

Dual disc element shown

| Item Number | Description |
|-------------|-----------------|
| 1 | Mounting Flange |
| 2 | Stud |
| 3 | Friction Disc |
| 4 | Clamp Tube |
| 5 | Pressure Plate |
| 6 | Spring Housing |
| 7 | Flat Washer |
| 8 | Lock Nut |
| 9 | Cylinder |
| 10 | Hex Head Screw |
| 11 | Inner Seal |
| 12 | Spring |
| 13 | Outer Seal |
| 14 | Spacer Tube |
| 15 | Gear |
| 16 | Wear Spacer |
| 17 | Reaction Plate |
| 18 | Release Spring |
| 19 | Spring Retainer |
| 20 | Flat Head Screw |
| 21 | Disc |

Authorized Distributor

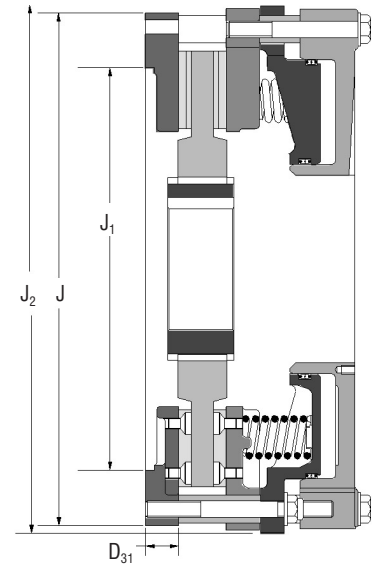
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sales@midwestbrake.com
www.midwestbrake.com

Eaton® Airflex® Clutches & Brakes

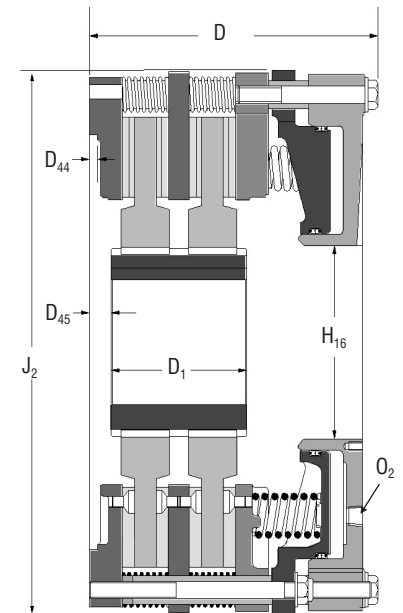
Dimensional and Technical Data

| English | | Dimensions in inches | | | |
|---------|------------|---------------------------|-------|-------|----------------|
| 120DBBS | | 3.50 | 5.63 | 10.30 | 3.00 |
| 220DBBS | | 4.25 | 5.69 | 13.48 | 6.27 |
| 320DBBS | | 4.88 | 5.75 | 16.63 | 10.31 |
| 420DBBS | | 5.13 | 5.81 | 19.81 | 12.50 |
| 125DBBS | | 4.50 | 7.00 | 11.49 | 3.50 |
| 225DBBS | | 5.50 | 7.13 | 14.73 | 7.00 |
| 325DBBS | | 6.13 | 7.38 | 17.96 | 12.00 |
| 425DBBS | | 6.63 | 7.31 | 21.19 | 15.00 |
| 138DBBS | | 8.50 | 10.06 | 15.20 | 5.00 |
| 238DBBS | | 8.50 | 10.06 | 18.97 | 9.00 |
| 338DBBS | | 9.63 | 10.06 | 22.60 | 13.00 |
| 438DBBS | | 10.38 | 10.38 | 26.34 | 18.00 |
| Size | Bore Range | Min. | Max. | D | D ₁ |
| | | Bore Range | | | |
| | | Min. | Max. | | |
| 120DBBS | | 89 | 143 | 262 | 76 |
| 220DBBS | | 103 | 145 | 342 | 159 |
| 320DBBS | | 124 | 146 | 422 | 262 |
| 420DBBS | | 130 | 148 | 503 | 318 |
| 125DBBS | | 114 | 177 | 292 | 89 |
| 225DBBS | | 140 | 181 | 374 | 178 |
| 325DBBS | | 156 | 187 | 456 | 381 |
| 425DBBS | | 168 | 186 | 538 | 381 |
| 138DBBS | | 216 | 256 | 386 | 127 |
| 238DBBS | | 216 | 256 | 482 | 229 |
| 338DBBS | | 245 | 256 | 574 | 330 |
| 438DBBS | | 264 | 264 | 669 | 457 |
| SI | | Dimensions in millimeters | | | |

| English | | Dimensions in inches | | | | | | | |
|---------|-----------------|---------------------------|-----------------|-----------------|-------|------------------|------------------|------------------|--------|
| 20DBBS | | 1.50 | 0.38 | 1.00 | 8.50 | 23.250 | 18.250 | 23.82 | 1/2-14 |
| 25DBBS | | 1.75 | 0.25 | 1.00 | 11.50 | 30.630 | 24.375 | 30.89 | 1/2-14 |
| 38DBBS | | 2.45 | 0.25 | 1.00 | 16.50 | 44.750 | 36.375 | 45.00 | 3/4-14 |
| Size | D ₃₁ | D ₄₄ | D ₄₅ | H ₁₆ | J ② | J ₁ ③ | J ₂ ④ | O ₂ ⑤ | |
| 20DBBS | | 38 | 10 | 25 | 216 | 590.6 | 463.5 | 605 | 1/2-14 |
| 25DBBS | | 44 | 6 | 25 | 292 | 778.0 | 619.1 | 785 | 1/2-14 |
| 38DBBS | | 62 | 6 | 25 | 419 | 1135.7 | 923.9 | 1143 | 3/4-14 |
| SI | | Dimensions in millimeters | | | | | | | |

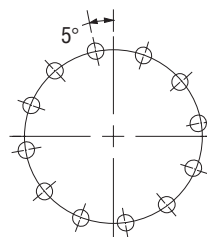


Single Disc element

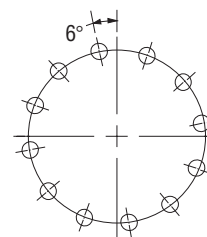


Dual Disc element

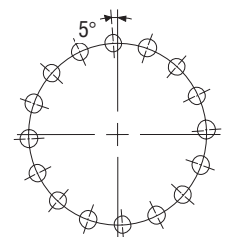
Mounting Bolt Circles



20DBBS
(12) 0.656 (16.7) Ø
Mounting holes equally spaced as shown on 22.000 (558.0) Bolt



25DBBS
(12) 0.656 (16.7) Ø
Mounting holes equally spaced as shown on 28.750 (730.0) Bolt



38 DBBS
(16) 1.062 (27.0) Ø
Mounting holes equally spaced as shown on 42.000 (1066.8) Bolt

Notes:

- ① Brake in disengaged position.
- ② Tolerance +0.000/-0.003 in (+0,00/-0,08 mm)
- ③ Tolerance +0.003/-0.000 in (+0,08/-0,00 mm)
- ④ Maximum diameter of "as cast" surfaces.
- ⑤ American National Pipe Thread.

Dimensional and Technical Data

| English | | | lb·in | psi | in ³ | in ² | lb·ft ² | lb | rpm | |
|----------------|---------------|------------------|---------------------|------------------------------|--------------------|-----------------|--------------------|--------|---------|---------------|
| 120DBBS | 146323 | 415900 | 80,000 | 90 | 133 | 346 | 33 | 125 | 400 | 2200 |
| 220DBBS | 146322 | 416059 | 150,000 | 90 | 133 | 692 | 65 | 232 | 550 | 2200 |
| 320DBBS | 146373 | 416471 | 224,000 | 90 | 133 | 1,038 | 120 | 357 | 720 | 2200 |
| 420DBBS | 146374 | 416472 | 220,000 | 90 | 133 | 1,384 | 159 | 464 | 914 | 2200 |
| 125DBBS | 146320 | 416073 | 173,000 | 90 | 259 | 628 | 89 | 212 | 880 | 1700 |
| 225DBBS | 146330 | 416074 | 325,000 | 90 | 259 | 1,255 | 178 | 416 | 1,318 | 1700 |
| 325DBBS | 146382 | 416477 | 455,000 | 90 | 259 | 1,883 | 309 | 682 | 1,585 | 1700 |
| 425DBBS | 146383 | 416470 | 585,000 | 90 | 259 | 2,510 | 411 | 854 | 1,882 | 1700 |
| 138DBBS | 146328 | 416068 | 630,000 | 90 | 612 | 1,357 | 553 | 583 | 2,125 | 950 |
| 238DBBS | 146329 | 416069 | 1,200,000 | 90 | 612 | 2,714 | 1,094 | 1,100 | 3,125 | 950 |
| 338DBBS | 146384 | 416414 | 1,730,000 | 90 | 612 | 4,071 | 1,709 | 1,680 | 4,085 | 950 |
| 438DBBS | 146385 | 416461 | 2,200,000 | 90 | 612 | 5,428 | 2,285 | 2,264 | 4,975 | 950 |
| Size ⑥ | ① Part Number | Gear Part Number | M, Torque Rating ②③ | Minimum Releasing Pressure ④ | ⑤ Releasing volume | Friction Area | Wk ² | Weight | Housing | Maximum Speed |
| | | | | | | | Disc & Gear | | | |
| | | | | | | | J | Mass | | |
| 120DBBS | 146323 | 415900 | 9.032 | 6,2 | 2,18 | 2,232 | 1,39 | 56 | 181 | 2200 |
| 220DBBS | 146322 | 416059 | 16.935 | 6,2 | 2,18 | 4,465 | 2,74 | 105 | 249 | 2200 |
| 320DBBS | 146373 | 416471 | 25.290 | 6,2 | 2,18 | 6,697 | 5,06 | 162 | 327 | 2200 |
| 420DBBS | 146374 | 416472 | 24.839 | 6,2 | 2,18 | 8,930 | 6,70 | 211 | 415 | 2200 |
| 125DBBS | 146320 | 416073 | 19.532 | 6,2 | 4,24 | 4,052 | 3,75 | 96 | 398 | 1700 |
| 225DBBS | 146330 | 416074 | 36.693 | 6,2 | 4,24 | 8,097 | 7,50 | 188 | 596 | 1700 |
| 325DBBS | 146382 | 416477 | 51.372 | 6,2 | 4,24 | 12,149 | 13,03 | 310 | 720 | 1700 |
| 425DBBS | 146383 | 416470 | 66.049 | 6,2 | 4,24 | 16,194 | 17,34 | 388 | 855 | 1700 |
| 138DBBS | 146328 | 416068 | 71.127 | 6,2 | 10,02 | 8,755 | 23,30 | 264 | 962 | 950 |
| 238DBBS | 146329 | 416069 | 135.480 | 6,2 | 10,02 | 17,510 | 46,10 | 498 | 1,414 | 950 |
| 338DBBS | 146384 | 416414 | 195.325 | 6,2 | 10,02 | 26,265 | 72,10 | 736 | 1,856 | 950 |
| 438DBBS | 146385 | 416461 | 248.391 | 6,2 | 10,02 | 35,020 | 96,41 | 1,029 | 2,261 | 950 |
| SI | | | N·m | bar | dm ³ | cm ² | kg·m ² | kg | | rpm |

Notes:

- ① Basic part number only. Does not include gear. Gear must be ordered separately with bore and keyway requirements.
- ② Dynamic torque shown. Static torque approximately 15% greater. Torque values are for new linings. Torque decreases with lining wear. At worn out condition, torque is approximately 0.66 of values shown.
- ③ Torque ratings are for units with a standard complement of springs. Consult factory for torque ratings of units with non-standard spring configurations.
- ④ Maximum allowable cylinder pressure is 120 psi (8,31 bar).
- ⑤ Absolute volume of releasing cavity.
- ⑥ Triple and quadruple disc units can also be supplied for each size. Consult factory for dimensional and technical data.