

## INTRODUCTION

**TASK FORCE TIPS' AUTOMATIC:** 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 of 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 workmen, 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 #44 High Temperature Silicone Grease on all o-rings and surfaces that the o-rings contact.

**LABEL REPLACEMENT:** If labels become damaged, remove old labels with 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 SHAPER GUIDE [74]. 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.

## COUPLING AND BASE SERVICE PROCEDURE

Tools Required:

- 1/8" Allen (hex) Wrench
- Loctite #271 Thread Locking Adhesive
- Torch, Oxyacetylene or propane

**GENERAL:** Occasional replacement of hose gaskets is recommended. Replace GASKET GRABBER [18] if severe impact has caused damage. Coupling service kits which include all hardware and Loctite are available for either 1.5 or 2.5 inch couplings. Special configurations or model changes to a nozzle can be made by selecting the desired coupling or base. Couplings with special or standard threads are interchangeable and may be exchanged on new nozzles. Please specify desired threads when ordering.

**COUPLING AND BLITZ BASE REMOVAL:** All couplings and blitz bases are retained with a ball race, and set screw. Heat, and then remove 1/4-28 SOCKET SET [5 or 16] screw from coupling using an 1/8" Allen wrench. Turn coupling so that hole faces down, and rotate coupling back and forth to allow 3/16 STAINLESS STEEL BALLS [4 or 17] to drop out. When all balls are out of the groove, the coupling can be removed. Remove GASKET GRABBER [18] debris screen from the coupling. NOTE: On couplings [6,8,10,12,13], O-RING-141 [7] will be found adjacent to the GASKET GRABBER [18]. On COUPLING [2], O-RING-151 [3] is used. Replace the proper O-Ring before installing the coupling.

**COUPLING AND BLITZ BASE INSTALLATION:** Insert the GASKET GRABBER [18] debris screen into the coupling, raised end pointing toward the front of the nozzle. Put the coupling onto the mating part and load the correct number of balls into the ball groove. (SEE PARTS LIST ON EXPLODED VIEW OF NOZZLE TO DETERMINE CORRECT NUMBER OF BALLS FOR YOUR COUPLING : 4, 17, or 45). The Blitz Bases and the couplings on Model HD-TO should be locked out, therefore there is a small slot in the male ball groove which accommodates the end of the set screw to lock rotation. Insertion of the balls is easier if the coupling is rotated slightly back and forth as the balls are loaded. Loctite and install proper 1/4-28 SOCKET SET [5 or 16] screw. The set screw should be flush with the surface of the coupling. If the coupling is difficult to turn, or feels rough when turned, the set screw is in too far. Back set screw off a turn or so, and try again. If the feel is still not correct, recheck the number of balls in the coupling. On tip only couplings and blitz bases run the screw into the slot on the ball groove until it bottoms out, without applying pressure.

**TIP ONLY BASE SERVICE:** The TIP ONLY BASE [47] is retained on the TIP ONLY BARREL ASSEMBLY [73] by threads which are retained by Loctite. Apply heat to the knurled rib nearest the front of the nozzle. Damage to seals and labels can be reduced by protecting these with a wet rag. The TIP ONLY BASE can now be unscrewed. Remove and replace O-RING-143 [48]. Clean all threads, apply Loctite to threads and screw together.

## SHO-FLOW SERVICE PROCEDURE

### Tools Required

- 3/32" Allen (hex) Wrench
- Needle Nose Pliers
- Small Screwdriver
- Loctite #271 Thread Locking Adhesive
- Torch, oxyacetylene or propane

## SHO-FLOW DISASSEMBLY SEQUENCE

**SHO-FLOW REMOVAL:** Heat and remove 10-32x1/4 SOCKET SET [31] screws from the front of the S-F BODY [41], using a 3/32" Allen wrench. Unscrew S-F BODY from the valve. Flush out any debris lodged in the TARGET [33] area.

**WINDOW REMOVAL:** Remove O-RING-139 [37]. Slide PLASTIC WINDOW [38] out of S-F BODY.

**TARGET REMOVAL:** Reach through flow window with a small screwdriver. Use screwdriver to push SMALLEY RING [36] out of the groove. Gently pull SMALLEY RING out of S-F BODY using needle nose pliers. Make sure the SMALLEY RING does not score the BACKDROP LABEL [32]. Pull on TARGET [33] using needle nose pliers. This procedure will remove TARGET [33], WASHER [35] and INDICATOR SPRING [34] together.

## SHO-FLOW ASSEMBLY SEQUENCE

**TARGET INSTALLATION:** Drop TARGET [33] and INDICATOR SPRING [34] (more closely spaced coils first) into S-F BODY [41]. Push WASHER [35] past two O-RING-139 [37] and center over end of INDICATOR SPRING [34]. Easy SMALLEY RING [36] into S-F BODY and groove using needle nose pliers. Make sure the SMALLEY RING does not score the BACKDROP LABEL [32].

**WINDOW INSTALLATION:** Slide PLASTIC WINDOW [38] into S-F BODY [41] until it bottoms out on SMALLEY RING [36].

**SHO-FLOW INSTALLATION:** Replace O-RING-139 [37] into S-F BODY groove. Thread S-F BODY [41] into VALVE BODY. Apply Loctite to two 10-32x1/4 SOCKET SET [31] screw and turn into S-F BODY until tight.

## VALVE SERVICE PROCEDURE

### Tools Required:

- 3/32" Allen (hex) Wrench
- 1/8" Allen (hex) Wrench
- 7/32" Allen (hex) Wrench
- Loctite #271 Thread Locking Adhesive
- Torch, oxyacetylene or propane

## VALVE DISASSEMBLY SEQUENCE

**HANDLE REMOVAL:** Heat, and then remove all screws [50, 52 and 53] on the HANDLINE HANDLE ASSEMBLY [51] using 7/32" Allen wrench. The handle can now be removed.

**SLIDER AND SEAL REMOVAL:** Heat, and then remove 10-32 X 1/4 SOCKET SET [58] screws from the VALVE ASSEMBLY, using 3/32 Allen wrench. Unscrew front portion of nozzle from valve. SLIDER [65] can now be pulled out from front of valve. Remove and discard O-RINGS [63, 64, 48].

**BOLT-ON PISTOL GRIP REMOVAL:** Remove VALVE LABEL [56] using a razor knife. Remove adhesive with acetone or methyl ethyl ketone. Then tap the HOLE CAP [66] into the valve body. Looking thru the top of the valve body, the FLATHEAD ALLEN SCREW [28] retaining the PISTOL GRIP [43] to the valve will be exposed. Heat, and then remove the screw using a 7/32 Allen wrench.

## VALVE ASSEMBLY SEQUENCE

**PISTOL GRIP INSTALLATION:** Place the BOLT-ON PISTOL GRIP lugs into the holes located in the bottom of the valve body. Apply Loctite to the threads of the FLAT HEAD ALLEN SCREW [28] and tighten securely. Using a small hammer tap the HOLE CAP [66] into the valve body until flush. Install a new VALVE LABEL [56].

**SLIDER AND SEAL INSTALLATION:** Insert O-RINGS [63,64,48] into the proper grooves in the valve body. Lubricate O-RINGS and SLIDER with silicone grease. Push SLIDER [65] into the valve body.

**HANDLE INSTALLATION:** Insert DETENT SPRINGS [55] and DETENT FOLLOWERS [54] into the handle lugs, then snap the handle into place, with offset holes FORWARD. Apply Loctite to two 3/8-24 X 3/4 BUTTON HEAD [53] screws, and insert thru the lower handle holes. Thread each into corresponding center trunnion hole. Carefully align the groove on Slider [65] with offset hole in handle. Apply Loctite to the SAFETY SCREW [50] and start into offset hole which is closest to the front end of the valve. Screw down into engagement with groove in slider, until head of screw is flush with handle. Repeat procedure for CAM SCREW [52]. Tighten button head screws securely. Handle should click firmly and smoothly into all detent positions.

**VALVE SHUTOFF ADJUSTMENT:** Shut-off sealing of valve is adjusted by the threads between the valve body and the front portion of the nozzle. While holding the HANDLINE HANDLE ASSEMBLY [51] against stops in the OFF position, screw front end into the valve body until contact with the valve plug is felt. Open handle up to remove contact. Screw together 1/12 turn further to give the valve shutoff compression. Loctite and replace SET SCREWS [58]. Thread in both SET SCREWS until they bottom out, without applying pressure. In an alternating fashion, continue turning in SET SCREWS a 1/4 turn each time till tight.

**VALVE ADJUSTMENT FOR SEVERE COLD:** To help to prevent hose line freezing in cold climates, the valve may be adjusted for intentional leakage by unscrewing front end slightly. The valve may be returned to normal adjustment during warm weather as above.

## FRONT END SERVICE PROCEDURE

Tools Required :

1/8" Allen (Hex) Wrench	Dow #44 High Temperature Silicone Grease
7/32" Allen (Hex) Wrench	Vise with padded jaws
3/16" Two Prong Face Spanner Wrench	Strap Wrench
.015" Feeler Gauge (used when replacing baffle)	Loctite #271 Thread Locking Adhesive
Torch, oxyacetylene or propane	

**NOTICE:** The Dual-Force pressure control unit is part of the BARREL ASSEMBLY [68 or 73]. This unit is factory calibrated, and sealed. Service on this unit must be performed at the factory, using special tooling and equipment. In the unlikely event that this unit should need service, please return the complete nozzle to the factory for repairs, or replace the entire BARREL ASSEMBLY [68 or 73].

**DO NOT ATTEMPT TO DISASSEMBLE THIS DEVICE!** Task Force Tips, Inc. will assume NO liability for damage or injury resulting from attempts to disassemble or repair the pressure control unit.

## FRONT END DISASSEMBLY SEQUENCE

**BAFFLE REMOVAL:** Heat and remove BUTTON HEAD SCREW [93] using an 1/8" Allen wrench. Remove and discard TEFLON WASHER [92]. Carefully remove the DUAL-FORCE KNOB [91]. Underneath the DUAL-FORCE KNOB there are two SPRINGS [87] and two 3/16 STAINLESS STEEL BALLS [88], these should be removed also. Remove and inspect the two O-RINGS [86] located in the BAFFLE ASSEMBLY [85]. Hold the barrel cone back in flush and apply heat to the small shank on the BAFFLE ASSEMBLY [85]. Unthread the BAFFLE ASSEMBLY using a spanner wrench. Remove and replace BAFFLE LABEL [90] if affected by the heat.

**BARREL CONE SUB ASSEMBLY REMOVAL:** Heat, and then remove two 3/8-24 X 3/8 DOGPOINT [71] screws on BARREL ASSEMBLY [68 or 73] using a 3/16" Allen wrench. Place the barrel cone face down on the work surface. Pull the barrel up and clear of the barrel cone. Four spring-loaded pins will be visible in the back of the barrel cone. Remove four FLUSH PINS 1/8 X 1/2 FLAT [77] and four FLUSH SPRINGS [78]. Remove and replace O-RING-224 [76].

**SHAPER REMOVAL:** The rubber bumper is permanently bonded onto the stream shaper as a single unit, SHAPER WITH BUMPER [83]. The shaper is attached to the SHAPER GUIDE [74] by a threaded joint that is retained by Loctite. Grip rear portion of the nozzle in a vise with padded jaws. Direct a hot narrow flame around the rear portion of the shaper. Heat for approximately 20 seconds, being careful not to damage the bumper or labels (a wet rag wrapped around these areas will help). Use a strap wrench to unscrew the shaper from the shaper guide. Remove the shaper. Inside the shaper are 46, 3/16 DELRIN BALLS [82], some of which may fall free as it is removed. If shaper is to be re-used, clean ball track and replace O-RING-336 [81].

**SHAPER GUIDE REMOVAL:** The SHAPER GUIDE [74] does not need to be removed to service the BAFFLE [85] or BARREL CONE [80]. To service the SHAPER GUIDE, heat and remove two 3/8-24 X 3/8 DOG POINT [71] screws. The SHAPER GUIDE can now be removed.

## FRONT END ASSEMBLY SEQUENCE

**SHAPER GUIDE INSTALLATION:** Slide the new SHAPER GUIDE [74] into place. Apply Loctite to the two 3/8-24 X 3/8 DOG POINT [71] screws, then screw in SHAPER GUIDE until contact is felt; finally back each screw out 1/2 turn.

**BARREL CONE SUB ASSEMBLY INSTALLATION:** Insert four FLUSH SPRINGS [78] and four FLUSH PINS 1/8 X 1/2 FLAT [77] into holes. Lubricate O-RING-224 [76], and O-RING-228 [72]. Slide the BARREL ASSEMBLY [68 or 73] down onto the barrel cone. Align the set screw holes in the barrel with the corresponding slots on the barrel cone. Apply Loctite to two 3/8-24 X 3/8 DOG POINT [71] screws and start into BARREL ASSEMBLY. Turn in both screws until they bottom gently in their slots. Back each screw out 1/2 turn. Check barrel cone for smooth sliding action. If binding is felt, then re-adjust DOG POINT screws.

**BAFFLE ASSEMBLY:** Thread SHIELD [84] onto the BAFFLE ASSEMBLY [85] until it bottoms out. If the roll pin is lined up with the cutouts on SHIELD, unthread SHIELD, rotate 90 degrees and rethread. There are only two correct thread combinations due to the four lead thread on the baffle. Install both O-RING-010 [86] into face grooves on the BAFFLE ASSEMBLY. Place a Spring [VM4190] and a 3/16 Stainless Ball [88] consecutively into each pocket in the BAFFLE ASSEMBLY. Unthread the SHIELD 1/4 turn. Apply Loctite to the 10-32 thread in BAFFLE ASSEMBLY. Apply a small amount of grease to bottom face of the DUAL-FORCE KNOB [91]. Place DUAL-FORCE KNOB onto the BAFFLE ASSEMBLY engaging the DUAL-FORCE KNOB onto both the roll pin in the BAFFLE ASSEMBLY and the cutouts on the SHIELD. DUAL-FORCE KNOB is centered within slots on the SHIELD. Place a new TEFLON WASHER [92] onto the 10-32 x 1/2 BUTTON HEAD [93]. Turn screw into the BAFFLE ASSEMBLY until it bottoms out then back screw out just enough to allow the knob to rotate.

**BAFFLE INSTALLATION:** Apply Loctite to the 5/8 threads in the BAFFLE ASSEMBLY [85]. Screw the BAFFLE ASSEMBLY onto end of the shaft. Place a spacer between the BARREL CONE ASSEMBLY [80] and the SHAPER GUIDE [74]. Rotate the shaper guide all the way forward to lock the barrel cone in the forward position. MAKE SURE THE DUAL-FORCE KNOB IS TURNED TO THE STANDARD SETTING. Insert the .015" feeler gages (shipped with replacement baffle) between the shield and the face on the barrel cone, on opposite sides of center. Tighten the BAFFLE ASSEMBLY carefully until an even drag is achieved on both gages. Let Loctite set 1 hour.

**SHAPER INSTALLATION:** Install O-RING-336 [81] in the groove nearest the fog teeth in the SHAPER WITH BUMPER [83]. Grease the O-RING and ball groove heavily. Place 46 3/16" DELRIN BALLS [82] into greased ball groove. Apply Loctite to male thread on SHAPER GUIDE [74]. Start shaper onto the shaper guide threads, screw down until threads bottom.

## PROBLEMS

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

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## PARTS LIST

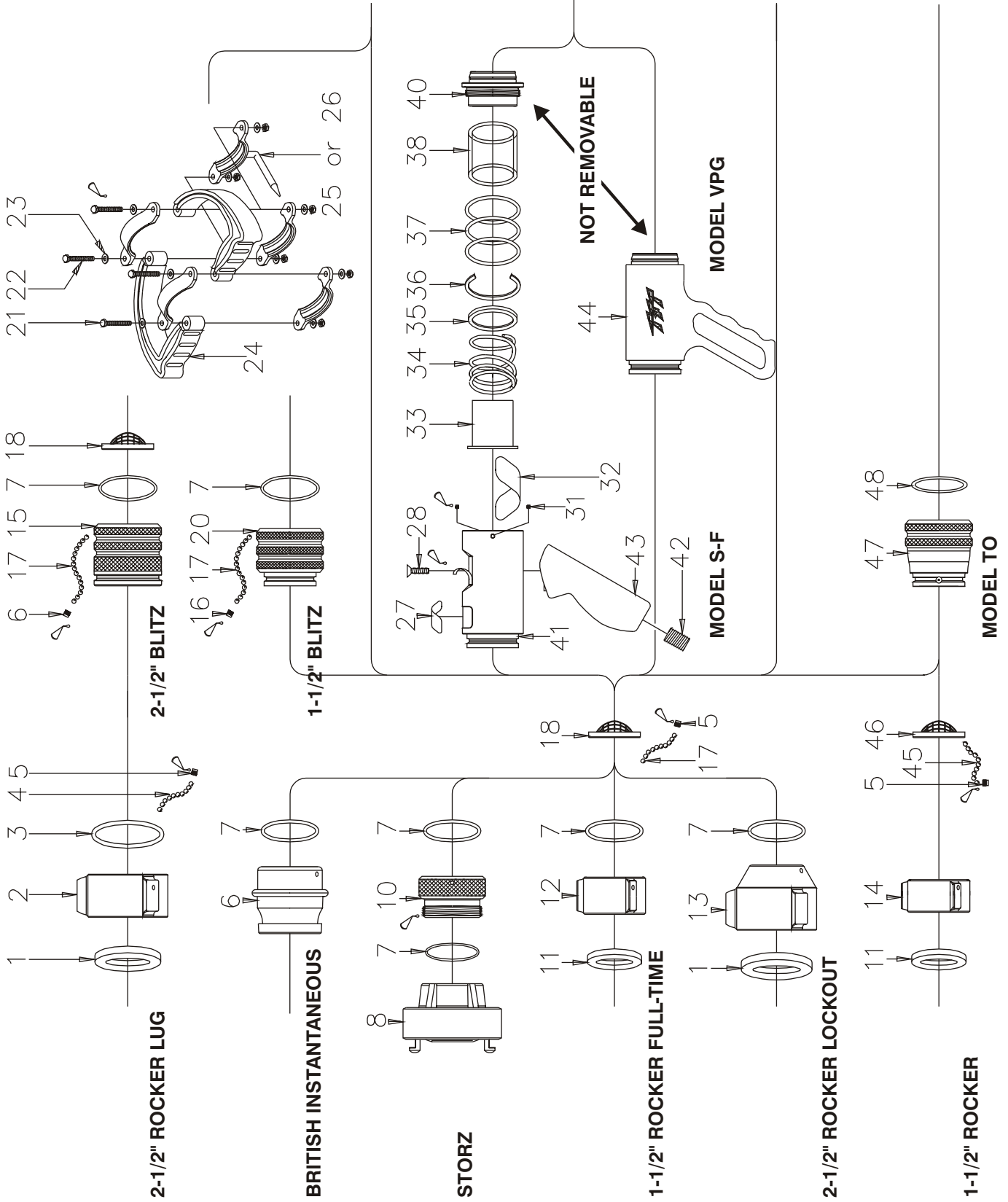
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1	2.5 Hose Gasket	1	V31902	51	Handline Handle Assembly	1	H620
2	2.5 Rocker Lug Coupling	1	P197**	52	Cam Screw	1	H630
3	O-Ring-151	1	V3300-151	53	Handle Screw	2	H645
4	3/16 SS Ball	48	V2120	54	Detent Follower	2	H615
5	1/4-28x3/8 Socket Set	1	V1100	55	Detent Spring	2	H770
6	2.5 British Instantaneous	1	H687	56	Valve Label	1	H750
7	O-Ring-141	1	V3400-141	57	Stuffed H600 Valve Body	1	H900S
8	Storz Coupling	1	H686**	58	10-32x1/4 Socket Set	2	V1070
10	Storz Inner Coupling	1	H685	60	#WH-212-S02 Smalley Ring	1	V4220
11	Coupling Gasket 1.5	1	V3130	61	O-Ring-136	1	V3390-136
12	1.5 Rocker Coupling Full Time	1	H694**	62	Stuffed Snap In Valve Body	1	H903S
13	2.5 Rocker Lockout	1	P198**	63	QUADX-4326	1	V3360-4326
14	1.5 Rocker Coupling	1	H697**	64	QUADX-4225	1	V3370-4225
15	2.5 Blitz Base	1	H675	65	Slider	1	H660
16	1/4-28x1/4 Socket Set	1	V1030	66	Hole Cap	1	B645
17	3/16 SS Ball	38	V2120	67	Stuffed H601 Valve Body	1	H601S
18	Gasket Grabber 1.5 " Hard	1	H730-60D	68	Standard Barrel Assembly	1	HD810
20	1.5 Blitz Base	1	H674	70	Dual-Force Barrel Label	1	HD740
21	1/4-20 Acorn Nut Brass	8	V2030	71	3/8-24x3/8 Dog Point	2	V1130
22	1/4-20 Stud	4	V2050	72	O-Ring-228	2	V3330-228
23	1/4 AN960C416 Washer	8	V2040	73	Tip Only Barrel Assembly	1	HD820
24	Playpipe Handle	2	P220	74	Shaper Guide Assembly	1	HD812
25	Blitz Bracket	4	H676	75	Dual-Force Name Label	1	HD745
26	Blitz Bracket W/Hook	1	H677	76	O-Ring-224	1	V3320-224
27	SHOFLOW Name Label	1	S1120	77	Flush Pins	4	H790
28	3/8-16x1" Flat Head SHCS	1	V1165	78	Flush Springs	4	H780
30	Calibration Label 250 GPM	1	S1105	80	Barrel Cone Assembly	1	H870
31	10-32x3/16 Socket Set	2	V1080	81	O-Ring-336	1	V3320-336
32	Backdrop Label	1	S1130	82	3/16 Delrin Ball	46	V2115
33	Target	1	S1010	83	Shaper With Bumper	1	H500
34	Indicator Spring	1	S1185	84	Shield	1	HD562
35	Washer	1	S1030	85	Dual-Force Baffle	1	HD561
36	#VH-218-S02 Smalley Ring	1	V4230	86	O-Ring-010	2	V3735-010
37	O-Ring-139	3	V3700-139	87	Spring #C0180-018-0250S	2	VM4190
38	Plastic Window	1	S1020	88	3/16 SS Ball	2	V2120
40	Integral End	1	S1040	90	Dual-Force Baffle Label	1	HD752
41	S-F Body W/Mounting Ho	1	S1081	91	Dual-Force Knob	1	HD560
42	PG Plug	1	S1095	92	Teflon Washer	1	VW360X193/10
43	SHO-FLOW Pistol Grip	1	S1090	93	10-32 X 1/2 Button Head	1	VT10-32BH500
44	VPG Pistol Grip	1	H690	—	Loctite Mini Dispenser	—	V5010
45	3/16 SS Ball	37	V2120	—	Shaper Repair Kit	—	H940
46	Gasket Grabber 1.5" Soft	1	H730-70A	—	Handle Repair Kit	—	H950
47	Tip Only Base	1	H670	—	Valve Seal Repair Kit	—	H960
48	O-Ring-143	1	V3380-143	—	Baffle Repair Kit	—	HD914
50	Safety Screw	1	H635	—	1.5 Rocker Lug Kit	—	HD980
				—	2.5 Rocker Lug Kit	—	HD984



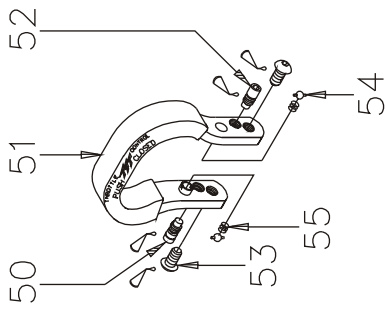
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## BASES

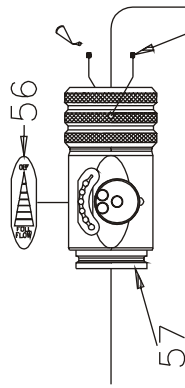
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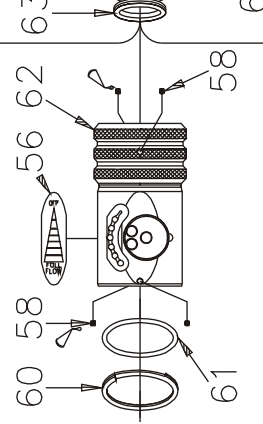
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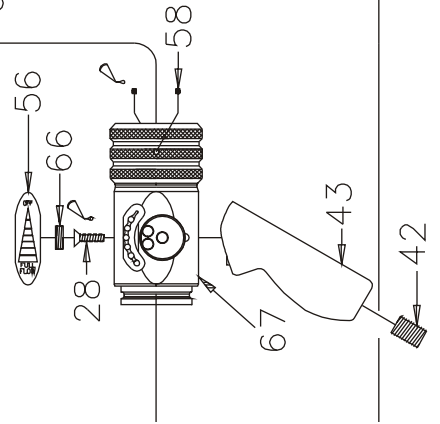
**STUFFED H600  
VALVE BODY**



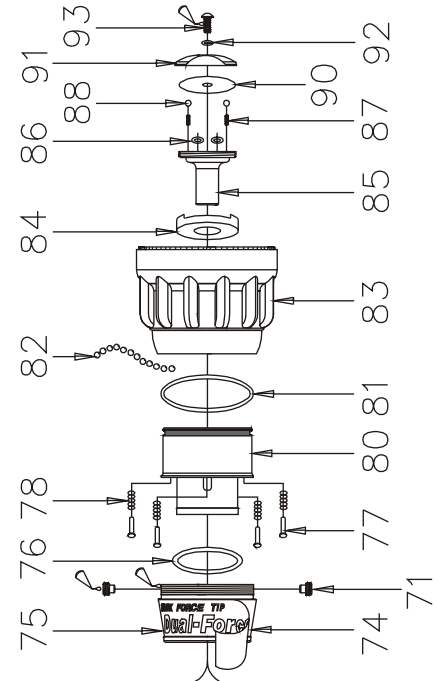
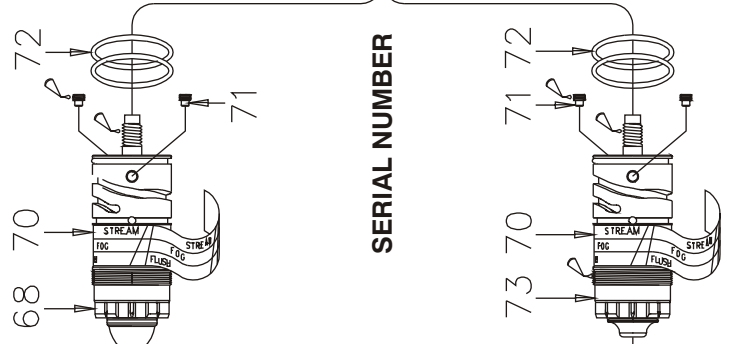
**STUFFED SNAP-IN  
VALVE BODY**



**STUFFED H601  
VALVE BODY**



## SERIAL NUMBER



## FRONT END