

FLOWFIT® Technical Data

700 Series Standard Hydraulic Cylinders



CHARACTERISTICS

- Maximum working pressure: 200 bar
- Maximum testing pressure: 300 bar
- Maximum working speed: 0.5 m/s
- Working temperature: -30 °C to +90 °C
- Oil: mineral hydraulic

MATERIALS

- Rod: chrome plated steel F-1140, minimum chrome layer thickness 20 micron, roughness Ra < 0,2, minimum surface hardness 900 HV, corrosion resistance minimum 200 hours in neutral saline fog according to ISO9227 rating 9
- Tube: steel ST-52-3, DIN 2393, inside diameter tolerance ISO H9, roughness Ra <0,8 micron.
- Guide-bushing: steel F-1140 nitrated (nitride hardening)
- Piston: steel F-1140

SEALS

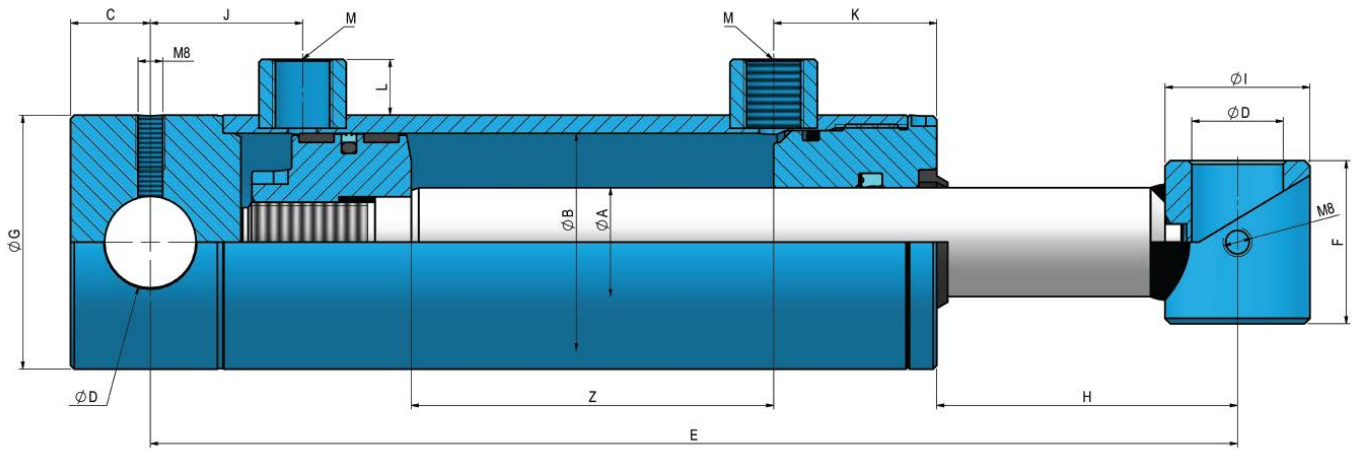
- Guide-bushing:
 - Dynamic: compact polyurethane rod-seal, double lip. NBR metal wiper seal
 - Static: NBR 90 shore o-ring
- Piston:
 - Dynamic: compact double-acting polyurethane seal, plus nitrile o-ring as activator
Special polyacetal guides reinforced with glass fibre.
 - Static: polyamide locking sealing guide

FINISHING

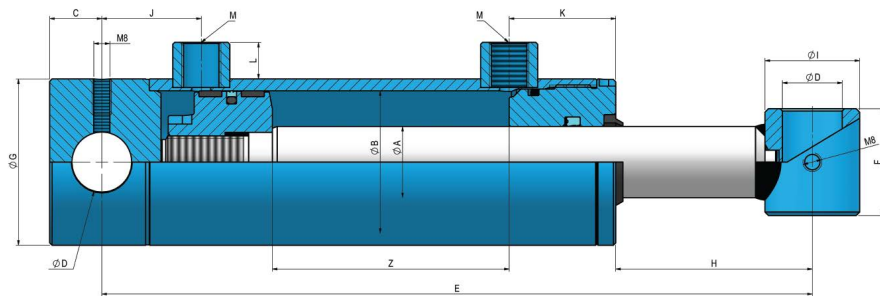
Black prime painting

RECOMMENDATIONS

- Protect the cylinder circuit with a relief valve set at 200 bar
- Check the oil cleanness (pollution), and prevent it from having strange objects (place a filter on the cylinder circuit)
- Bleed the circuit by slightly loosening the cylinder fittings before starting-up
- Do not weld on the cylinder tube
- Before welding on the rod or on the bottom, please dismount the cylinder. - In case you need to store the cylinders for a long period of time, please avoid outdoor storage. If not possible, the rod must be completely retracted or it must be greased instead
- For high-pressure cleaning or blasting on the cylinder, the rod and the oil-ports must be suitably protected.
- For double-acting cylinders working as single acting, we recommend to connect the non-used oil-port to tank
- In case you need to dismount the cylinder, please note that the piston is screwed onto the rod end and fixed with industrial glue, so you must use also industrial glue when mounting again

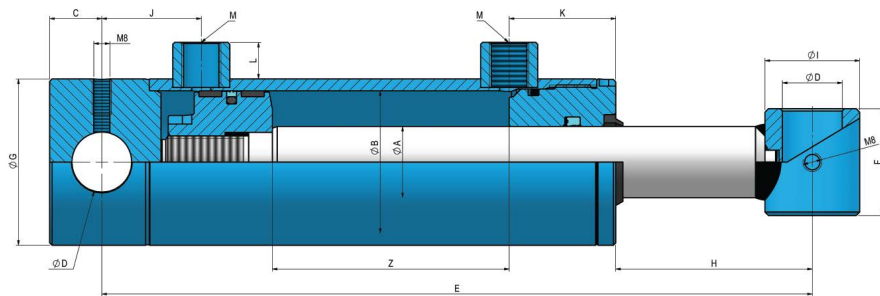


SERIES 700																	
REF.	ØA	ØB	STROKE z	E	C	D	F	G	H	I	J	K	L	M BSP	VOL (L)	SEALS JOINTS	WEIGHT (kg)
700/05	20	32	50	205	16	16.2	35	40	28	30	47	35	9.5	1/4	0.04	J70N	1.7
700/10	20	32	100	255	16	16.2	35	40	28	30	47	35	9.5	1/4	0.08	J70N	2.0
700/15	20	32	150	305	16	16.2	35	40	28	30	47	35	9.5	1/4	0.12	J70N	2.3
700/20	20	32	200	355	16	16.2	35	40	28	30	47	35	9.5	1/4	0.16	J70N	2.6
700/250	20	32	250	405	16	16.2	35	40	28	30	47	35	9.5	1/4	0.20	J70N	2.9
700/30	20	32	300	455	16	16.2	35	40	28	30	47	35	9.5	1/4	0.24	J70N	3.2
700/350	20	32	350	505	16	16.2	35	40	28	30	47	35	9.5	1/4	0.28	J70N	3.4
700/400	20	32	400	555	16	16.2	35	40	28	30	47	35	9.5	1/4	0.32	J70N	3.6
700/500	20	32	500	655	16	16.2	35	40	28	30	47	35	9.5	1/4	0.40	J70N	4.2
700/600	20	32	600	755	16	16.2	35	40	28	30	47	35	9.5	1/4	0.48	J70N	4.8
700/700	20	32	700	855	16	16.2	35	40	28	30	47	35	9.5	1/4	0.56	J70N	5.3
700/800	20	32	800	955	16	16.2	35	40	28	30	47	35	9.5	1/4	0.64	J70N	6.2
700/900	20	32	900	1055	16	16.2	35	40	28	30	47	35	9.5	1/4	0.72	J70N	6.8
700/1000	20	32	1000	1155	16	16.2	35	40	28	30	47	35	9.5	1/4	0.80	J70N	7.2
700/1100	20	32	1100	1255	16	16.2	35	40	28	30	47	35	9.5	1/4	0.89	J70N	8.0
700/1200	20	32	1200	1355	16	16.2	35	40	28	30	47	35	9.5	1/4	0.97	J70N	8.6
700/1300	20	32	1300	1455	16	16.2	35	40	28	30	47	35	9.5	1/4	1.05	J70N	9.2
700/1400	20	32	1400	1455	16	16.2	35	40	28	30	47	35	9.5	1/4	1.13	J70N	9.8
700/1500	20	32	1500	1655	16	16.2	35	40	28	30	47	35	9.5	1/4	1.21	J70N	10.4
701/1	25	40	100	270	17.5	20.25	40	50	64.5	35	37.5	40	15	3/8	0.13	J71N	2.9
701/150	25	40	150	320	17.5	20.25	40	50	64.5	35	37.5	40	15	3/8	0.19	J71N	3.4
701/2	25	40	200	370	17.5	20.25	40	50	64.5	35	37.5	40	15	3/8	0.25	J71N	3.8
701/250	25	40	250	420	17.5	20.25	40	50	64.5	35	37.5	40	15	3/8	0.31	J71N	4.4
701/3	25	40	300	470	17.5	20.25	40	50	64.5	35	37.5	40	15	3/8	0.38	J71N	4.7
701/350	25	40	350	520	17.5	20.25	40	50	64.5	35	37.5	40	15	3/8	0.44	J71N	5.3
701/4	25	40	400	570	17.5	20.25	40	50	64.5	35	37.5	40	15	3/8	0.50	J71N	5.7
701/450	25	40	450	620	17.5	20.25	40	50	64.5	35	37.5	40	15	3/8	0.57	J71N	6.2
701/5	25	40	500	670	17.5	20.25	40	50	64.5	35	37.5	40	15	3/8	0.63	J71N	6.6
701/600	25	40	600	770	17.5	20.25	40	50	64.5	35	37.5	40	15	3/8	0.75	J71N	7.6
701/700	25	40	700	870	17.5	20.25	40	50	64.5	35	37.5	40	15	3/8	0.88	J71N	8.6
701/800	25	40	800	970	17.5	20.25	40	50	64.5	35	37.5	40	15	3/8	1.01	J71N	9.5



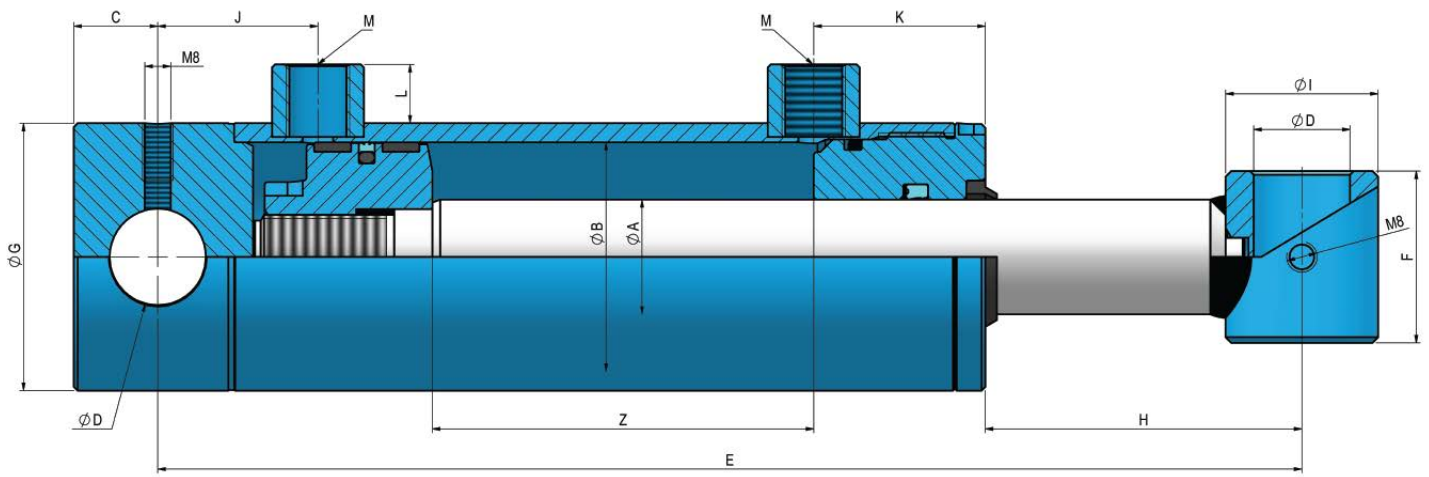
SERIES 700

REF.	ØA	ØB	STROKE Z	E	C	D	F	G	H	I	J	K	L	M BSP	VOL (L)	SEALS JOINTS	WEIGHT (kg)
701/900	25	40	900	1070	17.5	20.25	40	50	64.5	35	37.5	40	15	3/8	1.13	J71N	10.5
701/1000	25	40	1000	1170	17.5	20.25	40	50	64.5	35	37.5	40	15	3/8	1.26	J71N	11.5
701/1100	25	40	1100	1270	17.5	20.25	40	50	64.5	35	37.5	40	15	3/8	1.38	J71N	12.3
701/1200	25	40	1200	1370	17.5	20.25	40	50	64.5	35	37.5	40	15	3/8	1.51	J71N	13.3
701/1300	25	40	1300	1470	17.5	20.25	40	50	64.5	35	37.5	40	15	3/8	1.63	J71N	14.2
701/1400	25	40	1400	1570	17.5	20.25	40	50	64.5	35	37.5	40	15	3/8	1.76	J71N	15.2
701/1500	25	40	1500	1670	17.5	20.25	40	50	64.5	35	37.5	40	15	3/8	1.89	J71N	16.1
702/1	30	50	100	300	22	25.25	45	60	85	40	42	43	15	3/8	0.20	J72N	4.3
702/150	30	50	150	350	22	25.25	45	60	85	40	42	43	15	3/8	0.29	J72N	5.1
702/2	30	50	200	400	22	25.25	45	60	85	40	42	43	15	3/8	0.39	J72N	5.6
702/250	30	50	250	450	22	25.25	45	60	85	40	42	43	15	3/8	0.49	J72N	6.3
702/3	30	50	300	500	22	25.25	45	60	85	40	42	43	15	3/8	0.59	J72N	6.8
702/350	30	50	350	550	22	25.25	45	60	85	40	42	43	15	3/8	0.69	J72N	7.6
702/4	30	50	400	600	22	25.25	45	60	85	40	42	43	15	3/8	0.79	J72N	8.0
702/450	30	50	450	650	22	25.25	45	60	85	40	42	43	15	3/8	0.88	J72N	8.8
702/5	30	50	500	700	22	25.25	45	60	85	40	42	43	15	3/8	0.98	J72N	9.5
702/6	30	50	600	800	22	25.25	45	60	85	40	42	43	15	3/8	1.18	J72N	10.5
702/7	30	50	700	900	22	25.25	45	60	85	40	42	43	15	3/8	1.37	J72N	11.7
702/800	30	50	800	1000	22	25.25	45	60	85	40	42	43	15	3/8	1.57	J72N	13.1
702/900	30	50	900	1100	22	25.25	45	60	85	40	42	43	15	3/8	1.77	J72N	14.3
702/1000	30	50	1000	1200	22	25.25	45	60	85	40	42	43	15	3/8	1.96	J72N	15.5
702/1100	30	50	1100	1300	22	25.25	45	60	85	40	42	43	15	3/8	2.16	J72N	16.8
702/1200	30	50	1200	1400	22	25.25	45	60	85	40	42	43	15	3/8	2.35	J72N	18.0
702/1300	30	50	1300	1500	22	25.25	45	60	85	40	42	43	15	3/8	2.55	J72N	19.3
702/1400	30	50	1400	1600	22	25.25	45	60	85	40	42	43	15	3/8	2.77	J72N	20.1
702/1500	30	50	1500	1700	22	25.25	45	60	85	40	42	43	15	3/8	2.94	J72N	21.72
703/1	30	60	100	300	22	25.25	45	70	83	40	42	45	15	3/8	0.28	J73N	5.4
703/150	30	60	150	350	22	25.25	45	70	83	40	42	45	15	3/8	0.42	J73N	6.3
703/2	30	60	200	400	22	25.25	45	70	83	40	42	45	15	3/8	0.57	J73N	7.0
703/250	30	60	250	450	22	25.25	45	70	83	40	42	45	15	3/8	0.71	J73N	7.63
703/3	30	60	300	500	22	25.25	45	70	83	40	42	45	15	3/8	0.85	J73N	8.1
703/350	30	60	350	550	22	25.25	45	70	83	40	42	45	15	3/8	0.99	J73N	9.1
703/4	30	60	400	600	22	25.25	45	70	83	40	42	45	15	3/8	1.13	J73N	9.5
703/450	30	60	450	650	22	25.25	45	70	83	40	42	45	15	3/8	1.27	J73N	10.4
703/5	30	60	500	700	22	25.25	45	70	83	40	42	45	15	3/8	1.41	J73N	10.8
703/6	30	60	600	800	22	25.25	45	70	83	40	42	45	15	3/8	1.70	J73N	12.2
703/7	30	60	700	900	22	25.25	45	70	83	40	42	45	15	3/8	1.98	J73N	13.5
703/800	30	60	800	1000	22	25.25	45	70	83	40	42	45	15	3/8	2.26	J73N	15.0
703/900	30	60	900	1100	22	25.25	45	70	83	40	42	45	15	3/8	2.56	J73N	16.4
703/1000	30	60	1000	1200	22	25.25	45	70	83	40	42	45	15	3/8	2.83	J73N	17.8



SERIES 700

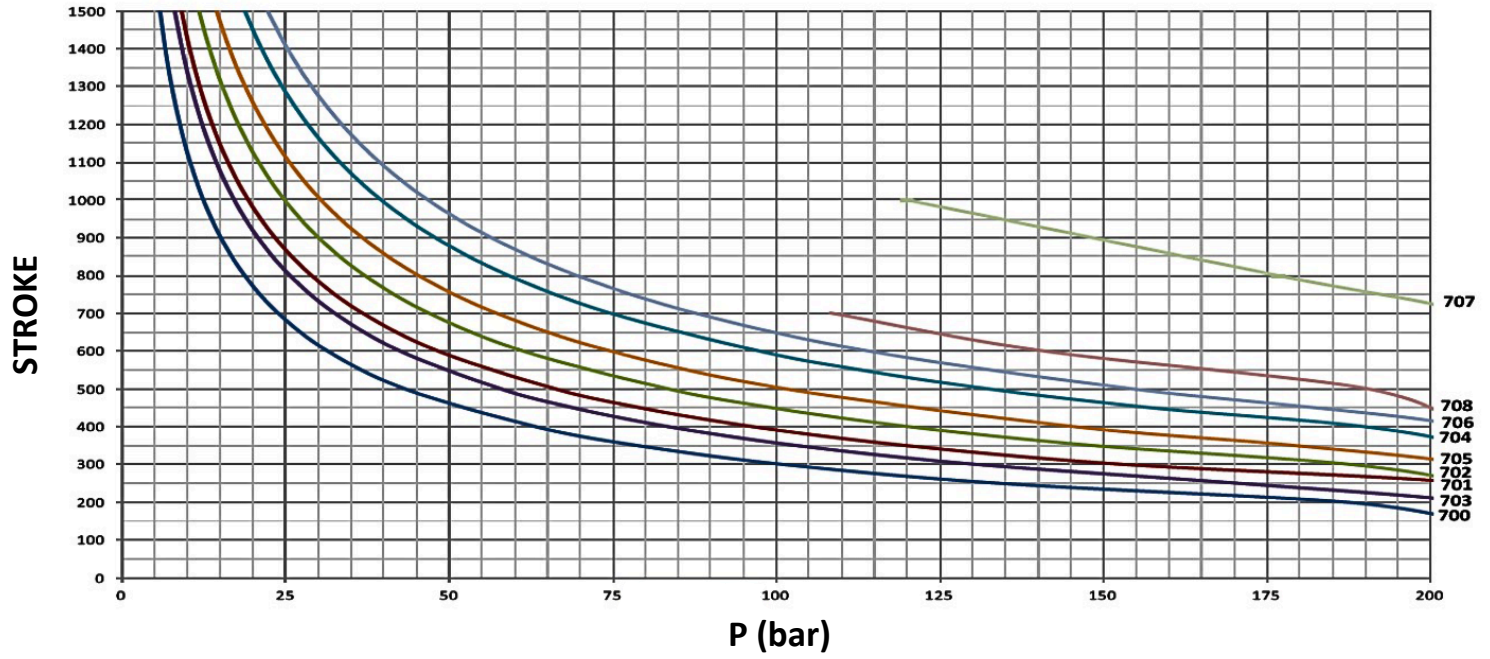
REF.	ØA	ØB	STROKE z	E	C	D	F	G	H	I	J	K	L	M BSP	VOL (L)	SEALS JOINTS	WEIGHT (kg)
703/1100	30	60	1100	1300	22	25.25	45	70	83	40	42	45	15	3/8	3.11	J73N	19.1
703/1200	30	60	1200	1400	22	25.25	45	70	83	40	42	45	15	3/8	3.40	J73N	20.5
703/1300	30	60	1300	1500	22	25.25	45	70	83	40	42	45	15	3/8	3.68	J73N	21.9
703/1400	30	60	1400	1600	22	25.25	45	70	83	40	42	45	15	3/8	3.96	J73N	23.2
703/1500	30	60	1500	1700	22	25.25	45	70	83	40	42	45	15	3/8	4.24	J73N	24.6
704/100	40	70	100	310	28	30.5	55	80	82	50	48	49	15	3/8	0.39	J74N	8.4
704/2	40	70	200	410	28	30.5	55	80	82	50	48	49	15	3/8	0.77	J74N	10.0
704/250	40	70	250	460	28	30.5	55	80	82	50	48	49	15	3/8	0.96	J74N	11.2
704/3	40	70	300	510	28	30.5	55	80	82	50	48	49	15	3/8	1.15	J74N	11.9
704/350	40	70	350	560	28	30.5	55	80	82	50	48	49	15	3/8	1.35	J74N	12.9
704/4	40	70	400	610	28	30.5	55	80	82	50	48	49	15	3/8	1.54	J74N	13.7
704/450	40	70	450	660	28	30.5	55	80	82	50	48	49	15	3/8	1.73	J74N	15
704/5	40	70	500	710	28	30.5	55	80	82	50	48	49	15	3/8	1.92	J74N	15.6
704/550	40	70	550	760	28	30.5	55	80	82	50	48	49	15	3/8	2.12	J74N	16.9
704/6	40	70	600	810	28	30.5	55	80	82	50	48	49	15	3/8	2.31	J74N	17.5
704/7	40	70	700	910	28	30.5	55	80	82	50	48	49	15	3/8	2.69	J74N	19.4
704/800	40	70	800	1010	28	30.5	55	80	82	50	48	49	15	3/8	3.08	J74N	21.5
704/900	40	70	900	1110	28	30.5	55	80	82	50	48	49	15	3/8	3.46	J74N	23.6
704/1000	40	70	1000	1210	28	30.5	55	80	82	50	48	49	15	3/8	3.85	J74N	25.3
704/1100	40	70	1100	1310	28	30.5	55	80	82	50	48	49	15	3/8	4.23	J74N	27.4
704/1200	40	70	1200	1410	28	30.5	55	80	82	50	48	49	15	3/8	4.62	J74N	29.3
704/1300	40	70	1300	1510	28	30.5	55	80	82	50	48	49	15	3/8	5.00	J74N	31.2
704/1400	40	70	1400	1610	28	30.5	55	80	82	50	48	49	15	3/8	5.39	J74N	33.1
704/1500	40	70	1500	1710	28	30.5	55	80	82	50	48	49	15	3/8	5.77	J74N	35.0
705/100	40	80	100	310	28	30.5	55	90	70	50	48	54	15	3/8	0.50	J75N	10.4
705/2	40	80	200	410	28	30.5	55	90	70	50	48	54	15	3/8	1.01	J75N	12.0
705/250	40	80	250	460	28	30.5	55	90	70	50	48	54	15	3/8	1.26	J75N	13.0
705/3	40	80	300	510	28	30.5	55	90	70	50	48	54	15	3/8	1.51	J75N	14.0
705/350	40	80	350	560	28	30.5	55	90	70	50	48	54	15	3/8	1.76	J75N	15.1
705/4	40	80	400	610	28	30.5	55	90	70	50	48	54	15	3/8	2.01	J75N	16.0
705/5	40	80	500	710	28	30.5	55	90	70	50	48	54	15	3/8	2.51	J75N	18.1
705/6	40	80	600	810	28	30.5	55	90	70	50	48	54	15	3/8	3.02	J75N	20.1
705/7	40	80	700	910	28	30.5	55	90	70	50	48	54	15	3/8	3.52	J75N	22.1
705/800	40	80	800	1010	28	30.5	55	90	70	50	48	54	15	3/8	4.02	J75N	24.2
705/900	40	80	900	1110	28	30.5	55	90	70	50	48	54	15	3/8	4.52	J75N	26.6
705/1000	40	80	1000	1210	28	30.5	55	90	70	50	48	54	15	3/8	5.02	J75N	28.6
705/1100	40	80	1100	1310	28	30.5	55	90	70	50	48	54	15	3/8	5.53	J75N	30.6
705/1200	40	80	1200	1410	28	30.5	55	90	70	50	48	54	15	3/8	6.03	J75N	32.7
705/1300	40	80	1300	1510	28	30.5	55	90	70	50	48	54	15	3/8	6.54	J75N	34.7
705/1400	40	80	1400	1610	28	30.5	55	90	70	50	48	54	15	3/8	7.04	J75N	36.7



SERIES 700

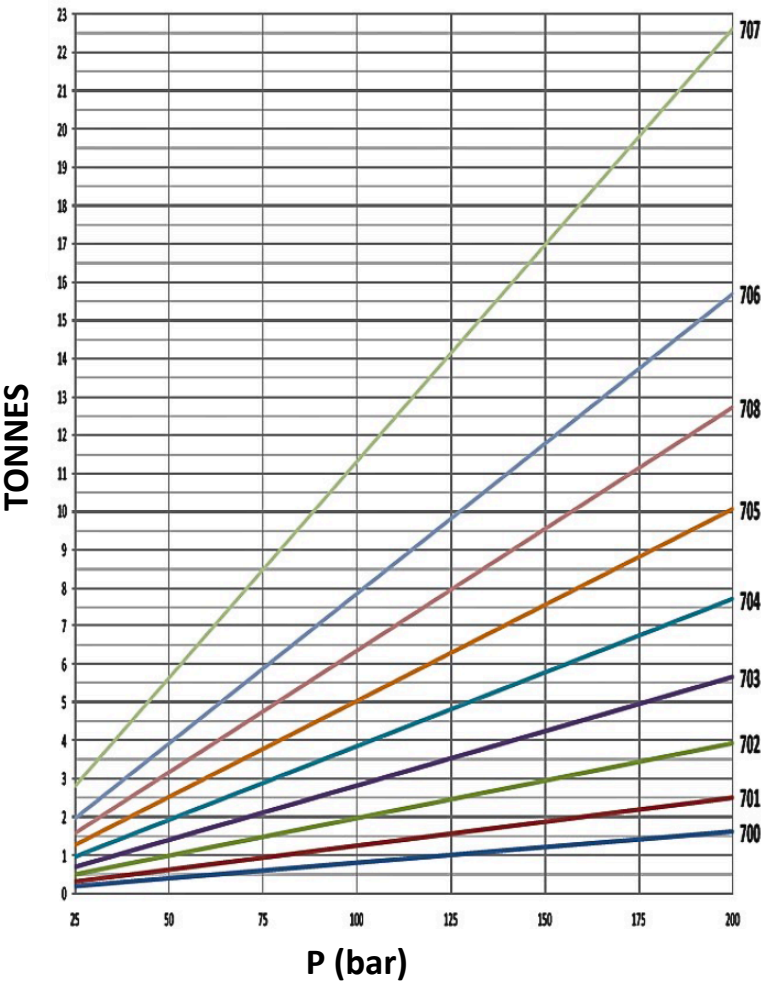
REF.	ØA	ØB	STROKE Z	E	C	D	F	G	H	I	J	K	L	M BSP	VOL (L)	SEALS JOINTS	WEIGHT (kg)
705/1500	40	80	1500	1710	28	30.5	55	90	70	50	48	54	15	3/8	7.54	J75N	38.8
708/2	50	90	200	425	28	30.5	70	105	75	60	47	60	15	3/8	1.27	J5090N	19.3
708/3	50	90	300	525	28	30.5	70	105	75	60	47	60	15	3/8	1.90	J5090N	22.6
708/4	50	90	400	625	28	30.5	70	105	75	60	47	60	15	3/8	2.55	J5090N	26.0
708/5	50	90	500	725	28	30.5	70	105	75	60	47	60	15	3/8	3.18	J5090N	29.3
708/6	50	90	600	825	28	30.5	70	105	75	60	47	60	15	3/8	3.82	J5090N	32.65
708/7	50	90	700	925	28	30.5	70	105	75	60	47	60	15	3/8	4.46	J5090N	36.0
706/100	50	100	100	325	28	30.5	70	115	75	60	48	60	17	1/2	0.79	J76N	18.4
706/200	50	100	200	425	28	30.5	70	115	75	60	48	60	17	1/2	1.57	J76N	21.8
706/3	50	100	300	525	28	30.5	70	115	75	60	48	60	17	1/2	2.36	J76N	25.6
706/4	50	100	400	625	28	30.5	70	115	75	60	48	60	17	1/2	3.14	J76N	28.5
706/5	50	100	500	725	28	30.5	70	115	75	60	48	60	17	1/2	3.93	J76N	31.4
706/600	50	100	600	825	28	30.5	70	115	75	60	48	60	17	1/2	4.71	J76N	35.9
706/7	50	100	700	925	28	30.5	70	115	75	60	48	60	17	1/2	5.50	J76N	37.2
706/800	50	100	800	1025	28	30.5	70	115	75	60	48	60	17	1/2	6.28	J76N	42.9
706/9	50	100	900	1125	28	30.5	70	115	75	60	48	60	17	1/2	7.07	J76N	43.0
706/1000	50	100	1000	1225	28	30.5	70	115	75	60	48	60	17	1/2	7.86	J76N	50.0
706/1100	50	100	1100	1325	28	30.5	70	115	75	60	48	60	17	1/2	8.64	J76N	53.6
706/1200	50	100	1200	1425	28	30.5	70	115	75	60	48	60	17	1/2	9.43	J76N	57.1
706/1300	50	100	1300	1525	28	30.5	70	115	75	60	48	60	17	1/2	10.21	J76N	60.6
706/1400	50	100	1400	1625	28	30.5	70	115	75	60	48	60	17	1/2	11.00	J76N	64.1
706/1500	50	100	1500	1725	28	30.5	70	115	75	60	48	60	17	1/2	11.78	J76N	67.7
707/300	70	120	300	570	40	40.5	80	140	75	80	65	82	17	1/2	3.39	J77	47.1
707/400	70	120	400	670	40	40.5	80	140	75	80	65	82	17	1/2	4.52	J77	54.6
707/5	70	120	500	770	40	40.5	80	140	75	80	65	82	17	1/2	5.65	J77	60.0
707/600	70	120	600	870	40	40.5	80	140	75	80	65	82	17	1/2	6.78	J77	67.0
707/700	70	120	700	970	40	40.5	80	140	75	80	65	82	17	1/2	7.91	J77	73.2
707/800	70	120	800	1070	40	40.5	80	140	75	80	65	82	17	1/2	9.05	J77	80.0
707/900	70	120	900	1170	40	40.5	80	140	75	80	65	82	17	1/2	10.18	J77	84.4
707/10	70	120	1000	1270	40	40.5	80	140	75	80	65	82	17	1/2	11.31	J77	90.0

BUCKLING



Data calculated according to euler. Safety coefficient 3.5

UPWARD THRUST



TRACTIVE EFFORT

