



Integrated systems for production



ADJUSTABLE CLAMPING

To take up any movement in the workpiece after any deformation



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VERSION: 01.01

INTRODUCTION & KEY FEATURES

BODIES ADJUSTABLE

Bodies that allow a variable displacement of the clamping seats.

Due to thermal distortion or a high percentage of extra stock removal, the part may change its geometry.

The adjustable bodies follow the new geometric configuration, allowing the workpiece to remain in a free state and to target the strict tolerance requested.

TYPES OF DISPLACEMENT

Translation:

- On the horizontal plane (along x or y only or along any axis)
- Along the vertical axis (z axis)

Rotation:

- Rotation around any horizontal axis



TYPES OF ADJUSTMENT

Forced-adjustment:

The operator can adjust the Body by means of adjustment mechanisms (screws, ring nuts).

Self-adjustment:

The Body self-adapts to the required configuration.

LOCKING/UNLOCKING SYSTEM

The position reached by the displacement can be locked (and unlocked) by screws; these screws can be specific screws (to be used for this purpose only) or they can be the same screws of the internal jaw of the Bodies.

FCS MANUFACTURING PROCESS

① PHASE



SET UP

Workpiece clamped on FCS Grip Vises

MACHINING

- Rough machining to the desired extra stock
- Create the FCS clamping seats
- Remove the workpiece and turn it upside down for the next phase

② PHASE



SET UP

Workpiece clamped on FCS Adjustable components

MACHINING

- Rough machining to remove the extra stock as required
- Create the FCS clamping seats
- Unlock the workpiece from the FCS adjustable bodies for stress relieving
- Lock the workpiece to FCS Adjustable
- Repeat the process as needed to allow all the stress to be removed from the workpiece
- Remove the workpiece and turn upside down for the final phase

③ PHASE



SET UP

Workpiece clamped on FCS Fixed components

MACHINING

- Final finishing and removal of the workpiece from the clamping tabs, No stress relieving is required at this stage.

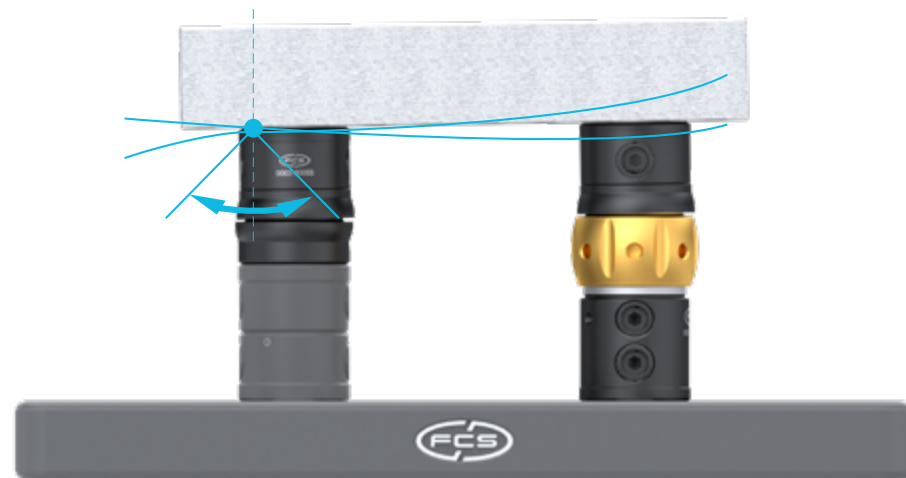
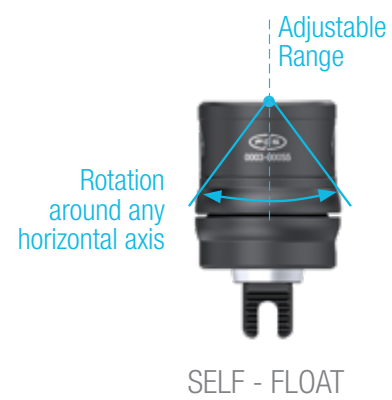
BODIES H-FLOAT - PRODUCTS RANGE AND APPLICATION EXAMPLES

BODIES H-FLOAT - APPLICATION EXAMPLES

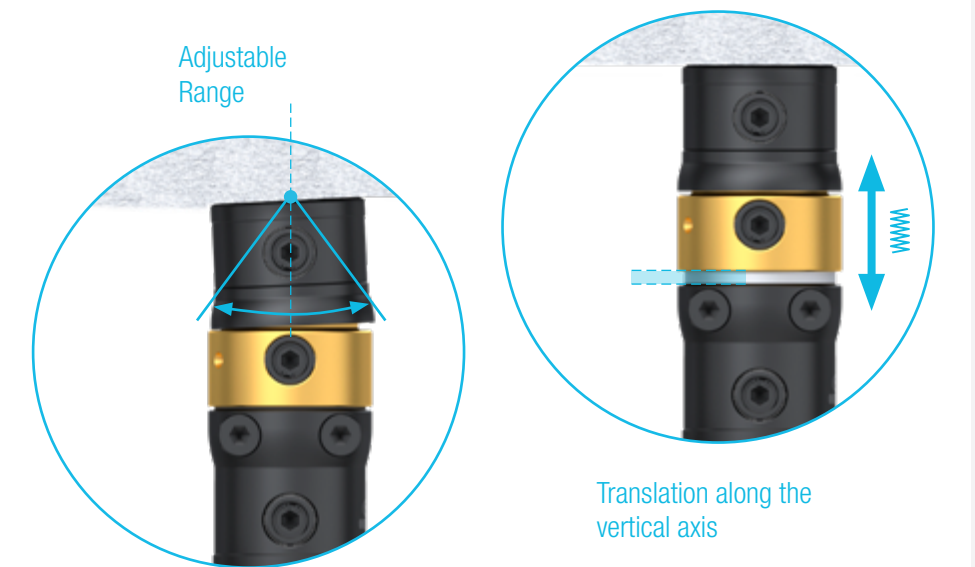
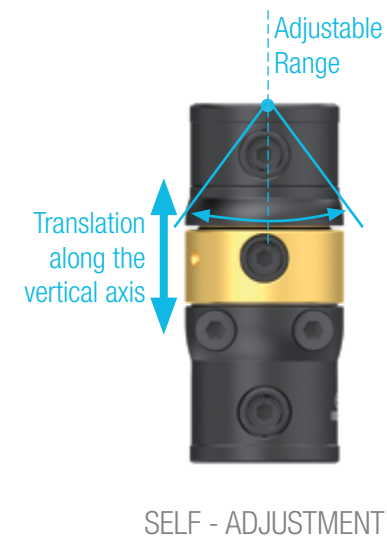
BODIES H-FLOAT

ITEMS	DESCRIPTION	ADJUST.	DISPLACEMENT	ADJUST. RANGE	CODE - SET CODE
	BODY SELF-FLOAT M12 H60 ±2.5°	Self	Rotation around any horizontal axis	From -2.5° to +2.5°	CODE: 0003-00055 SET CODE: 0004-00055
	BODY SELF-H M12 H120 ±2.5	Self	Rotation around any horizontal axis	From -2.5° to +2.5°	CODE: 0003-00058 SET CODE: 0004-00058
		Self	Translation along z (vertical axis)	From -2.5 to +2.5	
	BODY FORCED-H M12 H120 ±2.5	Self	Rotation around any horizontal axis	From -2.5° to +2.5°	CODE: 0003-00056 SET CODE: 0004-00056
		Forced	Translation along z (vertical axis)	From -2.5 to +2.5	
	BODY SELF-FLOAT M16 H80 ±2.5°	Self	Rotation around any horizontal axis	From -2.5° to +2.5°	CODE: 0003-00060 SET CODE: 0004-00060
	BODY SELF-H M16 H160 ±5	Self	Rotation around any horizontal axis	From -2.5° to +2.5°	CODE: 0003-00062 SET CODE: 0004-00062
		Self	Translation along z (vertical axis)	From -5 to +5	
	BODY FORCED-H M16 H160 ±5	Self	Rotation around any horizontal axis	From -2.5° to +2.5°	CODE: 0003-00061 SET CODE: 0004-00061
		Forced	Translation along z (vertical axis)	From -5 to +5	

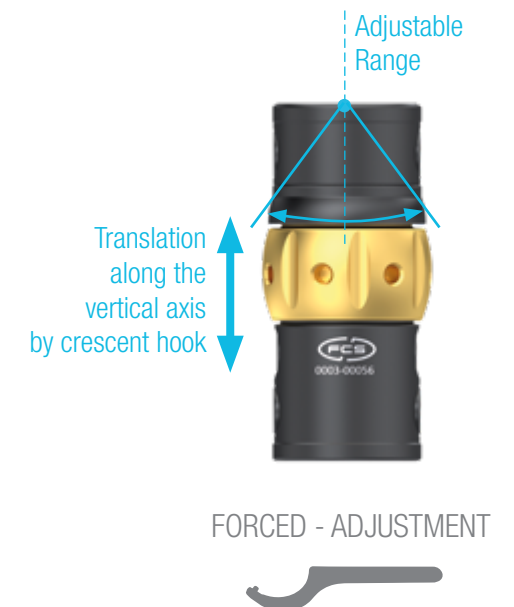
BODY SELF-FLOAT M12 H60 ±2.5° BODY SELF-FLOAT M16 H80 ±2.5°



BODY SELF-H M12 H120 ±2.5 BODY SELF-H M16 H160 ±5





BODY FORCED-H M12 H120 ±2.5 BODY FORCED-H M16 H160 ±5



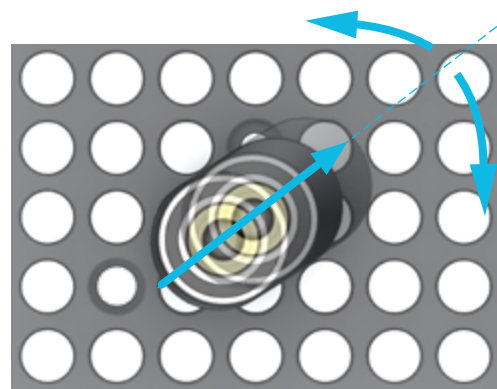
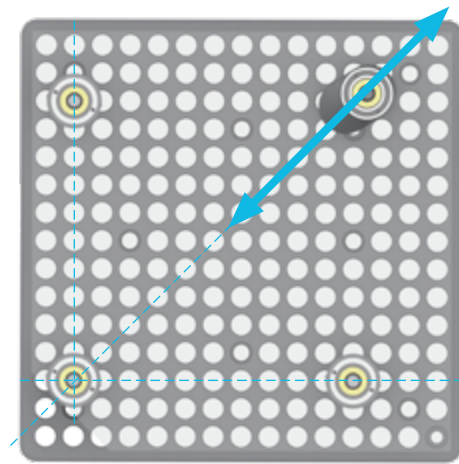
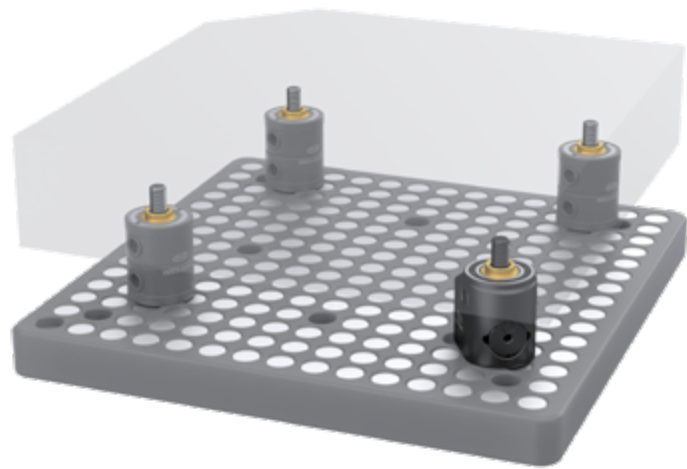
BODIES SLIDE - PRODUCTS RANGE AND APPLICATION EXAMPLES

BODIES SLIDE - APPLICATION EXAMPLES

BODIES SLIDE

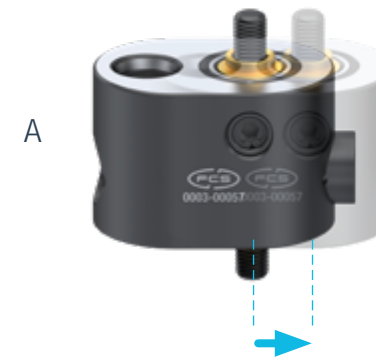
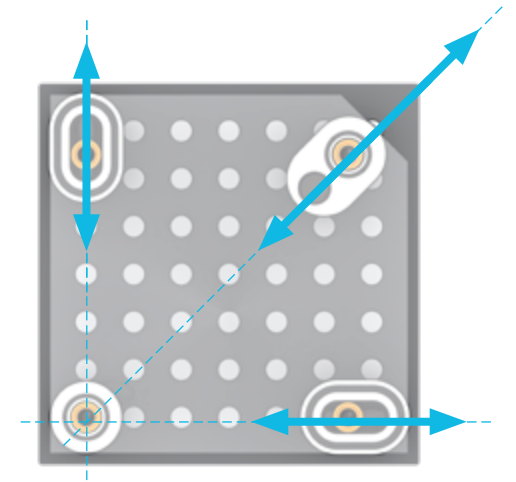
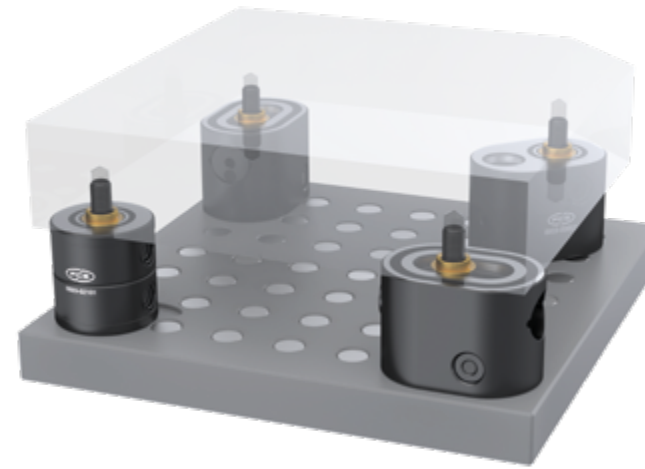
ITEMS	DESCRIPTION	SLIDE	ADJUST.	DISPLACEMENT	ADJUST. RANGE	CODE - SET CODE
	BODY SLIDE M12 H60	A	Self	Translation along any axis on the horizontal plane	From 0 to 21	CODE: 0003-00013 SET CODE: 0004-00005
	BODY SLIDE M16 H80 MOD.02	A	Self	Translation along any axis on the horizontal plane	From 0 to 37	CODE: 0003-00057 SET CODE: 0004-00057
		B	Self	Translation along x or y only on the horizontal plane	From 0 to 37	

BODY SLIDE M12 H60

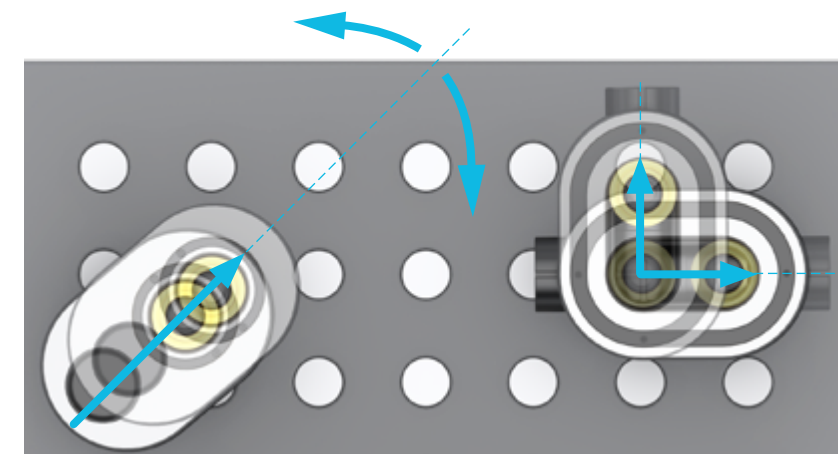
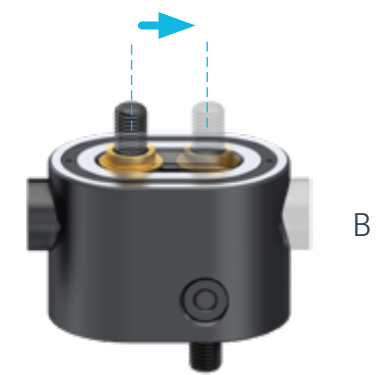


Slide A

BODY SLIDE M16 H80 MOD.02



Turn upside down when needed



Slide A

Slide B



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FCS SYSTEM SRL
Via Belvedere,48
31032 Casale sul Sile (TV) - Italy
Phone +39 0422.785518
Fax +39 0422.786069

info@fcssystem.com
www.fcssystem.com

