MANUAL: LDH GATED WYE

INSTRUCTIONS FOR SAFE OPERATION AND MAINTENANCE

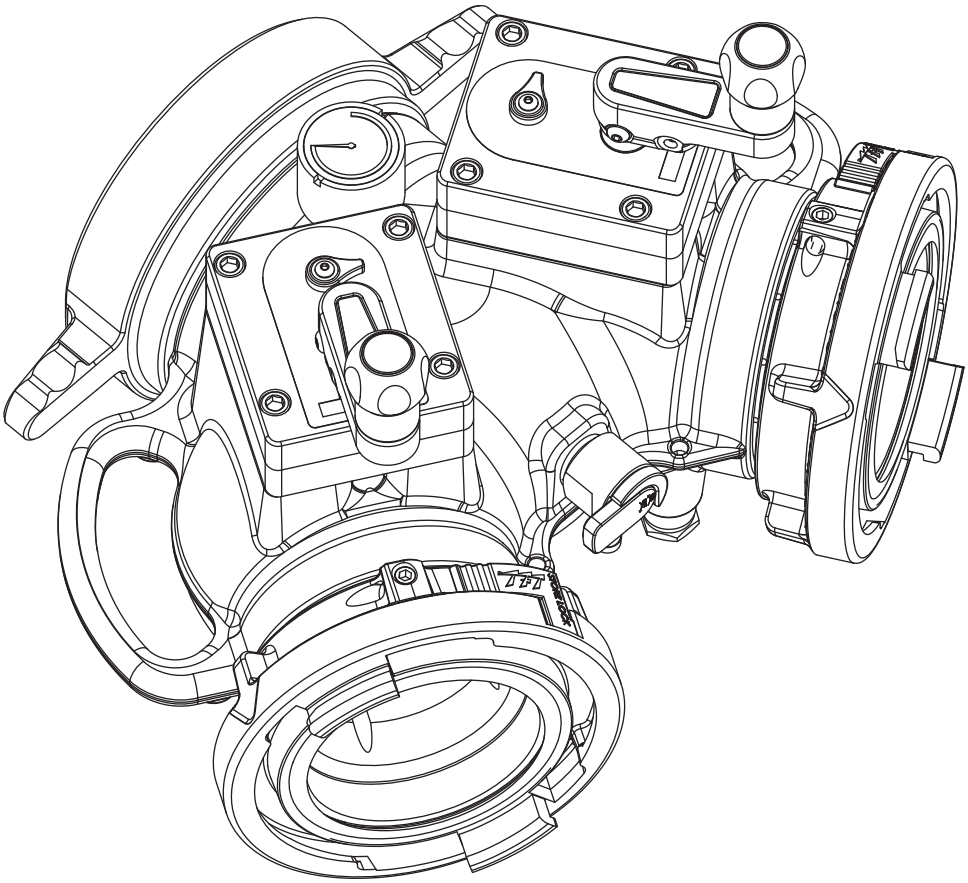
⚠WARNING **Read Instruction Manual before use. Operation of this device without understanding the manual and receiving proper training can be dangerous and is a misuse of this equipment. Download this manual from http://tft.com/. Call 800-348-2686 with any questions.**

⚠WARNING **This instruction manual is intended to familiarize firefighters and maintenance personnel with the operation, servicing, and safety procedures associated with the LDH Gated Wye.**

NOTICE **This manual should be kept available to all operating and maintenance personnel.**

OPERATING RANGE

Pressure Max 300 PSI
Pressure Min Full Vac
Hydrostatic Proof Test: 900 PSI



TASK FORCE TIPS, INC.
MADE IN USA • www.tft.com

3701 Innovation Way, Valparaiso, IN 46383-9327 USA
800-348-2686 • 219-462-6161 • Fax 219-464-7155

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⚠ 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.

FEMSA

Fire and Emergency Manufacturers and Service Association
P.O. Box 147, Lynnfield, MA 01940 • www.FEMSA.org

1.0 MEANING OF SAFETY SIGNAL WORDS

A safety related message is identified by a safety alert symbol and a signal word to indicate the level of risk involved with a particular hazard. Per ANSI standard Z535.6-2006, the definitions of the four signal words are as follows:

⚠DANGER **DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.**

⚠WARNING **WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.**

⚠CAUTION **CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.**

NOTICE **NOTICE is used to address practices not related to personal injury.**

2.0 SAFETY

⚠WARNING **Quick changes in valve position can cause high pressure spikes due to water hammer and may result in damaged equipment which could lead to injury or death. Open and close the valve slowly to avoid water hammer.**

⚠WARNING **The Pressure Relief Valve will open to relieve excess pressure but it may not have enough flow capacity to protect against large pressure spikes such as those caused by water hammer. Excess pressure can cause equipment failure and directly or indirectly lead to injury or death. Always operate valves slowly to avoid the risk of water hammer.**

⚠WARNING **Injury or death can result from burst hoses and fittings. Be sure the pressure relief valve is set at the proper pressure for the type of hose and equipment you are using. See NFPA 1961 and NFPA 1962.**

⚠WARNING **Injury or death may occur by attempting to use a damaged valve. Per NPFA 1962, the device shall be inspected and tested at least quarterly. Before use, inspect for damage resulting from:**

- **Failure to drain valve followed by exposure to freezing conditions**
- **Exposure to temperatures in excess of 160 degrees F**
- **Missing parts, physical abuse**

⚠WARNING **This equipment is intended for use by trained personnel for firefighting. Its use for other purposes may involve hazards not addressed by this manual. Seek appropriate guidance and training to reduce risk of injury.**

⚠WARNING **Kinks in supply hose may reduce water flow and cause injury or death to persons dependant on water flow. Avoid tight bends to minimize risk of hoseline kinks.**

⚠WARNING **The valve may be damaged if frozen while containing significant amounts of water. Such damage may to difficult to detect visually and can lead to possible injury or death. Any time the valve is subject to possible damage due to freezing, it must be hydrostatically tested by qualified personnel before being considered safe for use.**

⚠CAUTION **Maximum operating pressure 300 psi (21 bar). Do not exceed 300 psi (21 bar) on either side of the valve.**

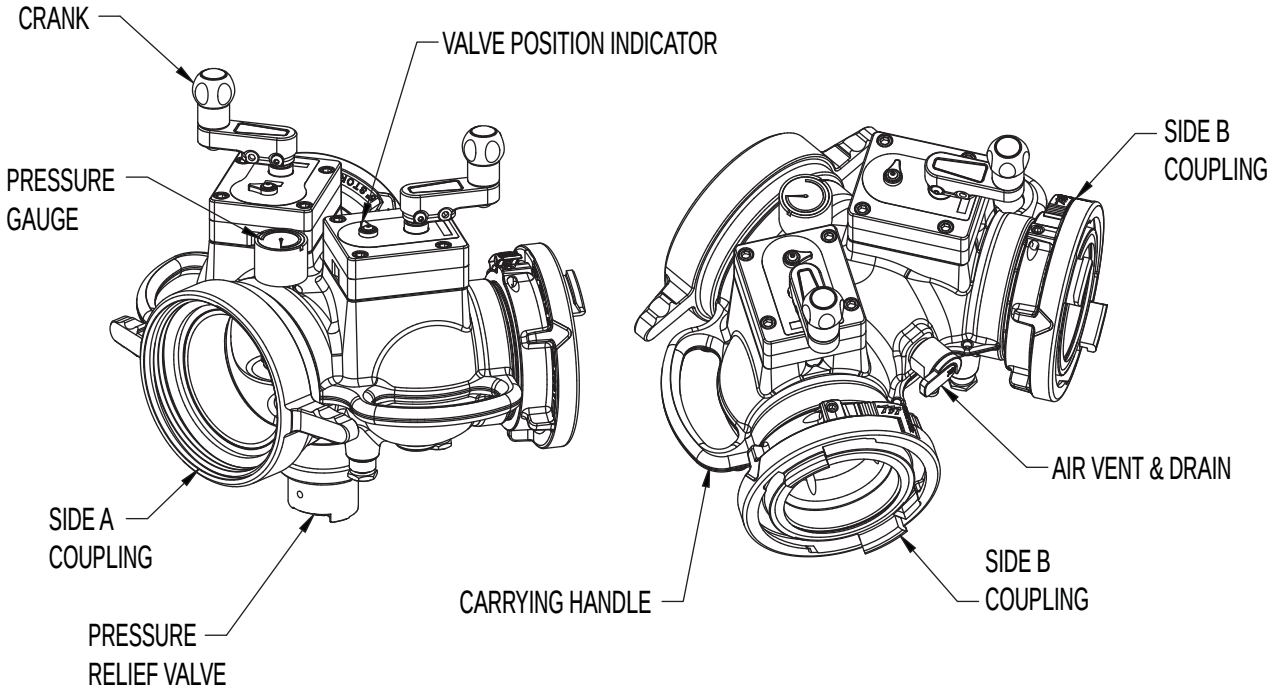
⚠CAUTION **Valve must be properly connected. Mismatched or damaged connectors may cause leaking or uncoupling under pressure and could cause injury.**

⚠CAUTION **Use with salt water is permissible provided the LDH Gated Wye is thoroughly cleaned with fresh water after each use. The service life of the LDH Gated Wye may be shortened due to the effects of corrosion and is not covered under warranty.**

3.0 GENERAL INFORMATION

The LDH Gated Wye is a lightweight, low friction-loss valve that can be used in many water distribution applications. Dual robust valve mechanisms from the TFT Ball Intake Valve are streamlined to a large waterway for the ultimate in versatility. Valve seats are field replaceable, Devices include a 300PSI pressure gage and quarter turn air vent and drain valve. Two robust carrying handles make for easy deployment. A polymer bearing ring prevents galvanic corrosion on LDH couplings.

3.1 PARTS IDENTIFICATION AND MODELS



3.2 SPECIFICATIONS

Dual LDH outlet waterway size (at valve seat): 3.65” (93mm)

Inlet waterway size: 5.5” for 6” Storz and 6” Threaded couplings, 4.5” for all other couplings.

LDH Valve meets NFPA 1965 slow close requirement.

Maximum Operating Pressure: 300 psi (20 bar)

Hydrostatic Proof Test Pressure: 900 psi (62 bar)

Temperature Rating*: -25°F to 135°F (-32°C to 57°C)

*For temperatures below 32°F (0°C), valves must be drained after use to avoid damage. See section 2.0 SAFTEY.

3.3 CORROSION

Hose couplings are attached using polymer bearing rings which provide electrical insulation to help galvanic corrosion. The parts are then hard anodized, and finally powder coated, inside and out, to help prevent corrosion. The effects of corrosion can be minimized by good maintenance practice. See section 6.0 MAINTENANCE.

⚠CAUTION

Dissimilar metals coupled together can cause galvanic corrosion that can result in the inability to unscrew the threads or complete loss of thread engagement over time. Per NFPA 1962 (1998 edition), if dissimilar metals are left coupled together, an anti-corrosive lubricant should be applied to the threads. Also the couplings should be disconnected and inspected at least quarterly.

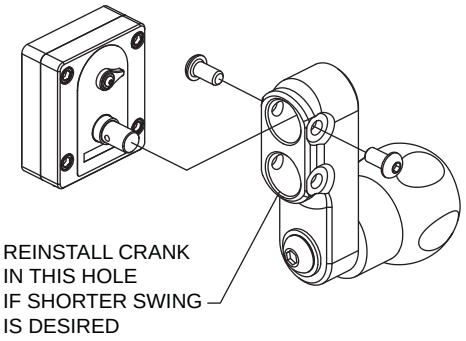
3.4 USE WITH SALT WATER

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

4.0 INSTALLATION

4.1 CHANGING OFFSET OF CRANK HANDLE

When equipped with a crank handle, two offset positions are available to adjust the swing radius of the crank and knob as shown in the figure below. The longer offset position offers reduced effort to operate the valve. The shorter offset is available to avoid interference with other equipment. To change the offset, remove the two ¼"-20 x 1/2" button head cap screws from crank. Place crank in desired position and replace screws.



4.2 STORZ SUCTION GASKET REQUEST

If your application of this product requires drafting, you may need a suction gasket. Please call 1-800-348-2686 to receive a free suction gasket by mail.

Part Numbers: 4" Storz- item#A4216, 5" Storz – item #A4221, 6" Storz - item #A4226

5.0 USE

5.1 VALVE POSITION INDICATOR

To open the valve turn the crank until the valve position indicator says "OPEN". To close the valve turn the valve crank the opposite way until the valve position indicator says "CLOSED".

5.2 AIR VENT AND WATER DRAIN

This device is equipped with an air vent/drain which will allow the air to escape from the valve when the inlet is charged. The air vent/drain is opened by turning the knob counter-clockwise and closed by turning it clockwise.

To drain the water out of the valve after use, open the air vent/drain. A ½" diameter tube may be used to direct the drained water away from the device.

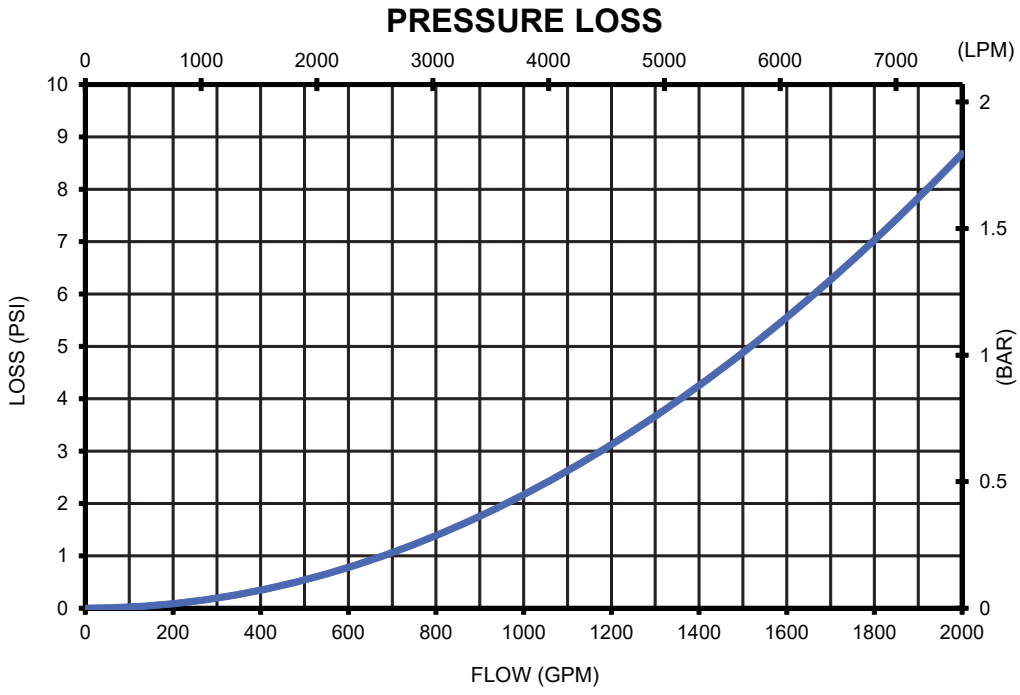
⚠ DANGER **Loss of prime can interrupt water flow and cause injury or death. Always bleed out air with air vent/drain to prevent possible loss of prime.**

5.3 PRESSURE RELIEF VALVE

This device may be equipped with a pressure relief valve that can be set to any pressure between 50 and 200 psi. Its function is to protect the pump and supply hose from excess pressure.

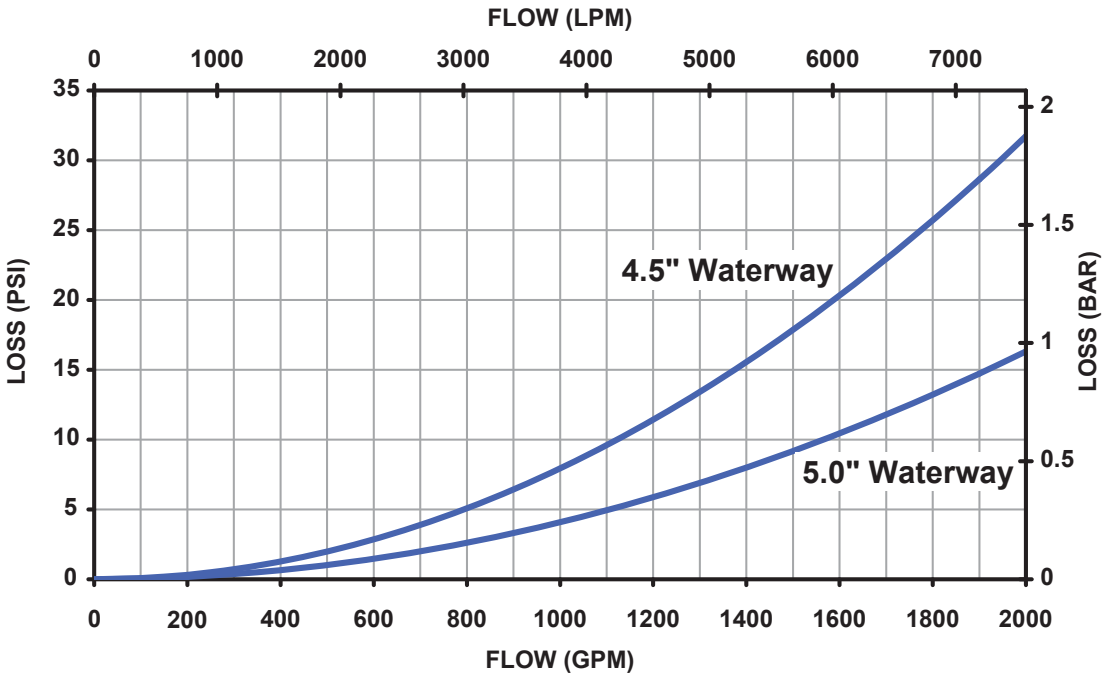
See LIA-202 Pressure Relief Valve Instructions for Safe Operation and Maintenance.

5.4 PRESSURE LOSS



5.5 SUCTION SCREEN

This device may be equipped with a suction screen to catch debris larger than 3/8” diameter in the waterway. See chart below to determine additional loss caused by screen. To add or replace a suction screen, order TFT Part #A1410-KIT for 4.5” waterway couplings or A1411-KIT for 5” waterway couplings.



6.0 MAINTENANCE

This valve should be disconnected, cleaned and visually inspected inside and out at least quarterly for proper function per NFPA 1962 Section 8.2, or as water quality and use may require. Moving parts such as handles, valve ball and couplings should be checked for smooth and free operation. Seals shall be greased as needed with silicone-based grease such as Dow Corning 112. Any scrapes that expose bare aluminum should be cleaned and touched up with enamel paint such as Rust-Oleum.

In particular assure that:

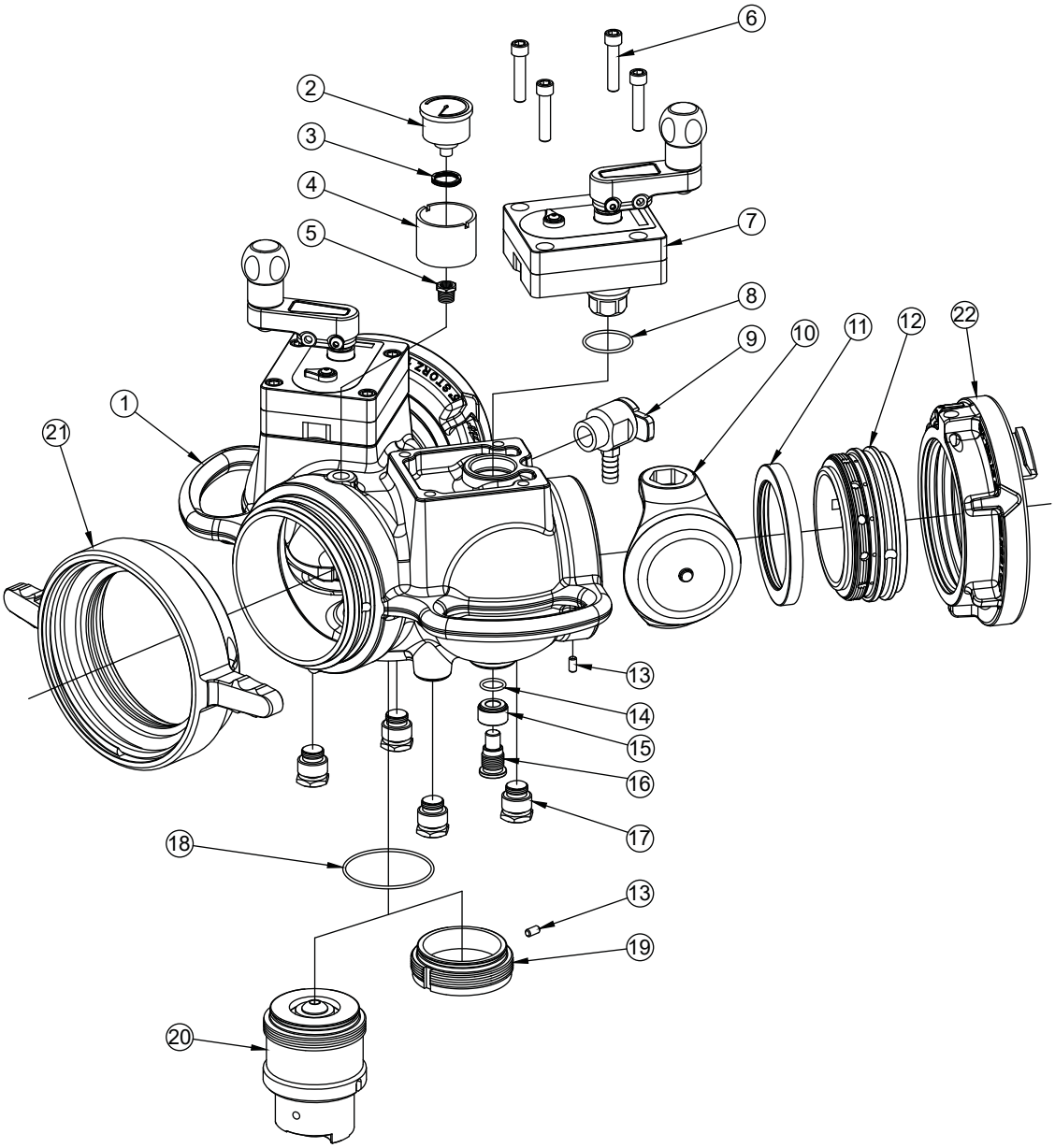
- There is no damage such as cracks or dents
- There is no corrosion
- The waterway is clear of obstructions
- Pressure Relief Valve setting indications are readable
- The Pressure Relief Valve opens at the set pressure

Replace any missing or damaged parts before returning to service. Any repaired device must be tested before being placed in service.

⚠CAUTION **Any alterations to the device and its markings could diminish safety and constitute a misuse this product.**

7.0 EXPLODED VIEWS & PARTS LISTS

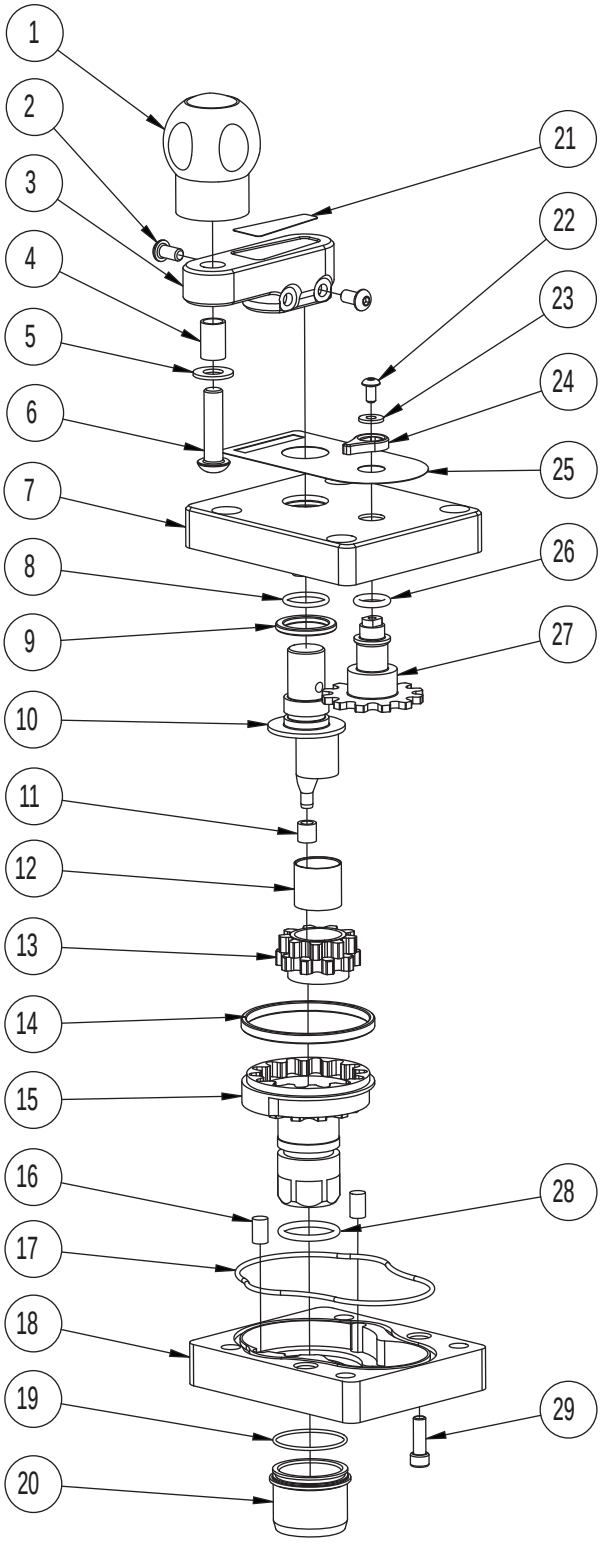
7.1 VALVE



ITEM	DESCRIPTION	QTY	PART#
1	BODY	1	A2009
	BODY		A2008
2	GAGE 300PSI	1	AY176
3	SPRING	1	X165
4	GAGE PROTECTOR	1	AY170
5	BUSHING	1	VFHB4MX2F
6	3/8-16 X 1.75" SOCKET SCREW	1	VT37-16SH1.7
7	GEARBOX SUBASSEMBLY	1	A1633
	GEARBOX SUBASSEMBLY	1	A1633R
8	O-RING 128	2	VO-128
9	DRAIN VALVE	1	A1621
10	HALF BALL	2	A1043A

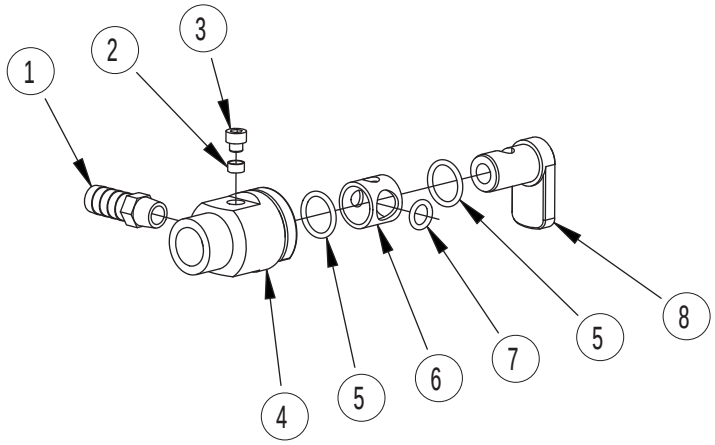
ITEM	DESCRIPTION	QTY	PART #
11	SEAL	2	A1520
12	MATE	2	A201*
13	1/4-20 X 1/2" SET SCREW	3	VT25-20SS500
14	O-RING 115	2	VO-115
15	BUSHING FOR ALUM HALF BALL	2	A2095
16	TRUNNION	2	AY357
17	FOOT	4	A2037
18	O-RING 150	1	VO-150
19	PRV PLUG	1	A2155
20	PRV	1	A1755
21	SINGLE SIDE COUPLING	1	SEE CHART
22	DUAL SIDE COUPLING	2	SEE CHART

7.2 PARALLEL SHAFT GEARBOX



ITEM	DESCRIPTION	QTY	PART #
1	KNOB	1	A1512
2	1/4-20 X 1/2 BUTTON HEAD SCREW	2	VT25-20BH500
3	CRANK	1	A1559
4	CRANK BUSHING	1	A1547
5	WASHER	1	VW812X406-65
6	3/8-16 X 1-1/2 BUTTON HEAD SCREW	1	VT37-16BH1.5
7	GEAR BOX	1	A1550
8	O-RING-116	1	VO-116
9	SPACER	1	A1556
10	DRIVE SHAFT	1	A1555
11	NYLON BUSHING	1	AY307
12	GEAR BUSHING	1	A1548
13	DOUBLE GEAR	1	A1554
14	BUSHING	1	A1549
15	INNER TRUNNION	1	A1553
	INNER TRUNNION	1	A1553R
16	DOWEL PIN	2	VP312X.50
17	O-RING-154	1	VO-154
18	SUBPLATE	1	A1551
19	O-RING-028	1	VO-028
20	INNER BUSHING	1	A1552
21	FOLDING HANDLE LABEL	1	AY342
22	10-24 X 3/8 BUTTON HEAD SCREW	1	VT10-24BH500
23	WASHER	1	VW500X203-60
24	POSITION INDICATOR	1	A1558
25	NAME LABEL	1	A1550L
	NAME LABEL RIGHT	1	A1550R
26	O-RING-206	1	VO-206
27	INDICATOR GEAR	1	A1557
28	O-RING-214	1	VO-214
29	1/4-20 X 3/4 SOCKET HEAD SCREW	1	VT25-20SH750

7.3 BLEEDER OPTION



ITEM	DESCRIPTION	QTY	PART#
1	1/2" BARB X 1/4"NPTM NIPPLE	1	XX329
2	FOLLOWER	1	U251
3	3/8-24 X 3/8 DOG POINT	1	H515
4	DRAIN HOUSING	1	A1543
5	O-RING 115	2	VO-115
6	DRAIN SLEEVE	1	A1541
7	O-RING-110	1	VO-110
8	DRAIN LEVER	1	A1542

7.4 SIDE A (SINGLE SIDE) COUPLING COMPONENTS

QTY	DESCRIPTION	4.0" STORZ	5.0" STORZ	6.0" STORZ	4.0" FEMALE LH	4.5" FEMALE LH	5.0" FEMALE LH	6.0" FEMALE LH
1	INLET MATE	A2115	A2115	--	A2115	A2116	A2116	--
1	O-RING	VO-252	VO-252	--	VO-252	VO-252	VO-252	--
1	SOCKET HEAD SCREW	VT25-20SH500	VT25-20SH500	--	VT25-20SH500	VT25-20SH500	VT25-20SH500	--
1	GASKET	--	--	--	V3198	V3210	V3220	V3240
1	INLET COUPLING	A4124	A4125	A4326	A4562N	A4568NR	A4573NT	A4575NX
1	PLASTIC STRIP	A1292	A1291	A1293	A1291	A1293	A1293	A1293
1	CUP SEAL	A1597	A1596	A1594	--	--	--	--
1	LOCKOUT SCREW	A1294	A1294	A1294	--	--	--	--
1	NFS RING	--	--	--	A4561	--	--	A4576
1	O-RING	--	--	--	VO-248	--	--	VO-254
1	MATE PSM4.25 X PSF5.25	A4730	--	--	--	--	--	--
1	CUP SEAL	A1596	--	--	--	--	--	--
1	PORT COVER	A1298	--	--	--	--	--	--
1	PLASTIC STRIP	A1291	--	--	--	--	--	--

7.5 SIDE B (DUAL SIDE) COMPONENTS

QTY	DESCRIPTION	4.0" STORZ	5.0" STORZ	6.0" STORZ	4.0" MALE	4.5" MALE	5.0" MALE	6.0" MALE
1	OUTLET MATE	A2015	A2016	A2016	A2016	A2016	A2016	A2016
1	CUP SEAL	A1597	A1596	A1596	A1596	A1596	A1596	A1596
1	PLASTIC STRIP	A1292	A1291	A1291	A1291	A1291	A1291	A1291
1	LOCKOUT SCREW	A1294	A1294	A1294	A1294	A1294	A1294	A1294
1	OUTLET COUPLING	A4124	A4125	A4126	A4620N	A4625N	A4630N	A4635N

8.0 RECORDS

A record of testing and repairs must be maintained from the time the nozzle is purchased until it is discarded. Each TFT nozzle is engraved with a unique serial number which, if so desired, can be used to identify nozzle for documentation purposes.

The following information, if applicable, must be included on the test record for each nozzle:

1. *Assigned identification number*
2. *Manufacturer*
3. *Product or model designation*
4. *Vendor*
5. *Warranty*
6. *Hose connection size*
7. *Maximum operating pressure*
8. *Flow rate or range*
9. *Date received and date put in service*
10. *Date of each service test and service test results*
11. *Damage and repairs, including who made the repairs and the cost of repair parts*
12. *Reason removed from service*

NFPA 1962: Standard for the care, use, inspection, service testing, and replacement of fire hose, couplings, nozzles and fire hose appliances. (2013 ed., Section 5.5.4). Quincy, MA: National Fire Protection Agency.

9.0 REPAIR

Factory service is available with repair time seldom exceeding one day in our facility. Factory serviced appliances are repaired by experienced technicians to original specifications, fully tested and promptly returned. Repair charges for non-warranty items are minimal. Any returns should include a note as to the nature of the problem and whom to reach in case of questions.

Repair parts and service procedures are available for those wishing to perform their own repairs. Task Force Tips assumes no liability for damage to equipment or injury to personnel that is a result of user service. Contact the factory or visit the web site at www.tft.com for parts lists, exploded views, test procedures and troubleshooting guides.

For additional information on care, maintenance and testing, refer to: NFPA 1962: Standard for the Care, Use, Inspection, Service Testing, and Replacement of Fire Hose, Couplings, Nozzles, and Fire Hose Appliances, 2013 Edition

⚠CAUTION **Any alterations to the nozzle and its markings could diminish safety and constitutes a misuse of this product.**

10.0 ANSWERS TO YOUR QUESTIONS

We appreciate the opportunity of serving you and making your job easier. If you have any problems or questions, our toll-free “Hydraulics Hotline”, 800-348-2686, is normally available to you 24 hours a day, 7 days a week.

11.0 WARRANTY

Task Force Tips, Inc., 3701 Industrial Way, Valparaiso, Indiana 46383-9327 USA (“TFT”) warrants to the original purchaser of its LDH GATED WYE (“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 Industrial Way, Valparaiso, Indiana 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.

12.0 OPERATION AND INSPECTION CHECKLIST

BEFORE EACH USE appliances must be inspected to this checklist:

1. All valves open and close fully and smoothly
2. Waterway is clear of obstructions
3. There is no damage to any thread or other connection
4. All locks and hold-down devices work properly
5. The pressure setting on the relief valve (if so equipped) is set correctly
6. Gaskets are in good repair
7. There is no obvious damage such as missing, broken or loose parts
8. There is no damage to the appliance (e.g. dents, cracks, corrosion, or other defects that could impair operation)
9. All swiveling elements rotate freely
10. There is no corrosion on any surface
11. There are no missing, worn out or broken lugs on couplings
12. Hose is securely attached

BEFORE BEING PLACED BACK IN SERVICE, appliances must be inspected to this checklist;

1. All valves open and close smoothly and fully.
2. The waterway is clear of obstructions.
3. There is no damage to any thread or other type connection.
4. The pressure setting of the relief valve, if any, is set correctly.
5. All locks and hold-down devices work properly.
6. Internal gaskets are in accordance with NFPA 1962 (2013) Section 7.2.
7. There is no damage to the appliance (e.g., dents, cracks, corrosion, or other defects that could impair operation).
8. All swiveling connections rotate freely.
9. There are no missing parts or components.
10. The marking for maximum operating pressure is visible.
11. There are no missing, broken, or worn lugs on couplings

NFPA 1962: Standard for the care, use, inspection, service testing, and replacement of fire hose, couplings, nozzles and fire hose appliances. (2013 ed., Section 5.2.2). Quincy, MA: National Fire Protection Agency.

⚠WARNING **Any appliance failing any part of the inspection checklist is unsafe and must have the problem corrected before use. Operating a appliance that fails any of the above inspections is a misuse of this equipment.**

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