



JetFlo™

A cost-effective, efficient alternative to mechanical agitators for a variety of tank mixing applications.

Park Process's JetFlo™ Tank Jet Mixer is designed to pull three times the amount of surrounding fluid that is pumped through its nozzle, ejecting the mixture in a rapidly expanding plume through the venturi section of the mixer. These mixers are made so that the nozzle insert and venturi insert are replaceable without having to replace the complete mixer. The JetFlo™ is simple to install and easy to assemble/disassemble using two groove style clamps to keep the removable parts in place.

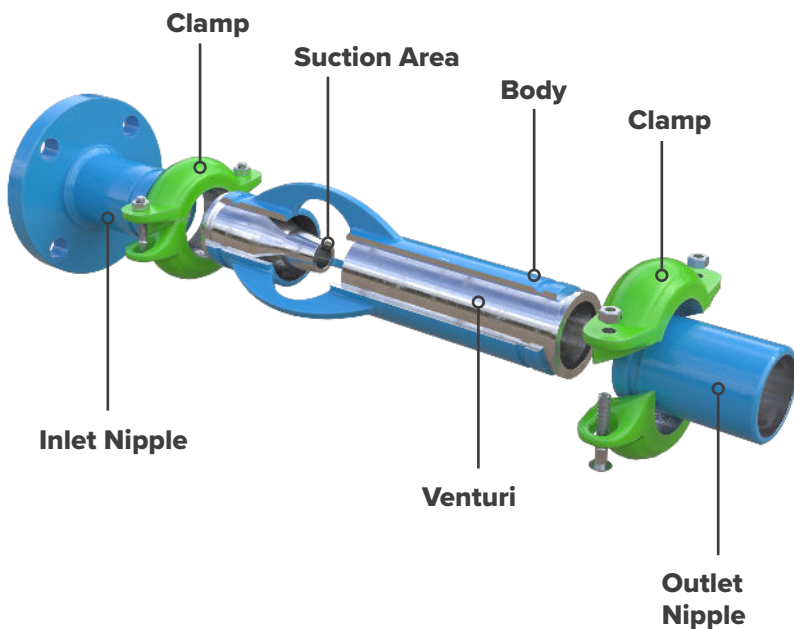
Tank jet mixers are a cost-effective and efficient alternative to standard mechanical agitators. The JetFlo™ mixer can be installed in practically any position in a tank or basin, although there are preferred orientations and locations for the mixers based on the shape and size of the vessel/basin.

Features:

- Body construction: carbon steel with special coating (other options include 304 stainless steel, 316 stainless steel or other metals)
- Nozzle and venturi construction: UHMW Polyethylene (other options include PVC, nylon, kynar, teflon, other plastics, or stainless steel)
- JetFlo™ tank mixers are available in 1" through 6" pipe sizes, handling flows from 15 to over 1,000 gpm
- Removable nozzle and venturi pieces held in place using groove type clamps
- Controllable performance
- Small compact unit
- No moving parts

Applications Include:

- Heat transfer
- Chemical mixing
- Neutralization
- Solids suspension
- Sludge mixing
- Flash mixing
- Blending
- Lime mixing
- Biodiesel mixing



Sizing Example

If the turnover rate of a given amount of fluid is one minute, the amount of fluid using the JetFlo™ can be easily calculated by taking the volume and dividing by four. This number represents the amount of fluid that must be fed to the JetFlo(s) to turn the given volume in one minute. For example, if the tank is 1,000 gallons then JetFlo(s) will be able to turn that volume in one minute with a pump that will flow 250 gpm. If the requirement is to turn the tank in one hour, then a pump that flows 250/60 or 4.166 gpm would be sufficient using a JetFlo mixer. For a 100,000 gallon tank that needs to be turned once per day, the requirement would be $100,000/4 = 25,000/24 = 1041.67$. $1041.67/60 = 17.36$ gpm. So, the pump for this application would have to be able to pump 17.36 gpm.

Then, the number and size of JetFlos would need to be decided. Typically, with larger tanks, it is best to use multiple JetFlos so they can be positioned in advantageous locations to create the best mixing action. In the case of the 100,000 gallon tank, it might be best to use at least four JetFlos. Since the total flow required from the pump to turn the tank in 24 hours is 17.36 gpm, each JetFlo would be fed $17.36/4 = 4.34$ gpm. The depth of the tank/basin will also come into play since there is a psi requirement for the JetFlo to function properly. A 30 psi pressure drop across the nozzle of the JetFlo is usually enough to create the mixing plume necessary to create thorough mixing. So the depth that the JetFlo is positioned below the surface of the fluid in the tank/basin should be added in psi to the required pressure of the feed pump. The flow will determine the size of the JetFlo and with that given flow, the nozzle chart is used to pick out the correct size JetFlo.

Jet Mixer Dimensional Chart

Model	A	B	C	Inlet	Outlet
100	12 13/16	2 1/2	3	1	1
150	15 3/4	3 1/2	3	1 1/2	1 1/2
200	18 1/4	4 1/4	3	2	2
300	25 7/8	5 5/8	4	3	3
400	32 7/8	7 5/8	5	4	4
600	47 3/4	10 1/4	7	6	6

*Dimensions subject to change without notice. All measurements are in inches.