BEX®

CAST IRON EDUCTORS

MODEL NUMBER	Pipe Size	Dim. L	Dim. D
T4	1$\frac{1}{2}$ NPT Female	9$\frac{1}{2}$	3$\frac{3}{4}$
T5	2" NPT Female	12$\frac{1}{4}$	4$\frac{7}{8}$
T6	3" NPT Female	17$\frac{1}{8}$	7$\frac{1}{2}$

EDUCTOR PRINCIPLES:

BEX eductors use 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.

BEX eductors are used for mixing chemicals, suspending solids, adjusting pH, "sweeping" debris or sludge toward a filter intake and many other useful applications.

CONSTRUCTION:

Standard materials are cast iron, 316 SS, PVDF (Kynar®) and glass-filled polypropylene. Other materials are available upon request.

TYPICAL APPLICATIONS:

• Plating Tanks
• Cleaning Tanks
• Phosphating Tanks
• Fertilizer Tanks
• Pulp Tanks
• Sludge Tanks
• Anodizing Tanks
• Cooling Towers
• Decorative Fountains
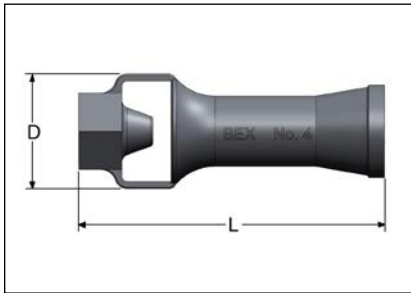
The capacity table provides the flow of water through the nozzle orifice.

To determine discharge, multiply this value by five (5).

Model	Max. Free Passage (in)	CAPACITY AT VARIOUS PRESSURES (USGPM)							
		10 psi	15 psi	20 psi	25 psi	30 psi	35 psi	40 psi	50 psi
T0M	0.612	33	40	47	52	57	62	66	74
T22M	0.781	55	67	78	87	95	103	110	123
T2M	1.188	126	154	178	199	218	236	252	282

USING BEX EDUCTORS AS STEAM SPARGERS:
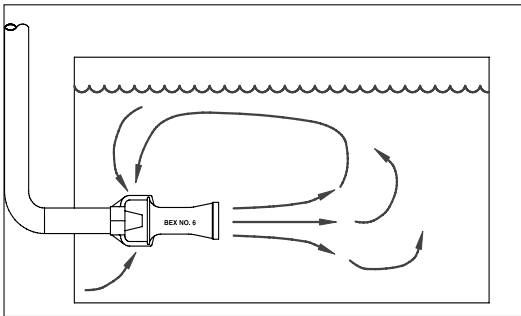
APPLICATIONS:

BEX Steam Spargers heat water and other liquids quickly and efficiently by direct injection of steam. They are designed for tank immersion and eliminate water hammer noise.

SELECTING THE RIGHT EDUCTOR:
(1) Calculate the required steam flow rate from the following equation:

$$\text{Steam Required (lbs./hr)} = \frac{\text{Temp. increase of water (°F) x weight of water (lbs.)}}{\text{Time allowed to heat tank (hrs.) x 1000}}$$

(2) Knowing the steam flow rate and the steam pressure available at the sparger, choose the sparger(s) from the table below. Using several small spargers may be advisable to using one large sparger.

(3) To help eliminate steam hammer, ensure that the minimum absolute pressure of the eductor is at least twice the absolute pressure inside the tank, at eductor depth.

Note:
1 Imperial gallon of water = 10.00 lbs.
1 cubic foot of water = 62.40 lbs.
1 U.S. gallon of water = 8.33 lbs.
1 litre of water = 2.20 lbs.

Model	Max. Free Passage (in)	STEAM CAPACITIES (lbs/hr) AT VARIOUS PRESSURES (psi)							
		20 psi	30 psi	40 psi	60 psi	80 psi	100 psi	120 psi	150 psi
T0M	0.288	136	175	214	293	371	450	214	646
T2M	0.386	212	273	334	456	579	701	334	1006
T3M	0.481	352	453	555	758	861	1164	555	1671
T4	0.612	590	760	930	1270	1610	1950	930	2800
T5	0.781	896	1154	1412	1929	2445	2962	1412	4253
T6	1.188	1975	2544	3113	4252	5390	6528	3113	9374