

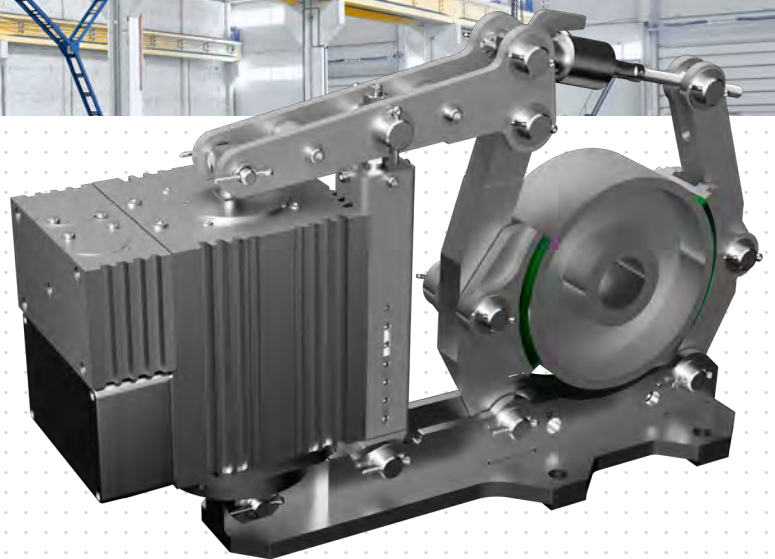


THRUSTER BRAKES

Drum Brakes | HBDR Series

 **MADE IN AMERICA**

514-PC-HYDRASTOP-HBDR_rev1



HYDRASTOP® THRUSTER BRAKES

Overview

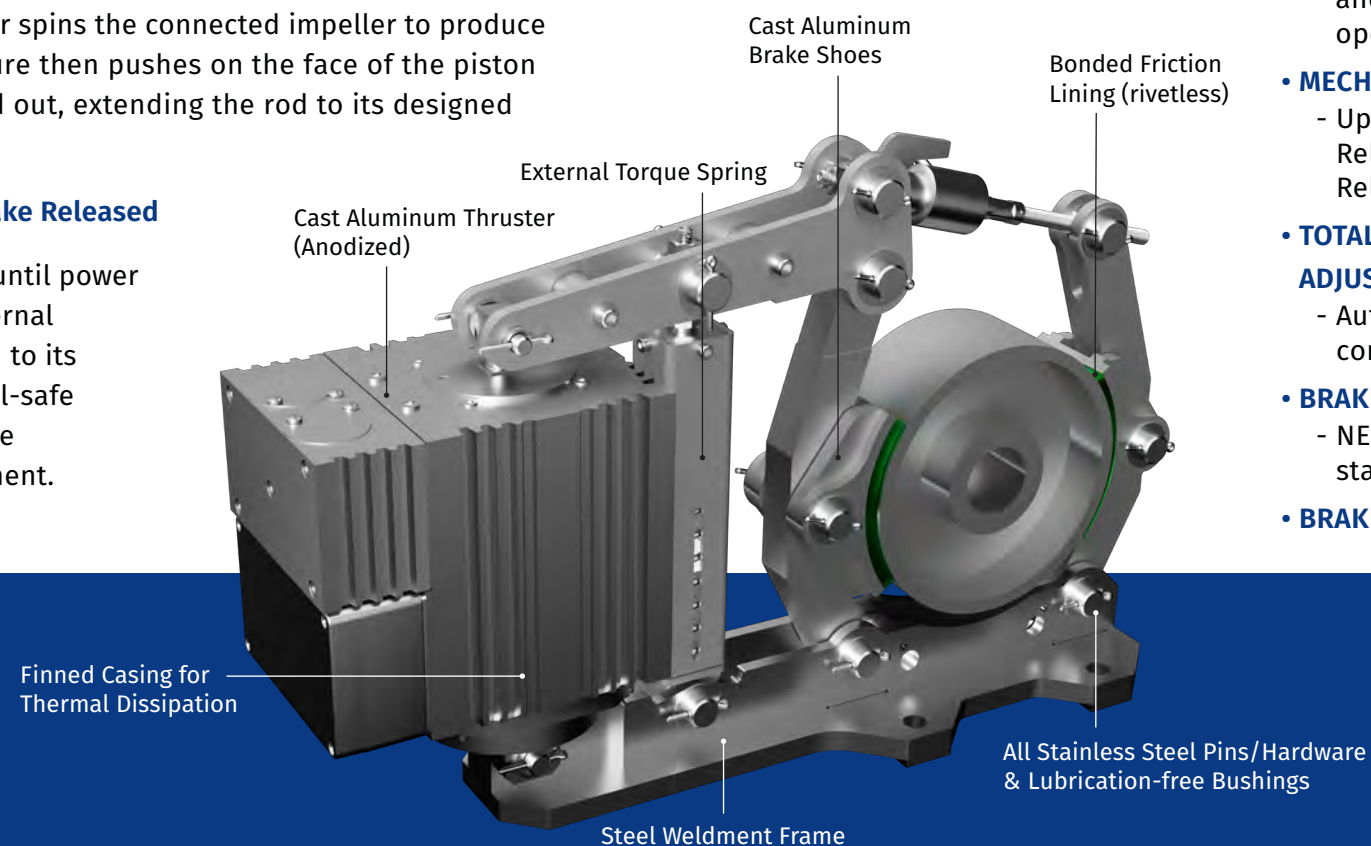
HYDRASTOP thruster devices are a self-contained, electrohydraulic actuator. Thrusters are typically integrated with a drum-style, industrial brake that Force Control also offers under the HYDRASTOP brand. Brakes are spring-set designs where the thruster provides a means to release the brake. In industry, these brake assemblies are referred to as AC Thruster Brakes and are used as a holding (static) or stopping (dynamic) brake on various applications including cranes, conveyors and moveable bridges. Key markets include Iron & Steel, EOT Cranes, Movable Bridges (Infrastructure), Mining, Material Handling and Energy.

Design & Function

The thruster operates on 3Ph-60Hz-230/460VAC power, and the internal impeller construction and motor are both bi-directional, so the power connection is not critical. When supplied with power, an internal motor spins the connected impeller to produce pressure in the piston chamber. This pressure then pushes on the face of the piston which then moves the connected piston rod out, extending the rod to its designed maximum stroke.

Thruster Off = Brake Set Thruster On = Brake Released

The thruster will stay in the extended state until power is removed. When power is removed, an external or internal spring returns the piston and rod to its retracted position. This design employs a fail-safe principal where in the case of power loss, the brake sets – preventing uncontrolled movement.



Options & Accessories

- **INTERNAL C-SPRING**
 - Available in HT4 size and up
- **MANUAL HAND RELEASE**
- **THERMOSTATICALLY CONTROLLED HEATER**
 - Automatically regulates the thruster's temperature in cold environments and shuts off when the unit reaches operating temperature.
- **MECHANICAL LIMIT SWITCHES**
 - Up to three switches indicating Brake-Released, Brake-Engaged & Manually-Released.
- **TOTALLY-ENCLOSED (IP66) AUTO-ADJUSTER**
 - Automatically adjusts tie rod to compensate for lining wear.
- **BRAKE ENCLOSURES**
 - NEMA 3R enclosures constructed of stainless steel or aluminum.
- **BRAKE WHEELS**

Features

- **BABA-COMPLIANT** 
- **SEALLESS INTERNAL PISTON DESIGN**
 - Zero internal piston seals compared to conventional thruster designs resulting in smooth, precise piston travel and long service life.
- **LIFTING / LOWERING VALVES**
 - Internal check valves control the flow rate between each housing allowing for a wide range of lifting and lowering delay times.
- **INTERNAL WET MOTOR DESIGN**
- **RATED FOR CONTINUOUS OPERATION**
- **DESIGNED TO AISE TR11 SPECIFICATIONS**
- **ASBESTOS-FREE BRAKE SHOE LININGS**

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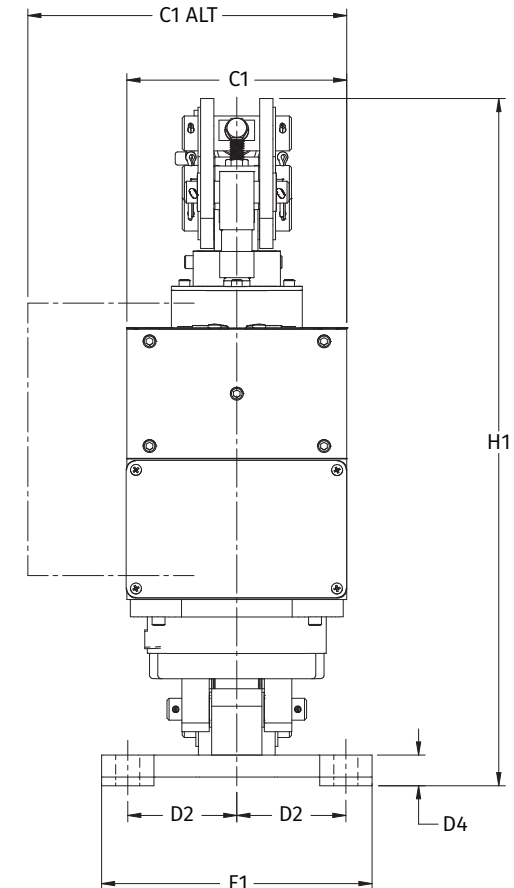
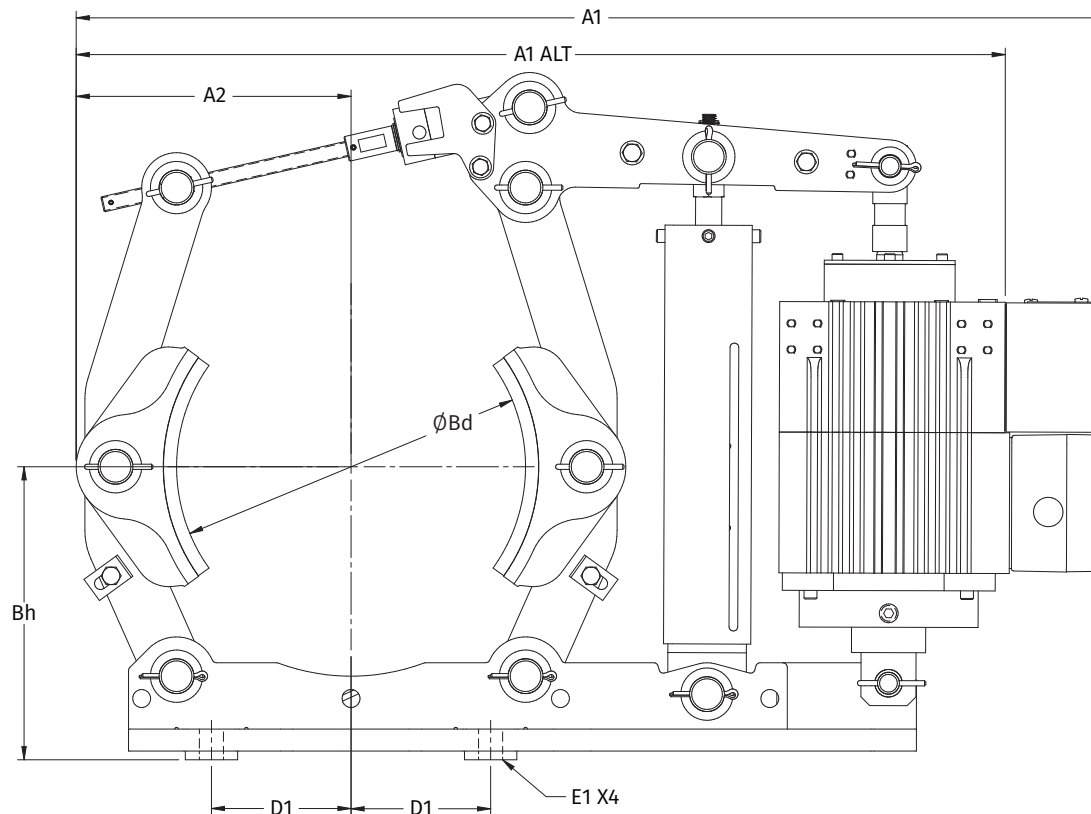
TECHNICAL SPECIFICATIONS AND DIMENSIONS

NOTE:

A1 ALT AND C1 ALT ARE FOR ALTERNATE ELECTRICAL BOX AND FLOW CONTROL HOUSING BUILD CONFIGURATIONS AS DETERMINED IN THRUSTER PART NUMBER

ALL DIM. IN INCHES

BRAKE TYPE	TQ AIST (LBF FT)	TQ NON-AIST (LBF FT)	THRUSTER	Bd	Bh	A1	A1 ALT SEE NOTE	A2	C1	C1 ALT SEE NOTE	D1	D2	D4	E1	F1	H1
HBDR-06	–	175	HT2	6	4.88	24.15	21.25	4.93	6.30	9.10	3.75	1.73	0.63	0.69	5.00	14.42
HBDR-08	100	220	HT3	8	7.00	26.98	24.08	6.30	6.30	9.10	3.25	2.88	0.88	0.69	7.25	18.87
HBDR-10	200	240	HT3	10	8.39	29.50	26.62	7.88	6.30	9.10	4.00	3.13	0.88	0.69	7.75	19.69
HBDR-13	550	640	HT4	13	9.88	34.42	31.63	8.68	6.30	9.10	5.75	4.50	0.88	0.82	10.84	24.11
HBDR-16	1000	1190	HT6	16	12.13	38.79	36.00	11.47	8.50	11.93	7.50	5.38	1.13	1.06	12.84	29.73
HBDR-19	CONSULT FACTORY			19	13.25	CF					9.25	6.50	CF	1.06	CF	
HBDR-23				23	15.88						11.75	13.25		1.31		
HBDR-30				30	20.75						15.00	9.50		1.56		



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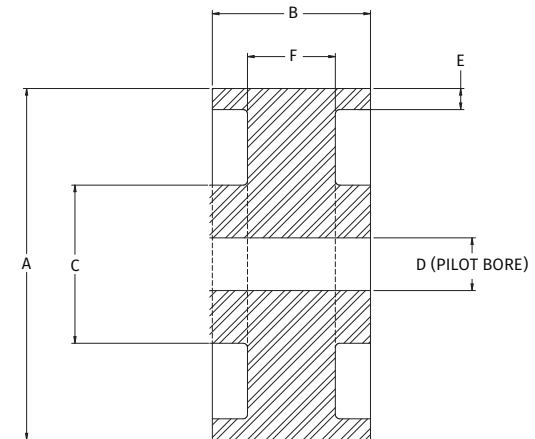
TECHNICAL SPECIFICATIONS AND DIMENSIONS



SYMETRICAL BRAKE WHEELS (SBW)

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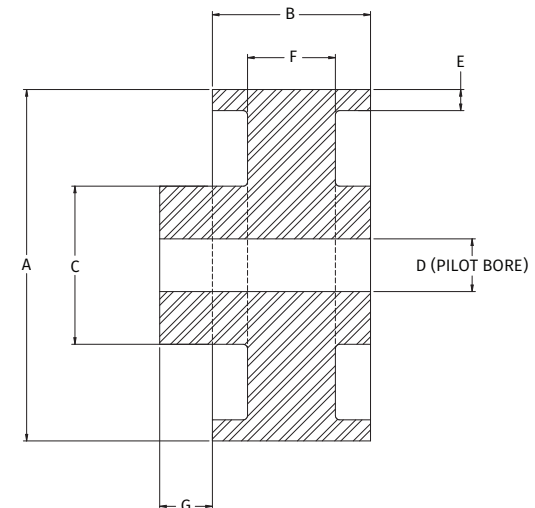
PART #	A	B	C	D	E	F	G	MAX BORE
SBWO6	6.00	3.25	3.00	0.59	0.40	CF	NA	1.75
SBWO8	8.00	3.75	4.50"	0.79	0.50	CF	NA	3.00
SBW10	10.00	4.25	4.50"	0.98	0.60	CF	NA	3.00
SBW13	13.00	5.25	6.25"	1.18	0.70	CF	NA	4.00
SBW16	16.00	8.00	7.25"	1.38	0.80	CF	NA	5.25
SBW19	19.00	8.75	CF	1.58	0.90	CF	NA	CF
SBW23	23.00	11.25	CF	1.58	1.00	CF	NA	CF
SBW30	30.00	14.25	CF	CF	1.10	CF	NA	CF



OFFSET BRAKE WHEELS (OBW)

ALL DIM. IN INCHES

PART #	A	B	C	D	E	F	G	MAX BORE
OBWO6	6.00	3.25	3.00	0.59	0.40	CF	1.00	1.75
OBWO8	8.00	3.75	4.50	0.79	0.50	CF	2.00	3.00
OBW10	10.00	4.25	4.50	0.98	0.60	CF	1.50	3.00
OBW13	13.00	5.25	6.25	1.18	0.70	CF	1.25	4.00
OBW16	16.00	8.00	7.25	1.38	0.80	CF	1.50	5.25
OBW19	19.00	8.75	CF	1.58	0.90	CF	CF	CF
OBW23	23.00	11.25	CF	CF	1.00	CF	CF	CF
OBW30	30.00	14.25	CF	CF	1.10	CF	CF	CF



NOTE:

CF = Consult Factory / NA = Non Applicable

For more information & list of available materials, refer to the **Brake Wheel Ordering Form**

HYDRASTOP®

THRUSTER BRAKES

Spring-Applied | Electrohydraulic-Released Drum Brakes



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