

Carlson

Industrial Full Line Brochure



Clutches



Brakes



**Clutch
Brakes**



**Caliper Brakes
& Rotors**



**Torque
Limiters**



Air Shaft Seals



Sheaves

Serving Industrial Markets Since 1961:

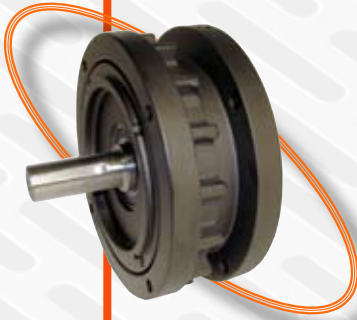
**Food Processing & Packaging • Material Handling • Printing & Die Cutting
Factory Automation • Metals • Forestry**



ECB PNEUMATIC CLUTCH/BRAKE		
MODEL	STATIC TORQUE	FRAME SIZE
ECB625-XL ECB625-XL-SS ECB625-XLT ECB625-XLT-SS	160 IN-LB	56C
ECB875-XL ECB875-XL-SS ECB875-XLT ECB875-XLT-SS	270 IN-LB	143TC/145TC
ECB1125-CC ECB1125-TCC	450 IN-LB	182TC/184TC

ECB PNEUMATIC CLUTCH/BRAKE

- C flange mounted • Patented keyless output shaft • Single piston prevents clutch/brake overlap
- Accurate starting stopping • Totally enclosed Housing • Optional stainless steel housing



SB-CC BRAKE		
MODEL	STATIC TORQUE	NEMA FRAMES
625SB-CC 625SB-CC-SS	300 IN-LB	56C
875SB-CC 875SB-CC-SS		143TC/145TC
1125SB-CC 1375SB-CC	1200 IN-LB	182TC/184TC 213TC/215TC
1625SB-CC	1500 IN-LB	254TC

SB-CC TOTALLY ENCLOSED BRAKE

- C-flange mounted • Spring applied air release • High static torque • Totally enclosed housing
- Protection against outside contaminants • Used in washdown applications
- Optional stainless steel housing



CAB-CC PNEUMATIC CLUTCH/BRAKE		
MODEL	STATIC TORQUE	NEMA FRAMES
1375 AIR CLUTCH / AIR BRAKE	960 IN-LB 1400 IN-LB	213TC / 215TC

CAB CLUTCH/BRAKE

- C flange mounted • Two friction surfaces transmit high torque for both the clutch and brake
- Air applied clutch and brake available in a one piece housing • Single piston design



TSC PNEUMATIC CLUTCH								
UNIT	TSC60	TSC150	TSC350	TSC850				
CHAIN SIZE	MINIMUM SPROCKET							
25	40T	49T	56T	-				
35	28T	34T	38T	52T				
40	22T	27T	30T	39T				
50	-	22T	25T	32T				
60	-	-	21T	27T				
80	-	-	-	22T				
STATIC TORQUE @ 80PSI	60 IN-LB	150 IN-LB	350 IN-LB	850 IN-LB				
	STANDARD BORE SIZES							
ASSEMBLY	-2	-2	-2	0	-1	-2	-3	-4
BORE	.625	.875	1.000	1.125	1.250	1.375	1.500	1.625

TSC THROUGH SHAFT MOUNTED CLUTCHES

- Air actuated clutch
- Mid shaft or end shaft mounting
- Straight bores
- High torque
- Permanently lubricated bearings



HEAVY DUTY INDUSTRIAL AIR CLUTCHES				
MODEL	CW	CR	CK	PM
SIZES	8.5 to 36	8.5 to 36	8.5 to 36	8.5 to 18
MINIMUM BORE	1.18 - 4.00	1.18 - 4.00	1.18 - 4.00	1.25 - 2.75
MAXIMUM BORE SHALLOW KEYWAY	2.125 - 8.50	2.125 - 8.50	2.125 - 8.50	1.937 - 3.563
TORQUE IN-LBS @ 80 PSI STANDARD LINING	4290 - 699637	4290 - 699637	4290 - 699637	4290 - 77684
MAXIMUM RPM	3000 - 600	3000 - 600	3000 - 600	3000 - 2000

HEAVY DUTY INDUSTRIAL AIR CLUTCHES

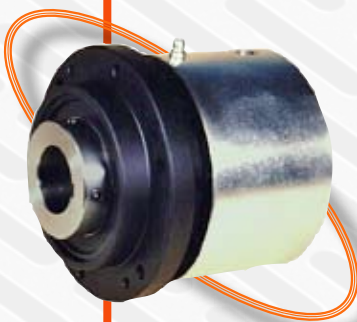
- Two friction surfaces
- Greater torque capacity
- Low inertia design
- 12 sizes
- High temperature diaphragm
- Quick engagement and disengagement
- Easy adjustment for lining wear



UC AIR CLUTCHES								
UNIT	4UC				6UC			
AIR PRESSURE	20	40	60	80	20	40	60	80
TORQUE IN LBS	200	400	600	800	600	1255	1940	2625
BORE SIZES	1.125 to 1.375				1.250 to 1.875			

UC TOTALLY ENCLOSED END SHAFT MOUNTED AIR CLUTCHES

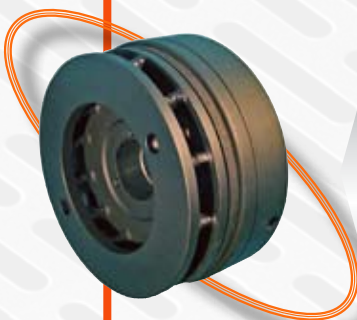
- Protection against outside contaminants
- Used in washdown applications
- High torque ratings
- Easy bushing installation
- Greater heat dissipation
- High RPM capabilities
- Available in Pilot Mount and Integral Mount configurations



PE CLUTCH					
MODEL	PE2	PE4	PE10	PE25	PE50
TORQUE IN LBS	2,000	4,000	10,000	25,000	50,000
MAX RPM	3600	3000	2000	1800	1800
NO. OF TEETH	46	60	48	58	78

PE POSITIVE ENGAGEMENT CLUTCH

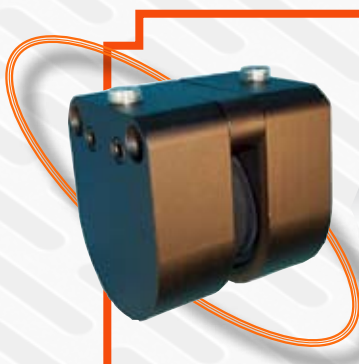
- Synchronized gears give complete and positive engagement under static conditions.
- High torque capability results in small diameter design of clutch.
- Light bearing loads are a result of the design of the gears and the small air activation chamber.
- Lubricated gear cavity is provided to prolong the life of the clutch.
- Precise phasing of the gear elements because of the large number of teeth on the gear.
- Backplate flange is designed for mounting of a sprocket, pulley, gear or coupling to the clutch.



TSB and TSBL AIR BRAKES				
MODEL	STATIC TORQUE@80 PSI	MODEL	TORQUE @ 80 PSI LOCO	BORE
TSB450	450 IN-LB	TSBL450	150 IN-LB	QD BUSHING SIZE "JA" 1 1/4" MAX.
TSB1000	1000 IN-LB	TSBL1000	330 IN-LB	QD BUSHING SIZE "SH" 1 11/16" MAX.
TSB2400	2400 IN-LB	TSBL2400	800 IN-LB	QD BUSHING SIZE "SK" 2 3/8" MAX.

TSB / TSBL AIR BRAKES

- Internal finned rotors allows the brake to dissipate high amounts of heat
- Split friction lining is screwed to the piston for easy assembly and disassembly
- Low Coefficient Loco lining is standard for tension applications
- Quick disconnect bushings are available on some models



CB and CSB CALIPER BRAKES

ROTOR DIA.	CB100	CB200	CB500	CSB100	CSB200
	Static Torque Ratings @ 80PSI				
6"	270 IN-LB	-----	-----	160 IN-LB	-----
9"	460 IN-LB	810 IN-LB	-----	275 IN-LB	485 IN-LB
12"	650 IN-LB	1190 IN-LB	2400 IN-LB	390 IN-LB	715 IN-LB
16"	900 IN-LB	1690 IN-LB	3600 IN-LB	540 IN-LB	1015 IN-LB

CB / CSB PNEUMATIC CALIPER BRAKE

- Air applied caliper brake (CB) and spring applied / air release caliper brake (CSB)
- Uses two opposing pistons that engage against a rotor
- Rotor thickness may be changed by altering the size of the brake spacer
- Easy two bolt mounting • Friction lining can be quickly removed and changed

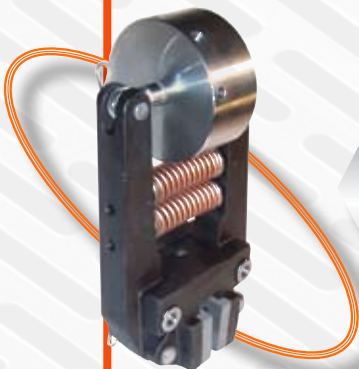


SB SHOE BRAKES

BRAKE MODEL	7SB200	10SB275	14SB350
TORQUE RATING IN - LB	4940	9530	15300
RELEASE PRESSURE PSI	50	50	50

SHOE BRAKES

- Spring applied, Air release brake • Safety brake used for instantaneous stopping applications
- Eccentric bushing allows easy mounting from the brake to the torque pin
- Three sizes available, with or without drum

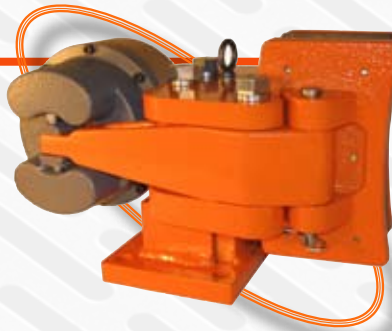


CBSA and CBAA CALIPER BRAKE

DISC SIZE	12"	14"	16"	18"	24"
STATIC TORQUE IN-LB	8550	10450	12350	14250	20000
MINIMUM RELEASE PRESSURE	60 PSI	60 PSI	60 PSI	60 PSI	60 PSI

CBSA SPRING APPLIED AIR RELEASE CALIPER BRAKE CBAA AIR APPLIED SPRING RELEASE CALIPER BRAKE

- Compact size • High torque capacity
- Easy change friction linings by pulling a clip pin and removing the caliper shoe

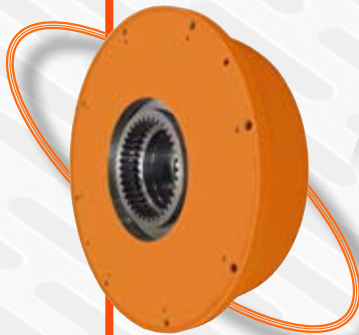


7000 SERIES CALIPER BRAKE

MODEL	7003	7501	7502	7503	7603	75011	75031
MOUNTING	Pedestal Mount	Floor Mounted	Pedestal Mount	Pedestal Mount	Pedestal Mount	Floor Mounted	Pedestal Mount
ACTUATION	Spring Applied Air Release		Air Applied Spring Release	Spring Applied Air Release			
TANGENTIAL FORCE	2500 lbs	4700 lbs	6800 lbs	4700 lbs	9400 lbs	4700 lbs	4700 lbs

7000 SERIES CALIPER BRAKE

- Single and double brake design provides industry-leading torque capacity
- Less brake chatter - more evenly applied braking force
- Lever arm with piston design multiplies force from the piston to the rotor
- Seal system design • Stainless steel piston and cylinder • No bladder blowout



SAB BRAKES

MODEL		SAB112	SAB212	SAB116	SAB216
TORQUE (IN-LB)	NEW	18000	35000	39000	75000
	WORN	13500	26000	29000	56000
HEAT CAPACITY (FT-LB)		170000	260000	270000	415000
MAX RPM		1800			

SAB BRAKES

- Spring Applied Air Release • Totally Enclosed • Friction linings that are pre-burnished
- Organic, Non-Asbestos linings for high coefficient of friction and durability
- Air/Piston cavity utilizes high temperature seals, to allow for larger piston diameter, producing more torque • Flexible design – backplate can be made to fit against customer mounting

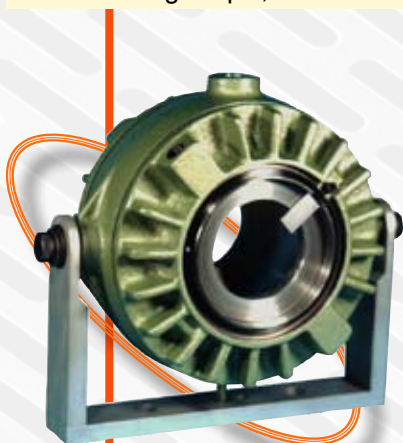


TLSP TORQUE LIMITER

MODEL	BORE RANGE (IN)	TORQUE	
		MINIMUM	MAXIMUM
TLSP5	.750 to 1.250	125 IN-LB	500 IN-LB
TLSP20	.938 to 1.500	500 IN-LB	2000 IN-LB
TLSP60	1.250 to 2.000	1500 IN-LB	6000 IN-LB

TLSP TORQUE LIMITER

- Transmits torque in either direction protecting driven components from damage
- The machined face of the torque limiter acts as a sensor switch plate
- Simple torque adjustment by simply tightening or loosening the spring nut.
- Totally enclosed, providing protection from outside contaminants
- Smaller and lighter design than most competitors
- Adapter bushings used with the TLSP20 and TLSP60 models make mounting the torque limiter to the shaft, easy, and provide a wide range of standard bores
- The bushing is split, and has an integral lock collar to prevent axial movement.

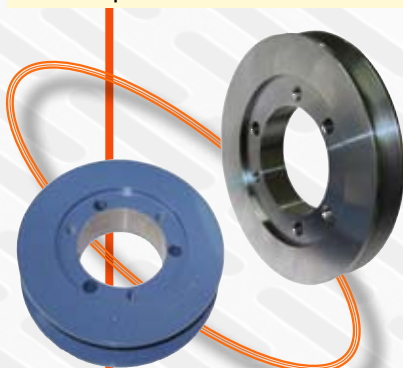


AIR SHAFT SEAL

MODEL		250	350	500	700
BORE (Max.)		2.5	3.5	5	7
BORE (Min.)		1.52	2.52	3.52	5.04
AIR INLET		3/8 NPT	3/8 NPT	3/4 NPT	3/4 NPT
AIR OUT-LET	NO.	2	2	3	3
	SIZE	1/4 NPT	1/4 NPT	1/2 NPT	1/2 NPT
DRIVE KEY		1/2X1/4	1/2X1/4	1/2X1/4	3/4X3/8
MAX RPM		1400	1150	900	600

AIR SHAFT SEAL

- Transmits air from the air supply to the rotating members of air clutches and air brakes making possible new applications of air clutches and air brakes previously considered impractical for closed-end shafts.
- The slip-on installation eliminates long rifle drilling of air passages in shafts and permits easy installation.



SOLID SHEAVES

BELT TYPE	GROOVES	SIZES
A-B Section	1 and 2 Groove	3 inch to 8 inch Pitch Diameter
3V	1 and 2 Groove	2.65 O.D. to 6.9 O.D.
5V	2 and 3 Groove	4.44 O.D. to 7.50 O.D.

QD BUSHINGS

SIZES	JA	SH	SDS	SK
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SOLID SHEAVES and QD BUSHINGS

- Ductile Iron or Stainless Steel Construction.

Carlson *Industrial*

MADE IN THE U.S.A. – SOLD WORLDWIDE

Carlson products are manufactured in a 54,000 sq. ft. facility in Wichita, Kansas, USA and are sold through a system of knowledgeable distributors and field sales representatives throughout the world.

This experienced sales organization, along with Carlson's technical group, is dedicated to applying the correct Carlson product or customizing Carlson products to meet your specific need.

We make it easy to find the right product for your application. For complete product specifications and dimensions, application profiles and technical data:

- Visit our website at **WWW.CARLSONCOMPANY.COM**
- Contact our sales department, **sales@carlsoncompany.com** to obtain a General Line Catalog, or
- Contact your **Authorized Distributor**.

CARLSON INDUSTRIAL, a division of:

The Carlson Company, Inc.

6045 North Broadway

Wichita, Kansas 67201 USA

PHONE: (316) 744-0481

FAX: (316) 744-2144

E-MAIL: sales@carlsoncompany.com

WEB: www.CarlsonCompany.com

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