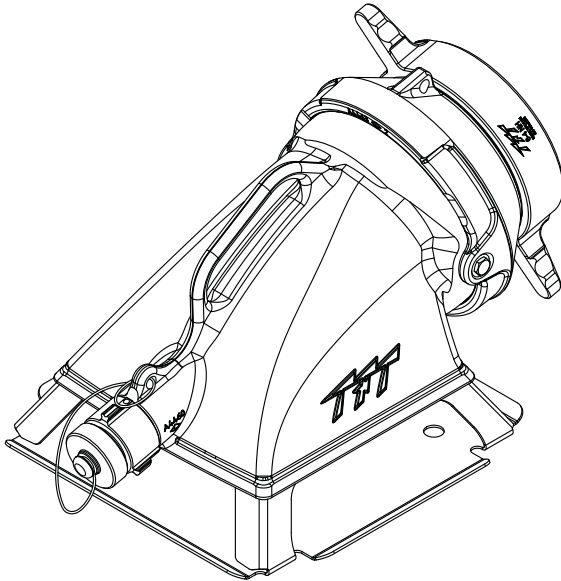


# MANUAL: HIGH VOLUME LOW-LEVEL SUCTION STRAINER

## INSTRUCTIONS FOR SAFE OPERATION AND MAINTENANCE

### OPERATING RANGE:

Suction: 0 to 29 in Hg (Full Vacuum)  
Jet Siphon: 200 psi maximum,  
measured at 1.5" inlet



### **⚠ DANGER**

#### PERSONAL RESPONSIBILITY CODE

The member companies of FEMSA that provide emergency response equipment and services want responders to know and understand the following:

1. Firefighting and Emergency Response are inherently dangerous activities requiring proper training in their hazards and the use of extreme caution at all times.
2. It is your responsibility to read and understand any user's instructions, including purpose and limitations, provided with any piece of equipment you may be called upon to use.
3. It is your responsibility to know that you have been properly trained in Firefighting and/or Emergency Response and in the use, precautions, and care of any equipment you may be called upon to use.
4. It is your responsibility to be in proper physical condition and to maintain the personal skill level required to operate any equipment you may be called upon to use.
5. It is your responsibility to know that your equipment is in operable condition and has been maintained in accordance with the manufacturer's instructions.
6. Failure to follow these guidelines may result in death, burns or other severe injury.



Fire and Emergency Manufacturers and Service Association  
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### 1.0 SAFETY

#### **⚠ CAUTION**

Any alterations to the Low-Level Strainer and its markings could diminish safety and constitute a misuse of this product.

#### **⚠ CAUTION**

Low-Level Strainer must be properly connected. Mismatched or damaged connectors may cause leaking or uncoupling under pressure and could cause injury.

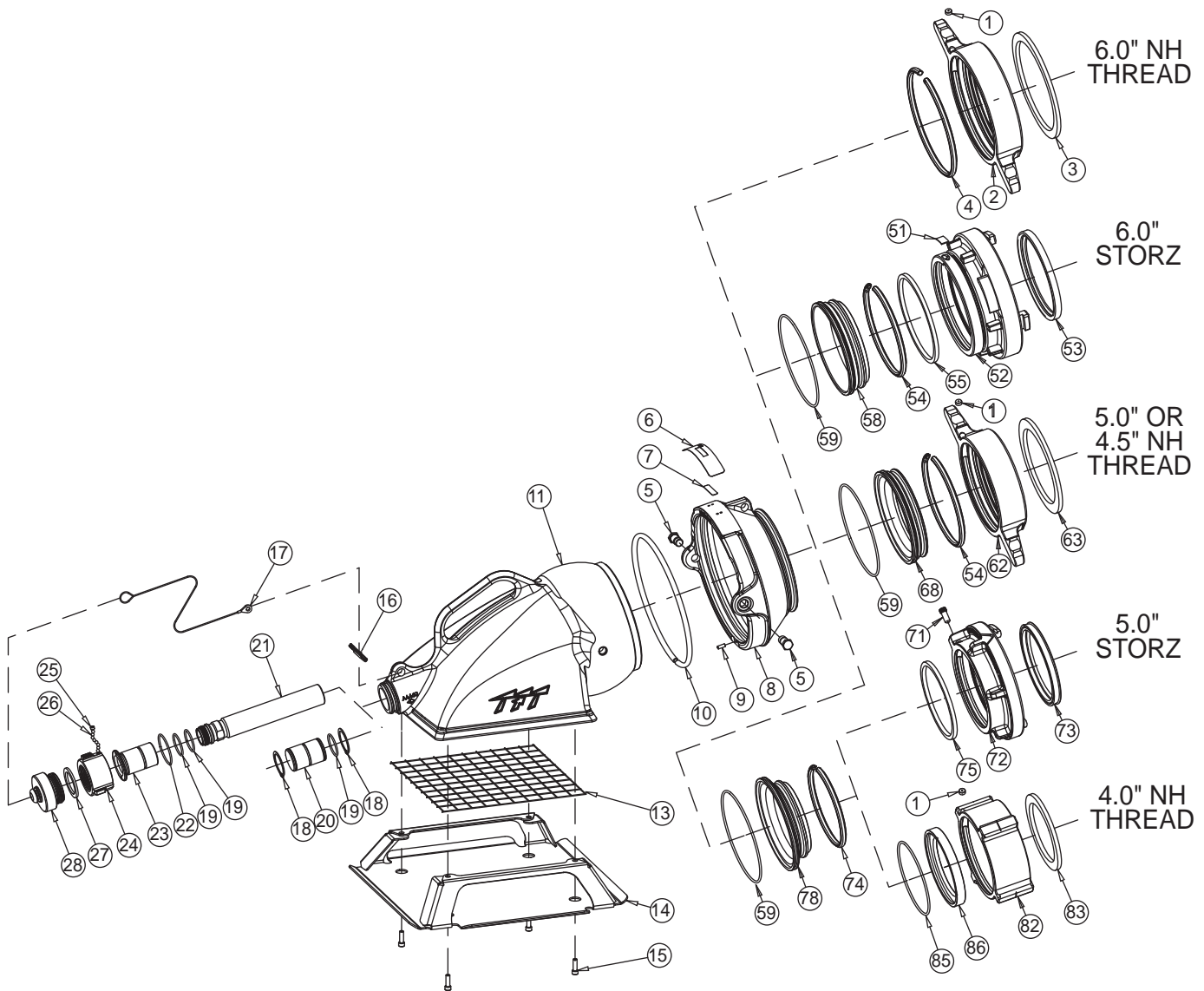
### 2.0 GENERAL INFORMATION

High volume low-level strainer is made of hard anodized and powder-coated aluminum. Clog-resistant stainless steel filter has over twice as much flow area as a 6" hose. This keeps friction loss down to 0.5 psi (1" Hg) at 1500 gpm and reduces the potential for air vortices to form as water sinks towards the 2.5" minimum usable depth. Oversized sealed ball pivot allows 45° range of hose angle without constricting the flow path. Optional Jet Siphon substantially increases suction lift capability. The Jet Siphon is also useful for tank shuttle operations, pump priming and dewatering without the need for a trash pump.

### 3.0 SPECIFICATIONS

PRIMARY MATERIAL:	Cast 356-T6 hard anodized and powder coated aluminum
SUCTION SCREEN:	Stainless steel, 5/16" square mesh
OVERALL DIMENSIONS:	15" X 22" x 11"
BASE FOOTPAD:	15" X 15"
WEIGHT:	20 lb
OPERATING TEMPERATURE LIMITS:	33 to 120 degrees F

## 4.0 EXPLODED VIEW AND PARTS LIST



INDEX	DESCRIPTION	QTY	PART #	INDEX	DESCRIPTION	QTY	PART #	INDEX	DESCRIPTION	QTY	PART #
1	PORT PLUG	1	A1299	18	SMALLEY RING	2	VR4325	58	CPLNG ADAPTER PSM6.0	1	A4470
2	COUPLING HNDL 6.0"NHF	1	A4580NX	19	O-RING-125	2	VO-125	59	O-RING-258	1	VO-258
3	GASKET 6.0" HOSE	1	V3240	20	JET SIPHON PORT PLUG	1	A4466	62	COUPLING HNDL 5.0"NHF	1	A4573NT
4	PLASTIC STRIP 7.0"	1	A1290	21	JET SIPHON TUBE	1	A4467	63	COUPLING HNDL 4.5"NHF	1	A4568NR
5	SWIVEL TRUNNION	2	XX320	22	O-RING-134	1	VO-134	68	GASKET 5.0" HOSE	1	V3220
6	NAME LABEL	1	A4468	23	JET SIPHON ADAPTER	1	A4464	71	CPLNG ADAPTER PSM6.0A	1	A4469
7	MODEL NUMBER LABEL	1	A1303	24	COUPLING 1.5"NHF	1	HM697N	72	LOCK-OUT SCREW	1	A1294
8	OUTLET PIVOT	1	A4463	25	1/4-28 X 3/16 SET SCREW	1	VT25-28SS187	73	COUPLING 5.0" STORZ	1	A4135
9	10-32 X 1/2 SET SCREW	1	VT10-32SS500	26	3/16" SS BALL	34	V2120	74	GASKET 5.0" SUCTION	1	A4221
10	TUBING	1	VM5100	27	GASKET 1.5" HOSE	1	V3130	75	PLASTIC STRIP 5.25"	1	A1291
11	STRAINER BODY	1	A4460	28	BLIND PLUG 1.5"NHM	1	A4465NF	78	CUP SEAL LOADED 5.25"	1	A1596
13	STRAINER MESH	1	A4462	51	PORT COVER LABEL	1	A1298	78	CPLNG ADAPTER PSM5.25	1	A4471
14	STRAINER BASE	1	A4461	52	COUPLING 6.0" STORZ	1	A4326	82	COUPLING RL 4.0"NHF	1	A4662N
15	1/4-20 X 3/4 SOCKET HEAD	4	VT25-20SH750	53	GASKET 6.0" SUCTION	1	A4226	83	GASKET 4.0" HOSE	1	V3198
16	CIRCLE COTTER	1	U182	54	PLASTIC STRIP 6.0"	1	A1293	85	O-RING-248	1	VO-248
17	CABLE ASSEMBLY	1	VM1025	55	CUP SEAL LOADED 6.0"	1	A1594	86	NFS RING 4.0	1	A4561

## 5.0 USE WITH SALT WATER

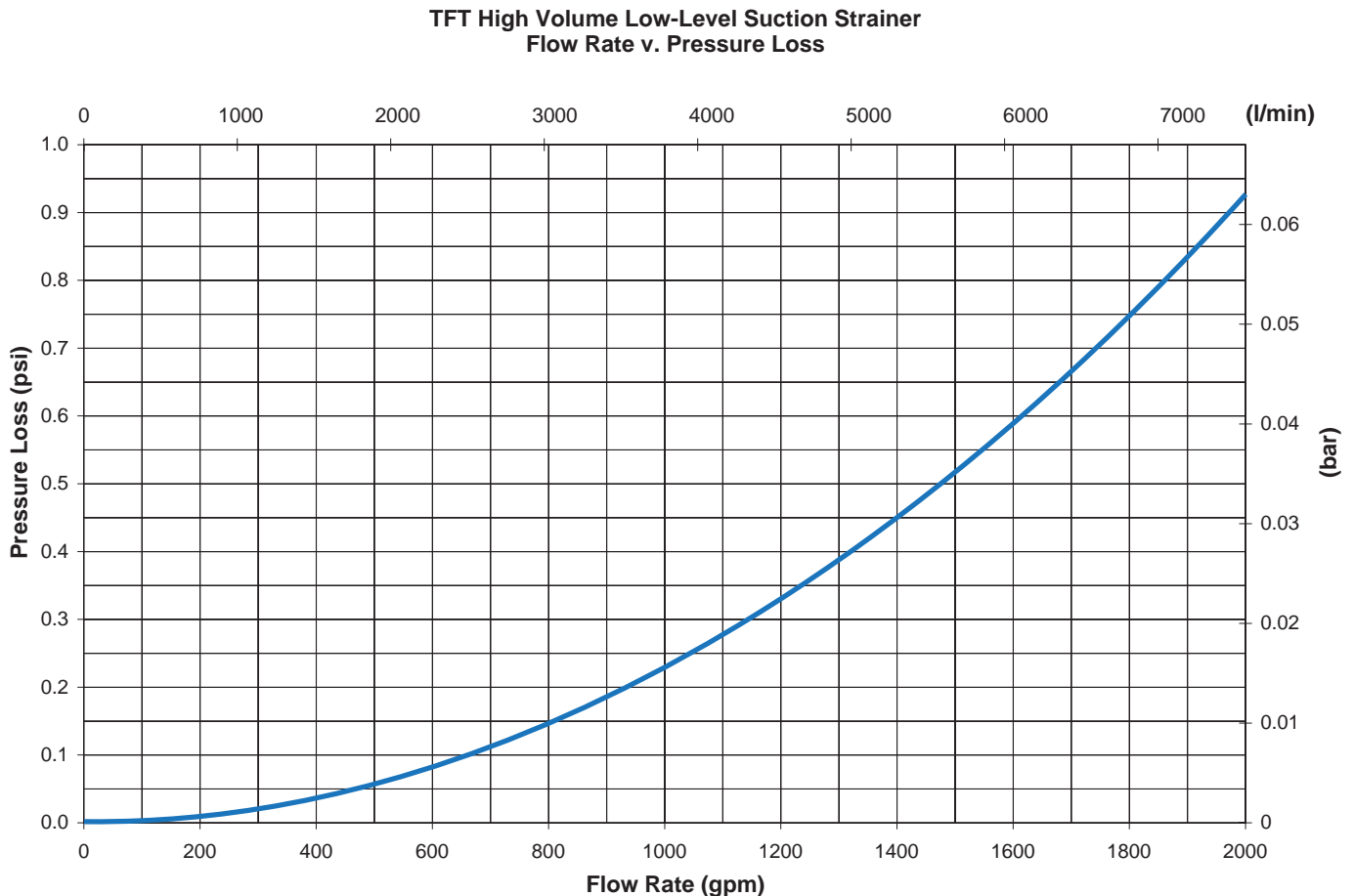
Use with salt water is permissible, provided the Strainer is thoroughly cleaned with fresh water after each use. The service life of the strainer may be shortened due to the effects of corrosion and is not covered under warranty.

## 6.0 MAINTNANCE

The Low-Level Strainer should be disconnected, cleaned and visually inspected at least twice annually, or as water quality and use may require. Moving parts such as the pivoting outlet and couplings should be checked for smooth and free operation. As needed, spherical pivot surface (index # 11 below) should be cleaned and coated lightly with a silicone-based grease such as Dow Corning 112. Wipe off excess grease as only a thin film of grease is needed to overcome friction. Any scrapes that expose bare aluminum should be cleaned and touched up with an enamel paint such as Rust-Oleum. Replace any missing or damaged parts before returning to service. Prior to reassembly, fastener threads should be cleaned and coated with a stripe of Loctite 242 (blue) removable thread locker to prevent loosening over time.

## 7.0 PRESSURE LOSS

This graph represents performance with screen installed, without the assistance of the optional jet siphon.



## 8.0 USE WITHOUT JET SIPHON

- Complete hose connections using hard suction hose
- Immerse the strainer in at least 6" of water and secure the strainer
- Engage the pump primer to completely fill the suction hose
- Commence pumping

## 9.0 USE WITH JET SIPHON



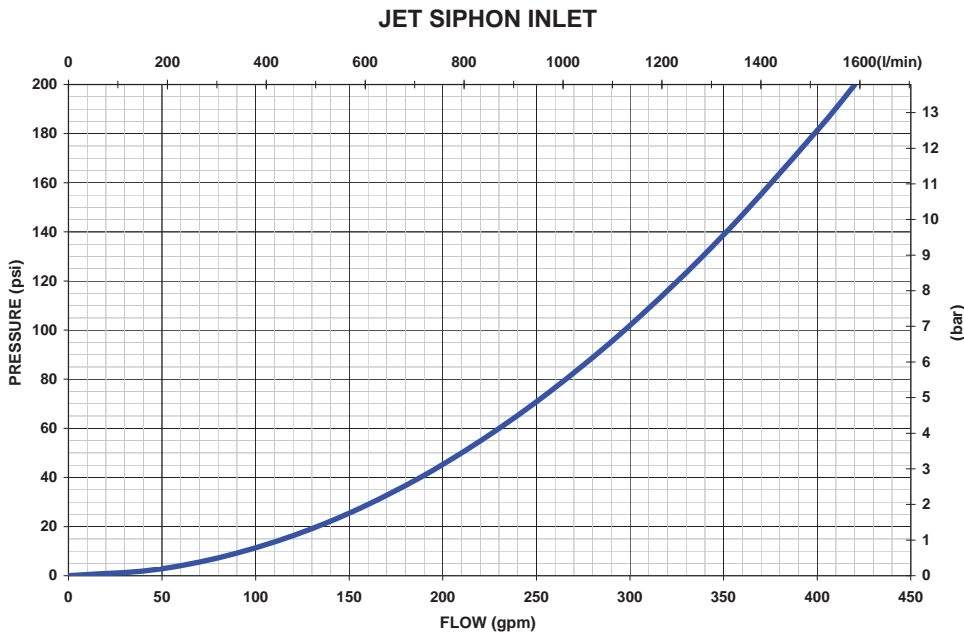
**Do not use LDH lay-flat supply hose directly between strainer outlet and fire pump inlet as the sole water supply to a fire. Lay-flat hoses can be sucked flat or kink which will interrupt the water supply and may result in injury or death to persons dependant on water flow.**

- Always use hard suction hose between strainer outlet and fire pump inlet.
- Use of lay-flat hose with the strainer is appropriate only when using the jet siphon for water transfer to a non-pressurized tank or for dewatering.

The jet siphon can increase the water transfer flow up to 400% using the Venturi effect. Maximum jet siphon inlet pressure is 200 PSI (13.8 bar)

## CAUTION

Changing flows or charging the jet siphon can cause the strainer to shift as hoses stretch, straighten, and become pressurized. Injury can result from shifting hoses or loss of water supply from tank damage. Tie off the strainer to a robust object before initiating flow, charge the hose slowly, and avoid abrupt changes in fire flow.



Jet siphon coupling size: 1.5"

Jet siphon nozzle diameter: 1"

- Connect a fire hose to the jet siphon inlet
- Allow enough slack in the fire hose to approach the inlet without kinks
- Complete the strainer discharge connections
- Immerse the strainer in at least 6" of water and secure the strainer
- Pressurize the jet siphon
- Adjust the strainer base to sit upright and secure the strainer
- Commence pumping

## 10.0 WARRANTY

Task Force Tips, Inc., 3701 Innovation Way, Valparaiso, IN 46383-6940 ("TFT") warrants to the original purchaser of its Low-Level Strainer ("equipment"), and to anyone to whom it is transferred, that the equipment shall be free from defects in material and workmanship during the five (5) year period from the date of purchase.

TFT's obligation under this warranty is specifically limited to replacing or repairing the equipment (or its parts) which are shown by TFT's examination to be in a defective condition attributable to TFT. To qualify for this limited warranty, the claimant must return the equipment to TFT, at 3701 Innovation Way, Valparaiso, IN 46383-9327 USA, within a reasonable time after discovery of the defect. TFT will examine the equipment. If TFT determines that there is a defect attributable to it, TFT will correct the problem within a reasonable time. If the equipment is covered by this limited warranty, TFT will assume the expenses of repair.

If any defect attributable to TFT under this limited warranty cannot be reasonably cured by repair or replacement, TFT may elect to refund the purchase price of the equipment, less reasonable depreciation, in complete discharge of its obligations under this limited warranty. If TFT makes this election, claimant shall return the equipment to TFT free and clear of any liens and encumbrances.

This is a limited warranty. The original purchaser of the equipment, any person to whom it is transferred, and any person who is an intended or unintended beneficiary of the equipment, shall not be entitled to recover from TFT any consequential or incidental damages for injury to person and/or property resulting from any defective equipment manufactured or assembled by TFT. It is agreed and understood that the price stated for the equipment is in part consideration for limiting TFT's liability. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above may not apply to you.

TFT shall have no obligation under this limited warranty if the equipment is, or has been, misused or neglected (including failure to provide reasonable maintenance) or if there have been accidents to the equipment or if it has been repaired or altered by someone else.

THIS IS A LIMITED EXPRESS WARRANTY ONLY. TFT EXPRESSLY DISCLAIMS WITH RESPECT TO THE EQUIPMENT ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND ALL IMPLIED WARRANTIES OF FITNESS FOR A PARTICULAR PURPOSE. THERE IS NO WARRANTY OF ANY NATURE MADE BY TFT BEYOND THAT STATED IN THIS DOCUMENT.

This limited warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

**TASK FORCE TIPS, INC.**  
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