



Flexmill Compliance Units

ECONOMICAL FORCE CONTROL

Compact and durable Flexmill tool compliance units are designed for the different needs of the force controlling. Integration of units is made easy. Suitable force control units for the different needs can be found from the extensive compliance product family.



Flexmill compliance unit FCU

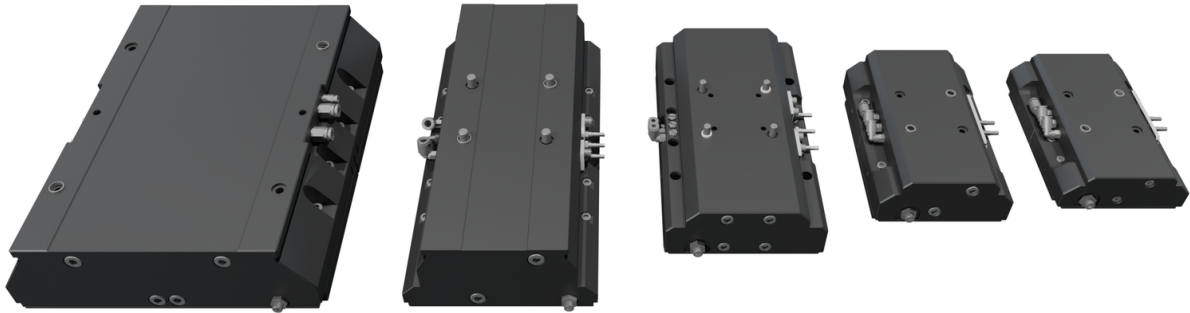
- Durable and compact structure
- Extensive family of the different models
- Two different working modes.
- A maintenance free, clean air supply to keep compliance unit body over pressurized
- Models can be equipped with sensors to detect end and/or middle position of slider of compliance unit
- Hose and cable packages available in a few standard lengths

Controlling of Flexmill compliance unit FCU

- A compliance control with one or two proportional valves available as separate control unit or as part of the Flexmill Tool Control Cabinet
- When tool is on fixed position then one directional force control can be made by using one proportional valve.
- If tool weight on the robot arm is wanted to compensate dynamically according position and orientation of the tool then second proportional valve is required. Alternative is to have a tool weight elimination with manual adjustment.



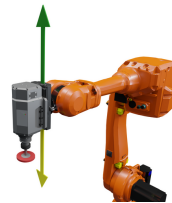
FLEXMILL COMPLIANCE UNIT FAMILY



Model	Force (N)	Weight (Kg)	Size (mm)	Working mode and stroke (mm)
FCU-40	40	1,3	159 x 104 x 44	Mode 1, stroke 10 mm
FCU-40C	40	1,25	159 x 104 x 44	Mode 2, stroke 10 mm
FCU-100	100	1,9	170 x 112 x 58	Mode 1, stroke 10 mm
FCU-100C	100	1,9	170 x 112 x 58	Mode 2, stroke 10 mm
FCU-240	240	3,4	235 x 132 x 61	Mode 1, stroke 20 mm
FCU-240C	240	3,4	235 x 132 x 61	Mode 2, stroke 20 mm
FCU-600	600	6,6	310 x 158 x 83	Selectable mode, stroke 30 mm
FCU-1240	1240	13,1	310 x 250 x 87	Selectable mode, stroke 30 mm

Compliance working mode 1

Stroke 10 to 30 mm to selected direction. Allowing +/- deviation of nominal path in range of total 10 - 30 mm. Tool weight compensation. Stroke length depending of FCU model.



Compliance working mode 2 (C)

Slide centralized, stroke 10 to 30 mm to both direction possible. One direction can be used at once. Stroke length depending of FCU model.

