

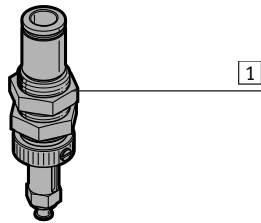
FESTO

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**Saugerhalter
ESH-...**

1. Teileliste



1 Saugerhalter ESH-... (1x)

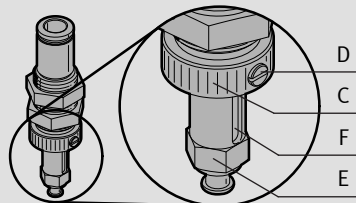
Bestimmungsgemäß dient der Saugerhalter 1 zur Befestigung eines Saugers (→ Montageanleitung des Saugers ESG) an einer Schnittstelle.

2. Montage

→ **Hinweis**

Funktionsstörungen und Sachschäden durch unsachgemäße Montage!

- Zulässige Anziehdrehmomente einhalten (→ Tabelle).
- Dafür sorgen, dass keine Anziehdrehmomente auf Hülse (C), Klemmschraube (D) und Stößel (E) übertragen werden.
- Dafür sorgen, dass im Betrieb keine Drehmomente vom Stößel (E) auf die Hülse (C) übertragen werden. Drehmomente können die Verdrehsicherung beschädigen.
- Beim Lösen und Befestigen der Muttern (A)/(B) nur an der jeweils anderen Mutter gegenhalten.

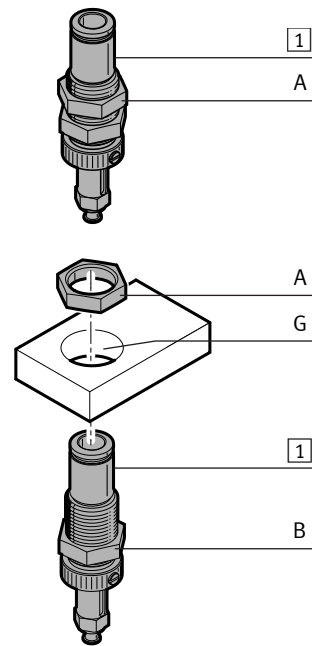


Die Klemmschraube (D) in der Nut (F) dient als Verdrehsicherung und darf nicht gelöst werden.

i Info

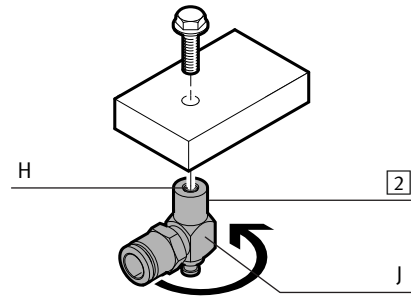
- Entsprechendes Zubehör aus unserem Katalog wählen (→ www.festo.com/catalogue).

2a. Montage mit Kontermuttern (A)/(B)



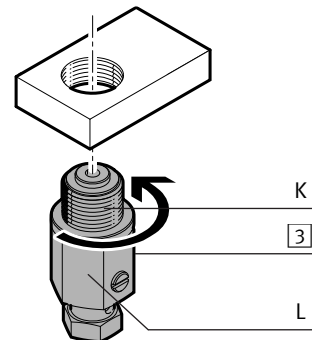
- Mutter (A) vom Gewinde des Saugerhalters 1 drehen.
- Saugerhalter 1 durch Montagebohrung (G) stecken.
- Saugerhalter 1 durch drehen der Mutter (B) positionieren.
- Saugerhalter 1 mit Mutter (A) kontern.

2b. Montage über Innengewinde (H)



- Saugerhalter 2 über das Innengewinde (H) befestigen. Dabei am Gehäuse (J) gegenhalten.

2c. Montage über Außengewinde (K)



- Saugerhalter 3 über das Außengewinde (K) befestigen. Dabei am Gehäuse (L) gegenhalten.

3. Schraubengrößen und Anziehdrehmomente M_A

ESH-HA	(A)/(B)	M _A [Nm]	≈C	
1	QS4	M6x0,75	2,5 ±0,5	10
	PK-3	M5x0,5	1,75 ±0,25	8
2	QS6	M10x1	6 ±1	12
	PK-4	M8x0,75	3 ±0,5	10
3	QS6	M12x1	13 ±1	14
	PK-4	M8x0,75	3 ±0,5	10
4	QS6	M14x1	19 ±1	17
	PK-4	M12x1	13 ±1	14
5	G1/8	M20x1	20 ±1	24
6	G1/4	M24x2	45 ±5	27

ESH-HB	(H)	M _A [Nm]	≈C	
1	QS4	M3	0,9 ±0,25	5
	PK-3			
2	QS6	M4	2,5 ±0,5	8
	PK-4			
3	QS6	M6	8 ±1,5	12
	PK-4			
4	QS6	M6	8 ±1,5	12
	PK-4			
5	G1/8	M8	20 ±4	22
6	G1/4	M16	170 ±34	30

ESH-HC	(A)/(B)	M _A [Nm]	≈C	
1	QS4	M12x1	13 ±1	14
	PK-3	M8x0,75	3 ±0,5	10
2	QS6	M12x1	13 ±1	14
	PK-4	M8x0,75	3 ±0,5	10
3	QS6	M14x1	19 ±1	17
	PK-4			
4	QS6	M14x1	19 ±1	17
	PK-4			
5	G1/8	M22x1	45 ±5	30
6	G1/4	M30x2	45 ±5	36

ESH-HCL	(A)/(B)	M _A [Nm]	≈C	
1	QS4	M12x1	13 ±1	14
	PK-3			
2	QS6	M12x1	13 ±1	14
	PK-4			
3	QS6	M14x1	19 ±1	17
	PK-4			
4	QS6	M14x1	19 ±1	17
	PK-4			
5	G1/8	M22x1	45 ±5	30
6	G1/4	M30x2	45 ±5	36

ESH-HD	(A)/(B)	M _A [Nm]	≈C	
1	QS4	M8x0,75	2 ±0,5	10
	PK-3			
2	QS6	M8x0,75	2 ±0,5	10
	PK-4			
3	QS6	M14x1	19 ±1	17
	PK-4			
4	QS6	M14x1	19 ±1	17
	PK-4			
5	G1/8	M22x1	45 ±5	30
6	G1/4	M30x2	45 ±5	36

ESH-HDL	(A)/(B)	M _A [Nm]	≈C	
1	QS4	M12x1	13 ±1	14
	PK-3			
2	QS6	M12x1	13 ±1	14
	PK-4			
3	QS6	M14x1	19 ±1	17
	PK-4			
4	QS6	M14x1	19 ±1	17
	PK-4			
5	G1/8	M22x1	45 ±5	30
6	G1/4	M30x2	45 ±5	36

ESH-HE	(K)	M _A [Nm]	≈C
1	M3	0,9 ±0,25	5,5
2	M5	1,7 ±0,2	8
3	G1/8	8 ±1	13
4	G1/8	8 ±1	13
5	G1/4	13 ±1	17

ESH-HF	(K)	M _A [Nm]	≈C
1	M10x1	6 ±1	12
2	M10x1	6 ±1	12
3	M14x1	19,5 ±1,5	17
4	M14x1	19,5 ±1,5	17

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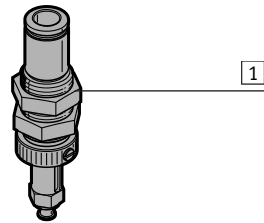
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Suction cup holder

ESH-...

1. Parts list



1 Suction cup holder (1x)
ESH-...

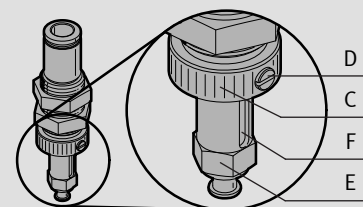
The suction cup holder 1 is intended for mounting a suction cup complete (→ assembly instructions of the suction cup complete ESG) to an interface.

2. Assembly

→ **Note**

Operative malfunctions and material damage due to incorrect mounting!

- Comply with permissible tightening torques (→ table).
- Make sure that no tightening torques are transferred to sleeve (C), clamping screw (D) and plunger (E).
- Make sure that no tightening torques are transferred in operation from the plunger (E) to the sleeve (C). Torques can damage the protection against torsion.
- When loosening and fastening the nuts (A)/(B), apply counter pressure only on the other nut.

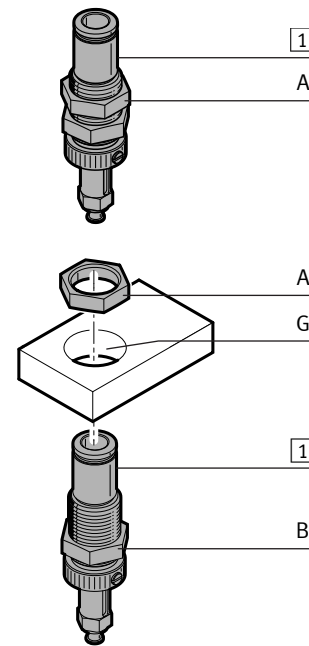


The clamping screw (D) in the slot (F) serves as protection against torsion and must not be loosened.

i Information

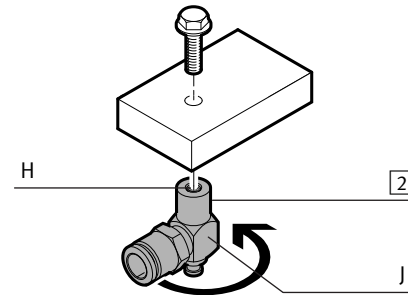
- Select the corresponding accessories from our catalogue (→ www.festo.com/catalogue).

2a. Mounting with lock nuts (A)/(B)



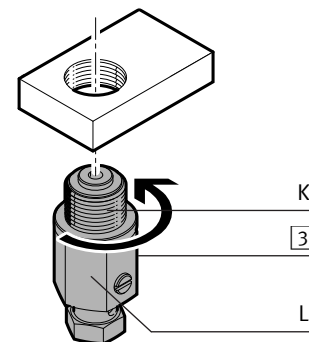
- Unscrew nut (A) from the thread of the suction cup holder 1.
- Push suction cup holder 1 through the mounting hole (G).
- Position the suction cup holder 1 by turning the nut (B).
- Lock the suction cup holder 1 with nut (A).

2b. Mounting through female thread (H)



- Fasten suction cup holder 2 through the female thread (H). In doing this, apply counter pressure to the housing (J).

2c. Mounting through male thread (K)



- Fasten suction cup holder 3 through the male thread (K). In doing this, apply counter pressure to the housing (L).

3. Screw sizes and tightening torques M_A

ESH-HA	(A)/(B)	M _A [Nm]	≈C
1	QS4	M6x0.75	2.5 ±0.5
	PK-3	M5x0.5	1.75 ±0.25
2	QS6	M10x1	6 ±1
	PK-4	M8x0.75	3 ±0.5
3	QS6	M12x1	13 ±1
	PK-4	M8x0.75	3 ±0.5
4	QS6	M14x1	19 ±1
	PK-4	M12x1	13 ±1
5	G1/8	M20x1	20 ±1
6	G1/4	M24x2	45 ±5

ESH-HB	(H)	M _A [Nm]	≈C
1	QS4	M3	0.9 ±0.25
	PK-3		
2	QS6	M4	2.5 ±0.5
	PK-4		
3	QS6	M6	8 ±1.5
	PK-4		
4	QS6	M6	8 ±1.5
	PK-4		
5	G1/8	M8	20 ±4
6	G1/4	M16	170 ±34

ESH-HC	(A)/(B)	M _A [Nm]	≈C
1	QS4	M12x1	13 ±1
	PK-3	M8x0.75	3 ±0.5
2	QS6	M12x1	13 ±1
	PK-4	M8x0.75	3 ±0.5
3	QS6	M14x1	19 ±1
	PK-4		
4	QS6	M14x1	19 ±1
	PK-4		
5	G1/8	M22x1	45 ±5
6	G1/4	M30x2	45 ±5

ESH-HCL	(A)/(B)	M _A [Nm]	≈C
1	QS4	M12x1	13 ±1
	PK-3		
2	QS6	M12x1	13 ±1
	PK-4		
3	QS6	M14x1	19 ±1
	PK-4		
4	QS6	M14x1	19 ±1
	PK-4		
5	G1/8	M22x1	45 ±5
6	G1/4	M30x2	45 ±5

ESH-HD	(A)/(B)	M _A [Nm]	≈C
1	QS4	M8x0.75	2 ±0.5
	PK-3		
2	QS6	M8x0.75	2 ±0.5
	PK-4		
3	QS6	M14x1	19 ±1
	PK-4		
4	QS6	M14x1	19 ±1
	PK-4		
5	G1/8	M22x1	45 ±5
6	G1/4	M30x2	45 ±5

ESH-HDL	(A)/(B)	M _A [Nm]	≈C
1	QS4	M12x1	13 ±1
	PK-3		
2	QS6	M12x1	13 ±1
	PK-4		
3	QS6	M14x1	19 ±1
	PK-4		
4	QS6	M14x1	19 ±1
	PK-4		
5	G1/8	M22x1	45 ±5
6	G1/4	M30x2	45 ±5

ESH-HE	(K)	M _A [Nm]	≈C
1	M3	0.9 ±0.25	5.5
2	M5	1.7 ±0.2	8
3	G1/8	8 ±1	13
4	G1/8	8 ±1	13
5	G1/4	13 ±1	17

ESH-HF	(K)	M _A [Nm]	≈C
1	M10x1	6 ±1	12
2	M10x1	6 ±1	12
3	M14x1	19.5 ±1.5	17
4	M14x1	19.5 ±1.5	17