

## Lovejoy / Sier-Bath Flanged Sleeve Gear Couplings

### FMM Type Mill Motor Couplings

The FMM Type coupling consists of one standard flex hub, one universal straight bored hub as standard, two sleeves and one accessory kit. This coupling is supplied with exposed bolts as standard. Shrouded bolts are available upon request through size 5.5.

#### Features

- Patented Vari-Crown® tooth form for long life
- Standard 20° pressure angle
- Heat treated bolts for greater strength
- Corrosion resistant bolts and nuts for ease of maintenance
- Provides parallel, angular misalignment and end float
- Flex Half coupling interchangeable with industry standards
- Long Universal Hub used for AISE Motor Frames



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### FMM Type Mill Motor Performance Data

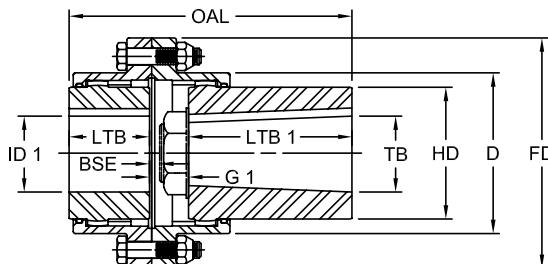
| Size | Nominal Torque |        | Maximum Speed |         | ID1 - ID2 |     |                  |     | Weight |     | Parallel Misalignment |     | Max Angular Misalignment Degrees |
|------|----------------|--------|---------------|---------|-----------|-----|------------------|-----|--------|-----|-----------------------|-----|----------------------------------|
|      |                |        |               |         | Max Bore  |     | Rough Stock Bore |     |        |     |                       |     |                                  |
|      | in-lb          | Nm     | Unbal RPM     | Bal RPM | in        | mm  | in               | mm  | lbs    | kg  | in                    | mm  |                                  |
| 1    | 7,600          | 850    | 6,000         | 9,000   | 1.625     | 42  | 0.44             | 11  | 12     | 5   | 0.056                 | 1.4 | 1.5°<br>Per Gear Mesh            |
| 1.5  | 18,900         | 2 140  | 5,500         | 8,250   | 2.125     | 56  | 0.69             | 18  | 24     | 11  | 0.060                 | 1.5 |                                  |
| 2    | 31,500         | 3 560  | 5,000         | 7,500   | 2.75      | 73  | 0.94             | 24  | 45     | 20  | 0.085                 | 2.2 |                                  |
| 2.5  | 56,700         | 6 410  | 4,400         | 6,600   | 3.25      | 85  | 1.44             | 37  | 71     | 32  | 0.105                 | 2.7 |                                  |
| 3    | 94,500         | 10 700 | 4,000         | 6,000   | 4.000     | 107 | 1.44             | 37  | 104    | 47  | 0.115                 | 2.9 |                                  |
| 3.5  | 151,200        | 17 100 | 3,500         | 5,250   | 4.625     | 125 | 1.81             | 46  | 151    | 69  | 0.130                 | 3.3 |                                  |
| 4    | 220,500        | 24 900 | 3,000         | 4,500   | 5.375     | 145 | 2.44             | 62  | 234    | 86  | 0.150                 | 3.8 |                                  |
| 4.5  | 302,400        | 34 200 | 2,700         | 4,050   | 6.000     | 165 | 3.00             | 76  | 310    | 141 | 0.175                 | 4.4 |                                  |
| 5    | 434,700        | 49 100 | 2,500         | 3,750   | 6.500     | 180 | 3.00             | 76  | 450    | 204 | 0.200                 | 5.1 |                                  |
| 5.5  | 573,300        | 64 800 | 2,200         | 3,300   | 7.500     | 200 | 4.00             | 101 | 609    | 276 | 0.220                 | 5.6 |                                  |
| 6    | 749,700        | 84 700 | 2,100         | 3,150   | 8.250     | 225 | 4.00             | 101 | 764    | 347 | 0.120                 | 3.0 |                                  |

#### Ordering Information

- Application: Driver and Driven.
- Type and size of coupling, horizontal, vertical etc.
- Power: Motor horsepower or torque requirement.
- Speed: Motor RPM or Driven RPM.
- Distance between shaft ends (BSE).
- Shaft sizes.
- Mill Motor frame size.
- Submit a drawing if available.

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### FMM Type Mill Motor Dimensional Data

| Size | AISE Frame No | OAL<br>in | ID1<br>in | LTB<br>in | LTB1<br>in | G1     | BSE<br>in | FD<br>in | D<br>in | HD<br>in | TB<br>in        | Mill Motor Hub Kw |         |
|------|---------------|-----------|-----------|-----------|------------|--------|-----------|----------|---------|----------|-----------------|-------------------|---------|
|      |               |           |           |           |            |        |           |          |         |          |                 | W<br>in           | H<br>in |
| 1.5  | 602/802       | 6.00      | 2.125     | 1.94      | 3.00       | 1.06 * | 0.13      | 6.00     | 3.97    | 3.00     | 1.7485 - 1.7495 | 0.50              | 0.25    |
|      | 603/803       | 6.56      |           |           | 3.50       | 1.13 * |           |          |         |          | 1.998 - 1.999   | 0.50              | 0.25    |
|      | 604/804       | 6.56      |           |           | 3.50       | 1.13 * |           |          |         |          | 1.998 - 1.999   | 0.50              | 0.25    |
| 2    | 603/803       | 7.06      | 2.750     | 2.44      | 3.50       | 1.13   | 0.13      | 7.00     | 4.86    | 4.00     | 1.998 - 1.999   | 0.50              | 0.25    |
|      | 604/804       | 7.06      |           |           | 3.50       | 1.13   |           |          |         |          | 1.998 - 1.999   | 0.50              | 0.25    |
|      | 606/806       | 7.69      |           |           | 4.00       | 1.25   |           |          |         |          | 2.498 - 2.499   | 0.50              | 0.25    |
| 2.5  | 603/803       | 7.72      | 3.250     | 3.03      | 3.50       | 1.19   | 0.19      | 8.38     | 5.84    | 4.63     | 1.998 - 1.999   | 0.50              | 0.25    |
|      | 604/804       | 7.72      |           |           | 3.50       | 1.19   |           |          |         |          | 1.998 - 1.999   | 0.50              | 0.25    |
|      | 606/806       | 8.34      |           |           | 4.00       | 1.31   |           |          |         |          | 2.498 - 2.499   | 0.50              | 0.25    |
| 3    | 608/808       | 8.34      | 4.000     | 3.59      | 4.50       | 1.44   | 0.19      | 9.44     | 6.84    | 5.63     | 2.998 - 2.999   | 0.75              | 0.25    |
|      | 606/806       | 8.91      |           |           | 4.00       | 1.31   |           |          |         |          | 2.498 - 2.499   | 0.50              | 0.25    |
|      | 608/808       | 9.53      |           |           | 4.50       | 1.44   |           |          |         |          | 2.998 - 2.999   | 0.75              | 0.25    |
| 3.5  | 610/810       | 9.66      | 4.625     | 4.19      | 4.50       | 1.56   | 0.25      | 11.00    | 7.91    | 6.50     | 3.248 - 3.249   | 0.75              | 0.25    |
|      | 612/812       | 10.28     |           |           | 5.00       | 1.69   |           |          |         |          | 3.623 - 3.624   | 0.75              | 0.25    |
|      | 614/814       | 10.94     |           |           | 5.00       | 1.88   |           |          |         |          | 4.270 - 4.2485  | 1.00              | 0.38    |
| 4    | 610/810       | 10.88     | 5.375     | 4.75      | 4.50       | 1.63   | 0.25      | 12.50    | 9.25    | 7.50     | 3.248 - 3.249   | 0.75              | 0.25    |
|      | 612/812       | 11.50     |           |           | 5.00       | 1.75   |           |          |         |          | 3.623 - 3.624   | 0.75              | 0.25    |
|      | 614/814       | 11.63     |           |           | 5.00       | 1.88   |           |          |         |          | 4.2470 - 4.2485 | 1.00              | 0.38    |
| 4.5  | 616/816       | 12.25     | 6.000     | 5.31      | 5.50       | 2.00   | 0.31      | 13.63    | 10.38   | 8.50     | 4.6220 - 4.6235 | 1.25              | 0.38    |
|      | 618/818       | 12.31     |           |           | 6.00       | 1.56   |           |          |         |          | 4.9970 - 4.9985 | 1.25              | 0.50    |
|      | 614/814       | 12.25     |           |           | 5.00       | 1.94   |           |          |         |          | 4.2470 - 4.2485 | 1.00              | 0.38    |
| 5    | 616/816       | 12.87     | 6.500     | 6.03      | 5.50       | 2.06   | 0.31      | 15.31    | 11.56   | 9.50     | 4.6220 - 4.6235 | 1.25              | 0.38    |
|      | 618/818       | 13.66     |           |           | 6.00       | 1.63   |           |          |         |          | 4.9970 - 4.9985 | 1.25              | 0.50    |
|      | 620           | 14.84     |           |           | 6.75       | 2.06   |           |          |         |          | 5.8720 - 5.8735 | 1.50              | 0.75    |
| 5.5  | 616/816       | 14.47     | 7.500     | 6.91      | 5.50       | 2.06   | 0.31      | 16.75    | 12.72   | 10.50    | 4.6220 - 4.6235 | 1.25              | 0.38    |
|      | 618/818       | 14.53     |           |           | 6.00       | 1.63   |           |          |         |          | 4.9970 - 4.9985 | 1.25              | 0.50    |
|      | 620           | 15.72     |           |           | 6.75       | 2.06   |           |          |         |          | 5.8720 - 5.8735 | 1.50              | 0.75    |
| 6    | 622           | 16.84     | 8.250     | 7.41      | 7.25       | 2.69   | 0.31      | 18.00    | 14.00   | 11.50    | 6.2470 - 6.2485 | 1.50              | 0.75    |
|      | 616/816       | 14.97     |           |           | 5.50       | 2.06   |           |          |         |          | 4.6220 - 4.6235 | 1.25              | 0.38    |
|      | 618/818       | 15.03     |           |           | 6.00       | 1.63   |           |          |         |          | 4.9970 - 4.9985 | 1.25              | 0.50    |
|      | 620           | 16.22     |           |           | 6.75       | 2.06   |           |          |         |          | 5.8720 - 5.8735 | 1.50              | 0.75    |
|      | 622           | 17.34     |           |           | 7.25       | 2.69   |           |          |         |          | 6.2470 - 6.2485 | 1.50              | 0.75    |

- Notes: ■ \* indicates: That a counterbore is required.  
 ■ Bore taper is 1-1/4 inch per foot on diameter.  
 ■ Exposed Bolt Design is standard.  
 ■ Shrouded Bolt Design available upon request for sizes 1.5 through 5.5.  
 ■ Puller Holes are standard on sizes 4 through 6.  
 ■ Puller Holes are available for sizes 1.5 through 3.5 at an additional charge.  
 ■ Interference bores with no set screws are standard unless otherwise specified.  
 ■ Inch bore and keyway tolerances conform to ANSI / AGMA 9002-B04.  
 ■ For metric bore and keyway tolerances, consult Lovejoy Engineering Section.  
 ■ 1/4 inch hub standoff.