

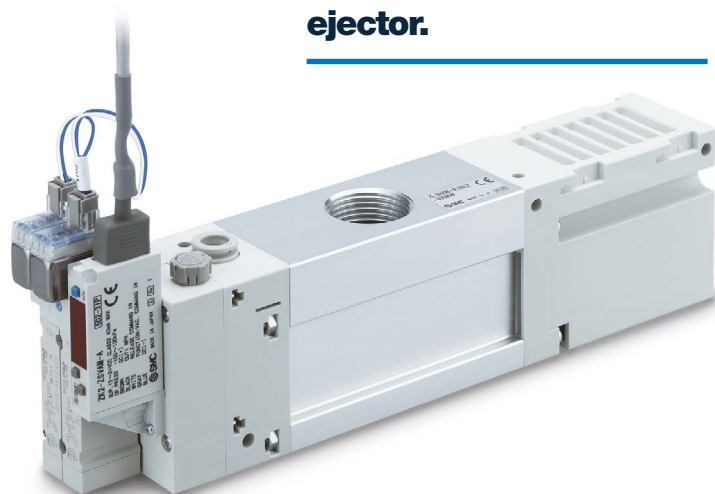


Multistage ejector

ZL1/ZL3/ZL6 Series +



Energy-saving, large flow rate, 3-stage diffuser construction ejector.



MAIN FEATURES

Standard supply pressure as low as 0.33 MPa

Suction flow rate up to 600 l/min, increased by 250 % compared to one-stage ejectors

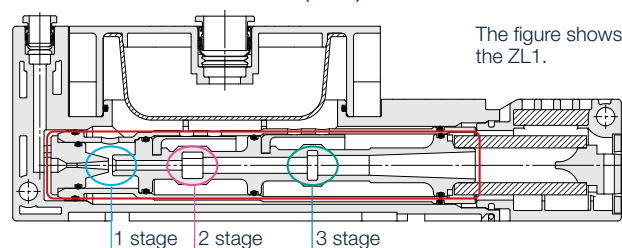
All-in-one design with integrated components to make it compact and lightweight

IO-Link compatible

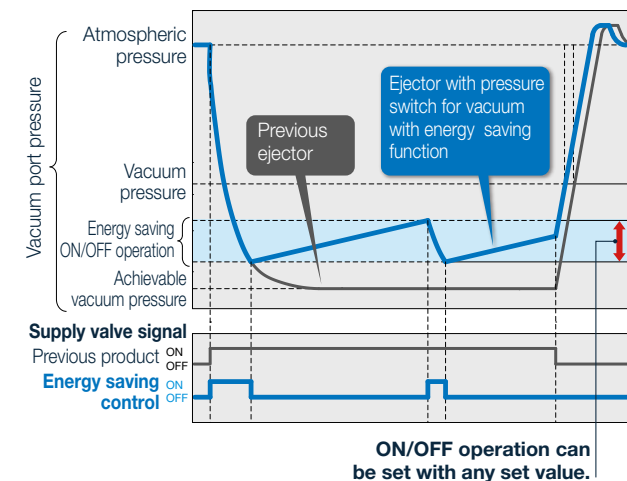
Energy saving function selectable, with reduction of up to 90 %

Suction flow rate increased by 250 %

SMC comparison with the ZL1: 1-stage Ø 1.3 nozzle, suction flow rate of 40 l/min (ANR)



ENERGY EFFICIENCY DIGITAL SHEET



ZL case study

ZL3 multi-stage vacuum generators were installed to improve the vacuum system used to hold kitchen cabinet units in position on a conveyor line while components are manually attached prior to pressing. Previously, continuous vacuum generation was required during each 30-second cycle. By introducing the ZL3 with its integrated energy-saving function, compressed air is supplied only when the vacuum level drops. This intermittent operation significantly reduces air consumption - by up to 91 % while maintaining reliable holding performance throughout the production cycle.

Key customer benefits:

- Reduction of energy costs
- Reduction of CO₂
- Noise level reduction.

Investment

700 €

Annual saving

1,142 €

ROI

7.4 months

Annual CO₂ reduction

580 kg

SELECTED PART NUMBERS

Part number	Vacuum port size	Maximum suction flow rate [l/min/ANR]] ¹⁾	Air consumption [l/min(ANR)] ¹⁾	Maximum vacuum pressure [MPa] ¹⁾	Supply valve/ Release valve		
ZL112A	Ø 12	100	57	-84	—		
ZL112A-G							
ZL112A-○					With		
ZL112A-K15■Z							
ZL112A-K15■Z-○							
ZL3□F04	G3/4	300	135 to 150	-91 to -93	—		
ZL3□F06	2 x G1/2 (Branch specification)						
ZL6□F04	G3/4	600	270 to 300				
ZL6□F06	2 x G1/2 (Branch specification)						
ZL3□F04-K15LNZ	G3/4	300	135 to 150		With		
ZL3□F06-K15LNZ	2 x G1/2 (Branch specification)						
ZL3□F04-K15LOZ-○	G3/4						
ZL3□F06-K15LOZ-○	2 x G1/2 (Branch specification)						
ZL3□F04-K15MZ-○	G3/4						
ZL3□F06-K15MZ-○	2 x G1/2 (Branch specification)						
ZL6□F04-K15LNZ	G3/4	600	270 to 300				
ZL6□F06-K15LNZ	2 x G1/2 (Branch specification)						
ZL6□F04-K15LOZ-○	G3/4						
ZL6□F06-K15LOZ-○	2 x G1/2 (Branch specification)						
ZL6□F04-K15MZ-○	G3/4						
ZL6□F06-K15MZ-○	2 x G1/2 (Branch specification)						

1) Values are at the standard supply pressure and based on SMC's measurement standards. They depend on atmospheric pressure (weather, altitude, etc.) and the measurement method.

■ Electrical entry for ZL1:

- Grommet: G, Lead wire length 300 mm / H, Lead wire length 600 mm
- L plug connector: L, With lead wire (300 mm) / LN, Without lead wire / LO, Without connector
- M plug connector: M, With lead wire (300 mm) / MN, Without lead wire / MO, Without connector.

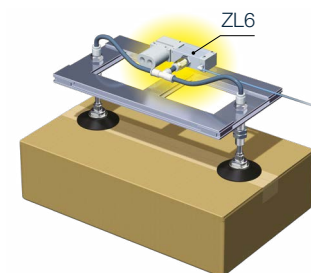
□ Standard supply pressure (for ZL3/ZL6): M (0.35 MPa), H (0.50 MPa)

○ Vacuum pressure sensor

- For ZL1: DPL (PNP 1 output), DBL (PNP 2 outputs) or DEL (PNP 1 output + analogue voltage output)
- For ZL3 or ZL6: EBG (Vacuum pressure switch), VBG (Pressure switch for vacuum with energy saving function).

APPLICATIONS

- For the adsorption transfer of glass for automobiles
- For the adsorption (clamping) of workpieces
- For the adsorption transfer of cardboard



Discover more

