



**NEW**

Intelligent, Autonomous and Flexible Vacuum Generation

# Vacuum Generator ECBPi

[WWW.SCHMALZ.COM/ECBPI](http://WWW.SCHMALZ.COM/ECBPI)



## *Intelligent Collaboration Redefined.*

Intelligent, Autonomous and Flexible  
Vacuum Generation – for Collaborative Robots

## Electrical Vacuum Generator – CobotPump ECBPi

Schmalz presents the CobotPump ECBPi – a new generation of intelligent vacuum generators that do not need compressed air. Their areas of application include mobile robotics, for example in autonomous warehouses or stationary handling tasks with collaborative robots (cobots).

### Application

- Intelligent electrical vacuum generator for handling airtight and slightly porous workpieces
- Integrated interface for controlling and monitoring the handling process
- For use in mobile robotics, fully automated small parts handling and stationary handling tasks

### Highlights

- Connection via IO-Link allows process monitoring and predictive maintenance from the machine to the cloud
- Condition monitoring reduces errors and downtime – this ensures the availability of the system
- NFC interface features direct access to processes and the device via smartphone
- Energy efficient thanks to integrated automatic adaptation of the performance to the handling process

Electrical Vacuum Generators

# Schmalz Vacuum Generator ECBPi

Intelligent Vacuum Generation with a wide Variety of Options for Adaptation and Integration



① Collaborative robot  
(all common cobot models)

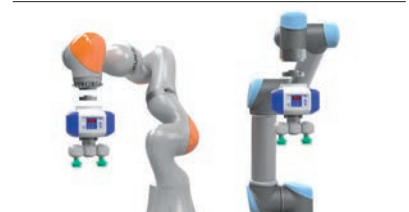
② Robot flange for  
mechanical connection  
of the electrical vacuum  
generator ECBPi

③ Flange adapter plate

④ M12 8-pin plug connection or terminal  
block as digital interface between the  
CobotPump and the robot

⑤ Flange for gripper connection

⑥ Flexibly configurable grippers from  
the modular system for vacuum  
end effectors VEE



**Flexible connection:** The CobotPump can be quickly and easily combined with common lightweight robots using various flange plates.



**Everything under control:** The CobotPump features an integrated speed control function, which regulates the performance of the pump to suit the process or workpiece. Simple parameterization on the device, via NFC or using IO-Link.



**Simple switching:** Easily configure and connect grippers for the CobotPump to create a tailored solution for the specific application. The quick-change adapter minimizes switching times.



**A smart solution:** The CobotPump features NFC. The NFC interface allows users to conveniently read out data on their smartphones, including process data, operating instructions and error messages.

## Electrical Vacuum Generators

# Schmalz Vacuum Generator ECBPi

## Application and Integration Examples

### A wide Variety of Autonomous, Collaborative Applications

#### Smart Assistance in Collaborative Work



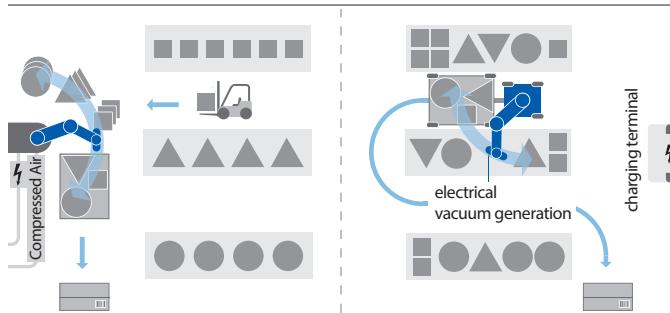
Conventional way of working

Collaborative way of working with people and robots

Today, some steps require several employees, but robots are increasingly taking on new tasks to work hand-in-hand with people.

- The CobotPump is ideal for stationary handling tasks with collaborative robots

#### Autonomous Movement



Conventional warehouse

Autonomous warehouse

In conventional warehouses, gripping systems are confined to a stationary power supply, meaning that they are limited to one defined handling task.

- The CobotPump generates a vacuum without compressed air, so no conventional hoses are needed
- The vacuum generator ECBPi is perfect for use in mobile robotics

### Simple Integration into the Robot

#### Quick and Flexible Connection



Simple connection to the robot and fieldbus using IO-Link with a plug connection or terminal block

- The CobotPump makes process data transparent using an IO-Link interface in the field-bus system. Ideal for targeted process monitoring and control
- The CobotPump can also be operated with conventional signal transmission without an IO-Link, in what is known as SIO mode (standard IO mode)
- Connection with a terminal block (TB-8) simplifies the connection process and reduces cable assembly costs

## Electrical Vacuum Generators

# Schmalz Vacuum Generator ECBPi

Max. 12 l/min Suction Rate



### Ordering Code for Electrical Vacuum Generator ECBPi

<b>ECBPi</b>	–	<b>24V-DC</b>	–	<b>M12-8</b>
1		2		3

#### 1 – Abbreviated designation

Code	Version
ECBPi	Electrical CobotPump

#### 2 – Voltage

Code	Operating voltage
24V-DC	24V-DC

#### 3 – Electrical connection

Code	Type
M12-8	M12, 8-pin plug
TB-8	Terminal strip

Note on ordering: The electrical vacuum generator ECBPi comes ready to connect.  
Available accessories: Flange plate



### Ordering Data for Electrical Vacuum Generator ECBPi

Type	Part no.
ECBPi 24V-DC M12-8	10.03.01.00314
ECBPi 24V-DC TB-8	10.03.01.00364



### Ordering Data for Accessories for Electrical Vacuum Generator ECBPi

Type	Part no.
FLAN-PL 63x13 AL-EL	10.03.01.00313
FLAN-PL 90x16 AL-EL	10.03.01.00357
FLAN-PL 63x13.5 AL-EL	10.03.01.00358
FLAN-PL 63x19.5 AL-EL	10.03.01.00373



### Technical Data for Electrical Vacuum Generator ECBPi

Type	Suction rate [l/min]	Rated power [W]	Voltage [V]	Rated current [A]	Temperature range [C°]	Weight [g]
ECBPi 24V-DC M12-8	12	13	24V-DC	0.6	5 to 40	775
ECBPi 24V-DC TB-8	12	13	24V-DC	0.6	5 to 40	775

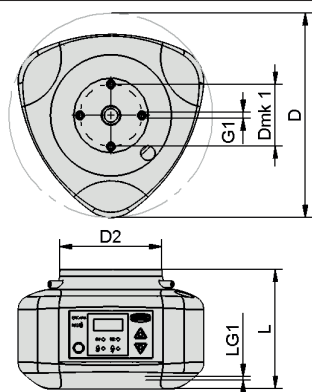


Electrical Vacuum Generators

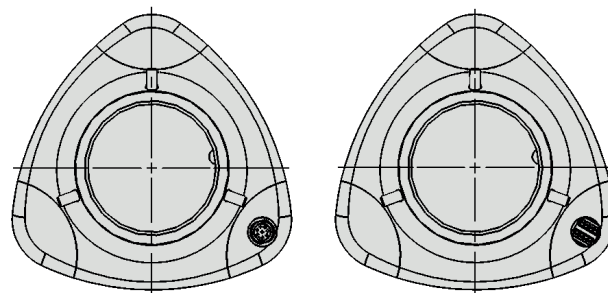
# Schmalz Vacuum Generator ECBPi

Max. 12 l/min Suction Rate

## Design Data for Electrical Vacuum Generator ECBPi



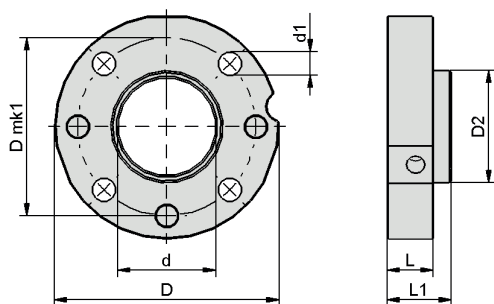
ECBPi...



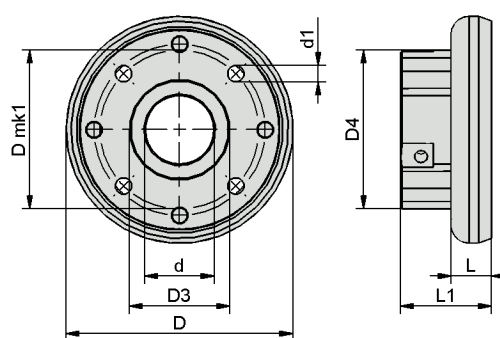
ECBPi... connection options M12-8 and TB-8

Type	Dimensions in mm					
	D	Dmk 1	D2	G1	L	LG1
ECBPi 24V-DC M12-8	151.5	46	76.0	M4-IG	88.6	6.0
ECBPi 24V-DC TB-8	151.5	46	76.0	M4-IG	88.6	6.0

## Design Data for Accessories for Electrical Vacuum Generator ECBPi



FLAN-PL 63x13 AL-EL



FLAN-PL 90x16 AL-EL



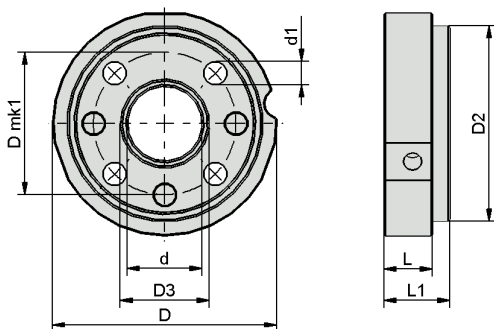
Electrical Vacuum Generators

# Schmalz Vacuum Generator ECBPi

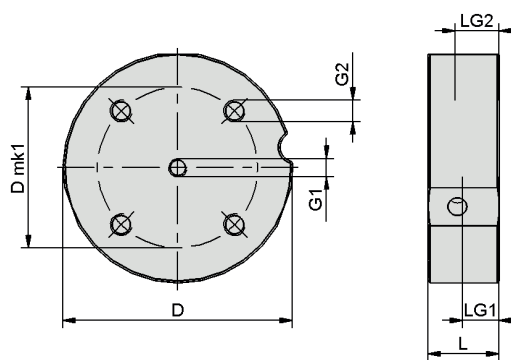
Max. 12 l/min Suction Rate



## Design Data for Accessories for Electrical Vacuum Generator ECBPi



FLAN-PL 63x13.5 AL-EL



FLAN-PL 63x19.5 AL-EL

Type	Dimensions in mm												
	d	d1	D	Dmk1	D2	D3	D4	G1	G2	L	LG1	LG2	L1
FLAN-PL 63x13 AL-EL	27.5	6.6	63	50	31.5	-	-	-	-	13.0	-	-	18.0
FLAN-PL 90x16 AL-EL	27.5	6.6	90	63	-	40	63	-	-	16.0	-	-	36.0
FLAN-PL 63x13.5 AL-EL	21.0	6.6	63	40	55.0	25	-	-	-	13.5	-	-	18.5
FLAN-PL 63x19.5 AL-EL	-	-	63	44	-	-	-	M5-IG	M6-IG	19.5	10	12	-

## Find and Order Vacuum Components Quickly and Easily

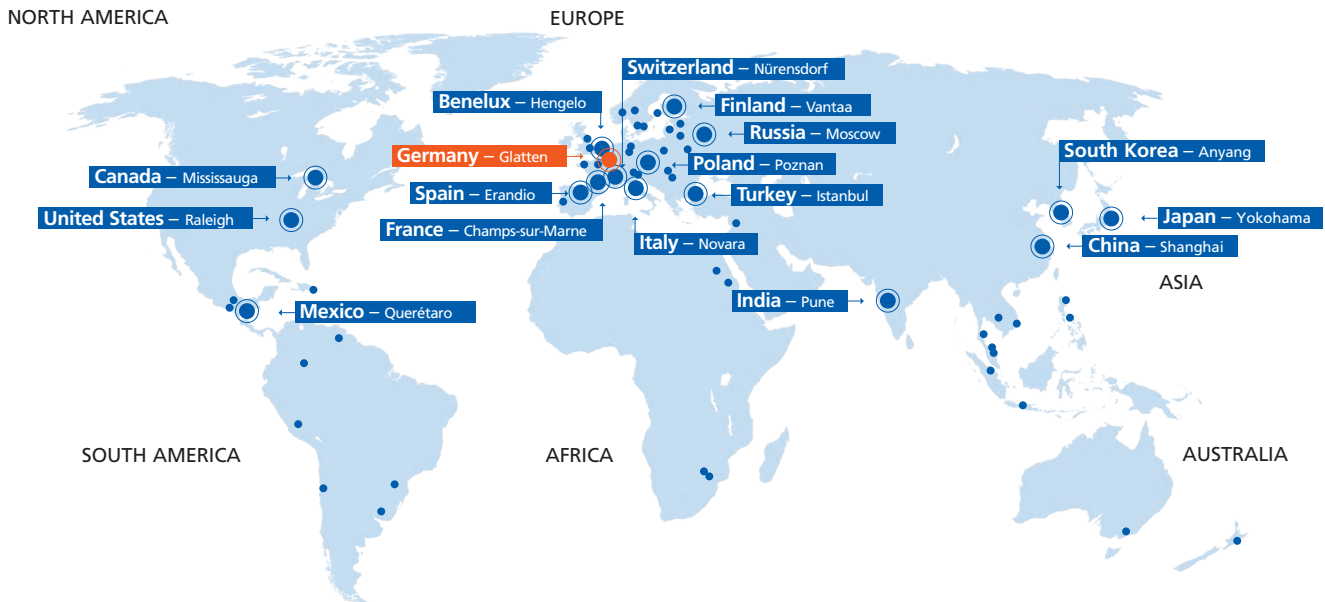


- Find and compare components quickly and save them in a Shortlist
- VEE gripper configurator
- Useful explanatory videos for the CobotPump and many other components
- CAD download (2D/3D)
- Check price and availability in real time



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 Schmalz Finland – Vantaa  
 Schmalz France – Champs-sur-Marne  
 Schmalz India – Pune  
 Schmalz Italy – Novara  
 Schmalz Japan – Yokohama

Schmalz Mexico – Querétaro  
 Schmalz Poland – Suchy Las (Poznan)  
 Schmalz Russia – Moscow  
 Schmalz South Korea – Anyang  
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 Schmalz Switzerland – Nürens Dorf  
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### Headquarters

Schmalz Germany – Glatten

### Sales Partners

You can find the Schmalz sales partner in your country at: [WWW.SCHMALZ.COM/SALESNETWORK](http://WWW.SCHMALZ.COM/SALESNETWORK)

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