



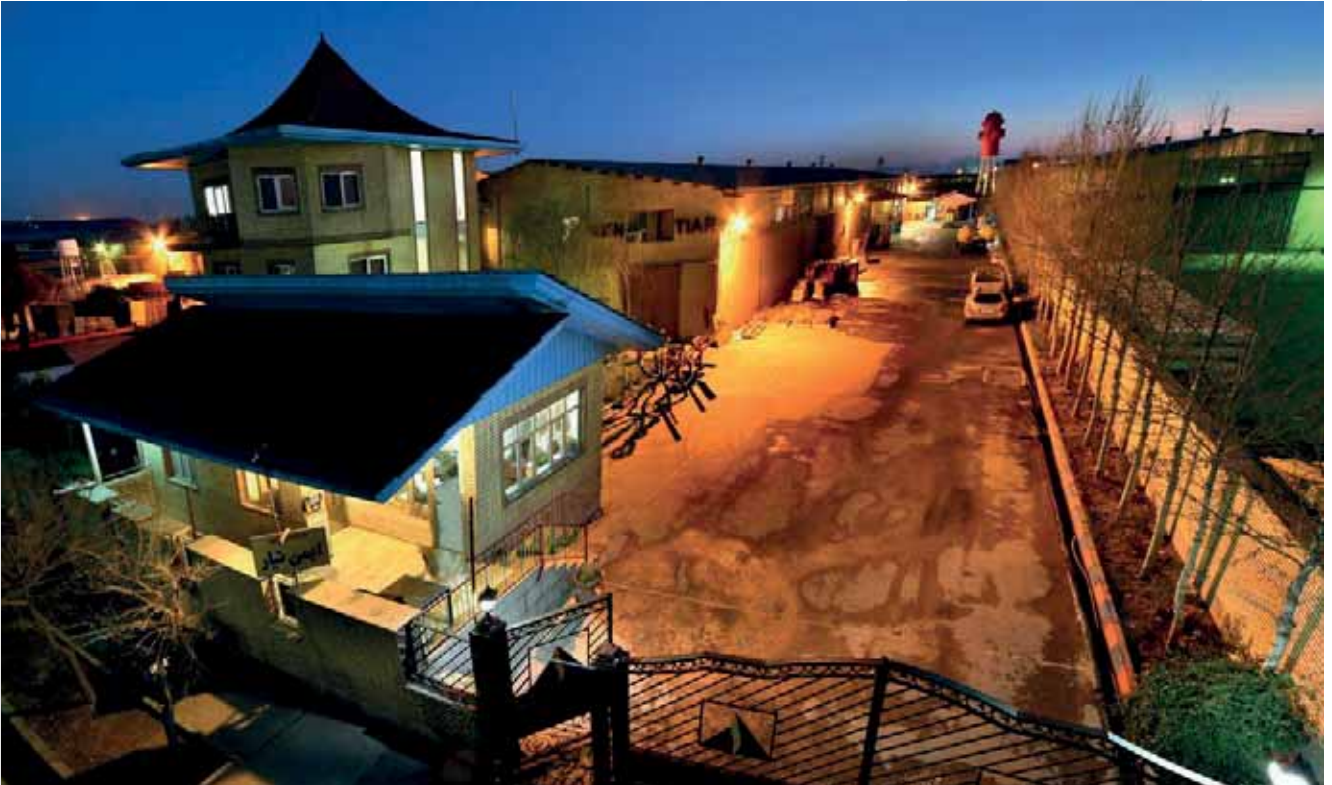
**I.T.E** IMEN TIAR  
Engineering Co.

# **IMEN TIAR**

**Engineering Co.**

Manufacturer and Supplier of Firefighting,  
Safety Equipment & Systems





# IMEN TIAR

## ENGINEERING CO.

IMEN TIAR Engineering Company was established in 1999 and has become a major manufacturer and supplier of firefighting equipment in recent years.

The main activities of I.T.E Co. are as follows:

1. Manufacturing of safety and fire protection equipment.
2. Design, manufacture and Installation of firefighting systems.
3. Maintenance and service of the firefighting systems.
4. After-sales services.

IMEN TIAR Engineering Company is certified by the ISO 9001:2008 quality control for manufacturing of firefighting equipment. The products of IMEN TIAR Engineering Company are CE certified and they conform to Iran national standards of product quality.



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I.T.E. INTERNATIONAL THERMAL EQUIPMENT CO.

Manufacturer and Supplier of Firefighting  
Safety Equipment & Systems



# HYDRANTS & VALVES

# 01



## ► HYDRANT

### • DRY BARREL HYDRANT

These Hydrants are usually used in the areas with cold climate.

Dry barrel hydrants are designed and manufactured according to the AWWA-C502 standard and National Standard of Iran No.2481.



► TR-PH-D1



► TR-PH-D2

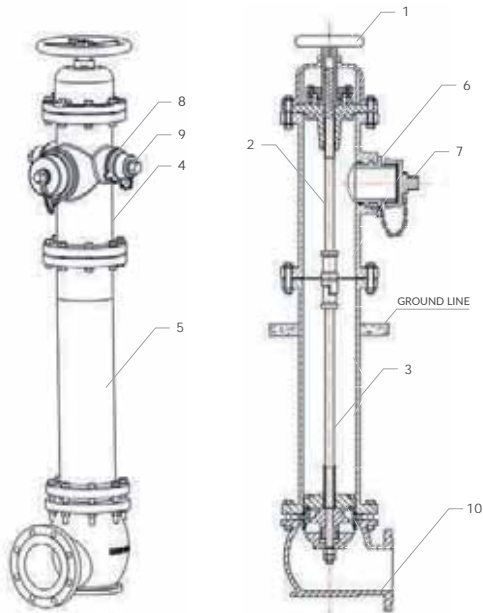


► TR-PH-D3



► TR-PH-D4

Model	TR-PH-D1	TR-PH-D2	TR-PH-D3	TR-PH-D4
<b>Desc</b>				
<b>Inlet Connection</b>	4" , 6" , 8"	4" , 6"	2 1/2"	4"
<b>Hose Nozzle (2 1/2") No.</b>	2	2	1	2
<b>Pumper Connection Size</b>	4" , 4 1/2" , 5" , 5 1/2"	4" , 4 1/2" , 5" , 5 1/2"	-----	4"
<b>Body Size</b>	8"	6"	3"	4"
<b>Body Material</b>	Ductile Cast Iron / Gray Cast Iron			
<b>Drain Valve Outlet Material</b>	Bronze / Brass			



No.	Part Name	Code Number
1	Hand Wheel	PH-D2-01
2	Upper Rod	PH-D2-02
3	Lower Rod	PH-D2-03
4	Body	PH-D2-04
5	Adjustment Pipe	PH-D2-05
6	4" Pumper Nozzle	PH-D2-06
7	4" Pumper Nozzle Cap	PH-D2-07
8	2 1/2" Hose Nozzle	PH-D2-08
9	2 1/2" Hose Nozzle Cap	PH-D2-09
10	Elbow	PH-D2-10



## ▶ HYDRANT

- ▶ **BARREL HYDRANT**

These types of Hydrants are usually used in the tropical areas. They are made according to AWWA-C503 standard. The Hydrants may have two, three or four outlets and their inlet connection size of can be 4" , 6" & 8".



▶ TR-PH-W1



▶ TR-PH-W1-M



▶ TR-PH-W2



▶ TR-PH-W2-M

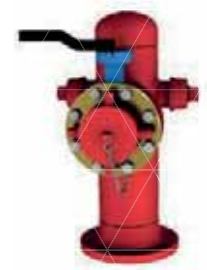
— Ductile Cast Iron / Bronze —



▶ TR-PH-W3



▶ TR-PH-W3-M



▶ TR-PH-W4



▶ TR-PH-W4-M

— Carbon Steel —



▶ TR-PH-W5



▶ TR-PH-W6



▶ TR-PH-W6-M



▶ TR-PH-W8



▶ TR-PH-W9



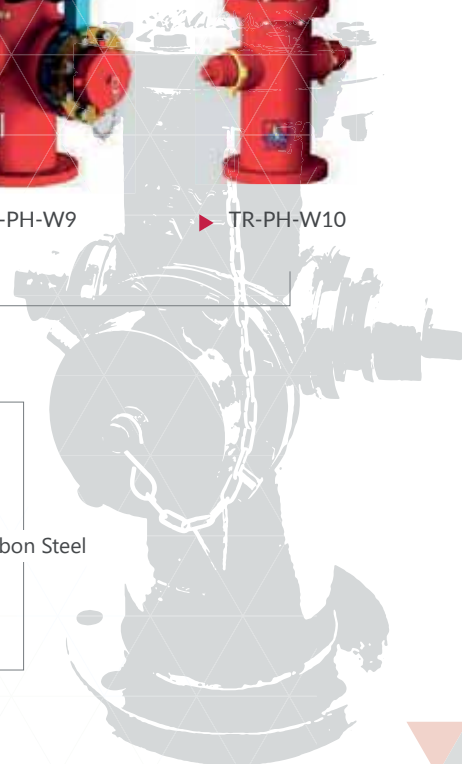
▶ TR-PH-W10

— Ductile Cast Iron / Bronze —



▶ TR-PH-W11

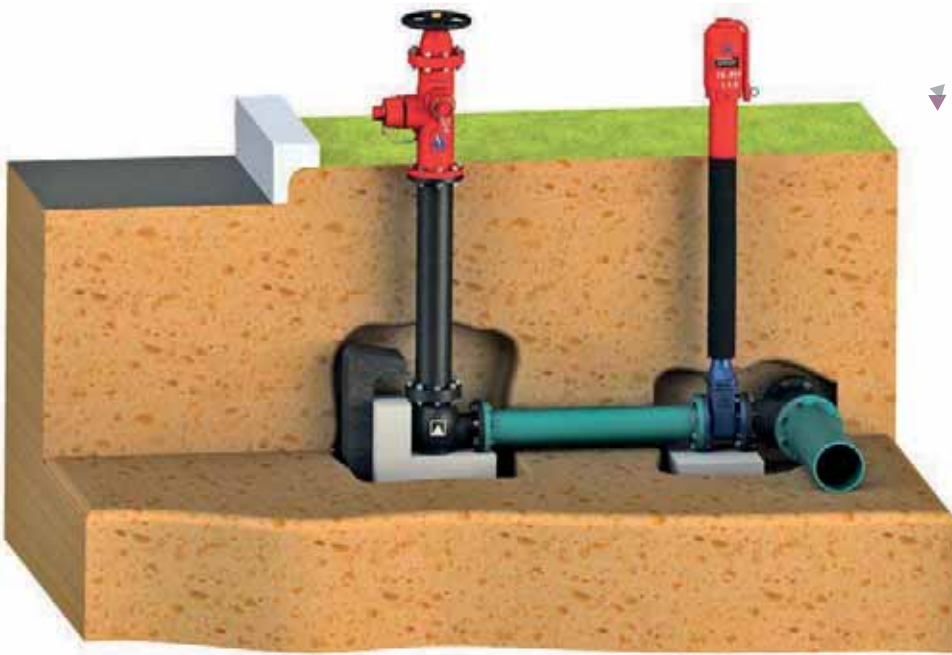
Carbon Steel



## ▶ POST VALVE

- **POST VALVE (PIV/PNIV)**

These kinds of valves are used for isolating the firefighting hydrants.  
(Indicator/Non-Indicator)



▶ SCHEMATIC VIEW OF THE INSTALLATION  
DRY BARREL HYDRANT & POST INDICATOR VALVE



▶ Post Indicator Valve  
(TR-PIV)



▶ Post Non Indicator Valve  
(TR-PNIV)

Desc	Model	TR-PIV	TR-PNIV
Type		Indicator	Non- Indicator
Barrel Type		Fixed / Telescoping	Fixed
Valve Type		* Gate / Butterfly	* Gate
Valve Size		3" ~ 20"	3" ~ 20"

\* Type: Gate (NRS)





## ▶ LANDING VALVE

- **GLOBE VALVE**

The Globe valves are made of copper alloy materials according to BS5041 Part 1 standard and National Standard of Iran No. 6793-1. outlet: BS336/storz.



Desc	Model	TR-SG1	TR-SG3	TR-SG5	TR-SG7	TR-SG9
		TR-SG2	TR-SG4	TR-SG6	TR-SG8	TR-SG10
Type		Straight	Bib-Nose	Oblique	"S" Type Straight	"S" Type Bib-Nose
Inlet Type & Size		Flange 2", 2 1/2", 3"	Flange 2", 2 1/2", 3"	Flange 2", 2 1/2", 3"	Flange 2", 2 1/2", 3"	Flange 2", 2 1/2", 3"
		Thread 2 1/2" NPT	Thread 2 1/2" NPT	Thread 2 1/2" NPT	Thread 2 1/2" NPT	Thread 2 1/2" NPT
Outlet Type		BSS 336 / Storz	BSS 336 / Storz	BSS 336 / Storz	BSS 336 / Storz	BSS 336 / Storz





## ▶ LANDING VALVE

- **GATE VALVE**

The Gate valves are made of copper alloy materials and they conform to BS5041 Part 2 standard. Outlet: BS336/storz.



Desc	Model	TR-GT1	TR-GT3	TR-GT5
		TR-GT2	TR-GT4	TR-GT6
<b>Stem Type</b>		OS & Y	NRS	RS
<b>Inlet Type &amp; Size</b>		Flange 2 1/2" , 3"	Flange 2 1/2" , 3"	Flange 2 1/2" , 3"
		Thread 2 1/2" BSP / NPT	Thread 2 1/2" BSP / NPT	Thread 2 1/2" BSP / NPT



## ▶ LANDING VALVE

- **PREESSURE REGULATOR VALVE**

These types of valves are designed to arrange and fix the outlet pressure of valve.



▶ TR-PRV1

Model	Valve Type	Inlet Type	Inlet Pressure	Outlet Pressure
TR-PRV1	Globe	Flange 2 ½" , 3"	8 – 20 barg	6 – 12 barg
		# 150 , # 300		
TR-PRV2	Globe	2 ½" Thread	8 – 20 barg	6 – 12 barg
		# 150		



▶ TR-PRV2

- **ANGLE VALVE**

Angle valves are used in firefighting boxes.



▶ TR-AV-65

Model	Valve Type	Inlet Type	Material
TR-AV-40	Globe	1 ½"	Brass
TR-AV-50		2"	
TR-AV-65		2 ½"	



▶ TR-AV-40

- **BUTTERFLY VALVE (WAFER TYPE)**

Butterfly valve (wafer type) is used in firefighting systems as an isolating valve.



▶ Butterfly Valve (Wafer Type)

Model	Inlet Size	Butterfly Valve Type	Material Body & Disc
TR-BV2	2"	Wafer Type / Wafer Lug Type	Bronze / Aluminum Bronze
TR-BV3	3"		
TR-BV4	4"		



▶ Butterfly Valve (Lug Type)



• **PREESSURE REDUCING VALVE (PRV)**

This valve changes high pressure to a lower and constant outlet (adaptable) pressure.



▶ TR-PRV15



▶ TR-PRV20



▶ TR-PRV25



▶ TR-PRV40



Size		Model	Max. Inlet Pressure (Bar)	Adaptable Pressure Rang (Bar)	Weight (Gram)	Max. Work Temperature	Outer Coating	Gauge Connection
DN (mm)	NPS (in)							
15	1/2"	TR-PRV-15	15	0.5 - 4	634	80 °C	Nickel / Chrome	F G 1/4"
20	3/4"	TR-PRV-20			652			
25	1"	TR-PRV-25		1181				
40	1 1/2"	TR-PRV-40	0.5 - 7	1420				
50	2"	TR-PRV-50		1500				





I.T.E.  
INTERNATIONAL  
TECHNOLOGICAL EQUIPMENT

Manufacturer and Supplier of Firefighting,  
Safety Equipment & Systems



# MONITORS & NOZZLES

# 02

## ▶ MONITOR

- **MONITOR (PORTABLE TYPE)**

The important feature of IMEN TIAR portable firefighting monitors is their light weight which allows the firefighter to set them up near the fire hazard zone and connect them to the hydrants via fire hoses.



▶ TR-MW1



▶ TR-WMW5-W



▶ TR-WMW5-F



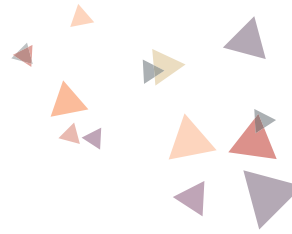
▶ TR-MW9



▶ TR-JM1

Model	Type	Operating System	Inlet Size	Capacity (LPM)	Service
TR-MW1	Portable	Single Hand Wheel	2 x 2 1/2"	2000	Water / Foam
TR-JM1 (Jet Master Monitor)		Manual		1600	Foam
TR-WMW5-W (Wheeled Water Monitor)		Manual		2000	Water
TR-WMW5-F (Wheeled Foam Monitor)		Manual		2000	Foam
TR-MW9		Single Hand Wheel		2000	Water / Foam





## ▶ MONITOR

- **MONITOR (FIXED TYPE)**

Fixed monitors manufactured by IMEN TIAR Engineering Company can be installed on the fire hydrants, on fire trucks or on firefighting rings.



▶ TR-MW2



▶ TR-MW3



▶ TR-MW4



▶ TR-MW5 (Foam)



▶ TR-MW5 (Water)

Model	Type	Operating System	Inlet Size (Flange)	Capacity (LPM)	Service
TR-MW2	Fix	Double Hand Wheel	3" , 4"	2000	Water / Foam
TR-MW3		Handle			
TR-MW4		Chain			
TR-MW5		Handle			

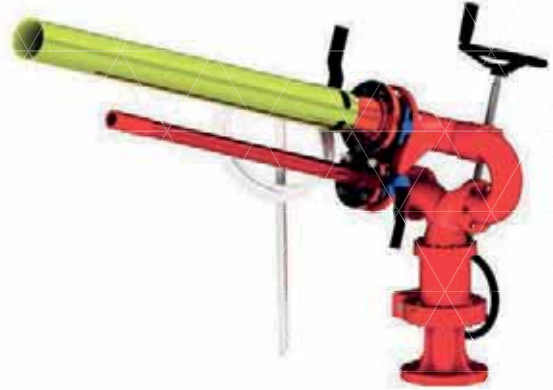


# MONITOR

- MONITOR (FIXED TYPE)



▶ TR-MW10



TR-FWM1 ◀



▶ TR-FWM2



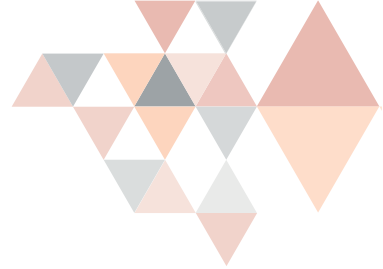
▶ TR-MW7



▶ TR-MW6

Model	Type	Operating System	Inlet Size (Flange)	Capacity (LPM)	Service
TR-MW6	Fixed	Double Hand Wheel	4"	6000	Water / Foam
TR-MW7		Handle	4"	2000	
TR-MW10		Double Hand Wheel	6"	10000	
TR-FWM1		Double Hand Wheel	4"	2700	
TR-FWM2		Double Hand Wheel	4"	4000	





## ▶ MONITOR

- **MONITOR (TRAILER TYPE)**

High-capacity IMEN TIAR monitors are trailer-mounted for better transportation during emergency conditions.

Categorized as:

- Trailer monitors with foam tank
- Trailer monitors without foam tank



▶ Trailer Monitor TR-TM1



▶ Trailer Monitor with Foam Tank TR-TM2



▶ Trailer Monitor TR-TM7



▶ Trailer Monitor with Foam Tank TR-TM4

Model	Type	Inlet Size	Capacity (LPM)	Service	Foam Tank/ Material
TR-TM1	Trailer	4 x 2 1/2"	1800-3600	Water / Foam	.....
TR-TM2	Trailer with Tank				1000-2000Lit / S.S
TR-TM4					2000Lit / GRP
TR-TM7	Trailer	4 x 4"	6000-11000		.....





## ► MONITOR

- **MONITOR (REMOTE CONTROL / SELF OSCILLATING TYPE)**

These types of IMEN TIAR monitors are designed to stand guard over different site plants, helidecks, etc. These monitors can be activated from a safe distance where the operator can turn on the water supply; direct the monitor horizontally and vertically; and change the spray pattern of the nozzle.



► TR-RCM1



► TR-RCM2



► TR-OSM

Model	Type	Inlet Size	Capacity (LPM)	Service
<b>TR-RCM1 , 2 (Remote Control Monitor)</b>	Electrical Actuator	Flange 3" or 4"	1800-3600	Water / Foam
<b>TR-OSM (Self- Oscillating Monitor)</b>	Hydraulic Actuator			Water

- **TOWER MONITOR**

Tower monitors are structures used to increase the coverage area for fire hazard in areas such as marine terminals, loading bays or storage tank farm. A spray cooling system works together with the structure.



► Tower Monitor  
TR-TW1

Desc	Model	TR-TW1 (Tower for Monitor)
<b>Material</b>		Corrosion Resistance
<b>Height</b>		4 – 18m
<b>Type of Monitor</b>		Remote Control Monitor / Self Oscillating Monitor
<b>External Protection</b>		Hot-dipped Galvanized / Painting



## ▶ NOZZLE

### • PORTABLE NOZZLE (HANDLE & PISTOL TYPE)

These IMEN TIAR handle type firefighting nozzles are made of gunmetal / aluminum / brass materials. Pistol type nozzles made of aluminum and it's flow rate is adjustable. All of them are used for water & foam.

Model	Capacity	Operating
▶ <b>TR-WN-F1</b> (Handle Type)	900	Shut off / on Fog – Jet
<b>TR-WN-F2</b> (Handle Type)	450	
<b>TR-WN-F3</b> (Handle Type)	255	
<b>TR-WN-F4</b> (Handle Type)	100	
<b>TR-PN1</b> (Pistol Type)	100 to 450	
<b>TR-PN2</b> (Pistol Type)	450 to 900	



### • FIXED NOZZLE (MONITOR NOZZLE TYPE)

These Nozzles are made of Gunmetal / Aluminum materials. They are used for water and foam services in a firefighting monitor.



Model	Capacity (LPM)	Operating	Service
<b>TR-NM1</b>	2000	Shut off / on Fog – Jet	Water
<b>TR-NM2</b>	2000		
<b>TR-NM3</b>	1300		
<b>TR-NM4</b>	3000 / 4000		
<b>TR-NM5</b>	6000		
<b>TR-NM6</b>	750 / 1500 / 2300 / 3000		

Model	Capacity (LPM)	Operating	Service
<b>TR-NFM1800</b>	1800	Jet	Foam
<b>TR-NFM2000</b>	2000	Shut off / on Fog – Jet	Water / Foam
<b>TR-NFM2700</b>	2700	Jet	Foam
<b>TR-NFM3600</b>	3600	Jet	Foam
<b>TR-NFM4000</b>	4000	Jet	Foam





I.T.E. INCORPORATED  
ENGINEERING CO.

Manufacturer and Supplier of Firefighting,  
SafetyE equipment & y& ems

# FIRE STATION EQUIPMENT

03



## ▶ FIRE HOSE BOX & FIRE HOSE REEL

Emergency fire boxes made by IMEN TIAR Engineering Company are manufactured in different models and sizes due to the different needs of the end user. IMEN TIAR fire boxes are either ground mounted or wall mounted.



▶ Fire Hose Reel



▶ Extinguisher Fire Box



▶ Fire Hose Box



▶ Fire Hose Reel



▶ Fire Hose Reel



▶ Fire Hose Reel

Model	Type	Size	Body Material
HB-W	Wall	According to order	Steel / S.S / GRP
HB-G	Ground		
HR-W	Wall		Steel / GRP
HR-G	Ground		





# ▶ FIRE FITTINGS

IMEN TIAR fire fittings consist of three groups: Coupling, Adaptor and Cap with various sizes from 1½" to 5". These products are made of copper alloy / AL-alloy materials and conform to BS336, Storz or BSRT standard.

## • A) COUPLING



▶ BS Coupling  
Multi Serrated



▶ BS Coupling  
Double Action



▶ BS Coupling  
Double Action



▶ BS Coupling  
Rib-Tail



▶ Coupling Storz  
(Forging)

Desc.	Size	Body Material	Locking system	Tail type	Service
<b>BS COUPLING</b>	1 ½", 1 ¾" 2 ½", 2 ¾"	Al-Alloy / Al-BZ / Gunmetal / Brass	Single Action / Double Action	Multi- Serrated / Rib-Tail	Hose
<b>BSRT COUPLING</b>	3", 4" 4 ½", 5 ½"		Single Action	Rib-Tail	Hose Suction
<b>STORZ COUPLING</b>	1", 1 ½", 2" 2 ½", 4"	Al-Alloy / Brass	Single Action	Rib-Tail	Hose / Hose Suction

## • B) CAP



▶ BS CAP  
(Female)



▶ BS CAP  
(Male)



▶ BS CAP  
(BSRT)



▶ BLANK CAPS  
(Forging)



# ▶ FIRE FITTINGS

## • C) ADAPTOR



▶ Storz Adaptor  
Female Thread  
(Forging)



▶ Storz Adaptor  
Male Thread  
(Forging)



▶ Storz Adaptor  
Flange DIN 2501 PN16  
(Forging)



▶ BS Adaptor  
Storz Adaptor



▶ Male BS Adaptor  
Female Thread



▶ Male BS Adaptor  
Male Thread



▶ Female BS Adaptor  
Female Thread



▶ Female BS Adaptor  
Male Thread



▶ BS Adaptor  
Male - Male



▶ BS Adaptor  
Female - Female



▶ BS Adaptor  
Male-Female



▶ BS Adaptor  
Flange-BSRT



▶ Male BS Adaptor  
Adaptor Flange



▶ Female BS Adaptor  
Adaptor Flange



- **HOSE BINDER**

IMEN TIAR electrical hose binders are used for binding the couplings (of size 1" to 4") to the fire hoses.



- **HOSE WASHER**

IMEN TIAR hose washer is used for washing the hose without brushing it.



- **HOSE ROLLER**

The well designed hose roller is used for rolling the fire hoses without placing stress on your manpower. This causes the outflow on water from fire hoses.



- **SUCTION HOSE (BS 336 / STORZ)**

- **SUCTION STRAINER**

Material	Standard
AL ALLOY / S.STEEL	BS336 / STORZ



- **WATER CURTAIN**

IMEN TIAR water curtains cool the firefighters engaged in firefighting operations.

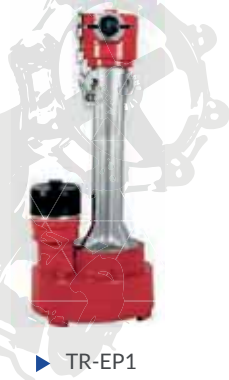
- **PRESSURE GAGE**

This product is used for measuring the pressure of the middle and end of the water line.



## ► MISCELLANEOUS

### • EJECTOR PUMP



► TR-EP1



► TR-EP2



► TR-TP1

Model	TR-EP1 Ejector Pump	TR-EP2 Ejector Pump	TR-TP1 Turbo Ejector Pump
Feeding Water Type	Fire water / Sea water	Fire water / Sea water	Fire water / Sea water
Inlet Type & Size	BS 336 / Storz 2 ½"	Male (BS 336 / Storz) 2 ½"	
Outlet Type & Size	Thread 4"	Female (BS 336 / Storz) 2 ½"	
Body Material	Al-Alloy	Al-Alloy	Al-Alloy



► TR-DB1



► TR-DB2



► TR-DB3

### • DIVIDING BREECHING

IMEN TIAR dividing breechings are used for distributing fluid flow of one feed line over several hose lines having 2 or 3 outlets.

### • COLLECTING BREECHING

IMEN TIAR collecting breechings are used for collecting fluid flow of several feed hose lines having 2 to 3 inlet into a single outlet.



► TR-CB1



► TR-CB2



► TR-CB3



### • HYDRANT WRENCH

This product is used for opening the hydrant & pumper nozzles.



## ▶ SAFETY SHOWER & EYE WASH

### • SAFETY SHOWER & EYE WASH

IMEN TIAR Engineering Co. produces various types of emergency safety shower & eye wash as listed:

- Safety Shower & Eye Wash
- Eye Wash
- Portable Eye Wash
- Portable Safety Shower & Eye Wash



▶ Eye Wash (TR-EW1)



▶ Foot Panel Safety Shower & Eye Wash (TR-ES2)



▶ Portable Safety Shower & Eye Wash (TR-ESP1)



▶ Safety Shower & Eye Wash (TR-ES1)



▶ Foot Panel Safety Shower & Eye Wash (TR-ES3)



▶ Safety Shower & Eye Wash (TR-ESC1)



## ► FIREFIGHTING ATV

The best choice for impassable areas, jungles, villages, etc.



► Firefighting ATV

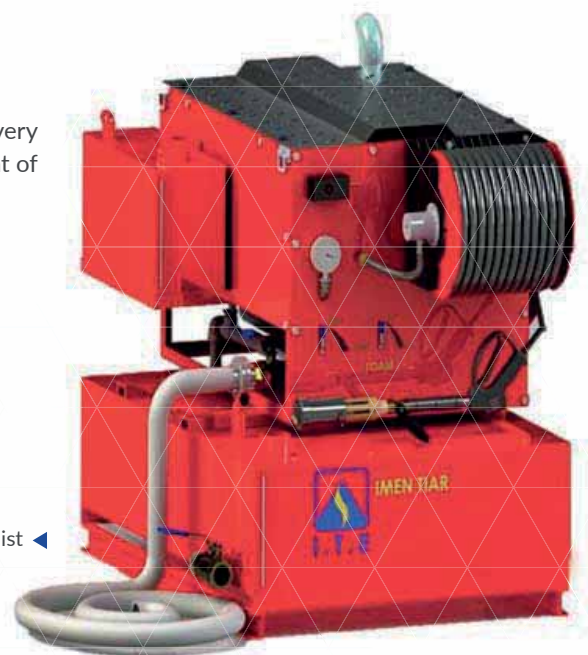
- Four-Stroke 500cc Motor
- Firefighting Motor Pump, Flow Rate: 500LPM
- Firefighting System Installed on ATV with a Flow Rate of 18LPM.
- Water Tank (80Lit)
- Wheeled Firefighting Water Mist System with capacity of 36LPM and 200Lit Tank (As Extra Equipment) Together with Foam System.
- Wheeled Stretcher for Carrying Injured.

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## ► WATER MIST

This system, using a special technology, is very effective while consuming the minimum amount of water.

- Model: TR-WMS36
- Nozzle Type: Fogging (FOG / JET)
- Type: Portable
- Working pressure: 80 -- 180 bar
- Flow Rate: 11 -- 36LPM



Water Mist ◀





I.T.E. International Training Equipment

Manufacturer and Supplier of Firefighting,  
Safety Equipment & Systems

# FOAM EQUIPMENT & SYSTEMS

# 04



## ▶ FOAM EQUIPMENT

### • MOBILE FOAM UNIT

Model	Type	Foam Tank Capacity	Foam Tank Material
TR-MF-U1	Mobile	120Lit	GRP
TR-MF-U2		200Lit	
TR-MF-U3		120Lit	



▶ TR-MF-U3



TR-MF-U1 ◀



▶ TR-MF-U2

### • INLINE- INDUCTOR

This product is made of Al-Alloy / Gunmetal materials and with BS336 or storz inlet/ outlet standard. Induction rates of these inline-inductors are 3% and 6%.



▶ Inline-Inductor TR-ILI450



▶ Inductor TR-IED450

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Model	TR-ILI 225	TR-ILI 450	TR-ILI 900	TR-IED 225	TR-IED 450
Desc					
Capacity	225	450	900	225	450

### • FOAM NOZZLE

These nozzles are made of Al-Alloy / Stainless steel materials and with BS336 or storz inlet standard.



▶ TR-FNL 450-(Self Inducing)



▶ TR-FNL 450- (Simple Type)



▶ TR-FNL-S450- (Simple)



▶ TR-FNM

Model	TR-FNL 225	TR- FNL-S 225	TR- FNL 450	TR- FNL-S 450	TR- FNL 900	TR- FNL-S 900	TR-FNM
Desc							
Type 1	Simple	Simple	Simple	Simple	Simple	Simple	Simple
Type 2	Self-Inducing	Self-Inducing	Self-Inducing	Self-Inducing	Self-Inducing	Self-Inducing	----
Capacity	225	225	450	450	900	900	450
Expansion Rate	Low	Low	Low	Low	Low	Low	Medium
Body Material	Al- Alloy	Stainless Steel	Al- Alloy	Stainless Steel	Al- Alloy	Stainless Steel	GRP



## ▶ FOAM SYSTEMS

### • BALANCED PRESSURE PROPORTIONING (PUMP TYPE)



▶ Balanced Pressure Proportioning

- Foam Tank: 2 x 2500 Lit
- Material: GRP
- Pump Type: Plunger
- Foam Tank: AFFF 3%
- Water Flow Rate: 4000LPM @ 7bar

### • FOAM CHAMBER & FOAM POURER

Model	Inlet Size	Flow Rate	Material
TR-FCH1	2" Flange	50LPM@3bar to 500LPM@10bar	S. Steel / C.Steel / G.C.Steel
TR-FCH2	2 1/2" Flange	50LPM@3bar to 500LPM@10bar	
TR-FCH3	3" Flange	200LPM@3bar to 1300LPM@10bar	
TR-FCH4	4" Flange	800LPM@3bar to 2700LPM@10bar	
TR-FCH5	6" Flange	1400LPM@3bar to 3200LPM@10bar	



▶ Foam Chamber  
TR-FCH1

Model	Inlet Size	Flow Rate	Material
TR-FP1	2" Flange	50LPM@3bar to 250LPM@10bar	S. Steel / C.Steel / G.C.Steel
TR-FP2	3" Flange	180LPM@3bar to 700LPM@10bar	



▶ Foam Pourer  
TR-FP1



▶ Foam Pourer  
TR-FP2



▶ Firefighting Foam  
Bladder Tank

### • FOAM BLADDER TANK

The bladder tank foam proportioning system is used to induce foam concentrates into water system with variable flow rates.



## ▶ FOAM SYSTEMS

- **FOAM DOSING SYSTEM**

ITE foam dosing system is a mechanically operated device for adding foam liquid to fire or seawater line with an adjusted ratio. It is able to add a wide range of different foam types, having various densities and viscosities, to the water line while keeping a constant, adjusted, mixing ratio.



▶ Foam Package System

Model	Material	Water Inlet	Foam Inlet (Thread)	Min. Flow Rate (LPM)	Max. Flow Rate (LPM)	Mixing Ratio
TR-DS-800	AL / AL-BZ / BZ	2" Thread	1 ¼"	100	800	3%
TR-DS-1200		3" Thread	1 ½"	200	1200	
TR-DS-2300		4" Flange	2"	300	2300	
TR-DS-3100		4" Flange	2"	400	3100	
TR-DS-4000		6" Flange	2 ½"	500	4000	
TR-DS-6500		8" Flange	3"	700	6500	



Foam Dosing System ◀



I.T.E. INTERNATIONAL  
ENGINEERING CO.

Manufacturer and Supplier of Firefighting,  
Safety Equipment & EMS



# FIREFIGHTING SYSTEMS

05

## ► FIREFIGHTING SYSTEMS WATER SYSTEM

- **DELUGE VALVE**

Deluge systems are intended to deliver large quantities of water over a large area in a relatively short period of time. The deluge valve is compact and is provided with a preassembled trim which minimizes the installation time and makes it simple and easy to use. It opens quickly, yet smoothly, preventing water hammer.



► Deluge Valve



Deluge Valve System ◀

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Size	Inlet & Outlet Connection	Material	Type of Operation	Working Pressure
Threaded 1 ½" ~ 3"	Flange & Wafer Type	Ductile Cast Iron / Bronze / AL-BZ / NI-BZ / Brass	Local Manual	6-9 Bar
Flanged 2" ~ 12"			Electrical	
Wafer End 3" ~ 12"			Pneumatic	
			Combination	

- **ALARM GONG**

The water Alarm Gong is a hydraulically-operated device that actuates by the flow of water. As a result, it produces a continuous warning sound as alarm while the water system operates.



Alarm Gong ◀





## ▶ FIREFIGHTING SYSTEMS WATER SYSTEM

### • SPRAY NOZZLE

Water Spray Nozzles are designed to spray water directly on to the hazard surface via a series of nozzles with a carefully predetermined spray pattern.

Type	Material	K-Factor	Angle
High Velocity	S.S / Brass	18 to 102	65° to 140°
Medium Velocity			
Water Curtain (Flat)			



▶ Spiral Nozzle



▶ High Speed Water Spray Nozzle



▶ Full Cone Spray Nozzle



▶ Full Cone Spray Nozzle



▶ Full Cone Spray Nozzle



▶ Spray Nozzle Flat cone



▶ Foam & Water Sprinkler

### • SPRINKLER

The Sprinkler is held closed by a heat sensitive glass bulb. The glass bulb which acts as a plug that prevents water from flowing. The bulb explodes when ambient temperature around the sprinkler reaches the design activation point. Thus, only sprinklers near the fire will operate. This Maximizes water pressure over the point of fire origin, and minimizes water damage to the building.



▶ Sprinkler

Inlet	K-Factor	Operating Temperature	Material
1/2" NPT or BSRT	K-80	57° C	Brass / AL-Bronze
		68° C	
		79° C	
		93° C	
		141° C	



## ► FIREFIGHTING SYSTEMS POWDER SYSTEM

- **POWDER FIRE SUPPRESSION SYSTEM**

Fire powder firefighting systems can be installed on flammable stations of gas, liquid and chemicals. Applying powder systems for firefighting will be possible in two ways:

- 1- Totally
- 2- Locally

Powder Fire  
Suppression System ◀



► Twin Agent System

- **TWIN-AGENT SYSTEM**

The twin-agent attack provides the most effective extinguishing and securing capability known for many flammable liquid fires. Twin-agent system can be mounted on vehicles, skid mounts or permanent stations.

- **POWDER TRAILER EXTINGUISHER**

The dry chemical powder firefighting trailer is a one or two-axle trailer designed for effective firefighting. These powder systems have proven their capabilities in high-risk areas such as commercial complexes, industrial plants and large establishments.

Powder Trailer Extinguisher ◀



## ► FIREFIGHTING SYSTEMS GAS SYSTEM

- **GASEOUS FIRE SUPPRESSION SYSTEMS**

IMEN TIAR Engineering Company is able to design and install Gaseous Fire Suppression Systems. These systems are high-speed fully automatic integrated systems that can detect and extinguish fire within a few seconds. Gaseous fire suppression systems of IMEN TIAR Engineering Company are categorized with regard to the firefighting agent they use.

- **a) CO2 Fire Suppression Systems**

Carbon dioxide, as a colorless, odorless and electrically non-conductive gas is highly efficient as a fire suppression agent.



CO2 Fire Suppression System ◀

- **b) Inert Gas Fire Suppression Systems**

IMEN TIAR inert gas fire suppression systems provide a very effective means for fire protection in closed spaces such as offices, museums, galleries, libraries, control rooms, computer and data processing facilities, power plants, mining facilities, etc.



Inert Gas Suppression System  
(IG System) ◀

- **c) Halocarbon Fire Suppression Systems**

Halocarbon gases consist of a range of electrically non-conductive, nontoxic and clean firefighting agents. IMEN TIAR Engineering Company provides HFC-125 and HFC-227ea (also known as FM200) agents for total flooding applications. The halocarbon agents are clean and colorless gases which are environment friendly and have zero ozone layer depletion (ODP=0).

# IMEN TIAR

## Engineering Co.

Short Catalogue F

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