

# Service



**NOTE:** Follow the Service Notes in Figs. 8 and 9 when reassembling the gun.

**NOTE:** Gun repair kits are available. See page 18. Reference numbers marked with an asterisk (\*) in the service procedures are included with the 288171 Air Seal Repair Kit. Reference numbers marked with a symbol (†) in the service procedures are included with the 288137 Fluid Repair Kit.

## Disassembly

1. Follow **Pressure Relief Procedure**, page 12.
2. Unscrew the four screws (14) and remove the gun from the manifold.
3. Unscrew the tip retainer nut (7). Remove the spray tip (9) and gasket (8). See Figs. 8 and 9.
4. Remove the cap (18) from the piston housing (1). Remove the springs (20 and 19).
5. Using the supplied wrench (34), loosen the fluid needle setscrew (16). Remove the needle stop (17).
6. Remove the seat (10, 41).

### NOTICE

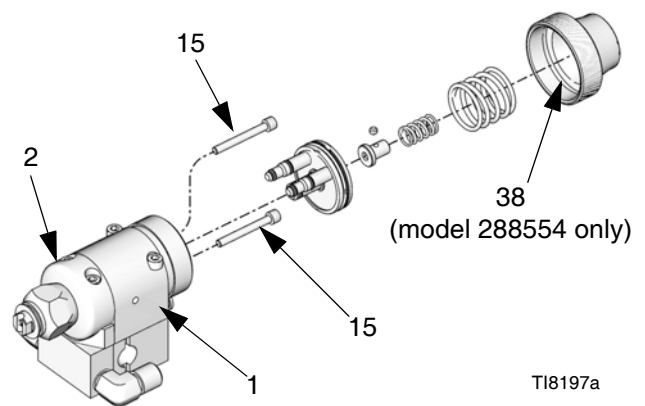
Be sure to keep the needle straight when removing it from the gun. If the needle is bent it must be replaced.

7. Pull the needle assembly (12) straight out the front of the gun. Remove the o-rings (31) from the fluid needle (12).
8. Remove the gasket (11).

### NOTICE

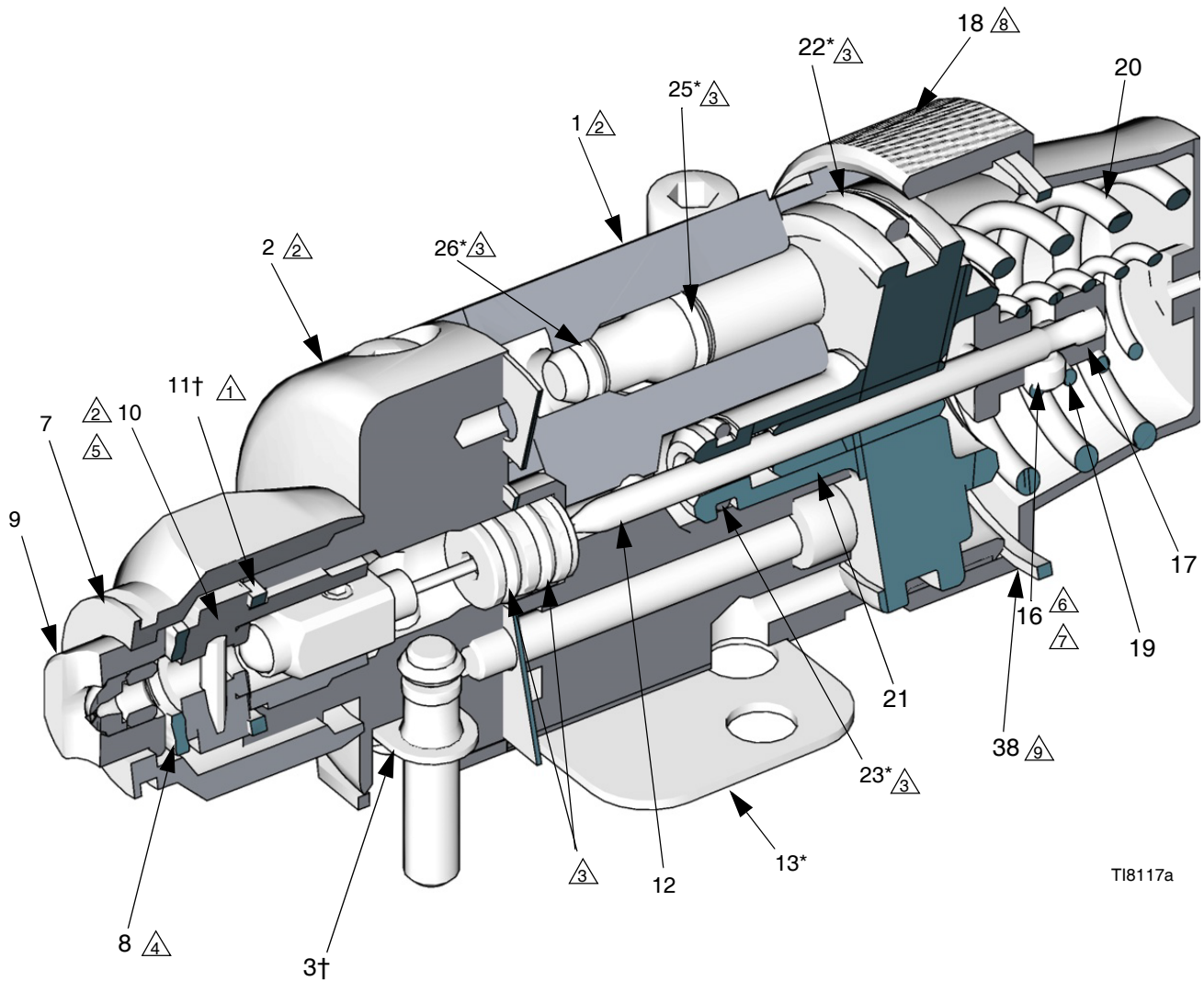
Install a new gasket (11) whenever you remove the seat (10, 41) from the gun. Failure to install a new gasket may result in fluid leaking into the air chamber.

9. Remove the piston. Using a pliers, pull the piston (21) out of the piston housing (1).
10. If necessary, unscrew the two screws (15) holding the fluid housing (2) to the piston housing (1). If worn, remove the gasket (13) from the bottom of the piston housing.



**Fig. 10**

11. Remove the large o-ring (22) from the piston and the smaller o-ring (23) from the piston shaft. Remove the two o-rings (25, 26) from each of the piston stems. Check that the stems are solidly in place. If they are loose, replace the entire piston assembly (21).
12. Perform the following applicable step:
  - *Non-circulating Paint Guns:* Remove the fluid outlet port plug (4) and gasket (3) from the fluid housing (2). Remove the o-ring (5) and backup (6) from the plug.
  - *Circulating Paint Guns:* Remove the gasket (3) from the fluid housing (2).
  - *Sealant Gun:* Remove the gasket (3).
13. Clean all parts and replace any worn parts. When assembling, lubricate the threads with anti-seize lubricant.



TI8117a

**SERVICE NOTES:**

- △1 Seat gasket (11) must be replaced if seat (10) is removed or replaced to avoid fluid leakage
- △2 Lubricate threads with anti-seize lubricant
- △3 Lubricate with light-weight oil
- △4 Do not lubricate
- △5 Torque to 20-25 ft-lb (27-34 N•m)
- △6 Apply semi-permanent anaerobic sealant
- △7 Torque to 6.5-7.5 in-lb (0.73-0.85 N•m)
- △8 Tighten cap (18) until it bottoms out
- △9 Model 288554 only

**FIG. 11**

## Reassembly

1. Perform the following applicable step:
  - *Non-circulating Paint Guns:* Lubricate the backup (6) and o-ring (5) and install them on the fluid outlet port plug (4). Install the plug in the fluid outlet port of the fluid housing (2). See FIG. 11. Reinstall the gasket (3).
  - *Circulating Paint Guns:* Reinstall the gasket (3) in the fluid housing (2).
  - *Sealant Gun:* Reinstall gasket (3).
2. Install the o-rings (22\*, 23\*) on the piston (21). Install two o-rings (25\*, 26\*) on each of the piston stems. Lubricate all the o-rings, the piston, and the piston stems.
3. Install the fluid housing (2) on the piston housing (1) with the gasket in place.
4. Reinstall the two screws (15) to secure the piston housing to the fluid housing (2). Torque to 30 in-lb (3.4 N•m).
5. Insert the piston (21) into the piston housing (1).
6. Remove the protective paper from the sticky side of the gasket (13\*) and adhere the gasket to the bottom of the piston housing (1), making sure the three holes in the gasket are properly aligned with the matching holes in the housing.

### NOTICE

Install a new gasket (11) whenever you remove the seat (10, 41) from the gun. Failure to install a new gasket may result in fluid leaking into the air chamber.

7. Install the o-rings (31) on the fluid needle assembly (12). Lubricate with light weight oil.

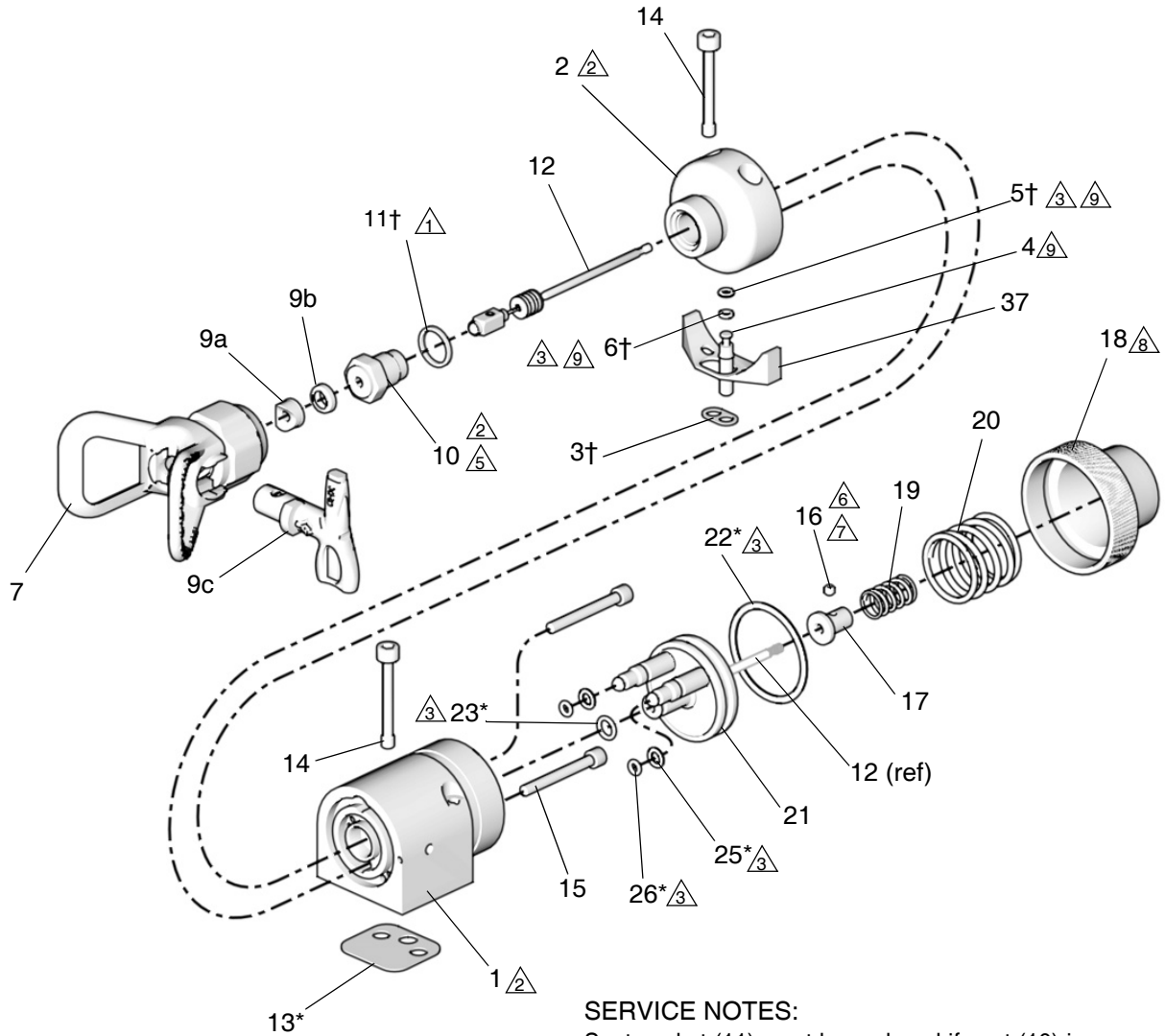
### NOTICE

Be sure to keep the needle straight when installing it in the piston housing. If the needle is bent it must be replaced.

8. Insert the needle assembly (12) into the front of the fluid housing (2). Push it straight back through the piston.
9. Install a new gasket (11) in the fluid housing (2).
10. Lubricate the threads of the seat (10, 41). Screw it into the fluid housing (2) and torque to 20-25 ft-lb (27-34 N•m).
11. Install the needle stop (17) on the needle. Coat the setscrew (16) with semi-permanent anaerobic sealant and install the screw into the needle stop. Torque to 6.5-7.5 in-lb (0.73-0.85 N•m). Pull on the needle to make sure it seats fully.
12. Install the springs (19, 20).
13. Lubricate the threads of the piston housing (1). Screw the cap (18) onto the housing until it bottoms out.
14. *Model 288554 only:* Hand tighten cap (18) until it engages gasket (38). Then tighten cap a half turn more to ensure cap will not loosen during operation.
15. Do not lubricate the gasket (8). Install the spray tip (9) and gasket (8) in the tip retainer nut (7). Screw the assembly firmly onto the gun. Tighten the assembly with a wrench, but do not exceed 5 ft-lb (6.8 N•m) for model 233670 gun.
16. Reinstall the gun on the manifold with the four screws (14). Torque to 65 in-lb (7.3 N•m).

# Parts

## Model 26C624



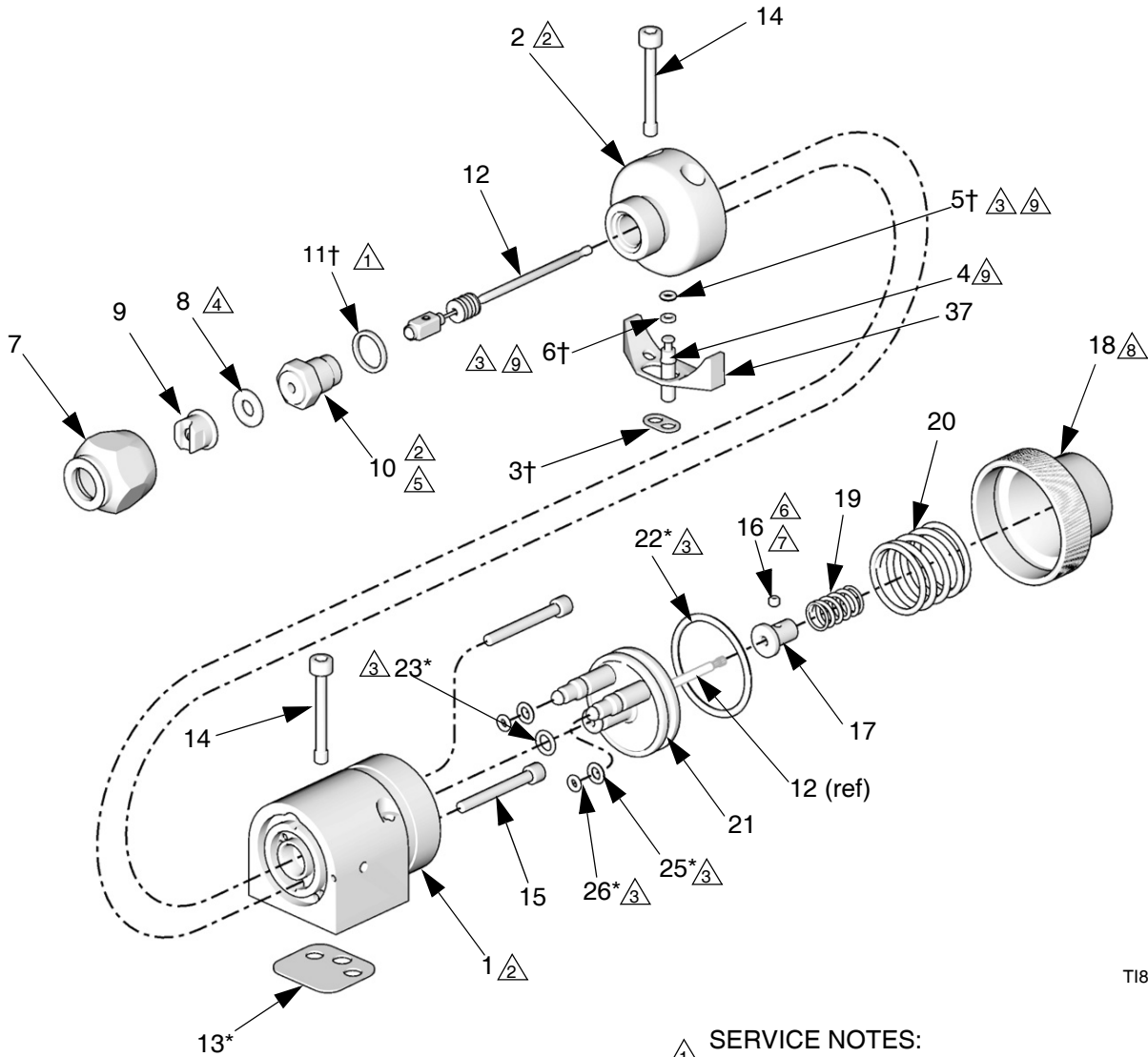
**SERVICE NOTES:**

- ① Seat gasket (11) must be replaced if seat (10) is removed or replaced to avoid fluid leakage
- ② Lubricate threads with anti-seize lubricant
- ③ Lubricate with light-weight oil
- ④ Do not lubricate
- ⑤ Torque to 20-25 ft-lb (27-34 N•m)
- ⑥ Apply semi-permanent anaerobic sealant
- ⑦ Torque to 6.5-7.5 in-lb (0.73-0.85 N•m)
- ⑧ Tighten cap (18) until it bottoms out
- ⑨ Used on non-circulating guns only

## Parts List

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	-----	BODY	1	19✓	114138	SPRING, compression	1
2	-----	HOUSING, fluid	1	20✓	114139	SPRING, compression	1
3†★	288200	GASKET, fluid, acetal homopolymer, pack of 10	2	21	240895	PISTON, assy	1
4	192687	PLUG, fluid, internal, SST	1	22*	115066	PACKING, o-ring, fluoroelastomer	1
5†	114244	PACKING, o-ring, fluoroelastomer	1	23*	111450	PACKING, o-ring, fluoroelastomer	1
6†	114340	RING, back-up, PTFE	1	25*	112319	PACKING, o-ring, fluoroelastomer	2
7	XHD001	GUARD, RAC tip	1	26*	111504	PACKING, o-ring, fluoroelastomer	2
9	XHDxxx	TIP, RAC switch (see <b>XHD RAC Switch Tip Selection Charts</b> , page 29)	1	34	114141	WRENCH, hex (not shown)	1
9a‡	-----	SEAL, fluid	1	---	▲222385	MEDICAL alert card (not shown)	1
9b‡	-----	GASKET	1	▲ Replacement safety labels, tags, and cards are available at no cost.			
9c	-----	TIP, spray, XHD RAC	1	* Parts included in Air Seal Repair Kit 288171 (purchase separately). The kit includes some parts that are not used on this gun.			
10✓	288196	DIFFUSER, seat, 3/16 in. ball	1	† Parts included in Fluid Seal Repair Kit 239896 (purchase separately).			
11†	189970	GASKET, diffuser/valve	1	✓ Keep these spare parts on hand to reduce down time.			
12✓	24B916	NEEDLE, cartridge, assy.	1	★ Not assembled. Install when the gun is mounted to the manifold blocks. See page 27. An extra gasket (3) is included as a spare.			
13*	114134	GASKET, polyethylene, bottom	1	‡ Included in OneSeal™ Repair Kit XHD010 (5 each per package). Purchase separately.			
14	15H317	SCREW, mounting manifold (M5)	4				
15	15H318	SCREW, SHCS	2				
16	114137	SCREW, set, 6-32, 1/8 in. long	1				
17	192452	STOP, needle, SST	1				
18	192453	CAP, piston	1				

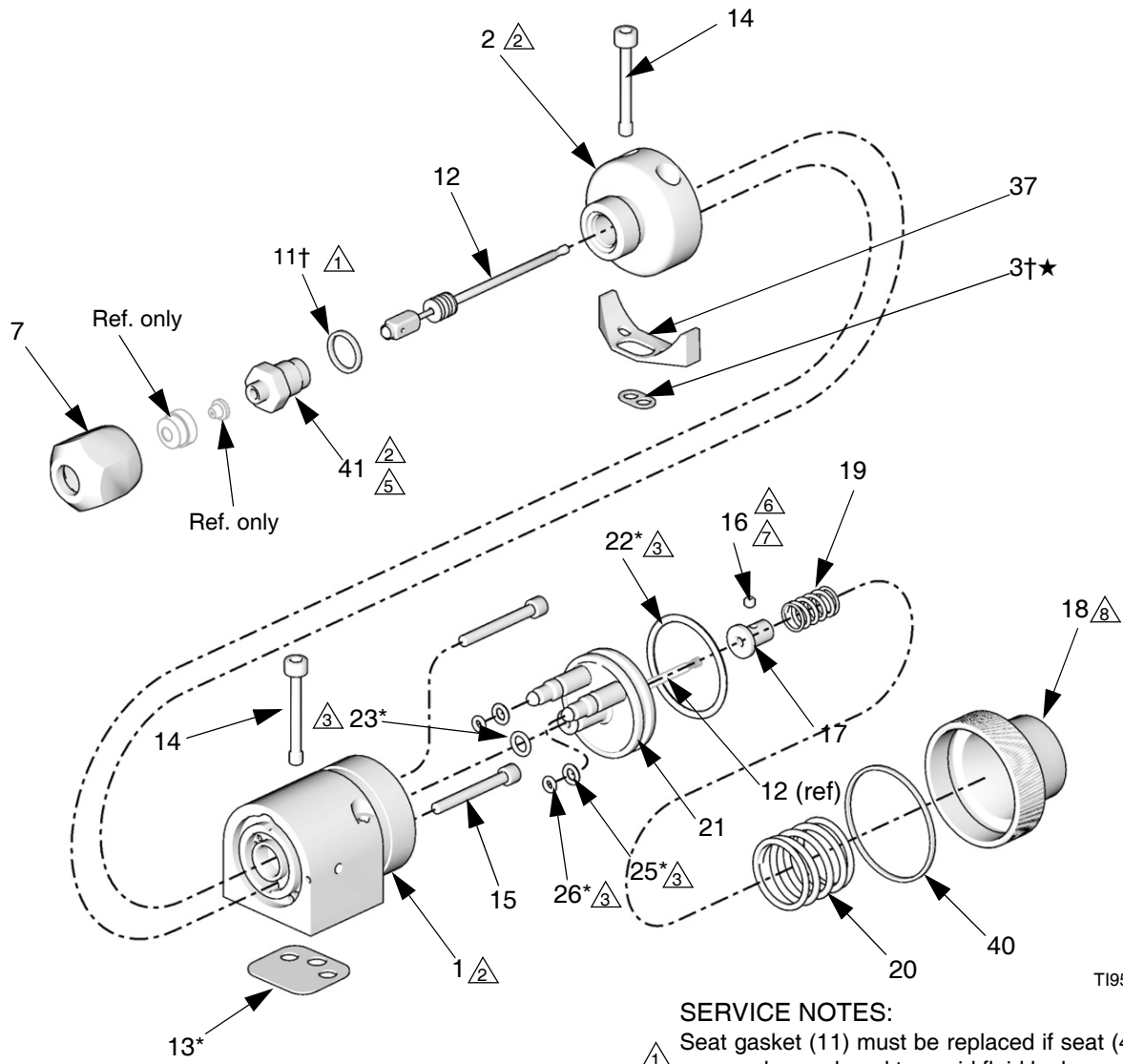
# Model 288048



T18090a

- △1 SERVICE NOTES:**
- △1 Seat gasket (11) must be replaced if seat (10) is removed or replaced to avoid fluid leakage
  - △2 Lubricate threads with anti-seize lubricant
  - △3 Lubricate with light-weight oil
  - △4 Do not lubricate
  - △5 Torque to 20-25 ft-lb (27-34 N•m)
  - △6 Apply semi-permanent anaerobic sealant
  - △7 Torque to 6.5-7.5 in-lb (0.73-0.85 N•m)
  - △8 Tighten cap (18) until it bottoms out
- Used on non-circulating guns only

# Model 288554



T19523a

**SERVICE NOTES:**

- △1 Seat gasket (11) must be replaced if seat (41) is removed or replaced to avoid fluid leakage
- △2 Lubricate threads with anti-seize lubricant
- △3 Lubricate with light-weight oil
- △4 Do not lubricate
- △5 Torque to 20-25 ft-lb (27-34 N•m)
- △6 Apply semi-permanent anaerobic sealant
- △7 Torque to 6.5-7.5 in-lb (0.73-0.85 N•m)
- △8 Tighten cap (18) until it bottoms out
- △9 Used on non-circulating guns only

## Parts

Ref.	Part	Description	Qty.	Ref.	Part	Description	Qty.
1	-----	BODY	1	19✓		SPRING, compression	1
2	-----	HOUSING, fluid	1		❖ 114138		
3†★	288200	GASKET, fluid, acetal homopolymer, pack of 10	2		◆ 120696		
4❖	192687	PLUG, fluid, internal, SST	1	20✓	114139	SPRING, compression	1
5†❖	114244	PACKING, o-ring, fluoroelastomer	1	21	240895	PISTON, assy	1
6†❖	114340	RING, back-up, PTFE	1	22*	115066	PACKING, o-ring, fluoroelastomer	1
7		NUT, retainer	1	23*	111450	PACKING, o-ring, fluoroelastomer	1
	❖ 171602			25*	112319	PACKING, o-ring, fluoroelastomer	2
	◆ 198391			26*	111504	PACKING, o-ring, fluoroelastomer	2
8	166969	GASKET, non-metallic	1	34	114141	WRENCH, hex (not shown)	1
9✓❖	GG0xxx	TIP (see <b>GG0 Series Tip Selection Charts</b> , page 28)	1	37	15H702	INSERT, plastic	1
10✓❖	288196	DIFFUSER, seat, 3/16 in. ball	1	40◆	15K097	GASKET, piston cap	1
11†	189970	GASKET, diffuser/valve	1	41◆	233671	SEAT, airless	1
12✓		NEEDLE, cartridge, assy.	1	---	▲222385	MEDICAL alert card (not shown)	1
	❖ 24B916						
	◆ 253886						
13*	114134	GASKET, polyethylene, bottom	1				
14	15H317	SCREW, mounting manifold (M5)	4				
15	15H318	SCREW, SHCS	2				
16	114137	SCREW, set, 6-32, 1/8 in. long	1				
17	192452	STOP, needle, SST	1				
18	192453	CAP, piston	1				

▲ Replacement safety labels, tags, and cards are available at no cost.

\* Parts included in Air Seal Repair Kit 288171 (purchase separately). The kit includes some parts that are not used on this gun.

† Parts included in Fluid Seal Repair Kit 239896 (purchase separately).

✓ Keep these spare parts on hand to reduce down time.

❖ Model 288048 only.

◆ Model 288554 only.

★ Not assembled. Install when the gun is mounted to the manifold blocks. See page 27. An extra gasket (3) is included as a spare.



**Part No. 241161**

North America Manifold (NPT fittings)

**Part No. 241162**

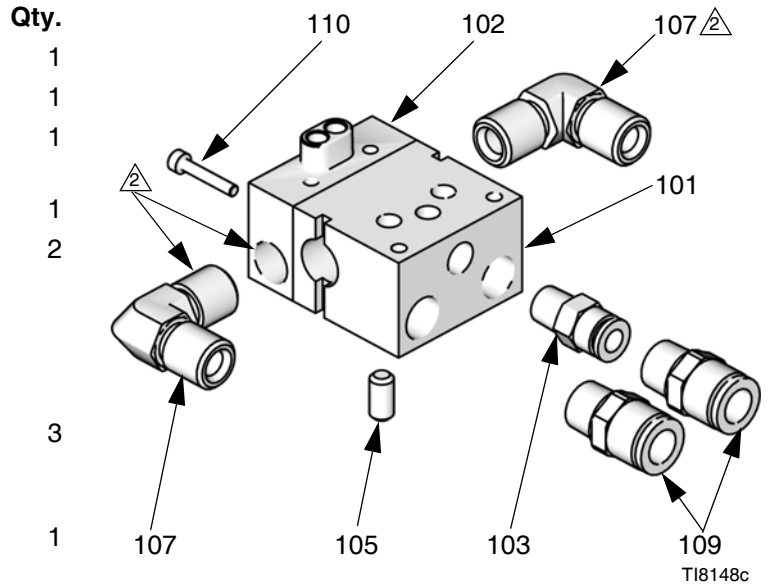
International Manifold (JIC fittings)

Ref.	Part No.	Description
101	192441	MANIFOLD, air
102	192442	MANIFOLD, fluid
103	120388	FITTING, tube, air inlet; 1/4 in. OD tube x 1/8 npt(m)
105	114246	SCREW, set; 5/16;0.437 in. long
107	114342	ELBOW, fluid, male; 1/4 nptf(mbe); SST
	114247	ELBOW, fluid, male; #5 JIC x 1/4 - 18 npt
109	101970	PLUG, pipe, SST; 1/4-18 ptf, supplied to plug fluid outlet port in non-circulating applications
110	120453	SCREW, M3 x 18

❖ Part No. 241161 only.

◆ Part No. 241162 only.

⚠ Apply anti-seize lubricant (222955) to threads and mating faces of manifold and any fittings and/or plugs used in fluid ports.

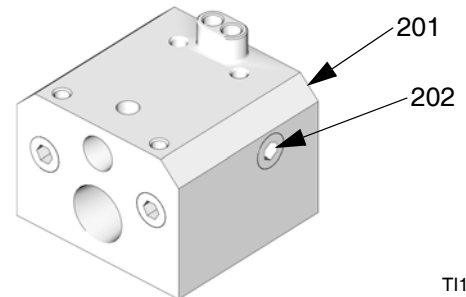


**FIG. 12: North America and International Manifold**

**Part No. 244930**

High Flow Ambient or Temperature Conditioned Manifold for streaming or spraying.

Ref.	Part No.	Description	Qty.
201	198325	MANIFOLD, aluminum	1
202	110208	PLUG, 1/8 npt, SST	3



**FIG. 13: Part No. 244930**

# GG0 Series Tip Selection Charts

## GG0 Series Spray Tips

Orifice Size in. (mm)	* Fluid Output oz/min (lpm) at 600 psi (4.1 MPa, 41 bar)	Maximum Pattern Width at 12 in. (300 mm)								
		2 to 2.5 (50)	4 to 4.5 (100)	6 to 6.5 (150)	8 to 8.5 (200)	10 to 10.5 (250)	12 to 13 (300)	14 to 15 (350)	16 to 17 (400)	18 to 19 (450)
0.007 (0.178)	.053 (0.20)	107		307						
0.009 (0.229)	.087 (0.33)	109	209	309						
0.011 (0.279)	0.13 (0.49)	111	211	311	411	511	611			
0.013 (0.330)	0.18 (0.69)		213	313	413	513	613	713		
0.015 (0.381)	0.24 (0.91)	115	215	315	415	515	615	715	815	
0.017 (0.432)	0.31 (1.17)	117	217	317	417	517	617	717	817	917
0.019 (0.483)	0.39 (1.47)		219	319	419	519	619	719	819	
0.021 (0.533)	0.47 (1.79)		221	321	421	521	621	721	821	921
0.023 (0.584)	0.57 (2.15)			323	423	523	623	723	823	923
0.025 (0.635)	0.67 (2.54)			325	425	525	625	725	825	925
0.027 (0.686)	0.78 (2.96)			327	427	527	627	727	827	927
0.029 (0.737)	0.90 (3.42)				429	529	629	729		
0.031 (0.787)	1.03 (3.90)			331	431	531	631	731		931
0.033 (0.838)	1.17 (4.42)				433	533	633	733		
0.035 (0.889)	1.31 (4.98)			335	435	535	635	735		
0.037 (0.940)	1.47 (5.56)							737		
0.039 (0.991)	1.63 (6.18)					539	639			
0.041 (1.041)	1.80 (6.83)					541			841	
0.043 (1.092)	1.99 (7.51)					543	643			
0.045 (1.143)	2.17 (8.23)					545				
0.047 (1.197)	2.37 (8.98)					547		749		
0.049 (1.245)	2.58 (9.76)					553				
0.053 (1.35)	3.02 (11.4)						655			
0.055 (1.40)	3.25 (12.3)									

# XHD RAC Switch Tip Selection Charts

## XHD RAC Switch Tips

		ORIFICE SIZE - INCHES																
		0.007	0.009	0.011	0.013	0.015	0.017	0.019	0.021	0.023	0.025	0.027	0.029	0.031	0.033	0.035	0.037	0.039
Fan Width	2-4 (51-102)	107	109	111	113	115	117	119	121									139
	4-6 (102-152)		209	211	213	215	217	219	221		225	227	229	231		235		239
	6-8 (152-203)	307	309	311	313	315	317	319	321	323	325	327	329	331	333	335	337	339
	8-10 (203-254)		409	411	413	415	417	419	421	423	425	427	429	431	433	435	437	439
	10-12 (254-305)		509	511	513	515	517	519	521	523	525	527	529	531	533	535	537	539
	12-14 (305-356)		609	611	613	615	617	619	621	623	625	627	629	631	633	635	637	639
	14-16 (356-406)			711	713	715	717	719	721	723	725	727	729	731	733	735	737	739
	16-18 (406-457)				813	815	817	819	821	823	825	827	829	831	833	835	837	839
	18-20 (457-508)									923		927		931	933	935	937	939
	Flow Rate (gpm)		0.05	0.09	0.12	0.18	0.24	0.31	0.38	0.47	0.57	0.67	0.74	0.90	1.03	1.17	1.31	1.47
Flow Rate (lpm)		0.20	0.33	0.49	0.69	0.91	1.17	1.47	1.79	2.15	2.54	2.96	3.42	3.90	4.42	4.98	5.56	6.18

		ORIFICE SIZE - INCHES																	
		0.041	0.043	0.045	0.047	0.049	0.051	0.053	0.055	0.057	0.059	0.061	0.063	0.065	0.067	0.069	0.071	0.075	0.081
Fan Width	2-4 (51-102)																		
	4-6 (102-152)																		
	6-8 (152-203)	341	343	345	347		351		355										
	8-10 (203-254)	441	443	445	447	449	451		455		459	461	463	465	467		471	475	481
	10-12 (254-305)	541	543	545	547	549	551	553	555	557		561		565	567		571	575	
	12-14 (305-356)	641	643	645	647	649	651		655	657	659	661	663	665	667	669	671	675	
	14-16 (356-406)	741	743		747	749	751	753	755			761			767		771		
	16-18 (406-457)	841	843		847		851		855			861	863		867				
	18-20 (457-508)																		
	Flow Rate (gpm)		1.8	1.98	2.17	2.37	2.58	2.79	4.26	3.25	3.49	3.74	4.0	4.26	4.53	4.82	5.11	5.41	6.04
Flow Rate (lpm)		6.83	7.51	8.23	8.98	9.76	10.57	16.13	12.29	13.20	14.14	15.12	16.13	17.17	18.24	19.34	20.48	22.85	26.66

# Sealer Application Tip and Air Cap Selection Charts

## Shower Tip

Number of Orifices	Orifice Size <i>in. (mm)</i>	Part
6	0.021 (0.533)	C08224

## Streaming Tips

Orifice Size <i>in. (mm)</i>	Part	Orifice Size <i>in. (mm)</i>	Part
0.025 (0.635)	270025	0.039 (0.991)	270037
0.027 (0.686)	270027	0.041 (1.041)	270039
0.029 (0.736)	270029	0.043 (1.092)	270041
0.031 (0.787)	270031	0.045 (1.143)	270043
0.035 (0.889)	270035	0.057 (1.448)	270059

## Single Orifice Fan Pattern Spray Tips

Orifice Size <i>in. (mm)</i>	Fan Width at 12 in. (300 mm) <i>in. (mm)</i>	Part
0.021 (0.533)	8-10 (200-250)	182421
	10-12 (250-300)	182521
	12-14 (300-350)	182621
	14-16 (350-400)	182721
	16-18 (400-460)	182821
0.023 (0.527)	8-10 (200-250)	182423
	10-12 (250-300)	182523
	12-14 (300-350)	182623
	14-16 (350-400)	182723
	16-18 (400-460)	182823
0.025 (0.635)	8-10 (200-250)	182425
	10-12 (250-300)	182525
	12-14 (300-350)	182625
	14-16 (350-400)	182725
	16-18 (400-460)	182825
0.027 (0.686)	8-10(200-250)	182427
	12-14 (300-350)	182627

Orifice Size <i>in. (mm)</i>	Fan Width at 12 in. (300 mm) <i>in. (mm)</i>	Part
0.029 (0.736)	8-10 (200-250)	182429
	12-14 (300-350)	182629
	16-18 (400-460)	182726
0.031 (0.787)	8-10 (200-250)	182431
	12-14 (300-350)	182631
	16-18 (400-460)	182831
0.035 (0.889)	8-10 (200-250)	182435
	10-12(250-300)	182535
	12-14 (300-350)	182635
0.039 (0.991)	8-10 (200-250)	182439
	10-12(250-300)	182539
	12-14 (300-350)	182639
0.043 (1.041)	8-10 (200-250)	182443
	10-12(250-300)	182543
	12-14 (300-350)	182643
	18-20 (450-500)	182643
0.047 (1.194)	18-20 (450-500)	182947

## Accessories

### Gun Manifolds

Order separately; not included with gun.  
(See **Parts**, page 26.)

**Part No. 241161**

North America Manifold

**Part No. 241162**

International Manifold

**Part No. 244930**

High Flow Ambient or Temperature Conditioned  
Manifold for streaming or spraying.

### Grounding Clamp and Wire 222011

### High Pressure Ball Valves, Fluoroelastomer Seals

5000 psi (34 MPa, 345 bar) Maximum Working Pressure  
Can be used as fluid drain valve.

Part	Description
210657	1/2 npt(m)
210658	3/8 npt(m)
210659	3/8 x1/4 npt(m)

### Bleed-type Master Air Valve

250 psi (1.7 MPa, 17 bar) Maximum Working Pressure  
Relieves air trapped in the air line between the pump air  
inlet and this valve when closed.

Part	Description
107141	3/4 npt(m x f) inlet and outlet
107142	1/2 npt(m x f) inlet and outlet

### Gasket Filter

Gasket filter 288201, package of 10. Small filter can be  
installed in the inlet gasket (3) for added filtration.

### Tube Fittings for Air or Water

250 psi (1.7 MPa, 17 bar) Maximum Working Pressure  
160° F (71° C) temperature rating

Part	Length
104172	1/8 npt(m) x 1/4 OD tube
597151	1/8 npt(m) x 1/4 OD tube, 90° elbow (swivel)

### Filter Kit

Consists of just the filter element  
Filter 60 mesh, qty. 25 - 238564  
Filter 60 mesh, qty. 3 - 238563  
Filter 100 mesh, qty. 25 - 238562  
Filter 100 mesh, qty. 3 - 238561

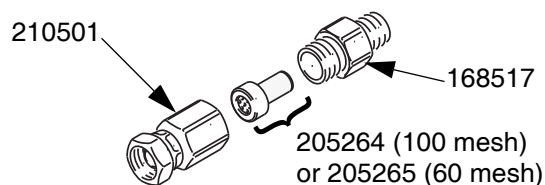
### Brush 101892

For cleaning the gun.

### In-line Fluid Filter

6150 psi (42.4 MPa, 424 bar) Maximum Working  
Pressure Fits onto the gun fluid connector. 1/4-18 npsm

Part	Description
210500	100 mesh. Includes the parts shown below. Consists of filter element 205264.
26C633	60 mesh. Consists of filter element 205265.



### Needle/Diffuser Options

Needles must be used only with the specified seat to  
guarantee proper seating and life.

- Standard viscosity/standard flow
  - Fluid Needle 24B916, 3/16 in. carbide ball
  - Seat 288196
- Acid catalyzed materials/very low viscosity materials
  - Fluid Needle 241468, 3/16 in. plastic ball
  - Seat 288196

### Temperature Sensor and Cable

For temperature conditioned manifold

Part	Length
198457	RTD Sensor, 100 ohm, 1/8 npt(m) with 3 pin Picofast connector
198458	RTD cable, 6 ft. (1.83 m) Flex cable to St. Clair connector

### XHD RAC Guard, SST XHD003