

DF-5 48 Inch

Gas Train

8/26/2019

BILL OF MATERIALS

ITEM NUMBER	Description	Quantity
1	1-1/2" Quick Seal	1
2	1-1/2" x 4" Nipple	1
3	1-1/2" 90° Elbow	4
4	1-1/2" Close Nipple (1-3/4")	11
5	1-1/2" Union	3
6	1-1/2" x 1-1/2" x 1/2" Tee	3
7	1-1/2" 8214275 Solenoid Valve	1
8	1-1/2" V4055A1007 Hydraulic Actuator and V5055A1020 Valve	1
9	Maxitrol 1-1/2" MR212D Modulating Valve	1
10	1/2" Male x 1/4" Female Reducer	2
11	1-1/2" Manual Ball Valve	1
12	1-1/2" x 10" Nipple	1
13	0-35" w.c. or 0-5 psi or 0-15 psi Pressure Gauge (check spec)	1
14	-5-15 w.c. Gas Pressure Gauge	1
15	1-1/2" Female x 2" Male Adapter	1
16	48" Dual Fuel Midco Burner	1
17	1/4" Brass Elbow	1
18	3/8" Male x 1/4" Female Reducer	1
19	325-3x3/8 Pilot Gas Regulator	1
20	3/8" 90° Elbow	1
21	3/8" x 1-1/2" Nipple	1
22	3/8" x 2" Nipple	1
23	3/8" Pilot Shut Off Valve	1
24	1/2" Male x 3/8" Female Reducer	1
25	3/8" x 3" Nipple	1
26	Pyroseal Furnace Cement (AX # 2220)	N/A
27	1-1/2" x 7-1/2" Nipple	1
28	1-1/2" x 14" Nipple	1

Standard Gas Train

NOTES:

Gas Type: Natural or LP
 Inlet Pressure: 7 in. w.c. - 5 psi.
 Max. Natural Gas Manifold Pressure: 5 in. w.c.
 Max. LP Manifold Pressure: 2.5 in. w.c.

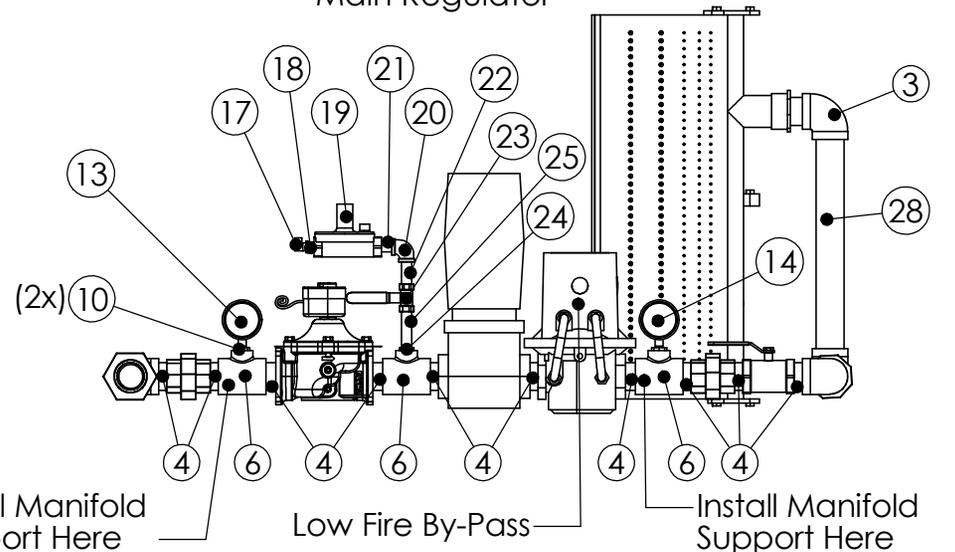
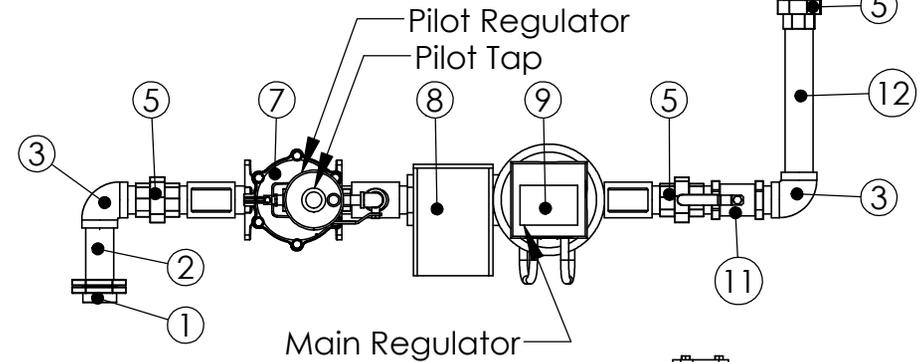
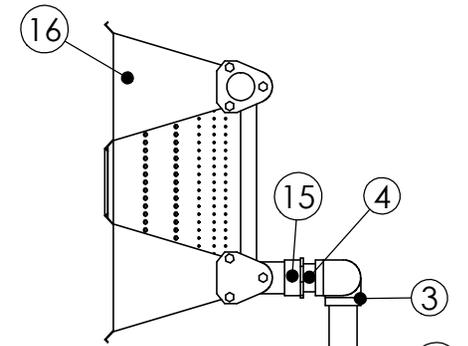
External High Gas Pressure Regulator required when gas pressure exceeds 5 psi.:
 P/N = 243-8-2-1.5-OR-1-30 (25 psi. max.)

Item #9 is replaced by V4055D1019 and V5055C1059 for Proof of Closure Applications

Item # 26 (shown below) used for burners built in house.



Revision History				
#	Description	Revised by	ECN #	Date
0	Released to production	DAM		
1	Updated solenoid valve part	BFL	3067	8/26/2019



- 42026 3/8 U-Bolt, washer, and locknuts (2 Places)
- 5/16 Bolt, washer, and locknuts (2 Places)
- M1067H1M Bracket (2 Places)
- 5/16 x 3/4 Self Tapping Sheet Metal Screws (2 Places)

Additional Notes:
 Burners Riveted together with 3/16" rivets.
 Burner Cement needed at all casting joints only.

Install Manifold Support Here

Low Fire By-Pass

Install Manifold Support Here

Material: N/A
 Blank Size: N/A x N/A
 Weight: N/A lbs

Part Number: N/A
 MACOLA/AX Number: N/A
 Drawing Name: DF 5 48 inch Gas Train
 Drawn By: DDH
 Parent Assembly: DF 5
 Sheet: 2 of 5

Unless Otherwise Specified Dimensions are in Inches.
 Standard Tolerances are:
 Fractions: ±1/16
 Decimal: .XX±.05
 .XXX±.015
 Angles: ±1°

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BILL OF MATERIALS

ITEM NUMBER	Description	Quantity
1	1-1/2" Quick Seal	1
2	1-1/2" x 4" Nipple	1
3	1-1/2" 90° Elbow	4
4	1-1/2" Close Nipple (1-3/4")	11
5	1-1/2" Union	3
6	1-1/2" x 1-1/2" x 1/2" Tee	3
7	1/4" Square Head Pipe Plug	2
8	1-1/2" 8214275 Solenoid Valve	1
9	1-1/2" V4055A1007 Hydraulic Actuator and V5055A1020 Valve	1
10	Maxitrol 1-1/2" MR212D Modulating Valve	1
11	1/2" Male x 1/4" Female Reducer	2
12	1-1/2" Manual Ball Valve	1
13	1-1/2" x 10" Nipple	1
14	1-1/2" Female x 2" Male Adapter	1
15	48" Dual Fuel Midco Burner	1
16	1/4" x 4" Nipple	4
17	1/4" x 1/4" x 1/4" Tee	2
18	1/4" Brass Elbow	1
19	3/8" Male x 1/4" Female Reducer	1
20	325-3x3/8 Pilot Gas Regulator	1
21	3/8" 90° Elbow	1
22	3/8" x 1-1/2" Nipple	1
23	3/8" x 2" Nipple	1
24	3/8" Pilot Shut Off Valve	1
25	1/2" Male x 3/8" Female Reducer	1
26	3/8" x 3" Nipple	1
27	Optional GMH-A4-4-4 Pressure Switch	1
28	Optional GML-A4-4-4 Pressure Switch	1
29	Pyroseal Furnace Cement (AX # 2220)	N/A
30	1-1/2" x 7-1/2" Nipple	1
31	1-1/2" x 14" Nipple	1

Gas Train w/Press. Switch

Revision History		#	Description	Revised by	ECN #	Date
0	Released to production			DAM		
1	Updated solenoid valve part			BFL	3067	8/26/2019

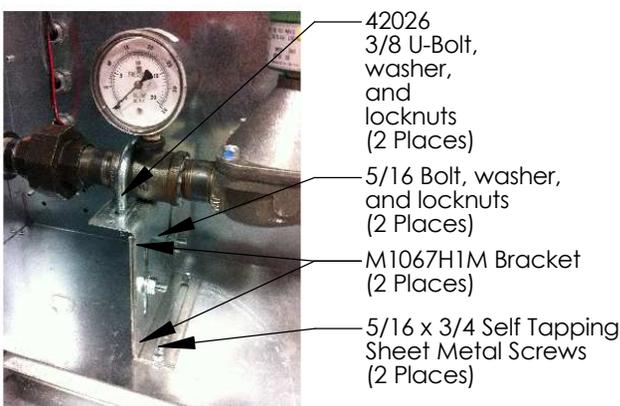
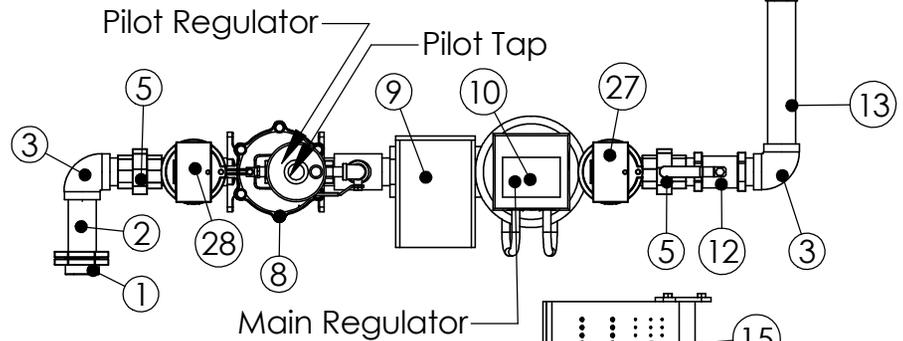
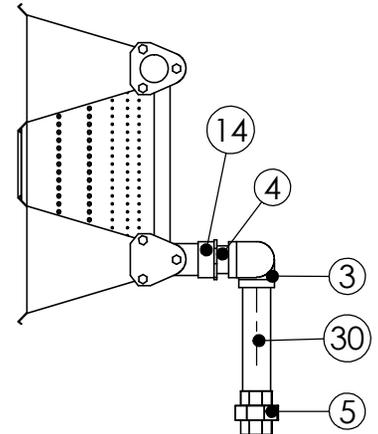
NOTES:

Gas Type: Natural or LP
 Inlet Pressure: 7 in. w.c. - 5 psi.
 Max. Natural Gas Manifold Pressure: 5 in. w.c.
 Max. LP Manifold Pressure: 2.5 in. w.c.

External High Gas Pressure Regulator required when gas pressure exceeds 5 psi.:
 P/N = 243-8-2-1.5-OR-1-30 (25 psi. max.)

Item #9 is replaced by V4055D1019 and V5055C1059 for Proof of Closure Applications

Item # 29 (shown below) used for burners built in house.



Additional Notes:
 Burners Riveted together with 3/16" rivets.
 Burner Cement needed at all casting joints only.

Material: N/A	Part Number: N/A
Blank Size: N/A x N/A	MACOLA/AX Number: N/A
Weight: N/A lbs	Drawing Name: DF 5 48 inch Gas Train
CONFIDENTIAL	Drawn By: DDH
	Parent Assembly: DF 5
	Sheet: 3 of 5

Unless Otherwise Specified Dimensions are in Inches.

Standard Tolerances are:
 Fractions: ±1/16
 Decimal: .XX ±.05
 .XXX ±.015
 Angles: ±1°

Install Manifold Support Here

Low Fire By-Pass Location of Additional Pipe with Gas Pressure Gauge if Requested.

Install Manifold Support Here

BILL OF MATERIALS

ITEM NUMBER	Description	Quantity
1	1-1/2" Quick Seal	1
2	1-1/2" x 4" Nipple	1
3	1-1/2" 90° Elbow	4
4	1-1/2" Close Nipple (1-3/4")	11
5	1-1/2" Union	3
6	1-1/2" x 1-1/2" x 1/2" Tee	3
7	0-35" w.c. or 0-5 psi or 0-15 psi Pressure Gauge (check spec)	1
8	3/8" Tee	1
9	1-1/2" V4055A1007 Hydraulic Actuator and V5055A1020 Valve	1
10	Maxitrol 1-1/2" MR212D Modulating Valve	1
11	1/2" Male x 1/4" Female Reducer	2
12	1-1/2" Manual Ball Valve	1
13	1-1/2" x 10" Nipple	1
14	325-3x3/8 Pilot Gas Regulator	1
15	V4046C1021 Solenoid	1
16	1-1/2" Female x 2" Male Adapter	1
17	48" Dual Fuel Midco Burner	1
18	1-1/2" 8214275 Solenoid Valve	1
19	1/4" Brass Elbow	1
20	3/8" Male x 1/4" Female Reducer	2
21	1/4" x 11" Nipple	1
22	3/8" x 1-1/2" Nipple	1
23	3/8" x 3-1/2" Nipple	1
24	3/8" Manual Ball Valve	1
25	1/2" Male x 3/8" Female Reducer	1
26	1/4" Plug	1
27	Pyroseal Furnace Cement (AX # 2220)	N/A
28	1-1/2" x 7-1/2" Nipple	1
29	1-1/2" x 14" Nipple	1
30	-5-15 w.c. Gas Pressure Gauge	1
31	3/8" x 4" Nipple	1

Gas Train w/Upstream Pilot

Revision History		#	Description	Revised by	ECN #	Date
0	Released to production			DAM		
1	Updated solenoid valve part			BFL	3067	8/26/2019

Additional Notes:
 Burners Riveted together with 3/16" rivets.
 Burner Cement needed at all casting joints only.

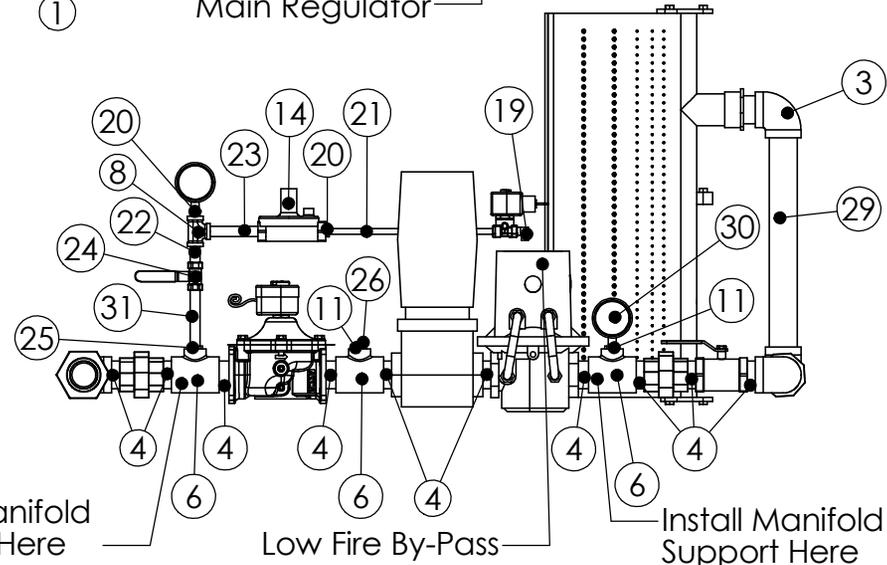
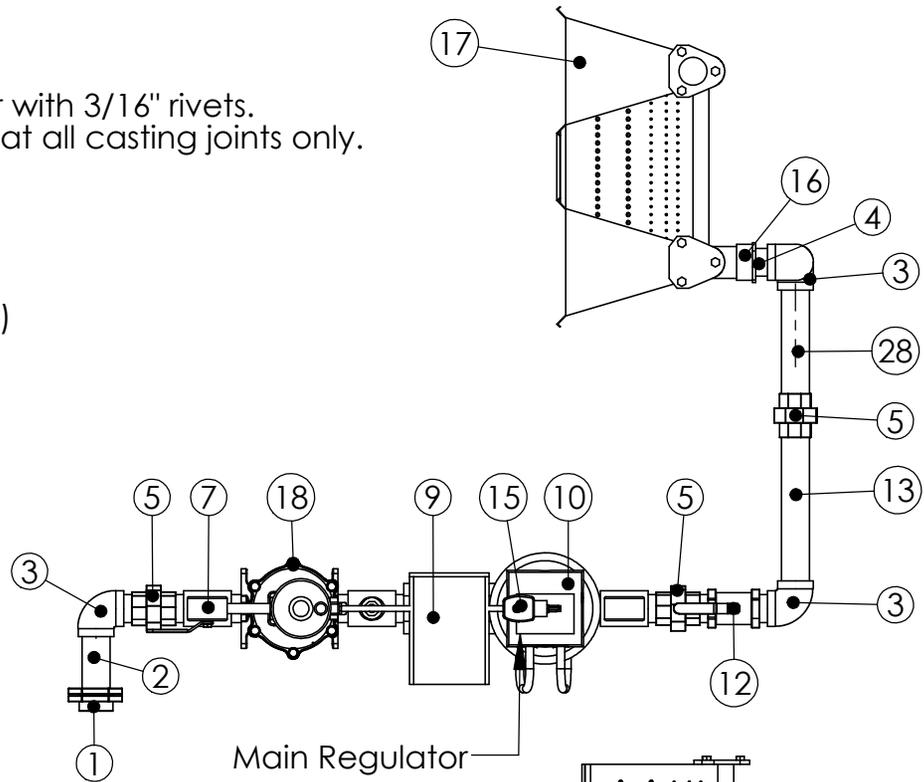
Item # 27 (shown below) used for burners built in house.



NOTES:
 Gas Type: Natural or LP
 Inlet Pressure: 7 in. w.c. - 5 psi.
 Max. Natural Gas Manifold Pressure: 5 in. w.c.
 Max. LP Manifold Pressure: 2.5 in. w.c.

External High Gas Pressure Regulator required when gas pressure exceeds 5 psi.:
 P/N = 243-8-2-1.5-OR-1-30 (25 psi. max.)

Item #9 is replaced by V4055D1019 and V5055C1059 for Proof of Closure Applications



Material: N/A
 Blank Size: N/A x N/A
 Weight: N/A lbs

Part Number: N/A
 MACOLA/AX Number: N/A
 Drawing Name: DF 5 48 inch Gas Train
 Drawn By: DDH
 Parent Assembly: DF 5
 Sheet: 4 of 5

Unless Otherwise Specified Dimensions are in Inches.
 Standard Tolerances are:
 Fractions: ±1/16
 Decimal: .XX ±.05
 .XXX ±.015
 Angles: ±1°

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BILL OF MATERIALS

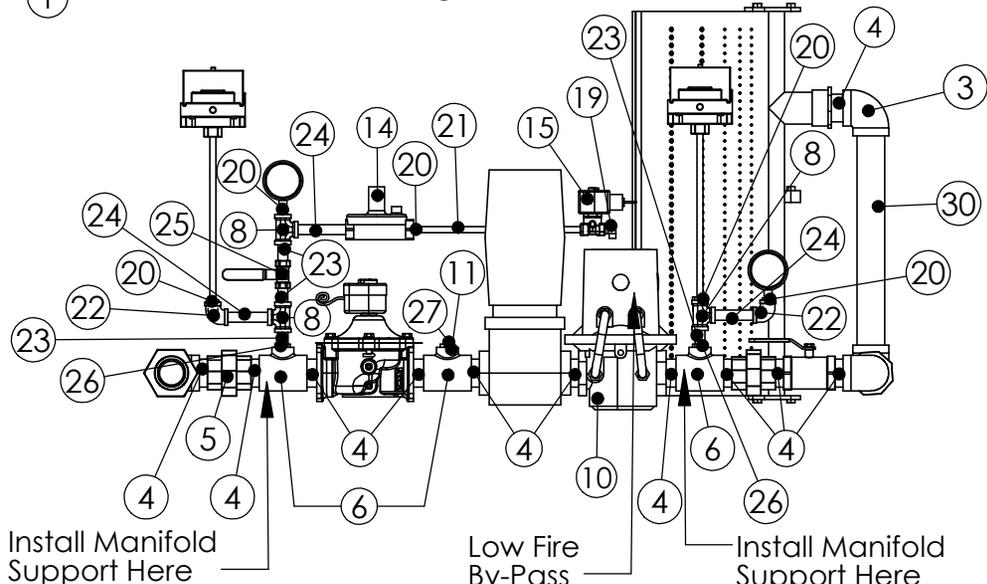
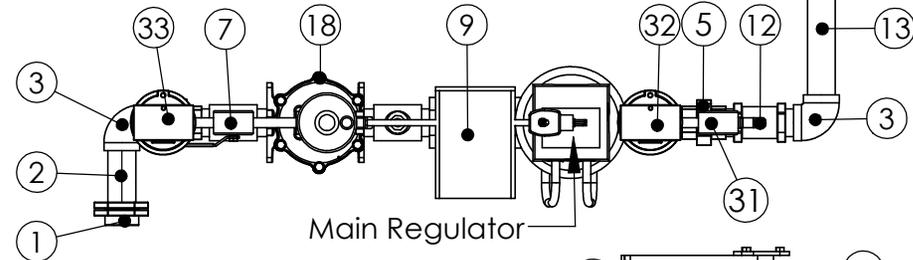
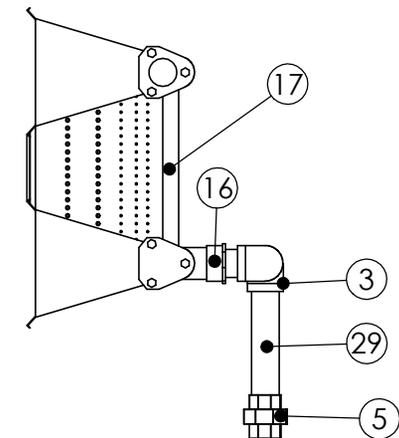
ITEM NUMBER	Description	Quantity
1	1-1/2" Quick Seal	1
2	1-1/2" x 4" Nipple	1
3	1-1/2" 90° Elbow	4
4	1-1/2" Close Nipple (1-3/4")	11
5	1-1/2" Union	3
6	1-1/2" x 1-1/2" x 1/2" Tee	3
7	0-35" w.c. or 0-5 psi or 0-15 psi Pressure Gauge (check spec)	1
8	3/8" Tee	3
9	1-1/2" V4055A1007 Hydraulic Actuator and V5055A1020 Valve	1
10	Maxitrol 1-1/2" MR212D Modulating Valve	1
11	1/2" Male x 1/4" Female Reducer	1
12	1-1/2" Manual Ball Valve	1
13	1-1/2" x 10" Nipple	1
14	325-3x3/8 Pilot Gas Regulator	1
15	V4046C1021 Solenoid	1
16	1-1/2" Female x 2" Male Adapter	1
17	48" Dual Fuel Midco Burner	1
18	1-1/2" 8214275 Solenoid Valve	1
19	1/4" Brass Elbow	1
20	3/8" Male x 1/4" Female Reducer	5
21	1/4" x 11" Nipple	3
22	3/8" 90° Elbow	2
23	3/8" x 1-1/2" Nipple	4
24	3/8" x 3" Nipple	3
25	3/8" Manual Ball Valve	1
26	1/2" Male x 3/8" Female Reducer	2
27	1/4" Plug	1
28	Pyroseal Furnace Cement (AX # 2220)	N/A
29	1-1/2" x 7-1/2" Nipple	1
30	1-1/2" x 14" Nipple	1
31	-5-15 w.c. Gas Pressure Gauge	1
32	Optional GMH-A4-4-4 Pressure Switch	1
33	Optional GML-A4-4-4 Pressure Switch	1

Gas Train Upstream Pilot w/ Pressure Switches

Revision History				
#	Description	Revised by	ECN #	Date
0	Released to production	DAM		
1	Updated solenoid valve part	BFL	3067	8/26/2019

Additional Notes:
 Burners Riveted together with 3/16" rivets.
 Burner Cement needed at all casting joints only.

Item # 28 (shown below) used for burners built in house.



NOTES:
 Gas Type: Natural or LP
 Inlet Pressure: 7 in. w.c. - 5 psi.
 Max. Natural Gas Manifold Pressure: 5 in. w.c.
 Max. LP Manifold Pressure: 2.5 in. w.c.

External High Gas Pressure Regulator required when gas pressure exceeds 5 psi.:
 P/N = 243-8-2-1.5-OR-1-30 (25 psi. max.)

Item #9 is replaced by V4055D1019 and V5055C1059 for Proof of Closure Applications

Material: N/A	Part Number: N/A
Blank Size: N/A x N/A	MACOLA/AX Number: N/A
Weight: N/A lbs	Drawing Name: DF 5 48 inch Gas Train
CONFIDENTIAL	Drawn By: DDH
	Parent Assembly: DF 5
	Sheet: 5 of 5

Unless Otherwise Specified Dimensions are in Inches.
 Standard Tolerances are:
 Fractions: ±1/16
 Decimal: .XX ±.05
 .XXX ±.015
 Angles: ±1°