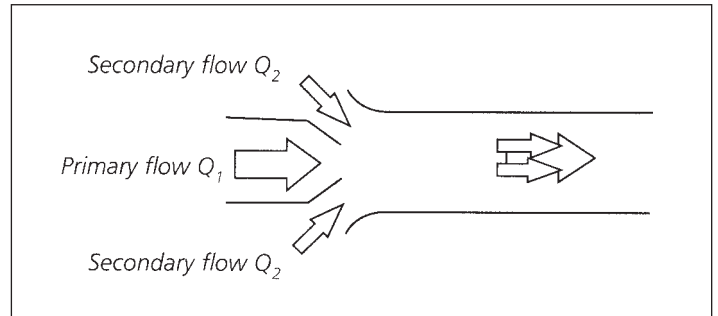
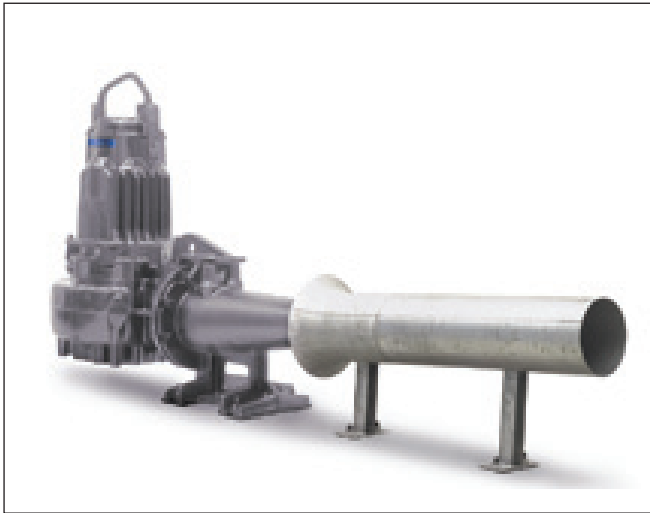


## High thrust jet mixers



### Applications

Jet mixers with pumps installed in the tanks are used in wastewater treatment plants for EQ & retention basins cleaning, mixing of sludge in storage tanks & digesters & other applications. Water entering such basins contains suspended solids which can settle & accumulate on the floor & walls. These accumulations reduce the working volume of the basin & can be the source of odors & toxic gases. When a powerful Flygt Jet Mixer is installed in the basin, the contents are kept homogeneous.

### Mixing & flushing

A Flygt Jet Mixer performs two different operations, depending on the water level in the basin.

1. When fully submerged, the Flygt Jet Mixer acts as a mixer. Mixing efficiency is increased by utilizing primary and secondary water flows:

The primary flow ( $Q_1$ ) from the pump is discharged through the nozzle into the ejector pipe. The increased velocity of the water exiting the nozzle causes a reduction in pressure.

This reduction in pressure causes a strong secondary flow ( $Q_2$ ) to be drawn into the ejector pipe, mixing with the primary flow. This combined flow increases the over all mixing efficiency.

2. When the liquid level is lowered and the jet breaks the surface, the Flygt Jet Mixer becomes a flushing device. The flow ( $Q_1$ ) passes through the nozzle and the ejector pipe, resulting in a powerful jet which cleans the basin floor and walls.

### Any tank size or shape

The high thrust hydroejector can be used in almost any size or shape retention basin requiring:

- Homogeneous blending;
- bulk flow cleaning
- flushing of the basin
- or all options

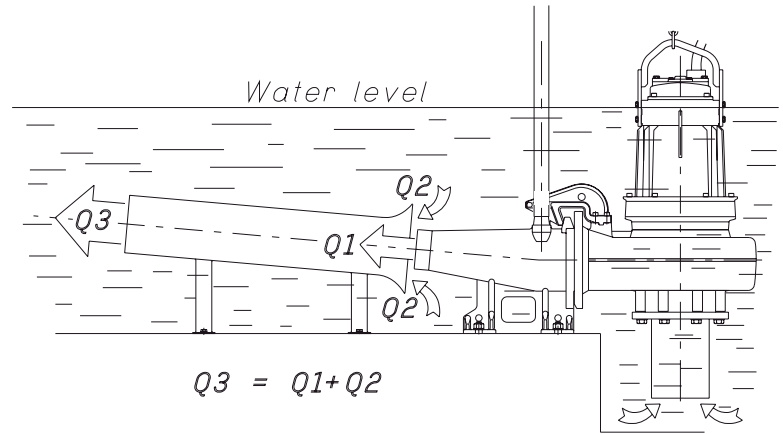
The compact, self-contained Flygt jet mixer can be repositioned making it ideal for cleaning any retention basin regardless of shape or size.

### Non-clogging

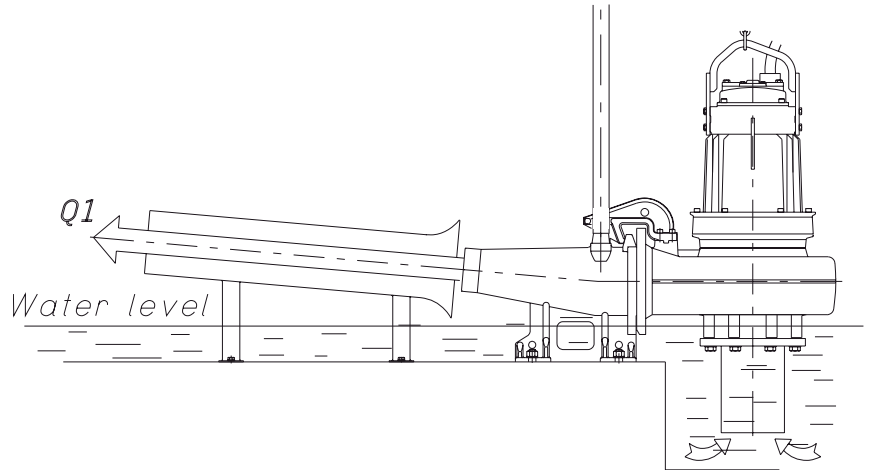
From the presence of solids in the liquid in the basin, clogging can be a potential problem. The Flygt Jet Mixers submersible pump uses the proprietary self-cleaning N-impeller for clog free performance. The ejector pipe is designed with a large diameter, to further insure reliable operation.

## Performance

The pump is submerged on starting. The flow through the nozzle induces a secondary water flow at the ejector pipe inlet. Due to the combined flow in the ejector pipe, the jet emerging from the pipe outlet provides more efficient use of mixing energy than the pump flow alone. The resultant turbulence resuspends solids and sludge, and keeps them in suspension until they can be discharged with the outflow from the basin.



When the water has dropped to the level at which the pipe is no longer totally submerged, the flow from the pump helps flush the basin floor.



## Material

Denomination	Material	ASTM
Nozzle	Cast iron	A 48 No 35B
Pipe	Stainless steel	304
Screws, stud and nuts	Stainless steel	316L
<b>Surface treatment</b>		
Primer		M 0722.61
Coating		M 0726.00

## Optimal results

At Xylem - Flygt Products, our system engineers have years of experience at providing the optimum solutions for retention basins and can provide any help necessary with selection, dimensioning, and positioning of units.

We have worked together with many different customers, supplying the best possible results for their different sized and shaped retention basins. Customer satisfaction is our primary goal.

Xylem Inc., Flygt products, reserves the right to modify performance, specifications or design without notice.

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