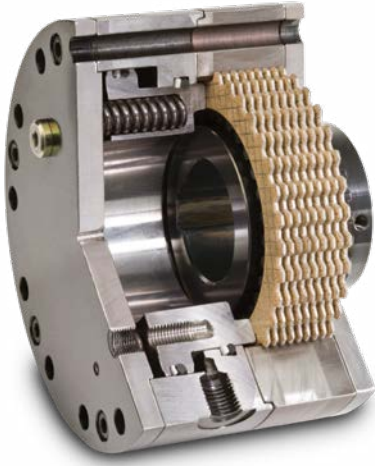


# Multi-Disc Brakes

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## Series 56-P



### Features

- Spring-applied, ensuring automatic braking in the event of a power failure
- With all working parts being enclosed, the brake is suitable for external mounting, even in unfavorable environments
- Provision is made for a through flow of cooling oil to give greater heat dissipation
- External mounting to shaft ends facilitates retro-fitting to existing machinery
- The end plate can be bored to suit through-shaft installations
- Multi-disc design results in compact high-torque brake
- Only the hub in inner plates rotates, minimizing rotational inertia

## Series 56-P Spring-Applied Pressure-Released Multi-Disc Brakes

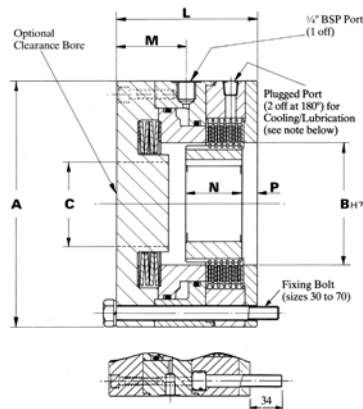
### Stationary Cylinder for Wet or Dry Operation

Series 56P spring-applied pressure-released brakes are designed for dynamic braking with oil in the disc-pack chamber, and can also be used dry as holding brakes. They are engaged by disc springs and disengaged by a pressure supply to the cylinder which moves the piston axially, compressing the disc springs and releasing the plates. The hub is usually fitted to the end of the shaft which is being braked.

### Typical Applications

- Winches
- Mining Machines
- High Torque Required Applications
- Agricultural Machines-in the main drive and auxiliary drives (PTO) of harvesters
- Machine Tools-for speed variation at the work spindle and feed engagement
- Building Machines-for traveling and combining gears
- Rotary Actuators
- Access Platforms
- Construction Machinery

MODEL		56P30	56P40	56P45	56P55	56P70	56P110	56P140
<b>Performance Data</b>								
Rated Static Torque with plates in oil	Nm	105	240	405	870	1460	4780	9000
	ft-lbs	78	180	300	640	1080	3525	6640
Rated dynamic Torque with plates in oil	Nm	70	160	270	580	970	3190	6000
	ft-lbs	52	120	200	425	720	2350	4425
Energy	per Engagement	kJ	10	14	19	27	45	155
	per Hour	kJ	300	420	570	810	1350	4650
Maximum Speed	revs/min	5200	2800	2800	2200	2200	1600	1450
<b>Inertia (kgm<sup>2</sup>) = Table Value x 10<sup>-3</sup></b>								
Hub and Set of Inner Plates		0.23	1.04	2.25	5.97	15.5	234	620
<b>Weight (kg)</b>								
Complete Unit		8,4	13,2	17	27	40	164	236
<b>Dimensional Data</b> (all dimensions in mm)								
Standard Bores (H7)		30	50	55	75	95	170	190
Keyways to I.S.O. 773 B.S. 4235:1972 Pt. 1 D.I.N. 6885:1968 Pt. 1; NFE22-175 (Bores other than standard can be obtained to special order)		8 x 3.3	14 x 3.8	16 x 4.3	20 x 4.9	25 x 5.4	40 x 9.4	45 x 10.4
		25	45	50	65	80	150	150
		8 x 3.3	14 x 3.8	14 x 3.8	18 x 4.4	22 x 5.4	36 x 8.4	36 x 8.4
Minimum Bore		18.8	31.5	34.7	41.0	63.2	90	115
<b>Diameters</b> (all dimensions in mm)								
A		135	162	180	220	255	400	480
B (H7)		50	80	90	110	140	225	280
C Maximum		33	54	62	79	99	145	265
<b>Lengths</b>								
L		85	98	102	114	128	185	200
M		40	50	51	54	53	83	67
N		30	30	41	40	45	90	110
P Maximum		10	11	11	13	17	14	18
P Minimum		4	4	4	5	9	8	14
<b>Fixing Bolts</b>								
Number		6	8	8	12	12	12	8
Size		M10	M10	M10	M12	M12	M16	M20
Length		110	120	120	130	150	90	100
P.C.D.		115	142	160	195	230	360	440
Tightening Torque	Nm	49	49	49	85	85	318	830
	ft-lbs	36	36	36	63	63	234	612



## SAE Series



### Industries served:

- Mining Vehicles
- Mobile Boom and Platform Lifts
- Agricultural Vehicles
- Special Purpose Vehicles

## SAE Series Multiple Disc Hydraulic Bolt-On Brakes

### For Wet or Dry Operation

SAE Series Hydraulic Brakes are the perfect choice for mobile equipment wheel drives, track drives, winch drives and other hydraulic and motor driven equipment where power off braking is required. SAE brakes are widely used in these mobile equipment applications where failsafe brake operation is essential for parking in the event of a power loss.

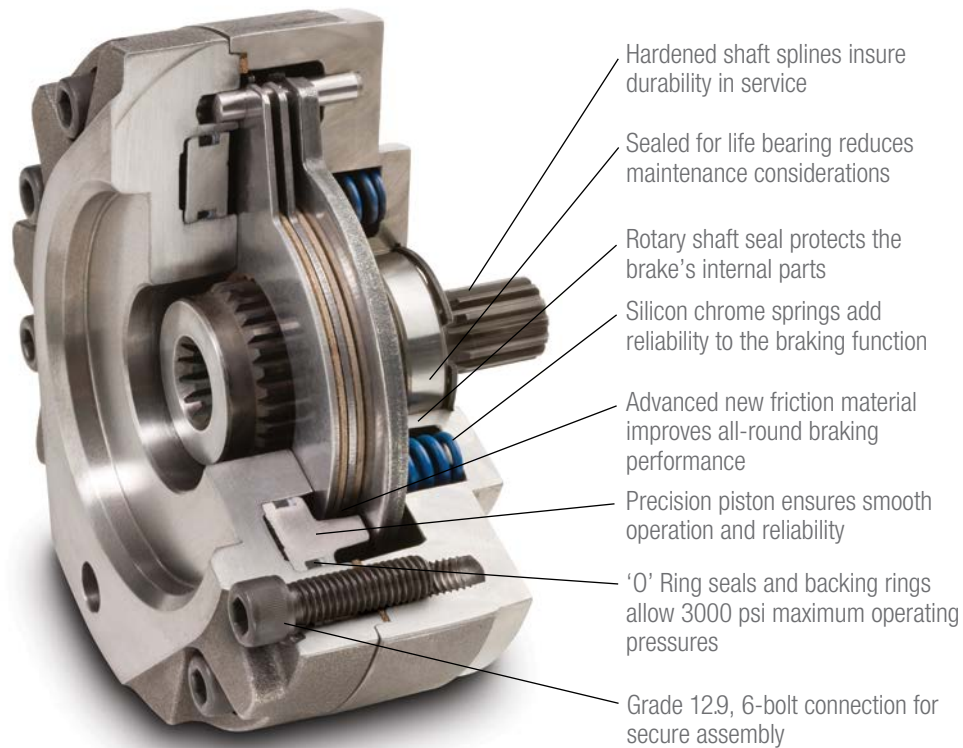
The SAE Series multi-disc, hydraulic brakes are designed as wet or dry parking brakes. Typically mounted between a hydraulic motor and a reducer, these brakes are designed to release at hydrostatic transmission pump pressure changes.

### Why customers choose the SAE Series:

- Robust brake construction with high grade castings enables the brake to continuously hold 3,000 psi and 4,000 psi peak pressures
- Sealed construction keeps harmful contaminants out
- Spring applied hydraulic release operation ensures safety
- Bearing supported shaft ensures alignment for easy assembly
- Silicon chrome springs offer longer service life and high torque output
- SAE standard interface enables easy installation
- Advanced friction material provides improved all-round brake performance
- Close dynamic/static performance for smooth deceleration and E-stop when required
- Wet or dry options available for service or parking brakes
- Once they are installed, the brakes are fully sealed and can handle a variety of tough environments
- Suitable for mining applications
- SAE Series bolt-on brakes are a cost effective solution, particularly for straight fixed axle vehicles

### SAE Series Multiple Disc Hydraulic Bolt-on Brakes

#### A Cost-Effective Brake Solution for Mobile Equipment



Matrix Brake Series	SAE Bolt-On Configuration	Rated Dry Static Torque Range		Rated Wet Static Torque Range		Full Release Pressure Range		Brake Unit Weight	
		lb.-in.	(Nm)	lb.-in.	(Nm)	psi	(Bars)	lb.	(kg)
AHBS	"A/B" Short	800-2,400	(90-270)	500-1,600	(56-180)	66-195	(4.6-13.4)	23	(10.4)
BHBS	"B" Short	800-2,400	(90-270)	500-1,600	(56-180)	66-195	(4.6-13.4)	21	(9.5)
AHB	"A/B"	1,000-3,600	(113-405)	1,000-2,400	(113-270)	66-195	(4.6-13.4)	27	(12.2)
BHB	"B"	1,000-3,600	(113-405)	1,000-2,400	(113-270)	66-195	(4.6-13.4)	25	(11.3)
CHB	"C"	4,000-10,000	(450-1130)	2,600-6,600	(290-945)	95-235	(6.5-16.2)	52	(23.6)
DHB	"D"	7,000-14,000	(790-1580)	4,600-9,300	(520-1050)	85-170	(5.9-11.7)	105	(47.6)