# ULTRA STABLE MOTORIZED MANIPULATOR FOR UHV



# **FEATURES**

# **BENEFITS**

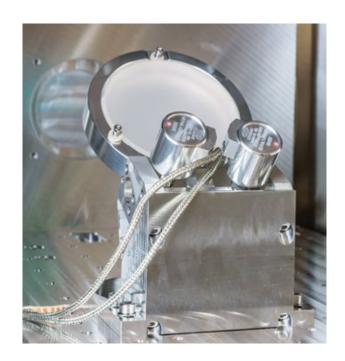
| High resolution and stability                   | System offers ultra precise manipulation with      |
|---|--|
|   | < 0.1 microradian stepsize                         |
| Rotation axis in the middle of the optics       | Easy alignment of the optical setups               |
| Motors, cabling and moving parts are below the  | Possibility to easily separate the beam transport  |
| optics  | from mechanical and electrical parts. Easy cable   |
|   | management with no obstruction to laser beam path. |
| Optical mounts are on top of the manipulator    | Almost any shape of optics can be accommodated     |
|   | offering and unified solution for larger systems.  |
|   | Standard mirror mounts with coarse manual          |
|   | adjustment can be mounted on top to extend range.  |
| Minimal "cross-talk"                            | Independent movement in both axes                  |
| Very compact size                               | Allows building compact optical setups             |
| Position is maintained even when the motors are | Microsteping function of motors is not used and    |
| powered down                                    | therefore alignment is always maintained           |
| Compactible with ultrahigh vacuum level         | Can be used in demanding UHV ultraclean setups     |
| (dependent on motor used)                       |  |

#### HOW DOES IT WORK?

This is a fully UHV compatible flexure joint-based optical manipulator. It allows precision, two-axis manipulation of optics in vacuum.

### **SPECIFICATION**

| x-axis resolution | 0.1 microradians                |
|-------------------|---------------------------------|
| y-axis resolution | 0.084 microradians              |
| Range             | 90,000 steps<br>(9 miliradians) |
| Optics size       | up to 4"                        |



## **ABOUT US**

ELI Beamlines is an international user facility that is involved in the development and operation of state-of-the-art laser systems, including some of the most powerful lasers in the world.

Our in-house development of high power lasers has led to many new and unique engineering solutions for highly demanding applications where commercial solutions satisfying our stringent requirements did not exist.



Mrs. Miroslava Príbišová miroslava.pribisova@eli-beams.eu

Mr. Oskar Lažanský oskar.lazansky@eli-beams.eu

www.eli-beams.eu ELI BEAMLINES, Za Radnicí 835, Dolní Břežany 252 41, Czech Rupublic

