

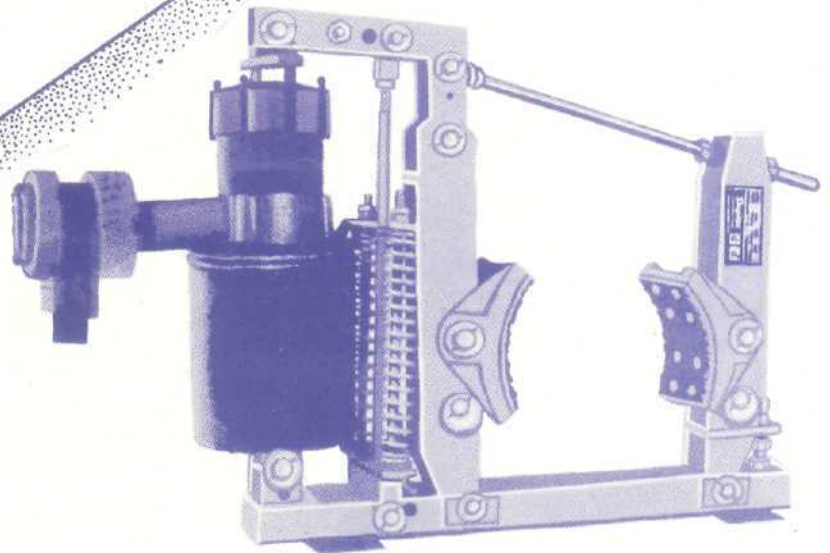
Duplex

FLAME PROOF ELECTRO MAGNETIC DISC BRAKES & CLUTCHES



FLAME PROOF ELECTRO-HYDRAULIC THRUSTOR & DISC BRAKES.

FLAME PROOF THRUSTOR BRAKE



FLAME PROOF BRAKES (THRUSTOR & DISC)

Duplex manufacture Flame Proof Brake for Gas groups I, II-A and II-B as per ISI 2184 - 1981 and the schedule. The terminal chamber is suitable for terminating PVC SWA, PVC DWA, PILC DWA cable.

The Brakes are for operation of an emergency braking under condition of switching off or Power failure, for bringing a moving or rotating machine to stop in quickest possible time & safety with least possible jerk on the machine.

This is an electro-hydraulic or electro magnetic device, designed to exert a constant thrust, or pull at an assigned stroke, to operate a mechanism, such as brake and clutch under hazardous or non-hazardous condition of environments.

It is used for operation of an emergency brake under conditions of switching off or power-failure, for bringing a

moving or rotating machine to stop in quickest possible time & safety with least possible jerk, on the machine. Adjustable time-lag arrangement with internal flow control makes this possible.

**IT IS A MUST FOR A HAULAGE, CONVEYOR AND WINDER.
PERMITTED TILT OF THE THRUSTOR IS 10° EITHER
WAY FROM VERTICAL.**

MOTOR

Thrustors are totally enclosed and the relative motor in combination with the thrustor certified for Gas Group I, IIA & MB to IS : 2148/1981 under the above mentioned certificate. The terminal chamber is suitable for terminating PVC SWA, PVC DWA, PILC DWA cable. A flexible cable should be used and 450 to 500 MM free length of cable should be arranged to avoid undue restraining forces on guide rods during operation.

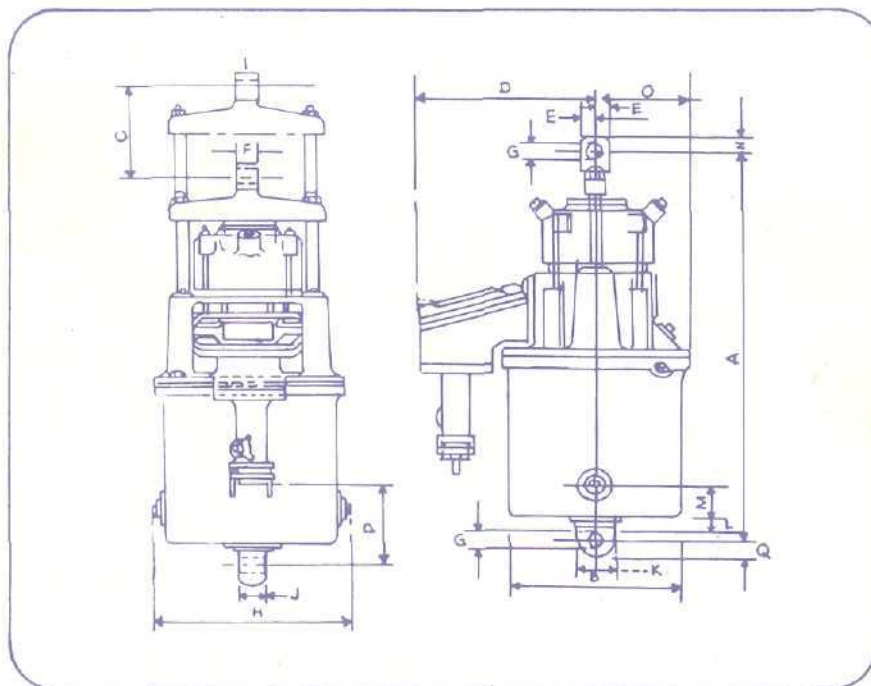
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RECOMMENDED RATINGS OF FLAMEPROOF THRUSTORS, FOR NORMAL OPERATION.

Time variations
per stroke, when time-lags are fitted.
Up Down

Thrustor Size	Rated Thrust.	Maximum Thrust.	Stroke MM.	No. of strokes per Min.	Work Kg. M.	stroke sec.	stroke sec.	Input Watt.	VA.
Dup. 33150	68	92	76	35	5.17	'7'-8	1.0-8	265	700
Dup. 33250	114	135	76	30	8.66	'7'-8	1.2-8	280	700

When cold, up stroke operating times are slightly longer and down-stroke operating times are appreciably less. The figures given above are good for general application in practice.



TYPE	DIMENSIONS MM																RATED NETT KG. THRUST	MAX NETT KG. THRUST ¹	STROKE IN M.M. (MAX)
	A	B	C	D	E	F	G	H	J	K	L	M	N	O	P	Q			
Dup. 33150	508	210	76	225	16	25	22	260	32	48	29	42	16	117.5	130	24	68	92	76
Dup. 33250	508	210	76	225	16	25	22	260	32	48	29	42	16	117.5	T30	24	114	138	76

The thrusts can be increased by about 10% & stroke increased 100 mm, against specific request, but not as a standard. Thrust is converted to a release force either directly or through a linkage, for brakes or clutch. The return force is applied on the thrustor from an external source, such

as spring in case of brake.
The maximum thrust exerted by the thrustor in the stalled position is higher than the rated thrust irrespective of the position of stalling on the path of stroke.

PARAG A.D.

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DUPLEX ENGINEERING WORKS