



Single Flange Element



Dual Flange Element

The type CB element assembly is designed and built to provide dependable clutch or brake service in the most exacting industrial applications. It is suited to high speed, cyclic operations, as well as for coupling and general power transmission.

CB design, construction and operation is quite simple. A neoprene rubber tube reinforced with several plies of cord is bonded on its outside diameter to a steel rim. Friction shoes are attached to the tube's inside diameter by pins which in turn are held in position by lockwires, except for sizes 3CB150 through 5CB200 which have friction material bonded to the rubber tube. Pressurizing the tube forces the friction shoes to engage around a cylindrical drum.

Element torque capacity is dependent upon the applied pressure and rotating speed. Catalog ratings are given at 75 psi (5.2 bar)

and zero rpm. Maximum recommended pressure is 110 psi (7.6 bar). Adjustment for speed is explained under Selection Procedure.

CB elements are available in 20 sizes which are identified by the drum diameter in inches on which they constrict and the width in inches of its friction lining. For instance, size 16CB500 is designed to constrict on a 16 inch diameter drum and has a friction lining width of 5 inches. The smallest CB element will constrict on a 3 inch (76mm) diameter drum and the largest on a 45 inch (1143mm) diameter drum.

Element sizes 3CB150 through 10CB300 have rims with one flange. Element sizes 12CB350 and 14CB400 are normally furnished with rims having one flange; however, they can also be furnished, when specified, with two flanges. Element sizes

16CB500 and larger have rims with two flanges. CB elements are grouped and described as being single flanged or dual flanged elements.

Two dual flanged elements can be bolted together to form a dual element having twice the torque capacity of a single element. Dual elements can be furnished in sizes 12CB350 through 45CB525.

Because the rubber tube is the connecting member between the driving and driven shafts, the CB design offers the following features in addition to the constricting features described earlier in this section.

One moving component

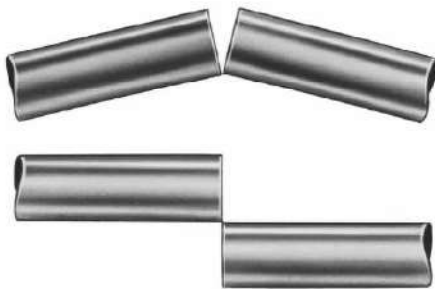
The tube is the only moving component. There are no springs or sliding parts.

Cushioned action

The tube transmits the torque through its side walls, cushioning damaging shock loads thereby protecting drive components. The rubber tube construction dampens the effects of torsional vibrations.

Flexible coupling

The tube flexibility is able to compensate for minor shaft misalignment and axial movement.



Split Elements

Element sizes 6CB200 and up are available in a split configuration. They are used in applications where there is limited axial space for maintenance or where the drum is mounted between bearings and the shaft cannot be moved for maintenance. Sizes through the 10CB300 can only be used as brakes. Larger sizes can also be used in relatively low-speed clutch applications. Note that split tubes are not as durable as standard continuous tube.

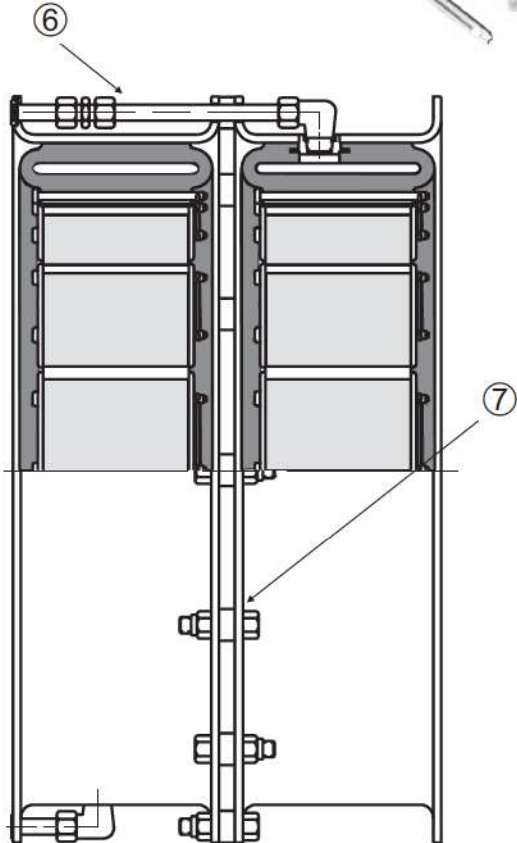
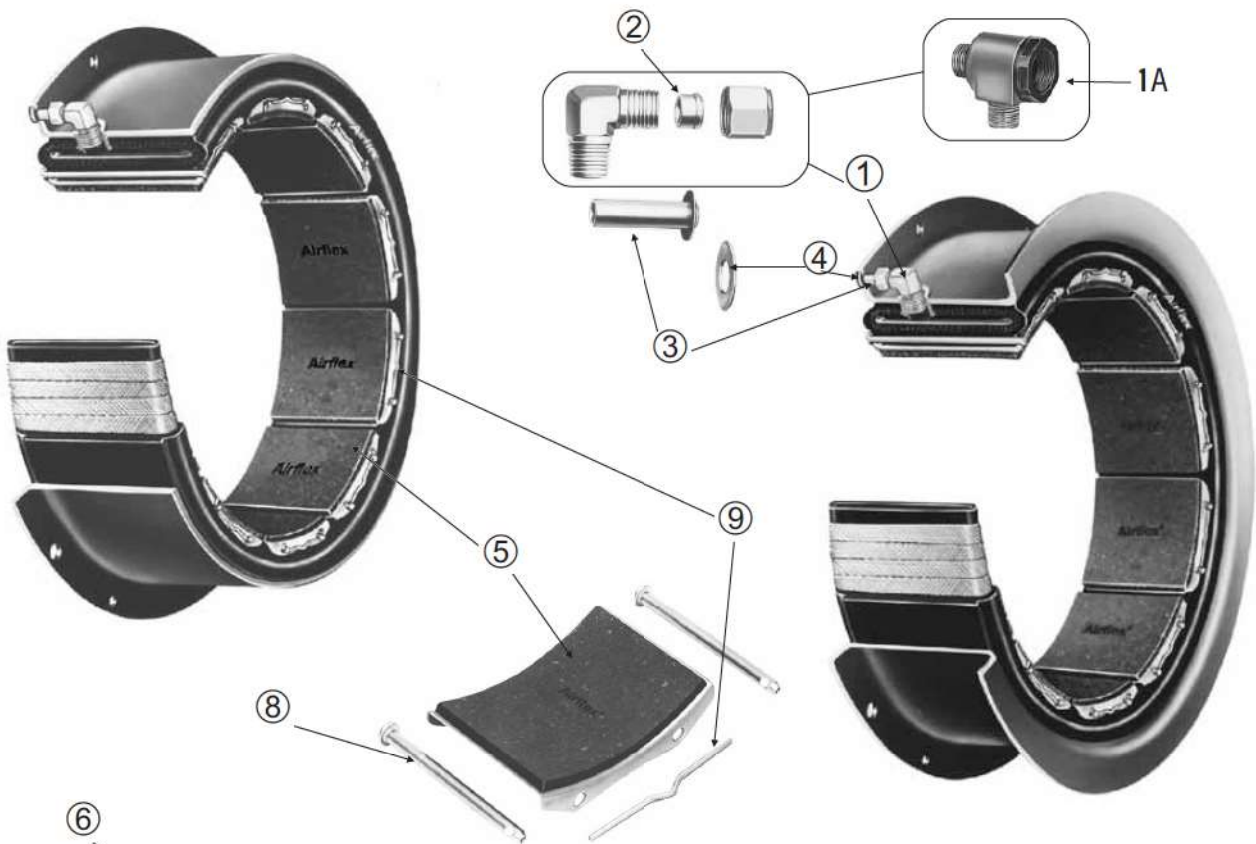


The following pages give additional descriptive information, selection procedures and common clutch and brake arrangements for the complete CB product line.

Size	Torque Rating	
	lb-in @ 75 psi	N-m @ 5,2 bar
3CB150	360	41
4CB200	1,000	113
5CB200	1,460	165
6CB200	2,040	231
8CB250	4,290	485
10CB300	8,150	921
12CB350	13,300	1500
14CB400	19,700	2230
16CB500	35,200	3980
18CB500	44,000	4970
20CB500	53,600	6060
22CB500	62,300	7040
24CB500	75,000	8480
26CB525	92,400	10400
28CB525	106,000	12000
30CB525	121,000	13700
32CB525	137,000	15500
36CB525	172,000	19400
40CB525	211,000	23800
45CB525	260,000	29400

Where Used:

- Can Making Machinery
- Commercial Laundry Equipment
- Metal Forming Machinery
- Oil Field Machinery
- Printing Machinery
- Rubber Processing Machinery
- Tire Building Machinery



Item	Component Description
1	Elbow Assembly
1A ①	Optional - Quick Release Valve Assembly
1B ①	Optional - Quick Release Valve Muffler
2	Compression Ring
3	Air Connection Tube
4	Air Connection Gasket
5 ②	Friction Shoe Assembly
6	Air Tube Group (Dual Mounted)
7	Spacer Group (Dual Mounted)
8 ②	Shoe Pin
9 ②	Lockwire
5, 8&9	Friction Shoe Replacement Kit

Notes:

- ① This option not available for sizes 3 thru 14.
- ② These items are not applicable to sizes 3 thru 5. The friction material is bonded to the rubber tube and is not replaceable.