



# Multiple Disc Air/Hydraulic Spring Set Brakes (AFS)

Great Value, Small Size & Superior Torque

## ADVANTAGES

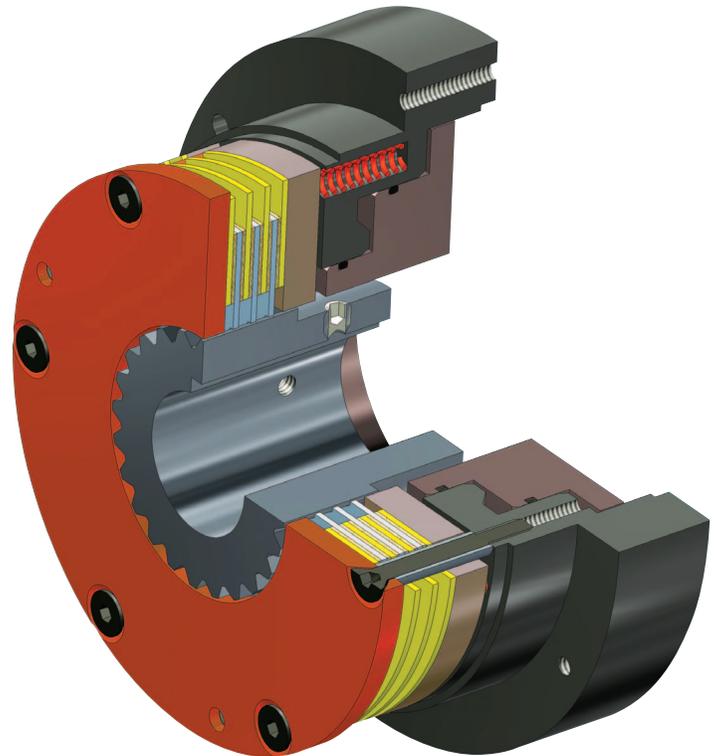
- Highest torque in the smallest space
- Low inertia
- Fast, reliable and positive braking action

## OPERATION

- Torque range 15 lb. ft. to 1000 lb. ft.
- Wet or dry applications
- Power-off design (spring applied, air / hydraulically released)
- Virtually drag-free neutral, regardless of brake orientation
- Universal floating hub for interior or exterior shaft attachment

## CUSTOMIZATION

- Low backlash models available
- Custom torque capabilities up to 3200 lb. ft.
- Available with optional cover for harsh environments
- Custom designs and alterations available



MAXITORQ® Model AFS units apply braking torque when the hydraulic or air pressure is removed from the piston chamber, which can occur intentionally or when there is a loss of pressure. When pressure is removed from the piston chamber compression springs clamp the MAXITORQ® multiple friction discs between the pressure plate and the stationary end plate, which results in a consistent holding force.

To release the brake, air/hydraulic pressure is applied and the brake is free to rotate. When disengaged, the multiple friction discs are uniformly spaced by a unique MAXITORQ® separator spring design, which ensures separation of the discs regardless of the orientation of the brake. This virtually eliminates parasitic drag, which is detrimental to brake life and will significantly reduce the brake's overall thermal capacity.



 **CARLYLE JOHNSON**

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## Applications & Specifications of Multiple Disc Air/Hydraulic Spring Set Brakes

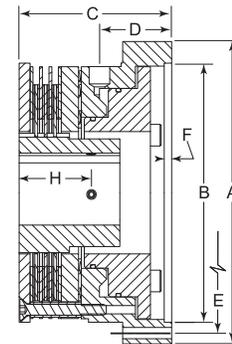
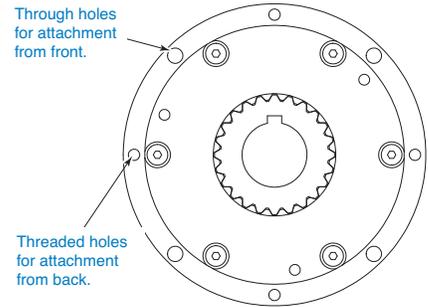
Carlyle Johnson air/hydraulic spring set brakes are designed for use as holding brakes, medium-duty stopping brakes, and for emergency stopping. Typical applications include:

- Medical diagnostic equipment
- Parts handling equipment
- Holding brakes in servo drives and robotic mechanisms
- Emergency stopping brakes on power generation equipment
- Parking brakes on mobile & military equipment

A significant portion of CJM's production is directed toward user-specific requirements, including the application of AFS brakes for frequent, high-energy stops, or for extremely fast or slow braking.

For over one hundred years The Carlyle Johnson Machine Company has been at the forefront of innovative power transmission technology. With advanced R&D, precision testing and prototype development we are the industry's leading resource for effective and efficient power transmission solutions.

**Our engineering staff is ready to solve your toughest power transmission challenge. We are always just a phone call away.**



An optional protective cover is available to prevent debris or moisture from entering the friction disc surfaces, which is often helpful for exterior applications or dusty environments.

Model	Static Torque ( lb. ft. )	Locating		C	D (Inlet)	
		ØA	ØB		LOC	NPT
AFS0250	15	3.250	2.500	2.125	0.870	1/16
AFS0350	35	4.500	3.500	2.375	0.937	1/8
AFS0450	75	5.500	4.500	2.650	1.255	1/8
AFS0600	175	7.500	6.000	3.250	1.413	1/4
AFS0800	300	9.500	8.000	3.875	1.665	1/4
AFS1000	550	11.750	10.000	4.890	2.140	1/4

Model	Bolt Circle		Depth F	Standard Bore Size*	Keyway	Set Screw Location H
	ØE	Mounting Screws				
AFS0250	2.875	3 x #8-32	0.130	7/16 or 1/2	1/8 x 1/16	.313
AFS0350	4.000	3 x #10-24	0.130	3/4 or 7/8	3/16 x 3/32	.313
AFS0450	5.000	3 x #10-24	0.130	1 or 1 1/8	1/4 x 1/8	.500
AFS0600	6.750	3 x 1/4-20	0.190	1 1/2 or 1 5/8	3/8 x 3/16	.375
AFS0800	8.750	4 x 1/4-20	0.190	2 or 2 1/4	1/2 x 1/4	.625
AFS1000	10.875	4 x 5/16-18	0.250	2 1/2 or 2 3/4	5/8 x 5/16	.625

\*Other bore sizes are available. All dimensions are measured in inches. Standard operating pressure 120 psi.

