# **ESS**Suction cup complete



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www.festo.com

Instructions | Assembly

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Translation of the original instructions

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## 1 Applicable Documents

All available documents for the product → www.festo.com/sp.

Documents	Product	Contents	
Instructions	Suction cup holder ESH	Assembly	
Instructions	Vacuum suction cup ESV	Assembly	

Tab. 1

#### 2 Safety

## 2.1 Safety Instructions

 Only assemble the product on components that are in a condition to be safely operated.

## 2.2 Intended Use

The suction cup ESS is used for gripping by means of vacuum generation.

## 3 Additional information

Vacuum suction cup ESV → www.festo.com/catalogue.

### 4 Assembly

Mounting examples using round suction cups:

## 4.1 Suction Cup with Diameters of 2 mm and 4 mm



Fig. 1

• Mount the suction cup dry and free of grease.

## 4.2 Suction Cup with Diameters of 6 mm and 8 mm



Fig. 2

Mount the suction cup dry and free of grease.

## 4.3 Suction Cup with Diameters of 10 mm and 15 mm



## Fig. 3

Mount the suction cup.

Suction cup	Screw	Tightening torque
Ø10 mm and Ø15 mm	M4x0.7	0.5 1 Nm

Tab. 2

## 4.4 Suction Cup with Diameter of 20 mm... 50 mm



#### Fig. 4

1. Mount the suction cup.

Suction cup	Screw	Tightening torque
Ø20 mm Ø50 mm	M6x1	2 2.7 Nm
≤ 10 x 30 mm (oval suction cup shape)	M6x1	0.27 0.33 Nm

#### Tah 3

2. If the vacuum suction cup is worn or the holding effect of the suction cup is reduced, the vacuum suction cup ESV can optionally be replaced.

## 4.5 Suction Cup with Diameter of 60 mm



Fig. 5

1. Mount the suction cup.

Suction cup	Screw	Tightening torque
Ø60 mm	M10x1.5	5 7 Nm
≥ 15 x 45 mm (oval suction cup shape)	M10x1.5	5 7 Nm

Tab. 4

2. If the vacuum suction cup is worn or the holding effect of the suction cup is reduced, the vacuum suction cup ESV can optionally be replaced.

#### 4.6 Suction Cup with Diameters of 80 mm and 100 mm

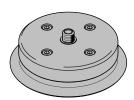


Fig. 6

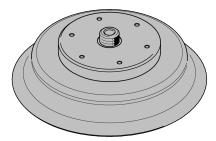
1. Mount the suction cup.

Suction cup	Screw	Tightening torque
Ø80 mm and Ø100 mm	M10x1.5	5 7 Nm
≥ 15 x 45 mm (oval suction cup shape)	M10x1.5	5 7 Nm

Tab. 5

2. If the vacuum suction cup is worn or the holding effect of the suction cup is reduced, the vacuum suction cup ESV can optionally be replaced.

## 4.7 Suction Cup with Diameters of 150 mm and 200 mm



## Fig. 7

1. Mount the suction cup.

Suction cup	Screw	Tightening torque
Ø150 mm and Ø200 mm	M20x2	9 10 Nm

Tab. 6

2. If the vacuum suction cup is worn or the holding effect of the suction cup is reduced, the vacuum suction cup ESV can optionally be replaced.