

Attuatore a depressione serie VAQ

- Azionato solo con il vuoto.
- I movimenti di estensione e ritrazione sono attuati automaticamente.
- La corsa si autoregola.
- Opzione VAQN per stelo anti rotazione.
- La ventosa 1 è da ordinare a parte.

Vacuum actuator series VAQ

- Operated by vacuum only.
- The extension and the retraction movements are automatically actuated.
- The stroke is self-adjusting.
- Option VAQN for anti-rotation rod.
- The suction cup 1 must be ordered separately.

VAQ1820



VAQ1840



VAQN1820



VAQN1840



|                                                                | VAQ1820                                     | VAQ1840 | VAQN1820 | VAQN1840 |
|----------------------------------------------------------------|---------------------------------------------|---------|----------|----------|
| Fluido<br>Medium                                               | Vuoto -0.3 ÷ -1 bar<br>Vacuum -0.3 ÷ -1 bar |         |          |          |
| Temperatura di esercizio<br>Temperature range                  | 10 ÷ 40°C.                                  |         |          |          |
| Forza di ritrazione a -0.6 bar<br>Retraction force at -0.6 bar | 10 N                                        |         |          |          |
| Carico massimo raccomandato<br>Maximum recommended load        | 5 N                                         |         |          |          |
| Corsa totale<br>Total stroke                                   | 25 mm                                       | 55 mm   | 25 mm    | 55 mm    |
| Corsa a piena forza<br>Stroke with full force                  | 20 mm                                       | 40 mm   | 20 mm    | 40 mm    |
| Peso<br>Weight                                                 | 90 g                                        | 125 g   | 105 g    | 145 g    |
|                                                                |                                             |         |          |          |

## Principio di funzionamento

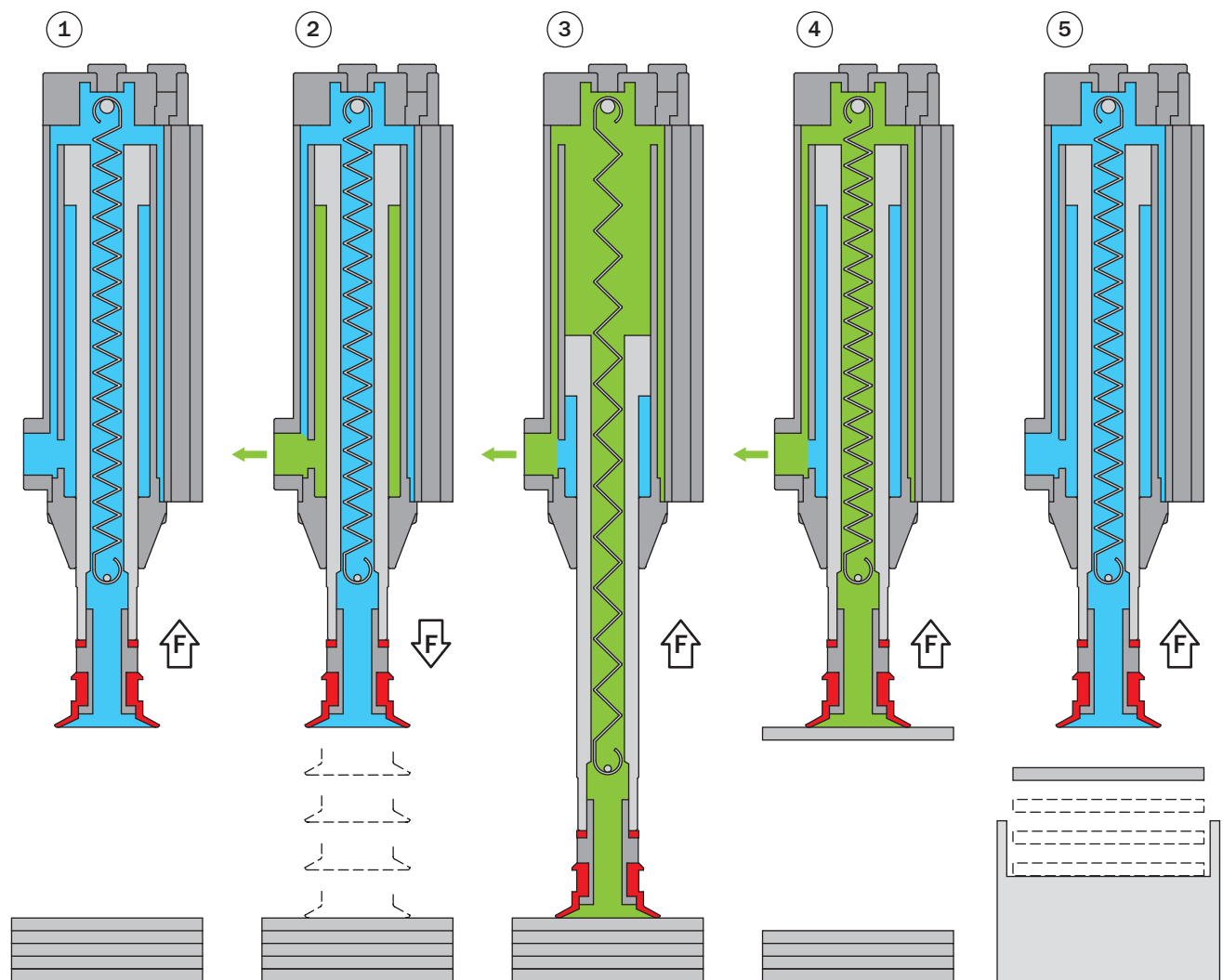
- 1- Senza aspirazione, lo stelo viene ritratto dalla forza della molla.
- 2- Quando si applica il vuoto, la pressione sotto il pistone è inferiore alla pressione sopra il pistone e lo stelo avanza.
- 3- Le pressioni si invertono non appena la ventosa contatta un oggetto.
- 4- Così lo stelo si ritrae immediatamente, sollevando l'oggetto.
- 5- Quando l'aspirazione cessa, l'oggetto viene rilasciato, ma la molla mantiene lo stelo arretrato.

(Invece di interrompere l'aspirazione, si può applicare un impulso di pressione attraverso il raccordo sopra il pistone).

## Working principle

- 1- Without vacuum, the rod is retracted by the spring force.
- 2- When vacuum is applied, the pressure under the piston is lower than the pressure over the piston and the rod travels forward.
- 3- The pressures invert as soon as the vacuum cup makes contact with an object.
- 4- Thus the rod retracts immediately, lifting the object.
- 5- When the vacuum is removed, the object is released, but the spring holds the rod retracted.

(Acurately, instead of removing vacuum, a pressure impulse can be provided by the air port over the piston).

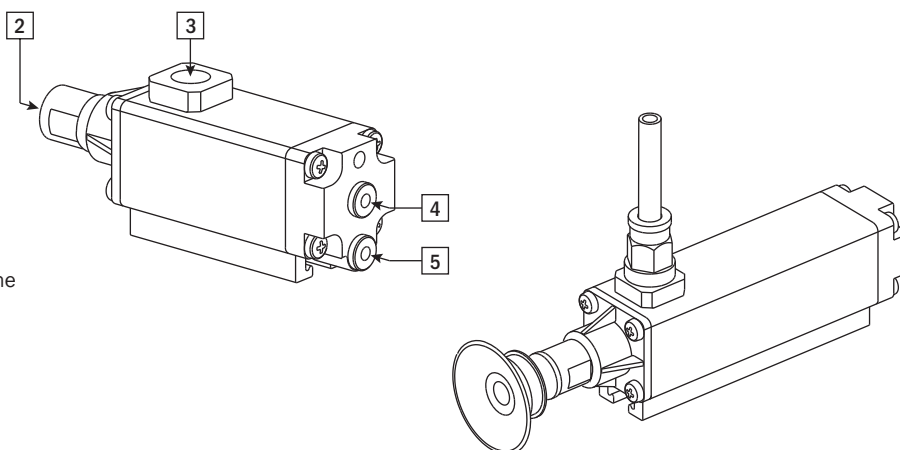


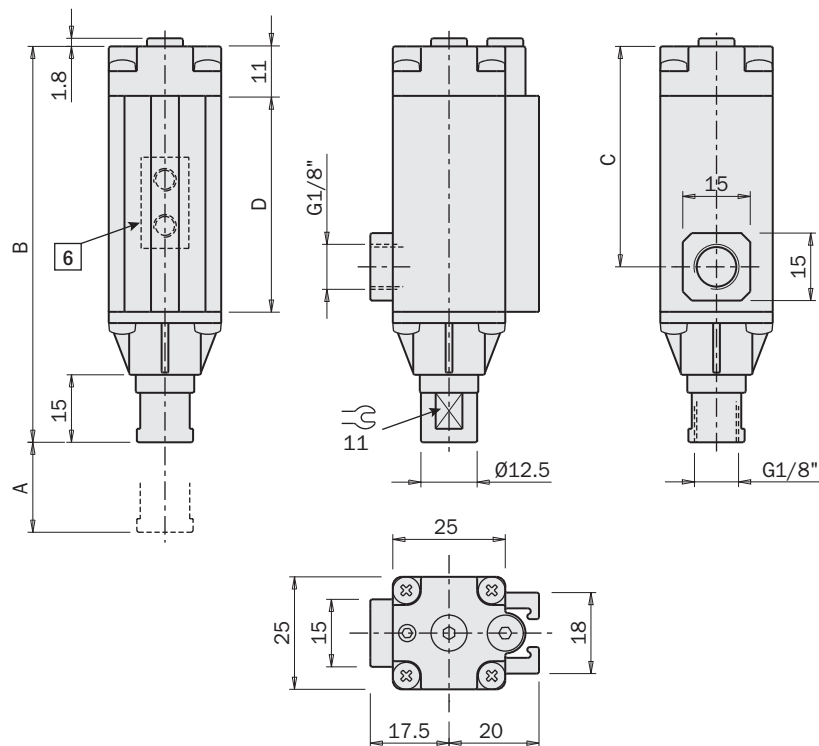
**2** G1/8  
Filetto femmina per ventosa  
Female thread for suction cup

**3** G1/8  
Connessione per aspirazione  
Vacuum supply port

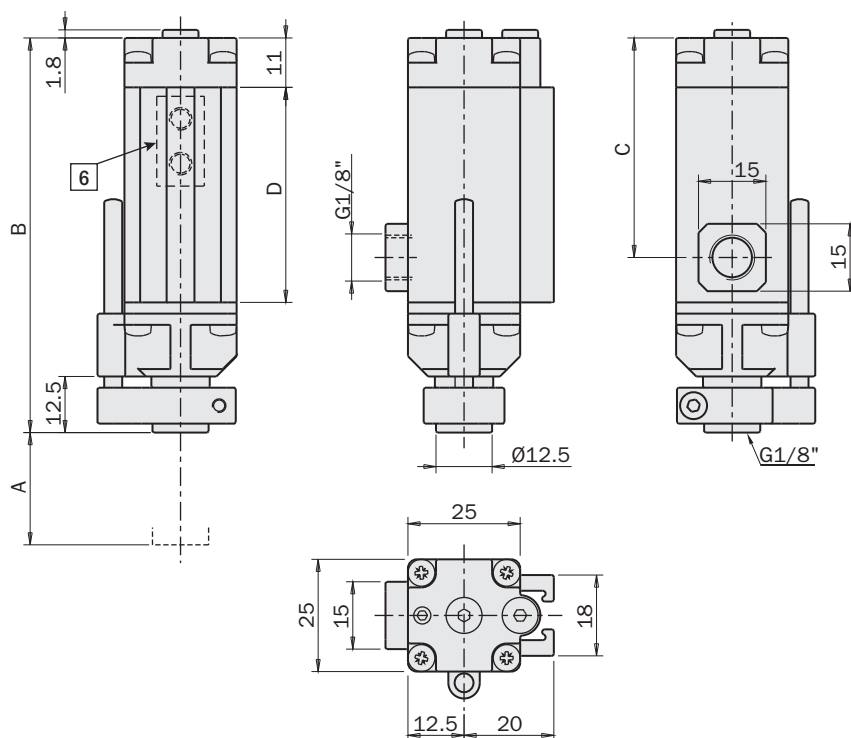
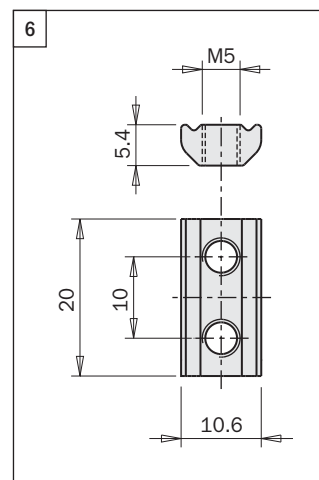
**4** M5  
Connessione per impulso di pressione  
Pressure impulse connection

**5** M5  
Connessione per sensore di vuoto  
Vacuum sensor connection



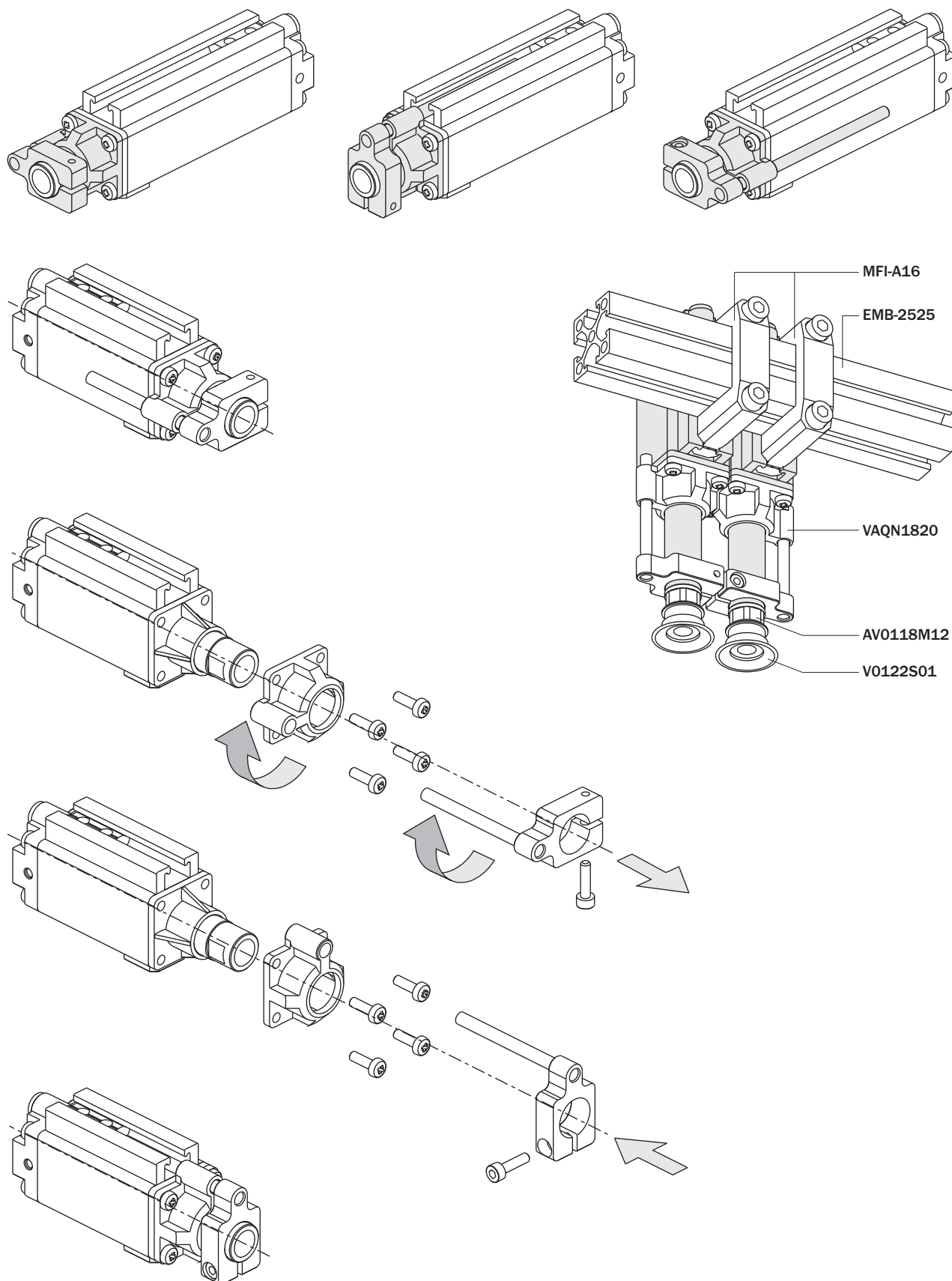
**Dimensioni (mm) / Dimensions (mm)**


|   | VAQ1820<br>VAQN1820 | VAQ1840<br>VAQN1840 |
|---|---------------------|---------------------|
| A | 20                  | 40                  |
| B | 88                  | 119                 |
| C | 49                  | 80                  |
| D | 48                  | 79                  |



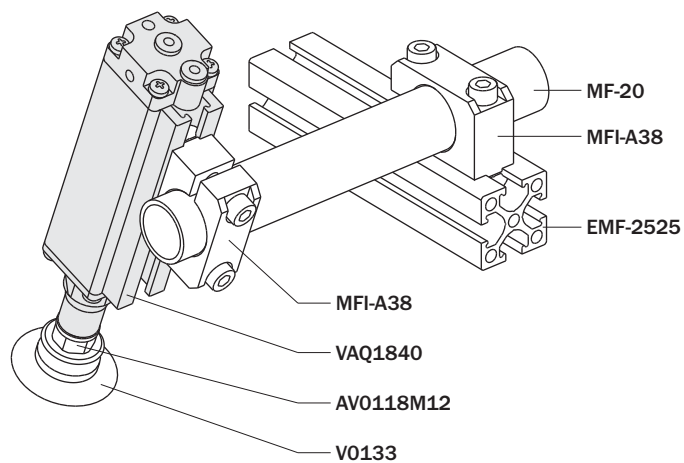
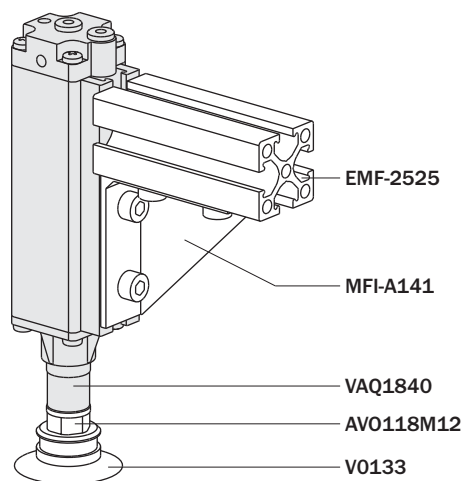
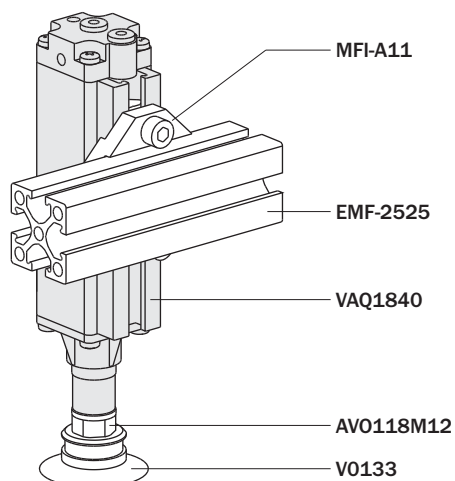
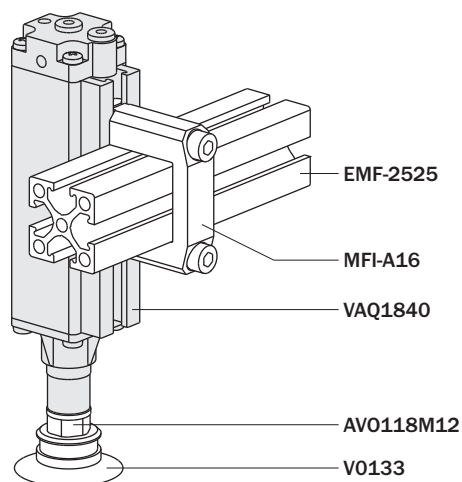
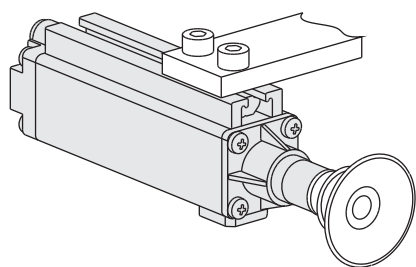
Il dispositivo anti-giro dei VAQN può essere posizionato su 3 lati in base allo spazio disponibile.

The anti-rotation device can be positioned on 3 sides, based on the space available.



## Fissaggio

## Fastening

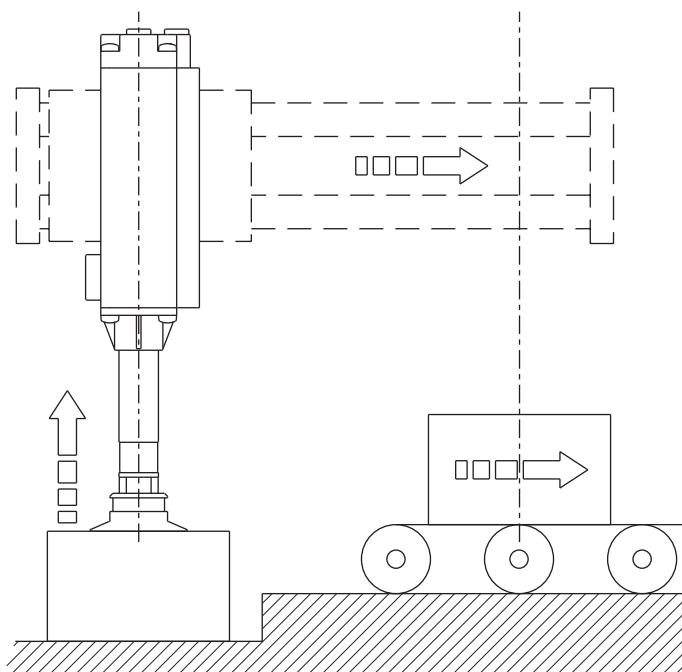


**Esempio di applicazione**

Presa e deposito a livelli diversi.

**Application example**

Pick and placing at different levels.

**Esempio di applicazione**

Apertura sacchetti in macchine per confezionamento.

**Application example**

Bag opening in packaging machines.

