

## SpaceFAB

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### SF-3000 BS

- + Six axes micro positioning system
- + Compact, low profile system
- + Travel ranges linear 50 mm x 100 mm x 12.7 mm
- + Travel ranges rotation Rx, Ry, Rz 10°
- + Load capacity 3 kg center mounted
- + Automatic alignment
- + Pivot point can be set by the customer
- + User friendly software
- + Can be used by any modern programming language
- + Including software, controller and amplifiers

### Software

- Pivot point can be set by the customer
- Digital display of position and orientation
- Control by Macro- language stored in own editor
- Jog mode

With one SpaceFAB SF-3000 BS 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 center mounted. SpaceFAB SF-3000 BS is operating in closed loop mode. SpaceFAB SF-3000 BS was especially developed for applications in fiber- optic alignment. Furthermore SpaceFAB SF-3000 BS is perfectly designed for auto alignment of optical components, micro-fabrication and bio- genetic. The core software used for the SpaceFAB. SF-3000 BS is the Motion Server. The Motion Server includes all the mathematical transformations so that the user can start movements directly by specifying the six coordinates x, y, z, Rx, Ry and Rz. It is also possible to move arbitrary trajectories in a contouring mode. The Motion Server can be used as a stand alone software or in combination with or selfmade applications. These applications can be written in any modern programming language, the communication is done with TCP/ IP. On request: A vacuum- version of the SpaceFAB SF-3000 BS is available in HV and UHV type Ask for: SpaceFAB SF-3000 BS Simulator. A program especially developed for simulation of travel range.

## Specifications

SF-3000 BS						
Load Characteristics	F <sub>x</sub> (N)	F <sub>y</sub> (N)	F <sub>z</sub> (N)	M <sub>x</sub> (Nm)	M <sub>y</sub> (Nm)	M <sub>z</sub> (Nm)
DC- B-034	5	30	5	0.2	0.2	0.2

## Specifications

Travel Range	Linear X, Y, Z (mm)	50 x 100 x 12.7 *
	Rotation Rx, Ry, Rz (°)	10, 10, 10 *
<b>Motor (Pitch 1 mm)</b>		<b>DC- B-034</b>
Speed max. X,Y, Z (mm/ sec)		30
Speed max. Rx, Ry, Rz (°/ sec)		10
Velocity Range (mm/ sec)		0.01 .. 30 **
Velocity Range (°/ sec)		0.001 .. 10 **
Weight (kg)		24
Bi- directional Repeatability	LinearX, Y, Z (µm)	± 0.5, ± 0.5, ± 0.5
	RotationRx, Ry, Rz (°)	± 0.0011
Resolution calc. without load	LinearX, Y, Z (µm)	0.2
	RotationRx, Ry, Rz (°)	depending on the position of the pivot point
Resolution typical without load	LinearX, Y, Z (µm)	0.2
	RotationRx, Ry, Rz (°)	0.0005
Current (A)		2.3
Voltage Range (V)		24
Stiffness, theoretical K <sub>x</sub> , K <sub>y</sub> , K <sub>z</sub> (N/ µm)		on request
Material		Stainless steel, Aluminum black anodized

## Order Information

**690191201**

SF-3000 BS SpaceFAB, DC Motor, Rotary Encoder Platform Standard

**690191210**

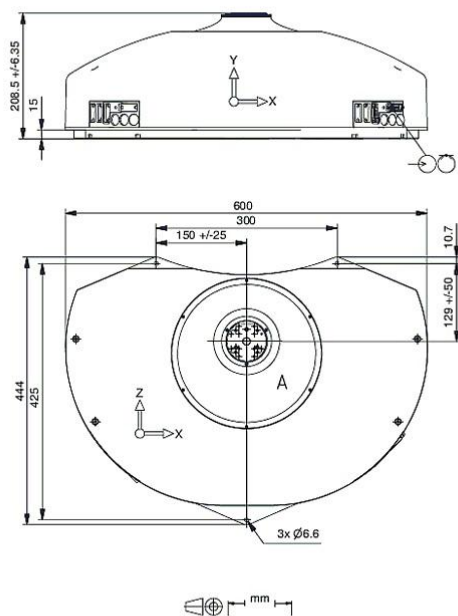
SF-3000 BS SpaceFAB, DC Motor, Linear Steel Scale-012 Platform Standard

**690192201**

SF-3000 BS SpaceFAB, Stepper Motor, Rotary Encoder Platform Standard

## Drawings / Images

DC-  
B-034



Plateau

