

# EJ-SMALL cartridges for integration

## EJ-SMALL-HF-2

- Two-stage EJ-SMALL-HF-2 cartridge with extremely compact dimensions
- Can be integrated near the gripping point, lightweight
- Ideal for high speed Pick & Place applications
- Suitable for handling porous objects
- Maximum vacuum level (-78 kPa)
- Available in the cartridge-only or cartridge with holder versions

Introduction

Vacuum theory

Suction cups

Vacuum pumps

Customised solutions

Suspensions

System accessories



### Technical features

|                   |               |
|-------------------|---------------|
| Max feed pressure | 0.7 MPa       |
| Temperature range | +14 - +176 °F |
| Weight            | 0.6 ± 1.9 g   |

### Suction flow rate

| Feed pressure<br>[MPa] | Air<br>consumption<br>[NI/s] | Suction flow rate [NI/s] at different vacuum levels [kPa] |      |      |      |      |       |       |       | Max vacuum<br>[kPa] |
|------------------------|------------------------------|---|------|------|------|------|-------|-------|-------|---------------------|
|                        |                              | 0   | -10  | -20  | -30  | -40  | -50   | -60   | -70   |                     |
| 0.4                    | 0.12                         | 0.26  | 0.13 | 0.08 | 0.07 | 0.06 | 0.04  | 0.02  | —     | -65                 |
| 0.5                    | 0.13                         | 0.28  | 0.16 | 0.09 | 0.08 | 0.05 | 0.04  | 0.02  | —     | -72                 |
| 0.6                    | 0.15                         | 0.29  | 0.18 | 0.10 | 0.08 | 0.05 | 0.041 | 0.033 | 0.025 | -78                 |

### Evacuation time

| Feed pressure<br>[MPa] | Air<br>consumption<br>[NI/s] | Evacuation time [s/l] to reach different vacuum levels [kPa] |      |      |     |     |     |      | Max vacuum<br>[kPa] |
|------------------------|------------------------------|--|------|------|-----|-----|-----|------|---------------------|
|                        |                              | -10  | -20  | -30  | -40 | -50 | -60 | -70  |                     |
| 0.4                    | 0.12                         | 0.51   | 1.47 | 2.8  | 4.3 | 6.3 | 9.7 | —    | -65                 |
| 0.5                    | 0.13                         | 0.45   | 1.25 | 2.43 | 4.0 | 6.2 | 9.5 | —    | -72                 |
| 0.6                    | 0.15                         | 0.43   | 1.14 | 2.25 | 3.8 | 6.0 | 8.7 | 12.1 | -78                 |

**Identification codes**

| Drawing | Alphanumeric code | Description                  | Order code |
|---------|-------------------|------------------------------|------------|
| A       | EJ-S-HF-2         | EJ-SMALL-HF-2 without holder | 3300003    |
| B       | EJ-S-HF-2-H       | EJ-SMALL-HF-2 with holder    | 3300004    |

