

# Airflex® Constricting Type

## Clutches and Brakes

### Section B

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# Airflex® Constricting Features

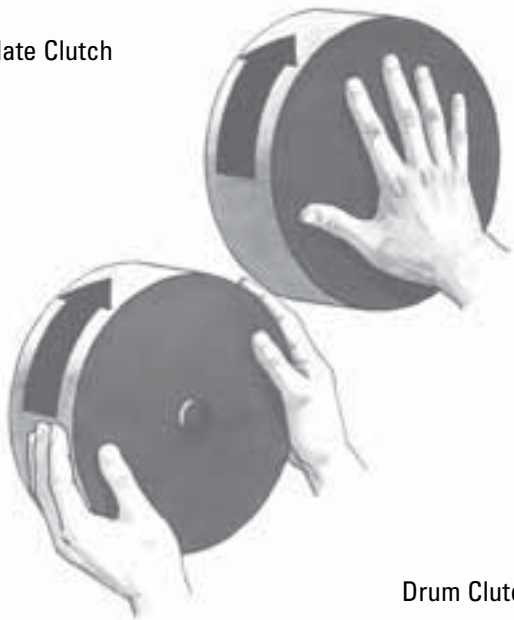
## Section B

### How They Work

CB, CM and VC elements utilize a rugged tire-like neoprene and cord tube that expands radially inward when pressurized. The constricting tube forces friction shoes against an outer cylindrical drum surface. The rate at which the tube is pressurized determines the rate at which element torque increases. Final tube pressure determines the element torque capacity.

### Design Features

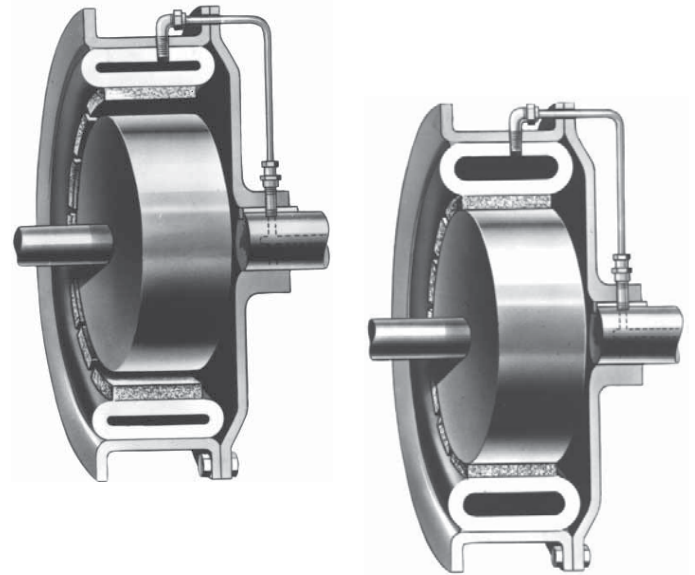
Plate Clutch



Drum Clutch

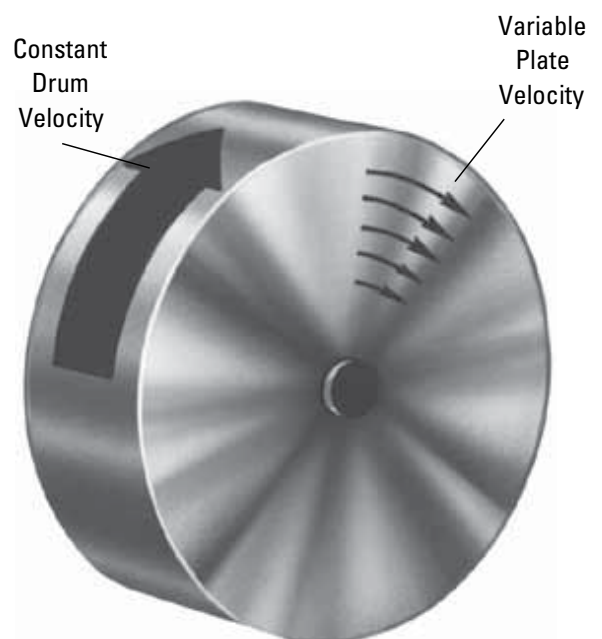
#### • Uniform contact velocity

Friction shoe contact occurs across the cylindrical surface of the drum where the contact velocity is constant unlike plate types where the contact velocity varies across the friction plate face.



#### • Force applied at maximum radius from axis

Airflex constricting elements concentrate the frictional force on the outside drum diameter thereby achieving maximum torque. The torque lever arm is the drum radius, not a reduced radius as occurs in plate clutches. Not only is the force generated at the optimum radius, it is also applied Uniformly around the drum circumference.



# Airflex® Constricting Features

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- **Self-adjustment**

As friction surfaces wear, the tube constricts further and compensates for the wear. Normal wear will not reduce torque capacity.

- **No lubrication**

There are no close fitting sliding components which require lubrication.

- **Centrifugal force assists clutch disengagement**

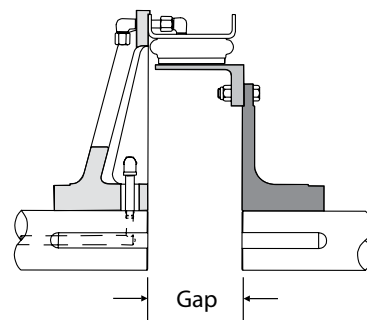
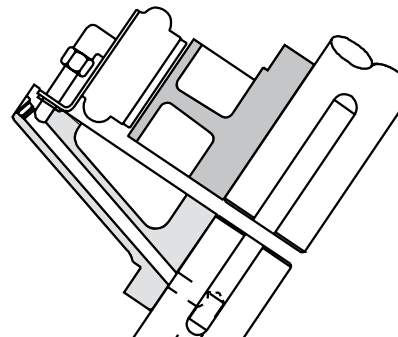
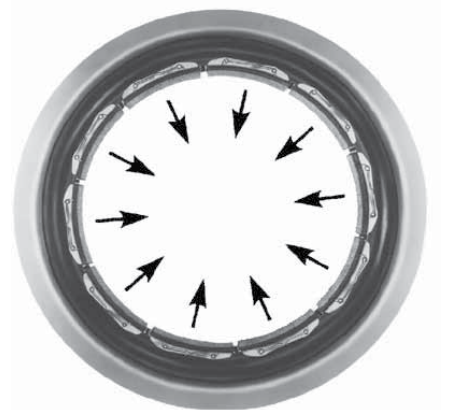
Upon release of tube pressure, centrifugal force, acting on the friction shoes at the rotating element, helps retract the shoes away from the drum surface. The centrifugal effect expels the tube pressurizing media and minimizes the possibility of disengaged friction shoe drag.

- **Operates in any plane**

The constricting design combined with centrifugal effects permits clutch operation in any plane. A plate clutch operates best in a vertical plane.

- **Gap mounting**

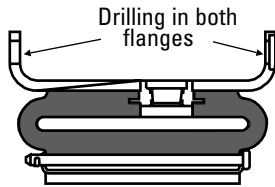
The constricting drum design allows a gap between the ends of the driving and driven shafts. This gap provides a space through which the element and drum can be removed to permit shaft alignment, clutch maintenance without disturbing existing shaft alignment and the removal of driving or driven components.



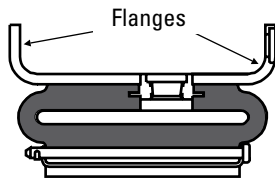
# Airflex® Element Descriptions

## Section B

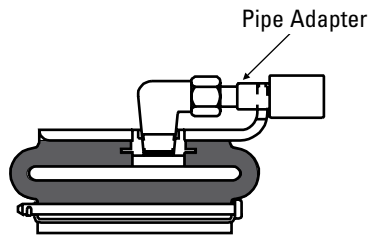
Elements are described by the number and type of fitting used to make the connection from the tube valve to the rim flange, the type of friction material and any special rim features. Since most of the special rim features pertain to CB elements only, the CB cross section has been used in the illustrations. A glossary of commonly used descriptive terms with their abbreviations in parenthesis follow:



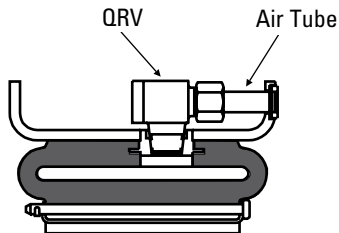
**Dual drilled (DD)** - Both flanges of the rim are drilled for air and/or mounting connections. Required for one of the elements used in a dual element and for air bridge mounting.



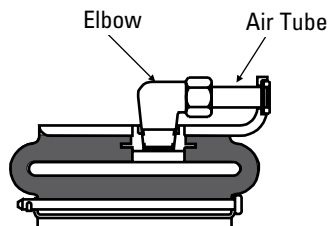
**Dual flange (DFL)** - A CB description for rims with two flanges. Standard on element sizes 16CB500 thru 45CB525. This description used primarily to differentiate between the single and dual flanged 12CB and 14CB elements.



**Pipe adapter** - An adapter to connect standard tube fittings to pipe fittings.



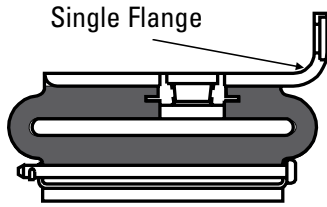
**Quick release valve (QRV)** - The plumbing from the valve to the rim flange incorporating a quick release valve and air tube.



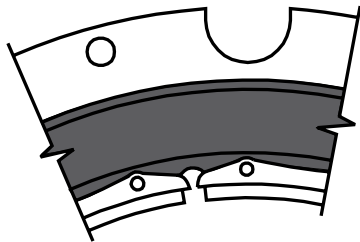
**Side connection (SC)** - The plumbing from the valve to the rim flange incorporating an elbow and air tube.

# Airflex® Element Descriptions

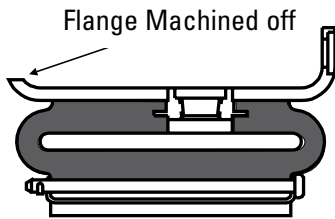
## Section B



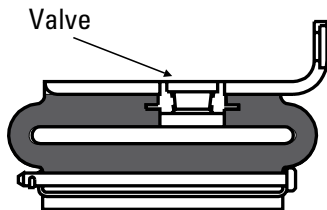
**Single flange (SGL FL)** - A CB description for rims having one flange. Element sizes 3CB150 thru 10CB300 have one flange. Element sizes 12CB350 and 14CB400 can be furnished single or dual flanged.



**Slotted rim (SLOT)** - A U-shaped cutout in the rim flange providing clearance for piping directly to the valve. Used with pipe adapter and in the small CB clutch applications which incorporate tapered bushings.



**Turned down flange (TDF)** - Applies to CB elements only. Element sizes 16CB500 thru 45CB525 have dual flange rims. This description is used when one flange is removed or "turned down" to provide clearance for adjacent components. Used primarily in FSPA applications.



**Valve (VA or VAL or VL)** - That part of the tube which permits a mechanical connection and through which the activating media enter and exhausts. Element sizes 3CB150 thru 14CB400 and 11.5VC500 can be furnished with either one or two valves; larger sizes with either one, two or four valves.

**Lining (LNG or LN) or Friction lining (FR LNG)** - Elements can be furnished with linings having different coefficients of friction. When no mention is made in the element description, standard linings are furnished. The lining descriptions are:

- **Standard lining** - This lining will produce the published element torque ratings.
- **Low coefficient (LO-CO) or Slip lining** - Lining that has a lower coefficient of friction than the standard lining. Used primarily for continuous slip or tensioning applications.

- **High coefficient (HI-CO) or Cork lining** - Lining that has a higher coefficient of friction than the standard lining. Used primarily in applications in which the elements operate in the engaged or locked up position for extended periods of time.
- **High coefficient with drive bar** - Lining that has a higher coefficient of friction than standard but is used in similar applications to standard.

# Airflex® CB Construction

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**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 lock wires, 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.

# Airflex® CB Features

## Section B

### One moving component

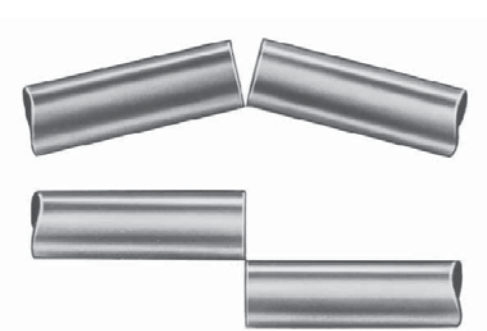
The tube is the only moving component. There are no springs or sliding parts.

### 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.



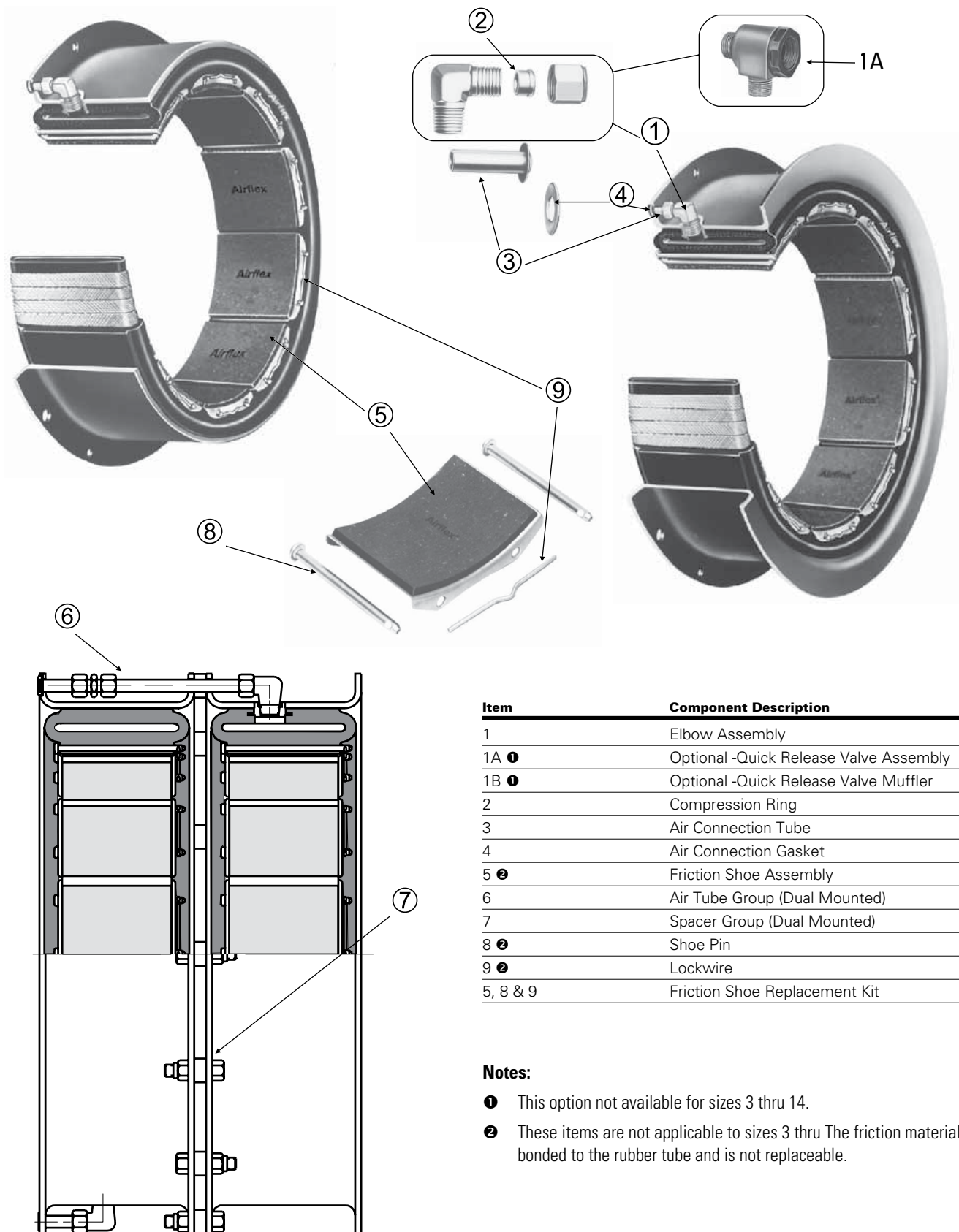
| Size    | Torque Rating       |                    |
|---------|---------------------|--------------------|
|         | lb · in<br>@ 75 psi | N · m<br>@ 5,2 bar |
| 3CB150  | 360                 | 41                 |
| 4CB200  | 1,000               | 113                |
| 5CB200  | 1,460               | 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**

# Airflex® CB Component Descriptions

## Section B



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

### Notes:

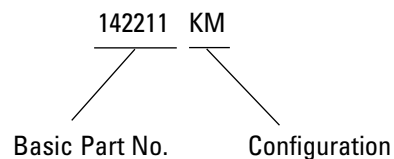
- ❶ This option not available for sizes 3 thru 14.
- ❷ These items are not applicable to sizes 3 thru 14. The friction material is bonded to the rubber tube and is not replaceable.

# Airflex® CB Element Part Numbers

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A double alpha suffix is added to the basic element part number to completely describe the element configuration.

The basic element part number is shown on the element catalog pages. Alphas for the more common element configurations are shown on this page. The element part number used in the above example identifies a 16CB500 element equipped with standard friction linings and one side connection.



### Alpha Suffixes for 3 thru 14 CB Elements

| No. of Valves,<br>Side Connections, or QRV's | Type of Lining | Special Rim Features | Alpha Suffixes |                       |
|----------------------------------------------|----------------|----------------------|----------------|-----------------------|
|                                              |                |                      | Valves only    | With Side Connections |
| 1                                            | Standard       |                      | JA             | JB                    |
| 1                                            | Standard       | Slotted              | JC             |                       |
| 1                                            | Cork ①         |                      | JT             | JN                    |
| 1                                            | Cork ①         | Slotted              | JU             |                       |
| 2                                            | Standard       |                      | JH             | JG                    |
| 2                                            | Standard       | Slotted              | JK             |                       |
| 2                                            | Cork ①         |                      |                | JQ                    |

# Airflex® CB Element Part Numbers

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### Alpha Suffixes for 16 thru 45 CB Elements

| No. of Valves,<br>Side Con-<br>nections, or QRV's | Type of Lining | Special Rim<br>Features | Alpha Suffixes |                          |               |
|---------------------------------------------------|----------------|-------------------------|----------------|--------------------------|---------------|
|                                                   |                |                         | Valves only    | with Side<br>Connections | with<br>QVR's |
| 1                                                 | Standard       |                         | KY             | KM                       | KN            |
| 1                                                 | Standard       | Dual Drilled            | KS             | LH                       | LJ            |
| 1                                                 | Cork           |                         | LQ             | MG                       | LA            |
| 1                                                 | Cork           | Dual Drilled            | LR             |                          |               |
| 2                                                 | Standard       |                         | LX             | LB                       | LK            |
| 2                                                 | Standard       | Dual Drilled            | MT             |                          | LW            |
| 2                                                 | Cork           |                         | KD             | KE                       |               |
| 2                                                 | Cork           | Dual Drilled            | LY             | KL                       |               |
| 4                                                 | Standard       |                         | KZ             | KP                       | KR            |
| 4                                                 | Standard       | Dual Drilled            | LS             | KT                       | KU            |
| 4                                                 | Cork           |                         | NR             | LV                       | ML            |
| 4                                                 | Cork           | Dual Drilled            | LT             | LU                       | NE            |

### Alpha Suffixes for Dual 12 thru 45 CB Elements

②

| No. of Side Con-<br>nections or QRV's | Type of Lining | Alpha Suffixes           |               |
|---------------------------------------|----------------|--------------------------|---------------|
|                                       |                | with Side<br>Connections | with<br>QVR's |
| 2                                     | Standard       | DA                       | DD            |
| 2                                     | Cork           | DF                       | DJ            |
| 4                                     | Standard       | DK                       | DL            |
| 4                                     | Cork           | DT                       |               |

### Notes:

- ❶ Not available for sizes 3 thru 5.
- ❷ Dual sizes 12 and 14 elements only available with suffixes DA and DF.

# Airflex® Single CB Elements

## Form CB-401 Technical Data — Sizes 3 to 14

### Section B

| English |               | lb · in<br>@75psi  | rpm             | psi/rpm <sup>2</sup>        | lb · ft <sup>2</sup> | lb             | in <sup>2</sup> | inches                    |      | in <sup>3</sup>   | inches                |
|---------|---------------|--------------------|-----------------|-----------------------------|----------------------|----------------|-----------------|---------------------------|------|-------------------|-----------------------|
| 3CB150  | 142252        | 360                | 2000            | 1.5 E-06                    | 0.1                  | 1.8            | 14              | 0.20                      | 0.04 | 7                 | 2.90                  |
| 4CB200  | 142840        | 1000               | 2000            | 1.7 E-06                    | 0.2                  | 2.5            | 23              | 0.12                      | 0.03 | 10                | 3.90                  |
| 5CB200  | 142253        | 1460               | 2000            | 2.0 E-06                    | 0.4                  | 3.5            | 30              | 0.20                      | 0.04 | 17                | 4.90                  |
| 6CB200  | 142095        | 2040               | 1800            | 6.0 E-06                    | 1.0                  | 7.0            | 36              | 0.14                      | 0.06 | 19                | 5.90                  |
| 8CB250  | 142096        | 4290               | 1800            | 7.0 E-06                    | 2.0                  | 9.0            | 61              | 0.12                      | 0.06 | 30                | 7.90                  |
| 10CB300 | 142197        | 8150               | 1800            | 10.0 E-06                   | 6.0                  | 19.0           | 91              | 0.20                      | 0.06 | 50                | 9.90                  |
| 12CB350 | 142098        | 13300              | 1800            | 12.0 E-06                   | 11.0                 | 26.0           | 128             | 0.20                      | 0.06 | 80                | 11.90                 |
| 14CB400 | 142087        | 19700              | 1800            | 15.0 E-06                   | 17.0                 | 31.0           | 170             | 0.20                      | 0.06 | 70                | 13.90                 |
| Size    | ① Part Number | ② M, Torque Rating | ③ Maximum Speed | ④ Centrifugal Loss Constant | Wk <sup>2</sup><br>J | Weight<br>Mass | Friction Area   | Friction Lining Thickness |      | ⑤ Air Tube Cavity | Minimum Drum Diameter |
|         |               |                    |                 |                             |                      |                |                 | New                       | Worn |                   |                       |
| 3CB150  | 142252        | 40,7               | 2000            | 0,10 E-06                   | 0,00                 | 0,8            | 90,3            | 5                         | 1    | 0,12              | 74                    |
| 4CB200  | 142840        | 113                | 2000            | 0,12 E-06                   | 0,01                 | 1,1            | 148,4           | 3                         | 1    | 0,17              | 99                    |
| 5CB200  | 142253        | 165                | 2000            | 0,14 E-06                   | 0,02                 | 1,6            | 193,5           | 5                         | 1    | 0,28              | 124                   |
| 6CB200  | 142095        | 231                | 1800            | 0,41 E-06                   | 0,04                 | 3,2            | 232,2           | 4                         | 2    | 0,32              | 150                   |
| 8CB250  | 142096        | 485                | 1800            | 0,48 E-06                   | 0,08                 | 4,1            | 393,5           | 3                         | 2    | 0,49              | 201                   |
| 10CB300 | 142197        | 921                | 1800            | 0,69 E-06                   | 0,25                 | 8,6            | 587,0           | 5                         | 2    | 0,82              | 251                   |
| 12CB350 | 142098        | 1500               | 1800            | 0,83 E-06                   | 0,46                 | 12             | 825,6           | 5                         | 2    | 1,31              | 302                   |
| 14CB400 | 142087        | 2230               | 1800            | 1,04 E-06                   | 0,71                 | 14             | 1096,5          | 5                         | 2    | 1,15              | 353                   |
| SI      |               | N · m<br>@ 5,2bar  | rpm             | bar/rpm <sup>2</sup>        | kg · m <sup>2</sup>  | kg             | cm <sup>2</sup> | millimeters               |      | dm <sup>3</sup>   | millimeters           |

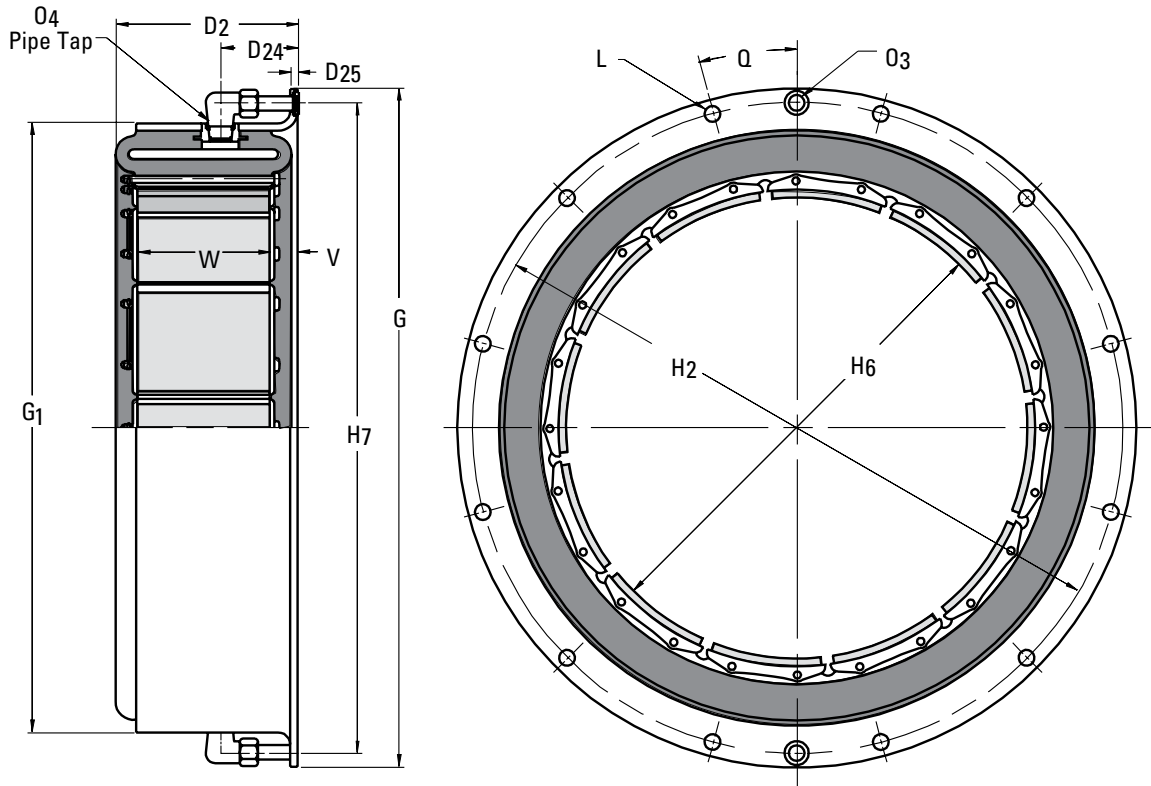
#### Notes:

- ① Refers to basic part number only. When ordering, the number of air inlets and type of connection must be specified.
- ② Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ③ Tolerance for sizes:  
3 thru 5  
+0.000/-0.003 in (+0,00/-0,08 mm)  
6 and larger  
+0.000/-0.005 in (+0,00/-0,13 mm)
- ④ American National Pipe Thread.  
Sizes 3 thru 5 only available with one air inlet. All other sizes available with either one or two air inlets.
- ⑤ Maximum rpm is dependent upon operating conditions and varies for each application. Consult factory for applications exceeding these speeds.
- ⑥ Drum contact with worn shoes.

# Airflex® Single CB Elements

Form CB-401 Dimensional Data — Sizes 3 to 14

Section B



| English |        | lb · in<br>@75psi | Dimensions in inches |      |      |        |       |        |       |       |    |      |      |        |        |      |    |      |
|---------|--------|-------------------|----------------------|------|------|--------|-------|--------|-------|-------|----|------|------|--------|--------|------|----|------|
| 3CB150  | 142252 | 360               | 2.16                 | 1.18 | 0.10 | 6.299  | 4.86  | 5.748  | 3.15  | 5.75  | 8  | 0.25 | 0.28 | 1/8-27 | 22.500 | 0.35 | 6  | 1.50 |
| 4CB200  | 142840 | 1000              | 2.63                 | 1.38 | 0.09 | 7.248  | 5.81  | 6.688  | 4.13  | 6.69  | 8  | 0.25 | 0.19 | 1/8-27 | 22.500 | 0.38 | 6  | 2.00 |
| 5CB200  | 142253 | 1460              | 2.85                 | 1.50 | 0.10 | 8.819  | 7.20  | 8.071  | 5.16  | 8.07  | 8  | 0.31 | 0.29 | 1/8-27 | 22.500 | 0.48 | 6  | 2.00 |
| 6CB200  | 142095 | 2040              | 2.94                 | 1.56 | 0.09 | 10.752 | 9.06  | 10.000 | 6.16  | 10.00 | 8  | 0.38 | 0.31 | 3/8-18 | 22.500 | 0.56 | 6  | 2.00 |
| 8CB250  | 142096 | 4290              | 3.44                 | 1.91 | 0.09 | 12.875 | 11.19 | 12.125 | 8.16  | 12.13 | 8  | 0.38 | 0.31 | 3/8-18 | 22.500 | 0.56 | 8  | 2.50 |
| 10CB300 | 142197 | 8150              | 4.13                 | 2.00 | 0.19 | 15.373 | 13.63 | 14.625 | 10.13 | 14.63 | 12 | 0.38 | 0.31 | 3/8-18 | 15.000 | 0.69 | 10 | 3.00 |
| 12CB350 | 142098 | 13300             | 4.72                 | 2.00 | 0.19 | 17.625 | 15.88 | 16.875 | 12.13 | 16.88 | 14 | 0.38 | 0.31 | 3/8-18 | 12.857 | 0.69 | 12 | 3.50 |
| 14CB400 | 142087 | 19700             | 5.22                 | 2.00 | 0.19 | 19.625 | 17.88 | 18.875 | 14.13 | 18.88 | 16 | 0.38 | 0.31 | 3/8-18 | 11.250 | 0.69 | 14 | 4.00 |

|         | Ø      | Ø                 |                           |                 |                 |       |                |                |                |                |          |    |                |                |         |    |       |     |
|---------|--------|-------------------|---------------------------|-----------------|-----------------|-------|----------------|----------------|----------------|----------------|----------|----|----------------|----------------|---------|----|-------|-----|
|         | Part   | M, Torque         |                           |                 |                 | Ø     |                |                |                |                |          |    |                | Ø              | Ø       |    |       |     |
| Size    | Number | Rating            | D <sub>2</sub>            | D <sub>24</sub> | D <sub>25</sub> | G     | G <sub>1</sub> | H <sub>2</sub> | H <sub>6</sub> | H <sub>7</sub> | L (Bolt) |    | O <sub>3</sub> | O <sub>4</sub> | Q (Deg) | V  | W     |     |
|         |        |                   |                           |                 |                 |       |                |                |                |                | No. Size |    |                |                |         | No | Width |     |
| 3CB150  | 142252 | 40,7              | 55                        | 30              | 2               | 160,0 | 123            | 146,0          | 80             | 146            | 8        | 6  | 7              | 1/8-27         | 22,500  | 9  | 6     | 38  |
| 4CB200  | 142840 | 113               | 67                        | 35              | 2               | 184,1 | 148            | 169,9          | 105            | 170            | 8        | 6  | 5              | 1/8-27         | 22,500  | 10 | 6     | 51  |
| 5CB200  | 142253 | 165               | 72                        | 38              | 2               | 224,0 | 183            | 205,0          | 131            | 205            | 8        | 8  | 7              | 1/8-27         | 22,500  | 12 | 6     | 51  |
| 6CB200  | 142095 | 231               | 75                        | 40              | 2               | 273,1 | 230            | 254,0          | 156            | 254            | 8        | 10 | 8              | 3/8-18         | 22,500  | 14 | 6     | 51  |
| 8CB250  | 142096 | 485               | 87                        | 48              | 2               | 327,0 | 284            | 308,0          | 207            | 308            | 8        | 10 | 8              | 3/8-18         | 22,500  | 14 | 8     | 64  |
| 10CB300 | 142197 | 921               | 105                       | 51              | 5               | 390,5 | 346            | 371,5          | 257            | 371            | 12       | 10 | 8              | 3/8-18         | 15,000  | 17 | 10    | 76  |
| 12CB350 | 142098 | 1500              | 120                       | 51              | 5               | 447,7 | 403            | 428,6          | 308            | 429            | 14       | 10 | 8              | 3/8-18         | 12,857  | 17 | 12    | 89  |
| 14CB400 | 142087 | 2230              | 133                       | 51              | 5               | 498,5 | 454            | 479,4          | 359            | 479            | 16       | 10 | 8              | 3/8-18         | 11,250  | 17 | 14    | 102 |
| SI      |        | N · m<br>@ 5,2bar | Dimensions in millimeters |                 |                 |       |                |                |                |                |          |    |                |                |         |    |       |     |

SI **N · m**  
@ 5,2bar **Dimensions in millimeters**

# Airflex® Single CB Elements

## Form CB-402 Technical Data — Sizes 12 to 45

### Section B

| English |             | lb · in<br>@75psi  | rpm           | psi/rpm <sup>2</sup>      | lb · ft <sup>2</sup> | lb             | in <sup>2</sup> | inches                    |      | in <sup>3</sup> | inches                |
|---------|-------------|--------------------|---------------|---------------------------|----------------------|----------------|-----------------|---------------------------|------|-----------------|-----------------------|
| 12CB350 | 142098      | 13000              | 1800          | 12 E-06                   | 12                   | 30             | 128             | 0.20                      | 0.06 | 80              | 11.90                 |
| 14CB400 | 142087      | 19700              | 1800          | 15 E-06                   | 21                   | 35             | 170             | 0.20                      | 0.06 | 70              | 13.90                 |
| 16CB500 | 142211      | 35200              | 1550          | 20 E-06                   | 52                   | 74             | 241             | 0.26                      | 0.06 | 140             | 15.87                 |
| 18CB500 | 142264      | 44000              | 1400          | 23 E-06                   | 70                   | 81             | 262             | 0.26                      | 0.06 | 160             | 17.87                 |
| 20CB500 | 142265      | 53600              | 1300          | 25 E-06                   | 90                   | 88             | 288             | 0.26                      | 0.06 | 170             | 19.87                 |
| 22CB500 | 142266      | 62300              | 1250          | 28 E-06                   | 114                  | 95             | 312             | 0.26                      | 0.06 | 190             | 21.87                 |
| 24CB500 | 142267      | 75000              | 1200          | 30 E-06                   | 142                  | 102            | 338             | 0.26                      | 0.06 | 200             | 23.87                 |
| 26CB525 | 142268      | 92400              | 1100          | 34 E-06                   | 210                  | 133            | 404             | 0.33                      | 0.06 | 260             | 25.81                 |
| 28CB525 | 142269      | 106000             | 1000          | 37 E-06                   | 252                  | 140            | 430             | 0.33                      | 0.06 | 280             | 27.81                 |
| 30CB525 | 142270      | 121000             | 950           | 40 E-06                   | 303                  | 148            | 458             | 0.33                      | 0.06 | 290             | 29.81                 |
| 32CB525 | 142271      | 137000             | 900           | 43 E-06                   | 359                  | 157            | 483             | 0.33                      | 0.06 | 310             | 31.81                 |
| 36CB525 | 142272      | 172000             | 800           | 48 E-06                   | 510                  | 178            | 550             | 0.33                      | 0.06 | 350             | 35.81                 |
| 40CB525 | 142273      | 211000             | 750           | 52 E-06                   | 730                  | 201            | 610             | 0.33                      | 0.06 | 380             | 39.81                 |
| 45CB525 | 142081      | 260000             | 670           | 64 E-06                   | 1115                 | 262            | 675             | 0.33                      | 0.06 | 430             | 44.75                 |
| Size    | Part Number | Max. Torque Rating | Maximum Speed | Centrifugal Loss Constant | Wk <sup>2</sup><br>J | Weight<br>Mass | Friction Area   | Friction Lining Thickness |      | Air Tube Cavity | Minimum Drum Diameter |
|         |             |                    |               |                           |                      |                |                 | New                       | Worn |                 |                       |
| 12CB350 | 142098      | 1470               | 1800          | 0,83 E-06                 | 0,50                 | 14             | 826             | 5                         | 2    | 1,31            | 302                   |
| 14CB400 | 142087      | 2230               | 1800          | 1,04 E-06                 | 0,88                 | 16             | 1097            | 5                         | 2    | 1,15            | 353                   |
| 16CB500 | 142211      | 3980               | 1550          | 1,38 E-06                 | 2,18                 | 34             | 1554            | 7                         | 2    | 2,30            | 403                   |
| 18CB500 | 142264      | 4970               | 1400          | 1,59 E-06                 | 2,94                 | 37             | 1690            | 7                         | 2    | 2,62            | 454                   |
| 20CB500 | 142265      | 6060               | 1300          | 1,73 E-06                 | 3,78                 | 40             | 1858            | 7                         | 2    | 2,79            | 505                   |
| 22CB500 | 142266      | 7040               | 1250          | 1,93 E-06                 | 4,79                 | 43             | 2012            | 7                         | 2    | 3,12            | 555                   |
| 24CB500 | 142267      | 8480               | 1200          | 2,07 E-06                 | 5,96                 | 46             | 2180            | 7                         | 2    | 3,28            | 606                   |
| 26CB525 | 142268      | 10400              | 1100          | 2,35 E-06                 | 8,82                 | 60             | 2606            | 8                         | 2    | 4,26            | 656                   |
| 28CB525 | 142269      | 12000              | 1000          | 2,55 E-06                 | 10,58                | 63             | 2774            | 8                         | 2    | 4,59            | 706                   |
| 30CB525 | 142270      | 13700              | 950           | 2,76 E-06                 | 12,73                | 67             | 2954            | 8                         | 2    | 4,76            | 757                   |
| 32CB525 | 142271      | 15500              | 900           | 2,97 E-06                 | 15,08                | 71             | 3115            | 8                         | 2    | 5,08            | 808                   |
| 36CB525 | 142272      | 19400              | 800           | 3,31 E-06                 | 21,42                | 81             | 3548            | 8                         | 2    | 5,74            | 910                   |
| 40CB525 | 142273      | 23800              | 750           | 3,59 E-06                 | 30,66                | 91             | 3935            | 8                         | 2    | 6,23            | 1011                  |
| 45CB525 | 142081      | 29400              | 670           | 4,42 E-06                 | 46,83                | 119            | 4354            | 8                         | 2    | 7,05            | 1137                  |
| SI      |             | N · m<br>@ 5,2bar  | rpm           | bar/rpm <sup>2</sup>      | kg · m <sup>2</sup>  | kg             | cm <sup>2</sup> | millimeters               |      | dm <sup>3</sup> | millimeters           |

#### Notes:

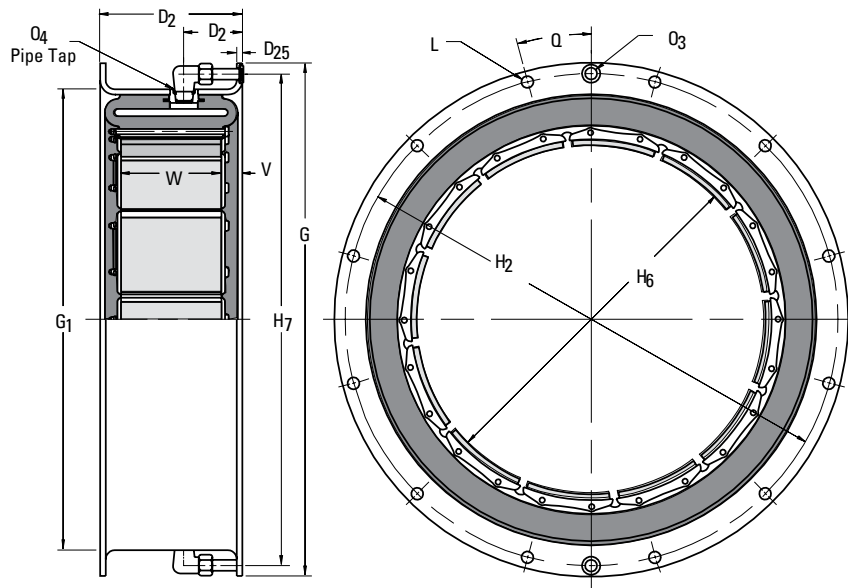
- ① Refers to basic part number only. When ordering, the number of air inlets and type of connection must be specified.
- ② Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ③ Tolerance for sizes:  
12 thru 24, 28 and 32  
+0.000/-0.005 in (+0,00/-0,13 mm)  
26 and 30  
+0.000/-0.008 in (+0,00/-0,20 mm)  
36 thru 45  
+0.000/-0.010 in (+0,00/-0,25 mm)

- ④ American National Pipe Thread.  
Sizes 12 and 14 available with one or two air inlets. All other sizes available with one, two or four air inlets.
- ⑤ 10.00 degrees for elements with one air inlet, 5.00 degrees for elements with two or four air inlets.
- ⑥ Maximum rpm is dependent upon operating conditions and varies for each application. Consult factory for applications exceeding these speeds.
- ⑦ Drum contact with worn shoes.

# Airflex® Single CB Elements

## Form CB-402 Dimensional Data — Sizes 12 to 45

### Section B



| English |        | lb · in<br>@75psi | Dimensions in inches |      |      |        |       |        |       |       |    |       |      |        |        |      |    |      |
|---------|--------|-------------------|----------------------|------|------|--------|-------|--------|-------|-------|----|-------|------|--------|--------|------|----|------|
| 12CB350 | 142098 | 13300             | 4.88                 | 2.00 | 0.19 | 17.625 | 15.88 | 16.875 | 12.13 | 16.88 | 14 | 0.375 | 0.31 | 3/8-18 | 12.857 | 0.69 | 12 | 3.50 |
| 14CB400 | 142087 | 19700             | 5.38                 | 2.00 | 0.19 | 19.625 | 17.88 | 18.875 | 14.13 | 18.88 | 16 | 0.375 | 0.31 | 3/8-18 | 11.250 | 0.69 | 14 | 4.00 |
| 16CB500 | 142211 | 35200             | 6.63                 | 2.50 | 0.19 | 23.500 | 20.75 | 22.500 | 16.19 | 22.25 | 8  | 0.500 | 0.38 | 3/8-18 | 22.500 | 0.81 | 10 | 5.00 |
| 18CB500 | 142264 | 44000             | 6.63                 | 2.50 | 0.19 | 25.500 | 22.75 | 24.375 | 18.19 | 24.38 | 12 | 0.500 | 0.38 | 3/8-18 | 15.000 | 0.81 | 11 | 5.00 |
| 20CB500 | 142265 | 53600             | 6.63                 | 2.50 | 0.19 | 27.500 | 24.75 | 26.375 | 20.19 | 26.38 | 12 | 0.500 | 0.38 | 3/8-18 | 15.000 | 0.81 | 12 | 5.00 |
| 22CB500 | 142266 | 62300             | 6.63                 | 2.50 | 0.19 | 29.500 | 26.75 | 28.375 | 22.19 | 28.38 | 12 | 0.500 | 0.38 | 3/8-18 | 15.000 | 0.81 | 13 | 5.00 |
| 24CB500 | 142267 | 75000             | 6.63                 | 2.50 | 0.19 | 31.500 | 28.75 | 30.375 | 24.19 | 30.38 | 16 | 0.500 | 0.38 | 3/8-18 | 11.250 | 0.81 | 14 | 5.00 |
| 26CB525 | 142268 | 92400             | 6.94                 | 2.50 | 0.25 | 34.000 | 31.00 | 32.750 | 26.19 | 32.50 | 16 | 0.625 | 0.50 | 1/2-14 | 11.250 | 0.84 | 16 | 5.25 |
| 28CB525 | 142269 | 106000            | 6.94                 | 2.50 | 0.25 | 36.000 | 33.00 | 34.750 | 28.19 | 34.50 | 16 | 0.625 | 0.50 | 1/2-14 | 11.250 | 0.84 | 17 | 5.25 |
| 30CB525 | 142270 | 121000            | 6.94                 | 2.50 | 0.25 | 38.000 | 35.00 | 36.750 | 30.19 | 36.50 | 16 | 0.625 | 0.50 | 1/2-14 | 11.250 | 0.84 | 18 | 5.25 |
| 32CB525 | 142271 | 137000            | 6.94                 | 2.50 | 0.25 | 40.000 | 37.00 | 38.750 | 32.19 | 38.50 | 18 | 0.625 | 0.50 | 1/2-14 | 9.000  | 0.84 | 19 | 5.25 |
| 36CB525 | 142272 | 172000            | 6.94                 | 2.75 | 0.28 | 44.625 | 41.56 | 43.125 | 36.19 | 43.25 | 18 | 0.750 | 0.63 | 3/4-14 | 9.000  | 0.84 | 22 | 5.25 |
| 40CB525 | 142273 | 211000            | 6.94                 | 2.75 | 0.28 | 48.625 | 45.56 | 47.125 | 40.19 | 47.25 | 20 | 0.750 | 0.63 | 3/4-14 | 9.000  | 0.84 | 24 | 5.25 |
| 45CB525 | 142081 | 260000            | 6.94                 | 2.75 | 0.28 | 53.625 | 50.69 | 52.125 | 45.19 | 52.25 | 24 | 0.750 | 0.63 | 3/4-14 | 7.500  | 0.84 | 27 | 5.25 |

| Size    | Part Number | M <sub>T</sub><br>Torque Rating | D <sub>2</sub> | D <sub>24</sub> | D <sub>25</sub> | G      | G <sub>1</sub> | H <sub>2</sub> | H <sub>6</sub> | H <sub>7</sub> | L (Bolt) |    | O <sub>3</sub> | O <sub>4</sub> | Q (Deg) | V  | W  |     |       |
|---------|-------------|---------------------------------|----------------|-----------------|-----------------|--------|----------------|----------------|----------------|----------------|----------|----|----------------|----------------|---------|----|----|-----|-------|
|         |             |                                 |                |                 |                 |        |                |                |                |                | No. Size |    |                |                |         |    |    | No  | Width |
| 12CB350 | 142098      | 1500                            | 124            | 51              | 5               | 447,7  | 403            | 428,6          | 308            | 429            | 14       | 10 | 8              | 3/8-18         | 12,857  | 17 | 12 | 89  |       |
| 14CB400 | 142087      | 2230                            | 137            | 51              | 5               | 498,5  | 454            | 479,4          | 359            | 479            | 16       | 10 | 8              | 3/8-18         | 11,250  | 17 | 14 | 102 |       |
| 16CB500 | 142211      | 3980                            | 168            | 64              | 5               | 596,9  | 527            | 571,5          | 411            | 565            | 8        | 13 | 10             | 3/8-18         | 22,500  | 21 | 10 | 127 |       |
| 18CB500 | 142264      | 4970                            | 168            | 64              | 5               | 647,7  | 578            | 619,1          | 462            | 619            | 12       | 13 | 10             | 3/8-18         | 15,000  | 21 | 11 | 127 |       |
| 20CB500 | 142265      | 6060                            | 168            | 64              | 5               | 698,5  | 629            | 669,9          | 513            | 670            | 12       | 13 | 10             | 3/8-18         | 15,000  | 21 | 12 | 127 |       |
| 22CB500 | 142266      | 7040                            | 168            | 64              | 5               | 749,3  | 679            | 720,7          | 564            | 721            | 12       | 13 | 10             | 3/8-18         | 15,000  | 21 | 13 | 127 |       |
| 24CB500 | 142267      | 8480                            | 168            | 64              | 5               | 800,1  | 730            | 771,5          | 614            | 772            | 16       | 13 | 10             | 3/8-18         | 11,250  | 21 | 14 | 127 |       |
| 26CB525 | 142268      | 10400                           | 176            | 64              | 6               | 863,6  | 787            | 831,9          | 665            | 826            | 16       | 16 | 13             | 1/2-14         | 11,250  | 21 | 16 | 133 |       |
| 28CB525 | 142269      | 12000                           | 176            | 64              | 6               | 914,4  | 838            | 882,7          | 716            | 876            | 16       | 16 | 13             | 1/2-14         | 11,250  | 21 | 17 | 133 |       |
| 30CB525 | 142270      | 13700                           | 176            | 64              | 6               | 965,2  | 889            | 933,5          | 767            | 927            | 16       | 16 | 13             | 1/2-14         | 11,250  | 21 | 18 | 133 |       |
| 32CB525 | 142271      | 15500                           | 176            | 64              | 6               | 1016,0 | 940            | 984,3          | 818            | 978            | 18       | 16 | 13             | 1/2-14         | 9       | 21 | 19 | 133 |       |
| 36CB525 | 142272      | 19400                           | 176            | 70              | 7               | 1133,5 | 1056           | 1095,4         | 919            | 1099           | 18       | 19 | 16             | 3/4-14         | 9       | 21 | 22 | 133 |       |
| 40CB525 | 142273      | 23800                           | 176            | 70              | 7               | 1235,1 | 1157           | 1197,0         | 1021           | 1200           | 20       | 19 | 16             | 3/4-14         | 9,000   | 21 | 24 | 133 |       |
| 45CB525 | 142081      | 29400                           | 176            | 70              | 7               | 1362,1 | 1287           | 1324,0         | 1148           | 1327           | 24       | 19 | 16             | 3/4-14         | 7,500   | 21 | 27 | 133 |       |

SI N · m  
@ 5,2bar Dimensions in millimeters

# Airflex® Dual CB Elements

## Form CB-403 Technical Data — Sizes 12 to 45

### Section B

| English |             | lb · in<br>@75psi  | rpm           | psi/rpm <sup>2</sup>      | lb · ft <sup>2</sup> | lb             | in <sup>2</sup> | inches                    |      | in <sup>3</sup> | inches                |
|---------|-------------|--------------------|---------------|---------------------------|----------------------|----------------|-----------------|---------------------------|------|-----------------|-----------------------|
| 12CB350 | 142731      | 26600              | 1800          | 12 E-06                   | 25                   | 62             | 256             | 0.20                      | 0.06 | 160             | 11.90                 |
| 14CB400 | 142604      | 39400              | 1800          | 15 E-06                   | 42                   | 75             | 340             | 0.20                      | 0.06 | 140             | 13.90                 |
| 16CB500 | 142432      | 70400              | 1550          | 20 E-06                   | 106                  | 151            | 482             | 0.26                      | 0.06 | 280             | 15.87                 |
| 18CB500 | 142433      | 88000              | 1400          | 23 E-06                   | 144                  | 166            | 524             | 0.26                      | 0.06 | 320             | 17.87                 |
| 20CB500 | 142434      | 107200             | 1300          | 25 E-06                   | 185                  | 180            | 576             | 0.26                      | 0.06 | 340             | 19.87                 |
| 22CB500 | 142435      | 124600             | 1250          | 28 E-06                   | 233                  | 194            | 624             | 0.26                      | 0.06 | 380             | 21.87                 |
| 24CB500 | 142436      | 150000             | 1200          | 30 E-06                   | 292                  | 209            | 676             | 0.26                      | 0.06 | 400             | 23.87                 |
| 26CB525 | 142437      | 184800             | 1050          | 34 E-06                   | 432                  | 272            | 808             | 0.33                      | 0.06 | 520             | 25.81                 |
| 28CB525 | 142438      | 212000             | 1000          | 37 E-06                   | 517                  | 286            | 860             | 0.33                      | 0.06 | 560             | 27.81                 |
| 30CB525 | 142439      | 242000             | 950           | 40 E-06                   | 621                  | 302            | 916             | 0.33                      | 0.06 | 580             | 29.81                 |
| 32CB525 | 142440      | 274000             | 900           | 43 E-06                   | 736                  | 321            | 966             | 0.33                      | 0.06 | 620             | 31.81                 |
| 36CB525 | 142441      | 344000             | 800           | 48 E-06                   | 1052                 | 366            | 1100            | 0.33                      | 0.06 | 700             | 35.81                 |
| 40CB525 | 142442      | 422000             | 750           | 52 E-06                   | 1502                 | 413            | 1220            | 0.33                      | 0.06 | 760             | 39.81                 |
| 45CB525 | 142443      | 520000             | 670           | 64 E-06                   | 2293                 | 537            | 1350            | 0.33                      | 0.06 | 860             | 44.75                 |
| Size    | Part Number | Max. Torque Rating | Maximum Speed | Centrifugal Loss Constant | Wk <sup>2</sup><br>J | Weight<br>Mass | Friction Area   | Friction Lining Thickness |      | Air Tube Cavity | Minimum Drum Diameter |
|         |             |                    |               |                           |                      |                |                 | New                       | Worn |                 |                       |
| 12CB350 | 142731      | 3010               | 1800          | 0,83 E-06                 | 1,05                 | 28             | 1651            | 5                         | 2    | 2,62            | 302                   |
| 14CB400 | 142604      | 4450               | 1800          | 1,04 E-06                 | 1,76                 | 34             | 2193            | 5                         | 2    | 2,30            | 353                   |
| 16CB500 | 142432      | 7960               | 1550          | 1,38 E-06                 | 4,45                 | 68             | 3109            | 7                         | 2    | 4,59            | 403                   |
| 18CB500 | 142433      | 9940               | 1400          | 1,59 E-06                 | 6,05                 | 75             | 3380            | 7                         | 2    | 5,25            | 454                   |
| 20CB500 | 142434      | 12100              | 1300          | 1,73 E-06                 | 7,77                 | 82             | 3715            | 7                         | 2    | 5,58            | 505                   |
| 22CB500 | 142435      | 14100              | 1250          | 1,93 E-06                 | 9,79                 | 88             | 4025            | 7                         | 2    | 6,23            | 555                   |
| 24CB500 | 142436      | 17000              | 1200          | 2,07 E-06                 | 12,26                | 95             | 4360            | 7                         | 2    | 6,56            | 606                   |
| 26CB525 | 142437      | 20900              | 1050          | 2,35 E-06                 | 18,14                | 123            | 5212            | 8                         | 2    | 8,53            | 656                   |
| 28CB525 | 142438      | 24000              | 1000          | 2,55 E-06                 | 21,71                | 130            | 5547            | 8                         | 2    | 9,18            | 706                   |
| 30CB525 | 142439      | 27300              | 950           | 2,76 E-06                 | 26,08                | 137            | 5908            | 8                         | 2    | 9,51            | 757                   |
| 32CB525 | 142440      | 31000              | 900           | 2,97 E-06                 | 30,91                | 145            | 6231            | 8                         | 2    | 10,2            | 808                   |
| 36CB525 | 142441      | 38900              | 800           | 3,31 E-06                 | 44,18                | 166            | 7095            | 8                         | 2    | 11,5            | 910                   |
| 40CB525 | 142442      | 47700              | 750           | 3,59 E-06                 | 63,08                | 187            | 7869            | 8                         | 2    | 12,5            | 1011                  |
| 45CB525 | 142443      | 58800              | 670           | 4,42 E-06                 | 96,31                | 243            | 8708            | 8                         | 2    | 14,1            | 1137                  |
| SI      |             | N · m<br>@ 5,2bar  | rpm           | bar/rpm <sup>2</sup>      | kg · m <sup>2</sup>  | kg             | cm <sup>2</sup> | millimeters               |      | dm <sup>3</sup> | millimeters           |

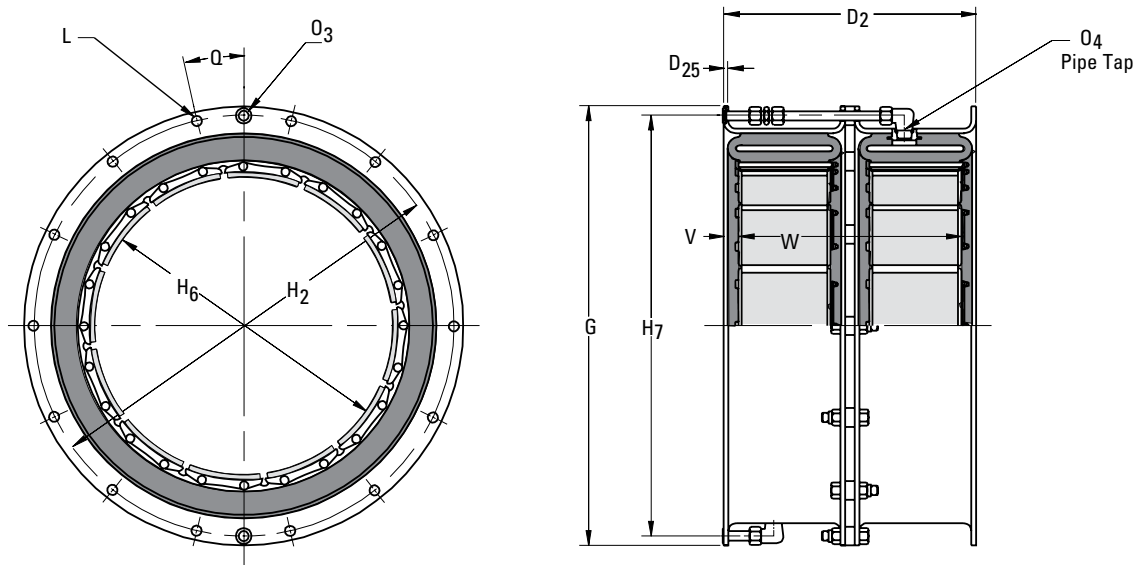
#### Notes:

- Refers to basic part number only. When ordering, the number of air inlets and type of connection must be specified.
- Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- Tolerance for sizes:  
12 thru 24, 28 and 32  
+0.000/-0.005 in (+0,00/-0,13 mm)  
26 and 30  
+0.000/-0.008 in (+0,00/-0,20 mm)  
36 thru 45  
+0.000/-0.010 in (+0,00/-0,25 mm)
- American National Pipe Thread  
Sizes 12 and 14 available with two air inlets. All other sizes available with two or four air inlets.
- 10.00 degrees for elements with one air inlet. 5.00 degrees for elements with two or four air inlets.
- Maximum rpm is dependent upon operating conditions and varies for each application. Consult factory for applications exceeding these speeds.
- Drum contact with worn shoes.

# Airflex® Dual CB Elements

## Form CB-403 Dimensional Data — Sizes 12 to 45

### Section B



| English |        | lb · in<br>@75psi | Dimensions in inches |      |        |        |       |       |    |       |      |        |        |      |    |       |
|---------|--------|-------------------|----------------------|------|--------|--------|-------|-------|----|-------|------|--------|--------|------|----|-------|
| 12CB350 | 142731 | 26600             | 10.13                | 0.19 | 17.625 | 16.875 | 12.13 | 16.88 | 14 | 0.375 | 0.31 | 3/8-18 | 12.857 | 0.69 | 24 | 8.75  |
| 14CB400 | 142604 | 39400             | 11.13                | 0.19 | 19.625 | 18.875 | 14.13 | 18.88 | 16 | 0.375 | 0.31 | 3/8-18 | 11.250 | 0.69 | 28 | 9.75  |
| 16CB500 | 142432 | 70400             | 13.63                | 0.19 | 23.500 | 22.500 | 16.19 | 22.25 | 8  | 0.500 | 0.38 | 3/8-18 | 22.500 | 0.81 | 20 | 12.00 |
| 18CB500 | 142433 | 88000             | 13.63                | 0.19 | 25.500 | 24.375 | 18.19 | 24.38 | 12 | 0.500 | 0.38 | 3/8-18 | 15.000 | 0.81 | 22 | 12.00 |
| 20CB500 | 142434 | 107200            | 13.63                | 0.19 | 27.500 | 26.375 | 20.19 | 26.38 | 12 | 0.500 | 0.38 | 3/8-18 | 15.000 | 0.81 | 24 | 12.00 |
| 22CB500 | 142435 | 124600            | 13.63                | 0.19 | 29.500 | 28.375 | 22.19 | 28.38 | 12 | 0.500 | 0.38 | 3/8-18 | 15.000 | 0.81 | 26 | 12.00 |
| 24CB500 | 142436 | 150000            | 13.63                | 0.19 | 31.500 | 30.375 | 24.19 | 30.38 | 16 | 0.500 | 0.38 | 3/8-18 | 11.250 | 0.81 | 28 | 12.00 |
| 26CB525 | 142437 | 184800            | 14.25                | 0.25 | 34.000 | 32.750 | 26.19 | 32.50 | 16 | 0.625 | 0.50 | 1/2-14 | 11.250 | 0.84 | 32 | 12.56 |
| 28CB525 | 142438 | 212000            | 14.44                | 0.25 | 36.000 | 34.750 | 28.19 | 34.50 | 16 | 0.625 | 0.50 | 1/2-14 | 11.250 | 0.84 | 34 | 12.69 |
| 30CB525 | 142439 | 242000            | 14.44                | 0.25 | 38.000 | 36.750 | 30.19 | 36.50 | 16 | 0.625 | 0.50 | 1/2-14 | 11.250 | 0.84 | 36 | 12.69 |
| 32CB525 | 142440 | 274000            | 14.44                | 0.25 | 40.000 | 38.750 | 32.19 | 38.50 | 18 | 0.625 | 0.50 | 1/2-14 | 9      | 0.84 | 38 | 12.69 |
| 36CB525 | 142441 | 344000            | 14.44                | 0.25 | 44.625 | 43.125 | 36.19 | 43.25 | 18 | 0.750 | 0.63 | 3/4-14 | 9      | 0.84 | 44 | 12.69 |
| 40CB525 | 142442 | 422000            | 14.44                | 0.25 | 48.625 | 47.125 | 40.19 | 47.25 | 20 | 0.750 | 0.63 | 3/4-14 | 9.000  | 0.84 | 48 | 12.69 |
| 45CB525 | 142443 | 520000            | 14.44                | 0.28 | 53.625 | 52.125 | 45.19 | 52.25 | 24 | 0.750 | 0.63 | 3/4-14 | 7.500  | 0.84 | 54 | 12.69 |

| Size    | Part Number | M <sup>r</sup><br>Torque Rating | D <sub>2</sub> | D <sub>25</sub> | Ø G    | H <sub>2</sub> | H <sub>6</sub> | H <sub>7</sub> | L (Bolt) |          | O <sub>3</sub> | Ø O <sub>4</sub> | Q (Deg) | V  | W      |
|---------|-------------|---------------------------------|----------------|-----------------|--------|----------------|----------------|----------------|----------|----------|----------------|------------------|---------|----|--------|
|         |             |                                 |                |                 |        |                |                |                |          | No. Size |                |                  |         |    |        |
| 12CB350 | 142731      | 3010                            | 257            | 5               | 447,7  | 428,6          | 308            | 429            | 14       | 10       | 8              | 3/8-18           | 12,857  | 17 | 24 222 |
| 14CB400 | 142604      | 4450                            | 283            | 5               | 498,5  | 479,4          | 359            | 479            | 16       | 10       | 8              | 3/8-18           | 11,250  | 17 | 28 248 |
| 16CB500 | 142432      | 7960                            | 346            | 5               | 596,9  | 571,5          | 411            | 565            | 8        | 13       | 10             | 3/8-18           | 22,500  | 21 | 20 305 |
| 18CB500 | 142433      | 9940                            | 346            | 5               | 647,7  | 619,1          | 462            | 619            | 12       | 13       | 10             | 3/8-18           | 15,000  | 21 | 22 305 |
| 20CB500 | 142434      | 12100                           | 346            | 5               | 698,5  | 669,9          | 513            | 670            | 12       | 13       | 10             | 3/8-18           | 15,000  | 21 | 24 305 |
| 22CB500 | 142435      | 14100                           | 346            | 5               | 749,3  | 720,7          | 564            | 721            | 12       | 13       | 10             | 3/8-18           | 15,000  | 21 | 26 305 |
| 24CB500 | 142436      | 17000                           | 346            | 5               | 800,1  | 771,5          | 614            | 772            | 16       | 13       | 10             | 3/8-18           | 11,300  | 21 | 28 305 |
| 26CB525 | 142437      | 20900                           | 362            | 6               | 863,6  | 831,9          | 665            | 826            | 16       | 16       | 13             | 1/2-14           | 11,300  | 21 | 32 319 |
| 28CB525 | 142438      | 24000                           | 367            | 6               | 914,4  | 882,7          | 716            | 876            | 16       | 16       | 13             | 1/2-14           | 11,300  | 21 | 34 322 |
| 30CB525 | 142439      | 27300                           | 367            | 6               | 965,2  | 933,5          | 767            | 927            | 16       | 16       | 13             | 1/2-14           | 11,300  | 21 | 36 322 |
| 32CB525 | 142440      | 31000                           | 367            | 6               | 1016,0 | 984,3          | 818            | 978            | 18       | 16       | 13             | 1/2-14           | 9       | 21 | 38 322 |
| 36CB525 | 142441      | 38900                           | 367            | 6               | 1133,5 | 1095,4         | 919            | 1099           | 18       | 19       | 16             | 3/4-14           | 9       | 21 | 44 322 |
| 40CB525 | 142442      | 47700                           | 367            | 6               | 1235,1 | 1197,0         | 1021           | 1200           | 20       | 19       | 16             | 3/4-14           | 9,000   | 21 | 48 322 |
| 45CB525 | 142443      | 58800                           | 367            | 7               | 1362,1 | 1324,0         | 1148           | 1327           | 24       | 19       | 16             | 3/4-14           | 7,500   | 21 | 54 322 |

SI **N · m  
@ 5,2bar** Dimensions in millimeters

# Airflex® CB Clutch Application

## Form CB-405 Close-Mounted Arrangement —

### Technical Data — Sizes 6 to 14

#### Section B

| Size    | Part Numbers<br>Element Assembly |            | Integral<br>Drum and Hub | Spider    |            |
|---------|----------------------------------|------------|--------------------------|-----------|------------|
|         | One inlet                        | Two inlets |                          | One inlet | Two inlets |
| 6CB200  | 142095JB                         | 142095JG   | 10108                    | 408367    | 408368     |
| 8CB250  | 142096JB                         | 142096JG   | 10109                    | 408369    | 408370     |
| 10CB300 | 142197JB                         | 142197JG   | 10110                    | 408371    | 408372     |
| 12CB350 | 142098JB                         | 142098JG   | 10111                    | 408373    | 408374     |
| 14CB400 | 142087JB                         | 142087JG   | 9617                     | 408375    | 408376     |

| English ③ | lb | lb · ft² | lb | lb · ft² | lb | lb · ft² |
|-----------|----|----------|----|----------|----|----------|
| 6CB200    | 7  | 1        | 10 | 0.3      | 15 | 1.2      |
| 8CB250    | 9  | 2        | 19 | 0.8      | 19 | 2.3      |
| 10CB300   | 19 | 6        | 33 | 2.5      | 40 | 5.3      |
| 12CB350   | 26 | 11       | 53 | 5.4      | 46 | 8.1      |
| 14CB400   | 31 | 17       | 65 | 8.5      | 50 | 11.2     |

| Size    | Weight  | Wk²     | Weight                | Wk²     | Weight | Wk²     |
|---------|---------|---------|-----------------------|---------|--------|---------|
|         | Element |         | Integral Drum and Hub |         | Spider |         |
|         | Mass    | J       | Mass                  | J       | Mass   | J       |
| 6CB200  | 3,2     | 0,04    | 4,5                   | 0,01    | 6,8    | 0,05    |
| 8CB250  | 4,1     | 0,08    | 8,6                   | 0,03    | 8,6    | 0,10    |
| 10CB300 | 8,6     | 0,25    | 15                    | 0,11    | 18     | 0,22    |
| 12CB350 | 12      | 0,46    | 24                    | 0,23    | 21     | 0,34    |
| 14CB400 | 14      | 0,71    | 29                    | 0,36    | 23     | 0,47    |
| SI ⑥    | kg      | kg · m² | kg                    | kg · m² | kg     | kg · m² |

#### Notes:

- ① Refers to basic part number only and does not include the rotor seal and hose. When ordering, the number of element connections must be specified.
- ② Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ③ Based upon minimum bores. Rotor seal and hose not included.

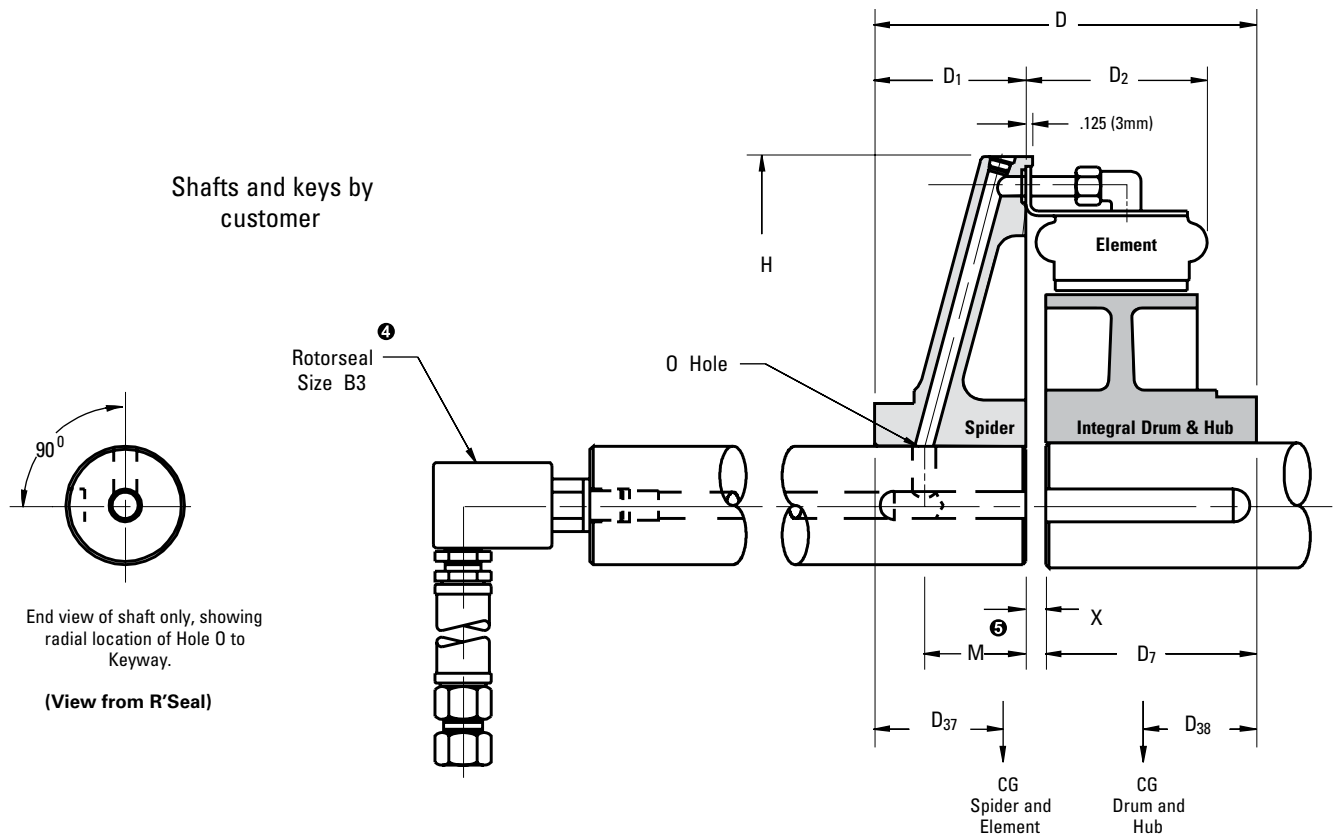
- ④ Refer to Rotor seal Section for mounting and dimension information.
- ⑤  $M = 0.268 (H/2 - \text{radius of bore}) + Y1$
- ⑥ Based upon minimum bores.

# Airflex® CB Clutch Application

## Form CB-405 Close-Mounted Arrangement —

### Dimensional Data — Sizes 6 to 14

#### Section B



| English |        | lb · in<br>@75psi | lb  | Dimensions in inches |      |      |      |      |      |      |      |       |      |      |      |
|---------|--------|-------------------|-----|----------------------|------|------|------|------|------|------|------|-------|------|------|------|
| 6CB200  | 104119 | 2040              | 32  | 1.00                 | 2.50 | 5.63 | 2.38 | 2.94 | 2.88 | 2.40 | 1.50 | 11.13 | 0.44 | 0.38 | 0.34 |
| 8CB250  | 104120 | 4290              | 47  | 1.00                 | 2.88 | 6.75 | 2.88 | 3.44 | 3.50 | 2.70 | 1.90 | 13.25 | 0.44 | 0.38 | 0.41 |
| 10CB300 | 104121 | 8150              | 92  | 1.25                 | 3.31 | 8.00 | 3.56 | 4.13 | 4.00 | 2.50 | 2.10 | 15.75 | 0.44 | 0.44 | 0.41 |
| 12CB350 | 104122 | 13300             | 125 | 1.50                 | 3.31 | 8.94 | 4.00 | 4.72 | 4.50 | 3.20 | 2.30 | 18.00 | 0.44 | 0.44 | 0.34 |
| 14CB400 | 104123 | 19700             | 146 | 2.00                 | 4.25 | 9.96 | 4.34 | 5.22 | 5.00 | 3.40 | 2.60 | 20.00 | 0.44 | 0.56 | 0.34 |

| Size    | Part Number | M <sub>t</sub><br>Torque Rating | Total Weight<br>Total Mass | Bore Range |      | D   | D <sub>1</sub> | D <sub>2</sub> | D <sub>7</sub> | D <sub>37</sub> | D <sub>38</sub> | H   | O  | X  | Y <sub>1</sub> |
|---------|-------------|---------------------------------|----------------------------|------------|------|-----|----------------|----------------|----------------|-----------------|-----------------|-----|----|----|----------------|
|         |             |                                 |                            | Min.       | Max. |     |                |                |                |                 |                 |     |    |    |                |
| 6CB200  | 104119      | 231                             | 14                         | 25         | 64   | 143 | 60             | 75             | 73             | 61              | 38              | 283 | 11 | 10 | 9              |
| 8CB250  | 104120      | 485                             | 21                         | 25         | 73   | 171 | 73             | 87             | 89             | 69              | 48              | 337 | 11 | 10 | 10             |
| 10CB300 | 104121      | 921                             | 42                         | 32         | 84   | 203 | 90             | 105            | 102            | 64              | 53              | 400 | 11 | 11 | 10             |
| 12CB350 | 104122      | 1500                            | 57                         | 38         | 84   | 227 | 102            | 120            | 114            | 81              | 58              | 457 | 11 | 11 | 9              |
| 14CB400 | 104123      | 2230                            | 66                         | 51         | 108  | 253 | 110            | 133            | 127            | 86              | 66              | 508 | 11 | 14 | 9              |

| SI |  | N · m<br>@ 5,2 bar | kg | Dimensions in millimeters |  |  |  |  |  |  |  |  |  |  |  |
|----|--|--------------------|----|---------------------------|--|--|--|--|--|--|--|--|--|--|--|
|----|--|--------------------|----|---------------------------|--|--|--|--|--|--|--|--|--|--|--|

# Airflex® CB Clutch Application

## Form CB-404 Gap-Mounted Arrangement

### Section B

| Size    | Part Numbers     |            |        |          |           |            |
|---------|------------------|------------|--------|----------|-----------|------------|
|         | Element Assembly |            | Drum   | Drum Hub | Spider    |            |
|         | One inlet        | Two inlets |        |          | One inlet | Two inlets |
| 6CB200  | 142095JB         | 142095JG   | 407044 | 408414   | 408367    | 408368     |
| 8CB250  | 142096JB         | 142096JG   | 407046 | 406900   | 408369    | 408370     |
| 10CB300 | 142197JB         | 142197JG   | 407048 | 406902   | 408371    | 408372     |
| 12CB350 | 142098JB         | 142098JG   | 407050 | 406902   | 408373    | 408374     |
| 14CB400 | 142087JB         | 142087JG   | 407052 | 406904   | 408375    | 408376     |

| English Ⓢ | lb      | lb · ft² | lb     | lb · ft² | lb       | lb · ft² | lb     | lb · ft² |
|-----------|---------|----------|--------|----------|----------|----------|--------|----------|
| 6CB200    | 7       | 1        | 5.5    | 0.3      | 8        | 0.1      | 15     | 1.2      |
| 8CB250    | 9       | 2        | 12.5   | 1.1      | 11       | 0.3      | 19     | 2.3      |
| 10CB300   | 19      | 6        | 19     | 2.7      | 22       | 0.8      | 40     | 5.3      |
| 12CB350   | 26      | 11       | 30     | 5.9      | 22       | 0.8      | 46     | 8.1      |
| 14CB400   | 31      | 17       | 38     | 10.5     | 54       | 3.2      | 50     | 11.2     |
| Size      | Weight  | Wk²      | Weight | Wk²      | Weight   | Wk²      | Weight | Wk²      |
|           | Element |          | Drum   |          | Drum Hub |          | Spider |          |
|           | Mass    | J        | Mass   | J        | Mass     | J        | Mass   | J        |
| 6CB200    | 3,2     | 0,04     | 2,5    | 0,01     | 3,6      | 0,00     | 6,8    | 0,05     |
| 8CB250    | 4,1     | 0,08     | 5,7    | 0,05     | 5,0      | 0,01     | 8,6    | 0,10     |
| 10CB300   | 8,6     | 0,25     | 8,6    | 0,11     | 10,0     | 0,03     | 18     | 0,22     |
| 12CB350   | 12      | 0,46     | 14     | 0,25     | 10,0     | 0,03     | 21     | 0,34     |
| 14CB400   | 14      | 0,71     | 17     | 0,44     | 24       | 0,13     | 23     | 0,47     |
| SI Ⓢ      | Kg      | kg · m²  | Kg     | kg · m²  | Kg       | kg · m²  | Kg     | kg · m²  |

#### Notes:

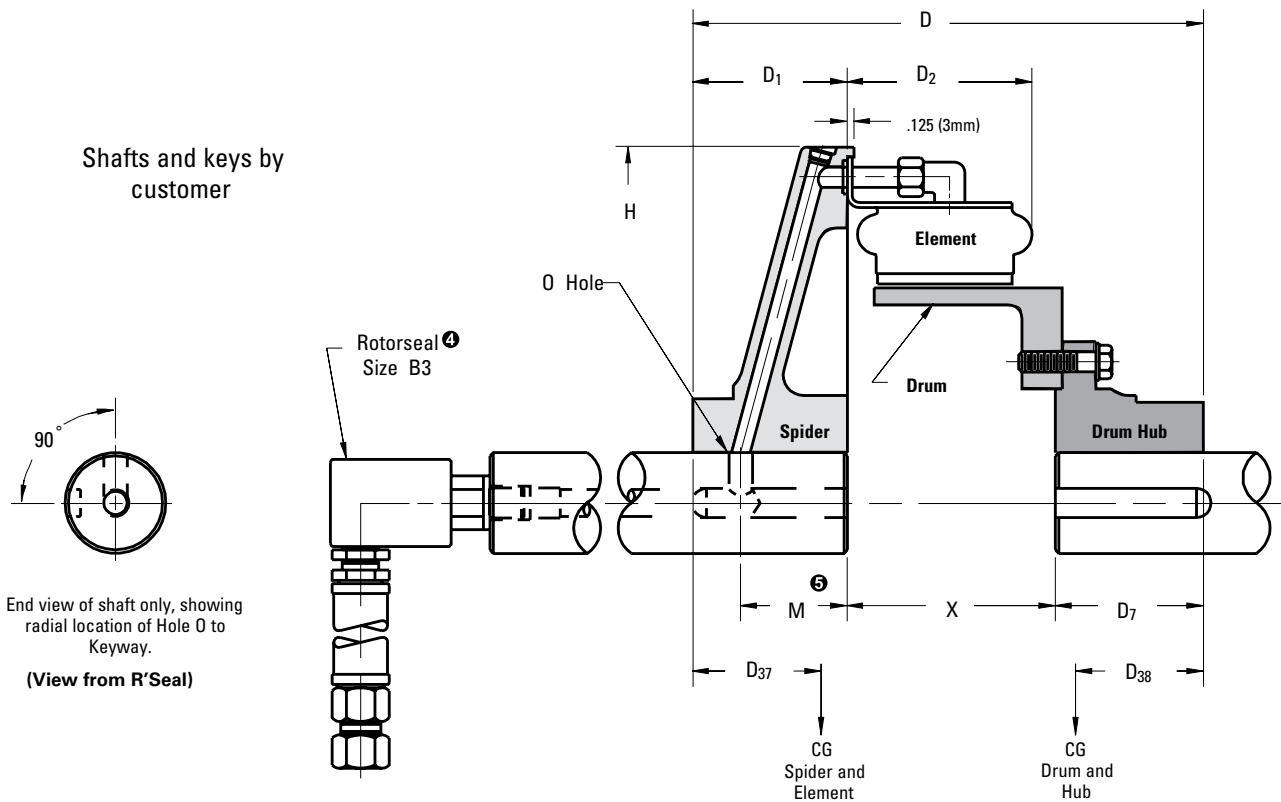
- ❶ Refers to basic part number only and does not include the rotorseal and hose. When ordering, the number of element connections must be specified.
- ❷ Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ❸ Based upon minimum bores. Rotorseal and hose not included.
- ❹ Refer to Rotorseal Section for mounting and dimension information.
- ❺  $M = 0.268 (H/2 - \text{radius of bore}) + Y1$
- ❻ Based upon minimum bores.

# Airflex® CB Clutch Application

## Form CB-404 Gap-Mounted Arrangement —

### Dimensional Data — Sizes 6 to 14

#### Section B



| English |        | lb · in<br>@75psi | ④<br>lb | Dimensions in inches |      |       |      |      |      |      |      |       |      |      |      |
|---------|--------|-------------------|---------|----------------------|------|-------|------|------|------|------|------|-------|------|------|------|
| 6CB200  | 104114 | 2040              | 35.5    | 1.00                 | 2.50 | 8.38  | 2.38 | 2.94 | 2.75 | 2.40 | 2.40 | 11.13 | 0.44 | 3.25 | 0.34 |
| 8CB250  | 104115 | 4290              | 51.5    | 1.00                 | 2.88 | 9.38  | 2.88 | 3.44 | 2.75 | 2.70 | 2.70 | 13.25 | 0.44 | 3.75 | 0.41 |
| 10CB300 | 104116 | 8150              | 100     | 1.25                 | 3.31 | 11.19 | 3.56 | 4.13 | 3.25 | 2.50 | 3.20 | 15.75 | 0.44 | 4.38 | 0.41 |
| 12CB350 | 104117 | 13300             | 124     | 1.50                 | 3.31 | 12.25 | 4.00 | 4.72 | 3.25 | 3.20 | 3.50 | 18.00 | 0.44 | 5.00 | 0.34 |
| 14CB400 | 104118 | 19700             | 173     | 2.00                 | 4.25 | 14.84 | 4.34 | 5.22 | 5.00 | 3.40 | 4.30 | 20.00 | 0.44 | 5.50 | 0.34 |

| Size    | ①<br>Part<br>Number | ②<br>M <sub>t</sub><br>Torque<br>Rating | Weight<br>Mass | Bore Range |      | D   | D <sub>1</sub> | D <sub>2</sub> | D <sub>7</sub> | D <sub>37</sub> | D <sub>38</sub> | H   | O  | X   | Y <sub>1</sub> |
|---------|---------------------|-----------------------------------------|----------------|------------|------|-----|----------------|----------------|----------------|-----------------|-----------------|-----|----|-----|----------------|
|         |                     |                                         |                | Min.       | Max. |     |                |                |                |                 |                 |     |    |     |                |
| 6CB200  | 104114              | 231                                     | 16             | 25         | 64   | 213 | 60             | 75             | 70             | 61              | 61              | 283 | 11 | 83  | 9              |
| 8CB250  | 104115              | 485                                     | 23             | 25         | 73   | 238 | 73             | 87             | 70             | 69              | 69              | 337 | 11 | 95  | 10             |
| 10CB300 | 104116              | 921                                     | 45             | 32         | 84   | 284 | 90             | 105            | 83             | 64              | 81              | 400 | 11 | 111 | 10             |
| 12CB350 | 104117              | 1500                                    | 56             | 38         | 84   | 311 | 102            | 120            | 83             | 81              | 89              | 457 | 11 | 127 | 9              |
| 14CB400 | 104118              | 2230                                    | 78             | 51         | 108  | 377 | 110            | 133            | 127            | 86              | 109             | 508 | 11 | 140 | 9              |

| SI |  | N · m<br>@ 5,2 bar | ④<br>kg | Dimensions in millimeters |  |  |  |  |  |  |  |  |  |  |  |
|----|--|--------------------|---------|---------------------------|--|--|--|--|--|--|--|--|--|--|--|
|----|--|--------------------|---------|---------------------------|--|--|--|--|--|--|--|--|--|--|--|

# Airflex® CB Clutch Application

## Form CB-406 Gap-Mounted Arrangement —

### Technical Data — Sizes 16 to 45

#### Section B

| Size    | Part Numbers     |             |        |          |        |
|---------|------------------|-------------|--------|----------|--------|
|         | Element Assembly |             | Drum   | Drum Hub | Spider |
|         | One inlet        | Four inlets |        |          |        |
| 16CB500 | 142211KM         | 142211KP    | 407053 | 406906   | 408276 |
| 18CB500 | 142264KM         | 142264KP    | 408285 | 406908   | 408277 |
| 20CB500 | 142265KM         | 142265KP    | 407055 | 406910   | 408278 |
| 22CB500 | 142266KM         | 142266KP    | 408287 | 406912   | 408279 |
| 24CB500 | 142267KM         | 142267KP    | 407057 | 406914   | 408280 |
| 26CB525 | 142268KM         | 142268KP    | 408289 | 406916   | 408281 |

| Size    | Part Numbers     |             |        |          |        |
|---------|------------------|-------------|--------|----------|--------|
|         | Element Assembly |             | Drum   | Drum Hub | Spider |
|         | One inlet        | Four inlets |        |          |        |
| 28CB525 | 142269KM         | 142269KP    | 407059 | 406918   | 408282 |
| 30CB525 | 142270KM         | 142270KP    | 408343 | 406920   | 407096 |
| 32CB525 | 142271KM         | 142271KP    | 407061 | 406922   | 407097 |
| 36CB525 | 142272KM         | 142272KP    | 407063 | 406924   | 407098 |
| 40CB525 | 142273KM         | 142273KP    | 407065 | 406926   | 407099 |
| 45CB525 | 142081KM         | 142081KP    | 407067 | 406928   | 502369 |

| English Ø | lb  | lb · ft² | lb  | lb · ft² | lb  | lb · ft² | lb   | lb · ft² |
|-----------|-----|----------|-----|----------|-----|----------|------|----------|
| 16CB500   | 74  | 52       | 50  | 19       | 74  | 6.6      | 146  | 53       |
| 18CB500   | 81  | 70       | 67  | 31       | 83  | 9        | 152  | 63       |
| 20CB500   | 88  | 90       | 72  | 43       | 97  | 16       | 183  | 91       |
| 22CB500   | 95  | 114      | 79  | 58       | 133 | 25       | 227  | 123      |
| 24CB500   | 102 | 142      | 93  | 80       | 142 | 33       | 257  | 150      |
| 26CB525   | 133 | 210      | 108 | 110      | 164 | 43       | 298  | 220      |
| 28CB525   | 140 | 252      | 117 | 140      | 172 | 55       | 337  | 270      |
| 30CB525   | 148 | 303      | 140 | 192      | 213 | 69       | 341  | 390      |
| 32CB525   | 157 | 359      | 160 | 252      | 234 | 97       | 392  | 453      |
| 36CB525   | 178 | 510      | 160 | 319      | 319 | 157      | 505  | 710      |
| 40CB525   | 201 | 730      | 209 | 523      | 344 | 214      | 464  | 774      |
| 45CB525   | 262 | 1115     | 237 | 758      | 491 | 379      | 1294 | 1887     |

| Size    | Weight           |         | Weight |         | Weight   |         | Weight |         |
|---------|------------------|---------|--------|---------|----------|---------|--------|---------|
|         | Element Assembly |         | Drum   |         | Drum Hub |         | Spider |         |
|         | Mass             | J       | Mass   | J       | Mass     | J       | Mass   | J       |
| 16CB500 | 34               | 2,18    | 23     | 0,80    | 34       | 0,28    | 66     | 2,23    |
| 18CB500 | 37               | 2,94    | 30     | 1,30    | 38       | 0,38    | 69     | 2,65    |
| 20CB500 | 40               | 3,78    | 33     | 1,81    | 44       | 0,67    | 83     | 3,82    |
| 22CB500 | 43               | 4,79    | 36     | 2,44    | 60       | 1,05    | 103    | 5,17    |
| 24CB500 | 46               | 5,96    | 42     | 3,36    | 64       | 1,39    | 116    | 6,30    |
| 26CB525 | 60               | 8,82    | 49     | 4,62    | 74       | 1,81    | 135    | 9,24    |
| 28CB525 | 63               | 10,58   | 53     | 5,88    | 78       | 2,31    | 153    | 11,34   |
| 30CB525 | 67               | 12,73   | 63     | 8,06    | 96       | 2,90    | 154    | 16,38   |
| 32CB525 | 71               | 15,08   | 72     | 10,58   | 106      | 4,07    | 178    | 19,03   |
| 36CB525 | 81               | 21,42   | 72     | 13,40   | 145      | 6,59    | 229    | 29,82   |
| 40CB525 | 91               | 30,66   | 95     | 21,97   | 156      | 8,99    | 210    | 32,51   |
| 45CB525 | 119              | 46,83   | 107    | 31,84   | 222      | 15,92   | 586    | 79,25   |
| SI Ø    | Kg               | kg · m² | Kg     | kg · m² | Kg       | kg · m² | Kg     | kg · m² |

#### Notes:

- Refers to basic part number only and does not include the rotorseal and hose. When ordering, the number and type of element connections must be specified.
- Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- Based upon minimum bores. Rotorseal and hose not included.

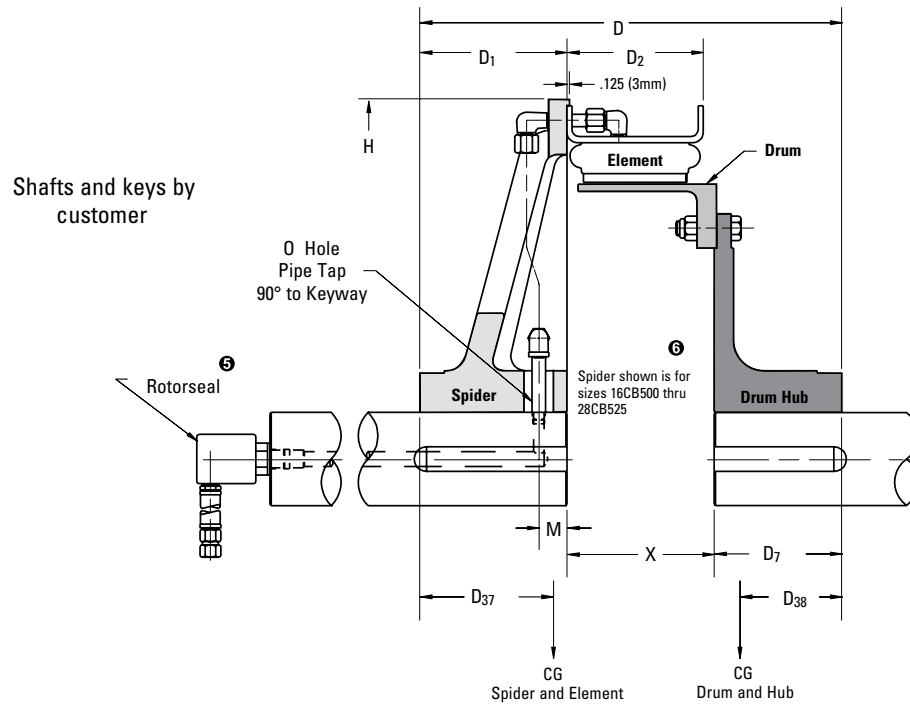
- American National Pipe Thread
- Refer to Rotorseal Section for mounting and dimension information.
- Refer to CB Spider Piping and Configuration catalog page for other sizes.
- Based upon minimum bores.

# Airflex® CB Clutch Application

## Form CB-406 Gap-Mounted Arrangement —

### Dimensional Data — Sizes 16 to 45

#### Section B



| English |        | lb · in<br>@75psi |        | lb <sup>⓪</sup> | Dimensions in inches |      |       |       |      |       |      |      |       |      |        |      |
|---------|--------|-------------------|--------|-----------------|----------------------|------|-------|-------|------|-------|------|------|-------|------|--------|------|
| 16CB500 | 104124 | 35200             | C2     | 344             | 2.00                 | 4.88 | 18.31 | 5.50  | 6.63 | 5.75  | 5.20 | 5.30 | 24.00 | 1.44 | 3/8-18 | 7.06 |
| 18CB500 | 104125 | 44000             | C2     | 383             | 2.25                 | 5.00 | 18.31 | 5.50  | 6.63 | 5.75  | 5.30 | 5.40 | 26.00 | 1.44 | 3/8-18 | 7.06 |
| 20CB500 | 104126 | 53600             | C2     | 440             | 2.50                 | 5.00 | 18.31 | 5.50  | 6.63 | 5.75  | 5.30 | 5.50 | 28.00 | 1.44 | 3/8-18 | 7.06 |
| 22CB500 | 104127 | 62300             | C2     | 534             | 2.75                 | 5.69 | 19.56 | 6.00  | 6.63 | 6.50  | 5.40 | 5.80 | 30.00 | 1.44 | 3/8-18 | 7.06 |
| 24CB500 | 104128 | 75000             | C2     | 594             | 2.75                 | 5.69 | 20.06 | 6.50  | 6.63 | 6.50  | 5.60 | 5.90 | 32.00 | 1.44 | 3/8-18 | 7.06 |
| 26CB525 | 104129 | 92400             | C2     | 703             | 2.75                 | 5.69 | 20.50 | 6.50  | 6.94 | 6.50  | 5.90 | 6.00 | 34.63 | 1.44 | 3/8-18 | 7.50 |
| 28CB525 | 104130 | 106000            | C2     | 766             | 2.75                 | 5.69 | 21.50 | 7.50  | 6.94 | 6.50  | 6.60 | 6.00 | 36.63 | 1.44 | 3/8-18 | 7.50 |
| 30CB525 | 104131 | 121000            | C2     | 842             | 3.00                 | 6.31 | 23.00 | 7.50  | 6.94 | 8.00  | 6.80 | 7.20 | 38.63 | 1.44 | 3/8-18 | 7.50 |
| 32CB525 | 104132 | 137000            | C2     | 943             | 3.00                 | 6.06 | 23.00 | 7.50  | 6.94 | 8.00  | 6.60 | 7.40 | 40.63 | 1.44 | 3/8-18 | 7.50 |
| 36CB525 | 104133 | 172000            | C2     | 1162            | 4.00                 | 7.00 | 25.00 | 8.50  | 6.94 | 9.00  | 7.10 | 7.70 | 45.25 | 1.44 | 1/2-14 | 7.50 |
| 40CB525 | 104134 | 211000            | 3/4 RH | 1218            | 4.00                 | 7.00 | 25.00 | 8.50  | 6.94 | 9.00  | 7.60 | 8.10 | 49.25 | 1.44 | 1/2-14 | 7.50 |
| 45CB525 | 104135 | 260000            | 3/4 RH | 2284            | 4.38                 | 9.88 | 28.50 | 11.00 | 6.94 | 10.00 | 8.80 | 8.30 | 54.25 | 6.00 | 1/2-14 | 7.50 |

| Size    | Part <sup>⓪</sup><br>Number | M <sup>⓪</sup><br>Torque<br>Rating | Rotorseal<br>Size | Weight<br>Mass | Bore Range                |      | D   | D <sub>1</sub> | D <sub>2</sub> | D <sub>7</sub> | D <sub>37</sub> | D <sub>38</sub> | H    | M   | ⓪<br>O | X   |
|---------|-----------------------------|------------------------------------|-------------------|----------------|---------------------------|------|-----|----------------|----------------|----------------|-----------------|-----------------|------|-----|--------|-----|
|         |                             |                                    |                   |                | Min.                      | Max. |     |                |                |                |                 |                 |      |     |        |     |
| 16CB500 | 104124                      | 3980                               | C2                | 156            | 51                        | 124  | 465 | 140            | 168            | 146            | 132             | 135             | 610  | 37  | 3/8-18 | 179 |
| 18CB500 | 104125                      | 4970                               | C2                | 173            | 57                        | 127  | 465 | 140            | 168            | 146            | 135             | 137             | 660  | 37  | 3/8-18 | 179 |
| 20CB500 | 104126                      | 6060                               | C2                | 199            | 64                        | 127  | 465 | 140            | 168            | 146            | 135             | 140             | 711  | 37  | 3/8-18 | 179 |
| 22CB500 | 104127                      | 7040                               | C2                | 242            | 70                        | 144  | 497 | 152            | 168            | 165            | 137             | 147             | 762  | 37  | 3/8-18 | 179 |
| 24CB500 | 104128                      | 8480                               | C2                | 269            | 70                        | 144  | 510 | 165            | 168            | 165            | 142             | 150             | 813  | 37  | 3/8-18 | 179 |
| 26CB525 | 104129                      | 10400                              | C2                | 318            | 70                        | 144  | 521 | 165            | 176            | 165            | 150             | 152             | 879  | 37  | 3/8-18 | 191 |
| 28CB525 | 104130                      | 12000                              | C2                | 347            | 70                        | 144  | 546 | 191            | 176            | 165            | 168             | 152             | 930  | 37  | 3/8-18 | 191 |
| 30CB525 | 104131                      | 13700                              | C2                | 381            | 76                        | 160  | 584 | 191            | 176            | 203            | 173             | 183             | 981  | 37  | 3/8-18 | 191 |
| 32CB525 | 104132                      | 15500                              | C2                | 427            | 76                        | 154  | 584 | 191            | 176            | 203            | 168             | 188             | 1032 | 37  | 3/8-18 | 191 |
| 36CB525 | 104133                      | 19400                              | C2                | 526            | 102                       | 178  | 635 | 216            | 176            | 229            | 180             | 196             | 1149 | 37  | 1/2-14 | 191 |
| 40CB525 | 104134                      | 23800                              | 3/4 RH            | 552            | 102                       | 178  | 635 | 216            | 176            | 229            | 193             | 206             | 1251 | 37  | 1/2-14 | 191 |
| 45CB525 | 104135                      | 29400                              | 3/4 RH            | 1035           | 111                       | 251  | 724 | 279            | 176            | 254            | 224             | 211             | 1378 | 152 | 1/2-14 | 191 |
| SI      |                             | N · m<br>@ 5,2 bar                 |                   | kg             | Dimensions in millimeters |      |     |                |                |                |                 |                 |      |     |        |     |

# Airflex® CB Clutch Application

## Form CB-407 Gap-Mounted Arrangement —

### Technical Data — Sizes Dual 12 to Dual 45

#### Section B

| Size    | Part Numbers     |             |        |                 |
|---------|------------------|-------------|--------|-----------------|
|         | Element Assembly |             | Drum   | Drum Hub Spider |
|         | Two inlets       | Four inlets |        |                 |
| 12CB350 | 142731DA         |             | 411860 | 406902 408374   |
| 14CB400 | 142604DA         |             | 411861 | 406904 408376   |
| 16CB500 | 142432DA         | 142432DK    | 411862 | 406906 408276   |
| 18CB500 | 142433DA         | 142433DK    | 411863 | 406908 408277   |
| 20CB500 | 142434DA         | 142434DK    | 411864 | 406910 408278   |
| 22CB500 | 142435DA         | 142435DK    | 411865 | 406912 408279   |
| 24CB500 | 142436DA         | 142436DK    | 411866 | 406914 408280   |

| Size    | Part Numbers     |             |        |                 |
|---------|------------------|-------------|--------|-----------------|
|         | Element Assembly |             | Drum   | Drum Hub Spider |
|         | Two inlets       | Four inlets |        |                 |
| 26CB525 | 142437DA         | 142437DK    | 411867 | 406916 408281   |
| 28CB525 | 142438DA         | 142438DK    | 411868 | 406918 408282   |
| 30CB525 | 142439DA         | 142439DK    | 411869 | 406920 407096   |
| 32CB525 | 142440DA         | 142440DK    | 411870 | 406922 407097   |
| 36CB525 | 142441DA         | 142441DK    | 411871 | 406924 407098   |
| 40CB525 | 142442DA         | 142442DK    | 411872 | 406926 407099   |
| 45CB525 | 142443DA         | 142443DK    | 411873 | 406928 502369   |

| English Ø | lb  | lb · ft² | lb  | lb · ft² | lb  | lb · ft² | lb   | lb · ft² |
|-----------|-----|----------|-----|----------|-----|----------|------|----------|
| 12CB350   | 58  | 24       | 61  | 13       | 22  | 0.8      | 46   | 8.1      |
| 14CB400   | 75  | 42       | 83  | 24       | 54  | 3.2      | 50   | 11.2     |
| 16CB500   | 151 | 106      | 109 | 43       | 74  | 6.6      | 146  | 53       |
| 18CB500   | 166 | 144      | 126 | 63       | 83  | 9        | 152  | 63       |
| 20CB500   | 180 | 185      | 139 | 87       | 97  | 16       | 183  | 91       |
| 22CB500   | 194 | 233      | 152 | 117      | 133 | 25       | 227  | 123      |
| 24CB500   | 209 | 292      | 173 | 156      | 142 | 33       | 257  | 150      |
| 26CB525   | 272 | 432      | 198 | 211      | 164 | 43       | 298  | 220      |
| 28CB525   | 286 | 517      | 216 | 268      | 172 | 55       | 337  | 270      |
| 30CB525   | 302 | 621      | 237 | 337      | 213 | 69       | 341  | 390      |
| 32CB525   | 321 | 736      | 254 | 413      | 234 | 97       | 392  | 453      |
| 36CB525   | 366 | 1052     | 287 | 597      | 319 | 157      | 505  | 710      |
| 40CB525   | 413 | 1502     | 327 | 840      | 344 | 214      | 464  | 774      |
| 45CB525   | 537 | 2293     | 369 | 1212     | 491 | 379      | 1294 | 1887     |

| Size    | Weight           | Wk²     | Weight | Wk²     | Weight   | Wk²     | Weight | Wk²     |
|---------|------------------|---------|--------|---------|----------|---------|--------|---------|
|         | Element Assembly |         | Drum   |         | Drum Hub |         | Spider |         |
|         | Mass             | J       | Mass   | J       | Mass     | J       | Mass   | J       |
| 12CB350 | 26               | 1,01    | 28     | 0,55    | 10       | 0,03    | 21     | 0,34    |
| 14CB400 | 34               | 1,76    | 38     | 1,01    | 24       | 0,13    | 23     | 0,47    |
| 16CB500 | 68               | 4,45    | 49     | 1,81    | 34       | 0,28    | 66     | 2,23    |
| 18CB500 | 75               | 6,05    | 57     | 2,65    | 38       | 0,38    | 69     | 2,65    |
| 20CB500 | 82               | 7,77    | 63     | 3,65    | 44       | 0,67    | 83     | 3,82    |
| 22CB500 | 88               | 9,79    | 69     | 4,91    | 60       | 1,05    | 103    | 5,17    |
| 24CB500 | 95               | 12,26   | 78     | 6,55    | 64       | 1,39    | 116    | 6,30    |
| 26CB525 | 123              | 18,14   | 90     | 8,86    | 74       | 1,81    | 135    | 9,24    |
| 28CB525 | 130              | 21,71   | 98     | 11,26   | 78       | 2,31    | 153    | 11,34   |
| 30CB525 | 137              | 26,08   | 107    | 14,15   | 96       | 2,90    | 154    | 16,38   |
| 32CB525 | 145              | 30,91   | 115    | 17,35   | 106      | 4,07    | 178    | 19,03   |
| 36CB525 | 166              | 44,18   | 130    | 25,07   | 145      | 6,59    | 229    | 29,82   |
| 40CB525 | 187              | 63,08   | 148    | 35,28   | 156      | 8,99    | 210    | 32,51   |
| 45CB525 | 243              | 96,31   | 167    | 50,90   | 222      | 15,92   | 586    | 79,25   |
| SI Ø    | Kg               | kg · m² | Kg     | kg · m² | Kg       | kg · m² | Kg     | kg · m² |

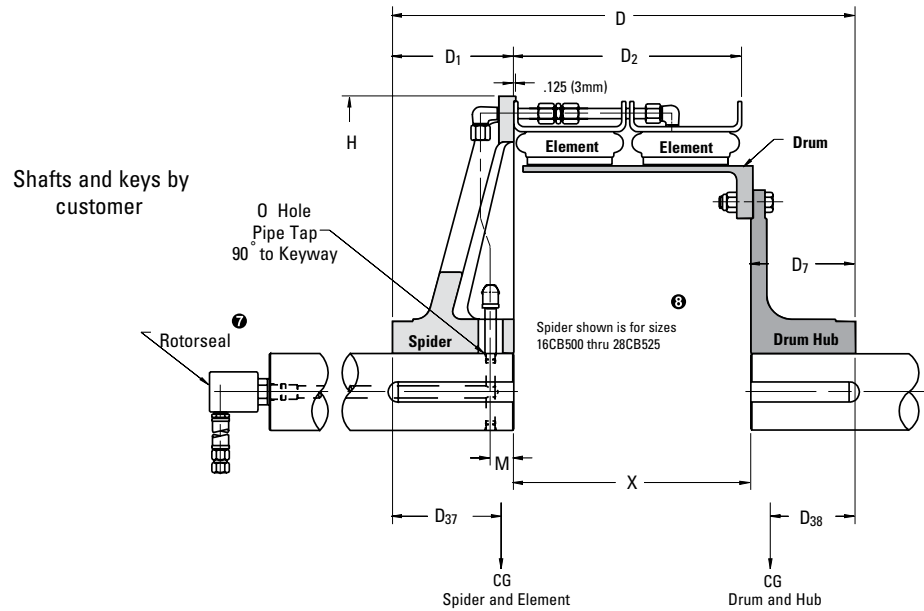
#### Notes:

- ① Refers to basic part number only and does not include the rotorseal and hose. When ordering, the number and type of element connections must be specified.
- ② Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ③ Based upon minimum bores. Rotorseal and hose not included.
- ④  $M(\text{in})=0.268(H/2-\text{radius of bore})+0.34$   
 $M(\text{mm})=0,268(H/2-\text{radius of bore})+8,7$

- ⑤ American National Pipe Thread
- ⑥ Pipe tap not required. Thru hole diameter 0.44 in (11 mm).
- ⑦ Refer to Rotorseal Section for mounting and dimension information.
- ⑧ Refer to CB Spider Piping and Configuration catalog page for other sizes.
- ⑨ Based upon minimum bores.

# Airflex® CB Clutch Application

Form CB-407 Gap — Mounted Arrangement —  
Dimensional Data — Sizes Dual 12 to Dual 45  
Section B



| English |        | lb · in<br>@75psi |        | lb <sup>®</sup> | Dimensions in inches |      |       |       |       |       |       |       |       |      |        |       |
|---------|--------|-------------------|--------|-----------------|----------------------|------|-------|-------|-------|-------|-------|-------|-------|------|--------|-------|
| 12CB350 | 105480 | 26600             | C2     | 187             | 1.50                 | 2.63 | 17.75 | 4.00  | 10.13 | 3.25  | 6.20  | 5.80  | 18.00 | ④    | ⑥      | 10.50 |
| 14CB400 | 105481 | 39400             | C2     | 262             | 2.00                 | 3.56 | 20.84 | 4.34  | 11.13 | 5.00  | 7.40  | 6.70  | 20.00 | ④    | ⑥      | 11.50 |
| 16CB500 | 105482 | 70400             | C2     | 480             | 2.00                 | 4.13 | 25.25 | 5.50  | 13.63 | 5.75  | 8.00  | 8.00  | 24.00 | 1.44 | 3/8-18 | 14.00 |
| 18CB500 | 105483 | 88000             | C2     | 527             | 2.25                 | 4.38 | 25.25 | 5.50  | 13.63 | 5.75  | 8.10  | 8.00  | 26.00 | 1.44 | 3/8-18 | 14.00 |
| 20CB500 | 105522 | 107200            | C2     | 599             | 2.50                 | 3.81 | 25.25 | 5.50  | 13.63 | 5.75  | 7.70  | 8.10  | 28.00 | 1.44 | 3/8-18 | 14.00 |
| 22CB500 | 105484 | 124600            | C2     | 706             | 2.75                 | 4.50 | 26.50 | 6.00  | 13.63 | 6.50  | 7.90  | 8.30  | 30.00 | 1.44 | 3/8-18 | 14.00 |
| 24CB500 | 105485 | 150000            | C2     | 781             | 2.75                 | 4.50 | 27.00 | 6.50  | 13.63 | 6.50  | 8.10  | 8.30  | 32.00 | 1.44 | 3/8-18 | 14.00 |
| 26CB525 | 105486 | 184800            | 3/4 RH | 932             | 2.75                 | 4.50 | 27.63 | 6.50  | 14.25 | 6.50  | 8.70  | 8.40  | 34.63 | 1.44 | 3/8-18 | 14.63 |
| 28CB525 | 105487 | 212000            | 3/4 RH | 1011            | 2.75                 | 3.81 | 28.75 | 7.50  | 14.44 | 6.50  | 9.30  | 8.70  | 36.63 | 1.44 | 3/8-18 | 14.75 |
| 30CB525 | 105488 | 242000            | 3/4 RH | 1093            | 3.00                 | 4.50 | 30.25 | 7.50  | 14.44 | 8.00  | 9.50  | 9.50  | 38.63 | 1.44 | 3/8-18 | 14.75 |
| 32CB525 | 105489 | 274000            | 3/4 RH | 1201            | 3.00                 | 4.00 | 30.25 | 7.50  | 14.44 | 8.00  | 9.30  | 9.70  | 40.63 | 1.44 | 3/8-18 | 14.75 |
| 36CB525 | 105490 | 344000            | 3/4 RH | 1477            | 4.00                 | 5.75 | 32.25 | 8.50  | 14.44 | 9.00  | 9.70  | 9.90  | 45.25 | 1.44 | 1/2-14 | 14.75 |
| 40CB525 | 105491 | 422000            | 1 RH   | 1548            | 4.00                 | 4.88 | 32.25 | 8.50  | 14.44 | 9.00  | 10.40 | 10.10 | 49.25 | 1.44 | 1/2-14 | 14.75 |
| 45CB525 | 105492 | 520000            | 1 RH   | 2691            | 4.38                 | 8.00 | 35.75 | 11.00 | 14.44 | 10.00 | 10.70 | 10.10 | 54.25 | 6.00 | 1/2-14 | 14.75 |

| Size    | Part <sup>®</sup><br>Number | M <sup>®</sup><br>Torque<br>Rating | Rotorseal<br>Size | Weight<br>Mass | Bore Range                |      | D   | D <sub>1</sub> | D <sub>2</sub> | D <sub>7</sub> | D <sub>37</sub> | D <sub>38</sub> | H    | M   | ④<br>O | X   |
|---------|-----------------------------|------------------------------------|-------------------|----------------|---------------------------|------|-----|----------------|----------------|----------------|-----------------|-----------------|------|-----|--------|-----|
|         |                             |                                    |                   |                | Min.                      | Max. |     |                |                |                |                 |                 |      |     |        |     |
| 12CB350 | 105480                      | 3010                               | C2                | 85             | 38                        | 67   | 451 | 102            | 257            | 83             | 157             | 147             | 457  | ④   | ⑥      | 267 |
| 14CB400 | 105481                      | 4450                               | C2                | 119            | 51                        | 90   | 529 | 110            | 283            | 127            | 188             | 170             | 508  | ④   | ⑥      | 292 |
| 16CB500 | 105482                      | 7960                               | C2                | 217            | 51                        | 105  | 641 | 140            | 346            | 146            | 203             | 203             | 610  | 37  | 3/8-18 | 356 |
| 18CB500 | 105483                      | 9940                               | C2                | 239            | 57                        | 111  | 641 | 140            | 346            | 146            | 206             | 203             | 660  | 37  | 3/8-18 | 356 |
| 20CB500 | 105522                      | 12100                              | C2                | 271            | 64                        | 97   | 641 | 140            | 346            | 146            | 196             | 206             | 711  | 37  | 3/8-18 | 356 |
| 22CB500 | 105484                      | 14100                              | C2                | 320            | 70                        | 114  | 673 | 152            | 346            | 165            | 201             | 211             | 762  | 37  | 3/8-18 | 356 |
| 24CB500 | 105485                      | 17000                              | C2                | 354            | 70                        | 114  | 686 | 165            | 346            | 165            | 206             | 211             | 813  | 37  | 3/8-18 | 356 |
| 26CB525 | 105486                      | 20900                              | 3/4 RH            | 422            | 70                        | 114  | 702 | 165            | 362            | 165            | 221             | 213             | 879  | 37  | 3/8-18 | 372 |
| 28CB525 | 105487                      | 24000                              | 3/4 RH            | 458            | 70                        | 97   | 730 | 191            | 367            | 165            | 236             | 221             | 930  | 37  | 3/8-18 | 375 |
| 30CB525 | 105488                      | 27300                              | 3/4 RH            | 495            | 76                        | 114  | 768 | 191            | 367            | 203            | 241             | 241             | 981  | 37  | 3/8-18 | 375 |
| 32CB525 | 105489                      | 31000                              | 3/4 RH            | 544            | 76                        | 102  | 768 | 191            | 367            | 203            | 236             | 246             | 1032 | 37  | 3/8-18 | 375 |
| 36CB525 | 105490                      | 38900                              | 3/4 RH            | 669            | 102                       | 146  | 819 | 216            | 367            | 229            | 246             | 251             | 1149 | 37  | 1/2-14 | 375 |
| 40CB525 | 105491                      | 47700                              | 1 RH              | 701            | 102                       | 124  | 819 | 216            | 367            | 229            | 264             | 257             | 1251 | 37  | 1/2-14 | 375 |
| 45CB525 | 105492                      | 58800                              | 1 RH              | 1219           | 111                       | 203  | 908 | 279            | 367            | 254            | 272             | 257             | 1378 | 152 | 1/2-14 | 375 |
| SI      | N · m<br>@ 5,2 bar          |                                    | kg                |                | Dimensions in millimeters |      |     |                |                |                |                 |                 |      |     |        |     |

# Airflex® CB Clutch Application

Form CB-408 Gap — Engine Mounted Arrangement —

Technical Data — Sizes 12 to 45

Section B

| Size    | Part Numbers     |             |        |           |
|---------|------------------|-------------|--------|-----------|
|         | Element Assembly |             | Drum   | Spider    |
|         | Two inlets       | Four inlets |        |           |
| 12CB350 | 142098JB         | 142098JG Os | 411778 | 408373Is● |
| 14CB400 | 142087JB         | 142087JG Os | 411779 | 408375ns■ |
| 16CB500 | 142211KM         | 142211KP    | 411780 | 408276    |
| 18CB500 | 142264KM         | 142264KP    | 411781 | 408277    |
| 20CB500 | 142265KM         | 142265KP    | 411782 | 408278    |
| 22CB500 | 142266KM         | 142266KP    | 411783 | 408279    |
| 24CB500 | 142267KM         | 142267KP    | 411784 | 408280    |

| Size    | Part Numbers     |             |        |        |
|---------|------------------|-------------|--------|--------|
|         | Element Assembly |             | Drum   | Spider |
|         | Two inlets       | Four inlets |        |        |
| 26CB525 | 142268KM         | 142268KP    | 411786 | 408281 |
| 28CB525 | 142269KM         | 142269KP    | 411785 | 408282 |
| 30CB525 | 142270KM         | 142270KP    | 411787 | 407096 |
| 32CB525 | 142271KM         | 142271KP    | 411788 | 407097 |
| 36CB525 | 142272KM         | 142272KP    | 411789 | 407098 |
| 40CB525 | 142273KM         | 142273KP    | 411790 | 407099 |
| 45CB525 | 142081KM         | 142081KP    | 411791 | 502369 |

| English ▲ | lb      | lb · ft² | lb     | lb · ft² | lb     | lb · ft² |
|-----------|---------|----------|--------|----------|--------|----------|
| 12CB350   | 30      | 12       | 26     | 6.4      | 46     | 8.1      |
| 14CB400   | 35      | 21       | 45     | 18       | 50     | 11.2     |
| 16CB500   | 74      | 52       | 63     | 31       | 146    | 53       |
| 18CB500   | 81      | 70       | 72     | 44       | 152    | 63       |
| 20CB500   | 88      | 90       | 126    | 102      | 183    | 91       |
| 22CB500   | 95      | 114      | 115    | 103      | 227    | 123      |
| 24CB500   | 102     | 142      | 130    | 139      | 257    | 150      |
| 26CB525   | 133     | 210      | 144    | 178      | 298    | 220      |
| 28CB525   | 140     | 252      | 143    | 200      | 337    | 270      |
| 30CB525   | 148     | 303      | 166    | 271      | 341    | 390      |
| 32CB525   | 157     | 359      | 177    | 327      | 392    | 453      |
| 36CB525   | 178     | 510      | 199    | 462      | 505    | 710      |
| 40CB525   | 201     | 730      | 220    | 631      | 464    | 774      |
| 45CB525   | 262     | 1115     | 248    | 893      | 1294   | 1887     |
| Size      | Weight  | Wk²      | Weight | Wk²      | Weight | Wk²      |
|           | Element |          | Drum   |          | Spider |          |

| SI ▲    | kg      | kg · m² | kg   | kg · m² | kg     | kg · m² |
|---------|---------|---------|------|---------|--------|---------|
| 12CB350 | 14      | 0,50    | 12   | 0,27    | 21     | 0,34    |
| 14CB400 | 16      | 0,88    | 20   | 0,76    | 23     | 0,47    |
| 16CB500 | 34      | 2,18    | 29   | 1,30    | 66     | 2,23    |
| 18CB500 | 37      | 2,94    | 33   | 1,85    | 69     | 2,65    |
| 20CB500 | 40      | 3,78    | 57   | 4,28    | 83     | 3,82    |
| 22CB500 | 43      | 4,79    | 52   | 4,33    | 103    | 5,17    |
| 24CB500 | 46      | 5,96    | 59   | 5,84    | 116    | 6,30    |
| 26CB525 | 60      | 8,82    | 65   | 7,48    | 135    | 9,24    |
| 28CB525 | 63      | 10,58   | 65   | 8,40    | 153    | 11,34   |
| 30CB525 | 67      | 12,73   | 75   | 11,38   | 154    | 16,38   |
| 32CB525 | 71      | 15,08   | 80   | 13,73   | 178    | 19,03   |
| 36CB525 | 81      | 21,42   | 90   | 19,40   | 229    | 29,82   |
| 40CB525 | 91      | 30,66   | 100  | 26,50   | 210    | 32,51   |
| 45CB525 | 119     | 46,83   | 112  | 37,51   | 586    | 79,25   |
| Size    | Mass    | J       | Mass | J       | Mass   | J       |
|         | Element |         | Drum |         | Spider |         |

## Notes:

- ❶ Refers to basic part number only and does not include the rotorseal and hose. Element sizes 12 and 14 have either one or two inlets. All other sizes have either one or four air inlets.
- ❷ Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ❸ Based upon minimum bores. Rotorseal and hose not included.
- ❹ Drum flange tolerance +0.000/-0.003 in (+0,00/-0,08 mm).
- ❺  $M (in) = 0.268 (H/2 - \text{radius of bore}) + 0.34$   
 $M (mm) = 0,268 (H/2 - \text{radius of bore}) + 8,7$

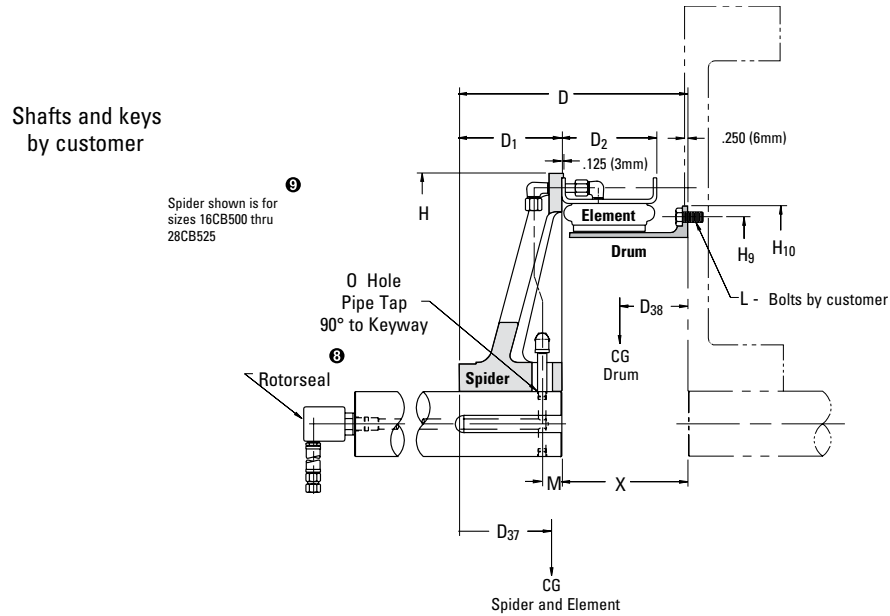
- ❻ American National Pipe Thread
- ❼ Pipe tap not required. Thru hole diameter 0.44 in (11 mm).
- ❽ Refer to Rotorseal Section for mounting and dimension information.
- ❾ Refer to CB Spider Piping and Configuration catalog page for other sizes.
- ❿ Part number for two inlets.
  - Part number for one inlet. Part number for two inlets - 408374.
- Part number for one inlet. Part number for two inlets - 408376.
- ▲ Based upon minimum bore.

# Airflex® CB Clutch Application

## Form CB-408 Gap — Engine Mounted Arrangement —

### Dimensional Data — Sizes 12 to 45

#### Section B



| English |        | lb · in<br>@ 75 psi | lb     | lb   | Dimensions in inches |      |       |       |      |      |      |       |        |        |    |       |      |      |        |      |
|---------|--------|---------------------|--------|------|----------------------|------|-------|-------|------|------|------|-------|--------|--------|----|-------|------|------|--------|------|
| 12CB350 | 104137 | 13300               | B2     | 102  | 1.50                 | 3.31 | 10.56 | 4.00  | 4.72 | 3.20 | 2.20 | 18.00 | 13.125 | 13.875 | 8  | 0.375 | 1.00 | 5    | 7      | 6.56 |
| 14CB400 | 104140 | 19700               | B2     | 130  | 2.00                 | 4.25 | 11.53 | 4.34  | 5.22 | 3.40 | 2.00 | 20.00 | 17.250 | 18.375 | 8  | 0.500 | 1.25 | 5    | 7      | 7.19 |
| 16CB500 | 104142 | 35200               | C2     | 283  | 2.00                 | 4.88 | 14.19 | 5.50  | 6.63 | 5.20 | 2.60 | 24.00 | 19.250 | 20.375 | 8  | 0.500 | 1.25 | 1.44 | 3/8-18 | 8.69 |
| 18CB500 | 104144 | 44000               | C2     | 305  | 2.25                 | 5.00 | 14.19 | 5.50  | 6.63 | 5.30 | 2.60 | 26.00 | 21.375 | 22.500 | 6  | 0.625 | 1.25 | 1.44 | 3/8-18 | 8.69 |
| 20CB500 | 104145 | 53600               | C2     | 397  | 2.50                 | 5.00 | 14.19 | 5.50  | 6.63 | 5.30 | 2.30 | 28.00 | 25.250 | 26.500 | 12 | 0.625 | 1.25 | 1.44 | 3/8-18 | 8.69 |
| 22CB500 | 104147 | 62300               | C2     | 437  | 2.75                 | 5.69 | 14.69 | 6.00  | 6.63 | 5.40 | 2.60 | 30.00 | 25.250 | 26.500 | 12 | 0.625 | 1.25 | 1.44 | 3/8-18 | 8.69 |
| 24CB500 | 104148 | 75000               | C2     | 489  | 2.75                 | 5.69 | 15.19 | 6.50  | 6.63 | 5.60 | 2.60 | 32.00 | 27.250 | 28.875 | 12 | 0.750 | 1.25 | 1.44 | 3/8-18 | 8.69 |
| 26CB525 | 104149 | 92400               | C2     | 575  | 2.75                 | 5.69 | 15.69 | 6.50  | 6.94 | 5.90 | 2.80 | 34.63 | 29.250 | 30.750 | 12 | 0.750 | 1.50 | 1.44 | 3/8-18 | 9.19 |
| 28CB525 | 104150 | 106000              | C2     | 620  | 2.75                 | 5.69 | 16.69 | 7.50  | 6.94 | 6.60 | 3.00 | 36.63 | 30.250 | 31.875 | 12 | 0.750 | 1.50 | 1.44 | 3/8-18 | 9.19 |
| 30CB525 | 104151 | 121000              | C2     | 655  | 3.00                 | 6.31 | 16.69 | 7.50  | 6.94 | 6.80 | 2.80 | 38.63 | 33.000 | 34.750 | 12 | 0.750 | 1.50 | 1.44 | 3/8-18 | 9.19 |
| 32CB525 | 105472 | 137000              | C2     | 726  | 3.00                 | 6.06 | 16.69 | 7.50  | 6.94 | 6.60 | 2.80 | 40.63 | 35.250 | 36.750 | 14 | 0.750 | 1.50 | 1.44 | 3/8-18 | 9.19 |
| 36CB525 | 105473 | 172000              | C2     | 882  | 4.00                 | 7.00 | 17.69 | 8.50  | 6.94 | 7.10 | 2.80 | 45.25 | 39.250 | 40.750 | 16 | 0.750 | 1.50 | 1.44 | 1/2-14 | 9.19 |
| 40CB525 | 104153 | 211000              | 3/4 RH | 885  | 4.00                 | 7.00 | 17.69 | 8.50  | 6.94 | 7.60 | 2.80 | 49.25 | 43.250 | 44.750 | 16 | 0.750 | 1.50 | 1.44 | 1/2-14 | 9.19 |
| 45CB525 | 105474 | 260000              | 3/4 RH | 1804 | 4.38                 | 9.88 | 20.19 | 11.00 | 6.94 | 8.80 | 2.90 | 54.25 | 48.250 | 49.750 | 16 | 0.750 | 1.50 | 6.00 | 1/2-14 | 9.19 |

| Size    | Part Number        | M Ø Torque Rating | Rotorseal Size | Weight Mass | Spider Bore               |      | D   | D <sub>1</sub> | D <sub>2</sub> | D <sub>37</sub> | D <sub>38</sub> | H    | H <sub>9</sub> | Ø H <sub>10</sub> | L (Bolt) |    |    | M   | Ø O      | X      |  |  |
|---------|--------------------|-------------------|----------------|-------------|---------------------------|------|-----|----------------|----------------|-----------------|-----------------|------|----------------|-------------------|----------|----|----|-----|----------|--------|--|--|
|         |                    |                   |                |             | Min.                      | Max. |     |                |                |                 |                 |      |                |                   |          |    |    |     | No. Dia. | Length |  |  |
| 12CB350 | 104137             | 1500              | B2             | 46          | 38                        | 84   | 268 | 102            | 120            | 81              | 56              | 457  | 333,4          | 352,4             | 8        | 10 | 25 | 5   | 7        | 167    |  |  |
| 14CB400 | 104140             | 2230              | B2             | 59          | 51                        | 108  | 293 | 110            | 133            | 86              | 51              | 508  | 438,2          | 466,7             | 8        | 13 | 32 | 5   | 7        | 183    |  |  |
| 16CB500 | 104142             | 3980              | C2             | 128         | 51                        | 124  | 360 | 140            | 168            | 132             | 66              | 610  | 489,0          | 517,5             | 8        | 13 | 32 | 37  | 3/8-18   | 221    |  |  |
| 18CB500 | 104144             | 4970              | C2             | 138         | 57                        | 127  | 360 | 140            | 168            | 135             | 66              | 660  | 542,9          | 571,5             | 6        | 16 | 32 | 37  | 3/8-18   | 221    |  |  |
| 20CB500 | 104145             | 6060              | C2             | 180         | 64                        | 127  | 360 | 140            | 168            | 135             | 58              | 711  | 641,4          | 673,1             | 12       | 16 | 32 | 37  | 3/8-18   | 221    |  |  |
| 22CB500 | 104147             | 7040              | C2             | 198         | 70                        | 144  | 373 | 152            | 168            | 137             | 66              | 762  | 641,4          | 673,1             | 12       | 16 | 32 | 37  | 3/8-18   | 221    |  |  |
| 24CB500 | 104148             | 8480              | C2             | 222         | 70                        | 144  | 386 | 165            | 168            | 142             | 66              | 813  | 692,2          | 733,4             | 12       | 19 | 32 | 37  | 3/8-18   | 221    |  |  |
| 26CB525 | 104149             | 10400             | C2             | 260         | 70                        | 144  | 398 | 165            | 176            | 150             | 71              | 879  | 743,0          | 781,1             | 12       | 19 | 38 | 37  | 3/8-18   | 233    |  |  |
| 28CB525 | 104150             | 12000             | C2             | 281         | 70                        | 144  | 424 | 191            | 176            | 168             | 76              | 930  | 768,4          | 809,6             | 12       | 19 | 38 | 37  | 3/8-18   | 233    |  |  |
| 30CB525 | 104151             | 13700             | C2             | 297         | 76                        | 160  | 424 | 191            | 176            | 173             | 71              | 981  | 838,2          | 882,7             | 12       | 19 | 38 | 37  | 1/2-14   | 233    |  |  |
| 32CB525 | 105472             | 15500             | C2             | 329         | 76                        | 154  | 424 | 191            | 176            | 168             | 71              | 1032 | 895,4          | 933,5             | 14       | 19 | 38 | 37  | 1/2-14   | 233    |  |  |
| 36CB525 | 105473             | 19400             | C2             | 400         | 102                       | 178  | 449 | 216            | 176            | 180             | 71              | 1149 | 997,0          | 1035,1            | 16       | 19 | 38 | 37  | 1/2-14   | 233    |  |  |
| 40CB525 | 104153             | 23800             | 3/4 RH         | 401         | 102                       | 178  | 449 | 216            | 176            | 193             | 71              | 1251 | 1098,6         | 1136,7            | 16       | 19 | 38 | 37  | 1/2-14   | 233    |  |  |
| 45CB525 | 105474             | 29400             | 3/4 RH         | 817         | 111                       | 251  | 513 | 279            | 176            | 224             | 74              | 1378 | 1225,6         | 1263,7            | 16       | 19 | 38 | 152 | 1/2-14   | 233    |  |  |
| SI      | N · m<br>@ 5,2 bar |                   |                | kg          | Dimensions in millimeters |      |     |                |                |                 |                 |      |                |                   |          |    |    |     |          |        |  |  |

# Airflex® CB Clutch Application

Form CB427 Gap — Engine Mounted Arrangements —

Technical Data — Sizes Dual 12 to Dual 28

Section B

| Size    | Part Numbers     |             |        |        |
|---------|------------------|-------------|--------|--------|
|         | Element Assembly |             | Spider |        |
|         | Two inlets       | Four inlets |        |        |
| 12CB350 | 142731DA         |             | 408648 | 408374 |
| 14CB400 | 142604DA         |             | 411707 | 408376 |
| 16CB500 | 142432DA         | 142432DK    | 408682 | 408276 |
| 18CB500 | 142433DA         | 142433DK    | 410523 | 408277 |
| 20CB500 | 142434DA         | 142434DK    | 404605 | 408278 |
| 22CB500 | 142435DA         | 142435DK    | 406030 | 408279 |
| 24CB500 | 142436DA         | 142436DK    | 402145 | 408280 |
| 26CB525 | 142437DA         | 142437DK    | 411453 | 408281 |
| 28CB525 | 142438DA         | 142438DK    | 404942 | 408282 |

| Size    | English Units <sup>10</sup> |                                         |              |                                         |              |                                         |
|---------|-----------------------------|-----------------------------------------|--------------|-----------------------------------------|--------------|-----------------------------------------|
|         | Element Ass'y               |                                         | Drum         |                                         | Spider       |                                         |
|         | Weight<br>lb                | Wk <sup>2</sup><br>lb · ft <sup>2</sup> | Weight<br>lb | Wk <sup>2</sup><br>lb · ft <sup>2</sup> | Weight<br>lb | Wk <sup>2</sup><br>lb · ft <sup>2</sup> |
| 12CB350 | 58                          | 24                                      | 100          | 28                                      | 46           | 8.1                                     |
| 14CB400 | 75                          | 42                                      | 103          | 47                                      | 50           | 11.2                                    |
| 16CB500 | 151                         | 106                                     | 182          | 103                                     | 146          | 53                                      |
| 18CB500 | 166                         | 144                                     | 201          | 126                                     | 152          | 63                                      |
| 20CB500 | 180                         | 185                                     | 191          | 144                                     | 183          | 91                                      |
| 22CB500 | 194                         | 233                                     | 186          | 159                                     | 227          | 123                                     |
| 24CB500 | 209                         | 292                                     | 208          | 212                                     | 257          | 150                                     |
| 26CB525 | 272                         | 432                                     | 234          | 278                                     | 298          | 220                                     |
| 28CB525 | 286                         | 517                                     | 240          | 326                                     | 337          | 270                                     |

| Size    | SI Units <sup>10</sup> |                          |            |                          |            |                          |
|---------|------------------------|--------------------------|------------|--------------------------|------------|--------------------------|
|         | Element Ass'y          |                          | Drum       |                          | Spider     |                          |
|         | Mass<br>kg             | J<br>kg · m <sup>2</sup> | Mass<br>kg | J<br>kg · m <sup>2</sup> | Mass<br>kg | J<br>kg · m <sup>2</sup> |
| 12CB350 | 26                     | 1,01                     | 45         | 1,18                     | 21         | 0,34                     |
| 14CB400 | 34                     | 1,76                     | 47         | 1,97                     | 23         | 0,47                     |
| 16CB500 | 68                     | 4,45                     | 82         | 4,33                     | 66         | 2,23                     |
| 18CB500 | 75                     | 6,05                     | 91         | 5,29                     | 69         | 2,65                     |
| 20CB500 | 82                     | 7,77                     | 87         | 6,05                     | 83         | 3,82                     |
| 22CB500 | 88                     | 9,79                     | 84         | 6,68                     | 103        | 5,17                     |
| 24CB500 | 95                     | 12,26                    | 94         | 8,90                     | 116        | 6,30                     |
| 26CB525 | 123                    | 18,14                    | 106        | 11,68                    | 135        | 9,24                     |
| 28CB525 | 130                    | 21,71                    | 109        | 13,69                    | 153        | 11,34                    |

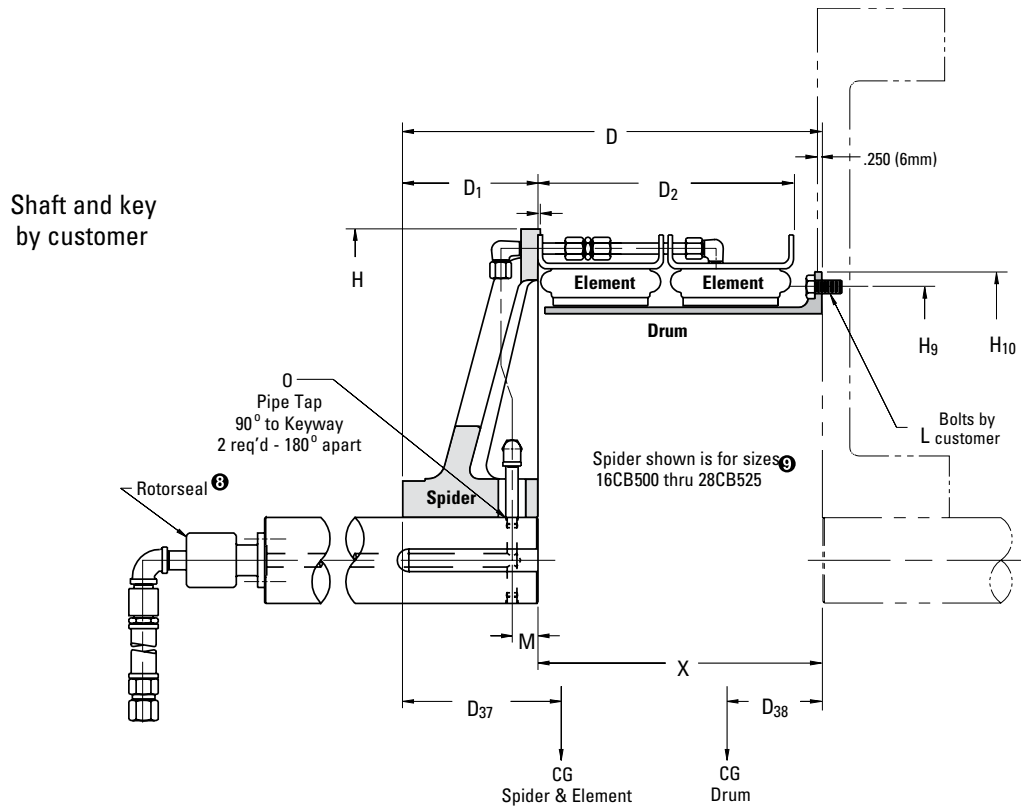
## Notes:

- ❶ Refers to basic part number only and does not include the rotorseal and hose. Element sizes 12 and 14 have two inlets. All other sizes have either two or four air inlets.
- ❷ Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ❸ Based upon minimum bores. Rotorseal and hose not included.
- ❹ Drum flange tolerance +0.000/-0.003 in (+0,00/-0,08 mm).

- ❺  $M \text{ (in)} = 0.268 (H/2 - \text{radius of bore}) + 0.34$   
 $M \text{ (mm)} = 0.268 (H/2 - \text{radius of bore}) + 8,7$
- ❻ American National Pipe Thread
- ❼ Pipe tap not required. Thru hole diameter 0.44 in (11 mm).
- ❽ Refer to Rotorseal Section for mounting and dimension information.
- ❾ Refer to CB Spider Piping and Configuration catalog page for other sizes.
- ❿ Based upon minimum bores.

# Airflex® CB Clutch Application

Form CB427 — Engine Mounted Arrangements —  
Dimensional Data — Sizes Dual 12 to Dual 28  
Section B



| English | lb · in<br>@ 75 psi | lb Ⓔ   | Dimensions in inches |     |      |      |       |      |       |     |     |       |        |        |    |      |      |      |        |       |
|---------|---------------------|--------|----------------------|-----|------|------|-------|------|-------|-----|-----|-------|--------|--------|----|------|------|------|--------|-------|
| 12CB350 | 105500              | 26600  | C2                   | 204 | 1.50 | 2.63 | 16.63 | 4.00 | 10.13 | 6.2 | 4.4 | 18.00 | 17.250 | 18.375 | 8  | 0.50 | 1.50 | Ⓔ    | Ⓕ      | 12.63 |
| 14CB400 | 105501              | 39400  | C2                   | 228 | 2.00 | 3.56 | 17.91 | 4.34 | 11.13 | 7.4 | 3.6 | 20.00 | 21.375 | 22.500 | 6  | 0.63 | 1.75 | Ⓔ    | Ⓕ      | 13.56 |
| 16CB500 | 105502              | 70400  | C2                   | 479 | 2.00 | 4.13 | 20.50 | 5.50 | 13.63 | 8.0 | 4.6 | 24.00 | 25.250 | 26.500 | 12 | 0.63 | 1.75 | 1.44 | 3/8-18 | 15.00 |
| 18CB500 | 105503              | 88000  | C2                   | 519 | 2.25 | 4.38 | 22.19 | 5.50 | 13.63 | 8.1 | 5.8 | 26.00 | 25.250 | 26.500 | 12 | 0.63 | 1.75 | 1.44 | 3/8-18 | 16.69 |
| 20CB500 | 105504              | 107200 | C2                   | 554 | 2.50 | 3.81 | 22.19 | 5.50 | 13.63 | 7.7 | 5.6 | 28.00 | 25.250 | 26.500 | 12 | 0.63 | 2.00 | 1.44 | 3/8-18 | 16.69 |
| 22CB500 | 105505              | 124600 | C2                   | 607 | 2.75 | 4.50 | 22.69 | 6.00 | 13.63 | 7.9 | 6.2 | 30.00 | 25.250 | 26.500 | 12 | 0.63 | 2.00 | 1.44 | 3/8-18 | 16.69 |
| 24CB500 | 105506              | 150000 | C2                   | 674 | 2.75 | 4.50 | 23.19 | 6.50 | 13.63 | 8.1 | 6.1 | 32.00 | 27.250 | 28.875 | 12 | 0.75 | 2.25 | 1.44 | 3/8-18 | 16.69 |
| 26CB525 | 105507              | 184800 | 3/4                  | 804 | 2.75 | 4.50 | 24.19 | 6.50 | 14.25 | 8.7 | 6.6 | 34.63 | 29.250 | 30.750 | 12 | 0.75 | 2.25 | 1.44 | 3/8-18 | 17.69 |
| 28CB525 | 105508              | 212000 | 3/4                  | 863 | 2.75 | 3.81 | 25.19 | 7.50 | 14.44 | 9.3 | 6.9 | 36.63 | 30.250 | 31.875 | 12 | 0.75 | 2.25 | 1.44 | 3/8-18 | 17.69 |

| Size    | Part No. | Rating | Size | Mass | Spider Bore | D    | D <sub>1</sub> | D <sub>2</sub> | D <sub>37</sub> | D <sub>38</sub> | H   | H <sub>9</sub> | H <sub>10</sub> | L (Bolt) | No. | Dia. | Length | M  | O      | X   |
|---------|----------|--------|------|------|-------------|------|----------------|----------------|-----------------|-----------------|-----|----------------|-----------------|----------|-----|------|--------|----|--------|-----|
|         |          |        |      |      | Min.        | Max. |                |                |                 |                 |     |                |                 |          |     |      |        |    |        |     |
| 12CB350 | 105500   | 3010   | C2   | 92   | 38          | 67   | 422            | 102            | 257             | 157             | 112 | 457            | 438,2           | 466,7    | 8   | 13   | 38     | Ⓔ  | Ⓕ      | 321 |
| 14CB400 | 105501   | 4450   | C2   | 103  | 51          | 90   | 455            | 110            | 283             | 188             | 91  | 508            | 542,9           | 571,5    | 6   | 16   | 44     | Ⓔ  | Ⓕ      | 344 |
| 16CB500 | 105502   | 7960   | C2   | 217  | 51          | 105  | 521            | 140            | 346             | 203             | 117 | 610            | 641,4           | 673,1    | 12  | 16   | 44     | 37 | 3/8-18 | 381 |
| 18CB500 | 105503   | 9940   | C2   | 235  | 57          | 111  | 564            | 140            | 346             | 206             | 147 | 660            | 641,4           | 673,1    | 12  | 16   | 44     | 37 | 3/8-18 | 424 |
| 20CB500 | 105504   | 12100  | C2   | 251  | 64          | 97   | 564            | 140            | 346             | 196             | 142 | 711            | 641,4           | 673,1    | 12  | 16   | 51     | 37 | 3/8-18 | 424 |
| 22CB500 | 105505   | 14100  | C2   | 275  | 70          | 114  | 576            | 152            | 346             | 201             | 157 | 762            | 641,4           | 673,1    | 12  | 16   | 51     | 37 | 3/8-18 | 424 |
| 24CB500 | 105506   | 17000  | C2   | 305  | 70          | 114  | 589            | 165            | 346             | 206             | 155 | 813            | 692,2           | 733,4    | 12  | 19   | 57     | 37 | 3/8-18 | 424 |
| 26CB525 | 105507   | 20900  | 3/4  | 364  | 70          | 114  | 614            | 165            | 362             | 221             | 168 | 879            | 743,0           | 781,1    | 12  | 19   | 57     | 37 | 3/8-18 | 449 |
| 28CB525 | 105508   | 24000  | 3/4  | 391  | 70          | 97   | 640            | 191            | 367             | 236             | 175 | 930            | 768,4           | 809,6    | 12  | 19   | 57     | 37 | 3/8-18 | 449 |

| SI | N · m<br>@ 5,2 bar | Ⓔ<br>kg | Dimensions in millimeters |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|----|--------------------|---------|---------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|----|--------------------|---------|---------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

# Airflex® CB Clutch Application

## Form CB-409 — Air Bridge Arrangement —

### Technical Data — Sizes 12 to 45

#### Section B

| Size    | Part Numbers     |        |          |            |
|---------|------------------|--------|----------|------------|
|         | Element Assembly | Drum   | Drum Hub | Air Bridge |
| 12CB350 | 142098KH         | 407049 | 406903   | 411807     |
| 14CB400 | 142087KH         | 407051 | 406905   | 401546     |
| 16CB500 | 142211KT         | 407053 | 406907   | 408165     |
| 18CB500 | 142264KT         | 408285 | 406909   | 407294     |
| 20CB500 | 142265KT         | 407055 | 406911   | 407296     |
| 22CB500 | 142266KT         | 408287 | 406913   | 407307     |
| 24CB500 | 142267KT         | 407057 | 406915   | 12038      |

| Size    | Part Numbers     |        |          |            |
|---------|------------------|--------|----------|------------|
|         | Element Assembly | Drum   | Drum Hub | Air Bridge |
| 26CB525 | 142268KT         | 408289 | 406917   | 411796     |
| 28CB525 | 142269KT         | 407059 | 406919   | 400878     |
| 30CB525 | 142270KT         | 408343 | 406921   | 400203     |
| 32CB525 | 142271KT         | 407061 | 406923   | 400764     |
| 36CB525 | 142272KT         | 407063 | 406925   | 400410     |
| 40CB525 | 142273KT         | 407065 | 406927   | 411797     |
| 45CB525 | 142081KT         | 407067 | 406929   | 411798     |

| Size    | English Units <sup>⑤</sup> |                                      |           |                                      |           |                                      |            |                                      |
|---------|----------------------------|--------------------------------------|-----------|--------------------------------------|-----------|--------------------------------------|------------|--------------------------------------|
|         | Element Ass'y              |                                      | Drum      |                                      | Drum Humb |                                      | Air Bridge |                                      |
|         | Weight lb                  | Wk <sup>2</sup> lb · ft <sup>2</sup> | Weight lb | Wk <sup>2</sup> lb · ft <sup>2</sup> | Weight lb | Wk <sup>2</sup> lb · ft <sup>2</sup> | Weight lb  | Wk <sup>2</sup> lb · ft <sup>2</sup> |
| 12CB350 | 30                         | 12                                   | 30        | 5.9                                  | 22        | 0.8                                  | 2          | 0.2                                  |
| 14CB400 | 35                         | 21                                   | 38        | 10.5                                 | 54        | 3.2                                  | 2          | 0.3                                  |
| 16CB500 | 74                         | 52                                   | 50        | 19                                   | 74        | 6.6                                  | 6          | 1.3                                  |
| 18CB500 | 81                         | 70                                   | 67        | 31                                   | 83        | 9                                    | 14         | 10.3                                 |
| 20CB500 | 88                         | 90                                   | 72        | 43                                   | 97        | 16                                   | 15         | 12.5                                 |
| 22CB500 | 95                         | 114                                  | 79        | 58                                   | 133       | 25                                   | 15         | 16                                   |
| 24CB500 | 102                        | 142                                  | 93        | 80                                   | 142       | 33                                   | 19         | 22                                   |
| 26CB525 | 133                        | 210                                  | 108       | 110                                  | 164       | 43                                   | 19         | 25                                   |
| 28CB525 | 140                        | 252                                  | 117       | 140                                  | 172       | 55                                   | 19         | 29                                   |
| 30CB525 | 148                        | 303                                  | 140       | 192                                  | 213       | 69                                   | 20         | 32                                   |
| 32CB525 | 157                        | 359                                  | 160       | 252                                  | 234       | 97                                   | 19         | 32                                   |
| 36CB525 | 178                        | 510                                  | 160       | 319                                  | 319       | 157                                  | 19         | 42                                   |
| 40CB525 | 201                        | 730                                  | 209       | 523                                  | 344       | 214                                  | 23         | 56                                   |
| 45CB525 | 262                        | 1115                                 | 237       | 758                                  | 491       | 379                                  | 24         | 66                                   |

| Size    | SI Units <sup>⑥</sup> |                       |         |                       |           |                       |            |                       |
|---------|-----------------------|-----------------------|---------|-----------------------|-----------|-----------------------|------------|-----------------------|
|         | Element Ass'y         |                       | Drum    |                       | Drum Humb |                       | Air Bridge |                       |
|         | Mass kg               | J kg · m <sup>2</sup> | Mass kg | J kg · m <sup>2</sup> | Mass kg   | J kg · m <sup>2</sup> | Mass kg    | J kg · m <sup>2</sup> |
| 12CB350 | 14                    | 0,50                  | 14      | 0,25                  | 10,0      | 0,03                  | 0,9        | 0,01                  |
| 14CB400 | 16                    | 0,88                  | 17      | 0,44                  | 24        | 0,13                  | 0,9        | 0,01                  |
| 16CB500 | 34                    | 2,18                  | 23      | 0,80                  | 34        | 0,28                  | 2,7        | 0,05                  |
| 18CB500 | 37                    | 2,94                  | 30      | 1,30                  | 38        | 0,38                  | 6,3        | 0,43                  |
| 20CB500 | 40                    | 3,78                  | 33      | 1,81                  | 44        | 0,67                  | 6,8        | 0,53                  |
| 22CB500 | 43                    | 4,79                  | 36      | 2,44                  | 60        | 1,05                  | 6,8        | 0,67                  |
| 24CB500 | 46                    | 5,96                  | 42      | 3,36                  | 64        | 1,39                  | 8,6        | 0,92                  |
| 26CB525 | 60                    | 8,82                  | 49      | 4,62                  | 74        | 1,81                  | 8,6        | 1,05                  |
| 28CB525 | 63                    | 10,58                 | 53      | 5,88                  | 78        | 2,31                  | 8,6        | 1,22                  |
| 30CB525 | 67                    | 12,73                 | 63      | 8,06                  | 96        | 2,90                  | 9,1        | 1,34                  |
| 32CB525 | 71                    | 15,08                 | 72      | 10,58                 | 106       | 4,07                  | 8,6        | 1,34                  |
| 36CB525 | 81                    | 21,42                 | 72      | 13,40                 | 145       | 6,59                  | 8,6        | 1,76                  |
| 40CB525 | 91                    | 30,66                 | 95      | 21,97                 | 156       | 8,99                  | 10         | 2,35                  |
| 45CB525 | 119                   | 46,83                 | 107     | 31,84                 | 222       | 15,92                 | 11         | 2,77                  |

#### Notes:

- ① Refers to basic part number only and does not include the rotorseal and hose. Element sizes 12 and 14 have two air inlets. All other sizes have either two or four air inlets.
- ② Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ③ Based upon minimum bores. Rotorseal and hose not included.
- ④ Tolerance for sizes:  
12 thru 24, 28 and 32  
+0.000/-0.005 in (+0,00/-0,13 mm)  
26 and 30  
+0.000/-0.008 in (+0,00/-0,20 mm)  
36 thru 45  
+0.000/-0.010 in (+0,00/-0,25 mm)

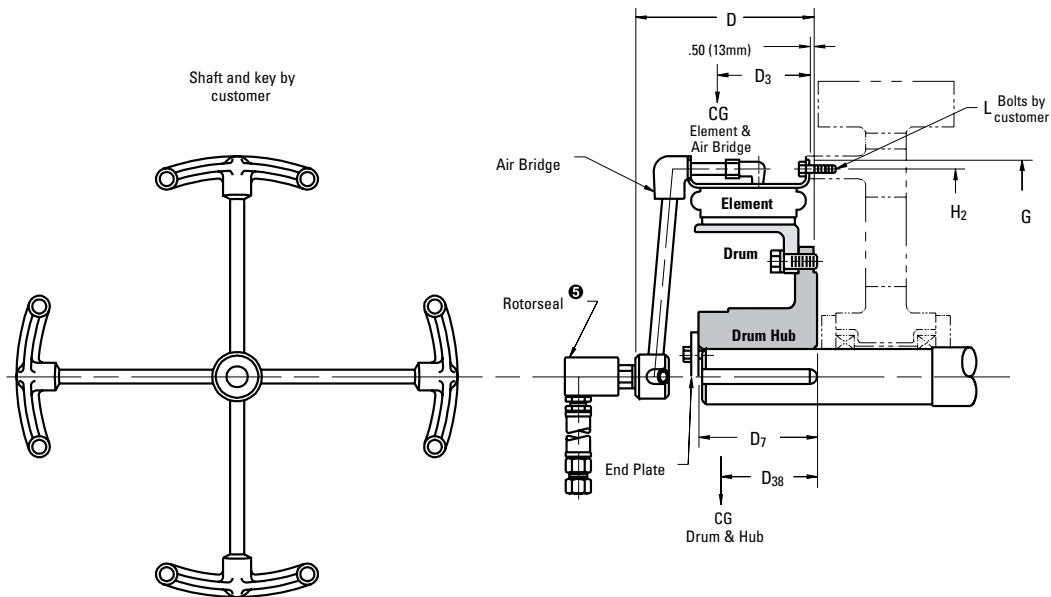
- ⑤ Refer to Rotorseal Section for mounting and dimension information.
- ⑥ Based upon minimum bores.

# Airflex® CB Clutch Application

## Form CB-409 — Air Bridge Arrangement —

### Dimensional Data — Sizes 12 to 45

#### Section B



| English |        | lb · in<br>@75psi |        | lb <sup>®</sup> | Dimensions in inches |      |       |       |     |     |        |        |    |       |
|---------|--------|-------------------|--------|-----------------|----------------------|------|-------|-------|-----|-----|--------|--------|----|-------|
| 12CB350 | 104420 | 13300             | B3     | 84              | 1.50                 | 3.31 | 7.75  | 3.25  | 2.7 | 2.2 | 17.625 | 16.875 | 14 | 0.375 |
| 14CB400 | 104421 | 19700             | B3     | 129             | 2.00                 | 4.25 | 8.38  | 5.00  | 2.9 | 3.3 | 19.625 | 18.875 | 16 | 0.375 |
| 16CB500 | 104422 | 35200             | C2     | 204             | 2.00                 | 4.88 | 9.25  | 5.75  | 3.7 | 3.8 | 23.500 | 22.500 | 8  | 0.500 |
| 18CB500 | 104423 | 44000             | C2     | 245             | 2.25                 | 5.00 | 9.31  | 5.75  | 4.0 | 4.0 | 25.500 | 24.375 | 12 | 0.500 |
| 20CB500 | 104424 | 53600             | C2     | 272             | 2.50                 | 5.00 | 9.38  | 5.75  | 3.9 | 4.1 | 27.500 | 26.375 | 12 | 0.500 |
| 22CB500 | 104425 | 62300             | C2     | 322             | 2.75                 | 5.69 | 9.44  | 6.50  | 3.9 | 4.6 | 29.500 | 28.375 | 12 | 0.500 |
| 24CB500 | 104426 | 75000             | C2     | 356             | 2.75                 | 5.69 | 9.50  | 6.50  | 4.0 | 4.8 | 31.500 | 30.375 | 16 | 0.500 |
| 26CB525 | 104427 | 92400             | C2     | 424             | 2.75                 | 5.69 | 10.06 | 6.50  | 4.0 | 4.7 | 34.000 | 32.750 | 16 | 0.625 |
| 28CB525 | 104428 | 106000            | C2     | 448             | 2.75                 | 5.69 | 10.13 | 6.50  | 4.0 | 4.8 | 36.000 | 34.750 | 16 | 0.625 |
| 30CB525 | 104429 | 121000            | C2     | 521             | 3.00                 | 6.31 | 10.20 | 8.00  | 4.0 | 5.9 | 38.000 | 36.750 | 16 | 0.625 |
| 32CB525 | 104430 | 137000            | C2     | 570             | 3.00                 | 6.06 | 10.06 | 8.00  | 4.0 | 6.0 | 40.000 | 38.750 | 18 | 0.625 |
| 36CB525 | 104431 | 172000            | C2     | 676             | 4.00                 | 7.00 | 10.25 | 9.00  | 3.9 | 6.7 | 44.625 | 43.125 | 18 | 0.750 |
| 40CB525 | 104432 | 211000            | 3/4 RH | 777             | 4.00                 | 7.00 | 10.50 | 9.00  | 4.0 | 6.8 | 48.625 | 47.125 | 20 | 0.750 |
| 45CB525 | 104433 | 260000            | 3/4 RH | 1014            | 4.38                 | 9.88 | 10.69 | 10.00 | 3.9 | 7.2 | 53.625 | 52.125 | 24 | 0.750 |

| Size    | Part <sup>®</sup><br>Number | M <sup>®</sup><br>Torque<br>Rating | Rotorseal<br>Size | Weight<br>Mass | Hub Bore |      | D   | D <sub>37</sub> | D <sub>38</sub> | ⊙<br>G | H <sub>2</sub> | L (Bolt) |      |    |
|---------|-----------------------------|------------------------------------|-------------------|----------------|----------|------|-----|-----------------|-----------------|--------|----------------|----------|------|----|
|         |                             |                                    |                   |                | Min.     | Max. |     |                 |                 |        |                | No.      | Dia. |    |
| 12CB350 | 104420                      | 1500                               | B3                | 38             | 38       | 84   | 197 | 83              | 69              | 56     | 447,7          | 428,6    | 14   | 10 |
| 14CB400 | 104421                      | 2230                               | B3                | 58             | 51       | 108  | 213 | 127             | 74              | 84     | 498,5          | 479,4    | 16   | 10 |
| 16CB500 | 104422                      | 3980                               | C2                | 92             | 51       | 124  | 235 | 146             | 94              | 97     | 596,9          | 571,5    | 8    | 13 |
| 18CB500 | 104423                      | 4970                               | C2                | 111            | 57       | 127  | 237 | 146             | 102             | 102    | 647,7          | 619,1    | 12   | 13 |
| 20CB500 | 104424                      | 6060                               | C2                | 123            | 64       | 127  | 238 | 146             | 99              | 104    | 698,5          | 669,9    | 12   | 13 |
| 22CB500 | 104425                      | 7040                               | C2                | 146            | 70       | 144  | 240 | 165             | 99              | 117    | 749,3          | 720,7    | 12   | 13 |
| 24CB500 | 104426                      | 8480                               | C2                | 161            | 70       | 144  | 241 | 165             | 102             | 122    | 800,1          | 771,5    | 16   | 13 |
| 26CB525 | 104427                      | 10400                              | C2                | 192            | 70       | 144  | 256 | 165             | 102             | 119    | 863,6          | 831,9    | 16   | 16 |
| 28CB525 | 104428                      | 12000                              | C2                | 203            | 70       | 144  | 257 | 165             | 102             | 122    | 914,4          | 882,7    | 16   | 16 |
| 30CB525 | 104429                      | 13700                              | C2                | 236            | 76       | 160  | 259 | 203             | 102             | 150    | 965,2          | 933,5    | 16   | 16 |
| 32CB525 | 104430                      | 15500                              | C2                | 258            | 76       | 154  | 256 | 203             | 102             | 152    | 1016,0         | 984,3    | 18   | 16 |
| 36CB525 | 104431                      | 19400                              | C2                | 306            | 102      | 178  | 260 | 229             | 99              | 170    | 1133,5         | 1095,4   | 18   | 19 |
| 40CB525 | 104432                      | 23800                              | 3/4 RH            | 352            | 102      | 178  | 267 | 229             | 102             | 173    | 1235,1         | 1197,0   | 20   | 19 |
| 45CB525 | 104433                      | 29400                              | 3/4 RH            | 459            | 111      | 251  | 271 | 254             | 99              | 183    | 1362,1         | 1324,0   | 24   | 19 |

| SI |  | N·m<br>@ 5,2 bar |  | kg | Dimensions in millimeters |  |  |  |  |  |  |  |  |  |
|----|--|------------------|--|----|---------------------------|--|--|--|--|--|--|--|--|--|
|----|--|------------------|--|----|---------------------------|--|--|--|--|--|--|--|--|--|

# Airflex® CB Clutch and Brake Application

Form CB-429 — Gap Mounted Arrangement —

Technical Data — Sizes 12 to 45

Section B

| Size    | Part Numbers       |                   |        |        |        | Size    | Part Numbers       |                   |        |        |        |
|---------|--------------------|-------------------|--------|--------|--------|---------|--------------------|-------------------|--------|--------|--------|
|         | Clutch®<br>Element | Brake®<br>Element | Spider | Drum   | Hub    |         | Clutch®<br>Element | Brake®<br>Element | Spider | Drum   | Hub    |
| 12CB350 | 142098JG           | 142098JA          | 408374 | 411860 | 406902 | 26CB525 | 142268KP           | 142268KY          | 408281 | 411867 | 406916 |
| 14CB400 | 142087JG           | 142087JA          | 408376 | 411861 | 406904 | 26CB525 | 142269KP           | 142269KY          | 408282 | 411868 | 406918 |
| 16CB500 | 142211KP           | 142211KY          | 408276 | 411862 | 406906 | 30CB525 | 142270KP           | 142270KY          | 407096 | 411869 | 406920 |
| 18CB500 | 142264KP           | 142264KY          | 408277 | 411863 | 406908 | 32CB525 | 142271KP           | 142271KY          | 407097 | 411870 | 406922 |
| 20CB500 | 142265KP           | 142265KY          | 408278 | 411864 | 406910 | 36CB525 | 142272KP           | 142272KY          | 407098 | 411871 | 406924 |
| 22CB500 | 142266KP           | 142266KY          | 408279 | 411865 | 406912 | 40CB525 | 142273KP           | 142273KY          | 407099 | 411872 | 406926 |
| 24CB500 | 142267KP           | 142267KY          | 408280 | 411866 | 406914 | 45CB525 | 142443KP           | 142443KY          | 502369 | 411873 | 406928 |

| English | lb  | lb · ft² | lb   | lb · ft² | lb  | lb · ft² | lb  | lb · ft² |
|---------|-----|----------|------|----------|-----|----------|-----|----------|
| 12CB350 | 30  | 12       | 46   | 8.1      | 61  | 13       | 22  | 0.8      |
| 14CB400 | 35  | 21       | 50   | 11.2     | 83  | 24       | 54  | 3.2      |
| 16CB500 | 74  | 52       | 146  | 53       | 109 | 43       | 74  | 6.6      |
| 18CB500 | 81  | 70       | 152  | 63       | 126 | 63       | 83  | 9        |
| 20CB500 | 88  | 90       | 183  | 91       | 139 | 87       | 97  | 16       |
| 22CB500 | 95  | 114      | 227  | 123      | 152 | 117      | 133 | 25       |
| 24CB500 | 102 | 142      | 257  | 150      | 173 | 156      | 142 | 33       |
| 26CB525 | 133 | 210      | 298  | 220      | 198 | 211      | 164 | 43       |
| 28CB525 | 140 | 252      | 337  | 270      | 216 | 268      | 172 | 55       |
| 30CB525 | 148 | 303      | 341  | 390      | 237 | 337      | 213 | 69       |
| 32CB525 | 157 | 359      | 392  | 453      | 254 | 413      | 234 | 97       |
| 36CB525 | 178 | 510      | 505  | 710      | 287 | 597      | 319 | 157      |
| 40CB525 | 201 | 730      | 464  | 774      | 327 | 840      | 344 | 214      |
| 45CB525 | 262 | 1115     | 1294 | 1887     | 369 | 1212     | 491 | 379      |

| Size ®  | Weight         | Wk²     | Weight | Wk²     | Weight | Wk²     | Weight | Wk²     |
|---------|----------------|---------|--------|---------|--------|---------|--------|---------|
|         | Element (each) |         | Spider |         | Drum   |         | Hub    |         |
|         | Mass           | J       | Mass   | J       | Mass   | J       | Mass   | J       |
| 12CB350 | 14             | 0,50    | 21     | 0,34    | 28     | 0,55    | 10     | 0,03    |
| 14CB400 | 16             | 0,88    | 23     | 0,47    | 38     | 1,01    | 25     | 0,13    |
| 16CB500 | 34             | 2,18    | 66     | 2,23    | 49     | 1,81    | 34     | 0,28    |
| 18CB500 | 37             | 2,94    | 69     | 2,65    | 57     | 2,65    | 38     | 0,38    |
| 20CB500 | 40             | 3,78    | 83     | 3,82    | 63     | 3,65    | 44     | 0,67    |
| 22CB500 | 43             | 4,79    | 103    | 5,17    | 69     | 4,91    | 60     | 1,05    |
| 24CB500 | 46             | 5,96    | 117    | 6,30    | 79     | 6,55    | 64     | 1,39    |
| 26CB525 | 60             | 8,82    | 135    | 9,24    | 90     | 8,86    | 74     | 1,81    |
| 28CB525 | 64             | 10,58   | 153    | 11,34   | 98     | 11,26   | 78     | 2,31    |
| 30CB525 | 67             | 12,73   | 155    | 16,38   | 108    | 14,15   | 97     | 2,90    |
| 32CB525 | 71             | 15,08   | 178    | 19,03   | 115    | 17,35   | 106    | 4,07    |
| 36CB525 | 81             | 21,42   | 229    | 29,82   | 130    | 25,07   | 145    | 6,59    |
| 40CB525 | 91             | 30,66   | 211    | 32,51   | 148    | 35,28   | 156    | 8,99    |
| 45CB525 | 119            | 46,83   | 587    | 79,25   | 168    | 50,90   | 223    | 15,92   |
| SI ®    | kg             | kg · m² | kg     | kg · m² | kg     | kg · m² | kg     | kg · m² |

## Notes:

① Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.

② Based upon minimum bores. Rotorseal and hose not included.

③  $M (in) = 0.268$   
 $(H/2 - \text{radius of bore}) + 0.34$   
 $M (mm) = 0.268$   
 $(H/2 - \text{radius of bore}) + 8,7$

④ American National Pipe Thread

⑤ Pipe tap not required. Thru hole diameter 0.44 in (11 mm).

⑥ Refer to Rotorseal Section for mounting and dimension information.

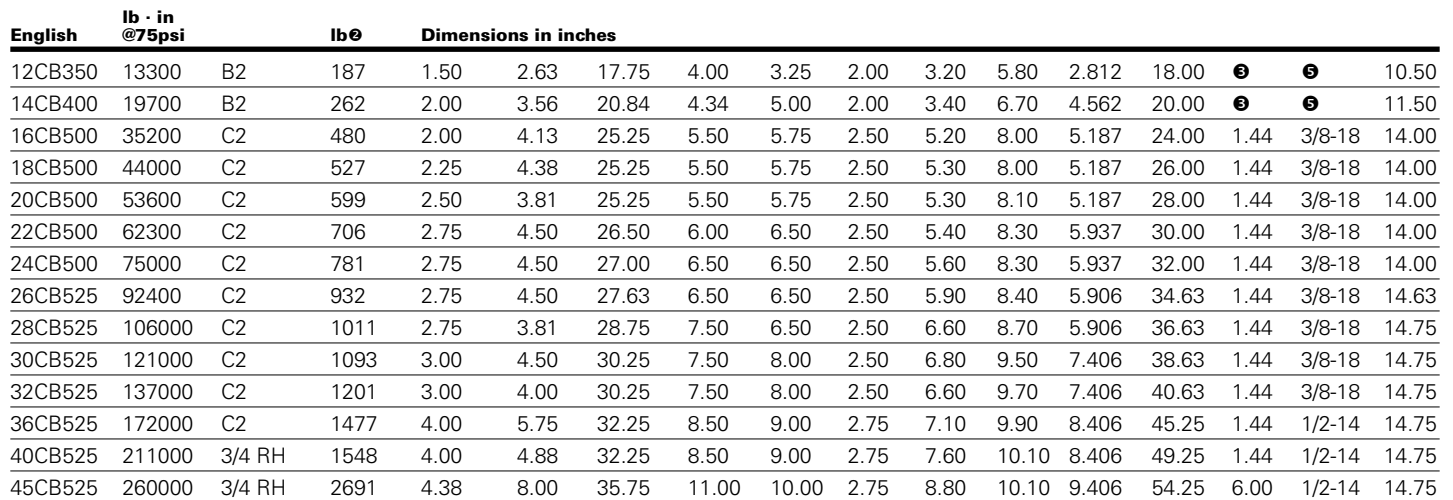
⑦ Refer to CB Spider Piping and Configuration catalog page for other sizes.

⑧ Element sizes 12 and 14 have two inlets. All other sizes have four air inlets.

⑨ Part number shown for element with one air inlet.

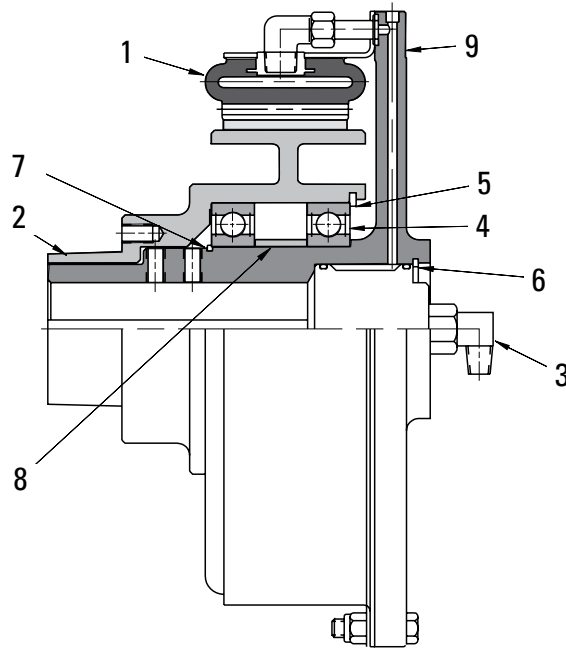
⑩ Based upon minimum bores.

## Section B

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# Airflex® CB Clutch Application

Form PCB-201 — Sheave Clutch Arrangement —  
Component Part Numbers — Sizes 4 to 10  
Section B



**Part Numbers for Complete Applications and Spiders -Item 9**

| 4CB200  |             |           | 6CB200  |             |           | 8CB250  |             |           | 10CB300 |             |           |
|---------|-------------|-----------|---------|-------------|-----------|---------|-------------|-----------|---------|-------------|-----------|
| Bore in | Application | Spider    | Bore in | Application | Spider    | Bore in | Application | Spider    | Bore in | Application | Spider    |
| 0.875   | 145987F     | 407884-02 | 1.125   | 145866Q     | 506516-01 | 1.625   | 145873W     | 506513-01 | 1.875   | 145874AC    | 506514-01 |
| 1.000   | 145987H     | 407884-04 | 1.375   | 145866R     | 506516-02 | 1.875   | 145873X     | 506513-02 | 2.125   | 145874AD    | 506514-02 |
| 1.125   | 145987G     | 407884-03 | 1.625   | 145866S     | 506516-03 |         |             |           | 2.375   | 145874AE    | 506514-03 |

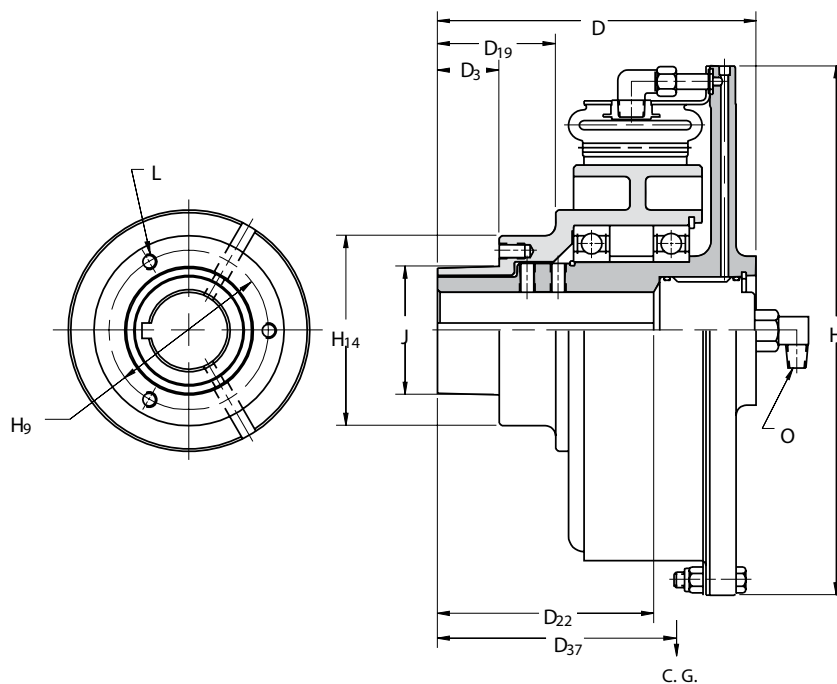
| Size    | 1<br>Element | 2<br>Drum | 3<br>Rotorseal | 4<br>Bearing | 5<br>Retainer | 6<br>Retainer | 7<br>Retainer | 8<br>Spacer |
|---------|--------------|-----------|----------------|--------------|---------------|---------------|---------------|-------------|
| 4CB200  | 142840JB     | 410175    | 145631L        | 159x78       | 138x16        | 138x19        | 139x6         | 202737      |
| 6CB200  | 142095JG     | 407926    | 145106BM       | 159x40       | 138x15        | 138x56        | 139x16        | 202756      |
| 8CB250  | 142096JG     | 505112    | 145106BL       | 159x154      | 138x58        | 138x27        | 136x43        | 202787      |
| 10CB300 | 142197JG     | 505196    | 145107BA       | 6            | 138x5         |               | 7             | 8           |

## Notes:

- ❶ Available only for bores shown. Tolerance for bores:  
thru 2.000 +0.0016/-0.000 in  
2.125 and 2.375 +0.0018/-0.000 in  
Square key for bores thru 2.125 in.  
Rectangular key for 2.375 in. bore.
- ❷ Tolerance +0.000/-0.002 in (+0.00/-0.05 mm).
- ❸ American National Standard for Unified Screw Threads.  
Bolts and lockwashers furnished with clutch.
- ❹ American National Pipe Thread
- ❺ Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ❻ Two different size bearings used:  
Bearing adjacent to rotorseal - 159x157  
Bearing adjacent to taper - 159x154
- ❼ For bearing adjacent to rotorseal - 139x2 For bearing adjacent to taper - 139x45
- ❽ Not required. Bearings held by retainers.

# Airflex® CB Clutch Application

Form PCB-201 — Sheave Clutch Arrangement —  
Dimensional and Technical Data — Sizes 4 to 10  
Section B



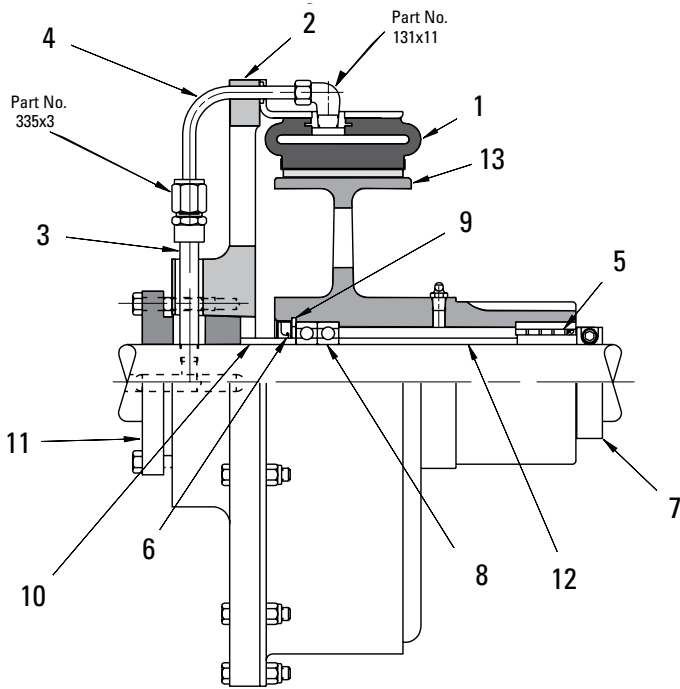
| English | lb · in<br>@75 psi | rpm  | lb | lb · ft² |     |
|---------|--------------------|------|----|----------|-----|
| 4CB200  | 1000               | 1800 | 14 | 0.4      | 0.1 |
| 6CB200  | 2040               | 1800 | 33 | 1.7      | 0.4 |
| 8CB250  | 4290               | 1800 | 55 | 3.9      | 1.2 |
| 10CB300 | 8150               | 1800 | 96 | 10       | 3.2 |

|         | Mr<br>Torque<br>Rating | Maximum<br>Speed | Weight                |                     |                 |
|---------|------------------------|------------------|-----------------------|---------------------|-----------------|
| Size    |                        |                  | Mass                  | Wk <sup>2</sup>     | Wk <sup>2</sup> |
|         |                        |                  |                       |                     |                 |
|         |                        |                  | Element<br>and Spider |                     |                 |
|         |                        |                  |                       | J                   | Drum<br>J       |
| 4CB200  | 113                    | 1800             | 6,3                   | 0,02                | 0,0042          |
| 6CB200  | 231                    | 1800             | 15                    | 0,07                | 0,02            |
| 8CB250  | 485                    | 1800             | 25                    | 0,16                | 0,05            |
| 10CB300 | 921                    | 1800             | 43                    | 0,42                | 0,13            |
| SI      | N · m<br>@ 5, 2 bar    | rpm              | kg                    | kg · m <sup>2</sup> |                 |

| English | Dimensions in inches |                           |                 |                 |                 |                 |       |                |                 |       |                         |                |
|---------|----------------------|---------------------------|-----------------|-----------------|-----------------|-----------------|-------|----------------|-----------------|-------|-------------------------|----------------|
| 4CB200  | 0.875-1.000-1.125    | 5.19                      | 1.56            | 3.00            | 0.94            | 3.06            | 7.31  | 2.683          | 3.13            | 2.188 | SD                      | 1/4-20 1/8-27  |
| 6CB200  | 1.125-1.375-1.625    | 6.69                      | 2.75            | 4.50            | 1.38            | 4.31            | 10.75 | 3.312          | 3.88            | 2.813 | SK                      | 5/16-18 1/4-18 |
| 8CB250  | 1.625-1.875          | 7.75                      | 2.88            | 5.41            | 1.50            | 4.97            | 12.88 | 3.875          | 4.63            | 3.126 | SF                      | 3/8-16 1/4-18  |
| 10CB300 | 1.875-2.125-2.375    | 9.75                      | 4.50            | 7.13            | 1.88            | 6.44            | 15.38 | 5.000          | 6.00            | 3.836 | E                       | 1/2-13 1/2-14  |
| Size    | Bores<br>Available   | D                         | D <sub>19</sub> | D <sub>22</sub> | D <sub>30</sub> | D <sub>37</sub> | H     | H <sub>9</sub> | H <sub>14</sub> | J     | Ø<br>L                  | Ø<br>O         |
|         |                      |                           |                 |                 |                 |                 |       |                |                 |       | Dia. Lg End Fits QD Hub |                |
| 4CB200  | 0.875-1.000-1.125    | 132                       | 40              | 76              | 24              | 78              | 186   | 68,1           | 80              | 55,6  | SD                      | 1/4-20 1/8-27  |
| 6CB200  | 1.125-1.375-1.625    | 170                       | 70              | 114             | 35              | 109             | 273   | 84,1           | 99              | 71,5  | SK                      | 5/16-18 1/4-18 |
| 8CB250  | 1.625-1.875          | 197                       | 73              | 137             | 38              | 126             | 327   | 98,4           | 118             | 79,4  | SF                      | 3/8-16 1/4-18  |
| 10CB300 | 1.875-2.125-2.375    | 248                       | 114             | 181             | 48              | 164             | 391   | 127,0          | 152             | 97,4  | E                       | 1/2-13 1/2-14  |
| SI      | inches               | Dimensions in millimeters |                 |                 |                 |                 |       |                |                 |       |                         |                |

# Airflex® CB Clutch Application

Form PCB-203 — Bearing Mounted Arrangement —  
Component Part Numbers — Sizes 6 to 14  
Section B



| Shaft Dia (in) | 5<br>Needle<br>Bearing | 6<br>Oil Seal | 7<br>Safety<br>Collar | 8<br>Ball Bear<br>ing | 9<br>Retainer<br>Ring |
|----------------|------------------------|---------------|-----------------------|-----------------------|-----------------------|
| 1.250          | 160x43                 | 113x95        | 149x198               | 159x135               | 138x29                |
| 1.375          | 160x44                 | 113x267       | 149x200               | 159x136               | 138x30                |
| 1.500          | 160x45                 | 113x268       | 149x202               | 159x134               | 138x27                |
| 1.625          | 160x46                 | 113x269       | 149x204               | 159x137               | 138x31                |
| 1.750          | 160x47                 | 113x270       | 149x206               | 159x138               | 138x32                |
| 1.875          | 160x48                 | 113x271       | 149x208               | 159x139               | 138x16                |
| 2.000          | 160x49                 | 113x259       | 149x210               | 159x132               | 138x26                |
| 2.250          | 160x51                 | 113x273       | 149x213               | 159x141               | 138x34                |
| 2.375          | 160x52                 | 113x85        | 149x214               | 159x142               | 138x22                |
| 2.500          | 160x53                 | 113x276       | 149x216               | 159x143               | 138x21                |

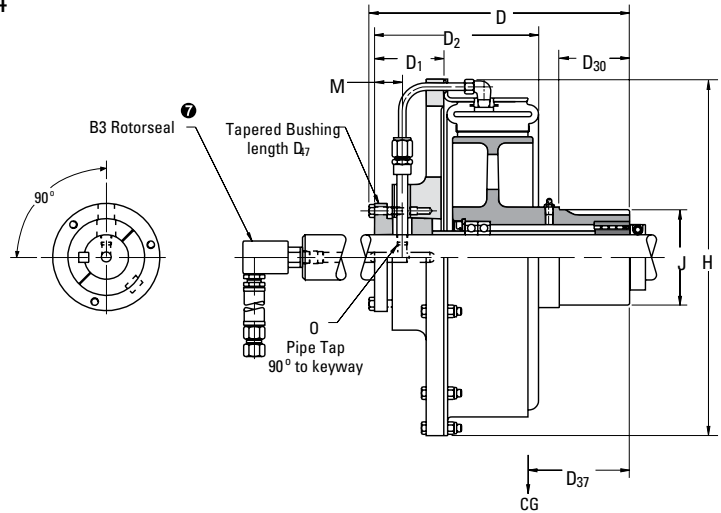
| Size    | 1<br>Element | 2<br>Spider | 3<br>Pipe Nipple | 4<br>Air Tube |
|---------|--------------|-------------|------------------|---------------|
| 6CB200  | 142095JC     | 405307      | 6                | 201641        |
| 8CB250  | 142096JC     | 405308      | 70x135           | 201640        |
| 10CB300 | 142197JC     | 405309      | 70x121           | 201598        |
| 12CB350 | 142098JC     | 405310      | 70x212           | 201654        |
| 14CB400 | 142087JC     | 405311      | 70x121           | 201605        |

| Shaft Diameter in | 6CB200 & 8CB250 |               | 6CB200       |            | 8CB250       |            |
|-------------------|-----------------|---------------|--------------|------------|--------------|------------|
|                   | 10<br>Spacer    | 11<br>Bushing | 12<br>Spacer | 13<br>Drum | 12<br>Spacer | 13<br>Drum |
| 1.250             | 305137-01       | 304040-01     | 305136-22    | 406566-01  | 305136-29    | 406571-01  |
| 1.375             | 305137-02       | 304040-03     | 305136-23    | 406566-02  | 305136-30    | 406571-02  |
| 1.500             | 305137-03       | 304040-05     | 305136-24    | 406566-03  | 305136-31    | 406571-03  |
| 1.625             | 305137-04       | 304040-07     | 305136-25    | 406566-04  | 305136-32    | 406571-04  |
| 1.750             | 305137-05       | 304040-09     | 305136-26    | 406566-05  | 305136-33    | 406571-05  |
| 1.875             | 305137-06       | 304040-11     | 305136-27    | 406566-06  | 305136-34    | 406571-06  |
| 2.000             | 305137-07       | 304040-13     | 305136-28    | 406566-07  | 305136-35    | 406571-07  |

| Shaft Diameter in | 10CB300 thru 14CB400 |               | 10CB300      |            | 12CB350      |            | 14CB400      |            |
|-------------------|----------------------|---------------|--------------|------------|--------------|------------|--------------|------------|
|                   | 10<br>Spacer         | 11<br>Bushing | 12<br>Spacer | 13<br>Drum | 12<br>Spacer | 13<br>Drum | 12<br>Spacer | 13<br>Drum |
| 1.750             | 305137-08            | 304042-01     | 305136-08    | 405141-01  | 305136-01    | 405142-01  | 305136-15    | 405143-01  |
| 1.875             | 305137-09            | 304042-03     | 305136-09    | 405141-02  | 305136-02    | 405142-02  | 305136-16    | 405143-02  |
| 2.000             | 305137-10            | 304042-05     | 305136-10    | 405141-03  | 305136-03    | 405142-03  | 305136-17    | 405143-03  |
| 2.250             | 305137-12            | 304042-09     | 305136-12    | 405141-05  | 305136-05    | 405142-05  | 305136-19    | 405143-05  |
| 2.375             | 305137-13            | 304042-11     | 305136-13    | 405141-06  | 305136-06    | 405142-06  | 305136-20    | 405143-06  |
| 2.500             | 305137-14            | 304042-13     | 305136-14    | 405141-07  | 305136-07    | 405142-07  | 305136-21    | 405143-07  |

# Airflex® CB Clutch Application

## Form PCB-203 — Bearing Mounted Arrangement — Dimensional and Technical Data — Sizes 6 to 14 Section B



| English |        | lb · in<br>@ 75 psi | Dimensions in inches |       |      |      |      |      |      |      |       |       |      |
|---------|--------|---------------------|----------------------|-------|------|------|------|------|------|------|-------|-------|------|
| 6CB200  | 105782 | 2040                | 1.250 thru 2.000     | 10.75 | 2.69 | 6.69 | 3.25 | 0.54 | 6.08 | 2.50 | 10.75 | 4.252 | 1.38 |
| 8CB250  | 105783 | 4290                | 1.250 thru 2.000     | 11.25 | 2.69 | 7.19 | 3.25 | 0.54 | 6.48 | 2.50 | 12.88 | 4.252 | 1.38 |
| 10CB300 | 105784 | 8150                | 1.750 thru 2.500     | 13.06 | 3.44 | 8.56 | 3.50 | 0.73 | 7.76 | 2.88 | 15.38 | 4.752 | 1.38 |
| 12CB350 | 105785 | 13300               | 1.750 thru 2.500     | 13.69 | 3.44 | 9.19 | 3.50 | 0.73 | 8.28 | 2.88 | 17.63 | 4.752 | 1.38 |
| 14CB400 | 105786 | 19700               | 1.750 thru 2.500     | 14.19 | 3.44 | 9.69 | 3.50 | 0.73 | 8.69 | 2.88 | 19.63 | 4.752 | 1.38 |

| Size    | Part <sup>①</sup><br>Number | M <sup>②</sup><br>Torque<br>Rating | Available for <sup>③</sup><br>Shaft Diameters<br>of: | D   | D <sub>1</sub> | D <sub>2</sub> | D <sub>30</sub> | D <sub>33</sub> | D <sub>37</sub> | D <sub>47</sub> | H   | J     | M  |
|---------|-----------------------------|------------------------------------|------------------------------------------------------|-----|----------------|----------------|-----------------|-----------------|-----------------|-----------------|-----|-------|----|
| 6CB200  | 105782                      | 231                                | 1.250 thru 2.000                                     | 273 | 68             | 170            | 83              | 14              | 154             | 64              | 273 | 108,0 | 35 |
| 8CB250  | 105783                      | 485                                | 1.250 thru 2.000                                     | 286 | 68             | 183            | 83              | 14              | 165             | 64              | 327 | 108,0 | 35 |
| 10CB300 | 105784                      | 921                                | 1.750 thru 2.500                                     | 332 | 87             | 217            | 89              | 19              | 197             | 73              | 391 | 120,7 | 35 |
| 12CB350 | 105785                      | 1500                               | 1.750 thru 2.500                                     | 348 | 87             | 233            | 89              | 19              | 210             | 73              | 448 | 120,7 | 35 |
| 14CB400 | 105786                      | 2230                               | 1.750 thru 2.500                                     | 360 | 87             | 246            | 89              | 19              | 221             | 73              | 499 | 120,7 | 35 |

| SI      |      | N · m<br>@ 5, 2 bar | Dimensions in millimeters |       |      |       |      |  |  |  |  |  |  |
|---------|------|---------------------|---------------------------|-------|------|-------|------|--|--|--|--|--|--|
| English | lb ⓐ | lb · ft² ⓐ          |                           |       |      |       |      |  |  |  |  |  |  |
| 6CB200  | 42   | 2.0                 | 0.6                       | 1.250 | 1800 | 1.875 | 1350 |  |  |  |  |  |  |
| 8CB250  | 51   | 4.1                 | 1.0                       | 1.375 | 1700 | 2.000 | 1200 |  |  |  |  |  |  |
| 10CB300 | 88   | 12                  | 2.6                       | 1.500 | 1700 | 2.250 | 1100 |  |  |  |  |  |  |
| 12CB350 | 120  | 22                  | 4.9                       | 1.625 | 1500 | 2.375 | 1000 |  |  |  |  |  |  |
| 14CB400 | 137  | 32                  | 9.1                       | 1.750 | 1350 | 2.500 | 1000 |  |  |  |  |  |  |

| Weight  |      |                     |      |
|---------|------|---------------------|------|
| Size    | Mass | Wk²                 |      |
|         |      | Element<br>& Spider | Drum |
|         |      | J                   |      |
| 6CB200  | 19   | 0,08                | 0,03 |
| 8CB250  | 23   | 0,17                | 0,04 |
| 10CB300 | 40   | 0,50                | 0,11 |
| 12CB350 | 54   | 0,92                | 0,21 |
| 14CB400 | 62   | 1,34                | 0,38 |
| SI      | kgⓐ  | kg · m² ⓐ           |      |

### Notes:

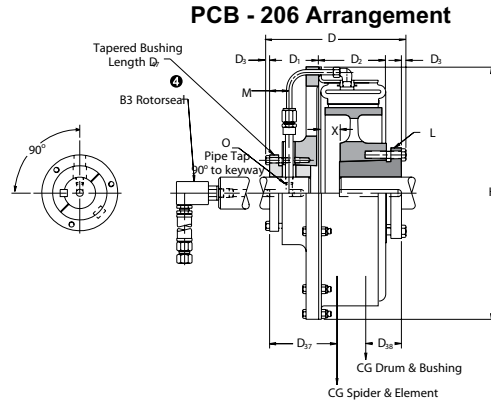
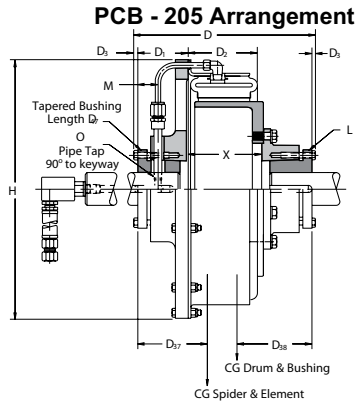
- ① Refers to basic part number only and does not include the rotorseal and hose. When ordering, specify shaft diameter.
- ② Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ③ Available only for inch series shafting in 0.125 increments. Use standard square keys.
- ④ Tolerance +/-0.0005 in (+/-0,01 mm)
- ⑤ Based upon minimum bores.
- ⑥ Based on needle bearing limitation.
- ⑦ Refer to Rotorseal Section for mounting and dimension information.
- ⑧ Part numbers for shaft diameters:  
1.250 thru 1.500 in - 70x135  
All other diameters - 70x45

# Airflex® CB Clutch and Brake Applications

## Forms 204,205,206, & 208 — Tapered Bushing Arrangements —

### Dimensional Data — Sizes 4 to 14

#### Section B



| English | Dimensions in inches |                  |        |       |     |     |      |        |       |     |     |      |
|---------|----------------------|------------------|--------|-------|-----|-----|------|--------|-------|-----|-----|------|
| 4CB200  | 0.875 thru 1.437     | 0.875 thru 1.437 |        |       |     |     |      | 103474 | 4.89  | 2.0 | 1.2 | 0.56 |
| 6CB200  | 1.250 thru 2.000     | 1.250 thru 2.000 | 103433 | 9.13  | 2.0 | 2.2 | 3.56 | 103475 | 6.88  | 2.0 | 1.4 | 0.44 |
| 8CB250  | 1.250 thru 2.000     | 1.250 thru 2.000 | 103434 | 9.63  | 2.4 | 2.7 | 4.06 | 103476 | 6.88  | 2.7 | 1.7 | 1.31 |
| 10CB300 | 1.750 thru 2.500     | 1.750 thru 2.500 | 103435 | 11.81 | 3.2 | 3.2 | 5.50 | 103477 | 8.31  | 3.2 | 2.0 | 2.00 |
|         | 1.750 thru 2.500     | 2.563 thru 3.125 | 103727 | 12.78 | 3.2 | 3.9 | 4.88 | 103737 | 9.28  | 3.2 | 2.5 | 1.38 |
|         | 2.563 thru 3.125     | 2.563 thru 3.125 | 103445 | 13.75 | 3.2 | 3.9 | 4.25 | 103478 | 10.25 | 3.2 | 2.5 | 0.75 |
|         | 2.563 thru 3.125     | 1.750 thru 2.500 | 103728 | 12.78 | 3.2 | 3.2 | 4.88 | 103738 | 9.28  | 3.2 | 2.0 | 1.38 |
| 12CB350 | 1.750 thru 2.500     | 1.750 thru 2.500 | 103446 | 12.44 | 3.3 | 3.4 | 6.13 | 103479 | 8.94  | 3.2 | 1.3 | 2.63 |
|         | 1.750 thru 2.500     | 2.563 thru 3.125 | 103729 | 13.41 | 3.3 | 3.9 | 5.50 | 103739 | 9.91  | 3.2 | 2.5 | 2.00 |
|         | 2.563 thru 3.125     | 2.563 thru 3.125 | 103447 | 14.38 | 3.7 | 3.9 | 4.88 | 103480 | 10.88 | 3.2 | 2.5 | 1.38 |
|         | 2.563 thru 3.125     | 1.750 thru 2.500 | 103730 | 13.41 | 3.3 | 3.4 | 5.50 | 103740 | 9.91  | 3.2 | 1.3 | 2.00 |
| 14CB400 | 1.750 thru 2.500     | 1.750 thru 2.500 | 103448 | 12.94 | 3.7 | 3.3 | 6.63 | 103499 | 9.44  | 3.7 | 2.0 | 3.13 |
|         | 1.750 thru 2.500     | 2.563 thru 3.125 | 103731 | 13.91 | 3.7 | 4.1 | 6.00 | 103741 | 10.41 | 3.7 | 3.0 | 2.50 |
|         | 2.563 thru 3.125     | 2.563 thru 3.125 | 103449 | 14.88 | 3.7 | 4.1 | 5.88 | 103482 | 11.38 | 3.7 | 3.0 | 1.88 |
|         | 2.563 thru 3.125     | 1.750 thru 2.500 | 103732 | 13.91 | 3.7 | 3.3 | 6.00 | 103742 | 10.41 | 3.7 | 2.0 | 2.50 |

| Size    | Shaft Diameter   |                           | PCB-205 Arrangement |     |                 |                 |     |  | PCB-206 Arrangement |     |                 |                 |    |
|---------|------------------|---------------------------|---------------------|-----|-----------------|-----------------|-----|--|---------------------|-----|-----------------|-----------------|----|
|         | Spider           | Hub                       | Part No.            | D   | D <sub>37</sub> | D <sub>38</sub> | X   |  | Part No.            | D   | D <sub>37</sub> | D <sub>38</sub> | X  |
| 4CB200  | 0.875 thru 1.437 | 0.875 thru 1.437          | 103474              | 124 | 51              | 30              | 14  |  |                     |     |                 |                 |    |
| 6CB200  | 1.250 thru 2.000 | 1.250 thru 2.000          | 103433              | 232 | 51              | 56              | 90  |  | 103475              | 175 | 51              | 36              | 11 |
| 8CB250  | 1.250 thru 2.000 | 1.250 thru 2.000          | 103434              | 245 | 61              | 69              | 103 |  | 103476              | 175 | 61              | 43              | 33 |
| 10CB300 | 1.750 thru 2.500 | 1.750 thru 2.500          | 103435              | 300 | 81              | 81              | 140 |  | 103477              | 211 | 81              | 51              | 51 |
|         | 1.750 thru 2.500 | 2.563 thru 3.125          | 103727              | 325 | 81              | 99              | 124 |  | 103737              | 236 | 81              | 64              | 35 |
|         | 2.563 thru 3.125 | 2.563 thru 3.125          | 103445              | 349 | 81              | 99              | 108 |  | 103478              | 260 | 81              | 64              | 19 |
|         | 2.563 thru 3.125 | 1.750 thru 2.500          | 103728              | 325 | 81              | 81              | 124 |  | 103738              | 236 | 81              | 51              | 35 |
| 12CB350 | 1.750 thru 2.500 | 1.750 thru 2.500          | 103446              | 316 | 84              | 86              | 156 |  | 103479              | 227 | 81              | 33              | 67 |
|         | 1.750 thru 2.500 | 2.563 thru 3.125          | 103729              | 341 | 84              | 99              | 140 |  | 103739              | 252 | 81              | 64              | 51 |
|         | 2.563 thru 3.125 | 2.563 thru 3.125          | 103447              | 365 | 94              | 99              | 124 |  | 103480              | 276 | 81              | 64              | 35 |
|         | 2.563 thru 3.125 | 1.750 thru 2.500          | 103730              | 341 | 84              | 86              | 140 |  | 103740              | 252 | 94              | 33              | 51 |
| 14CB400 | 1.750 thru 2.500 | 1.750 thru 2.500          | 103448              | 329 | 94              | 84              | 168 |  | 103499              | 240 | 94              | 51              | 80 |
|         | 1.750 thru 2.500 | 2.563 thru 3.125          | 103731              | 353 | 94              | 104             | 152 |  | 103741              | 264 | 94              | 76              | 64 |
|         | 2.563 thru 3.125 | 2.563 thru 3.125          | 103449              | 378 | 94              | 104             | 149 |  | 103482              | 289 | 94              | 76              | 48 |
|         | 2.563 thru 3.125 | 1.750 thru 2.500          | 103732              | 353 | 94              | 84              | 152 |  | 103742              | 264 | 94              | 51              | 64 |
| SI      | inches           | Dimensions in millimeters |                     |     |                 |                 |     |  |                     |     |                 |                 |    |

| Shaft Diameter   | D <sub>1</sub>       | D <sub>3</sub> | D <sub>47</sub> | M    |
|------------------|----------------------|----------------|-----------------|------|
| 0.875 thru 1.437 | 2.06                 | 0.20           | 1.94            | 1.13 |
| 1.250 thru 2.000 | 2.69                 | 0.28           | 2.50            | 1.38 |
| 1.750 thru 2.500 | 3.44                 | 0.28           | 2.88            | 1.38 |
| 2.563 thru 3.125 | 4.31                 | 0.38           | 4.38            | 2.25 |
| English          | Dimensions in inches |                |                 |      |

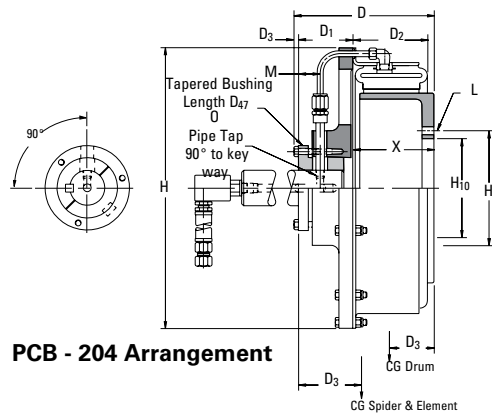
| Shaft Diameter Ø | D <sub>1</sub>       | D <sub>3</sub> | D <sub>47</sub> | M  |
|------------------|----------------------|----------------|-----------------|----|
| 0.875 thru 1.437 | 52                   | 5              | 49              | 29 |
| 1.250 thru 2.000 | 68                   | 7              | 64              | 35 |
| 1.750 thru 2.500 | 87                   | 7              | 73              | 35 |
| 2.563 thru 3.125 | 109                  | 10             | 111             | 57 |
| SI               | Dimensions in inches |                |                 |    |

# Airflex® CB Clutch and Brake Applications

Forms 204, 205, 206, & 208 — Tapered Bushing Arrangements —

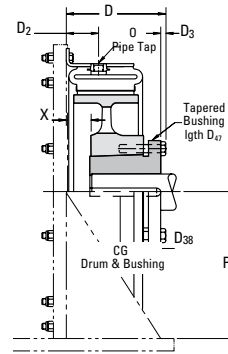
Dimensional Data — Sizes 4 to 14

Section B



PCB - 204 Arrangement

PCB - 208 Arrangement



Dimensions in inches

| English | lb · in<br>@75psi | Dimensions in inches |      |       |       |       |   |       |        |        |       |
|---------|-------------------|----------------------|------|-------|-------|-------|---|-------|--------|--------|-------|
|         |                   |                      |      |       |       |       |   |       |        |        |       |
| 4CB200  | 1000              | 2.63                 | 1.38 | 7.25  |       |       |   |       | 1/8-27 | 1/8-27 | 3.88  |
| 6CB200  | 2040              | 2.94                 | 1.56 | 10.75 | 4.250 | 3.500 | 6 | 0.406 | 1/4-18 | 3/8-18 | 5.63  |
| 8CB250  | 4290              | 3.44                 | 1.91 | 12.47 | 5.250 | 4.250 | 8 | 0.406 | 1/4-18 | 3/8-18 | 6.69  |
| 10CB300 | 8150              | 4.13                 | 2.00 | 15.37 | 7.250 | 6.250 | 6 | 0.531 | 1/4-18 | 3/8-18 | 7.94  |
| 12CB350 | 13300             | 4.72                 | 2.00 | 17.62 | 7.250 | 6.250 | 6 | 0.531 | 1/4-18 | 3/8-18 | 9.06  |
| 14CB400 | 19700             | 5.22                 | 2.00 | 19.62 | 9.250 | 8.250 | 6 | 0.531 | 1/4-18 | 3/8-18 | 10.00 |

|         | 0                |                |                 |     |                | 2               |          |      | 3      | 3              |        |
|---------|------------------|----------------|-----------------|-----|----------------|-----------------|----------|------|--------|----------------|--------|
| Size    | Torque<br>Rating | D <sub>2</sub> | D <sub>24</sub> | H   | H <sub>9</sub> | H <sub>10</sub> | L (Bolt) |      | O      | O <sub>4</sub> | P min. |
|         |                  |                |                 |     |                |                 | Number   | Size |        |                |        |
| 4CB200  | 113              | 67             | 35              | 184 |                |                 |          |      | 1/8-27 | 1/8-27         | 99     |
| 6CB200  | 231              | 75             | 40              | 273 | 108,0          | 88,9            | 6        | 10,3 | 1/4-18 | 3/8-18         | 143    |
| 8CB250  | 485              | 87             | 49              | 317 | 133,4          | 108,0           | 8        | 10,3 | 1/4-18 | 3/8-18         | 170    |
| 10CB300 | 921              | 105            | 51              | 390 | 184,2          | 158,8           | 6        | 13,5 | 1/4-18 | 3/8-18         | 202    |
| 12CB350 | 1500             | 120            | 51              | 448 | 184,2          | 158,8           | 6        | 13,5 | 1/4-18 | 3/8-18         | 230    |
| 14CB400 | 2230             | 133            | 51              | 498 | 235,0          | 209,6           | 6        | 13,5 | 1/4-18 | 3/8-18         | 254    |

SI @ 5,2 bar Dimensions in millimeters

| English | Dimensions in inches |  |        |       |     |     |        |        |      |      |      |
|---------|----------------------|--|--------|-------|-----|-----|--------|--------|------|------|------|
| 4CB200  | 0.875 thru 1.437     |  |        | 2.0   |     |     | 103502 | 2.63   | 1.2  | 0.44 |      |
| 6CB200  | 1.250 thru 2.000     |  | 103419 | 6.28  | 2.0 | 1.1 | 3.50   | 103503 | 3.41 | 1.4  | 0.63 |
| 8CB250  | 1.250 thru 2.000     |  | 103420 | 6.78  | 2.4 | 1.1 | 4      | 103504 | 3.91 | 1.7  | 0.94 |
| 10CB300 | 1.750 thru 2.500     |  | 103421 | 8.22  | 3.2 | 1.4 | 5.06   | 103505 | 4.59 | 2.0  | 1.44 |
|         | 2.563 thru 3.125     |  | 103422 | 9.19  | 4.0 | 1.4 | 4.44   | 103506 | 5.56 | 2.5  | 0.81 |
| 12CB350 | 1.750 thru 2.500     |  | 103423 | 8.84  | 3.5 | 1.5 | 5.69   | 103507 | 5.22 | 1.3  | 2.06 |
|         | 2.563 thru 3.125     |  | 103424 | 9.81  | 4.1 | 1.5 | 5.06   | 103508 | 6.17 | 2.5  | 1.44 |
| 14CB400 | 1.750 thru 2.500     |  | 103425 | 9.34  | 3.8 | 1.6 | 6.19   | 103509 | 5.72 | 2.0  | 2.56 |
|         | 2.563 thru 3.125     |  | 103426 | 10.31 | 4.4 | 1.6 | 5.56   | 103510 | 6.69 | 3.0  | 1.94 |

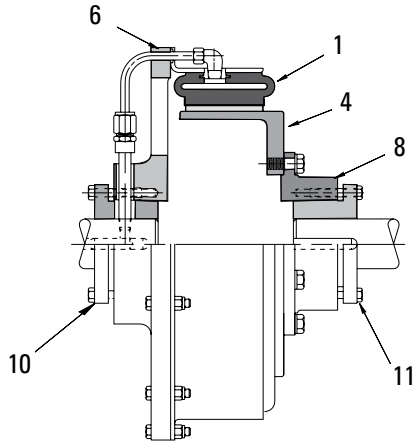
| Size    | for Spider or DrumØ | PCB-204 Assembly |     |                 |                 |     | PCB-208 Assembly |     |                 |    |
|---------|---------------------|------------------|-----|-----------------|-----------------|-----|------------------|-----|-----------------|----|
|         | Shaft Diameter      | Part No.         | D   | D <sub>37</sub> | D <sub>38</sub> | X   | Part No.         | D   | D <sub>38</sub> | X  |
| 4CB200  | 0.875 thru 1.437    |                  |     | 51              |                 |     | 103502           | 67  | 30              | 11 |
| 6CB200  | 1.250 thru 2.000    | 103419           | 160 | 51              | 28              | 89  | 103503           | 87  | 36              | 16 |
| 8CB250  | 1.250 thru 2.000    | 103420           | 172 | 61              | 28              | 102 | 103504           | 99  | 43              | 24 |
| 10CB300 | 1.750 thru 2.500    | 103421           | 209 | 81              | 36              | 129 | 103505           | 117 | 51              | 37 |
|         | 2.563 thru 3.125    | 103422           | 233 | 102             | 36              | 113 | 103506           | 141 | 64              | 21 |
| 12CB350 | 1.750 thru 2.500    | 103423           | 225 | 89              | 38              | 145 | 103507           | 133 | 33              | 52 |
|         | 2.563 thru 3.125    | 103424           | 249 | 104             | 38              | 129 | 103508           | 157 | 64              | 37 |
| 14CB400 | 1.750 thru 2.500    | 103425           | 237 | 97              | 41              | 157 | 103509           | 145 | 51              | 65 |
|         | 2.563 thru 3.125    | 103426           | 262 | 112             | 41              | 141 | 103510           | 170 | 76              | 49 |

SI inches Dimensions in millimeters

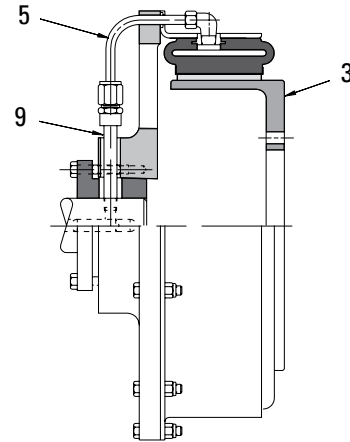
Notes appear on component parts page (p B-38).

# Airflex® CB Clutch and Brake Applications

Forms 204, 205, 206, & 208 — Tapered Bushing Arrangements —  
Component Part Numbers — Sizes 4 to 14  
Section B



**PCB - 205 Arrangement**



**PCB - 204 Arrangement**

| Size    | 1              | 2             | 3                 | 4                   | 5        |
|---------|----------------|---------------|-------------------|---------------------|----------|
|         | Clutch Element | Brake Element | Drum w/thru holes | Drum w/tapped holes | Air Tube |
| 4CB200  | 142840JD       | 142840JA      |                   |                     | 202735   |
| 6CB200  | 142095JC       | 142095JA      | 407043            | 407044              | 201641   |
| 8CB250  | 142096JC       | 142096JA      | 407045            | 407046              | 201640   |
| 10CB300 | 142197JC       | 142197JA      | 407047            | 407048              | 201598   |
| 12CB350 | 142098JC       | 142098JA      | 407049            | 407050              | 201654   |
| 14CB400 | 142087JC       | 142087JA      | 407051            | 407052              | 201605   |

| Size    | Shaft Diameter in | 6      | 7             | 8        | 9           |
|---------|-------------------|--------|---------------|----------|-------------|
|         |                   | Spider | Integral Drum | Drum Hub | Pipe Nipple |
| 4CB200  | 0.875-1.125       | 407855 | 407854        |          | 70 x 185    |
|         | 1.188-1.438       | 407855 | 407854        |          | 70 x 5      |
| 6CB200  | 1.250-2.000       | 405307 | 405325        | 405326   | 70 x 135    |
| 8CB250  | 1.250-2.000       | 405308 | 405341        | 405326   | 70 x 19     |
| 10CB300 | 1.750-2.500       | 405309 | 405342        | 405331   | 70 x 121    |
|         | 2.563-3.125       | 405312 | 405343        | 405334   | 70 x 19     |
| 12CB350 | 1.750-2.500       | 405310 | 405344        | 405331   | 70 x 212    |
|         | 2.563-3.125       | 405313 | 405345        | 405334   | 70 x 212    |
| 14CB400 | 1.750-2.500       | 405311 | 405346        | 405323   | 70 x 145    |
|         | 2.563-3.125       | 405314 | 405347        | 405324   | 70 x 19     |

## 4CB200

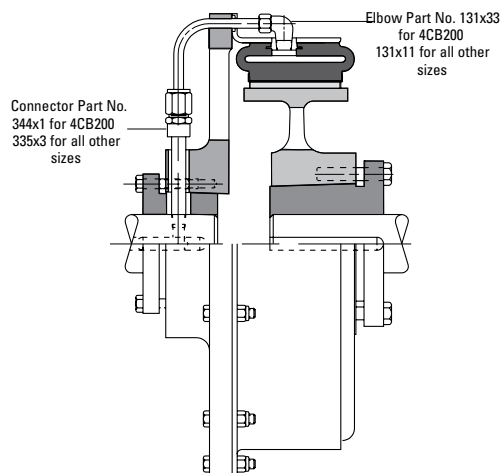
| Shaft Diameter in | 10 Bushing | 11 Bushing |
|-------------------|------------|------------|
| 0.875             | 304038-1   | 304037-7   |
| 0.938             | 304038-2   | 304037-8   |
| 1.000             | 304038-3   | 304037-9   |
| 1.063             | 304038-4   | 304037-10  |
| 1.125             | 304038-5   | 304037-11  |
| 1.188             | 304038-6   | 304037-12  |
| 1.250             | 304038-7   | 304037-13  |
| 1.313             | 304038-8   | 304037-14  |
| 1.375             | 304038-9   | 304037-15  |
| 1.438             | 304038-10  | 304037-16  |

## 6CB200 & 8CB250

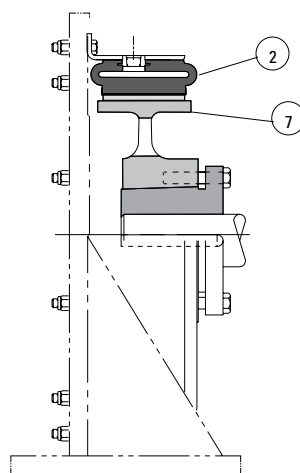
| Shaft Diameter in | 10 Bushing | 11 Bushing |
|-------------------|------------|------------|
| 1.250             | 304040-1   | 304039-9   |
| 1.313             | 304040-2   | 304039-10  |
| 1.375             | 304040-3   | 304039-11  |
| 1.438             | 304040-4   | 304039-12  |
| 1.500             | 304040-5   | 304039-13  |
| 1.563             | 304040-6   | 304039-14  |
| 1.625             | 304040-7   | 304039-15  |
| 1.688             | 304040-8   | 304039-16  |
| 1.750             | 304040-9   | 304039-17  |
| 1.813             | 304040-10  | 304039-18  |

# Airflex® CB Clutch and Brake Applications

Forms 204, 205, 206, & 208 — Tapered Bushing Arrangements —  
Component Part Numbers — Sizes 4 to 14  
Section B



**PCB - 206 Arrangement**



**PCB - 208 Arrangement**

## 10CB300, 12CB350, 14CB400

| Shaft Diameter<br>in | 10<br>Bushing | 11<br>Bushing |
|----------------------|---------------|---------------|
| 1.750                | 304042-1      | 304041-11     |
| 1.813                | 304042-2      | 304041-12     |
| 1.875                | 304042-3      | 304041-13     |
| 1.938                | 304042-4      | 304041-14     |
| 2.000                | 304042-5      | 304041-15     |
| 2.063                | 304042-6      | 304041-16     |
| 2.125                | 304042-7      | 304041-17     |
| 2.188                | 304042-8      | 304041-18     |
| 2.250                | 304042-9      | 304041-19     |
| 2.313                | 304042-10     | 304041-20     |
| 2.375                | 304042-11     | 304041-21     |
| 2.438                | 304042-12     | 304041-22     |
| 2.500                | 304042-13     | 304041-23     |

## 10CB300, 12CB350, 14CB400

| Shaft Diameter<br>in | 10<br>Bushing | 11<br>Bushing |
|----------------------|---------------|---------------|
| 2.563                | 304044-1      | 304043-12     |
| 2.625                | 304044-2      | 304043-13     |
| 2.688                | 304044-3      | 304043-14     |
| 2.750                | 304044-4      | 304043-15     |
| 2.813                | 304044-5      | 304043-16     |
| 2.875                | 304044-6      | 304043-17     |
| 2.938                | 304044-7      | 304043-18     |
| 3.000                | 304044-8      | 304043-19     |
| 3.063                | 304044-9      | 304043-20     |
| 3.125                | 304044-10     | 304043-21     |

| Size    | 1<br>Element |                                         | 4<br>Drum    |                                         | 6<br>Spider  |                                         | 7<br>Integral Drum |                                         | 8<br>Drum Hub |                                         | 10 or 11<br>Bushing |                                         |
|---------|--------------|-----------------------------------------|--------------|-----------------------------------------|--------------|-----------------------------------------|--------------------|-----------------------------------------|---------------|-----------------------------------------|---------------------|-----------------------------------------|
|         | Weight<br>lb | Wk <sup>2</sup><br>lb · ft <sup>2</sup> | Weight<br>lb | Wk <sup>2</sup><br>lb · ft <sup>2</sup> | Weight<br>lb | Wk <sup>2</sup><br>lb · ft <sup>2</sup> | Weight<br>lb       | Wk <sup>2</sup><br>lb · ft <sup>2</sup> | Weight<br>lb  | Wk <sup>2</sup><br>lb · ft <sup>2</sup> | Weight<br>lb        | Wk <sup>2</sup><br>lb · ft <sup>2</sup> |
| 4CB200  | 2.5          | 0.2                                     | 4.2          | 0.2                                     | 3.3          | 0.1                                     |                    |                                         |               |                                         | 1.6                 | .01                                     |
| 6CB200  | 7            | 1                                       | 5.5          | 0.3                                     | 10           | 0.9                                     | 9                  | 0.3                                     | 6             | 0.2                                     | 3.5                 | 0.1                                     |
| 8CB250  | 9            | 2                                       | 12.5         | 1.1                                     | 16           | 2                                       | 14                 | 1                                       | 6             | 0.2                                     | 4.4                 | 0.1                                     |
| 10CB300 | 19           | 6                                       | 19           | 2.7                                     | 41           | 5                                       | 25                 | 2.6                                     | 16            | 1                                       | 16                  | 0.5                                     |
| 12CB350 | 26           | 11                                      | 30           | 5.9                                     | 44           | 10                                      | 39                 | 5.8                                     | 16            | 1                                       | 16                  | 0.5                                     |
| 14CB400 | 31           | 17                                      | 38           | 10.5                                    | 41           | 14                                      | 48                 | 11.4                                    | 23            | 2                                       | 16                  | 0.5                                     |

### Notes:

- ① Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ② Tolerance +0.003/-0.000 in.
- ③ American National Pipe Thread

- ④ AA2 Rotorseal for 4CB200.  
B3 Rotorseal for all other sizes.  
Refer to Section for mounting and dimensional information.
- ⑤ For inch series shafting.

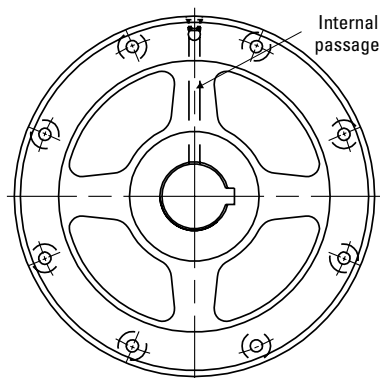
# Airflex® CB Spider Piping and Configuration

Form CB 417 — Shaft to Clutch Element piping

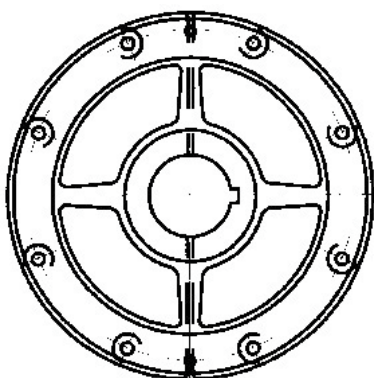
Element Sizes 6 to 14

Section B

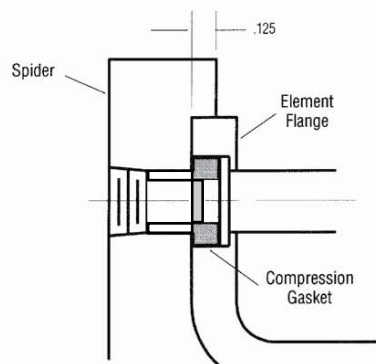
Spiders for these sizes have internal air passages in the spider spokes.



**Single Connection**

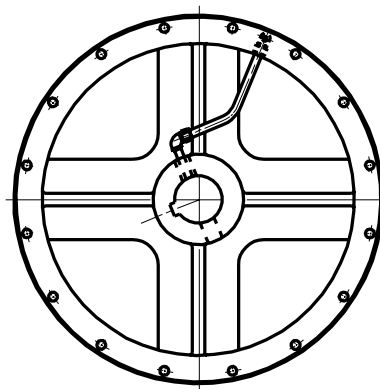


**Two Connections**

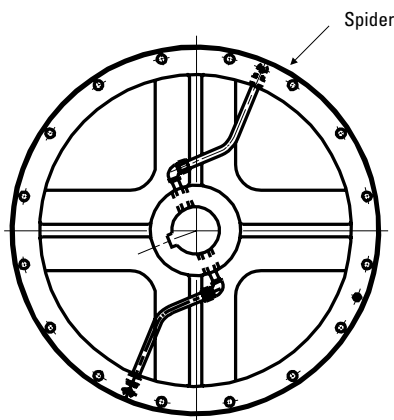


Element Sizes 16 to 45

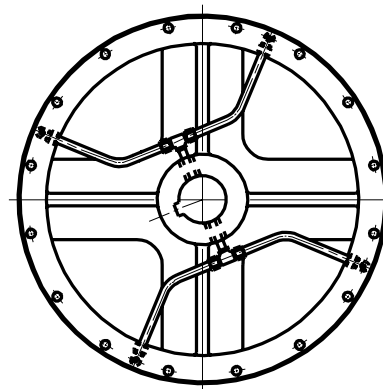
External piping versus number of connections



**Single Connection**

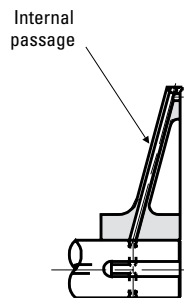


**Two Connections**

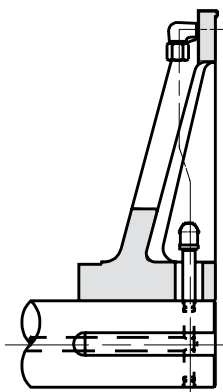


**Four Connections**

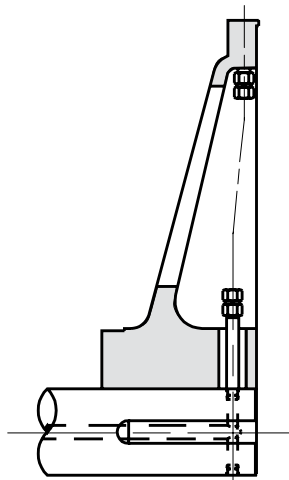
Spider Configuration versus Element size



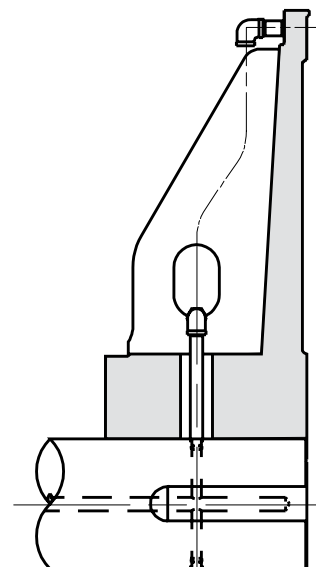
Sizes  
6 thru 14



Sizes  
16 thru 28



Sizes  
30 thru 40



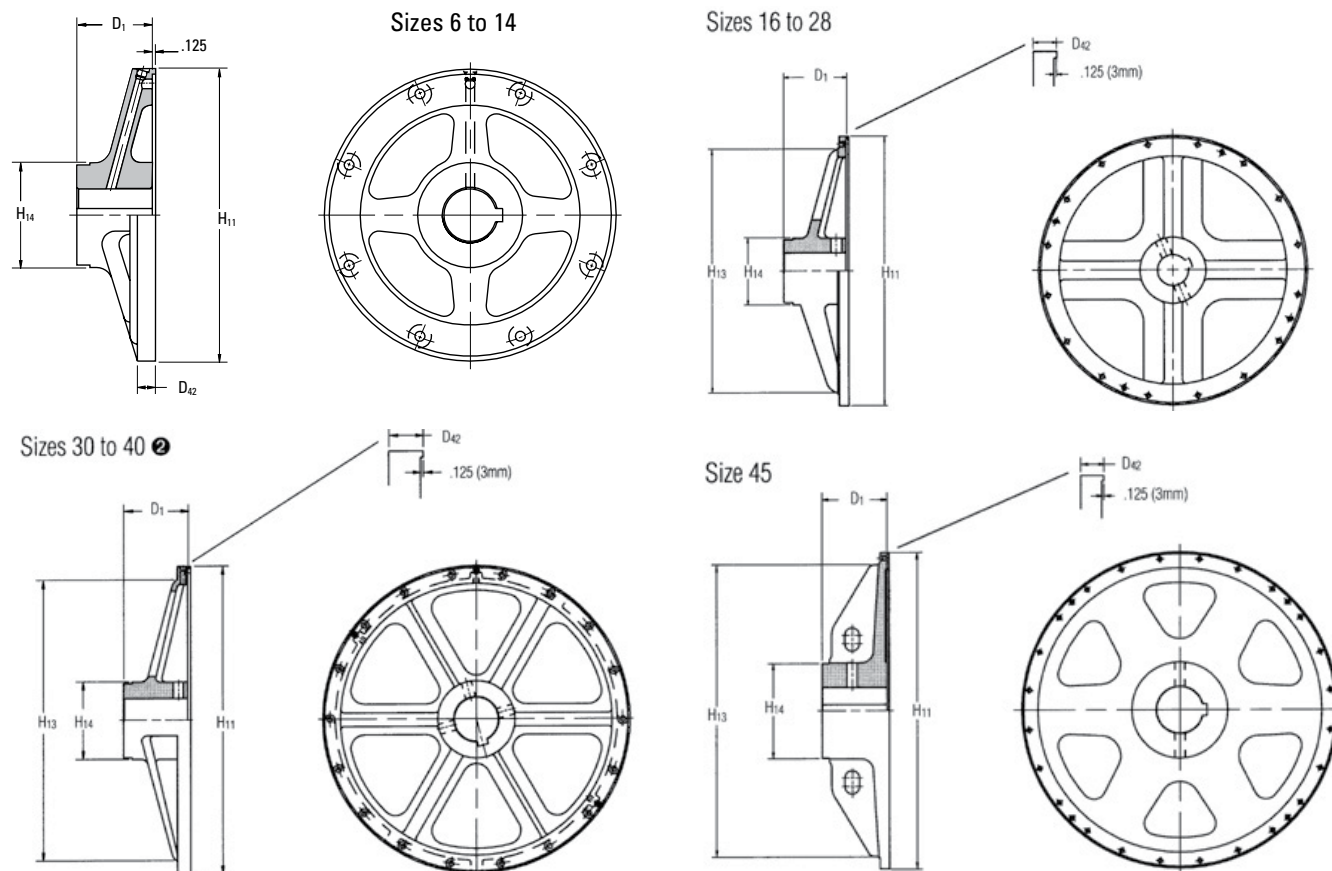
Size  
45

# Airflex® CB Mounting Components

Form CB 415 — Element Spiders —

Dimensional and Technical Data — Single and Dual sizes 6 to 45

Section B



| Size    | Part No. for:     |                  |
|---------|-------------------|------------------|
|         | Single Connection | Multi-Connection |
| 6CB200  | 408367            | 408368           |
| 8CB250  | 408369            | 408370           |
| 10CB300 | 408371            | 408372           |
| 12CB350 | 408373            | 408374           |
| 14CB400 | 408375            | 408376           |
| 16CB500 | N/A               | 408276           |
| 18CB500 | N/A               | 408277           |
| 20CB500 | N/A               | 408278           |
| 22CB500 | N/A               | 408279           |
| 24CB500 | N/A               | 408280           |
| 26CB525 | N/A               | 408281           |
| 28CB525 | N/A               | 408282           |
| 30CB525 | N/A               | 407096           |
| 32CB525 | N/A               | 407097           |
| 36CB525 | N/A               | 407098           |
| 40CB525 | N/A               | 407099           |
| 45CB525 | N/A               | 502369           |

| English Units |                                       | Dimensions in inches |                 |                 |                 |                 |  |
|---------------|---------------------------------------|----------------------|-----------------|-----------------|-----------------|-----------------|--|
| Weight<br>lb  | Wk <sup>2</sup><br>lb•ft <sup>2</sup> | D <sub>1</sub>       | D <sub>42</sub> | H <sub>11</sub> | H <sub>13</sub> | H <sub>14</sub> |  |
| 15            | 1.7                                   | 2.50                 | 0.56            | 11.13           | N/A             | 4.00            |  |
| 19            | 2.3                                   | 2.88                 | 0.56            | 13.25           | N/A             | 4.00            |  |
| 40            | 5.3                                   | 3.56                 | 0.62            | 15.75           | N/A             | 6.00            |  |
| 46            | 8.1                                   | 4.00                 | 0.59            | 18.00           | N/A             | 6.00            |  |
| 50            | 11.2                                  | 4.34                 | 0.59            | 20.00           | N/A             | 6.00            |  |
| 146           | 53                                    | 5.50                 | 1.06            | 24.00           | 21.25           | 7.00            |  |
| 152           | 63                                    | 5.50                 | 1.06            | 26.00           | 23.25           | 8.00            |  |
| 183           | 91                                    | 5.50                 | 1.06            | 28.00           | 25.25           | 8.00            |  |
| 227           | 123                                   | 6.00                 | 1.06            | 30.00           | 27.00           | 8.50            |  |
| 257           | 150                                   | 6.50                 | 1.06            | 32.00           | 29.00           | 8.50            |  |
| 298           | 220                                   | 6.50                 | 1.06            | 34.63           | 31.00           | 9.00            |  |
| 337           | 270                                   | 7.50                 | 1.06            | 36.63           | 33.50           | 9.00            |  |
| 341           | 390                                   | 7.50                 | 1.69            | 38.63           | 35.00           | 9.50            |  |
| 392           | 453                                   | 7.50                 | 1.69            | 40.63           | 37.00           | 9.50            |  |
| 505           | 710                                   | 8.50                 | 1.69            | 45.25           | 41.50           | 11.38           |  |
| 464           | 774                                   | 8.50                 | 1.69            | 49.25           | 46.75           | 11.00           |  |
| 1294          | 1887                                  | 11.00                | 1.31            | 54.25           | 50.48           | 16.50           |  |

| SI Units   |                        | Dimensions in millimeters |                 |                 |                 |                 |  |
|------------|------------------------|---------------------------|-----------------|-----------------|-----------------|-----------------|--|
| Mass<br>kg | J<br>kg•m <sup>2</sup> | D <sub>1</sub>            | D <sub>42</sub> | H <sub>11</sub> | H <sub>13</sub> | H <sub>14</sub> |  |
| 6,8        | 0,07                   | 64                        | 14              | 283             | N/A             | 102             |  |
| 8,6        | 0,10                   | 73                        | 14              | 337             | N/A             | 102             |  |
| 18         | 0,22                   | 91                        | 16              | 400             | N/A             | 152             |  |
| 21         | 0,34                   | 102                       | 15              | 457             | N/A             | 152             |  |
| 23         | 0,47                   | 110                       | 15              | 508             | N/A             | 152             |  |
| 66         | 2,23                   | 140                       | 27              | 610             | 540             | 178             |  |
| 69         | 2,65                   | 140                       | 27              | 660             | 591             | 203             |  |
| 83         | 3,82                   | 140                       | 27              | 711             | 641             | 203             |  |
| 103        | 5,17                   | 152                       | 27              | 762             | 686             | 216             |  |
| 116        | 6,30                   | 165                       | 27              | 813             | 737             | 216             |  |
| 135        | 9,24                   | 165                       | 27              | 879             | 787             | 229             |  |
| 153        | 11,34                  | 191                       | 27              | 930             | 851             | 229             |  |
| 154        | 16,38                  | 191                       | 43              | 981             | 889             | 241             |  |
| 178        | 19,03                  | 191                       | 43              | 1032            | 940             | 241             |  |
| 229        | 29,82                  | 216                       | 43              | 1149            | 1054            | 289             |  |
| 210        | 32,51                  | 216                       | 43              | 1251            | 1187            | 279             |  |
| 586        | 79,25                  | 279                       | 33              | 1378            | 1282            | 419             |  |

## Notes:

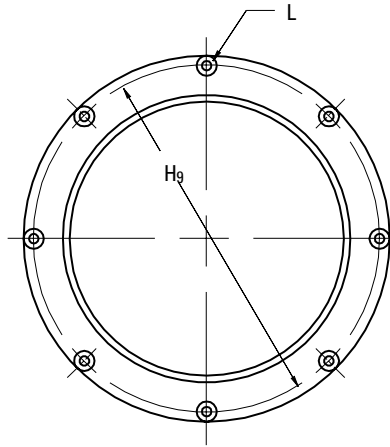
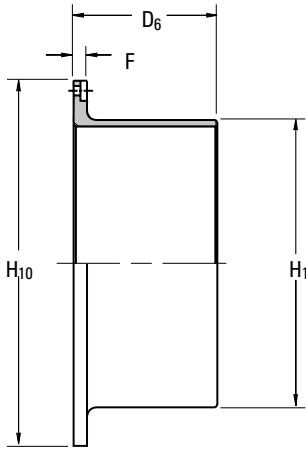
- ① Based upon minimum bores.
- ② Air inlet locations vary. Consult factory for exact location.

# Airflex® CB Mounting Components

Form CB 428 — External Flange Drums —

Dimensional and Technical Data — Single and Dual sizes 6 to 45

Section B



| Size    | Part Numbers |           |
|---------|--------------|-----------|
|         | Single Drum  | Dual Drum |
| 12CB350 | 411778       | 408648    |
| 14CB400 | 411779       | 411707    |
| 16CB500 | 411780       | 408682    |
| 18CB500 | 411781       | 410523    |
| 20CB500 | 411782       | 404605    |
| 22CB500 | 411783       | 406030    |
| 24CB500 | 411784       | 402145    |
| 26CB525 | 411786       | 411453    |
| 28CB525 | 411785       | 404942    |
| 30CB525 | 411787       | N/A       |
| 32CB525 | 411788       | N/A       |
| 36CB525 | 411789       | N/A       |
| 40CB525 | 411790       | N/A       |
| 45CB525 | 411791       | N/A       |

English Dimensions in inches

|         | Single & Dual |    |                 |                | Single Drum    |                 |          |     | Dual Drum |       |        |                 |
|---------|---------------|----|-----------------|----------------|----------------|-----------------|----------|-----|-----------|-------|--------|-----------------|
|         | Size          | F  | H <sub>10</sub> | D <sub>6</sub> | H <sub>9</sub> | H <sub>10</sub> | L (Bolt) | No. | Dia.      | Mass  | J      | Wk <sup>2</sup> |
| 12CB350 | 0.75          | 12 | 6.00            | 13.125         | 13.875         | 8               | 0.406    | 26  | 6.4       | 12.06 | 17.250 | 18.375          |
| 14CB400 | 0.75          | 14 | 6.63            | 17.250         | 18.375         | 8               | 0.531    | 45  | 18        | 13.00 | 21.375 | 22.500          |
| 16CB500 | 0.75          | 16 | 8.00            | 19.250         | 20.375         | 8               | 0.531    | 63  | 31        | 14.31 | 25.250 | 26.500          |
| 18CB500 | 0.75          | 18 | 8.00            | 21.375         | 22.500         | 6               | 0.531    | 72  | 44        | 16.00 | 25.250 | 26.500          |
| 20CB500 | 1.00          | 20 | 8.00            | 25.250         | 26.500         | 12              | 0.656    | 126 | 102       | 16.00 | 25.250 | 26.500          |
| 22CB500 | 1.00          | 22 | 8.00            | 25.250         | 26.500         | 12              | 0.656    | 115 | 103       | 16.00 | 25.250 | 26.500          |
| 24CB500 | 1.00          | 24 | 8.00            | 27.250         | 28.875         | 12              | 0.656    | 130 | 139       | 16.00 | 27.250 | 28.875          |
| 26CB525 | 1.00          | 26 | 8.50            | 29.250         | 30.750         | 12              | 0.781    | 144 | 178       | 17.00 | 29.250 | 30.750          |
| 28CB525 | 1.00          | 28 | 8.50            | 30.250         | 31.875         | 12              | 0.781    | 143 | 200       | 17.00 | 30.250 | 31.875          |
| 30CB525 | 1.00          | 30 | 8.50            | 33.000         | 34.750         | 12              | 0.781    | 166 | 271       |       |        |                 |
| 32CB525 | 1.00          | 32 | 8.50            | 35.250         | 36.750         | 14              | 0.781    | 177 | 327       |       |        |                 |
| 36CB525 | 1.00          | 36 | 8.50            | 39.250         | 40.750         | 16              | 0.781    | 199 | 462       |       |        |                 |
| 40CB525 | 1.00          | 40 | 8.50            | 43.250         | 44.750         | 16              | 0.781    | 220 | 631       |       |        |                 |
| 45CB525 | 1.00          | 45 | 8.50            | 48.250         | 49.750         | 16              | 0.781    | 248 | 893       |       |        |                 |

| Size    | F  | H <sub>10</sub> | D <sub>6</sub> | H <sub>9</sub> | H <sub>10</sub> | L (Bolt) | Weight          |                      | D <sub>6</sub> | H <sub>9</sub> | H <sub>10</sub> | L (Bolt) | Weight          |                      |
|---------|----|-----------------|----------------|----------------|-----------------|----------|-----------------|----------------------|----------------|----------------|-----------------|----------|-----------------|----------------------|
|         |    |                 |                |                |                 |          | Mass            | J                    |                |                |                 |          | Mass            | J                    |
|         |    |                 |                |                |                 |          | Wk <sup>2</sup> |                      |                |                |                 |          | Wk <sup>2</sup> |                      |
|         |    |                 |                |                |                 |          | lb              | lb · ft <sup>2</sup> |                |                |                 |          | lb              | lb · ft <sup>2</sup> |
|         |    |                 |                |                |                 |          | kg              | kg · m <sup>2</sup>  |                |                |                 |          | kg              | kg · m <sup>2</sup>  |
|         |    |                 |                |                |                 |          | No.             | Dia.                 |                |                |                 |          | No.             | Dia.                 |
| 12CB350 | 19 | 305             | 152            | 333,4          | 352,4           | 8        | 10              | 2,9                  | 0,27           | 306            | 438,2           | 466,7    | 8               | 13                   |
| 14CB400 | 19 | 356             | 168            | 438,2          | 466,7           | 8        | 13              | 8,2                  | 0,76           | 330            | 542,9           | 571,5    | 6               | 17                   |
| 16CB500 | 19 | 406             | 203            | 489,0          | 517,5           | 8        | 13              | 14                   | 1,30           | 363            | 641,4           | 673,1    | 12              | 17                   |
| 18CB500 | 19 | 457             | 203            | 542,9          | 571,5           | 6        | 13              | 20                   | 1,85           | 406            | 641,4           | 673,1    | 12              | 17                   |
| 20CB500 | 25 | 508             | 203            | 641,4          | 673,1           | 12       | 17              | 46                   | 4,28           | 406            | 641,4           | 673,1    | 12              | 17                   |
| 22CB500 | 25 | 559             | 203            | 641,4          | 673,1           | 12       | 17              | 47                   | 4,33           | 406            | 641,4           | 673,1    | 12              | 17                   |
| 24CB500 | 25 | 610             | 203            | 692,2          | 733,4           | 12       | 17              | 63                   | 5,84           | 406            | 692,2           | 733,4    | 12              | 20                   |
| 26CB525 | 25 | 660             | 216            | 743,0          | 781,1           | 12       | 20              | 81                   | 7,48           | 432            | 743,0           | 781,1    | 12              | 20                   |
| 28CB525 | 25 | 711             | 216            | 768,4          | 809,6           | 12       | 20              | 91                   | 8,40           | 432            | 768,4           | 809,6    | 12              | 20                   |
| 30CB525 | 25 | 762             | 216            | 838,2          | 882,7           | 12       | 20              | 123                  | 11,38          |                |                 |          |                 |                      |
| 32CB525 | 25 | 813             | 216            | 895,4          | 933,5           | 14       | 20              | 148                  | 13,73          |                |                 |          |                 |                      |
| 36CB525 | 25 | 914             | 216            | 997,0          | 1035,1          | 16       | 20              | 209                  | 19,40          |                |                 |          |                 |                      |
| 40CB525 | 25 | 1016            | 216            | 1098,6         | 1136,7          | 16       | 20              | 286                  | 26,50          |                |                 |          |                 |                      |
| 45CB525 | 25 | 1143            | 216            | 1225,6         | 1263,7          | 16       | 20              | 405                  | 37,51          |                |                 |          |                 |                      |

| SI                        | Single & Dual | Single Drum | Dual Drum |
|---------------------------|---------------|-------------|-----------|
| Dimensions in millimeters |               |             |           |

## Notes:

- ① Tolerance +0.000/-0.010 in (+0,00/-0,25 mm).

- ② Tolerance +0.003/-0.000 in (+0,08/-0,00 mm).

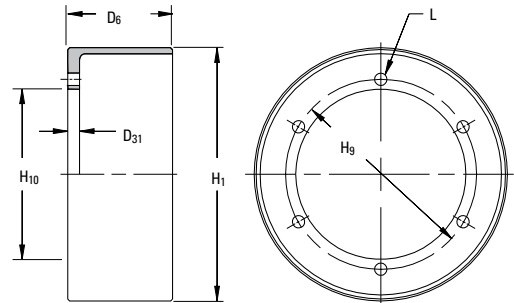
# Airflex® CB Mounting Components

Form CB 420 — Internal Flange Drums —

Dimensional and Technical Data — Single and Dual sizes 6 to 45

Section B

| Size    | Part Numbers |              |            | Size    | Part Numbers |              |            |
|---------|--------------|--------------|------------|---------|--------------|--------------|------------|
|         | Single Drum  |              | Dual Drum  |         | Single Drum  |              | Dual Drum  |
|         | Thru Holes   | Tapped Holes | Thru Holes |         | Thru Holes   | Tapped Holes | Thru Holes |
| 6CB200  | 407043       | 407044       | N/A        | 22CB500 | 408287       | 408288       | 411865     |
| 8CB250  | 407045       | 407046       | N/A        | 24CB500 | 407057       | 407058       | 411866     |
| 10CB300 | 407047       | 407048       | N/A        | 26CB525 | 408289       | 408342       | 411867     |
| 12CB350 | 407049       | 407050       | 411860     | 28CB525 | 407059       | 407060       | 411868     |
| 14CB400 | 407051       | 407052       | 411861     | 30CB525 | 408343       | 408344       | 411869     |
| 16CB500 | 407053       | 407054       | 411862     | 32CB525 | 407061       | 407062       | 411870     |
| 18CB500 | 408285       | 408286       | 411863     | 36CB525 | 407063       | 407064       | 411871     |
| 20CB500 | 407055       | 407056       | 411864     | 40CB525 | 407065       | 407066       | 411872     |



| English | Dimensions in inches |    |        |        | Single Drum |       |        | Dual Drum |      |      |       |
|---------|----------------------|----|--------|--------|-------------|-------|--------|-----------|------|------|-------|
| 6CB200  | 0.50                 | 6  | 4.250  | 3.500  | 6           | 0.406 | 3/8-16 | 3.00      | 5.5  | 0.3  |       |
| 8CB250  | 0.75                 | 8  | 5.250  | 4.250  | 8           | 0.406 | 3/8-16 | 3.50      | 12.5 | 1.1  |       |
| 10CB300 | 0.75                 | 10 | 7.250  | 6.250  | 6           | 0.531 | 1/2-13 | 4.06      | 19   | 2.7  |       |
| 12CB350 | 0.75                 | 12 | 7.250  | 6.250  | 6           | 0.531 | 1/2-13 | 4.68      | 30   | 5.9  | 10.19 |
| 14CB400 | 0.75                 | 14 | 9.250  | 8.250  | 6           | 0.531 | 1/2-13 | 5.18      | 38   | 10.5 | 11.19 |
| 16CB500 | 0.75                 | 16 | 12.000 | 10.750 | 6           | 0.781 | 3/4-10 | 6.62      | 50   | 19   | 13.56 |
| 18CB500 | 1.00                 | 18 | 13.500 | 12.125 | 8           | 0.781 | 3/4-10 | 6.62      | 67   | 31   | 13.56 |
| 20CB500 | 1.00                 | 20 | 16.000 | 14.625 | 8           | 0.781 | 3/4-10 | 6.62      | 72   | 43   | 13.56 |
| 22CB500 | 1.00                 | 22 | 18.500 | 16.750 | 10          | 0.781 | 3/4-10 | 6.62      | 79   | 58   | 13.56 |
| 24CB500 | 1.00                 | 24 | 19.750 | 18.000 | 12          | 0.781 | 3/4-10 | 6.62      | 93   | 80   | 13.56 |
| 26CB525 | 1.00                 | 26 | 21.500 | 19.500 | 14          | 0.781 | 3/4-10 | 7.06      | 108  | 110  | 14.19 |
| 28CB525 | 1.00                 | 28 | 23.500 | 21.500 | 16          | 0.781 | 3/4-10 | 7.06      | 117  | 140  | 14.31 |
| 30CB525 | 1.00                 | 30 | 25.000 | 23.000 | 18          | 0.781 | 3/4-10 | 7.06      | 140  | 192  | 14.31 |
| 32CB525 | 1.00                 | 32 | 27.000 | 25.000 | 18          | 0.781 | 3/4-10 | 7.06      | 160  | 252  | 14.31 |
| 36CB525 | 1.00                 | 36 | 31.000 | 29.000 | 20          | 0.781 | 3/4-10 | 7.06      | 180  | 319  | 14.31 |
| 40CB525 | 1.00                 | 40 | 34.500 | 32.500 | 16          | 0.781 | 3/4-10 | 7.06      | 209  | 523  | 14.31 |
| 45CB525 | 1.00                 | 45 | 39.500 | 37.500 | 10          | 1.031 | 3/4-10 | 7.06      | 237  | 758  | 14.31 |

| Size    | D31                       | H1 Ø | H9     | H10 Ø | L (Bolt Holes) |      |          | D6        | Weight | Wk²     | D6  | Weight | Wk²     |
|---------|---------------------------|------|--------|-------|----------------|------|----------|-----------|--------|---------|-----|--------|---------|
|         |                           |      |        |       | No.            | Thru | Tapped Ø |           | Mass   | J       |     | Mass   | J       |
|         | Single & Dual Drum        |      |        |       | No.            | Thru | Tapped Ø | mm        | kg     | kg · m² | mm  | kg     | kg · m² |
| 6CB200  | 13                        | 152  | 108,0  | 88,9  | 6              | 10   | 3/8-16   | 76        | 2,5    | 0,01    |     |        |         |
| 8CB250  | 19                        | 203  | 133,4  | 108,0 | 8              | 10   | 3/8-16   | 89        | 5,7    | 0,05    |     |        |         |
| 10CB300 | 19                        | 254  | 184,2  | 158,8 | 6              | 13   | 1/2-13   | 103       | 8,6    | 0,11    |     |        |         |
| 12CB350 | 19                        | 305  | 184,2  | 158,8 | 6              | 13   | 1/2-13   | 119       | 14     | 0,25    | 259 | 28     | 0,55    |
| 14CB400 | 19                        | 356  | 235,0  | 209,6 | 6              | 13   | 1/2-13   | 132       | 17     | 0,44    | 284 | 38     | 1,01    |
| 16CB500 | 19                        | 406  | 304,8  | 273,1 | 6              | 20   | 3/4-10   | 168       | 23     | 0,80    | 344 | 49     | 1,81    |
| 18CB500 | 25                        | 457  | 342,9  | 308,0 | 8              | 20   | 3/4-10   | 168       | 30     | 1,30    | 344 | 57     | 2,65    |
| 20CB500 | 25                        | 508  | 406,4  | 371,5 | 8              | 20   | 3/4-10   | 168       | 33     | 1,81    | 344 | 63     | 3,65    |
| 22CB500 | 25                        | 559  | 469,9  | 425,5 | 10             | 20   | 3/4-10   | 168       | 36     | 2,44    | 344 | 69     | 4,91    |
| 24CB500 | 25                        | 610  | 501,7  | 457,2 | 12             | 20   | 3/4-10   | 168       | 42     | 3,36    | 344 | 78     | 6,55    |
| 26CB525 | 25                        | 660  | 546,1  | 495,3 | 14             | 20   | 3/4-10   | 179       | 49     | 4,62    | 360 | 90     | 8,86    |
| 28CB525 | 25                        | 711  | 596,9  | 546,1 | 16             | 20   | 3/4-10   | 179       | 53     | 5,88    | 363 | 98     | 11,26   |
| 30CB525 | 25                        | 762  | 635,0  | 584,2 | 18             | 20   | 3/4-10   | 179       | 63     | 8,06    | 363 | 107    | 14,15   |
| 32CB525 | 25                        | 813  | 685,8  | 635,0 | 18             | 20   | 3/4-10   | 179       | 72     | 10,58   | 363 | 115    | 17,35   |
| 36CB525 | 25                        | 914  | 787,4  | 736,6 | 20             | 20   | 3/4-10   | 179       | 81     | 13,40   | 363 | 130    | 25,07   |
| 40CB525 | 25                        | 1016 | 876,3  | 825,5 | 16             | 20   | 3/4-10   | 179       | 95     | 21,97   | 363 | 148    | 35,28   |
| 45CB525 | 25                        | 1143 | 1003,3 | 952,5 | 10             | 26   | 3/4-10   | 179       | 107    | 31,84   | 363 | 167    | 50,90   |
| SI      | dimensions in millimeters |      |        |       | Single Drum    |      |          | Dual Drum |        |         |     |        |         |

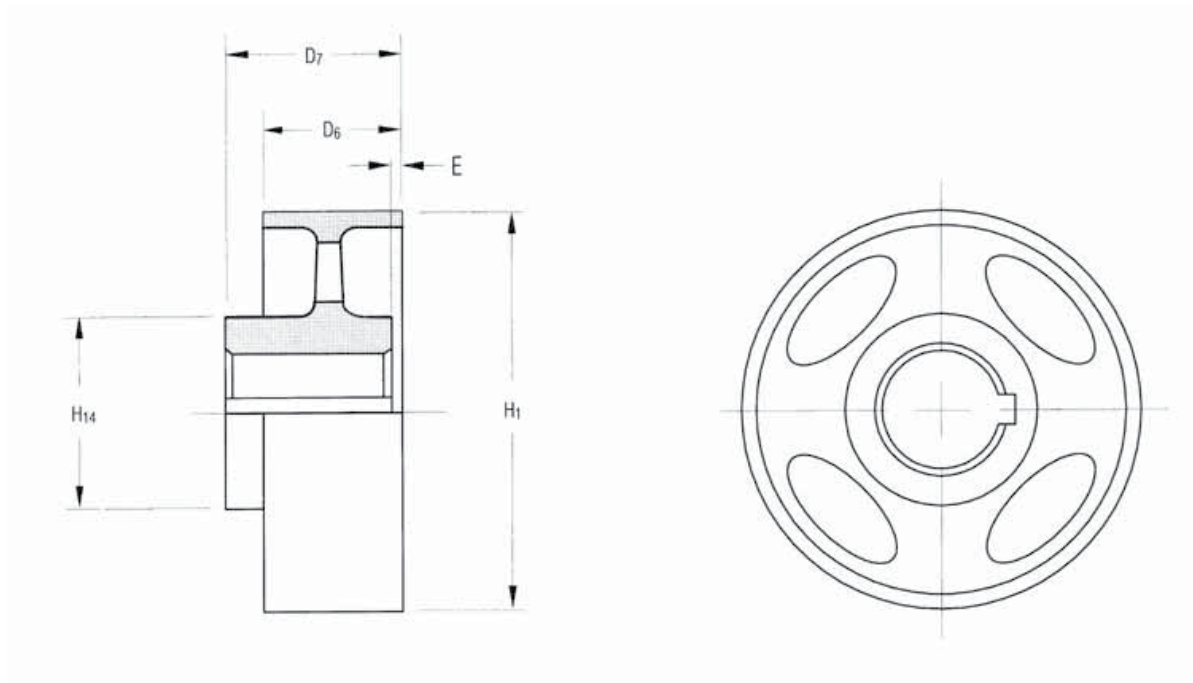
## Notes:

- Dual drum is only available with tapped holes only.
- Tolerance +0.000/-0.010 in (+0,00/-0,25 mm).
- Tolerance for sizes: 6 thru 40 +0.003/-0.000 in (+0,08/-0,00 mm) 45 +0.005/-0.000 in (+0,13/-0,00 mm)
- American National Standard for Unified Screw Threads.

# Airflex® CB Mounting Components

## Form CB 419 — Integral Drum and Hub Dimensional and Technical Data

### Section B



| English |        | Dimensions in inches |     |      |      |      |      |      |    |       |
|---------|--------|----------------------|-----|------|------|------|------|------|----|-------|
| 6CB200  | 10108  | 10                   | 0.3 | 0.00 | 2.00 | 2.38 | 2.88 | 0.94 | 6  | 3.25  |
| 8CB250  | 10109  | 19                   | 0.8 | 0.00 | 2.00 | 2.88 | 3.50 | 1.18 | 8  | 4.38  |
| 10CB300 | 10110  | 33                   | 2.5 | 1.75 | 3.00 | 3.50 | 4.00 | 1.44 | 10 | 4.88  |
| 12CB350 | 10111  | 53                   | 5.4 | 1.50 | 3.31 | 4.00 | 4.50 | 1.69 | 12 | 6.13  |
| 14CB400 | 09617  | 65                   | 8.5 | 2.00 | 4.50 | 4.25 | 5.00 | 1.69 | 14 | 6.50  |
| 18CB500 | 403257 | 90                   | 16  | 2.25 | 4.50 | 5.75 | 6.00 | 1.50 | 18 | 7.00  |
| 24CB500 | 502340 | 437                  | 129 | 4.50 | 6.00 | 5.75 | 8.50 | -    | 24 | 10.50 |

| Size    | Part Number | Weight <sup>①</sup> | Wk <sup>2</sup>      | Bore |      | D <sub>6</sub> | D <sub>7</sub> | E <sup>②</sup> | H <sub>1</sub> | H <sub>14</sub> |
|---------|-------------|---------------------|----------------------|------|------|----------------|----------------|----------------|----------------|-----------------|
|         |             | Mass                | J                    |      |      |                |                |                |                |                 |
|         |             | lb                  | lb · ft <sup>2</sup> |      |      |                |                |                |                |                 |
|         |             | kg                  | kg · m <sup>2</sup>  | Min. | Max. |                |                |                |                |                 |
| 6CB200  | 10108       | 4,5                 | 0,01                 | 0    | 51   | 60             | 73             | 23,88          | 152            | 83              |
| 8CB250  | 10109       | 8,6                 | 0,03                 | 0    | 51   | 73             | 89             | 29,97          | 203            | 111             |
| 10CB300 | 10110       | 15                  | 0,11                 | 44   | 76   | 89             | 102            | 36,58          | 254            | 124             |
| 12CB350 | 10111       | 24                  | 0,23                 | 38   | 84   | 102            | 114            | 42,93          | 305            | 156             |
| 14CB400 | 09617       | 29                  | 0,36                 | 51   | 114  | 108            | 127            | 42,93          | 356            | 165             |
| 18CB500 | 402517      | 41                  | 0,67                 | 57   | 114  | 95             | 152            | 25,44          | 457            | 178             |
| 24CB500 | 502340      | 198                 | 5,42                 | 114  | 152  | 146            | 216            | -              | 610            | 267             |

| SI |  | Dimensions in millimeters |  |  |  |  |  |  |  |  |
|----|--|---------------------------|--|--|--|--|--|--|--|--|
|----|--|---------------------------|--|--|--|--|--|--|--|--|

#### Notes:

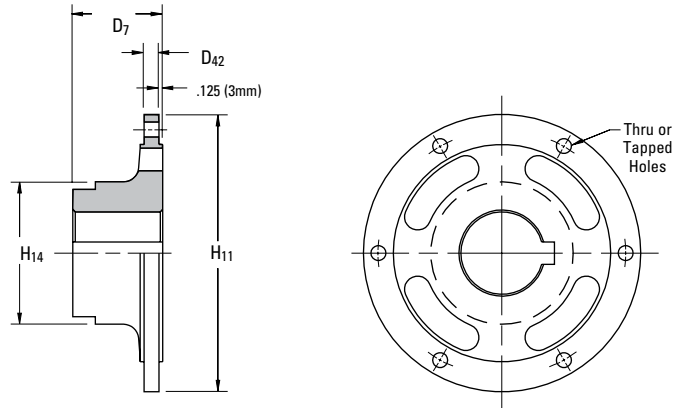
- ① Based upon minimum bores.
- ② This dimension is maximum and must be specified by customer.

# Airflex® CB Mounting Components

Form CB 418 — Drum Hub

Dimensional and Technical Data — Single and Dual sizes 6 to 45

Section B



| English |        |        |     | Dimensions in inches |      |      |       |      |       |       |
|---------|--------|--------|-----|----------------------|------|------|-------|------|-------|-------|
| 6CB200  | 408414 | 408415 | 9   | 0.50                 | 1.50 | 2.50 | 2.75  | 0.63 | 5.00  | 3.75  |
| 8CB250  | 406900 | 406901 | 12  | 0.50                 | 1.50 | 2.50 | 2.75  | 0.63 | 6.00  | 4.00  |
| 10CB300 | 406902 | 406903 | 18  | 0.88                 | 1.50 | 3.00 | 3.25  | 0.63 | 8.25  | 5.00  |
| 12CB350 | 406902 | 406903 | 18  | 0.88                 | 1.50 | 3.00 | 3.25  | 0.63 | 8.25  | 5.00  |
| 14CB400 | 406904 | 406905 | 46  | 3.50                 | 2.25 | 4.50 | 5.00  | 0.63 | 10.25 | 7.00  |
| 16CB500 | 406906 | 406907 | 68  | 6.50                 | 1.75 | 4.50 | 5.75  | 0.75 | 13.50 | 7.00  |
| 18CB500 | 406908 | 406909 | 74  | 6.50                 | 2.25 | 4.75 | 5.75  | 0.75 | 15.00 | 7.50  |
| 20CB500 | 406910 | 406911 | 93  | 8.50                 | 2.75 | 4.75 | 5.75  | 0.75 | 17.50 | 7.50  |
| 22CB500 | 406912 | 406913 | 131 | 29.00                | 2.75 | 5.25 | 6.50  | 0.75 | 20.00 | 8.50  |
| 24CB500 | 406914 | 406915 | 132 | 30.00                | 2.75 | 5.25 | 6.50  | 0.75 | 21.50 | 8.50  |
| 26CB525 | 406916 | 406917 | 160 | 46.00                | 2.75 | 5.50 | 6.50  | 0.75 | 23.00 | 9.00  |
| 28CB525 | 406918 | 406919 | 175 | 61.00                | 2.75 | 5.50 | 6.50  | 0.75 | 25.00 | 9.00  |
| 30CB525 | 406920 | 406921 | 214 | 78.00                | 3.00 | 6.00 | 8.00  | 0.75 | 26.50 | 9.50  |
| 32CB525 | 406922 | 406923 | 222 | 102.00               | 3.00 | 6.00 | 8.00  | 0.75 | 28.50 | 9.50  |
| 36CB525 | 406924 | 406925 | 305 | 159.00               | 4.00 | 7.00 | 9.00  | 0.75 | 32.50 | 11.00 |
| 40CB525 | 406926 | 406927 | 358 | 247.00               | 4.00 | 7.00 | 9.00  | 0.75 | 36.00 | 11.00 |
| 45CB525 | 406928 | 406929 | 541 | 461.00               | 4.38 | 8.25 | 10.00 | 0.75 | 41.50 | 13.50 |

|         |             |              | Weight <sup>①</sup>       | Wk <sup>2</sup>                             |      |      |                |                 |                 |                 |
|---------|-------------|--------------|---------------------------|---------------------------------------------|------|------|----------------|-----------------|-----------------|-----------------|
| Size    | Part Number |              | Mass                      | J                                           | Bore |      | D <sub>7</sub> | D <sub>42</sub> | H <sub>11</sub> | H <sub>14</sub> |
|         | Thru Holes  | Tapped Holes | lb<br>kg                  | lb · ft <sup>2</sup><br>kg · m <sup>2</sup> | min. | max. |                |                 |                 |                 |
| 6CB200  | 408414      | 408415       | 4,1                       | 0,02                                        | 38   | 64   | 70             | 16              | 127             | 95              |
| 8CB250  | 406900      | 406901       | 5,4                       | 0,02                                        | 38   | 64   | 70             | 16              | 152             | 102             |
| 10CB300 | 406902      | 406903       | 8,2                       | 0,04                                        | 38   | 76   | 83             | 16              | 210             | 127             |
| 12CB350 | 406902      | 406903       | 8,2                       | 0,04                                        | 38   | 76   | 83             | 16              | 210             | 127             |
| 14CB400 | 406904      | 406905       | 21                        | 0,15                                        | 57   | 114  | 127            | 16              | 260             | 178             |
| 16CB500 | 406906      | 406907       | 31                        | 0,27                                        | 44   | 114  | 146            | 19              | 343             | 178             |
| 18CB500 | 406908      | 406909       | 34                        | 0,27                                        | 57   | 121  | 146            | 19              | 381             | 191             |
| 20CB500 | 406910      | 406911       | 42                        | 0,36                                        | 70   | 121  | 146            | 19              | 445             | 191             |
| 22CB500 | 406912      | 406913       | 59                        | 1,22                                        | 70   | 133  | 165            | 19              | 508             | 216             |
| 24CB500 | 406914      | 406915       | 60                        | 1,26                                        | 70   | 133  | 165            | 19              | 546             | 216             |
| 26CB525 | 406916      | 406917       | 72                        | 1,93                                        | 70   | 140  | 165            | 19              | 584             | 229             |
| 28CB525 | 406918      | 406919       | 79                        | 2,56                                        | 70   | 140  | 165            | 19              | 635             | 229             |
| 30CB525 | 406920      | 406921       | 97                        | 3,28                                        | 76   | 152  | 203            | 19              | 673             | 241             |
| 32CB525 | 406922      | 406923       | 101                       | 4,28                                        | 76   | 152  | 203            | 19              | 724             | 241             |
| 36CB525 | 406924      | 406925       | 138                       | 6,68                                        | 102  | 178  | 229            | 19              | 826             | 279             |
| 40CB525 | 406926      | 406927       | 162                       | 10,37                                       | 102  | 178  | 229            | 19              | 914             | 279             |
| 45CB525 | 406928      | 406929       | 245                       | 19,36                                       | 111  | 210  | 254            | 19              | 1054            | 343             |
| SI      |             |              | Dimensions in millimeters |                                             |      |      |                |                 |                 |                 |

## Notes:

- ① Based upon minimum bores.

# Airflex® VC Construction

## Section B



The type VC element assembly is specifically designed and built for severe clutch or brake applications in which large inertia loads and sustained slippage would normally result in loss of torque and reduced operating life.

VC design and construction is different from the CB and CM elements in that the torque is transmitted by torque bars rather than the sidewalls of the actuating tube. The loose actuating tube is contained within a housing formed by a rim and two side plates, and is replaceable. The torque bars, which are held in position by the side plates, pass through cavities in the backing plates of the friction shoes. Pressurizing the actuating tube forces the friction shoes to engage around a cylindrical drum. Leaf springs in the torque bar cavities of the backing plates retract the friction shoes when the actuating tube pressure is released. 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 125 psi (8,6 bar). Adjustment for pressure and speed is explained under Selection Procedure. VC elements are available in 24 sizes which are identified by

the drum diameter in inches on which they constrict and the width in inches of its friction lining. For a given drum diameter it is possible to have two different lining widths. For this reason, the elements are grouped by lining width into a narrow series and a wide series. As an example, the narrow series 20VC600 and the wide series 20VC1000 both constrict on a 20 inch diameter drum. But, the narrow unit has a lining width of 6 inches, and the wide unit has a lining width of 10 inches. The smallest VC element will constrict on a 11.5 inch (292 mm) diameter drum and the largest on a 76 inch (1930 mm) diameter drum.

Two elements of a narrow series can be bolted together to form a dual element having twice the torque capacity of a single element. With the exception of the 14VC1000 element, the wide series elements can also be dualled. The large drum hub diameter and small drum diameter restricts the radial space available for mechanically connecting the drums to the hub and makes dualing the 14VC1000 elements impractical.

The VC design offers the following features in addition to the constricting features described earlier in this section.

# Airflex® VC Features

## Section B

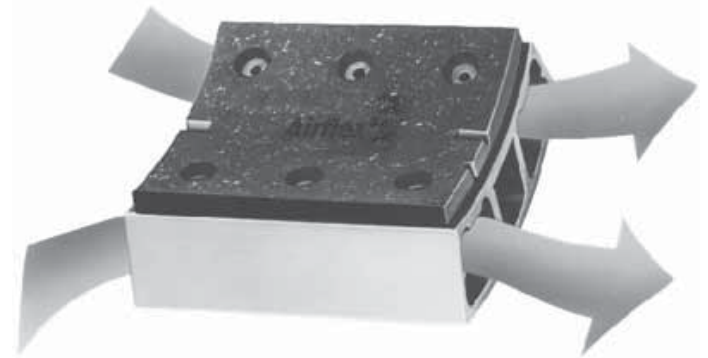
### Ventilated Construction

Friction shoe backing plates have large air passages through their entire length. This construction coupled with scalloped side plates allows cooling air to flow through the element. In addition, the large exposed inside diameter assures the coolest possible operation. None of the heat is generated deep in the element's internal parts where it can be trapped. The open construction assures rapid heat dissipation.

### Serviceability

The VC clutch can be dismantled on the shaft to gain access to its component parts. All parts are available as replacement parts.

A limited number of element sizes are available in a split configuration. They are used in applications having limited axial access for element maintenance. The following pages give additional descriptive information, selection procedures and common clutch and brake arrangements for the complete VC product line.



### Where Used:

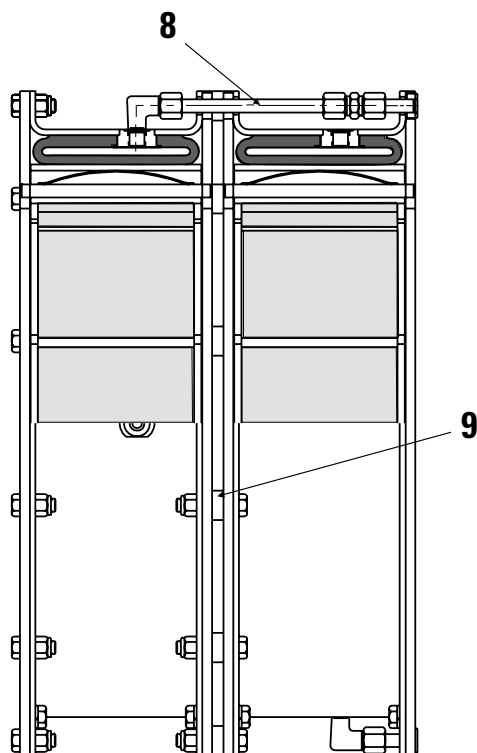
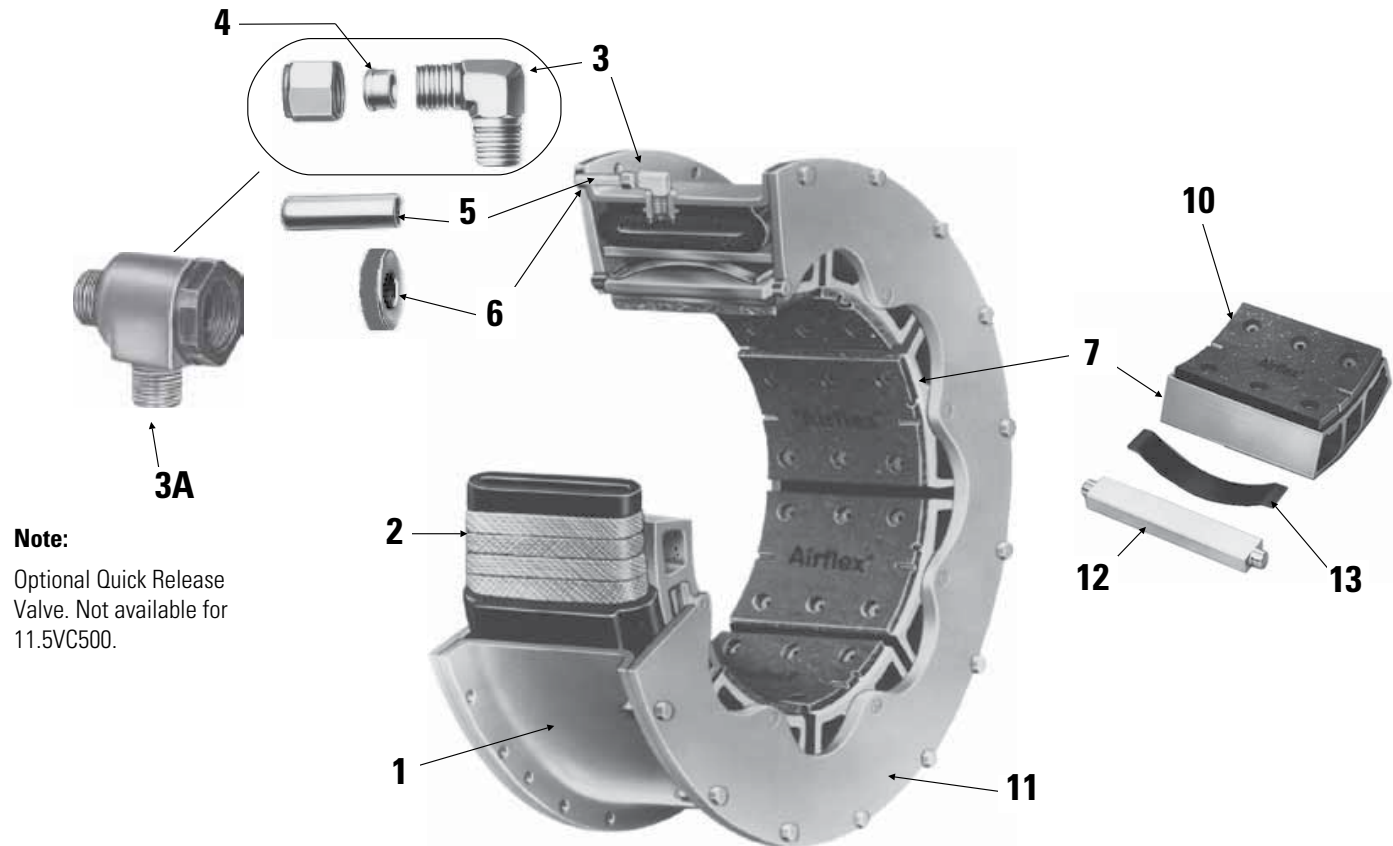
- Grinding Mills
- Marine Propulsion
- Metal Forming Machinery
- Oil Field Machinery

| Narrow<br>Sizes | Torque Rating       |                     |
|-----------------|---------------------|---------------------|
|                 | lb · in<br>@ 75 psi | N · m<br>@ 5, 2 bar |
| 11.5VC500       | 27000               | 3050                |
| 14VC500         | 39200               | 4430                |
| 16VC600         | 65000               | 7350                |
| 20VC600         | 93000               | 10500               |
| 24VC650         | 135000              | 15300               |
| 28VC650         | 182000              | 20600               |
| 33VC650         | 255000              | 28800               |
| 37VC650         | 320000              | 36200               |
| 42VC650         | 380000              | 42900               |

| Wide<br>Sizes | Torque Rating       |                     |
|---------------|---------------------|---------------------|
|               | lb · in<br>@ 75 psi | N · m<br>@ 5, 2 bar |
| 14VC1000      | 85000               | 9610                |
| 16VC1000      | 114000              | 12900               |
| 20VC1000      | 161000              | 18200               |
| 24VC1000      | 219000              | 24700               |
| 28VC1000      | 296000              | 33400               |
| 32VC1000      | 415000              | 46900               |
| 38VC1200      | 680000              | 76800               |
| 42VC1200      | 819000              | 92500               |
| 46VC1200      | 950000              | 107000              |
| 52VC1200      | 1215000             | 137000              |
| 51VC1600      | 1610000             | 182000              |
| 60VC1600      | 2183000             | 247000              |
| 66VC1600      | 2800000             | 316000              |
| 76VC1600      | 3660000             | 413057              |
| 76VC2000      | Consult Factory     |                     |

# Airflex® VC Component Descriptions

## Section B

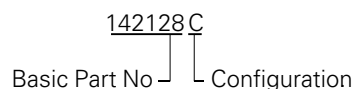


| Item        | Component Description                            |
|-------------|--------------------------------------------------|
| 1           | Rim                                              |
| 2           | Tube (with valve stem snap rings where required) |
| 3           | Elbow Assembly                                   |
| 3A          | Optional -Quick Release Valve Assembly           |
| 4           | Compression Ring (included with items 3&3A)      |
| 5           | Air Connection Tube                              |
| 6           | Air Connection Gasket                            |
| 7           | Friction Shoe Assembly                           |
| 8           | Air Tube Group (Dual Mounted)                    |
| 9           | Spacer Group (Dual Mounted)                      |
| 10          | Replacement Friction Lining & Fastener Kit       |
| 11          | Side Plate (2 required)                          |
| 12          | Torque Bar                                       |
| 13          | Release Spring                                   |
| 7, 12, & 13 | Friction Shoe, Torque Bar & Spring Kit           |

# Airflex® VC Element Part Numbers

## Section B

An alpha suffix is added to the basic element part number to completely describe the element configuration.



The basic element part number is shown on the element catalog pages. Alphas for the more common element configurations are shown on this page. The element part number used in the above example identifies a dual 42VC1200 element equipped with standard friction linings and four side connections.

### Alpha Suffixes for Single VC Elements

| Number of Valves,<br>Side Connections<br>or QRV's | Type of Lining | Alpha Suffixes |                       |            |
|---------------------------------------------------|----------------|----------------|-----------------------|------------|
|                                                   |                | Valves Only    | With Side Connections | With QRV's |
| 1                                                 | Standard       | -              | HJ                    | HM         |
| 1                                                 | Cork           | -              | LR                    | MR         |
| 2                                                 | Standard       | HA             | HP                    | HN         |
| 2                                                 | Cork           | HB             | HS                    | HK         |
| 4                                                 | Standard       | HA             | HC                    | HE         |
| 4                                                 | Cork           | HB             | HD                    | HF         |

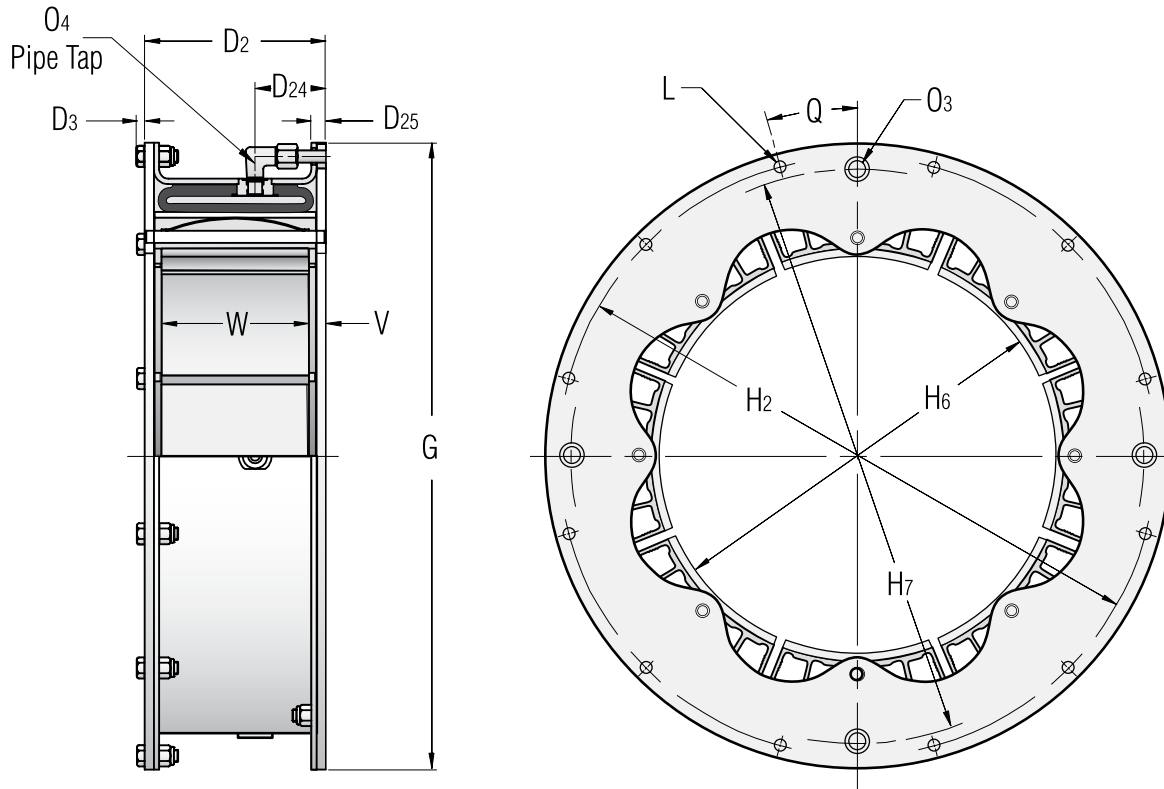
### Alpha Suffixes for Dual VC Elements

| Number of Valves,<br>Side Connections<br>or QRV's | Type of Lining | Alpha Suffixes |                       |            |
|---------------------------------------------------|----------------|----------------|-----------------------|------------|
|                                                   |                | Valves Only    | With Side Connections | With QRV's |
| 2                                                 | Standard       | -              | none                  | E          |
| 2                                                 | Cork           | AA             | A                     | AK         |
| 4                                                 | Standard       | F              | C                     | D          |
| 4                                                 | Cork           | AA             | X                     | J          |

# Airflex® Single Narrow VC Elements

Form VC-501 Sizes 11.5 to 42

Section B



## ENGLISH

| Size      | Mr Torque Part Number | Rating (lb-in @ 75 psi) | Maximum Speed (rpm) | C <sub>s</sub> Centrifugal loss (psi/rpm <sup>2</sup> ) | Wk <sup>2</sup> (lb-ft <sup>2</sup> ) | Weight (lb) | Friction Area (in <sup>2</sup> ) | Friction Lining Thickness (inches) | Worn | Air Tube Cavity (in <sup>3</sup> ) | Minimum Drum Diameter (inches) |
|-----------|-----------------------|-------------------------|---------------------|---------------------------------------------------------|---------------------------------------|-------------|----------------------------------|------------------------------------|------|------------------------------------|--------------------------------|
| 11.5VC500 | 142639                | 27,000                  | 1800                | 23 E-06                                                 | 43                                    | 96          | 166                              | 0.32                               | 0.16 | 70                                 | 11.41                          |
| 14VC500   | 143829                | 39,200                  | 1500                | 28 E-06                                                 | 78                                    | 128         | 205                              | 0.32                               | 0.16 | 95                                 | 13.91                          |
| 16VC600   | 142640                | 65,000                  | 1400                | 29 E-06                                                 | 115                                   | 151         | 283                              | 0.32                               | 0.16 | 120                                | 15.91                          |
| 20VC600   | 142641                | 93,000                  | 1200                | 40 E-06                                                 | 193                                   | 179         | 380                              | 0.32                               | 0.16 | 140                                | 19.88                          |
| 24VC650   | 142642                | 135,000                 | 1050                | 49 E-06                                                 | 369                                   | 246         | 466                              | 0.44                               | 0.16 | 200                                | 23.88                          |
| 28VC650   | 142643                | 182,000                 | 1000                | 58 E-06                                                 | 537                                   | 280         | 548                              | 0.44                               | 0.16 | 270                                | 27.81                          |
| 33VC650   | 142644                | 255,000                 | 900                 | 74 E-06                                                 | 1083                                  | 392         | 643                              | 0.57                               | 0.28 | 360                                | 32.81                          |
| 37VC650   | 142645                | 320,000                 | 800                 | 90 E-06                                                 | 1400                                  | 433         | 720                              | 0.57                               | 0.28 | 400                                | 36.81                          |
| 42VC650   | 142647                | 380,000                 | 800                 | 95 E-06                                                 | 1990                                  | 485         | 822                              | 0.57                               | 0.28 | 440                                | 41.81                          |

## SI

| Size      | Part Number | Mr Torque Rating (N-m @ 5.2 bar) | Maximum Speed (rpm) | C <sub>s</sub> Centrifugal loss (bar/rpm <sup>2</sup> ) | J (kg-m <sup>2</sup> ) | Mass (kg) | Friction Area (cm <sup>2</sup> ) | Friction Lining Thickness (mm) New | Worn | Air Tube Cavity (dm <sup>3</sup> ) | Minimum Drum Diameter (mm) |
|-----------|-------------|----------------------------------|---------------------|---------------------------------------------------------|------------------------|-----------|----------------------------------|------------------------------------|------|------------------------------------|----------------------------|
| 11.5VC500 | 142639      | 3,050                            | 1800                | 1.59 E-06                                               | 1.81                   | 43        | 1071                             | 8                                  | 4    | 1.15                               | 290                        |
| 14VC500   | 143829      | 4,430                            | 1500                | 1.93 E-06                                               | 3.28                   | 58        | 1322                             | 8                                  | 4    | 1.56                               | 353                        |
| 16VC600   | 142640      | 7,340                            | 1400                | 2.00 E-06                                               | 4.83                   | 68        | 1825                             | 8                                  | 4    | 1.97                               | 404                        |
| 20VC600   | 142641      | 10,505                           | 1200                | 2.76 E-06                                               | 8.11                   | 81        | 2451                             | 8                                  | 4    | 2.30                               | 505                        |
| 24VC650   | 142642      | 15,250                           | 1050                | 3.38 E-06                                               | 15.50                  | 111       | 3006                             | 11                                 | 4    | 3.28                               | 607                        |
| 28VC650   | 142643      | 20,560                           | 1000                | 4.00 E-06                                               | 22.55                  | 127       | 3535                             | 11                                 | 4    | 4.43                               | 706                        |
| 33VC650   | 142644      | 28,810                           | 900                 | 5.11 E-06                                               | 45.49                  | 178       | 4147                             | 14                                 | 7    | 5.90                               | 833                        |
| 37VC650   | 142645      | 36,155                           | 800                 | 6.21 E-06                                               | 58.80                  | 196       | 4644                             | 14                                 | 7    | 6.56                               | 935                        |
| 42VC650   | 142647      | 42,930                           | 800                 | 6.56 E-06                                               | 83.58                  | 220       | 5302                             | 14                                 | 7    | 7.22                               | 1062                       |

# Airflex® Single Narrow VC Elements

Form VC-501 Sizes 11.5 to 42

Section B

## ENGLISH

| (Dimensions in inches) |                |                |                 |                 |        |                |                |                |       |        |                |                    |                     |         |      |       |         |
|------------------------|----------------|----------------|-----------------|-----------------|--------|----------------|----------------|----------------|-------|--------|----------------|--------------------|---------------------|---------|------|-------|---------|
| Size                   | D <sub>2</sub> | D <sub>3</sub> | D <sub>24</sub> | D <sub>25</sub> | G      | H <sub>2</sub> | H <sub>6</sub> | H <sub>7</sub> | L No. | L Dia. | O <sub>3</sub> | O <sub>4</sub> No. | O <sub>4</sub> Size | Q (Deg) | V    | W No. | W Width |
| 11.5VC500              | 6.13           | 0.23           | 2.38            | 0.38            | 19.625 | 18.875         | 11.63          | 18.88          | 16    | 0.375  | 0.31           | 2                  | ⅝-18 NPT            | 11.25   | 0.56 | 8     | 5.00    |
| 14VC500                | 6.13           | 0.31           | 2.88            | 0.58            | 23.500 | 22.500         | 14.22          | 22.25          | 8     | 0.500  | 0.38           | 4                  | ⅝-18 NPT            | 22.50   | 0.56 | 8     | 5.00    |
| 16VC600                | 7.38           | 0.31           | 2.88            | 0.59            | 25.500 | 24.375         | 16.22          | 24.38          | 12    | 0.500  | 0.38           | 4                  | ⅝-18 NPT            | 15.00   | 0.69 | 8     | 6.00    |
| 20VC600                | 7.38           | 0.31           | 2.88            | 0.59            | 29.500 | 28.375         | 20.22          | 28.38          | 12    | 0.500  | 0.38           | 4                  | ⅝-18 NPT            | 15.00   | 0.69 | 10    | 6.00    |
| 24VC650                | 7.69           | 0.39           | 2.88            | 0.63            | 34.000 | 32.750         | 24.22          | 32.50          | 16    | 0.625  | 0.50           | 4                  | ½-14 NPT            | 11.25   | 0.59 | 12    | 6.50    |
| 28VC650                | 7.69           | 0.39           | 2.88            | 0.63            | 38.000 | 36.750         | 28.22          | 36.50          | 16    | 0.625  | 0.50           | 4                  | ½-14 NPT            | 11.25   | 0.59 | 14    | 6.50    |
| 33VC650                | 7.69           | 0.47           | 3.13            | 0.63            | 44.625 | 43.125         | 33.22          | 43.25          | 18    | 0.750  | 0.63           | 4                  | ¾-14 NPT            | 15.00   | 0.59 | 16    | 6.50    |
| 37VC650                | 7.69           | 0.47           | 3.13            | 0.69            | 48.625 | 47.125         | 37.22          | 47.25          | 20    | 0.750  | 0.63           | 4                  | ¾-14 NPT            | 9.00    | 0.59 | 18    | 6.50    |
| 42VC650                | 7.69           | 0.47           | 3.13            | 0.66            | 53.625 | 52.125         | 42.22          | 52.25          | 24    | 0.750  | 0.63           | 4                  | ¾-14 NPT            | 7.50    | 0.59 | 20    | 6.50    |

| (Dimensions in millimeters) |                |                |                 |                 |        |                |                |                |       |        |                |                    |                     |         |    |       |         |
|-----------------------------|----------------|----------------|-----------------|-----------------|--------|----------------|----------------|----------------|-------|--------|----------------|--------------------|---------------------|---------|----|-------|---------|
| Size                        | D <sub>2</sub> | D <sub>3</sub> | D <sub>24</sub> | D <sub>25</sub> | G      | H <sub>2</sub> | H <sub>6</sub> | H <sub>7</sub> | L No. | L Dia. | O <sub>3</sub> | O <sub>4</sub> No. | O <sub>4</sub> Size | Q (Deg) | V  | W No. | W Width |
| 11.5VC500                   | 156            | 6              | 60              | 10              | 498,5  | 479,4          | 295            | 479            | 16    | 9,5    | 8              | 2                  | ⅝-18 NPT            | 11,25   | 14 | 8     | 127     |
| 15VC500                     | 156            | 8              | 73              | 15              | 596,9  | 571,5          | 361            | 565            | 8     | 12,7   | 10             | 4                  | ⅝-18 NPT            | 22,50   | 14 | 8     | 127     |
| 16VC600                     | 187            | 8              | 73              | 15              | 647,7  | 619,1          | 412            | 619            | 12    | 12,7   | 10             | 4                  | ⅝-18 NPT            | 15,00   | 17 | 8     | 152     |
| 20VC600                     | 187            | 8              | 73              | 15              | 749,3  | 720,7          | 514            | 721            | 12    | 12,7   | 10             | 4                  | ⅝-18 NPT            | 15,00   | 17 | 10    | 152     |
| 24VC650                     | 195            | 10             | 73              | 16              | 863,6  | 831,9          | 615            | 826            | 16    | 15,9   | 13             | 4                  | ½-14 NPT            | 11,25   | 15 | 12    | 165     |
| 28VC650                     | 195            | 10             | 73              | 16              | 965,2  | 933,5          | 717            | 927            | 16    | 15,9   | 13             | 4                  | ½-14 NPT            | 11,25   | 15 | 14    | 165     |
| 33VC650                     | 195            | 12             | 79              | 16              | 1133,5 | 1095,4         | 844            | 1099           | 18    | 19,1   | 16             | 4                  | ¾-14 NPT            | 15,00   | 15 | 16    | 165     |
| 37VC650                     | 195            | 12             | 79              | 17              | 1235,1 | 1197,0         | 945            | 1200           | 20    | 19,1   | 16             | 4                  | ¾-14 NPT            | 9,00    | 15 | 18    | 165     |
| 42VC650                     | 195            | 12             | 79              | 17              | 1362,1 | 1324,0         | 1072           | 1327           | 24    | 19,1   | 16             | 4                  | ¾-14 NPT            | 7,50    | 15 | 20    | 165     |

## Notes

**Part Number** refers to basic part number only. When ordering, the number of air inlets and type of connection must be specified.

**M<sub>r</sub>** — Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.

Tolerance for sizes (G):

**11.5 thru 20**  
+0.000/-0.005 in  
(+0,00/-0,13 mm)

**24 thru 28**  
+0.000/-0.008 in  
(+0,00/-0,20 mm)

**33 thru 42**  
+0.000/-0.010 in

(+0,00/-0,25 mm)

(L) Tolerance:

+0.005/-0.000 in  
(+0,13/-0,00 mm)

(O<sub>4</sub>) — Sizes 11.5 available with one or two inlets. All other sizes have four inlets.

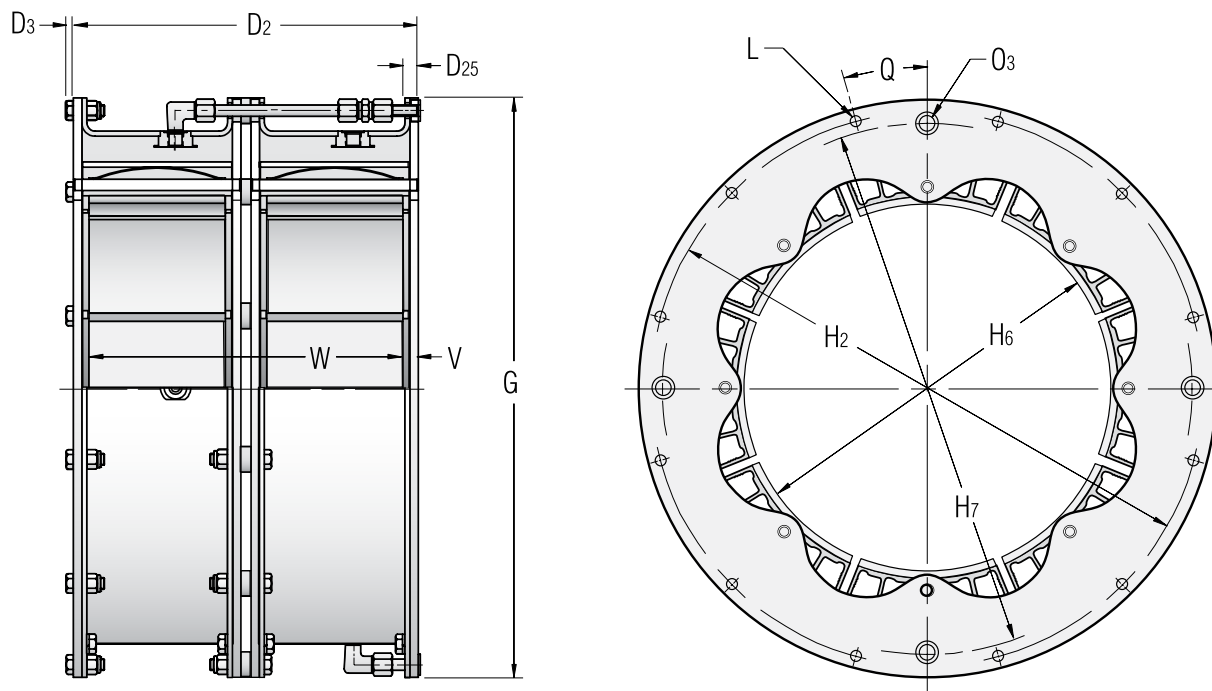
**(Maximum Speed)** — Maximum rpm is dependent upon operating conditions and varies for each application. Consult factory for applications exceeding these speeds.

**(Air Tube Cavity)** — Drum contact with worn shoes.

# Airflex® Dual Narrow VC Elements

Form VC-502 Sizes 11.5 to 42

Section B



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| Size      | Part Number | M <sub>t</sub><br>Torque Rating<br>lb-in@<br>75 psi | Max.<br>Speed<br>(rpm) | C <sub>s</sub><br>Centrifugal<br>Loss<br>(psi/rpm <sup>2</sup> ) | Wk <sup>2</sup><br>(lb-ft <sup>2</sup> ) | Weight<br>(lb) | Friction<br>Area (in <sup>2</sup> ) | Friction<br>New | Lining<br>Thickness<br>(ins) Worn | Air Tube<br>Cavity<br>(in <sup>3</sup> ) | Minimum<br>Drum<br>Diameter<br>(ins) |
|-----------|-------------|-----------------------------------------------------|------------------------|------------------------------------------------------------------|------------------------------------------|----------------|-------------------------------------|-----------------|-----------------------------------|------------------------------------------|--------------------------------------|
| 11.5VC500 | 142112      | 5,4000                                              | 1800                   | 23 E-06                                                          | 86                                       | 197            | 332                                 | 0.32            | 0.16                              | 140                                      | 11.41                                |
| 14VC500   | 142114      | 78,400                                              | 1500                   | 28 E-06                                                          | 156                                      | 258            | 410                                 | 0.32            | 0.16                              | 190                                      | 13.91                                |
| 16VC600   | 142115      | 130,000                                             | 1400                   | 29 E-06                                                          | 230                                      | 307            | 566                                 | 0.32            | 0.16                              | 240                                      | 15.91                                |
| 20VC600   | 142116      | 186,000                                             | 1200                   | 40 E-06                                                          | 386                                      | 363            | 760                                 | 0.32            | 0.16                              | 280                                      | 19.88                                |
| 24VC650   | 142117      | 270,000                                             | 1050                   | 49 E-06                                                          | 738                                      | 497            | 932                                 | 0.44            | 0.16                              | 400                                      | 23.88                                |
| 28VC650   | 142118      | 364,000                                             | 1000                   | 58 E-06                                                          | 1074                                     | 565            | 1096                                | 0.44            | 0.16                              | 540                                      | 27.81                                |
| 33VC650   | 142119      | 510,000                                             | 900                    | 74 E-06                                                          | 2166                                     | 784            | 1286                                | 0.57            | 0.28                              | 720                                      | 32.81                                |
| 37VC650   | 142120      | 640,000                                             | 800                    | 90 E-06                                                          | 2800                                     | 871            | 1440                                | 0.57            | 0.28                              | 800                                      | 36.81                                |
| 42VC650   | 142121      | 760,000                                             | 800                    | 95 E-06                                                          | 3980                                     | 980            | 1644                                | 0.57            | 0.28                              | 880                                      | 41.81                                |

| Size      | Part Number | M <sub>t</sub><br>Torque Rating<br>N-m@<br>5,2 bar | Max.<br>Speed<br>(rpm) | C <sub>s</sub><br>Centrifugal<br>Loss<br>(bar/rpm <sup>2</sup> ) | J<br>(kg-m <sup>2</sup> ) | Mass<br>(kg) | Friction<br>Area (cm <sup>2</sup> ) | Friction<br>New | Lining<br>Thickness<br>(mm) Worn | Air Tube<br>Cavity<br>(dm <sup>3</sup> ) | Minimum<br>Drum<br>Diameter<br>(mm) |
|-----------|-------------|----------------------------------------------------|------------------------|------------------------------------------------------------------|---------------------------|--------------|-------------------------------------|-----------------|----------------------------------|------------------------------------------|-------------------------------------|
| 11.5VC500 | 142112      | 6,100                                              | 1800                   | 1,59 E-06                                                        | 3,61                      | 89           | 2141                                | 8               | 4                                | 2,30                                     | 290                                 |
| 14VC500   | 142114      | 8,860                                              | 1500                   | 1,93 E-06                                                        | 6,55                      | 117          | 2645                                | 8               | 4                                | 3,12                                     | 353                                 |
| 16VC600   | 142115      | 14,690                                             | 1400                   | 2,00 E-06                                                        | 9,66                      | 139          | 3651                                | 8               | 4                                | 3,94                                     | 404                                 |
| 20VC600   | 142116      | 21,010                                             | 1200                   | 2,76 E-06                                                        | 16,21                     | 164          | 4902                                | 8               | 4                                | 4,59                                     | 505                                 |
| 24VC650   | 142117      | 30,500                                             | 1050                   | 3,38 E-06                                                        | 31,00                     | 225          | 6011                                | 11              | 4                                | 6,56                                     | 607                                 |
| 28VC650   | 142118      | 41,125                                             | 1000                   | 4,00 E-06                                                        | 45,11                     | 256          | 7069                                | 11              | 4                                | 8,86                                     | 706                                 |
| 33VC650   | 142119      | 57,620                                             | 900                    | 5,11 E-06                                                        | 90,97                     | 355          | 8295                                | 14              | 7                                | 11,8                                     | 833                                 |
| 37VC650   | 142120      | 72,310                                             | 800                    | 6,21 E-06                                                        | 117,6                     | 395          | 9288                                | 14              | 7                                | 13,1                                     | 935                                 |
| 42VC650   | 142121      | 85,870                                             | 800                    | 6,56 E-06                                                        | 167,2                     | 444          | 10604                               | 14              | 7                                | 14,4                                     | 1062                                |

# Airflex® Dual Narrow VC Elements

Form VC-502 Sizes 11.5 to 42

Section B

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| Size      | (Dimensions in inches) |                |                 |        | H <sub>2</sub> | H <sub>6</sub> | H <sub>7</sub> | L No. | L Dia | O <sub>3</sub> No. | O <sub>3</sub> Size | Q (Deg) | V    | W No. | W Width |
|-----------|------------------------|----------------|-----------------|--------|----------------|----------------|----------------|-------|-------|--------------------|---------------------|---------|------|-------|---------|
|           | D <sub>2</sub>         | D <sub>3</sub> | D <sub>25</sub> | G      |                |                |                |       |       |                    |                     |         |      |       |         |
| 11.5VC500 | 12.75                  | 0.23           | 0.56            | 19.625 | 18.875         | 11.63          | 18.88          | 16    | 0.375 | 2                  | 0.31                | 11.25   | 0.56 | 16    | 11.63   |
| 14VC500   | 12.69                  | 0.31           | 0.56            | 23.500 | 22.500         | 14.22          | 22.25          | 8     | 0.500 | 4                  | 0.38                | 22.50   | 0.56 | 16    | 11.57   |
| 16VC600   | 15.19                  | 0.31           | 0.56            | 25.500 | 24.375         | 16.22          | 24.38          | 12    | 0.500 | 4                  | 0.38                | 15.00   | 0.69 | 16    | 13.81   |
| 20VC600   | 15.19                  | 0.31           | 0.56            | 29.500 | 28.375         | 20.22          | 28.38          | 12    | 0.500 | 4                  | 0.38                | 15.00   | 0.69 | 20    | 13.81   |
| 24VC650   | 15.94                  | 0.39           | 0.63            | 34.000 | 32.750         | 24.22          | 32.50          | 16    | 0.625 | 4                  | 0.50                | 11.25   | 0.59 | 24    | 14.75   |
| 28VC650   | 15.94                  | 0.39           | 0.63            | 38.000 | 36.750         | 28.22          | 36.50          | 16    | 0.625 | 4                  | 0.50                | 11.25   | 0.59 | 28    | 14.75   |
| 33VC650   | 15.94                  | 0.47           | 0.69            | 44.625 | 43.125         | 33.22          | 43.25          | 18    | 0.750 | 4                  | 0.63                | 15.00   | 0.59 | 32    | 14.75   |
| 37VC650   | 15.94                  | 0.47           | 0.69            | 48.625 | 47.125         | 37.22          | 47.25          | 20    | 0.750 | 4                  | 0.63                | 9.00    | 0.59 | 36    | 14.75   |
| 42VC650   | 15.94                  | 0.47           | 0.69            | 53.625 | 52.125         | 42.22          | 52.25          | 24    | 0.750 | 4                  | 0.63                | 7.50    | 0.59 | 40    | 14.75   |

| SI        | (Dimensions in millimeters) |                |                 |        |                |                |                |       |       |                    |                     |         |    |       |         |
|-----------|-----------------------------|----------------|-----------------|--------|----------------|----------------|----------------|-------|-------|--------------------|---------------------|---------|----|-------|---------|
| Size      | D <sub>2</sub>              | D <sub>3</sub> | D <sub>25</sub> | G      | H <sub>2</sub> | H <sub>6</sub> | H <sub>7</sub> | L No. | L Dia | O <sub>3</sub> No. | O <sub>3</sub> Size | Q (Deg) | V  | W No. | W Width |
| 11.5VC500 | 324                         | 6              | 14              | 498,5  | 479,4          | 295            | 479            | 16    | 9,5   | 2                  | 8                   | 11,25   | 14 | 16    | 295     |
| 14VC500   | 322                         | 8              | 14              | 596,9  | 571,5          | 361            | 565            | 8     | 12,7  | 4                  | 10                  | 22,50   | 14 | 16    | 294     |
| 16VC600   | 386                         | 8              | 14              | 647,7  | 619,1          | 412            | 619            | 12    | 12,7  | 4                  | 10                  | 15,00   | 17 | 16    | 351     |
| 20VC600   | 386                         | 8              | 14              | 749,3  | 720,7          | 514            | 721            | 12    | 12,7  | 4                  | 10                  | 15,00   | 17 | 20    | 351     |
| 24VC650   | 405                         | 10             | 16              | 863,6  | 831,9          | 615            | 826            | 16    | 15,9  | 4                  | 13                  | 11,25   | 15 | 24    | 375     |
| 28VC650   | 405                         | 10             | 16              | 965,2  | 933,5          | 717            | 927            | 16    | 15,9  | 4                  | 13                  | 11,25   | 15 | 28    | 375     |
| 33VC650   | 405                         | 12             | 18              | 1133,5 | 1095,4         | 844            | 1099           | 18    | 19,1  | 4                  | 16                  | 15,00   | 15 | 32    | 375     |
| 37VC650   | 405                         | 12             | 18              | 1235,1 | 1197,0         | 945            | 1200           | 20    | 19,1  | 4                  | 16                  | 9,00    | 15 | 36    | 375     |
| 42VC650   | 405                         | 12             | 18              | 1362,1 | 1324,0         | 1072           | 1327           | 24    | 19,1  | 4                  | 16                  | 7,50    | 15 | 40    | 375     |

### Notes:

**Part Number** refers to basic part number only. When ordering, the number of air inlets and type of connection must be specified.

**M<sub>r</sub>** — Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.

Tolerance for sizes (G):

11.5 thru 20  
+0.000/-0.005 in  
(+0,00/-0,13 mm)

24 thru 28  
+0.000/-0.008 in  
(+0,00/-0,20 mm)

33 thru 42  
+0.000/-0.010 in  
(+0,00/-0,25 mm)

(L) Tolerance:  
+0.005/-0.000 in  
(+0,13/-0,00 mm)

(O<sub>4</sub>) — Sizes 11.5 available with one or two inlets. All other sizes have four inlets.

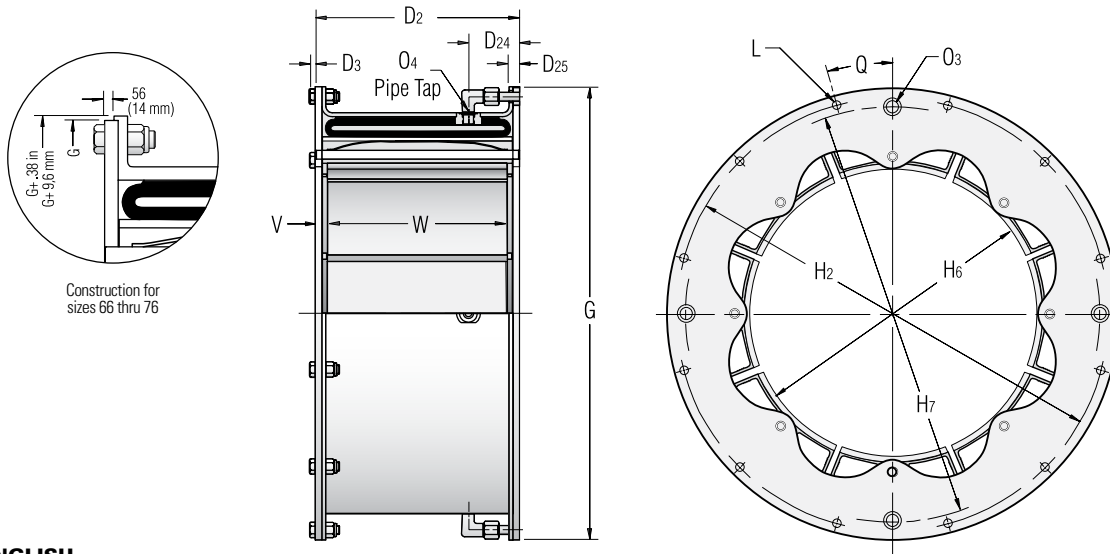
(Maximum Speed) — Maximum rpm is dependent upon operating conditions and varies for each application. Consult factory for applications exceeding these speeds.

(Air Tube Cavity) — Drum contact with worn shoes.

# Airflex® Single Wide VC Elements

Form VC-503 Sizes 14 to 76

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| Size     | Part Number | M <sub>t</sub><br>Torque Rating<br>lb-in@<br>75 psi | Max.<br>Speed<br>(rpm) | C <sub>s</sub><br>Centrifugal<br>Loss<br>(psi/rpm <sup>2</sup> ) | Wk <sup>2</sup><br>(lb-ft <sup>2</sup> ) | Weight<br>(lb) | Friction<br>Area (in <sup>2</sup> ) | Friction<br>New | Lining<br>Thickness<br>(ins) Worn | Air Tube<br>Cavity<br>(in <sup>3</sup> ) | Minimum<br>Drum<br>Diameter<br>(ins) |
|----------|-------------|-----------------------------------------------------|------------------------|------------------------------------------------------------------|------------------------------------------|----------------|-------------------------------------|-----------------|-----------------------------------|------------------------------------------|--------------------------------------|
| 14VC1000 | 142838      | 85,000                                              | 1800                   | 22 E-06                                                          | 127                                      | 213            | 350                                 | 0.32            | 0.16                              | 185                                      | 13.91                                |
| 16VC1000 | 142821      | 114,000                                             | 1400                   | 27 E-06                                                          | 212                                      | 240            | 470                                 | 0.32            | 0.16                              | 255                                      | 15.91                                |
| 20VC1000 | 142832      | 161,000                                             | 1300                   | 37 E-06                                                          | 309                                      | 282            | 635                                 | 0.32            | 0.16                              | 310                                      | 19.87                                |
| 24VC1000 | 142675      | 219,000                                             | 1250                   | 46 E-06                                                          | 552                                      | 378            | 720                                 | 0.44            | 0.16                              | 465                                      | 23.87                                |
| 28VC1000 | 142674      | 296,000                                             | 1100                   | 55 E-06                                                          | 826                                      | 431            | 840                                 | 0.44            | 0.16                              | 530                                      | 27.81                                |
| 32VC1000 | 142673      | 415,000                                             | 1050                   | 63 E-06                                                          | 1570                                     | 624            | 960                                 | 0.57            | 0.38                              | 600                                      | 31.81                                |
| 38VC1200 | 142739      | 680,000                                             | 740                    | 82 E-06                                                          | 2330                                     | 684            | 1360                                | 0.57            | 0.38                              | 755                                      | 37.81                                |
| 42VC1200 | 142677      | 819,000                                             | 670                    | 86 E-06                                                          | 3670                                     | 895            | 1500                                | 0.57            | 0.38                              | 850                                      | 41.75                                |
| 46VC1200 | 142671      | 950,000                                             | 600                    | 108 E-06                                                         | 4830                                     | 980            | 1410                                | 0.68            | 0.38                              | 1205                                     | 45.75                                |
| 52VC1200 | 142841      | 1,215,000                                           | 550                    | 127 E-06                                                         | 7285                                     | 1310           | 1590                                | 0.68            | 0.38                              | 1510                                     | 51.75                                |
| 51VC1600 | 142835      | 1,610,000                                           | 550                    | 125 E-06                                                         | 10580                                    | 1830           | 2380                                | 0.66            | 0.30                              | 2000                                     | 50.75                                |
| 60VC1600 | 142915      | 2,183,000                                           | 520                    | 145 E-06                                                         | 20532                                    | 2374           | 2800                                | 0.66            | 0.30                              | 2350                                     | 59.75                                |
| 66VC1600 | 142097      | 2,800,000                                           | 480                    | 185 E-06                                                         | 24850                                    | 2630           | 3080                                | 0.66            | 0.30                              | 1950                                     | 65.75                                |
| 76VC1600 | —           | —                                                   | —                      | Consult Factory                                                  |                                          | —              | —                                   | —               | —                                 | —                                        | —                                    |

| Size     | Part Number | M <sub>t</sub><br>Torque Rating<br>N-m@<br>5,2 bar | Max.<br>Speed<br>(rpm) | C <sub>s</sub><br>Centrifugal<br>Loss<br>(bar/rpm <sup>2</sup> ) | J<br>(kg-m <sup>2</sup> ) | Mass<br>(kg) | Friction<br>Area (cm <sup>2</sup> ) | Friction<br>New | Lining<br>Thickness<br>(mm) Worn | Air Tube<br>Cavity<br>(dm <sup>3</sup> ) | Minimum<br>Drum<br>Diameter<br>(mm) |
|----------|-------------|----------------------------------------------------|------------------------|------------------------------------------------------------------|---------------------------|--------------|-------------------------------------|-----------------|----------------------------------|------------------------------------------|-------------------------------------|
| 14VC1000 | 142838      | 9,605                                              | 1800                   | 1,52 E-06                                                        | 5,33                      | 96           | 2258                                | 8               | 4                                | 3,03                                     | 353                                 |
| 16VC1000 | 142821      | 12,880                                             | 1400                   | 1,86 E-06                                                        | 8,90                      | 109          | 3032                                | 8               | 4                                | 4,18                                     | 404                                 |
| 20VC1000 | 142832      | 18,190                                             | 1300                   | 2,55 E-06                                                        | 12,98                     | 128          | 4096                                | 8               | 4                                | 5,08                                     | 505                                 |
| 24VC1000 | 142675      | 24,745                                             | 1250                   | 3,17 E-06                                                        | 23,18                     | 171          | 4644                                | 11              | 4                                | 7,63                                     | 606                                 |
| 28VC1000 | 142674      | 33,445                                             | 1100                   | 3,80 E-06                                                        | 34,69                     | 195          | 5418                                | 11              | 4                                | 8,69                                     | 706                                 |
| 32VC1000 | 142673      | 46,890                                             | 1050                   | 4,35 E-06                                                        | 65,94                     | 283          | 6192                                | 14              | 10                               | 9,84                                     | 808                                 |
| 38VC1200 | 142739      | 76,830                                             | 740                    | 5,66 E-06                                                        | 97,86                     | 310          | 8772                                | 14              | 10                               | 12,4                                     | 960                                 |
| 42VC1200 | 142677      | 92,535                                             | 670                    | 5,93 E-06                                                        | 154,1                     | 405          | 9675                                | 14              | 10                               | 13,9                                     | 1060                                |
| 46VC1200 | 142671      | 107,335                                            | 600                    | 7,45 E-06                                                        | 202,9                     | 444          | 9097                                | 17              | 10                               | 19,8                                     | 1162                                |
| 52VC1200 | 142841      | 137,275                                            | 550                    | 8,76 E-06                                                        | 306,0                     | 594          | 10256                               | 17              | 10                               | 24,8                                     | 1314                                |
| 51VC1600 | 142835      | 181,905                                            | 550                    | 8,63 E-06                                                        | 444,4                     | 830          | 15351                               | 17              | 8                                | 32,8                                     | 1289                                |
| 60VC1600 | 142915      | 246,645                                            | 520                    | 10,01 E-06                                                       | 852,3                     | 1077         | 18060                               | 17              | 8                                | 38,5                                     | 1518                                |
| 66VC1600 | 142097      | 316,355                                            | 480                    | 12,83 E-06                                                       | 1044                      | 1191         | 19866                               | 17              | 8                                | 32,1                                     | 1670                                |
| 76VC1600 | —           | —                                                  | —                      | Consult Factory                                                  |                           | —            | —                                   | —               | —                                | —                                        | —                                   |

# Airflex® Single Wide VC Elements

Form VC-503 Sizes 14 to 76

Section B

## ENGLISH

|          | (Dimensions in inches) |                |                 |                 |        |                |                |                |       |        |                |                    |                     |         |      |       |         |
|----------|------------------------|----------------|-----------------|-----------------|--------|----------------|----------------|----------------|-------|--------|----------------|--------------------|---------------------|---------|------|-------|---------|
| Size     | D <sub>2</sub>         | D <sub>3</sub> | D <sub>24</sub> | D <sub>25</sub> | G      | H <sub>2</sub> | H <sub>6</sub> | H <sub>7</sub> | L No. | L Dia. | O <sub>3</sub> | O <sub>4</sub> No. | O <sub>4</sub> Size | Q (Deg) | V    | W No. | W Width |
| 14VC1000 | 11.56                  | 0.31           | 2.88            | 0.63            | 23.500 | 22.500         | 14.22          | 22.25          | 8     | 0.500  | 0.38           | 4                  | 3/8-18 NPT          | 22.50   | 0.78 | 8     | 10      |
| 16VC1000 | 11.56                  | 0.31           | 2.88            | 0.63            | 25.500 | 24.375         | 16.22          | 24.38          | 12    | 0.500  | 0.38           | 4                  | 3/8-18 NPT          | 15.00   | 0.78 | 8     | 10      |
| 20VC1000 | 11.56                  | 0.31           | 2.88            | 0.63            | 29.500 | 28.375         | 20.22          | 28.38          | 12    | 0.500  | 0.38           | 4                  | 3/8-18 NPT          | 15.00   | 0.78 | 8     | 10      |
| 24VC1000 | 11.56                  | 0.39           | 2.88            | 0.63            | 34.000 | 32.750         | 24.22          | 32.50          | 16    | 0.625  | 0.50           | 4                  | 1/2-14 NPT          | 11.25   | 0.78 | 10    | 10      |
| 28VC1000 | 11.56                  | 0.39           | 2.88            | 0.63            | 38.000 | 36.750         | 28.22          | 36.50          | 16    | 0.625  | 0.50           | 4                  | 1/2-14 NPT          | 11.25   | 0.78 | 10    | 10      |
| 32VC1000 | 11.63                  | 0.39           | 2.88            | 0.63            | 43.875 | 42.625         | 32.22          | 42.13          | 24    | 0.625  | 0.50           | 4                  | 1/2-14 NPT          | 7.50    | 0.81 | 12    | 10      |
| 38VC1200 | 13.75                  | 0.47           | 3.13            | 0.69            | 49.375 | 47.875         | 38.22          | 48.00          | 20    | 0.750  | 0.63           | 4                  | 3/4-14 NPT          | 9.00    | 0.88 | 12    | 12      |
| 42VC1200 | 13.75                  | 0.47           | 3.13            | 0.66            | 53.625 | 52.125         | 42.22          | 52.25          | 24    | 0.750  | 0.63           | 4                  | 3/4-14 NPT          | 7.50    | 0.88 | 14    | 12      |
| 46VC1200 | 13.75                  | 0.55           | 4.88            | 0.78            | 60.250 | 58.500         | 46.25          | 57.50          | 24    | 0.875  | 0.63           | 4                  | 3/4-14 NPT          | 7.50    | 0.88 | 16    | 12      |
| 52VC1200 | 14.25                  | 0.55           | 7.13            | 1.13            | 67.000 | 65.500         | 52.25          | 65.00          | 32    | 0.875  | 0.88           | 4                  | 1-11 1/2 NPT        | 5.63    | 1.13 | 18    | 12      |
| 51VC1600 | 18.25                  | 0.55           | 9.13            | 1.13            | 67.000 | 65.500         | 51.25          | 65.00          | 32    | 0.875  | 0.88           | 4                  | 1-11 1/2 NPT        | 5.63    | 1.13 | 18    | 16      |
| 60VC1600 | 18.50                  | 0.61           | 9.25            | 1.38            | 77.000 | 75.000         | 60.43          | 74.25          | 36    | 1.000  | 0.88           | 4                  | 1-11 1/2 NPT        | 5.00    | 1.25 | 20    | 16      |
| 66VC1600 | 18.50                  | 0.78           | 9.25            | 1.38            | 82.123 | 79.625         | 66.22          | 78.38          | 40    | 1.312  | 0.88           | 4                  | 1-11 1/2 NPT        | 5.00    | 1.25 | 22    | 16      |

## SI

| (Dimensions in millimeters) |                |                |                 |                 |        |                |                |                |       |        |                |                    |                     |         |    |       |         |
|-----------------------------|----------------|----------------|-----------------|-----------------|--------|----------------|----------------|----------------|-------|--------|----------------|--------------------|---------------------|---------|----|-------|---------|
| Size                        | D <sub>2</sub> | D <sub>3</sub> | D <sub>24</sub> | D <sub>25</sub> | G      | H <sub>2</sub> | H <sub>6</sub> | H <sub>7</sub> | L No. | L Dia. | O <sub>3</sub> | O <sub>4</sub> No. | O <sub>4</sub> Size | Q (Deg) | V  | W No. | W Width |
| 14VC1000                    | 294            | 8              | 73              | 16              | 596,9  | 571,5          | 361            | 565            | 8     | 12,7   | 10             | 4                  | 3/8-18 NPT          | 22,50   | 20 | 8     | 254     |
| 16VC1000                    | 294            | 8              | 73              | 16              | 647,7  | 619,1          | 412            | 619            | 12    | 12,7   | 10             | 4                  | 3/8-18 NPT          | 15,00   | 20 | 8     | 254     |
| 20VC1000                    | 294            | 8              | 73              | 16              | 749,3  | 720,7          | 514            | 721            | 12    | 12,7   | 10             | 4                  | 3/8-18 NPT          | 15,00   | 20 | 8     | 254     |
| 24VC1000                    | 294            | 10             | 73              | 16              | 863,6  | 831,9          | 615            | 826            | 16    | 15,9   | 13             | 4                  | ½-14 NPT            | 11,25   | 20 | 10    | 254     |
| 28VC1000                    | 294            | 10             | 73              | 16              | 965,2  | 933,5          | 717            | 927            | 16    | 15,9   | 13             | 4                  | ½-14 NPT            | 11,25   | 20 | 10    | 254     |
| 32VC1000                    | 295            | 10             | 73              | 16              | 1114,4 | 1082,7         | 818            | 1070           | 24    | 15,9   | 13             | 4                  | ½-14 NPT            | 7,50    | 21 | 12    | 254     |
| 38VC1200                    | 349            | 12             | 79              | 18              | 1254,1 | 1216,0         | 971            | 1219           | 20    | 19,1   | 16             | 4                  | ¾-14 NPT            | 9,00    | 22 | 12    | 305     |
| 42VC1200                    | 349            | 12             | 79              | 17              | 1362,1 | 1324,0         | 1072           | 1327           | 24    | 19,1   | 16             | 4                  | ¾-14 NPT            | 7,50    | 22 | 14    | 305     |
| 46VC1200                    | 349            | 14             | 124             | 20              | 1530,4 | 1485,9         | 1175           | 1461           | 24    | 22,2   | 16             | 4                  | ¾-14 NPT            | 7,50    | 22 | 16    | 305     |
| 52VC1200                    | 362            | 14             | 181             | 29              | 1701,8 | 1663,7         | 1327           | 1651           | 32    | 22,2   | 22             | 4                  | 1-11 ½ NPT          | 5,63    | 29 | 18    | 305     |
| 51VC1600                    | 464            | 14             | 232             | 29              | 1701,8 | 1663,7         | 1302           | 1651           | 32    | 22,2   | 22             | 4                  | 1-11 ½ NPT          | 5,63    | 29 | 18    | 406     |
| 60VC1600                    | 470            | 15             | 235             | 35              | 1955,8 | 1905,0         | 1535           | 1886           | 36    | 25,4   | 22             | 4                  | 1-11 ½ NPT          | 5,00    | 32 | 20    | 406     |
| 66VC1600                    | 470            | 20             | 235             | 35              | 2085,9 | 2022,5         | 1682           | 1991           | 40    | 33,3   | 22             | 4                  | 1-11 ½ NPT          | 5,00    | 32 | 22    | 406     |

### Notes:

**Part Number** refers to basic part number only. When ordering, the number of air inlets and type of connection must be specified.

**M<sub>r</sub>** — Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.

Tolerance for sizes (G):

14 thru 20  
+0.000/-0.005 in

(+0,00/-0,13 mm)  
24 thru 28  
+0.000/-0.008 in  
(+0,00/-0,20 mm)  
32 thru 60  
+0.000/-0.010 in  
(+0,00/-0,25 mm)  
66 thru 76  
+0.000/-0.005 in  
(+0,00/-0,13 mm)  
(L) Tolerance:

+0.005/-0.000 in  
(+0,13/-0,00 mm)

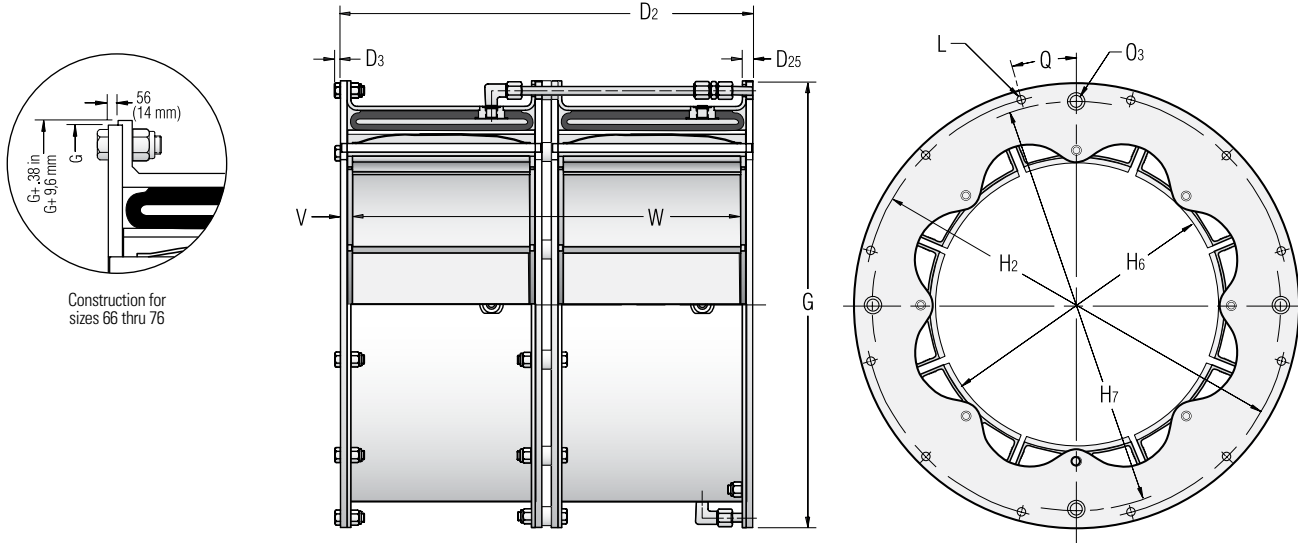
**(Maximum Speed)** — Maximum rpm is dependent upon operating conditions and varies for each application. Consult factory for applications exceeding these speeds.

**(Air Tube Cavity)** — Drum contact with worn shoes.

# Airflex® Dual Wide VC Elements

Form VC-504 Sizes 16 to 76

Section B



## ENGLISH

| Size     | Part Number | M <sub>r</sub><br>Torque<br>Rating<br>lb-in@<br>75 psi | Max.<br>Speed<br>(rpm) | C <sub>s</sub><br>Centrifugal<br>Loss<br>(psi/rpm <sup>2</sup> ) | Wk <sup>2</sup><br>(lb-ft <sup>2</sup> ) | Weight<br>(lb) | Friction<br>Area (in <sup>2</sup> ) | Friction<br>New | Lining<br>Thickness<br>(ins) Worn | Air Tube<br>Cavity<br>(in <sup>3</sup> ) | Minimum<br>Drum<br>Diameter<br>(ins) |
|----------|-------------|--------------------------------------------------------|------------------------|------------------------------------------------------------------|------------------------------------------|----------------|-------------------------------------|-----------------|-----------------------------------|------------------------------------------|--------------------------------------|
| 16VC1000 | 142122      | 228,000                                                | 1400                   | 27 E-06                                                          | 380                                      | 430            | 940                                 | 0.32            | 0.16                              | 510                                      | 15.91                                |
| 20VC1000 | 142123      | 322,000                                                | 1300                   | 37 E-06                                                          | 618                                      | 568            | 1270                                | 0.32            | 0.16                              | 620                                      | 19.87                                |
| 24VC1000 | 142124      | 438,000                                                | 1250                   | 46 E-06                                                          | 1104                                     | 756            | 1440                                | 0.44            | 0.16                              | 930                                      | 23.87                                |
| 28VC1000 | 142125      | 592,000                                                | 1100                   | 55 E-06                                                          | 1652                                     | 862            | 1680                                | 0.44            | 0.16                              | 1060                                     | 27.81                                |
| 32VC1000 | 142126      | 830,000                                                | 1050                   | 63 E-06                                                          | 3140                                     | 1248           | 1920                                | 0.57            | 0.38                              | 1200                                     | 31.81                                |
| 38VC1200 | 142127      | 1,360,000                                              | 740                    | 82 E-06                                                          | 4660                                     | 1368           | 2720                                | 0.57            | 0.38                              | 1510                                     | 37.81                                |
| 42VC1200 | 142128      | 1,638,000                                              | 670                    | 86 E-06                                                          | 7340                                     | 1790           | 3000                                | 0.57            | 0.38                              | 1700                                     | 41.75                                |
| 46VC1200 | 142129      | 1,900,000                                              | 600                    | 108 E-06                                                         | 9660                                     | 1960           | 3180                                | 0.68            | 0.38                              | 2410                                     | 45.75                                |
| 52VC1200 | 142131      | 2,430,000                                              | 550                    | 127 E-06                                                         | 14570                                    | 2384           | 3580                                | 0.68            | 0.38                              | 3020                                     | 51.75                                |
| 51VC1600 | 142130      | 3,220,000                                              | 550                    | 125 E-06                                                         | 21160                                    | 3868           | 4760                                | 0.66            | 0.30                              | 4000                                     | 50.75                                |
| 60VC1600 | 142132      | 4,366,000                                              | 520                    | 145 E-06                                                         | 41064                                    | 4900           | 5600                                | 0.66            | 0.30                              | 4700                                     | 59.75                                |
| 66VC1600 | 142198      | 5,600,000                                              | 480                    | 186 E-06                                                         | 49700                                    | 5260           | 6160                                | 0.66            | 0.30                              | 3920                                     | 65.75                                |
| 76VC1600 | 146509      | 7,300,000                                              | 416                    | 241 E-06                                                         | 72940                                    | 5970           | 6940                                | 0.66            | 0.30                              | 4800                                     | 75.75                                |
| 76VC2000 | 146531      | 9,300,000                                              | 275                    | 146 E-06                                                         | 82084                                    | 6700           | 8390                                | 0.66            | 0.30                              | 4963                                     | 75.75                                |

| Size     | Part Number | M <sub>r</sub><br>Torque<br>Rating<br>N-m@<br>5,2 bar | Max.<br>Speed<br>(rpm) | C <sub>s</sub><br>Centrifugal<br>Loss<br>(bar/rpm <sup>2</sup> ) | J<br>(kg-m <sup>2</sup> ) | Mass<br>(kg) | Friction<br>Area (cm <sup>2</sup> ) | Friction<br>New | Lining<br>Thickness<br>(mm) Worn | Air Tube<br>Cavity<br>(dm <sup>3</sup> ) | Minimum<br>Drum<br>Diameter<br>(mm) |
|----------|-------------|-------------------------------------------------------|------------------------|------------------------------------------------------------------|---------------------------|--------------|-------------------------------------|-----------------|----------------------------------|------------------------------------------|-------------------------------------|
| 16VC1000 | 142122      | 25,760                                                | 1400                   | 1,86 E-06                                                        | 15,96                     | 195          | 6063                                | 8               | 4                                | 8,36                                     | 404                                 |
| 20VC1000 | 142123      | 36,380                                                | 1300                   | 2,55 E-06                                                        | 25,96                     | 257          | 8192                                | 8               | 4                                | 10,2                                     | 505                                 |
| 24VC1000 | 142124      | 49,490                                                | 1250                   | 3,17 E-06                                                        | 46,37                     | 342          | 9288                                | 11              | 4                                | 15,3                                     | 606                                 |
| 24VC1000 | 142125      | 66,890                                                | 1100                   | 3,80 E-06                                                        | 69,38                     | 390          | 10836                               | 11              | 4                                | 17,4                                     | 706                                 |
| 32VC1000 | 142126      | 93,780                                                | 1050                   | 4,35 E-06                                                        | 131,9                     | 565          | 12384                               | 14              | 10                               | 19,7                                     | 808                                 |
| 38VC1200 | 142127      | 153,660                                               | 740                    | 5,66 E-06                                                        | 195,7                     | 620          | 17544                               | 14              | 10                               | 24,8                                     | 960                                 |
| 42VC1200 | 142128      | 185,070                                               | 670                    | 5,93 E-06                                                        | 308,3                     | 811          | 19350                               | 14              | 10                               | 27,9                                     | 1060                                |
| 46VC1200 | 142129      | 214,670                                               | 600                    | 7,45 E-06                                                        | 405,7                     | 888          | 20516                               | 17              | 10                               | 39,5                                     | 1162                                |
| 52VC1200 | 142131      | 274,550                                               | 550                    | 8,76 E-06                                                        | 611,9                     | 1080         | 23097                               | 17              | 10                               | 49,5                                     | 1314                                |
| 51VC1600 | 142130      | 363,810                                               | 550                    | 8,63 E-06                                                        | 888,7                     | 1752         | 30702                               | 17              | 8                                | 65,6                                     | 1289                                |
| 60VC1600 | 142132      | 493,290                                               | 520                    | 10,01 E-06                                                       | 1725                      | 2220         | 36120                               | 17              | 8                                | 77,1                                     | 1518                                |
| 66VC1600 | 142198      | 632,710                                               | 480                    | 12,83 E-06                                                       | 2087                      | 2383         | 39732                               | 17              | 8                                | 64,3                                     | 1670                                |
| 76VC1600 | 146509      | 827,050                                               | 416                    | 16,66 E-06                                                       | 3074                      | 2705         | 45150                               | 17              | 8                                | 79,0                                     | 1924                                |
| 76VC2000 | 146531      | 1,050,760                                             | 275                    | 10,06 E-06                                                       | 3461                      | 3038         | 54128                               | 17              | 8                                | 81,7                                     | 1924                                |

# Airflex® Dual Wide VC Elements

Form VC-504 Sizes 16 to 76

Section B

## ENGLISH

| (Dimensions in inches) |                |                |                 |        |                |                |                |       |       |                    |                     |         |      |       |         |
|------------------------|----------------|----------------|-----------------|--------|----------------|----------------|----------------|-------|-------|--------------------|---------------------|---------|------|-------|---------|
| Size                   | D <sub>2</sub> | D <sub>3</sub> | D <sub>25</sub> | G      | H <sub>2</sub> | H <sub>6</sub> | H <sub>7</sub> | L No. | L Dia | O <sub>3</sub> No. | O <sub>3</sub> Size | Q (Deg) | V    | W No. | W Width |
| 16VC1000               | 23.69          | 0.31           | 0.63            | 25.500 | 24.375         | 16.22          | 24.38          | 12    | 0.500 | 4                  | 0.38                | 15.00   | 0.78 | 16    | 22.13   |
| 20VC1000               | 23.69          | 0.31           | 0.63            | 29.500 | 28.375         | 20.22          | 28.38          | 12    | 0.500 | 4                  | 0.38                | 15.00   | 0.78 | 16    | 22.13   |
| 24VC1000               | 23.69          | 0.39           | 0.63            | 34.000 | 32.750         | 24.22          | 32.50          | 16    | 0.625 | 4                  | 0.50                | 11.25   | 0.78 | 20    | 22.13   |
| 28VC1000               | 23.69          | 0.39           | 0.63            | 38.000 | 36.750         | 28.22          | 36.50          | 16    | 0.625 | 4                  | 0.50                | 11.25   | 0.78 | 20    | 22.13   |
| 32VC1000               | 23.81          | 0.39           | 0.63            | 43.875 | 42.625         | 32.22          | 42.13          | 24    | 0.625 | 4                  | 0.50                | 7.50    | 0.81 | 24    | 23.19   |
| 38VC1200               | 28.06          | 0.47           | 0.66            | 49.375 | 47.875         | 38.22          | 48.00          | 20    | 0.750 | 4                  | 0.63                | 9.00    | 0.88 | 24    | 26.31   |
| 42VC1200               | 28.06          | 0.47           | 0.66            | 53.625 | 52.125         | 42.22          | 52.25          | 24    | 0.750 | 4                  | 0.63                | 7.50    | 0.88 | 28    | 26.31   |
| 46VC1200               | 28.06          | 0.55           | 0.75            | 60.250 | 58.500         | 46.25          | 57.50          | 24    | 0.875 | 4                  | 0.63                | 7.50    | 0.88 | 32    | 26.31   |
| 52VC1200               | 29.06          | 0.55           | 1.13            | 67.000 | 65.500         | 52.25          | 65.00          | 32    | 0.875 | 4                  | 0.88                | 5.63    | 1.13 | 36    | 26.81   |
| 51VC1600               | 37.06          | 0.55           | 1.13            | 67.000 | 65.500         | 51.25          | 65.00          | 32    | 0.875 | 4                  | 0.88                | 5.63    | 1.13 | 36    | 34.81   |
| 60VC1600               | 37.56          | 0.61           | 1.38            | 77.000 | 75.000         | 60.43          | 74.25          | 36    | 1.000 | 4                  | 0.88                | 5.00    | 1.25 | 40    | 35.06   |
| 66VC1600               | 37.00          | 0.78           | 1.38            | 82.123 | 79.625         | 66.22          | 78.38          | 40    | 1.312 | 4                  | 0.88                | 4.50    | 1.25 | 44    | 34.50   |
| 76VC1600               | 37.00          | 0.88           | 1.38            | 92.123 | 89.625         | 76.72          | 88.38          | 48    | 1.312 | 4                  | 0.88                | 3.75    | 1.25 | 50    | 34.50   |
| 76VC2000               | 45.00          | 0.88           | 1.38            | 92.123 | 89.625         | 76.72          | 88.38          | 48    | 1.312 | 4                  | 0.88                | 3.75    | 1.25 | 50    | 42.56   |

## SI

| (Dimensions in millimeters) |                |                |                 |        |                |                |                |       |       |                    |                     |         |    |       |         |
|-----------------------------|----------------|----------------|-----------------|--------|----------------|----------------|----------------|-------|-------|--------------------|---------------------|---------|----|-------|---------|
| Size                        | D <sub>2</sub> | D <sub>3</sub> | D <sub>25</sub> | G      | H <sub>2</sub> | H <sub>6</sub> | H <sub>7</sub> | L No. | L Dia | O <sub>3</sub> No. | O <sub>3</sub> Size | Q (Deg) | V  | W No. | W Width |
| 16VC1000                    | 602            | 8              | 16              | 647,7  | 619,1          | 412            | 619            | 12    | 12,7  | 4                  | 10                  | 15,00   | 20 | 16    | 562     |
| 20VC1000                    | 602            | 8              | 16              | 749,3  | 720,7          | 514            | 721            | 12    | 12,7  | 4                  | 10                  | 15,00   | 20 | 16    | 562     |
| 24VC1000                    | 602            | 10             | 16              | 863,6  | 831,9          | 615            | 826            | 16    | 15,9  | 4                  | 13                  | 11,25   | 20 | 20    | 562     |
| 28VC1000                    | 602            | 10             | 16              | 965,2  | 933,5          | 717            | 927            | 16    | 15,9  | 4                  | 13                  | 11,25   | 20 | 20    | 562     |
| 32VC1000                    | 605            | 10             | 16              | 1114,4 | 1082,7         | 818            | 1070           | 24    | 15,9  | 4                  | 13                  | 7,50    | 21 | 24    | 589     |
| 38VC1200                    | 713            | 12             | 17              | 1254,1 | 1216,0         | 971            | 1219           | 20    | 19,1  | 4                  | 16                  | 9,00    | 22 | 24    | 668     |
| 42VC1200                    | 713            | 12             | 17              | 1362,1 | 1324,0         | 1072           | 1327           | 24    | 19,1  | 4                  | 16                  | 7,50    | 22 | 28    | 668     |
| 42VC1200                    | 713            | 14             | 19              | 1530,4 | 1485,9         | 1175           | 1461           | 24    | 22,2  | 4                  | 16                  | 7,50    | 22 | 32    | 668     |
| 52VC1200                    | 738            | 14             | 29              | 1701,8 | 1663,7         | 1327           | 1651           | 32    | 22,2  | 4                  | 22                  | 5,63    | 29 | 36    | 681     |
| 51VC1600                    | 941            | 14             | 29              | 1701,8 | 1663,7         | 1302           | 1651           | 32    | 22,2  | 4                  | 22                  | 5,63    | 29 | 36    | 884     |
| 60VC1600                    | 954            | 15             | 35              | 1955,8 | 1905,0         | 1535           | 1886           | 36    | 25,4  | 4                  | 22                  | 5,00    | 32 | 40    | 891     |
| 66VC1600                    | 940            | 20             | 35              | 2085,9 | 2022,5         | 1682           | 1991           | 40    | 33,3  | 4                  | 22                  | 4,50    | 32 | 44    | 876     |
| 76VC1600                    | 940            | 22             | 35              | 2339,9 | 2276,5         | 1948           | 2245           | 48    | 33,3  | 4                  | 22                  | 3,75    | 32 | 50    | 876     |
| 76VC2000                    | 1143           | 22             | 35              | 2339,9 | 2276,5         | 1948           | 2245           | 48    | 33,3  | 4                  | 22                  | 3,75    | 32 | 50    | 1081    |

### Notes:

**Part Number** refers to basic part number only. When ordering, the number of air inlets and type of connection must be specified.

**M<sub>r</sub>** — Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.

Tolerance for sizes (G):

16 thru 20  
+0.000/-0.005 in

(+0,00/-0,13 mm)

24 thru 28  
+0.000/-0.008 in  
(+0,00/-0,20 mm)

32 thru 60  
+0.000/-0.010 in  
(+0,00/-0,25 mm)

66 thru 76  
+0.000/-0.005 in  
(+0,00/-0,13 mm)

(L) Tolerance:

+0.005/-0.000 in

(+0,13/-0,00 mm)

(O<sub>3</sub>) — All sizes available with either two or four outlets.

(Maximum Speed) — Maximum rpm is dependent upon operating conditions and varies for each application. Consult factory for applications exceeding these speeds.

(Air Tube Cavity) — Drum contact with worn shoes.

# Airflex® VC Clutch Application

## Form VC-529 — Air Bridge Arrangement —

### Technical Data — Narrow Sizes 11.5 to 42

#### Section B

| English ④ | lb  | lb · ft² | lb  | lb · ft² | lb  | lb · ft² | lb | lb · ft² |
|-----------|-----|----------|-----|----------|-----|----------|----|----------|
| 11.5VC500 | 96  | 43       | 46  | 9        | 35  | 2        | 2  | 0.3      |
| 14VC500   | 128 | 78       | 66  | 19       | 65  | 4        | 6  | 1.3      |
| 16VC600   | 151 | 115      | 94  | 35       | 62  | 4        | 14 | 10.3     |
| 20VC600   | 179 | 193      | 139 | 78       | 95  | 9        | 15 | 16       |
| 24VC650   | 246 | 369      | 178 | 148      | 124 | 19       | 19 | 25       |
| 28VC650   | 280 | 537      | 231 | 269      | 240 | 59       | 20 | 32       |
| 33VC650   | 392 | 1083     | 312 | 486      | 347 | 93       | 19 | 42       |
| 37VC650   | 433 | 1400     | 340 | 691      | 398 | 159      | 23 | 56       |
| 42VC650   | 485 | 1990     | 424 | 1100     | 545 | 243      | 24 | 66       |

| Size      | Element |         | Drum   |         | Drum Hub |         | Air Bridge |         |
|-----------|---------|---------|--------|---------|----------|---------|------------|---------|
|           | Weight  | Wk²     | Weight | Wk²     | Weight   | Wk²     | Weight     | Wk²     |
|           | Mass    | J       | Mass   | J       | Mass     | J       | Mass       | J       |
| 11.5VC500 | 43      | 1,81    | 21     | 0,38    | 16       | 0,08    | 1          | 0,01    |
| 14VC500   | 58      | 3,28    | 30     | 0,80    | 29       | 0,17    | 3          | 0,05    |
| 16VC600   | 68      | 4,83    | 43     | 1,47    | 28       | 0,17    | 6          | 0,43    |
| 20VC600   | 81      | 8,11    | 63     | 3,28    | 43       | 0,38    | 7          | 0,67    |
| 24VC650   | 111     | 15,50   | 81     | 6,22    | 56       | 0,80    | 9          | 1,05    |
| 28VC650   | 127     | 22,55   | 105    | 11,30   | 109      | 2,48    | 9          | 1,34    |
| 33VC650   | 178     | 45,49   | 141    | 20,41   | 157      | 3,91    | 9          | 1,76    |
| 37VC650   | 196     | 58,80   | 154    | 29,02   | 180      | 6,68    | 10         | 2,35    |
| 42VC650   | 220     | 83,58   | 192    | 46,20   | 247      | 10,21   | 11         | 2,77    |
| SI ④      | kg      | kg · m² | kg     | kg · m² | kg       | kg · m² | kg         | kg · m² |

| Size      | Part Numbers |        |          |            |
|-----------|--------------|--------|----------|------------|
|           | Element ⑤    | Drum   | Drum Hub | Air Bridge |
| 11.5VC500 | 142639       | 408290 | 406960   | 410546     |
| 14VC500   | 143829       | 408283 | 406962   | 408165     |
| 16VC600   | 142640       | 408292 | 406964   | 407294     |
| 20VC600   | 142641       | 408294 | 406966   | 407307     |
| 24VC650   | 142642       | 408296 | 406968   | 411796     |
| 28VC650   | 142643       | 409479 | 406970   | 400203     |
| 33VC650   | 142644       | 408300 | 406972   | 413799     |
| 37VC650   | 142645       | 408302 | 406974   | 411797     |
| 42VC650   | 142647       | 408304 | 407000   | 411798     |

#### Notes:

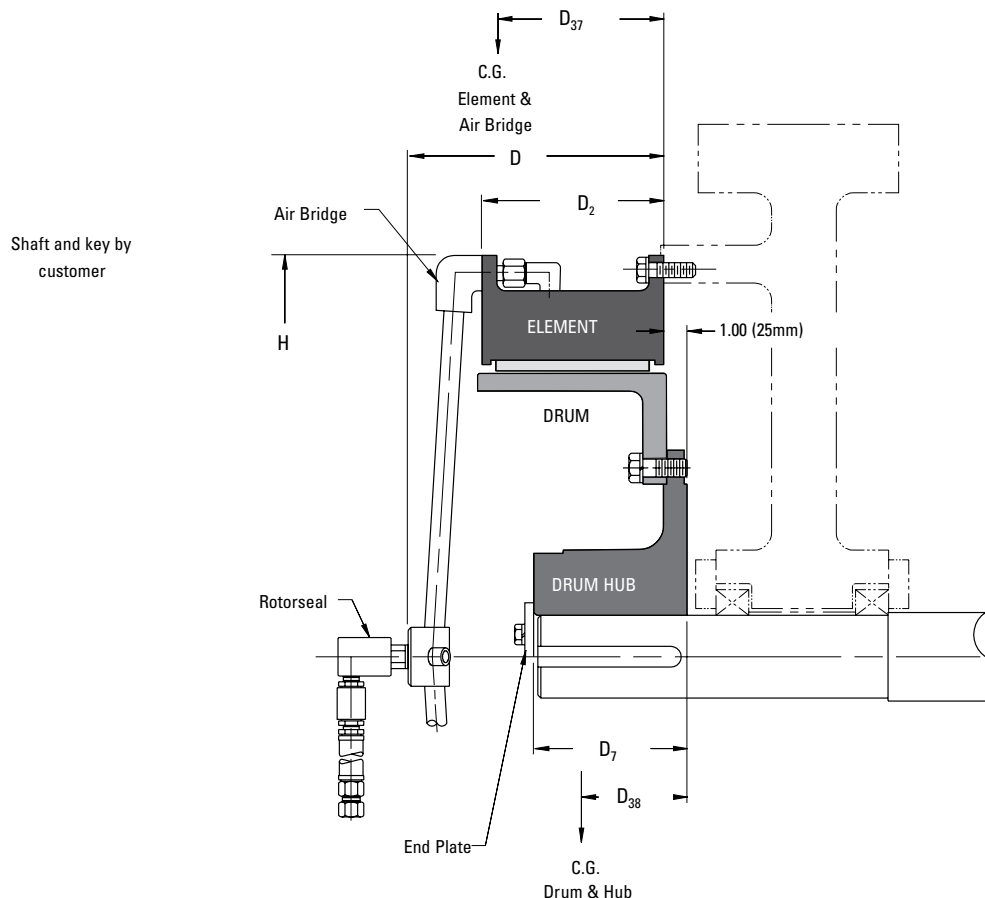
- ① Refers to basic part number only and does not include the rotor seal and hose. When ordering, the number and type of element connections must be specified.
- ② Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ③ Based upon minimum bores. Rotor seal and hose not included.
- ④ Based upon minimum bores.
- ⑤ Refers to basic part number only. When ordering, the number of air inlets and type of connection must be specified.

# Airflex® VC Clutch Application

## Form VC-529 — Air Bridge Arrangement —

### Dimensional Data — Narrow Sizes 11.5 to 42

#### Section B



| English    |        | lb · in<br>@ 75 psi |        | lb ♂ | Dimensions in inches |       |       |      |       |     |     |       |
|------------|--------|---------------------|--------|------|----------------------|-------|-------|------|-------|-----|-----|-------|
| 111.5VC500 | 107040 | 27000               | B3     | 183  | 2.50                 | 4.13  | 10.13 | 6.13 | 5.00  | 3.2 | 2.9 | 19.63 |
| 14VC500    | 107041 | 39200               | C2     | 266  | 2.75                 | 5.00  | 9.75  | 6.13 | 5.75  | 3.3 | 3.3 | 23.50 |
| 16VC600    | 107042 | 65000               | C2     | 327  | 3.25                 | 5.00  | 11.06 | 7.38 | 5.75  | 4.2 | 3.4 | 25.50 |
| 20VC600    | 107043 | 93000               | C2     | 434  | 3.75                 | 5.50  | 11.19 | 7.38 | 6.50  | 4.0 | 3.4 | 29.50 |
| 24VC650    | 107044 | 135000              | C2     | 608  | 4.25                 | 6.00  | 11.81 | 7.69 | 6.50  | 4.3 | 3.0 | 34.00 |
| 28VC650    | 107045 | 182000              | C2     | 742  | 4.75                 | 8.00  | 11.94 | 7.69 | 8.00  | 4.2 | 3.2 | 38.00 |
| 33VC650    | 107046 | 255000              | 3/4 RH | 1004 | 5.25                 | 9.50  | 11.97 | 7.69 | 9.00  | 4.1 | 3.3 | 44.63 |
| 37VC650    | 107047 | 320000              | 3/4 RH | 1128 | 5.50                 | 9.50  | 12.25 | 7.69 | 9.00  | 4.2 | 3.2 | 48.63 |
| 42VC650    | 107048 | 380000              | 3/4 RH | 1442 | 6.00                 | 10.50 | 12.41 | 7.69 | 10.00 | 4.1 | 3.4 | 53.63 |

| Size      | Part Number | ⊙<br>M <sub>t</sub><br>Torque<br>Rating | Rotorseal<br>Size | Weight<br>Mass | Bore Range |     | D   | D <sub>2</sub> | D <sub>7</sub> | D <sub>37</sub> | D <sub>38</sub> | H    |
|-----------|-------------|-----------------------------------------|-------------------|----------------|------------|-----|-----|----------------|----------------|-----------------|-----------------|------|
|           |             |                                         |                   |                | Min        | Max |     |                |                |                 |                 |      |
| 11.5VC500 | 107040      | 3050                                    | B3                | 83             | 64         | 105 | 257 | 156            | 127            | 81              | 74              | 499  |
| 14VC500   | 107041      | 4430                                    | C2                | 120            | 70         | 127 | 248 | 156            | 146            | 84              | 84              | 597  |
| 16VC600   | 107042      | 7350                                    | C2                | 148            | 83         | 127 | 281 | 187            | 146            | 107             | 86              | 648  |
| 20VC600   | 107043      | 10500                                   | C2                | 197            | 95         | 140 | 284 | 187            | 165            | 102             | 86              | 749  |
| 24VC650   | 107044      | 15300                                   | C2                | 275            | 108        | 152 | 300 | 195            | 165            | 109             | 76              | 864  |
| 28VC650   | 107045      | 20600                                   | C2                | 336            | 121        | 203 | 303 | 195            | 203            | 107             | 81              | 965  |
| 33VC650   | 107046      | 28800                                   | 3/4 RH            | 455            | 133        | 241 | 304 | 195            | 229            | 104             | 84              | 1134 |
| 37VC650   | 107047      | 36200                                   | 3/4 RH            | 511            | 140        | 241 | 311 | 195            | 229            | 107             | 81              | 1235 |
| 42VC650   | 107048      | 42900                                   | 3/4 RH            | 653            | 152        | 267 | 315 | 195            | 254            | 104             | 86              | 1362 |

| SI |  | N · m<br>@ 5, 2 bar |  | kg ♂ | Dimensions in millimeters |  |  |  |  |  |  |  |
|----|--|---------------------|--|------|---------------------------|--|--|--|--|--|--|--|
|----|--|---------------------|--|------|---------------------------|--|--|--|--|--|--|--|

# Airflex® VC Clutch Application

Form VC-532 — Gap Mounted Arrangement —

Technical Data — Narrow Sizes 11.5 to 42

Section B

| English ⑨ | lb  | lb · ft² | lb   | lb · ft² | lb  | lb · ft² | lb  | lb · ft² |
|-----------|-----|----------|------|----------|-----|----------|-----|----------|
| 11.5VC500 | 96  | 43       | 70   | 19       | 83  | 16       | 35  | 2        |
| 14VC500   | 128 | 78       | 102  | 35       | 139 | 40       | 65  | 4        |
| 16VC600   | 151 | 115      | 139  | 50       | 175 | 66       | 62  | 4        |
| 20VC600   | 179 | 193      | 224  | 122      | 234 | 138      | 95  | 9        |
| 24VC650   | 246 | 369      | 260  | 174      | 293 | 258      | 124 | 19       |
| 28VC650   | 280 | 537      | 514  | 534      | 348 | 472      | 240 | 59       |
| 33VC650   | 392 | 1083     | 716  | 811      | 507 | 827      | 347 | 93       |
| 37VC650   | 433 | 1400     | 940  | 1404     | 553 | 1172     | 398 | 159      |
| 42VC650   | 485 | 1990     | 1284 | 2106     | 662 | 1809     | 545 | 243      |

| Size      | Element |         | Spider |         | Drum   |         | Drum Hub |         |
|-----------|---------|---------|--------|---------|--------|---------|----------|---------|
|           | Weight  | Wk²     | Weight | Wk²     | Weight | Wk²     | Weight   | Wk²     |
|           | Mass    | J       | Mass   | J       | Mass   | J       | Mass     | J       |
| 11.5VC500 | 43      | 1,81    | 32     | 0,80    | 38     | 0,67    | 16       | 0,08    |
| 14VC500   | 58      | 3,28    | 46     | 1,47    | 63     | 1,68    | 29       | 0,17    |
| 16VC600   | 68      | 4,83    | 63     | 2,10    | 79     | 2,77    | 28       | 0,17    |
| 20VC600   | 81      | 8,11    | 101    | 5,12    | 106    | 5,80    | 43       | 0,38    |
| 24VC650   | 111     | 15,50   | 118    | 7,31    | 133    | 10,84   | 56       | 0,80    |
| 28VC650   | 127     | 22,55   | 233    | 22,43   | 158    | 19,82   | 109      | 2,48    |
| 33VC650   | 178     | 45,49   | 324    | 34,06   | 230    | 34,73   | 157      | 3,91    |
| 37VC650   | 196     | 58,80   | 426    | 58,97   | 251    | 49,22   | 180      | 6,68    |
| 42VC650   | 220     | 83,58   | 582    | 88,45   | 300    | 75,98   | 247      | 10,21   |
| SI ⑩      | kg      | kg · m² | kg     | kg · m² | kg     | kg · m² | kg       | kg · m² |

| Size      | Part Numbers |        |        |          |
|-----------|--------------|--------|--------|----------|
|           | Element ⑩    | Spider | Drum   | Drum Hub |
| 11.5VC500 | 142639       | 408376 | 408307 | 406959   |
| 14VC500   | 143829       | 411170 | 408309 | 406961   |
| 16VC600   | 142640       | 408277 | 408311 | 406963   |
| 20VC600   | 142641       | 408279 | 410862 | 406965   |
| 24VC650   | 142642       | 408281 | 409804 | 405625   |
| 28VC650   | 142643       | 505480 | 409706 | 406969   |
| 33VC650   | 142644       | 505285 | 410022 | 406971   |
| 37VC650   | 142645       | 505275 | 410866 | 406973   |
| 42VC650   | 142647       | 502369 | 409964 | 406975   |

## Notes:

- ❶ Refers to basic part number only and does not include the rotorseal and hose. When ordering, the number and type of element connections must be specified.
- ❷ Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ❸ Based upon minimum bores. Rotorseal and hose not included.
- ❹  $M (in) = 0.268 (H/2 - \text{radius of bore}) + 0.34$   
 $M (mm) = 0,268 (H/2 - \text{radius of bore}) + 8,7$
- ❺ American National Pipe Thread
- ❻ Pipe tap not required. Thru hole diameter 0.44 in (11 mm).
- ❼ Refer to Rotorseal Section for mounting and dimension information.
- ❽ Refer to VC Spider Piping and Configuration catalog page for other sizes.
- ❾ Based upon minimum bores.
- ❿ Refers to basic part number only. When ordering, the number of air inlets and type of connection must be specified.