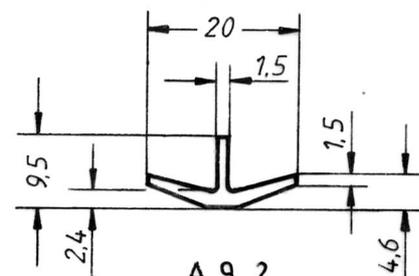
R 8.1



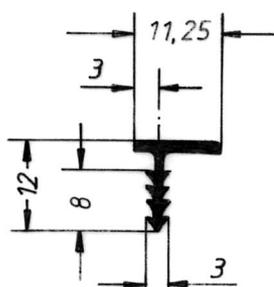
G 21.9



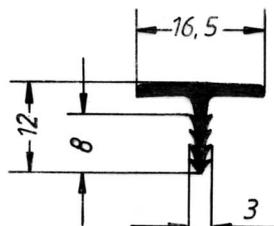
S 9.2



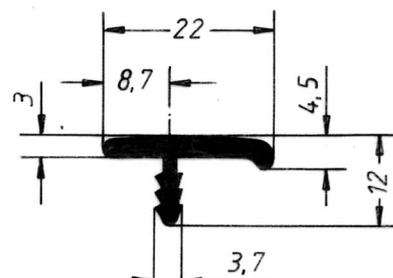
A 9.2



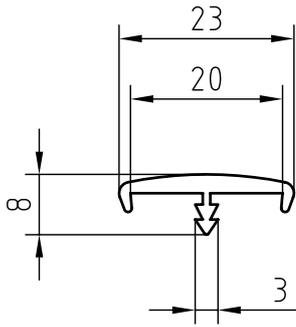
M 25.1



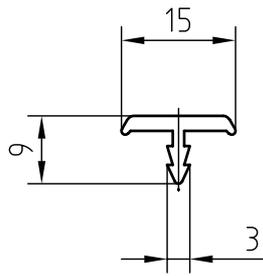
M 25.2



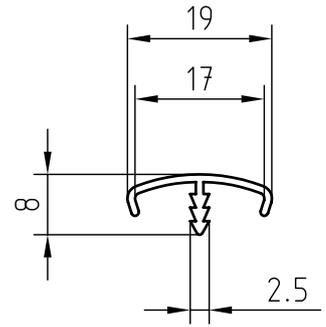
M 25.3



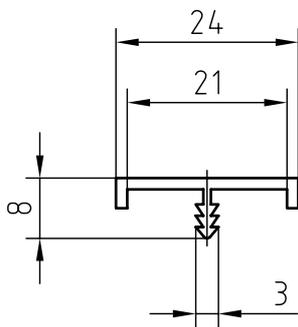
S 111



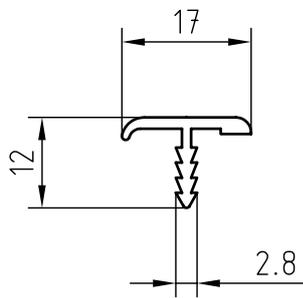
S 124



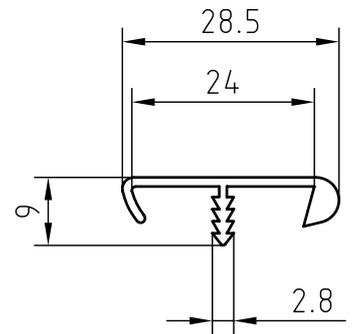
S 125



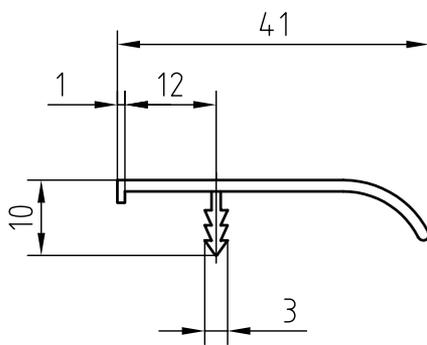
S 101



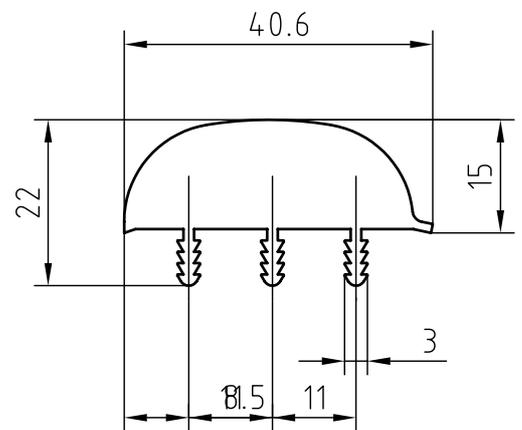
N 1.1



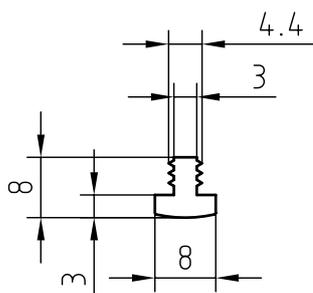
S 118



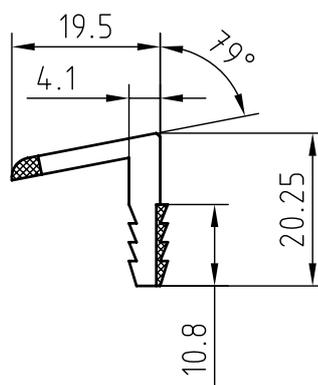
G 21.11



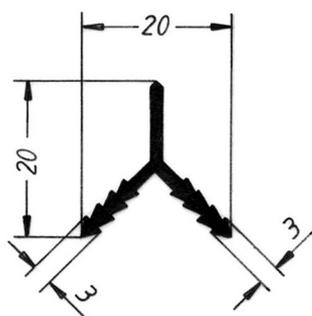
A 34.1



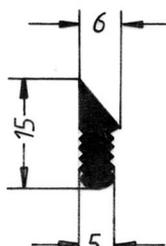
S 10.27



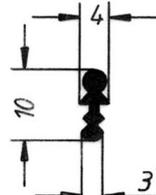
S 16.3



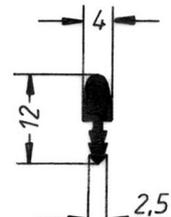
B 59.1



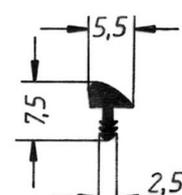
K 30.1



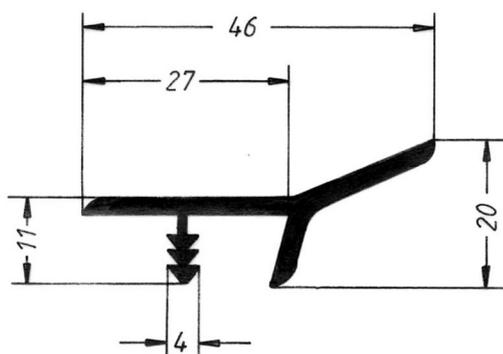
M 20.1



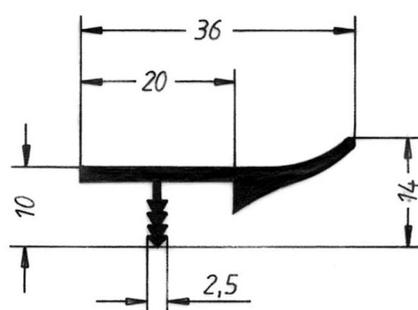
M 20.2



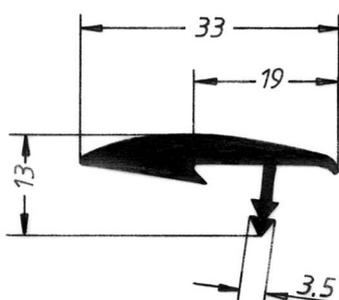
M 33.8



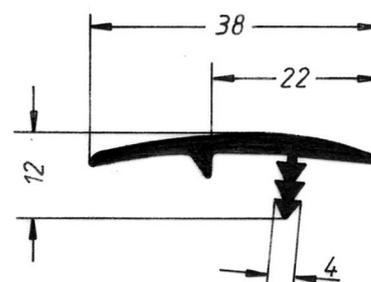
S 194



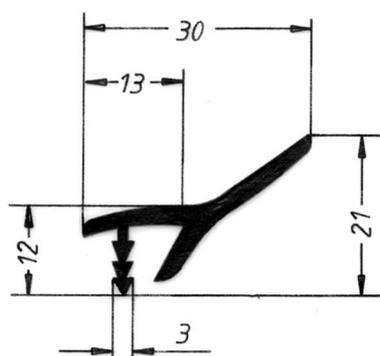
S 104



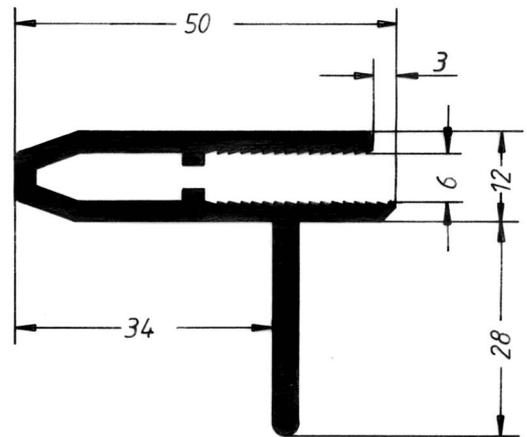
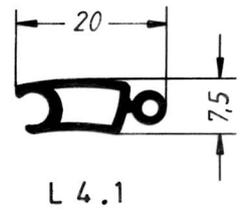
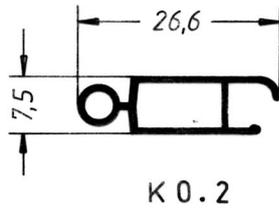
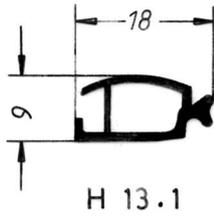
G 22.3



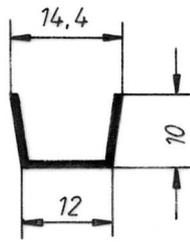
H 42.7



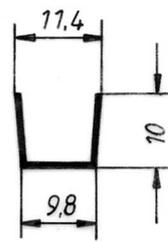
G 21.3



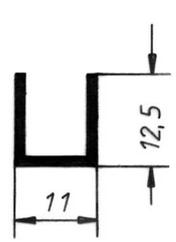
M 33.13



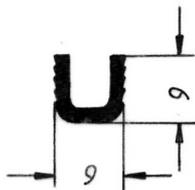
K 0.11\*



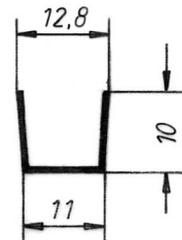
R 4.4\*



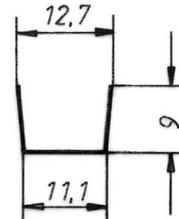
W 39.20



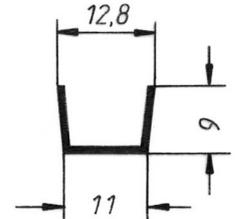
St 4.7



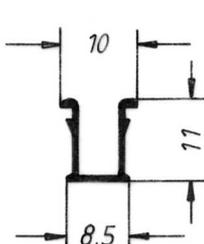
W 39.2\*



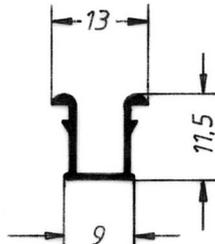
W 39.16\*



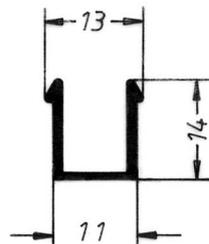
W 39.8



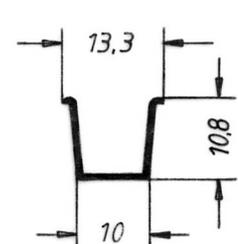
H 23.15



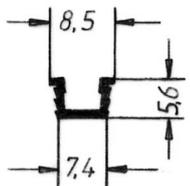
H 23.20



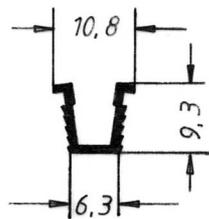
M 22.3



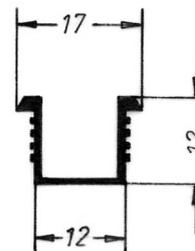
R 4.11\*



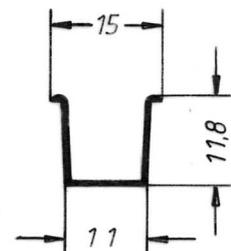
R 4.7



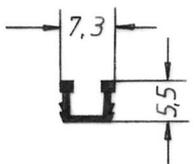
R 4.8



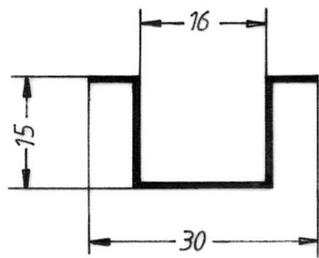
S 307



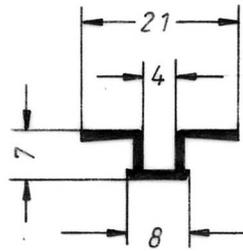
W 39.10\*



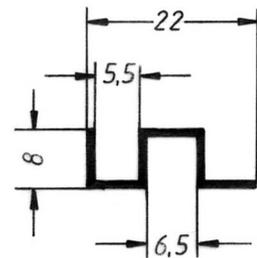
W 39.3



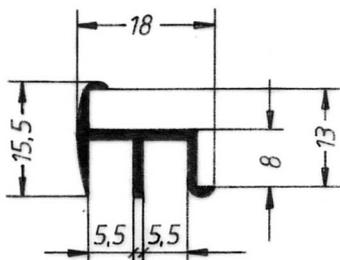
H 23.19



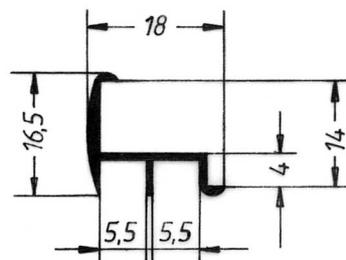
M 9.4



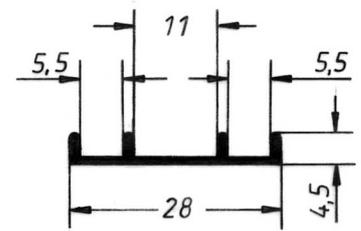
W 39.1



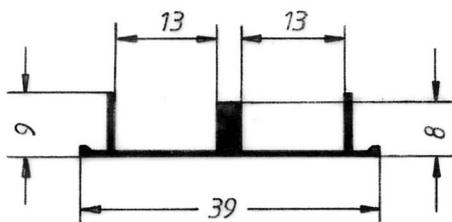
B 44.1



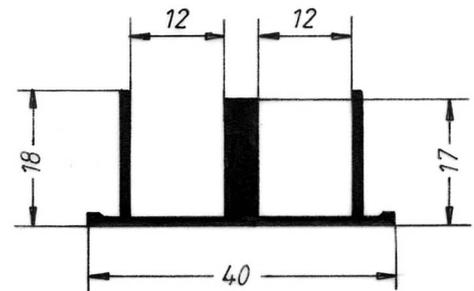
B 44.2



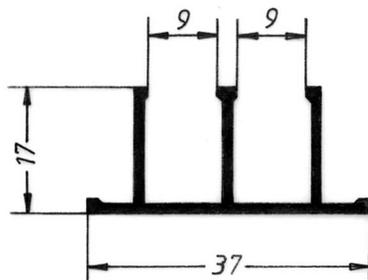
S 1.3



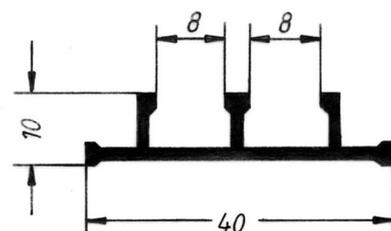
Z 10.1



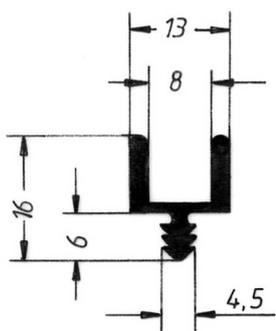
Z 10.2



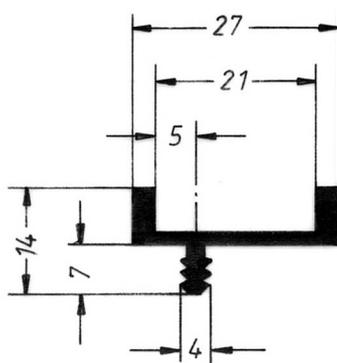
H 23.2



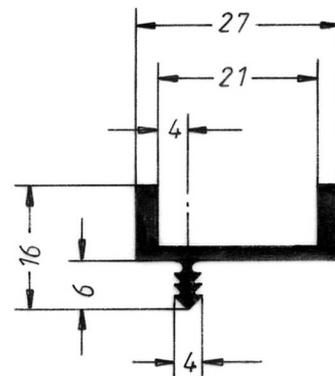
H 23.3



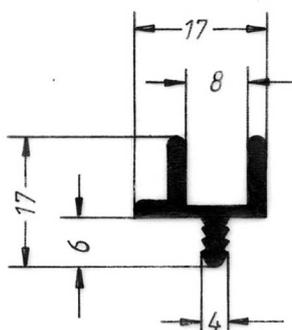
G 21.29



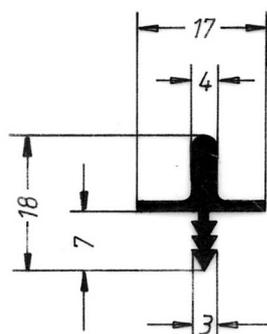
G 21.31



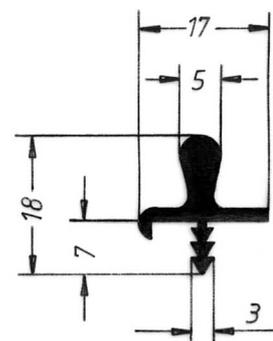
G 21.32



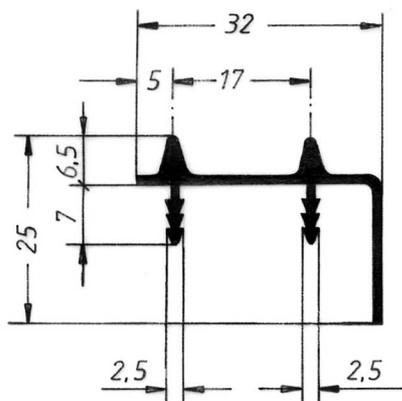
G 21.36



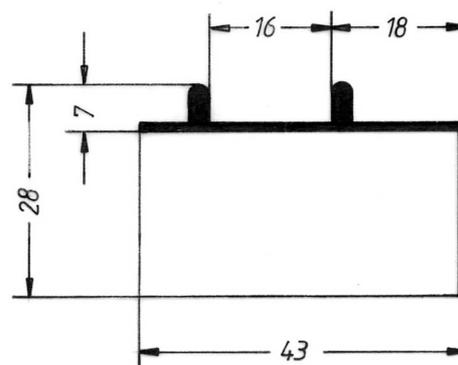
H 23.14



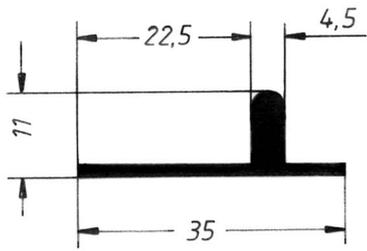
M 22.1



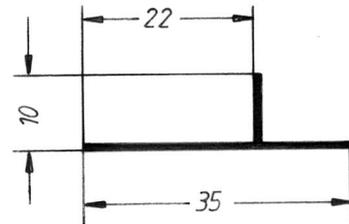
B 46.3



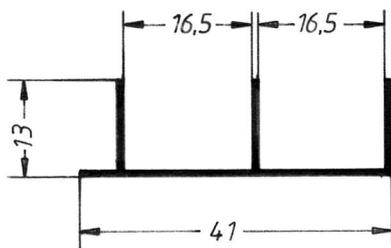
M 4.1



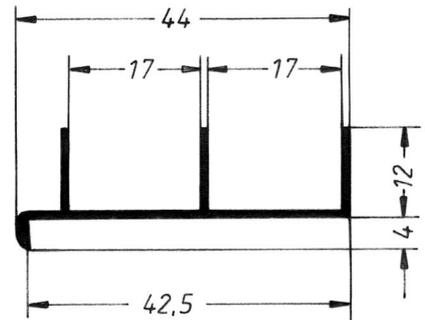
H 15.1



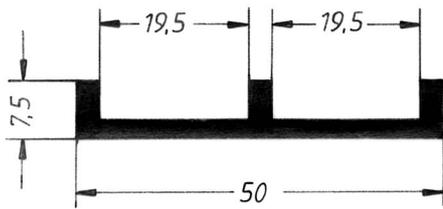
H 23.5



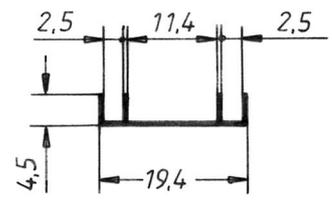
H 23.24



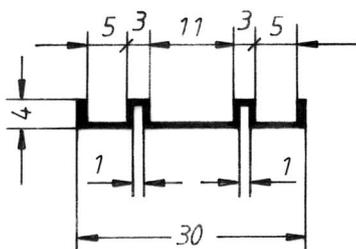
M 4.2



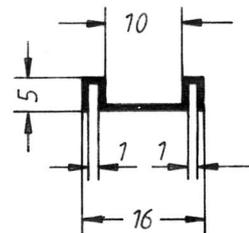
M 9.2



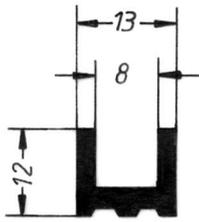
S 318



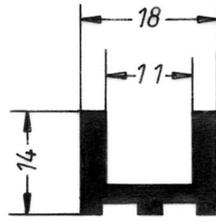
H 50.1



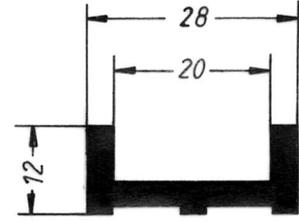
H 50.2



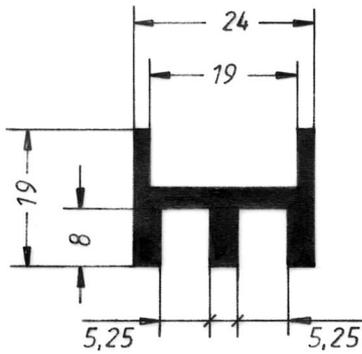
G 21.5



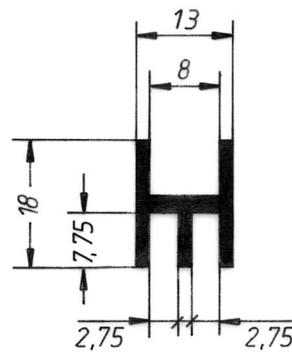
G 21.16



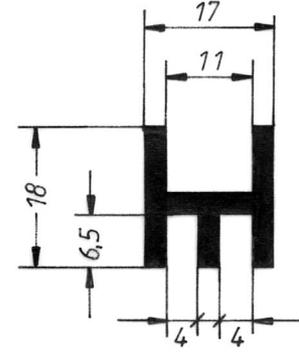
G 21.27



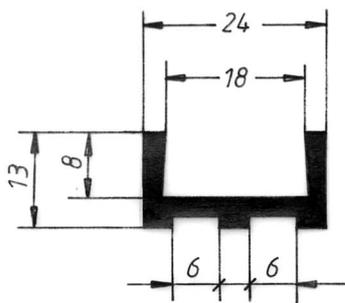
G 21.21



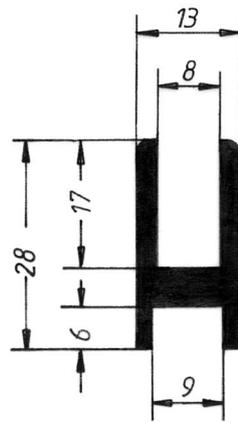
G 21.23



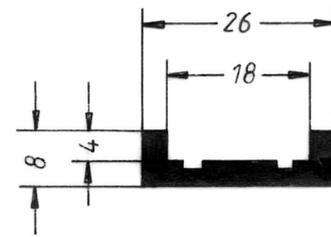
G 21.24



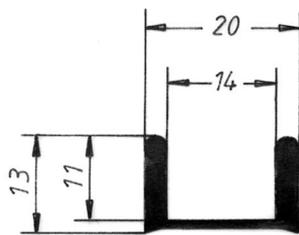
G 21.4



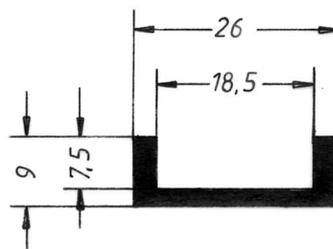
G 21.37



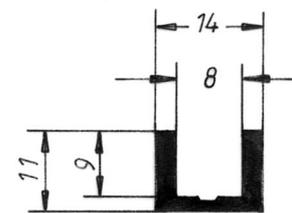
M 9.3



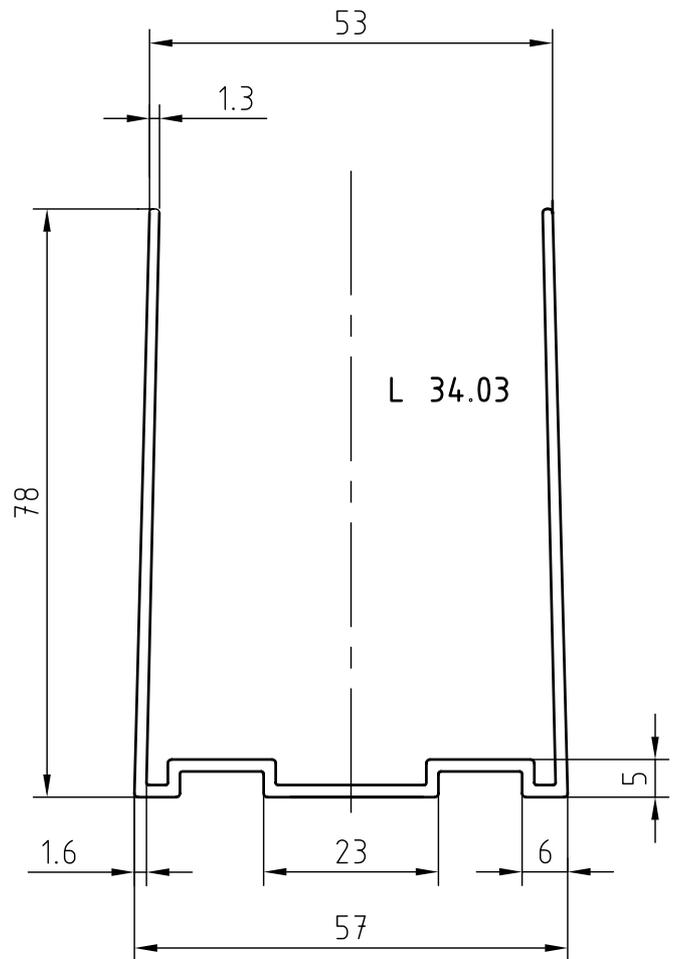
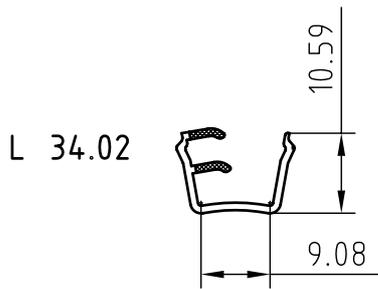
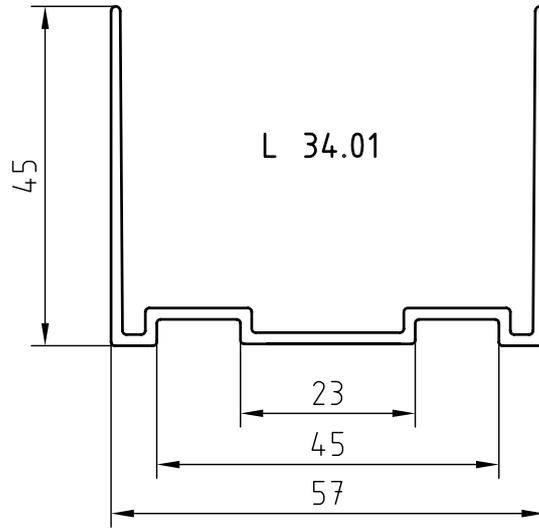
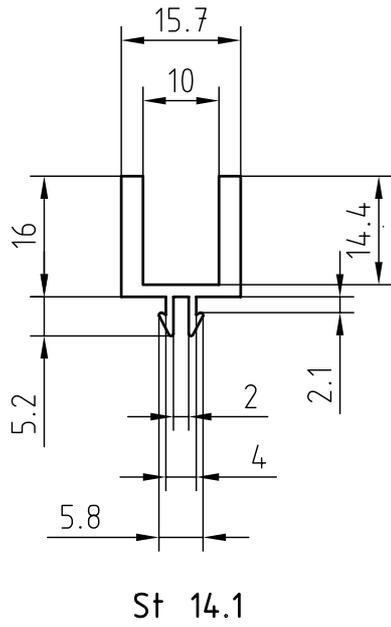
B 46.2

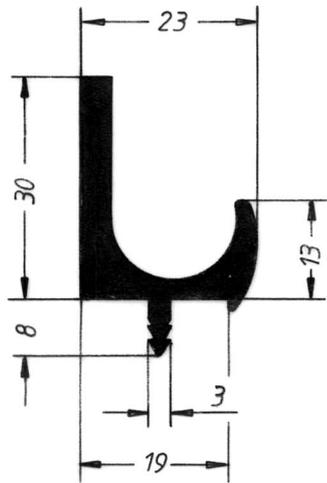


G 21.10

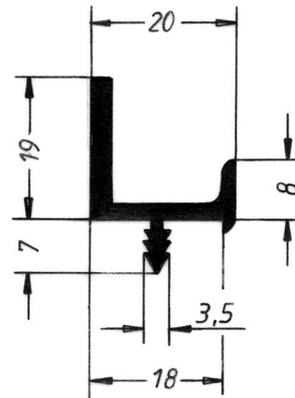


G 21.28

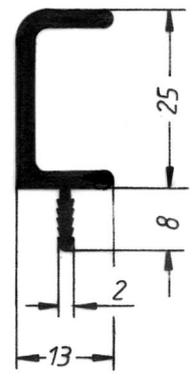




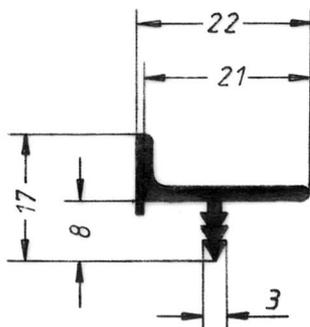
G 21.18



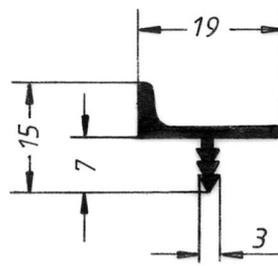
G 22.4



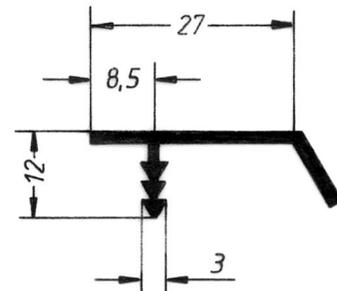
St 4.5



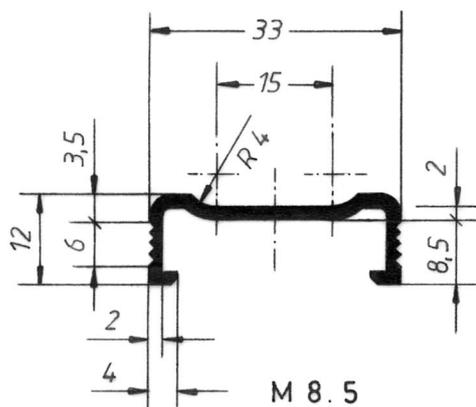
B 46.1



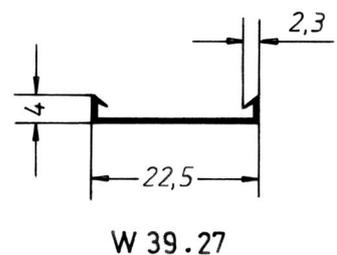
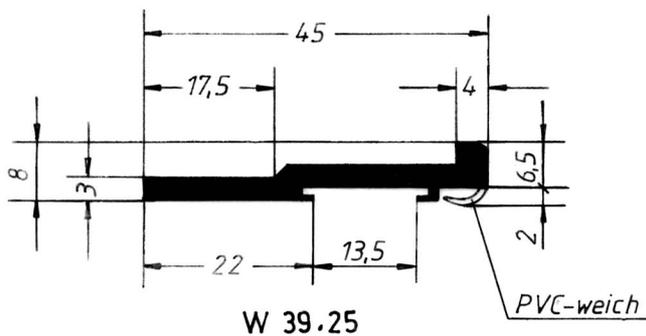
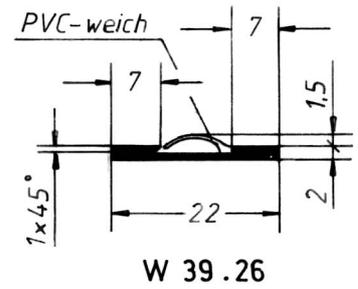
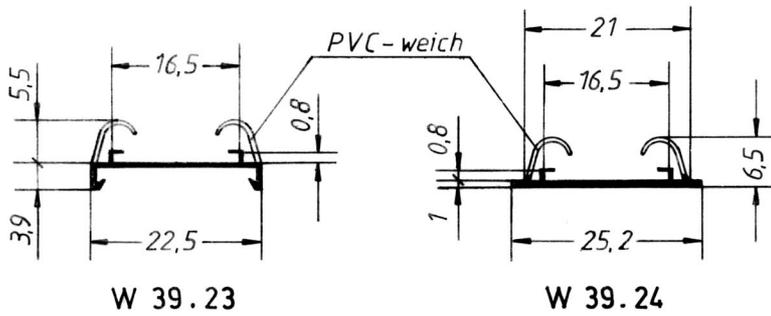
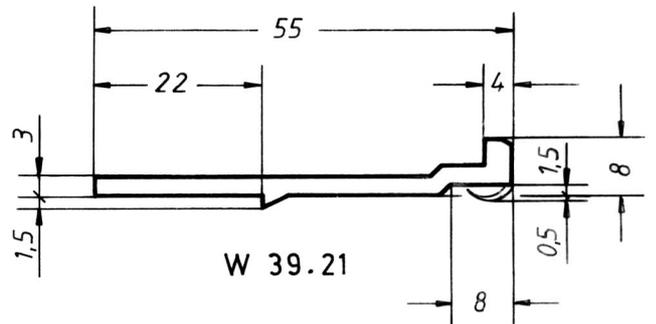
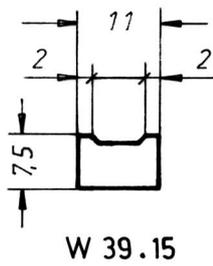
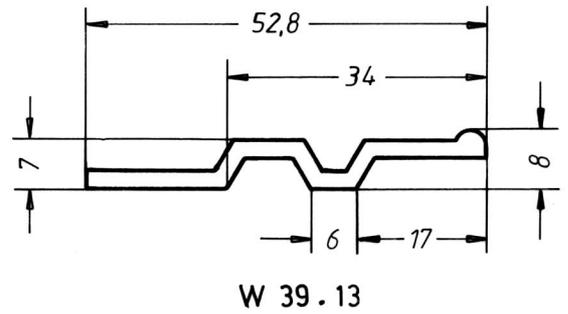
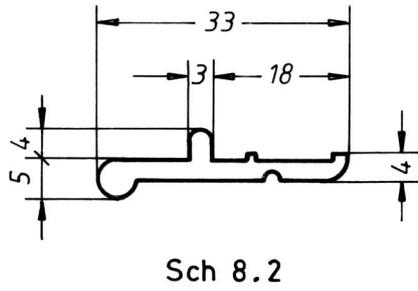
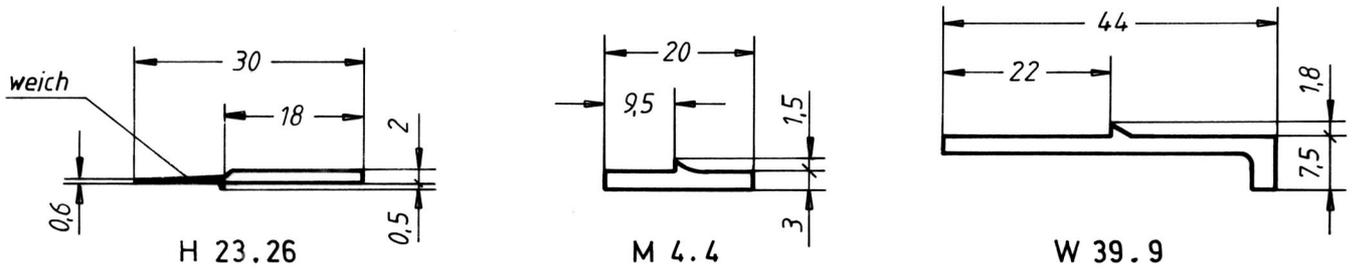
F 17.4

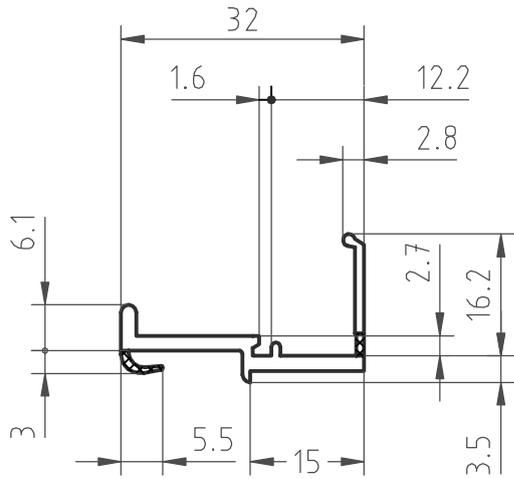


M 33.6

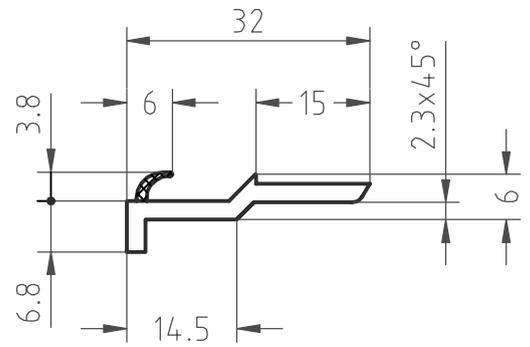


M 8.5

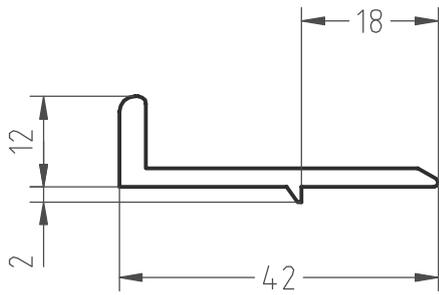




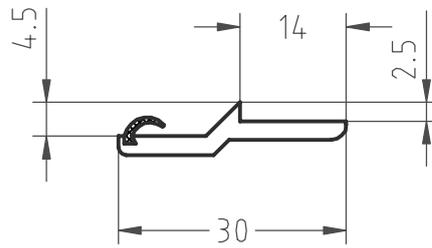
K 0.14



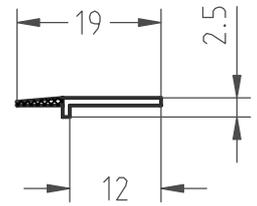
D 16.1



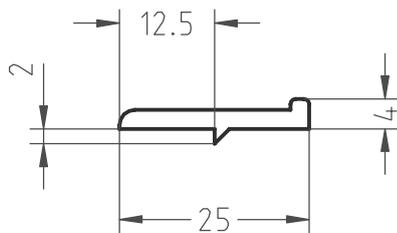
A 29.1



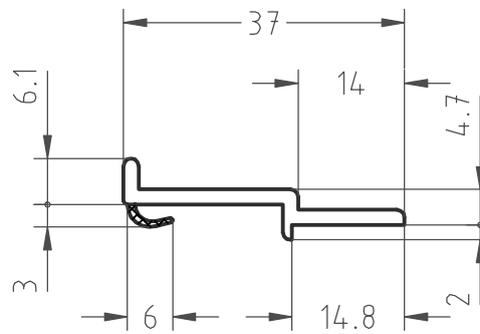
K 0.24



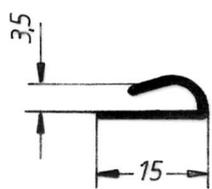
I 12.1



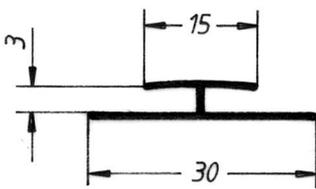
K 0.25



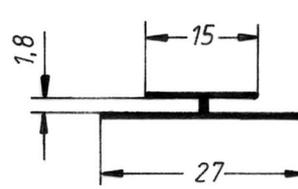
D 16.2



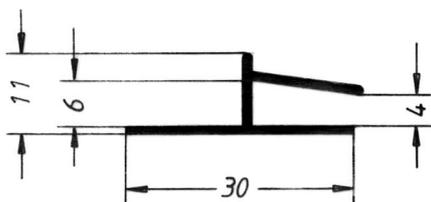
S 130



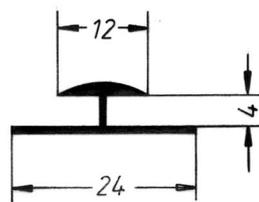
S 308



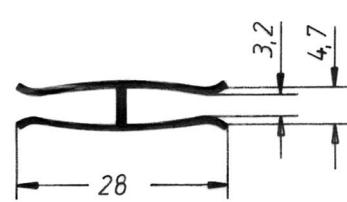
S 309



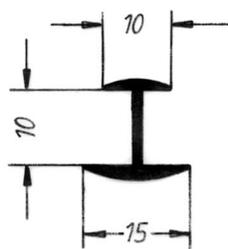
K 26.4



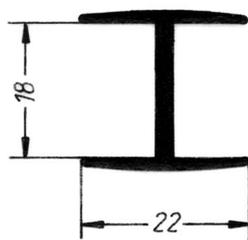
S 129



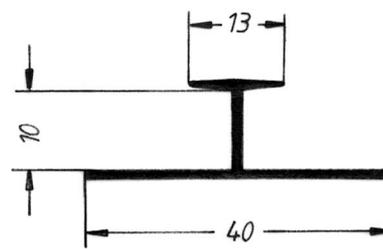
W 39.6



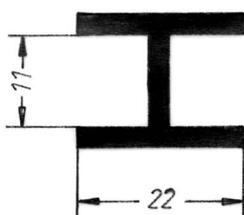
D12.2



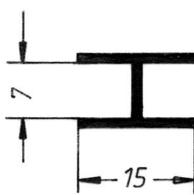
G 21.22



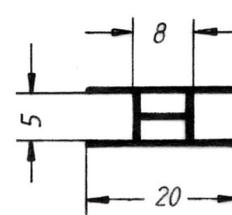
H 2.1



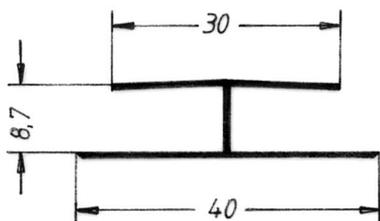
G 21.25



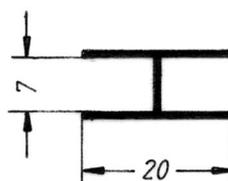
M 35.1



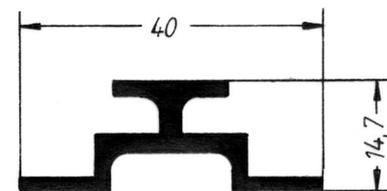
M 35.2



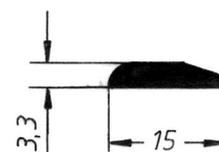
E 8.1



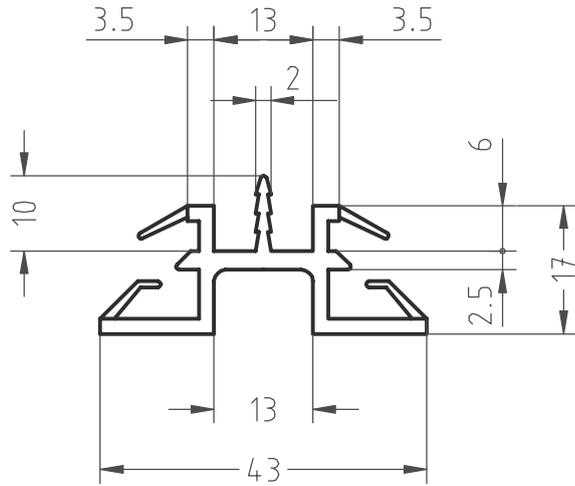
F 17.2



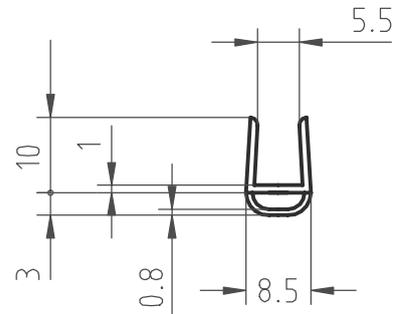
L 3.1



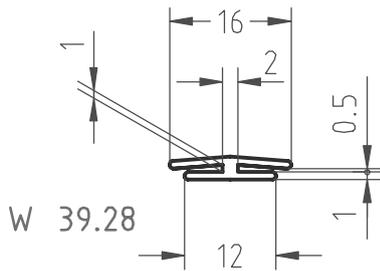
L 3.2



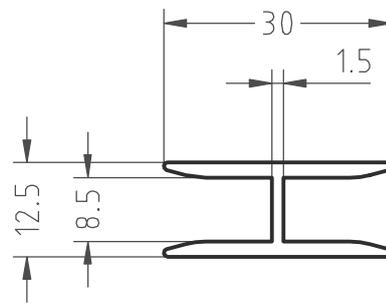
L 3.3



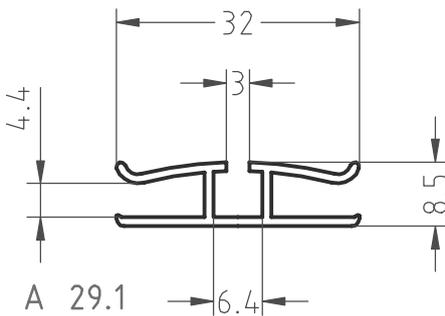
L 3.4



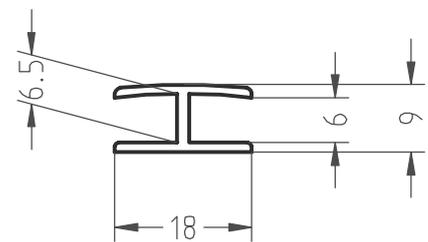
W 39.28



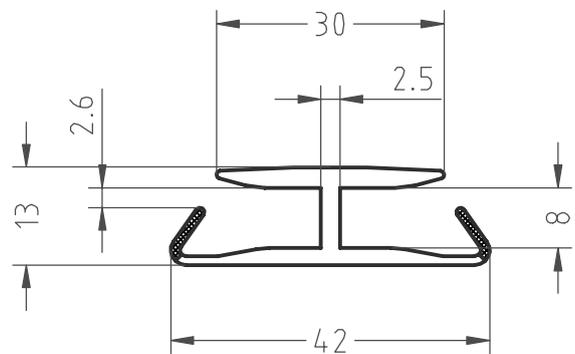
S 10.25



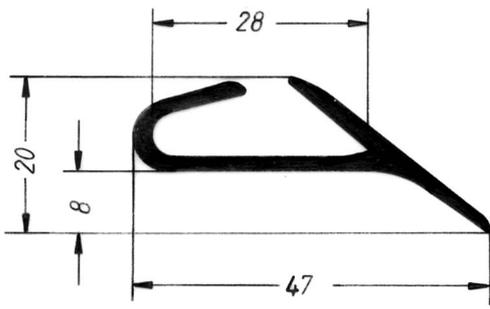
A 29.1



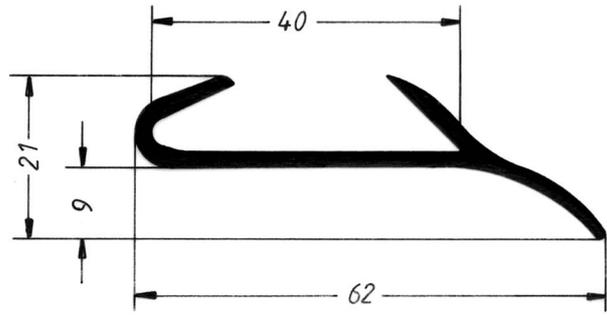
S 10.35



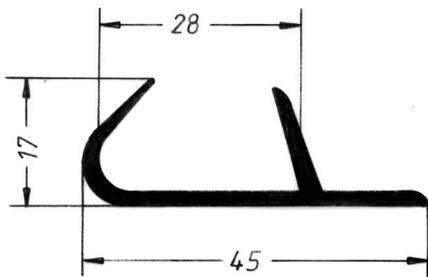
S 10.40



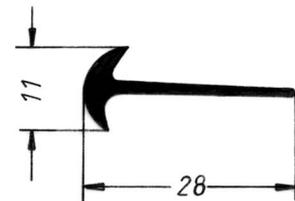
F 19.2



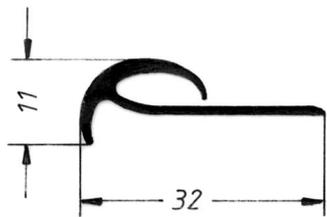
F 19.3



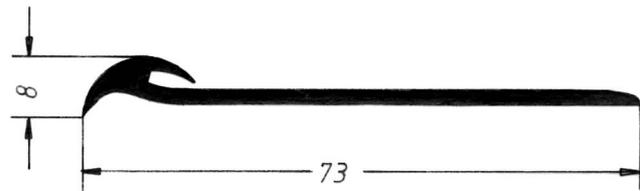
G 21.1



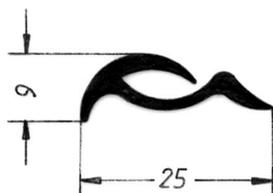
G 21.20



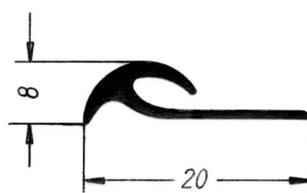
F 19.1



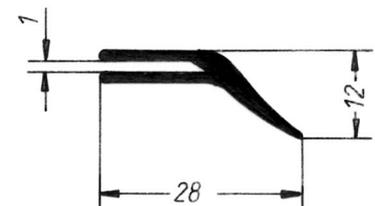
G 25.1



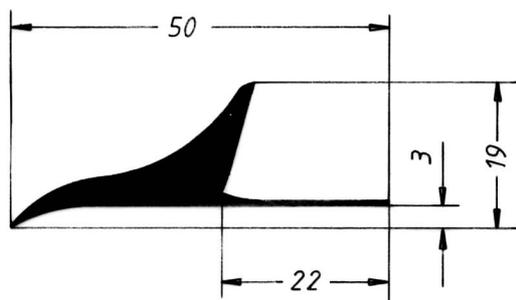
B 33.11



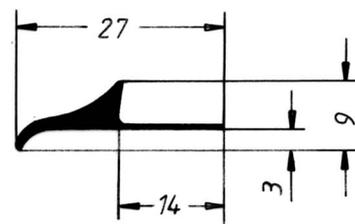
M 17.1



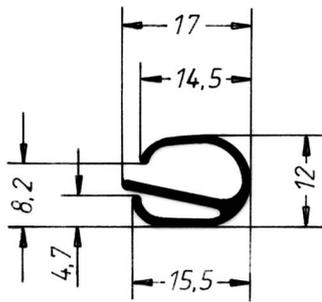
S 139



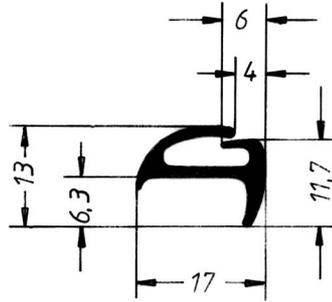
B 50.1



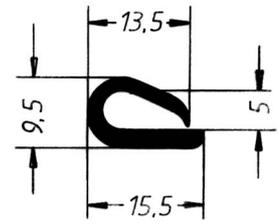
S 9.1



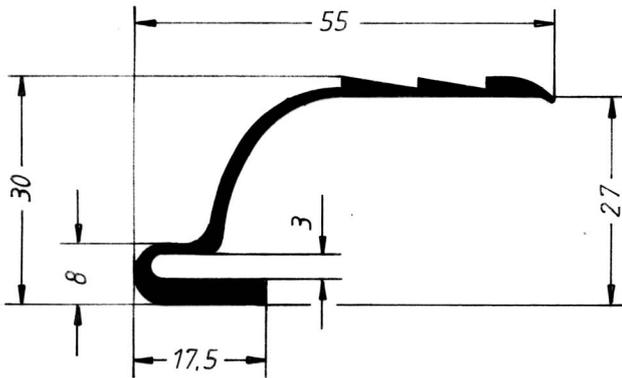
E 2.1



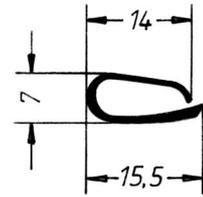
G 7.1



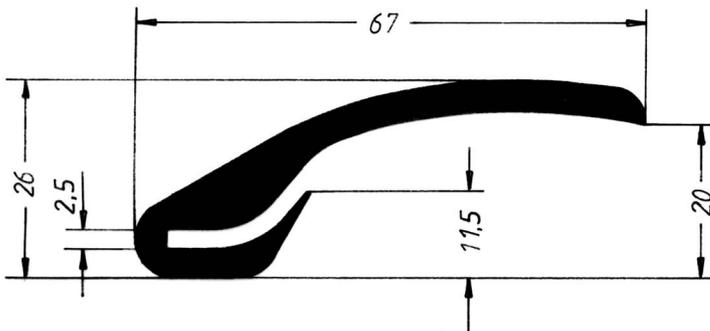
G 13.2



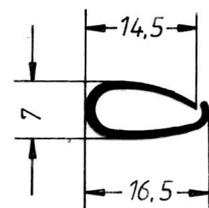
G 13.1



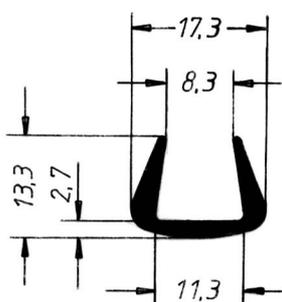
G 32.2



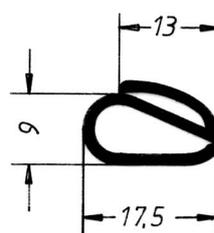
G 13.4



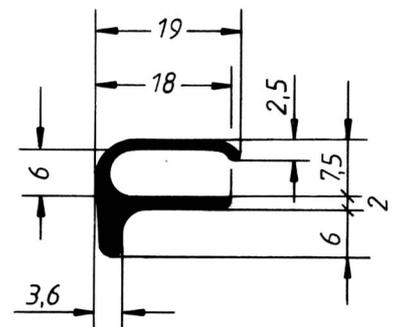
G 32.3



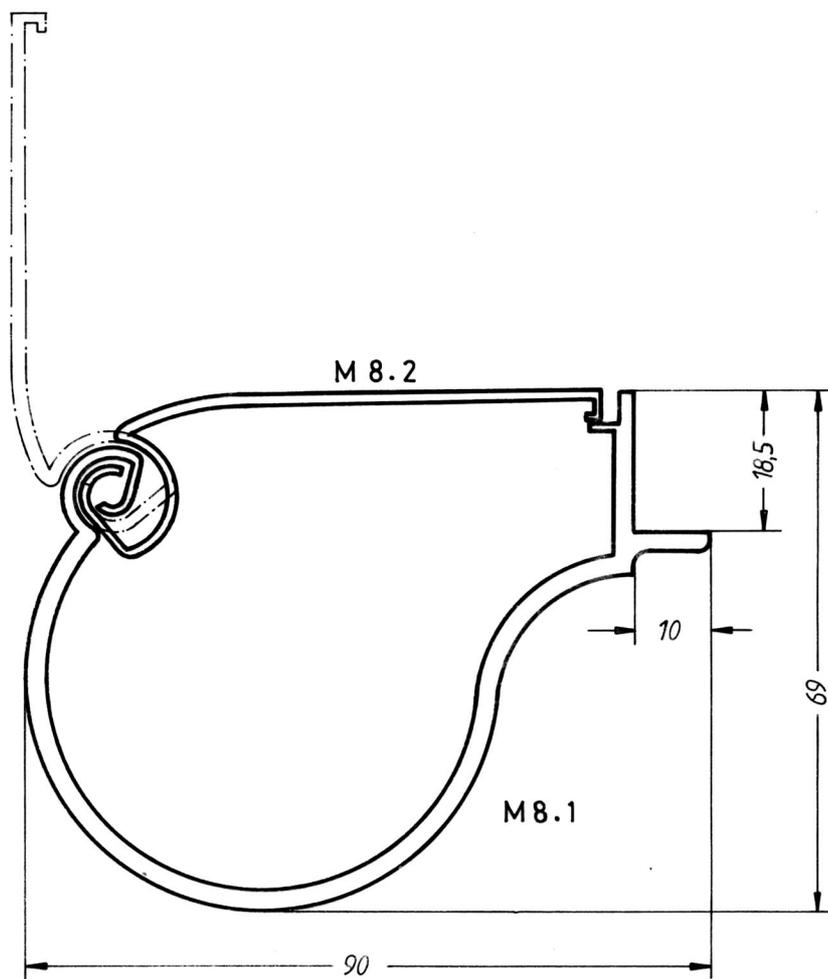
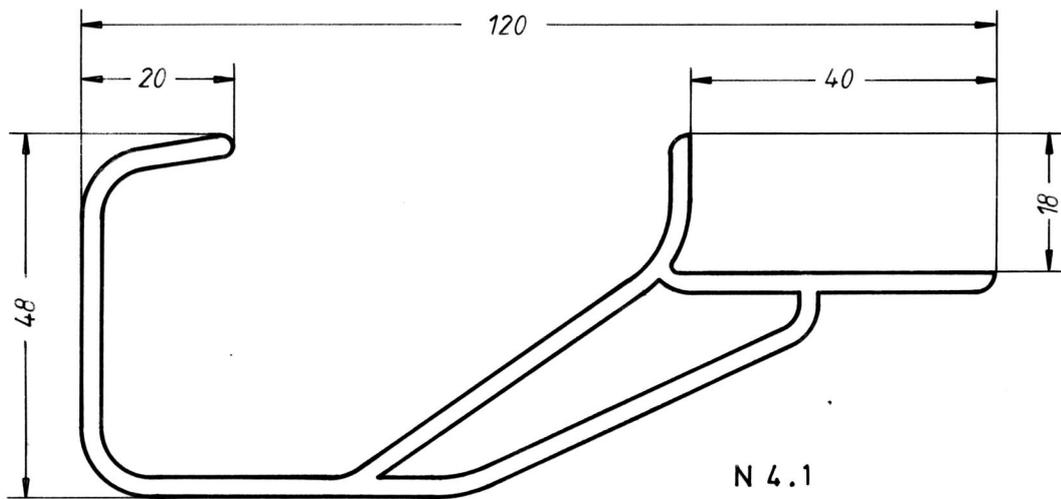
G 32.4

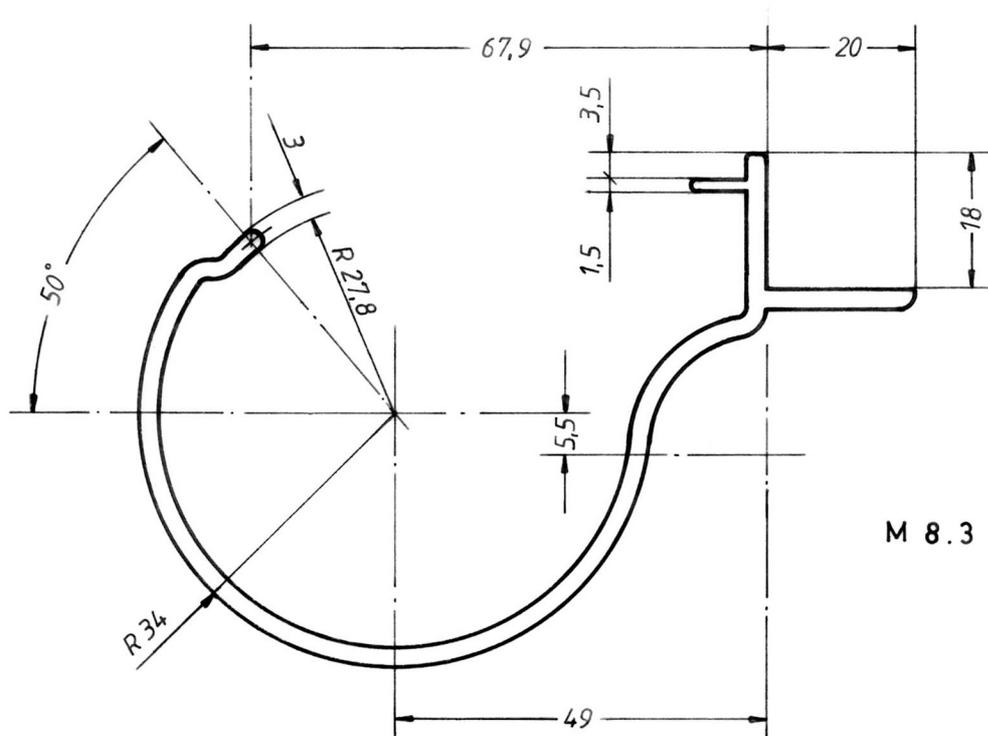
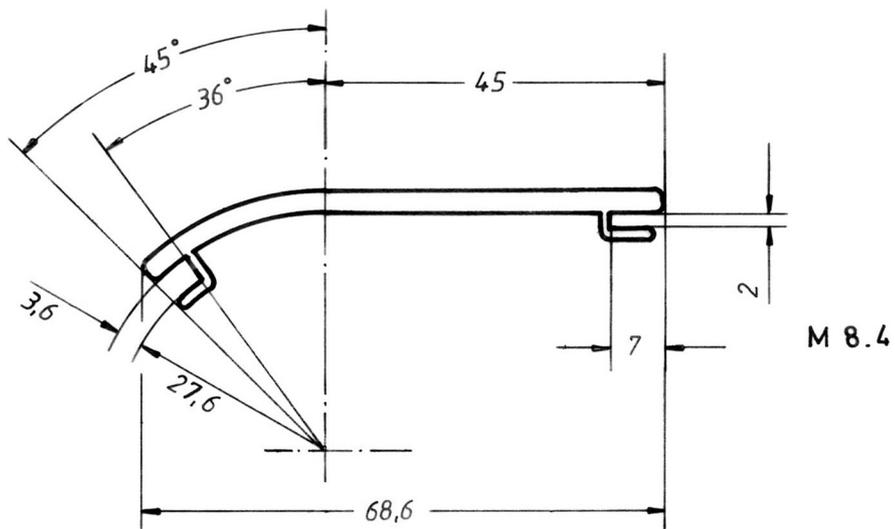


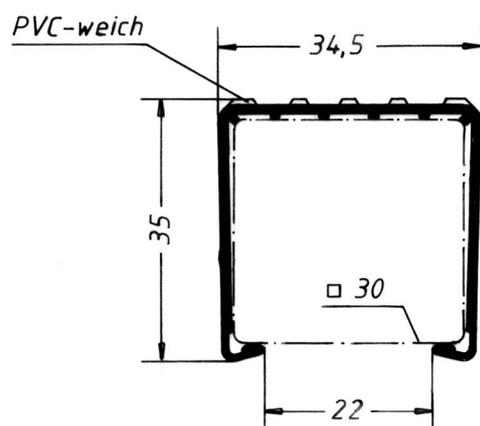
G 32.6



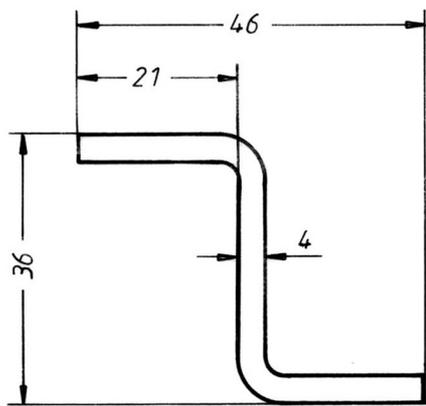
M 29.1



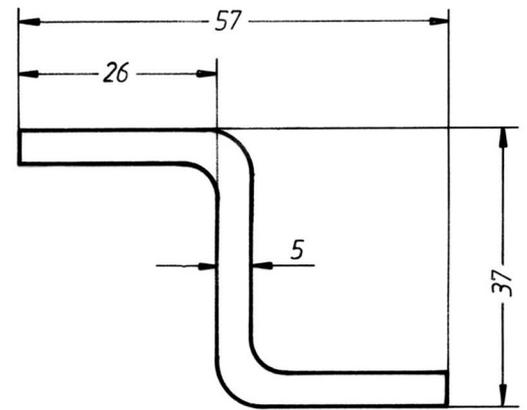




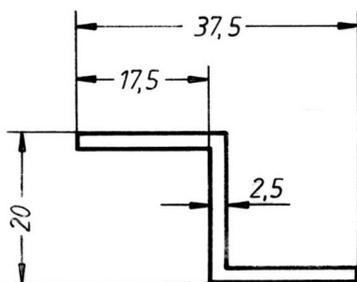
N 4.3



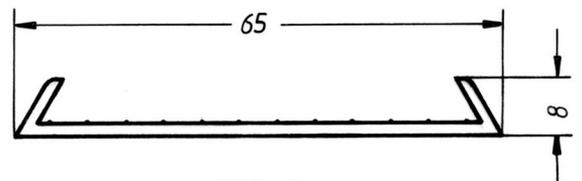
O 1.1



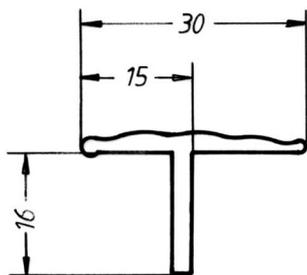
O 1.2



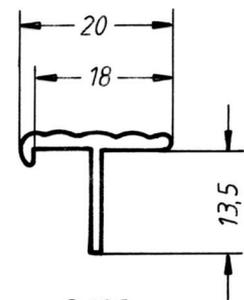
R 4.6



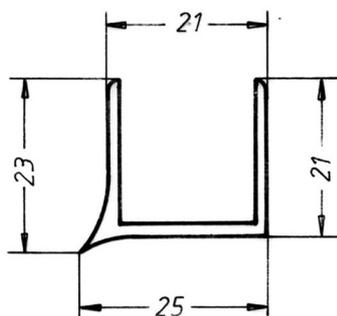
D 6.1



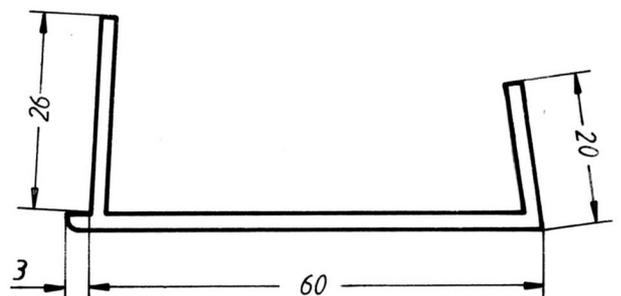
S 138



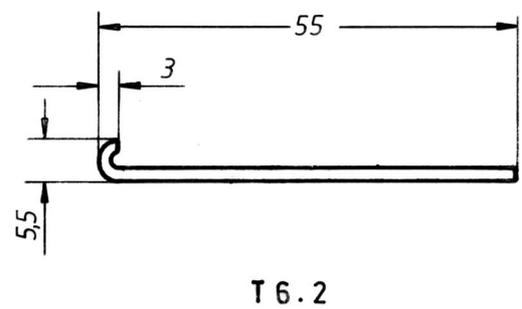
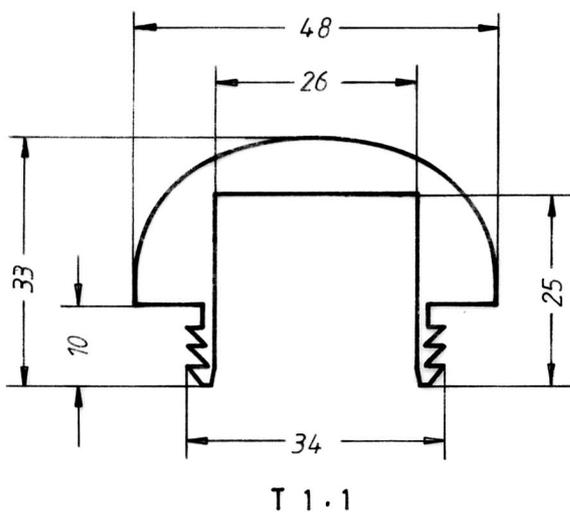
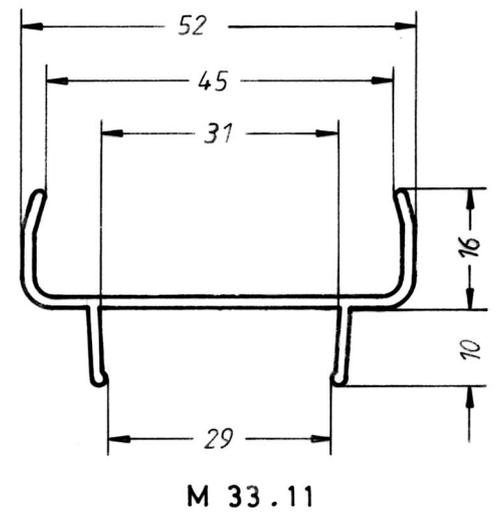
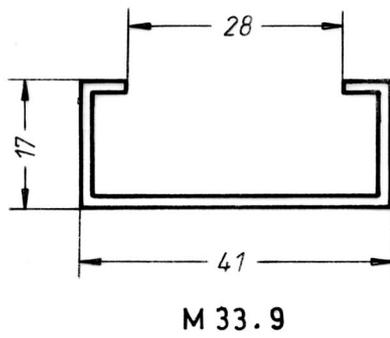
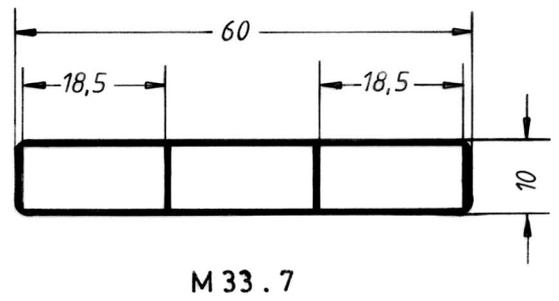
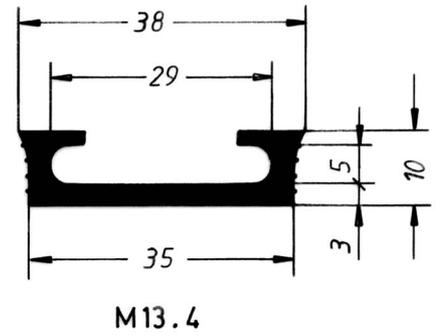
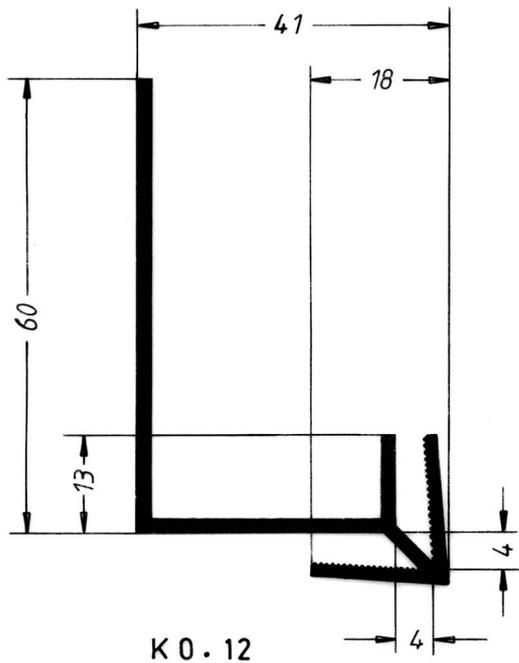
S 189

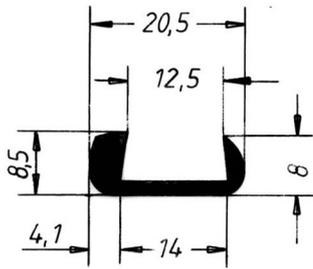


M 22.5

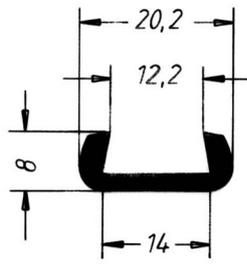


M 33.5

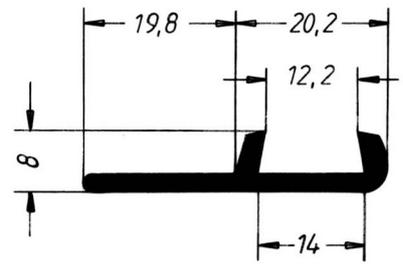




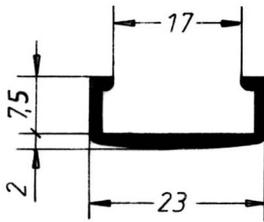
M 33.3



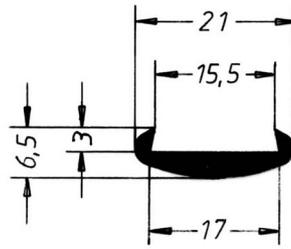
M 33.10



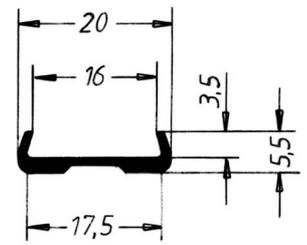
M 33.12



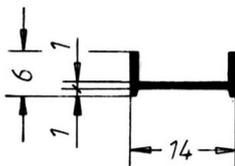
H 23.1



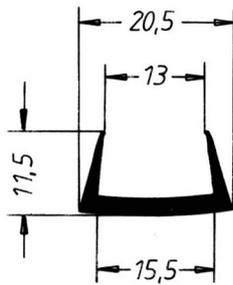
H 23.16



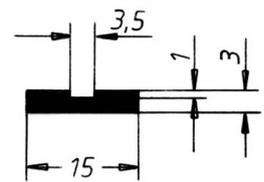
H 23.27



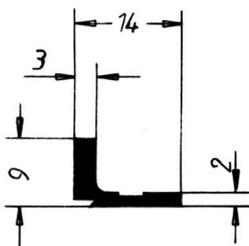
B 32.4



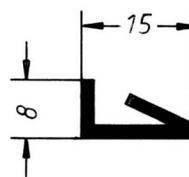
B 59.2



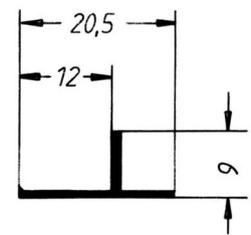
G 21.26



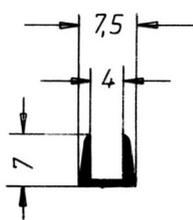
G 21.30



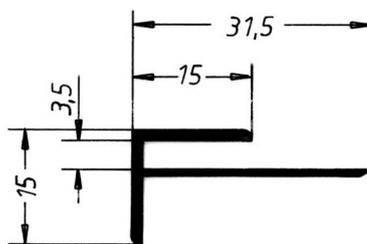
H 5.4



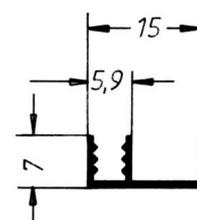
H 23.4



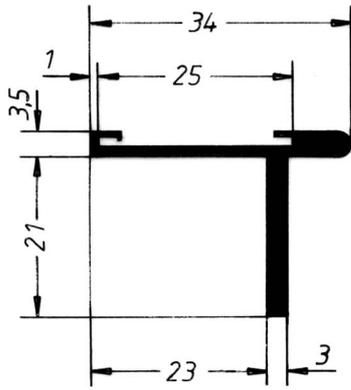
M 22.4



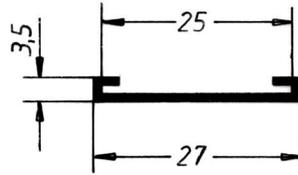
M 22.7



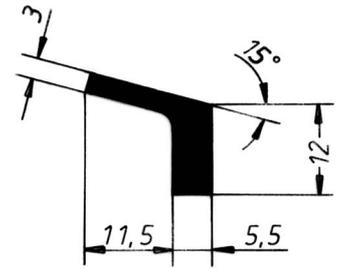
M 33.4



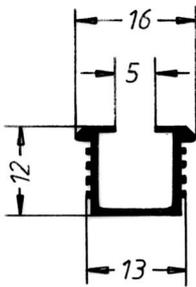
B 46.4



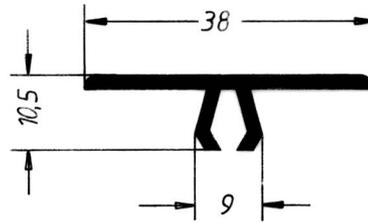
B 46.4a



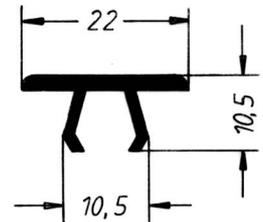
B 46.6



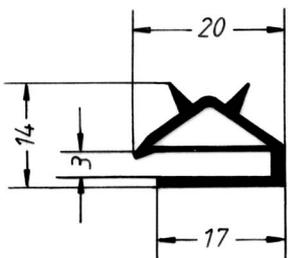
R 1.1



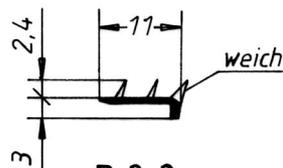
St 4.4



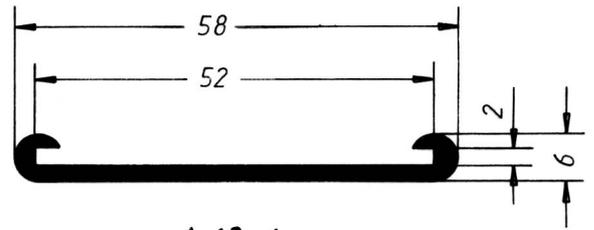
St 4.6



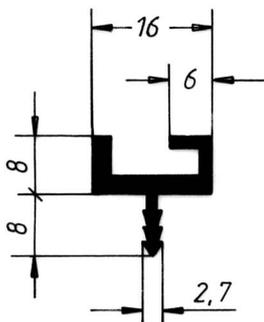
T 6.1



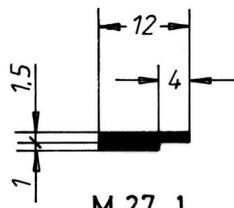
P 2.3



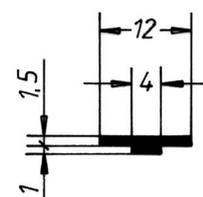
A 12.1



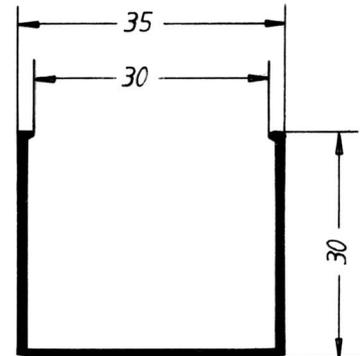
Sch 8.3



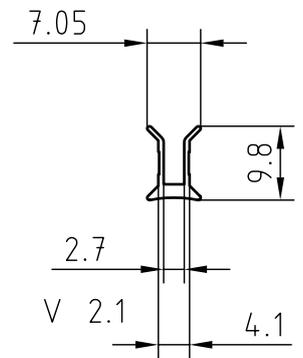
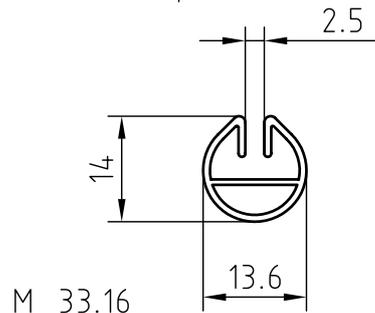
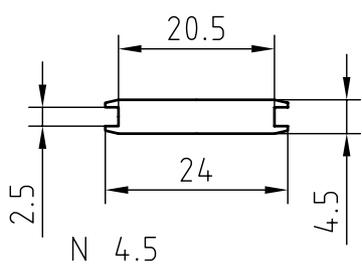
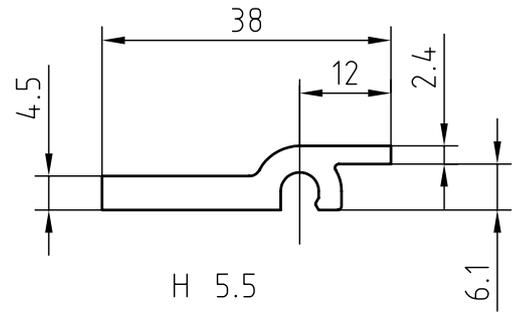
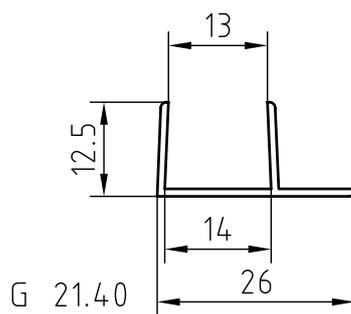
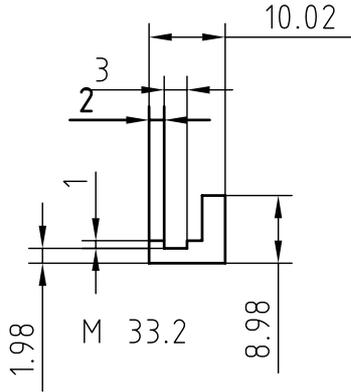
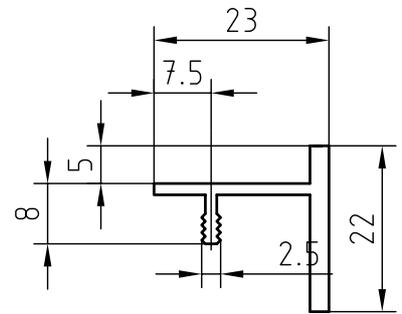
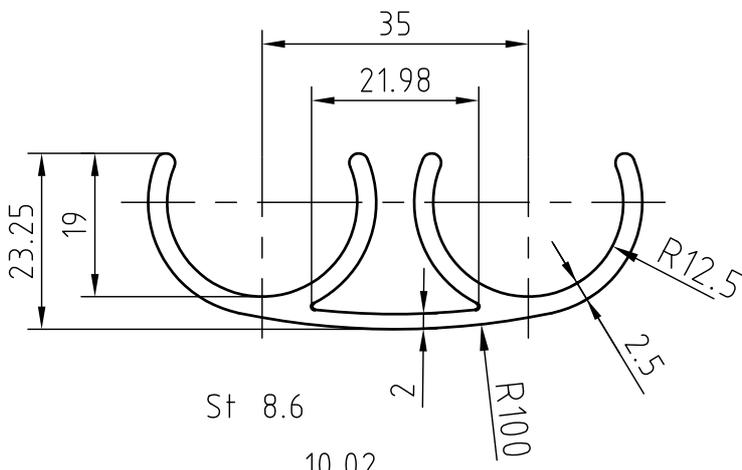
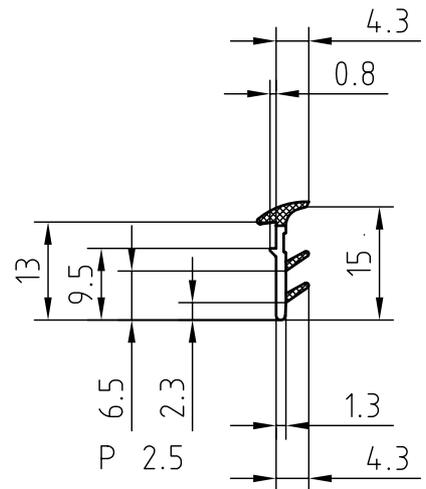
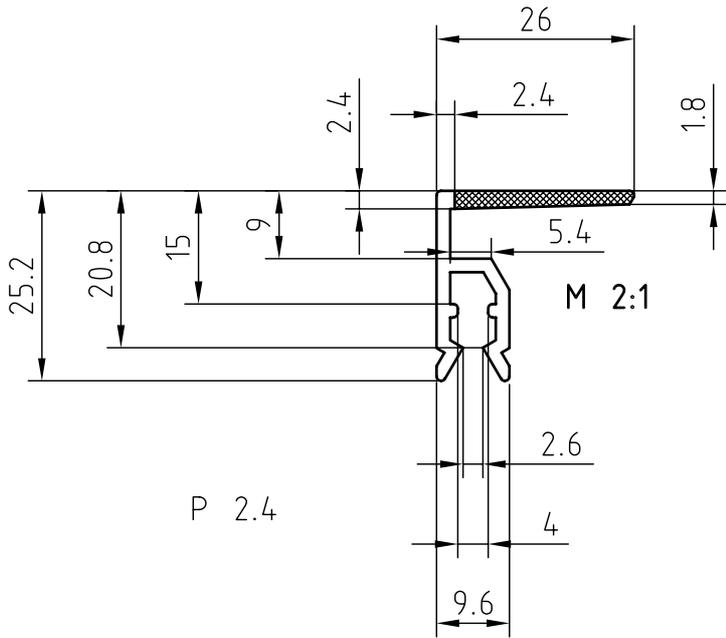
M 27.1

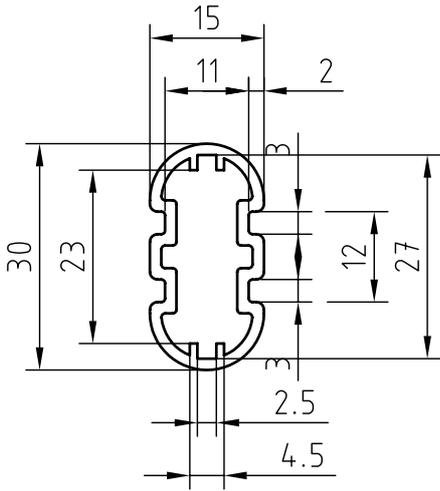


M 27.2

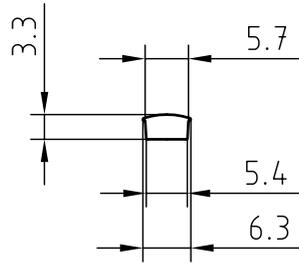


H 23.18

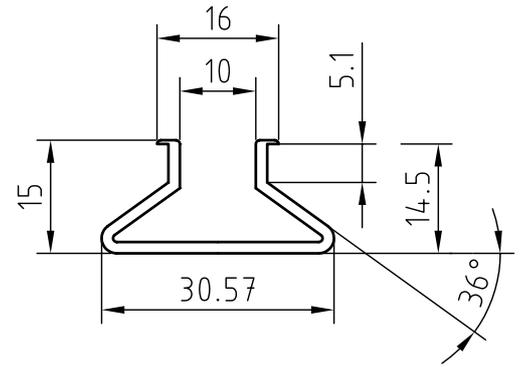




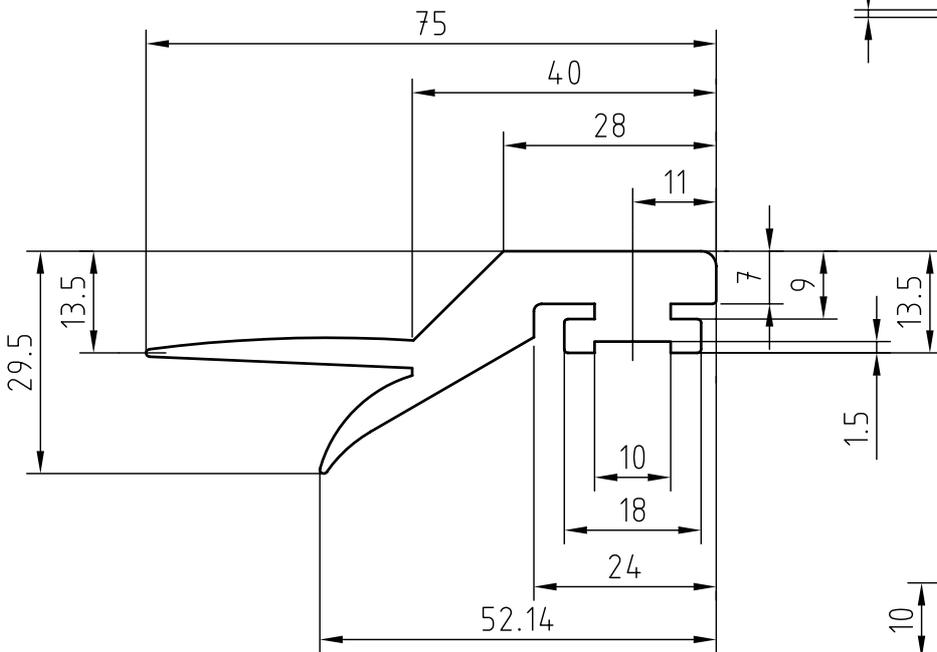
C 16.1



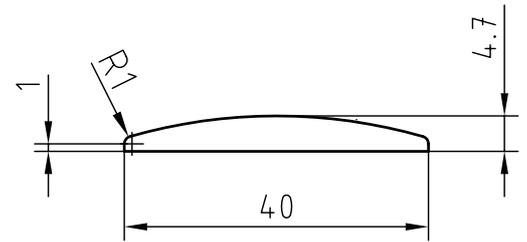
D 25.1



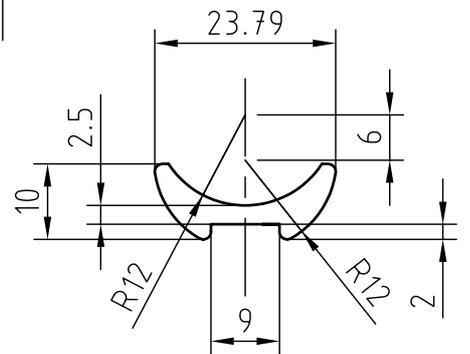
R 22.1



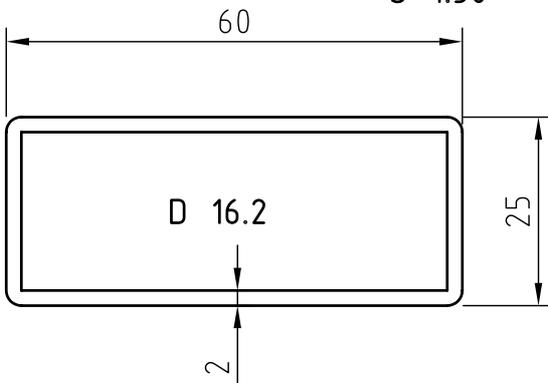
S 1.30



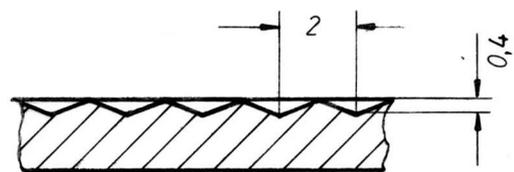
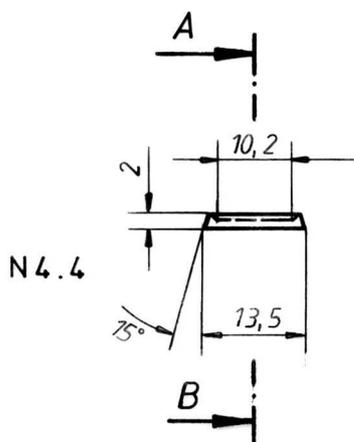
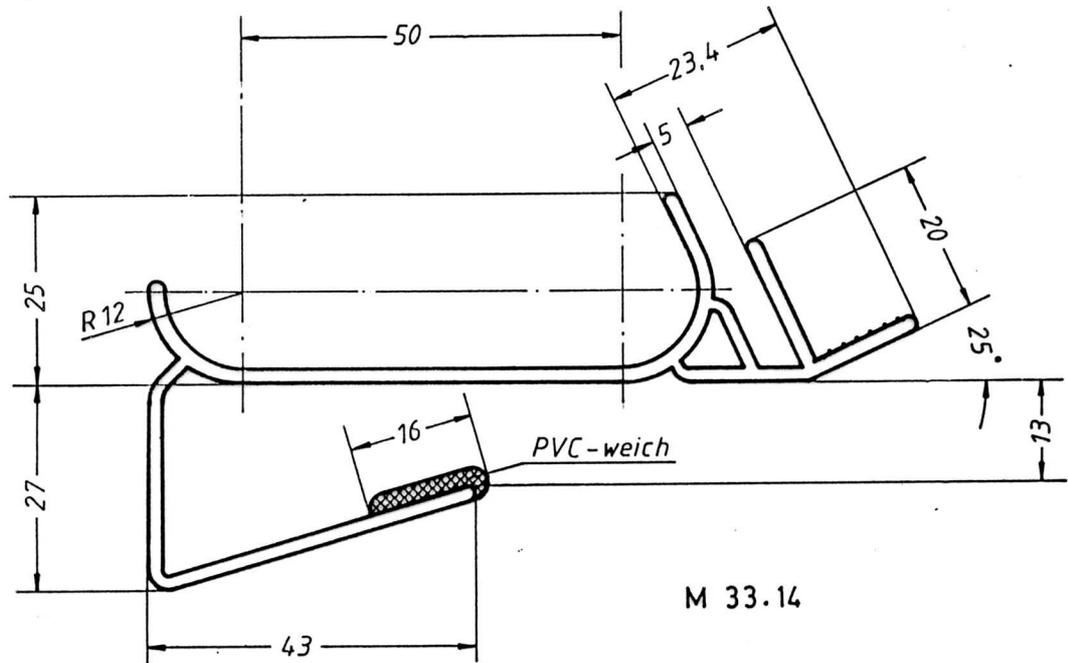
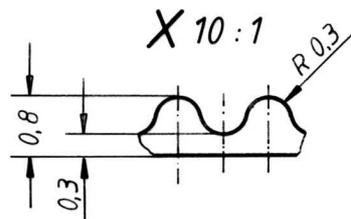
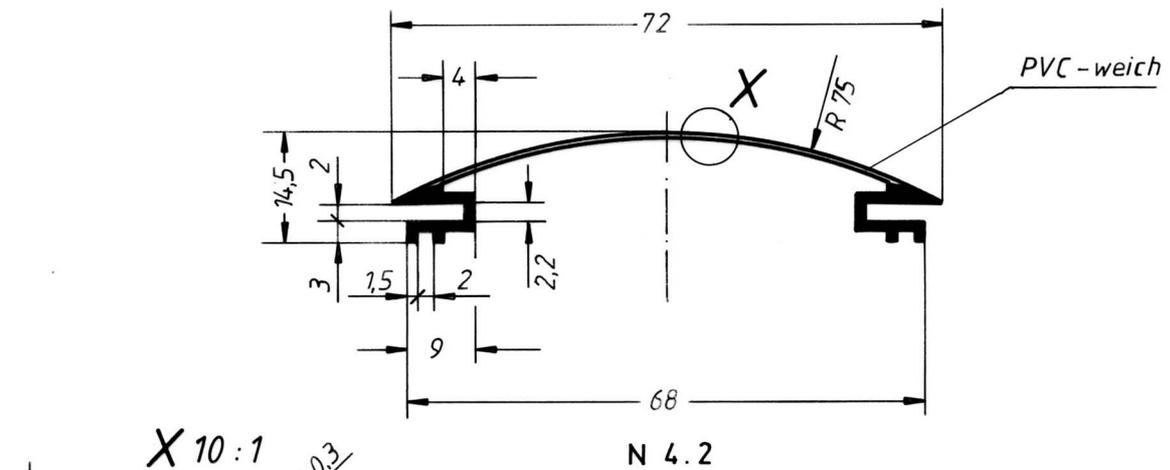
P 17.1



G 36.1

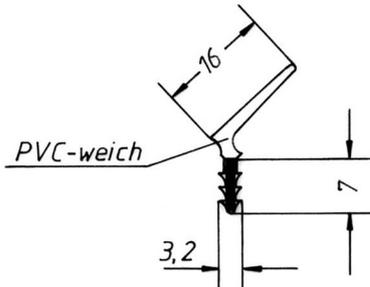


D 16.2

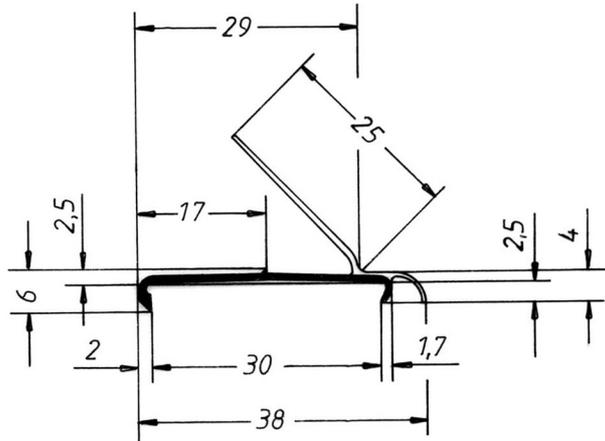


Schnitt A-B  
M 5:1

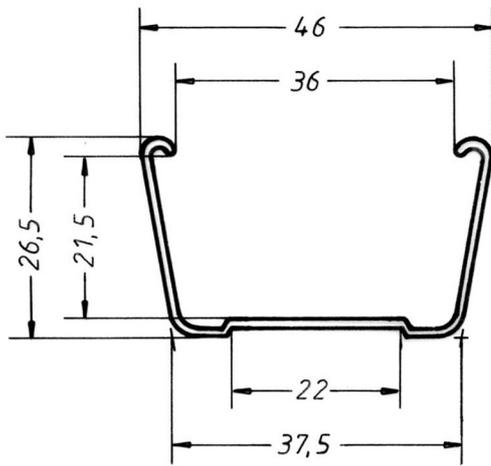




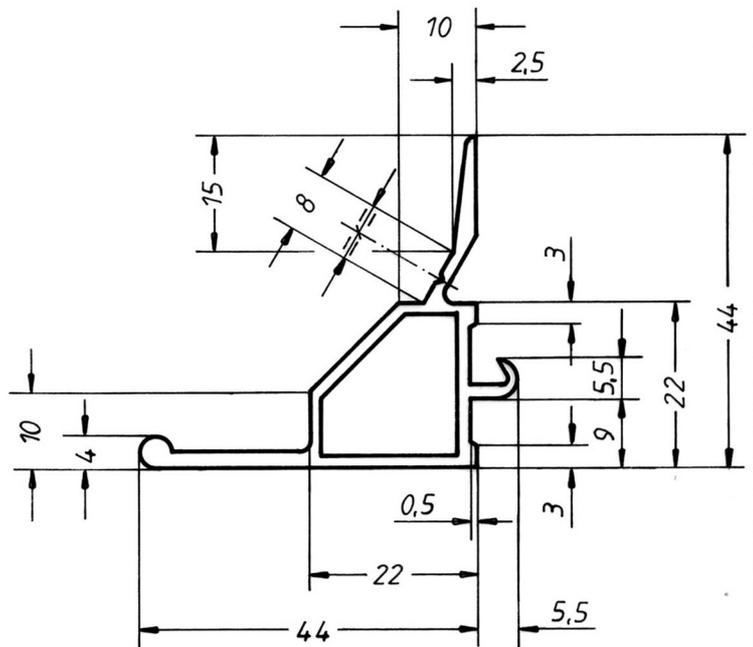
W 39.22



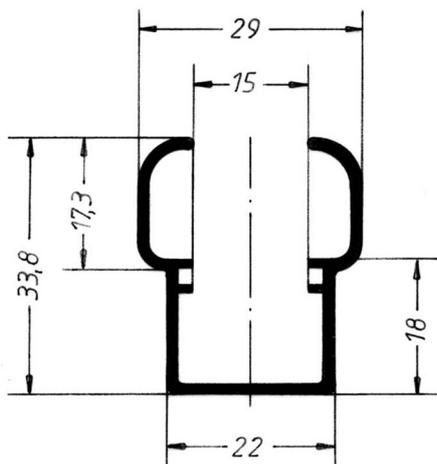
C 5.5



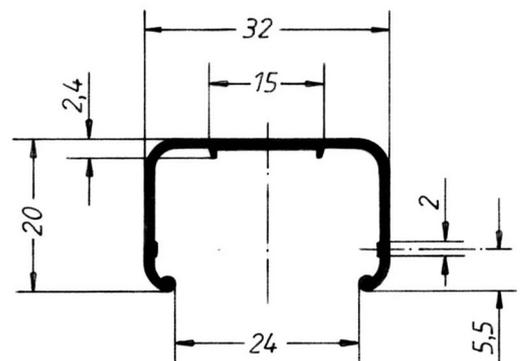
C 5.3



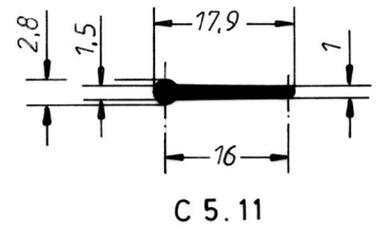
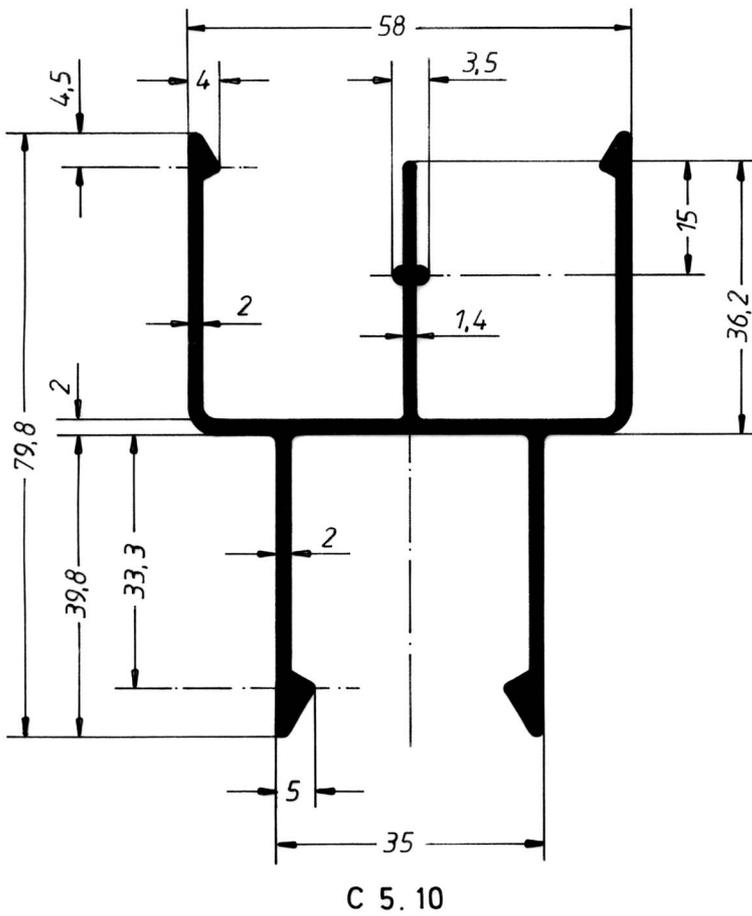
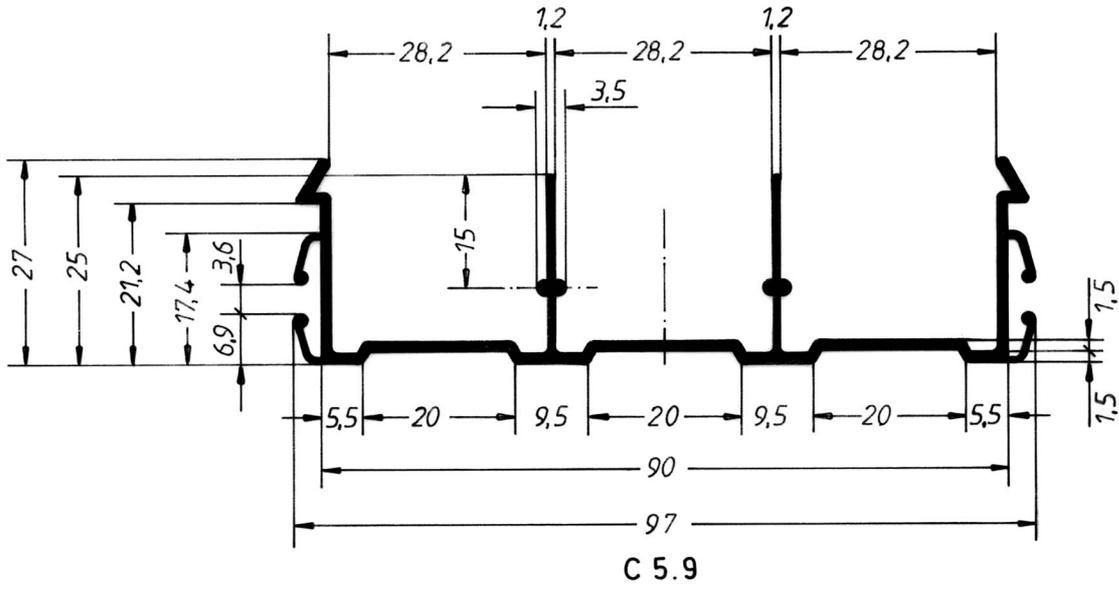
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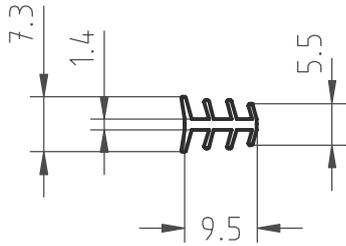


C 5.6

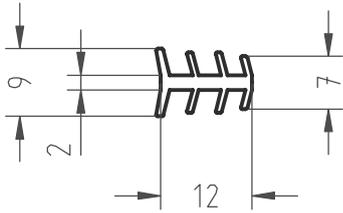


C 5.7

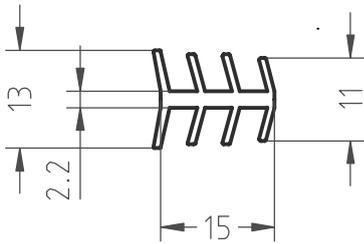




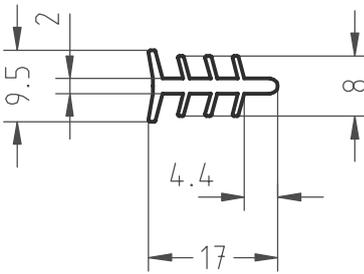
C 5.12-7



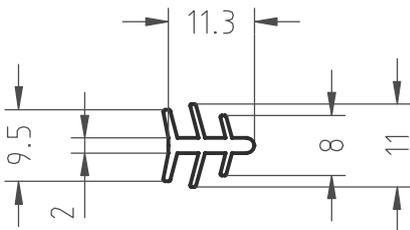
C 5.12



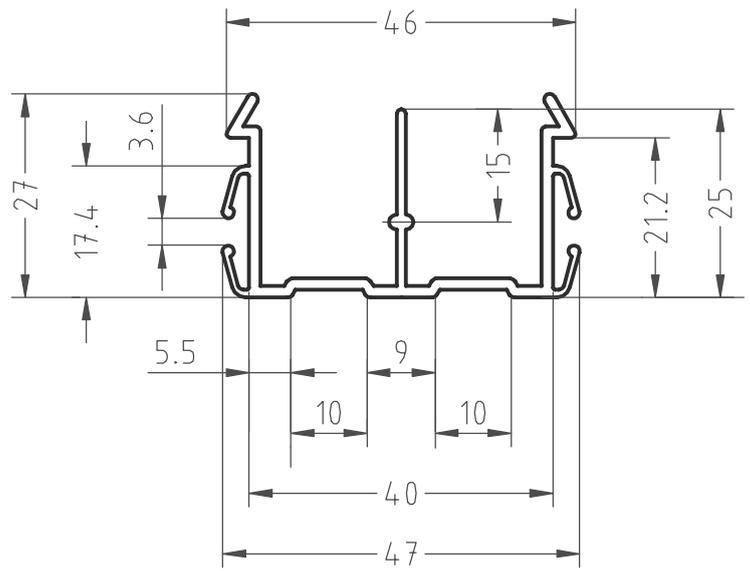
M 41.1



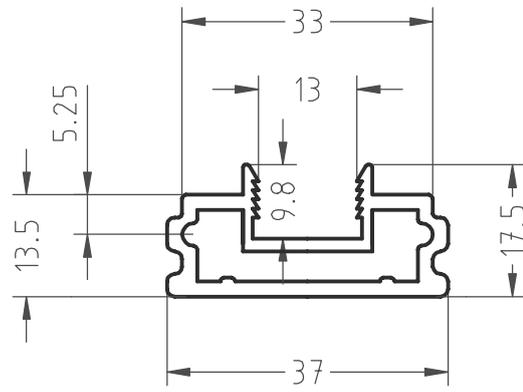
W 39.30



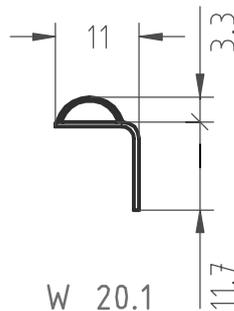
W 39.31



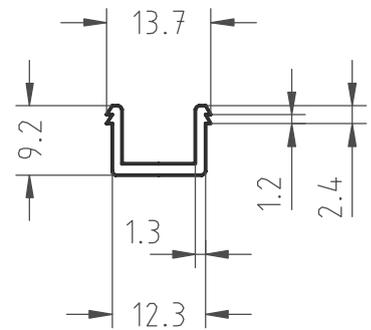
C 5.13



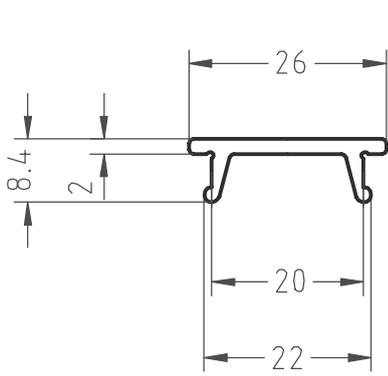
C 5.15



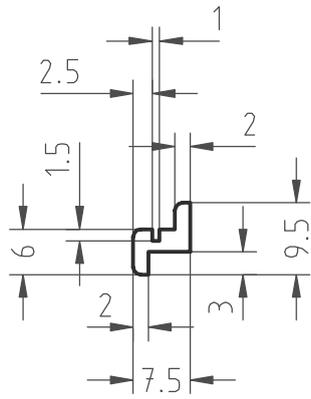
W 20.1



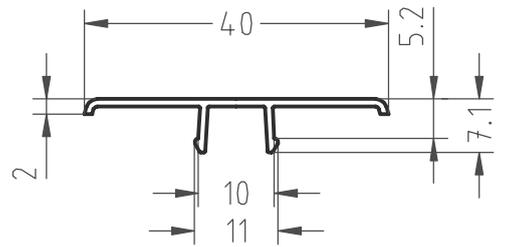
C 5.14



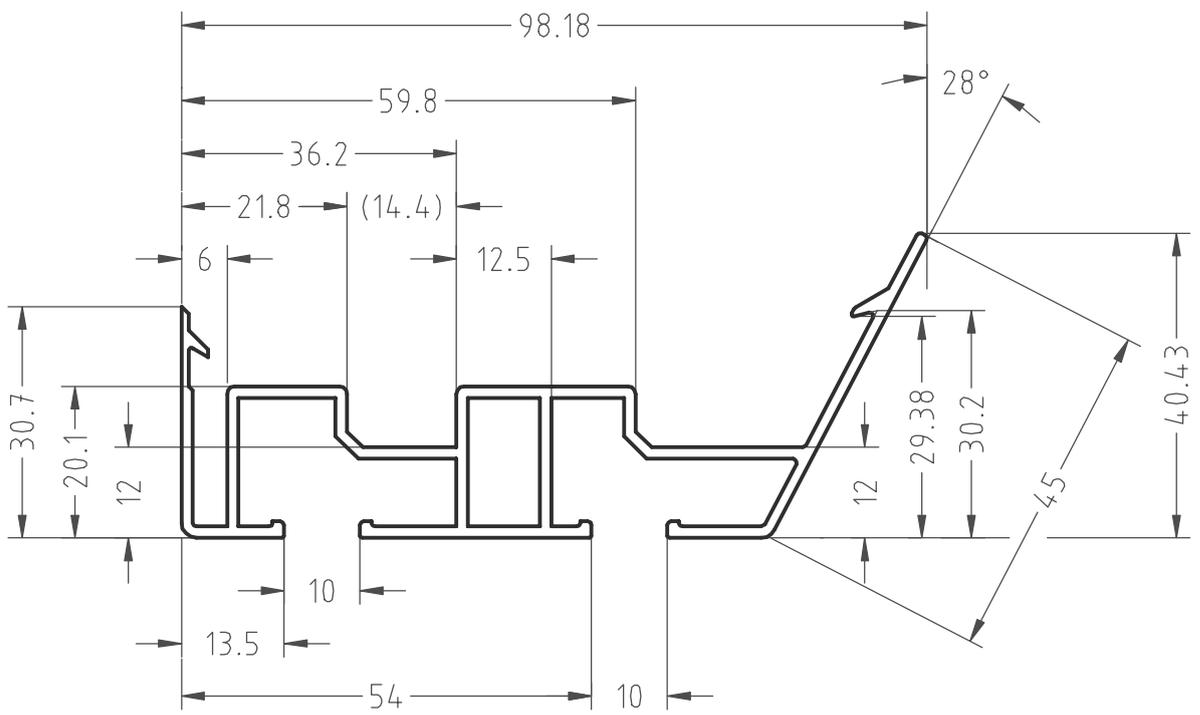
Sch 27.1



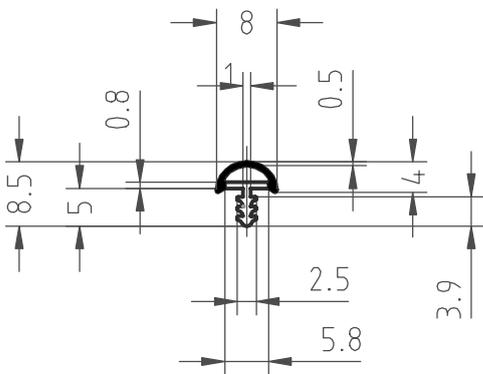
R 33.1



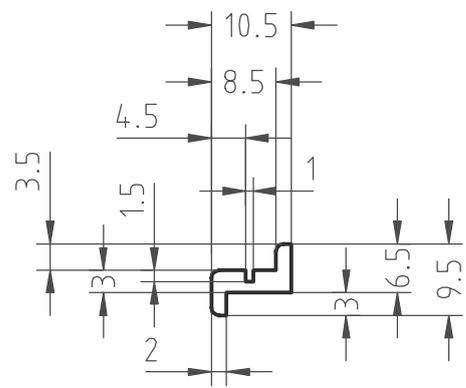
Sch 27.2



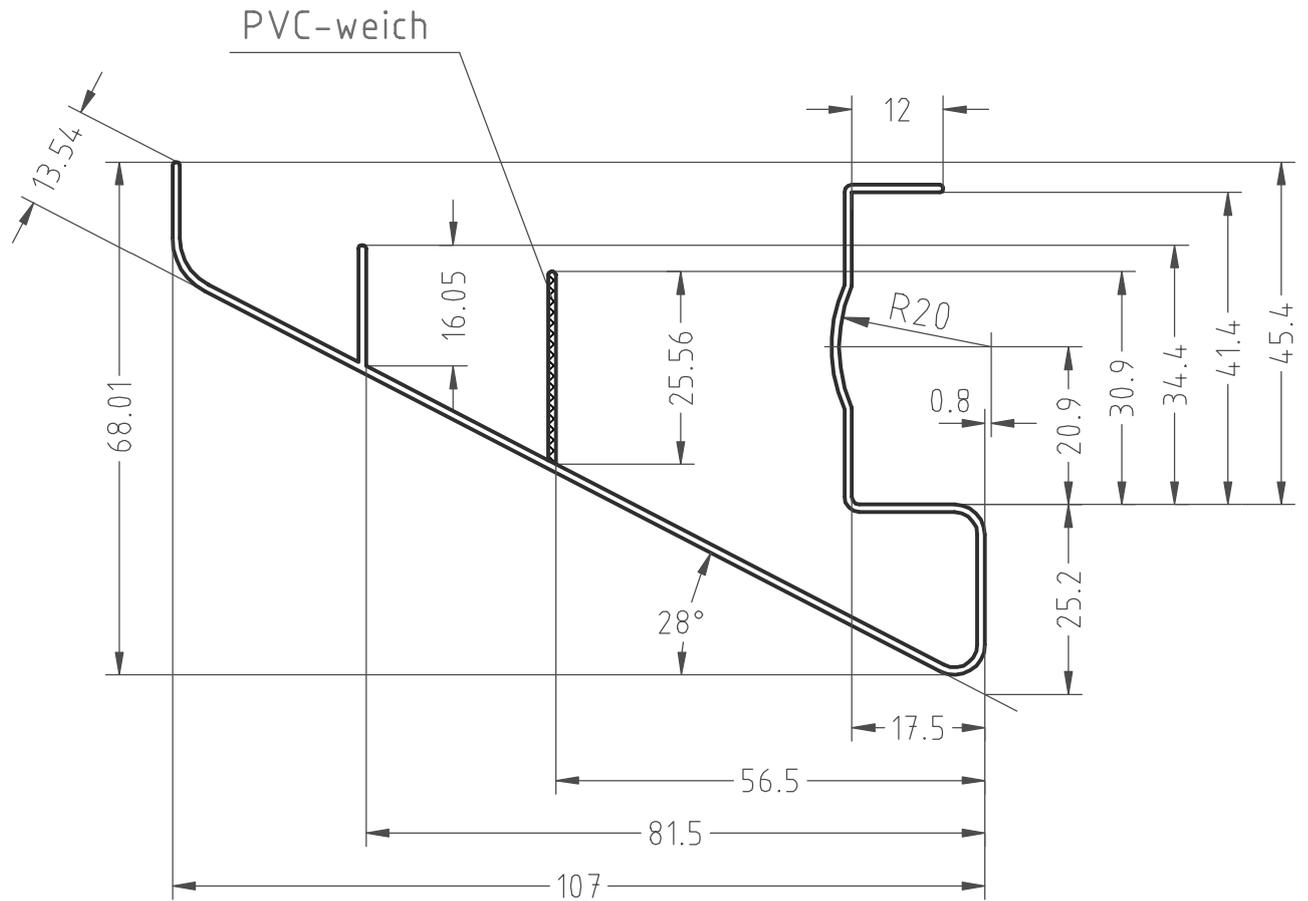
Sch 27.3



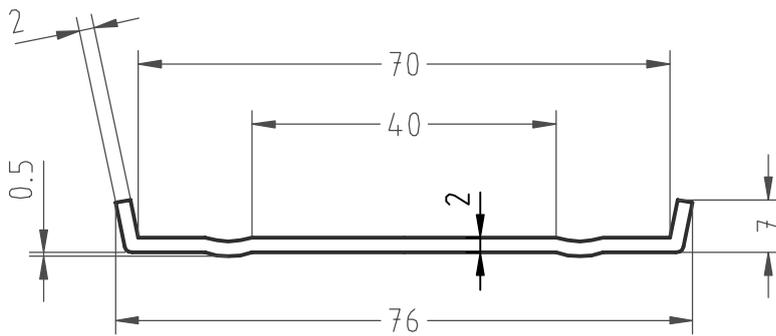
W 39.29



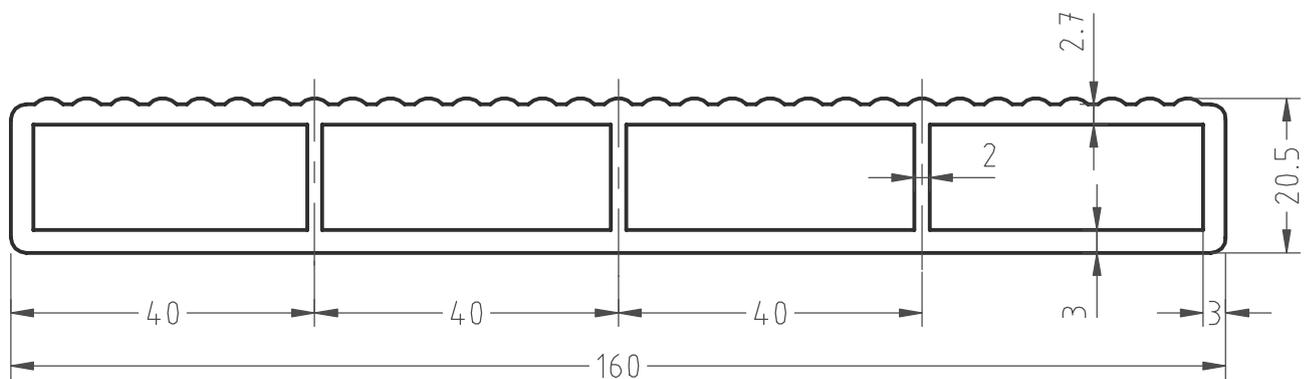
R 33.2



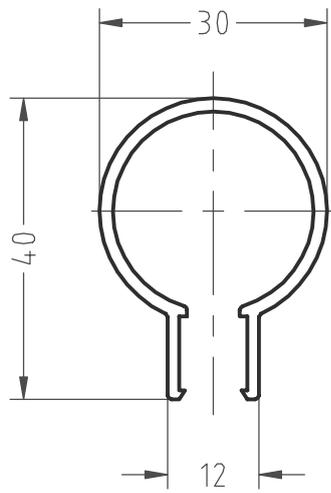
Sch 27.4



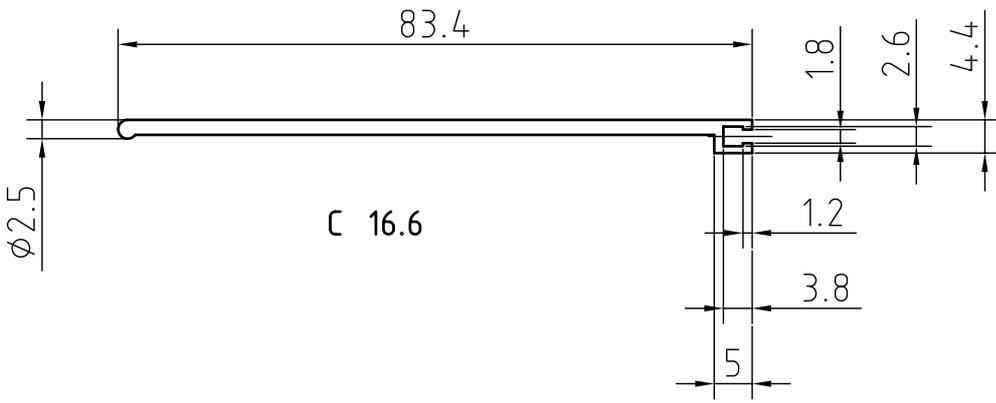
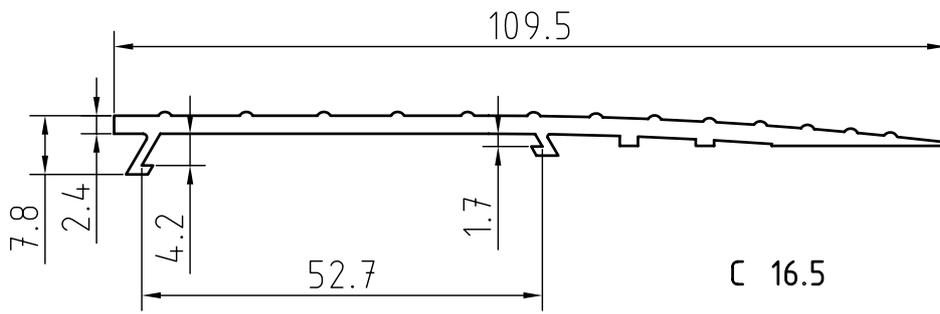
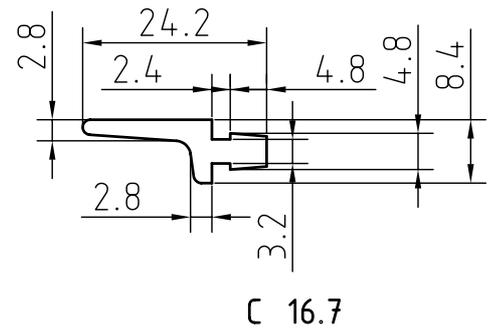
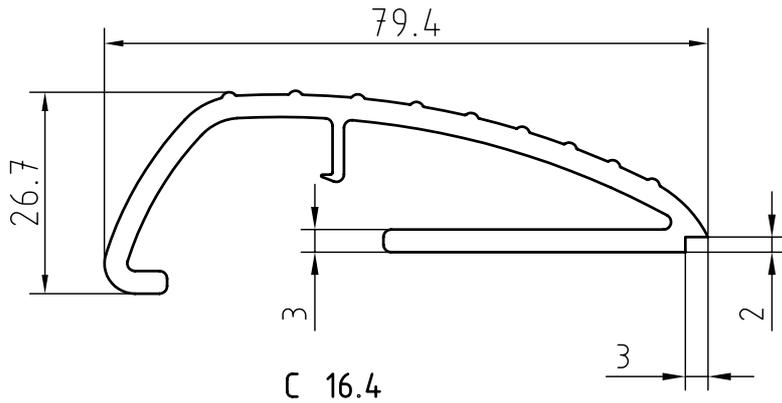
P 22.1



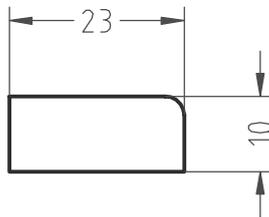
O 1.3



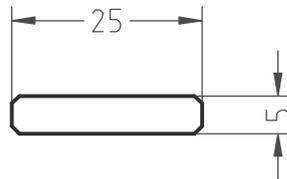
B 84.1



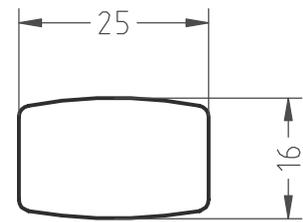




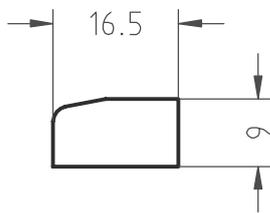
R 12.3



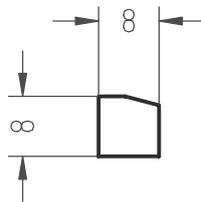
H 3.1



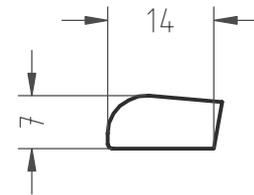
J 1.3



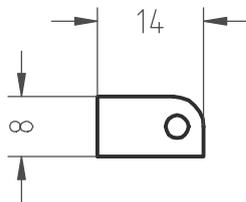
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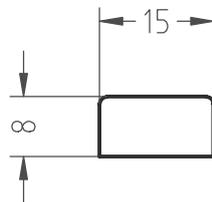
R 12.2



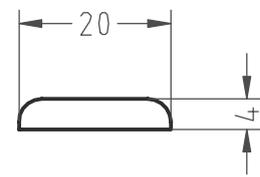
S 211



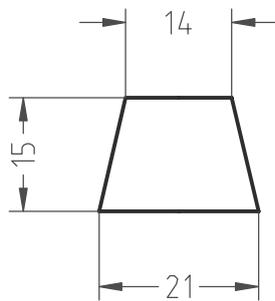
S 304



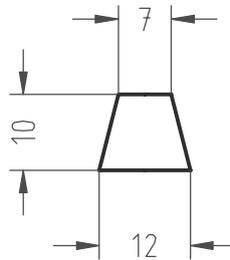
W 39.12



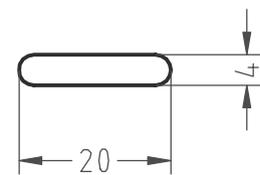
K 26.5



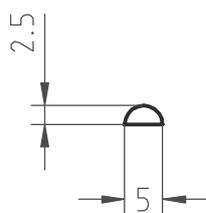
B 56.4



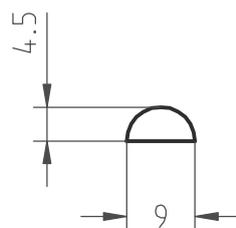
TR 12



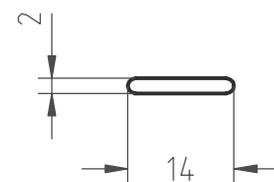
R 12.4

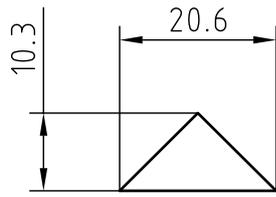


S 163

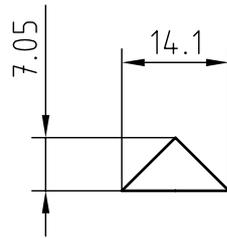


S 162

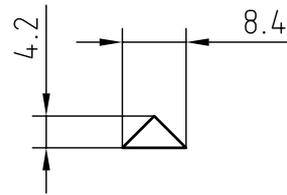




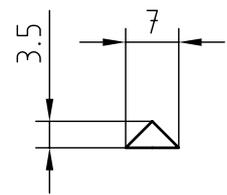
B 43.7



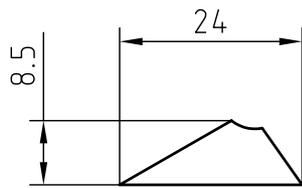
B 43.5



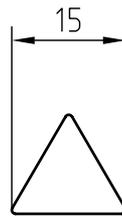
B 43.6



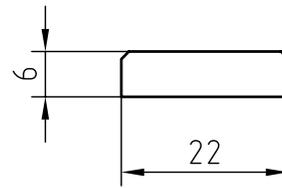
B 43.6 a



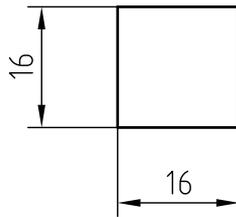
S 165



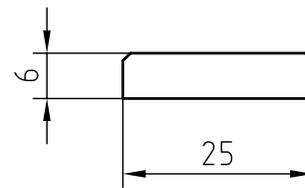
F 3.1



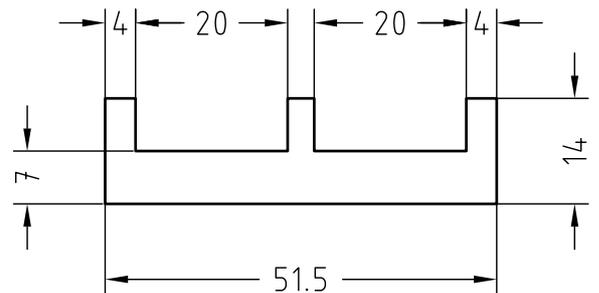
U 3.8



O 2.2

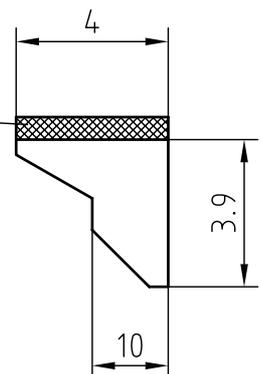


U 3.9

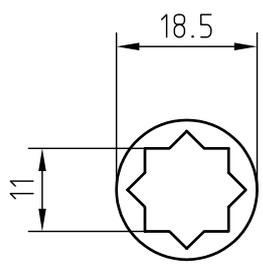


U 3.11

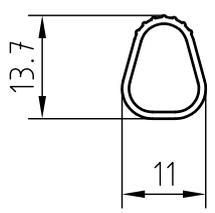
Klebeband  
Duplomont 9042 4x0,6 mm



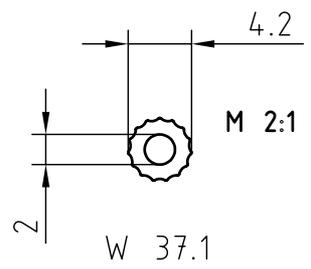
F 41.01



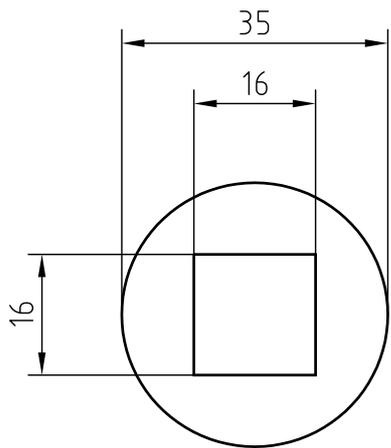
D 14.1



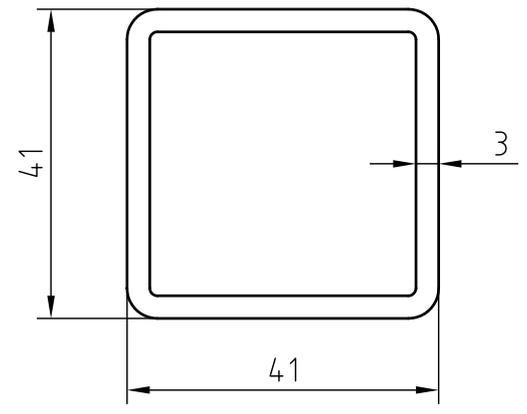
R 19.4



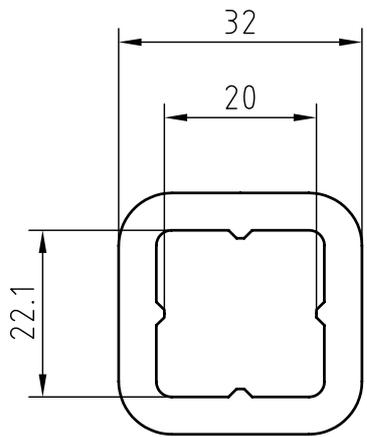
W 37.1



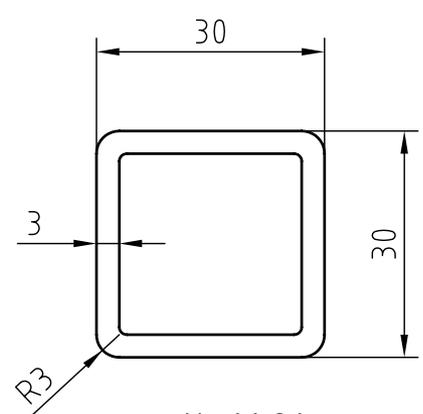
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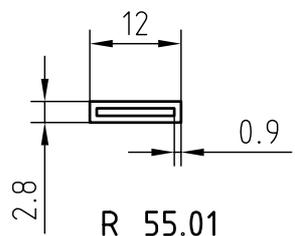
Sch 44.1



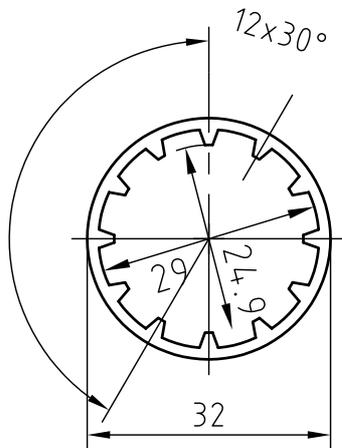
H 8.4



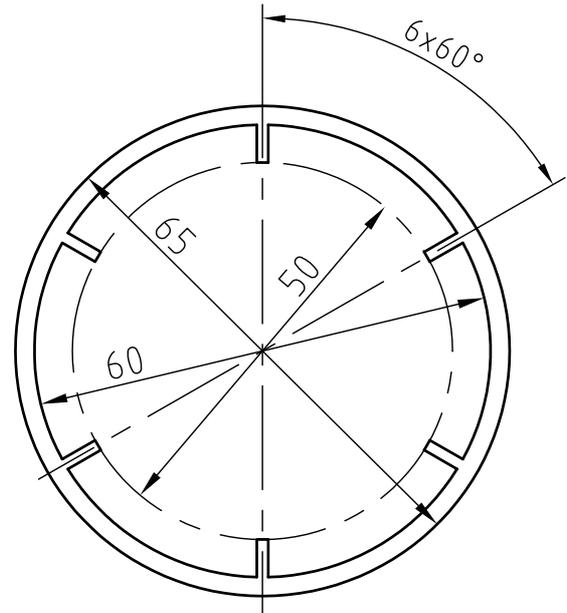
H 66.06



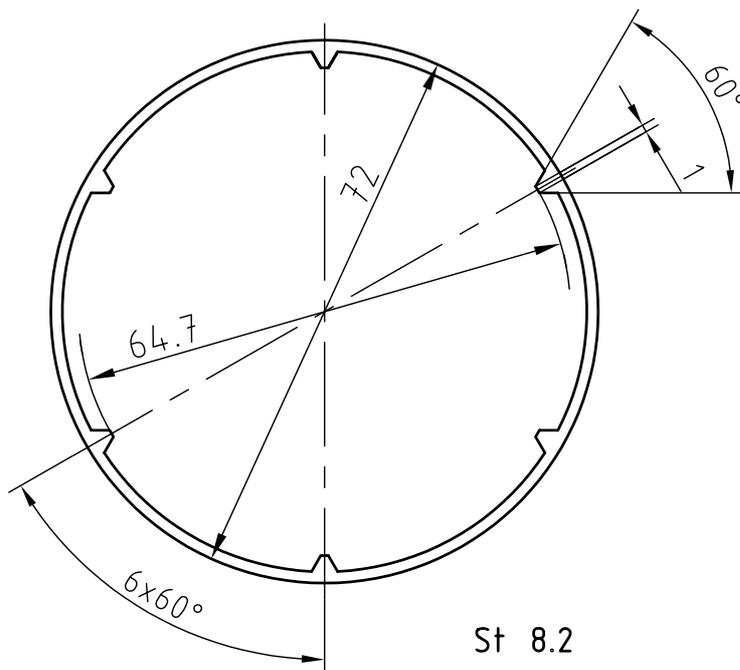
R 55.01



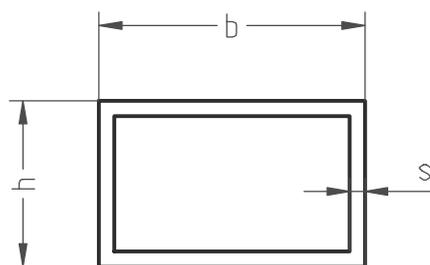
St 8.1



St 8.7

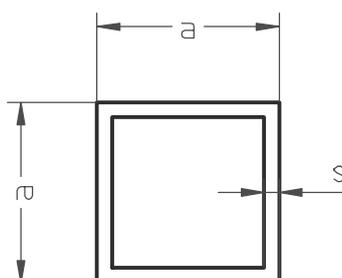


St 8.2



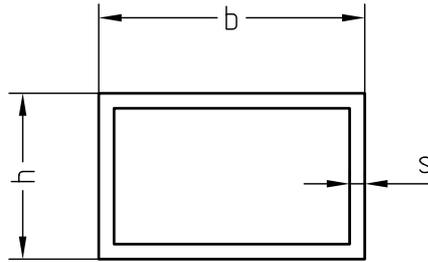
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M 55.1	10	8	2,5
IBM	14,8	11,8	1,1
C 16.2	60	25	2
E 12.1	60	30	2
M 28.1	109	64	2

Profilnr.	b	h	s



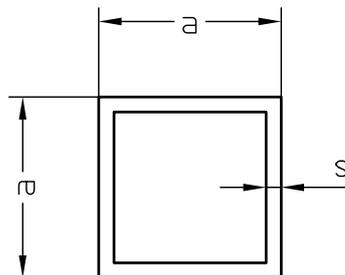
Profilnr.	a	s
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N 3.2	35,7	0,8
P FPH 16	12,7	1,4
P FPH 18	14,3	1,4
P FPH 20	15,9	1,4
P FPH 24	19	1,4
P FPH 28	22,2	1,5
P FPH 32	25,4	1,5
P FPH 36	28,6	1,5

Profilnr.	a	s
P FPH 40	31,8	1,5



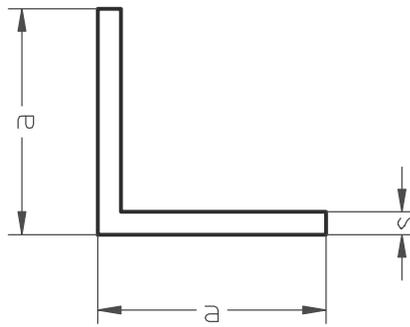
Profilnr.	b	h	s
R 16.24	32	18	2
R 16.25	22	16	2
R 16.26	34	15	2
R 16.27	21	11	2
R 16.28	28	14	2

Profilnr.	b	h	s
R 16.29	16	14	2

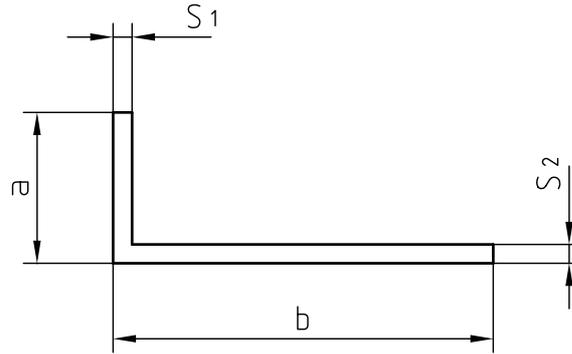


Profilnr.	a	s
R 16.23	14	2
x	x	x

Profilnr.	a	s



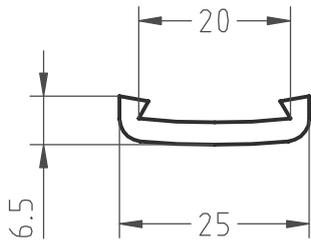
Profilnummer	a	s	
S 320	13	2	
S 319	16	3	
	20	1	
H 48.14	20	4.2	1,1x45°
H 48.12	20	4.9	1,45x45°
M 2.1	33	3	3x45°
N 2.1	60	3	5x45°



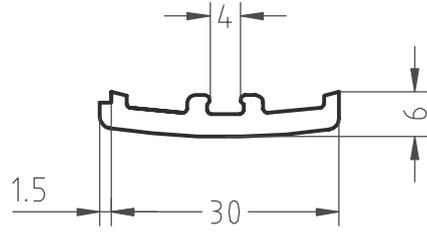
Profilnummer	a	b	S <sub>1</sub>	S <sub>2</sub>	
H 21.1	8	65	1,8	1,8	
K 15.3	25	50	2,5	2,5	
G 21.34	24	42	2	2	
G 21.39	35	40	2,5	2,5	
B 3.6	20	35	4,2	4,2	
A 11.7	15	20	1,2	1,2	
B 46.5	14	16	4	2,6	
R 15.2	9	12	2	2	
Sch 7.1	15	32	1	1	
H 42.2	6	20	1,2	1,2	
S 1.8	10	30	4,5	4,5	
B 3.9	20	40	4,2	4,2	
B 3.10	20	50	4,2	4,2	
K 0.22	35	40	4	4	
S 135	5	13	2	2	
A 50.2	20	42	4,2	4,2	



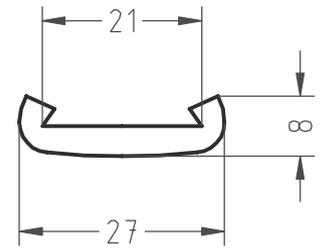




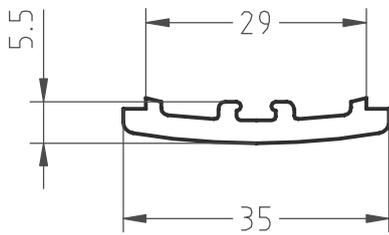
A 1.E5



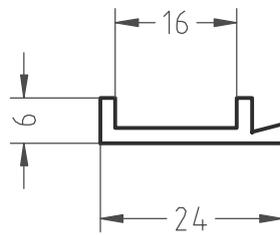
A 1.668.076.470.FZ-4



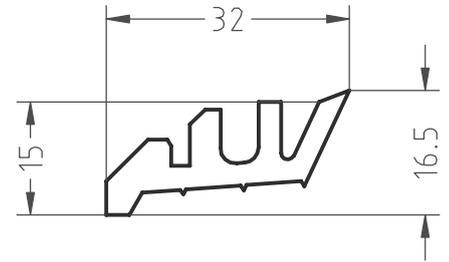
A 1.668.007.400



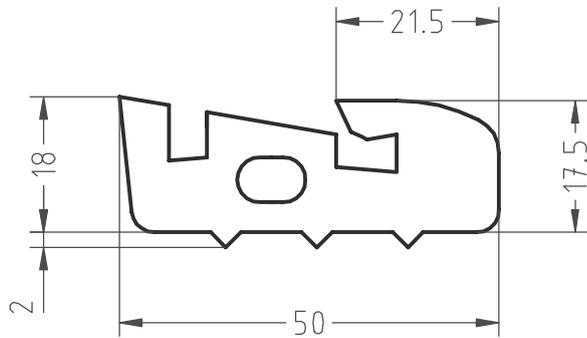
A 1.668.077.890 FZ-4



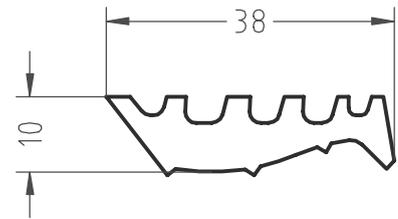
A 1.646.023.01.04



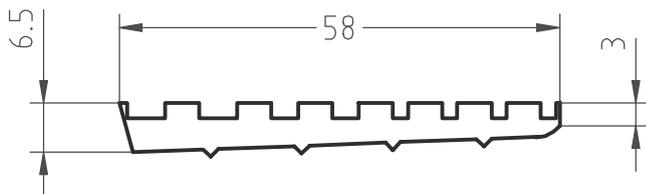
F 5.5



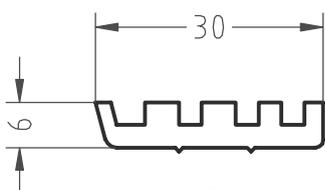
F 5.1



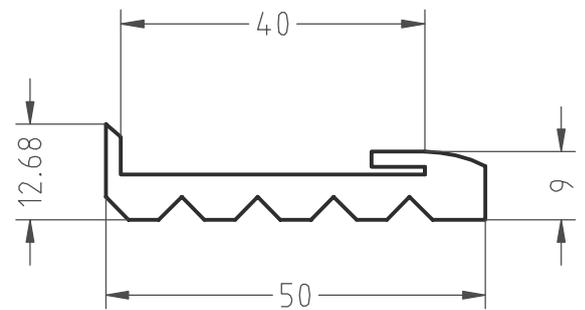
F 5.2



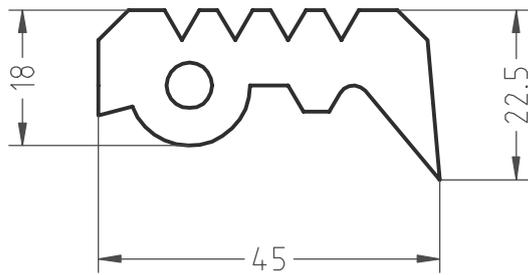
F 5.3



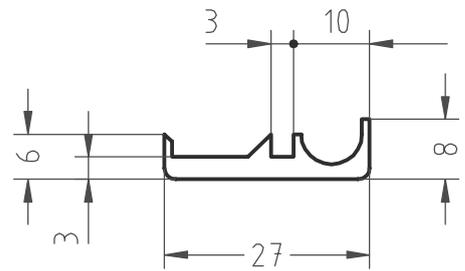
F 5.12



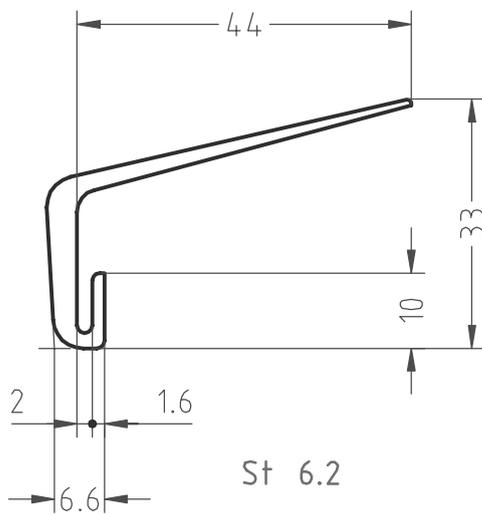
G 8.23



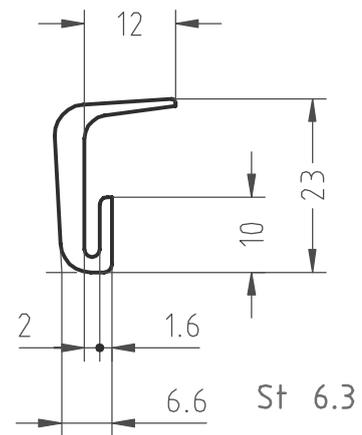
M 3.1



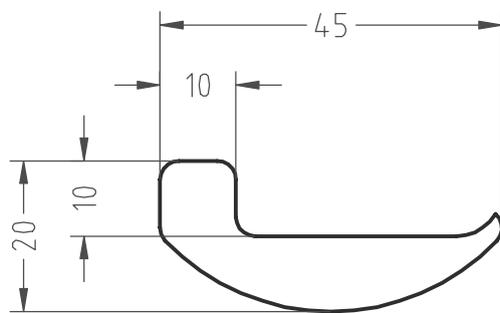
M 3.2



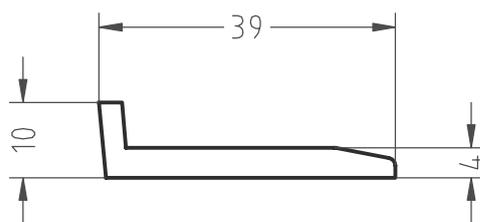
St 6.2



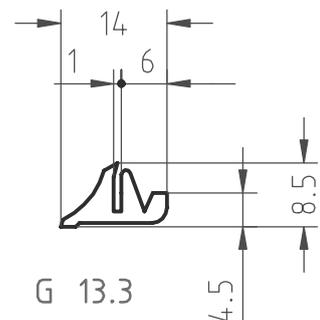
St 6.3



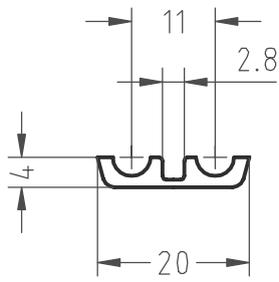
B 9.1



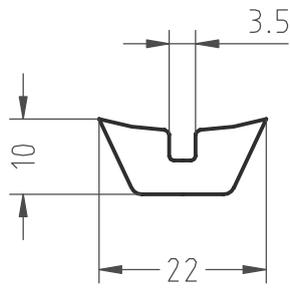
R 11.7



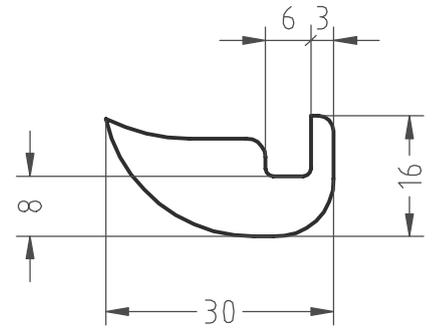
G 13.3



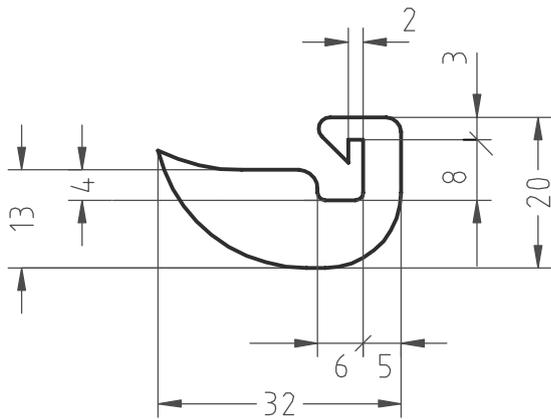
G 8.24



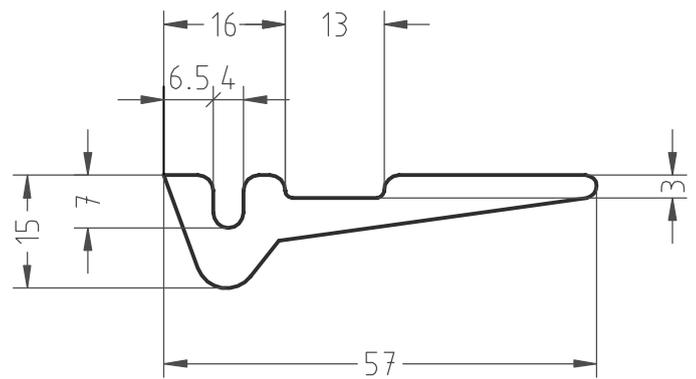
Sch 15.1



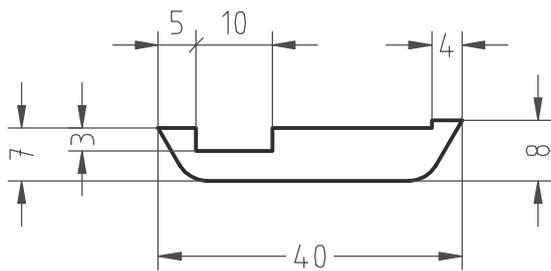
Sch 15.2



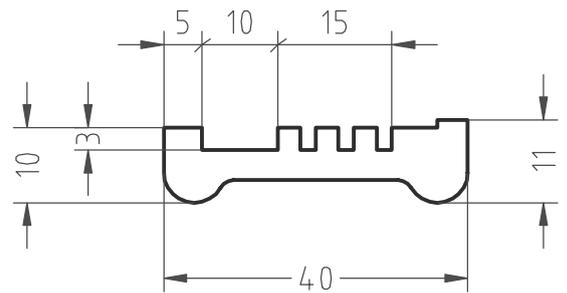
Sch 15.4



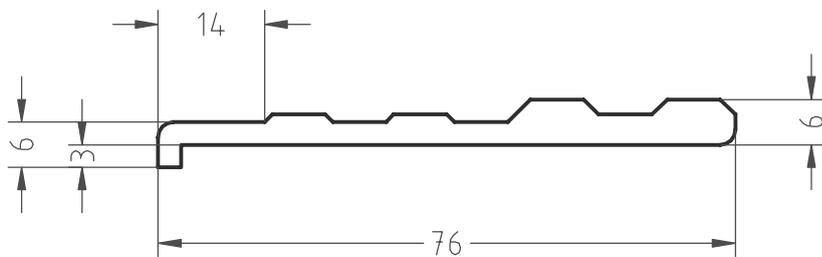
R 11.4



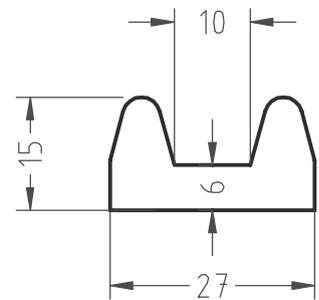
R 11.5



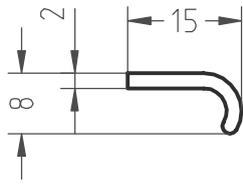
R 11.6



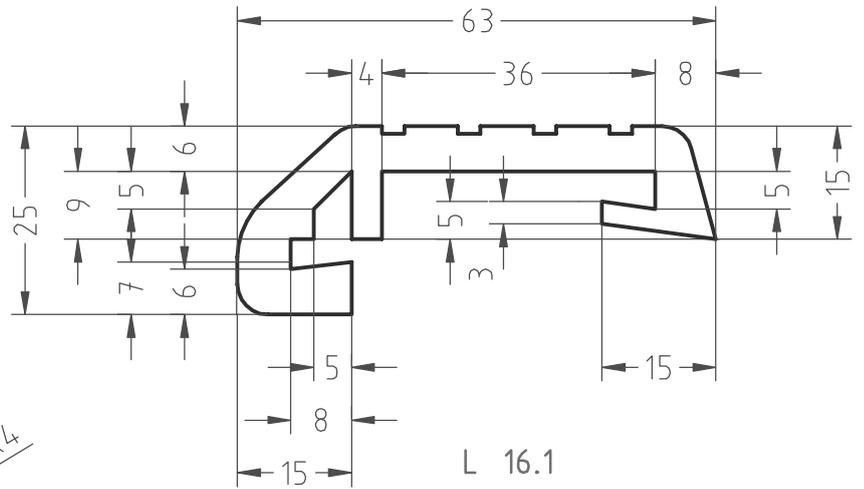
R 11.9



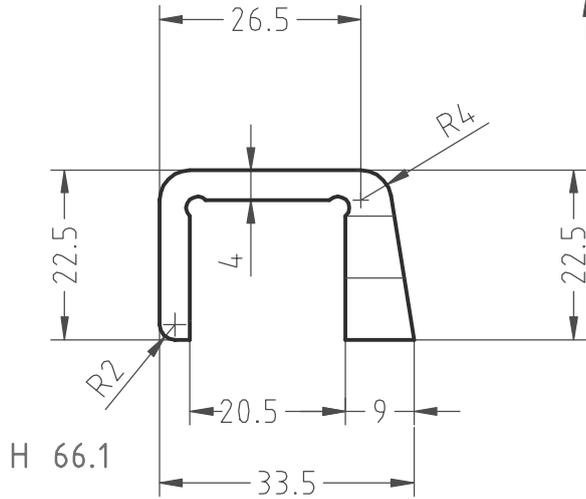
R 11.1



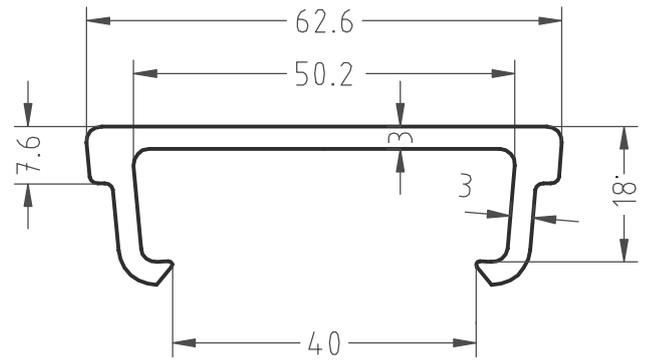
J 1.5



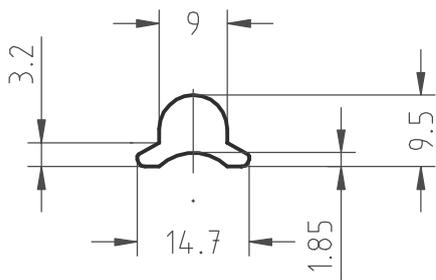
L 16.1



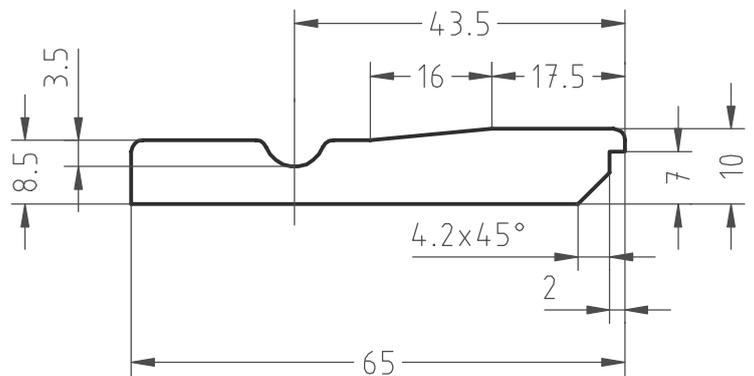
H 66.1



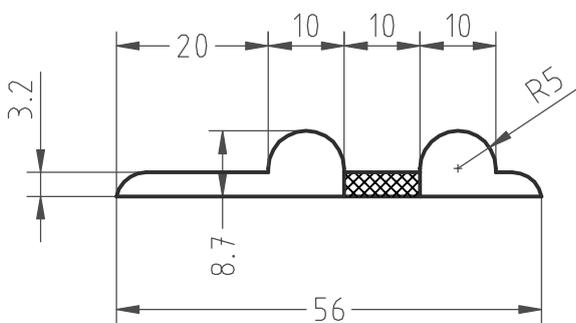
M 50.1



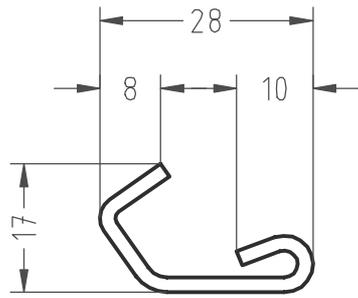
H 66.3



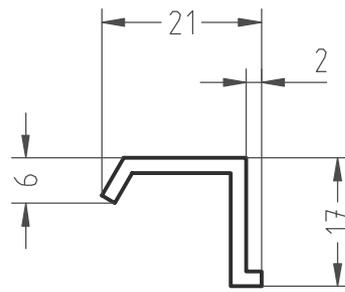
Sch 15.6



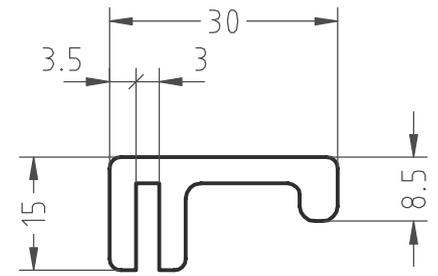
H 66.2



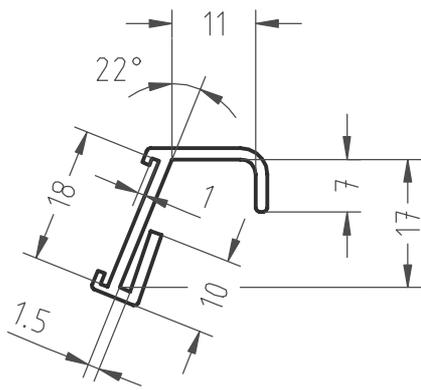
L 14.1



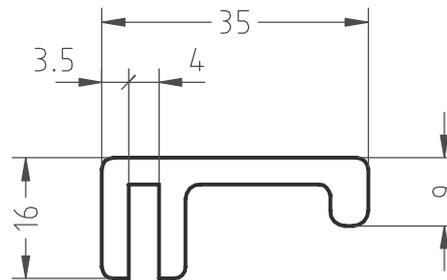
P 5.1



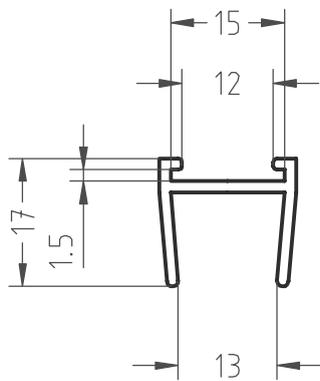
R 2.4



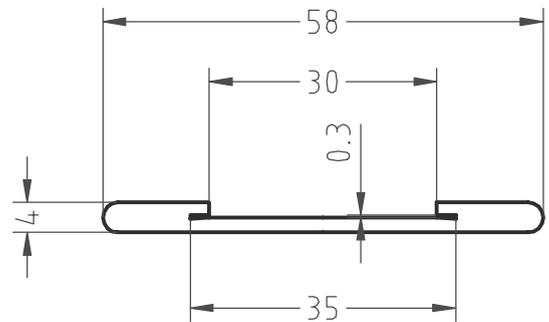
L 14.2



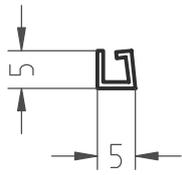
R 2.5



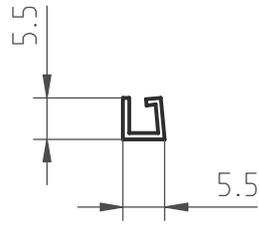
K 13.1



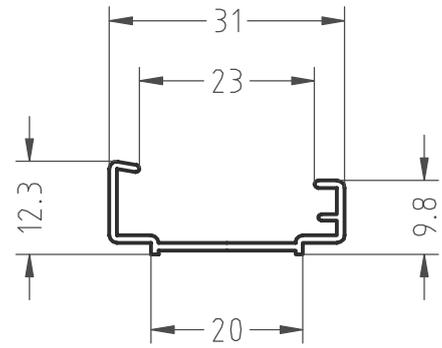
M 36.1



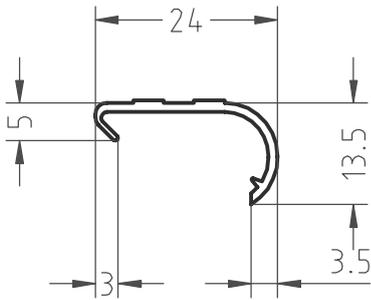
A 6.1



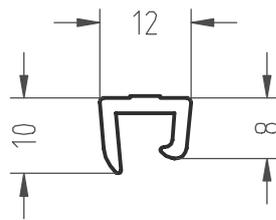
A 6.2



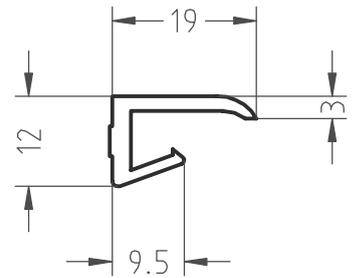
A 6.3



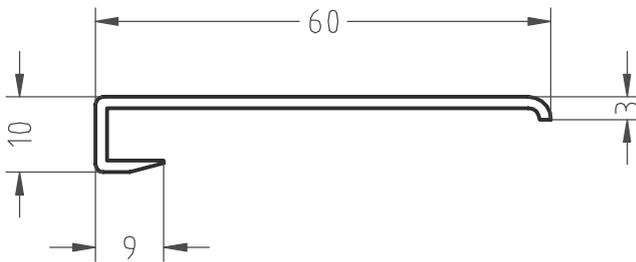
F 20.1



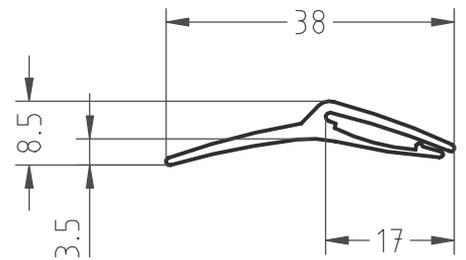
F 20.2



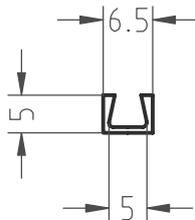
F 20.3



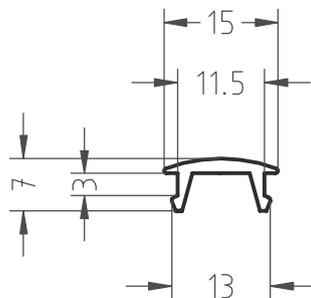
F 20.5



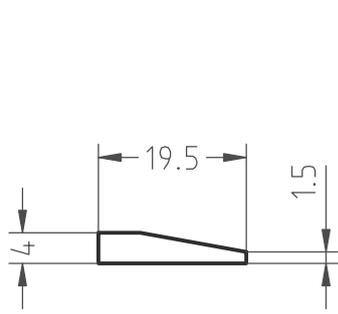
A 1.646 024



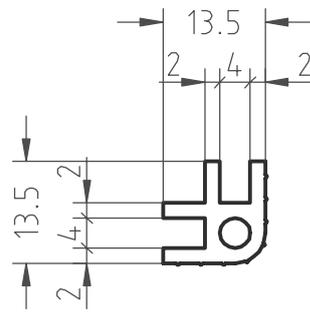
K 0.20



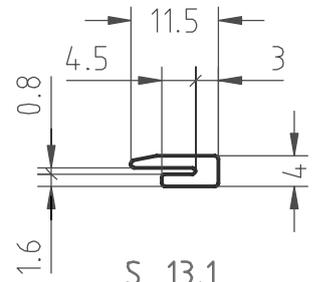
A 16.2



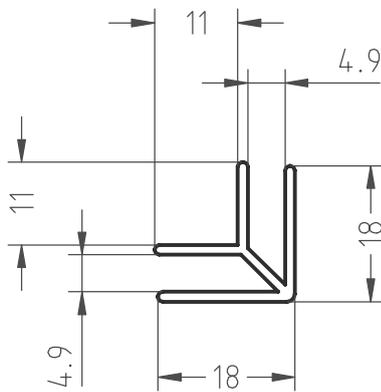
S 1.16



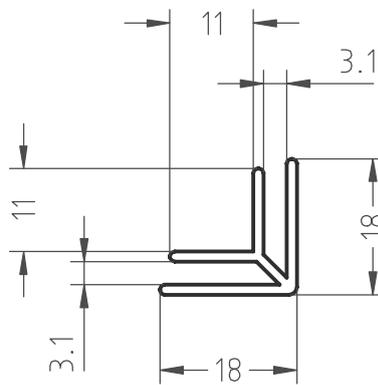
S 1.17



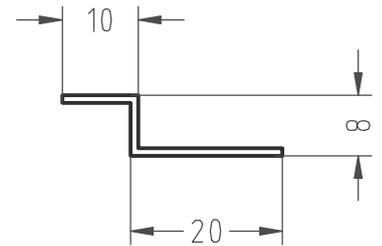
S 13.1



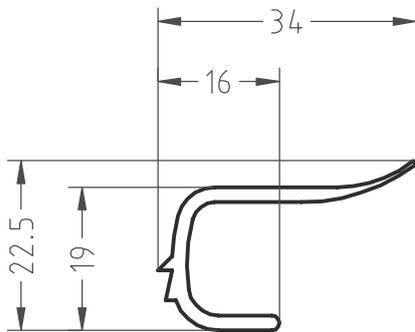
Sch 6.1



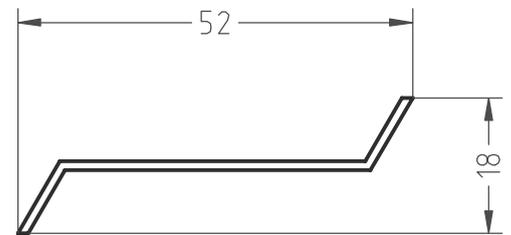
Sch 6.2



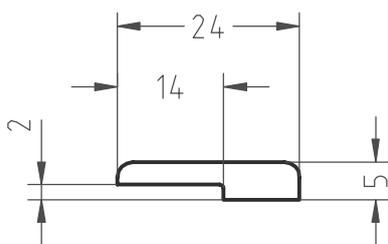
F 1.1



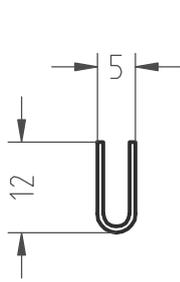
H 41.1



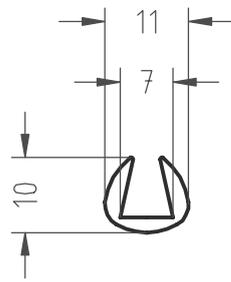
R 25.1



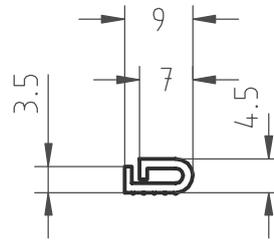
M 16.1



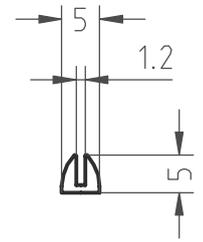
B 5.3



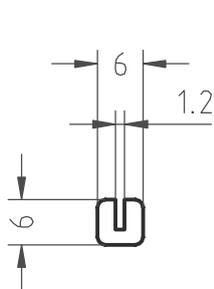
B 10.1



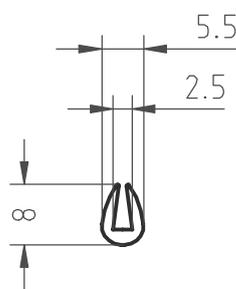
St 3.2



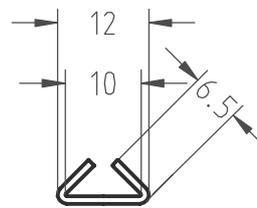
B 38.3



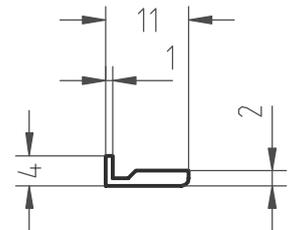
E 19.1



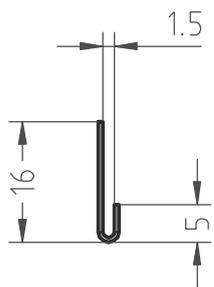
F 6.1



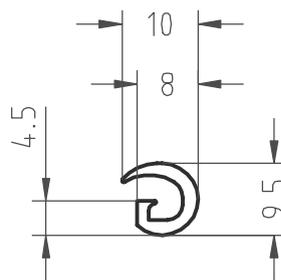
B 5.4



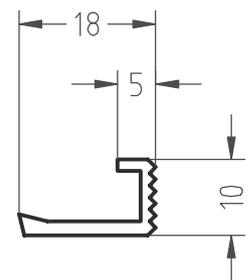
J 2E



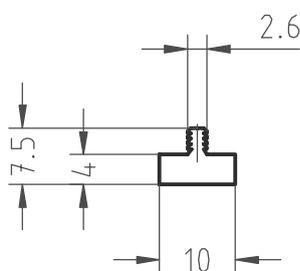
R 5.6



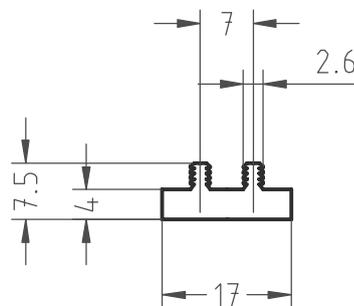
St 3.3



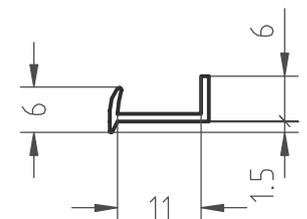
St 3.4



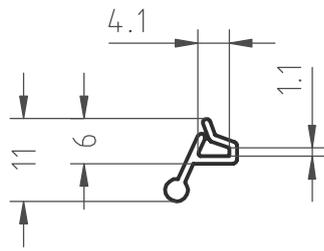
S 1.7



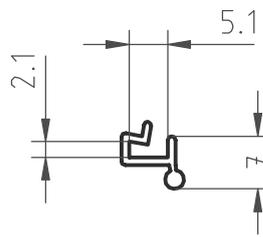
S 1.10



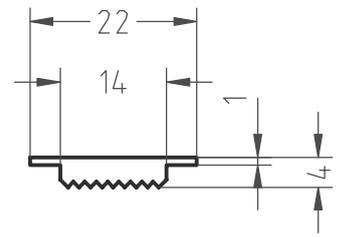
N 6.3



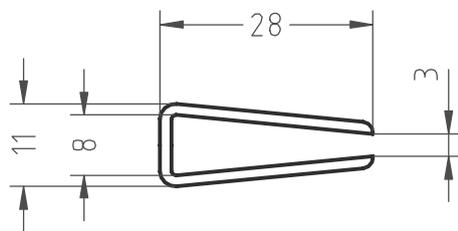
L 5.1



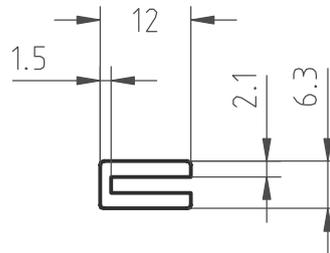
L 5.2



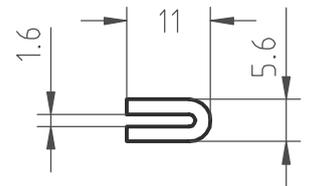
L 7.2



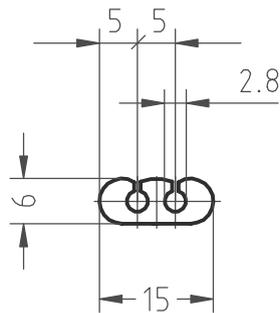
B 1.3



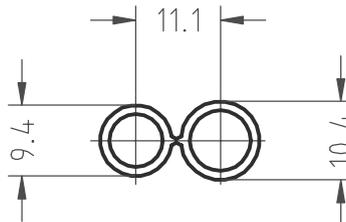
R 11.8



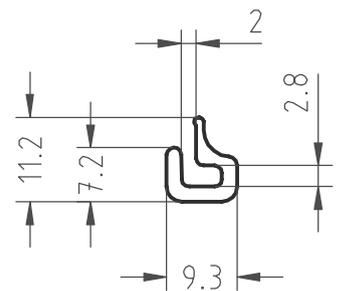
St 6.1



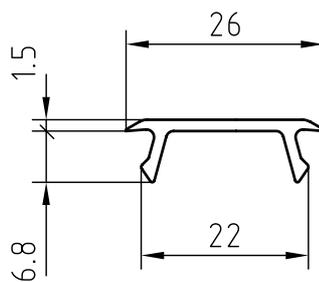
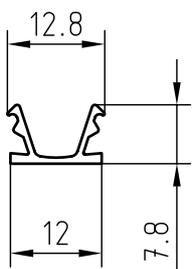
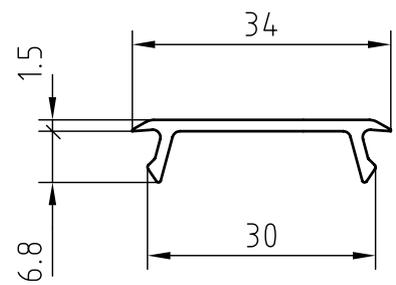
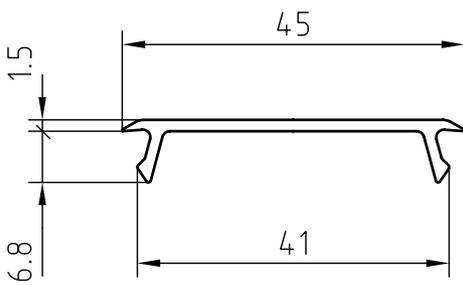
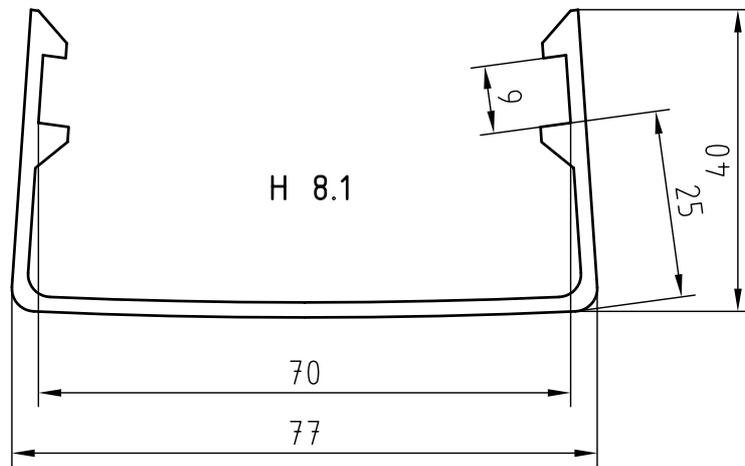
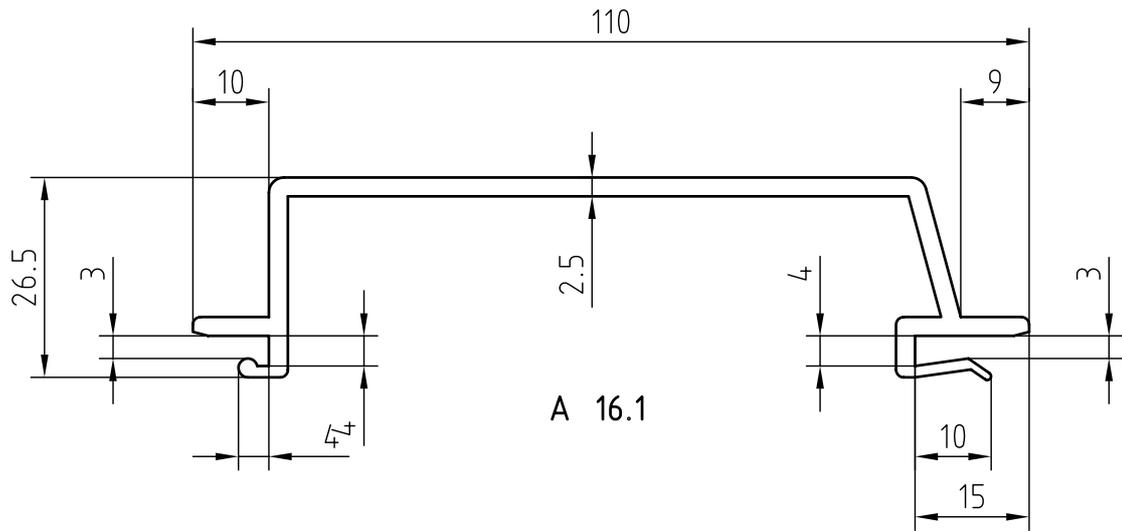
T 11.1

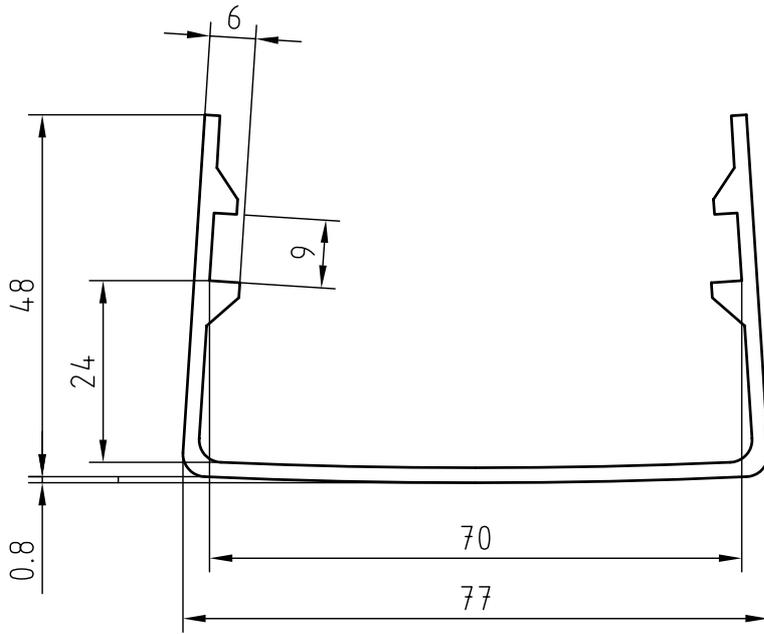


F 24.1

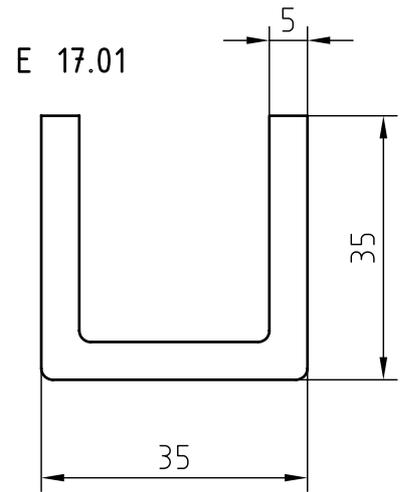


F 11.1



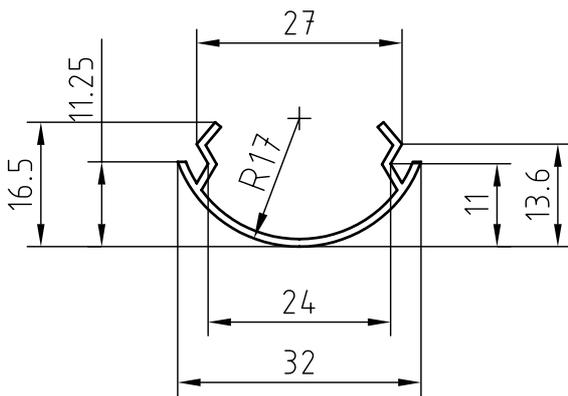


H 8.2

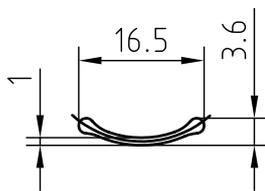


E 17.01

A, 16.07

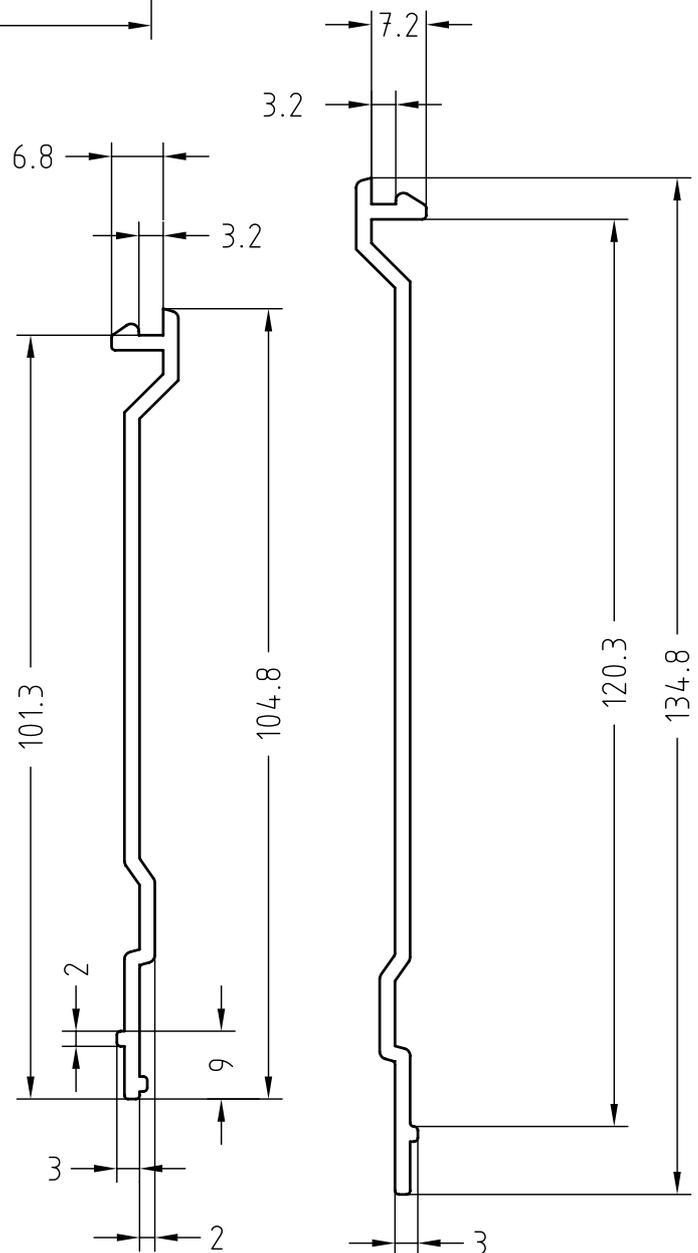


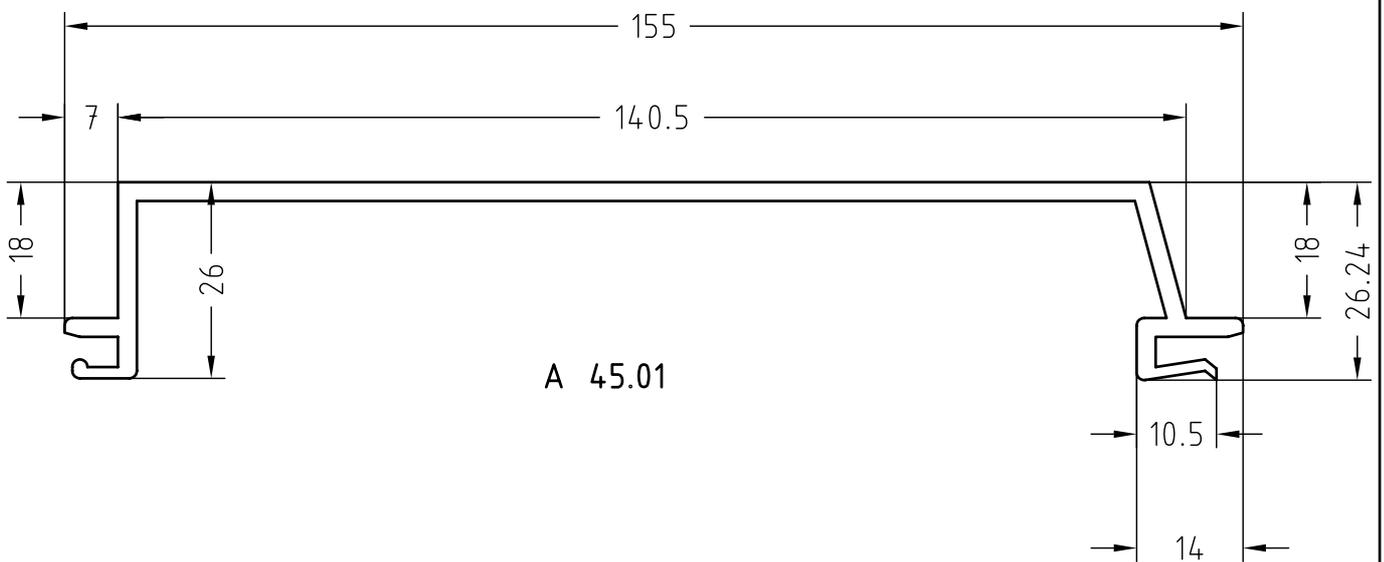
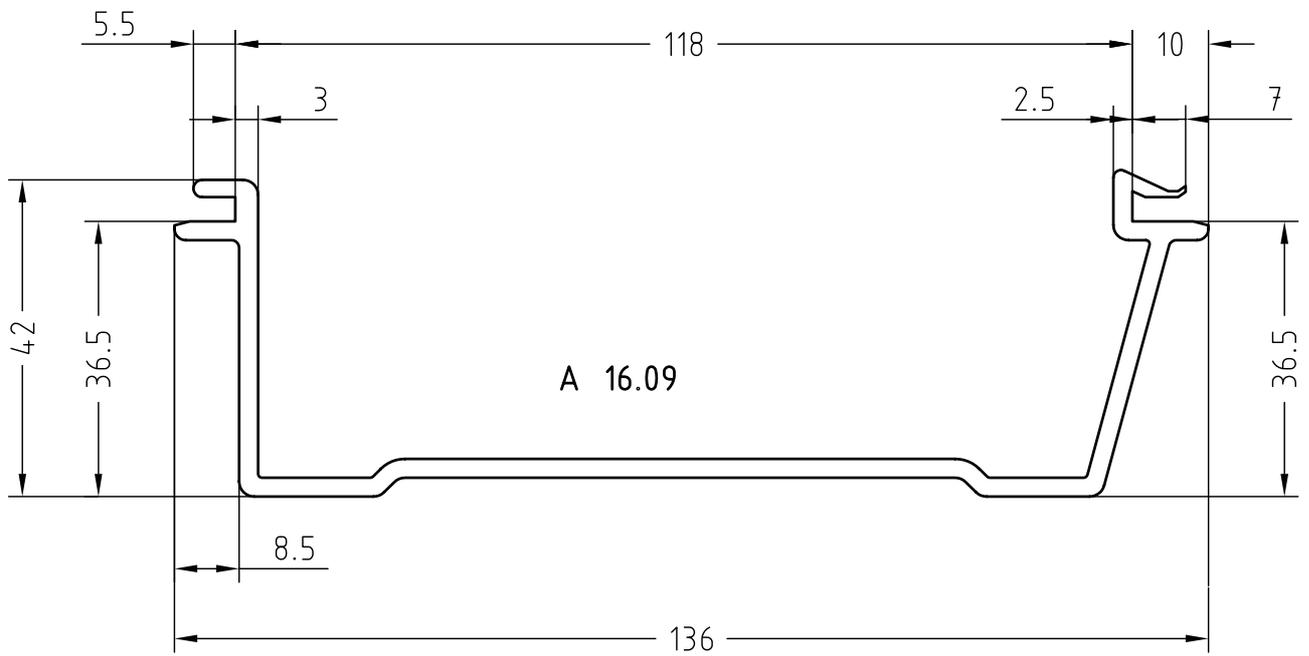
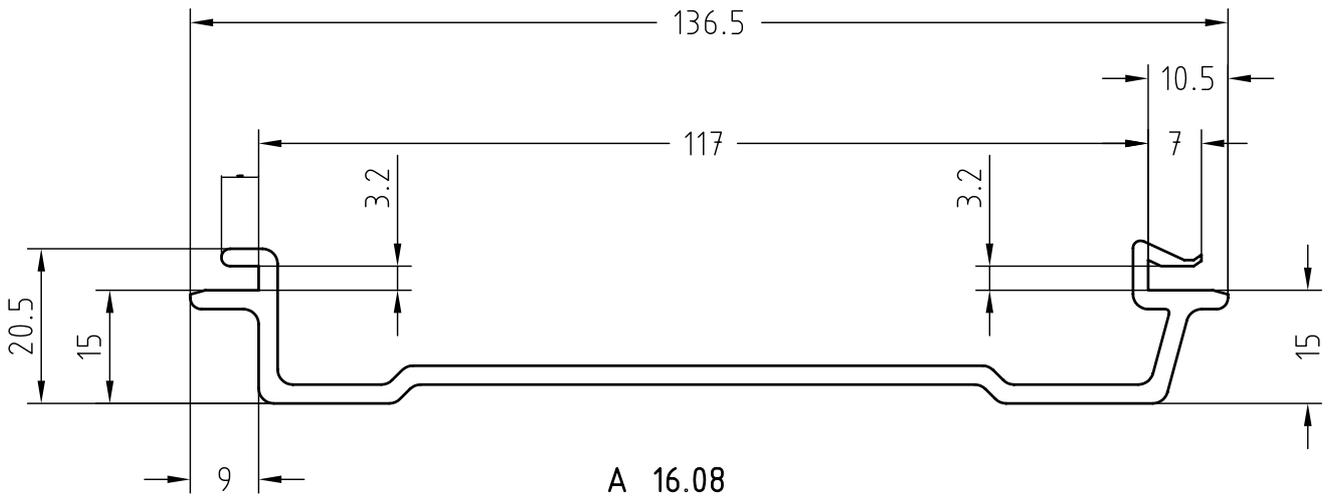
S 1.26

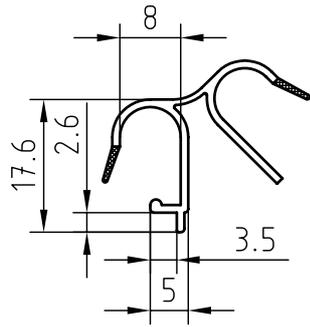


E 39.02

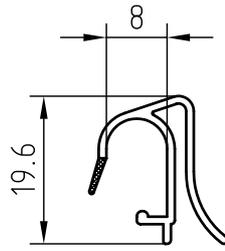
A 16.10



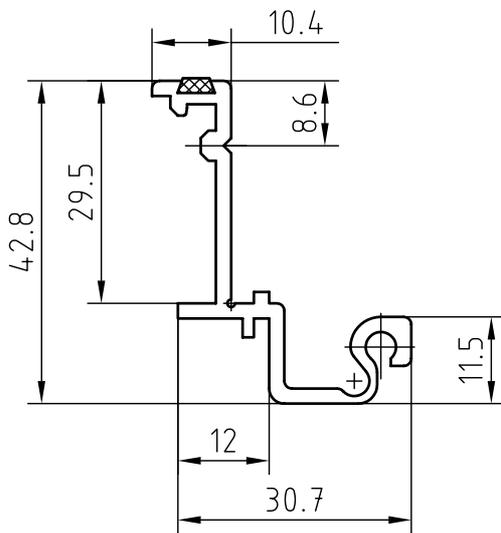




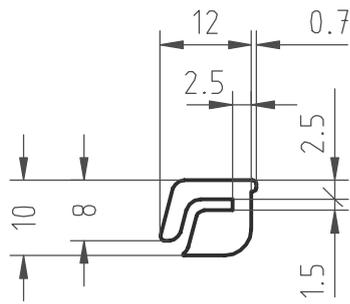
R 16.32



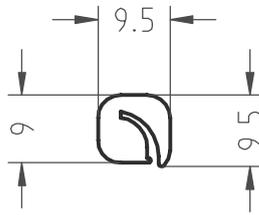
R 16.33



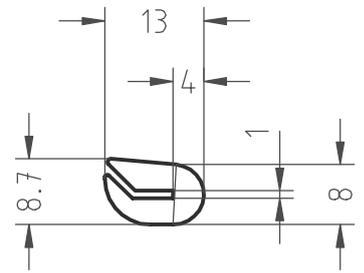
R 16.34



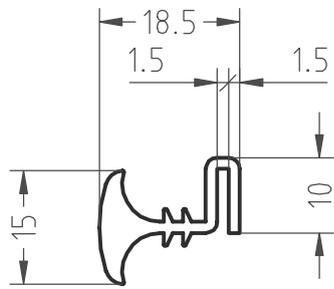
A 1.1



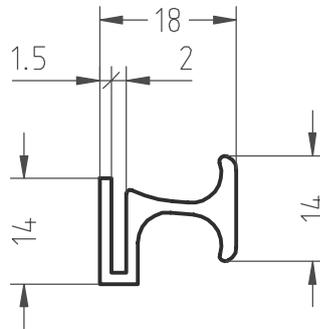
B 63.1



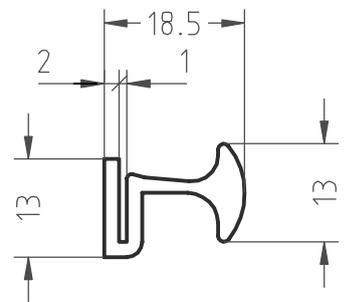
EZ 64 5117



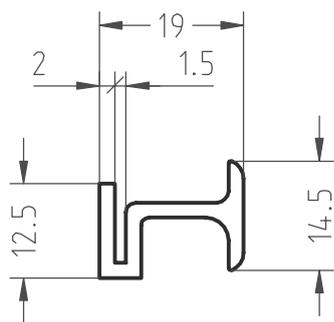
B 38.1



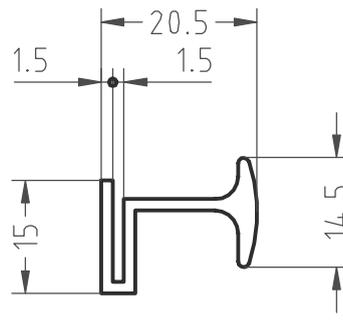
S 103



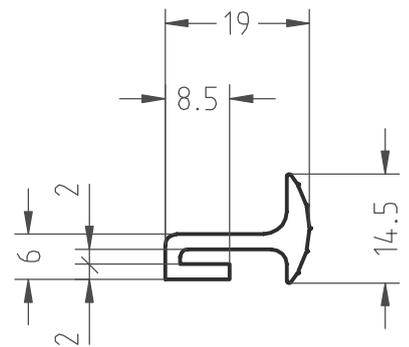
S 103.1



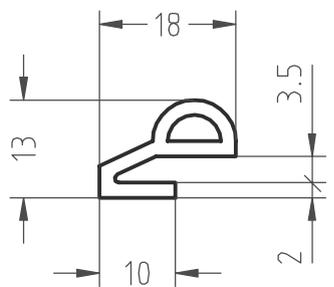
S 103.2



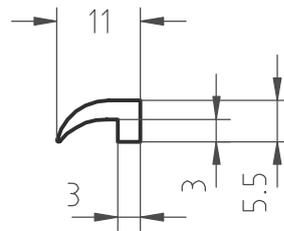
S 103.4



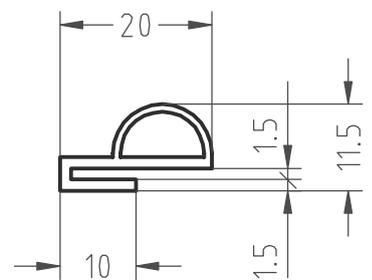
S 119



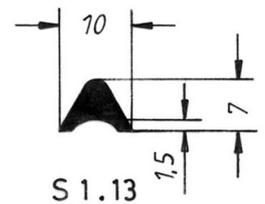
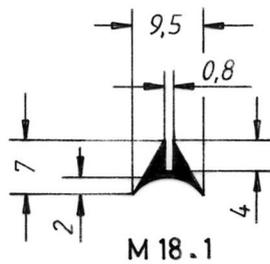
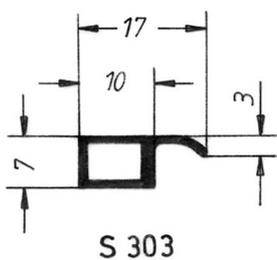
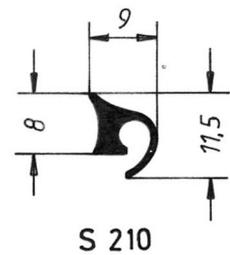
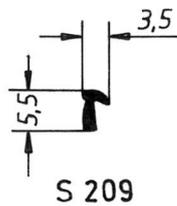
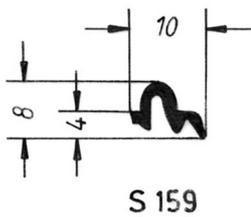
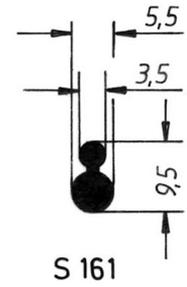
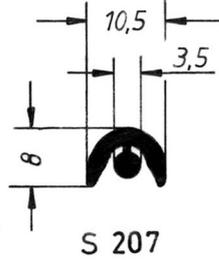
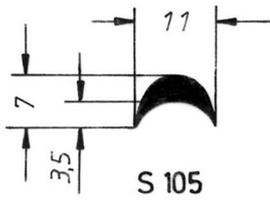
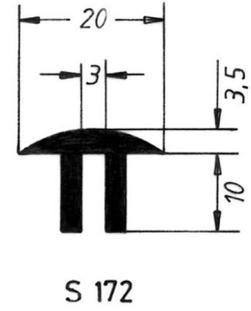
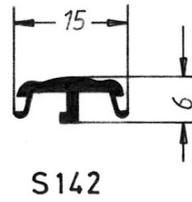
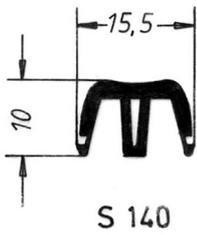
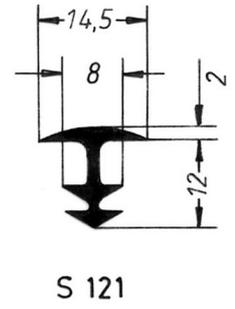
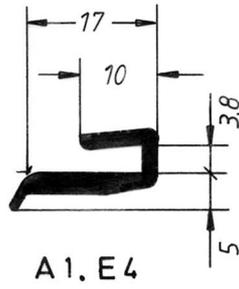
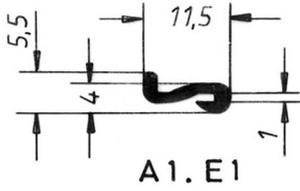
A 1.E3



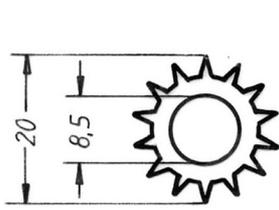
A 1.64504263.0



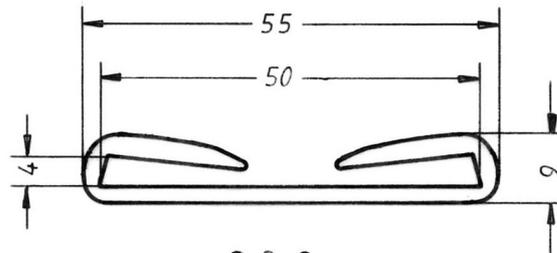
A 1.E2



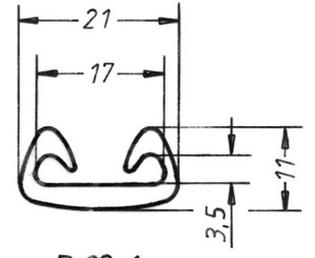
passend zu S1.12



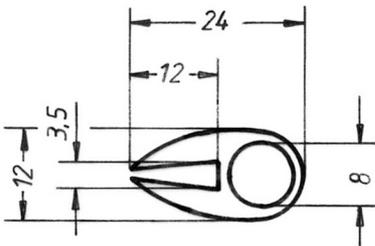
G 1.1



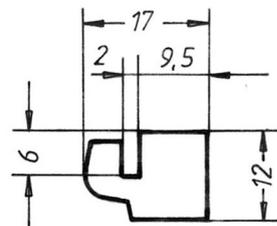
G 8.6



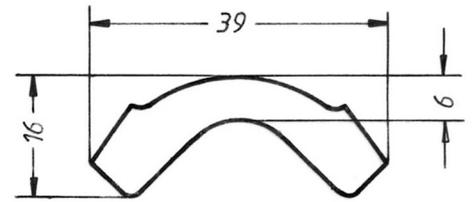
B 20.1



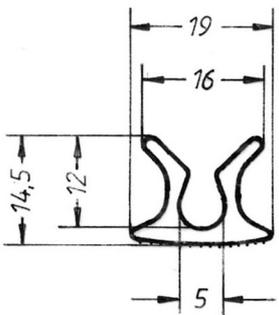
R 5.7



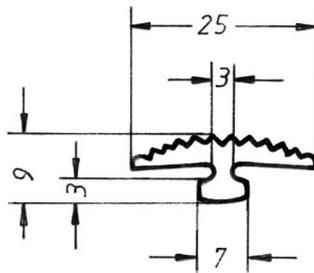
S 174



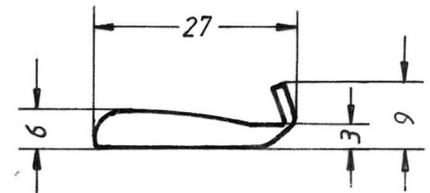
S 300



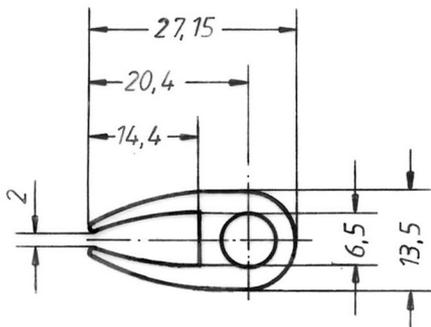
S 301



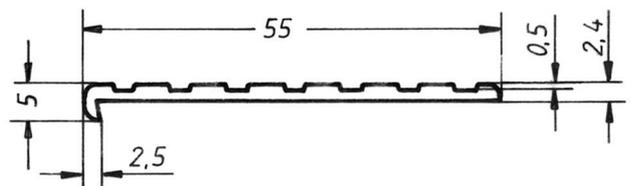
S 302



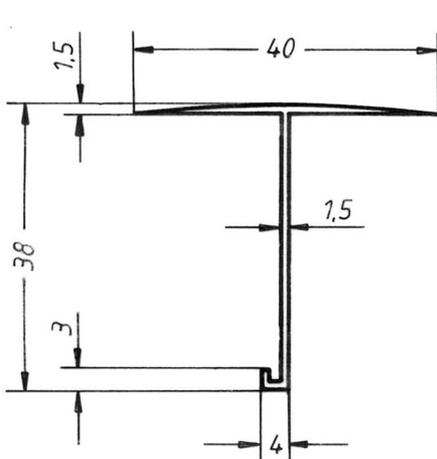
S 10.1



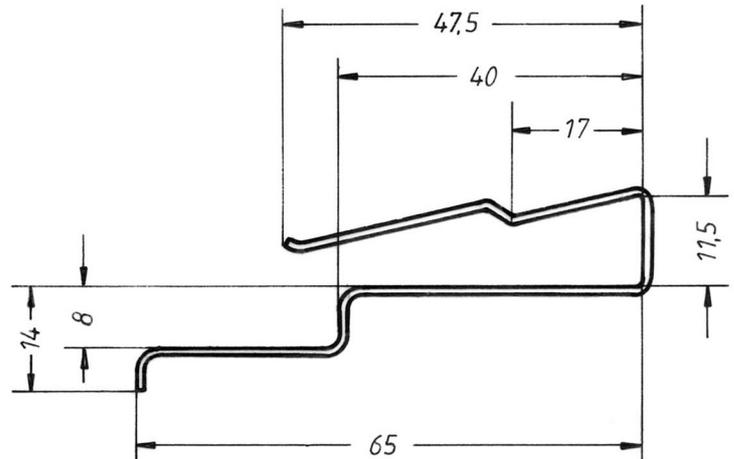
R 15.1



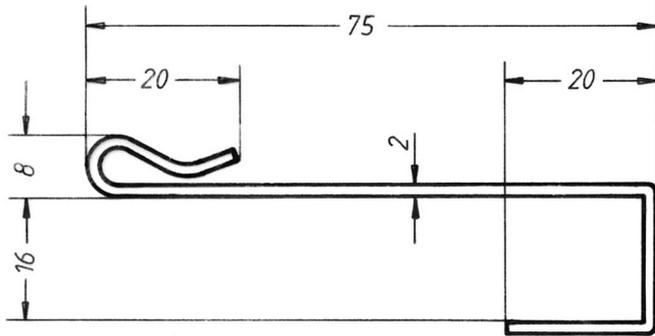
K 12.1



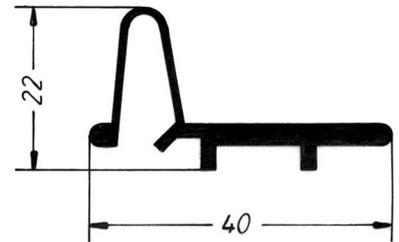
B 24.1



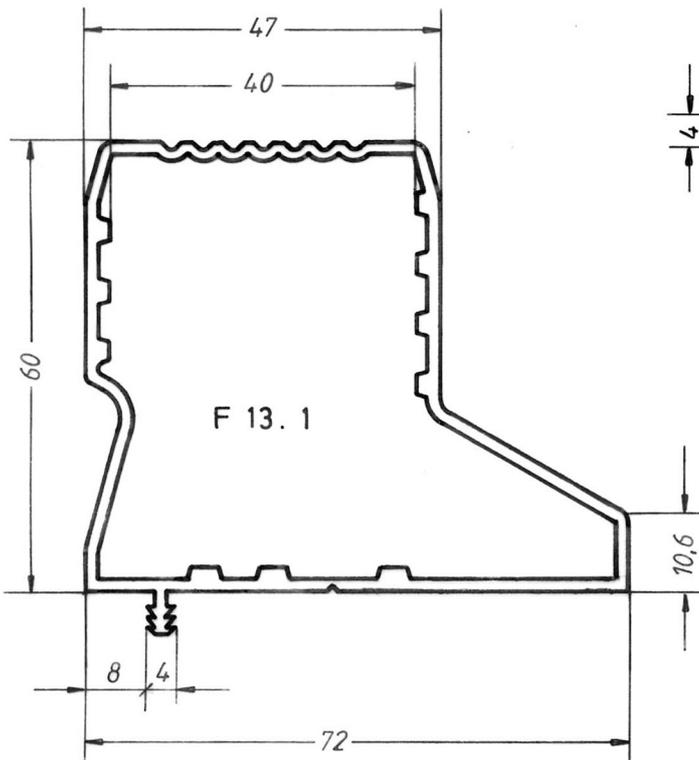
I 4.1



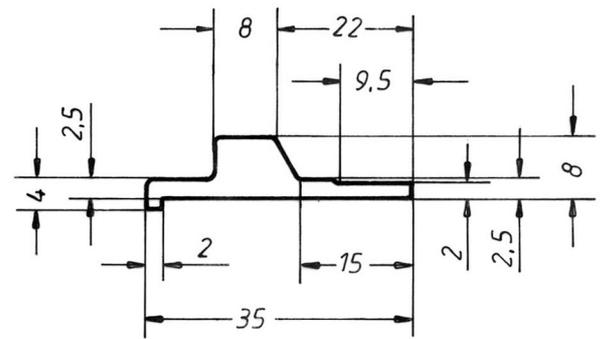
S 6.1



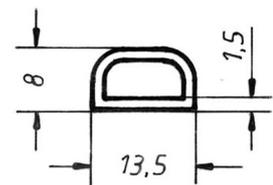
S 8.1



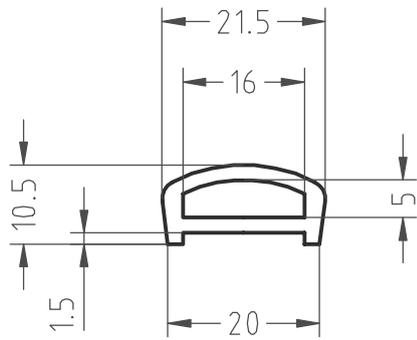
F 13.1



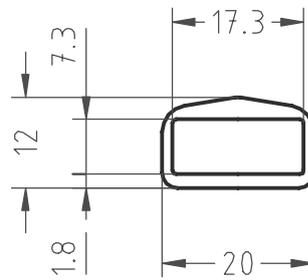
A 16.3



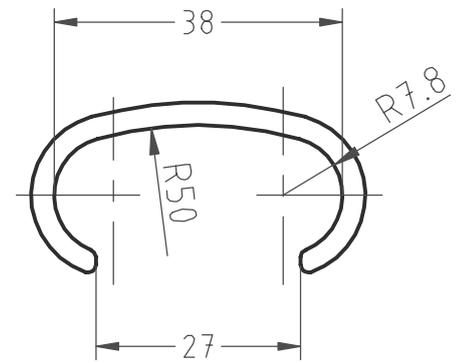
G 28.6



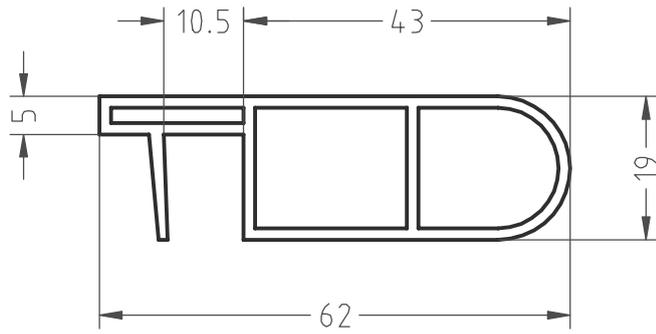
B 38.5



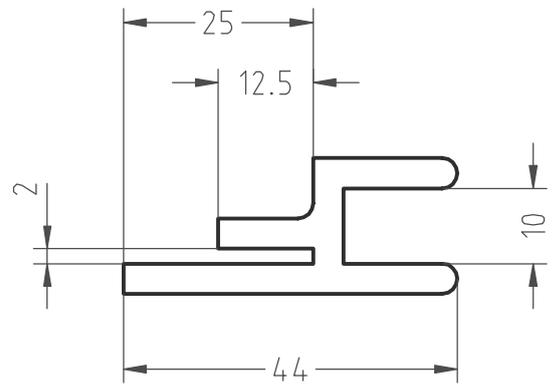
B 38.6



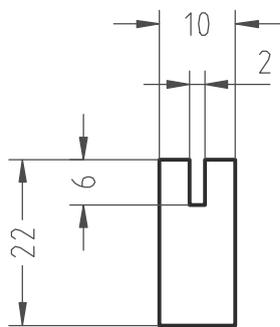
E 6.1



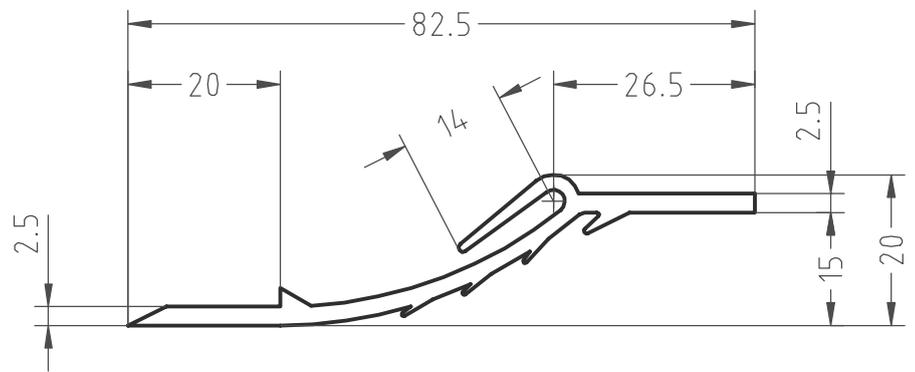
E 4.1



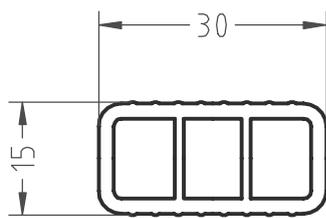
D 5.1



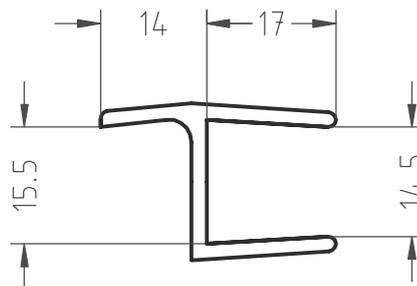
F 6.7



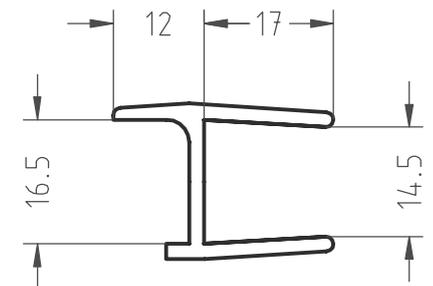
G 3.1



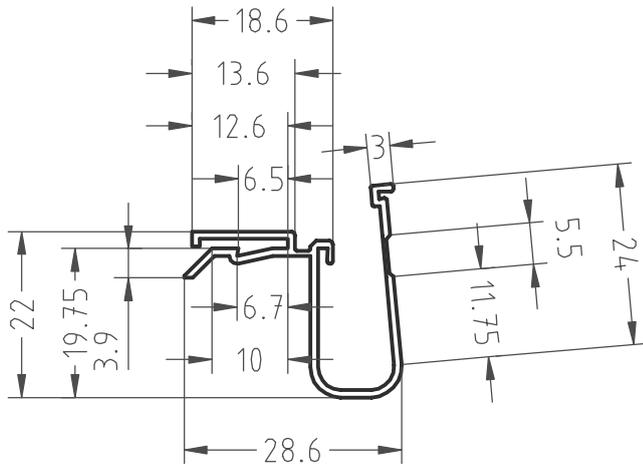
M 30.1



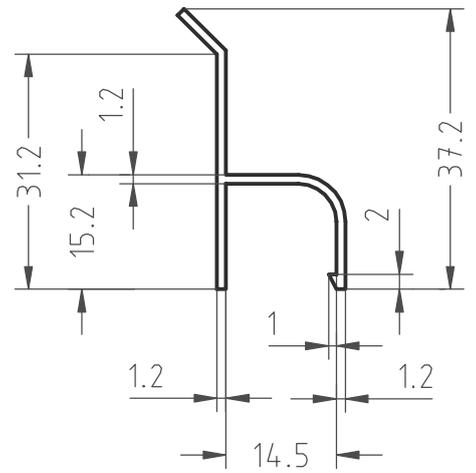
N 6.1



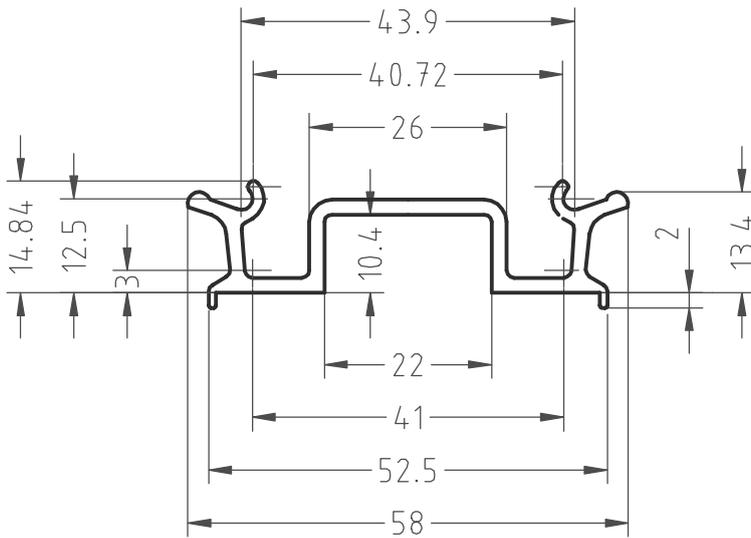
N 6.2



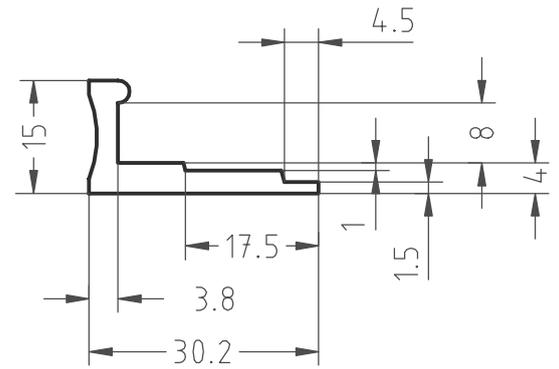
R 16.7



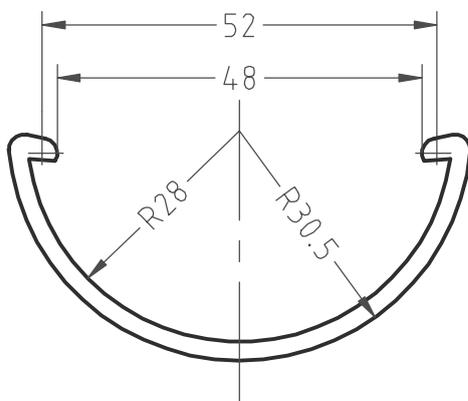
R 16.8



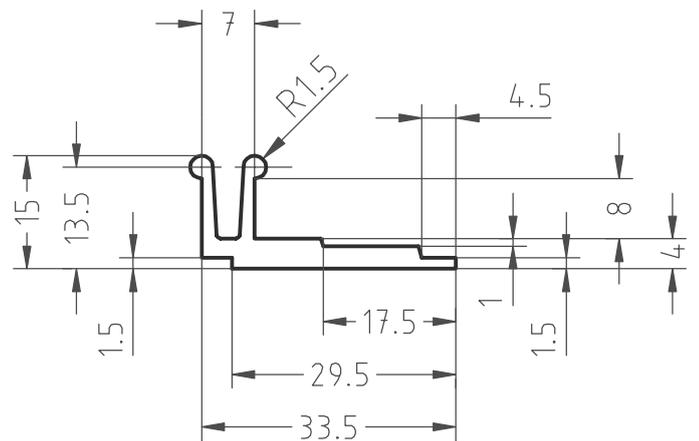
R 16.2



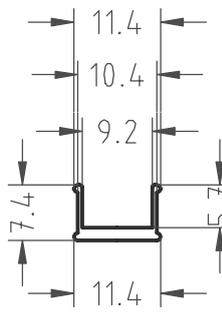
R 16.3



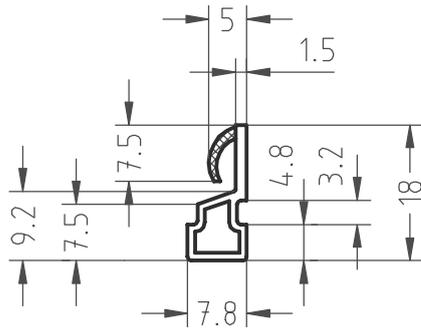
R 16.5



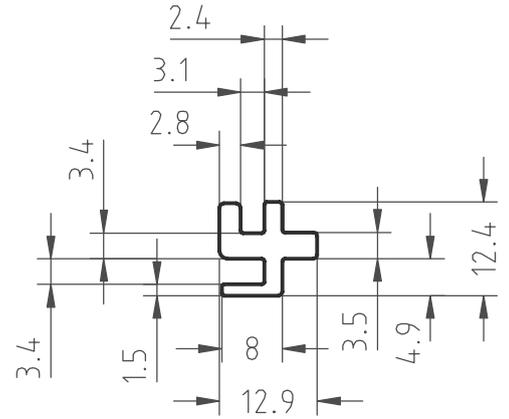
R 16.4



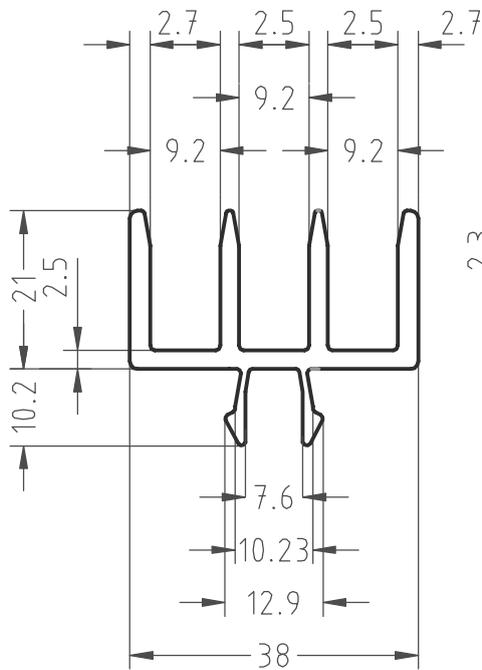
R 16.6



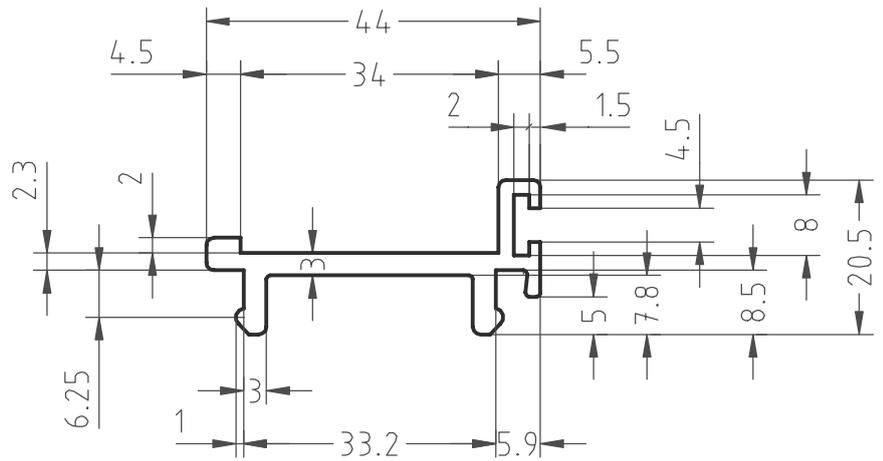
R 16.9



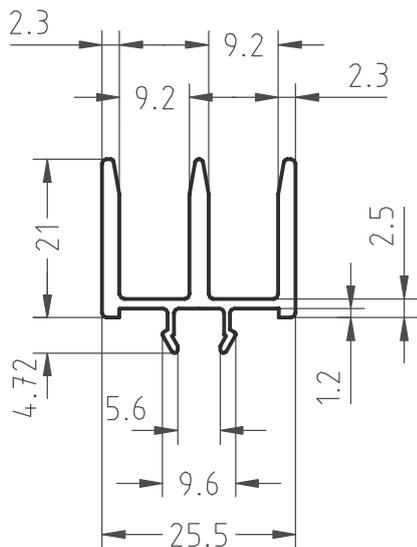
R 16.12



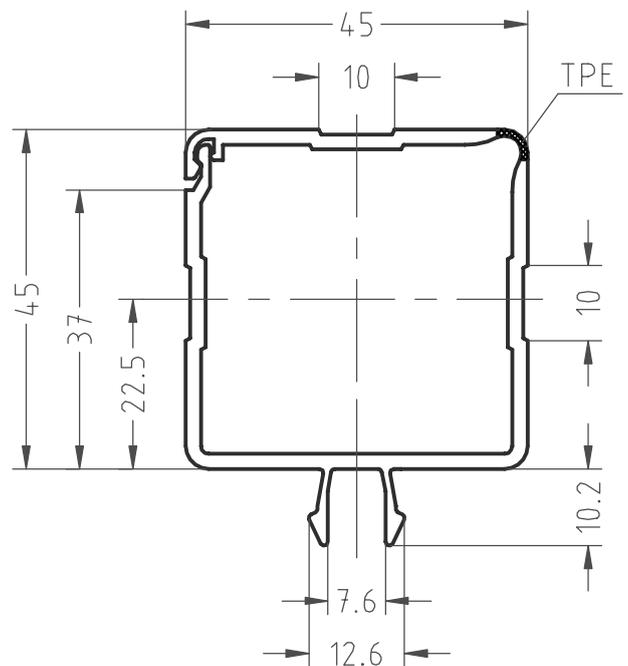
R 16.10



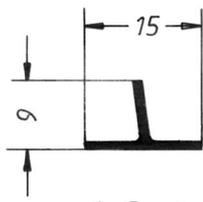
R 16.13



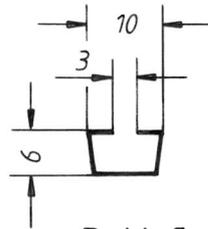
R 16.11



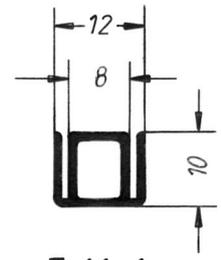
R 16.15



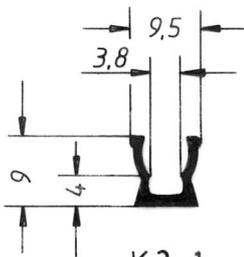
A 5.1



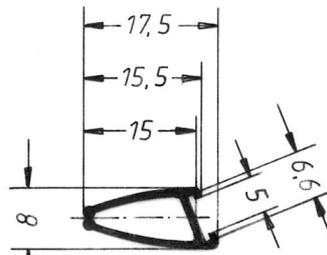
B 44.5



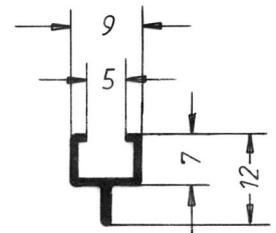
E 11.1



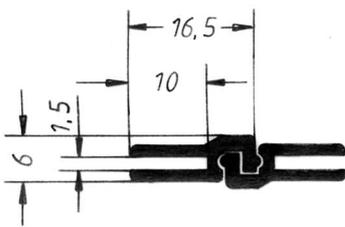
K 3.1



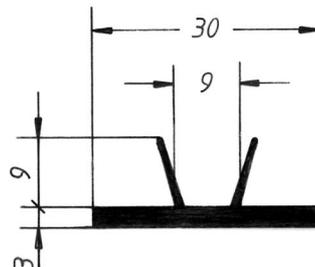
L 7.1



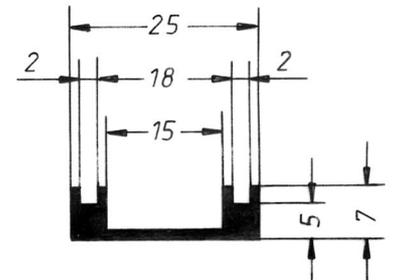
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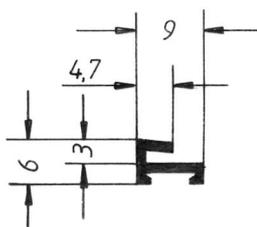
M 11.1



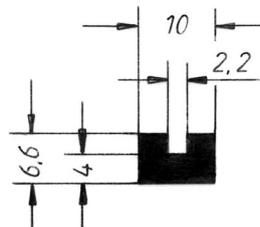
R 16.1



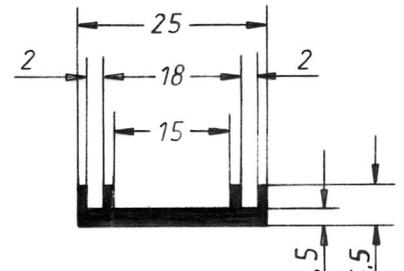
S1.A913



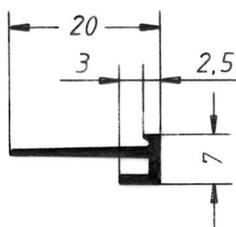
S1.A914



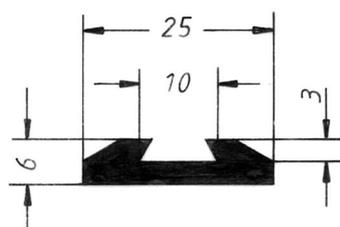
S1.2



S1.5

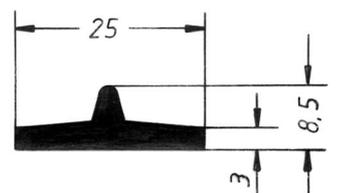


S1.9

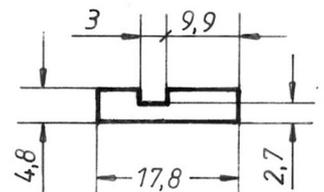
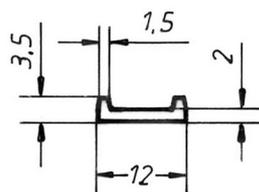
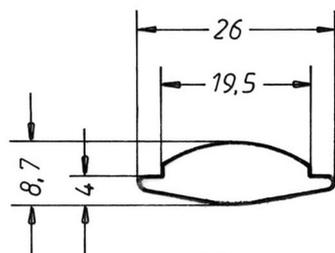
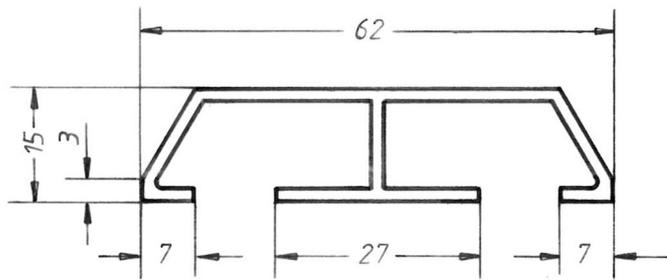
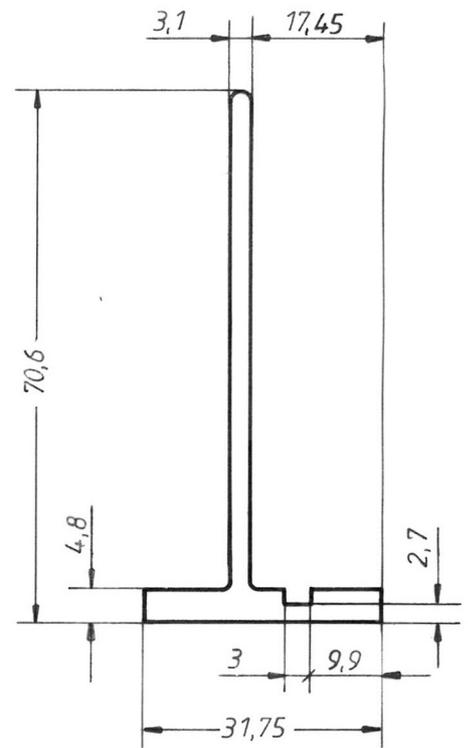
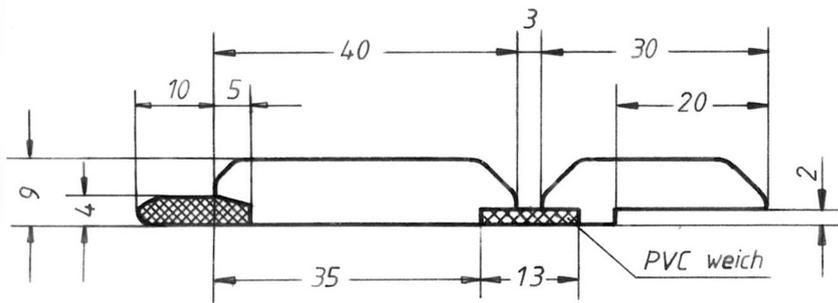
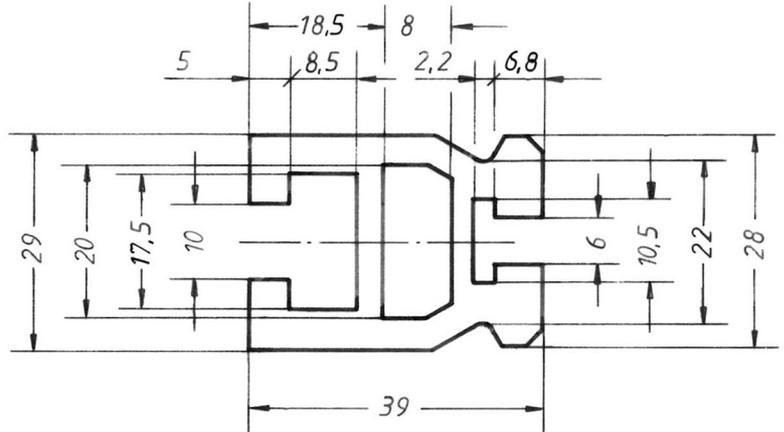
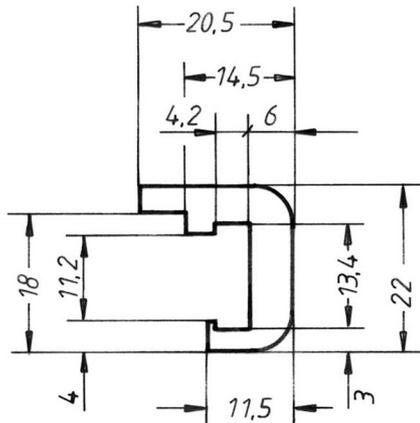


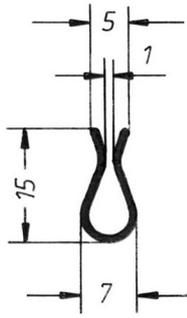
S1.12

passend zu S1.13

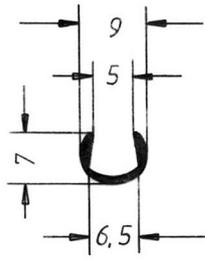


S1.14

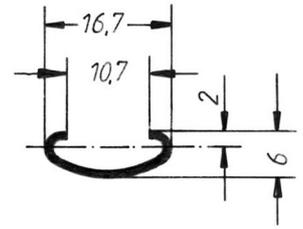




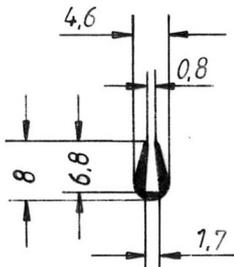
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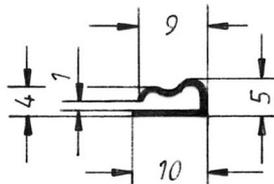
B 44.4



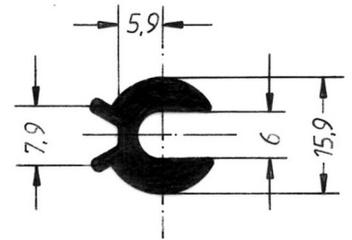
C 7.1



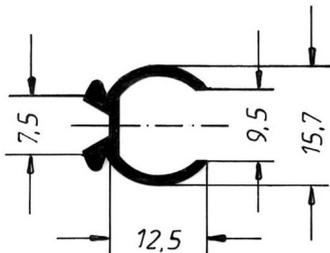
F 6



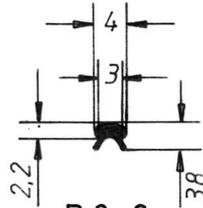
H 11.1



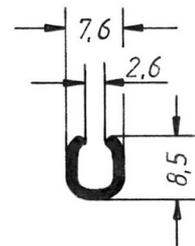
H 14.1



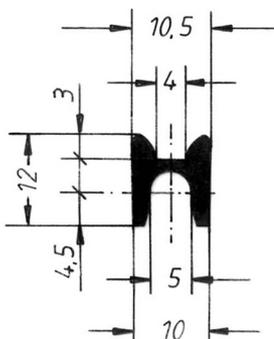
H 14.2



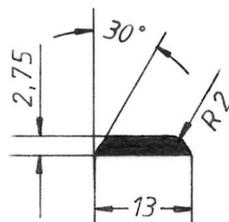
R 2.6



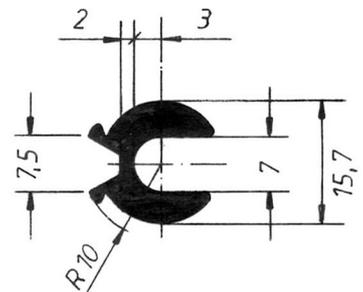
S 10.10



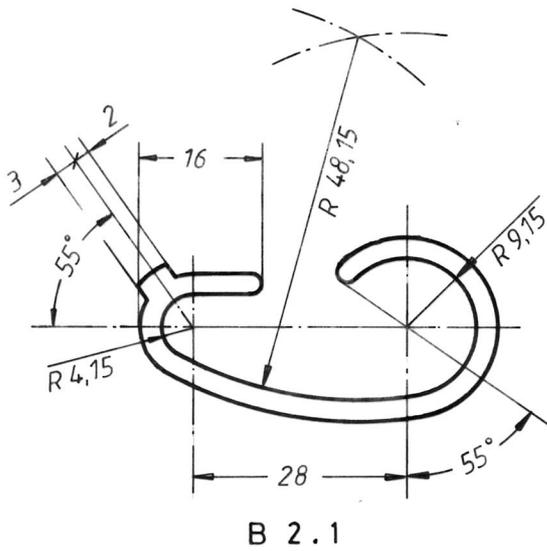
H 14.3



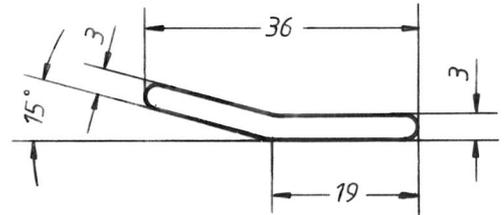
S 1.20



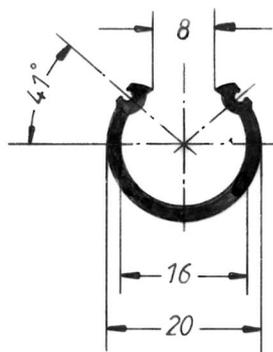
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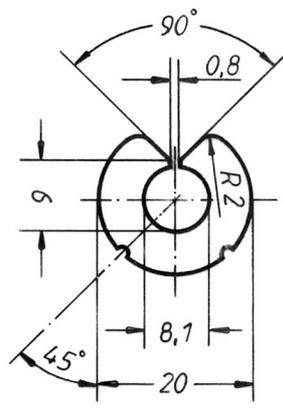
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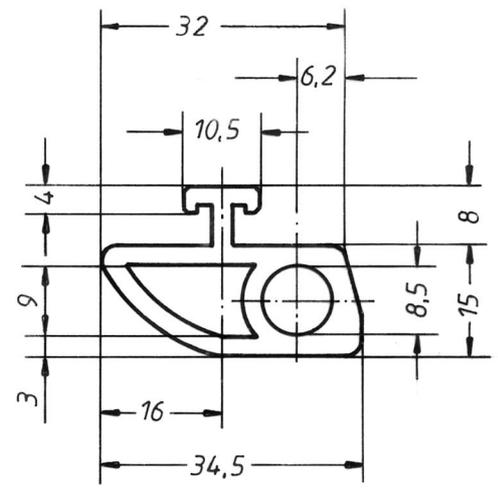
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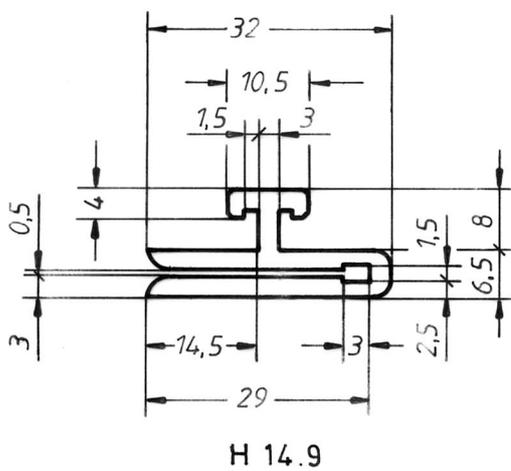
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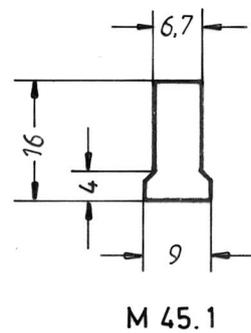
H 14.7



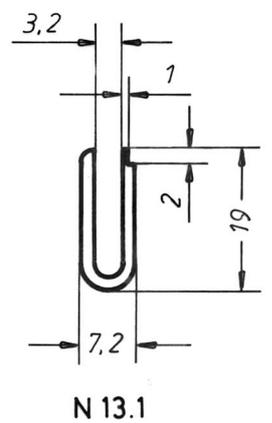
H 14.8



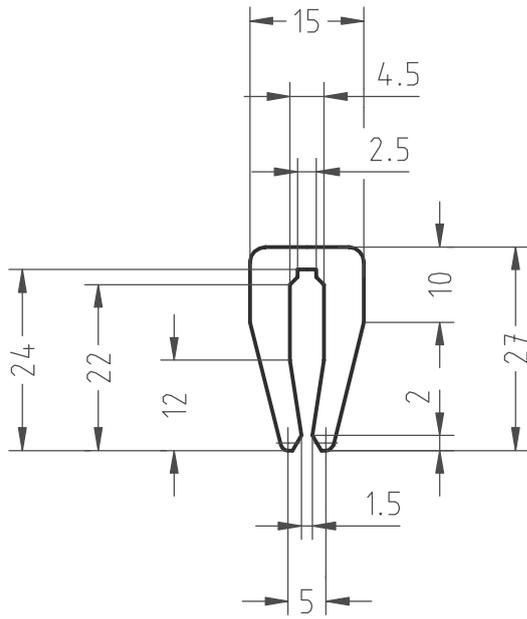
H 14.9



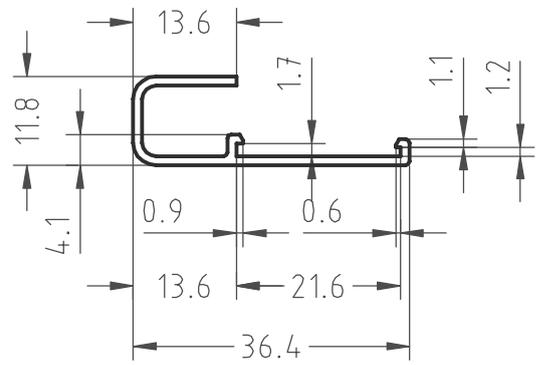
M 45.1



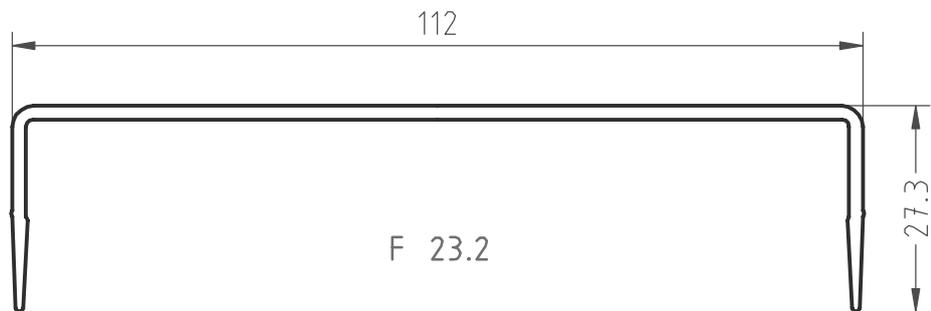
N 13.1



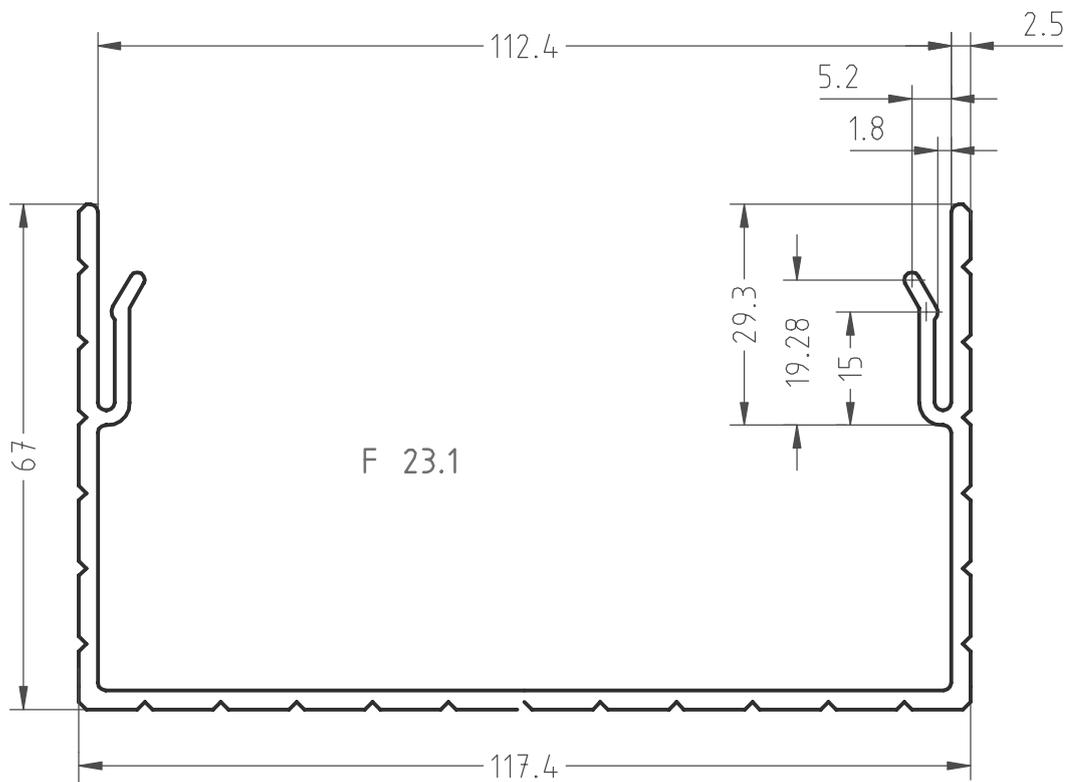
E 30.1



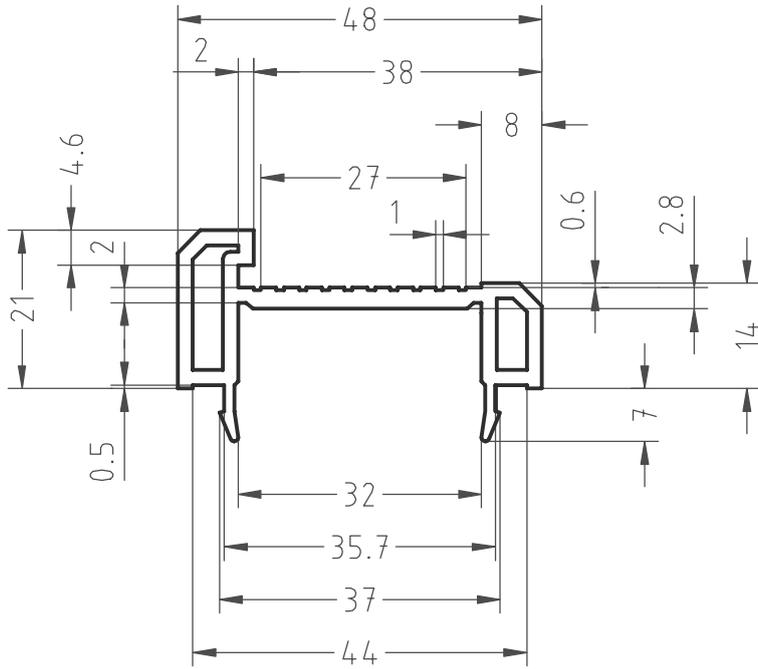
H 32.1



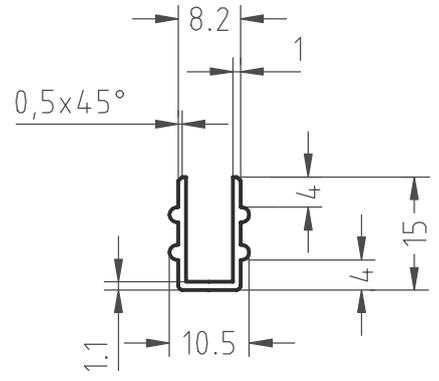
F 23.2



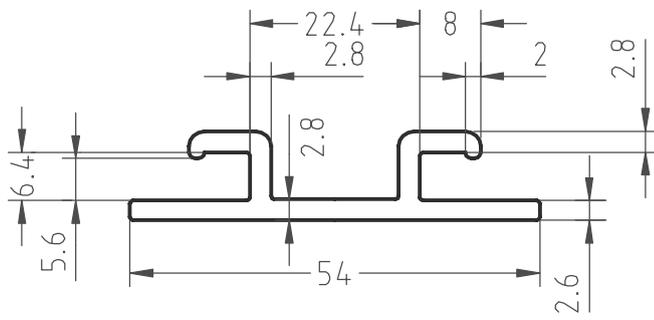
F 23.1



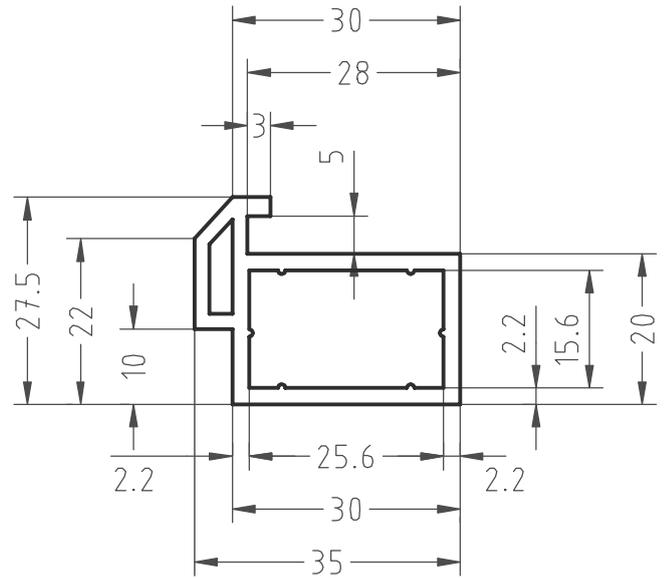
Sch 25.3



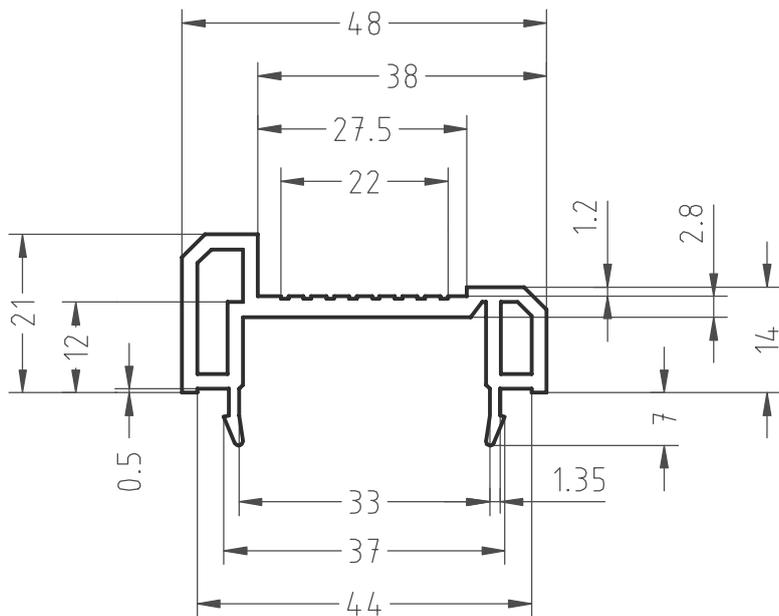
I 7.1



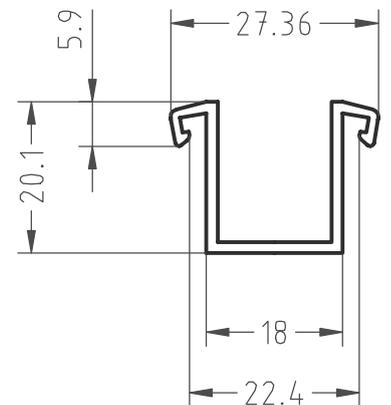
R 2.7



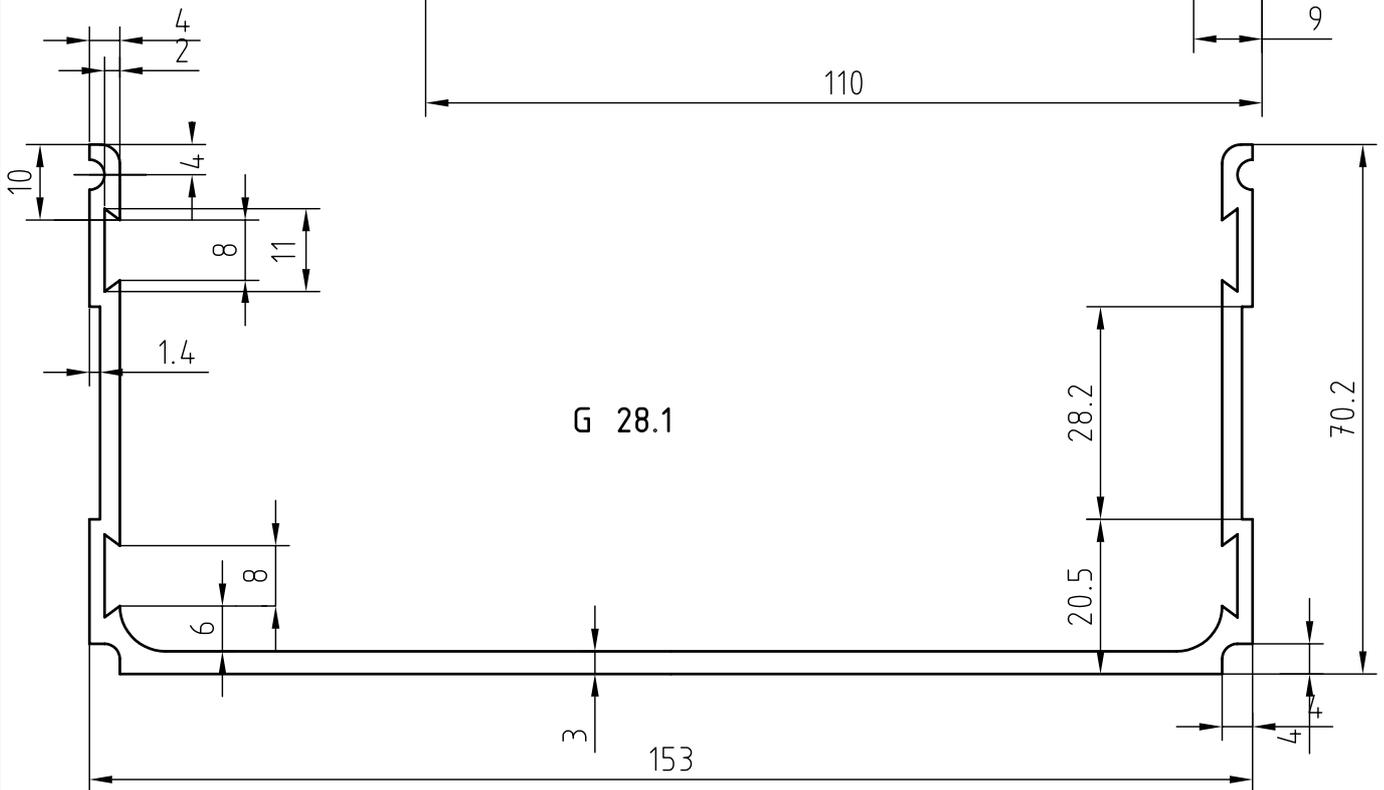
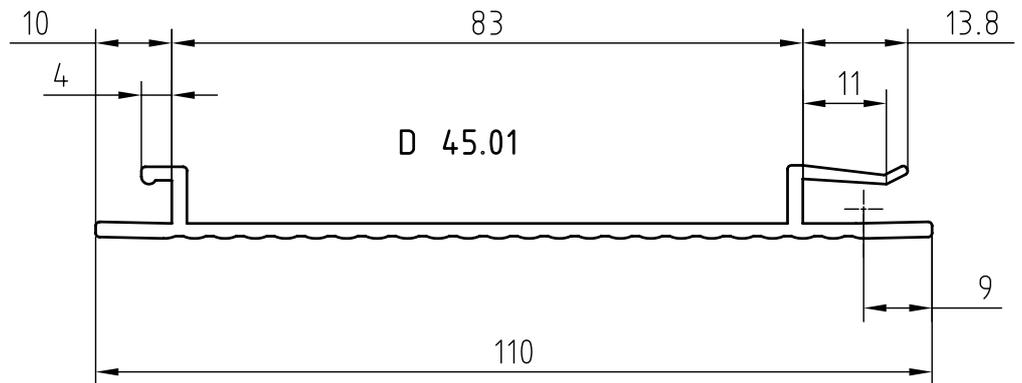
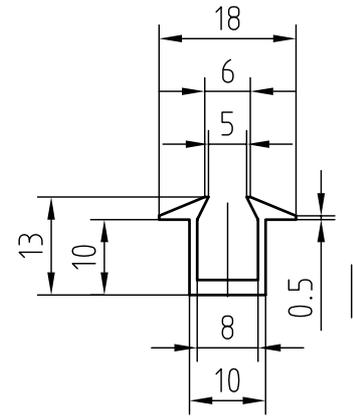
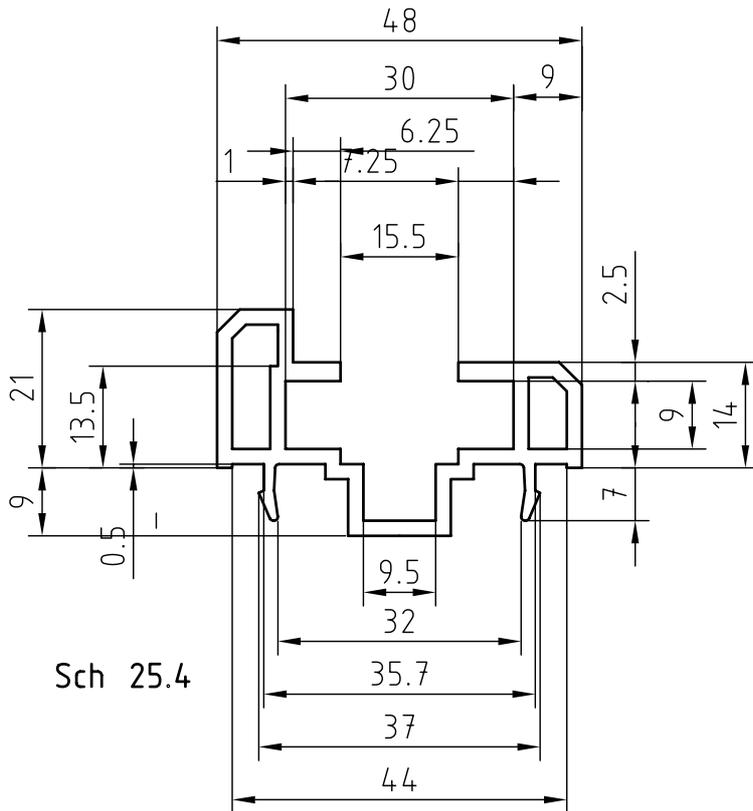
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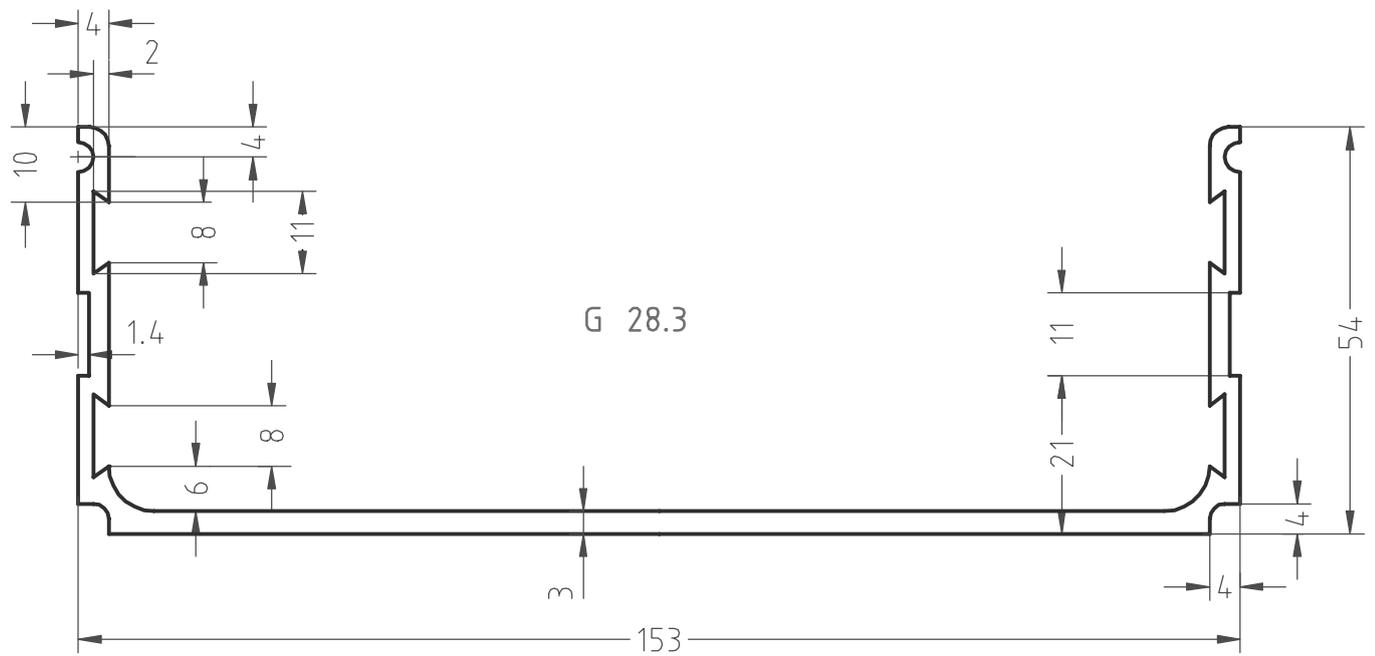
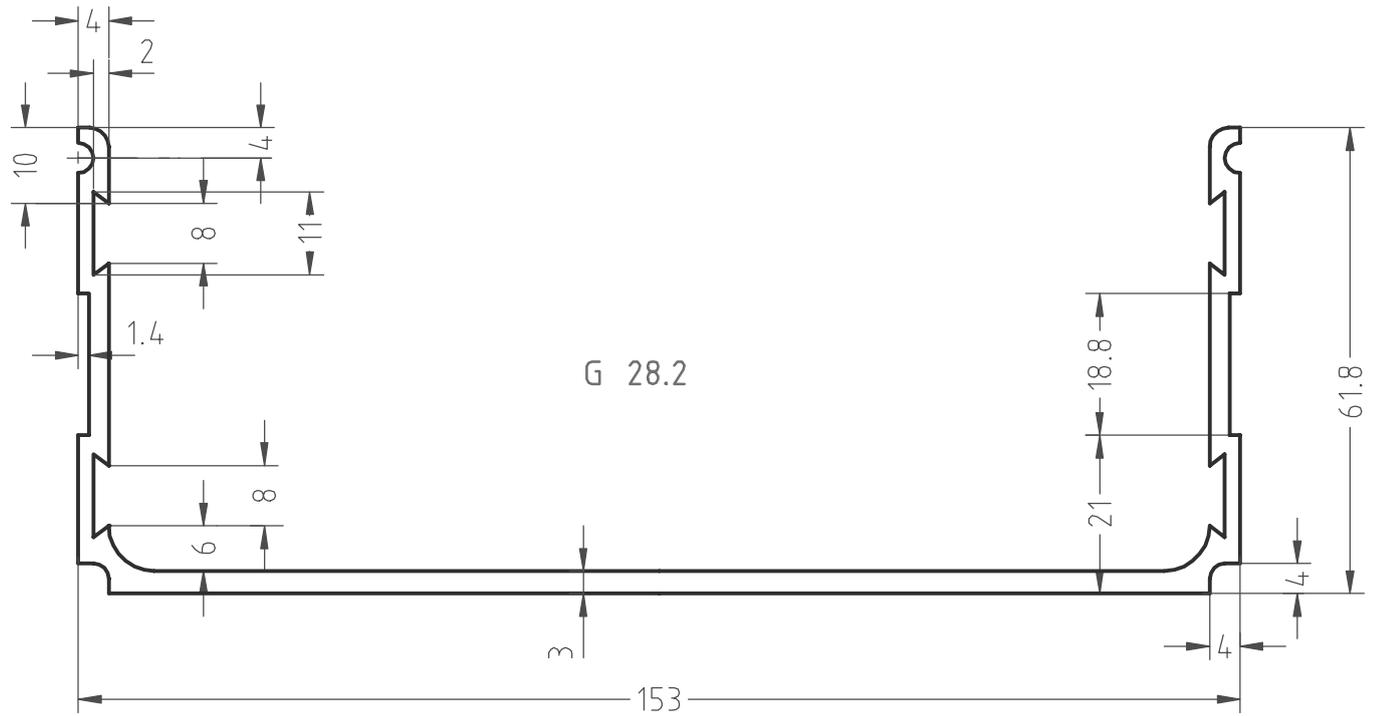


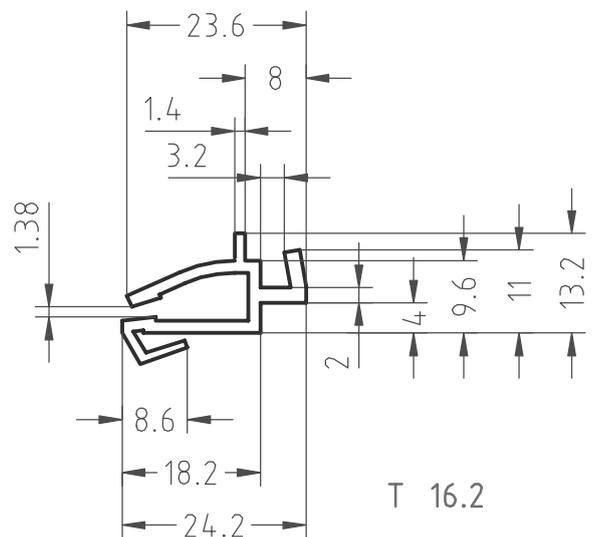
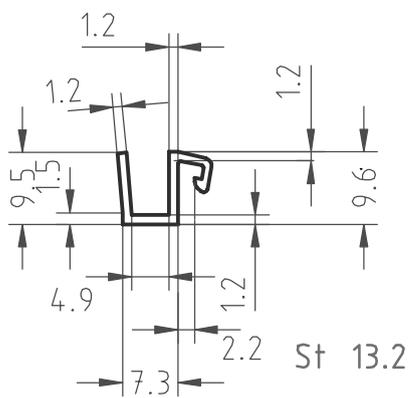
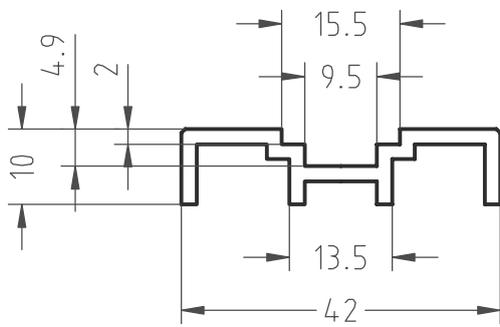
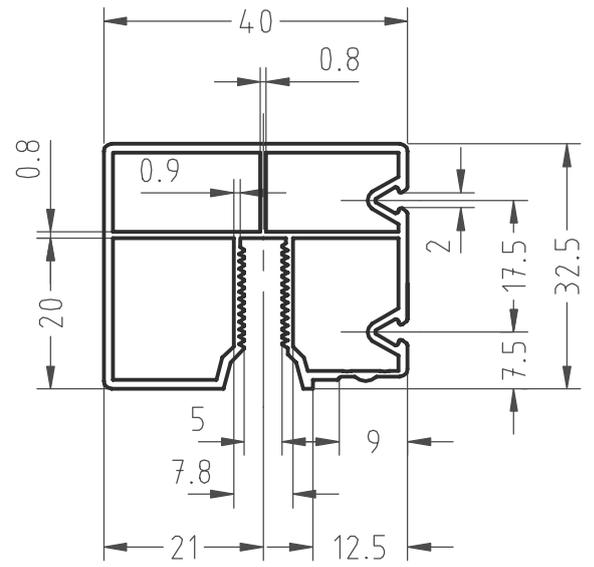
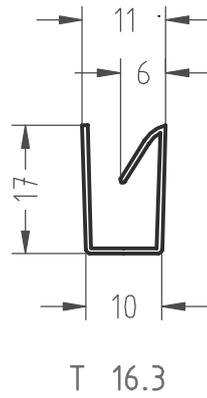
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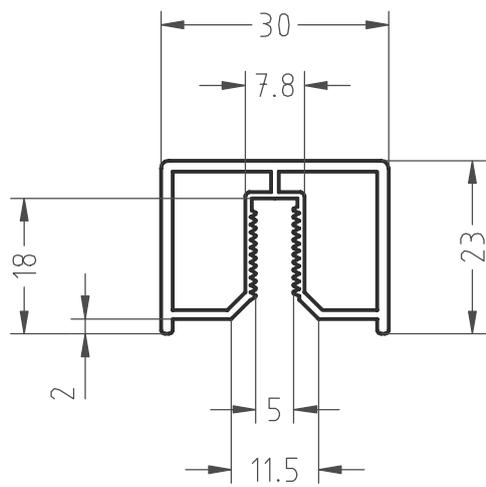


St 13.1

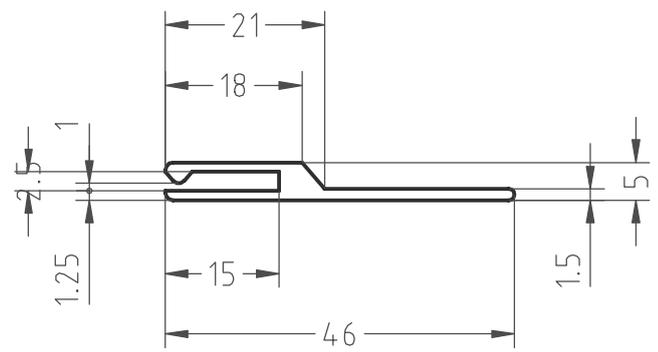




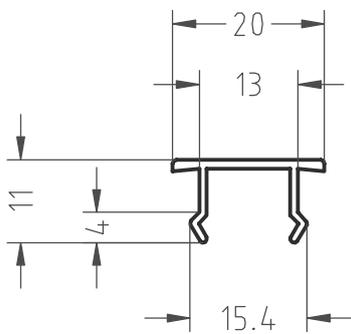




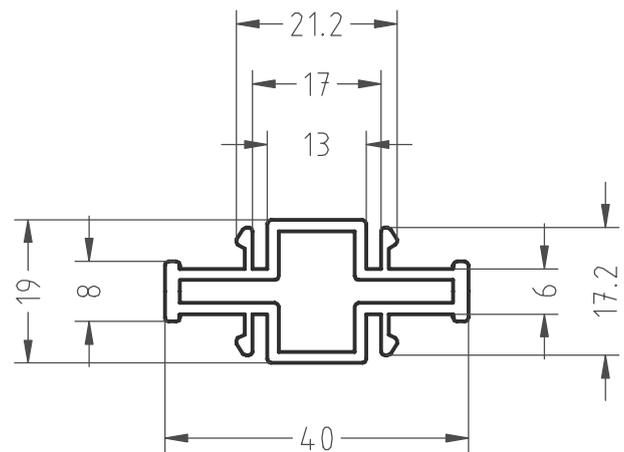
Sch 36.3



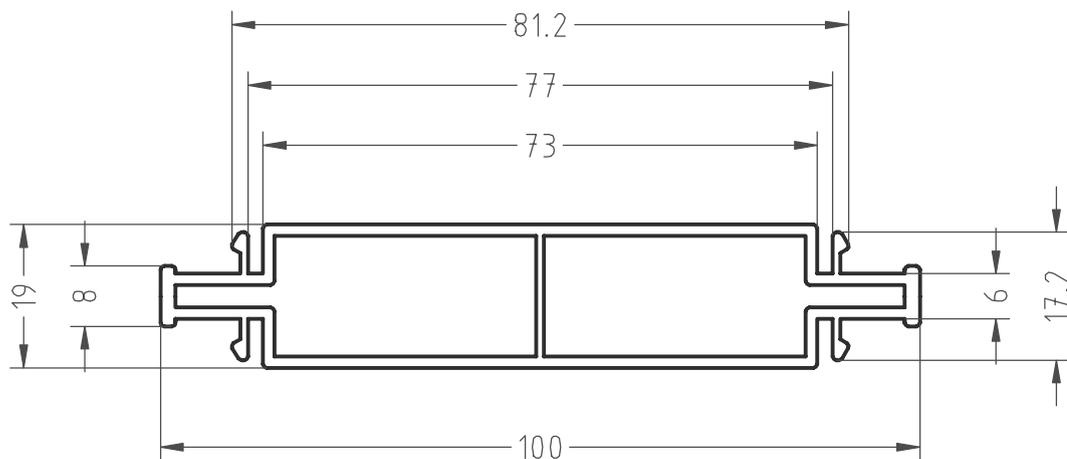
S 14.1



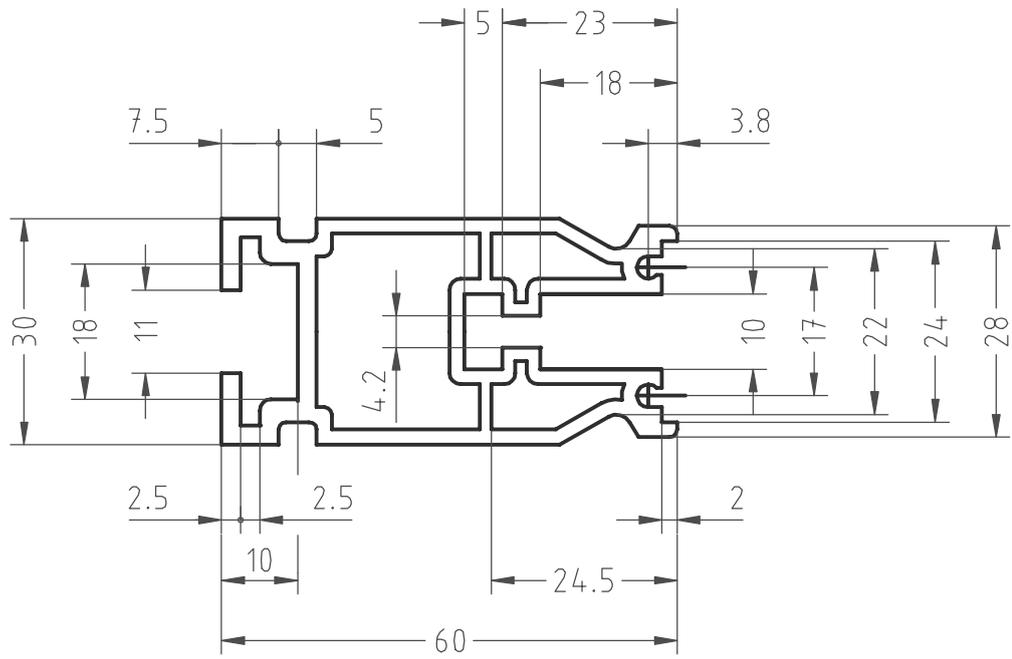
G 44.1



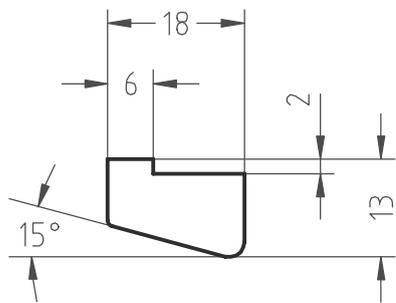
S 1.32



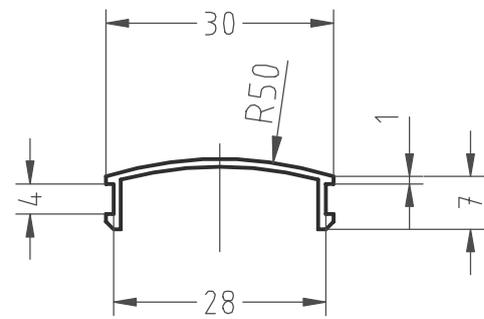
S 1.33



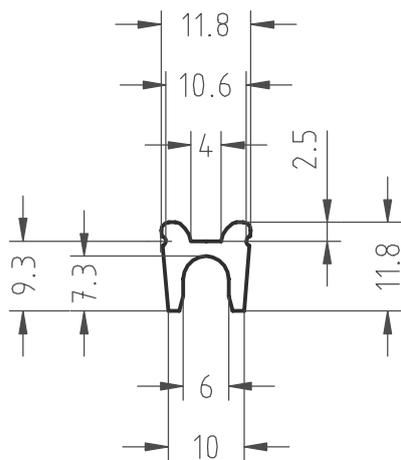
H 14.11



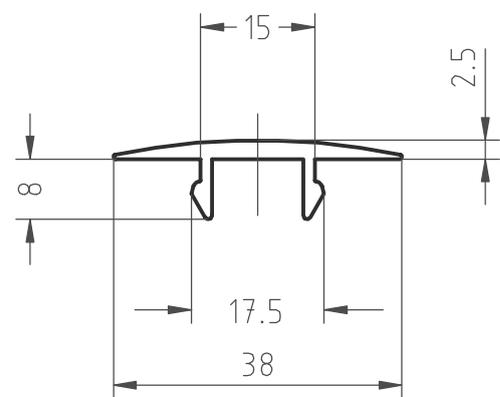
Sch 33.1



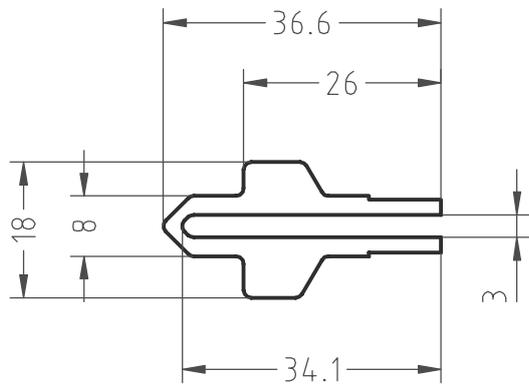
Sch 35.1



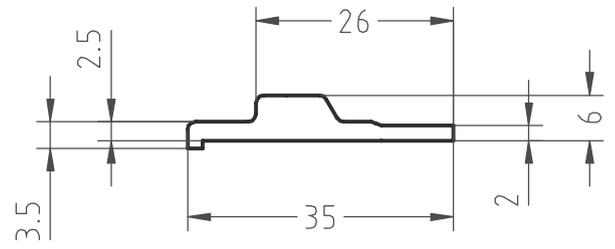
H 14.10



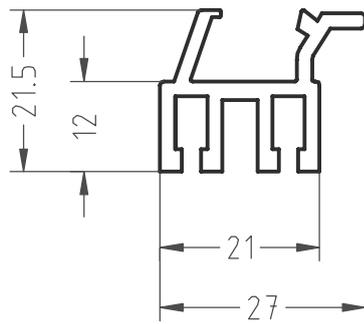
Sch 38.1



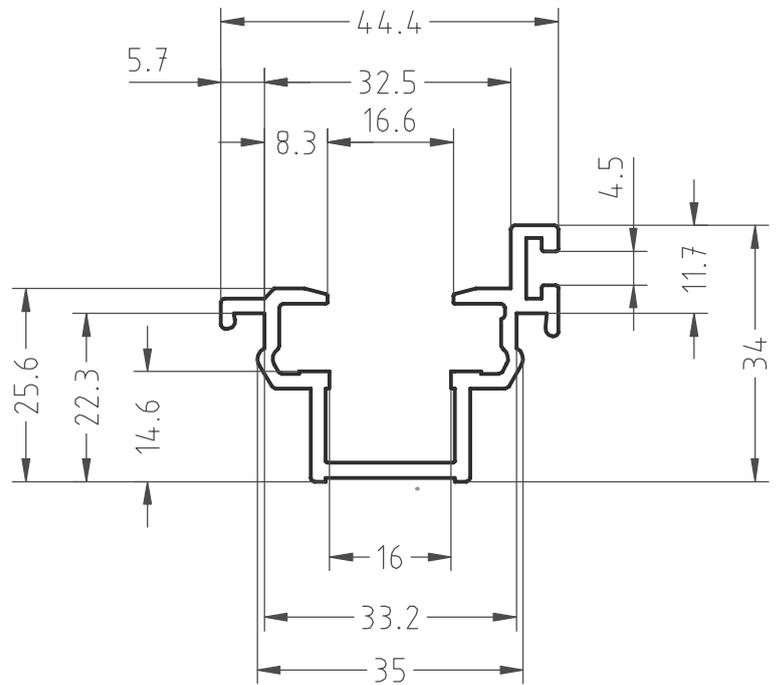
A 16.4



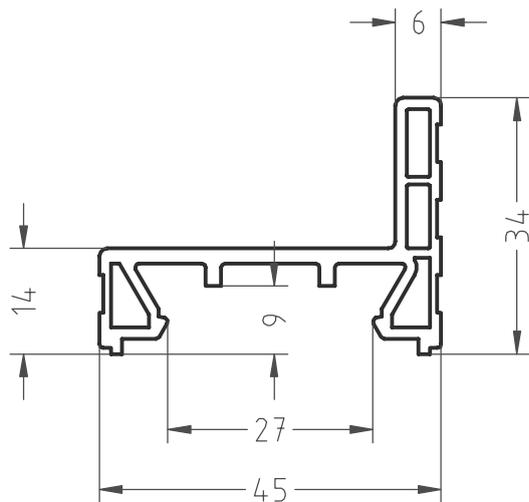
A 16.5



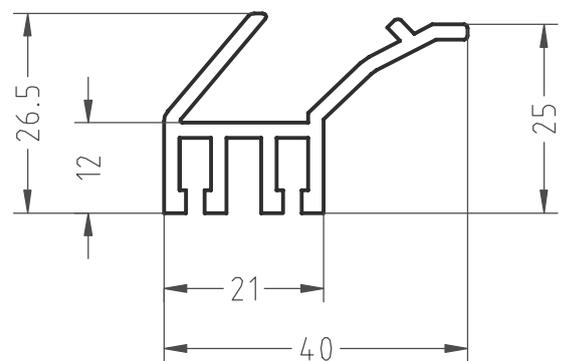
R 16.18



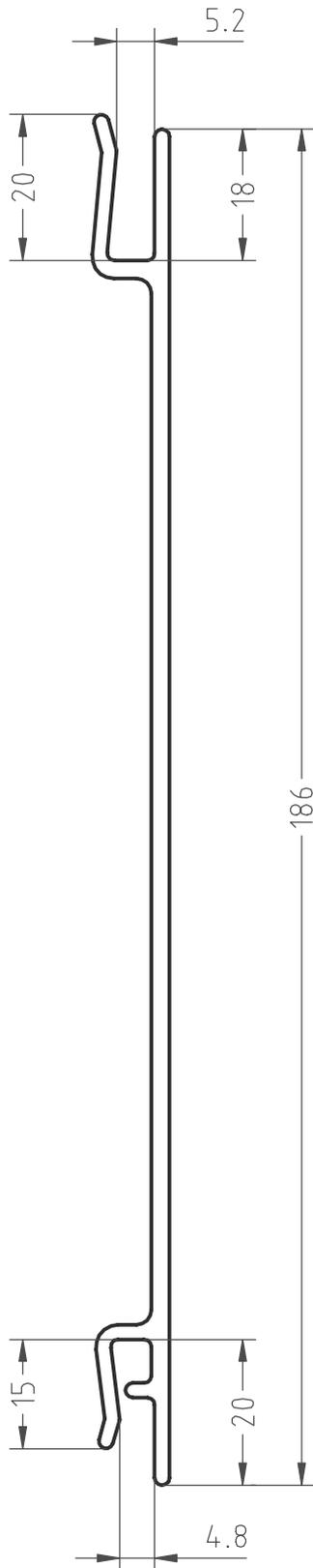
R 16.16



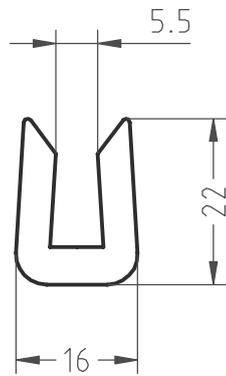
R 16.21



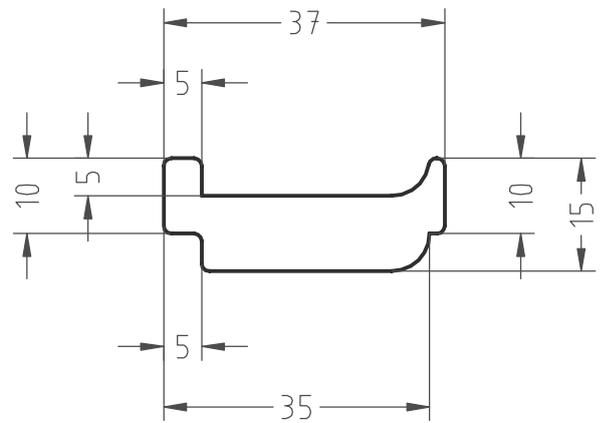
R 16.17



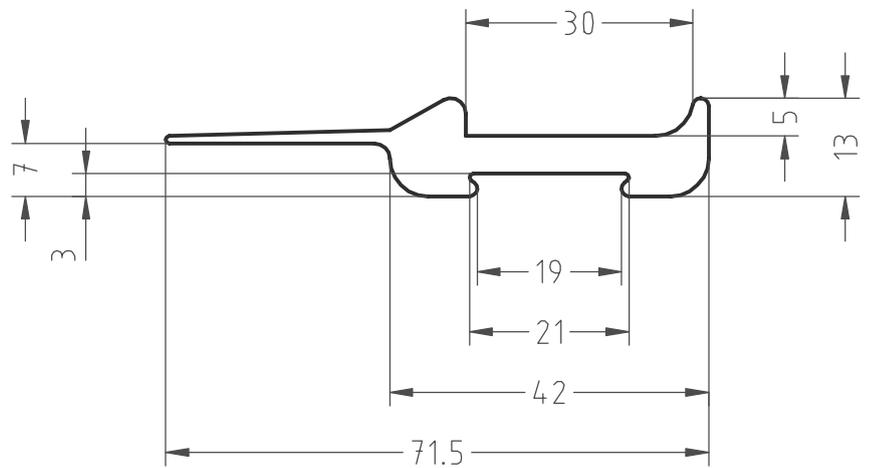
R 16.22



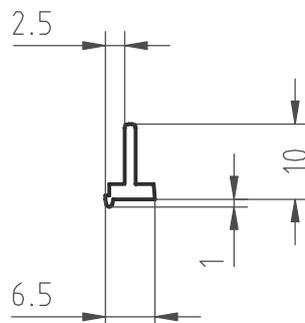
Sch 33.8



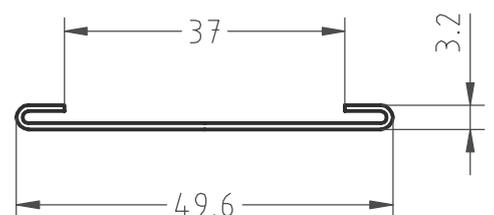
Sch 33.2



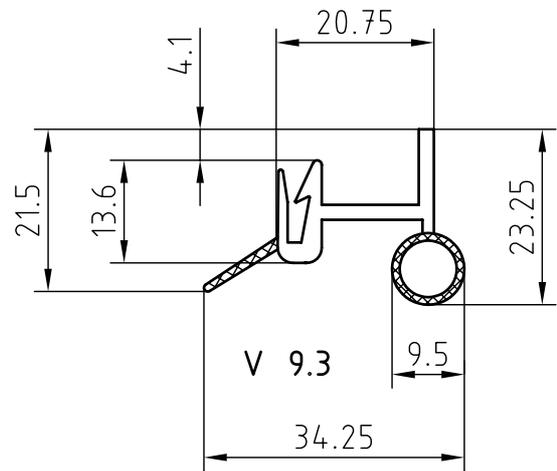
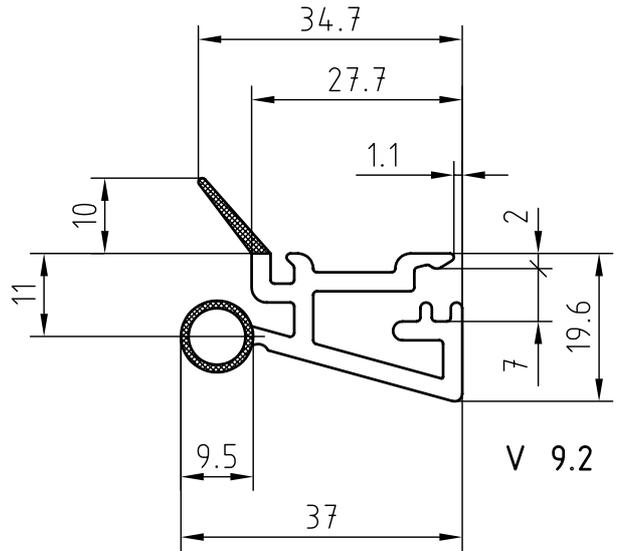
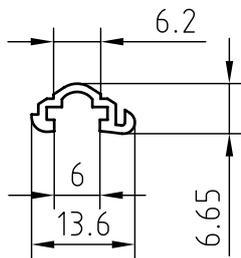
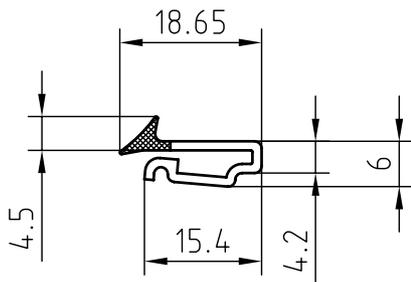
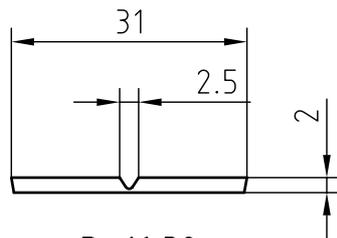
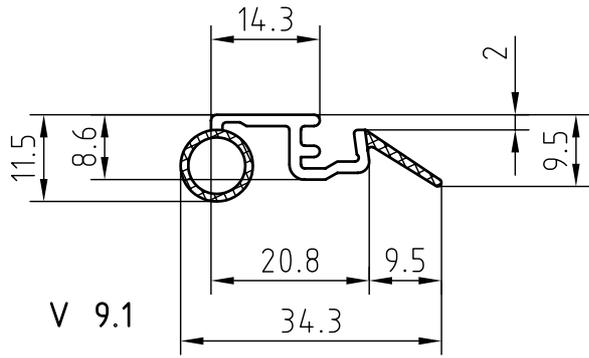
Sch 33.3

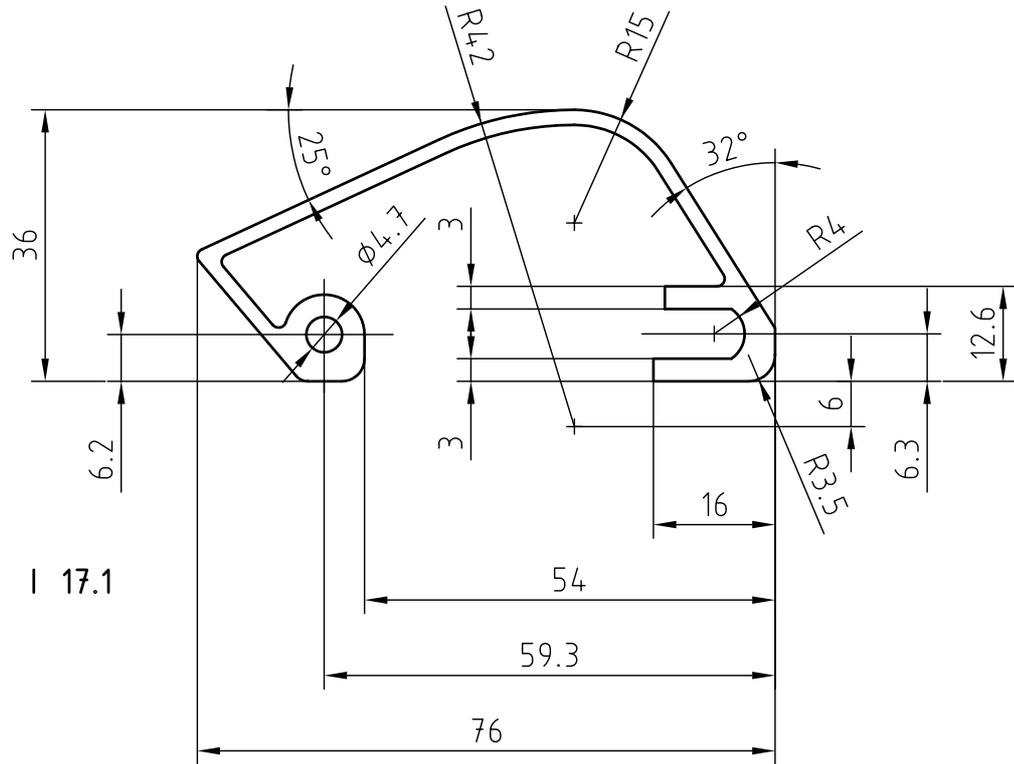


A 1.3

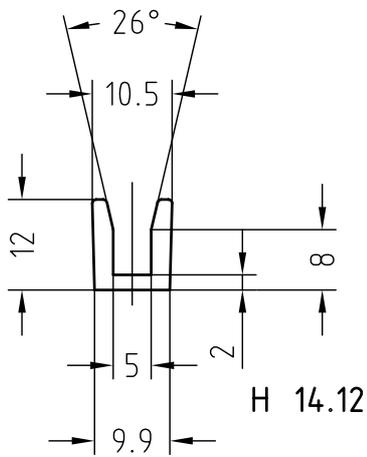


A 1.2

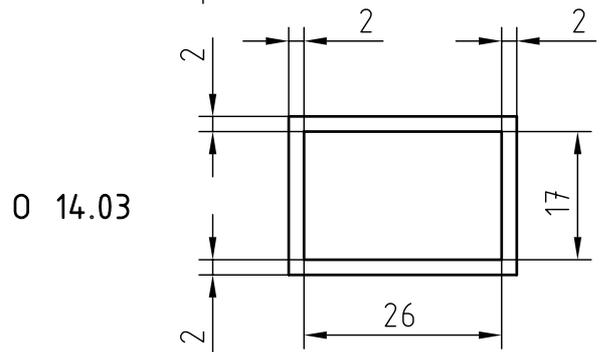




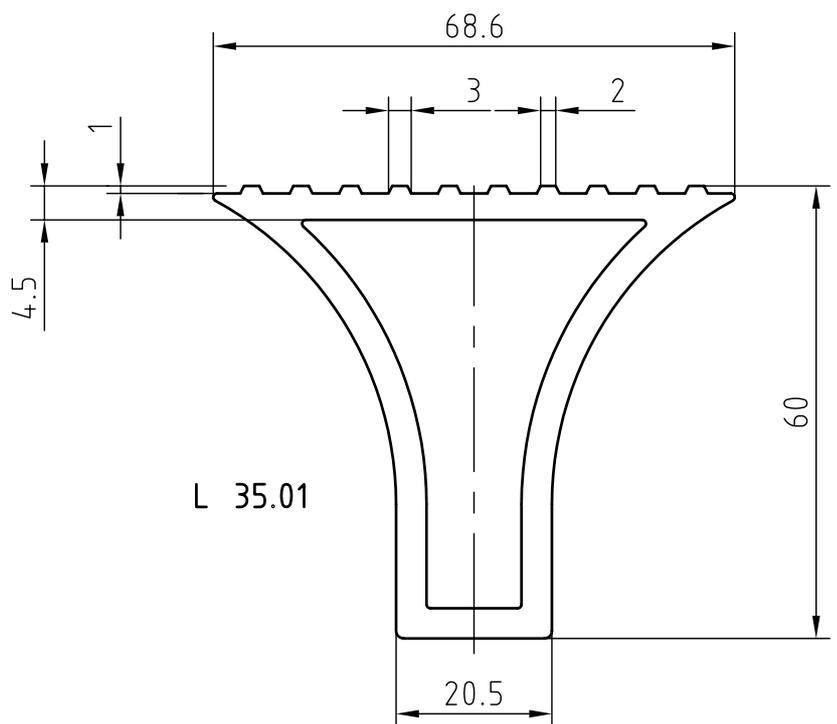
I 17.1



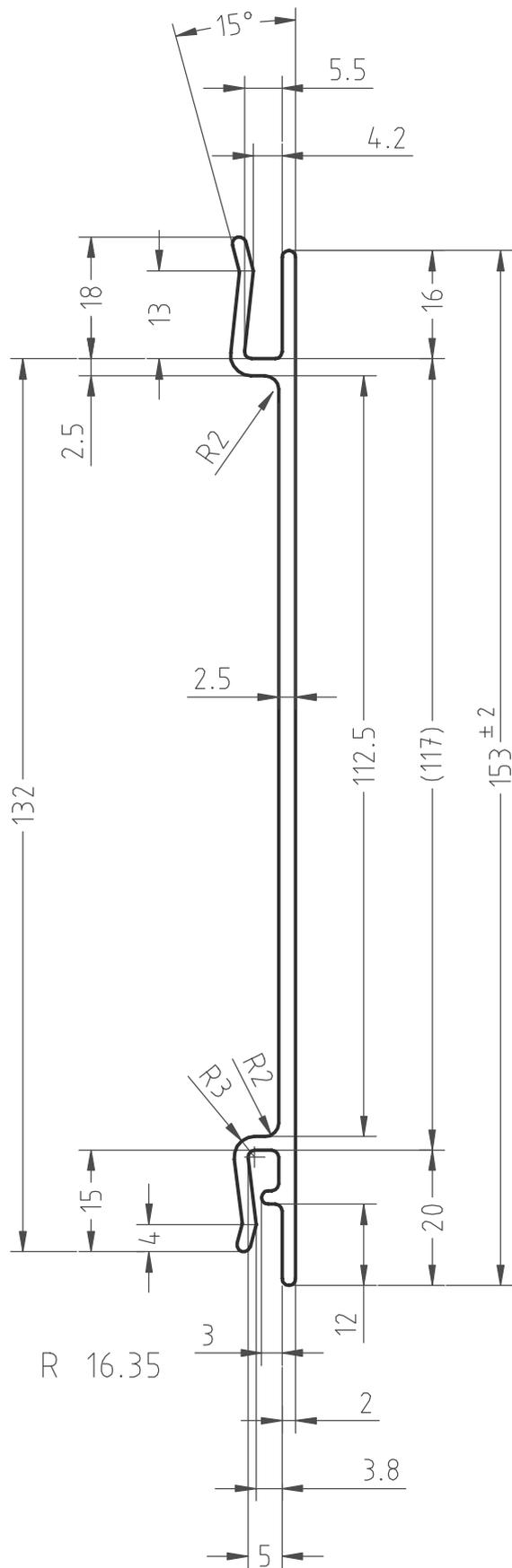
H 14.12

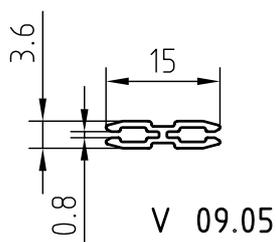
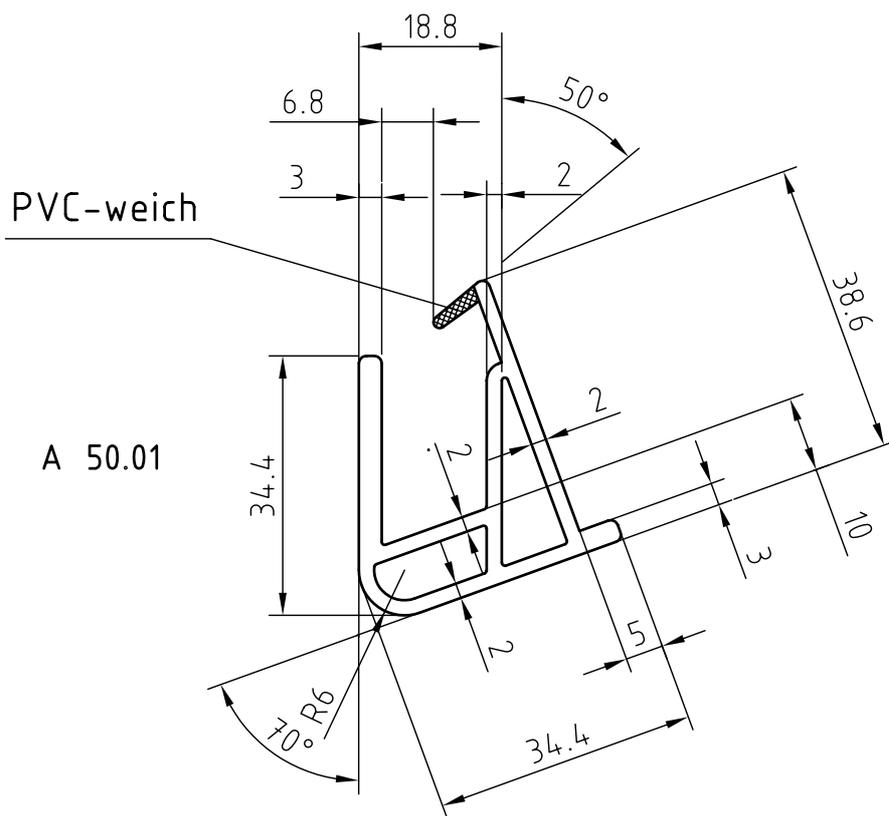
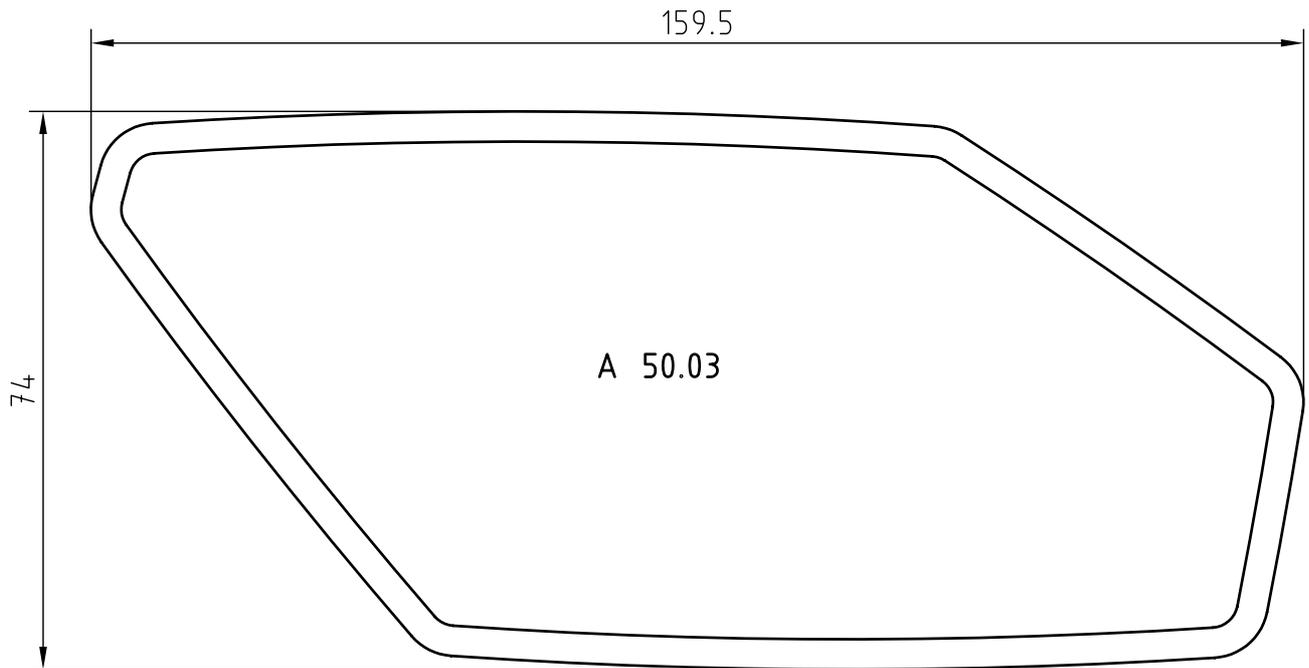


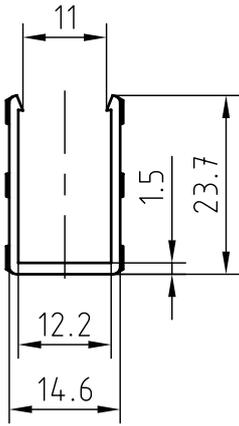
O 14.03



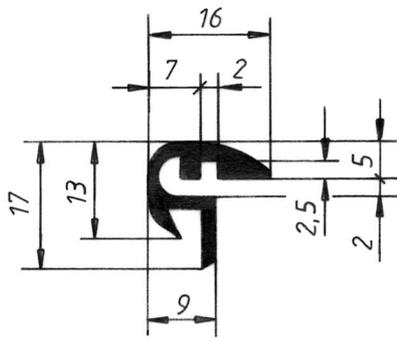
L 35.01



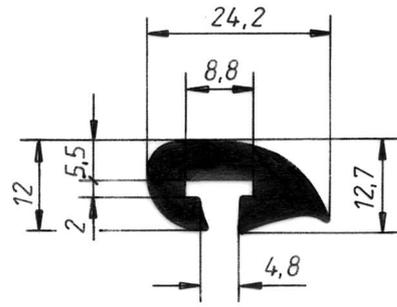




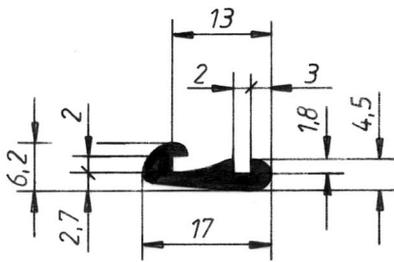
G 64.01



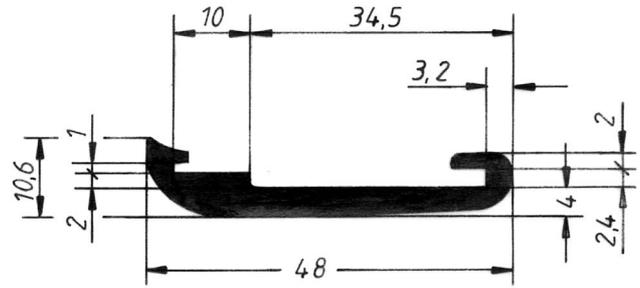
G 8.17



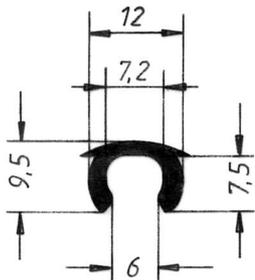
G 8.18



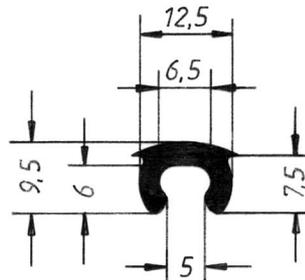
G 8.19



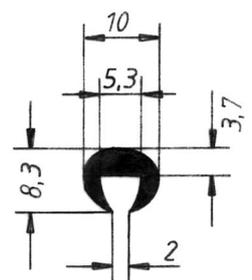
G 8.20



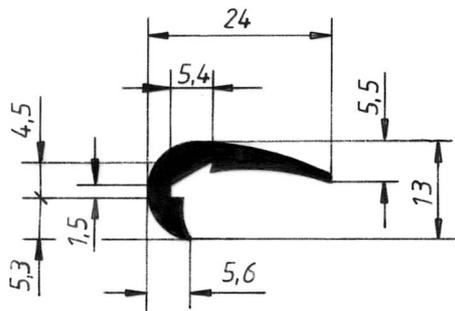
G 8.21



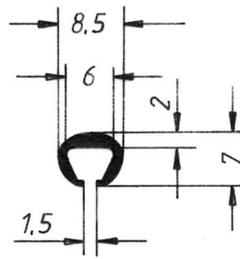
G 8.22



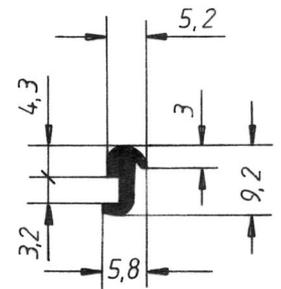
G 32.1



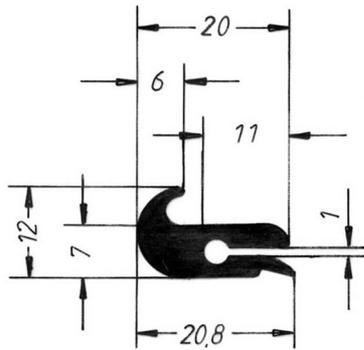
H 16.1



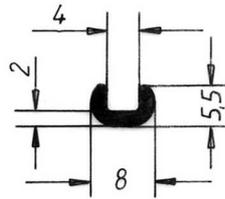
M 24.1



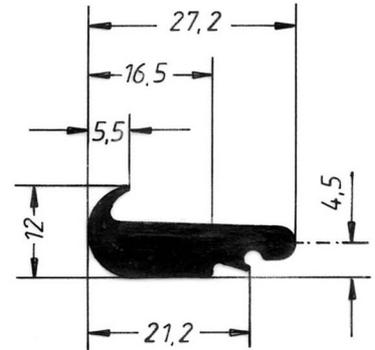
G 8.7



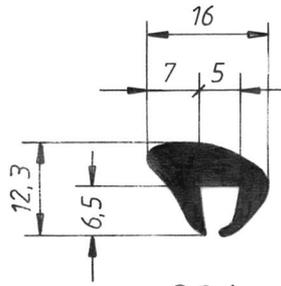
G 8.25



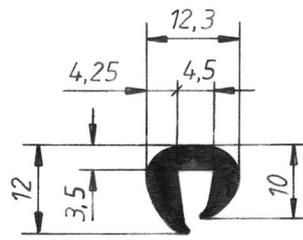
G 8.26



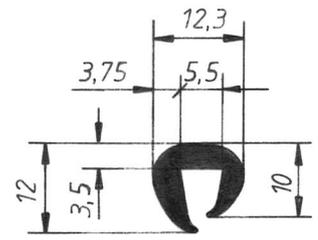
G 8.27



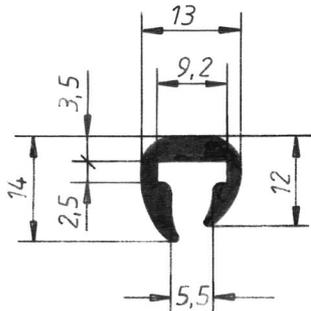
G 8.1



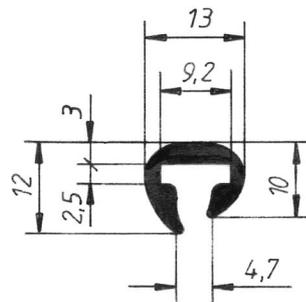
G 8.3



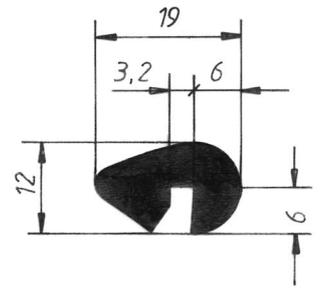
G 8.8



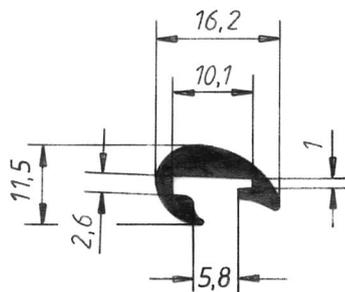
G 8.9



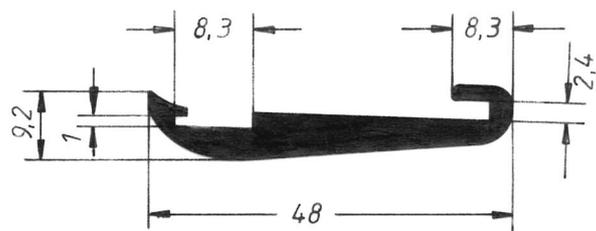
G 8.10



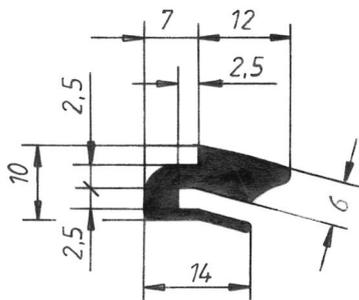
G 8.11



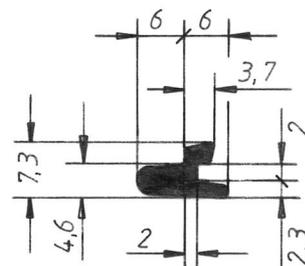
G 8.12



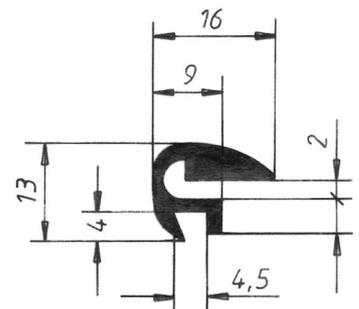
G 8.13



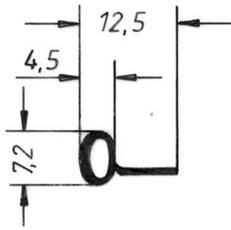
G 8.14



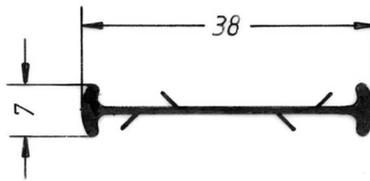
G 8.15



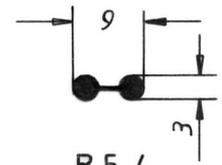
G 8.16



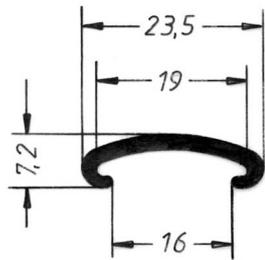
R 5.2



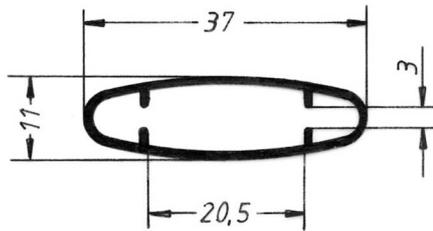
R 5.3



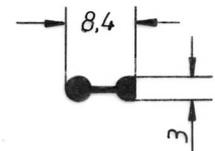
R 5.4



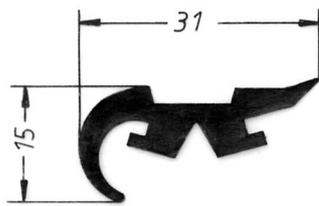
R 5.9



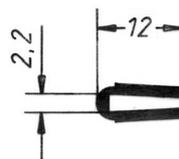
R 14.3



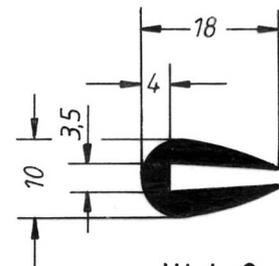
R 5.8



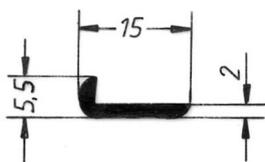
S 10.6



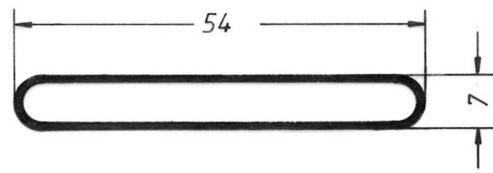
R 14.1



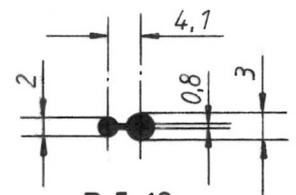
W 4.2



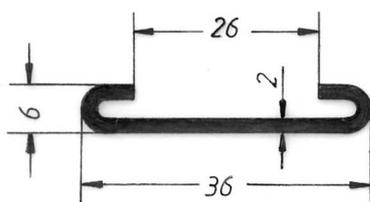
W 4.1



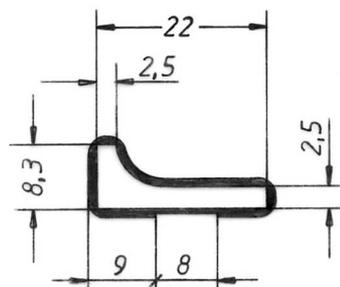
R 14.2



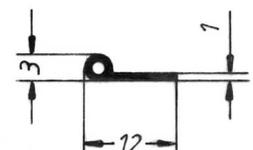
R 5.10



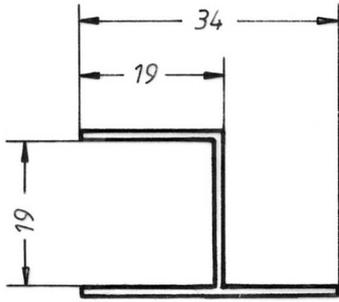
R 5.1



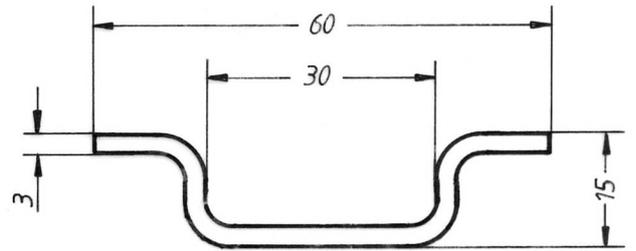
R 14.5



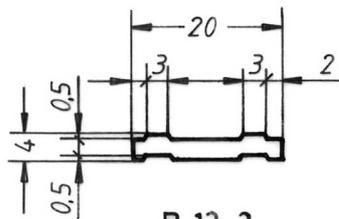
R 5.11



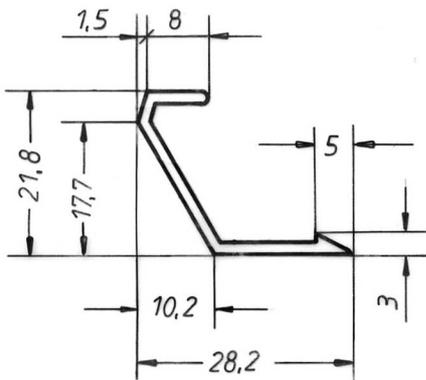
D 10.1



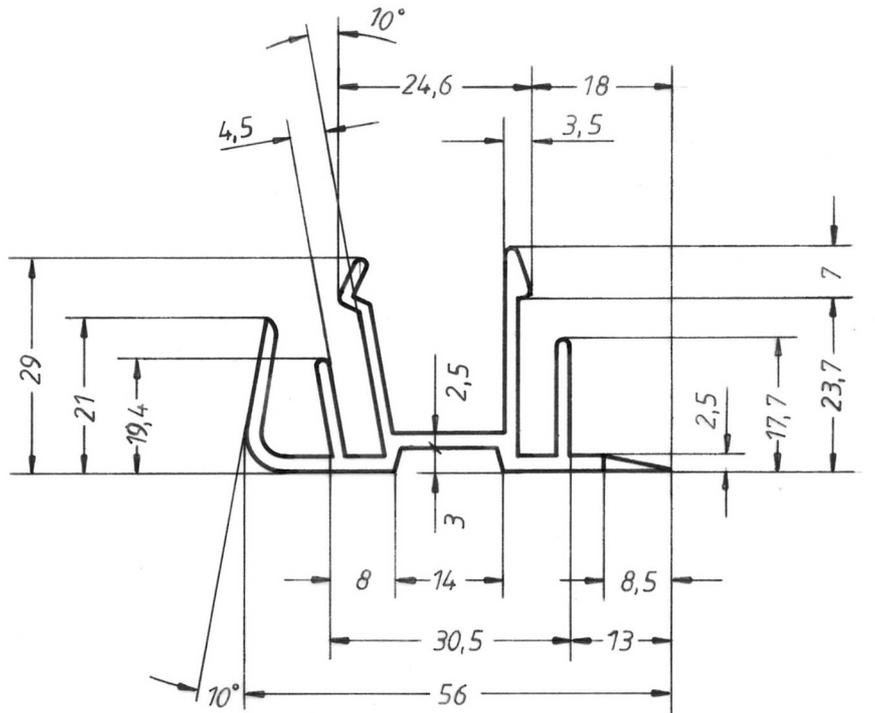
W 2.1



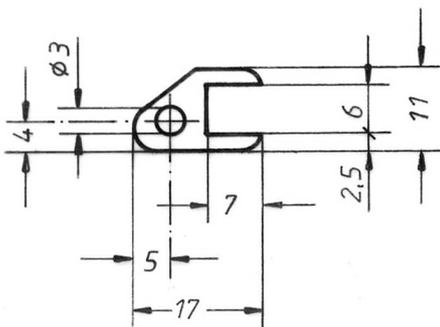
R 13.2



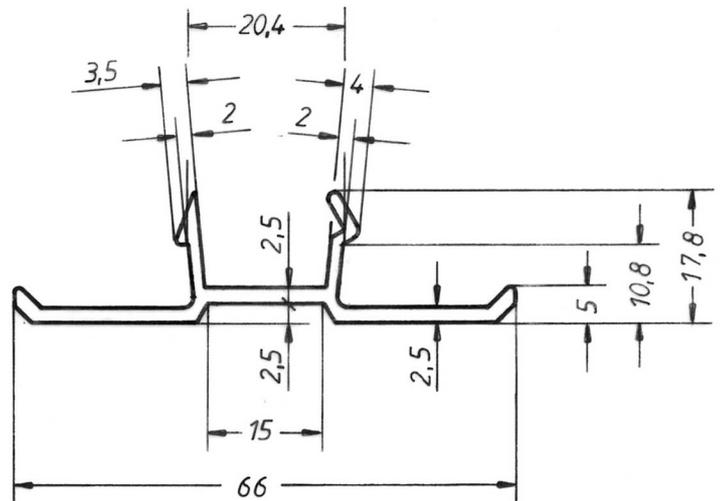
S 10.11



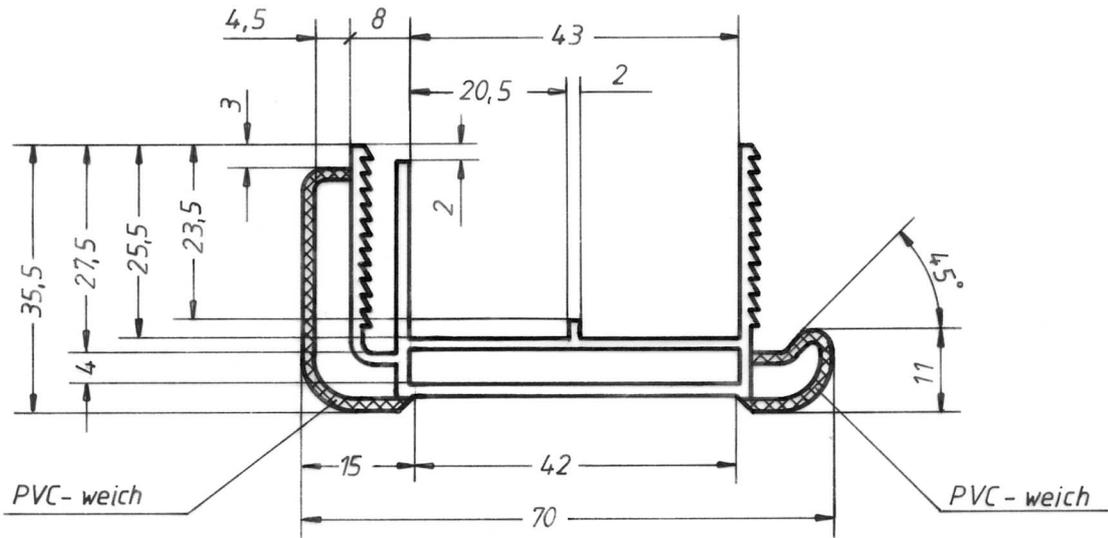
S 10.13



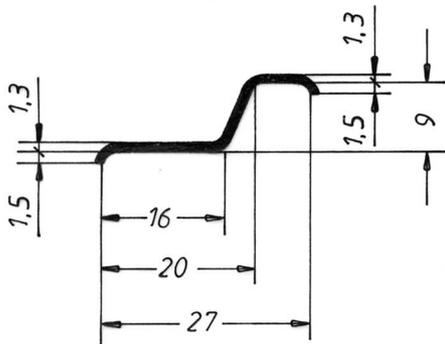
D 3.1



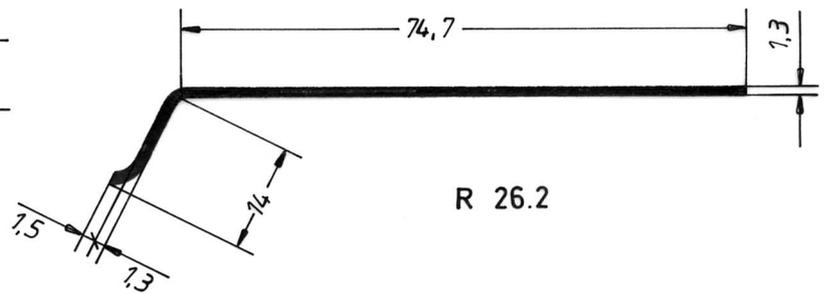
S 10.14



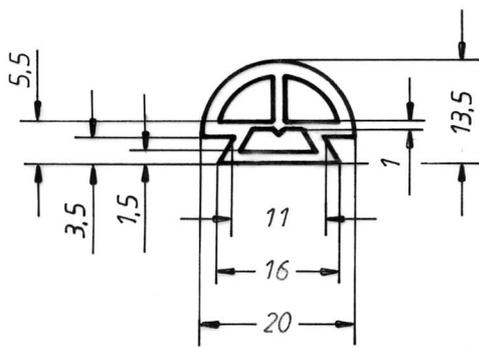
S 10.15



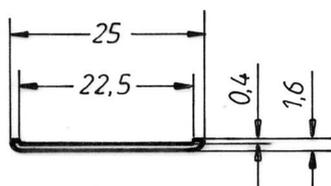
R 26.1



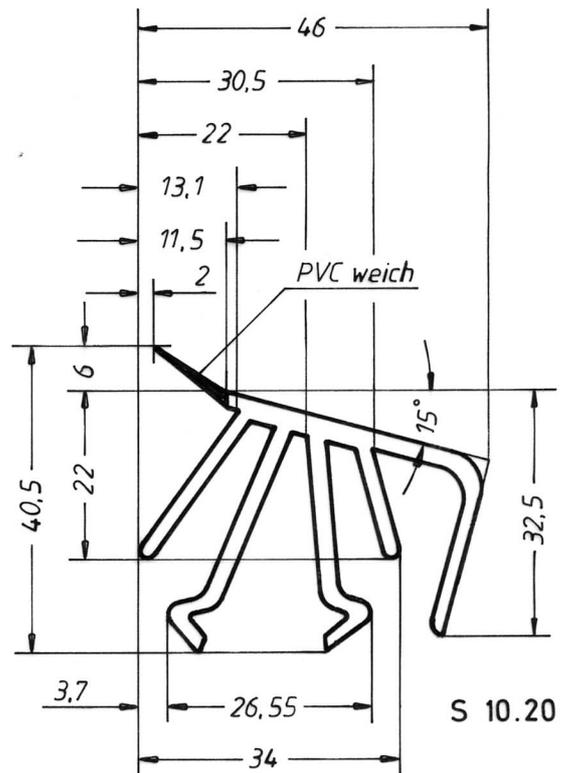
R 26.2



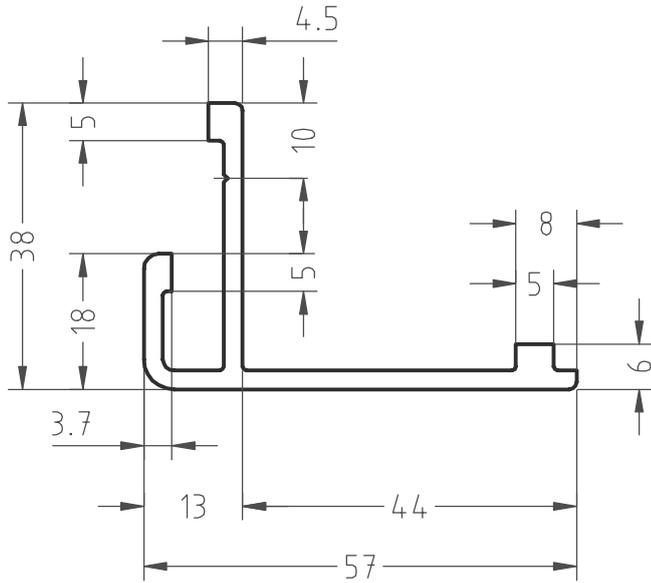
B 27.1



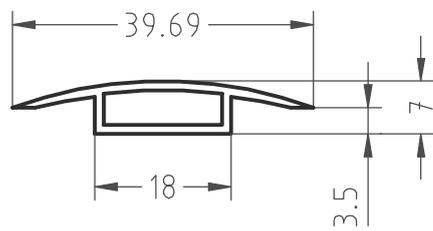
S 10.22



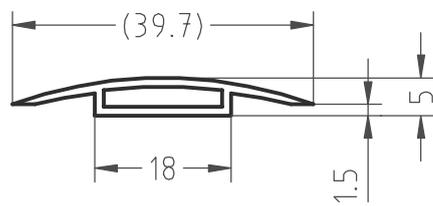
S 10.20



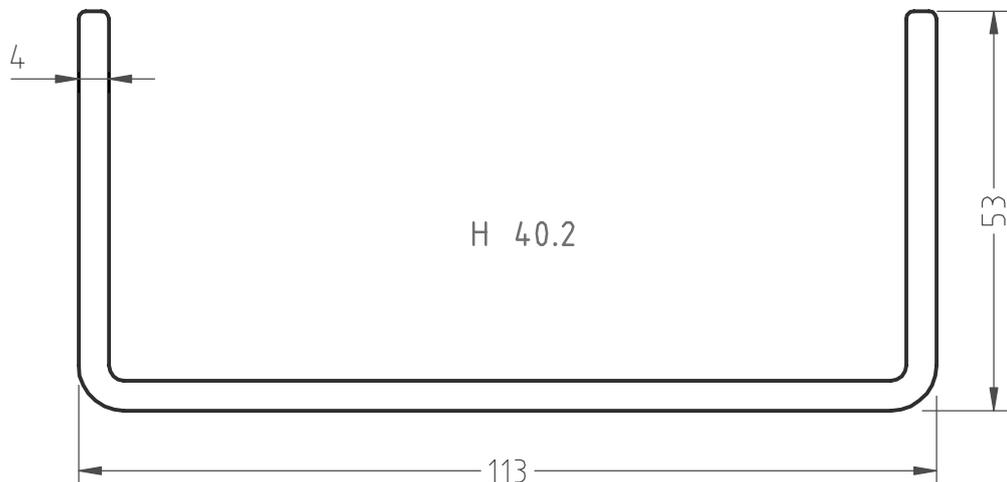
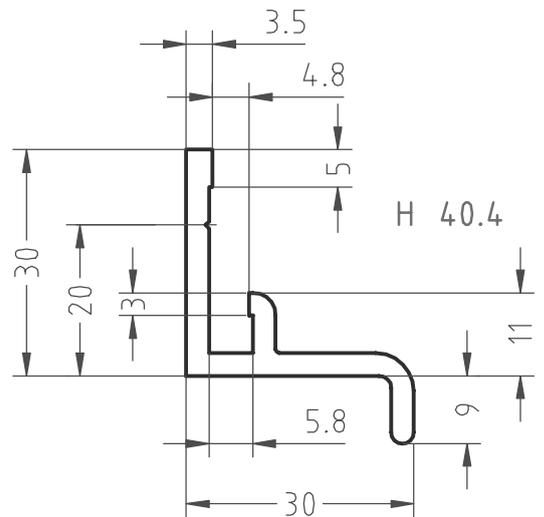
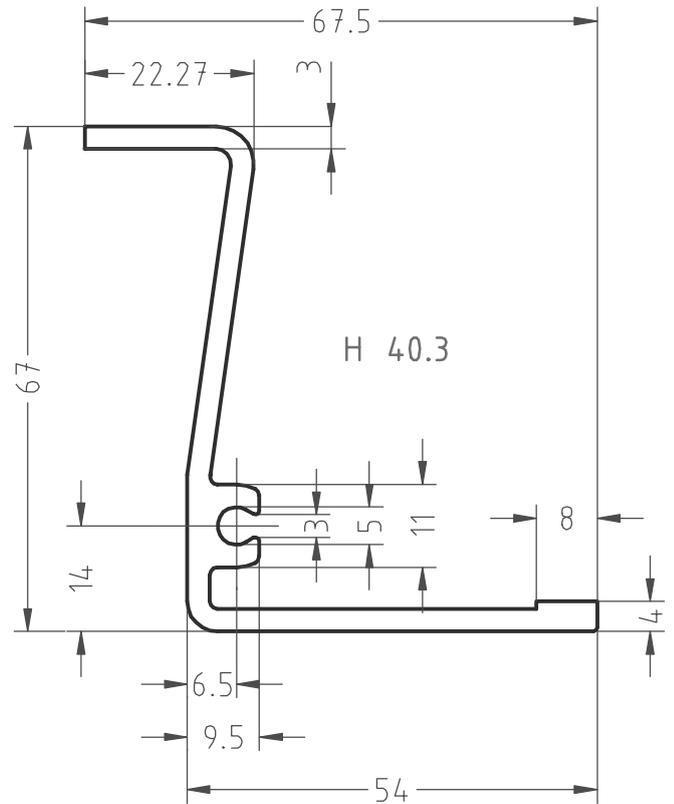
H 40.1



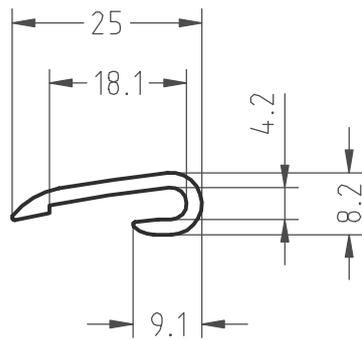
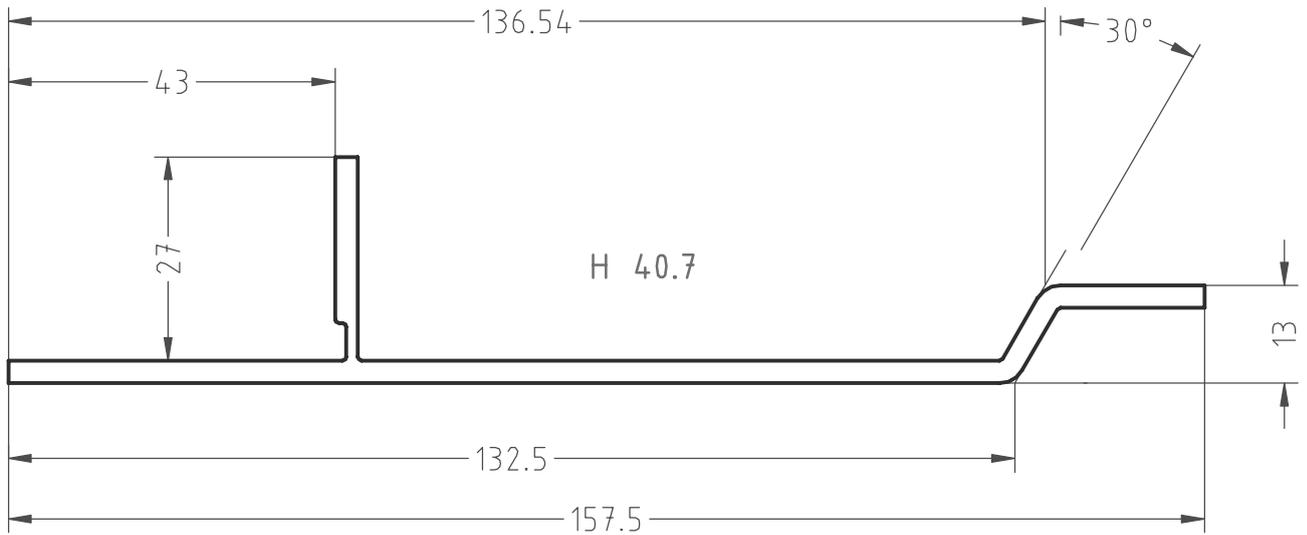
H 40.5



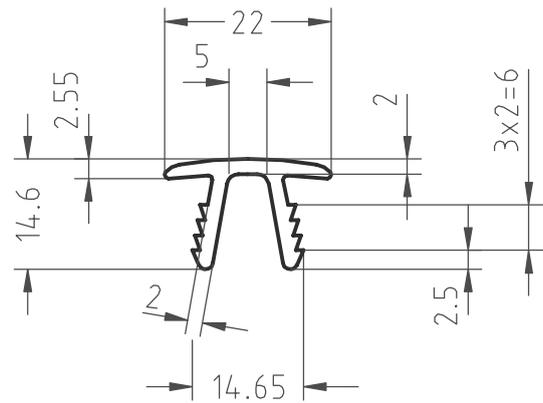
H 40.6



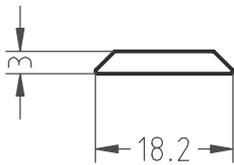
H 40.2



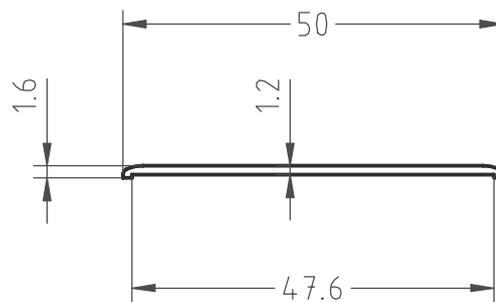
S 10.26



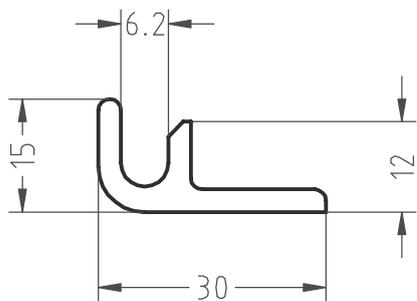
S 10.23



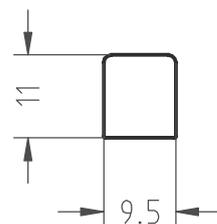
S 10.28



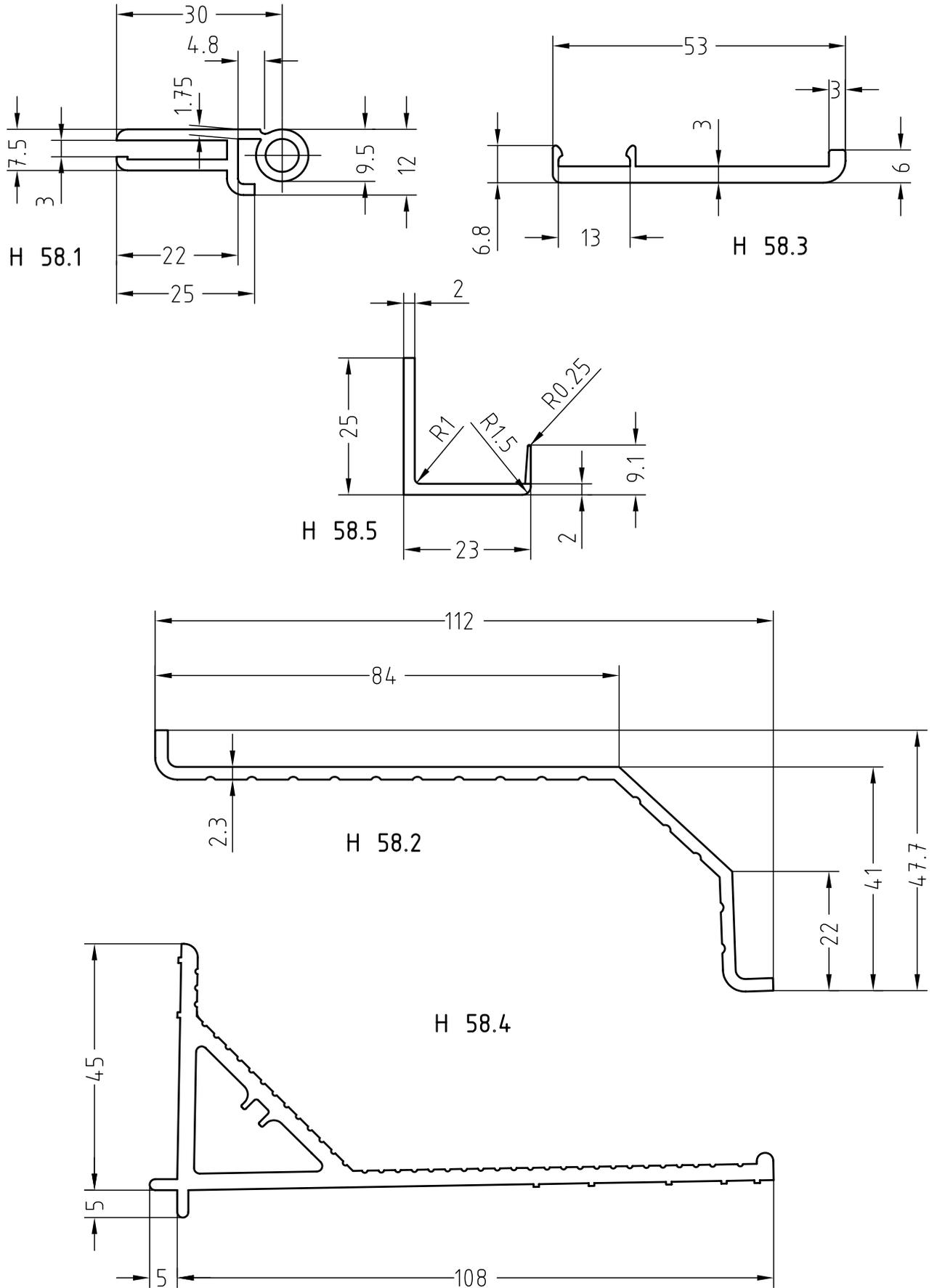
S 10.30

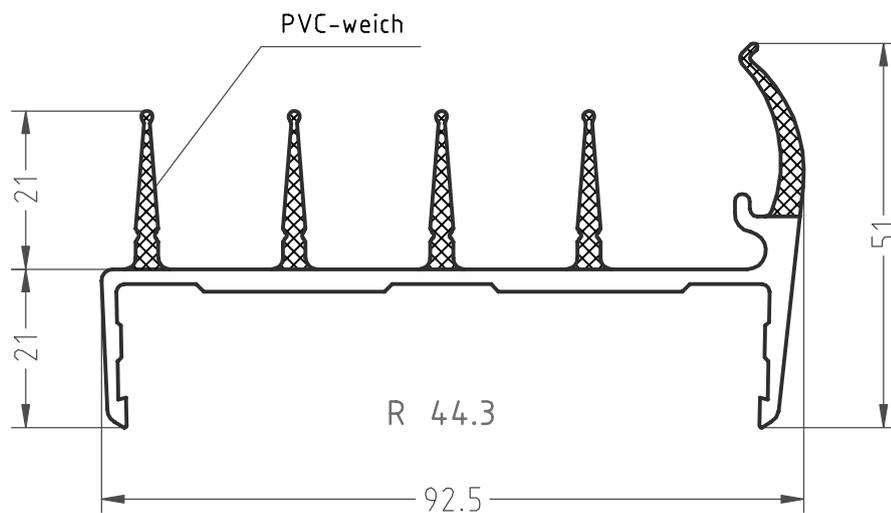
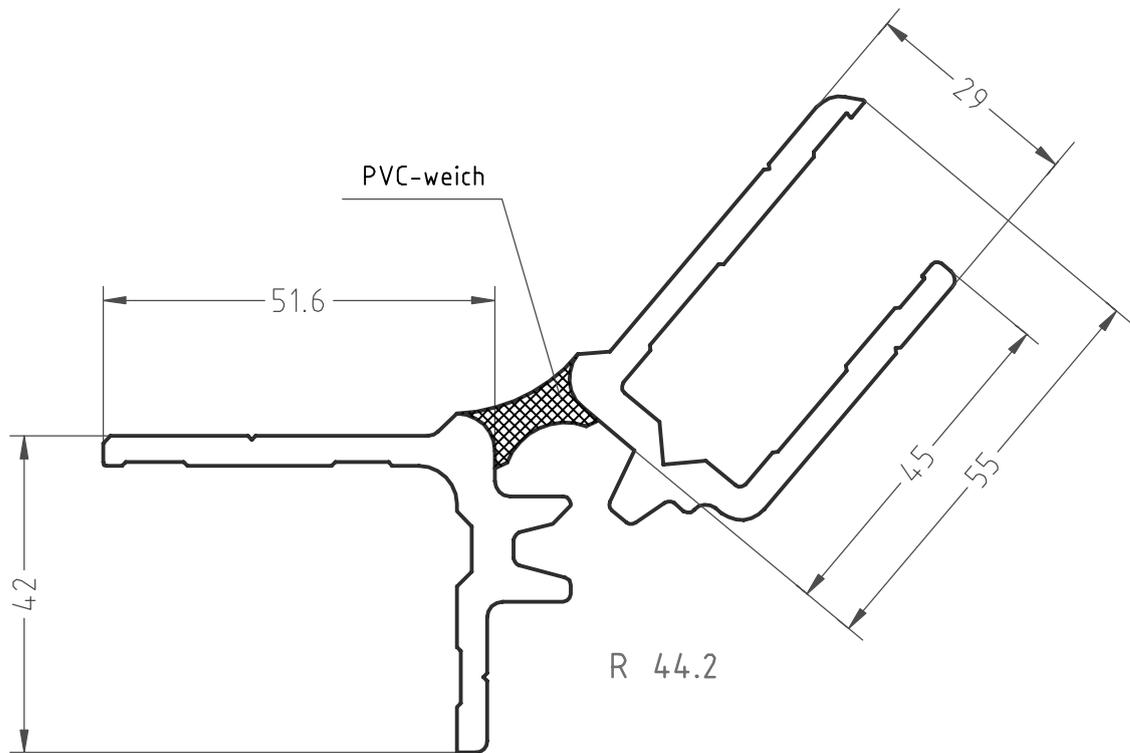
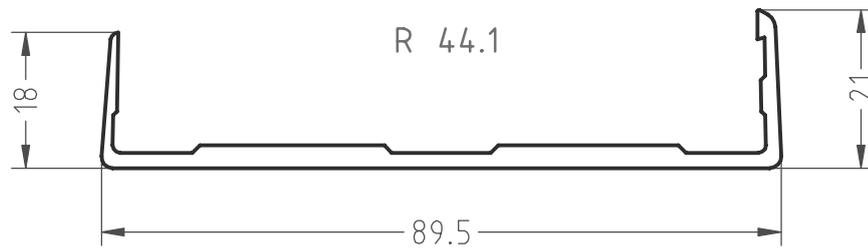


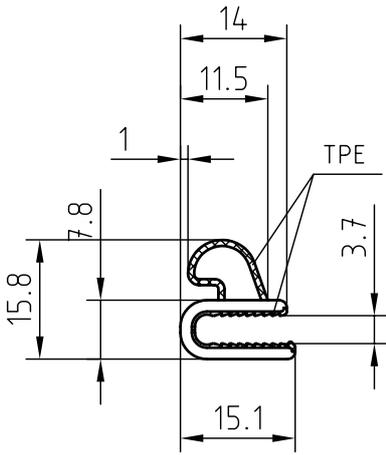
S 10.29



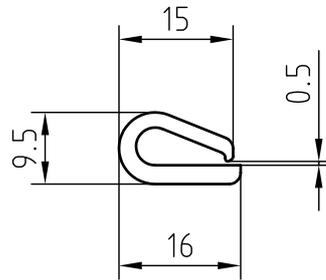
S 10.31



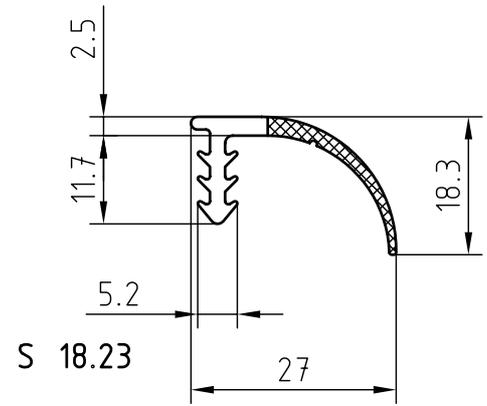




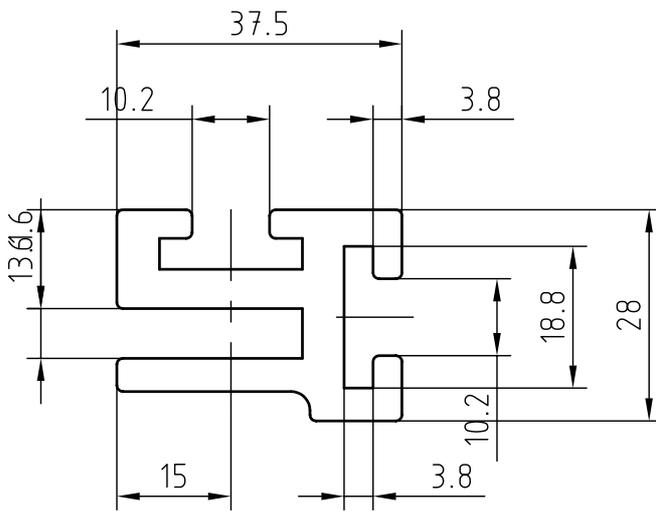
A 38.1



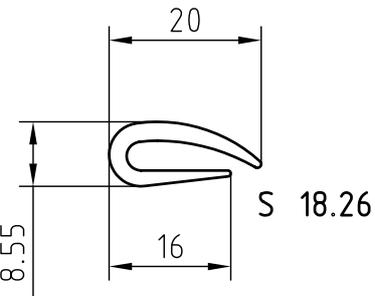
A 38.2



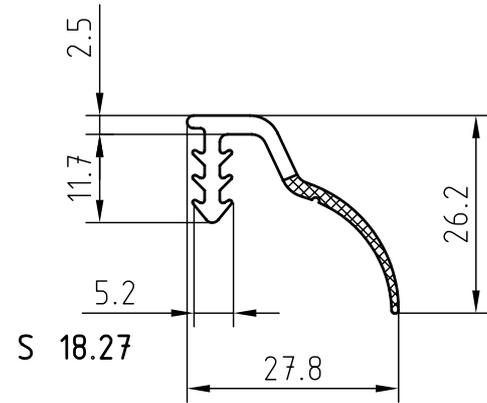
S 18.23



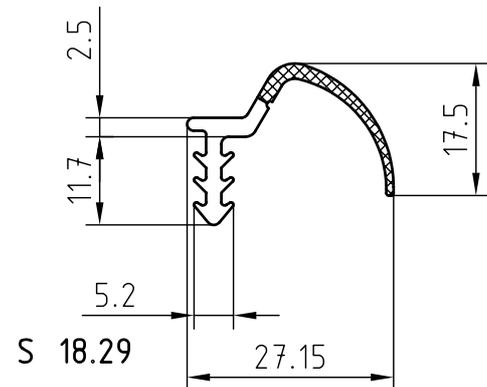
B 86.1



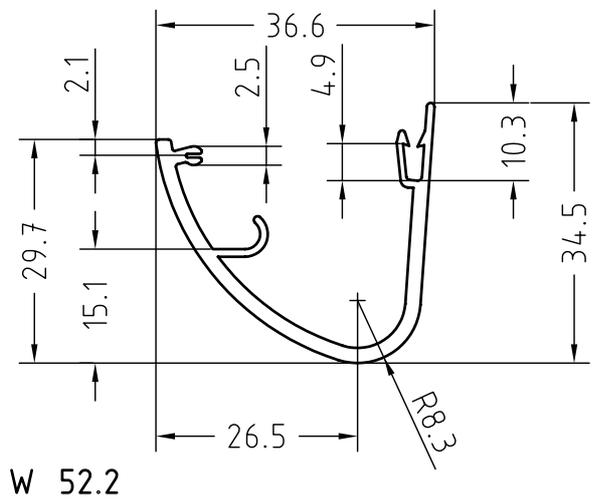
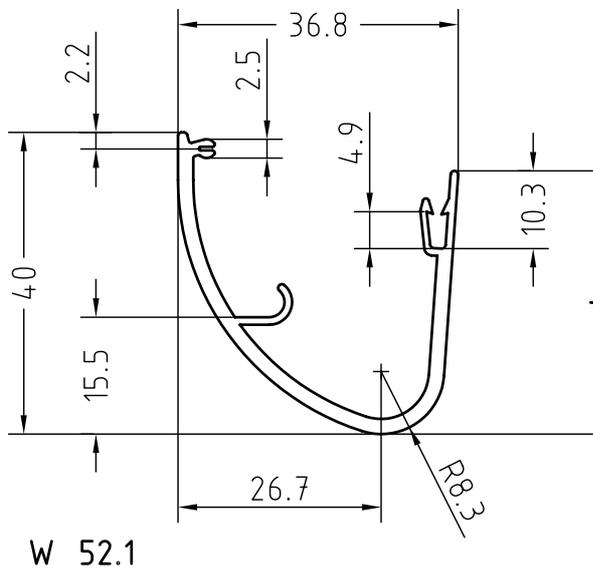
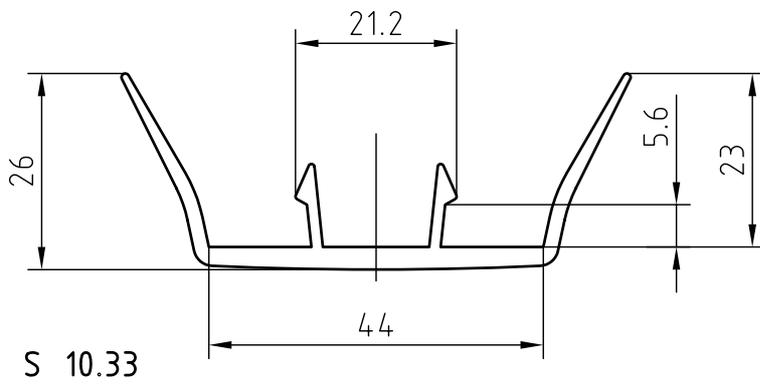
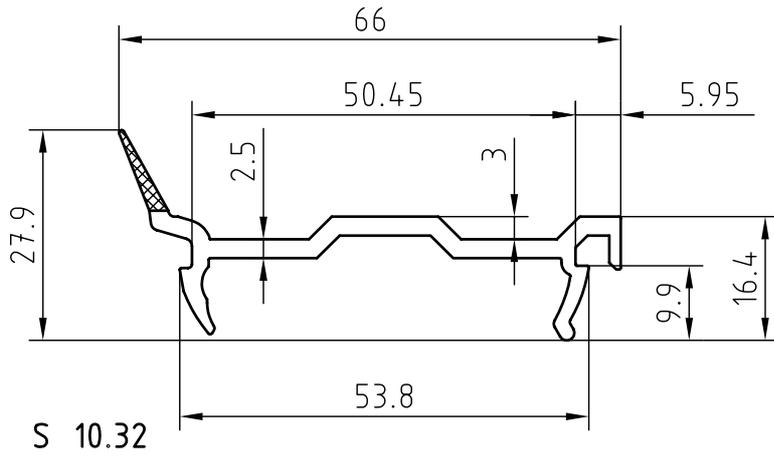
S 18.26

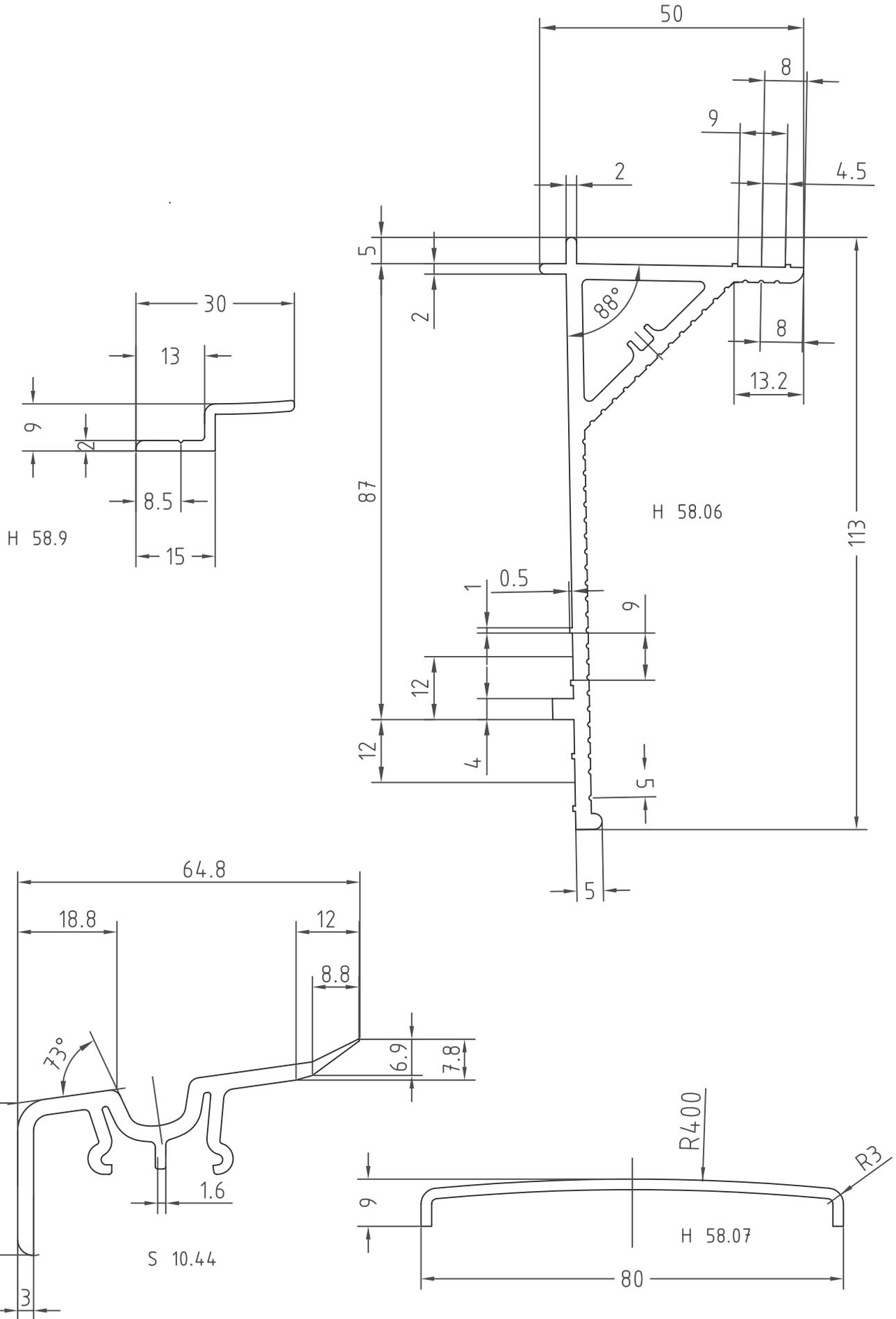


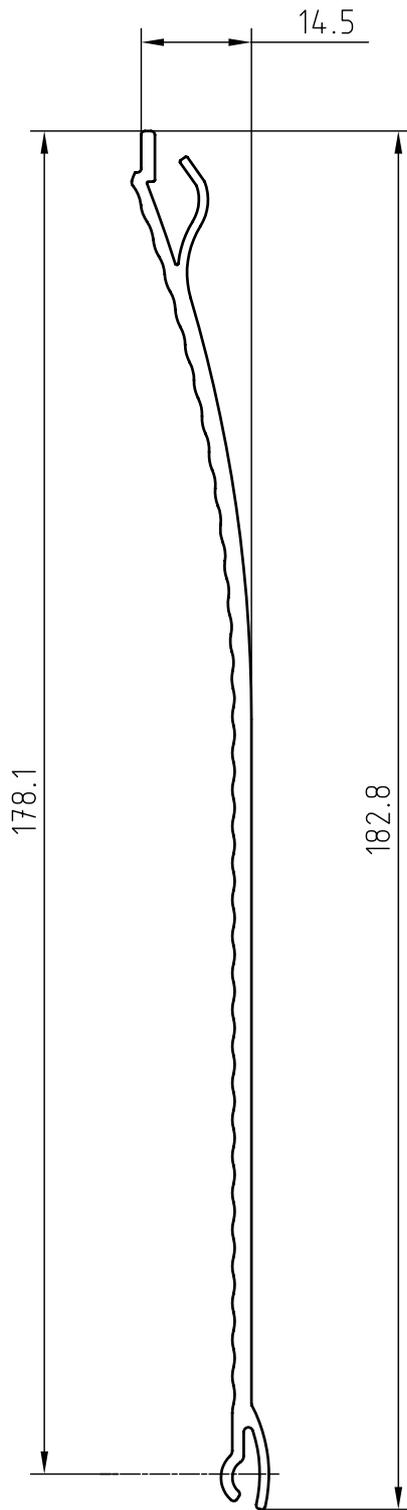
S 18.27



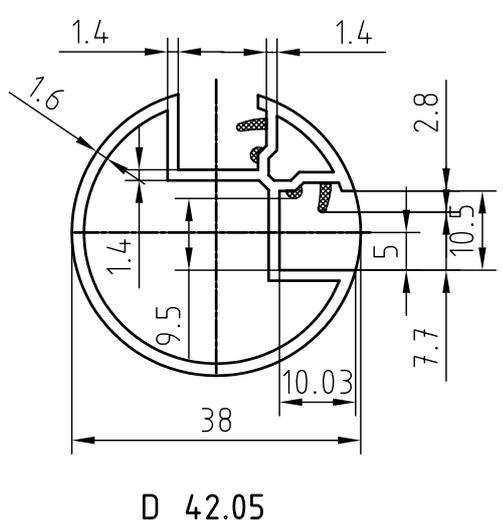
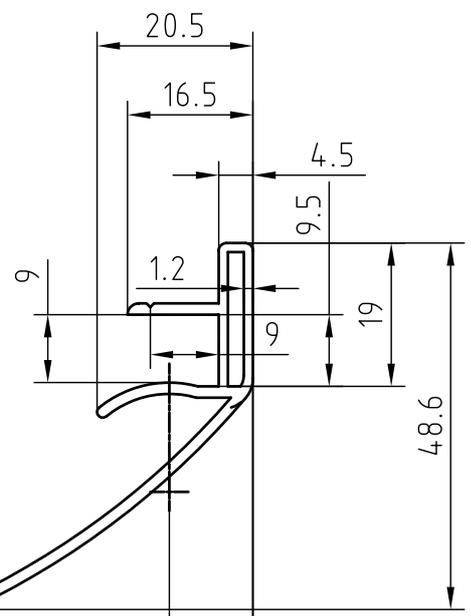
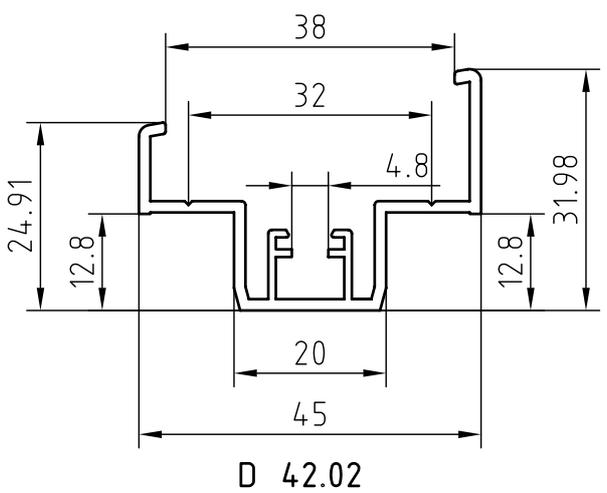
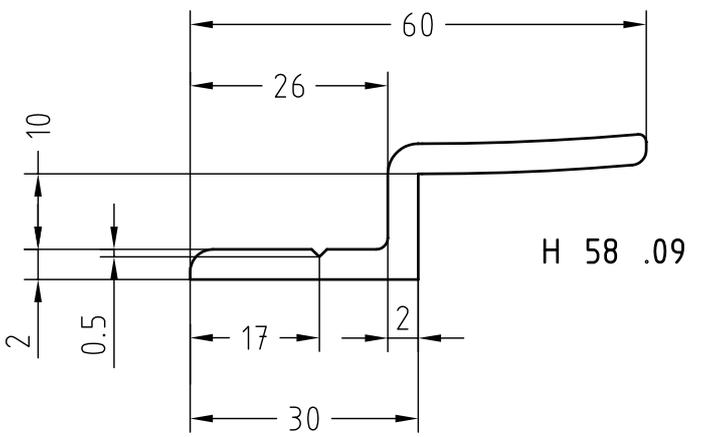
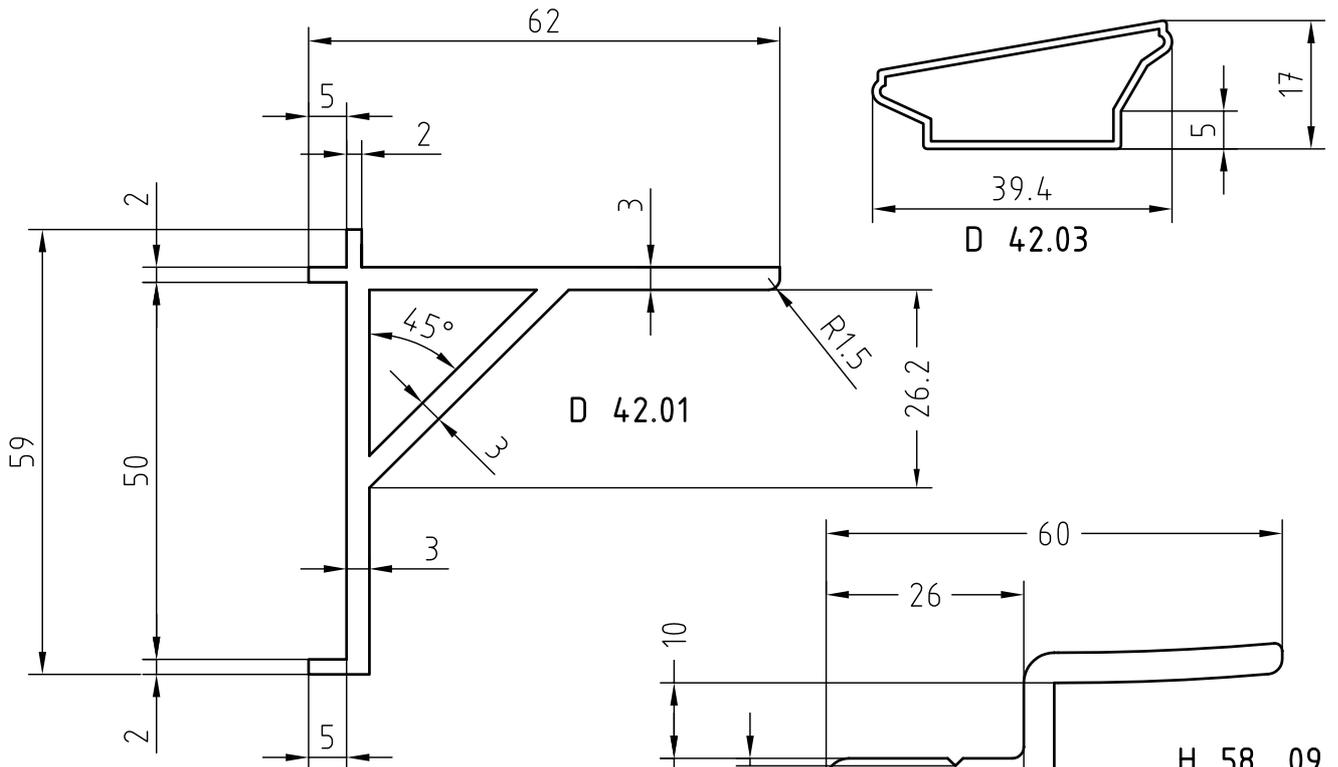
S 18.29

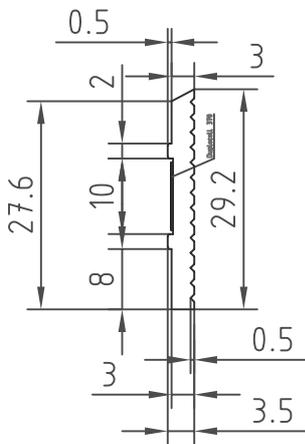
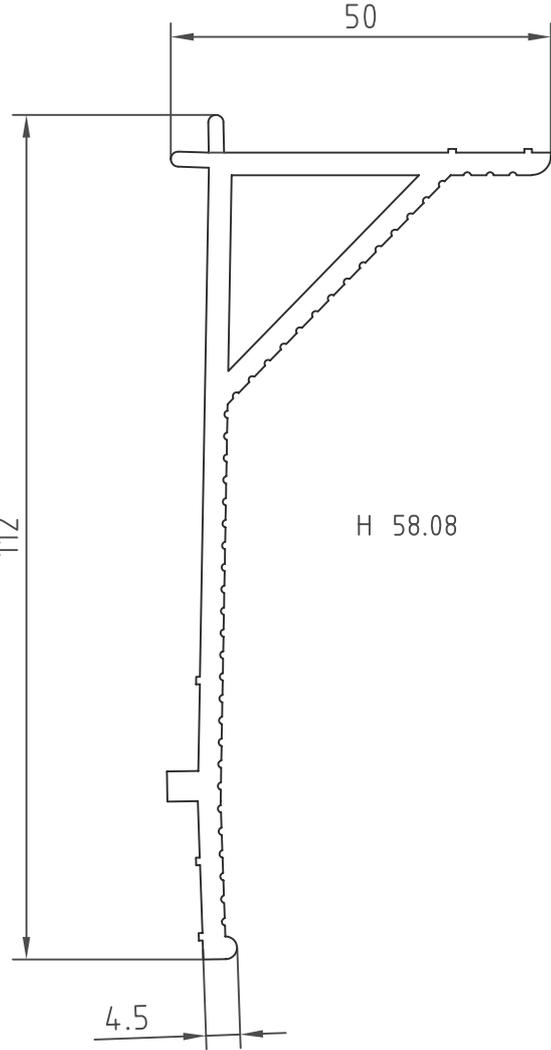
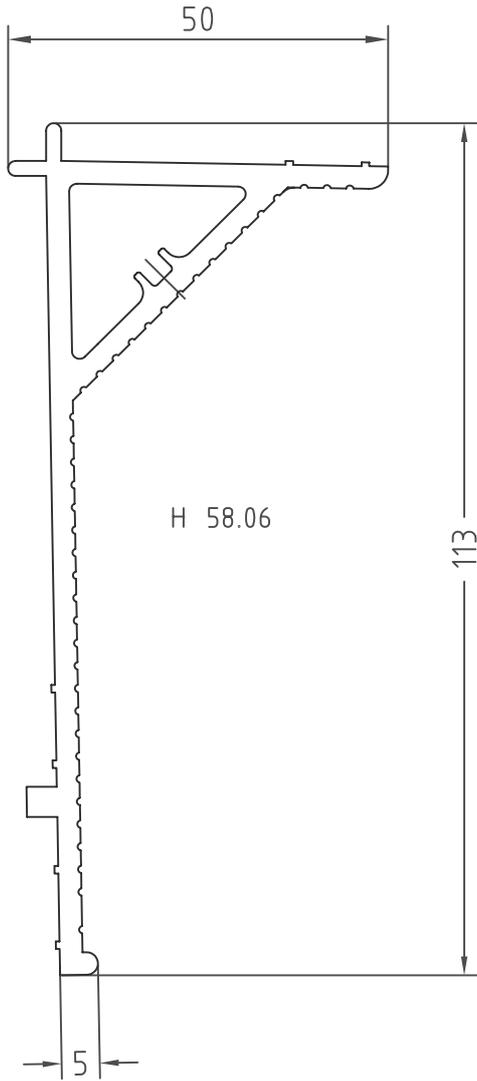




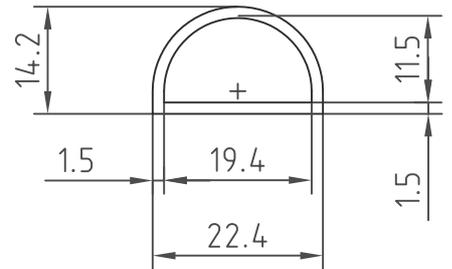


S 10.52

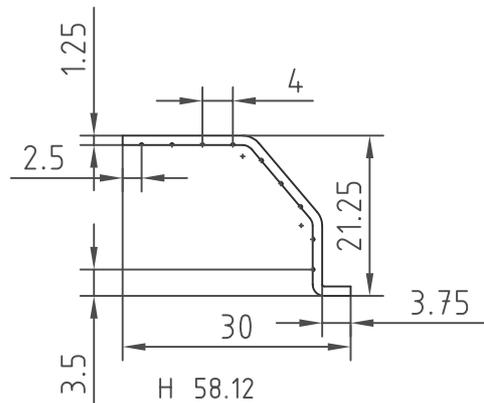




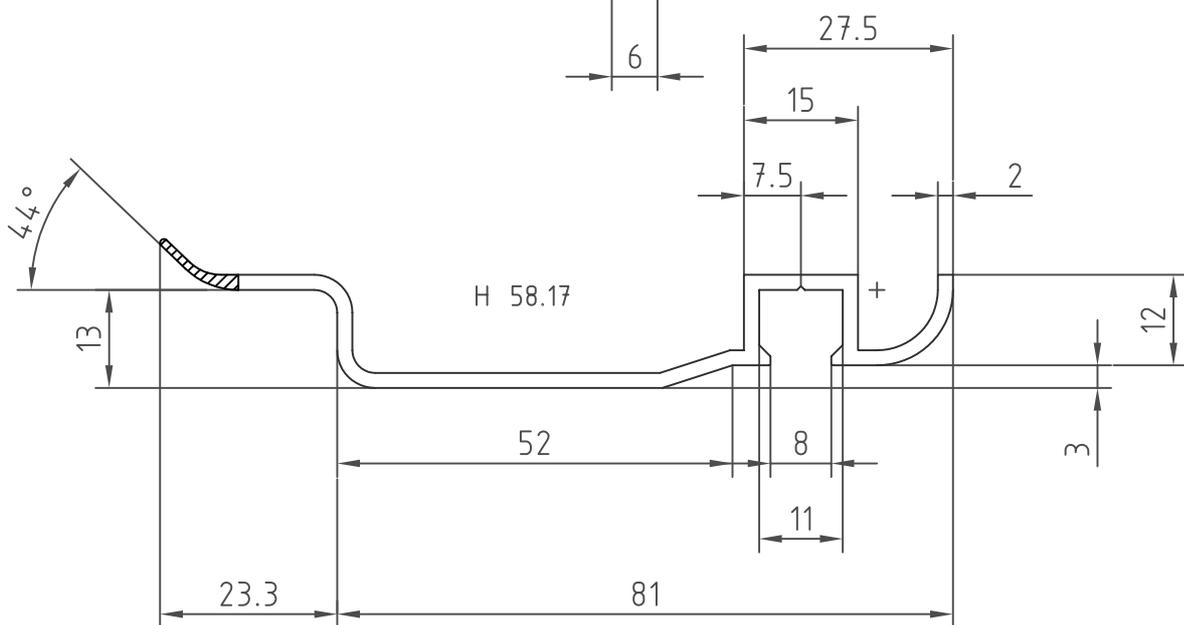
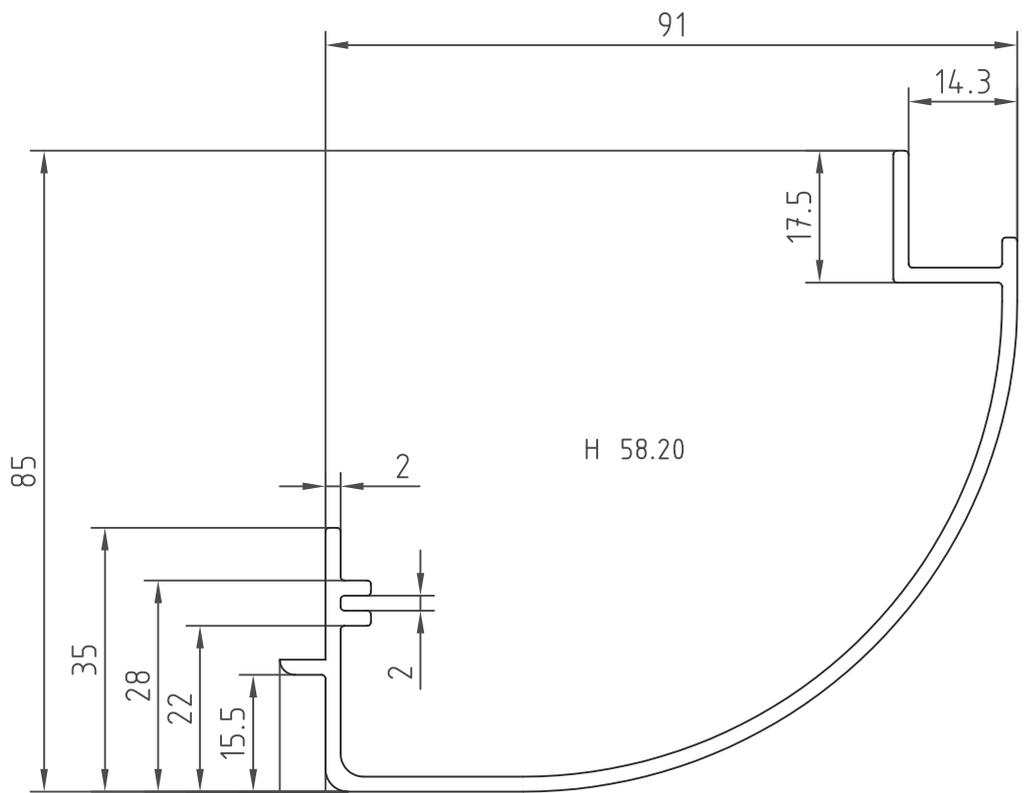
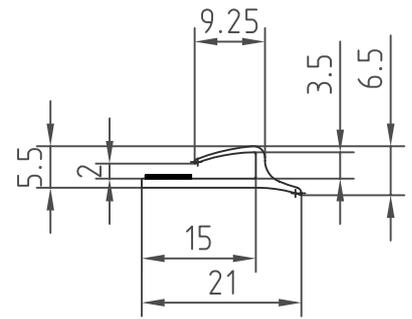
H 58.10

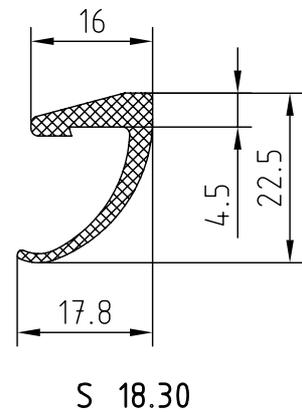
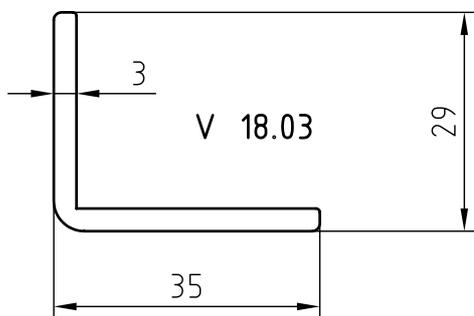
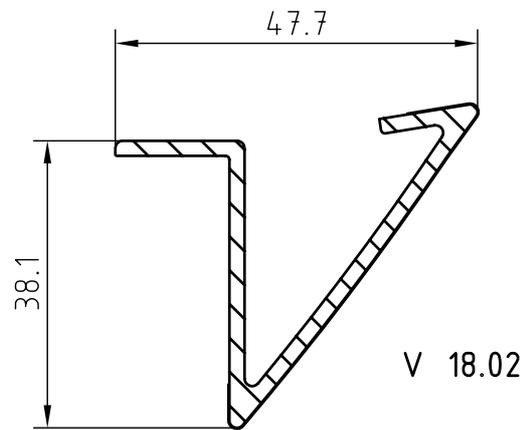
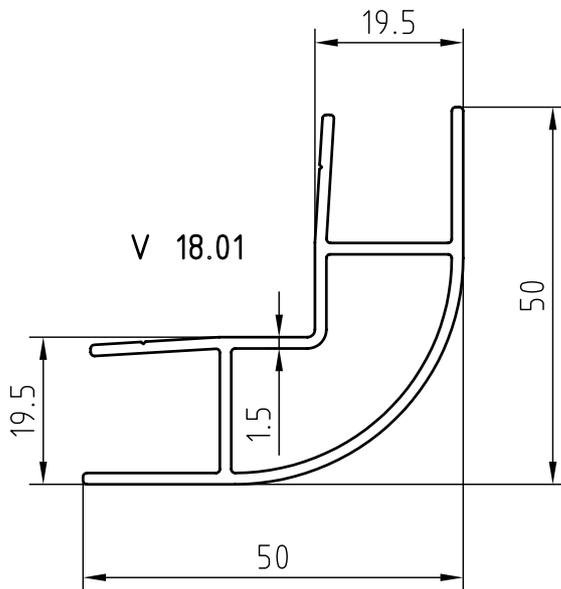
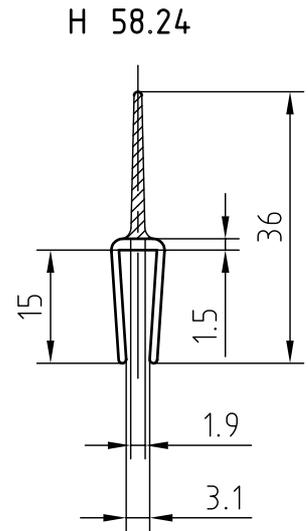
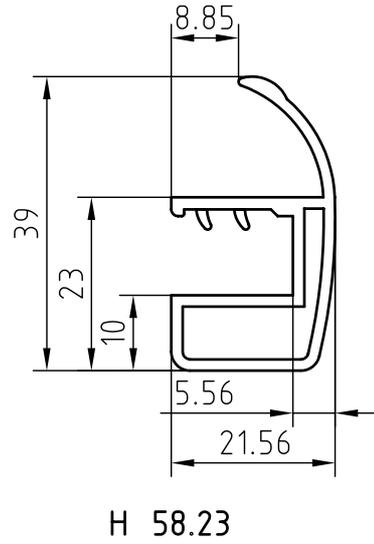
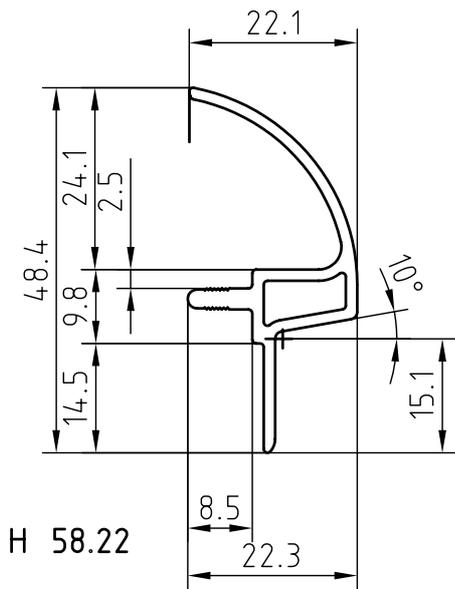


H 58.11

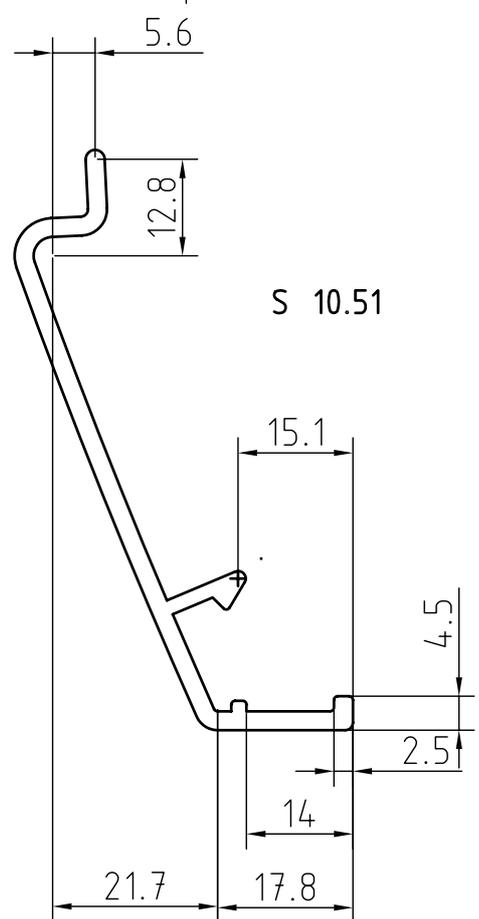
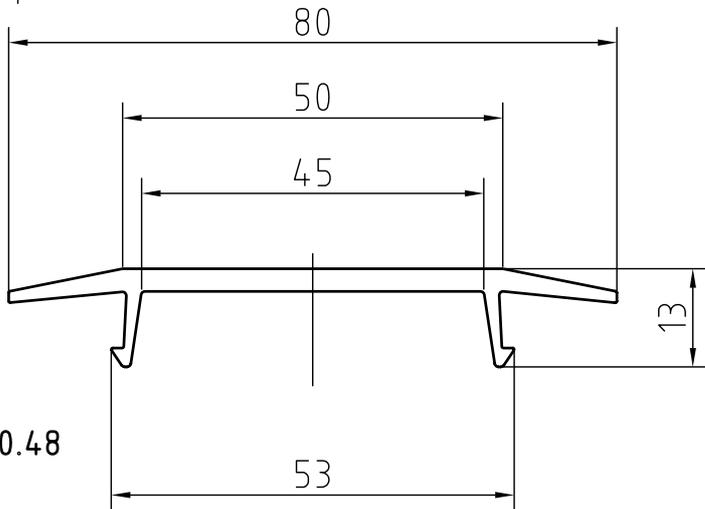
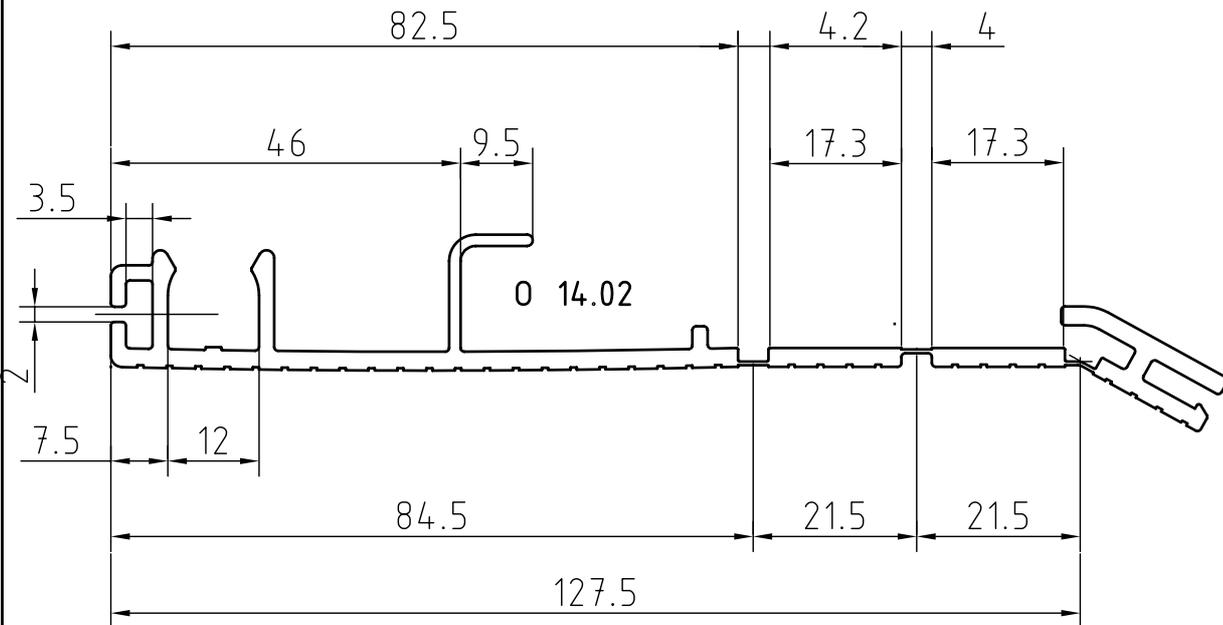
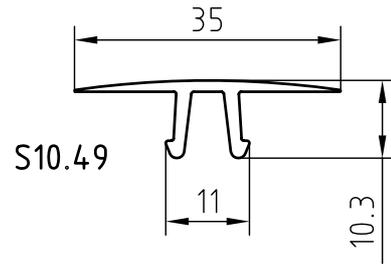
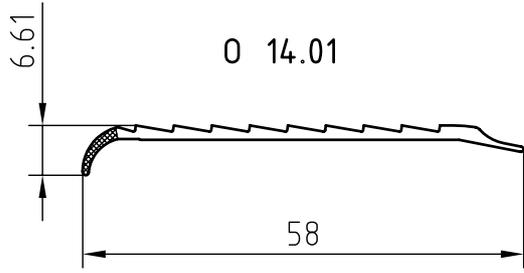


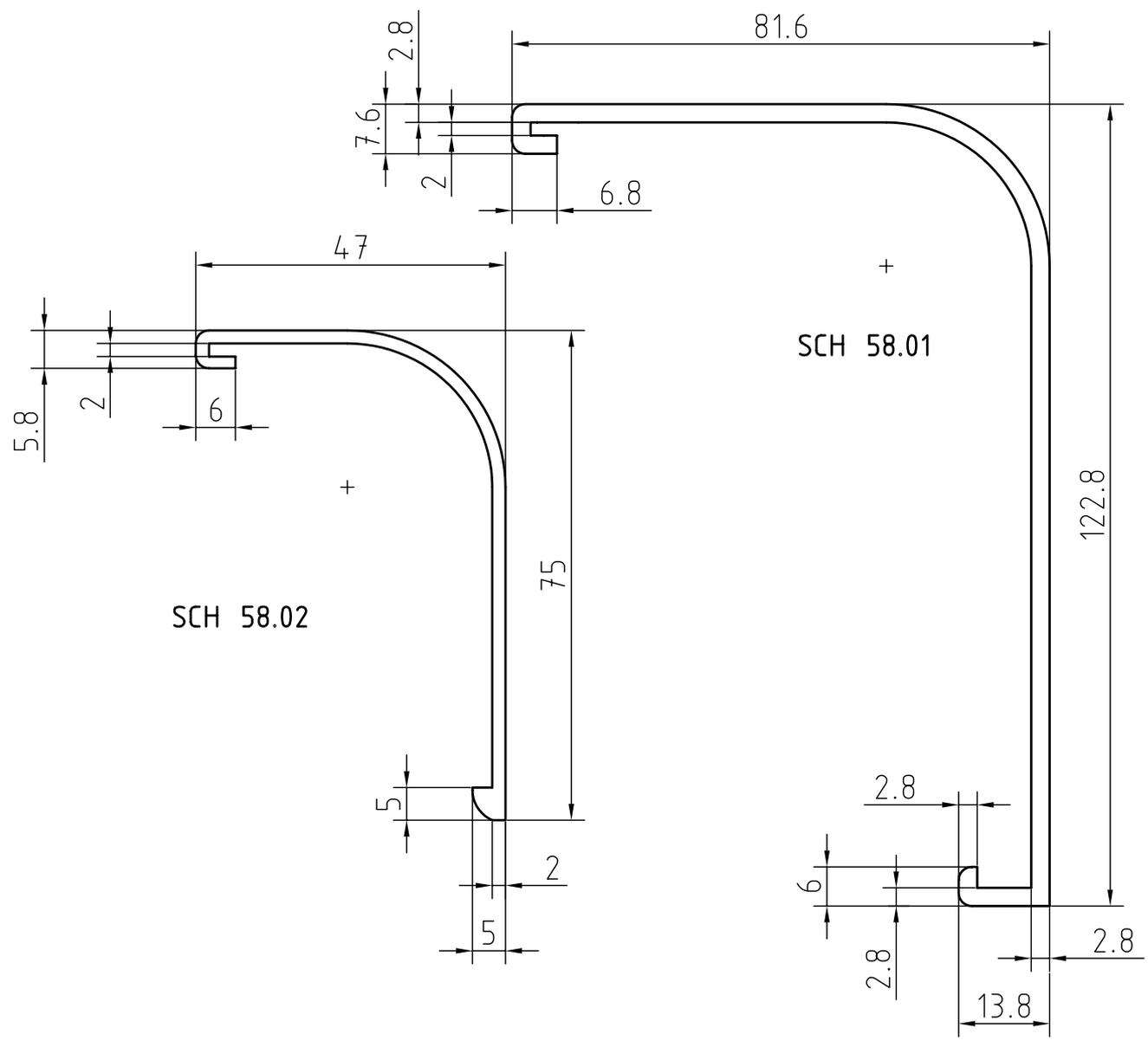
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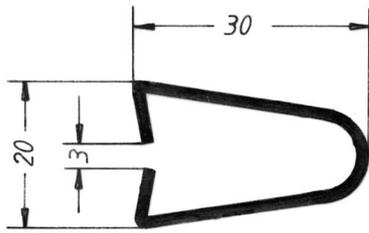




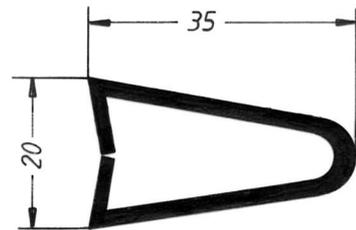




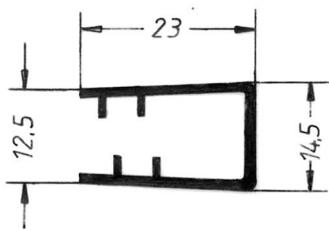




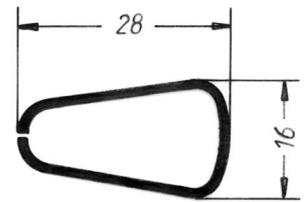
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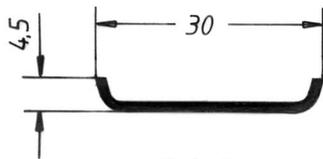
D 1.2



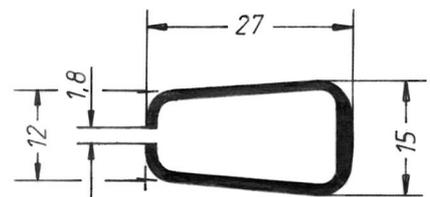
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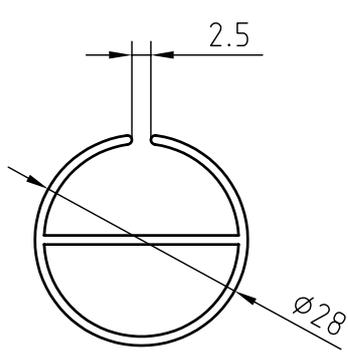
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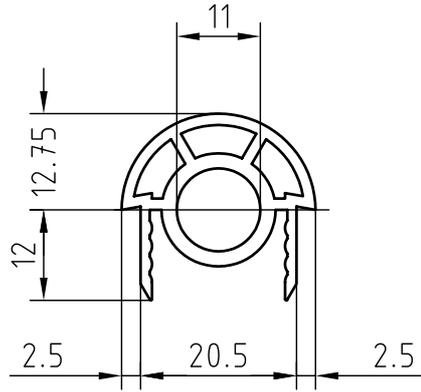
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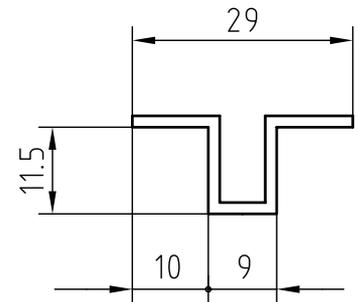
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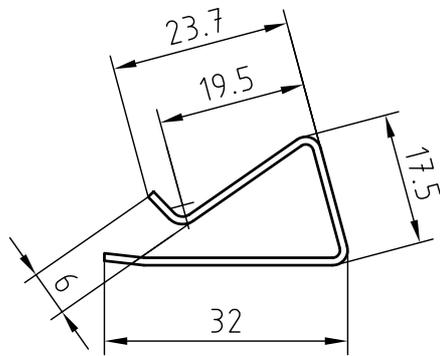
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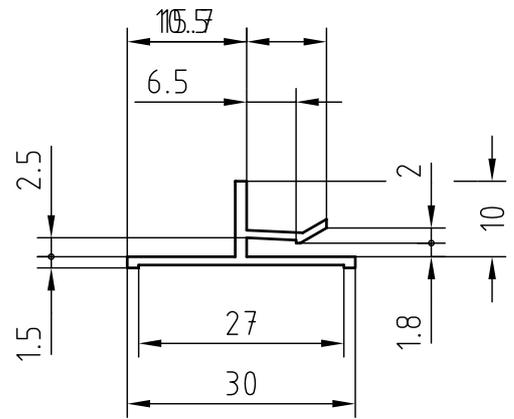
W 1.1



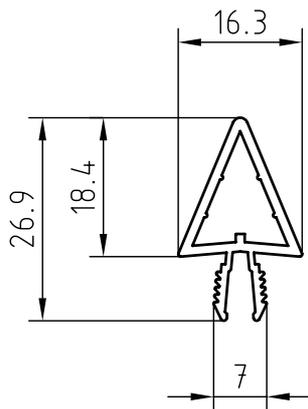
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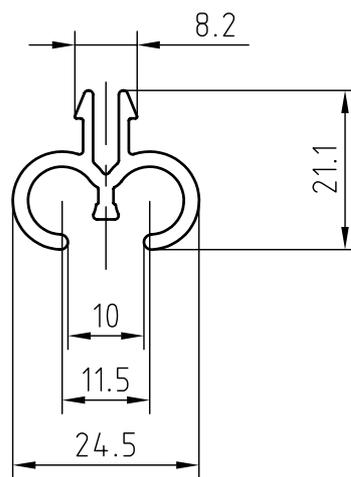
S 1.22



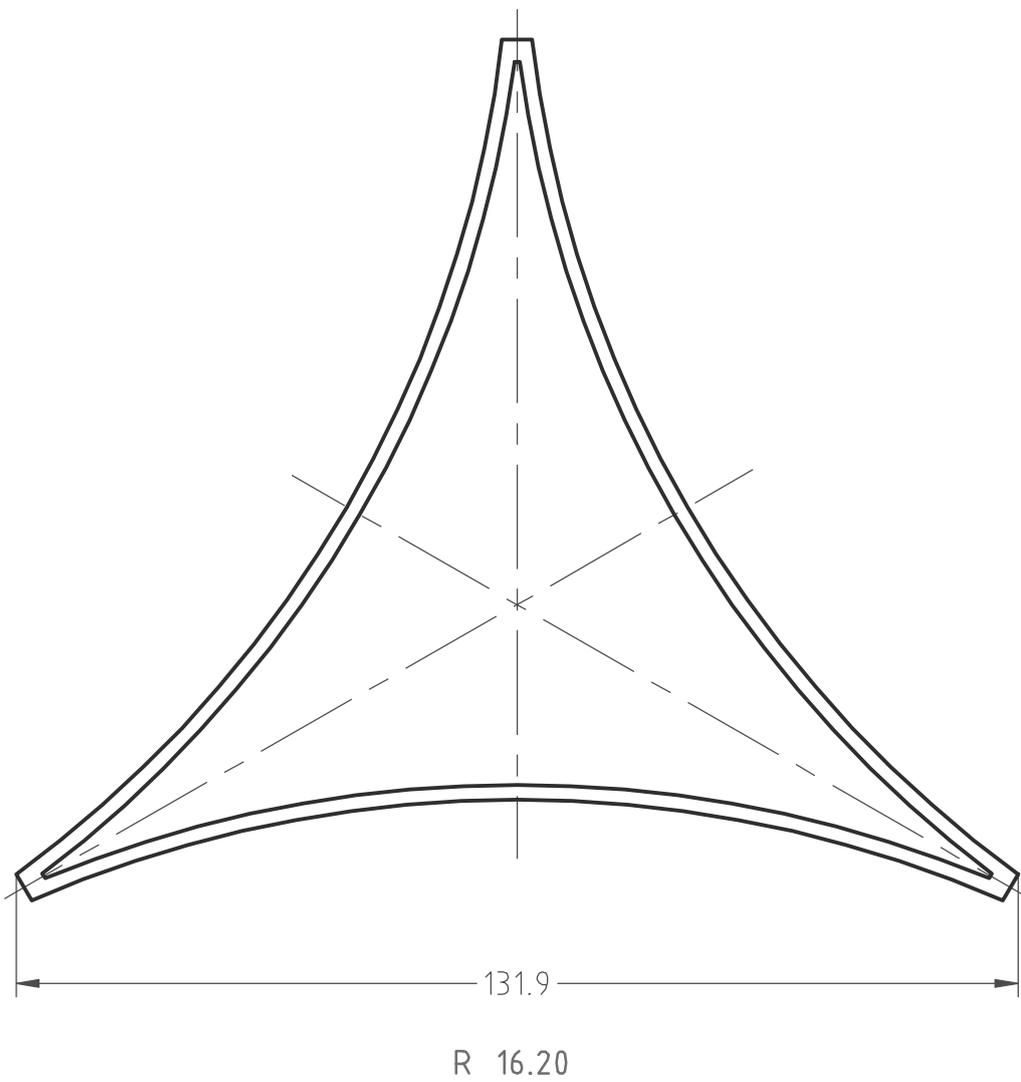
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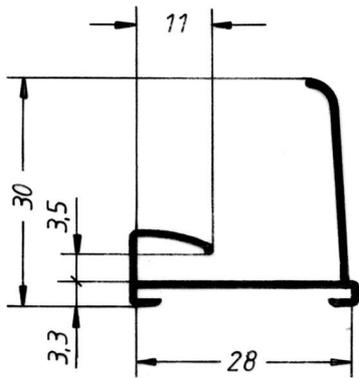


L 19.1

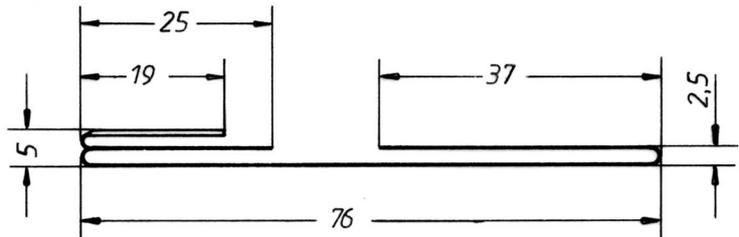


T 44.01

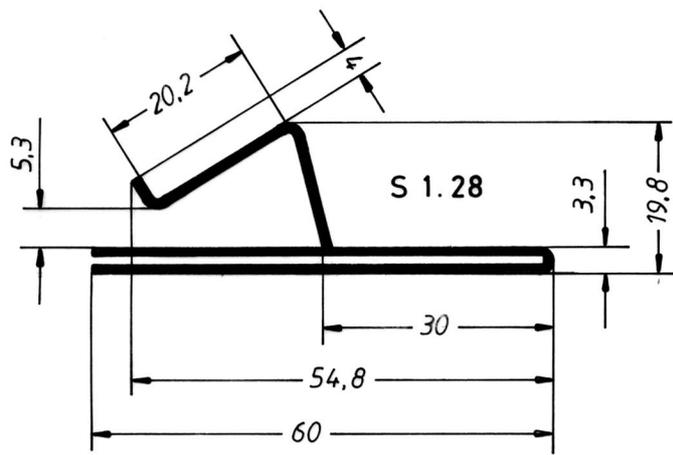




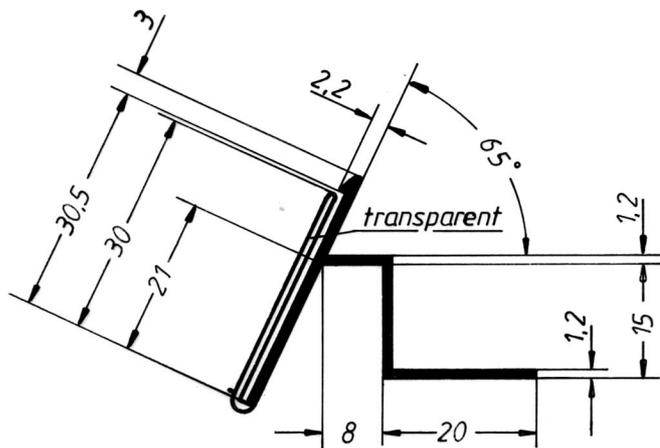
A 9.1



E 18.1



S 1.28



P 6.1

# **Allgemeine Verkaufs- und Lieferungsbedingungen der Firma Kühnplast GmbH & Co. KG, Möggingen**

## **§ 1 Allgemeines – Geltungsbereich**

**1.**

Die folgenden Geschäftsbedingungen gelten für alle Geschäftsbeziehungen zwischen uns und dem Kunden. Kunde im Sinne dieser Geschäftsbedingungen ist der Unternehmer i.S.d. § 14 BGB.

Maßgeblich ist jeweils die zum Zeitpunkt des Vertragsschlusses gültige Fassung.

**2.**

Abweichende, entgegenstehende oder ergänzende allgemeine Geschäftsbedingungen werden, selbst bei Kenntnis, nicht Vertragsbestandteil, es sei denn, ihrer Geltung wird ausdrücklich schriftlich zugestimmt.

## **§ 2 Vertragsschluß**

**1.**

Die Konditionen für unsere Waren sind freibleibend und unverbindlich.

Unsere Darstellung von Waren im Internet stellt kein Angebot dar, sondern eine unverbindliche Aufforderung an den Kunden zu bestellen.

Technische, sowie sonstige Änderungen in Form, Farbe oder Gewicht bleiben im Rahmen des Zumutbaren vorbehalten.

**2.**

Mit der Bestellung der gewünschten Ware erklärt der Kunde verbindlich sein Vertragsangebot. Wir werden den Zugang der Bestellung des Kunden unverzüglich bestätigen. Die Zugangsbestätigung stellt noch keine verbindliche Annahme der Bestellung dar. Die Zugangsbestätigung stellt nur dann eine Annahmeerklärung dar, wenn wir dies ausdrücklich erklären.

Die Entgegennahme einer telefonischen Bestellung stellt keine verbindliche Annahme unsererseits dar.

**3.**

Wir sind berechtigt, das in der Bestellung liegende Vertragsangebot innerhalb von 2 Wochen anzunehmen. Bei auf elektronischem Wege bestellter Ware sind wir berechtigt, die Bestellung innerhalb von 3 Werktagen nach Eingang bei uns anzunehmen.

Wir sind berechtigt, die Annahme der Bestellung – etwa nach Prüfung der Bonität des Kunden – abzulehnen.

**4.**

Mündliche oder fernmündliche Absprachen bedürfen der schriftlichen Bestätigung. Gegenstand des Auftrages sind nur solche Leistungen, die in der Auftragsbestätigung ausdrücklich genannt sind. Zusätzliche Leistungen werden besonders in Rechnung gestellt. Dies gilt insbesondere für alle Kosten, die aus nachträglichen Änderungswünschen des Auftraggebers erwachsen.

Der Vertragsschluß erfolgt unter dem Vorbehalt, im Falle nicht richtiger oder nicht ordnungsgemäßer Selbstbelieferung, nicht oder nur teilweise zu leisten. Dies gilt für den Fall, daß die Nichtlieferung nicht von uns zu vertreten ist (insbesondere höhere Gewalt, Ein- und Ausfuhrsperrungen, Kriegsereignisse, Transportschwierigkeiten, Streiks und Aussperrungen, Maschinenausfälle, Rohstoff- und Energiemangel etc.).

Im Falle der Nichtverfügbarkeit oder der nur teilweisen Verfügbarkeit der Ware wird der Kunde unverzüglich informiert. Die Gegenleistung wird unverzüglich zurückerstattet.

### **§ 3 Angebotsunterlagen, Einrichtungen, Werkzeuge**

An Abbildungen, Zeichnungen, Kalkulationen und sonstigen Unterlagen behalten wir uns Eigentums- und Urheberrechte vor.

Die Einrichtungen und Werkzeuge für Spezialanfertigungen bleiben unser Eigentum, auch wenn sie vom Besteller anteilig bezahlt werden. Sie bleiben in unserer Verwaltung und werden für Nachbestellungen verwendet. Auf Wunsch gewähren wir Exklusivität, d. h. diese Werkzeuge werden ausschließlich für den Kunden verwendet, der die Kosten mitgetragen hat. Erfolgen innerhalb von 2 Jahren keine Anschlußaufträge, erlischt diese Exklusivität.

### **§ 4 Preise**

Der angebotene Preis ist bindend. Die Preise sind Nettopreise zuzüglich gesetzlicher Mehrwertsteuer.

Die Preise gelten ab Werk, wenn nichts anderes schriftlich vereinbart wurde. Für die Rechnung sind allein die von uns ermittelten Mengen, Gewichts- und Stückzahlen maßgebend.

### **§ 5 Versand**

1.

Der Versand erfolgt stets auf Rechnung und Gefahr des Empfängers, auch bei Franco-Lieferung. Art und Weg des Versandes sind, wenn nicht schriftlich anders vereinbart, uns überlassen. Eine Gewähr für die billigste Versandart kann nicht gegeben werden. Die Gefahr des zufälligen Untergangs und der zufälligen Verschlechterung der Ware geht mit der Übergabe, beim Versandkauf mit der Auslieferung der Ware an den Spediteur, den Frachtführer oder der sonst zur Ausführung der Versendung bestimmten Person oder Anstalt auf den Kunden über. Der Übergabe steht es gleich, wenn der Kunde mit der Annahme in Verzug ist.

2.

Uns unbekanntem Bestellern gegenüber steht uns grundsätzlich das Recht zu, gegen Nachnahme zu liefern. Das gleiche Recht steht uns zu, wenn bei einem Besteller bereits Zielüberschreitungen vorgekommen sind.

### **§ 6 Zahlungsbedingungen**

1.

Die Rechnungen sind – soweit nicht ausdrücklich schriftlich anders vereinbart – spätestens 30 Tage nach Erhalt der Ware zur Zahlung fällig. Nach Ablauf dieser Frist kommt der Kunde in Zahlungsverzug. Bei Zahlung innerhalb von 8 Tagen wird 2 % Skonto gewährt. Der Versand gegen Nachnahme erfolgt unter Abzug von 2 % Skonto.

Bei Zahlungsverzug wird die Geldschuld in Höhe von 8 % Punkten über dem Basiszinssatz verzinst. Die Geltendmachung eines höheren Zinsschadens bleibt vorbehalten.

Für den Fall des Zahlungsverzuges sind wir berechtigt, Lieferungen bis zur vollständigen Zahlung einzustellen. In diesem Fall besteht keine Verpflichtung, aber eine Berechtigung zur Nachlieferung.

2.

Verpackung wird, falls nicht anders vereinbart, gesondert berechnet. Als Nachweis einwandfreier Verpackung gilt die unbeanstandete Abnahme der Ware durch den Spediteur oder Frachtführer. Ist die Rückgabe der Verpackung vereinbart, so haftet der Auftraggeber auch für einen zufälligen Verlust des Leergutes. Für gebrauchte Kisten und Verschläge werden bei frachtfreier Rücksendung in einwandfreiem Zustand 2/3 des berechneten Wertes gutgeschrieben. Ist die leihweise Zurverfügungstellung der Verpackung vereinbart, so ist der Kunde verpflichtet, für umgehende frachtfreie Rücksendung des Leergutes (Spulen, Behälter, Paletten, Eisengestelle usw.) Sorge zu tragen.

**3.**

Für den Fall des Vertragsrücktritts durch den Kunden vor Beginn der Ausführungsarbeiten steht uns ein pauschalierter Schadenersatzanspruch in Höhe von 15 % des Warenwertes zu, ohne daß es des Nachweises eines konkreten Schadens bedarf. Den Nachweis eines konkreten, höheren Schadens behalten wir uns vor. Der Kunde hat das Recht des Nachweises eines geringeren Schadens.

**4.**

Aufrechnungsrechte stehen dem Kunden nur zu, wenn seine Gegenansprüche rechtskräftig festgestellt, unbestritten oder von uns anerkannt sind. Zur Ausübung eines Zurückbehaltungsrechtes ist der Kunde nur befugt, wenn sein Gegenanspruch auf dem gleichen Vertragsverhältnis beruht.

## **§ 7 Eigentumsvorbehalt - Rücktrittsrecht**

**1.**

Wir behalten uns das Eigentum an der Ware bis zur vollständigen Begleichung aller Forderungen aus einer laufenden Geschäftsbeziehung vor. Wenn der Wert der Vorbehaltsware die zu sichernden Forderungen aus der laufenden Geschäftsbeziehung um 20 % übersteigt, sind wir zur Freigabe der Vorbehaltsware auf Verlangen des Kunden verpflichtet.

**2.**

Der Kunde ist verpflichtet, die Ware während des Bestehens des Eigentumsvorbehaltes pfleglich zu behandeln. Der Kunde hat uns unverzüglich schriftlich zu unterrichten von allen Zugriffen Dritter auf die Ware, insbesondere von Zwangsvollstreckungsmaßnahmen, sowie von etwaigen Beschädigungen oder der Vernichtung der Ware. Einen Besitzwechsel der Ware, sowie den eigenen Anschriftenwechsel hat uns der Kunde unverzüglich anzuzeigen. Der Kunde hat uns alle Schäden und Kosten zu ersetzen, die durch einen Verstoß gegen diese Verpflichtungen und durch erforderliche Interventionsmaßnahmen gegen Zugriffe Dritter auf die Ware entstehen.

**3.**

Wir sind berechtigt, bei vertragswidrigem Verhalten des Kunden, insbesondere bei Zahlungsverzug, vom Vertrag zurückzutreten und die Ware herauszuverlangen. Daneben sind wir berechtigt, bei Verletzung einer Pflicht nach Ziffer 2 vom Vertrag zurückzutreten und die Ware herauszuverlangen, wenn uns ein Festhalten am Vertrag nicht mehr zuzumuten ist.

**4.**

Wir sind auch berechtigt, vom Kaufvertrag oder Teilen des Kaufvertrags durch schriftliche Erklärung zurückzutreten, falls der Kunde zahlungsunfähig wird, die Überschuldung des Kunden eintritt, der Kunde seine Zahlungen einstellt oder der Kunde Insolvenzantrag gestellt hat. Das Rücktrittsrecht ist bis zur Eröffnung des Insolvenzverfahrens auszuüben. Der Kunde hat uns unverzüglich über den Eintritt der Zahlungsunfähigkeit, der Überschuldung oder der Zahlungseinstellung zu informieren. Unterläßt der Kunde eine solche Mitteilung, ist er verpflichtet, an uns den pauschalen Betrag von 5 % des Warenwertes zu bezahlen.

**5.**

Der Kunde ist berechtigt, die Ware im ordentlichen Geschäftsgang weiter zu veräußern. Er tritt uns bereits jetzt alle Forderungen in Höhe des Rechnungsbetrages ab, die ihm durch die Weiterveräußerung gegen einen Dritten erwachsen. Wir nehmen die Abtretung an. Nach der Abtretung ist der Kunde zur Einziehung der Forderung ermächtigt. Wir behalten uns vor, die Forderung selbst einzuziehen, sobald der Kunde seinen Zahlungsverpflichtungen nicht ordnungsgemäß nachkommt und in Zahlungsverzug gerät.

Die Be- und Verarbeitung der Ware durch den Kunden erfolgt stets im Namen und im Auftrag für uns. Erfolgt eine Verarbeitung der Ware, so erwerben wir an der neuen Sache das Miteigentum im Verhältnis zum Wert der von uns gelieferten Ware. Dasselbe gilt, wenn die Ware mit anderen, uns nicht gehörenden Gegenständen verarbeitet oder vermischt wird.

## **§ 8 Gewährleistung**

### **1.**

Der Kunde muß die gelieferte Ware unverzüglich auf Qualitäts- und Mengenabweichungen untersuchen und uns erkennbare Mängel innerhalb einer Frist von 1 Woche ab Empfang der Ware schriftlich anzeigen; andernfalls ist die Geltendmachung des Gewährleistungsanspruchs ausgeschlossen. Verdeckte Mängel sind uns innerhalb einer Frist von 1 Woche ab Entdeckung schriftlich anzuzeigen. Zur Fristwahrung genügt die rechtzeitige Absendung. Den Kunden trifft die volle Beweislast für sämtliche Anspruchsvoraussetzungen, insbesondere für den Mangel selbst, für den Zeitpunkt der Feststellung des Mangels und für die Rechtzeitigkeit der Mängelrüge.

Handelsübliche Abweichungen von Qualitäten, Maßen und Mengen bilden keinen Grund zur Beanstandungen. Bei allen Aufträgen behalten wir uns ca. 10 % berechnete Mehr- oder Minderlieferung vor.

### **2.**

Bei Mängeln leisten wir zunächst nach unserer Wahl Gewähr durch Nachbesserung oder Ersatzlieferung.

Schlägt die Nacherfüllung fehl, kann der Kunde grundsätzlich nach seiner Wahl Herabsetzung der Vergütung (Minderung) oder Rückgängigmachung des Vertrages (Rücktritt) sowie Schadenersatz verlangen. Bei nur geringfügigen Mängeln steht dem Kunden kein Rücktrittsrecht zu. Wählt der Kunde Schadenersatz, so gelten die Haftungsbeschränkungen gem. § 10 der allgemeinen Geschäftsbedingungen.

### **3.**

Die Gewährleistungsfrist beträgt 1 Jahr ab Ablieferung der Ware.

Bei gebrauchten Sachen beträgt die Gewährleistungsfrist 1 Jahr ab Ablieferung der Ware.

Die 1-jährige Gewährleistungsfrist gilt nicht, wenn uns grobes Verschulden vorwerfbar ist, sowie im Falle von uns zurechenbaren Körper- und Gesundheitsschäden und bei Verlust des Lebens des Kunden. Unsere Haftung nach dem Produkthaftungsgesetz bleibt hiervon unberührt.

Wir geben gegenüber unseren Kunden keine Garantien im Rechtssinne ab.

## **§ 9 Schutzrechte Dritter**

Der Kunde übernimmt uns gegenüber die Gewähr, daß durch Herstellung und Lieferung der Gegenstände nach Zeichnungen, Modellen oder Mustern, die uns vom Kunden übergeben werden, gewerbliche Schutzrechte Dritter nicht verletzt werden oder wurden.

## **§ 10 Haftungsbeschränkungen**

### **1.**

Bei leicht fahrlässigen Pflichtverletzungen beschränkt sich unsere Haftung, sowie die unserer Erfüllungsgehilfen auf den vorhersehbaren vertragstypischen, unmittelbaren Durchschnittsschaden. Bei leicht fahrlässigen Pflichtverletzungen von nicht vertragswesentlichen Pflichten, durch deren Verletzung die Durchführung des Vertrags nicht gefährdet wird, haften wir, sowie unsere Erfüllungsgehilfen nicht. Für Verspätungsschäden haften wir maximal 0,5 % für jede volle Woche der Verspätung, im Ganzen aber höchstens 5 % vom Wert desjenigen Teils der Gesamtlieferung, der infolge der Verspätung nicht rechtzeitig oder nicht vertragsgemäß genutzt werden kann.

Die vorstehenden Haftungsbeschränkungen betreffen nicht Ansprüche des Kunden aus Produkthaftung oder aus Garantie. Weiter gelten die Haftungsbeschränkungen nicht bei uns zurechenbaren Körper- und Gesundheitsschäden oder bei Verlust des Lebens des Kunden.

**2.**

Wir haften nur für eigene Inhalte auf unserer Website. Soweit wir mit Links den Zugang zu anderen Websites ermöglichen, sind wir für die dort enthaltenen fremden Inhalte nicht verantwortlich. Wir machen uns die fremden Inhalte nicht zu eigen.

## **§ 11 Verjährung eigener Ansprüche**

Unsere Ansprüche auf Zahlung verjähren abweichend von § 195 BGB in 5 Jahren. Bezüglich des Beginns der Verjährungsfrist gilt § 199 BGB.

## **§ 12 Schlußbestimmungen**

**1.**

Für mit uns geschlossene Verträge gilt das Recht der Bundesrepublik Deutschland; die Geltung des UN-Kaufrechts ist ausgeschlossen.

**2.**

Ist der Kunde Kaufmann, juristische Person des öffentlichen Rechts oder öffentlich rechtliches Sondervermögen, ist ausschließlicher Gerichtsstand für alle Streitigkeiten aus diesem Vertrag unser Geschäftssitz. Dies gilt auch für Wechsel- und Scheckklagen. Dasselbe gilt, wenn der Kunde keinen allgemeinen Gerichtsstand in Deutschland hat oder Wohnsitz oder gewöhnlicher Aufenthalt zum Zeitpunkt der Klageerhebung nicht bekannt sind.

Wir sind auch berechtigt, den Kunden an seinem allgemeinen Gerichtsstand zu verklagen.

**3.**

Sollten Einzelbestimmungen des Vertrags mit dem Kunden einschließlich dieser allgemeinen Geschäftsbedingungen ganz oder teilweise unwirksam sein oder werden, so wird hier durch die Gültigkeit der übrigen Bestimmungen nicht berührt. Die ganz oder teilweise unwirksame Regelung soll durch eine Regelung ersetzt werden, deren wirtschaftlicher Erfolg dem der unwirksamen möglichst nahe kommt.