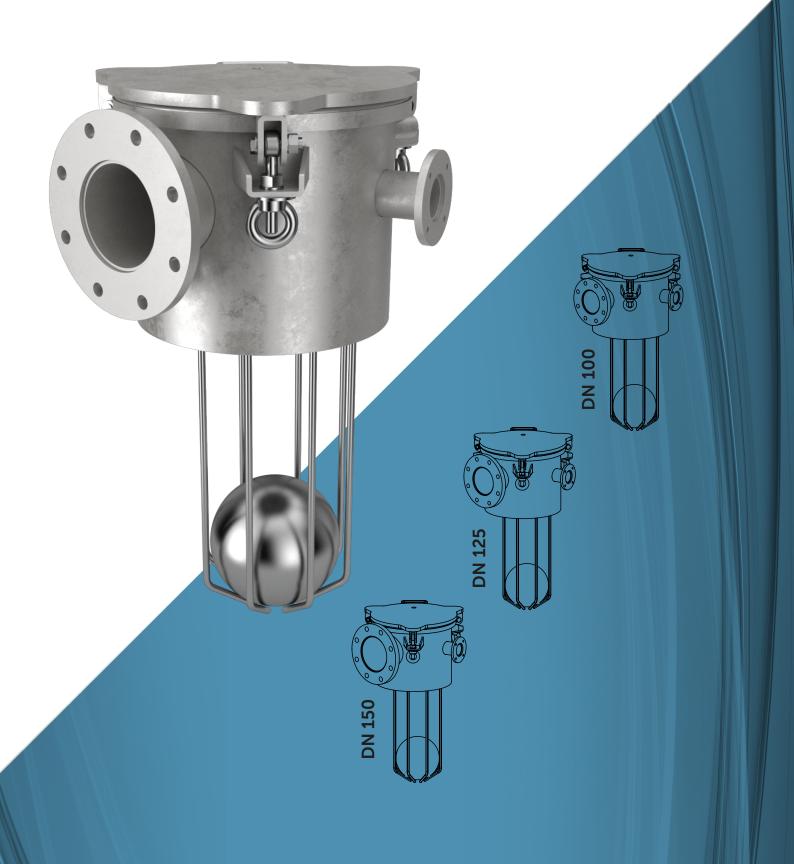


# PRIMARY SHUT OFF

## DN100 / DN125 / DN150



Pressure



### **DESCRIPTIONS AND TECHNICAL DATA**

The primary shut offs are designed to be welded at the top of the vacuum truck tank body, where the vacuum/pressure line starts. The primary shut offs have a built in overflow system with a stainless steel floating ball. When the tank reaches the maximum filling level, the primary shut off prevents the liquid to enter the vacuum line and to reach the pump. The primary shut offs are equipped with the follows ancillaries: opening cover, threaded coupling for pressure/vacuum relief valve, pressure gauges, vent system and cyclone valve drain.

The primary shut offs **DN100/DN125/DN150** are available either in carbon steel or stainless steel:

### • Carbon steel construction

Body, cover, lifting support: S355J2 All other parts Stainless steel: AISI304

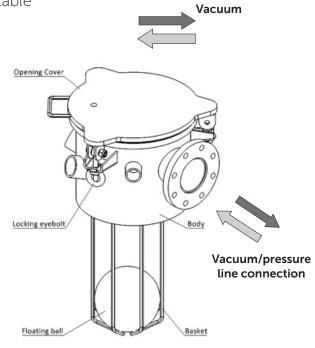
#### Stainless steel construction

Body: AISI304L

All other parts Stainless steel: AISI304

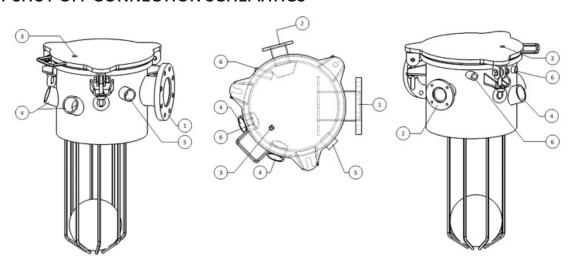
The primary shut offs are delivered inclusive of a cover seal, a stainless steel floating ball, a NBR ball seal and stainless steel internal basket.

The primary shut off can operate both in vacuum and in pressure conditions.



Schematic diagram of the primary shut off

### PRIMARY SHUT OFF CONNECTION SCHEMATICS



- 1. Coupling flange DN100/DN125/DN150.
- 2. Coupling flange DN50. Cyclone drain line.
- 3. Pressure gauge connection, ½"GAS.
- 4. Safety valve connection (overpressure) 2"GAS.
- 5. Vent valve connection 1 1/4"GAS.
- 6. Pressure switch connection, 1/2"GAS.



### **VERSIONS AND TECHNICAL PARAMETERS**

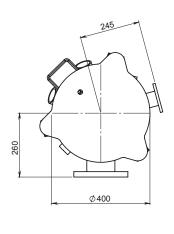
MODEL	CODE	DESIGN PRESSURE	OPERATING PRESSURE	WEIGHT
Carbon Steel primary shut off DN100	6100200051	-1 / +4 bar	-1 / +0,5 bar	58 Kg
Stainless steel primary shut off DN100	6100200052	-1 / +4 bar	-1 / +0,5 bar	58 Kg
Carbon Steel primary shut off DN125	6100200053	-1 / +4 bar	-1 / +0,5 bar	59 Kg
Stainless steel primary shut off DN125	6100200054	-1 / +4 bar	-1 / +0,5 bar	59 Kg
Carbon Steel primary shut off DN150	6100200055	-1 / +4 bar	-1 / +0,5 bar	60 Kg
Stainless steel primary shut off DN150	6100200056	-1 / +4 bar	-1 / +0,5 bar	60 Kg

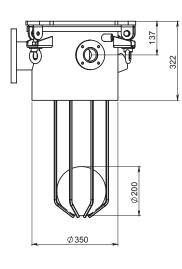
The primary shut offs are made in compliance with the EN13445-3 standards regarding pressure vessels.

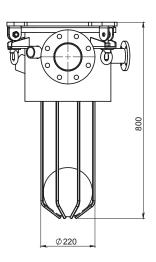
### **OVERALL DIMENSIONS**

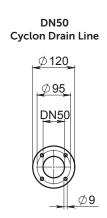
### DN100/DN125/DN150 PRIMARY SHUT OFF

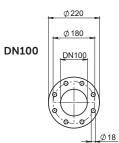
### Body thickness: 6mm

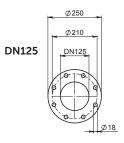


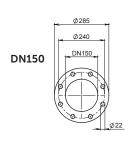














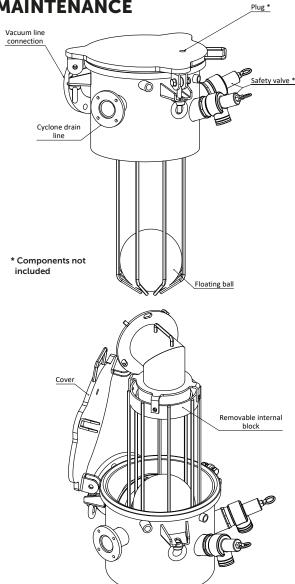
### INSTALLATION AND MAINTENANCE

The primary shut offs are designed to be installed in the vacuum/pressure line between the pump and the tank. The primary shut offs shall be welded to the top of the tank body. The primary shut offs can operate both in vacuum (tank loading) or pressure condition discharge (tank discharge). By this design the primary shut off draining system can operate in vacuum or pressure mode. The primary shut offs offer multiple threaded flanged connection to install various ancillary parts. We recommend the installation of a safety valve (pressure relief) to ensure operation stays within the pressure limits.

The primary shut offs have a removable cover to let access maintenance purpose or replacement of internal components in case of wear. The floating ball system block removable so have full access for maintenance operations.

#### **HOW TO INSPECT:**

- Loose the eyebolt closed to the cover handle
- Open the cover utilizing the handle
- Remove the internal block fasteners
- Remove the internal floating ball basket utilizing the handle



### MAINTENANCE

During ordinary operations and conditions we recommend to clean the primary shut offs regularly utilizing a high pressure water jet from the rear of the tank, or utilizing the cleaning system of the tank if any. In case more accurate cleaning is required, follow the inspection procedure specified above to open the primary shut offs and then utilize a direct water jet.

In case of presence of liquids along the vacuum line, check the integrity and the correct installation of the double tapered ball seal and the ball integrity and replace them in case of wear.

In the case of pressure drop closed to the primary shut offs, check the position of the cover seal and replace it in case of wear. Check the eyebolt tightening regularly.

As additional safety we recommend to install a ball valve with a rubber hose to the "vent connection" (n°5 - Primary shut off connection scheme) to be opened in case for any reasons the tank remains under pressure or vacuum.



Before any operations/maintenance of the primary shut offs ensure that the tank is under atmospheric pressure level.



Before climbing up to the top of the tank wear the mandatory protection equipment in compliance with the applicable safety regulations in force.

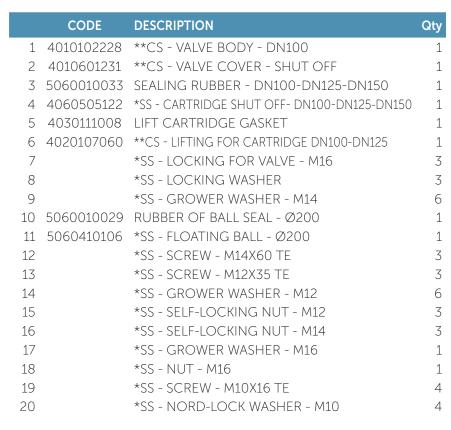


Pay attention to the heavy tilting components that may crush.



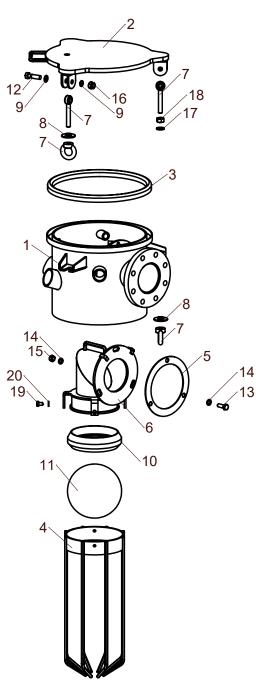
### **DN100 PRIMARY SHUT OFF SPARE PARTS**

### CODE 6100200051 CARBON STEEL





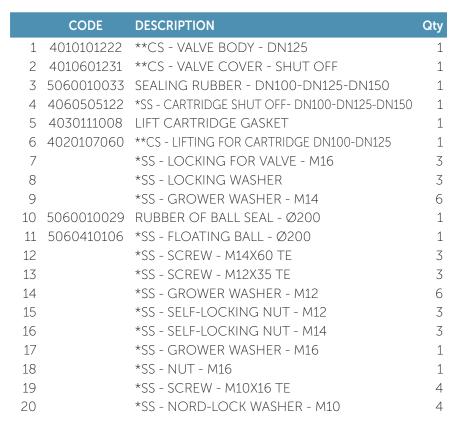
		CODE	DESCRIPTION	Qty
	1	4010102231	*SS - VALVE BODY - DN100	1
	2	4010601232	*SS - VALVE COVER - SHUT OFF	1
	3	5060010033	SEALING RUBBER - DN100-DN125-DN150	1
	4	4060505122	*SS - CARTRIDGE SHUT OFF- DN100-DN125-DN150	1
	5	4030111008	LIFT CARTRIDGE GASKET	1
	6	4020107061	*SS - LIFTING FOR CARTRIDGE DN100-DN125	1
	7		*SS - LOCKING FOR VALVE - M16	3
	8		*SS - LOCKING WASHER	3
	9		*SS - GROWER WASHER - M14	6
	10	5060010029	RUBBER OF BALL SEAL - Ø200	1
	11	5060410106	*SS - FLOATING BALL - Ø200	1
	12		*SS - SCREW - M14X60 TE	3
	13		*SS - SCREW - M12X35 TE	3
	14		*SS - GROWER WASHER - M12	6
	15		*SS - SELF-LOCKING NUT - M12	3
	16		*SS - SELF-LOCKING NUT - M14	3
	17		*SS - GROWER WASHER - M16	1
	18		*SS - NUT - M16	1
	19		*SS - SCREW - M10X16 TE	4
	20		*SS - NORD-LOCK WASHER - M10	4





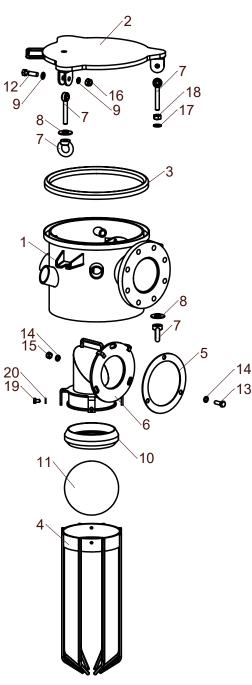
### **DN125 PRIMARY SHUT OFF SPARE PARTS**

### CODE 6100200053 CARBON STEEL





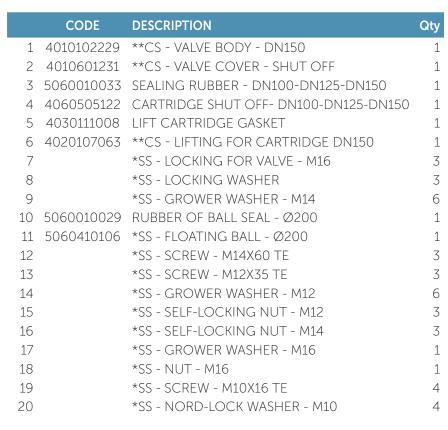
	CODE	DESCRIPTION	Qty
1	4010102230	*SS - VALVE BODY - DN125	1
2	4010601232	*SS - VALVE COVER - SHUT OFF	1
3	5060010033	SEALING RUBBER - DN100-DN125-DN150	1
4	4060505122	*SS CARTRIDGE SHUT OFF- DN100-DN125-DN150	1
5	4030111008	LIFT CARTRIDGE GASKET	1
6	4020107061	*SS - LIFTING FOR CARTRIDGE DN100-DN125	1
7		*SS - LOCKING FOR VALVE - M16	3
8		*SS - LOCKING WASHER	3
9		*SS - GROWER WASHER - M14	6
10	5060010029	RUBBER OF BALL SEAL - Ø200	1
11	5060410106	*SS - FLOATING BALL - Ø200	1
12		*SS - SCREW - M14X60 TE	3
13		*SS - SCREW - M12X35 TE	3
14		*SS - GROWER WASHER - M12	6
15		*SS - SELF-LOCKING NUT - M12	3
16		*SS - SELF-LOCKING NUT - M14	3
17		*SS - GROWER WASHER - M16	1
18		*SS - NUT - M16	1
19		*SS - SCREW - M10X16 TE	4
20		*SS - NORD-LOCK WASHER - M10	4





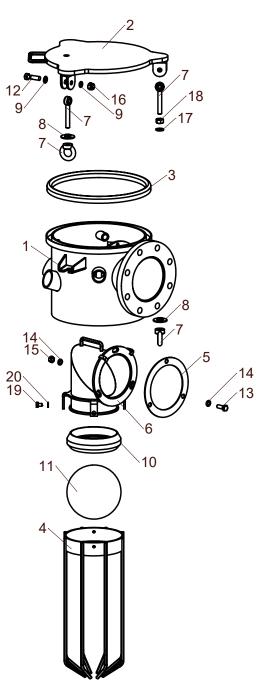
### **DN150 PRIMARY SHUT OFF SPARE PARTS**

### CODE 6100200055 CARBON STEEL



### CODE 6100200056 STAINLESS STEEL

CODE DES		CODE	DESCRIPTION	Qty
	1	4010102232	*SS - VALVE BODY - DN150	1
	2	4010601232	*SS - VALVE COVER - SHUT OFF	1
	3	5060010033	SEALING RUBBER - DN100-DN125-DN150	1
	4	4060505122	*SS - CARTRIDGE SHUT OFF- DN100-DN125-DN150	1
	5	4030111008	LIFT CARTRIDGE GASKET	1
	6	4020107062	*SS - LIFTING FOR CARTRIDGE DN150	1
	7		*SS - LOCKING FOR VALVE - M16	3
	8		*SS - LOCKING WASHER	3
	9		*SS - GROWER WASHER - M14	6
	10	5060010029	RUBBER OF BALL SEAL - Ø200	1
	11	5060410106	*SS - FLOATING BALL - Ø200	1
	12		*SS - SCREW - M14X60 TE	3
	13		*SS - SCREW - M12X35 TE	3
	14		*SS - GROWER WASHER - M12	6
	15		*SS - SELF-LOCKING NUT - M12	3
	16		*SS - SELF-LOCKING NUT - M14	3
	17		*SS - GROWER WASHER - M16	1
	18		*SS - NUT - M16	1
	19		*SS - SCREW - M10X16 TE	4
	20		*SS - NORD-LOCK WASHER - M10	4



* SS = STAINLESS STEEL
** CS = CARBON STEEL





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