

# Silver-Lube bearing inserts

Silver-Lube bearing inserts have martensitic stainless steel rings and balls, and austenitic stainless steel ball cage, flingers and set screws, in addition to durable and heat-resistant silicone rubber seals

The grease in this product is an aluminium complex food grade grease, classified to NSF grade H1. In the event of relubricating being necessary, this type of grease is the first choice replacement.

If an aluminium complex food grade grease is not available, it is essential that any alternative grease is NSF H1 approved and ideally chemically compatible with the original grease. If chemical compatibility cannot be assured, then it is recommended that the original grease is completely flushed out of the system before relubrication. NSK should be consulted where necessary.

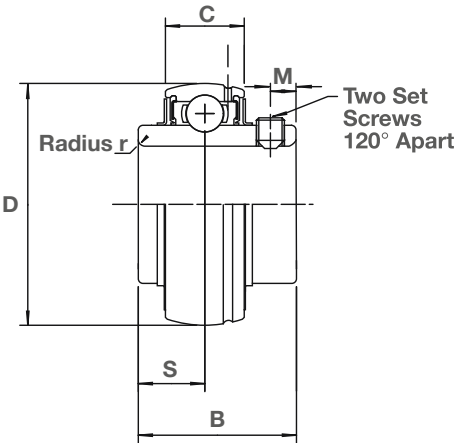


Table 5 Insert designations, dimensions and weights

Units mm

| RHP designation | Bore dia | D  | C  | B    | S    | r   | M   | C <sub>i</sub> (N) | C <sub>av</sub> (N) | Weight (Kg) |
|-----------------|----------|----|----|------|------|-----|-----|--------------------|---------------------|-------------|
| J1020-20GCR     | 20       | 47 | 17 | 31.0 | 12.7 | 0.5 | 5.0 | 9910               | 5350                | 0.16        |
| J1020-¾GCR      | ¾"       | 47 | 17 | 31.0 | 12.7 | 0.5 | 5.0 | 9910               | 5350                | 0.16        |
| J1025-25GCR     | 25       | 52 | 17 | 34.1 | 14.3 | 0.5 | 5.0 | 10820              | 6300                | 0.20        |
| J1025-1GCR      | 1"       | 52 | 17 | 34.1 | 14.3 | 0.5 | 5.0 | 10820              | 6300                | 0.20        |
| J1030-30GCR     | 30       | 62 | 19 | 38.1 | 15.9 | 0.5 | 5.0 | 15000              | 9050                | 0.32        |
| J1030-1⅜GCR     | 1⅜"      | 62 | 19 | 38.1 | 15.9 | 0.5 | 5.0 | 15000              | 9050                | 0.32        |
| J1030-1¼GCR     | 1¼"      | 62 | 19 | 38.1 | 15.9 | 0.5 | 5.0 | 15000              | 9050                | 0.32        |
| J1035-35GCR     | 35       | 72 | 20 | 42.9 | 17.5 | 1.0 | 6.5 | 19820              | 12300               | 0.48        |
| J1035-1½GCR     | 1½"      | 72 | 20 | 42.9 | 17.5 | 1.0 | 6.5 | 19820              | 12300               | 0.48        |
| J1035-1⅞GCR     | 1⅞"      | 72 | 20 | 42.9 | 17.5 | 1.0 | 6.5 | 19820              | 12300               | 0.48        |
| J1040-40GCR     | 40       | 80 | 21 | 49.2 | 19.0 | 1.0 | 8.0 | 22540              | 14300               | 0.64        |
| J1040-1½GCR     | 1½"      | 80 | 21 | 49.2 | 19.0 | 1.0 | 8.0 | 22540              | 14300               | 0.64        |

## Shaft tolerances and permissible speeds

Bearing insert permissible speed is dependent on shaft tolerance. For higher speed applications an ISO h7 shaft tolerance is recommended. An ISO h9 shaft tolerance may be used for low speed applications. For more information see table 6.

Table 6 Tolerances and Speeds

| Basic bearing insert | Bearing limiting speed (RPM) | ISO h7 Shaft tolerance high (0.001 mm Units) | ISO h7 Shaft tolerance low (0.001 mm Units) | Bearing limiting speed (RPM) | ISO h9 Shaft tolerance high (0.001 mm Units) | ISO h9 Shaft tolerance low (0.001 mm Units) |
|----------------------|------------------------------|----------------------------------------------|---------------------------------------------|------------------------------|----------------------------------------------|---------------------------------------------|
| J1020                | 2900                         | 0                                            | -21                                         | 1490                         | 0                                            | -52                                         |
| J1025                | 2600                         | 0                                            | -21                                         | 1300                         | 0                                            | -52                                         |
| J1030                | 2180                         | 0                                            | -21                                         | 1090                         | 0                                            | -52                                         |
| J1035                | 1870                         | 0                                            | -25                                         | 940                          | 0                                            | -62                                         |
| J1040                | 1650                         | 0                                            | -25                                         | 830                          | 0                                            | -62                                         |

# Materials and tightening torques

## Materials

|                 | Parts         | Materials                                           |
|-----------------|---------------|-----------------------------------------------------|
| Bearing         | Bearing Rings | Martensitic stainless steel (equivalent to SUS440C) |
|                 | Ball          | Martensitic stainless steel (equivalent to SUS440C) |
|                 | Flinger       | Austenitic stainless steel (equivalent to SUS302)   |
|                 | Rubber Seal   | Silicone Rubber                                     |
|                 | Set Screw     | Austenitic stainless steel (equivalent to SUS304)   |
|                 | Cage          | Austenitic stainless steel (equivalent to SUS302)   |
| Bearing housing |               | Thermo Plastic PBT                                  |

## Set screw tightening torques

Set screws for Silver-Lube bearing inserts are manufactured from stainless steel and can fracture if overtightened. The limiting set screw torques listed (in Table 7) should not be exceeded.

Table 7 Recommended tightening torques for set screws

| Bearing designation | Designation of set screws | Maximum tightening torque (Nm) |
|---------------------|---------------------------|--------------------------------|
| J1020-20GCR         | M6 X 6.0 LONG             | 4                              |
| J1020-¾GCR          | M6 X 6.0 LONG             | 4                              |
| J1025-25GCR         | M6 X 6.0 LONG             | 4                              |
| J1025-1GCR          | M6 X 6.0 LONG             | 4                              |
| J1030-30GCR         | M6 X 6.0 LONG             | 4                              |
| J1030-1¾GCR         | M6 X 6.0 LONG             | 4                              |
| J1030-1¼GCR         | M6 X 6.0 LONG             | 4                              |
| J1035-35GCR         | M8 X 8.0 LONG             | 8                              |
| J1035-1¼GCR         | M8 X 8.0 LONG             | 8                              |
| J1035-1¾GCR         | M8 X 8.0 LONG             | 8                              |
| J1040-40GCR         | M8 X 8.0 LONG             | 8                              |
| J1040-1½GCR         | M8 X 8.0 LONG             | 8                              |