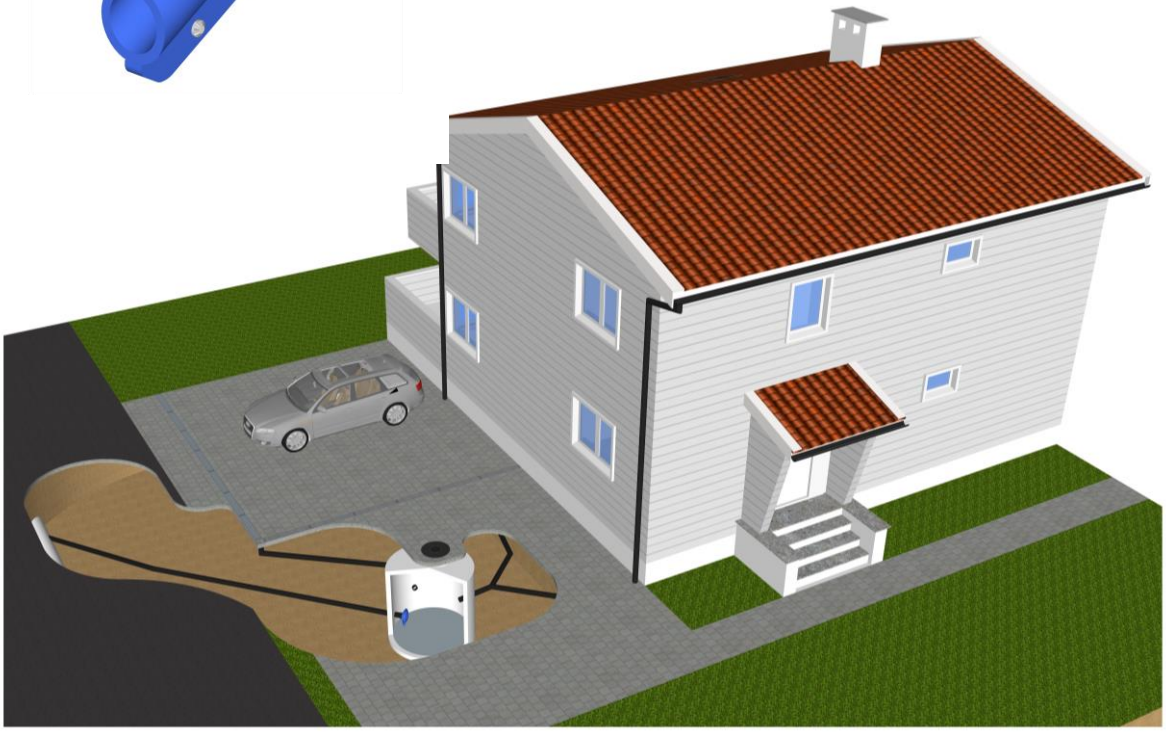
Pioneerer i regnvannshåndtering

FluidVertic STD

Standardised Vortex Valve

Product Information



Area of use

An overloaded sewer network leads to basement flooding and pollution through overflow discharges and street sand traps. A suitable flow regulator provides good control of water volumes and water flows (hydraulic control) and helps to reduce the risk of overload.

Distribution system:
Limitation or equalisation of the supply of surface water to the drainage network in the event of precipitation and snowmelt requires regulation of the water flow based on the stormwater detention tank. The properties of the flow controller are crucial for the system's function and operation.

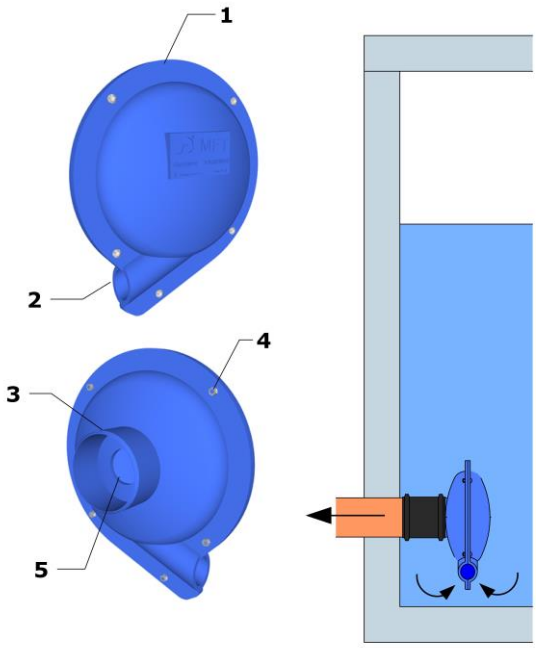
Sand trap: A flow regulator can prevent overload, and thus increase the efficiency of the sand trap.

Characteristics

FluidVertic STD is a standardised solution specifically developed for regulating small water flows. No adjustments provide fast delivery and lower costs. FluidVertic has a large flow cross-section, the opening is usually four times as large as a throttle outlet under equal frame conditions. This reduces the risk of clogging and promotes safe operation. Like our other vortex chambers, FluidVertic PUR is hydraulically tested and comes with a capacity guarantee. The vortex chamber has a PVC tip for easy installation against the corresponding socket (socket is not included in the delivery)

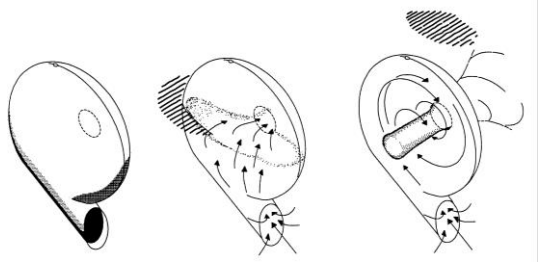
Type:	vortex valve
Mode:	wet installation
Medium:	Rainwater
Dimensions (outlet):	DN110-DN160
Capacity (with 1,2 [m] pressure):	0.4 – 5.0 [l/s]

- Reliable (no moving parts, large flow cross section)
- Accurate (10% capacity guarantee)
- Easy and quick installation



Function

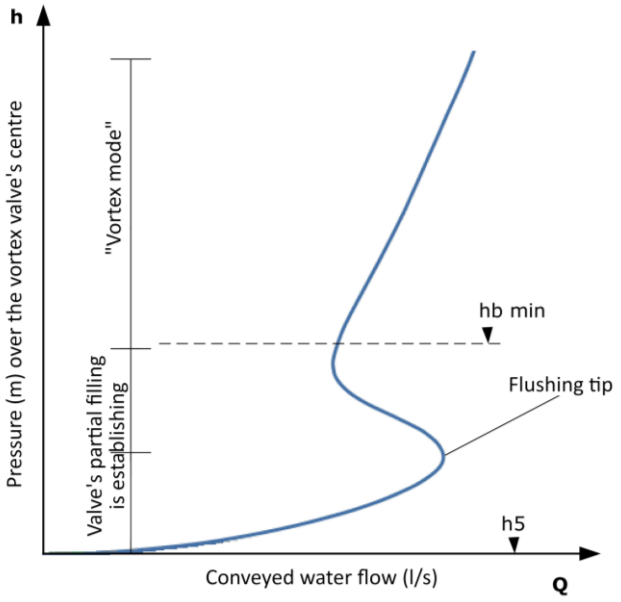
The vortex chamber consists of a circular chamber with a tangential inlet. The outlet is horizontal and oriented normal to the housing. FluidVertic is mounted on the outlet of the stormwater detention chamber.



When the water level is lower than or equal to the outlet, no water will pass through the vortex valve. The inlet is permanently submerged resulting in FluidVertic catching floating particles and low-density fluids such as microplastics and oil. When partially filled, the water flows through with little resistance. As the water level reaches the top of the vortex chamber housing, a vortex with an air-filled core is established within the device. The flow resistance is now stable.

Note: The smallest models of FluidVertic STD are adapted to small water flows and have a relatively small flow cross-section. To reduce the risk of clogging the vortex chamber with leaves or particles from the surface water; effective upstream measures should be taken to prevent floating particles from reaching the vortex chamber's inlet (submerged outlet from reservoir, foam screen or similar). Well planned emergency overflows and flood roads are recommended in the event of a blockage.

	Description	Material
1	Vortex valve chamber,	Polyurethane PUR
2	Inlet	Polyurethane PUR
3	Outlet	Polyurethane PUR
4	Bolts	stainless 316 acid proof
5	Orifice's diameter	



Options

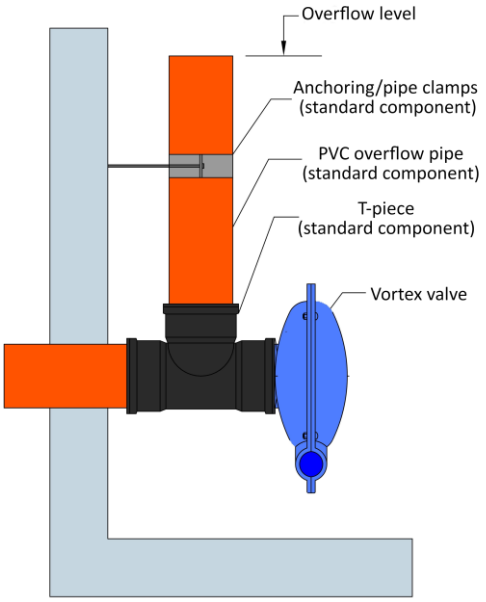
Options We offer 12 models with different capacities. See last page for a complete overview.

Accessories

Integrated emergency overflow

An integrated emergency overflow can be set up by installing a T-piece on the vortex chamber's outlet.
If the water level exceeds the overflow threshold, the water will bypass the vortex chamber. Anchoring the overflow onto the manhole's wall is recommended.
Standard PVC pipe components can be used. No special products are required.

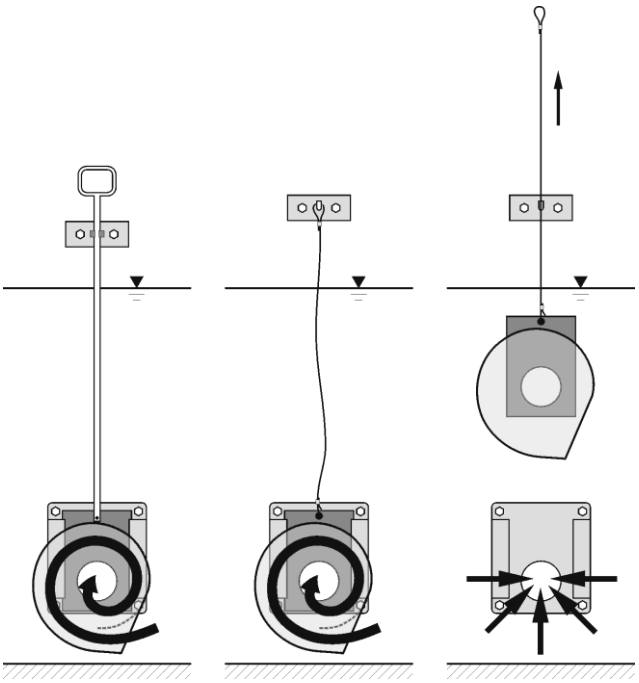
Note: Whilst the overflow level is exceeded, the vortex valve will not reduce the flow rate and the entire water flow will be conveyed downstream. Not all municipalities allow this.



Slide plate / By-pass

MFT can supply the vortex valve with a sliding frame and sliding plate. This solution permits the valve to be lifted on the ground level for both inspection and maintenance. In addition, the vortex valves can also be bypassed. The sliding frame can be equipped with a filling plate and mounted directly against a curved manhole's wall.

Note: This solution allows the flow regulator to be removed easily to bypass the flow control regardless of the situation.



Assembly

FluidVertic STD has a 110 mm or 160 mm PVC tip on the outlet. The vortex chamber is mounted against the corresponding PVC socket. See also Installation and Maintenance Instructions.

Operation and maintenance.

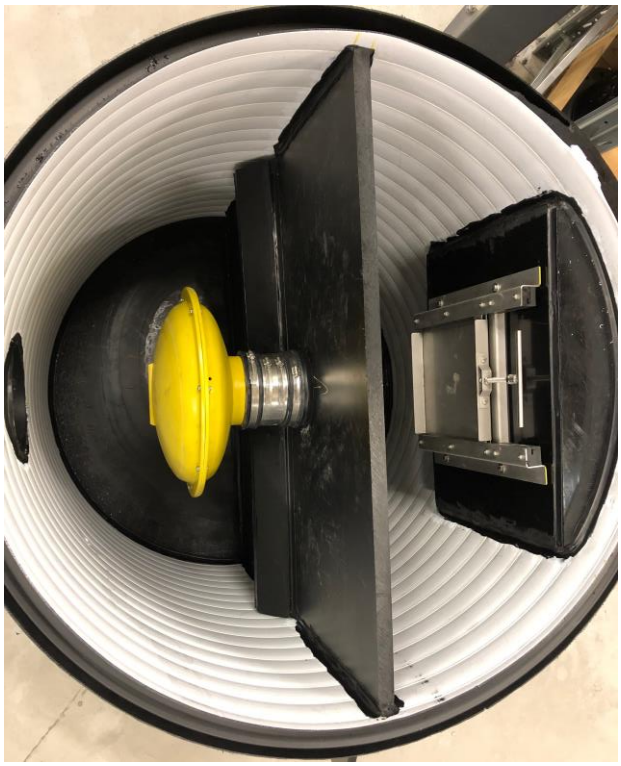
FluidVertic has no moving parts so requires little or no maintenance. The stormwater characteristics (liquids, fouling, suspended solids) and variation of the inflow determine inspection requirements. Good routines related to emptying sand traps and removing floating particles are essential to reduce clogging risk. See also Installation and Maintenance Instructions.

Specification text

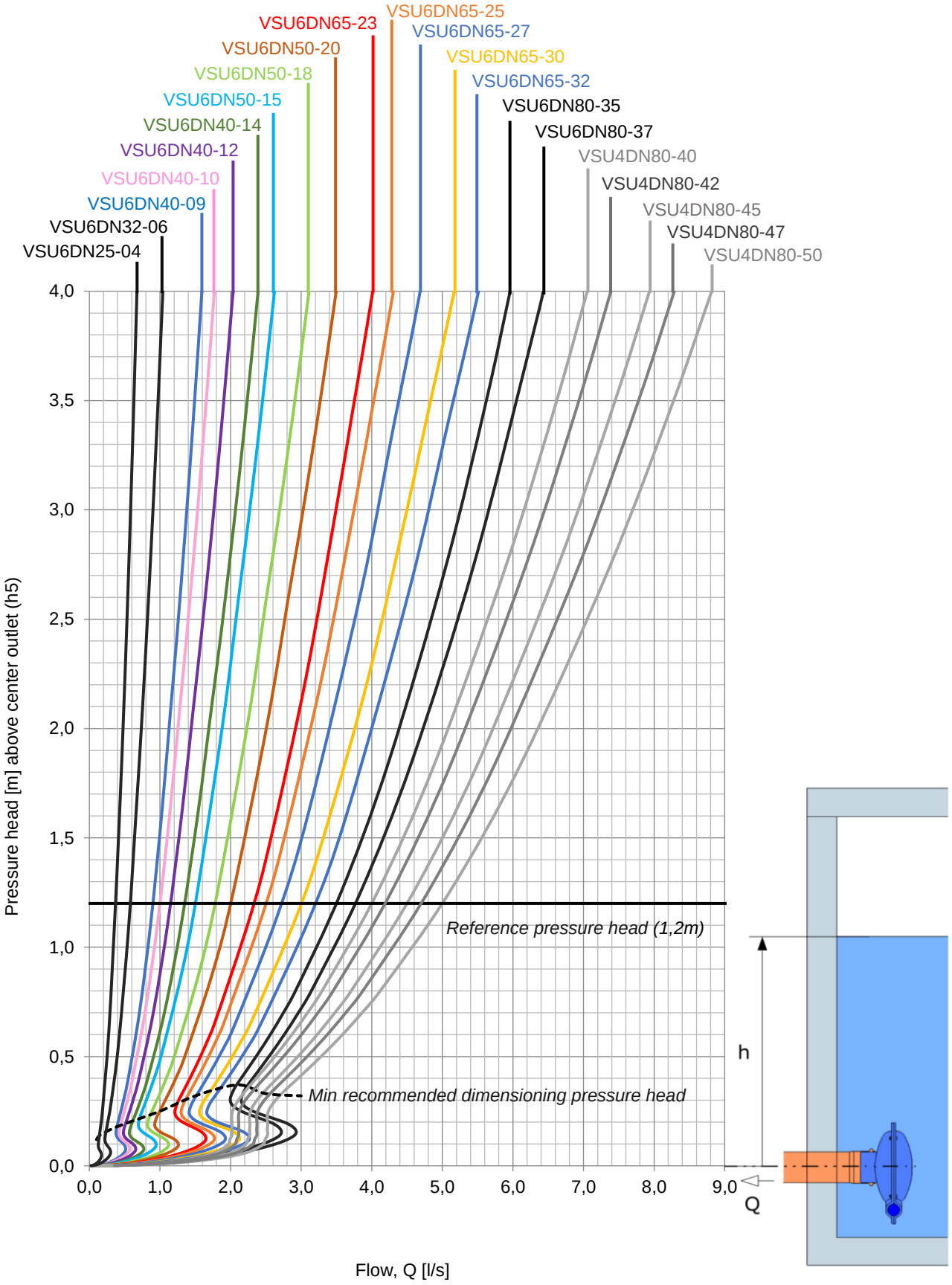
Vertical wet-mounted vortex chamber, guaranteed capacity with standardized performance according to the datasheet.
Made in Polyurethane.
Mounting on outlet against PVC sleeve.

Capacity at 1.2 [m] head: _____ [l/s].

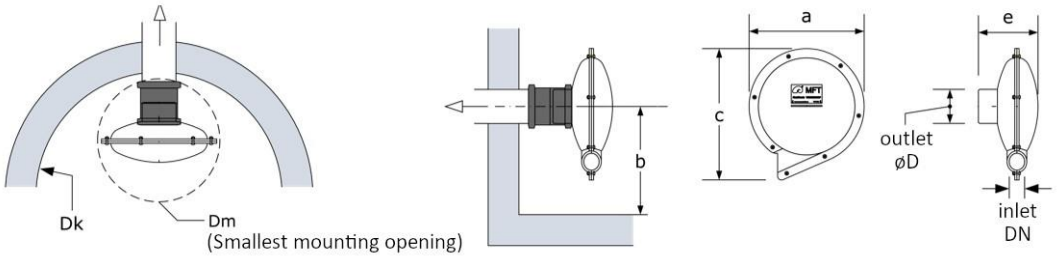
Outlet dimension (according to datasheet):_____ PVC tip



Options



Pressure head = height above vortex chamber outlet's centre. The curve shows up to 4.0 [m] pressure head. See www.mft.no for details and datasheets for capacity over 4.0 [m], contact MFT. See mft.no for more information and datasheets.



Note: mounting sleeve is not included in the delivery. The dimension in the table below is given in [mm].

	Product no	Capacity Q with 1.2 [m] head pressure	Outlet tip øD	b min	Dk min	Dm min	Inlet DN	a	c	e	Weight [kg]
	VSU6DN25-04	0.4 [l/s]	110 pvc	300	600	300	25	175	210	110	1.5
	VSU6DN32-06	0.6 [l/s]	110 pvc	300	600	300	30	225	265	135	1.7
	VSU6DN40-09	0.9 [l/s]	110 pvc	300	1000	400	40	320	360	170	2.2
	VSU6DN40-10	1.0 [l/s]	110 pvc	300	1000	400	40	320	360	170	2.2
	VSU6DN40-12	1.15 [l/s]	110 pvc	300	1000	400	40	320	360	170	2.2
	VSU6DN40-14	1.35 [l/s]	110 pvc	300	1000	400	40	320	360	170	2.2
	VSU6DN50-15	1.5 [l/s]	110 pvc	350	1000	400	50	375	425	195	2.2
	VSU6DN50-18	1.8 [l/s]	110 pvc	350	1000	400	50	375	425	195	2.2
	VSU6DN50-20	2.0 [l/s]	110 pvc	350	1000	400	50	375	425	195	2.2
	VSU6DN65-23	2.3 [l/s]	110 pvc	400	1000	500	65	460	545	220	6.1
	VSU6DN65-25	2.5 [l/s]	110 pvc	400	1000	500	65	460	545	220	6.1
	VSU6DN65-27	2.7 [l/s]	160 pvc	400	1000	500	65	460	545	260	6.1
	VSU6DN65-30	3.0 [l/s]	160 pvc	400	1000	500	65	460	545	260	6.1
	VSU6DN65-32	3.2 [l/s]	160 pvc	400	1000	500	65	460	545	260	6.1
	VSU6DN80-35	3.5 [l/s]	160 pvc	500	1000	600	80	550	625	310	5.0
	VSU6DN80-37	3.7 [l/s]	160 pvc	500	1000	600	80	550	625	310	5.0
	VSU4DN80-40	4.0 [l/s]	160 pvc	420	1000	500	80	400	485	240	3.7
	VSU4DN80-42	4.2 [l/s]	160 pvc	420	1000	500	80	400	485	240	3.7
	VSU4DN80-45	4.5 [l/s]	160 pvc	420	1000	500	80	400	485	240	3.7
	VSU4DN80-47	4.7 [l/s]	160 pvc	420	1000	500	80	400	485	240	3.7
	VSU4DN80-50	5.0 [l/s]	160 pvc	420	1000	500	80	400	485	240	3.7