

Color and Catalyst Change Valve Stacks

312783H

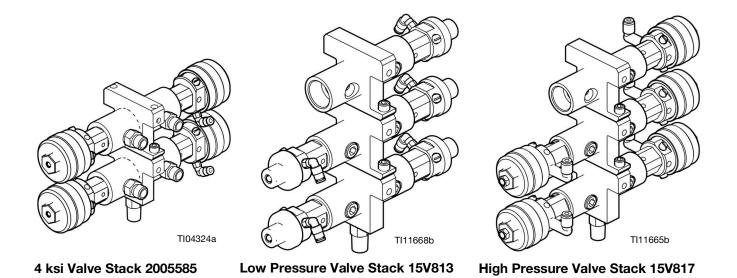
ΕN

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.



Contents

Related Manuals 2
Models3
Low Pressure Valve Stacks
High Pressure Valve Stacks4
4 ksi Valve Stacks
Installation6
Parts 7
Low Pressure Color/Catalyst Valve Stacks - Series B
Low Pressure Color/Catalyst Valve Stacks - Series A
High Pressure Color/Catalyst Valve Stacks - Series B
High Pressure Color/Catalyst Valve Stacks - Series A
4 ksi Color/Catalyst Valve Stacks
Dimensions
Low Pressure Valve Stack Dimensions - Series B14
Low Pressure Valve Stack Dimensions - Series A15
4 ksi Valve Stack and High Pressure Valve Stack Dimensions - Series B
High Pressure Valve Stack Dimensions - Series A
California Proposition 65
Graco Standard Warranty
Graco Information

Related Manuals

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

Manualin	
Manual in English	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
3B0203	ProMix [®] V Package Meter Proportioner Installation-Operation
3B0361	ProMix [®] V Package Meter Proportioner 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		1 color		2
15V812		2 color/catalyst change	7	3
256290		3 color/catalyst change	1	4
15V813		4 color/catalyst change	1	5
256292		5 color/catalyst change	1	6
256293		6 color/catalyst change	7	7
15V814		7 color/catalyst change	7	8
256295		8 color/catalyst change	7	9
256296		9 color/catalyst change	7	10
256297		10 color/catalyst change	7	11
256298		11 color/catalyst change	1	12
15V815		12 color/catalyst change	7	13
256300		13 color/catalyst change	7	14
256301		14 color/catalyst change	1	15
256302		15 color/catalyst change	15X304	16
256303	В	16 color/catalyst change	15/304	17
256304	-	17 color/catalyst change	1	18
256305		18 color/catalyst change	7	19
256306		19 color/catalyst change	1	20
256307		20 color/catalyst change	1	21
256308		21 color/catalyst change	7	22
256309		22 color/catalyst change	1	23
256310		23 color/catalyst change	1	24
256311		24 color/catalyst change	1	25
256312		25 color/catalyst change	1	26
256313		26 color/catalyst change	7	27
256314		27 color/catalyst change	7	28
256315		28 color/catalyst change	7	29
256316		29 color/catalyst change	7	30
256372		30 color/catalyst change	7	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		1 color		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	В	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	15X303	16
256352		16 color/catalyst change	15/303	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	1	25 color/catalyst change		26
256362	1	26 color/catalyst change	7	27
256363		27 color/catalyst change		28
256364		28 color/catalyst change	7	29
256365		29 color/catalyst change		30
256371	1	30 color/catalyst change		31

◆ Each stack includes one additional valve for solvent.

4 ksi Valve Stacks

3800 psi (26 MPa, 260 bar) Maximum Fluid Working Pressure

Valve Stack Part No.	Series	Valve Stack Description	Valve Part No.	Valve Quantity ♦
2005585		3 color/catalyst change	25U791	4
2005587		5 color/catalyst change	25U791	6
2007733 (acid only)		Acid 1 catalyst	26A016	2

◆ 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 and 4 ksi 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.

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.

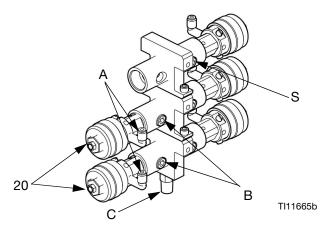
NOTE: Verify that all unused fluid ports on the color change valve stack are plugged before operation. An open port will leak fluid.

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

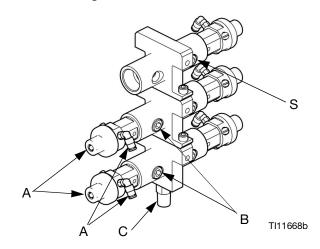
NOTE: A check valve is recommended at the inlet of all valves to prevent backflow if a valve fails, and to prevent color crossover if two dead head valves are open at the same time.

NOTE: High pressure and 4 ksi 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.



High Pressure Valve Stack



Low Pressure Valve Stack

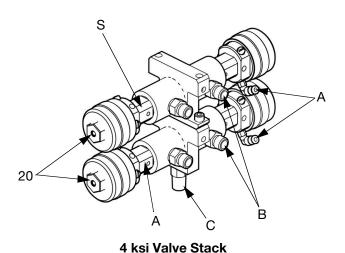
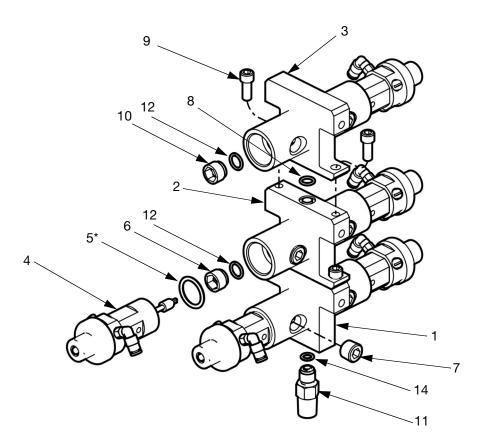


Fig. 1. Valve Stack Connections

Parts

Low Pressure Color/Catalyst Valve Stacks - Series B



TI	11	1	6	6	C

Ret.			
No.	Part No.	Description	Qty
1	20A006	MANIFOLD, Bottom, Color	1
		Change	
2	20A004	MANIFOLD, Middle, Color Change	♦
3	20A005	MANIFOLD, Top	♦
4	15X304	VALVE, Low Pressure; includes	♦
		item 15; see manual 312782	
5*	15Y627	O-RING; PTFE, Size 116	♦
6	25B513	SEAT, Valve, Low Pressure	♦
7	101970	PLUG, Pipe	♦
8	110004	O-RING; PTFE, Size 011	♦
9	121112	SCREW, cap, socket-head; 1/4-20	♦
		x 5/8 in. (16mm)	
10	20A007	PLUG, Color Change	♦
11	16P656	FITTING, Outlet	1
12	111457	O-RING; PTFE, Size 012	♦
14	104893	O-RING; PTFE, Size 010	1
15	15T871	END CAP, Color Change (Assem-	1
		bly 256994 only; not shown)	

- ◆ See the Low Pressure Valve Part Quantity Chart Series B on page 8 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

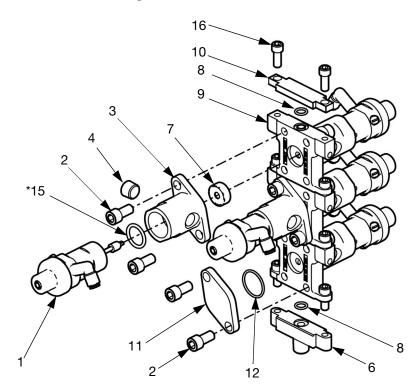
Maximum Fluid Working	
Pressure	300 psi (2.1 MPa, 21 bar)
Wetted Parts	303 sst, tungsten carbide,
	ptfe, acetal
	Color Change Valves: see
	manual 312782
Weight	see page 8

Low Pressure Valve Part Quantity Chart - Series B

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

Low Pressure Color/Catalyst Valve Stacks - Series A



TI11669A

Ref. No.	Part No.	Description	20A727 ❖	20A728 ★
1 ∻ ★	15X304	VALVE, low pressure; includes item 15; see manual 312782	2	1
2 ∻ ★	15T875	SCREW; 5/16-24 x 5/8 in. (16 mm)	4	4
3 ∻ ★	15T436	ADAPTER, manifold	2	1
4 ❖★	101970	PLUG, pipe	2	1
6	15T793	MANIFOLD, fluid port		
7 ∻ ★	15T574	SEAT, valve needle	2	1
8 ∻ ★	110004	O-RING; ptfe	2	2
9 ∻ ★	15T792	MANIFOLD, body	1	1
10	15T794	MANIFOLD, end cap		
11★	15X129	PLUG, housing		1
12★	109450	O-RING; ptfe		1
15*❖★	15Y627	O-RING; ptfe	2	1
16 ∻ ★	121112	SCREW, cap, socket-head; 1/4-20 x 5/8 in. (16 mm)	2	2

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

Technical Data, Low Pressure Stacks

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

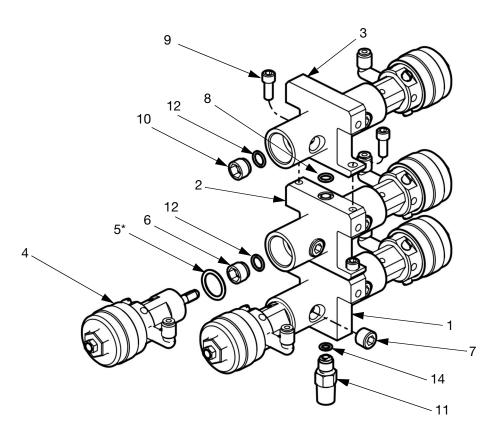
See page 8

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Weight

⁻⁻⁻ These parts are not available separately.

High Pressure Color/Catalyst Valve Stacks - Series B



ti11666d

Ref.				
No.	Part No.	Description	Qty	
1	20A006	MANIFOLD, Bottom, Color Change	1	◆ See th
2	20A004	MANIFOLD, Middle, Color Change	•	each p
3	20A005	MANIFOLD, Top	♦	* Part in
4	15X303	VALVE, High Pressure; includes item 15; see manual 312782	•	rately) Valve
5*	15Y627	O-RING; PTFE, Size 116	♦	These
6	15T725	SEAT, Valve, High Pressure	♦	
7	101970	PLUG, Pipe	♦	Technic
8	110004	O-RING; PTFE, Size 011	♦	
9	121112	SCREW, cap, socket-head; 1/4-20 x 5/8 in. (16mm)	•	Maximun Pressure
10	20A007	PLUG, Color Change	♦	Wetted P
11	16P656	FITTING, Outlet	1	
12	111457	O-RING; PTFE, Size 012	♦	
14	104893	O-RING; PTFE, Size 010	1	Woight
15	15T871	END CAP, Color Change (Assembly 256995 only; not shown)	1	Weight

- See the **High Pressure Valve Part Quantity Chart Series B** on page 11 to determine the quantity of each part in your valve stack.
- * 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

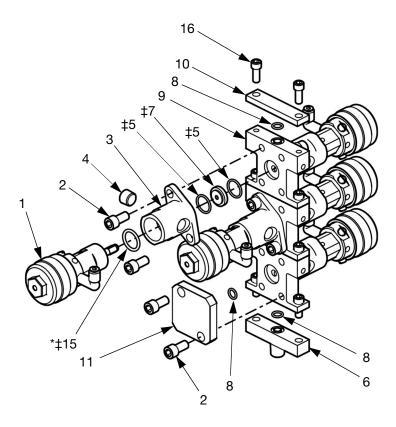
Maximum Fluid Working	
Pressure	3000 psi (21 MPa, 210 bar)
Wetted Parts	303 sst, tungsten carbide,
	ptfe
	Color Change Valves: see
	manual 312782
Weight	See page 11

High Pressure Valve Part Quantity Chart - Series B

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

High Pressure Color/Catalyst Valve Stacks - Series A



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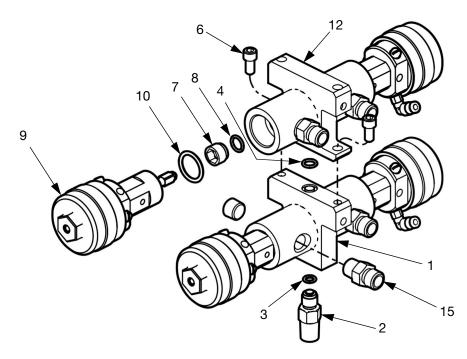
Ref.			
No.	Part No.	Description	Qty
1	15X303	VALVE, high pressure; includes item 15; see manual 312782	
2	15T875	SCREW; 5/16-24 x 5/8 in. (16 mm)	
3	15T436	ADAPTER, manifold	
4	101970	PLUG, pipe	
5‡	109450	O-RING; ptfe	
6	15T869	MANIFOLD, fluid port	
7‡		SEAT, valve needle; sst	
8	110004	O-RING; ptfe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

- ‡ 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

3000 psi (21 MPa, 210 bar)
303 sst, tungsten carbide, ptfe
'
Color Change Valves: see
manual 312782
See page 11

4 ksi Color/Catalyst Valve Stacks



			(Qty	/
Ref. No.	Part No.	Description	2007733	2005585	2005587
1		MANIFOLD, bottom, color change		1	1
		MANIFOLD, single, color change	1		_
2	‡	FITTING, fluid, manifold	1	1	1
3	‡�	PACKING, o-ring	1	1	1
4		PACKING, o-ring, PTFE		1	2
6		SCREW, cap, sch		2	4
7	†	RETAINER, seat, dump valve		4	6
	♦❖	RETAINER, seat, valve, peek	2		
8	†‡◆❖	PACKING, o-ring	2	4	6
9		VALVE, dispense, 4K		4	6
		VALVE, color change, acid	2		
10	†‡◆❖	PACKING, o-ring #2-116, PTFE	2	4	6
11		PLUG, pipe, hdls		4	6
		PLUG, pipe 316 sst	2		
12		MANIFOLD, top, color change		1	1
14		MANIFOLD, middle, color change			1
15	†	FITTING, 1/4 NPSM x 1/4 NPT, sst	2	4	6
16		SEALANT, pipe, sst	1	1	1
19		LUBRICANT, grease		1	1

- † Parts included in Fluid Stack Valve and Seat Repair Kit (2009134).
- ‡ Parts included in Fluid Stack Valve O-Ring and Fitting Repair Kit (2009135).
- ◆ Parts included in Acid Fluid Stack Valve and Seat Repair Kit (2009136).
- Parts included in Acid Fluid Stack Valve O-Ring and Fitting Repair Kit (2009137).

Technical Data, 4 ksi Stacks

Maximum Fluid Working	
Pressure	3800 psi (26 MPa, 260 bar)
Wetted Parts	303 sst, 316 sst, tungsten
	carbide, ptfe
Weight	•
2007733	4.2 lb (1.9 kg)
2005585	9.0 lb (4.1 kg)
2005587	13.5 lb (6.1 kg)
	, 3,

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 - Series B

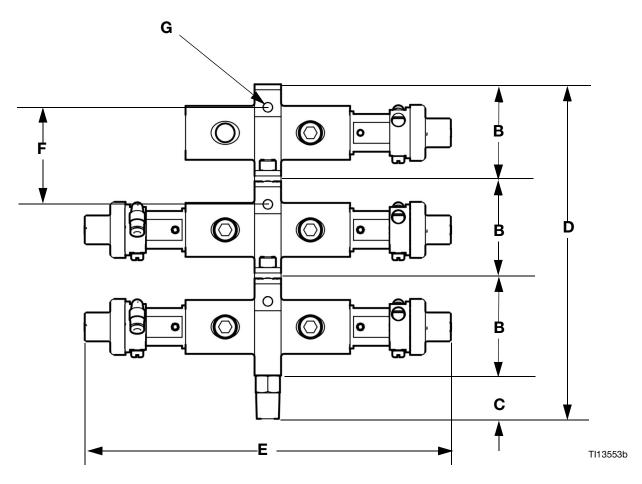


Fig. 2. Low Pressure Valve Stack Dimensions - Series B

B (manifold)	C (fluid port)	D (A+total of B+C)	E (width)	F (mounting hole dimension)	G (mounting hole size)
2.25 in. (57.2 mm)	1.07 in. (27.2 mm)	Example shown with three manifolds: 7.75 in. (197 mm)	8.43 in. (214.1 mm)	2.25 in. (57.2 mm)	1/4-20

Low Pressure Valve Stack Dimensions - Series A

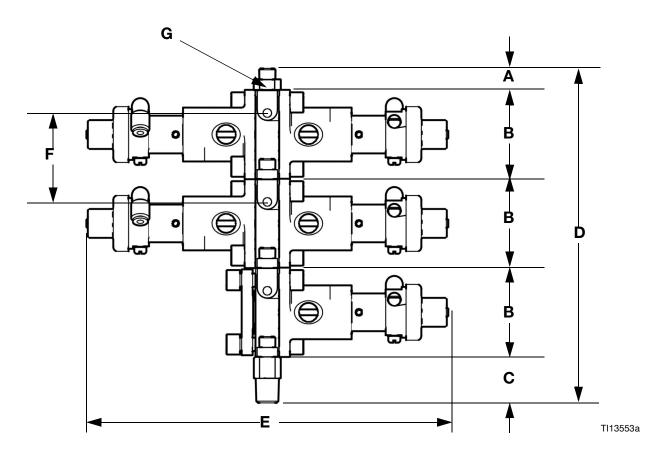


Fig. 3. Low Pressure Valve Stack Dimensions - Series A

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

4 ksi Valve Stack and High Pressure Valve Stack Dimensions - Series B

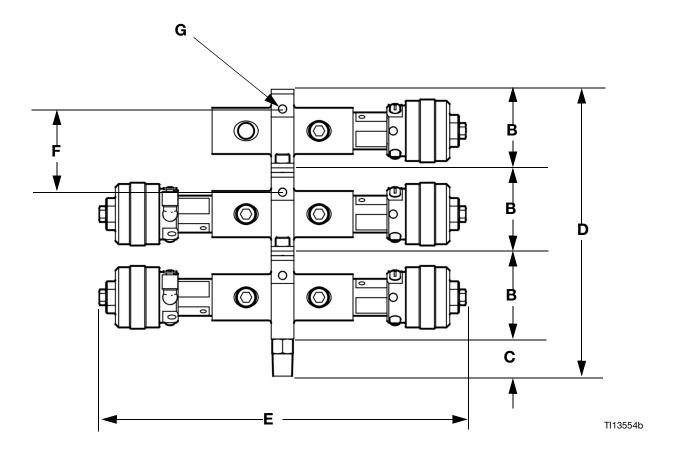
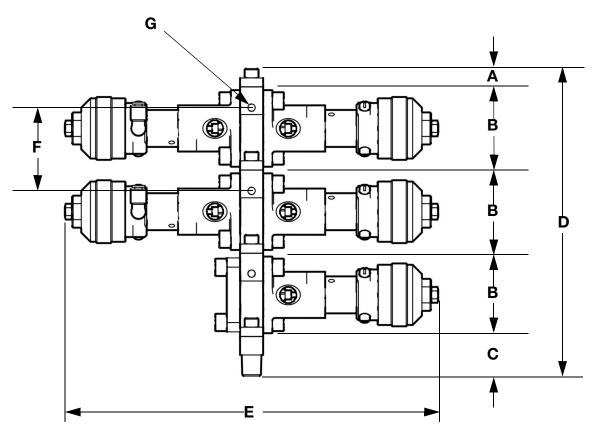


FIG. 4. High Pressure Valve Stack Dimensions - Series B

B (manifold)	C (fluid port)	D (A+total of B+C)	E (width)	F (mounting hole dimension)	G (mounting hole size)
2.25 in. (57.2 mm)	1.07 in. (27.2 mm)	Example shown with three manifolds: 7.75 in. (197 mm)	10.16 in. (258.1 mm)	2.25 in. (57.2 mm)	1/4-20

High Pressure Valve Stack Dimensions - Series A



TI13554a

Fig. 5. High Pressure Valve Stack Dimensions - Series A

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)
0.62 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

California Proposition 65

CALIFORNIA RESIDENTS

WARNING: Cancer and reproductive harm. – www.P65warnings.ca.gov.

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