

# MICOS

MOTION CONTROL & OPTICS **USA**

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Page

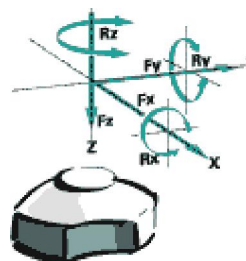
◀◀ 1.online ▶▶ **SpaceFAB SF-3000 BS vacuum**

Systems



## Key features

- ▣ Six axes micro robot system
- ▣ Compact, low profile system
- ▣ Travel ranges linear 50x12.7x100 mm
- ▣ Travel ranges rotary Rx, Ry, Rz 10°
- ▣ Load capacity 2 kg center mounted
- ▣ Automatic alignment
- ▣ Alignment routines for arrayed fibers & components
- ▣ High dynamic
- ▣ Pivot Point set by user anywhere in the space
- ▣ User friendly software
- ▣ Can be used by any modern programming language
- ▣ Including software, controller and amplifiers



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**INFN LABORATORI NAZIONALI DI FRASCATI**  
 PROJECT AND MANUFACTURING OF A HIGH-VACUUM,  
 SIX-AXES MICROMANIPULATOR FOR LOWTEMPERATURE  
 SPECTROSCOPY

## FACTS

Load Characteristics	Fx (N)	Fy (N)	Fz (N)	Rx (Nm)	Ry (Nm)	Rz (Nm)
	6	5	20	0.2	0.2	0.2

## DESCRIPTION

With one **SpaceFAB SF-3000 BS vacuum** all six degrees of freedom can be moved without additional positioning elements. The low weight of the moving platform allows high-dynamic positioning processes. The non pre-loaded design can easily carry up to 2 kg enter mounted. SpaceFAB SF-3000 BS vacuum is operating in closed loop mode.

## SOFTWARE

Calculation of motion path with collision dedection

Pivot point can be set by the customer

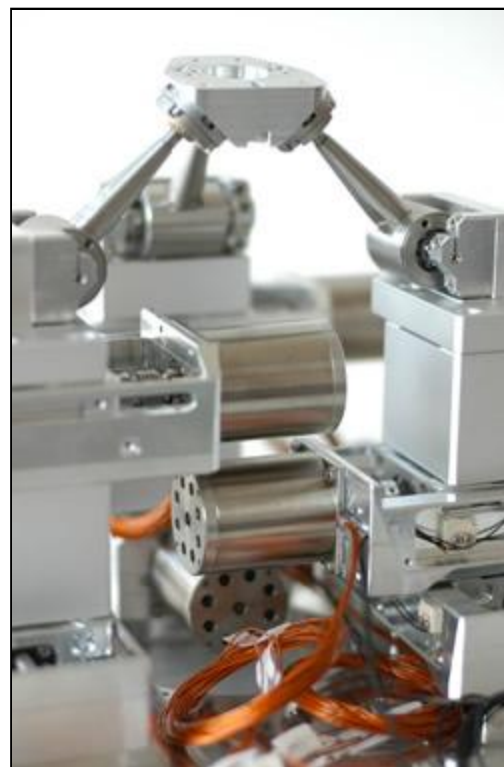
Graphic display of the robot from any view

Digital display of position and orientation

Control by Macro-language stored in own editor

Control by 3D-space-mouse possible

Jog mode



## Technical data

### Travel Range

X, Y (mm)	50 x 12.7
Z (mm)	100
Rx, Ry (°)	10
Rz (°)	10
Velocity Range (mm/sec)	0.01 ... 10
Velocity Range (°/sec)	0.01 ... 10

### Bi-directional Repeatability (µm)

X, Y	+/- 0.5
Z	+/- 0.5

### Bi-directional Repeatability (µrad)

Rx, Ry	+/- 20
Rz	+/- 20

### Speed max. (mm/ sec)

DC-B-031	
X, Y (mm/sec)	30
Z (mm/sec)	30

Rx, Ry (°/sec)	10
Rz (°/sec)	10

<b>Speed max. (mm/sec)</b>	
X, Y (mm/sec)	20
Z (mm/sec)	20
Rx, Ry (°/sec)	8
Rz (°/sec)	8

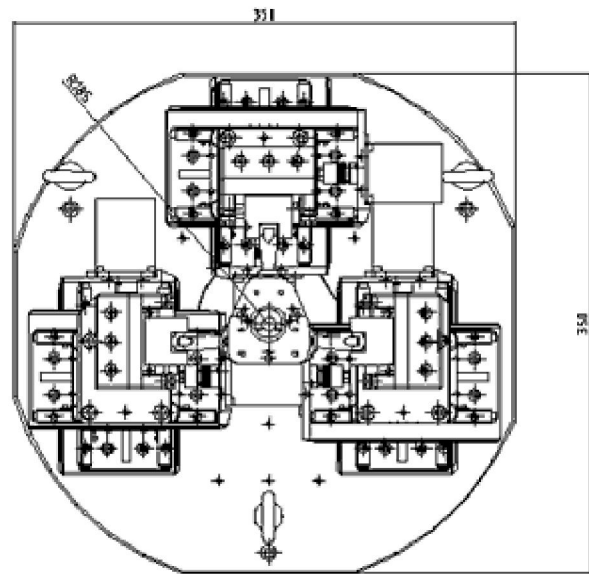
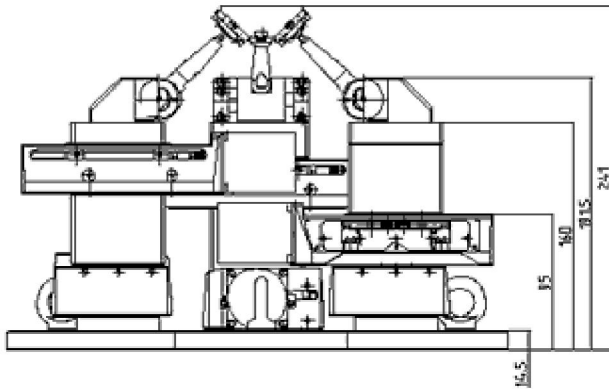
<b>Resolution (without load)</b>	
X, Y (µm)	0.25
Z (µm)	0.25
Rx, Ry (^°)	0.0005
Rz (°)	0.0005
<b>Material</b>	
<b>Weight (kg)</b>	24

**Note:** Fore more detailed informations, please contact us.  
 For turned key solutions, please contact us.  
 The travel range is depending on the position of the pivot point

## SF-3000 vacuum SpaceFAB {demo}



- Six axes micro robot system
- Low profile system
- Travel ranges linear 12.7x12.7x10 mm
- Travel ranges rotation Rx, Ry, Rz 10 °
- Load capacity 1 kg center mounted
- Automatic alignment
- Pivot point can be set by the customer
- Can be used by any modern programming software
- Including software, controller and amplifiers
- Cross roller bearings
- Special, tempered Aluminum
- Clean room and vacuum chamber capable
- **more detail ...**



Founded in 1990, MICOS specializes in the development, manufacturing and marketing of ultra-high precision positioning components and systems for research and industry. We are experts in vacuum, ultra-high vacuum, clean room, and extreme climate environments down to 77 Kelvin. ▶▶

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