TURBO EJECTOR PUMP

I . T . E

Engineering Co.

IMEN TIAR

TURBO EJECTOR PUMP

www.imentiar.com

Introduction to the Company

Imen Tiar Engineering Company (I.T.E.) was founded in 1999 as a manufacturer and supplier of firefighting and safety equipment as well as being active in the design of automatic fire alarm and extinguishing systems. The activities of the company range from the fields of oil, gas and petrochemical industries to heavy industries, power plants and fire departments. The company holds the prestigious ISO 9001:2008 certificate, European CE standard and various domestic certificates from the Institute of Standards and Industrial Research of Iran (ISIRI) and produces a wide range of firefighting and safety equipment.

Introduction to the I.T.E. Ejector Pumps

Specialised equipment are required for evacuating chemical or petroleum-based liquids when they have leaked on the floor in an area. This equipment should be able to function without any need of electricity, since electric currents are highly hazardous when used in the vicinity of such inflammable liquids. Imen Tiar Engineering Company has designed and manufactured special pumps for such purposes, whose functionality is based on the energy of the flowing water. To this end, two types of ejector pumps are available as follows.

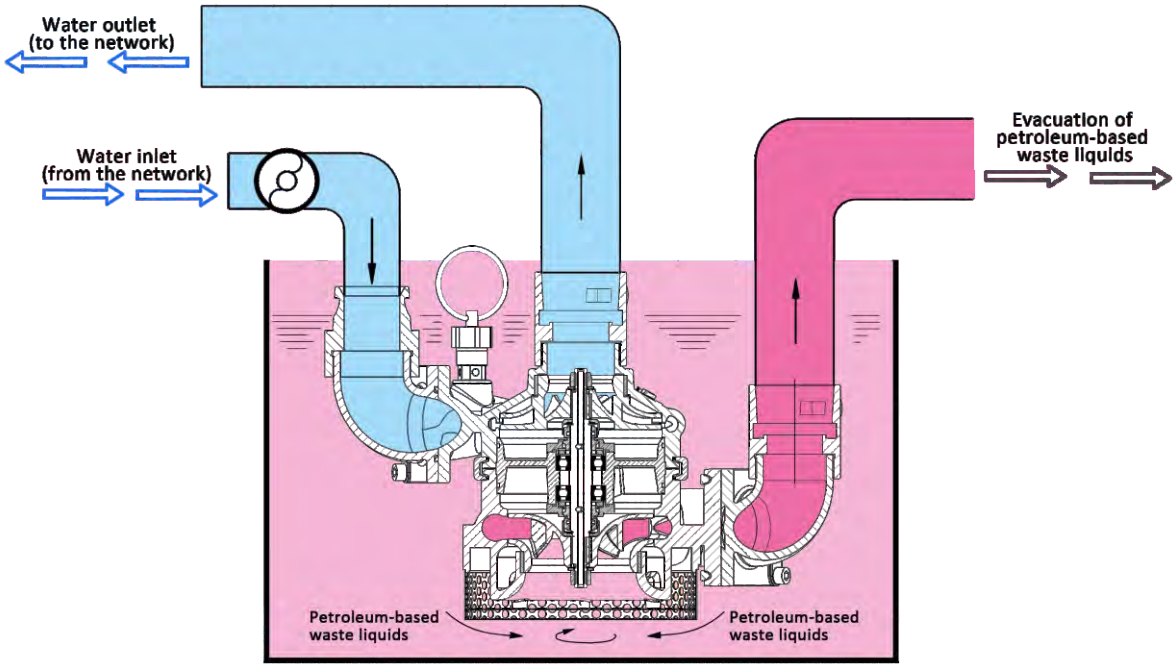
The first type: turbine/vane ejector pumps (Turbo Ejector Pumps), which evacuates the fluid using a vane or propeller.
The second type: Venturi/suction pumps (Ejector Pumps), the function of which is based on the suction caused by the Venturi effect.

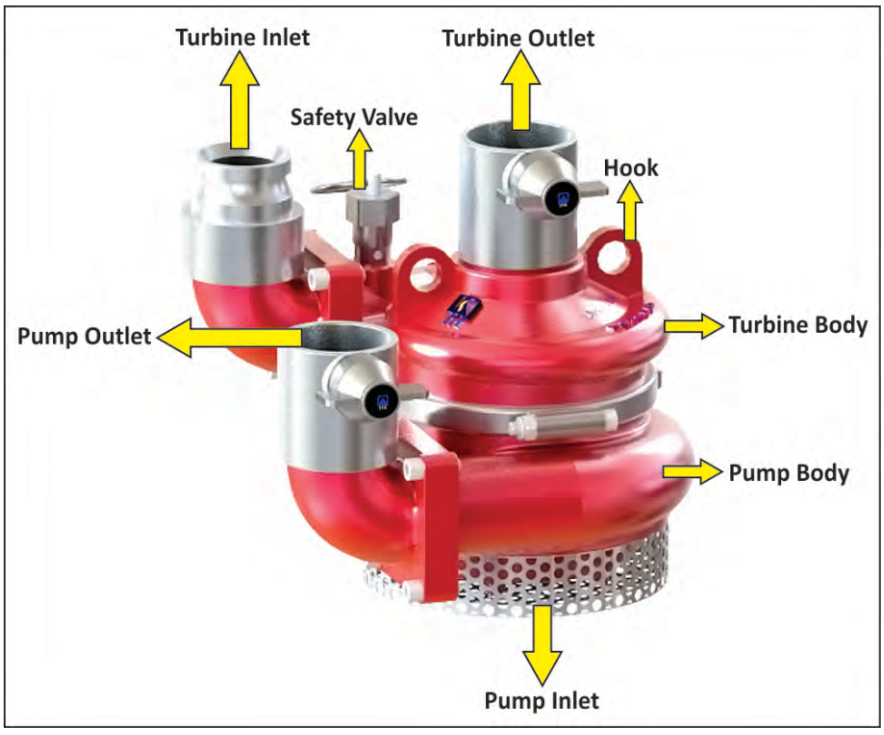
- **Ejector Pump**

- **Turbo Ejector Pump**

Introduction to the Turbine/Vane Ejector Pump (Turbo Ejector Pump)

The turbine/vane ejector pump (Turbo Ejector Pump) has a wide range of applications for the precise evacuation of waste fluids such as petroleum-based liquids, wastewater, etc. In this type of pump, the pressurised water causes the rotation of a turbine, which in turn leads to the generation of the suction needed for the evacuation and displacement of waste material.





Specifications of the Turbo Ejector Pump

1. A hydro-motor supplies the required motive force of the pump.

2. The pressurised water is fed via a hose from one side to the turbine and exits the other side by means of a second hose from the turbine outlet in order to circulate in the system.

3. The transformation of the energy of pressurised water to the mechanical energy, causes the rotation of the pump vanes and ultimately results in the evacuation of the leaked waste fluid (water, gasoil, gasoline, etc.) off the area.

4. The pump is also able to evacuate liquids and waste substances of foam off the floor.

Turbo Ejector Pump
- **Model: TR-TP1**
  (Storz Connection Type)

Turbo Ejector Pump
- **Model: TR-TP1**
  (BS Connection Type)

Properties and Advantages of the Turbo Ejector Pump

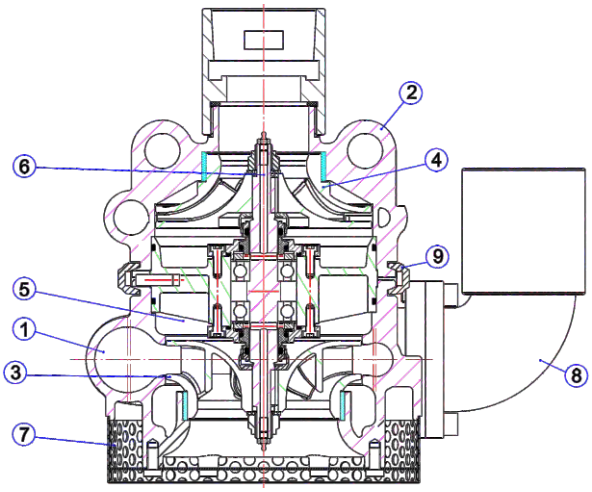
1. Lightweight and portable by a single individual.
2. Easy to use.
3. Evacuation of inflammable liquids safely and easily.
4. Environmentally friendly due to not wasting water and cleaning of the area from liquids that are harmful the environment.

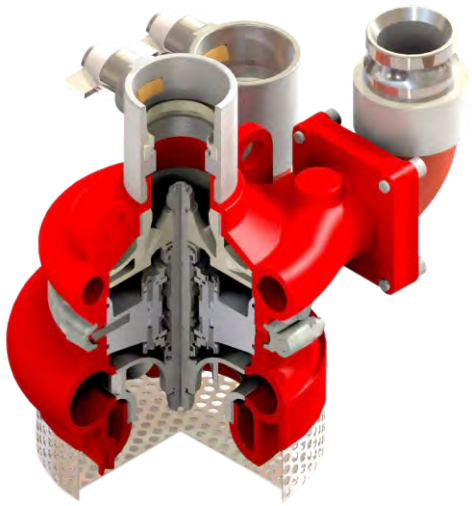
5. Manufactured from high-quality aluminium alloys by the T6 thermal treatment.
6. The clean pressurised water used for running the pump can be recovered, since it remains clean and intact, without being mixed with the flowing waste liquids that are being evacuated.

7. Quick and easy evacuation of liquids and waste substances of foam.
8. Resistant against dust and dry running usage (when the waste liquid is not flowing in the pump).

9. Conformity to the DIN 14 426 standard.
10. Conformity of the inlets/outlets to the BS336 and Storz DIN standards.

Technical Features of the Turbo Ejector Pump





No.	Part Name	Material
1	Lower Body	Aluminum T6
2	Upper Body	Aluminum T6
3	Lower Turbine	Aluminum T6
4	Upper Turbine	Aluminum T6
5	Pulley	Aluminum T6
6	Stem	Stainless Steel

No.	Part Name	Material
7	Strainer	Stainless Steel
8	Elbow	Aluminum T6
9	Clamp Ring	Galvanized
10	2 ½" Female Adaptor F.T	Aluminum T6
11	2 ½" Male Adaptor F.T	Aluminum T6

Technical (Operational) Specifications

Pump		Turbine	
Outlet water height Head (m)	Pump outlet flow rate (LPM)	Turbine outlet flow rate (LPM)	Inlet pressure (BAR)
6 m	1250	**1100**	**7**
8 m	1100		
10 m	920		
12 m	850		
15 m	650		
6 m	1350	**1200**	**8**
8 m	1230		
10 m	1050		
12 m	950		
15 m	800		
6 m	1500	**1350**	**10**
8 m	1300		
10 m	1150		
12 m	1050		
15 m	950		

Pump		Turbine	
Outlet water height Head (m)	Pump outlet flow rate (LPM)	Turbine outlet flow rate (LPM)	Inlet pressure (BAR)
6 m	800	**750**	**4**
8 m	700		
10 m	620		
12 m	560		
15 m	420		
6 m	950	**900**	**5**
8 m	840		
10 m	750		
12 m	650		
15 m	460		
6 m	1100	**1000**	**6**
8 m	950		
10 m	800		
12 m	650		
15 m	500		

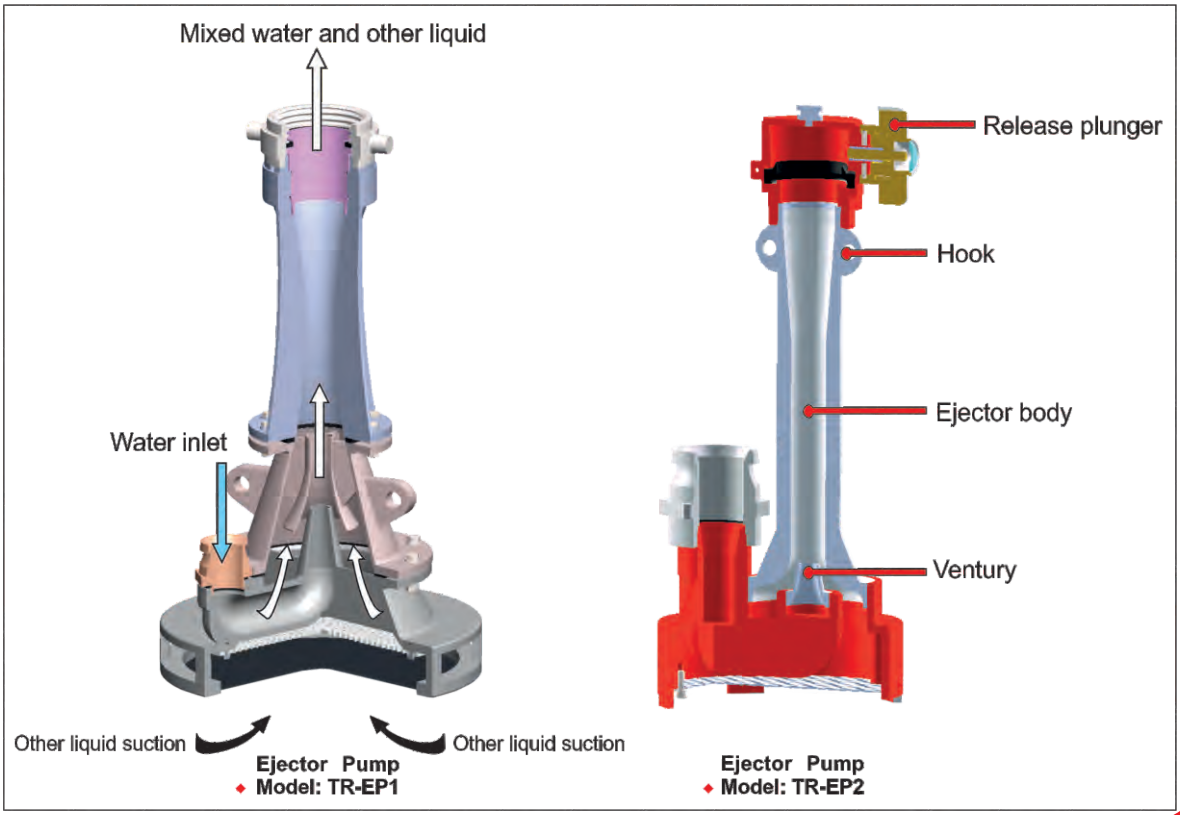
Introduction to the Venturi/Suction Ejector Pump

The Venturi/suction ejector pump is a simple, yet highly effective device for evacuation of liquids from the storages, wells and trenches. This type of pump is designed to utilise the Venturi effect to create suction or relative vacuum, which is needed for evacuating the liquids off the environment.
The ejector pump of Imen Tiar Engineering Company are designed and manufactured in two models: The TR-EP1 model with the capacity of 380 LPM and TR-EP2 model with the capacity of 1500 LPM.

Ejector Pump
Model: TR-EP2

Specifications of the Turbo Ejector Pump

1. The motive force is the Venturi suction effect.
2. In this product, pressurised water in fed to the inlet of the turbine via a hose. Then, mixed with the waste liquid, the water exits the pump outlet via another hose.



Ejector Pump
Model: TR-EP1

Ejector Pump
Model: TR-EP2

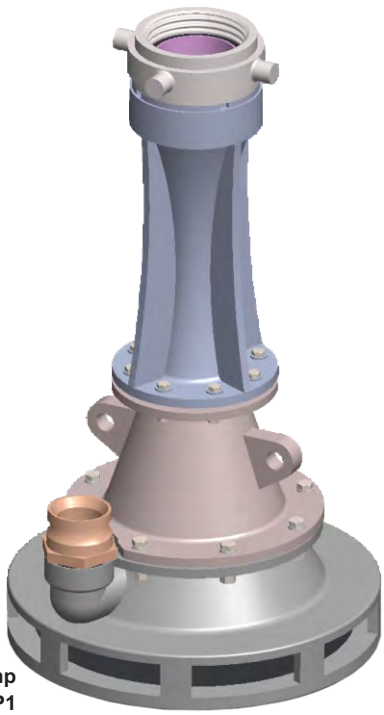
Technical Features of the Venturi/Suction Pump (Ejector Pump)

MODEL	INLET TYPE & SIZE	OUTLET TYPE & SIZE	CAPACITY (LPM)	DIMENSIONS (INCHES)	WEIGHT (KG)
TR-EP1	2 ½" Male BS 336 / Storz	2 ½" female BS 336 / Storz	380	High = 475 Diameter = 200	5
TR-EP2	2 ½" Male BS 336 / Storz	4" female Thread	1500	High = 735 Diameter = 416	18.7

MODEL	INLET PRESSURE (BAR)	INLET (LPM)	OUTLET (LPM)	TOTAL OUTLET (LPM)
TR-EP1	4	305	670	975
	5	335	710	1045
	7	390	800	1190
TR-EP2	4	350	600	950
	6	430	920	1350
	7	480	1020	1500

Properties and Advantages of the Ejector Pump

1. Lightweight and portable.
2. Easy to use.
3. Evacuation of inflammable liquids safely and easily.
4. Manufactured from high-quality aluminium alloys by the T6 thermal treatment.
5. Able to evacuate liquids and waste substances of foam.
6. Resistant against dust and dry running usage (when the waste liquid is not flowing in the pump).
7. Not requiring any electric motive forces and using only the energy of flowing water.
8. Conformity of the inlets/outlets to the BS336 and Storz DIN standards.
9. Conformity to the DIN 14 426 standard.



Ejector Pump
Model: TR-EP1

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ENVIRONMENTAL PROTECTION,
HIGH QUALITY - EASY TO USE
WITH I.T.E. EJECTOR PUMP

EJECTOR PUMP

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