



COLIBRI

The Metalworking Innovators



Production
of High
Precision
ball-bearings



High
precision
custom
machining



Electro-
mechanical,
optical
assembly



Coolant-driven
high-speed
spindles for
metalworking
applications



Air-bearing
spindles
for dicing
applications

Advanced Manufacturing Solutions

Machining – Assembly – Integration

About Colibri

Established in 2003, Colibri has rapidly risen to leadership status in the production of high speed, precision spindles using advanced metal manufacturing technologies for a broad range of components, assemblies and sub-assemblies.

We are a full-service/full-cycle solutions' provider in the development, production and support of high precision manufacturing systems, working hand in-hand with our customers to realize their unique product goals.



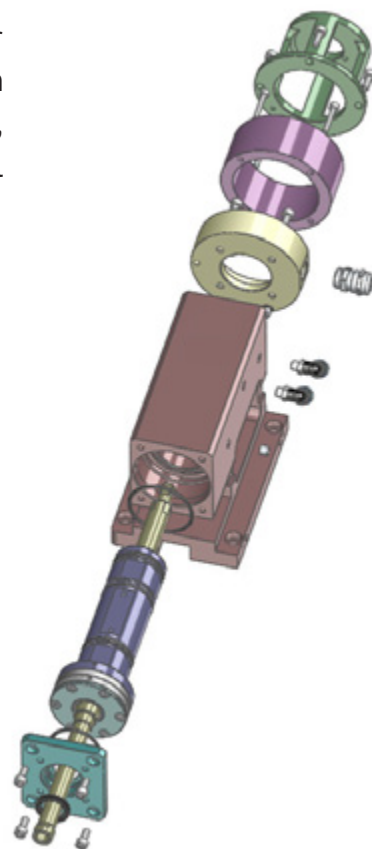
Core Knowledge

From concept to finished product and every step in between, our customers count on our core knowledge and expertise in the design and manufacturing of high rotational speed components and systems, general bearing systems as well as mechanical and electro-mechanical assemblies.

Core Capabilities

Engineering:

- OEM design capabilities: General machines and mechanisms, air-bearings, hydrostatic and hydrodynamic bearings, rolling elements bearings, high-rotational speed systems.
- CAD/CAM systems
- FEA capabilities: Vibration, bearing systems, mechanical
- Detailed technical drawings, schematics and 3D modeling
- Design of test equipment, jigs and fixtures





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Production:

Precision metal parts in broad range of materials: Hardened tool steel / stainless steel / aluminum & magnesium alloys / brass / graphite / ceramics / composite materials / brittle materials & more.

- 4 & 5 axis CNC milling centers with ATC
- High capacity multi-tool turn-mill centers with bar feeders
- Hard turning (diamond turning) single point cutting tool machining for hard metals up to 64 Rc, accuracy 1 micron, surface finish up to Ra 0.1 micron



- Cylindrical / Conical grinding (Kellenberger / Studer)
- Centerless grinding
- Surface grinders
- Centering holes—special grinder
- Laser marking
- Lapping / Honing

Finishing & Cleaning:

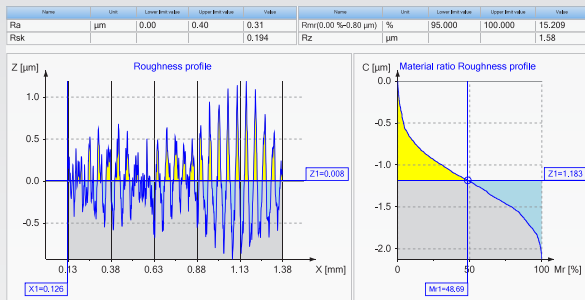
- Vibratory trommels for deburring
- Vibratory Keramofinish® equipment for mirror finish of metal parts (Ra 0.01)
- Sandblasting
- Ultrasonic cleaning baths
- Green bacteriologic oil removal station
- Stress relief ovens for machined metal parts



Mechanical & Electro-mechanical Assembly

- Assembly per-specifications
- Soldering , wiring , adhesion
- Clean working environment
- Part joining by Heat and nitrogen
- Repair & refurbishing of spindles / rotating equipment

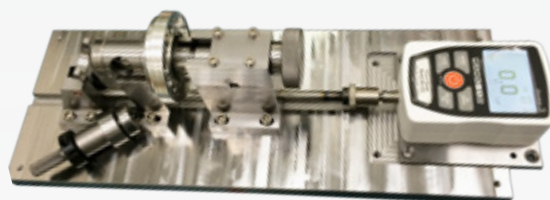




QC Lab

The Colibri QC Lab is equipped with highly advanced computerized measuring equipment for sub-micron resolution results. In addition to standard measuring equipment, gauges, etc., we offer our customers the following QC technology:

- Hommel® Optics Shaft Scanner – measures bodies with radial symmetry for dimensional and geometry features in few seconds
- Touch Probe Form Tester – evaluation of inner & outer geometry (roundness, conicity, cylindricity) to 10 nanometer resolution
- Surface Finish & Contour Scanner – 6 nanometer probe resolution
- CMM with “PASS” Software – automated creation of measuring programs based on 3D model or drawing
- Force & Torque Measuring Instruments
- Rolling Element Bearing Vibration Analyzer
- Vibration monitoring and balancing up to G04



Precision End to End

Colibri attains a level of accuracy in machining that is unrivaled in the industry. Precision metal cutting is our specific area of expertise, with an extra emphasis on the continuous upgrade of methods and technologies to ensure our customers receive only the highest quality precision parts with consistent, repeatable results.

Excellence in Operations

All assembly jobs, wiring, and soldering are carried out in a clean, ergonomically designed environment using customized jigs and fixtures dedicated to the specific operation at hand. We use only high-grade chemicals and all tools and instruments are of the finest industry quality.

Dedicated to Quality

Colibri is ISO 9001-2008 certified and conforms to international quality standards for both Israeli and world markets. We further ensure that our manufacturing solutions are always in complete alignment with customer specifications.



TCB



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