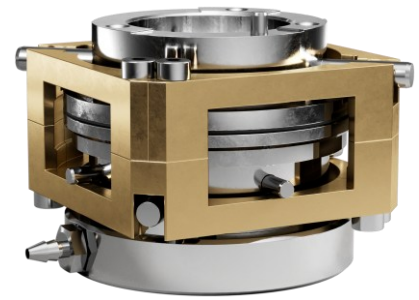


Key Features

- Self-Alignment in the Joining Plane
- Lockable at Any Angular Position
- Allowable Load, Air On/Off 60/200 N
- Parallelism < 2 μm



Self-Aligning Unit EZ-8046

Concept and Design

The Self-Aligning Unit (SAU) EZ-8046 is a spherical air bearing designed to provide friction-free alignment for mounting, joining, or pressing operations.

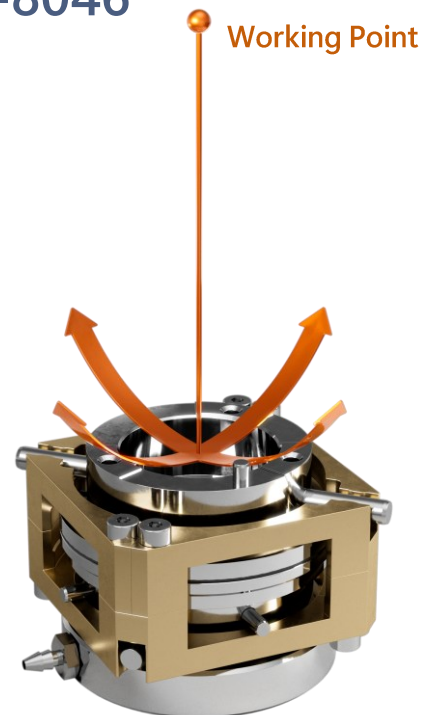
It allows self-alignment in the joining plane ($\pm 1^\circ$ tilt) and provides precise and repeatable alignment in any angular position.

The pressing operation must be performed at the working point to ensure parallelism better than 2 μm .

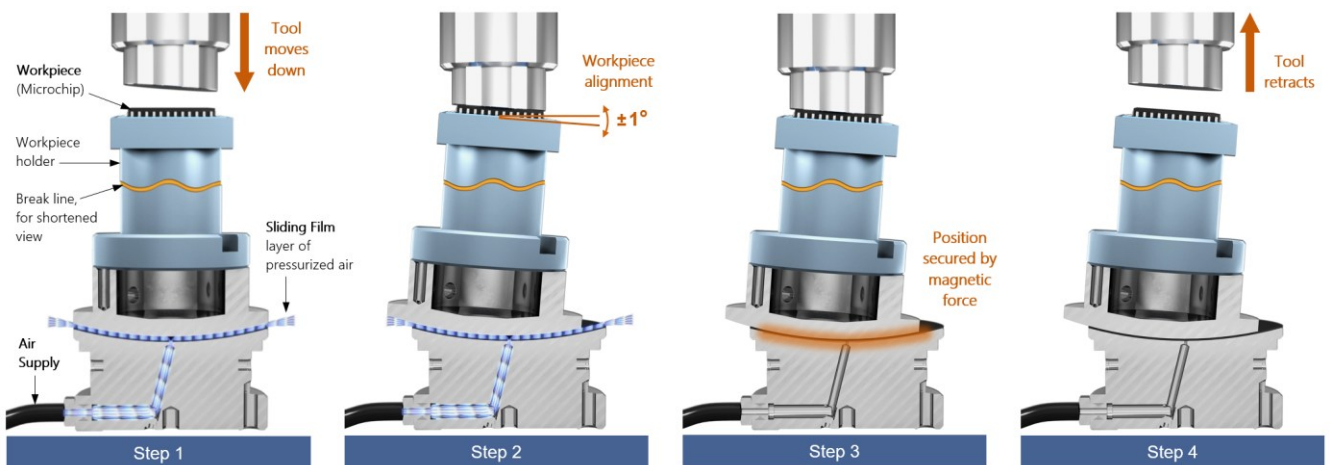
To lock the set position, simply switch off the air supply. The mover (upper part of the bearing) remains magnetically fixed until the SAU is reactivated with air.

Installation is possible in both upright and suspended orientations.

For further information and process-specific solutions, please contact us.



Alignment Process



The tool moves downward. Pressure is transmitted via the workpiece holder to the mover (the upper part of the SAU).

The alignment process is performed as the mover aligns to the target position, achieving parallelism better than 2 μm .

Once alignment is complete, the air supply is switched off. The mover is clamped to the base by magnetic preload forces, securing it in the aligned position.

The tool retracts. The workpiece holder is securely fixed for further processing until the air supply is reactivated.

Type	Unit	Value
Mounting Position		vertical - upright or suspended
Dimensions (LxWxH)	mm	35 x 35 x 29
Tilting Range	°	≥ ± 1
Alignment Parallelism	µm	< 2
Mechanical Data		
Weight	g	185
Allowable Load when Air On push / pull	N	60 / 50
Allowable Load when Air Off push / pull	N	200 / 80
Distance to Operating Point	mm	52.5
Material Rotor		1.4104 steel
Material Housing		brass
Interfaces and Environment		
Supply Pressure	Mpa	0.5
Air Consumption	Sl/min	0.5
Clean Room Suitability		applicable

Subject to technical modifications and typographical errors.

Datasheet version 2.1

