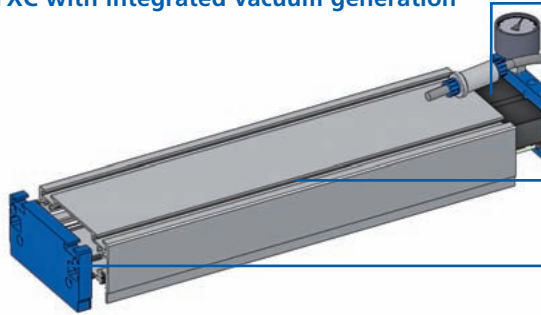
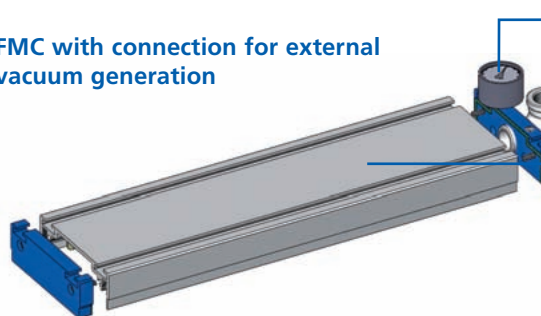
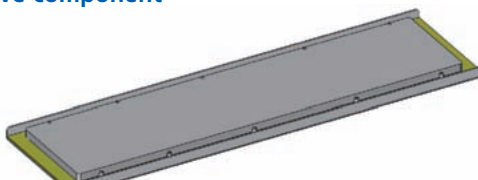


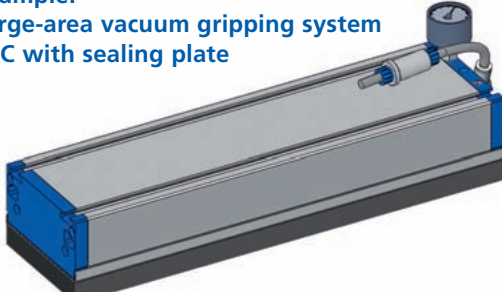
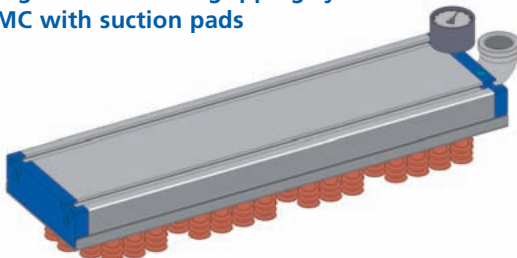


Large-area vacuum gripping systems FXC/FMC

Modularity for device configuration as required

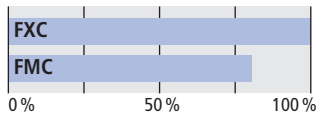
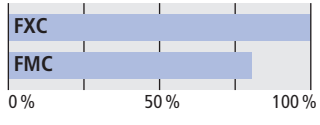
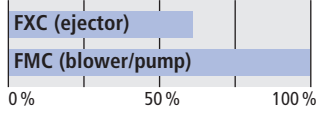
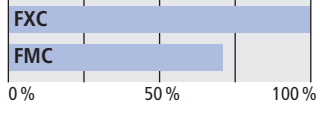
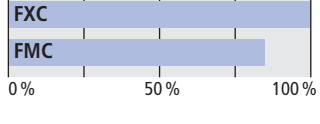
Modular component system FXC/FMC

<p>FXC with integrated vacuum generation</p>  <p>FMC with connection for external vacuum generation</p> 	<p>Vacuum generator (FXC)</p> <ul style="list-style-type: none"> • Plug-in ejector with lightweight design • Quickly replaceable • Alternatively with up to 4 multi-stage ejectors for optimum performance adjustment <p>T-slot</p> <ul style="list-style-type: none"> • For flexible mechanical attachment of the gripper <p>End cover with function modules</p> <ul style="list-style-type: none"> • For the "sensor", "blow-off" and "separation" connections <p>Vacuum display using vacuum manometer</p> <p>Connection pieces (FMC)</p> <ul style="list-style-type: none"> • For external vacuum generator <p>Main body</p> <ul style="list-style-type: none"> • Made from extruded aluminium section • Variable in width by combining units • Variable in length • Protective housing for vacuum generator (FXC) • Lower height with FMC type 	<p>Main body</p>
+		
<p>Valve component</p> 	<p>Valve type SVKW</p> <ul style="list-style-type: none"> • Quick blow-off and fast cycle times for increased production speed • High degree of air passage for handling porous and rough workpieces <p>Valve type SW</p> <ul style="list-style-type: none"> • Flow screens for any installation position and high accelerations 	<p>Valve components</p>
+		
<p>Sealing plate</p>  <p>Suction pads</p> 	<p>Sealing plate (foam)</p> <ul style="list-style-type: none"> • Flexible and highly resistant • Different grids according to the width of the workpiece • Quickly replaceable • Optional: sealing plate with integrated filter screen to protect against contamination <p>Suction pads (elastomer)</p> <ul style="list-style-type: none"> • Soft, adaptable sealing lip • Quickly replaceable 	<p>Sealing elements</p>
=		
<p>Example: Large-area vacuum gripping system FXC with sealing plate</p> 	<p>Example: Large-area vacuum gripping system FMC with suction pads</p> 	<p>Complete large-area vacuum gripping systems</p>

Large-area vacuum gripping systems FXC/FMC

Optimum selection of products

Selection criteria FXC/FMC

Application features	FXC/FMC comparison	Recommended type
Maximum effectiveness of vacuum generation Integration of vacuum generation at the effective location in the large-area vacuum gripping system	Flow efficiency 	FXC
Integration of functions and process safety Process safety as well as minimization of protruding edges and risk of damage by avoiding vacuum hoses, distributors and attachment elements between the vacuum generator and the large-area vacuum gripping system	Integration of functions 	FXC
Minimal system costs Time and costs for purchasing and installing the vacuum generator	Investment cost comparison 	FXC
Dynamic and minimal cycle times Weight and large-area gripper height at the robot/portal head	Gripper weight 	FMC
Operation with electrical vacuum generation Operating costs for compressed-air (internal vacuum generator: ejector) or energy (external vacuum generator: vacuum pump or blower)	Operating costs (energy) 	FMC

Selection of product features based on application features

Application features	Recommended product features
Fast cycle times and rough workpiece surfaces	Valve type SVKW*
Cost-effective design	Valve type SW
Heavily soiled environment, dust (dry)	Sealing plate with integrated filter screen
Separation of porous materials from stack (e.g. chipboards, MDF)	FXC/FMC with integrated separation function (page 8)
Workpiece width	30 mm or higher for fine grid (18mm), 60 mm or higher for medium grid (36mm)
Non-rigid workpieces	Solution with large-area vacuum gripping system FXC-SG (page 9) or vacuum suction spider SSP (page 26)
Energy efficient and fast cycle times	Solution with large-area vacuum gripping system FXC/FMC-HD (page 17)
Handling doors with and without gaps	Solution with vacuum door gripper FXC/FMC (page 9)
Handling cans, exposed glass and trays	Solution with combifoam sealing plate for large-area vacuum gripping system FXC/FMC (page 8) or layer gripping system SPZ (page 23)

*SVKW application: up to a vertical acceleration of 5 m/s²; horizontal swivel range up to max. 45°

Service and practical tips

- Increase in load-bearing capacity and handling safety for uneven layers and rough surfaces by firmly pressing down on them as well as floating/flexible suspension of the large-area gripper.
- The lifetime of the sealing plate (foam) for linear attachment and lifting is generally 3 months to 1 year.
- The lifetime of the suction pads for linear attachment and lifting is generally 6 months to 1 year.
- Maintenance every 6 months increases the lifetime of the large-area vacuum gripping system.
- Suction tests with original workpieces are always required to ensure functionality. We perform these at our test centre individually for your application.