MachLine: your spindles deserve the best
As a collaborator on aeronautic programs such as the Ariane 5 rocket and the A380 passenger plane, SNR must incorporate extremely high performance capabilities (high speed, extreme temperature variations, etc.) into its products while maintaining the highest level of precision. Our engineers have benefited from this experience to develop MachLine, a range that enhances the performance of your machine tools. With a wide range of sizes, unmatched precision and reliability: these bearings will allow you to make better parts, faster, and more economically.

**HIGH PRECISION**

- SNR series 71900V and 7000V, with an excellent compromise between performance parameters, speed, rigidity, capacity and precision.
- Series 7200 G1, specially designed to accommodate high loads.
- Available in two contact angles (15 and 25) and three preloads from stock (light, medium or heavy). Specific preloads can be provided upon request.

**HYBRIDS, WITH CERAMIC BALLS, CH**

Each and every series of high precision ball bearings produced by SNR are available with balls of Silicon Nitride. With steel rings, these Hybrids, combine the best qualities of both materials.

- Reduced operating temperature and increased speed capability, along with lower lubrication requirements than an “all steel” bearing.
- Rigidity and service life increased.

**HIGH SPEED, ML SERIES**

Available for sizes in the 71900 and 7000 series, this family has been conceived and developed by SNR to respond to the ever increasing demand for higher machine operating speeds.

- Manufacturing precision “4S” (ISO 4 with the exception of rotational dynamic characteristics which are held to ISO 2).
- Optimized track geometry, reduced ball diameter, increased number of balls, and outer ring cage guidance, limit speed increase (+ 20%).
- Contact angles (15 and 25) and preload choices as above.
For applications where oil lubrication is not necessary, SNR offers the MLE SERIES. Available for the 71900 and 7000 series, this family brings a solution technically adapted and economically advantageous to conventionally lubricated bearings.

- Manufacturing precision “4S” is standard.

- Non-contact nitrile rubber seals, fixed in the outer ring, which do not reduce the bearing limiting speed. Pre-lubricated at our factory with the proper amount of high speed, low torque, bearing grease.

- Contact angles (15 and 25) and preload choices as above.

Services, in addition to our bearings

To choose the best bearing and guarantee its perfect integration, we offer you exclusive services:

Assistance in installation/removal and diagnosis:

Our Application Engineers are available to work with our customers to arrive at the best technical solution to every application. Our experts can guarantee that proper installation procedures are being followed. In addition, in the event of premature bearing failure, they can diagnose the cause and recommend solutions.

Vibratory analysis for conditional Maintenance:

The partnership established between SNR and 01 dB Acoustics & Vibration allows us to furnish our customers with the services of a specialist in vibratory analysis. As well as giving technical advice, our specialists can design and put in place a fixed or portable control system that solves the problem of conditional maintenance of rotating machines.

Training:

A complete training program for your personnel to insure proper installation, lubrication, run-in, and removal procedures are being followed, can be provided by our engineers and experts.
Part number designation of SNR High Precision bearings

- **ML**: High Speed range
- **E**: Sealed bearing
- **CH**: Hybrid bearing (ceramic balls)
- **719**: Series
  - 719 (ISO 19)
  - 70 (ISO 10)
  - 72 (ISO 02)
- **V**: High Performance bearings
  - Series 719-70: Stratified phenolic cage guided by the outer ring
- **G1**: High load capacity bearing
  - Series 72: Stratified phenolic cage guided by the outer ring
- **U**: Association code
  - Universal bearing and association of universal bearings
  - Universal single bearing
  - Universal pair
  - Association of 3 universal bearings
  - Association of 4 universal bearings
  - Association of paired bearings: identical contact angles
  - Association of paired bearings: different contact angles
- **J**: Symbol preceding preload and precision functions
- **7**: Preload
  - Light
  - Medium
  - Heavy
  - Special
  - Not defined
- **4S**: Tolerance classes (Precision)
  - ISO ABEC DIN
  - 4 for run-out
  - 4 ISO 2 for other characteristics
- ***: Specials
  - Example: D = greased bearing
- ****: Standard bearing
  - R = classification of inner and outer diameter

For other associations, consult SNR