

# Color and Catalyst Change Valve Stacks

312783E

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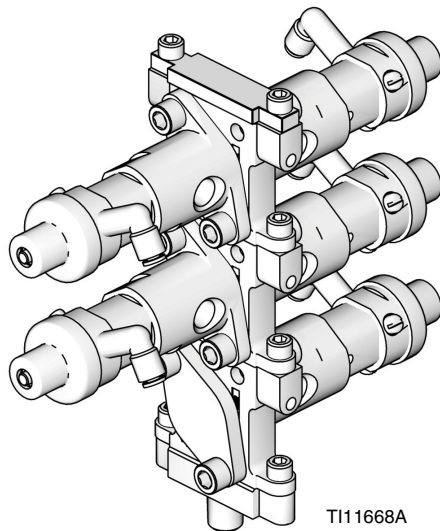
For color/catalyst changing or distribution of industrial paints and coatings or fluids.



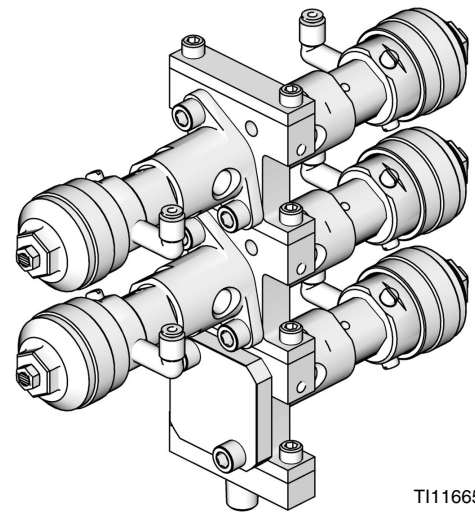
### Important Safety Instructions

Read all warnings and instructions in this manual.  
For complete warnings and instructions see your  
proportioning system manual. Hazard symbols refer  
to specific procedure risks. Save all instructions.

See pages 3 and 4 for model information, including maximum working pressure.



Low Pressure Valve Stack 15V813



High Pressure Valve Stack 15V817

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# Related Manuals

See the following manuals for additional information on the color and catalyst change valve stacks.

Manual	Description
312775	ProMix 2KS Manual System Installation
312776	ProMix 2KS Manual System Operation
312777	ProMix 2KS Manual System Repair-Parts
312778	ProMix 2KS Automatic System Installation
312779	ProMix 2KS Automatic System Operation
312780	ProMix 2KS Automatic System Repair-Parts
312782	Dispense Valve
312787	Color Change Module Kit

# Models

## Low Pressure Valve Stacks

300 psi (2.1 MPa, 21 bar) Maximum Fluid Working Pressure

Valve Stack Part No.	Series	Valve Stack Description	Valve Part No.	Valve Quantity◆
256994	A	1 color	15X304	2
15V812		2 color/catalyst change		3
256290		3 color/catalyst change		4
15V813		4 color/catalyst change		5
256292		5 color/catalyst change		6
256293		6 color/catalyst change		7
15V814		7 color/catalyst change		8
256295		8 color/catalyst change		9
256296		9 color/catalyst change		10
256297		10 color/catalyst change		11
256298		11 color/catalyst change		12
15V815		12 color/catalyst change		13
256300		13 color/catalyst change		14
256301		14 color/catalyst change		15
256302		15 color/catalyst change		16
256303		16 color/catalyst change		17
256304		17 color/catalyst change		18
256305		18 color/catalyst change		19
256306		19 color/catalyst change		20
256307		20 color/catalyst change		21
256308		21 color/catalyst change		22
256309		22 color/catalyst change		23
256310		23 color/catalyst change		24
256311		24 color/catalyst change		25
256312		25 color/catalyst change		26
256313		26 color/catalyst change		27
256314		27 color/catalyst change		28
256315		28 color/catalyst change		29
256316		29 color/catalyst change		30
256372		30 color/catalyst change		31

◆ Each stack includes one additional valve for solvent.

## High Pressure Valve Stacks

3000 psi (21 MPa, 210 bar) Maximum Fluid Working Pressure

Valve Stack Part No.	Series	Valve Stack Description	Valve Part No.	Valve Quantity◆
256995	A	1 color	15X303	2
15V816		2 color/catalyst change		3
256339		3 color/catalyst change		4
15V817		4 color/catalyst change		5
256341		5 color/catalyst change		6
256342		6 color/catalyst change		7
256343		7 color/catalyst change		8
256344		8 color/catalyst change		9
256345		9 color/catalyst change		10
256346		10 color/catalyst change		11
256347		11 color/catalyst change		12
256348		12 color/catalyst change		13
256349		13 color/catalyst change		14
256350		14 color/catalyst change		15
256351		15 color/catalyst change		16
256352		16 color/catalyst change		17
256353		17 color/catalyst change		18
256354		18 color/catalyst change		19
256355		19 color/catalyst change		20
256356		20 color/catalyst change		21
256357		21 color/catalyst change		22
256358		22 color/catalyst change		23
256359		23 color/catalyst change		24
256360		24 color/catalyst change		25
256361		25 color/catalyst change		26
256362		26 color/catalyst change		27
256363		27 color/catalyst change		28
256364		28 color/catalyst change		29
256365		29 color/catalyst change		30
256371		30 color/catalyst change		31

◆ Each stack includes one additional valve for solvent.

# Installation

1. Connect 5/32 in. (4 mm) OD air actuation tubes from the valve solenoids to the air inlets (A) of each valve. See FIG. 1.

**NOTE:** The high pressure color change valve uses a spring-operated valve closure vent (20) which does not require a second air actuation line. If you are installing a bare valve, remove the elbow fitting from the top port and install the breather vent. Replace the spring with the one marked with black stain. Both the breather and the marked spring are shipped loose.

2. Connect fluid supply lines to the 1/4 npt(f) inlet (B) of each valve adapter. Supply solvent to one valve (S) at the top of the stack.

**NOTE:** Excessive inlet fitting torque may cause the fitting to extend past its normal depth and contact the valve needle, resulting in misalignment and leakage. After installing the inlet fitting, verify that the needle travels freely by charging the valve with air or removing the cap and manually actuating the needle.

**NOTE: Paint Circulating System**

The color change valves have two fluid ports for each individual valve. If you are circulating paint, plumb the valves in one port and out the other. Another option is to use a tee fitting to circulate.

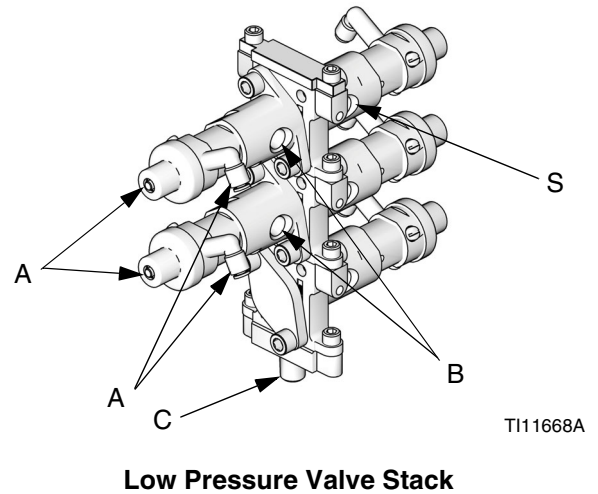
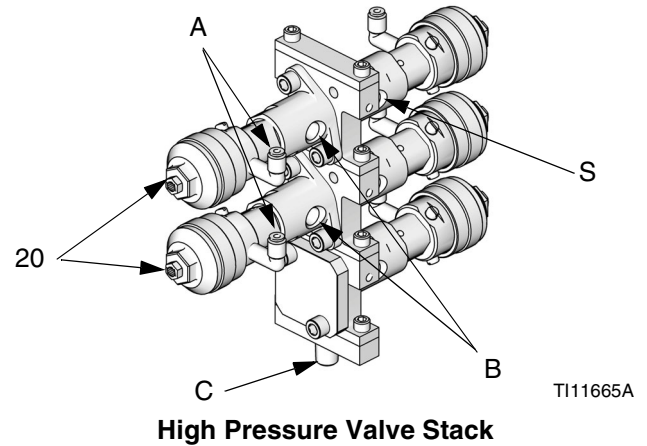
**NOTE:** Verify that all unused fluid ports on the color change valve stack are plugged before operation. An open port will leak fluid.

3. Connect the gun fluid supply line to the fluid outlet port (C) of the color change manifold.

**NOTE:** A check valve is recommended at the inlet of all valves to prevent backflow if a valve fails, and to prevent color crossover if two dead head valves are open at the same time.

**NOTE:** High pressure valves are factory-set at one turn open from fully closed. This setting provides the required spring force to prevent fluid back flow from the outlet manifold to the valve at outlet manifold pressures up to 3000 psi (21 MPa, 210 bar). If valves on the stack are not being used, close the valve completely or plug the valve inlet and circulation ports.

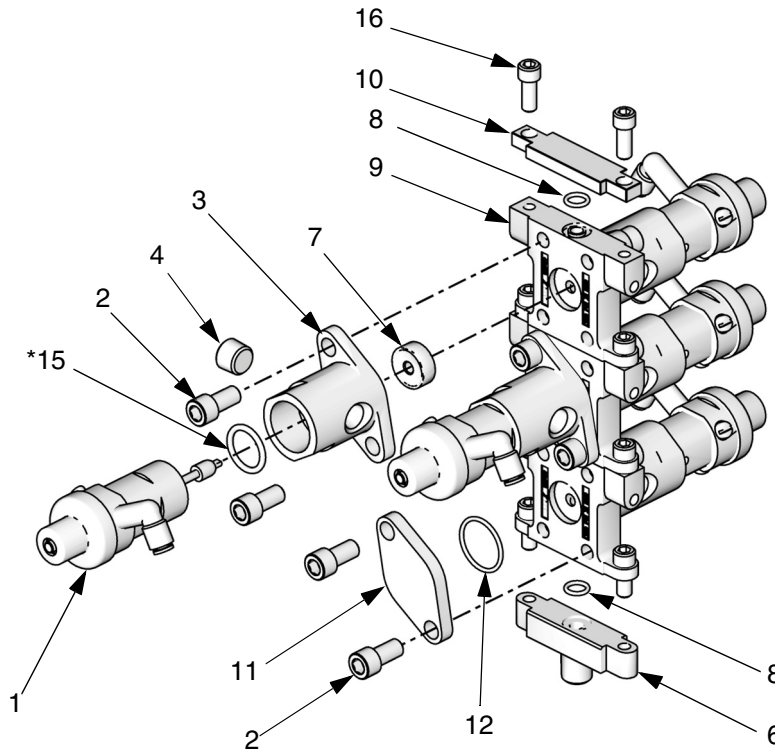
If a valve is adjusted more than 1-1/4 turn open, back flow pressure will be reduced.



**FIG. 1. Valve Stack Connections**

# Parts

## Low Pressure Color/Catalyst Valve Stacks



T111669A

Ref. No.	Part No.	Description	Qty
1	15X304	VALVE, low pressure; includes item 15; see manual 312782	◆
2	---	SCREW; 5/16-24 x 5/8 in. (16 mm)	◆
3	15T436	ADAPTER, manifold	◆
4	101970	PLUG, pipe	◆
6	15T793	MANIFOLD, fluid port	1
7	15T574	SEAT, valve needle	◆
8	110004	O-RING; ptfе	◆
9	15T792	MANIFOLD, body	◆
10	15T794	MANIFOLD, end cap	1
11	15X129	PLUG, housing	◆
12	109450	O-RING; ptfе	◆
15*	---	O-RING; ptfе	◆
16	---	SCREW, cap, socket-head; 1/4-20 x 5/8 in. (16 mm)	◆

◆ See the **Low Pressure Valve Part Quantity Chart** on page 7 to determine the quantity of each part in your valve stack.

\* Part included in Seal Kit 15W621 (purchase separately). Kit includes additional parts; see Dispense Valve manual 312782.

--- These parts are not available separately.

### Technical Data, Low Pressure Stacks

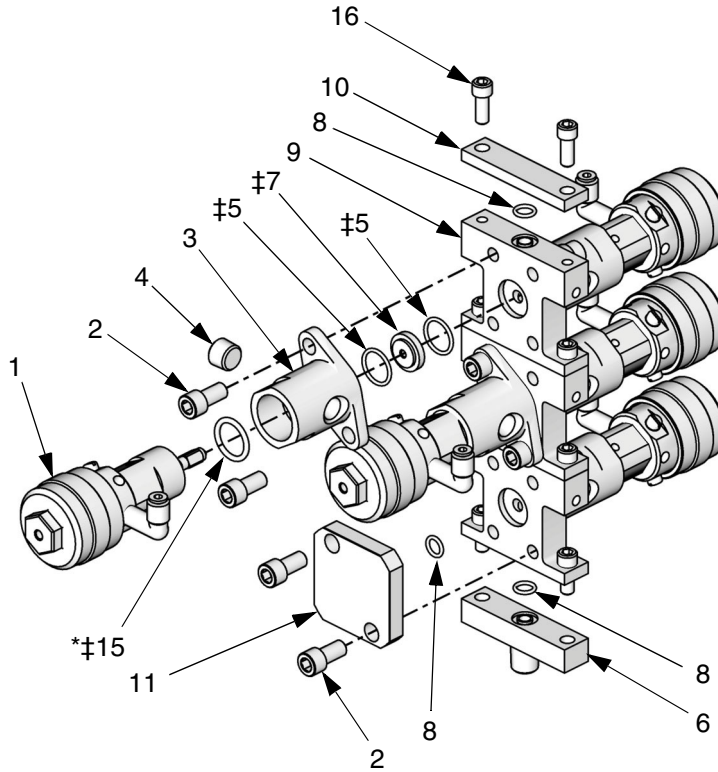
Maximum Fluid Working Pressure	300 psi (2.1 MPa, 21 bar)
Wetted Parts	303 sst, tungsten carbide, ptfе, acetal
Color Change Valves:	see manual 312782
Weight	see page 7

## Low Pressure Valve Part Quantity Chart

Find your Valve Stack Part No. in the left column and the desired reference number in the top row to find the part quantity used in your valve stack.

Valve Stack Part No.	Reference Numbers											Weight lb (kg)
	1	2	3	4	7	8	9	11	12	15	16	
256994	2	4	2	2	2	2	1	0	0	2	4	2.35 (1.07)
15V812	3	8	3	3	3	3	2	1	1	3	6	4.05 (1.84)
256290	4	8	4	4	4	3	2	0	0	4	6	4.70 (2.13)
15V813	5	12	5	5	5	4	3	1	1	5	8	6.40 (2.90)
256292	6	12	6	6	6	4	3	0	0	6	8	7.05 (3.20)
256293	7	16	7	7	7	5	4	1	1	7	10	8.75 (3.97)
15V814	8	16	8	8	8	5	4	0	0	8	10	9.40 (4.26)
256295	9	20	9	9	9	6	5	1	1	9	12	11.10 (5.03)
256296	10	20	10	10	10	6	5	0	0	10	12	11.75 (5.33)
256297	11	24	11	11	11	7	6	1	1	11	14	13.45 (6.10)
256298	12	24	12	12	12	7	6	0	0	12	14	14.10 (6.40)
15V815	13	28	13	13	13	8	7	1	1	13	16	15.80 (7.17)
256300	14	28	14	14	14	8	7	0	0	14	16	16.45 (7.46)
256301	15	32	15	15	15	9	8	1	1	15	18	18.15 (8.23)
256302	16	32	16	16	16	9	8	0	0	16	18	18.80 (8.53)
256303	17	36	17	17	17	10	9	1	1	17	20	20.50 (9.30)
256304	18	36	18	18	18	10	9	0	0	18	20	21.15 (9.59)
256305	19	40	19	19	19	11	10	1	1	19	22	22.85 (10.36)
256306	20	40	20	20	20	11	10	0	0	20	22	23.50 (10.66)
256307	21	44	21	21	21	12	11	1	1	21	24	25.20 (11.43)
256308	22	44	22	22	22	12	11	0	0	22	24	25.85 (11.73)
256309	23	48	23	23	23	13	12	1	1	23	26	27.55 (12.50)
256310	24	48	24	24	24	13	12	0	0	24	26	28.20 (12.80)
256311	25	52	25	25	25	14	13	1	1	25	28	29.90 (13.56)
256312	26	52	26	26	26	14	13	0	0	26	28	30.55 (13.86)
256313	27	56	27	27	27	15	14	1	1	27	30	32.25 (14.63)
256314	28	56	28	28	28	15	14	0	0	28	30	32.90 (14.92)
256315	29	60	29	29	29	16	15	1	1	29	32	34.60 (15.70)
256316	30	60	30	30	30	16	15	0	0	30	32	35.25 (15.99)
256372	31	64	31	31	31	17	16	1	1	31	34	36.95 (16.76)

# High Pressure Color/Catalyst Valve Stacks



ti11666c

Ref. No.	Part No.	Description	Qty
1	15X303	VALVE, high pressure; includes item 15; see manual 312782	◆
2	15T875	SCREW; 5/16-24 x 5/8 in. (16 mm)	◆
3	15T436	ADAPTER, manifold	◆
4	101970	PLUG, pipe	◆
5‡	109450	O-RING; ptfe	◆
6	15T869	MANIFOLD, fluid port	1
7‡	---	SEAT, valve needle; sst	◆
8	110004	O-RING; ptfe	◆
9	15T872	MANIFOLD, body	◆
10	15T871	MANIFOLD, end cap	1
11	15T873	PLATE, blank	◆
15*‡	15Y627	O-RING; ptfe	◆
16	121112	SCREW, cap, socket-head; 1/4-20 x 5/8 in. (16 mm)	◆

◆ See the **High Pressure Valve Part Quantity Chart** on page 9 to determine the quantity of each part in your valve stack.

‡ Parts included in Valve Seat Kit 24A861 (purchase separately). (Optional Carbide Seat Kit 15U932 is available separately.)

\* Part included in Seal Kit 15U933 (purchase separately). Kit includes additional parts; see Dispense Valve manual 312782.

--- These parts are not available separately.

## Technical Data, High Pressure Stacks

Maximum Fluid Working Pressure	3000 psi (21 MPa, 210 bar)
Wetted Parts	303 sst, tungsten carbide, ptfe
Color Change Valves:	see manual 312782
Weight	see page 9



## High Pressure Valve Part Quantity Chart

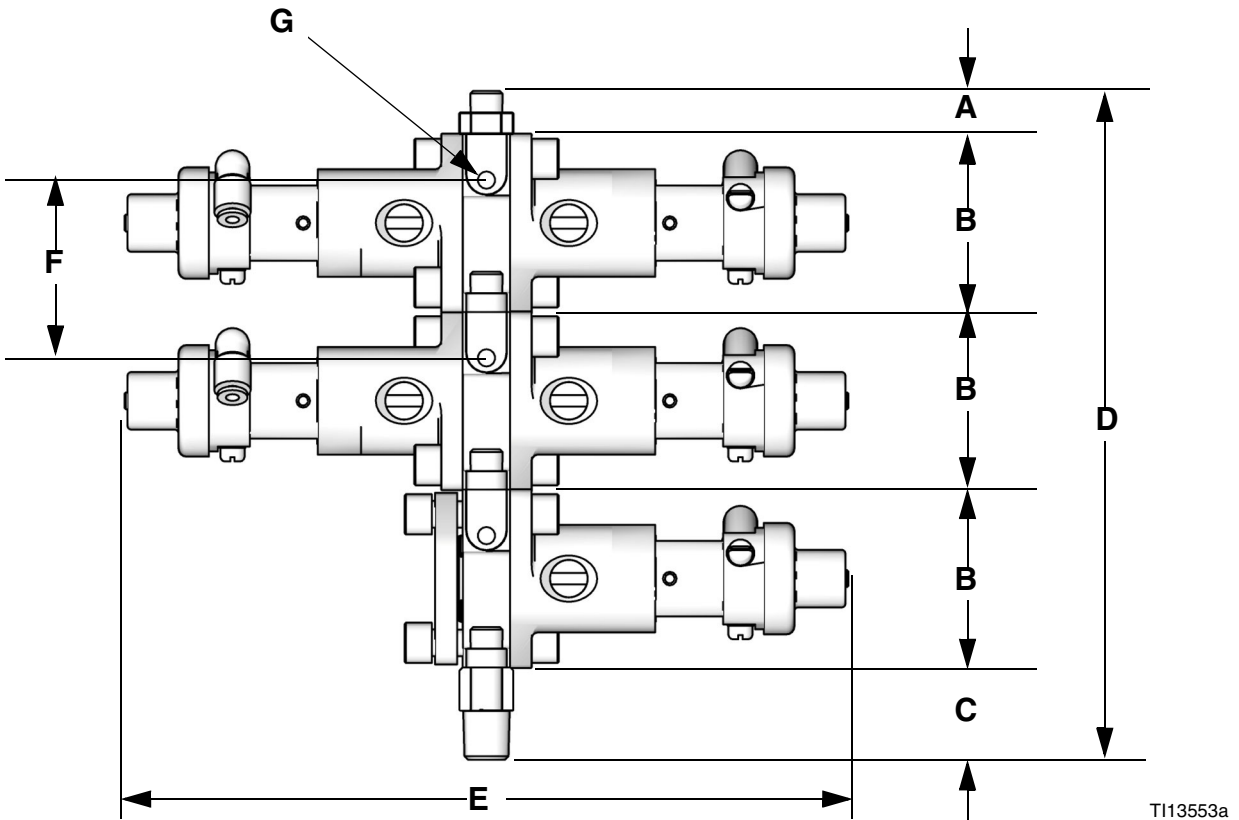
Find your Valve Stack Part No. in the left column and the desired reference number in the top row to find the part quantity used in your valve stack.

Valve Stack Part No.	Reference Numbers												Weight lb (kg)
	1	2	3	4	5	7	8	9	11	15	16	20	
256995	2	4	2	2	4	2	2	1	0	2	4	2	2.60 (1.18)
15V816	3	8	3	3	6	3	4	2	1	3	6	3	5.05 (2.29)
256339	4	8	4	4	8	4	3	2	0	4	6	4	5.20 (2.36)
15V817	5	12	5	5	10	5	5	3	1	5	8	5	7.65 (3.47)
256341	6	12	6	6	12	6	4	3	0	6	8	6	7.80 (3.54)
256342	7	16	7	7	14	7	6	4	1	7	10	7	10.25 (4.65)
256343	8	16	8	8	16	8	5	4	0	8	10	8	10.40 (4.72)
256344	9	20	9	9	18	9	7	5	1	9	12	9	12.85 (5.83)
256345	10	20	10	10	20	10	6	5	0	10	12	10	13.00 (5.90)
256346	11	24	11	11	22	11	8	6	1	11	14	11	15.45 (7.01)
256347	12	24	12	12	24	12	7	6	0	12	14	12	15.60 (7.08)
256348	13	28	13	13	26	13	9	7	1	13	16	13	18.05 (8.19)
256349	14	28	14	14	28	14	8	7	0	14	16	14	18.20 (8.26)
256350	15	32	15	15	30	15	10	8	1	15	18	15	20.65 (9.37)
256351	16	32	16	16	32	16	9	8	0	16	18	16	20.80 (9.43)
256352	17	36	17	17	34	17	11	9	1	17	20	17	23.25 (10.55)
256353	18	36	18	18	36	18	10	9	0	18	20	18	23.40 (10.61)
256354	19	40	19	19	38	19	12	10	1	19	22	19	25.85 (11.73)
256355	20	40	20	20	40	20	11	10	0	20	22	20	26.00 (11.79)
256356	21	44	21	21	42	21	13	11	1	21	24	21	28.45 (12.90)
256357	22	44	22	22	44	22	12	11	0	22	24	22	28.60 (12.97)
256358	23	48	23	23	46	23	14	12	1	23	26	23	31.05 (14.08)
256359	24	48	24	24	48	24	13	12	0	24	26	24	31.20 (14.15)
256360	25	52	25	25	50	25	15	13	1	25	28	25	33.65 (15.26)
256361	26	52	26	26	52	26	14	13	0	26	28	26	33.80 (15.33)
256362	27	56	27	27	54	27	16	14	1	27	30	27	36.25 (16.44)
256363	28	56	28	28	56	28	15	14	0	28	30	28	36.40 (16.51)
256364	29	60	29	29	58	29	17	15	1	29	32	29	38.85 (17.62)
256365	30	60	30	30	60	30	16	15	0	30	32	30	39.00 (17.69)
256371	31	64	31	31	62	31	18	16	1	31	34	31	41.45 (18.80)

# Dimensions

**NOTE:** Mounting bracket 15U927 is available to mount the color valve stack to a ProMix 2KS Fluid Station. See manual 312787 for mounting instructions.

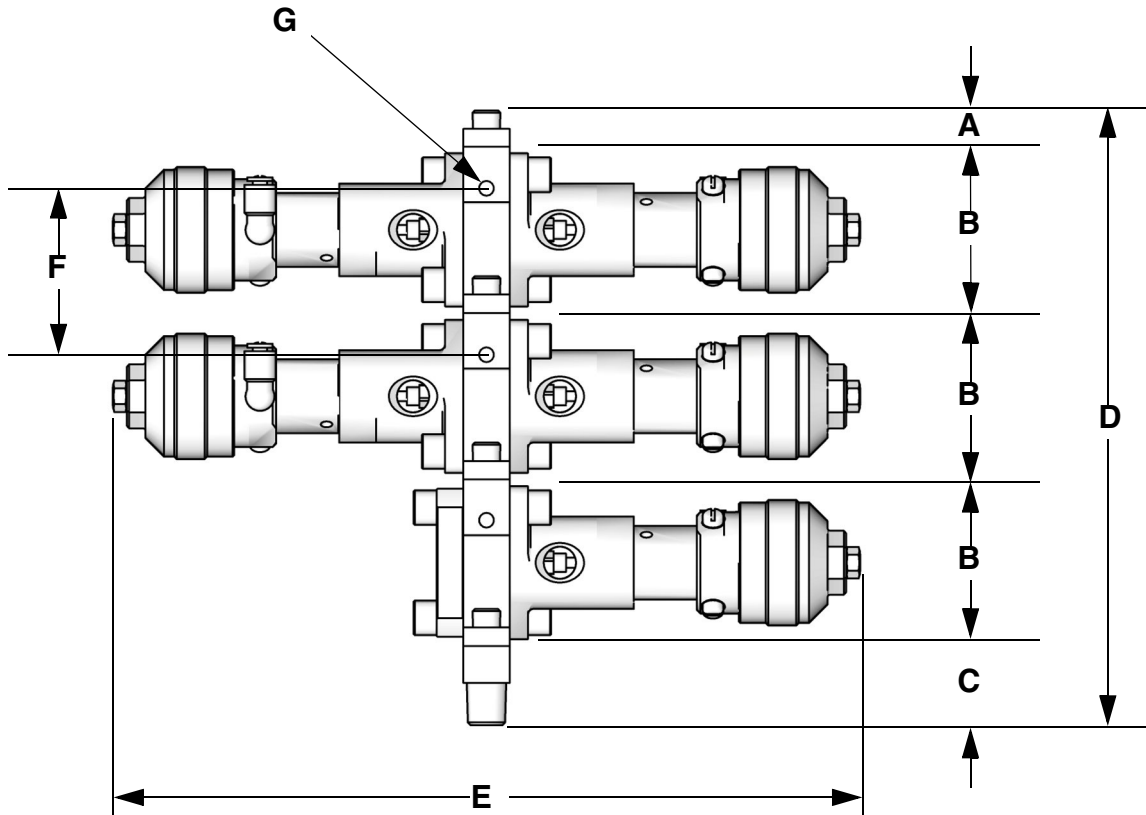
## Low Pressure Valve Stack Dimensions



**FIG. 2. Low Pressure Valve Stack Dimensions**

A (manifold cap and screws)	B (manifold)	C (fluid port)	D (A+total of B+C)	E (width)	F (mounting hole dimension)	G (mounting hole size)
0.5 in. (13 mm)	2.061 in. (52.3 mm)	1.07 in. (27.2 mm)	Example shown with three manifolds: 7.75 in. (197 mm)	8.43 in. (214.1 mm)	2.061 in. (52.3 mm)	1/4-20

# High Pressure Valve Stack Dimensions



T113554a

**FIG. 3. High Pressure Valve Stack Dimensions**

<b>A</b> <b>(manifold cap and screws)</b>	<b>B</b> <b>(manifold)</b>	<b>C</b> <b>(fluid port)</b>	<b>D</b> <b>(A+total of B+C)</b>	<b>E</b> <b>(width)</b>	<b>F</b> <b>(mounting hole dimension)</b>	<b>G</b> <b>(mounting hole size)</b>
0.62 in. (15.7 mm)	2.25 in. (57.2 mm)	1.07 in. (27.2 mm)	Example shown with three manifolds: 8.44 in. (214 mm)	10.16 in. (258.1 mm)	2.25 in. (57.2 mm)	1/4-20

# Graco Standard Warranty

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Original instructions. This manual contains English. MM 312783

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