HOMA
PUMP TECHNOLOGY

Cleaning | Mixing

Tank Cleaning Systems

BR

Ejector
Venturi Systems with
Submersible Pumps

BR Tank Cleaning Systems

Application:

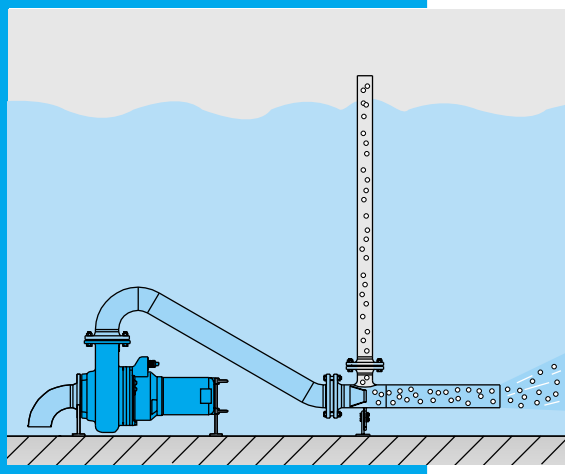
Storm water tanks are becoming more and more important in advanced flood management.
To ensure an efficient operation, dirt, sludge or solids contained in the water must not deposit at the bottom of the tank, affecting its function in the long run.

HOMA Tank Cleaning Systems guarantee the optimal function in multiple ways:

Stream generation: The HOMA Ejector System generates a strong horizontal stream in the tank, to keep the solids floating.

Delay of stagnation: By enriching the water with oxygen, stagnation and odour will be prevented, especially important when water remains in the basin for longer periods.

Cleaning: By setting up the ejector pipe at a low position, the water - air stream will flush and clean the tank bottom of mud and sand, shortly before the emptying is finished.



Function:

The HOMA BR system consists of a robust submersible sewage pump with non-clogging vortex impeller, which primes the water from the deepest part of the tank.
Through the ejector, which is flanged on the pump discharge, the jet water will accelerate and cause air to be primed through a vertical pipe. The air-water mixture is pressed with high speed through the ejector pipe parallel to the tank bottom. The combination of jet water and air ensures an effective water movement with high jet intensity and turbulence.
For the enlargement of the jet angle, HOMA supplies an optional self swinging ejector pipe on request.

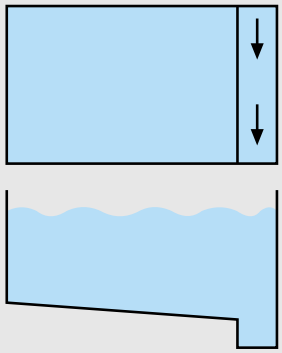
Tank cleaning with HOMA Submersible Mixers:

In special cases a HOMA Submersible Mixer may be a cost-efficient alternative for storm water tank cleaning, also available with horizontally and vertically movable nozzle to enlarge the jet angle.
Please ask for detailed information about our mixer range.

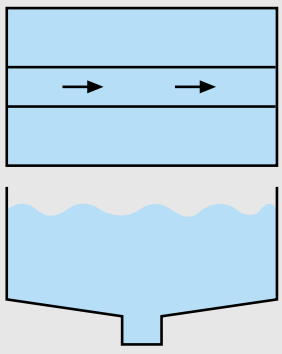
BR Technical Data and Selection

Type Code BR 100 K / CR

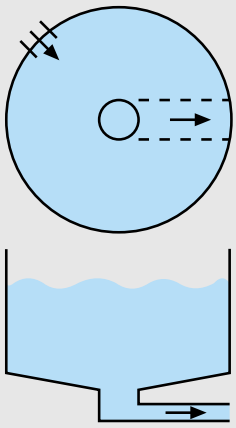
- Range
- Pipe diameter
- Installation
  - B: with ring base stand
  - K: with coupling system
  - H: horizontal installation
  - S: lateral horizontal installation
  - W: horizontal wall mounting
- stainless steel version (optional)



Tank shape A



Tank shape B



Tank shape C

Type Range Cleaning Unit

Type	Pipe diameter	Installation
BR 100 B (/CR)	DN 100	B
BR 150 B (/CR)	DN 150	B
BR 100 K (/CR)	DN 100	K
BR 150 K (/CR)	DN 150	K
BR 100 H (/CR)	DN 100	H
BR 150 H (/CR)	DN 150	H
BR 100 S (/CR)	DN 100	S
BR 150 S (/CR)	DN 150	S
BR 100 W (/CR)	DN 100	W
BR 150 W (/CR)	DN 150	W

Type Range Pumps

Pump type *) (standard- or Ex-model)	Pipe dia-meter	Nominal motor power P_1 (kW)	P_2 (kW)	Speed (U/min)	Nominal current IN (A)
V2346-D44(Ex)	DN 100	3,4	2,6	1450	6,2
V2441-T54(Ex)	DN 100	5,9	5,0	1450	9,9
V2445-T64(Ex)	DN 100	7,7	6,5	1450	13,1
V2446-P94(Ex)	DN 100	16,5	13,4	1450	30,0
V3456-P104(Ex)	DN 150	22,0	18,7	1450	36,0

*) Pumps with jacked cooling for operation with not submerged motor, as well as other pump types on request.

Selection:

For selecting the complete cleaning system, each cleaning unit and pump type with similar discharge / pipe size may be combined. Please specify the required combination.
The optimal system and its positioning depends on the tank size and form. In general there are 3 shapes of tanks:

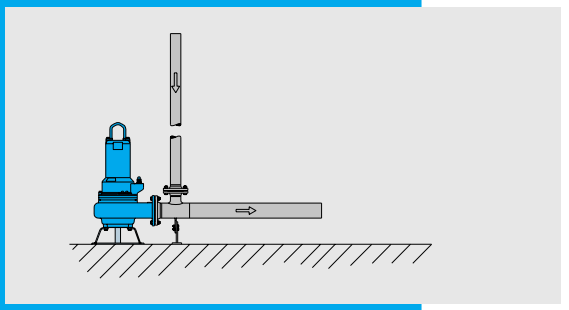
Tank shape A: Rectangle tank with lateral outlet trough
Tank shape B: Rectangle tank with lateral outlet trough
Tank shape C: Round tank with central outlet trough

As an approximate guideline for the selection of the correct pump size, please see the following table:

Pumpe type	Neccessary for tanks with a base up to		
	Tank shape A*)	Tank shape B*)	Tank shape C
V2346-D44	50 m²	40 m²	24 m²
V2441-T54	80 m²	65 m²	33 m²
V2445-T64	150 m²	120 m²	50 m²
V2446-P94	240 m²	200 m²	135 m²
V3456-P104	340 m²	260 m²	190 m²

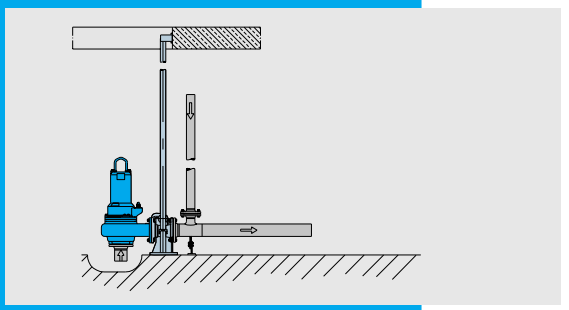
*) For tanks with a proportin of 1,5 - 2,5 to 1 (length to width)

For an optimal selection and positioning of the cleaning system, please contact our sales service. Please ask for information about our control panels for pump operation and water level monitoring.



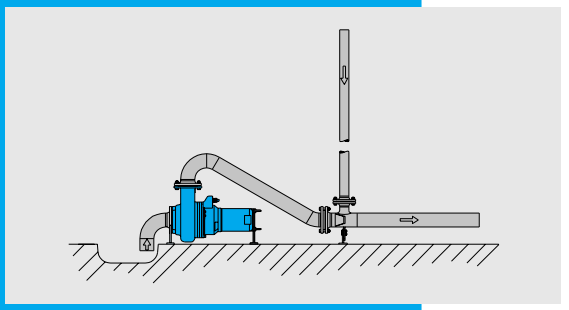
Installation with ring base stand (type B)

The simplest form of installation. Can be installed anywhere in the tank. The pump primes from the tank bottom.



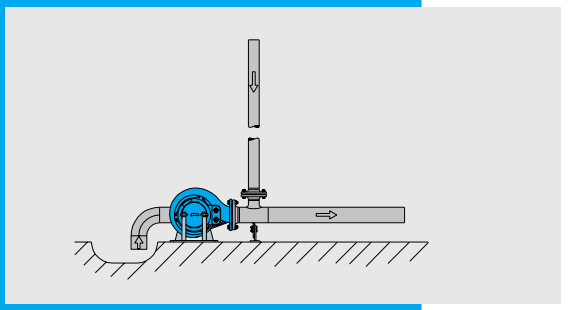
Installation with coupling system (type K)

The bolt-free connection between pump and jet-pipe allows for easy removal of the pump. Available for priming from the ground or with suction pipe for priming from a recessed trough..



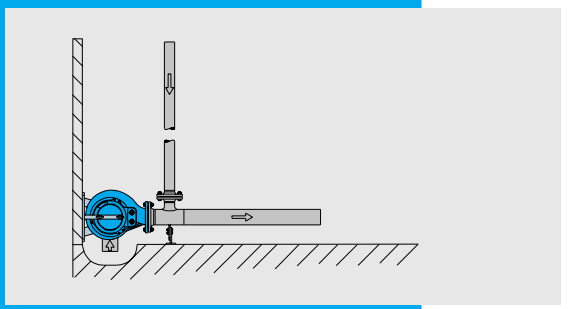
Horizontal installation (type H)

The horizontal installation ensures reliable motor cooling even at low water level. Available for priming from the ground or with suction pipe for priming from a recessed trough.



Lateral horizontal installation (type S)

Space-saving horizontal installation. Available for priming from the ground or with suction pipe for priming from a recessed trough.

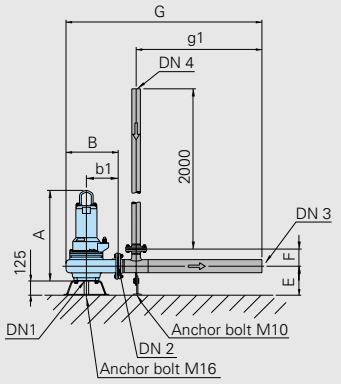


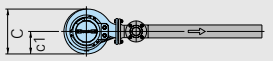
Horizontal wall mounting (type W)

Allows the installation on the tank wall. Available for priming from the ground or with suction pipe for priming from a recessed trough.

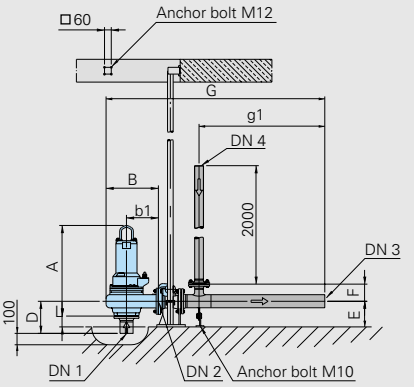
BR Dimensions

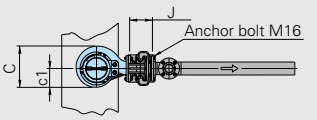
Type B



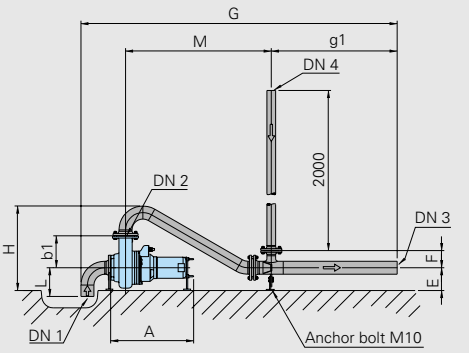


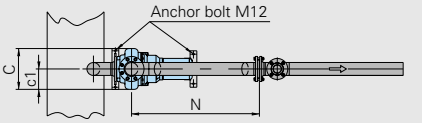
Type K



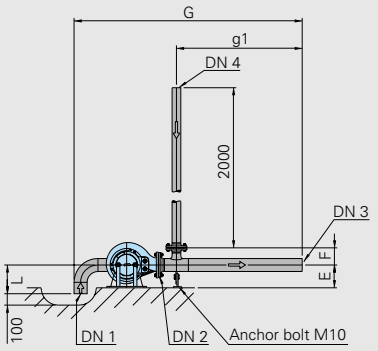


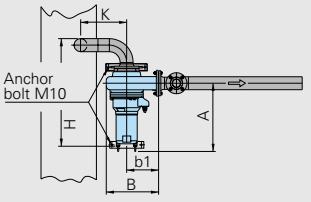
Type H



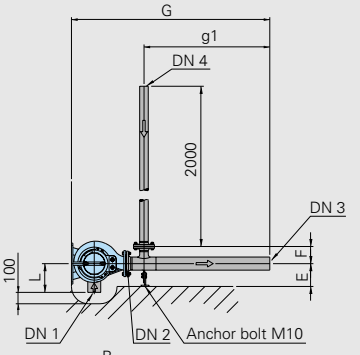


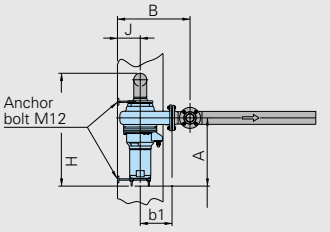
Type S





Type W





Type	A	B	b1	C	c1	D	E	F	G	g1	H	J	K	L	M	N	DN 1	DN 2	DN 3	DN 4
BR100B/CR	795	459	280	395	198		255	150	1721	1105							100	100	100	65
BR150B/CR	976	608	370	484	225		260	180	2073	1275							150	150	125	65
BR100K/CR	795	459	280	363	166	95	225	150	1921	1105		200		282			100	100	100	65
BR150K/CR	976	608	370	468	209	135	270	180	2345	1275		360		286			150	150	125	65
BR100H-D/CR	565		280	316	158		200	150	2735	1105	742			253	1281	1123	100	100	100	65
BR100H-T/CR	729		280	358	179		200	150	2777	1105	742			253	1281	1123	100	100	100	65
BR100H-46P/CR	1000		280	358	179		200	150	3123	1105	994			253	1627	1470	100	100	100	65
BR150H-56P/CR	1118		370	467	259		250	180	3500	1275	988			319	1723	1533	150	150	125	65
BR100S-T/CR	599	459	280				200	150	2004	1105	945		405	253			100	100	100	65
BR100S-46P/CR	870	459	280				200	150	2029	1105	1262		405	253			100	100	100	65
BR150S-56P/CR	963	608	370				250	180	2482	1275	1381		557	329			150	150	125	65
BR100W-T/CR	599	637	280				200	150	1742	1105	945			253			100	100	100	65
BR100W-46P/CR	870	637	280				200	150	1742	1105	1262			253			100	100	100	65
BR150W-56P/CR	963	810	370				250	180	2085	1275	1466			328			150	150	125	65

Product Range

Building Services and Waste Water Treatment

HOMA supplies a complete range of pumps and systems for waste water treatment and building services:

- Submersible waste water pumps with channel- and vortex-hydraulic
- Submersible propeller pumps
- Submersible grinder pumps
- Submersible, surface and venturi aerators
- Packaged pump stations
- Waste water lifting stations
- Submersible drainage pumps
- Contractor pumps
- Submersible mixers and flow generators
- Electric and electronic pump controls

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