



FLIP-POD™ Vacuum-System

ALU FLIP-POD FLIP-POD

This technology is ideal for

- Mechanical milling or grinding
- Drilling
- Making threaded bores
- Mainly for large workpieces made out of wood
- Plastic, glass or cast metals.
- Suitable for sawn or raw surfaces.

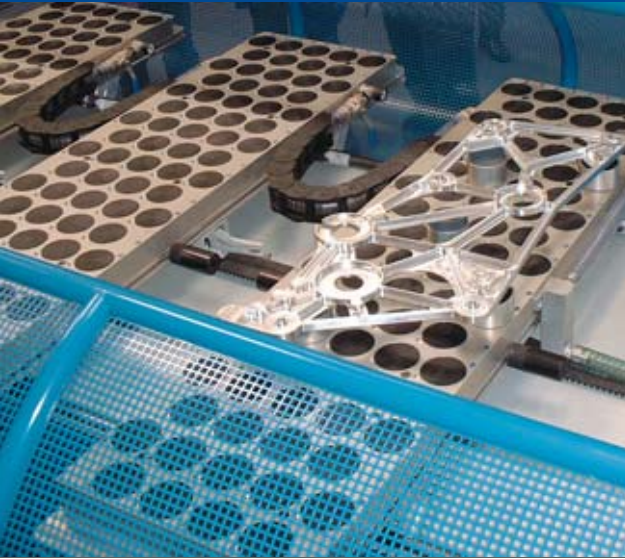
Advantages

- Strong hold down forces enable the use of large machines.
- Bevels, contours and radii can be performed on the upper and lower Workpiece surfaces.

- Clamping dimensions can be changed within seconds to conform to new workpiece Sizes
- Can be used on most machinables.

Handling

- Pods are the contact surfaces for the workpiece
- Simply activate or deactivate the pods by turning them around.
- To clamp a workpiece effectively 6-8 pods are advised.
- This modular system can be extended for larger clamping surfaces.



◀ Modular FLIP-POD clamping system mounted on guide rails for a CNC deburring machine, used on aeroplane parts



▶ Flip-Pod vacuum chuck with two different grid patterns. All pods not in use lie flat in the chuck



◀ FLIP-POD™ clamping system in working position prepared for a large aluminium workpiece with cutouts



FLIP-POD™ Vacuum-System



Function

The round polymer pods (1) protrude out of the pod plate when in use. The pods not required lie in a recess cavity (2) of the pod plate. Simply flipping them over activates or deactivates the pods. The valve ball which stops the vacuum supply when the pod is resting, opens the valve and the vacuum system is activated. All active pods stand 27mm

above the pod plate surface, allowing contour milling and recess cutting on the outer contours.



The crosssection shows

- FP Sucker
- FP Unit
- FP Polymer ball
- and
- FP Filter

In the pod plate you will find

- FP Large gasket
- FP Center hole gasket

FLIP-POD™ Vacuum-System



Application demonstrating active and inactive FLIP-POD™s



Retractable and fixed locator pods

Fixed and retractable locator pods

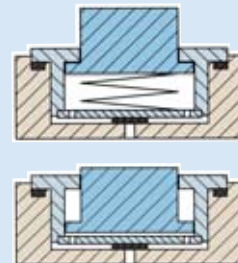
ensure high accuracy. Locator pods are available in both fixed and retractable versions, either of which fit in any pod cavity.

After positioning the workpiece the retractable pods are drawn back into the pod plate as soon as vacuum is switched on, allowing a free path for the cutting tool.

Alu FLIP-POD™

has an accurate, defined workpiece surface. Height tolerance is only 50µ. They are suitable for face machining on both surfaces, especially of metallic workpieces.

Cross section of retractable Pod

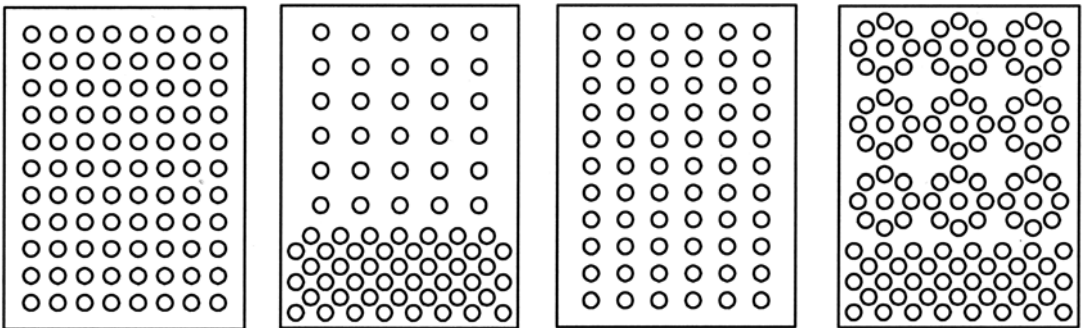


ALU FLIP-POD™ Vacuum system



Pod -Plate, ready for use, with ALU FLIP-POD™'s

The sketches show a range of possible pod panel designs.

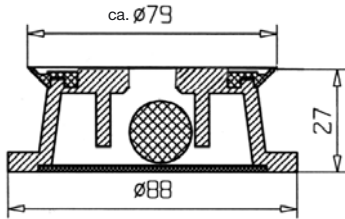


The user can choose a panel design that best suits the parts being machined. The pod panel can be laid out in almost any design and combination.

ALU FLIP-POD™ Accessories and spare parts

No.	Name
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84408 FP Complete with seal, filter element and ball (11394 and 11395 order separately)



No.	Name
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30584 FP Seal for Alu-Pod



No.	Name
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12124 FP Polymer Ball $\varnothing 15,8\text{mm}$



No.	Name
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12125 FP Filter $\varnothing 61 \times 3 \text{ mm}$



No.	Name
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11395 FP Large Seal for Pod Plate $\varnothing 88 \times 4,5\text{mm}$



No.	Name
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11394 FP Center hole gasket for pod cavity $\varnothing 38 \times 6\text{mm}$

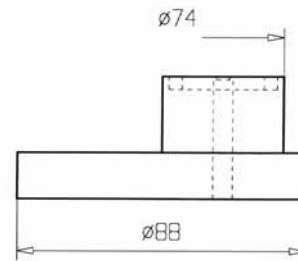


ALU FLIP-POD™ Vacuum system



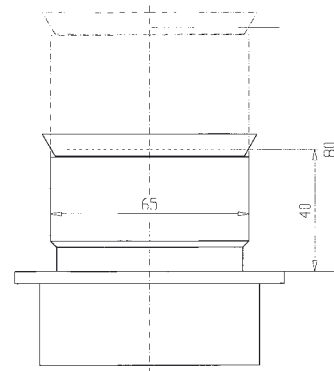
No.	Name
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85328 FP Alu Half-Pod
incl. 1m seal \varnothing 5 mm



No.	Name
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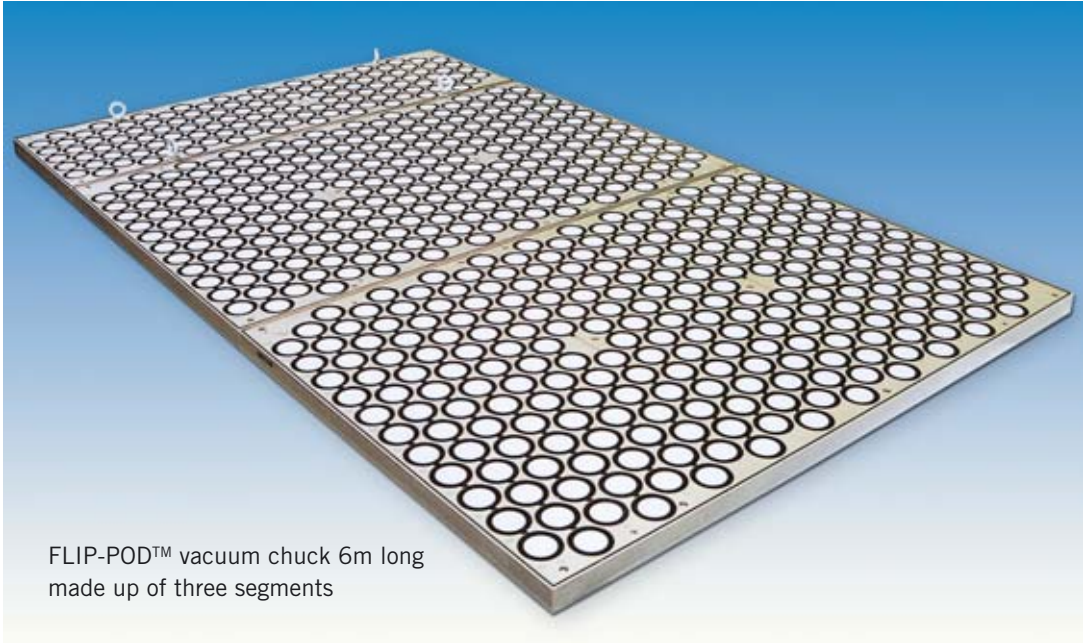
90860 Height adjustable ALU Flip-Pod



No.	Name
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90628 Height adjustable ALU Flip-Pod
(special shape)

FLIP-POD™ Vacuum system



FLIP-POD™ vacuum chuck 6m long
made up of three segments

FLIP-POD™ Sets, polymer version

No.	Description	Area/Grid	PODS
83100	FLIP-POD™ Set 100	1m ² /100mm	100
83200	FLIP-POD™ Set 200	2m ² /100mm	200
83300	FLIP-POD™ Set 300	3m ² /100mm	300
83400	FLIP-POD™ Set 400	4m ² /100mm	400

Supply FLIP-POD™ Set 100 includes

No.	Name	Pcs
11392	FP Unit	100
11393	FP Sucker	100
11394	FP Center gasket	100
11395	FP Large gasket	100
82136	Retract. loc. pods	3
82137	Fixed loc. pods	3



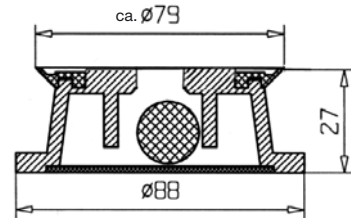
FLIP-POD™ with sucker

FLIP-POD™ Accessories and spare parts



No.	Name
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- 14384** FP Complete with seal, filter element and ball (11394 and 11395 order separately)



No.	Name
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- 30584** FP Seal for Flip-Pod



No.	Name
-----	------

- 12124** FP Polymer Ball ø15,8mm



No.	Name
-----	------

- 12125** FP Filter ø61 x 3 mm



No.	Name
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- 11395** FP Large Seal for Pod Plate ø88 x 4,5mm



No.	Name
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- 11394** FP Center hole gasket for pod cavity ø38 x 6mm



No.	Description
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- 11393** FP Sucker (old version), which is mounted onto the unit

- 11392** FP Unit (old version) complete with filter element and ball

FLIP-POD™ Accessories and spare parts

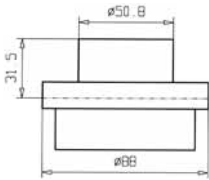
No.	Name
11396	FP Lift ring 1/2"



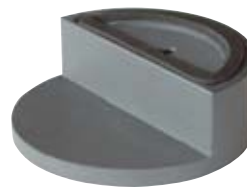
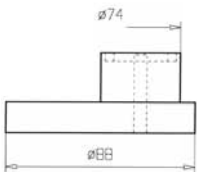
No.	Name
85662	FP Transfer Pod For easy positioning of large workpieces over the Flip-Pods



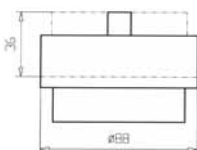
No.	Name
82136	FP Retractable locator pod, automatically retract when vacuum is applied



No.	Name
82138	FP Polymer-Half-Pod (1/2)



No.	Name
82137	FP Fixed locator pods incl. unit, pins and spacer disks



FLIP-POD™ Accessories and spare parts



No.	Name
13422	Center-Line-FLIP-POD™- short



No.	Name
13423	Center-Line-FLIP-POD™- long

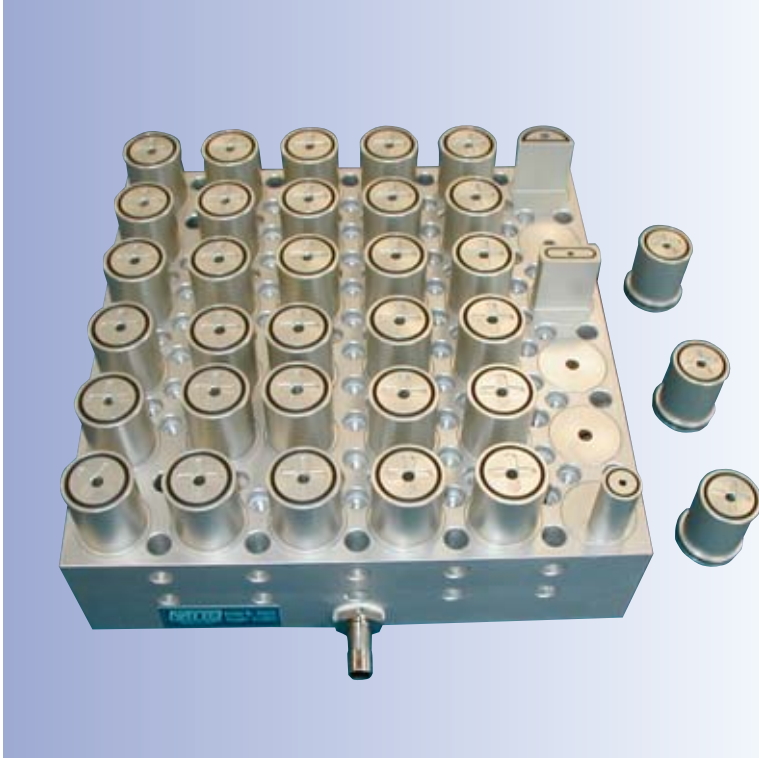


No.	Name
89093	FLIP-POD™-Video on CD-ROM





FLIP-POD™-clamping system for a CNC deburring machine, used on aeroplane parts



Custom built Flip Pod Chuck with alu base plate