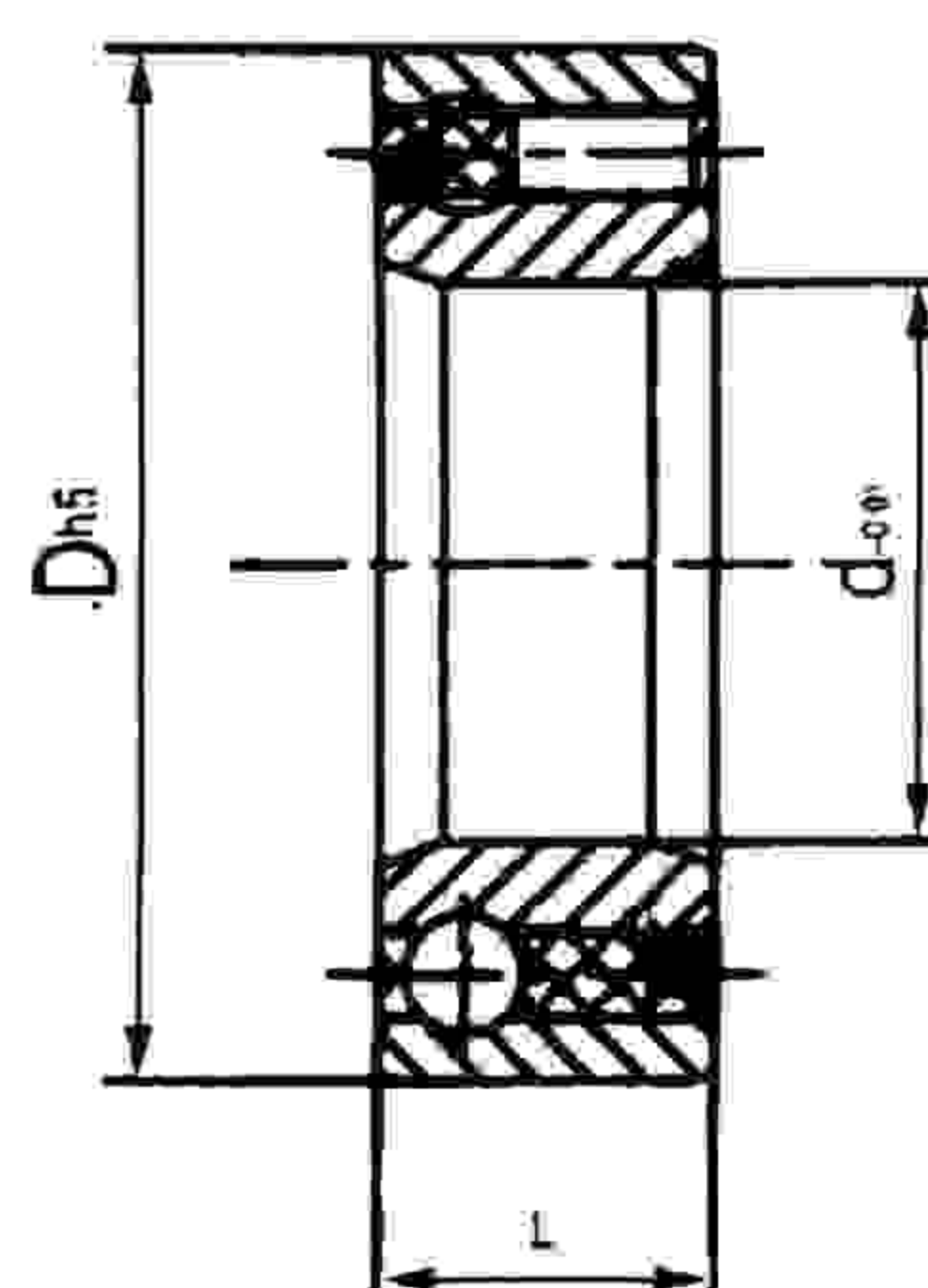


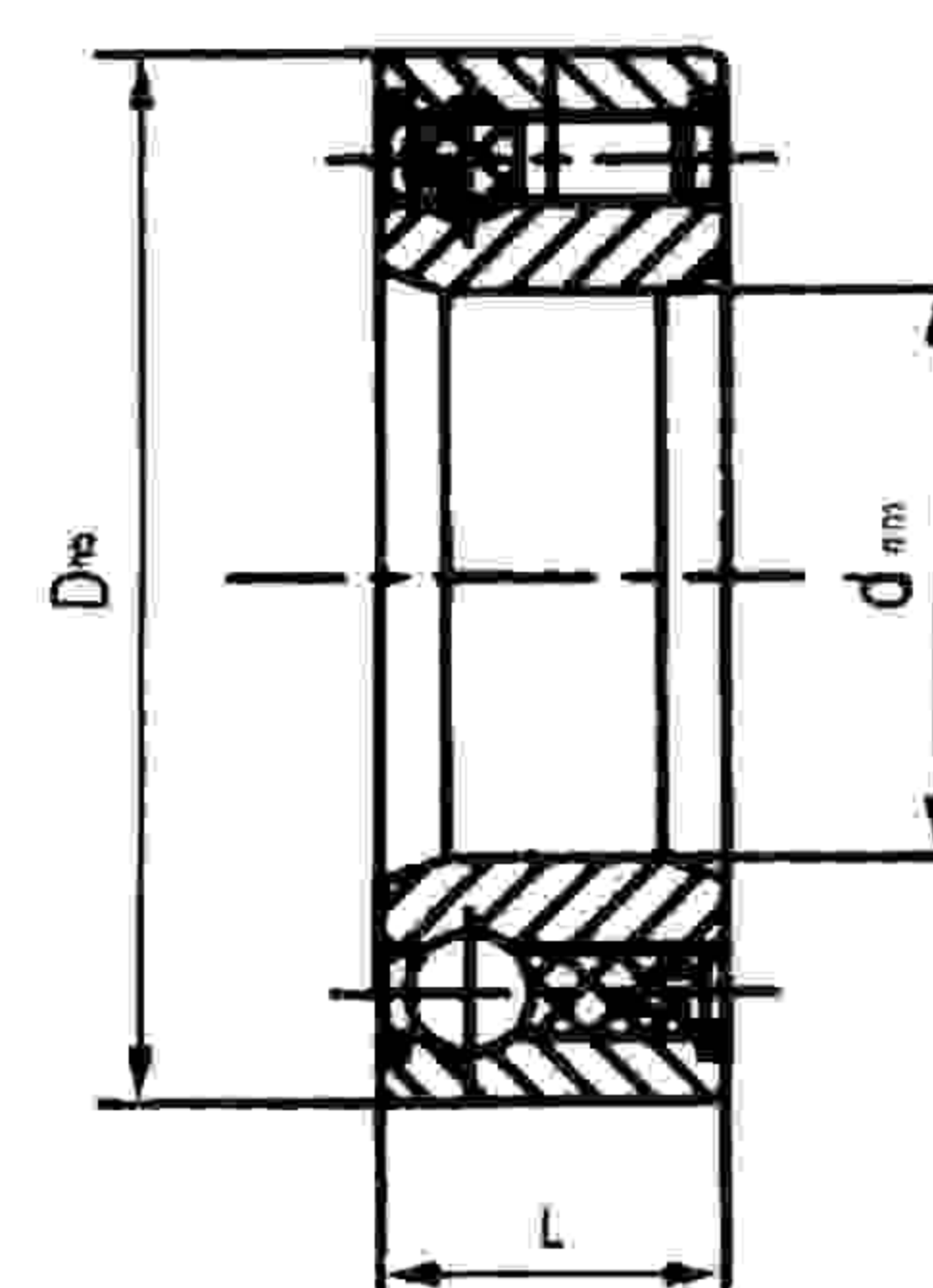


## ■ 楔塊式單向離合器 CSK, CSK...2RS系列

SPRAG FREEWHEELS CSK, CSK...2RS SERIES



CSK



CSK...2RS

| 型號<br>type  | 尺寸<br>Size | 軸承系列<br>Bearing series |                         |                                        |         |         | 軸承負載<br>Bearing loads<br>dyn. Stat. |          | 重量<br>Weight | 摩擦阻力<br>Friction<br>Resistance |
|-------------|------------|------------------------|-------------------------|----------------------------------------|---------|---------|-------------------------------------|----------|--------------|--------------------------------|
|             | D<br>mm    |                        | TKN <sup>1)</sup><br>Nm | n <sub>max.</sub><br>min <sup>-1</sup> | D<br>mm | L<br>mm | C<br>kN                             | Co<br>kN | kg           | TR<br>Ncm                      |
| CSK<br>(KK) | 8*         | -                      | 2.0                     | 15000                                  | 22      | 9       | 3.28                                | 0.86     | 0.015        | 0.5                            |
|             | 12         | 6201                   | 7.4                     | 10000                                  | 32      | 10      | 6.1                                 | 2.77     | 0.04         | 0.7                            |
|             | 15         | 6202                   | 13.5                    | 8400                                   | 35      | 11      | 7.4                                 | 3.42     | 0.06         | 0.9                            |
|             | 17         | 6203                   | 24.5                    | 7350                                   | 40      | 12      | 7.9                                 | 3.8      | 0.070        | 1.1                            |
|             | 20         | 6204                   | 40                      | 6000                                   | 47      | 14      | 9.4                                 | 4.46     | 0.110        | 1.3                            |
|             | 25         | 6205                   | 68                      | 5200                                   | 52      | 15      | 10.7                                | 5.46     | 0.140        | 2.0                            |
|             | 30         | 6206                   | 110                     | 4200                                   | 62      | 16      | 11.7                                | 6.45     | 0.210        | 4.4                            |
|             | 35         | 6207                   | 140                     | 3600                                   | 72      | 17      | 12.6                                | 7.28     | 0.300        | 5.8                            |
| CSK...2RS   | 40         | -                      | 260                     | 3000                                   | 80      | 22      | 15.54                               | 12.25    | 0.5          | 7.0                            |
|             | 8**        | -                      | 2.0                     | 15000                                  | 22      | 9       | 3.28                                | 0.86     | 0.015        | 0.8                            |
|             | 12         | -                      | 7.4                     | 10000                                  | 32      | 14      | 6.1                                 | 2.77     | 0.05         | 3.0                            |
|             | 15         | -                      | 13.5                    | 8400                                   | 35      | 16      | 7.4                                 | 3.42     | 0.070        | 4.0                            |
|             | 17         | -                      | 24.5                    | 7350                                   | 40      | 17      | 7.9                                 | 3.8      | 0.09         | 5.6                            |
|             | 20         | -                      | 40                      | 6000                                   | 47      | 19      | 9.4                                 | 4.46     | 0.145        | 6.0                            |
|             | 25         | -                      | 68                      | 5200                                   | 52      | 20      | 10.7                                | 5.46     | 0.175        | 6.0                            |
|             | 30         | -                      | 110                     | 4200                                   | 62      | 21      | 11.7                                | 6.45     | 0.270        | 7.5                            |
|             | 35         | -                      | 140                     | 3600                                   | 72      | 22      | 12.6                                | 7.28     | 0.400        | 8.2                            |
|             | 40***      | -                      | 260                     | 3000                                   | 80      | 27      | 15.54                               | 12.25    | 0.6          | 10                             |





## ■ 帶密封圈的沖壓外圈滾針軸承

SEALED DRAWN CUP NEEDLE ROLLER BEARING

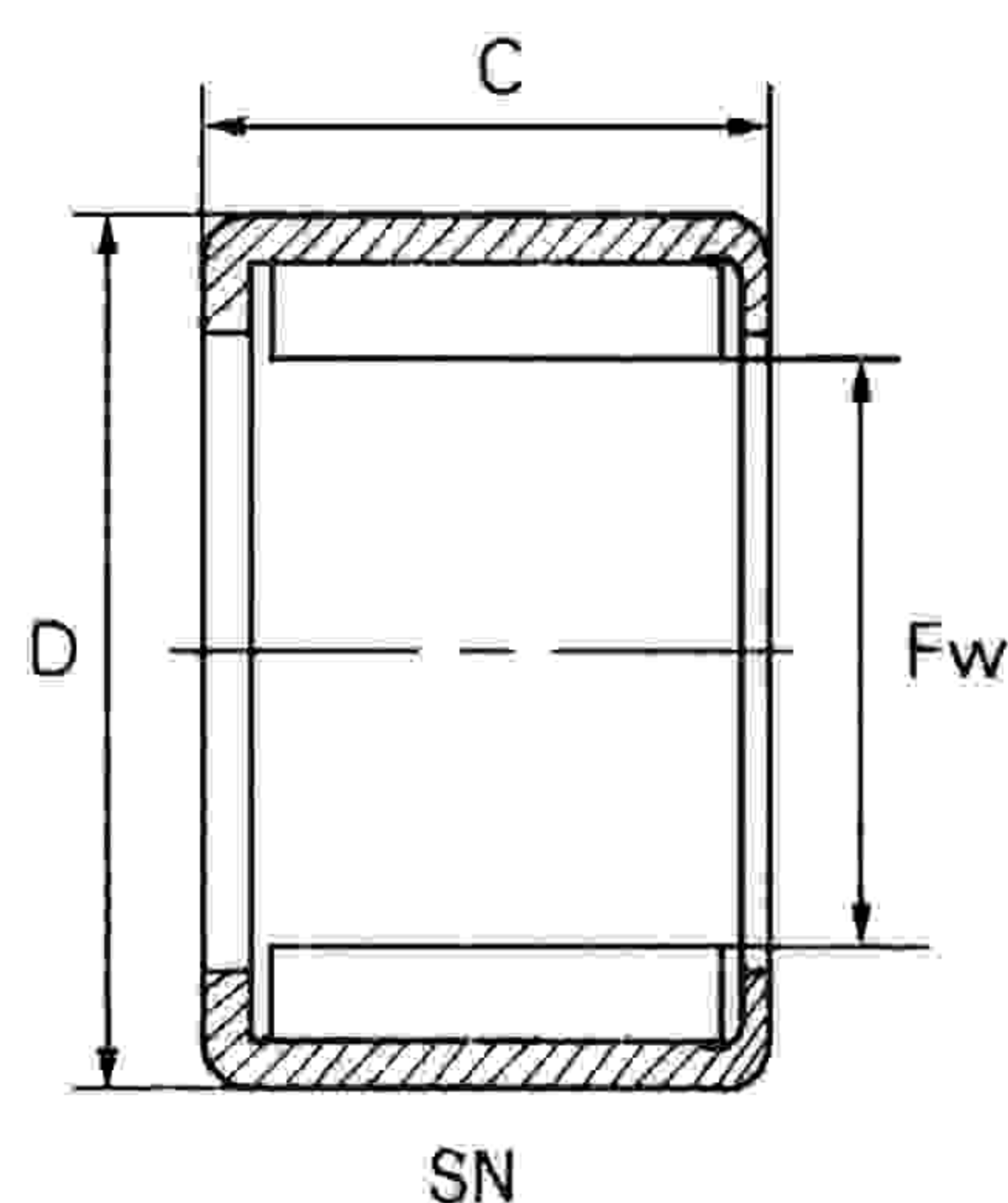
| 軸徑<br>shaft<br>Diameter | 軸承型號<br>Bearing Designation |     | 外形尺寸<br>Boundary Dimensions |    |    | 基本額定負荷<br>Basic Load Rating |                | 極限轉速<br>Limiting Speed |       | 參考重量<br>Mass |
|-------------------------|-----------------------------|-----|-----------------------------|----|----|-----------------------------|----------------|------------------------|-------|--------------|
|                         |                             |     | 內徑                          | 外徑 | 寬度 | 動Cr<br>Dynamic              | 靜Cor<br>Static | 脂潤滑                    | 油潤滑   |              |
| mm                      | 新型號                         | 原型號 | d                           | D  | B  | N                           |                | rpm                    |       | g            |
| 24                      | HMK2420                     | -   | 24                          | 31 | 20 | 1880                        | 2920           | 6500                   | 10000 | 32           |
|                         | HMK2428                     | -   | 24                          | 31 | 28 | 2600                        | 4450           | 6500                   | 1000  | 45           |
| 25                      | HMK2510                     | -   | 25                          | 33 | 10 | 9150                        | 1040           | 6500                   | 9500  | 19           |
|                         | HMK2515                     | -   | 25                          | 33 | 15 | 1580                        | 2100           | 6500                   | 9500  | 29           |
|                         | HMK2520                     | -   | 25                          | 33 | 20 | 2180                        | 3150           | 6500                   | 9500  | 39           |
|                         | HMK2525                     | -   | 25                          | 33 | 25 | 2670                        | 4100           | 6500                   | 9500  | 48           |
|                         | HMK2530                     | -   | 25                          | 33 | 30 | 3250                        | 5300           | 6500                   | 9500  | 58           |
| 26                      | HMK2616                     | -   | 26                          | 34 | 16 | 1710                        | 2340           | 6000                   | 9000  | 32           |
|                         | HMK2620                     | -   | 26                          | 34 | 20 | 2160                        | 3150           | 6000                   | 9000  | 40           |
| 28                      | HMK2820                     | -   | 28                          | 37 | 20 | 2360                        | 3250           | 5500                   | 8500  | 49           |
|                         | HMK2830                     | -   | 28                          | 37 | 30 | 3500                        | 5450           | 5500                   | 8500  | 73           |
| 29                      | HMK2920                     | -   | 29                          | 38 | 20 | 2460                        | 3500           | 5500                   | 8500  | 50           |
|                         | HMK2930                     | -   | 29                          | 38 | 30 | 3450                        | 5400           | 5500                   | 8500  | 75           |
| 30                      | HMK3015                     | -   | 30                          | 40 | 15 | 1710                        | 2210           | 5500                   | 8000  | 40           |
|                         | HMK30125                    | -   | 30                          | 40 | 25 | 3100                        | 4700           | 5500                   | 8000  | 73           |
|                         | HMK3030                     | -   | 30                          | 40 | 30 | 3600                        | 5750           | 5500                   | 8000  | 87           |
| 32                      | HMK3230                     | -   | 32                          | 42 | 30 | 4150                        | 6450           | 5000                   | 7500  | 92           |
| 35                      | HMK3512                     | -   | 35                          | 45 | 12 | 1490                        | 1760           | 4700                   | 7000  | 40           |
|                         | HMK3515                     | -   | 35                          | 45 | 15 | 2020                        | 2620           | 4700                   | 7000  | 50           |
|                         | HMK3525                     | -   | 35                          | 45 | 25 | 3600                        | 5450           | 4700                   | 7000  | 83           |
| 37                      | HMK3720                     | -   | 37                          | 47 | 20 | 2930                        | 4300           | 4300                   | 6500  | 70           |
|                         | HMK3730                     | -   | 37                          | 47 | 30 | 4450                        | 7300           | 4300                   | 6500  | 105          |
| 38                      | HMK3815                     | -   | 38                          | 48 | 15 | 2170                        | 2930           | 4300                   | 6500  | 54           |
|                         | HMK3825                     | -   | 38                          | 48 | 25 | 3850                        | 6100           | 4300                   | 6500  | 90           |
|                         | HMK3830                     | -   | 38                          | 48 | 30 | 4600                        | 7700           | 4300                   | 6500  | 107          |
| 40                      | HMK4015                     | -   | 40                          | 50 | 15 | 2310                        | 3250           | 4000                   | 6000  | 56           |
|                         | HMK4025                     | -   | 40                          | 50 | 25 | 4100                        | 6750           | 4000                   | 6000  | 94           |
|                         | HMK4030                     | -   | 40                          | 50 | 30 | 4900                        | 8500           | 4000                   | 6000  | 112          |
| 45                      | HMK4525                     | -   | 45                          | 55 | 25 | 4150                        | 7150           | 3700                   | 5500  | 104          |
|                         | HMK4530                     | -   | 45                          | 55 | 30 | 4950                        | 9000           | 3700                   | 5500  | 125          |
| 50                      | HMK5012                     | -   | 50                          | 62 | 12 | 1820                        | 2360           | 3200                   | 4800  | 67           |
|                         | HMK5020                     | -   | 50                          | 62 | 20 | 3750                        | 6000           | 3200                   | 4800  | 112          |





## ■ 沖壓外圈滿裝滾針軸承(英制系列)

DRAWN CUP FULL COMPLEMENT NEEDLE ROLLER BEARING (INCH SERIES)

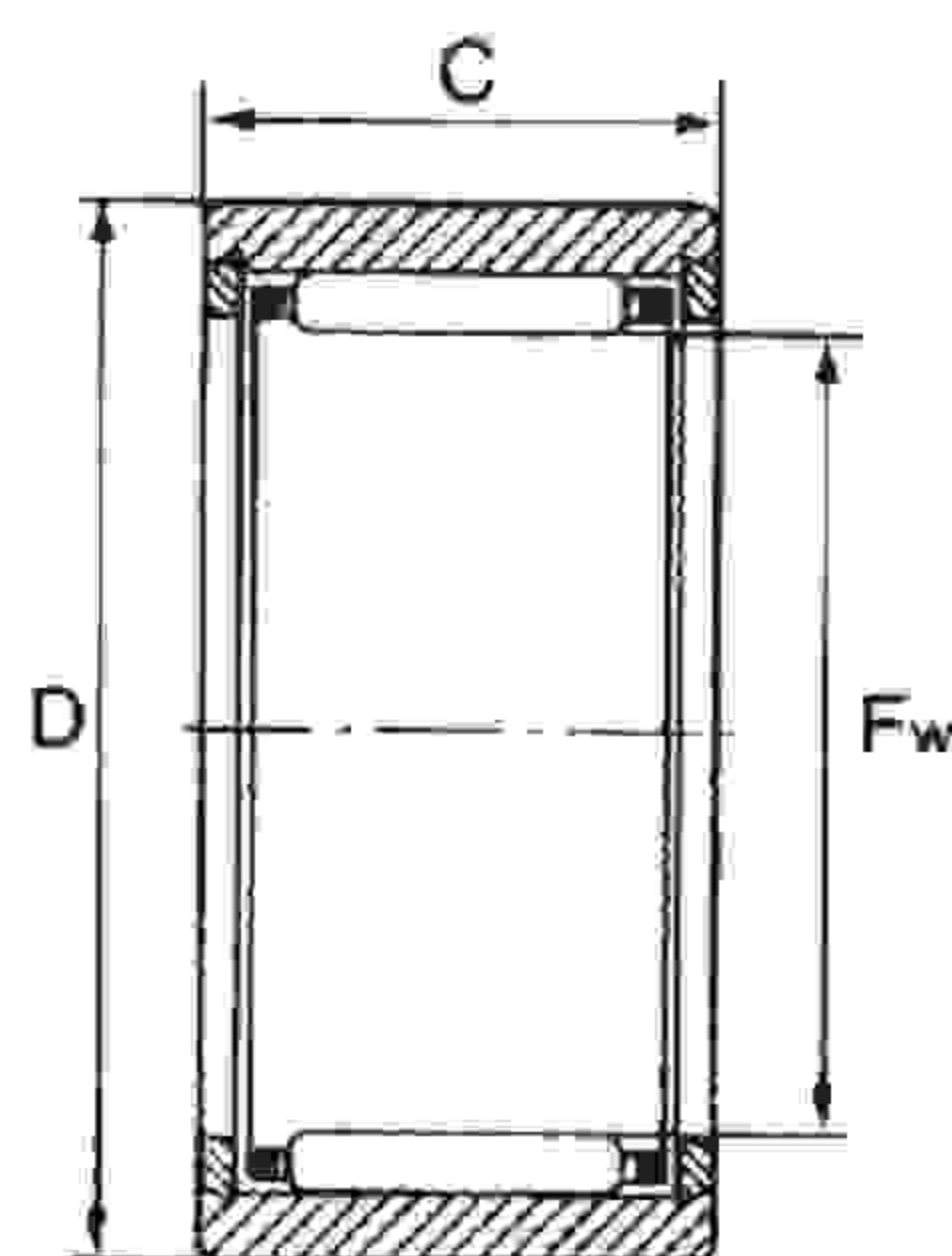
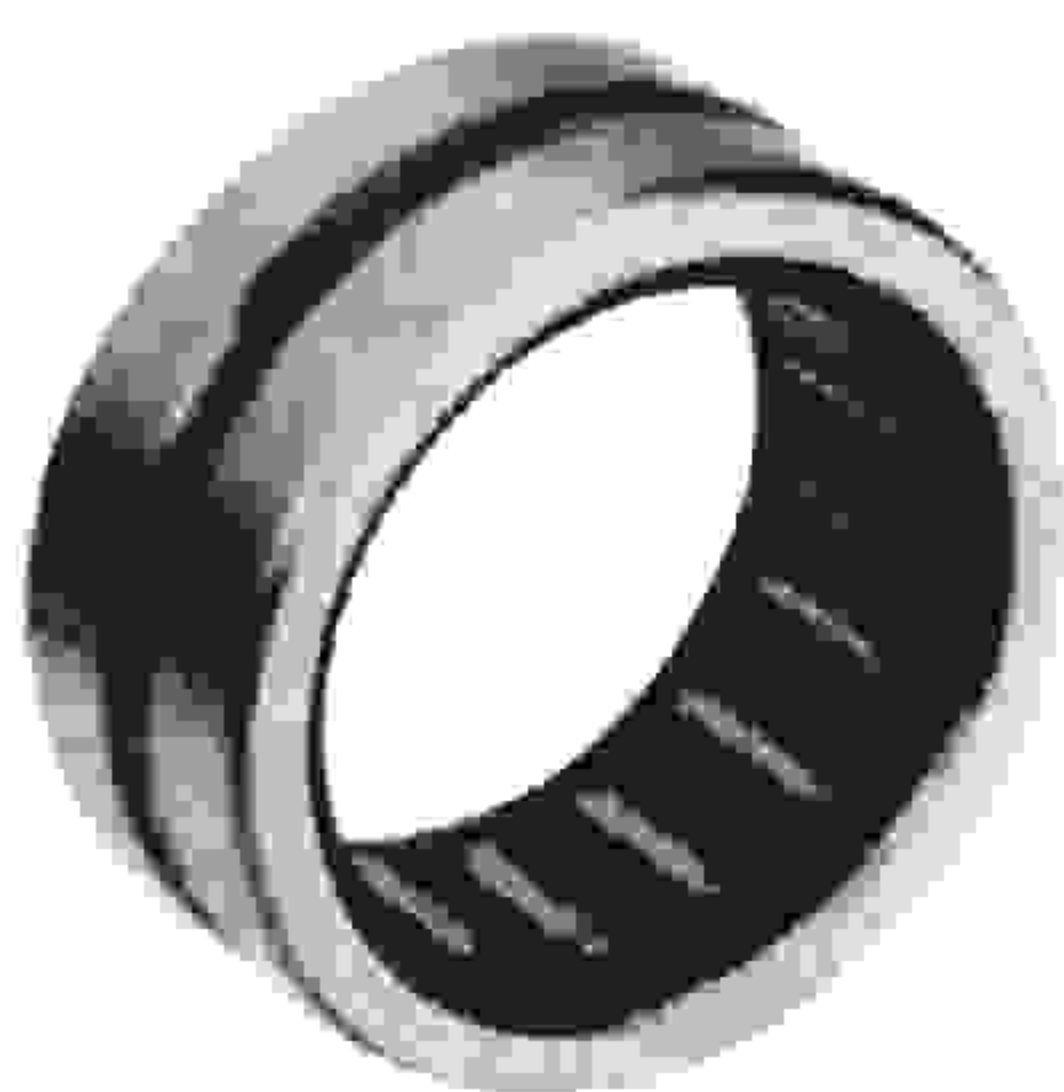


| 軸徑<br>shaft<br>Diameter | 軸承型號<br>Bearing Designation and mass approx |                   | 外形尺寸<br>Boundary Dimensions |        |        | 基本額定負荷<br>Basic Load Rating |               | 極限轉速<br>Limiting Speed |
|-------------------------|---------------------------------------------|-------------------|-----------------------------|--------|--------|-----------------------------|---------------|------------------------|
|                         | 穿孔型<br>OPEN END                             | 封口型<br>CLOSED END | Fw                          | D      | C      | 動負荷<br>Dynamic              | 靜負荷<br>Static |                        |
|                         |                                             |                   | mm                          |        |        | N                           |               |                        |
| mm                      |                                             |                   |                             |        |        |                             |               |                        |
| 6.35                    | SN45                                        | -                 | 6.350                       | 11.112 | 7.938  | 4350                        | 4900          | 10000                  |
| 7.938                   | SN55                                        | -                 | 7.938                       | 12.700 | 7.938  | 5600                        | 6200          | 8300                   |
|                         | SN56                                        | -                 | 7.938                       | 12.700 | 9.525  | 6800                        | 8000          | 8300                   |
|                         | SN57                                        | -                 | 7.938                       | 12.700 | 11.113 | 6200                        | 5800          | 8300                   |
|                         | SN65                                        | -                 | 9.525                       | 14.288 | 7.938  | 6200                        | 7400          | 7100                   |
| 9.525                   | SN66                                        | -                 | 9.525                       | 14.288 | 9.525  | 5800                        | 5300          | 7100                   |
|                         | SN68                                        | -                 | 9.525                       | 14.288 | 12.700 | 7700                        | 7700          | 7100                   |
|                         | SN76                                        | -                 | 11.112                      | 15.875 | 9.525  | 7600                        | 11000         | 6300                   |
| 11.112                  | SN78                                        | -                 | 11.112                      | 15.875 | 12.700 | 9900                        | 16000         | 6300                   |
|                         | SN88                                        | -                 | 12.700                      | 17.462 | 12.700 | 11800                       | 18400         | 5600                   |
| 12.700                  | SN810                                       | -                 | 12.700                      | 17.462 | 15.875 | 12900                       | 23600         | 5600                   |
|                         | SN812                                       | -                 | 12.700                      | 17.462 | 19.050 | 15900                       | 29500         | 5600                   |
|                         | SN105                                       | -                 | 15.875                      | 20.638 | 7.938  | 6400                        | 6700          | 4550                   |
| 15.875                  | SN116                                       | -                 | 17.462                      | 22.225 | 9.525  | 9300                        | 17100         | 4200                   |
| 17.462                  | SN128                                       | -                 | 19.050                      | 25.400 | 12.700 | 15000                       | 25000         | 3750                   |
| 19.050                  | SN148                                       | -                 | 22.225                      | 28.575 | 12.700 | 17400                       | 31500         | 3250                   |
| 22.225                  | Sn1816                                      | -                 | 28.575                      | 34.925 | 25.400 | 36500                       | 90000         | 2600                   |
| 28.575                  |                                             |                   |                             |        |        |                             |               |                        |

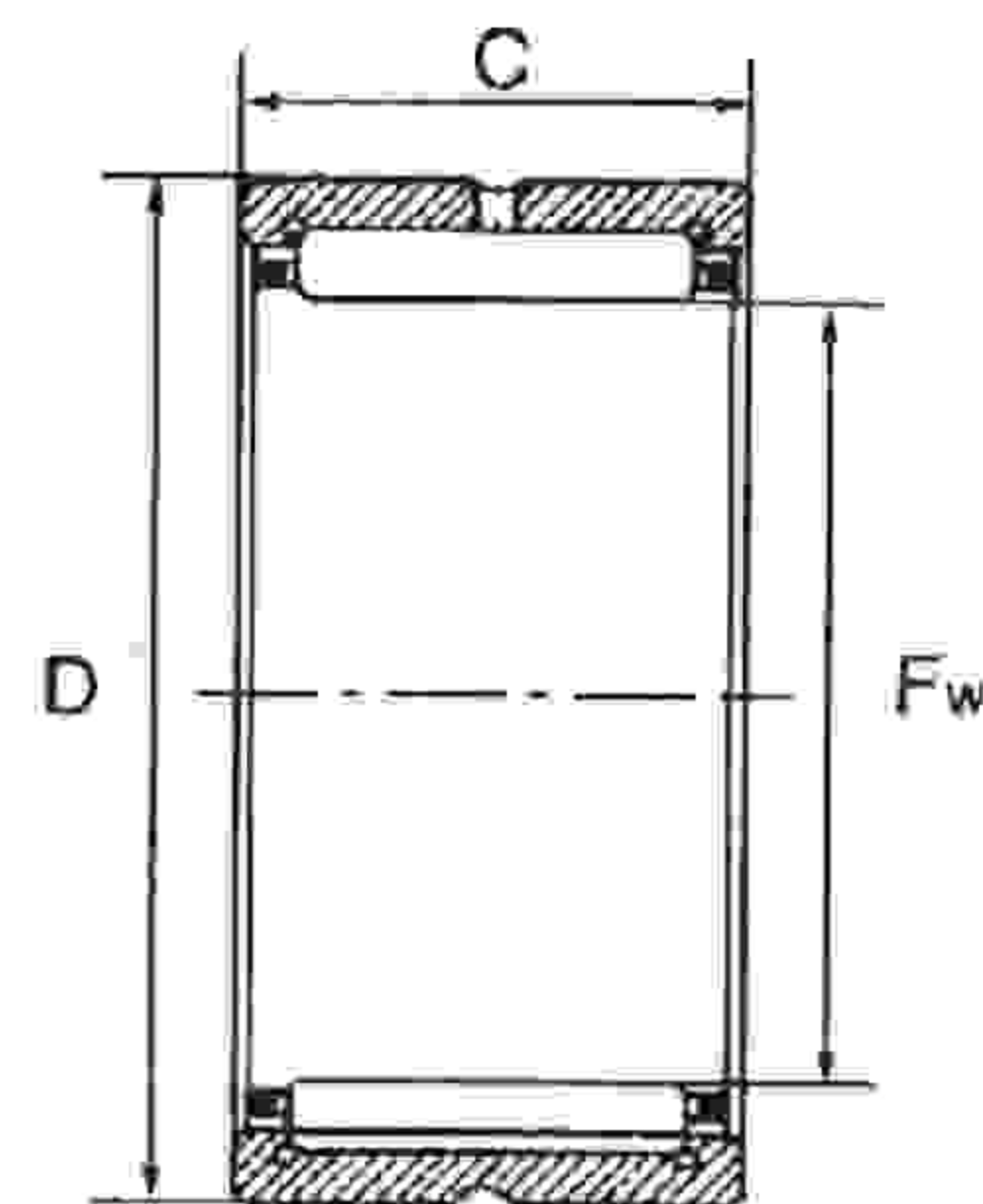




## ■ 無內圈滾針軸承 NEEDLE ROLLER BEARING WITHOUT INNER RING



NK( $F_w \leq 10\text{mm}$ )  
NKS( $F_w \leq 12\text{mm}$ )



NK( $F_w \geq 12\text{mm}$ ) NKS( $F_w \geq 14\text{mm}$ )  
RNA 49, RNA 69( $F_w \leq 35\text{mm}$ )

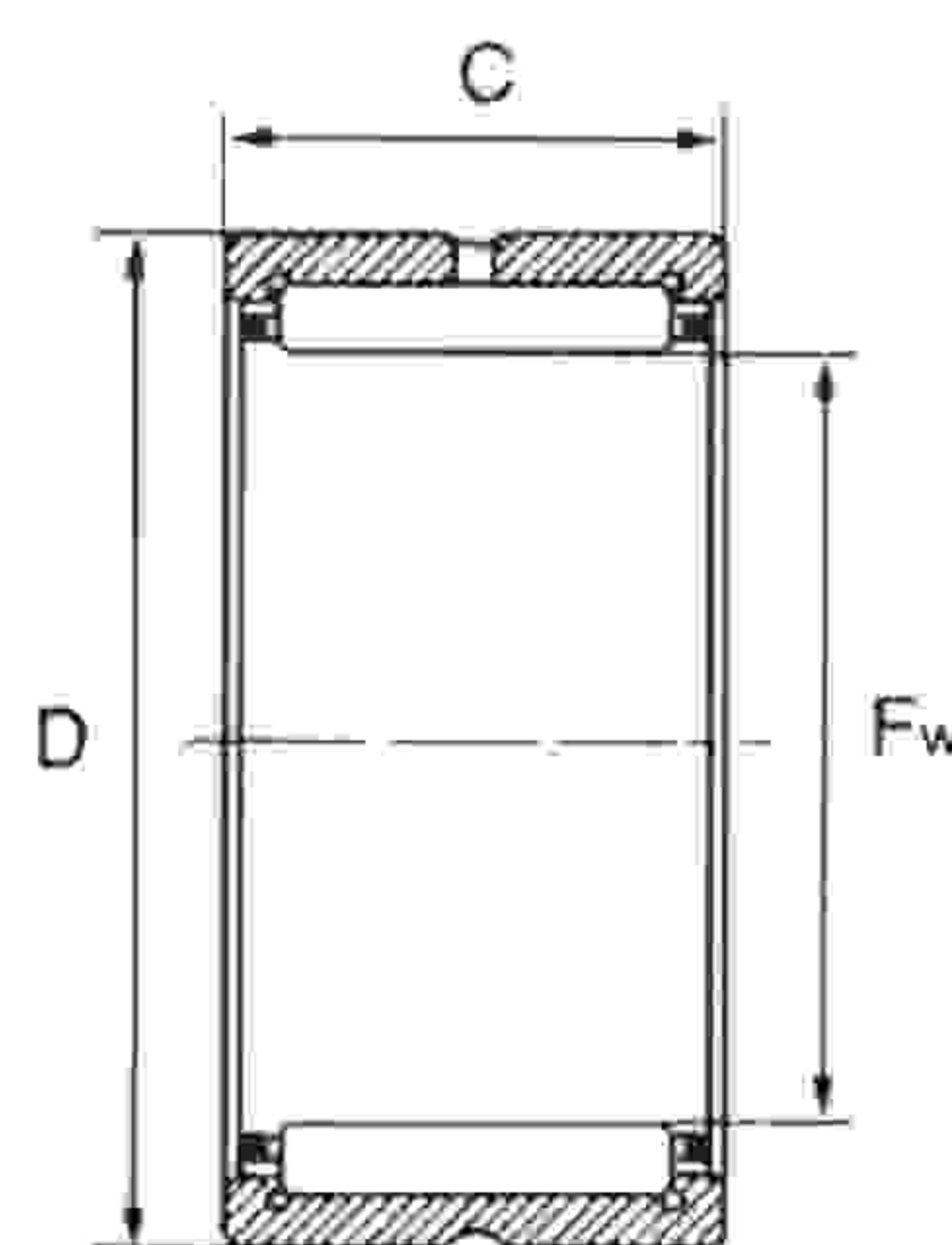
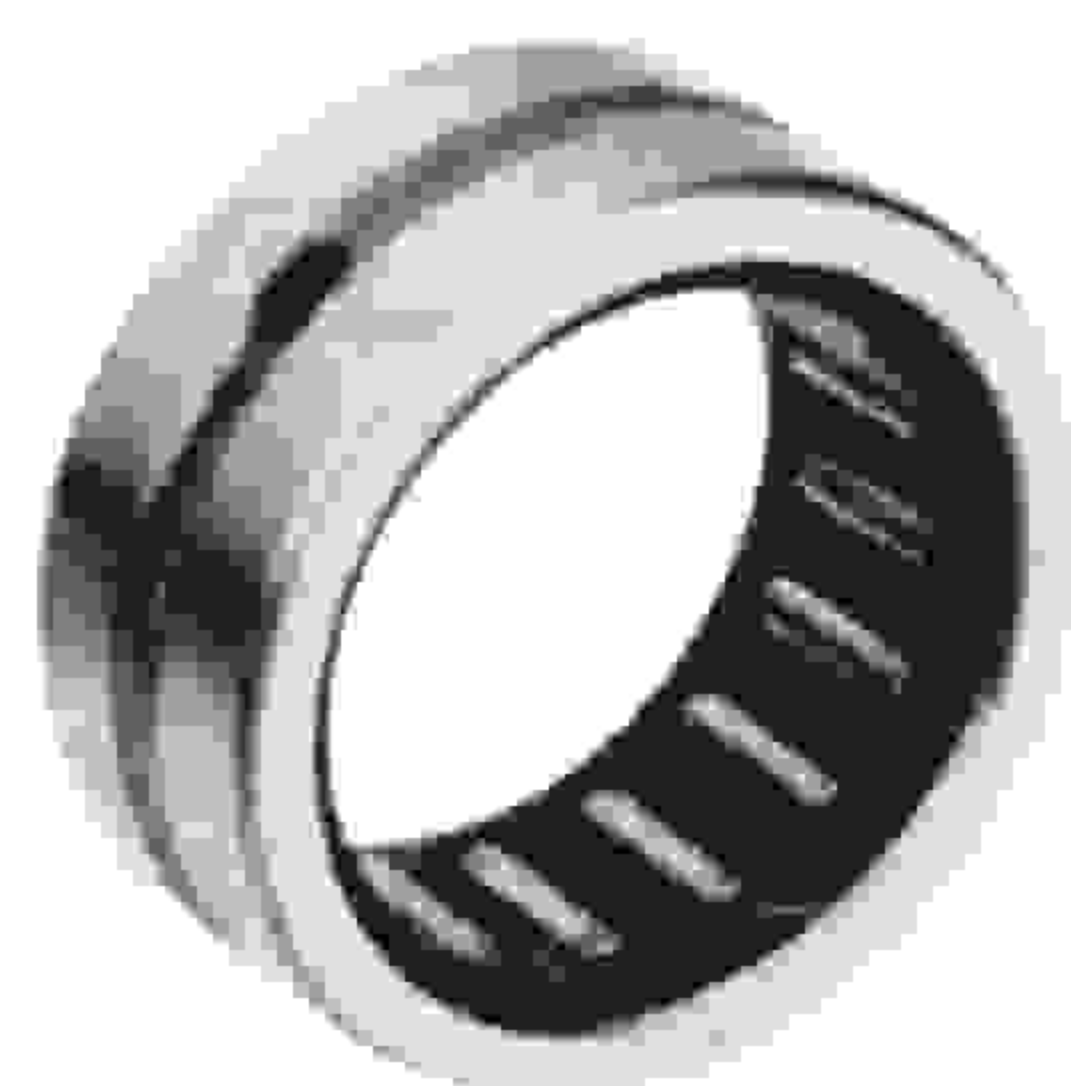
| 軸徑<br>shaft<br>Diameter | 軸承型號<br>Bearing Designation |       |           |         |                     | 重量<br>Mass<br>近似<br>Approx | 外形尺寸<br>Boundary Dimensions |    |       | 基本額定負荷<br>Basic Load Rating |                | 極限轉速<br>Limiting Speed |
|-------------------------|-----------------------------|-------|-----------|---------|---------------------|----------------------------|-----------------------------|----|-------|-----------------------------|----------------|------------------------|
|                         | 系列<br>Series                |       |           |         | 被取代的<br>Substituted |                            | Fw                          | D  | C     | 動Cr<br>Dynamic              | 靜Cor<br>Static | 油潤滑<br>Oil             |
|                         | mm                          | NK    | NKS       | RNA49   |                     |                            |                             |    |       |                             |                |                        |
| 5                       | NK5/10TN                    | -     | -         | -       | -                   | 2.9                        | 5                           | 10 | 10    | 2100                        | 1400           | 36780                  |
| 8                       | NK8/12TN                    | -     | -         | -       | -                   | 8.3                        | 8                           | 15 | 12    | 3050                        | 3650           | 29112                  |
| 10                      | NK10/12                     | -     | -         | -       | 4624097K            | 10                         | 10                          | 17 | 12    | 4750                        | 5350           | 23500                  |
|                         | -                           | -     | RNA497    | -       | 4624097             | 16.6                       | 9                           | 17 | 10    | 4860                        | 7100           | 23500                  |
| 12                      | NK12/12                     | -     | -         | -       | 644079              | 11.8                       | 12                          | 19 | 12    | 6050                        | 6400           | 21640                  |
|                         | -                           | -     | RNA498    | -       | 4624098             | 15.4                       | 10                          | 19 | 11    | 6400                        | 7100           | 21640                  |
|                         | NK12/16                     | -     | -         | -       | -                   | 16.8                       | 12                          | 19 | 16    | 8200                        | 9800           | 21640                  |
| 14                      | NK14/16                     | NKS14 | -         | -       | 4624900K            | 20.8                       | 14                          | 22 | 16    | 8260                        | 9600           | 18322                  |
|                         | -                           | -     | -         | -       | -                   | 27                         | 14                          | 25 | 16    | 10400                       | 10800          | 17652                  |
|                         | -                           | -     | RMA4900   | -       | 4624900             | 24.4                       | 14                          | 22 | 13    | 8060                        | 900            | 18322                  |
|                         | -                           | -     | -         | RNA6900 | 6634900             | 29.1                       | 14                          | 22 | 22    | 8281                        | 11612          | 18322                  |
| 15                      | NK15/12                     | -     | -         | -       | 644800K             | 18.5                       | 15                          | 23 | 12    | 8600                        | 10070          | 21004                  |
|                         | -                           | -     | RNA152815 | -       | -                   | 31.7                       | 15                          | 28 | 15    | 13600                       | 17200          | 10031                  |
|                         | -                           | -     | -         | -       | 7948/15             | 16.1                       | 15                          | 22 | 12    | 8200                        | 9800           | 8412                   |
|                         | -                           | -     | -         | -       | 644302              | 18.2                       | 15                          | 25 | 12    | 10600                       | 13500          | 17144                  |
| 16                      | NK16/16                     | -     | -         | -       | -                   | 20.8                       | 16                          | 24 | 16    | 9030                        | 11900          | 15522                  |
|                         | NK16/20                     | -     | -         | -       | 624701              | 23.9                       | 16                          | 24 | 20    | 10400                       | 16800          | 15522                  |
|                         | -                           | NKS16 | RNA4901   | -       | 4624901             | 16.6                       | 16                          | 24 | 13    | 6400                        | 8900           | 15522                  |
|                         | -                           | -     | -         | RNA6901 | 6634901             | 28.7                       | 16                          | 24 | 22    | 14000                       | 18600          | 15522                  |
|                         | -                           | -     | -         | -       | -                   | 30                         | 16                          | 28 | 16    | 14900                       | 15000          | 20000                  |
| 17                      | NK17/16                     | -     | -         | -       | 644903K             | 21.5                       | 17                          | 25 | 16    | 9000                        | 13500          | 14163                  |
| 18                      | NK18/20                     | -     | -         | -       | -                   | 30.5                       | 18                          | 26 | 20    | 10500                       | 13800          | 13628                  |
| 20                      | NK20/16                     | -     | -         | -       | 644802              | 25.7                       | 20                          | 28 | 16    | 11500                       | 13400          | 12716                  |
|                         | NK20/20                     | -     | -         | -       | 624802              | 29.3                       | 20                          | 28 | 20    | 12400                       | 21800          | 12716                  |
|                         | NK202616                    | -     | -         | -       | -                   | 20.8                       | 20                          | 26 | 16    | 9600                        | 10800          | 9125                   |
|                         | Nk202620                    | -     | -         | -       | -                   | 17.2                       | 20                          | 26 | 20    | 10500                       | 11900          | 9125                   |
|                         | -                           | NKS20 | -         | -       | -                   | 46.8                       | 20                          | 32 | 20    | 20000                       | 22000          | 18000                  |
|                         | NK203312SX                  | -     | -         | -       | -                   | 29.1                       | 20                          | 33 | 12    | 13000                       | 17500          | 11124                  |
|                         | -                           | -     | -         | -       | 6624101             | 24.3                       | 20                          | 28 | 25    | 11000                       | 12900          | 12716                  |
|                         | -                           | -     | RNA4902   | -       | 4624902             | 20.5                       | 20                          | 28 | 13    | 10800                       | 12800          | 12716                  |
| -                       | -                           | -     | RNA6902   | 6634902 | 35.4                | 20                         | 28                          | 23 | 13000 | 25000                       | 12716          |                        |
| 22                      | NK22/16                     | -     | -         | -       | NK223016            | 29.2                       | 22                          | 30 | 16    | 13500                       | 18000          | 11527                  |
|                         | -                           | -     | -         | -       | NK223516            | 34.6                       | 22                          | 35 | 16    | 18600                       | 20800          | 12711                  |
|                         | -                           | -     | -         | -       | -                   | 60.2                       | 22                          | 35 | 20    | 21500                       | 25000          | 17000                  |
|                         | -                           | -     | RMA4903   | -       | 4624903             | 20.7                       | 22                          | 30 | 13    | 12000                       | 16800          | 16300                  |
|                         | -                           | -     | -         | RNA6903 | 6634903             | 39.8                       | 22                          | 30 | 23    | 14000                       | 19900          | 16300                  |
|                         | -                           | -     | -         | -       | 624703              | 53                         | 22                          | 35 | 25    | 24500                       | 28000          | 14187                  |
|                         | -                           | -     | -         | -       | 634704L             | 42.5                       | 22                          | 30 | 30    | 17700                       | 27000          | 16300                  |
|                         | -                           | -     | -         | -       | 644704              | 27.4                       | 22                          | 28 | 16    | 10500                       | 15050          | 15172                  |
|                         | -                           | -     | -         | -       | NK223516            | 49.4                       | 22                          | 35 | 16    | 18600                       | 20800          | 16522                  |

TN=塑料保持架。允許的運轉溫度：120℃連續，180℃短期。  
脂潤滑極限轉速為表列數值的60%。

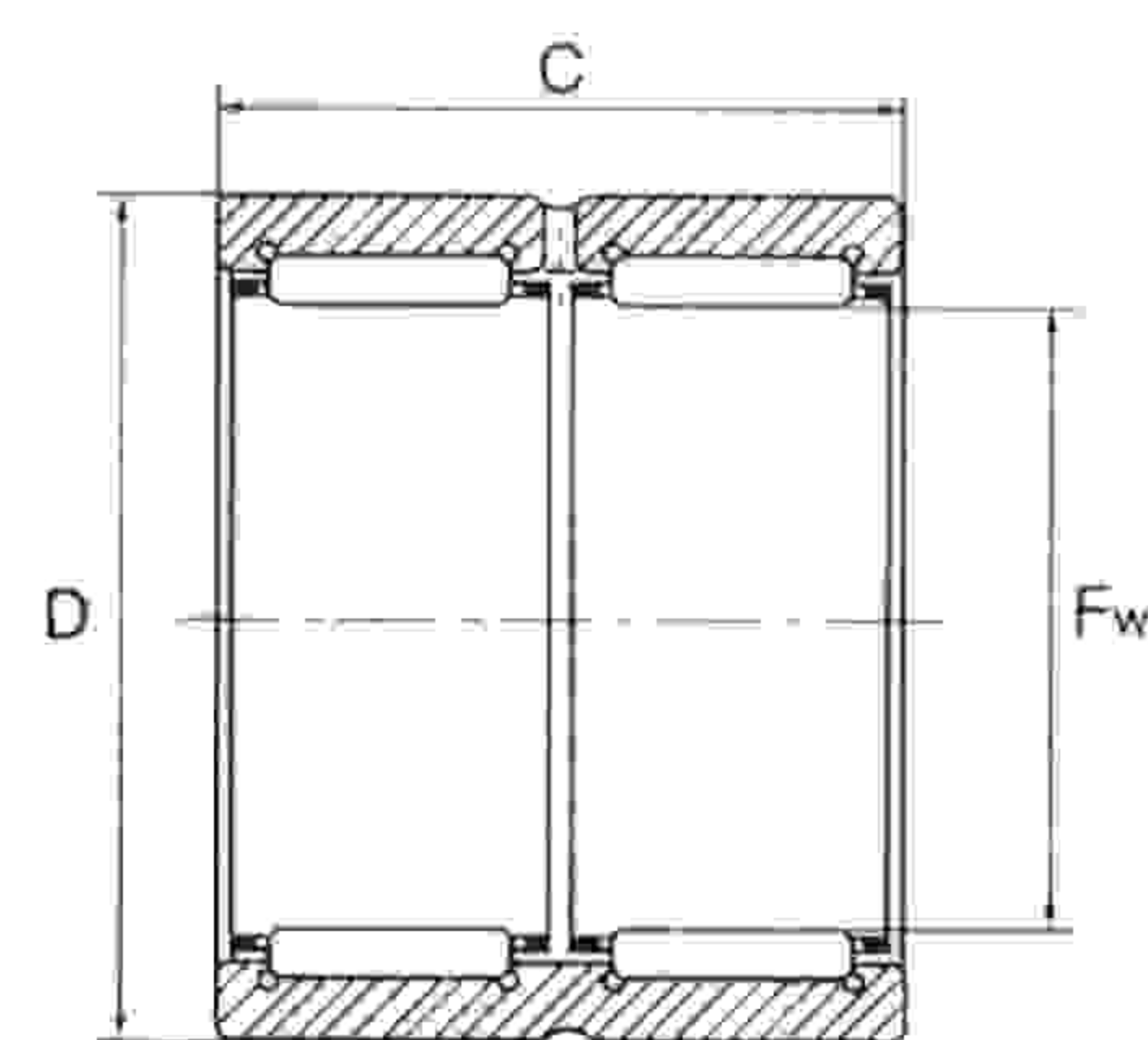




## ■ 無內圈滾針軸承 NEEDLE ROLLER BEARING WITHOUT INNER RING



NK, NKS RNA 49  
RNA 69 ( $F_w \leq 35\text{mm}$ )



RNA 69 ( $F_w \geq 40\text{mm}$ )

| 軸徑<br>shaft<br>Diameter | 軸承型號<br>Bearing Designation |       |           |          |                     | 重量<br>Mass<br>近似<br>Approx | 外形尺寸<br>Boundary Dimensions |    |    | 基本額定負荷<br>Basic Load Rating |                | 極限轉速<br>Limiting Speed |
|-------------------------|-----------------------------|-------|-----------|----------|---------------------|----------------------------|-----------------------------|----|----|-----------------------------|----------------|------------------------|
|                         | 系列<br>Series                |       |           |          | 被取代的<br>Substituted |                            | Fw                          | D  | C  | 動Cr<br>Dynamic              | 靜Cor<br>Static | 油潤滑<br>Oil             |
| mm                      | NK                          | NKS   | RNA49     | RNA69    |                     |                            | g                           | mm |    |                             | N              |                        |
| 23                      | -                           | -     | -         | -        | 634704KA            | 37.5                       | 23                          | 30 | 30 | 18600                       | 29000          | 15711                  |
| 25                      | NK25/16                     | -     | -         | -        | 624904              | 30                         | 25                          | 33 | 16 | 12900                       | 20400          | 15000                  |
|                         | NK25/20                     | -     | -         | -        | 644804              | 38.4                       | 25                          | 33 | 20 | 16800                       | 28500          | 15000                  |
|                         | -                           | -     | RNA4904   | RNA6904  | 4644904             | 50.8                       | 25                          | 37 | 17 | 11912                       | 16594          | 14060                  |
|                         | -                           | -     | -         | -        | 6634904             | 97.7                       | 25                          | 37 | 30 | 26000                       | 43000          | 14060                  |
|                         | -                           | NKS25 | -         | -        | -                   | 65                         | 25                          | 38 | 20 | 25800                       | 31000          | 16300                  |
|                         | -                           | -     | -         | -        | 62704               | 100.1                      | 25                          | 35 | 25 | 14900                       | 22400          | 14060                  |
|                         | -                           | -     | -         | -        | 644804K             | 63                         | 25                          | 33 | 30 | 18800                       | 30500          | 14060                  |
| 26                      | NKZ6/16                     | -     | -         | -        | -                   | 30                         | 26                          | 34 | 16 | 15000                       | 23000          | 16300                  |
|                         | NK26/20                     | -     | -         | -        | -                   | 40                         | 26                          | 34 | 20 | 17000                       | 30000          | 16300                  |
| 28                      | -                           | -     | RNA283833 | -        | -                   | 99.8                       | 28                          | 38 | 33 | 33000                       | 57000          | 12000                  |
|                         | -                           | -     | -         | -        | F3833               | 99.8                       | 28                          | 38 | 33 | 33000                       | 57000          | 12000                  |
|                         | -                           | NKS28 | -         | -        | -                   | 80                         | 28                          | 42 | 20 | 25900                       | 33500          | 14600                  |
| 30                      | NK30/20                     | -     | -         | -        | 644805              | 57.9                       | 30                          | 40 | 20 | 20600                       | 32000          | 12066                  |
|                         | NK30/30                     | -     | -         | -        | -                   | 95                         | 30                          | 40 | 30 | 31500                       | 50000          | 14500                  |
|                         | -                           | -     | RNA4905   | -        | 4624905             | 57                         | 30                          | 42 | 17 | 13452                       | 20475          | 12066                  |
|                         | -                           | -     | -         | RNA6905  | 6634905             | 106.5                      | 30                          | 42 | 30 | 26300                       | 31750          | 12066                  |
|                         | -                           | -     | -         | -        | 624905K             | 68                         | 30                          | 42 | 20 | 15400                       | 24500          | 12066                  |
| 32                      | NK32/20                     | -     | -         | -        | 624705              | 75.4                       | 32                          | 42 | 20 | 17500                       | 33500          | 12066                  |
|                         | -                           | -     | RNA49/28  | -        | 46449/32K           | 80                         | 32                          | 45 | 17 | 17400                       | 30050          | 12000                  |
|                         | -                           | NKS32 | RNA4906   | -        | -                   | 100                        | 32                          | 47 | 22 | 31000                       | 40000          | 12100                  |
|                         | -                           | -     | -         | RNA69/28 | -                   | 125                        | 32                          | 45 | 30 | 39500                       | 61300          | 13100                  |
|                         | -                           | -     | -         | -        | 644906              | 42                         | 32                          | 38 | 32 | 10750                       | 30500          | 12000                  |
|                         | -                           | -     | -         | -        | 644706              | 193                        | 32                          | 50 | 22 | 40500                       | 63000          | 12000                  |
| 35                      | NK35/20                     | -     | -         | -        | 644806              | 70                         | 35                          | 45 | 20 | 13851                       | 26900          | 12000                  |
|                         | -                           | -     | -         | -        | 4624906             | 62.8                       | 35                          | 47 | 17 | 17000                       | 30500          | 12000                  |
|                         | -                           | -     | -         | RNA6906  | 6634906             | 116                        | 35                          | 47 | 30 | 35000                       | 67000          | 12000                  |
|                         | -                           | -     | -         | -        | 644907              | 161                        | 35                          | 51 | 32 | 43500                       | 71000          | 11680                  |
| 37                      | -                           | -     | -         | -        | 624706              | 154                        | 37                          | 52 | 22 | 28500                       | 45500          | 9027                   |
| 40                      | NK40/20                     | -     | -         | -        | -                   | 78.9                       | 40                          | 50 | 20 | 19600                       | 43000          | 8881                   |
|                         | NK40/30                     | -     | -         | -        | -                   | 120                        | 40                          | 50 | 30 | 22200                       | 513500         | 8881                   |
|                         | -                           | -     | -         | RNA69/32 | 66349/32            | 147                        | 40                          | 52 | 36 | 25500                       | 68500          | 8881                   |
| 42                      | NK42/20                     | -     | -         | -        | -                   | 83                         | 42                          | 52 | 20 | 23900                       | 45000          | 10000                  |
|                         | NK42/30                     | -     | -         | -        | -                   | 125                        | 42                          | 52 | 30 | 27000                       | 49000          | 10000                  |
|                         | -                           | -     | RNA4907   | -        | 4624907             | 99.3                       | 42                          | 55 | 20 | 19800                       | 41500          | 8710                   |
|                         | -                           | -     | -         | RNA6907  | 6634907             | 160                        | 42                          | 55 | 36 | 26000                       | 60500          | 8710                   |
|                         | -                           | -     | -         | -        | 644708              | 148                        | 42                          | 65 | 22 | 31500                       | 51000          | 8710                   |
| 43                      | NK43/20                     | -     | -         | -        | -                   | 84                         | 43                          | 53 | 20 | 25700                       | 49000          | 10000                  |
|                         | NK43/30                     | -     | -         | -        | -                   | 126                        | 43                          | 53 | 30 | 39000                       | 75000          | 10000                  |

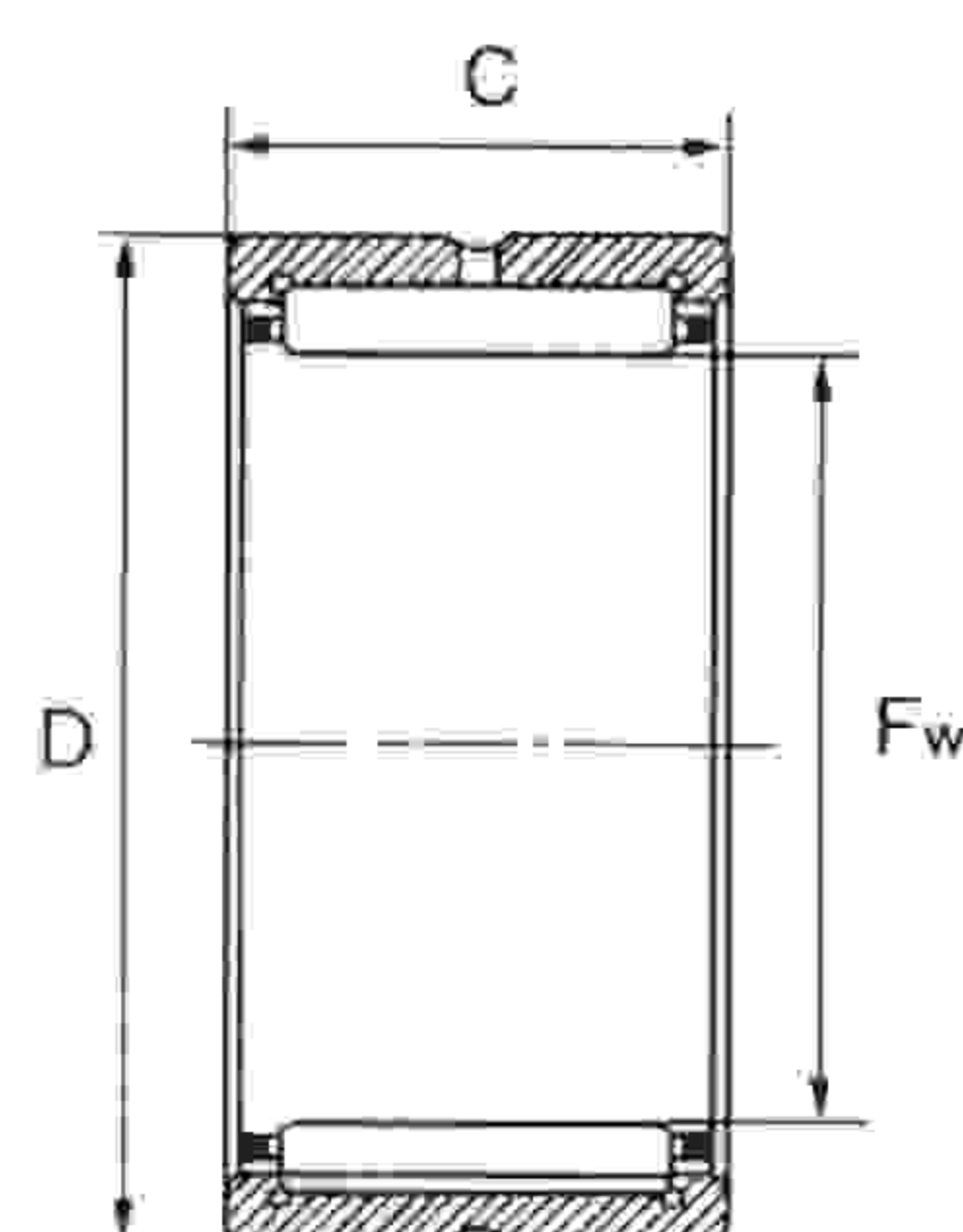
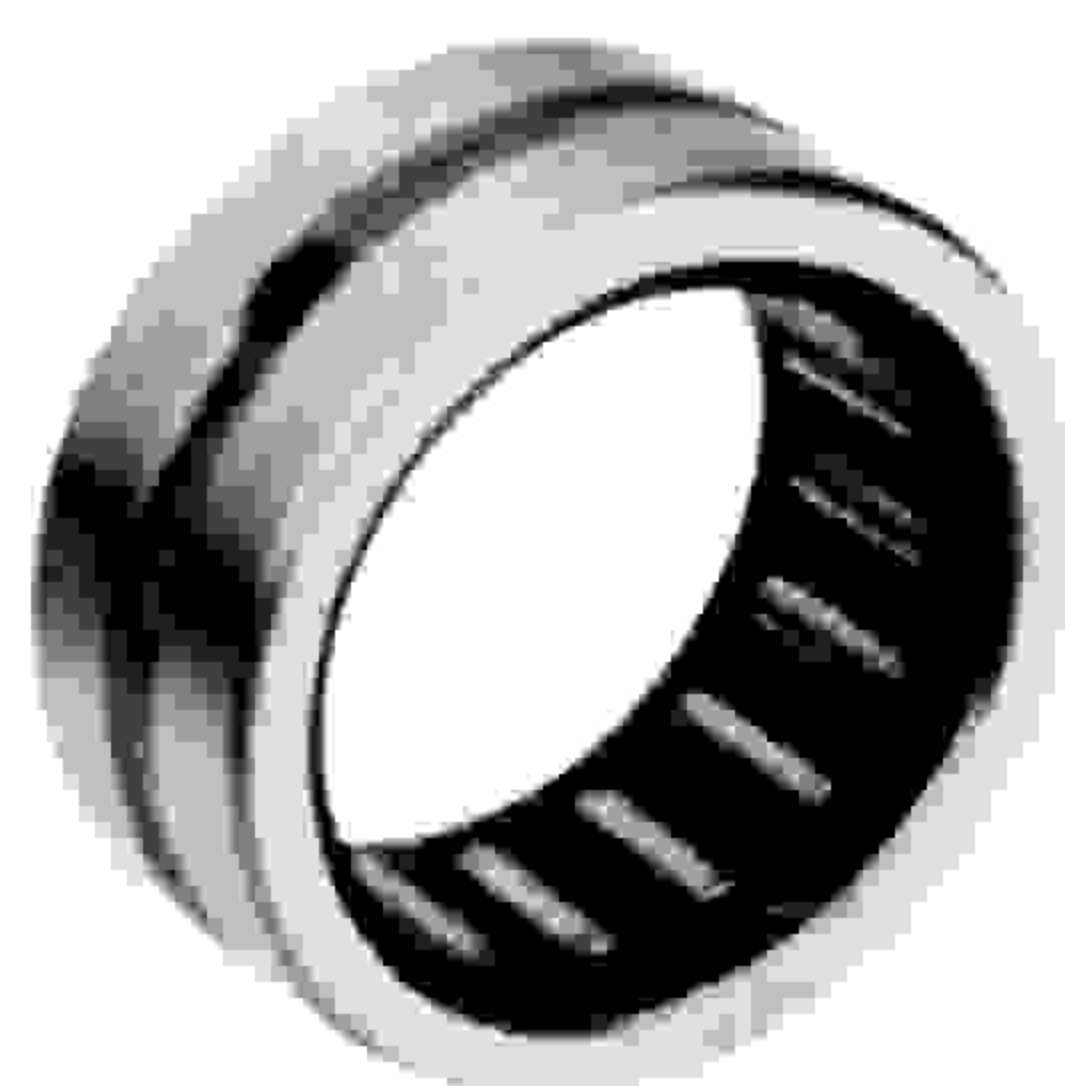
TN=塑料保持架。允許的運轉溫度: 120℃連續, 180℃短期。脂潤滑極限轉速為表列數值的60%。

RNA6909、NA6906以下尺寸也可提供雙列, 訂貨時說明。

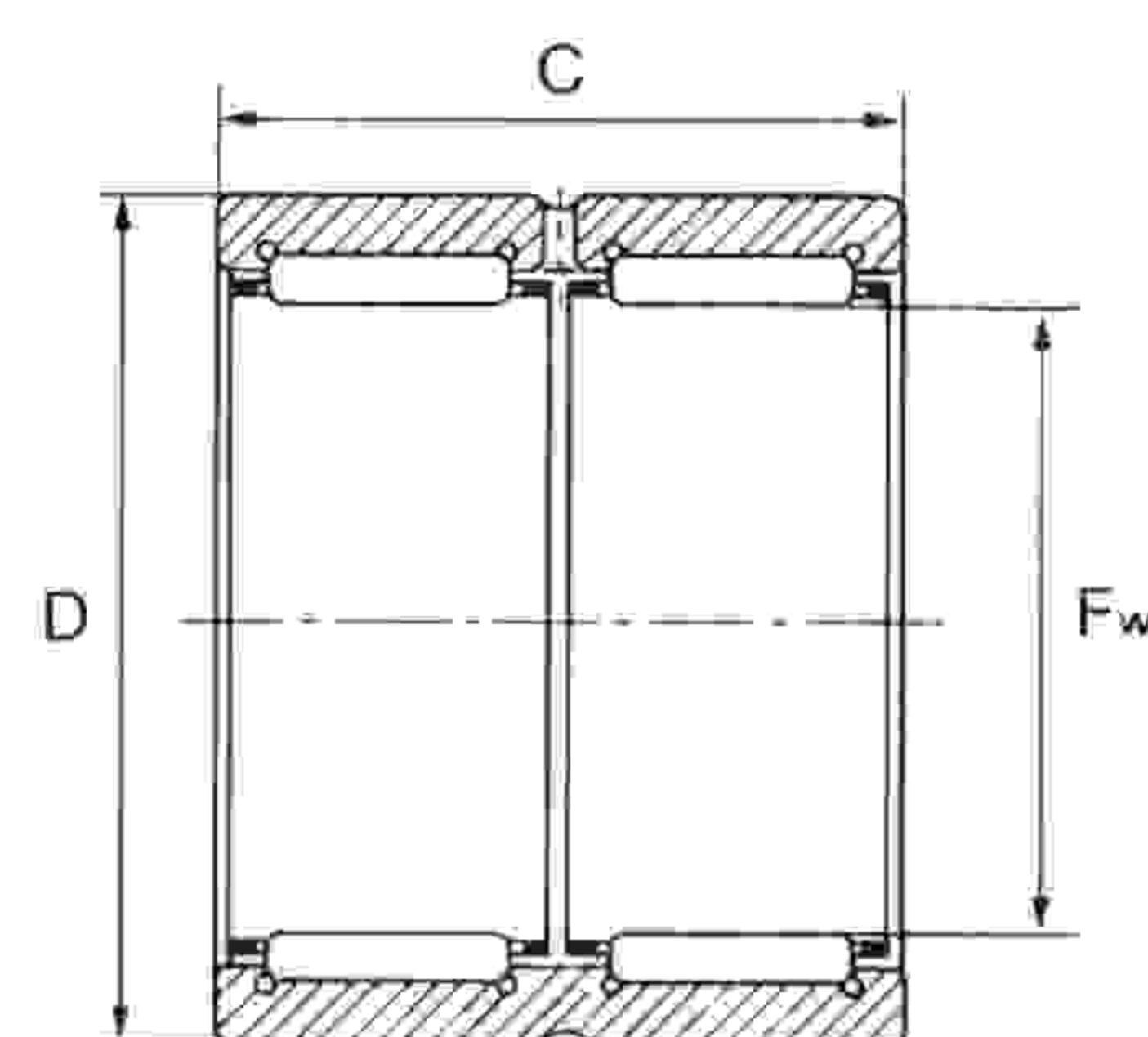




## ■ 無內圈滾針軸承 NEEDLE ROLLER BEARING WITHOUT INNER RING



NK, RNA49



RNA 69

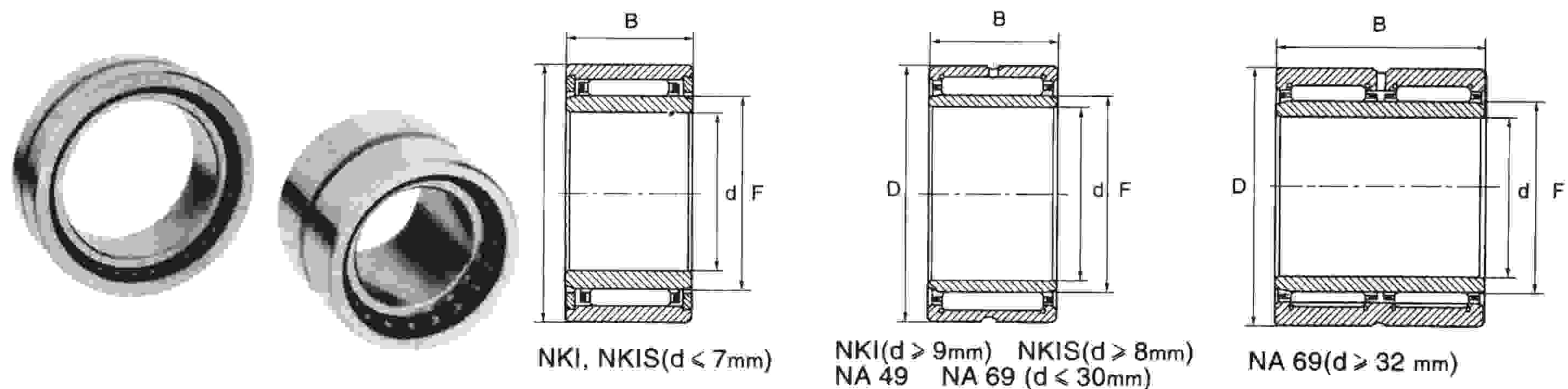
| 軸徑<br>shaft<br>Diameter | 軸承型號<br>Bearing Designation |    |         |         |                     | 重量<br>Mass<br>近似<br>Approx | 外形尺寸<br>Boundary Dimensions |     |    | 基本額定負荷<br>Basic Load Rating |                | 極限轉速<br>Limiting Speed |
|-------------------------|-----------------------------|----|---------|---------|---------------------|----------------------------|-----------------------------|-----|----|-----------------------------|----------------|------------------------|
|                         | 系列<br>Series                |    |         |         | 被取代的<br>Substituted |                            | Fw                          | D   | C  | 動Cr<br>Dynamic              | 靜Cor<br>Static | 油潤滑<br>Oil             |
|                         | mm                          | NK | NKS     | RNA49   |                     |                            |                             |     |    |                             |                |                        |
| 45                      | NK45/20                     | -  | -       | -       | 644808              | 81.5                       | 45                          | 55  | 20 | 19800                       | 46500          | 7650                   |
|                         | -                           | -  | -       | -       | 624708              | 75.3                       | 45                          | 55  | 22 | 20500                       | 49600          | 7650                   |
|                         | -                           | -  | -       | -       | 46449/38            | 80                         | 45                          | 58  | 20 | 21600                       | 50500          | 7650                   |
| 48                      | -                           | -  | RNA4908 | -       | 4644908             | 132                        | 48                          | 62  | 22 | 31036                       | 63879          | 8120                   |
|                         | -                           | -  | -       | Rm6908  | 6634908             | 238                        | 48                          | 62  | 40 | 64000                       | 112000         | 8120                   |
| 50                      | NK50/25                     | -  | -       | -       | -                   | 167                        | 50                          | 62  | 25 | 28000                       | 67000          | 8140                   |
|                         | NK50/35                     | -  | -       | -       | -                   | 236                        | 50                          | 62  | 35 | 32000                       | 70100          | 8140                   |
|                         | -                           | -  | -       | -       | 624708K             | 328                        | 50                          | 65  | 34 | 40000                       | 62000          | 8140                   |
| 52                      | -                           | -  | RNA4909 | -       | 4624909             | 163                        | 52                          | 68  | 22 | 37000                       | 69500          | 7625                   |
|                         | -                           | -  | -       | RNA6909 | 6634909             | 108                        | 52                          | 68  | 40 | 61500                       | 123500         | 7625                   |
| 55                      | NK55/25                     | -  | -       | -       | -                   | 167                        | 55                          | 68  | 25 | 30600                       | 60800          | 7625                   |
|                         | -                           | -  | -       | -       | 624709              | 210                        | 55                          | 68  | 25 | 36000                       | 68000          | 7625                   |
| 58                      | -                           | -  | RNA4901 | -       | 4644910             | 161                        | 58                          | 72  | 22 | 41000                       | 72000          | 7500                   |
|                         | -                           | -  | -       | RNA6901 | 6634910             | 296                        | 58                          | 72  | 40 | 68000                       | 135000         | 7500                   |
| 60                      | NK60/25                     | -  | -       | -       | -                   | 154                        | 60                          | 72  | 25 | 39000                       | 86000          | 7000                   |
| 63                      | -                           | -  | RNA4911 | -       | 4644911             | 241                        | 63                          | 80  | 25 | 50600                       | 96580          | 6340                   |
|                         | -                           | -  | -       | RNA6911 | 6634911             | 430                        | 63                          | 80  | 45 | 82560                       | 172000         | 6340                   |
| 68                      | -                           | -  | RNA4912 | -       | 4644912             | 257                        | 68                          | 85  | 25 | 52800                       | 91050          | 6100                   |
|                         | -                           | -  | -       | RNA6912 | 6634912             | 436                        | 68                          | 85  | 45 | 88500                       | 186000         | 6100                   |
| 72                      | -                           | -  | RNA4913 | -       | 4644913             | 300                        | 72                          | 90  | 25 | 57500                       | 110500         | 6100                   |
|                         | -                           | -  | -       | RNA6913 | 6634913             | 571                        | 72                          | 90  | 45 | 87600                       | 194500         | 6100                   |
| 80                      | -                           | -  | RNA4914 | -       | 4644914             | 400                        | 80                          | 100 | 30 | 79000                       | 154000         | 5130                   |
|                         | -                           | -  | -       | RNA6914 | 6634914             | 815                        | 80                          | 100 | 54 | 12000                       | 263000         | 5130                   |
| 85                      | -                           | -  | RNA4915 | -       | 4644915             | 472                        | 85                          | 105 | 30 | 82000                       | 158000         | 5130                   |
|                         | -                           | -  | -       | RNA6915 | 6634915             | 923                        | 85                          | 105 | 54 | 128000                      | 272000         | 5130                   |
| 90                      | -                           | -  | RNA4916 | -       | 4644916             | 496                        | 90                          | 110 | 30 | 81000                       | 170500         | 4927                   |
|                         | -                           | -  | -       | RNA6916 | 6634916             | 978                        | 90                          | 110 | 54 | 130500                      | 280600         | 4927                   |
| 96                      | -                           | -  | -       | -       | SG-421              | 496                        | 96                          | 115 | 29 | 73000                       | 137000         | 4600                   |
| 100                     | -                           | -  | RNA4917 | -       | 4644917             | 608                        | 100                         | 120 | 35 | 98000                       | 207000         | 4600                   |
|                         | -                           | -  | -       | RNA6917 | 6634917             | 1112                       | 100                         | 120 | 63 | 161000                      | 337000         | 4600                   |
| 105                     | -                           | -  | RNA4918 | -       | 4644918             | 713                        | 105                         | 125 | 35 | 98500                       | 239000         | 4000                   |
|                         | -                           | -  | -       | RNA6918 | 6634918             | 1250                       | 105                         | 125 | 63 | 174000                      | 380000         | 4000                   |
| 110                     | -                           | -  | RNA4919 | -       | 4644919             | 685                        | 110                         | 130 | 35 | 112000                      | 245000         | 3870                   |
|                         | -                           | -  | -       | RNA6919 | 6634919             | 1325                       | 110                         | 130 | 63 | 196000                      | 400000         | 3870                   |
| 115                     | -                           | -  | RNA4920 | -       | 4624920             | 1006                       | 115                         | 140 | 40 | 120000                      | 264000         | 3710                   |
| 125                     | -                           | -  | RNA4922 | -       | 6634922             | 1200                       | 125                         | 150 | 40 | 124000                      | 270000         | 3350                   |
| 130                     | -                           | -  | RNA4824 | -       | 4644824             | 685                        | 130                         | 150 | 30 | 91600                       | 234000         | 3000                   |
| 135                     | -                           | -  | RNA4924 | -       | 4644924             | 1760                       | 135                         | 165 | 45 | 174000                      | 386000         | 2920                   |
| 155                     | -                           | -  | RNA4828 | -       | 4644828             | 988                        | 155                         | 175 | 35 | 119000                      | 321000         | 2570                   |
| 160                     | -                           | -  | RNA4928 | -       | 4644928             | 2350                       | 160                         | 190 | 50 | 20000                       | 460000         | 2900                   |

TN=塑料保持架。允許的運轉溫度：120℃連續，180℃短期。  
脂潤滑極限轉速為表列數值的60%。





## ■ 帶內圈滾針軸承 NEEDLE ROLLER BEARING WITH INNER RING

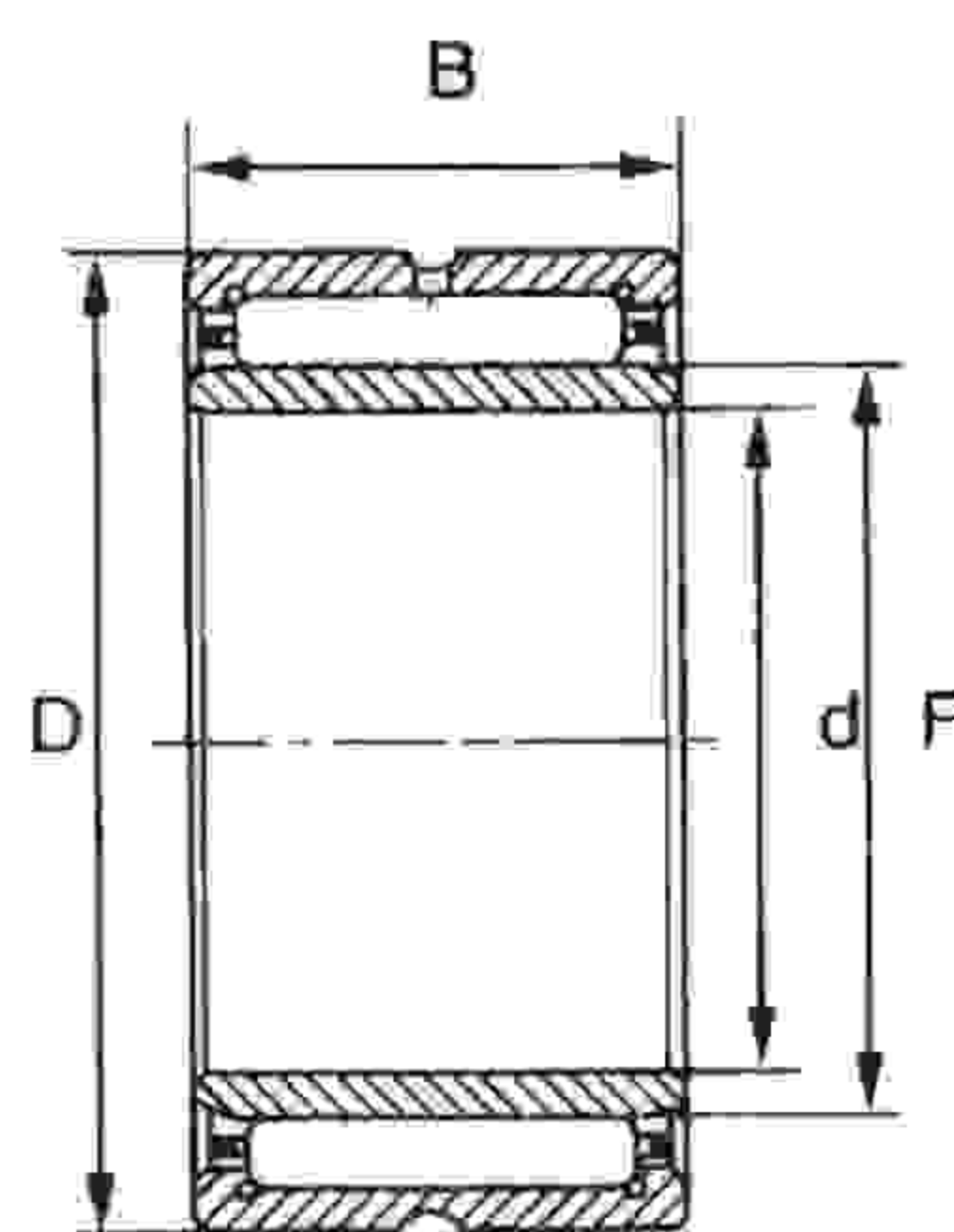
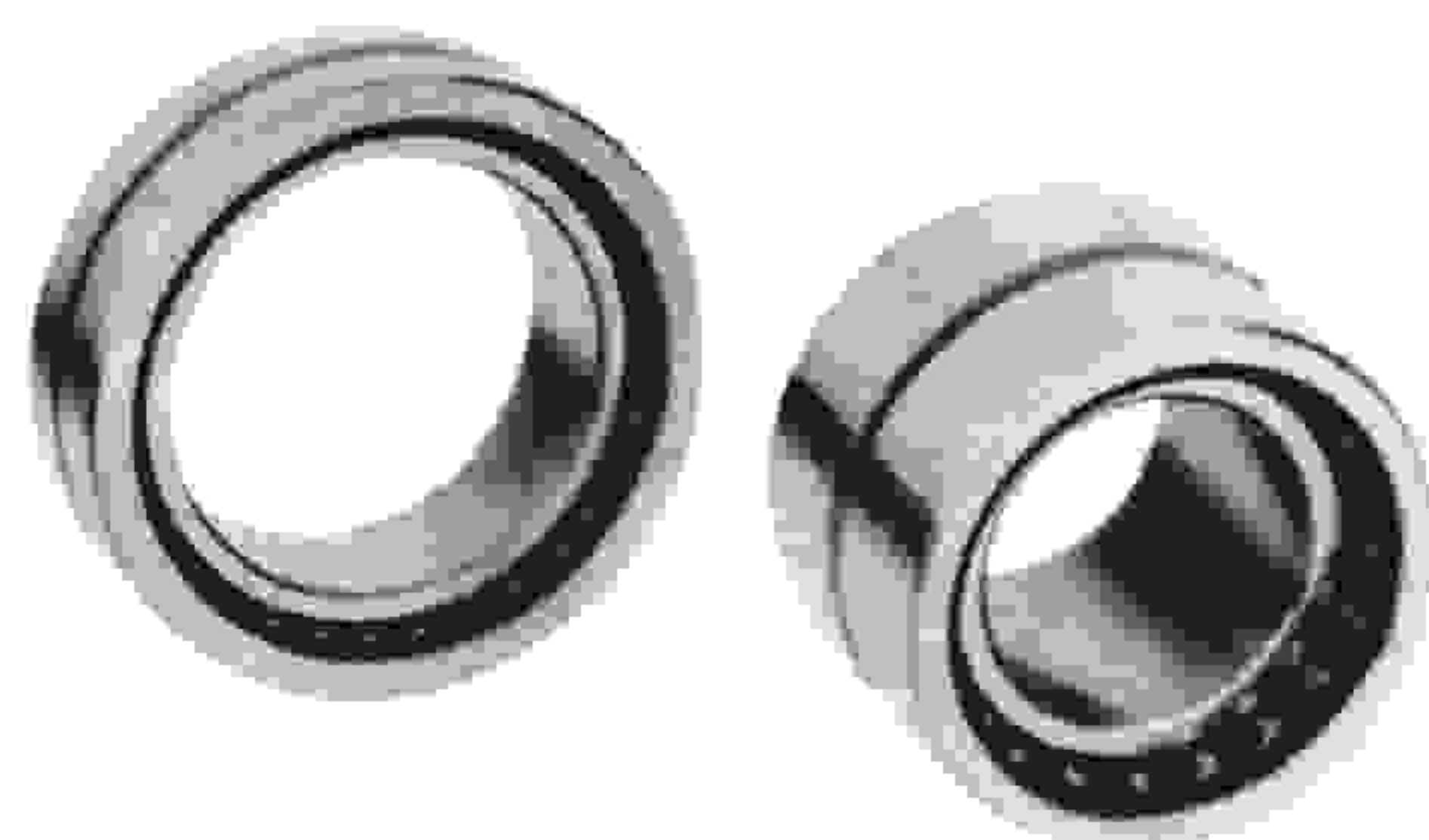


| 軸徑<br>shaft<br>Diameter | 軸承型號<br>Bearing Designation |        |         |         |                     | 重量<br>Mass<br>近似<br>Approx | 外形尺寸<br>Boundary Dimensions |    |    |    | 基本額定負荷<br>Basic Load Rating |                | 極限轉速<br>Limiting Speed |
|-------------------------|-----------------------------|--------|---------|---------|---------------------|----------------------------|-----------------------------|----|----|----|-----------------------------|----------------|------------------------|
|                         | 系列<br>Series                |        |         |         | 被取代的<br>Substituted |                            | d                           | F  | D  | B  | 動Cr<br>Dynamic              | 靜Cor<br>Static | 油潤滑<br>Oil             |
|                         | mm                          | NKI    | NKIS    | Na49    |                     |                            |                             |    |    |    |                             |                |                        |
| 8                       | -                           | NKIS8  | -       | -       | -                   | 46                         | 8                           | 14 | 25 | 16 | 12400                       | 11300          | 21500                  |
| 9                       | NKI9/12                     | -      | -       | -       | -                   | 14.6                       | 9                           | 12 | 19 | 12 | 6200                        | 7002           | 21700                  |
| 10                      | NKI10/16                    | -      | -       | -       | -                   | 27.3                       | 10                          | 14 | 22 | 16 | 9808                        | 10500          | 19650                  |
|                         | -                           | -      | Na4900  | -       | 4524900             | 21                         | 10                          | 14 | 22 | 13 | 8006                        | 9000           | 23700                  |
|                         | -                           | -      | -       | Na6900  | 6534900             | 38.4                       | 10                          | 14 | 22 | 22 | 8281                        | 11612          | 23700                  |
| 12                      | -                           | -      | Na4901  | -       | 4524901             | 25.1                       | 12                          | 16 | 24 | 13 | 5047                        | 6352           | 20000                  |
|                         | NKI12/20                    | -      | -       | -       | -                   | 39                         | 12                          | 16 | 24 | 20 | 14000                       | 18400          | 21000                  |
|                         | -                           | -      | -       | Na6901  | 6534901             | 44.5                       | 12                          | 16 | 24 | 22 | 11647                       | 17052          | 20000                  |
|                         | -                           | NKIS12 | -       | -       | -                   | 58                         | 12                          | 18 | 30 | 16 | 16000                       | 17000          | 20000                  |
| 15                      | NKI15/16                    | -      | -       | -       | -                   | 38                         | 15                          | 19 | 27 | 16 | 8847                        | 12853          | 19100                  |
|                         | NKI15/20                    | -      | -       | -       | -                   | 45.7                       | 15                          | 19 | 27 | 20 | 12347                       | 19053          | 19100                  |
|                         | -                           | -      | Na4902  | -       | 4524902             | 32                         | 15                          | 20 | 28 | 13 | 6447                        | 9053           | 18800                  |
|                         | -                           | -      | -       | Na6902  | 6534902             | 61.6                       | 15                          | 20 | 28 | 23 | 13100                       | 20900          | 18800                  |
|                         | -                           | NKIS15 | -       | -       | -                   | 90                         | 15                          | 22 | 35 | 20 | 23500                       | 24000          | 17000                  |
| 17                      | NKI17/16                    | -      | -       | -       | -                   | 41.4                       | 17                          | 21 | 29 | 16 | 13000                       | 18200          | 20000                  |
|                         | -                           | -      | Na4903  | -       | 4544903             | 32.8                       | 17                          | 22 | 30 | 13 | 7010                        | 10010          | 17000                  |
|                         | -                           | -      | -       | Na6903  | -                   | 68.2                       | 17                          | 22 | 30 | 23 | 14400                       | 24900          | 17000                  |
| 20                      | NKI20/16                    | -      | -       | -       | 6534903             | 48.5                       | 20                          | 24 | 32 | 16 | 10800                       | 17000          | 16700                  |
|                         | -                           | -      | Na4904  | -       | 4524904             | 70.2                       | 20                          | 25 | 37 | 17 | 11912                       | 16594          | 16200                  |
|                         | -                           | NKIS20 | -       | -       | -                   | 119                        | 20                          | 28 | 42 | 20 | 26500                       | 35500          | 14000                  |
| 22                      | NKI22/16                    | -      | -       | -       | -                   | 50                         | 22                          | 25 | 34 | 16 | 8721                        | 15340          | 16200                  |
|                         | -                           | -      | NA49/22 | -       | -                   | 76                         | 22                          | 28 | 39 | 17 | 12996                       | 19175          | 14360                  |
|                         | -                           | -      | -       | NA69/22 | -                   | 130                        | 22                          | 28 | 39 | 30 | 21375                       | 35750          | 14360                  |
| 25                      | NKI25/30                    | -      | -       | -       | -                   | 115                        | 25                          | 29 | 38 | 30 | 31500                       | 56000          | 14000                  |
|                         | -                           | -      | Na4905  | -       | 4524905             | 76                         | 25                          | 30 | 42 | 17 | 13452                       | 20475          | 13832                  |
|                         | -                           | -      | -       | Na6905  | 6534905             | 138                        | 25                          | 30 | 42 | 30 | 19300                       | 31750          | 13832                  |
|                         | -                           | NKIS25 | -       | -       | -                   | 160                        | 25                          | 32 | 47 | 22 | 32000                       | 55000          | 12500                  |
| 28                      | -                           | -      | NA49/28 | -       | 45449/28            | 90.7                       | 28                          | 32 | 45 | 17 | 13900                       | 20100          | 13832                  |
|                         | -                           | -      | -       | NA69/28 | -                   | 170                        | 28                          | 32 | 45 | 30 | 22400                       | 36850          | 13832                  |
| 32                      | NKI32/20                    | -      | -       | -       | -                   | 101                        | 32                          | 35 | 45 | 20 | 13851                       | 26900          | 12382                  |
|                         | -                           | -      | NA49/32 | -       | 45449/32            | 150                        | 32                          | 40 | 52 | 20 | 19000                       | 32600          | 11134                  |
|                         | -                           | -      | -       | NA69/32 | 65349/32            | 272                        | 32                          | 40 | 52 | 36 | 25500                       | 68500          | 11134                  |
| 35                      | NKI35/30                    | -      | -       | -       | -                   | 165                        | 35                          | 40 | 50 | 30 | 22200                       | 51350          | 11134                  |
|                         | -                           | -      | Na4907  | -       | 4524907             | 151                        | 35                          | 42 | 55 | 20 | 19800                       | 41500          | 11134                  |
|                         | -                           | -      | -       | Na6907  | 6534907             | 301                        | 35                          | 42 | 55 | 36 | 26000                       | 60500          | 11134                  |
|                         | -                           | NKIS35 | -       | -       | -                   | 210                        | 35                          | 43 | 58 | 22 | 33000                       | 56000          | 9500                   |
| 40                      | NKI40/20                    | -      | -       | -       | -                   | 124                        | 40                          | 45 | 55 | 20 | 22000                       | 48000          | 10127                  |
|                         | NKI40/30                    | -      | -       | -       | -                   | 184                        | 40                          | 45 | 55 | 30 | 35000                       | 86000          | 10127                  |
|                         | -                           | -      | Na4908  | -       | 4544908             | 123                        | 40                          | 48 | 62 | 22 | 31036                       | 63873          | 8567                   |
|                         | -                           | -      | -       | Na6908  | 6534908             | 401                        | 40                          | 48 | 62 | 40 | 64000                       | 112000         | 8567                   |

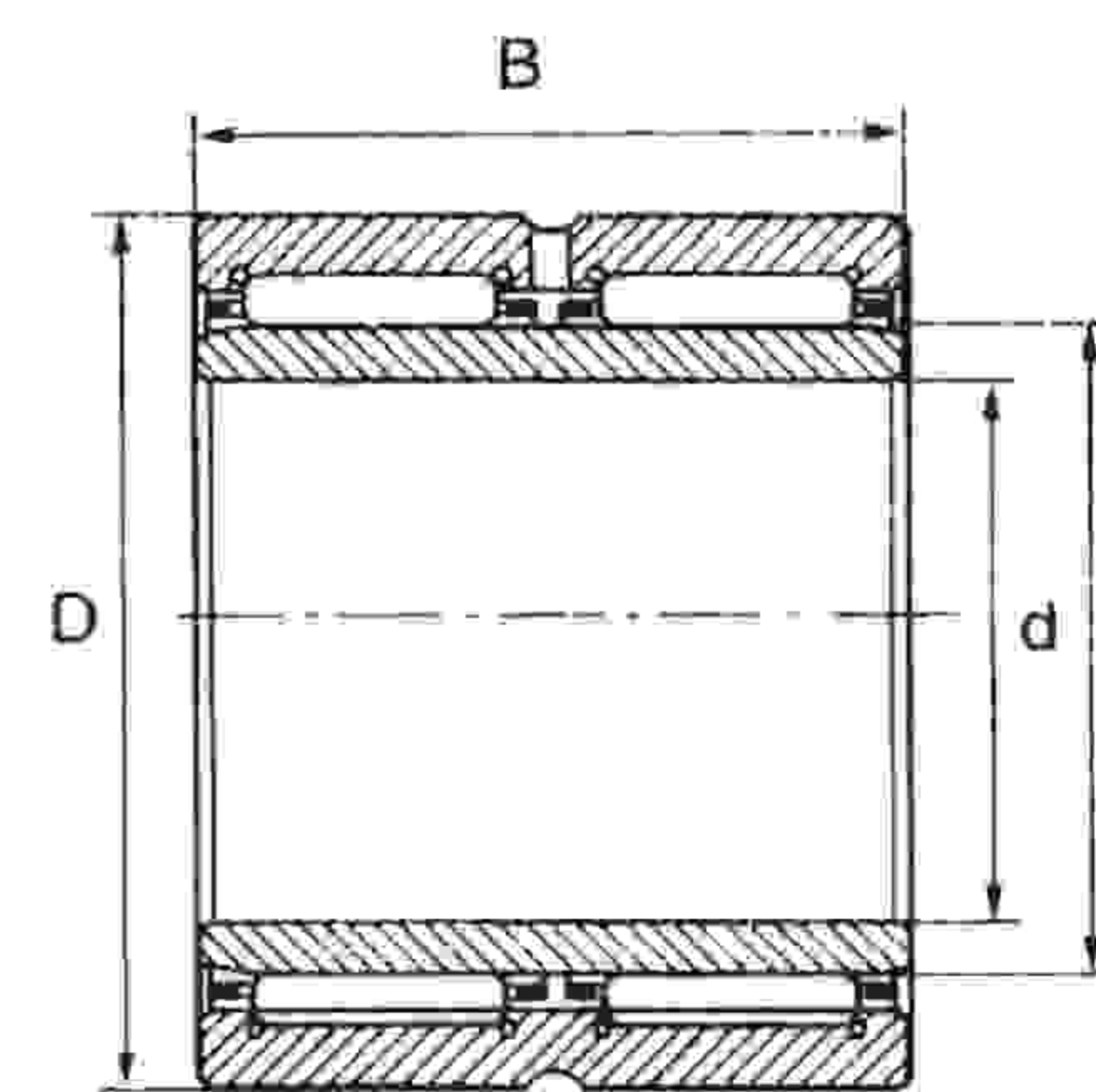




## ■ 帶內圈滾針軸承 NEEDLE ROLLER BEARING WITH INNER RING



NKI NKIS  
NA49 NA48



NA69

| 軸徑<br>shaft<br>Diameter | 軸承型號<br>Bearing Designation |        |        |        |                     | 重量<br>Mass<br>近似<br>Approx | 外形尺寸<br>Boundary Dimensions |     |     |    | 基本額定負荷<br>Basic Load Rating |                | 極限轉速<br>Limiting Speed |
|-------------------------|-----------------------------|--------|--------|--------|---------------------|----------------------------|-----------------------------|-----|-----|----|-----------------------------|----------------|------------------------|
|                         | 系列<br>Series                |        |        |        | 被取代的<br>Substituted |                            | d                           | F   | D   | B  | 動Cr<br>Dynamic              | 靜Cor<br>Static | 油潤滑<br>Oil             |
|                         | mm                          | NKI    | NKIS   | NA49   |                     |                            |                             |     |     |    |                             |                |                        |
| 42                      | NKI42/20                    | -      | -      | -      | -                   | 138                        | 42                          | 47  | 57  | 20 | 26000                       | 525000         | 9500                   |
| 45                      | NKI45/25                    | -      | -      | -      | -                   | 218                        | 45                          | 50  | 62  | 25 | 36000                       | 70000          | 8567                   |
|                         | NKI45/35                    | -      | -      | -      | -                   | 289                        | 45                          | 50  | 62  | 35 | 41500                       | 102000         | 8567                   |
|                         | -                           | -      | Na4909 | -      | 4544909             | 260                        | 45                          | 50  | 68  | 22 | 37000                       | 69500          | 8052                   |
|                         | -                           | -      | -      | Na6909 | 6534909             | 479                        | 45                          | 50  | 68  | 40 | 61500                       | 123500         | 8052                   |
|                         | -                           | NKIS45 | -      | -      | -                   | 306                        | 45                          | 55  | 72  | 22 | 43000                       | 71000          | 7500                   |
| 50                      | NKI50/25                    | -      | -      | -      | -                   | 262                        | 50                          | 55  | 68  | 25 | 32000                       | 78000          | 7890                   |
|                         | -                           | -      | Na4910 | -      | 4544910             | 264                        | 50                          | 58  | 72  | 22 | 41000                       | 72000          | 7526                   |
|                         | -                           | -      | -      | Na6910 | 6534910             | 457                        | 50                          | 58  | 72  | 40 | 68000                       | 135000         | 7526                   |
|                         | -                           | NKIS50 | -      | -      | -                   | 510                        | 50                          | 60  | 80  | 28 | 60000                       | 95000          | 7200                   |
| 55                      | NKI55/35                    | -      | -      | -      | -                   | 357                        | 55                          | 60  | 72  | 35 | 48000                       | 126800         | 7256                   |
|                         | -                           | -      | Na4911 | -      | 4544911             | 386                        | 55                          | 63  | 80  | 25 | 50600                       | 96580          | 7156                   |
|                         | -                           | -      | -      | Na6911 | 6534911             | 760                        | 55                          | 63  | 80  | 45 | 82560                       | 172000         | 7156                   |
| 60                      | NKI60/25                    | -      | -      | -      | -                   | 388                        | 60                          | 68  | 82  | 25 | 35500                       | 85000          | 7156                   |
|                         | -                           | -      | Na4912 | -      | 4544912             | 412                        | 60                          | 68  | 85  | 25 | 52800                       | 11050          | 6022                   |
|                         | -                           | -      | -      | Na6912 | 6534912             | 798                        | 60                          | 68  | 85  | 45 | 88500                       | 186000         | 6022                   |
|                         | -                           | NKIS60 | -      | -      | -                   | 550                        | 60                          | 70  | 90  | 28 | 65000                       | 110000         | 6300                   |
| 65                      | -                           | -      | Na4913 | -      | 4544913             | 435                        | 65                          | 72  | 90  | 25 | 57500                       | 110500         | 6022                   |
|                         | -                           | -      | -      | Na6913 | 6534913             | 821                        | 65                          | 72  | 90  | 45 | 87600                       | 194500         | 6022                   |
| 70                      | -                           | -      | Na4914 | -      | 4544914             | 712                        | 70                          | 80  | 100 | 30 | 79000                       | 154000         | 5111                   |
|                         | -                           | -      | -      | Na6914 | 6534914             | 1326                       | 70                          | 80  | 100 | 54 | 121000                      | 263000         | 5111                   |
| 75                      | -                           | -      | Na4915 | -      | 4544915             | 795                        | 75                          | 85  | 105 | 30 | 82000                       | 158000         | 5111                   |
|                         | -                           | -      | -      | Na6915 | 6534915             | 1429                       | 75                          | 85  | 105 | 54 | 128000                      | 272000         | 5111                   |
| 80                      | -                           | -      | Na4916 | -      | 4544916             | 870                        | 80                          | 90  | 110 | 30 | 81000                       | 170500         | 5111                   |
|                         | -                           | -      | -      | Na6916 | 6534916             | 1510                       | 80                          | 90  | 110 | 54 | 130500                      | 280600         | 5000                   |
| 85                      | -                           | -      | Na4917 | -      | 4544917             | 1250                       | 85                          | 100 | 120 | 35 | 111000                      | 237000         | 4600                   |
|                         | -                           | -      | -      | Na6917 | 6534917             | 2200                       | 85                          | 100 | 120 | 63 | 166000                      | 400000         | 4600                   |
| 90                      | -                           | -      | Na4918 | -      | 4544918             | 1312                       | 90                          | 105 | 125 | 35 | 114000                      | 250000         | 4400                   |
|                         | -                           | -      | -      | Na6918 | 6534918             | 2310                       | 90                          | 105 | 125 | 63 | 172000                      | 425000         | 4400                   |
| 95                      | -                           | -      | Na4919 | -      | 4544919             | 1371                       | 95                          | 110 | 130 | 35 | 116000                      | 260000         | 4200                   |
|                         | -                           | -      | -      | Na6919 | 6534919             | 2500                       | 95                          | 110 | 130 | 63 | 174000                      | 440000         | 4200                   |
| 100                     | -                           | -      | NA4920 | -      | 4544920             | 1900                       | 100                         | 115 | 140 | 40 | 120000                      | 274000         | 4000                   |
| 110                     | -                           | -      | Na4922 | -      | 4544922             | 2070                       | 110                         | 125 | 150 | 40 | 132000                      | 290000         | 3700                   |
|                         | -                           | -      | -      | Na4822 | -                   | 1080                       | 110                         | 120 | 140 | 30 | 94000                       | 216000         | 3900                   |
| 120                     | -                           | -      | Na4924 | -      | 4544924             | 2860                       | 120                         | 135 | 165 | 45 | 181000                      | 390000         | 3400                   |
|                         | -                           | -      | -      | Na4824 | -                   | 1170                       | 120                         | 130 | 150 | 30 | 99000                       | 239000         | 3600                   |
| 130                     | -                           | -      | Na4926 | -      | 4544926             | 3900                       | 130                         | 150 | 180 | 50 | 203000                      | 470000         | 3100                   |
|                         | -                           | -      | -      | Na4826 | -                   | 1810                       | 130                         | 145 | 165 | 35 | 118000                      | 310000         | 3200                   |
| 140                     | -                           | -      | Na4928 | -      | 4544928             | 4150                       | 140                         | 160 | 190 | 50 | 209000                      | 500000         | 2900                   |
|                         | -                           | -      | -      | Na4828 | -                   | 1920                       | 140                         | 155 | 175 | 35 | 120000                      | 325000         | 3000                   |





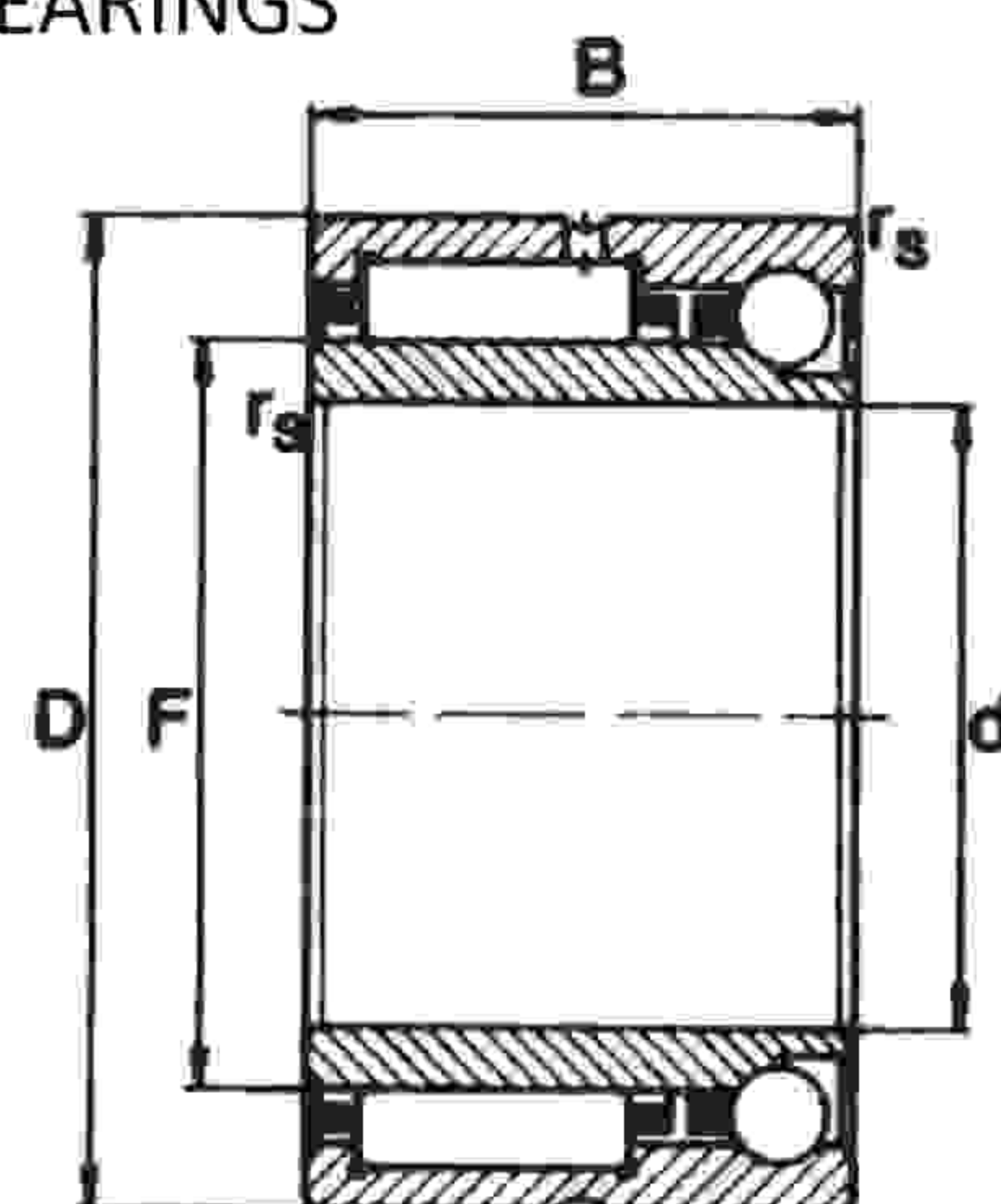
## ■ 組合式向心-推力軸承 COMBINED RADIAL-THRUST BEARINGS

### 滾針-角接觸球軸承

### NEEDLE – ANGULAR CONTACT BALL BEARINGS

#### 單向受力NKIA系列

Single force NKIA series



NKIA

| 外徑<br>shaft<br>Diameter | 軸承型號<br>Bearing Designation | 外形尺寸<br>Boundary Dimensions |    |     |    |     | 基本額定負荷<br>Basic Load Rating |        |         |       | 極限轉速<br>Limiting Speed |
|-------------------------|-----------------------------|-----------------------------|----|-----|----|-----|-----------------------------|--------|---------|-------|------------------------|
|                         |                             | d                           | F  | D   | B  | rs  | 徑向radial                    |        | 軸向axial |       | 油潤滑<br>Oil             |
|                         |                             |                             |    |     |    |     | 動Cr                         | 靜Cor   | 動C      | 靜Co   |                        |
| mm                      |                             | min                         |    |     |    |     | N                           |        |         |       | min <sup>-1</sup>      |
| 12                      | NKIA 5901                   | 12                          | 16 | 24  | 16 | 0.3 | 7600                        | 8300   | 2160    | 1940  | 23000                  |
| 15                      | NKIA 5902                   | 15                          | 20 | 28  | 18 | 0.3 | 10600                       | 13600  | 2340    | 2370  | 21 000                 |
| 17                      | NKIA 5903                   | 17                          | 22 | 30  | 18 | 0.3 | 11 000                      | 14600  | 2500    | 2750  | 20000                  |
| 20                      | N KIA 5904                  | 20                          | 25 | 37  | 23 | 0.3 | 21 000                      | 25500  | 3950    | 4200  | 17000                  |
| 22                      | NKIA 59/22                  | 22                          | 28 | 39  | 23 | 0.3 | 22800                       | 29500  | 4250    | 4850  | 15000                  |
| 25                      | NKIA 5905                   | 25                          | 30 | 42  | 23 | 0.3 | 23600                       | 31500  | 4350    | 5200  | 14000                  |
| 30                      | NKIA 5906                   | 30                          | 35 | 47  | 23 | 0.3 | 25000                       | 35500  | 4750    | 6300  | 13000                  |
| 35                      | NKIA 5907                   | 35                          | 42 | 55  | 27 | 0.6 | 31500                       | 50000  | 6000    | 8400  | 11000                  |
| 40                      | NKIA 5908                   | 40                          | 48 | 62  | 30 | 0.6 | 43000                       | 67000  | 7400    | 10900 | 9000                   |
| 45                      | NKDA 5909 x                 | 45                          | 52 | 68  | 30 | 0.6 | 45000                       | 73000  | 7700    | 12000 | 8500                   |
| 50                      | NKIA 5910 x                 | 50                          | 58 | 72  | 30 | 0.6 | 47000                       | 80000  | 8100    | 13700 | 8000                   |
| 55                      | NKIA 5911                   | 55                          | 63 | 80  | 34 | 1   | 58000                       | 100000 | 9700    | 16600 | 7000                   |
| 60                      | NKIA 5912                   | 60                          | 68 | 85  | 34 | 1   | 60000                       | 108000 | 10000   | 17900 | 6500                   |
| 65                      | NKIA 5913 x                 | 65                          | 72 | 90  | 34 | 1   | 61000                       | 112000 | 10300   | 19300 | 6500                   |
| 70                      | NKIA 5914                   | 70                          | 80 | 100 | 40 | 1   | 84000                       | 156000 | 13500   | 25000 | 5500                   |

球軸承的保持架由塑料制成，允許工作溫度：120連續地，150臨時地，180短期地。  
脂潤滑時，允許值為表中數值的60%。





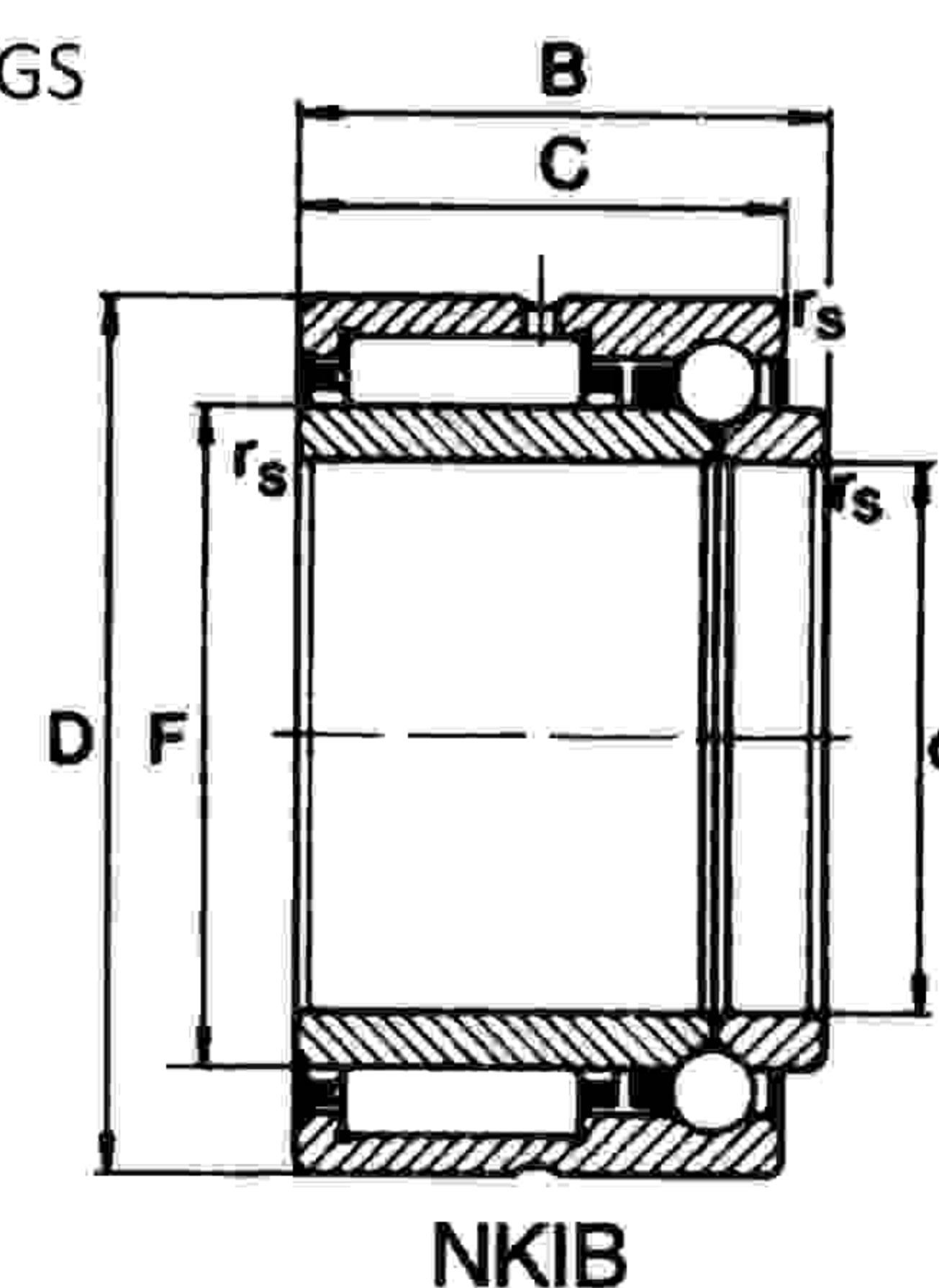
## ■ 組合式向心-推力軸承 COMBINED RADIAL-THRUST BEARINGS

### 滾針-角接觸球軸承

### NEEDLE – ANGULAR CONTACT BALL BEANRINGS

### 雙向受力NKIB系列

Double force NKIB series



| 外徑<br>shaft<br>Diameter | 軸承型號<br>Bearing Designation | 外形尺寸<br>Boundary Dimensions |    |     |      |    |     | 基本額定負荷<br>Basic Load Rating |        |         |       | 極限轉速<br>Limiting Speed |
|-------------------------|-----------------------------|-----------------------------|----|-----|------|----|-----|-----------------------------|--------|---------|-------|------------------------|
|                         |                             | d                           | F  | D   | B    | C  | rs  | 徑向radial                    |        | 軸向axial |       | 油潤滑<br>Oil             |
|                         |                             |                             |    |     |      |    |     | 動Cr                         | 靜Cor   | 動C      | 靜Co   |                        |
| mm                      |                             | min                         |    |     |      |    |     | N                           |        |         |       | min <sup>-1</sup>      |
| 12                      | NKIB5901                    | 12                          | 16 | 24  | 17.5 | 16 | 0.3 | 7600                        | 8300   | 2160    | 1940  | 23000                  |
| 15                      | NKIB5902                    | 15                          | 20 | 28  | 20   | 18 | 0.3 | 10600                       | 13600  | 2340    | 2370  | 21000                  |
| 17                      | NKIB5903                    | 17                          | 22 | 30  | 20   | 18 | 0.3 | 11000                       | 14600  | 2500    | 2750  | 20000                  |
| 20                      | NKIB5904                    | 20                          | 25 | 37  | 25   | 23 | 0.3 | 21000                       | 25500  | 3950    | 4200  | 17000                  |
| 22                      | NKIB59/22                   | 22                          | 28 | 39  | 25   | 23 | 0.3 | 22800                       | 29500  | 4250    | 4850  | 15000                  |
| 25                      | NKIB5905                    | 25                          | 30 | 42  | 25   | 23 | 0.3 | 23600                       | 31500  | 4350    | 5200  | 14000                  |
| 30                      | NKIB5906                    | 30                          | 35 | 47  | 25   | 23 | 0.3 | 25000                       | 35500  | 4750    | 6300  | 13000                  |
| 35                      | NKIB5907                    | 35                          | 42 | 55  | 30   | 27 | 0.6 | 31500                       | 50000  | 6000    | 8400  | 11000                  |
| 40                      | NKIB5908                    | 40                          | 48 | 62  | 34   | 30 | 0.6 | 43000                       | 67000  | 7400    | 10900 | 9000                   |
| 45                      | NKIB5909X                   | 45                          | 52 | 68  | 34   | 30 | 0.6 | 45000                       | 73000  | 7700    | 12000 | 8500                   |
| 50                      | NKIB5910X                   | 50                          | 58 | 72  | 34   | 30 | 0.6 | 47000                       | 80000  | 8100    | 13700 | 8000                   |
| 55                      | NKIB5911                    | 55                          | 63 | 80  | 38   | 34 | 1   | 58000                       | 100000 | 9700    | 16600 | 7000                   |
| 60                      | NKIB5912                    | 60                          | 68 | 85  | 38   | 34 | 1   | 60000                       | 108000 | 10000   | 17900 | 6500                   |
| 65                      | NKIB5913x                   | 65                          | 72 | 90  | 38   | 34 | 1   | 61000                       | 112000 | 10300   | 19300 | 6500                   |
| 70                      | NKIB5914                    | 70                          | 80 | 100 | 45   | 40 | 1   | 84000                       | 156000 | 13500   | 25000 | 5500                   |

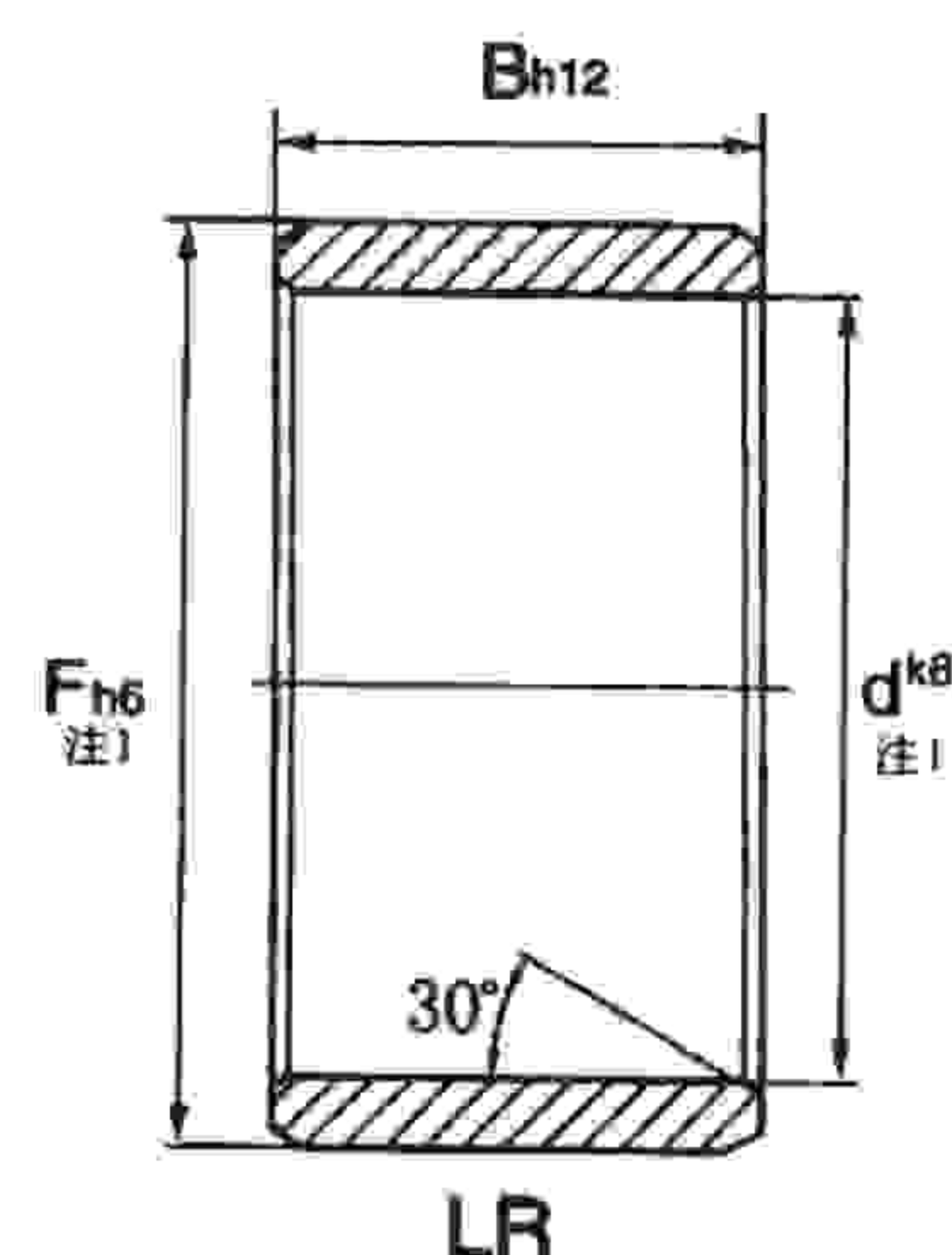
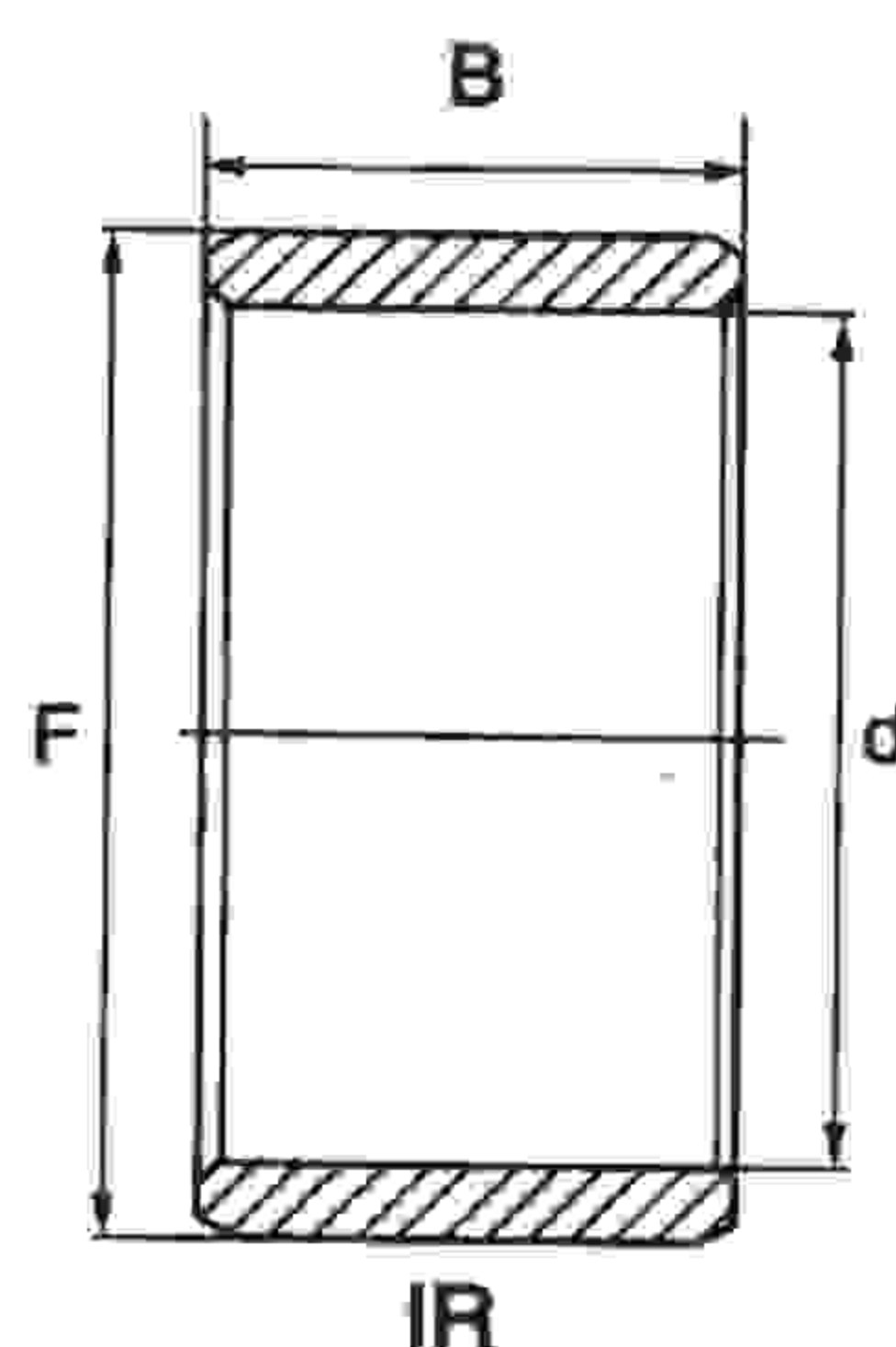
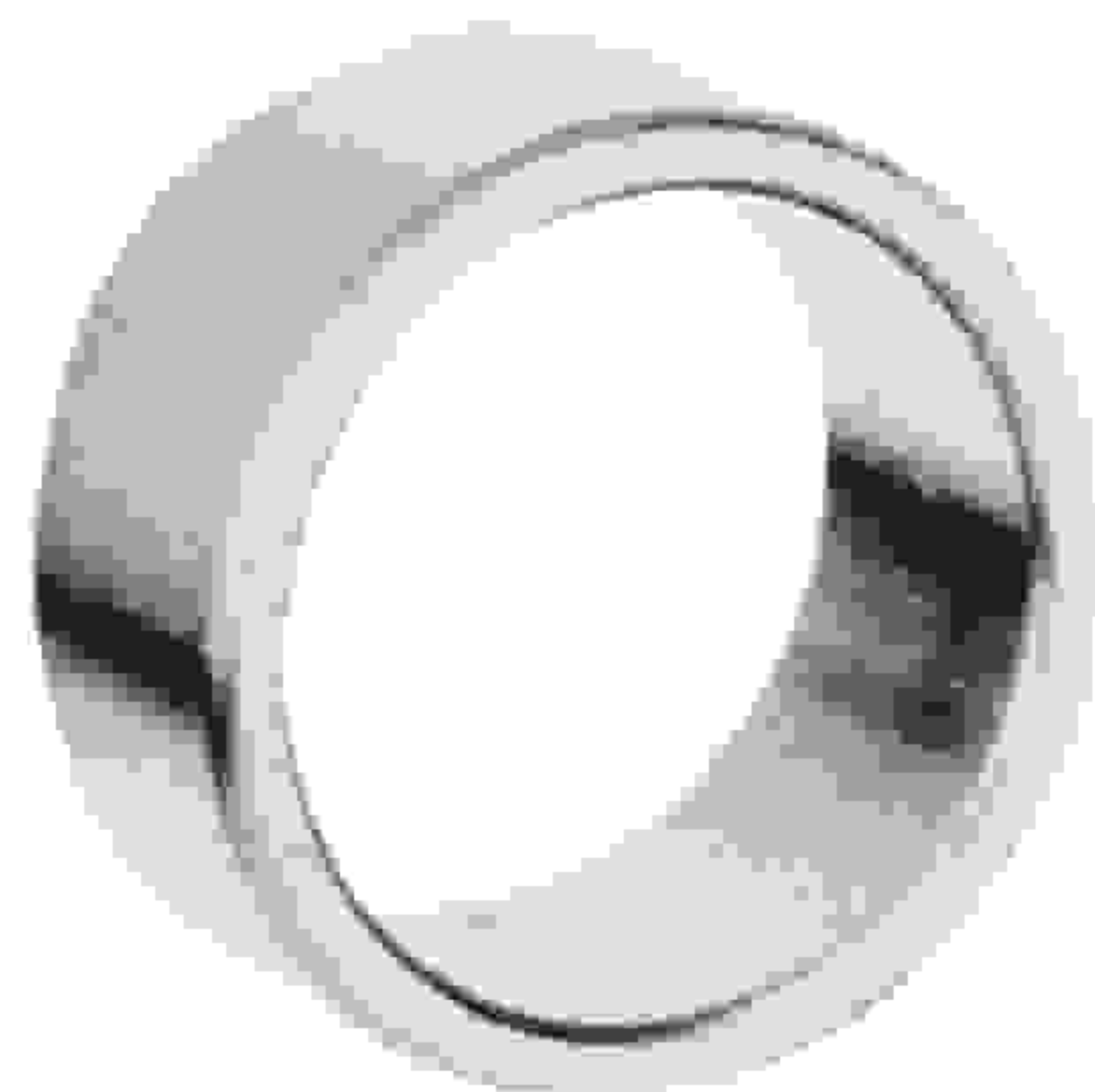
球軸承的保持架由塑料制成，允許工作溫度：120連續地，150臨時地，180短期地 脂潤滑時，允許值為表中數值的60%。





## ■ 內圈 INNER RING

可提供IR內圈，LR內圈、英制系列或特殊尺寸內圈、帶油孔內圈。IR內圈的尺寸公差和RU付幾何精度符合現行標準，LR內圈的端面可以不經磨削，尺寸公差和幾何精度大於IR（見右圖），但兩種內圈都經過熱處理。



| 軸徑<br>shaft<br>Diameter | 代 號<br>Designation | 外形尺寸<br>Boundary Dimensions |    |      | 重量<br>Mass<br>近似<br>Approx |
|-------------------------|--------------------|-----------------------------|----|------|----------------------------|
|                         |                    | D                           | F  | B    |                            |
| mm                      |                    | mm                          |    |      | g                          |
| 5                       | IR -               | 5                           | 8  | 12   | 2.79                       |
|                         | IR -               | 5                           | 8  | 16   | 3.75                       |
| 6                       | IR -               | 6                           | 9  | 12   | 3.17                       |
|                         | IR -               | 6                           | 9  | 16   | 4.3                        |
|                         | □ IR -             | 6                           | 10 | 10   | 3.7                        |
|                         | ■ IR -             | 6                           | 10 | 12   | 4.6                        |
| 7                       | IR LR              | 7                           | 10 | 10.5 | 3.09                       |
|                         | IR -               | 7                           | 10 | 12   | 3.61                       |
|                         | IR -               | 7                           | 10 | 16   | 4.9                        |
| 8                       | □ IR -             | 8                           | 12 | 10   | 4.8                        |
|                         | IR LR              | 8                           | 12 | 10.5 | 5                          |
|                         | ■ IR -             | 8                           | 12 | 12   | 5.7                        |
|                         | IR LR              | 8                           | 12 | 12.5 | 5.9                        |
| 9                       | IR -               | 9                           | 12 | 12   | 4.5                        |
|                         | IR -               | 9                           | 12 | 16   | 6.1                        |
| 10                      | IR LR              | 10                          | 13 | 12.5 | 5.2                        |
|                         | □ IR -             | 10                          | 14 | 12   | 7.3                        |
|                         | IR -               | 10                          | 14 | 13   | 7.4                        |
|                         | ■ IR -             | 10                          | 14 | 14   | 8                          |
|                         | IR -               | 10                          | 14 | 16   | 9.2                        |
|                         | IR -               | 10                          | 14 | 20   | 11.6                       |
| 12                      | IR -               | 12                          | 15 | 12   | 5.8                        |
|                         | IR LR              | 12                          | 15 | 12.5 | 6.1                        |
|                         | IR -               | 12                          | 15 | 16   | 8                          |
|                         | IR LR              | 12                          | 15 | 16.5 | 8.1                        |
|                         | IR LR              | 12                          | 15 | 22.5 | 10.9                       |
|                         | □ IR -             | 12                          | 15 | 12   | 7.9                        |

□ 帶潤滑油孔

■ 無潤滑油孔，沒有引導倒角

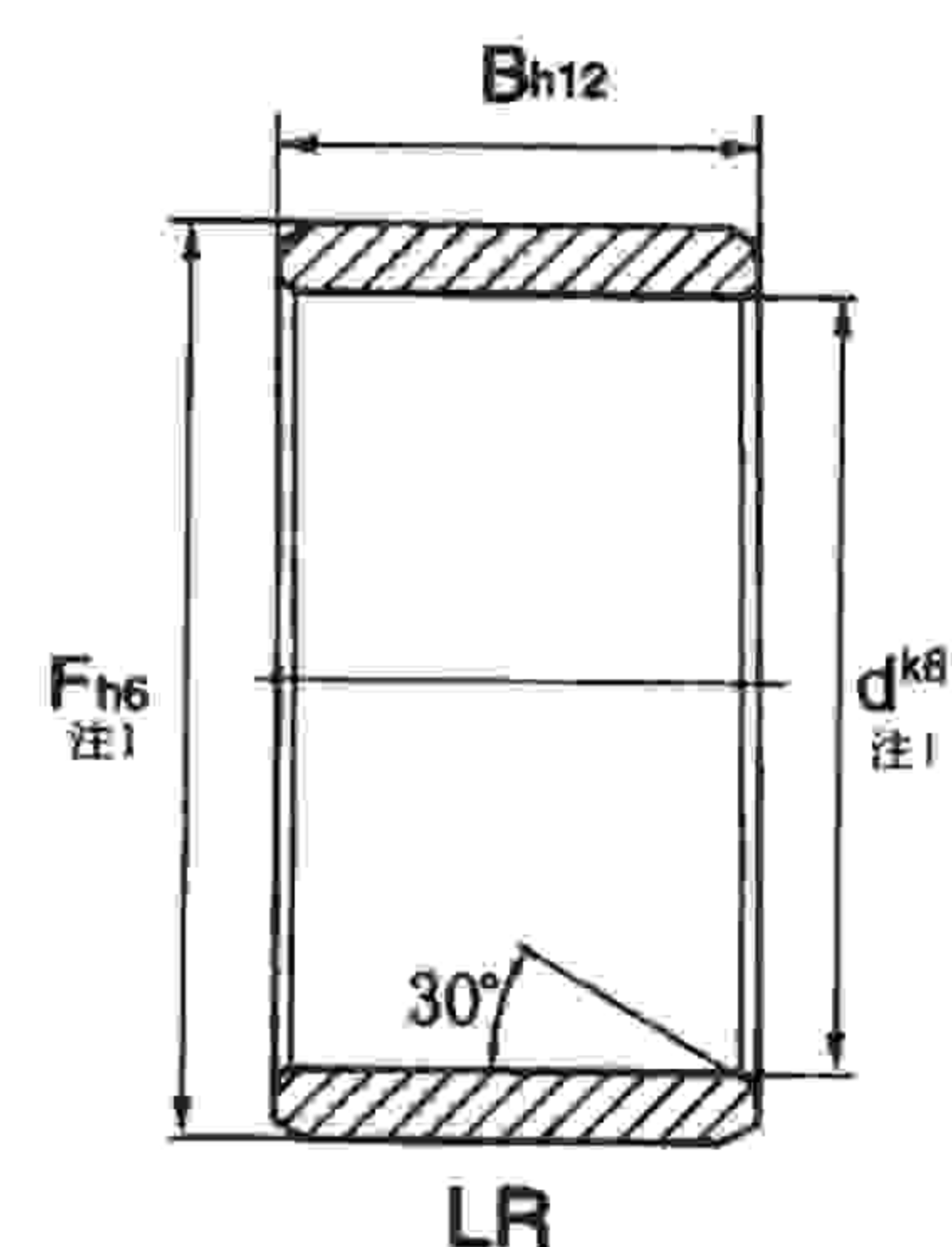
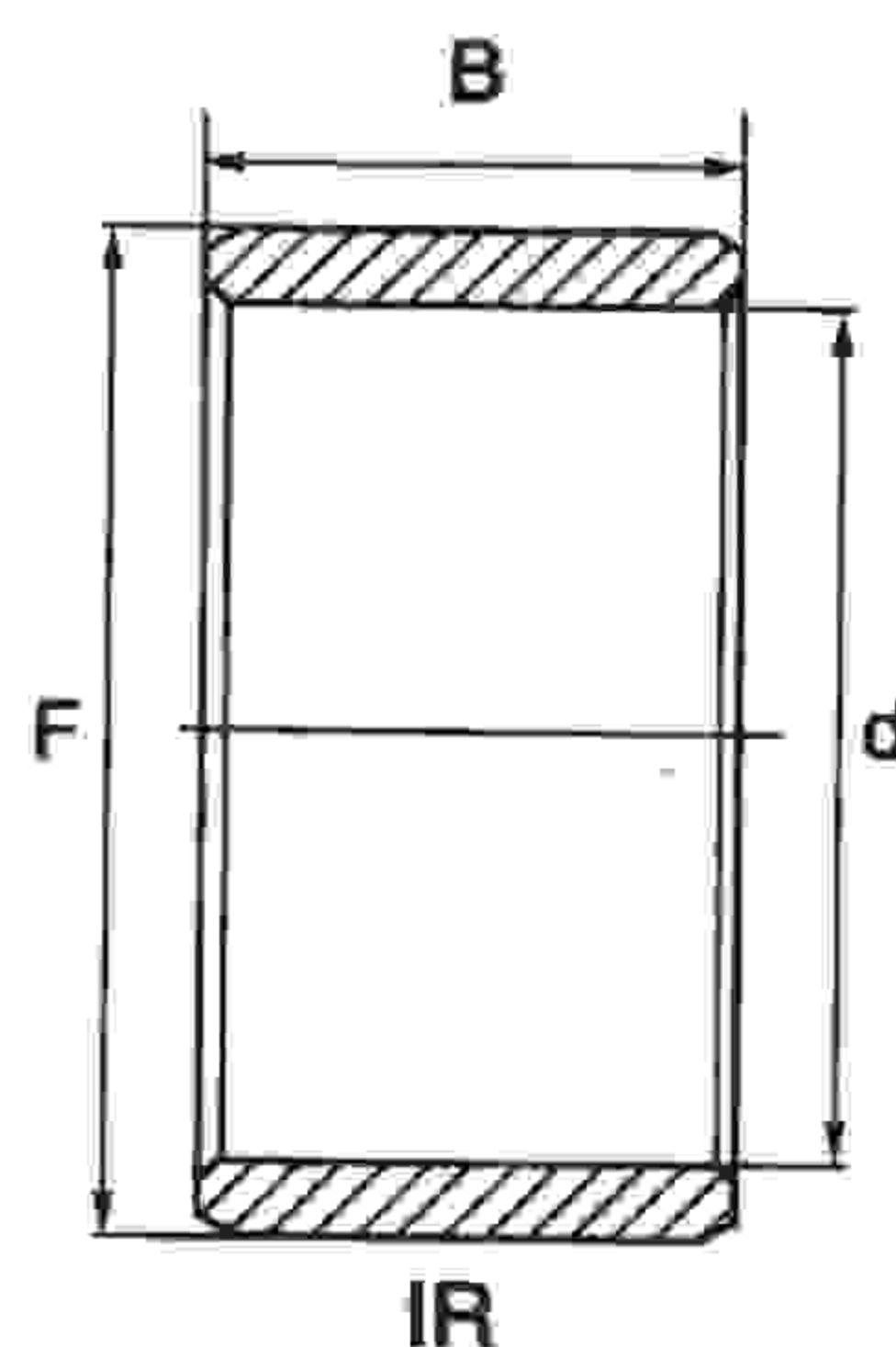
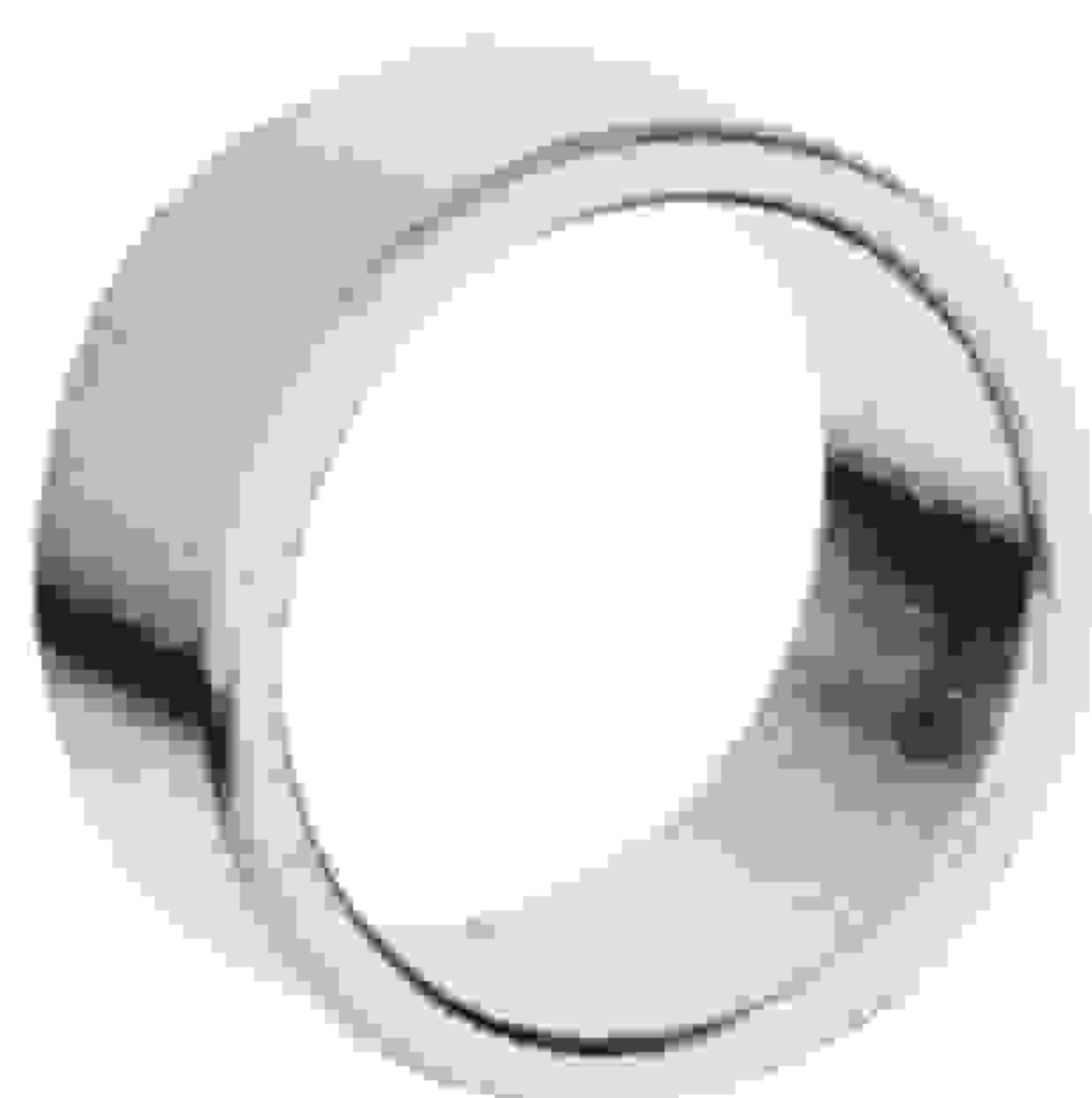
1) 最大直徑和最小直徑的數學平均值。

| 軸徑<br>shaft<br>Diameter | 代 號<br>Designation | 外形尺寸<br>Boundary Dimensions |    |      | 重量<br>Mass<br>近似<br>Approx |
|-------------------------|--------------------|-----------------------------|----|------|----------------------------|
|                         |                    | D                           | F  | B    |                            |
| mm                      |                    | mm                          |    |      | g                          |
| 12                      | IR -               | 12                          | 16 | 13   | 8.7                        |
|                         | ■ IR -             | 12                          | 16 | 14   | 9.5                        |
|                         | IR -               | 12                          | 16 | 16   | 10.9                       |
|                         | IR -               | 12                          | 16 | 20   | 13.5                       |
|                         | IR -               | 12                          | 16 | 22   | 14.9                       |
| 14                      | IR -               | 14                          | 17 | 17   | 10                         |
| 15                      | IR LR              | 15                          | 18 | 12.5 | 7.2                        |
|                         | IR -               | 15                          | 18 | 16   | 9.6                        |
|                         | IR -               | 15                          | 18 | 16.5 | 9.9                        |
|                         | IR -               | 15                          | 19 | 16   | 12.8                       |
|                         | IR -               | 15                          | 19 | 20   | 16.4                       |
|                         | □ IR -             | 15                          | 20 | 12   | 12.1                       |
|                         | IR -               | 15                          | 20 | 13   | 13.5                       |
|                         | ■ IR -             | 15                          | 20 | 14   | 14.7                       |
|                         | IR -               | 15                          | 20 | 23   | 24.4                       |
|                         | IR -               | 17                          | 20 | 16   | 10.7                       |
|                         | IR LR              | 17                          | 20 | 16.5 | 11.1                       |
| 17                      | IR -               | 17                          | 20 | 20   | 13.5                       |
|                         | IR LR              | 17                          | 20 | 20.5 | 13.8                       |
|                         | IR LR              | 17                          | 20 | 30.5 | 20.6                       |
|                         | IR -               | 17                          | 21 | 16   | 14.3                       |
|                         | IR -               | 17                          | 21 | 20   | 18                         |
|                         | IR -               | 17                          | 22 | 13   | 14.9                       |
|                         | ■ IR -             | 17                          | 22 | 14   | 16.4                       |
|                         | IR -               | 17                          | 22 | 16   | 18.7                       |
|                         | IR -               | 17                          | 22 | 23   | 27.1                       |
|                         | IR -               | 17                          | 24 | 20   | 33.6                       |
|                         | IR -               | 20                          | 24 | 16   | 16.5                       |
| 20                      | IR -               | 20                          | 24 | 20   | 21.3                       |
|                         | IR LR              | 20                          | 25 | 12.5 | 16.3                       |
|                         | □ IR -             | 20                          | 25 | 16   | 21.1                       |
|                         | IR LR              | 20                          | 25 | 16.5 | 21.7                       |
|                         | IR -               | 20                          | 25 | 17   | 22.4                       |
|                         | ■ IR -             | 20                          | 25 | 18   | 24.3                       |
|                         | IR -               | 20                          | 25 | 18   | 24.3                       |





## ■ 內圈 INNER RING



| 軸徑<br>shaft<br>Diameter | 代 號<br>Designation | 外形尺寸<br>Boundary Dimensions |    |      | 重量<br>Mass<br>近似<br>Approx |
|-------------------------|--------------------|-----------------------------|----|------|----------------------------|
|                         |                    | D                           | F  | B    |                            |
| mm                      |                    | mm                          |    |      | g                          |
| 20                      | IR -               | 20                          | 25 | 20   | 27.5                       |
|                         | IR LR              | 20                          | 25 | 20.5 | 28.2                       |
|                         | IR LR              | 20                          | 25 | 26.5 | 36.1                       |
|                         | IR -               | 20                          | 25 | 30   | 40.9                       |
|                         | IR LR              | 20                          | 25 | 38.5 | 52.5                       |
|                         | IR -               | 20                          | 28 | 20   | 45.2                       |
| 22                      | IR -               | 22                          | 26 | 16   | 17.5                       |
|                         | IR -               | 22                          | 26 | 20   | 23.2                       |
|                         | IR -               | 22                          | 28 | 17   | 29.8                       |
|                         | IR -               | 22                          | 28 | 20   | 35                         |
|                         | IR LR              | 22                          | 28 | 20.5 | 36                         |
|                         | IR -               | 22                          | 28 | 30   | 54.4                       |
| 25                      | IR -               | 25                          | 29 | 20   | 25.5                       |
|                         | IR -               | 25                          | 29 | 30   | 39.3                       |
|                         | IR LR              | 25                          | 30 | 12.5 | 20                         |
|                         | □ IR -             | 25                          | 30 | 16   | 26                         |
|                         | IR LR              | 25                          | 30 | 16.5 | 26.7                       |
|                         | IR -               | 25                          | 30 | 17   | 27.5                       |
|                         | ■ IR -             | 25                          | 30 | 18   | 29.8                       |
|                         | IR -               | 25                          | 30 | 20   | 32.6                       |
|                         | IR LR              | 25                          | 30 | 20.5 | 33.5                       |
|                         | IR LR              | 25                          | 30 | 26.5 | 43.3                       |
|                         | IR -               | 25                          | 30 | 30   | 50.1                       |
|                         | IR -               | 25                          | 30 | 32   | 53                         |
|                         | IR LR              | 25                          | 30 | 38.5 | 63.8                       |
|                         | IR -               | 25                          | 32 | 22   | 51.7                       |
| 28                      | IR -               | 28                          | 32 | 17   | 24.5                       |
|                         | IR -               | 28                          | 32 | 20   | 28.4                       |
|                         | IR -               | 28                          | 32 | 30   | 43.8                       |
| 29                      | IR -               | 29                          | 32 | 13   | 14.8                       |
| 30                      | IR LR              | 30                          | 35 | 12.5 | 23.3                       |
|                         | IR -               | 30                          | 35 | 13   | 25                         |
|                         | IR -               | 30                          | 35 | 16   | 30.8                       |
|                         | IR LR              | 30                          | 35 | 16.5 | 21.4                       |
|                         | IR -               | 30                          | 35 | 17   | 32.3                       |
|                         | ■ IR -             | 30                          | 35 | 18   | 35.3                       |

| 軸徑<br>shaft<br>Diameter | 代 號<br>Designation | 外形尺寸<br>Boundary Dimensions |    |      | 重量<br>Mass<br>近似<br>Approx |
|-------------------------|--------------------|-----------------------------|----|------|----------------------------|
|                         |                    | D                           | F  | B    |                            |
| mm                      |                    | mm                          |    |      | g                          |
| 30                      | IR -               | 30                          | 35 | 20   | 40                         |
|                         | IR LR              | 30                          | 35 | 20.5 | 40.7                       |
|                         | IR -               | 30                          | 35 | 26   | 50.3                       |
|                         | IR -               | 30                          | 35 | 30   | 58.9                       |
|                         | IR -               | 30                          | 37 | 18   | 50                         |
|                         | IR -               | 30                          | 37 | 22   | 60.8                       |
| 32                      | □ IR -             | 30                          | 38 | 20   | 64.8                       |
|                         | IR -               | 32                          | 37 | 20   | 42                         |
|                         | IR -               | 32                          | 37 | 20   | 62.7                       |
|                         | IR -               | 32                          | 40 | 20   | 68                         |
|                         | IR -               | 32                          | 40 | 36   | 124                        |
|                         | IR -               | 32                          | 40 | 36   | 124                        |
| 33                      | IR -               | 33                          | 37 | 13   | 21.9                       |
| 35                      | IR LR              | 35                          | 40 | 12.5 | 27.2                       |
|                         | IR LR              | 35                          | 40 | 16.5 | 37.4                       |
|                         | IR -               | 35                          | 40 | 17   | 38.3                       |
|                         | IR -               | 35                          | 40 | 20   | 44.4                       |
|                         | IR LR              | 35                          | 40 | 20.5 | 46.1                       |
|                         | IR -               | 35                          | 40 | 30   | 67.9                       |
|                         | □ IR -             | 35                          | 42 | 20   | 63.9                       |
|                         | IR -               | 35                          | 42 | 20.5 | 66                         |
|                         | ■ IR -             | 35                          | 42 | 21   | 67.7                       |
|                         | ■ IR -             | 35                          | 42 | 23   | 74                         |
|                         | IR -               | 35                          | 42 | 36   | 117                        |
|                         | IR -               | 35                          | 43 | 22   | 82                         |
|                         | IR -               | 35                          | 43 | 22   | 82                         |
|                         | IR -               | 35                          | 43 | 22   | 82                         |
| 38                      | IR -               | 38                          | 43 | 20   | 48.1                       |
|                         | IR -               | 38                          | 43 | 30   | 73.6                       |
| 40                      | IR LR              | 40                          | 45 | 16.5 | 41.4                       |
|                         | IR -               | 40                          | 45 | 17   | 42.5                       |
|                         | IR -               | 40                          | 45 | 20   | 50.5                       |
|                         | IR -               | 40                          | 45 | 20.5 | 52.5                       |
|                         | IR -               | 40                          | 45 | 30   | 77.1                       |
|                         | IR -               | 40                          | 48 | 22   | 92.3                       |
|                         | ■ IR -             | 40                          | 48 | 23   | 97.3                       |
|                         | IR -               | 40                          | 48 | 40   | 170                        |
| 40                      | □ IR -             | 40                          | 50 | 20   | 106                        |
|                         | IR -               | 40                          | 50 | 20   | 106                        |

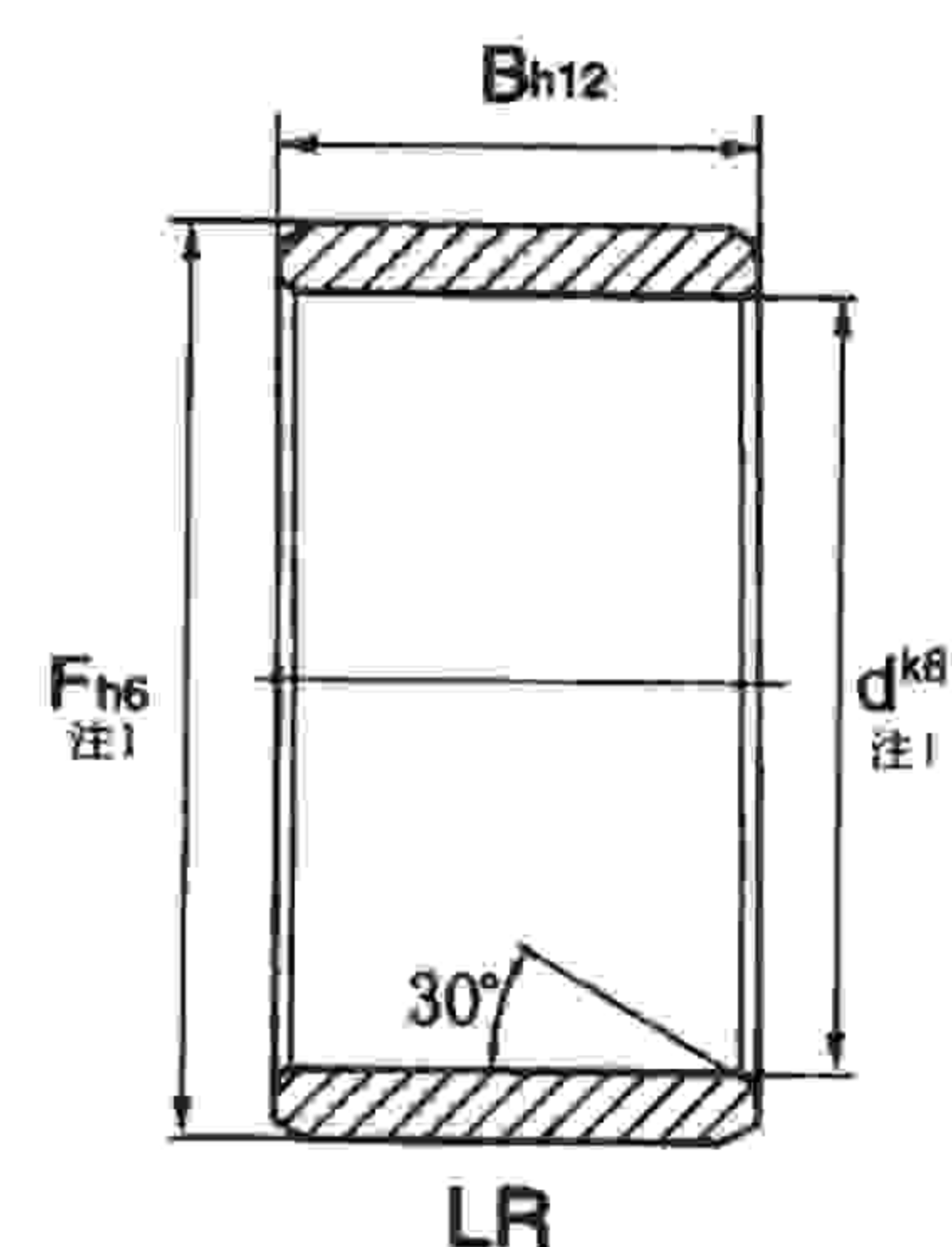
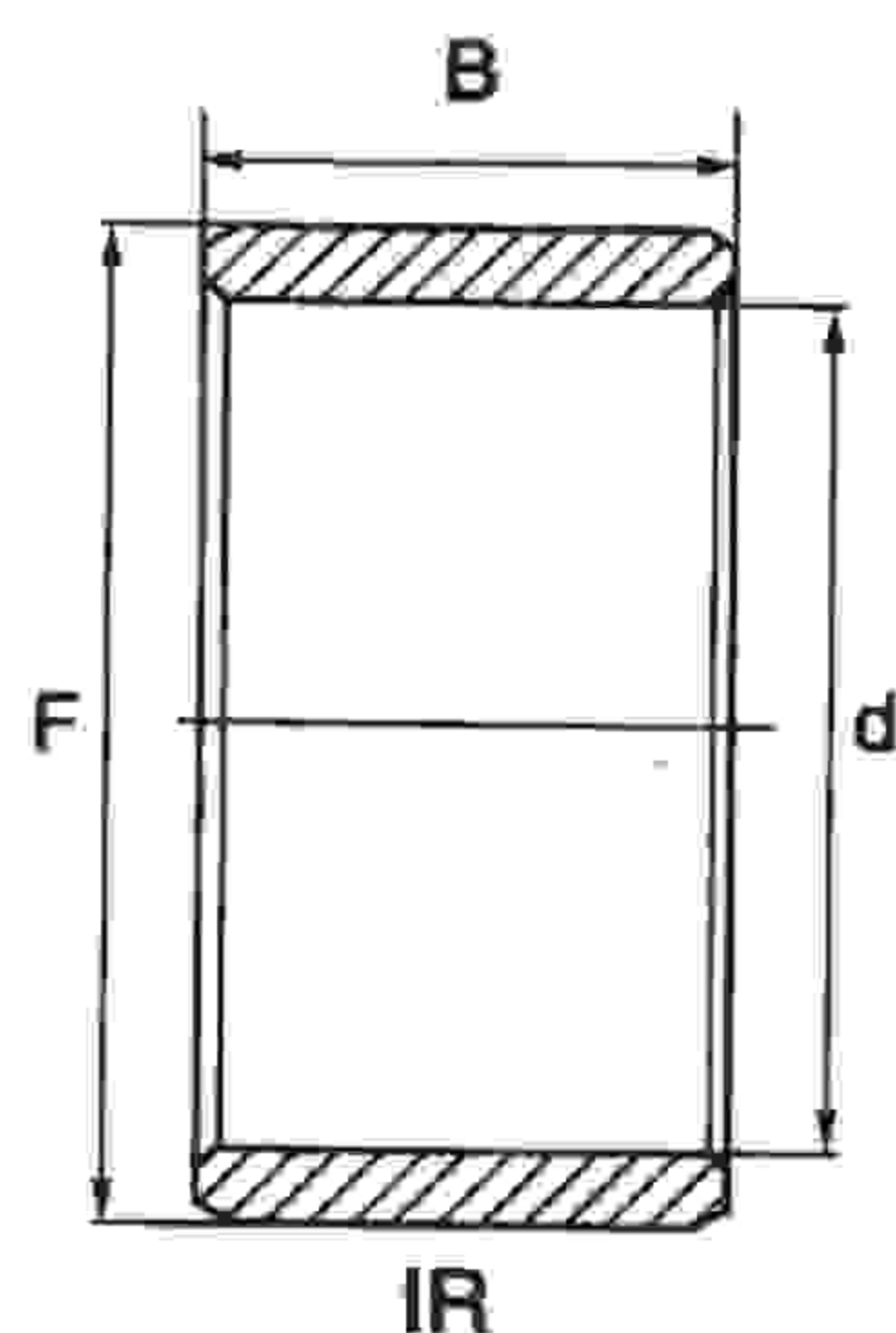
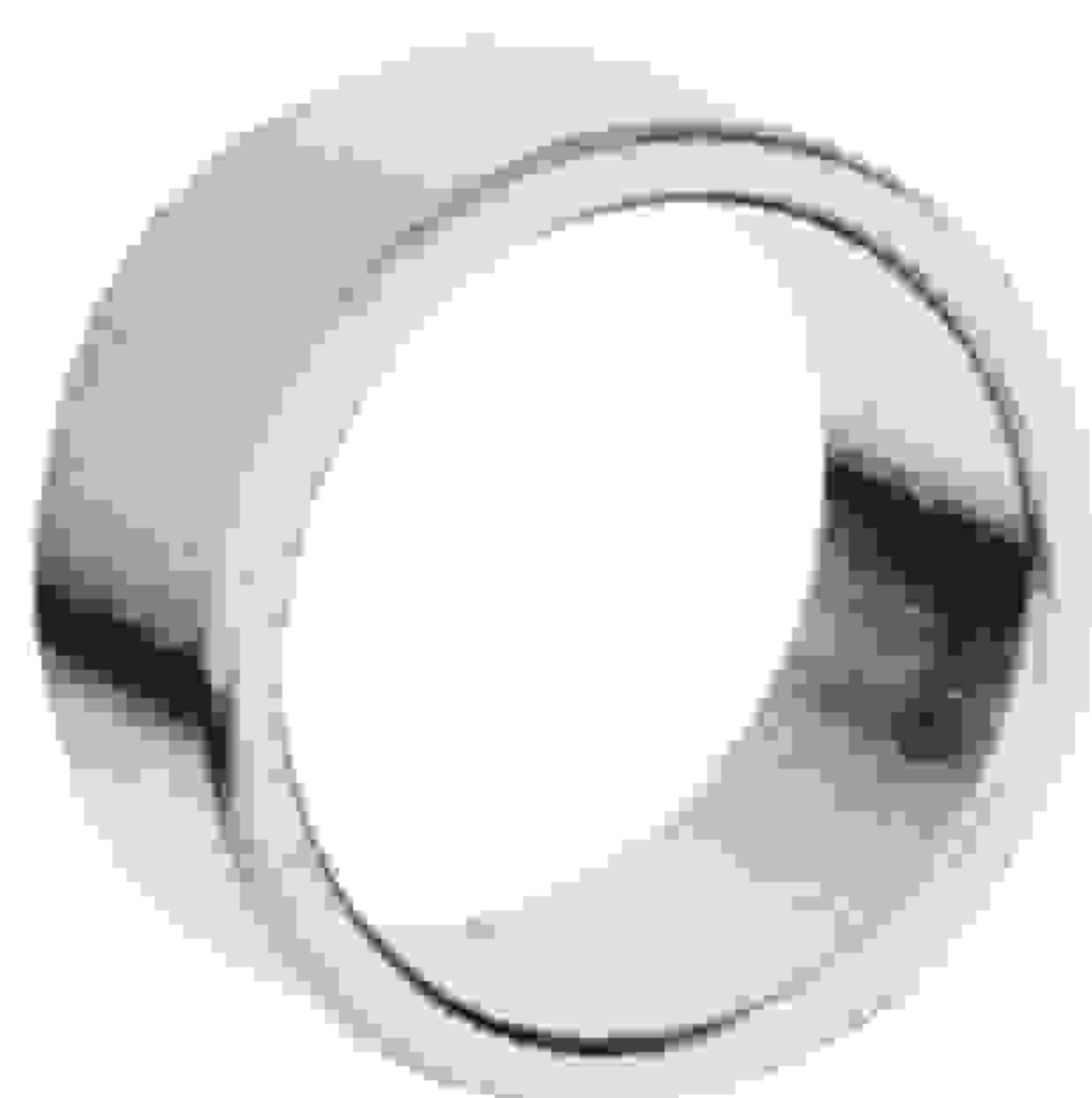
□帶潤滑油孔 ■無潤滑油孔，沒有引導倒角

1) 最大直徑和最小直徑的數學平均值。





## ■ 内圈 INNER RING



| 軸徑<br>shaft<br>Diameter | 代 號<br>Designation | 外形尺寸<br>Boundary Dimensions |    |      | 重量<br>Mass<br>近似<br>Approx |
|-------------------------|--------------------|-----------------------------|----|------|----------------------------|
|                         |                    | D                           | F  | B    |                            |
| mm                      |                    | mm                          |    |      | g                          |
| 40                      | IR -               | 40                          | 50 | 22   | 118                        |
| 42                      | IR -               | 42                          | 47 | 20   | 53.5                       |
|                         | IR -               | 42                          | 47 | 30   | 81                         |
| 45                      | IR LR              | 45                          | 50 | 20.5 | 58.8                       |
|                         | IR -               | 45                          | 50 | 25   | 71.1                       |
|                         | IR LR              | 45                          | 50 | 25.5 | 73.7                       |
|                         | IR -               | 45                          | 50 | 35   | 101                        |
|                         | IR -               | 45                          | 52 | 22   | 89                         |
|                         | ■ IR -             | 45                          | 52 | 23   | 93                         |
|                         | IR -               | 45                          | 52 | 40   | 164                        |
|                         | □ IR -             | 45                          | 55 | 20   | 117                        |
|                         | IR -               | 45                          | 55 | 22   | 130                        |
|                         | □ IR -             | 50                          | 55 | 20   | 62.6                       |
| 50                      | IR LR              | 50                          | 55 | 20.5 | 64.1                       |
|                         | IR -               | 50                          | 55 | 25   | 77.8                       |
|                         | □ IR -             | 50                          | 55 | 35   | 112                        |
|                         | IR -               | 50                          | 58 | 22   | 115                        |
|                         | ■ IR -             | 50                          | 58 | 23   | 119                        |
|                         | IR -               | 50                          | 58 | 40   | 209                        |
|                         | □ IR -             | 50                          | 60 | 20   | 129                        |
|                         | IR -               | 50                          | 60 | 25   | 163                        |
|                         | IR -               | 50                          | 60 | 28   | 183                        |
|                         | IR -               | 55                          | 60 | 25   | 86                         |
| 55                      | IR -               | 55                          | 60 | 32   | 121                        |
|                         | IR -               | 55                          | 63 | 25   | 141                        |
|                         | IR -               | 55                          | 63 | 45   | 256                        |
|                         | IR -               | 55                          | 65 | 28   | 198                        |
|                         | IR -               | 60                          | 68 | 25   | 152                        |
| 60                      | IR -               | 60                          | 68 | 35   | 213                        |
|                         | IR -               | 60                          | 68 | 45   | 275                        |
|                         | IR -               | 60                          | 70 | 25   | 195                        |
|                         | IR -               | 60                          | 70 | 28   | 216                        |
|                         | IR -               | 65                          | 72 | 25   | 142                        |
| 65                      | IR -               | 65                          | 72 | 45   | 259                        |
|                         | IR -               | 65                          | 73 | 25   | 164                        |
|                         | IR -               | 65                          | 73 | 35   | 232                        |
|                         | IR -               | 65                          | 75 | 28   | 230                        |
| 70                      | IR -               | 70                          | 80 | 25   | 224                        |

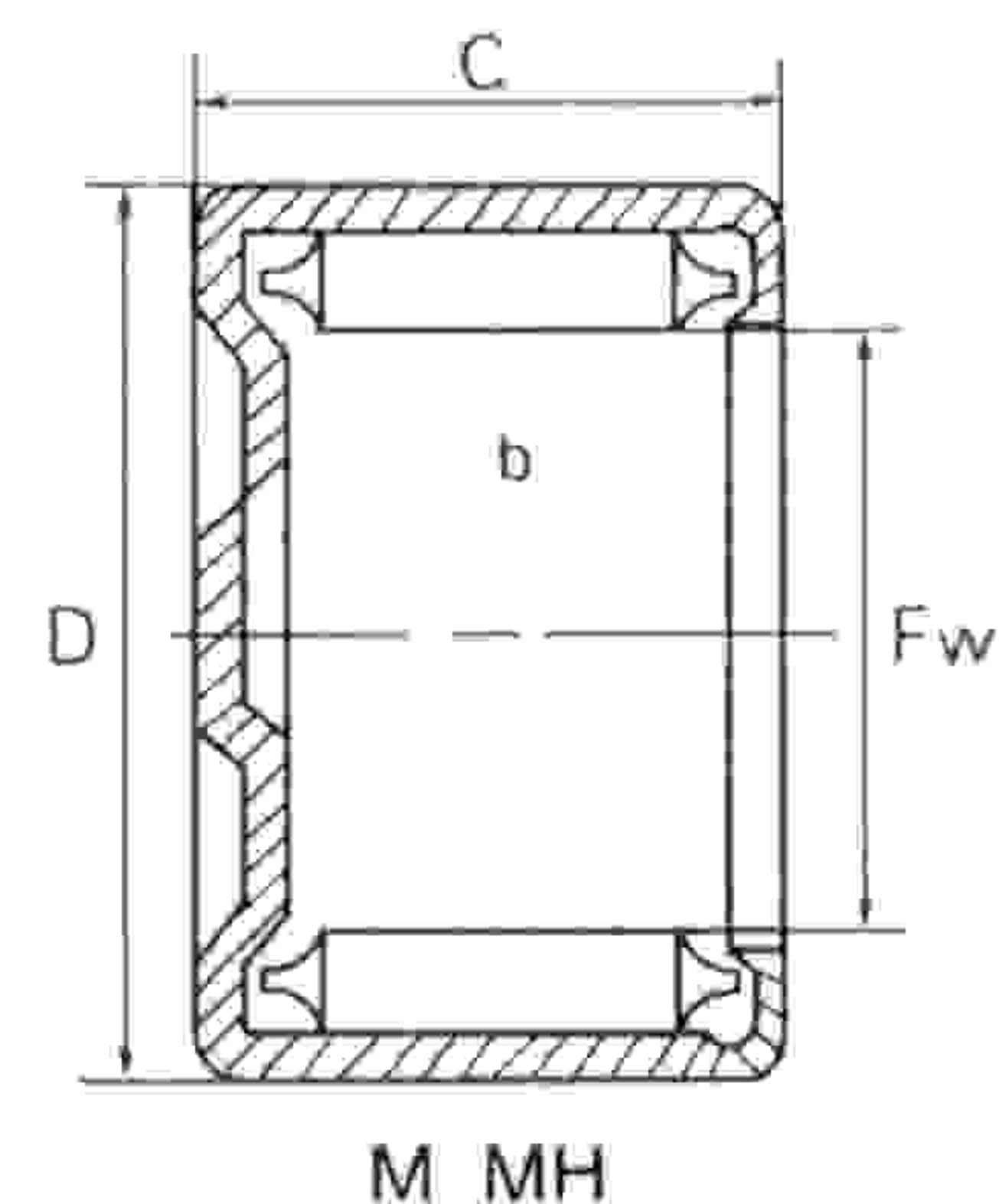
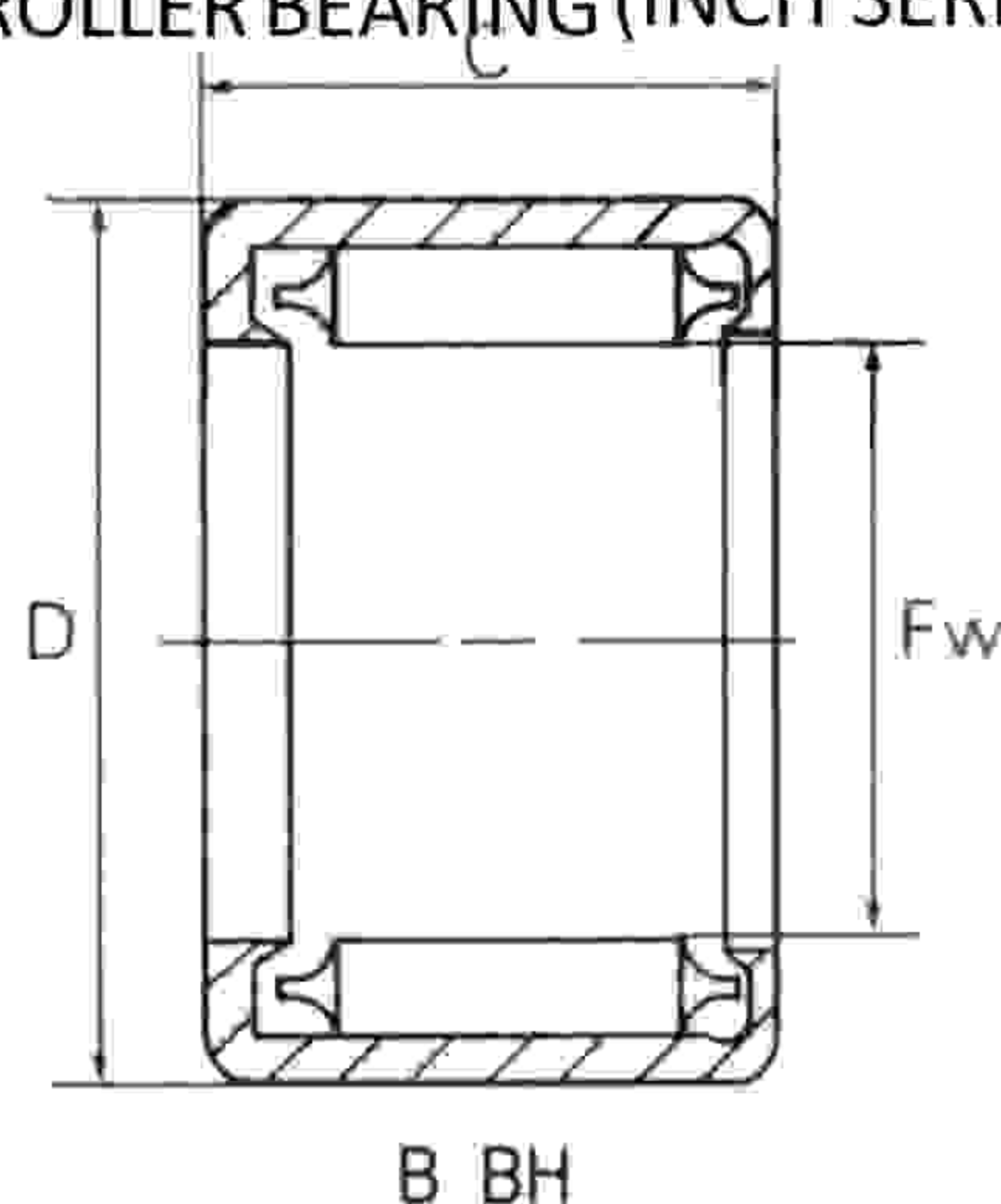
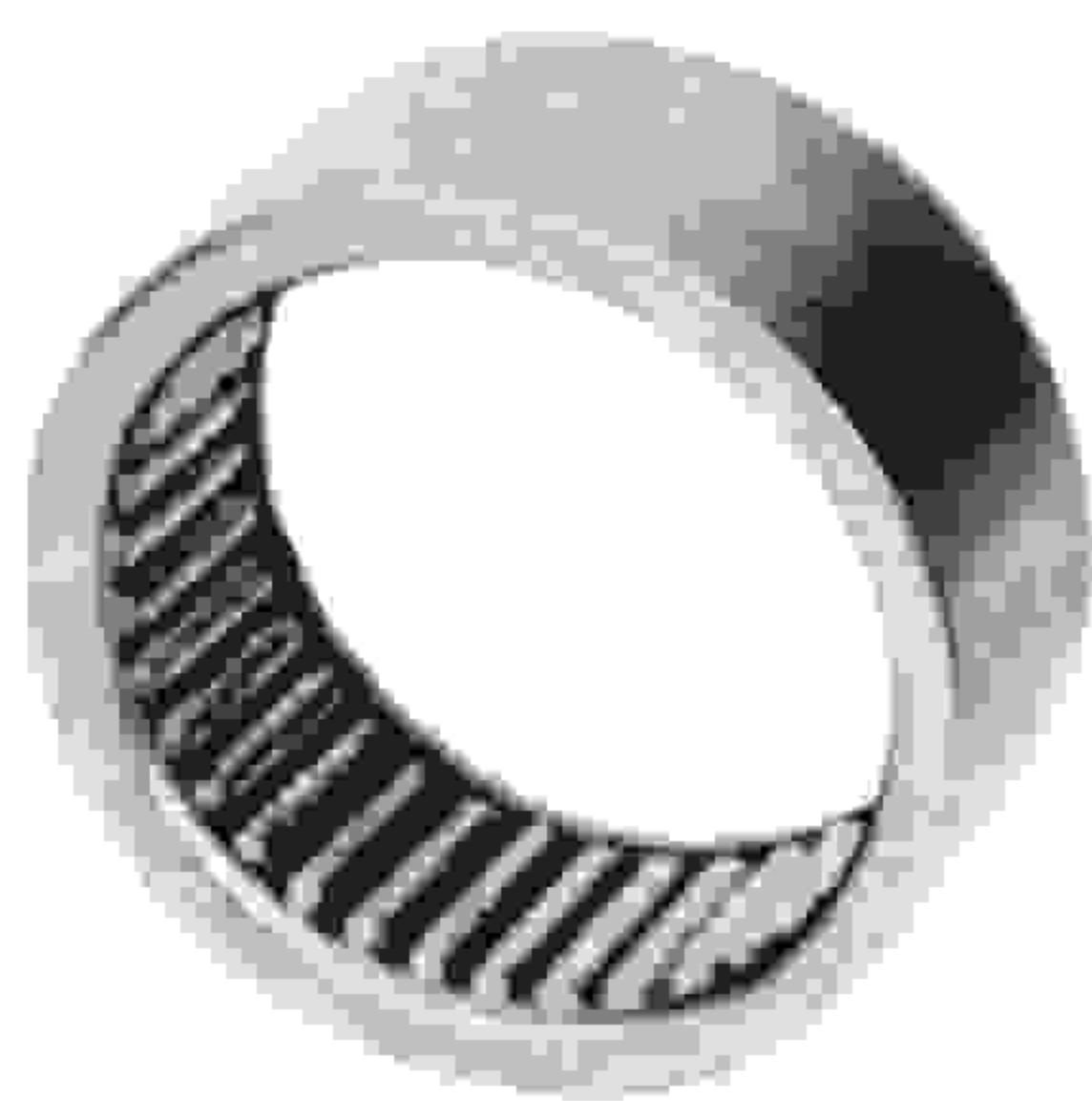
| 軸徑<br>shaft<br>Diameter | 代 號<br>Designation | 外形尺寸<br>Boundary Dimensions |     |    | 重量<br>Mass<br>近似<br>Approx |
|-------------------------|--------------------|-----------------------------|-----|----|----------------------------|
|                         |                    | D                           | F   | B  |                            |
| mm                      |                    | mm                          |     |    | g                          |
|                         | IR -               | 70                          | 80  | 30 | 267                        |
|                         | IR -               | 70                          | 80  | 35 | 313                        |
|                         | IR -               | 70                          | 80  | 54 | 487                        |
|                         | IR -               | 70                          | 80  | 56 | 506                        |
|                         | IR -               | 75                          | 85  | 25 | 238                        |
|                         | IR -               | 75                          | 85  | 30 | 287                        |
|                         | IR -               | 75                          | 85  | 35 | 336                        |
|                         | IR -               | 75                          | 85  | 54 | 520                        |
|                         | IR -               | 80                          | 90  | 25 | 254                        |
|                         | IR -               | 80                          | 90  | 30 | 304                        |
|                         | IR -               | 80                          | 90  | 35 | 355                        |
|                         | IR -               | 80                          | 90  | 54 | 550                        |
|                         | IR -               | 85                          | 95  | 26 | 280                        |
|                         | IR -               | 85                          | 95  | 36 | 390                        |
|                         | IR -               | 85                          | 100 | 35 | 580                        |
|                         | IR -               | 85                          | 100 | 63 | 1050                       |
|                         | IR -               | 90                          | 100 | 26 | 294                        |
|                         | IR -               | 90                          | 100 | 30 | 340                        |
|                         | IR -               | 90                          | 100 | 36 | 406                        |
|                         | IR -               | 90                          | 105 | 35 | 610                        |
|                         | IR -               | 90                          | 105 | 63 | 1110                       |
|                         | IR -               | 95                          | 105 | 26 | 313                        |
|                         | IR -               | 95                          | 105 | 36 | 430                        |
|                         | IR -               | 95                          | 110 | 35 | 643                        |
|                         | IR -               | 95                          | 110 | 63 | 1170                       |
|                         | IR -               | 100                         | 110 | 30 | 370                        |
|                         | IR -               | 100                         | 110 | 40 | 505                        |
|                         | IR -               | 100                         | 115 | 40 | 775                        |
|                         | IR -               | 110                         | 120 | 30 | 409                        |
|                         | IR -               | 110                         | 125 | 40 | 840                        |
|                         | IR -               | 120                         | 130 | 30 | 442                        |
|                         | IR -               | 120                         | 135 | 45 | 1000                       |
|                         | IR -               | 130                         | 145 | 35 | 855                        |
|                         | IR -               | 130                         | 150 | 50 | 1690                       |
|                         | IR -               | 140                         | 155 | 35 | 917                        |
|                         | IR -               | 140                         | 160 | 50 | 1800                       |
|                         | IR -               | 150                         | 165 | 40 | 1120                       |
|                         | IR -               | 160                         | 175 | 40 | 1200                       |





## 沖壓外圈滿裝滾針軸承(英制系列)

DRAWN CUP FULL COMPLEMENT NEEDLE ROLLER BEARING (INCH SERIES)

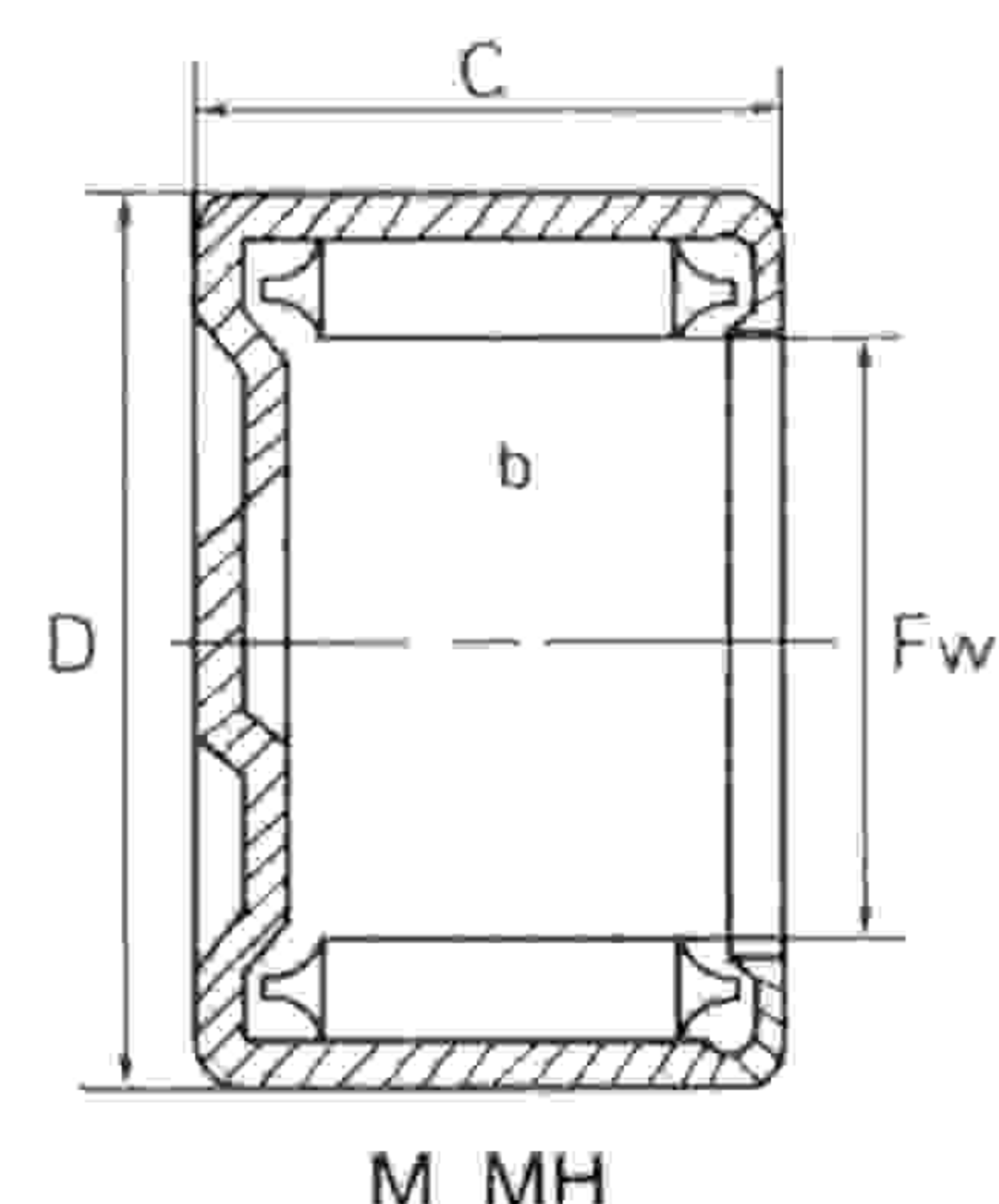
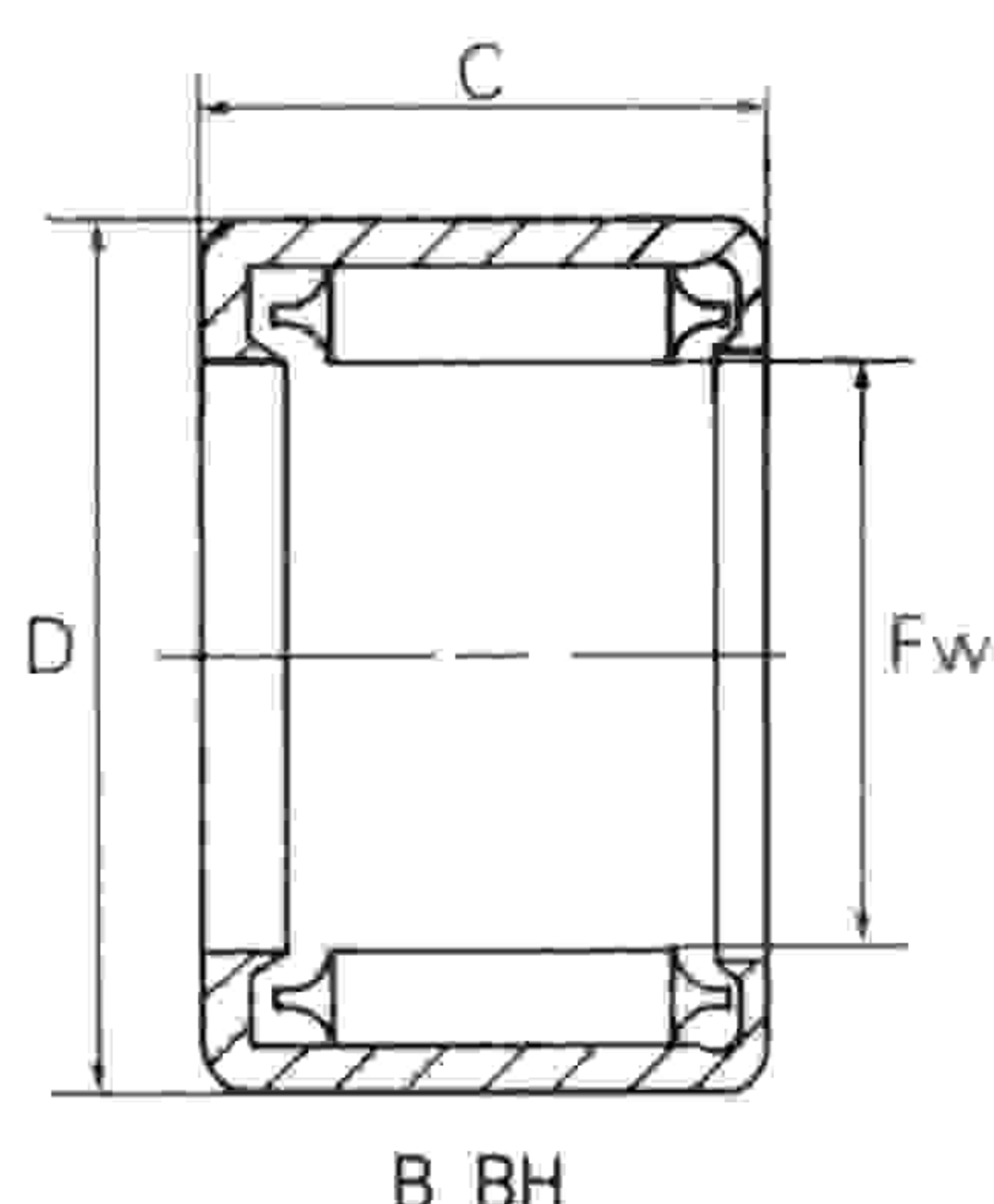
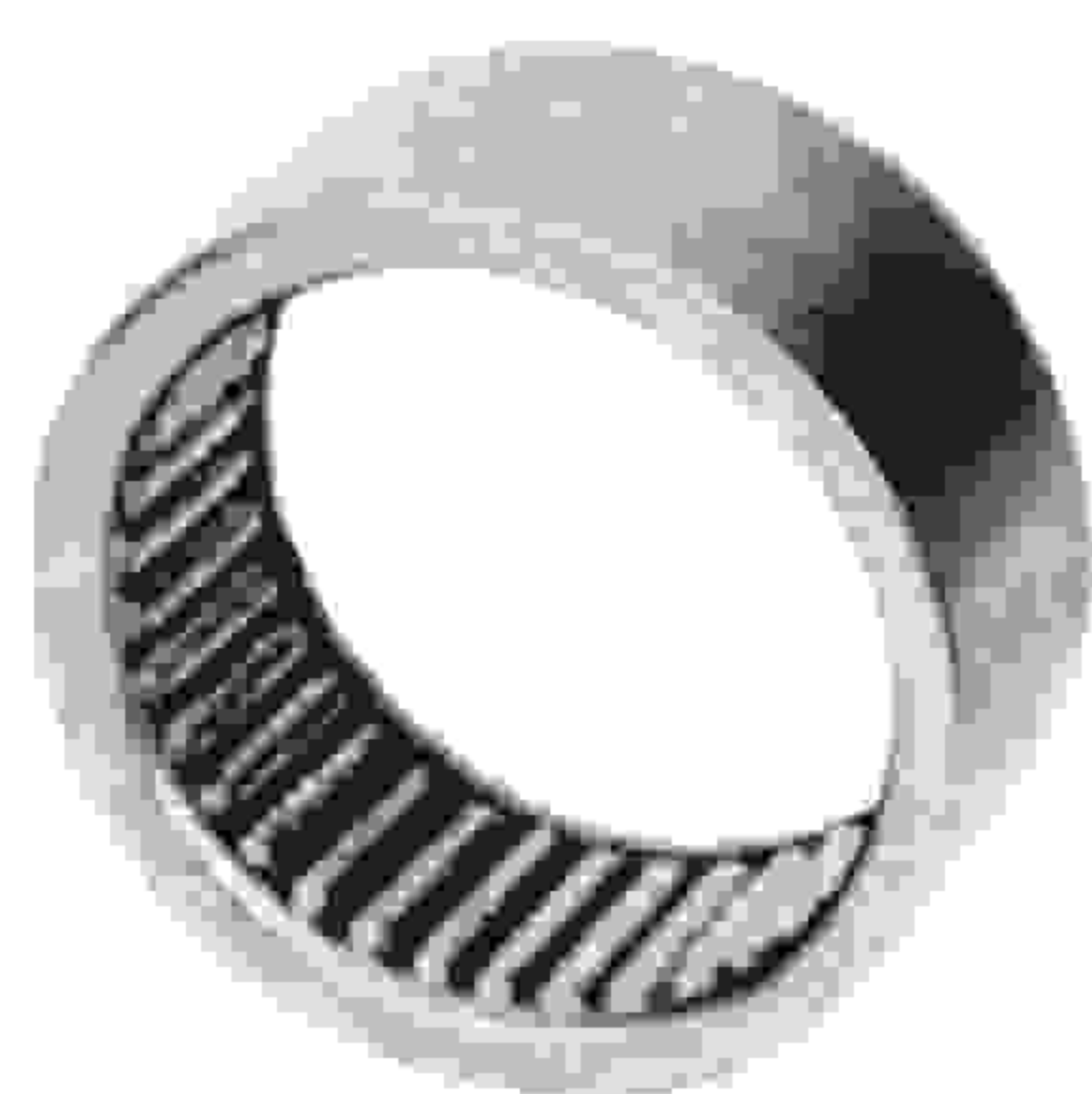


| 軸徑<br>shaft<br>Diameter | 軸承型號<br>Bearing Designation and mass approx |                   | 外形尺寸<br>Boundary Dimensions |       |       | 基本額定負荷<br>Basic Load Rating |               | 極限轉速<br>Limiting Speed |
|-------------------------|---------------------------------------------|-------------------|-----------------------------|-------|-------|-----------------------------|---------------|------------------------|
|                         | 穿孔型<br>OPEN END                             | 封口型<br>CLOSED END | Fw                          | D     | C     | 動負荷<br>Dynamic              | 靜負荷<br>Static |                        |
|                         |                                             |                   | mm                          |       |       | N                           |               |                        |
| mm                      |                                             |                   |                             |       |       |                             |               | rpm                    |
| 6.35                    | B-44                                        | M-441             | 6.35                        | 11.11 | 6.35  | 566                         | 531           | 10000                  |
|                         | B-45                                        | M-451             | 6.35                        | 11.11 | 7.92  | 768                         | 786           | 10000                  |
|                         | B-47                                        | M-471             | 6.35                        | 11.11 | 11.13 | 1210                        | 1410          | 10000                  |
| 7.94                    | B-55                                        | M-551             | 7.94                        | 12.70 | 7.92  | 883                         | 985           | 8300                   |
|                         | B-56                                        | -                 | 7.94                        | 12.70 | 9.52  | 1140                        | 1370          | 8300                   |
|                         | B-57                                        | M-571             | 7.94                        | 12.70 | 11.13 | 1390                        | 1770          | 8300                   |
|                         | B-59                                        | -                 | 7.94                        | 12.70 | 14.27 | 1850                        | 2550          | 8300                   |
|                         | BH-57                                       | -                 | 7.94                        | 14.29 | 11.13 | 1530                        | 1590          | 11000                  |
|                         | BH-59                                       | -                 | 7.94                        | 14.29 | 14.27 | 2080                        | 2340          | 11000                  |
| 9.52                    | B-65                                        | M-651             | 9.52                        | 14.29 | 7.92  | 984                         | 1180          | 7100                   |
|                         | B-66                                        | M-661             | 9.52                        | 14.29 | 9.52  | 1280                        | 1650          | 7100                   |
|                         | B-67                                        | -                 | 9.52                        | 14.29 | 11.13 | 1550                        | 2120          | 7100                   |
|                         | B-68                                        | M-681             | 9.52                        | 14.29 | 12.70 | 1810                        | 2590          | 7100                   |
|                         | B-69                                        | -                 | 9.52                        | 14.29 | 14.27 | 2070                        | 3070          | 7100                   |
|                         | B-610                                       | M-6101            | 9.52                        | 14.29 | 15.88 | 2310                        | 3530          | 7100                   |
|                         | BH-68                                       | -                 | 9.52                        | 15.88 | 12.70 | 2050                        | 2380          | 9400                   |
| 11.11                   | B-76                                        | -                 | 11.11                       | 15.88 | 9.52  | 1390                        | 1930          | 6300                   |
|                         | B-77                                        | -                 | 11.11                       | 15.88 | 11.13 | 1700                        | 2480          | 6300                   |
|                         | B-78                                        | M-781             | 11.11                       | 15.88 | 12.70 | 1980                        | 3030          | 6300                   |
|                         | B-710                                       | -                 | 11.11                       | 15.88 | 15.88 | 2520                        | 4130          | 6300                   |
|                         | BH-78                                       | -                 | 11.11                       | 17.46 | 12.70 | 2260                        | 2780          | 8300                   |
| 12.70                   | B-85                                        | -                 | 12.70                       | 17.46 | 7.92  | 1160                        | 1580          | 5500                   |
|                         | B-86                                        | M-861             | 12.70                       | 17.46 | 9.52  | 1500                        | 2200          | 5500                   |
|                         | B-87                                        | M-871             | 12.70                       | 17.46 | 11.13 | 1830                        | 2840          | 5500                   |
|                         | B-88                                        | M-881             | 12.70                       | 17.46 | 12.70 | 2130                        | 3460          | 5500                   |
|                         | B-810                                       | M-8101            | 12.70                       | 17.46 | 15.88 | 2720                        | 4720          | 5500                   |
|                         | B-812                                       | M-8121            | 12.70                       | 17.46 | 19.05 | 3260                        | 5980          | 5500                   |
|                         | BH-87                                       | -                 | 12.70                       | 19.05 | 11.13 | 2060                        | 2550          | 7500                   |
|                         | BH-88                                       | -                 | 12.70                       | 19.05 | 12.70 | 2450                        | 3180          | 7500                   |
|                         | BH-810                                      | -                 | 12.70                       | 19.05 | 15.88 | 3180                        | 4440          | 7500                   |
| 14.29                   | B-95                                        | M-951             | 14.29                       | 19.05 | 7.92  | 1240                        | 1780          | 5000                   |
|                         | B-96                                        | -                 | 14.29                       | 19.05 | 9.52  | 1600                        | 2480          | 5000                   |
|                         | B-97                                        | -                 | 14.29                       | 19.05 | 11.13 | 1950                        | 3190          | 5000                   |
|                         | B-98                                        | -                 | 14.29                       | 19.05 | 12.70 | 2280                        | 3900          | 5000                   |
|                         | B-910                                       | -                 | 14.29                       | 19.05 | 15.88 | 2900                        | 5310          | 5000                   |
|                         | B-912                                       | M-9121            | 14.29                       | 19.05 | 19.05 | 3480                        | 6730          | 5000                   |
|                         | BH-98                                       | -                 | 14.29                       | 20.64 | 12.70 | 2630                        | 3580          | 6800                   |
|                         | BH-910                                      | -                 | 14.29                       | 20.64 | 15.88 | 3400                        | 5000          | 6800                   |
|                         | BH-912                                      | -                 | 14.29                       | 20.64 | 19.05 | 4130                        | 6410          | 6800                   |
| 15.88                   | B-105                                       | -                 | 15.88                       | 20.64 | 7.92  | 1310                        | 1980          | 4500                   |
|                         | B-107                                       | M-1071            | 15.88                       | 20.64 | 11.13 | 2070                        | 3550          | 4500                   |
|                         | B-108                                       | M-1081            | 15.88                       | 20.64 | 12.70 | 2410                        | 4330          | 4500                   |
|                         | B-1010                                      | -                 | 15.88                       | 20.64 | 15.88 | 3070                        | 5900          | 4500                   |
|                         | B-1012                                      | M-10121           | 15.88                       | 20.64 | 19.05 | 3690                        | 7480          | 4500                   |





## ■ 沖壓外圈滿裝滾針軸承(英制系列) DRAWN CUP FULL COMPLEMENT NEEDLE ROLLER BEARING (INCH SERIES)

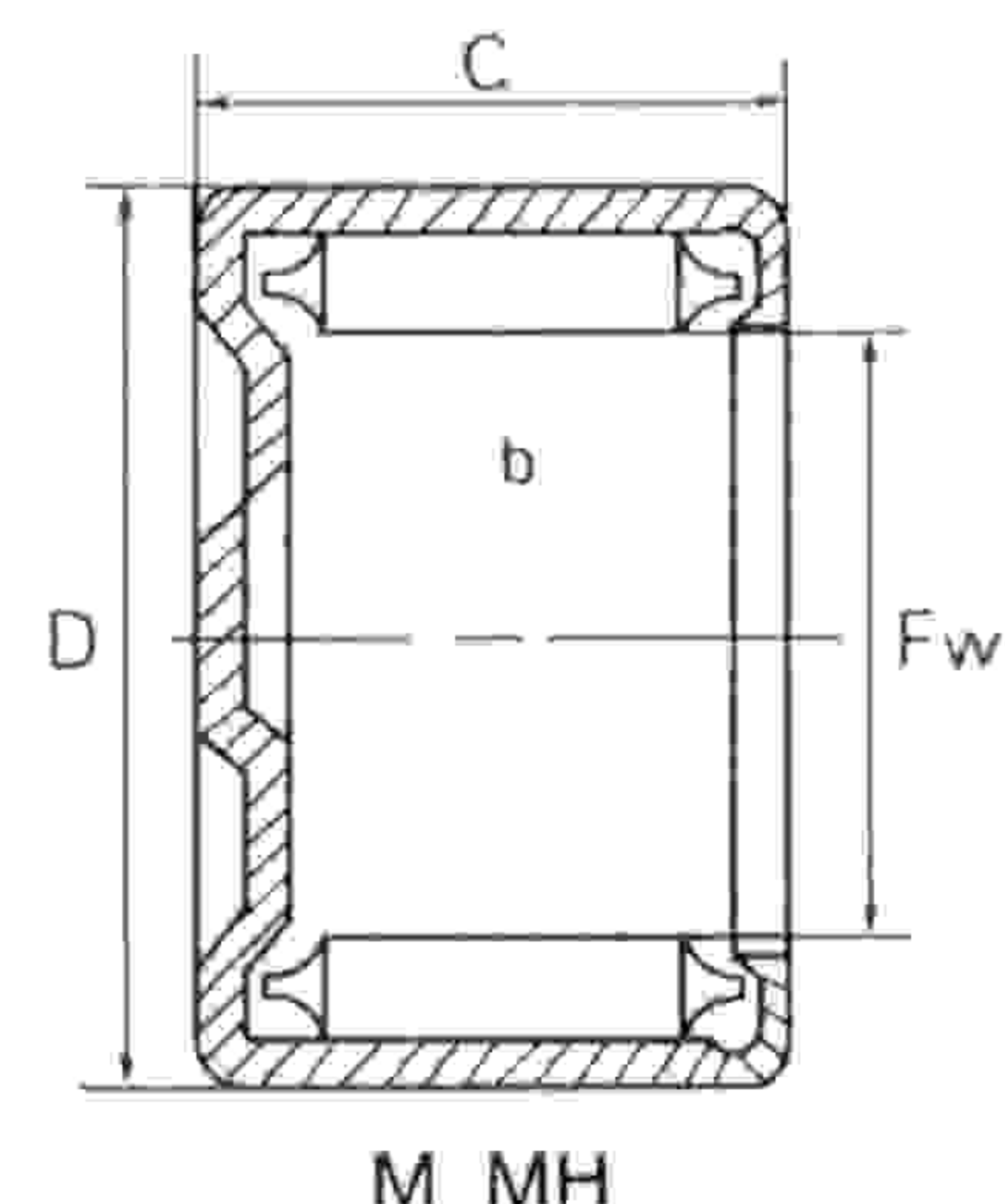
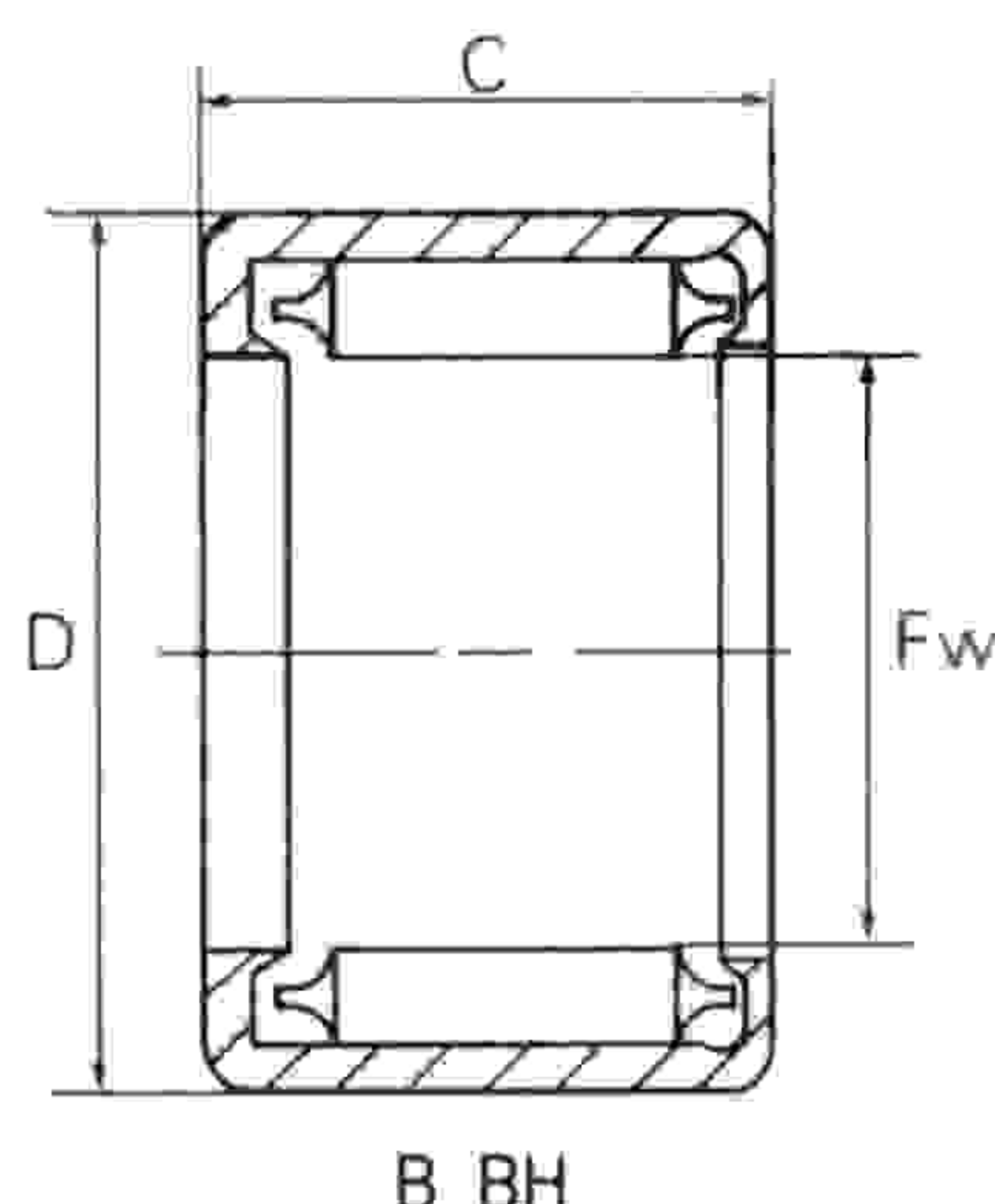
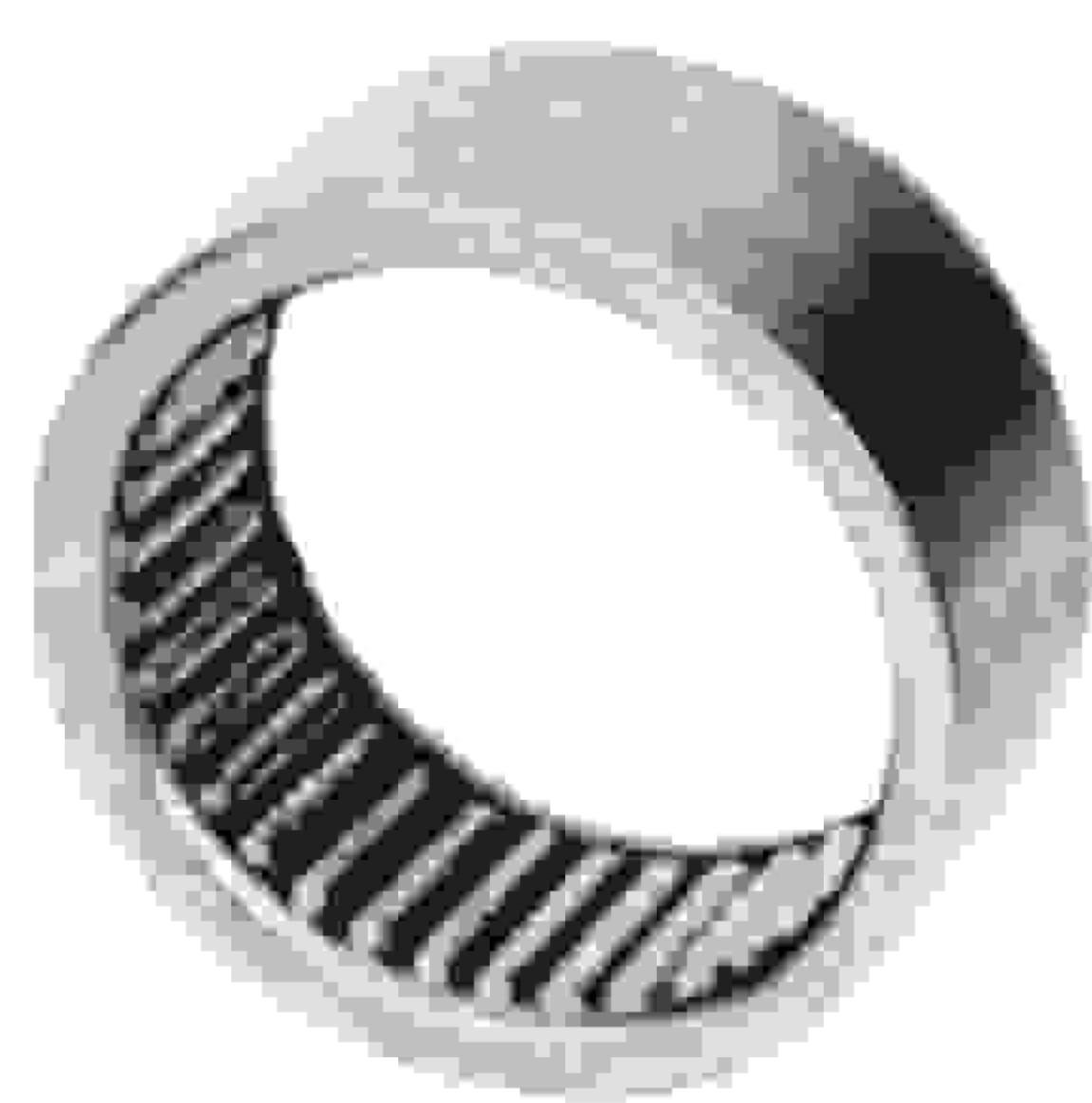


| 軸徑<br>shaft<br>Diameter | 軸承型號<br>Bearing Designation and mass approx |                   | 外形尺寸<br>Boundary Dimensions |       |       | 基本額定負荷<br>Basic Load Rating |               | 極限轉速<br>Limiting Speed |
|-------------------------|---------------------------------------------|-------------------|-----------------------------|-------|-------|-----------------------------|---------------|------------------------|
|                         | 穿孔型<br>OPEN END                             | 封口型<br>CLOSED END | Fw                          | D     | C     | 動負荷<br>Dynamic              | 靜負荷<br>Static |                        |
|                         |                                             |                   | mm                          |       |       | N                           |               |                        |
| mm                      |                                             |                   |                             |       |       |                             |               |                        |
| 15.88                   | BH-108                                      | MH-1081           | 15.88                       | 22.22 | 12.70 | 2790                        | 3980          | 6200                   |
|                         | BH-1010                                     | -                 | 15.88                       | 22.22 | 15.88 | 3620                        | 5530          | 6200                   |
|                         | BH-1012                                     | -                 | 15.88                       | 22.22 | 19.05 | 4390                        | 7130          | 6200                   |
|                         | BH-1016                                     | -                 | 15.88                       | 22.22 | 25.40 | 5830                        | 10300         | 6200                   |
| 17.46                   | B-116                                       | -                 | 17.46                       | 22.22 | 9.52  | 1790                        | 3030          | 4200                   |
|                         | B-118                                       | -                 | 17.46                       | 22.22 | 12.70 | 2540                        | 4770          | 4200                   |
|                         | B-1110                                      | M-11101           | 17.46                       | 22.22 | 15.88 | 3230                        | 6500          | 4200                   |
|                         | B-1112                                      | M-11121           | 17.46                       | 22.22 | 19.05 | 3880                        | 8230          | 4200                   |
|                         | BH-117                                      | -                 | 17.46                       | 23.81 | 11.13 | 2480                        | 3510          | 5700                   |
|                         | BH-1110                                     | MH-11101          | 17.46                       | 23.81 | 15.88 | 3820                        | 6110          | 5700                   |
|                         | BH-1112                                     | -                 | 17.46                       | 23.81 | 19.05 | 4640                        | 7840          | 5700                   |
| 19.05                   | B-126                                       | -                 | 19.05                       | 25.40 | 9.52  | 2100                        | 2900          | 5500                   |
|                         | B-128                                       | M-1281            | 19.05                       | 25.40 | 12.70 | 3100                        | 4790          | 5500                   |
|                         | B-1210                                      | M-12101           | 19.05                       | 25.40 | 15.88 | 4010                        | 6670          | 5500                   |
|                         | B-1212                                      | M-12121           | 19.05                       | 25.40 | 19.05 | 4870                        | 8560          | 5500                   |
| 20.64                   | B-136                                       | -                 | 20.64                       | 26.99 | 9.52  | 2190                        | 3140          | 5200                   |
|                         | B-138                                       | M-1381            | 20.64                       | 26.99 | 12.70 | 3240                        | 5190          | 5200                   |
|                         | B-1314                                      | -                 | 20.64                       | 26.99 | 22.22 | 5940                        | 11300         | 5200                   |
|                         | B-1316                                      | M13161            | 20.64                       | 26.99 | 25.40 | 6760                        | 13400         | 5200                   |
|                         | BH-1310                                     | -                 | 20.64                       | 28.58 | 15.88 | 4320                        | 6510          | 6200                   |
|                         | BH-1312                                     | -                 | 20.64                       | 28.58 | 19.05 | 5340                        | 8550          | 6200                   |
| 22.22                   | B-146                                       | -                 | 22.22                       | 28.58 | 9.52  | 2280                        | 3380          | 4800                   |
|                         | B-148                                       | -                 | 22.22                       | 28.58 | 12.70 | 3370                        | 5590          | 4800                   |
|                         | B-1412                                      | M-14121           | 22.22                       | 28.58 | 19.05 | 5300                        | 9990          | 4800                   |
|                         | B-1416                                      | M.14161           | 22.22                       | 28.58 | 25.40 | 7040                        | 14400         | 4800                   |
|                         | B-1418                                      | -                 | 22.22                       | 28.58 | 28.58 | 7860                        | 16600         | 4800                   |
|                         | BH-1410                                     | -                 | 22.22                       | 30.16 | 15.88 | 4470                        | 7030          | 5880                   |
|                         | BH-1412                                     | -                 | 22.22                       | 30.16 | 19.05 | 5530                        | 9230          | 5880                   |
|                         | BH-1416                                     | -                 | 22.22                       | 30.16 | 25.40 | 7480                        | 13600         | 5880                   |
| 23.81                   | B-158                                       | -                 | 23.81                       | 30.16 | 12.70 | 3500                        | 5990          | 4500                   |
|                         | B-1516                                      | M-15161           | 23.81                       | 30.16 | 25.40 | 7300                        | 15400         | 4500                   |
| 25.40                   | B-166                                       | -                 | 25.40                       | 31.75 | 9.52  | 2450                        | 3870          | 4300                   |
|                         | B-167                                       | -                 | 25.40                       | 31.75 | 11.13 | 3050                        | 5120          | 4300                   |
|                         | B-168                                       | -                 | 25.40                       | 31.75 | 12.70 | 3620                        | 6390          | 4300                   |
|                         | B-1610                                      | -                 | 25.40                       | 31.75 | 15.88 | 4690                        | 8910          | 4300                   |
|                         | B-1612                                      | M-16121           | 25.40                       | 31.75 | 19.05 | 5690                        | 11400         | 4300                   |
|                         | B-1616                                      | M-16161           | 25.40                       | 31.75 | 25.40 | 7560                        | 16500         | 4300                   |
|                         | BH-168                                      | MH-1681           | 25.40                       | 33.34 | 12.70 | 3600                        | 5500          | 5200                   |
|                         | BH-1610                                     | -                 | 25.40                       | 33.34 | 15.88 | 4830                        | 8020          | 5200                   |
|                         | BH-1612                                     | MH-16121          | 25.40                       | 33.34 | 19.05 | 5970                        | 10500         | 5200                   |
|                         | BH-1616                                     | MH-16161          | 25.40                       | 33.34 | 25.40 | 8090                        | 15600         | 5200                   |
|                         | BH-1620                                     | -                 | 25.40                       | 33.34 | 31.75 | 10100                       | 20600         | 5200                   |
|                         | BH-1624                                     | -                 | 25.40                       | 33.34 | 38.10 | 11900                       | 25600         | 5200                   |
| 26.99                   | B-1710                                      | -                 | 26.99                       | 33.34 | 15.88 | 4840                        | 9470          | 4000                   |
| 28.58                   | B-186                                       | -                 | 28.58                       | 34.92 | 9.52  | 2610                        | 4350          | 3800                   |





## ■ 沖壓外圈滿裝滾針軸承(英制系列) DRAWN CUP FULL COMPLEMENT NEEDLE ROLLER BEARING (INCH SERIES)

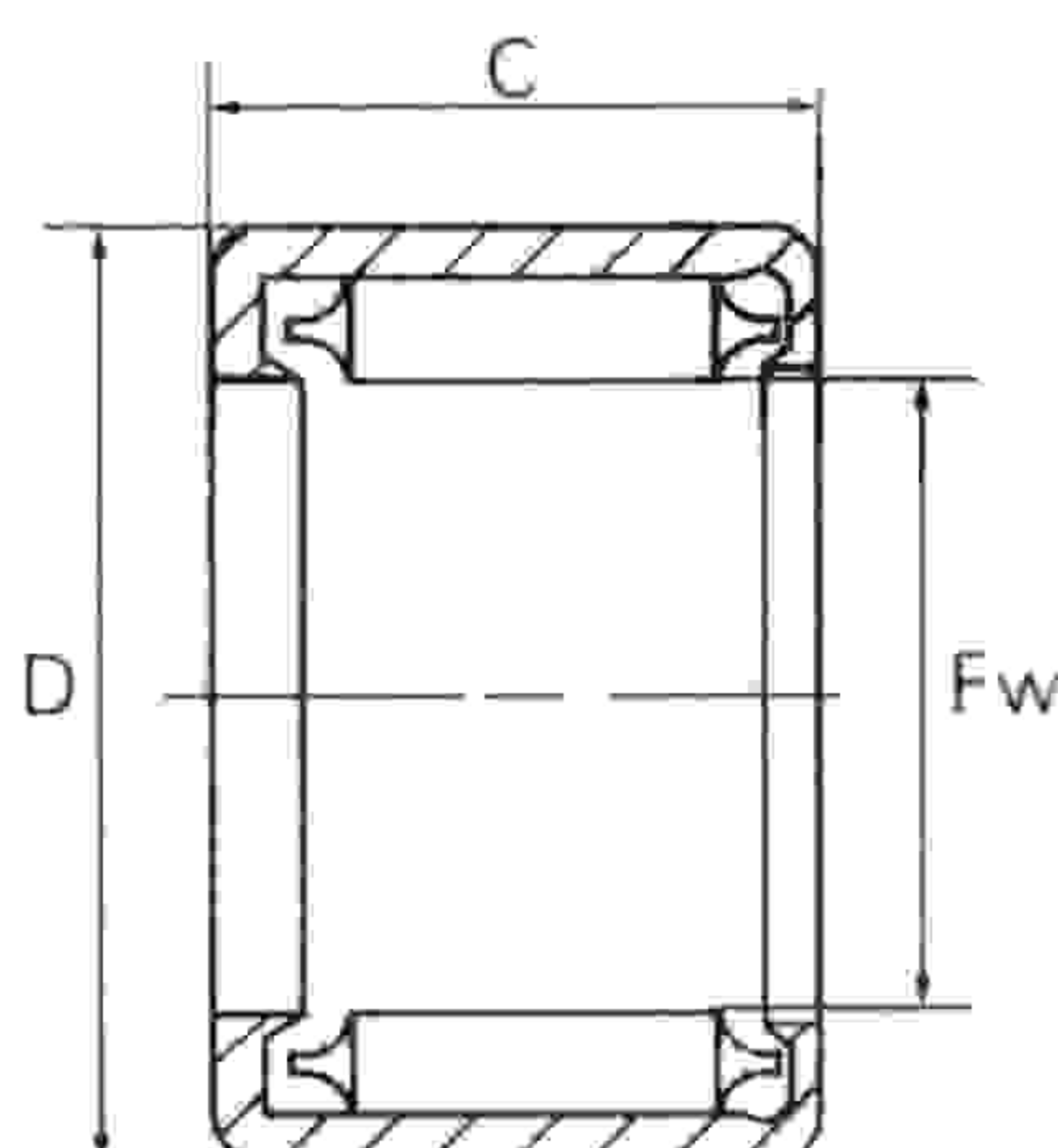
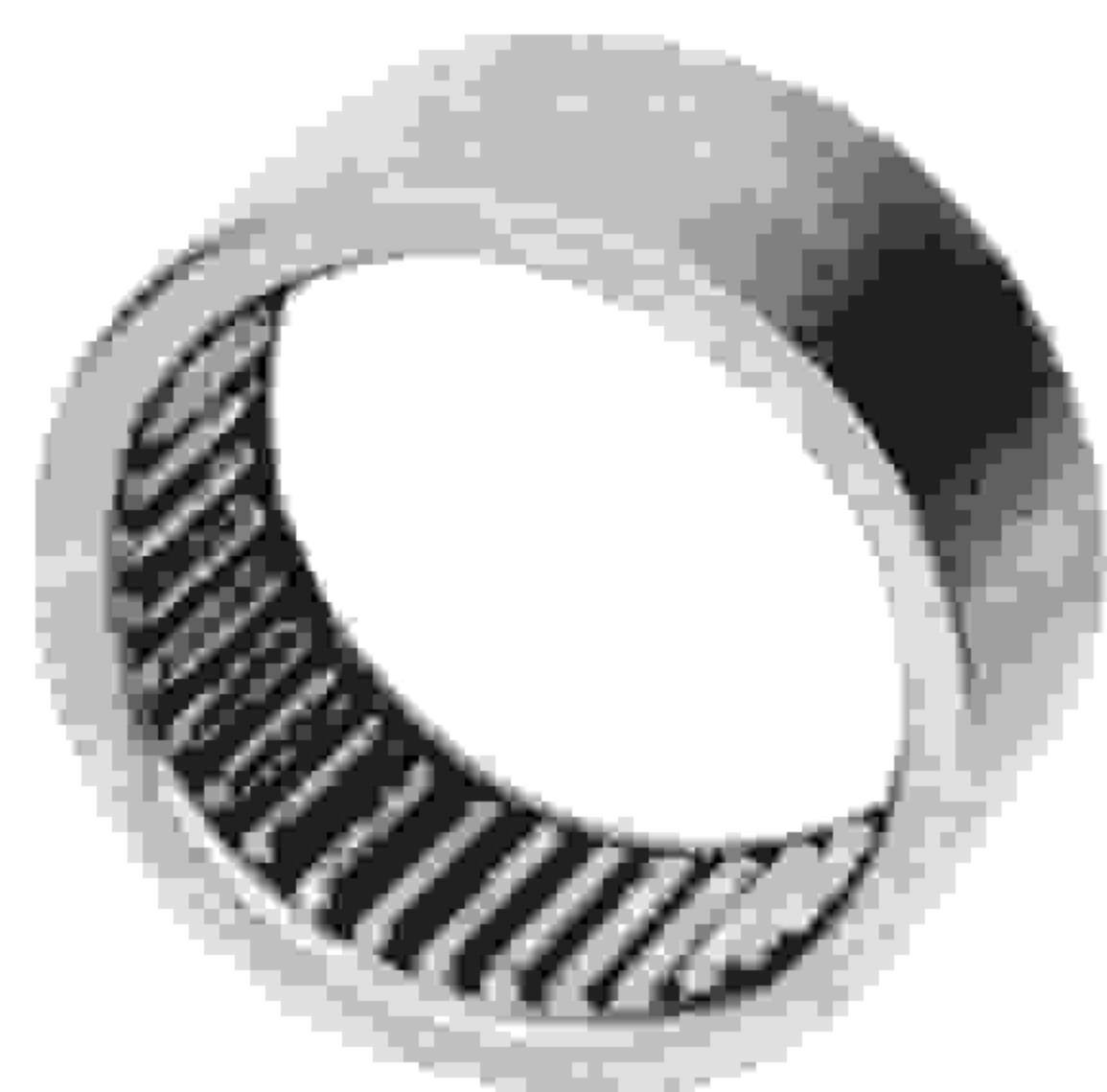


| 軸徑<br>shaft<br>Diameter | 軸承型號<br>Bearing Designation and mass approx |                   | 外形尺寸<br>Boundary Dimensions |       |       | 基本額定負荷<br>Basic Load Rating |               | 極限轉速<br>Limiting Speed |
|-------------------------|---------------------------------------------|-------------------|-----------------------------|-------|-------|-----------------------------|---------------|------------------------|
|                         | 穿孔型<br>OPEN END                             | 封口型<br>CLOSED END | Fw                          | D     | C     | 動負荷<br>Dynamic              | 靜負荷<br>Static |                        |
|                         |                                             |                   | mm                          |       |       | N                           |               |                        |
| mm                      |                                             |                   |                             |       |       |                             |               | rpm                    |
| 28.58                   | B-188                                       | -                 | 28.58                       | 34.92 | 12.70 | 3850                        | 7190          | 3800                   |
|                         | B-1812                                      | -                 | 28.58                       | 34.92 | 19.05 | 6060                        | 12900         | 3800                   |
|                         | B-1816                                      | M-18161           | 28.58                       | 34.92 | 25.40 | 8050                        | 18500         | 3800                   |
|                         | BH-1812                                     | -                 | 28.58                       | 38.10 | 19.05 | 6920                        | 11500         | 5500                   |
|                         | BH-1816                                     | -                 | 28.58                       | 38.10 | 25.40 | 9420                        | 17100         | 5500                   |
|                         | BH1820                                      | -                 | 28.58                       | 38.10 | 31.75 | 11800                       | 22900         | 5500                   |
| 30.16                   | B-1916                                      | -                 | 30.16                       | 38.10 | 25.40 | 8860                        | 18500         | 4400                   |
| 31.75                   | B-208                                       | -                 | 31.75                       | 38.10 | 12.70 | 4080                        | 7990          | 3500                   |
|                         | B-2010                                      | -                 | 31.75                       | 38.10 | 15.88 | 5280                        | 11100         | 3500                   |
|                         | B-2012                                      | -                 | 31.75                       | 38.10 | 19.05 | 6410                        | 14300         | 3500                   |
|                         | B-2016                                      | M-20161           | 31.75                       | 38.10 | 25.40 | 8510                        | 20600         | 3500                   |
|                         | B-2020                                      | M-20201           | 31.75                       | 38.10 | 31.75 | 10500                       | 26900         | 3500                   |
|                         | BH-208                                      | -                 | 31.75                       | 41.28 | 12.70 | 4200                        | 6320          | 5000                   |
|                         | BH-2012                                     | -                 | 31.75                       | 41.28 | 19.05 | 7250                        | 12700         | 5000                   |
|                         | BH-2016                                     | MH-20161          | 31.75                       | 41.28 | 25.40 | 9910                        | 19000         | 5000                   |
| BH-2020                 | MH-20201                                    | 31.75             | 41.28                       | 31.75 | 12400 | 25400                       | 5000          |                        |
| 33.34                   | B-218                                       | -                 | 33.34                       | 41.28 | 12.70 | 4180                        | 7220          | 4000                   |
|                         | B-2110                                      | -                 | 33.34                       | 41.28 | 15.88 | 5600                        | 10500         | 4000                   |
|                         | B-2120                                      | -                 | 33.34                       | 41.28 | 31.75 | 11700                       | 27200         | 4000                   |
| 34.92                   | B-228                                       | -                 | 34.92                       | 41.28 | 12.70 | 4280                        | 8790          | 3200                   |
|                         | B-2212                                      | -                 | 34.92                       | 41.28 | 19.05 | 6730                        | 15700         | 3200                   |
|                         | B-2216                                      | -                 | 34.92                       | 41.28 | 25.40 | 8950                        | 22700         | 3200                   |
|                         | B-2220                                      | -                 | 34.92                       | 41.28 | 31.75 | 11000                       | 29600         | 3200                   |
|                         | BH-2210                                     | -                 | 34.92                       | 44.45 | 15.88 | 6240                        | 10600         | 4700                   |
|                         | BH-2212                                     | -                 | 34.92                       | 44.45 | 19.05 | 7770                        | 14100         | 4700                   |
|                         | BH-2216                                     | -                 | 34.92                       | 44.45 | 25.40 | 10600                       | 20900         | 4700                   |
|                         | BH-2220                                     | -                 | 34.92                       | 44.45 | 31.75 | 13200                       | 28000         | 4700                   |
| 38.10                   | B-248                                       | -                 | 38.10                       | 47.62 | 12.70 | 4780                        | 7830          | 4300                   |
|                         | B-2410                                      | -                 | 38.10                       | 47.62 | 15.88 | 6500                        | 11600         | 4300                   |
|                         | B-2412                                      | -                 | 38.10                       | 47.62 | 19.05 | 8090                        | 15400         | 4300                   |
|                         | B-2414                                      | -                 | 38.10                       | 47.62 | 22.22 | 9590                        | 19200         | 4300                   |
|                         | B-2416                                      | M-24161           | 38.10                       | 47.62 | 25.40 | 11000                       | 22800         | 4300                   |
|                         | B-2420                                      | M-24201           | 38.10                       | 47.62 | 31.75 | 13800                       | 30500         | 4300                   |
| 41.28                   | B-268                                       | -                 | 41.28                       | 50.80 | 12.70 | 4920                        | 8390          | 3900                   |
|                         | B-2610                                      | -                 | 41.28                       | 50.80 | 15.88 | 6710                        | 12500         | 3900                   |
|                         | B-2616                                      | -                 | 41.28                       | 50.80 | 25.40 | 11400                       | 24800         | 3900                   |
|                         | B-2620                                      | -                 | 41.28                       | 50.80 | 31.75 | 14300                       | 33000         | 3900                   |
| 44.45                   | B-2812                                      | -                 | 44.45                       | 53.98 | 19.05 | 8660                        | 17900         | 3700                   |
|                         | B-2816                                      | M-28161           | 44.45                       | 53.98 | 25.40 | 11800                       | 26700         | 3700                   |
|                         | B-2820                                      | -                 | 44.45                       | 53.98 | 31.75 | 14800                       | 35500         | 3700                   |
|                         | B-2824                                      | -                 | 44.45                       | 53.98 | 38.10 | 17600                       | 44300         | 3700                   |
| 47.62                   | B-308                                       | -                 | 47.62                       | 57.15 | 12.70 | 5380                        | 9790          | 3500                   |
|                         | B-3012                                      | -                 | 47.62                       | 57.15 | 19.05 | 9100                        | 19200         | 3500                   |
|                         | B-3016                                      | -                 | 47.62                       | 57.15 | 25.40 | 12400                       | 28600         | 3500                   |

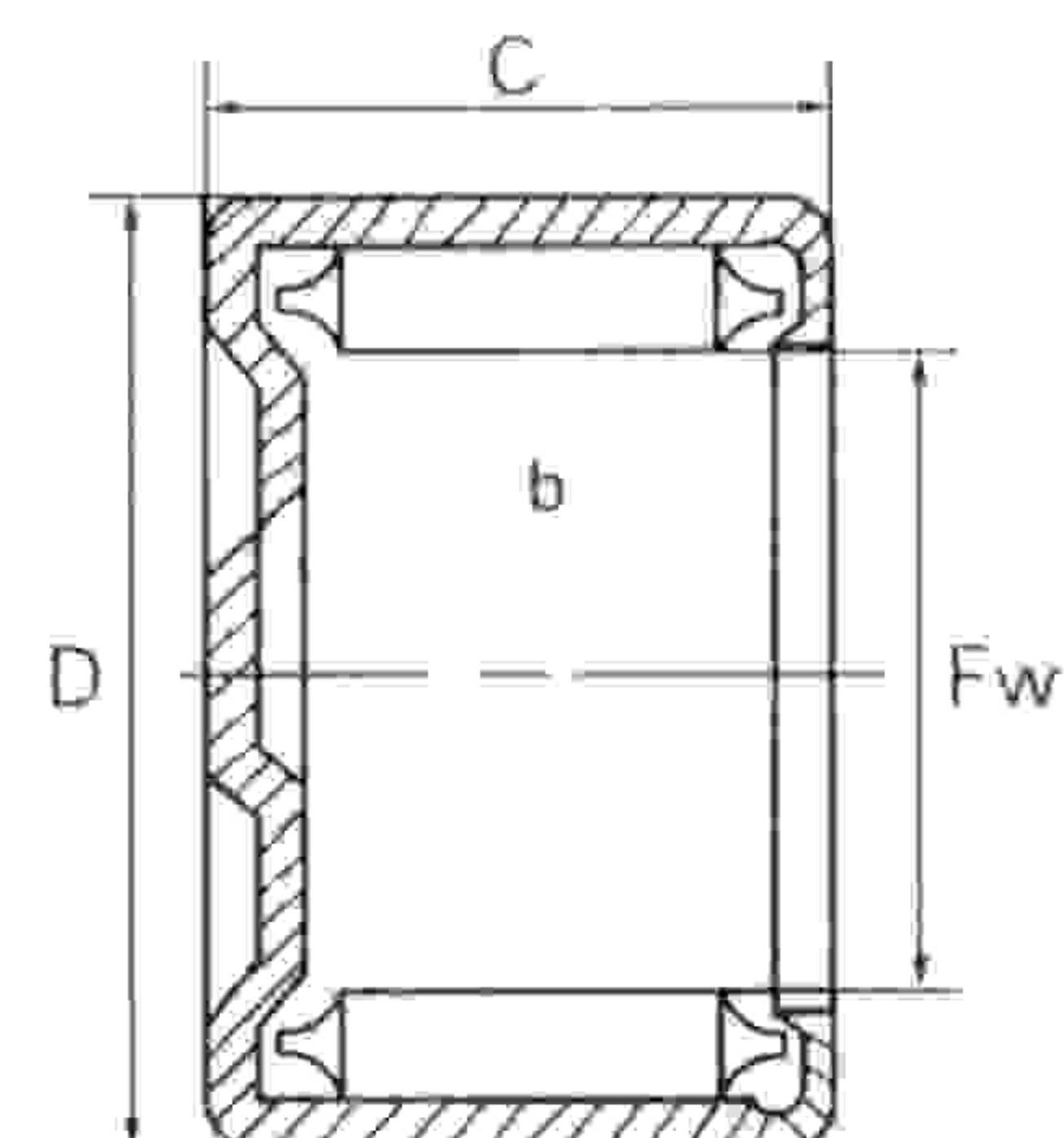




## ■ 沖壓外圈滿裝滾針軸承(英制系列) DRAWN CUP FULL COMPLEMENT NEEDLE ROLLER BEARING (INCH SERIES)



B BH



M MH

| 軸徑<br>shaft<br>Diameter | 軸承型號<br>Bearing Designation and mass approx |                   | 外形尺寸<br>Boundary Dimensions |       |       | 基本額定負荷<br>Basic Load Rating |               | 極限轉速<br>Limiting Speed |
|-------------------------|---------------------------------------------|-------------------|-----------------------------|-------|-------|-----------------------------|---------------|------------------------|
|                         | 穿孔型<br>OPEN END                             | 封口型<br>CLOSED END | Fw                          | D     | C     | 動負荷<br>Dynamic              | 靜負荷<br>Static |                        |
|                         |                                             |                   | mm                          |       |       | N                           |               |                        |
| 50.80                   | B-328                                       | -                 | 50.80                       | 60.32 | 12.70 | 5490                        | 10300         | 3300                   |
|                         | B-3216                                      | M-32161           | 50.80                       | 60.32 | 25.40 | 12700                       | 30500         | 3300                   |
|                         | B-3220                                      | -                 | 50.80                       | 60.32 | 31.75 | 15900                       | 40600         | 3300                   |
|                         | B-3228                                      | M-32281           | 50.80                       | 60.32 | 44.45 | 21800                       | 60700         | 3300                   |
| 52.39                   | BH-3312                                     | -                 | 52.39                       | 64.29 | 19.05 | 10100                       | 19000         | 4000                   |
|                         | BH-3316                                     | -                 | 52.39                       | 64.29 | 25.40 | 14200                       | 29400         | 4000                   |
| 53.98                   | B-348                                       | -                 | 53.98                       | 63.50 | 12.70 | 5650                        | 11000         | 3100                   |
|                         | B-3416                                      | -                 | 53.98                       | 63.50 | 25.40 | 13100                       | 32400         | 3100                   |
|                         | B-3424                                      | -                 | 53.98                       | 63.50 | 38.10 | 19500                       | 53900         | 3100                   |
| 57.15                   | B-3612                                      | -                 | 57.15                       | 66.68 | 19.05 | 10100                       | 12000         | 3000                   |
|                         | B-3620                                      | -                 | 57.15                       | 66.68 | 31.75 | 17300                       | 23800         | 3000                   |
|                         | B-3624                                      | -                 | 57.15                       | 66.68 | 38.10 | 20500                       | 29700         | 3000                   |
| 66.68                   | B-4216                                      | M-42161           | 66.68                       | 76.20 | 25.40 | 14800                       | 20600         | 2500                   |
| 69.85                   | B-4410                                      | -                 | 69.85                       | 79.38 | 15.88 | 8980                        | 10900         | 2500                   |
|                         | B-4416                                      | -                 | 69.85                       | 79.38 | 25.40 | 15300                       | 21600         | 2500                   |
|                         | B-4420                                      | -                 | 69.85                       | 79.38 | 31.75 | 19000                       | 28700         | 2500                   |