

Medical technology, aerospace and optics



Rotating cutting tools from the source document

Consider the application and tool together

This family connects precision tasks in medical technology, aerospace and optics. The sources show artificial knee components, medical needles and wires, turbine blades, optical lenses and glass edges. Each application retains its own tool assignment.

This edited overview provides an introduction to the tool family. Complete original tables and illustrations remain accessible through the source links. You can move from the described operation directly to a technical discussion of your application.

Applications and tool assignment

Application or feature	Tool and assignment
Artificial knee components	CBN grinding wheels and diamond dressers
Medical needles	Electrochemical grinding tools in the source example
Medical wires	Application-specific wire-grinding tools
Turbine blades	Profiled rotary dressers
Optical lenses	Roughing, finishing, polishing and grooving tools

Tool features and benefits

The documents describe high removal, long dressing intervals and good surfaces for artificial knee components. For needles, a reduced-burr surface is shown in a comparison image. For lenses, the source distinguishes glass, plastic, polycarbonate, high-index material and CR39. The tool sequence is matched to shape, material and target surface; medical or aerospace product approval is not replaced by this tool selection.

From your application to a tooling solution

Drawing, material, form tolerances and surface requirements provide the basis. For lenses, also state material type and the required operation. Grinding-wheel and dresser data help with complex profiles. Traceable tool information supports coordination with your manufacturing and quality process.

Start with the information already available. An existing tool, a photo or a drawing is often a useful starting point. Also discuss your goal: replacing an existing design, improving surface quality or reducing tool changes and machining time. Comparisons record quality, time and useful output together; missing information can be added during the technical discussion.

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Further original documents

- [Medical technology, aerospace and optics - Medical Aerospace OpticGlass 2026](#) · Original PDF, 5 pages.
- [Medical technology, aerospace and optics - AMB 2026 -Aerospace](#) · Original PDF, 8 pages.
- [Medical technology, aerospace and optics - 6.Aerospace-Medical](#) · Original PDF, 7 pages.
- [Medical technology, aerospace and optics - Medical](#) · Original PDF, 6 pages.

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