



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 22 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 66 inch (1676 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.

**Authorized Distributor**

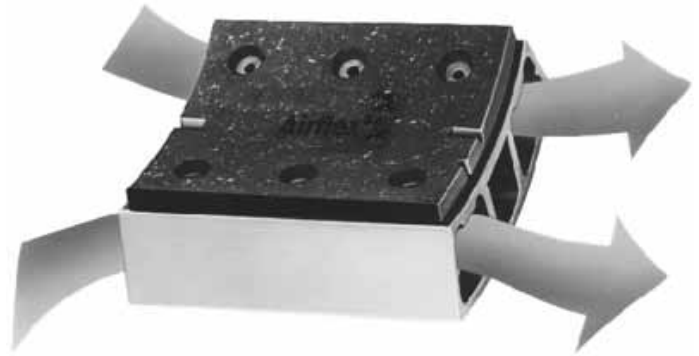
**MIDWEST  
BRAKE**

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sales@midwestbrake.com  
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**Eaton® Airflex® Clutches & Brakes**

## 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.

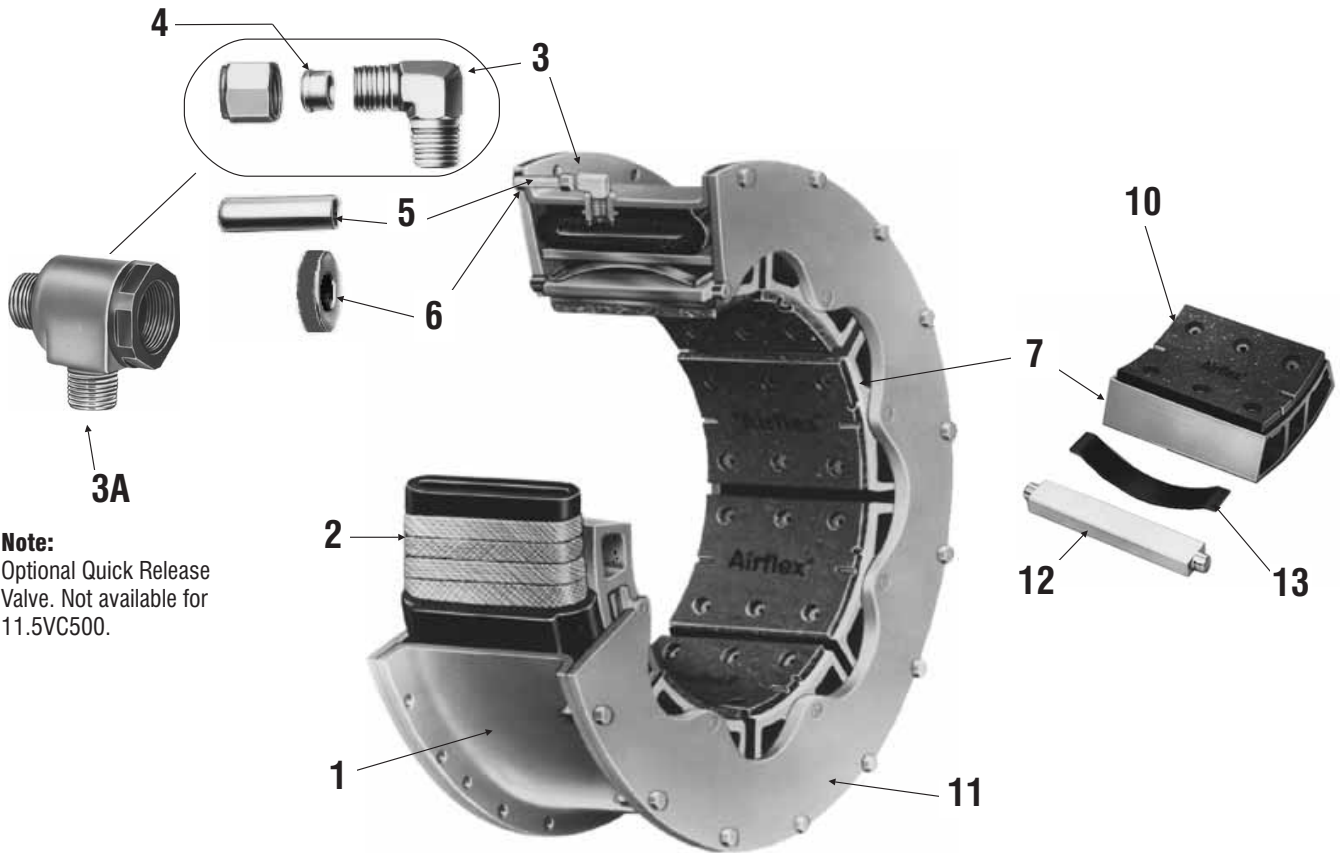
The following pages give additional descriptive information, selection procedures and common clutch and brake arrangements for the complete VC product line.

### Where Used:

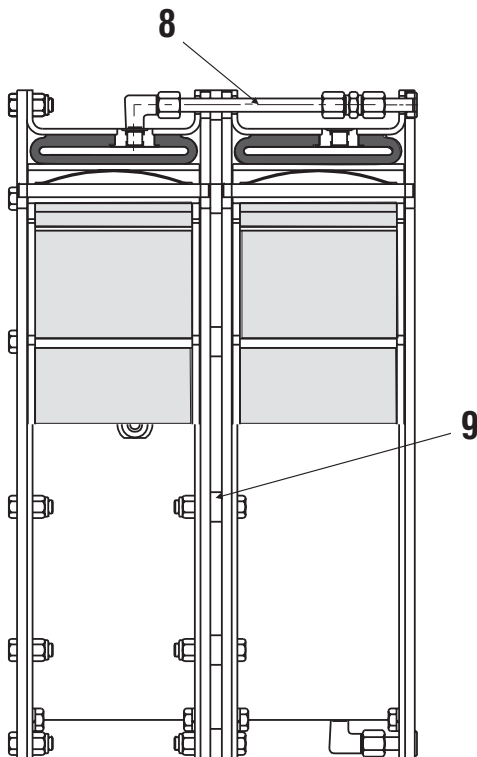
- Grinding Mills
- Marine Propulsion
- Metal Forming Machinery
- Oil Field Machinery

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

| Wide Sizes      | Torque Rating |               |
|-----------------|---------------|---------------|
|                 | lbin @ 75 psi | Nm @ 5, 2 bar |
| <b>14VC1000</b> | 85000         | 9610          |
| <b>16VC1000</b> | 114000        | 12900         |
| <b>20VC1000</b> | 161000        | 18200         |
| <b>24VC1000</b> | 219000        | 24700         |
| <b>28VC1000</b> | 296000        | 33400         |
| <b>32VC1000</b> | 415000        | 46900         |
| <b>38VC1200</b> | 680000        | 76800         |
| <b>42VC1200</b> | 819000        | 92500         |
| <b>46VC1200</b> | 950000        | 107000        |
| <b>52VC1200</b> | 1215000       | 137000        |
| <b>51VC1600</b> | 1610000       | 182000        |
| <b>60VC1600</b> | 2183000       | 247000        |
| <b>66VC1600</b> | 2800000       | 316000        |

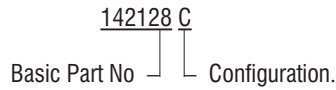


**Note:**  
Optional Quick Release Valve. Not available for 11.5VC500.



| 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           |

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, Side Connections 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, Side Connections 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          |

| English          |        | lb • in<br>@ 75 psi | rpm  | psi/rpm <sup>2</sup> | lb • ft <sup>2</sup> | lb  | in <sup>2</sup> | inches |      | in <sup>3</sup> | inches |
|------------------|--------|---------------------|------|----------------------|----------------------|-----|-----------------|--------|------|-----------------|--------|
| <b>11.5VC500</b> | 142639 | 27000               | 1800 | 23 E-06              | 43                   | 96  | 166             | 0.32   | 0.16 | 70              | 11.41  |
| <b>14VC500</b>   | 143829 | 39200               | 1500 | 28 E-06              | 78                   | 128 | 205             | 0.32   | 0.16 | 95              | 13.91  |
| <b>16VC600</b>   | 142640 | 65000               | 1400 | 29 E-06              | 115                  | 151 | 283             | 0.32   | 0.16 | 120             | 15.91  |
| <b>20VC600</b>   | 142641 | 93000               | 1200 | 40 E-06              | 193                  | 179 | 380             | 0.32   | 0.16 | 140             | 19.88  |
| <b>24VC650</b>   | 142642 | 135000              | 1050 | 49 E-06              | 369                  | 246 | 466             | 0.44   | 0.16 | 200             | 23.88  |
| <b>28VC650</b>   | 142643 | 182000              | 1000 | 58 E-06              | 537                  | 280 | 548             | 0.44   | 0.16 | 270             | 27.81  |
| <b>33VC650</b>   | 142644 | 255000              | 900  | 74 E-06              | 1083                 | 392 | 643             | 0.57   | 0.28 | 360             | 32.81  |
| <b>37VC650</b>   | 142645 | 320000              | 800  | 90 E-06              | 1400                 | 433 | 720             | 0.57   | 0.28 | 400             | 36.81  |
| <b>42VC650</b>   | 142647 | 380000              | 800  | 95 E-06              | 1990                 | 485 | 822             | 0.57   | 0.28 | 440             | 41.81  |

| Size             | Part Number | M, Torque Rating | Maximum Speed | C, Centrifugal Loss | Wk <sup>2</sup> | Weight Mass | Friction Area | Friction Lining Thickness |      | Air Tube Cavity | Minimum Drum Diameter |
|------------------|-------------|------------------|---------------|---------------------|-----------------|-------------|---------------|---------------------------|------|-----------------|-----------------------|
|                  |             |                  |               |                     |                 |             |               | New                       | Worn |                 |                       |
|                  |             |                  |               |                     |                 |             |               | New                       | Worn |                 |                       |
| <b>11.5VC500</b> | 142639      | 3050             | 1800          | 1,59 E-06           | 1,81            | 43          | 1071          | 8                         | 4    | 1,15            | 290                   |
| <b>14VC500</b>   | 143829      | 4430             | 1500          | 1,93 E-06           | 3,28            | 58          | 1322          | 8                         | 4    | 1,56            | 353                   |
| <b>16VC600</b>   | 142640      | 7350             | 1400          | 2,00 E-06           | 4,83            | 68          | 1825          | 8                         | 4    | 1,97            | 404                   |
| <b>20VC600</b>   | 142641      | 10500            | 1200          | 2,76 E-06           | 8,11            | 81          | 2451          | 8                         | 4    | 2,30            | 505                   |
| <b>24VC650</b>   | 142642      | 15300            | 1050          | 3,38 E-06           | 15,50           | 111         | 3006          | 11                        | 4    | 3,28            | 607                   |
| <b>28VC650</b>   | 142643      | 20600            | 1000          | 4,00 E-06           | 22,55           | 127         | 3535          | 11                        | 4    | 4,43            | 706                   |
| <b>33VC650</b>   | 142644      | 28800            | 900           | 5,11 E-06           | 45,49           | 178         | 4147          | 14                        | 7    | 5,90            | 833                   |
| <b>37VC650</b>   | 142645      | 36200            | 800           | 6,21 E-06           | 58,80           | 196         | 4644          | 14                        | 7    | 6,56            | 935                   |
| <b>42VC650</b>   | 142647      | 42900            | 800           | 6,56 E-06           | 83,58           | 220         | 5302          | 14                        | 7    | 7,22            | 1062                  |

| SI |  | N • m<br>@ 5,2 bar | rpm | bar/rpm <sup>2</sup> | kg • m <sup>2</sup> | kg | cm <sup>2</sup> | millimeters |  | dm <sup>3</sup> | millimeters |
|----|--|--------------------|-----|----------------------|---------------------|----|-----------------|-------------|--|-----------------|-------------|
|----|--|--------------------|-----|----------------------|---------------------|----|-----------------|-------------|--|-----------------|-------------|

## Notes:

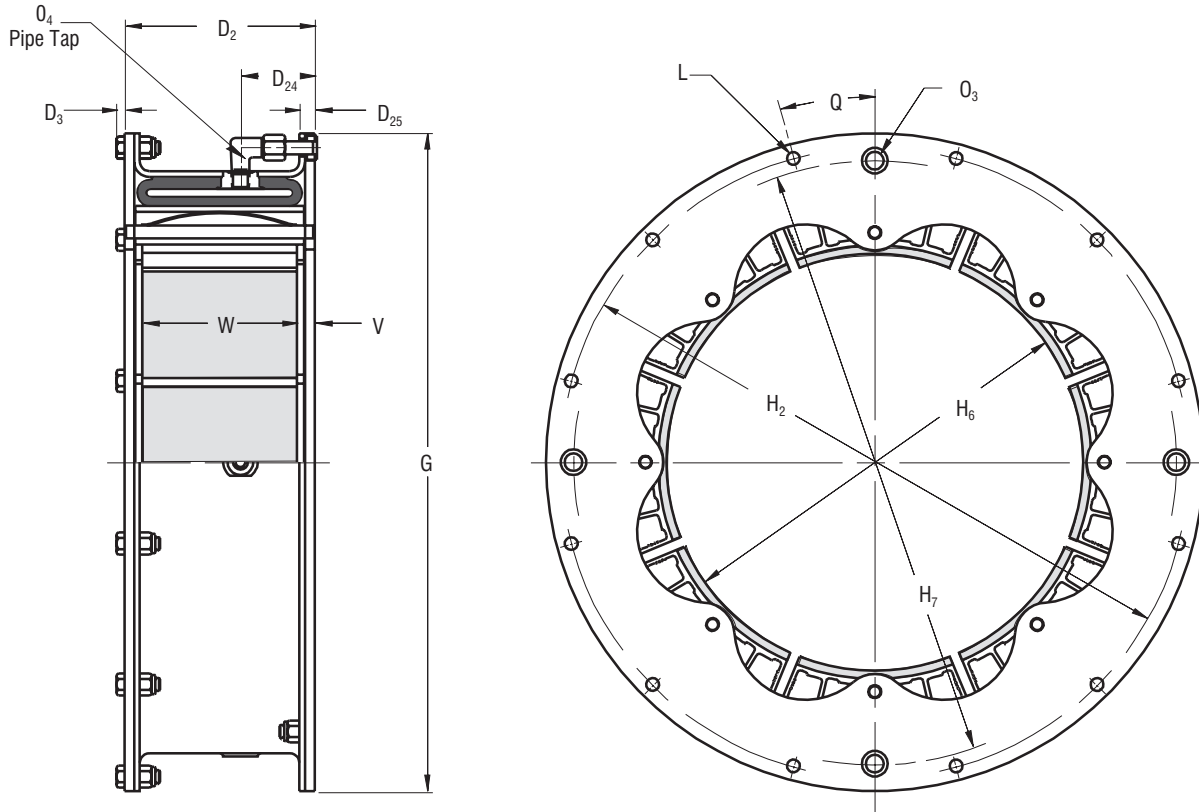
- ① Refers to basic part number only. When ordering, the number of air inlets and type of connection must be specified.
- ② Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ③ Tolerance for sizes:  
 11.5 thru 20 +0.000/-0.005 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)
- ④ Tolerance +0.005/-0.000 in (+0,13/-0,00 mm)
- ⑤ American National Pipe Thread. Size 11.5 available with one or two inlets. All other sizes have four 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 Narrow VC Elements



Form VC 501

Dimensional Data – Sizes 11.5 to 42



| English          |               | Ib in<br>@ 75 psi              | Dimensions in inches      |                |                 |                 |        |                |                |                |     |       |                |                  |        |         |      |     |       |
|------------------|---------------|--------------------------------|---------------------------|----------------|-----------------|-----------------|--------|----------------|----------------|----------------|-----|-------|----------------|------------------|--------|---------|------|-----|-------|
| <b>11.5VC500</b> | 142639        | 27000                          | 6.13                      | 0.23           | 2.38            | 0.38            | 19.625 | 18.875         | 11.63          | 18.88          | 16  | 0.375 | 0.31           | 2                | 3/8-18 | 11.25   | 0.56 | 8   | 5.00  |
| <b>14VC500</b>   | 143829        | 39200                          | 6.13                      | 0.31           | 2.88            | 0.58            | 23.500 | 22.500         | 14.22          | 22.25          | 8   | 0.500 | 0.38           | 4                | 3/8-18 | 22.50   | 0.56 | 8   | 5.00  |
| <b>16VC600</b>   | 142640        | 65000                          | 7.38                      | 0.31           | 2.88            | 0.59            | 25.500 | 24.375         | 16.22          | 24.38          | 12  | 0.500 | 0.38           | 4                | 3/8-18 | 15.00   | 0.69 | 8   | 6.00  |
| <b>20VC600</b>   | 142641        | 93000                          | 7.38                      | 0.31           | 2.88            | 0.59            | 29.500 | 28.375         | 20.22          | 28.38          | 12  | 0.500 | 0.38           | 4                | 3/8-18 | 15.00   | 0.69 | 10  | 6.00  |
| <b>24VC650</b>   | 142642        | 135000                         | 7.69                      | 0.39           | 2.88            | 0.63            | 34.000 | 32.750         | 24.22          | 32.50          | 16  | 0.625 | 0.50           | 4                | 1/2-14 | 11.25   | 0.59 | 12  | 6.50  |
| <b>28VC650</b>   | 142643        | 182000                         | 7.69                      | 0.39           | 2.88            | 0.63            | 38.000 | 36.750         | 28.22          | 36.50          | 16  | 0.625 | 0.50           | 4                | 1/2-14 | 11.25   | 0.59 | 14  | 6.50  |
| <b>33VC650</b>   | 142644        | 255000                         | 7.69                      | 0.47           | 3.13            | 0.63            | 44.625 | 43.125         | 33.22          | 43.25          | 18  | 0.750 | 0.63           | 4                | 3/4-14 | 15.00   | 0.59 | 16  | 6.50  |
| <b>37VC650</b>   | 142645        | 320000                         | 7.69                      | 0.47           | 3.13            | 0.69            | 48.625 | 47.125         | 37.22          | 47.25          | 20  | 0.750 | 0.63           | 4                | 3/4-14 | 9.00    | 0.59 | 18  | 6.50  |
| <b>42VC650</b>   | 142647        | 380000                         | 7.69                      | 0.47           | 3.13            | 0.66            | 53.625 | 52.125         | 42.22          | 52.25          | 24  | 0.750 | 0.63           | 4                | 3/4-14 | 7.50    | 0.59 | 20  | 6.50  |
| Size             | Part Number ① | M <sub>t</sub> Torque Rating ② | D <sub>2</sub>            | D <sub>3</sub> | D <sub>24</sub> | D <sub>25</sub> | G ③    | H <sub>2</sub> | H <sub>6</sub> | H <sub>7</sub> | L ④ |       | O <sub>3</sub> | O <sub>4</sub> ⑤ |        | Q (Deg) | V    | W   |       |
|                  |               |                                |                           |                |                 |                 |        |                |                |                | No. | Dia.  |                | No.              | Size   |         |      | No. | Width |
|                  |               |                                |                           |                |                 |                 |        |                |                |                | No. | Dia.  |                | No.              | Size   |         |      | No. | Width |
| <b>11.5VC500</b> | 142639        | 3050                           | 156                       | 6              | 60              | 10              | 498,5  | 479,4          | 295            | 479            | 16  | 9,5   | 8              | 2                | 3/8-18 | 11,25   | 14   | 8   | 127   |
| <b>14VC500</b>   | 143829        | 4430                           | 156                       | 8              | 73              | 15              | 596,9  | 571,5          | 361            | 565            | 8   | 12,7  | 10             | 4                | 3/8-18 | 22,50   | 14   | 8   | 127   |
| <b>16VC600</b>   | 142640        | 7350                           | 187                       | 8              | 73              | 15              | 647,7  | 619,1          | 412            | 619            | 12  | 12,7  | 10             | 4                | 3/8-18 | 15,00   | 17   | 8   | 152   |
| <b>20VC600</b>   | 142641        | 10500                          | 187                       | 8              | 73              | 15              | 749,3  | 720,7          | 514            | 721            | 12  | 12,7  | 10             | 4                | 3/8-18 | 15,00   | 17   | 10  | 152   |
| <b>24VC650</b>   | 142642        | 15300                          | 195                       | 10             | 73              | 16              | 863,6  | 831,9          | 615            | 826            | 16  | 15,9  | 13             | 4                | 1/2-14 | 11,25   | 15   | 12  | 165   |
| <b>28VC650</b>   | 142643        | 20600                          | 195                       | 10             | 73              | 16              | 965,2  | 933,5          | 717            | 927            | 16  | 15,9  | 13             | 4                | 1/2-14 | 11,25   | 15   | 14  | 165   |
| <b>33VC650</b>   | 142644        | 28800                          | 195                       | 12             | 79              | 16              | 1133,5 | 1095,4         | 844            | 1099           | 18  | 19,1  | 16             | 4                | 3/4-14 | 15,00   | 15   | 16  | 165   |
| <b>37VC650</b>   | 142645        | 36200                          | 195                       | 12             | 79              | 17              | 1235,1 | 1197,0         | 945            | 1200           | 20  | 19,1  | 16             | 4                | 3/4-14 | 9,00    | 15   | 18  | 165   |
| <b>42VC650</b>   | 142647        | 42900                          | 195                       | 12             | 79              | 17              | 1362,1 | 1324,0         | 1072           | 1327           | 24  | 19,1  | 16             | 4                | 3/4-14 | 7,50    | 15   | 20  | 165   |
| SI               |               | Nm<br>@ 5,2 bar                | Dimensions in millimeters |                |                 |                 |        |                |                |                |     |       |                |                  |        |         |      |     |       |

| English          |        | lb in<br>@ 75 psi | rpm  | psi/rpm <sup>2</sup> | lb ft <sup>2</sup> | lb  | in <sup>2</sup> | inches |      | in <sup>3</sup> | inches |
|------------------|--------|-------------------|------|----------------------|--------------------|-----|-----------------|--------|------|-----------------|--------|
| <b>11.5VC500</b> | 142112 | 54000             | 1800 | 23 E-06              | 86                 | 197 | 332             | 0.32   | 0.16 | 140             | 11.41  |
| <b>14VC500</b>   | 142114 | 78400             | 1500 | 28 E-06              | 156                | 258 | 410             | 0.32   | 0.16 | 190             | 13.91  |
| <b>16VC600</b>   | 142115 | 130000            | 1400 | 29 E-06              | 230                | 307 | 566             | 0.32   | 0.16 | 240             | 15.91  |
| <b>20VC600</b>   | 142116 | 186000            | 1200 | 40 E-06              | 386                | 363 | 760             | 0.32   | 0.16 | 280             | 19.88  |
| <b>24VC650</b>   | 142117 | 270000            | 1050 | 49 E-06              | 738                | 497 | 932             | 0.44   | 0.16 | 400             | 23.88  |
| <b>28VC650</b>   | 142118 | 364000            | 1000 | 58 E-06              | 1074               | 565 | 1096            | 0.44   | 0.16 | 540             | 27.81  |
| <b>33VC650</b>   | 142119 | 510000            | 900  | 74 E-06              | 2166               | 784 | 1286            | 0.57   | 0.28 | 720             | 32.81  |
| <b>37VC650</b>   | 142120 | 640000            | 800  | 90 E-06              | 2800               | 871 | 1440            | 0.57   | 0.28 | 800             | 36.81  |
| <b>42VC650</b>   | 142121 | 760000            | 800  | 95 E-06              | 3980               | 980 | 1644            | 0.57   | 0.28 | 880             | 41.81  |

| Size             | Part Number <sup>①</sup> | M, Torque Rating <sup>②</sup> | Maximum Speed <sup>③</sup> | C, Centrifugal Loss | Wk <sup>2</sup> |      | Friction Area | Friction Lining Thickness |      | Air Tube Cavity <sup>⑦</sup> | Minimum Drum Diameter |
|------------------|--------------------------|-------------------------------|----------------------------|---------------------|-----------------|------|---------------|---------------------------|------|------------------------------|-----------------------|
|                  |                          |                               |                            |                     | J               | Mass |               | New                       | Worn |                              |                       |
|                  |                          |                               |                            |                     |                 |      |               |                           |      |                              |                       |
| <b>11.5VC500</b> | 142112                   | 6100                          | 1800                       | 1,59 E-06           | 3,61            | 89   | 2141          | 8                         | 4    | 2,30                         | 290                   |
| <b>14VC500</b>   | 142114                   | 8860                          | 1500                       | 1,93 E-06           | 6,55            | 117  | 2645          | 8                         | 4    | 3,12                         | 353                   |
| <b>16VC600</b>   | 142115                   | 14700                         | 1400                       | 2,00 E-06           | 9,66            | 139  | 3651          | 8                         | 4    | 3,94                         | 404                   |
| <b>20VC600</b>   | 142116                   | 21000                         | 1200                       | 2,76 E-06           | 16,21           | 164  | 4902          | 8                         | 4    | 4,59                         | 505                   |
| <b>24VC650</b>   | 142117                   | 30500                         | 1050                       | 3,38 E-06           | 31,00           | 225  | 6011          | 11                        | 4    | 6,56                         | 607                   |
| <b>28VC650</b>   | 142118                   | 41100                         | 1000                       | 4,00 E-06           | 45,11           | 256  | 7069          | 11                        | 4    | 8,86                         | 706                   |
| <b>33VC650</b>   | 142119                   | 57600                         | 900                        | 5,11 E-06           | 90,97           | 355  | 8295          | 14                        | 7    | 11,8                         | 833                   |
| <b>37VC650</b>   | 142120                   | 72300                         | 800                        | 6,21 E-06           | 117,6           | 395  | 9288          | 14                        | 7    | 13,1                         | 935                   |
| <b>42VC650</b>   | 142121                   | 85900                         | 800                        | 6,56 E-06           | 167,2           | 444  | 10604         | 14                        | 7    | 14,4                         | 1062                  |

| SI | Nm<br>@ 5,2 bar | rpm | bar/rpm <sup>2</sup> | kg m <sup>2</sup> | kg | cm <sup>2</sup> | millimeters | dm <sup>3</sup> | millimeters |
|----|-----------------|-----|----------------------|-------------------|----|-----------------|-------------|-----------------|-------------|
|----|-----------------|-----|----------------------|-------------------|----|-----------------|-------------|-----------------|-------------|

## Notes:

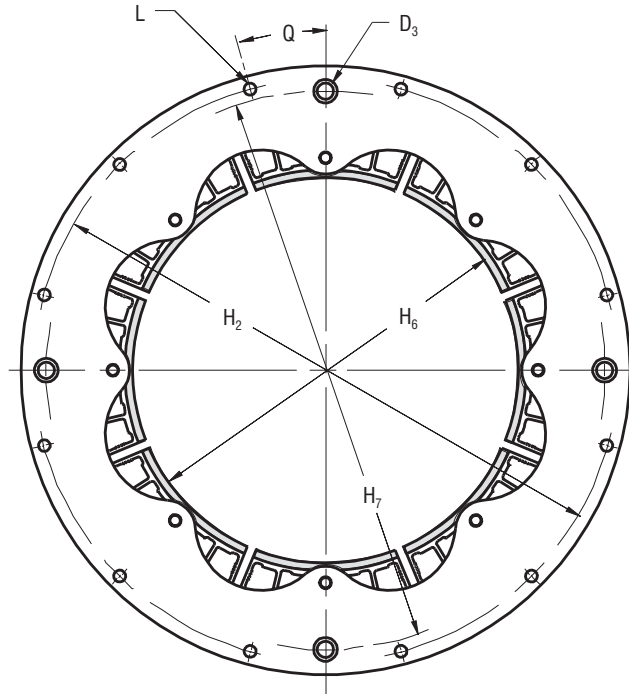
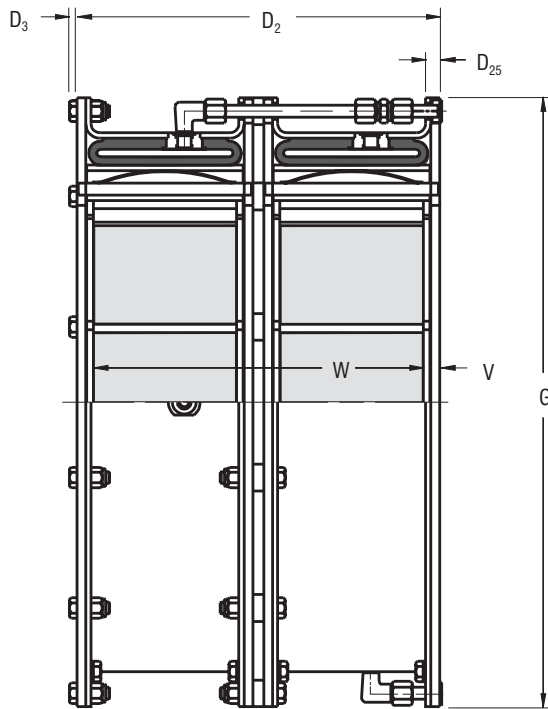
- ① Refers to basic part number only. When ordering, the number of air inlets and type of connection must be specified.
- ② Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ③ Tolerance for sizes:  
 11.5 thru 20 +0.000/-0.005 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)
- ④ Tolerance +0.005/-0.000 in (+0,13/-0,00 mm)
- ⑤ Size 11.5 only available with two inlets. All other sizes have either two or four 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® Dual Narrow VC Elements



Form VC 502

Dimensional Data – Sizes 11.5 to 42



| English          |                  | lb in<br>@ 75 psi                 | Dimensions in inches      |                |                 |        |                |                |                |     |                  |         |      |         |      |     |       |
|------------------|------------------|-----------------------------------|---------------------------|----------------|-----------------|--------|----------------|----------------|----------------|-----|------------------|---------|------|---------|------|-----|-------|
| <b>11.5VC500</b> | 142112           | 54000                             | 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 |
| <b>14VC500</b>   | 142114           | 78400                             | 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 |
| <b>16VC600</b>   | 142115           | 130000                            | 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 |
| <b>20VC600</b>   | 142116           | 186000                            | 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 |
| <b>24VC650</b>   | 142117           | 270000                            | 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 |
| <b>28VC650</b>   | 142118           | 364000                            | 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 |
| <b>33VC650</b>   | 142119           | 510000                            | 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 |
| <b>37VC650</b>   | 142120           | 640000                            | 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 |
| <b>42VC650</b>   | 142121           | 760000                            | 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 |
| Size             | Part<br>Number ① | M <sub>t</sub> Torque<br>Rating ② | D <sub>2</sub>            | D <sub>3</sub> | D <sub>25</sub> | G ③    | H <sub>2</sub> | H <sub>6</sub> | H <sub>7</sub> | No. | Dia.             | No.     | Size | Q (Deg) | V    | No. | Width |
|                  |                  |                                   |                           |                |                 |        |                |                |                | L ④ | O <sub>3</sub> ⑤ | Q (Deg) | V    |         |      | No. | Width |
|                  |                  |                                   |                           |                |                 |        |                |                |                | No. | Dia.             | No.     | Size |         |      | No. | Width |
| <b>11.5VC500</b> | 142112           | 6100                              | 324                       | 6              | 14              | 498,5  | 479,4          | 295            | 479            | 16  | 9,5              | 2       | 8    | 11,25   | 14   | 16  | 295   |
| <b>14VC500</b>   | 142114           | 8860                              | 322                       | 8              | 14              | 596,9  | 571,5          | 361            | 565            | 8   | 12,7             | 4       | 10   | 22,50   | 14   | 16  | 294   |
| <b>16VC600</b>   | 142115           | 14700                             | 386                       | 8              | 14              | 647,7  | 619,1          | 412            | 619            | 12  | 12,7             | 4       | 10   | 15,00   | 17   | 16  | 351   |
| <b>20VC600</b>   | 142116           | 21000                             | 386                       | 8              | 14              | 749,3  | 720,7          | 514            | 721            | 12  | 12,7             | 4       | 10   | 15,00   | 17   | 20  | 351   |
| <b>24VC650</b>   | 142117           | 30500                             | 405                       | 10             | 16              | 863,6  | 831,9          | 615            | 826            | 16  | 15,9             | 4       | 13   | 11,25   | 15   | 24  | 375   |
| <b>28VC650</b>   | 142118           | 41100                             | 405                       | 10             | 16              | 965,2  | 933,5          | 717            | 927            | 16  | 15,9             | 4       | 13   | 11,25   | 15   | 28  | 375   |
| <b>33VC650</b>   | 142119           | 57600                             | 405                       | 12             | 18              | 1133,5 | 1095,4         | 844            | 1099           | 18  | 19,1             | 4       | 16   | 15,00   | 15   | 32  | 375   |
| <b>37VC650</b>   | 142120           | 72300                             | 405                       | 12             | 18              | 1235,1 | 1197,0         | 945            | 1200           | 20  | 19,1             | 4       | 16   | 9,00    | 15   | 36  | 375   |
| <b>42VC650</b>   | 142121           | 85900                             | 405                       | 12             | 18              | 1362,1 | 1324,0         | 1072           | 1327           | 24  | 19,1             | 4       | 16   | 7,50    | 15   | 40  | 375   |
| SI               |                  | Nm<br>@ 5,2 bar                   | Dimensions in millimeters |                |                 |        |                |                |                |     |                  |         |      |         |      |     |       |



# Airflex® Single Wide VC Elements



Form VC 503

Technical Data – Sizes 14 to 66

| English         |        | lb in<br>@ 75 psi | rpm  | psi/rpm <sup>2</sup> | lb ft <sup>2</sup> | lb   | in <sup>2</sup> | inches |      | in <sup>3</sup> | inches |
|-----------------|--------|-------------------|------|----------------------|--------------------|------|-----------------|--------|------|-----------------|--------|
| <b>14VC1000</b> | 142838 | 85000             | 1800 | 22 E-06              | 127                | 213  | 350             | 0.32   | 0.16 | 185             | 13.91  |
| <b>16VC1000</b> | 142821 | 114000            | 1400 | 27 E-06              | 212                | 240  | 470             | 0.32   | 0.16 | 255             | 15.91  |
| <b>20VC1000</b> | 142832 | 161000            | 1300 | 37 E-06              | 309                | 282  | 635             | 0.32   | 0.16 | 310             | 19.87  |
| <b>24VC1000</b> | 142675 | 219000            | 1250 | 46 E-06              | 552                | 378  | 720             | 0.44   | 0.16 | 465             | 23.87  |
| <b>28VC1000</b> | 142674 | 296000            | 1100 | 55 E-06              | 826                | 431  | 840             | 0.44   | 0.16 | 530             | 27.81  |
| <b>32VC1000</b> | 142673 | 415000            | 1050 | 63 E-06              | 1570               | 624  | 960             | 0.57   | 0.38 | 600             | 31.81  |
| <b>38VC1200</b> | 142739 | 680000            | 740  | 82 E-06              | 2330               | 684  | 1360            | 0.57   | 0.38 | 755             | 37.81  |
| <b>42VC1200</b> | 142677 | 819000            | 670  | 86 E-06              | 3670               | 895  | 1500            | 0.57   | 0.38 | 850             | 41.75  |
| <b>46VC1200</b> | 142671 | 950000            | 600  | 108 E-06             | 4830               | 980  | 1410            | 0.68   | 0.38 | 1205            | 45.75  |
| <b>52VC1200</b> | 142841 | 1215000           | 550  | 127 E-06             | 7285               | 1310 | 1590            | 0.68   | 0.38 | 1510            | 51.75  |
| <b>51VC1600</b> | 142835 | 1610000           | 550  | 125 E-06             | 10580              | 1830 | 2380            | 0.66   | 0.30 | 2000            | 50.75  |
| <b>60VC1600</b> | 142915 | 2183000           | 520  | 145 E-06             | 20532              | 2374 | 2800            | 0.66   | 0.30 | 2350            | 59.75  |
| <b>66VC1600</b> | 142097 | 2800000           | 480  | 186 E-06             | 24850              | 2630 | 3080            | 0.66   | 0.30 | 1960            | 65.75  |

| Size            | Part Number <sup>①</sup> | M <sub>t</sub><br>Torque Rating <sup>②</sup> | Maximum Speed <sup>⑥</sup> | C <sub>s</sub><br>Centrifugal Loss | Wk <sup>2</sup><br>J | Weight<br>Mass | Friction Area | Friction Lining Thickness |      | Air Tube Cavity <sup>⑦</sup> | Minimum Drum Diameter |
|-----------------|--------------------------|--|----------------------------|------------------------------------|----------------------|----------------|---------------|---------------------------|------|------------------------------|-----------------------|
|                 |                          |  |                            |                                    |                      |                |               | New                       | Worn |                              |                       |
|                 |                          |  |                            |                                    |                      |                |               | New                       | Worn |                              |                       |
| <b>14VC1000</b> | 142838                   | 9610   | 1800                       | 1,52 E-06                          | 5,33                 | 96             | 2258          | 8                         | 4    | 3,03                         | 353                   |
| <b>16VC1000</b> | 142821                   | 12900  | 1400                       | 1,86 E-06                          | 8,90                 | 109            | 3032          | 8                         | 4    | 4,18                         | 404                   |
| <b>20VC1000</b> | 142832                   | 18200  | 1300                       | 2,55 E-06                          | 12,98                | 128            | 4096          | 8                         | 4    | 5,08                         | 505                   |
| <b>24VC1000</b> | 142675                   | 24700  | 1250                       | 3,17 E-06                          | 23,18                | 171            | 4644          | 11                        | 4    | 7,63                         | 606                   |
| <b>28VC1000</b> | 142674                   | 33400  | 1100                       | 3,80 E-06                          | 34,69                | 195            | 5418          | 11                        | 4    | 8,69                         | 706                   |
| <b>32VC1000</b> | 142673                   | 46900  | 1050                       | 4,35 E-06                          | 65,94                | 283            | 6192          | 14                        | 10   | 9,84                         | 808                   |
| <b>38VC1200</b> | 142739                   | 76800  | 740                        | 5,66 E-06                          | 97,86                | 310            | 8772          | 14                        | 10   | 12,4                         | 960                   |
| <b>42VC1200</b> | 142677                   | 92500  | 670                        | 5,93 E-06                          | 154,1                | 405            | 9675          | 14                        | 10   | 13,9                         | 1060                  |
| <b>46VC1200</b> | 142671                   | 107000                                       | 600                        | 7,45 E-06                          | 202,9                | 444            | 9097          | 17                        | 10   | 19,8                         | 1162                  |
| <b>52VC1200</b> | 142841                   | 137000                                       | 550                        | 8,76 E-06                          | 306,0                | 594            | 10256         | 17                        | 10   | 24,8                         | 1314                  |
| <b>51VC1600</b> | 142835                   | 182000                                       | 550                        | 8,63 E-06                          | 444,4                | 830            | 15351         | 17                        | 8    | 32,8                         | 1289                  |
| <b>60VC1600</b> | 142915                   | 247000                                       | 520                        | 10,01 E-06                         | 862,3                | 1077           | 18060         | 17                        | 8    | 38,5                         | 1518                  |
| <b>66VC1600</b> | 142097                   | 316000                                       | 480                        | 12,83 E-06                         | 1044                 | 1191           | 19866         | 17                        | 8    | 32,1                         | 1670                  |

| SI |  | Nm<br>@ 5,2 bar | rpm | bar/rpm <sup>2</sup> | kg m <sup>2</sup> | kg | cm <sup>2</sup> | millimeters |  | dm <sup>3</sup> | millimeters |
|----|--|-----------------|-----|----------------------|-------------------|----|-----------------|-------------|--|-----------------|-------------|
|----|--|-----------------|-----|----------------------|-------------------|----|-----------------|-------------|--|-----------------|-------------|

## Notes:

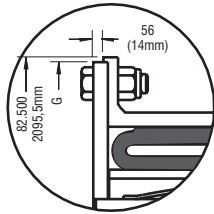
- ① Refers to basic part number only. When ordering, the number of air inlets and type of connection must be specified.
- ② Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ③ Tolerance for sizes:  
 14 thru 20 +0.000/-0.005 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 +0.000/-0.005 in (+0,00/-0,13 mm)
- ④ Tolerance +0.005/-0.000 in (+0,13/-0,00 mm)
- ⑤ American National Pipe Thread
- 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 Wide VC Elements

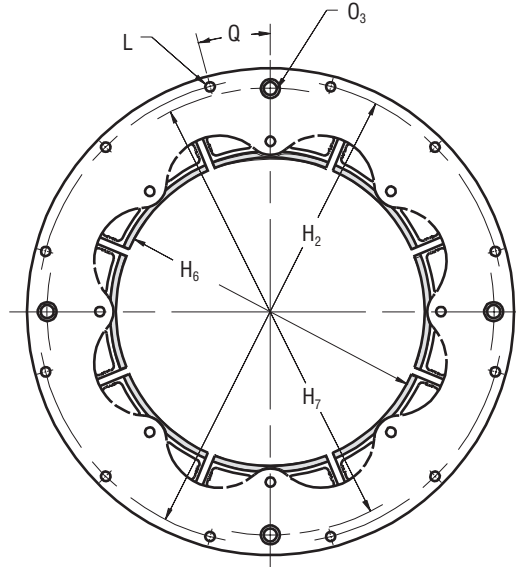
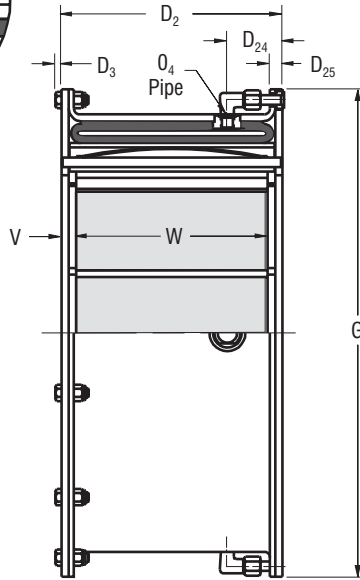


Form VC 503

Dimensional Data – Sizes 14 to 66



Construction for size 66 only



| English         |        | lb in<br>@ 75 psi | Dimensions in inches |      |      |      |        |        |       |       |    |       |      |   |          |       |      |    |    |
|-----------------|--------|-------------------|----------------------|------|------|------|--------|--------|-------|-------|----|-------|------|---|----------|-------|------|----|----|
| <b>14VC1000</b> | 142838 | 85000             | 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   | 22.50 | 0.78 | 8  | 10 |
| <b>16VC1000</b> | 142821 | 114000            | 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   | 15.00 | 0.78 | 8  | 10 |
| <b>20VC1000</b> | 142832 | 161000            | 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   | 15.00 | 0.78 | 8  | 10 |
| <b>24VC1000</b> | 142675 | 219000            | 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   | 11.25 | 0.78 | 10 | 10 |
| <b>28VC1000</b> | 142674 | 296000            | 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   | 11.25 | 0.78 | 10 | 10 |
| <b>32VC1000</b> | 142673 | 415000            | 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   | 7.50  | 0.81 | 12 | 10 |
| <b>38VC1200</b> | 142739 | 680000            | 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   | 9.00  | 0.88 | 12 | 12 |
| <b>42VC1200</b> | 142677 | 819000            | 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   | 7.50  | 0.88 | 14 | 12 |
| <b>46VC1200</b> | 142671 | 950000            | 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   | 7.50  | 0.88 | 16 | 12 |
| <b>52VC1200</b> | 142841 | 1215000           | 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 | 5.63  | 1.13 | 18 | 12 |
| <b>51VC1600</b> | 142835 | 1610000           | 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 | 5.63  | 1.13 | 18 | 16 |
| <b>60VC1600</b> | 142915 | 2183000           | 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 | 5.00  | 1.25 | 20 | 16 |
| <b>66VC1600</b> | 142097 | 2800000           | 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 | 5.00  | 1.25 | 22 | 16 |

| Size            | Part Number | M <sub>t</sub> <sup>②</sup><br>Torque Rating | D <sub>2</sub> | D <sub>3</sub> | D <sub>24</sub> | D <sub>25</sub> | G <sup>③</sup> | H <sub>2</sub> | H <sub>6</sub> | H <sub>7</sub> | No. Dia.       |      | O <sub>3</sub> | No. Size         |          | Q (Deg) | V  | No. Width |       |
|-----------------|-------------|--|----------------|----------------|-----------------|-----------------|----------------|----------------|----------------|----------------|----------------|------|----------------|------------------|----------|---------|----|-----------|-------|
|                 |             |  |                |                |                 |                 |                |                |                |                | L <sup>④</sup> |      |                | O <sub>4</sub> ⑤ |          |         |    | W         |       |
|                 |             |  |                |                |                 |                 |                |                |                |                | No.            | Dia. |                | No.              | Size     |         |    | No.       | Width |
| <b>14VC1000</b> | 142838      | 9610   | 294            | 8              | 73              | 16              | 596.9          | 571.5          | 361            | 565            | 8              | 12.7 | 10             | 4                | 3/8-18   | 22.50   | 20 | 8         | 254   |
| <b>16VC1000</b> | 142821      | 12900  | 294            | 8              | 73              | 16              | 647.7          | 619.1          | 412            | 619            | 12             | 12.7 | 10             | 4                | 3/8-18   | 15.00   | 20 | 8         | 254   |
| <b>20VC1000</b> | 142832      | 18200  | 294            | 8              | 73              | 16              | 749.3          | 720.7          | 514            | 721            | 12             | 12.7 | 10             | 4                | 3/8-18   | 15.00   | 20 | 8         | 254   |
| <b>24VC1000</b> | 142675      | 24700  | 294            | 10             | 73              | 16              | 863.6          | 831.9          | 615            | 826            | 16             | 15.9 | 13             | 4                | 1/2-14   | 11.25   | 20 | 10        | 254   |
| <b>28VC1000</b> | 142674      | 33400  | 294            | 10             | 73              | 16              | 965.2          | 933.5          | 717            | 927            | 16             | 15.9 | 13             | 4                | 1/2-14   | 11.25   | 20 | 10        | 254   |
| <b>32VC1000</b> | 142673      | 46900  | 295            | 10             | 73              | 16              | 1114.4         | 1082.7         | 818            | 1070           | 24             | 19.1 | 13             | 4                | 1/2-14   | 7.50    | 21 | 12        | 254   |
| <b>38VC1200</b> | 142739      | 76800  | 349            | 12             | 79              | 18              | 1254.1         | 1216.0         | 971            | 1219           | 20             | 19.1 | 16             | 4                | 3/4-14   | 9.00    | 22 | 12        | 305   |
| <b>42VC1200</b> | 142677      | 92500  | 349            | 12             | 79              | 17              | 1362.1         | 1324.0         | 1072           | 1327           | 24             | 19.1 | 16             | 4                | 3/4-14   | 7.50    | 22 | 14        | 305   |
| <b>46VC1200</b> | 142671      | 107000                                       | 349            | 14             | 124             | 20              | 1530.4         | 1485.9         | 1175           | 1461           | 24             | 22.2 | 16             | 4                | 3/4-14   | 7.50    | 22 | 16        | 305   |
| <b>52VC1200</b> | 142841      | 137000                                       | 362            | 14             | 181             | 29              | 1701.8         | 1663.7         | 1327           | 1651           | 32             | 22.2 | 22             | 4                | 1-11 1/2 | 5.63    | 29 | 18        | 305   |
| <b>51VC1600</b> | 142835      | 182000                                       | 464            | 14             | 232             | 29              | 1701.8         | 1663.7         | 1302           | 1651           | 32             | 22.2 | 22             | 4                | 1-11 1/2 | 5.63    | 29 | 18        | 406   |
| <b>60VC1600</b> | 142915      | 247000                                       | 470            | 15             | 235             | 35              | 1955.8         | 1905.0         | 1535           | 1886           | 36             | 25.4 | 22             | 4                | 1-11 1/2 | 5.00    | 32 | 20        | 406   |
| <b>66VC1600</b> | 142097      | 316000                                       | 470            | 20             | 235             | 35              | 2085.9         | 2022.5         | 1682           | 1991           | 40             | 33.3 | 22             | 4                | 1-11 1/2 | 5.00    | 32 | 22        | 406   |

| SI | Nm<br>@ 5.2 bar | Dimensions in millimeters |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|----|-----------------|---------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|
|----|-----------------|---------------------------|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|

| English         |        | lb in<br>@ 75 psi | rpm  | psi/rpm <sup>2</sup> | lb ft <sup>2</sup> | lb   | in <sup>2</sup> | inches |      | in <sup>3</sup> | inches |
|-----------------|--------|-------------------|------|----------------------|--------------------|------|-----------------|--------|------|-----------------|--------|
| <b>16VC1000</b> | 142122 | 228000            | 1400 | 27 E-06              | 380                | 430  | 940             | 0.32   | 0.16 | 510             | 15.91  |
| <b>20VC1000</b> | 142123 | 322000            | 1300 | 37 E-06              | 618                | 568  | 1270            | 0.32   | 0.16 | 620             | 19.87  |
| <b>24VC1000</b> | 142124 | 438000            | 1250 | 46 E-06              | 1104               | 756  | 1440            | 0.44   | 0.16 | 930             | 23.87  |
| <b>28VC1000</b> | 142125 | 592000            | 1100 | 55 E-06              | 1652               | 862  | 1680            | 0.44   | 0.16 | 1060            | 27.81  |
| <b>32VC1000</b> | 142126 | 830000            | 1050 | 63 E-06              | 3140               | 1248 | 1920            | 0.57   | 0.38 | 1200            | 31.81  |
| <b>38VC1200</b> | 142127 | 1360000           | 740  | 82 E-06              | 4660               | 1368 | 2720            | 0.57   | 0.38 | 1510            | 37.81  |
| <b>42VC1200</b> | 142128 | 1638000           | 670  | 86 E-06              | 7340               | 1790 | 3000            | 0.57   | 0.38 | 1700            | 41.75  |
| <b>46VC1200</b> | 142129 | 1900000           | 600  | 108 E-06             | 9660               | 1960 | 3280            | 0.68   | 0.38 | 2410            | 45.75  |
| <b>52VC1200</b> | 142131 | 2430000           | 550  | 127 E-06             | 14570              | 2384 | 3180            | 0.68   | 0.38 | 3020            | 51.75  |
| <b>51VC1600</b> | 142130 | 3220000           | 550  | 125 E-06             | 21160              | 3868 | 4760            | 0.66   | 0.30 | 4000            | 50.75  |
| <b>60VC1600</b> | 142132 | 4366000           | 520  | 145 E-06             | 41064              | 4900 | 5600            | 0.66   | 0.30 | 4700            | 59.75  |
| <b>66VC1600</b> | 142198 | 5600000           | 480  | 186 E-06             | 49700              | 6160 | 6160            | 0.66   | 0.30 | 3920            | 65.75  |

| Size            | ①<br>Part<br>Number | ②<br>M <sub>d</sub><br>Torque<br>Rating | ③<br>Maximum<br>Speed | ④<br>C <sub>3</sub><br>Centrifugal<br>Loss | Wk <sup>2</sup><br>J | Weight<br>Mass | Friction<br>Area | Friction lining<br>Thickness |      | Air<br>Tube<br>Cavity ⑦ | Minimum<br>Drum<br>Diameter |
|-----------------|---------------------|---|-----------------------|--|----------------------|----------------|------------------|------------------------------|------|-------------------------|-----------------------------|
|                 |                     |   |                       |  |                      |                |                  | New                          | Worn |                         |                             |
|                 |                     |   |                       |  |                      |                |                  | ⑧                            | ⑨    |                         |                             |
| <b>16VC1000</b> | 142122              | 25800                                   | 1400                  | 1,86 E-06                                  | 15,96                | 195            | 6063             | 8                            | 4    | 8,36                    | 404                         |
| <b>20VC1000</b> | 142123              | 36400                                   | 1300                  | 2,55 E-06                                  | 25,96                | 257            | 8192             | 8                            | 4    | 10,2                    | 505                         |
| <b>24VC1000</b> | 142124              | 49500                                   | 1250                  | 3,17 E-06                                  | 46,37                | 342            | 9288             | 11                           | 4    | 15,3                    | 606                         |
| <b>28VC1000</b> | 142125              | 66900                                   | 1100                  | 3,80 E-06                                  | 69,38                | 390            | 10836            | 11                           | 4    | 17,4                    | 706                         |
| <b>32VC1000</b> | 142126              | 93800                                   | 1050                  | 4,35 E-06                                  | 131,9                | 565            | 12384            | 14                           | 10   | 19,7                    | 808                         |
| <b>38VC1200</b> | 142127              | 154000                                  | 740                   | 5,66 E-06                                  | 195,7                | 620            | 17544            | 14                           | 10   | 24,8                    | 960                         |
| <b>42VC1200</b> | 142128              | 185000                                  | 670                   | 5,93 E-06                                  | 308,3                | 811            | 19350            | 14                           | 10   | 27,9                    | 1060                        |
| <b>46VC1200</b> | 142129              | 215000                                  | 600                   | 7,45 E-06                                  | 405,7                | 888            | 21156            | 17                           | 10   | 39,5                    | 1162                        |
| <b>52VC1200</b> | 142131              | 275000                                  | 550                   | 8,76 E-06                                  | 611,9                | 1080           | 20511            | 17                           | 10   | 49,5                    | 1314                        |
| <b>51VC1600</b> | 142130              | 364000                                  | 550                   | 8,63 E-06                                  | 888,7                | 1752           | 30702            | 17                           | 8    | 65,6                    | 1289                        |
| <b>60VC1600</b> | 142132              | 493000                                  | 520                   | 10,01 E-06                                 | 1725                 | 2220           | 36120            | 17                           | 8    | 77,1                    | 1518                        |
| <b>66VC1600</b> | 142198              | 633000                                  | 480                   | 12,83 E-06                                 | 2087                 | 2383           | 39732            | 17                           | 8    | 64,3                    | 1670                        |

| SI | Nm<br>@ 5,2<br>bar | rpm | bar/rpm <sup>2</sup> | kg m <sup>2</sup> | kg | cm <sup>2</sup> | millimeters | dm <sup>3</sup> | millimeters |
|----|--------------------|-----|----------------------|-------------------|----|-----------------|-------------|-----------------|-------------|
|----|--------------------|-----|----------------------|-------------------|----|-----------------|-------------|-----------------|-------------|

## Notes:

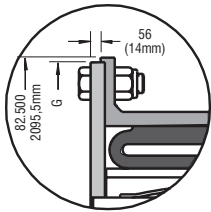
- ① Refers to basic part number only. When ordering, the number of air inlets and type of connection must be specified.
- ② Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ③ Tolerance for sizes:  
 16 thru 20 +0.000/-0.005 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 +0.000/-0.005 in (+0,00/-0,13 mm)
- ④ Tolerance +0.005/-0.000 in (+0,13/-0,00 mm)
- ⑤ All sizes available with either two or four 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® Dual Wide VC Elements

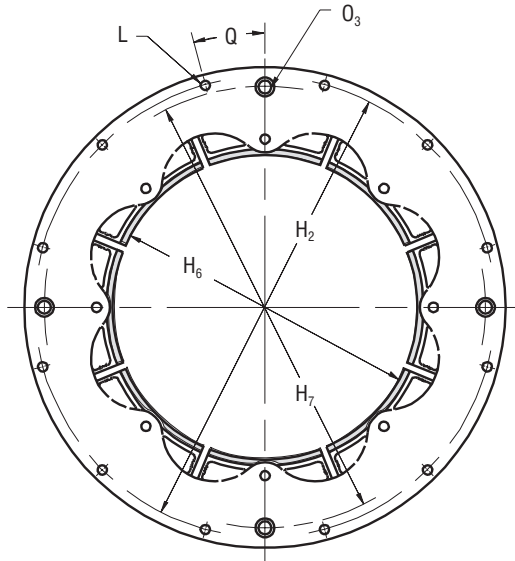
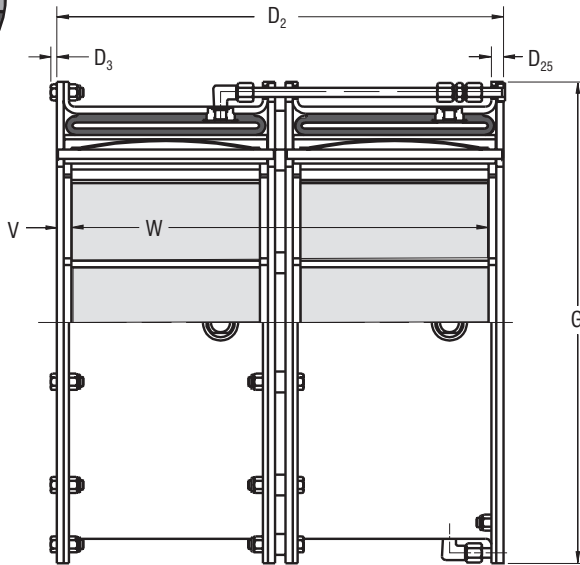


Form VC 504

Dimensional Data – Sizes 14 to 66



Construction for 66VC1600 only



| English         |             | lb in<br>@ 75 psi               | Dimensions in inches      |                |                 |        |                |                |                |     |       |                |      |            |      |     |       |
|-----------------|-------------|---------------------------------|---------------------------|----------------|-----------------|--------|----------------|----------------|----------------|-----|-------|----------------|------|------------|------|-----|-------|
| <b>16VC1000</b> | 142122      | 228000                          | 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 |
| <b>20VC1000</b> | 142123      | 322000                          | 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 |
| <b>24VC1000</b> | 142124      | 438000                          | 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 |
| <b>28VC1000</b> | 142125      | 592000                          | 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 |
| <b>32VC1000</b> | 142126      | 830000                          | 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 |
| <b>38VC1200</b> | 142127      | 1360000                         | 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 |
| <b>42VC1200</b> | 142128      | 1638000                         | 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 |
| <b>46VC1200</b> | 142129      | 1900000                         | 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 |
| <b>52VC1200</b> | 142131      | 2430000                         | 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 |
| <b>51VC1600</b> | 142130      | 3220000                         | 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 |
| <b>60VC1600</b> | 142132      | 4366000                         | 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 |
| <b>66VC1600</b> | 142198      | 5600000                         | 37.00                     | 0.78           | 1.13            | 82.123 | 79.625         | 66.22          | 78.38          | 40  | 1.312 | 4              | 0.88 | 4.50       | 1.13 | 44  | 34.50 |
| Size            | Part Number | M <sub>t</sub><br>Torque Rating | 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> | No. | Dia.  | No.            | Dia. | Q<br>(Deg) | V    | No. | Size  |
|                 |             |                                 |                           |                |                 |        |                |                |                | L   | 4     | O <sub>3</sub> | 5    |            |      | No. | Size  |
|                 |             |                                 |                           |                |                 |        |                |                |                | No. | Dia.  | No.            | Dia. |            |      |     |       |
|                 |             |                                 |                           |                |                 |        |                |                |                | No. | Dia.  | No.            | Dia. |            |      |     |       |
| <b>16VC1000</b> | 142122      | 25800                           | 602                       | 8              | 16              | 647,7  | 619,1          | 412            | 619            | 12  | 12,7  | 4              | 10   | 15,00      | 20   | 16  | 562   |
| <b>20VC1000</b> | 142123      | 36400                           | 602                       | 8              | 16              | 749,3  | 720,7          | 514            | 721            | 12  | 12,7  | 4              | 10   | 15,00      | 20   | 16  | 562   |
| <b>24VC1000</b> | 142124      | 49500                           | 602                       | 10             | 16              | 863,6  | 831,9          | 615            | 826            | 16  | 15,9  | 4              | 13   | 11,25      | 20   | 20  | 562   |
| <b>28VC1000</b> | 142125      | 66900                           | 602                       | 10             | 16              | 965,2  | 933,5          | 717            | 927            | 16  | 15,9  | 4              | 13   | 11,25      | 20   | 20  | 562   |
| <b>32VC1000</b> | 142126      | 93800                           | 605                       | 10             | 16              | 1114,4 | 1082,7         | 818            | 1070           | 24  | 15,9  | 4              | 13   | 7,50       | 21   | 24  | 589   |
| <b>38VC1200</b> | 142127      | 154000                          | 713                       | 12             | 17              | 1254,1 | 1216,0         | 971            | 1219           | 20  | 19,1  | 4              | 16   | 9,00       | 22   | 24  | 668   |
| <b>42VC1200</b> | 142128      | 185000                          | 713                       | 12             | 17              | 1362,1 | 1324,0         | 1072           | 1327           | 24  | 19,1  | 4              | 16   | 7,50       | 22   | 28  | 668   |
| <b>46VC1200</b> | 142129      | 215000                          | 713                       | 14             | 19              | 1530,4 | 1485,9         | 1175           | 1461           | 24  | 22,2  | 4              | 16   | 7,50       | 22   | 32  | 668   |
| <b>52VC1200</b> | 142131      | 275000                          | 738                       | 14             | 29              | 1701,8 | 1663,7         | 1327           | 1651           | 32  | 22,2  | 4              | 22   | 5,63       | 29   | 36  | 681   |
| <b>51VC1600</b> | 142130      | 364000                          | 941                       | 14             | 29              | 1701,8 | 1663,7         | 1302           | 1651           | 32  | 22,2  | 4              | 22   | 5,63       | 29   | 36  | 884   |
| <b>60VC1600</b> | 142132      | 493000                          | 954                       | 15             | 35              | 1955,8 | 1905,0         | 1535           | 1886           | 36  | 25,4  | 4              | 22   | 5,00       | 32   | 40  | 891   |
| <b>66VC1600</b> | 142198      | 633000                          | 940                       | 20             | 29              | 2085,9 | 2022,5         | 1682           | 1991           | 40  | 33,3  | 4              | 22   | 4,50       | 29   | 44  | 876   |
| SI              |             | Nm<br>@ 5,2 bar                 | Dimensions in millimeters |                |                 |        |                |                |                |     |       |                |      |            |      |     |       |

| English ⑥        | lb                     | lb ft <sup>2</sup> | lb                     | lb ft <sup>2</sup> | lb                     | lb ft <sup>2</sup> | lb                     | lb ft <sup>2</sup> | lb                     | lb ft <sup>2</sup> |
|------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|
| <b>11.5VC500</b> | 96                     | 43                 | 28                     | 13                 | 54                     | 4                  | 46                     | 9                  | 35                     | 2                  |
| <b>14VC500</b>   | 128                    | 78                 | 38                     | 26                 | 82                     | 8                  | 66                     | 19                 | 65                     | 4                  |
| <b>16VC600</b>   | 151                    | 115                | 48                     | 40                 | 99                     | 14                 | 94                     | 35                 | 62                     | 4                  |
| <b>20VC600</b>   | 179                    | 193                | 56                     | 63                 | 147                    | 34                 | 139                    | 78                 | 95                     | 9                  |
| <b>24VC650</b>   | 246                    | 369                | 74                     | 110                | 192                    | 56                 | 178                    | 148                | 124                    | 19                 |
| <b>28VC650</b>   | 280                    | 537                | 81                     | 157                | 250                    | 106                | 231                    | 269                | 240                    | 59                 |
| <b>33VC650</b>   | 392                    | 1083               | 96                     | 255                | 374                    | 214                | 312                    | 486                | 347                    | 93                 |
| <b>37VC650</b>   | 433                    | 1400               | 121                    | 381                | 434                    | 294                | 340                    | 691                | 398                    | 159                |
| <b>42VC650</b>   | 485                    | 1990               | 143                    | 575                | 633                    | 536                | 424                    | 1100               | 545                    | 243                |
| Size             | Weight Wk <sup>2</sup> |                    | Weight Wk <sup>2</sup> |                    | Weight Wk <sup>2</sup> |                    | Weight Wk <sup>2</sup> |                    | Weight Wk <sup>2</sup> |                    |
|                  | Element                |                    | Adapter                |                    | Adapter Hub            |                    | Drum                   |                    | Drum Hub               |                    |
|                  | Mass                   | J                  | Mass                   | J                  | Mass                   | J                  | Mass                   | J                  | Mass                   | J                  |
| <b>11.5VC500</b> | 43                     | 1,81               | 13                     | 0,55               | 24                     | 0,17               | 21                     | 0,38               | 16                     | 0,08               |
| <b>14VC500</b>   | 58                     | 3,28               | 17                     | 1,09               | 37                     | 0,34               | 30                     | 0,80               | 29                     | 0,17               |
| <b>16VC600</b>   | 68                     | 4,83               | 22                     | 1,68               | 45                     | 0,59               | 43                     | 1,47               | 28                     | 0,17               |
| <b>20VC600</b>   | 81                     | 8,11               | 25                     | 2,65               | 67                     | 1,43               | 63                     | 3,28               | 43                     | 0,38               |
| <b>24VC650</b>   | 111                    | 15,50              | 34                     | 4,62               | 87                     | 2,35               | 81                     | 6,22               | 56                     | 0,80               |
| <b>28VC650</b>   | 127                    | 22,55              | 37                     | 6,59               | 113                    | 4,45               | 105                    | 11,30              | 109                    | 2,48               |
| <b>33VC650</b>   | 178                    | 45,49              | 43                     | 10,71              | 169                    | 8,99               | 141                    | 20,41              | 157                    | 3,91               |
| <b>37VC650</b>   | 196                    | 58,80              | 55                     | 16,00              | 197                    | 12,35              | 154                    | 29,02              | 180                    | 6,68               |
| <b>42VC650</b>   | 220                    | 83,58              | 65                     | 24,15              | 287                    | 22,51              | 192                    | 46,20              | 247                    | 10,21              |
| SI ⑥             | kg                     | kg m <sup>2</sup>  | kg                     | kg m <sup>2</sup>  | kg                     | kg m <sup>2</sup>  | kg                     | kg m <sup>2</sup>  | kg                     | kg m <sup>2</sup>  |

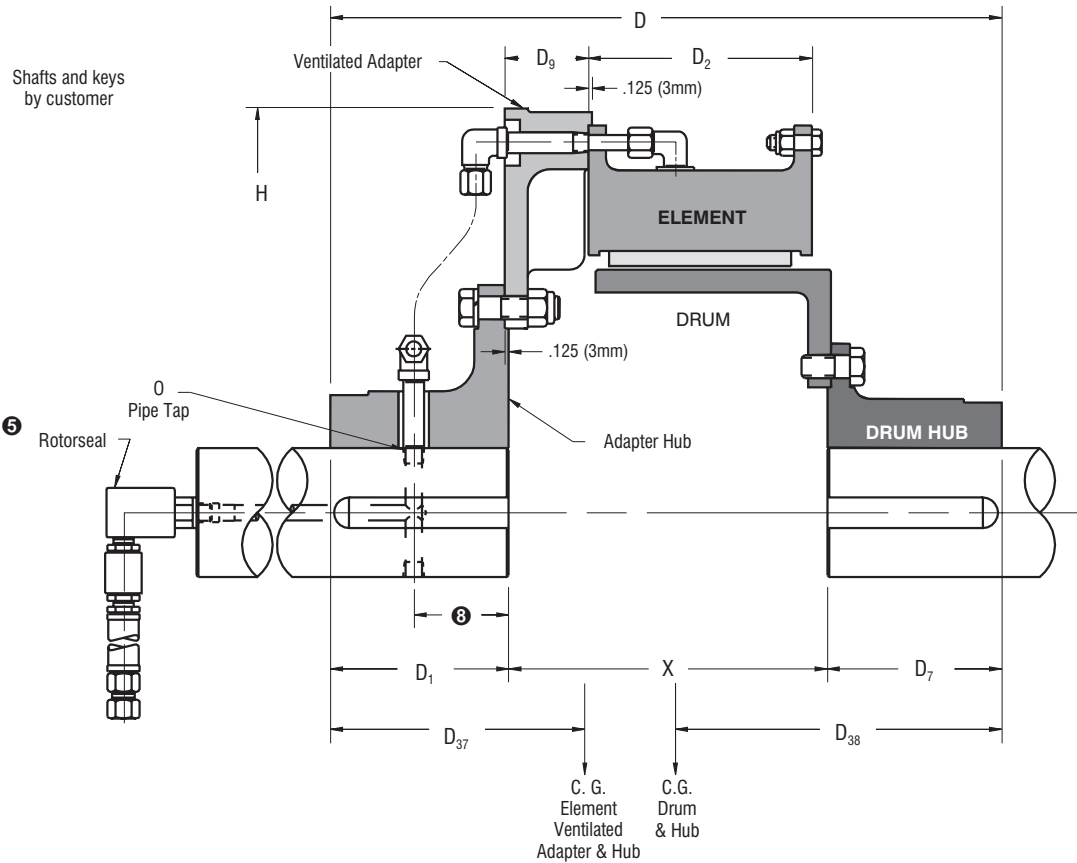
| Size             | Part Numbers |         |             |        |          |
|------------------|--------------|---------|-------------|--------|----------|
|                  | Element ⑦    | Adapter | Adapter Hub | Drum   | Drum Hub |
| <b>11.5VC500</b> | 142639       | 402162  | 406904      | 408291 | 406959   |
| <b>14VC500</b>   | 143829       | 401337  | 407011      | 408284 | 406961   |
| <b>16VC600</b>   | 142640       | 500411  | 407013      | 408293 | 406963   |
| <b>20VC600</b>   | 142641       | 500374  | 407015      | 408295 | 406965   |
| <b>24VC650</b>   | 142642       | 500345  | 407017      | 408297 | 406967   |
| <b>28VC650</b>   | 142643       | 500367  | 407019      | 408299 | 406969   |
| <b>33VC650</b>   | 142644       | 500369  | 407021      | 408301 | 406971   |
| <b>37VC650</b>   | 142645       | 500371  | 407023      | 408303 | 406973   |
| <b>42VC650</b>   | 142647       | 500373  | 407025      | 408305 | 406975   |

**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 American National Pipe Thread. Shaft to adapter piping similar to that shown on VC Spider Pipe and Configuration catalog page.
- ⑤ Refer to Rotorseal section for mounting and dimension information.
- ⑥ Based upon minimum bores.
- ⑦ Refers to basic part number only. When ordering, the number of air inlets and type of connection must be specified.
- ⑧ Through hole in adapter hub is normally not provided. If required, the dimension is 3.00 in (76,2mm)

Form VC 505

Ventilated Adapter Arrangement – Dimensional Data  
Narrow Sizes 11.5 to 42



| English   |               | lb in<br>@ 75 psi  |                 | lb ③        | Dimensions in inches |      |               |       |       |                |                |                |                |                 |                 |       |     |        |       |      |      |   |
|-----------|---------------|--------------------|-----------------|-------------|----------------------|------|---------------|-------|-------|----------------|----------------|----------------|----------------|-----------------|-----------------|-------|-----|--------|-------|------|------|---|
| Size      | ① Part Number | ② M, Torque Rating | Rotor Seal Size | Weight Mass | Min                  | Max. | Min           | Max.  | D     | D <sub>1</sub> | D <sub>2</sub> | D <sub>7</sub> | D <sub>9</sub> | D <sub>37</sub> | D <sub>38</sub> | H     | No. | Size   | X     |      |      |   |
|           |               |                    |                 |             | Adapter Hub Bore     |      | Drum Hub Bore |       |       |                |                |                |                |                 |                 |       |     |        | No.   |      | Size | X |
|           |               |                    |                 |             | Min                  | Max. | Min           | Max.  |       |                |                |                |                |                 |                 |       |     |        | ④     | Size |      |   |
| 11.5VC500 | 104162        | 27000              | B3              | 259         | 2.50                 | 4.13 | 2.50          | 4.13  | 19.38 | 5.00           | 6.13           | 5.00           | 2.75           | 7.6             | 5.5             | 20.38 | 2   | 1/4-18 | 9.38  |      |      |   |
| 14VC500   | 104163        | 39200              | B3              | 379         | 2.75                 | 5.00 | 2.75          | 5.00  | 20.88 | 5.75           | 6.13           | 5.75           | 2.75           | 8.2             | 5.8             | 24.63 | 2   | 3/8-18 | 9.38  |      |      |   |
| 16VC600   | 104164        | 65000              | B3              | 454         | 3.25                 | 5.00 | 3.25          | 5.00  | 22.13 | 5.75           | 7.38           | 5.75           | 2.75           | 8.4             | 6.5             | 26.63 | 2   | 3/8-18 | 10.63 |      |      |   |
| 20VC600   | 104165        | 93000              | C2              | 616         | 3.75                 | 5.50 | 3.75          | 5.50  | 23.63 | 6.50           | 7.38           | 6.50           | 2.75           | 8.9             | 7.0             | 30.63 | 2   | 3/8-18 | 10.63 |      |      |   |
| 24VC650   | 104166        | 135000             | C2              | 814         | 4.25                 | 6.00 | 4.25          | 6.00  | 24.13 | 6.50           | 7.69           | 6.50           | 2.75           | 9.0             | 7.2             | 35.13 | 2   | 3/8-18 | 11.13 |      |      |   |
| 28VC650   | 104167        | 182000             | C2              | 1082        | 4.75                 | 6.00 | 4.75          | 8.00  | 27.13 | 8.00           | 7.69           | 8.00           | 2.75           | 10.2            | 7.9             | 39.13 | 2   | 3/8-18 | 11.13 |      |      |   |
| 33VC650   | 104168        | 255000             | 3/4 RH          | 1521        | 5.25                 | 7.00 | 5.25          | 9.50  | 29.13 | 9.00           | 7.69           | 9.00           | 2.75           | 11.0            | 8.3             | 45.88 | 2   | 1/2-14 | 11.13 |      |      |   |
| 37VC650   | 105433        | 320000             | 3/4 RH          | 1726        | 5.50                 | 7.00 | 5.50          | 9.50  | 29.13 | 9.00           | 7.69           | 9.00           | 2.75           | 11.0            | 8.4             | 49.88 | 2   | 1/2-14 | 11.13 |      |      |   |
| 42VC650   | 105434        | 380000             | 3/4 RH          | 2230        | 6.00                 | 8.25 | 6.00          | 10.50 | 31.13 | 10.00          | 7.69           | 10.00          | 2.75           | 11.2            | 9.0             | 54.88 | 2   | 1/2-14 | 11.13 |      |      |   |

| SI        |               | Nm<br>@ 5.2 bar    |                 | kg ③        | Dimensions in millimeters |      |               |      |     |                |                |                |                |                 |                 |      |     |        |     |      |      |   |
|-----------|---------------|--------------------|-----------------|-------------|---------------------------|------|---------------|------|-----|----------------|----------------|----------------|----------------|-----------------|-----------------|------|-----|--------|-----|------|------|---|
| Size      | ① Part Number | ② M, Torque Rating | Rotor Seal Size | Weight Mass | Min                       | Max. | Min           | Max. | D   | D <sub>1</sub> | D <sub>2</sub> | D <sub>7</sub> | D <sub>9</sub> | D <sub>37</sub> | D <sub>38</sub> | H    | No. | Size   | X   |      |      |   |
|           |               |                    |                 |             | Adapter Hub Bore          |      | Drum Hub Bore |      |     |                |                |                |                |                 |                 |      |     |        | No. |      | Size | X |
|           |               |                    |                 |             | Min                       | Max. | Min           | Max. |     |                |                |                |                |                 |                 |      |     |        | ④   | Size |      |   |
| 11.5VC500 | 104162        | 3050               | B3              | 117         | 64                        | 105  | 64            | 105  | 492 | 127            | 156            | 127            | 70             | 193             | 140             | 518  | 2   | 1/4-18 | 238 |      |      |   |
| 14VC500   | 104163        | 4430               | B3              | 172         | 70                        | 127  | 70            | 127  | 530 | 146            | 156            | 146            | 70             | 208             | 147             | 626  | 2   | 3/8-18 | 238 |      |      |   |
| 16VC600   | 104164        | 7350               | B3              | 206         | 83                        | 127  | 83            | 127  | 562 | 146            | 187            | 146            | 70             | 213             | 165             | 676  | 2   | 3/8-18 | 270 |      |      |   |
| 20VC600   | 104165        | 10500              | C2              | 279         | 95                        | 140  | 95            | 140  | 600 | 165            | 187            | 165            | 70             | 226             | 178             | 778  | 2   | 3/8-18 | 270 |      |      |   |
| 24VC650   | 104166        | 15300              | C2              | 369         | 108                       | 152  | 108           | 152  | 613 | 165            | 195            | 165            | 70             | 229             | 183             | 892  | 2   | 3/8-18 | 283 |      |      |   |
| 28VC650   | 104167        | 20600              | C2              | 490         | 121                       | 152  | 121           | 203  | 689 | 203            | 195            | 203            | 70             | 259             | 201             | 994  | 2   | 3/8-18 | 283 |      |      |   |
| 33VC650   | 104168        | 28800              | 3/4 RH          | 689         | 133                       | 178  | 133           | 241  | 740 | 229            | 195            | 229            | 70             | 279             | 211             | 1165 | 2   | 1/2-14 | 283 |      |      |   |
| 37VC650   | 105433        | 36200              | 3/4 RH          | 782         | 140                       | 178  | 140           | 241  | 740 | 229            | 195            | 229            | 70             | 279             | 213             | 1267 | 2   | 1/2-14 | 283 |      |      |   |
| 42VC650   | 105434        | 42900              | 3/4 RH          | 1010        | 152                       | 210  | 152           | 267  | 791 | 254            | 195            | 254            | 70             | 284             | 229             | 1394 | 2   | 1/2-14 | 283 |      |      |   |

| English ⑥        | lb                     | lb ft <sup>2</sup> | lb                     | lb ft <sup>2</sup> | lb                     | lb ft <sup>2</sup> | lb                     | lb ft <sup>2</sup> | lb                     | lb ft <sup>2</sup> |
|------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|------------------------|--------------------|
| <b>11.5VC500</b> | 197                    | 86                 | 73                     | 35                 | 64                     | 4                  | 83                     | 16                 | 43                     | 2                  |
| <b>14VC500</b>   | 258                    | 156                | 103                    | 70                 | 74                     | 8                  | 139                    | 40                 | 60                     | 4                  |
| <b>16VC600</b>   | 307                    | 230                | 130                    | 108                | 108                    | 15                 | 175                    | 66                 | 82                     | 6                  |
| <b>20VC600</b>   | 363                    | 386                | 146                    | 167                | 166                    | 34                 | 234                    | 138                | 124                    | 13                 |
| <b>24VC650</b>   | 497                    | 738                | 194                    | 297                | 250                    | 68                 | 293                    | 258                | 215                    | 42                 |
| <b>28VC650</b>   | 565                    | 1074               | 219                    | 424                | 324                    | 119                | 348                    | 472                | 292                    | 85                 |
| <b>33VC650</b>   | 784                    | 2166               | 259                    | 686                | 532                    | 342                | 507                    | 827                | 395                    | 123                |
| <b>37VC650</b>   | 871                    | 2800               | 321                    | 1026               | 595                    | 360                | 553                    | 1172               | 528                    | 240                |
| <b>42VC650</b>   | 980                    | 3980               | 378                    | 1550               | 769                    | 608                | 662                    | 1809               | 647                    | 413                |
| Size             | Weight Wk <sup>2</sup> |                    | Weight Wk <sup>2</sup> |                    | Weight Wk <sup>2</sup> |                    | Weight Wk <sup>2</sup> |                    | Weight Wk <sup>2</sup> |                    |
|                  | Element                |                    | Ventilated Adapter     |                    | Adapter Hub            |                    | Drum                   |                    | Drum Hub               |                    |
|                  | Mass                   | J                  | Mass                   | J                  | Mass                   | J                  | Mass                   | J                  | Mass                   | J                  |
| <b>11.5VC500</b> | 89                     | 3,61               | 33                     | 1,47               | 29                     | 0,17               | 38                     | 0,67               | 19                     | 0,08               |
| <b>14VC500</b>   | 117                    | 6,55               | 47                     | 2,94               | 34                     | 0,33               | 63                     | 1,68               | 27                     | 0,17               |
| <b>16VC600</b>   | 139                    | 9,66               | 59                     | 4,54               | 49                     | 0,63               | 79                     | 2,77               | 37                     | 0,25               |
| <b>20VC600</b>   | 164                    | 16,21              | 66                     | 7,01               | 75                     | 1,43               | 106                    | 5,80               | 56                     | 0,55               |
| <b>24VC650</b>   | 225                    | 31,00              | 88                     | 12,47              | 113                    | 2,86               | 133                    | 10,84              | 97                     | 1,76               |
| <b>28VC650</b>   | 256                    | 45,11              | 99                     | 17,81              | 147                    | 5,00               | 158                    | 19,82              | 132                    | 3,57               |
| <b>33VC650</b>   | 355                    | 90,97              | 117                    | 28,81              | 241                    | 14,36              | 230                    | 34,73              | 179                    | 5,17               |
| <b>37VC650</b>   | 395                    | 117,6              | 145                    | 43,09              | 270                    | 15,12              | 251                    | 49,22              | 239                    | 10,08              |
| <b>42VC650</b>   | 444                    | 167,2              | 171                    | 65,10              | 348                    | 25,54              | 300                    | 75,98              | 293                    | 17,35              |
| SI ⑥             | kg                     | kg m <sup>2</sup>  | kg                     | kg m <sup>2</sup>  | kg                     | kg m <sup>2</sup>  | kg                     | kg m <sup>2</sup>  | kg                     | kg m <sup>2</sup>  |

| Size             | Part Numbers |                    |             |        |          |
|------------------|--------------|--------------------|-------------|--------|----------|
|                  | Element ⑦    | Ventilated Adapter | Adapter Hub | Drum   | Drum Hub |
| <b>11.5VC500</b> | 142112       | 406949             | 408232      | 408307 | 406945   |
| <b>14VC500</b>   | 142114       | 406950             | 408234      | 408309 | 406961   |
| <b>16VC600</b>   | 142115       | 505030             | 408236      | 408311 | 407027   |
| <b>20VC600</b>   | 142116       | 504974             | 408238      | 408313 | 406376   |
| <b>24VC650</b>   | 142117       | 504975             | 408240      | 411828 | 405625   |
| <b>28VC650</b>   | 142118       | 504976             | 408242      | 408317 | 405628   |
| <b>33VC650</b>   | 142119       | 504977             | 408244      | 408319 | 405631   |
| <b>37VC650</b>   | 142120       | 504978             | 408246      | 408321 | 405634   |
| <b>42VC650</b>   | 142121       | 504979             | 408248      | 408323 | 405637   |

**Notes:**

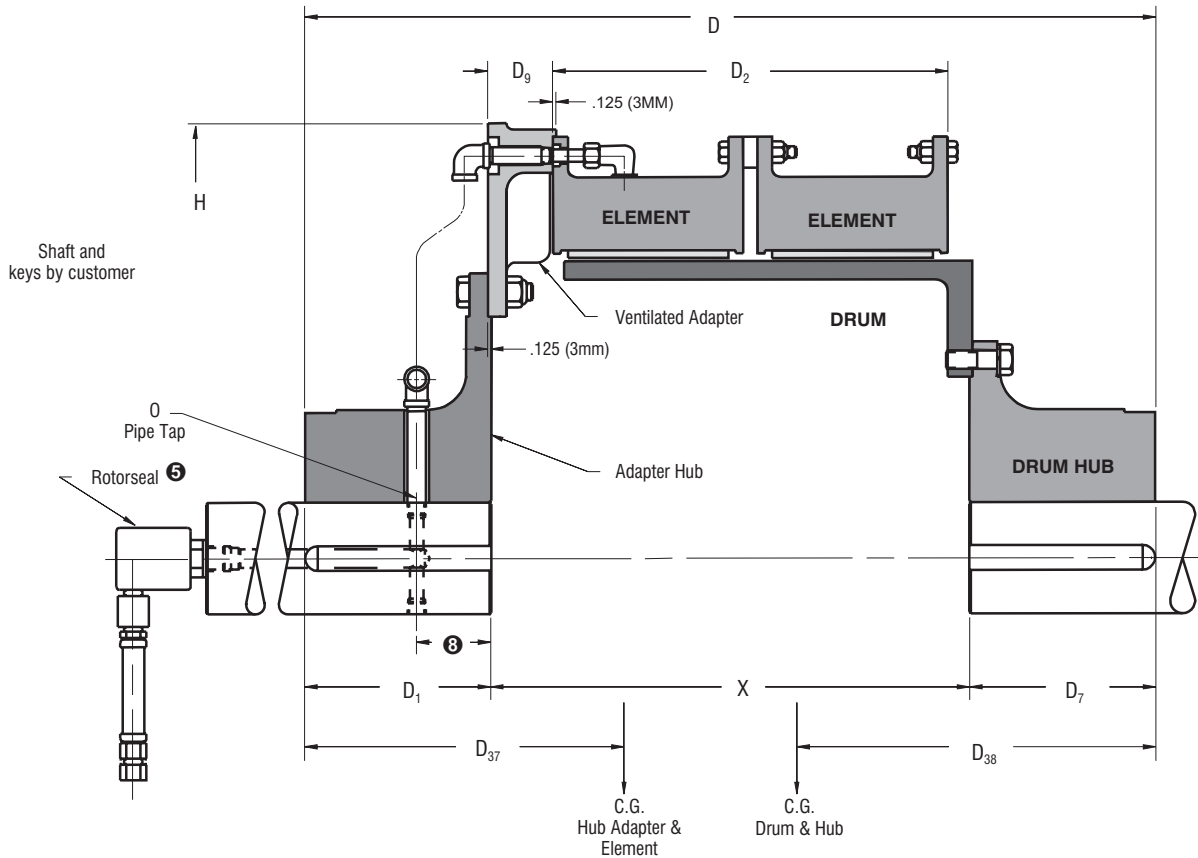
- ① Refers to basic part number only and does not include the rotorseal and hose. When ordering, the number and type of element connections must be specified.
- ② Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ③ Based upon minimum bores. Rotorseal and hose not included.
- ④ American National Pipe Thread. Shaft to adapter piping similar to that shown on VC Spider Pipe and Configuration catalog page.
- ⑤ Refer to Rotorseal Section for mounting and dimension information.
- ⑥ Based upon minimum bores.
- ⑦ Refers to basic part number only. When ordering, the number of air inlets and type of connection must be specified.
- ⑧ Through hole in adapter hub is normally not provided. If required, the dimension is 3.00 in (76,2mm)

# Airflex® VC Clutch Application



Form VC 507

Ventilated Adapter Arrangement – Dimensional Data  
Dual Narrow Sizes 11.5 to 42



| English          |               | lb/in<br>@ 75 psi  | lb ③           | Dimensions in inches |                           |       |       |                |                |                |                |                 |                 |       |            |        |       |
|------------------|---------------|--------------------|----------------|----------------------|---------------------------|-------|-------|----------------|----------------|----------------|----------------|-----------------|-----------------|-------|------------|--------|-------|
| <b>11.5VC500</b> | 104298        | 54000              | C2             | 460                  | 3.00                      | 4.00  | 28.75 | 5.75           | 12.75          | 7.00           | 2.75           | 10.9            | 9.4             | 20.38 | 2          | 1/4-18 | 16.00 |
| <b>14VC500</b>   | 105435        | 78400              | C2             | 634                  | 3.50                      | 4.75  | 27.50 | 5.75           | 12.69          | 5.75           | 2.75           | 11.0            | 8.9             | 24.63 | 2          | 1/2-14 | 16.00 |
| <b>16VC600</b>   | 105436        | 130000             | C2             | 802                  | 4.25                      | 5.00  | 31.56 | 6.50           | 15.19          | 6.50           | 2.75           | 12.4            | 9.8             | 26.63 | 2          | 1/2-14 | 18.56 |
| <b>20VC600</b>   | 104299        | 186000             | C2             | 1033                 | 4.75                      | 6.00  | 32.56 | 7.00           | 15.19          | 7.00           | 2.75           | 12.2            | 9.7             | 30.63 | 2          | 1/2-14 | 18.56 |
| <b>24VC650</b>   | 105437        | 270000             | 3/4 RH         | 1449                 | 5.25                      | 7.50  | 34.31 | 7.50           | 15.94          | 7.50           | 2.75           | 12.6            | 9.7             | 35.13 | 2          | 1/2-14 | 19.31 |
| <b>28VC650</b>   | 105438        | 364000             | 3/4 RH         | 1748                 | 5.75                      | 8.50  | 35.31 | 8.00           | 15.94          | 8.00           | 2.75           | 12.8            | 9.9             | 39.13 | 2          | 1/2-14 | 19.31 |
| <b>33VC650</b>   | 105439        | 510000             | 1RH            | 2477                 | 6.50                      | 9.00  | 38.38 | 9.50           | 15.94          | 9.50           | 2.75           | 13.8            | 11.0            | 45.88 | 2          | 3/4-14 | 19.38 |
| <b>37VC650</b>   | 105440        | 640000             | 1RH            | 2868                 | 7.00                      | 9.50  | 39.38 | 10.00          | 15.94          | 10.00          | 2.75           | 14.2            | 11.2            | 49.88 | 2          | 3/4-14 | 19.38 |
| <b>42VC650</b>   | 105441        | 760000             | 1 1/4 RH       | 3436                 | 7.50                      | 10.50 | 41.38 | 11.00          | 15.94          | 11.00          | 2.75           | 14.7            | 11.5            | 54.88 | 2          | 3/4-14 | 19.38 |
| Size             | Part Number ① | M, Torque Rating ② | Rotorseal Size | Weight Mass          | Bore Range                |       | D     | D <sub>1</sub> | D <sub>2</sub> | D <sub>7</sub> | D <sub>9</sub> | D <sub>37</sub> | D <sub>38</sub> | H     | No. Size ④ |        | X     |
|                  |               |                    |                |                      | Min.                      | Max.  |       |                |                |                |                |                 |                 |       | No.        | Size   |       |
|                  |               |                    |                |                      | Min.                      | Max.  |       |                |                |                |                |                 |                 |       |            |        |       |
| <b>11.5VC500</b> | 104298        | 6100               | C2             | 208                  | 76                        | 102   | 730   | 146            | 324            | 178            | 70             | 276             | 239             | 518   | 2          | 1/4-18 | 406   |
| <b>14VC500</b>   | 105435        | 8860               | C2             | 287                  | 89                        | 121   | 699   | 146            | 322            | 146            | 70             | 279             | 226             | 626   | 2          | 1/2-14 | 406   |
| <b>16VC600</b>   | 105436        | 14700              | C2             | 363                  | 108                       | 127   | 802   | 165            | 386            | 165            | 70             | 314             | 249             | 676   | 2          | 1/2-14 | 471   |
| <b>20VC600</b>   | 104299        | 21000              | C2             | 468                  | 121                       | 152   | 827   | 178            | 386            | 178            | 70             | 309             | 246             | 778   | 2          | 1/2-14 | 471   |
| <b>24VC650</b>   | 105437        | 30500              | 3/4 RH         | 656                  | 133                       | 191   | 871   | 191            | 405            | 191            | 70             | 319             | 246             | 892   | 2          | 1/2-14 | 490   |
| <b>28VC650</b>   | 105438        | 41100              | 3/4 RH         | 792                  | 146                       | 216   | 897   | 203            | 405            | 203            | 70             | 324             | 251             | 994   | 2          | 1/2-14 | 490   |
| <b>33VC650</b>   | 105439        | 57600              | 1RH            | 1122                 | 165                       | 229   | 975   | 241            | 405            | 241            | 70             | 350             | 279             | 1165  | 2          | 3/4-14 | 492   |
| <b>37VC650</b>   | 105440        | 72300              | 1RH            | 1299                 | 178                       | 241   | 1000  | 254            | 405            | 254            | 70             | 361             | 284             | 1267  | 2          | 3/4-14 | 492   |
| <b>42VC650</b>   | 105441        | 85900              | 1 1/4 RH       | 1557                 | 191                       | 267   | 1051  | 279            | 405            | 279            | 70             | 373             | 292             | 1394  | 2          | 3/4-14 | 492   |
| SI               |               | Nm<br>@ 5.2<br>bar | kg ③           |                      | Dimensions in millimeters |       |       |                |                |                |                |                 |                 |       |            |        |       |



| English ⑨        | lb      | lb ft <sup>2</sup> | lb     | lb ft <sup>2</sup> | lb     | lb ft <sup>2</sup> | lb       | lb ft <sup>2</sup> |
|------------------|---------|--------------------|--------|--------------------|--------|--------------------|----------|--------------------|
| <b>11.5VC500</b> | 96      | 43                 | 70     | 19                 | 46     | 9                  | 35       | 2                  |
| <b>14VC500</b>   | 128     | 78                 | 102    | 35                 | 66     | 19                 | 65       | 4                  |
| <b>16VC600</b>   | 151     | 115                | 139    | 50                 | 94     | 35                 | 62       | 4                  |
| <b>20VC600</b>   | 179     | 193                | 224    | 122                | 139    | 78                 | 95       | 9                  |
| <b>24VC650</b>   | 246     | 369                | 260    | 174                | 178    | 148                | 124      | 19                 |
| <b>28VC650</b>   | 280     | 537                | 514    | 534                | 231    | 269                | 240      | 59                 |
| <b>33VC650</b>   | 392     | 1083               | 716    | 811                | 312    | 486                | 347      | 93                 |
| <b>37VC650</b>   | 433     | 1400               | 940    | 1404               | 340    | 691                | 398      | 159                |
| <b>42VC650</b>   | 485     | 1990               | 1284   | 2106               | 424    | 1100               | 545      | 243                |
| Size             | Weight  | Wk <sup>2</sup>    | Weight | Wk <sup>2</sup>    | Weight | Wk <sup>2</sup>    | Weight   | Wk <sup>2</sup>    |
|                  | Element |                    | Spider |                    | Drum   |                    | Drum Hub |                    |
|                  | Mass    | J                  | Mass   | J                  | Mass   | J                  | Mass     | J                  |
| <b>11.5VC500</b> | 43      | 1,81               | 32     | 0,80               | 21     | 0,38               | 16       | 0,08               |
| <b>14VC500</b>   | 58      | 3,28               | 46     | 1,47               | 30     | 0,80               | 29       | 0,17               |
| <b>16VC600</b>   | 68      | 4,83               | 63     | 2,10               | 43     | 1,47               | 28       | 0,17               |
| <b>20VC600</b>   | 81      | 8,11               | 101    | 5,12               | 63     | 3,28               | 43       | 0,38               |
| <b>24VC650</b>   | 111     | 15,50              | 118    | 7,31               | 81     | 6,22               | 56       | 0,80               |
| <b>28VC650</b>   | 127     | 22,55              | 233    | 22,43              | 105    | 11,30              | 109      | 2,48               |
| <b>33VC650</b>   | 178     | 45,49              | 324    | 34,06              | 141    | 20,41              | 157      | 3,91               |
| <b>37VC650</b>   | 196     | 58,80              | 426    | 58,97              | 154    | 29,02              | 180      | 6,68               |
| <b>42VC650</b>   | 220     | 83,58              | 582    | 88,45              | 192    | 46,20              | 247      | 10,21              |
| SI ⑨             | kg      | kg m <sup>2</sup>  | kg     | kg m <sup>2</sup>  | kg     | kg m <sup>2</sup>  | kg       | kg m <sup>2</sup>  |

| Size             | Part Numbers |        |        |          |
|------------------|--------------|--------|--------|----------|
|                  | Element ⑩    | Spider | Drum   | Drum Hub |
| <b>11.5VC500</b> | 142639       | 408376 | 408290 | 406959   |
| <b>14VC500</b>   | 143829       | 411170 | 408283 | 406961   |
| <b>16VC600</b>   | 142640       | 408277 | 408292 | 406963   |
| <b>20VC600</b>   | 142641       | 408279 | 408294 | 406965   |
| <b>24VC650</b>   | 142642       | 408281 | 408296 | 406967   |
| <b>28VC650</b>   | 142643       | 505480 | 409479 | 406969   |
| <b>33VC650</b>   | 142644       | 505285 | 408300 | 406971   |
| <b>37VC650</b>   | 142645       | 504575 | 408302 | 406973   |
| <b>42VC650</b>   | 142647       | 502369 | 408304 | 406975   |

**Notes:**

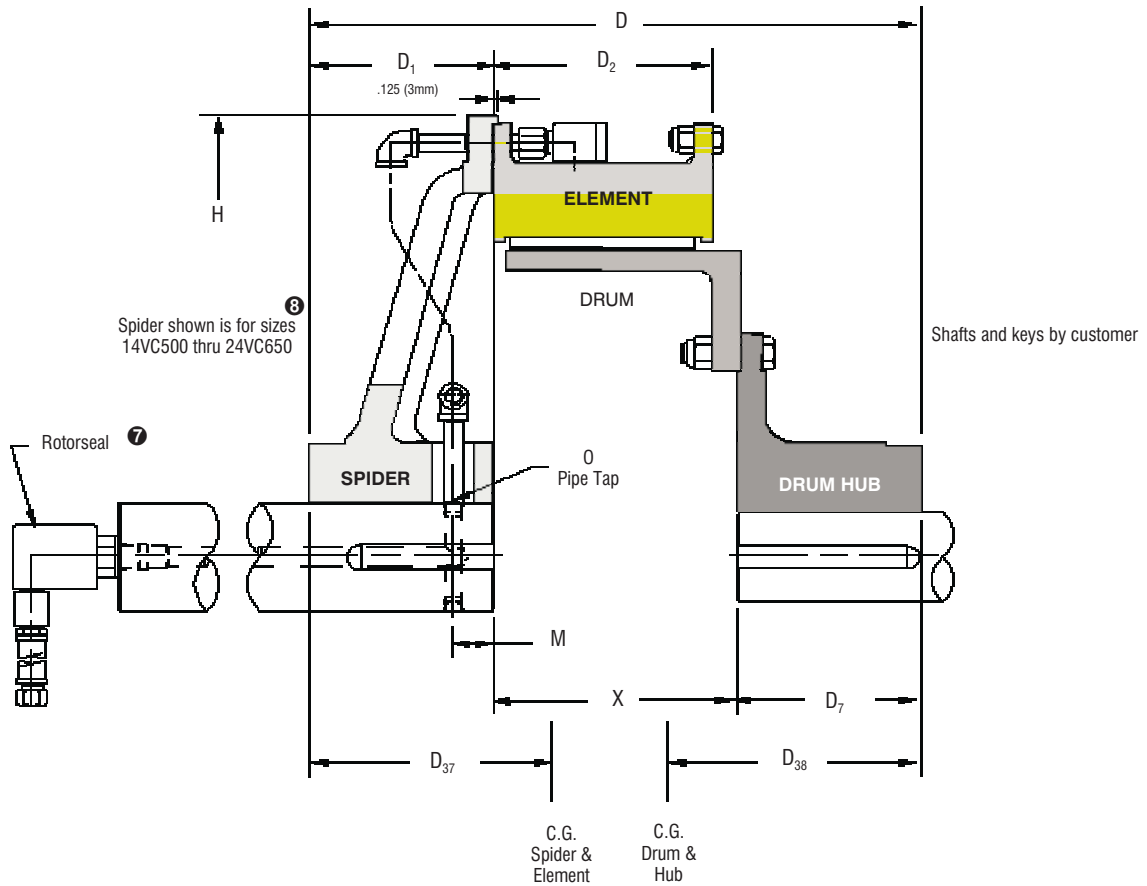
- ① Refers to basic part number only and does not include the rotor seal and hose. When ordering, the number and type of element connections must be specified.
- ② Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ③ Based upon minimum bores. Rotor seal and hose not included.
- ④  $M (in) = 0.268 (H/2 - \text{radius of bore}) + 0.34$   
 $M (mm) = 0,268 (H/2 - \text{radius of bore}) + 8,7$
- ⑤ American National Pipe Thread
- ⑥ Pipe tap not required. Thru hole diameter 0.44 in (11 mm).
- ⑦ Refer to Rotor seal Section for mounting and dimension information.
- ⑧ Refer to VC Spider Piping and Configuration catalog page for other sizes.
- ⑨ Based upon minimum bores.
- ⑩ 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 506

Gap Mounted Arrangement – Dimensional Data  
Narrow Sizes 11.5 VC to 42



| English   |             | lb in<br>@ 75 psi | lb ⓐ           | Dimensions in inches |                 |                 |       |                |                |                |                 |                 |       |      |        |      |   |
|-----------|-------------|-------------------|----------------|----------------------|-----------------|-----------------|-------|----------------|----------------|----------------|-----------------|-----------------|-------|------|--------|------|---|
| Size      | Part Number | M, Torque Rating  | Rotorseal Size | Weight Mass          | Min. Bore Range | Max. 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    | ⓐ      | ⓑ    | X |
| 11.5VC500 | 104601      | 27000             | B3             | 247                  | 2.50            | 4.13            | 16.09 | 4.34           | 6.13           | 5.00           | 5.3             | 5.5             | 20.00 | ⓐ    | ⓑ      | 6.75 |   |
| 14VC500   | 104602      | 39200             | B3             | 361                  | 2.75            | 5.00            | 18.06 | 5.50           | 6.13           | 5.75           | 6.0             | 5.8             | 24.00 | 1.44 | 3/8-18 | 6.81 |   |
| 16VC600   | 104603      | 65000             | B3             | 446                  | 3.25            | 5.00            | 19.31 | 5.50           | 7.38           | 5.75           | 6.2             | 6.5             | 26.00 | 1.44 | 3/8-18 | 8.06 |   |
| 20VC600   | 104604      | 93000             | C2             | 637                  | 3.75            | 5.50            | 20.56 | 6.00           | 7.38           | 6.50           | 6.0             | 6.9             | 30.00 | 1.44 | 3/8-18 | 8.06 |   |
| 24VC650   | 104605      | 135000            | C2             | 808                  | 4.25            | 6.00            | 21.56 | 6.50           | 7.69           | 6.50           | 6.6             | 7.2             | 34.63 | 1.44 | 3/8-18 | 8.56 |   |
| 28VC650   | 104606      | 182000            | C2             | 1265                 | 4.75            | 8.00            | 24.56 | 8.00           | 7.69           | 8.00           | 6.9             | 7.9             | 38.63 | 5.00 | 1/2-14 | 8.56 |   |
| 33VC650   | 104607      | 255000            | 3/4 RH         | 1767                 | 5.25            | 9.50            | 26.56 | 9.00           | 7.69           | 9.00           | 7.5             | 8.3             | 45.25 | 5.00 | 1/2-14 | 8.56 |   |
| 37VC650   | 104608      | 320000            | 3/4 RH         | 2111                 | 5.50            | 9.50            | 27.56 | 10.00          | 7.69           | 9.00           | 7.9             | 8.4             | 49.25 | 6.00 | 1/2-14 | 8.56 |   |
| 42VC650   | 104609      | 380000            | 3/4 RH         | 2738                 | 6.00            | 10.50           | 29.56 | 11.00          | 7.69           | 10.00          | 8.2             | 9.0             | 54.25 | 6.00 | 1/2-14 | 8.56 |   |

| SI        | Part Number | M, Torque Rating | Rotorseal Size | Weight Mass | Bore Range |      | Dimensions in millimeters |                |                |                |                 |                 |      |     |        |     |   |  |  |
|-----------|-------------|------------------|----------------|-------------|------------|------|---------------------------|----------------|----------------|----------------|-----------------|-----------------|------|-----|--------|-----|---|--|--|
| Size      | Part Number | M, Torque Rating | Rotorseal Size | Weight Mass | Min.       | Max. | D                         | D <sub>1</sub> | D <sub>2</sub> | D <sub>7</sub> | D <sub>37</sub> | D <sub>38</sub> | H    | M   | ⓐ      | ⓑ   | X |  |  |
| 11.5VC500 | 104601      | 3050             | B3             | 112         | 64         | 105  | 409                       | 110            | 156            | 127            | 135             | 140             | 508  | ⓐ   | ⓑ      | 171 |   |  |  |
| 14VC500   | 104602      | 4430             | B3             | 164         | 70         | 127  | 459                       | 140            | 156            | 146            | 152             | 147             | 610  | 37  | 3/8-18 | 173 |   |  |  |
| 16VC600   | 104603      | 7350             | B3             | 202         | 83         | 127  | 490                       | 140            | 187            | 146            | 157             | 165             | 660  | 37  | 3/8-18 | 205 |   |  |  |
| 20VC600   | 104604      | 10500            | C2             | 289         | 95         | 140  | 522                       | 152            | 187            | 165            | 152             | 175             | 762  | 37  | 3/8-18 | 205 |   |  |  |
| 24VC650   | 104605      | 15300            | C2             | 366         | 108        | 152  | 548                       | 165            | 195            | 165            | 168             | 183             | 880  | 37  | 3/8-18 | 217 |   |  |  |
| 28VC650   | 104606      | 20600            | C2             | 573         | 121        | 203  | 624                       | 203            | 195            | 203            | 175             | 201             | 981  | 127 | 1/2-14 | 217 |   |  |  |
| 33VC650   | 104607      | 28800            | 3/4 RH         | 800         | 133        | 241  | 675                       | 229            | 195            | 229            | 191             | 211             | 1149 | 127 | 1/2-14 | 217 |   |  |  |
| 37VC650   | 104608      | 36200            | 3/4 RH         | 956         | 140        | 241  | 700                       | 254            | 195            | 229            | 201             | 213             | 1251 | 152 | 1/2-14 | 217 |   |  |  |
| 42VC650   | 104609      | 42900            | 3/4 RH         | 1240        | 152        | 267  | 751                       | 279            | 195            | 254            | 208             | 229             | 1378 | 152 | 1/2-14 | 217 |   |  |  |

Form VC 508

Gap Mounted Arrangement – Technical Data  
Dual Narrow Sizes 11.5 to 42

| English ⑨ | lb      | lb ft <sup>2</sup> | lb     | lb ft <sup>2</sup> | lb     | lb ft <sup>2</sup> | lb       | lb ft <sup>2</sup> |
|-----------|---------|--------------------|--------|--------------------|--------|--------------------|----------|--------------------|
| 11.5VC500 | 197     | 86                 | 71     | 19                 | 83     | 16                 | 43       | 2                  |
| 14VC500   | 258     | 156                | 102    | 35                 | 139    | 40                 | 60       | 4                  |
| 16VC600   | 307     | 230                | 236    | 111                | 175    | 66                 | 82       | 6                  |
| 20VC600   | 363     | 386                | 295    | 167                | 234    | 138                | 124      | 13                 |
| 24VC650   | 497     | 738                | 408    | 285                | 293    | 258                | 215      | 42                 |
| 28VC650   | 565     | 1074               | 554    | 474                | 348    | 472                | 292      | 85                 |
| 33VC650   | 784     | 2166               | 802    | 965                | 507    | 827                | 395      | 123                |
| 37VC650   | 871     | 2800               | 981    | 1356               | 553    | 1172               | 528      | 240                |
| 42VC650   | 980     | 3980               | 1116   | 1868               | 662    | 1809               | 647      | 413                |
| Size      | Weight  | Wk <sup>2</sup>    | Weight | Wk <sup>2</sup>    | Weight | Wk <sup>2</sup>    | Weight   | Wk <sup>2</sup>    |
|           | Element |                    | Spider |                    | Drum   |                    | Drum Hub |                    |
|           | Mass    | J                  | Mass   | J                  | Mass   | J                  | Mass     | J                  |
| 11.5VC500 | 89      | 3,61               | 32     | 0,80               | 38     | 0,67               | 19       | 0,08               |
| 14VC500   | 117     | 6,55               | 46     | 1,47               | 63     | 1,68               | 27       | 0,17               |
| 16VC600   | 139     | 9,66               | 107    | 4,66               | 79     | 2,77               | 37       | 0,25               |
| 20VC600   | 164     | 16,21              | 134    | 7,01               | 106    | 5,80               | 56       | 0,55               |
| 24VC650   | 225     | 31,00              | 185    | 11,97              | 133    | 10,84              | 97       | 1,76               |
| 28VC650   | 256     | 45,11              | 251    | 19,91              | 158    | 19,82              | 132      | 3,57               |
| 33VC650   | 355     | 90,97              | 363    | 40,53              | 230    | 34,73              | 179      | 5,17               |
| 37VC650   | 395     | 117,6              | 444    | 56,95              | 251    | 49,22              | 239      | 10,08              |
| 42VC650   | 444     | 167,2              | 506    | 78,46              | 300    | 75,98              | 293      | 17,35              |
| SI ⑨      | kg      | kg m <sup>2</sup>  | kg     | kg m <sup>2</sup>  | kg     | kg m <sup>2</sup>  | kg       | kg m <sup>2</sup>  |

| Size      | Part Numbers |        |        |          |
|-----------|--------------|--------|--------|----------|
|           | Element ⑩    | Spider | Drum   | Drum Hub |
| 11.5VC500 | 142112       | 410856 | 408307 | 406945   |
| 14VC500   | 142114       | 411170 | 408309 | 406961   |
| 16VC600   | 142115       | 505283 | 408311 | 407027   |
| 20VC600   | 142116       | 509698 | 410862 | 406376   |
| 24VC650   | 142117       | 509699 | 409804 | 405625   |
| 28VC650   | 142118       | 509700 | 409706 | 405628   |
| 33VC650   | 142119       | 509701 | 410022 | 405631   |
| 37VC650   | 142120       | 509702 | 410866 | 405634   |
| 42VC650   | 142121       | 509703 | 409964 | 405637   |

### Notes:

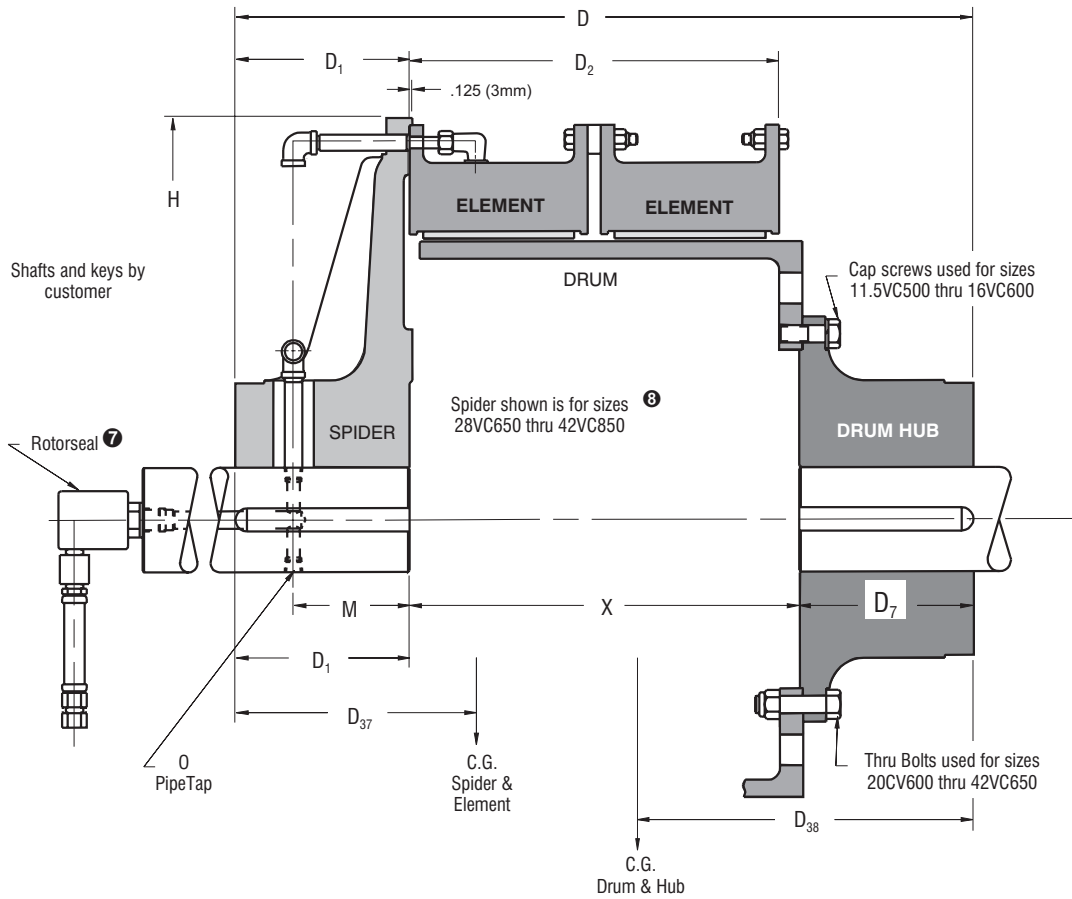
- ① Refers to basic part number only and does not include the rotorseal and hose. When ordering, the number and type of element connections must be specified.
- ② Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ③ Based upon minimum bores. Rotorseal and hose not included.
- ④  $M (in) = 0.268 (H/2 - \text{radius of bore}) + 0.34$   
 $M (mm) = 0,268 (H/2 - \text{radius of bore}) + 8,7$
- 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 VC Spider Piping and Configuration catalog page for other sizes.
- ⑨ Based upon minimum bores.
- ⑩ 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 508

Gap Mounted Arrangement – Dimensional Data  
Dual Narrow Sizes 11.5 to 42



| English          |                  | lb in<br>@ 75 psi     | lb ③           | Dimension in inches      |            |       |       |                |                |                |                 |                 |       |      |        |       |
|------------------|------------------|-----------------------|----------------|--------------------------|------------|-------|-------|----------------|----------------|----------------|-----------------|-----------------|-------|------|--------|-------|
| <b>11.5VC500</b> | 104610           | 54000                 | C2             | 394                      | 3.00       | 4.00  | 25.22 | 4.84           | 12.75          | 7.00           | 8.8             | 9.4             | 20.00 | ④    | ⑥      | 13.38 |
| <b>14VC500</b>   | 104611           | 78400                 | C2             | 559                      | 3.50       | 4.75  | 24.69 | 5.50           | 12.69          | 5.75           | 9.2             | 8.9             | 24.00 | 1.44 | 1/2-14 | 13.44 |
| <b>16VC600</b>   | 104612           | 130000                | C2             | 800                      | 4.25       | 6.00  | 27.94 | 5.50           | 15.19          | 6.50           | 9.6             | 9.7             | 26.00 | 4.00 | 1/2-14 | 15.94 |
| <b>20VC600</b>   | 104613           | 186000                | C2             | 1016                     | 4.75       | 6.00  | 29.94 | 7.00           | 15.19          | 7.00           | 10.2            | 9.7             | 30.00 | 5.00 | 1/2-14 | 15.94 |
| <b>24VC650</b>   | 104614           | 270000                | 3/4 RH         | 1413                     | 5.25       | 7.50  | 31.69 | 7.50           | 15.94          | 7.50           | 10.1            | 9.9             | 34.63 | 5.00 | 3/4-14 | 16.69 |
| <b>28VC650</b>   | 104615           | 364000                | 3/4 RH         | 1759                     | 5.75       | 8.50  | 32.69 | 8.00           | 15.94          | 8.00           | 10.7            | 11.0            | 38.63 | 5.00 | 3/4-14 | 16.69 |
| <b>33VC650</b>   | 104616           | 510000                | 1 RH           | 2488                     | 6.50       | 9.00  | 35.25 | 9.00           | 15.94          | 9.50           | 11.1            | 11.2            | 45.25 | 5.00 | 3/4-14 | 16.75 |
| <b>37VC650</b>   | 104617           | 640000                | 1 RH           | 2933                     | 7.00       | 9.50  | 36.75 | 10.00          | 15.94          | 10.00          | 11.8            | 11.5            | 49.25 | 6.00 | 3/4-14 | 16.75 |
| <b>42VC650</b>   | 104618           | 760000                | 1 1/4 RH       | 3405                     | 7.50       | 10.50 | 38.75 | 11.00          | 15.94          | 11.00          | 8.6             | 9.8             | 54.25 | 6.00 | 3/4-14 | 16.75 |
| Size             | ①<br>Part Number | ②<br>M. Torque Rating | Rotorseal Size | Weight<br>Mass           | Min.       | Max.  | D     | D <sub>1</sub> | D <sub>2</sub> | D <sub>7</sub> | D <sub>37</sub> | D <sub>38</sub> | H     | M    | ⑤<br>O | X     |
|                  |                  |                       |                |                          | Bore Range |       |       |                |                |                |                 |                 |       |      |        |       |
|                  |                  |                       |                |                          | Min.       | Max.  |       |                |                |                |                 |                 |       |      |        |       |
| <b>11.5VC500</b> | 104610           | 6100                  | C2             | 178                      | 76         | 102   | 641   | 123            | 324            | 178            | 224             | 239             | 508   | ④    | ⑥      | 340   |
| <b>14VC500</b>   | 104611           | 8860                  | C2             | 253                      | 89         | 121   | 627   | 140            | 322            | 146            | 234             | 226             | 610   | 37   | 1/2-14 | 341   |
| <b>16VC600</b>   | 104612           | 14700                 | C2             | 362                      | 108        | 152   | 710   | 140            | 386            | 165            | 244             | 246             | 660   | 102  | 1/2-14 | 405   |
| <b>20VC600</b>   | 104613           | 21000                 | C2             | 460                      | 121        | 152   | 760   | 178            | 386            | 178            | 259             | 246             | 762   | 127  | 1/2-14 | 405   |
| <b>24VC650</b>   | 104614           | 30500                 | 3/4 RH         | 640                      | 133        | 191   | 805   | 191            | 405            | 191            | 257             | 251             | 880   | 127  | 3/4-14 | 424   |
| <b>28VC650</b>   | 104615           | 41100                 | 3/4 RH         | 797                      | 146        | 216   | 830   | 203            | 405            | 203            | 272             | 279             | 981   | 127  | 3/4-14 | 424   |
| <b>33VC650</b>   | 104616           | 57600                 | 1 RH           | 1127                     | 165        | 229   | 895   | 229            | 405            | 241            | 282             | 284             | 1149  | 127  | 3/4-14 | 425   |
| <b>37VC650</b>   | 104617           | 72300                 | 1 RH           | 1329                     | 178        | 241   | 933   | 254            | 405            | 254            | 300             | 292             | 1251  | 152  | 3/4-14 | 425   |
| <b>42VC650</b>   | 104618           | 85900                 | 1 1/4 RH       | 1542                     | 191        | 267   | 984   | 279            | 405            | 279            | 218             | 249             | 1378  | 152  | 3/4-14 | 425   |
| SI               |                  | Nm<br>@ 5,2 bar       | Kg ③           | Dimension in millimeters |            |       |       |                |                |                |                 |                 |       |      |        |       |

| English  | lb   | lb ft <sup>2</sup> | lb   | lb ft <sup>2</sup> | lb   | lb ft <sup>2</sup> | lb   | lb ft <sup>2</sup> |
|----------|------|--------------------|------|--------------------|------|--------------------|------|--------------------|
| 14VC1000 | 213  | 127                | 205  | 79                 | 122  | 35                 | 70   | 5                  |
| 16VC1000 | 240  | 212                | 264  | 113                | 98   | 38                 | 97   | 9                  |
| 20VC1000 | 282  | 309                | 295  | 167                | 169  | 112                | 150  | 21                 |
| 24VC1000 | 378  | 552                | 408  | 285                | 225  | 192                | 215  | 44                 |
| 28VC1000 | 431  | 826                | 554  | 474                | 295  | 350                | 297  | 82                 |
| 32VC1000 | 624  | 1570               | 727  | 781                | 371  | 559                | 407  | 127                |
| 38VC1200 | 684  | 2330               | 1002 | 1502               | 552  | 1214               | 521  | 236                |
| 42VC1200 | 895  | 3670               | 1116 | 1868               | 582  | 1567               | 677  | 378                |
| 46VC1200 | 980  | 4830               | 1504 | 2968               | 729  | 2357               | 813  | 577                |
| 52VC1200 | 1192 | 7285               | 2579 | 5087               | 852  | 3552               | 1125 | 1000               |
| 51VC1600 | 1934 | 10580              | 2621 | 6706               | 890  | 4145               | 1475 | 1150               |
| 60VC1600 | 2450 | 20532              | 4096 | 13346              | 1640 | 8810               | 2526 | 3034               |
| 66VC1600 | 2630 | 24850              | 6500 | 19360              | 1905 | 15070              | 4940 | 6760               |

| Size     | Weight  |       | Wk <sup>2</sup> |       | Weight |       | Wk <sup>2</sup> |       | Weight |       | Wk <sup>2</sup> |       |
|----------|---------|-------|-----------------|-------|--------|-------|-----------------|-------|--------|-------|-----------------|-------|
|          | Element |       | Spider          |       | Drum   |       | Drum Hub        |       | Drum   |       | Drum Hub        |       |
|          | Mass    | J     | Mass            | J     | Mass   | J     | Mass            | J     | Mass   | J     | Mass            | J     |
| 14VC1000 | 96      | 5,33  | 93              | 3,32  | 55     | 1,47  | 32              | 0,21  | 55     | 1,47  | 32              | 0,21  |
| 16VC1000 | 109     | 8,90  | 120             | 4,75  | 44     | 1,60  | 44              | 0,38  | 44     | 1,60  | 44              | 0,38  |
| 20VC1000 | 128     | 12,98 | 134             | 7,01  | 77     | 4,70  | 68              | 0,88  | 77     | 4,70  | 68              | 0,88  |
| 24VC1000 | 171     | 23,18 | 185             | 11,97 | 102    | 8,06  | 97              | 1,85  | 102    | 8,06  | 97              | 1,85  |
| 28VC1000 | 195     | 34,69 | 251             | 19,97 | 134    | 14,70 | 135             | 3,44  | 134    | 14,70 | 135             | 3,44  |
| 32VC1000 | 283     | 65,94 | 329             | 32,80 | 168    | 23,48 | 184             | 5,33  | 168    | 23,48 | 184             | 5,33  |
| 38VC1200 | 310     | 97,86 | 454             | 63,08 | 250    | 50,99 | 236             | 9,91  | 250    | 50,99 | 236             | 9,91  |
| 42VC1200 | 405     | 154,1 | 506             | 78,46 | 264    | 65,81 | 307             | 15,88 | 264    | 65,81 | 307             | 15,88 |
| 46VC1200 | 444     | 202,9 | 681             | 124,7 | 330    | 98,99 | 368             | 24,23 | 330    | 98,99 | 368             | 24,23 |
| 52VC1200 | 540     | 306,0 | 1168            | 213,7 | 386    | 149,2 | 510             | 42,00 | 386    | 149,2 | 510             | 42,00 |
| 51VC1600 | 876     | 444,4 | 1187            | 281,7 | 403    | 174,1 | 668             | 48,30 | 403    | 174,1 | 668             | 48,30 |
| 60VC1600 | 1110    | 862,3 | 1855            | 560,5 | 743    | 370,0 | 1144            | 127,4 | 743    | 370,0 | 1144            | 127,4 |
| 66VC1600 | 1191    | 1044  | 2945            | 813,1 | 863    | 632,9 | 2238            | 283,9 | 863    | 632,9 | 2238            | 283,9 |

| SI | kg | kg m <sup>2</sup> | kg | kg m <sup>2</sup> | kg | kg m <sup>2</sup> | kg | kg m <sup>2</sup> |
|----|----|-------------------|----|-------------------|----|-------------------|----|-------------------|
|----|----|-------------------|----|-------------------|----|-------------------|----|-------------------|

| Size     | Part Numbers |        |        |          |
|----------|--------------|--------|--------|----------|
|          | Element      | Spider | Drum   | Drum Hub |
| 14VC1000 | 142838       | 508545 | 411111 | 411113   |
| 16VC1000 | 142821       | 505283 | 409506 | 407069   |
| 20VC1000 | 142832       | 509698 | 410087 | 407073   |
| 24VC1000 | 142675       | 509699 | 409794 | 405625   |
| 28VC1000 | 142674       | 509700 | 409537 | 405628   |
| 32VC1000 | 142673       | 509706 | 410824 | 405631   |
| 38VC1200 | 142739       | 509707 | 409474 | 405634   |
| 42VC1200 | 142677       | 509703 | 409947 | 405637   |
| 46VC1200 | 142671       | 509708 | 409980 | 405640   |
| 52VC1200 | 142841       | 509709 | 409715 | 407079   |
| 51VC1600 | 142835       | 509710 | 409711 | 408585   |
| 60VC1600 | 142915       | 509711 | 411501 | 411500   |
| 66VC1600 | 142097       | 514261 | 413727 | 413727   |

**Notes:**

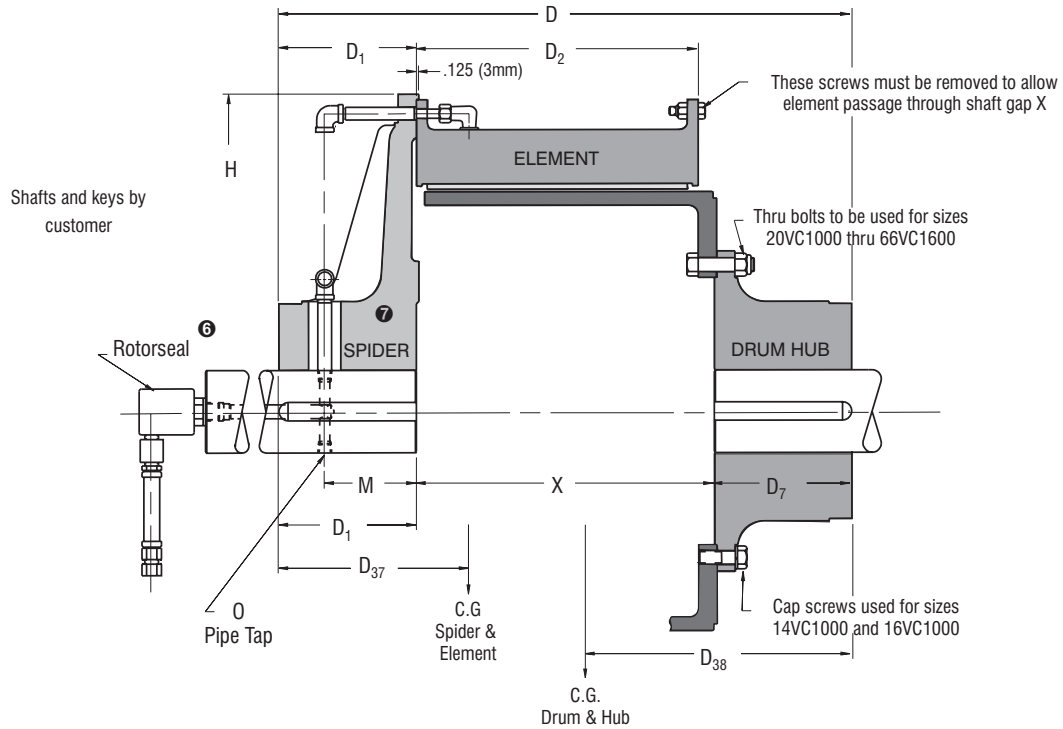
- ① Refers to basic part number only and does not include the rotor seal and hose. When ordering, the number and type of element connections must be specified.
- ② Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ③ Based upon minimum bores. Rotor seal and hose not included.
- ④ American National Pipe Thread
- ⑤ Spider is two piece construction consisting of a hub and adapter plate. D<sub>1</sub>, length thru bore is 20 in (508 mm). D<sub>2</sub>, length from hub face to element is 21.63 in (549 mm).
- ⑥ Refer to Rotor Seal Section for mounting and dimension information.
- ⑦ Spider shown used for the majority of element sizes. Refer to VC Spider Piping and Configuration catalog page.
- ⑧ Based upon minimum bores.
- ⑨ 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 509

Gap-Mounted Arrangement – Dimensional Data  
Wide Sizes 14 to 66



| English  |                | lb in<br>@ 75 psi                  | lb Ⓢ             | Dimensions in inches |                            |                            |       |                |                |                |                 |                 |       |      |          |       |
|----------|----------------|------------------------------------|------------------|----------------------|----------------------------|----------------------------|-------|----------------|----------------|----------------|-----------------|-----------------|-------|------|----------|-------|
| Size     | Part<br>Number | M <sub>t</sub><br>Torque<br>Rating | Rotoseal<br>Size | Weight<br>Mass       | Min.<br>Bore Range<br>Min. | Max.<br>Bore Range<br>Max. | D     | D <sub>1</sub> | D <sub>2</sub> | D <sub>7</sub> | D <sub>37</sub> | D <sub>38</sub> | H     | M    | O        | X     |
| 14VC1000 | 104979         | 85000                              | C2               | 610                  | 3.63                       | 5.00                       | 24.38 | 5.50           | 11.56          | 7.00           | 7.0             | 8.8             | 24.00 | 4.00 | 3/8-18   | 11.88 |
| 16VC1000 | 104680         | 114000                             | C2               | 699                  | 3.88                       | 6.00                       | 22.88 | 5.50           | 11.56          | 5.50           | 6.7             | 6.6             | 26.00 | 4.00 | 3/8-18   | 11.88 |
| 20VC1000 | 104681         | 161000                             | C2               | 896                  | 4.50                       | 6.25                       | 25.88 | 7.00           | 11.56          | 7.00           | 7.5             | 8.1             | 30.00 | 5.00 | 3/8-18   | 11.88 |
| 24VC1000 | 104682         | 219000                             | 3/4 RH           | 1226                 | 5.00                       | 8.00                       | 26.88 | 7.50           | 11.56          | 7.50           | 7.9             | 8.3             | 34.63 | 5.00 | 1/2-14   | 11.88 |
| 28VC1000 | 104683         | 296000                             | 3/4 RH           | 1577                 | 5.50                       | 8.50                       | 27.88 | 8.00           | 11.56          | 8.00           | 8.0             | 8.7             | 38.63 | 5.00 | 1/2-14   | 11.88 |
| 32VC1000 | 104684         | 415000                             | 1 RH             | 2129                 | 6.00                       | 9.00                       | 30.44 | 9.00           | 11.63          | 9.50           | 9.1             | 9.6             | 44.50 | 5.00 | 1/2-14   | 11.94 |
| 38VC1200 | 104685         | 680000                             | 1 1/4 RH         | 2759                 | 7.25                       | 9.25                       | 34.13 | 10.00          | 13.75          | 10.00          | 9.5             | 10.6            | 50.00 | 6.00 | 1/2-14   | 14.13 |
| 42VC1200 | 104686         | 819000                             | 1 1/4 RH         | 3270                 | 7.50                       | 10.00                      | 36.13 | 11.00          | 13.75          | 11.00          | 10.6            | 11.0            | 54.25 | 6.00 | 1/2-14   | 14.13 |
| 46VC1200 | 104687         | 950000                             | 1 1/2 RH         | 4026                 | 8.00                       | 10.00                      | 36.13 | 11.00          | 13.75          | 11.00          | 10.0            | 11.3            | 61.00 | 6.00 | 1/2-14   | 14.13 |
| 52VC1200 | 104688         | 1215000                            | 1 1/2 RH         | 5748                 | 8.75                       | 11.00                      | 39.63 | 12.50          | 14.25          | 12.50          | 10.3            | 12.3            | 67.75 | 7.00 | 3/4-14   | 14.63 |
| 51VC1600 | 104689         | 1610000                            | 1 1/2 RH         | 6920                 | 9.50                       | 12.50                      | 48.88 | 15.00          | 18.25          | 15.00          | 13.9            | 14.3            | 67.75 | 7.00 | 3/4-14   | 18.88 |
| 60VC1600 | 104690         | 2183000                            | 1 1/2 RH         | 10750                | 10.50                      | 18.00                      | 50.75 | 16.00          | 18.50          | 16.00          | 14.2            | 15.2            | 77.75 | 7.00 | 1-11 1/2 | 18.75 |
| 66VC1600 |                | 2800000                            | 1 1/2 RH         | 16200                | 11.25                      | 18.50                      | 60.25 | Ⓢ              | 18.50          | 20.00          | 18.4            | 15.3            | 82.50 | 9.00 | 1-11 1/2 | 20.25 |

| SI       |        | N m<br>@ 5,2 bar | kg Ⓢ | Dimensions in millimeters |     |      |     |     |     |     |     |      |     |          |     |
|----------|--------|------------------|------|---------------------------|-----|------|-----|-----|-----|-----|-----|------|-----|----------|-----|
| 14VC1000 | 104979 | 9610             | 276  | 92                        | 127 | 619  | 140 | 294 | 178 | 178 | 224 | 610  | 102 | 3/8-18   | 302 |
| 16VC1000 | 104680 | 12900            | 317  | 99                        | 152 | 581  | 140 | 294 | 140 | 170 | 168 | 660  | 102 | 3/8-18   | 302 |
| 20VC1000 | 104681 | 18200            | 406  | 114                       | 159 | 657  | 178 | 294 | 178 | 191 | 206 | 762  | 127 | 3/8-18   | 302 |
| 24VC1000 | 104682 | 24700            | 555  | 127                       | 203 | 683  | 191 | 294 | 191 | 201 | 211 | 880  | 127 | 1/2-14   | 302 |
| 28VC1000 | 104683 | 33400            | 714  | 140                       | 216 | 708  | 203 | 294 | 203 | 203 | 221 | 981  | 127 | 1/2-14   | 302 |
| 32VC1000 | 104684 | 46900            | 964  | 152                       | 229 | 773  | 229 | 295 | 241 | 231 | 244 | 1130 | 127 | 1/2-14   | 303 |
| 38VC1200 | 104685 | 76800            | 1250 | 184                       | 235 | 867  | 254 | 349 | 254 | 241 | 269 | 1270 | 152 | 1/2-14   | 359 |
| 42VC1200 | 104686 | 92500            | 1481 | 191                       | 254 | 918  | 279 | 349 | 279 | 269 | 279 | 1378 | 152 | 1/2-14   | 359 |
| 46VC1200 | 104687 | 107000           | 1824 | 203                       | 254 | 918  | 279 | 349 | 279 | 254 | 287 | 1549 | 152 | 1/2-14   | 359 |
| 52VC1200 | 104688 | 137000           | 2604 | 222                       | 279 | 1007 | 318 | 362 | 318 | 262 | 312 | 1721 | 178 | 3/4-14   | 372 |
| 51VC1600 | 104689 | 182000           | 3135 | 241                       | 318 | 1242 | 381 | 464 | 381 | 353 | 363 | 1721 | 178 | 3/4-14   | 480 |
| 60VC1600 | 104690 | 247000           | 4870 | 267                       | 457 | 1289 | 406 | 470 | 406 | 361 | 386 | 1975 | 178 | 1-11 1/2 | 476 |
| 66VC1600 |        | 316000           | 7339 | 286                       | 470 | 1530 | Ⓢ   | 470 | 508 | 467 | 389 | 2096 | 229 | 1-11 1/2 | 514 |

# Airflex<sup>®</sup> VC Clutch Application



Form VC 510

Gap-Mounted Arrangement – Technical Data  
Dual Wide Sizes 16 to 66

| English  | lb      | lb ft <sup>2</sup> | lb              | lb ft <sup>2</sup> | lb        | lb ft <sup>2</sup> | lb              | lb ft <sup>2</sup> | lb       | lb ft <sup>2</sup> |                 |                   |
|----------|---------|--------------------|-----------------|--------------------|-----------|--------------------|-----------------|--------------------|----------|--------------------|-----------------|-------------------|
| 16VC1000 | 430     | 380                | 264             | 113                | 98        | 38                 | 94              | 37                 | 199      | 19                 |                 |                   |
| 20VC1000 | 568     | 618                | 333             | 197                | 169       | 112                | 164             | 109                | 203      | 32                 |                 |                   |
| 24VC1000 | 756     | 1104               | 442             | 312                | 225       | 192                | 215             | 186                | 271      | 50                 |                 |                   |
| 28VC1000 | 862     | 1652               | 680             | 597                | 295       | 350                | 282             | 338                | 370      | 99                 |                 |                   |
| 32VC1000 | 1248    | 3140               | 967             | 932                | 371       | 559                | 352             | 537                | 574      | 185                |                 |                   |
| 38VC1200 | 1368    | 4660               | 1350            | 1625               | 552       | 1214               | 530             | 1173               | 806      | 368                |                 |                   |
| 42VC1200 | 1790    | 7340               | 1763            | 2445               | 582       | 1567               | 550             | 1510               | 1233     | 653                |                 |                   |
| 46VC1200 | 1960    | 9660               | 1855            | 3577               | 729       | 2357               | 700             | 2276               | 1316     | 856                |                 |                   |
| 52VC1200 | 2384    | 14570              | 2854            | 5277               | 852       | 3552               | 820             | 3425               | 1803     | 1514               |                 |                   |
| 51VC1600 | 3868    | 21160              | 3640            | 7610               | 890       | 4145               | 860             | 4035               | 2303     | 1993               |                 |                   |
| 60VC1600 | 4900    | 41064              | 5402            | 14489              | 1640      | 8810               | 1590            | 8575               | 4143     | 4967               |                 |                   |
| 66VC1600 | 5260    | 49700              | 7200            | 23300              | 1905      | 15070              | 1770            | 14340              | 6450     | 9140               |                 |                   |
| Size     | Weight  |                    | Wk <sup>2</sup> |                    | Weight    |                    | Wk <sup>2</sup> |                    | Weight   |                    | Wk <sup>2</sup> |                   |
|          | Element |                    | Spider          |                    | Male Drum |                    | Female Drum     |                    | Drum Hub |                    |                 |                   |
|          | Mass    | J                  | Mass            | J                  | Mass      | J                  | Mass            | J                  | Mass     | J                  | Mass            | J                 |
| 16VC1000 | 195     | 15,96              | 120             | 4,75               | 44        | 1,60               | 43              | 1,55               | 90       | 0,80               |                 |                   |
| 20VC1000 | 257     | 25,96              | 151             | 8,27               | 77        | 4,70               | 74              | 4,58               | 92       | 1,34               |                 |                   |
| 24VC1000 | 342     | 46,37              | 200             | 13,10              | 102       | 8,06               | 97              | 7,81               | 123      | 2,10               |                 |                   |
| 28VC1000 | 390     | 69,38              | 308             | 25,07              | 134       | 14,70              | 128             | 14,20              | 168      | 4,16               |                 |                   |
| 32VC1000 | 565     | 131,9              | 438             | 39,14              | 168       | 23,48              | 159             | 22,55              | 260      | 7,77               |                 |                   |
| 38VC1200 | 620     | 195,7              | 612             | 68,25              | 250       | 50,99              | 240             | 49,27              | 365      | 15,46              |                 |                   |
| 42VC1200 | 811     | 308,3              | 799             | 102,7              | 264       | 65,81              | 249             | 63,42              | 559      | 27,43              |                 |                   |
| 46VC1200 | 888     | 405,7              | 840             | 150,2              | 330       | 98,99              | 317             | 95,59              | 596      | 35,95              |                 |                   |
| 52VC1200 | 1080    | 611,9              | 1293            | 221,6              | 386       | 149,2              | 371             | 143,9              | 817      | 63,59              |                 |                   |
| 51VC1600 | 1752    | 888,7              | 1649            | 319,6              | 403       | 174,1              | 390             | 169,5              | 1043     | 83,71              |                 |                   |
| 60VC1600 | 2220    | 1725               | 2447            | 608,5              | 743       | 370,0              | 720             | 360,2              | 1877     | 208,6              |                 |                   |
| 66VC1600 | 2383    | 2087               | 3265            | 978                | 863       | 632,9              | 802             | 602,3              | 2922     | 383,9              |                 |                   |
| SI       | kg      | kg m <sup>2</sup>  | kg              | kg m <sup>2</sup>  | kg        | kg m <sup>2</sup>  | kg              | kg m <sup>2</sup>  | kg       | kg m <sup>2</sup>  | kg              | kg m <sup>2</sup> |

| Size     | Part Number |          |           |             |          |
|----------|-------------|----------|-----------|-------------|----------|
|          | Element ③   | Spider   | Male Drum | Female Drum | Drum Hub |
| 16VC1000 | 142122      | 505284   | 412589    | 412590      | 407072   |
| 20VC1000 | 142123      | 509693   | 410087    | 410088      | 407075   |
| 24VC1000 | 142124      | 509694   | 409794    | 409795      | 407077   |
| 28VC1000 | 142125      | 509695   | 409537    | 409538      | 408031   |
| 32VC1000 | 142126      | 509696   | 410824    | 410825      | 407082   |
| 38VC1200 | 142127      | 509646   | 409474    | 409475      | 406841   |
| 42VC1200 | 142128      | 509647   | 409947    | 409948      | 410990   |
| 46VC1200 | 142129      | 509691   | 409980    | 409981      | 408001   |
| 52VC1200 | 142131      | 509648   | 409715    | 409716      | 407876   |
| 51VC1600 | 142130      | 509649   | 409711    | 409712      | 408586   |
| 60VC1600 | 142132      | 509692   | 411501    | 411502      | 411691   |
| 66VC1600 | 142198      | 514261 ⑩ | 413727    | 413726      | 413725   |

## Notes:

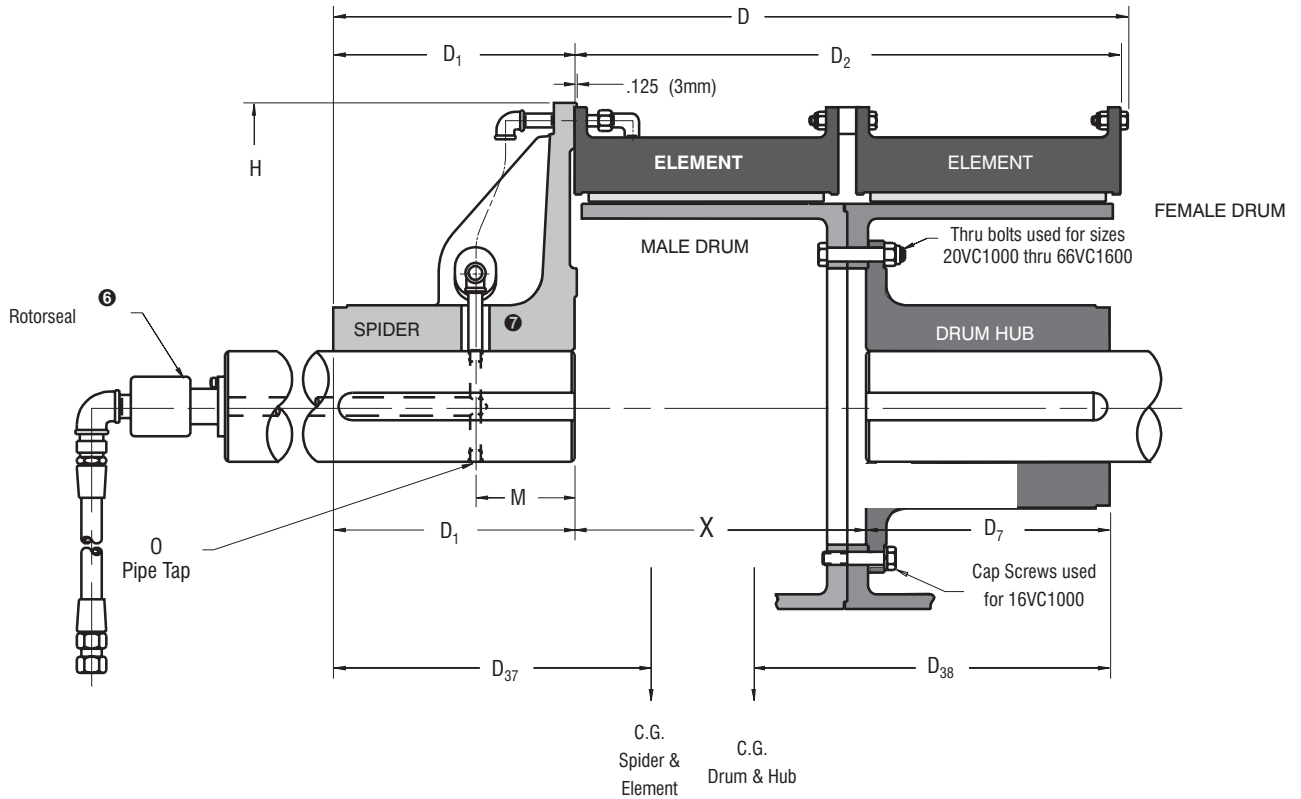
- ① Refers to basic part number only and does not include the rotor seal and hose. When ordering, the number and type of element connections must be specified.
- ② Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ③ Based upon minimum bores. Rotor seal and hose not included.
- ④ American National Pipe Thread
- ⑤ Spider is two piece construction consisting of a hub and adapter plate. D<sub>1</sub>, length thru bore is 24 in. (610 mm). D<sub>1</sub>, length from hub face to element is 25.38 in. (645 mm).
- ⑥ Refer to Rotor seal Section for mounting and dimension information.
- ⑦ Spider shown used for the majority of element sizes. Refer to VC Spider Piping and Configuration catalog page.
- ⑧ Based upon minimum bores.
- ⑨ Refers to basic part number only. When ordering, the number of air inlets and type of connection must be specified.
- ⑩ Former two piece version of the spider consisted of hub 413724 and adapter 510767.

# Airflex® VC Clutch Application



Form VC 510

Gap-Mounted Arrangement – Dimensional Data  
Dual Wide Sizes 16 to 66



| English  |                  | lb in<br>@ 75 psi        | lb ③             | Dimensions in inches |                           |       |       |                |                |                |                 |                 |       |      |              |       |
|----------|------------------|--------------------------|------------------|----------------------|---------------------------|-------|-------|----------------|----------------|----------------|-----------------|-----------------|-------|------|--------------|-------|
| Size     | Part<br>Number   | M. ②<br>Torque<br>Rating | Rotoseal<br>Size | Weight<br>Mass       | Min.                      | Max.  | 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     |
|          |                  |                          |                  |                      | Bore Range                |       |       |                |                |                |                 |                 |       |      |              |       |
|          |                  |                          |                  |                      | Min.                      | Max.  |       |                |                |                |                 |                 |       |      |              |       |
| 16VC1000 | 104720           | 228000                   | 3/4 RH           | 1085                 | 5.00                      | 6.00  | 32.00 | 8.00           | 23.69          | 10.00          | 14.0            | 13.8            | 26.00 | 4.00 | 1/2-14       | 12.75 |
| 20VC1000 | 104721           | 322000                   | 1 RH             | 1440                 | 5.50                      | 6.50  | 33.59 | 9.50           | 23.69          | 9.50           | 15.3            | 14.8            | 30.00 | 5.00 | 1/2-14       | 12.75 |
| 24VC1000 | 104722           | 438000                   | 1 RH             | 1910                 | 6.25                      | 7.25  | 33.39 | 9.31           | 23.69          | 9.50           | 15.1            | 15.0            | 34.63 | 5.00 | 3/4-14       | 12.75 |
| 28VC1000 | 104723           | 592000                   | 1 1/4 RH         | 2490                 | 6.75                      | 8.00  | 34.08 | 10.00          | 23.69          | 10.00          | 14.5            | 15.3            | 38.63 | 5.00 | 3/4-14       | 12.75 |
| 32VC1000 | 104724           | 830000                   | 1 1/4 RH         | 3510                 | 7.75                      | 10.50 | 36.20 | 12.00          | 23.81          | 12.00          | 16.5            | 15.9            | 44.50 | 5.00 | 3/4-14       | 12.81 |
| 38VC1200 | 104725           | 1360000                  | 1 1/2 RH         | 4610                 | 9.00                      | 11.00 | 41.53 | 13.00          | 28.06          | 13.00          | 17.0            | 18.0            | 50.00 | 6.00 | 3/4-14       | 15.00 |
| 42VC1200 | 104726           | 1638000                  | 1 1/2 RH         | 5920                 | 9.50                      | 11.75 | 45.53 | 17.00          | 28.06          | 17.00          | 20.0            | 19.7            | 54.25 | 6.00 | 3/4-14       | 15.13 |
| 46VC1200 | 104727           | 1900000                  | 1 1/2 RH         | 6560                 | 10.00                     | 12.50 | 45.61 | 17.00          | 28.06          | 17.00          | 20.3            | 20.8            | 61.00 | 6.00 | 3/4-14       | 15.25 |
| 52VC1200 | 104728           | 2430000                  | 1 1/2 RH         | 8715                 | 10.75                     | 14.00 | 46.61 | 17.00          | 29.06          | 17.00          | 19.5            | 19.9            | 67.75 | 7.00 | 1-11 1/2     | 15.75 |
| 51VC1600 | 104729           | 3220000                  | 1 1/2 RH         | 11560                | 12.00                     | 15.50 | 57.61 | 20.00          | 37.06          | 20.00          | 27.0            | 23.0            | 67.75 | 7.00 | 1-11 1/2     | 20.00 |
| 60VC1600 | 104730           | 4366000                  | 1 1/2 RH         | 17675                | 13.25                     | 20.00 | 62.17 | 24.00          | 37.56          | 24.00          | 27.8            | 26.0            | 77.75 | 7.00 | 1 1/4-11 1/2 | 20.38 |
| 66VC1600 | 106981           | 5600000                  | 1 1/2 RH         | 22960                | 15.00                     | 22.00 | 69.16 | ⑤              | 37.00          | 30.00          | 31.5            | 22.0            | 82.50 | 9.00 | 1 1/4-11 1/2 | 22.00 |
| Size     | Part<br>Number   | M. ②<br>Torque<br>Rating | Rotoseal<br>Size | Weight<br>Mass       | Min.                      | Max.  | 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     |
| 16VC1000 | 104720           | 25800                    | 3/4 RH           | 492                  | 127                       | 152   | 813   | 203            | 602            | 254            | 356             | 351             | 660   | 102  | 1/2-14       | 324   |
| 20VC1000 | 104721           | 36400                    | 1 RH             | 652                  | 140                       | 165   | 853   | 241            | 602            | 241            | 389             | 376             | 762   | 127  | 1/2-14       | 324   |
| 24VC1000 | 104722           | 49500                    | 1 RH             | 865                  | 159                       | 184   | 848   | 236            | 602            | 241            | 384             | 381             | 880   | 127  | 3/4-14       | 324   |
| 28VC1000 | 104723           | 66900                    | 1 1/4 RH         | 1128                 | 171                       | 203   | 866   | 254            | 602            | 254            | 368             | 389             | 981   | 127  | 3/4-14       | 324   |
| 32VC1000 | 104724           | 93800                    | 1 1/4 RH         | 1590                 | 197                       | 267   | 919   | 305            | 605            | 305            | 419             | 404             | 1130  | 127  | 3/4-14       | 325   |
| 38VC1200 | 104725           | 154000                   | 1 1/2 RH         | 2088                 | 229                       | 279   | 1055  | 330            | 713            | 330            | 432             | 457             | 1270  | 152  | 3/4-14       | 381   |
| 42VC1200 | 104726           | 185000                   | 1 1/2 RH         | 2682                 | 241                       | 298   | 1156  | 432            | 713            | 432            | 508             | 500             | 1378  | 152  | 3/4-14       | 384   |
| 46VC1200 | 104727           | 215000                   | 1 1/2 RH         | 2972                 | 254                       | 318   | 1158  | 432            | 713            | 432            | 516             | 528             | 1549  | 152  | 3/4-14       | 387   |
| 52VC1200 | 104728           | 275000                   | 1 1/2 RH         | 3948                 | 273                       | 356   | 1184  | 432            | 738            | 432            | 495             | 505             | 1721  | 178  | 1-11 1/2     | 400   |
| 51VC1600 | 104729           | 364000                   | 1 1/2 RH         | 5237                 | 305                       | 394   | 1463  | 508            | 941            | 508            | 686             | 584             | 1721  | 178  | 1-11 1/2     | 508   |
| 60VC1600 | 104730           | 493000                   | 1 1/2 RH         | 8007                 | 337                       | 508   | 1579  | 610            | 954            | 610            | 706             | 660             | 1975  | 178  | 1 1/4-11 1/2 | 518   |
| 66VC1600 | 106981           | 633000                   | 1 1/2 RH         | 10401                | 381                       | 559   | 1757  | ⑤              | 940            | 762            | 800             | 559             | 2096  | 229  | 1 1/4-11 1/2 | 559   |
| SI       | N m<br>@ 5.2 bar |                          | kg ③             |                      | Dimensions in millimeters |       |       |                |                |                |                 |                 |       |      |              |       |



| English ④        | lb      | lb ft <sup>2</sup> | lb     | lb ft <sup>2</sup> | lb       | lb ft <sup>2</sup> | lb         | lb ft <sup>2</sup> |
|------------------|---------|--------------------|--------|--------------------|----------|--------------------|------------|--------------------|
| <b>11.5VC500</b> | 96      | 43                 | 46     | 9                  | 35       | 2                  | 2          | 0.3                |
| <b>14VC500</b>   | 128     | 78                 | 66     | 19                 | 65       | 4                  | 6          | 1.3                |
| <b>16VC600</b>   | 151     | 115                | 94     | 35                 | 62       | 4                  | 14         | 10.3               |
| <b>20VC600</b>   | 179     | 193                | 139    | 78                 | 95       | 9                  | 15         | 16                 |
| <b>24VC650</b>   | 246     | 369                | 178    | 148                | 124      | 19                 | 19         | 25                 |
| <b>28VC650</b>   | 280     | 537                | 231    | 269                | 240      | 59                 | 20         | 32                 |
| <b>33VC650</b>   | 392     | 1083               | 312    | 486                | 347      | 93                 | 19         | 42                 |
| <b>37VC650</b>   | 433     | 1400               | 340    | 691                | 398      | 159                | 23         | 56                 |
| <b>42VC650</b>   | 485     | 1990               | 424    | 1100               | 545      | 243                | 24         | 66                 |
| Size             | Weight  |                    | Weight |                    | Weight   |                    | Weight     |                    |
|                  | Element |                    | Drum   |                    | Drum Hub |                    | Air Bridge |                    |
|                  | Mass    | J                  | Mass   | J                  | Mass     | J                  | Mass       | J                  |
| <b>11.5VC500</b> | 43      | 1.81               | 21     | 0.38               | 16       | 0.08               | 1          | 0.01               |
| <b>14VC500</b>   | 58      | 3.28               | 30     | 0.80               | 29       | 0.17               | 3          | 0.05               |
| <b>16VC600</b>   | 68      | 4.83               | 43     | 1.47               | 28       | 0.17               | 6          | 0.43               |
| <b>20VC600</b>   | 81      | 8.11               | 63     | 3.28               | 43       | 0.38               | 7          | 0.67               |
| <b>24VC650</b>   | 111     | 15.50              | 81     | 6.22               | 56       | 0.80               | 9          | 1.05               |
| <b>28VC650</b>   | 127     | 22.55              | 105    | 11.30              | 109      | 2.48               | 9          | 1.34               |
| <b>33VC650</b>   | 178     | 45.49              | 141    | 20.41              | 157      | 3.91               | 9          | 1.76               |
| <b>37VC650</b>   | 196     | 58.80              | 154    | 29.02              | 180      | 6.68               | 10         | 2.35               |
| <b>42VC650</b>   | 220     | 83.58              | 192    | 46.20              | 247      | 10.21              | 11         | 2.77               |
| SI ④             | kg      | kg m <sup>2</sup>  | kg     | kg m <sup>2</sup>  | kg       | kg m <sup>2</sup>  | kg         | kg m <sup>2</sup>  |

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

**Notes:**

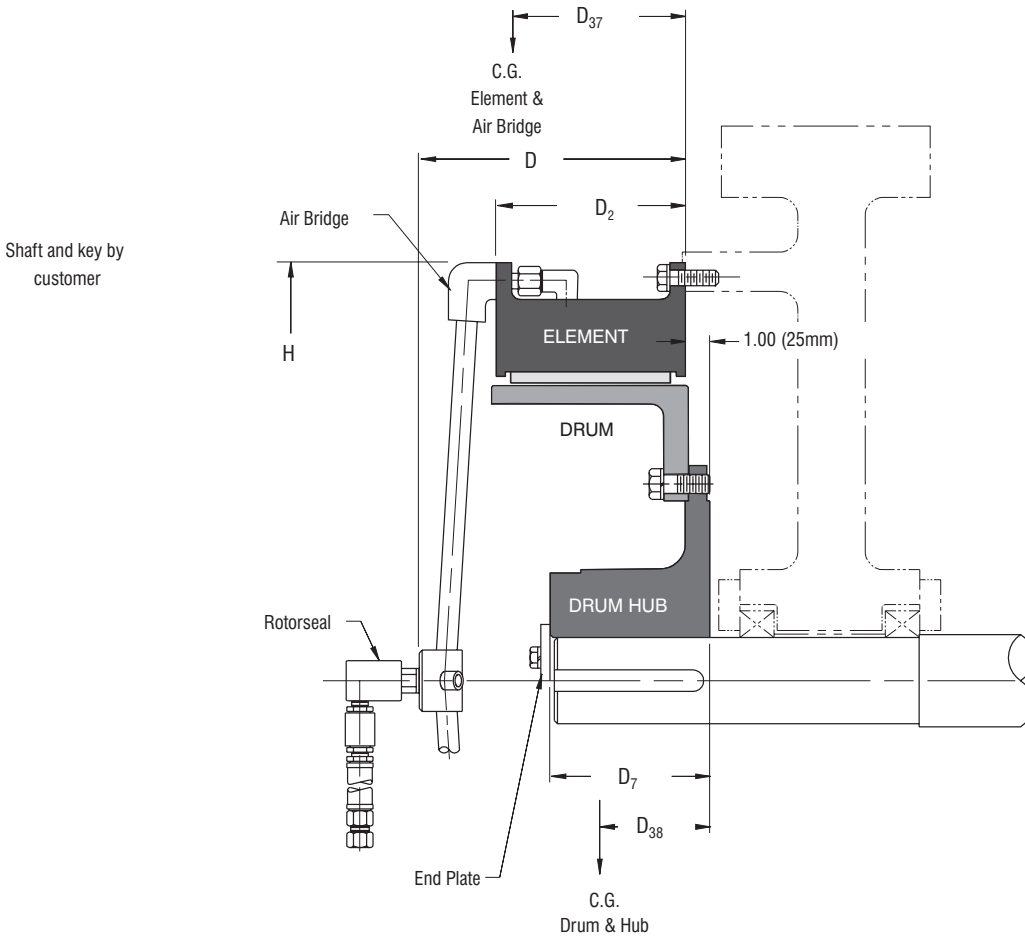
- ① Refers to basic part number only and does not include the rotorseal and hose. When ordering, the number and type of element connections must be specified.
- ② Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ③ Based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



| English          |               | lb-in<br>@ 75 psi              | Lb Ⓢ           | Dimensions in inches      |            |       |       |                |                |                 |                 |       |
|------------------|---------------|--------------------------------|----------------|---------------------------|------------|-------|-------|----------------|----------------|-----------------|-----------------|-------|
| <b>11.5VC500</b> | 107040        | 27000                          | B3             | 183                       | 2.50       | 4.13  | 10.13 | 6.13           | 5.00           | 3.2             | 2.9             | 19.63 |
| <b>14VC500</b>   | 107041        | 39200                          | C2             | 266                       | 2.75       | 5.00  | 9.75  | 6.13           | 5.75           | 3.3             | 3.3             | 23.50 |
| <b>16VC600</b>   | 107042        | 65000                          | C2             | 327                       | 3.25       | 5.00  | 11.06 | 7.38           | 5.75           | 4.2             | 3.4             | 25.50 |
| <b>20VC600</b>   | 107043        | 93000                          | C2             | 434                       | 3.75       | 5.50  | 11.19 | 7.38           | 6.50           | 4.0             | 3.4             | 29.50 |
| <b>24VC650</b>   | 107044        | 135000                         | C2             | 608                       | 4.25       | 6.00  | 11.81 | 7.69           | 6.50           | 4.3             | 3.0             | 34.00 |
| <b>28VC650</b>   | 107045        | 182000                         | C2             | 742                       | 4.75       | 8.00  | 11.94 | 7.69           | 8.00           | 4.2             | 3.2             | 38.00 |
| <b>33VC650</b>   | 107046        | 255000                         | 3/4 RH         | 1004                      | 5.25       | 9.50  | 11.97 | 7.69           | 9.00           | 4.1             | 3.3             | 44.63 |
| <b>37VC650</b>   | 107047        | 320000                         | 3/4 RH         | 1128                      | 5.50       | 9.50  | 12.25 | 7.69           | 9.00           | 4.2             | 3.2             | 48.63 |
| <b>42VC650</b>   | 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 ① | M <sub>t</sub> Torque Rating ② | Rotorseal Size | Weight Mass               | Min.       | Max.  | D     | D <sub>2</sub> | D <sub>7</sub> | D <sub>37</sub> | D <sub>38</sub> | H     |
|                  |               |                                |                |                           | Bore Range |       |       |                |                |                 |                 |       |
|                  |               |                                |                |                           | Min.       | Max.  |       |                |                |                 |                 |       |
| <b>11.5VC500</b> | 107040        | 3050                           | B3             | 83                        | 64         | 105   | 257   | 156            | 127            | 81              | 74              | 499   |
| <b>14VC500</b>   | 107041        | 4430                           | C2             | 120                       | 70         | 127   | 248   | 156            | 146            | 84              | 84              | 597   |
| <b>16VC600</b>   | 107042        | 7350                           | C2             | 148                       | 83         | 127   | 281   | 187            | 146            | 107             | 86              | 648   |
| <b>20VC600</b>   | 107043        | 10500                          | C2             | 197                       | 95         | 140   | 284   | 187            | 165            | 102             | 86              | 749   |
| <b>24VC650</b>   | 107044        | 15300                          | C2             | 275                       | 108        | 152   | 300   | 195            | 165            | 109             | 76              | 864   |
| <b>28VC650</b>   | 107045        | 20600                          | C2             | 336                       | 121        | 203   | 303   | 195            | 203            | 107             | 81              | 965   |
| <b>33VC650</b>   | 107046        | 28800                          | 3/4 RH         | 455                       | 133        | 241   | 304   | 195            | 229            | 104             | 84              | 1134  |
| <b>37VC650</b>   | 107047        | 36200                          | 3/4 RH         | 511                       | 140        | 241   | 311   | 195            | 229            | 107             | 81              | 1235  |
| <b>42VC650</b>   | 107048        | 42900                          | 3/4 RH         | 653                       | 152        | 267   | 315   | 195            | 254            | 104             | 86              | 1362  |
| SI               |               | Nm<br>@ 5,2 bar                | Kg Ⓢ           | Dimensions in millimeters |            |       |       |                |                |                 |                 |       |

| English ⑨        | lb      | lb.ft <sup>2</sup> | lb     | lb.ft <sup>2</sup> | lb     | lb.ft <sup>2</sup> | lb       | lb.ft <sup>2</sup> |
|------------------|---------|--------------------|--------|--------------------|--------|--------------------|----------|--------------------|
| <b>11.5VC500</b> | 96      | 43                 | 70     | 19                 | 83     | 16                 | 35       | 2                  |
| <b>14VC500</b>   | 128     | 78                 | 102    | 35                 | 139    | 40                 | 65       | 4                  |
| <b>16VC600</b>   | 151     | 115                | 139    | 50                 | 175    | 66                 | 62       | 4                  |
| <b>20VC600</b>   | 179     | 193                | 224    | 122                | 234    | 138                | 95       | 9                  |
| <b>24VC650</b>   | 246     | 369                | 260    | 174                | 293    | 258                | 124      | 19                 |
| <b>28VC650</b>   | 280     | 537                | 514    | 534                | 348    | 472                | 240      | 59                 |
| <b>33VC650</b>   | 392     | 1083               | 716    | 811                | 507    | 827                | 347      | 93                 |
| <b>37VC650</b>   | 433     | 1400               | 940    | 1404               | 553    | 1172               | 398      | 159                |
| <b>42VC650</b>   | 485     | 1990               | 1284   | 2106               | 662    | 1809               | 545      | 243                |
| Size             | Weight  | Wk <sup>2</sup>    | Weight | Wk <sup>2</sup>    | Weight | Wk <sup>2</sup>    | Weight   | Wk <sup>2</sup>    |
|                  | Element |                    | Spider |                    | Drum   |                    | Drum Hub |                    |
|                  | Mass    | J                  | Mass   | J                  | Mass   | J                  | Mass     | J                  |
| <b>11.5VC500</b> | 43      | 1,81               | 32     | 0,80               | 38     | 0,67               | 16       | 0,08               |
| <b>14VC500</b>   | 58      | 3,28               | 46     | 1,47               | 63     | 1,68               | 29       | 0,17               |
| <b>16VC600</b>   | 68      | 4,83               | 63     | 2,10               | 79     | 2,77               | 28       | 0,17               |
| <b>20VC600</b>   | 81      | 8,11               | 101    | 5,12               | 106    | 5,80               | 43       | 0,38               |
| <b>24VC650</b>   | 111     | 15,50              | 118    | 7,31               | 133    | 10,84              | 56       | 0,80               |
| <b>28VC650</b>   | 127     | 22,55              | 233    | 22,43              | 158    | 19,82              | 109      | 2,48               |
| <b>33VC650</b>   | 178     | 45,49              | 324    | 34,06              | 230    | 34,73              | 157      | 3,91               |
| <b>37VC650</b>   | 196     | 58,80              | 426    | 58,97              | 251    | 49,22              | 180      | 6,68               |
| <b>42VC650</b>   | 220     | 83,58              | 582    | 88,45              | 300    | 75,98              | 247      | 10,21              |
| SI ⑨             | kg      | kg.m <sup>2</sup>  | kg     | kg.m <sup>2</sup>  | kg     | kg.m <sup>2</sup>  | kg       | kg.m <sup>2</sup>  |

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

## Notes:

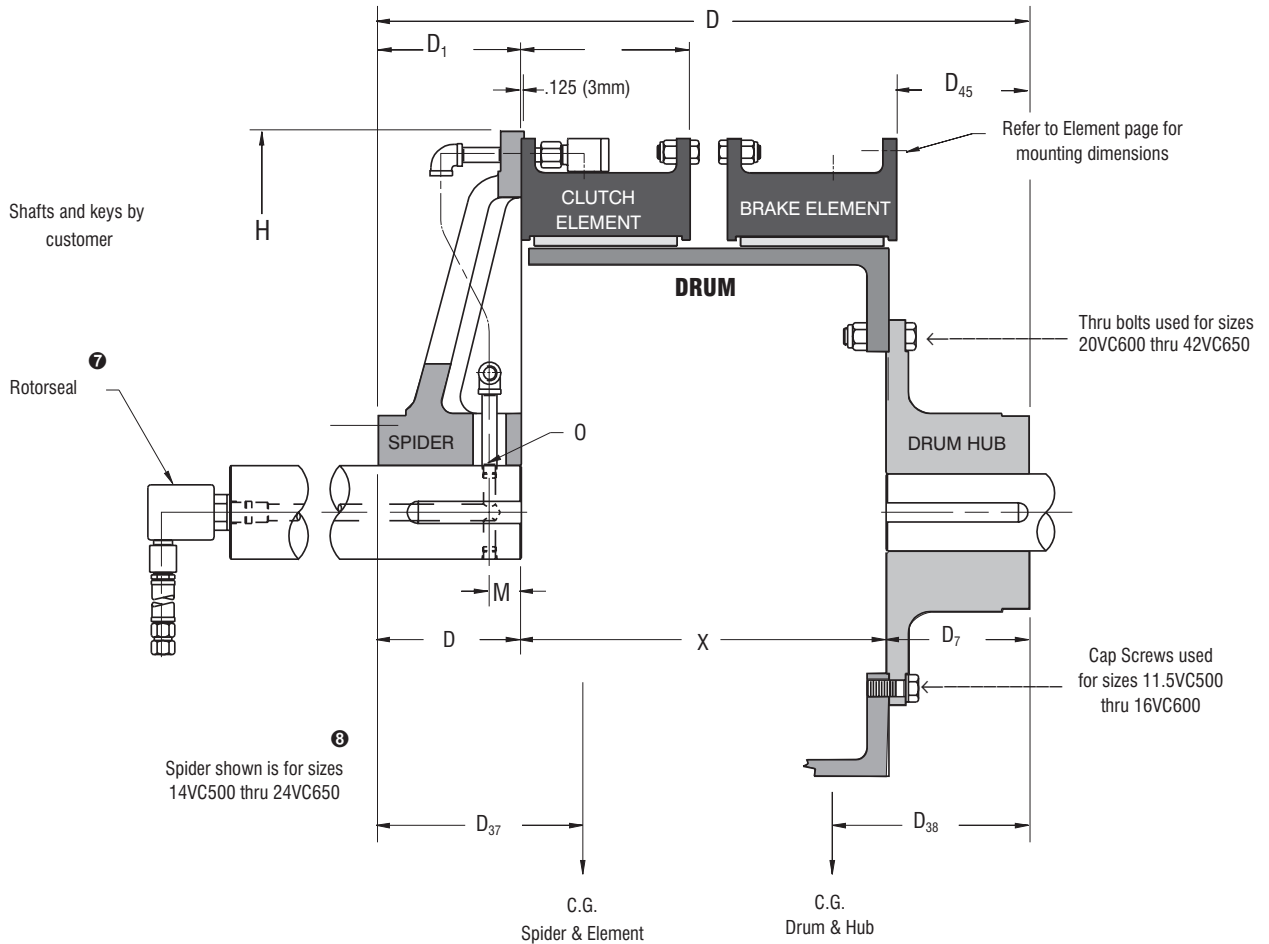
- ① Refers to basic part number only and does not include the rotorseal and hose. When ordering, the number and type of element connections must be specified.
- ② Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ③ Based upon minimum bores. Rotorseal and hose not included.
- ④  $M \text{ (in)} = 0.268 \text{ (H/2-radius of bore)} + 0.34$   
 $M \text{ (mm)} = 0.268 \text{ (H/2-radius of bore)} + 8,7$
- 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 VC Spider Piping and Configuration catalog page for other sizes.
- ⑨ Based upon minimum bores.
- ⑩ Refers to basic part number only. When ordering, the number of air inlets and type of connection must be specified.

# Airflex® VC Clutch/Brake Application



Form VC 532

Gap-Mounted Arrangement – Dimensional Data  
Narrow Sizes 11.5 to 42



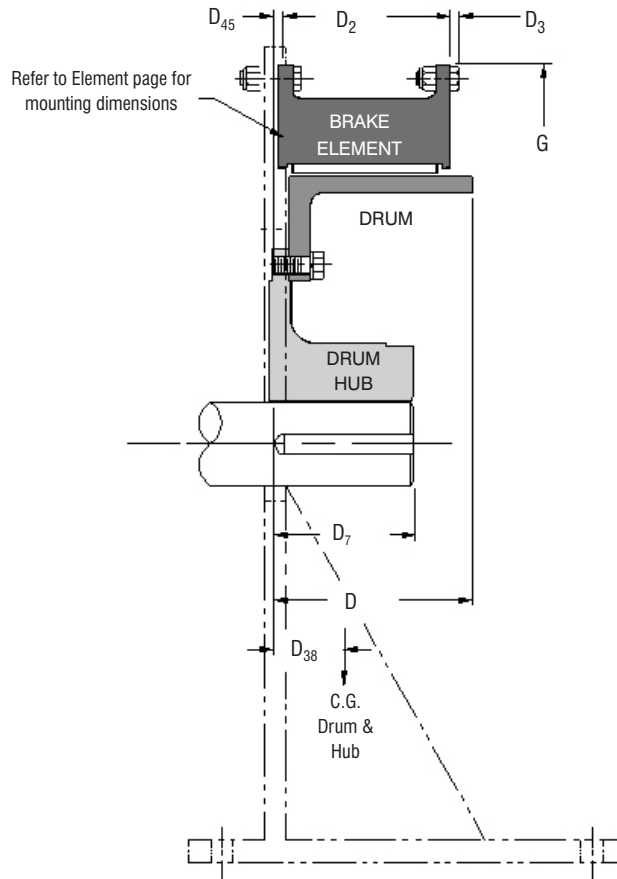
| English   |                | lb in<br>@ 75 psi      | lb ③             | Dimensions in inches |                           |       |       |                |                |                |                 |                 |                 |       |      |        |       |  |
|-----------|----------------|------------------------|------------------|----------------------|---------------------------|-------|-------|----------------|----------------|----------------|-----------------|-----------------|-----------------|-------|------|--------|-------|--|
| Size      | Part<br>Number | M.<br>Torque<br>Rating | Rotoseal<br>Size | Weight<br>Mass       | Min.<br>Bore<br>Range     | Max.  | D     | D <sub>1</sub> | D <sub>2</sub> | D <sub>7</sub> | D <sub>37</sub> | D <sub>38</sub> | D <sub>45</sub> | H     | M    | O      | X     |  |
| 11.5VC500 | 107594         | 27000                  | B3               | 380                  | 2.50                      | 4.13  | 22.72 | 4.34           | 6.13           | 5.00           | 5.3             | 8.3             | 4.50            | 20.00 | ④    | ⑥      | 13.38 |  |
| 14VC500   | 107595         | 39200                  | B3               | 562                  | 2.75                      | 5.00  | 24.69 | 5.50           | 6.13           | 5.75           | 6.0             | 8.7             | 5.19            | 24.00 | 1.44 | 3/8-18 | 13.44 |  |
| 16VC600   | 107596         | 65000                  | B3               | 678                  | 3.25                      | 5.00  | 27.19 | 5.50           | 7.38           | 5.75           | 6.2             | 9.8             | 5.19            | 26.00 | 1.44 | 3/8-18 | 15.94 |  |
| 20VC600   | 107597         | 93000                  | C2               | 911                  | 3.75                      | 5.50  | 28.44 | 6.00           | 7.38           | 6.50           | 6.0             | 10.0            | 5.94            | 30.00 | 1.44 | 3/8-18 | 15.94 |  |
| 24VC650   | 107598         | 135000                 | C2               | 1169                 | 4.25                      | 6.00  | 29.69 | 6.50           | 7.69           | 6.50           | 6.6             | 10.4            | 5.94            | 34.63 | 1.44 | 3/8-18 | 16.69 |  |
| 28VC650   | 107599         | 182000                 | C2               | 1662                 | 4.75                      | 8.00  | 32.69 | 8.00           | 7.69           | 8.00           | 6.9             | 10.7            | 7.45            | 38.63 | 5.00 | 1/2-14 | 16.69 |  |
| 33VC650   | 107600         | 255000                 | 3/4 RH           | 2354                 | 5.25                      | 9.50  | 34.75 | 9.00           | 7.69           | 9.00           | 7.5             | 11.3            | 8.45            | 45.25 | 5.00 | 1/2-14 | 16.75 |  |
| 37VC650   | 107774         | 320000                 | 3/4 RH           | 2757                 | 5.50                      | 9.50  | 35.75 | 10.00          | 7.69           | 9.00           | 7.9             | 11.3            | 8.45            | 49.25 | 6.00 | 1/2-14 | 16.75 |  |
| 42VC650   | 107775         | 380000                 | 3/4 RH           | 3461                 | 6.00                      | 10.50 | 37.75 | 11.00          | 7.69           | 10.00          | 8.2             | 11.7            | 9.45            | 54.25 | 6.00 | 1/2-14 | 16.75 |  |
| SI        |                | Nm<br>@ 5.2 bar        |                  | kg ③                 | Dimensions in millimeters |       |       |                |                |                |                 |                 |                 |       |      |        |       |  |

| English ③        | lb      | lb   | lb ft <sup>2</sup> | lb       | lb ft <sup>2</sup> |
|------------------|---------|------|--------------------|----------|--------------------|
| <b>11.5VC500</b> | 96      | 46   | 9                  | 35       | 2                  |
| <b>14VC500</b>   | 128     | 66   | 19                 | 65       | 4                  |
| <b>16VC600</b>   | 151     | 94   | 35                 | 62       | 4                  |
| <b>20VC600</b>   | 179     | 139  | 78                 | 95       | 9                  |
| <b>24VC650</b>   | 246     | 178  | 148                | 124      | 19                 |
| <b>28VC650</b>   | 280     | 231  | 269                | 240      | 59                 |
| <b>33VC650</b>   | 392     | 312  | 486                | 347      | 93                 |
| <b>37VC650</b>   | 433     | 340  | 691                | 398      | 159                |
| <b>42VC650</b>   | 485     | 424  | 1100               | 545      | 243                |
| Size             | Weight  |      | Wk <sup>2</sup>    | Weight   |                    |
|                  | Element |      | Drum               | Drum Hub |                    |
|                  | Mass    | Mass | J                  | Mass     | J                  |
| <b>11.5VC500</b> | 43      | 21   | 0,38               | 16       | 0,08               |
| <b>14VC500</b>   | 58      | 30   | 0,80               | 29       | 0,17               |
| <b>16VC600</b>   | 68      | 43   | 1,47               | 28       | 0,17               |
| <b>20VC600</b>   | 81      | 63   | 3,28               | 43       | 0,38               |
| <b>24VC650</b>   | 111     | 81   | 6,22               | 56       | 0,80               |
| <b>28VC650</b>   | 127     | 105  | 11,30              | 109      | 2,48               |
| <b>33VC650</b>   | 178     | 141  | 20,41              | 157      | 3,91               |
| <b>37VC650</b>   | 196     | 154  | 29,02              | 180      | 6,68               |
| <b>42VC650</b>   | 220     | 192  | 46,20              | 247      | 10,21              |
| SI ③             | kg      | kg   | kg m <sup>2</sup>  | kg       | kg m <sup>2</sup>  |

| Size             | Part Numbers |        |        |
|------------------|--------------|--------|--------|
|                  | Element ①    | Drum   | Hub    |
| <b>11.5VC500</b> | 142639       | 408290 | 406960 |
| <b>14VC500</b>   | 143829       | 408283 | 406962 |
| <b>16VC600</b>   | 142640       | 408292 | 406964 |
| <b>20VC600</b>   | 142641       | 408294 | 406966 |
| <b>24VC650</b>   | 142642       | 408296 | 415398 |
| <b>28VC650</b>   | 142643       | 409479 | 406970 |
| <b>33VC650</b>   | 142644       | 408300 | 406972 |
| <b>37VC650</b>   | 142645       | 408302 | 406974 |
| <b>42VC650</b>   | 142647       | 408304 | 407000 |

## 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 Based upon minimum bores.
- ④ Tolerance for sizes:  
 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/-0,13 mm)



Shaft and key by Customer

| English          |                | lb in<br>@ 75 psi                    | lb Ⓢ           | Dimensions in inches      |       |      |                |                |                 |                 |        |
|------------------|----------------|--------------------------------------|----------------|---------------------------|-------|------|----------------|----------------|-----------------|-----------------|--------|
| <b>11.5VC500</b> | 105861         | 27000                                | 177            | 2.50                      | 4.13  | 7.25 | 6.13           | 5.00           | 2.9             | 0.94            | 19.625 |
| <b>14VC500</b>   | 105862         | 39200                                | 259            | 2.75                      | 5.00  | 7.38 | 6.13           | 5.75           | 3.1             | 1.07            | 23.500 |
| <b>16VC600</b>   | 105863         | 65000                                | 307            | 3.25                      | 5.00  | 8.50 | 7.38           | 5.75           | 3.3             | 0.94            | 25.500 |
| <b>20VC600</b>   | 105864         | 93000                                | 413            | 3.75                      | 5.50  | 8.63 | 7.38           | 6.50           | 3.2             | 1.06            | 29.500 |
| <b>24VC650</b>   | 105865         | 135000                               | 548            | 4.25                      | 6.00  | 9.13 | 7.69           | 6.50           | 3.2             | 1.16            | 34.000 |
| <b>28VC650</b>   | 105866         | 182000                               | 751            | 4.75                      | 8.00  | 9.13 | 7.69           | 8.00           | 3.2             | 1.16            | 38.000 |
| <b>33VC650</b>   | 105867         | 255000                               | 1051           | 5.25                      | 9.50  | 9.13 | 7.69           | 9.00           | 3.5             | 1.16            | 44.625 |
| <b>37VC650</b>   | 105868         | 320000                               | 1171           | 5.50                      | 9.50  | 9.13 | 7.69           | 9.00           | 3.2             | 1.16            | 48.625 |
| <b>42VC650</b>   | 105869         | 380000                               | 1454           | 6.00                      | 10.50 | 9.13 | 7.69           | 10.00          | 3.4             | 1.16            | 53.625 |
| Size             | Part<br>Number | M <sub>t</sub> ②<br>Torque<br>Rating | Weight<br>Mass | Min.                      | Max.  | D    | D <sub>2</sub> | D <sub>7</sub> | D <sub>38</sub> | D <sub>45</sub> | G ④    |
|                  |                |                                      |                | Bore Range                |       |      |                |                |                 |                 |        |
|                  |                |                                      |                | Min                       | Max.  |      |                |                |                 |                 |        |
| <b>11.5VC500</b> | 105861         | 3050                                 | 80             | 64                        | 105   | 184  | 156            | 127            | 74              | 24              | 498,5  |
| <b>14VC500</b>   | 105862         | 4430                                 | 117            | 70                        | 127   | 187  | 156            | 146            | 79              | 27              | 596,9  |
| <b>16VC600</b>   | 105863         | 7350                                 | 139            | 83                        | 127   | 216  | 187            | 146            | 84              | 24              | 647,7  |
| <b>20VC600</b>   | 105864         | 10500                                | 187            | 95                        | 140   | 219  | 187            | 165            | 81              | 27              | 749,3  |
| <b>24VC650</b>   | 105865         | 15300                                | 248            | 108                       | 152   | 232  | 195            | 165            | 81              | 29              | 863,6  |
| <b>28VC650</b>   | 105866         | 20600                                | 340            | 121                       | 203   | 232  | 195            | 203            | 81              | 29              | 965,2  |
| <b>33VC650</b>   | 105867         | 28800                                | 476            | 133                       | 241   | 232  | 195            | 229            | 89              | 29              | 1133,5 |
| <b>37VC650</b>   | 105868         | 36200                                | 530            | 140                       | 241   | 232  | 195            | 229            | 81              | 29              | 1235,1 |
| <b>42VC650</b>   | 105869         | 42900                                | 659            | 152                       | 267   | 232  | 195            | 254            | 86              | 29              | 1362,1 |
| SI               |                | Nm<br>@ 5,2 bar                      | kg ③           | Dimensions in millimeters |       |      |                |                |                 |                 |        |

| English ③ | lb   | lb   | lb ft <sup>2</sup> | lb   | lb ft <sup>2</sup> |
|-----------|------|------|--------------------|------|--------------------|
| 14VC1000  | 213  | 122  | 35                 | 70   | 5                  |
| 16VC1000  | 240  | 98   | 38                 | 106  | 10                 |
| 20VC1000  | 282  | 169  | 112                | 173  | 23                 |
| 24VC1000  | 378  | 225  | 192                | 243  | 47                 |
| 28VC1000  | 431  | 295  | 350                | 332  | 88                 |
| 32VC1000  | 624  | 371  | 559                | 450  | 133                |
| 38VC1200  | 684  | 552  | 1214               | 600  | 253                |
| 42VC1200  | 895  | 582  | 1567               | 780  | 430                |
| 46VC1200  | 980  | 729  | 2357               | 950  | 690                |
| 52VC1200  | 1192 | 852  | 3552               | 1212 | 1138               |
| 51VC1600  | 1934 | 890  | 4145               | 1961 | 2167               |
| 60VC1600  | 2450 | 1640 | 8810               | 2604 | 3270               |
| 66VC1600  | 2630 | 1905 | 19360              | 4940 | 6760               |

| Size     | Wk <sup>2</sup> |      | Weight   |                 | Wk <sup>2</sup> |  |
|----------|-----------------|------|----------|-----------------|-----------------|--|
|          | Element         | Drum | Drum Hub | Wk <sup>2</sup> | Wk <sup>2</sup> |  |
|          | J               | Mass | Mass     | J               | J               |  |
| 14VC1000 | 96              | 55   | 1,47     | 32              | 0,21            |  |
| 16VC1000 | 109             | 44   | 1,60     | 48              | 0,42            |  |
| 20VC1000 | 128             | 77   | 4,70     | 78              | 0,97            |  |
| 24VC1000 | 171             | 102  | 8,06     | 110             | 1,97            |  |
| 28VC1000 | 195             | 134  | 14,70    | 150             | 3,70            |  |
| 32VC1000 | 283             | 168  | 23,48    | 204             | 5,59            |  |
| 38VC1200 | 310             | 250  | 50,99    | 272             | 10,63           |  |
| 42VC1200 | 405             | 264  | 65,81    | 353             | 18,06           |  |
| 46VC1200 | 444             | 330  | 98,99    | 430             | 28,98           |  |
| 52VC1200 | 540             | 386  | 149,2    | 549             | 47,80           |  |
| 51VC1600 | 876             | 403  | 174,1    | 888             | 91,01           |  |
| 60VC1600 | 1110            | 743  | 370,0    | 1180            | 137,3           |  |
| 66VC1600 | 1191            | 863  | 813,1    | 2238            | 283,9           |  |

| SI ③ | kg | kg | kg m <sup>2</sup> | kg | kg m <sup>2</sup> |
|------|----|----|-------------------|----|-------------------|
|------|----|----|-------------------|----|-------------------|

| Size     | Part Numbers |        |          |
|----------|--------------|--------|----------|
|          | Element ①    | Drum   | Drum Hub |
| 14VC1000 | 142838       | 411111 | 411113   |
| 16VC1000 | 142821       | 409506 | 407069   |
| 20VC1000 | 142832       | 410087 | 407073   |
| 24VC1000 | 142675       | 409794 | 405625   |
| 28VC1000 | 142674       | 409537 | 405628   |
| 32VC1000 | 142673       | 410824 | 405631   |
| 38VC1200 | 142739       | 409474 | 405634   |
| 42VC1200 | 142677       | 409947 | 405637   |
| 46VC1200 | 142671       | 409980 | 405640   |
| 52VC1200 | 142841       | 409715 | 407079   |
| 51VC1600 | 142835       | 409711 | 408585   |
| 60VC1600 | 142915       | 411501 | 411500   |
| 66VC1600 | 142097       | 413727 |          |

## Notes:

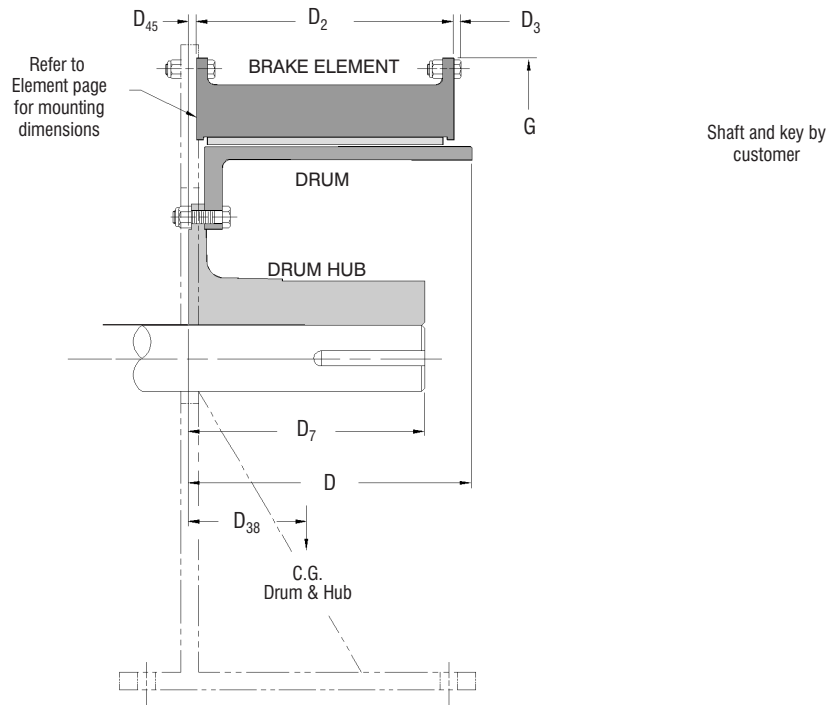
- ① Refers to basic part number only. When ordering, the number of air inlets and type of connection must be specified.
- ② Dynamic torque shown, static torque approximately 25% greater. Torque in each application is dependent upon air pressure and speed.
- ③ Based upon minimum bores.
- ④ Tolerance for sizes:  
 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 +0.000/-0.005 in (+0,00/-0,13 mm)

# Airflex® VC Brake Application



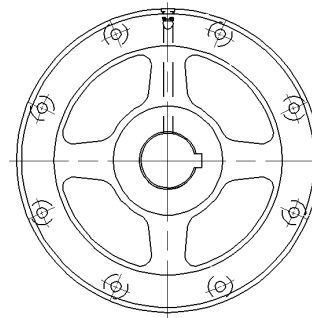
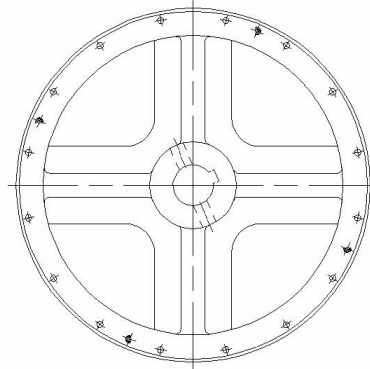
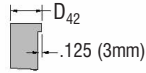
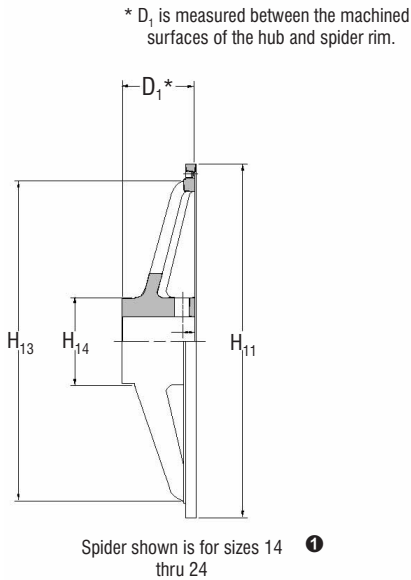
Form VC 538

Dimensional Data - Wide Sizes - 14 to 66

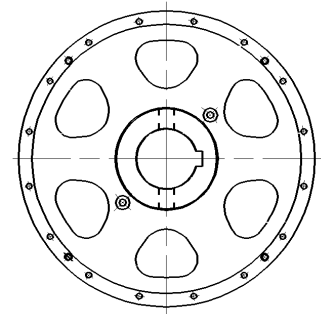


| English         |                  | lb in<br>@ 75 psi                    | lb Ⓒ           | Dimensions in inches      |       |       |                |                |                 |                 |        |
|-----------------|------------------|--------------------------------------|----------------|---------------------------|-------|-------|----------------|----------------|-----------------|-----------------|--------|
| <b>14VC1000</b> | 107601           | 85000                                | 405            | 3.63                      | 5.00  | 12.38 | 11.56          | 7.00           | 5.0             | 0.75            | 23.500 |
| <b>16VC1000</b> | 107602           | 114000                               | 444            | 3.88                      | 6.00  | 12.38 | 11.56          | 5.50           | 3.9             | 0.75            | 25.500 |
| <b>20VC1000</b> | 107603           | 161000                               | 624            | 4.50                      | 6.25  | 12.38 | 11.56          | 7.00           | 4.3             | 0.75            | 29.500 |
| <b>24VC1000</b> | 107604           | 219000                               | 846            | 5.00                      | 8.00  | 12.63 | 11.56          | 7.50           | 4.4             | 1.00            | 34.000 |
| <b>28VC1000</b> | 107605           | 296000                               | 1058           | 5.50                      | 8.50  | 12.63 | 11.56          | 8.00           | 4.4             | 1.00            | 38.000 |
| <b>32VC1000</b> | 107606           | 415000                               | 1445           | 6.00                      | 9.00  | 12.63 | 11.63          | 9.50           | 4.6             | 1.00            | 43.875 |
| <b>38VC1200</b> | 107607           | 680000                               | 1836           | 7.25                      | 9.25  | 14.75 | 13.75          | 10.00          | 5.1             | 1.00            | 49.375 |
| <b>42VC1200</b> | 107608           | 819000                               | 2257           | 7.50                      | 10.00 | 14.75 | 13.75          | 11.00          | 5.0             | 1.00            | 53.625 |
| <b>46VC1200</b> | 107609           | 950000                               | 2659           | 8.00                      | 10.00 | 15.00 | 13.75          | 11.00          | 5.0             | 1.25            | 60.250 |
| <b>52VC1200</b> | 107610A          | 1215000                              | 3256           | 8.75                      | 11.00 | 15.25 | 14.25          | 12.50          | 5.1             | 1.25            | 67.000 |
| <b>51VC1600</b> | 107611           | 1610000                              | 4785           | 9.50                      | 12.50 | 19.50 | 18.25          | 15.00          | 6.7             | 1.25            | 67.000 |
| <b>60VC1600</b> | 107612           | 2183000                              | 6694           | 10.50                     | 18.00 | 19.63 | 18.50          | 16.00          | 6.9             | 1.50            | 77.000 |
| <b>66VC1600</b> | 107613           | 2800000                              | 9475           | 11.25                     | 18.50 | 20.38 | 18.50          | 20.00          | 8.7             | 2.00            | 82.123 |
| Size            | Part<br>Number ① | M <sub>r</sub><br>Torque<br>Rating ② | Weight<br>Mass | Bore Range                |       | D     | D <sub>2</sub> | D <sub>7</sub> | D <sub>38</sub> | D <sub>45</sub> | G ④    |
|                 |                  |                                      |                | Min.                      | Max.  |       |                |                |                 |                 |        |
|                 |                  |                                      |                | Min.                      | Max.  |       |                |                |                 |                 |        |
| <b>14VC1000</b> | 107601           | 9610                                 | 183            | 92                        | 127   | 314   | 294            | 178            | 127             | 19              | 596,9  |
| <b>16VC1000</b> | 107602           | 12900                                | 201            | 99                        | 152   | 314   | 294            | 140            | 99              | 19              | 647,7  |
| <b>20VC1000</b> | 107603           | 18200                                | 283            | 114                       | 159   | 314   | 294            | 178            | 109             | 19              | 749,3  |
| <b>24VC1000</b> | 107604           | 24700                                | 383            | 127                       | 203   | 321   | 294            | 191            | 112             | 25              | 863,6  |
| <b>28VC1000</b> | 107605           | 33400                                | 479            | 140                       | 216   | 321   | 294            | 203            | 112             | 25              | 965,2  |
| <b>32VC1000</b> | 107606           | 46900                                | 655            | 152                       | 229   | 321   | 295            | 241            | 117             | 25              | 1114,4 |
| <b>38VC1200</b> | 107607           | 76800                                | 832            | 184                       | 235   | 375   | 349            | 254            | 130             | 25              | 1254,1 |
| <b>42VC1200</b> | 107608           | 92500                                | 1022           | 191                       | 254   | 375   | 349            | 279            | 127             | 25              | 1362,1 |
| <b>46VC1200</b> | 107609           | 107000                               | 1205           | 203                       | 254   | 381   | 349            | 279            | 127             | 32              | 1530,4 |
| <b>52VC1200</b> | 107610A          | 137000                               | 1475           | 222                       | 279   | 387   | 362            | 318            | 130             | 32              | 1701,8 |
| <b>51VC1600</b> | 107611           | 182000                               | 2168           | 241                       | 318   | 495   | 464            | 381            | 170             | 32              | 1701,8 |
| <b>60VC1600</b> | 107612           | 247000                               | 3032           | 267                       | 457   | 499   | 470            | 406            | 175             | 38              | 1955,8 |
| <b>66VC1600</b> | 107613           | 316000                               | 4292           | 286                       | 470   | 518   | 470            | 508            | 221             | 51              | 2085,9 |
| SI              |                  | N m<br>@ 5,2 bar                     | kg Ⓒ           | Dimensions in millimeters |       |       |                |                |                 |                 |        |





### Spider Web Configurations

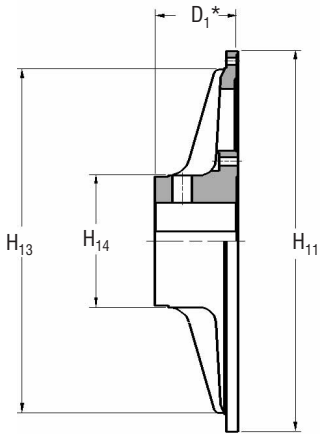


| English          |             | lb                 | lb ft <sup>2</sup>   | Dimensions in inches      |                 |                 |                 |                 |
|------------------|-------------|--------------------|----------------------|---------------------------|-----------------|-----------------|-----------------|-----------------|
| <b>11.5VC500</b> | 408376 ②    | 70                 | 19                   | 4.34                      | 0.59            | 20.00           | N/A             | 6.00            |
| <b>14VC500</b>   | 411170      | 102                | 35                   | 5.50                      | 1.06            | 24.00           | 21.25           | 8.00            |
| <b>16VC600</b>   | 408277      | 139                | 50                   | 5.50                      | 1.06            | 26.00           | 23.25           | 8.00            |
| <b>20VC600</b>   | 408279      | 224                | 122                  | 6.00                      | 1.06            | 30.00           | 27.00           | 8.50            |
| <b>24VC650</b>   | 408281      | 260                | 174                  | 6.50                      | 1.06            | 34.63           | 31.00           | 9.00            |
| <b>28VC650</b>   | 505480      | 514                | 534                  | 8.00                      | 1.13            | 38.63           | 35.25           | 11.50           |
| <b>33VC650</b>   | 505285      | 716                | 811                  | 9.00                      | 1.13            | 45.25           | 41.00           | 13.50           |
| <b>37VC650</b>   | 505275      | 940                | 1404                 | 10.00                     | 1.25            | 49.25           | 45.50           | 13.50           |
| <b>42VC650</b>   | 502369      | 1284               | 2106                 | 11.00                     | 1.31            | 54.25           | 50.48           | 16.50           |
| Size             | Part Number | Weight ③<br>Mass ③ | Wk <sup>2</sup><br>J | D <sub>1</sub>            | D <sub>42</sub> | H <sub>11</sub> | H <sub>13</sub> | H <sub>14</sub> |
| <b>11.5VC500</b> | 408376 ②    | 32                 | 0,80                 | 110                       | 15              | 508             | N/A             | 152             |
| <b>14VC500</b>   | 411170      | 46                 | 1,47                 | 140                       | 27              | 610             | 540             | 203             |
| <b>16VC600</b>   | 408277      | 63                 | 2,10                 | 140                       | 27              | 660             | 591             | 203             |
| <b>20VC600</b>   | 408279      | 101                | 5,12                 | 152                       | 27              | 762             | 686             | 216             |
| <b>24VC650</b>   | 408281      | 118                | 7,31                 | 165                       | 27              | 880             | 787             | 229             |
| <b>28VC650</b>   | 505480      | 233                | 22,43                | 203                       | 29              | 981             | 895             | 292             |
| <b>33VC650</b>   | 505285      | 324                | 34,06                | 229                       | 29              | 1149            | 1041            | 343             |
| <b>37VC650</b>   | 505275      | 426                | 58,97                | 254                       | 32              | 1251            | 1156            | 343             |
| <b>42VC650</b>   | 502369      | 582                | 88,45                | 279                       | 33              | 1378            | 1282            | 419             |
| SI               |             | kg                 | kg m <sup>2</sup>    | Dimensions in millimeters |                 |                 |                 |                 |

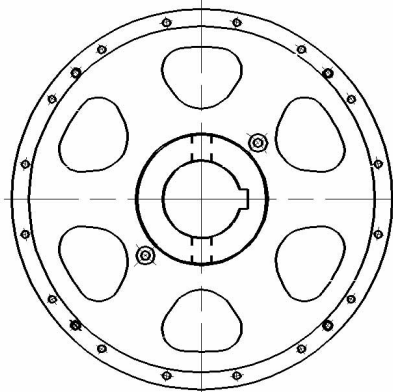
### Notes:

- ① Refer to VC Spider Piping and Configuration catalog page for other sizes.
- ② Part number for two air passages. Part number for single air passage - 408375.
- ③ Based upon minimum bore.

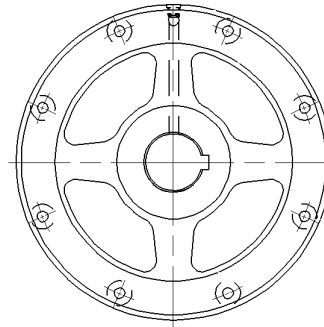
\* D<sub>1</sub> is measured between the machined surfaces of the hub and spider rim.



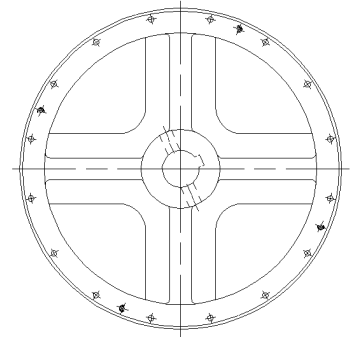
Spider shown is for sizes 20 and 24 <sup>①</sup>



Sizes 16 thru 42



Size 11.5



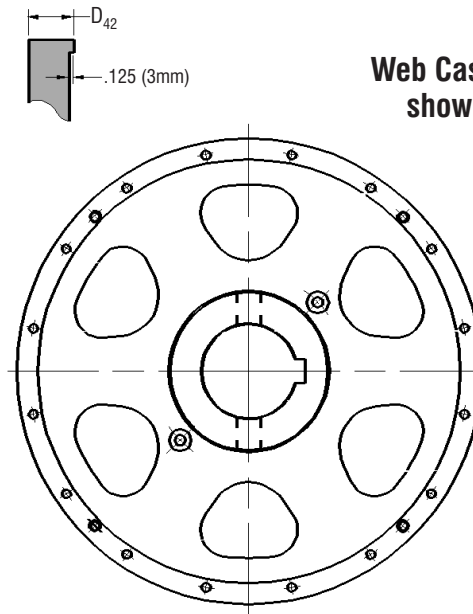
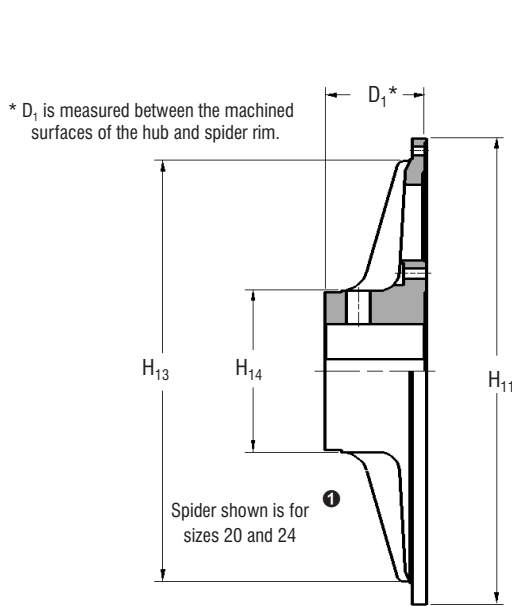
Size 14

### Spider Web Configurations

| English          |             | lb                  | lb ft <sup>2</sup> | Dimensions in inches      |                 |                 |                 |                 |
|------------------|-------------|---------------------|--------------------|---------------------------|-----------------|-----------------|-----------------|-----------------|
| <b>11.5VC500</b> | 410856      | 71                  | 19                 | 4.84                      | 0.62            | 20.00           | N/A             | 7.50            |
| <b>14VC500</b>   | 411170      | 102                 | 35                 | 5.50                      | 1.06            | 24.00           | 21.25           | 8.00            |
| <b>16VC600</b>   | 505283      | 236                 | 111                | 5.50                      | 1.50            | 26.00           | 23.00           | 10.00           |
| <b>20VC600</b>   | 509698      | 295                 | 167                | 7.00                      | 1.13            | 30.00           | 27.00           | 10.00           |
| <b>24VC650</b>   | 509699      | 408                 | 285                | 7.75                      | 1.13            | 34.63           | 31.50           | 12.00           |
| <b>28VC650</b>   | 509700      | 554                 | 474                | 8.00                      | 1.13            | 38.63           | 35.25           | 14.00           |
| <b>33VC650</b>   | 509701      | 802                 | 965                | 9.00                      | 1.13            | 45.25           | 41.00           | 15.00           |
| <b>37VC650</b>   | 509702      | 981                 | 1356               | 10.00                     | 1.25            | 49.25           | 45.50           | 15.50           |
| <b>42VC650</b>   | 509703      | 1116                | 1868               | 11.00                     | 1.31            | 54.25           | 50.50           | 16.50           |
| Size             | Part Number | Weight <sup>②</sup> | Wk <sup>2</sup>    | D <sub>1</sub>            | D <sub>42</sub> | H <sub>11</sub> | H <sub>13</sub> | H <sub>14</sub> |
|                  |             | Mass <sup>②</sup>   | J                  |                           |                 |                 |                 |                 |
| <b>11.5VC500</b> | 410856      | 32                  | 0,80               | 122.9                     | 15.8            | 508             | N/A             | 190.5           |
| <b>14VC500</b>   | 411170      | 46                  | 1,47               | 139.7                     | 26.9            | 609.6           | 539.7           | 203.2           |
| <b>16VC600</b>   | 505283      | 107                 | 4,66               | 139.7                     | 38.1            | 660.4           | 584.2           | 254             |
| <b>20VC600</b>   | 509698      | 134                 | 7,01               | 177.8                     | 28.7            | 762             | 685.8           | 254             |
| <b>24VC650</b>   | 509699      | 185                 | 11,97              | 196.9                     | 28.7            | 879.6           | 800.1           | 304.8           |
| <b>28VC650</b>   | 509700      | 251                 | 19,91              | 203.2                     | 28.7            | 981.2           | 895.3           | 355.6           |
| <b>33VC650</b>   | 509701      | 363                 | 40,53              | 228.6                     | 28.7            | 1149.4          | 1041.0          | 381             |
| <b>37VC650</b>   | 509702      | 444                 | 56,95              | 254                       | 31.8            | 1251            | 1155.0          | 393.7           |
| <b>42VC650</b>   | 509703      | 506                 | 78,46              | 279.4                     | 33.3            | 1378            | 1282.0          | 419.1           |
| SI               |             | kg                  | kg m <sup>2</sup>  | Dimensions in millimeters |                 |                 |                 |                 |

### Notes:

- ① Refer to VC Spider Piping and Configuration catalog page for other sizes.
- ② Based on minimum bore.



**Web Casting Configuration shown is for all sizes**

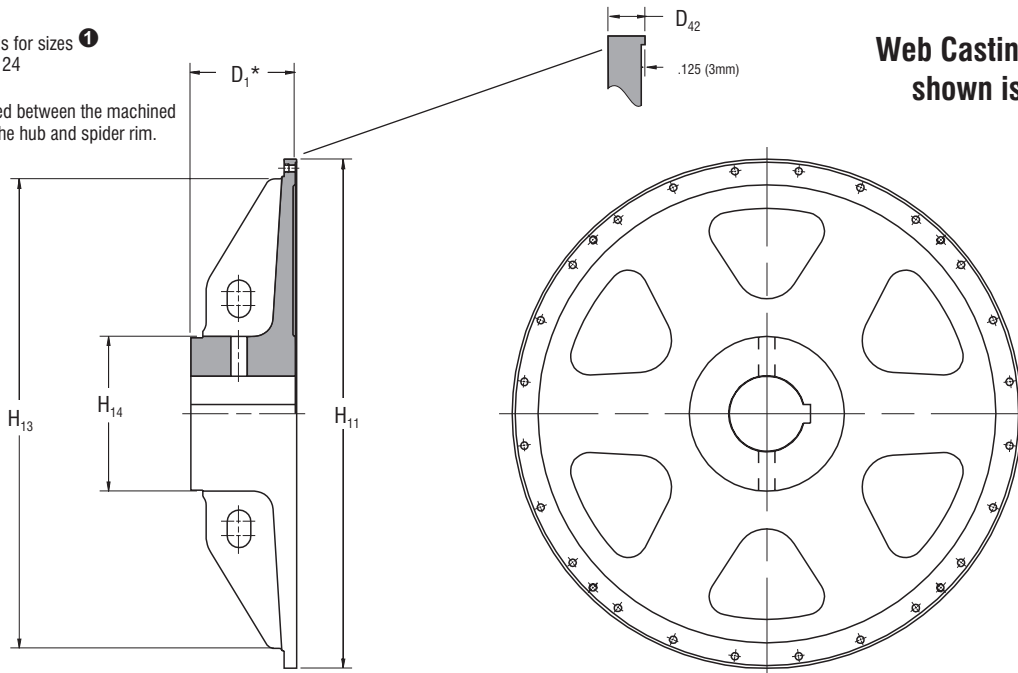
| English         |             | lb                          | lb ft <sup>2</sup>   | Dimensions in inches      |                 |                 |                 |                 |
|-----------------|-------------|-----------------------------|----------------------|---------------------------|-----------------|-----------------|-----------------|-----------------|
| <b>14VC1000</b> | 508545      | 205                         | 79                   | 5.50                      | 1.13            | 24.00           | 21.00           | 8.00            |
| <b>16VC1000</b> | 505283      | 236                         | 111                  | 5.50                      | 1.50            | 26.00           | 23.00           | 10.00           |
| <b>20VC1000</b> | 509698      | 295                         | 167                  | 7.00                      | 1.13            | 30.00           | 27.00           | 10.00           |
| <b>24VC1000</b> | 509699      | 408                         | 285                  | 7.75                      | 1.13            | 34.63           | 31.50           | 12.00           |
| <b>28VC1000</b> | 509700      | 554                         | 474                  | 8.00                      | 1.13            | 38.63           | 35.25           | 14.00           |
| <b>32VC1000</b> | 509706      | 727                         | 781                  | 9.00                      | 1.13            | 44.50           | 41.00           | 15.00           |
| <b>38VC1200</b> | 509707      | 1002                        | 1502                 | 10.00                     | 1.25            | 50.00           | 45.50           | 15.50           |
| <b>42VC1200</b> | 509703      | 1116                        | 1868                 | 11.00                     | 1.31            | 54.25           | 50.50           | 16.50           |
| <b>46VC1200</b> | 509708      | 1504                        | 2968                 | 11.00                     | 1.50            | 61.00           | 56.50           | 17.00           |
| <b>52VC1200</b> | 509709      | 2579                        | 5087                 | 12.50                     | 1.69            | 67.75           | 63.25           | 23.00           |
| <b>51VC1600</b> | 509710      | 2621                        | 6706                 | 15.00                     | 1.69            | 67.75           | 63.25           | 20.00           |
| <b>60VC1600</b> | 509711      | 4096                        | 13346                | 16.00                     | 1.88            | 77.75           | 72.00           | 26.00           |
| Size            | Part Number | Weight <sup>②</sup><br>Mass | Wk <sup>2</sup><br>J | D <sub>1</sub>            | D <sub>42</sub> | H <sub>11</sub> | H <sub>13</sub> | H <sub>14</sub> |
| <b>14VC1000</b> | 508545      | 93                          | 3,32                 | 140                       | 29              | 610             | 533             | 203             |
| <b>16VC1000</b> | 505283      | 107                         | 4,66                 | 140                       | 38              | 660             | 584             | 254             |
| <b>20VC1000</b> | 509698      | 134                         | 7,01                 | 178                       | 29              | 762             | 686             | 254             |
| <b>24VC1000</b> | 509699      | 185                         | 11,97                | 197                       | 29              | 880             | 800             | 305             |
| <b>28VC1000</b> | 509700      | 251                         | 19,91                | 203                       | 29              | 981             | 895             | 356             |
| <b>32VC1000</b> | 509706      | 329                         | 32,80                | 229                       | 29              | 1130            | 1041            | 381             |
| <b>38VC1200</b> | 509707      | 454                         | 63,08                | 254                       | 32              | 1270            | 1156            | 394             |
| <b>42VC1200</b> | 509703      | 506                         | 78,46                | 279                       | 33              | 1378            | 1283            | 419             |
| <b>46VC1200</b> | 509708      | 681                         | 124,7                | 279                       | 38              | 1549            | 1435            | 432             |
| <b>52VC1200</b> | 509709      | 1168                        | 213,7                | 318                       | 43              | 1721            | 1607            | 584             |
| <b>51VC1600</b> | 509710      | 1187                        | 281,7                | 381                       | 43              | 1721            | 1607            | 508             |
| <b>60VC1600</b> | 509711      | 1855                        | 560,5                | 406                       | 48              | 1975            | 1829            | 660             |
| SI              |             | kg                          | kg m <sup>2</sup>    | Dimensions in millimeters |                 |                 |                 |                 |

**Notes:**

- ① Refer to VC Spider Piping and Configuration catalog page for other sizes.
- ② Based on minimum bore.

Spider shown is for sizes ①  
20 and 24

\*  $D_1$  is measured between the machined surfaces of the hub and spider rim.



**Web Casting Configuration shown is for all sizes**

| English         |             | lb             | lb ft <sup>2</sup>   | Dimensions in inches      |                 |                 |                 |                 |
|-----------------|-------------|----------------|----------------------|---------------------------|-----------------|-----------------|-----------------|-----------------|
| <b>16VC1000</b> | 505284      | 264            | 113                  | 8.00                      | 1.50            | 26.00           | 23.00           | 10.00           |
| <b>20VC1000</b> | 509693      | 333            | 197                  | 9.50                      | 1.13            | 30.00           | 27.00           | 11.00           |
| <b>24VC1000</b> | 509694      | 442            | 312                  | 9.31                      | 1.13            | 34.63           | 31.50           | 12.50           |
| <b>28VC1000</b> | 509695      | 680            | 597                  | 10.00                     | 1.13            | 38.63           | 35.25           | 14.00           |
| <b>32VC1000</b> | 509696      | 967            | 932                  | 12.00                     | 1.13            | 44.50           | 41.00           | 16.75           |
| <b>38VC1200</b> | 509646      | 1350           | 1625                 | 13.00                     | 1.25            | 50.00           | 45.50           | 18.50           |
| <b>42VC1200</b> | 509647      | 1763           | 2445                 | 17.00                     | 1.31            | 54.25           | 50.50           | 19.00           |
| <b>46VC1200</b> | 509691      | 1855           | 3577                 | 17.00                     | 1.44            | 61.00           | 56.50           | 20.00           |
| <b>52VC1200</b> | 509648      | 2854           | 5277                 | 17.00                     | 1.69            | 67.75           | 63.25           | 23.00           |
| <b>51VC1600</b> | 509649      | 3639           | 7611                 | 20.00                     | 1.69            | 67.75           | 63.25           | 25.00           |
| <b>60VC1600</b> | 509692      | 5402           | 14489                | 24.00                     | 1.88            | 77.75           | 72.00           | 30.00           |
| Size            | Part Number | Weight<br>Mass | Wk <sup>2</sup><br>J | D <sub>1</sub>            | D <sub>42</sub> | H <sub>11</sub> | H <sub>13</sub> | H <sub>14</sub> |
| <b>16VC1000</b> | 505284      | 120            | 4,75                 | 203                       | 38              | 660             | 584             | 254             |
| <b>20VC1000</b> | 509693      | 151            | 8,27                 | 241                       | 29              | 762             | 686             | 279             |
| <b>24VC1000</b> | 509694      | 200            | 13,10                | 236                       | 29              | 880             | 800             | 318             |
| <b>28VC1000</b> | 509695      | 308            | 25,07                | 254                       | 29              | 981             | 895             | 356             |
| <b>32VC1000</b> | 509696      | 438            | 39,14                | 305                       | 29              | 1130            | 1041            | 425             |
| <b>38VC1200</b> | 509646      | 612            | 68,25                | 330                       | 32              | 1270            | 1156            | 470             |
| <b>42VC1200</b> | 509647      | 799            | 102,7                | 432                       | 33              | 1378            | 1283            | 483             |
| <b>46VC1200</b> | 509691      | 840            | 150,2                | 432                       | 37              | 1549            | 1435            | 508             |
| <b>52VC1200</b> | 509648      | 1293           | 221,6                | 432                       | 43              | 1721            | 1607            | 584             |
| <b>51VC1600</b> | 509649      | 1648           | 319,7                | 508                       | 43              | 1721            | 1607            | 635             |
| <b>60VC1600</b> | 509692      | 2447           | 608,5                | 610                       | 48              | 1975            | 1829            | 762             |
| SI              |             | kg             | kg m <sup>2</sup>    | Dimensions in millimeters |                 |                 |                 |                 |

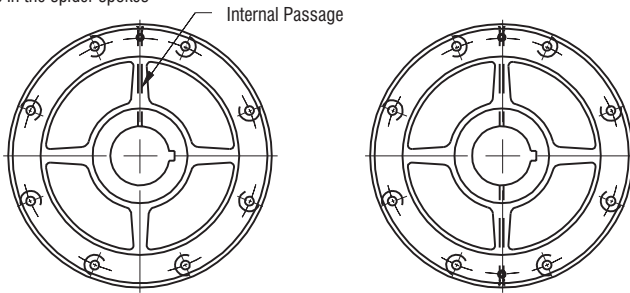
**Notes:**

- ① Refer to VC Spider Piping and Configuration catalog page for other sizes.
- ② Based on minimum bore.

Form VC 537

## Shaft to Clutch Element Piping

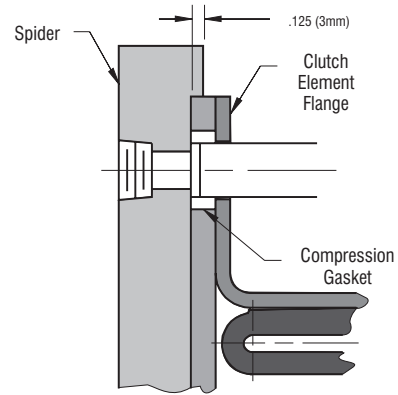
Spider for element 11.5VC500 has internal air passages in the spider spokes



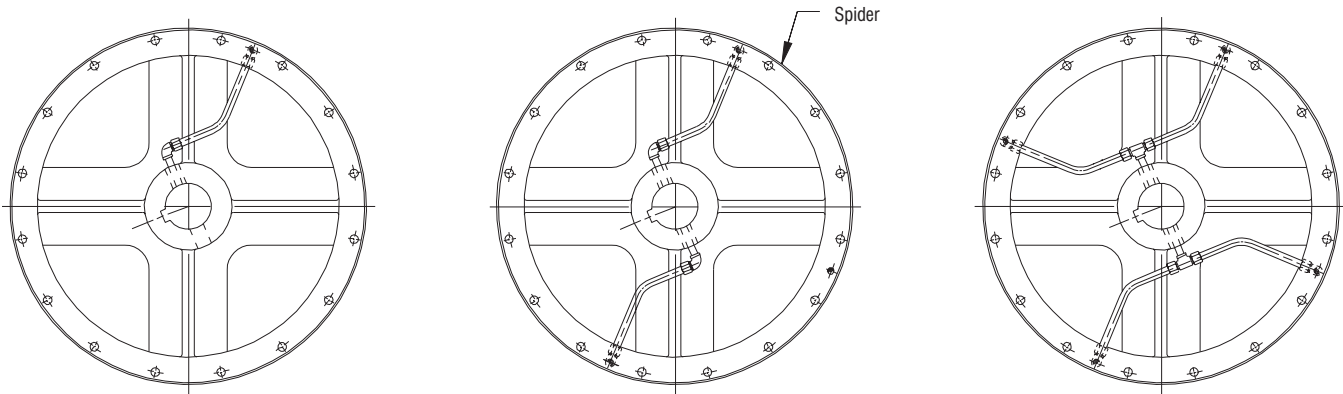
**Single Connection**

**Two Connections**

Spider to Flange Gasket  
Compression gaskets are used to seal the spider and element flange interface.



External spider piping versus number of connections for all other sizes of single and dual, narrow and wide VC elements

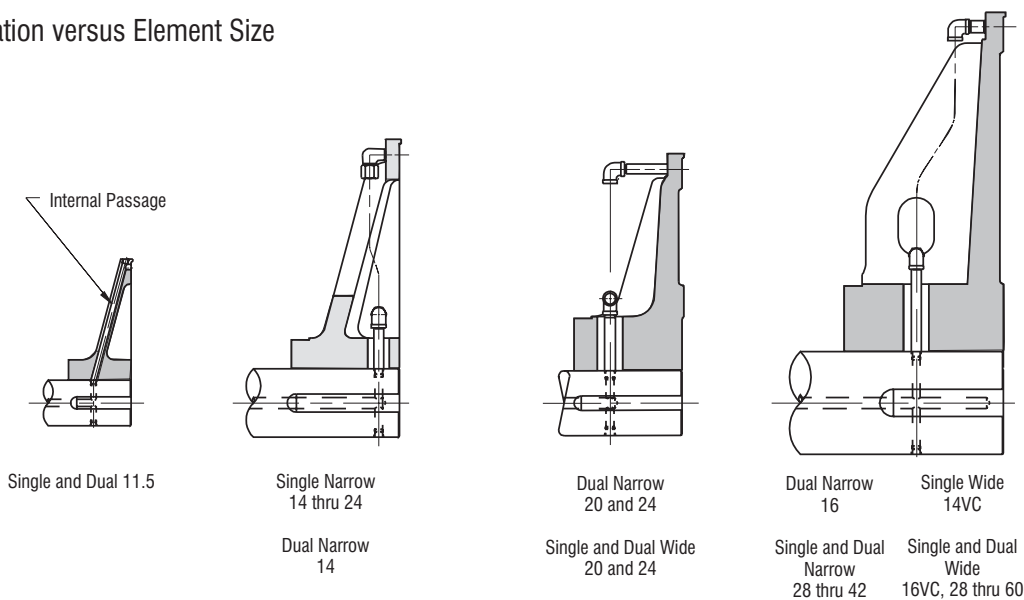


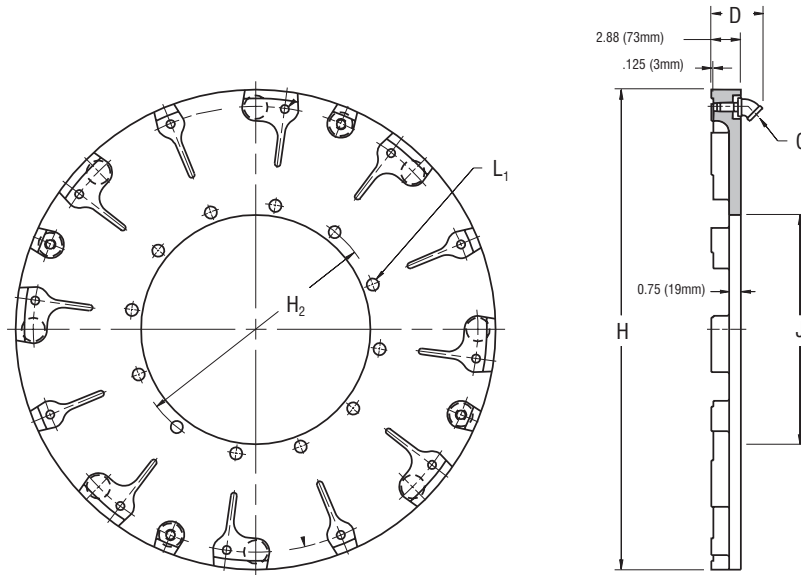
**Single Connection**

**Two Connections**

**Four Connections**

## Spider Configuration versus Element Size





| English          |                             |                           | lb                     | lb ft <sup>2</sup> | lb                     | lb ft <sup>2</sup> | Dimensions in inches      |       |                |                |                |      |        |
|------------------|-----------------------------|---------------------------|------------------------|--------------------|------------------------|--------------------|---------------------------|-------|----------------|----------------|----------------|------|--------|
| <b>11.5VC500</b> | 402162                      | 406949                    | 28                     | 13                 | 73                     | 35                 | 3.94                      | 20.38 | 9.25           | 8.250          | 6              | 0.53 | 1/4-18 |
| <b>14VC500</b>   | 401337                      | 406950                    | 38                     | 16                 | 103                    | 70                 | 3.94                      | 24.63 | 12.00          | 10.750         | 6              | 0.78 | 3/8-18 |
| <b>16VC600</b>   | 500411                      | 505030                    | 48                     | 40                 | 130                    | 108                | 4.38                      | 26.63 | 13.50          | 12.125         | 8              | 0.78 | 3/8-18 |
| <b>20VC600</b>   | 500374                      | 504974                    | 56                     | 63                 | 146                    | 167                | 4.38                      | 30.63 | 18.50          | 16.750         | 10             | 0.78 | 3/8-18 |
| <b>24VC650</b>   | 500345                      | 504975                    | 74                     | 110                | 194                    | 297                | 4.38                      | 35.13 | 21.50          | 19.500         | 14             | 0.78 | 3/8-18 |
| <b>28VC650</b>   | 500367                      | 504976                    | 81                     | 157                | 219                    | 424                | 4.38                      | 39.13 | 25.00          | 23.000         | 18             | 0.78 | 3/8-18 |
| <b>33VC650</b>   | 500369                      | 504977                    | 96                     | 255                | 259                    | 686                | 4.44                      | 45.88 | 31.00          | 29.000         | 20             | 0.78 | 1/2-14 |
| <b>37VC650</b>   | 500371                      | 504978                    | 121                    | 381                | 321                    | 1026               | 4.44                      | 49.88 | 34.50          | 32.500         | 16             | 0.78 | 1/2-14 |
| <b>42VC650</b>   | 500372                      | 504979                    | 143                    | 575                | 378                    | 1550               | 4.44                      | 54.88 | 35.50          | 37.500         | 10             | 1.03 | 1/2-14 |
| Size             | Part No. for Single Element | Part No. for Dual Element | Weight Wk <sup>2</sup> |                    | Weight Wk <sup>2</sup> |                    | D                         | H     | H <sub>2</sub> | J <sub>1</sub> | Number Size    |      | O      |
|                  |                             |                           | Single Adapter ①       |                    | Dual Adapter ①         |                    |                           |       |                |                | L <sub>1</sub> |      |        |
|                  |                             |                           | Mass                   | J                  | Mass                   | J                  |                           |       |                |                | Number         | Size |        |
| <b>11.5VC500</b> | 402162                      | 406949                    | 13                     | 0,55               | 33                     | 1,47               | 100                       | 518   | 235            | 210            | 6              | 13   | 1/4-18 |
| <b>14VC500</b>   | 401337                      | 406950                    | 17                     | 0,67               | 47                     | 2,94               | 100                       | 626   | 305            | 273            | 6              | 20   | 3/8-18 |
| <b>16VC600</b>   | 500411                      | 505030                    | 22                     | 1,68               | 59                     | 4,54               | 111                       | 676   | 343            | 308            | 8              | 20   | 3/8-18 |
| <b>20VC600</b>   | 500374                      | 504974                    | 25                     | 2,65               | 66                     | 7,01               | 111                       | 778   | 470            | 425            | 10             | 20   | 3/8-18 |
| <b>24VC650</b>   | 500345                      | 504975                    | 34                     | 4,62               | 88                     | 12,47              | 111                       | 892   | 540            | 495            | 14             | 20   | 3/8-18 |
| <b>28VC650</b>   | 500367                      | 504976                    | 37                     | 6,59               | 99                     | 17,81              | 111                       | 994   | 635            | 584            | 18             | 20   | 3/8-18 |
| <b>33VC650</b>   | 500369                      | 504977                    | 43                     | 10,71              | 117                    | 28,81              | 113                       | 1165  | 787            | 737            | 20             | 20   | 1/2-14 |
| <b>37VC650</b>   | 500371                      | 504978                    | 55                     | 16,00              | 145                    | 43,09              | 113                       | 1267  | 876            | 826            | 16             | 20   | 1/2-14 |
| <b>42VC650</b>   | 500372                      | 504979                    | 65                     | 24,15              | 171                    | 65,10              | 113                       | 1394  | 1003           | 953            | 10             | 26   | 1/2-14 |
| SI               |                             |                           | kg                     | kg m <sup>2</sup>  | kg                     | kg m <sup>2</sup>  | Dimensions in millimeters |       |                |                |                |      |        |

**Notes:**

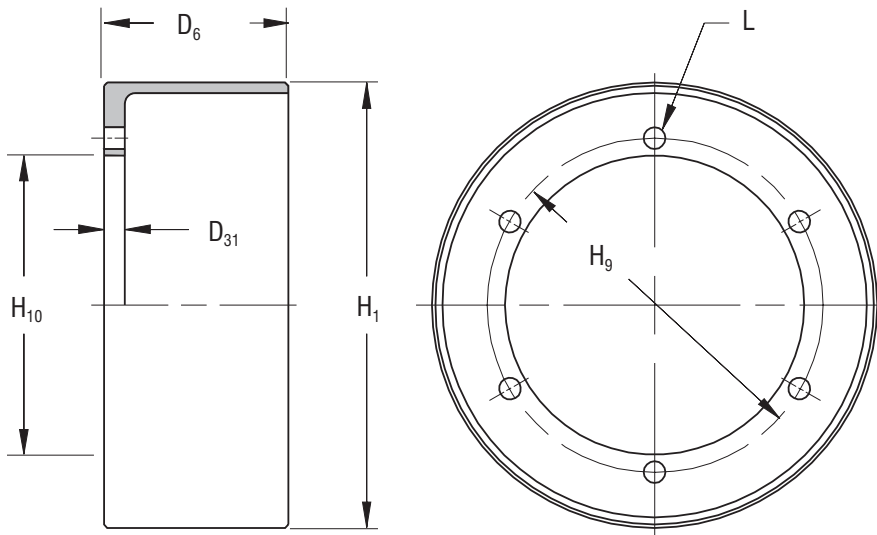
- ① Single adapter made of aluminum alloy, dual adapter made of cast iron.
- ② Tolerance +0.005/-0.000 in (+0,13/-0,00 mm)
- ③ American National Pipe Thread

# Airflex® VC Mounting Components



Form VC 528

Internal Flange Drums – Narrow Sizes – Dimensional and Technical Data



| Size             | Drum Part Numbers for: |              |               |              |
|------------------|------------------------|--------------|---------------|--------------|
|                  | Single Elements        |              | Dual Elements |              |
|                  | Thru Holes             | Tapped Holes | Thru Holes    | Tapped Holes |
| <b>11.5VC500</b> | 408290                 | 408291       | 408306        | 408307       |
| <b>14VC500</b>   | 408283                 | 408284       | 408308        | 408309       |
| <b>16VC600</b>   | 408292                 | 408293       | 408310        | 408311       |
| <b>20VC600</b>   | 408294                 | 408295       | 408312        | 408313       |
| <b>24VC650</b>   | 408296                 | 408297       | 408314        | 411828       |
| <b>28VC650</b>   | 409479                 | 408299       | 408316        | 408317       |
| <b>33VC650</b>   | 408300                 | 408301       | 408318        | 408319       |
| <b>37VC650</b>   | 408302                 | 408303       | 408320        | 408321       |
| <b>42VC650</b>   | 408304                 | 408305       | 408322        | 408323       |

| English          | Dimensions in inches      |         |        |            |         |          |     |       | lb          | lb-ft <sup>2</sup> | in  | lb    | lb-ft <sup>2</sup> |                 |
|------------------|---------------------------|---------|--------|------------|---------|----------|-----|-------|-------------|--------------------|-----|-------|--------------------|-----------------|
| <b>11.5VC500</b> | 0.75                      | 11.5    | 7.250  | 6.250      | 0.53    | 1/2-13   | 6   | 6.50  | 46          | 9                  | 12  | 13.13 | 83                 | 16              |
| <b>14VC500</b>   | 0.75                      | 14      | 9.250  | 8.250      | 0.53    | 1/2-13   | 12  | 6.50  | 66          | 19                 | 12  | 13.13 | 139                | 40              |
| <b>16VC600</b>   | 0.75                      | 16      | 9.625  | 8.250      | 0.78    | 3/4-10   | 8   | 7.75  | 94          | 35                 | 8   | 15.63 | 175                | 66              |
| <b>20VC600</b>   | 1.00                      | 20      | 12.000 | 10.500     | 0.78    | 3/4-10   | 12  | 7.75  | 139         | 78                 | 12  | 15.63 | 234                | 138             |
| <b>24VC650</b>   | 1.00                      | 24      | 16.000 | 14.625     | 0.78    | 3/4-10   | 12  | 8.25  | 178         | 148                | 16  | 16.38 | 293                | 258             |
| <b>28VC650</b>   | 1.00                      | 28      | 20.000 | 18.500     | 0.78    | 3/4-10   | 16  | 8.25  | 231         | 269                | 16  | 16.38 | 348                | 472             |
| <b>33VC650</b>   | 1.00                      | 33      | 21.500 | 19.500     | 0.78    | 3/4-10   | 14  | 8.25  | 312         | 486                | 24  | 16.44 | 507                | 827             |
| <b>37VC650</b>   | 1.00                      | 37      | 27.000 | 25.000     | 0.78    | 3/4-10   | 18  | 8.25  | 340         | 691                | 32  | 16.44 | 553                | 1172            |
| <b>42VC650</b>   | 1.13                      | 42      | 31.000 | 29.000     | 0.78    | 3/4-10   | 20  | 8.25  | 424         | 1100               | 36  | 16.44 | 662                | 1809            |
| Size             | $D_{31}$                  | ① $H_1$ | $H_9$  | ② $H_{10}$ | Thru    | Tapped ③ | No. | $D_6$ | Weight      | WK <sup>2</sup>    | No. | $D_6$ | Weight             | WK <sup>2</sup> |
|                  |                           |         |        |            | L Holes |          |     |       | Single Drum |                    |     |       | Dual Drum          |                 |
|                  |                           |         |        |            | Thru    | Tapped   |     |       | Mass        | J                  |     |       | Mass               | J               |
| <b>11.5VC500</b> | 19                        | 292     | 184,2  | 158,8      | 13      | 1/2-13   | 6   | 165   | 21          | 0,38               | 12  | 333   | 38                 | 0,67            |
| <b>14VC500</b>   | 19                        | 356     | 235,0  | 209,6      | 13      | 1/2-13   | 12  | 165   | 30          | 0,80               | 12  | 333   | 63                 | 1,68            |
| <b>16VC600</b>   | 19                        | 406     | 244,5  | 209,6      | 20      | 3/4-10   | 8   | 197   | 43          | 1,47               | 8   | 397   | 79                 | 2,77            |
| <b>20VC600</b>   | 25                        | 508     | 304,8  | 266,7      | 20      | 3/4-10   | 12  | 197   | 63          | 3,28               | 12  | 397   | 106                | 5,80            |
| <b>24VC650</b>   | 25                        | 610     | 406,4  | 371,5      | 20      | 3/4-10   | 12  | 210   | 81          | 6,22               | 16  | 416   | 133                | 10,84           |
| <b>28VC650</b>   | 25                        | 711     | 508,0  | 469,9      | 20      | 3/4-10   | 16  | 210   | 105         | 11,30              | 16  | 416   | 158                | 19,82           |
| <b>33VC650</b>   | 25                        | 838     | 546,1  | 495,3      | 20      | 3/4-10   | 14  | 210   | 141         | 20,41              | 24  | 418   | 230                | 34,73           |
| <b>37VC650</b>   | 25                        | 940     | 685,8  | 635,0      | 20      | 3/4-10   | 18  | 210   | 154         | 29,02              | 32  | 418   | 251                | 49,22           |
| <b>42VC650</b>   | 29                        | 1067    | 787,4  | 736,6      | 20      | 3/4-10   | 20  | 210   | 192         | 46,20              | 36  | 418   | 300                | 75,98           |
| SI               | Dimensions in millimeters |         |        |            |         |          |     |       | kg          | kg-m <sup>2</sup>  | mm  | kg    | kg-m <sup>2</sup>  |                 |

## 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)
- ③ American National Standard for Unified Screw Threads.

# Airflex® VC Mounting Components

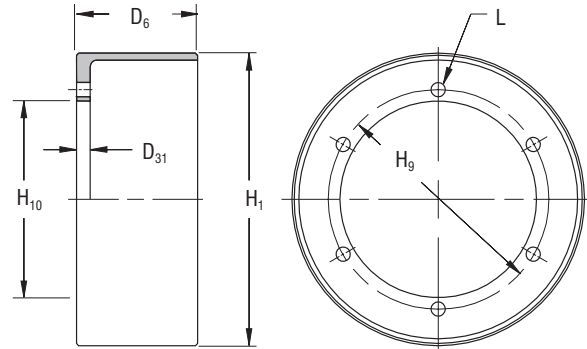


Form VC 528

Internal Flange Drums – Wide Sizes – Dimensional and Technical Data

| Size     | Drum Part Numbers Having: ⑩ |                 |
|----------|-----------------------------|-----------------|
|          | Male Register               | Female Register |
| 14VC1000 | 411111 ①                    | N/A             |
| 16VC1000 | 409506                      | 410320          |
| 20VC1000 | 410087                      | 410088          |
| 24VC1000 | 409794                      | 409795          |
| 28VC1000 | 409537                      | 409538          |
| 32VC1000 | 410824                      | 410825          |
| 38VC1200 | 409474                      | 409475          |

| Size     | Drum Part Numbers Having: ⑩ |                 |
|----------|-----------------------------|-----------------|
|          | Male Register               | Female Register |
| 42VC1200 | 409947                      | 409948          |
| 46VC1200 | 409980                      | 409981          |
| 52VC1200 | 409715                      | 409716          |
| 51VC1600 | 409711                      | 409712          |
| 60VC1600 | 411501                      | 411502          |
| 66VC1600 | 413727                      | 413726          |



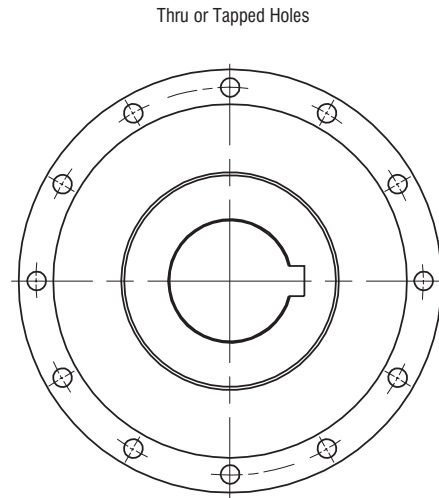
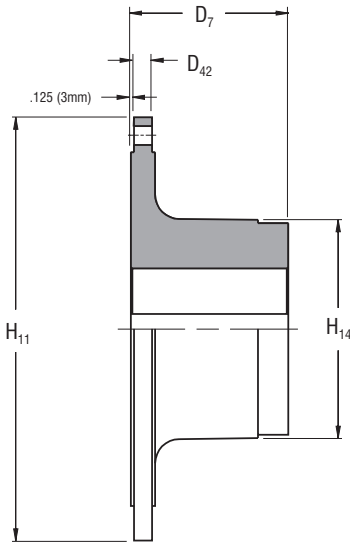
| English  | Dimensions in inches |    |        |        |    |        | lb   | lb ft² | in    | lb   | lb ft² |
|----------|----------------------|----|--------|--------|----|--------|------|--------|-------|------|--------|
| 14VC1000 | 11.50                | 14 | 9.250  | 8.250  | 12 | ⑨      | 0.88 | 122    | 35    | N/A  | N/A    |
| 16VC1000 | 11.50                | 16 | 11.500 | 10.000 | ⑤  | 0.78 ② | 1.00 | 98     | 38    | 0.88 | 94     |
| 20VC1000 | 11.50                | 20 | 15.000 | 13.500 | ⑤  | 0.78   | 1.00 | 169    | 112   | 0.88 | 164    |
| 24VC1000 | 11.50                | 24 | 16.000 | 14.625 | ⑤  | 0.78   | 1.00 | 225    | 192   | 0.88 | 215    |
| 28VC1000 | 11.50                | 28 | 20.000 | 18.500 | ⑤  | 0.78   | 1.00 | 295    | 350   | 0.88 | 282    |
| 32VC1000 | 11.50                | 32 | 21.000 | 19.000 | ⑥  | 0.78   | 1.00 | 371    | 559   | 0.88 | 352    |
| 38VC1200 | 13.63                | 38 | 27.000 | 25.000 | ⑦  | 0.78   | 1.00 | 552    | 1214  | 0.88 | 530    |
| 42VC1200 | 13.63                | 42 | 31.000 | 29.000 | ⑧  | 0.78   | 1.13 | 582    | 1567  | 1.00 | 550    |
| 46VC1200 | 13.63                | 46 | 34.500 | 32.500 | ⑦  | 1.03   | 1.25 | 729    | 2357  | 1.13 | 700    |
| 52VC1200 | 13.88                | 52 | 40.000 | 38.000 | ⑥  | 1.06   | 1.25 | 852    | 3552  | 1.13 | 820    |
| 51VC1600 | 18.13                | 51 | 40.000 | 38.000 | ⑥  | 1.06   | 1.25 | 890    | 4145  | 1.13 | 860    |
| 60VC1600 | 17.75                | 60 | 46.000 | 42.000 | 24 | 1.56   | 1.75 | 1640   | 8810  | 1.63 | 1590   |
| 66VC1600 | 18.25                | 66 | 48.000 | 44.000 | ⑧  | 1.56   | 1.75 | 1905   | 15070 | 1.50 | 1770   |

| Size     | D <sub>6</sub> | ③ H <sub>1</sub> | H <sub>9</sub> | ④ H <sub>10</sub> | No.     |      | Weight               |      |       | Weight                 |      |       |
|----------|----------------|------------------|----------------|-------------------|---------|------|----------------------|------|-------|------------------------|------|-------|
|          |                |                  |                |                   | L Holes |      | Male Register Drum ⑩ |      |       | Female Register Drum ⑩ |      |       |
|          |                |                  |                |                   | No.     | Size | D <sub>31</sub>      | Mass | J     | D <sub>31</sub>        | Mass | J     |
| 14VC1000 | 292            | 356              | 235,0          | 209,6             | 12      | ⑨    | 22                   | 55   | 1,47  | N/A                    | N/A  | N/A   |
| 16VC1000 | 292            | 406              | 292,1          | 254,0             | ⑤       | 20 ② | 25                   | 44   | 1,60  | 22                     | 43   | 1,55  |
| 20VC1000 | 292            | 508              | 381,0          | 342,9             | ⑤       | 20   | 25                   | 77   | 4,70  | 22                     | 74   | 4,58  |
| 24VC1000 | 292            | 610              | 406,4          | 371,5             | ⑤       | 20   | 25                   | 102  | 8,06  | 22                     | 97   | 7,81  |
| 28VC1000 | 292            | 711              | 508,0          | 469,9             | ⑤       | 20   | 25                   | 134  | 14,70 | 22                     | 128  | 14,20 |
| 32VC1000 | 292            | 813              | 533,4          | 482,6             | ⑥       | 20   | 25                   | 168  | 23,48 | 22                     | 159  | 22,55 |
| 38VC1200 | 346            | 965              | 685,8          | 635,0             | ⑦       | 20   | 25                   | 250  | 50,99 | 22                     | 240  | 49,27 |
| 42VC1200 | 346            | 1067             | 787,4          | 736,6             | ⑧       | 20   | 29                   | 264  | 65,81 | 25                     | 249  | 63,42 |
| 46VC1200 | 346            | 1168             | 876,3          | 825,5             | ⑦       | 26   | 32                   | 330  | 98,99 | 29                     | 317  | 95,59 |
| 52VC1200 | 353            | 1321             | 1016,0         | 965,2             | ⑥       | 27   | 32                   | 386  | 149,2 | 29                     | 371  | 143,9 |
| 51VC1600 | 461            | 1295             | 1016,0         | 965,2             | ⑥       | 27   | 32                   | 403  | 174,1 | 29                     | 390  | 169,5 |
| 60VC1600 | 451            | 1524             | 1168,4         | 1066,8            | 24      | 40   | 44                   | 743  | 370,0 | 41                     | 720  | 360,2 |
| 66VC1600 | 464            | 1676             | 1219,2         | 1117,6            | ⑧       | 40   | 44                   | 863  | 632,9 | 38                     | 802  | 602,3 |

## Notes:

- ① Drum furnished without male register.
- ② Male drum has tapped holes. Female has drilled holes. See VC510.
- ③ Tolerance +0.000/-0.010 in (+0,00/-0,25 mm)
- ④ Tolerance for sizes:  
14 thru 51 +0.003/-0.000 in (+0,08/-0,00 mm)  
60 and 66 +0.005/-0.000 in (+0,13/-0,00 mm)
- ⑤ 14 Holes based upon a 16 hole pattern. Two holes 180° apart not used.
- ⑥ 22 Holes based upon a 24 hole pattern. Two holes 180° apart not used.
- ⑦ 30 Holes based upon a 32 hole pattern. Two holes 180° apart not used.
- ⑧ 34 Holes based upon a 36 hole pattern. Two holes 180° apart not used.
- ⑨ Furnished with tapped holes only. 1/2-13 American National Standards for Unified Screw Threads.
- ⑩ See form VC 510





| Size             | Drum Hub Part Numbers for: |              |               |              |
|------------------|----------------------------|--------------|---------------|--------------|
|                  | Single Elements            |              | Dual Elements |              |
|                  | Thru Holes                 | Tapped Holes | Thru Holes    | Tapped Holes |
| <b>11.5VC500</b> | 406959                     | 406960       | 406945        | 406946       |
| <b>14VC500</b>   | 406961                     | 406962       | 406961        | 406962       |
| <b>16VC600</b>   | 406963                     | 406964       | 407027        | 407028       |
| <b>20VC600</b>   | 406965                     | 406966       | 406376        | 407029       |
| <b>24VC650</b>   | 406967                     | 406968       | 405625        | 405626       |
| <b>28VC650</b>   | 406969                     | 406970       | 405628        | 405629       |
| <b>33VC650</b>   | 406971                     | 406972       | 405631        | 405632       |
| <b>37VC650</b>   | 406973                     | 406974       | 405634        | 405635       |
| <b>42VC650</b>   | 406975                     | 407000       | 405637        | 405638       |

| English          | in              | lb              | lb-ft <sup>2</sup> | Dimensions in inches      |                 |                 | lb              | lb-ft <sup>2</sup> | Dimensions in inches      |                 |                 |
|------------------|-----------------|-----------------|--------------------|---------------------------|-----------------|-----------------|-----------------|--------------------|---------------------------|-----------------|-----------------|
| <b>11.5VC500</b> | 8.25            | 35              | 2                  | 5.00                      | 0.63            | 6.00            | 43              | 2                  | 7.00                      | 0.63            | 6.00            |
| <b>14VC500</b>   | 10.25           | 65              | 4                  | 5.75                      | 0.75            | 7.50            | 60              | 4                  | 5.75                      | 0.75            | 7.50            |
| <b>16VC600</b>   | 11.13           | 62              | 4                  | 5.75                      | 0.63            | 7.50            | 82              | 6                  | 6.50                      | 0.75            | 8.00            |
| <b>20VC600</b>   | 13.50           | 95              | 9                  | 6.50                      | 0.75            | 8.50            | 124             | 13                 | 7.00                      | 0.75            | 10.00           |
| <b>24VC650</b>   | 17.50           | 124             | 19                 | 6.50                      | 0.75            | 9.00            | 215             | 42                 | 7.50                      | 1.00            | 12.00           |
| <b>28VC650</b>   | 21.50           | 240             | 59                 | 8.00                      | 0.75            | 11.50           | 292             | 85                 | 8.00                      | 1.00            | 13.00           |
| <b>33VC650</b>   | 23.00           | 347             | 93                 | 9.00                      | 0.75            | 13.50           | 395             | 123                | 9.50                      | 1.00            | 14.50           |
| <b>37VC650</b>   | 28.50           | 398             | 159                | 9.00                      | 0.75            | 13.50           | 528             | 240                | 10.00                     | 1.00            | 15.50           |
| <b>42VC650</b>   | 32.50           | 545             | 243                | 10.00                     | 0.75            | 15.00           | 647             | 413                | 11.00                     | 1.00            | 16.50           |
| Size             | H <sub>11</sub> | Weight ①        |                    | For Single Elements       |                 |                 | Weight ①        |                    | For Dual Elements         |                 |                 |
|                  |                 | Wk <sup>2</sup> |                    | D <sub>7</sub>            | D <sub>42</sub> | H <sub>14</sub> | Wk <sup>2</sup> |                    | D <sub>7</sub>            | D <sub>42</sub> | H <sub>14</sub> |
|                  |                 | Mass ①          | J                  | D <sub>7</sub>            | D <sub>42</sub> | H <sub>14</sub> | Mass ①          | J                  | D <sub>7</sub>            | D <sub>42</sub> | H <sub>14</sub> |
| <b>11.5VC500</b> | 210             | 16              | 0,08               | 127                       | 16              | 152             | 19              | 0,08               | 178                       | 16              | 152             |
| <b>14VC500</b>   | 260             | 29              | 0,17               | 146                       | 19              | 191             | 27              | 0,17               | 146                       | 19              | 191             |
| <b>16VC600</b>   | 283             | 28              | 0,17               | 146                       | 16              | 191             | 37              | 0,25               | 165                       | 19              | 203             |
| <b>20VC600</b>   | 343             | 43              | 0,38               | 165                       | 19              | 216             | 56              | 0,55               | 178                       | 19              | 254             |
| <b>24VC650</b>   | 445             | 56              | 0,80               | 165                       | 19              | 229             | 97              | 1,76               | 191                       | 25              | 305             |
| <b>28VC650</b>   | 546             | 109             | 2,48               | 203                       | 19              | 292             | 132             | 3,57               | 203                       | 25              | 330             |
| <b>33VC650</b>   | 584             | 157             | 3,91               | 229                       | 19              | 343             | 179             | 5,17               | 241                       | 25              | 368             |
| <b>37VC650</b>   | 724             | 180             | 6,68               | 229                       | 19              | 343             | 239             | 10,08              | 254                       | 25              | 394             |
| <b>42VC650</b>   | 826             | 247             | 10,21              | 254                       | 19              | 381             | 293             | 17,35              | 279                       | 25              | 419             |
| SI               | mm              | kg              | kg·m <sup>2</sup>  | Dimensions in millimeters |                 |                 | kg              | kg·m <sup>2</sup>  | Dimensions in millimeters |                 |                 |

**Notes:**

① Based upon minimum bores.

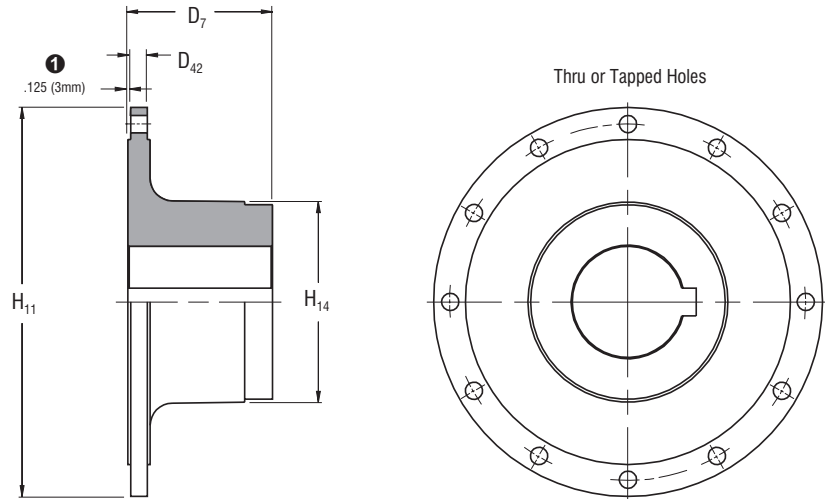
# Airflex® VC Mounting Components



Form VC 516

Drum Hubs – Wide Sizes – Dimensional and Technical Data

| Size     | Hub Part Numbers for: |              |            |              |
|----------|-----------------------|--------------|------------|--------------|
|          | Single Drums          |              | Dual Drums |              |
|          | Thru Holes            | Tapped Holes | Thru Holes | Tapped Holes |
| 14VC1000 | 411113                |              |            |              |
| 16VC1000 | 407069                | 407070       | 410487     | 407072       |
| 20VC1000 | 407073                | 407074       | 407075     | 407076       |
| 24VC1000 | 405625                | 405626       | 407077     | 407078       |
| 28VC1000 | 405628                | 405629       | 408031     | 407081       |
| 32VC1000 | 405631                | 405632       | 407082     | 407083       |
| 38VC1200 | 405634                | 405635       | 406841     | 407084       |
| 42VC1200 | 405637                | 405638       | 410990     | 407085       |
| 46VC1200 | 405640                | 405641       | 408001     | 407086       |
| 52VC1200 | 407079                | 407080       | 407876     | 407087       |
| 51VC1600 | 408585                |              | 408586     |              |
| 60VC1600 | 411500                |              | 411691     |              |
| 66VC1600 |                       |              | 413725     |              |



| English    | inches          |                 | lb                 | lb-ft <sup>2</sup> | inches         |                 | lb              | lb-ft <sup>2</sup> | inches           |                 |                |  |                 |  |
|------------|-----------------|-----------------|--------------------|--------------------|----------------|-----------------|-----------------|--------------------|------------------|-----------------|----------------|--|-----------------|--|
| 14VC1000   | 0.75            | 10.25           | 70                 | 5                  | 7.00           | 7.50            |                 |                    |                  |                 |                |  |                 |  |
| 16VC1000   | 0.75            | 13.00           | 97                 | 9                  | 5.50           | 9.50            | 199             | 19                 | 10.00            | 9.50            |                |  |                 |  |
| 20VC1000   | 0.75            | 16.50           | 150                | 21                 | 7.00           | 10.00           | 203             | 32                 | 9.50             | 11.00           |                |  |                 |  |
| 24VC1000   | 1.00            | 17.50           | 215                | 44                 | 7.50           | 12.00           | 271             | 50                 | 9.50             | 12.75           |                |  |                 |  |
| 28VC1000   | 1.00            | 21.50           | 297                | 82                 | 8.00           | 13.00           | 370             | 99                 | 10.00            | 14.00           |                |  |                 |  |
| 32VC1000   | 1.00            | 22.50           | 407                | 127                | 9.50           | 14.50           | 574             | 185                | 12.00            | 16.50           |                |  |                 |  |
| 38VC1200   | 1.00            | 28.50           | 521                | 236                | 10.00          | 15.50           | 806             | 368                | 13.00            | 18.50           |                |  |                 |  |
| 42VC1200   | 1.00            | 32.50           | 677                | 378                | 11.00          | 16.50           | 1233            | 653                | 17.00            | 20.00           |                |  |                 |  |
| 46VC1200   | 1.25            | 36.50           | 813                | 577                | 11.00          | 17.00           | 1316            | 856                | 17.00            | 20.00           |                |  |                 |  |
| 52VC1200   | 1.25            | 42.00           | 1125               | 1000               | 12.50          | 18.50           | 1803            | 1514               | 17.00            | 23.00           |                |  |                 |  |
| 51VC1600   | 1.25            | 42.00           | 1475               | 1150               | 15.00          | 20.00           | 2303            | 1993               | 20.00            | 25.00           |                |  |                 |  |
| 60VC1600   | 1.75            | 49.00           | 2526               | 3034               | 16.00          | 26.00           | 4143            | 4967               | 24.00            | 30.00           |                |  |                 |  |
| 66VC1600 ③ | 2.00            | 51.50           | 4940               | 6760               | 20.00          | 34.00           | 6450            | 7800               | 24.00            | 34.00           |                |  |                 |  |
| Size       | D <sub>42</sub> | H <sub>11</sub> | Weight ②           |                    | D <sub>7</sub> |                 | H <sub>14</sub> |                    | Weight ②         |                 | D <sub>7</sub> |  | H <sub>14</sub> |  |
|            |                 |                 | For Single Element |                    |                |                 |                 |                    | For Dual Element |                 |                |  |                 |  |
|            |                 |                 | Mass ②             | J                  | D <sub>7</sub> | H <sub>14</sub> | Mass ②          | J                  | D <sub>7</sub>   | H <sub>14</sub> |                |  |                 |  |
| 14VC1000   | 19              | 260             | 32                 | 0,21               | 178            | 191             |                 |                    |                  |                 |                |  |                 |  |
| 16VC1000   | 19              | 330             | 44                 | 0,38               | 140            | 241             | 90              | 0,80               | 254              | 241             |                |  |                 |  |
| 20VC1000   | 19              | 419             | 68                 | 0,88               | 178            | 254             | 92              | 1,34               | 241              | 279             |                |  |                 |  |
| 24VC1000   | 25              | 445             | 97                 | 1,85               | 191            | 305             | 123             | 2,10               | 241              | 324             |                |  |                 |  |
| 28VC1000   | 25              | 546             | 135                | 3,44               | 203            | 330             | 168             | 4,16               | 254              | 356             |                |  |                 |  |
| 32VC1000   | 25              | 572             | 184                | 5,33               | 241            | 368             | 260             | 7,77               | 305              | 419             |                |  |                 |  |
| 38VC1200   | 25              | 724             | 236                | 9,91               | 254            | 394             | 365             | 15,46              | 330              | 470             |                |  |                 |  |
| 42VC1200   | 25              | 826             | 307                | 15,88              | 279            | 419             | 559             | 27,43              | 432              | 508             |                |  |                 |  |
| 46VC1200   | 32              | 927             | 368                | 24,23              | 279            | 432             | 596             | 35,95              | 432              | 508             |                |  |                 |  |
| 52VC1200   | 32              | 1067            | 510                | 42,00              | 318            | 470             | 817             | 63,59              | 432              | 584             |                |  |                 |  |
| 51VC1600   | 32              | 1067            | 668                | 48,30              | 381            | 508             | 1043            | 83,71              | 508              | 635             |                |  |                 |  |
| 60VC1600   | 44              | 1245            | 1144               | 127,4              | 406            | 660             | 1877            | 208,6              | 610              | 762             |                |  |                 |  |
| 66VC1600 ③ | 51              | 1308            | 2238               | 283,9              | 508            | 864             | 2922            | 327,6              | 610              | 864             |                |  |                 |  |
| SI         | millimeters     |                 | kg                 | kg m <sup>2</sup>  | millimeters    |                 | kg              | kg m <sup>2</sup>  | millimeters      |                 |                |  |                 |  |

**Notes:**

① 0.25 (6 mm) for size 66.

② Based upon minimum bores.

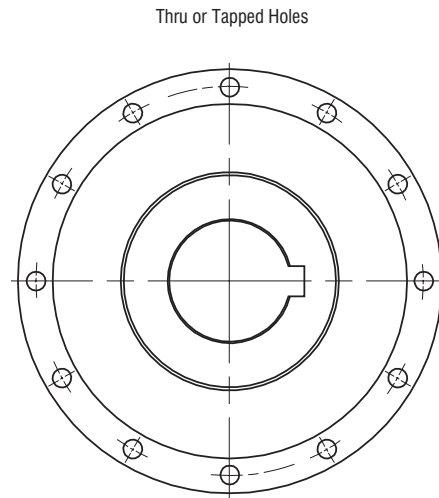
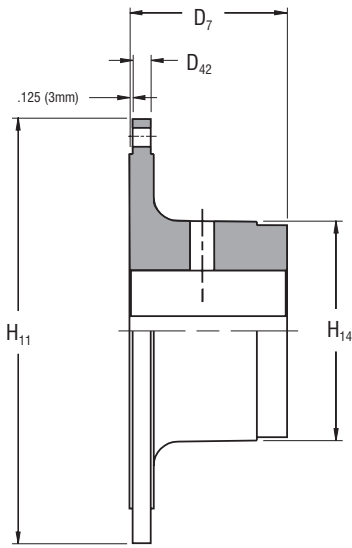
③ Data for dual element hub also applies to the dual element adapter hub part number 413724.

# Airflex<sup>®</sup> VC Mounting Components



Form VC 512

Ventilated Adapter Hub – Narrow Sizes  
Dimensional and Technical Data



| Size             | Hub Part Numbers for: |              |               |              |
|------------------|-----------------------|--------------|---------------|--------------|
|                  | Single Adapter        |              | Dual Adapters |              |
|                  | Thru Holes            | Tapped Holes | Thru Holes    | Tapped Holes |
| <b>11.5VC500</b> | 406904                | 406905       | 408232        | 408233       |
| <b>14VC500</b>   | 407011                | 407012       | 408234        | 408235       |
| <b>16VC600</b>   | 407013                | 407014       | 408236        | 408237       |
| <b>20VC600</b>   | 407015                | 407016       | 408238        | 408239       |
| <b>24VC650</b>   | 407017                | 407018       | 408240        | 408241       |
| <b>28VC650</b>   | 407019                | 407020       | 408242        | 408243       |
| <b>33VC650</b>   | 407021                | 407022       | 408244        | 408245       |
| <b>37VC650</b>   | 407023                | 407024       | 408246        | 408247       |
| <b>42VC650</b>   | 407025                | 407026       | 408248        | 408249       |

| English          | in              | lb                  | lbft <sup>2</sup> | inches         |                 |                 | lb                | lbft <sup>2</sup> | inches         |                 |                 |
|------------------|-----------------|---------------------|-------------------|----------------|-----------------|-----------------|-------------------|-------------------|----------------|-----------------|-----------------|
| <b>11.5VC500</b> | 10.25           | 54                  | 4                 | 5.00           | 0.63            | 7.00            | 64                | 4                 | 5.75           | 0.75            | 7.50            |
| <b>14VC500</b>   | 13.50           | 82                  | 8                 | 5.75           | 0.75            | 7.50            | 82                | 8                 | 5.75           | 0.75            | 7.50            |
| <b>16VC600</b>   | 15.00           | 99                  | 14                | 5.75           | 0.75            | 8.00            | 108               | 15                | 6.50           | 0.75            | 8.00            |
| <b>20VC600</b>   | 20.00           | 147                 | 34                | 6.50           | 0.75            | 8.50            | 166               | 34                | 7.00           | 0.75            | 10.00           |
| <b>24VC650</b>   | 23.00           | 192                 | 56                | 6.50           | 0.75            | 9.50            | 250               | 68                | 7.50           | 0.75            | 12.00           |
| <b>28VC650</b>   | 26.50           | 250                 | 106               | 8.00           | 0.75            | 9.50            | 324               | 119               | 8.00           | 0.75            | 13.00           |
| <b>33VC650</b>   | 33.50           | 374                 | 214               | 9.00           | 0.75            | 11.00           | 532               | 342               | 9.50           | 1.00            | 14.50           |
| <b>37VC650</b>   | 36.00           | 434                 | 294               | 9.00           | 0.75            | 11.00           | 595               | 360               | 10.00          | 0.75            | 15.50           |
| <b>42VC650</b>   | 41.50           | 633                 | 536               | 10.00          | 0.75            | 13.50           | 769               | 608               | 11.00          | 0.75            | 16.50           |
| Size             | H <sub>11</sub> | For Single Elements |                   |                |                 |                 | For Dual Elements |                   |                |                 |                 |
|                  |                 | Weight ①            | Wk <sup>2</sup>   | D <sub>7</sub> | D <sub>42</sub> | H <sub>14</sub> | Weight ①          | Wk <sup>2</sup>   | D <sub>7</sub> | D <sub>42</sub> | H <sub>14</sub> |
|                  |                 | Mass ①              | J                 | D <sub>7</sub> | D <sub>42</sub> | H <sub>14</sub> | Mass ①            | J                 | D <sub>7</sub> | D <sub>42</sub> | H <sub>14</sub> |
| <b>11.5VC500</b> | 260             | 24                  | 0,17              | 127            | 16              | 178             | 29                | 0,17              | 146            | 19              | 191             |
| <b>14VC500</b>   | 343             | 37                  | 0,34              | 146            | 19              | 191             | 37                | 0,34              | 146            | 19              | 191             |
| <b>16VC600</b>   | 381             | 45                  | 0,59              | 146            | 19              | 203             | 49                | 0,63              | 165            | 19              | 203             |
| <b>20VC600</b>   | 508             | 67                  | 1,43              | 165            | 19              | 216             | 75                | 1,43              | 178            | 19              | 254             |
| <b>24VC650</b>   | 584             | 87                  | 2,35              | 165            | 19              | 241             | 113               | 2,86              | 191            | 19              | 305             |
| <b>28VC650</b>   | 673             | 113                 | 4,45              | 203            | 19              | 241             | 147               | 5,00              | 203            | 19              | 330             |
| <b>33VC650</b>   | 851             | 169                 | 8,99              | 229            | 19              | 279             | 241               | 14,36             | 241            | 25              | 368             |
| <b>37VC650</b>   | 914             | 197                 | 12,35             | 229            | 19              | 279             | 270               | 15,12             | 254            | 19              | 394             |
| <b>42VC650</b>   | 1054            | 287                 | 22,51             | 254            | 19              | 343             | 348               | 25,54             | 279            | 19              | 419             |
| SI               | mm              | kg                  | kg m <sup>2</sup> | millimeters    |                 |                 | kg                | kg m <sup>2</sup> | millimeters    |                 |                 |

**Notes:**

① Based upon minimum bores.