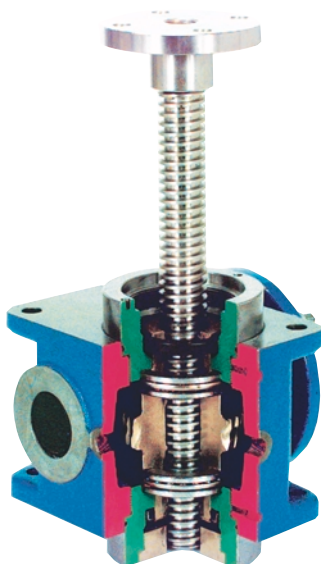


MA screwjacks

Performance summary



High performances screw jacks series

- Load capacity ranging from 5 kN to 350 kN
- Linear speed up to 75mm/s (up to 150mm/s on request)
- Input speed up to 3000 r/min
- Operating duty cycle up to 40% over a 10 minute period, or 30% over a 1 hour period, at 25°C environment temperature
- High duty cycle up to 100% for continuous performances with ball screw option

Series MA Technical Specification

SIZE		MA 5	MA 10	MA 25	MA 50	MA 80	MA 100	MA 200	MA 350
Max lifting load	kN	5	10	25	50	80	100	200	350
Acme lift screw	dia × pitch	Tr 18 × 4	Tr 22 × 5	Tr 30 × 6	Tr 40 × 7	Tr 55 × 9	Tr 60 × 12	Tr 70 × 12	Tr 100 × 16
Ratio	RV	1 : 4	1 : 5	1 : 6	1 : 7	1 : 7	1 : 8	1 : 8	3 : 32
	RN	1 : 16	1 : 20	1 : 18	1 : 14	1 : 14	1 : 24	1 : 24	1 : 16
	RL	1 : 24	1 : 25	1 : 24	1 : 28	1 : 28	1 : 32	1 : 32	1 : 32
Stroke [mm] for 1 input turn	RV	1	1	1	1	1.28	1.5	1.5	1.5
	RN	0.25	0.25	0.333	0.5	0.64	0.5	0.5	1
	RL	0.166	0.20	0.25	0.25	0.32	0.375	0.375	0.5
Max permissible operating power [kW]	RV	0.40	0.60	1.2	2.4	2.5	3	4.5	8
	RN	0.20	0.30	0.7	1.7	1.8	2.6	4	7
	RL	0.17	0.25	0.6	1.2	1.2	2.3	3.8	6.8
Max starting torque required at full load [Nm]	RV	3.8	7.2	19.9	44.1	77	120	282	525
	RN	1.2	2.6	8.3	24.8	47	62	133	400
	RL	1	2.3	7.6	18	34	50	109	280
Starting efficiency	RV	0.21	0.22	0.20	0.18	0.18	0.20	0.17	0.16
	RN	0.16	0.15	0.16	0.15	0.15	0.13	0.12	0.14
	RL	0.13	0.14	0.13	0.11	0.11	0.12	0.11	0.10
Running efficiency at 1500 r/min	RV	0.36	0.37	0.34	0.32	0.31	0.36	0.33	0.32
	RN	0.28	0.28	0.27	0.28	0.27	0.29	0.26	0.29
	RL	0.25	0.27	0.25	0.23	0.22	0.26	0.24	0.24
Reactive torque of screw at max load [Nm]		8	20	65	165	368	525	1180	2880
Housing material		Aluminium alloy EN 1706 - AC-AISI10Mg T6			Spheroidal graphite iron EN 1563 - GJS-500-7				
Weight without screw and protection tube [kg]		2.2	4.3	13	26	26	48	75	145
Weight for every 100 mm of screw [kg]		0.16	0.23	0.45	0.8	1.6	1.8	2.5	5.2

Efficiency figures at other speeds on page 12

Based upon the linear speed needed and maximum dynamic load applied, pick the effective lifting speed and input torque - power required from the relevant screwjack table below. Intermediate figures for input torque - power can be calculated by direct interpolation.

PLEASE, NOTE! The red figures in the tables indicates operational restrictions due to thermal limits. Selection of screw jacks using these figures should only be carried out in consultation with our office.

When your selection is made within the areas shaded red, you will need to reduce duty cycle or choose the next size screwjack in order to allow effective heat dissipation.

n_1 = input speed T_1 = input torque required P_1 = input power required

MA 5				LIFTING LOAD																							
				5kN						4kN						3kN						1kN					
n ₁	Lifting speed mm/s			Ratios						Ratios						Ratios						Ratios					
				RV		RN		RL		RV		RN		RL		RV		RN		RL		RV		RN		RL	
				T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁
r/min	RV	RN	RL	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
3000	50.0	12.5	8.3	2.0	0.63	0.7	0.20	0.5	0.15	1.6	0.50	0.5	0.16	0.4	0.12	1.2	0.38	0.4	0.12	0.3	0.09	0.4	0.13	0.1	0.04	0.1	0.03
1500	25.0	6.3	4.2	2.2	0.35	0.7	0.11	0.5	0.08	1.8	0.28	0.6	0.09	0.4	0.07	1.3	0.21	0.4	0.07	0.3	0.05	0.4	0.07	0.1	0.02	0.1	0.02
1000	16.7	4.2	2.8	2.3	0.24	0.7	0.08	0.6	0.06	1.9	0.20	0.6	0.06	0.4	0.05	1.4	0.15	0.4	0.05	0.3	0.03	0.5	0.05	0.1	0.01	0.1	0.01
750	12.5	3.1	2.1	2.4	0.19	0.7	0.05	0.6	0.05	1.9	0.15	0.6	0.05	0.5	0.04	1.4	0.11	0.4	0.04	0.3	0.03	0.5	0.04	0.1	0.01	0.1	0.01
500	8.3	2.1	1.4	2.5	0.13	0.8	0.04	0.6	0.03	2.0	0.11	0.6	0.03	0.5	0.03	1.5	0.08	0.5	0.02	0.4	0.02	0.5	0.03	0.1	0.01	0.1	0.01
300	5.0	1.3	0.8	2.6	0.08	0.8	0.03	0.7	0.02	2.1	0.07	0.7	0.02	0.5	0.02	1.6	0.05	0.5	0.02	0.4	0.01	0.5	0.02	0.2	0.01	0.1	0.01
100	1.7	0.4	0.3	2.8	0.03	0.9	0.01	0.8	0.01	2.2	0.02	0.7	0.01	0.6	0.01	1.7	0.02	0.5	0.01	0.5	0.01	0.6	0.01	0.2	0.01	0.1	0.01

MA 10				LIFTING LOAD																							
				10kN						8kN						6kN						2kN					
n ₁	Lifting speed mm/s			Ratios						Ratios						Ratios						Ratios					
				RV		RN		RL		RV		RN		RL		RV		RN		RL		RV		RN		RL	
				T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁
r/min	RV	RN	RL	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
3000	50.0	12.5	10.0	3.9	1.22	1.3	0.42	1.1	0.36	3.1	0.98	1.1	0.33	0.9	0.29	2.3	0.73	0.8	0.25	0.7	0.21	0.78	0.24	0.3	0.08	0.2	0.07
1500	25.0	6.3	5.0	4.4	0.68	1.4	0.23	1.2	0.19	3.5	0.55	1.1	0.18	0.9	0.15	2.6	0.41	0.9	0.13	0.7	0.11	0.9	0.14	0.3	0.04	0.2	0.04
1000	16.7	4.2	3.3	4.6	0.48	1.5	0.16	1.2	0.13	3.6	0.38	1.2	0.13	1.0	0.10	2.7	0.29	0.9	0.09	0.7	0.08	0.9	0.10	0.3	0.03	0.2	0.03
750	12.5	3.1	2.5	4.7	0.37	1.6	0.12	1.3	0.10	3.8	0.30	1.2	0.10	1.0	0.08	2.8	0.22	0.9	0.07	0.8	0.06	0.9	0.07	0.3	0.02	0.2	0.02
500	8.3	2.1	1.7	5.0	0.26	1.6	0.09	1.4	0.07	4.0	0.21	1.3	0.07	1.1	0.06	3.0	0.16	1.0	0.05	0.8	0.04	1.0	0.05	0.3	0.02	0.3	0.01
300	5.0	1.3	1.0	5.1	0.16	1.8	0.05	1.5	0.05	4.1	0.13	1.4	0.04	1.2	0.04	3.1	0.10	1.1	0.03	0.9	0.03	1.0	0.03	0.3	0.01	0.3	0.01
100	1.7	0.4	0.3	5.5	0.06	2.0	0.02	1.6	0.02	4.4	0.05	1.6	0.02	1.3	0.01	3.3	0.03	1.2	0.01	1.0	0.01	1.1	0.01	0.4	0.01	0.3	0.01

MA 25				LIFTING LOAD																							
				25kN						20kN						15kN						5kN					
n ₁	Lifting speed mm/s			Ratios						Ratios						Ratios						Ratios					
				RV		RN		RL		RV		RN		RL		RV		RN		RL		RV		RN		RL	
				T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁
r/min	RV	RN	RL	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
3000	50.0	16.7	12.5	10.5	3.29	4.4	1.39	3.6	1.12	8.4	2.63	3.5	1.11	2.8	0.89	6.3	1.97	2.7	0.83	2.1	0.67	2.1	0.66	0.9	0.28	0.7	0.22
1500	25.0	8.3	6.3	11.7	1.83	4.8	0.76	3.9	0.61	9.3	1.47	3.9	0.60	3.1	0.49	7.0	1.10	2.9	0.45	2.3	0.37	2.3	0.37	1.0	0.15	0.8	0.12
1000	16.7	5.6	4.2	12.2	1.28	5.0	0.53	4.1	0.43	9.8	1.03	4.0	0.42	3.3	0.34	7.3	0.77	3.0	0.32	2.5	0.26	2.4	0.26	1.0	0.11	0.8	0.09
750	12.5	4.2	3.1	12.7	1.00	5.2	0.41	4.2	0.33	10.2	0.80	4.2	0.33	3.4	0.27	7.6	0.60	3.1	0.24	2.5	0.20	2.5	0.20	1.0	0.08	0.9	0.07
500	8.3	2.8	2.1	13.5	0.71	5.5	0.29	4.5	0.24	10.8	0.56	4.4	0.23	3.6	0.19	8.1	0.42	3.3	0.17	2.7	0.14	2.7	0.14	1.1	0.06	0.9	0.05
300	5.0	1.7	1.3	14.1	0.44	5.8	0.18	4.8	0.15	11.3	0.35	4.6	0.15	3.9	0.12	8.5	0.27	3.5	0.11	2.9	0.09	2.8	0.09	1.2	0.04	1.0	0.03
100	1.7	0.6	0.4	15.1	0.16	6.5	0.07	5.5	0.06	12.1	0.13	5.2	0.05	4.4	0.05	9.0	0.09	3.9	0.04	3.3	0.03	3.0	0.03	1.3	0.01	1.1	0.01

Max duty cycle for series MA is 40% over a 10 minute period or 30% over a 1 hour period at 25°C ambient

Series MA

Performance tables

Based upon the linear speed needed and maximum dynamic load applied, pick the effective lifting speed and input torque - power required from the relevant screwjack table below. Intermediate figures for input torque - power can be calculated by direct interpolation.

PLEASE, NOTE! The red figures in the tables indicates operational restrictions due to thermal limits. Selection of screw jacks using these figures should only be carried out in consultation with our office.

When your selection is made within the areas shaded red, you will need to reduce duty cycle or choose the next size screwjack in order to allow effective heat dissipation.

n_1 = input speed T_1 = input torque required P_1 = input power required

MA 50				LIFTING LOAD																							
				50kN						35kN						25kN						10kN					
n ₁	Lifting speed mm/s			Ratios						Ratios						Ratios						Ratios					
				RV		RN		RL		RV		RN		RL		RV		RN		RL		RV		RN		RL	
				T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁
r/min	RV	RN	RL	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
3000	50.0	25.0	12.5	21.5	6.76	12.4	3.91	7.7	2.40	15.1	4.73	8.7	2.73	5.4	1.68	10.8	3.38	6.2	1.95	3.8	1.20	4.3	1.35	2.5	0.78	1.5	0.48
1500	25.0	12.5	6.3	25.0	3.92	14.4	2.26	8.5	1.34	17.5	2.74	10.0	1.58	6.0	0.94	12.5	1.96	7.2	1.13	4.3	0.67	5.0	0.78	2.9	0.45	1.7	0.27
1000	16.7	8.3	4.2	26.5	2.78	15.3	1.60	9.1	0.96	18.6	1.94	10.7	1.12	6.4	0.67	13.3	1.39	7.6	0.80	4.6	0.48	5.3	0.56	3.1	0.32	1.8	0.19
750	12.5	6.3	3.1	27.4	2.15	16.0	1.25	9.5	0.74	19.2	1.51	11.1	0.87	6.6	0.52	13.7	1.08	7.9	0.62	4.7	0.37	5.5	0.43	3.2	0.25	1.9	0.15
500	8.3	4.2	2.1	28.8	1.51	16.4	0.86	10.0	0.52	20.2	1.06	11.5	0.60	7.0	0.37	14.4	0.75	8.2	0.43	5.0	0.26	5.8	0.30	3.3	0.17	2.0	0.11
300	5.0	2.5	1.3	30.5	0.96	17.4	0.55	10.8	0.34	21.3	0.67	12.2	0.38	7.6	0.24	15.2	0.48	8.7	0.27	5.4	0.17	6.1	0.19	3.5	0.11	2.1	0.07
100	1.7	0.8	0.4	33.0	0.35	19.3	0.20	12.5	0.13	23.1	0.24	13.5	0.14	8.8	0.09	16.5	0.17	9.7	0.10	6.3	0.07	6.6	0.07	3.9	0.04	2.5	0.03

MA 80				LIFTING LOAD																							
				80kN						60kN						40kN						20kN					
n ₁	Lifting speed mm/s			Ratios						Ratios						Ratios						Ratios					
				RV		RN		RL		RV		RN		RL		RV		RN		RL		RV		RN		RL	
				T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁
r/min	RV	RN	RL	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
3000	64.3	32.1	16.1	42.0	13.2	24.8	7.80	15.1	4.74	31.5	9.90	18.6	5.85	11.3	3.56	21.0	6.60	12.4	3.90	7.00	2.37	10.5	3.30	6.21	1.95	3.77	1.99
1500	32.1	16.1	8.0	50.2	7.88	29.1	4.57	16.3	2.56	37.6	5.91	21.8	3.43	12.2	1.92	25.1	3.94	14.6	2.29	8.15	1.28	12.5	1.97	7.28	1.14	4.07	0.64
1000	21.7	10.7	5.4	53.4	5.59	30.2	3.16	17.0	1.78	40.0	4.19	22.6	2.37	12.7	1.33	26.7	2.80	15.1	1.58	8.49	0.89	13.3	1.40	7.55	0.79	4.24	0.44
750	16.1	8.0	4.0	53.8	4.22	32.6	2.56	17.7	1.39	40.3	3.17	24.4	1.92	13.3	1.04	26.9	2.11	16.3	1.28	8.86	0.70	13.4	1.06	8.15	0.64	4.43	0.35
500	10.7	5.4	2.7	58.2	3.05	34.0	1.78	18.5	0.97	43.7	2.29	25.5	1.33	13.9	0.73	29.1	1.52	17.0	0.89	9.26	0.48	14.6	0.76	8.49	0.44	4.63	0.24
300	6.4	3.2	1.6	63.7	2.00	35.1	1.10	22.3	0.70	47.7	1.50	26.3	0.83	16.8	0.53	31.8	1.00	17.5	0.55	11.2	0.35	15.9	0.50	8.77	0.28	5.58	0.18
100	2.1	1.1	0.5	66.2	0.69	37.6	0.39	24.0	0.25	49.7	0.52	28.2	0.30	18.0	0.19	33.1	0.35	18.8	0.20	12.0	0.13	16.6	0.17	9.40	0.10	5.99	0.06

MA 100				LIFTING LOAD																							
				100kN						80kN						50kN						20kN					
n ₁	Linear speed mm/s			Ratios						Ratios						Ratios						Ratios					
				RV		RN		RL		RV		RN		RL		RV		RN		RL		RV		RN		RL	
				T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁
r/min	RV	RN	RL	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
3000	75.0	25.0	18.8	58.2	18.3	24.9	7.81	19.9	6.25	46.6	14.6	19.9	6.25	15.9	5.00	29.1	9.15	12.4	3.91	10.0	3.12	11.6	3.66	5.0	1.56	4.0	1.25
1500	37.5	12.5	9.4	66.5	10.4	28.2	4.43	22.5	3.54	53.2	8.36	22.6	3.55	18.0	2.83	33.2	5.22	14.1	2.22	11.3	1.77	13.3	2.09	5.6	0.89	4.5	0.71
1000	25.0	8.3	6.3	70.8	7.42	30.0	3.14	24.1	2.52	56.7	5.93	24.0	2.52	19.2	2.02	35.4	3.71	15.0	1.57	12.0	1.26	14.2	1.48	6.0	0.63	4.8	0.50
750	18.8	6.3	4.7	73.5	5.77	31.3	2.46	25.3	1.99	58.8	4.61	25.1	1.97	20.2	1.59	36.7	2.88	15.7	1.23	12.6	0.99	14.7	1.15	6.3	0.49	5.0	0.40
500	12.5	4.2	3.1	77.0	4.03	32.9	1.72	26.6	1.39	61.6	3.23	26.3	1.38	21.3	1.12	38.5	2.02	16.4	0.86	13.5	0.70	15.4	0.81	6.6	0.34	5.3	0.28
300	7.5	2.5	1.9	82.3	2.59	35.2	1.11	28.7	0.90	65.9	2.07	28.2	0.88	22.9	0.72	41.2	1.29	17.6	0.55	14.3	0.45	16.5	0.52	7.0	0.22	5.7	0.18
100	2.5	0.8	0.6	89.1	0.93	40.0	0.42	33.0	0.34	71.3	0.75	32.0	0.33	26.4	0.28	44.5	0.47	20.0	0.21	16.5	0.17	17.8	0.19	8.0	0.08	6.6	0.07

Max duty cycle for series MA is 40% over a 10 minute period or 30% over a 1 hour period at 25°C ambient

Based upon the linear speed needed and maximum dynamic load applied, pick the effective lifting speed and input torque - power required from the relevant screwjack table below. Intermediate figures for input torque - power can be calculated by direct interpolation.

PLEASE, NOTE! The red figures in the tables indicates operational restrictions due to thermal limits. Selection of screw jacks using these figures should only be carried out in consultation with our office.

When your selection is made within the areas shaded red, you will need to reduce duty cycle or choose the next size screwjack in order to allow effective heat dissipation.

n_1 = input speed T_1 = input torque required P_1 = input power required

MA 200				LIFTING LOAD																							
				200kN						150kN						100kN						50kN					
n ₁	Lifting speed mm/s			Ratios						Ratios						Ratios						Ratios					
				RV		RN		RL		RV		RN		RL		RV		RN		RL		RV		RN		RL	
				T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁
r/min	RV	RN	RL	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
3000	75.0	25.0	18.8	126	39.5	51.3	16.1	42.6	13.4	94.2	29.6	38.5	12.1	32.0	10.1	62.8	19.7	25.7	8.06	21.3	6.70	31.4	9.87	12.8	4.03	10.7	3.35
1500	37.5	12.5	9.4	144	22.6	60.5	9.51	48.9	7.68	108	16.9	45.4	7.13	36.7	5.76	72.1	11.3	30.3	4.75	24.5	3.84	36.1	5.66	15.1	2.38	12.2	1.92
1000	25.0	8.3	6.3	153	16.0	65.0	6.80	52.1	5.48	114	12.0	48.7	5.10	39.1	4.09	76.5	8.01	32.5	3.40	26.1	2.73	38.3	4.01	16.2	1.70	13.0	1.36
750	18.8	6.3	4.7	159	12.5	68.6	5.39	54.8	4.30	119	9.37	51.4	4.04	41.1	3.22	79.6	6.25	34.3	2.69	27.4	2.15	39.8	3.12	17.1	1.35	13.7	1.07
500	12.5	4.2	3.1	167	8.77	71.4	3.74	57.7	3.02	125	6.58	53.5	2.80	43.2	2.26	83.8	4.39	35.7	1.87	28.8	1.51	41.9	2.19	17.8	0.93	14.4	0.75
300	7.5	2.5	1.9	178	5.62	76.1	2.39	61.8	1.94	134	4.21	57.1	1.79	46.4	1.46	89.4	2.81	38.1	1.20	30.9	0.97	44.7	1.40	19.0	0.60	15.5	0.49
100	2.5	0.8	0.6	195	2.05	87.3	0.92	72.3	0.76	146	1.54	65.9	0.69	54.3	0.57	97.8	1.02	44.0	0.46	36.2	0.38	48.9	0.51	22.0	0.23	18.1	0.19

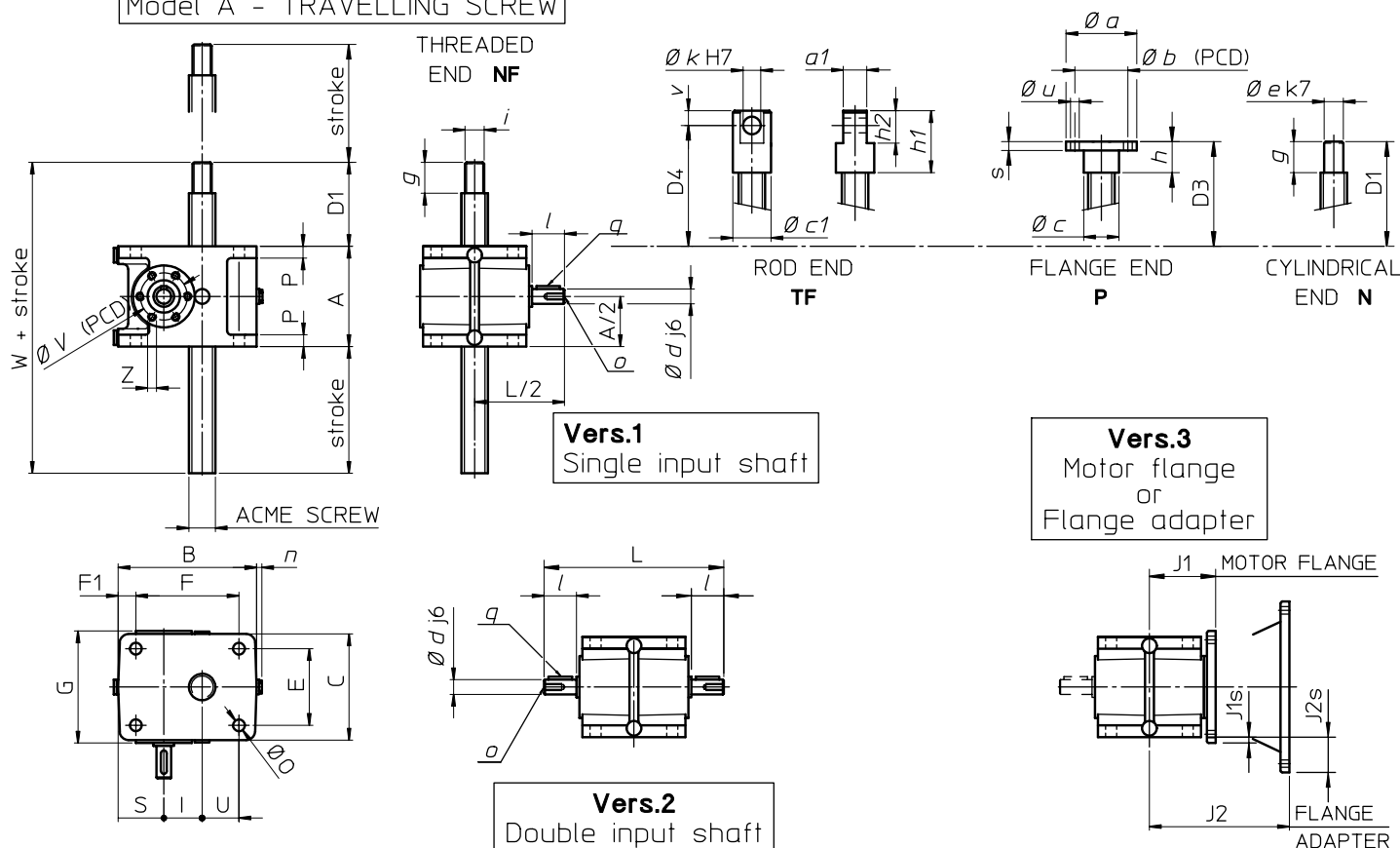
MA 350				LIFTING LOAD																							
				350kN						250kN						150kN						100kN					
n ₁	Lifting speed mm/s			Ratios						Ratios						Ratios						Ratios					
				RV		RN		RL		RV		RN		RL		RV		RN		RL		RV		RN		RL	
				T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁	T ₁	P ₁
r/min	RV	RN	RL	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW	Nm	kW
3000	75.0	50.0	25.0	214	67.3	164	51.5	96.0	30.2	153	48.1	117	36.8	68.6	21.6	91.8	28.8	70.2	22.1	41.2	12.9	61.2	19.2	46.8	14.7	27.5	8.62
1500	37.5	25.0	12.5	264	41.5	191	30.0	113	17.7	188	29.6	136	21.4	80.9	12.7	113	17.8	82.0	12.8	48.5	7.62	75.5	11.8	54.7	8.59	32.3	5.08
1000	25.0	16.7	8.3	281	29.4	201	21.1	120	12.6	201	21.0	144	15.1	86.1	9.02	120	12.6	86.5	9.00	51.7	5.41	80.4	8.42	57.7	6.04	34.4	3.61
750	18.8	12.5	6.3	293	23.0	210	16.5	127	9.99	209	16.4	150	11.7	90.8	7.13	125	9.87	90.1	7.07	54.5	4.28	83.8	6.58	60.1	4.72	36.3	2.85
500	12.5	8.3	4.2	308	16.1	223	11.7	134	7.04	220	11.5	159	8.37	96.1	5.03	132	6.92	95.9	5.02	57.7	3.02	88.1	4.61	63.9	3.35	38.4	2.01
300	7.5	5.0	2.5	331	10.4	242	7.61	144	4.53	236	7.44	173	5.43	103	3.24	142	4.46	103	3.26	61.8	1.94	94.7	2.98	69.2	2.17	41.2	1.29
100	2.5	1.7	0.8	369	3.87	269	2.82	166	1.75	264	2.76	192	2.01	119	1.25	158	1.66	115	1.21	71.5	0.75	105	1.11	76.9	0.80	47.6	0.50

Max duty cycle for series MA is 40% over a 10 minute period or 30% over a 1 hour period at 25°C ambient

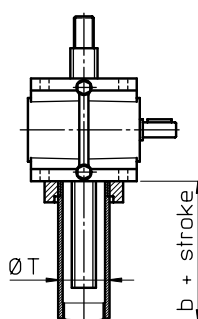
Series MA – efficiency figures

n_1 [r/min]	MA5 Ratios			MA10 Ratios			MA25 Ratios			MA50 Ratios			MA80 Ratios			MA100 Ratios			MA200 Ratios			MA350 Ratio		
	RV	RN	RL	RV	RN	RL	RV	RN	RL	RV	RN	RL	RV	RN	RL	RV	RN	RL	RV	RN	RL	RV	RN	RL
3000	0.40	0.31	0.27	0.41	0.30	0.28	0.38	0.30	0.28	0.37	0.32	0.26	0.39	0.33	0.27	0.41	0.32	0.30	0.38	0.31	0.28	0.39	0.34	0.29
1500	0.36	0.28	0.25	0.37	0.28	0.27	0.34	0.27	0.25	0.32	0.28	0.23	0.34	0.28	0.23	0.36	0.29	0.26	0.33	0.26	0.24	0.32	0.29	0.24
1000	0.34	0.27	0.24	0.35	0.26	0.25	0.32	0.26	0.24	0.30	0.26	0.22	0.31	0.26	0.21	0.34	0.26	0.25	0.31	0.24	0.23	0.29	0.27	0.23
750	0.33	0.26	0.23	0.34	0.25	0.25	0.31	0.25	0.23	0.29	0.25	0.21	0.30	0.25	0.20	0.32	0.25	0.24	0.30	0.23	0.22	0.28	0.26	0.22
500	0.31	0.25	0.21	0.32	0.24	0.23	0.29	0.24	0.22	0.28	0.24	0.20	0.27	0.23	0.19	0.31	0.24	0.22	0.28	0.22	0.21	0.27	0.25	0.21
300	0.30	0.24	0.20	0.31	0.23	0.22	0.28	0.23	0.20	0.26	0.23	0.18	0.25	0.22	0.17	0.29	0.23	0.21	0.27	0.21	0.19	0.25	0.23	0.19
100	0.28	0.22	0.17	0.29	0.20	0.19	0.26	0.20	0.18	0.24	0.21	0.16	0.24	0.20	0.15	0.27	0.20	0.18	0.24	0.18	0.16	0.22	0.21	0.17
50	0.27	0.20	0.16	0.28	0.19	0.18	0.25	0.19	0.17	0.23	0.19	0.15	0.22	0.18	0.15	0.25	0.18	0.16	0.23	0.17	0.15	0.22	0.20	0.15
Starting	0.21	0.16	0.13	0.22	0.15	0.14	0.2	0.16	0.13	0.18	0.15	0.11	0.18	0.15	0.11	0.2	0.13	0.12	0.17	0.12	0.11	0.16	0.14	0.10

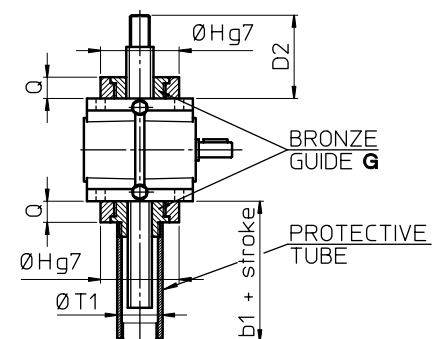
Model A - TRAVELLING SCREW



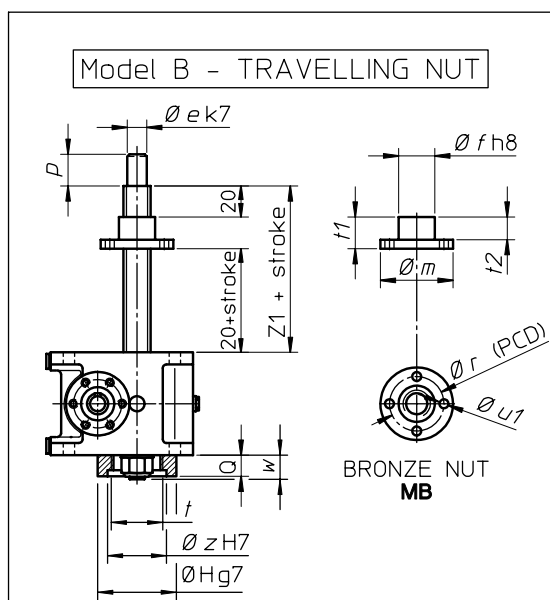
PROTECTIVE TUBE T



PROTECTIVE TUBE G/TG



Model B - TRAVELLING NUT



SIZE	MA 5	MA 10	MA 25	MA 50	MA 80	MA 100	MA 200	MA 350
$\emptyset T$	45	55	70	90	90	110	150	180
exec. T	25	25	25	25	25	35	35	35
exec. T + SN	75	75	105	105	115	105	115	135
exec. T + AR	80	85	95	105	125	115	145	175
exec. T + FCM	82	86	-	-	-	-	-	-
exec. T + FCP	85	86	94	96	96	100	105	110
exec. T+AR+FCP	90	96	114	126	146	140	175	210
$\emptyset T1$ (see NOTE)	36 (40)	45 (50)	55	55	90	90	90	160
exec. TG	50	51	59	61	61	65	90	125
b1 exec. TG + FCM	100	101	115	-	-	-	-	-
exec. TG + FCP	100	101	109	111	111	115	140	165

NOTE: Values $\emptyset T1$ under brackets referred to exec. TG + FCP

Series MA

Dimensions

SIZE	MA 5	MA 10	MA 25	MA 50	MA 80	MA 100	MA 200	MA 350
ACME SCREW	Tr 18 × 4	Tr 22 × 5	Tr 30 × 6	Tr 40 × 7	Tr 55 × 9	Tr 60 × 12	Tr 70 × 12	Tr 100 × 16
A	80	100	126	160	160	200	230	280
B	124	140	175	235	235	276	330	415
C	80	105	130	160	160	200	230	300
D1 (closed)	39	44	58	58	68	68	78	98
D2 (closed)	54	60	82	84	94	98	113	138
D3 (closed)	40	45	60	60	70	70	80	100
D4 (closed)	65	75	95	105	120	150	170	220
E	62	80	100	120	120	150	175	230
F	95	110	140	190	190	220	270	330
F1	12.5	14	17.5	23	23	26	30	42
G	100	114	136	165	165	205	256	326
Ø H	65	80	100	120	120	160	190	240
I	30	40	50	63	63	80	100	125
L	149	179	221.5	269	269	330	378	490
Ø O	9	9	13	17	17	21	28	34
P	10	12	15	19	19	22	26	30
Q	15	16	24	26	26	30	35	40
S	46.5	46	57.5	80	80	91	113	121
U	31	38	50	70	70	75	87	126
Ø V (PCD)	42	46	64	63	63	74	110	118
W	119	144	184	218	228	268	308	378
Z (thread × depth)	M5 × 10	M5 × 12	M5 × 10	M6 × 14	M6 × 14	M6 × 14	M10 × 20	M10 × 25
Z1	80	85	90	115	140	140	170	200
Ø a	68	75	100	120	150	150	180	250
a1	20	25	30	40	50	60	75	100
Ø b (PCD)	45	55	75	85	110	110	130	180
Ø c	25	30	40	50	70	70	85	115
Ø c1	32	38	48	68	78	90	108	138
Ø d	10	14	19	24	24	28	32	38
Ø e	12	15	20	30	40	40	50	70
Ø f	30	40	50	60	75	80	100	150
g	19	24	38	38	48	48	58	78
h	20	25	40	40	50	50	60	80
h1	60	75	100	120	140	180	210	280
h2	30	40	50	70	80	100	120	160
i	M12 × 1.75	M16 × 1.5	M20 × 1.5	M30 × 2	M42 × 3	M42 × 3	M56 × 3	M80 × 3
Ø k	14	20	25	35	40	50	60	80
l	22	30	40	50	50	60	60	80
Ø m	68	75	100	120	130	150	180	250
n	-	-	10	10	10	12	10	10
o (thread × depth)	M5 × 10	M6 × 14	M8 × 16	M8 × 16	M8 × 16	M8 × 16	M10 × 24	M12 × 32
p	19	24	40	40	45	50	60	65
q	3 × 3 × 15	5 × 5 × 20	6 × 6 × 30	8 × 7 × 40	8 × 7 × 40	8 × 7 × 40	10 × 8 × 40	10 × 8 × 60
Ø r (PCD)	50	56	75	90	105	120	140	200
s	8	10	12	15	20	20	25	35
t	M45 × 1.5	M55 × 1.5	M70 × 2	M90 × 2	M90 × 2	M110 × 2	M150 × 3	M180 × 3
t1	40	45	50	75	100	100	130	160
t2	28	33	35	50	80	70	95	115
Ø u × n° holes	Ø 7 × 4	Ø 9 × 4	Ø 11 × 4	Ø 17 × 4	Ø 21 × 4	Ø 21 × 4	Ø 26 × 6	Ø 30 × 6
Ø u1 × n° holes	Ø 7 × 4	Ø 9 × 4	Ø 11 × 4	Ø 17 × 4	Ø 17 × 4	Ø 21 × 4	Ø 26 × 6	Ø 30 × 6
v	15	20	25	35	40	50	60	80
w	15	17	25	36	38	41	42	45
Ø z	50	60	77	95	95	120	160	200
J1	62	69	102	100	100	120	142	-
J1s	63 B5: 30 63 B14: 5	63 B5: 20 63 B14: -	63 B5: 7 71 B5: 17	80 B5: 20	80 B5: 20	80 B5: - 90 B5: -	90 B5: - 100/112 B5: 10	-
J2	71 B5: 122 71 B14: 131	71 B5: 129 71 B14: 138	80/90 B5: 182 80 B14: 176 90 B14: 182	90 B5/B14: 200 100 B5/B14: 220	90 B5/B14: 200 112 B5/B14: 220	100/112 B5: 240 100/112 B14: 240	132 B5: 297	-
J2s	71 B5: 40 71 B14: 13	71 B5: 30 71 B14: 3	80/90 B5: 37 80 B14: - 90 B14: 7	90 B5: 20 100 B5: 45 90/100 B14: -	90 B5: 20 112 B5: 45 B14: -	112 B5: 25 112 B14: -	132 B5: 35	-