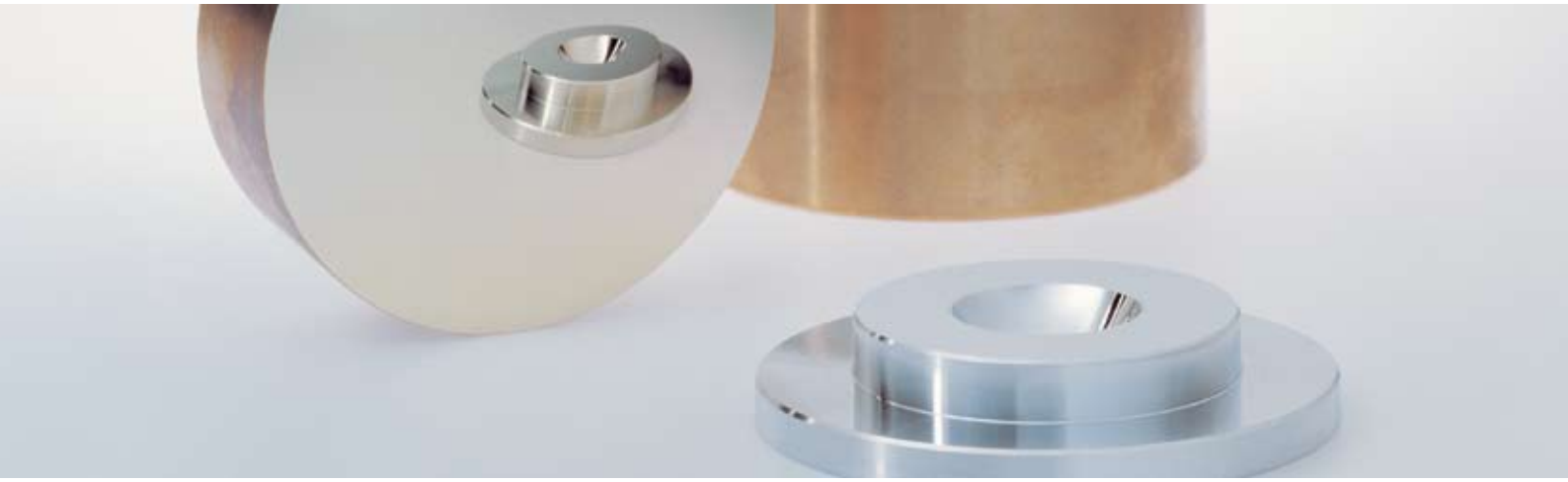
Infrared mirrors

Design, manufacturing and testing on customer´s specifications. Highest reflectance. High variety of materials and geometries.



Benefits:

There is a wide variety of applications for advanced IR systems where mirrors with a high surface quality and sophisticated geometries for beam guidance and delivery are required. To achieve increased reflectivity and higher protection from environmental impacts, IR mirrors are coated with metallic or dielectric layers.

With a proven, integrated technology chain, Jenoptik is in a position to offer the best possible solution for almost every application. Performance criteria are:

- Geometry
- Shape precision
- Stability
- Reflectance

Depending on the particular application setup, plane, spherical, aspherical, cylindrical or toroidal infrared mirrors can be produced. In addition to classical substrate materials, metal can also be handled. All components are routinely tested for compliance with DIN ISO or MIL standard requirements.

Applications:

- Beam guidance/delivery
- Metrology and device engineering
- IR camera and thermographic camera technology
- Image acquisition and target recognition
- Aerospace applications
- Optical systems with a long focal length distance

Specifications

Available product range:	
Diameters:	5 mm ... 190 mm Metal mirrors up to 400 mm
Shapes:	Plane, spherical, aspherical, cylindrical, toroidal, off-axis
Materials:	Silicon, zerodur Aluminium, brass, nickel, titanium
IR spectral range:	MWIR, LWIR Other spectral ranges on customer´s request
Parameters:	
Surface roughness:	R_q = 2 nm (Si), R_q = 7 nm (Al)
Special coatings:	Highly resistant and environmentally stable coatings (MIL-F-48616) Highly efficient metallic and dielectric reflection layers
Know-how:	
Technology and manufacturing equipment:	Ultra precision diamond turning Advanced coating technologies
Measurement:	2D/3D tactile For aspheres, interferometric using Computer Generated Holograms* Extensive test and measurement facilities to verify environmental resistance
Design:	In-house or custom optical design Quality and coatings according to customer´s specifications

* Proprietary expertise and technology for design and manufacture of CGHs.

It is our policy to constantly improve the design and specifications. Accordingly, the details represented herein cannot be regarded as final and binding.

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