

Recognized globally for our quality, service and the ability to deliver!

ISO 9001:2008

www.mac-weld.com



At Mac-Weld we promise precision, every time. We're proud of our work, and we work closely with our customers. We design and develop products that perform best under the most challenging conditions. We don't crack under pressure. We don't melt under heat. We measure the flow, and we're measured in our response. We stand by our quality, our time, and our price. We're Mac-Weld, and our promise is, to be the best.



The promise of precision, every time.

Introduction

2-Valve Manifold

3-Valve Manifold

5-Valve Manifold

Materials & Testing



page 2 – 3		
page 4		
page 5 – 6		
page 6 – 8		
page 8 – 9		



2-Valve Manifold Remote Mount with Drain



GV 2-Valve Manifold Direct Mount with Drain



3-Valve In-Line Block & Bleed Manifold Remote Mount with Vent



3-Valve Manifold Remote Mount with Drain



3-Valve 'T' Type Manifold Direct Mount with Drain



5-Valve Manifold Remote Mount with Drain



5-Valve Bar/ Wafer Type Manifold Remote Mount with Drain



5-Valve Bar Type Manifold Direct Mount with Drain



5-Valve 'T' Type Manifold Direct Mount with Drain

INSTRUMENT MANIFOLDS

MAC-WELD 2, 3 and 5 Valve	Manifolds are des
2 Valve Manifolds	Mac-Weld 2 valve m of pressure gauge, p manifolds are offere
3 and 5 Valve Manifolds	Mac-Weld 3 and 5 ve differential pressure 3 and 5 valve manifo configurations.

Specifications and Features

Mac-Weld 2, 3, and 5 valve manifolds incorporate high quality needle valves designed to operate at pressures up to 6000 psig with standard PTFE gland packing. The packing is positioned below the stem threads to ensure no contact between system process and the stem threads. The upper gland body is tightened and secured into position by a lock nut. The lower gland body is directly screwed into the component body and secured into place to prevent accidental loosening of the gland body during operation. Additionally:

- Standard seat diameter 5mm CV: 0.4
- Maximum standard pressure up to 6000 psig @ 100°F (414 bar @ 38°C)
- Stainless steel pin prevents loosening of the gland body during operation
- Gland is externally adjustable
- Backseat stop spindle prevents blowout
- Non-rotating trim enables the spindle to self center with the orifice for bubble tight shut-off
- Dust cap prevents ingress of contaminants

Please refer to the following pages to reference Instrument Manifold Configuration and sizes.



igned and tested to industry quality standards.

anifolds provide economical and convenient mounting pressure transmitters and pressure switches. Mac-Weld 2 value d in direct mount and remote mount configurations.

alve manifolds are economical and convenient for mounting transmitters and differential pressure switches. Mac-Weld olds are available in direct mount and remote mount



PART NUMBER REFERENCE CHART

Part Number	M – 5T –	L – DM – 08F
Component	М	Manifold
No. Valves	2 3 5	2 Valve Manife 3 Valve Manife 5 Valve Manife
Model	GV BB # (2,3,5) C T H	Gauge Valve Block & Bleed Bar Type Horizontal T Type H Type
Body Material	SS L	316 Stainless St 316L Stainless S
Mounting	DM RM	Direct Mount Remote Mour
Process Connection	08F 08M FLG	1/2" Female N 1/2" Male NPT Flange
Instrument Connection	08F 08M FLG	1/2" Female N 1/2" Male NPT Flange
Drain c/w Plug	P PB	1/4" Female N 1/4" Female N
Vent	V08F V04F	1/2" Female N 1/4" Female N

Please Note the Following:

Part Number Reference Chart is provided for informational purposes only. Mac-Weld provides standard stock items with predetermined part numbers for your convenience.

A Note on Safe Product Selection:

Customer to select suitable product type and size based on the application considering the overall system design. For safe, easy and trouble-free operation the customer must consider material compatibility, temperature and

pressure ratings when selecting a product.



– FLG – P
ld
teel
PT (Threads to ASME B 1.20.10)
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2-VALVE MANIFOLD REMOTE MOUNT WITH DRAIN

Mac-Weld 2-Valve remote mount manifold provides block and bleed with drain/vent for pressure gauge, switch or transmitter applications.

- 316L Stainless Steel Body, stem and trim
- 6000 psig @ 100°F (414 bar @ 38°C)
- PTFE Packing
- Non-rotating trim provides bubble tight shut-off
- Optional availability: NACE certified wetted parts and graphoil packing



PART NUMBER

M-2C-L-RM-08F-08F-P

	END CON	NECTION			
MANIFOLD TYPE AND DESCRIPTION	PROCESS	INSTRUMENT	DRAIN /VEN	T c/w PLUG N	ATERIAL
Stainless Steel 2 Valve Block & Bleed, Remote mount, T-Bar handle, c/w Drain/Vent	1/2" Female NPT	1/2" Female NPT	1/4" Fem	ale NPT	316L
P6.5 HOLES 2NOS HROCESS C C C C C C C C C C C C C C C C C C	PORT NT SOC	INST.		(B) (B) (C) (C) (C) (C) (C) (C) (C) (C) (C) (C	
		PART NO. DES	PART SCRIPTION	MATERIAL	QTY





11

12

DUST CAP

DRAIN PLUG 1/4" NPT (M)

1

2

2

4

2

2

2

2

2

2

2

1

SS 316L

SS 316L

SS 304

P.T.F.E

SS 304

SS 316L

SS 316L

SS 304

S.S.

SS 304

P.V.C.

SS 316L

MANIFOLD TYPE AND DESCRIPTION Stainless Steel 2 Valve Block & Bleed In-Line style, direct mount, T-Bar handle, c/w Drain/Vent 1/2" M





GV 2-VALVE MANIFOLD DIRECT MOUNT WITH DRAIN

Mac-Weld's GV 2-Valve Manifold directly mounts to in-line gauge or static instruments to provide single block and bleed for isolation and drain/vent capability.

- 316L Stainless Steel Body, stem and trim
- 6000 psig @ 100°F (414 bar @ 38°C)
- PTFE Packing

- Non-rotating trim provides bubble tight shut-off
- NACE certified wetted components
- Graphoil packing available
- ** 10,000 psig also available







PART NUMBER

M-2GV-L-DM-08M-08F-P

END CON	NECTION		
PROCESS	INSTRUMENT	DRAIN / VENT c/w PLUG	MATERIAL
/2" Male NPT	1/2" Female NPT	1/4" Female NPT	316L
	(1)- (3)-		

PROC.



PART NO.	PART DESCRIPTION	MATERIAL	QTY
1	RODY	55 3141	1
1	BODI	33 310L	1
2	GLAND BODY	SS 316L	2
3	GLAND RETAINER	SS 304	2
4	GLAND SEAL	P.T.F.E	4
5	CHECK NUT	SS 304	2
6	SPINDLE	SS 316L	2
7	TRIM	SS 316L	2
8	HANDLE	SS 304	2
9	WASHER	S.S.	2
10	LOCK PIN	SS 304	2
11	DUST CAP	P.V.C.	2
12	DRAIN PLUG 1/4" NPT (M)	SS 316L	1

3-VALVE IN-LINE BLOCK & BLEED MANIFOLD

REMOTE MOUNT WITH VENT

Mac-Weld's 3-Valve In-Line Block and Bleed manifold is a variation of a typical 2 valve block and bleed manifold for gauge and static instrument applications. An additional block valve is provided as well as a single 1/2" vent/ drain port located on the underside of the manifold.

- 316L Stainless Steel Body, stem and trim
- 6000 psig @ 100°F (414 bar @ 38°C)
- PTFE Packing
- Non-rotating trim provides bubble tight shut-off
- Optional availability: NACE certified wetted parts and graphoil packing

PART NUMBER M-3BB-L-RM-08F-08F-V08F

	END CONNECTION			
MANIFOLD TYPE AND DESCRIPTION	PROCESS	INSTRUMENT	DRAIN / VENT c/w PLUG	MATERIAL
Stainless Steel 3 Valve Block and Bleed In-Line Manifold, Remote mount, T-Bar handle, c/w Vent/Drain	1/2" Female NPT	1/2" Female NPT	1/2" Female NPT	316L





PART NO.	PART DESCRIPTION	MATERIAL	QTY
	DODY.	00.01.01	
I	BODA	SS 316L	
2	GLAND BODY	SS 316L	3
3	GLAND RETAINER	SS 304	3
4	GLAND SEAL	P.T.F.E	6
5	CHECK NUT	SS 304	3
6	SPINDLE	SS 316L	3
7	TRIM	SS 316L	3
8	HANDLE	SS 304	3
9	WASHER	S.S.	3
10	LOCK PIN	SS 304	3
11	DUST CAP	P.V.C.	3

3-VALVE MANIFOLD REMOTE MOUNT WITH DRAIN

Mac-Weld's 3-Valve Remote Mount Manifold with drain/vent for differential pressure instrumentation. The manifold has one equalizer valve, two isolation valves and two drain/vent ports.

- 316L Stainless Steel Body, stem and trim
- 6000 psig @ 100°F (414 bar @ 38°C)
- PTFE Packing
- Non-rotating trim provides bubble tight shut-off
- Optional availability: NACE certified wetted parts and graphoil packing

PART NUMBER M-3C-L-RM-08F-08F-P













END CON	NECTION		
CESS	INSTRUMENT	DRAIN / VENT c/w PLUG	MATERIAL
nale NPT	1/2" Female NPT	1/4" Female NPT	316L
		(8)	





PART NO.	PART DESCRIPTION	MATERIAL	QTY
	DODY.	00.01.01	
I	RODA	SS 316L	1
2	GLAND BODY	SS 316L	3
3	GLAND RETAINER	SS 304	3
4	GLAND SEAL	P.T.F.E	6
5	CHECK NUT	SS 304	3
6	SPINDLE	SS 316L	3
7	TRIM	SS 316L	3
8	HANDLE	SS 304	3
9	WASHER	S.S.	3
10	LOCK PIN	SS 304	3
11	DUST CAP	P.V.C.	3
12	DRAIN PLUG 1/4" NPT (M)	SS 316L	2

3-VALVE 'T' TYPE MANIFOLD

DIRECT MOUNT WITH DRAIN

Mac-Weld's 3-Valve Direct Mount 'T' Type Manifold with drain/vent for differential pressure instrumentation. The manifold has one equalizer valve, two isolation valves and two drain/vent ports

- 316L Stainless Steel Body, stem and trim
- 6000 psig @ 100°F (414 bar @ 38°C)
- PTFE Packing
- Non-rotating trim provides bubble tight shut-off
- Optional availability: NACE certified wetted parts and graphoil packing
- Flange 0-rings and mounting bolts included with manifold

PART NUMBER M-3T-L-DM-08F-FLG-P

	END CON	NECTION		
MANIFOLD TYPE AND DESCRIPTION	PROCESS	INSTRUMENT	DRAIN /VENT c/w PLUG	MATERIA
Stainless Steel 3 Valve Manifold, 'T' Type, Direct mount, T-Bar handle, c/w Drain/Vent	1/2" Female NPT	Flange	1/4" Female NPT	316L
			(8)	





PART



NO.	DESCRIPTION	MAIENIAL	Gen
1	BODY	SS 316L	1
2	GLAND BODY	SS 316L	3
3	GLAND RETAINER	SS 304	3
4	GLAND SEAL	P.T.F.E	6
5	CHECK NUT	SS 304	3
6	SPINDLE	SS 316L	3
7	TRIM	SS 316L	3
8	HANDLE	SS 304	3
9	WASHER	S.S.	3
10	LOCK PIN	SS 304	3
11	DUST CAP	P.V.C.	3
12	DRAIN PLUG 1/4" NPT (F)	SS 316L	2

PART



5-VALVE MANIFOLD REMOTE MOUNT WITH DRAIN

Mac-Weld's 5-Valve Remote Mount Manifold with drain/vent for differential pressure instrumentation. The manifold has one equalizer valve, two isolation valves and two drain/vent ports.

- 316L Stainless Steel Body, stem and trim
- 6000 psig @ 100°F (414 bar @ 38°C)
- PTFE Packing
- Non-rotating trim provides bubble tight shut-off
- Optional availability: NACE certified wetted parts and graphoil packing

PART NUMBER M-5C-L-RM-08F-08F-P













END CON	NECTION		
CESS	INSTRUMENT	DRAIN / VENT c/w PLUG	MATERIAL
nale NPT	1/2" Female NPT	1/4" Female NPT	316L
VENT	INST.		

PART NO.	PART DESCRIPTION	MATERIAL	QTY
1	RODY	66.2171	1
1	ворг	33 310L	1
2	GLAND BODY	SS 316L	5
3	GLAND RETAINER	SS 304	5
4	GLAND SEAL	P.T.F.E	10
5	CHECK NUT	SS 304	5
6	SPINDLE	SS 316L	5
7	TRIM	SS 316L	5
8	HANDLE	SS 304	5
9	WASHER	S.S.	5
10	LOCK PIN	SS 304	5
11	DUST CAP	P.V.C.	5
12	DRAIN PLUG 1/4" NPT (F)	SS 316L	2

5-VALVE BAR/ WAFER TYPE MANIFOLD

REMOTE MOUNT WITH DRAIN

Mac-Weld's 5-Valve Bar/Wafer Type remote mount Manifold is designed for differential pressure instrument applications. Standard manifold configuration is one equalizer valve positioned between two isolation valves. Additionally, two drain/vent ports are provided.

- 316L Stainless Steel Body, stem and trim
- 6000 psig @ 100°F (414 bar @ 38°C)
- PTFE Packing
- Non-rotating trim provides bubble tight shut-off
- Optional availability: NACE certified wetted parts and graphoil packing

PART NUMBER M-5-L-RM-08F-08F-P

	END CON	NECTION		
MANIFOLD TYPE AND DESCRIPTION	PROCESS	INSTRUMENT	DRAIN / VENT c/w PLUG	MATERIAL
Stainless Steel 5 Valve Bar/ Wafer Type Manifold, Remote mount, T-Bar handle, c/w Drain/Vent	1/2" Female NPT	1/2" Female NPT	1/4" Female NPT	316L









NO.	DESCRIPTION	MATERIAL	QTY
1	RODY	CC 21/1	1
1	BODT	33 310L	1
2	GLAND BODY	SS 316L	5
3	GLAND RETAINER	SS 304	5
4	GLAND SEAL	P.T.F.E	10
5	CHECK NUT	SS 304	5
6	SPINDLE	SS 316L	5
7	TRIM	SS 316L	5
8	HANDLE	SS 304	5
9	WASHER	S.S.	5
10	LOCK PIN	SS 304	5
11	DUST CAP	P.V.C.	5
12	DRAIN PLUG 1/4" NPT (M)	SS 316L	2

DADT

5-VALVE BAR TYPE MANIFOLD

DIRECT MOUNT WITH DRAIN

Mac-Weld's 5-Valve Bar Type Manifold is direct mount for differential pressure instrument applications. Standard manifold configuration is one equalizer valve positioned between two isolation valves. Additionally, two drain/vent ports are provided.

- 316L Stainless Steel Body, stem and trim
- 6000 psig @ 100°F (414 bar @ 38°C)
- PTFE Packing
- Non-rotating trim provides bubble tight shut-off
- Optional availability: NACE certified wetted parts and graphoil packing
- Flange 0-rings and mounting bolts included with manifold

PART NUMBER				
M-5-L-DM-O8F-FLG-P				
END CONNECTION				
MANIFOLD TYPE AND DESCRIPTION	PROCESS	INSTRUMENT	DRAIN /VENT c/w PLUG	MATERIAL
Stainless Steel 5 Valve Bar Type Manifold, Direct mount, T-Bar handle, c/w Drain/Vent	1/2" Female NPT	Flange	1/4" Female NPT	316L













5-VALVE 'T' TYPE MANIFOLD

DIRECT MOUNT WITH DRAIN

Mac-Weld's 5-Valve Direct Mount 'T' Type Manifold with drain/vent for differential pressure instrumentation. The manifold has one equalizer valve, two isolation valves, two vent valves and drain/vent ports.

- 316L Stainless Steel Body, stem and trim
- 6000 psig @ 100°F (414 bar @ 38°C)
- PTFE Packing
- Non-rotating trim provides bubble tight shut-off
- Optional availability: NACE certified wetted parts and graphoil packing
- Flange 0-rings and mounting bolts included with manifold

MATERIALS & TESTING

BAR STOCK ASTM A-276 ASTM A-479	FORGING ASTM A-276 F-316L	UNS \$31600
ASTM A-276 ASTM A-479	ASTM A-276 F-316L	\$31600
VALVE COMPONENTS		
EM/ TRIM GLAND GLAND WASHER	RETAINER	HANDLE
316L SS	304 SS	304 SS
FLANGE MOUNTING COMPONENTS		
	VALVE COM EM/ TRIM GLAND GLAND WASHER 316L SS	VALVE COMPONENTS EM/ TRIM GLAND RETAINER GLAND WASHER 304 SS 316L SS 304 SS

VALVE BODY	& GLAND WA
316L SS	316L SS

FLANGE 0-RINGS

Polytetrafluoroethylene (PTF

A Note on Safe Product Selection:

Customer to select suitable product type and size based on the application considering the overall system design.

For safe, easy and trouble-free operation the customer must consider material compatibility, temperature and pressure ratings when selecting a product.



PART NUMBER







PART NO.	PART DESCRIPTION	MATERIAL	QTY
1	PODY	\$\$ 2141	1
-	BODI	33 310L	-
2	GLAND BODY	SS 316L	5
3	GLAND RETAINER	SS 304	5
4	GLAND SEAL	P.T.F.E	10
5	CHECK NUT	SS 304	5
6	SPINDLE	SS 316L	5
7	TRIM	SS 316L	5
8	HANDLE	SS 304	5
9	WASHER	S.S.	5
10	LOCK PIN	SS 304	5
11	DUST CAP	P.V.C.	5
12	DRAIN PLUG 1/4" NPT (M)	SS 316L	2

	BOLTS
E)	304 SS

MATERIALS & TESTING

Gland Packing Materials	The standard packing and flange o-ring material for all Mac-Weld valves is Polytetrafluoroethylene (PTFE). The maximum operating temperature is 464°F (240°C). Graphoil packing is available for temperatures above 464° F (240°C).
Cleaning	Mac-Weld instrument valve and manifold components are cleaned during the manufacturing process. Upon final assembly and testing each valve manifold undergoes a final cleaning and drying.
Operating Pressure	The recommended operating pressure for stainless steel 316/ 316L is 6,000 psig (414 barg). The Maximum Allowable Working Pressure: 6,000 psig (414 barg) @ 38°C (100°F)

Testing

Mac-Weld valve manifolds are factory tested in accordance to the following standards:





PTFE (Polytetrafluoroethylene) is a standard for all valves up to an operating temperature of 240°C Max.

Graphoil is recommended for operating temperature above 240°C. Graphoil packing contains no resin binders, it's self lubricating at all temperstures.





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