

Electro Hydraulic Thruster

➤ Introduction

Thruster is an electro hydraulic device, designed to exert a constant force to any mechanism to be operated.

The Thruster works on a principle of hydraulics. On supply of electric power, motor driven centrifugal impeller draws the oil from the low pressure end of the chamber to the high pressure upper end. The piston mounted on the same shaft moves to the upper end with full thrust, till its movement is stopped by the stopper shoulder at the end of the stroke. Pressure build up stops when power is discontinued. Radial blade design of the impeller enables it to rotate both in clockwise and anticlockwise direction. Therefore power supply to star connection can be in any R-Y-B phase sequence.

OUR RANGE :- 18KG TO 295KG

➤ Special features

- * Electro hydraulic thruster of ANAND make are extremely compacting designed and full reliable.
- * Fast response – 2000 cycle per hour.
- * Long service life with minimum maintenance.
- * Thruster brake are suitable for 400/440volts, 3 phase, 50 C/s, A.C. supply.
- * Available torque 6kgm to 580kgm
- * Easy installation and maintenance.
- * Reverse action version available.
- * Self adjusting lining wear mechanism.
- * Class F insulation.
- * Aluminum housing motor and rotor for perfect alignment of rotor shaft.
- * Internal working temperature is reduce upto 25%
- * High quality stator winding
- * Thruster are total enclosed with IP-55 protection

➤ Advantages

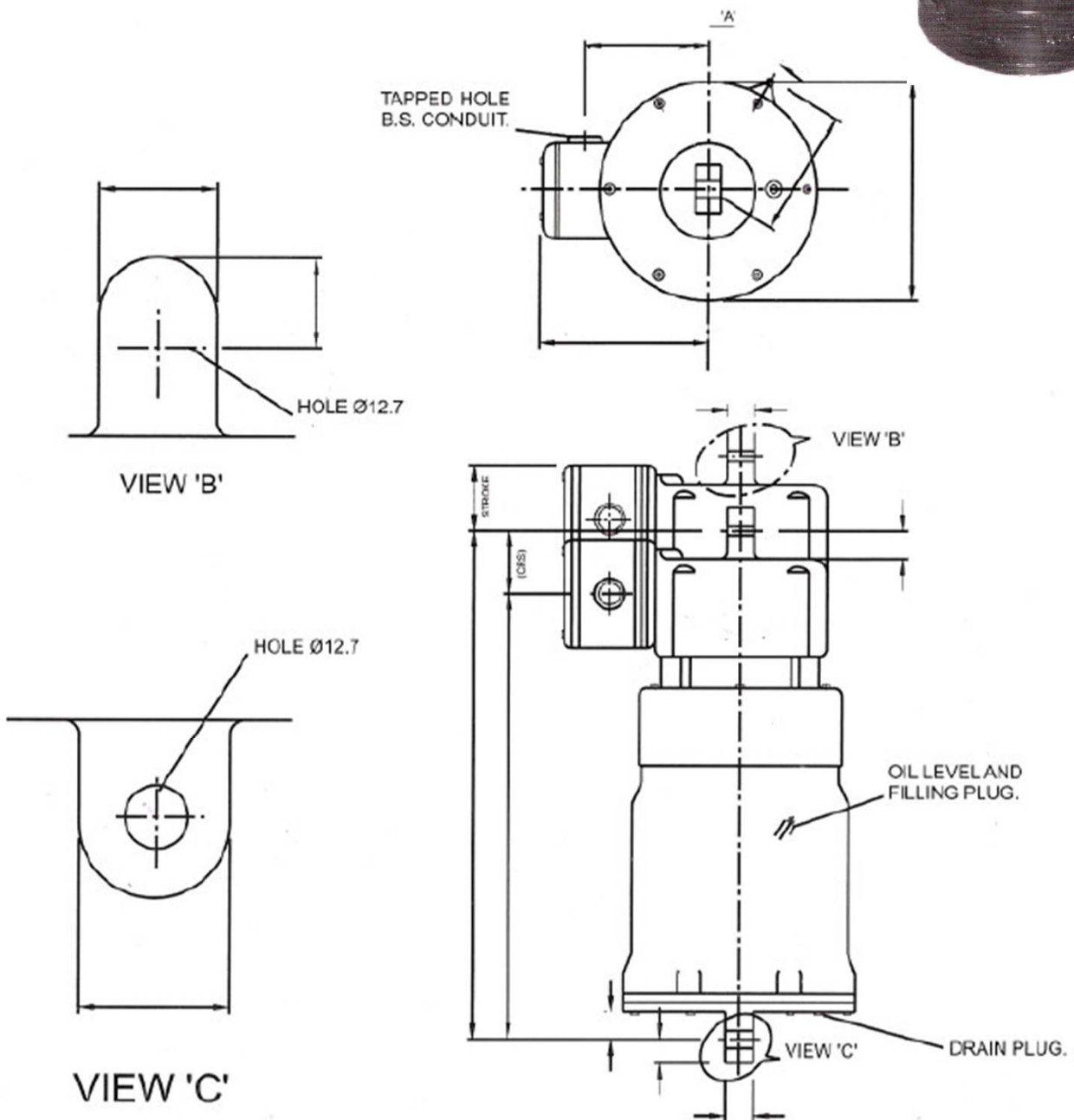
- * Long useable life up to 10 million switchings
- * Digital and analogue sensor for monitoring proper function
- * Setting force up to 6300N
- * Setting path up to 160MM
- * Variable mounting position

➤ Application

Today Electro hydraulic units also know as thruster are predominantly employed in heavy lifting equipment and conveying equipment. In combination with modern drum and brakes they ensure safe and gentle braking. They ensure the safety of people and machines alike during braking procedures as well as in emergency or power failure situations, for example when then power supply is cut off.

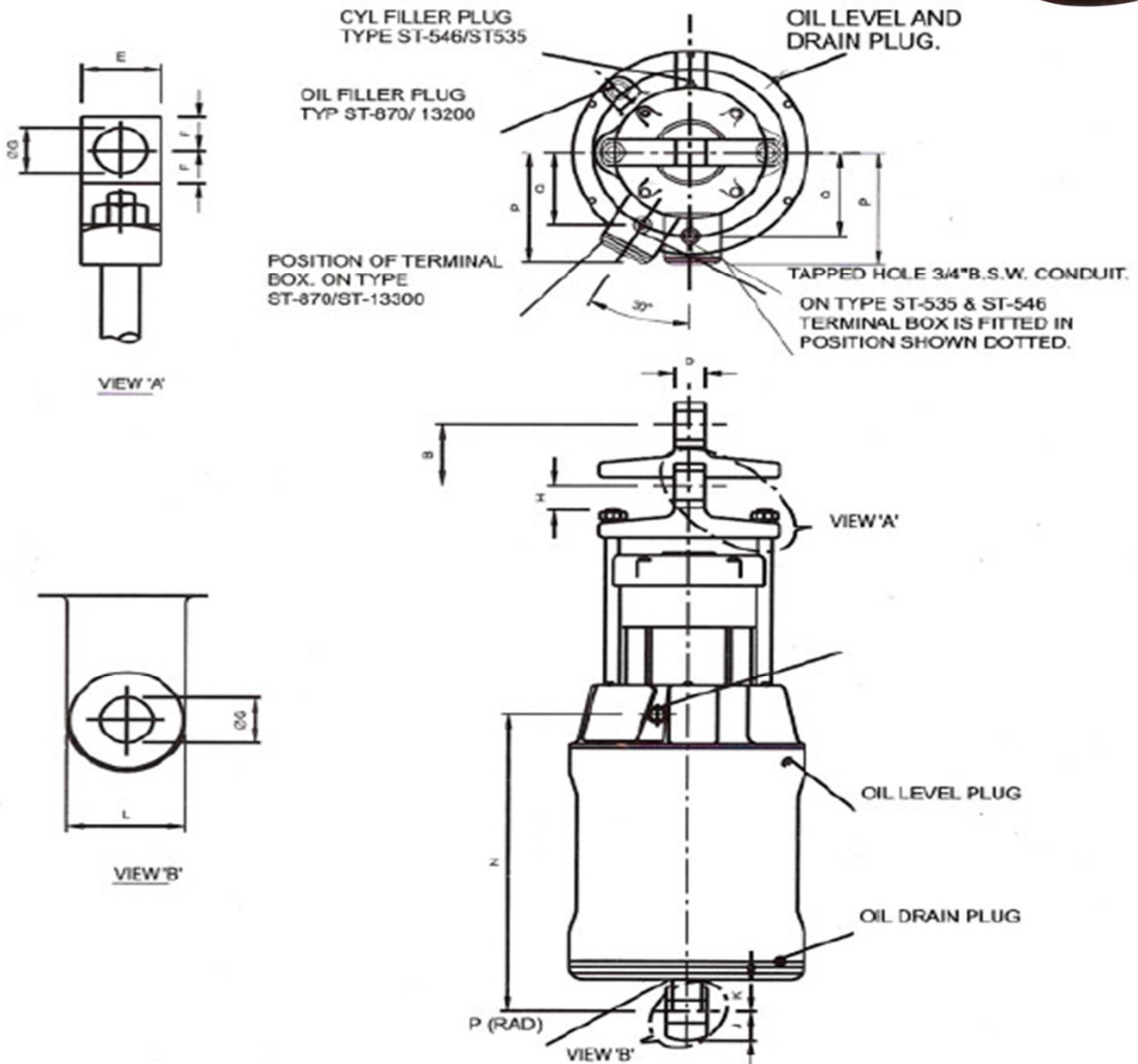
➤ Thruster ST-520

A compact 90watt, 415volts, 50cycles, 3phase, electric motor is directly mounted on the top of a piston. The piston is housed in the C.I. tank filled with fluid. The piston moves the fluid from low pressure area to high pressure area. The specially designed impeller which is mounted on the motor shaft produces required fluid pressure.



➤ Thruster ST-535 to ST-13300

This range of thruster has two thrust rods and a common piston. The motor is mounted on the top cover of the tank a separator plate divides the tank in two partitions - low pressure side and high pressure side. The spacer bushes control the thruster. The models are suitable for large capacity, higher motor ratings and larger thruster forces.



➤ Maintenance

The thruster is designed for long trouble free service and needs no maintenance. The motor bearing are adequately sized and windings are designed to meet the sudden jerks and shocks. Normal maintenance like topping of the oil levels, replacement of damage worn out oil seal and gasket is required. The terminal box must be cleaned periodically.

Type	Rated Output		Input Watts	Dimensions in mm														Weight (Kg.)	Oil Capacity Liters	
	Thrust Kgs.	Stroke mm		A	B	C	D	E	F	G	H	J	K	L	M	N	P			Q
ST 520	18	51	90	349	51	159	19	25	13	13	19	16	19	32	19	306	121	90	14	2
ST 535	34	51	150	444	51	171	22	29	14	19	19	21	27	41	25	250	138	110	30	2.5
ST 545	46	51	180	444	51	171	22	29	14	19	19	21	27	41	25	250	138	110	30	2.5
ST 870	68	76	200	508	76	216	25	32	16	22	25	24	29	48	32	292	152	124	40	4.5
ST 8110	114	76	250	508	76	216	25	32	16	22	25	24	29	48	32	292	152	124	40	4.5
ST 13200	225	127	420	660	127	254	32	38	19	25	29	27	43	54	38	381	152	127	55	9
ST 13300	295	127	580	660	127	254	32	38	19	25	29	27	43	54	38	381	152	127	55	9

Electro Hydraulic Thruster Brake

➤ Introduction

Thruster Brake is a device to retard the speed and to hold the moving machinery when it is stationary. The braking force to the shoes is applied through the spring by means of lever/rod mechanism. The shoes are moved clear off the drum again through lever /arm linkage mechanism by thruster which overcomes spring force.

"Anand Systems" offers a complete range of Electro hydraulic thruster for the total range of thruster brakes.

➤ Construction & Special Features

Thruster Brake is a device to retard the speed and to hold the moving machinery when it is stationary.

Base/Arms:

Rigid welded construction with accessible fixing.

Springs :

springs are used depending upon the brake size and thruster capacity

Shoes:

easily removable high grade cast iron best quality fabric linings.

Tie Rod | Guide Rod:

The tie rod transmits the spring force on the shoes

- Suitable for 400/440 Volts, 3 Phase, 50 C/s, A.C.Supply.

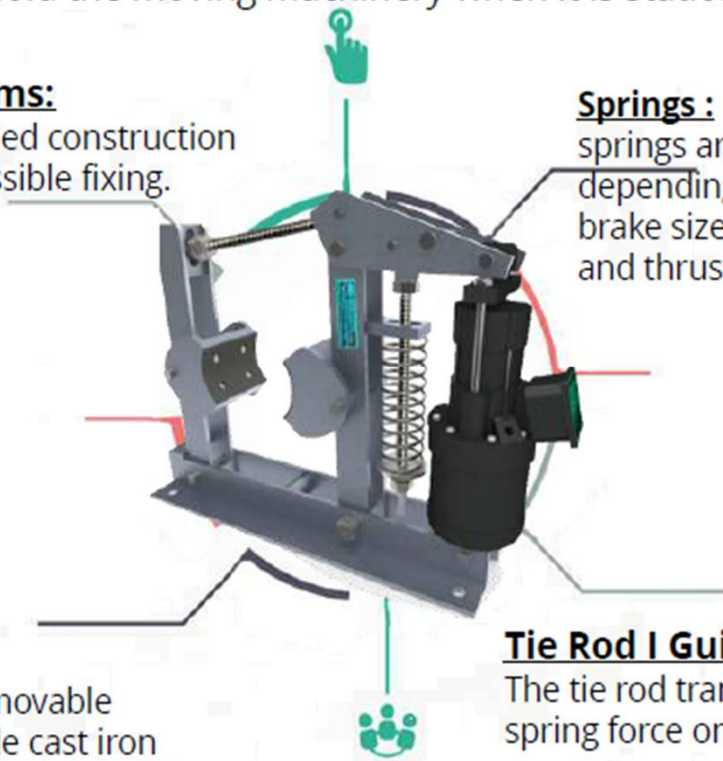
- Brake Drum Diameter 100-600MM.

- Braking torque 6KGM - 580KGM.

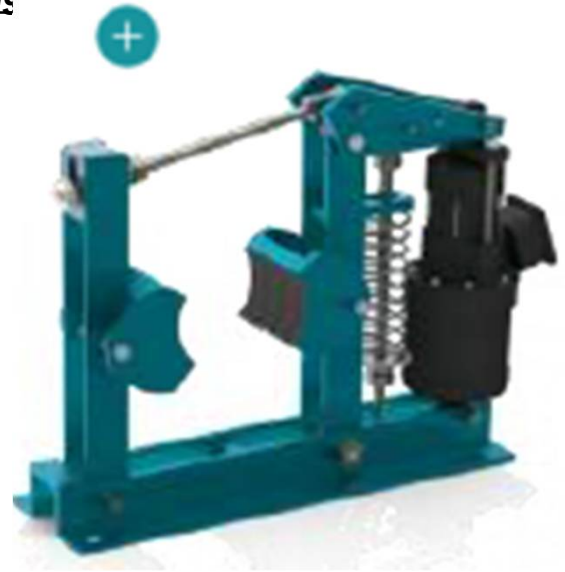
- Easy Installation and Maintenance

- Reverse action version available

- Self Adjusting lining wear mechanism.



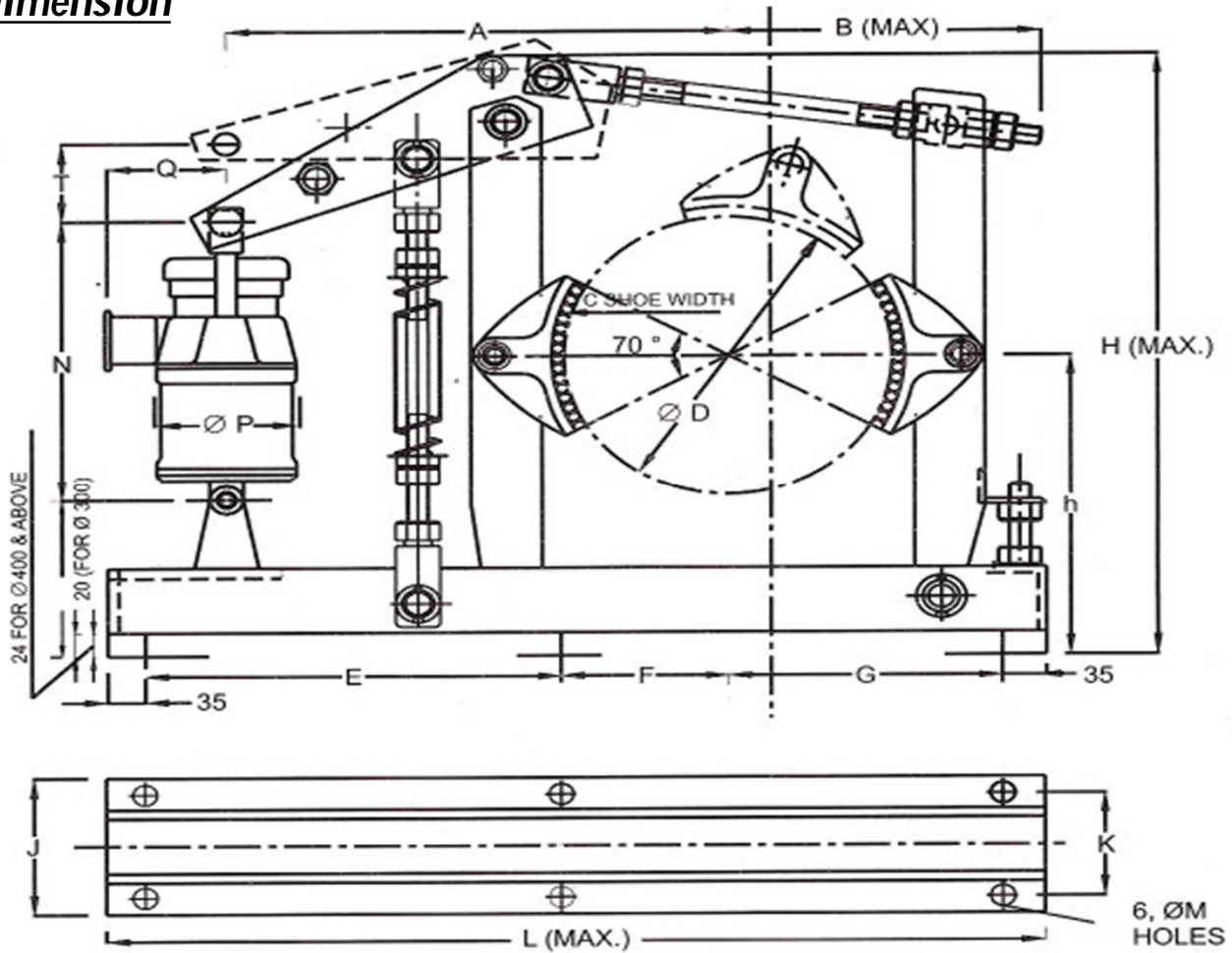
Mill duty thruster brakes rolling



➤ Torque Rating

Brake Type	Drum Diameter(mm)	Thruster Capacity(Kgs)	Thruster Stroke(mm)	Braking Torque(Kg-M)
MDT 100-18	100	18	51	6
MDT 160-18	160	18	51	9
MDT 200-18	200	18	51	20
MDT 200-34	200	34	51	32
MDT 250-18	250	18	51	35
MDT 250-34	250	34	51	42
MDT 300-18	300	18	51	42
MDT 300-34	300	34	51	62
MDT 400-34	400	34	51	90
MDT 400-46	400	46	51	110
MDT 400-68	400	68	76	170
MDT 500-46	500	46	51	190
MDT 500-68	500	68	76	290
MDT 500-114	500	114	76	485
MDT 600-68	600	68	76	350
MDT 600-114	600	114	76	580

➤ **Dimension**



DRUM DIA	100	160	200	250	300	400	500	600	700	800
A	235	265	360	355	430	503	618	688	905	955
B	165	195	215	240	285	350	410	480	585	635
C	70	70	88	100	140	180	200	240	280	320
E	150	150	360	320	460	508	680	765	960	1060
F					105	65	150	150	180	205
G	100	100	170	170	250	377	380	465	600	650
h	125	125	200	225	275	310	417	475	550	600
H	415	415	513	563	600	630	857	970	1260	1400
J	130	130	180	160	205	236	302	322	335	350
K	100	100	125	120	145	180	215	235	245	260
L	405	465	600	635	780	955	1130	1300	1650	1800
M	13	13	15	18	20	20	25	25	38	38
Wt Brake Kgs.	17	20	27	30	70	88	125	190	210	240