



Spring Set Brakes For Heavy-Duty Applications



ALTRA SPRING SET BRAKES PROVIDE PROVEN PERFORMANCE IN DEMANDING INDUSTRIAL APPLICATIONS...WORLDWIDE

For over 80 years, Wichita Clutch and Industrial Clutch, the industry-leading brands of the Altra Heavy-Duty Clutch and Brake Group have been designing and manufacturing innovative clutch and brake solutions to meet the requirements for a broad variety of heavy-duty applications spanning many industries. Highly engineered Altra spring set brakes represent the latest in technology, featuring superior design and exceptional quality to ensure long-lasting performance in all types of industrial environments including:



- Metal Forming Equipment/Press Brakes
- Cranes
- Mining Shovels and Draglines
- Drilling Equipment
- Mining Conveyors

Altra Heavy-Duty Spring Set Brakes are:

- Built for durability, designed for extreme conditions
- Require minimal or no lubrication
- Designed for easy installation and maintenance

QUALITY COMMITMENT

The companies of the Altra Heavy-Duty Clutches and Brakes Group have vast experience operating in international markets; we can manufacture to all global standards. Our refined manufacturing processes and quality supply chain partners enable us to provide cost-effective products that continually meet or exceed the expectations of the market. Many of our manufacturing facilities are ISO 9001 certified and some meet ISO 14001 environmental standards. Many of our products are approved by various ship classification societies.

CUSTOMER SERVICE

Our unrivaled knowledge of applications enables us to assist in the selection of the correct type of clutch/brake design. With sales and technical support teams located worldwide, Altra is able to provide an unrivaled level of responsive customer service.

www.WichitaClutch.com | www.IndClutch.com

ALTRA INDUSTRIAL MOTION PROVIDES LEADERSHIP THROUGH INNOVATION

For over a century, the most important breakthroughs in engineered power transmission products have been driven by our family of companies working together to lead the market forward. Developing innovative technologies is the core principal of Altra Industrial Motion.

With a full complement of mechanical and electrical solutions for every type of application, Altra Industrial Motion stands alone as the industry's most fully committed supplier of power transmission solutions.

- World-class engineering
- Rapid deployment of prototypes
- Superior customer service and application support... worldwide
- At the core of our success is Altra's operational excellence initiative
- Extensive training programs
- Global manufacturing to support local customer needs.

Whether you need individual components or packaged systems, choose the brands known throughout the world for quality, innovation, and service.

TESTING AND RESEARCH

Wichita Clutch and Industrial Clutch are recognized leaders in clutch/brake development with several complete R&D lab facilities located around the world.

Capabilities:

- Proprietary disc brake application software which calculates disc temperature and pad life estimation
- 3D CAD solid modeling
- Finite element analysis
- Disc spring analysis

GENUINE REPLACEMENT PARTS

If quality and safety are important to you, insist on genuine replacement parts for your Industrial Clutch and Wichita Clutch clutches and brakes. With genuine replacement parts, you get better performance, longer life, safer operation, and peace of mind. All genuine replacement parts are manufactured in Altra's U.S. and European production facilities and under the company's strict guidance and control.



LKB Series

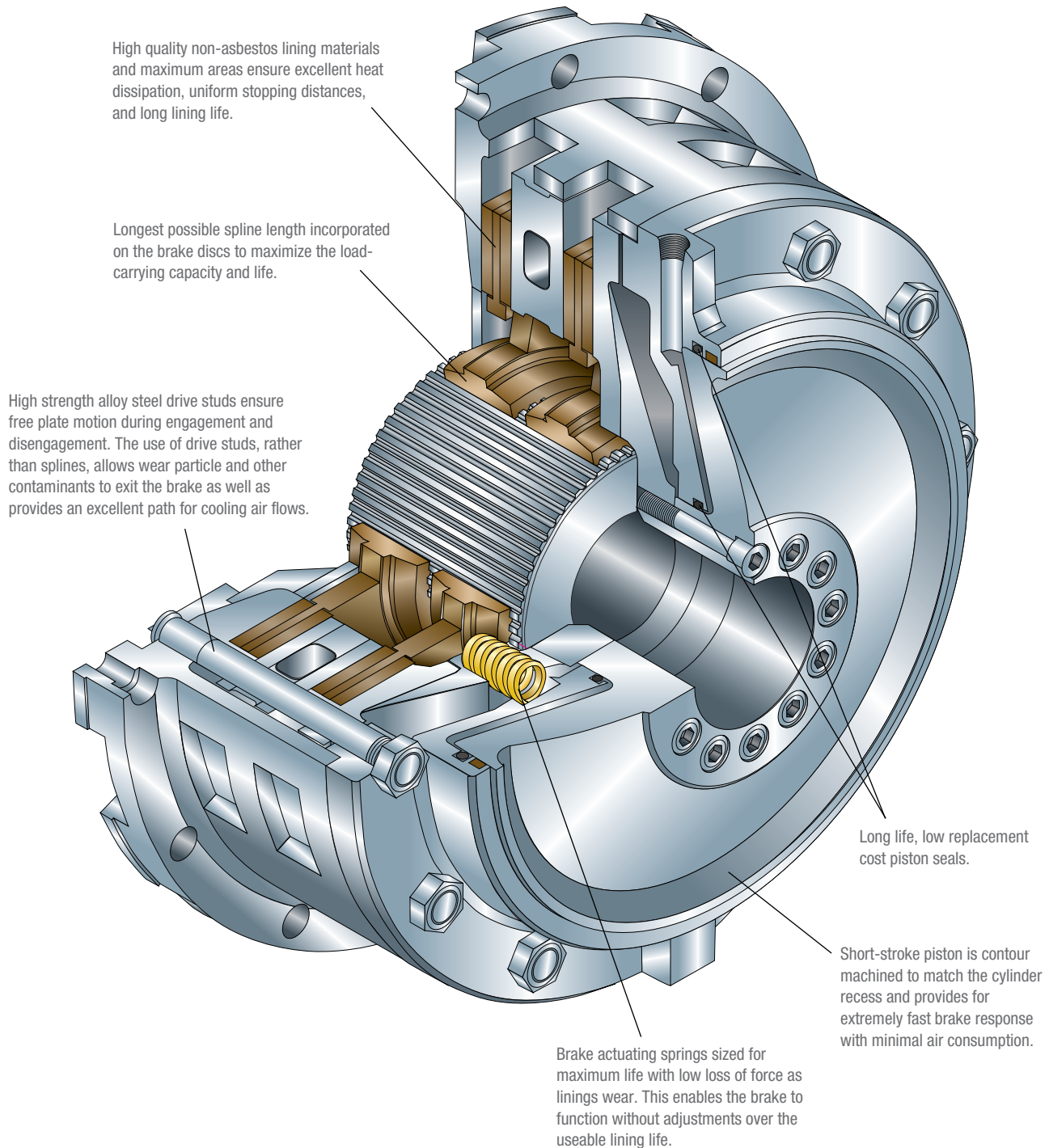
Features

The Model LKB brake is spring-set air or hydraulic released and can be provided with a wide range of torque capacities and release pressures by incorporating springs of different rates and quantity.

Brake designed with total attention given to maximizing ventilation for cool-running operation. Benefits include: longer lining life; stable friction coefficients; and lower maintenance costs.

All materials selected and field proven to provide the best available resistance to wear and thermal distress.

Precision machining of all components ensures positive interchangeability of all mating parts.



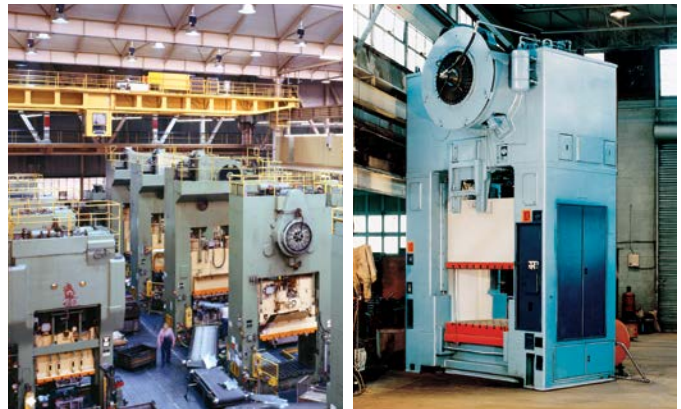
Low Inertia LKB Brakes

Model LKB spring-set brakes incorporate all of the design features of the LK style clutch and have been in existence equally as long. They are the perfect companion to the LK clutch if the application requires a clutch and a brake since both units are extremely fast in response, have low air consumption, and contribute the lowest possible inertia to the system that must be started and stopped.

The separate clutch-brake combination has been applied in the metal forming industry on presses, press-brakes, and shears, for over forty years and are long-living, easy to maintain and require no adjustment for wear. The units rugged simplicity and fast-acting repeatable response makes them an ideal choice for such applications.

Ruggedly designed and capable of dissipating large thermal loads, Model LKB brakes are also used frequently as primary working brakes, safety brakes, and holding brakes for a multitude of loads found in many areas of the heavy industrial marketplace. Cranes, shovels, draglines, drilling equipment, oilfield machinery, conveyors, and mining equipment are but a few of such applications.

Model LKB brakes are available with many options. Torque capacities can be changed through the use of springs with different rates and quantities. The unit may be provided with chambers suitable for pneumatic or hydraulic release.



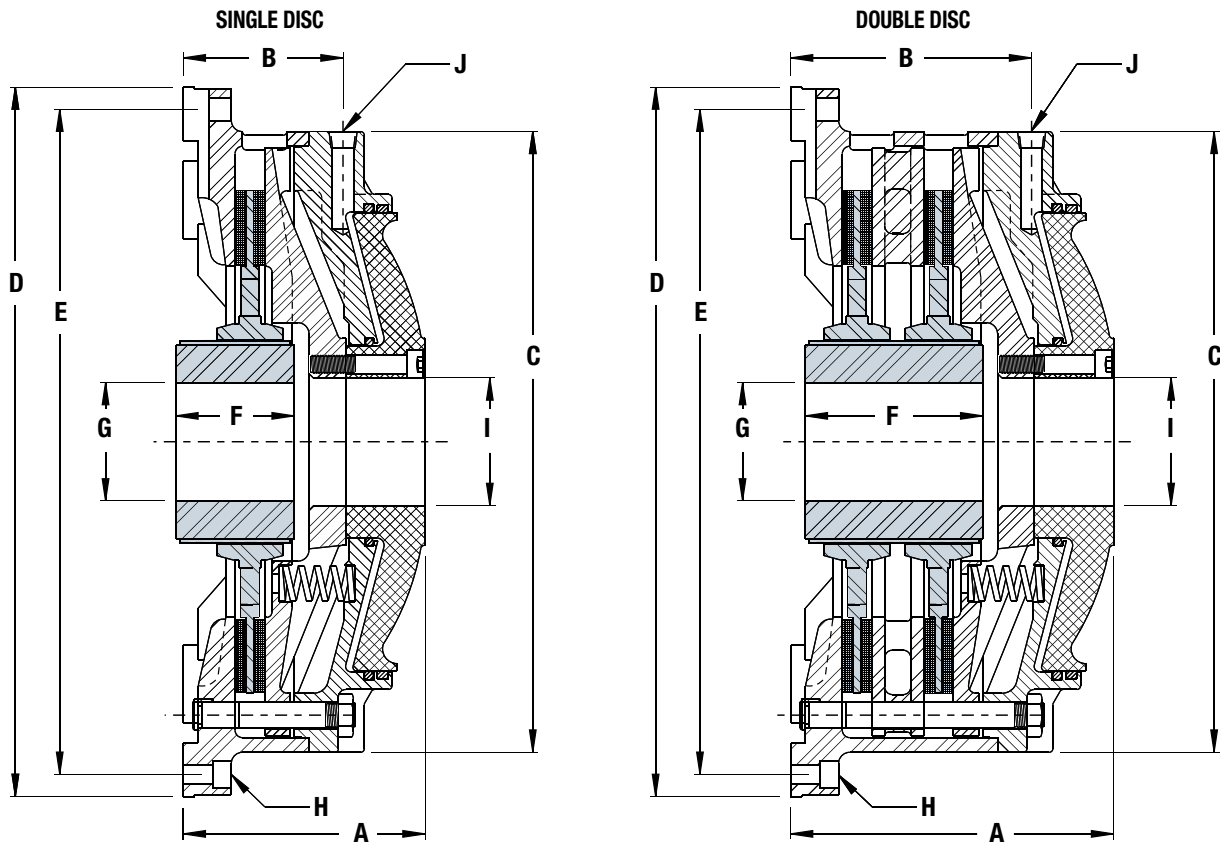
Totally enclosed housings for adverse environments and limit switch monitoring of brake release and wear are available. Units modified to operate vertically may also be provided. The list of modifications that have been applied to Model LKB brakes is long and the above are but a few. Industrial Clutch can assist in providing the most suitable unit for your application.

Modifications of the original LKB brakes have expanded this product's usefulness to many areas of industry. The complete range of sizes covers loads and speeds common to metal forming, mining, material handling, oilfields, and the marine marketplaces.

Several sizes of LKB brakes are used on the hoist, drag, crowd, swing and propel functions in electric mining shovels and draglines.

LKB Series

Dimensions



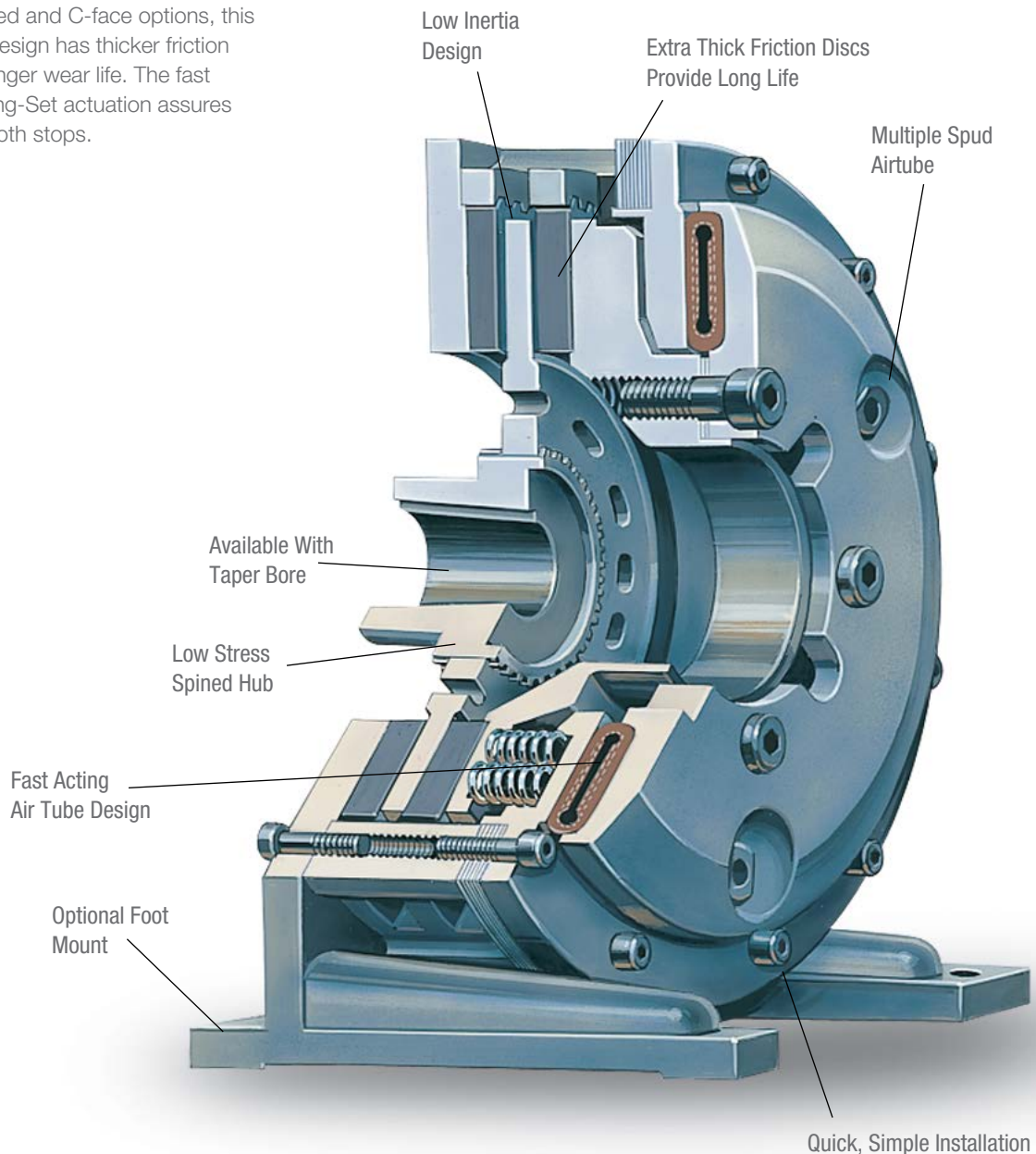
Dimensions: inches

LKB Model	Static Torque 60 PSI Release (lb.-in.)	Dynamic Torque 60 PSI Release (lb.-in.)	Weight Outer (lbs.)	Weight Inner (lbs.)	Weight Total (lbs.)	WR ² Inner (lb.-ft ²)	A	B	C	D	E	F	G Min.-Max.	H No.-Size	I	J
LKB-108	5,190	4,500	42	7	49	.20	5.06	3.19	10.50	12.25	11.25	2.00	1-1/8 - 2	8 - 3/8	2.13	1/2
LKB-208	9,565	8,290	61	13	74	.37	6.69	4.81	10.50	12.25	11.25	4.13	1-1/8 - 2	8 - 3/8	2.13	1/2
LKB-111	12,080	10,470	77	13	90	.980	5.69	4.06	14.25	16.50	15.25	2.75	1-1/8 - 2-3/4	8 - 1/2	3.13	1/2
LKB-211	24,160	20,940	97	28	125	1.950	7.28	5.81	14.25	16.50	15.25	4.38	1-3/4 - 2-3/4	8 - 1/2	3.13	1/2
LKB-113	16,865	14,615	125	35	160	2.06	6.63	4.56	16.63	18.88	17.63	4.00	2-1/4 - 3-1/4	8 - 5/8	4.63	1/2
LKB-213	35,785	31,015	168	52	220	3.77	8.44	6.44	16.63	18.88	17.63	4.50	2 - 3-3/4	8 - 5/8	4.63	1/2
LKB-117	37,230	32,265	272	58	330	9.78	8.31	5.44	21.00	24.00	22.50	4.00	2-1/4 - 4-1/2	12 - 5/8	4.00	1/2
LKB-217	74,460	64,530	324	111	435	18.32	11.13	8.13	21.00	24.00	22.50	6.00	2-5/16 - 4-1/2	12 - 5/8	4.00	1/2
LKB-121	72,860	63,145	318	72	390	18.55	8.56	5.31	25.00	28.25	26.75	3.63	2-3/4 - 4-1/2	12 - 3/4	6.00	3/4
LKB-221	145,720	126,290	436	139	575	36.32	11.13	8.31	25.00	28.25	26.75	6.00	2-5/16 - 4-1/2	12 - 3/4	6.00	3/4
LKB-125	114,160	98,940	589	131	720	38.78	10.50	6.25	29.75	32.50	31.00	5.00	3-3/4 - 5-3/4	12 - 3/4	7.25	3/4
LKB-225	228,323	197,880	708	226	934	74.91	13.75	9.50	29.75	32.50	31.00	7.25	3-3/4 - 5-3/4	12 - 3/4	7.25	3/4
LKB-130	210,510	182,440	1089	211	1300	90.00	12.88	7.25	35.50	39.00	37.00	5.00	4-5/8 - 7-1/2	12 - 7/8	8.25	3/4
LKB-230	378,460	328,000	1314	356	1670	172.00	16.13	10.50	35.50	39.00	37.00	7.13	4-5/8 - 7-1/2	12 - 7/8	8.25	3/4
LKB-135	274,660	238,040	1100	350	1450	181.00	10.69	6.81	40.00	39.25	36.38	6.00	5-1/8 - 9-5/8	24 - 1-1/32	17.00	3/4
LKB-235	519,090	449,880	1183	517	1700	327.00	13.13	9.25	40.00	39.25	36.38	7.13	5-1/8 - 9-5/8	24 - 1-1/32	17.00	3/4
LKB-142	482,450	418,120	3038	611	3649	509.00	13.70	10.73	48.75	48.00	44.00	6.00	6-1/2 - 12	24 - 1-3/4	18.75	1
LKB-242	906,760	785,860	3574	1015	4589	954.00	17.46	14.40	48.75	48.00	44.00	8.50	6-1/2 - 12	24 - 1-3/4	18.75	1
LKB-148	730,380	633,000	4225	894	5119	923.00	14.76	11.26	54.75	54.00	50.00	7.00	8 - 14	24 - 1-3/4	21.75	1
LKB-248	1,360,930	1,179,470	5004	1420	6424	1688.00	19.15	15.65	54.75	54.00	50.00	9.50	8 - 14	24 - 1-3/4	21.75	1

Note: 1) Use certified drawing dimensions only for final layouts. 2) DXF and IGES files available upon request. 3) Dimensions subject to change without notice. 4) The torques shown are at 60 PSI release and may be varied by the use of different springs and spring combinations. For further technical data and recommendations please consult our Engineering Department. 5) Consult factory or refer to application information when selecting units. 6) Hydraulic release also available. Consult factory.

- **Failsafe protection — spring-set**
- **Long wear life**
- **Quick, smooth stopping**

Wichita spring-set, air release Motor Brakes are ideal for failsafe protection of process equipment. Available in foot mounted and C-face options, this improved design has thicker friction discs for longer wear life. The fast acting Spring-Set actuation assures quick, smooth stops.



MB Series

Specifications

Model Size ATD –	Slip Torque lb.in. .3 CF* Minimum Air-Tube Pressure PSI For Released Brake			*Do Not Exceed 90% Of Slip Torque Ratings — Maximum Horsepower Per 100 RPM Release Pressure - PSI							
				60 PSI Duty				75 PSI Duty			
	60	75	90	A	B	C	D	A	B	C	D
106 MB	2,225	2,900	3,700	3	2.3	1.2	.6	4	3	1.5	.8
206 MB	4,300	5,600	7,200	6	4.4	2.3	1.1	8	5.7	3	1.5
108 MB	3,700	4,800	6,200	5.3	3.8	2	1	7	5	2.6	1.3
208 MB	7,100	9,100	12,000	10	7.3	3.8	2	13	9.3	5	2.5
111 MB	8,200	10,500	11,600	11.7	8.4	4.4	2.2	15	10.7	5.7	2.8
211 MB	15,600	20,000	22,200	22	16	8.4	4.2	28.6	20.5	11	5.4
114 MB	14,500	18,600	24,700	20	15	8	4	26.6	19	10	5
214 MB	27,600	35,400	46,300	39	28	15	7.5	50	36	19	9.5
118 MB	31,400	40,400	51,600	45	32	17	8.5	58	41	22	11
218 MB	60,000	77,000	100,000	86	61	32	16	110	79	41	21
124H MB	75,500	86,600	—	108	77	41	20	158	114	60	30
224H MB	137,000	161,200	—	196	140	74	37	308	222	117	58

* Max. recommended air pressure – 130 PSI

Model Size ATD—	90 PSI Duty				Max. Bore Rect. Key Inches	Total Wt. lbs.	Hub & CP Wt. lbs.	Hub & CP WR ² lb.ft. ²	Effec. WR [†] lbs.
	A	B	C	D					
106 MB	5	3.8	2	1	2	36.5	6.40	.24	14.0
206 MB	10	7.4	3.9	2	2	49.5	12.17	.46	18.34
108 MB	9	6.3	3.3	1.6	2-3/8	63.23	10.0	.55	26.78
208 MB	17	12.3	6.5	3.2	2-3/8	81.5	16.0	.72	32.03
111 MB	16.6	12	6.3	3.1	2-5/8	96.96	15.0	1.35	40.75
211 MB	37	26	14	7	2-5/8	136.0	30.0	2.60	59.05
114 MB	35	25	13	6.7	4-1/8	157.6	38	5.6	72.3
214 MB	66	47	25	12.5	4-1/8	209.6	65	11	95.3
118 MB	74	53	28	14	5-1/4	322	71	14.5	168
218 MB	143	102	54	27	5-1/4	444	113	27.6	215
124H MB	183	131	69	34	7	690	131	50	377
224H MB	346	248	131	65	7	874	260	101	482

† Weight of internal clutch parts for use in calculating clutch engagement time.

C-Face Motor Brakes

Features

- No lubrication
- Low inertia design
- Rugged, dependable design

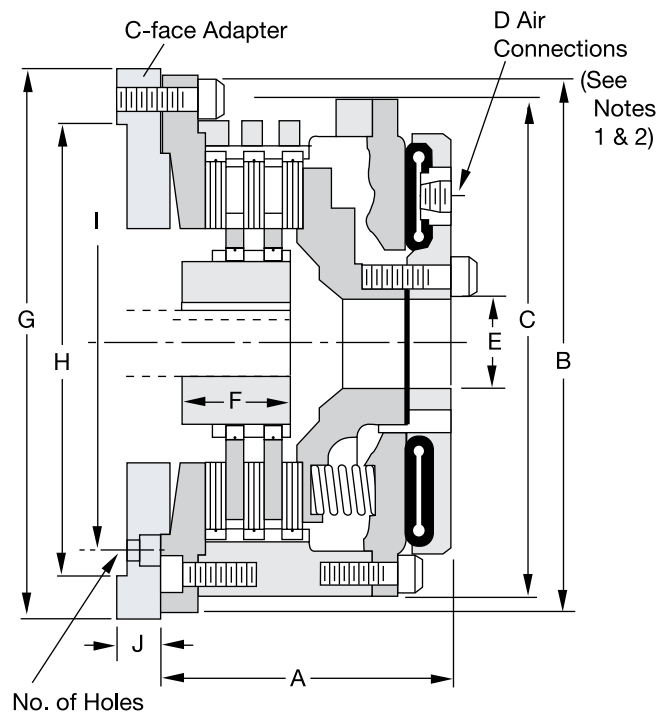
C-face adaptors are available in standard NEMA T and U frame designs. Custom adaptors are available for your specific motor design. Dimensions G, H, I, J and number of holes need to be provided to Wichita Engineering before final design is completed.

When using Wichita C-Face Motor Brakes in a high cycling application, brake thermal capacity and motor thermal capacity need to be carefully matched. The motor information chart lists the specific Wichita part numbers for the proper adapter plate and brake for C-Faced Motors up to 200 HP.

Contact Wichita Application Engineering for assistance.

Motor Information

Frame	Max. HP at Std. RPM	Full Load Motor Torque in.lb.	Steel Adapter Plate	Model Size ATD—
C210	40 / 2500	1,008	4-309-075-011-3	7-108-100-113-0 108 MB
C250	60 / 1750	2,161	4-309-075-005-3	7-108-100-113-0 108 MB
C280	100 / 1750	3,601	4-281-075-015-3	7-111-100-112-0 111 MB
C320	150 / 1750	5,402	4-281-075-016-3	7-111-100-112-0 111 MB
C360	200 / 1750	7,202	4-271-075-007-3	7-114-100-113-0 114 MB



Dimensions: inches (Consult factory for drawing before final layout.)

Model Size ATD—	A	B	C	D	No. of Spuds	E	F
106 MB	5.44	8.75	8.81	1/4" NPT	2	2.00	2.00
206 MB	6.75						3.25
108 MB	5.82	12.12	11.13	1/2" NPT	2	2.13	1.50
208 MB	7.00						2.87
111 MB	6.38	16.00	14.75	1/2" NPT	2	3.02	2.00
211 MB	7.75						3.75
114 MB	7.75	18.75	17.50	1/2" NPT	2	3.88	2.25
214 MB	9.69						4.25
118 MB	9.01	23.25	22.00	1/2" NPT	3	4.75	2.75
218 MB	10.69						4.75
124H MB	9.26	30.00	29.00	1/2" NPT	3	8.25	3.13
224H MB	11.94						5.13

Wichita motor brakes typically produce more torque than is usually necessary. Contact Wichita engineering for help in selecting the number of springs to produce the proper deceleration for your application.

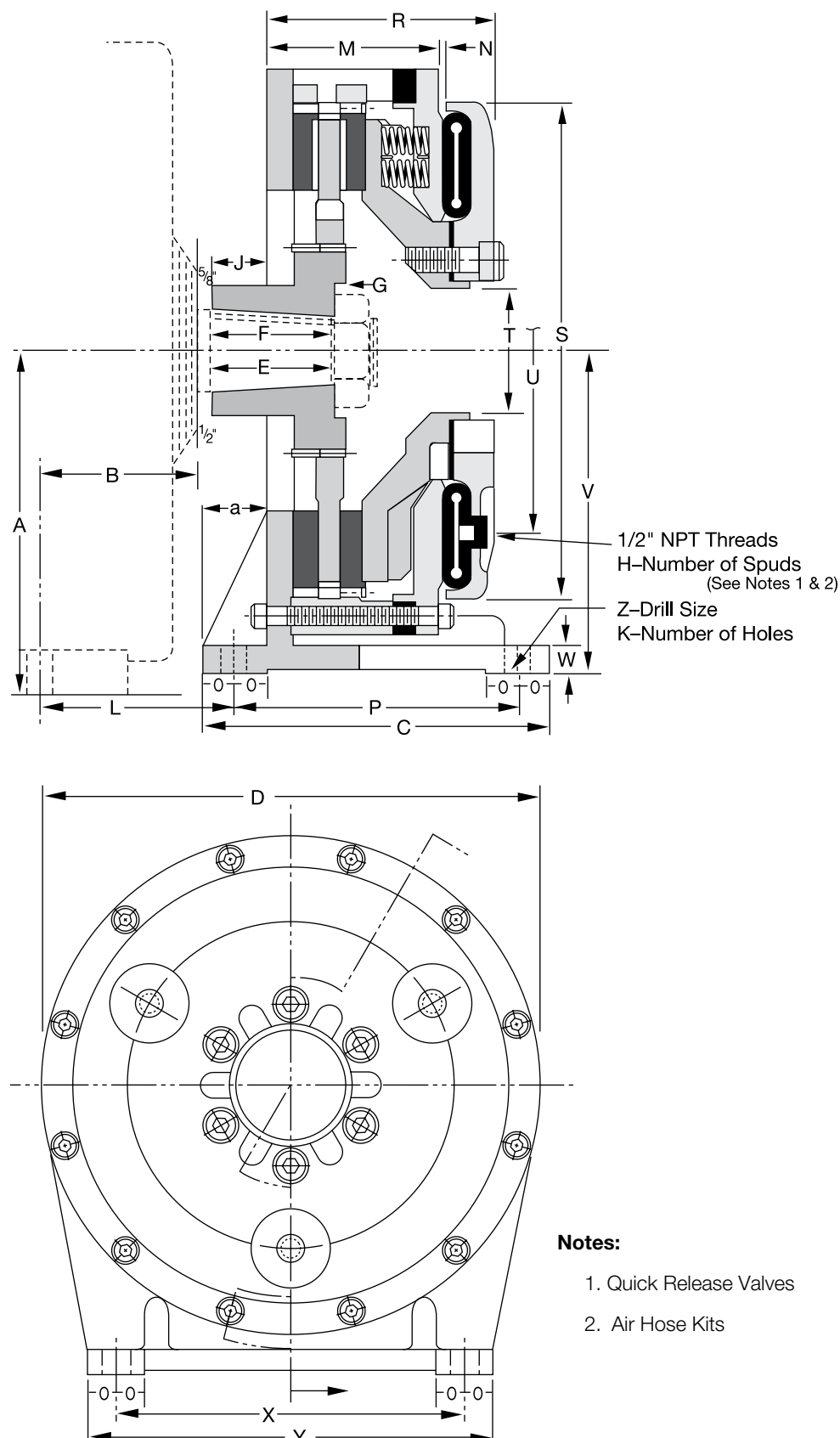
Note: For mounting, use socket head capscrews conforming to the ASTM-574-97a.

Notes:

1. Quick Release Valves (see Page 14)
2. Air Hose Kits (see Page 13)

MB Series

Foot Mounted Motor Brakes



Foot Mounted Motor Brakes

Dimensions: inches (Consult factory for drawing before final layout.)

Model Frame	Model Size ATD—	A	B	C	D	E	F ± .015	G	H	J	K	L	M
602	108 MB 208 MB	7.625	3.75	7.50	11.125	2.75	2.875	.75 1.625	2	1.75	4	5.375	4.75 .313
603	111 MB 211 MB	8.50	4.50	8	14.75	3.25	3.312	.375 1.375	2	1.625	4	6.125	4.563 5.563
604	111 MB 211 MB	9	5	8	14.75	3.25	3.312	.375 1.375	2	1.625	4	6.625	4.563 5.563
606	114 MB 214 MB	10	5	11	17.50	4	4.125	.50 1.875	2	1.125	4	6	5.438 6.813
608	114 MB 214 MB	11.25	5.125	11	17.5	4.50	4.625	.50 1.875	2	1.50	4	6.50	5.438 6.813
610	118 MB 218 MB	12.25	5.75	13.50	22	4.50	4.625	.50 2.188	3	3.125	4	8.25	8.094 9.781
612	118 MB 218 MB	13.375	6.25	13.50	22	4.75	4.875	.50 2.188	3	3.125	4	8.75	8.094 9.781
614	124H MB 224H MB	14.75	7.25	23.25	29	4.75	4.875	.50 2.25	3	2.125	4	10.125	7.188 8.75
616	124H MB 224H MB	16	8.50	23.25	29	5.25	5.375	.50 2.25	3	2.75	4	11.375	7.188 8.75
618	124H MB 224H MB	17.75	8	23.25	29	5.75	5.875	.50 2.25	3	2.25	4	10.875	7.188 8.75

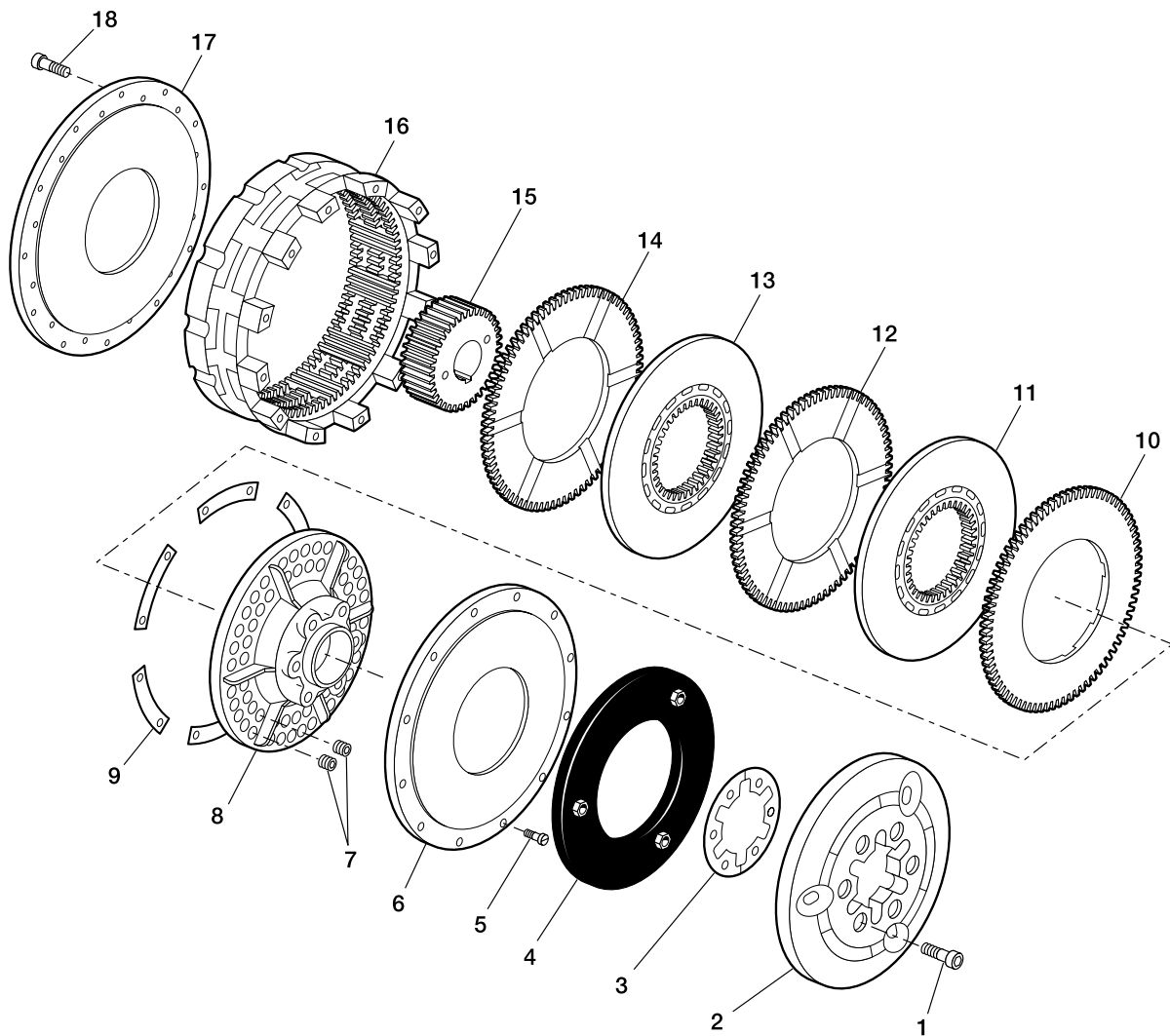
Model Frame	Model Size ATD—	N	O	P	R	S	T	U	V	W	X	Y	Z	a
602	108 MB 208 MB	.313	.875	5.75	5.875 6.75	9.375	1.95	6.625	7	.75	3.25	8.25	.688	1.625
603	111 MB 211 MB	.313	.875	6.25	6 7	11.938	3	8.50	8.375	.75	4	9.75	.688	1.50
604	111 MB 211 MB	.313	.875	6.25	6 7	11.938	3	8.50	8.375	.75	4	9.75	.688	1.50
606	114 MB 214 MB	.563	1	9	7.50 8.875	14.375	3.88	10.75	9.875	1	5.75	13.50	.813	1.75
608	114 MB 214 MB	.563	1	9	7.50 8.875	14.375	3.88	10.75	9.875	1	5.75	13.50	.813	1.75
610	118 MB 218 MB	.375	1.25	11	10.50 12.188	19.375	4.875	14.188	12.50	1	7.75	18	.938	2.50
612	118 MB 218 MB	.375	1.25	11	10.50 12.188	19.375	4.875	14.188	12.50	1	7.75	18	.938	2.50
614	124H MB 224H MB	.375	1.625	19	9.438 11.125	27	8.25	21	20.75	2	15	33.25	1.563	2.625
616	124H MB 224H MB	.375	1.625	19	9.438 11.125	27	8.25	21	20.75	2	15	33.25	1.563	2.625
618	124H MB 224H MB	.375	1.625	19	9.438 2.25	27	8.25	21	20.75	2	15	33.25	1.563	2.625

Wichita motor brakes typically produce more torque than is usually necessary.

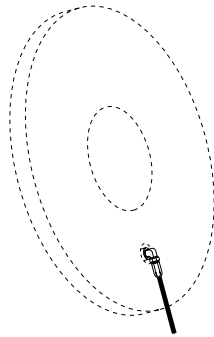
Contact Wichita Engineering for help in selecting the number of springs to produce the proper deceleration for your application.

Note: For mounting, use socket head capscrews conforming to the ASTM-574-97a.

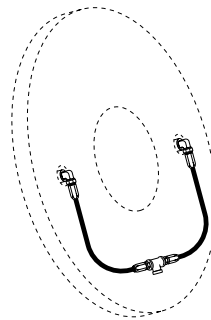
Component Parts



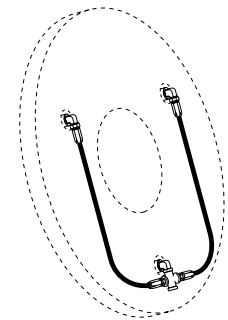
- | | |
|--|--|
| 1. Socket Head Capscrews | 12. Grooved Friction Disc
(grooved on both sides) |
| 2. Air Tube Holding Plate | 13. Center Plate |
| 3. I.D. Shims | 14. Grooved Friction Disc
(grooved on one side) |
| 4. Airtube | 15. Hub |
| 5. Socket Head Capscrews | 16. Ring |
| 6. Airtube Spring Plate | 17. Backplate |
| 7. Springs | 18. Socket Head Capscrewsa |
| 8. Spring Release Plate | |
| 9. O. D. Shims | |
| 10. Grooved Friction Disc
(grooved on one side) | |
| 11. Center Plate | |



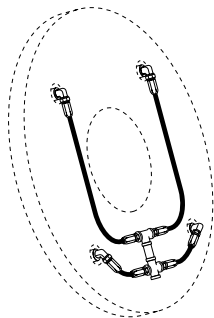
Model	Part Number
8"	8-908-912-100-5
	8-908-924-100-5 QRV



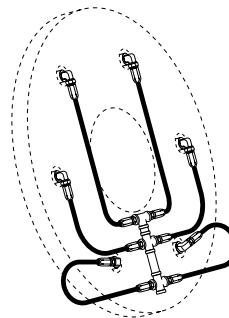
Model	Part Number
6"	8-906-912-200-4
	8-906-931-201-5 QRV
8"	8-908-913-200-5
	8-908-931-200-5
11"	8-911-913-200-5
	8-911-931-200-5 QRV
14"	8-914-913-200-5
	8-914-921-200-5 QRV
16"	8-916-913-200-5
	8-916-921-200-5 QRV



Model	Part Number
18"	8-918-912-200-5
	8-918-931-200-5 QRV
21"	8-921-913-200-5
	8-921-931-200-5 QRV
24"	8-924-913-200-5
	8-924-931-200-5 QRV
27"	8-927-913-200-5
	8-927-921-200-5 QRV



Model	Part Number
30"	8-930-913-400-5
	8-930-931-400-5 QRV
36"	8-936-913-400-6
	8-936-931-400-6 QRV
42"	8-942-913-400-6
	8-924-931-400-6 QRV
48"	8-948-912-400-6
	8-948-923-400-6 QRV



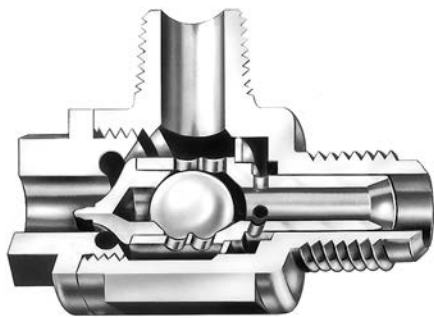
Model	Part Number
60"	8-960-912-500-5
	8-960-923-400-6 QRV

Air hose kits contain all necessary parts (fittings, hoses and extensions) to completely plumb the brake air system.

Optional Quick Release Valves can replace elbows on most units. (see Page 14)

MB Series

Quick Release Valve



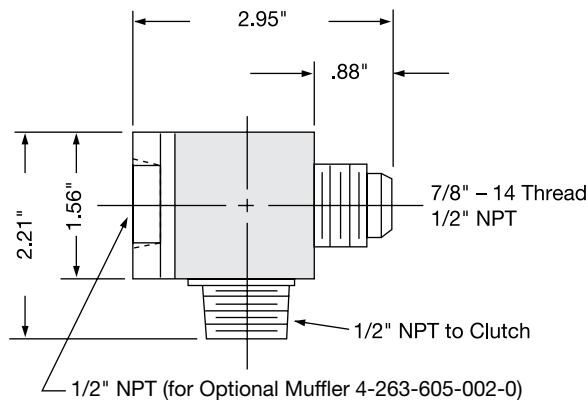
8-263-610-011-1 7/8" – 14 Thread
8-263-610-021-1 1/2" NPT

The Wichita Springless Quick Release Valve discharges twice as fast as any other valve tested in our laboratory and is four to five times faster than some common makes of valves.

This valve will close and seal with less than 20 lbs. pressure. Most others require 25 to 30 lbs. to definitely seal. In actual tests, the Wichita Valve made many hundreds of thousands of engagements and disengagements before the slightest leak occurred, or any parts needed replacement. Other valves which were tested required major replacement in fewer than 20,000 cycles.

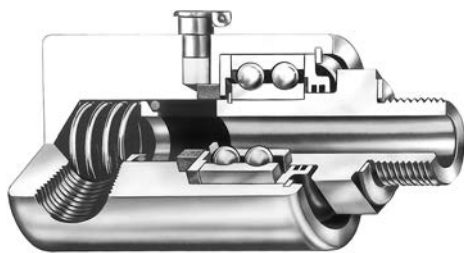
Quality Material

Body and Cap: High strength aluminum alloy
Stem: Molded nylon
Check Valve: Nylon ball
"O" Ring: Neoprene



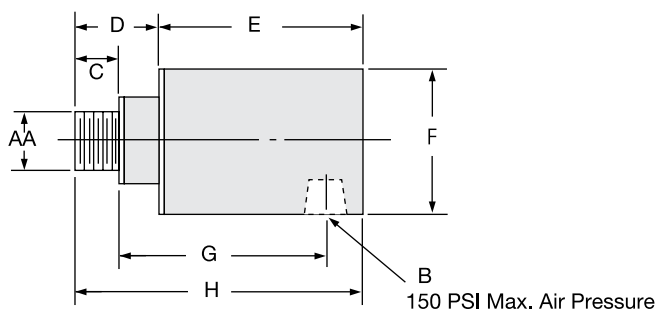
Standard thread arrangement of 1/2" size. 1/2" pipe thread on the tube connection and choice of 1/2" pipe thread, or standard 7/8-14NF thread for flared fitting thread on inlet connection. (Fits standard No. 10 high-pressure hose fitting.)

Roto-couplings



The Wichita Roto-coupling is a device to connect, or couple, a non-rotating air, gas, or fluid line to a rotating shaft.

- Long life, no maintenance.
- Felt seal eliminates bearing contamination.
- Fast, easy installation.



Dimensions: inches (mm)

Wichita Part No.	AA	B	C	D	E	F	G	H	Max. RPM
8-240-701-003-1	5/8-18NF	1/4" NPT	.40	1.046	2.250	1.500	2.13	3.297	3500
8-240-705-001-1	1"-14 NF	1/2" NPT	.75	1.250	3.188	2.500	3.00	4.438	3500
8-240-708-001-1	1"-14 NF	3/4" NPT	.75	1.313	4.688	2.875	3.69	5.440	3500
8-240-710-002-1	1-1/2"-12 NF	1" NPT	1.13	1.937	4.875	3.250	3.44	6.812	2500
8-240-712-001-1	2"-12 NF	1-1/2" NPT	1.13	2.813	5.250	4.250	5.38	8.062	2500
8-240-714-001-3	2" NPT	2" NPT	1.50	3.000	7.062	4.625	7.00	10.062	1000
8-240-716-000-3	2-1/2" NPT	2-1/2" NPT	1.88	3.250	9.375	7.000	7.75	12.625	750

HEAVY-DUTY CLUTCH/BRAKE GROUP

For over 80 years, Wichita Clutch, Industrial Clutch, and Twiflex, the industry-leading brands of the Altra Heavy-Duty Clutch and Brake Group have been designing and manufacturing innovative clutch and brake solutions to meet the requirements for a broad variety of heavy-duty applications spanning many industries. Highly engineered Altra clutches and brakes represent the latest in technology, featuring superior design and exceptional quality to ensure long-lasting performance in all types of industrial environments.



Wichita Clutch Pneumatic Clutches and Brakes

Wichita Clutch offers a full line of heavy-duty products including low inertia clutches and brakes, combination clutches and brakes, standard vent clutches, motor brakes, PTO's, high heat capacity and web tension brakes.

See Catalog P-1100-WC



Industrial Clutch Pneumatic and Hydraulic Clutches and Brakes

Industrial Clutch offers a complete line of dry and oil-immersed clutches and brakes ranging in size from 5" to over 48" diameter, with torque capacities exceeding 8,000,000 in.lb.

See Catalog P-7045-IC



Twiflex Industrial Disc Brakes

Twiflex offers the largest range of industrial disc brake calipers in the world. Flexible couplings and shafts, clutch couplings, hydraulic power units, pneumatic controllers, intensifier units, and monitoring equipment are also available.

See Catalog P-1648-TF

Belted Drives and Sheaves	Couplings Cont.	Gearing	Linear Products
TB Wood's <i>Belted Drives</i> Chambersburg, PA - USA 1-888-829-6637 – Press #5 <i>For application assistance:</i> 1-888-829-6637 – Press #7	TB Wood's <i>Elastomeric Couplings</i> Chambersburg, PA - USA 1-888-829-6637 – Press #5 <i>For application assistance:</i> 1-888-829-6637 – Press #7 <i>General Purpose Disc Couplings</i> San Marcos, TX - USA 1-888-449-9439	Bauer Gear Motor <i>Geared Motors</i> Esslingen, Germany +49 (711) 3518-0 Middlesex, NJ - USA 1-732-469-8770 Boston Gear <i>Enclosed and Open Gearing, Electrical and Mechanical P.T. Components</i> Charlotte, NC - USA 1-800-825-6544 <i>For application assistance:</i> 1-800-816-5608 Nuttall Gear and Delroyd Worm Gear <i>Worm Gear and Helical Speed Reducers</i> Niagara Falls, NY - USA 1-716-298-4100	Warner Linear <i>Linear Actuators</i> New Hartford, CT - USA 1-800-825-6544 <i>For application assistance:</i> 1-800-825-9050 Saint Barthélemy d'Anjou, France +33 (0)2 41 21 24 24
Couplings	Electromagnetic Clutches and Brakes	Heavy Duty Clutches and Brakes	Overrunning Clutches
Ameridrives <i>Mill Spindles, Ameriflex, Ameridisc</i> Erie, PA - USA 1-814-480-5000 <i>Gear Couplings</i> San Marcos, TX - USA 1-800-458-0887 <i>Universal Joints, Drive Shafts, Mill Gear Couplings</i> Erie, PA - USA 1-920-593-2444 Bibby Turboflex <i>Disc, Gear, Grid Couplings, Overload Clutches</i> Dewsbury, England +44 (0) 1924 460801 Boksburg, South Africa +27(0) 11 918 4270 Guardian Couplings <i>Engineered Flywheel Couplings, Engine Housings and Pump Mounts, Flexible Shaft Couplings</i> Michigan City, IN - USA 1-219-874-5248 Huco <i>Precision Couplings and Air Motors</i> Hertford, England +44 (0) 1992 501900 Chambersburg, PA - USA 1-888-829-6637 Lamiflex Couplings <i>Flexible Couplings, Bearing Isolators, and Coupling Guards</i> Cotia, SP - Brasil +55 (11) 4615-6300	Inertia Dynamics <i>Spring Set Brakes; Power On and Wrap Spring Clutch/Brakes</i> New Hartford, CT - USA 1-800-800-6445 Matrix <i>Electromagnetic Clutches and Brakes, Pressure Operated Clutches and Brakes</i> Brechin, Scotland +44 (0) 1356 602000 New Hartford, CT - USA 1-800-825-6544 Warner Electric <i>Electromagnetic Clutches and Brakes</i> New Hartford, CT - USA 1-800-825-6544 <i>For application assistance:</i> 1-800-825-9050 Saint Barthélemy d'Anjou, France +33 (0)2 41 21 24 24 <i>Precision Electric Coils and Electromagnetic Clutches and Brakes</i> Columbia City, IN - USA 1-260-244-6183	Industrial Clutch <i>Pneumatic and Oil Immersed Clutches and Brakes</i> Waukesha, WI - USA 1-262-547-3357 Svendborg Brakes <i>Industrial Brakes and Brake Systems</i> Vejstrup, Denmark +45 63 255 255 Twiflex <i>Caliper Brakes and Thrusters</i> Wichita Falls, TX - USA 1-844-723-3483 Twickenham, England +44 (0) 20 8894 1161 Wichita Clutch <i>Pneumatic Clutches and Brakes</i> Wichita Falls, TX - USA 1-800-964-3262 Bedford, England +44 (0) 1234 350311	Formsprag Clutch <i>Overrunning Clutches and Holdbacks</i> Warren, MI - USA 1-800-348-0881 – Press #1 <i>For application assistance:</i> 1-800-348-0881 – Press #2 Marland Clutch <i>Roller Ramp and Sprag Type Overrunning Clutches and Backstops</i> Warren, MI - USA 1-800-216-3515 Stieber Clutch <i>Overrunning Clutches and Holdbacks</i> Heidelberg, Germany +49 (0) 6221-30470
For information concerning our sales offices in Asia Pacific check our website www.altramotion.com.cn			