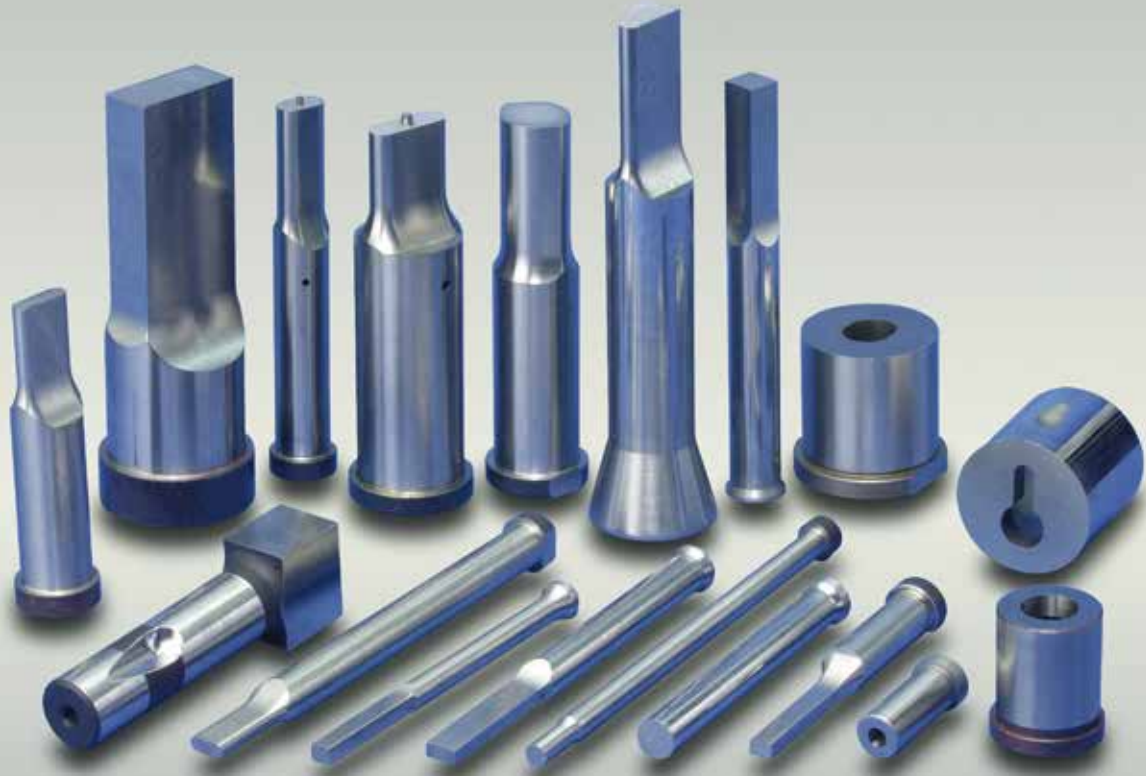




MSP **GN** **GM** **BH**

Märkische Stanz-Partner



[schneidelemente]

[cuttingelements]

Stand / Revision Status 01.03.2023

Inhalt Katalog 1: Stanznormalien (D)

Content Catalogue 1: Standard die components (D)

Artikel Article	Best.-Nr. Order no.	Seite Page
A		
Aufwerferstifte, gehärtet, DIN 1530 A – ISO 6750	TH 750	TH 9
Auswerferstifte, DIN 1530 Form D	TH 750	TH 10

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„Clicking“ on the Article name, the Order- or Page-no. in the main table of contents opens the corresponding article-page.

Inhalt

Content

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	<u>Schneidstempel DIN 9861, Form D, HSS</u>	<u>Punches DIN 9861, Form D, HSS</u>	SE 775	SF 1 SF 2

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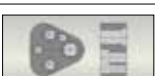




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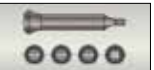
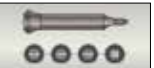








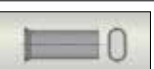
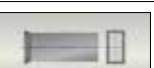









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	Schneidstempel	Punches	Best.-Nr. Order no.	Seite Page
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	<u>Schneidbuchsen mit Startlochbohrung</u> durchgehend, Type EDL, ohne Bund ISO 8977A	<u>Die buttons with start hole, Type EDL,</u> <u>without collar, ISO 8977A</u>	SE 711 EDL	SE.41
	<u>Schneidbuchsen mit Startlochbohrung</u> durchgehend, Type EKDL, mit Bund ISO 8977B	<u>Die buttons with start hole, Type EKDL,</u> <u>with collar, ISO 8977B</u>	SE 713 EKDL	SE.42
	<u>Schneidbuchsen mit Startlochbohrung</u> und Ausfallloch, Type EDM, ohne Bund, ISO 8977A	<u>Die buttons with start hole and counter-</u> <u>bore relief, Type EDM, without collar,</u> <u>ISO 8977A</u>	SE 711 EDM	SE.43
	<u>Schneidbuchsen mit Startlochbohrung</u> und Ausfallloch, Type EKDM, mit Bund, ISO 8977B	<u>Die buttons with start hole and counter-</u> <u>bore relief, Type EKDM, with collar,</u> <u>ISO 8977B</u>	SE 713 EKDM	SE.44
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	<u>Schnellwechsel-Schneidstempel,</u> <u>schwere Ausführung, abgesetzter Schaft,</u> <u>mit federndem Auswerferstift</u>	<u>Ball lock punches,</u> <u>heavy duty, shouldered shank,</u> <u>with spring ejector</u>	SE 321	SE.50
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	<u>Schnellwechsel-Schneidstempel,</u> <u>schwere Ausführung, Schneide > Schaft,</u> <u>mit federndem Auswerferstift</u>	<u>Ball lock punches, heavy duty,</u> <u>inverted, with spring ejector</u>	SE 323	SE.54
	<u>Schnellwechsel-Schneidstempel,</u> <u>schwere Ausführung, Schneide > Schaft,</u> Typen O, S, H, L	<u>Ball lock punches, heavy duty,</u> <u>inverted, Types O, S, H, L</u>	SE 304 .	SE.55

[SE]

	Schnellwechsel-Schneidelemente	Ball lock cutting elements	Best.-Nr. Order no.	Seite Page
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[SE]

Schneidstempel DIN 9861, Form D

Punches DIN 9861, Form D



SCHNEIDELEMENTE / CUTTING ELEMENTS

SE 775

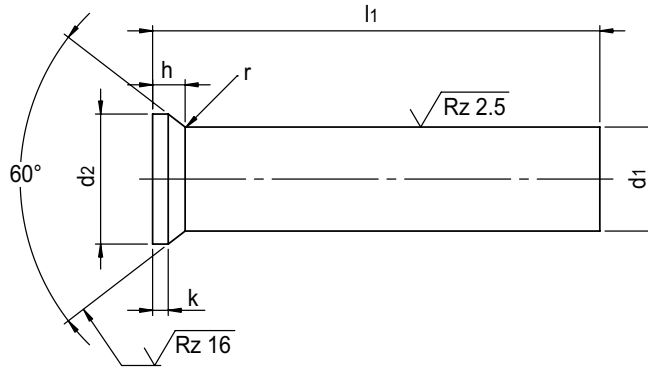
Mat.: HSS
 Härte Schaft: 64 ±2 HRC
 Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
 Hardness shank: 64 ±2 HRC
 Head: 50 ±5 HRC

SE 775 / 2,50 x 100

Stempel mit Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).

Punches with rotation prevention available, please specify when ordering.



d1 h6	d2 ±0,05	h +0,2	k +0,2	r	l1 +0,5			
					71	80	100	130
0,50	0,9	0,55	0,2	0,2+0,2	●	●	●	
0,55	1,0	0,59	0,2	0,2+0,2	●	●	●	
0,60	1,1	0,63	0,2	0,2+0,2	●	●	●	
0,65	1,2	0,68	0,2	0,2+0,2	●	●	●	
0,70	1,3	0,72	0,2	0,2+0,2	●	●	●	
0,75	1,3	0,68	0,2	0,2+0,2	●	●	●	
0,80	1,4	0,92	0,4	0,2+0,2	●	●	●	
0,85	1,4	0,88	0,4	0,2+0,2	●	●	●	
0,90	1,6	1,01	0,4	0,2+0,2	●	●	●	
0,95	1,6	0,96	0,4	0,2+0,2	●	●	●	
1,00	1,8	1,19	0,5	0,4+0,3	●	●	●	
1,10	1,8	1,11	0,5	0,4+0,3	●	●	●	
1,20	2,0	1,19	0,5	0,4+0,3	●	●	●	
1,30	2,0	1,11	0,5	0,4+0,3	●	●	●	
1,40	2,2	1,19	0,5	0,4+0,3	●	●	●	
1,50	2,2	1,11	0,5	0,4+0,3	●	●	●	
1,60	2,5	1,28	0,5	0,4+0,3	●	●	●	
1,70	2,5	1,19	0,5	0,4+0,3	●	●	●	
1,80	2,8	1,37	0,5	0,4+0,3	●	●	●	
1,90	2,8	1,28	0,5	0,4+0,3	●	●	●	
2,00	3,0	1,37	0,5	0,4+0,3	●	●	●	
2,10	3,2	1,45	0,5	0,4+0,3	●	●	●	
2,20	3,2	1,37	0,5	0,4+0,3	●	●	●	
2,30	3,5	1,54	0,5	0,4+0,3	●	●	●	
2,40	3,5	1,45	0,5	0,4+0,3	●	●	●	
2,50	3,5	1,37	0,5	0,4+0,3	●	●	●	
2,60	4,0	1,71	0,5	0,4+0,3	●	●	●	
2,70	4,0	1,63	0,5	0,4+0,3	●	●	●	
2,80	4,0	1,54	0,5	0,4+0,3	●	●	●	
2,90	4,0	1,45	0,5	0,4+0,3	●	●	●	
3,00	4,5	1,80	0,5	0,6+0,4	●	●	●	
3,10	4,5	1,71	0,5	0,6+0,4	●	●	●	●
3,20	4,5	1,63	0,5	0,6+0,4	●	●	●	●
3,30	4,5	1,54	0,5	0,6+0,4	●	●	●	●
3,40	4,5	1,45	0,5	0,6+0,4	●	●	●	●
3,50	5,0	1,80	0,5	0,6+0,4	●	●	●	●
3,60	5,0	1,71	0,5	0,6+0,4	●	●	●	●
3,70	5,0	1,63	0,5	0,6+0,4	●	●	●	●
3,80	5,0	1,54	0,5	0,6+0,4	●	●	●	●
3,90	5,0	1,45	0,5	0,6+0,4	●	●	●	●
4,00	5,5	1,80	0,5	0,6+0,4	●	●	●	●
4,10	5,5	1,71	0,5	0,6+0,4	●	●	●	●
4,20	5,5	1,63	0,5	0,6+0,4	●	●	●	●
4,30	5,5	1,54	0,5	0,6+0,4	●	●	●	●
4,40	5,5	1,45	0,5	0,6+0,4	●	●	●	●
4,50	6,0	1,80	0,5	0,6+0,4	●	●	●	●
4,60	6,0	1,71	0,5	0,6+0,4	●	●	●	●
4,70	6,0	1,63	0,5	0,6+0,4	●	●	●	●

[SE]

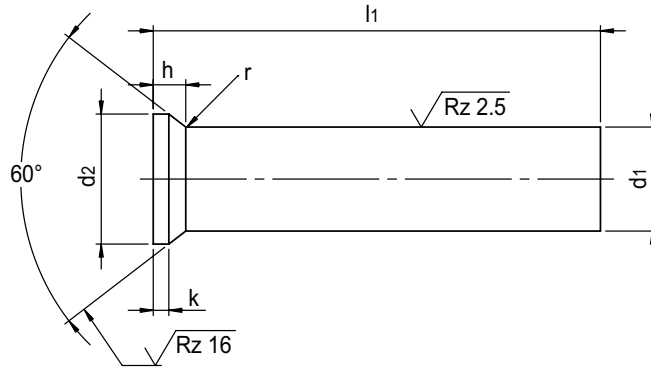
SE 775

Mat.: HSS
Härte Schaft: 64 ±2 HRC
Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC
Head: 50 ±5 HRC

SE 775 / 2,50 x 100

Stempel mit Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).



Punches with rotation prevention available, please specify when ordering.



d1 h6	d2 ±0,05	h +0,2	k +0,2	r	l1 +0,5			
					71	80	100	130
4,80	6,0	1,54	0,5	0,6+0,4	●	●	●	●
4,90	6,0	1,45	0,5	0,6+0,4	●	●	●	●
5,00	6,5	1,80	0,5	0,6+0,4	●	●	●	●
5,10	6,5	1,71	0,5	0,6+0,4	●	●	●	●
5,20	6,5	1,63	0,5	0,6+0,4	●	●	●	●
5,30	6,5	1,54	0,5	0,6+0,4	●	●	●	●
5,40	6,5	1,45	0,5	0,6+0,4	●	●	●	●
5,50	7,0	1,80	0,5	0,6+0,4	●	●	●	●
5,60	7,0	1,71	0,5	0,6+0,4	●	●	●	●
5,70	7,0	1,63	0,5	0,6+0,4	●	●	●	●
5,80	7,0	1,54	0,5	0,6+0,4	●	●	●	●
5,90	7,0	1,45	0,5	0,6+0,4	●	●	●	●
6,00	8,0	2,23	0,5	1,0+0,5	●	●	●	●
6,10	8,0	2,15	0,5	1,0+0,5	●	●	●	●
6,20	8,0	2,06	0,5	1,0+0,5	●	●	●	●
6,30	8,0	1,97	0,5	1,0+0,5	●	●	●	●
6,40	8,0	1,89	0,5	1,0+0,5	●	●	●	●
6,50	9,0	3,17	1,0	1,0+0,5	●	●	●	●
7,00	9,0	2,73	1,0	1,0+0,5	●	●	●	●
7,50	10,0	3,17	1,0	1,0+0,5	●	●	●	●
8,00	10,0	2,73	1,0	1,0+0,5	●	●	●	●
8,50	11,0	3,17	1,0	1,0+0,5	●	●	●	●
9,00	11,0	2,73	1,0	1,0+0,5	●	●	●	●
9,50	12,0	3,17	1,0	1,0+0,5	●	●	●	●
10,00	12,0	2,73	1,0	1,0+0,5	●	●	●	●
10,50	13,0	3,17	1,0	1,0+0,5	●	●	●	●
11,00	13,0	2,73	1,0	1,0+0,5	●	●	●	●
11,50	14,0	3,17	1,0	1,0+0,5	●	●	●	●
12,00	14,0	2,73	1,0	1,0+0,5	●	●	●	●
12,50	15,0	3,17	1,0	1,0+0,5	●	●	●	●
13,00	15,0	2,73	1,0	1,0+0,5	●	●	●	●
13,50	16,0	3,67	1,5	1,5+0,5	●	●	●	●
14,00	16,0	3,23	1,5	1,5+0,5	●	●	●	●
14,50	17,0	3,67	1,5	1,5+0,5	●	●	●	●
15,00	17,0	3,23	1,5	1,5+0,5	●	●	●	●
15,50	18,0	3,67	1,5	1,5+0,5	●	●	●	●
16,00	18,0	3,23	1,5	1,5+0,5	●	●	●	●
16,50	19,0	3,67	1,5	1,5+0,5	●	●	●	●
17,00	19,5	3,23	1,5	1,5+0,5	●	●	●	●
17,50	20,0	3,67	1,5	1,5+0,5	●	●	●	●
18,00	20,5	3,23	1,5	1,5+0,5	●	●	●	●
18,50	21,0	3,67	1,5	1,5+0,5	●	●	●	●
19,00	21,5	3,23	1,5	1,5+0,5	●	●	●	●
19,50	22,0	3,67	1,5	1,5+0,5	●	●	●	●
20,00	22,5	3,23	1,5	1,5+0,5	●	●	●	●

Schneidstempel DIN 9861, Form C, abgesetzter Schaft

Punches DIN 9861, Form C, shouldered shank



SCHNEIDELEMENTE / CUTTING ELEMENTS

SE 785

Mat.: HSS
 Härte Schaft: 64 ±2 HRC
 Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
 Hardness shank: 64 ±2 HRC
 Head: 50 ±5 HRC

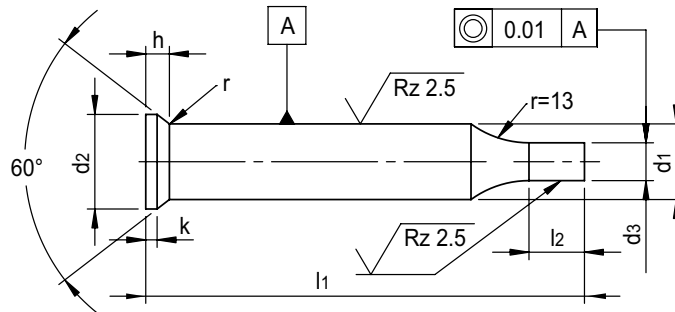
SE 785 /
5,0 x 71 / d3

Stempel mit Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).

Länge l2 frei wählbar!
 Fehlende Maße siehe SE 775 (Seite SE.1)

Length l2 freely selectable!
 for missing dimensions please see SE 775 (page SE.1)

Punches with rotation prevention available, please specify when ordering.



d1 h6	d3 h6 Stufung/step 0,01	l2 +0,5	l1 +0,5			
			71	80	100	130
1,5	0,5 - 1,4	7	●	●	●	
2,0	0,5 - 1,9	7	●	●	●	
3,0	1,6 - 2,9	7	●	●	●	
4,0	1,6 - 3,9	10	●	●	●	●
5,0	2,5 - 4,9	10	●	●	●	●
6,0	3,0 - 5,9	10	●	●	●	●
8,0	4,0 - 7,9	13	●	●	●	●
10,0	5,0 - 9,9	17	●	●	●	●
13,0	9,0 - 12,9	17	●	●	●	●
16,0	12,0 - 15,9	17	●	●	●	●
20,0	16,0 - 19,9	17	●	●	●	●
25,0	20,0 - 24,9	17	●	●	●	●
32,0	25,0 - 31,9	17	●	●	●	●
38,0	30,0 - 37,9	17	●	●	●	●

[SE]



SE 786 .

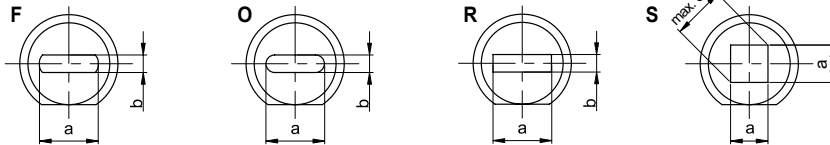
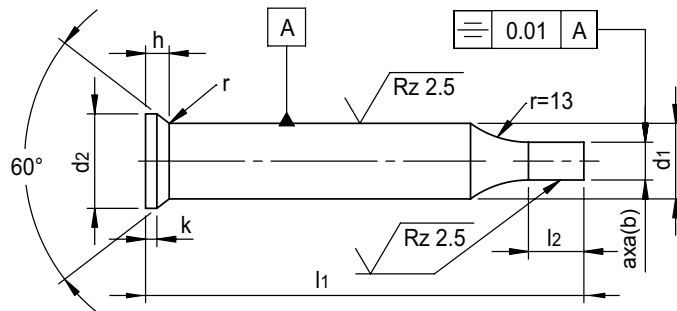
Mat.: HSS
Härte Schaft: 64 ±2 HRC
Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC
Head: 50 ±5 HRC

SE 786 F /
8 x 80 / a x b

Länge l₂ frei wählbar!
Stempel ohne Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).
Fehlende Maße siehe SE 775 (Seite SE.1)

Length l₂ freely selectable!
Punches without rotation prevention available, please specify when ordering.
For missing dimensions please see SE 775 (page SE.1)



d1 h6	a x b ±0,01 Stufung/step 0,01 ≥ ≤	l ₂ +0,5	l ₁ +0,5			
			71	80	100	130
5	2,5 - 4,9	10	●	●	●	●
6	3,0 - 5,9	10	●	●	●	●
8	4,0 - 7,9	13	●	●	●	●
10	5,0 - 9,9	17	●	●	●	●
13	9,0 - 12,9	17	●	●	●	●
16	12,0 - 15,9	17	●	●	●	●
20	16,0 - 19,9	17	●	●	●	●
25	20,0 - 24,9	17	●	●	●	●
32	27,0 - 31,9	17	●	●	●	●
38	33,0 - 37,9	17	●	●	●	●



Schneidstempel Typ K, zylindrischer Kopf

Punches type K, cylindrical head



SCHNEIDELEMENTE / CUTTING ELEMENTS

SE 712

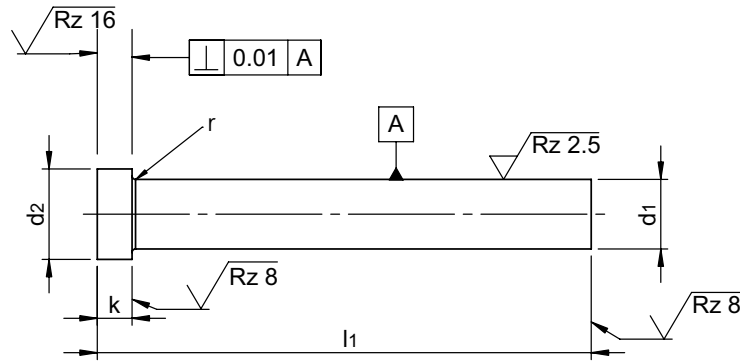
Mat.: HSS
 Härte Schaft: 64 ±2 HRC
 Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
 Hardness shank: 64 ±2 HRC
 Head: 50 ±5 HRC

SE 712 / 8 x 80

Stempel mit Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).

Punches with rotation prevention available, please specify when ordering.



[SE]

d1 m5	d2 -0,15	k +0,2 +0,1	r +0,1	l1 +0,5 +0,2					
				63	71	80	90	100	120
3	5	3	0,2	●	●	●	●		
4	6	3	0,2	●	●	●	●	●	
5	8	5	0,3	●	●	●	●	●	●
6	9	5	0,3	●	●	●	●	●	●
8	11	5	0,3	●	●	●	●	●	●
10	13	5	0,3	●	●	●	●	●	●
13	16	5	0,5	●	●	●	●	●	●
16	19	6	0,5	●	●	●	●	●	●
20	24	6	0,5	●	●	●	●	●	●
25	29	10	0,5	●	●	●	●	●	●
32	36	12	0,5	●	●	●	●	●	●
38	45	15	0,5	●	●	●	●	●	●



SE 712 ISO

Mat.: HSS
Härte Schaft: 64 ±2 HRC
Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC
Head: 50 ±5 HRC

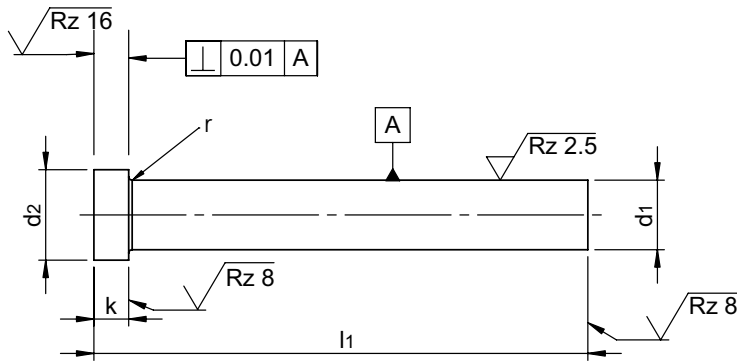
SE 712 ISO / 8 x 80

Stempel mit verstärkter Kopfhöhe auf Wunsch lieferbar (bei Bestellung angeben).

Stempel mit Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).

Punches with rotation prevention available, please specify when ordering.

Punches with reinforced head height available, please specify when ordering.



d1 m5	d2 -0,15	k +0,2 +0,1	r +0,1	l1 +0,5 +0,2					
				63	71	80	90	100	120
3	5	3	0,2	●	●	●	●		
4	6	3	0,2	●	●	●	●	●	
5	8	5	0,3	●	●	●	●	●	●
6	9	5	0,3	●	●	●	●	●	●
8	11	5	0,3	●	●	●	●	●	●
10	13	5	0,3	●	●	●	●	●	●
13	16	5	0,5	●	●	●	●	●	●
16	19	5	0,5	●	●	●	●	●	●
20	23	5	0,5	●	●	●	●	●	●
25	28	5	0,5	●	●	●	●	●	●
32	35	5	0,5	●	●	●	●	●	●
38	41	5	0,5	●	●	●	●	●	●



Schneidstempel ISO 8020 mit federndem Auswerferstift

Punches ISO 8020 with spring ejector



SCHNEIDELEMENTE / CUTTING ELEMENTS

SE 737

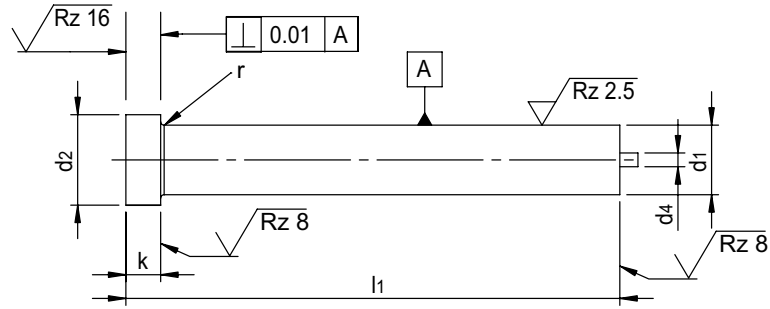
Mat.: HSS
 Härte Schaft: 64 ±2 HRC
 Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
 Hardness shank: 64 ±2 HRC
 Head: 50 ±5 HRC

SE 737 / 10 x 100

Stempel mit Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).

Punches with rotation prevention available, please specify when ordering.



d1 m5	d2 -0,05	d4	k +0,2 +0,1	r +0,1	l1 +0,5 +0,2					
					63	71	80	90	100	120
5	8	1,0	5	0,3	●	●	●	●	●	
6	9	1,0	5	0,3	●	●	●	●	●	
8	11	1,5	5	0,3	●	●	●	●	●	●
10	13	1,5	5	0,3	●	●	●	●	●	●
13	16	1,5	5	0,5	●	●	●	●	●	●
16	19	2,3	5	0,5	●	●	●	●	●	●
20	23	2,3	5	0,5	●	●	●	●	●	●
25	28	2,3	5	0,5	●	●	●	●	●	●
32	35	3,0	5	0,5	●	●	●	●	●	●
38	41	3,0	5	0,5	●	●	●	●	●	●

[SE]



SE 716 KP ISO

Mat.: HSS
Härte Schaft: 64 ±2 HRC
Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC
Head: 50 ±5 HRC

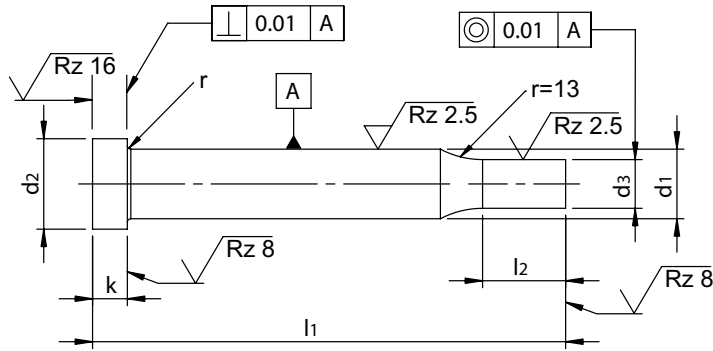
SE 716 KP / ISO /
10 x 100 / d3

Stempel mit verstärkter Kopfhöhe auf Wunsch lieferbar (bei Bestellung angeben).

Länge l2 frei wählbar!
Stempel mit Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).

Length l2 freely selectable!
Punches with rotation prevention available, please specify when ordering.

Punches with reinforced head height available, please specify when ordering.



d1 m5	d2 -0,15	d3 +0,01 Stufung/step 0,01	k +0,2 +0,1	r +0,1	l2 ±0,5	l1 +0,5 +0,2					
						63	71	80	90	100	120
3	5	1,6 - 2,9	3	0,2	7	●	●	●	●		
4	6	1,6 - 3,9	3	0,2	10	●	●	●	●	●	
5	8	2,5 - 4,9	5	0,3	10	●	●	●	●	●	●
6	9	3,0 - 5,9	5	0,3	10	●	●	●	●	●	●
8	11	4,0 - 7,9	5	0,3	13	●	●	●	●	●	●
10	13	5,0 - 9,9	5	0,3	17	●	●	●	●	●	●
13	16	9,0 - 12,9	5	0,5	17	●	●	●	●	●	●
16	19	12,0 - 15,9	5	0,5	17	●	●	●	●	●	●
20	23	16,0 - 19,9	5	0,5	17	●	●	●	●	●	●
25	28	20,0 - 24,9	5	0,5	17	●	●	●	●	●	●
32	35	27,0 - 31,9	5	0,5	17	●	●	●	●	●	●
38	41	33,0 - 37,9	5	0,5	17	●	●	●	●	●	●



SE 737 EKP

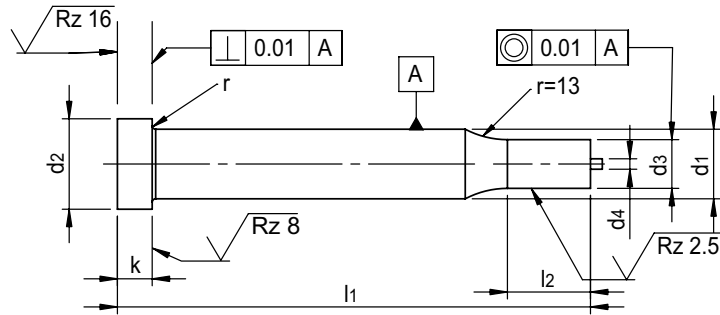
Mat.: HSS
Härte Schaft: 64 ±2 HRC
Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC
Head: 50 ±5 HRC

SE 737 EKP /
10 x 100 / d3

Länge l2 frei wählbar!
Stempel mit Verdrehsicherung auf
Wunsch lieferbar (bei Bestellung
angeben).

Length l2 freely selectable!
Punches with rotation prevention
available, please specify when
ordering.



[SE]

d1 m5	d2 -0,15	d3 +0,01 Stufung/step 0,01	d4	k +0,2 +0,1	r +0,1	l2 ±0,5	l1 +0,5 +0,2					
							63	71	80	90	100	120
5	8	2,5 - 4,9	1,0	5	0,3	10	●	●	●	●	●	
6	9	3,0 - 5,9	1,0	5	0,3	10	●	●	●	●	●	
8	11	4,0 - 7,9	1,5	5	0,3	13	●	●	●	●	●	●
10	13	5,0 - 9,9	1,5	5	0,3	17	●	●	●	●	●	●
13	16	9,0 - 12,9	1,5	5	0,5	17	●	●	●	●	●	●
16	19	12,0 - 15,9	2,3	5	0,5	17	●	●	●	●	●	●
20	23	16,0 - 19,9	2,3	5	0,5	17	●	●	●	●	●	●
25	28	20,0 - 24,9	2,3	5	0,5	17	●	●	●	●	●	●
32	35	24,0 - 31,9	3,0	5	0,5	17	●	●	●	●	●	●
38	41	28,0 - 37,9	3,0	5	0,5	17	●	●	●	●	●	●



SE 731 . . ISO

Mat.: HSS
Härte Schaft: 64 ±2 HRC
Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC
Head: 50 ±5 HRC

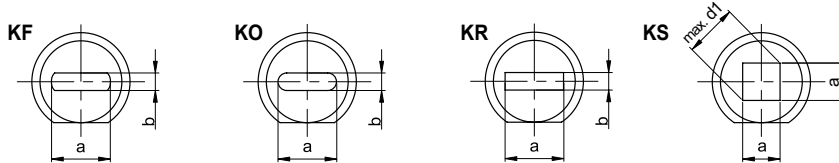
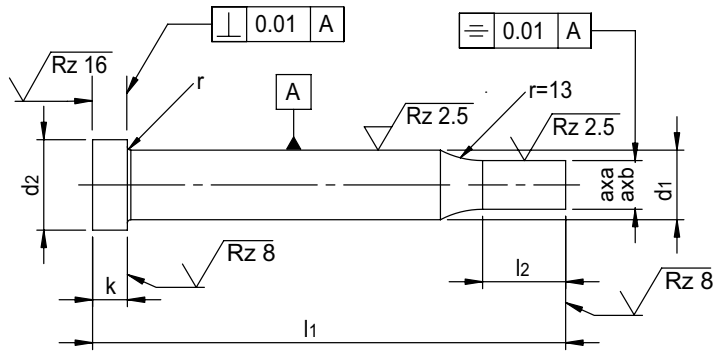
SE 731 KO / ISO /
10 x 100 / a x b

Stempel mit verstärkter Kopfhöhe auf Wunsch lieferbar (bei Bestellung angeben).

Länge l2 frei wählbar!
Stempel ohne Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).

Length l2 freely selectable!
Punches without rotation prevention available, please specify when ordering.

Punches with reinforced head height available, please specify when ordering.



d1 m5	a x b ±0,01 Stufung/step 0,01 ≥ ≤	d2 -0,15	k +0,2 +0,1	r +0,1	l2 ±0,5	l1 +0,5 +0,2					
						63	71	80	90	100	120
3	1,6 - 2,9	5	3	0,2	7	●	●	●	●		
4	1,6 - 3,9	6	3	0,2	10	●	●	●	●	●	
5	2,5 - 4,9	8	5	0,3	10	●	●	●	●	●	●
6	3,0 - 5,9	9	5	0,3	10	●	●	●	●	●	●
8	4,0 - 7,9	11	5	0,3	13	●	●	●	●	●	●
10	5,0 - 9,9	13	5	0,3	17	●	●	●	●	●	●
13	9,0 - 12,9	16	5	0,5	17	●	●	●	●	●	●
16	12,0 - 15,9	19	5	0,5	17	●	●	●	●	●	●
20	16,0 - 19,9	23	5	0,5	17	●	●	●	●	●	●
25	20,0 - 24,9	28	5	0,5	17	●	●	●	●	●	●
32	27,0 - 31,9	35	5	0,5	17	●	●	●	●	●	●
38	33,0 - 37,9	41	5	0,5	17	●	●	●	●	●	●



SE 737 . . .

mit federndem Auswerferstift

with spring ejector

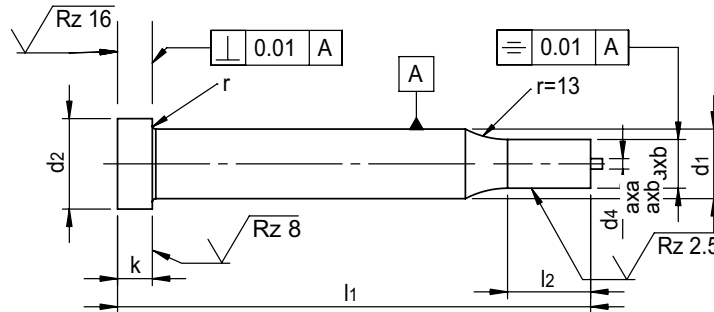
SE 737 EKF /
10 x 100 / a x b

Mat.: HSS
Härte Schaft: 64 ±2 HRC
Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC
Head: 50 ±5 HRC

Länge l2 frei wählbar!
Stempel ohne Verdrehssicherung auf
Wunsch lieferbar (bei Bestellung
angeben).

Length l2 freely selectable!
Punches without rotation preventi-
on available, please specify when
ordering.

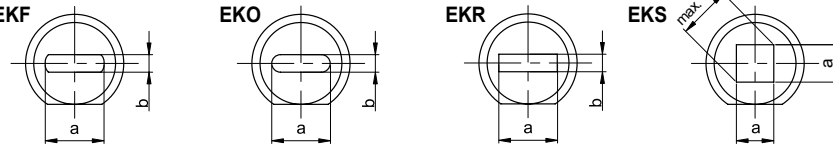


EKF

EKO

EKR

EKS



d1 m5	d2 -0,15	a x b ±0,01 Stufung/step 0,01 ≥ ≤	d4	k +0,2 +0,1	r +0,1	l2 ±0,5	l1 +0,5 +0,2					
							63	71	80	90	100	120
5	8	2,5 - 4,9	1,0	5	0,3	10	●	●	●	●	●	
6	9	3,0 - 5,9	1,0	5	0,3	10	●	●	●	●	●	
8	11	4,0 - 7,9	1,6	5	0,3	13	●	●	●	●	●	●
10	13	5,0 - 9,9	1,6	5	0,3	17	●	●	●	●	●	●
13	16	9,0 - 12,9	1,6	5	0,5	17	●	●	●	●	●	●
16	19	12,0 - 15,9	2,4	5	0,5	17	●	●	●	●	●	●
20	23	16,0 - 19,9	2,4	5	0,5	17	●	●	●	●	●	●
25	28	20,0 - 24,9	2,4	5	0,5	17	●	●	●	●	●	●
32	35	24,0 - 31,9	2,4	5	0,5	17	●	●	●	●	●	●
38	41	28,0 - 37,9	2,4	5	0,5	17	●	●	●	●	●	●

[SE]



SE 391

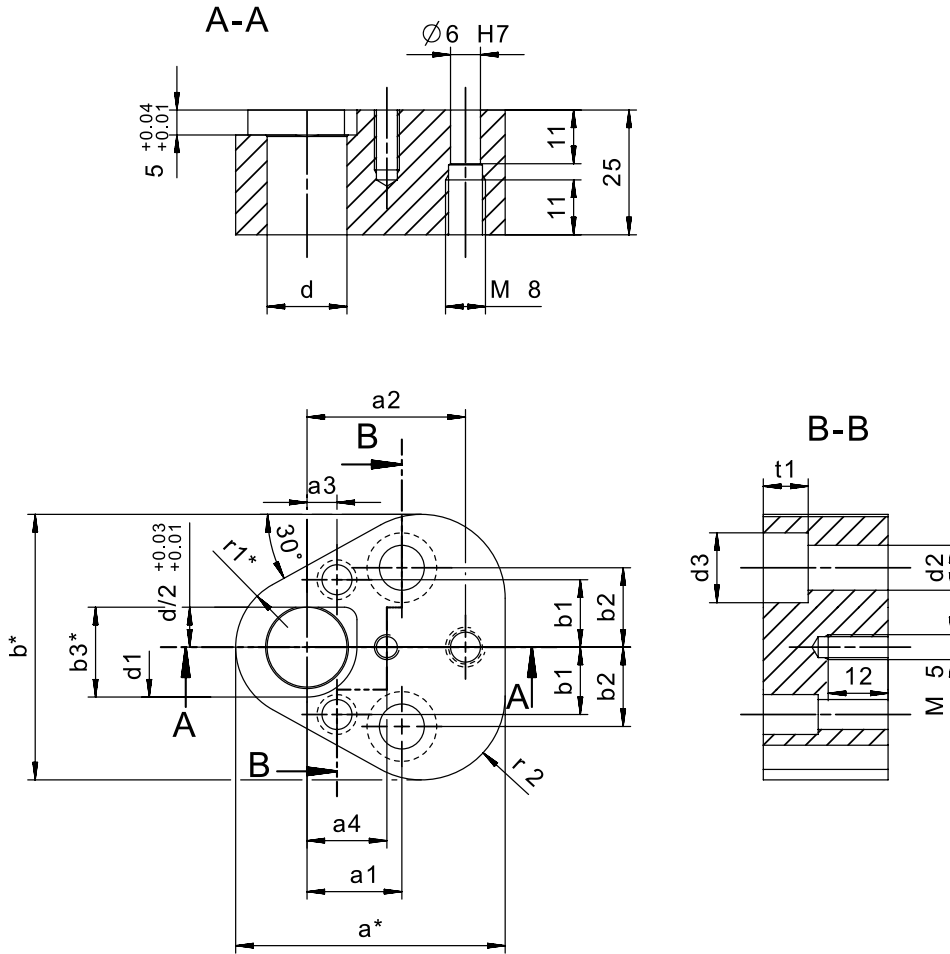
Schwere Ausführung
mit Verdrehsicherung

Heavy duty
with rotation prevention

SE 391 / 13

Lieferumfang:
Zylinderkopfschrauben und Zylinder-
stifte

Included:
Socket head cap screw and dowel
pins



d	Toleranzen d Tolerances d	d1	d2	d3	t1	a* max.	a1	a2 ±0,01	a3 ±0,01	a4	b* max.	b1 ±0,01	b2	b3*	r1*	r2
10	+0,011 +0,008	14	9	15	9	44,5	19	26,92	7,5	16	43,7	9	11,1	12	9,5	12
13	+0,014 +0,010	17	9	15	9	50,8	19	29,97	6,5	16	50	12	14,3	15	12,7	15,2
16	+0,014 +0,010	20	9	15	9	54	19	31,75	6	16	53,2	13,5	15,9	18	14,3	16,8
20	+0,016 +0,011	24	11	18	11	60,3	19	33,53	5	23	59,5	16,5	17,5	22	17,5	20
25	+0,016 +0,011	29	13,5	20	13	69,9	23,8	40,64	7	30	69,1	22	19,8	27	22,2	24,7
32	+0,019 +0,013	36	13,5	20	13	69,9	23,8	40,64	7	30	69,1	22	19,8	34	22,2	24,7

* Konturen können variieren. Größtmaße sind in der Tabelle angegeben.

* Contours may vary. Maximum dimensions are given in the table.

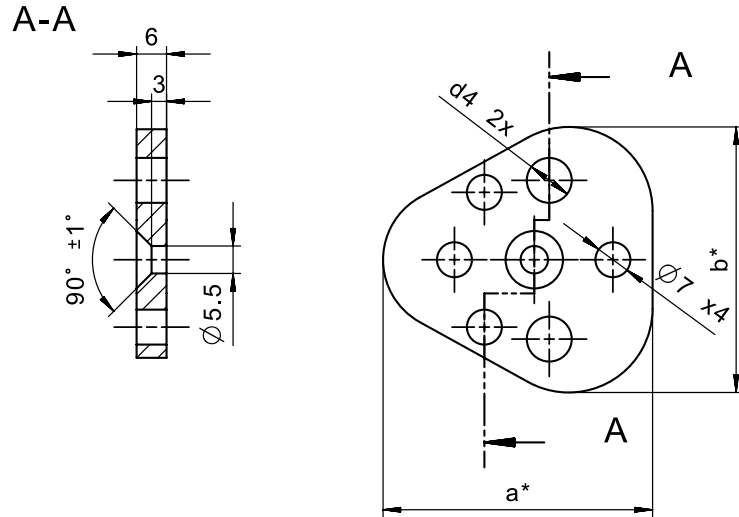


SE 392

Mat.: 1.2842
Härte: 50 +3 HRC

Mat.: 1.2842
Hardness: 50 +3 HRC

SE 392 / 13



d SE 391	d4	a* max.	b* max.
10	9	44,5	43,7
13	9	50,8	50
16	9	54	53,2
20	11	60,3	59,5
25	13,5	69,9	69,1
32	13,5	69,9	69,1

* Konturen können variieren. Größtmaße sind in der Tabelle angegeben.

* Contours may vary. Maximum dimensions are given in the table.

SE 393

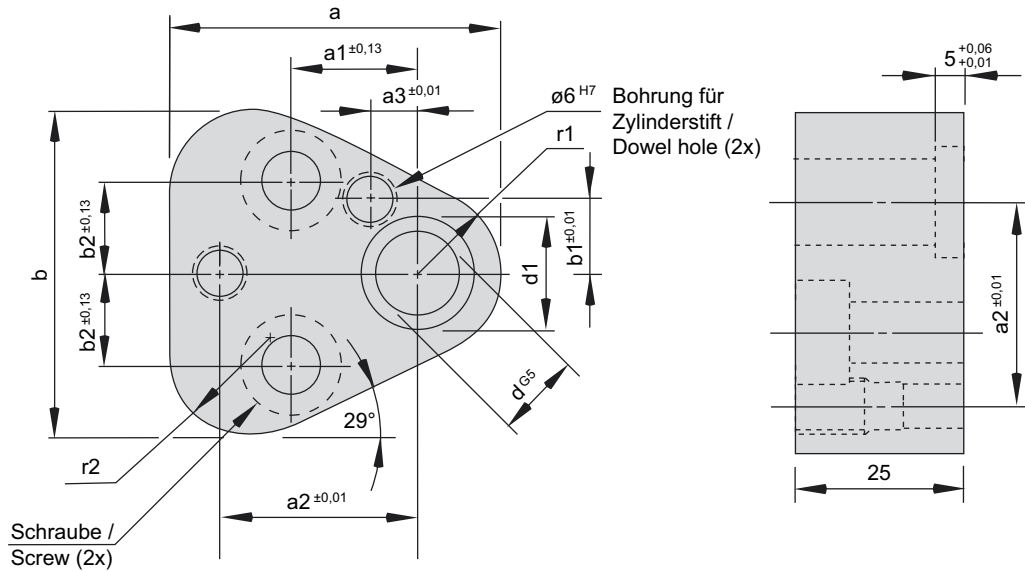
Mat.: C45

Lieferumfang:
Zylinderkopfschrauben und Zylinderstifte

Mat.: C45

Included:
Socket head cap screw and dowel pins

SE 393 / 13



d	d1	a* max.	a1	a2	a3	b* max.	b1	b2	r1*	r2	Schrauben Screws
10	14	44,5	19	26,93	7,5	43,7	9	11,1	9,5	12	M8
13	17	50,8	19	29,97	6,5	50	12	14,3	12,7	15,2	M8
16	20	54	19	31,75	6	53,2	13,5	15,9	14,3	16,8	M8
20	24	60,3	19	33,53	5	59,5	16,5	17,5	17,5	20	M10
25	29	69,9	23,8	40,64	7	69,1	22	19,8	22,2	24,7	M10
32	36	69,9	23,8	40,64	7	69,1	22	19,8	22,2	24,7	M12

* Konturen können variieren. Größtmaße sind in der Tabelle angegeben.

* Contours may vary. Maximum dimensions are given in the table.



SE 394

mit Verdrehsicherung

with rotation prevention

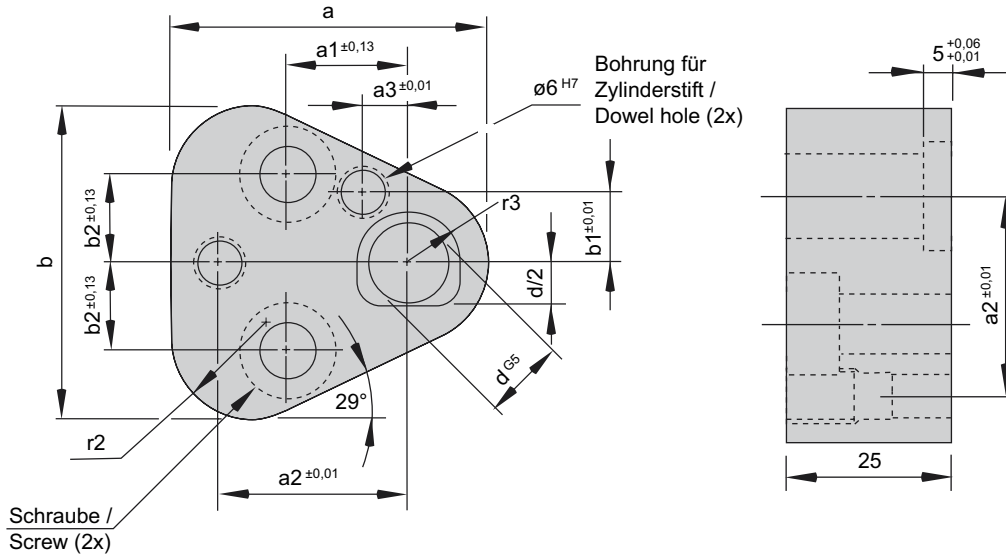
SE 394 / 13

Mat.: C45

Mat.: C45

Lieferumfang:
Zylinderkopfschrauben und
Zylinderstifte

Included:
Socket head cap screw and dowel
pins



d	a* max.	a1	a2	a3	b* max.	b1	b2	r1*	r2	r3	Schrauben Screws
10	44,5	19	26,93	7,5	43,7	9	11,1	9,5	12	7	M8
13	50,8	19	29,97	6,5	50	12	14,3	12,7	15,2	8,5	M8
16	54	19	31,75	6	53,2	13,5	15,9	14,3	16,8	10	M8
20	60,3	19	33,53	5	59,5	16,5	17,5	17,5	20	12	M10
25	69,9	23,8	40,64	7	69,1	22	19,8	22,2	24,7	14,5	M10
32	69,9	23,8	40,64	7	69,1	22	19,8	22,2	24,7	18	M12

* Konturen können variieren. Größtmaße sind in der Tabelle angegeben.

* Contours may vary. Maximum dimensions are given in the table.

SE 395

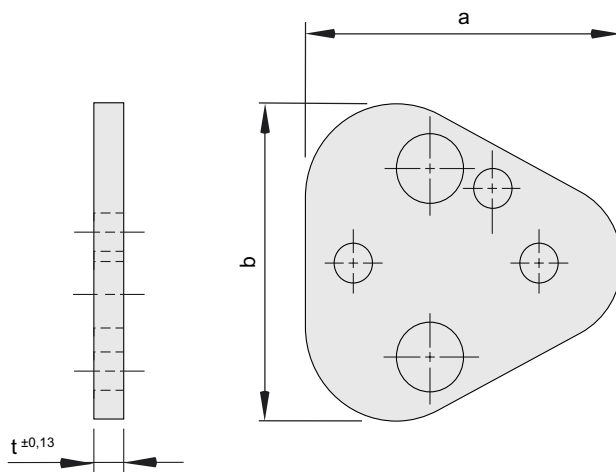
Ausgleichsplatten

Shim plates

SE 395 / 13

Mat.: C45

Mat.: C45



d SE 393, SE 394	t	a* max.	b* max.
10	1,8	44,5	43,7
13	1,8	50,8	50
16	1,8	54	53,2
20	1,8	60,3	59,5
25	1,8	69,9	69,1
32	1,8	69,9	69,1

* Konturen können variieren. Größtmaße sind in der Tabelle angegeben.

* Contours may vary. Maximum dimensions are given in the table.

SE 396

Druckplatten

Thrust plates

SE 396 / 13

Mat.: C45
Härte: 55 HRC

Mat.: C45
Hardness: 55 HRC

d SE 393, SE 394	t	a* max.	b* max.
10	4,8	44,5	43,7
13	4,8	50,8	50
16	4,8	54	53,2
20	4,8	60,3	59,5
25	4,8	69,9	69,1
32	4,8	69,9	69,1

* Konturen können variieren. Größtmaße sind in der Tabelle angegeben.

* Contours may vary. Maximum dimensions are given in the table.



SE 750

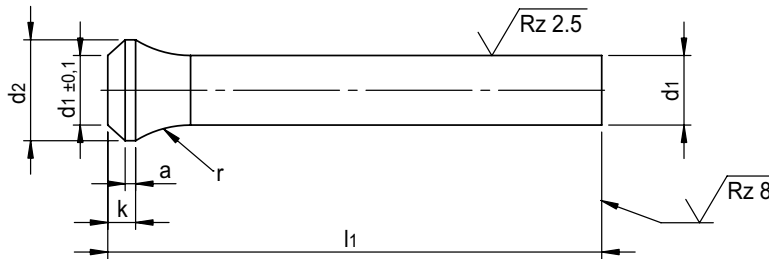
Mat.: HSS
 Härte Schaft: 64 ±2 HRC
 Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
 Hardness shank: 64 ±2 HRC
 Head: 50 ±5 HRC

SE 750 / 13,0 x 100

Stempel mit Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).

Punches with rotation prevention available, please specify when ordering.



d1 h6	d2 -0,2	k +0,2	a	r -0,2	l1 +0,5				
					71	80	90	100	120
2,0	3,0	3	1,0	3,5	●	●	●		
2,5	3,5	3	1,0	3,5	●	●	●		
3,0	4,5	3	1,0	6,5	●	●	●		
3,5	5,0	3	1,0	8,0	●	●	●		
4,0	5,5	4	1,5	8,0	●	●	●	●	
4,5	6,0	4	1,5	8,0	●	●	●	●	
5,0	7,0	4	1,5	10,0	●	●	●	●	●
5,5	8,0	4	1,5	10,0	●	●	●	●	●
6,0	9,0	4	1,5	10,0	●	●	●	●	●
6,5	10,0	4	1,5	12,0	●	●	●	●	●
7,0	10,0	4	1,5	12,0	●	●	●	●	●
7,5	11,0	4	1,5	12,0	●	●	●	●	●
8,0	11,0	4	1,5	12,0	●	●	●	●	●
8,5	13,0	4	1,5	15,0	●	●	●	●	●
9,0	13,0	4	1,5	15,0	●	●	●	●	●
9,5	14,0	4	1,5	15,0	●	●	●	●	●
10,0	14,0	4	1,5	15,0	●	●	●	●	●
10,5	15,0	4	1,5	15,0	●	●	●	●	●
11,0	15,0	4	1,5	15,0	●	●	●	●	●
11,5	16,0	4	1,5	15,0	●	●	●	●	●
12,0	16,0	4	1,5	15,0	●	●	●	●	●
12,5	17,0	4	1,5	15,0	●	●	●	●	●
13,0	17,0	4	1,5	15,0	●	●	●	●	●
13,5	18,0	4	1,5	15,0	●	●	●	●	●
14,0	18,0	4	1,5	15,0	●	●	●	●	●
14,5	19,0	4	1,5	15,0	●	●	●	●	●
15,0	19,0	4	1,5	15,0	●	●	●	●	●
15,5	20,0	4	1,5	15,0	●	●	●	●	●
16,0	20,0	4	1,5	15,0	●	●	●	●	●
16,5	21,0	4	1,5	15,0	●	●	●	●	●
17,0	21,0	4	1,5	15,0	●	●	●	●	●
17,5	22,0	4	1,5	15,0	●	●	●	●	●
18,0	22,0	4	1,5	15,0	●	●	●	●	●
18,5	23,0	4	1,5	15,0	●	●	●	●	●
19,0	23,0	4	1,5	15,0	●	●	●	●	●
19,5	25,0	4	1,5	15,0	●	●	●	●	●
20,0	25,0	4	1,5	15,0	●	●	●	●	●
25,0	30,0	4	1,5	15,0	●	●	●	●	●

= bevorzugte Abmessungen / preferred dimensions

[SE]

SE 753

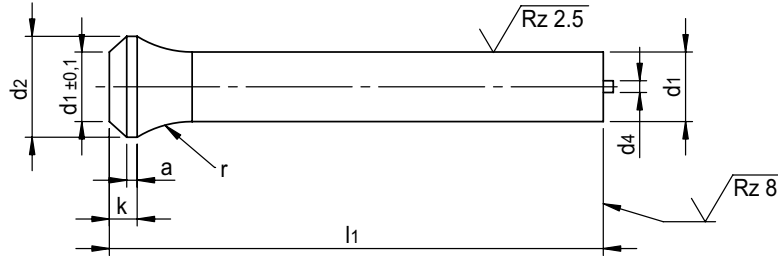
Mat.: HSS
Härte Schaft: 64 ±2 HRC
Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC
Head: 50 ±5 HRC

SE 753 / 13,0 x 100

Stempel mit Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).

Punches with rotation prevention available, please specify when ordering.



d1 h6	d2 -0,2	k +0,2	a	r -0,2	d4	l1 +0,5				
						71	80	90	100	120
5,0	7	4	1,5	10	1,0	●	●	●	●	
6,0	9	4	1,5	10	1,0	●	●	●	●	
8,0	11	4	1,5	12	1,5	●	●	●	●	●
10,0	14	4	1,5	15	1,5	●	●	●	●	●
13,0	17	4	1,5	15	1,5	●	●	●	●	●
16,0	20	4	1,5	15	2,3	●	●	●	●	●
20,0	25	4	1,5	15	2,3	●	●	●	●	●
25,0	30	4	1,5	15	2,3	●	●	●	●	●

Zwischenabmessungen auf Anfrage! / Intermediate dimensions on request!

[SE]



SE 751

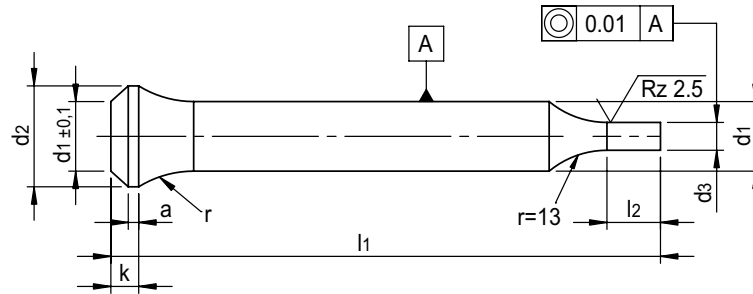
Mat.: HSS
Härte Schaft: 64 ±2 HRC
Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC
Head: 50 ±5 HRC

SE 751 /
10,0 x 100 / d3

Länge l2 frei wählbar!
Stempel mit Verdrehsicherung auf
Wunsch lieferbar (bei Bestellung
angeben).

Length l2 freely selectable!
Punches with rotation prevention
available, please specify when
ordering.



d1 h6	d3 h6 Stufung/step 0,01	d2 -0,2	k +0,2	a	r -0,2	l2 +0,5	l1 +0,5				
							71	80	90	100	120
2,0	0,5 - 1,9	3,0	3	1,0	3,5	7	●	●	●		
2,5	0,5 - 2,4	3,5	3	1,0	3,5	7	●	●	●		
3,0	1,6 - 2,9	4,5	3	1,0	6,5	7	●	●	●		
3,5	1,6 - 3,4	5,0	3	1,0	8,0	10	●	●	●		
4,0	1,6 - 3,9	5,5	4	1,5	8,0	10	●	●	●	●	
4,5	2,0 - 4,4	6,0	4	1,5	8,0	10	●	●	●	●	
5,0	2,5 - 4,9	7,0	4	1,5	10,0	10	●	●	●	●	●
5,5	2,5 - 5,4	8,0	4	1,5	10,0	10	●	●	●	●	●
6,0	3,0 - 5,9	9,0	4	1,5	10,0	10	●	●	●	●	●
6,5	3,0 - 6,4	10,0	4	1,5	12,0	10	●	●	●	●	●
7,0	3,5 - 6,9	10,0	4	1,5	12,0	10	●	●	●	●	●
7,5	3,5 - 7,4	11,0	4	1,5	12,0	10	●	●	●	●	●
8,0	3,5 - 7,9	11,0	4	1,5	12,0	13	●	●	●	●	●
8,5	4,0 - 8,4	13,0	4	1,5	15,0	13	●	●	●	●	●
9,0	4,0 - 8,9	13,0	4	1,5	15,0	13	●	●	●	●	●
9,5	4,5 - 9,4	14,0	4	1,5	15,0	13	●	●	●	●	●
10,0	5,0 - 9,9	14,0	4	1,5	15,0	17	●	●	●	●	●
10,5	5,5 - 10,4	15,0	4	1,5	15,0	17	●	●	●	●	●
11,0	5,5 - 10,9	15,0	4	1,5	15,0	17	●	●	●	●	●
11,5	6,0 - 11,4	16,0	4	1,5	15,0	17	●	●	●	●	●
12,0	6,0 - 11,9	16,0	4	1,5	15,0	17	●	●	●	●	●
12,5	7,0 - 12,4	17,0	4	1,5	15,0	17	●	●	●	●	●
13,0	9,0 - 12,9	17,0	4	1,5	15,0	17	●	●	●	●	●
13,5	9,0 - 13,4	18,0	4	1,5	15,0	17	●	●	●	●	●
14,0	9,5 - 13,9	18,0	4	1,5	15,0	17	●	●	●	●	●
14,5	9,5 - 14,4	19,0	4	1,5	15,0	17	●	●	●	●	●
15,0	10,0 - 14,9	19,0	4	1,5	15,0	17	●	●	●	●	●
15,5	10,5 - 15,4	20,0	4	1,5	15,0	17	●	●	●	●	●
16,0	12,0 - 15,9	20,0	4	1,5	15,0	17	●	●	●	●	●
16,5	12,5 - 16,4	21,0	4	1,5	15,0	17	●	●	●	●	●
17,0	13,0 - 16,9	21,0	4	1,5	15,0	17	●	●	●	●	●
17,5	13,0 - 17,4	22,0	4	1,5	15,0	17	●	●	●	●	●
18,0	13,5 - 17,9	22,0	4	1,5	15,0	17	●	●	●	●	●
18,5	13,5 - 18,4	23,0	4	1,5	15,0	17	●	●	●	●	●
19,0	14,0 - 18,9	23,0	4	1,5	15,0	17	●	●	●	●	●
19,5	15,0 - 19,4	25,0	4	1,5	15,0	17	●	●	●	●	●
20,0	16,0 - 19,9	25,0	4	1,5	15,0	17	●	●	●	●	●
25,0	18,0 - 24,9	30,0	4	1,5	15,0	17	●	●	●	●	●

= bevorzugte Abmessungen / preferred dimensions

[SE]

SE 754

mit federndem Auswerferstift

with spring ejector

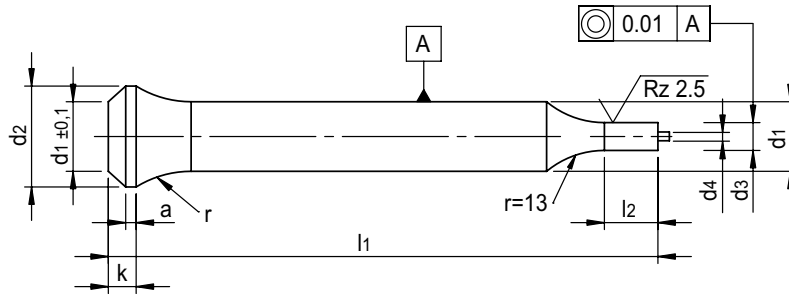
SE 754 /
10,0 x 100 / d3

Mat.: HSS
Härte Schaft: 64 ±2 HRC
Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC
Head: 50 ±5 HRC

Länge l2 frei wählbar!
Stempel mit Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).

Length l2 freely selectable!
Punches with rotation prevention available, please specify when ordering.



d1 h6	d3 h6 Stufung/step 0,01 ≥ ≤	d2	k -0,2	a +0,2	r	l2 -0,2	d4 +0,5	l1 +0,5				
								71	80	90	100	120
5,0	2,5 - 4,9	7	4,0	1,5	10,0	10	1,0	●	●	●	●	
6,0	3,0 - 5,9	9	4,0	1,5	10,0	10	1,0	●	●	●	●	
8,0	4,0 - 7,9	11	4,0	1,5	12,0	13	1,5	●	●	●	●	●
10,0	5,0 - 9,9	14	4,0	1,5	15,0	17	1,5	●	●	●	●	●
13,0	9,0 - 12,9	17	4,0	1,5	15,0	17	1,5	●	●	●	●	●
16,0	12,0 - 15,9	20	4,0	1,5	15,0	17	2,3	●	●	●	●	●
20,0	16,0 - 19,9	25	4,0	1,5	15,0	17	2,3	●	●	●	●	●
25,0	18,0 - 24,9	30	4,0	1,5	15,0	17	2,3	●	●	●	●	●

Zwischenabmessungen auf Anfrage! / Intermediate dimensions on request!

[SE]



Schneidstempel Posaunenhorn, abgesetzter Schaft

Punches trumpet head, shouldered shank



SCHNEIDELEMENTE / CUTTING ELEMENTS

SE 752 . .

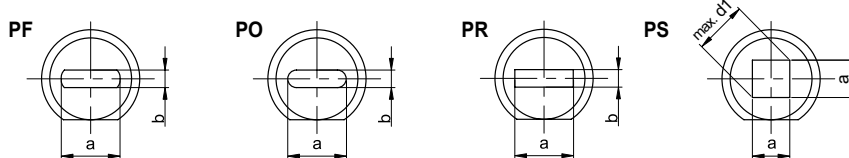
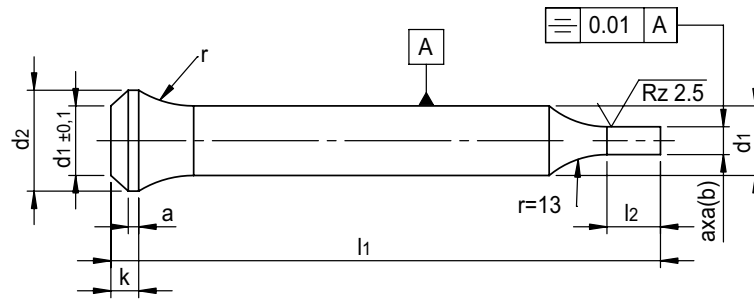
Mat.: HSS
 Härte Schaft: 64 ±2 HRC
 Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
 Hardness shank: 64 ±2 HRC
 Head: 50 ±5 HRC

SE 752 PF /
 10,0 x 100 / a x b

Länge l2 frei wählbar!
 Stempel ohne Verdrehsicherung auf
 Wunsch lieferbar (bei Bestellung
 angeben).

Length l2 freely selectable!
 Punches without rotation preventi-
 on available, please specify when
 ordering.



d1 h6	a x b ±0,01 Stufung/step 0,01 ≥ ≤	d2 -0,2	k +0,2	a	r -0,2	l2 +0,5	l1 +0,5				
							71	80	90	100	120
2,0	0,5 - 1,9	3,0	3	1,0	3,5	7	●	●	●		
2,5	0,5 - 2,4	3,5	3	1,0	3,5	7	●	●	●		
3,0	1,6 - 2,9	4,5	3	1,0	6,5	7	●	●	●		
3,5	1,6 - 3,4	5,0	3	1,0	8,0	10	●	●	●		
4,0	1,6 - 3,9	5,5	4	1,5	8,0	10	●	●	●	●	
4,5	2,0 - 4,4	6,0	4	1,5	8,0	10	●	●	●	●	
5,0	2,5 - 4,9	7,0	4	1,5	10,0	10	●	●	●	●	●
5,5	2,5 - 5,4	8,0	4	1,5	10,0	10	●	●	●	●	●
6,0	3,0 - 5,9	9,0	4	1,5	10,0	10	●	●	●	●	●
6,5	3,0 - 6,4	10,0	4	1,5	12,0	10	●	●	●	●	●
7,0	3,5 - 6,9	10,0	4	1,5	12,0	10	●	●	●	●	●
7,5	3,5 - 7,4	11,0	4	1,5	12,0	10	●	●	●	●	●
8,0	3,5 - 7,9	11,0	4	1,5	12,0	13	●	●	●	●	●
8,5	4,0 - 8,4	13,0	4	1,5	15,0	13	●	●	●	●	●
9,0	4,0 - 8,9	13,0	4	1,5	15,0	13	●	●	●	●	●
9,5	4,5 - 9,4	14,0	4	1,5	15,0	13	●	●	●	●	●
10,0	5,0 - 9,9	14,0	4	1,5	15,0	17	●	●	●	●	●
10,5	5,5 - 10,4	15,0	4	1,5	15,0	17	●	●	●	●	●
11,0	5,5 - 10,9	15,0	4	1,5	15,0	17	●	●	●	●	●
11,5	6,0 - 11,4	16,0	4	1,5	15,0	17	●	●	●	●	●

d1 h6	a x b ±0,01 Stufung/step 0,01 ≥ ≤	d2 -0,2	k +0,2	a	r -0,2	l2 +0,5	l1 +0,5				
							71	80	90	100	120
12,0	6,0 - 11,9	16,0	4	1,5	15,0	17	●	●	●	●	●
12,5	7,0 - 12,4	17,0	4	1,5	15,0	17	●	●	●	●	●
13,0	9,0 - 12,9	17,0	4	1,5	15,0	17	●	●	●	●	●
13,5	9,0 - 13,4	18,0	4	1,5	15,0	17	●	●	●	●	●
14,0	9,5 - 13,9	18,0	4	1,5	15,0	17	●	●	●	●	●
14,5	9,5 - 14,4	19,0	4	1,5	15,0	17	●	●	●	●	●
15,0	10,0 - 14,9	19,0	4	1,5	15,0	17	●	●	●	●	●
15,5	10,5 - 15,4	20,0	4	1,5	15,0	17	●	●	●	●	●
16,0	12,0 - 15,9	20,0	4	1,5	15,0	17	●	●	●	●	●
16,5	12,5 - 16,4	21,0	4	1,5	15,0	17	●	●	●	●	●
17,0	13,0 - 16,9	21,0	4	1,5	15,0	17	●	●	●	●	●
17,5	13,0 - 17,4	22,0	4	1,5	15,0	17	●	●	●	●	●
18,0	13,5 - 17,9	22,0	4	1,5	15,0	17	●	●	●	●	●
18,5	13,5 - 18,4	23,0	4	1,5	15,0	17	●	●	●	●	●
19,0	14,0 - 18,9	23,0	4	1,5	15,0	17	●	●	●	●	●
19,5	15,0 - 19,4	25,0	4	1,5	15,0	17	●	●	●	●	●
20,0	16,0 - 19,9	25,0	4	1,5	15,0	17	●	●	●	●	●
25,0	18,0 - 24,9	30,0	4	1,5	15,0	17	●	●	●	●	●

= bevorzugte Abmessungen / preferred dimensions

[SE]



SE 755 . . .

mit federndem Auswerferstift

with spring ejector

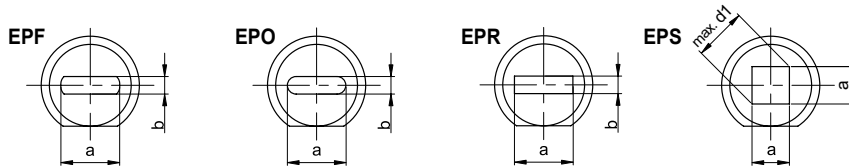
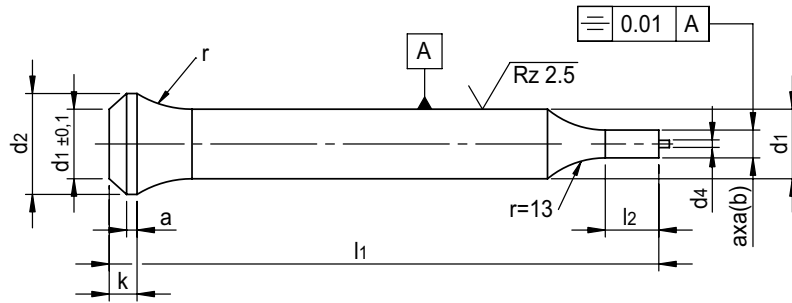
Mat.: HSS
Härte Schaft: 64 ±2 HRC
Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC
Head: 50 ±5 HRC

SE 755 EPF /
10,0 x 100 / a x b

Länge l2 frei wählbar!
Stempel ohne Verdrehungssicherung auf Wunsch lieferbar (bei Bestellung angeben).

Length l2 freely selectable!
Punches without rotation prevention available, please specify when ordering.



d1 h6	a x b ±0,01 Stufung/step 0,01 ≥ ≤	d2	k -0,2	a +0,2	r	l2 -0,2	d4 +0,5	l1 +0,5				
								71	80	90	100	120
5,0	2,5 - 4,9	7	4,0	1,5	10	10	1,0	●	●	●	●	
6,0	3,0 - 5,9	9	4,0	1,5	10	10	1,0	●	●	●	●	
8,0	4,0 - 7,9	11	4,0	1,5	12	13	1,5	●	●	●	●	●
10,0	5,0 - 9,9	14	4,0	1,5	15	17	1,5	●	●	●	●	●
13,0	9,0 - 12,9	17	4,0	1,5	15	17	1,5	●	●	●	●	●
16,0	12,0 - 15,9	20	4,0	1,5	15	17	2,3	●	●	●	●	●
20,0	16,0 - 19,9	25	4,0	1,5	15	17	2,3	●	●	●	●	●
25,0	18,0 - 24,9	30	4,0	1,5	15	17	2,3	●	●	●	●	●

Zwischenabmessungen auf Anfrage! / Intermediate dimensions on request!

[SE]



Kopfsenker für Posaunenhals-Stempel

Counterbore-tools for trumpet-head punches



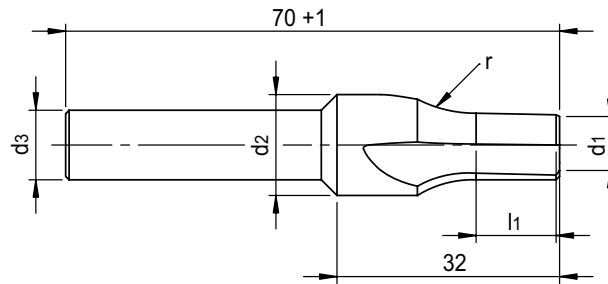
SCHNEIDELEMENTE / CUTTING ELEMENTS

SE 020

Mat.: HSS
Härte Schaft: 64 ±2 HRC

Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC

SE 020 / 6,0



[SE]

d1 f7	d2 h8	d3 h11	r	l1
5,0	7,4	d2	10	10
5,5	8,5	d2	10	10
6,0	9,5	d2	10	10
6,5 / 7,0	10,5	10	12	12
7,5 / 8,0	11,5	10	12	12
8,5 / 9,0	13,5	10	15	12
9,5 / 10,0	14,5	10	15	12
10,5 / 11,0	15,5	10	15	15
11,5 / 12,0	16,5	10	15	15
12,5 / 13,0	17,5	10	15	15
13,5 / 14,0	18,5	10	15	15
14,5 / 15,0	19,5	10	15	15
15,5 / 16,0	20,5	10	15	15
16,5 / 17,0	21,5	16	15	15
17,5 / 18,0	22,5	16	15	15
18,5 / 19,0	23,5	16	15	15
19,5 / 20,0	25,5	16	15	15
25,0	30,5	16	15	15

Zwischenabmessungen auf Anfrage! / Intermediate dimensions on request!



SE 709

Mat.: HSS
Härte Schaft: 64 ±2 HRC
Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC
Head: 50 ±5 HRC

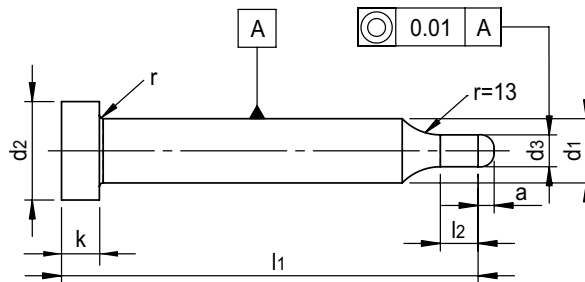
SE 709 /
6 x 100 / d3

Stempel mit Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).

Gesamtlänge = l1 + a
Länge l2 frei wählbar!
Fehlende Maße siehe SE 712 (Seite SE.4)

Total length = l1 + a
Length l2 freely selectable!
for missing dimensions please see SE 712 (Page SE.4)

Punches with rotation prevention available, please specify when ordering.



d1 m5	d3 +0,01 Stufung/step 0,01	l2	a	l1				
				63	71	80	90	100
5	0,8 - 2,0	10	3,0	●	●	●	●	●
6	2,1 - 4,5	10	4,5	●	●	●	●	●
8	4,6 - 7,5	13	6,5	●	●	●	●	●
10	7,6 - 10,0	17	8,0	●	●	●	●	●
13	10,1 - 13,0	17	9,5	●	●	●	●	●
16	13,1 - 16,0	17	11,5	●	●	●	●	●
20	16,1 - 20,0	17	13,5	●	●	●	●	●
25	20,1 - 25,0	17	13,5	●	●	●	●	●



Schneidstempel 30° Kopf

Punches 30° head



SCHNEIDELEMENTE / CUTTING ELEMENTS

SE 730

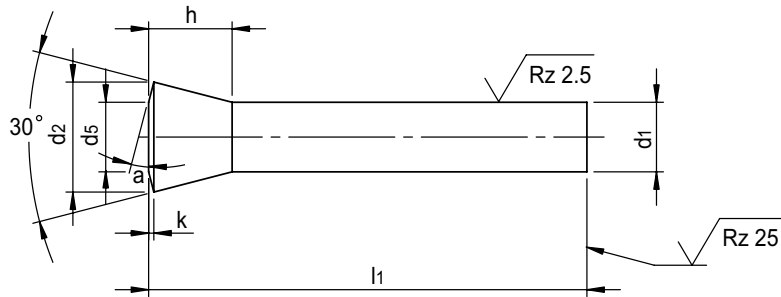
Mat.: HSS
 Härte Schaft: 64 ±2 HRC
 Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
 Hardness shank: 64 ±2 HRC
 Head: 50 ±5 HRC

SE 730 / 8 x 100

Stempel mit Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).

Punches with rotation prevention available, please specify when ordering.



d1 h6	d2 -0,3	d5	h	k	a	l1 +1				
						71	80	90	100	120
4	6,6	3,8	6	1,0	35,0	●	●	●	●	
5	8,2	5,0	7	1,0	32,0	●	●	●	●	●
6	9,7	6,0	8	1,0	28,0	●	●	●	●	●
7	11,8	7,0	10	1,0	22,6	●	●	●	●	●
8	12,8	8,0	10	1,0	22,5	●	●	●	●	●
9	14,4	9,0	11	1,0	20,0	●	●	●	●	●
10	15,9	10,0	12	1,0	19,0	●	●	●	●	●
11	17,4	11,0	13	1,5	25,0	●	●	●	●	●
12	18,7	12,0	14	1,5	24,0	●	●	●	●	●
13	20,2	13,0	15	1,5	26,0	●	●	●	●	●
14	21,8	14,0	16	1,5	21,0	●	●	●	●	●
15	23,3	15,0	17	1,5	20,0	●	●	●	●	●
16	24,6	16,0	18	2,0	25,0	●	●	●	●	●

[SE]



SE 734

mit federndem Auswerferstift

with spring ejector

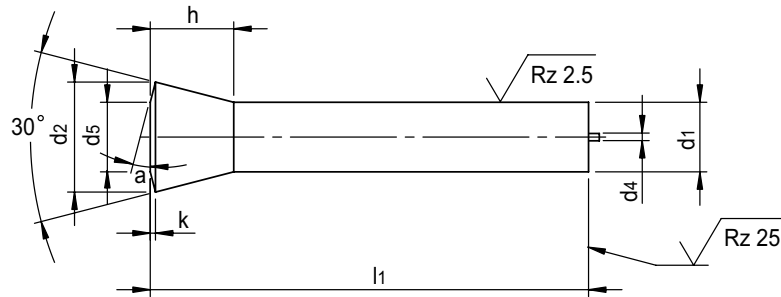
SE 734 / 8 x 100

Mat.: HSS
Härte Schaft: 64 ±2 HRC
Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC
Head: 50 ±5 HRC

Stempel mit Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).

Punches with rotation prevention available, please specify when ordering.



d1 h6	d2 -0,3	d4	d5	h	k	a	l1 +1				
							71	80	90	100	120
5	8,2	1	5,0	7	1,0	32,0	●	●	●	●	●
6	9,7	1	6,0	8	1,0	28,0	●	●	●	●	●
7	11,8	1	7,0	10	1,0	22,6	●	●	●	●	●
8	12,8	1,5	8,0	10	1,0	22,5	●	●	●	●	●
9	14,4	1,5	9,0	11	1,0	20,0	●	●	●	●	●
10	15,9	1,5	10,0	12	1,0	19,0	●	●	●	●	●
11	17,4	1,5	11,0	13	1,5	25,0	●	●	●	●	●
12	18,7	1,5	12,0	14	1,5	24,0	●	●	●	●	●
13	20,2	1,5	13,0	15	1,5	26,0	●	●	●	●	●
14	21,8	1,5	14,0	16	1,5	21,0	●	●	●	●	●
15	23,3	2,3	15,0	17	1,5	20,0	●	●	●	●	●
16	24,6	2,3	16,0	18	2,0	25,0	●	●	●	●	●



Schneidstempel 30° Kopf, abgesetzter Schaft

Punches 30° head, shouldered shank



SCHNEIDELEMENTE / CUTTING ELEMENTS

SE 732

Mat.: HSS
 Härte Schaft: 64 ±2 HRC
 Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
 Hardness shank: 64 ±2 HRC
 Head: 50 ±5 HRC

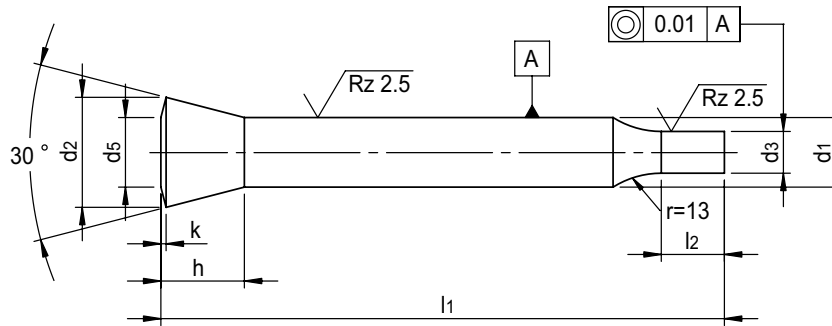
SE 732 /
 6 x 100 / d3

Stempel mit Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).

Länge l2 frei wählbar!
 Fehlende Maße siehe SE 730 (Seite SE.23)

Length l2 freely selectable!
 for missing dimensions please see SE 730 (page SE.23)

Punches with rotation prevention available, please specify when ordering.



d1 h6	d3 h6 Stufung/step 0,01	l2	d5	h	k	l1 +1				
						71	80	90	100	120
4	1,6 - 3,9	10	3,8	6	1,0	●	●	●	●	
5	2,5 - 4,9	10	5,0	7	1,0	●	●	●	●	●
6	3,0 - 5,9	10	6,0	8	1,0	●	●	●	●	●
7	3,0 - 6,9	10	7,0	10	1,0	●	●	●	●	●
8	4,0 - 7,9	13	8,0	10	1,0	●	●	●	●	●
9	4,5 - 8,9	13	9,0	11	1,0	●	●	●	●	●
10	5,0 - 9,9	17	10,0	12	1,0	●	●	●	●	●
11	5,0 - 10,9	17	11,0	13	1,5	●	●	●	●	●
12	6,0 - 11,9	17	12,0	14	1,5	●	●	●	●	●
13	9,0 - 12,9	17	13,0	15	1,5	●	●	●	●	●
14	9,5 - 13,9	17	14,0	16	1,5	●	●	●	●	●
15	10,0 - 14,9	17	15,0	17	1,5	●	●	●	●	●
16	12,0 - 15,9	17	16,0	18	2,0	●	●	●	●	●

[SE]



Schneidstempel 30° Kopf, abgesetzter Schaft

Punches 30° head, shouldered shank



SCHNEIDELEMENTE / CUTTING ELEMENTS

SE 735

mit federndem Auswerferstift

with spring ejector

SE 735 /
6 x 100 / d3

Mat.: HSS
Härte Schaft: 64 ±2 HRC
Kopf: 50 ±5 HRC

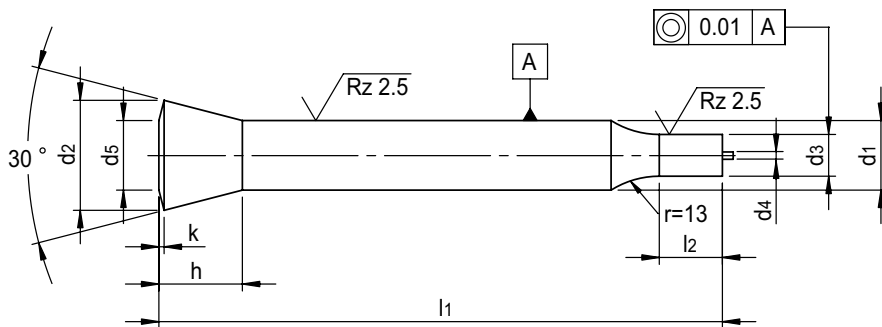
Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC
Head: 50 ±5 HRC

Stempel mit Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).

Länge l2 frei wählbar!
Fehlende Maße siehe SE 730 (Seite SE.23)

Length l2 freely selectable!
for missing dimensions please see SE 730 (page SE.23)

Punches with rotation prevention available, please specify when ordering.



d1 h6	d3 h6 Stufung/step 0,01	d4	l2	d5	h	k	l1 +1				
							71	80	90	100	120
5	2,5 - 4,9	1	10	5,0	7	1,0	●	●	●	●	●
6	3,0 - 5,9	1	10	6,0	8	1,0	●	●	●	●	●
7	3,0 - 6,9	1	10	7,0	10	1,0	●	●	●	●	●
8	4,0 - 7,9	1,5	13	8,0	10	1,0	●	●	●	●	●
9	4,5 - 8,9	1,5	13	9,0	11	1,0	●	●	●	●	●
10	5,0 - 9,9	1,5	17	10,0	12	1,0	●	●	●	●	●
11	5,0 - 10,9	1,5	17	11,0	13	1,5	●	●	●	●	●
12	6,0 - 11,9	1,5	17	12,0	14	1,5	●	●	●	●	●
13	9,0 - 12,9	1,5	17	13,0	15	1,5	●	●	●	●	●
14	9,5 - 13,9	1,5	17	14,0	16	1,5	●	●	●	●	●
15	10,0 - 14,9	2,3	17	15,0	17	1,5	●	●	●	●	●
16	12,0 - 15,9	2,3	17	16,0	18	2,0	●	●	●	●	●



Schneidstempel 30° Kopf, abgesetzter Schaft

Punches 30° head, shouldered shank



SCHNEIDELEMENTE / CUTTING ELEMENTS

SE 733 . . .

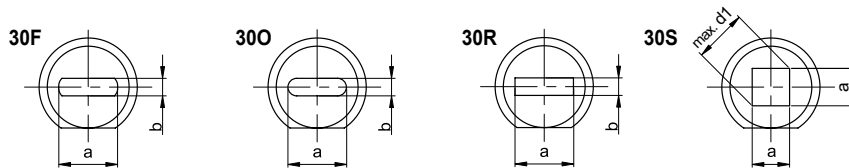
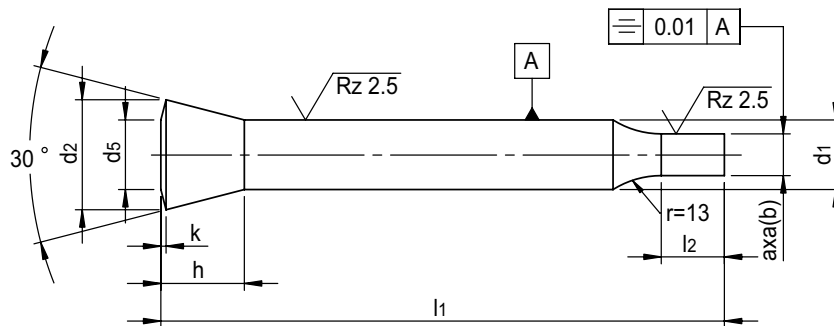
Mat.: HSS
 Härte Schaft: 64 ±2 HRC
 Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
 Hardness shank: 64 ±2 HRC
 Head: 50 ±5 HRC

SE 733 30F /
 6 x 100 / a x b

Länge l2 frei wählbar!
Stempel ohne Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).
 Fehlende Maße siehe SE 730 (Seite SE.23)

Length l2 freely selectable!
Punches without rotation prevention available, please specify when ordering.
 for missing dimensions please see SE 730 (page SE.23)



d1 h6	a x b ±0,01 Stufung/step 0,01 ≥ ≤	l2 +0,5	d5	h	k	l1 +1				
						71	80	90	100	120
4	1,6 - 3,9	10	3,8	6	1,0	●	●	●	●	
5	2,5 - 4,9	10	5,0	7	1,0	●	●	●	●	●
6	3,0 - 5,9	10	6,0	8	1,0	●	●	●	●	●
7	3,0 - 6,9	10	7,0	10	1,0	●	●	●	●	●
8	4,0 - 7,9	13	8,0	10	1,0	●	●	●	●	●
9	4,5 - 8,9	13	9,0	11	1,0	●	●	●	●	●
10	5,0 - 9,9	17	10,0	12	1,0	●	●	●	●	●
11	5,0 - 10,9	17	11,0	13	1,5	●	●	●	●	●
12	6,0 - 11,9	17	12,0	14	1,5	●	●	●	●	●
13	9,0 - 12,9	17	13,0	15	1,5	●	●	●	●	●
14	9,5 - 13,9	17	14,0	16	1,5	●	●	●	●	●
15	10,0 - 14,9	17	15,0	17	1,5	●	●	●	●	●
16	12,0 - 15,9	17	16,0	18	2,0	●	●	●	●	●

[SE]



Schneidstempel 30° Kopf, abgesetzter Schaft

Punches 30° head, shouldered shank



SCHNEIDELEMENTE / CUTTING ELEMENTS

SE 736 . . .

mit federndem Auswerferstift

with spring ejector

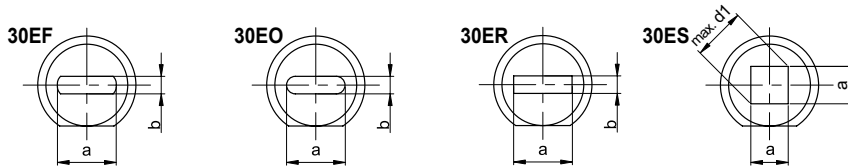
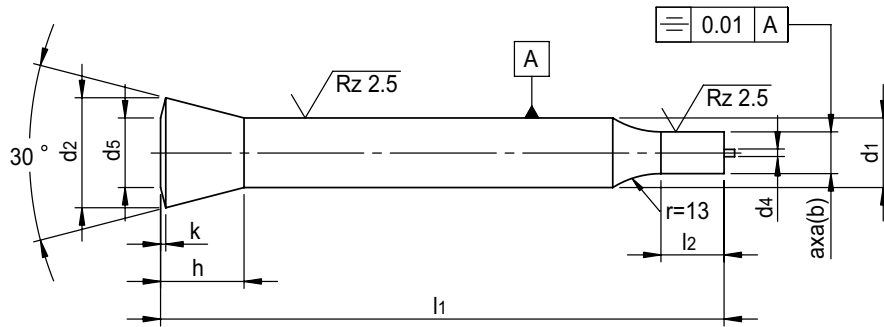
SE 736 30EF /
6 x 100 / a x b

Mat.: HSS
Härte Schaft: 64 ±2 HRC
Kopf: 50 ±5 HRC

Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC
Head: 50 ±5 HRC

Länge l2 frei wählbar!
Stempel ohne Verdrehsicherung auf
Wunsch lieferbar (bei Bestellung
angeben).
Fehlende Maße siehe SE 730 (Seite
SE.23)

Length l2 freely selectable!
Punches without rotation preventi-
on available, please specify when
ordering.
for missing dimensions please see
SE 730 (page SE.23)

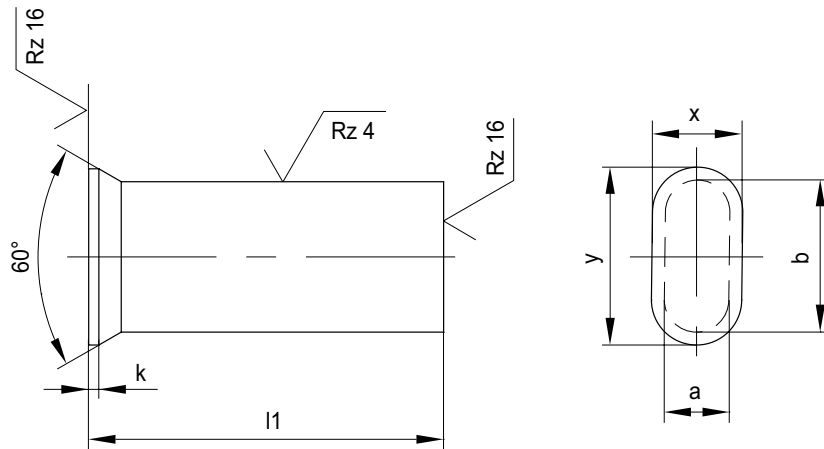


d1 h6	a x b ±0,01 Stufung/step 0,01 ≥ ≤	d4	l2 +0,5	d5	h	k	l1 +1				
							71	80	90	100	120
5	2,5 - 4,9	1	10	5,0	7	1,0	●	●	●	●	●
6	3,0 - 5,9	1	10	6,0	8	1,0	●	●	●	●	●
7	3,0 - 6,9	1	10	7,0	10	1,0	●	●	●	●	●
8	4,0 - 7,9	1,5	13	8,0	10	1,0	●	●	●	●	●
9	4,5 - 8,9	1,5	13	9,0	11	1,0	●	●	●	●	●
10	5,0 - 9,9	1,5	17	10,0	12	1,0	●	●	●	●	●
11	5,0 - 10,9	1,5	17	11,0	13	1,5	●	●	●	●	●
12	6,0 - 11,9	1,5	17	12,0	14	1,5	●	●	●	●	●
13	9,0 - 12,9	1,5	17	13,0	15	1,5	●	●	●	●	●
14	9,5 - 13,9	1,5	17	14,0	16	1,5	●	●	●	●	●
15	10,0 - 14,9	2,3	17	15,0	17	1,5	●	●	●	●	●
16	12,0 - 15,9	2,3	17	16,0	18	2,0	●	●	●	●	●



mit Senkkopf

with countersunk head



SE 744

Qualitätsausführung
Kopf und Schaft feinstgeschliffen
Kopf gestaut

Grade A - finish
Head and shank finish-ground
Jolted head

SE 744 / a x b x l1 x
c x d x k

Mat.: HWS
Härte Schaft: 62 ±2 HRC
Kopf: 45 ±5 HRC

Mat.: HWS (e.g. A2)
Hardness shank: 62 ±2 HRC
Head: 45 ±5 HRC

ohne Toleranzangabe
a/b: ±0,02
l: +0,5 / +1,0

untoleranced
a/b: ±0,02
l: +0,5 / +1,0

Kopfmaße können nach Ihren
Angaben gefertigt werden!

Head-dimensions can be produced
as per customers request!



SE 745

Qualitätsausführung
Kopf und Schaft feinstgeschliffen
Kopf gestaut

Grade A - finish
Head and shank finish-ground
Jolted head

SE 745 / a x b x l1 x
c x d x k

Mat.: HSS
Härte Schaft: 64 ±2 HRC
Kopf: 45 ±5 HRC

Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC
Head: 45 ±5 HRC

ohne Toleranzangabe
a/b: ±0,02
l: +0,5 / +1,0

untoleranced
a/b: ±0,02
l: +0,5 / +1,0

Kopfmaße können nach Ihren
Angaben gefertigt werden!

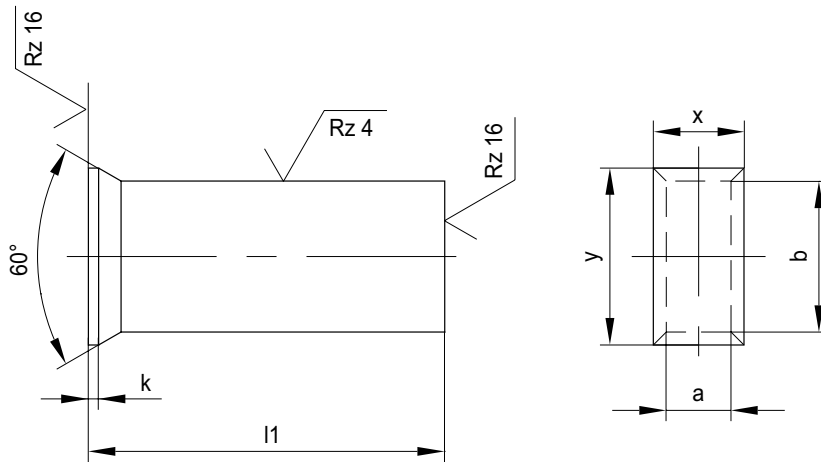
Head-dimensions can be produced
as per customers request!



[SE]

mit Senkkopf

with countersunk head



SE 748

Qualitätsausführung
Kopf und Schaft feinstgeschliffen
Kopf gestaucht

Grade A - finish
Head and shank finish-ground
Jolted head

SE 748 / a x b x l1 x
c x d x k

Mat.: HWS
Härte Schaft: 62 ±2 HRC
Kopf: 45 ±5 HRC

HWS (e.g. A2)
Hardness shank: 62 ±2 HRC
Head: 45 ±5 HRC

ohne Toleranzangabe
a/b: ±0,02
l: +0,5 / +1,0

untoleranced
a/b: ±0,02
l: +0,5 / +1,0

Kopfmaße können nach Ihren
Angaben gefertigt werden!

Head-dimensions can be produced
as per customers request!



SE 749

Qualitätsausführung
Kopf und Schaft feinstgeschliffen
Kopf gestaucht

Grade A - finish
Head and shank finish-ground
Jolted head

SE 749 / a x b x l1 x
c x d x k

Mat.: HSS
Härte Schaft: 64 ±2 HRC
Kopf: 45 ±5 HRC

Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC
Head: 45 ±5 HRC

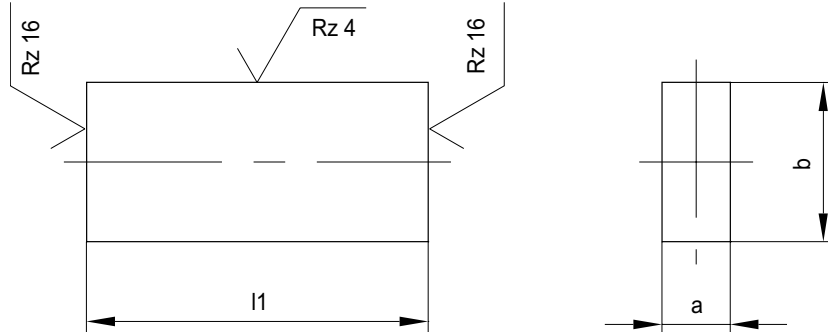
ohne Toleranzangabe
a/b: ±0,02
l: +0,5 / +1,0

untoleranced
a/b: ±0,02
l: +0,5 / +1,0

Kopfmaße können nach Ihren
Angaben gefertigt werden!

Head-dimensions can be produced
as per customers request!





SE 738

Mat.: HWS
Härte Schaft: 62 ±2 HRC

Mat.: HWS (e.g. A2)
Hardness shank: 62 ±2 HRC

SE 738 / a x b x l1

ohne Toleranzangabe
a/b: ±0,02
l: +0,5 / +1,0

untoleranced
a/b: ±0,02
l: +0,5 / +1,0



SE 739

Mat.: HSS
Härte Schaft: 64 ±2 HRC

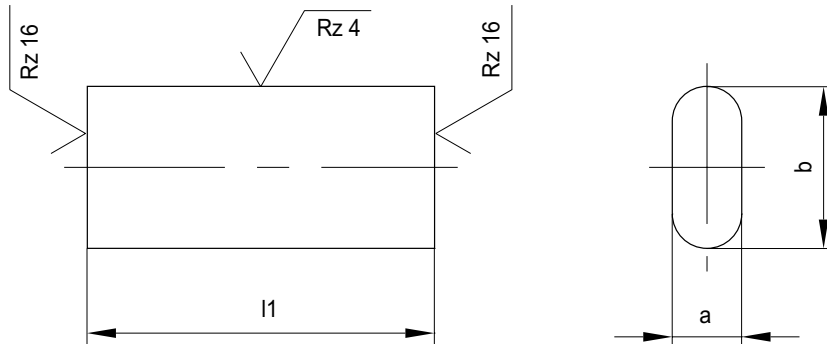
Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC

SE 739 / a x b x l1

ohne Toleranzangabe
a/b: ±0,02
l: +0,5 / +1,0

untoleranced
a/b: ±0,02
l: +0,5 / +1,0





[SE]

SE 740

Mat.: HWS
Härte Schaft: 62 ±2 HRC

ohne Toleranzangabe
a/b: ±0,02
l: +0,5 / +1,0

Mat.: HWS (e.g. A2)
Hardness shank: 62 ±2 HRC

untoleranced
a/b: ±0,02
l: +0,5 / +1,0

SE 740 / a x b x l1



SE 741

Mat.: HSS
Härte Schaft: 64 ±2 HRC

ohne Toleranzangabe
a/b: ±0,02
l: +0,5 / +1,0

Mat.: HSS (e.g. M2)
Hardness shank: 64 ±2 HRC

untoleranced
a/b: ±0,02
l: +0,5 / +1,0

SE 741 / a x b x l1

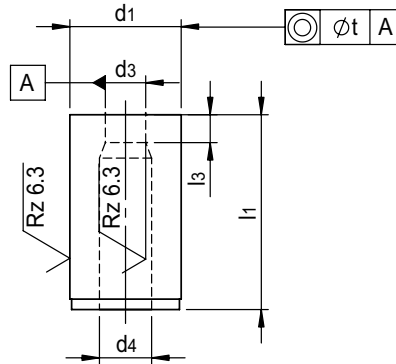


SE 791

Mat.: HSS
Härte: 64 ±2 HRC

Mat.: HSS (e.g. M2)
Hardness: 64 ±2 HRC

SE 791 / 3,0 x 28



[SE]

d3 H8	Stufung Graduation	d1 n6	d4	kurze Ausführung short version		lange Ausführung long version		t
				l1 +0,5	l3	l1 +0,5	l3	
1,0	0,1	5	d3 + 0,3	20	2	-	-	0,01
1,1 - 2,0	0,1	6	d3 + 0,3	20	3	28	3	0,01
2,1 - 3,0	0,1	7	d3 + 0,5	20	3	28	3	0,01
3,1 - 4,0	0,1	8	d3 + 0,5	20	3	28	3	0,01
4,1 - 5,0	0,1	10	d3 + 0,7	20	4	28	4	0,01
5,1 - 6,0	0,1	12	d3 + 0,7	20	4	28	4	0,02
6,1 - 8,0	0,1	15	d3 + 0,7	20	4	28	4	0,02
8,1 - 10,0	0,1	18	d3 + 1,0	20	4	28	4	0,02
10,1 - 12,0	0,1	22	d3 + 1,0	20	5	28	5	0,02
12,1 - 15,0	0,1	26	d3 + 1,0	20	5	28	5	0,02
15,5 - 18,0	0,5	30	d3 + 1,0	-	-	28	5	0,02

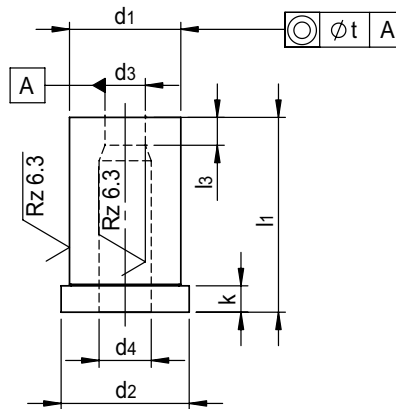


SE 792

Mat.: HSS
Härte: 64 ±2 HRC

Mat.: HSS (e.g. M2)
Hardness: 64 ±2 HRC

SE 792 / 3,0 x 28



d3 H8	Stufung Graduation	d1 k6	d2	d4	kurze Ausführung short version			lange Ausführung long version			t
					l1 +0,5	l3	k	l1 +0,5	l3	k	
1,0	0,1	5	7	d3 + 0,3	20	2	4	–	–	–	0,01
1,1 - 2,0	0,1	6	8	d3 + 0,3	20	3	4	28	3	4	0,01
2,1 - 3,0	0,1	7	9	d3 + 0,5	20	3	4	28	3	4	0,01
3,1 - 4,0	0,1	8	10	d3 + 0,5	20	3	4	28	3	4	0,01
4,1 - 5,0	0,1	10	12	d3 + 0,7	20	4	4	28	4	4	0,01
5,1 - 6,0	0,1	12	14	d3 + 0,7	20	4	4	28	4	4	0,02
6,1 - 8,0	0,1	15	17	d3 + 0,7	20	4	4	28	4	4	0,02
8,1 - 10,0	0,1	18	20	d3 + 1,0	20	4	4	28	4	4	0,02
10,1 - 12,0	0,1	22	24	d3 + 1,0	20	5	4	28	5	4	0,02
12,1 - 15,0	0,1	26	28	d3 + 1,0	20	5	4	28	5	4	0,02
15,5 - 18,0	0,5	30	32	d3 + 1,0	–	–	–	28	5	4	0,02



Schneidbuchsen, Typ ED, ohne Bund, ISO 8977A

Die buttons, type ED, without collar, ISO 8977A



SCHNEIDELEMENTE / CUTTING ELEMENTS

SE 711 ED

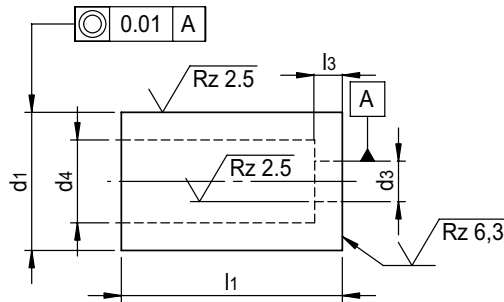
Mat.: HSS
Härte: 64 ±2 HRC

Mat.: HSS (e.g. M2)
Hardness: 64 ±2 HRC

SE 711 ED /
20 x 25 / d3

Buchsen mit Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).

Bushings with rotation prevention available, please specify when ordering.



[SE]

d1 m5	l3	d3 +0,02 Stufung/step 0,01	d4	l1 +0,5									
				16	19	20	22	25	28	30	32	35	
5	2	1,0-2,4	2,8	●		●	●	●	●	●	●	●	●
6	3	1,6-3,0	3,5	●		●	●	●	●	●	●	●	●
8	4	2,0-3,5	4,0	●		●	●	●	●	●	●	●	●
10	4	2,5-5,0	5,8	●		●	●	●	●	●	●	●	●
13	5	3,0-7,0	8,0			●	●	●	●	●	●	●	●
16	5	4,0-9,0	9,5			●	●	●	●	●	●	●	●
19*	4	5,0-10,0	11,0		●			●		●	●		
20	8	6,0-11,0	12,0			●	●	●	●	●	●	●	●
22	8	8,0-11,0	15,0			●	●	●	●	●	●	●	●
25	8	8,0-16,0	17,3			●	●	●	●	●	●	●	●
32	8	8,0-20,0	20,7			●	●	●	●	●	●	●	●
38*	6	16,0-26,0	28,0							●	●		
40	8	19,0-27,0	27,7			●	●	●	●	●	●	●	●
50	8	26,0-36,0	37,0			●	●	●	●	●	●	●	●
55*	8	35,0-41,0	42,0							●	●		
* = nicht nach ISO 8977A / not in acc. with ISO 8977A													



SE 713 EKD

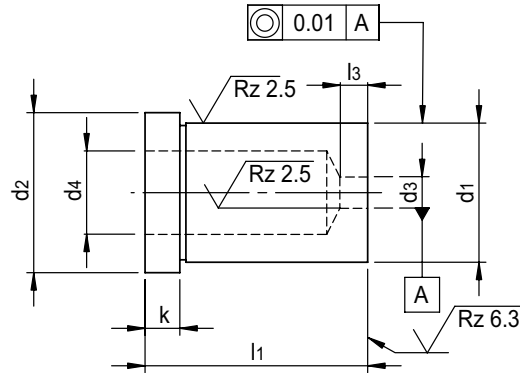
Mat.: HSS
Härte: 64 ±2 HRC

Mat.: HSS (e.g. M2)
Hardness: 64 ±2 HRC

SE 713 EKD /
20 x 25 / d3

Buchsen mit Verdrehsicherung auf Wunsch lieferbar (bei Bestellung angeben).

Bushings with rotation prevention available, please specify when ordering.



d1 m5	d2 +0,3	l3	k	d3 +0,02 Stufung/step 0,01	d4	l1 +0,5							
						16	20	22	25	28	30	32	35
5	8	2	5	1,0 - 2,4	2,8	●	●	●	●	●	●	●	●
6	9	3	5	1,6 - 3,0	3,5	●	●	●	●	●	●	●	●
8	11	4	5	2,0 - 3,5	4,0	●	●	●	●	●	●	●	●
10	13	4	5	2,5 - 5,0	5,8	●	●	●	●	●	●	●	●
13	16	5	5	3,0 - 7,0	8,0		●	●	●	●	●	●	●
16	19	5	5	4,0 - 9,0	9,5		●	●	●	●	●	●	●
19*	22	4	5	5,0 - 10,0	11,0				●	●	●	●	●
20	23	8	5	6,0 - 11,0	12,0		●	●	●	●	●	●	●
22	25	8	5	8,0 - 14,0	15,0		●	●	●	●	●	●	●
25	28	8	5	8,0 - 16,0	17,3		●	●	●	●	●	●	●
32	35	8	5	8,0 - 20,0	20,7		●	●	●	●	●	●	●
38*	42	6	5	16,0 - 26,0	28,0					●		●	●
40	43	8	5	19,0 - 27,0	27,7		●	●	●	●	●	●	●
50	53	8	5	26,0 - 36,0	37,0		●	●	●	●	●	●	●
55*	58	8	5	35,0 - 41,0	42,0								●
*	= nicht nach ISO 8977B / not in acc. with ISO 8977B												

[SE]



SE 715 . . .

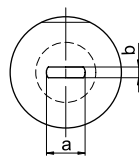
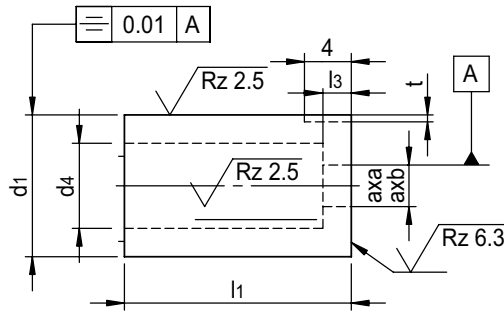
Mat.: HSS
Härte: 64 ±2 HRC

Mat.: HSS (e.g. M2)
Hardness: 64 ±2 HRC

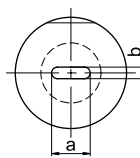
SE 715 EDF /
20 x 25 / a x b

Buchsen ohne Verdrehsicherung
auf Wunsch lieferbar (bei Bestellung
angeben).

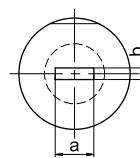
Bushings without rotation preven-
tion available, please specify when
ordering.



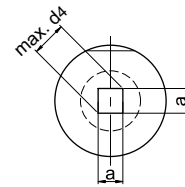
EDF



EDO



EDR



EDS



d1 n5	a x b ±0,01 Stufung/step 0,01 ≥ ≤	l3	d4	t	l1 +0,5								
					16	19	20	22	25	28	30	32	35
5	1,0 - 2,4	2	2,8	0,5	●		●	●	●	●	●	●	●
6	1,6 - 3,0	3	3,5	0,5	●		●	●	●	●	●	●	●
8	2,0 - 3,5	4	4,0	0,5	●		●	●	●	●	●	●	●
10	2,5 - 5,0	4	5,8	2,0	●		●	●	●	●	●	●	●
13	3,0 - 7,0	5	8,0	2,0			●	●	●	●	●	●	●
16	4,0 - 9,0	5	9,5	2,0			●	●	●	●	●	●	●
19*	5,0 - 10,0	4	11,0	2,0		●			●		●	●	
20	6,0 - 11,0	8	12,0	2,0			●	●	●	●	●	●	●
22	8,0 - 11,0	8	12,0	2,0			●	●	●	●	●	●	●
25	8,0 - 16,0	8	17,3	2,0			●	●	●	●	●	●	●
32	8,0 - 20,0	8	20,7	2,0			●	●	●	●	●	●	●
38*	16,0 - 26,0	6	28,0	2,0							●	●	
40	19,0 - 27,0	8	27,7	2,0			●	●	●	●	●	●	●
50	26,0 - 36,0	8	37,0	2,0			●	●	●	●	●	●	●
55*	35,0 - 41,0	8	42,0	2,0							●	●	

* = nicht nach ISO 8977A / not in acc. with ISO 8977A



SE 717

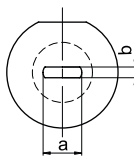
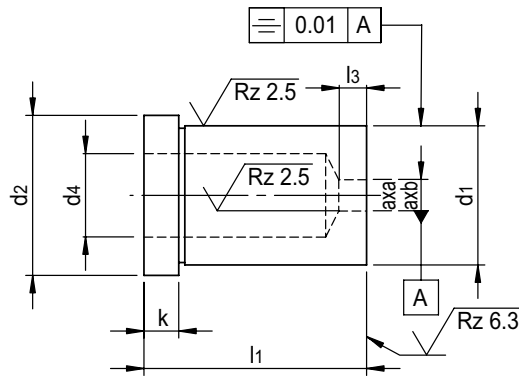
Mat.: HSS
Härte: 64 ±2 HRC

Mat.: HSS (e.g. M2)
Hardness: 64 ±2 HRC

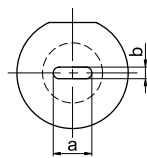
SE 717 EKDO /
20 x 25 / a x b

Buchsen ohne Verdrehsicherung
auf Wunsch lieferbar (bei Bestellung
angeben).

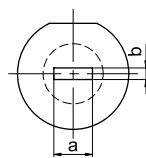
Bushings without rotation prevention
available, please specify when
ordering.



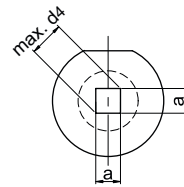
EKDF



EKDO



EKDR



EKDS



d1 m5	a x b ±0,01 Stufung/step 0,01 ≥ ≤	d2 +0,3	l3	k +0,25	d4	l1 +0,5							
						16	20	22	25	28	30	32	35
5	1,0 - 2,4	8	2	5	2,8	●	●	●	●	●	●	●	●
6	1,6 - 3,0	9	3	5	3,5	●	●	●	●	●	●	●	●
8	2,0 - 3,5	11	4	5	4,0	●	●	●	●	●	●	●	●
10	2,5 - 5,0	13	4	5	5,8	●	●	●	●	●	●	●	●
13	3,0 - 7,0	16	5	5	8,0		●	●	●	●	●	●	●
16	4,0 - 9,0	19	5	5	9,5		●	●	●	●	●	●	●
19*	5,0 - 10,0	22	4	5	11,0				●	●	●	●	●
20	6,0 - 11,0	23	8	5	12,0		●	●	●	●	●	●	●
22	8,0 - 14,0	25	8	5	15,0		●	●	●	●	●	●	●
25	8,0 - 16,0	28	8	5	17,3		●	●	●	●	●	●	●
32	8,0 - 20,0	35	8	5	20,7		●	●	●	●	●	●	●
38*	16,0 - 26,0	42	6	5	28,0					●		●	●
40	19,0 - 27,0	43	8	5	27,7		●	●	●	●	●	●	●
50	26,0 - 36,0	53	8	5	37,0		●	●	●	●	●	●	●
55*	35,0 - 41,0	58	8	5	42,0								●

* = nicht nach ISO 8977B / not in acc. with ISO 8977B



SE 711 EDL

Typ EDL, ohne Bund

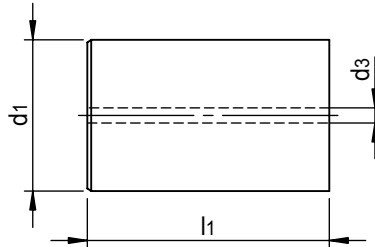
Type EDL, without collar

 **SE 711 EDL / 20 x 35**

Mat.: HSS
Härte: 64 ±2 HRC

Mat.: HSS (e.g. M2)
Hardness: 64 ±2 HRC

Andere Längen auf Wunsch lieferbar. Other lengths available on request.



[SE]

d1 n5	d3	l1 +0,5 35
5	1,5	●
6	1,5	●
8	2	●
10	3	●
13	3	●
16	3	●
19*	3	●
20	4	●
22	4	●
25	4	●
32	4	●
38*	5	●
40	5	●
50	5	●
55*	5	●

* = nicht nach ISO 8977A / not in acc. with ISO 8977A



SE 713 EKDL

Typ EKDL, mit Bund

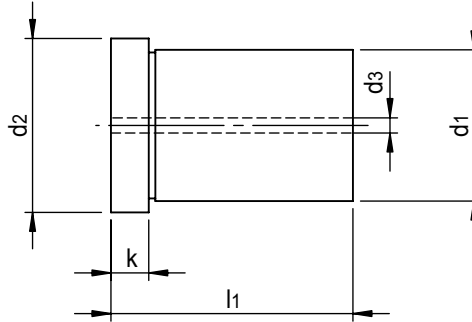
Type EKDL, with collar

SE 713 EKDL /
20 x 35

Mat.: HSS
Härte: 64 ±2 HRC

Mat.: HSS (e.g. M2)
Hardness: 64 ±2 HRC

Andere Längen auf Wunsch lieferbar. Other lengths available on request.



d1 m5	d2	d3	k +0,25	l1 +0,5 35
5	8	1,5	5	●
6	9	1,5	5	●
8	11	2	5	●
10	13	3	5	●
13	16	3	5	●
16	19	3	5	●
19*	22	3	5	●
20	23	4	5	●
22	25	4	5	●
25	28	4	5	●
32	35	4	5	●
38*	42	5	5	●
40	43	5	5	●
50	53	5	5	●
55*	58	5	5	●

* = nicht nach ISO 8977B / not in acc. with ISO 8977B



SE 711 EDM

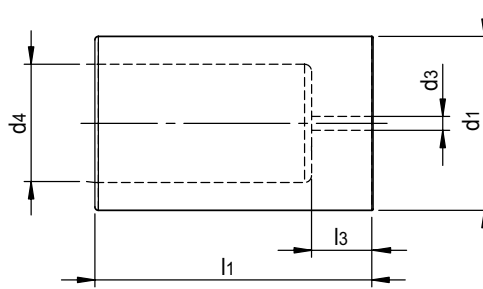
Typ EDM, ohne Bund

Type EDM, without collar

SE 711 EDM /
20 x 35

Mat.: HSS
Härte: 64 ±2 HRC

Mat.: HSS (e.g. M2)
Hardness: 64 ±2 HRC



[SE]

d1 n5	d3	l3	d4	l1 +0,5								
				16	19	20	22	25	28	30	32	35
5	1,5	2	2,8	●		●	●	●	●	●	●	●
6	1,5	3	3,5	●		●	●	●	●	●	●	●
8	2,0	4	4,0	●		●	●	●	●	●	●	●
10	3,0	4	5,8	●		●	●	●	●	●	●	●
13	3,0	5	8,0			●	●	●	●	●	●	●
16	3,0	5	9,5			●	●	●	●	●	●	●
19*	3,0	5	11,0		●			●		●	●	
20	4,0	8	12,0			●	●	●	●	●	●	●
22	4,0	8	15,0			●	●	●	●	●	●	●
25	4,0	8	17,3			●	●	●	●	●	●	●
32	4,0	8	20,7			●	●	●	●	●	●	●
38*	5,0	6	28,0							●	●	
40	5,0	8	27,7			●	●	●	●	●	●	●
50	5,0	8	37,0			●	●	●	●	●	●	●
55*	5,0	8	42,0							●	●	

* = nicht nach ISO 8977A / not in acc. with ISO 8977A



SE 713 EKDM

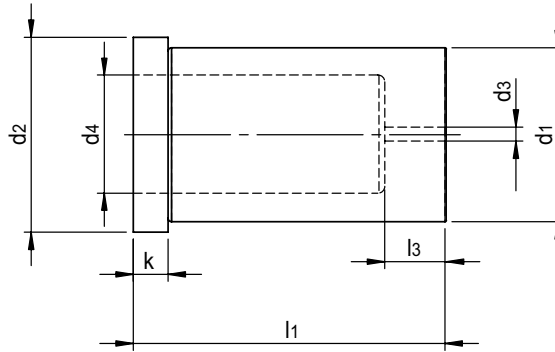
Typ EKDM, mit Bund

Mat.: HSS
Härte: 64 ±2 HRC

Type EKDM, with collar

Mat.: HSS (e.g. M2)
Hardness: 64 ±2 HRC

 **SE 713 EKDM /
20 x 35**



d1 m5	d3	d2 +0,3	l3	d4	k +0,25	l1 +0,5							
						16	20	22	25	28	30	32	35
5	1,5	8	2,0	2,8	5	●	●	●	●	●	●	●	●
6	1,5	9	3,0	3,5	5	●	●	●	●	●	●	●	●
8	2,0	11	4,0	4,0	5	●	●	●	●	●	●	●	●
10	3,0	13	4,0	5,8	5	●	●	●	●	●	●	●	●
13	3,0	16	5,0	8,0	5		●	●	●	●	●	●	●
16	3,0	19	5,0	9,5	5		●	●	●	●	●	●	●
19*	3,0	22	4,0	11,0	5				●	●	●	●	●
20	4,0	23	8,0	12,0	5		●	●	●	●	●	●	●
22	4,0	25	8,0	15,0	5		●	●	●	●	●	●	●
25	4,0	28	8,0	17,3	5		●	●	●	●	●	●	●
32	4,0	35	8,0	20,7	5		●	●	●	●	●	●	●
38*	5,0	42	6,0	28,0	5					●		●	●
40	5,0	43	8,0	27,7	5		●	●	●	●	●	●	●
50	5,0	53	8,0	37,0	5		●	●	●	●	●	●	●
55*	5,0	58	8,0	42,0	5								●

* = nicht nach ISO 8977B / not in acc. with ISO 8977B



Stempelführungsbuchsen DIN 9845, Form C

Punch - guide bushings DIN 9845, Form C



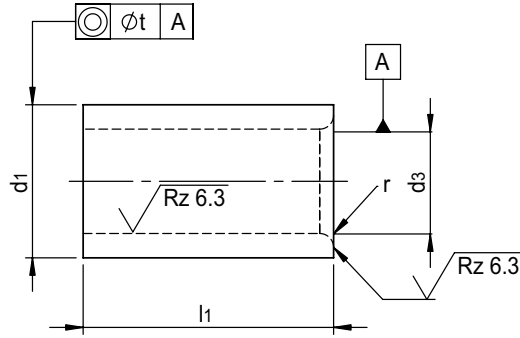
SCHNEIDELEMENTE / CUTTING ELEMENTS

SE 793

Mat.: Einsatzstahl
Härte: 62 ±2 HRC

Mat.: Case-hardening steel
Hardness: 62 ±2 HRC

SE 793 / 3,0



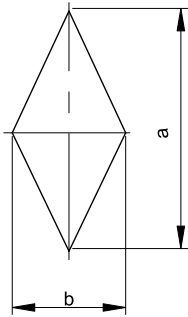
[SE]

d3 H7	Stufung Graduation	d1 n6	l1	r	t
1,0	0,1	5	9	1,0	0,01
1,1-2,0	0,1	6	12	1,0	0,01
2,1-3,0	0,1	7	12	1,0	0,01
3,1-4,0	0,1	8	12	1,0	0,01
4,1-5,0	0,1	10	16	1,0	0,01
5,1-6,0	0,1	12	16	1,5	0,02
6,1-8,0	0,1	15	20	1,5	0,02
8,1-10,0	0,1	18	20	2,0	0,02
10,1-12,0	0,1	22	28	2,0	0,02
12,1-15,0	0,1	26	28	2,0	0,02
15,5-18,0	0,5	30	36	2,0	0,02

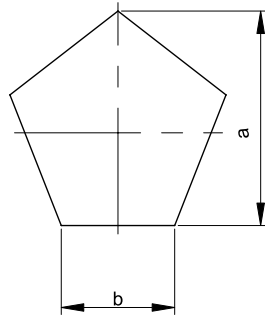




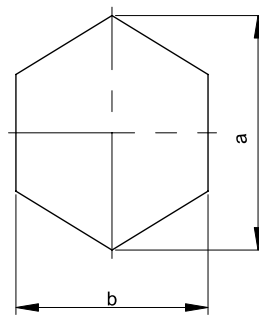
SP1



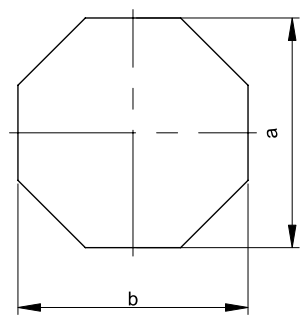
SP2



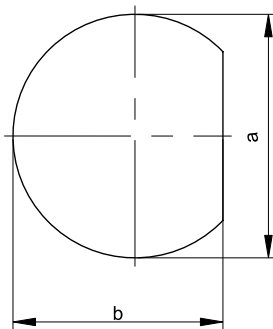
SP3



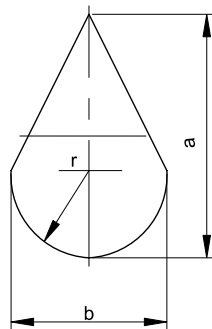
SP4



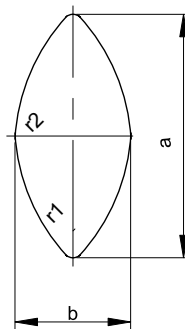
SP5



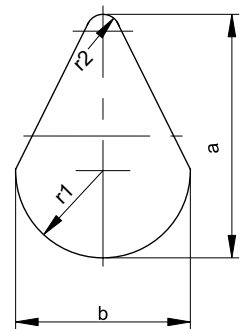
SP6



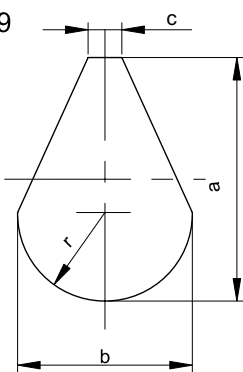
SP7



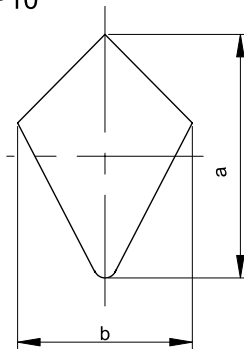
SP8



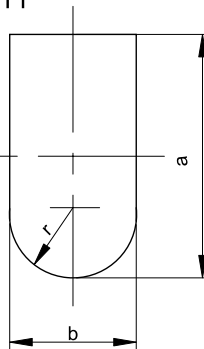
SP9



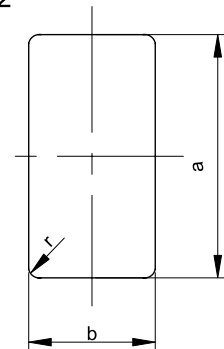
SP10



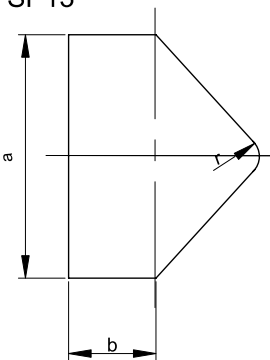
SP11



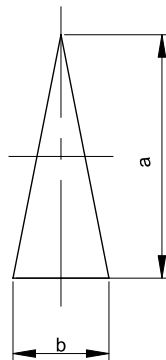
SP12



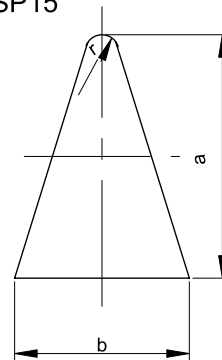
SP13



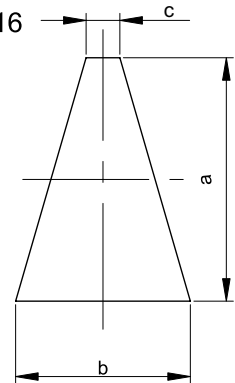
SP14



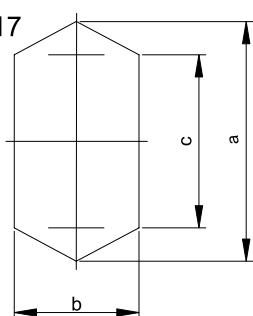
SP15



SP16



SP17



[SE]



SE 300

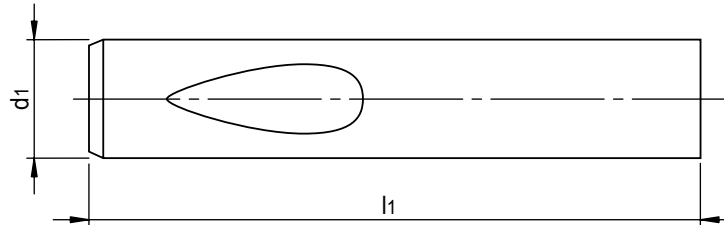
Schwere Ausführung

Mat.: HSS
Härte: 60 - 63 HRC

Heavy duty

Mat.: HSS (e.g. M2)
Hardness: 60 - 63 HRC

SE 300 / 13 x 80



d1 g5	l1						
	63	71	80	90 +0,3	100	110	125
10	●	●	●	●	●	●	●
13	●	●	●	●	●	●	●
16	●	●	●	●	●	●	●
20	●	●	●	●	●	●	●
25		●	●	●	●	●	●
32		●	●	●	●	●	●
40			●	●	●	●	●

[SE]



SE 320

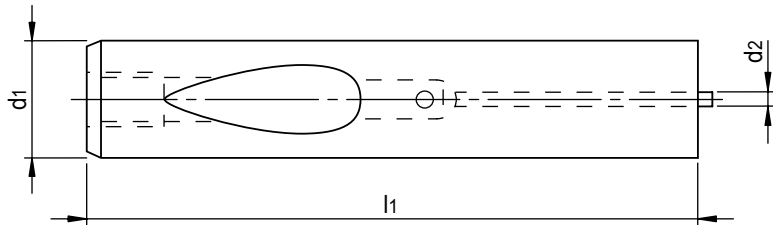
Schwere Ausführung
mit federndem Auswerferstift

Heavy duty
with spring ejector

SE 320 / 13 x 80

Mat.: HSS
Härte: 60 - 63 HRC

Mat.: HSS (e.g. M2)
Hardness: 60 - 63 HRC



d1 g5	d2	l1 +0,3						
		63	71	80	90	100	110	125
10	1,5	●	●	●	●	●		
13	1,5	●	●	●	●	●	●	●
16	1,5	●	●	●	●	●	●	●
20	2,4	●	●	●	●	●	●	●
25	2,4		●	●	●	●	●	●
32	2,4		●	●	●	●	●	●
40	2,4			●	●	●	●	●

[SE]



Schnellwechsel-Schneidstempel, abgesetzter Schaft

Ball lock punches, shouldered shank



SCHNEIDELEMENTE / CUTTING ELEMENTS

SE 301

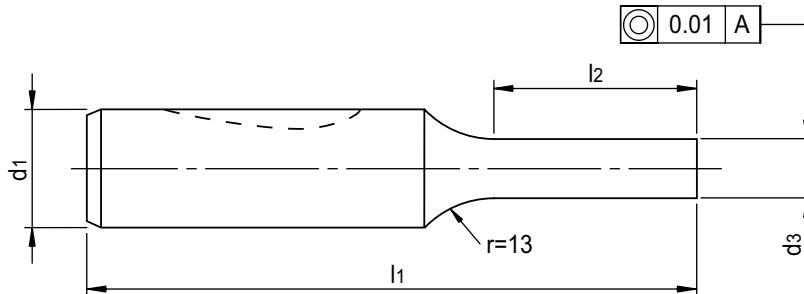
Schwere Ausführung

Heavy duty

SE 301 /
20 x 19 x 80 / d3

Mat.: HSS
Härte: 60 - 63 HRC

Mat.: HSS (e.g. M2)
Hardness: 60 - 63 HRC



[SE]

d1 g5	d3 min. +0,01	l2 +1				l1 +0,3						
		10	13	19	25	63	71	80	90	100	110	125
10	2,1	●	●	●		●	●	●	●	●	●	●
13	5		●	●		●	●	●	●	●	●	●
16	8		●	●	●	●	●	●	●	●	●	●
20	12		●	●	●	●	●	●	●	●	●	●
25	16		●	●	●		●	●	●	●	●	●
32	24		●	●	●		●	●	●	●	●	●
40	30			●	●			●	●	●	●	●



Schnellwechsel-Schneidstempel, abgesetzter Schaft

Ball lock punches, shouldered shank



SCHNEIDELEMENTE / CUTTING ELEMENTS

SE 321

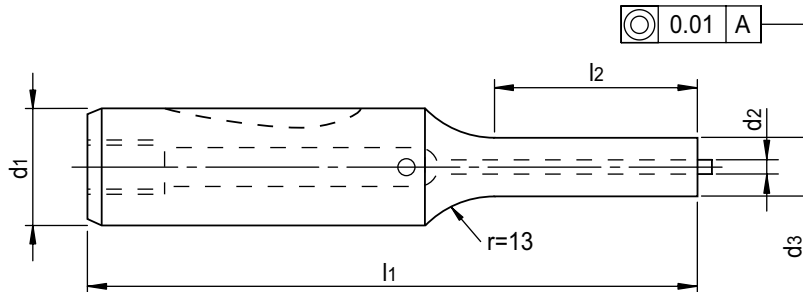
Schwere Ausführung
mit federndem Auswerferstift

Heavy duty
with spring ejector

SE 321 /
20 x 13 x 80 / d3

Mat.: HSS
Härte: 60 - 63 HRC

Mat.: HSS (e.g. M2)
Hardness: 60 - 63 HRC



d1 g5	d2	d3 min. +0,01	l2 +1				l1 +0,3						
			10	13	19	25	63	71	80	90	100	110	125
10	1,5	2,1	●	●	●		●	●	●	●	●	●	
13	1,5	5		●	●		●	●	●	●	●	●	●
16	1,5	8		●	●	●	●	●	●	●	●	●	●
20	2,4	12		●	●	●	●	●	●	●	●	●	●
25	2,4	16		●	●	●		●	●	●	●	●	●
32	2,4	24		●	●	●		●	●	●	●	●	●
40	2,4	30			●	●			●	●	●	●	●

[SE]



SE 302 .

Schwere Ausführung

Mat.: HSS
Härte: 60 - 63 HRC

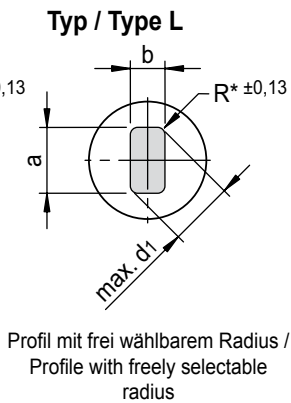
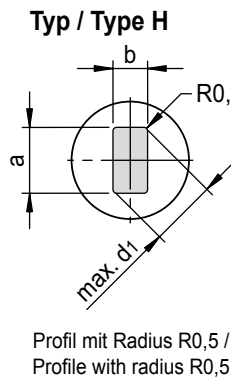
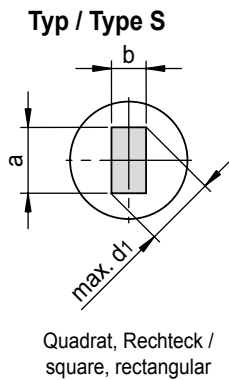
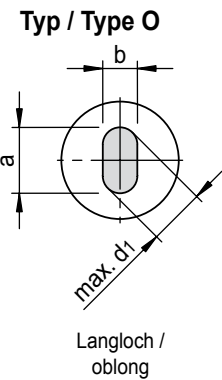
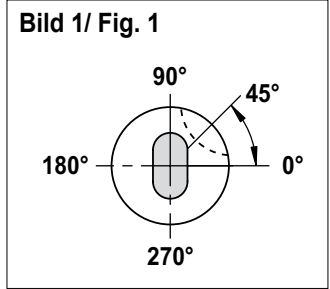
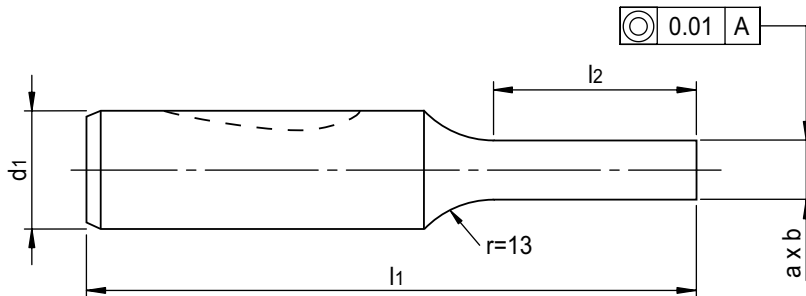
Bei der Bestellung bitte die Position der Kugellage angeben (Bild 1).

Heavy duty

Mat.: HSS (e.g. M2)
Hardness: 60 - 63 HRC

When ordering, please specify the ball position (Fig. 1).

SE 302 O / 20 x 19 x 80 / a x b / 45°



* Bei Typ L ist der Radius R frei wählbar. Bitte bei der Bestellung den Radius angeben.

* With type L the radius R is freely selectable. Please specify the radius when ordering.



d1 g5	a min. ±0,01	b min. ±0,01	l2 +1				l1 +0,3						
			10	13	19	25	63	71	80	90	100	110	125
10	2,1	2,1	●	●	●		●	●	●	●	●	●	●
13	5	4,5		●	●		●	●	●	●	●	●	●
16	8	6		●	●	●	●	●	●	●	●	●	●
20	12	8		●	●	●	●	●	●	●	●	●	●
25	16	10		●	●	●		●	●	●	●	●	●
32	24	12,5		●	●	●		●	●	●	●	●	●
40	30	14			●	●			●	●	●	●	●

[SE]

SE 322 .

**Schwere Ausführung
mit federndem Auswerferstift**

**Heavy duty
with spring ejector**

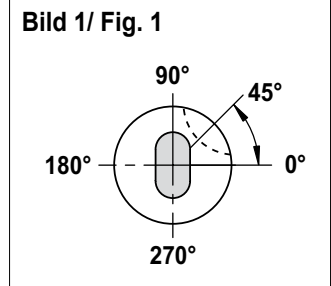
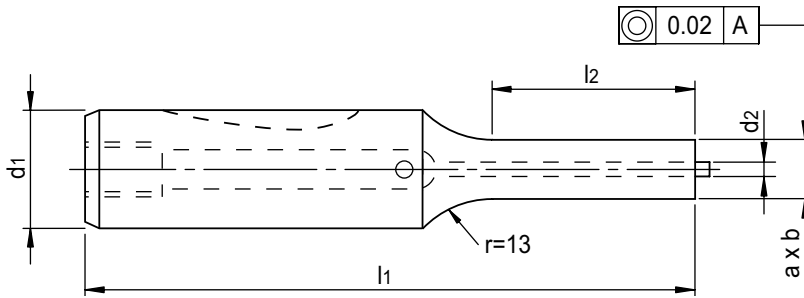
**SE 322 O / 20 x 19 x
80 / a x b / 45°**

Mat.: HSS
Härte: 60 - 63 HRC

Mat.: HSS (e.g. M2)
Hardness: 60 - 63 HRC

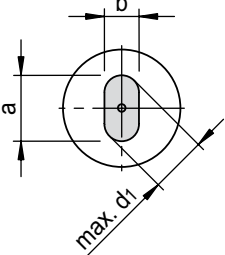
Bei der Bestellung bitte die Position
der Kugellage angeben (Bild 1).

When ordering, please specify the
ball position (Fig. 1).



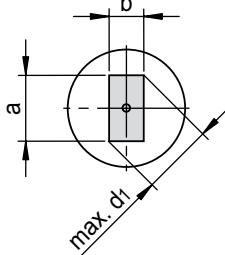
[SE]

Typ / Type O



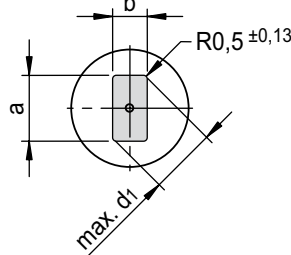
Langloch /
oblong

Typ / Type S



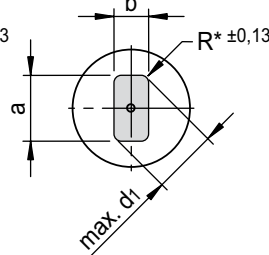
Quadrat, Rechteck /
square, rectangular

Typ / Type H



Profil mit Radius R0,5 /
Profile with radius R0,5

Typ / Type L



Profil mit frei wählbarem Radius /
Profile with freely selectable
radius

* Bei Typ L ist der
Radius R frei wählbar.
Bitte bei der Bestellung
den Radius angeben.

* With type L the radius R
is freely selectable.
Please specify the
radius when ordering.



d1 g5	d2	a min. ±0,01	b min. ±0,01	l2 +1				l1 +0,3						
				10	13	19	25	63	71	80	90	100	110	125
10	1,5	2,1	2,1	●	●	●		●	●	●	●	●	●	
13	1,5	5	4,5		●	●		●	●	●	●	●	●	●
16	1,5	8	6		●	●	●	●	●	●	●	●	●	●
20	2,4	12	8		●	●	●	●	●	●	●	●	●	●
25	2,4	16	10		●	●	●		●	●	●	●	●	●
32	2,4	24	12,5		●	●	●		●	●	●	●	●	●
40	2,4	30	14			●	●			●	●	●	●	●



SE 303

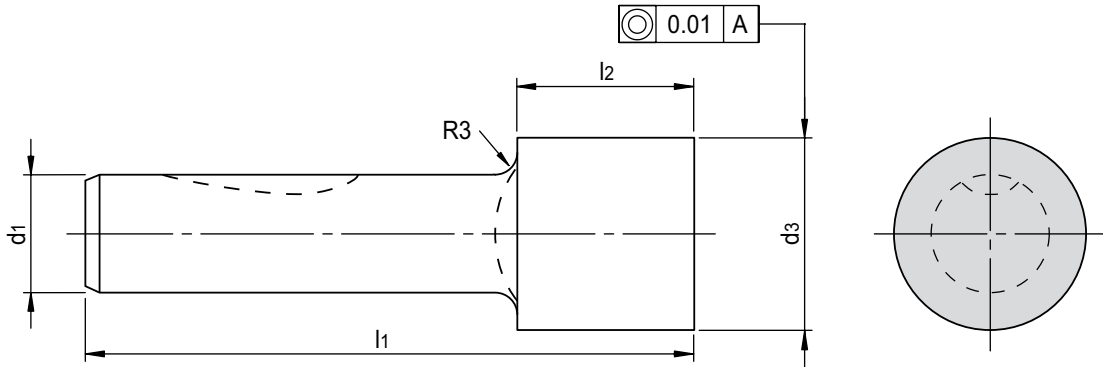
Schwere Ausführung

Mat.: HSS
Härte: 60 - 63 HRC

Heavy duty

Mat.: HSS (e.g. M2)
Hardness: 60 - 63 HRC

 **SE 303 /**
20 x 30 x 71 / d3



d1 g ⁵	d3 min. +0,01	d3 max. +0,01	l2 +1		l1 +0,3			
			19	30	71	80	90	100
13	13,1	32	●	●	●	●	●	●
16	16,1	38	●	●	●	●	●	●
20	20,1	40	●	●	●	●	●	●
25	25,1	44	●	●	●	●	●	●
32	32,1	50	●	●		●	●	●
40	40,1	56	●	●		●	●	●

[SE]



SE 323

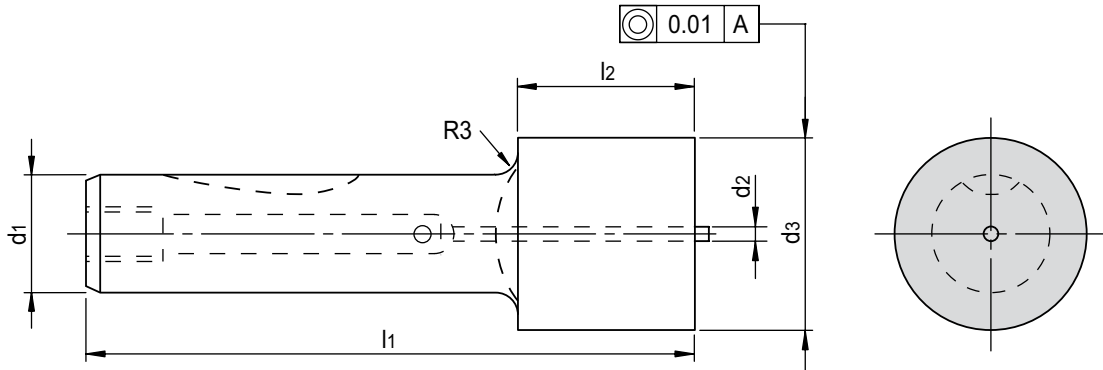
Schwere Ausführung
mit federndem Auswerferstift

Heavy duty
with spring ejector

SE 323 /
20 x 30 x 71 / d3

Mat.: HSS
Härte: 60 - 63 HRC

Mat.: HSS (e.g. M2)
Hardness: 60 - 63 HRC



d1 g5	d2	d3 min. +0,01	d3 max. +0,01	l2 +1		l1 +0,3			
				19	30	71	80	90	100
13	1,5	13,1	32	●	●	●	●	●	●
16	1,5	16,1	38	●	●	●	●	●	●
20	2,4	20,1	40	●	●	●	●	●	●
25	2,4	25,1	44	●	●	●	●	●	●
32	2,4	32,1	50	●	●	●	●	●	●
40	2,4	40,1	56	●	●	●	●	●	●




SE 304 .

Schwere Ausführung

Heavy duty

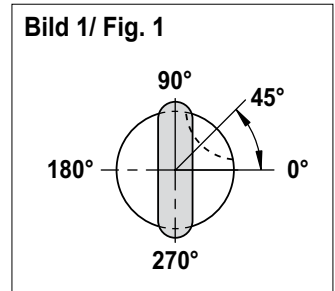
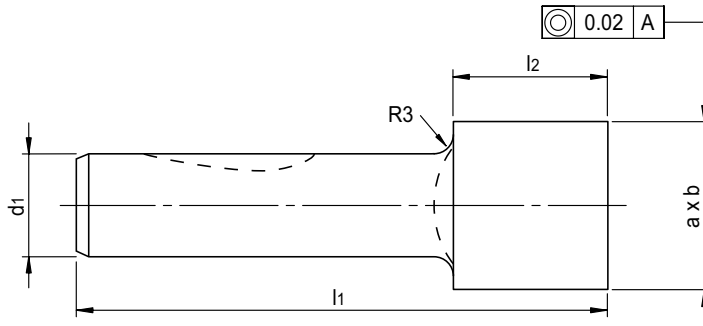
Mat.: HSS
Härte: 60 - 63 HRC

Mat.: HSS (e.g. M2)
Hardness: 60 - 63 HRC

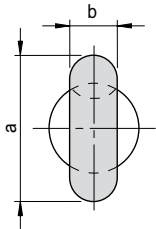
 **SE 304 O/ 20 x 30 x 80 / a x b / 45°**

Bei der Bestellung bitte die Position der Kugellage angeben (Bild 1).

When ordering, please specify the ball position (Fig. 1).

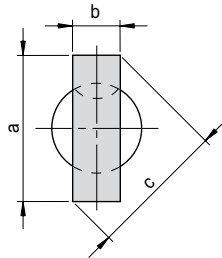


Typ / Type O



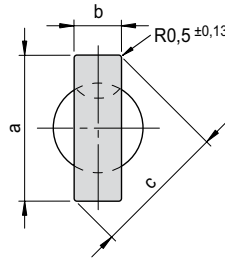
Langloch / oblong

Typ / Type S



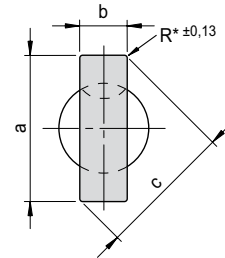
Quadrat, Rechteck / square, rectangular

Typ / Type H



Profil mit Radius R0,5 / Profile with radius R0,5

Typ / Type L



Profil mit frei wählbarem Radius / Profile with freely selectable radius

* Bei Typ L ist der Radius R frei wählbar. Bitte bei der Bestellung den Radius angeben.

* With type L the radius R is freely selectable. Please specify the radius when ordering.



d1 g5	a max. ±0,01	b min. ±0,01	c max.	l2 +1		l1 +0,3			
				19	30	71	80	90	100
13	32	5	32	●	●	●	●	●	●
16	38	6,5	38	●	●	●	●	●	●
20	40	8	40	●	●	●	●	●	●
25	44	11	44	●	●	●	●	●	●
32	50	12,5	50	●	●	●	●	●	●
40	56	14	56	●	●	●	●	●	●

[SE]



SE 324 .

Schwere Ausführung
mit federndem Auswerferstift

Heavy duty
with spring ejector

SE 324 O/ 20 x 30 x
80 / a x b / 45°

Mat.: HSS
Härte: 60 - 63 HRC

Mat.: HSS (e.g. M2)
Hardness: 60 - 63 HRC

Bei der Bestellung bitte die Position
der Kugellage angeben (Bild 1).

When ordering, please specify the
ball position (Fig. 1).

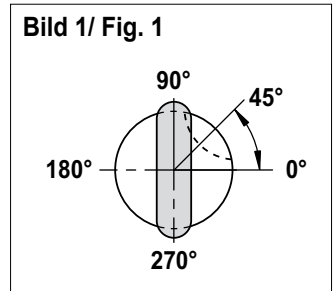
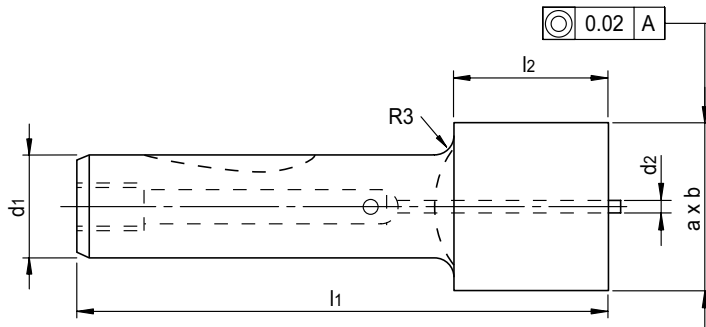
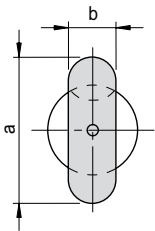


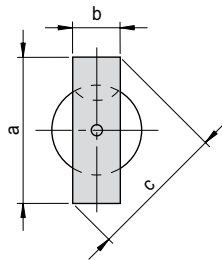
Bild 1/ Fig. 1

Typ / Type O



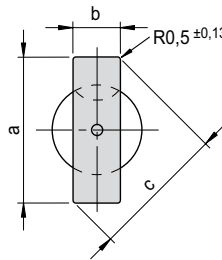
Langloch /
oblong

Typ / Type S



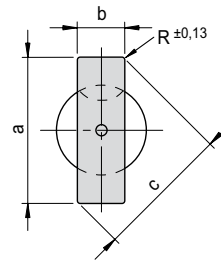
Quadrat, Rechteck /
square, rectangular

Typ / Type H



Profil mit Radius R0,5 /
Profile with radius R0,5

Typ / Type L



Profil mit frei wählbarem Radius /
Profile with freely selectable
radius

* Bei Typ L ist der
Radius R frei wählbar.
Bitte bei der Bestellung
den Radius angeben.

* With type L the radius R
is freely selectable.
Please specify the
radius when ordering.



d1 g5	d2	a max. ±0,01	b min. ±0,01	c max.	l2 +1		l1 +0,3			
					19	30	71	80	90	100
13	1,5	32	5	32	●	●	●	●	●	●
16	1,5	38	6,5	38	●	●	●	●	●	●
20	2,4	40	8	40	●	●	●	●	●	●
25	2,4	44	11	44	●	●	●	●	●	●
32	2,4	50	12,5	50	●	●	●	●	●	●
40	2,4	56	14	56	●	●	●	●	●	●



SE 340

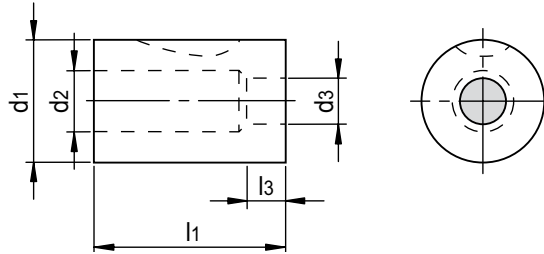
Leichte Ausführung

Light duty

 SE 340 / 20 / d3

Mat.: HWS
Härte: 60 - 63 HRC

Mat.: HWS (e.g. A2)
Hardness: 60 - 63 HRC



[SE]

d1 g5	d3 +0,01 ≥ ≤	d2 max.	l1 +0,3	l3
13	1,5 - 5,0	6	32	4
16	3,2 - 7,0	8	32	5
20	4,0 - 11,0	12	32	5
25	8,0 - 15,0	16	32	6
32	11,0 - 19,0	20	32	6
38	16,5 - 26,0	27	32	8



SE 341 .

Leichte Ausführung

Mat.: HWS
Härte: 60 - 63 HRC

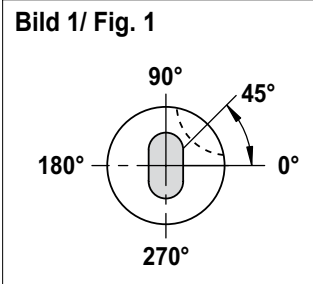
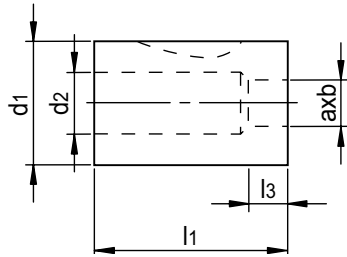
Bei der Bestellung bitte die Position der Kugellage angeben (Bild 1).

Light duty

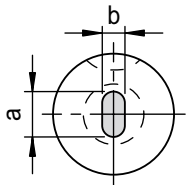
Mat.: HWS (e.g. A2)
Hardness: 60 - 63 HRC

When ordering, please specify the ball position (Fig. 1).

SE 341 S / 16 /
a x b / 45°

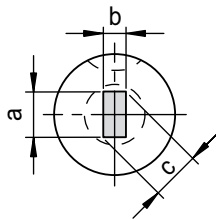


Typ / Type O



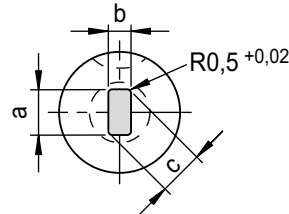
Langloch /
oblong

Typ / Type S



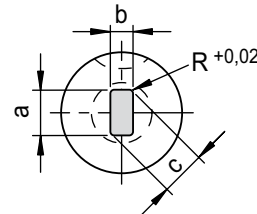
Quadrat, Rechteck /
square, rectangular

Typ / Type H



Profil mit Radius R0,5 /
Profile with radius R0,5

Typ / Type L



Profil mit frei wählbarem Radius /
Profile with freely selectable
radius

* Bei Typ L ist der Radius R frei wählbar. Bitte bei der Bestellung den Radius angeben.

* With type L the radius R is freely selectable. Please specify the radius when ordering.



d1 g5	a +0,02 ≥ ≤	b +0,02 ≥ ≤	d2 max.	c max.	l1 +0,3	l3
13	1,5 - 5,0	1,2 - 5,0	6	5,0	32	4
16	3,2 - 7,0	2,0 - 7,0	8	7,0	32	5
20	4,0 - 11,0	2,4 - 11,0	12	11,0	32	5
25	8,0 - 15,0	4,0 - 15,0	16	15,0	32	6
32	11,0 - 19,0	4,8 - 19,0	20	19,0	32	6
38	16,5 - 26,0	6,4 - 26,0	27	26,0	32	8



SE 390

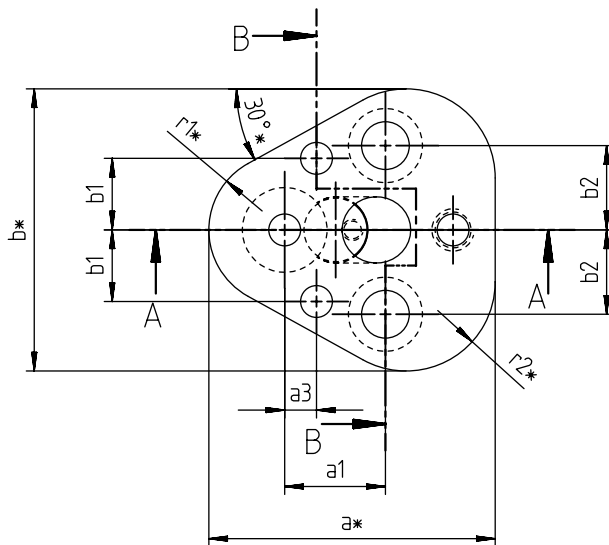
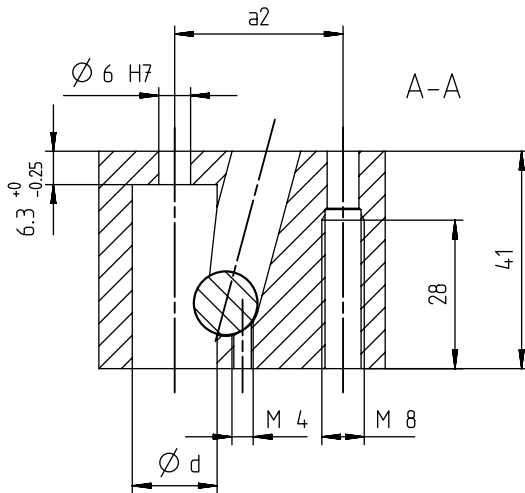
Schwere Ausführung

Heavy duty

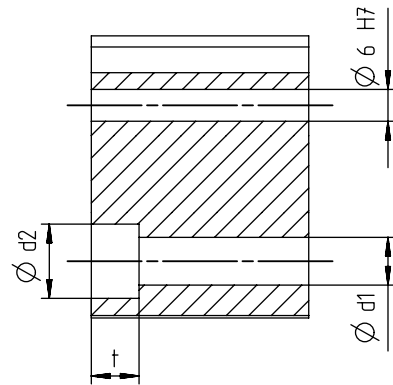
SE 390 / 13

Lieferumfang:
Zylinderkopfschrauben, Zylinderstifte
und Gewindestift

Included:
Socket head cap screws, dowel pins
and headless screw



B-B



d H6	a*	b*	a3 $\pm 0,01$	a1 $\pm 0,13$	a2 $\pm 0,01$	r1*	r2*	b1 $\pm 0,01$	b2 $\pm 0,13$	d1	d2	t	Kugel-Ø Ball-Ø	Schraube Screw
10	44,5	43,7	7,5	19,0	26,93	9,5	12,0	9,0	11,1	9,0	15	9	10	M8
13	50,8	50,0	6,5	19,0	29,97	12,7	15,2	12,0	14,3	9,0	15	9	12	M8
16	54,0	53,2	6,0	19,0	31,75	14,3	16,8	13,5	15,9	9,0	15	9	12	M8
20	60,3	59,5	5,0	19,0	33,53	17,5	20,0	16,5	17,5	11,0	18	11	12	M10
25	69,9	69,1	7,0	23,8	40,64	22,2	24,7	22,0	19,8	13,5	20	13	12	M12
32	69,9	69,1	7,0	23,8	40,64	22,2	24,7	22,0	19,8	13,5	20	13	12	M12
40	77,4	76,6	10,0	27,0	43,99	26,0	28,5	26,0	24,0	13,5	20	13	12	M12

* Konturen können variieren. Größtmaße sind in der Tabelle angegeben.

* Contours may vary. Maximum dimensions are given in the table.

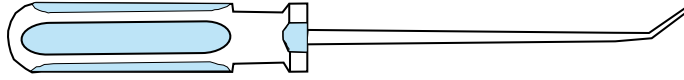


SE 360

abgewinkelte Ausführung

angular

 SE 360

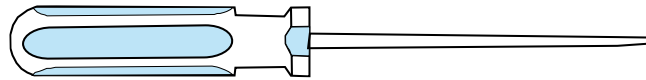


SE 361

gerade Ausführung

straight

 SE 361

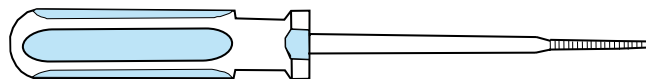


SE 362

Gewindeausführung

threaded

 SE 362





Profilierte Schneidstempel und die dazu passenden Schneidbuchsen werden von uns generell mit Verdrehsicherung ausgeliefert, wobei diese parallel zur langen Seite des Profils angebracht wird. Sollen Schneidelemente ohne Verdrehsicherung geliefert werden, muss darauf bei der Bestellung hingewiesen werden. Ebenso wenn die Verdrehsicherung an anderen Positionen oder in anderer Form gewählt werden soll, wie sie auf dieser Seite aufgeführt werden. Die Gradzahl ist frei wählbar und muss der Bestellnummer angehängt werden.

Shaped punches as well as the corresponding bushes are in general equipped with a rotation prevention, positioned alongside the longer side of the punching shape (round punches and bushes only upon request). If punches or bushes without a rotation prevention are needed, please specify during the ordering process. If a different location, shape or size (as shown below) for this purpose is requested, please specify as well. The angle is freely selectable and needs to be stated at the end of the ordering-number.

Verdrehsicherung **Typ V1**
Rotation prevention **Type V1**

SE ... V1/ 90°

Verdrehsicherung **Typ V2**
Rotation prevention **Type V2**

SE ... V2/ 90°

Verdrehsicherung **Typ V3**
Rotation prevention **Type V3**

Bitte bei der Bestellung den Parameter t angeben. / Please specify parameter t when ordering.

SE ... V3/ 4 / 0°

Verdrehsicherung **Typ V4**
Rotation prevention **Type V4**

SE ... V4/ 90°

Verdrehsicherung **Typ V5**
Rotation prevention **Type V5**

SE ... V5/ 90°

Verdrehsicherung **Typ V6**
Rotation prevention **Type V6**

Bitte bei der Bestellung die Parameter t und l4 angeben. / Please specify parameter t and l4 when ordering.

SE ... V6/ 2 x 14 / 0°

Verdrehsicherung **Typ V7**
Rotation prevention **Type V7**

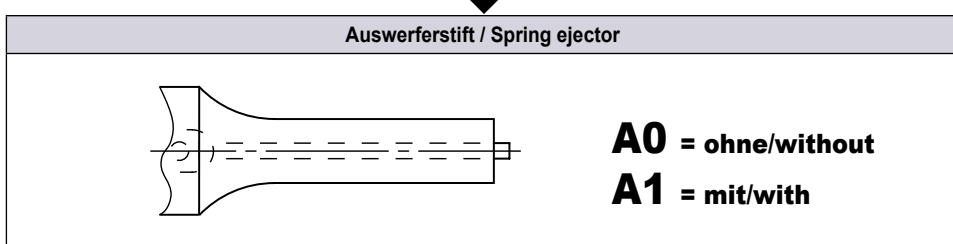
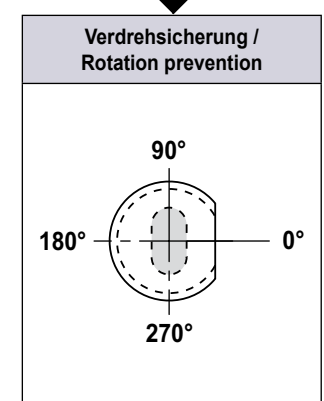
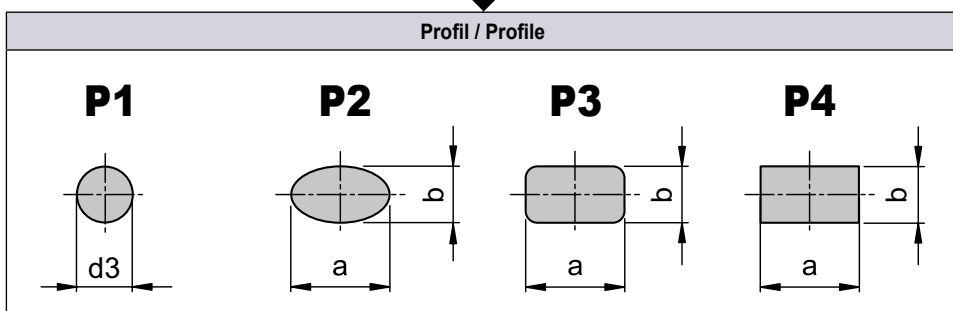
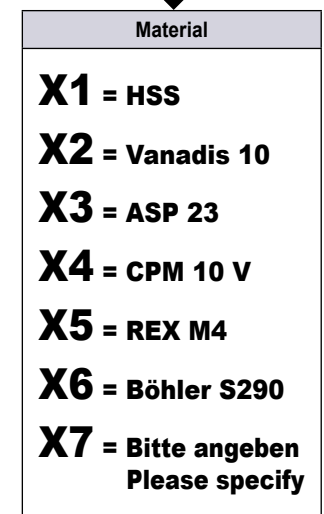
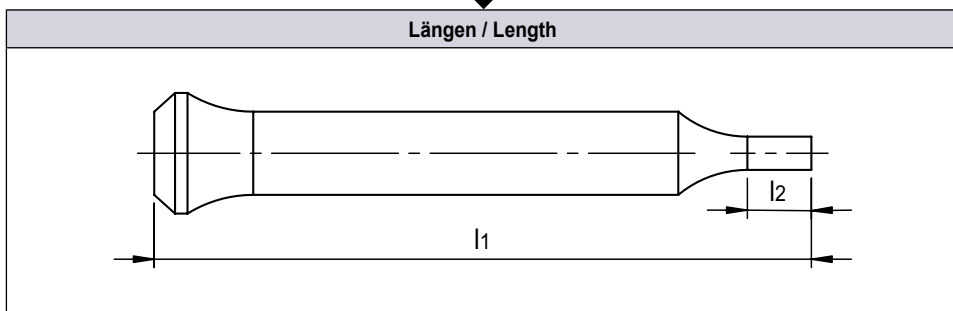
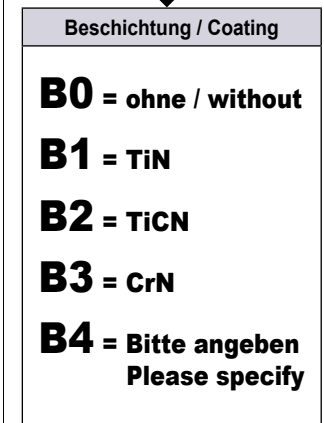
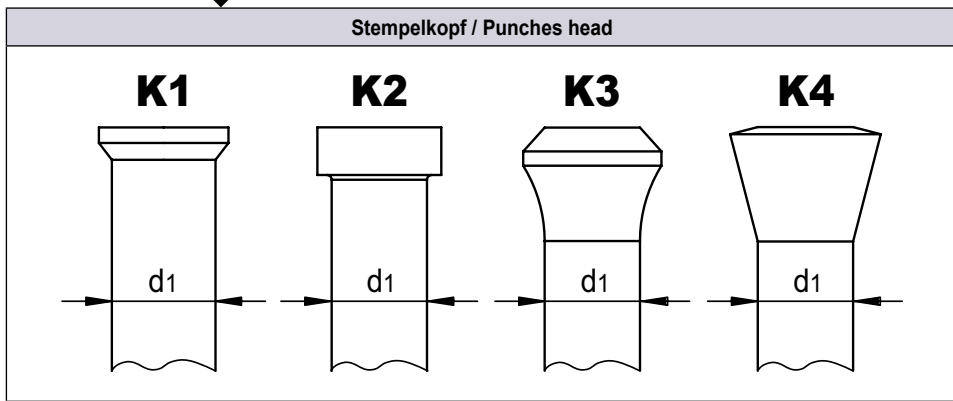
Bitte bei der Bestellung die Parameter t und l4 angeben. / Please specify parameter t and l4 when ordering.

SE ... V7/ 2 x 14 / 0°

[SE]

Bestellbeispiele / Ordering examples

SE	K3	10	90	13	P2	-	8,0	5,0	A1	45°	X1	B1	5
	Stempelkopf Punches head	d1	l1	l2	Profil Profile	d3	a	b	Auswerferstift Spring ejector	Verdrehsicherung Rotation prevention	Material	Beschichtung Coating	Menge Quantity



SE													
SE													

[SE]



