

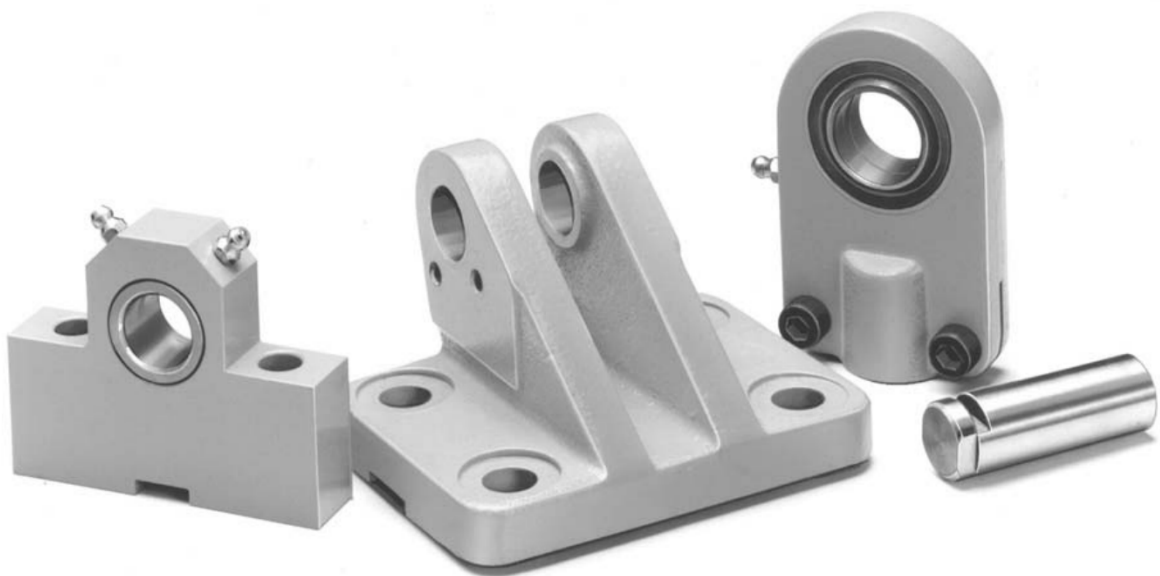
Storz

HYDRAULIKSYSTEME

Standardized Mounting Parts

DIN 24555

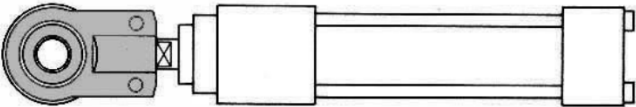
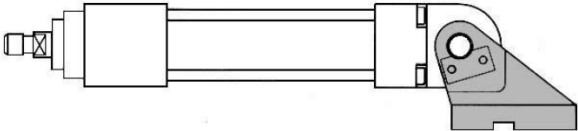
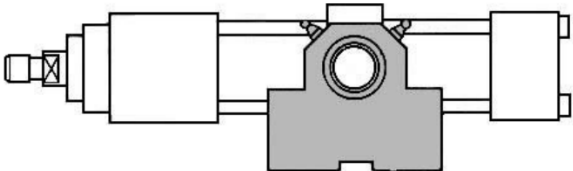
DIN 24556



Available Mounting Parts

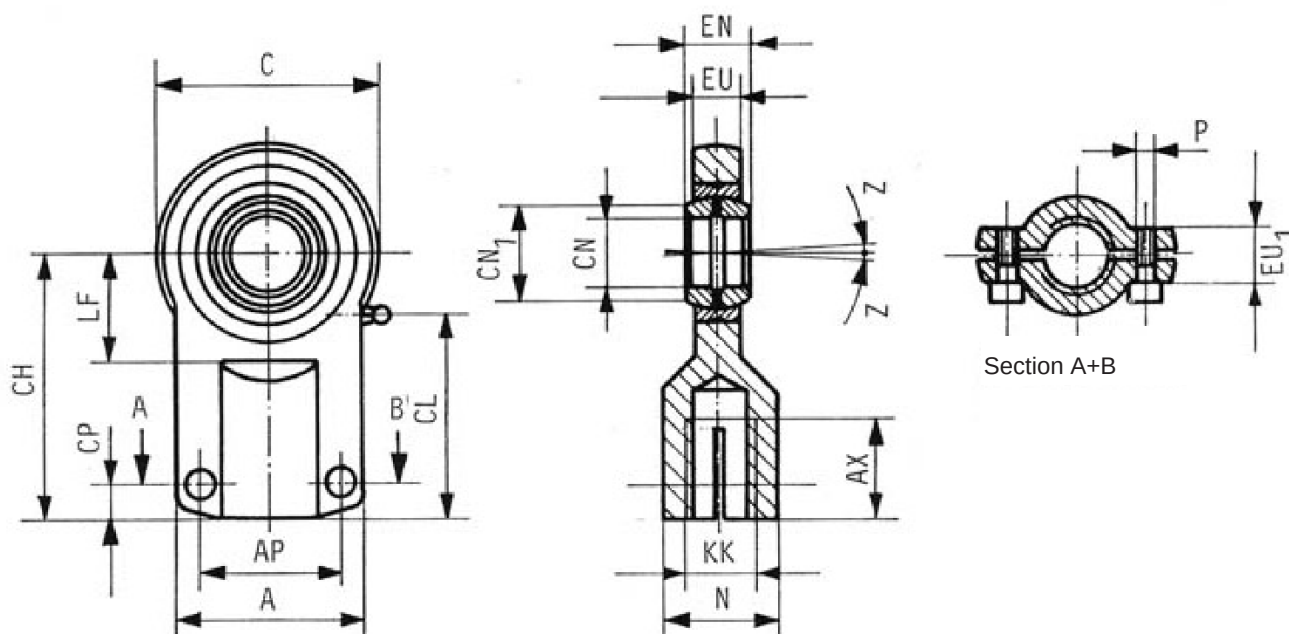
Application range: Side

The mounting parts are designed for hydraulic cylinders according to DIN 24 554 (160 bar); ISO 6020/2 (160 bar); however, this does not mean any restriction regarding other applications.

Designation	Standard	Type		
Rod ends with narrow spherical bearings	DIN 24 555	KD		3
Eye bracket	DIN 24 556	LD-N		4
Pin Pin Pivot pin fixing	DIN 24 556 not standardized	BA BS Type A		5
Trunnion brackets		SD		6

Rod ends with narrow spherical bearings TYPE KD

DIN 24 555



for piston Ø Piston rod Ø	Order designation	Nominal force (kN)	A	AP	AX	C	CH	CL	CN ²⁾	CN ₁	CP	EN	EU	EU ₁	KK ¹⁾	LF	N	P	Z	M _A ³⁾	Weight (kg)
			max.	max.	min.	max.	js 13	js 15		min			h13	max.	min.	max.	min.	max. Nm			
160 bar																					
25/ 12 18	KD-12	8	40	25	15	40	42		12-0,008	15	8,5	10-0,12	8	13	M10 x 1,25	16	17	M6	3°	9,5	0,130
32/ 14 22	KD-16	12,5	45	31	17	45	48	37	16-0,008	20	8,5	14-0,12	11	13	M12 x 1,25	20	21	M6	3°	9,5	0,230
40/ 18 28	KD-20	20	55	36	19	55	58	45	20-0,012	24	11	16-0,12	13	17	M14 x 1,5	25	25	M8	3°	23	0,370
50/ 22 36	KD-25	32	62	43	23	65	68	50	25-0,012	29	11	20-0,12	17	17	M16 x 1,5	30	30	M8	3°	23	0,660
63/ 28 45	KD-30	50	80	54	29	80	85	64	30-0,012	34	15	22-0,12	19	19	M20 x 1,5	35	36	M10	3°	46	1,20
80/ 36 56	KD-40	80	90	64	37	100	105	78	40-0,012	45	15	28-0,12	23	23	M27 x 2	45	45	M10	3°	46	2,10
100/ 45 70	KD-50	125	105	76	46	125	130	95	50-0,012	55	18	35-0,12	30	30	M33 x 2	58	55	M12	3°	80	3,80
125/ 56 90	KD-60	200	134	98	57	160	150	107	60-0,015	66	23	44-0,15	38	38	M42 x 2	68	68	M16	3°	195	7,40
160/ 70 110	KD-80	320	156	110	64	205	185	122	80-0,015	88	27	55-0,15	47	47	M48 x 2	92	78	M20	3°	385	
200/ 90 140	KD-100	500	190	138	86	240	240	162	100-0,020	109	31	70-0,20	57	57	M64 x 3	116	100	M24	3°	660	

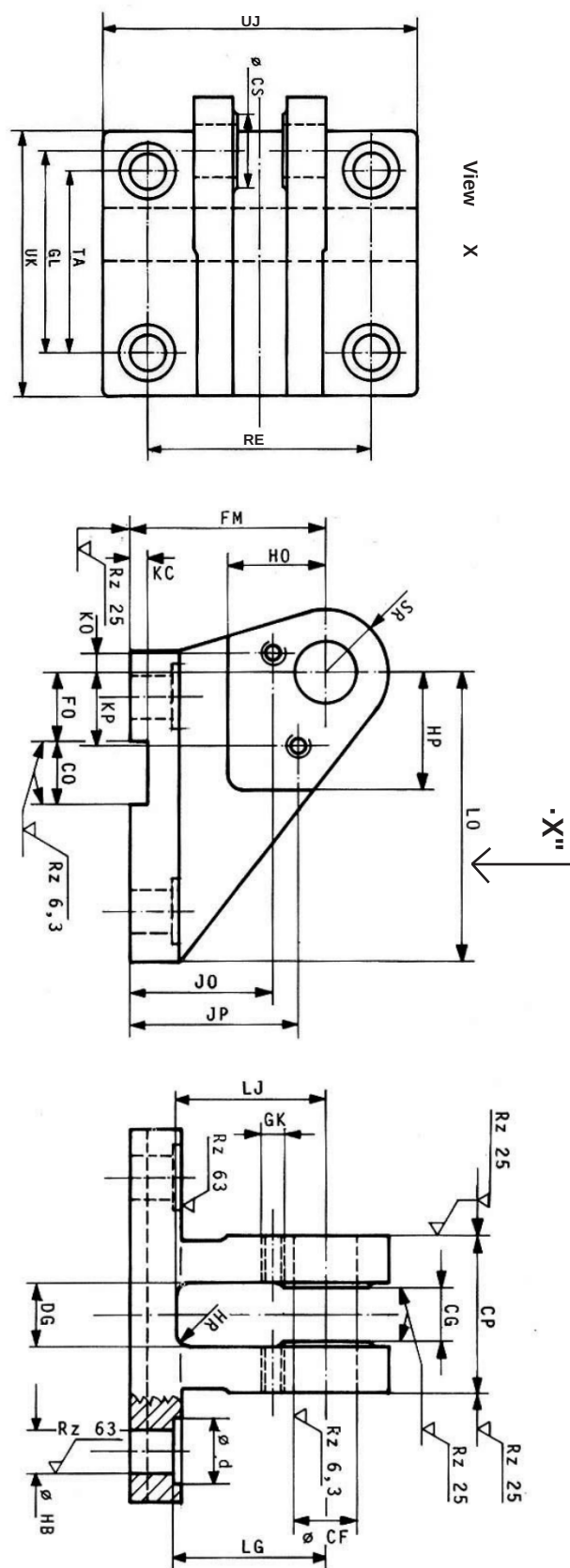
1) see DIN 24 554

2) Tolerance h 6 for the pins

3) M_A = Tightening torque of clamping screw

Eye bracket TYPE LD-N

DIN 24 556

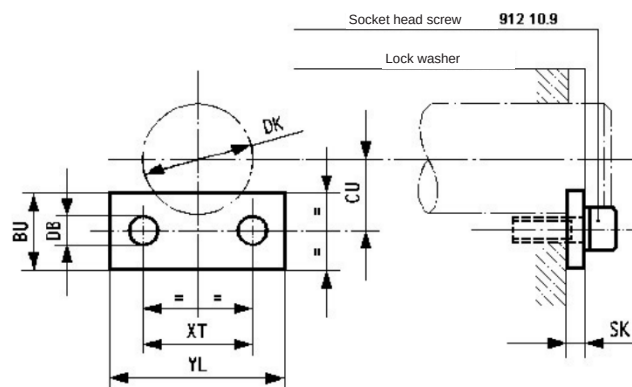
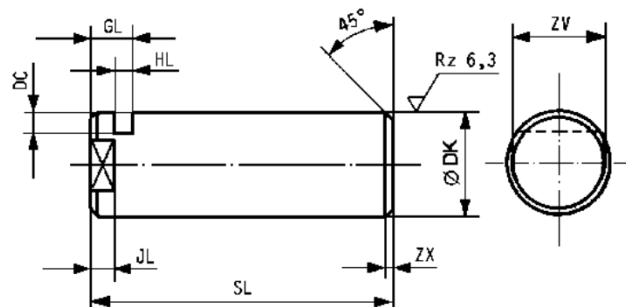


for piston Ø Piston rod Ø		Order designation	Nominal force (kN)		CF Ø	CP h14	CG +0,3 Ø	CS Ø	CO N9	d Ø	DG H15	FM +2	GK js11	GL js13	HB Ø H13	HO	HP	HR	JO ±0,2	JP ±0,2	KO ±0,2	KP ±0,2	LG	LJ	LO	FO js14	KC +0,30 0	RE js13	SR max.	TA js13	UJ	UK	Weight (kg)
160 bar	LD-12-N	8	12	30	10	18	10	18	10	18	12	40	M6	46	9	22	22	3	29,1	33,2	3,9	11,6	28	29	56	16	3,3	55	12	40	75	60	0,52
25/12	LD-16-N	12,5	16	40	14	24	16	22	16	22	16	50	M6	61	11	25	30	3	36,7	43,2	5,2	18,9	37	38	74	18	4,3	70	16	55	95	80	1,05
32/14	LD-20-N	20	20	50	16	28	16	26	16	26	19	55	M6	64	13,5	30	35	3	38,3	44,7	8,5	15,6	39	40	80	20	4,3	85	20	58	120	90	1,72
40/18	LD-25-N	32	25	60	20	34	25	30	24	30	24	65	M6	78	15,5	35	35	4	48,5	48,5	11,0	14,0	48	49	98	22	5,4	100	25	70	140	110	2,72
50/22	LD-30-N	50	30	70	22	40	25	33	26	33	26	85	M6	97	17,5	40	40	4	66,0	66,0	15,0	15,0	62	63	120	24	5,4	115	30	90	160	135	5,15
63/28	LD-40-N	80	40	80	28	50	36	40	32	40	32	100	M8	123	22	45	45	4	77,0	77,0	21,0	21,0	72	73	148	24	8,4	135	40	120	190	170	9,30
80/36	LD-50-N	125	50	100	35	60	36	53	41	53	41	125	M8	155	30	50	50	6	95,5	95,5	22,5	22,5	90	92	190	35	8,4	170	50	145	240	215	18,30
100/45	LD-60-N	200	60	120	44	72	50	71	50	71	50	150	M10	187	39	60	60	6	116,5	116,5	27,5	27,5	108	110	225	35	11,4	200	60	185	270	260	35,00
125/56	LD-80-N	320	80	160	55	96	50	82	65	82	65	190	M10	255	45	70	70	6	146,0	146,0	30,0	30,0	140	142	295	35	11,4	240	80	260	320	340	63,00
160/70	LD-100-N	500	100	200	70	120	63	89	80	89	80	210	M10	285	48	85	85	6	154,0	154,0	45,0	45,0	150	152	335	35	12,4	300	100	300	400	400	109,00

Pin BA case-hardened 60 HRC

DIN 24 556

Pivot pin fixing A



TYP BA

Order design-nation	ØDK h6	SL	GL	HL +0,2	JL	ZV 1)	DC	ZX	Weight (kg)
BA-12	12	40	8	3,3	4,5	10	4	1	0,035
BA-16	16	50	8	3,3	5,5	13	4	1	0,075
BA-20	20	62	10	4,5	5,5	17	5	1,5	0,150
BA-25	25	72	10	4,5	5,5	22	5	1,5	0,270
BA-30	30	85	13	5,5	7,5	24	6	2	0,410
BA-40	40	100	16	6,5	9,5	32	7	2	0,910
BA-50	50	122	19	9,0	10,0	41	8	2	1,71
BA-60	60	145	20	9,0	11,0	50	9	2	3,13
BA-80	80	190	26	11,0	15,0	70	11	3	7,14
BA-100	100	235	30	13,0	15,0	90	14	3	14,40

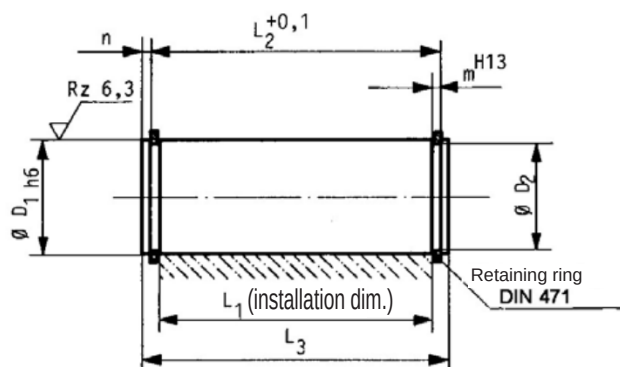
1) according to DIN 475 part 1

TYP A

Order design-nation	ØDK	ØDB	BU	SK	YL	XT ± 0,2	CU	Soc. screw DIN 912 10.9	Lock washer	Weight (kg)
A-12	12	6,4	15	3	27	16	9,5	M 6 x 12	6	0,020
A-16	16	6,4	15	3	40	25	11,5	M 6 x 12	6	0,025
A-20	20	6,4	18	4	40	25	14,M	M 6 x 16	6	0,035
A-25	25	6,4	18	4	40	25	16,5	M 6 x 16	6	0,035
A-30	30	6,4	20	5	45	30	19,0	M 6 x 16	6	0,065
A-40	40	8,4	20	6	62	42	23,0	M 8 x 20	8	0,080
A-50	50	8,4	25	8	65	45	29,5	M 8 x 20	8	0,090
A-60	60	10,5	25	8	80	55	33,5	M 10 x 25	10	0,170
A-80	80	10,5	30	10	90	60	44,0	M 10 x 25	10	0,250
A-100	100	10,5	40	12	120	90	56,0	M 10 x 25	10	0,490

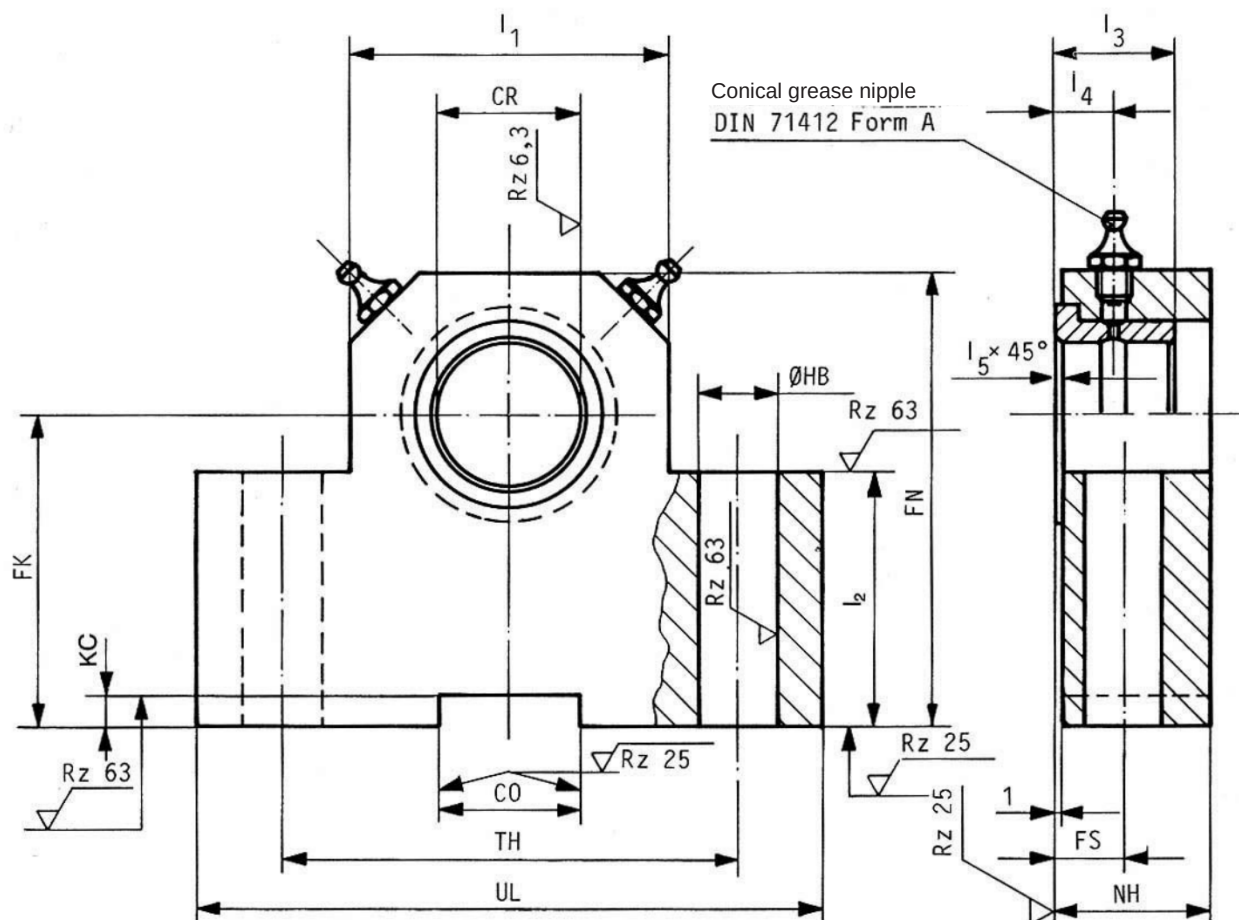
Pin BS case-hardened 60 HRC

(not standardized)



Order design- nation	ØD ₁ h6	ØD ₂	perm. dev.	m H13	n	L ₁	L ₂	L ₃	Lock ring DIN 471	Weight (kg)
BS-12	12	11,5	h11	1,1	1,0	30,0	33,0	35,0	12 x 1,0	0,030
BS-16	16	15,2	h11	1,1	1,5	40,0	43,0	46,0	16 x 1,0	0,075
BS-20	20	19,0	h12	1,3	1,8	50,0	53,4	57,0	20 x 1,2	0,140
BS-25	25	23,9	h12	1,3	1,8	60,0	63,4	67,0	25 x 1,2	0,260
BS-30	30	28,6	h12	1,6	2,5	70,0	74,0	79,0	30 x 1,5	0,440
BS-40	40	37,5	h12	1,85	4,2	80,0	84,5	93,0	40 x 1,75	0,900
BS-50	50	47,0	h12	2,15	5,0	100,0	105,0	115,0	50 x 2,0	1,70
BS-60	60	57,0	h12	2,15	5,0	120,0	125,0	135,0	60 x 2,0	3,10
BS-80	80	76,5	h12	2,65	6,0	160,0	166,0	178,0	80 x 2,5	7,10
BS-100	100	96,5	h12	3,15	7,0	200,0	207,0	221,0	100 x 3,0	14,40

Trunnion brackets TYPE SD



Piston Ø Piston rod Ø	Order designation	Nominal force	CR	CO	FK	FN	FS	HB	KC	NH	TH	UL	I ₁	I ₂	I ₃	I ₄	I ₅	Weight ¹⁾ (kg)
160 bar		(kN)	H7	N9	js 12	max.	js 14	H13	+0,3	max.	js 14	max.						
25/ 12 18	SD-12	8	12	10	38	55	8	9	3,3	17	40	63	25	25	11	5	1	0,480
32/ 14 22	SD-16	12,5	16	16	45	65	10	11	4,3	21	50	80	30	30	13	6	1	0,870
40/ 18 28	SD-20	20	20	16	55	80	10	11	4,3	21	60	90	40	38	17	8	1,5	1,30
50/ 22 36	SD-25	32	25	25	65	90	12	14	5,4	26	80	110	56	45	21	10	1,5	2,35
63/ 28 45	SD-32	50	32	25	75	110	15	18	5,4	33	110	150	70	52	26	13	2	4,80
80/ 36 56	SD-40	80	40	36	95	140	16	22	8,4	41	125	170	88	60	33	16	2,5	8,10
100/ 45 70	SD-50	125	50	36	105	150	20	26	8,4	51	160	210	90	72	41	20	2,5	20,10
125/ 56 90	SD-63	200	63	50	125	195	25	33	11,4	61	200	265	136	87	51	25	3	31,30
160/ 70 110	SD-80	320	80	50	150	230	31	39	11,4	81	250	325	160	112	64	31	3,5	69,30
200/ 90 140	SD-100	500	100	63	200	300	42	52	12,4	101	320	410	200	150	82	41	4,5	

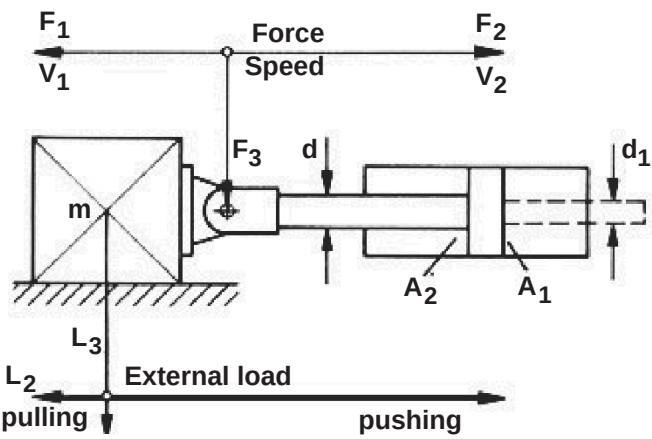
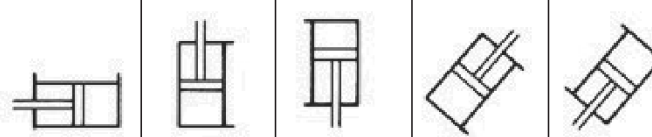
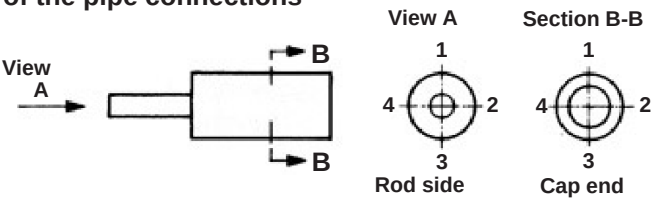
1) Weight for one pair (2 pieces)

Requirements list for hydraulic cylinders

Customer address..... =Telephone/fax.....

..... Person in charge.....

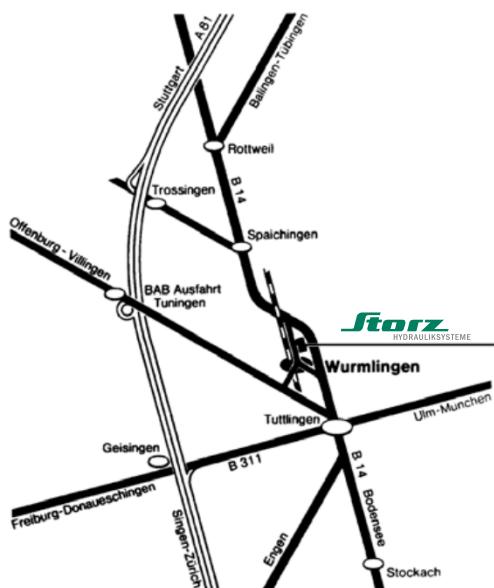
..... Department.....

Load diagram			
 Force Speed External load pulling pushing L₃ neither pushing nor pulling load			
13	Required Cylinder forces	F ₁	N
		F ₂	N
14	max. Lateral force	F ₃	N
15	Switching frequency	Double strokes per min. Double strokes per sec.	
16	min. + max. Amplitude (· min; · max) + associated frequency (f)	· min + f	
		· max + f	
17	Moving Mass		kg
18	Temperature range of hydraulic fluid ∅ m min...∅ m max	°C	
	Ambient temperature range ∅ m min....∅ m max	°C	
Cylinder installation position			
			
a	b	c	d e
Cylinder data			
1	Operating pressure	min bar	max bar
2	Piston Ø	D	mm
3	Rod Ø	d	mm
		d ₁	mm
4	Mounting type		
5	Stroke	S	mm
6	Stroke speed max.	V _{1max}	m/s
		V _{2max}	m/s
7	Pressure medium		
8	Rod seal Wiper		
9	Piston seal		
10	Piston rod end		
11	Air bleed	yes	no
		M 8x1	R 1/4"
12	End position cushioning	Cap end	
		Rod side	
desired radial position of the pipe connections			
			
19	Size of Port connections	Cap end	Rod side
20	Piston rods Material	Standard	Stainless
21	Painting	Standard	without
		Special	
Accessories			
End positions			
Position feedback			
Clamping head			
Position measuring system stating the Pos. accuracy ☐ inductive ☐ digital ☐ Ultrasonic ☐ potentiometric ☐ capacitive ☐			
Remarks and notes on the application or special requests please with date and signature!			

Product range



Hydraulic cylinders to DIN/ISO
Hydraulic standard cylinders
Hydraulic telescopic cylinders
Hydraulic cylinders with position measuring systems
Test-machine cylinders
Special cylinders for all fields of application
Standardized mounting parts
Hydraulic power units and components
Plant engineering



Storz
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