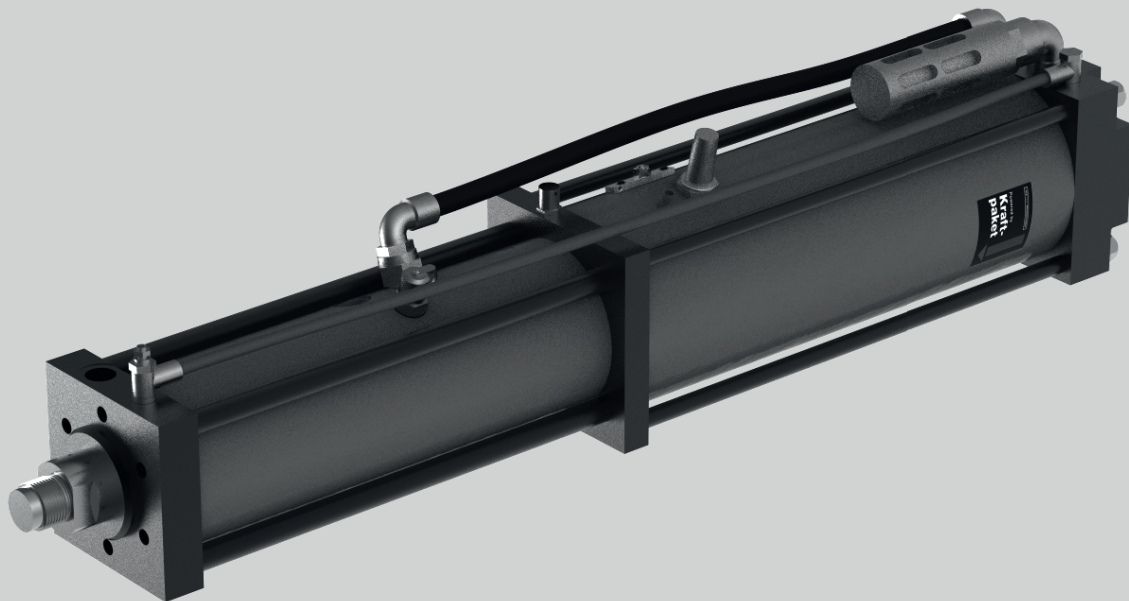


TOX®-Powerpackage Special types S and K



Data
sheet
10.20

2016/08

TOX® PRESSOTECHNIK GmbH & Co. KG
Riedstrasse 4
D-88250 Weingarten

Find your local contact at:
www.tox-pressotechnik.com

TOX[®]-Powerpackage type S, type K

The series S and K at a glance

Type S (standard) and version S 50 with power stroke adjustment

2 bar – 6 bar series

up to 1740 kN press force
up to 300 mm total stroke
up to 20 mm power stroke

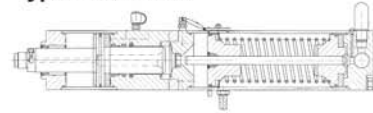
2 bar – 10 bar series

up to 1680 kN press force
up to 400 mm total stroke
up to 80 mm power stroke

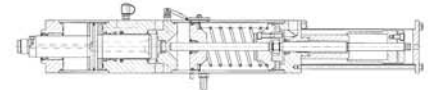
Patented power bypass with integrated retract hydraulic cushion is a standard feature for all TOX[®]-Powerpackages type S 4 to S 170.

For further models see our data sheet 10.08.

Type S 6/10 bar



Version .50 with power stroke adjustment



Type K (compact) and version K 51 with total stroke adjustment

2 bar – 6 bar series

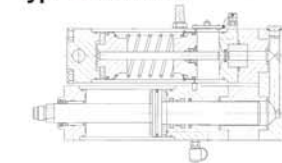
up to 1600 kN press force
up to 200 mm total stroke
up to 10 mm power stroke

2 bar – 10 bar series

up to 1710 kN press force
up to 400 mm total stroke
up to 50 mm power stroke

Patented power bypass with integrated retract hydraulic cushion is available on request.

Type K 6/10 bar



Version .51 with total stroke adjustment

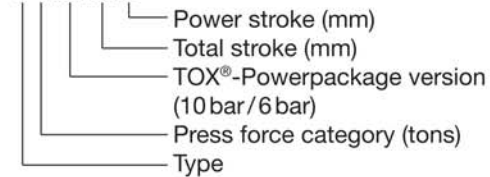
The TOX[®]-Powerpackage is available with different press forces, strokes and designs.

Selection criteria:

- 1) Press force required for the application
- 2) Available air pressure
- 3) Required total stroke of the TOX[®]-Powerpackage
- 4) Required power stroke of the TOX[®]-Powerpackage
- 5) Type of application e.g. punching, embossing etc.
- 6) Available installation space

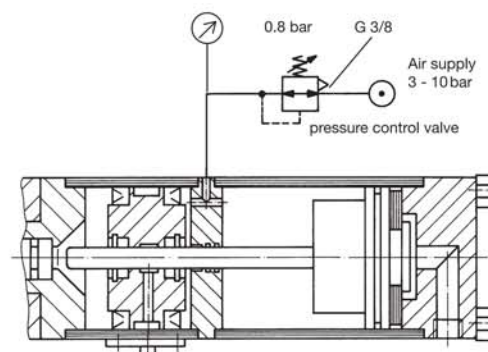
Description for ordering the TOX[®]-Powerpackage

S 4.30.50.6



Pneumatic spring LF

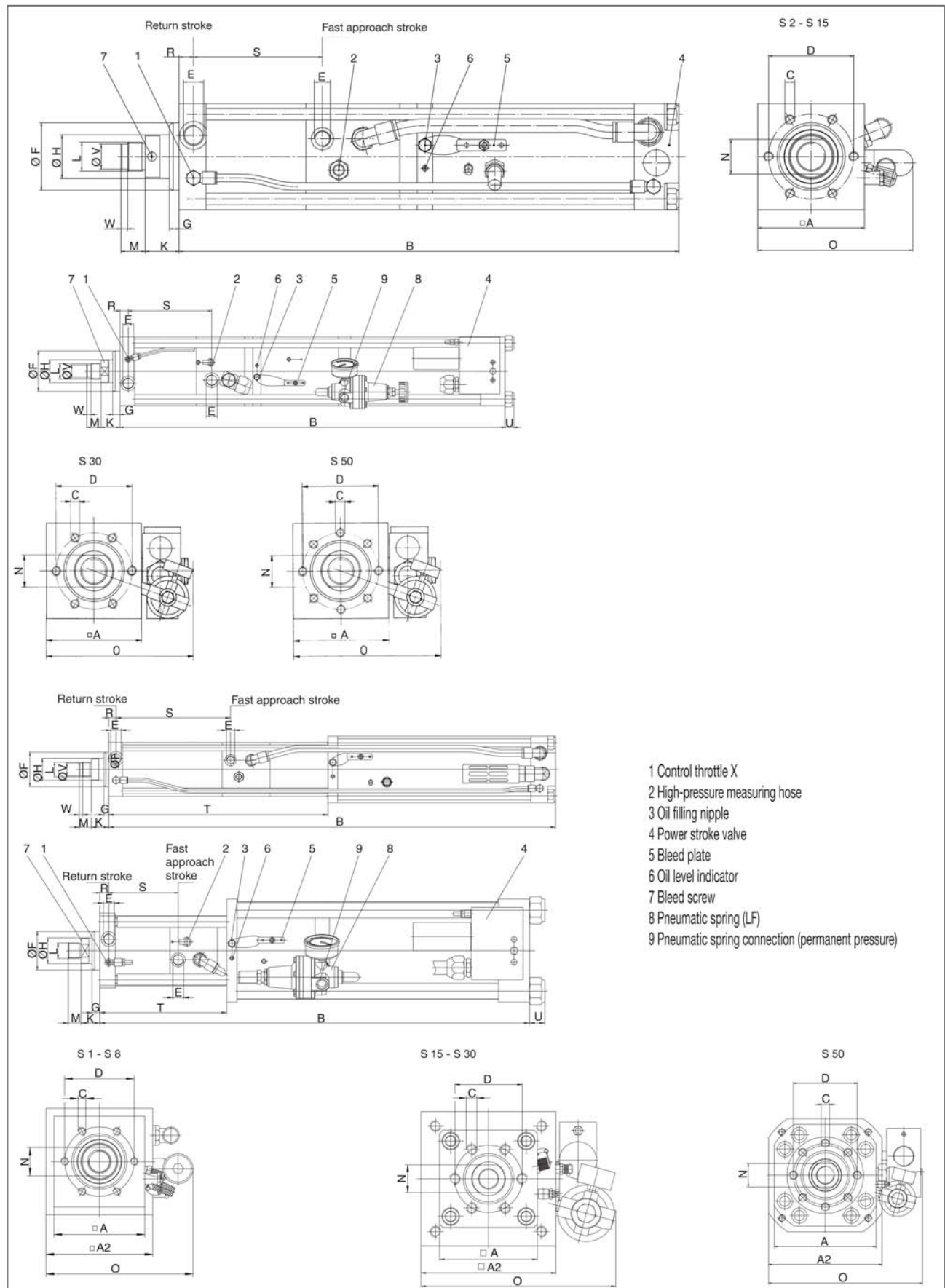
In TOX[®]-Powerpackages with pneumatic spring, the conventional pressure spring is replaced by the so called pneumatic spring. The oil volume is preloaded by the pressurized air volume in the intensifier chamber. The pressure regulator is supplied with the unit.



TOX®-Powerpackage type S 6bar

Version .30, 11 – 1740 kN

Patented power bypass and hydraulic end position cushioning are standard features of all TOX®-Powerpackages type S 4 to S 170.



TOX®-Powerpackage type S 6bar

Version .30, 11 – 1740 kN

Order no.	total stroke	power stroke	max. force at 6 bar	fast approach force	retracting force	NEW: these cylinders can be substituted with our line-Q. Short lead time, favorable price, with stroke monitoring (see data sheet 10.50)																				Weight kg				
type	mm	mm	kN	daN	daN	A	A ₂	B	C	D	E	F ₇₇	G	H	K	L	M	N	O	R	S	T	U	Vg6	W	*LF	**IV			
S	1.30.	50.	12	10.7	69	73	50	70	479	6xM6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	102	11.5	106.5	197	-	-	-	-	x	7	
S	1.30.	100.	12	10.7	69	73	50	70	589	6xM6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	102	11.5	156.5	297	-	-	-	-	x	8	
S	1.30.	150.	12	10.7	69	73	50	70	694	6xM6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	102	11.5	206.5	397	-	-	-	-	x	9	
S	1.30.	200.	12	10.7	69	73	50	70	794	6xM6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	102	11.5	256.5	497	-	-	-	-	x	10	
S	2.30.	50.	6	17.1	142	149	70	-	474	6xM8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	107	13	116	-	-	-	-	-	x	9	
S	2.30.	100.	6	17.1	142	149	70	-	589	6xM8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	107	13	166	-	-	-	-	-	x	12	
S	2.30.	50.	12	15.7	142	148	70	85	519	6xM8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	116	13	116	210	-	-	-	-	x	12	
S	2.30.	100.	12	15.7	142	148	70	85	649	6xM8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	116	13	166	310	-	-	-	-	x	15	
S	2.30.	150.	12	15.7	142	148	70	85	763	6xM8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	116	13	216	410	-	-	-	-	x	18	
S	2.30.	200.	12	15.7	142	148	70	85	870	6xM8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	116	13	266	510	-	-	-	-	x	20	
S	4.30.	50.	6D	31.4	185	194	85	-	558	6xM8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	120	14	125	-	-	18	7	-	x	16	
S	4.30.	100.	6D	31.4	185	194	85	-	679	6xM8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	120	14	175	-	-	18	7	-	x	20	
S	4.30.	50.	12D	38.5	184	195	90	110	591	6xM8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	165	14	125	226	-	18	7	-	x	22	
S	4.30.	100.	12D	38.5	184	195	90	110	691	6xM8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	165	14	175	326	-	18	7	-	x	25	
S	4.30.	150.	12D	38.5	184	195	90	110	826	6xM8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	165	14	225	426	-	18	7	-	x	29	
S	4.30.	200.	12D	38.5	184	195	90	110	926	6xM8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	165	14	275	526	-	18	7	-	x	32	
S	8.30.	50.	6D	73.9	320	328	110	-	611	6xM10x16	88	G1/2	70	10	45	35	M30x2	25	36	165	15	133	-	-	26	7	-	x	28	
S	8.30.	100.	6D	73.9	320	328	110	-	726	6xM10x16	88	G1/2	70	10	45	35	M30x2	25	36	165	15	183	-	-	26	7	-	x	34	
S	8.30.	50.	12D	69.0	321	327	115	135	679	6xM10x16	88	G1/2	70	10	45	35	M30x2	25	36	190	15	133	246	-	26	7	-	x	42	
S	8.30.	100.	12D	69.0	321	327	115	135	794	6xM10x16	88	G1/2	70	10	45	35	M30x2	25	36	190	15	183	346	-	26	7	-	x	47	
S	8.30.	150.	12D	69.0	321	327	115	135	909	6xM10x16	88	G1/2	70	10	45	35	M30x2	25	36	190	15	233	446	-	26	7	-	x	53	
S	8.30.	200.	12D	69.0	321	327	115	135	1024	6xM10x16	88	G1/2	70	10	45	35	M30x2	25	36	190	15	283	546	-	26	7	-	x	59	
S	15.30.	50.	6D	133.5	461	534	135	-	680	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	190	17.5	134.5	-	-	26	7	-	x	48	
S	15.30.	100.	6D	133.5	461	534	135	-	805	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	190	17.5	184.5	-	-	26	7	-	x	58	
S	15.30.	200.	6D	133.5	461	534	135	-	1062	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	190	17.5	284.5	-	-	26	7	-	x	75	
S	15.30.	50.	12D	130.8	477	518	145	170	867	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	290	17.5	134.5	246	22	26	7	x	x	85	
S	15.30.	100.	12D	130.8	477	518	145	170	967	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	290	17.5	184.5	346	22	26	7	x	x	95	
S	15.30.	150.	12D	130.8	477	518	145	170	1067	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	290	17.5	234.5	446	22	26	7	x	x	103	
S	15.30.	200.	12D	130.8	477	518	145	170	1207	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	290	17.5	284.5	546	22	26	7	x	x	116	
S	30.30.	70.	6D	264.2	708	874	170	-	948	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	290	20	206	-	22	-	-	x	x	111	
S	30.30.	150.	6D	264.2	708	874	170	-	1204	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	290	20	286	-	22	-	-	x	x	136	
S	30.30.	70.	12D	261.9	708	874	200	-	1002	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	320	20	206	327	30	-	-	-	x	x	137
S	30.30.	150.	12D	261.9	708	874	200	-	1248	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	320	20	286	487	30	-	-	-	x	x	165
S	30.30.	200.	12D	261.9	708	874	200	-	1428	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	320	20	336	587	30	-	-	-	x	x	185
S	50.30.	70.	6D	406.0	785	1083	200	-	1010	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	320	23	213	-	30	-	-	-	x	x	150
S	50.30.	150.	10D	498.0	785	1083	240	267	1231	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	470	23	293	498	16	-	-	-	x	x	254
S	50.30.	300.	15D	394.9	785	1083	240	324	1621	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	540	23	443	798	22	-	-	-	x	x	280

*LF: Version with pneumatic spring. See page 2.

Order no. with suffix D: Power bypass ZHD with hydraulic end position cushioning as standard.

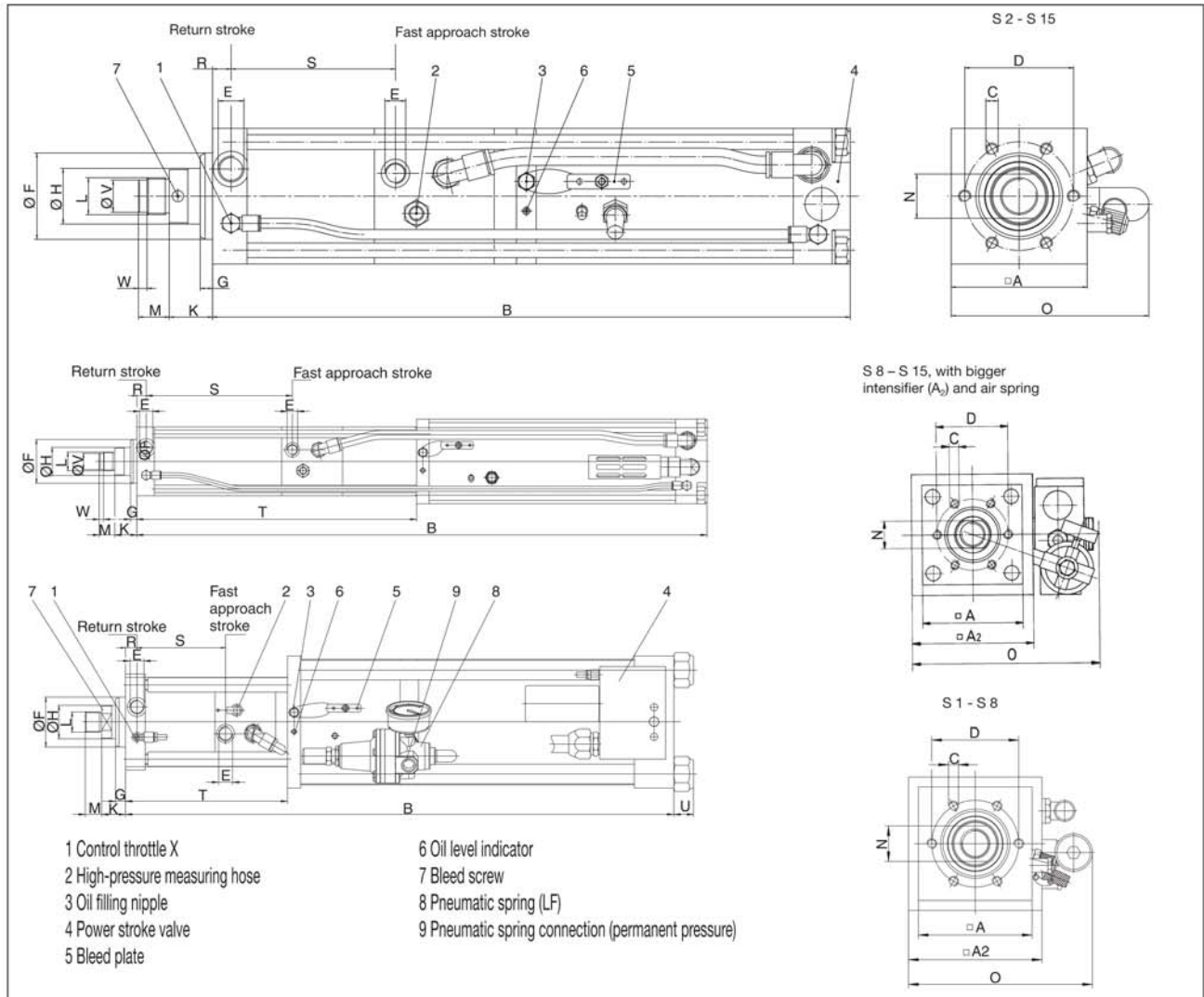
**IV: Integrated power stroke valve

Dimensions in mm.

TOX®-Powerpackage type S 10 bar

10 – 150 kN

Patented power bypass and hydraulic end position cushioning are standard features of all TOX®-Powerpackages type S 4 to S 170.



Order no.	total stroke	power stroke	max. press force at compressed air		fast approach force at 10 bar	retracting force	Dimensions in mm																	Weight kg					
			6 bar	10 bar			A	A ₂	B	C	D	E	F ₁₇	G	H	K	L	M	N	O	R	S	T		U	V _{g6}	W	*LF	**IV
S 1.	32.	6	5.6	9.8	115	123	50	-	360	40	G1/8	30	10	16	24	M12x1.5	12	14	86	11.5	88.5	-	-	-	-	-	-	x	4
S 1.	100.	6	5.6	9.8	115	123	50	-	527	40	G1/8	30	10	16	24	M12x1.5	12	14	86	11.5	156.5	-	-	-	-	-	-	x	5
S 1.	150.	6	5.6	9.8	115	123	50	-	647	40	G1/8	30	10	16	24	M12x1.5	12	14	86	11.5	206.5	-	-	-	-	-	-	x	6
S 1.	200.	6	5.6	9.8	115	123	50	-	767	40	G1/8	30	10	16	24	M12x1.5	12	14	86	11.5	256.5	-	-	-	-	-	-	x	6
S 1.	50.	12	5.6	9.8	115	123	50	-	434	40	G1/8	30	10	16	24	M12x1.5	12	14	86	11.5	106.5	-	-	-	-	-	-	x	5
S 1.	100.	12	5.6	9.8	115	123	50	-	565	40	G1/8	30	10	16	24	M12x1.5	12	14	86	11.5	156.5	-	-	-	-	-	-	x	6
S 1.	150.	12	5.6	9.8	115	123	50	-	685	40	G1/8	30	10	16	24	M12x1.5	12	14	86	11.5	206.5	-	-	-	-	-	-	x	6
S 1.	200.	12	5.6	9.8	115	123	50	-	805	40	G1/8	30	10	16	24	M12x1.5	12	14	86	11.5	256.5	-	-	-	-	-	-	x	9
S 1.	250.	12	7.1	12.6	115	123	50	70	880	40	G1/8	30	10	16	24	M12x1.5	12	14	102	11.5	306.5	597	-	-	-	-	-	x	15
S 1.	50.	24	7.1	12.6	115	123	50	70	479	40	G1/8	30	10	16	24	M12x1.5	12	14	102	11.5	106.5	197	-	-	-	-	-	x	7
S 1.	100.	24	7.1	12.6	115	123	50	70	589	40	G1/8	30	10	16	24	M12x1.5	12	14	102	11.5	156.5	297	-	-	-	-	-	x	8
S 1.	150.	24	7.1	12.6	115	123	50	70	694	40	G1/8	30	10	16	24	M12x1.5	12	14	102	11.5	206.5	397	-	-	-	-	-	x	8
S 1.	200.	24	7.1	12.6	115	123	50	70	794	40	G1/8	30	10	16	24	M12x1.5	12	14	102	11.5	256.5	497	-	-	-	-	-	x	9

*LF: Version with pneumatic spring. See page 2.

Dimensions in mm.

**IV: Integrated power stroke valve

TOX®-Powerpackage type S 10 bar

10 – 150 kN

Order no.	total stroke	power stroke	max. press force at compressed air		fast approach force at 10 bar	retracting force																		Weight kg					
			6 bar	10 bar			A	A ₂	B	C	D	E	F ₁₇	G	H	K	L	M	N	O	R	S	T		U	V ₉₆	W	*LF	**IV
S 1.	100.	48	7.1	12.5	115	123	50	85	665	—	40	G1/8	30	10	16	24	M12x1.5	12	14	116	11.5	156.5	297	-	-	-	-	x	12
S 1.	150.	48	7.1	12.5	115	123	50	85	765	—	40	G1/8	30	10	16	24	M12x1.5	12	14	116	11.5	206.5	397	-	-	-	-	x	13
S 1.	200.	48	7.1	12.5	115	123	50	85	865	6xM6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	116	11.5	256.5	497	-	-	-	-	x	14
S 1.	150.	60	7.1	12.5	115	123	50	85	797	—	40	G1/8	30	10	16	24	M12x1.5	12	14	116	11.5	206.5	397	-	-	-	-	x	12
S 1.	200.	60	7.1	12.5	115	123	50	85	897	—	40	G1/8	30	10	16	24	M12x1.5	12	14	116	11.5	256.5	497	-	-	-	-	x	16
S 1.	250.	60	7.1	12.5	115	123	50	85	997	—	40	G1/8	30	10	16	24	M12x1.5	12	14	116	11.5	306.5	597	-	-	-	-	x	17
S 2.	32.	6	11.5	20.3	236	250	70	-	386	—	54	G1/4	40	10	20	26	M16x1.5	15	17	105	13	98	-	-	-	-	x	8	
S 2.	100.	6	11.5	20.3	236	250	70	-	552	—	54	G1/4	40	10	20	26	M16x1.5	15	17	105	13	166	-	-	-	-	x	11	
S 2.	150.	6	11.5	20.3	236	250	70	-	672	—	54	G1/4	40	10	20	26	M16x1.5	15	17	105	13	216	-	-	-	-	x	12	
S 2.	200.	6	11.5	20.3	236	250	70	-	792	—	54	G1/4	40	10	20	26	M16x1.5	15	17	105	13	266	-	-	-	-	x	13	
S 2.	50.	12	11.5	20.3	236	250	70	-	474	—	54	G1/4	40	10	20	26	M16x1.5	15	17	105	13	116	-	-	-	-	x	9	
S 2.	100.	12	11.5	20.3	236	250	70	-	589	—	54	G1/4	40	10	20	26	M16x1.5	15	17	105	13	166	-	-	-	-	x	12	
S 2.	150.	12	11.5	20.3	236	250	70	-	709	—	54	G1/4	40	10	20	26	M16x1.5	15	17	105	13	216	-	-	-	-	x	14	
S 2.	200.	12	11.5	20.3	236	250	70	-	829	—	54	G1/4	40	10	20	26	M16x1.5	15	17	105	13	266	-	-	-	-	x	16	
S 2.	250.	12	11.5	20.0	237	249	70	85	944	—	54	G1/4	40	10	20	26	M16x1.5	15	17	116	13	316	610	-	-	-	-	x	21
S 2.	50.	24	11.5	20.0	237	249	70	85	519	6xM6x12	54	G1/4	40	10	20	26	M16x1.5	15	17	116	13	116	210	-	-	-	-	x	13
S 2.	100.	24	11.5	20.0	237	249	70	85	649	—	54	G1/4	40	10	20	26	M16x1.5	15	17	116	13	166	310	-	-	-	-	x	15
S 2.	150.	24	11.5	20.0	237	249	70	85	763	—	54	G1/4	40	10	20	26	M16x1.5	15	17	116	13	216	410	-	-	-	-	x	18
S 2.	200.	24	11.5	20.0	237	249	70	85	870	—	54	G1/4	40	10	20	26	M16x1.5	15	17	116	13	266	510	-	-	-	-	x	20
S 2.	100.	44	11.7	20.3	236	249	70	110	675	—	54	G1/4	40	10	20	26	M16x1.5	15	17	165	13	166	310	-	-	-	-	x	20
S 2.	150.	44	11.7	20.3	236	249	70	110	775	—	54	G1/4	40	10	20	26	M16x1.5	15	17	165	13	216	410	-	-	-	-	x	23
S 2.	200.	44	11.7	20.3	236	249	70	110	875	—	54	G1/4	40	10	20	26	M16x1.5	15	17	165	13	266	510	-	-	-	-	x	24
S 2.	150.	65	11.7	20.3	236	249	70	110	835	—	54	G1/4	40	10	20	26	M16x1.5	15	17	165	13	216	410	-	-	-	-	x	25
S 2.	200.	65	11.7	20.3	236	249	70	110	935	—	54	G1/4	40	10	20	26	M16x1.5	15	17	165	13	266	510	-	-	-	-	x	26
S 2.	250.	65	11.7	20.3	236	249	70	110	1035	—	54	G1/4	40	10	20	26	M16x1.5	15	17	165	13	316	610	-	-	-	-	x	28
S 4.	32.	6 D	22.7	39.7	307	328	85	-	449	—	64	G3/8	50	10	30	28.5	M22x2	20	24	120	14	107	-	-	18	7	-	x	14
S 4.	100.	6 D	22.7	39.7	307	328	85	-	625	—	64	G3/8	50	10	30	28.5	M22x2	20	24	120	14	175	-	-	18	7	-	x	18
S 4.	150.	6 D	22.7	39.7	307	328	85	-	755	—	64	G3/8	50	10	30	28.5	M22x2	20	24	120	14	225	-	-	18	7	-	x	23
S 4.	200.	6 D	22.7	39.7	307	328	85	-	885	—	64	G3/8	50	10	30	28.5	M22x2	20	24	120	14	275	-	-	18	7	-	x	23
S 4.	50.	12 D	22.7	39.7	307	328	85	-	558	—	64	G3/8	50	10	30	28.5	M22x2	20	24	120	14	125	-	-	18	7	-	x	16
S 4.	100.	12 D	22.7	39.7	307	328	85	-	679	—	64	G3/8	50	10	30	28.5	M22x2	20	24	120	14	175	-	-	18	7	-	x	19
S 4.	150.	12 D	22.7	39.7	307	328	85	-	809	—	64	G3/8	50	10	30	28.5	M22x2	20	24	120	14	225	-	-	18	7	-	x	24
S 4.	200.	12 D	22.7	39.7	307	328	85	-	939	—	64	G3/8	50	10	30	28.5	M22x2	20	24	120	14	275	-	-	18	7	-	x	27
S 4.	300.	12 D	23.2	40.2	307	328	90	110	1089	—	64	G3/8	50	10	30	28.5	M22x2	20	24	165	14	375	726	-	18	7	-	x	38
S 4.	400.	12 D	23.2	40.2	307	328	90	110	1323	—	64	G3/8	50	10	30	28.5	M22x2	20	24	165	14	475	926	-	18	7	-	x	46
S 4.	50.	24 D	23.2	40.2	307	328	90	110	591	6xM8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	165	14	125	226	-	18	7	-	x	22
S 4.	100.	24 D	23.2	40.2	307	328	90	110	691	—	64	G3/8	50	10	30	28.5	M22x2	20	24	165	14	175	326	-	18	7	-	x	25
S 4.	150.	24 D	23.2	40.2	307	328	90	110	826	—	64	G3/8	50	10	30	28.5	M22x2	20	24	165	14	225	426	-	18	7	-	x	29
S 4.	200.	24 D	23.2	40.2	307	328	90	110	926	—	64	G3/8	50	10	30	28.5	M22x2	20	24	165	14	275	526	-	18	7	-	x	32
S 4.	100.	44 D	23.2	40.2	307	328	90	135	760	—	64	G3/8	50	10	30	28.5	M22x2	20	24	176	14	175	326	-	18	7	-	x	38
S 4.	150.	44 D	23.2	40.2	307	328	90	135	860	—	64	G3/8	50	10	30	28.5	M22x2	20	24	176	14	225	426	-	18	7	-	x	41
S 4.	200.	44 D	23.2	40.2	307	328	90	135	960	—	64	G3/8	50	10	30	28.5	M22x2	20	24	176	14	275	526	-	18	7	-	x	45
S 4.	300.	44 D	23.2	40.2	307	328	90	135	1180	—	64	G3/8	50	10	30	28.5	M22x2	20	24	176	14	375	726	-	18	7	-	x	52
S 4.	400.	44 D	23.2	40.2	307	328	90	135	1380	—	64	G3/8	50	10	30	28.5	M22x2	20	24	176	14	475	926	-	18	7	-	x	58
S 4.	200.	65 D	23.2	40.2	307	328	90	135	1059	—	64	G3/8	50	10	30	28.5	M22x2	20	24	176	14	275	526	-	18	7	-	x	48
S 4.	300.	65 D	23.2	40.2	307	328	90	135	1279	—	64	G3/8	50	10	30	28.5	M22x2	20	24	176	14	375	726	-	18	7	-	x	55
S 4.	400.	65 D	23.2	40.2	307	328	90	135	1479	—	64	G3/8	50	10	30	28.5	M22x2	20	24	176	14	475	926	-	18	7	-	x	61

*LF: Version with pneumatic spring. See page 2.

Dimensions in mm.

**IV: Integrated power stroke valve

Order no. with suffix D: Power bypass ZHD with hydraulic end position cushioning as standard.

TOX®-Powerpackage type S 10 bar

10 – 150 kN

Order no.	total stroke	power stroke	max. press force at compressed air		fast approach force at 10 bar	retracting force																					Weight kg		
			6 bar	10 bar			daN	daN	A	A ₂	B	C	D	E	F ₇₇	G	H	K	L	M	N	O	R	S	T	U		V _{ge}	W
S 8.	32.	6 D	44.4	77	532	553	110	-	486	6MM10x16	88	G1/2	70	10	45	35	M30x2	25	36	165	15	115	-	-	26	7	-	x	25
S 8.	100.	6 D	44.4	77	532	553	110	-	658		88	G1/2	70	10	45	35	M30x2	25	36	165	15	183	-	-	26	7	-	x	33
S 8.	150.	6 D	44.4	77	532	553	110	-	788		88	G1/2	70	10	45	35	M30x2	25	36	165	15	233	-	-	26	7	-	x	37
S 8.	200.	6 D	44.4	77	532	553	110	-	918		88	G1/2	70	10	45	35	M30x2	25	36	165	15	283	-	-	26	7	-	x	41
S 8.	50.	12 D	44.4	77	532	553	110	-	611		88	G1/2	70	10	45	35	M30x2	25	36	165	15	133	-	-	26	7	-	x	31
S 8.	100.	12 D	44.4	77	532	553	110	-	726		88	G1/2	70	10	45	35	M30x2	25	36	165	15	183	-	-	26	7	-	x	34
S 8.	150.	12 D	44.4	77	532	553	110	-	846		88	G1/2	70	10	45	35	M30x2	25	36	165	15	233	-	-	26	7	-	x	38
S 8.	200.	12 D	44.4	77	532	553	110	-	964		88	G1/2	70	10	45	35	M30x2	25	36	165	15	283	-	-	26	7	-	x	46
S 8.	300.	12 D	44.4	77	533	552	115	135	1162		88	G1/2	70	10	45	35	M30x2	25	36	176	15	383	746	-	26	7	-	x	70
S 8.	400.	12 D	44.4	77	533	552	115	135	1409		88	G1/2	70	10	45	35	M30x2	25	36	176	15	483	946	-	26	7	-	x	90
S 8.	50.	24 D	44.4	77	533	552	115	135	684		88	G1/2	70	10	45	35	M30x2	25	36	176	15	133	251	-	26	7	-	x	47
S 8.	100.	24 D	44.4	77	533	552	115	135	794		88	G1/2	70	10	45	35	M30x2	25	36	176	15	183	346	-	26	7	-	x	47
S 8.	150.	24 D	44.4	77	533	552	115	135	909		88	G1/2	70	10	45	35	M30x2	25	36	176	15	233	446	-	26	7	-	x	50
S 8.	200.	24 D	44.4	77	533	552	115	135	1024		88	G1/2	70	10	45	35	M30x2	25	36	176	15	283	546	-	26	7	-	x	60
S 8.	100.	48 D	44.4	77	541	544	115	170	967		88	G1/2	70	10	45	35	M30x2	25	36	290	15	183	346	22	26	7	x	-	84
S 8.	150.	48 D	44.4	77	541	544	115	170	1067		88	G1/2	70	10	45	35	M30x2	25	36	290	15	233	446	22	26	7	x	-	89
S 8.	200.	48 D	44.4	77	541	544	115	170	1167	88	G1/2	70	10	45	35	M30x2	25	36	290	15	283	546	22	26	7	x	-	95	
S 8.	300.	48 D	44.4	77	541	544	115	170	1407	88	G1/2	70	10	45	35	M30x2	25	36	290	15	383	746	22	26	7	x	-	109	
S 8.	400.	48 D	44.4	77	541	544	115	170	1607	88	G1/2	70	10	45	35	M30x2	25	36	290	15	483	946	22	26	7	x	-	121	
S 8.	200.	80 D	44.4	77	541	544	115	200	1245	88	G1/2	70	10	45	35	M30x2	25	36	320	15	283	546	30	26	7	x	-	102	
S 8.	300.	80 D	44.4	77	541	544	115	200	1445	88	G1/2	70	10	45	35	M30x2	25	36	320	15	383	746	30	26	7	x	-	125	
S 8.	400.	80 D	44.4	77	541	544	115	200	1593	88	G1/2	70	10	45	35	M30x2	25	36	320	15	483	946	30	26	7	x	-	135	
S 15.	32.	6 D	85.4	148	764	905	135	-	532	6MM16x25	100	G1/2	75	15	50	36	M30x2	25	41	176	17.5	116.5	-	-	26	7	-	x	43
S 15.	100.	6 D	85.4	148	764	905	135	-	715		100	G1/2	75	15	50	36	M30x2	25	41	176	17.5	184.5	-	-	26	7	-	x	55
S 15.	150.	6 D	85.4	148	764	905	135	-	845		100	G1/2	75	15	50	36	M30x2	25	41	176	17.5	234.5	-	-	26	7	-	x	60
S 15.	200.	6 D	85.4	148	764	905	135	-	985		100	G1/2	75	15	50	36	M30x2	25	41	176	17.5	284.5	-	-	26	7	-	x	72
S 15.	50.	12 D	85.4	148	764	905	135	-	680		100	G1/2	75	15	50	36	M30x2	25	41	176	17.5	134.5	-	-	26	7	-	x	48
S 15.	100.	12 D	85.4	148	764	905	135	-	805		100	G1/2	75	15	50	36	M30x2	25	41	176	17.5	184.5	-	-	26	7	-	x	57
S 15.	150.	12 D	85.4	148	764	905	135	-	920		100	G1/2	75	15	50	36	M30x2	25	41	176	17.5	234.5	-	-	26	7	-	x	60
S 15.	200.	12 D	85.4	148	764	905	135	-	1062		100	G1/2	75	15	50	36	M30x2	25	41	176	17.5	284.5	-	-	26	7	-	x	66
S 15.	300.	12 D	85.4	148	781	889	145	170	1373		100	G1/2	75	15	50	36	M30x2	25	41	290	17.5	384.5	746	22	26	7	x	-	132
S 15.	400.	12 D	85.4	148	781	889	145	170	1643		100	G1/2	75	15	50	36	M30x2	25	41	290	17.5	484.5	946	22	26	7	x	-	153
S 15.	50.	24 D	85.4	148	781	889	145	170	867		100	G1/2	75	15	50	36	M30x2	25	41	290	17.5	134.5	246	22	26	7	x	-	86
S 15.	100.	24 D	85.4	148	781	889	145	170	967		100	G1/2	75	15	50	36	M30x2	25	41	290	17.5	184.5	346	22	26	7	x	-	95
S 15.	150.	24 D	85.4	148	781	889	145	170	1067		100	G1/2	75	15	50	36	M30x2	25	41	290	17.5	234.5	446	22	26	7	x	-	103
S 15.	200.	24 D	85.4	148	781	889	145	170	1207		100	G1/2	75	15	50	36	M30x2	25	41	290	17.5	284.5	546	22	26	7	x	-	116
S 15.	100.	40 D	85	149.6	781	889	145	200	1045		100	G1/2	75	15	50	36	M30x2	25	41	320	17.5	184.5	346	30	26	7	x	-	112
S 15.	150.	40 D	85	149.6	781	889	145	200	1145		100	G1/2	75	15	50	36	M30x2	25	41	320	17.5	234.5	446	30	26	7	x	-	126
S 15.	200.	40 D	85	149.6	781	889	145	200	1245	100	G1/2	75	15	50	36	M30x2	25	41	320	17.5	284.5	546	30	26	7	x	-	136	
S 15.	300.	40 D	85	149.6	781	889	145	200	1497	100	G1/2	75	15	50	36	M30x2	25	41	320	17.5	384.5	746	30	26	7	x	-	156	
S 15.	400.	40 D	85	149.6	781	889	145	200	1777	100	G1/2	75	15	50	36	M30x2	25	41	320	17.5	484.5	946	30	26	7	x	-	138	
S 15.	150.	60 D	85	149.6	781	889	145	200	1245	100	G1/2	75	15	50	36	M30x2	25	41	320	17.5	234.5	446	30	26	7	x	-	131	
S 15.	200.	80 D	85	149.6	781	889	145	200	1445	100	G1/2	75	15	50	36	M30x2	25	41	320	17.5	284.5	546	30	26	7	x	-	150	
S 15.	300.	80 D	85	149.6	781	889	145	200	1747	100	G1/2	75	15	50	36	M30x2	25	41	320	17.5	384.5	746	30	26	7	x	-	168	
S 15.	400.	80 D	85	149.6	781	889	145	200	2027	100	G1/2	75	15	50	36	M30x2	25	41	320	17.5	484.5	946	30	26	7	x	-	190	

*LF: Version with pneumatic spring. See page 2.

Order no. with suffix D: Power bypass ZHD with hydraulic end position cushioning as standard.

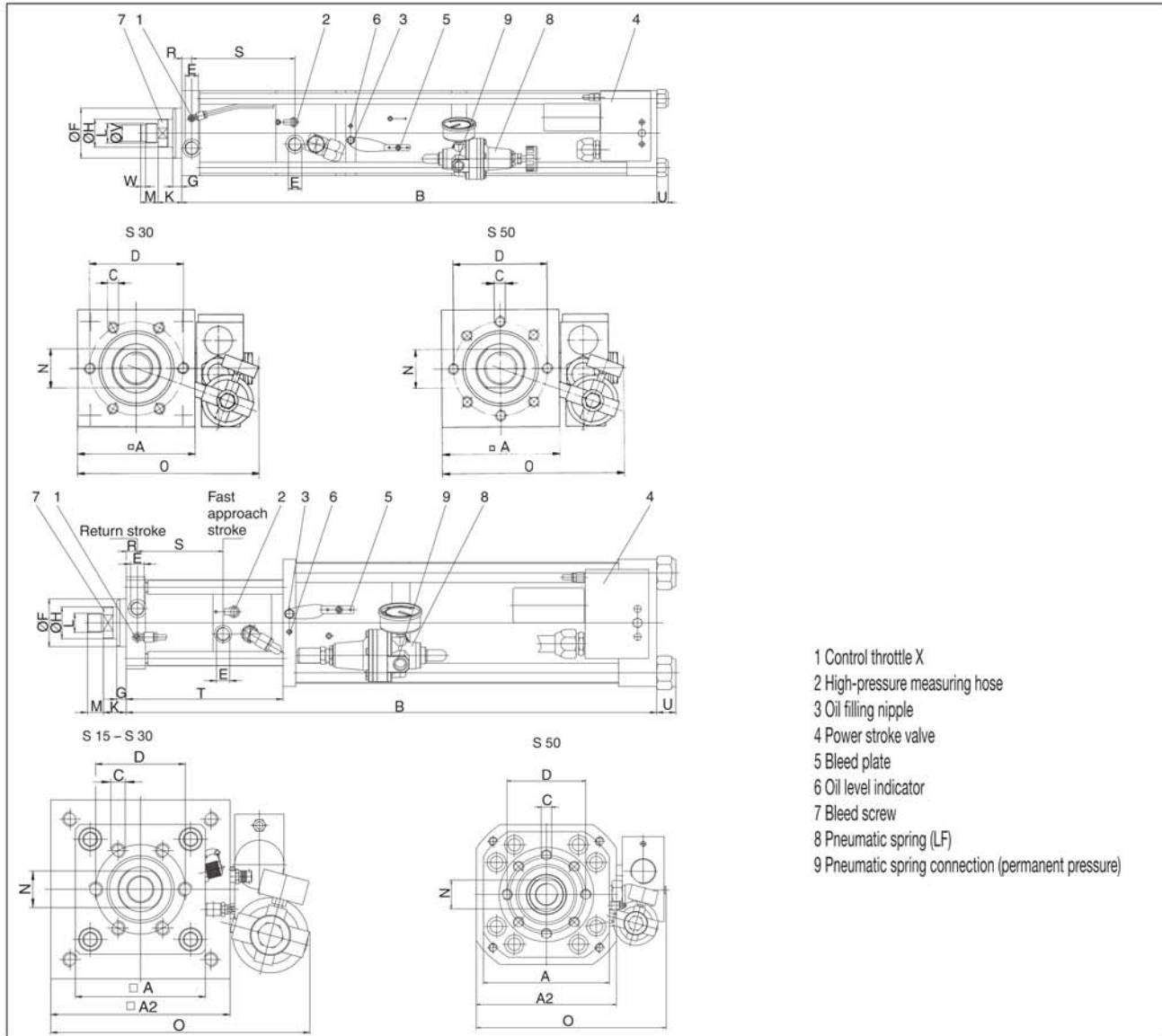
**IV: Integrated power stroke valve

Dimensions in mm.

TOX®-Powerpackage type S 10 bar

297 – 1680 kN

Patented power bypass and hydraulic end position cushioning are standard features of all TOX®-Powerpackages type S 4 to S 170.



- 1 Control throttle X
- 2 High-pressure measuring hose
- 3 Oil filling nipple
- 4 Power stroke valve
- 5 Bleed plate
- 6 Oil level indicator
- 7 Bleed screw
- 8 Pneumatic spring (LF)
- 9 Pneumatic spring connection (permanent pressure)

Order no.	total power	stroke	max. press force at compressed air		fast approach force at 10 bar	retracting force	Dimensions																Weight kg			
			6 bar	10 bar			A	A ₂	B	C	D	E	F ₁₇	G	H	K	L	M	N	O	R	S		T	U	*LF
S 30.	50.	6 D	171.6	297.7	1149	1509	170	-	788	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	290	20	186	-	22	x	103
S 30.	100.	6 D	171.6	297.7	1149	1509	170	-	958	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	290	20	236	-	22	x	118
S 30.	150.	6 D	171.6	297.7	1149	1509	170	-	1114	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	290	20	286	-	22	x	155
S 30.	200.	6 D	171.6	297.7	1149	1509	170	-	1284	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	290	20	336	-	22	x	155
S 30.	70.	12 D	171.6	297.7	1149	1509	170	-	948	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	290	20	206	-	22	x	112
S 30.	100.	12 D	171.6	297.7	1149	1509	170	-	1048	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	290	20	236	-	22	x	121
S 30.	150.	12 D	171.6	297.7	1149	1509	170	-	1204	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	290	20	286	-	22	x	136
S 30.	200.	12 D	171.6	297.7	1149	1509	170	-	1374	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	290	20	336	-	22	x	151
S 30.	300.	12 D	170.8	300.8	1149	1509	200	-	1611	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	320	20	436	787	30	x	213
S 30.	400.	12 D	170.8	300.8	1149	1509	200	-	1931	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	320	20	536	987	30	x	250
S 30.	70.	20 D	170.8	300.8	1149	1509	200	-	1002	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	320	20	206	327	30	x	140
S 30.	100.	20 D	170.8	300.8	1149	1509	200	-	1072	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	320	20	236	387	30	x	148
S 30.	150.	20 D	170.8	300.8	1149	1509	200	-	1248	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	320	20	286	487	30	x	165

*LF: Version with pneumatic spring. See page 2.

Order no. with suffix D: Power bypass ZHD with hydraulic end position cushioning as standard.

Dimensions in mm.

TOX®-Powerpackage type S 10 bar

297 – 1680 kN

Order no.	max. press force at compressed air		fast approach force	retracting force																			Weight kg			
					6 bar	10 bar	at 10 bar	A	A ₂	B	C	D	E	F ₁₇	G	H	K	L	M	N	O	R		S	T	U
type	total stroke	power stroke	kN	kN	daN	daN																				
S 30.	200.	20 D	170.8	300.8	1149	1509	200	-	1428	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	320	20	336	587	30	x	185
S 30.	300.	20 D	170.8	300.8	1149	1509	200	-	1691	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	320	20	436	787	30	x	216
S 30.	400.	20 D	170.8	300.8	1149	1509	200	-	2101	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	320	20	536	987	30	x	260
S 30.	150.	28 D	170	313.4	1149	1509	190	267	1250	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	470	20	286	487	16	x	170
S 30.	200.	28 D	170	313.4	1149	1509	190	267	1610	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	470	20	336	587	16	x	190
S 30.	300.	44 D	170	313.4	1149	1509	190	267	1810	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	470	20	436	787	16	x	275
S 30.	400.	44 D	170	313.4	1149	1509	190	267	1115	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	470	20	536	987	16	x	240
S 50.	50.	6 D	263.6	464.7	1259	1887	200	-	827	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	320	23	193	-	30	x	140
S 50.	100.	6 D	263.6	464.7	1259	1887	200	-	1003	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	320	23	243	-	30	x	155
S 50.	150.	6 D	263.6	464.7	1259	1887	200	-	1183	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	320	23	293	-	30	x	170
S 50.	200.	6 D	263.6	464.7	1259	1887	200	-	1376	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	320	23	343	-	30	x	180
S 50.	70.	12 D	263.6	464.7	1259	1887	200	-	1010	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	320	23	213	-	30	x	155
S 50.	100.	12 D	263.6	464.7	1259	1887	200	-	1122	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	320	23	243	-	30	x	166
S 50.	150.	12 D	263.6	464.7	1259	1887	200	-	1302	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	320	23	293	-	30	x	179
S 50.	200.	12 D	263.6	464.7	1259	1887	200	-	1495	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	320	23	343	-	30	x	205
S 50.	300.	12 D	262.4	484.3	1259	1887	240	267	1571	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	470	23	443	798	16	x	256
S 50.	400.	12 D	262.4	484.3	1259	1887	240	267	1871	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	470	23	543	998	16	x	376
S 50.	70.	20 D	262.4	484.3	1259	1887	240	267	996	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	470	23	213	338	16	x	205
S 50.	100.	20 D	262.4	484.3	1259	1887	240	267	1051	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	470	23	243	398	16	x	226
S 50.	150.	20 D	262.4	484.3	1259	1887	240	267	1231	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	470	23	293	498	16	x	250
S 50.	200.	20 D	262.4	484.3	1259	1887	240	267	1361	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	470	23	343	598	16	x	246
S 50.	300.	20 D	262.4	484.3	1259	1887	240	267	1671	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	470	23	443	798	16	x	270
S 50.	400.	20 D	262.4	484.3	1259	1887	240	267	1971	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	470	23	543	998	16	x	330
S 50.	300.	30 D	283.2	515.0	1259	1887	240	324	1623	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	540	23	443	798	22	x	280
S 50.	400.	40 D	283.2	515.0	1259	1887	240	324	1968	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	540	23	543	998	22	x	466

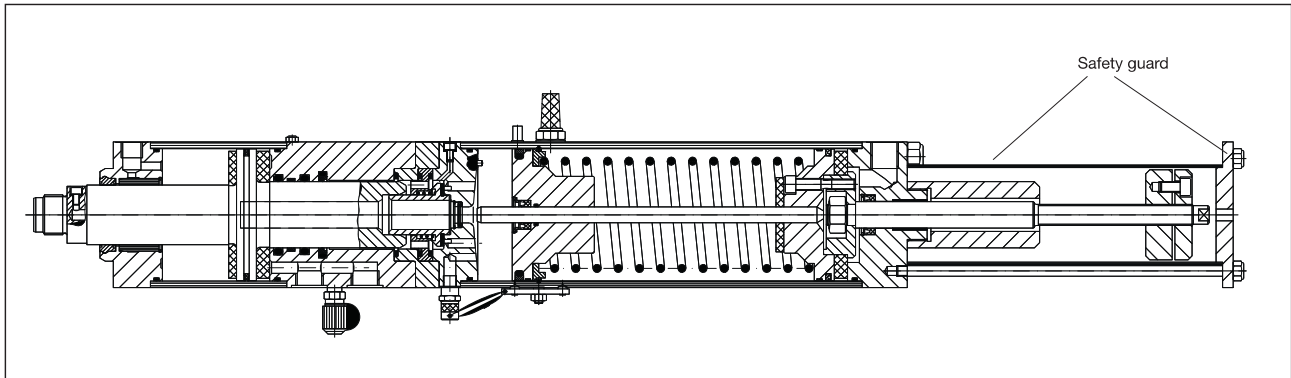
*LF: Version with pneumatic spring.
Dimensions in mm.

Order no. with suffix D: Power bypass ZHD with hydraulic end position cushioning as standard.

TOX®-Powerpackage type S 10bar and 6bar

Version .50, with power stroke adjustment 10 – 1000 kN (6 bar on request, version .80)

Patented power bypass and hydraulic end position cushioning are standard features of all TOX®-Powerpackages type S 4 to S 170.



Function:

The intensifier piston of the TOX®-Powerpackage has a spindle attached to it. On this spindle there is an adjusting nut, which accurately limits the stroke of the intensifier piston and hence the power stroke, irrespective of the fast approach stroke.

Applications:

Insertion of wear marks with tolerances within the hundredth of a millimetre range. Stamping of parts with

varying heights or a large height tolerance at a constant stamping depth. Pressing in of bushes with an accurately defined depth.

Advantage:

The adjustment or limitation relates to the power stroke only, i. e. directly to the application, and not to the approach stroke. This means that the height differences and tolerances of the component are irrelevant. The repeating accuracy is extremely exact.

Quality / monitoring:

Due to the intensification ratio, the intensifier piston and the adjustment spindle travel proportionally to the working stroke travel (ratio approximately 1 : 10). The working stroke travel can be monitored very accurately with a travel sensor on the adjustment spindle.

Order no.							Order no.							Order no.						
type	version	total stroke	power stroke	Y	Z	U	type	version	total stroke	power stroke	Y	Z	U	type	version	total stroke	power stroke	Y	Z	U
S 1.	50.	32.	6	202	55	5	S 2.	50.	32.	6	216	75	8	S 4.	50.	32.	6 D	261	78	8
S 1.	50.	100.	6	234	55	5	S 2.	50.	100.	6	246	75	8	S 4.	50.	100.	6 D	301	78	8
S 1.	50.	150.	6	254	55	5	S 2.	50.	150.	6	266	75	8	S 4.	50.	150.	6 D	331	78	8
S 1.	50.	200.	6	274	55	5	S 2.	50.	200.	6	286	75	8	S 4.	50.	200.	6 D	361	78	8
S 1.	50.	50.	12	278	55	5	S 2.	50.	50.	12	290	75	8	S 4.	50.	50.	12 D	379	78	8
S 1.	50.	100.	12	310	55	5	S 2.	50.	100.	12	320	75	8	S 4.	50.	100.	12 D	409	78	8
S 1.	50.	150.	12	330	55	5	S 2.	50.	150.	12	340	75	8	S 4.	50.	150.	12 D	439	78	8
S 1.	50.	200.	12	350	55	5	S 2.	50.	200.	12	360	75	8	S 4.	50.	200.	12 D	469	78	8
S 1.	50.	250.	12	308	75	8	S 2.	50.	250.	12	341	78	8	S 4.	50.	300.	12 D	398	110	8
S 1.	50.	50.	24	326	75	8	S 2.	50.	50.	24	333	78	8	S 4.	50.	400.	12 D	436	110	8
S 1.	50.	100.	24	346	75	8	S 2.	50.	100.	24	393	78	8	S 4.	50.	50.	24 D	412	110	8
S 1.	50.	150.	24	356	75	8	S 2.	50.	150.	24	409	78	8	S 4.	50.	100.	24 D	412	110	8
S 1.	50.	200.	24	356	75	8	S 2.	50.	200.	24	423	78	8	S 4.	50.	150.	24 D	482	110	8
S 1.	50.	100.	48	445	78	8	S 2.	50.	100.	44	412	110	8	S 4.	50.	200.	24 D	482	110	8
S 1.	50.	150.	48	445	78	8	S 2.	50.	150.	44	412	110	8	S 4.	50.	100.	44 D	498	138	8
S 1.	50.	200.	48	445	78	8	S 2.	50.	200.	44	412	110	8	S 4.	50.	150.	44 D	498	138	8
S 1.	50.	150.	60	509	78	8	S 2.	50.	150.	65	532	110	8	S 4.	50.	200.	44 D	498	138	8
S 1.	50.	200.	60	509	78	8	S 2.	50.	200.	65	532	110	8	S 4.	50.	300.	44 D	538	138	8
S 1.	50.	250.	60	509	78	8	S 2.	50.	250.	65	532	110	8	S 4.	50.	400.	44 D	538	138	8
														S 4.	50.	200.	65 D	652	138	8
														S 4.	50.	300.	65 D	692	138	8
														S 4.	50.	400.	65 D	692	138	8

For all other dimensions see type S.
Dimensions in mm.

Order no. with suffix D: Power bypass ZHD with hydraulic end position cushioning as standard.

TOX®-Powerpackage type S 10bar and 6bar

Version .50, with power stroke adjustment, 10 – 1000 kN (6 bar on request, version .80)

Order no.							Order no.						
type	version	total stroke	power stroke	Y	Z	U	type	version	total stroke	power stroke	Y	Z	U
S 8.	50.	32.	6 D	286	110	8	S 30.	50.	50.	6 D	411	138	8
S 8.	50.	100.	6 D	326	110	8	S 30.	50.	100.	6 D	451	138	8
S 8.	50.	150.	6 D	356	110	8	S 30.	50.	150.	6 D	491	138	8
S 8.	50.	200.	6 D	386	110	8	S 30.	50.	200.	6 D	531	138	8
S 8.	50.	50.	12 D	421	110	8	S 30.	50.	70.	12 D	611	138	8
S 8.	50.	100.	12 D	442	110	8	S 30.	50.	100.	12 D	631	138	8
S 8.	50.	150.	12 D	472	110	8	S 30.	50.	150.	12 D	671	138	8
S 8.	50.	200.	12 D	502	110	8	S 30.	50.	200.	12 D	707	138	8
S 8.	50.	300.	12 D	454	138	8	S 30.	50.	300.	12 D	751	138	8
S 8.	50.	400.	12 D	504	138	8	S 30.	50.	400.	12 D	871	138	8
S 8.	50.	50.	24 D	488	138	8	S 30.	50.	70.	20 D	621	138	8
S 8.	50.	100.	24 D	518	138	8	S 30.	50.	100.	20 D	795	138	8
S 8.	50.	150.	24 D	548	138	8	S 30.	50.	150.	20 D	831	138	8
S 8.	50.	200.	24 D	578	138	8	S 30.	50.	200.	20 D	891	138	8
S 8.	50.	100.	48 D	611	138	8	S 30.	50.	300.	20 D	971	138	8
S 8.	50.	150.	48 D	611	138	8	S 30.	50.	400.	20 D	1091	138	8
S 8.	50.	200.	48 D	611	138	8	S 30.	50.	150.	28 D	560	185	10
S 8.	50.	300.	48 D	655	138	8	S 30.	50.	200.	28 D	640	185	10
S 8.	50.	400.	48 D	705	138	8	S 30.	50.	300.	44 D	800	185	10
S 8.	50.	200.	80 D	801	138	8	S 30.	50.	400.	44 D	800	185	10
S 8.	50.	300.	80 D	801	138	8							
S 8.	50.	400.	80 D	801	138	8							
S 15.	50.	32.	6 D	344	138	8	S 50.	50.	50.	6 D	479	138	8
S 15.	50.	100.	6 D	394	138	8	S 50.	50.	100.	6 D	545	138	8
S 15.	50.	150.	6 D	428	138	8	S 50.	50.	150.	6 D	599	138	8
S 15.	50.	200.	6 D	464	138	8	S 50.	50.	200.	6 D	659	138	8
S 15.	50.	50.	12 D	498	138	8	S 50.	50.	70.	12 D	747	138	8
S 15.	50.	100.	12 D	548	138	8	S 50.	50.	100.	12 D	783	138	8
S 15.	50.	150.	12 D	578	138	8	S 50.	50.	150.	12 D	837	138	8
S 15.	50.	200.	12 D	618	138	8	S 50.	50.	200.	12 D	897	138	8
S 15.	50.	300.	12 D	481	138	8	S 50.	50.	300.	12 D	660	185	8
S 15.	50.	400.	12 D	521	138	8	S 50.	50.	400.	12 D	660	185	8
S 15.	50.	50.	24 D	697	138	8	S 50.	50.	70.	20 D	660	185	8
S 15.	50.	100.	24 D	617	138	8	S 50.	50.	100.	20 D	660	185	8
S 15.	50.	150.	24 D	617	138	8	S 50.	50.	150.	20 D	740	185	8
S 15.	50.	200.	24 D	617	138	8	S 50.	50.	200.	20 D	740	185	8
S 15.	50.	100.	40 D	801	138	8	S 50.	50.	300.	20 D	860	185	8
S 15.	50.	150.	40 D	801	138	8	S 50.	50.	400.	20 D	860	185	8
S 15.	50.	200.	40 D	801	138	8	S 50.	50.	300.	30 D	792	185	8
S 15.	50.	300.	40 D	837	138	8	S 50.	50.	400.	40 D	974	185	8
S 15.	50.	400.	40 D	891	138	8							
S 15.	50.	150.	60 D	1001	138	8							
S 15.	50.	200.	80 D	1201	138	8							
S 15.	50.	300.	80 D	1337	138	8							
S 15.	50.	400.	80 D	1391	138	8							

For all other dimensions see type S. Dimensions in mm.

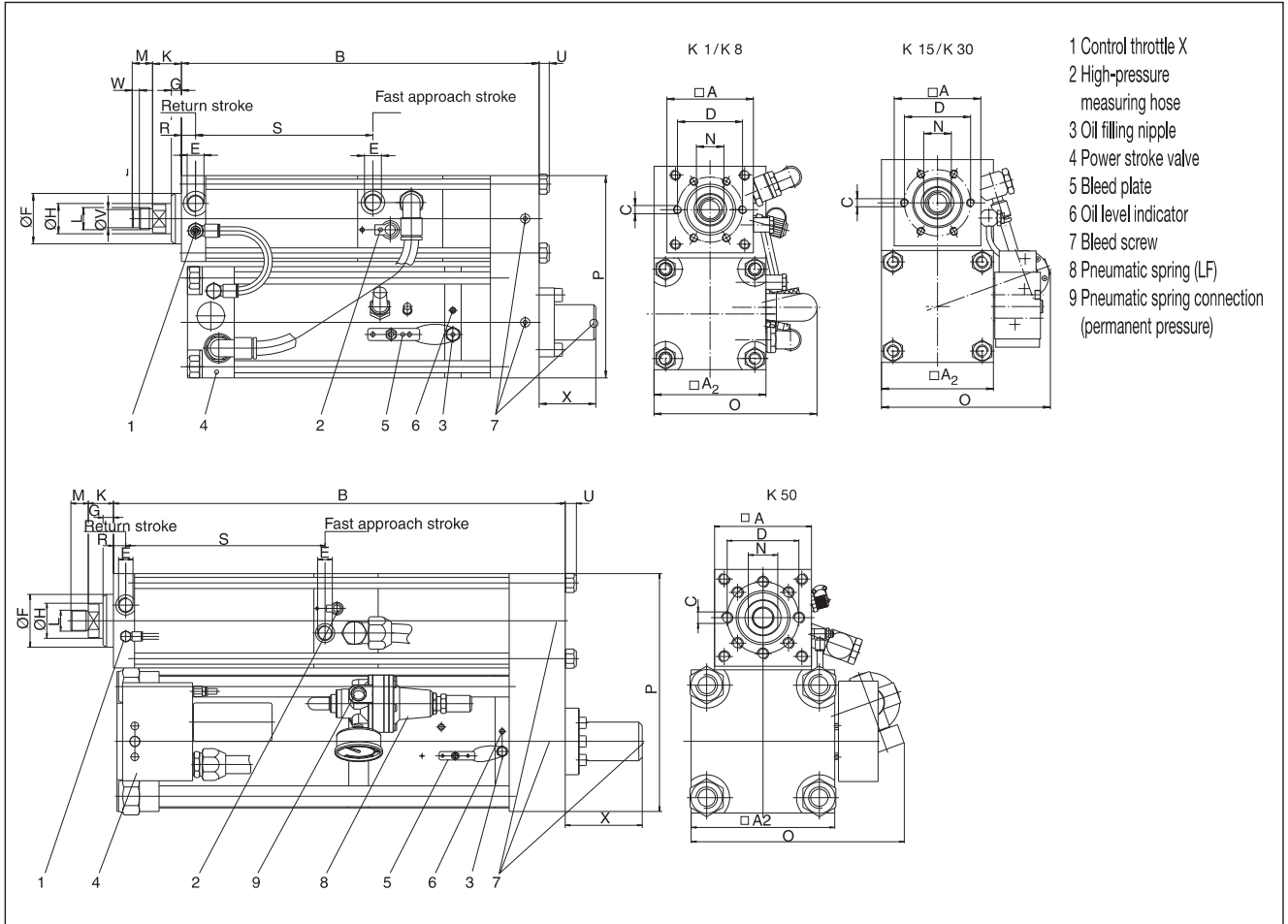
Order no. with suffix D: Power bypass ZHD with hydraulic end position cushioning as standard.

Note:

TOX®-Powerpackages version .50 with long power strokes have a large overall length due to design reasons. If this is inconvenient for your application we recommend to use a pneumohydraulic split system X-KT-System with intensifier model .50 and working cylinder AT or hydraulic cylinder HZ.

TOX®-Powerpackage type K 6 bar

Version .30, compact design, 10 – 1600 kN



Order no.	type	total stroke	power stroke	max. press force at 6 bar kN	fast approach force at 6 bar compressed air daN	retracting force daN	NEW: these cylinders can be substituted with line-Q. Short lead time, favorable price, with stroke monitoring (see data sheet 10.50)																Weight kg						
							A	A ₂	B	C	D	E	F ₁₇	G	H	K	L	M	N	O	P	R		S	U	Vg6	W	X	*LF
K 1.30.	100.	6	10.7	69	73	50	70	322	6xM 6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	106	124	11.5	156.5	6	-	-	23	-	x	10
K 1.30.	200.	10	10.7	69	73	50	70	514	6xM 6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	106	124	11.5	256.5	6	-	-	-	-	x	12
K 2.30.	100.	5	15.7	142	148	70	85	327	6xM 8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	116	160	13	166	8	-	-	25	-	x	18
K 2.30.	200.	12	15.7	142	148	70	85	527	6xM 8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	116	160	13	266	8	-	-	-	-	x	27
K 4.30.	100.	5	38.5	184	195	85	110	353	6xM 8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	165	200	14	175	10	18	7	23	-	x	32
K 4.30.	200.	10	38.5	184	195	85	110	553	6xM 8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	165	200	14	275	10	18	7	-	-	x	44
K 8.30.	100.	5	69.0	321	327	110	135	365	6xM10x16	88	G1/2	70	10	45	35	M30x2	25	36	176	250	15	183	12	26	7	56	-	x	55
K 8.30.	200.	10	69.0	321	327	110	135	565	6xM10x16	88	G1/2	70	10	45	35	M30x2	25	36	176	250	17	283	12	26	7	30	-	x	67
K 15.30.	100.	10	129.6	477	518	135	200	585	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	320	340	17.5	184.5	16	26	7	110	x	-	158
K 15.30.	200.	10	129.6	477	518	135	200	645	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	320	340	17.5	284.5	16	26	7	110	x	-	162
K 30.30.	200.	10	320.8	708	874	170	267	740	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	470	445	20	336	22	-	-	175	x	-	288
K 50.30.	100.	10	394.9	785	1083	200	324	715	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	540	530	23	243	30	-	-	140	x	-	450
K 50.30.	200.	10	394.9	785	1083	200	324	785	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	540	530	23	343	30	-	-	160	x	-	465

*LF: Version with pneumatic spring. See page 2.

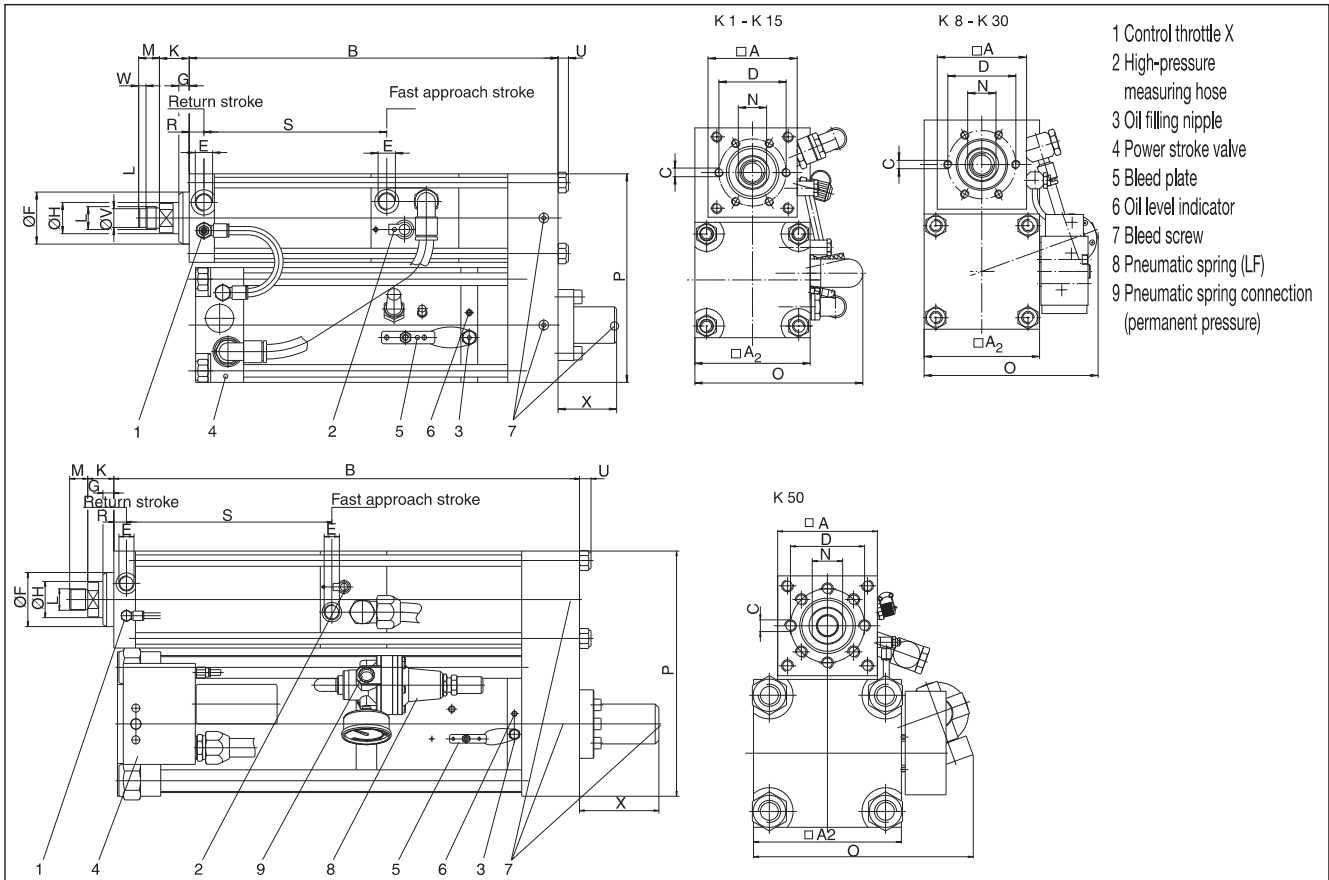
Dimensions in mm

Order no. with suffix D: Power bypass ZHD with hydraulic end position cushioning as standard.

**IV: Integrated power stroke valve

TOX®-Powerpackage type K 10 bar

Compact design, 10 – 1710 kN



Order no.	total power type	stroke	max. press force at compressed air		fast approach force at 10 bar	retracting force at 10 bar	Dimensions in mm																Weight							
			6 bar	10 bar			A	A ₂	B	C	D	E	F ₇	G	H	K	L	M	N	O	P	R		S	U	V _{g6}	W	X	*LF	**IV
K 1.	50.	5	5.6	9.8	115	123	50	-	219	6xM6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	86	104	11.5	106.5	-	-	-	17	-	x	5
K 1.	100.	10	5.6	9.8	115	123	50	-	319	6xM6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	86	104	11.5	156.5	-	-	-	30	-	x	8
K 1.	150.	10	5.6	9.8	115	123	50	-	411	6xM6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	86	104	11.5	206.5	-	-	-	-	-	x	7
K 1.	200.	10	5.6	9.8	115	123	50	-	511	6xM6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	86	104	11.5	256.5	-	-	-	-	-	x	10
K 1.	100.	15	7.1	12.6	115	123	50	70	322	6xM6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	106	124	11.5	156.5	6	-	-	23	-	x	10
K 1.	150.	20	7.1	12.6	115	123	50	70	414	6xM6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	106	124	11.5	206.5	6	-	-	-	-	x	13
K 1.	200.	20	7.1	12.6	115	123	50	70	514	6xM6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	106	124	11.5	256.5	6	-	-	-	-	x	13
K 1.	250.	20	7.1	12.5	115	123	50	70	614	6xM6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	116	124	11.5	306.5	6	-	-	-	-	x	13
K 1.	250.	40	7.1	12.5	115	123	50	85	620	6xM6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	116	140	11.5	306.5	6	-	-	-	-	x	18
K 2.	50.	4	11.5	20.3	236	250	70	-	227	6xM8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	106	145	13	116	8	-	-	23	-	x	10
K 2.	100.	8	11.5	20.3	236	250	70	-	327	6xM8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	106	145	13	166	8	-	-	30	-	x	14
K 2.	100.	12	11.5	20.0	237	249	70	85	327	6xM8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	116	160	13	166	8	-	-	25	-	x	18
K 2.	150.	12	11.5	20.3	236	250	70	-	427	6xM8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	106	145	13	216	8	-	-	30	-	x	15
K 2.	200.	12	11.5	20.3	236	250	70	-	527	6xM8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	106	145	13	266	8	-	-	30	-	x	19
K 2.	150.	20	11.5	20.0	237	249	70	85	427	6xM8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	116	160	13	216	8	-	-	23	-	x	23
K 2.	200.	24	11.5	20.0	237	249	70	85	527	6xM8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	116	160	13	266	8	-	-	-	-	x	26
K 2.	300.	20	11.5	20.0	237	249	70	85	727	6xM8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	116	160	13	366	8	-	-	-	-	x	33
K 2.	300.	50	11.7	20.3	236	249	70	110	740	6xM8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	165	185	13	366	8	-	-	-	-	x	33
K 4.	100.	6	22.7	39.7	307	328	85	-	345	6xM8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	116	175	14	175	10	18	7	43	-	x	24
K 4.	150.	8	22.7	39.7	307	328	85	-	445	6xM8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	116	175	14	225	10	18	7	43	-	x	30
K 4.	200.	12	22.7	39.7	307	328	85	-	545	6xM8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	116	175	14	275	10	18	7	56	-	x	36
K 4.	100.	10	23.2	40.2	307	328	85	110	353	6xM8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	165	200	14	175	10	18	7	23	-	x	32
K 4.	150.	20	23.2	40.2	307	328	85	110	453	6xM8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	165	200	14	225	10	18	7	23	-	x	39

*LF: Version with pneumatic spring. See page 2.

Dimensions in mm.

**IV: Integrated power stroke valve

TOX®-Powerpackage type K 10 bar

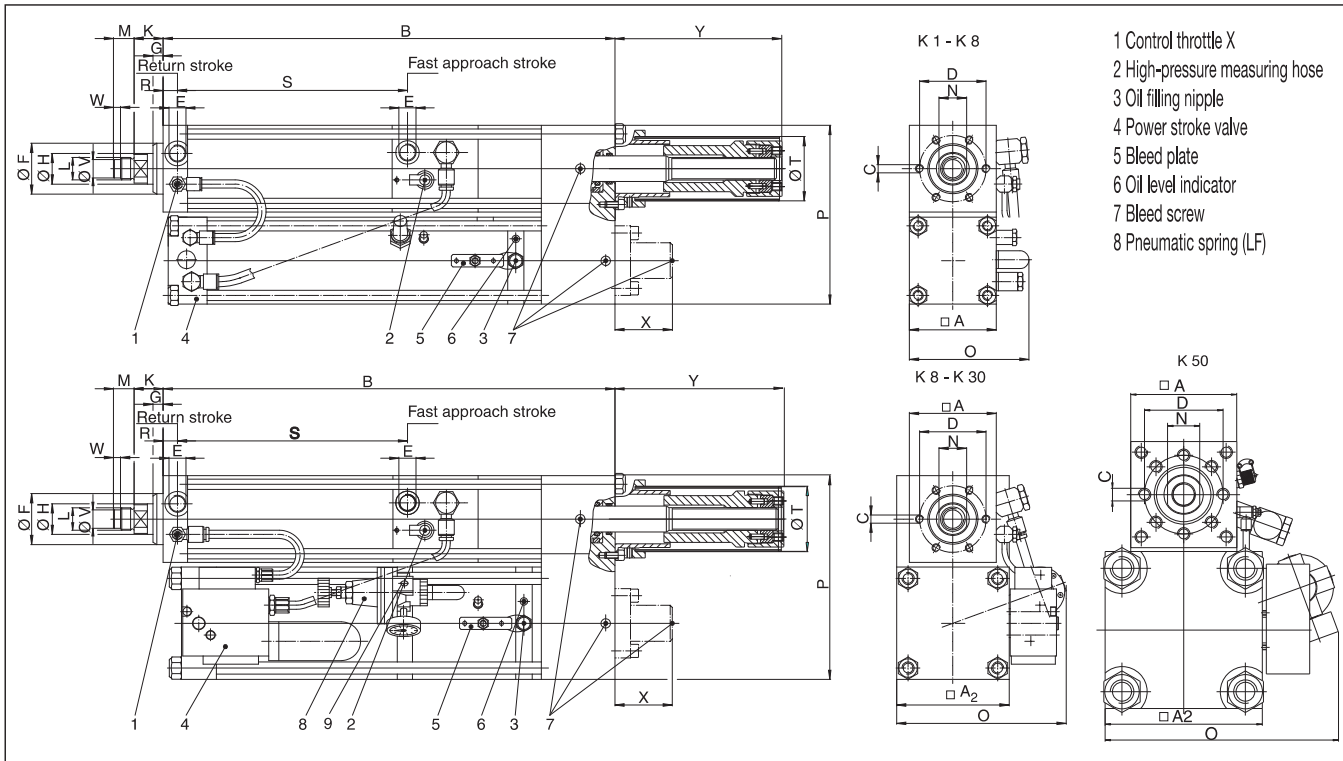
Compact design, 10 – 1710 kN

Order no.	total stroke	power stroke	max. press force at compressed air		fast approach force at 10 bar	retracting force																	Weight kg					
			6bar	10bar			A	A ₂	B	C	D	E	F ₁₇	G	H	K	L	M	N	O	P	R		S	U	V _{g6}	W	X
K 4. 200. 20	23.2	40.2	307	328	85	110	553	6xM 8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	165	200	14	275	10	18	7	-	-	x	45
K 4. 300. 20	23.2	40.2	307	328	85	110	753	6xM 8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	165	200	14	375	10	18	7	-	-	x	54
K 4. 400. 20	23.2	40.2	307	328	85	110	953	6xM 8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	165	200	14	475	10	18	7	-	-	x	62
K 4. 300. 50	23.2	40.2	307	328	85	135	759	6xM 8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	176	225	14	375	10	18	7	-	-	x	63
K 4. 400. 50	23.2	40.2	307	328	85	135	959	6xM 8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	176	225	14	475	10	18	7	-	-	x	71
K 8. 100. 5	44.4	77.0	532	553	110	-	371	6xM10x16	88	G1/2	70	10	45	35	M30x2	25	36	165	225	15	183	-	26	7	23	-	x	41
K 8. 100. 10	44.4	77.0	533	552	110	135	365	6xM10x16	88	G1/2	70	10	45	35	M30x2	25	36	176	250	15	183	12	26	7	56	-	x	45
K 8. 150. 5	44.4	77.0	532	553	110	-	471	6xM10x16	88	G1/2	70	10	45	35	M30x2	25	36	165	225	15	233	-	26	7	23	-	x	49
K 8. 200. 10	44.4	77.0	532	553	110	-	571	6xM10x16	88	G1/2	70	10	45	35	M30x2	25	36	165	225	15	283	-	26	7	23	-	x	59
K 8. 150. 15	44.4	77.0	533	552	110	135	465	6xM10x16	88	G1/2	70	10	45	35	M30x2	25	36	176	250	15	233	12	26	7	35	-	x	59
K 8. 200. 20	44.4	77.0	533	552	110	135	565	6xM10x16	88	G1/2	70	10	45	35	M30x2	25	36	176	250	15	283	12	26	7	30	-	x	80
K 8. 300. 20	44.4	77.0	533	552	110	135	765	6xM10x16	88	G1/2	70	10	45	35	M30x2	25	36	176	250	15	383	12	26	7	-	-	x	100
K 8. 400. 20	44.4	77.0	533	552	110	135	965	6xM10x16	88	G1/2	70	10	45	35	M30x2	25	36	176	250	15	483	12	26	7	-	-	x	112
K 8. 300. 50	44.4	77.0	541	544	110	170	765	6xM10x16	88	G1/2	70	10	45	35	M30x2	25	36	290	285	15	383	12	26	7	143	x	-	135
K 8. 400. 50	44.4	77.0	541	544	110	170	965	6xM10x16	88	G1/2	70	10	45	35	M30x2	25	36	290	285	15	483	12	26	7	-	x	-	173
K 15. 150. 5	85.4	148.0	764	905	135	-	470	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	176	275	17.5	234.5	16	26	7	46	-	x	80
K 15. 200. 5	85.4	148.0	764	905	135	-	570	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	176	275	17.5	284.5	16	26	7	46	-	x	110
K 15. 100. 10	85.0	149.5	781	889	135	200	525	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	320	340	17.5	184.5	16	26	7	40	x	-	148
K 15. 200. 10	85.0	149.5	781	889	135	200	585	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	320	340	17.5	284.5	16	26	7	40	x	-	150
K 15. 300. 10	85.0	149.5	781	889	135	200	785	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	320	340	17.5	384.5	16	26	7	26	x	-	90
K 15. 400. 10	85.0	149.5	781	889	135	200	985	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	320	340	17.5	484.5	16	26	7	26	x	-	170
K 15. 100. 20	85.0	149.5	781	889	135	200	585	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	320	340	17.5	184.5	16	26	7	110	x	-	158
K 15. 200. 20	85.0	149.5	781	889	135	200	645	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	320	340	17.5	284.5	16	26	7	110	x	-	163
K 15. 300. 20	85.0	149.5	781	889	135	200	785	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	320	340	17.5	384.5	16	26	7	105	x	-	130
K 15. 400. 20	85.0	149.5	781	889	135	200	985	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	320	340	17.5	484.5	16	26	7	26	x	-	195
K 15. 100. 40	84.6	155.7	781	889	135	267	670	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	470	410	17.5	184.5	16	26	7	150	x	-	150
K 15. 200. 40	84.6	155.7	781	889	135	267	670	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	470	410	17.5	284.5	16	26	7	150	x	-	175
K 15. 300. 40	84.6	155.7	781	889	135	267	785	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	470	410	17.5	384.5	16	26	7	100	x	-	269
K 15. 400. 40	84.6	155.7	781	889	135	267	985	6xM16x25	100	G1/2	75	15	50	36	M30x2	25	41	470	410	17.5	484.5	16	26	7	26	x	-	305
K 30. 100. 5	170.0	313.4	1149	1509	170	267	555	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	470	445	20	236	22	-	-	30	x	-	240
K 30. 150. 5	170.0	313.4	1149	1509	170	267	555	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	470	445	20	286	22	-	-	30	x	-	248
K 30. 200. 5	170.0	313.4	1149	1509	170	267	645	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	470	445	20	336	22	-	-	30	x	-	274
K 30. 100. 10	170.0	313.4	1149	1509	170	267	585	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	470	445	20	236	22	-	-	45	x	-	238
K 30. 200. 10	170.0	313.4	1149	1509	170	267	645	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	470	445	20	336	22	-	-	50	x	-	264
K 30. 300. 10	170.0	313.4	1149	1509	170	267	840	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	470	445	20	436	22	-	-	30	x	-	290
K 30. 400. 10	170.0	313.4	1149	1509	170	267	1040	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	470	445	20	536	22	-	-	30	x	-	385
K 30. 200. 20	170.0	313.4	1149	1509	170	267	740	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	470	445	20	336	22	-	-	170	x	-	275
K 30. 300. 20	170.0	313.4	1149	1509	170	267	840	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	470	445	20	436	22	-	-	82	x	-	310
K 30. 400. 20	170.0	313.4	1149	1509	170	267	1040	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	470	445	20	536	22	-	-	40	x	-	430
K 30. 200. 40	170.0	313.4	1149	1509	170	267	880	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	470	445	20	336	22	-	-	310	x	-	294
K 30. 300. 40	170.0	313.4	1149	1509	170	267	940	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	470	445	20	436	22	-	-	310	x	-	345
K 30. 400. 40	170.0	313.4	1149	1509	170	267	1040	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	470	445	20	536	22	-	-	300	x	-	450
K 50. 100. 10	283.2	515.0	1259	1887	200	324	635	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	540	530	23	243	30	-	-	50	x	-	400
K 50. 200. 10	283.2	515.0	1259	1887	200	324	705	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	540	530	23	343	30	-	-	70	x	-	423
K 50. 300. 10	283.2	515.0	1259	1887	200	324	855	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	540	530	23	443	30	-	-	80	x	-	460
K 50. 100. 20	283.2	515.0	1259	1887	200	324	715	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	540	530	23	243	30	-	-	140	x	-	464
K 50. 200. 20	283.2	515.0	1259	1887	200	324	785	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	540	530	23	343	30	-	-	160	x	-	440
K 50. 300. 20	283.2	515.0	1259	1887	200	324	855	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	540	530	23	443	30	-	-	210	x	-	500
K 50. 100. 40	283.2	515.0	1259	1887	200	324	875	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	540	530	23	243	30	-	-	310	x	-	455
K 50. 200. 40	283.2	515.0	1259	1887	200	324	945	8xM20x30	150	G3/4	115	25	63	52	M42x2	40	55	540	530	23	343	30	-	-	310	x	-	531
K 50. 300. 40	283.2	515.0	1259	1887	200	324	1015	8xM20x30	150	G3/4	115	25																

TOX®-Powerpackage type K 10bar and 6bar

Version .51, compact design with total stroke adjustment, 10 – 500 kN (6 bar on request, version .81)

Stroke length and hence LDC position adjustable. For pulling operations a special version is available.



Order no.	total ver- sion	stro- ke	power stroke	max. press force at compressed air		fast app- roach force at 10 bar	re- trac- ting force	Dimensions in mm.																							
				6bar	10bar			A	A ₂	B	C	D	E	F ₇₇	G	H	K	L	M	N	O	P	R	S	T	V ₉₆	W	X	Y	*LF	**IV
K 1.	51.	50.	5	5.1	9.0	99	123	50	-	241	6xM 6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	86	104	11.5	106.5	40	-	-	-	146	-	x
K 1.	51.	100.	10	5.1	9.0	99	123	50	-	341	6xM 6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	86	104	11.5	156.5	40	-	-	-	246	-	x
K 1.	51.	150.	10	5.1	9.0	99	123	50	-	441	6xM 6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	86	104	11.5	206.5	40	-	-	-	346	-	x
K 1.	51.	200.	10	5.1	9.0	99	123	50	-	541	6xM 6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	86	104	11.5	256.5	40	-	-	-	446	-	x
K 1.	51.	100.	15	6.5	11.6	99	123	50	70	341	6xM 6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	106	124	11.5	156.5	40	-	-	-	246	-	x
K 1.	51.	150.	20	6.5	11.6	99	123	50	70	441	6xM 6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	106	124	11.5	206.5	40	-	-	-	346	-	x
K 1.	51.	200.	20	6.5	11.6	99	123	50	70	541	6xM 6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	106	124	11.5	256.5	40	-	-	-	446	-	x
K 1.	51.	250.	20	6.5	11.4	99	123	50	70	641	6xM 6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	116	140	11.5	306.5	40	-	-	-	546	-	x
K 1.	51.	250.	40	6.5	11.4	99	123	50	85	641	6xM 6x11	40	G1/8	30	10	16	24	M12x1.5	12	14	116	140	11.5	306.5	40	-	-	-	546	-	x
K 2.	51.	50.	4	11.3	20.0	208	250	70	-	266	6xM 8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	106	145	13	116	63	-	-	-	161	-	x
K 2.	51.	100.	8	11.3	20.0	208	250	70	-	366	6xM 8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	106	145	13	166	63	-	-	-	261	-	x
K 2.	51.	150.	12	11.3	20.0	208	250	70	-	466	6xM 8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	106	145	13	216	63	-	-	-	361	-	x
K 2.	51.	200.	12	11.3	20.0	208	250	70	-	566	6xM 8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	106	145	13	266	63	-	-	-	461	-	x
K 2.	51.	100.	12	11.3	19.7	209	249	70	85	366	6xM 8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	116	160	13	166	63	-	-	-	261	-	x
K 2.	51.	150.	20	11.3	19.7	209	249	70	85	466	6xM 8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	116	160	13	126	63	-	-	-	361	-	x
K 2.	51.	200.	24	11.3	19.7	209	249	70	85	566	6xM 8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	116	160	13	266	63	-	-	-	461	-	x
K 2.	51.	300.	20	11.5	20.0	208	249	70	85	766	6xM 8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	165	185	13	366	63	-	-	-	661	-	x
K 2.	51.	300.	50	11.5	20.0	208	249	70	110	766	6xM 8x12	54	G1/4	40	10	20	26	M16x1.5	15	17	165	185	13	366	63	-	-	-	661	-	x
K 4.	51.	100.	6	24.1	42.1	256	327	85	-	377	6xM 8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	116	175	14	175	63	18	7	70	266	-	x
K 4.	51.	150.	8	24.1	42.1	256	327	85	-	477	6xM 8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	116	175	14	225	63	18	7	70	366	-	x
K 4.	51.	200.	12	24.1	42.1	256	327	85	-	577	6xM 8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	116	175	14	275	63	18	7	70	466	-	x
K 4.	51.	100.	10	24.6	42.7	255	328	85	110	377	6xM 8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	165	200	14	175	63	18	7	-	266	-	x
K 4.	51.	150.	20	24.6	42.7	255	328	85	110	477	6xM 8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	165	200	14	225	63	18	7	-	366	-	x

*LF: Version with pneumatic spring. See page 2.

Dimensions in mm.

**IV: Integrated power stroke valve

TOX®-Powerpackage type K 10bar and 6bar

Version .51, compact design with total stroke adjustment, 10 – 500 kN (6bar on request, version .81)

Order no.	type	ver- sion	total stro- ke	power stroke	max. press force at com- pressed air		fast app- roach force at 10 bar	re- trac- ing force at 10 bar																							
					6bar	10bar			kN	daN	A	A ₂	B	C	D	E	F ₁₇	G	H	K	L	M	N	O	P	R	S	T	V ₉₆	W	X
K 4.	51.	200.	20	24.6	42.7	255	328	85	110	577	6xM 8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	165	200	14	275	63	18	7	-	466	-	x
K 4.	51.	300.	20	24.6	42.7	255	328	85	110	777	6xM 8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	165	200	14	375	63	18	7	-	666	-	x
K 4.	51.	400.	20	24.6	42.7	255	328	85	110	977	6xM 8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	165	200	14	475	63	18	7	-	866	-	x
K 4.	51.	300.	50	24.6	42.7	256	327	85	135	777	6xM 8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	176	225	14	375	63	18	7	-	666	-	x
K 4.	51.	400.	50	24.6	42.7	256	327	85	135	977	6xM 8x15	64	G3/8	50	10	30	28.5	M22x2	20	24	176	225	14	475	63	18	7	-	866	-	x
K 8.	51.	100.	5	45.2	78.4	454	553	110	-	392	6xM10x16	88	G3/8	70	10	45	35	M30x2	25	36	165	225	15	183	90	26	7	-	273	-	x
K 8.	51.	100.	10	45.2	78.4	455	552	110	-	392	6xM10x16	88	G3/8	70	10	45	35	M30x2	25	36	176	250	15	183	90	26	7	47	273	-	x
K 8.	51.	150.	5	45.2	78.4	454	553	110	-	492	6xM10x16	88	G3/8	70	10	45	35	M30x2	25	36	165	225	15	233	90	26	7	-	373	-	x
K 8.	51.	200.	10	45.2	78.4	454	553	110	-	592	6xM10x16	88	G3/8	70	10	45	35	M30x2	25	36	165	225	15	283	90	26	7	-	473	-	x
K 8.	51.	150.	15	45.2	78.4	455	552	110	135	492	6xM10x16	88	G3/8	70	10	45	35	M30x2	25	36	176	250	15	233	90	26	7	47	373	-	x
K 8.	51.	200.	20	45.2	78.4	455	552	110	135	592	6xM10x16	88	G3/8	70	10	45	35	M30x2	25	36	176	250	15	283	90	26	7	47	473	-	x
K 8.	51.	300.	20	45.2	78.4	455	552	110	135	792	6xM10x16	88	G3/8	70	10	45	35	M30x2	25	36	176	250	15	383	90	26	7	-	673	-	x
K 8.	51.	400.	20	45.2	78.4	455	552	110	135	992	6xM10x16	88	G3/8	70	10	45	35	M30x2	25	36	176	250	15	483	90	26	7	-	873	-	x
K 8.	51.	300.	50	45.2	78.4	464	543	110	170	792	6xM10x16	88	G3/8	70	10	45	35	M30x2	25	36	241	285	15	383	90	26	7	92	673	x	x
K 8.	51.	400.	50	45.2	78.4	464	543	110	170	992	6xM10x16	88	G3/8	70	10	45	35	M30x2	25	36	241	285	15	483	90	26	7	-	873	x	x
K 15.	51.	150.	5	89.3	155.0	600	904	135	-	506	6xM16x25	100	G3/8	75	15	50	36	M30x2	25	41	176	275	17.5	234.5	110	26	7	46	389	-	x
K 15.	51.	200.	5	89.3	155.0	600	907	135	-	606	6xM16x25	100	G3/8	75	15	50	36	M30x2	25	41	176	275	17.5	284.5	110	26	7	46	489	-	x
K 15.	51.	100.	10	88.9	156.6	618	886	135	200	535	6xM16x25	100	G3/8	75	15	50	36	M30x2	25	41	271	340	17.5	184.5	110	26	7	50	289	x	-
K 15.	51.	200.	10	88.9	156.6	618	886	135	200	655	6xM16x25	100	G3/8	75	15	50	36	M30x2	25	41	271	340	17.5	284.5	110	26	7	70	489	x	-
K 15.	51.	300.	10	88.9	156.6	618	886	135	200	855	6xM16x25	100	G3/8	75	15	50	36	M30x2	25	41	271	340	17.5	384.5	110	26	7	26	689	x	-
K 15.	51.	400.	10	88.9	156.6	618	886	135	200	1055	6xM16x25	100	G3/8	75	15	50	36	M30x2	25	41	271	340	17.5	484.5	110	26	7	26	889	x	-
K 15.	51.	100.	20	88.9	156.6	618	886	135	200	595	6xM16x25	100	G3/8	75	15	50	36	M30x2	25	41	271	340	17.5	184.5	110	26	7	110	289	x	-
K 15.	51.	200.	20	88.9	156.6	618	886	135	200	655	6xM16x25	100	G3/8	75	15	50	36	M30x2	25	41	271	340	17.5	284.5	110	26	7	110	489	x	-
K 15.	51.	300.	20	88.9	156.6	618	886	135	200	855	6xM16x25	100	G3/8	75	15	50	36	M30x2	25	41	271	340	17.5	384.5	110	26	7	105	689	x	-
K 15.	51.	400.	20	88.9	156.6	618	886	135	200	1055	6xM16x25	100	G3/8	75	15	50	36	M30x2	25	41	271	340	17.5	484.5	110	26	7	26	889	x	-
K 15.	51.	100.	40	88.5	163.2	618	886	135	267	655	6xM16x25	100	G3/8	75	15	50	36	M30x2	25	41	410	410	17.5	184.5	110	26	7	100	289	x	-
K 15.	51.	200.	40	88.5	163.2	618	886	135	267	655	6xM16x25	100	G3/8	75	15	50	36	M30x2	25	41	410	410	17.5	284.5	110	26	7	100	489	x	-
K 15.	51.	300.	40	88.5	163.2	618	886	135	267	855	6xM16x25	100	G3/8	75	15	50	36	M30x2	25	41	410	410	17.5	384.5	110	26	7	100	689	x	-
K 15.	51.	400.	40	88.5	163.2	618	886	135	267	1055	6xM16x25	100	G3/8	75	15	50	36	M30x2	25	41	410	410	17.5	484.5	110	26	7	100	889	x	-
K 30.	51.	100.	5	162.6	299.8	999	1512	170	267	575	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	410	445	20	236	125	-	-	35	307	x	-
K 30.	51.	150.	5	162.6	299.8	999	1512	170	267	575	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	410	445	20	286	125	-	-	35	407	x	-
K 30.	51.	200.	5	162.6	299.8	999	1512	170	267	660	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	410	445	20	386	125	-	-	35	507	x	-
K 30.	51.	100.	10	162.6	299.8	999	1512	170	267	605	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	410	445	20	236	125	-	-	65	307	x	-
K 30.	51.	200.	10	162.6	299.8	999	1512	170	267	700	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	410	445	20	336	125	-	-	50	507	x	-
K 30.	51.	300.	10	162.6	299.8	999	1512	170	267	860	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	410	445	20	436	125	-	-	26	707	x	-
K 30.	51.	400.	10	162.6	299.8	999	1512	170	267	1060	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	410	445	20	536	125	-	-	26	907	x	-
K 30.	51.	200.	20	162.6	299.8	999	1512	170	267	760	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	410	445	20	336	125	-	-	170	507	x	-
K 30.	51.	300.	20	162.6	299.8	999	1512	170	267	860	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	410	445	20	436	125	-	-	110	707	x	-
K 30.	51.	400.	20	162.6	299.8	999	1512	170	267	1060	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	410	445	20	536	125	-	-	40	907	x	-
K 30.	51.	200.	40	162.6	299.8	999	1512	170	267	900	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	410	445	20	336	125	-	-	310	507	x	-
K 30.	51.	300.	40	162.6	299.8	999	1512	170	267	960	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	410	445	20	436	125	-	-	330	707	x	-
K 30.	51	400	40	162.6	299.8	999	1512	170	267	1060	6xM20x30	132	G3/4	100	18	56	47	M39x2	35	50	410	445	20	536	125	-	-	300	907	x	-
K 50.	51.	100.	10	277.1	504.1	977	1889	200	324	660	8xM20x30	150	G1/2	115	25	63	52	M42x2	40	55	500	530	23	243	140	-	-	90	313	x	-
K 50.	51.	200.	10	277.1	504.1	977	1889	200	324	730	8xM20x30	150	G1/2	115	25	63	52	M42x2	40	55	500	530	23	343	140	-	-	45	513	x	-
K 50.	51.	300.	10	277.1	504.1	977	1889	200	324	880	8xM20x30	150	G1/2	115	25	63	52	M42x2	40	55	500	530	23	443	140	-	-	50	713	x	-
K 50.	51.	100.	20	277.1	504.1	977	1889	200	324	740	8xM20x30	150	G1/2	115	25	63	52	M42x2	40	55	500	530	23	243	140	-	-	140	313	x	-
K 50.	51.	200.	20	277.1	504.1	977	1889	200	324	810	8xM20x30	150	G1/2	115	25	63	52	M42x2	40	55	500	530	23	343	140	-	-	160	513	x	-
K 50.	51.	300.	20	277.1	50																										

TOX®-Powerpackage

Air pressure/oil pressure/press force

TOX®-Powerpackage type S, K

Press force - oil pressure table for 10 bar

Tolerance ± 5%

Air pressure (bar)	S 1/K 1		S 2/K 2		S 4/K 4		S 8/K 8		S 15/K 15		S 30/K 30		S 50/K 50	
	P _{oil} bar	F kN	P _{oil} bar	F kN	P _{oil} bar	F kN	P _{oil} bar	F kN	P _{oil} bar	F kN	P _{oil} bar	F kN	P _{oil} bar	F kN
2	35	1,3	50	2,9	55	6,2	55	12	55	23	46	38	48	61
3	65	2,4	85	4,9	95	10,6	95	20	95	39	90	74	87	110
4	95	3,4	130	7,3	130	14,5	135	29	130	53	130	106	128	161
5	125	4,5	162	9,1	170	18,8	170	36	170	69	170	139	168	212
6	155	5,6	205	11,5	205	22,7	210	44	210	85	210	171	209	263
7	185	6,6	245	13,7	245	27,1	245	52	245	100	250	204	250	315
8	210	7,6	285	15,9	285	31,5	285	60	285	116	290	236	291	366
9	240	8,6	325	18,1	325	35,8	325	69	325	132	330	269	330	415
10	275	9,8	365	20,3	360	39,7	365	77	365	148	365	297	369	464

Specifications only apply to TOX®-Powerpackages with measure A = A₂, all other types on request.

Press force - oil pressure table for 6 bar

Tolerance ± 5%

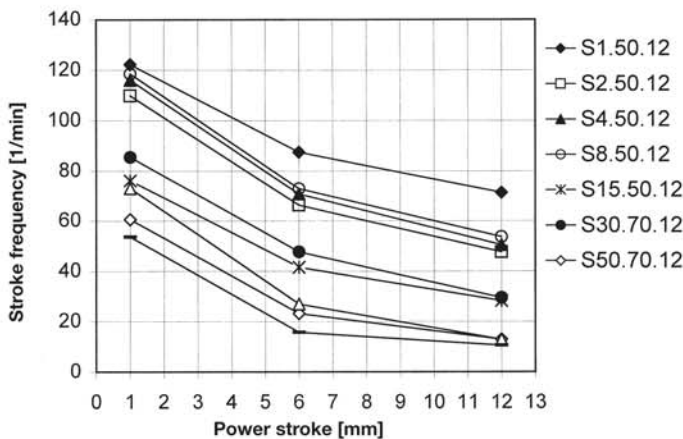
Air pressure (bar)	S 1/K 1		S 2/K 2		S 4/K 4		S 8/K 8		S 15		S 30		S 50	
	P _{oil} bar	F kN	P _{oil} bar	F kN	P _{oil} bar	F kN	P _{oil} bar	F kN	P _{oil} bar	F kN	P _{oil} bar	F kN	P _{oil} bar	F kN
2	90	3,0	90	4,9	75	8,2	100	20,7	95	38	77	62	56	71
3	145	4,9	145	7,8	135	14,7	165	34,0	155	62	141	114	130	163
4	200	6,7	200	10,8	190	20,6	235	48,3	215	85	201	162	195	244
5	260	8,7	260	13,9	240	26,0	300	61,6	275	109	264	212	255	318
6	320	10,7	320	17,1	290	31,4	360	73,9	335	133	328	264	325	406

Specifications only apply to TOX®-Powerpackages with measure A = A₂, all other types on request.

Stroke frequency of types S and K (10 bar series)

At 70 % effective force, fast approach stroke 38 mm and 10 % use of the fast approach stroke force

Operation at 6 bar air pressure
Max. stroke frequency requires ZLB or ZHD



Air consumption type S and K (10 bar series)

At 70 % effective force, fast approach stroke 38 mm and 10 % of the fast approach stroke force

Operation at 6 bar air pressure

