






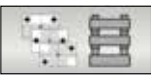
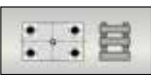

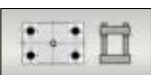
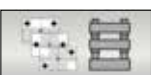



MSP GN GM BH

Märkische Stanz-Partner



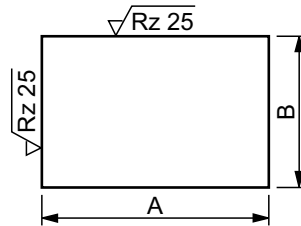
[säulengestelle]

[diesets]

	Säulengestelle aus Stahl	Steel die sets	Best.-Nr. Order no.	Seite Page
	<u>2 Platten, 2 Säulen, Typ A-C-D</u>	<u>2 plates, 2 leader pins, types A-C-D</u>	SG 2 .	SG. 5 - 8
	<u>2 Platten, 4 Säulen, Typ Q</u>	<u>2 plates, 4 leader pins, type Q</u>	SG 2 Q	SG. 13 - 16
	<u>3 Platten, 2 Säulen, Typ A-C-D</u>	<u>3 plates, 2 leader pins, types A-C-D</u>	SG 3 .	SG. 9 - 12
	<u>3 Platten, 4 Säulen, Typ Q</u>	<u>3 plates, 4 leader pins, type Q</u>	SG 3 Q	SG. 17 - 20
	<u>2 Platten, 2 Säulen, Typ A-C-D M-Line</u>	<u>2 plates, 2 leader pins, types A-C-D M-Line</u>	SG 2 . RM	SG. 26 - 29
	<u>2 Platten, 4 Säulen, Typ Q M-Line</u>	<u>2 plates, 4 leader pins, type Q M-Line</u>	SG 2 Q RM	SG. 34 - 37
	<u>3 Platten, 2 Säulen, Typ A-C-D M-Line</u>	<u>3 plates, 2 leader pins, types A-C-D M-Line</u>	SG 3 . RM	SG. 30 - 33
	<u>3 Platten, 4 Säulen, Typ Q M-Line</u>	<u>3 plates, 4 leader pins, type Q M-Line</u>	SG 3 Q RM	SG. 38 - 41
	Großstahlplatten	XXL - Steel plates	Best.-Nr. Order no.	Seite Page
	<u>Großstahlplatten und Stahl-Schweiß- Konstruktionen mit Sonderbearbeitung</u>	<u>XXL - Steel plates and welded units with additional work / secondary operation</u>		SG. 43 - 46

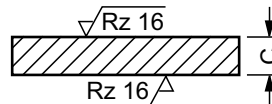
Mat.: C45

Toleranz Außenmaße /
Tolerance of length and width



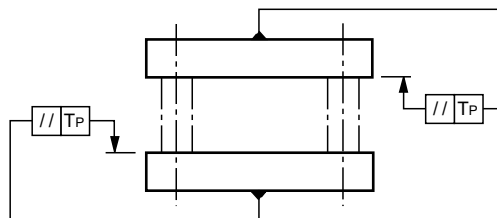
A x B +0,06
-0,06

Toleranz Plattenstärke /
Tolerance of thickness



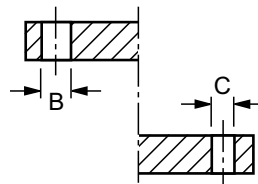
C ± 2

Parallelität der Flächenpaare /
Parallelism of two surfaces



TP = 0,012 / 100 mm

Bohrungstoleranzen /
Hole tolerances



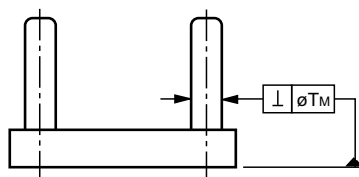
B = Aufnahmebohrung Buchse/ Mounting hole for bushing:

FS 468 = K7
FS 4 .. = H6
FS 6 .. = H6
FS 7 .. = H6

C = Aufnahmebohrung Säule/ Mounting hole for leader pin:

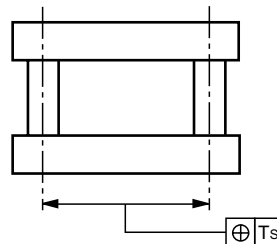
FS 420 = R7
FS 419 = JS6
FS 400/403 = H6

Winkelgenauigkeit der Führungssäulen /
Angular accuracy of leader pins



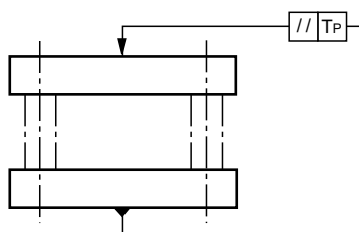
TM = 0,012 / 100 mm

Toleranz Systemabstände /
Tolerance of dimensions between leader-
pin (and bushing) - holes



Ts = ± 0,010

Planparallelität im
zusammengebauten Zustand /
Parallelism after mounting



TP = 0,015 / 100 mm

Säulen-Buchsen-Kombination für 2-Plattengestelle

Combination of leader-pin and -bushing in 2-plate-die-sets



SÄULENGESTELLE / DIE SETS

Bestellbeispiel / Order-example

2 C	643	P	41	Z
Gestelltyp Type of die set	Kataloggröße Catalog sizes	Säulentyp Type of leader pin	Buchsentyp Type of bushing	Position der Haltestücke Position of holding clamps

Gestelltyp / Type of die set

Position der Haltestücke / Position of holding clamps

Buchsentyp / Type of bushing

**Sinterbuchse
Leader pin bushing, sintered**

FS 741	FS 751	FS 755
46	47	48

**Stahlbuchse mit Bronzeplattierung
Leader pin bushing, bronze plated**

FS 641	FS 651	FS 655
41	42	43

**Stahlbuchse mit Ms-Käfig
Leader pin bushing with ball cage**

FS 453 + FS 425	FS 457 + FS 425	FS 458 + FS 425
51	52	53

Säulentyp / Type of leader pin

eingepresst press-fitted	Schnellwechselsäule mit Bund Leader pin with collar
FS 420	FS 419
P	R



Bestellbeispiel / Order-example

3 C	643	P	71	Z
Gestelltyp Type of die set	Kataloggröße Catalog sizes	Säulentyp Type of leader pin	Buchsentyp Type of bushing	Position der Haltestücke Position of holding clamps

Gestelltyp / Type of die set

Buchsentyp / Type of bushing

Sinterbuchse Leader pin bushing, sintered	
C1 = FS 741 C3 = FS 731 88	C1 = FS 732 C3 = FS 731 87
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated	
C1 = FS 641 C3 = FS 631 71	C1 = FS 632 C3 = FS 631 72
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage	
C1 = FS 458 + FS 425 C3 = FS 457 + FS 425 91	C1 = FS 453 + FS 425 C3 = FS 457 + FS 425 92

Säulentyp / Type of leader pin

eingepresst press-fitted	Schnellwechselsäule mit Bund Leader pin with collar
 FS 420	 FS 419
P	R

Position der Haltestücke / Position of holding clamps



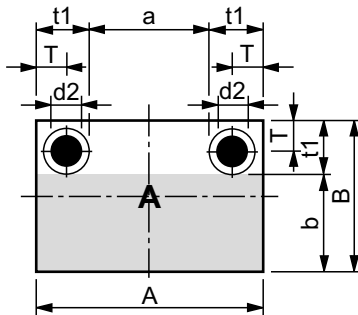
Position Position	Platten- maße Plate length and width	Platten- stärke Plate thickness			Säulentyp in C1 oder C2* Type of leader pin in C1 or C2*		Buchsentyp in C1 oder C2** Type of bushing in C1 or C2**		Buchsentyp in C3 Type of bushing in C3		Haltestück- position Position of holding clamps
		A x B	C1	C2	C3	FS ...	d1 x l	FS ...	d x l	FS ...	
Q	610 x 494	78	48	38	420	40/42 x 250	632	40/42 x 67	631	40/42 x 51	X

* = Säulentyp in C1 oder C2 bitte angeben. / Please fill in type of leader pin in C1 or C2.

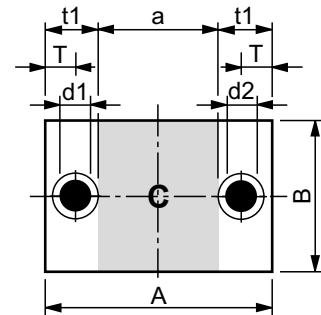
** = Buchsentyp in C1 oder C2 bitte angeben. / Please fill in type of bushing in C1 or C2.

Arbeitsflächen / Working areas

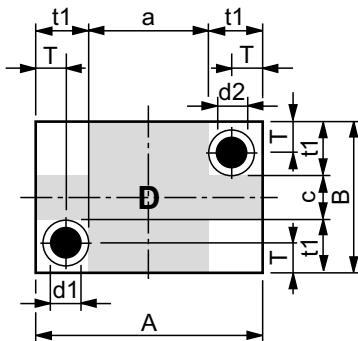
$b = B - t_1$



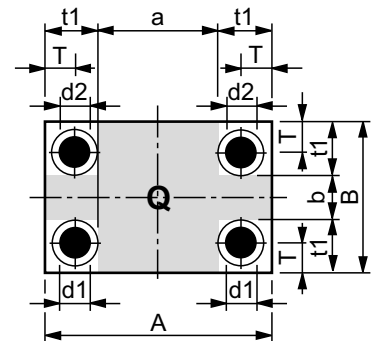
$a = A - (2 \times t_1)$



$a = A - (2 \times t_1)$
 $c = B - (2 \times t_1)$

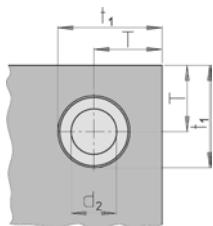


$a = A - (2 \times t_1)$
 $b = B - (2 \times t_1)$



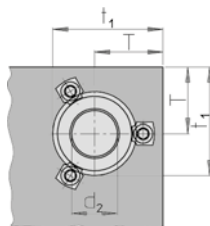
Zylindrische Führungsbuchsen

Leader pin bushings, cylindrical



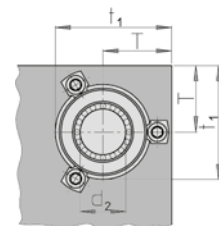
Führungsbuchsen mit Bund

Leader pin bushings, with collar



Führungsbuchsen mit Bund für Kugelführung

Leader pin bushings, with collar for ball-bearings



d_1/d_2	T	t_1	d_1/d_2	T	t_1	d_1/d_2	T	t_1
18/19	25	40	18/19	32	49	18/19	35	55
24/25	29	46	24/25	37	59	24/25	40	65
30/32	37	60	30/32	44	71	30/32	48	79
40/42	45	74	40/42	49	81	40/42	53	89
50/52	52	87	50/52	57	97	50/52	61	105
63	-	-	63	64	117	63	-	-
80	-	-	80	73	135	80	-	-

Buchsentyp / Type of bushing		
Sinterbuchse Leader pin bushing, sintered		
FS 741	FS 751	FS 755
46	47	48
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated		
FS 641	FS 651	FS 655
41	42	43
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage		
FS 453 + FS 425	FS 457 + FS 425	FS 458 + FS 425
51	52	53

Säulentyp / Type of leader pin	
eingepresst press-fitted	Schnellwechselsäule mit Bund Leader pin, with collar
FS 420	FS 419
P	R

Gestelltyp / Type of die set	

Position der Haltestücke / Position of holding clamps	
Pos. Z	Pos. X

Größe / Size	Abmessungen / Dimensions							Arbeitsflächen / Working area									Gewicht / Weight [kg]										
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			46 41			47 42			48 43			51			52			53			
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A	a X B	b X A		c X A	a X B	b X A	c X A						
601		28	23	-		130	100	-																7,0			
602	125	28	28	-	18/19	140	110	-				27	76	27								70		7,7			
603	125	38	28	-		150	110	100				125	125	125							125			8,9			
604	160	28	23	-		130	100	-																8,8			
605	X	28	28	-	18/19	140	110	-				62	76	27							50	70		9,6			
606	125	38	28	-		150	110	100				125	160	160							125	160		11,2			
607	160	28	23	-		130	100	-																11,0			
608	X	28	28	-	18/19	140	110	-				62	111	62							50	105	50	12,0			
609	160	38	28	-		150	110	100				160	160	160							160	160	160	14,0			
610	200	28	23	-		130	100	-																10,8			
611	X	28	28	-	18/19	140	110	-				102	76	27							90	70		11,8			
612	125	38	28	-		150	110	100				125	200	200							125	200		13,7			
613	200	33	28	-		150	110	-																16,4			
614	X	33	33	-	24/25	160	120	-				82	101	42							70	95	30	17,6			
615	160	48	38	-		180	130	120				160	200	200							160	200	200	22,6			
616	200	33	28	-		150	110	-																20,2			
617	X	33	33	-	24/25	160	120	-				82	141	82							70	135	70	21,8			
618	200	48	38	-		180	130	120				200	200	200							200	200	200	28,0			
619	250	33	28	-		150	110	-																16,0			
620	X	33	33	-	24/25	160	120	-				132	66								120	60		17,3			
621	125	48	38	-		180	130	120				125	250								125	250		22,1			
622	250	33	28	-		150	110	-																20,2			
623	X	33	33	-	24/25	160	120	-				132	101	42							120	95	30	21,8			
624	160	48	38	-		180	130	120				160	250	250							160	250	250	28,0			
625	250	33	28	-		150	110	-																25,0			
626	X	33	33	-	24/25	160	120	-				132	141	82							120	135	70	27,0			
627	200	48	38	-		180	130	120				200	250	250							200	250	250	34,8			
628	250	38	33	-		160	120	-																36,4			
629	X	38	38	-	30/32	170	130	-				108	179	108							92	171	92	38,8			
630	250	48	38	-		180	130	120				250	250	250							250	250	250	43,7			

[SG]

Buchsentyp / Type of bushing		
Sinterbuchse Leader pin bushing, sintered		
FS 741	FS 751	FS 755
46	47	48
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated		
FS 641	FS 651	FS 655
41	42	43
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage		
FS 453 + FS 425	FS 457 + FS 425	FS 458 + FS 425
51	52	53

Säulentyp / Type of leader pin	
eingepresst press-fitted	Schnellwechselsäule mit Bund Leader pin, with collar
FS 420	FS 419
P	R

Gestelltyp / Type of die set	

Position der Haltestücke / Position of holding clamps	
Pos. Z	Pos. X

Größe / Size	Abmessungen / Dimensions						Arbeitsflächen / Working area									Gewicht / Weight [kg]											
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			46 41			47 42			48 43			51			52			53			
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A	a X B		b X A	c X A	a X B	b X A	c X A						
631		33	28	-		150	110	-																	24,0		
632	300																										
	X	33	33	-	24/25	160	120	-																		25,9	
	160																										
633		48	38	-		180	130	120																		33,4	
634		33	28	-		150	110	-																			29,8
635	300																										
	X	33	33	-	24/25	160	120	-																			32,1
	200																										
636		48	38	-		180	130	120																			41,5
637		38	33	-		160	120	-																			43,3
638	300																										
	X	38	38	-	30/32	170	130	-																			46,3
	250																										
639		48	38	-		180	130	120																			52,5
640		38	33	-		160	120	-																			52,0
641	300																										
	X	38	38	-	30/32	170	130	-																			55,5
	300																										
642		48	38	-		180	130	120																			62,5
643		33	28	-		150	110	-																			34,6
644	350																										
	X	33	33	-	24/25	160	120	-																			37,3
	200																										
645		48	38	-		180	130	120																			48,3
646		38	33	-		160	120	-																			50,5
647	350																										
	X	38	38	-	30/32	170	130	-																			54,0
	250																										
648		48	38	-		180	130	120																			61,0
649		48	38	-		190	140	-																			74,0
650	350																										
	X	48	48	-	40/42	200	150	-																			82,5
	300																										
651		58	48	-		210	150	140																			90,5
652		48	38	-		190	140	-																			86,0
653	350																										
	X	48	48	-	40/42	200	150	-																			95,5
	350																										
654		58	48	-		210	150	140																			105,0
655		33	28	-		150	110	-																			39,4
656	400																										
	X	33	33	-	24/25	160	120	-																			42,5
	200																										
657		48	38	-		180	130	120																			55,0
658		38	33	-		160	120	-																			57,5
659	400																										
	X	38	38	-	30/32	170	130	-																			61,5
	250																										
660		48	38	-		180	130	120																			69,0



Buchsentyp / Type of bushing		
Sinterbuchse Leader pin bushing, sintered		
FS 741	FS 751	FS 755
46	47	48
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated		
FS 641	FS 651	FS 655
41	42	43
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage		
FS 453 + FS 425	FS 457 + FS 425	FS 458 + FS 425
51	52	53

Säulentyp / Type of leader pin	
eingepresst press-fitted	Schnellwechselsäule mit Bund Leader pin, with collar
FS 420	FS 419
P	R

Gestelltyp / Type of die set	

Position der Haltestücke / Position of holding clamps	
Pos. Z	Pos. X

Größe / Size	Abmessungen / Dimensions						Arbeitsflächen / Working area									Gewicht / Weight [kg]					
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			46 41			47 42			48 43			51 X B	52 X A	53 X A	
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A							
661		48	38	-		190	140	-												84,0	
662	400	48	48	-	40/42	200	150	-				238	219	138	222	211	122			93,5	
	X	48	48	-								X	X	X	X	X	X				
	300											300	400	400	300	400	400			103,0	
663		58	48	-		210	150	140													
664		48	38	-		190	140	-												97,5	
665	400	48	48	-	40/42	200	150	-				238	269	188	222	261	172			109,0	
	X	48	48	-								X	X	X	X	X	X				
	350											350	400	400	350	400	400			120,0	
666		58	48	-		210	150	140													
667		48	38	-		190	140	-												111,0	
668	400	48	48	-	40/42	200	150	-				238	319	238	222	311	222			124,0	
	X	48	48	-								X	X	X	X	X	X				
	400											400	400	400	400	400	400			137,0	
669		58	48	-		210	150	140													
670		38	33	-		160	120	-												73,0	
671	500	38	38	-	30/32	170	130	-				358	179	108	342	171	92			78,0	
	X	38	38	-								X	X	X	X	X	X				
	250											250	500	500	250	500	500			87,5	
672		48	38	-		180	130	120													
673		48	38	-		190	140	-												105,0	
674	500	48	48	-	40/42	200	150	-				338	219	138	322	211	122			116,0	
	X	48	48	-								X	X	X	X	X	X				
	300											300	500	500	300	500	500			128,0	
675		58	48	-		210	150	140													
676		48	38	-		190	140	-												122,0	
677	500	48	48	-	40/42	200	150	-				338	269	188	322	261	172			135,0	
	X	48	48	-								X	X	X	X	X	X				
	350											350	500	500	350	500	500			149,0	
678		58	48	-		210	150	140													
679		48	38	-		190	140	-												138,0	
680	500	48	48	-	40/42	200	150	-				338	319	238	322	311	222			154,0	
	X	48	48	-								X	X	X	X	X	X				
	400											400	500	500	400	500	500			170,0	
681		58	48	-		210	150	140													
682		58	48	-		220	160	-												213,0	
683	500	58	58	-	50/52	230	170	-				306	403	306	290	395	290			233,0	
	X	58	58	-								X	X	X	X	X	X				
	500											500	500	500	500	500	500			252,0	
684		68	58	-		240	170	160													
685		58	48	-		220	160	-												155,0	
686	600	58	58	-	50/52	230	170	-				406	203	106	390	195	90			169,0	
	X	58	58	-								X	X	X	X	X	X				
	300											300	600	600	300	600	600			183,0	
687		68	58	-		240	170	160													
688		58	48	-		220	160	-												180,0	
689	600	58	58	-	50/52	230	170	-				406	253	156	390	245	140			196,0	
	X	58	58	-								X	X	X	X	X	X				
	350											350	600	600	350	600	600			213,0	
690		68	58	-		240	170	160													

[SG]

Buchsentyp / Type of bushing		
Sinterbuchse Leader pin bushing, sintered		
FS 741	FS 751	FS 755
46	47	48
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated		
FS 641	FS 651	FS 655
41	42	43
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage		
FS 453 + FS 425	FS 457 + FS 425	FS 458 + FS 425
51	52	53

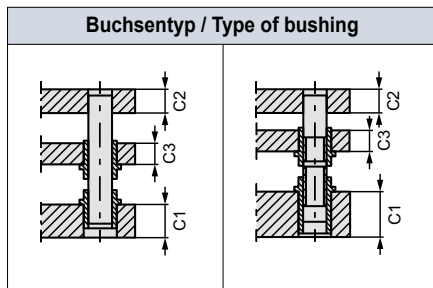
Säulentyp / Type of leader pin	
eingepresst press-fitted	Schnellwechselsäule mit Bund Leader pin, with collar
FS 420	FS 419
P	R

Gestelltyp / Type of die set	

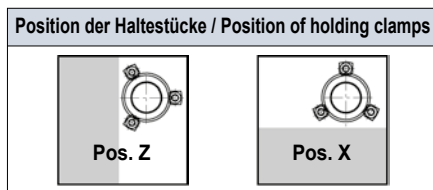
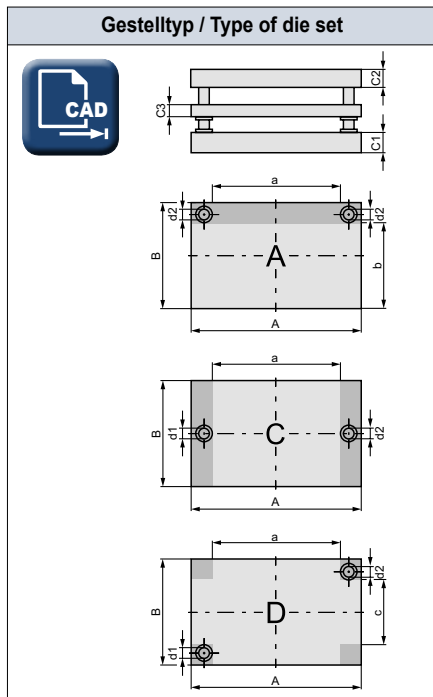
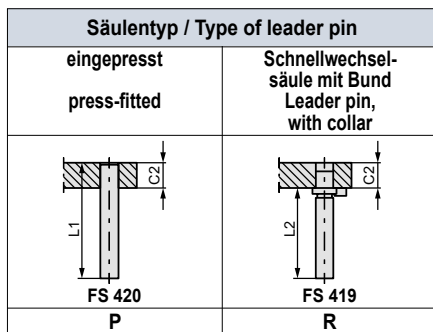
Position der Haltestücke / Position of holding clamps	
Pos. Z	Pos. X

Größe / Size	Abmessungen / Dimensions						Arbeitsflächen / Working area									Gewicht / Weight [kg]											
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			46 41			47 42			48 43			51			52			53			
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A	a X B		b X A	c X A	a X B	b X A	c X A						
691		58	48	-		220	160	-																	205,0		
692	600	58	58	-	50/52	230	170	-																	224,0		
	X	58	58	-																							
	400	68	58	-		240	170	160																	242,0		
693		68	58	-																							
694		58	48	-		220	160	-																	254,0		
695	600	58	58	-	50/52	230	170	-																	278,0		
	X	58	58	-																							
	500	68	58	-		240	170	160																	302,0		
696		68	58	-																							
697		58	48	-		220	160	-																	305,0		
698	600	58	58	-	50/52	230	170	-																	333,0		
	X	58	58	-																							
	600	68	58	-		240	170	160																	361,0		
699		68	58	-																							
700		58	48	-		220	160	-																	209,0		
701	700	58	58	-	50/52	230	170	-																	228,0		
	X	58	58	-																							
	350	68	58	-		240	170	160																	247,0		
702		68	58	-																							
703		58	48	-		220	160	-																	238,0		
704	700	58	58	-	50/52	230	170	-																	260,0		
	X	58	58	-																							
	400	68	58	-		240	170	160																	282,0		
705		68	58	-																							
706		58	48	-		220	160	-																	296,0		
707	700	58	58	-	50/52	230	170	-																	324,0		
	X	58	58	-																							
	500	68	58	-		240	170	160																	351,0		
708		68	58	-																							
709		58	48	-		220	160	-																	354,0		
710	700	58	58	-	50/52	230	170	-																	388,0		
	X	58	58	-																							
	600	68	58	-		240	170	160																	420,0		
711		68	58	-																							
712		58	48	-		220	160	-																	271,0		
713	800	58	58	-	50/52	230	170	-																	296,0		
	X	58	58	-																							
	400	68	58	-		240	170	160																	321,0		
714		68	58	-																							
715		58	48	-		220	160	-																	338,0		
716	800	58	58	-	50/52	230	170	-																	369,0		
	X	58	58	-																							
	500	68	58	-		240	170	160																	400,0		
717		68	58	-																							
718		58	48	-		220	160	-																	404,0		
719	800	58	58	-	50/52	230	170	-																	442,0		
	X	58	58	-																							
	600	68	58	-		240	170	160																	480,0		
720		68	58	-																							

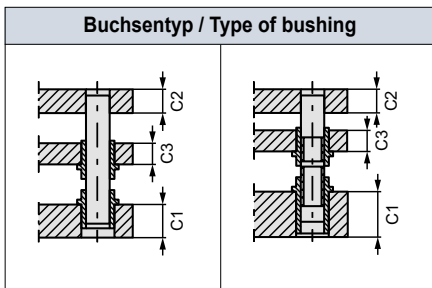




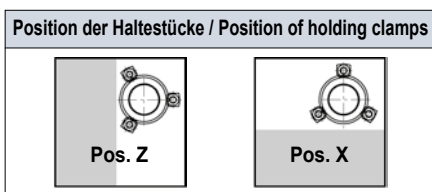
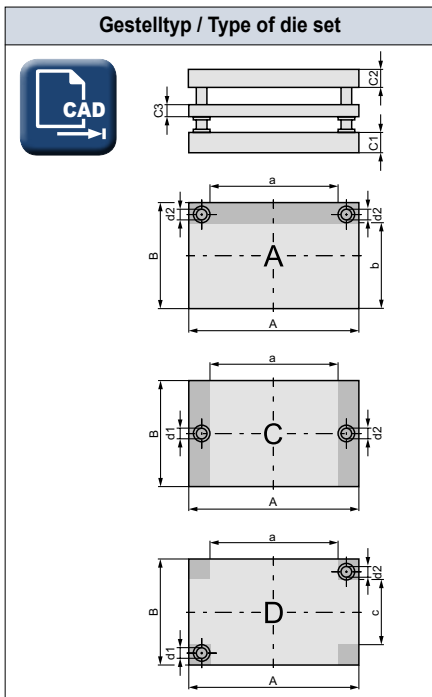
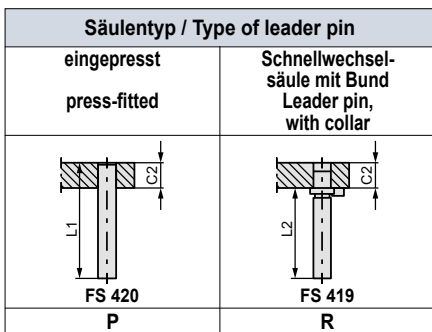
Sinterbuche Leader pin bushing, sintered	
C1: FS 741 C3: FS 731 88	C1: FS 732 C3: FS 731 87
Stahlbuche mit Bronzeplattierung Leader pin bushing, bronze plated	
C1: FS 641 C3: FS 631 71	C1: FS 632 C3: FS 631 72
Stahlbuche mit Ms-Käfig Leader pin bushing with ball cage	
C1: FS 458 + FS 425 C3: FS 457 + FS 425 91	C1: FS 453 + FS 425 C3: FS 457 + FS 425 92



Größe / Size	Abmessungen / Dimensions							Arbeitsflächen / Working area									Gewicht / Weight [kg]				
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			88 71			87 72			91			92			
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A	a X B	b X A			c X A		
601		28	23			140	120	-												9,4	
602	125																				
	X	38	28	18	18/19	160	130	-				27	76	27					70		11,2
603	125																				
	X	38	38			170	130	120				125	125	125					125		12,4
604		28	23			140	120	-													11,7
605	160																				
	X	38	28	18	18/19	160	130	-				62	76	27	50	70					14,2
606	125																				
	X	38	38			170	130	120				125	160	160	125	160					15,8
607		28	23			140	120	-													14,8
608	160																				
	X	38	28	18	18/19	160	130	-				62	111	62	50	105	50				17,8
609	160																				
	X	38	38			170	130	120				160	160	160	160	160					19,8
610		28	23			140	120	-													14,4
611	200																				
	X	38	28	18	18/19	160	130	-				102	76	27	90	70					17,4
612	125																				
	X	38	38			170	130	120				125	200	200	125	200					19,4
613		33	28			160	130	-													22,3
614	200																				
	X	48	38	23	24/25	190	150	-				82	101	42	70	95					28,4
615	160																				
	X	48	48			200	150	140				160	200	200	160	200					30,9
616		33	28			160	130	-													27,5
617	200																				
	X	48	38	23	24/25	190	150	-				82	141	82	70	135	70				35,2
618	200																				
	X	48	48			200	150	140				200	200	200	200	200					38,4
619		33	28			160	130	-													21,8
620	250																				
	X	48	38	23	24/25	190	150	-				132	66		120	60					27,8
621	125																				
	X	48	48			200	150	140				125	250	125	250						30,2
622		33	28			160	130	-													27,5
623	250																				
	X	48	38	23	24/25	190	150	-				132	101	42	120	95					35,2
624	160																				
	X	48	48			200	150	140				160	250	250	160	250					38,4
625		33	28			160	130	-													34,2
626	250																				
	X	48	38	23	24/25	190	150	-				132	141	82	120	135	70				43,8
627	200																				
	X	48	48			200	150	140				200	250	250	200	250					47,7
628		38	33			170	140	-													50,5
629	250																				
	X	48	38	28	30/32	190	150	-				108	179	108	92	171	92				57,5
630	250																				
	X	48	48			200	150	140				250	250	250	250	250					62,5

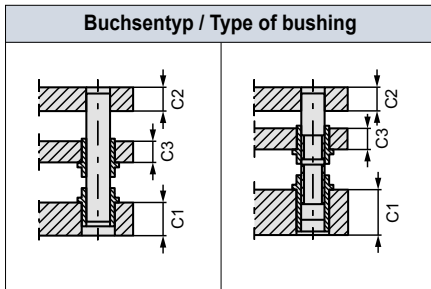


Sinterbuche Leader pin bushing, sintered	
C1: FS 741	C1: FS 732
C3: FS 731	C3: FS 731
88	87
Stahlbuche mit Bronzeplattierung Leader pin bushing, bronze plated	
C1: FS 641	C1: FS 632
C3: FS 631	C3: FS 631
71	72
Stahlbuche mit Ms-Käfig Leader pin bushing with ball cage	
C1: FS 458 + FS 425	C1: FS 453 + FS 425
C3: FS 457 + FS 425	C3: FS 457 + FS 425
91	92

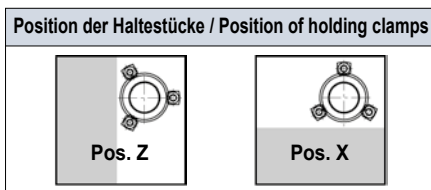
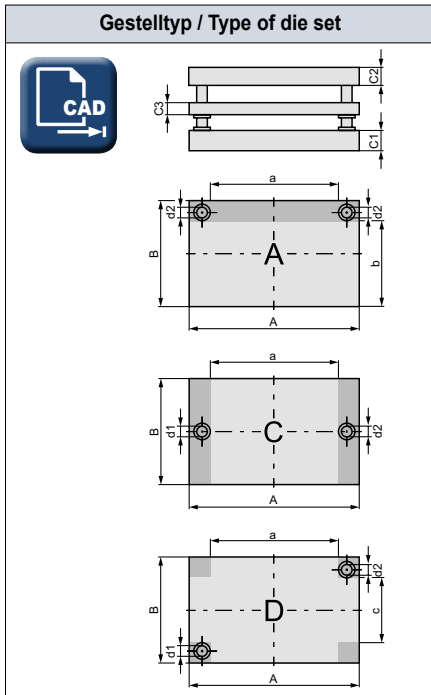
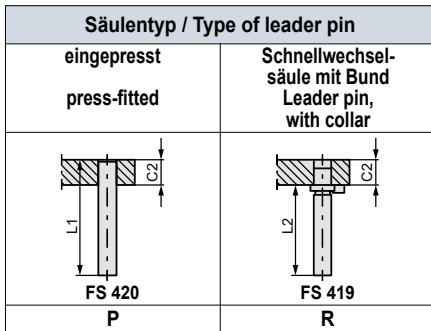


Größe / Size	Abmessungen / Dimensions						Arbeitsflächen / Working area						Gewicht / Weight [kg]					
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			88 71 72			91 92						
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B		b X A	c X A			
631		33	28			160	130	-									32,8	
632	300 X 160	48	38	23	24/25	190	150	-				182 X 160	101 X 300	42 X 300	170 X 160	95 X 300	42,1	
633		48	48			200	150	140									45,9	
634		33	28			160	130	-									40,7	
635	300 X 200	48	38	23	24/25	190	150	-				182 X 200	141 X 300	82 X 300	170 X 200	135 X 300	76 X 300	52,5
636		48	48			200	150	140									57,5	
637		38	33			170	140	-									60,0	
638	300 X 250	48	38	28	30/32	190	150	-				158 X 250	179 X 300	108 X 300	142 X 250	171 X 300	92 X 300	69,0
639		48	48			200	150	140									74,5	
640		38	33			170	140	-									71,5	
641	300 X 300	48	38	28	30/32	190	150	-				158 X 300	229 X 300	158 X 300	142 X 300	221 X 300	142 X 300	82,5
642		48	48			200	150	140									89,5	
643		33	28			160	130	-									47,3	
644	350 X 200	48	38	23	24/25	190	150	-				232 X 200	141 X 350	82 X 350	220 X 200	135 X 350	70 X 350	60,5
645		48	48			200	150	140									66,5	
646		38	33			170	140	-									69,5	
647	350 X 250	48	38	28	30/32	190	150	-				208 X 250	179 X 350	108 X 350	192 X 250	171 X 350	92 X 350	80,0
648		48	48			200	150	140									87,0	
649		48	38			200	160	-									101,0	
650	350 X 300	58	48	33	40/42	220	170	-				188 X 300	219 X 350	138 X 350	172 X 300	211 X 350	122 X 350	118,0
651		58	58			230	170	160									126,0	
652		48	38			200	160	-									118,0	
653	350 X 350	58	48	33	40/42	220	170	-				188 X 350	269 X 350	188 X 350	172 X 350	261 X 350	172 X 350	137,0
654		58	58			230	170	160									147,0	
655		33	28			160	130	-									54,0	
656	400 X 200	48	38	23	24/25	190	150	-				282 X 200	141 X 400	82 X 400	270 X 200	135 X 400	70 X 400	69,5
657		48	48			200	150	130									75,0	
658		38	33			170	140	-									79,5	
659	400 X 250	48	38	28	30/32	190	150	-				258 X 250	179 X 400	108 X 400	242 X 250	171 X 400	92 X 400	91,0
660		48	48			200	150	140									99,0	

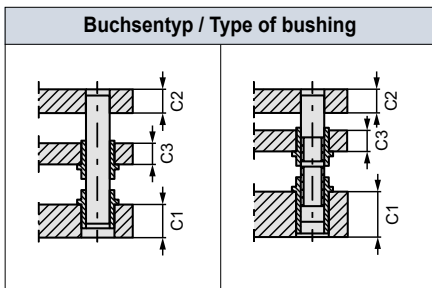




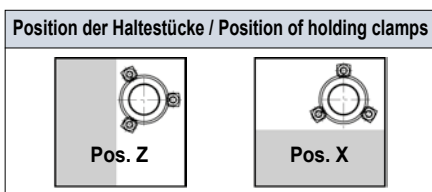
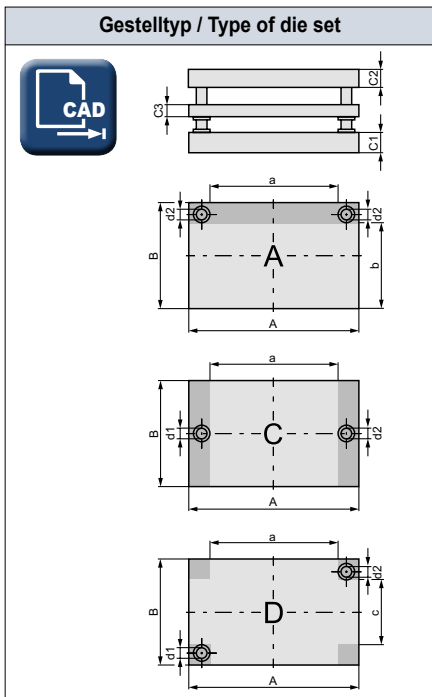
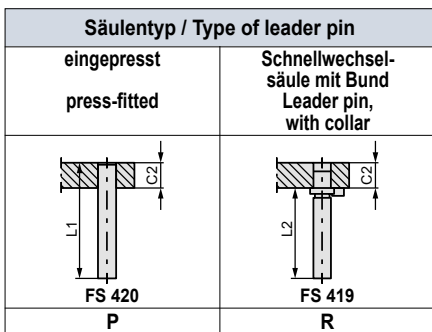
Sinterbuchse Leader pin bushing, sintered	
C1: FS 741 C3: FS 731 88	C1: FS 732 C3: FS 731 87
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated	
C1: FS 641 C3: FS 631 71	C1: FS 632 C3: FS 631 72
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage	
C1: FS 458 + FS 425 C3: FS 457 + FS 425 91	C1: FS 453 + FS 425 C3: FS 457 + FS 425 92



Größe / Size	Abmessungen / Dimensions							Arbeitsflächen / Working area									Gewicht / Weight [kg]	
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			88 71 72			91 92						
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A				
661		48	38			200	160	-									115,0	
662	400 X 300	58	48	33	40/42	220	170	-				238 X 300	219 X 400	138 X 400	222 X 300	211 X 400	122 X 400	134,0
663		58	58			230	170	160									144,0	
664		48	38			200	160	-									134,0	
665	400 X 350	58	48	33	40/42	220	170	-				238 X 350	269 X 400	188 X 400	222 X 350	261 X 400	172 X 400	156,0
666		58	58			230	170	160									167,0	
667		48	38			200	160	-									153,0	
668	400 X 400	58	48	33	40/42	220	170	-				238 X 400	319 X 400	238 X 400	222 X 400	311 X 400	222 X 400	178,0
669		58	58			230	170	160									190,0	
670		38	33			170	140	-									99,0	
671	500 X 250	48	38	28	30/32	190	150	-				358 X 250	179 X 500	108 X 500	342 X 250	171 X 500	92 X 500	114,0
672		48	48			200	150	140									124,0	
673		48	38			200	160	-									143,0	
674	500 X 300	58	48	33	40/42	220	170	-				338 X 300	219 X 500	138 X 500	322 X 300	211 X 500	122 X 500	167,0
675		58	58			230	170	160									179,0	
676		48	38			200	160	-									167,0	
677	500 X 350	58	48	33	40/42	220	170	-				338 X 350	269 X 500	188 X 500	322 X 350	261 X 500	172 X 500	194,0
678		58	58			230	170	160									208,0	
679		48	38			200	160	-									190,0	
680	500 X 400	58	48	33	40/42	220	170	-				338 X 400	319 X 500	238 X 500	322 X 400	311 X 500	222 X 500	222,0
681		58	58			230	170	160									237,0	
682		58	48			230	180	-									287,0	
683	500 X 500	68	58	38	50/52	250	200	-				306 X 500	403 X 500	306 X 500	290 X 500	395 X 500	290 X 500	327,0
684		68	68			260	200	180									346,0	
685		58	48			230	180	-									208,0	
686	600 X 300	68	58	38	50/52	250	200	-				406 X 300	203 X 600	106 X 600	390 X 300	195 X 600	90 X 600	237,0
687		68	68			260	200	180									251,0	
688		58	48			230	180	-									242,0	
689	600 X 350	68	58	38	50/52	250	200	-				406 X 350	253 X 600	156 X 600	390 X 350	245 X 600	140 X 600	275,0
690		68	68			260	200	180									292,0	



Sinterbuche Leader pin bushing, sintered	
C1: FS 741	C1: FS 732
C3: FS 731	C3: FS 731
88	87
Stahlbuche mit Bronzeplattierung Leader pin bushing, bronze plated	
C1: FS 641	C1: FS 632
C3: FS 631	C3: FS 631
71	72
Stahlbuche mit Ms-Käfig Leader pin bushing with ball cage	
C1: FS 458 + FS 425	C1: FS 453 + FS 425
C3: FS 457 + FS 425	C3: FS 457 + FS 425
91	92



Größe / Size	Abmessungen / Dimensions						Arbeitsflächen / Working area						Gewicht / Weight [kg]					
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			88 71 72			91 92						
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B		b X A	c X A			
691		58	48			230	180	-									276,0	
	600											406	303	206	390	295	190	
692	X	68	58	38	50/52	250	200	-				X	X	X	X	X	X	314,0
	400											400	600	600	400	600	600	
693		68	68			260	200	180										333,0
694		58	48			230	180	-										344,0
	600											406	403	306	390	395	290	
695	X	68	58	38	50/52	250	200	-				X	X	X	X	X	X	391,0
	500											500	600	600	500	600	600	
696		68	68			260	200	180										415,0
697		58	48			230	180	-										412,0
	600											406	503	406	390	495	390	
698	X	68	58	38	50/52	250	200	-				X	X	X	X	X	X	468,0
	600											600	600	600	600	600	600	
699		68	68			260	200	180										497,0
700		58	48			230	180	-										282,0
	700											506	253	156	490	245	140	
701	X	68	58	38	50/52	250	200	-				X	X	X	X	X	X	320,0
	350											350	700	700	350	700	700	
702		68	68			260	200	180										340,0
703		58	48			230	180	-										321,0
	700											506	303	206	490	295	190	
704	X	68	58	38	50/52	250	200	-				X	X	X	X	X	X	365,0
	400											400	700	700	400	700	700	
705		68	68			260	200	180										387,0
706		58	48			230	180	-										400,0
	700											506	403	306	490	395	290	
707	X	68	58	38	50/52	250	200	-				X	X	X	X	X	X	455,0
	500											500	700	700	500	700	700	
708		68	68			260	200	180										483,0
709		58	48			230	180	-										480,0
	700											506	503	406	490	495	390	
710	X	68	58	38	50/52	250	200	-				X	X	X	X	X	X	545,0
	600											600	700	700	600	700	700	
711		68	68			260	200	180										579,0
712		58	48			230	180	-										366,0
	800											606	303	206	590	295	190	
713	X	68	58	38	50/52	250	200	-				X	X	X	X	X	X	417,0
	400											400	800	800	400	800	800	
714		68	68			260	200	180										442,0
715		58	48			230	180	-										457,0
	800											606	403	306	590	395	290	
716	X	68	58	38	50/52	250	200	-				X	X	X	X	X	X	520,0
	500											500	800	800	500	800	800	
717		68	68			260	200	180										551,0
718		58	48			230	180	-										547,0
	800											606	503	406	590	495	390	
719	X	68	58	38	50/52	250	200	-				X	X	X	X	X	X	623,0
	600											600	800	800	600	800	800	
720		68	68			260	200	180										661,0



Säulengestelle aus Stahl, 2 Platten, 4 Säulen, Typ Q



[SG]

Steel die sets, 2 plates, 4 posts, type Q

SÄULENGESTELLE / DIE SETS

Buchsentyp / Type of bushing		
Sinterbuchse Leader pin bushing, sintered		
FS 741	FS 751	FS 755
46	47	48
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated		
FS 641	FS 651	FS 655
41	42	43
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage		
FS 453 + FS 425	FS 457 + FS 425	FS 458 + FS 425
51	52	53

Säulentyp / Type of leader pin	
eingepresst press-fitted	Schnellwechselsäule mit Bund Leader pin, with collar
FS 420	FS 419
P	R

Gestelltyp / Type of die set

Position der Haltestücke / Position of holding clamps	
Pos. Z	Pos. X

Größe / Size	A X B	Abmessungen / Dimensions						Arbeitsflächen / Working area									Gewicht / Weight [kg]										
		Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			46 41			47 42			48 43			51			52			53			
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A	a X B	b X A		c X A	a X B	b X A	c X A						
601		28	23	-		130	100	-																	7,8		
602	125	28	28	-	18/19	140	110	-				27	27												8,4		
603	125	38	28	-		150	110	100				125	125												9,7		
604	160	28	23	-		130	100	-																	9,5		
605	X	28	28	-	18/19	140	110	-				62	27												10,4		
606	125	38	28	-		150	110	100				125	160												11,9		
607	160	28	23	-		130	100	-																	11,9		
608	X	28	28	-	18/19	140	110	-				62	62												12,8		
609	160	38	28	-		150	110	100				160	160												14,8		
610	200	28	23	-		130	100	-																	11,5		
611	X	28	28	-	18/19	140	110	-				102	27												12,5		
612	125	38	28	-		150	110	100				125	200												14,5		
613	200	28	23	-		130	100	-																	14,3		
614	X	28	28	-	18/19	140	110	-				102	62												15,6		
615	160	38	28	-		150	110	100				160	200												18,1		
616	200	28	23	-		130	100	-																	17,5		
617	X	28	28	-	18/19	140	110	-				102	102												19,1		
618	200	38	28	-		150	110	100				200	200												22,3		
619	250	28	23	-		130	100	-																	14,0		
620	X	28	28	-	18/19	140	110	-				152	27												15,3		
621	125	38	28	-		150	110	100				125	250												17,7		
622	250	28	23	-		130	100	-																	17,5		
623	X	28	28	-	18/19	140	110	-				152	60												19,1		
624	160	38	28	-		150	110	100				160	250												22,3		
625	250	33	28	-		150	110	-																	26,0		
626	X	33	33	-	24/25	160	120	-				132	82												27,9		
627	200	48	38	-		180	130	120				200	250												35,8		
628	250	33	28	-		150	110	-																	32,0		
629	X	33	33	-	24/25	160	120	-				132	132												34,4		
630	250	48	38	-		170	130	120				250	250												44,2		



Säulengestelle aus Stahl, 2 Platten, 4 Säulen, Typ Q



[SG]

Steel die sets, 2 plates, 4 posts, type Q

SÄULENGESTELLE / DIE SETS

Buchsentyp / Type of bushing		
Sinterbuchse Leader pin bushing, sintered		
FS 741	FS 751	FS 755
46	47	48
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated		
FS 641	FS 651	FS 655
41	42	43
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage		
FS 453 + FS 425	FS 457 + FS 425	FS 458 + FS 425
51	52	53

Säulentyp / Type of leader pin	
eingepresst press-fitted	Schnellwechselsäule mit Bund Leader pin, with collar
FS 420	FS 419
P	R

Gestelltyp / Type of die set

Position der Haltestücke / Position of holding clamps	
 Pos. Z	 Pos. X

Größe / Size	Abmessungen / Dimensions						Arbeitsflächen / Working area									Gewicht / Weight [kg]					
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			46 41			47 42			48 43			51 X B	52 X A	53 X A	
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A							
661		48	38	-		190	140	-											87,0		
662	400	48	38	-	40/42	190	140	-				238	138			222	122		96,5		
	X	48	48	-		200	150	-				X	X			X	X				
300		58	48	-		210	150	140				300	400			300	400		106,0		
663		48	38	-		190	140	-											101,0		
664	400	48	38	-	40/42	190	140	-				238	188			222	172		112,0		
	X	48	48	-		200	150	-				X	X			X	X				
350		58	48	-		210	150	140				350	400			350	400		123,0		
665		48	38	-		190	140	-											114,0		
666	400	48	38	-	40/42	190	140	-				238	238			222	222		127,0		
	X	48	48	-		200	150	-				X	X			X	X				
400		58	48	-		210	150	140				400	400			400	400		140,0		
667		38	33	-		160	120	-											73,0		
668	500	38	38	-	30/32	170	130	-				358	108			342	92		78,0		
	X	38	38	-		170	130	-				X	X			X	X				
250		48	38	-		180	130	120				250	500			250	500		87,5		
669		48	38	-		190	140	-											108,0		
670	500	48	38	-	40/42	190	140	-				338	138			322	122		119,0		
	X	48	48	-		200	150	-				X	X			X	X				
300		58	48	-		210	150	140				300	500			300	500		131,0		
671		48	38	-		190	140	-											125,0		
672	500	48	38	-	40/42	190	140	-				338	188			322	172		138,0		
	X	48	48	-		200	150	-				X	X			X	X				
350		58	48	-		210	150	140				350	500			350	500		152,0		
673		48	38	-		190	140	-											141,0		
674	500	48	38	-	40/42	190	140	-				338	238			322	222		157,0		
	X	48	48	-		200	150	-				X	X			X	X				
300		58	48	-		210	150	140				300	500			300	500		173,0		
675		48	38	-		190	140	-											175,0		
676	500	48	38	-	40/42	190	140	-				338	338			322	322		195,0		
	X	48	48	-		200	150	-				X	X			X	X				
350		58	48	-		210	150	140				350	500			350	500		214,0		
677		48	38	-		190	140	-											128,0		
678	600	48	38	-	40/42	190	140	-				438	138			422	122		142,0		
	X	48	48	-		200	150	-				X	X			X	X				
300		58	48	-		210	150	140				300	600			300	600		156,0		
679		48	38	-		190	140	-											148,0		
680	600	48	38	-	40/42	190	140	-				438	188			422	172		165,0		
	X	48	48	-		200	150	-				X	X			X	X				
350		58	48	-		210	150	140				350	600			350	600		181,0		
681		48	38	-		190	140	-											128,0		
682	600	48	38	-	40/42	190	140	-				438	138			422	122		142,0		
	X	48	48	-		200	150	-				X	X			X	X				
500		58	48	-		210	150	140				500	500			500	500		214,0		
683		48	38	-		190	140	-											128,0		
684	600	48	38	-	40/42	190	140	-				438	138			422	122		142,0		
	X	48	48	-		200	150	-				X	X			X	X				
500		58	48	-		210	150	140				500	500			500	500		214,0		
685		48	38	-		190	140	-											128,0		
686	600	48	38	-	40/42	190	140	-				438	138			422	122		142,0		
	X	48	48	-		200	150	-				X	X			X	X				
300		58	48	-		210	150	140				300	600			300	600		156,0		
687		48	38	-		190	140	-											148,0		
688	600	48	38	-	40/42	190	140	-				438	188			422	172		165,0		
	X	48	48	-		200	150	-				X	X			X	X				
350		58	48	-		210	150	140				350	600			350	600		181,0		
689		48	38	-		190	140	-											128,0		
690	600	48	38	-	40/42	190	140	-				438	138			422	122		142,0		
	X	48	48	-		200	150	-				X	X			X	X				
350		58	48	-		210	150	140				350	600			350	600		156,0		



Säulengestelle aus Stahl, 2 Platten, 4 Säulen, Typ Q

Steel die sets, 2 plates, 4 posts, type Q



SÄULENGESTELLE / DIE SETS

Buchsentyp / Type of bushing		
Sinterbuchse Leader pin bushing, sintered		
FS 741	FS 751	FS 755
46	47	48
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated		
FS 641	FS 651	FS 655
41	42	43
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage		
FS 453 + FS 425	FS 457 + FS 425	FS 458 + FS 425
51	52	53

Säulentyp / Type of leader pin	
eingepresst press-fitted	Schnellwechselsäule mit Bund Leader pin, with collar
FS 420	FS 419
P	R

Gestelltyp / Type of die set

Position der Haltestücke / Position of holding clamps
Pos. Z
Pos. X

Größe / Size	Abmessungen / Dimensions						Arbeitsflächen / Working area									Gewicht / Weight [kg]						
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			46 41			47 42			48 43			51 52 53				
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A	a X B		b X A	c X A				
691		48	38	-		190	140	-														168,0
692	600 X 400	48	48	-	40/42	200	150	-				438 X 400	238 X 600				422 X 400	222 X 600				187,0
693		58	48	-		210	150	140														206,0
694		58	48	-		220	160	-														259,0
695	600 X 500	58	58	-	50/52	230	170	-				406 X 500	306 X 600				390 X 500	290 X 600				283,0
696		68	58	-		240	170	160														306,0
697		58	48	-		220	160	-														309,0
698	600 X 600	58	58	-	50/52	230	170	-				406 X 600	406 X 600				390 X 600	390 X 600				337,0
699		68	58	-		240	170	160														365,0
700		48	38	-		190	140	-														172,0
701	700 X 350	48	48	-	40/42	200	150	-				538 X 350	188 X 700				522 X 350	172 X 700				191,0
702		58	48	-		210	150	140														210,0
703		58	48	-		220	160	-														242,0
704	700 X 400	58	58	-	50/52	230	170	-				506 X 400	206 X 700				490 X 400	190 X 700				264,0
705		68	58	-		240	170	160														286,0
706		58	48	-		220	160	-														300,0
707	700 X 500	58	58	-	50/52	230	170	-				506 X 500	306 X 700				490 X 500	290 X 700				328,0
708		68	58	-		240	170	160														356,0
709		58	48	-		220	160	-														359,0
710	700 X 600	58	58	-	50/52	230	170	-				506 X 600	406 X 700				490 X 600	390 X 700				392,0
711		68	58	-		240	170	160														425,0
712		58	48	-		220	160	-														276,0
713	800 X 400	58	58	-	50/52	230	170	-				606 X 400	206 X 800				590 X 400	190 X 800				301,0
714		68	58	-		240	170	160														326,0
715		58	48	-		220	160	-														342,0
716	800 X 500	58	58	-	50/52	230	170	-				606 X 500	306 X 800				590 X 500	290 X 800				374,0
717		68	58	-		240	170	160														405,0
718		58	48	-		220	160	-														409,0
719	800 X 600	58	58	-	50/52	230	170	-				606 X 600	406 X 800				590 X 600	390 X 800				447,0
720		68	58	-		240	170	160														484,0



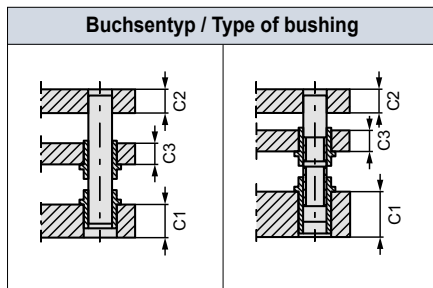
Säulengestelle aus Stahl, 3 Platten, 4 Säulen, Typ Q



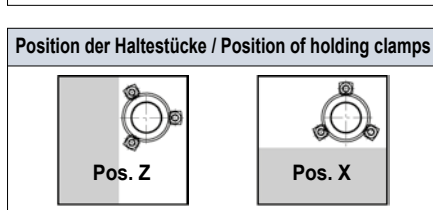
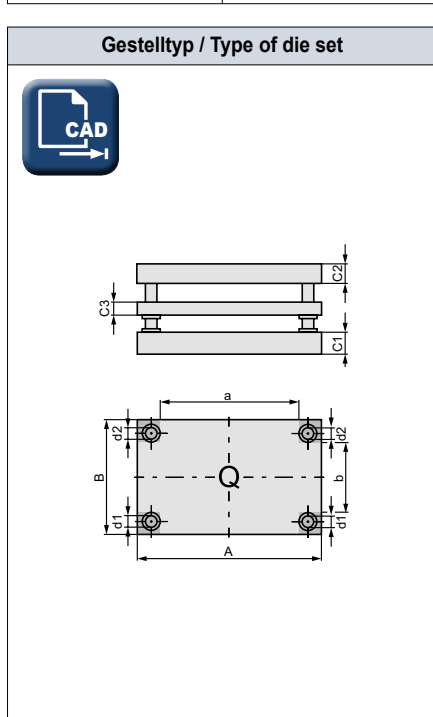
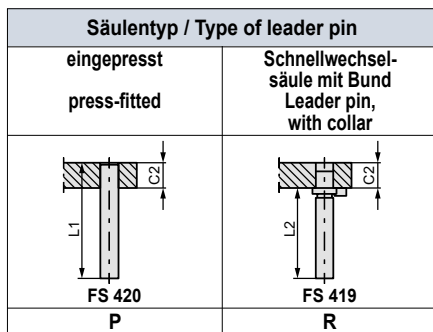
[SG]

Steel die sets, 3 plates, 4 posts, type Q

SÄULENGESTELLE / DIE SETS



Sinterbuchse Leader pin bushing, sintered	
C1: FS 741 C3: FS 731 88	C1: FS 732 C3: FS 731 87
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated	
C1: FS 641 C3: FS 631 71	C1: FS 632 C3: FS 631 72
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage	
C1: FS 458 + FS 425 C3: FS 457 + FS 425 91	C1: FS 453 + FS 425 C3: FS 457 + FS 425 92



Größe / Size	Abmessungen / Dimensions							Arbeitsflächen / Working area						Gewicht / Weight [kg]			
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			88 71 72			91 92					
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A		c X A		
601		28	23			140	120	-									10,0
602	125 X 125	38	28	18	18/19	160	130	-			27 X 125	27 X 125					11,8
603		38	38			170	130	120									13,1
604		28	23			140	120	-									12,4
605	160 X 125	38	28	18	18/19	160	130	-			62 X 125	27 X 160					14,2
606		38	38			170	130	120									16,3
607		28	23			140	120	-									15,4
608	160 X 160	38	28	18	18/19	160	130	-			62 X 160	62 X 160		50 X 160	50 X 160		18,4
609		38	38			170	130	120									20,4
610		28	23			140	120	-									15,1
611	200 X 125	38	28	18	18/19	160	130	-			102 X 125	27 X 200		90 X 125			18,0
612		38	38			170	130	120									20,0
613		28	23			140	120	-									18,9
614	200 X 160	38	28	18	18/19	160	130	-			102 X 160	62 X 200		90 X 160	50 X 200		22,6
615		38	38			170	130	120									25,2
616		28	23			140	120	-									23,2
617	200 X 200	38	28	18	18/19	160	130	-			102 X 200	102 X 200		90 X 200	90 X 200		27,9
618		38	38			170	130	120									31,1
619		28	23			140	120	-									18,5
620	250 X 125	38	28	18	18/19	160	130	-			152 X 125	27 X 250		140 X 125			22,1
621		38	38			170	130	120									24,6
622		28	23			140	120	-									23,2
623	250 X 160	38	28	18	18/19	160	130	-			152 X 160	60 X 250		140 X 160	50 X 250		27,9
624		38	38			170	130	120									31,1
625		33	28			160	130	-									35,0
626	250 X 200	48	38	23	24/25	190	150	-			132 X 200	82 X 250		120 X 200	70 X 250		44,8
627		48	48			200	150	140									48,7
628		33	28			160	130	-									43,2
629	250 X 250	48	38	23	24/25	190	150	-			132 X 250	132 X 250		120 X 250	120 X 250		55,5
630		48	48			200	150	140									60,5

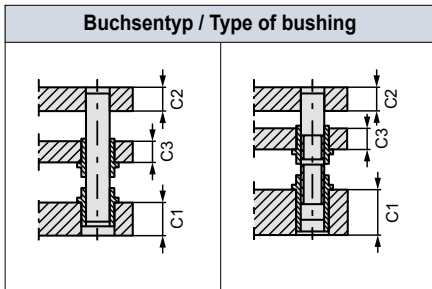


Säulengestelle aus Stahl, 3 Platten, 4 Säulen, Typ Q

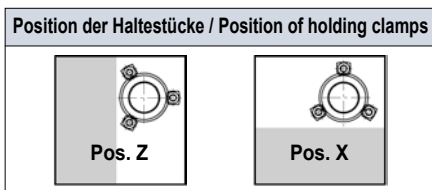
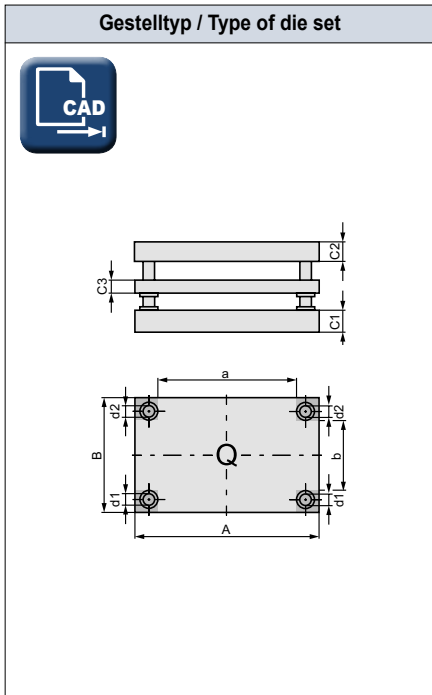
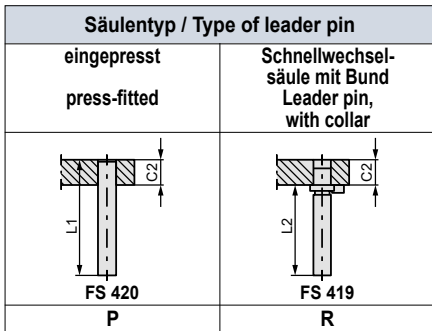
Steel die sets, 3 plates, 4 posts, type Q



SÄULENGESTELLE / DIE SETS



Sinterbuche Leader pin bushing, sintered	
C1: FS 741	C1: FS 732
C3: FS 731	C3: FS 731
88	87
Stahlbuche mit Bronzeplattierung Leader pin bushing, bronze plated	
C1: FS 641	C1: FS 632
C3: FS 631	C3: FS 631
71	72
Stahlbuche mit Ms-Käfig Leader pin bushing with ball cage	
C1: FS 458 + FS 425	C1: FS 453 + FS 425
C3: FS 457 + FS 425	C3: FS 457 + FS 425
91	92



Größe / Size	Abmessungen / Dimensions						Arbeitsflächen / Working area								Gewicht / Weight [kg]			
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			88 71 72			91 92						
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A				
631		33	28			160	130	-									33,7	
632	300																	
	X	48	38	23	24/25	190	150	-			182	42		170	30		43,1	
633	160																	
	X	48	48			200	150	140			160	300		160	300		46,9	
634		33	28			160	130	-									41,6	
635	300																	
	X	48	38	23	24/25	190	150	-			182	82		170	70		53,5	
636	200																	
	X	48	48			200	150	140			200	300		200	300		58,5	
637		38	33			170	140	-									61,5	
638	300																	
	X	48	38	28	30/32	190	150	-			158	108		142	92		70,5	
639	250																	
	X	48	48			200	150	140			250	300		250	300		76,0	
640		38	33			170	140	-									73,0	
641	300																	
	X	48	38	28	30/32	190	150	-			158	158		142	142		83,5	
642	300																	
	X	48	48			200	150	140			300	300		300	300		90,5	
643		33	28			160	130	-									48,2	
644	350																	
	X	48	38	23	24/25	190	150	-			232	82		220	70		62,0	
645	200																	
	X	48	48			200	150	140			200	350		200	350		67,5	
646		38	33			170	140	-									71,0	
647	350																	
	X	48	38	28	30/32	190	150	-			208	108		192	92		81,5	
648	250																	
	X	48	48			200	150	140			250	350		250	350		88,5	
649		38	33			170	140	-									85,0	
650	350																	
	X	48	38	28	30/32	190	150	-			208	158		192	142		97,0	
651	300																	
	X	48	48			200	150	140			300	350		300	350		105,0	
652		38	33			170	140	-									98,5	
653	350																	
	X	48	38	28	30/32	190	150	-			208	208		192	192		113,0	
654	350																	
	X	48	48			200	150	140			350	350		350	350		123,0	
655		33	28			160	130	-									55,0	
656	400																	
	X	48	38	23	24/25	190	150	-			282	82		270	70		70,5	
657	200																	
	X	48	48			200	150	130			200	400		200	400		77,0	
658		38	33			170	140	-									81,0	
659	400																	
	X	48	38	28	30/32	190	150	-			258	108		242	92		92,5	
660	250																	
	X	48	48			200	150	140			250	400		250	400		101,0	



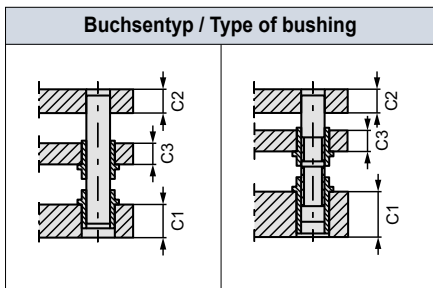
Säulengestelle aus Stahl, 3 Platten, 4 Säulen, Typ Q

Steel die sets, 3 plates, 4 posts, type Q

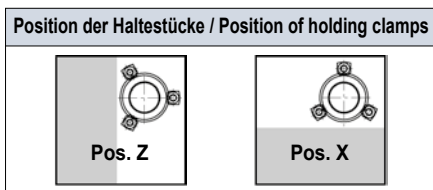
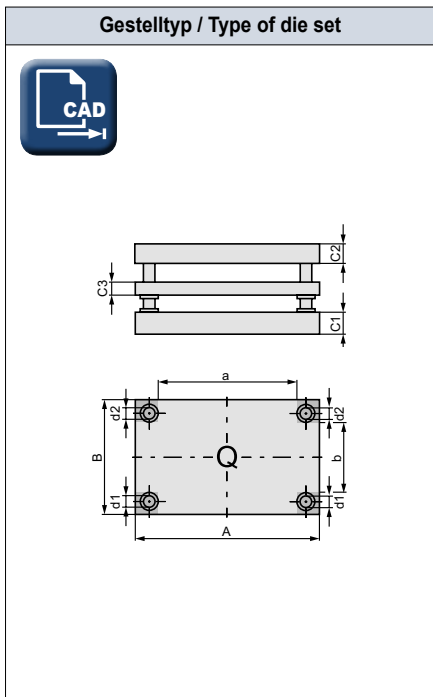
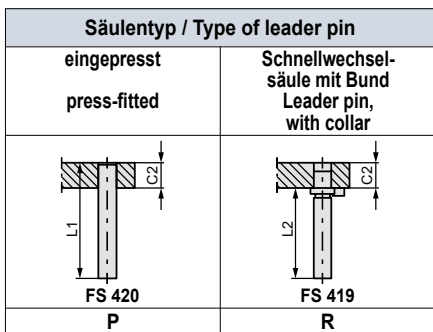


[SG]

SÄULENGESTELLE / DIE SETS

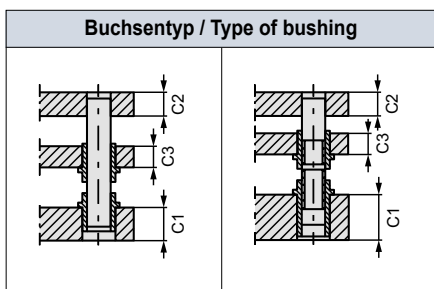


Sinterbuchse Leader pin bushing, sintered	
C1: FS 741 C3: FS 731 88	C1: FS 732 C3: FS 731 87
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated	
C1: FS 641 C3: FS 631 71	C1: FS 632 C3: FS 631 72
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage	
C1: FS 458 + FS 425 C3: FS 457 + FS 425 91	C1: FS 453 + FS 425 C3: FS 457 + FS 425 92

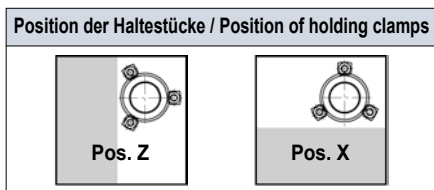
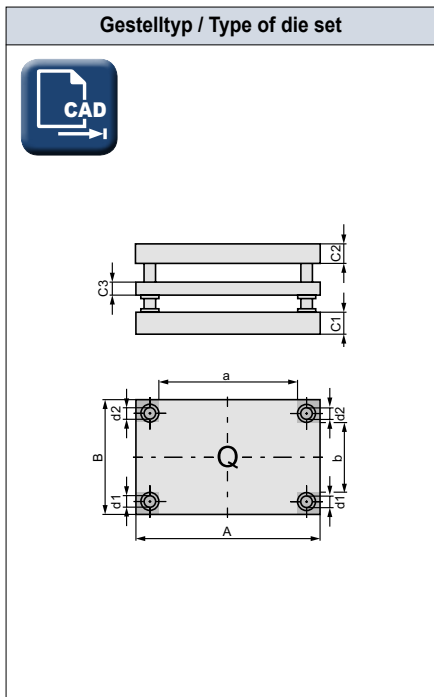
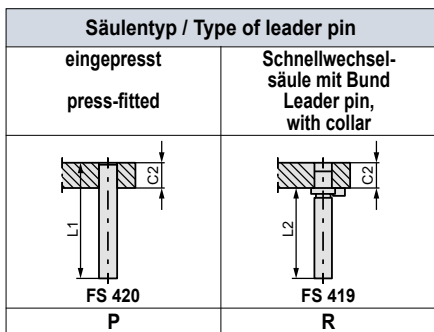


Größe / Size	Abmessungen / Dimensions							Arbeitsflächen / Working area									Gewicht / Weight [kg]
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			88 71 72			91 92					
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A			
661		48	38			200	160	-									118,0
662	400	58	48	33	40/42	220	170	-				238	138		222	122	137,0
	X											X	X		X	X	
	300	58	58			230	170	160				300	400		300	400	147,0
663																	
664		48	38			200	160	-									137,0
665	400	58	48	33	40/42	220	170	-				238	188		222	172	159,0
	X											X	X		X	X	
	350	58	58			230	170	160				350	400		350	400	170,0
666																	
667		48	38			200	160	-									156,0
668	400	58	48	33	40/42	220	170	-				238	238		222	222	181,0
	X											X	X		X	X	
	400	58	58			230	170	160				400	400		400	400	194,0
669																	
670		38	33			170	140	-									100,0
671	500	48	38	28	30/32	190	150	-				358	108		342	92	115,0
	X											X	X		X	X	
	250	48	48			200	150	140				250	500		250	500	125,0
672																	
673		48	38			200	160	-									146,0
674	500	58	48	33	40/42	220	170	-				338	138		322	122	170,0
	X											X	X		X	X	
	300	58	58			230	170	160				300	500		300	500	182,0
675																	
676		48	38			200	160	-									170,0
677	500	58	48	33	40/42	220	170	-				338	188		322	172	197,0
	X											X	X		X	X	
	350	58	58			230	170	160				350	500		350	500	211,0
678																	
679		48	38			200	160	-									193,0
680	500	58	48	33	40/42	220	170	-				338	238		322	222	225,0
	X											X	X		X	X	
	400	58	58			230	170	160				400	500		400	500	240,0
681																	
682		48	38			200	160	-									240,0
683	500	58	48	33	40/42	220	170	-				338	338		322	322	279,0
	X											X	X		X	X	
	500	58	58			230	170	160				500	500		500	500	299,0
684																	
685		48	38			200	160	-									174,0
686	600	58	48	33	40/42	220	170	-				438	138		422	122	203,0
	X											X	X		X	X	
	300	58	58			230	170	160				300	600		300	600	217,0
687																	
688		48	38			200	160	-									202,0
689	600	58	48	33	40/42	220	170	-				438	188		422	172	235,0
	X											X	X		X	X	
	350	58	58			230	170	160				350	600		350	600	252,0
690																	





Sinterbuche Leader pin bushing, sintered	
C1: FS 741	C1: FS 732
C3: FS 731	C3: FS 731
88	87
Stahlbuche mit Bronzeplattierung Leader pin bushing, bronze plated	
C1: FS 641	C1: FS 632
C3: FS 631	C3: FS 631
71	72
Stahlbuche mit Ms-Käfig Leader pin bushing with ball cage	
C1: FS 458 + FS 425	C1: FS 453 + FS 425
C3: FS 457 + FS 425	C3: FS 457 + FS 425
91	92

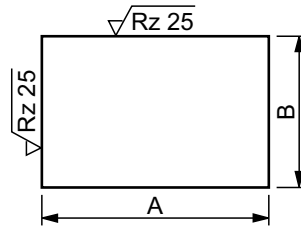


Größe / Size	Abmessungen / Dimensions						Arbeitsflächen / Working area								Gewicht / Weight [kg]			
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			88 71 72			91 92						
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A				
691		48	38			200	160	-									230,0	
692	600											438	238		422	222		268,0
	X	58	48	33	40/42	220	170	-				X	X		X	X		
693	400											400	600		400	600		287,0
	X	58	58			230	170	160										
694		58	48			230	180	-										348,0
695	600											406	306		390	290		395,0
	X	68	58	38	50/52	250	200	-				X	X		X	X		
696	500											500	600		500	600		419,0
	X	68	68			260	200	180										
697		58	48			230	180	-										416,0
698	600											406	406		390	390		473,0
	X	68	58	38	50/52	250	200	-				X	X		X	X		
699	600											600	600		600	600		501,0
	X	68	68			260	200	180										
700		48	38			200	160	-										235,0
701	700											538	188		522	172		274,0
	X	58	48	33	40/42	220	170	-				X	X		X	X		
702	350											350	700		350	700		293,0
	X	58	58			230	170	160										
703		58	48			230	180	-										326,0
704	700											506	206		490	190		370,0
	X	68	58	38	50/52	250	200	-				X	X		X	X		
705	400											400	700		400	700		392,0
	X	68	68			260	200	180										
706		58	48			230	180	-										405,0
707	700											506	306		490	290		460,0
	X	68	58	38	50/52	250	200	-				X	X		X	X		
708	500											500	700		500	700		487,0
	X	68	68			260	200	180										
709		58	48			230	180	-										484,0
710	700											506	406		490	390		540,0
	X	68	58	38	50/52	250	200	-				X	X		X	X		
711	600											600	700		600	700		583,0
	X	68	68			260	200	180										
712		58	48			230	180	-										371,0
713	800											606	206		590	190		421,0
	X	68	58	38	50/52	250	200	-				X	X		X	X		
714	400											400	800		400	800		447,0
	X	68	68			260	200	180										
715		58	48			230	180	-										461,0
716	800											606	306		590	290		524,0
	X	68	58	38	50/52	250	200	-				X	X		X	X		
717	500											500	800		500	800		556,0
	X	68	68			260	200	180										
718		58	48			230	180	-										552,0
719	800											606	406		590	390		627,0
	X	68	58	38	50/52	250	200	-				X	X		X	X		
720	600											600	800		600	800		665,0
	X	68	68			260	200	180										



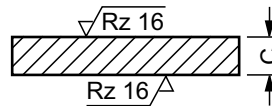
Mat.: C45

Toleranz Außenmaße /
Tolerance of length and width



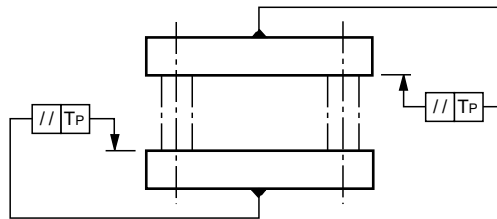
A x B +0,06
-0,06

Toleranz Plattenstärke /
Tolerance of thickness



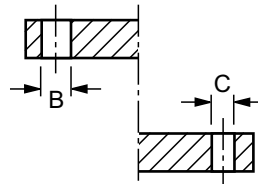
C ± 2

Parallelität der Flächenpaare /
Parallelism of two surfaces



TP = 0,012 / 100 mm

Bohrungstoleranzen /
Hole tolerances



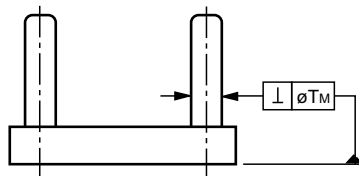
B = Aufnahmebohrung Buchse/ Mounting hole for bushing:

FS 4 .. = H6
FS 6 .. = H6

C = Aufnahmebohrung Säule/ Mounting hole for leader pin:

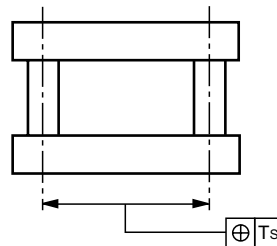
FS 320 = R7
FS 319 = JS6

Winkelgenauigkeit der Führungssäulen /
Angular accuracy of leader pins



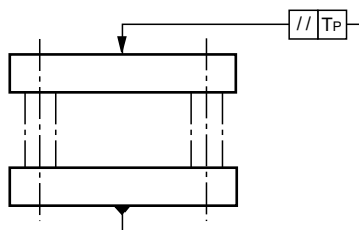
TM = 0,012 / 100 mm

Toleranz Systemabstände /
Tolerance of dimensions between leader-
pin (and bushing) - holes



Ts = ± 0,010

Planparallelität im
zusammengebauten Zustand /
Parallelism after mounting



TP = 0,015 / 100 mm

Bestellbeispiel / Order-example

2 C	343	IEP	141	Z
Gestelltyp Type of die set	Kataloggröße Catalog sizes	Säulentyp Type of leader pin	Buchsentyp Type of bushing	Position der Haltestücke Position of holding clamps

Gestelltyp / Type of die set

Position der Haltestücke / Position of holding clamps

Buchsentyp / Type of bushing

Stahlbuchse, RM-beschichtet
Leader pin bushing, RM plated

FS 330 RM	FS 340 RM	FS 350 RM
141	142	143

Stahlbuchse mit Bronzeplattierung
Leader pin bushing, bronze plated

FS 331	FS 351	FS 355
131	132	133

Stahlbuchse mit Ms-Käfig
Leader pin bushing with ball cage

FS 353 + FS 325	FS 357 + FS 325	FS 358 + FS 325
151	152	153

Säulentyp / Type of leader pin

eingepresst press-fitted	Schnellwechselsäule mit Bund Leader pin with collar
FS 320	FS 319
IEP	IER



Bestellbeispiel / Order-example

3 C	343	IEP	182	Z
Gestelltyp Type of die set	Kataloggröße Catalog sizes	Säulentyp Type of leader pin	Buchsentyp Type of bushing	Position der Haltestücke Position of holding clamps

Gestelltyp / Type of die set

Buchsentyp / Type of bushing

Stahlbuchse, RM-beschichtet Leader pin bushing, RM plated	
C1 = FS 440 RM C3 = FS 430 RM	C1 = FS 450 RM C3 = FS 430 RM
182	183
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated	
C1 = FS 651 C3 = FS 631	C1 = FS 655 C3 = FS 631
172	173
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage	
C1 = FS 458 + FS 425 C3 = FS 457 + FS 425	C1 = FS 453 + FS 425 C3 = FS 457 + FS 425
192	193

Säulentyp / Type of leader pin

eingepresst press-fitted	Schnellwechselsäule mit Bund Leader pin with collar
FS 420	FS 419
IEP	IER

Position der Haltestücke / Position of holding clamps



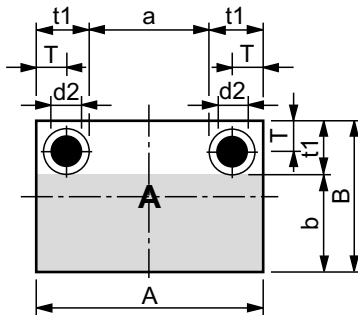
Position Position	Platten- maße Plate length and width	Platten- stärke Plate thickness			Säulentyp in C1 oder C2* Type of leader pin in C1 or C2*		Buchsentyp in C1 oder C2** Type of bushing in C1 or C2**		Buchsentyp in C3 Type of bushing in C3		Haltestück- position Position of holding clamps
		A x B	C1	C2	C3	FS ...	d1 x l	FS ...	d x l	FS ...	
Q	610 x 494	78	48	38	320	40/42 x 250	351	40/42 x 67	331	40/42 x 51	X

* = Säulentyp in C1 oder C2 bitte angeben. / Please fill in type of leader pin in C1 or C2.

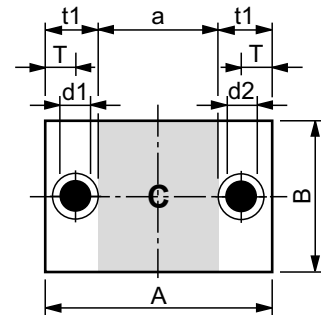
** = Buchsentyp in C1 oder C2 bitte angeben. / Please fill in type of bushing in C1 or C2.

Arbeitsflächen / Working areas

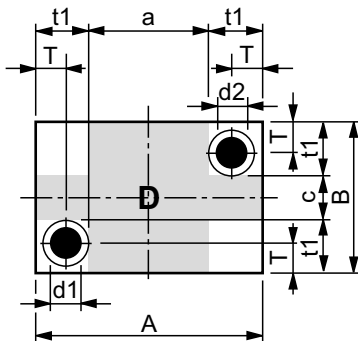
$b = B - t1$



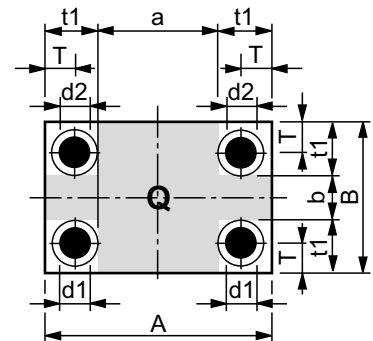
$a = A - (2 \times t1)$



$a = A - (2 \times t1)$
 $c = B - (2 \times t1)$

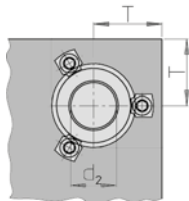


$a = A - (2 \times t1)$
 $b = B - (2 \times t1)$



Führungsbuchsen mit Bund

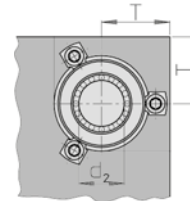
Leader pin bushings, with collar



d_1/d_2	T
19/20	35
24/25	40
30/32	43,5
38/40	51
48/50	57
60/63	68
80	76

Führungsbuchsen mit Bund
für Kugelführung

Leader pin bushings, with collar
for ball-bearings

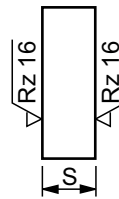
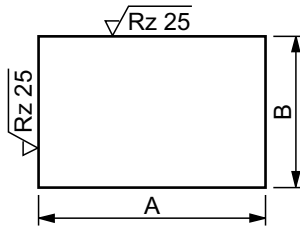


d_1/d_2	T
19/20	35
24/25	40
30/32	43,5
38/40	51
48/50	57
60/63	68
80	76



Mat.: C45

Toleranz Außenmaße /
Tolerance of length and width



A x B +0,06
-0,06

S ± 2

Parallelität S / Parallelism S: 0,012 / 100 mm

A x B	S							
	18	23	28	33	38	48	58	68
125 x 125	•	•	•		•			
160 x 125	•	•	•		•			
160 x 160	•	•	•		•			
200 x 125	•	•	•		•			
200 x 160	•	•	•	•	•	•		
200 x 200	•	•	•	•	•	•		
250 x 125	•	•	•	•	•	•		
250 x 160	•	•	•	•	•	•		
250 x 200		•	•	•	•	•		
250 x 250		•	•	•	•	•		
300 x 160		•	•	•	•	•		
300 x 200		•	•	•	•	•		
300 x 250			•	•	•	•		
300 x 300			•	•	•	•		
350 x 200		•	•	•	•	•		
350 x 250			•	•	•	•		
350 x 300			•	•	•	•	•	
350 x 350			•	•	•	•	•	
400 x 200		•	•	•	•	•		
400 x 250			•	•	•	•		
400 x 300				•	•	•	•	
400 x 350				•	•	•	•	
400 x 400				•	•	•	•	
500 x 250			•	•	•	•		
500 x 300				•	•	•	•	
500 x 350				•	•	•	•	
500 x 400				•	•	•	•	
500 x 500				•	•	•	•	•
600 x 300				•	•	•	•	•
600 x 350				•	•	•	•	•
600 x 400				•	•	•	•	•
600 x 500					•	•	•	•
600 x 600					•	•	•	•
700 x 350				•	•	•	•	•
700 x 400					•	•	•	•
700 x 500					•	•	•	•
700 x 600					•	•	•	•
800 x 400					•	•	•	•
800 x 500					•	•	•	•
800 x 600					•	•	•	•



Buchsentyp / Type of bushing		
Stahlbuchse, RM-beschichtet Leader pin bushing, RM plated		
FS 330 RM	FS 340 RM	FS 350 RM
141	142	143
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated		
FS 331	FS 351	FS 355
131	132	133
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage		
FS 353 + FS 325	FS 357 + FS 325	FS 358 + FS 325
151	152	153

Säulentyp / Type of leader pin	
eingepresst press-fitted	Schnellwechselsäule mit Bund Leader pin, with collar
FS 320	FS 319
IEP	IER

Gestelltyp / Type of die set	

Position der Haltestücke / Position of holding clamps	
Pos. Z	Pos. X

Größe / Size	Abmessungen / Dimensions							Arbeitsflächen / Working area									Gewicht / Weight [kg]						
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			141 131			142 132			143 133			151 152 153					
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A	a X B	b X A			c X A				
301		28	23	-		125	100	-															7,0
302	125	28	28	-	19/20	140	112	-				15	70	15							70		7,7
303	125	38	28	-		160	112	-				120	125	125							125		8,9
304		28	23	-		125	100	-															8,8
305	160	28	28	-	19/20	140	112	-				50	70	15							50	70	9,6
306	125	38	28	-		160	112	-				125	160	160							125	160	11,2
307		28	23	-		125	100	-															11,0
308	160	28	28	-	19/20	140	112	-				50	105	50							50	105	12,0
309	160	38	28	-		160	112	-				160	160	160							160	160	14,0
310		28	23	-		125	100	-															10,8
311	200	28	28	-	19/20	140	112	-				90	70	15							90	70	11,8
312	125	38	28	-		160	112	-				125	200	200							125	200	13,7
313		33	28	-		140	112	-															16,4
314	200	33	33	-	24/25	160	125	-				72	96	32							70	95	17,6
315	160	48	38	-		180	140	-				160	200	200							160	200	22,6
316		33	28	-		140	112	-															20,2
317	200	33	33	-	24/25	160	125	-				72	136	72							72	136	21,8
318	200	48	38	-		180	140	-				200	200	200							200	200	28,0
319		33	28	-		140	112	-															16,0
320	250	33	33	-	24/25	160	125	-				122	61								122	61	17,3
321	125	48	38	-		180	140	-				125	250								125	250	22,1
322		33	28	-		140	112	-															20,2
323	250	33	33	-	24/25	160	125	-				122	96	32							122	96	21,8
324	160	48	38	-		180	140	-				160	250	250							160	250	28,0
325		33	28	-		140	112	-															25,0
326	250	33	33	-	24/25	160	125	-				122	136	72							122	136	27,0
327	200	48	38	-		180	140	-				200	250	250							200	250	34,8
328		38	33	-		160	125	-															36,4
329	250	38	38	-	30/32	180	140	-				106	178	106							106	178	38,8
330	250	48	38	-		180	140	-				250	250	250							250	250	43,7



Buchsentyp / Type of bushing		
Stahlbuchse, RM-beschichtet Leader pin bushing, RM plated		
FS 330 RM	FS 340 RM	FS 350 RM
141	142	143
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated		
FS 331	FS 351	FS 355
131	132	133
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage		
FS 353 + FS 325	FS 357 + FS 325	FS 358 + FS 325
151	152	153

Säulentyp / Type of leader pin	
eingepresst press-fitted	Schnellwechselsäule mit Bund Leader pin, with collar
FS 320	FS 319
IEP	IER

Gestelltyp / Type of die set	

Position der Haltestücke / Position of holding clamps	
Pos. Z	Pos. X

Größe / Size	Abmessungen / Dimensions						Arbeitsflächen / Working area									Gewicht / Weight [kg]				
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			141 131			142 132			143 133			151 152 153		
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A	a X B		b X A		c X A	
331		33	28	-		140	112	-												24,0
332	300	33	33	-	24/25	160	126	-					172	96	32	172	96	32		25,9
	X	33	33	-									X	X	X	X	X	X		
	160												160	300	300	160	300	300		33,4
333		48	38	-		180	140	-												
334		33	28	-		140	112	-												29,8
335	300	33	33	-	24/25	160	125	-					172	136	72	172	136	72		32,1
	X	33	33	-									X	X	X	X	X	X		
	200												200	300	300	200	300	300		41,5
336		48	38	-		180	140	-												
337		38	33	-		160	125	-												43,3
338	300	38	38	-	30/32	180	140	-					156	178	106	156	178	106		46,3
	X	38	38	-									X	X	X	X	X	X		
	250												250	300	300	250	300	300		52,5
339		48	38	-		180	140	-												
340		38	33	-		160	125	-												52,0
341	300	38	38	-	30/32	180	140	-					156	228	156	156	228	156		55,5
	X	38	38	-									X	X	X	X	X	X		
	300												300	300	300	300	300	300		62,5
342		48	38	-		180	140	-												
343		33	28	-		140	112	-												34,6
344	350	33	33	-	24/25	160	125	-					222	136	72	222	136	72		37,3
	X	33	33	-									X	X	X	X	X	X		
	200												200	350	350	200	350	350		48,3
345		48	38	-		180	140	-												
346		38	33	-		160	125	-												50,5
347	350	38	38	-	30/32	180	140	-					206	178	106	206	178	106		54,0
	X	38	38	-									X	X	X	X	X	X		
	250												250	350	350	250	350	350		61,0
348		48	38	-		180	140	-												
349		48	38	-		180	140	-												74,0
350	350	48	48	-	38/40	200	160	-					182	216	132	182	216	132		82,5
	X	48	48	-									X	X	X	X	X	X		
	300												300	350	350	300	350	350		90,5
351		58	48	-		224	160	-												
352		48	38	-		180	140	-												86,0
353	350	48	48	-	38/40	200	160	-					182	266	182	182	266	182		95,5
	X	48	48	-									X	X	X	X	X	X		
	350												350	350	350	350	350	350		105,0
354		58	48	-		224	160	-												
355		33	28	-		140	112	-												39,4
356	400	33	33	-	24/25	160	125	-					272	136	72	272	136	72		42,5
	X	33	33	-									X	X	X	X	X	X		
	200												200	400	400	200	400	400		55,0
357		48	38	-		180	140	-												
358		38	33	-		160	125	-												57,5
359	400	38	38	-	30/32	180	140	-					256	178	106	256	178	106		61,5
	X	38	38	-									X	X	X	X	X	X		
	250												250	400	400	250	400	400		69,0
360		48	38	-		180	140	-												

Buchsentyp / Type of bushing		
Stahlbuchse, RM-beschichtet Leader pin bushing, RM plated		
FS 330 RM	FS 340 RM	FS 350 RM
141	142	143
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated		
FS 331	FS 351	FS 355
131	132	133
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage		
FS 353 + FS 325	FS 357 + FS 325	FS 358 + FS 325
151	152	153


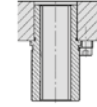
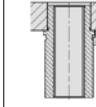

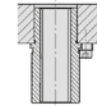
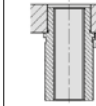

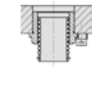
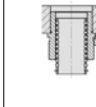
Säulentyp / Type of leader pin	
eingepresst press-fitted	Schnellwechselsäule mit Bund Leader pin, with collar
FS 320	FS 319
IEP	IER

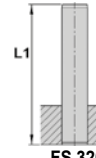
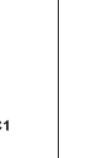
Gestelltyp / Type of die set	


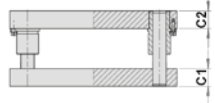
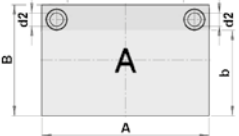
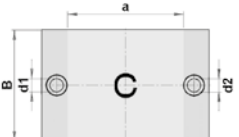
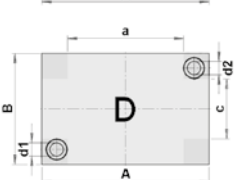
Position der Haltestücke / Position of holding clamps	
Pos. Z	Pos. X

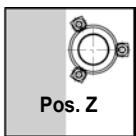
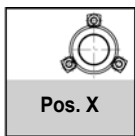
Größe / Size	Abmessungen / Dimensions								Arbeitsflächen / Working area									Gewicht / Weight [kg]					
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			141 131			142 132			143 133				151 152 153				
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A	a X B	b X A	c X A						
361		48	38	-		180	140	-															84,0
362	400	48	48	-	38/40	200	160	-				232	216	132	232	216	132						93,5
	X											X	X	X	X	X	X						
	300											300	400	400	300	400	400						
363		58	48	-		224	160	-															103,0
364		48	38	-		180	140	-															97,5
365	400	48	48	-	38/40	200	160	-				232	266	182	232	266	182						109,0
	X											X	X	X	X	X	X						
	350											350	400	400	350	400	400						
366		58	48	-		224	160	-															120,0
367		48	38	-		180	140	-															111,0
368	400	48	48	-	38/40	200	160	-				232	316	232	232	316	232						124,0
	X											X	X	X	X	X	X						
	400											400	400	400	400	400	400						
369		58	48	-		224	160	-															137,0
370		38	33	-		160	125	-															73,0
371	500	38	38	-	30/32	180	140	-				356	178	106	356	178	106						78,0
	X											X	X	X	X	X	X						
	250											250	500	500	250	500	500						
372		48	38	-		180	140	-															87,5
373		48	38	-		180	140	-															105,0
374	500	48	48	-	38/40	200	160	-				332	216	132	332	216	132						116,0
	X											X	X	X	X	X	X						
	300											300	500	500	300	500	500						
375		58	48	-		224	160	-															128,0
376		48	38	-		180	140	-															122,0
377	500	48	48	-	38/40	200	160	-				332	266	182	332	266	182						135,0
	X											X	X	X	X	X	X						
	350											350	500	500	350	500	500						
378		58	48	-		224	160	-															149,0
379		48	38	-		180	140	-															138,0
380	500	48	48	-	38/40	200	160	-				332	316	232	332	316	232						154,0
	X											X	X	X	X	X	X						
	400											400	500	500	400	500	500						
381		58	48	-		224	160	-															170,0
382		58	48	-		224	160	-															213,0
383	500	58	58	-	48/50	250	180	-				306	403	306	306	403	306						233,0
	X											X	X	X	X	X	X						
	500											500	500	500	500	500	500						
384		68	58	-		250	180	-															252,0
385		58	48	-		224	160	-															155,0
386	600	58	58	-	48/50	250	180	-				406	203	106	406	203	106						169,0
	X											X	X	X	X	X	X						
	300											300	600	600	300	600	600						
387		68	58	-		250	180	-															183,0
388		58	48	-		224	160	-															180,0
389	600	58	58	-	48/50	250	180	-				406	253	156	406	253	156						196,0
	X											X	X	X	X	X	X						
	350											350	600	600	350	600	600						
390		68	58	-		250	180	-															213,0



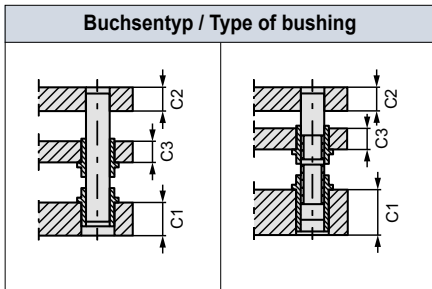
Buchsentyp / Type of bushing		
Stahlbuchse, RM-beschichtet Leader pin bushing, RM plated		
		
FS 330 RM	FS 340 RM	FS 350 RM
141	142	143
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated		
		
FS 331	FS 351	FS 355
131	132	133
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage		
		
FS 353 + FS 325	FS 357 + FS 325	FS 358 + FS 325
151	152	153

Säulentyp / Type of leader pin	
eingepresst press-fitted	Schnellwechselsäule mit Bund Leader pin, with collar
	
FS 320	FS 319
IEP	IER

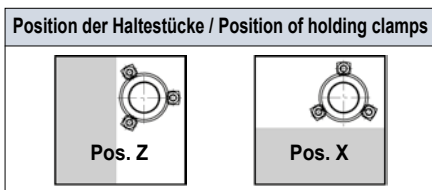
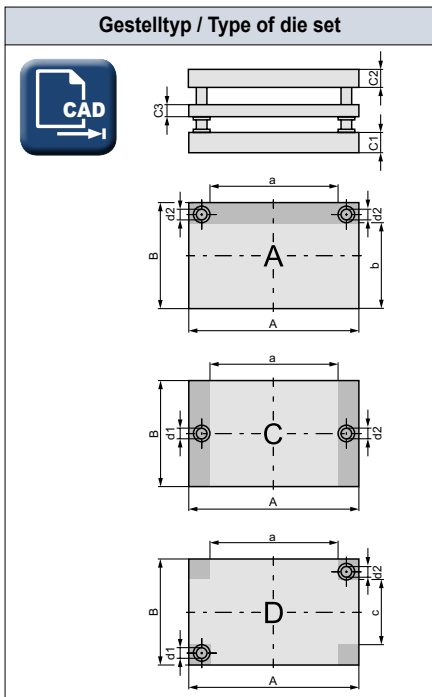
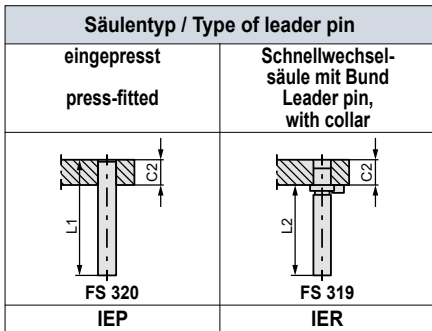
Gestelltyp / Type of die set	
	
	
	

Position der Haltestücke / Position of holding clamps	
	
Pos. Z	Pos. X

Größe / Size	Abmessungen / Dimensions							Arbeitsflächen / Working area									Gewicht / Weight [kg]				
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			141 131			142 132			143 133			151 152 153			
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A	a X B	b X A			c X A		
391		58	48	-		224	180	-													205,0
392	600	58	48	-	48/50	224	180	-													224,0
	X	58	58	-		250	180	-													
	400	68	58	-		250	180	-													242,0
393		68	58	-		250	180	-													
394		58	48	-		224	160	-													254,0
395	600	58	48	-	48/50	224	160	-													278,0
	X	58	58	-		250	180	-													
	500	68	58	-		250	180	-													302,0
396		68	58	-		250	180	-													
397		58	48	-		224	160	-													305,0
398	600	58	48	-	48/50	224	160	-													333,0
	X	58	58	-		234	180	-													
	600	68	58	-		250	180	-													361,0
399		68	58	-		250	180	-													
400		58	48	-		224	160	-													209,0
401	700	58	48	-	48/50	224	160	-													228,0
	X	58	58	-		250	180	-													
	350	68	58	-		250	180	-													247,0
402		68	58	-		250	180	-													
403		58	48	-		224	160	-													238,0
404	700	58	48	-	48/50	224	160	-													260,0
	X	58	58	-		250	180	-													
	400	68	58	-		250	180	-													282,0
405		68	58	-		250	180	-													
406		58	48	-		224	160	-													296,0
407	700	58	48	-	48/50	224	160	-													324,0
	X	58	58	-		250	180	-													
	500	68	58	-		250	180	-													351,0
408		68	58	-		250	180	-													
409		58	48	-		224	160	-													354,0
410	700	58	48	-	48/50	224	160	-													388,0
	X	58	58	-		250	180	-													
	600	68	58	-		250	180	-													420,0
411		68	58	-		250	180	-													
412		58	48	-		224	160	-													271,0
413	800	58	48	-	48/50	224	160	-													296,0
	X	58	58	-		250	180	-													
	400	68	58	-		250	180	-													321,0
414		68	58	-		250	180	-													
415		58	48	-		224	160	-													338,0
416	800	58	48	-	48/50	224	160	-													369,0
	X	58	58	-		250	180	-													
	500	68	58	-		250	180	-													400,0
417		68	58	-		250	180	-													
418		58	48	-		224	160	-													404,0
419	800	58	48	-	48/50	224	160	-													442,0
	X	58	58	-		250	180	-													
	600	68	58	-		250	180	-													480,0
420		68	58	-		250	180	-													

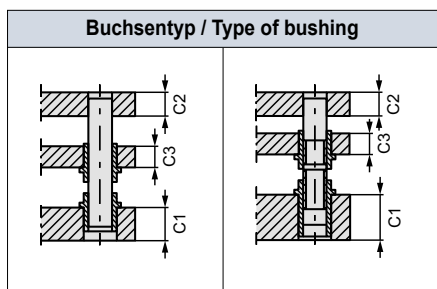


Stahlbuchse, RM-beschichtet Leader pin bushing, RM plated	
C1: FS 440 RM	C1: FS 450 RM
C3: FS 430 RM	C3: FS 430 RM
182	183
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated	
C1: FS 651	C1: FS 655
C3: FS 631	C3: FS 631
172	173
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage	
C1: FS 458 + FS 425	C1: FS 453 + FS 425
C3: FS 457 + FS 425	C3: FS 457 + FS 425
192	193

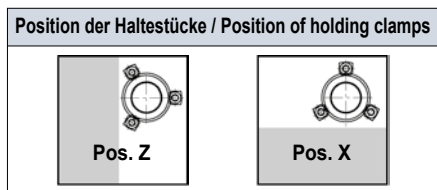
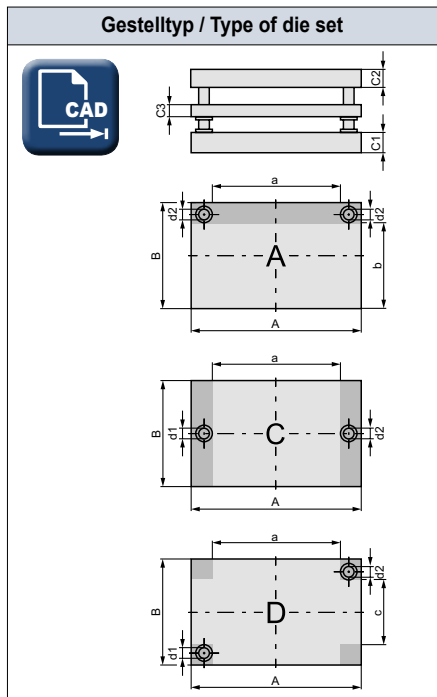
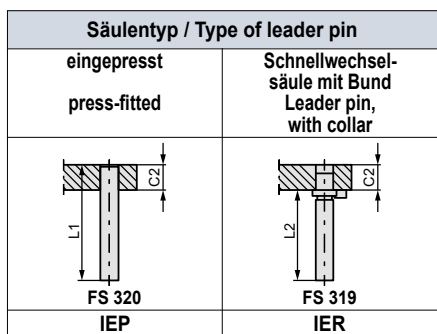


Größe / Size	Abmessungen / Dimensions								Arbeitsflächen / Working area						Gewicht / Weight [kg]					
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			182 172			183 173				192 193				
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A		a X B	b X A	c X A		
301		28	23			140	125	-											9,4	
302	125																			
	X	38	28	23	19/20	160	140	-				15	70	15	15	70	15		11,2	
	125											125	125	125	125	125	125			
303		38	38			180	140	-											12,4	
304		28	23			140	125	-											11,7	
305	160																			
	X	38	28	23	19/20	160	140	-				50	70	15	50	70	15		14,2	
	125											125	160	160	125	160	160			
306		38	38			180	140	-											15,8	
307		28	23			140	125	-											14,8	
308	160																			
	X	38	28	23	19/20	160	140	-				50	105	50	50	105	50		17,8	
	160											160	160	160	160	160	160			
309		38	38			180	140	-											19,8	
310		28	23			140	125	-											14,4	
311	200																			
	X	38	28	23	19/20	160	140	-				90	70	15	90	70	15		17,4	
	125											125	200	200	125	200	200			
312		38	38			180	140	-											19,4	
313		33	28			160	125	-											22,3	
314	200																			
	X	48	38	23	24/25	180	160	-				72	96	32	72	96	32		28,4	
	160											160	200	200	160	200	200			
315		48	48			200	160	-											30,9	
316		33	28			160	125	-											27,5	
317	200																			
	X	48	38	23	24/25	180	160	-				72	136	72	72	136	72		35,2	
	200											200	200	200	200	200	200			
318		48	48			200	160	-											38,4	
319		33	28			160	125	-											21,8	
320	250																			
	X	48	38	23	24/25	180	160	-				122	61		122	61			27,8	
	125											125	250		125	250				
321		48	48			200	160	-											30,2	
322		33	28			160	125	-											27,5	
323	250																			
	X	48	38	23	24/25	180	160	-				122	96	32	122	96	32		35,2	
	160											160	250	250	160	250	250			
324		48	48			200	160	-											38,4	
325		33	28			160	125	-											34,2	
326	250																			
	X	48	38	23	24/25	180	160	-				122	136	72	122	136	72		43,8	
	200											200	250	250	200	250	250			
327		48	48			200	160	-											47,7	
328		38	33			180	125	-											50,5	
329	250																			
	X	48	38	33	30/32	200	160	-				106	178	106	106	178	106		57,5	
	250											250	250	250	250	250	250			
330		48	48			200	160	-											62,5	

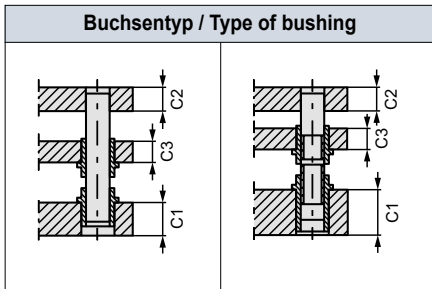




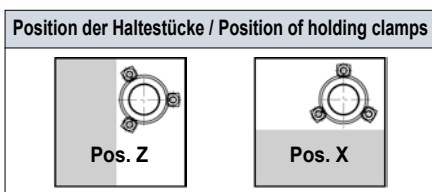
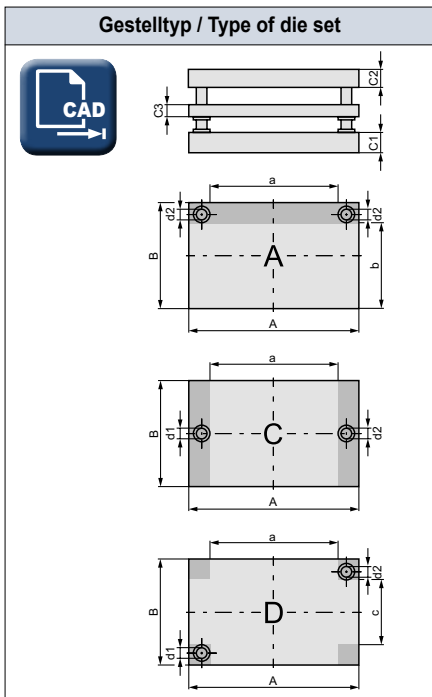
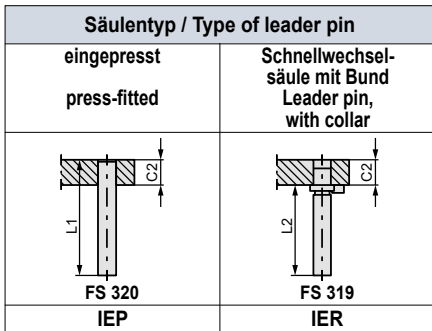
Stahlbuchse, RM-beschichtet Leader pin bushing, RM plated	
C1: FS 440 RM	C1: FS 450 RM
C3: FS 430 RM	C3: FS 430 RM
182	183
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated	
C1: FS 651	C1: FS 655
C3: FS 631	C3: FS 631
172	173
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage	
C1: FS 458 + FS 425	C1: FS 453 + FS 425
C3: FS 457 + FS 425	C3: FS 457 + FS 425
192	193



Größe / Size	Abmessungen / Dimensions							Arbeitsflächen / Working area						Gewicht / Weight [kg]								
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			182 172			183 173			192			193				
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A		c X A	a X B	b X A	c X A				
331		33	28			160	125	-													32,8	
332	300																					
	X	48	38	23	24/25	180	160	-				172	96	32	172	96	32					42,1
	160											160	300	300	160	300	300					
333		48	48			200	160	-														45,9
334	300																					
	X	33	28			160	125	-														
335	300																					
	X	48	38	23	24/25	180	160	-				172	136	72	172	136	72					40,7
	200											200	300	300	200	300	300					52,5
336		48	48			200	160	-														57,5
337	300																					
	X	38	33			180	140	-														
338	300																					
	X	48	38	33	30/32	200	160	-				156	178	106	156	178	106					60,0
	250											250	300	300	250	300	300					69,0
339		48	48			200	160	-														74,5
340	300																					
	X	38	33			180	140	-														
341	300																					
	X	48	38	33	30/32	200	160	-				156	228	156	156	228	156					71,5
	300											300	300	300	300	300	300					82,5
342		48	48			200	160	-														89,5
343	350																					
	X	33	28			160	125	-														
344	350																					
	X	48	38	23	24/25	180	160	-				222	136	72	222	136	72					47,3
	200											200	350	350	200	350	350					60,5
345		48	48			200	160	-														66,5
346	350																					
	X	38	33			180	140	-														
347	350																					
	X	48	38	33	30/32	200	160	-				206	178	106	206	178	106					69,5
	250											250	350	350	250	350	350					80,0
348		48	48			200	160	-														87,0
349	350																					
	X	48	38			200	160	-														
350	350																					
	X	58	48	38	38/40	224	180	-				182	216	132	182	216	132					101,0
	300											300	350	350	300	350	350					118,0
351		58	58			250	180	-														126,0
352	350																					
	X	48	38			200	160	-														
353	350																					
	X	58	48	38	38/40	224	180	-				182	266	182	182	266	182					118,0
	350											350	350	350	350	350	350					137,0
354		58	58			250	180	-														147,0
355	400																					
	X	33	28			160	125	-														
356	400																					
	X	48	38	23	24/25	180	160	-				272	136	72	272	136	72					54,0
	200											200	400	400	200	400	400					69,5
357		48	48			200	160	-														75,0
358	400																					
	X	38	33			180	125	-														
359	400																					
	X	48	38	33	30/32	200	160	-				256	178	106	256	178	106					79,5
	250											250	400	400	250	400	400					91,0
360		48	48			200	160	-														99,0

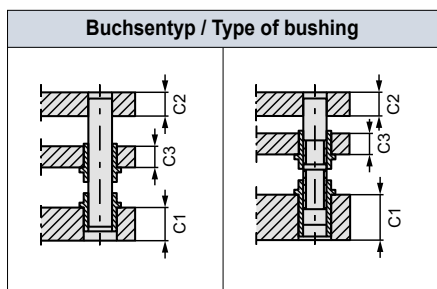


Stahlbuchse, RM-beschichtet Leader pin bushing, RM plated	
C1: FS 440 RM	C1: FS 450 RM
C3: FS 430 RM	C3: FS 430 RM
182	183
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated	
C1: FS 651	C1: FS 655
C3: FS 631	C3: FS 631
172	173
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage	
C1: FS 458 + FS 425	C1: FS 453 + FS 425
C3: FS 457 + FS 425	C3: FS 457 + FS 425
192	193

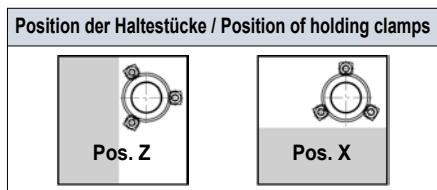
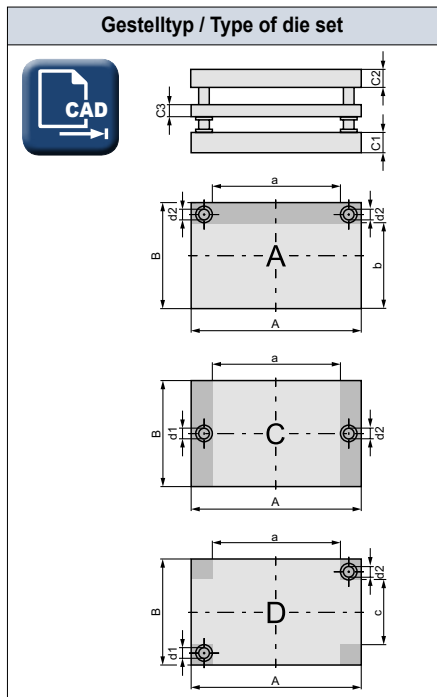
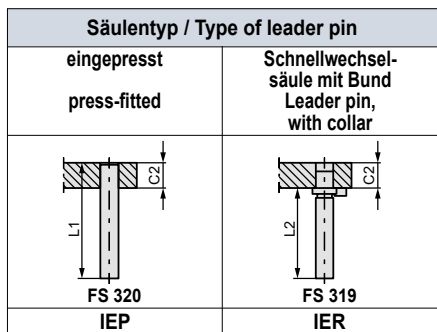


Größe / Size	Abmessungen / Dimensions								Arbeitsflächen / Working area						Gewicht / Weight [kg]					
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			182 172			183 173				192 193				
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A		a X B	b X A	c X A		
361		48	38			200	160	-											115,0	
362	400																			
	X	58	48	38	38/40	224	180	-				232	216	132	232	216	132		134,0	
300												300	400	400	300	400	400			
363		58	58			250	180	-											144,0	
364		48	38			200	160	-											134,0	
365	400																			
	X	58	48	38	38/40	224	180	-				232	266	182	232	266	182		156,0	
350												350	400	400	350	400	400		167,0	
366		58	58			250	180	-											167,0	
367		48	38			200	160	-											153,0	
368	400																			
	X	58	48	38	38/40	224	180	-				232	316	232	232	316	232		178,0	
400												400	400	400	400	400	400		190,0	
369		58	58			250	180	-											190,0	
370		38	33			180	140	-											99,0	
371	500																			
	X	48	38	33	30/32	200	160	-				356	178	106	356	178	106		114,0	
250												250	500	500	250	500	500		124,0	
372		48	48			200	160	-											124,0	
373		48	38			200	160	-											143,0	
374	500																			
	X	58	48	38	38/40	224	180	-				332	216	132	332	216	132		167,0	
300												300	500	500	300	500	500		179,0	
375		58	58			250	180	-											179,0	
376		48	38			200	160	-											167,0	
377	500																			
	X	58	48	38	38/40	224	180	-				332	266	182	332	266	182		194,0	
350												350	500	500	350	500	500		208,0	
378		58	58			250	180	-											208,0	
379		48	38			200	160	-											190,0	
380	500																			
	X	58	48	38	38/40	224	180	-				332	316	232	332	316	232		222,0	
400												400	500	500	400	500	500		237,0	
381		58	58			250	180	-											237,0	
382		58	48			224	180	-											287,0	
383	500																			
	X	68	58	48	48/50	250	200	-				306	403	306	306	403	306		327,0	
500												500	500	500	500	500	500		346,0	
384		68	68			280	200	-											346,0	
385		58	48			224	180	-											208,0	
386	600																			
	X	68	58	48	48/50	250	200	-				406	203	106	406	203	106		237,0	
300												300	600	600	300	600	600		251,0	
387		68	68			280	200	-											251,0	
388		58	48			224	180	-											242,0	
389	600																			
	X	68	58	48	48/50	250	200	-				406	253	156	406	253	156		275,0	
350												350	600	600	350	600	600		292,0	
390		68	68			280	200	-											292,0	












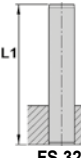
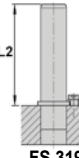



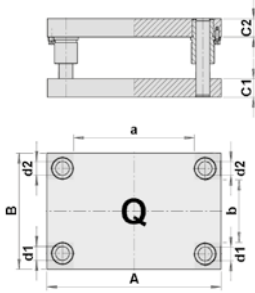
Stahlbuchse, RM-beschichtet Leader pin bushing, RM plated	
C1: FS 440 RM	C1: FS 450 RM
C3: FS 430 RM	C3: FS 430 RM
182	183
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated	
C1: FS 651	C1: FS 655
C3: FS 631	C3: FS 631
172	173
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage	
C1: FS 458 + FS 425	C1: FS 453 + FS 425
C3: FS 457 + FS 425	C3: FS 457 + FS 425
192	193

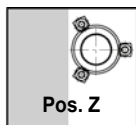
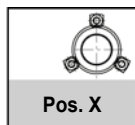


Größe / Size	Abmessungen / Dimensions							Arbeitsflächen / Working area									Gewicht / Weight [kg]	
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			182 172			183 173			192 193			
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A	a X B	b X A		c X A
391		58	48			224	180	-				406	303	206	406	303	206	276,0
392	600	68	58	48	48/50	250	200	-				X	X	X	X	X	X	314,0
	X																	
	400	68	68			280	200	-				400	600	600	400	600	600	333,0
393																		
394		58	48			224	180	-										344,0
395	600	68	58	48	48/50	250	200	-				406	403	306	406	403	306	391,0
	X											X	X	X	X	X	X	
	500	68	68			280	200	-				500	600	600	500	600	600	415,0
396																		
397		58	48			224	180	-										412,0
398	600	68	58	48	48/50	250	200	-				406	503	406	406	503	406	468,0
	X											X	X	X	X	X	X	
	600	68	68			280	200	-				600	600	600	600	600	600	497,0
399																		
400		58	48			224	180	-										282,0
401	700	68	58	48	48/50	250	200	-				506	253	156	506	253	156	320,0
	X											X	X	X	X	X	X	
	350	68	68			280	200	-				350	700	700	350	700	700	340,0
402																		
403		58	48			224	180	-										321,0
404	700	68	58	48	48/50	250	200	-				506	303	206	506	303	206	365,0
	X											X	X	X	X	X	X	
	400	68	68			280	200	-				400	700	700	400	700	700	387,0
405																		
406		58	48			224	180	-										400,0
407	700	68	58	48	48/50	250	200	-				506	403	306	506	403	306	455,0
	X											X	X	X	X	X	X	
	500	68	68			280	200	-				500	700	700	500	700	700	483,0
408																		
409		58	48			224	180	-										480,0
410	700	68	58	48	48/50	250	200	-				506	503	406	506	503	406	545,0
	X											X	X	X	X	X	X	
	600	68	68			280	200	-				600	700	700	600	700	700	579,0
411																		
412		58	48			224	180	-										366,0
413	800	68	58	48	48/50	250	200	-				606	303	206	606	303	206	417,0
	X											X	X	X	X	X	X	
	400	68	68			280	200	-				400	800	800	400	800	800	442,0
414																		
415		58	48			224	180	-										457,0
416	800	68	58	48	48/50	250	200	-				606	403	306	606	403	306	520,0
	X											X	X	X	X	X	X	
	500	68	68			280	200	-				500	800	800	500	800	800	551,0
417																		
418		58	48			224	180	-										547,0
419	800	68	58	48	48/50	250	200	-				606	503	406	606	503	406	623,0
	X											X	X	X	X	X	X	
	600	68	68			280	200	-				600	800	800	600	800	800	661,0
420																		

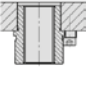
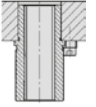
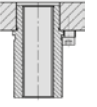
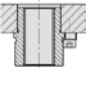
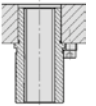
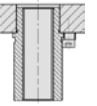
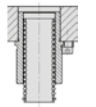
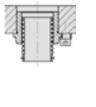
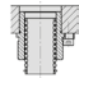
Buchsentyp / Type of bushing		
Stahlbuchse, RM-beschichtet Leader pin bushing, RM plated		
		
FS 330 RM	FS 340 RM	FS 350 RM
141	142	143
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated		
		
FS 331	FS 351	FS 355
131	132	133
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage		
		
FS 353 + FS 325	FS 357 + FS 325	FS 358 + FS 325
151	152	153

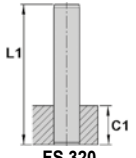
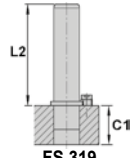
Säulentyp / Type of leader pin	
eingepresst press-fitted	Schnellwechselsäule mit Bund Leader pin, with collar
	
FS 320	FS 319
IEP	IER


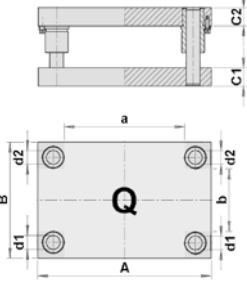
Gestelltyp / Type of die set



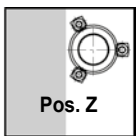
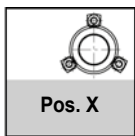
Position der Haltestücke / Position of holding clamps	
	
Pos. Z	Pos. X

Größe / Size	Abmessungen / Dimensions							Arbeitsflächen / Working area									Gewicht / Weight [kg]						
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			141 131			142 132			143 133			151 152 153					
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A	a X B	b X A			c X A				
301		28	23	-		125	100	-															7,8
302	125 X 125	28	28	-	19/20	140	112	-				15 X 125	15 X 125										8,4
303		38	28	-		160	112	-															9,7
304		28	23	-		125	100	-															9,5
305	160 X 125	28	28	-	19/20	140	112	-				50 X 125	15 X 160			50 X 125							10,4
306		38	28	-		150	112	-															11,9
307		28	23	-		125	100	-															11,9
308	160 X 160	28	28	-	19/20	140	112	-				50 X 160	50 X 160			50 X 160	50 X 160						12,8
309		38	28	-		160	112	-															14,8
310		28	23	-		125	100	-															11,5
311	200 X 125	28	28	-	19/20	140	112	-				90 X 125	15 X 200			90 X 125							12,5
312		38	28	-		160	112	-															14,5
313		28	23	-		125	100	-															14,3
314	200 X 160	28	28	-	19/20	140	112	-				90 X 160	50 X 200			90 X 160	50 X 200						15,6
315		38	28	-		160	112	-															18,1
316		28	23	-		125	100	-															17,5
317	200 X 200	28	28	-	19/20	140	112	-				90 X 200	90 X 200			90 X 200	90 X 200						19,1
318		38	28	-		160	112	-															22,3
319		28	23	-		125	100	-															14,0
320	250 X 125	28	28	-	19/20	140	112	-				140 X 125	15 X 250			140 X 125							15,3
321		38	28	-		160	112	-															17,7
322		28	23	-		125	100	-															17,5
323	250 X 160	28	28	-	19/20	140	112	-				140 X 160	50 X 250			140 X 160	50 X 250						19,1
324		38	28	-		160	112	-															22,3
325		33	28	-		160	112	-															26,0
326	250 X 200	33	33	-	24/25	160	125	-				122 X 200	72 X 250			122 X 200	70 X 250						27,9
327		48	38	-		180	140	-															35,8
328		33	28	-		160	112	-															32,0
329	250 X 250	33	33	-	24/25	160	125	-				122 X 250	122 X 250			122 X 250	120 X 250						34,4
330		48	38	-		180	140	-															44,2










Buchsentyp / Type of bushing		
Stahlbuchse, RM-beschichtet Leader pin bushing, RM plated		
		
FS 330 RM	FS 340 RM	FS 350 RM
141	142	143
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated		
		
FS 331	FS 351	FS 355
131	132	133
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage		
		
FS 353 + FS 325	FS 357 + FS 325	FS 358 + FS 325
151	152	153

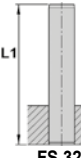
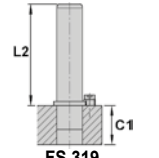
Säulentyp / Type of leader pin	
eingepresst press-fitted	Schnellwechselsäule mit Bund Leader pin, with collar
	
FS 320	FS 319
IEP	IER


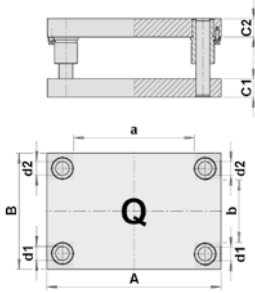
Gestelltyp / Type of die set



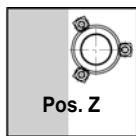
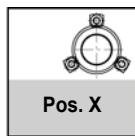
Position der Haltestücke / Position of holding clamps	
	
Pos. Z	Pos. X

Größe / Size	Abmessungen / Dimensions						Arbeitsflächen / Working area									Gewicht / Weight [kg]								
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			141 131			142 132			143 133			151 152			153			
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A	a X B		b X A	c X A	a X B	b X A	c X A			
331		33	28	-		160	112	-															25,0	
332	300	33	33	-	24/25	160	125	-				172	32				172	32					26,9	
	X	33	33	-								X	X			X	X							
	160	48	38	-		180	140	-				160	300			160	300						34,4	
333		48	38	-		180	140	-																
334		33	28	-		160	112	-															30,8	
335	300	33	33	-	24/25	160	125	-				172	72			172	72						33,1	
	X	33	33	-								X	X			X	X							
	200	48	38	-		180	140	-				200	300			200	300						42,5	
336		48	38	-		180	140	-																
337		38	33	-		160	125	-															44,8	
338	300	38	33	-		160	125	-				156	106			156	106						47,8	
	X	38	38	-	30/32	180	140	-				X	X			X	X							
	250	48	38	-		180	140	-				250	300			250	300						54,0	
339		48	38	-		180	140	-																
340		38	33	-		160	125	-															53,5	
341	300	38	38	-	30/32	180	140	-				156	156			156	156						57,0	
	X	38	38	-								X	X			X	X							
	300	48	38	-		180	130	-				300	300			300	300						64,0	
342		48	38	-		180	130	-																
343		33	28	-		160	112	-															35,6	
344	350	33	33	-	24/25	160	125	-				222	72			222	72						38,3	
	X	33	33	-								X	X			X	X							
	200	48	38	-		180	140	-				200	350			200	350						49,3	
345		48	38	-		180	140	-																
346		38	33	-		160	125	-															52,5	
347	350	38	38	-	30/32	180	140	-				206	106			206	106						55,5	
	X	38	38	-								X	X			X	X							
	250	48	38	-		180	140	-				250	350			250	350						62,0	
348		48	38	-		180	140	-																
349		38	33	-		160	125	-															61,5	
350	350	38	38	-	30/32	180	140	-				206	206			206	206						66,0	
	X	38	38	-								X	X			X	X							
	300	48	38	-		180	140	-				300	350			300	350						74,0	
351		48	38	-		180	140	-																
352		38	33	-		160	125	-															71,5	
353	350	38	38	-	30/32	180	140	-				206	206			206	206						76,5	
	X	38	38	-								X	X			X	X							
	350	48	38	-		180	140	-				350	350			350	350						86,0	
354		48	38	-		180	140	-																
355		33	28	-		160	112	-															40,4	
356	400	33	33	-	24/25	160	125	-				272	72			272	72						43,5	
	X	33	33	-								X	X			X	X							
	200	48	38	-		180	140	-				200	400			200	400						56,0	
357		48	38	-		180	140	-																
358		38	33	-		160	125	-															59,0	
359	400	38	38	-	30/32	180	140	-				256	106			256	106						63,0	
	X	38	38	-								X	X			X	X							
	250	48	38	-		180	140	-				250	400			250	400						70,5	
360		48	38	-		180	140	-																

Buchsentyp / Type of bushing		
Stahlbuchse, RM-beschichtet Leader pin bushing, RM plated		
		
FS 330 RM	FS 340 RM	FS 350 RM
141	142	143
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated		
		
FS 331	FS 351	FS 355
131	132	133
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage		
		
FS 353 + FS 325	FS 357 + FS 325	FS 358 + FS 325
151	152	153










Säulentyp / Type of leader pin	
eingepresst press-fitted	Schnellwechselsäule mit Bund Leader pin, with collar
	
FS 320	FS 319
IEP	IER

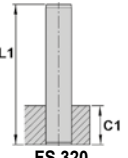
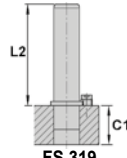
Gestelltyp / Type of die set




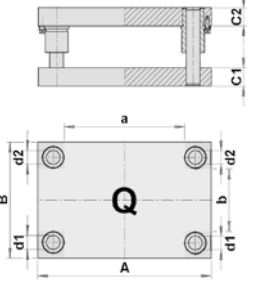
Position der Haltestücke / Position of holding clamps	
	
Pos. Z	Pos. X

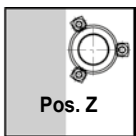
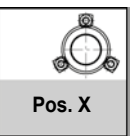
Größe / Size	Abmessungen / Dimensions								Arbeitsflächen / Working area									Gewicht / Weight [kg]			
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			141 131			142 132			143 133				151 152 153		
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A	a X B	b X A	c X A				
361		48	38	-		180	140	-													87,0
362	400	48	48	-	38/40	200	160	-				232	132			232	132				96,5
	X	48	48	-								X	X			X	X				
	300											300	400			300	400				106,0
363		58	48	-		224	160	-													
364		48	38	-		180	140	-													101,0
365	400	48	48	-	38/40	200	160	-				232	182			232	182				112,0
	X	48	48	-								X	X			X	X				
	350											350	400			350	400				123,0
366		58	48	-		224	160	-													
367		48	38	-		180	140	-													114,0
368	400	48	48	-	38/40	200	160	-				232	232			232	232				127,0
	X	48	48	-								X	X			X	X				
	400											400	400			400	400				140,0
369		58	48	-		224	160	-													
370		38	33	-		160	125	-													73,0
371	500	38	38	-	30/32	180	140	-				356	106			356	106				78,0
	X	38	38	-								X	X			X	X				
	250											250	500			250	500				87,5
372		48	38	-		180	140	-													
373		48	38	-		180	140	-													108,0
374	500	48	48	-	38/40	200	160	-				332	132			332	132				119,0
	X	48	48	-								X	X			X	X				
	300											300	500			300	500				131,0
375		58	48	-		224	160	-													
376		48	38	-		180	140	-													125,0
377	500	48	48	-	38/40	200	160	-				332	182			332	182				138,0
	X	48	48	-								X	X			X	X				
	350											350	500			350	500				152,0
378		58	48	-		224	160	-													
379		48	38	-		180	140	-													141,0
380	500	48	48	-	38/40	200	160	-				332	232			332	232				157,0
	X	48	48	-								X	X			X	X				
	400											400	500			400	500				173,0
381		58	48	-		224	160	-													
382		48	38	-		180	140	-													175,0
383	500	48	48	-	38/40	200	160	-				332	332			332	332				195,0
	X	48	48	-								X	X			X	X				
	500											500	500			500	500				214,0
384		58	48	-		224	160	-													
385		48	38	-		180	140	-													128,0
386	600	48	48	-	38/40	200	160	-				432	132			432	132				142,0
	X	48	48	-								X	X			X	X				
	300											300	600			300	600				156,0
387		58	48	-		224	160	-													
388		48	38	-		180	140	-													148,0
389	600	48	48	-	38/40	200	160	-				432	182			432	182				165,0
	X	48	48	-								X	X			X	X				
	350											350	600			350	600				181,0
390		58	48	-		224	160	-													



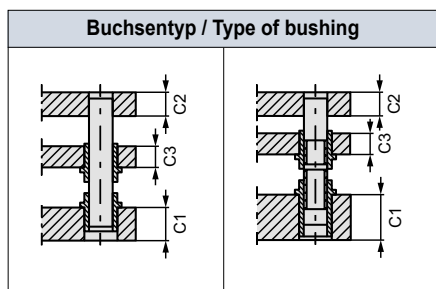
Buchsentyp / Type of bushing		
Stahlbuchse, RM-beschichtet Leader pin bushing, RM plated		
		
FS 330 RM	FS 340 RM	FS 350 RM
141	142	143
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated		
		
FS 331	FS 351	FS 355
131	132	133
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage		
		
FS 353 + FS 325	FS 357 + FS 325	FS 358 + FS 325
151	152	153

Säulentyp / Type of leader pin	
eingepresst press-fitted	Schnellwechselsäule mit Bund Leader pin, with collar
	
FS 320	FS 319
IEP	IER

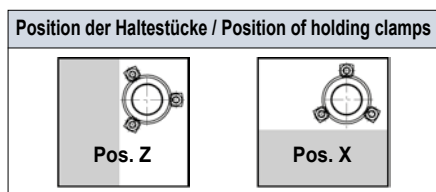
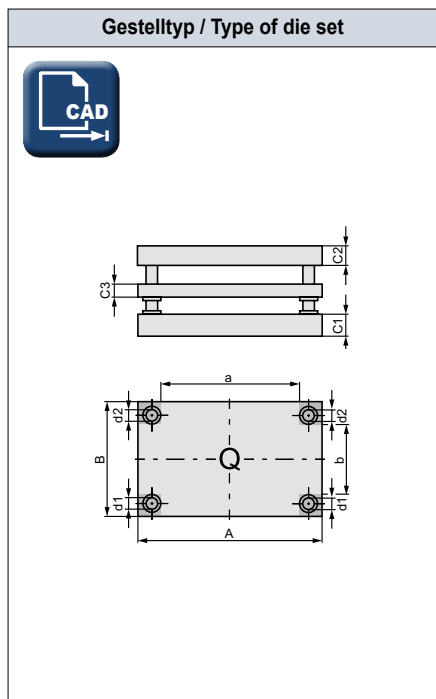
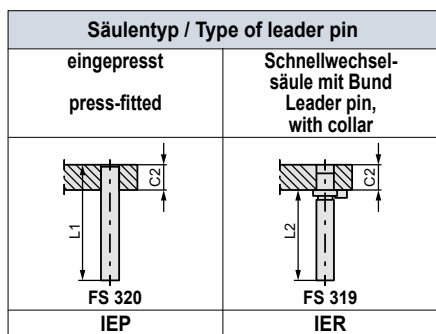
Gestelltyp / Type of die set



Position der Haltestücke / Position of holding clamps	
	
Pos. Z	Pos. X

Größe / Size	Abmessungen / Dimensions						Arbeitsflächen / Working area									Gewicht / Weight [kg]									
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			141 131			142 132			143 133			151 152			153				
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A	a X B		b X A	c X A	a X B	b X A	c X A				
391		48	38	-		180	140	-															168,0		
600																									
392	X	48	48	-	38/40	200	160	-					432	232										187,0	
400													400	600											
393		58	48	-		224	160	-																206,0	
394		58	48	-		224	160	-																	
600																									
395	X	58	58	-	48/50	250	180	-					406	306										259,0	
500													500	600											283,0
396		68	58	-		250	180	-																	306,0
397		58	48	-		224	160	-																	309,0
600																									
398	X	58	58	-	48/50	250	180	-					406	406											337,0
600													600	600											
399		68	58	-		250	180	-																	365,0
400		48	38	-		180	140	-																	172,0
700																									
401	X	48	48	-	38/40	200	160	-					532	182											191,0
350													350	700											
402		58	48	-		224	160	-																	210,0
403		58	48	-		224	160	-																	242,0
700																									
404	X	58	58	-	48/50	250	180	-					506	206											264,0
400													400	700											
405		68	58	-		250	180	-																	286,0
406		58	48	-		224	160	-																	300,0
700																									
407	X	58	58	-	48/50	250	180	-					506	306											328,0
500													500	700											
408		68	58	-		250	180	-																	356,0
409		58	48	-		224	160	-																	359,0
700																									
410	X	58	58	-	48/50	250	180	-					506	406											392,0
600													600	700											
411		68	58	-		250	180	-																	425,0
412		58	48	-		224	160	-																	276,0
800																									
413	X	58	58	-	48/50	250	180	-					606	206											301,0
400													400	800											
414		68	58	-		250	180	-																	326,0
415		58	48	-		224	160	-																	342,0
800																									
416	X	58	58	-	48/50	250	180	-					606	306											374,0
500													500	800											
417		68	58	-		250	180	-																	405,0
418		58	48	-		224	160	-																	409,0
800																									
419	X	58	58	-	48/50	250	180	-					606	406											447,0
600													600	800											
420		68	58	-		250	180	-																	484,0

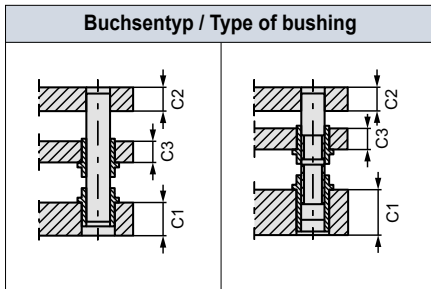


Stahlbuchse, RM-beschichtet Leader pin bushing, RM plated	
C1: FS 440 RM	C1: FS 450 RM
C3: FS 430 RM	C3: FS 430 RM
182	183
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated	
C1: FS 651	C1: FS 655
C3: FS 631	C3: FS 631
172	173
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage	
C1: FS 458 + FS 425	C1: FS 453 + FS 425
C3: FS 457 + FS 425	C3: FS 457 + FS 425
192	193

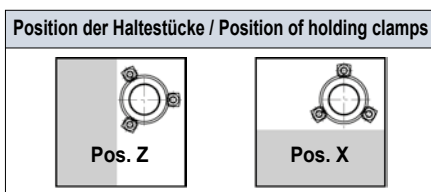
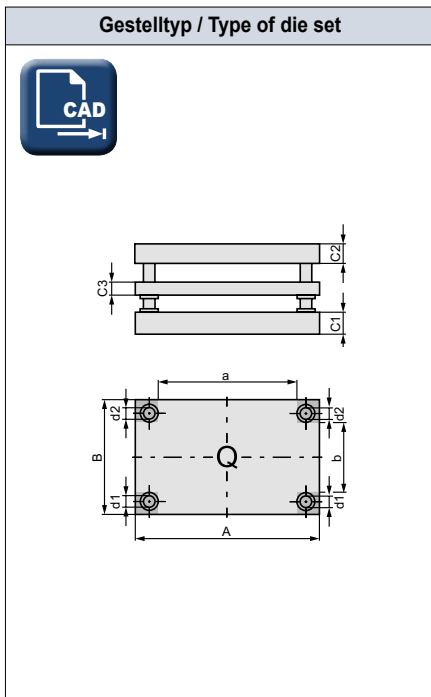
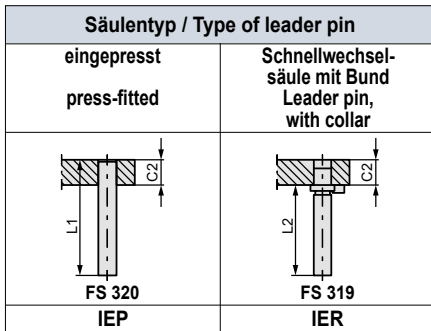


Größe / Size	Abmessungen / Dimensions								Arbeitsflächen / Working area								Gewicht / Weight [kg]	
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			182 172			183 173		192 193				
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A				
301		28	23			140	125	-										10,0
302	125	X	38	28	23	19/20	160	140	-			15	15		15	15		11,8
	125		38	28			160	140	-			125	125		125	125		13,1
303			38	28			180	140	-									
304			28	23			140	125	-									12,4
305	160	X	38	28	23	19/20	160	140	-			50	15		50	15		14,2
	125		38	28			160	140	-			125	160		125	160		16,3
306			38	28			180	140	-									
307			28	23			140	125	-									15,4
308	160	X	38	28	23	19/20	160	140	-			50	50		50	50		18,4
	160		38	28			160	140	-			160	160		160	160		20,4
309			38	28			180	140	-									
310			28	23			140	125	-									15,1
311	200	X	38	28	23	19/20	160	140	-			90	15		90	15		18,0
	125		38	28			160	140	-			125	200		125	200		20,0
312			38	28			180	140	-									
313			28	23			140	125	-									18,9
314	200	X	38	28	23	19/20	160	140	-			90	50		90	50		22,6
	160		38	28			160	140	-			160	200		160	200		25,2
315			38	28			180	140	-									
316			28	23			140	125	-									23,2
317	200	X	38	28	23	19/20	160	140	-			90	90		90	90		27,9
	200		38	28			160	140	-			200	200		200	200		31,1
318			38	28			180	140	-									
319			28	23			140	125	-									18,5
320	250	X	38	28	23	19/20	160	140	-			140	15		140	15		22,1
	125		38	28			160	140	-			125	250		125	250		24,6
321			38	28			180	140	-									
322			28	23			140	125	-									23,2
323	250	X	38	28	23	19/20	160	140	-			140	50		140	50		27,9
	160		38	28			160	140	-			160	250		160	250		31,1
324			38	28			180	140	-									
325			33	28			160	125	-									35,0
326	250	X	48	38	23	24/25	180	160	-			122	72		122	72		44,8
	200		48	38			180	160	-			200	250		200	250		48,7
327			48	38			200	160	-									
328			33	28			160	125	-									43,2
329	250	X	48	38	23	24/25	180	160	-			122	122		122	122		55,5
	250		48	38			180	160	-			250	250		250	250		60,5
330			48	38			200	160	-									

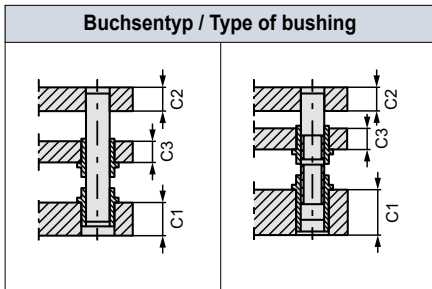




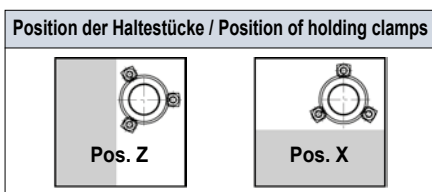
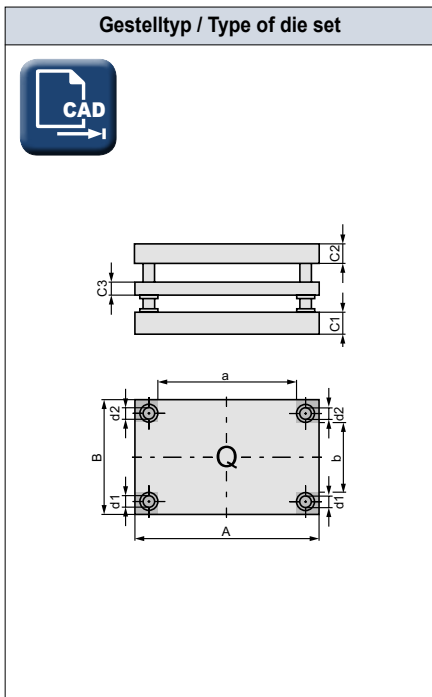
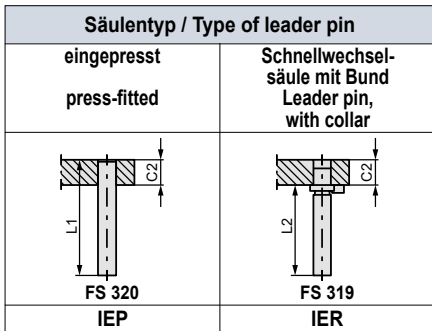
Stahlbuchse, RM-beschichtet Leader pin bushing, RM plated	
C1: FS 440 RM	C1: FS 450 RM
C3: FS 430 RM	C3: FS 430 RM
182	183
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated	
C1: FS 651	C1: FS 655
C3: FS 631	C3: FS 631
172	173
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage	
C1: FS 458 + FS 425	C1: FS 453 + FS 425
C3: FS 457 + FS 425	C3: FS 457 + FS 425
192	193



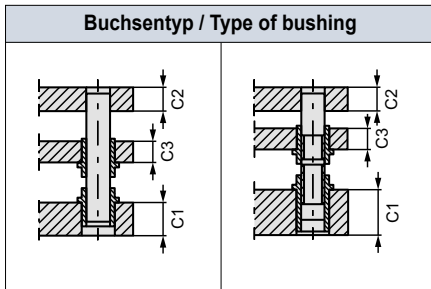
Größe / Size	Abmessungen / Dimensions							Arbeitsflächen / Working area									Gewicht / Weight [kg]							
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			182 172			183 173			192 193									
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A	a X B	b X A		c X A						
331		33	28			160	125	-															33,7	
332	300																							
	X	48	38	23	24/25	180	140	-				172	32				172	32						43,1
	160											160	300				160	300						46,9
333		48	48			200	140	-																
334	300																							
	X	33	28			160	125	-																41,6
335	300																							
	X	48	38	23	24/25	180	140	-				172	72				172	72						53,5
	200											200	300				200	300						58,5
336		48	48			200	140	-																
337	300																							
	X	38	33			180	140	-																61,5
338	300																							
	X	48	38	33	30/32	200	160	-				156	106				152	106						70,5
	250											250	300				250	300						76,0
339		48	48			200	160	-																
340	300																							
	X	38	33			180	140	-																73,0
341	300																							
	X	48	38	33	30/32	200	160	-				156	156				156	156						83,5
	300											300	300				300	300						90,5
342		48	48			200	160	-																
343	350																							
	X	33	28			160	125	-																48,2
344	350																							
	X	48	38	23	24/25	180	160	-				222	72				222	72						62,0
	200											200	350				200	350						67,5
345		48	48			200	160	-																
346	350																							
	X	38	33			180	140	-																71,0
347	350																							
	X	48	38	33	30/32	200	160	-				206	106				206	106						81,5
	250											250	350				250	350						88,5
348		48	48			200	160	-																
349	350																							
	X	38	33			180	140	-																85,0
350	350																							
	X	48	38	33	30/32	200	160	-				206	156				206	156						97,0
	300											300	350				300	350						105,0
351		48	48			200	160	-																
352	350																							
	X	38	33			180	140	-																98,5
353	350																							
	X	48	38	33	30/32	200	160	-				206	206				206	206						113,0
	350											350	350				350	350						123,0
354		48	48			200	160	-																
355	400																							
	X	33	28			160	125	-																55,0
356	400																							
	X	48	38	23	24/25	180	140	-				272	72				272	72						70,5
	200											200	400				200	400						77,0
357		48	48			200	140	-																
358	400																							
	X	38	33			180	140	-																81,0
359	400																							
	X	48	38	33	30/32	200	160	-				256	106				256	106						92,5
	250											250	400				250	400						101,0
360		48	48			200	160	-																



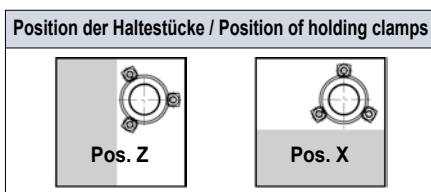
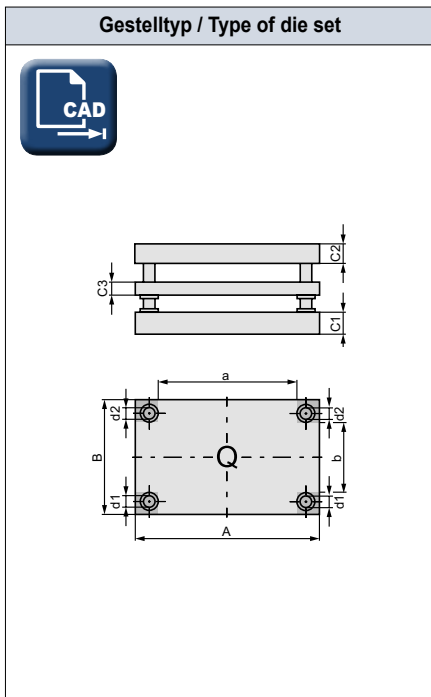
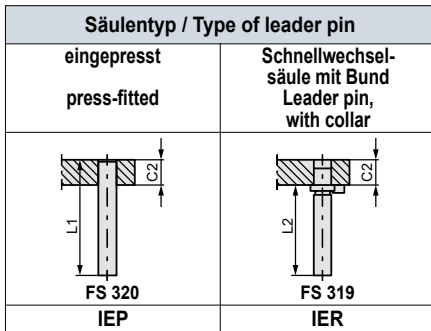
Stahlbuchse, RM-beschichtet Leader pin bushing, RM plated	
C1: FS 440 RM	C1: FS 450 RM
C3: FS 430 RM	C3: FS 430 RM
182	183
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated	
C1: FS 651	C1: FS 655
C3: FS 631	C3: FS 631
172	173
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage	
C1: FS 458 + FS 425	C1: FS 453 + FS 425
C3: FS 457 + FS 425	C3: FS 457 + FS 425
192	193



Größe / Size	Abmessungen / Dimensions								Arbeitsflächen / Working area								Gewicht / Weight [kg]		
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			182 172			183 173			192 193				
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A	c X A	a X B	b X A		c X A	
361		48	38			200	160	-											118,0
362	400 X 300	58	48	38	38/40	224	180	-				232 X 300	132 X 400			232 X 300	132 X 400		137,0
363		58	58			250	180	-											147,0
364		48	38			200	160	-											137,0
365	400 X 350	58	48	38	38/40	224	180	-				232 X 350	182 X 400			232 X 350	182 X 400		159,0
366		58	58			250	180	-											170,0
367		48	38			200	160	-											156,0
368	400 X 400	58	48	38	38/40	224	180	-				232 X 400	232 X 400			232 X 400	232 X 400		181,0
369		58	58			250	180	-											194,0
370		38	33			180	140	-											100,0
371	500 X 250	48	38	33	30/32	200	160	-				356 X 250	106 X 500			356 X 250	106 X 500		115,0
372		48	48			200	160	-											125,0
373		48	38			200	160	-											146,0
374	500 X 300	58	48	38	38/40	224	180	-				332 X 300	132 X 500			332 X 300	132 X 500		170,0
375		58	58			250	180	-											182,0
376		48	38			200	160	-											170,0
377	500 X 350	58	48	38	38/40	224	180	-				332 X 350	182 X 500			332 X 350	182 X 500		197,0
378		58	58			250	180	-											211,0
379		48	38			200	160	-											193,0
380	500 X 400	58	48	38	38/40	224	180	-				332 X 400	232 X 500			332 X 400	232 X 500		225,0
381		58	58			250	180	-											240,0
382		48	38			200	160	-											240,0
383	500 X 500	58	48	38	38/40	224	180	-				332 X 500	332 X 500			332 X 500	332 X 500		279,0
384		58	58			250	180	-											299,0
385		48	38			200	160	-											174,0
386	600 X 300	58	48	38	38/40	224	180	-				432 X 300	132 X 600			432 X 300	132 X 600		203,0
387		58	58			250	180	-											217,0
388		48	38			200	160	-											202,0
389	600 X 350	58	48	38	38/40	224	180	-				432 X 350	182 X 600			432 X 350	182 X 600		235,0
390		58	58			250	180	-											252,0



Stahlbuchse, RM-beschichtet Leader pin bushing, RM plated	
C1: FS 440 RM	C1: FS 450 RM
C3: FS 430 RM	C3: FS 430 RM
182	183
Stahlbuchse mit Bronzeplattierung Leader pin bushing, bronze plated	
C1: FS 651	C1: FS 655
C3: FS 631	C3: FS 631
172	173
Stahlbuchse mit Ms-Käfig Leader pin bushing with ball cage	
C1: FS 458 + FS 425	C1: FS 453 + FS 425
C3: FS 457 + FS 425	C3: FS 457 + FS 425
192	193

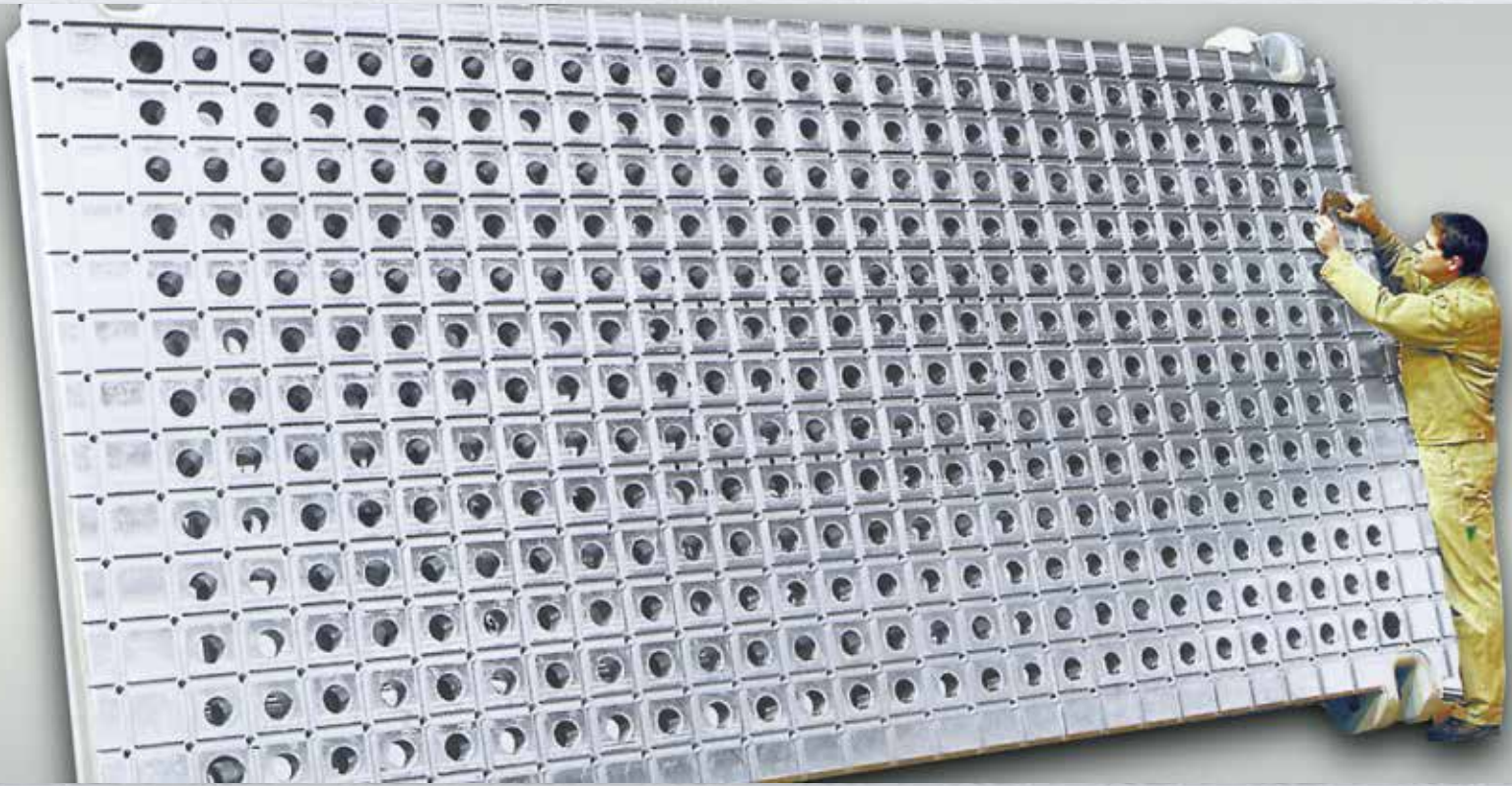


Größe / Size	Abmessungen / Dimensions							Arbeitsflächen / Working area						Gewicht / Weight [kg]			
	A X B	Plattenstärke Plate thickness			Ø d1/d2	Säulenlänge Length of leader pin			182 172			183 173			192 X B	193 X A	
		C1	C2	C3		L1	L2	L3	a X B	b X A	c X A	a X B	b X A				c X A
391		48	38			200	160	-									230,0
392	600											432	232		432	232	268,0
	X	58	48	38	38/40	224	180	-				X	X		X	X	
400	400											400	600		400	600	287,0
393		58	58			250	180	-									
394		58	48			224	180	-									348,0
395	600											406	306		406	306	
	X	68	58	48	48/50	250	200	-				X	X		X	X	395,0
500												500	600		500	600	419,0
396		68	68			280	200	-									
397		58	48			224	180	-									416,0
398	600											406	406		406	406	
	X	68	58	48	48/50	250	200	-				X	X		X	X	473,0
600												600	600		600	600	501,0
399		68	68			280	200	-									
400		48	38			200	160	-									235,0
401	700											532	182		532	182	
	X	58	48	48	38/40	224	180	-				X	X		X	X	274,0
350												350	700		350	700	293,0
402		58	58			250	180	-									
403	700																326,0
	X	58	48			224	180	-				506	206		506	206	370,0
404		68	58	48	48/50	250	200	-				400	700		400	700	392,0
405		68	68			280	200	-									
406		58	48			224	180	-									405,0
407	700											506	306		506	306	
	X	68	58	48	48/50	250	200	-				X	X		X	X	460,0
500												500	700		500	700	487,0
408		68	68			280	200	-									
409		58	48			224	180	-									484,0
410	700											506	406		506	406	
	X	68	58	48	48/50	250	200	-				X	X		X	X	540,0
600												600	700		600	700	583,0
411		68	68			280	200	-									
412		58	48			224	180	-									371,0
413	800											606	206		606	206	
	X	68	58	48	48/50	250	200	-				X	X		X	X	421,0
400												400	800		400	800	447,0
414		68	68			280	200	-									
415		58	48			224	180	-									461,0
416	800											606	306		606	306	
	X	68	58	48	48/50	250	200	-				X	X		X	X	524,0
500												500	800		500	800	556,0
417		68	68			280	200	-									
418		58	48			224	180	-									552,0
419	800											606	406		606	406	
	X	68	58	48	48/50	250	200	-				X	X		X	X	627,0
600												600	800		600	800	665,0
420		68	68			280	200	-									



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

Märkische Stanz-Partner



[stanznormalien]

Großstahlplatten und Stahl-Schweiß-Konstruktionen mit Sonderbearbeitungen

[standarddiecomponents]

XXL - Steel plates and welded units
with additional work / secondary operation





CNC - Brennschneiden
CNC - flame cutting

Glühen
Annealing

Stahlkies strahlen
Steel shot blasting

Richten
Flattening

Farbgebung - Grundierung
Coloring - priming

CNC - Diskusschleifen
CNC - rotary grinding

CNC - Feinschleifen
CNC - finish grinding

Materiallager ST 52-3, Blechdicken 10 – 600 mm
Stock ST 52-3, sheet thickness 10 – 600 mm

Abmessungen 6.000 x 3.000 x 2.000 mm, bis 25 t Stückgewicht
Dimensions 6.000 x 3.000 x 2.000 mm, up to 25 t unit weight

Abmessungen 6.000 x 3.000 x 2.000 mm, bis 25 t Stückgewicht
Dimensions 6.000 x 3.000 x 2.000 mm, up to 25 t unit weight

Abmessungen 6.000 x 3.000 x 2.000 mm, bis 25 t Stückgewicht
Dimensions 6.000 x 3.000 x 2.000 mm, up to 25 t unit weight

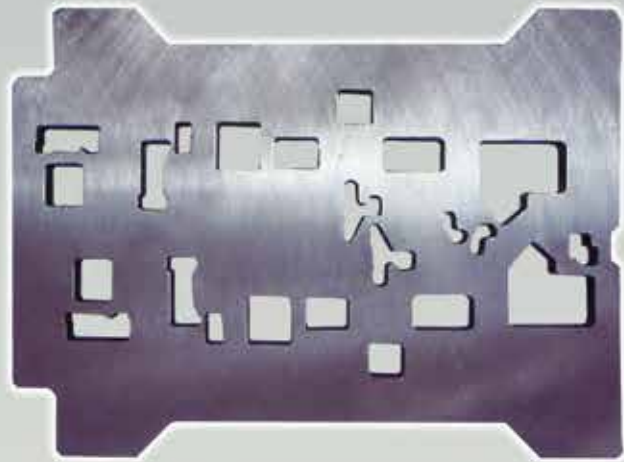
Abmessungen 6.000 x 3.000 x 2.000 mm, bis 25 t Stückgewicht
Dimensions 6.000 x 3.000 x 2.000 mm, up to 25 t unit weight

Verfahrweg
Travelling distance 4.000 x 1.250 x 300 mm

Verfahrweg
Travelling distance 3.000 x 1.600 x 600 mm

XXL - Steel plates and welded units

SÄULENGESTELLE / DIE SETS



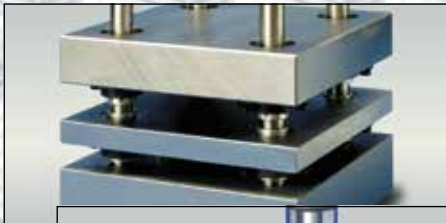
CNC - Lehrenbohren CNC - jig boring	Verfahrweg Travelling distance	3.000 x 1.600 x 600 mm
CNC - Portalfräsen CNC - portal milling	Verfahrweg Travelling distance	7.000 x 3.000 x 1.400 mm
CNC - Fräsen und Bohren CNC - milling and -drilling	Verfahrweg Travelling distance	4.900 x 2.400 x 800 mm
CNC - Portalmessen CNC - portal measuring	Verfahrweg Travelling distance	3.000 x 1.600 x 800 mm
CNC - Tieflochbohren CNC - gun drilling	Durchmesser 30 – 120 mm / Diameter 30 – 120 mm bis 1.500 mm als Sacklochbohrung / Blind holes up to 1.500 mm deep bis 3.000 mm als Durchgangsbohrung / Through holes up to 3.000 mm long	

Die Herstellung/Bearbeitung der Produkte erfolgt nach Kundenzeichnung oder nach CAD-Datei im DXF-, DWG-, IGES-, VDA- oder Catia-Format. / Basis for the manufacturing process are drawings supplied by the customer, printed or as DXF-, DWG-, IGES-, VDA- or Catia - CAD - data files.



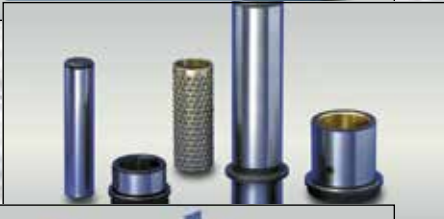
Märkische Stanz-Partner

[lieferprogramm] [productrange]



[säulengestelle]
in Standard- und Sonder-
Abmessungen ab 125 x 125 mm
bis 3.000 x 6.000 mm

[diesets]
in standard and custom sizes
between 125 x 125 mm up to
3.000 x 6.000 mm



[führungssysteme]
in den verschiedensten
Ausführungen

[guidingsystems]
available in various designs



[schneidelemente]
mit unterschiedlichsten
Schneidgeometrien

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