

Mounting Elements

Schmalz – The Company
Vacuum Knowledge
Vacuum Suction Pads
Special Grippers
Mounting Elements
Vacuum Generators
Valve Technology
Switches and Monitoring
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Overview of Section 5



Mounting Elements

Everything at a Glance

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	Modular System for Vacuum End Effectors	316
Vacuum End Effectors VEE		
	Starter Set VEE <ul style="list-style-type: none"> • 120 VEE components • Including eight suction pads SPB4-30 • Build up to two turnkey VEE configurations 	 <p>VEE starter set for configuration of two complete vacuum end effectors with 120 individual components and eight vacuum suction pads of type SPB4-30.</p>
	Flange Plates FLAN-PL <ul style="list-style-type: none"> • Material: Anodized aluminum • For common robot types 	 <p>Flange plate from the modular system VEE for connecting the end effector to the robot; available for all common robot types or as a universal flange.</p>
	Flange Modules VEE-QCM <ul style="list-style-type: none"> • Vacuum connection: vertical or horizontal • Nominal flow rate: 20 m³/h or 60 m³/h 	 <p>Flange module from the modular system VEE with quick-change adapter for connection of the end effector to the flange plate.</p>
	Basic Modules VEE-QCF <ul style="list-style-type: none"> • Material: Polysulfone PSU (FDA-approved material) • Basic module with 1, 2 or 4 connections 	 <p>Basic module from the modular system VEE with central vacuum feed-in for connection of the end effector to the flange module, no tools needed; available as a 1-, 2- or 4-connection module.</p>
	Connector Upper Shells VEE-CO-U <ul style="list-style-type: none"> • Material: Polysulfone PSU (FDA-approved material) • Packaging unit: 4 pieces 	 <p>Upper shell of the connector from the modular system VEE for assembly of connecting joints; available in closed design or with connection for separate vacuum line.</p>

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Connector Lower Shells VEE-CO-L



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- Material: Polysulfone PSU (FDA-approved material)
- Contains sealing element and securing screws
- Packaging unit: 4 pieces

Lower shell from the modular system VEE for assembly of connecting joints and connection of suction pads; available in closed version or with female thread for suction pads.



Connecting Tubes VEE-TU



331

- Material: Polysulfone PSU (FDA-approved material)
- Length 17.8 mm or 200 mm
- Integrated vacuum feed
- Packaging unit: 10 (VEE-TU 18x1.5x17.8), 4 (VEE-TU 18x1.5x200)

Connecting tube from the modular system VEE for vacuum distribution and for connecting individual connection joints.



Plugs VEE-PL



333

- Material: Silicone SI for VEE-PL P and polysulfone PSU (FDA-approved material) for VEE-PL C
- Packaging unit: 10 (VEE-PL C), 4 (VEE-PL P)

Plugs from the modular system VEE for sealing unneeded connections on connecting joints and zoning of the vacuum system.

Jointed Mountings



Flexolink FLK



335

- Connection: G1/4" and G1/2"
- Deflection: max. 12°
- Rubber buffer (vulcanised into position) as a joint

Polydirectional joint mounting made from high-quality steel with vulcanize-bonded rubber buffer for adjusting the suction pad to uneven surfaces; automatic resetting.



Ball Joints KGL



338

- Connection: G1/8" to G1/2"
- Deflection: max. 15°
- Sealed ball-and-socket joint with vacuum-tight seal

Polydirectional ball joint made from galvanized steel or stainless steel, sealed using O-ring, for adjustment of the suction pad to uneven surfaces.

Spring plungers



Spring Plungers FSTE



340

- Connection: M3, M5, G1/8" to G1/2"
- Stroke: 5 to 90 mm
- Integrated vacuum feed

Spring plunger with damping spring for height compensation and careful handling of fragile workpieces.

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	Spring Plungers FSTE-HD		344
<ul style="list-style-type: none"> • Connection: G1/8" to G1/2" • Stroke: 15 to 90 mm • Version Heavy Duty • Integrated vacuum feed 	Spring plunger with special slide bearings and damping spring for height compensation for highly dynamic applications with short cycles.	Schmalz - The Company	
	Spring Plungers FSTA		348
<ul style="list-style-type: none"> • Connection: G1/4" and G1/2" • Stroke: 25 to 90 mm • Integrated vacuum feed 	Spring plunger with two damping springs for protection of the connection and protection of the workpiece (by means of the lower damping spring), as well as for even load distribution.	Vacuum Knowledge	
	Spring Plungers FSTA-HD		351
<ul style="list-style-type: none"> • Connection: G1/4" to G1/2" • Stroke: 25 to 90 mm • Version Heavy Duty • Integrated vacuum feed 	Spring plunger with special slide bearings and two damping springs for height compensation for highly dynamic applications with fragile workpieces and short cycles, as well as for even load distribution.	Vacuum Suction Pads	
	Spring Plungers FSTI		354
<ul style="list-style-type: none"> • Connection: G1/4" and G3/8" • Stroke: 10 to 50 mm • Internal damping spring • Integrated vacuum feed 	Spring plunger with internal damping spring and high-quality sliding bearings for handling fragile workpieces, particularly in the automotive industry.	Special Grippers	
	Spring Plungers FSTF		358
<ul style="list-style-type: none"> • Connection: G1/2" • Stroke: 50 mm • Variable mounting facility • Integrated vacuum feed 	Spring plunger with variable mounting system and damping spring for handling wood plates and furniture pieces.	Mounting Elements	
 Holders for Suction Pads and Spring Plungers 			
	Adapters for Elbow Connector ANW		361
<ul style="list-style-type: none"> • Connection: M5 to G1/2" 	Adapter for elbow connection with side vacuum connection for direct and space-saving installation of suction pads.	Vacuum Generators	
	Bulkhead Connectors SVS-GE		364
<ul style="list-style-type: none"> • Connection: G1/8" to G1/4" 	Bulkhead connector for direct and height-adjustable installation of suction pads.	Valve Technology	
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Schmalz - The Company		Holders for Light-Metal Sections HTR-STA		366
Vacuum Knowledge		<ul style="list-style-type: none">• Mountings for spring plungers FSTE/FSTA from M5 to G1/4"	Steel sheet holder for direct installation on light-alloy sections.	
Vacuum Suction Pads		Holders for Square Tubes HTR-ST5		368
Vacuum Suction Pads		<ul style="list-style-type: none">• Mountings for spring plungers FSTE/FSTA from M5 to G1/2"• Square sections 30 x 30 mm to 60 x 60 mm	Steel sheet holder for direct installation on square tubes.	
Special Grippers		Universal Holders HTR-UNI	 	371
Mounting Elements		<ul style="list-style-type: none">• Connection: G1/4"	Holder for adjustable installation of suction pads; height and incline of the suction pad can be adjusted.	
Vacuum Generators	Sections and Connectors			
Valve Technology		Mounting Sections MO-PROF		375
Switches and Monitoring		<ul style="list-style-type: none">• Cross-sections: 40 x 40 mm and 40 x 80 mm• With 1 or 3 chambers	High-strength aluminum section with accessories for constructing your own load beam with integrated vacuum line.	

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Overview Connection Possibilities

The following overview shows the various connection possibilities offered by the mounting elements from Schmalz and should help you to select the appropriate components for your application. All components of the various product families are grouped together in the overview. The design data and technical data of the mounting elements can be found on the related products pages in this section of the catalogue.

Mounting section (also suitable for mounting of suction pads)



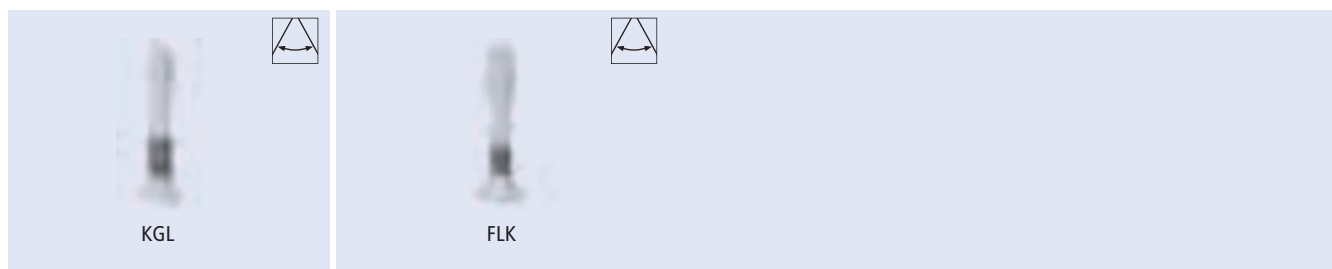
Holders and cross-beam connectors (for spring-mounting of suction pads)








Spring plungers



Flexible mountings for use with spring plungers

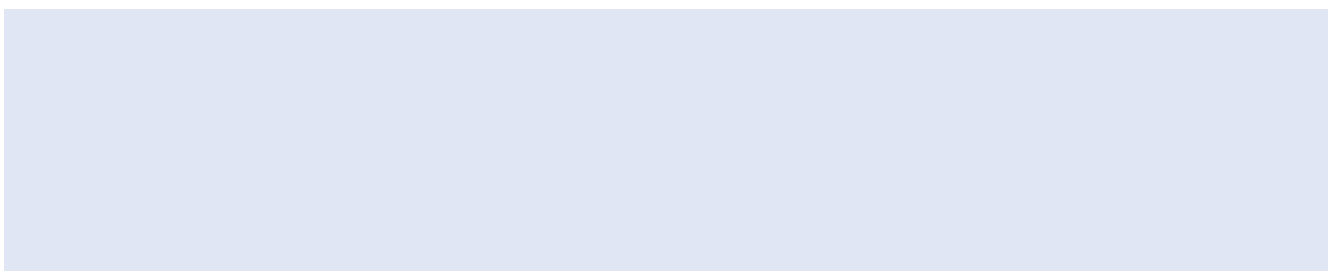


-  Fully rotatable
-  Available with anti-rotation guard
-  Heavy-duty (HD) version for short cycle times and rough operating conditions
-  For standard applications without swivelling of the loads
-  Flexible in all directions

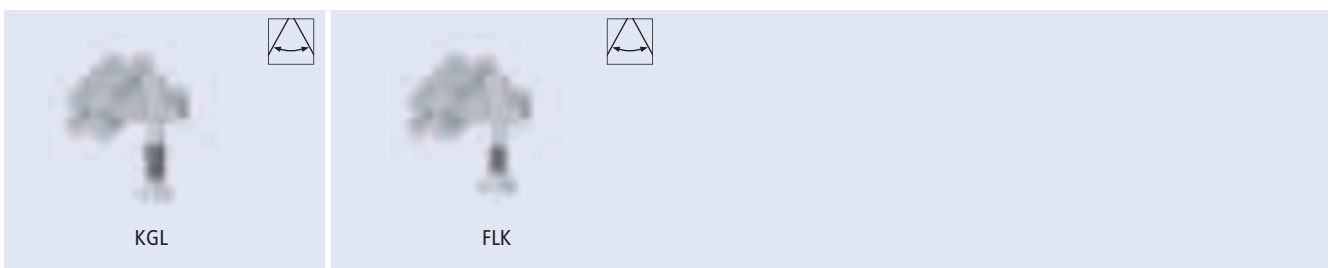
Mounting section (also suitable for mounting of suction pads)



Holders and cross-beam connectors (for rigid mounting of suction pads)



Flexible mountings for use with rigid suction pad mountings



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