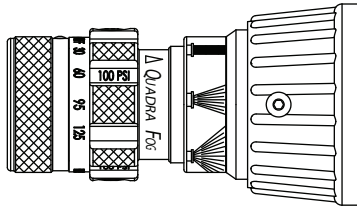
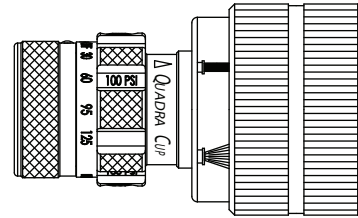




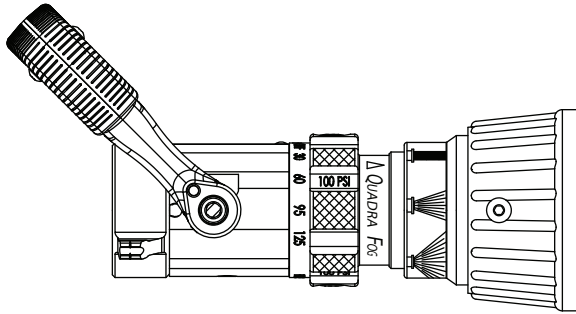
1.5" QUADRAFOG SERIES & 1.5" QUADRACUP SERIES SERVICE PROCEDURE



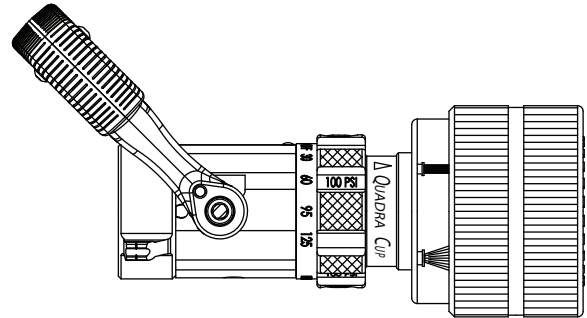
QUADRAFOG TIP ONLY



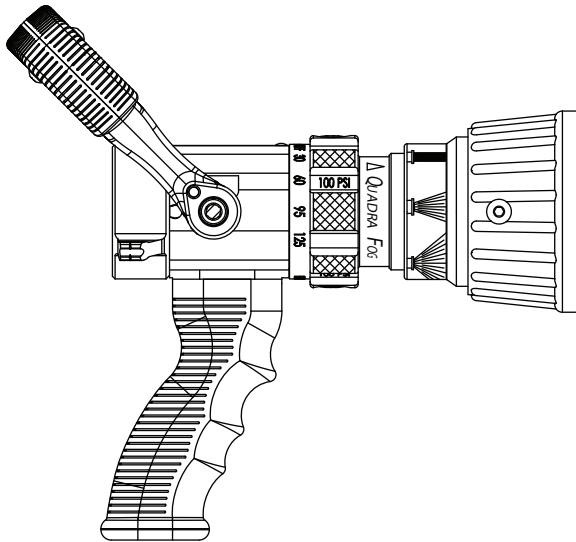
QUADRACUP TIP ONLY



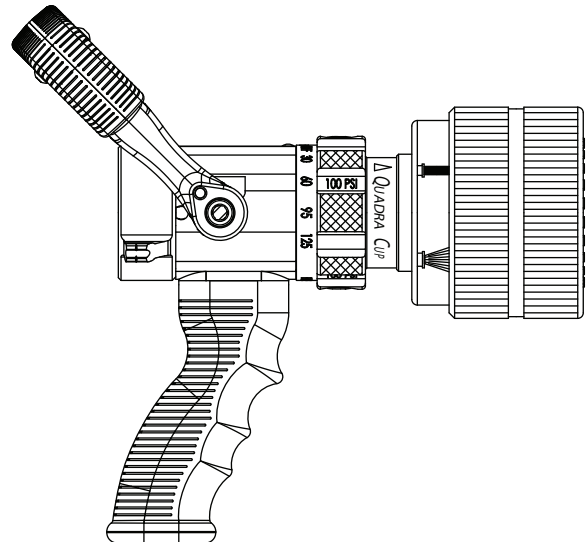
QUADRAFOG W/SHUTOFF



QUADRACUP W/SHUTOFF



QUADRAFOG W/SHUTOFF
AND PISTOL GRIP



QUADRACUP W/SHUTOFF
AND PISTOL GRIP

TASK FORCE TIPS LLC
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1.5" QuadraFog® & QuadraCup® Series Service Procedure

INTRODUCTION

The nozzle you have purchased is your primary tool in the battle against fire. It has been manufactured with great care to give you the finest performance possible. All components are top quality and extremely rugged. With occasional inspection and attention, it will serve you for many years. This publication is intended for those who prefer to perform service on their own equipment. Factory service is available, and repair time seldom exceeds one day in our facility. Factory serviced nozzles are repaired by experienced professionals, fully tested and promptly returned functioning to original specifications. Repair charges for non-warranty items are minimal. Task Force Tips assumes no liability for damage to equipment or injury to personnel that is a result of user service.

GENERAL INFORMATION

THREADED JOINTS have been secured using Loctite brand thread locking adhesive #271. Disassembly requires a minimal application of heat with a propane or oxyacetylene torch to break the bond. The threads should be heated to approximately 450 degrees F. Excessive heat application will cause damage to adjacent seals and labels. Replacement parts must be reinstalled using Loctite #271, or equivalent. Small vials of Loctite for field service are available; order part # V5010, LOCTITE MINI DISPENSER.

LUBRICANTS: If parts are disassembled in an area where o-rings are present, re-assemble using DOW #112 High Performance Silicone Grease on all o-rings and surfaces that the o-rings contact.

LABEL REPLACEMENT: If labels become damaged, remove old labels with a razor knife. Remove adhesive with acetone or methyl ethyl ketone. Surface must be clean, dry and free from grease. Carefully apply new label.

ORDERING PARTS: Always specify the serial number of the nozzle when ordering parts. The number is found on the raised rim of the INDEX RING [16]. Be sure to use complete DESCRIPTION and ORDER # as printed on parts list. All requests for couplings must specify thread size. Pricing information will be given at time of order.

OPERATING INSTRUCTIONS: See LKF-100 for instructions on Safe Operation and Maintenance

COUPLING AND PISTOL GRIP SERVICE PROCEDURE:

Tools Required: 5/16" Allen (hex) Wrench

Loctite #271 Thread Locking Adhesive

GENERAL: Occasional replacement of the COUPLING GASKET [39] and REAR SEAT [38] is recommended.

COUPLING REMOVAL: Remove PORT PLUG [25] from side of BASE [21]. Turn coupling so that hole faces down, and rotate coupling back and forth to allow 3/16 STAINLESS STEEL BALLS [26] to drop out. When all balls are out of the groove, the coupling can be removed.

COUPLING INSTALLATION: Put the coupling onto the mating part and load 34 STAINLESS STEEL BALLS [26] into the ball groove through the port in the valve. Insertion of the balls is easier if the coupling is rotated slightly back and forth as the balls are loaded. Insert PORT PLUG [25] into port on side of BASE [21].

BOLT-ON PISTOL GRIP REMOVAL / INSTALLATION: The PISTOL GRIP [22] is held on by a SOCKET HEAD CAP SCREW [23]. Remove screw with a 5/16" Allen wrench. To reinstall, clean thread and apply Loctite #271. Tighten screw to 95 in-lbs.

VALVE and HANDLE SERVICE PROCEDURE

See Ball Valve Handle Repair Kit Instructions – (LKR-200)

FRONT END SERVICE PROCEDURE

Tools Required: 5/64" Allen (Hex) Wrench

5/32" Allen (Hex) Wrench

7/32" Allen (Hex) Wrench

3/16" Two Prong Face Spanner Wrench

Razor Blade Knife

Dow #112 High Performance Silicone Grease

Torch, oxyacetylene or propane

Loctite #271 Thread Locking Adhesive

Flow Meter

Pressure Gage

FRONT END DISASSEMBLY SEQUENCE

SPINNING TEETH

BUMPER and HEAD WITH SPINNING TEETH REMOVAL: Remove BUTTON HEAD SCREWS [42] using a 5/32" Allen wrench. Slide BUMPER [41] and O.D. WEAR RING [40] off of HEAD [46]. Remove SPINNING TEETH [43], I.D. WEAR RING [44] and "V" FOLLOWERS [5] from HEAD [46]. The HEAD [46] will now slide off the GALLONAGE SLEEVE [9].

FIXED TEETH

BUMPER and HEAD ONLY REMOVAL: Using a razor blade knife, cut through one side of the BUMPER [3] from top to bottom then remove BUMPER [3] from HEAD [4]. Once the BUMPER [3] is removed, heat the CUPS [6] and remove the CUPS [6] using a 7/32" Allen wrench. Now the "V" FOLLOWERS [5] can be removed from the HEAD [4] and the HEAD [4] can be slid off the GALLONAGE SLEEVE [9].

FOAM ASPIRATION

CUP and HEAD REMOVAL: Remove LABEL [52] using a razor blade knife. Unscrew DETENT SCREWS [50] using a 1/8" Allen wrench. The SPRINGS [12] and TORLON BALLS [13] can now be removed from the CUP [48]. Slide the CUP [48] off the HEAD [53] and remove the O-RING [51] from the HEAD [53]. Once the CUP [48] is removed, heat the CUPS [6] and remove the CUPS [6] using a 7/32" Allen wrench. Now the "V" FOLLOWERS [5] can be removed from the HEAD [4] and the HEAD [4] can be slid off the GALLONAGE SLEEVE [9].

DEFLECTOR

DEFLECTOR REMOVAL: Cut DEFLECTOR LABEL [1] off DEFLECTOR [2] to expose spanner wrench holes. Remove DEFLECTOR [2] using a spanner wrench.

INDEX RING AND GALLONAGE SLEEVE

GALLONAGE SLEEVE AND INDEX RING REMOVAL: Heat and remove CUPS [6] from INDEX RING [16] using a 7/32" Allen wrench. Be careful not to heat/damage NAME LABEL [11] (a wet rag wrapped around this area will help). Now that the CUPS [6] are removed the "V" FOLLOWERS [5], SPRINGS [12], and TORLON BALLS [13] can be removed from the INDEX RING [16]. The GALLONAGE SLEEVE [9] can now be removed from the INDEX RING [16]. Heat and remove SET SCREW [17] using a 5/64" Allen wrench. This will allow the ACETAL BALLS [18] to drop out of the INDEX RING [16]. Rock the INDEX RING [16] back and forth to help all of the ACETAL BALLS [18] drop out. Slide INDEX RING [16] off of the BASE [21 or 47]. Remove KEY PINS [10] from GALLONAGE SLEEVE [9]. The QUAD RING [8] and O-RING [19] should be removed and replaced after disassembly.

FRONT END ASSEMBLY SEQUENCE

INDEX RING AND GALLONAGE SLEEVE

GALLONAGE SLEEVE AND INDEX RING INSTALLATION: Slide BASE [21 or 47] into the INDEX RING [16]. Load 50 ACETAL BALLS [18] into INDEX RING [16] through small tapped hole. Insertion of the balls is easier if the coupling is rotated slightly back and forth as the balls are loaded. Apply Loctite 271 to SET SCREW [17] and thread into INDEX RING [16] using a 5/64" Allen wrench. Grease the inside of the GALLONAGE SLEEVE [9] and the slots in the BASE [21 or 47]. Install O-RING [19] on the BASE [21 or 47]. Slide GALLONAGE SLEEVE [9] into INDEX RING [16]. Assemble TORLON BALL [13], HELICAL SPRING [12], "V" FOLLOWER [5], and CUP [6] into subassemblies. Grease detent grooves and cam grooves in GALLONAGE SLEEVE [9]. Thread the cup subassemblies into INDEX RING [16] (do not apply Loctite and tighten completely) making sure that cup assemblies line up with the detent grooves. INDEX RING [16] should feel snug when indexed / rotated. Also make sure that the word "FLUSH" on the INDEX RING [16] lines up with arrow on the NAME LABEL [11]. Apply Loctite 271 to KEY PINS [10] and insert into GALLONAGE SLEEVE [9]. Go back and apply Loctite 271 to cup assemblies then thread flush to surface of INDEX RING [16]. Install QUAD RING [8] on GALLONAGE SLEEVE [9].

FIXED TEETH

BUMPER and HEAD ONLY INSTALLATION: Apply grease to cam grooves in GALLONAGE SLEEVE [9] and to the I.D. of the HEAD [4]. Apply grease to "V" FOLLOWERS [5] and place each one into a CUP [6]. Slide HEAD [4] over end of GALLONAGE SLEEVE [9] making sure that the holes in HEAD [4] are lined up with cam grooves in the GALLONAGE SLEEVE [9]. Straight stream icon on PATTERN LABEL [7] should line up with arrow on NAME LABEL [11]. Apply Loctite 271 to cup subassemblies and thread through HEAD [4] and into cam groove in GALLONAGE SLEEVE [9]. Make sure cup subassemblies are not threaded too tight into barrel. Slide BUMPER [3] over the HEAD [4] with grooves in the bumper lining up with the cups on the HEAD [4].

DEFLECTOR

DEFLECTOR INSTALLATION: Apply a small amount of Loctite 271 to threads on end of BASE [21 or 47]. Start screwing on the DEFLECTOR [2] by hand, to make sure it is going on straight. Continue to screw the DEFLECTOR [2] in using a spanner wrench. Set the nozzle to the lowest operating flowrate. Adjust gap between DEFLECTOR [2] and face of GALLONAGE SLEEVE [9] per chart below. Make sure the DEFLECTOR [2] is not loose before testing. Test nozzle to ensure that nozzle generates the proper pressure at the correct flow rate – adjust DEFLECTOR [2] if needed. Once the DEFLECTOR [2] is set, clean and dry it; then apply DEFLECTOR LABEL [1].

Flow Rate	Pressure	Gap Size
30 GPM	75 PSI	.018"-.020"
30 GPM	100 PSI	.040"
110 L/min.	7 BAR	1.0 mm
100 L/min.	6 BAR	1.0 mm

PROBLEMS: If you have any questions or problems, please feel free to call for assistance.

FOAM ASPIRATION

CUP and HEAD INSTALLATION: Apply grease to cam grooves in GALLONAGE SLEEVE [9] and to the I.D. of the HEAD [53]. Apply grease to "V" FOLLOWERS [5] and place each one into a CUP [6]. Slide HEAD [53] over end of GALLONAGE SLEEVE [9] making sure that the holes in HEAD [53] are lined up with cam grooves in the GALLONAGE SLEEVE [9]. Apply Loctite 271 to cup subassemblies and thread through HEAD [53] and into cam groove in GALLONAGE SLEEVE [9]. Tighten until "V" FOLLOWERS [5] make contact with cam groove in GALLONAGE SLEEVE [9] then back out a 1/8 of a turn. Make sure cup subassemblies are not threaded too tight into barrel. Install greased O-RING [51] in groove on OD of HEAD [53]. Apply grease to outside of HEAD [53] then slide CUP [48] on HEAD [53] making sure that holes in CUP [48] line up with slots in HEAD [53]. Drop a SPRING [12] and TORLON BALL [13] into each DETENT SCREW [50]. Start screwing the Detent subassemblies [12] [13] [50] into the CUP [48]. Apply Loctite #271 to remaining thread and continue to tighten screw until flush with the CUP [48]. Clean CUP [48] with acetone then apply LABEL [52] to CUP [48].

WARRANTY

Task Force Tips LLC, 3701 Innovation Way, Valparaiso, Indiana 46383-9327 USA (“TFT”) warrants to the original purchaser of its nozzles (“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, 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, it 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.

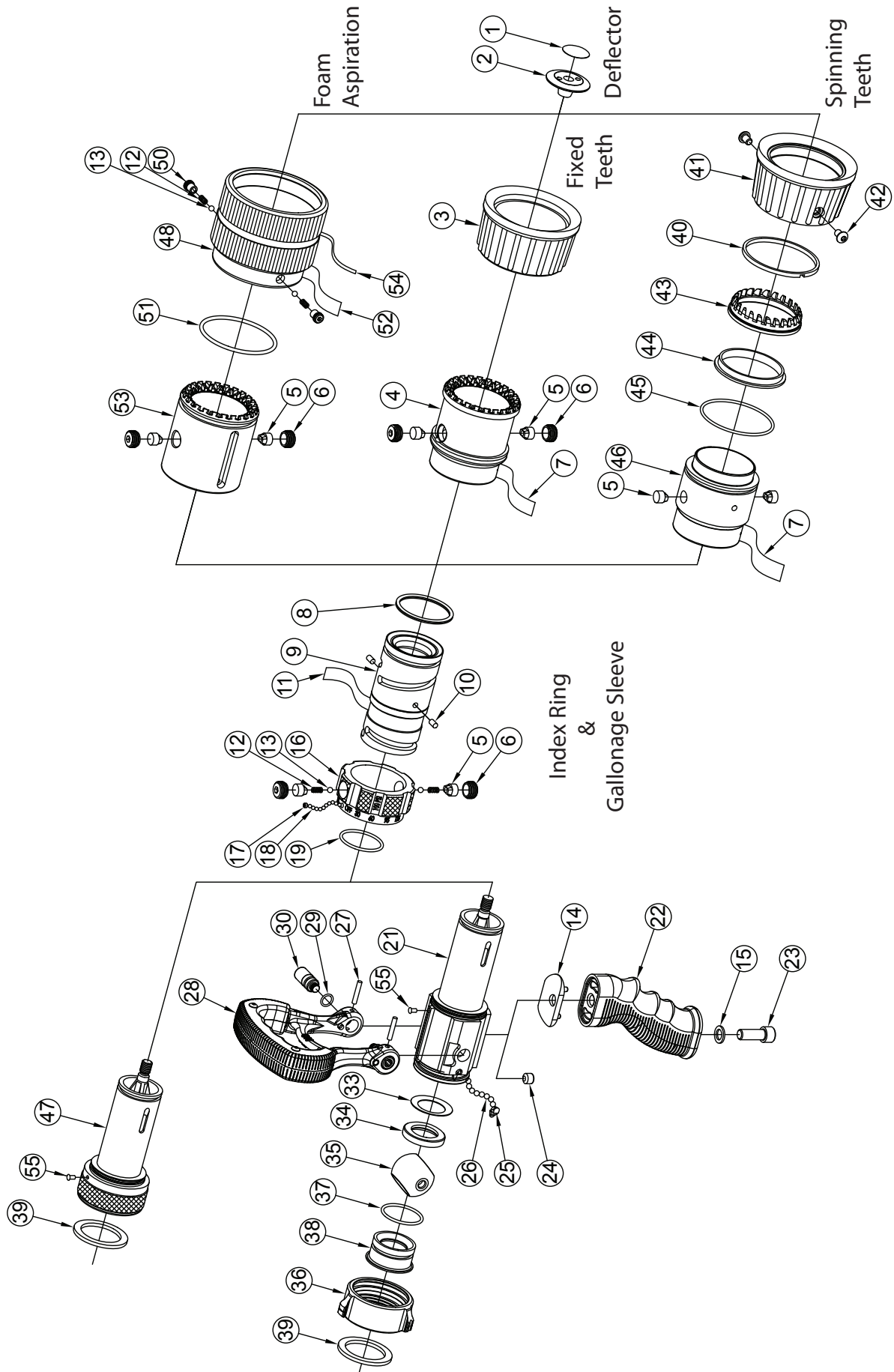
This is a limited warranty. The original purchaser of the equipment, any person to whom it is transferred, and any person who is an intended or unintended beneficiary of the equipment, shall not be entitled to recover from TFT any consequential or incidental damages for injury to person and/or property 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 THE DOCUMENT.

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

DRAWING & PART LIST



ITEM	DESCRIPTION	QTY	PART #
1	DEFLECTOR LABEL	1	FL10
2	DEFLECTOR	1	FT210
3	BUMPER	1	FT270
4	HEAD	1	FT220
5	V FOLLOWER	4	JT263
6	CUP	4	FT260
7	PATTERN LABEL	1	FL200
8	QUAD-RING-225	1	VOQ-4225
9*	GALLONAGE SLEEVE	1	FT240 FT241
10	KEY PINS	2	FT252
11*	NAME LABEL	1	FL241
12	SPRING HELICAL COMPRESSION	4	VM4195
13	3/16" TORLON BALL	4	V2120-TORLON
14	GRIP SPACER F100	1	HM693-F
15	3/8" FLAT WASHER	1	VM4901
16*	INDEX RING	1	FT230 FT231
17	8-32 X 1/8" SET SCREW	1	VT08-32SS125
18	1/8" ACETAL BALL	50	VB125AC
19	O-RING-127	1	VO-127
21	QUADRAFOG BASE	1	FT202
22	PISTOL GRIP - BLACK	1	HM692-BLK
23	3/8-16 X 1 SOCKET HEAD SCREW	1	VT37-16SH1.0
24	3/8-16 X 5/16 SET SCREW	1	VT37-16SS312
25	PORT PLUG	1	B770
26	3/16" SS BALL	34	V2120
27	SPIROL PIN	2	V1900
28	FQ HANDLE SUBASSEMBLY	1	FQ860
	100 SHUTOFF HANDLE	1	F10060
	BLACK HANDLE COVER	2	HM625-BLK
	8-32 X 3/8 BUTTON HEAD SCREW	4	VT08E32BH375
	100 STOP PIN	2	F10050

ITEM	DESCRIPTION	QTY	PART #
29	O-RING-012	2	VO-012
30	100 TRUNNION	2	F10040
33	BELLEVILLE WASHER	1	F10090
34	100 FRONT SEAT	1	F10070
35	100 BALL	1	F10030
36**	COUPLING 1.5"	1	F10097
37	O-RING-126	1	VO-126
38	100 REAR SEAT	1	F10080
39	GASKET - 1.5"	1	V3130
40	OD WEAR RING	1	FT267
41	FQ SPINNING TOOTH BUMPER	1	FT265
42	1/4-20 X 3/8 BUTTON HEAD SCREW	2	VT25B20BH375
43	FQ SPINNING TEETH	1	FT222
44	ID WEAR RING	1	FT227
45	O-RING-145	1	VO-145
46	SPINNING TEETH HEAD	1	FT225
47**	FQ BASE KIT	1	FQ805
	RIGID BASE 1.5"	1	FT205
	STEM	1	FT280
	#6 X 1/4 SS DRIVE SCREW	1	VT06E00DS250
48	CUP W/TEETH	1	F675
50	DETENT SCREW	2	D290
51	O-RING-231	1	VO-231
52	PATTERN LABEL	1	FL205
53	FOAM HEAD	1	FT226
54	QUADRACUP STRIPE LABEL	1	FL675
55	#6 X 1/4 SS DRIVE SCREW	1	VT06E00DS250
* - CONSULT FACTORY FOR SPECIFIC PART NUMBERS CORRESPONDING TO THE FLOW SETTINGS ON NOZZLE			
** - STATE DESIRED THREAD WHEN ORDERING			

TASK FORCE TIPS LLC
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