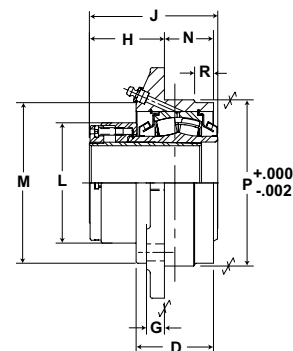
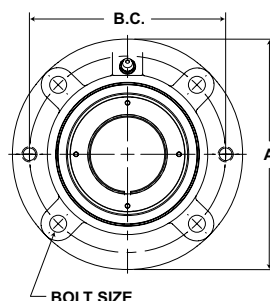


# Performance Mounted Spherical Roller Bearings **SEALMASTER®**



**Rolling Elements:** Spherical Roller  
**Housing:** Cast Iron Piloted Flange Cartridge  
**Self Alignment:** +/- 2 Degrees  
**Lock:** Adapter  
**Seal:** Felt  
**Optional Seal:** Double Lip Contact  
**Temperature:** -20° to 220° F



## USFC5000A Series Piloted Flange Cartridge Units - Adapter Mount

| Bore Diameter<br>Inch | Part No.      | Basic Dynamic Rating<br>lb/N | Dimensions inch / mm |       |        |       |         |         |         |        |         |       |       |           | Unit Wt.<br>lb/kg |
|-----------------------|---------------|------------------------------|----------------------|-------|--------|-------|---------|---------|---------|--------|---------|-------|-------|-----------|-------------------|
|                       |               |                              | A                    | B.C.  | D      | G     | H *     | J       | L       | M      | N *     | P     | R     | Bolt Size |                   |
| 1 7/16                | USFC5000A-107 | 20368                        | 5 1/4                | 4 3/8 | 2 1/16 | 15/32 | 2 3/64  | 3 11/32 | 2 47/64 | 3 1/2  | 1 9/32  | 3 5/8 | —     | 3/8       | 5.6               |
| 1 1/2                 | USFC5000A-108 | 90597                        | 133.4                | 111.1 | 52.4   | 11.9  | 52.0    | 84.9    | 69.5    | 88.9   | 32.5    | 92.1  | —     | 3/8       | 2.56              |
| 1 11/16               | USFC5000A-111 | 22689                        | 6 1/8                | 5 1/8 | 2 1/4  | 15/32 | 2       | 3 29/64 | 2 31/32 | 4      | 1 7/16  | 4 1/4 | 9/16  | 7/16      | 7.9               |
| 1 3/4                 | USFC5000A-112 | 100921                       | 155.6                | 130.2 | 57.2   | 11.9  | 50.8    | 87.7    | 75.4    | 101.6  | 36.5    | 108.0 | 14.3  | 7/16      | 3.60              |
| 1 15/16               | USFC5000A-115 | 23520                        | 6 3/8                | 5 3/8 | 2 1/4  | 17/32 | 2 1/64  | 3 1/2   | 3 11/64 | 4 3/8  | 1 15/32 | 4 1/2 | 5/8   | 7/16      | 8.6               |
| 2                     | USFC5000A-200 | 104617                       | 161.9                | 136.5 | 57.2   | 13.5  | 51.2    | 88.9    | 80.6    | 111.1  | 37.3    | 114.3 | 15.9  | 7/16      | 3.92              |
| 2 3/16                | USFC5000A-203 | 28087                        | 7 1/8                | 6     | 2 3/8  | 17/32 | 2 11/32 | 3 7/8   | 3 7/16  | 4 3/4  | 1 15/32 | 5     | 15/32 | 1/2       | 10.9              |
|                       |               | 124931                       | 181.0                | 152.4 | 60.3   | 13.5  | 59.5    | 98.4    | 87.3    | 120.7  | 37.3    | 127.0 | 11.9  | 1/2       | 4.95              |
| 2 7/16                | USFC5000A-207 | 44691                        | 7 5/8                | 6 1/2 | 2 9/16 | 19/32 | 2 17/32 | 4 5/16  | 3 63/64 | 5 5/16 | 1 5/8   | 5 1/2 | 5/8   | 1/2       | 15.3              |
| 2 1/2                 | USFC5000A-208 | 198786                       | 193.7                | 165.1 | 65.1   | 15.1  | 64.3    | 109.5   | 101.2   | 134.9  | 41.3    | 139.7 | 15.9  | 1/2       | 6.95              |
| 2 11/16               | USFC5000A-211 |                              |                      |       |        |       |         |         |         |        |         |       |       |           |                   |
| 2 3/4                 | USFC5000A-212 | 47447                        | 8 3/4                | 7 1/2 | 2 7/8  | 23/32 | 2 19/32 | 4 31/64 | 4 25/64 | 6      | 1 27/32 | 6 3/8 | 19/32 | 5/8       | 21.9              |
| 2 15/16               | USFC5000A-215 | 211044                       | 222.3                | 190.5 | 73.0   | 18.3  | 65.9    | 113.9   | 111.5   | 152.4  | 46.8    | 161.9 | 15.1  |           | 9.97              |
| 3                     | USFC5000A-300 |                              |                      |       |        |       |         |         |         |        |         |       |       |           |                   |
| 3 3/16                | USFC5000A-303 | 72640                        | 10 1/4               | 8 5/8 | 3 1/8  | 53/64 | 3 1/2   | 5 35/64 | 5 15/32 | 7 3/16 | 1 27/32 | 7 3/8 | 5/8   | 3/4       | 35.5              |
| 3 7/16                | USFC5000A-307 | 323103                       | 260.4                | 219.1 | 79.4   | 21.0  | 88.9    | 140.9   | 138.9   | 182.6  | 46.8    | 187.3 | 15.9  | 3/4       | 16.15             |
| 3 1/2                 | USFC5000A-308 |                              |                      |       |        |       |         |         |         |        |         |       |       |           |                   |
| 3 11/16               | USFC5000A-311 | 96050                        | 10 7/8               | 9 3/8 | 3 1/2  | 31/32 | 3 21/32 | 5 15/16 | 5 13/16 | 7 3/4  | 2 1/16  | 8 1/8 | 9/16  | 3/4       | 43.1              |
| 3 15/16               | USFC5000A-315 | 427230                       | 276.2                | 238.1 | 88.9   | 24.6  | 92.9    | 150.8   | 147.6   | 196.9  | 52.4    | 206.4 | 14.3  | 3/4       | 19.59             |
| 4                     | USFC5000A-400 |                              |                      |       |        |       |         |         |         |        |         |       |       |           |                   |

\*For expansion bearings, the sum of dimension "H" and "N" can increase by the corresponding value in table VIII on page I-69.  
 One expansion unit is to be used in conjunction with one non-expansion unit for applications using an adapter lock unit  
 Failure to utilize one expansion and one non-expansion unit is likely to result in reduced bearing performance.

### Installation Instructions continued

#### Alternate Lubrication Procedure:

Stop rotating equipment. Add one half the recommended amount shown in Table V. Start the bearing and run for a few minutes. Stop the bearing and add the second half of the recommended amount. A temperature rise after lubrication, sometimes 30°F (17°C), is normal. Bearing should operate at temperatures less than 200°F (94°C) and should not exceed 250° (121°C) for intermittent operation. For lubrication guidelines, see Table VI.

**Note:** Table VI are general recommendations. Experience and testing may be required for specific applications.

**Note:** Grease charges in Table V are based on the use of lithium complex thickened grease with a NLGI grade 2 consistency.

#### Expansion Bearing Applications:

Before installation, make certain proper expansion is accounted for. Expansion units should be placed in a location where relative movement between the bearing insert and the housing can be tolerated. For most applications using expansion type units, the fixed unit (non-expansion unit) is placed at the drive end of the shaft. Use Table VIII to review the total available bearing expansion. If the application requires additional expansion, consult Application Engineering.

**NOTICE:** One expansion unit is to be used in conjunction with one non-expansion unit for applications using adapter lock units. Failure to utilize one expansion and one non-expansion unit is likely to result in reduced bearing performance.

Table V

| Grease Charge for Relubrication |                               |
|---------------------------------|-------------------------------|
| Bore Size                       | Grease Charge (Mass - Ounces) |
| 1 1/8 - 1 1/2                   | 0.20                          |
| 1 11/16 - 1 3/4                 | 0.20                          |
| 1 15/16 - 2                     | 0.25                          |
| 2 3/16                          | 0.40                          |
| 2 7/16 - 2 1/2                  | 0.60                          |
| 2 11/16 - 3                     | 0.75                          |
| 3 3/16 - 3 1/2                  | 1.25                          |
| 3 11/16 - 4                     | 2.00                          |
| 4 7/16 - 4 1/2                  | 2.75                          |
| 4 15/16 - 5                     | 4.00                          |

Table VI

| Relubrication Recommendations |                  |                       |                   |
|-------------------------------|------------------|-----------------------|-------------------|
| Environment                   | Temperature (°F) | Speed (% Catalog Max) | Frequency         |
| Dirty                         | -20 to 250       | 0 - 100%              | Daily to 1 Week   |
| Clean                         | -20 to 125       | 0 - 25%               | 4 to 10 Months    |
|                               |                  | 26 - 50%              | 1 to 4 Months     |
|                               |                  | 51 - 75%              | 1 Week to 1 Month |
|                               |                  | 76 - 100%             | Daily to 1 Week   |
|                               | 125 to 175       | 0 - 25%               | 2 to 6 Weeks      |
|                               |                  | 26 - 50%              | 1 Week to 1 Month |
|                               |                  | 51 - 75%              | Daily to 1 Week   |
|                               |                  | 76 - 100%             |                   |
|                               | 175 to 250       | 0 - 100%              | Daily to 1 Week   |

Table VII

| Maximum Operational Speed |                 |                    |
|---------------------------|-----------------|--------------------|
| Bore Size                 | Felt Seal (RPM) | Contact Seal (RPM) |
| 1 1/8 - 1 1/2             | 4000            | 3000               |
| 1 11/16 - 1 3/4           | 4000            | 2750               |
| 1 15/16 - 2               | 4000            | 2500               |
| 2 3/16                    | 3750            | 2200               |
| 2 7/16 - 2 1/2            | 3250            | 1750               |
| 2 11/16 - 3               | 3000            | 1600               |
| 3 3/16 - 3 1/2            | 2500            | 1350               |
| 3 11/16 - 4               | 2250            | 1200               |
| 4 7/16 - 4 1/2            | 2000            | 1100               |
| 4 15/16 - 5               | 1750            | 900                |

Table VIII

| Total Available Housing Expansion (inch) |          |              |
|------------------------------------------|----------|--------------|
| Bore Size                                | Setscrew | Adapter Lock |
| 1 1/8 - 1 1/2                            | 3/16     | 5/32         |
| 1 11/16 - 3 1/2                          | 1/4      | 7/32         |
| 3 11/16 - 4                              | 5/16     | 1/4          |
| 4 7/16 - 5                               | 3/8      | 9/32         |