

# SMS valves and accessories

## Model 61411 Check valve, plain ends EPDM gaskets 316L stainless steel



### Specifications

**Dimensions:** DN25 to DN104 (1" to 4")

**Connections:** to be welded

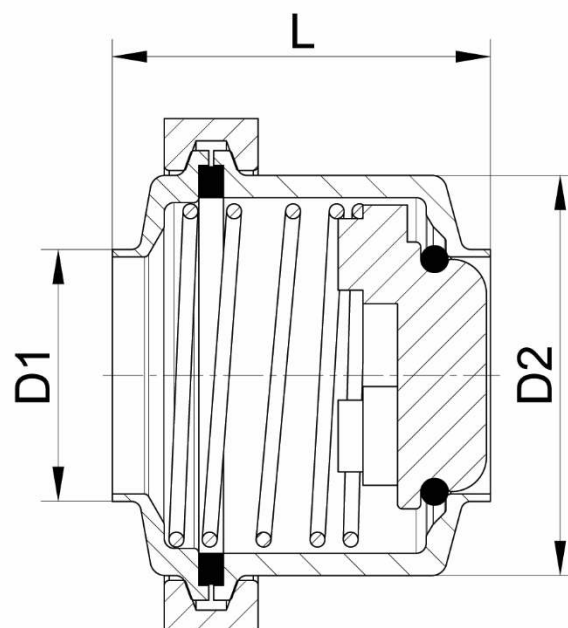
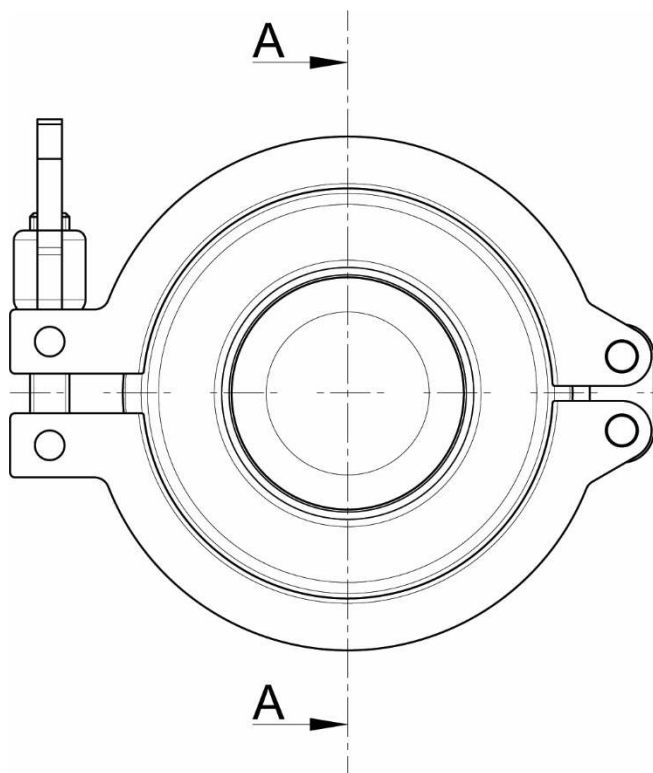
**Max. operating pressure:** 10 bar

**Temperature:** -20°C to +130°C

**Material:** 316L stainless steel

EPDM gaskets

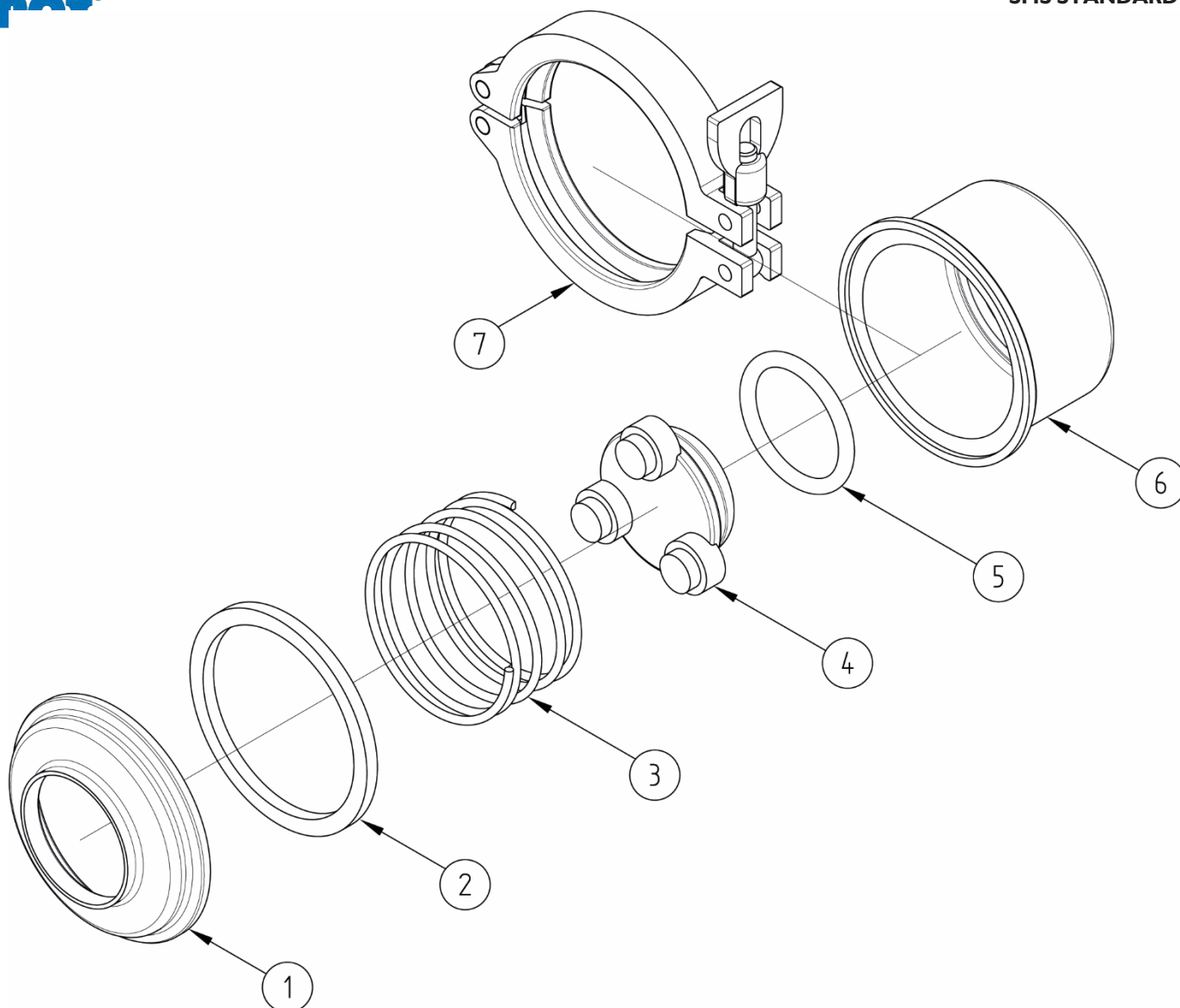
On request: FKM gaskets



**A-A CROSS SECTION**

DN (mm)	NB (inches)	D1 (mm)	D2 (mm)	L (mm)	Cracking pressure (mbar)	Weight (kg)	Part number SS 16L
25	1"	25	40	55	112	0.54	661411-25SG
38	1"1/2	38	66	65	70	1.07	661411-38SG
51	2"	51	83	76.5	22	1.72	661411-51SG
63	2"1/2	63.5	96	79	22	1.95	661411-63SG
76	3"	76.1	120	83.5	48	2.74	661411-76SG
104	4"	104	152	165	-	7.69	661411-104

Flow velocity (m/s)	Pressure drop (mbar)			
	DN38	DN51	DN63	DN76
1.5	180	90	160	100
2.5	280	200	195	200



N°	Part Name	Material
1	UPPER PART	316L STAINLESS STEEL
2	FLAT GASKET	EPDM OR FKM
3	SPRING	316L STAINLESS STEEL
4*	CHECK VALVE	316L STAINLESS STEEL
5	O-RING	EPDM OR FKM
6	LOWER PART	316L STAINLESS STEEL
7	CLAMP**	304L STAINLESS STEEL

\* from DN38 to DN76, the spring is held onto the check valve by spot welds.

\*\* nut for DN104

## Assembly and maintenance instructions

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### Installation

When you install the check valve make sure that the arrow on it is pointing in the direction in which fluids will pass through it.

You can install it vertically (for fluids moving upwards) or horizontally.

To make sure that the check valve works at its best:

You must install the check valve sufficiently far away from any zones of turbulence generated by the piping (elbows, reductions, etc.) or by any another apparatus (pumps, etc.). You can do this by installing straight pipes (that are each at least 4 to 5 times longer than the check valve's DN) in front of and behind the check valve.

Check that there is enough space and there are enough valves to isolate this section so that you can carry out maintenance operations where you are planning to install the check valve.

Check that the installation is clean and free from foreign bodies that could damage the check valve.

Check that all piping is perfectly aligned and that the piping support structure is dimensioned so that the check valve is not subject to any external stresses. The piping support structure must only support the pipes, not the check valve.

#### How to install the non-return check valve (with welding):

Welding must be carried out by qualified personnel.

You must disassemble the check valve to avoid damaging its gaskets when you weld its two body parts.

Clean the installation so that there are no foreign bodies in the piping.

Check that the check valve can move smoothly.

Pressure test the installation according to the relevant standards, but do not exceed the check valve's specifications.

### Maintenance

The non-return check valve does not require any specific maintenance if it is used in normal operating conditions.

Depending on the fluid passing through the valve, you may need to change the gasket regularly.

You may need to change the check valve due to wear and tear, or if a fluid has damaged the valve and caused a leak or malfunction.

## Assembly / Disassembly

*The maintenance and removal/installation of the check valve must be carried out by personnel who are qualified and trained for this type of intervention.*



Warning: Before you work on the check valve, check that the installation has been stopped and that the piping is empty and is not pressurised.

Warning: If the check valve is used with fluids that have a temperature above 60°C then people could burn themselves if they touch the check valve.

Warning: Beware of hazardous materials - follow the instructions provided by the suppliers.

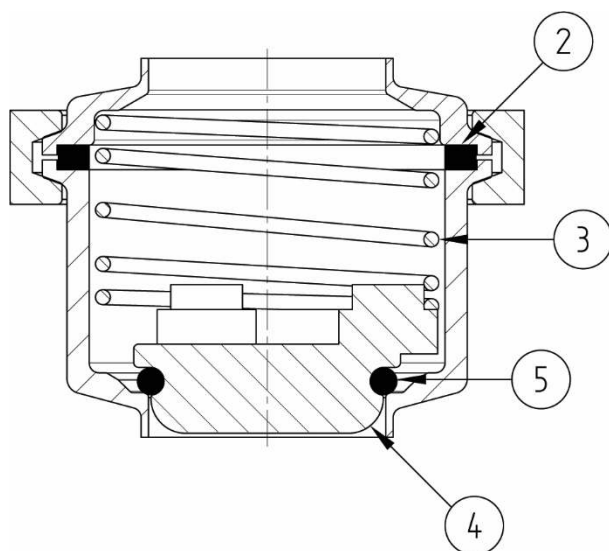
Unscrew the clamp **7**.

Separate the upper and lower parts (**1** and **6**) of the check valve in order to remove the gasket **2**, the o-ring **5**, the spring **3** and the check valve **4**.

Clean and inspect all of the parts of the check valve. Replace any worn parts. You are strongly advised to replace any sealing parts that have been disassembled.

Follow the disassembly steps in reverse order to reassemble the valve.

Pressure test the check valve and check the check valve's movement before you put the installation back into service.



DN (mm)	NB (inches)	N°	Part number	Material
25	1"	2	JPL46365E	EPDM
		2	JPL46365V	FKM
		3	RCA25	316L SS
		4	PCAR025	316L SS
		5	JTO12E	EPDM
		5	JTO12V	FKM
38	1"1/2	2	JPL715605E	EPDM
		2	JPL715605V	FKM
		3	RCA38	316L SS
		4	PCAR038	316L SS
		5	JTO21E	EPDM
		5	JTO21V	FKM
51	2"	2	JPL845725E	EPDM
		2	JPL845725V	FKM
		3	RCA51	316L SS
		4	PCAR051	316L SS
		5	JTO28E	EPDM
		5	JTO28V	FKM
63	2"1/2	2	JPL100905E	EPDM
		2	JPL100905V	FKM
		3	RCA63	316L SS
		4	PCAR063	316L SS
		5	JTO32E	EPDM
		5	JTO32V	FKM
76	3"	2	JPL1241145E	EPDM
		2	JPL1241145V	FKM
		3	RCA38	316L SS
		4	PCAR038	316L SS
		5	JTO36E	EPDM
		5	JTO36V	FKM

Please contact us for details about DN104.

## Standards and compliance

- This check valve complies with European Pressure Equipment Directive (PED) 2014/68/EU Article 4 paragraph 3 (formerly 97/23/EC Article 3 paragraph 3)
- This check valve complies with EC Directive 1935/2004.

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