



# FERRARI



ENG-DEU





CAP.	Pagina/Page
<b>01 - Amada Punches/Oberwerkzeuge</b>	<b>7</b>
<b>02 - Amada Dies/Matrizen</b>	<b>19</b>
<b>03 - LYD Punches/Oberwerkzeuge</b>	<b>33</b>
<b>04 - LYD Dies/Matrizen</b>	<b>43</b>
<b>05 - Trumpf Punches/Oberwerkzeuge</b>	<b>51</b>
<b>06 - Trumpf Dies/Matrizen</b>	<b>59</b>
<b>07 - Beyeler - Bystronic Punches/Oberwerkzeuge</b>	<b>63</b>
<b>08 - Beyeler - Bystronic Dies/Matrizen</b>	<b>71</b>
<b>09 - Colly-Haco Punches/Oberwerkzeuge</b>	<b>75</b>
<b>10 - Colly-Haco Dies/Matrizen</b>	<b>87</b>
<b>11 - Others/Beiwerk</b>	<b>101</b>
Introduction/Einführung	
Tools with insert/Werkzeug mit Einsätzen	
Tool adapters, intermediates and clamps Adapter und Zwischenstück	
Polyurethane inserts and Holder Kunststoffmatrizen	
Variable opening dies/Verstellbare matrizen	
Rollers dies/Matrizen mit Rollen	
Deflection compensation/Bombierungstische	
Special tool sets/Sonderwerkzeuge	
Accessories (Tooling cabinets/tighteners/ polyurethane film/stoppers...) Abkantzubehör( Abkantwerkzeugschränke, Abkantfolien, Abkantfolienhalter, Seitenanschläge...)	
Shear blades/Scherenmessern	
Repairing service/Modifications and Subcontracting Nachschleifservice, Modifikation Und Unterauftrag	
Index/Index	

# FERRARI COSTRUZIONI MECCANICHE

Tools and dies for press brakes

## Company

**Ferrari Costruzioni Meccaniche** was established in 1979 in Basilicanova (PR). 40 years alongside the major press brakes manufacturers have allowed **the company to develop a knowing synergy comprising craftsman's tradition and experience-based innovation**: investments in technology, technical design, choice of materials, tests and inspections performed on each individual item are essential elements to ensure product quality and timeliness of service. Our added value is given by the attention we pay to the needs of each customer – throughout the whole process – and by the technical design aimed at finding the best solutions and performances. Our main goal is to follow national and international market developments so as to understand customer needs better.

## Services

- Standard tools and dies
- Special tools and dies
- Compensation tables
- Shear blades
- Slide ways
- Bending lines
- Supply of accessories

## Services request

- Worn tool repair service
- Re-sharpening of worn shear blades
- Mechanical machining: milling – induction hardening – grinding

## Added value

- Tools and dies are made of certified C45 and 42CrMo4 steels or according to design
- All our tools bear the High Quality Control mark and are completely traceable
- We design and process large tools of up to 8 meters
- Induction and core hardening – considerable depth of hardening
- Special and numerical control grinding machines
- Tools are perfectly interchangeable ( $\pm 0,01$ mm accuracy)



# FERRARI COSTRUZIONI MECCANICHE

Werkzeuge und Matrizen für Abkantpressen

## Unternehmen

**Ferrari Costruzioni Meccaniche** wurde 1979 in Basilicanova (Parma) gegründet. Das seit 40 Jahren an der Seite der größten Hersteller von Abkantpressen stehende Unternehmen zeichnet sich durch **eine wirksame Synergie zwischen Tradition und Innovation** aus: Investitionen in Technologie, technisches Design, Auswahl der Werkstoffe, Kontrolle jedes einzelnen Stücks sind die grundlegenden Aspekte, um die Qualität der Produkte und die Seriosität der angebotenen Dienstleistungen zu garantieren. Aufmerksamkeit für die Bedürfnisse jedes Kunden – auch nach dem Verkauf – und technisches Design mit dem Ziel, die beste Leistung zu finden: **unsere Stärke**. Die Entwicklung des Marktes – national und international – aus nächster Nähe zu verfolgen und Entwicklungen und Bedürfnisse effektiv zu interpretieren: **ein Ziel, das wir immer verfolgt haben**.

## Dienstleistungen

- Stempel und Matrizen vom Standardtyp
- Spezialstempel und-matrizen
- Bombierungstische
- Scherenmesser
- Führungsschienen
- Biegelinien
- Lieferung von Zubehör

## Leistungen auf Anfrage

- Nachschleifen verschlissener Abkantwerkzeuge
- Nachschleifen verschlissener Scherenmesser
- Mechanische Bearbeitungen: Fräsen
- Induktionshärten-Schleifen

## Wertzuwachs

- Stempel und Matrizen aus zertifizierten Vergütungsstählen C45 und 42 CrMo4 oder nach Entwurf
- GütezeichenHighQualityControl-Kontrollen und vollständige Rückverfolgbarkeit des Produkts
- ProjektierungundBearbeitungvongroßenAbkantwerkzeugen – bis zu 8100 mm in einem Stück
- Induktions-undKernhärtung-großeEinhärtetiefe Spezial- und CNC-Schleifmaschinen
- Perfekt austauschbare Werkzeuge ( $\pm 0,01$  mm)

NOTE

1

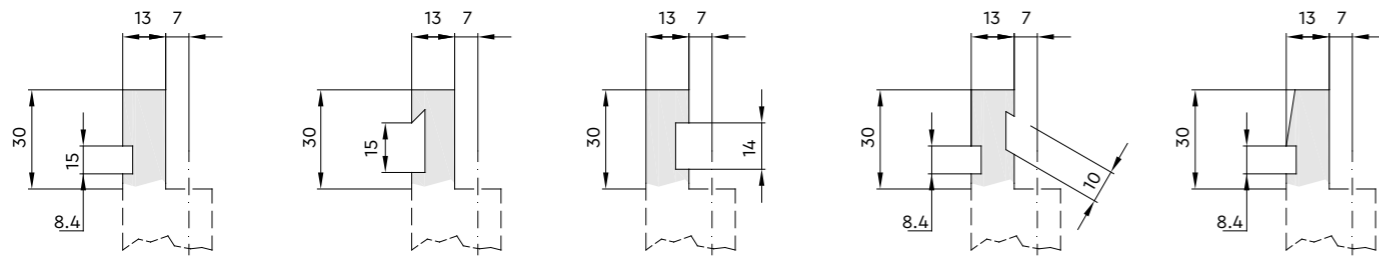


**AMADA**

*Punches/Oberwerkzeuge*

On request  
auf Anfrage

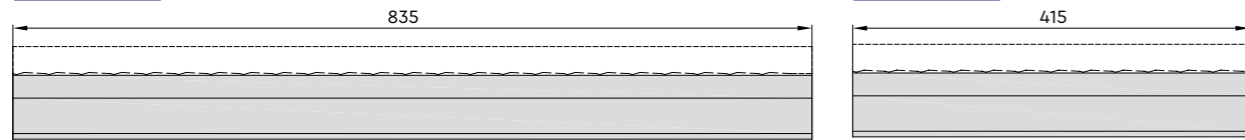
A Magazzino  
auf Lager



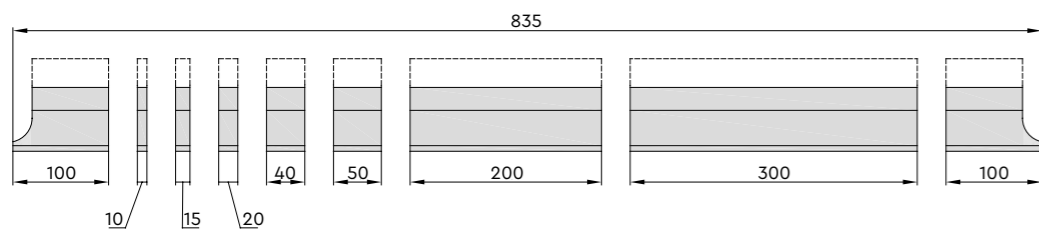
ATT. B      ATT. G      ATT. EURO      ATT. T      ATT. FAST

835

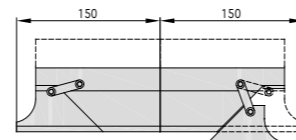
415



835 SECT./835 SEKTIONIERT

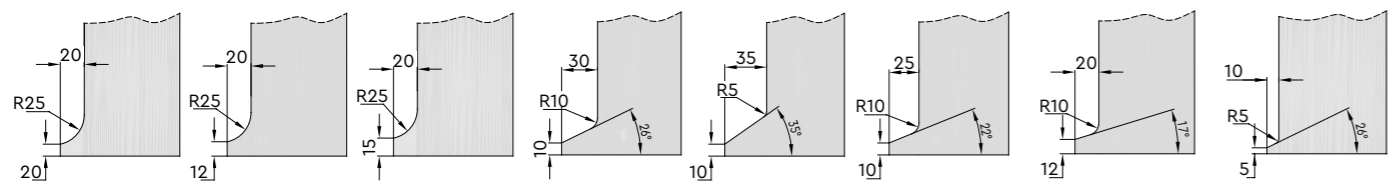


MOVING HORNS  
BEWEGLICHEN HÖRNERN



Available for mod. 10.10  
Verfügbar für mod. 10.10

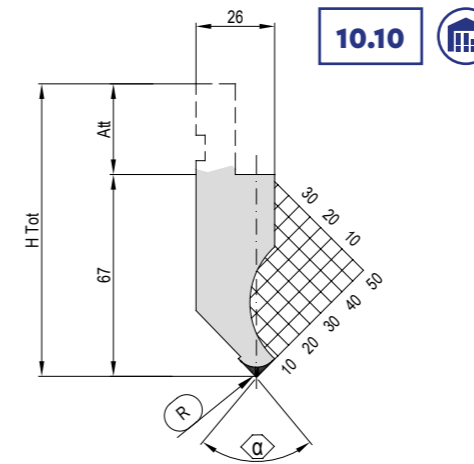
HORNS/HORNSTÜCK



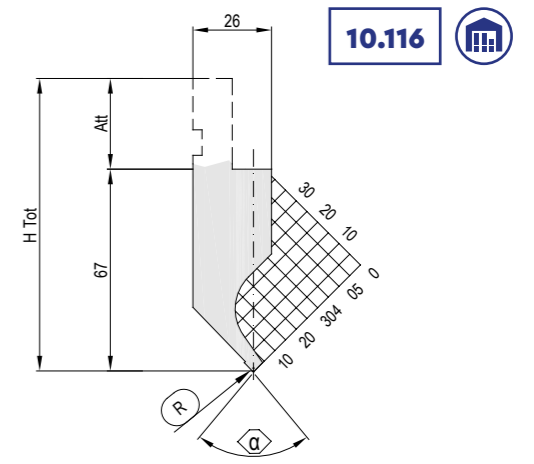
MOD. SC-A1    MOD. SC-A2    MOD. SC-A3    MOD. SC-A4    MOD. SC-A5    MOD. SC-A6    MOD. SC-A7    MOD. SC-A8

MATERIAL/WERKSTOFF

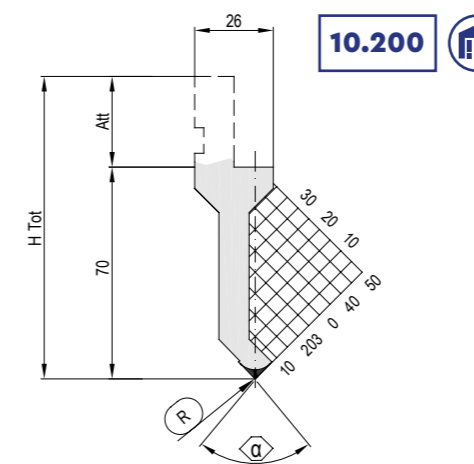
Material Werkstoff	Tensile strenght Zerreifestigkeit	Hardness tool body Hrte Werkzeugkrper	Hardness after induction hardening Hrte nach Induktionshrtung
	N/mm <sup>2</sup>	HB	HRC
C45	650 - 750	190 - 220	54 - 60
42CrMo4	900 - 1100	260 - 320	52 - 55



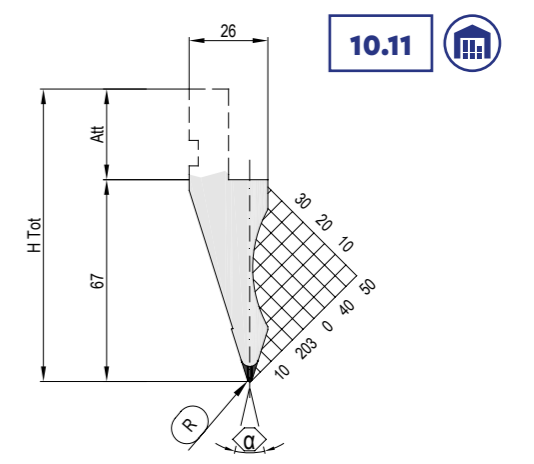
10.10



10.116



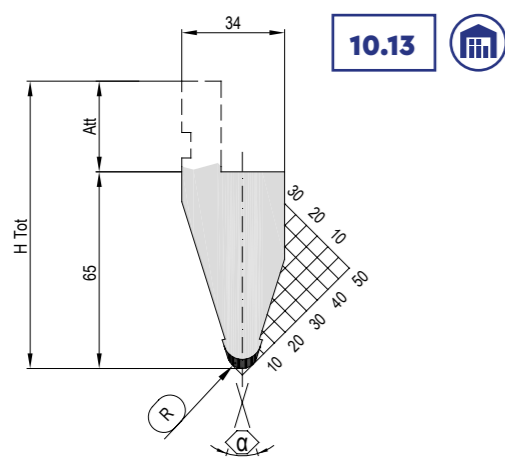
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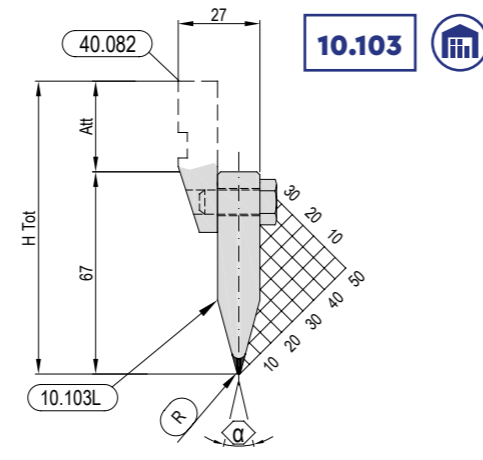
10.11

Fam.	Mod.	Att. type Att. Typ	Angle Winkel α [°]	Radius Radius R [mm]	Height Hhe H [mm]	Tot.Height Gesamthhe H1 [mm]	Lenght Lnge L [mm]	Horn mod. Horn mod.	Weight Gewicht K [kg]	Force Strke F [KN/m]	Material Werkstoff
10.10	10.10/90°	B-G EURO T-FAST	90°	0.2	67	97	835 - 415 835 FR	SC-A1	12 - 6 12	1000	C45 ●
	0.8			66.7	96.7						
	10.10/88°		88°	0.2	67	97					
				0.8	66.7	96.7					
	10.10/85°		85°	2.0	65.7	95.7					
				0.8	66.6	96.6					
3.0	65.6	95.6									
10.116	10.116/90°	B-G EURO T-FAST	90°	0.2	67	97	835 - 415 835 FR	SC-A8	10 - 5 10	350	42CrMo4 ○
	88°		0.2	67	97						
10.200	10.200/90°	B-G EURO T-FAST	90°	0.2	70	100	835 - 415 835 FR	SC-A6	8 - 4 8	500	42CrMo4 ●
	0.2			70	100						
	88°		0.8	69.7	99.7						
10.11	10.11/45°	B-G EURO T-FAST	45°	1	65	95	835 - 415 835 FR	SC-A2	10 - 5 10	800	C45 ●
	35°		0.8	67	97						

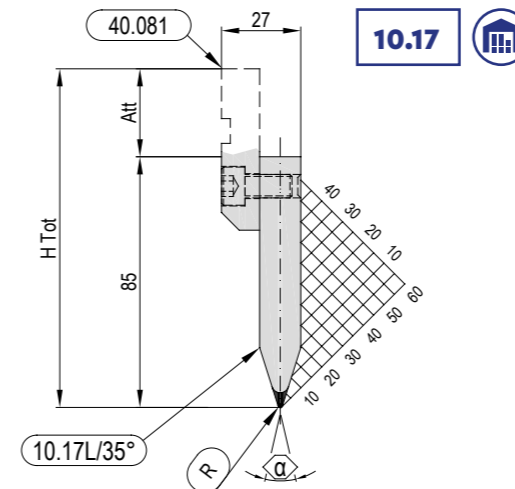
● induction hardened= induktionshrtung    ○ tempered= vergtet



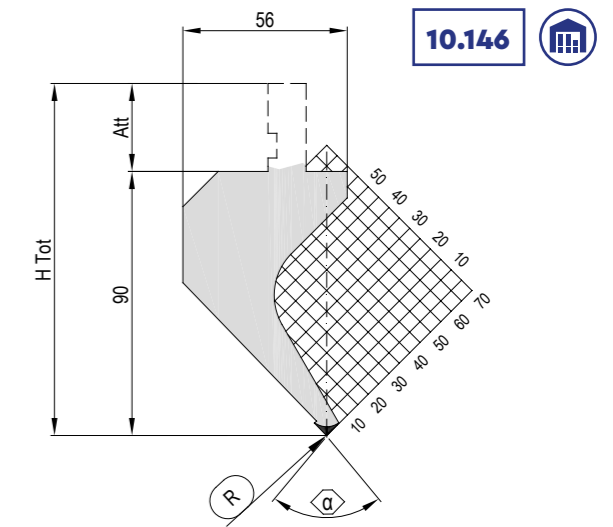
10.13



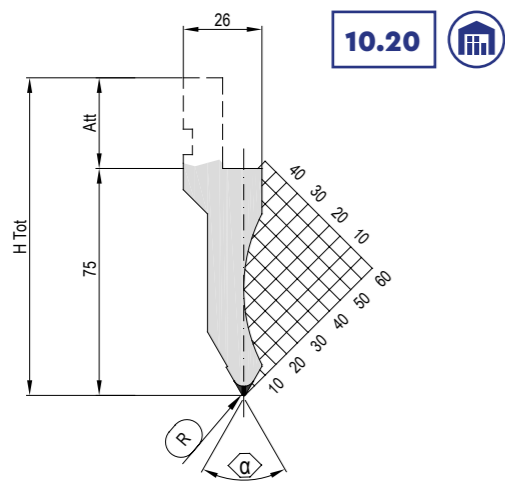
10.103



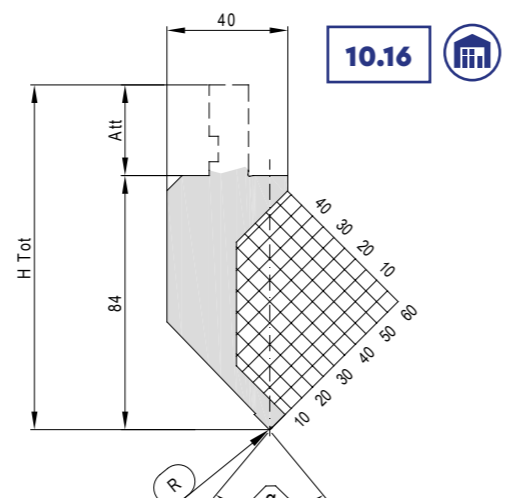
10.17



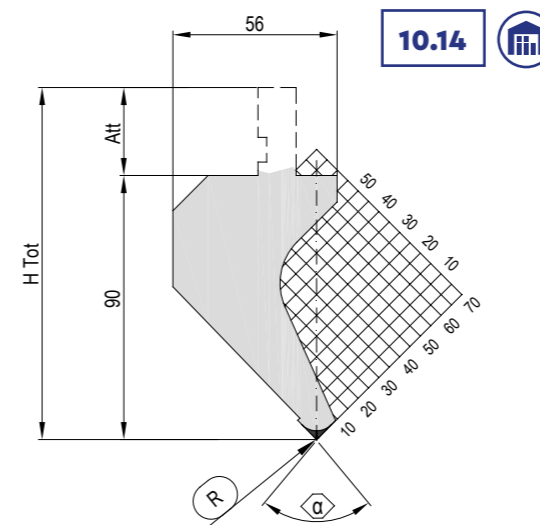
10.146



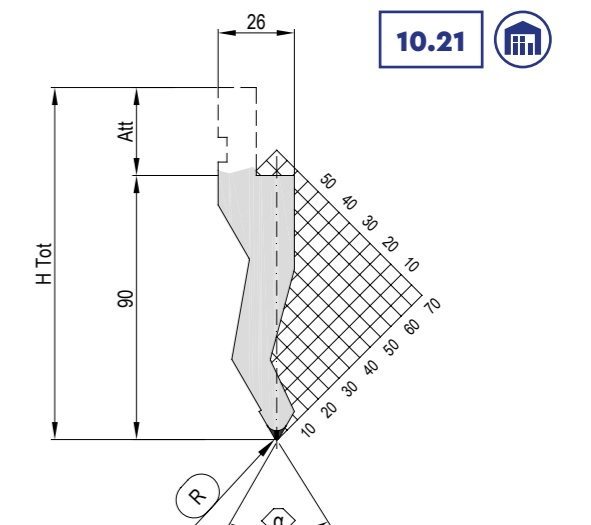
10.20



10.16



10.14



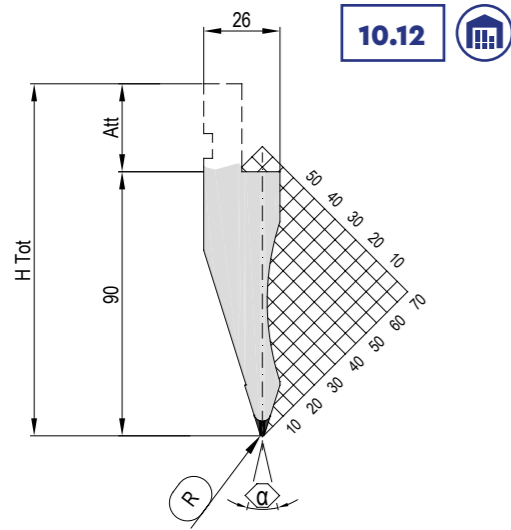
10.21

Fam.	Mod.	Att. type Att. Typ	Angle Winkel α [°]	Radius Radius R [mm]	Height Höhe H [mm]	Tot.Height Gesamthöhe H1 [mm]	Lenght Länge L [mm]	Horn mod. Horn mod.	Weight Gewicht K [kg]	Force Stärke F [KN/m]	Material Werkstoff
10.13	10.13/60°	B-G EURO T-FAST	60°	6	65	95	835 - 415 835 FR	SC-A1	15.2-7.6-15.2	1000	C45 ●
	10.13/30°		35°	5	66.7	96.7			12 - 6 - 12		
10.103	10.103/30°	B-G EURO T-FAST	30°	0.8	67	97	835 - 415 835 FR	SC-A1	9 - 4.5 - 9	1000	C45 ●
10.20	10.20/60°	B-G EURO T-FAST	60°	0.8	75	105	835 - 415 835 FR	SC-A1	9.4 - 4.7 - 9.4	800	C45 ●
				2	73.8	103.8					
10.16	10.16/90°	B-G EURO T-FAST	90°	0.2	84	114	835 - 415 835 FR	SC-A1	6 - 3 - 6	200	42CrMo4 ○
	10.16/80°		88°								

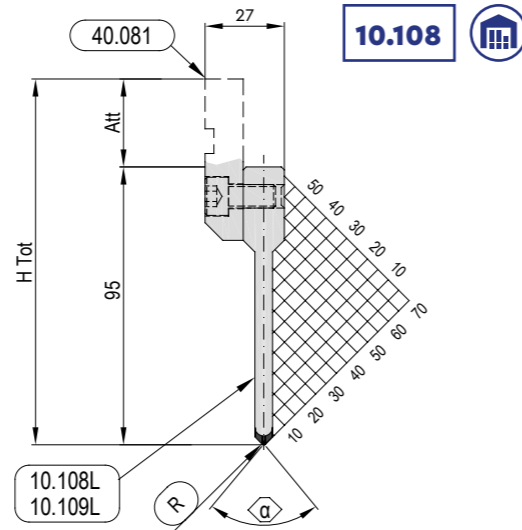
● induction hardened= induktionshärtung ○ tempered= vergütet

Fam.	Mod.	Att. type Att. Typ	Angle Winkel α [°]	Radius Radius R [mm]	Height Höhe H [mm]	Tot.Height Gesamthöhe H1 [mm]	Lenght Länge L [mm]	Horn mod. Horn mod.	Weight Gewicht K [kg]	Force Stärke F [KN/m]	Material Werkstoff
10.17	10.17/35°	B-G EURO T-FAST	35°	0.8	85	115	835 - 415 835 FR	SC-A1	6-3-6	1000	C45 ●
10.146	10.146/90°	B-G EURO T-FAST	90°	0.2	90	120	835 - 415 835 FR	SC-A4	20-10 20	600	42CrMo4 ●
				0.8	89.7	119.7					
				0.8	89.7	119.7					
10.14	10.14/90°	B-G EURO T-FAST	90°	0.2	90	120	835 - 415 835 FR	SC-A1	21-10.5 21	700	C45 ●
				0.8	89.7	119.7					
				0.2	90	120					
				0.8	89.7	119.7					
10.21	10.21/60°	B-G EURO T-FAST	60°	0.8	90	120	835 - 415 835 FR	SC-A1	11-5.5-11	600	C45 ●
				3	88.7	118.7					
				3	87.8	117.8					

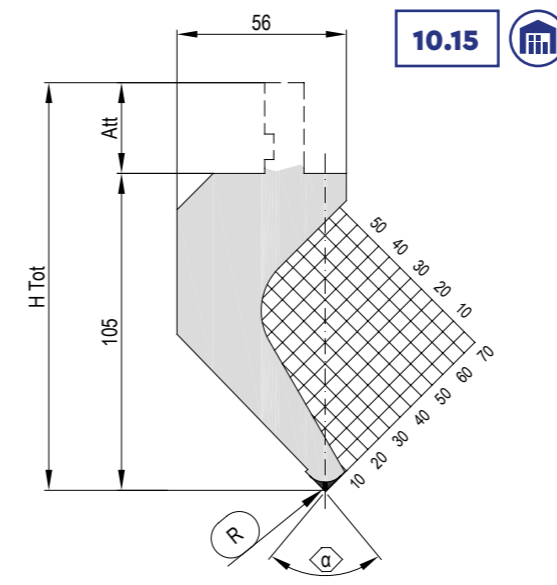
● induction hardened= induktionshärtung ○ tempered= vergütet



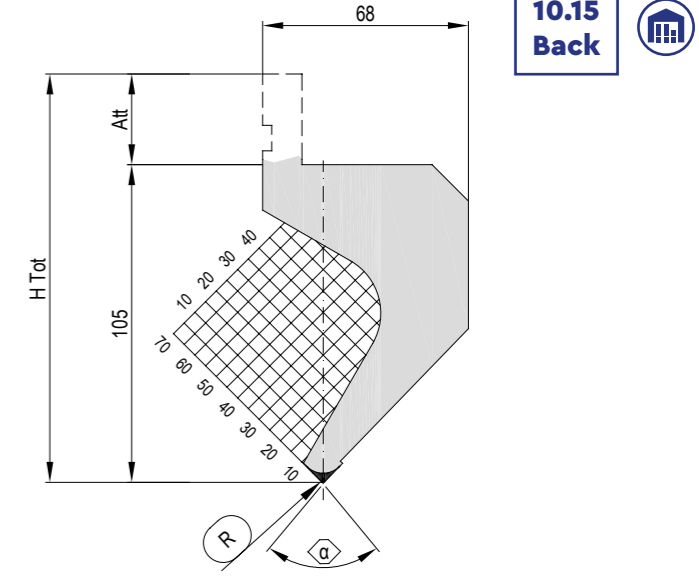
10.12



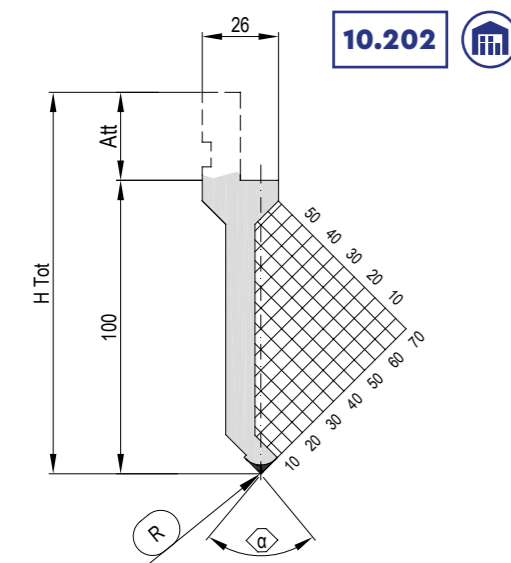
10.108



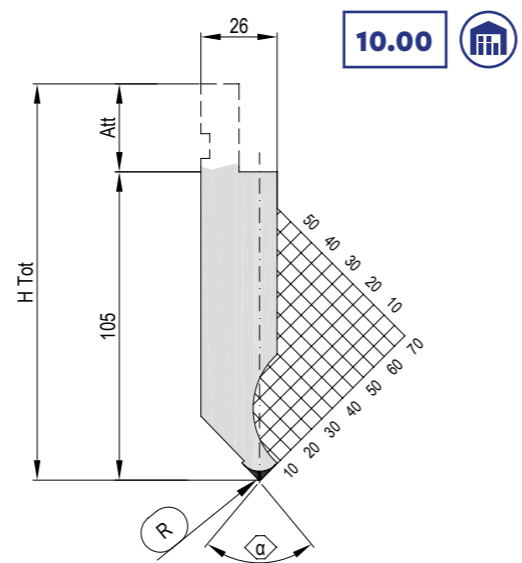
10.15



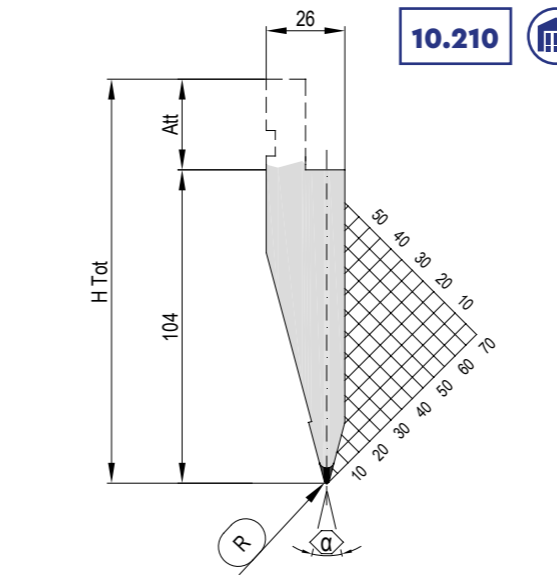
10.15 Back



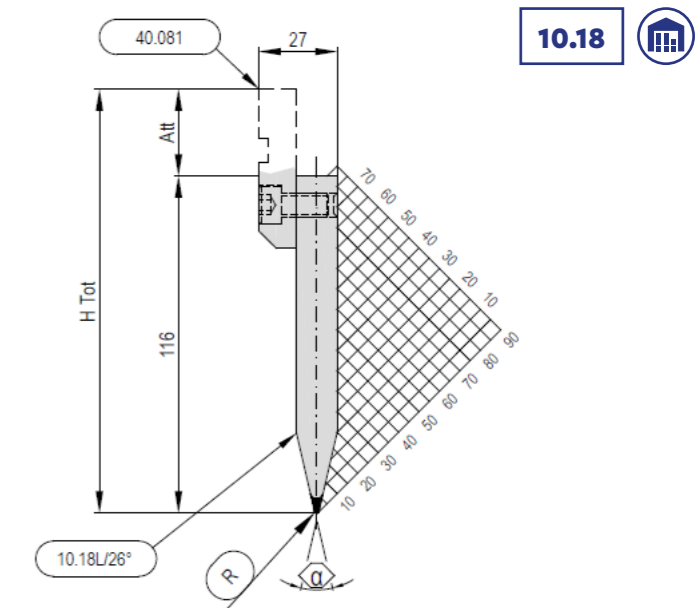
10.202



10.00



10.210



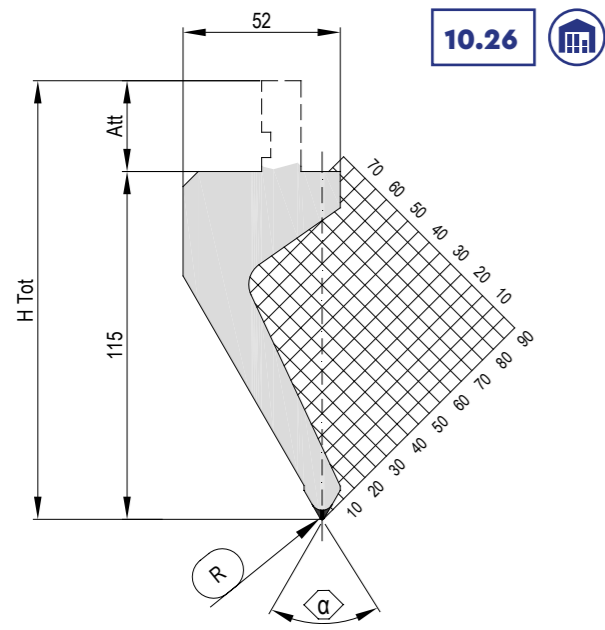
10.18

Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Höhe	Tot.Height Gesamthöhe	Lenght Länge	Horn mod. Horn mod.	Weight Gewicht	Force Stärke	Material Werkstoff
			α [°]	R [mm]	H [mm]	H1 [mm]	L [mm]		K [kg]	F [KN/m]	
10.12	10.12/30°	B-G EURO T-FAST	30°	0.8	90	120	835 - 415 835 FR	SC-A3	12 - 6 - 12	1000	C45 ●
	2			86.5	116.5						
	35°		0.8	90	120						
			2	87.2	117.2						
10.108	10.108/90°	B-G EURO T-FAST	90°	0.2	95	125	835 - 415 835 FR	SC-A6	9.4 - 4.7 9.4	500	42CrMo4 ●
	88°		0.2								
	10.108/88°		88°	0.2							
10.202	10.203/90°	B-G EURO T-FAST	90°	0.2	100	130	835 - 415 835 FR	SC-A6	10 - 5 - 10	500	42CrMo4 ●
	88°		0.2	99.7	129.7						
			0.8								
10.00	10.00/88°	B-G EURO T-FAST	88°	0.8	105	135	835 - 415 835 FR	SC-A1	18 - 9 - 18	1000	C45 ●
	10.00/85°		85°								

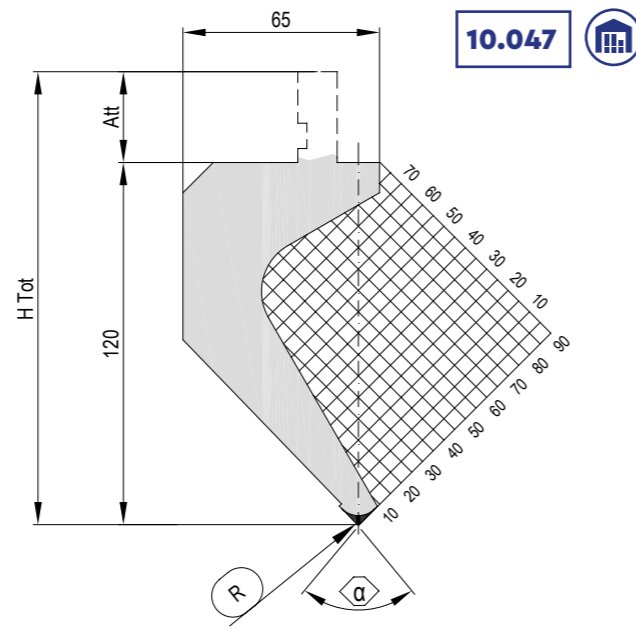
● induction hardened= induktionshärtung ○ tempered= vergütet

Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Höhe	Tot.Height Gesamthöhe	Lenght Länge	Horn mod. Horn mod.	Weight Gewicht	Force Stärke	Material Werkstoff
			α [°]	R [mm]	H [mm]	H1 [mm]	L [mm]		K [kg]	F [KN/m]	
10.15	10.15/90°	B-G EURO T-FAST	90°	0.2	105	135	835 - 415 835 FR	SC-A1	22 - 11 - 22	500	C45 ●
	0.8			104.7	134.7						
	88°		0.2	105	135						
			0.8	104.7	134.7						
10.15 Back	10.15 Back/88°	88°	0.8	105	135	835 - 415 835 FR	SC-A1	25 - 12.5 25	500	C45 ●	
10.210	10.210/30°	B-G EURO T-FAST	30°	0.8	104	134	835 - 415 835 FR	SC-A7	15 - 7.5 - 15	1000	C45 ●
				2	100.5	130.5					
				5	104	134					
10.210/26°	26°	0.8	104	134							
10.18	10.18/26°	B-G EURO T-FAST	26°	0.8	117	147	835 - 415 835 FR	SC-A3	14.5 - 7 14.5	1000	C45 ●

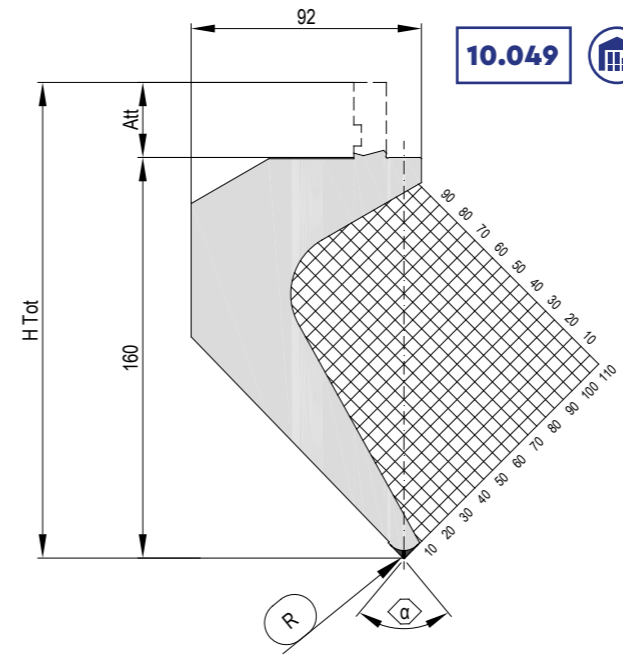
● induction hardened= induktionshärtung ○ tempered= vergütet



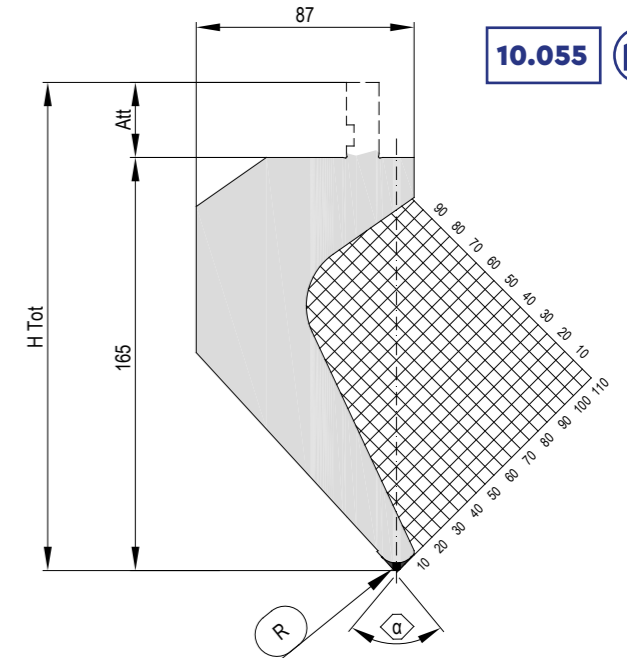
10.26



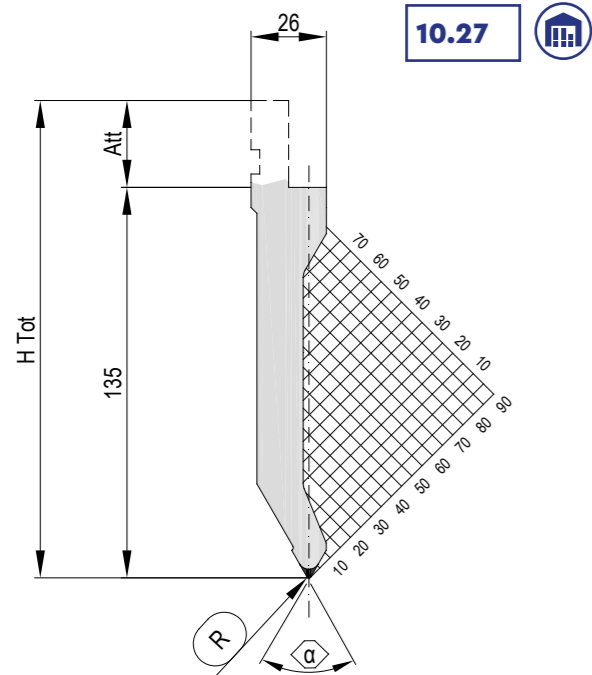
10.047



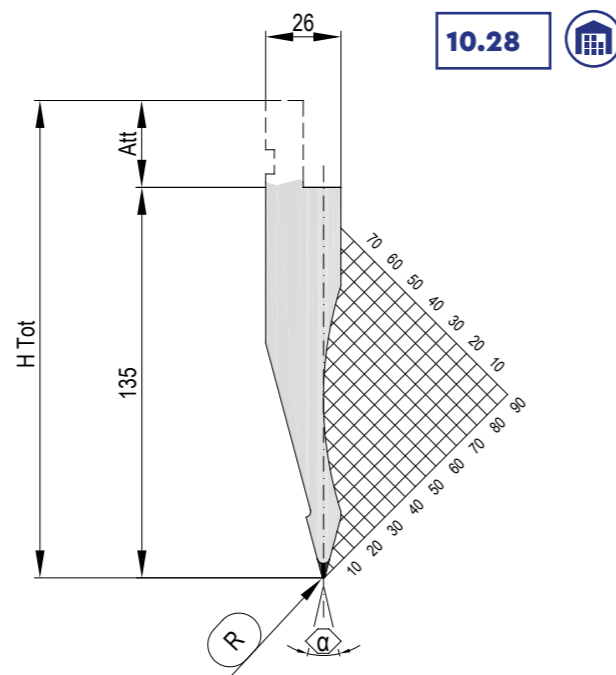
10.049



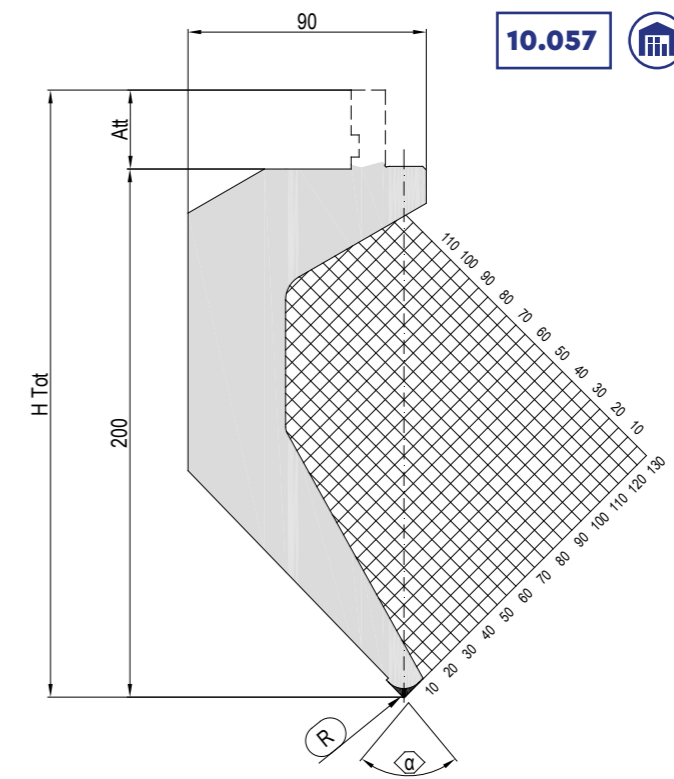
10.055



10.27



10.28



10.057

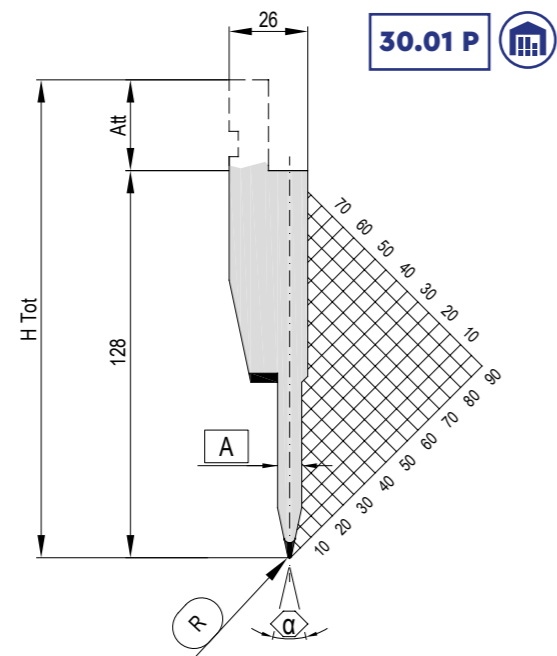
Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Höhe	Tot.Height Gesamthöhe	Lenght Länge	Horn mod. Horn mod.	Weight Gewicht	Force Stärke	Material Werkstoff
			$\alpha$ [°]	R [mm]	H [mm]	H1 [mm]	L [mm]		K [kg]	F [KN/m]	
10.26	10.26/60°	B-G EURO T-FAST	60°	0.8	115	135	835 - 415 835 FR	SC-A1	19.2 - 9.6 19.2	400	C45 ●
10.047	10.047/88°	B-G EURO T-FAST	88°	0.2	120	150	835 - 415 835 FR	SC-A5	26 - 13.5 26	600	42CrMo4 ●
	0.8			119.7	149.7						
	10.047/90°		90°	0.2	120	150					
				0.8	119.7	149.7					
10.27	10.27/60°	B-G EURO T-FAST	60°	0.8	135	165	835 - 415 835 FR	SC-A1	17 - 8.5 17	700	C45 ●
10.28	10.28/30°	B-G EURO T-FAST	30°	0.5	135	165	835 - 415 835 FR	SC-A1	17.5 - 8.5 17.5	500	C45 ●

● induction hardened= induktionshärtung ○ tempered= vergütet

Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Höhe	Tot.Height Gesamthöhe	Lenght Länge	Horn mod. Horn mod.	Weight Gewicht	Force Stärke	Material Werkstoff
			$\alpha$ [°]	R [mm]	H [mm]	H1 [mm]	L [mm]		K [kg]	F [KN/m]	
10.049	10.049/88°	B-G EURO T-FAST	88°	0.8	160	190	835 - 415 835 FR	SC-A5	44 - 22 44	600	C45 ●
10.055	10.055/85°	B-G EURO T-FAST	85°	2	165	195	835 - 415 835 FR	SC-A1	50 - 25 50	800	C45 ●
10.057	10.057/88°	B-G EURO T-FAST	88°	0.8	200	230	505-805FR	SC-A1	32,5 - 49	700	C45 ●

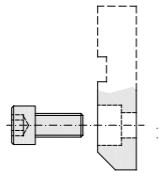
● induction hardened= induktionshärtung ○ tempered= vergütet



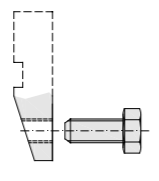


**30.01 P**

**40.081**



**40.082**



Fam.	Mod.	Att. type Att. Typ	Angle	Radius	Thickness	Height	Tot.Height	Lenght	Horn mod. Horn mod.	Weight	Force	Material Werkstoff
			$\alpha$ [°]	R [mm]	A [mm]	H [mm]	H1 [mm]	L [mm]		K [kg]	F [KN/m]	
30.01 P	30.01 P8	B-G EURO T-FAST	24°	0.6	8	128	158	835 - 415	SC-A3	18-9	800	C45 ●
	30.01 P10				10							
	30.01 P12				12							

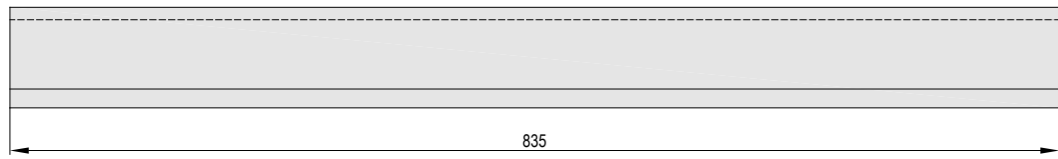
● induction hardened= induktionshärtung    ○ tempered= vergütet



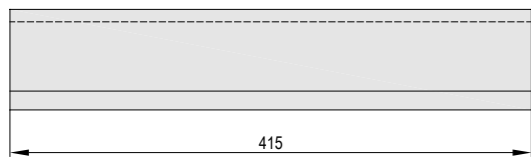


**AMADA**  
*Dies/Matrizen*

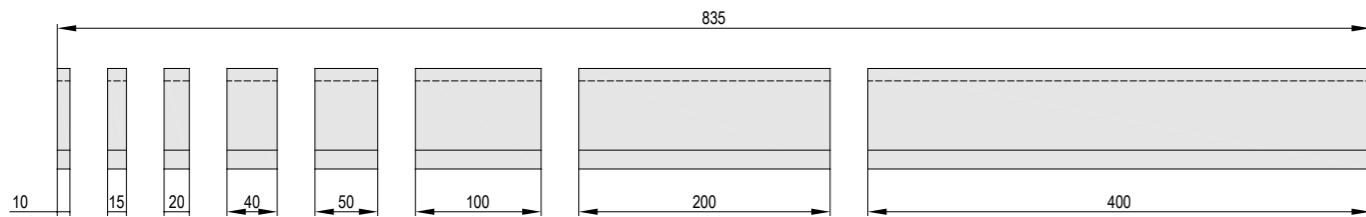
835



415



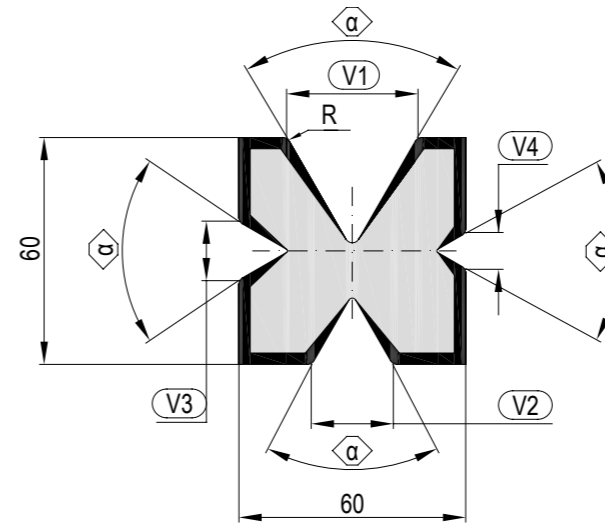
835 FR/835 SECT.



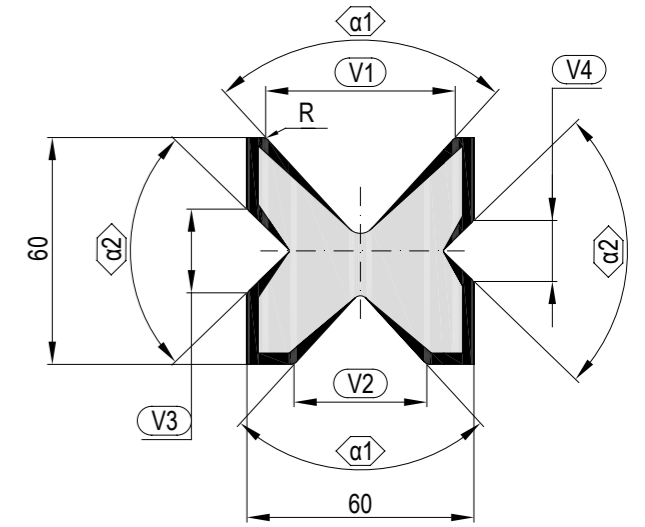
MATERIAL/WERKSTOFF

Material Werkstoff	Tensile strenght Zerreifestigkeit	Hardness tool body Hrte Werkzeugkrper	Hardness after induction hardening Hrte nach Induktionshrtung
	N/mm <sup>2</sup>	HB	HRC
C45	650 - 750	190 - 220	54 - 60
42CrMo4	900 - 1100	260 - 320	52 - 55

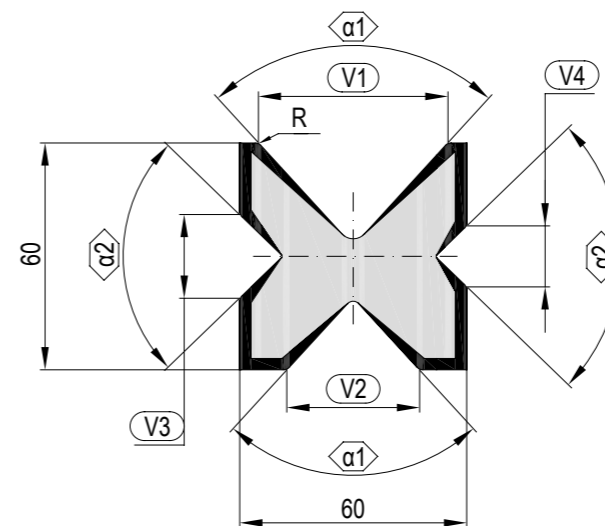
20.09/60°



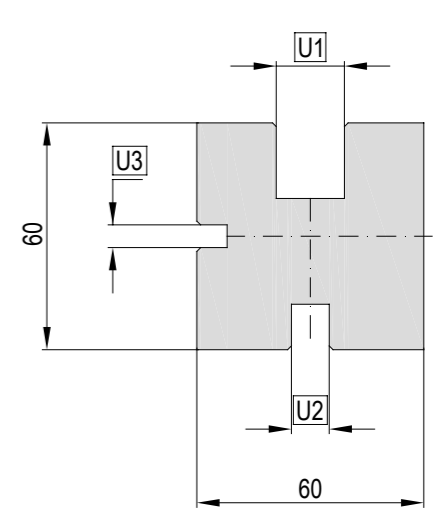
20.09



20.09/85°

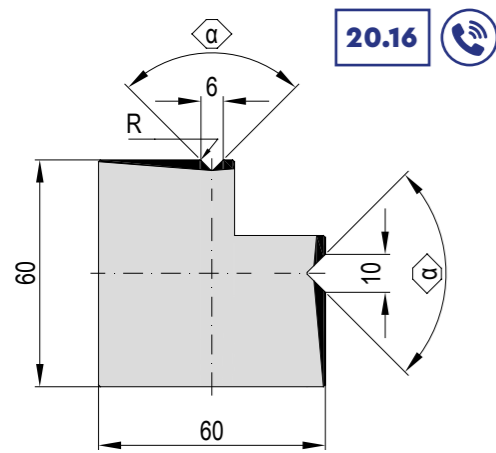


20.08

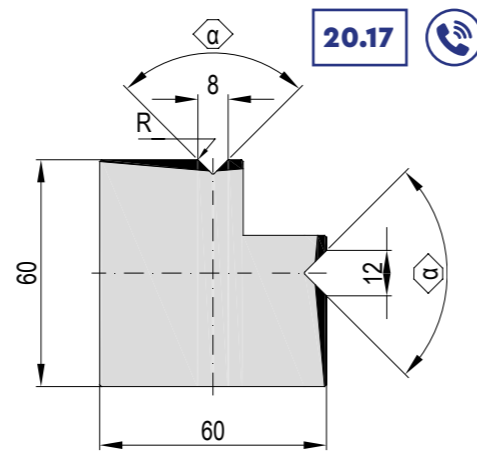


Fam.	Mod.	Groove Rille N°	Angle Winkel α [°]	Opening Öffnung V o U [mm]	Radius Radius R	Height Höhe H [mm]	Width Breite W [mm]	Length Länge L [mm]	Weight Gewicht K [kg]	Force Stärke F [KN/m]	Material Werkstoff
20.09/60°	20.09/60°	1	60°	35	3	60	60	835 - 415 835 FR	18 - 9 18	800	C45 ●
		2		22	2.5						
		3		16	2						
		4		10	1.5						
20.09	20.09	1	88°	50	2	60	60	835 - 415 835 FR	16 - 8 16	800	C45 ●
		2		35							
		3	22								
		4	16								
20.09/85°	20.09/85°	1	85°	50	2	60	60	835 - 415 835 FR	16 - 8 16	800	C45 ●
		2		35							
		3		22							
		4		16							
20.08	20.08	1		U18		60	60	835 - 415 835 FR	22 - 11 22	800	42CrMo4 ○
		2		U10							
		3		U6							

● induction hardened= induktionshrtung ○ tempered= vergtet



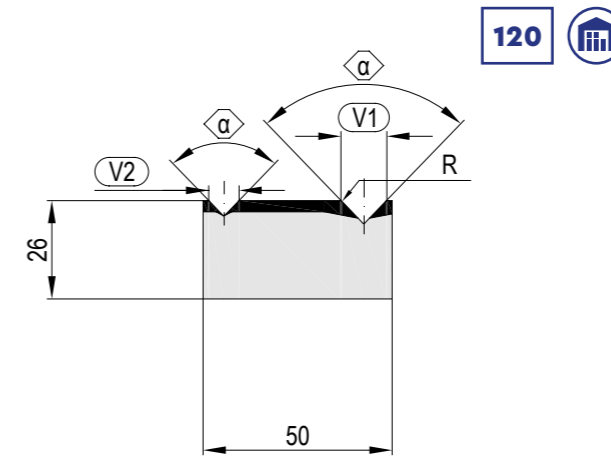
20.16



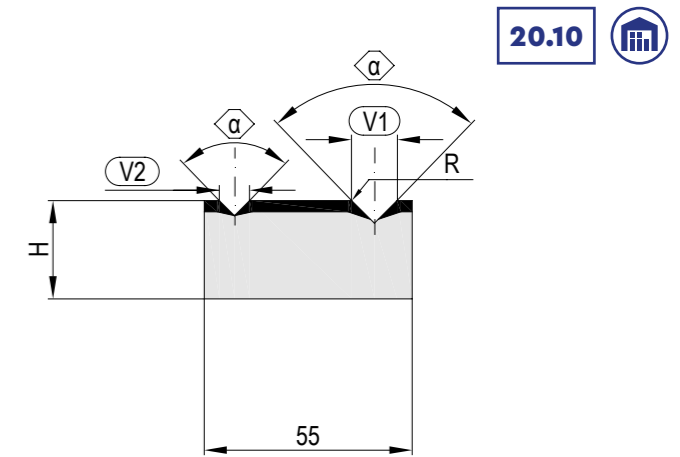
20.17

Fam.	Mod.	Groove Rille N°	Angle Winkel α [°]	Opening Öffnung V o U [mm]	Radius Radius R	Height Höhe H [mm]	Width Breite W [mm]	Length Länge L [mm]	Weight Gewicht K [kg]	Force Stärke F [KN/m]	Material Werkstoff
20.16	20.16/90°	1	90°	6	1	60	60	835 - 415 835 FR	24 - 12 24	800	C45 ●
		2		10							
	20.16/88°	1	88°	6							
		2		10							
20.17	20.17/90°	1	90°	8	1	60	60	835 - 415 835 FR	24 - 12 24	800	C45 ●
		2		12							
	20.17/88°	1	88°	8							
		2		12							

● induction hardened= induktionshärtung ○ tempered= vergütet



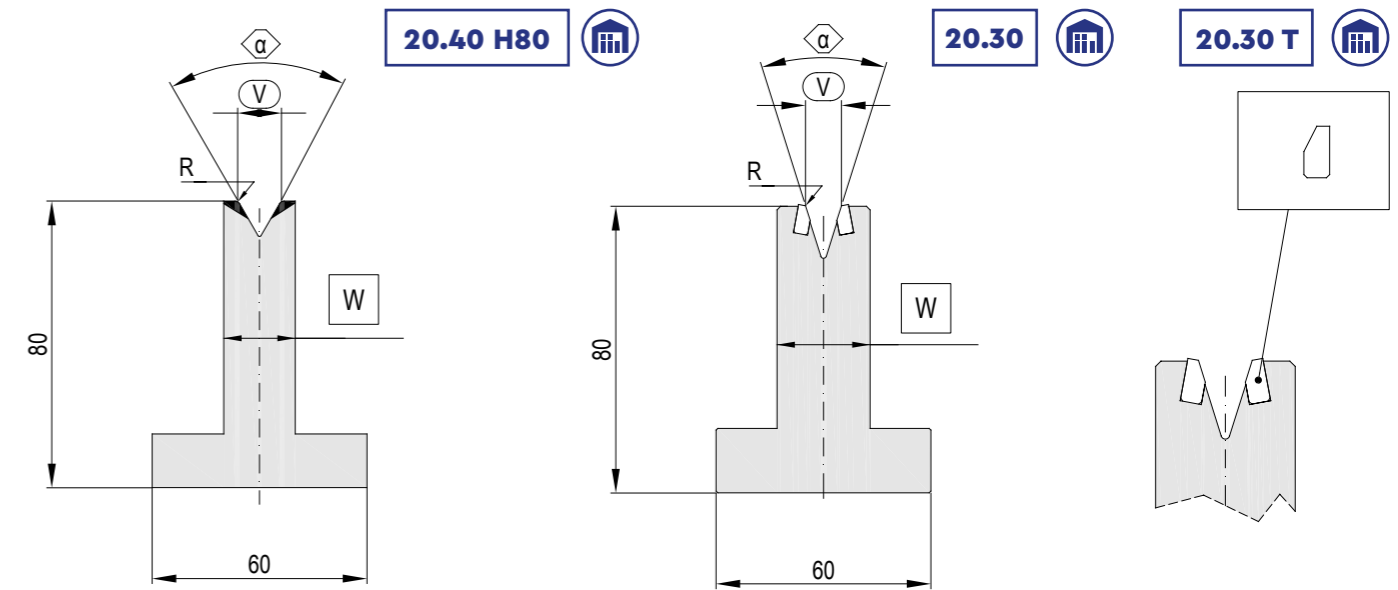
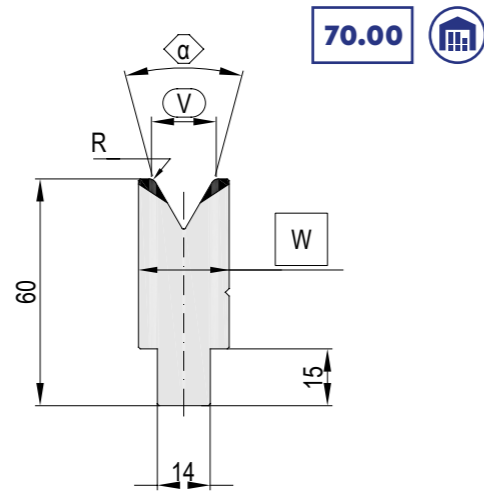
120



20.10

Fam.	Mod.	Groove Rille N°	Angle Winkel α [°]	Opening Öffnung V o U [mm]	Radius Radius R	Height Höhe H [mm]	Width Breite W [mm]	Length Länge L [mm]	Weight Gewicht K [kg]	Force Stärke F [KN/m]	Material Werkstoff
120	121/90°	1	90°	7	0.5	26	50	835 - 415 835 FR	10-5	600	C45 ●
		2		4							
	123/90°	1	10								
		2	6								
	124/90°	1	12	0.5							
		2	8	0.8							
	121/88°	1	88°	7	0.5						
		2		4							
	123/88°	1	10	0.5							
		2	6	0.6							
	124/88°	1	12	0.5							
		2	8	0.8							
125/88°	1	88°	18	0.5							
	2		14								
126/88°	1	20	0.5								
	2	12									
127/88°	1	88°	25	0.8							
	2		16								
20.10	20.12/90°	1	90°	10	0.5	26	55	835 - 415 835 FR	9-4.5	1000	C45 ●
		2		6	0.6						
	20.13/90°	1	12	0.5							
		2	5	0.8							
	20.12/88°	1	88°	10	0.5						
		2		6	0.6						
	20.13/88°	1	12	0.5							
		2	5	0.8							
	20.14/88°	1	88°	20	2.5						
		2		12	3						
	20.15/88°	1	88°	25	2.75						
		2		16	3						
	20.12/60°	1	60°	10	0.5						
		2		6	1						
	20.13/60°	1	12	0.8							
		2	8	1.5							
	20.14/60°	1	60°	20	1.5						
		2		12	2						
20.15/60°	1	60°	25	2							
	2		16	2.5							
20.12/35°	1	35°	10	1							
	2		6	1							
20.13/35°	1	35°	12	1							
	2		8	1.5							

● induction hardened= induktionshärtung ○ tempered= vergütet

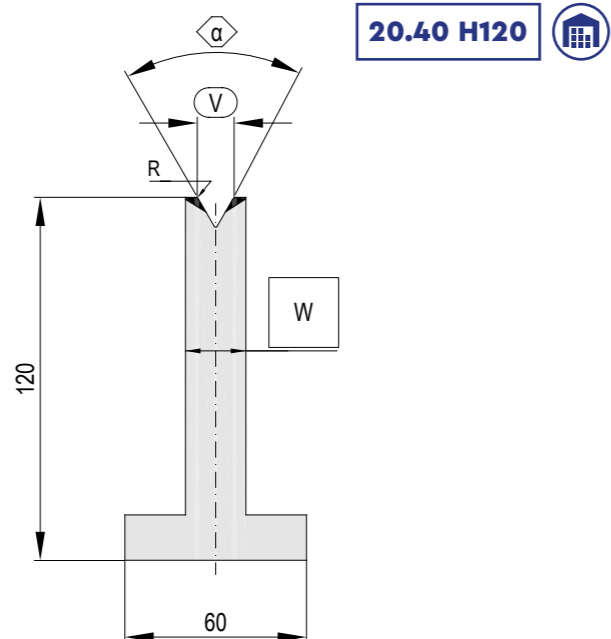


Fam.	Mod.	Angle Winkel α [°]	Opening Öffnung V o U [mm]	Radius Radius R	Height Höhe H [mm]	Width Breite W [mm]	Length Länge L [mm]	Weight Gewicht K [kg]	Force Stärke F [KN/m]	Material Werkstoff	
70.00	70.90	90°	6	1.5	60	14	835 - 415 835 FR	5.5 - 3 - 5.5	1000	C45 ●	
	71.90		8								
	73.90		10	2							
	75.90		12	2.5							
	70.88	88*	6	1.5		14					6 - 3 - 6
	71.88		8								
	72.88		10	2							
	74.88		12	17							
	76.88		14			2.5					
	77.88		16	24							
	78.88		18	28							
	79.88		20	30							
	80.88		25	35							
	70.60		60°	6		0.5					
	71.60	8									
	73.60	10		1							
	75.60	12		1.5							
	77.60	16		2							
	78.60	18									
	79.60	20		30							
	80.60	25		38							
	70.45	45°		6		0.8	16	10 - 5 - 10			
	71.45			8							
	73.45		10	1							
	75.45		12	24							
	77.45		16	28							
	79.45		20	32							
	80.45		25	40							
	70.35		35°	6		1	16		11 - 5.5 - 11		
	71.35			8							
73.35	10			20							
75.35	12	24									
77.35	16	30									
79.35	20	35									
79.35	20	35									

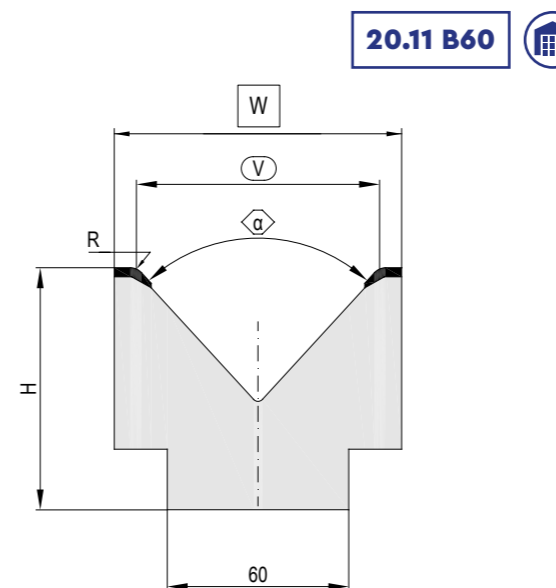
● induction hardened= induktionshärtung ○ tempered= vergütet

Fam.	Mod.	Angle Winkel α [°]	Opening Öffnung V o U [mm]	Radius Radius R	Height Höhe H [mm]	Width Breite W [mm]	Length Länge L [mm]	Weight Gewicht K [kg]	Force Stärke F [KN/m]	Material Werkstoff
20.40 H80	20.41/90°	90°	6	0.5	80	14	835 - 415 835 FR	12 - 6 - 12	1000	C45 ●
	20.42/90°		8							
	20.43/90°		10	0.6						
	20.44/90°		12	0.8						
	20.41/88°	88°	6	0.5		14		12 - 6 - 12		
	20.42/88°		8							
	20.43/88°		10	0.6						
	20.44/88°		12	0.8						
	20.45/88°		16	2.5						
	20.46/88°		20	3						
	20.47/85°	85°	25	3		35		17 - 8.5 - 17		
	20.41/60°	60°	6	0.5		14		14 - 7 - 14		
	20.42/60°		8			0.8				
	20.43/60°		10	1						
	20.44/60°		12	1.5						
	20.45/60°		16	2						
	20.46/60°		20	30						
	20.41/35°	35°	6	1		16	15 - 7.5 - 15			
	20.42/35°		8			18				
	20.43/35°		10	20						
	20.44/35°		12	1.5						
	20.45/35°		16	2						
	20.46/35°		20	35						
	20.30	20.30/35°	35°	5		1	80	19	835 - 415 835 FR	
20.32/35°		8								
20.33/35°		10								
20.34/35°		12		1.5						
20.35/35°		16		2						
20.36/35°		20		37						

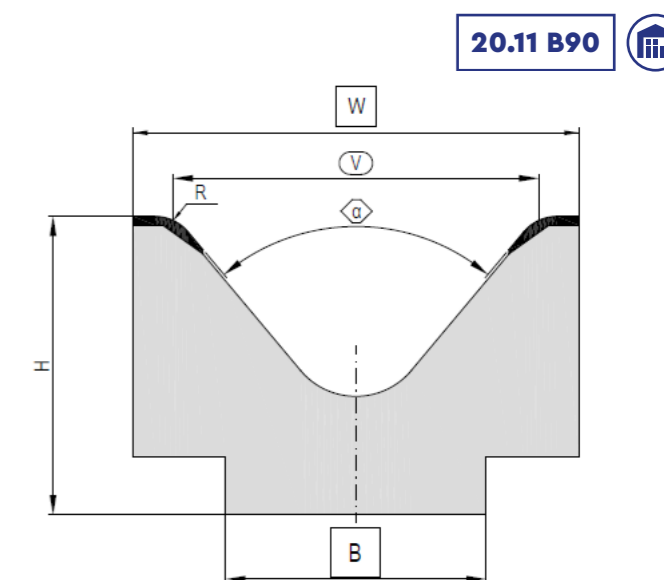
● induction hardened= induktionshärtung ○ tempered= vergütet



20.40 H120



20.11 B60



20.11 B90



Fam.	Mod.	Angle Winkel α [°]	Opening Öffnung V o U [mm]	Radius Radius R	Height Höhe H [mm]	Width Breite W [mm]	Length Länge L [mm]	Weight Gewicht K [kg]	Force Stärke F [KN/m]	Material Werkstoff
20.40 H120	20.41/90°	90°	6	0.5	120	14	835 - 415 835 FR	16 - 8 - 16	1000	C45 ●
	20.42/90°		8					18 - 9 - 18		
	20.43/90°		10					16 - 8 - 16		
	20.44/90°		12					18 - 9 - 18		
	20.41/88°	88°	6	0.5		14	16 - 8 - 16			
	20.42/88°		8			18 - 9 - 18				
	20.43/88°		10			22 - 11 - 22				
	20.44/88°		12			23 - 11.5 - 23				
	20.45/88°		16			26 - 13 - 26				
	20.46/88°	20	3	30		600				
	20.47/85°	25		35						
	20.41/60°	60°	6	0.5		14	700			
	20.42/60°		8			22 - 11 - 22				
	20.43/60°		10			23 - 11.5 - 23				
	20.44/60°		12			24 - 12 - 24				
	20.45/60°		16			27 - 13.5 - 27				
	20.46/60°		20			23 - 11.5 - 23				
	20.41/30°	30°	6	0.6		14	500			
	20.42/30°		8			24 - 12 - 24				
	20.43/30°		10			24 - 12.5 - 24				
20.44/30°	12		25 - 13 - 25							
20.45/30°	16		27 - 14 - 27							
20.46/30°	20		31.5 - 15.5 - 31.5							
20.47/30°	25									

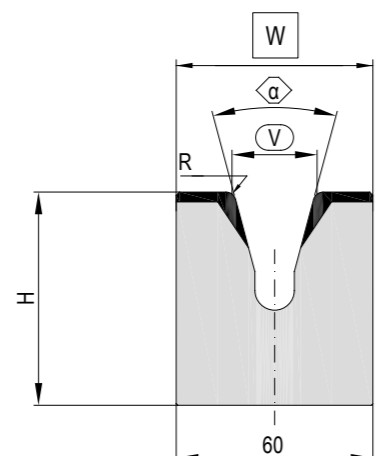
● induction hardened= induktionshärtung ○ tempered= vergütet

Fam.	Mod.	Angle Winkel α [°]	Opening Öffnung V o U [mm]	Radius Radius R	Height Höhe H [mm]	Width Breite W [mm]	Base width Grundbreite B [mm]	Length Länge L [mm]	Weight Gewicht K [kg]	Force Stärke F [KN/m]	Material Werkstoff
20.11 B60	20.11/32	85°	32	4	60	60	60	835 - 415 835 FR	22 - 11 - 22	1000	C45 ●
	20.11/40		40	4					21 - 10 - 21		
	20.11/50		50	4					29 - 14.5 - 29		
	20.11/63		63	5	35 - 17.5 - 35						
	20.11/80		80	5	46 - 23 - 46						
	20.11/100		100	8	95	115			1200		
	20.11/125		80°	125	15	103			154	90/60*	
20.11/160	160	130		185		106 - 53 - 106					

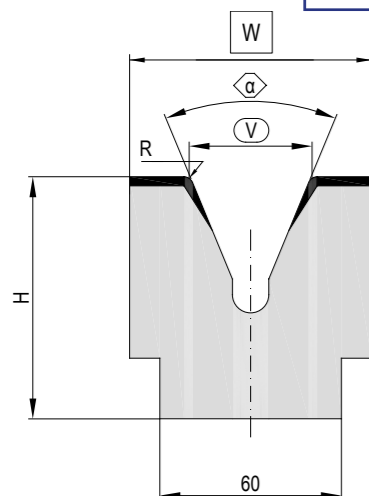
● induction hardened= induktionshärtung ○ tempered= vergütet

\*: available upon request/auf anfrage erhältlich

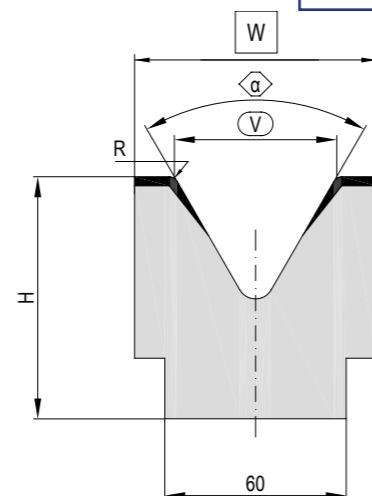
340/30° 



340/45° 



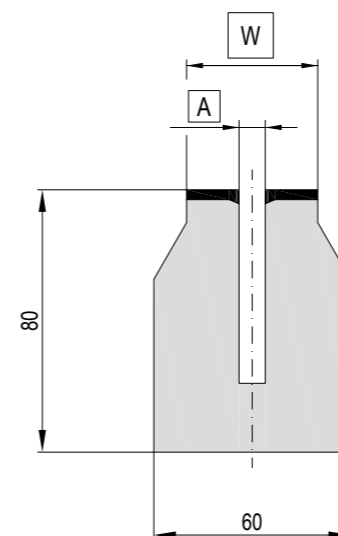
340/60° 




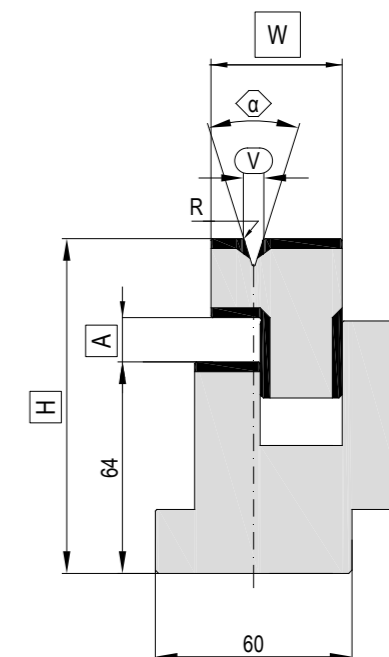
Fam.	Mod.	Angle Winkel	Opening Öffnung	Radius Radius	Height Höhe	Width Breite	Lenght Länge	Weight Gewicht	Force Stärke	Material Werkstoff
		$\alpha$ [°]	V o U [mm]	R	H [mm]	W [mm]	L [mm]	K [kg]	F [KN/m]	
340/30°	340	30°	18	3	60	60	835 - 415 835 FR	20 - 10 - 20	1000	C45 ●
	341		25		65			22 - 11 - 22		
340/45°	342	45°	32	3	60	60	835 - 415 835 FR	20 - 10 - 20	1000	C45 ●
	343		40		80			30 - 15 - 30		
	344		50	4	80	85		28 - 14 - 28		
340/60°	345	60°	63	5	86	86	835 - 415 835 FR	34 - 17 - 34	1000	C45 ●
	346		80	6	110	115		60 - 30 - 60		

● induction hardened= induktionshärtung ○ tempered= vergütet

30.01 M 



30.01/6-8 

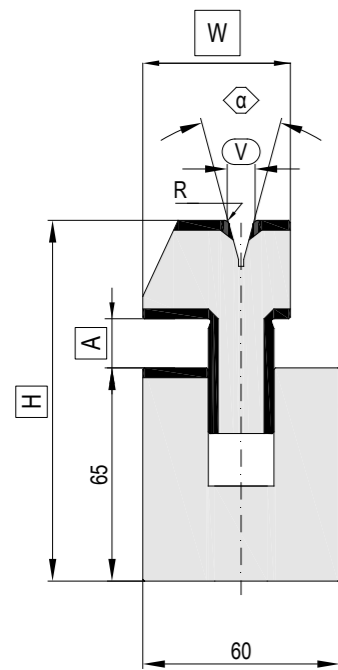


Fam.	Mod.	Groove Nut	Height Höhe	Width Breite	Lenght Länge	Weight Gewicht	Force Stärke	Material Werkstoff
		A [mm]	H [mm]	W [mm]	L [mm]	K [kg]	F [KN/m]	
30.01 M	30.01 M8	8.1	80	40	835 - 415 835 FR	28 - 14 - 28	500	C45 ●
	30.01 M10	10.1		44				
	30.01 M12	12.1		46				

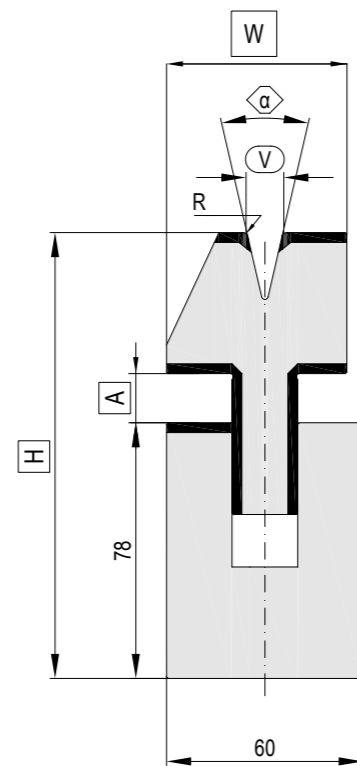
Fam.	Mod.	Angle Winkel	Opening Öffnung	Radius Radius	Height Höhe	Stroke Hieb	Width Breite	Lenght Länge	Weight Gewicht	Force Stärke	Material Werkstoff
		$\alpha$ [°]	V o U [mm]	R	H [mm]	A [mm]	W [mm]	L [mm]	K [kg]	F [KN/m]	
30.01/6-8	30.01/6-35°	35°	6	1	102	13.5	40	835 - 415	35 - 17.5	600	C45 ●
	30.01/8-35°		8								

● induction hardened= induktionshärtung ○ tempered= vergütet

30.02/6-8 



30.01/10-12 



## PNEUMATIC KIT/PNEUMATISCH KIT 30.01/30.02

On request, the whole range of mod. 30.01 and 30.02 is available with pneumatic drive, manual drive or whit solenoid valve controlled by the cnc of the press-brake.

Die gesamte Palette der Modelle 30.01 und 30.02 ist auf Anfrage mit pneumatischem, manuellem oder von der CNC der Abkantpresse gesteuertem Magnetventil erhältlich.

Fam.	Mod.	Angle Winkel	Opening Öffnung	Radius Radius	Height Höhe	Stroke Hieb	Width Breite	Lenght Länge	Weight Gewicht	Force Stärke	Material Werkstoff
		$\alpha$ [°]	V o U [mm]	R	H [mm]	A [mm]	W [mm]	L [mm]	K [kg]	F [KN/m]	
30.02/ 6-8	30.02/ 6-35°	35°	6	1	105	15	35	835 - 415	40 - 20	800	C45 ●
	30.02/ 8-30°	30°	8	1.5	110		45				
30.01/ 10-12	30.01/ 10-35°	35°	10	1.5	136	15	55	835 - 415	42 - 21	1000	C45 ●
	30.01/ 12-35°		12								
	30.01/ 10-26°	26°	10								
	30.01/ 12-26°		12								

● induction hardened= induktionshärtung    ○ tempered= vergütet







**LVD**

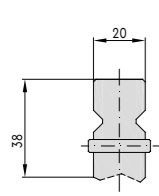
*Punches/Oberwerkzeuge*



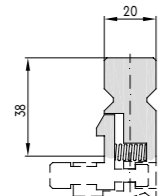
On request  
auf Anfrage



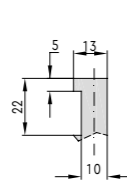
A Magazzino  
auf Lager



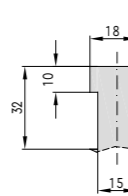
ATT. W



ATT. W-SK

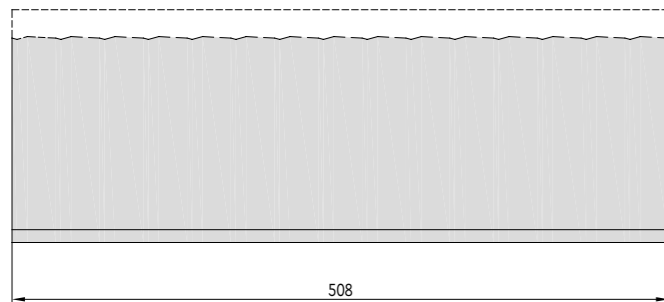


ATT. 10

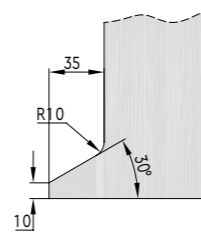


ATT. 15

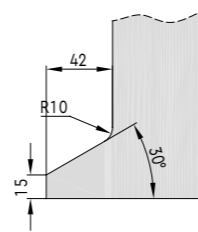
508



HORNS/HORNSTÜCK

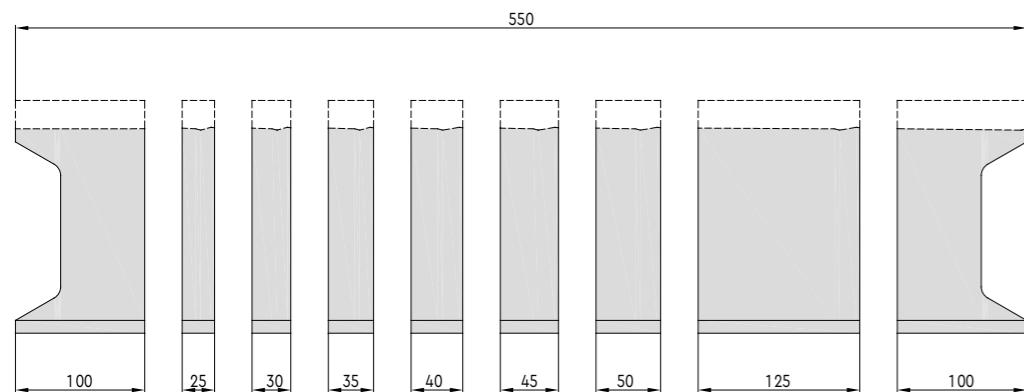


MOD. SC-L1



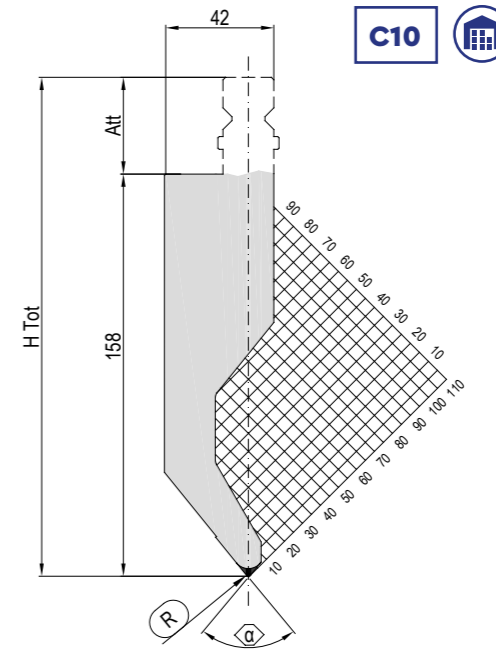
MOD. SC-L2

550 SECT/550 SEKTIONIERT



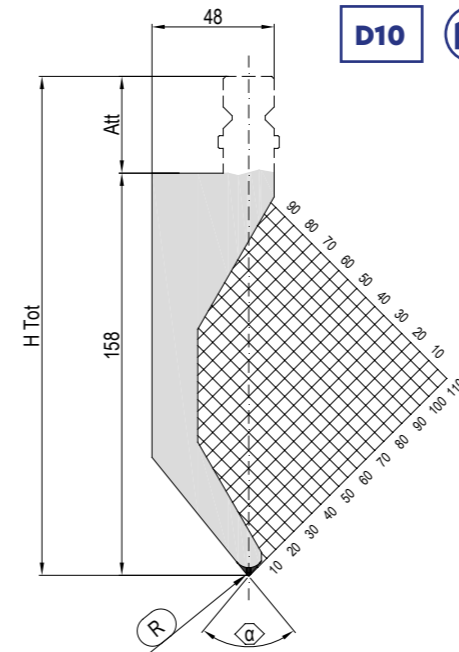
MATERIAL/WERKSTOFF

Material Werkstoff	Tensile strenght Zerreifestigkeit	Hardness tool body Hrte Werkzeugkrper	Hardness after induction hardening Hrte nach Induktionshrtung
	N/mm <sup>2</sup>	HB	HRC
C45	650 - 750	190 - 220	54 - 60
42CrMo4	900 - 1100	260 - 320	52 - 55

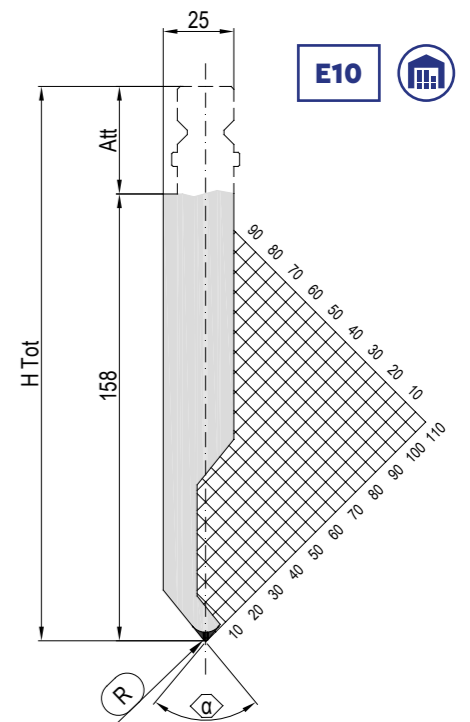


C10

D10

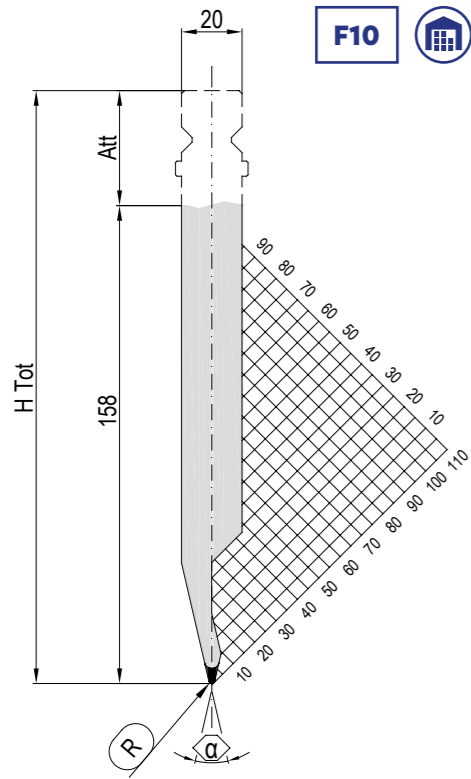


E10

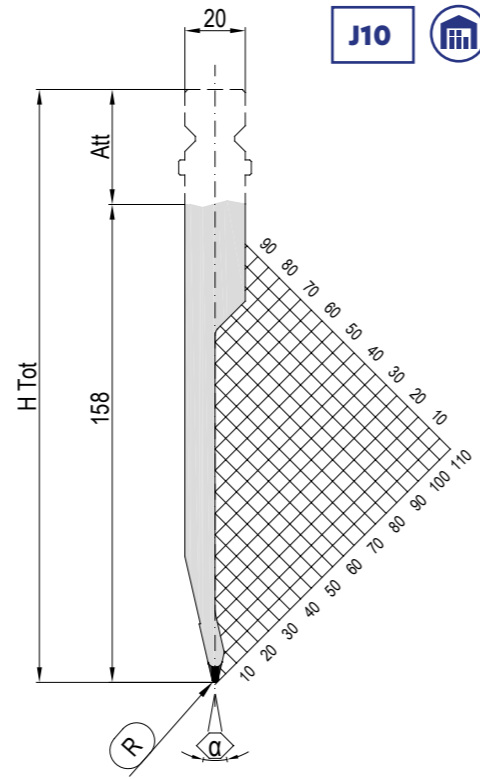


Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Hhe	Tot.Height Gesamthhe	Lenght Lnge	Horn mod. Horn mod.	Weight Gewicht	Force Strke	Material Werkstoff
			$\alpha$ [°]	R [mm]	H [mm]	H1 [mm]	L [mm]		K [kg]	F [KN/m]	
C10	C10W	W/W-SK	78°	1	158	196	508 - 550 FR	SC-L1	21.3 - 23	700	42CrMo4 ●
	C10	10				180			18.2 - 19.7		
D10	D10W	W/W-SK	78°	1	158	196	508 - 550 FR	SC-L1	18.5 - 20	750	42CrMo4 ●
	D10	10				180			15.6 - 16.8		
E10	E10W	W/W-SK	78°	1	158	196	508 - 550 FR	SC-L1	15 - 16.2	400	42CrMo4 ●
	E10	10				180			11.1 - 12		

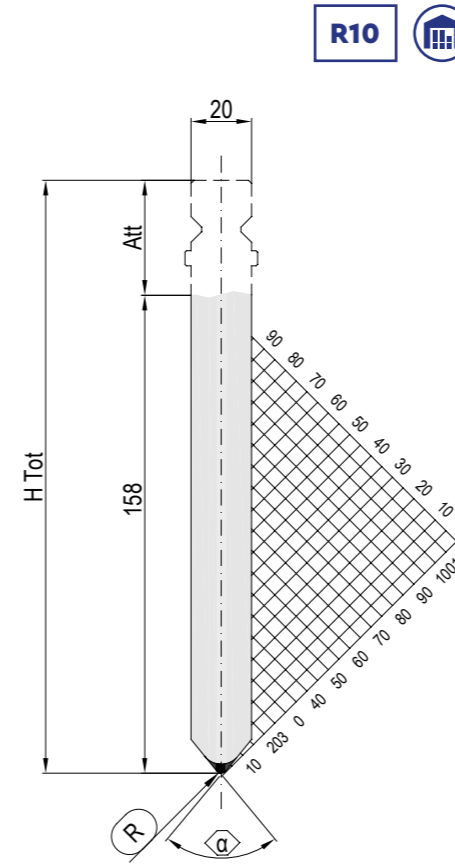
● induction hardened= induktionshrtung ○ tempered= vergtet



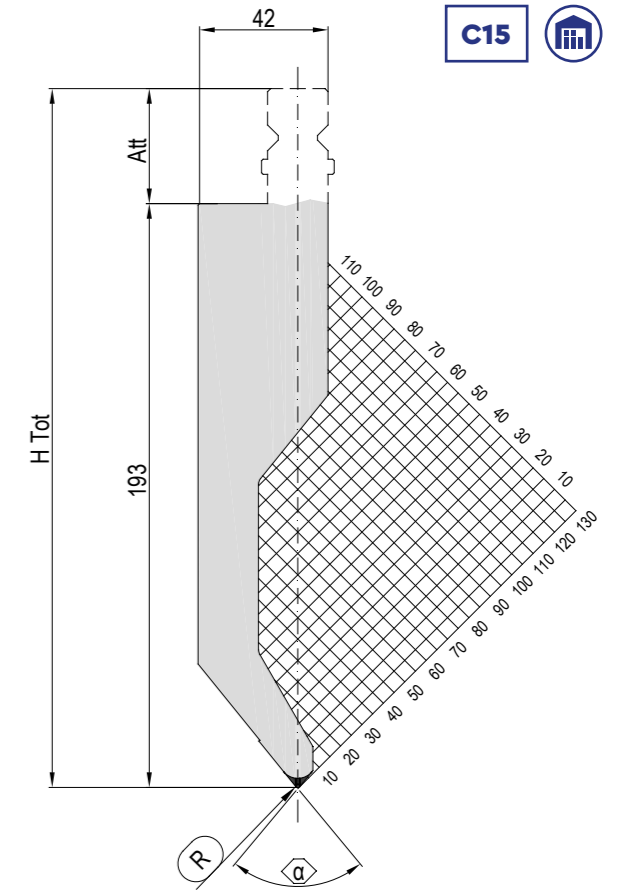
F10



J10



R10



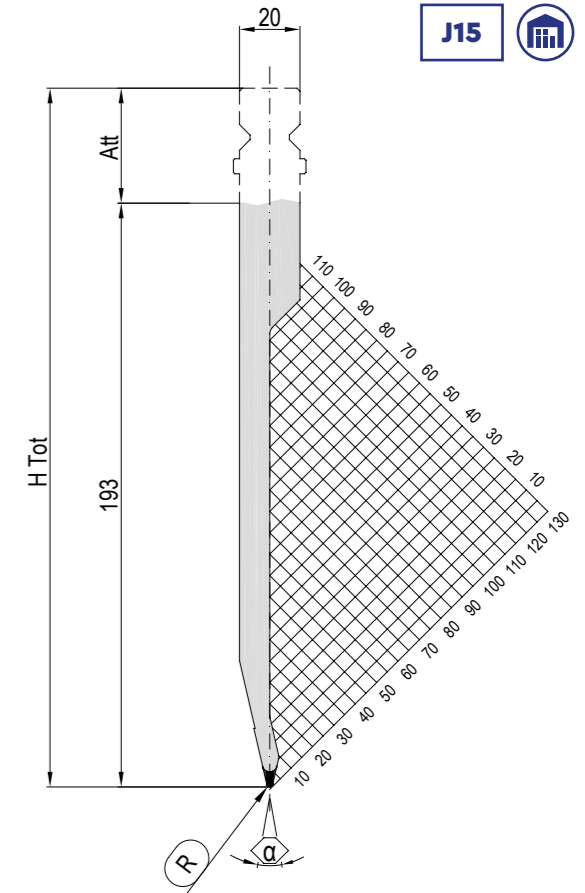
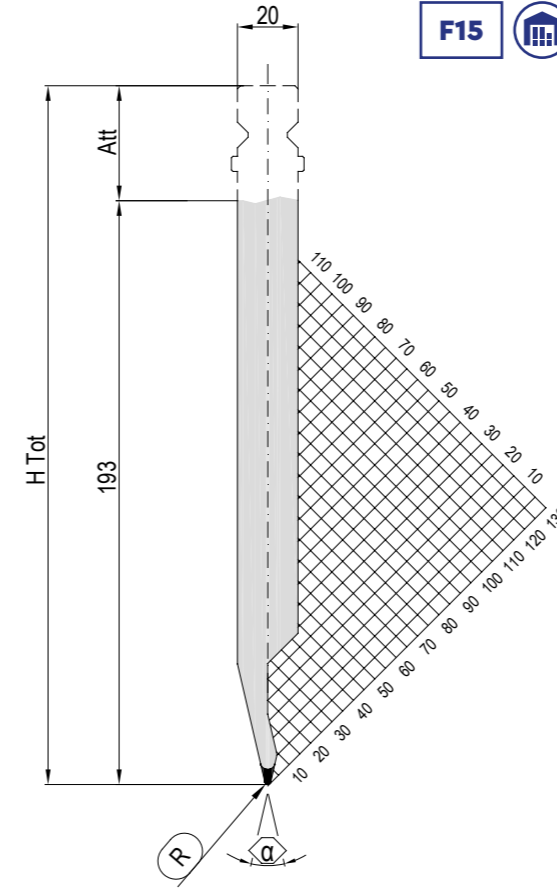
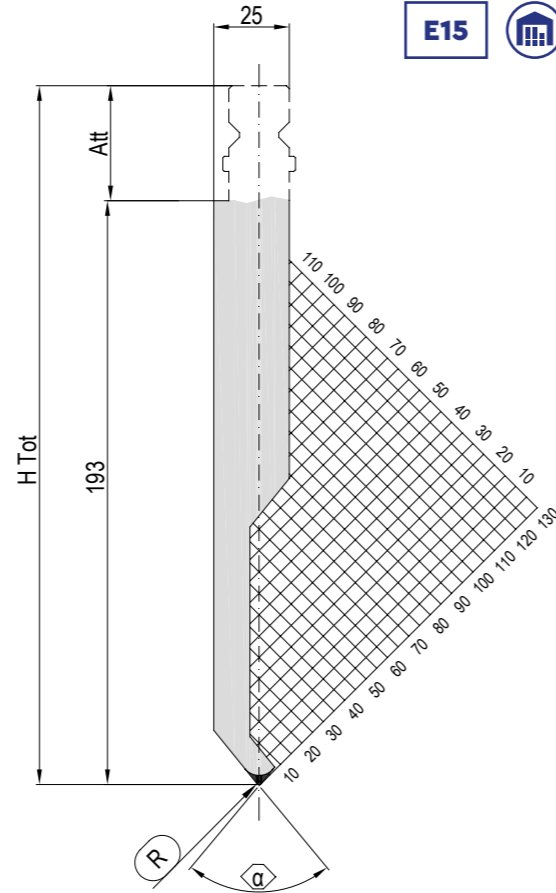
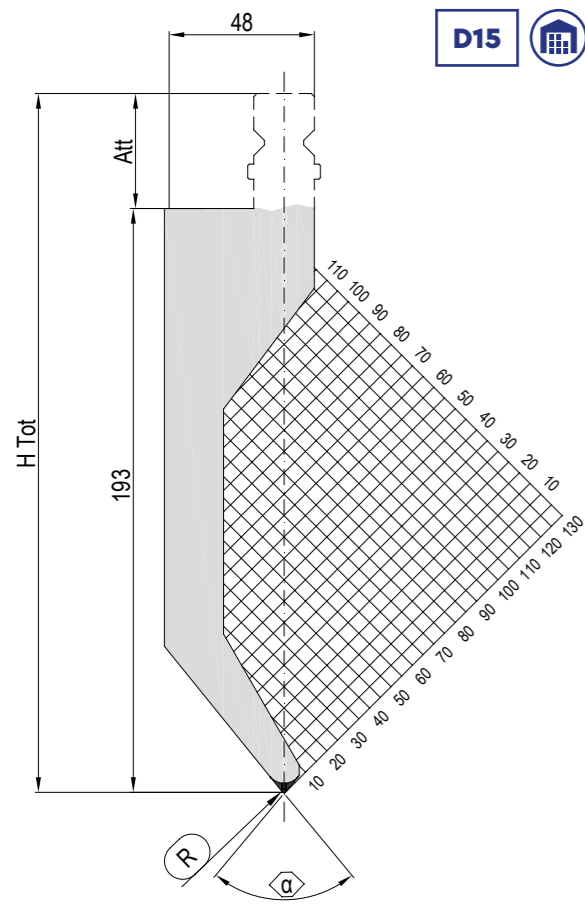
C15

Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Höhe	Tot.Height Gesamthöhe	Lenght Länge	Horn mod. Horn mod.	Weight Gewicht	Force Stärke	Material Werkstoff
			α [°]	R [mm]	H [mm]	H1 [mm]	L [mm]		K [kg]	F [KN/m]	
F10	F10W	W/W-SK	26°	1	158	180	508 - 550 FR	SC-L1	15 - 16.2	400	42CrMo4 ●
	F10	10				196			8 - 8.6		
J10	J10W	W/W-SK	26°	1	158	180	508 - 550 FR	SC-L1	15.3 - 16.6	400	42CrMo4 ●
	J10	10				196			8.3 - 9		

● induction hardened= induktionshärtung ○ tempered= vergütet

Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Höhe	Tot.Height Gesamthöhe	Lenght Länge	Horn mod. Horn mod.	Weight Gewicht	Force Stärke	Material Werkstoff
			α [°]	R [mm]	H [mm]	H1 [mm]	L [mm]		K [kg]	F [KN/m]	
R10	R10W	W/W-SK	78°	2	158	180	508 - 550 FR	SC-L2	15 - 16.2	800	42CrMo4 ●
	R10	10				196			8.9 - 9.6		
C15	C15W	W/W-SK	78°	2	193	231	508 - 550 FR	SC-L2	26.4 - 28.5	700	42CrMo4 ●
	C15	15				225			25 - 27		

● induction hardened= induktionshärtung ○ tempered= vergütet

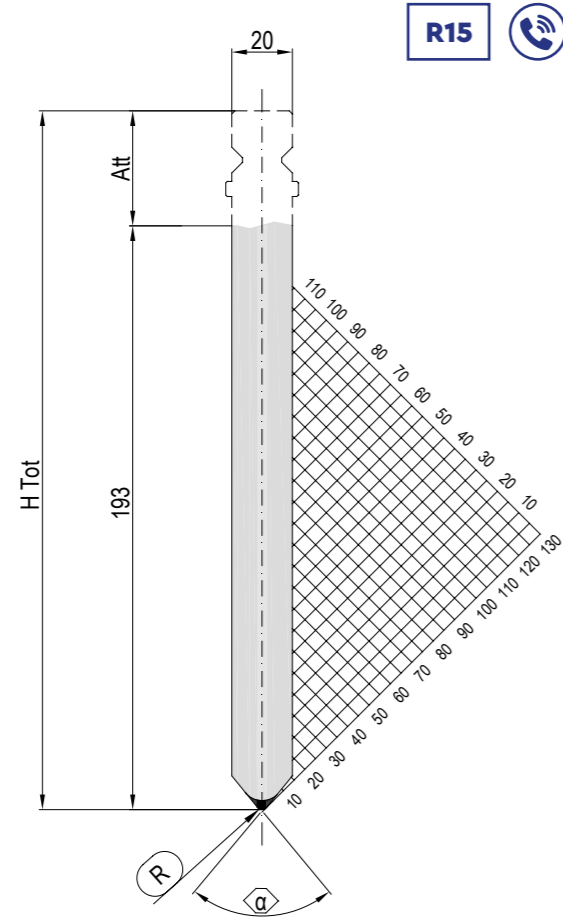


Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Höhe	Tot.Height Gesamthöhe	Lenght Länge	Horn mod. Horn mod.	Weight Gewicht	Force Stärke	Material Werkstoff
			$\alpha$ [°]	R [mm]	H [mm]	H1 [mm]	L [mm]		K [kg]	F [KN/m]	
D15	D15W	W/W-SK	78°	2	193	231	508 - 550 FR	SC-L2	23.3 - 25.2	400	42CrMo4 ●
	D15	15				225			22.4 - 24.2		
E15	E15W	W/W-SK	78°	2	193	231	508 - 550 FR	SC-L2	20.2 - 21.8	700	42CrMo4 ●
	E15	15				225			18.2 - 19.7		

● induction hardened= induktionshärtung ○ tempered= vergütet

Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Höhe	Tot.Height Gesamthöhe	Lenght Länge	Horn mod. Horn mod.	Weight Gewicht	Force Stärke	Material Werkstoff
			$\alpha$ [°]	R [mm]	H [mm]	H1 [mm]	L [mm]		K [kg]	F [KN/m]	
F15	F15W	W/W-SK	26°	2	193	231	508 - 550 FR	SC-L2	16 - 17.3	400	42CrMo4 ●
	F15	15				225			14 - 15.1		
J15	J15W	W/W-SK	26°	2	193	231	508 - 550 FR	SC-L2	11.7 - 12.5	600	42CrMo4 ●
	J15	15				225			9.7 - 10.5		

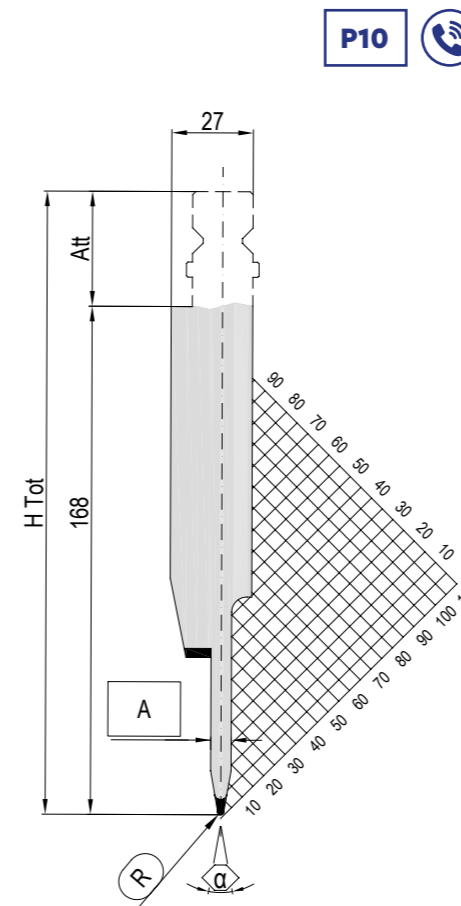
● induction hardened= induktionshärtung ○ tempered= vergütet



R15

Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Höhe	Tot.Height Gesamthöhe	Lengt Länge	Horn mod. Horn mod.	Weight Gewicht	Force Stärke	Material Werkstoff
			$\alpha$ [°]	R [mm]	H [mm]	H1 [mm]	L [mm]		K [kg]	F [KN/m]	
R15	R15W	W/W-SK	78°	3	193	231	508 - 550 FR	SC-L2	17.7 - 19.1	600	42CrMo4 ●
	R15	15				225			15.5 - 16.7		

● induction hardened= induktionshärtung ○ tempered= vergütet



P10

Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Thickness Dicke	Height Höhe	Tot.Height Gesamthöhe	Lengt Länge	Weight Gewicht	Force Stärke	Material Werkstoff
			$\alpha$ [°]	R [mm]	A [mm]	H [mm]	H1 [mm]	L [mm]	K [kg]	F [KN/m]	
P10	P10.08W	W / W-SK	20°	1	6.8	168	206	508	17 - 18.4	400	42CrMo4 ●
	P10.08	10					190		12 - 13		
	P10.10W	W / W-SK					206		17 - 18.4		
	P10.10	10		190	12 - 13						
	P10.12W	W / W-SK		1,5	10.8		206		17 - 18.4		
	P10.12	10					190		12 - 13		

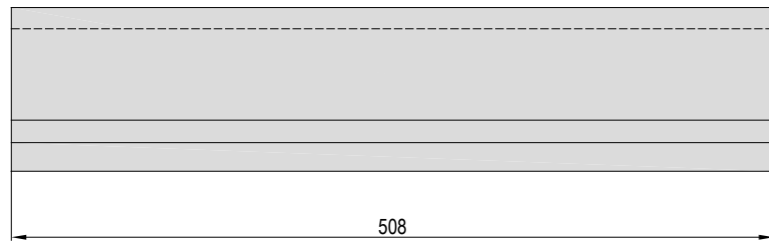
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			$\alpha$ [°]	R [mm]	A [mm]	H [mm]	H1 [mm]	L [mm]	K [kg]	F [KN/m]	
P15	P15.08W	W/W-SK	20°	1	6.8	213	251	508	21 - 22.7	400	42CrMo4 ●
	P15.08	15					245		16 - 17.3		
	P15.10W	W/W-SK					251		21 - 22.7		
	P15.10	15		245	16 - 17.3						
	P15.12W	W/W-SK		1,5	10.8		251		21 - 22.7		
	P15.12	15					245		16 - 17.3		

● induction hardened= induktionshärtung ○ tempered= vergütet

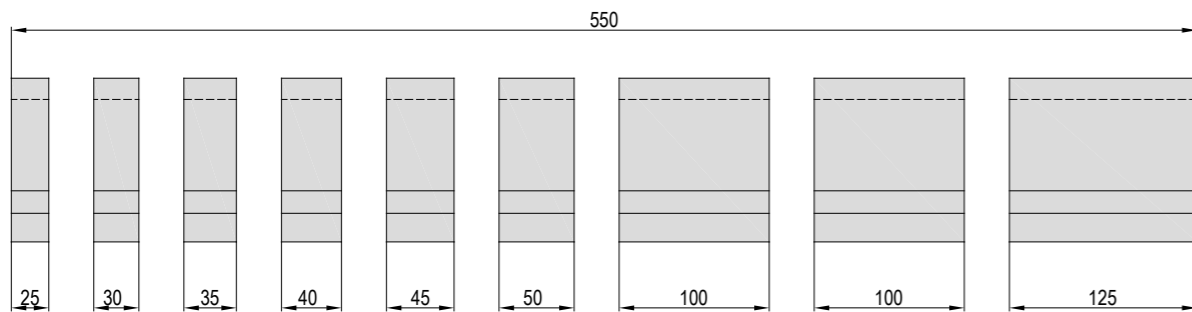


**LVD**  
*Dies/Matrizen*

508

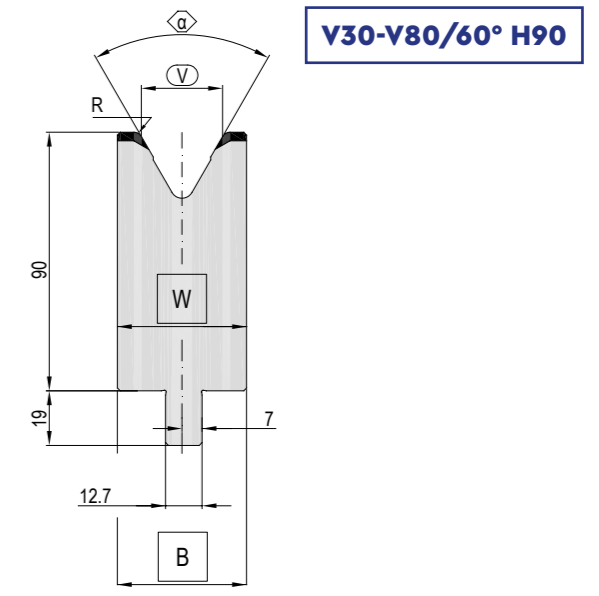
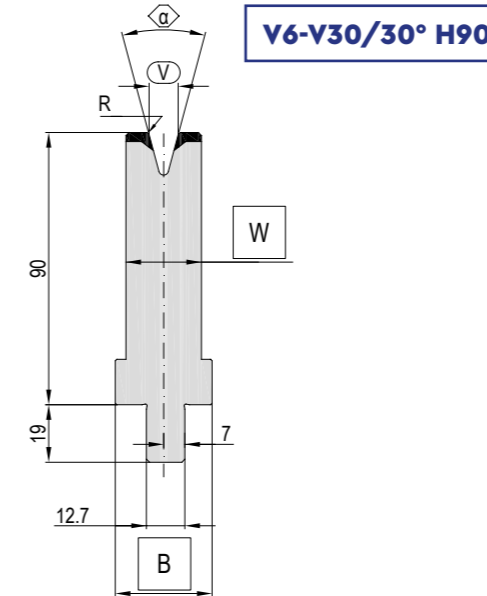


550 SECT/550 SEKTIONIERT



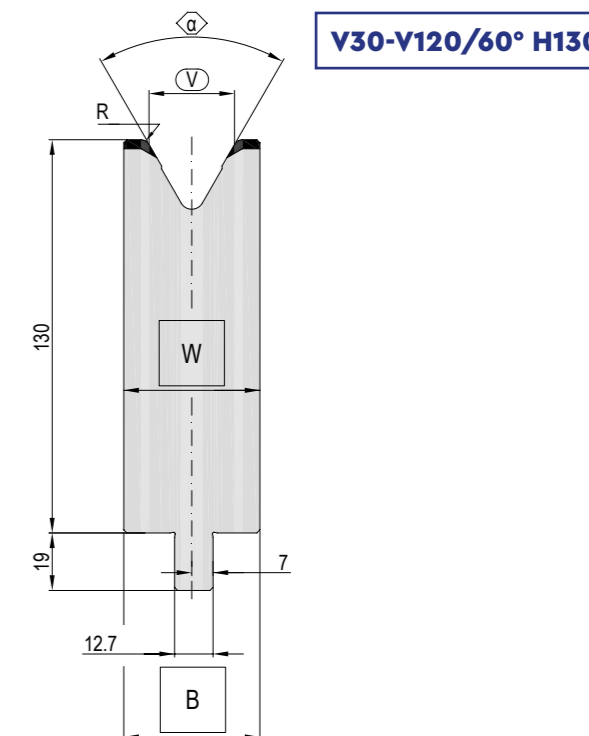
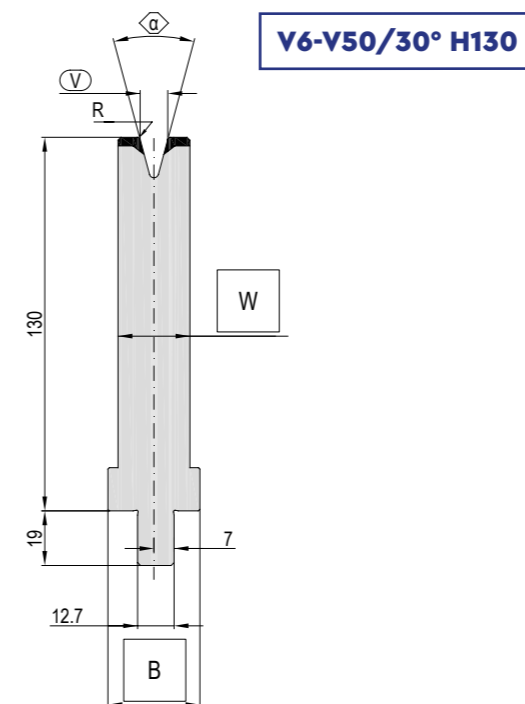
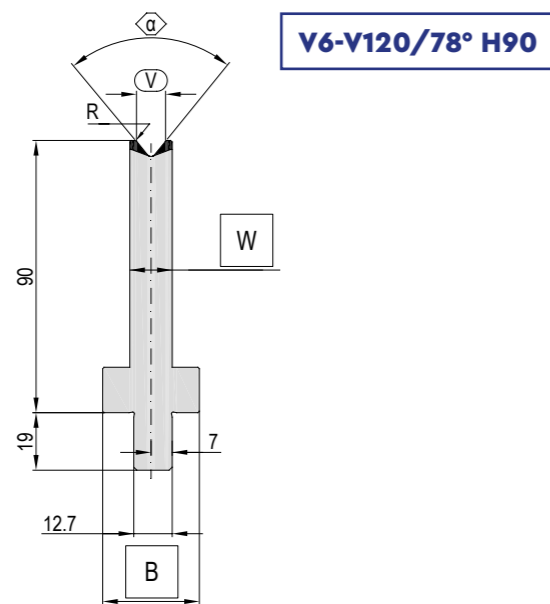
MATERIAL/WERKSTOFF

Material Werkstoff	Tensile strenght Zerreifestigkeit	Hardness tool body Hrte Werkzeugkrper	Hardness after induction hardening Hrte nach Induktionshrtung
	N/mm <sup>2</sup>	HB	HRC
C45	650 - 750	190 - 220	54 - 60
42CrMo4	900 - 1100	260 - 320	52 - 55



Fam.	Mod.	Angle Winkel	Opening ffnung	Radius	Height Hhe	Width Breite	Base width Breite Basis	Lenght Lnge	Weight Gewicht	Force Strke	Material Werkstoff
		$\alpha$ [°]	V [mm]	R [mm]	H [mm]	W [mm]	B [mm]	L [mm]	K [kg]	F [kN/m]	
V6-V30/ 30° H90	V6/30°	30°	6	1.5	90	16	32	508 - 550 FR	8 - 8.6	250	42CrMo4
	V8/30°		8						10 - 10.8		
	V10/30°		10	2		25	11.4 - 12.3				
	V12/30°		12	2.5		32	13.7 - 14.8				
	V16/30°		16	3		40	15 - 16.2				
	V20/30°		20	3.5		45	23 - 24.8				
	V24/30°		24	4		70					
	V30/30°		30	4							
V30-V80/ 60° H90	V30/60°	60°	30	3	90	42	508 - 550 FR	14.5 - 15.8	550	42CrMo4	
	V40/60°		40	4		55		18.5 - 20	700		
	V50/60°		50	5		70		22 - 23.7	1100		
	V60/60°		60	5		75		22 - 23.7	1200		
	V70/60°		70	6		100		29.9 - 32.2	1300		
	V80/60°		80	6		110		29.9 - 32.2	1400		

● induction hardened= induktionshrtung ○ tempered= vergtet



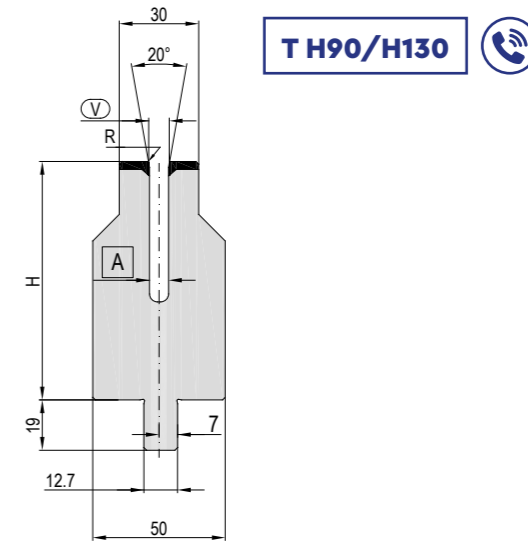
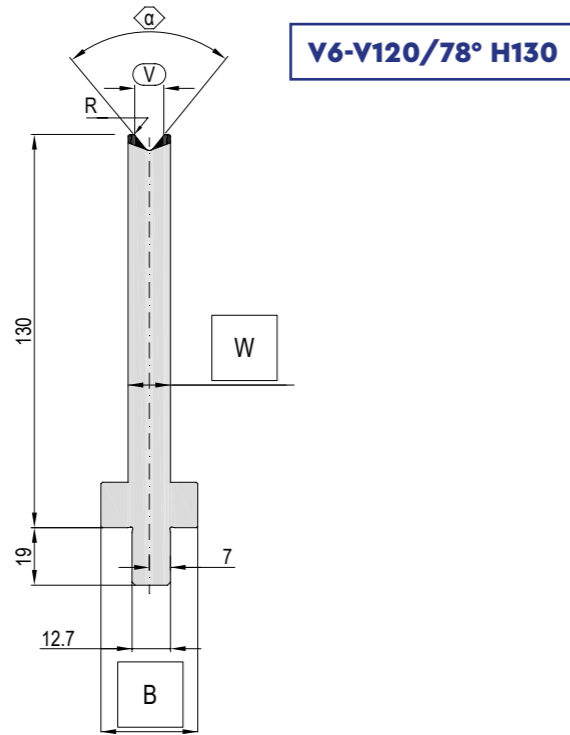
Fam.	Mod.	Angle Winkel	Opening Öffnung	Radius Radius	Height Höhe	Width Breite	Base width Breite Basis	Lenght Länge	Weight Gewicht	Force Stärke	Material Werkstoff
		$\alpha$ [°]	V [mm]	R [mm]	H [mm]	W [mm]	B [mm]	L [mm]	K [kg]	F [kN/m]	
V6 - V120/ 78° H90	V6/78°	78°	6	1	90	12	32	508 - 550 FR	6.5 - 7	400	42CrMo4
	V8/78°		8	1.2					6.5 - 7		
	V10/78°		10	1.5					7.1 - 7.7	500	
	V12/78°		12	2		8 - 8.6			600		
	V16/78°		16	2.5		10 - 10.8			800		
	V20/78°		20	3		12 - 13			1000		
	V24/78°		24							11.6 - 12.5	
	V30/78°		30	4		14 - 15.1			1100		
	V40/78°		40	5		17 - 18.4			1300		
	V50/78°		50	5.5		23 - 24.8			1500		
	V60/78°		60	6.5		22 - 23.8					
	V70/78°		70	8		25 - 27					
	V80/78°		80			27 - 29.2					
	V100/78°		100	10		34.8 - 37.5					
V120/78°	120	12	37 - 40								

Fam.	Mod.	Angle Winkel	Opening Öffnung	Radius Radius	Height Höhe	Width Breite	Base width Breite Basis	Lenght Länge	Weight Gewicht	Force Stärke	Material Werkstoff
		$\alpha$ [°]	V [mm]	R [mm]	H [mm]	W [mm]	B [mm]	L [mm]	K [kg]	F [kN/m]	
V6-V50/ 30° H130	V6/30°	30°	6	1.5	130	16	32	508 - 550 FR	10 - 10.8	200	42CrMo4
	V8/30°		8						10.8 - 11.7		
	V10/30°		10	2		13.9 - 15			300		
	V12/30°		12	2.5		13.6 - 14.7			400		
	V16/30°		16	3		16.4 - 17.7					
	V20/30°		20	3.5		20 - 21.6			550		
	V24/30°		24			22 - 23.8					
	V30/30°		30	4		22 - 23.8			600		
	V40/30°		40	4		34 - 36.7			600		
	V50/30°		50	95		34.2 - 37					
V30-V120/ 60° H130	V30/60°	60°	30	3	130	42	508 - 550 FR	21.2 - 22.86	500	42CrMo4	
	V40/60°		40	4		55		26.8 - 28.9	650		
	V50/60°		50	70		33.1 - 35.7		1050			
	V60/60°		60	5		75		33.9 - 36.6	1200		
	V70/60°		70	100		47.4 - 51		1600			
	V80/60°		80	110		47.4 - 51		1800			
	V100/60°		100	125		49.4 - 53.3		1600			
	V120/60°		120	8		140		50.6 - 54.5	1300		

● induction hardened= induktionshärtung ○ tempered= vergütet

● induction hardened= induktionshärtung ○ tempered= vergütet





Fam.	Mod.	Angle Winkel	Opening Öffnung	Radius Radius	Height Höhe	Width Breite	Base width Breite Basis	Lenght Länge	Weight Gewicht	Force Stärke	Material Werkstoff	
		α [°]	V [mm]	R [mm]	H [mm]	W [mm]	B [mm]	L [mm]	K [kg]	F [KN/m]		
V6 - V120/78° H130	V6/78°	78°	6	1	130	12	32	508 - 550 FR	8.2 - 8.9	400	42CrMo4	
	V8/78°		8	1.2		12			8.2 - 8.9			
	V10/78°		10	1.5		14			9 - 9.7			500
	V12/78°		12	2		18			10.8 - 11.7			600
	V16/78°		16	2.5		25			14 - 15.1			800
	V20/78°		20	3		32			20.1 - 21.7			1000
	V24/78°		24						16.6 - 17.9	1000		
	V30/78°		30	4		40			24.6 - 26.6	1100		
	V40/78°		40	5		50			24.7 - 26.7	1300		
	V50/78°		50	5.5		70			34 - 36.7	1500		
	V60/78°		60	6.5					32.6 - 35.2			
	V70/78°		70	8		80			38.8 - 41.9			
	V80/78°		80			95			42.1 - 45.5			
	V100/78°		100	10		120			50.8 - 54.9			
V120/78°	120	12	140	56 - 60.5								

Fam.	Mod.	Groove Rille	Angle Winkel	Opening Öffnung	Radius Radius	Height Höhe	Lenght Länge	Weight Gewicht	Force Stärke	Material Werkstoff
		A [mm]	α [°]	V [mm]	R [mm]	H [mm]	L [mm]	K [kg]	F [KN/m]	
T H90/H130	T08/90	7.2	20°	8	1	90	508-550 FR	14.5 - 15.7	400	42CrMo4
	T10/90	9.2		10						
	T12/90	11.2		12						
	T08/130	7.2		8						
	T10/130	9.2		10						
	T12/130	11.2		12						

● induction hardened= induktionshärtung ○ tempered= vergütet

● induction hardened= induktionshärtung ○ tempered= vergütet



**TRUMPF**

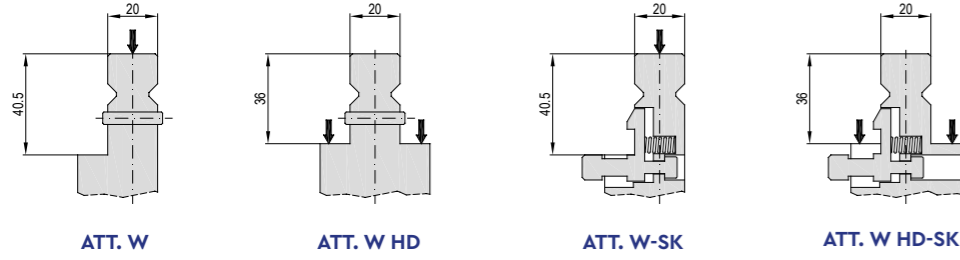
*Punches/Oberwerkzeuge*



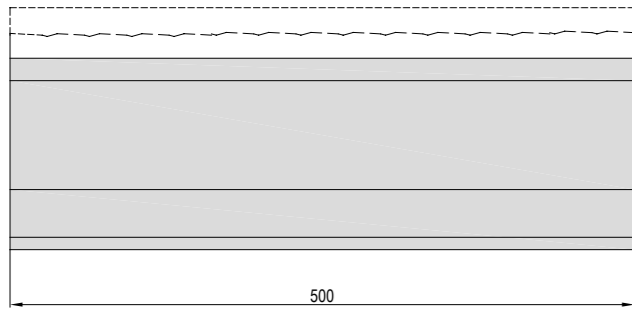
On request  
auf Anfrage



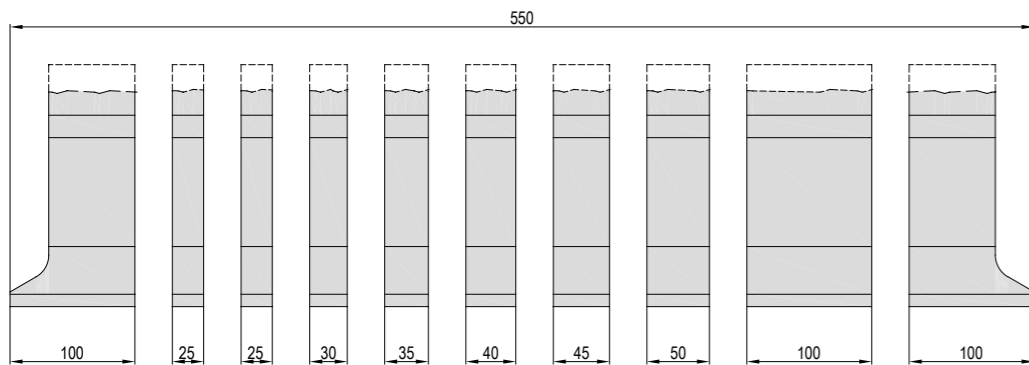
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auf Lager



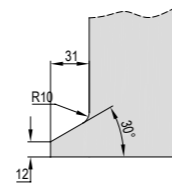
500



550 SECT/550 SEKTIONIERT



HORN/HORNSTÜCK

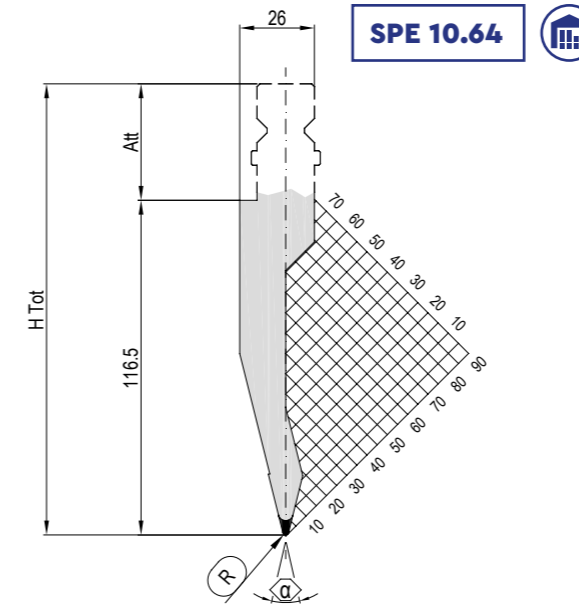


MOD. SC-T1

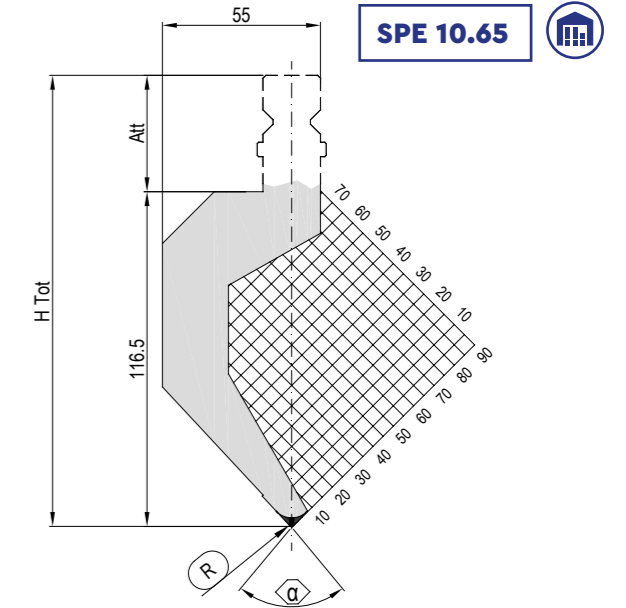
Fraz. Punzone Trumpf

MATERIAL/WERKSTOFF

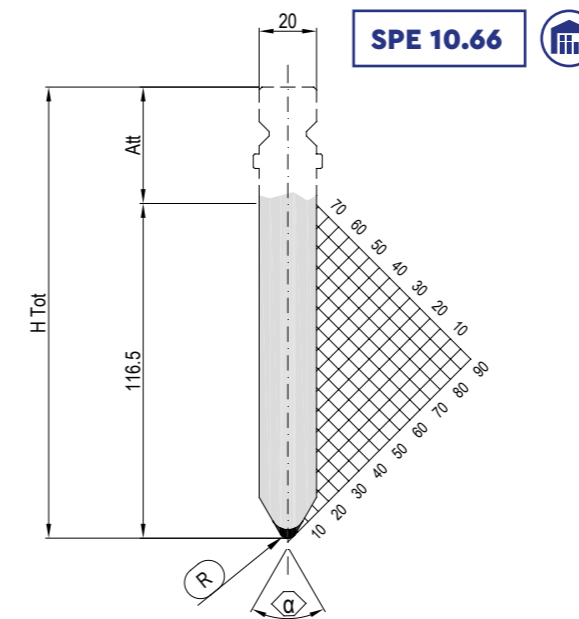
Material Werkstoff	Tensile strenght Zerreifestigkeit	Hardness tool body Hrte Werkzeugkrper	Hardness after induction hardening Hrte nach Induktionshrtung
	N/mm <sup>2</sup>	HB	HRC
C45	650 - 750	190 - 220	54 - 60
42CrMo4	900 - 1100	260 - 320	52 - 55



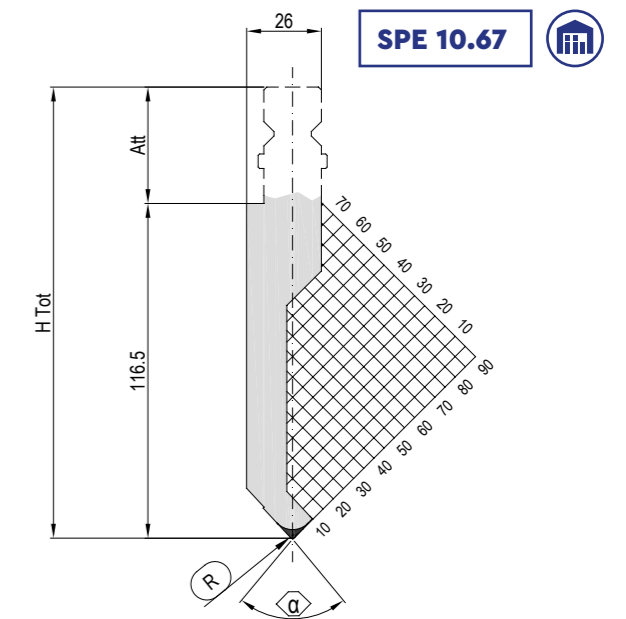
SPE 10.64



SPE 10.65



SPE 10.66

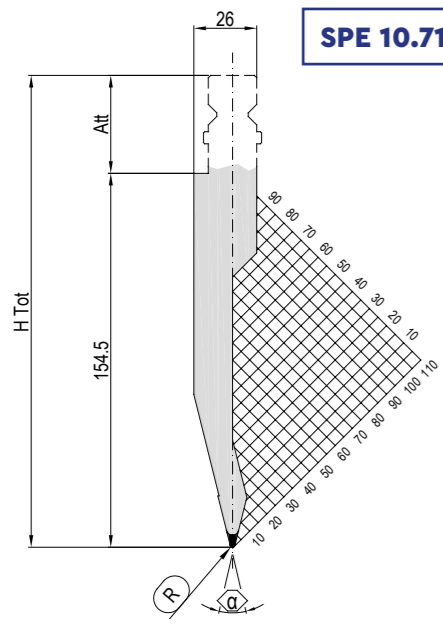


SPE 10.67

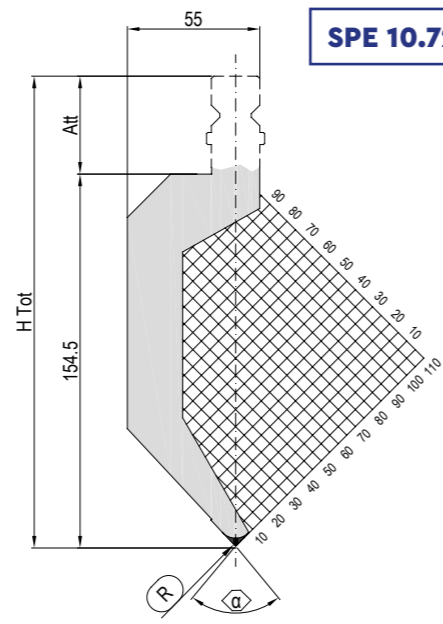


Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Hhe	Tot.Height Gesamthhe	Lenght Lnge	Horn mod. Horn mod.	Weight Gewicht	Force Strke	Material Werkstoff
			$\alpha$ [°]	R [mm]	H [mm]	H1 [mm]	L [mm]		K [kg]	F [KN/m]	
SPE 10.64	SPE 10.64/28°	W/W-SK	28°	1	116,5	157	500-550 FR	SC-T1	9-10	800	42CrMo4 ●
SPE 10.65	SPE 10.65/86°	W/W-SK	86°	1	116,5	157	500-550 FR	SC-T1	15-16	650	42CrMo4 ●
SPE 10.66	SPE 10.66/60°	W/W-SK	60°	1	116,5	157	500-550 FR	SC-T1	26-28	1600	42CrMo4 ●
SPE 10.67	SPE 10.67/86°	W/W-SK	86°	1	116,5	157	500-550 FR	SC-T1	22-23	1000	42CrMo4 ●

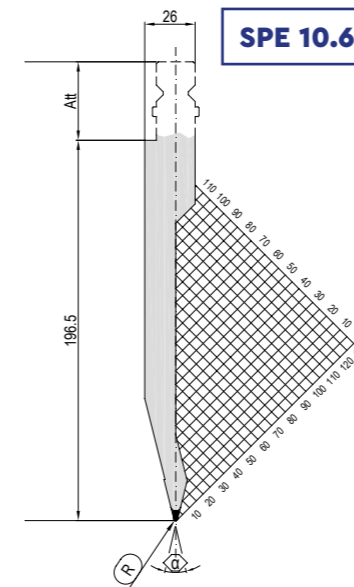
● induction hardened= induktionshrtung ○ tempered= vergtet



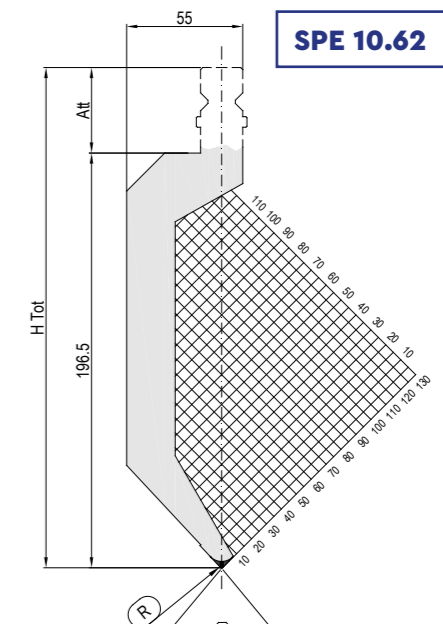
SPE 10.71



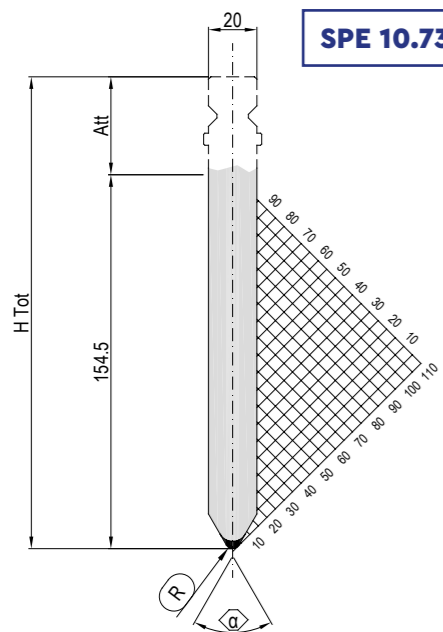
SPE 10.72



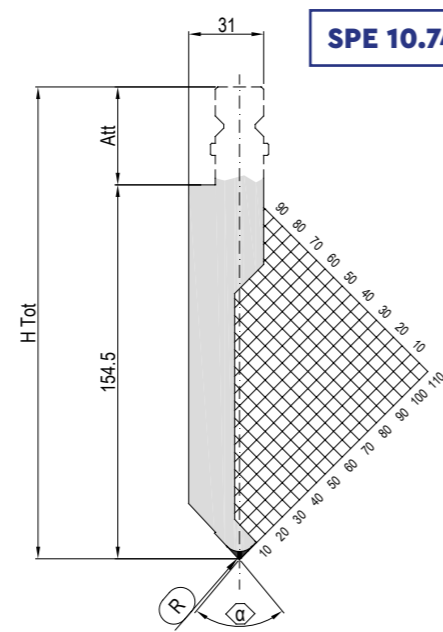
SPE 10.61



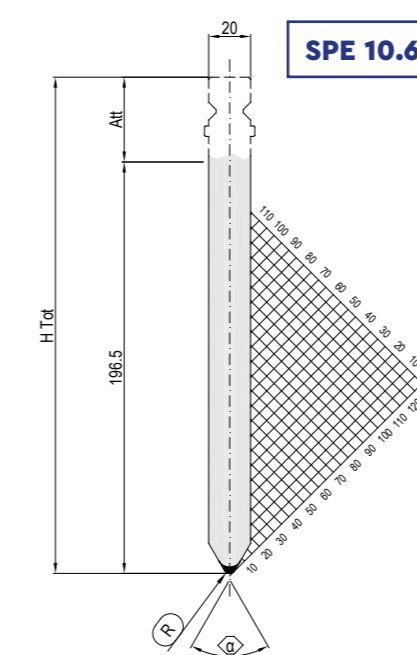
SPE 10.62



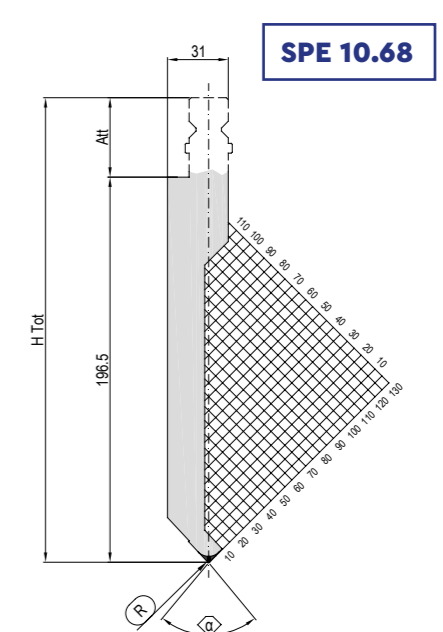
SPE 10.73



SPE 10.74



SPE 10.63



SPE 10.68

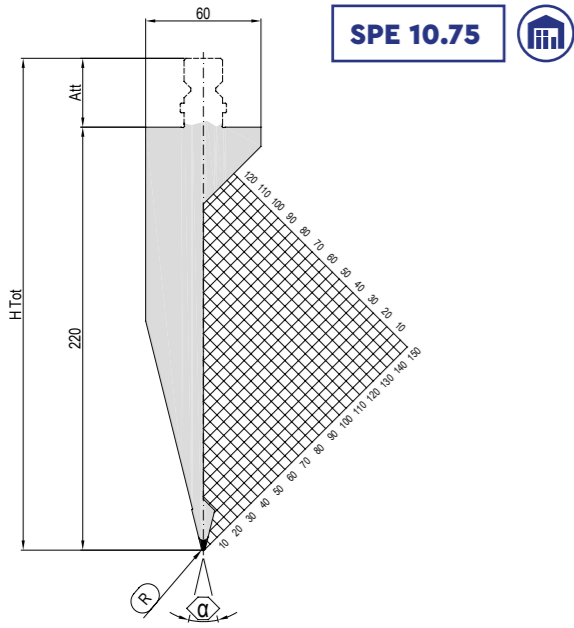


Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Höhe	Tot.Height Gesam- thöhe	Lenght Länge	Horn mod. Horn mod.	Weight Gewicht	Force Stärke	Material Werkstoff
			$\alpha$ [°]	R [mm]	H [mm]	H1 [mm]	L [mm]		K [kg]	F [KN/m]	
SPE 10.71	SPE 10.71/28°	W/W-SK	28°	1	154,5	195	500-550 FR	SC-T1	12-13	800	42CrMo4 ●
SPE 10.72	SPE 10.72/86°	W/W-SK	86°	1	154,5	195	500-550 FR	SC-T1	19-20	550	42CrMo4 ●
SPE 10.73	SPE 10.73/60°	W/W-SK	60°	3	154,5	195	500-550 FR	SC-T1	14-15	1200	42CrMo4 ●
SPE 10.74	SPE 10.74/86°	W/W-SK	86°	1	154,5	195	500-550 FR	SC-T1	15-16	800	42CrMo4 ●

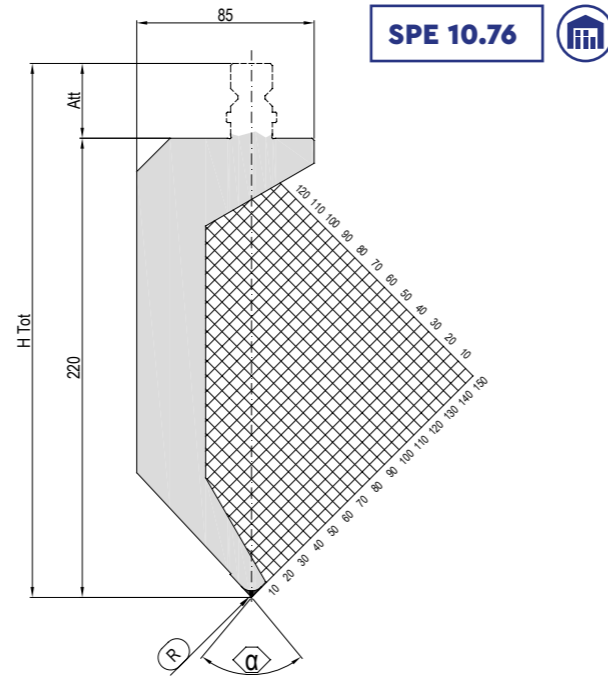
● induction hardened= induktionshärtung ○ tempered= vergütet

Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Höhe	Tot.Height Gesam- thöhe	Lenght Länge	Horn mod. Horn mod.	Weight Gewicht	Force Stärke	Material Werkstoff
			$\alpha$ [°]	R [mm]	H [mm]	H1 [mm]	L [mm]		K [kg]	F [KN/m]	
SPE 10.61	SPE 10.61/28°	W/W-SK	28°	1	196,5	237	500-550 FR	SC-T1	15.5-17	600	42CrMo4 ●
SPE 10.62	SPE 10.62/86°	W/W-SK	86°	1	196,5	237	500-550 FR	SC-T1	22-24	1200	42CrMo4 ●
SPE 10.63	SPE 10.63/86°	W/W-SK	86°	1	196,5	237	500-550 FR	SC-T1	22-24	800	42CrMo4 ●
SPE 10.68	SPE 10.68/86°	W/W-SK	86°	1	196,5	237	500-550 FR	SC-T1	22-24	800	42CrMo4 ●

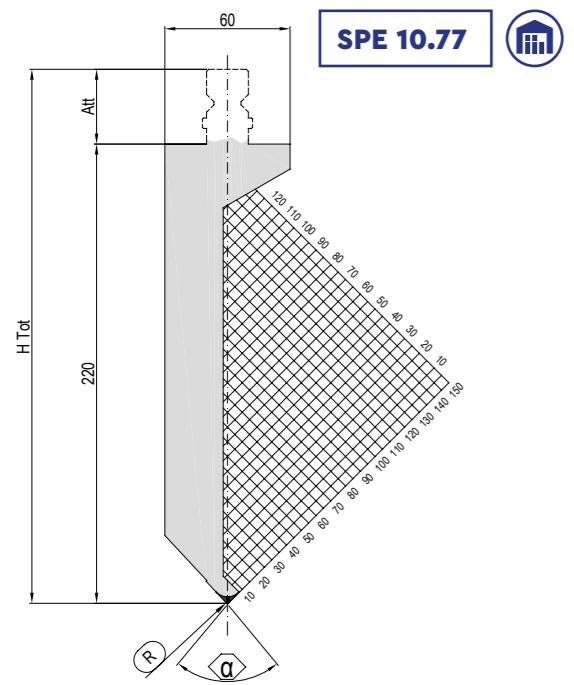
● induction hardened= induktionshärtung ○ tempered= vergütet



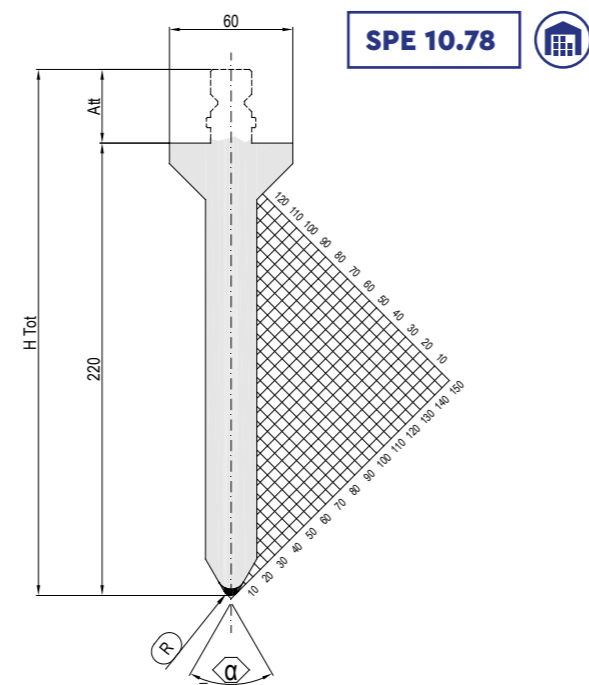
SPE 10.75



SPE 10.76



SPE 10.77

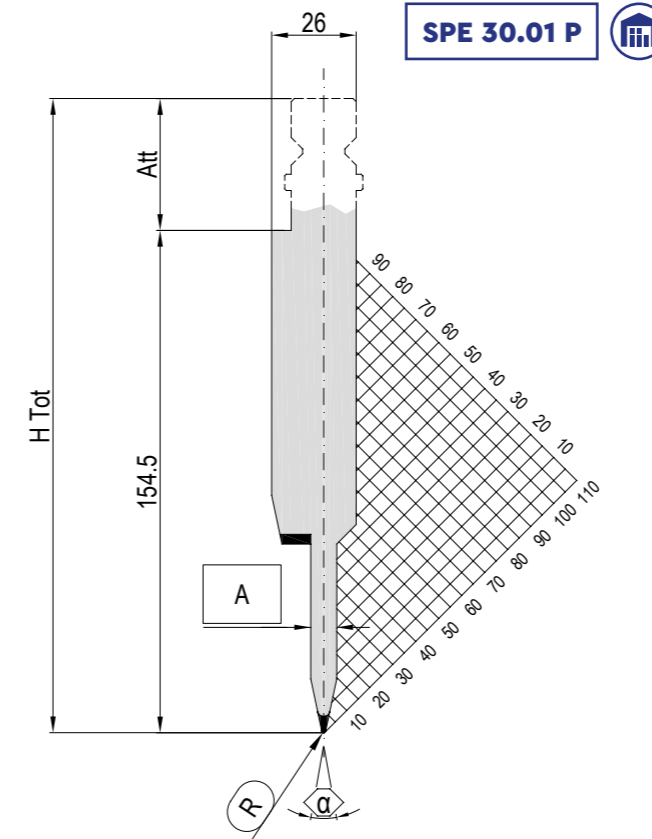


SPE 10.78

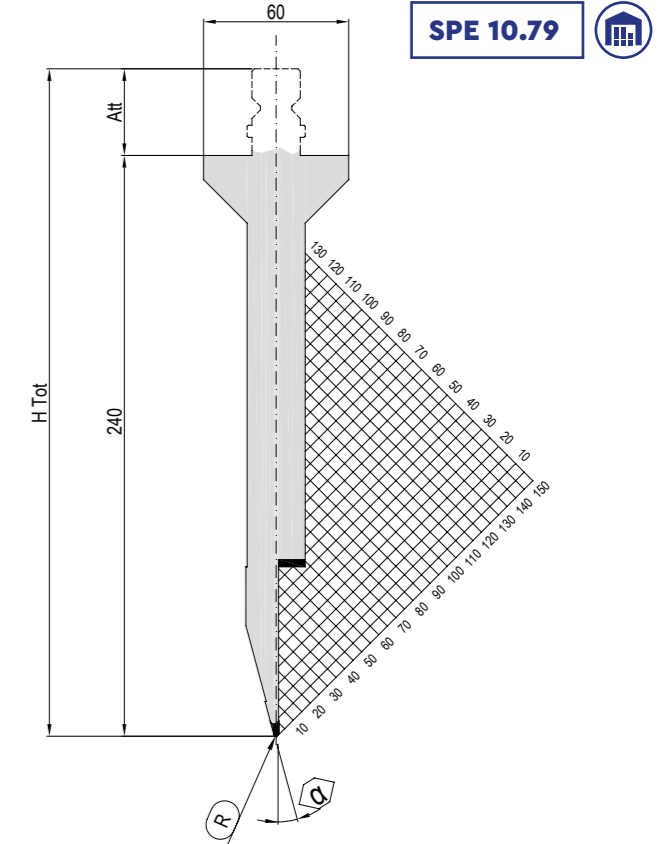


Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Höhe	Tot.Height Gesamthöhe	Lenght Länge	Horn mod. Horn mod.	Weight Gewicht	Force Stärke	Material Werkstoff
			α [°]	R [mm]	H [mm]	H1 [mm]	L [mm]		K [kg]	F [KN/m]	
SPE 10.75	SPE 10.75/28°	W HD/ W HD-SK	28°	1	220	256	500-550 FR	SC-T1	25-27	600	42CrMo4 ●
SPE 10.76	SPE 10.76/86°	W HD/ W HD-SK	86°	1	220	256	500-550 FR	SC-T1	34-37	800	42CrMo4 ●
SPE 10.77	SPE 10.77/28°	W HD/ W HD-SK	28°	1	220	256	500-550 FR	SC-T1	28-30	600	42CrMo4 ●
SPE 10.78	SPE 10.78/60°	W HD/ W HD-SK	60°	4	220	256	500-550 FR	SC-T1	26-28	1500	42CrMo4 ●

● induction hardened= induktionshärtung ○ tempered= vergütet



SPE 30.01 P



SPE 10.79

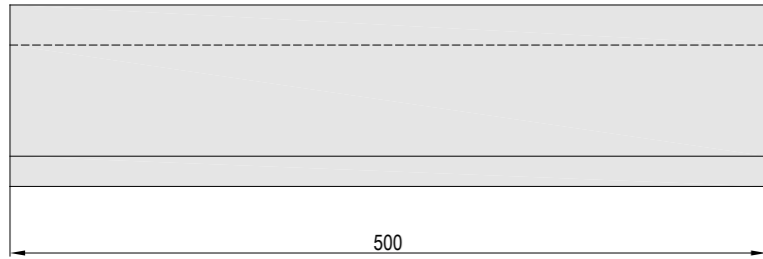


Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Thickness Höhe	Height Höhe	Tot. Height Gesamthöhe	Lenght Länge	Horn mod. Horn mod.	Weight Gewicht	Force Stärke	Material Werkstoff
			α [°]	R [mm]	A	H [mm]	H1 [mm]	L [mm]		K [kg]	F [KN/m]	
SPE 30.01 P	SPE 30.01 P8	W/ W-SK	28°	0,6	8	154,5	195	500-550 FR	SC-T1	13-14	500	42CrMo4 ●
	SPE 30.01 P10		10		800							
	SPE 30.01 P12		12		800							
SPE 10.79	SPE 10.79/28°	W HD/ W HD-SK	28°	1		240	276	500-550 FR	SC-T1	24-26	400	42CrMo4 ●

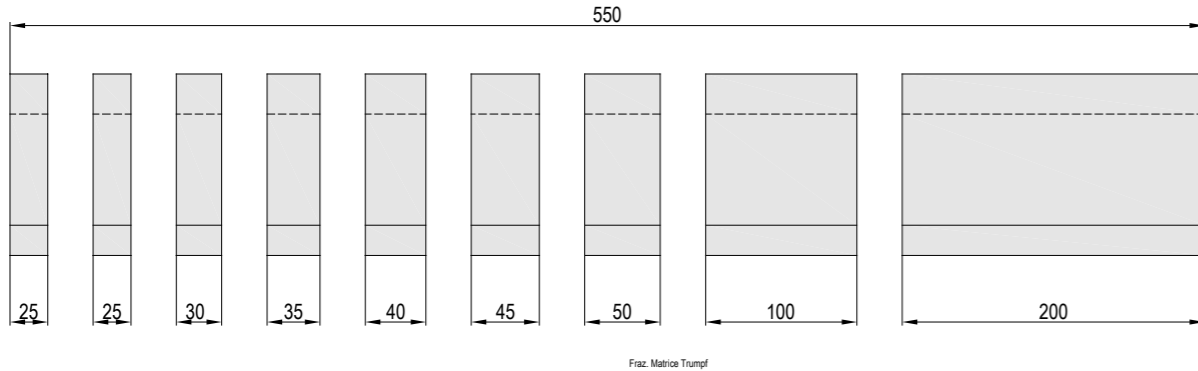
● induction hardened= induktionshärtung ○ tempered= vergütet



500



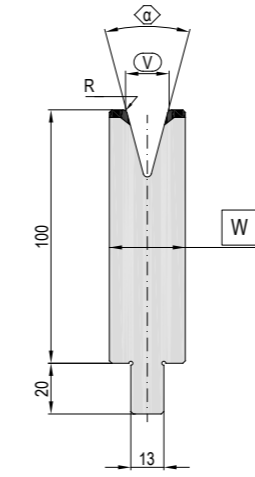
550 SECT/550 SEKTIONIERT



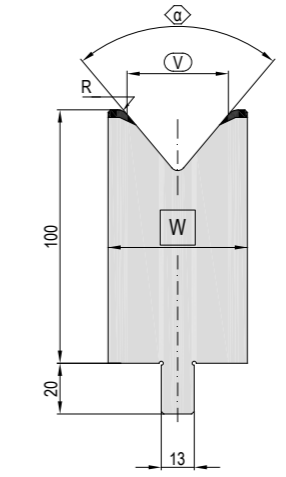
MATERIAL/WERKSTOFF

Material Werkstoff	Tensile strenght Zerreifestigkeit	Hardness tool body Hrte Werkzeugkrper	Hardness after induction hardening Hrte nach Induktionshrtung
	N/mm <sup>2</sup>	HB	HRC
C45	650 - 750	190 - 220	54 - 60
42CrMo4	900 - 1100	260 - 320	52 - 55

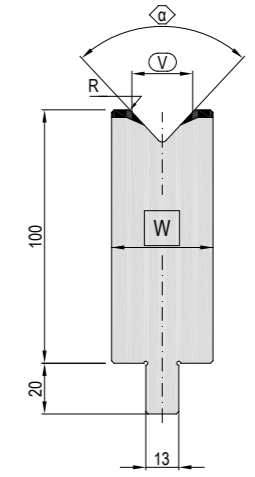
SPE V6-V24/30°



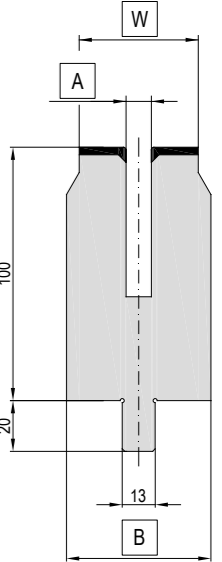
SPE V30-V100/80°



SPE V6-V24/86°



SPE 30.01 M



Fam.	Mod.	Angle Winkel	Opening ffnung	Tot. Width Breite	Radius Radius	Height Hhe	Lenght Lnge	Weight Gewicht	Force Strke	Material Werkstoff
		α [°]	V [mm]	W [mm]	R [mm]	H [mm]	L [mm]	K [kg]	F [KN/m]	
SPE V6 V24/30°	SPE V6/30°	30°	6	20	1	100	500-550 FR	8.7-9.5	500	42CrMo4
	SPE V8/30°		8					8.6-9.4		
	SPE V10/30°		10	8.4-9.3				400		
	SPE V12/30°		12	10.2-11.2						
	SPE V16/30°		16	11.8-13				450		
	SPE V20/30°		20	13.2-14.6						
	SPE V24/30°		24	14.6-16				500		
SPE V30 V100/80°	SPE V30/80°	80°	30	45	5	100	500-550 FR	17.5-19.3	1000	42CrMo4
	SPE V40/80°		40	55				20.6-22.7		
	SPE V50/80°		50	65				27.5-30.2		
	SPE V60/80°		60	75				26.2-28.2		
	SPE V80/80°		80	95				33.2-35.2		
	SPE V100/80°		100	120	8			45-49		
SPE V6 V24/86°	SPE V6/86°	86°	6	20	0,6	100	500-550 FR	8.8-9.7	1000	42CrMo4
	SPE V8/86°		8		0,8			8.7-9.6		
	SPE V10/86°		10	1	8.7-9.6					
	SPE V12/86°		12	25	10.6-11.7					
	SPE V16/86°		16	30	12.4-13.7					
	SPE V20/86°		20	35	12.3-13.5					
	SPE V24/86°		24	40	2,5			14-15.5		

Fam.	Mod.	Groove Rille	Height Hhe	Width Breite	Larghezza base Base width	Lenght Lnge	Weight Gewicht	Force Strke	Material Werkstoff
		A [mm]	H [mm]	W [mm]	B [mm]	L [mm]	K [kg]	F [KN/m]	
SPE 30.01 M	SPE 30.01 M8	8.1	100	40	50	500-550 FR	21-22	500	42CrMo4
	SPE 30.01 M10	10.1		47	57				
	SPE 30.01 M12	12.1							

● induction hardened= induktionshrtung ○ tempered= vergtet



**BEYELER – BYSTRONIC**  
*Punches/Oberwerkzeuge*

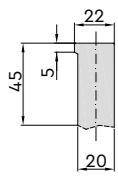




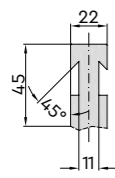
On request  
auf Anfrage



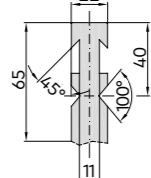
A Magazzino  
auf Lager



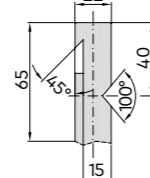
ATT. S



ATT. R

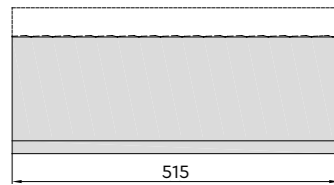


ATT. RF-A



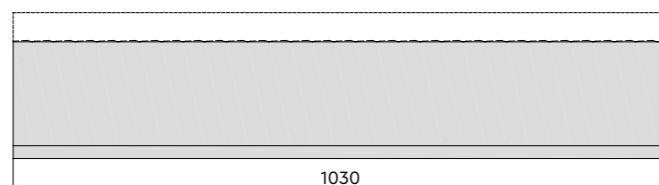
ATT. RF-A SIMM

515



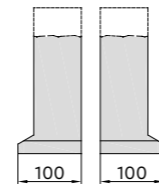
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1030



1030

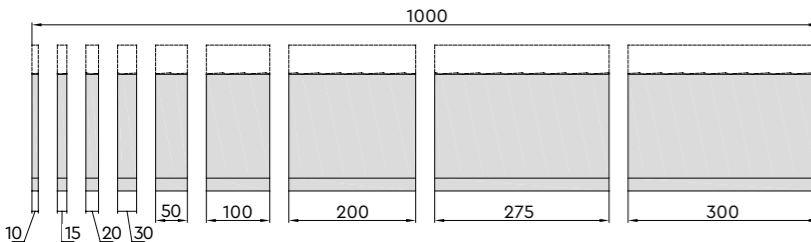
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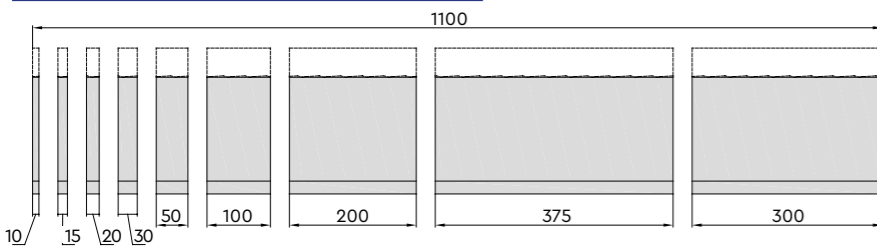
100

100

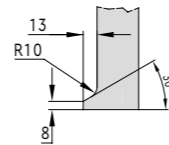
## 1000 SECT/1000 SEKTIONIERT



## 1100 SECT/1100 SEKTIONIERT



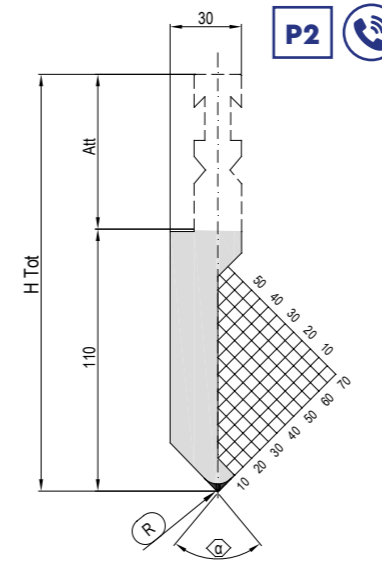
## HORN/HORNSTÜCK



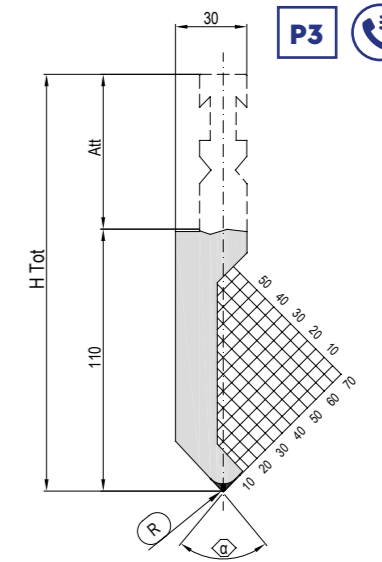
MOD. SC-B1

## MATERIAL/WERKSTOFF

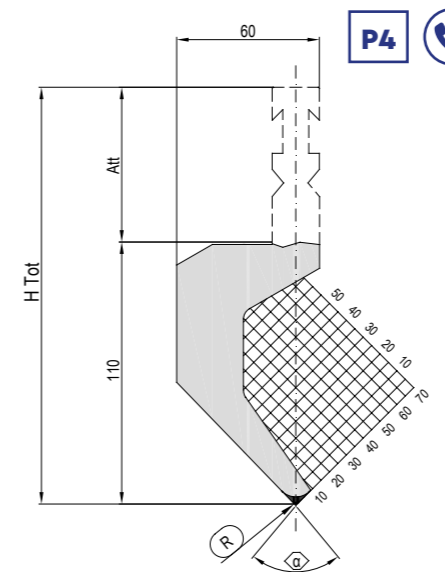
Material Werkstoff	Tensile strenght Zerreifestigkeit	Hardness tool body Hrte Werkzeugkrper	Hardness after induction hardening Hrte nach Induktionshrtung
	N/mm <sup>2</sup>	HB	HRC
C45	650 - 750	190 - 220	54 - 60
42CrMo4	900 - 1100	260 - 320	52 - 55



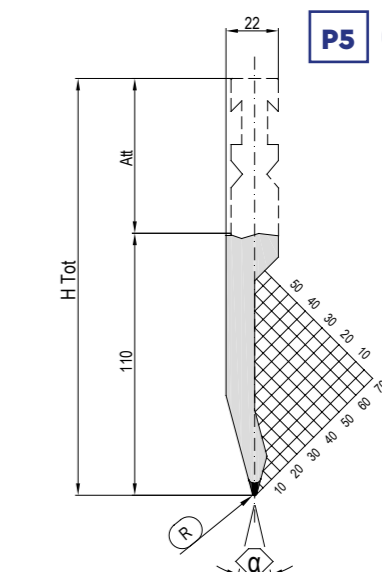
P2



P3



P4

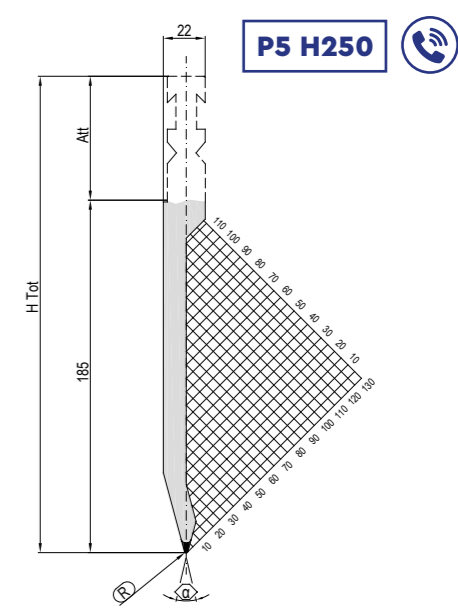
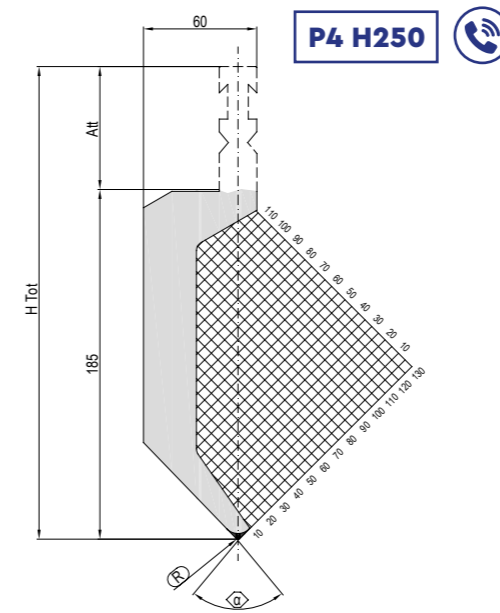
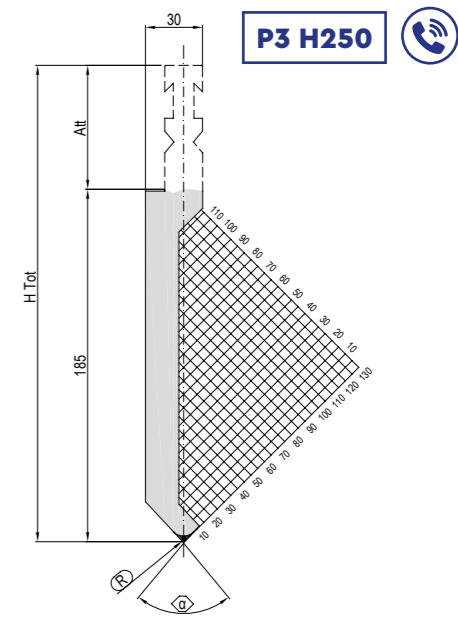
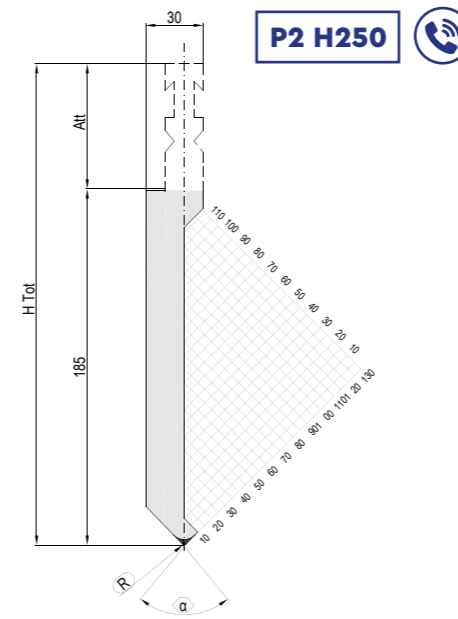
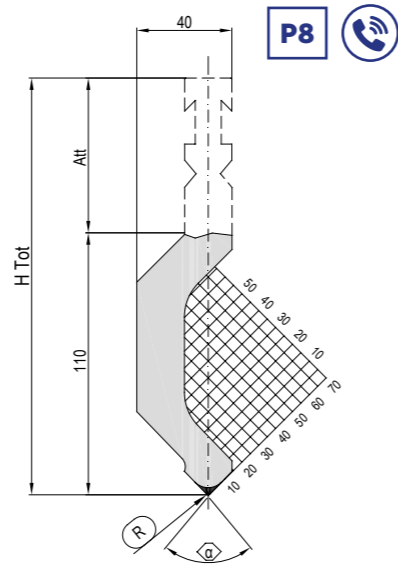
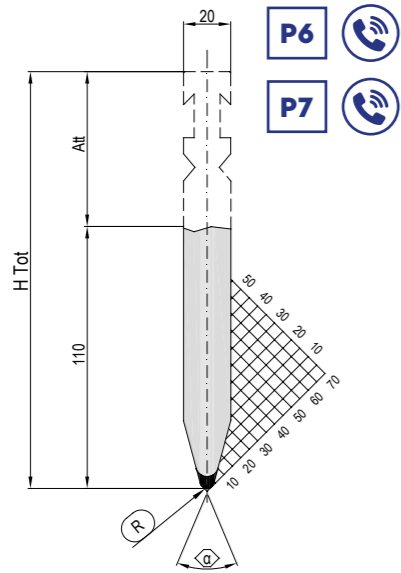


P5



Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Hhe	Tot. Height Gesamthhe H Tot	Lenght Lnge L [mm]	Horn mod. Hrn mod.	Weight Gewicht	Force Strke	Material Werkstoff
			$\alpha$ [°]	R [mm]	H [mm]	K [kg]			F [KN/m]		
P2	P2S	S	88°	1	110	155	1030 - 515 - 1000 FR - 1100 FR - 200 (Horns sets/Hornstcke)	SC-B1	25 - 13 - 25	1000	42CrMo4
	P2R	R							27.5 - 4		
	P2RF-A	RF-A							26 - 13 - 26 28.5 - 4		
P3	P3S	S	85°	1	110	155	1030 - 515 - 1000 FR - 1100 FR - 200 (Horns sets/Hornstcke)	SC-B1	32 - 16 - 32	1000	42CrMo4
	P3R	R							35 - 5		
	P3RF-A	RF-A							34 - 17 - 34 37.5 - 5		
P4	P4S	S	88°	1.5	110	155	1030 - 515 - 1000 FR - 1100 FR - 200 (Horns sets/Hornstcke)	SC-B1	32 - 16 - 32	600	42CrMo4
	P4R	R							35 - 5		
	P4RF-A	RF-A							34 - 17 - 34 37.5 - 5		
P5	P5S	S	30°	1	110	155	1030 - 515 - 1000 FR - 1100 FR - 200 (Horns sets/Hornstcke)	SC-B1	16 - 8 - 16	600	42CrMo4
	P5R	R							17.5 - 2.5		
	P5RF-A	RF-A							17 - 9 - 17 18.5 - 2.5		

● induction hardened= induktionshrtung ○ tempered= vergtet

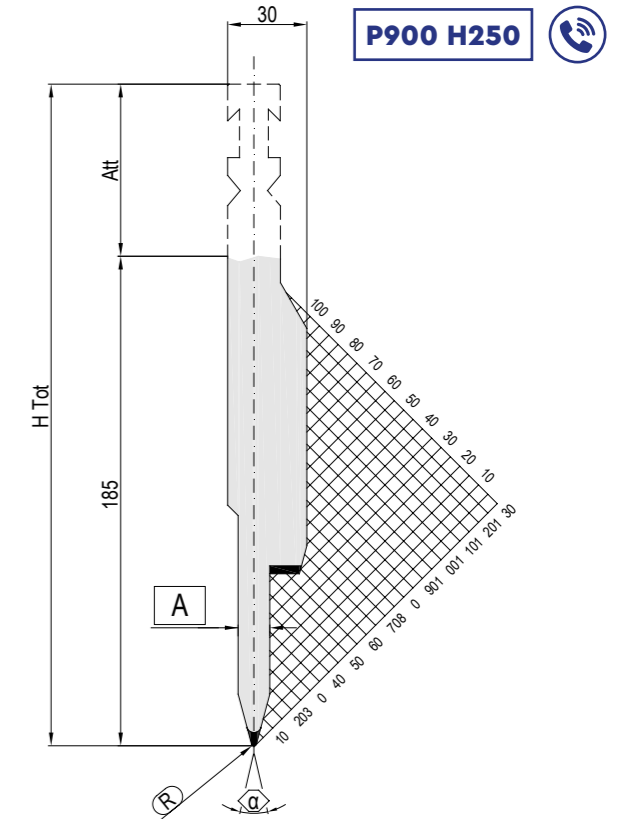
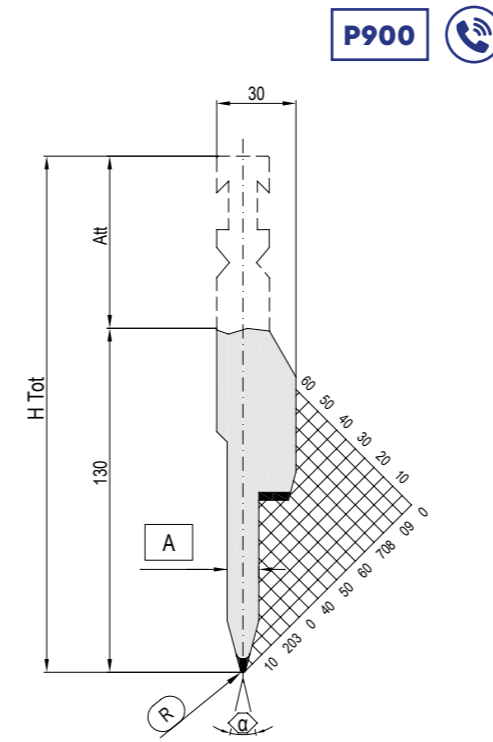
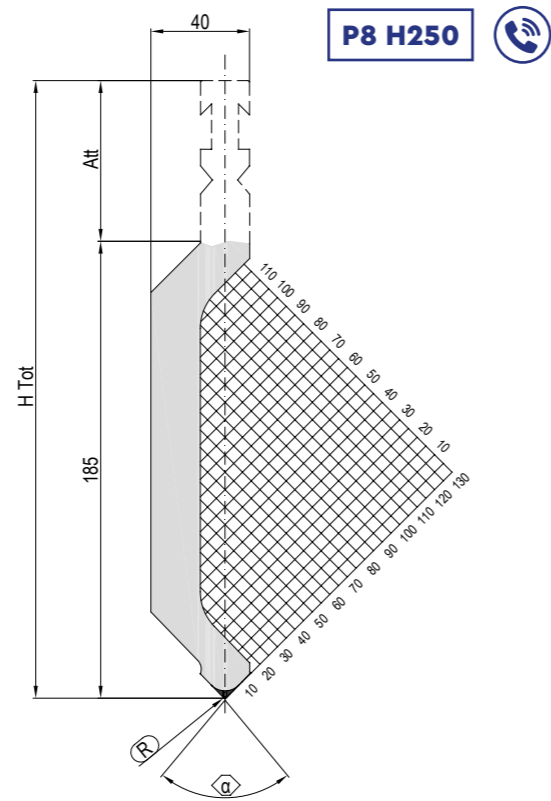
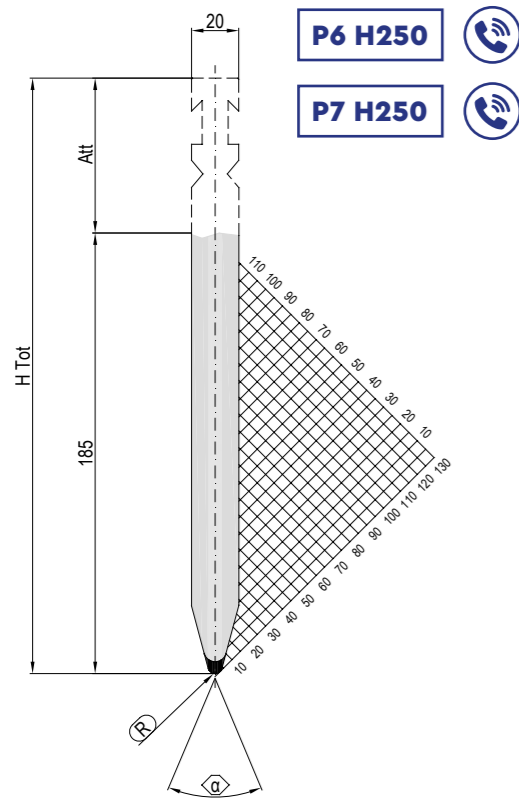


Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius	Height Höhe	Tot. Height Gesam- höhe	Lenght Länge	Horn mod. Horn mod.	Weight Gewicht	Force Stärke	Material Werkstoff
			$\alpha$ [°]	R [mm]	H [mm]	H Tot [mm]					
P6-7	P6S	S	30°	1	110	155	51030 - 515 -1000 FR - 1100 FR - 200 (Horns sets/Hornstücke)	SC-B1	24 - 12 - 24 26.5 - 3.5	1200	42CrMo4
	P6R	R				175					
	P6RF-A	RF-A				155					
	P7S	S				175					
	P7R	R				155					
	P7RF-A	RF-A				175					
P8	P8S	S	88°	1	110	155	1030 - 515 -1000 FR - 1100 FR - 200 (Horns sets/Hornstücke)	SC-B1	30 - 15 - 30 33 - 4.5	800	42CrMo4
	P8R	R				175					
	P8RF-A	RF-A				32 - 16 - 32 35 - 5					

● induction hardened= induktionshärtung ○ tempered= vergütet

Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius	Height Höhe	Tot. Height Gesam- höhe	Lenght Länge	Horn mod. Horn mod.	Weight Gewicht	Force Stärke	Material Werkstoff
			$\alpha$ [°]	R [mm]	H [mm]	H Tot [mm]					
P2 H250	P2RF-A H250	RF-A	88°	1	185	250	1030 - 515 -1000 FR - 1100 FR - 200 (Horns sets/Hornstücke)	SC-B1	40 - 20 40 - 44 - 6	900	42CrMo4
P3 H250	P3RF-A H250	RF-A	85°	1	185	250	1030 - 515 -1000 FR - 1100 FR - 200 (Horns sets/Hornstücke)	SC-B1	50 - 25 50 - 55 7.5	900	42CrMo4
P4 H250	P4RF-A H250	RF-A	88°	1.5	185	250	1030 - 515 -1000 FR - 1100 FR - 200 (Horns sets/Hornstücke)	SC-B1	50 - 25 50 - 55 7.5	500	42CrMo4
P5 H250	P5RF-A H250	RF-A	30°	1	185	250	1030 - 515 -1000 FR - 1100 FR - 200 (Horns sets/Hornstücke)	SC-B1	28 - 14 - 28 31 - 4	700	42CrMo4

● induction hardened= induktionshärtung ○ tempered= vergütet



Fam.	Mod.	Att. type Att. Typ	Angle Winkel $\alpha$ [°]	Radius Radius R [mm]	Height Höhe H [mm]	Tot. Height Gesamthöhe H Tot [mm]	Lenght Länge L [mm]	Horn mod. Horn mod.	Weight Gewicht K [kg]	Force Stärke F [KN/m]	Material Werkstoff
P6-7 H250	P6RF-A H250	RF-A	30°	1	185	250	1030 - 515 - 1000 FR - 1100 FR - 200 (Horns sets/ Hornstücke)	SC-B1	36 - 18 36 - 40 5.5	1100	42CrMo4
	P7RF-A H250			3							
P8 H250	P8RF-A H250	RF-A	88°	1	185	250	1030 - 515 - 1000 FR - 1100 FR - 200 (Horns sets/ Hornstücke)	SC-B1	46 - 23 46 - 50.5 7	700	42CrMo4

● induction hardened= induktionshärtung ○ tempered= vergütet

Fam.	Mod.	Att. type Att. Typ	Angle Winkel $\alpha$ [°]	Radius Radius R [mm]	Thickness Höhe A	Height Höhe H [mm]	Tot. Height Gesamthöhe H Tot [mm]	Lenght Länge L [mm]	Horn mod. Horn mod.	Weight Gewicht K [kg]	Force Stärke F [KN/m]	Material Werkstoff
P900	P900S-8	S	30°	1	8	130	175	1030 - 515 1000 FR - 1100 FR	SC-B1	24 - 12 24 - 26.5	800	42CrMo4
	P900S-10				10					26 - 13 26 - 28.5		
	P900S-12				12					28 - 14 28 - 31		
	P900R-8	R			8					24 - 12 24 - 26.5		
	P900R-10				10					26 - 13 26 - 28.5		
	P900R-12				12					28 - 14 28 - 31		
	P900RF-A-8	RF-A			8					26 - 13 26 - 28.5		
P900RF-A-10	10		28 - 14 28 - 31									
P900RF-A-12	12		30 - 15 30 - 33									
P900 H250	P900RF-A H250 - 8	RF-A	30°	1	8	185	250	1030 - 515 1000 FR - 1100 FR	SC-B1	24 - 12 24 - 26.5	700	42CrMo4
	P900RF-A H250 - 10				10					26 - 13 26 - 28.5		
	P900RF-A H250 - 12				12					28 - 14 28 - 31		

● induction hardened= induktionshärtung ○ tempered= vergütet

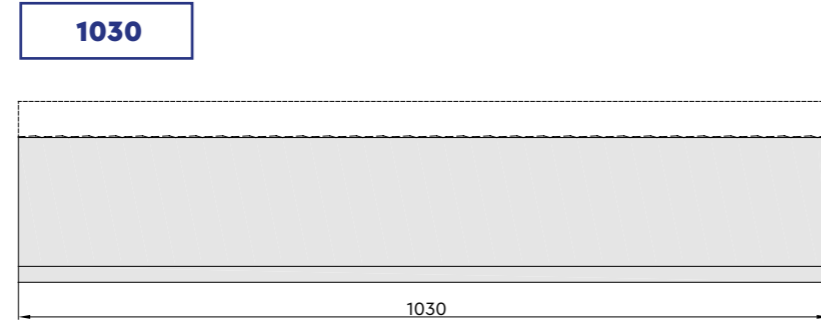
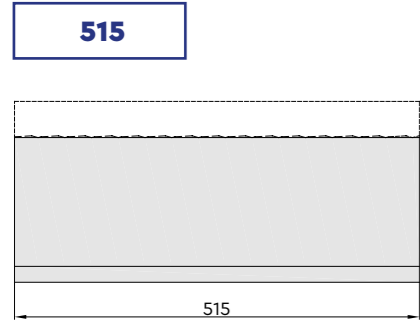




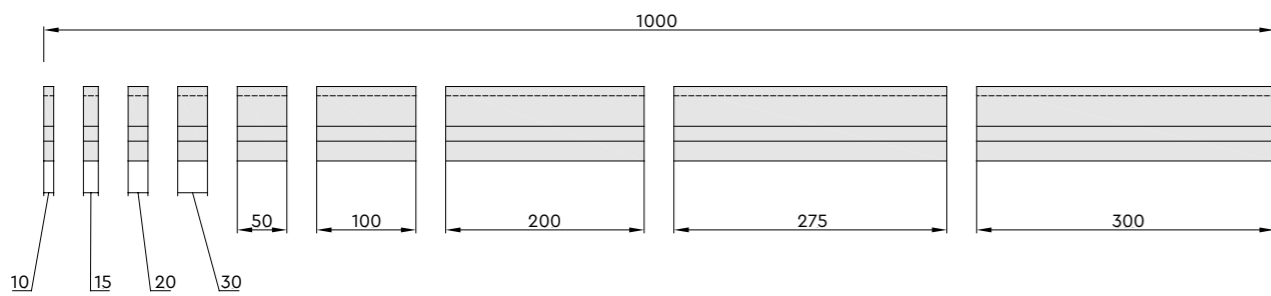
On request  
auf Anfrage



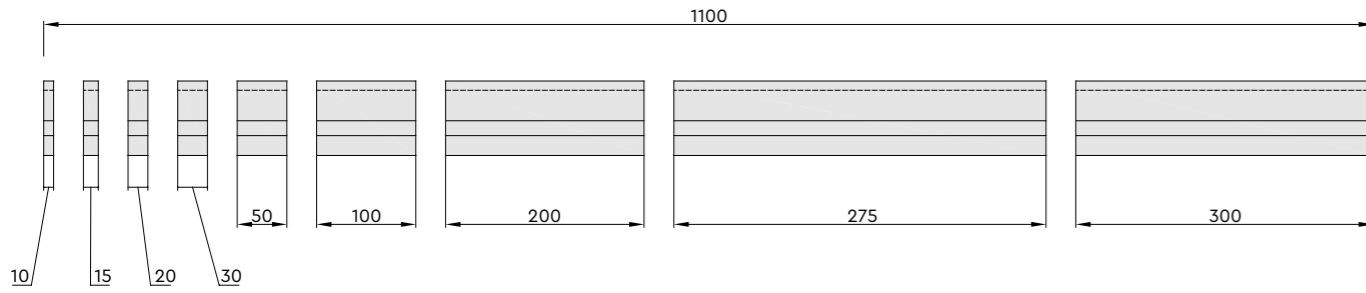
A Magazzino  
auf Lager



**1000 SECT/1000 SEKTIONIERT**

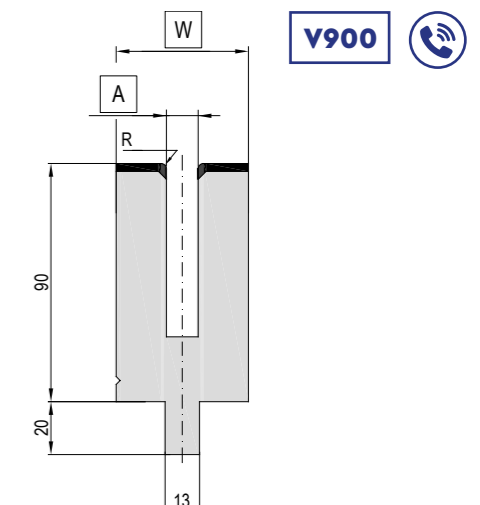
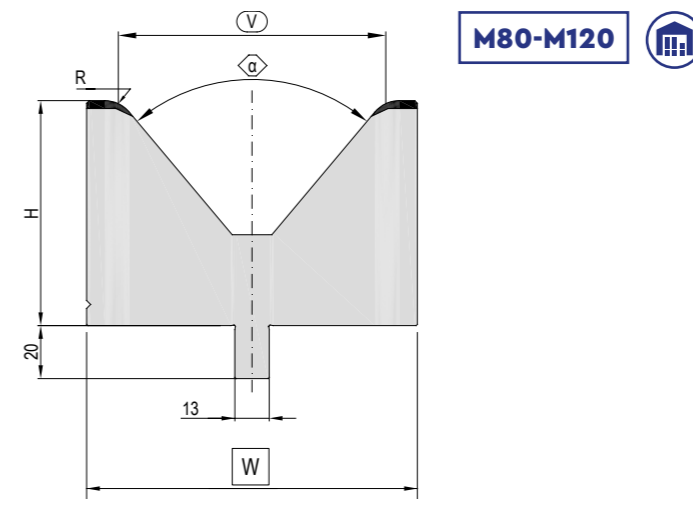
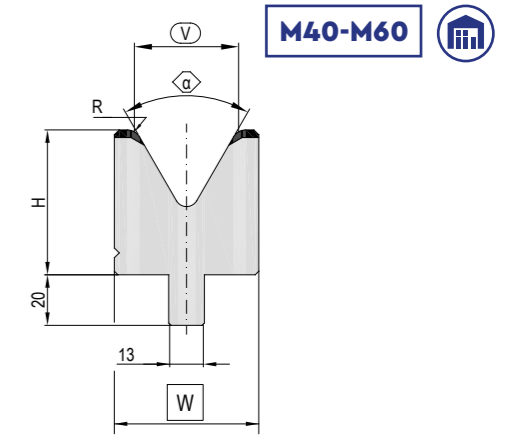
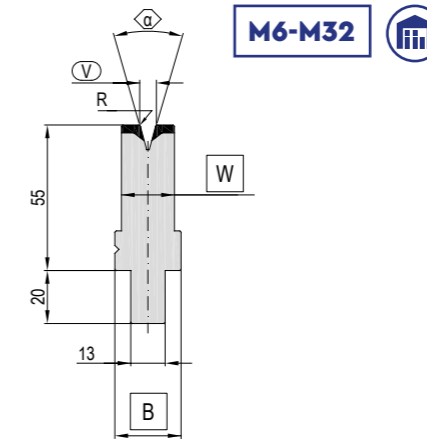


**1100 SECT/1100 SEKTIONIERT**



**MATERIAL/WERKSTOFF**

Material Werkstoff	Tensile strenght Zerreifestigkeit	Hardness tool body Hrte Werkzeugkrper	Hardness after induction hardening Hrte nach Induktionshrtung
	N/mm <sup>2</sup>	HB	HRC
C45	650 - 750	190 - 220	54 - 60
42CrMo4	900 - 1100	260 - 320	52 - 55



Fam.	Mod.	Angle Winkel $\alpha$ [°]	Opening ffnung V [mm]	Radius Radius R [mm]	Height Hhe H [mm]	Width Breite W [mm]	Base width Breite B [mm]	Lenght Lnge L [mm]	Weight Gewicht K [kg]	Force Strke F [KN/m]	Material Werkstoff
M6-M32	M6/30°	30°	6	0.75	55	20	25	1030 - 515 - 1000 FR - 1100 FR	11-5.5-11-12	750	42CrMo4
	M8/30°		8	1					600		
	M10/30°		10	1		650					
	M12/30°		12	1.5		750					
	M16/30°		16	2		600					
	M20/30°		20	2.5		900					
	M24/30°		24	3							
	M32/30°		32	4							
M40-M60	M40/60°	60°	40	5	55	55	1030 - 515 - 1000 FR - 1100 FR	20-10-20-22	1600	42CrMo4	
	M50/60°		50	7		70		24-12-24-26.5			
	M60/60°		60	7		80		32-16-32-35	1400		
M80-M120	M80/80°	80°	80	10	65	100	1030 - 515 - 1000 FR - 1100 FR	38-19-38-42	1400	42CrMo4	
	M100/80°		100	12		125		62-31-62-68	2000		
	M120/80°		120	15		105		160	100-50-100-110		

Fam.	Mod.	Groove Rille A [mm]	Radius Radius R [mm]	Height Hhe H [mm]	Width Breite W [mm]	Lenght Lnge L [mm]	Weight Gewicht K [kg]	Force Strke F [KN/m]	Material Werkstoff
V900	V900 8	8.1	1	90	40	1030 - 515 - 1000 FR - 1100 FR	38-19-38-42	500	42CrMo4
	V900 10	10.1	2		50		39-19.5-39-42		
	V900 12	12.1	2		50		40-20-40-44		

● induction hardened= induktionshrtung ○ tempered= vergtet

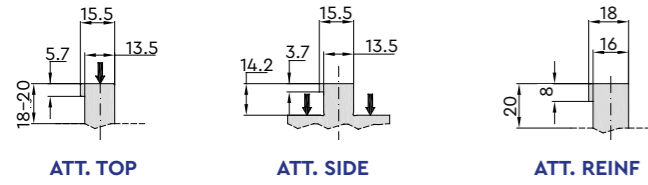




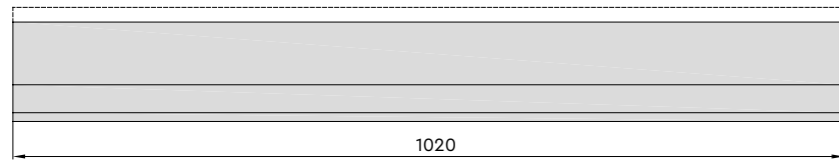
On request  
auf Anfrage



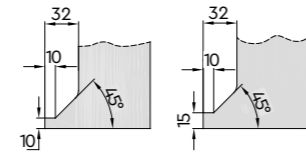
A Magazzino  
auf Lager



1020

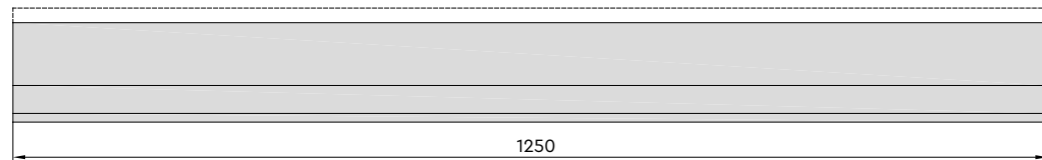


HORNS/HORNSTÜCK

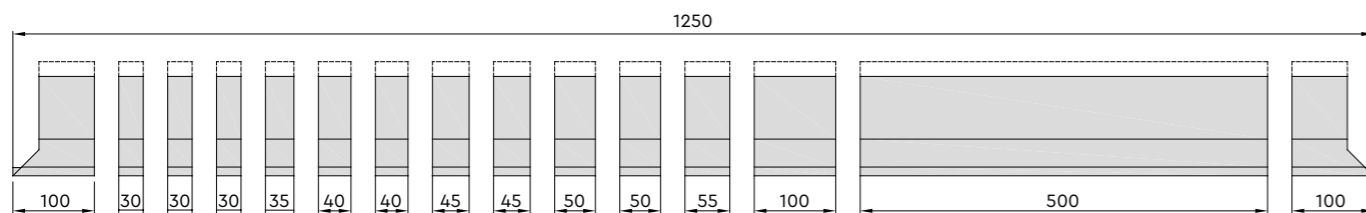


MOD. SC-C1 MOD. SC-C2

1250

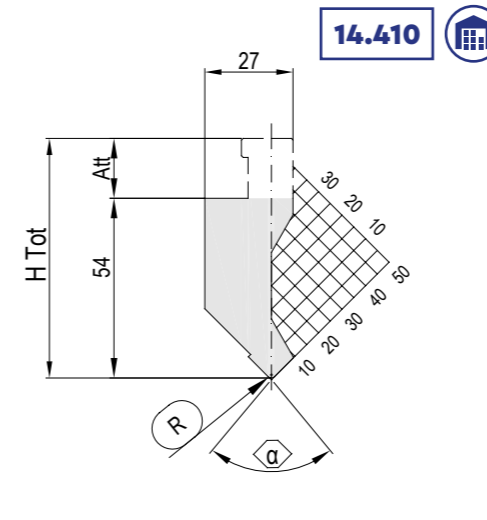


1250 SECT/1250 SEKTIONIERT

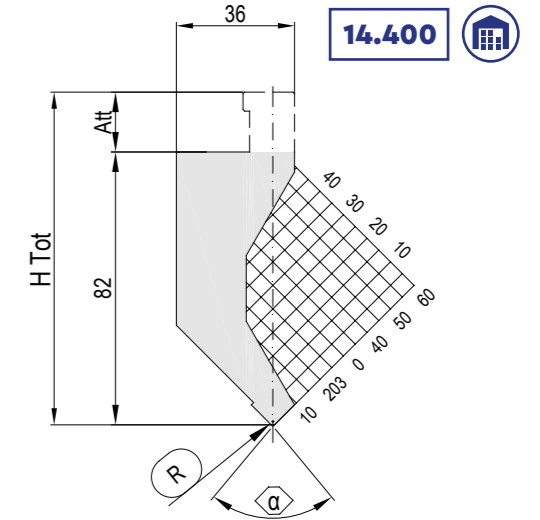


MATERIAL/WERKSTOFF

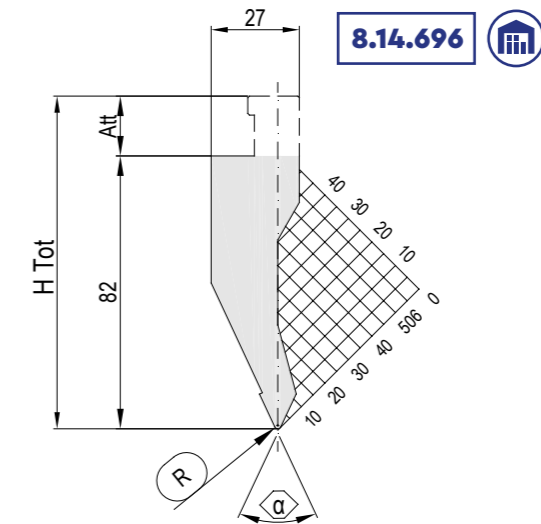
Material Werkstoff	Tensile strenght Zerreifestigkeit	Hardness tool body Hrte Werkzeugkrper	Hardness after induction hardening Hrte nach Induktionshrtung
	N/mm <sup>2</sup>	HB	HRC
C45	650 - 750	190 - 220	54 - 60
42CrMo4	900 - 1100	260 - 320	52 - 55



14.410



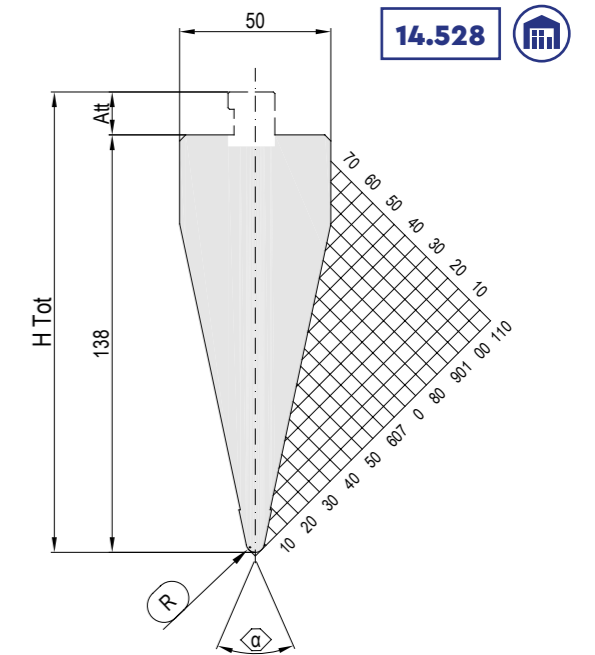
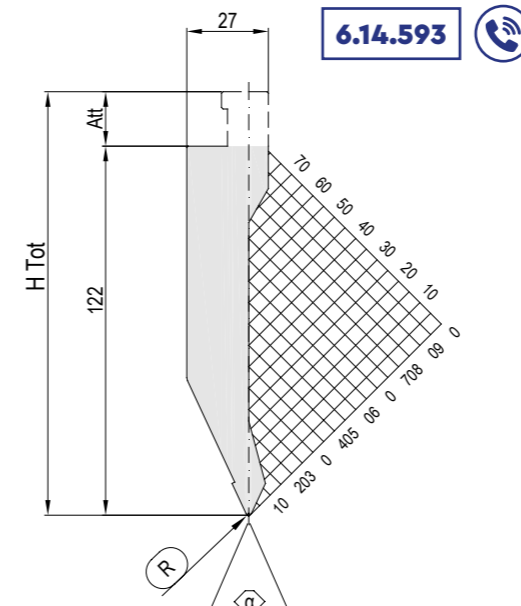
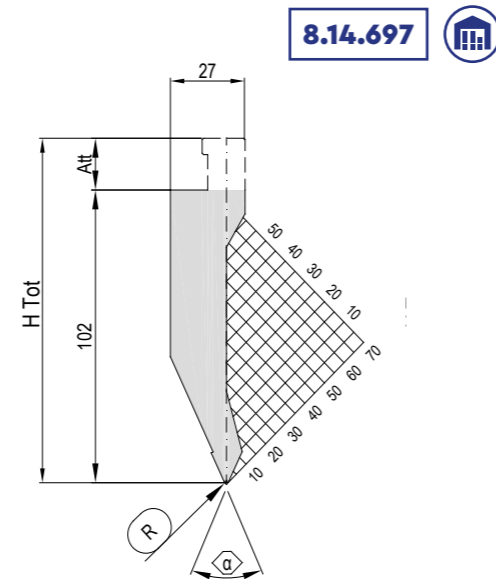
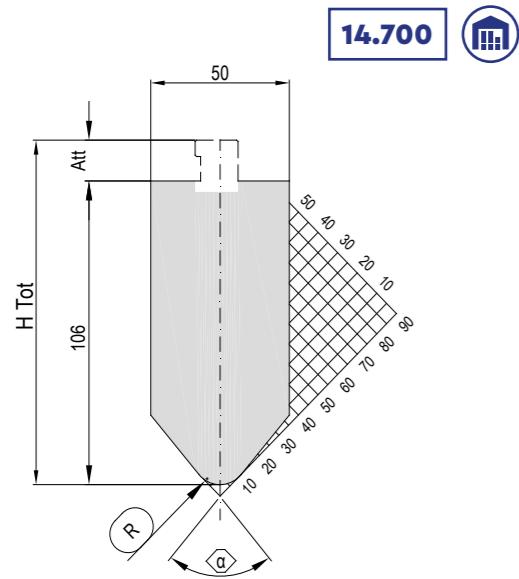
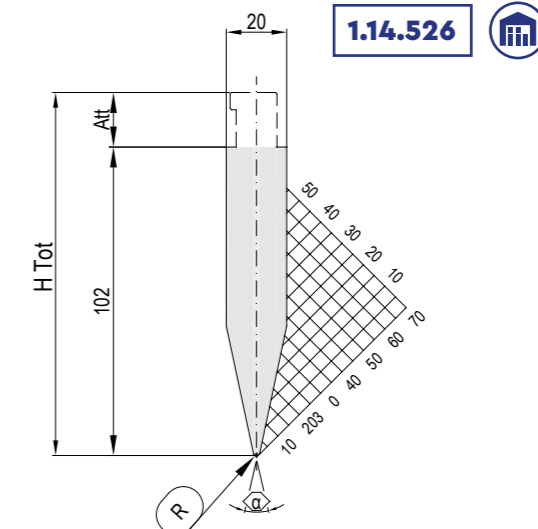
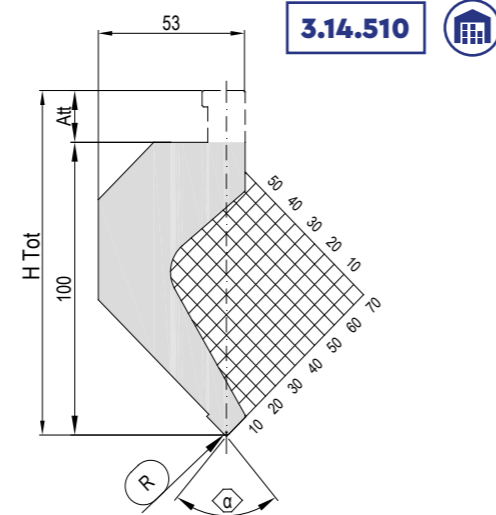
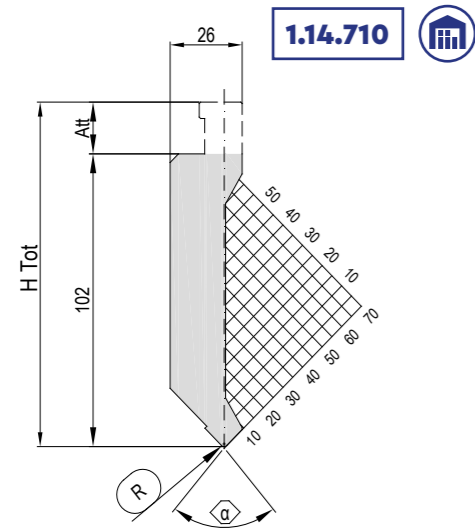
14.400



8.14.696

Fam.	Mod.	Att. type Att. Typ	Angle Winkel $\alpha$ [°]	Radius Radius R [mm]	Height Hhe H [mm]	Tot.Hei- ght Gesam- thhe H Tot [mm]	Lenght Lnge L [mm]	Horn mod. Horn mod.	Weight Gewicht K [kg]	Force Strke F [KN/m]	Material Werkstoff
14.410	14.411/90°	TOP	90°	1.4	54	72	1020-1250-1250 FR	SC-C-1	10-12.3- 12.3	700	42CrMo4
	14.412/85°		85°	0.6							
14.400	14.401/90°	TOP	90°	1	82	100	1020-1250-1250 FR	SC-C-1	17-20.6- 20.6	500	42CrMo4
	14.402/85°		85°								
8.14.696	8.14.696/50°	TOP	50°	1	82	100	1020-1250-1250 FR	SC-C-1	13.5-16.4- 16.4	1000	42CrMo4

● induction hardened= induktionshrtung ○ tempered= vergtet



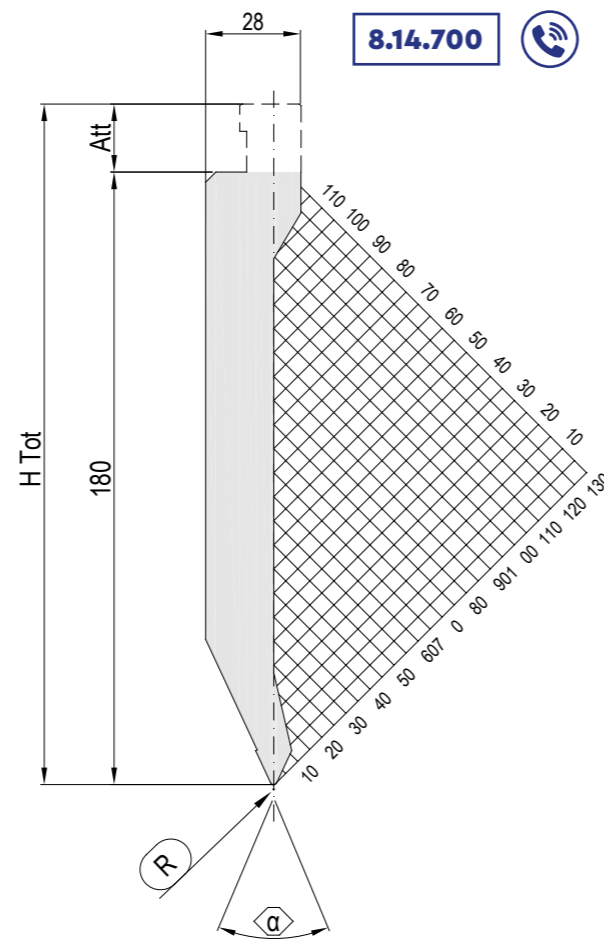
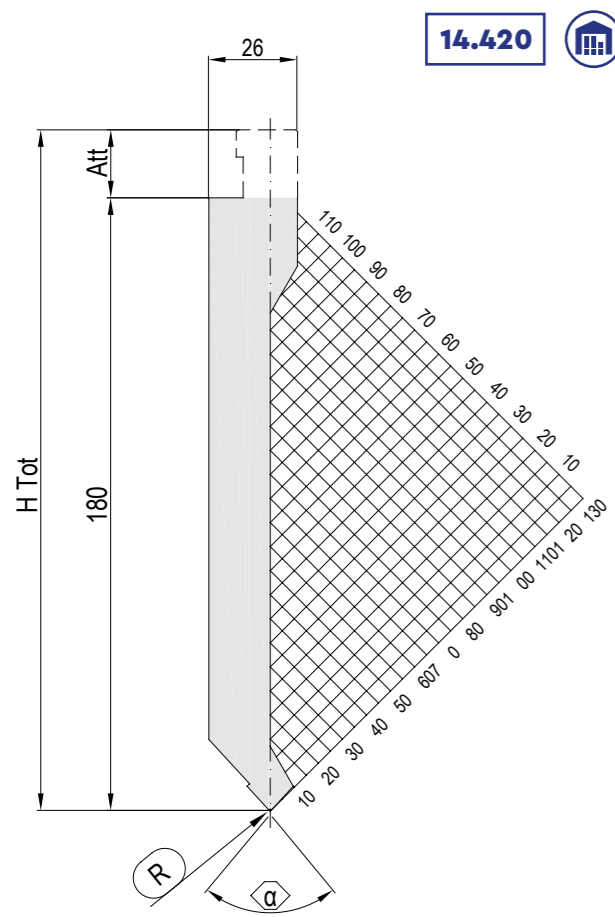
Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Höhe	Tot.Hei- ght Gesam- thöhe	Lenght Länge	Horn mod. Horn mod.	Weight Gewicht	Force Stärke	Material Werkstoff
			$\alpha$ [°]	R [mm]	H [mm]	H Tot [mm]	L [mm]		K [kg]	F [KN/m]	
1.14.710	1.14.715/90°	TOP	90°	1.4	102	120	1020-1250-1250 FR	SC-C-1	18-22-22	700	42CrMo4 ●
	1.14.716/85°		85	0.6							
3.14.510	3.14.515/90°	TOP	90°	1.4	100	120	1020-1250-1250 FR	SC-C-1	25.7-31.5-31.5	450	42CrMo4 ●
	3.14.516/85°		85	0.6							
14.700	14.705/80°	SIDE	80°	10	106	120	1020-1250-1250 FR	SC-C-1	38.6-47.3-47.3	3000	42CrMo4 ●
	14.758/80°			3							
8.14.697	8.14.697/50°	TOP	50°	1	102	120	1020-1250-1250 FR	SC-C1	16.8-20.5-20.5	1000	42CrMo4 ●

● induction hardened= induktionshärtung ○ tempered= vergütet

Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Höhe	Tot.Hei- ght Gesam- thöhe	Lenght Länge	Horn mod. Horn mod.	Weight Gewicht	Force Stärke	Material Werkstoff
			$\alpha$ [°]	R [mm]	H [mm]	H Tot [mm]	L [mm]		K [kg]	F [KN/m]	
1.14.526	1.14.526/24°	TOP	24°	1.1	102	120	1020-1250-1250 FR	SC-C2	15.5-19-19	1300	42CrMo4 ●
6.14.593	6.14.593/50°	TOP	50°	1	122	140	1020-1250-1250 FR	SC-C1	20.2-24.8-24.8	1000	42CrMo4 ●
14.528	14.528/26°	SIDE	26°	2	138	152	1020-1250-1250 FR	SC-C2	37-45.3-45.3	1500	42CrMo4 ●

● induction hardened= induktionshärtung ○ tempered= vergütet





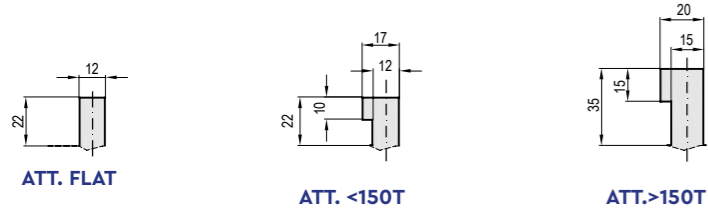
Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Höhe	Tot.Hei- ght Gesam- thöhe	Lenght Länge	Horn mod. Horn mod.	Weight Gewicht	Force Stärke	Material Werkstoff
			α [°]	R [mm]	H [mm]	H Tot [mm]	L [mm]		K [kg]	F [KN/m]	
14.420	14.421/90°	REINF.	90°	1,4	180	200	1020-1250-1250 FR	SC-C1	29.6- 36.2-36.2	1000	42CrMo4 ●
	14.422/85°		85°	0,6							
8.14.700	8.14.700/50°	REINF.	50°	1	180	200	1020-1250-1250 FR	SC-C1	30.2-37- 37	1000	42CrMo4 ●

● induction hardened= induktionshärtung    ○ tempered= vergütet

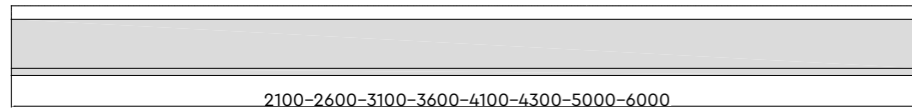


On request  
auf Anfrage

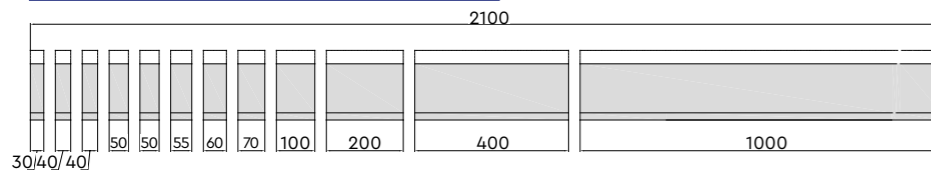
A Magazzino  
auf Lager



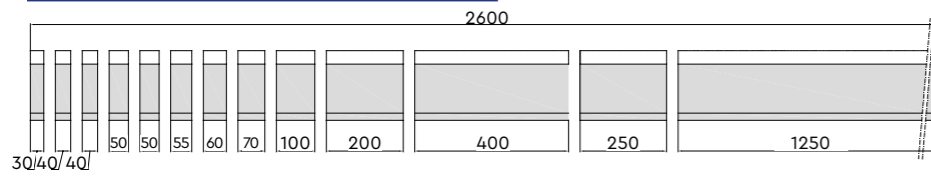
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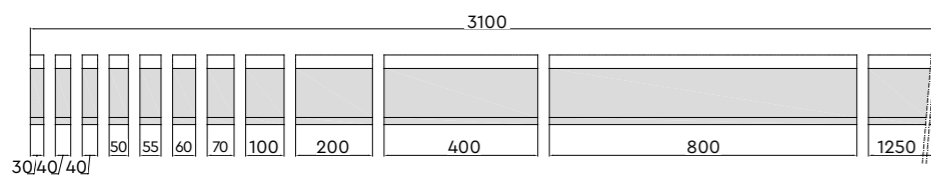
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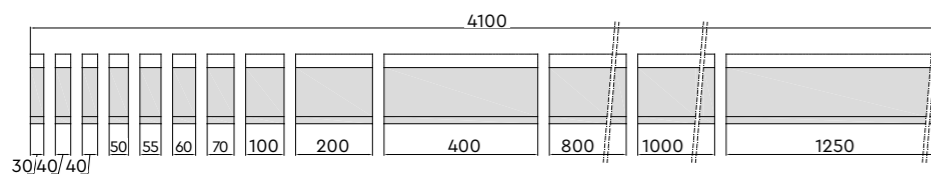
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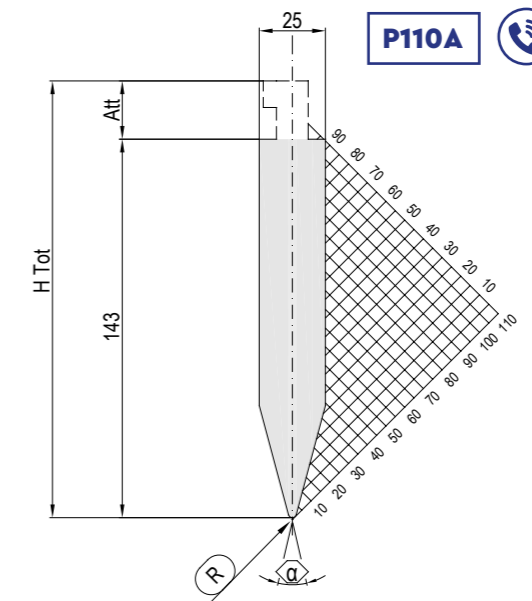
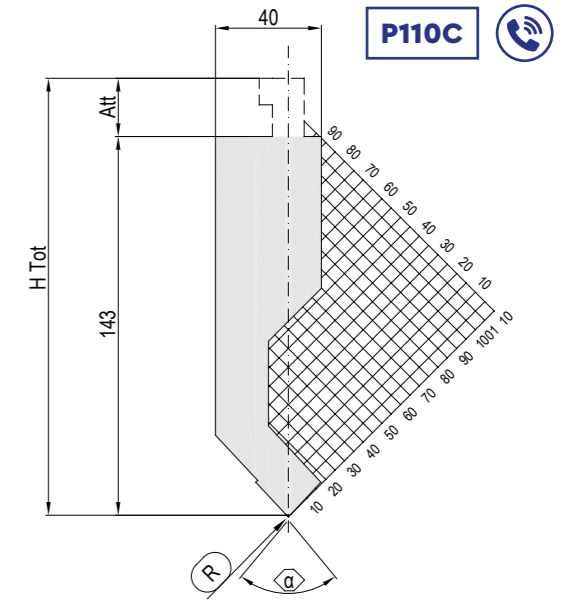
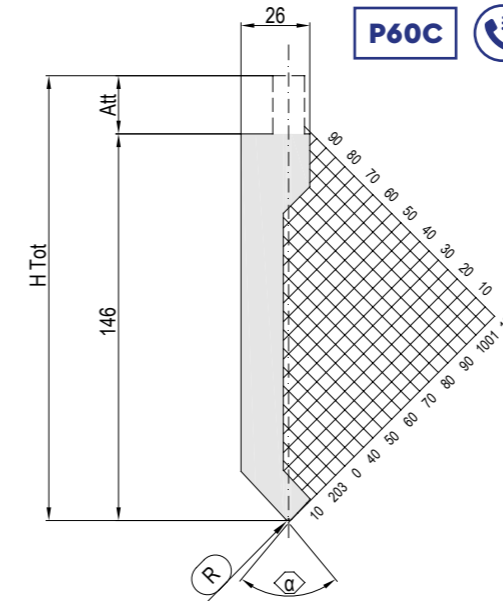


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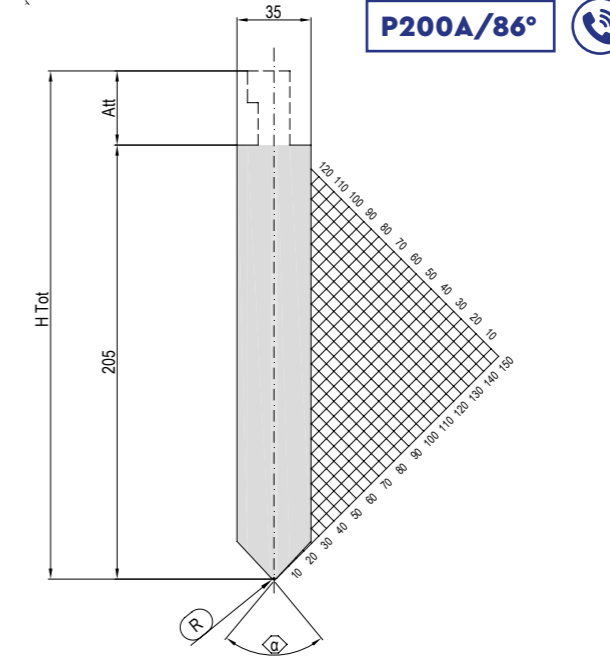
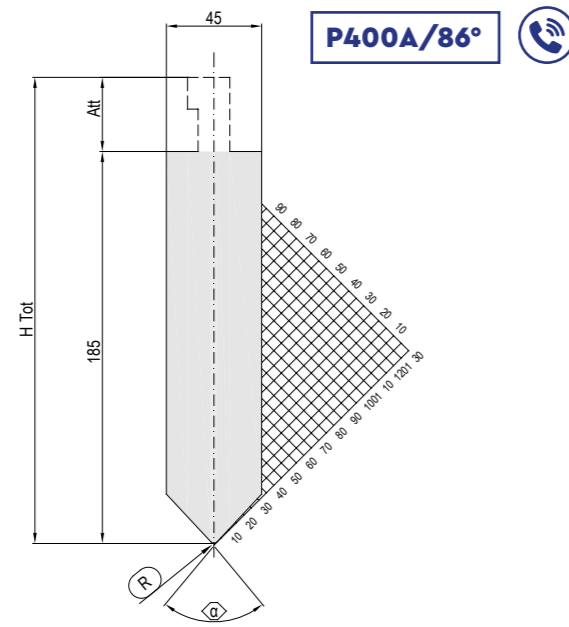
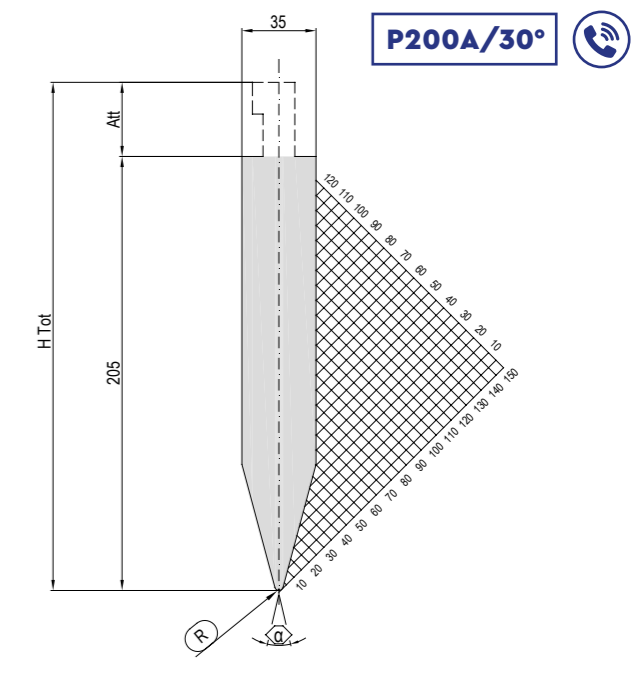
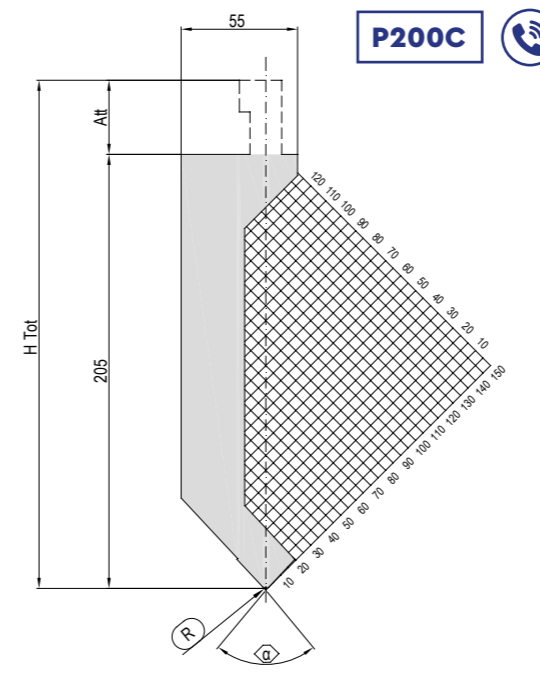
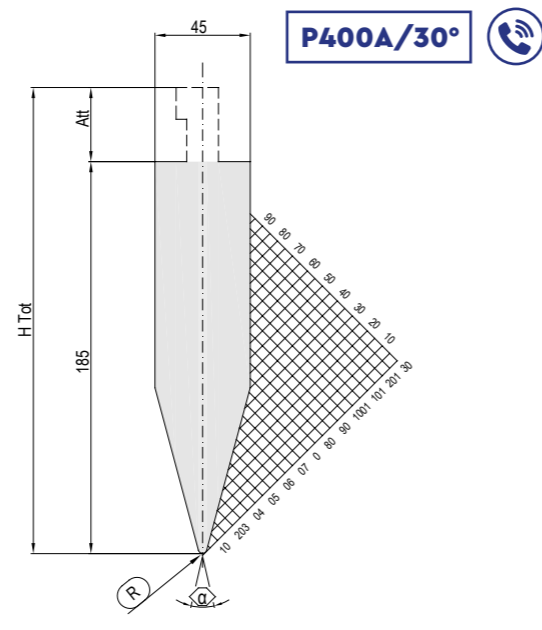
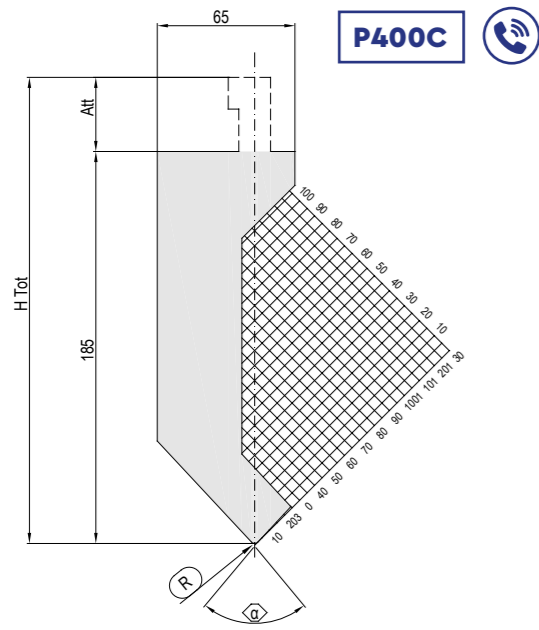
## MATERIAL/WERKSTOFF

Material Werkstoff	Tensile strenght Zerreifestigkeit	Hardness tool body Hrte Werkzeugkrper	Hardness after induction hardening Hrte nach Induktionshrtung
	N/mm <sup>2</sup>	HB	HRC
C45	650 - 750	190 - 220	54 - 60
42CrMo4	900 - 1100	260 - 320	52 - 55



Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Hhe	Tot.Hei- ght Gesam- thhe	Lenght Lnge	Weight Gewicht	Force Strke	Material Werkstoff
			α [°]	R [mm]	H [mm]	H Tot [mm]	L [mm]	K [kg]	F [kN/m]	
P60C	P60C	FLAT	86°	1.5	146	168	2100-2600-3100	46-57-68	1000	42CrMo4 ○
P110C	P110C	<150T	86°	1.5	143	165	2100-2600-3100 3600-4100-4300	74-92-110-128 146-152	700	42CrMo4 ○
P110A	P110A	<150T	30°	1.5	143	165	2100-2600-3100 3600-4100-4300	56-69-82-95 109-114	1300	42CrMo4 ○

● induction hardened= induktionshrtung ○ tempered= vergtet



Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Höhe	Tot. Height Gesamthöhe	Lenght Länge	Weight Gewicht	Force Stärke	Material Werkstoff
			$\alpha$ [°]	R [mm]	H [mm]	H Tot [mm]	L [mm]	K [kg]	F [KN/m]	
P400C	P400C	>150T	86°	2	185	220	3100-3600-4100 4300-5000-6000	175-203-232 243-283-339	1500	42CrMo4 ○
P400A/30°	P400A/30°	>150T	30°	2	185	220	3100-3600-4100 4300-5000-6000	175-203-232 243-283-339	2000	42CrMo4 ○
P400A/86°	P400A/86°	>150T	86°	2	185	220	3100-3600-4100 4300-5000-6000	175-203-232 243-283-339	3000	42CrMo4 ○

● induction hardened= induktionshärtung ○ tempered= vergütet

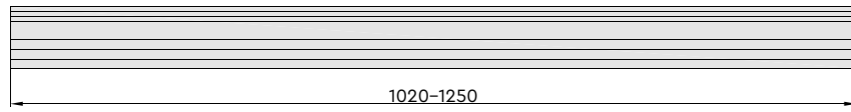
Fam.	Mod.	Att. type Att. Typ	Angle Winkel	Radius Radius	Height Höhe	Tot. Height Gesamthöhe	Lenght Länge	Weight Gewicht	Force Stärke	Material Werkstoff
			$\alpha$ [°]	R [mm]	H [mm]	H Tot [mm]	L [mm]	K [kg]	F [KN/m]	
P200C	P200C	>150T	86°	2	205	240	2600-3100-3600 4100-4300 5000-6000	143-170-198-225 237-275-330	1300	42CrMo4 ○
P200A/30°	P200A/30°	>150T	30°	2	205	240	2600-3100-3600 4100-4300 5000-6000	138-165-191-217 228-265-318	1750	42CrMo4 ○
P200A/86°	P200A/86°	>150T	86°	2	205	240	2600-3100-3600 4100-4300 5000-6000	138-165-191-217 228-265-318	2500	42CrMo4 ○

● induction hardened= induktionshärtung ○ tempered= vergütet

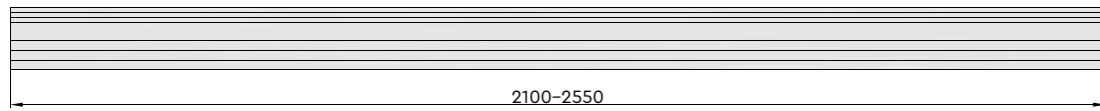


**COLLY-HACO**  
*Dies/Matrizen*

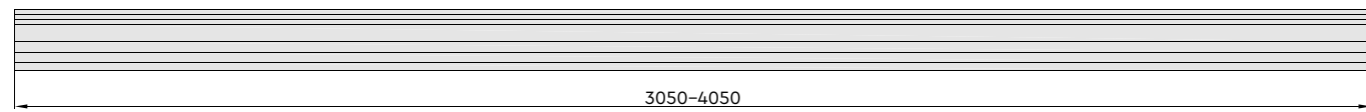
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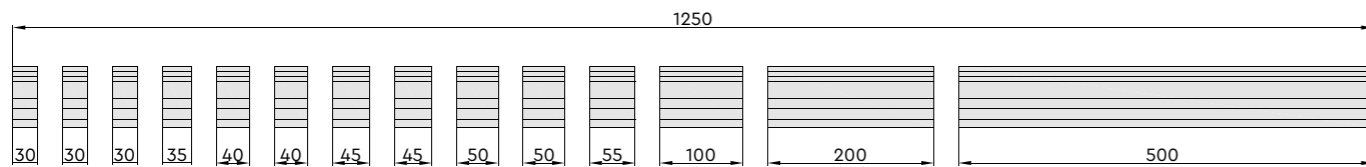
2100-2550



3050-4050

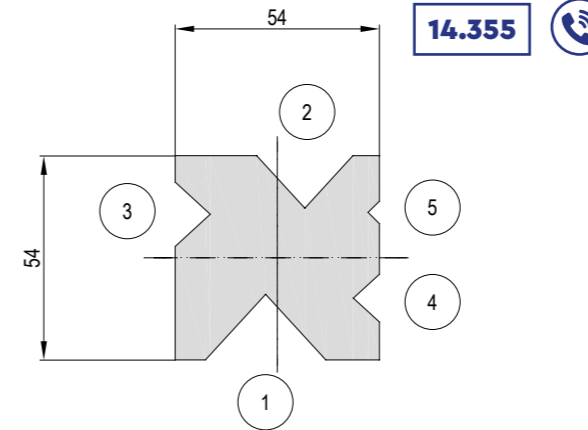


1250 SECT/1250 SEKTIONIERT

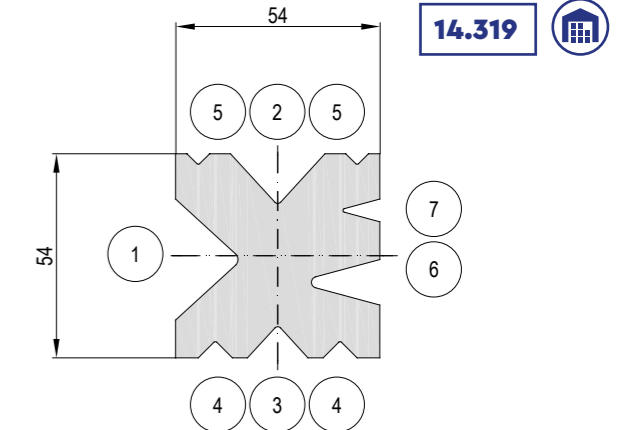


MATERIAL/WERKSTOFF

Material Werkstoff	Tensile strenght Zerreifestigkeit	Hardness tool body Hrte Werkzeugkrper	Hardness after induction hardening Hrte nach Induktionshrtung
	N/mm <sup>2</sup>	HB	HRC
C45	650 - 750	190 - 220	54 - 60
42CrMo4	900 - 1100	260 - 320	52 - 55



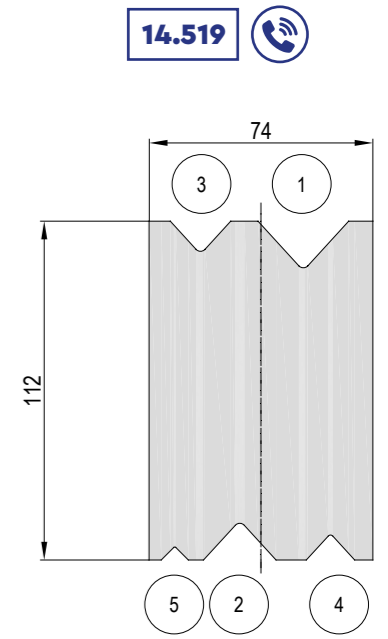
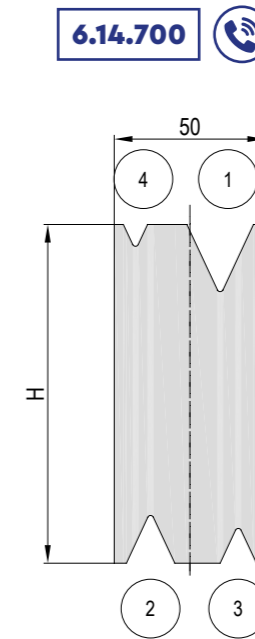
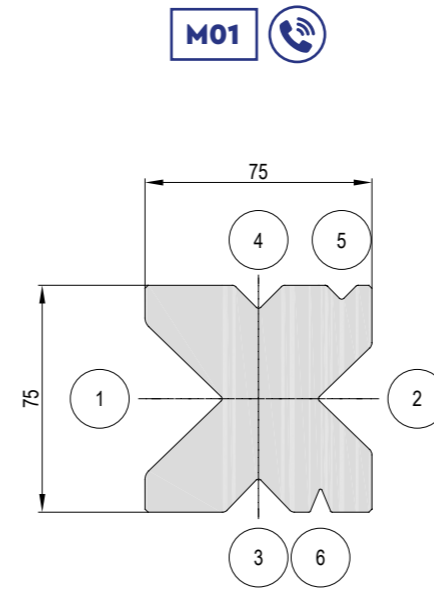
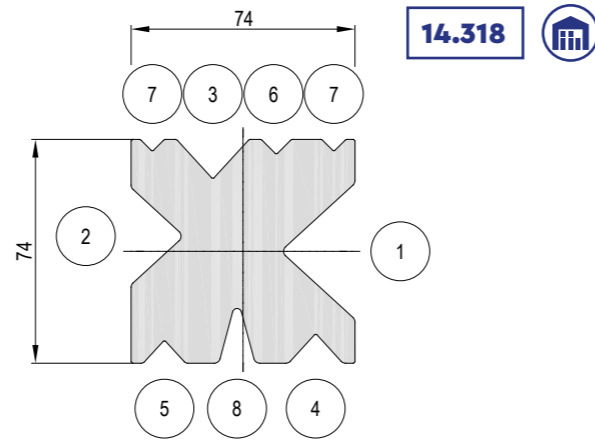
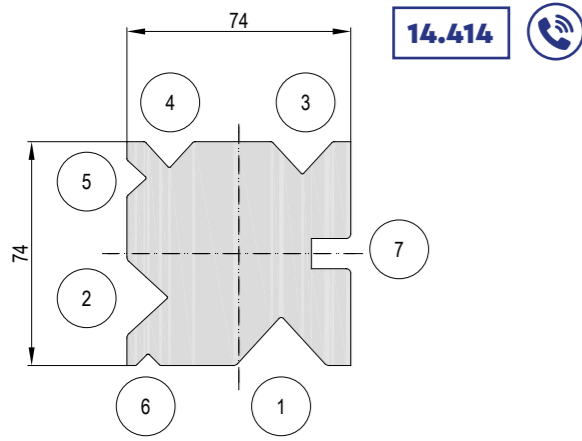
14.355



14.319

Fam.	Mod.	Groove Rille N°	Angle Winkel α [°]	Opening ffnung V o U [mm]	Radius Radius R [mm]	Height Hhe H [mm]	Width Breite W [mm]	Lenght Lnge L [mm]	Weight Gewicht K [kg]	Force Strke F [KN/m]	Material Werkstoff
14.355	14.355	1	85°	32	2	54	54	1020 -1250 - 2100 - 2550- 3050 - 4050 - 1250 FR	19 - 24 - 40 - 48.5 - 58 - 77 - 24	1000	42CrMo4
		2		25							
		3		17							
		4		12							
		5	90°	6	1						
14.319	14.319	1	85°	32		2	54	54	1020 -1250 - 2100 - 2550- 3050 - 4050 - 1250 FR	19 - 24 - 40 - 48.5 - 58 - 77 - 24	1000
		2		25							
		3		16							
		4	90°	9	1						
		5	6								
		6	30°	12	2						
		7		6	1						

● induction hardened= induktionshrtung ○ tempered= vergtet



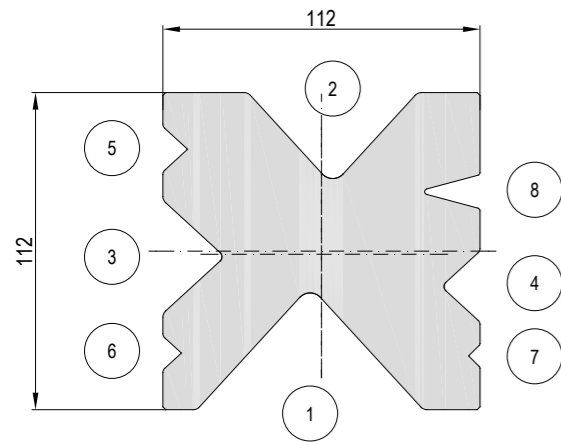
Fam.	Mod.	Groove Rille	Angle Winkel	Opening Öffnung	Radius Radius	Height Höhe	Width Breite	Lenght Länge	Weight Gewicht	Force Stärke	Material Werkstoff	
		N°	α [°]	V o U [mm]	R [mm]	H [mm]	W [mm]	L [mm]	K [kg]	F [KN/m]		
14.414	14.414	1	85°	30	2	74	74	1020 -1250 - 2100 - 2550- 3050 - 4050 - 1250 FR	37.5 - 46 - 77 - 93.5 - 112 - 149 - 46	400	42CrMo4 ○	
		2		25								
		3		20								
		4		16	1							
		5		12								
		6		90°								8
		7		U								10x13
14.318	14.318	1	85°	45	2	74	74	1020 -1250 - 2100 - 2550- 3050 - 4050 - 1250 FR	33.5 - 41 - 69 - 84 - 99.5 - 132 - 41	800	42CrMo4 ○	
		2		32								
		3		24								
		4		18	2							
		5		14								
		6		90°	10							1
		7			8							
		8			30°							

● induction hardened= induktionshärtung ○ tempered= vergütet

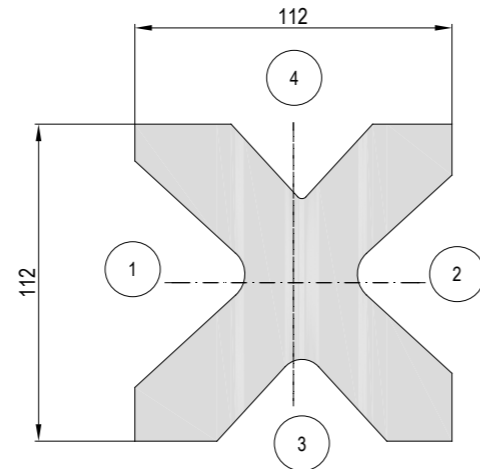
Fam.	Mod.	Groove Rille	Angle Winkel	Opening Öffnung	Radius Radius	Height Höhe	Width Breite	Lenght Länge	Weight Gewicht	Force Stärke	Material Werkstoff	
		N°	α [°]	V o U [mm]	R [mm]	H [mm]	W [mm]	L [mm]	K [kg]	F [KN/m]		
M01	M01	1	88°	50	4	75	75	1020 -1250 - 2100 - 2550- 3050 - 4050 - 1250 FR	36.5 - 45 - 75 - 91 - 109 - 145 - 45	1000	42CrMo4 ○	
		2		35	2.5							
		3		22	2							
		4		16	2							
		5		10	1.5							
		6		45°	7							0.5
6.14.700	6.14.767	1	50°	22	1	54	50	1020 -1250 - 2100 - 2550- 3050 - 4050 - 1250 FR	17.5 - 21.5 - 36 - 44 - 52 - 67 - 21.5	800	42CrMo4 ○	
		2		16								
		3		12								
		4		8								
	6.14.768	1		22		74	50		1020 -1250 - 2100 - 2550- 3050 - 4050 - 1250 FR			25 - 31 - 52 - 63 - 76 - 100 - 31
		2		16								
		3		12								
		4		8								
	6.14.769	1		22		94	50		1020 -1250 - 2100 - 2550- 3050 - 4050 - 1250 FR			33.5 - 41 - 69 - 84 - 100 - 133 - 41
		2		16								
		3		12								
		4		8								
	6.14.770	1		22		112	50		1020 -1250 - 2100 - 2550- 3050 - 4050 - 1250 FR			41 - 50 - 84 - 102 - 122 - 162 - 50
		2		16								
		3		12								
		4		8								
14.519	14.519	1	85°	30	2	112	74	1020 -1250 - 2100 - 2550- 3050 - 4050 - 1250 FR	19 - 24 - 40 - 48.5 - 58 - 77 - 24	1500	42CrMo4 ○	
		2		25								
		3		20								
		4		16								
		5		90°								9

● induction hardened= induktionshärtung ○ tempered= vergütet

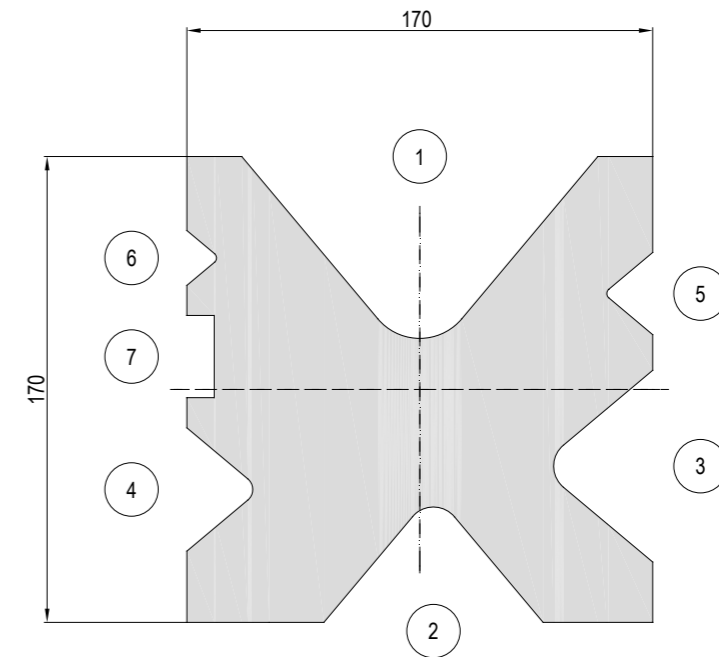
14.518



14.521



14.707

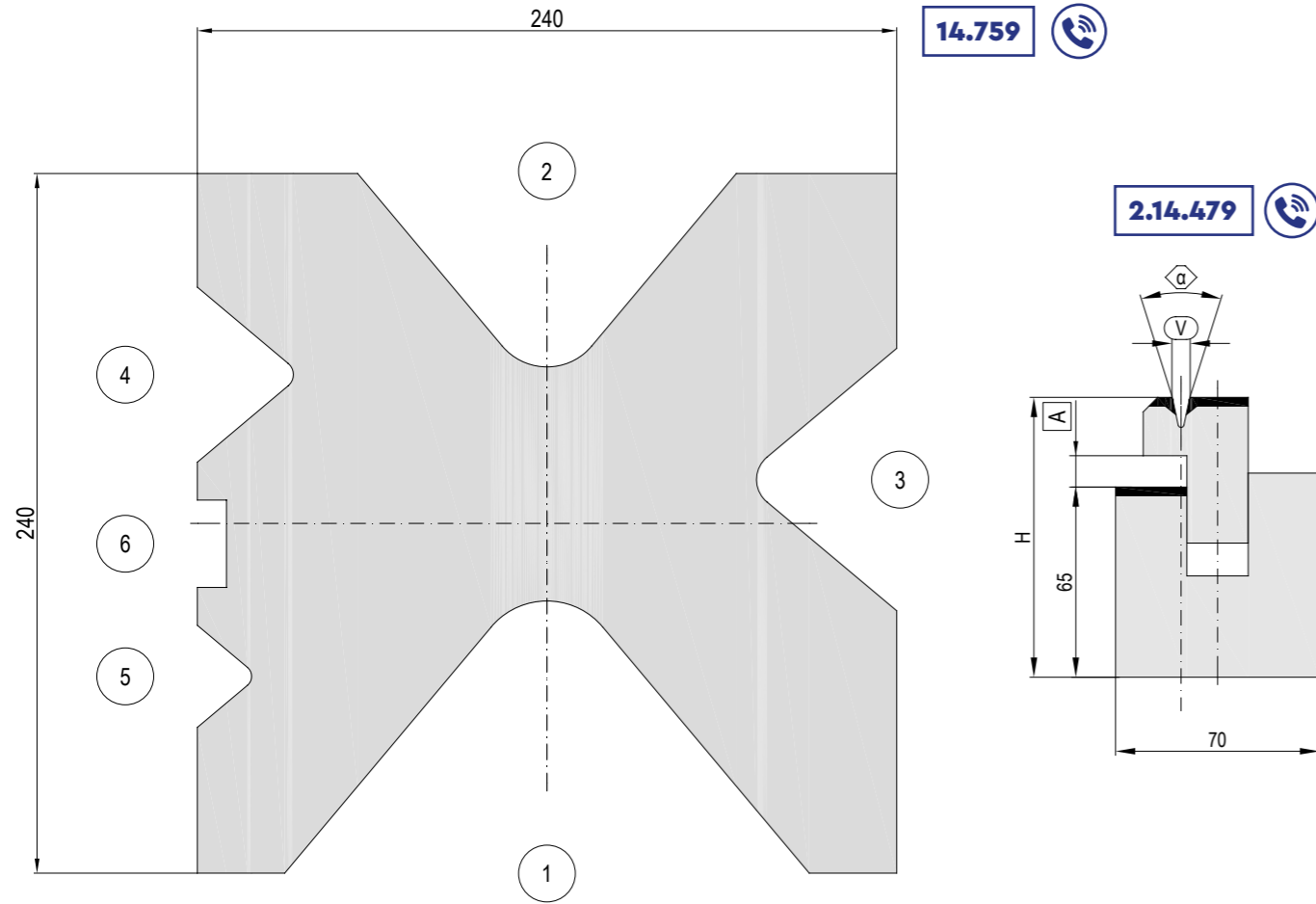


Fam.	Mod.	Groove Rille	Angle Winkel	Opening Öffnung	Radius Radius	Height Höhe	Width Breite	Lenght Länge	Weight Gewicht	Force Stärke	Material Werkstoff
		N°	α [°]	V o U [mm]	R [mm]	H [mm]	W [mm]	L [mm]	K [kg]	F [KN/m]	
14.518	14.518	1	85°	80	3	112	112	1020 -1250 - 2100 - 2550- 3050 - 4050 - 1250 FR	88 - 108 - 181 - 220 - 263 - 349.5 - 108	1500	42CrMo4 ○
		2		60							
		3		40							
		4		25							
		5		16							
		6		12							
		7	90°	8	1						
		8	30°	12							
14.521	14.521	1	85°	80	3	112	112	1020 -1250 - 2100 - 2550- 3050 - 4050 - 1250 FR	61 -74 - 125 - 152 - 181 - 241 - 74	1500	42CrMo4 ○
		2		70							
		3		60							
		4		50	2						

● induction hardened= induktionshärtung ○ tempered= vergütet

Fam.	Mod.	Groove Rille	Angle Winkel	Opening Öffnung	Radius Radius	Height Höhe	Width Breite	Lenght Länge	Weight Gewicht	Force Stärke	Material Werkstoff
		N°	α [°]	V o U [mm]	R [mm]	H [mm]	W [mm]	L [mm]	K [kg]	F [KN/m]	
14.707	14.707	1	80°	130	6	170	170	3050-4050 5100-6100	464-617-777-929	2500	42CrMo4 ○
		2		100							
		3		70							
		4		45							
		5		30	3						
		6		20							
		7	U	30x10	1						

● induction hardened= induktionshärtung ○ tempered= vergütet



14.759



2.14.479



Fam.	Mod.	Groove Rille	Angle Winkel	Opening Öffnung	Radius Radius	Height Höhe	Width Breite	Lenght Länge	Weight Gewicht	Force Stärke	Material Werkstoff
		N°	$\alpha$ [°]	V o U [mm]	R [mm]	H [mm]	W [mm]	L [mm]	K [kg]	F [KN/m]	
14.759	14.759	1	80°	180	8	240	240	4050-5100 6100-7000	1244-1567 1874-2150	400	42CrMo4 ○
		2		130	6						
		3		90	6						
		4		60	3						
		5		35	1						
		6	U	30x10	1						

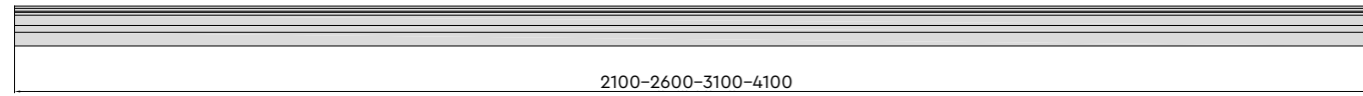
Fam.	Mod.	Angle Winkel	Opening Öffnung	Radius Radius	Height Höhe	Stroke Hieb	Width Breite	Lenght Länge	Weight Gewicht	Force Stärke	Material Werkstoff
		$\alpha$ [°]	V o U [mm]	R [mm]	H [mm]	A [mm]	W [mm]	L [mm]	K [kg]	F [KN/m]	
2.14.479	2.14.479 V6	24°	6	1	101	13.5	70	1020-1250	43-53	600	42CrMo4 ●
	2.14.479 V8		8		106				52-64		

● induction hardened= induktionshärtung ○ tempered= vergütet

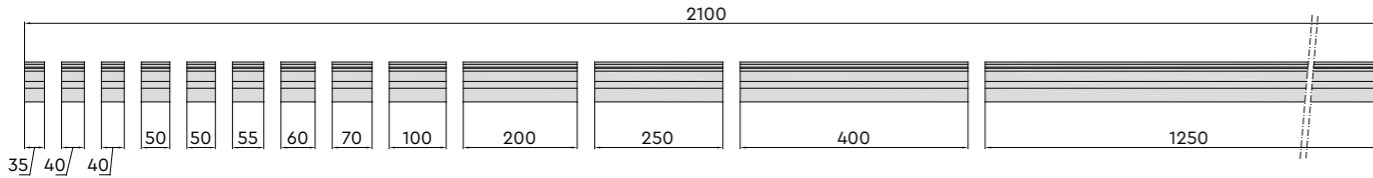




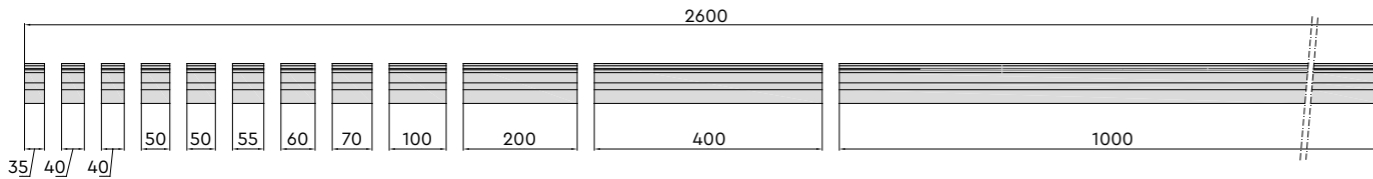
## 2100-2600-3100-4100



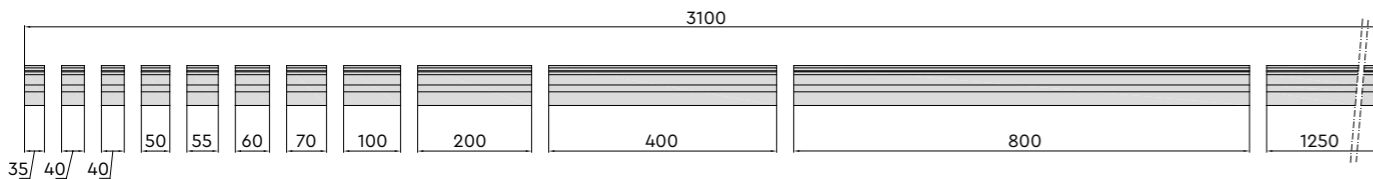
## 2100 SECT/2100 SEKTIONIERT



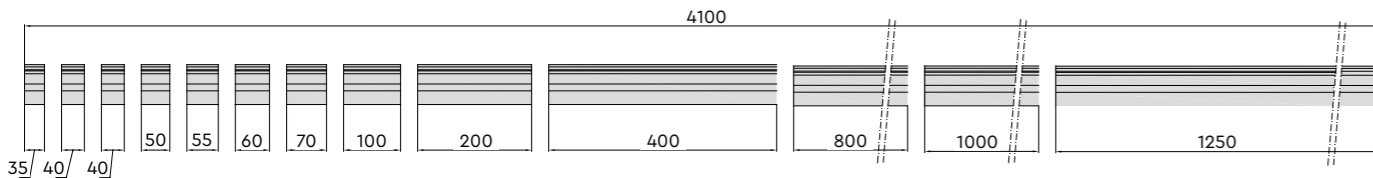
## 2600 SECT/2600 SEKTIONIERT



## 3100 SECT/3100 SEKTIONIERT



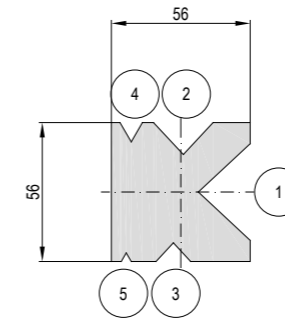
## 4100 SECT/4100 SEKTIONIERT



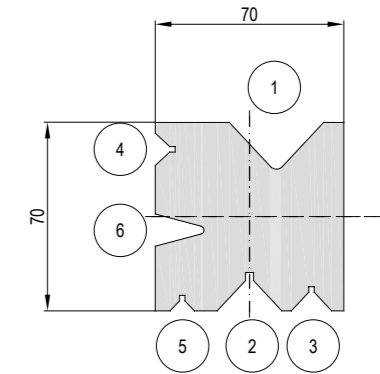
## MATERIAL/WERKSTOFF

Material Werkstoff	Tensile strenght Zerreifestigkeit	Hardness tool body Hrte Werkzeugkrper	Hardness after induction hardening Hrte nach Induktionshrtung
	N/mm <sup>2</sup>	HB	HRC
C45	650 - 750	190 - 220	54 - 60
42CrMo4	900 - 1100	260 - 320	52 - 55

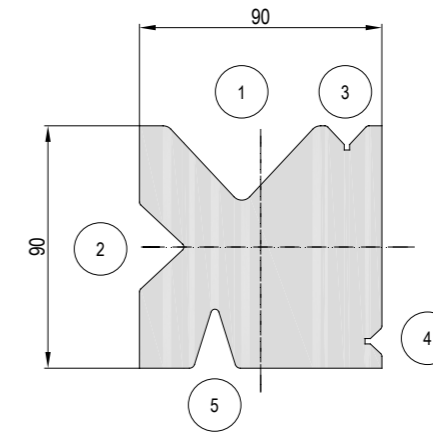
## PV56



## PV70

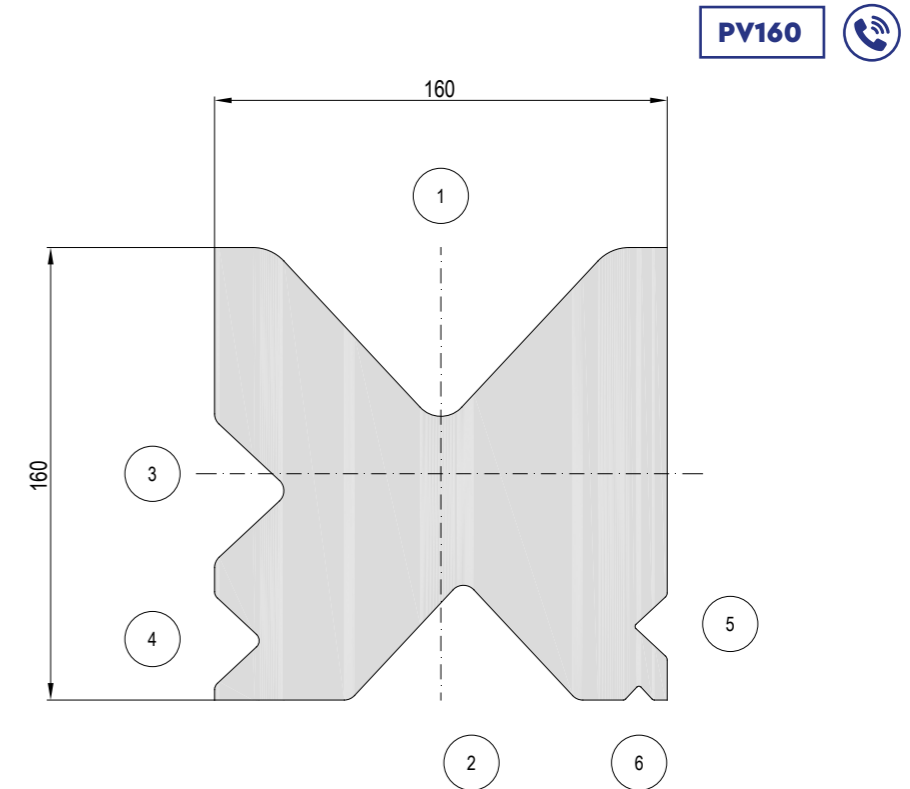
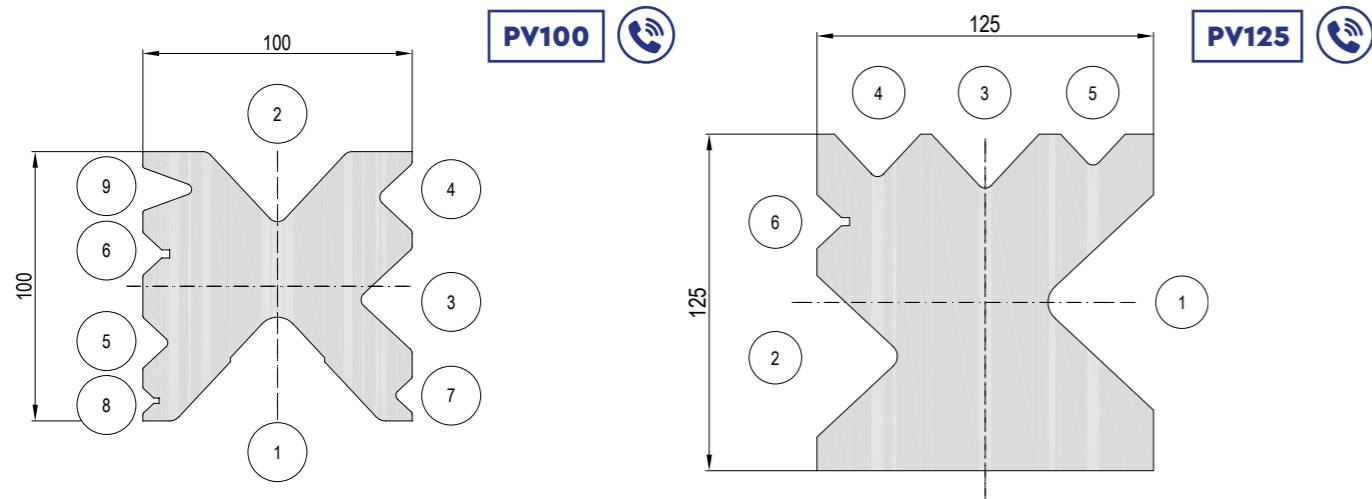


## PV90



Fam.	Mod.	Groove Rille	Angle Winkel	Opening Offnung	Radius	Height Hhe	Width Breite	Lenght Lnge	Weight Gewicht	Force Strke	Material Werkstoff
		N	$\alpha$ []	V o U [mm]	R [mm]	H [mm]	W [mm]	L [mm]	K [kg]	F [kN/m]	
PV56	PV56	1	86	39	3	56	56	2100 - 2600	41 - 51	400	42CrMo4
		2		24	1.5						
		3		14	1.5						
		4	60	9	1						
		5	4	1							
PV70	PV70	1	86	35	3	70	70	2100 - 2600 3100	69 - 86 102	800	42CrMo4
		2		24	1.5						
		3		15	1.5						
		4		12	1.5						
		5	9	1.5							
		6	30	12	1.5						
PV90	PV90	1	86	55	4	90	90	2100 - 2600 3100 - 4100	110 - 136 162 - 215	1500	42CrMo4
		2		32	1.5						
		3		15	1.5						
		4		10	1.5						
		5	35	16	2						

● induction hardened= induktionshrtung ○ tempered= vergtet



Fam.	Mod.	Groove Rille	Angle Winkel	Opening Öffnung	Radius Radius	Height Höhe	Width Breite	Lenght Länge	Weight Gewicht	Force Stärke	Material Werkstoff
		N°	$\alpha$ [°]	V o U [mm]	R [mm]	H [mm]	W [mm]	L [mm]	K [kg]	F [KN/m]	
PV100	PV100	1	86°	76	5	100	100	2600 - 3100 4100 - 5000 6000	140 - 167 221 - 269 323	1750	42CrMo4 ○
		2		52	4						
		3		38	2						
		4		25	2						
		5		19	2						
		6		16	1						
		7		13	1						
		8		9.5	1						
				9	40°						
PV125	PV125	1	86°	80	4	125	125	3100 - 4100 5000 - 6000 7000 - 8000	291 - 385 469 - 563 657 - 751	3000	42CrMo4 ○
		2		60	3						
		3		40							
		4		32	2						
		5		24							
		6		20	1.5						

● induction hardened= induktionshärtung ○ tempered= vergütet

Fam.	Mod.	Groove Rille	Angle Winkel	Opening Öffnung	Radius Radius	Height Höhe	Width Breite	Lenght Länge	Weight Gewicht	Force Stärke	Material Werkstoff
		N°	$\alpha$ [°]	V o U [mm]	R [mm]	H [mm]	W [mm]	L [mm]	K [kg]	F [KN/m]	
PV160	PV160	1	86°	120	15	160	160	3100 4100 - 4300 5000 - 6000 7000 - 8000	461 601 - 630 744 - 892 1041 - 1190	5000	42CrMo4 ○
		2		80	5						
		3		50							
		4		32	3						
		5		22	2						
		6		10	1						

● induction hardened= induktionshärtung ○ tempered= vergütet

NOTE





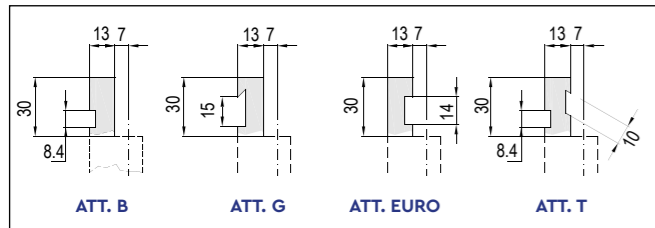
On request  
auf Anfrage



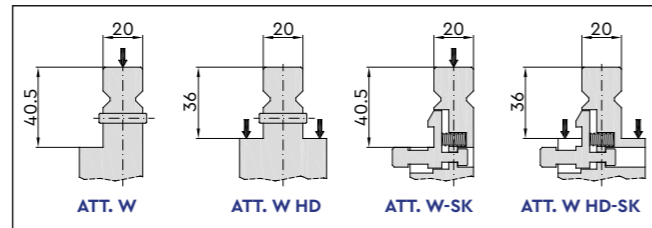
A Magazzino  
auf Lager

PUNCHES CLAMPINGS/AUFNAHME OBERWERKZEUGE

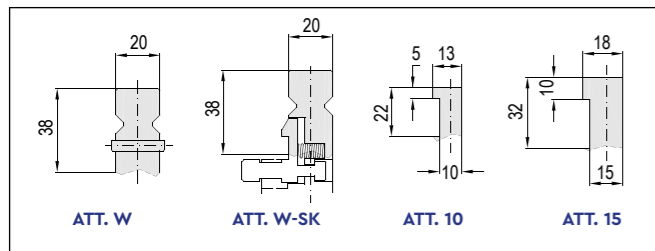
ATT. TYPE A



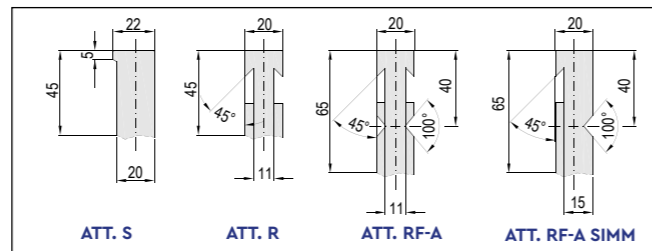
ATT. TYPE T



ATT. TYPE L

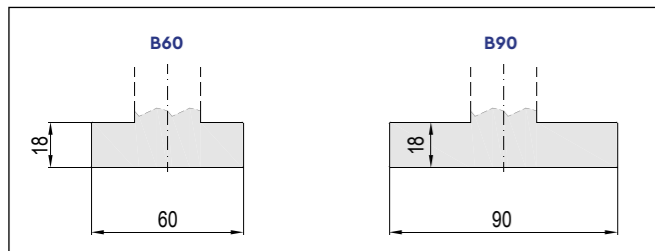


ATT. TYPE B

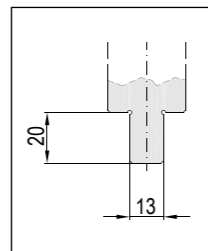


DIES BASES/MATRIZEN BASIS

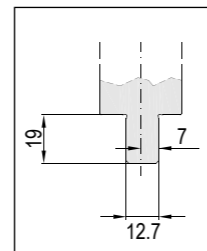
BASE TYPE A



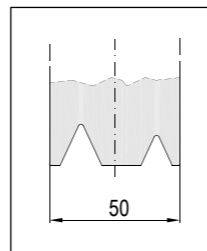
BASE TYPE W-T-B



BASE TYPE L

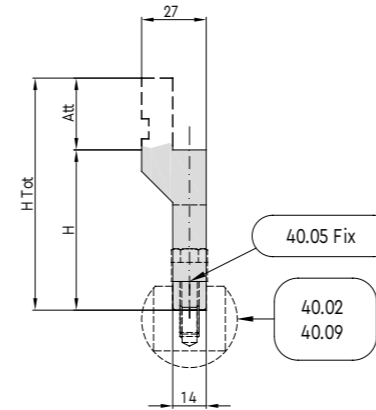


BASE TYPE C

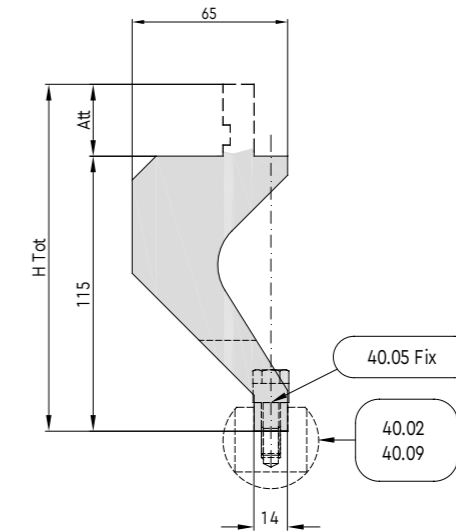


HOLDER FOR RADIUS-TOOLS/EINSÄTZE HALTER

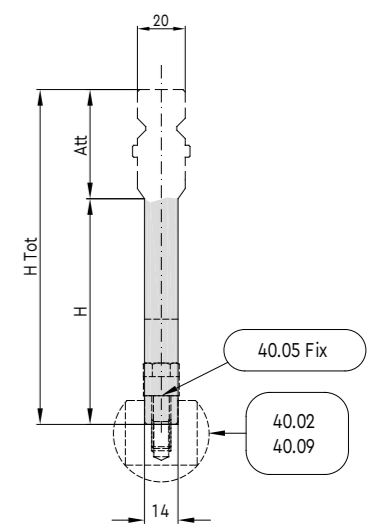
40.05



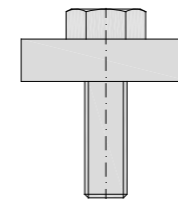
40.05-G



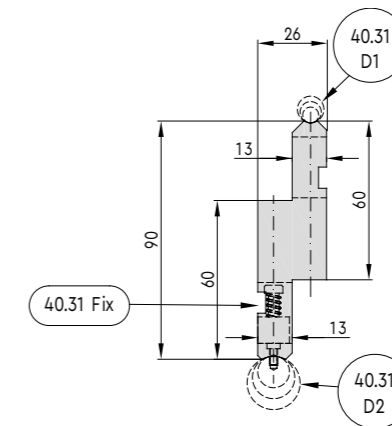
40.05 SPE



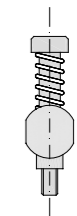
40.05 Fix



40.30



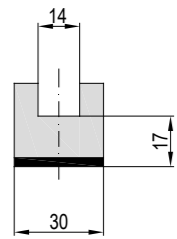
40.31 Fix



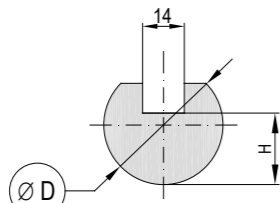
Fam.	Mod.	Top clamping type Ober Aufnahme Typ		Height Höhe	Total Height Gesamthöhe	Lenght Länge	Weight Gewicht	Material Werkstoff
		Type/Typ	Model/Model	H [mm]	H Tot [mm]	L [mm]	K [kg]	
40.05	40.05	A	B-G-EURO	67	97	830 - 412	10 - 5	C45
	40.05-100		T-FAST	100	130		13 - 6.5	
40.05-G	40.05-G	A	B-G-EURO T-FAST	115	145	830 - 412	26 - 13	C45
40.05 SPE	BE 40.05 R	B	R	95	140	830 - 412	16 - 8	C45
	BE 40.05 RF-A		RF-A	75	140			
	SPE 40.05	T / L	W	102	140			
40.30	40.30	A	B	60	90	835 - 415 - 835 FR	15 - 7.5 - 15	C45

INSERTS/EINSÄTZEN

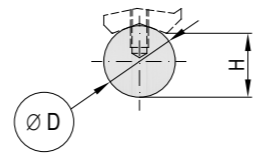
40.02 



40.09 



40.31 

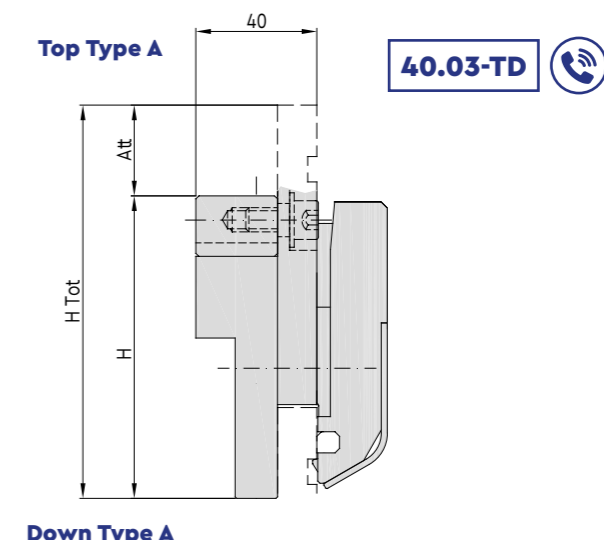
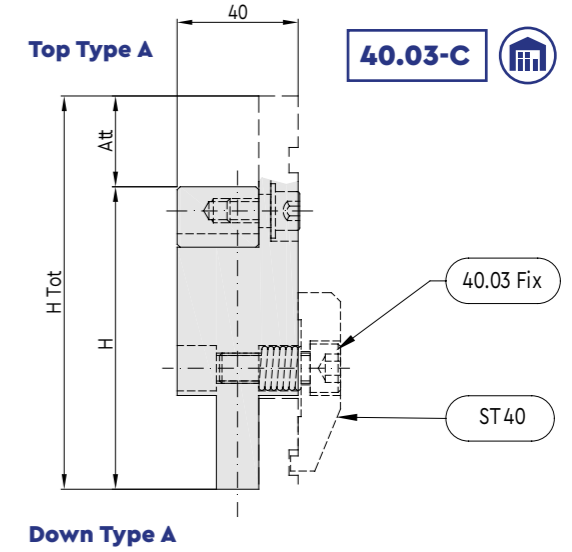
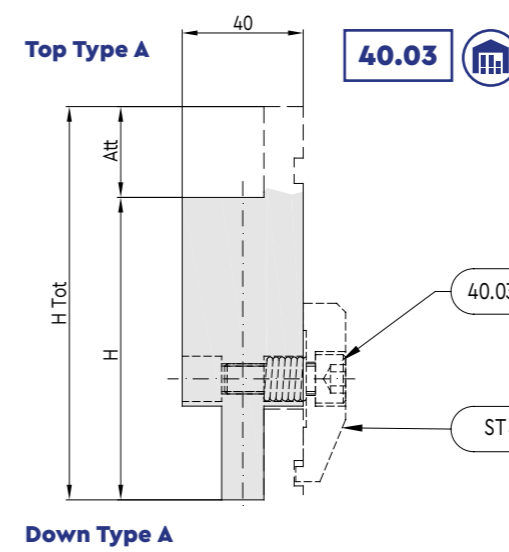


Fam.	Mod.	Tickness	Height	Lenght	Weight	Material
		Breite	Höhe	Länge	Gewicht	
		[mm]	H [mm]	L [mm]	K [kg]	Werkstoff
40.02	40.02	30	17	835-415	2.5-5	C45 ●

● temprato=Induction hardened ○ bonificato=tempered

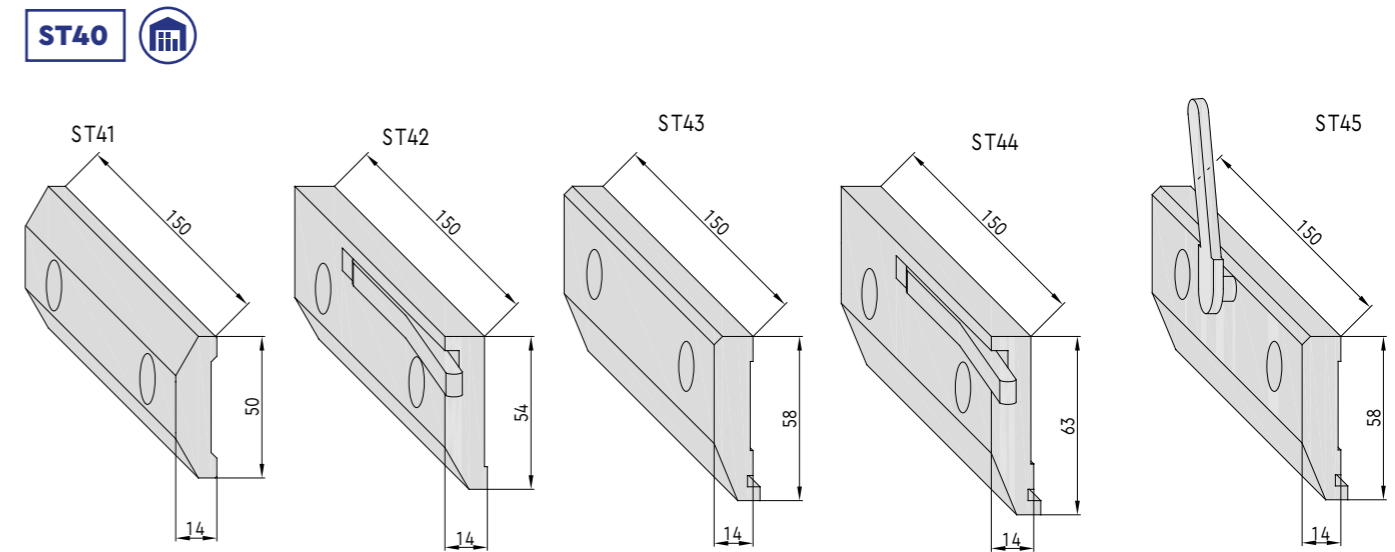
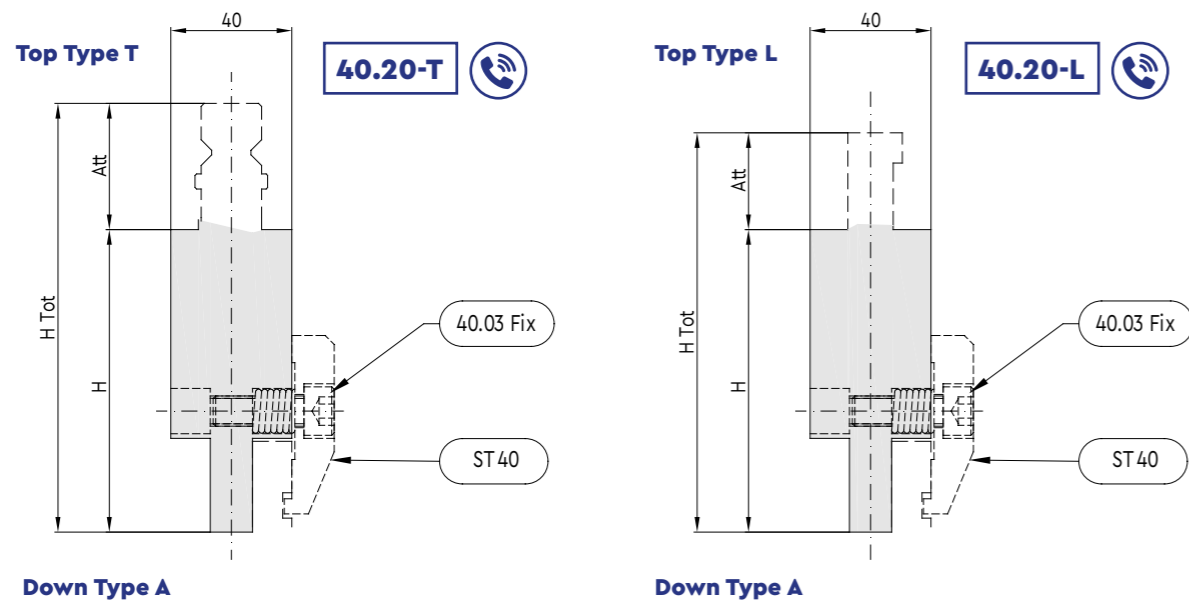
Fam.	Mod.	Diameter	Height	Lenght	Weight	Material
		Durchmesser	Höhe	Länge	Gewicht	
		D [mm]	H [mm]	L [mm]	K [kg]	Werkstoff
40.09	40.09	20	12	835-415	2 - 1	C45
		25	17		3 - 1.5	
		30	20		4.5 - 2	
		35	22		6 - 3	
		40	24		8 - 4	
		50	29		12.5 - 6	
		60	34		19 - 9.5	
40.31	40.31D	6	5.3	835 - 415 - 835 FR	0.7 - 0.4 - 0.7	C45
		8	7.3		1.3 - 0.7 - 1.3	
		10	9.4		2 - 1 - 2	
	40.31D2	12	10.7		3 - 1.5 - 3	
		16	14.9		5.2 - 2.6 - 5.2	
		20	19		8 - 4 - 8	

FOR AMADA TOOLS/FÜR AMADA ABKANTWERKZEUGE



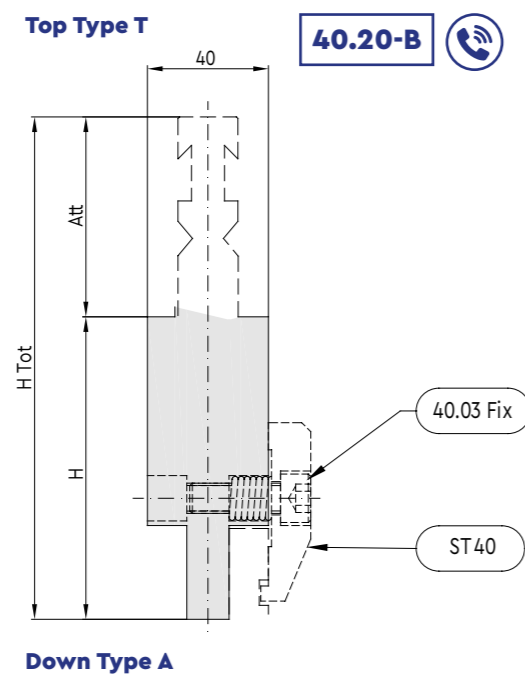
Fam.	Mod.	Top clamping type		Down clamping type		Height	Tot. Height	Lenght	Clamps Type	Weight	Material
		Ober Aufnahme Typ	Model	Unter Aufnahme Typ	Model						
		Type/Typ	Model Model	Type/Typ	Model Model	H [mm]	H Tot [mm]	L [mm]	Klemmung Typ	K [kg]	Werkstoff
40.03	40.03 /60	A	B-G-EURO T-FAST	A	B-G	60	90	150	ST41-ST42-ST43-ST44-ST45	2.5	C45
	40.03 /100					100	130			4	
	40.03 /150					150	180			6	
40.03 C	40.03-C /60	A Con sistema di regolazione / Adjustment system	B-G-EURO T-FAST	A	B-G	60	90	150	ST41-ST42-ST43-ST44-ST45	2.1	C45
	40.03-C /100					100	130			3.5	
	40.03-C /150					150	180			5.3	
40.03 TD	40.03-TD /100	A Con sistema di regolazione / Adjustment system	B-T	A	B-T	100	130	150	PNEUMATIC CLAMPS PNEUMATISCHE SPANNVORRICHTUNG	4	C45
	40.03-TD /150					150	180			6	

CLAMPS / KLEMMUNG

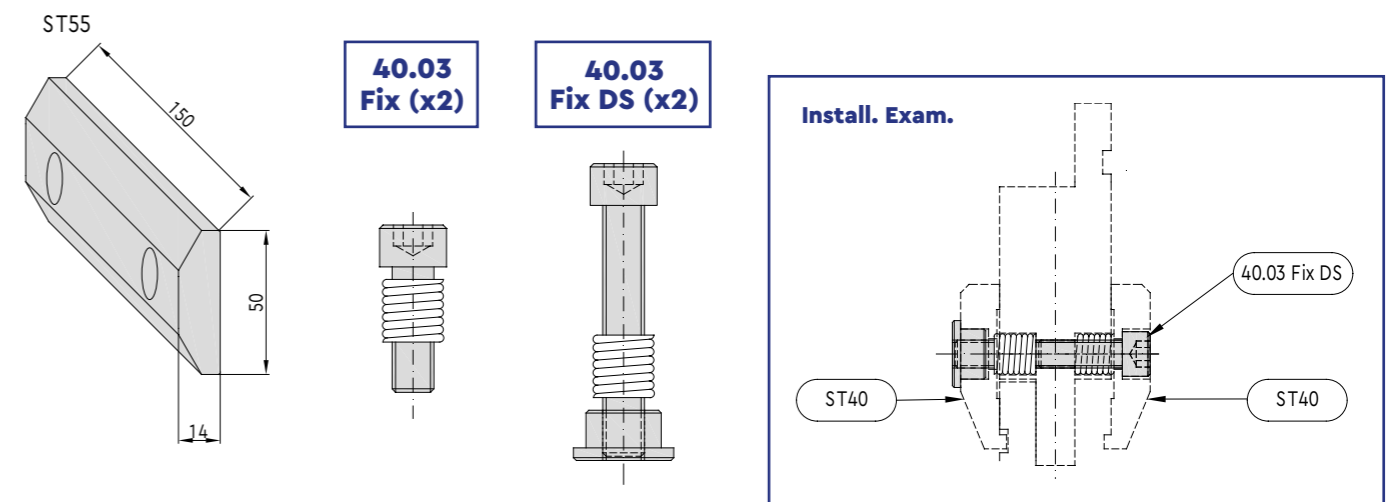


Down Type A

Down Type A



Down Type A



Fam.	Mod.	Top clamping type Ober Aufnahme Typ		Down clamping type Unter Aufnahme Typ		Height Höhe H [mm]	Tot. Height Gesamthöhe H Tot [mm]	Length Länge L [mm]	Clamps Type Klemmung Typ	Weight Gewicht K [kg]	Material Werkstoff
		Type/ Typ	Model Model	Type/ Typ	Model Model						
40.20 T	SPE 40.01	T/L	W	A	B-G	80	120.5	150	ST41-ST42 ST43-ST44 ST45	4	C45
40.20 L	LV 40.20 10	L	10	A	B-G	80	102	150	ST41-ST42 ST43-ST44 ST45	3.7	C45
	LV 40.20 15		15				112			4	
40.20 B	BE 40.20 S	B	S	A	B-G	67	112	150	ST41-ST42 ST43-ST44 ST45	4.5	C45
	BE 40.20 R		R							4.3	
	BE 40.20 RF-A		RF-A							4.7	

Fam.	Mod.	Safety tang Sicherheitsnase	Mechanical fast clamp Schnellspanvorrichtung	Nylon strip Kunststoffandruckleiste	Height Höhe H [mm]	Length Länge L [mm]	Holes interaxis Lochabstand [mm]	Weight Gewicht K [kg]	Material Werkstoff
					H [mm]	L [mm]	[mm]	K [kg]	
ST40	ST41				50	150	100	0.5	C45
	ST42		Folded lever Gebogen hebel		54			0.7	
	ST42-D		Straight lever Geradeaus hebel		54			0.8	
	ST43	X		X	58				
	ST44	X	Folded lever Gebogen hebel	X	63			0.9	
	ST44-D	X	Straight lever Geradeaus hebel	X	63				
	ST45	X	Central lever Schraubknebel	X	58				
	ST55							50	



**SpeedBlock®** is the new clamping system for all kinds of press brake. It allows, means of a manual mechanical drive, to save time in set-up respecting the safety rules.

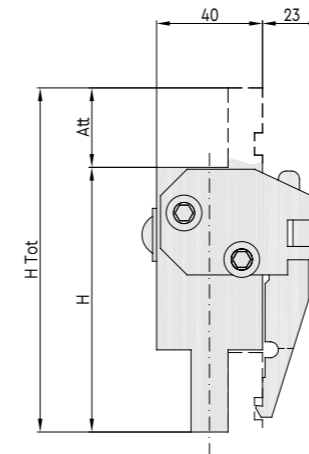
- Quick release and clamping of tools;
- Laser marking with safety instructions;
- Possibility to bend with all standard Amada range without touching the clamps;
- Wear resistance surface treatment and induction hardening on working parts;
- Clamps divided in two parts that allows to unhook sectioned pieces, holdin them by one hand, only;
- Possibility to release the tools keeping them in silding position without risk of fall
- Special integrated foldaway unhooking lever working at the same time on all clamps;
- Clamps independent adjustment

Das neue Klemmsystem **SpeedBlock®**, das auf alle Arten von Abkantpressen anwendbar ist, gestattet es, mit einer manuellen mechanischen Steuerung bei den Rüstzeiten zu sparen und gleichzeitig die Sicherheitsvorschriften einzuhalten.

- *Schnelligkeit bei Einbau und Ausbau der Werkzeuge*
- *Lasermarkieren mit Sicherheitshinweisen*
- *Abkantmöglichkeit mit der gesamten Palette der Amada-Standardwerkzeuge, ohne die Klammern zu berühren*
- *Verschleißbeständige Oberfl ächenhärtung und Induktionshärtung in den Arbeitsbereichen*
- *Zweiteilige Klammer, die es ermöglicht, die Teilungsstücke mit nur einer Hand zu entnehmen*
- *Möglichkeit zur Freigabe der Werkzeuge, indem sie ohne Absturzgefahr in die Gleitposition gebracht werden*
- *Integrierter versenkbarer Auslösehebel, der gleichzeitig auf alle Klammern wirkt*
- *Unabhängige Einstellung der Klammern*

Top Type A

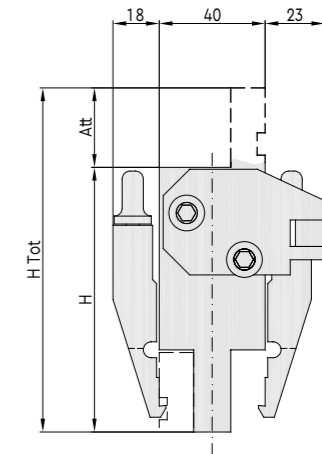
40.40-S



Down Type A (B)

Top Type A

40.40-S4

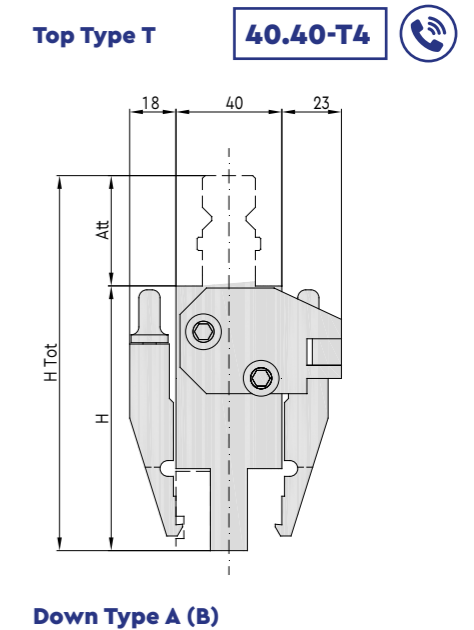
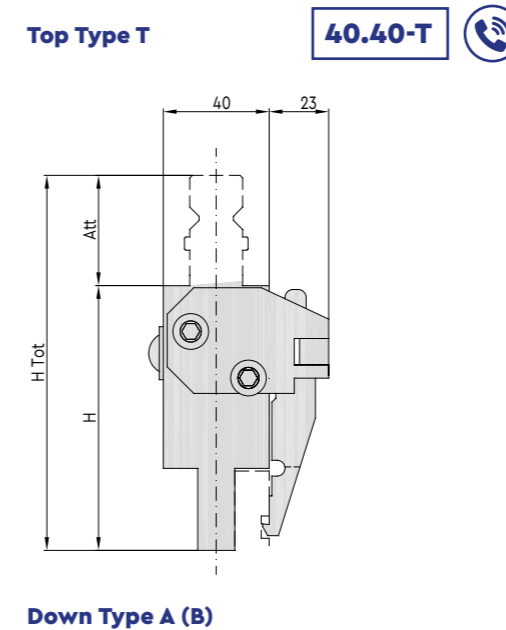
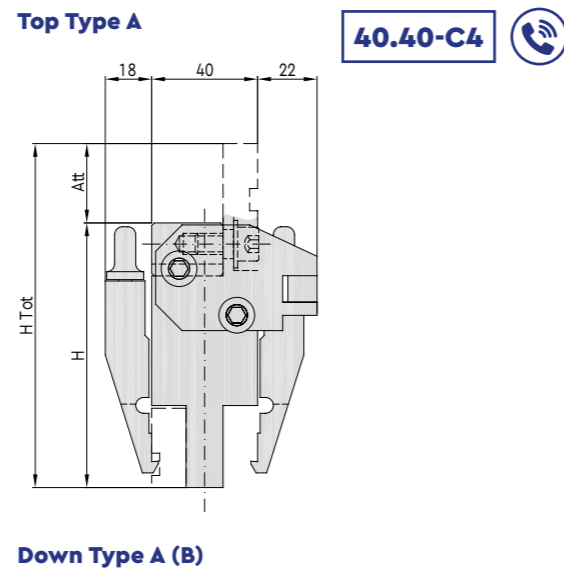
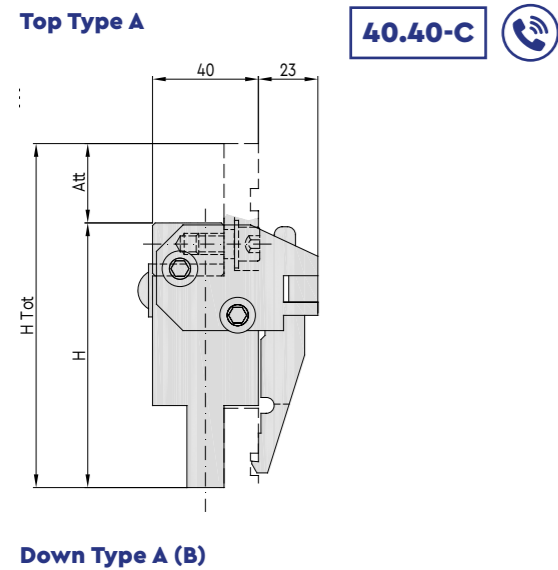


Down Type A (B)

Fam.	Mod.	Top clamping type Ober Aufnahme Typ		Height Höhe	Total Height Gesamthöhe	Lenght Länge	Weight Gewicht	Material Werkstoff	Weight	Material
		Type/Typ	Model Model	H [mm]	H Tot [mm]	L [mm]	K [kg]		K [kg]	
40.40 - S	40.40 - S /100	A	B-G-EURO T-FAST	A	B con 2 Staffe / with 2 clamps	100	130	150	5	C45
	120					150	6			
	150					180	7.5			
40.40 - S4	40.40 - S4 /100	A	B-G-EURO T-FAST	A	B con 4 Staffe / with 4 clamps	100	130	150	6	C45
	120					150	7.2			
	150					180	9			

SPEEDBLOCK®

SPEEDBLOCK®

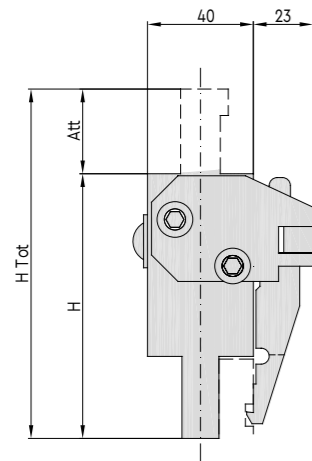


Fam.	Mod.	Top clamping type Ober Aufnahme Typ		Down clamping type Unter Aufnahme Typ		Height Höhe	Tot. Height Gesamthöhe	Lenght Länge	Weight Gewicht	Material Werkstoff
		Type/Typ	Model Model	Type/Typ	Model Model	H [mm]	H Tot [mm]	L [mm]	K [kg]	
40.40 - C	40.40 - C/100	A con sistema di regolazione / Adjustment system	B-G-EURO T-FAST	A	B con 2 Staffe / with 2 clamps	100	130	150	5	C45
	40.40 - C/120					120	150		6	
	40.40 - C/150					150	180		7.5	
40.40 - C4	40.40 - C4/100	A con sistema di regolazione / Adjustment system	B-G-EURO T-FAST	A	B con 4 Staffe / with 4 clamps	100	130	150	6	C45
	40.40 - C4/120					120	150		7.2	
	40.40 - C4/150					150	180		9	

Fam.	Mod.	Top clamping type Ober Aufnahme Typ		Down clamping type Unter Aufnahme Typ		Height Höhe	Tot. Height Gesamthöhe	Lenght Länge	Weight Gewicht	Material Werkstoff
		Type/Typ	Model Model	Type/Typ	Model Model	H [mm]	H Tot [mm]	L [mm]	K [kg]	
40.40 - T	40.40 - T/140	T/L	W	A	B con 2 Staffe / with 2 clamps	99,5	140	150	5.5	C45
	40.40 - T/190					149,5	190		8.3	
40.40 - T4	40.40 - T4/140	T/L	W	A	B con 4 Staffe / with 4 clamps	99,5	140	150	6.5	C45
	40.40 - T4/190					149,5	190		9.8	

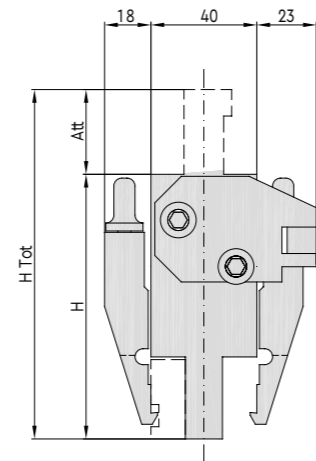


Top Type L **40.40-L** 



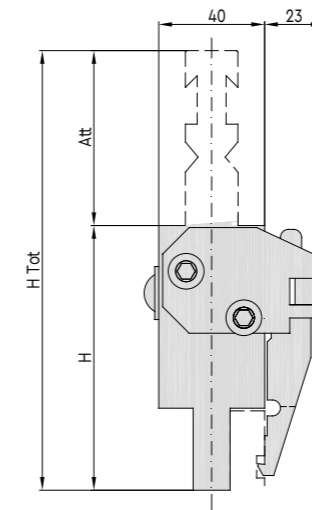
Down Type A (B)

Top Type L **40.40-L4** 



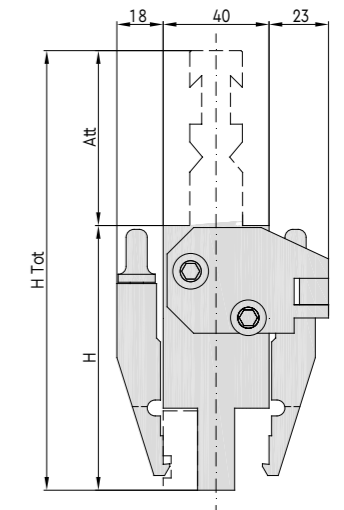
Down Type A (B)

Top Type B **40.40-B** 



Down Type A (B)

Top Type B **40.40-B4** 



Down Type A (B)

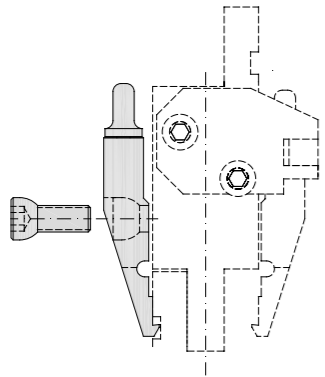
Fam.	Mod.	Top clamping type Ober Aufnahme Typ		Down clamping type Unter Aufnahme Typ		Height Höhe	Tot. Height Gesamthöhe	Lenght Länge	Weight Gewicht	Material Werkstoff
		Type/Typ	Model Model	Type/Typ	Model Model	H [mm]	H Tot [mm]	L [mm]	K [kg]	
40.40 - L	40.40 - L10	L	10	A	B con 2 Staffe / with 2 clamps	100	122	150	4.7	C45
	40.40 - L15		15			132	5			
40.40 - L4	40.40 - L410	L	10	A	B con 4 Staffe / with 4 clamps	100	122	150	5.7	C45
	40.40 - L415		15			132	6			

Fam.	Mod.	Top clamping type Ober Aufnahme Typ		Down clamping type Unter Aufnahme Typ		Height Höhe	Tot. Height Gesamthöhe	Lenght Länge	Weight Gewicht	Material Werkstoff
		Type/Typ	Model Model	Type/Typ	Model Model	H [mm]	H Tot [mm]	L [mm]	K [kg]	
40.40 - B	40.40 - BS	B	S	A	B con 2 Staffe / with 2 clamps	100	145	150	5.5	C45
	40.40 - BR		R						5.3	
	40.40 - BRF-A		RF-A						5.7	
40.40 - B4	40.40 - B4S	B	S	A	B con 4 Staffe / with 4 clamps	100	145	150	6.5	C45
	40.40 - B4R		R						6.3	
	40.40 - B4RF-A		RF-A						6.7	

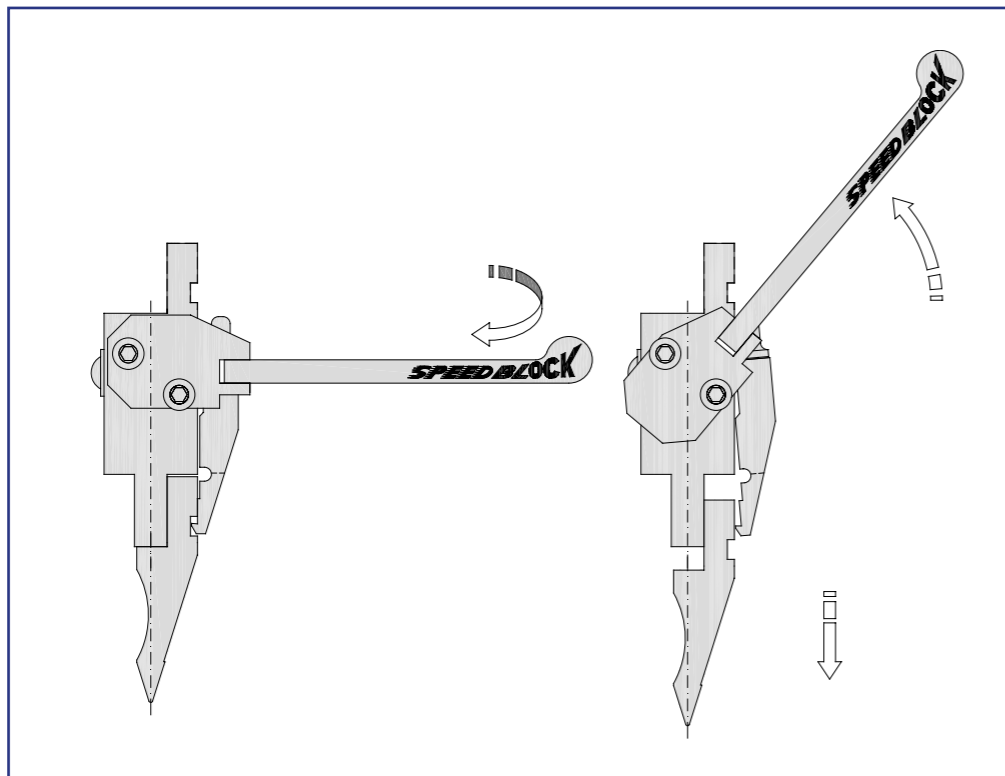
**SPEEDBLOCK®**

**KIT DOPPIO STAFFAGGIO / DOUBLE CLAMPING KIT**

40.40-Fix DS (2)

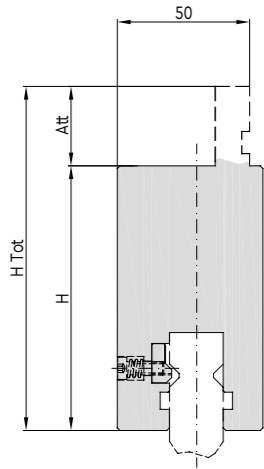


**EXAMPLE OF OPERATION / ANWENDUNGSBEISPIEL**



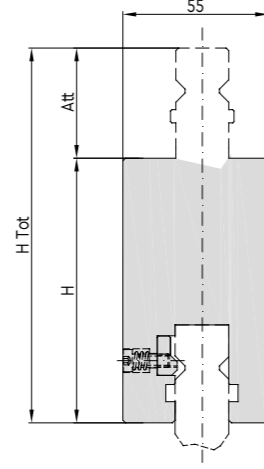
FOR TRUMPF-LVD TOOLS / FÜR TRUMPF-LVD ABKANTWERKZEUGE

Top Type A **SPE-EXT AW** 



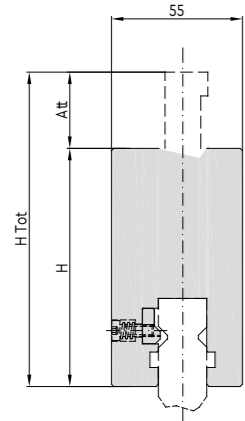
Down Type T-L (W)

Top Type T-L (W) **SPE-EXT TW** 



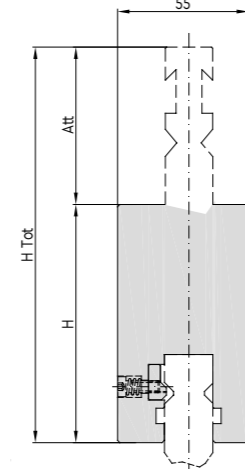
Down Type T-L (W)

Top Type L 10-15 **SPE-EXT LW** 



Down Type T-L (W)

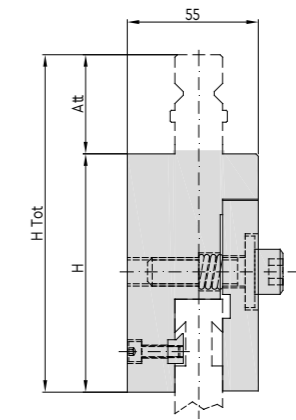
Top Type B (S-R-RFA) **SPE-EXT BW** 



Down Type T-L (W)

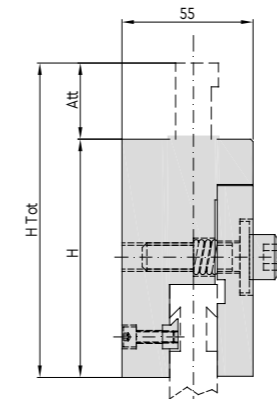
FOR BEYELER TOOLS / FÜR BEYELER ABKANTWERKZEUGE

Top Type T-L (W) **SPE-EXT TB** 



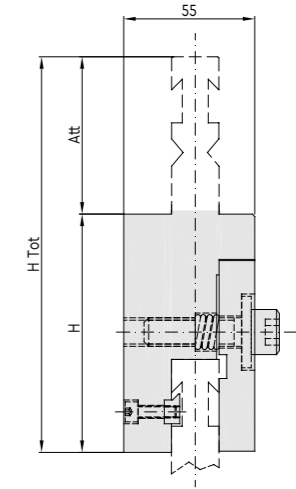
Down Type B

Top Type L (10-15) **SPE-EXT LB** 



Down Type B

Top Type B (S-R-RFA) **SPE-EXT BB** 

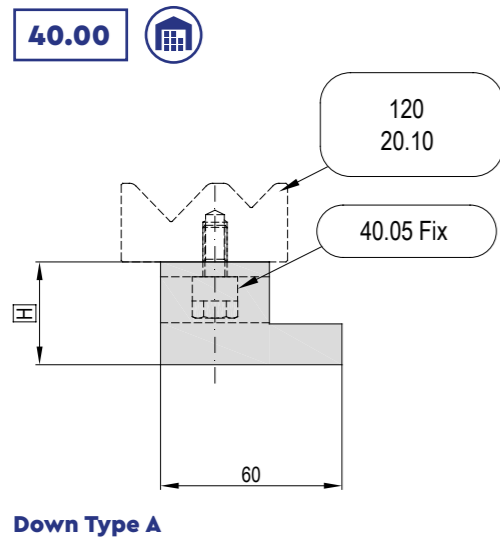


Down Type B

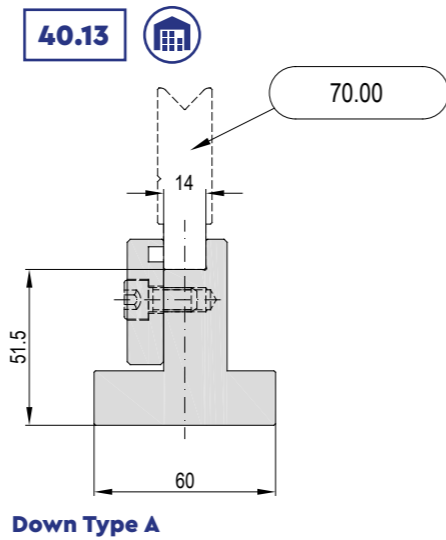
Fam.	Mod.	Top clamping type Ober Aufnahme Typ		Down clamping type Unter Aufnahme Typ		Height Höhe H [mm]	Tot. Height Gesamthöhe H Tot [mm]	Lenght Länge L [mm]	Weight Gewicht K [kg]	Material Werkstoff	
		Type/Typ	Model Model	Type/Typ	Model Model						
SPE - EXT AW	SPE - EXT AW/67	A	B-G-EURO -T-FAST	T/L	W	67	97	150	3.2	C45	
	SPE - EXT AW/100					100	130		4.7		
SPE - EXT TW	SPE - EXT TW/100	T/L	W	T/L	W	100	140	150	5	C45	
	SPE - EXT TW/150					150	190		7		
SPE - EXT LW	SPE - EXT LW/100	L	10	T/L	W	100	122	150	4.4	C45	
							15		132		4.7
							10		172		6.6
							15		182		6.9
SPE - EXT BW	SPE - EXT BW/100	B	S	T/L	W	100	145	150	5.2	C45	
			R				5				
			RF-A				165		5.4		
			S				7.8				
			R				145		7.6		
			RF-A				165		8		
SPE - EXT BW	SPE - EXT BW/150	B	S	T/L	W	150	145	150	7.6	C45	
			R				8				
			RF-A				165		8		
			S				7.8				
			R				145		7.6		
			RF-A				165		8		

Fam.	Mod.	Top clamping type Ober Aufnahme Typ		Down clamping type Unter Aufnahme Typ		Height Höhe H [mm]	Tot. Height Gesamthöhe H Tot [mm]	Lenght Länge L [mm]	Weight Gewicht K [kg]	Material Werkstoff
		Type/Typ	Model Model	Type/Typ	Model Model					
SPE - EXT TB	SPE - EXT TB	T/L	W	B	R	100	140	150	5	C45
					RF-A	120	160		6	
SPE - EXT LB	SPE - EXT LW/100	L	10	B	R	100	122	150	4.4	C45
					RF-A	120	142		5.4	
					R	100	132		4.7	
					RF-A	120	152		5.7	
SPE - EXT BB	SPE - EXT BB	B	S	B	R	100	145	150	5.2	C45
					RF-A	120	165		6.2	
					R	100	145		5	
					RF-A	120	165		6	
					R	100	165		5.4	
					RF-A	120	185		6.4	

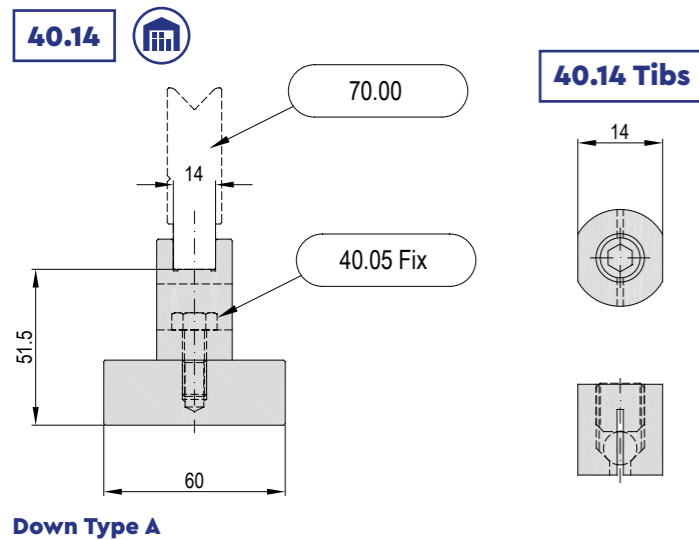
LOWER ADAPTERS/OBER ADAPTER



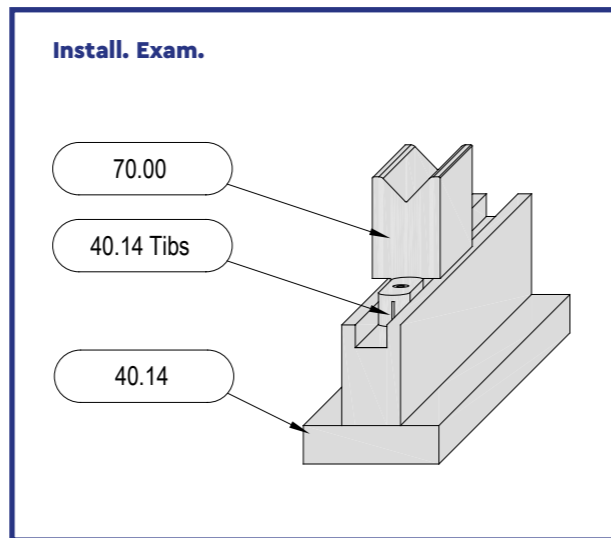
Down Type A



Down Type A

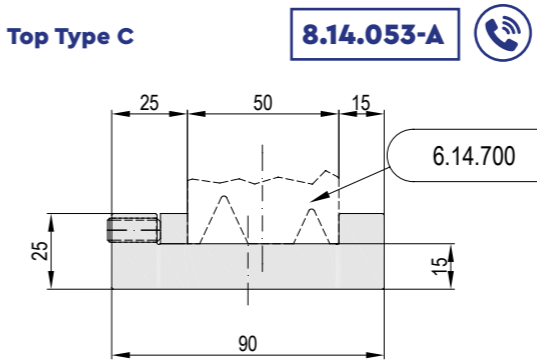
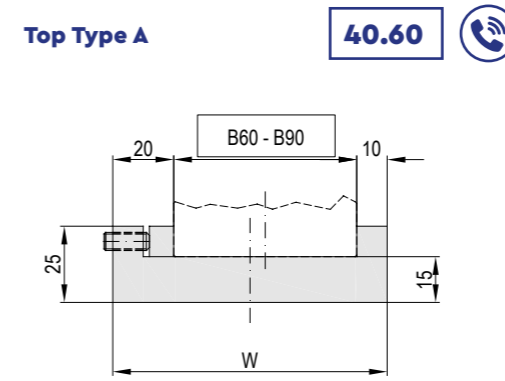


Down Type A

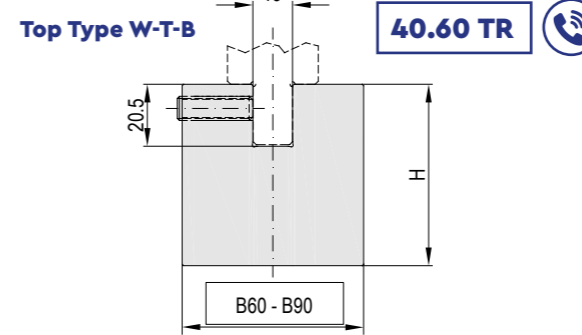


Fam.	Mod.	Down clamping type Unter Aufnahme Typ		Top clamping type Ober Aufnahme Typ		Width Breite W [mm]	Height Höhe H [mm]	Lenght Länge L [mm]	Weight Gewicht K [kg]	Material Werkstoff
		Type/Typ	Model Model	Type/Typ	Model Model					
40.00	40.06	A	B60	A	120-20.10	60	36	835-415	9-4.5	C45
							39		10-5	
							55		15-7.5	
							75		19-9.5	
40.13	40.13	A	B60	A	70.00	60	51.5	835-415-1050-1250	14-7-17.5-21	C45
40.14	40.14	A	B60	A	70.00	60	51.5	835-415-1050-1250	16-8-20-24	C45

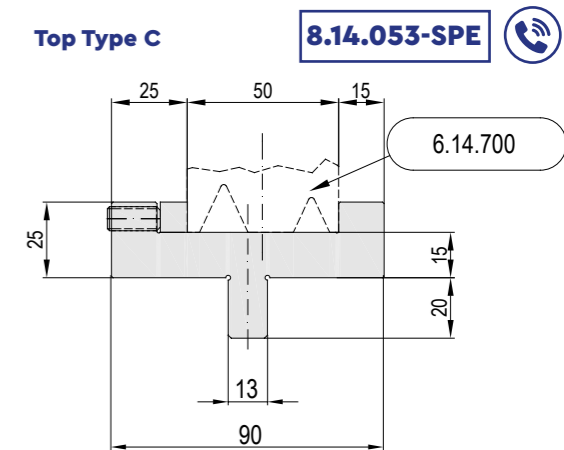
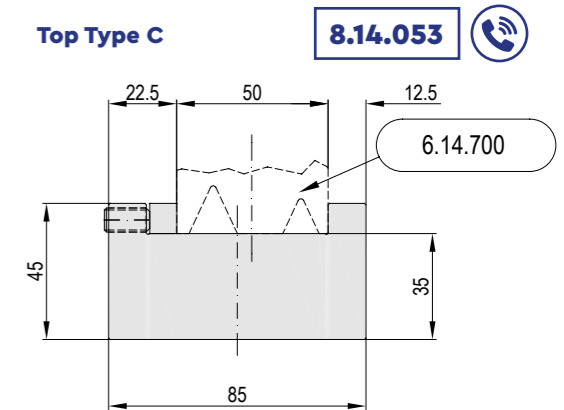
LOWER ADAPTERS/OBER ADAPTER



Down Type A



Down Type A

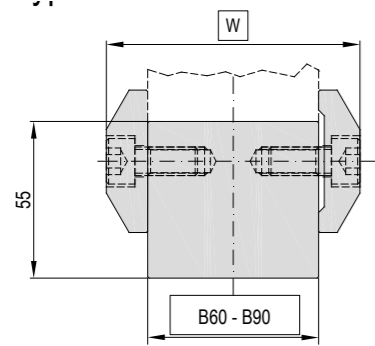


Down Type W-T-B

Fam.	Mod.	Down clamping type Unter Aufnahme Typ		Top clamping type Ober Aufnahme Typ		Width Breite W [mm]	Height Höhe H [mm]	Lenght Länge L [mm]	Weight Gewicht K [kg]	Material Werkstoff
		Type/Typ	Model Model	Type/Typ	Model Model					
40.60	40.60 B60	A	-	A	B60	90	15	2100-2600-3100-4100	31-38-45-60	C45
	40.60 B90		-		B90				40-49-59-78	
8.14.053	8.14.053	C	-	C	6.14.700	85	35	1250-2020-3050-4050	34-55-83-110	C45
	8.14.053 - A	A	B90			90			16-26-39-52	
	8.14.053 - SPE	T-B	W			90			17-27-41-55	
40.60-TR	40.60 - TR B60	A	B60	T-B	W	60	30	500-1000	6-12	C45
			60			13-26				
	40.60 - TR B90		30			9.5-19				
			60			20-40				

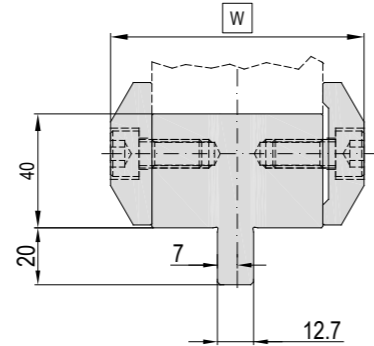
LOWER ADAPTERS / OBER ADAPTER

Top Type A **40.55** 



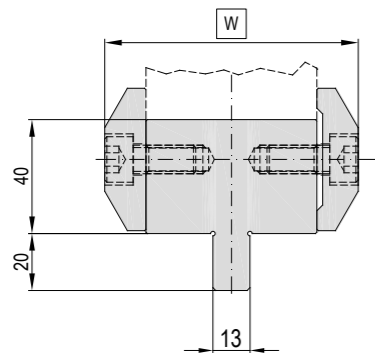
Down Type A

Top Type A **40.55-LVD** 



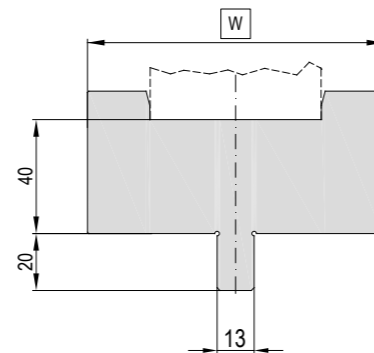
Down Type L

Top Type A **40.55-TR** 



Down Type T-B

Top Type A **40.40 SPE** 

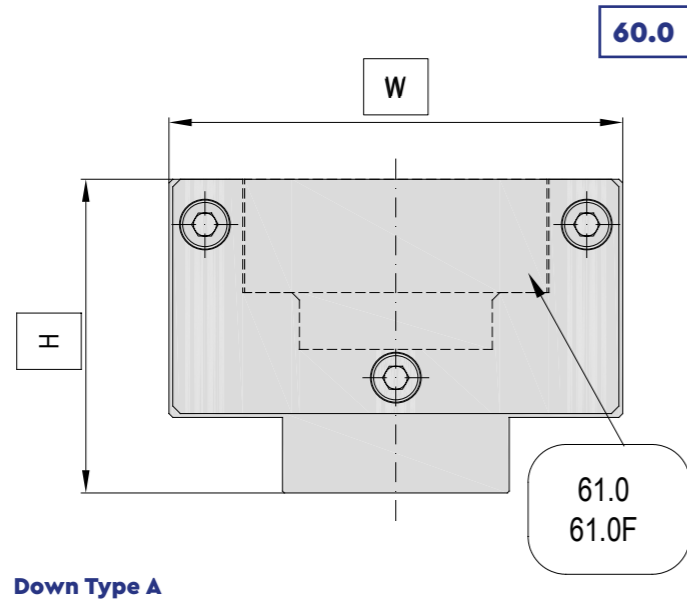


Down Type T-B

Fam.	Mod.	Down clamping type Unter Aufnahme Typ		Top clamping type Ober Aufnahme Typ		Width Breite W [mm]	Height Höhe H [mm]	Length Länge L [mm]	Weight Gewicht K [kg]	Material Werkstoff
		Type/Typ	Model Model	Type/Typ	Model Model					
40.55	40.55 B60	A	B60	A	B60	89	55	835-415	22-11	C45
	40.55 B90		B90		B90	119			33-16.5	
40.55-LVD	40.55-LVD	L	L	A	B60	89	40	835-415	25-12	C45
					B90	119			36-18	
40.55-TR	40.55-TR	T-B	W	A	B60	89	40	835-415	25-12	C45
					B90	119			36-18	
40.40 SPE	40.40 SPE	T-B	W	A	B60	109	40	500	19	C45
					B90	139			24	



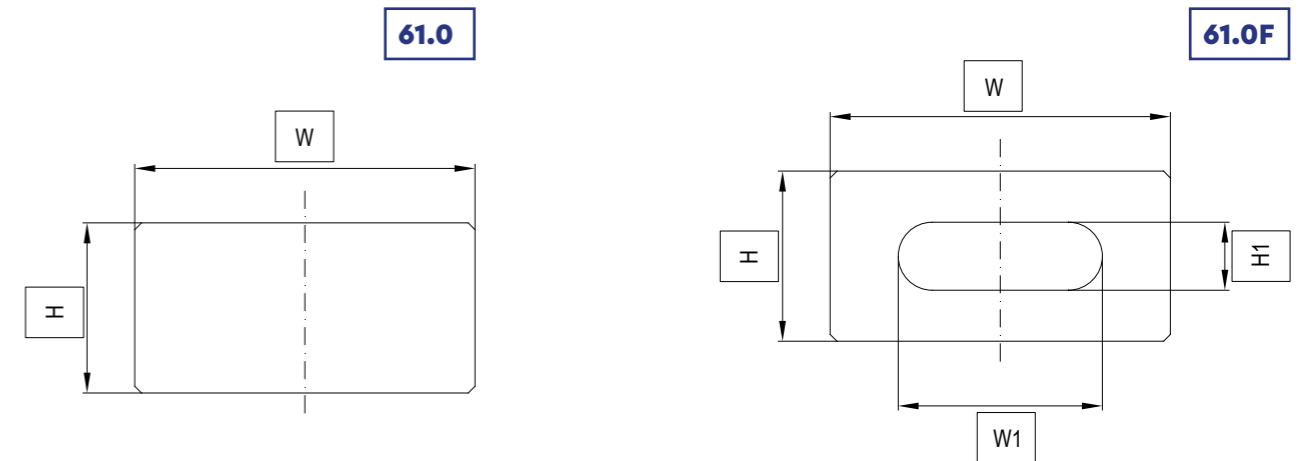
POLYURETHANE INSERT HOLDERS/MATRIZEN FÜR POLSTER



Down Type A

Fam.	Mod.	Down clamping type Unter Aufnahme Typ		Width Breite W [mm]	Height Höhe H [mm]	Lenght Länge L [mm]	Weight Gewicht K [kg]	Material Werkstoff	
		Type/Typ	Model Model						
60.0	60.1	A	B60	60	60	835-415	21-10.5	C45	  
	60.3			100	100		45-22.5		
	60.4			120	83		55-27.5		
	60.5		B60-B90	150	108		62-31		
	60.6			125	100		47-23.5		
	60.7			155	100		52-26		
	60.8			215	110		91-45.5		
	60.9			239	65		70-35		

POLYURETHANE INSERT WITH/WITHOUT HOLE  
POLSTER MIT /OHNE KERNLOCH



Fam.	Mod.	Width Breite	Height Höhe	Lenght Länge	Weight Gewicht	Material Werkstoff	
		W [mm]	H [mm]	L [mm]	K [kg]		
61.0	61.1	25	25	835-415	1-0.5	Yellow 80 Shore Orange 82 Shore Red 90 Shore  Gelb 80 Shore Orange 82 Shore Rot 90 Shore	  
	61.3	50	50		3-1.5		
	61.4	80	30		6-3		
	61.5	110	45		4.5-2.2		
	61.6	75	50		6-3		
	61.7	100	50		12.5-6		
	61.8	150	70		24-12		
	61.9	200	100				

Fam.	Mod.	Width Breite	Height Höhe	Hole Kernloch	Lenght Länge	Weight Gewicht	Material Werkstoff	
		W [mm]	H [mm]	W1 x H1 [mm]	L [mm]	K [kg]		
61.0F	61.1	25	25	10	835-415	1-0.5	Yellow 80 Shore Orange 82 Shore Red 90 Shore  Gelb 80 Shore Orange 82 Shore Rot 90 Shore	  
	61.3	50	50	25		2.5-1.2		
	61.4	80	30	40x15		2-1		
	61.5	110	45	60x20		4.5-2.2		
	61.6	75	50	45x20		3.5-1.7		
	61.7	100	50	60x20		4.5-2.2		
	61.8	150	70	90x35		9-4.5		
	61.9	200	100	135x45		17-8.5		



The variable V dies allow to work sheet metal of various thicknesses, with different bending angles, avoiding tool changes so as to reduce press setup times.

## AUTOMATIC V OPENING DIES

They are available in two versions:

- manual with opening ranges 6–40mm and max length 3000 mm
- motorized programmable by CNC of the press and max opening ranges 240mm and max length 8000 mm. To obtain different "V" openings in a fast and simple way.

## FIXED SECTOR DIES

- The fixed sector dies allow you to adjust the opening of the "V" by means of removable sectors with 10mm registration steps
- The openings can vary from a min. of 40mm to a max of 400mm and a length max of 8000 mm

The variable dies can be customized according to the requirements of customer and to interface to the dimensions of press brake.

All these dies are induction hardened in the sliding area metal sheet or they have hardened rollers to reduce friction during the movement of the sheet on the die.

Die variable V Matrizen ermöglichen die Bearbeitung von Blechen verschiedener Dicken mit unterschiedlichen Biegewinkeln, vermeiden von Werkzeugwechseln, um die Rüstzeiten der Abkantpresse zu verkürzen.

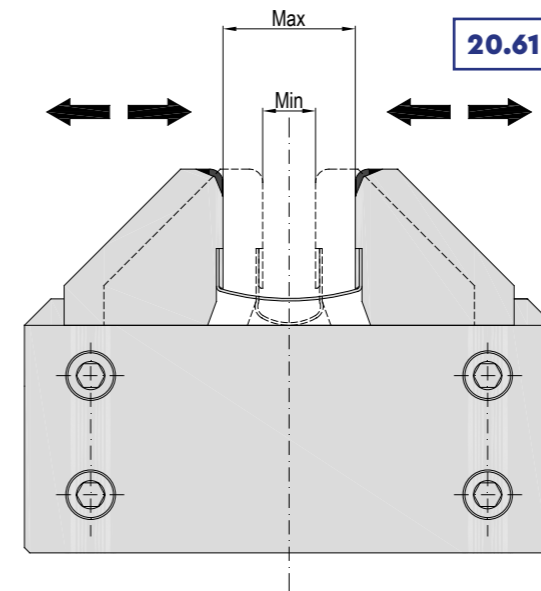
## MATRIZEN MIT V ÖFFNUNGSWEITE VARIABLE

- Sie sind in zwei Versionen erhältlich:
- Manuell mit Öffnungsbereichen 6–40 mm und maximaler Länge 3000 mm
- Motorisiert programmierbar durch CNC der Presse und maximale Öffnungsbereiche 240 mm und maximale Länge 8000 mm. Um schnell und einfach verschiedene "V"-Öffnungen zu erhalten.

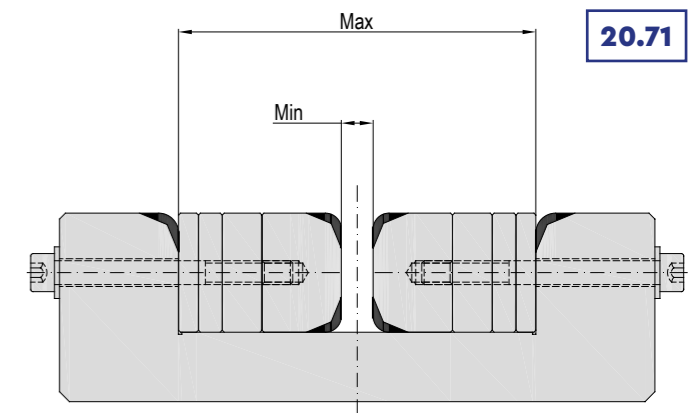
## MATRIZEN MIT FESTEN SEKTOREN

- Die Matrizen mit festen Sektoren gestatten die Einstellung der „V“-Öffnung mittels herausnehmbarer Sektoren mit 10mm Einstellschritten.
- Die Öffnungsweiten können von einem Minimum von 40 mm bis zu einem Maximum von 400 mm variieren.

Die variablen Matrizen können nach Kundenwunsch und an die Abmessungen der Abkantpresse angepasst werden. Alle diese Matrizen sind im Metallblech mit Gleitbereich induktionsgehärtet oder haben gehärtete Rollen, um die Reibung während der Bewegung des Blechs auf der Matrize zu verringern.

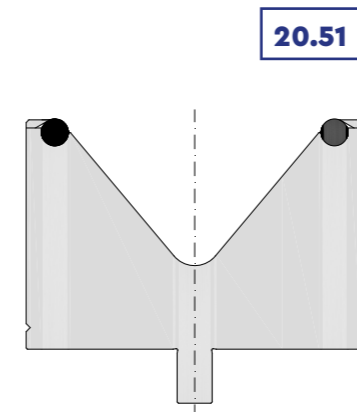


VARIABLE OPENING DIES WITH  
MANUAL OR AUTOMATIC ADJUSTMENT  
MATRIZEN MIT VARIEREN ÖFFNUNGSWEITE MIT  
MANUELL ODER AUTOMATISCH EINSTELLUNG



VARIABLE OPENING DIES WITH FIXED SECTOR  
MATRIZEN MIT FESTEN SEKTOREN

# MATRICI A RULLINI/ROLLERS DIES



These lower dies, with hardened rollers, improves the sliding of the sheet during the bending operation.

They are available in more versions, depending on the thickness and type of material bending used.

Diese Matrizen mit gehärteten Rollen erlauben eine bessere Gleitung des Bleches während der Biegung.

Sie sind in mehreren Versionen erhältlich, abhängig von den verschiedenen Dicken und Typ des Bleches, welches gebogen werden soll.

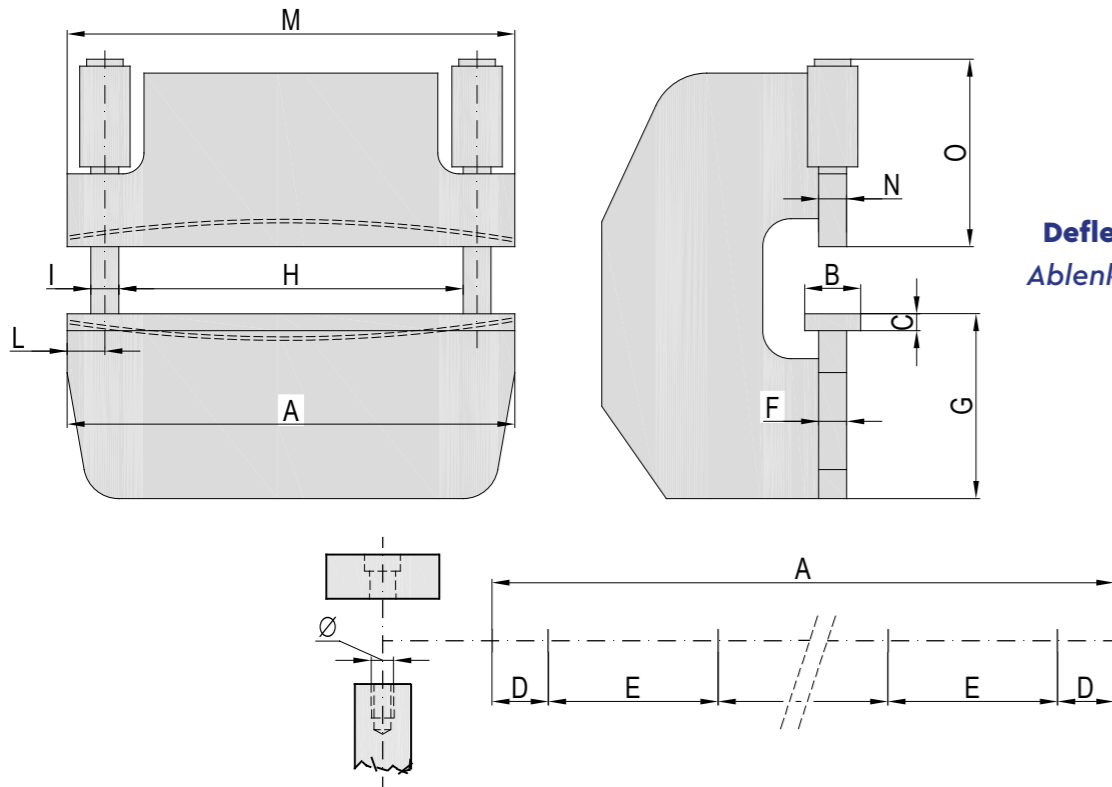


MANUAL OR AUTOMATIC CNC ADJUSTMENT  
MANUELL ODER AUTOMATISCH CNC EINSTELLUNG

It is well known that the bend angle is not constant over the entire length due to the bending that results from machining on the presses. This problem can be solved using compensation tables, which adapt to and compensate the bending diagram through a wedge system. The compensation can be longitudinal for a lineal diagram or diagonal for localized adjustments. Depending on the customer's needs and the technical and structural characteristics of each type of press brake, compensation tables can be manual or automatic and can have diagonal, longitudinal, or combined adjustment. Slots, guides, fixings and sizes of the compensation tables can be customized according to the requirements of each customer.

Es ist bekannt, dass der Biegewinkel aufgrund der Biegung, die während der Bearbeitung auf den Pressen entsteht, nicht über die gesamte Länge konstant ist. Dieses Problem wird mit Hilfe von Bombierungstischen gelöst, die über ein manuelles oder automatisches Keilsystem dem Biegediagramm folgen und dieses kompensieren. Die Kompensation kann bei einem linearen Diagramm in Längsrichtung und bei lokalen Anpassungen in Querrichtung erfolgen. Die Konstruktion dieser Tische wird nach den technischen und strukturellen Merkmalen jedes Abkantpressentyps berechnet und maßgefertigt und kann je nach Bedarf des Kunden manuell oder automatisch betrieben werden und eine Quer-, Längs- oder kombinierte Einstellung haben. Auch die Wahl der Schlitz-, Führungen, Befestigungen und Abmessungen der Bombierungstische werden auf Ihre Bedürfnisse zugeschnitten.

Press Brake Dimensions/Abmessungen der Presse



Deflection Diagram  
Ablenkungsdiagramm

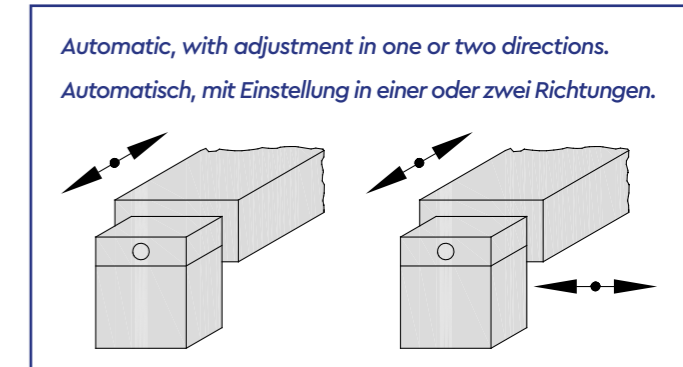
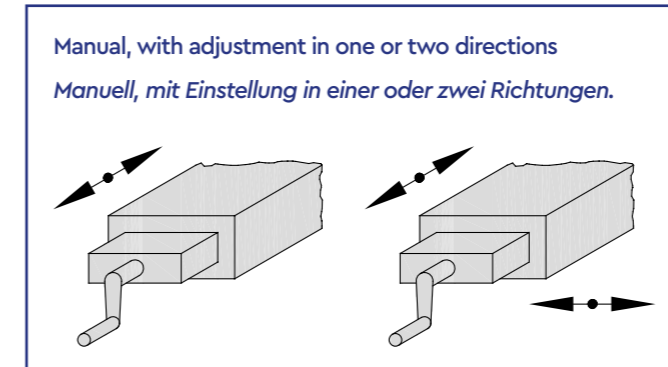
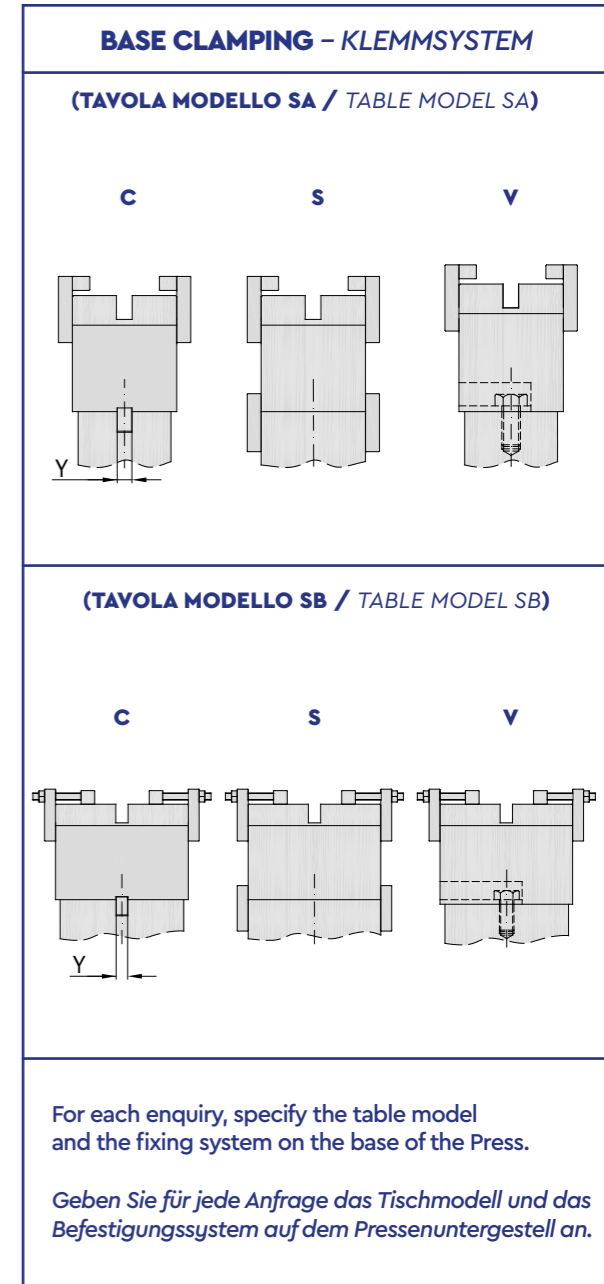
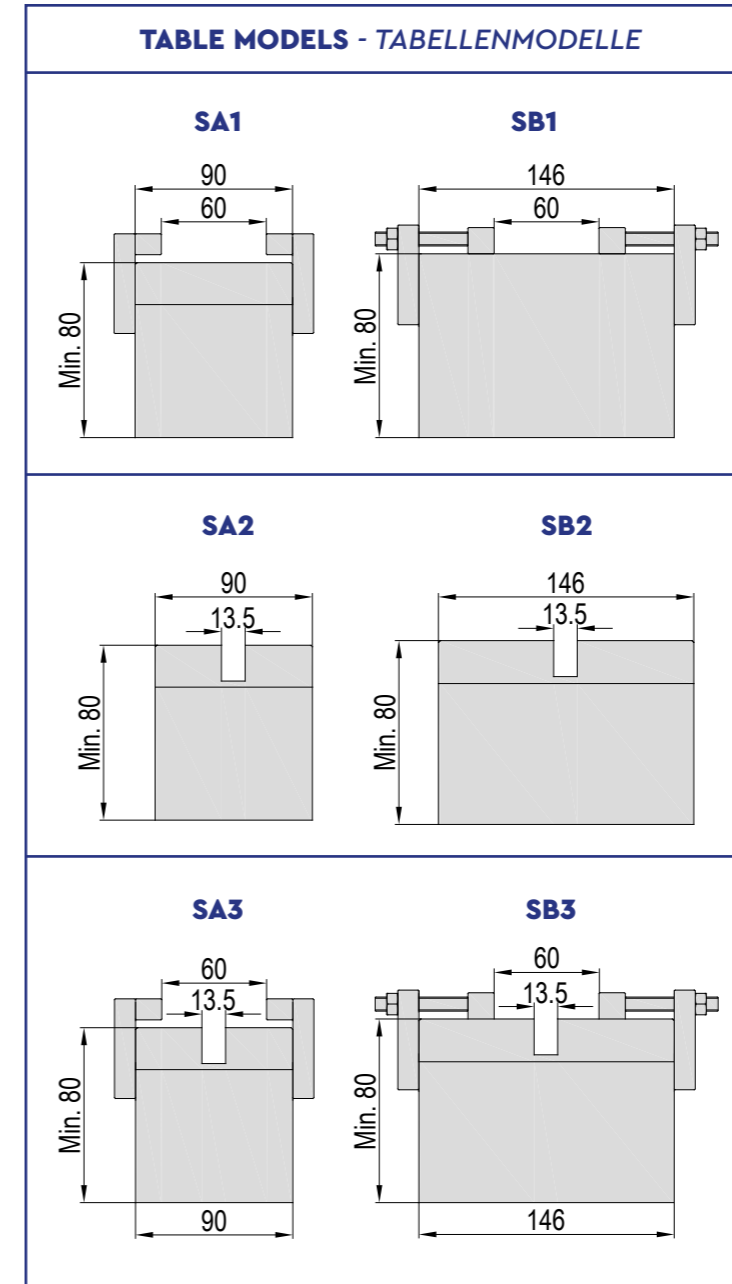
A _____ mm	F _____ mm	M _____ mm
B _____ mm	G _____ mm	N _____ mm
C _____ mm	H _____ mm	O _____ mm
D _____ mm	I _____ mm	Ø _____ mm
E _____ mm	L _____ mm	Press brake force Presskraft _____ kN

Facultative Data / Optionale Daten:

Folding angular error / Biegewinkelfehler \_\_\_\_\_ °

Error position on bending line / Fehlerposition auf der Biegerlinie \_\_\_\_\_ mm

MANUAL OR AUTOMATIC CNC ADJUSTMENT  
MANUELL ODER AUTOMATISCH CNC EINSTELLUNG



The arrow indicates the compensation direction. - Der Pfeil zeigt die Bombierungsrichtung an.



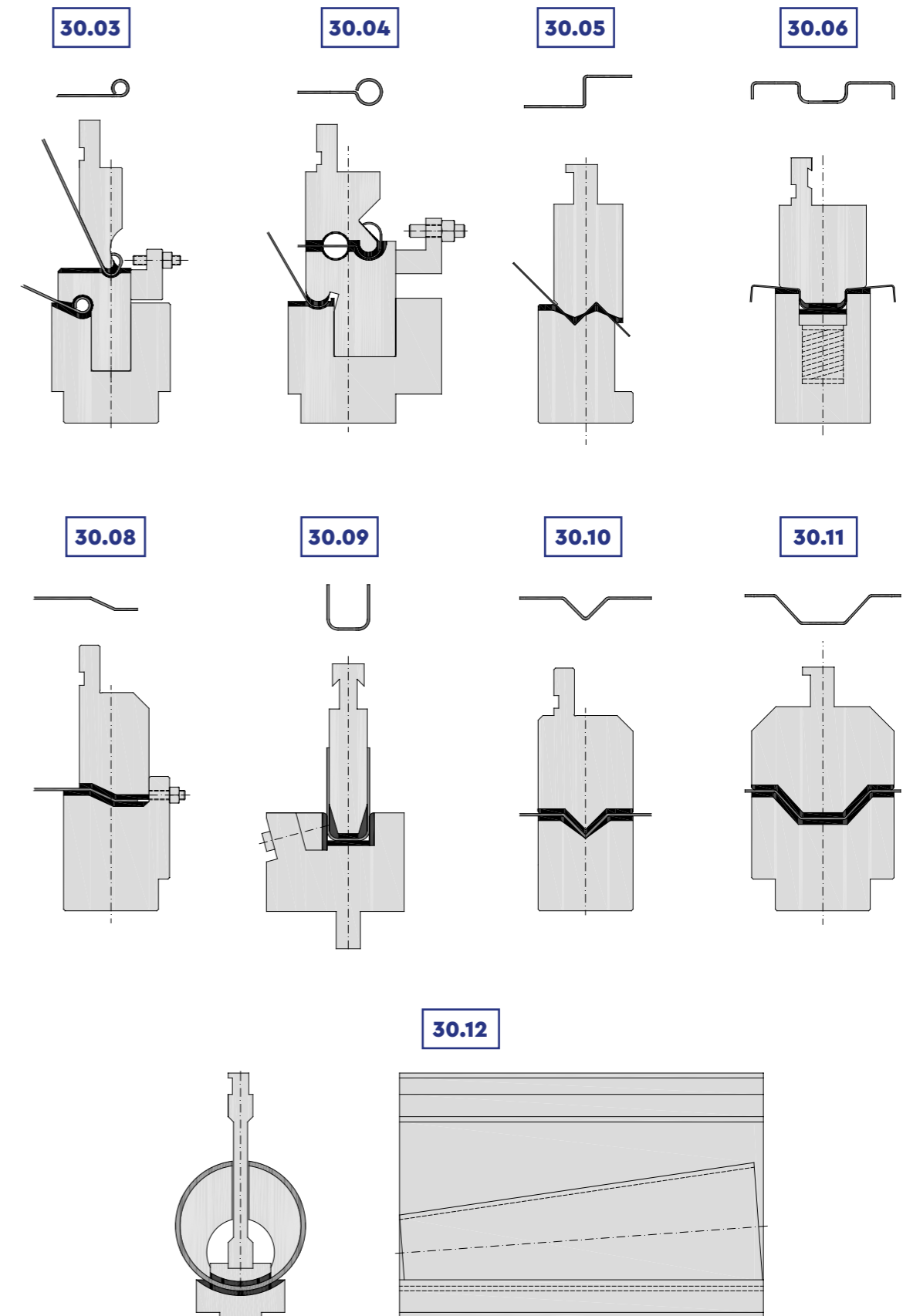


For any enquiry on special tools, please indicate as follows:

- Drawing of the sheet metal profile, with length of bend, tolerances on dimension and degrees;
- Kind of sheet (stainless steel, iron aluminium, etc..) and thickness;
- Possible plastic coating on the sheet;
- Kind of press brake (builder);
- Maximum pressure on press-brake in tons;
- Type or dimensions of clamping system for punch and die;
- Attachment measures for punch and die

Bitte geben Sie bei jeder Anfrage für Sondermatrizen immer an:

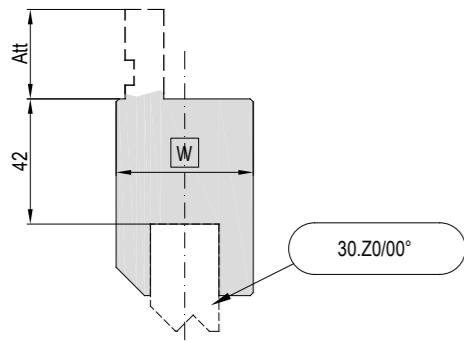
- Zeichnung des gebogenen Blechs mit Biegelänge und möglichen Toleranzen bei Abmessungen und Grad
- Art des Blechs (rostfreier Stahl, Eisen, Aluminium usw.) und Stärke
- Mögliches Vorhandensein einer Kunststoffbeschichtung auf dem Blech
- Typ der Abkantpresse (Hersteller)
- Maximale Presskraft in Tonnen
- Maximale Einbauhöhe und Hub der Presse
- Abmessungen der Aufnahme für Stempel und Matrize



JOGGLE TOOL HOLDERS/Z-WERKZEUGAUFNAHMEN

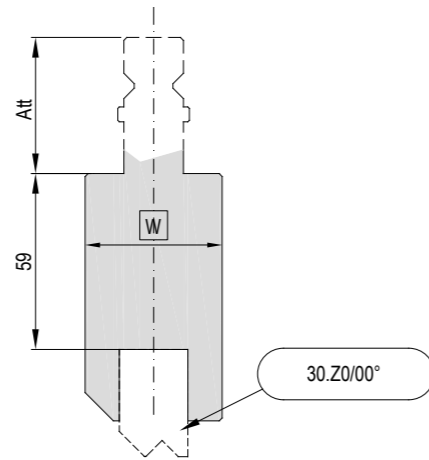
Top Type A

40.ZP 

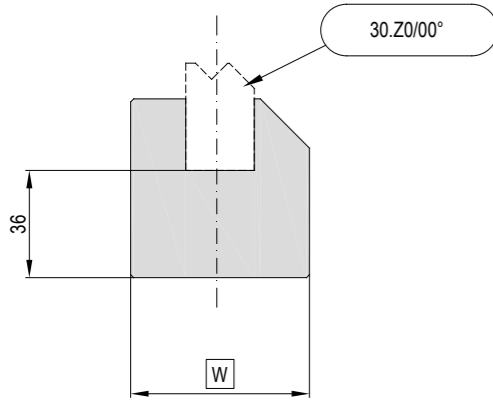


Top Type T

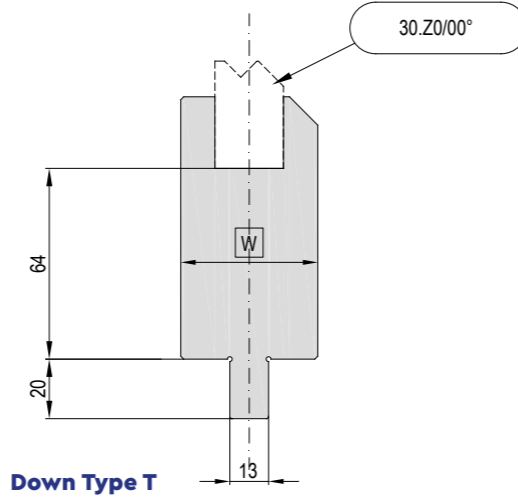
40.ZPW 



40.ZD 



40.ZDW 

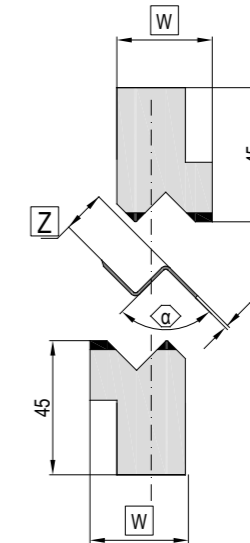
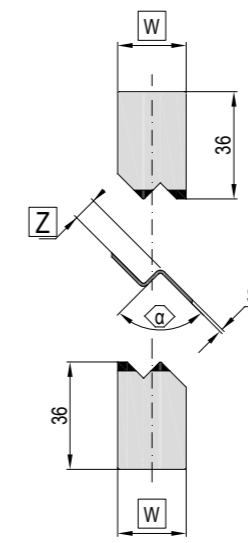


Down Type A

Down Type T

Fam.	Mod.	Top clamping type Ober Aufnahme Typ		Down clamping type Unter Aufnahme Typ		Width Breite W [mm]	Height Höhe H [mm]	Length Länge L [mm]	For Joggle tools für Z-Wer- kzeugein- sätze	Weight Gewicht K [kg]	Material Werkstoff
		Type/ Typ	Model Model	Type/ Typ	Model Model						
40.Z	40.ZP	A	B-G-EURO	A	B60	46	42	835-415	30.Z0/00°	19-10	C45
	40.ZD		T-FAST			60	36			19-10	
40-ZW	40.ZPW	T/L	W	T-B	W	46	59	835-415	30.Z0/00°	26-13	C45
	40.ZDW						64			24-12	

JOGGLE TOOL INSERT/Z-WERKZEUGEINSÄTZE

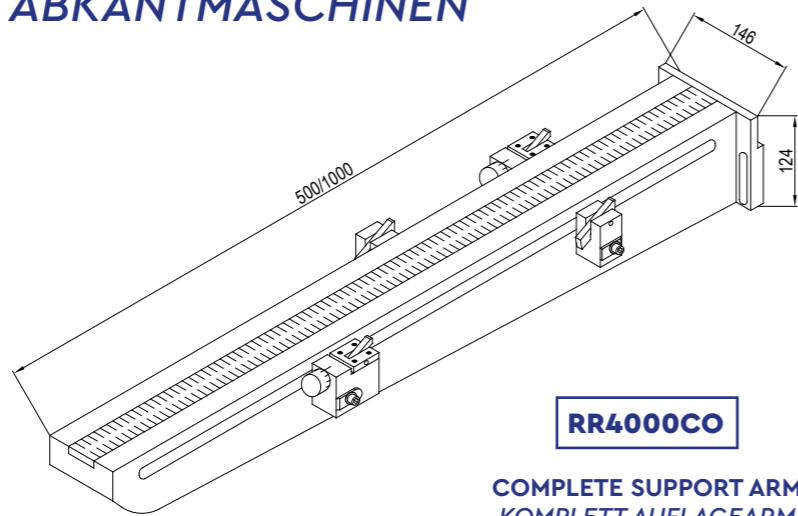


30.Z0/00° 

Fam.	Mod.	Joggle bending Z-Biegen	Angle Winkel	Metal thickness Blechbreite	Width Breite	Height Höhe	Length Länge	Weight Gewicht	Material Werkstoff
		Z [mm]	α [°]	S [mm]	W [mm]	H [mm]			
30.Z0/00°	30.Z1/160°	1	160°	0.5	23	36	835 - 415	10-5	C45 ●
	30.Z1.5/160°	1.5		0.6					
	30.Z2/150°	2	150°	0.8					
	30.Z2.5/140°	2.5	140°	1					
	30.Z1/90°	1	90°	0.5					
	30.Z1.5/90°	1.5		0.6					
	30.Z2/90°	2		0.8					
	30.Z2.5/90°	2.5		1					
	30.Z3/90°	3		1.2					
	30.Z3.5/90°	3.5		1.5					
	30.Z4/90°	4							
	30.Z4.5/90°	4.5		2					
	30.Z5/90°	5							
	30.Z5.5/90°	5.5		2.5					
	30.Z6/90°	6							
	30.Z6.5/90°	6.5	3						
	30.Z7/90°	7							
	30.Z7.5/90°	7.5	3						
	30.Z8/90°	8							
	30.Z9/90°	9	45						
30.Z10/90°	10								
30.Z11/90°	11	32							
30.Z12/90°	12								
30.Z13/90°	13	3							
30.Z14/90°	14								
30.Z15/90°	15								

● temprato=Induction hardening ○ bonificato=tempered

SUPPORT AND GAUGE ARMS  
ANSCHLÄGE FÜR ABKANTMASCHINEN



**RR400CO**

COMPLETE SUPPORT ARM  
KOMPLETT AUFLAGEARM



**RR400MI**

STOP SYSTEM WITH MICROMETRIC ADJUSTMENT  
STOPPEN SYSTEM MIT MIKROMETRISCHER EINSTELLUNG



**RR400NO**

SIMPLE STOP SYSTEM  
STOPPEN SYSTEM



**RR4000**

BASE SUPPORT ARM  
AUFLAGEARM



**RR4000ST**

ARM CLAMP  
SPANNVORRICHTUNG

SQUARING ARMS/SEITENANSCHLÄGEN



**AR1**

SQUARING ARM WITH GONIOMETRIC  
SEITENANSCHLÄG MIT WINKELMESSER



**AR3**

SQUARING ARM  
SEITENANSCHLÄG

NO-MARKING ACCESSORIES/KEINE-KRATZEN ZUBEHÖR



**POLYURETHANE FILM**  
ABKANTFOLIEN



**AR4**

COUPLE OF TIGHTENERS  
ABKANTFOLIENHALTER



## TOOL CABINETS

Tool cabinets are an essential accessory for the proper storage of press tools. In particular, they offer the following advantages:

- **Ease of use:** easy positioning of punches and dies inside the sliding drawers
- **Modularity:** possibility to customize the number and position of the internal shelves
- **Sturdiness:** tool cabinets are designed to hold even large punches and dies
- **Positioning:** easy moving and lifting of the tool cabinet to optimize the working/equipment area

## ABKANTWERKZEUGSCHRÄNKE

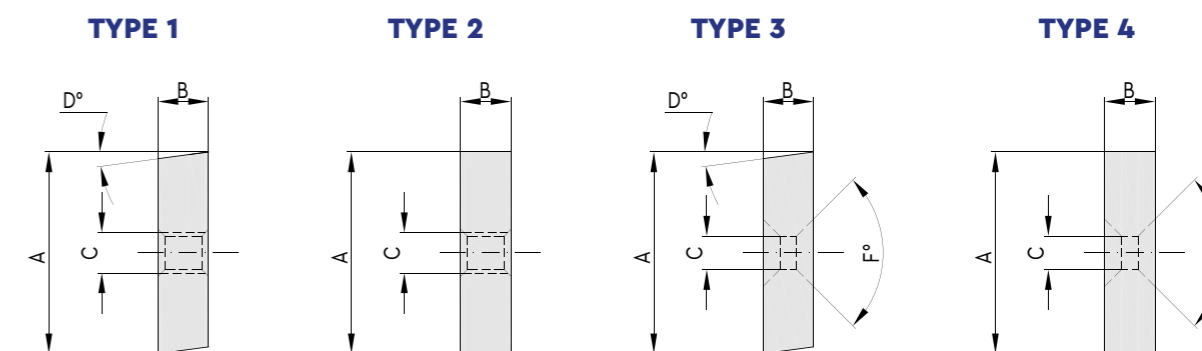
Abkantwerkzeugschränke sind ein unverzichtbares Zubehör für die korrekte Lagerung von Abkantwerkzeugen. Ihre Vorteile sind:

- **Einfache Positionierung** der Matrizen und Stempel in den Schubladen.
- **Modularität** Möglichkeit, die Anzahl und Position der Innenregale Ihren Bedürfnissen entsprechend anzupassen
- **Robustheit** – Die Schränke sind so konstruiert, dass sie auch große Matrizen und Stempel aufnehmen können
- **Einfaches Positionieren** und Anheben des Schrankes zur Optimierung des Arbeitsbereichs/der Ausrüstung

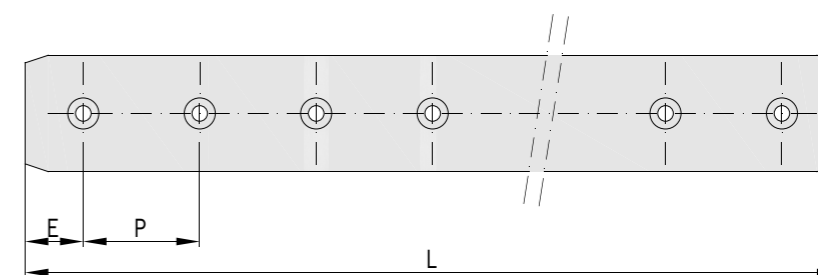
Fam.	Mod.	n. Drawers n. Schubladen	Capacity	Width	Height	Length close/open	Colour Farbe	Shelves Einlegeböden	
			Lagerkapazität Mt	Breite W [mm]	Höhe H [mm]	Länge geschlossen/offen L [mm]			
Tool cabinet Abkant- werkzeug- schränke	Armadio	5	60	1040	1050	1240 (2360)	Blu and white (other colours on request)	ARRIP_AM	
	Amada	4	48	850					
	Armadio	5	60	1040	1250	1240 (2360)		ARRIP_TP	
	Trumpf	4	48	850					
	Armadio LVD	5	50	1040	1050	1240 (2360)		ARRIP_LV	
		4	40	850					
	Armadio Beyeler	5	60	1040	1250	1240 (2360)		Blau und weiß (andere Farben auf Anfrage)	ARRIP_BY
		4	48	850					
Armadio Colly	5	50	1040	1250	1240 (2360)		ARRIP_CO		
	4	40	850						

We are able to give you a shear blade sharpening service in 24/48 hour in our factory and, on request, we produce share blades for every kind of shearing machine. First quality steel are chosen for building as for needed sheet material cut. For any enquiry please indicate the necessary features as for follows drawing:

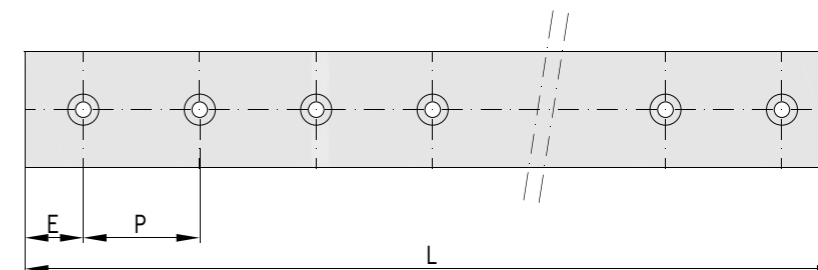
In unserem Hause schleifen wir klingen für Scheren in 24-48 Stunden und auf Wunsch stellen wir klingen für alle Maschinenmarken un -modelle her. Für die Herstellung verwenden wir ausgewählte Qualitätsstahle, entsprechend den Schnittanforderungen. Bei Ihren Anfragen bitten wir Sie, die gewünschten Merkmale anhand folgender Zeichnungen genau anzugeben:



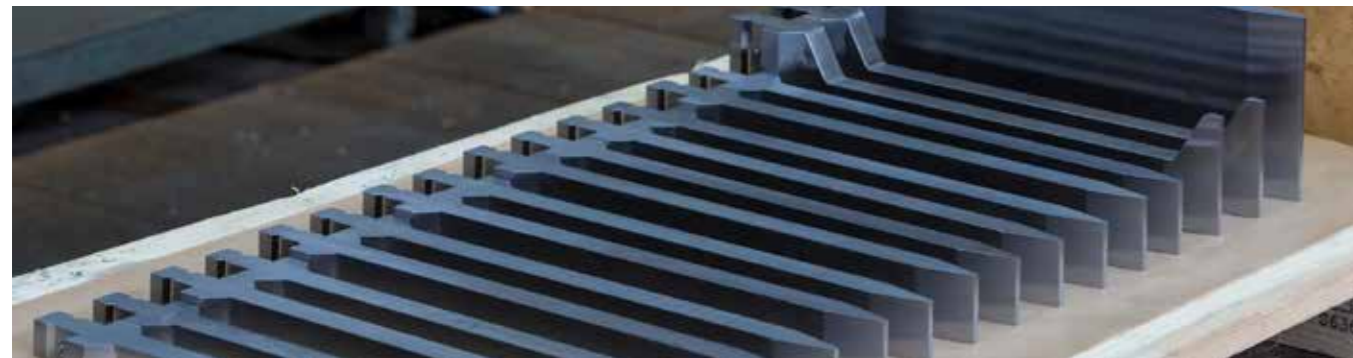
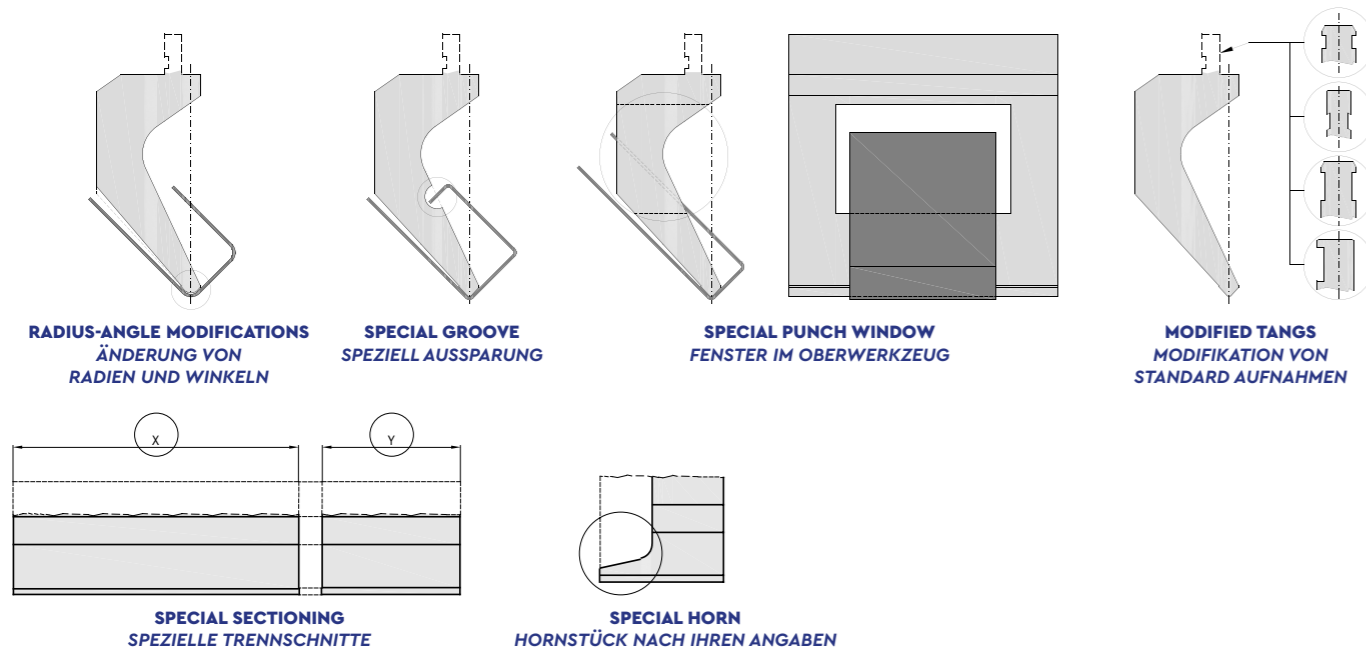
PROF. X



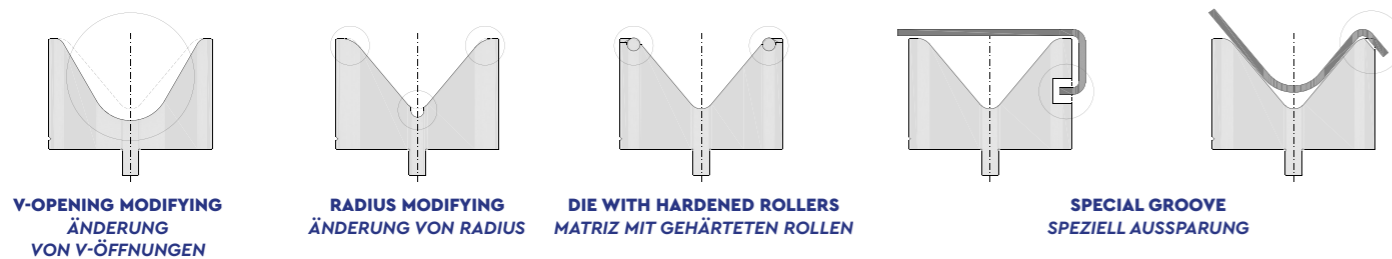
PROF. Y



MODIFICATIONS CUSTOMIZATIONS PUNCHES/MODIFIKATION/ANPASSUNGEN VON OBERWERKZEUGE



MODIFICATIONS CUSTOMIZATIONS DIES/MODIFIKATION/ANPASSUNGEN VON MATRIZEN



SUBFORNITURA/SUBCONTRACTING



Special realizations according to customer design:

- Folding line tools
  - Pannelling tools
  - Press brake tools
  - Guides and strikers
- Max Lenght 8000mm

Sonderanfertigungen nach Kundenzeichnung:

- Werkzeuge für die Biegelinien
  - Stanzwerkzeuge
  - Schwenkbiege Werkzeuge
  - Speziell Abkantwerkzeuge
  - Führungen und Anschlag
- Maximale Länge 8000mm

REPAIRING SERVICE/NACHSCHLEIFSERVICE

An important repairing and rehabilitation service about worn tools is offered to our customer, with possible replacement of unrecoverable portion.

*Wir bieten unserem Kunden auch einen wertvollen Regenerierungs- und Rückgewinnungsdienst für verschlissene Ausrüstungen mit eventuellem Austausch von nicht mehr brauchbaren Teilen.*



NACHSCHLEIFSERVICE, MODIFIKATION UND ANPASSUNGEN

FROM RAW MATERIAL TO FINISHED PRODUCT/VOM ROHMATERIAL ZUM FERTIGPRODUKT

Ferrari Costruzioni Meccaniche has a production area of 5.000 m2. The materials purchased come from a careful selection of suppliers which guarantees us the certified quality with the CE mark. The raw material is purchased in commercial lengths or cut to size and our work cycle allows us to carry out all the internal workings in order to reduce delivery times. Our production potential is divided into 4 departments:

- **Milling department**, where there are 4 traditional and 3 CNC milling machines capable of processing pieces weighing up to 10 tons. and maximum dimensions of 800x800x8100 mm. One of these CNC milling machines is a portal machine with a 5- axis continuous head, max load 50 tons. and dimensional capacity of 10000x3000x1500 mm. This allows us to significantly expand our field of mechanical processing so as to operate in the sub-supply of various mechanical components such as beams, guides, plates and complex welded structures.

- **Grinding department**, where we have 10 tangential adjustments for a working capacity up to a maximum length of 8100 mm for a height of 800 mm. We are able to grind precision parts with high quality requirements and tolerances of ± 0.01 mm and surface roughness Ra 0.4µ. The range of tangential grinding processes also includes the regeneration of worn tools and molds, shear blades and flattening and squaring on third-party components.

- **Heat Treatment Department**, where we have an induction hardening internally, which allows us to perform surface hardening treatments with a depth of about 4 mm on parts up to 8100 mm long, so as to reduce customer waiting times. We also perform third party treatments.

- **Quality Control Department**, where we have the latest generation of Cartesian axis CNC measuring machine, tested according to UNI EN ISO 10360-2 standards able to guarantee high precision metrology. The machine is interfaced with the technical office to verify the product during the individual processing phases and to draw up the final control certificate.



Ferrari Costruzioni Meccaniche verfügt über eine Produktionsfläche von 5.000 m2. Alle gekauften Materialien stammen von sorgfältig ausgewählten Lieferanten, die uns die mit dem CE-Zeichen zertifizierte Qualität garantieren. Das Rohmaterial wird in handelsüblichen oder nach Maß zugeschnittenen Längen gekauft und unser Arbeitszyklus ermöglicht es uns, alle Verarbeitungen betriebsintern durchzuführen, so dass die Lieferzeiten verkürzt werden. Unser Produktionspotential ist auf 4 Abteilungen verteilt:

- **Fräsabteilung**, wo es 4 traditionelle und 3 CNC Fräsmaschinen gibt, die in der Lage sind, Werkstücke mit einem Gewicht von bis zu 10 Tonnen und maximalen Abmessungen von 800x800x8.100 zu bearbeiten. Eine dieser CNC Fräsmaschinen ist eine Gantry-Maschine mit einem Kopf für die 5-Achs-Bearbeitung mit durchgehender Rotation, einer Tragfähigkeit von 50 Tonnen und einer Kapazität für Abmessungen von 10.000x3.000x1.500 mm. Dies ermöglicht es uns, den Bereich unserer mechanischen Bearbeitungen stark zu erweitern, so dass wir in der Zulieferung verschiedener mechanischer Komponenten wie Träger, Führungen, Platten und komplexer Schweißkonstruktionen arbeiten können.

- **Schleifabteilung**, wo wir 10 Tangentialschleifmaschinen für eine Arbeitskapazität bis zu einer maximalen Länge von 8.100 mm bei einer Höhe von 800 mm haben. Wir sind in der Lage, Präzisionsteile mit hohen Qualitätsanforderungen und Toleranzen von ±0,01 mm und einer Oberflächenrauheit Ra 0,4µ zu schleifen. Die Palette der Tangentialschleifarbeiten umfasst auch die Regenerierung von verschlissenen Stempeln und Matrizen, Scherenmessern sowie das Glätten und Abvieren von Komponenten in Lohnarbeit.

- **Wärmebehandlungsabteilung**, in der wir über eine interne Induktionshärtung verfügen, die es uns ermöglicht, Oberflächenhärtungen mit einer Tiefe von etwa 4 mm an Werkstücken mit einer Länge von bis zu 8.100 mm durchzuführen, um die Wartezeiten der Kunden zu verkürzen. Wir führen auch Behandlungen in Lohnarbeit durch.

- **Abteilung für Qualitätskontrolle**, in der wir über eine CNC Messmaschine der neuesten Generation mit kartesischen Achsen verfügen, die nach den Normen UNI EN ISO 10360-2 getestet wurde und in der Lage ist, eine hochpräzise Messtechnik zu garantieren. Die Maschine ist mit der Konstruktionsabteilung verbunden, um das Produkt während der einzelnen Verarbeitungsphasen zu prüfen und das Endkontrollzertifikat zu erstellen.

Legenda:

- F → Bending force [kN/m]/Erforderliche Presskraft
- S → Material thickness [mm]/Materialdicke
- V → Die opening [mm]/V-Öffnung
- Ri → Inside radius [mm]/Innenradius
- B → Shortest flange [mm]/Kürzeste Schenkellänge
- α → Bending angle [°]/Winkel biegen

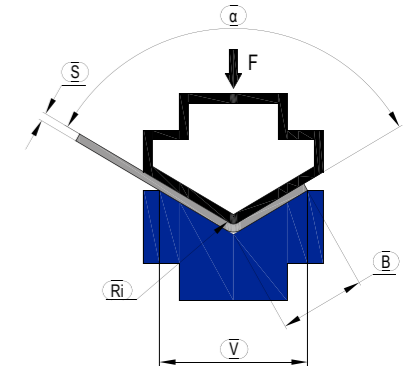


Table of bending force/Presskrafttabelle - F [kN/m]/																								
Needed force for 90° air bending sheet with 1000 mm and steel S235 (Resistance Rm=430 N/mm2)																								
Erforderliche Presskraft für 90° Freibiegen, Materialstärke 1000 mm und Stahl S235 (Zugfestigkeit Rm 430 N/mm²)																								
			S [mm]																					
V [mm]	Ri [mm]	B [mm]	0,5	0,8	1	1,2	1,5	2	2,5	3	4	5	6	8	10	12	15	20	25	30				
4	0,7	2,6	40	124																				
6	1	3,9	24	70	119	186																		
8	1,5	5,2	17	48	81	124	212																	
10	1,7	6,5		36	60	92	155	310																
12	2	7,8			48	72	121	239	411															
16	2,7	10,4				50	83	161	273	423														
20	3,4	13					63	120	202	310	619													
24	4	15,6						96	159	242	478	821												
30	5	19,5							119	181	352	597	929											
35	6	22,75								148	286	483	746											
40	7	26								126	241	403	619	1238										
50	8,5	32,5									182	301	458	903	1548									
55	9	35,75										267	404	791	1350									
60	10	39										239	361	703	1194									
70	12	45,5											297	573	965	1491								
80	13,5	52												252	482	806	1238	2116						
90	15	58,5													414	690	1055	1792						
100	17	65														363	602	916	1548					
120	20	78															478	722	1209					
140	24	91																594	987	1931				
160	25	104																	831	1613	2729			
200	31	130																		629	1204	2016		
250	39	162,5																			908	1505	2291	
300	47	195																				726	1194	1806

Ideal condition  
Optimale Bedingung

**Table of shortest flange (B) according to bending angles (α)**  
**Tabelle kürzeste Schenkellänge (B) gemäß Winkel biegen (α)**

Bending angle (α) Winkel biegen (α)	30°	45°	60°	90°	120°	150°
Shortest flange (B) Kürzeste Schenkellänge (B)	Bx1,6	Bx1,3	Bx1,1	B	Bx0,9	Bx0,7

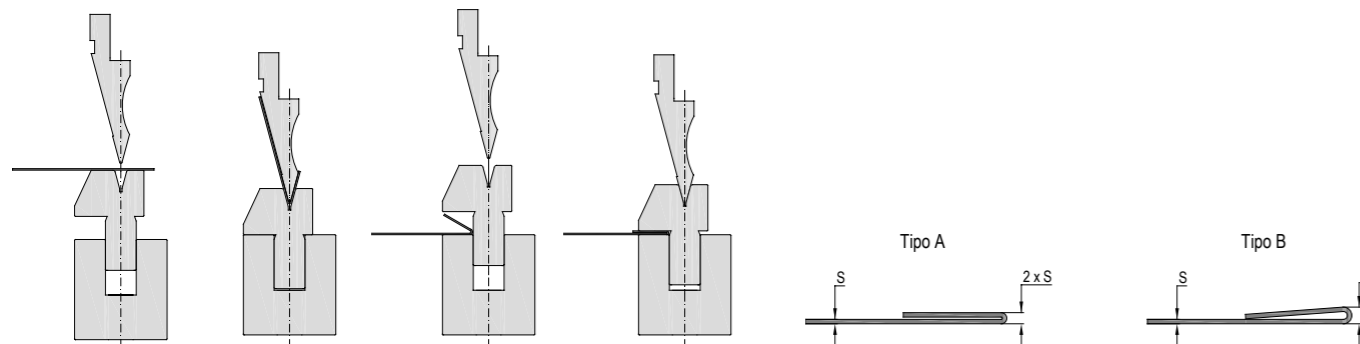
**Table correction force (F) according to kind of material**  
**Tabelle der Korrektur Presskraft (F) gemäß Blech material Typ**

Sheet Material/Blech material	Mild Steel/Baustahl	Stainless Steel/Rostfreier Stahl	Aluminium
Resistance Rm/Zugfestigkeit Rm [N/mm2]	360 - 510	650 - 700	200 - 300
Force/Presskraft (F)	Fx1	Fx1,55	Fx0,6

**Table minimum opening (V) according to sheet tickness (S)**  
**Tabelle minimale Matrizenöffnungsweite(V) gemäß Materialdicke (S)**

Sheet tickness/Materialdicke (S)	0,5 - 2,5	3 - 8	9 - 10	> 10
Die opening/Matrizenöffnungsweite(V)	V = S x 6	V = S x 8	V = S x 10	V = S x 12

Thickness/Stärke (S)	[mm]	<b>Example/Beispiel 1:</b> 3	<b>Example/Beispiel 2:</b> 3
Material/Werkstoff		Mild Steel/Baustahl	Aluminium
Resistance/Zugfestigkeit (Rm)	[N/mm2]	430	350
Bending Radius/Radius biegen (Ri)	[mm]	4	4
Bending Angle/Winkel biegen (α)	[°]	90°	60°
Suggested opening die/Empfohlen Matrizenöffnungsweite (V)	[mm]	24	24
Shortest flange/Kürzeste Schenkellänge (B)	[mm]	15.6	(15.6x1.1) 17.2
Minimum force to apply/Minimale Presskraft bewerten (F)	[kN/m]	242	(242x0.6) 145



**Table of force hemming tools (Type A) [kN/m]/Tabelle der Kraft Zudrückwerkzeuge (Type/Typ A)**

Material Tickness/Materialstärke (S)	0,6	0,8	1	1,25	1,5	2	2,5	3
2 x S	1,2	1,6	2	2,5	3	4	5	6
Mild steel/Baustahl Rm 360-510	230	320	400	500	630	800	900	1000
STAINLESS STEEL/ROSTFREIER STAHL Rm 650 - 700	350	500	600	800	950	1300		

**Table of force hemming tools (Type B) [kN/m]/Tabelle der Kraft Zudrückwerkzeuge (Type/Typ B)**

Material Tickness/Materialstärke (S)	0,6	0,8	1	1,25	1,5	2	2,5	3
2 x S	3	3	3,5	3,5	4,6	5,5	6,5	8
Mild steel/Baustahl Rm 360-510	90	120	150	170	220	300	550	700
STAINLESS STEEL/ROSTFREIER STAHL Rm 650 - 700	150	200	250	260	380	500		

AMADA - Punches/Oberwerkzeuge	Page/Seite
10.00	12
10.10	9
10.11	9
10.12	12
10.13	10
10.14	11
10.15	13
10.15 - Back	13
10.16	10
10.17	11
10.18	13
10.20	10
10.21	11
10.26	14
10.27	14
10.28	14
10.047	14
10.049	15
10.055	15
10.057	15
10.103	10
10.108	12
10.116	9
10.146	11
10.200	9
10.202	12
10.210	13
30.01 P	16
AMADA - Dies/Matrizen	Page/Seite
20.08	21
20.09	21
20.09/60°	21
20.09/85°	21
20.10	23
20.11 B60	27
20.11 B90	27
20.16	22
20.17	22
20.30	25
20.40 H80	25
20.40 H120	26
30.01 M	29
30.01/6-8	29
30.01/10-12	30
30.02/6-8	30
70.00	24
120	23

340/30°	28
340/45°	28
340/60°	28
LVD - Punches/Oberwerkzeuge	Page/Seite
C10	35
D10	35
E10	35
F10	36
J10	36
R10	37
C15	37
D15	38
E15	38
F15	39
J15	39
R15	40
P10	41
P15	41
LVD - Dies/Matrizen	Page/Seite
V6 - V30/30° H90	45
V6 - V50/30° H130	47
V30 - V80/60° H90	45
V30 - V120/60° H130	47
V6 - V120/78° H90	46
V6 - V120/78° H130	48
T H90 / H130	49
TRUMPF -Punches/Oberwerkzeuge	Page/Seite
SPE 10.61	55
SPE 10.62	55
SPE 10.63	55
SPE 10.64	53
SPE 10.65	53
SPE 10.66	53
SPE 10.67	53
SPE 10.68	55
SPE 10.71	54
SPE 10.72	54
SPE 10.73	54
SPE 10.74	54
SPE 10.75	56
SPE 10.76	56
SPE 10.77	56
SPE 10.78	56
SPE 10.79	57
SPE 30.01 P	57
TRUMPF - Dies/Matrizen	Page/Seite
SPE V6 - V24/30°	61
SPE V6 - V24/86°	61

SPE V30 – V100/80°	61
SPE 30.01 M	61
<b>BEYELER – Punches/Oberwerkzeuge</b>	<b>Page/Seite</b>
P2	65
P2 H250	67
P3	65
P3 H250	67
P4	65
P4 H250	67
P5	65
P5 H250	67
P6-7	66
P6-7 H250	68
P8	66
P8 H250	68
P900	69
P900 H250	69
<b>BEYELER – Dies/Matrizen</b>	<b>Page/Seite</b>
M6 – M32	73
M40 – M60	73
M80 – M120	73
V900	73
<b>COLLY – Punches/Oberwerkzeuge</b>	<b>Page/Seite</b>
14.400	77
14.410	77
14.420	80
14.528	79
14.700	78
1.14.526	79
1.14.710	78
3.14.510	78
6.14.593	79
8.14.696	77
8.14.697	78
8.14.700	80
<b>HACO – Punches/Oberwerkzeuge</b>	<b>Page/Seite</b>
P60C	83
P110A	83
P110C	83
P200A/30°	85
P200A/86°	85
P200C	85
P400A/30°	84
P400A/86°	84
P400C	84
<b>COLLY – Dies/Matrizen</b>	<b>Page/Seite</b>
14.318	90
14.319	89

14.355	89
14.414	90
14.518	92
14.519	91
14.521	92
14.707	93
14.759	94
2.14.479	94
6.14.700	91
M01	91
<b>HACO – Dies/Matrizen</b>	<b>Page/Seite</b>
PV56	97
PV70	97
PV90	97
PV100	98
PV125	98
PV160	99
<b>Others/Beiwerk</b>	
<b>Holder for radius-tools/Einsätze halter</b>	<b>Page/Seite</b>
40.05	103
40.05-G	103
40.05 SPE	103
40.30	103
<b>Insert/Einsätzen</b>	<b>Page/Seite</b>
40.02	104
40.09	104
40.31	104
<b>Tool adapters and intermediates Amada</b>	<b>Page/Seite</b>
<i>Adapter und Zwischenstück Amada Abkantwerkzeuge</i>	
40.03	105
40.03 – C	105
40.03 – TD	105
40.20 – B	106
40.20 – L	106
40.20 – T	106
<b>Clamps/Klemmung</b>	<b>Page/Seite</b>
ST40	105
<b>Speedblock®</b>	<b>Page/Seite</b>
40.40 -B	113
40.40 – B4	113
40.40 – C	110
40.40 – C4	110
40.40 – L	112
40.40 – L4	112
40.40 – S	109
40.40 – S4	109
40.40 – T	111
40.40 – T4	111

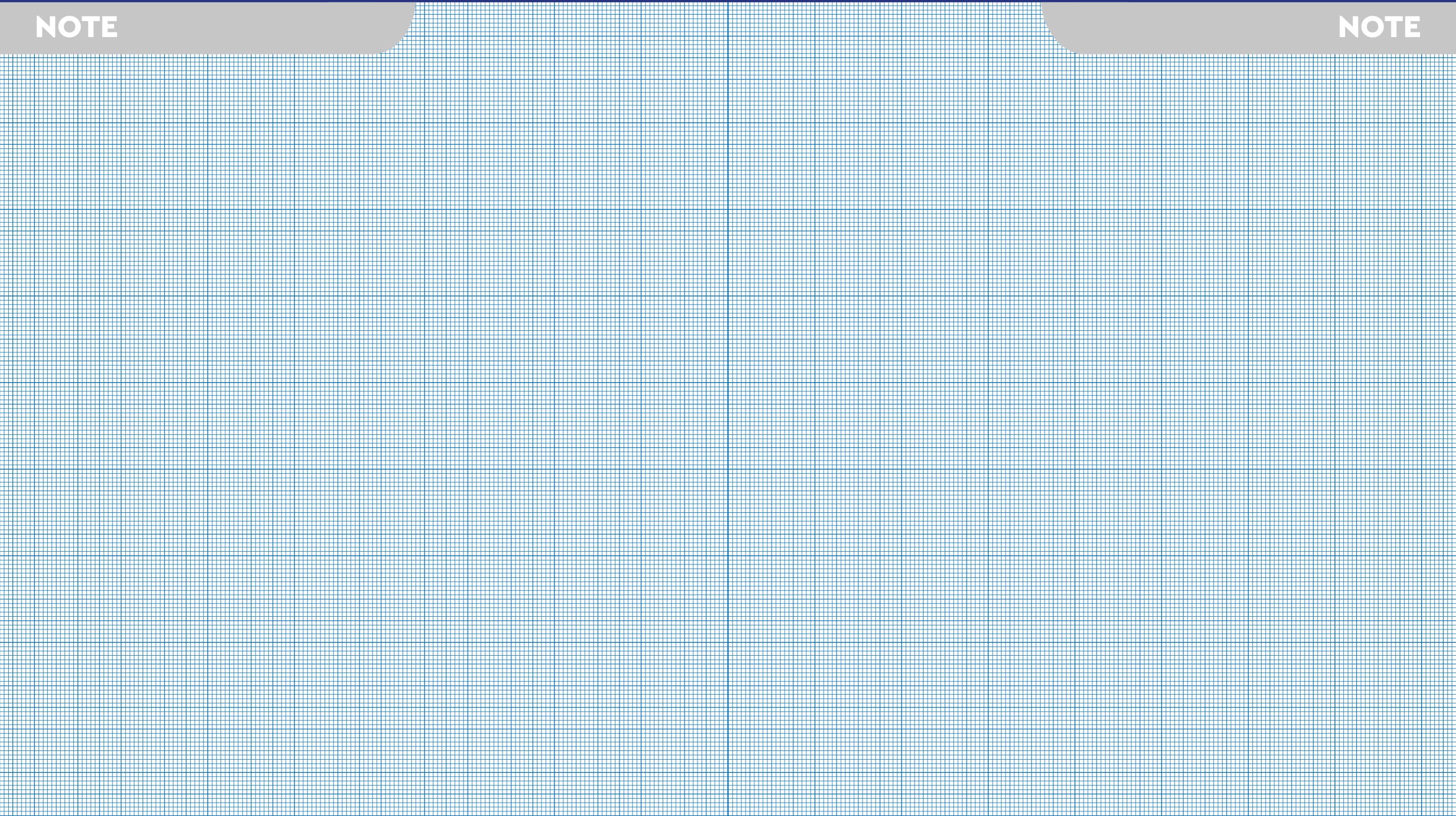
<b>Tool adapters and intermediates TRUMPF-LVD</b>	<b>Page/Seite</b>
<i>Adapter und Zwischenstück TRUMPF-LVD Abkantwerkzeuge</i>	
SPE – EXT AW	116
SPE – EXT BW	116
SPE – EXT TW	116
SPE – EXT LW	116
<b>Tool adapters and intermediates BEYELER</b>	<b>Page/Seite</b>
<i>Adapter und Zwischenstück BEYELER Abkantwerkzeuge</i>	
SPE-EXT BB	117
SPE-EXT LB	117
SPE-EXT TB	117
<b>Lower adapters/Unter Adapter</b>	<b>Page/Seite</b>
40.00	118
40.13	118
40.14	118
40.40 SPE	120
40.55	120
40.55 – LVD	120
40.55 – TR	120
40.60	119
40.60 – TR	119
8.14.053	119
8.14.053 – A	119
8.14.053 – SPE	119
<b>Polyurethane insert holders</b>	<b>Page/Seite</b>
<i>Matrizen für polster</i>	
60.0	122
<b>Polyurethane inserts/Polster ohne kernloch</b>	<b>Page/Seite</b>
61.0	123
<b>Polyurethane insert with hole</b>	<b>Page/Seite</b>
<i>Polster mit kernloch</i>	
61.0 F	123
<b>Variable opening dies/Verstellbare Matrizen</b>	<b>Page/Seite</b>
20.61	125
20.71	125
<b>Rollers dies/Matrizen mit Rollen</b>	<b>Page/Seite</b>
20.51	125
<b>Deflection compensation table</b>	<b>Page/Seite</b>
<i>Bombierungstische</i>	
Deflection compensation table	126
<i>Bombierungstische</i>	
<b>Special tool sets/Sonderwerkzeuge</b>	<b>Page/Seite</b>
30.03	129
30.04	129
30.05	129
30.06	129
30.08	129
30.09	129
30.10	129

30.11	129
30.12	129
<b>Joggle tool insert holder</b>	<b>Page/Seite</b>
<i>Z-Werkzeugaufnahmen</i>	
40.ZP	130
40.ZD	130
40.ZPW	130
40.ZDW	130
<b>Joggle tool insert/Z-Werkzeugeinsätze</b>	<b>Page/Seite</b>
30.Z0/00°	131
<b>Accessories/Abkantzubehör</b>	<b>Page/Seite</b>
RR4000CO	132
RR4000MI	132
RR4000NO	132
RR4000	132
RR4000ST	132
AR1	133
AR3	133
TEFLON	133
AR4	133
<b>Tool cabinets/Abkantwerkzeugschränke</b>	<b>Page/Seite</b>
Tool cabinets/Abkantwerkzeugschränke	134
<b>Shear blades/Scherenmessern</b>	<b>Page/Seite</b>
Shear blades/Scherenmessern	135
<b>Repairing/Modifications and subcontracting</b>	<b>Page/Seite</b>
<i>Nachschleifservice, modifikation und anpassungen</i>	
Punches modifications	136
<i>Modifikation von Oberwerkzeuge</i>	
Dies modifications	136
<i>Modifikation von Matrizen</i>	
Subcontracting/Anpassungen	137
Repairing service/Nachschleifservice	137



NOTE

NOTE





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**Address:** Via Ercole Calzetti 11, 43030 Basilicanova PR – Italy

**P.Iva:** IT01817760349 – **Tel.:** + 39 0521 682035

**Email:** [info@ferraritools.it](mailto:info@ferraritools.it) – **Website:** [www.ferraritools.it](http://www.ferraritools.it)