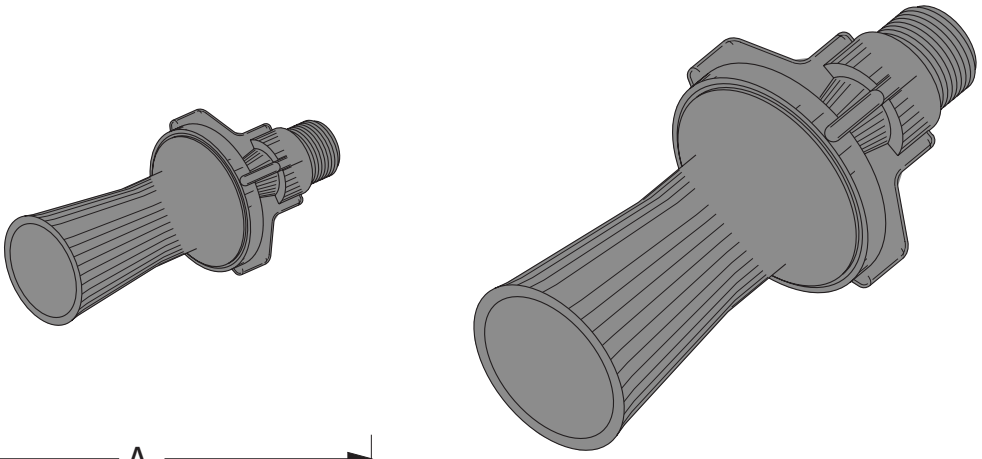
UNI-SPRAY SYSTEMS INC.

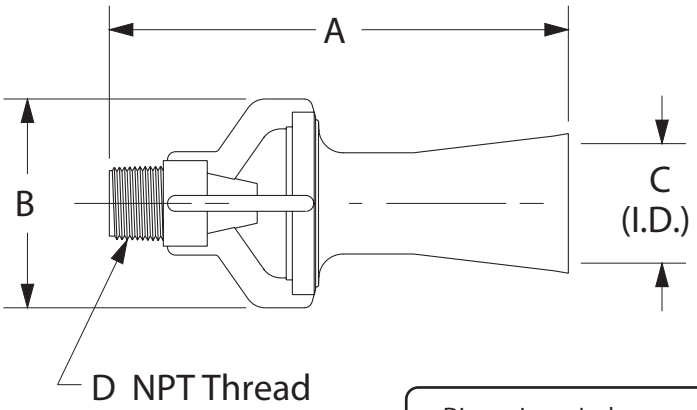
TME - TANK MIXING EDUCTORS

Tank Mixing Eductors (TME's) enable small pumps to circulate large tanks. The suction produced by the venturi action of the eductor greatly amplifies the mixing ability of the pump. Solids in the tank are kept from settling by the velocity of the discharge plume. The eductors are placed in the tank to maintain the critical velocity of the solid particles. A slight downward angle of the eductor can be helpful to maintain the critical velocity on the tank floor.

TME's can be used in conjunction with Uni-Spray Saddles for easy installation.

Eductors are moulded of Glass-Reinforced Polypropylene,
with a temperature range up to 220° F (104°C).
They are also available in Brass or Stainless Steel.





Dimensions - Inches

Part No.	Size	A	B	C	D
038 TMEEDU	3/8	4.49	2.11	1.22	3/8
050 TMEEDU	3/4	6.56	2.50	1.46	1/2
075 TMEEDU	1-1/2	6.28	2.93	1.63	3/4
100 TMEEDU	1-1/2	9.68	3.88	2.17	1
150 TMEEDU	1-1/2	9.73	4.68	2.59	1-1/2

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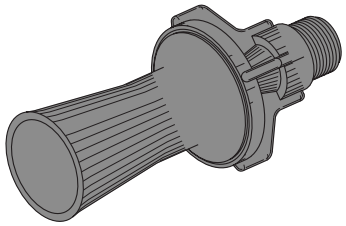
TME - CAPACITIES



The flow rates shown below are based upon water (SG 1.00) as the motive liquid. To adjust the values for liquids with a different specific gravity, use the following formula:

$$[\sqrt{(1 \div SG_{\text{of actual motive liquid}})}] \times \text{Table Value} = \text{Flow Rate}_{\text{of actual motive liquid}}$$

The pressure differential (ΔP) shown in the table is the ΔP across the TME, not the pump. The ΔP equals the motive inlet pressure (Pm) minus the discharge pressure (Pd).

The discharge pressure is the static liquid pressure in the vessel assuming the vessel is vented to the atmosphere. (See formula below.) If the vessel is pressurized, the Pd is that value plus the static liquid pressure.

$$((\text{Liquid Height}_{\text{in feet}}) \times SG) \times 0.43 = Pd$$

For mixing applications, one psi of ΔP produces six inches of efective discharge plume length.

Operating Liquid Flow - GPM									
	Pressure Differential - PSI								
SIZE	10	15	20	25	30	35	40	45	50
3/8"	7.5	9.3	10.7	11.9	13.1	14.1	15.1	16.0	18.9
1/2"	10.7	13.1	15.2	17.0	18.5	20.1	21.5	22.7	24.0
3/4"	14.1	17.3	20.0	22.4	24.5	26.5	28.3	30.0	31.6
1"	24.4	29.9	34.5	38.5	42.2	45.6	48.8	51.7	54.5
1-1/2"	35.1	43.0	49.7	55.6	61.0	65.8	70.3	74.6	78.6

Note: the flow rate that is shown in the above chart is the motive or through put of the eductor. The actual discharge from the eductor is 5 times the motive.

Example: 3/8" eductor @ 10 P.S.I. Motive = 7.5 Discharge 5 x 7.5 = 37.5 gpm.