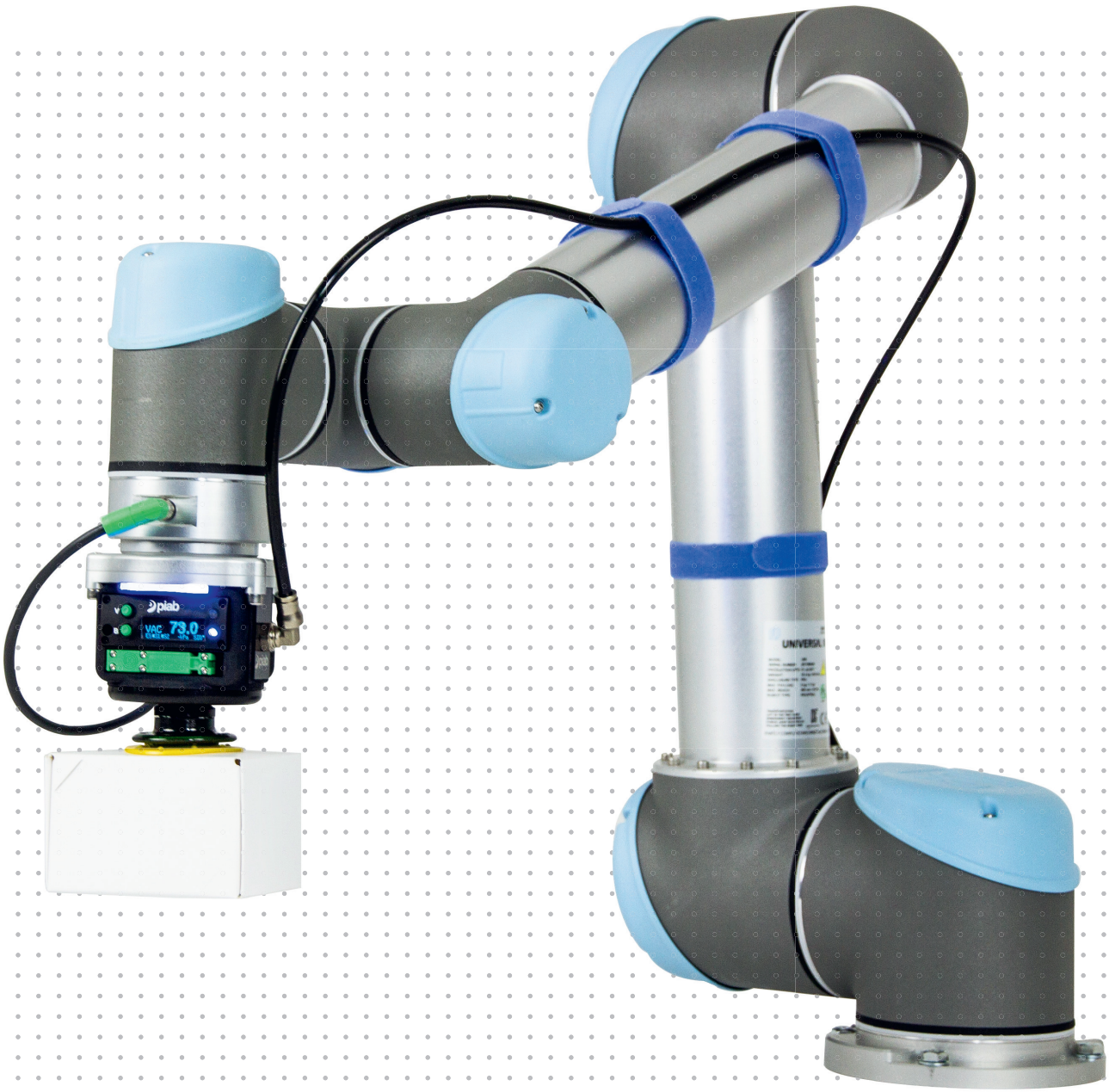
Small, powerful and ready to collaborate with human and cobot workers

piCOBOT® – UR certified vacuum gripper unit



Smart solutions for the automated world™

piab

piCOBOT® is certified by Universal Robots...



Piab's piCOBOT® mounted on a UR collaborative robot designed to act as a flexible co-worker in a variety of production, packaging or assembly lines. Adaptable, powerful, compact and lightweight, it really offers the ideal extra "pair of hands".

Included with the piCOBOT® is UR Caps plug-in software for the teach pendant, to ensure easy programming and quick installation of piCOBOT® for the customers.

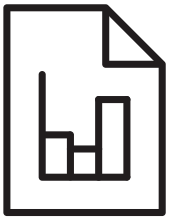
Our gripping and moving solutions such as piCOBOT® help thousands of customers in a wide range of industries globally, to improve energy-efficiency, productivity and working environments. Ergonomic, safe and adaptable, our user-friendly solution promises to increase productivity while eliminating the risk of injury to your team.



Advantages
pg. 6–7

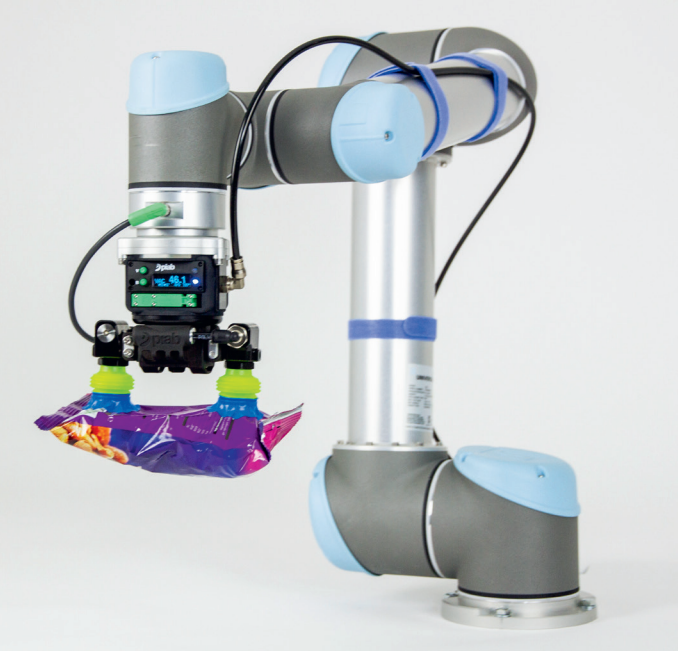


Features
pg. 8–9



Technical data
pg. 10–11

… and covers a wide range of applications



Heavy leaking bags with various contents, one or two application specific bag cups to increase flexibility and productivity.





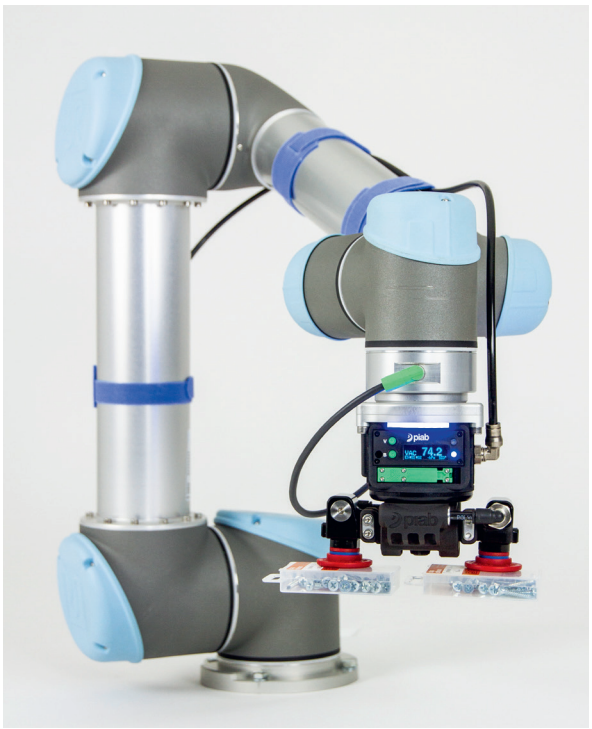
Gripping and moving corrugated cardboard (leaking material) in a safe way. With one or two cups to increase stability and productivity.



An extended robot arm gripping and moving up to 7 kg [15.5 lbs] object.

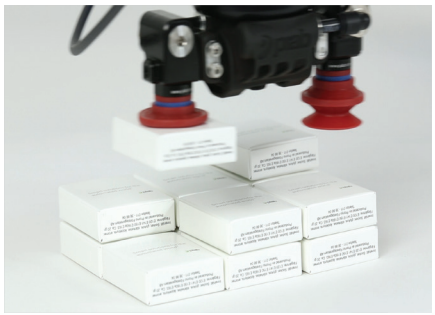


Increased productivity with integrated piSAVE® Sense valves (object sensing valves), double or single picking of objects.



These are some of the main advantages in using the piCOBOT®





Automate the kitting process

The gripper is adjustable, together with piSAVE® Sense – an object sensing valve – the flexibility for kitting process is very big. piCOBOT® can pick, one or two items in the same pick, with different shapes or structures.

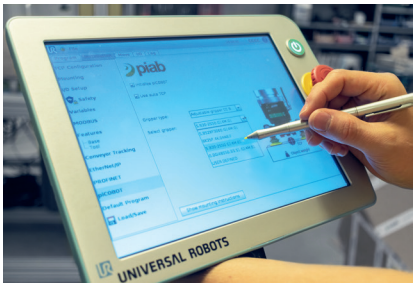


Broad selection of suction cups



Wide application range

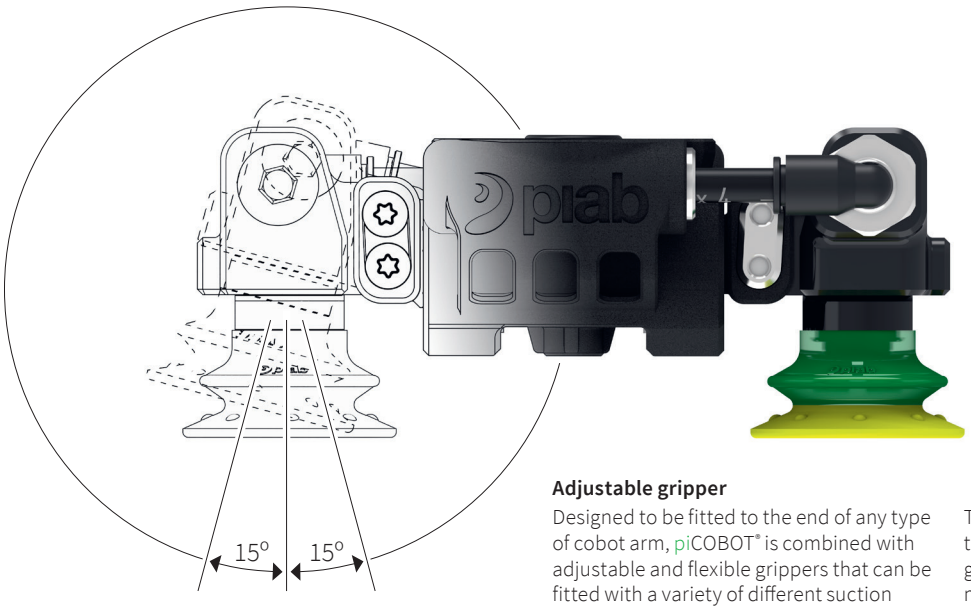
Thanks to the multistage COAX® cartridges the high flow capacity of piCOBOT® is outstanding. It can grip anything from very porous to sealed material, from lightweight up to 7kg [15.5lbs]. A vacuum system based on COAX® technology can provide you with three times more vacuum flow than conventional systems, allowing you to increase speed with high reliability while reducing energy consumption.



Plug and play

Technical and electrical interfaces are seamlessly adapted for UR robots which makes it truly plug and play for the customer. The UR Cap facilitates installation, set up and programming.

There is also onboard intelligence, which makes piCOBOT® adjust automatically for every different application.



Adjustable gripper

Designed to be fitted to the end of any type of cobot arm, piCOBOT® is combined with adjustable and flexible grippers that can be fitted with a variety of different suction cups. The 97-142 mm [3.81-5.71”] wide gripper arms can be tilted ±15 degrees, providing excellent reach for positioning cups. Fitted on the grippers are our suction cups, acting as the cobot’s hands.

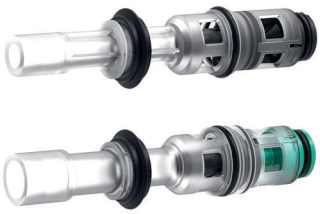
The gripper is equipped with piSAVE® sense and is flexible to pick one or two objects for a secure grip when handling different sized objects.

The piCOBOT® can quickly be adapted for tasks of a more robust nature, such as gripping and packing bags or lifting, moving and palletizing cardboard boxes. Such handling also represents the kind of tasks for which our COAX® vacuum ejector technology is perfectly suited.

These are some of the features helping with operational savings, optimization and increased speed

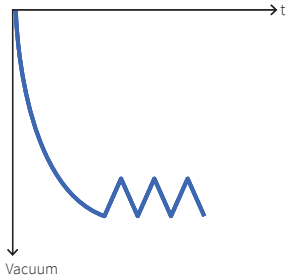
Increase speed with high reliability

Three times the vacuum flow reduces energy consumption
The air driven ejector used in piCOBOT® is the state-of-the-art multistage COAX® cartridge, to generate vacuum. COAX® are smaller, more efficient and more reliable than conventional ejectors, which allows for a very efficient vacuum system. A vacuum system based on COAX® technology can provide you with three times more vacuum flow than conventional systems, allowing you to increase speed with high reliability while reducing energy consumption. The COAX® Ti Cartridges are designed to be extra dust tolerant.

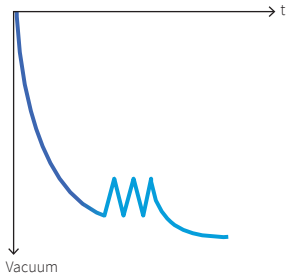


Uptime and operational savings

Save up to 90-95% of compressed air usage in a cycle (ES)
Energy saving (ES), the piCOBOT® will automatically shut off when vacuum is no longer needed in a sealed or semi sealed system. The shut-off level and hysteresis (how much vacuum level can drop before restart) is fully adjustable. The function can save up to 90–95% of compressed air usage in a cycle.



Automatic Condition Monitoring (ACM)
Automatic Condition Monitoring (ACM), also a feature related to ES. ACM will turn off the ES function in case of significant leakage in the system to protect the valves from going on/off rapidly and to prolong valve lifetime. A leakage warning output signal is available when ACM is triggered. The Leakage warning is a great aid for preventive maintenance and increased uptime.

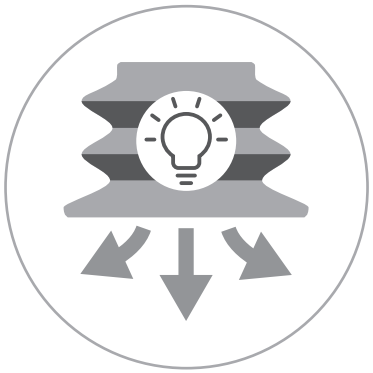


Uptime and operational savings

Drop off the object safely and with minimum air (Intelligent Blow off – IBO)

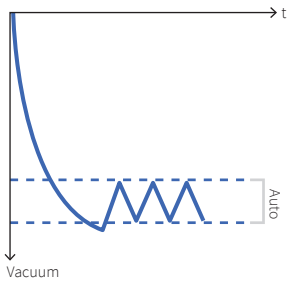
When objects are supposed to be dropped, the Intelligent Blow-Off (IBO) feature makes sure blow-off air is applied only when needed, enabling air consumption saving of up to 50 percent while maximizing operator safety. The blow-off duration is optimized, and blow-air will automatically stop when all vacuum is removed from the system. IBO is a self-learning function and only needs a few cycles to optimize blow-off duration for different system volumes. In the initial cycles, an extra blow-off puff can be presented to fully remove vacuum.

The IBO will also facilitate programming since activating an external blow off is not needed. IBO is automatically activated when vacuum is turned off.



Optimal vacuum level in every cycle (Automatic Level determination – ALD)

Automatic Level Determination (ALD), a feature related to the ES. the Automatic Level Determination (ALD) which automatically sets the optimal vacuum level in each cycle, ensuring no objects are accidentally dropped. ALD will automatically set optimized ES shut-off and restart levels in every cycle based on actual conditions. When purchasing a piCOBOT® with ES, the default mode is ALD to secure that ES is really being used. ALD shall be de-activated manually. Onboard function when selecting ES.



Technical characteristics



Pump

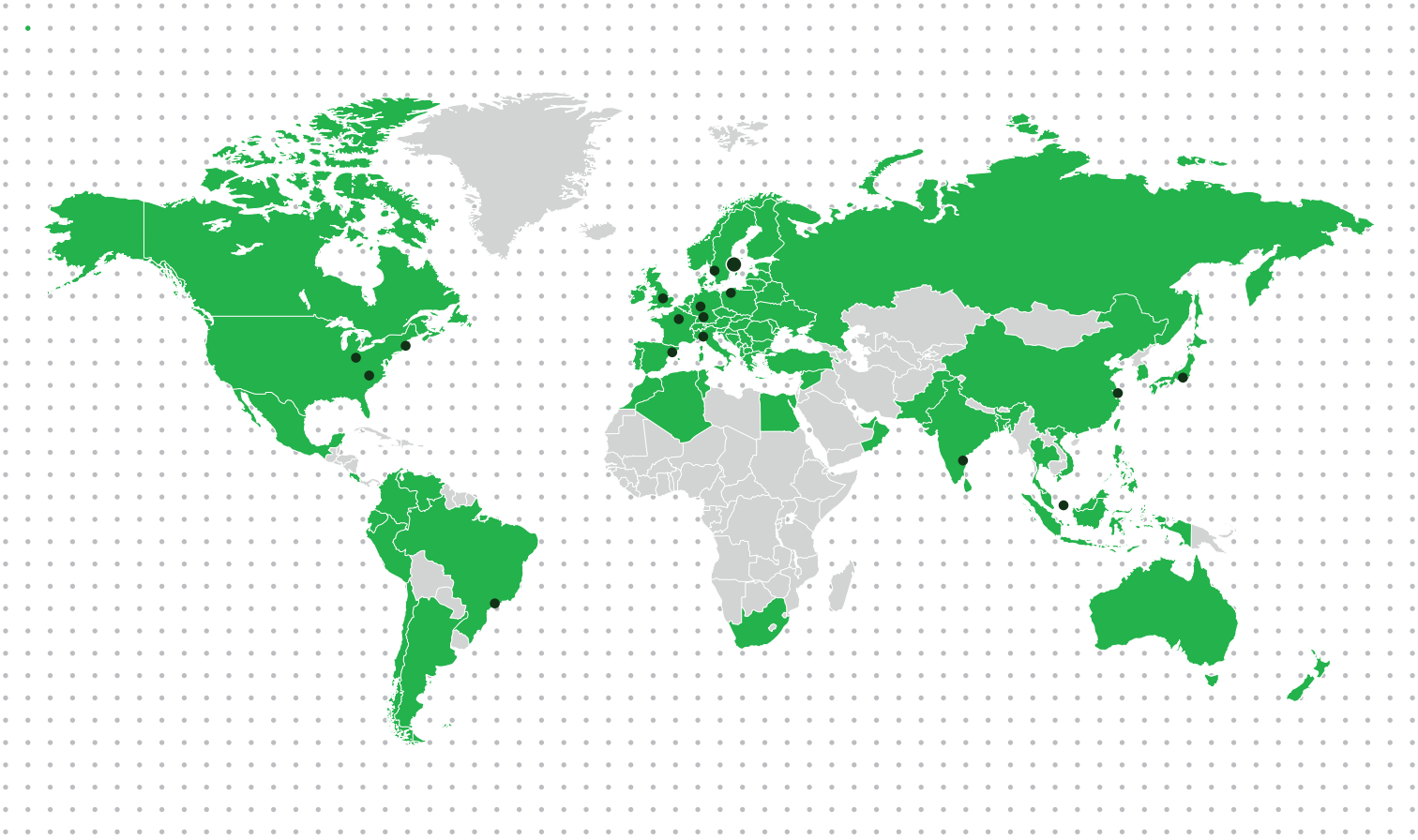
Characteristic	Value
Max feed pressure, MPa	0.7 / [101.5 psi]
Vacuum level, -kPa	84 / [24.8 -inHg]
Weight, g	510 [18.0 oz]
Safety classification	IP54



Gripper

Characteristic	Value
Max payload, N	70 [15.7 lbf]
Adjustable length cups, mm	97–142 [3.81”–5.71”)
Height, mm	37.5 / [1.48”]
Width, mm	129–174 / [5.08”–6.85”]
Tread	G1/4”
Weight excluding cups, g	210 [7.40 oz.]

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