



**attocube**

WITTENSTEIN group

The ultimate  
compact cryostat



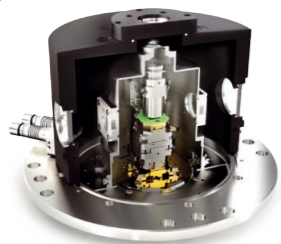
**attoDRY800xs**  
the first standalone optical cryostat

CRYOGENIC INSTRUMENTS

cool tools for cold science

# Features

attoDRY800xs



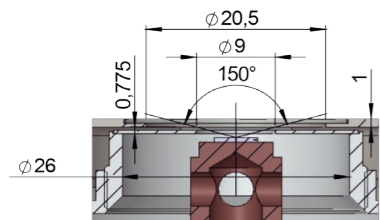
## Standard and Customizable Configurations

Anticipating typical configurations, we have designed several standard vacuum shrouds and cold shields, that are optimized in terms of positioners, sample holders, working distances and objectives. Should this still be insufficient, anything above the table surface can be customized according to the technical requirements and preferences of the user.



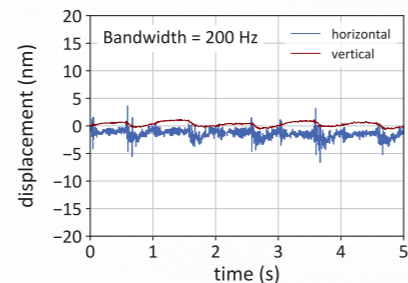
## Cryogenic Apochromatic Objectives

attocube offers two versions of apochromatic objectives for low temperature operation. Whereas one version features high numerical apertures (NAs) of 0.81-0.82 within six color bands ranging from the UV to the IR, the other line of apochromatic objectives boosts the working distance to 5.0 mm while maintaining high NA of 0.63-0.65.



## Ultra-Short Working Distance

The ultra-short working distance option (RT-USWD) is compatible with xyz positioners and features a min. working distance of 2 mm (1 mm) with (without) cold window installed.



## Ultra-low Vibration

Despite the compact design, the attoDRY800xs offers excellent ultra-low vibration performance. The interferometric measurements measured directly on the cold plate show peak-to-peak vibrations in vertical direction are less than 2 nm (3 nm), while in lateral direction they are inferior to 10 nm (40 nm) in a bandwidth of 200 Hz (1500 Hz).



## Electrical and Optical Feedthrough Options

The attoDRY800xs comes equipped with 36 DC user lines by default. Additional DC and HF wiring as well as optical fibers can be provided upon request.



## Touchscreen and Remote Control

The touchscreen provides a convenient and intuitive interface for a state-of-the-art user experience. The desired sample temperature can be set easily by virtually pressing a button directly at the cryostat, enabling a true set-and-forget type of operation. Remote control and elaborate measurement schemes are also possible via software interface.

# Compact standalone optical cryostat

for low temperatures & cryogenic apochromatic high NA objectives

Our most compact optical cryostat attoDRY800xs offers all key advantages of the original attoDRY800, such as low vibration performance, versatility through customizable vacuum shrouds adopted to the needs of your experiment, and automated temperature control, gas handling and remote control. The attoDRY800xs can be used to set up a self-contained

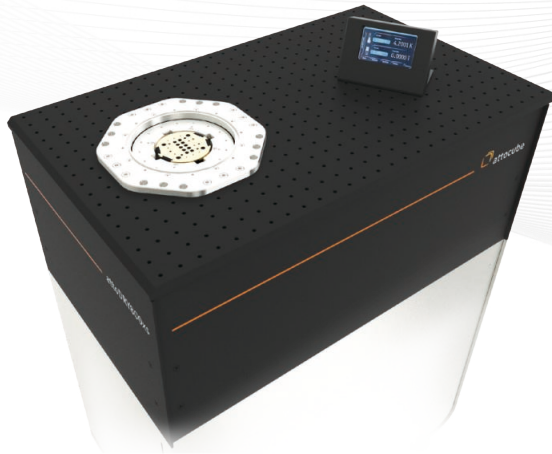
experiment directly on its optical breadboard, or it can be placed adjacent to existing larger optical tables with fiber coupling between the optical elements. In a nutshell, we offer you what you love about the original attoDRY800 in a much smaller package – which fits into every lab!

- most compact standalone optical cryostat  
→ fits in every laboratory
- cold plate integrated into optical breadboard  
→ obstruction-free workspace & optical access
- fully customizable vacuum shrouds  
→ suited for wide variety of applications



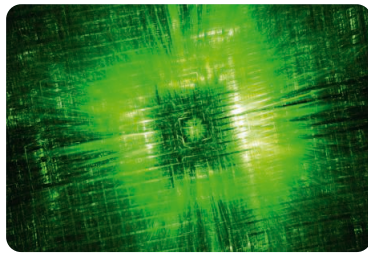
# attoDRY800xs

the first standalone optical cryostat

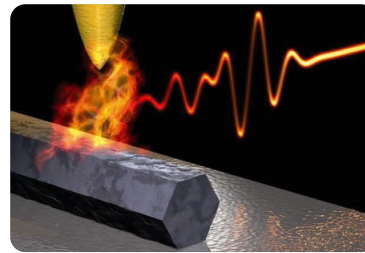


- all you need is 17" x 28" lab space
- optical breadboard and closed-cycle cryostat perfectly integrated together
- wide temperature range (3.8 K ... 300 K)
- user-friendly, versatile and modular
- compatible with cryogenic apochromatic objectives
- customizable vacuum shrouds
- same height as a typical optical table
- automated temperature control
- 36 DC customer wires included

## Fields of Applications



**Optics & Spectroscopy**  
quantum optics



**Materials Science**  
investigation of material properties

attocube systems AG Eglfinger Weg 2 | 85540 Haar  
Germany | [info@attocube.com](mailto:info@attocube.com) | [www.attocube.com](http://www.attocube.com)

© 2022-01, attocube systems AG



Keen to know more?

Scan the QR code and  
discover on our webpage  
what attoDRY800xs can  
enable you to do!



SCAN ME