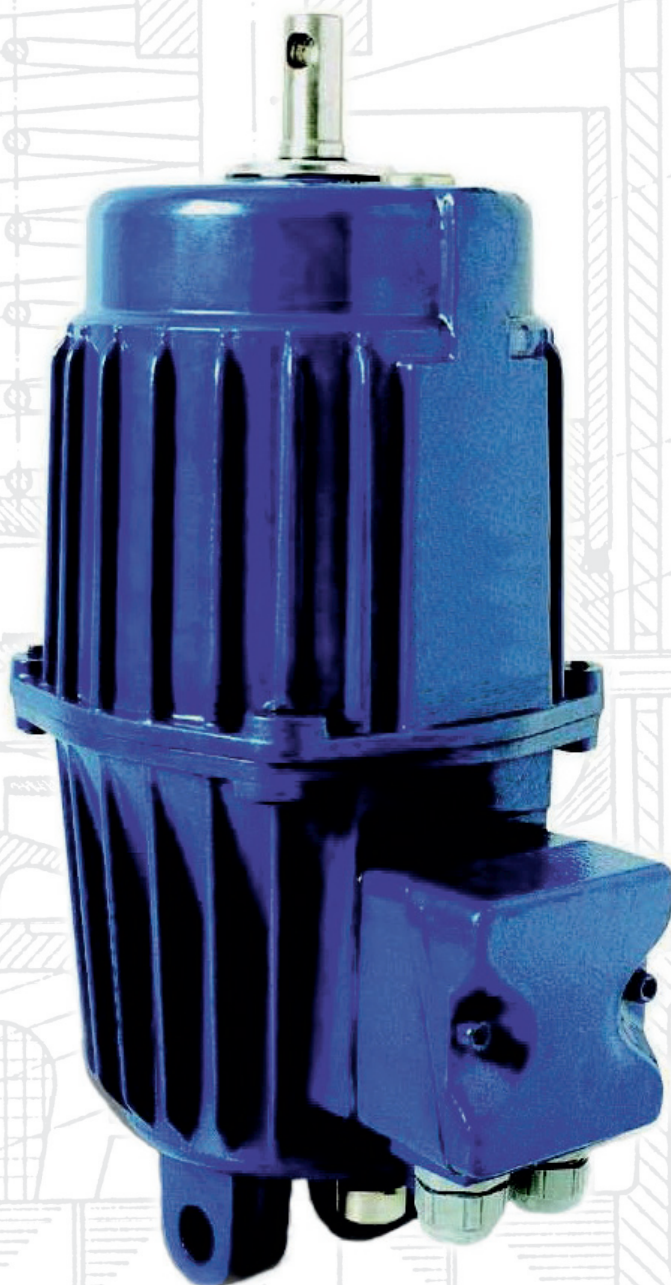


 **KoRo · IBS**
MOVING AND BRAKE SYSTEM



Electro-hydraulic thrusters
according to TGL

Industrial Brakes · Thrusters · Pressure Oil Pumps · Couplings · Hydraulic Buffers · Cellular Buffers
Rail Pliers · Sheaves · Hook Blocks · Crane Rail Wheels · Rail Clamps · Repairation · Service



TGL 800/60 with inductive limit switches

Additional Equipment:

- ➔ Limit Switch (mechanical or inductive)
- ➔ Lowering and Throttle Valve – for stepless reduction of the thruster recoil speed
- ➔ Fast Switching – when normal piston lowering time is too long
- ➔ Brake Spring (c-spring) – for brake application and control of the brake force
- ➔ Damping Spring (d-spring) – to damp random oscillations of the brake (only effective in conjunction with a c-spring)
- ➔ Heating for applications where the ambient temperature is less than -25°C
- ➔ Flame-proof designs

The thrusters meet all TGL requirements.

Installation:

Vertical, Horizontal or In-between possible

Motor:

Double Pole Squirrel Cage. Safety class to IP65.
Insulation class F according to VDE 0530.

Voltage and Frequency:

Standard Voltage 230V/400V at 50 Hz, or 290/500V at 50 Hz.
All other ac voltages and frequencies are also available.

Service Conditions:

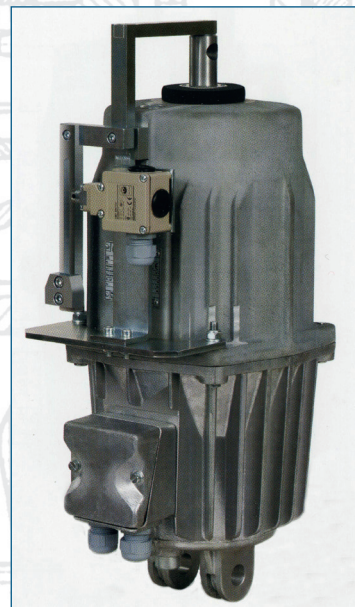
All our thrusters are suitable for continuous Running in ambient temperatures up to 50°C. (service conditions S1 – VDE 0530)

Switching Frequency:

Suitable for up to 2000 switch operations per hour.

Ambient Temperature:

From -25°C to +50°C (Transformer oil)
From -40°C to +50°C (Silicone oil)



TGL 800/60 with mechanical limit switches

Design versions:	c -	Reset spring
	H -	Ascent valve
	S -	Lowering valve
	d -	Throttle valve

Electrical Equipment

Safety class DIN 40 050: Delivery of all thrusters/ motors will made in safety class IP54.

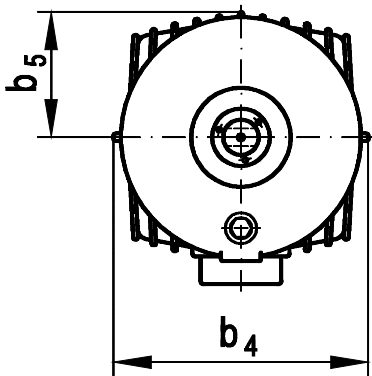
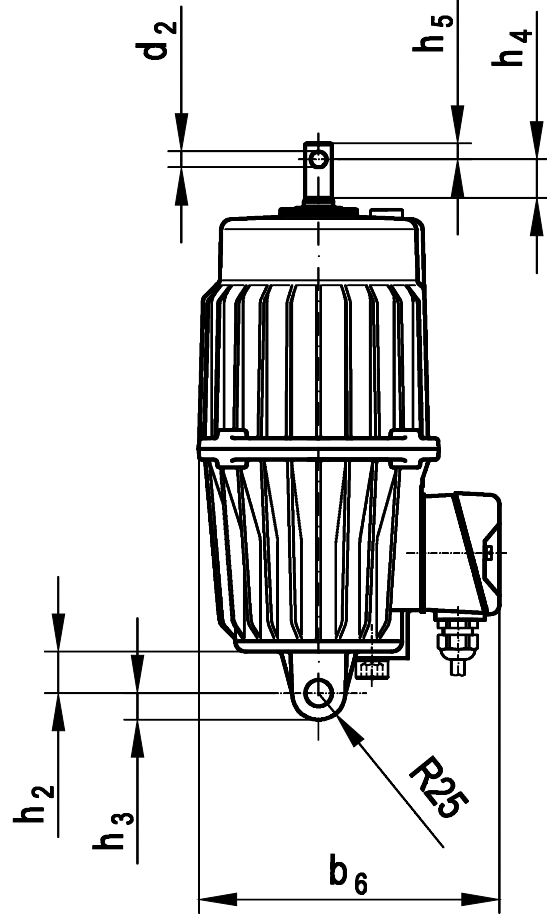
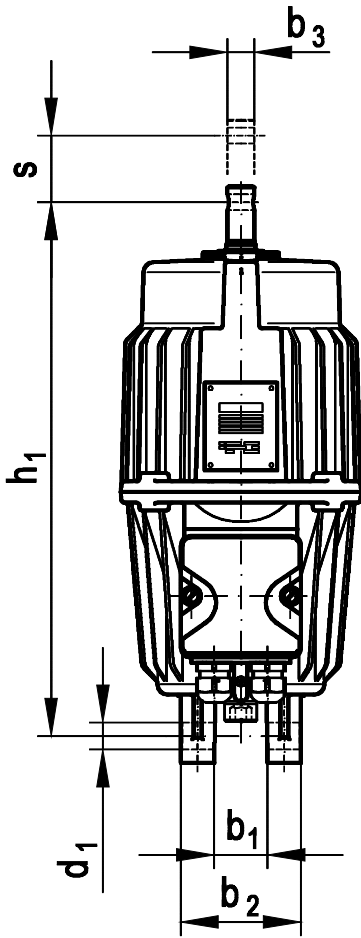
Voltage/ Frequency: The standard thruster is designed for three-phase current 400 Volt, 50 Hz or for 500 Volt, 50 Hz. Units for all other three-phase voltages and frequencies are also available. All motor terminal boxes are fitted with a watertight cable entry.

Operating mode: All thrusters are approved for 100% On-time operation (hydraulic operating mode S1 – VDE 0530) at ambient temperatures of up to 40° C.

Switching rate: Under normal conditions, all thrusters are designed for up to 2000 switching operations per hour.

Rapid lowering circuit: If the normal piston lowering time is found not to be adequate, it can be reduced by connecting three capacitors in parallel. This connection reduces the deceleration time when the electric motor is switched off. As a result, the oil pressure decreases rapidly. In this case, the thruster must be controlled by a separate relay.

Limit switch: All thrusters can be fitted with limit switches on request



Measures - Thruster acc. to TGL norm

Main dimensions Thruster acc. to TGL norm

TGL	s	b ₁	b ₂	b ₃ e8	b ₄	b ₅	b ₆	d ₁ D11	d ₂ F9	h ₁	h ₂	h ₃	h ₄	h ₅
500/	50	40	90	20	180	90	225	20	12	400	25	25	29	12
800/	60	40	90	26	210	105	248	20	16	458	30	25	33	16
800/	75	40	90	26	210	105	248	20	16	485	30	25	33	16
800/	120	40	90	26	210	105	248	20	16	530	30	25	33	16
800/	160	40	90	26	210	105	248	20	16	573	30	25	33	16
1250/	60	40	90	26	210	105	248	20	16	458	30	25	33	16
1250/	75	40	90	26	210	105	248	20	16	485	30	25	33	16
1250/	120	40	90	26	210	105	248	20	16	530	30	25	33	16
1250/	160	40	90	26	210	105	248	20	16	573	30	25	33	16
1500/	60	40	90	26	210	105	248	20	16	458	30	25	33	16
1500/	75	40	90	26	210	105	248	20	16	485	30	25	33	16
1500/	120	40	90	26	210	105	248	20	16	530	30	25	33	16
1500/	160	40	90	26	210	105	248	20	16	573	30	25	33	16
2000/	80	40	90	26	210	105	248	20	16	530	30	25	33	16
2000/	120	40	90	26	210	105	248	20	16	573	30	25	33	16
2500/	60	40	90	34	254	127	279	20	20	549	30	25	38	20
2500/	120	40	90	34	254	127	279	20	20	620	30	25	38	20
2500/	160	40	90	34	254	127	279	20	20	660	30	25	38	20
3200/	60	40	90	34	254	127	279	20	20	620	30	25	38	20
3200/	80	40	90	34	254	127	279	20	20	620	30	25	38	20
3200/	100	40	90	34	254	127	279	20	20	660	30	25	38	20
3200/	120	40	90	34	254	127	279	20	20	660	30	25	38	20

Type	Stroke	Lifting Force [N] ¹⁾	Brake Spring Force [N] ²⁾			Frequency [Hz]	Power Consume [W]	Voltage [V]			Current [A]			Weight [kg]
			C1	C2	C3			1	2	3	1	2	3	
500/	50	500	180	320	500	50	250	230	400	500	1.2	0.65	0.52	14
800/	60	800	450	800		50	450	230	400	500	2.1	1.2	0.9	22
800/	75	800	450	800		50	450	230	400	500	2.1	1.2	0.9	26
800/	120	800	450			50	450	230	400	500	2.1	1.2	0.9	26
800/	160	800	450			50	450	230	400	500	2.1	1.2	0.9	28
1250/	60	1250	450	800		50	450	230	400	500	2.1	1.2	0.9	22
1250/	75	1250	450	800		50	450	230	400	500	2.1	1.2	0.9	26
1250/	120	1250	450	800		50	450	230	400	500	2.1	1.2	0.9	26
1250/	160	1250	450	800		50	450	230	400	500	2.1	1.2	0.9	28
1500/	60	1500	450	800	1250	50	450	230	400	500	2.1	1.2	0.9	22
1500/	75	1500	450	800		50	450	230	400	500	2.1	1.2	0.9	26
1500/	120	1500	450	800		50	450	230	400	500	2.1	1.2	0.9	26
1500/	160	1500	450	800		50	450	230	400	500	2.1	1.2	0.9	28
2000/	80	2000	800	1250		50	450	230	400	500	2.1	1.2	0.9	26
2000/	120	2000	800	1250		50	450	230	400	500	2.1	1.2	0.9	28
2500/	60	2500	700	1300	2000	50	550	230	400	500	2.35	1.45	1.05	36
2500/	120	2500	700	1300		50	550	230	400	500	2.35	1.45	1.05	40
2500/	160	2500	700	1300		50	550	230	400	500	2.35	1.45	1.05	43
3200/	60	3200	1300	2000	2500	50	550	230	400	500	2.35	1.45	1.05	40
3200/	80	3200	1300	2000	2500	50	550	230	400	500	2.35	1.45	1.05	40
3200/	100	3200	1300	2000		50	550	230	400	500	2.35	1.45	1.05	43
3200/	120	3200	1300	2000		50	550	230	400	500	2.35	1.45	1.05	43

All facts are referring to +20°C equipment-operating temperature

- 1) Nominal lifting force, which reach a tension drop of 5 % during an ambient temperature between -25°C and +40°C.
- 2) With mounted c-spring by 1/3 of the nominal axial travel.