TE SERIES TANK MIXING EDUCTOR

DESIGN FEATURES

- Effective, economical way to Circulate liquids in closed or open tanks
- No Moving parts
- Inherently clog resistant
- Requires minimal maintenance
- Nozzles operation creates multiplying effect on fluid flow

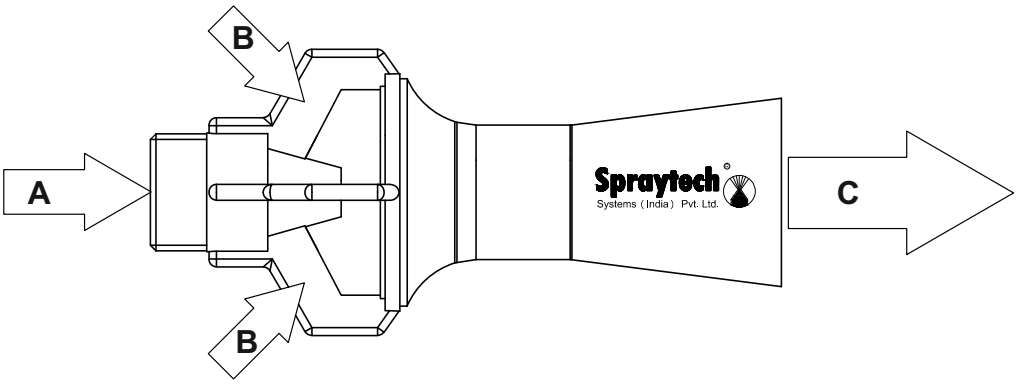
Plastic Versions

Metal Versions

SPRAY CHARACTERISTICS

- Cone -shaped plume Flow rates: 26.7 to 12000 L/min (motive)
- The volume of discharge liquid will be 3-5 times greater than the motive liquid pumped.
- It's unique venturi design ensures proper mixing of tank Solution.

Eductors have a unique venturi design which enables smaller pumps to circulate large volumes of tank solution. The eductor will circulate four to five gallons of solution for each gallon pumped. Eductors are used for mixing chemicals, suspending solids, adjusting pH," sweeping" debris or sludge toward a filter intake and many other useful applications.



A = Inlet Flow Rate
B = Entrained Flow Rate
C = (A+B) Out Flow

Application

- Plating Tanks
- Phosphating Tanks
- Fertilizer tanks
- Pulp Tanks
- Sludge Tanks
- Paint Booths
- Anodizing Tanks
- Cooling Towers
- Decorative Fountains

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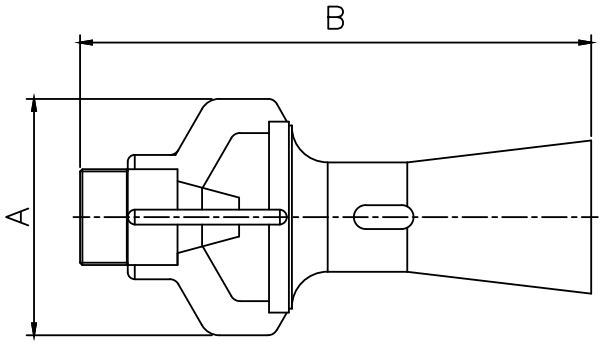
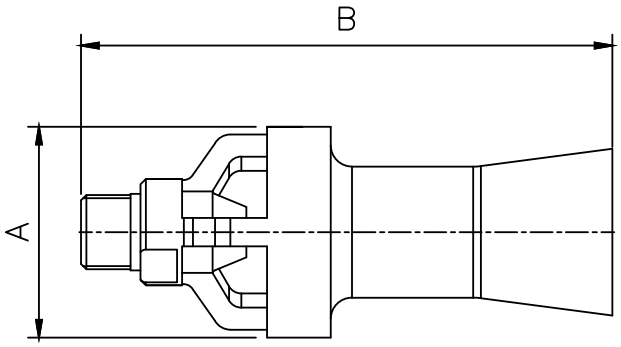


Plastic Versions

PLASTIC									
Connection Size BSP	Model Number	Motive Flow Rate LPM @ BAR						Dimensions (mm)	
		0.7 bar	1 bar	1.5 bar	2 bar	3 bar	4 bar	A	B
1/4	TE30	11.54	13.79	16.89	19.50	23.88	27.58	30.8	82.0
3/8	TE80	30.94	37.00	45.30	52.30	64.00	74.00	52.0	114.7
1/2	TE93	35.50	42.43	51.96	60.00	73.48	84.85	71.0	161.0
3/4	TE120	44.37	53.03	64.95	75.00	91.86	106.07	71.7	164.3
1	TE240	88.74	106.00	129.90	150.00	183.71	212.13	--	--
1 1/2	TE350	133.11	159.10	195.86	225.00	275.57	318.20	115.4	254.1



Metal Versions

METAL										
Connection Size BSP / BSPT / NPT		Model Number	Motive Flow Rate LPM @ BAR						Dimensions (mm)	
			0.7 bar	1 bar	1.5 bar	2 bar	3 bar	5 bar	A	B
Threaded	1/4	TE35	13.6	16.2	19.92	23	28.1	36.3	36	80
	3/8	TE73	27.8	33.2	40.70	47	57.5	74.3	49.5	115
	1/2	TE120	45.8	54.2	66.4	76.7	93.94	121.2	59.5	150
	3/4	TE150	57.2	68.3	83.7	96.7	118.4	152.9	69.5	167
	1	TE240	88.74	106.7	129.9	150	183.7	237.1	89	241
	1 1/2	TE340	129.5	154.8	189.6	219	268.2	346.2	114	252
	2	TE620	236.5	282.1	345.5	399	488.6	630.8	134	290
	3	TE1500	572.0	683.7	837.4	967	1184.3	1528.9	174	375.5
Flange End	4	TE2510	952.5	1138.4	1394.3	1610	1971.8	2545.6	--	--
	6	TE6010	2271.7	2715.2	3325.5	3840	4703.0	6071.5	--	--
	8	TE10050	3804.0	4546.7	5568.5	6430	7875.1	10166.7	--	--

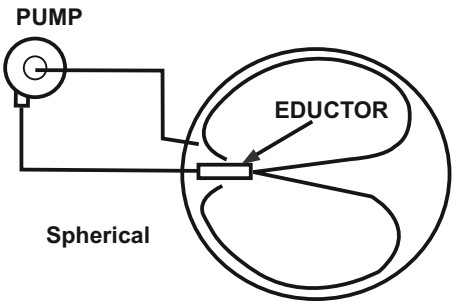


Figure 1
Eductor in a round tank

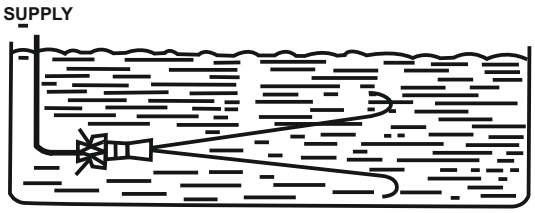


Figure 2
Eductors in a tank providing mixing.

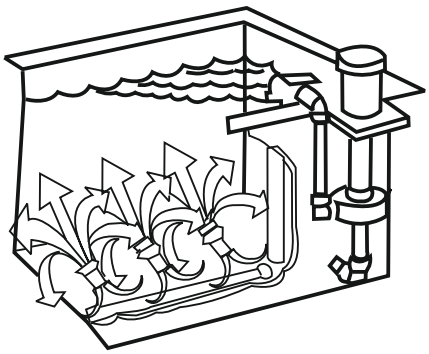


Figure 3
Multiple eductor assembly

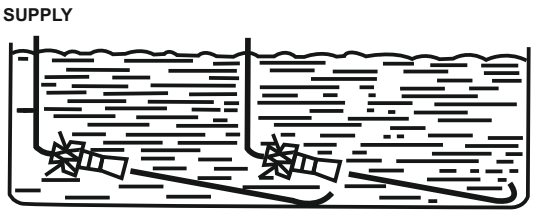


Figure 4
Eductors in a tank maintaining suspension and mixing of solids.

MOUNTING

An eductor can be mounted in any position. The supply line and manifold pipng to multiple eductors must be sized to supply uniform pressure to each eductor. It is important that the eductor be positions within the tank to insure the free flow of liquid to be mixed into and out of the units. the greatest agitation occurs within the discharge plume; therefore, the discgarge end should be aimed towards the most remote part of the tank. On the other hand, the intake end of the unit must be just far enough from the tank corner or wall to allow the free flow of liquid into the suction openings.

Tank shape and size influence the placement and number of eductors required ti maintain even agitation. With a spherical tank, a single eductor mounted as shown in the Figure 1 illustration makes the best use of the mixing characteristics of the eductor. With no corners to impede liquid flow, the liquid circulates evenly.

In simple mixing application in a cylindrical, square or rectangular tank, not a plating tank, the angular intersection of stagnation in these areas. A single eductor mounted as shown in Figure 2 will minimize this. For high agitation, use of multiple eductors are recommended as shown is Figure 3.

A slight downward angle of the eductors can be helpful in maintaining the velocity at the tank bottom which is necessary to keep solids in suspension for easier removal by a filter system. (See Figure 4)