

TRANSFLUID

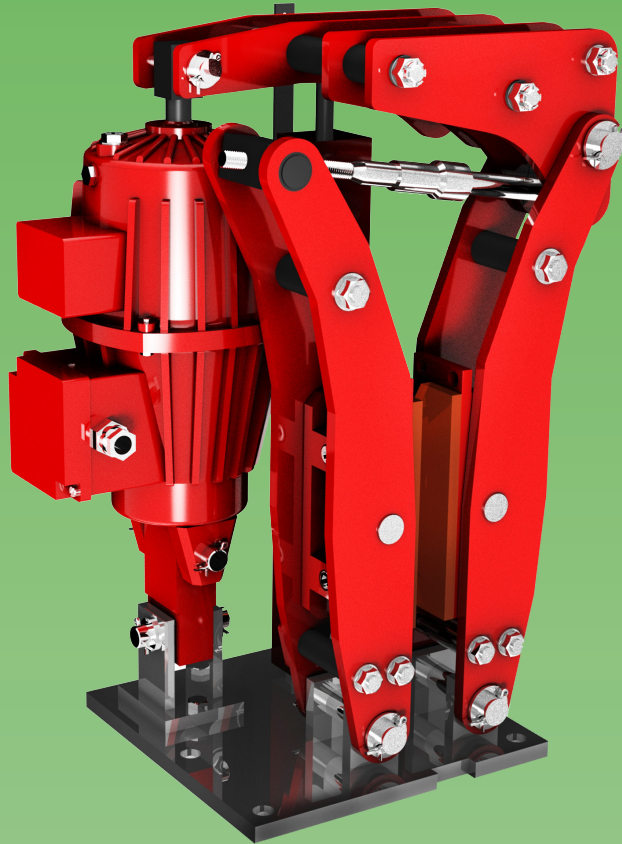


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TRANSFLUID[®]

industrial & marine



NBG - TFDS

DRUM AND DISC BRAKES

DESCRIPTION OPERATING CONDITIONS AND SELECTION

1. Operation

- TF Drum and Disc Brakes are negative type i.e. the braking action happens when the brake is not electrically actuated.
The braking force is obtained by means of a spring that, through a suitable system of levers, transmits its amplified force to the braking drums through the braking pads.

2. Technical Features

- Welded steel frame in accordance to DIN 15435 (drum brakes). Zinc coated steel frame (disc brakes).
- Epoxy resin painting (2 coatings) with RAL 3000 final color.
- Manganese phosphated pins (drum brakes). Stainless steel pins (disc brakes).
- Self lubricating bushes and stainless steel pins.
- Light alloy drums with asbestos free glued braking pads (drum brakes) Asbestos free lining pads, glued to easy-to-replace plates (disc brakes).
- Friction coefficient $\mu = 0,42$.
- Braking torque scale indicator.
- Protection grade IP 56.

3. Optionals (upon request)

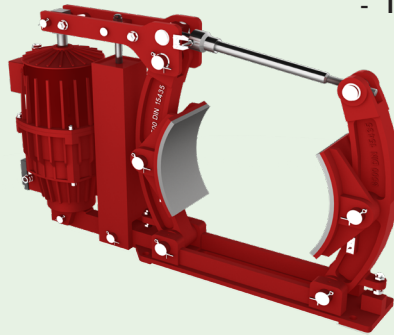
- Automatic wear compensation device.
- Lining max wear indicator, fitted on rod.
- Open brake indicator, either fitted on thrustor or on spring set (to be specified).
- Adjustable delay valve.
- Brake manual opening lever.
- Protection grade IP65.
- Braking drums 50% wider (drum brakes).
- Stainless steel pins instead of phosphated pins (drum brakes). (AISI 304)

4. Thrustor Types

- TRANSFLUID Electrohydraulic (Standard).

Upon request:

- EMG ELTMA Electrohydraulic.
- EMG ELDRO Electrohydraulic.
- Pneumatic.
- ATEX CERTIFIED



5. Brake Selection Data

- Type of application.
- Stops per hour.
- Required voltage (standard 230/400 V – 50 Hz).
- Air pressure supply (in case of pneumatic actuator).
- Required optionals.
- Drum diameter and width (drum brakes).
- Disc diameter (disc brakes). Standard disc thickness is 30 mm.

6. Abbreviations of actuators

- TF: TRANSFLUID Electrohydraulic actuator.
- Ed: ELDRO Electrohydraulic actuator.
- Eb: ELTMA Electrohydraulic actuator .

7. Abbreviations of Drum and Disc Brakes

- FCA: Open brake indicator.
- FCU: Maximum wear indicator.
- LSM: Manual disengagement lever.
- SV: Adjustable delay valve.
- RG: Automatic wear compensation device.

Drum brakes only:

- L: Special large drums. (50% more than standard version)
- INOX: Stainless steel pins. (AISI 304)

Disc brakes only:

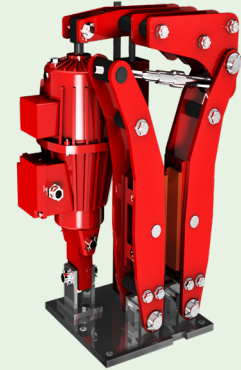
- DX: Right hand execution.
- SX: Left hand execution.

8. Applications

- Brake for lifting service.
- Brake for translating service.
- Emergency brake.
- Safety brake.

9. Quick Selection and dimensions Tables

- **Tab. A** DRUM BRAKES.
- **Tab. B** DISC BRAKES

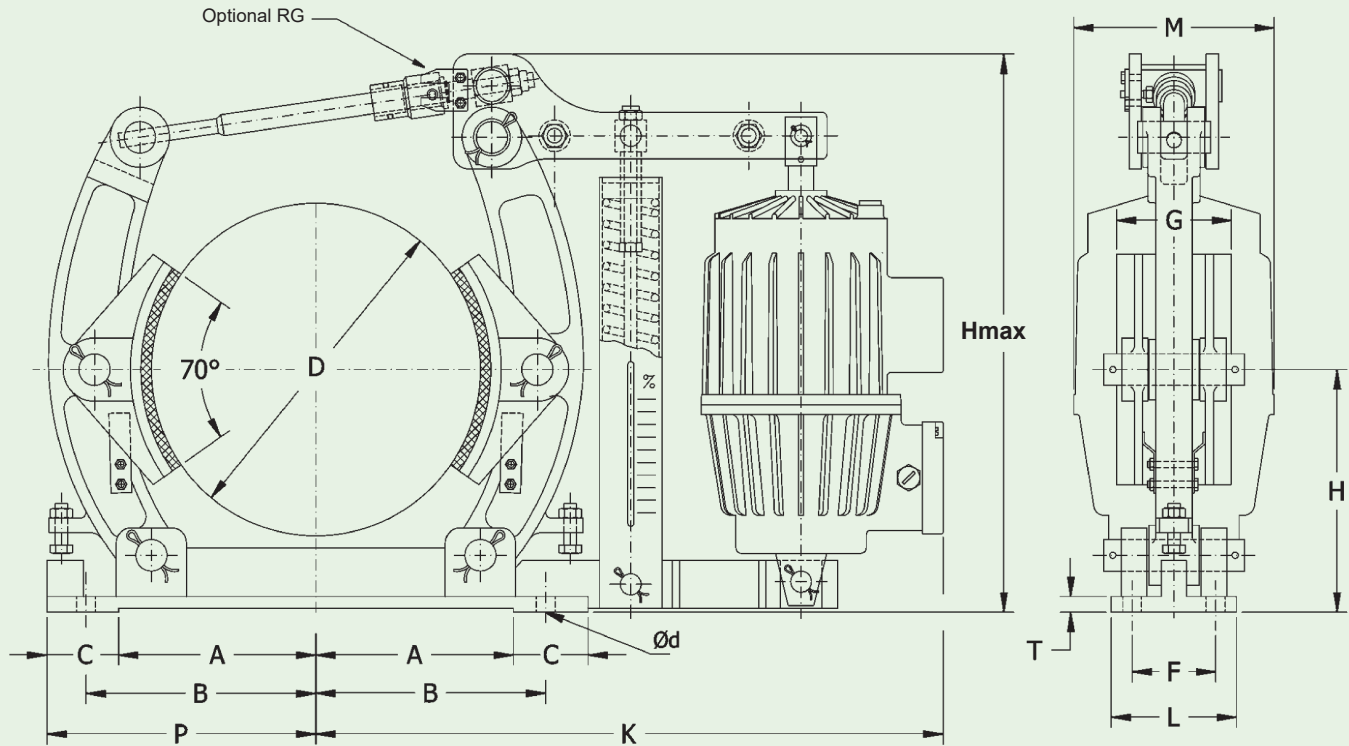


Tab. A

Brake Series	Thrustor Maximum brake torque Nm						
	TF 22/50	TF 30/50	TF 60/50	TF 75/50	TF 80/60	TF 200/60	TF 300/60
NBG 200	235	310	-	-	-	-	-
NBG 250	265	350	695	-	-	-	-
NBG 315	-	430	850	1050	1700	-	-
NBG 400	-	525	1045	1330	2100	-	-
NBG 500	-	-	-	-	2600	4200	-
NBG 630	-	-	-	-	3270	5400	7800

Tab. B

Brake Series	Disc dia. mm	Thrustor Maximum brake torque Nm					
		TF 22/50	TF 30/50	TF 60/50	TF 80/60	TF 200/60	TF 300/60
TFDS 1	355	290	435	870	-	-	-
	400	340	490	980	-	-	-
	450	390	530	1060	-	-	-
	500	440	575	1150	-	-	-
TFDS 2	450	-	-	1350	2700	4500	-
	500	-	-	1500	3000	5000	-
	560	-	-	1700	3400	5700	-
	630	-	-	1850	3700	6200	-
	710	-	-	2100	4200	7000	-
TFDS 3	630	-	-	-	3900	6500	9750
	710	-	-	-	4410	7350	11000
	800	-	-	-	5050	8500	12750
	1000	-	-	-	6300	10500	12750
	1250	-	-	-	7700	12800	19000

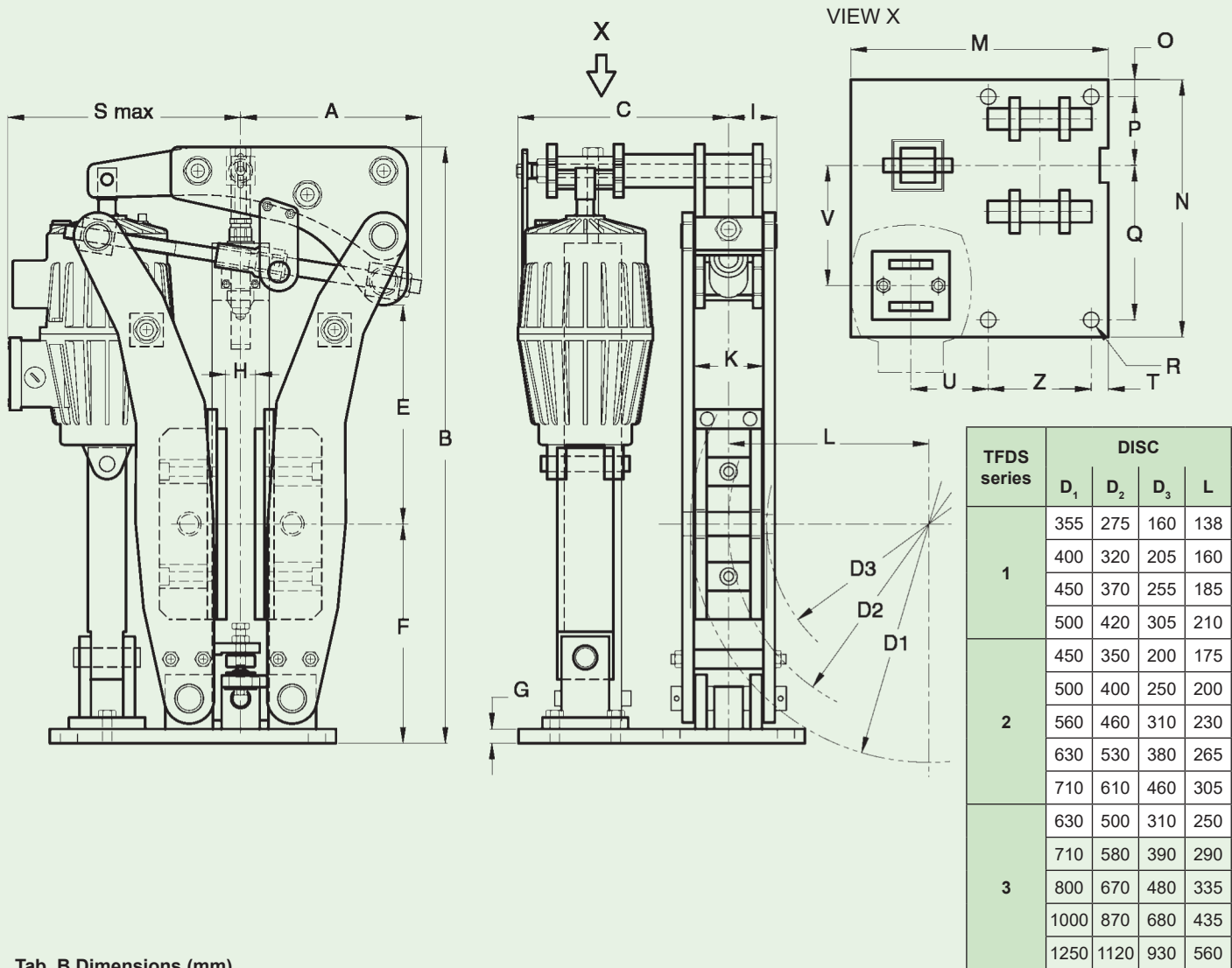


Tab. A Dimensions (mm)

SERIES NBG	Thrustor TF	D	A	B	C	d	F	G	H	Hmax	K	L	P	T	M	Total weight kg
200	22/50	200	115	145	55	14	55	70	160	430	422	90	170	12	142	26
200	30/50	200	115	145	55	14	55	70	160	430	450	90	170	12	168	30
250	22/50	250	144	180	63	18	65	90	190	485	476	100	207	14	142	34
250	30/50	250	144	180	63	18	65	90	190	485	501	100	207	14	168	40
250	60/50	250	144	180	63	18	65	90	230	485	510	100	207	14	192	50
315	30/50	315	189	220	68.5	18	80	110	230	532	593	120	257.5	15	168	61
315	60/50	315	189	220	68.5	18	80	110	230	532	601	120	257.3	15	192	71
315	75/50	315	189	220	68.5	18	80	110	230	532	601	120	257.5	15	192	71
315	80/60	315	189	220	68.5	18	80	110	280	532	618	120	257.5	15	234	78
400	30/50	400	240	270	74	22	100	140	280	668	687	150	314	17	168	89
400	60/50	400	240	270	74	22	100	140	280	668	695	150	314	17	192	93
400	75/50	400	240	270	74	22	100	140	280	668	695	150	314	17	192	93
400	80/60	400	240	270	74	22	100	140	340	668	715	150	314	17	234	100
500	80/60	500	295	325	85	22	130	180	340	760	812	170	380	20	234	148
500	200/60	500	295	325	85	22	130	180	420	785	823	170	380	20	274	160
630*	80/60	630	350	400	100	27	170	225	420	888	903	250	475	20	234	143
630*	200/60	630	350	400	100	27	170	225	420	888	903	250	475	20	274	165
630*	300/60	630	350	400	100	27	170	225	420	888	903	250	475	20	274	167

*(NB) steel lever arms version

DIMENSIONS ARE SUBJECT TO ALTERATION WITHOUT NOTICE



Tab. B Dimensions (mm)

TFDS series	Thrustor TF	A	B max	C	E	F	G	H	I	K	M	N	O	P	Q	R Nr.	S max Ø	T	U	V	Z	Total Weight kg
1	22/50	199	650	221	220	230	15	15	62	70	300	300	20	80	80	18	253	20	90	140	120	72
	30/50			274													77					
	60/50			286													79					
2	60/50	225	800	316	290	280	70	70	75	90	370	375	130	130	4	22	327	145	175	140	125	
	80/60			348													132					
	200/60			377													155					
3	80/60	235	1050	352	440	370	20	20	95	120	410	460	50	180	180	27	384	30	155	187	160	241
	200/60			395													264					
	300/60			395													264					

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