Stopper cylinders STA/STAF

FESTO

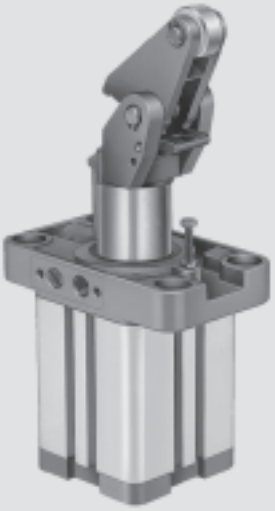
- Gentle stopping without impact vibrations or noise
- Simple activation via valve terminal
- Single-acting or double-acting

Stopper cylinders STA/STAF

Features

Trunnion version

Roller version



Toggle lever version

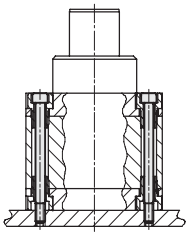
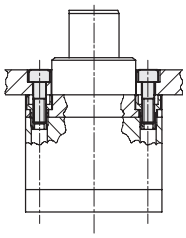
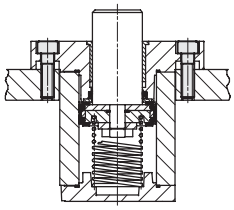
Brief description

- Single-acting or double-acting
- Variants
  - Trunnion
  - Roller
  - Toggle lever
- Solenoid valves mounted directly to flange plate
- Fast and simple set-up of conveyor lines
- Workpiece carriers, pallets and packages weighing up to 300 kg can be safely stopped
- Gentle stopping without impact vibrations or noise with toggle lever version
- Simple activation via valve terminal (e.g. in combination with other cylinders at an assembly station)
- Flanged solenoid valve on individual stopper cylinders permits fast actuation even over long distances
- Space saving sensing with integrated proximity sensors

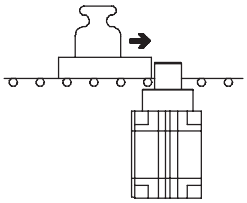
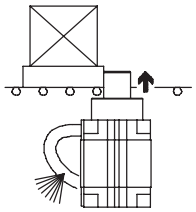
Stopper cylinders STA/STAF

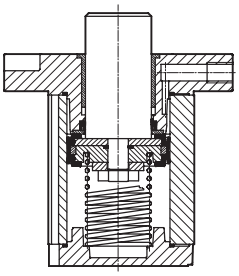
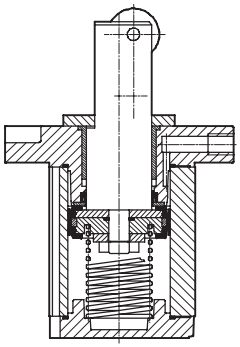
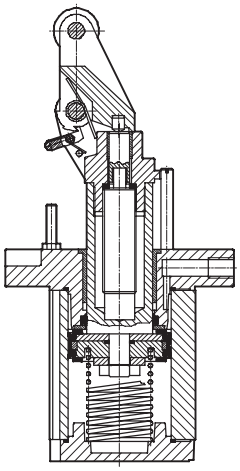
Features

Mounting options

Through-hole mounting	Direct mounting	Flange mounting
		

Application options and versions

For large masses	Safety	Highly effective, low noise level
	 by means of piston rod spring return in the event of pressure failure	Toggle lever version with integrated shock absorber facilitates precise and gentle stopping of the workpiece carrier

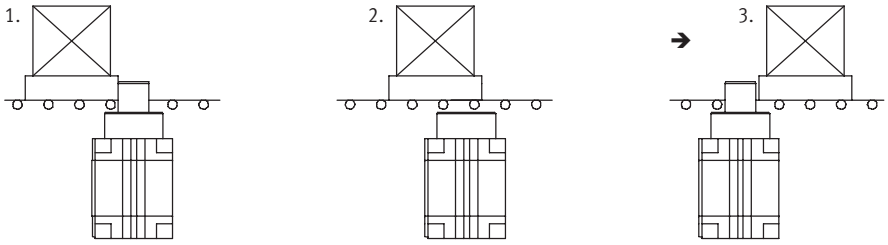
Trunnion version	Roller version	Toggle lever version
		

Stopper cylinders STA/STAF

Features

Trunnion version

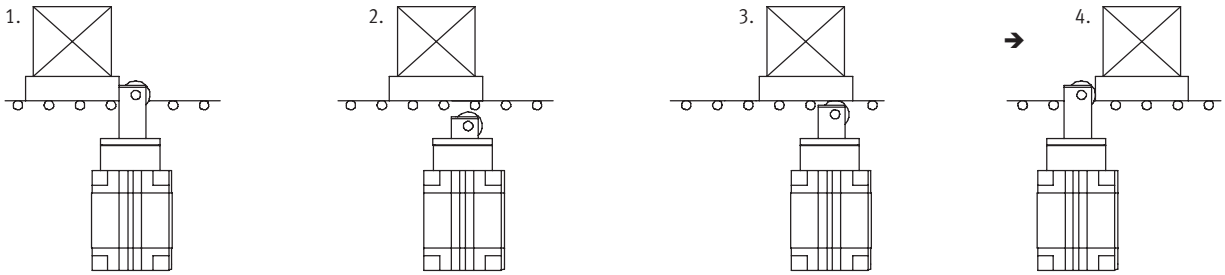
Technical data ➔ 1 / 5.2-12



1. Sudden braking of the workpiece carrier via the piston rod.
2. The workpiece carrier is released by activating the cylinder.
   The control system must hold the piston down until the workpiece carrier has passed the stopper cylinder.
3. The piston rod then advances by means of spring force or compressed air. The next workpiece carrier can then be stopped.

Roller version

Technical data ➔ 1 / 5.2-16



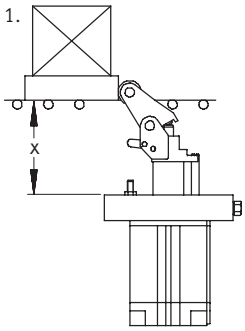
1. Sudden braking of the workpiece carrier via the piston rod.
2. The workpiece carrier is released by activating the cylinder.
3. The piston rod then advances by means of spring force or compressed air until the roller makes contact with the workpiece carrier. The workpiece carrier continues to move forward.
4. After the workpiece carrier has passed, the piston rod advances to the end position. The next workpiece carrier can then be stopped.

Stopper cylinders STA/STAF

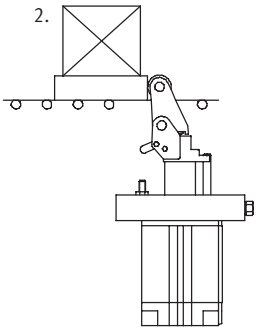
Features

Toggle lever version

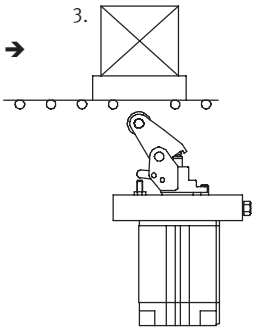
Technical data ➔ 1 / 5.2-20



1. Gentle stopping of heavy loads via a hydraulic shock absorber in the piston rod.

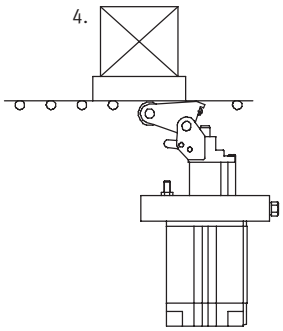


2. The toggle lever is latched into the retracted end position so that the workpiece carrier cannot be pushed back by the shock absorber.

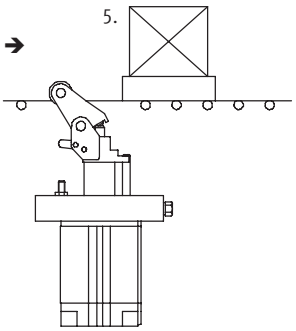


3. The workpiece carrier is released by means of compressed air, and the toggle lever is released simultaneously.

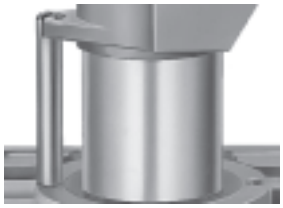
X = STAF-32: 62.8 ... 63.4 mm
STAF-50: 96.5 ... 99.5 mm
STAF-80: 163 ... 166 mm



4. The piston is extended by means of spring force or compressed air. The toggle lever tips back which prevents the workpiece carrier from being lifted.



5. The toggle lever is raised by means of spring force and stops the next workpiece carrier.



Protection against rotation:
The guide rod always aligns the toggle lever precisely to the approaching workpiece carrier.

Integrated shock absorber: Absorbs impact energy and stops the workpiece carrier gently, and with low noise levels.
The impact energy can be adjusted using the regulating screw in the toggle lever.

Detenting roller lever: The workpiece carrier cannot be pushed back by the shock absorber.

Locking mechanism for disabling the stopper function: The workpiece carrier is able to pass the holding point without activating the cylinder.

- Note

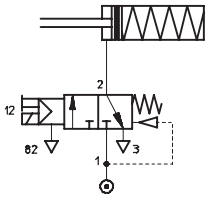
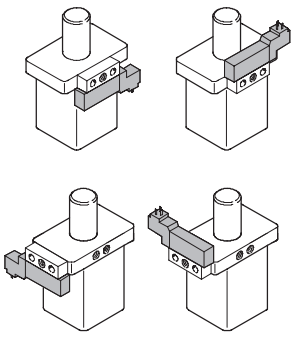
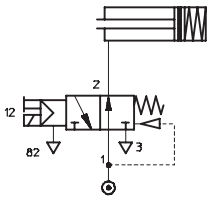
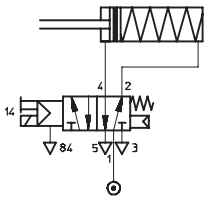
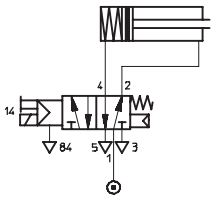
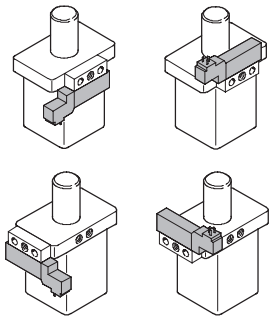
Trunnion or roller type stopper cylinders can be mounted in any position.
Stopper cylinders with toggle lever must be mounted in the vertical, upright position.

Stopper cylinders STA/STAF

Features

Mounting options for solenoid valves and valve functions

An MEH, MEBH, MOEH or MOEBH solenoid valve can be mounted on the stopper cylinder for quick, direct actuation of the cylinder. This type of actuation is only possible for stopper cylinders with flange mounting. The valve must be mounted on the flange plate via a ZVA valve sub-base. The position of the piston rod when the solenoid valve is in the normal position depends upon the valve type and the position of the valve on the cylinder.

Application	Piston rod initial position	Required solenoid valve	Type of mounting for the solenoid valve with sub-base ZVA
	**Single-acting**		
		Normally extended 173 125 MEH-3/2-5,0-B 172 999 MEBH-3/2-5,0-B	
		Normally retracted 173 429 MOEH-3/2-5,0-B 173 002 MOEBH-3/2-5,0-B	
	Double-acting		
		Normally extended 173 128 MEH-5/2-5,0-B 173 005 MEBH-5/2-5,0-B	
		Normally retracted 173 128 MEH-5/2-5,0-B 173 005 MEBH-5/2-5,0-B	

Note

Cylinders are always supplied single-acting with spring. If a double-acting stopper cylinder is required, the filter nipple in the exhaust port must be removed. The exhaust port is then used as a supply port.

Solenoid valves MEH, MEBH
➔ Volume 2

Stopper cylinders STA/STAF

Features

Selection aid

Complete the following three steps for quick and accurate selection of a suitable stopper cylinder:

1. If gentle cushioning is required in your application in order to avoid vibration and shifting of the workpiece, and to reduce noise, use a stopper cylinder with toggle lever (graph 2).
2. Check to see whether or not the stopper cylinder covers the desired working range (see graph 1 and selection example).
3. Check to see whether or not the installation dimensions for the selected cylinder fulfil your requirements.

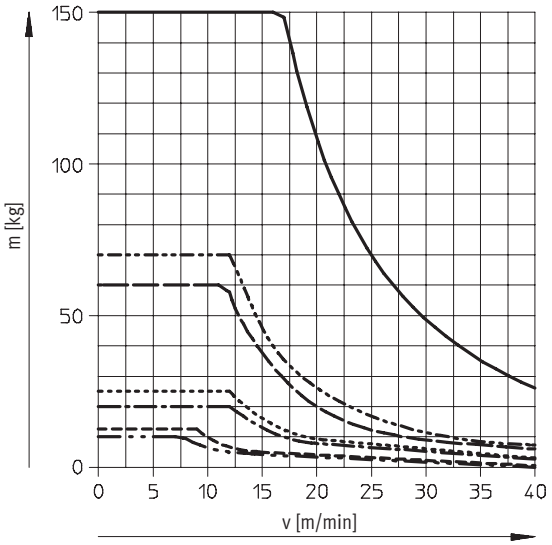
Example

A workpiece carrier with workpiece (material-dependent frictional value μ = 0.1) and a total weight of 200 kg moving at a speed of 17.5 m/min is to be stopped gently. The intersection of the vertical line in graph toggle lever version STAF-80 ➔1 / 5.2-8 (impact mass) and the horizontal line (impact velocity) is within the working range of the stopper cylinder (with toggle lever) STAF-80-40-P-A-K, i.e. this stopper cylinder fulfils the requirement and can be utilised.

The maximum permissible kinetic impact energy on the piston rod of stopper cylinders must not be exceeded. Mechanical failure of the cylinder may otherwise result. The values in the graph presuppose the use of a flexible buffer on the workpiece carrier with a deformation capacity of 1 mm for trunnion and roller type stopper cylinders.

Impact velocity v as a function of the impact mass m

Trunnion or roller version



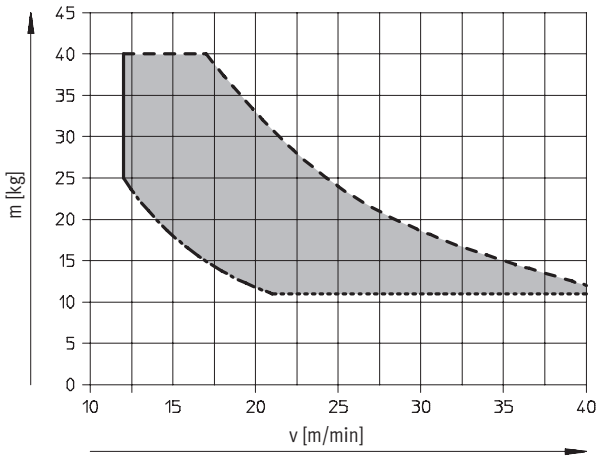
- STAF-80-30-P-A-R
- STAF-80-40-P-A-R
- STA...-50-30-P-A
- STA...-50-30-P-A-R
- STA...-32-20-P-A
- STA...-32-20-P-A-R
- STA-20-15-P-A
- STA-20-15-P-A-R

Stopper cylinders STA/STAF

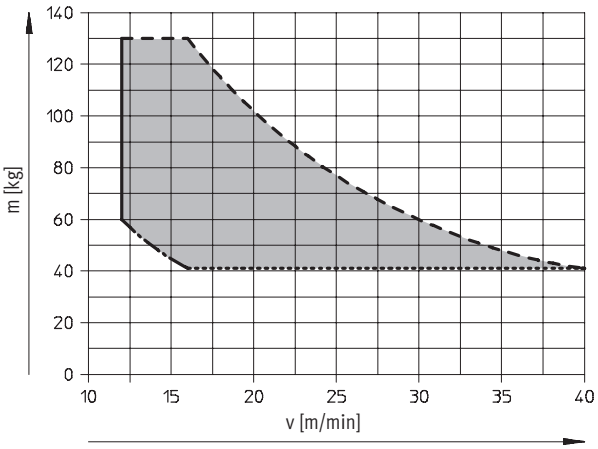
Features

Impact velocity v as a function of the impact mass m

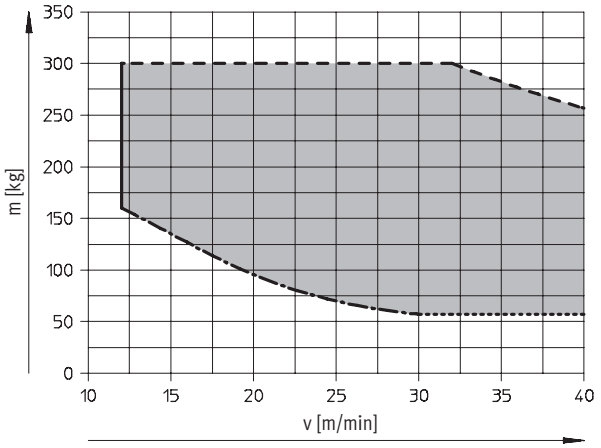
Toggle lever version
STAF-32 with a frictional value of μ = 0.1



Toggle lever version
STAF-50 with a frictional value of μ = 0.1



Toggle lever version
STAF-80 with a frictional value of μ = 0.1



Operational range
Max. utilisation
Recommended minimum utilisation[1)]
Required mass[2)]

1) For optimal shock absorber operation.
2) Required mass for the toggle lever to be fully depressed to the end position with this frictional value.

Note

The required mass for the full depression of the lever is dependent on the frictional mating between conveyor belt and transported material, other frictional values available on request. The cushioning time increases in the partial load range. Energy values are valid for room temperature T = 20 °C.

Stopper cylinders STA/STAF

Product range overview

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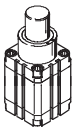
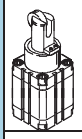
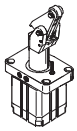
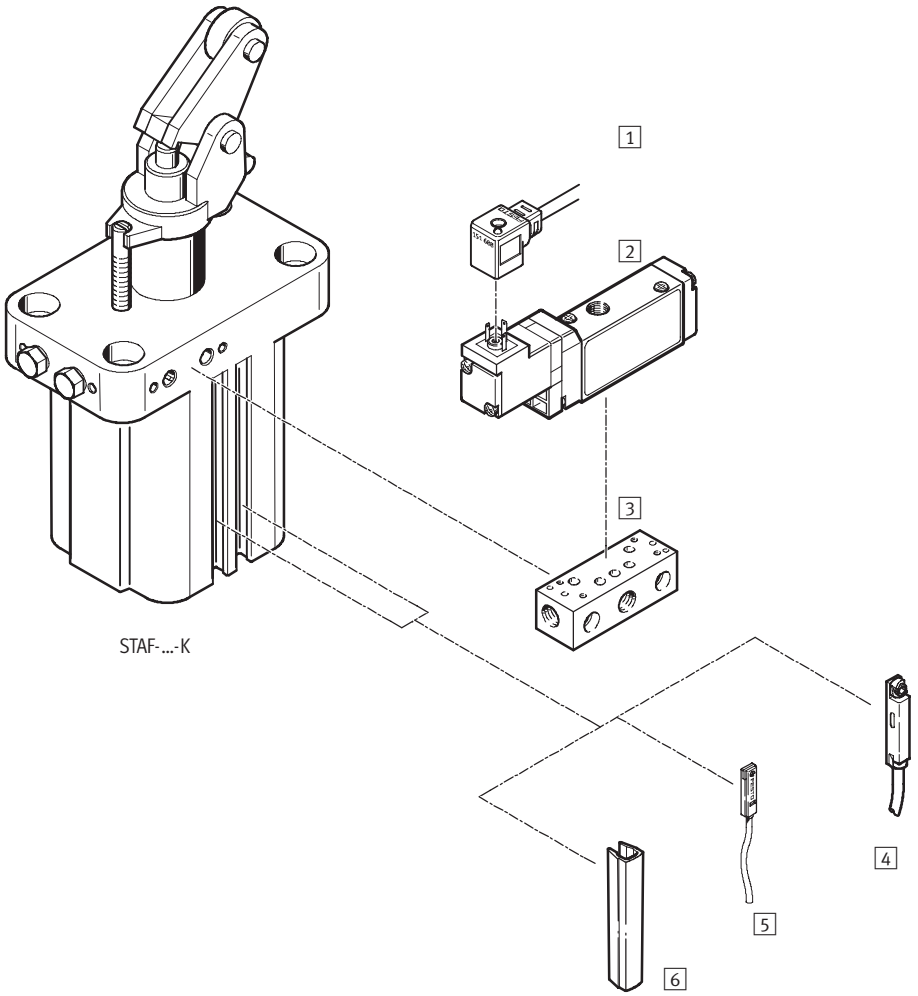
Function	Design	Type	Piston ∅ [mm]	Stroke [mm]	Type of mounting Direct	Type of mounting With flange	Cushioning P	Position sensing A	→ Page
Single or double-acting	**Basic version**								
		Trunnion version	20	15	■	–	■	■	1 / 5.2-12
			32	20	■	■	■	■	
			50	30	■	■	■	■	
		Roller version	20	15	■	–	■	■	1 / 5.2-16
			32	20	■	■	■	■	
			50	30	■	■	■	■	
			80	30, 40	–	■	■	■	
		Toggle lever version	32	20	–	■	■	■	1 / 5.2-20
			50	30	–	■	■	■	
			80	40	–	■	■	■	

Stopper cylinders STA/STAF

Peripherals overview



Accessories		
	Brief description	**→ Page**
1 Cable with socket KMEB	–	Volume 2
2 3/2-way valve MEBH	For fast and direct actuation of the stopper cylinder	Volume 2
3 Sub-base ZVA	For stopper cylinder with flange	1 / 5.2-23
4 Proximity sensors SME/SMT-8M	Can be integrated in the cylinder profile barrel from above	1 / 5.2-25
5 Proximity sensors SME/SMT-8	Can be integrated flush with the cylinder profile barrel	1 / 5.2-25
6 Slot cover ABP	To protect the sensor cable and keep dirt out of the sensor slots	1 / 5.2-25

Stopper cylinders STA/STAF

Type codes

Type	
Single-acting or double-acting	
STA	Stopper cylinder
STAF	Stopper cylinder with flange mounting

Piston ∅ [mm]

Stroke [mm]

Cushioning	
P	Flexible cushioning rings/plates at both ends

Sensing	
A	For proximity sensing

Design	
	Trunnion version
R	Roller version
K	Toggle lever version

Stopper cylinders STA/STAF, trunnion

Technical data

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Function

Diameter
20 ... 50 mm

Stroke length
15 ... 30 mm

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Spare_parts_service

Note

Contact with liquids must be avoided during use.

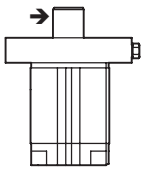
General technical data				
Piston ∅		20	32	50
Pneumatic connection	STA	M5	G1⁄8	G1⁄8
	STAF	–	M5	G1⁄8
Stroke	[mm]	15	20	30
Piston rod ∅	[mm]	12	20	32
Operating pressure	[bar]	10		
Operating medium		Filtered compressed air, lubricated or unlubricated		
Design		Piston cylinder with spring return		
Cushioning		Flexible cushioning rings/plates at both ends		
Position sensing		For proximity sensing		
Type of mounting		Via through-holes		
		Using female threads		
Mounting position		Any		
Mode of operation		Single-acting or double-acting		
Protection against torsion		None		
Ambient temperature[1)]	[°C]	+5 ... +60		

1) Note operating range of proximity sensors

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Forces [N]			
Piston ∅	20	32	50
Impact force	260	1,000	2,900
Spring force	13 ... 18	20 ... 42	47 ... 64

Impact force is the basis for the calculation of permissible impact energy. Depending upon the type of load to be stopped, it is advisable to use a flexible buffer to cushion the impact, reduce noise levels and to optimise impact energy.



➔ = Direction of impact force

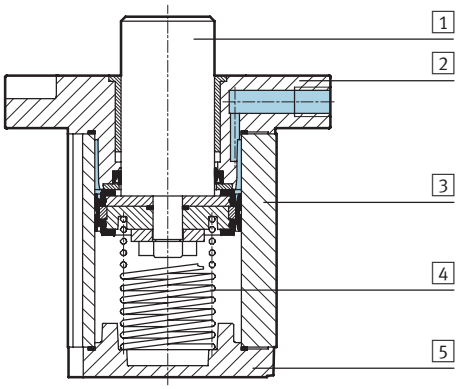
Stopper cylinders STA/STAF, trunnion

Technical data

FESTO

Materials

Sectional view



Stopper cylinder		
1	Piston rod	Stainless steel
2	Flange	Die-cast aluminium
3	Cylinder barrel	Anodised aluminium
4	Springs	Spring steel
5	Plug cap	Anodised aluminium
–	Seals	Polyurethane
–	Note on material	Free of copper, PTFE and silicone

Stopper cylinders STA/STAF, trunnion

Technical data

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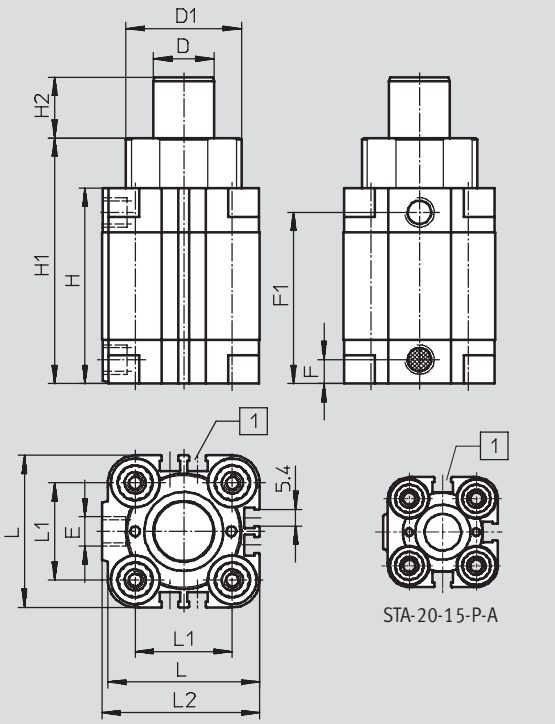
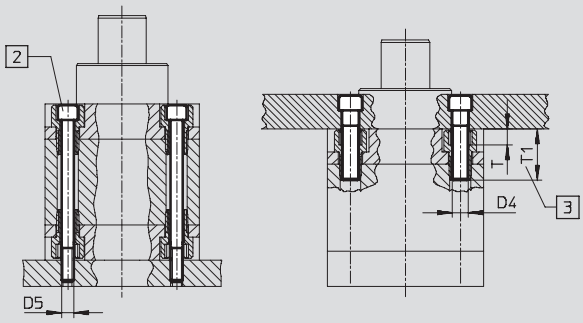
Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Direct mounting



STA-20-15-P-A



Note

The socket head screw may only be inserted via the bearing cap for design reasons.

1 Sensor slot for proximity sensor SME/SMT-8

2 Socket head screw to DIN 912, screwed through

3 Recommended minimum screw-in depth

∅ [mm]	Stroke [mm]	D ∅	D1 ∅	D4	D5	E	F	F1	H	H1	H2	L	L1	L2	T	T1
20	15	12	26	M5	M4	M5	8	45	53	64.5	15	36	22	37.5	4	18
32	20	20	38	M6	M5	G1⁄8	8	56.5	64.5	80.5	20	50	32	52	5	20
50	30	32	53	M8	M6	G1⁄8	8	67.5	75.5	99.5	30	68	50	71	6	20

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Stopper cylinders STA/STAF, trunnion

Technical data

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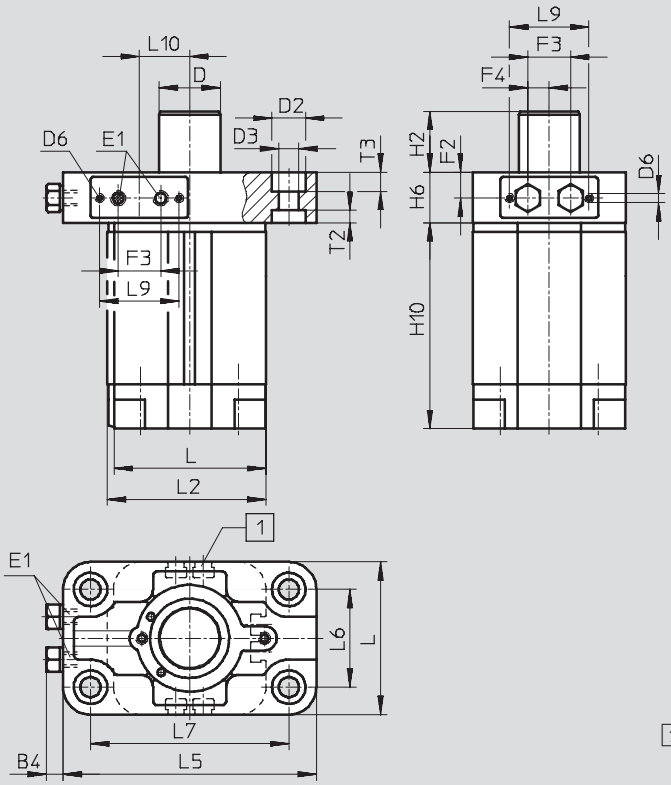
Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Flange mounting



1 Sensor slot for proximity sensor SME/SMT-8

∅ [mm]	Stroke [mm]	B4	D ∅	D2 ∅	D3 ∅	D6	E1	F2	F3	F4	H2
32	20	4.5	20	11	6.6	M3	M5	8.5	14	7	20
50	30	4.5	32	15	9	M4	G1/8	9	17	8	30

∅ [mm]	Stroke [mm]	H6	H10	L	L2	L5	L6	L7	L9	L10	T2	T2
32	20	16.5	67.5	50	52	83	32	65	26	16.5	4	6.2
50	30	18	85	68	71	111	45	90	36	7	5	5

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Ordering data

Piston ∅ [mm]	Stroke [mm]	Direct mounting Part No.	Type	Flange mounting Part No.	Type
20	15	**164 887**	**STA-20-15-P-A**	–	–
32	20	**164 888**	**STA-32-20-P-A**	**164 890**	**STAF-32-20-P-A**
50	30	**164 889**	**STA-50-30-P-A**	**164 891**	**STAF-50-30-P-A**

Stopper cylinders STA/STAF, roller

Technical data

FESTO

Function

Diameter
20 ... 80 mm

Stroke length
15 ... 40 mm

www.festo.com/en/
Spare_parts_service

Note

Contact with liquids must be avoided during use.

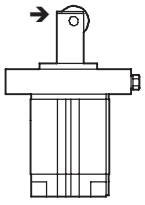
General technical data						
Piston ∅		20	32	50	80	
Pneumatic connection	STA	M5	G1⁄8	G1⁄8	–	
	STAF	–	M5	G1⁄8	G1⁄8	
Stroke	[mm]	15	20	30	30/40	
Piston rod ∅	[mm]	12	20	32	50	
Operating pressure	[bar]	10				
Operating medium		Filtered compressed air, lubricated or unlubricated				
Design		Piston cylinder with spring return				
Cushioning		Flexible cushioning rings/plates at both ends				
Position sensing		For proximity sensing				
Type of mounting		Via through-holes				
		Using female threads				
Mounting position		Any				
Mode of operation		Single-acting or double-acting				
Protection against torsion		Flat-sided piston rod				
Ambient temperature[1)]	[°C]	+5 ... +60				

1) Note operating range of proximity sensors

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Forces [N]					
Piston ∅	20	32	50	80	
Stroke	15	20	30	30	40
Impact force	170	830	2,300	14,600	13,300
Spring force	13 ... 18	20 ... 42	47 ... 64	79 ... 115	101 ... 170

Impact force is the basis for the calculation of permissible impact energy. Depending upon the type of load to be stopped, it is advisable to use a flexible buffer to cushion the impact, reduce noise levels and to optimise impact energy.



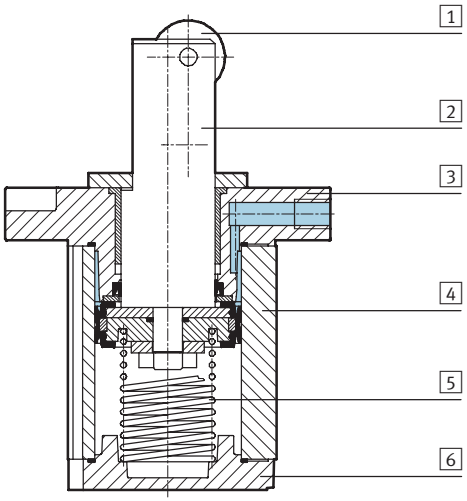
➔ = Direction of impact force

Stopper cylinders STA/STAF, roller

Technical data

Materials

Sectional view



Stopper cylinder		
1	Roller	Polymer
2	Piston rod	Stainless steel
3	Flange	Die-cast aluminium
4	Cylinder barrel	Anodised aluminium
5	Springs	Spring steel
6	Plug cap	Anodised aluminium
–	Seals	Polyurethane
–	Note on material	Free of copper, PTFE and silicone

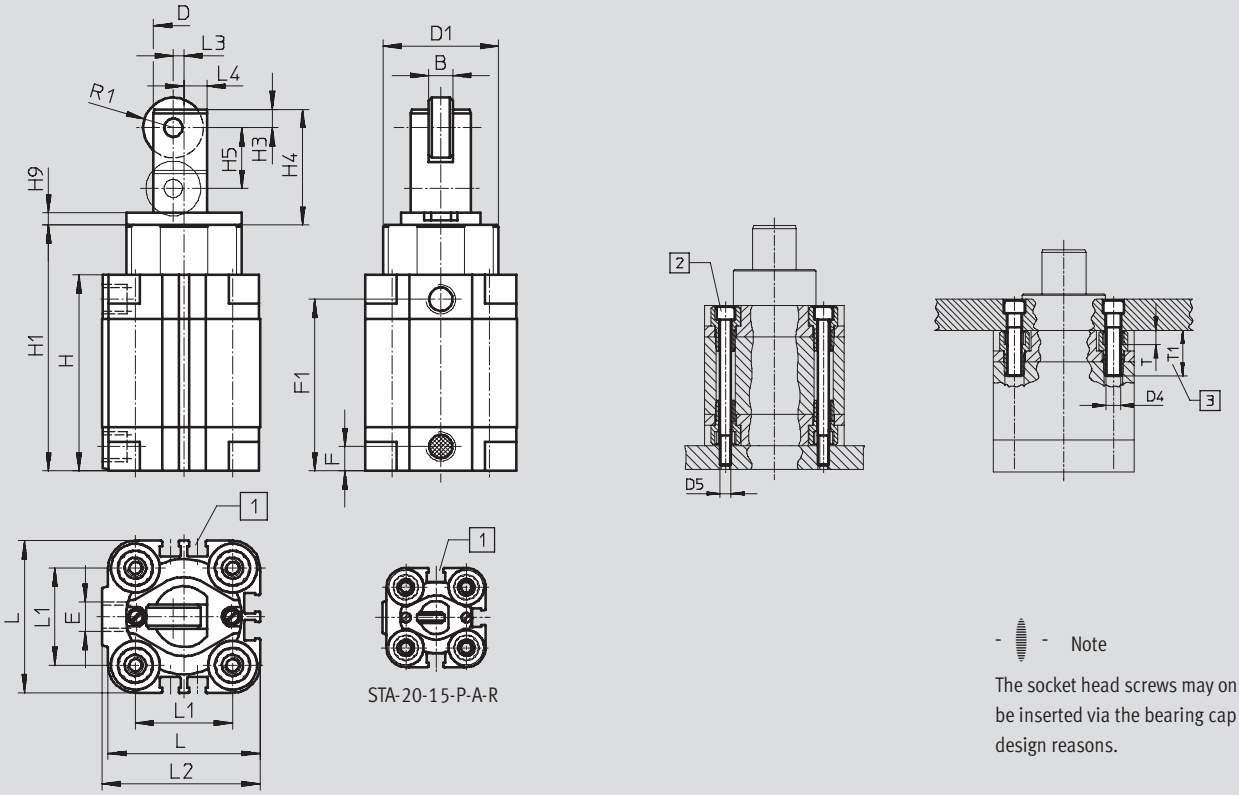
Stopper cylinders STA/STAF, roller

Technical data

FESTO

Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Direct mounting



STA-20-15-P-A-R

Note

The socket head screws may only be inserted via the bearing cap for design reasons.

1 Sensor slot for proximity sensor SME/SMT-8

2 Socket head screw to DIN 912, screwed through

3 Recommended minimum screw-in depth

∅ [mm]	Stroke [mm]	B	D ∅	D1 ∅	D4	D5	E	F	F1	H	H1	H3
20	15	4	12	26	M5	M4	M5	8	45	53	64.5	3
32	20	8	20	38	M6	M5	G1⁄8	8	56.5	64.5	80.5	6
50	30	10	32	53	M8	M6	G1⁄8	8	67.5	75.5	99.5	6

∅ [mm]	Stroke [mm]	H4	H5	H9	L	L1	L2	L3	L4	R1	T	T1
20	15	24	15	4	36	22	37.5	2	4.5	5	4	18
32	20	38	20	4	50	32	52	3.5	7.5	9	5	20
50	30	50.5	30	5	68	50	71	7	12	12.5	6	20

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

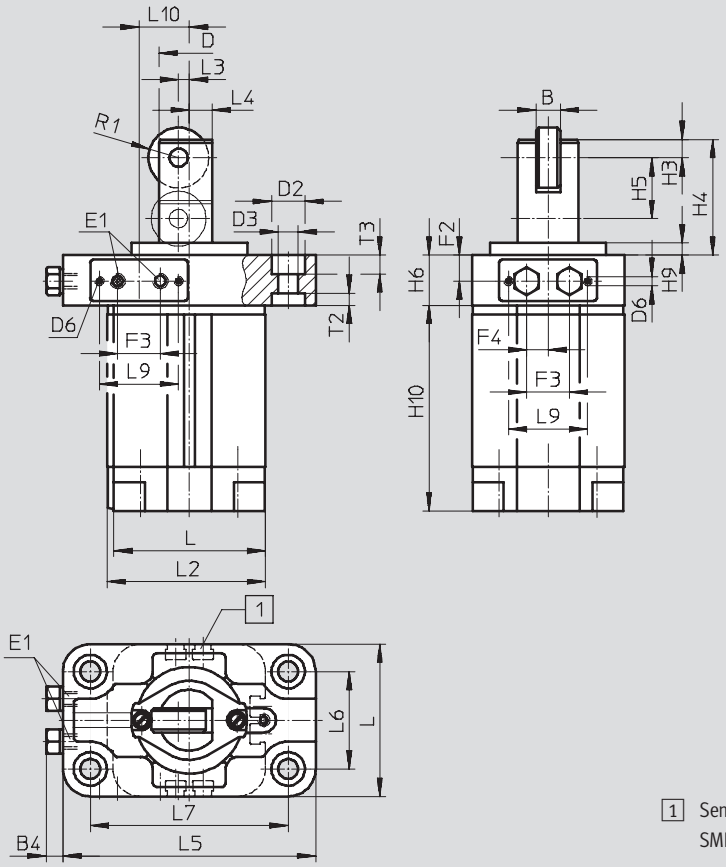
Stopper cylinders STA/STAF, roller

Technical data

FESTO

Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Flange mounting



1 Sensor slot for proximity sensor SME/SMT-8

∅ [mm]	Stroke [mm]	B	B4	D ∅	D2 ∅	D3 ∅	D6	E1	F2	F3	F4	H3	H4	H5	H6
32	20	8	4.5	20	11	6.6	M3	M5	8.5	14	7	6	38	20	16.5
50	30	10	4.5	32	15	9	M4	G1/8	9	17	8	6	50.5	30	18
80	30	18	4.5	50	18	11	M4	G1/8	11	17	4.5	10	63	30	22
	40												73	40	

∅ [mm]	Stroke [mm]	H9	H10	L	L2	L3	L4	L5	L6	L7	L9	L10	R1	T2	T3
32	20	4	67.5	50	52	3.5	7.5	83	32	65	26	16.5	9	4	6.2
50	30	5	85	68	71	7	12	111	45	90	36	7	12.5	5	5
80	30	8	119	107	111	11	18	160	63	135	36	18.5	18	6	6
	40		129												

Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Ordering data

Piston ∅ [mm]	Stroke [mm]	Direct mounting Part No.	Type	Flange mounting Part No.	Type
20	15	**164 883**	**STA-20-15-P-A-R**	–	–
32	20	**164 884**	**STA-32-20-P-A-R**	**164 892**	**STAF-32-20-P-A-R**
50	30	**164 885**	**STA-50-30-P-A-R**	**164 893**	**STAF-50-30-P-A-R**
80	30	–	–	**164 886**	**STAF-80-30-P-A-R**
80	40	–	–	**164 894**	**STAF-80-40-P-A-R**

Stopper cylinders STA/STAF, toggle lever

Technical data

FESTO

Function

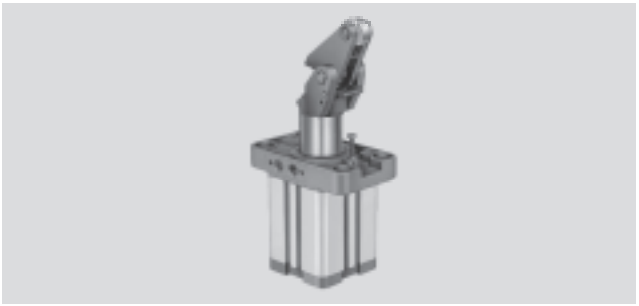
Diameter
32 ... 80 mm

Stroke length
20 ... 40 mm

www.festo.com/en/
Spare_parts_service

Note

Contact with liquids must be avoided during use.

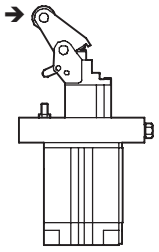


General technical data				
Piston ∅		32	50	80
Pneumatic connection		M5	G1/8	G1/8
Stroke	[mm]	20	30	40
Piston rod ∅	[mm]	20	32	50
Operating pressure	[bar]	10		
Operating medium		Filtered compressed air, lubricated or unlubricated		
Design		Piston cylinder with spring return		
Cushioning		Flexible cushioning rings/plates at both ends		
Position sensing		For proximity sensing		
Type of mounting		Via through-holes		
Mounting position		Vertical, upright		
Mode of operation		Single-acting or double-acting		
Protection against torsion		Guide rod		
Ambient temperature[1)]	[°C]	+5 ... +60		

1) Note operating range of proximity sensors
Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Forces [N]			
Piston ∅	32	50	80
Impact force	480	1,200	6,400
Spring force	20 ... 42	47 ... 64	101 ... 170

Impact force is the basis for the calculation of permissible impact energy. Depending upon the type of load to be stopped, it is advisable to use a flexible buffer to cushion the impact, reduce noise levels and to optimise impact energy.



➔ = Direction of impact force

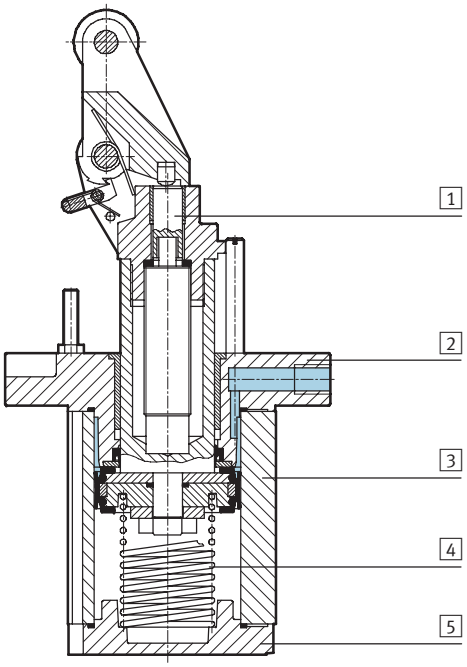
Stopper cylinders STA/STAF, toggle lever

Technical data

FESTO

Materials

Sectional view



Stopper cylinder		
1	Piston rod	Stainless steel
2	Flange	Die-cast aluminium
3	Cylinder barrel	Anodised aluminium
4	Springs	Spring steel
5	Plug cap	Anodised aluminium
–	Seals	Polyurethane
–	Note on material	Free of copper, PTFE and silicone

Stopper cylinders STA/STAF, toggle lever

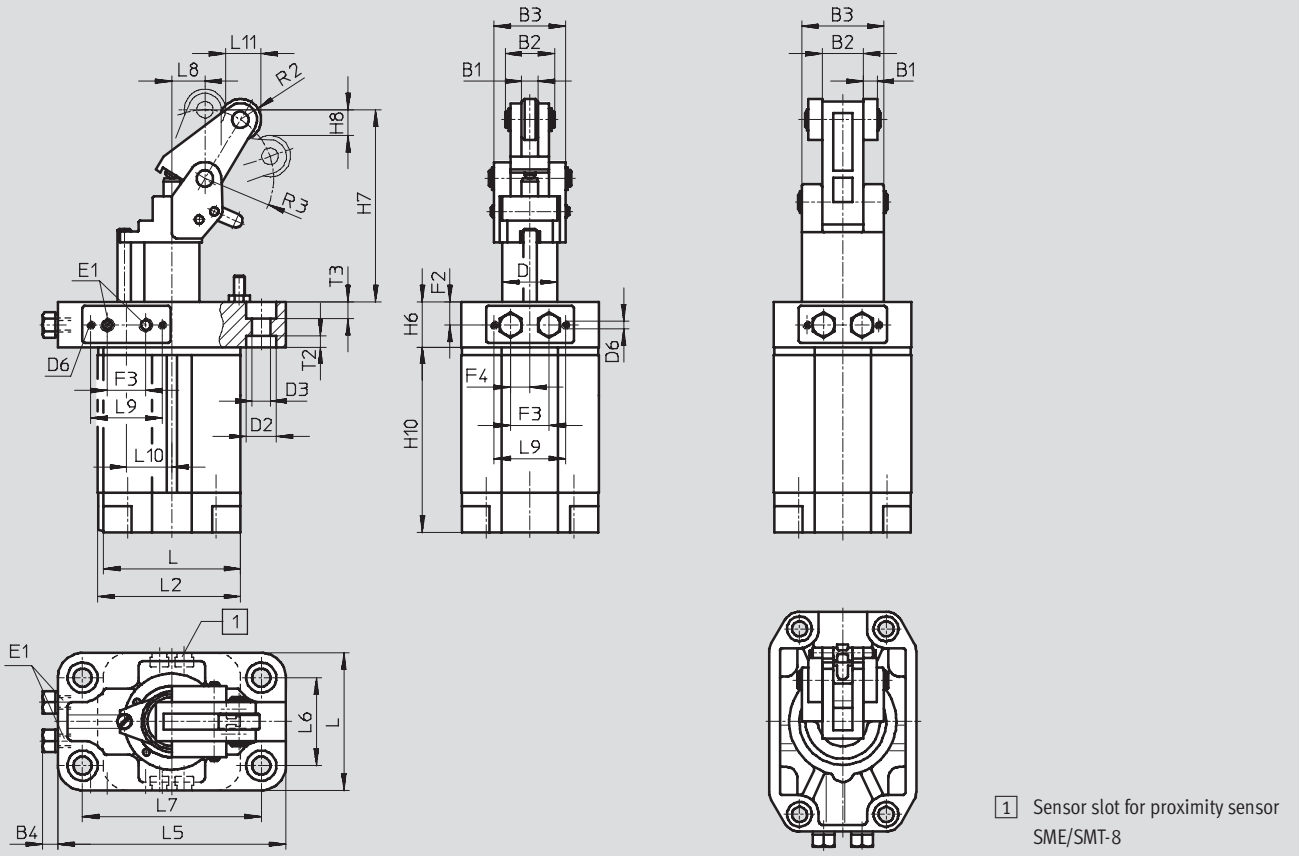
Technical data

FESTO

Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Flange mounting

STAF-80-40-P-A-K:
Toggle lever with double roller



∅ [mm]	Stroke [mm]	B1	B2	B3	B4	D ∅	D2 ∅	D3 ∅	D6	E1	F2	F3	F4	H6	H7	H8
32	20	6	18	26	4.5	20	11	6.6	M3	M5	8.5	14	7	16.5	70	9.5
50	30	10	27	38	4.5	32	15	9	M4	G1⁄8	9	17	8	18	106	12
80	40	10	30	60	4.5	50	18	11	M4	G1⁄8	11	17	4.5	22	182.5	23

∅ [mm]	Stroke [mm]	H10	L	L2	L5	L6	L7	L8	L9	L10	L11	R2	R3	T2	T3
32	20	67.5	50	52	83	32	65	12	26	16.5	13	7.5	25	4	6.2
50	30	85	68	71	111	45	90	21	36	7	17	11	39	5	5
80	40	129	107	111	160	63	135	30	36	18.5	34	16	60	6	6

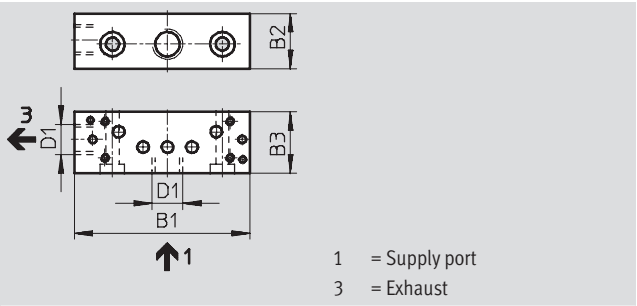
Note: This product conforms with the ISO 1179-1 standard and the ISO 228-1 standard.

Ordering data

Piston ∅ [mm]	Stroke [mm]	Direct mounting Part No.	Type	Flange mounting Part No.	Type
32	20	–	–	**164 880**	**STAF-32-20-P-A-K**
50	30	–	–	**164 881**	**STAF-50-30-P-A-K**
80	40	–	–	**164 895**	**STAF-80-40-P-A-K**

Sub-base ZVA
for stopper cylinder with flange

Material:
Wrought aluminium alloy
Free of copper, PTFE and silicone



Dimensions and ordering data

For ∅ [mm]	B1	B2	B3	D1	CRC[1]	Weight [g]	Part No.	Type
32	56	18	20	G1⁄8	2	50	**164 896**	**ZVA-1**
50/80	57.5	18	20	G1⁄8	2	52	**164 897**	**ZVA-2**

1) Corrosion resistance class 2 according to Festo standard 940 070
Components requiring moderate corrosion resistance. Externally visible parts with primarily decorative surface requirements which are in direct contact with a surrounding industrial atmosphere or media such as cooling or lubricating agents.

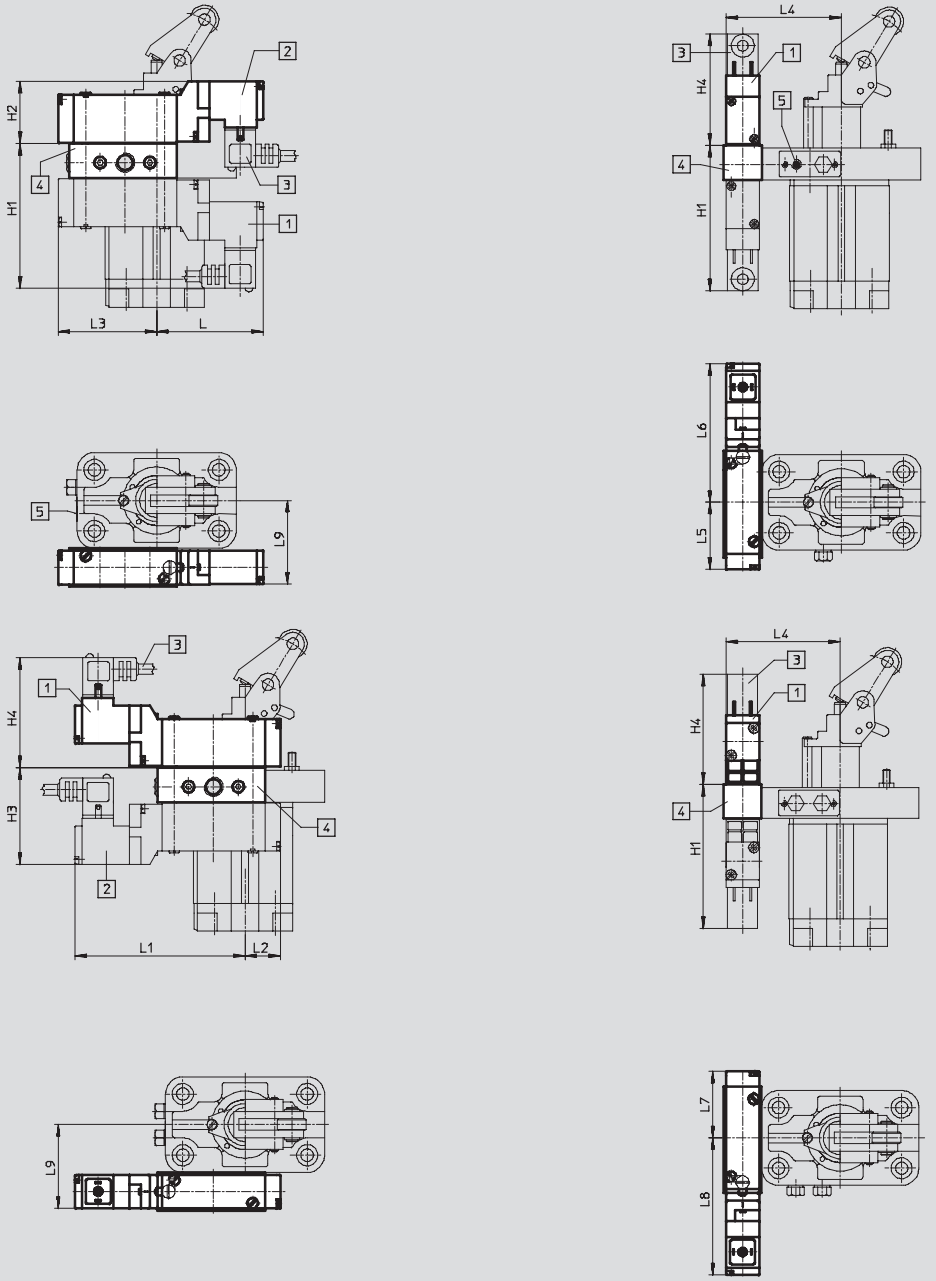
Stopper cylinders STA/STAF

Accessories

FESTO

Dimensions Download CAD data ➔ **www.festo.com/en/engineering**

Mounting dimensions for solenoid valves with sub-base ZVA on stopper cylinders

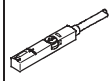
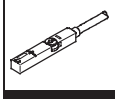


1 Solenoid can be repositioned by 180°
2 Solenoid rotated 180° (not as supplied)
3 Plug socket KME
4 Sub-base
5 Filter nipple with 3/2-way valves, sealing plug with 5/2-way valves

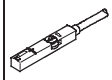
For ∅ [mm]	L	L1	L2	L3	L4	L5	L6
32	55.5	88.5	18.5	51.5	59	35	72
50	65	79	28	42	73	36	71
80	48.5	95.5	11.5	58.5	98	39	68

For ∅ [mm]	L7	L8	L9	H1	H2	H3	H4
32	35	72	42	74.5	33.5	48.5	59.5
50	34	73	52	77	31	31	57
80	31	76	71	79	29	53	56

Ordering data – Proximity switches for T-slot, magneto-resistive — Technical data ➔ www.festo.com/catalogue/sm

	Type of mounting	Switch output	Electrical connection	Cable length [m]	Part No.	Type
N/O contact						
	Insertable in the slot from above, flush with cylinder profile	PNP	Cable, 3-wire	2,5	**543 867**	**SMT-8M-PS-24V-K-2,5-OE**
			Plug M8x1, 3-pin	0,3	**543 866**	**SMT-8M-PS-24V-K-0,3-M8D**
			Plug M12x1, 3-pin	0,3	**543 869**	**SMT-8M-PS-24V-K-0,3-M12**
		NPN	Cable, 3-wire	2,5	**543 870**	**SMT-8M-NS-24V-K-2,5-OE**
			Plug M8x1, 3-pin	0,3	**543 871**	**SMT-8M-NS-24V-K-0,3-M8D**
	Insertable in the slot lengthwise, flush with the cylinder profile	PNP	Cable, 3-wire	2,5	**175 436**	**SMT-8-PS-K-LED-24-B**
			Plug M8x1, 3-pin	0,3	**175 484**	**SMT-8-PS-S-LED-24-B**
N/C contact						
	Insertable in the slot from above, flush with cylinder profile	PNP	Cable, 3-wire	7,5	**543 873**	**SMT-8M-PO-24V-K7,5-OE**

Ordering data – Proximity switches for T-slot, magnetic reed — Technical data ➔ www.festo.com/catalogue/sm

	Type of mounting	Switch output	Electrical connection	Cable length [m]	Part No.	Type
N/O contact						
	Insertable in the slot from above, flush with cylinder profile	Contacting	Cable, 3-wire	2,5	**543 862**	**SME-8M-DS-24V-K-2,5-OE**
				5,0	**543 863**	**SME-8M-DS-24V-K-5,0-OE**
			Cable, 3-wire	2,5	**543 872**	**SME-8M-ZS-24V-K-2,5-OE**
			Plug M8x1, 3-pin	0,3	**543 861**	**SME-8M-DS-24V-K-0,3-M8D**
	Insertable in the slot lengthwise, flush with the cylinder profile	Contacting	Cable, 3-wire	2,5	**150 855**	**SME-8-K-LED-24**
			Plug M8x1, 3-pin	0,3	**150 857**	**SME-8-S-LED-24**
N/C contact						
	Insertable in the slot lengthwise, flush with the cylinder profile	Contacting	Cable, 3-wire	7,5	**160 251**	**SME-8-O-K-LED-24**

Ordering data – Connecting cables — Technical data ➔ www.festo.com/catalogue/nebu

	Electrical connection, left	Electrical connection, right	Cable length [m]	Part No.	Type
	Straight socket, M8x1, 3-pin	Cable, open end, 3-wire	2,5	**541 333**	**NEBU-M8G3-K-2.5-LE3**
			5	**541 334**	**NEBU-M8G3-K-5-LE3**
	Angled socket, M8x1, 3-pin	Cable, open end, 3-wire	2,5	**541 338**	**NEBU-M8W3-K-2.5-LE3**
			5	**541 341**	**NEBU-M8W3-K-5-LE3**

Ordering data – Slot cover for T-slot

	Mounting	Length [m]	Part No.	Type
	Insertable from above	2x 0.5	**151 680**	**ABP-5-S**