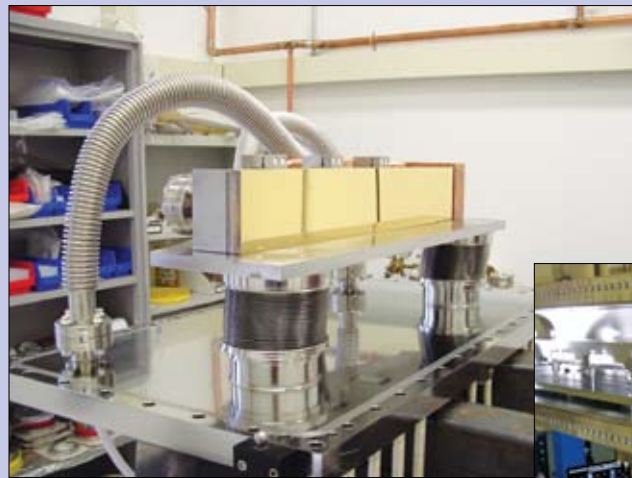


ADC's standard mirror system consists of five primary subcomponents: The mirror optic itself, its positioning system, the bending mechanism, a vacuum chamber, and the support structure all provided as an integrated package. All subsystems are designed to provide the highest positional stability and structural rigidity with precision motions on all axes.



**Side Bounce Mirror System for Brookhaven Nat'l Laboratory (USA)**

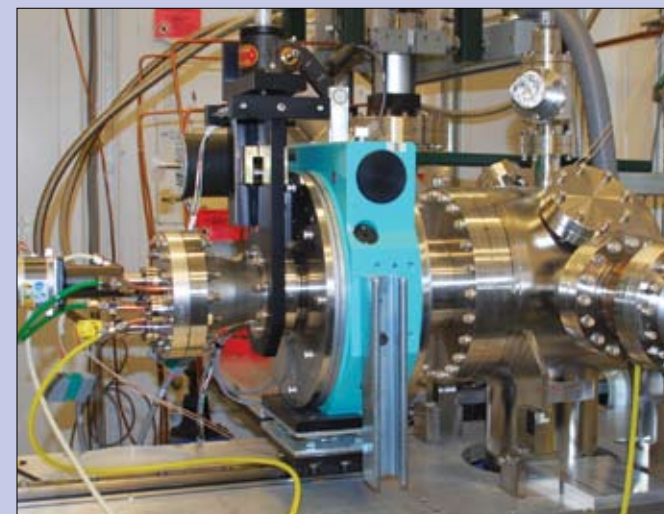


**20-BM Mirror System for Advanced Photon Source (USA)**



**High Flux X-ray Precision Mirror System for Brookhaven National Laboratory (USA)**

ADC delivers standard synchrotron equipment, including a double crystal monochromator (DCM) that is cryogenically or water-cooled. The DCM is suitable for use on bending magnet and insertion device beamlines at second and third generation sources and is capable of being used in fixed exit or pseudo channel-cut.



**Monochromator for Advanced Photon Source (APS) (USA)**



ADC produces **Beryllium Window Assemblies** that incorporate state-of-the-art bonding of beryllium to OFHC copper. These assemblies typically include TIG-welded lengths of stainless steel pipe and vacuum flanges. Better beryllium foil surface finish and/or customization is available upon request.

**Models Available:**  
102-0000-0, 102-0000-1, 102-0000-2, 102-0000-3

ADC delivers high quality **Beam Pipes**, used for front and back end synchrotron equipment. The pipes are manufactured to exact customer specifications and requirements, and come with or without lead shielding. Lead shielded transport pipes are used for locations such as hard X-ray insertion device beamlines at synchrotron facilities to transport white beam from one experimental hutch to another. These pipes are UHV-clean stainless steel pipes with conflat flanges on either end to complete the vacuum seal, but have a certain thickness of lead around the outside. Each assembly undergoes complete leak testing. In addition, a lead clam shell-type transition piece is installed over the conflat connections to prevent radiation from escaping in this location.



Beam pipes are available in various size pipe diameter and length.



ADC USA, Inc. is a hands-on engineering company with over 15 years of experience. We custom design devices, integrated systems and a broad array of high-precision components and instruments for commercial, academic and government agencies worldwide. Our work covers mechanical design, control instrumentation, control software, manufacturing and assembly, and installation and training.

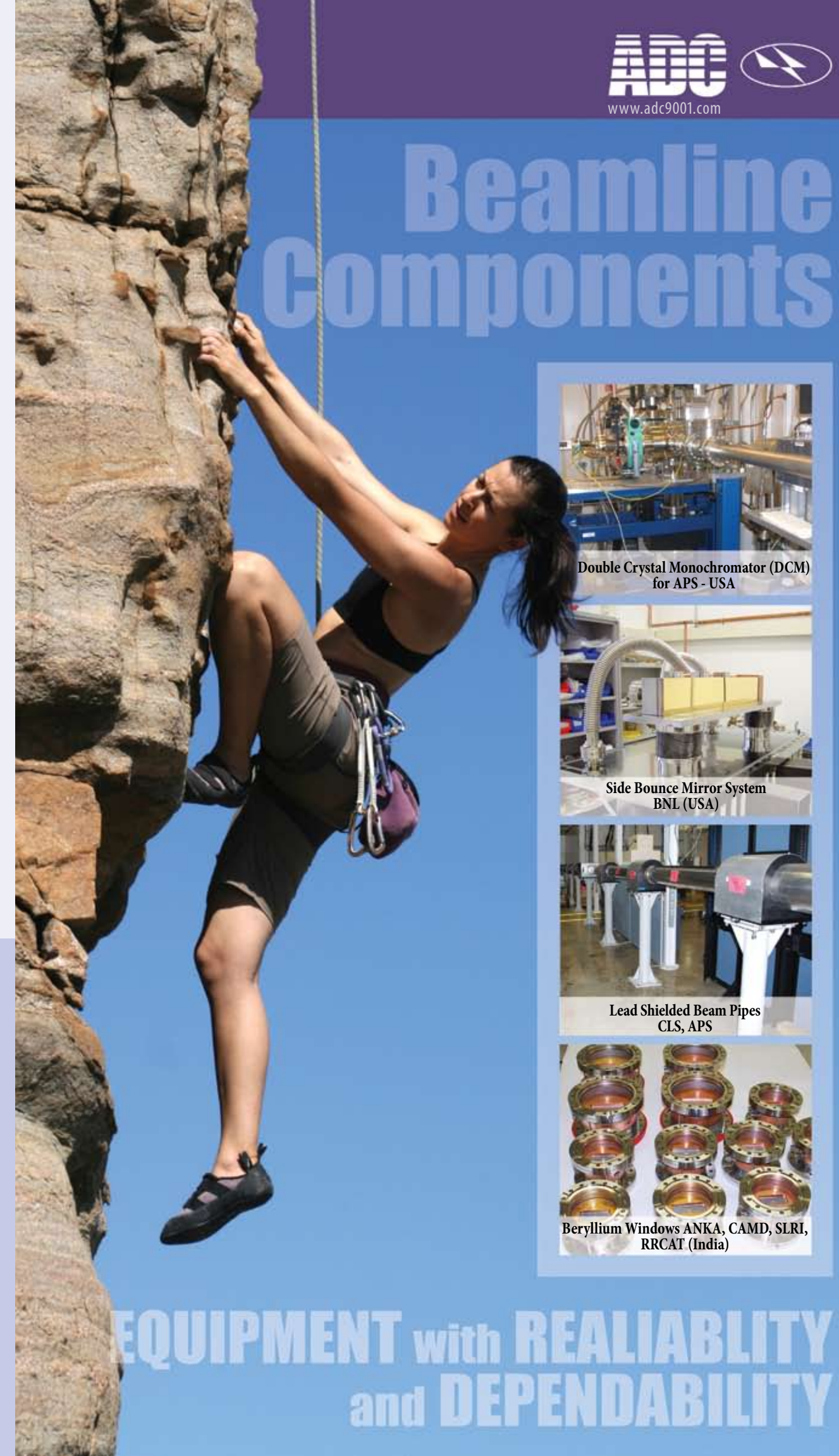
For more information on the above systems or any of our products contact us at:

**607-533-3531 email: [adc@adc9001.com](mailto:adc@adc9001.com)**

126 Ridge Rd. P.O. Box 187 Lansing, NY 14882 607-533-3531 email: [adc@adc9001.com](mailto:adc@adc9001.com) [www.adc9001.com](http://www.adc9001.com)



# Beamline Components



**Double Crystal Monochromator (DCM) for APS - USA**



**Side Bounce Mirror System BNL (USA)**



**Lead Shielded Beam Pipes CLS, APS**



**Beryllium Windows ANKA, CAMD, SLRI, RRCAT (India)**

**EQUIPMENT with RELIABILITY and DEPENDABILITY**

**DELIVERING THE FUTURE OF ENGINEERING TODAY**

[www.adc9001.com](http://www.adc9001.com)

126 Ridge Rd. P.O. Box 187 Lansing, NY 14882 607-533-3531 email: [adc@adc9001.com](mailto:adc@adc9001.com) [www.adc9001.com](http://www.adc9001.com)

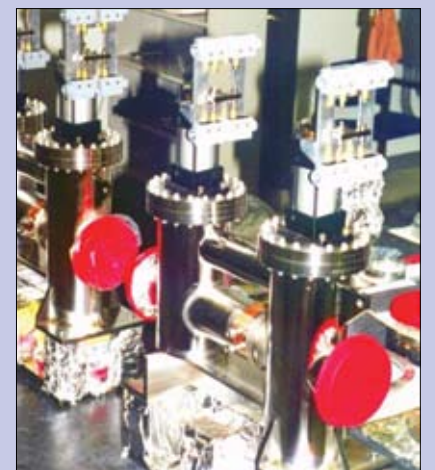
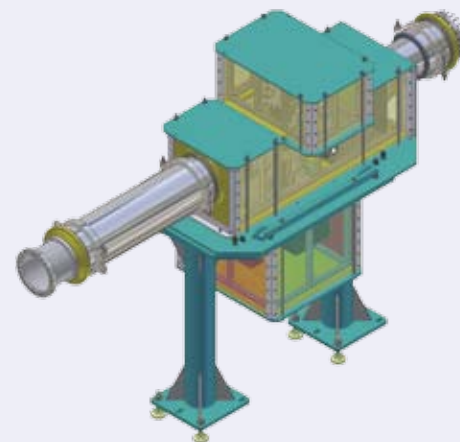
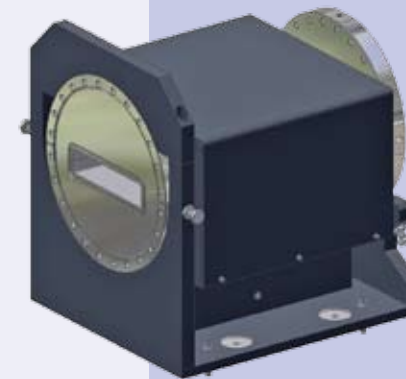
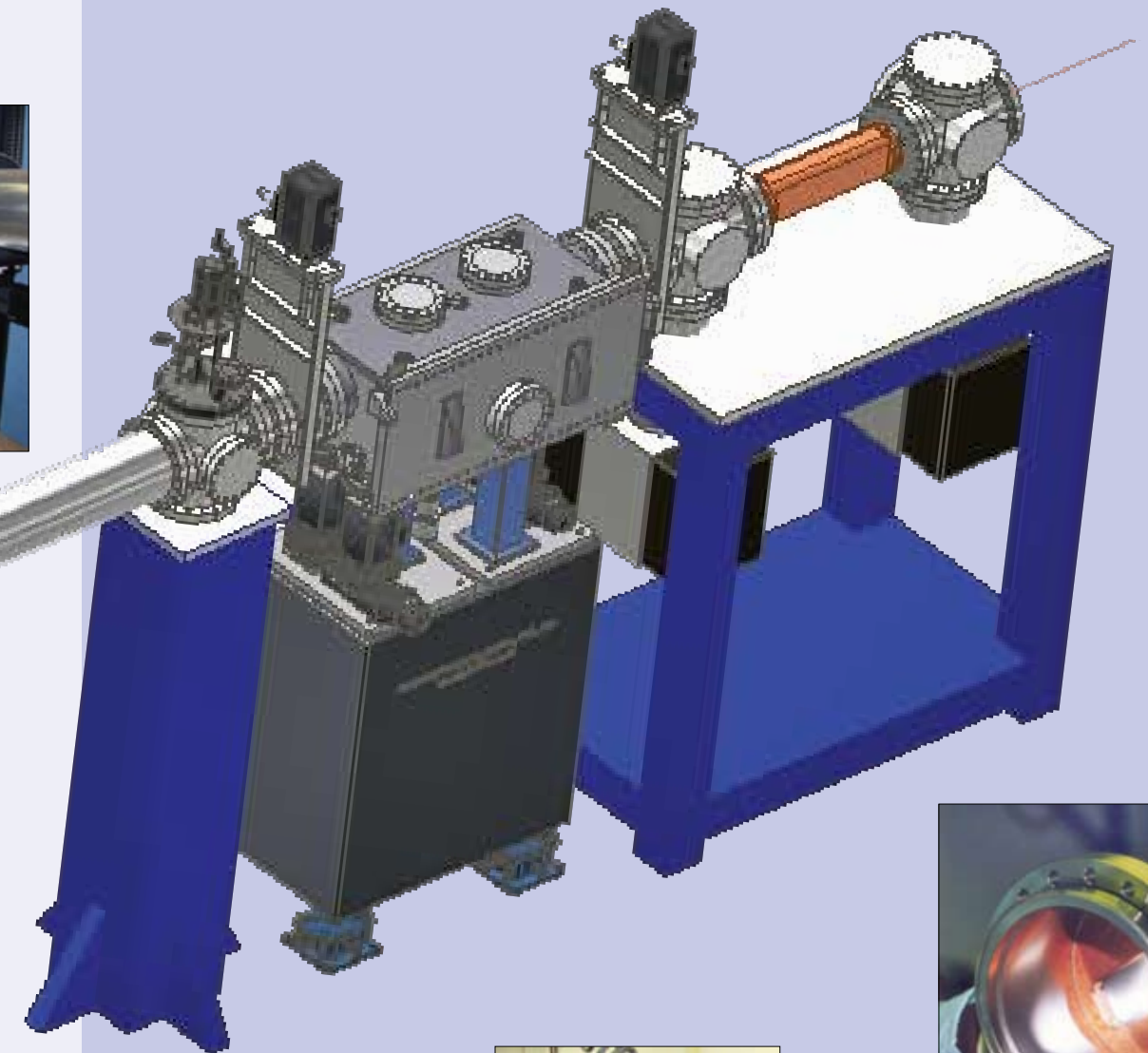
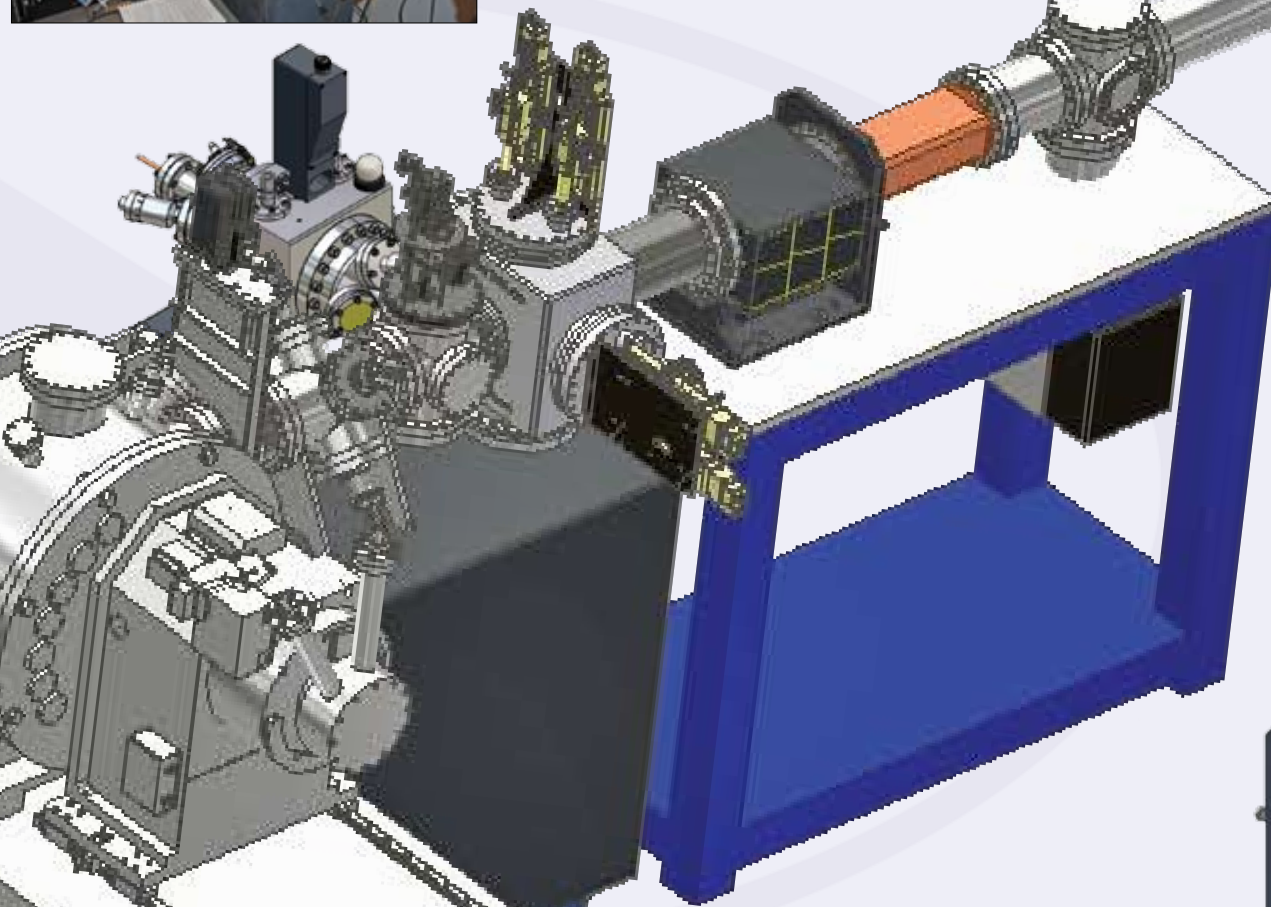
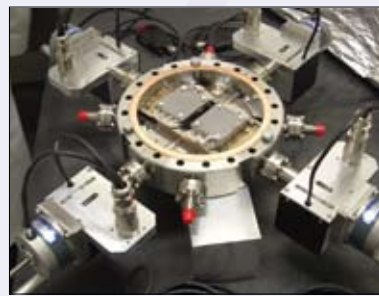
# Beamline Components

## Turn-Key

ADC manages, designs and manufactures complete front ends and beamlines. Our assistance includes overall project management, mechanical and instrumentation design, manufacturing, assembly and testing, commissioning and training, including:

- Ray-tracing, including measured optical elements profile.
- Thermal and stress analysis, using ANSYS FEA calculations, to validate high heat load components design.
- Cryo-cooling design optimization.
- Selection of cooling scheme for mirrors and crystals.
- Heat load calculations for filters, masks and mirrors.
- Mirrors substrate selections.
- Design of complex brazing and special welding.
- Mirror coating selection.
- Equipment protection system.
- Beamline control system.
- Beamline operation training.

For more information on ADC's Beamline Components visit our web site at [http://www.adc9001.com/products/show\\_list/id/114](http://www.adc9001.com/products/show_list/id/114)



DELIVERING THE FUTURE OF ENGINEERING TODAY  
[www.adc9001.com](http://www.adc9001.com)

DELIVERING THE FUTURE OF ENGINEERING TODAY  
[www.adc9001.com](http://www.adc9001.com)

DELIVERING THE FUTURE OF ENGINEERING TODAY  
[www.adc9001.com](http://www.adc9001.com)