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Global Gas Management Technology

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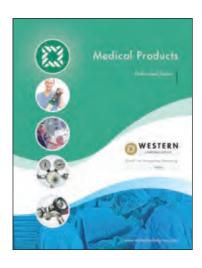
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INTRODUCTION

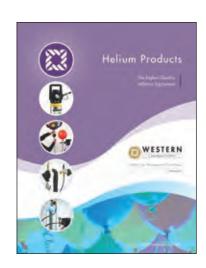
Western has served the compressed gas industry with innovative products for Industrial, Welding, HVAC, Helium and Medical applications for over 60 years. Based in Ohio, USA, our in-house design teams and highly integrated manufacturing capabilities allow us to provide high quality products that enhance the safety and efficiency of your operations. Western has a network of knowledgeable distributors and wholesale partners throughout the Americas and in over 40 countries around the world. We appreciate your interest in our products and look forward to working with you.

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Electronic Data Interchange (EDI) can reduce your cost of doing business. Our in-house staff will be happy to work with you to create a Custom solution.

> Western Enterprises 875 Bassett Road Westlake, OH 44145, USA

ORDERING INFORMATION

To place an order, please call your gas equipment wholesaler. For more information on specific products, contact Western Customer Service at 1-800-783-7890.

WARRANTY INFORMATION

Western warrants to the Purchaser that products delivered to the Purchaser will be free from manufactured defects in material and workmanship.

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GUIDE TO PRODUCT DESCRIPTIONS

Compressed Gas Association (CGA) numbers identify products intended for specific gas services. All Western fittings are manufactured to CGA standards.

In addition to CGA numbers, many popular fittings commonly are referred to as A-Size, B-Size, C-Size and D-Size. These letter identifications also are included in our product descriptions. CGA

limits pressure ratings on A, B, C and D sized fittings to 200 PSIG (1,378 kPa) maximum working pressure. Kilopascals (kPa) are the metric unit of measure similar to Pounds Per Square Inch Gauge (PSIG). BAR is the British unit of measure similar to PSIG.

(See Conversion Chart Below)

A-B-C-D-SIZES FOR OXYGEN/FUEL GAS







A-SIZE: 3/8"-24 UNF

RH Connection: CGA-020 For Oxygen LH Connection: CGA-021 For Fuel Gases







B-SIZE: 9/16"-18 UNF

RH Connection: CGA-022 For Oxygen LH Connection: CGA-023 For Fuel Gases







C-SIZE: 7/8"-14 UNF

RH Connection: CGA-024 For Oxygen LH Connection: CGA-025 For Fuel Gases







D-SIZE: 1-1/4"-12 UNF

RH Connection: CGA-026 For Oxygen LH Connection: CGA-027 For Fuel Gases

A-B-C-D-SIZES FOR GAS/WATER/AIR







A-SIZE: 3/8"-24 UNF

RH Connection: CGA-030 For Inert Gases LH Connection: CGA-031 For Water & Industrial Air



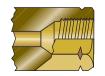




B-SIZE: 5/8"-18 UNF

RH Connection: CGA-032 For Inert Gases

LH Connection: CGA-033 For Water & Industrial Air







C-SIZE: 7/8"-14 UNF

RH Connection: CGA-034 For Inert Gases

LH Connection: CGA-035 For Water & Industrial Air







D-SIZE: 1-1/4"-12 UNF

RH Connection: CGA-036 For Inert Gases

LH Connection: CGA-037 For Water & Industrial Air

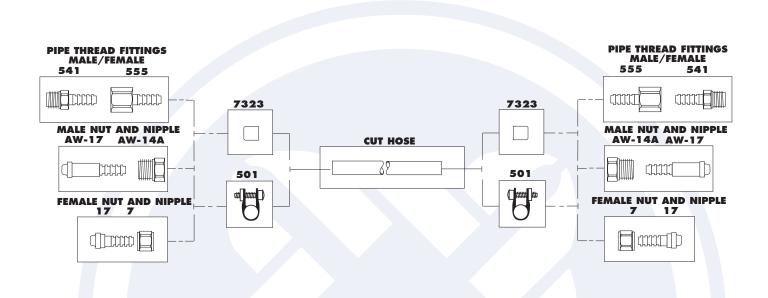
METRIC CONVERSION - PSIG TO kPa 1 PSIG=6.89 kPa OR 1 PSIG=0.069 BAR

The following PSIG and kPa conversions are used throughout this catalog. Kilopascals conversions are provided whenever possible.			
200 PSIG	=1,378 kPa	or 13.8 BAR	
400 PSIG	=2,756 kPa	or 27.6 BAR	
500 PSIG	=3,445 kPa	or 34.5 BAR	
3000 PSIG	=20,670 kPa	or 207 BAR	
4000 PSIG	=27,560 kPa	or 276 BAR	
5500 PSIG	=37,895 kPa	or 379 BAR	
6000 PSIG	=41,340 kPa	or 414 BAR	

FITTED HOSE ASSEMBLIES

Barbed hose fittings should be fabricated using clamps or crimped ferrules, (see drawing below). Western barbed hose fittings are rated to 200 PSIG maximum working pressure; however, this rating is applicable only to fitted hose assemblies

fabricated as described and shown in the drawing below. Hose repair kits include the tools needed to fabricate and assemble the fittings on the hose.



COMMON CONVERSIONS USED IN THE COMPRESSED GAS INDUSTRY

PRESSURE

PSIG	=	14.5 X BAR
Pa	=	6,894.757 x PSIG
kPa	=	6.894757 x PSIG
PSIG	=	Pa
		6.894757
PSIG	=	kPa
		6.894757

UNITS

PSIG:	Pounds Per Square Inch Gauge
Pa:	Pascal
kPa:	1000 Pascal
SCFH:	Standard Cubic Feet per Hour
SCFM:	Standard Cubic Feet per Minute
LPM:	Liters per Minute

FLOW

SCFH	=	2.118 x LPM
SCFH	=	60 x SCFM
LPM	=	SCFH
		2 118

PART NO.	DESCRIPTION	SIZE	
A-SIZE: CGA-0	20 RH & CGA- 021 LH • B-SIZE: CGA-0	22 RH & CGA-023 LH	HOSE COUPLERS, BRASS
130	Oxygen RH, A-Size to A-Size	A-Size	Pressures To 200 psig (1,400 kPa)
131	Acet/F. Gases LH, A-Size to A-Size	A-Size	C.D.
230	Oxygen RH, A-Size to B-Size	A-Size/B-Size	
231	Acet/F. Gases LH, A-Size to B-Size	A-Size/B-Size	
30	Oxygen RH, B-Size to B-Size	B-Size	6 - 3
31	Acet/F. Gases LH, B-Size to B-Size	B-Size	
C-SIZE: CGA-0	024 RH & CGA-025 LH • D-SIZE: CGA-02	26 RH & CGA-027 LH	30
C-30	Oxygen RH, C-Size to C-Size	C-Size	
C-31	Acetylene/F. Gases LH, C-Size to C-Size	C-Size	131
D-30	Oxygen RH, D-Size to D-Size	D-Size	
D-31	Acetylene/F. Gases LH, D-Size to D-Size	D-Size	

PART NO.	DESCRIPTION	SIZE	SERVICE	MATERIAL
A -	SIZE (3/8"-24 THREAD)	B-SIZE (9/16"-18 THRE	AD)
9	Oxygen RH	A-Size	CGA-020	Brass
10	Acetylene/F.Gases LH	A-Size	CGA-021	Brass
7	Oxygen RH	B-Size	CGA-022	Brass
SS-7	Oxygen RH	B-Size	CGA-022	St. Steel
8	Acetylene/F.Gases LH	B-Size	CGA-023	Brass
C-9	SIZE (7/8"-14 THREAD) •	D-SIZE (1 1/4″-12 THRI	EAD)
C-7	Oxygen RH	C-Size	CGA-024	Brass
C-8	Acetylene/F. Gases LH	C-Size	CGA-025	Brass
D-7	Oxygen RH	D-Size	CGA-026	Brass
D-8	Acetylene/F. Gases LH	D-Size	CGA-027	Brass



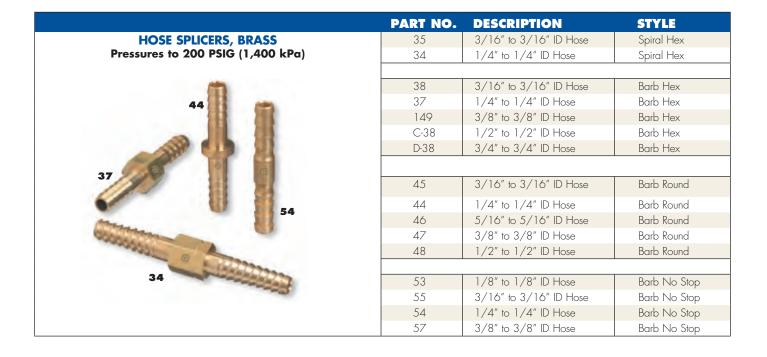
	PART NO.	DESCRIPTION	SIZE	LENGTH	MATERIAL
BARBED HOSE NIPPLES	Α-	SIZE (USE 9 or 10 NUT)	B-SIZE	(USE 7 or 8 N	UT)
Pressures to 200 PSIG (1,400 kPa)	20	3/8" ID Hose	B-Size	1-15/32"	Brass
	216	5/16" ID Hose	B-Size	1-15/32"	Brass
	SS-17	1/4" ID Hose	B-Size	1-15/32"	St. Steel
	17	1/4" ID Hose	B-Size	1-15/32"	Brass
	18	3/16" ID Hose	B-Size	1-15/32"	Brass
100	19	3/16" ID Hose	A-Size	1-1/4"	Brass
17	C-SIZ	E (Use C-7 or C-8 NUT)	• D-SIZE	(USE D-7 or D-8	NUT)
18	D-18	3/4" ID Hose	D-Size	3-1/2"	Brass
	C-17	1/2" ID Hose	C-Size	3-3/4"	Brass
	C-18	1/2" ID Hose	C-Size	2-1/4"	Brass
	C-20	3/8" ID Hose	C-Size	2"	Brass

PART NO.	DESCRIPTION	SIZE	LENGTH	MATERIAL	
A	-SIZE (USE 9 or 10 NUT)	B-SIZE	(USE 7 or 8 N	UT)	SPIRAL & NP
23	1/8" NPT	B-Size	1-1/2"	Brass	Pressures to 200
13	3/16" ID Hose	A-Size	1-1/4"	Brass	
12	3/16" ID Hose	B-Size	1-13/32"	Brass	
11	1/4" ID Hose	B-Size	1-19/32"	Brass	18 1
516	5/16" ID Hose	B-Size	1-19/32"	Brass	12.00
C-SIZ	E (USE C-7 or C-8 NUT)	• D-SIZE (USE D-7 or D-	8 NUT)	
C-88	1/4" NPT	C-Size	2"	Brass	
D-20	1/2" NPT	D-Size	2-1/2"	Brass	



PART NO.	DESCRIPTION	GAS	
107	90° Male B-Size to Female B-Size, RH	Oxygen	HOSE ADAPTORS, BRASS
108	90° Male B-Size to Female B-Size, LH	Acet/F. Gases	Pressures to 200 PSIG
127	45° 1/4" Male NPT to Male B-Size, RH	Oxygen	(1,400 kPa)
128	45° 1/4" Male NPT to Male B-Size, LH	Acet/F. Gases	253
253	90° 1/4" Male NPT to Male B-Size, RH	Oxygen	
254	90° 1/4" Male NPT to Male B-Size, LH	Acet/F. Gases	
PART NO.	DESCRIPTION	GAS	
123	1/4" Male NPT to Female Swivel B-Size, RH	Oxygen	
124	1/4" Male NPT to Female Swivel B-Size, LH	Acet/F. Gases	
154	Female Swivel B-Size to 1/4" Male NPT, LH	Acet/F. Gases	
234	1/4" Female NPT to Female Swivel B-Size, RH	Oxygen	
235	1/4" Female NPT to Female Swivel B-Size, LH	Acet/F. Gases	1
244	1/4" Female NPT to Male B-Size, RH	Oxygen	123
245	1/4" Female NPT to Male B-Size, LH	Acet/F. Gases	0
PART NO.	DESCRIPTION	GAS	
103	Male A-Size to Female B-Size, RH	Oxygen	
104	Male A-Size to Female B-Size, KH	Acet/F. Gases	
105	Male B-Size to Female A-Size, RH	Oxygen	
106	Male B-Size to Female A-Size, LH	Acet/F. Gases	
PART NO.	DESCRIPTION	SIZE GAS	
14-0	Female Swivel to 1/4" ID Hose, RH	A-Size Oxygen	105
14	Female Swivel to 1/4" ID Hose, LH	A-Size Acet/F. Gases	
24-0	Female Swivel to 1/4" ID Hose, RH	B-Size Oxygen	
24	Female Swivel to 1/4" ID Hose, LH	B-Size Acet/F. Gases	
PART NO.	DESCRIPTION		
544	Male 1/8" NPT to 3/16" ID Hose		
545	Male 1/8" NPT to 1/4" ID Hose		24-0
540	Male 1/4" NPT to 3/16" ID Hose		24-0
541	Male 1/4" NPT to 1/4" ID Hose		011
542	Male 1/4" NPT to 5/16" ID Hose		
543	Male 1/4" NPT to 3/8" ID Hose		
549	Male 1/4" NPT to 1/8" ID Hose		541
539	Male 3/8" NPT to 3/8" ID Hose		
537	Male 3/8" NPT to 1/4" ID Hose		
C-42	Male 1/2" NPT to 1/2" ID Hose		
551	Female 1/8" NPT to 3/16" ID Hose		0
554	Female 1/4" NPT to 3/16" ID Hose		
555	Female 1/4" NPT to 1/4" ID Hose		
556	Female 1/4" NPT to 5/16" ID Hose		
557	Female 1/4" NPT to 3/8" ID Hose		
558	Female 3/8" NPT to 1/4" ID Hose		40-B
PART NO.	DESCRIPTION	GAS	
40	Male B-Size, RH to 3/16" ID Hose Barbed	Oxygen	
40-B	Male B-Size, RH to 1/4" ID Hose Barbed	Oxygen	
41	Male B-Size, LH to 3/16" ID Hose Barbed	Acet/F. Gases	6
41-B	Male B-Size, LH to 1/4" ID Hose Barbed	Acet/F. Gases	
45	Male B-Size, LH to 3/16" ID Hose Spiral	Acet/F. Gases	
-		,	

	PART NO.	DESCRIPTION	MATERIAL
REGULATOR OUTLET	MALE NPT TO	OXYGEN RH • MALE NPT	TO ACET./F. GASES LH
BUSHINGS (ADAPTORS) Pressures to 200 PSIG (1,400 kPa)	132	1/8" NPT to A-Size RH	Brass
Pressures to 200 PSIG (1,400 KPd)	133	1/8" NPT to A-Size LH	Brass
	134	1/4" NPT to A-Size RH	Brass
	135	1/4" NPT to A-Size LH	Brass
	136	1/8" NPT to B-Size RH	Brass
	137	1/8" NPT to B-Size LH	Brass
	32	1/4" NPT to B-Size RH	Brass
	SS-32	1/4" NPT to B-Size RH	St. Steel
142	33	1/4" NPT to B-Size LH	Brass
32	142	3/8" NPT to B-Size RH	Brass
	SS-142	3/8" NPT to B-Size RH	St. Steel
	143	3/8" NPT to B-Size LH	Brass
	144	1/2" NPT to B-Size RH	Brass
	145	1/2" NPT to B-Size LH	Brass
	C-34	1/4" NPT to C-Size RH	Brass
33	C-35	1/4" NPT to C-Size LH	Brass
143	C-32	1/2" NPT to C-Size RH	Brass
	C-33	1/2" NPT to C-Size LH	Brass
	D-34	1/2" NPT to D-Size RH	Brass
	D-35	1/2" NPT to D-Size LH	Brass
	D-32	3/4" NPT to D-Size RH	Brass
	D-33	3/4" NPT to D-Size LH	Brass



L	MATERIAL	THREAD SIZE	PART NO.
TORCH TIP NUT REPLACEMENTS	Brass	7/8" - 20	TN 1-2
TIP NUTS FOR CUTTING TORCHES & ATTACHMENTS	Brass	15/16" - 18	TN2-1
	Brass	7/8" - 20	TN2-2
	Brass	7/8" - 20	TN3-1
	Brass	7/8" - 20	TN4-1
TN2-1			
TN4-1			

PART NO.	DESCRIPTION	SIZE	SERVICE	
C-SIZ	B-SIZE (9/16"-18 THREAD E (7/8"-14 THREAD) • D-SIZE (1-1) /4″-12 TH	IREAD	CHAIN & PLUG ASSEMBLIES, BRAS Pressures to 200 PSIG (1,400 kP
922	5/8"-18 RH Male Nut (AW-14A) & Plug	Brass	0-200	
927	2-Piece Assembly, Gas Tight Seal,	B-Size		
	Female Oxygen RH Nut & Plug		CGA-022	
928	2-Piece Assembly, Gas Tight Seal,	B-Size		0000
	Female Acetylene LH Nut & Plug		CGA-023	CO D D D D D D D D D D D D D D D D D D D
DC-B7	1-Piece Dust Cap, Not Gas Tight,	B-Size		Carlos Ca
	Female Oxygen RH		CGA-022	
DC-B8	1-Piece Dust Cap, Not Gas Tight,	B-Size		8
	Female Acetylene LH		CGA-023	
C-907	2-Piece Assembly, Gas Tight Seal,	C-Size		
	Female Oxygen, RH Nut & Plug		CGA-024	
C-908	2-Piece Assembly, Gas Tight Seal,	C-Size		927
	Female Acetylene LH Nut & Plug		CGA-025	
DC-C7	1-Piece Dust Cap, Not Gas Tight,	C-Size		
	Female Oxygen RH		CGA-024	
DC-C8	1-Piece Dust Cap, Not Gas Tight,	C-Size		
	Female Acetylene LH		CGA-025	

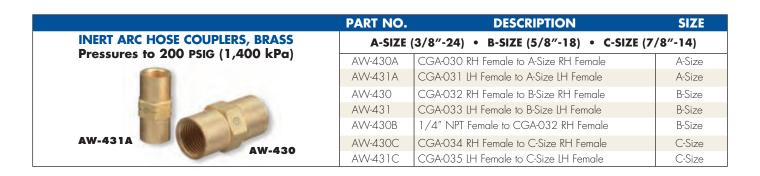
PART NO.	DESCRIPTION	GAS	SERVICE
DC-B7	RH Female B-Size	Oxygen	CGA-022
DC-B8	LH Female B-Size	Acetylene	CGA-023
DC-C7	RH Female C-Size	Oxygen	CGA-024
DC-C8	LH Female C-Size	Acetylene	CGA-025
DC-320	RH Female	Carbon Dioxide	CGA-320
DC-346	RH Female	Air	CGA-346
DC-350	LH Female	Hydrogen	CGA-350
DC-510	LH Male	POL Acetylene	CGA-510
DC-540	RH Female	Oxygen	CGA-540
DC-580	RH Male	Nitrogen, Argon, Helium	CGA-580
DC-660	RH Female	Mixtures	CGA-660

	PART NO.	DESCRIPTION	SIZE	SERVICE	
INERT ARC NUTS, BRASS (TIG)	A-SIZE (3/8"-24) • B-SIZE (5/8"-18) • C-SIZE (7/8"-14)				
Pressures to 200 PSIG (1,400 kPa)	9	Inert Gas, Female RH	A-Size	CGA-020	
	10	Water, Female LH	A-Size	CGA-021	
	AVV-21	Water, Male LH	A-Size	CGA-031	
	AW-21A	Inert Gas, Male RH	A-Size	CGA-030	
Use Above With AW-13, AW-24, A-Size Cable Nipples					
AW-10A	AW-7	Air-Water, Female RH	B-Size	-	
	Use Above With AW-30 and AW-32 Couplers				
	AW-14	Water, Male LH	B-Size	CGA-033	
(C 1)	AW-14A	Inert Gas, Male RH	B-Size	CGA-032	
AWAAA	L	Ise Above With All B-Size Ine	rt Arc Nipples		
AW-14A	AW-10	Water, Male LH	C-Size	CGA-035	
	AW-10A	Inert Gas, Male RH	C-Size	CGA-034	
	Use	Above With All C-Size Powe	er Cable Nipple	S	

PART NO.	DESCRIPTION	SIZE	
	A-SIZE (3/8"-24) • B-SIZE (5/8"-18)		INERT ARC NIPPLES, BRASS (TIG
AW-24	2" Long, Barb for 1/8" ID Hose	A-Size	Pressures to 200 PSIG (1,400 kP
AVV-13	2" Long, Barb for 3/16" ID Hose	A-Size	
	Use Above With 9, 10, AW-21, AW-21A Nuts		
AW-3	2.175" Long, 1/8" NPT	B-Size	
AW-16	2-7/32" Long, Barb for 1/8" ID Hose	B-Size	AW-13
AW-17	2-7/32" Long, Barb for 1/4" ID Hose	B-Size	AW-13
AW-18	2-7/32" Long, Barb for 3/16" ID Hose	B-Size	
AW-19	2-7/32" Long, Barb for 3/8" ID Hose	B-Size	
AW-20	2-7/32" Long, Barb for 5/16" ID Hose	B-Size	AW-17
	Use Above With AW-14, AW-14A, AW-7 Nuts		
AW-16B	1-13/32" Long, for 1/8" ID Hose, .190 OD	B-Size	
AW-40	2" Long, Undersized 1/8" Barb	B-Size	
AW-47	2-7/32" Long, Special 1/4" Barb	B-Size	

	PART NO.	DESCRIPTION	SIZE
INERT ARC ADAPTORS, BRASS Pressures to 200 PSIG (1,400 kPa)		ALE AIR-WATER CONNECTIONS FOR INERT ARC (3/8-24") • B-SIZE (5/8-18") • C-SIZE (7/8-	
	AW-12	1/8" NPT Male to A-Size Female LH Water	A-Size
	AW-12A	1/8" NPT Male to A-Size Female RH Inert Gas	A-Size
	AW-152	1/8" NPT Male to B-Size Female LH Water	B-Size
	AW-152A	1/8" NPT Male to B-Size Female RH Inert Gas	B-Size
	AW-15	1/4" NPT Male to B-Size Female LH Water	B-Size
AW-27A	AW-15A	1/4" NPT Male to B-Size Female RH Inert Gas	B-Size
AW-4/A	AW-28A	9/16"-18 Male to B-Size Female RH Inert Gas	B-Size
	AW-27	1/4" NPT Male to C-Size Female LH Water	C-Size
AW-15A	AW-27A	1/4" NPT Male to C-Size Female RH Inert Gas	C-Size

PART NO.	DESCRIPTION	
	B-SIZE (5/8"-18)	INERT ARC HOSE & TORCH ADAPTORS, BRASS
AW-403	RHM to CGA-022 9/16"-18 RHM	Pressures to 200 PSIG (1,400 kPa)
AW-405	RHF to CGA-022 9/16"-18 RHF	AW COS
AW-406	LHF to B-Size RHF	AW-405 AW-427
AW-407	RHM to B-Size RHF -90°	
AW-408	LHM to B-Size LHF -90°	
AW-409	RHM to B-Size RHM	
AW-427	RHM to 1/4" NPT M	
AW-428	LHM to 1/4" NPT M	
AW-432B	9/16" - 18 F to 5/8" - 18 F	
		AW-409 AW-407
		400



	SIZE	DESCRIPTION	PART NO.
RT ARC AIR-WATER	B-Size	5/8"-18 Male RH to 5/8"-18 Male RH	AW-30
OUPLERS, BRASS	B-Size	1/4"-18 NPT Male to 5/8"-18 Male RH	AW-32
to 200 PSIG (1,400 kPa)	B-Size	5/8"-18 Male RH to 9/16"-18 Male RH	AW-34
AW-35	B-Size	5/8"-18 Male LH to 9/16"-18 Male LH	AW-35

	PART NO.	DESCRIPTION	SIZE
INERT ARC POWER CABLE	A-	SIZE (3/8"-24) • B-SIZE (5/8"-18) • C-SIZE (7/8"-14)	
ADAPTORS, BRASS (TIG) Pressures to 200 PSIG (1,400 kPa)	AW-105	RH Female to B-Size RH Female, 3/4" Hex, 2-1/8" Long	B-Size
Pressures 10 200 P310 (1,400 KPd)	AW-107	LH Female to B-Size LH Female, 3/4" Hex, 2-1/8" Long	B-Size
	AW-108	RH Female to B-Size RH Female, 1-1/8" Hex, 2" Long	C-Size
AW-107 AW-110			

INERT ARC FITTINGS FOR MIG/TIG TORCHES

	PART NO.	DESCRIPTION	SIZE
INERT ARC POWER CABLE NIPPLES & CONNECTOR ASSEMBLIES, BRASS Pressures to 200 PSIG (1,400 kPa)		ONE-PIECE POWER CABLE NIPPLE & TUBE CONNECTOR FOR CRIMPING A-SIZE (3/8"-24) • B-SIZE (5/8"-18)	
	AVV-44	1/8" ID Hose, .22 OD Tube, 1 3/4" Long	A-Size
AW-44 AW-46	AW-45	3/16" ID Hose, .245 OD Tube, 2 3/8" Long	A-Size
AW-44 AW-46	AW-46	3/8" ID Hose, .367 OD Tube, 2 3/4" Long	B-Size
AW-20		C-SIZE NIPPLES FOR CRIMPING CABLE, USE WITH AW-10 & AW-10A NUT C-SIZE (7/8"-14)	
**	AW-26	.225" OD Brass Tube, 1.45" Long	C-Size

PART NO	. DESCRIPTION	
	ASSEMBLIES WITH COPPER TUBE FOR CRIMPING CABLE COPPER OR BRASS NIPPLE & SWIVEL NUT	INERT ARC POWER CABLE NUT, NIPPLE & COPPER TUBE ASSEMBLIES
AW-51	Nipple & .375" OD Copper Tube with RH 7/16"-20 Female Nut, 2 5/16" Long	Pressures to 200 PSIG (1,400 kPa)
AW-53	Nipple & .218" OD Copper Tube with RH 1/4"-28 Female Nut 1-15/16" Long	AW-51 AW-53

PART NO.	DESCRIPTION	SERVICE	
	A-SIZE (3/8"-24 THREAD) • B-SIZE (9/16"-18 THREAD		"Y" CONNECTIONS, BRASS
101	Oxygen RH: B-Size F Inlet to B-Size M Outlets	CGA-022	Pressures to 200 PSIG (1,400 kPa)
102	Acetylene/F. Gases LH: B-Size F Inlet to B-Size M Outlets	CGA-023	
401	Inert Gas RH: 5/8"-18 M Inlet to 5/8"-18 F Outlets	CGA-032	
402	Water, Industrial Air LH: 5/8"-18 M Inlet to 5/8"-18 F Outlets	CGA-033	
	PRESSURES TO 3000 PSIG (20,700 kPa)		
111-5	Short "Y" Connection: 1/4" NPT M Inlet to 1/4" NPT F Outlets	-	101
111-6	Short "Y" Connection: 1/8" NPT F Inlet +0 1/4" NPT F Outlets	-	

	PART NO.	DESCRIPTION	SERVICE
VALVED "Y" CONNECTIONS, BRASS		B-SIZE (9/16"-18 THREAD)	
For use of two cutting and/or two	111*	Oxygen RH: B-Size F Inlet to B-Size M Outlets	CGA-022
welding torchesat once • Precision shut off valves	112*	Acetylene/F. Gases LH: B-Size F Inlet to B-Size M Outlets	CGA-023
Precision shut off valves	411	Inert Gas RH: 5/8"-18 M Inlet to 5/8"-18 F Outlets	CGA-032
	412	Water, Industrial Air LH: 5/8"-18 M Inlet to 5/8"-18 F Outlets	CGA-033
111	*Sold in retail (clamshell packaging	

OUTLET	SERVICE	GAS	
NPT MALE INLET • 7/8"-14	4 CGA MALE O	JTLET	VALVES, BRASS
RH, Gas Tight Plug/Chain	CGA-024	Oxygen	Pressures to 200 PSIG (1,400 kPa) UL Liste
LH, Gas Tight Plug/Chain	CGA-025	Fuel Gas	Car.
RH, No Outlet Protection	CGA-024	Oxygen	
LH, No Outlet Protection	CGA-025	Fuel Gas	
RH, Dust Cap and Chain	CGA-024	Oxygen	
LH, Dust Cap and Chain	CGA-025	Fuel Gas	WSV-1-1P
	RH, Gas Tight Plug/Chain LH, Gas Tight Plug/Chain RH, No Outlet Protection LH, No Outlet Protection RH, Dust Cap and Chain	RH, Gas Tight Plug/Chain CGA-024 LH, Gas Tight Plug/Chain CGA-025 RH, No Outlet Protection CGA-024 LH, No Outlet Protection CGA-025 RH, Dust Cap and Chain CGA-024	RH, Gas Tight Plug/Chain CGA-024 Oxygen LH, Gas Tight Plug/Chain CGA-025 Fuel Gas RH, No Outlet Protection CGA-024 Oxygen LH, No Outlet Protection CGA-025 Fuel Gas RH, Dust Cap and Chain CGA-024 Oxygen

	PART NO.	BODY & SEAT STYLE	DESCRIPTION	MAX PSIG
CARTRIDGE VALVES STAINLESS	SS-110S	Male, Metal-To-Metal Seat	For corrosive gases	6000
STEEL, 1/4" NPT X 1/4" NPT	SS-110K	Male, Soft Seat	Minimal force shut-off	3000
	SS-110M	Male, Metering Seat	Fine thread for accuracy	6000
	SS-120S	Male 90°, Metal-To-Metal Seat	For corrosive gases	6000
	SS-120K	Male 90°, Soft Seat	Minimal force shut-off	3000
110 Body Style	SS-120M	Male 90°, Metering Seat	Fine thread for accuracy	6000
A TO	SS-130S	Female, Metal-To-Metal Seat	For corrosive gases	6000
	SS-130M	Female, Metering Seat	Fine thread for accuracy	6000
		REPLACEMENT	CARTRIDGES	
	SS-CK	Soft Seat Cartridge		

PART NO.	DESCRIPTION	
	B-SIZE (9/16"-18 THREAD)	BRASS BODY VALVES
203	Oxygen CGA-022:	FOR NON-CORROSIVE GASES Pressures to 200 PSIG (1,400 kPa)
	Inlet: B-Size Female Swivel Nut RH; Outlet: B-Size Male RH	Fressores to 200 F310 (1,400 KFu)
204	Acetylene/F. Gases CGA-023:	
	Inlet: B-Size Female Swivel Nut LH; Outlet: B-Size Male LH	
205	Oxygen CGA-022:	
	Inlet: 1/4" NPT Male; Outlet: B-Size Male RH	
206	Acetylene/F. Gases CGA-023:	
0.07	Inlet: 1/4" NPT Male; Outlet: B-Size Male LH	
207	Oxygen CGA-022:	
000	Inlet: B-Size Male RH; Outlet: 1/4" NPT Male	
208	Acetylene/F. Gases CGA-023:	
208-F	Inlet: B-Size Male LH; Outlet: 1/4" NPT Male	
200-г	Acetylene/F. Gases CGA-023: Inlet: B-Size Male LH; Outlet: 1/4" NPT Female	
209	Oxygen CGA-022:	
207	Inlet: B-Size Male RH; Outlet: B-Size Male RH	205 215-AR
210	Acetylene/F. Gases CGA-023:	
210	· ·	
015 40	Inlet: B-Size Male LH; Outlet: B-Size Male LH	
215-AR	Inert Gas CGA-032:	
215-FR	Inlet: 1/4" NPT Male; Outlet: 5/8"-18 Female RH Inert Gas CGA-032:	
21311		
	Inlet: 5/8"-18 Male Swivel Nut RH; Outlet: 5/8"-18 Female RH	
	PRESSURES TO 3000 PSIG (20,700 kPa)	
	All Non-Corrosive Gases:	
211	Inlet: 1/4" NPT Male; Outlet: 1/4" NPT Male	
217	Inlet: 1/4" NPT Male; Outlet: 1/4" NPT Female	
218	Inlet: 1/4" NPT Female; Outlet 1/4" NPT Male	
218-D	Inlet: 1/4" NPT Female; Outlet 1/4" NPT Female	

SAFETY RELIEF VALVES

For Gaseous or Liquid Nitrogen, Oxygen, Air and other Cryogenic Fluids

- Use in cryogenic, pressure vessel, manifold and other demanding applications
- Silicone seat provides superior sealing/resealing
- Heavy duty brass construction resists corrosion

1/4" NPT RELIEF VALVE

- Accurate Cracking Pressure:
 ± 3 PSIG to 70 PSIG
 4% of set pressure over 70 PSIG
- Temperature Range: -100°F to +165°F -73°C to +74°C
- Pressure Settings (PSIG)
 22, 35, 50, 100, 125, 230, 235, 350
 (others available upon request)
- Orifice Size: 1/4" Diameter
- Flow Coefficient (Cv Factor): .65 Typical

1/2" NPT RELIEF VALVE

- Accurate Cracking Pressure:
 ± 5 PSIG to 100 PSIG
 ± 10 PSIG of set pressure over 100 PSIG
- Temperature Range: -100°F to +165°F -73°C to +74°C
- Pressure Settings (PSIG)
 60, 75, 100, 150, 200, 250, 375
 (others available upon request)
- Orifice Size: 5/16" Diameter
- Flow Coefficient (Cv Factor): 1.3 Typical

PART NO.	DESCRIPTION	
	1/4" NPT Inlet Relief Valves	SAFETY RELIEF VALVES, BRASS
WMV-4-22	22 PSIG Setting	
WMV-4-35	35 PSIG Setting	
VVMV-4-50	50 PSIG Setting	
WWV-4-100	100 PSIG Setting	
VMV-4-125	125 PSIG Setting	
WWV-4-230	230 PSIG Setting	
VMV-4-235	235 PSIG Setting	
WWV-4-350	350 PSIG Setting	
WMV-4-7	Pipe-away Adaptor, All Models	0
	1/2" NPT Inlet Relief Valves	
VMV-8-75	75 PSIG Setting	
V/MV-8-100	100 PSIG Setting	
VMV-8-150	150 PSIG Setting	
WWV-8-200	200 PSIG Setting	
WMV-8-250	250 PSIG Setting	
VMV-8-300	300 PSIG Setting	
VMV-8-350	350 PSIG Setting	
VMV-8-375	375 PSIG Setting	
VVMV-8-7	Pipe-away Adaptor, All Models	

	PART NO.	INSIDE DIMENSION	LENGTH	METAL THICKNESS
BRASS DUAL HOSE BRACES, OVAL		Dimensions I		
	9940-P	.542 x 1.071	3/4	.024
	453	.593 x 1.238	3/4	.025
	453-A	.640 x 1.310	3/4	.025
9116 9940-P	454	.700 x 1.325	3/4	.025

PART NO.	FOR HOSE ID	CLAMP ID	
D	imensions In Inches		HOSE CLAMPS
500	3/16"	7/16"	
501	1/4"	1/2"	
502	1/4"	9/16"	500 502
503	3/8"	5/8"	500
504	3/8"	11/16"	AL .

	PART NO.	DESCRIPTION	
HAND-HELD FERRULE CRIMP TOOLS	Crimp with Hammer Strike or Vise Pressure		
	C-1	2 Hole Jaw 5/8" Wide, Use on 3/16", 1/4" Hose	
	C-3	3 Hole Jaw 1" Wide, Use on 3/16", 1/4", 3/8" Hose	
	C-3B	3 Hole Jaw 1" Wide, Use on 1/4", 5/16", 3/8" Hose	
12.67		Crimp with Hand-Grip Pressure	
0	C-5	2 Hole Jaw 1/2" Wide, Use on 3/16", 1/4" Hose	
C-5A C-3	C-5A	3 Hole Jaw 1/2" Wide, Use on 5/16", 11/32", 27/64" Hose	
	C-6	2 Hole Jaw 1/2" Wide, Use on 5/8", 11/16" Hose	

PART NO.	DESCRIPTION	
5111-A	Bench Model Hose Crimper Dies need to be ordered separately. Dies are available in standard sets listed in Ferrule Table on page 20. Each set includes four segments. Dies are available with plain contracting surface (CD) or special three-ribbed surface (CDR). Sets are ordered by using die numbers in the Ferrule Table.	BENCH FERRULE CRIMPING TOOL
	Examples: Plain Die for Ferrule K-K: Order CD-38 Ribbed Die for Ferrule K-K: Order CDR-37	5111-A

	PART NO.	DESCRIPTION
HEAVY-DUTY FERRULE CRIMP MACHINE	CR-100	Heavy-Duty Ferrule Crimp Machine
Crimps Ferrules on 3/16", 1/4", 5/16", 3/8" Hose. Die Width, 1/2"		Replacement Parts
	CR-100A	Die Block #1 with Pin
	CR-100B	Die Block #2
	CR-100C	Die Block #3
	CR-100D	Die Block #4
THE OWNER OF THE OWNER OWNER OF THE OWNER OWNE	CR-100E	Die Block #5 (2 pcs.)
TO TO	CR-100F	Replacement Handle
CR-100	CR-100G	Handle Pivot Pin only
	CR-100H	Handle Pivot Pin/Ring set
	CR-100J	Cap Screw



	INSIDE		RECOMMENDED	5111	-A DIE
PART NO.	DIAMETER LENGTH HAND CRIMP TOOL			PLAIN	RIBBED
		Listed B	y Size In Inches • Smallest To Large	est ID	
6231	.330	1/2"	C-5A	-	CDR-46
620	.410	1/2"	C-5A	-	_
769	.450	9/16"	C-1, C-5, C-5A, CR-100	-	-
4750	.475	11/16"	CR-100	-	_
624	.500	1/2"	CR-100	-	CDR-40
7322	.500	1"	C-3B	-	CDR-39
625	.525	1/2"	C-3B	-	CDR-39
7323	.525	1"	C-3B	CD-38	CDR-38
626	.548	31/64"	C-3B	-	CDR-38
<i>7</i> 325	.562	1"	C-3B, C-5, CR-100	CD-38	CDR-37
3588	.562	3/4"	C-3B, C-5, CR-100	CD-38	CDR-37
K-K	.575	31/64"	C-1, C-3B, C-5,C-3, CR-100	CD-38	CDR-37
7326	.593] "	C-1, C-3B, C-3, C-5	_	CDR-36
7327	.625	1"	C-3B, C-6, CR-100	_	CDR-35
7328	.656] "	C-3B, C-6, CR-100	_	CDR-34
7329	.687	1"	C-3, C-6, CR-100	_	_
7330-B	.718] "	C-3, C-6	-	-
<i>7</i> 331	.750	1"	C-3, C-6	_	_
7332	.781	1"	C-3, C-6	-	-
7333	.812	1"	5111-A**	CD-28	_
7244-A	.875	27/32"	5111-A**	CD-26	CDR-25
5029-A	.900	27/32"	5111-A**	CD-25	_

Since there is no industry standard for hose wall thickness, the ID of the hose cannot be used to determine the correct ferrule. To determine the proper size ferrule, measure the OD of the hose (as a decimal) and go up to the next larger size Ferrule ID listed above.

Example: If the hose OD is .555 "use a #7325 Ferrule, which has an ID of .562".

See page 18 for listing and descriptions of all Western hand crimp tools and model 5111-A bench tool.

** Use of hand tool is not recommended. Model 5111-A is a heavy-duty bench style ferrule machine.



HOSE REPAIR KITS

Hose repair kits include crimping tool, nuts, couplers, splicers, nipples and ferrules. (See page 18 for more information on crimp tools included in the kits)

PART NO.	DESCRIPTION
HOSE REP	AIR KITS WITH "HAMMER-STRIKE" CRIMP TOOL: A-SIZE (3/8"-24) & B-SIZE (9/16"-18) FITTINGS
CK-1	Kit with C-1 Crimp Tool for 3/16", 1/4" ID Hose
CK-3	Kit with C-3 Crimp Tool for 3/16", 1/4", 3/8" ID Hose
CK-20	Kit with C-1 Crimp Tool for 3/16", 1/4" ID Hose
CK-22	Kit with C-1 Crimp Tool, for 1/4" ID Hose, B-Size Fittings Only
ı	HOSE REPAIR KITS WITH HAND-GRIP" CRIMP TOOL: B-SIZE (9/16"-18) FITTINGS ONLY
CK-5	Kit with C-5 Crimp Tool for 3/16", 1/4" ID Hose (A & B size nuts)
CK-6	Kit with C-6 Crimp Tool for 5/16", 3/8" ID Hose
CK-24	Kit with C-5 Crimp Tool for 3/16", 1/4" ID Hose
CK-26	Kit with C-5 Crimp Tool for 1/4" ID Hose, B-Size Fittings Only
	MINI HOSE REPAIR KIT
CK-27	A-Size (3/8"- 24) & B-Size (9/16"- 18) Mini Kit (Does not include Crimp Tool)
CK-28	B-Size (9/16"- 18) Mini Kit for 1/4" ID Hose (Does not include Crimp Tool)
CK-30	B-Size Inert (5/8"- 18) Mini Kit for 1/4" ID Hose (Does not include Crimp Tool)
	HOSE REPAIR KIT B-SIZE (9/16"-18) FITTINGS ONLY
CK-7	B-Size (9/16"-18) Kit, 189 Fittings in Case (Does not include Crimp Tool)
CK-8	A-Size (3/8"- 24) Kit, 94 Fittings in Case (Does not include Crimp Tool)
	HOSE REPAIR KIT CASE ONLY
A10004	Western Kit Case, 11" x 7" x 1-1/4"

	PART NO.	DESCRIPTION
BRASS FERRULE & CRIMPING TOOL KIT	CK-10	Ferrule Kit, 134 Pieces, C-3B Crimp Tool

PART NO.	DESCRIPTION	MATERIAL	MAX PSIG (kPa)
	(90° Femal	e to Female NP	Γ)
BEL-4-4LP	1/4" x 1/4"	Brass	1000 (6900)
BEL-4HP	1/4" x 1/4"	Brass	3000 (20,700)
BEL-8HP	1/2" x 1/2"	Brass	3000 (20,700)
	(90° Femo	ile to Male NPT)	
BL-2-2LP	1/8" x 1/8"	Brass	1000 (6900)
BL-2HP	1/8" x 1/8"	Brass	3000 (20,700)
BL-4-2LP	1/4" x 1/8"	Brass	1000 (6900)
BL-4-4LP	1/4" x 1/4"	Brass	1000 (6900)
BL-4SS	1/4" x 1/4"	Stainless Steel	6000 (41,300)
BL-4HP	1/4" x 1/4"	Brass	3000 (20,700)
BL-6HP	3/8" × 3/8"	Brass	3000 (20,700)
BL-8HP	1/2" x 1/2"	Brass	3000 (20,700)
	(45° Femo	ile to Male NPT)	
BSL-4-4LP	1/4" x 1/4"	Brass	1000 (6900)
BSL-4HP	1/4" x 1/4"	Brass	3000 (20,700)



	PART NO.	DESCRIPTION	MATERIAL	MAX PSIG (kPa)			
PIPE THREAD CROSSES	4-Way Female						
(D)	BCR-4LP	1/4" NPT	Brass	1000 (6,900)			
	BCR-4HP	1/4" NPT	Brass	3000 (20,700)			
	BCR-4SS	1/4" NPT	St. Steel	6000 (41,300)			
BCR-4LP BCR-4HP							

PART NO.	DESCRIPTION	MATERIAL	MAX PSIG (kPa)	
	3-Wo	ay Female		PIPE THREAD TEES
BFT-2HP	1/8" NPT	Brass	3000 (20,700)	
BFT-4LP	1/4" NPT	Brass	1000 (6,900)	(410)
BFT-4HP	1/4" NPT	Brass	3000 (20,700)	BFT-4HP
BFT-4SS	1/4" NPT	St. Steel	6000 (41,300)	0.0
BFT-6HP	3/8" NPT	Brass	3000 (20,700)	
BFT-12HP	3/4" NPT	Brass	3000 (20,700)	
	Femo	ıle x Male		
BMT-2HP	1/8" NPT (Branch)	Brass	3000 (20,700)	BST-4LI
BMT-4LP	1/4" NPT (Branch)	Brass	1000 (6,900)	
BST-4LP	1/4" NPT (Street)	Brass	1000 (6,900)	
BMT-4HP	1/4" NPT (Branch)	Brass	3000 (20,700)	BMT-4LP
BST-4HP	1/4" NPT (Street)	Brass	3000 (20,700)	

	PART NO.	DESCRIPTION	LENGTH	HEX
PIPE THREAD REDUCER COUPLINGS,	BR.	ASS, PRESSURES TO 3000	PSIG (20,700) kPa)
FEMALE TO FEMALE	BF-4-2HP	1/4" NPT x 1/8" NPT	1.093"	3/4"
	BF-6-4HP	3/8" NPT x 1/4" NPT	1.281"	7/8"
0 9	BF-8-4HP	1/2" NPT x 1/4" NPT	1.671"	1-1/8"
BF-4-2HP	BF-12-8HP	3/4" NPT x 1/2" NPT	1.700"	1-3/8"

	PART NO.	DESCRIPTION	MATERIAL	LENGTH	HEX
PIPE THREAD ADAPTORS,	BA-4-2HP	1/4" NPT x 1/8" NPT	Brass	1.062"	3/4"
FEMALE TO MALE	BA-4HP	1/4" NPT x 1/4" NPT	Brass	1.281"	3/4"
To 3000 PSIG (20,700 kPa)	BA-6-4HP	3/8" NPT x 1/4" NPT	Brass	1.312"	7/8"
	BA-8-4HP	1/2" NPT x 1/4" NPT	Brass	1.500"	1-1/8"
	BA-8-6HP	1/2" NPT x 3/8" NPT	Brass	1.562"	1-1/8"
BA-4-2HP					
DR-T-ZIII					

PART NO.	DESCRIPTION	MATERIAL	LENGTH	HEX	
	To 3000 PS	SIG (41,300 kPa)		PIPE THREAD HEX NIPPLES,
B-2HP	1/8" NPT x 1/8" NPT	Brass	.937"	7/16"	MALE TO MALE
B-4HP	1/4" NPT x 1/4" NPT	Brass	1.437"	5/8"	
B-6HP	3/8" NPT x 3/8" NPT	Brass	1.500"	11/16"	
B-8HP	1/2" NPT x 1/2" NPT	Brass	1.875"	7/8"	
B-9HP	3/4" NPT x 3/4" NPT	Brass	1.937"	1-1/8"	
	To 6000 PS	iiG (41,300 kPa)		
B-4SS	1/4" NPT x 1/4" NPT	St. Steel	1.437"	5/8"	B-455
					B-4HP

	PART NO.	DESCRIPTION	MATERIAL	LENGTH	HEX		
PIPE THREAD COUPLINGS,	To 3000 PSIG (20,700 kPa)						
FEMALE TO FEMALE	BF-2HP	1/8" NPT x 1/8" NPT	Brass	.800″	9/16"		
	BF-4HP	1/4" NPT x 1/4" NPT	Brass	1.187"	3/4"		
	BF-6HP	3/8" NPT x 3/8" NPT	Brass	1.180"	7/8"		
	BF-8HP	1/2" NPT x 1/2" NPT	Brass	1.500"	1-3/8"		
BF-4SS	BF-12HP	3/4" NPT x 3/4" NPT	Brass	1.520"	1-3/8"		
BF-4HP		To 6000 PSIG	(41,300 kPa)				
Dr-4nr	BF-4SS	1/4" NPT x 1/4" NPT	St. Steel	1.187"	3/4"		

	HEX	LENGTH	MATERIAL	DESCRIPTION	PART NO.
PIPE THREAD REDUCER	5/8"	1.250"	Brass	1/4" NPT x 1/8" NPT	B-4-2HP
BUSHINGS, MALE TO MALE	11/16″	1.467"	Brass	3/8" NPT x 1/4" NPT	B-6-4HP
Pressures to 3000 PSIG 20,700 kP	7/8"	1.687"	Brass	1/2" NPT x 1/4" NPT	B-8-4HP
	7/8"	1.718″	Brass	1/2" NPT x 3/8" NPT	B-8-6HP
B-4-2HP					

PART NO.	DESCRIPTION	MATERIAL	LENGTH	HEX	
BE-2-25HP	1/8" NPT	Brass	2-1/2"	9/16"	PIPE THREAD EXTENSION ADAPTORS,
BE-4-3HP	1/4" NPT	Brass	3"	3/4"	FEMALE TO MALE Pressures to 3000 PSIG (20,700 kPa) BE-4-3HP

	PART NO.	DESCRIPTION	LENGTH	MATERIAL	HEX
PIPE THREAD BUSHINGS,	BB-2-4HP	1/8" NPT x 1/4" NPT	.875"	Brass	5/8"
FEMALE TO MALE	BB-4-6HP	1/4" NPT x 3/8" NPT	.968"	Brass	3/4"
Pressures to 3000 PSIG (20,700 kPa)	BB-4-8HP	1/4" NPT x 1/2" NPT	1.125"	Brass	7/8"
	BB-4-12HP	1/4" NPT x 3/4" NPT	1.168"	Brass	1-1/8"
	BB-6-8HP	3/8" NPT x 1/2" NPT	1.125"	Brass	7/8"
BB-4-8HP	BB-8-12HP	1/2" NPT x 3/4" NPT	1.168"	Brass	1-1/8″

PART NO.	DESCRIPTION	MATERIAL	HEX	
	Pressures to 3000 PSIG	(20,700 kPa)		PIPE THREAD CAPS & PLUGS
PC-2HP	Cap, 1/8" NPT F	Brass	5/8"	
PC-4HP	Cap, 1/4" NPT F	Brass	3/4"	
PC-6HP	Cap, 3/8" NPT F	Brass	7/8"	
PC-8HP	Cap, 1/2" NPT F	Brass	1-1/8"	
P-4HP	Hex Plug, 1/4" NPT M	Brass	5/8"	PC-4HP
P-6HP	Hex Plug, 3/8" NPT M	Brass	7/8"	P-4HP PC-4HP
P-8HP	Hex Plug, 1/2" NPT M	Brass	1-1/8"	
	Pressures to 6000 PSIG	(41,300 kPa)		
P-4SS	Hex Plug, 1/4" NPT	Stainless Steel	5/8"	

	PART NO.	DESCRIPTION	MATERIAL	LENGTH
PIPE THREAD NIPPLES, MALE	BN-2-25HP	1/8" NPT	Brass	2-1/2"
Pressures to 3000 PSIG (20,700 kPa)	BN-4-15HP	1/4" NPT	Brass	1-1/2"
	BN-4-20HP	1/4" NPT	Brass	2"
	BN-4-30HP	1/4" NPT	Brass	3"
10	BN-4-35HP	1/4" NPT	Brass	3-1/2"
	BN-4-50HP	1/4" NPT	Brass	5"
BN-4-20HP	BN-6-35HP	3/8" NPT	Brass	3-1/2"
	BN-8-35HP	1/2" NPT	Brass	3-1/2"

ORDERING INFORMATION - FILTERS FOR REGULATOR INLET NUTS & NIPPLES

Most brass and stainless steel nipples may be ordered in any of the following 3 configurations:

1. BRASS AND STAINLESS STEEL NIPPLES WITHOUT A FILTER.

Simply order the part numbers as listed in the tables on pages 25 through 32 of this catalog.

2. BRASS NIPPLES REQUIRING A FILTER RECESS. (NO FILTER INSTALLED)

Add a "-5" to the part numbers listed in the tables on pages 25 through 32 of this catalog.

Brass nipples may be ordered with a filter recess. Filters are placed at the front or rear of the nipple, depending on the nipple design.

Example:



Part No. 63 - S - Brass Nipple with recess

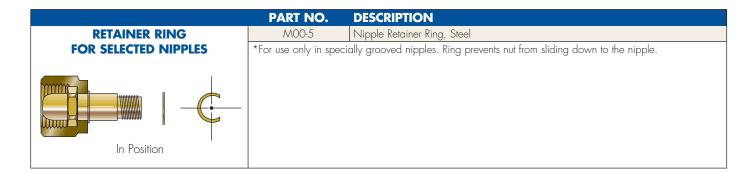
3. BRASS AND STAINLESS STEEL NIPPLES WITH INSTALLED FILTER.

Add a "-SF" to the part numbers listed in the tables of pages 25 through 32 of this catalog.



Part No. CO - 3SF - 100 Mesh stainless steel filter

PART NO.	DESCRIPTION	
S-3	Porous Metal: Nickel Plated Bronze, 45 Microns	FILTERS FOR REGULATOR INLET NIPPLES
*May be used with	all stainless steel and brass nipples, except for CGA-320 nipples	s-3 Porous Metal



PRODUCT SPECIFICATION GUIDE AND ORDERING INFORMATION FOR REGULATOR INLET NUTS AND NIPPLES

Western offers nuts and nipples in a variety of materials and styles to fit a full range of gas service requirements. Five different types of nut/nipple combinations are available:

- Brass nut and nipple
- Stainless steel nut and nipple
- Nut and nipple with check valve
- Nut and nipple recessed for tubing
- Hand tight nut and nipple

Please note that all types may not be available for certain gas services.

NIPPLES WITH CHECK VALVES

Nipples with integral check valves are designed to provide additional safety in Manifold Systems and other equipment.

- Check Valve Nipples can be built into Pigtails, Tee Connections and Manifold Blocks to resist back flow of gases from lines, equipment and cylinders.
- Check valves are factory installed and are 100% tested.

Check valves are for reverse flows only – they are not to be used as Flashback Arrestors.

(See page 34 for more information on Western's line of flashback arrestors.)

HAND TIGHT NUTS & NIPPLES

Western Hand-Tight Nuts provide for easy installation and are available in brass or with plastic grips.

- Lightweight plastic grips have labels which are color-coded for gas service.
- All brass nuts are machined to CGA specifications and designed with wrench flats.
- Soft tip or o-ring type nipples should always be used with hand-tight nuts.
- CGA fittings rated over 3000 PSIG do not have soft tips and final gas-tight seating requires wrench action.

PART NO.	PART	DESCRIPTION	SERVICE	
CGA -	170 FOR	NON-CORROSIVE GASES IN SMALL	. CYLINDERS	REGULATOR NUTS & NIPPLES, BRASS
1 <i>7</i> 0-3SF	Nipple	Brass, 1/8" NPT, 1-1/2" Long	CGA-170	Pressures to 3000 PSIG (20,700 kPa)

	PART NO.	PART	DESCRIPTION	SERVICE			
REGULATOR NUTS & NIPPLES, BRASS	CGA - 200 FOR "MC" TANK ACETYLENE						
& STAINLESS STEEL Pressures to 500 PSIG (3,400 kPa)	305-2	Nut	Brass, "MC" T, .628"-20 NGO, RH Female	CGA-200			
riessules to 300 rsio (0,400 kru)	305-3A	Nipple	Brass, 1/8" NPT, 1 1/4" Long	CGA-200			
305-2							

	PART NO.	PART	DESCRIPTION	SERVICE
NIPPLE ASSEMBLY	CGA - 240 FOR AMMONIA			
Pressures to 500 PSIG (3,445 kPa)	SS-24-3	Nipple	St. Steel, Nipple, 1/4" NPT	CGA-240

PART NO.	PART	DESCRIPTION	SERVICE	
	CGA - 28	O FOR MEDICAL BREATHING MIXTU	JRES	REGULATOR NUTS & NIPPLES, BRA
284	Nut	Brass, .750"-14 NGO, RH Female	CGA-280	Pressures to 3000 PSIG (20,700 kg
283	Nipple	Brass, 1/4" NPT, 2" Long	CGA-280	
C	GA - 296	FOR INDUSTRIAL MIXTURES OF OX	YGEN	
29-2	Nut	Brass, .803"-14 UNS-2A, RH Male	CGA-296	29-2
29-3	Nipple	Brass, 1/4" NPT, 3" Long	CGA-296	
6296	Nut	Brass, Hand-Tight, RH Male	CGA-296	29-3
6296-0	O-Ring	Replacement	CGA-296	

	PART NO.	PART	DESCRIPTION	SERVICE
REGULATOR NUTS &		CGA -	300 FOR COMMERCIAL ACETYLENE	
NIPPLES, BRASS Pressures to 500 PSIG (3,445 kPa)	16-2	Nut	Brass, .830″-14 NGO, RH Female	CGA-300
resseres to see i sie (e)++s ki u)	16-3	Nipple	Brass, 1/4" NPT, 1-15/16" Long	CGA-300
	16-8	Nipple	Brass, 1/4" NPT, 2-1/2" Long	CGA-300
01	16-8CV	Nipple	Brass, 1/4" NPT, 2-1/2" Long w/CV	CGA-300
	616-2P	Nut	Hand-Tight, Plastic Grip, RH Female	CGA-300
16-2	616-3	Nipple	Hand-Tight, 1/4" NPT, 2-1/2" Long	CGA-300

PART NO.	PART	DESCRIPTION	SERVICE	
	CGA ·	- 350 FOR HYDROGEN/NATURAL GAS		REGULATOR NUTS & NIPPLES,
82	Nut	Brass, .830"-14 NGO, LH Female	CGA-350	BRASS & STAINLESS STEEL
83	Nipple	Brass, 1/4" NPT, 2-1/2" Long	CGA-350	Pressures to 3000 PSIG (20,700 kPa)
83-CV	Nipple	Brass, 1/4" NPT, 2-1/2" Long w/Check V	CGA-350	
83-M1	Nipple	Recessed for 1/4" OD Tube	CGA-350	
83-M2	Nipple	Recessed for 5/16" OD Tube	CGA-350	
87	Nipple	Brass, 1/4" NPT, 3" Long	CGA-350	8
682	Nut	Brass, Hand-Tight, LH Female	CGA-350	
682P	Nut	Plastic Grip, Hand-Tight, LH Female	CGA-350	Y PIN -
683	Nipple	Hand-Tight, 1/4" NPT, 2-1/2" Long	CGA-350	82
683-PT	Tip	Soft Tip Replacement	CGA-350	
SS-82	Nut	St. Steel, .830"-14 NGO, LH Female	CGA-350	
SS-83	Nipple	St. Steel, 1/4" NPT, 2-1/2" Long	CGA-350	83
SS-83M1	Nipple	Recessed for 1/4" OD Tube	CGA-350	
	CG	A - 410 FOR CANADIAN ACETYLENE		
410-2	Nut	Brass, .855"-14 NGO, LH Female	CGA-410	
410-3	Nipple	Brass, 1/4" NPT, 2-1/2" Long	CGA-410	
	C	GA - 500 FOR MEDICAL MIXTURES		
500-2	Nut	Brass, .880"-14 NGO, RH Male	CGA-500	
15-8	Nipple	Brass, 1/4" NPT, 2-1/2" Long	CGA-500	
15-8CV	Nipple	Brass, 1/4" NPT, 2-1/2" Long w/CV	CGA-500	
15-3	Nipple	Brass, 1/4" NPT, 3" Long	CGA-500	500-2
15-4	Nipple	Brass, 1/4" NPT, 3-1/2" Long	CGA-500	15-8
15-11	Nipple	Brass, 1/4" NPT, 4-1/2" Long	CGA-500	
15-8M1	Nipple	Recessed for 1/4" OD Tube	CGA-500	
15-8M2	Nipple	Recessed for 5/16" OD Tube	CGA-500	
15-8M3	Nipple	Recessed for 3/8" OD Tube	CGA-500	

PART NO.	PART	DESCRIPTION	SERVICE	
	C	GA - 320 FOR CARBON DIOXIDE		REGULATOR NUTS & NIPPLES,
CO-2	Nut	Brass, .830"-14 NGO RH Female	CGA-320	BRASS & STAINLESS STEEL
CO-3	Nipple	Brass, 1/4" NPT, 2" Long w/washer	CGA-320	Pressures to 3000 PSIG (20,700 kPa)
CO-4	Nipple	Brass, 1/4" NPT, 2-1/2" Long w/washer	CGA-320	
CO-4CV	Nipple	Brass, 1/4" NPT, 2-1/2" Long w/Check	CGA-320	
CO-3M2	Nipple	Recessed for 5/16" OD Tube	CGA-320	
6-CO-2	Nut	Brass, Hand-Tight, RH Female	CGA-320	CO-2
6-CO-2P	Nut	Plastic Grip, Hand-Tight, RH Female	CGA-320	
6-CO-4	Nipple	Hand-Tight, 1/4" NPT, 2-1/2" Long	CGA-320	
6-CO-4M1	Nipple	Hand-Tight, Recessed for 1/4" Tube	CGA-320	
SS-CO-2	Nut	St. Steel, .830"-14 NGO, RH Female	CGA-320	
SS-CO-3	Nipple	St. Steel, 1/4" NPT, 2" Long	CGA-320	60.3
CO-1TW	Washer	PTFE, Snap-In	CGA-320	Includes Washer
CO-5	Washer	Fiber, Flat	CGA-320	CO-6N
CO-6	Washer	PTFE, Flat	CGA-320	
CO-6N	Washer	Nylon, Snap-In	CGA-320	
	(CGA - 326 FOR NITROUS OXIDE		
13-2	Nut	Brass, .830"-14 NGO, RH Female	CGA-326	
13-3	Nipple	Brass, 1/4" NPT, 2-1/2" Long	CGA-326	
13-3CV	Nipple	Brass, 1/4" NPT, 2-1/2" Long w/Check V	CGA-326	
613-2P	Nut	Plastic Grip, Hand-Tight, RH Female	CGA-326	10.0
613-5	Nipple	Hand-Tight, 1/4" NPT, 2-1/2" Long	CGA-326	13-2
613-KPT	Tip	Soft Tip, Replacement	CGA-326	6
SS-13-2	Nut	St. Steel, .830"-14 NGO, RH Female	CGA-326	
SS-13-3	Nipple	St. Steel, 1/4" NPT, 2-1/2" Long	CGA-326	13-3
		O FOR NON-CORROSIVE GASES (BRASS) ORROSIVE GASES (STAINLESS STEEL)		
SS-334	Nut	St. Steel, .830"-14 NGO, LH Female	CGA-330	
SS-333	Nipple	St. Steel, 1/4" NPT, 2" Long	CGA-330	
335	Washer	PTFE	CGA-330	
CO-6N	Washer	Nylon, Snap-In	CGA-330	
		CGA - 346 FOR AIR		
14-2	Nut	Brass, .830"-14 NGO, RH Female	CGA-346	0/
14-3	Nipple	Brass, 1/4" NPT, 2-1/2" Long	CGA-346	
14-3CV	Nipple	Brass, 1/4" NPT, 2-1/2" Long w/Check	CGA-346	
614-2P	Nut	Plastic Grip, Hand-Tight, RH Female	CGA-346	14-2
614-5	Nipple	Hand-Tight, 1/4" NPT, 2-1/2" Long	CGA-346	14-2
614-KPT	Tip	Soft Tip Replacement	CGA-346	14-3
SS-14-2	Nut	St. Steel, .830"-14 NGO, RH Female	CGA-346	
SS-14-3	Nipple	St. Steel, 1/4" NPT, 2-1/2" Long	CGA-346	

	PART NO.	PART	DESCRIPTION	SERVICE		
REGULATOR NUTS & NIPPLES,	CGA - 347 FOR AIR/HIGH PRESSURE					
BRASS & STAINLESS STEEL Pressures 3001 PSIG TO 5500 PSIG (37,950 kPa)	347-2	Nut	Brass, .830"-14 NGO, RH Female	CGA-347		
	347-3	Nipple	Brass, 1/4" NPT, 3" long	CGA-347		
	6347-2	Nut	Hand-Tight, RH Female	CGA-347		
	6347-3	Nipple	Hand-Tight, 1/4" NPT, 3" Long	CGA-347		
	6347-3-3	O-Ring	Replacement	CGA-347		
347-2	SS-347-2	Nut	St. Steel, .830"-14 NGO, RH Female	CGA-347		
347-3	SS-347-3	Nipple	St. Steel, 1/4" NPT, 3" Long	CGA-347		
	SS-6347-2	Nut	Hand-Tight, St.Steel, RH Female	CGA-347		
	SS-6347-3	Nipple	Hand-Tight, St. Steel, 1/4" NPT, 3" Long	CGA-347		

PART NO.	PART	DESCRIPTION	SERVICE	
		CGA - 510 FOR POL ACETYLENE		REGULATOR NUTS & NIPPLES,
15-2	Nut	Brass, .880"-14 NGO, LH Male	CGA-510	BRASS & STAINLESS STEEL Pressures to 500 PSIG (3,400 kPa)
15-3	Nipple	Brass, 1/4" NPT, 3" Long	CGA-510	Pressures to 300 P310 (5,400 KPd)
15-4	Nipple	Brass, 1/4" NPT, 3-1/2" Long	CGA-510	
15-5	Nipple	Brass, 1/2"-27, 4" Long	CGA-510	
15-8	Nipple	Brass, 1/4" NPT, 2-1/2" Long	CGA-510	
15-8CV	Nipple	Brass, 1/4" NPT, 2-1/2" Long w/Check	CGA-510	
15-9	Nipple	Brass, 1/2"-27, 3" Long	CGA-510	
15-11	Nipple	Brass, 1/4" NPT, 4-1/4" Long	CGA-510	
15-8M1	Nipple	Recessed for 1/4" OD Tube	CGA-510	15-2
15-8M2	Nipple	Recessed for 5/16" OD Tube	CGA-510	
15-8M3	Nipple	Recessed for 3/8" OD Tube	CGA-510	15-3
615-2	Nut	Brass, Hand-Tight, LH Male	CGA-510	
615-2P	Nut	Plastic Grip, Hand-Tight, LH Male	CGA-510	
615-3	Nipple	Hand-Tight, 1/4" NPT, 3-1/2" Long, w/O-Ring	CGA-510	
615-3T	Nipple	Hand-Tight, 1/4" NPT, 3" Long, w/Soft Tip	CGA-510	
615-8M1T	Nipple	Hand-Tight, Recessed for 1/4" Tube w/Soft Tip	CGA-510	(10)
615-0	O-Ring	Replacement O-Ring	CGA-510	
615-PT	Tip	Soft Tip Replacement	CGA-510	
SS-15-2	Nut	St. Steel, .880"-14 NGO, LH Male	CGA-510	
SS-15-3	Nipple	St. Steel, 1/4" NPT, 3" Long	CGA-510	300-2
SS-15-3CV	Nipple	St. Steel, 1/4" NPT, 3" Long w/CV	CGA-510	
SS-15-8M1	Nipple	Recessed for 1/4" OD Tube	CGA-510	
	C	GA - 520 FOR "B" TANK - ACETYLENE		300-3
300-2	Nut	Brass, .899"-18 NGO, RH Female	CGA-520	
300-3	Nipple	Brass, 1/4" NPT, 1-3/4" Long	CGA-520	

	PART NO.	PART	DESCRIPTION	SERVICE
REGULATOR NUTS & NIPPLES,			CGA - 540 FOR OXYGEN	
BRASS & STAINLESS STEEL	62	Nut	Brass, .908"-14 NGO, RH Female	CGA-540
Pressures to 3000 PSIG (20,700 kPa)	63-CV	Nipple	Brass, 1/4" NPT, 2" Long w/CV	CGA-540
	63	Nipple	Brass, 1/4" NPT, 2-1/6" Long	CGA-540
	66	Nipple	Brass, 1/4" NPT, 2-1/2" Long	CGA-540
(a) 1/2 mm	69	Nipple	Brass, 1/4" NPT, 3" Long	CGA-540
M PM	67	Nipple	Brass, 1/2"-27, 2-1/2" Long	CGA-540
	63-M1	Nipple	Recessed for 1/4" OD Tube	CGA-540
62	63-M2	Nipple	Recessed for 5/16" OD Tube	CGA-540
	662	Nut	Brass, Hand-Tight, RH Female	CGA-540
63	662P	Nut	Plastic Grip, Hand-Tight, RH Female	CGA-540
63-M1	663	Nipple	Hand-Tight, 1/4" NPT, 2-1/2" Long	CGA-540
	663-KPT	Tip	Soft Tip Replacement	CGA-540
	SS-62	Nut	St. Steel, .908"-14 NGO, RH Female	CGA-540
	SS-63	Nipple	St. Steel, 1/4" NPT, 2-1/2" Long	CGA-540
	CG	A - 555 FO	R BUTANE, PROPANE (LIQUID WITHDR	AWL)
(3)	72	Nut	Brass, .908"-14 NGO, LH Female	CGA-555
	63-CV	Nipple	Brass, 1/4" NPT, 2" Long w/Check V	CGA-555
	73	Nipple	Brass, 1/4" NPT, 2-1/16" Long	CGA-555
72	672	Nut	Brass, Hand-Tight, LH Female	CGA-555
	672-P	Nut	Plastic Grip, Hand-Tight, LH Female	CGA-555
76	CG	A - 577 FO	R OXYGEN: 4,000 PRESSURE TO 4000	PSIG
	577-2	Nut	Brass, .965"-14 NGO, RH Female	CGA-577
	577-4SF	Nipple	Brass w/Filter, 1/4" NPT, 3" Long	CGA-577

	PART NO.	PART	DESCRIPTION	SERVICE
REGULATOR NUTS & NIPPLES,		CGA -	580 FOR ARGON, HELIUM & NITROGEN	
BRASS & STAINLESS STEEL Pressures to 3000 PSIG	92	Nut	Brass, .960"-14 NGO, RH Male	CGA-580
(20,700 kPa)	15-3	Nipple	Brass, 1/4" NPT, 3" Long	CGA-580
(1, 11	15-4	Nipple	Brass, 1/4" NPT, 3-1/2" Long	CGA-580
	15-8	Nipple	Brass, 1/4" NPT, 2-1/2" Long	CGA-580
	1 <i>5</i> -8CV	Nipple	Brass, 1/4" NPT, 2-1/2" Long w/CV	CGA-580
	15-11	Nipple	Brass, 1/4" NPT, 4-1/2" Long	CGA-580
The state of the s	15-9	Nipple	Brass, 1/2"-27, 3" Long	CGA-580
	15-5	Nipple	Brass, 1/2"-27, 4" Long	CGA-580
	1 <i>5</i> -8M1	Nipple	Recessed For 1/4" OD Tube	CGA-580
	15-8M2	Nipple	Recessed For 5/16" OD Tube	CGA-580
92	692	Nut	Brass, Hand-Tight, RH Male	CGA-580
15-4	692P	Nut	Plastic Grip, Hand-Tight, RH Male	CGA-580
	615-0	O-Ring	Replacement O-Ring	CGA-580
	61 <i>5-</i> PT	Tip	Soft Tip Replacement	CGA-580
	615-3	Nipple	Hand-Tight, 1/4" NPT, 3-1/2" Long, w/O-Ring	CGA-590
	615-3T	Nipple	Hand-Tight, 1/4" NPT, 3" Long, w/Soft Tip	CGA-590
	615-8M1T	Nipple	Hand-Tight, 1/4" OD Tube, 2-1/8" Long	CGA-580
	SS-92	Nut	St. Steel, .960"-14 NGO, RH Male	CGA-580
	SS-15-3	Nipple	St. Steel, 1/4" NPT, 3" Long	CGA-580
	SS-15-3CV	Nipple	St. Steel, 1/4" NPT, 3" Long w/CV	CGA-580
	SS-15-8M1	Nipple	Recessed For 1/4" OD Tube	CGA-580

PART NO.	PART	DESCRIPTION	SERVICE	
		CGA - 590 FOR INDUSTRIAL AIR		REGULATOR NUTS & NIPPLES,
93	Nut	Brass, .960"-14 NGO, LH Male	CGA-590	BRASS & STAINLESS STEEL Pressures to 3000 PSIG (20,700 kPa)
15-3	Nipple	Brass, 1/4" NPT, 3" Long	CGA-590	Pressures to 3000 PSIG (20,700 KPd)
15-4	Nipple	Brass, 1/4" NPT, 3-1/2" Long	CGA-590	2
15-8	Nipple	Brass, 1/4" NPT, 2-1/2" Long	CGA-590	The same of the sa
15-8CV	Nipple	Brass, 1/4" NPT, 2-1/2" Long w/CV	CGA-590	
15-9	Nipple	Brass, 1/2"-27, 3" Long	CGA-590	
15-5	Nipple	Brass, 1/2"-27, 4" Long	CGA-590	
15-11	Nipple	Brass, 1/4" NPT, 4-1/2" Long	CGA-590	93
15-8M1	Nipple	Recessed For 1/4" OD Tube	CGA-590	alle M
15-8M2	Nipple	Recessed For 5/16" OD Tube	CGA-590	15-3
15-8M3	Nipple	Recessed For 3/8" OD Tube	CGA-590	
693	Nut	Brass, Hand-Tight, LH Male	CGA-590	
693P	Nut	Plastic Grip, Hand-Tight, LH Male	CGA-590	
615-3	Nipple	Hand-Tight, 1/4" NPT, 3-1/2" Long, w/O-Ring	CGA-590	
615-3T	Nipple	Hand-Tight, 1/4" NPT, 3" Long, w/Soft Tip	CGA-590	
615-0	O-Ring	Replacement O-Ring	CGA-590	
615-PT	Tip	Soft Tip Replacement	CGA-590	COL.
SS-93	Nut	St. Steel, .960"-14 NGO, LH Male	CGA-590	
SS-15-3	Nipple	St. Steel, 1/4" NPT, 3" Long	CGA-590	
SS-15-3CV	Nipple	St. Steel, 1/4" NPT, 3" Long w/CV	CGA-590	603
SS-15-8M1	Nipple	Recessed For 1/4" OD Tube	CGA-590	
	C	GA - 660 FOR REFRIGERANT GASES		604
604	Nut	Brass, 1.035"-14 NGO, RH Female	CGA-660	354
603	Nipple	Brass, 1/4" NPT, 1-3/4" Long	CGA-660	
603-A	Nipple	Brass, 1/4" NPT, 2-1/4" Long	CGA-660	
SS-603A	Nipple	St. Steel, 1/4" NPT, 2-1/4" Long	CGA-660	
SS-604	Nut	St. Steel, 1.035-14 NGO, RH Female	CGA-660	
665	Washer	PTFE	CGA-660	

PART NO.	PART	DESCRIPTION	SERVICE	
		CGA - 670 FOR MIXTURES		REGULATOR NUTS & NIPPLES,
SS-704	Nut	St. Steel, 1.035"-14 NGO, LH Female	CGA-670	STAINLESS STEEL Pressures to 500 PSIG (3,400 kPa)
SS-703A	Nipple	St. Steel, 1/4" NPT, 2-1/2" Long	CGA-670	riessules to 300 rate (3,400 krd)
665	Washer	PTFE	CGA-670	

	PART NO.	PART	DESCRIPTION	SERVICE
REGULATOR NUTS & NIPPLES,			CGA - 677 FOR INERT GASES	
STAINLESS STEEL Pressures to 7500 PSIG (41,300 kPa)	SS-60-2	Nut	St. Steel, 1.035"-14 NGO, LH Female	CGA-677
F16330163 10 7 300 F310 (41,300 KFQ)	SS-60-3	Nipple	St. Steel, 1/4" NPT, 2-1/2" Long	CGA-677
	SS-60-4	Nipple	St. Steel, 3/8" NPT, 3" Long	CGA-677
	SS-60M1	Nipple	Recessed For 1/4" OD Tube	CGA-677

PART NO.	PART	DESCRIPTION	SERVICE	
		CGA - 680 FOR INERT GASES		REGULATOR NUTS & NIPPLES, BRASS
680-2	Nut	Brass, 1.040"-14 NGO RH Male	CGA-680	Pressures from 3000 PSIG (20,700 kPa)
680-3SF	Nipple	Brass w/Filter, 1/4" NPT, 3" Long	CGA-680	
680-4SF	Nipple	Brass w/Filter, 1/4" NPT, 3-1/2" Long	CGA-680	
6680	Nut	Hand-Tight (Use With 680-4SF Nipple)	CGA-680	
	CGA	A - 695 FOR FLAMMABLE GASES		680-2
680-3SF	Nipple	Brass w/Filter, 1/4" NPT, 3" Long	CGA-695	680-3SF
680-4SF	Nipple	Brass w/Filter, 1/4" NPT, 3-1/2" Long	CGA-695	000-331

	PART NO.	PART	DESCRIPTION	SERVICE
REGULATOR NUTS &			CGA - 701 FOR OXYGEN	
NIPPLES, BRASS Pressures 4000 PSIG (27,600 kPa)	701-2	Nut	Brass, 1.108"-14 NGO, RH Female	CGA-701
to 5500 PSIG (37,950 kPa)	701-4SF	Nipple	Brass w/Filter, 1/4" NPT, 3" Long	CGA-701

PART NO.	PART	DESCRIPTION	SERVICE	
		CGA - 670 FOR MIXTURES		REGULATOR NUTS & NIPPLES, BRASS
702-2	Nut	Brass, 1.120"-14 NGO, RH Male	CGA-702	Pressures from 5500 PSIG (37,950 kPa to 7500 PSIG (51,750 kPa)
680-3SF	Nipple	Brass w/Filter, 1/4" NPT, 3" Long	CGA-702	10 / 500 1 510 (5 1// 50 Ki u)
680-4SF	Nipple	Brass w/Filter, 1/4" NPT, 3-1/2" Long	CGA-702	

	PART NO.	PART	DESCRIPTION	SERVICE		
REGULATOR NUTS &	CGA - 703 FOR METHANE & HYDROGEN					
NIPPLES, BRASS Pressures from 5500 PSIG (37,950 kPa)	680-3SF	Nipple	Brass w/Filter, 1/4" NPT, 3" Long	CGA-703		
to 7500 PSIG (51,750 kPa)	680-4SF	Nipple	Brass w/Filter, 1/4" NPT, 3-1/2" Long	CGA-703		

PART NO.	PART	DESCRIPTION	SERVICE	
		CGA - 705 FOR AMMONIA		REGULATOR NUTS & NIPPLES,
SS-705	Nut	St. Steel, 1.125"-14 UNS-2A, RH Female	CGA-705	STAINLESS STEEL Pressures to 3000 PSIG (20,700 kPa)
SS-705-3	Nipple	1/4" NPT, 2-1/2" Long	CGA-705	Fressures to 3000 F310 (20,700 KFU)
705	Washer	PTFE	CGA-705	

REVERSE FLOW CHECK VALVES

For torch and regulator applications, Western Check Valves guard against danger caused by plugged tips, overpressurizing or incorrect startup procedures. Proper Check Valve installation helps prevent accidents caused by gases mixing in hoses, regulators or cylinders.

NOTE: CHECK VALVES DO NOT STOP FLASHBACKS. SEE PAGE 34 FOR MORE INFORMATION ON WESTERN'S FLASHBACK ARRESTORS.

Western's reverse flow Check Valves meet or exceed CGA and OSHA requirements (Pamphlet CGA-E2) and feature:

- Flows for cutting up to 12" of steel
- Machined high quality brass with stainless steel operating spring and valve disc
- Low open/close pressures:
 1 1-1/2 psig open valve and
 10 oz. reverse pressure to positively close valve
- 100% tested
- Made in U.S.A
- Pressure ratings: (unless otherwise listed)
 Oxygen – To 125 PSIG (860 kPa)
 Fuel Gas – To 50 PSIG (345 kPa)
- Check Valve Seat Material: A-Size Models – fluoroelastomer B-Size Models – Buna-NTM



WESTERN CHECK VALVES

TORCH MODEL, A-SIZE (3/8"-24)

A one-piece, compact unit designed for A-Size applications. Mounts to torch to prevent reverse flow at point of origin.

PART NO.	DESCRIPTION	SERVICE
	TORCH MODEL, A-SIZE (3/8"-24)	
CV-A9	Oxygen RH, A-Size Male to A-Size Female Nut, to 125 PSIG (800 kPa)	CGA-020
CV-A10	Fuel Gas LH, A-Size Male to A-Size Female Nut, to 50 PSIG (345 kPa)	CGA-021
WE-63	Torch Style - Set CV-A9 & CV-A10	_

TORCH MODEL, B-SIZE (9/16"-18)

Mounts easily on torch, is readily seen and can be removed for periodic testing. Flows cut up to 12" steel plate or handle heating tips (1200 SCFH at 50 PSIG). Stops reverse flow at point of origin.

PART NO.	DESCRIPTION	SERVICE
	TORCH MODEL, B-SIZE (9/16"-18)	
CV-7R**	Oxygen RH, B-Size Male to B-Size Female Nut, to 125 PSIG (800kPa)	CGA-022
CV-8L**	Fuel Gas LH, B-Size Male to B-Size Female Nut, to 50 PSIG (345 kPa)	CGA-023
WE-60**	Torch Style - Set CV-7R & CV-8L	-

REGULATOR BUSHING ADAPTOR MODEL, B-SIZE (9/16"-18)

Easily mounts on outlet bushing of any regulator having a B-Size outlet. This model has the same flow capacity as the torch - type (1200 SCFH at 50 PSIG) when installed on a regulator. The Check Valve is to easy to see and is less subject to contamination, abuse and damage.

PART NO.	DESCRIPTION	SERVICE
	REGULATOR BUSHING ADAPTOR MODEL B-SIZE (9/16"-18)	
CV-30R**	Oxygen RH, B-Size Female Nut to B-Size Male, to 125 PSIG (800kPa)	CGA-022
CV-31L**	Fuel Gas LH, B-Size F Nut to B-Size Male, to 50 PSIG (345 kPa)	CGA-023
WE-61*	Regulator Adaptor - Set CV-30R & CV-31L	-

^{*}Sold in retail clamshell packaging

^{* *} Ul listed

REGULATOR OUTLET BUSHING MODEL, B-SIZE (9/16"-18)

- Replaces outlet bushing in most regulators
- Flow capacity is 1000 SCFH at 50 PSIG
- Regulator type Check Valve is easily seen and less subject to contamination, abuse and damage
- Installed with PTFE thread seal tape on 1/4" NPT tapered threads

1/4"	NPT	INLINE	CHECK	VALVES,
TO 20	00 PS	SIG (1.4	00 kPa)

- These Check Valves are appropriate for applications that require higher operating pressures, up to 200 PSIG
- Compact design and low open/close pressures: 3 oz. to open valve and 10 oz. of reverse pressure for positive valve closing
- Flow characteristics match those in the Flow Specification Chart (below) for B-Size Check Valves

INLINE NPT CHECK VALVES, HEAVY DUTY

- Heavy Duty Check Valves are designed for high performance in demanding applications
- All styles feature low/open/close pressures:
 3 oz. to open the valve and 10 oz. of reverse pressure for positive valve closing
- Check Valve seat material is durable Ethylene Propylene (EPDM)
- For use in high pressure pigtail assemblies

CHECK VALVE FLOW SPECIFICATIONS CHARTS

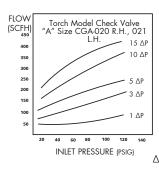
Flow curves presented here are based on air at 70° F. To convert flows of other gases, multiply by the appropriate conversion factor listed on instruction sheets included with all check valves.

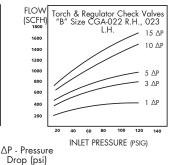
PART NO.	DESCRIPTION	SERVICE
	REGULATOR OUTLET BUSHING MODEL B-SIZE (9/16"-18)	
CV-32R**	Oxygen RH, 1/4" NPT Male to B-Size Male, to 125 PSIG (800 kPa)	CGA-022
CV-33L**	Fuel Gas LH, 1/4" NPT Male to B-Size Male, to 50 PSIG (345 kPa)	CGA-023
WE-62**	Regulator Outlet Set Includes CV-32R & CV-33L	B-Size

PART NO.	DESCRIPTION		
	1/4" NPT INLINE CHECK VALVES, TO 200 PSI (1,400 kPa)		
CV-4	1/4" NPT Male to 1/4" NPT Male		
CV-5	1/4" NPT Male to 1/4" NPT Female (Flow Male to Female)		
CV-6	1/4" NPT Female to 1/4" NPT Male (Flow Female to Male)		



PART NO.	DESCRIPTION	MATERIAL	MAX PSIG
	INLINE NPT CHECK VALVES, HE	AVY DUTY	
CV-4M	1/4" NPT Male Inlet to Male Outlet	Brass	3000
CV-6M	3/8" NPT Male Inlet to Male Outlet	Brass	3000
CVF-4M	1/4" NPT Female Inlet to Male Outlet	Brass	3000
CVM-4F	1/4" NPT Male Inlet to Female Outlet	Brass	3000
CV-4MSS	1/4" NPT Male Inlet to Male Outlet	St. Steel	6000
CVF-4MSS	1/4" NPT Female Inlet to Male Outlet	St. Steel	6000
CVM-4FSS	1/4" NPT Male Inlet to Female Outlet	St. Steel	6000





GAS	CONVERSION FACTOR
Acetylene	1.05
Butane	.89
Hydrogen	3.79
Mapp Gas	.82
Methane	1.34
Oxygen	.95
Propane	.81

QUICK-CONNECTS FOR WELDING EQUIPMENT

Western's Quick Connects provide fast, reliable and positive connections and quick disconnections for torches, hoses and regulators. All models are color-coded for gas service for added safety (oxygen/green, fuel gas/red, inert gas/blue). Oxy/fuel gas models include integral reverse flow Check Valves. Quick Connects fit all B-size welding and cutting equipment.

FEATURES & SPECIFICATIONS:

- Brass construction provides long service life-cycle tested over 10,000 operations indicating a service life of 10 to 12 years of comparable use
- Non-interchangeable Oxygen and Fuel Gas connectors prevent accidental gas mixing
- Instant closure on reverse flow Check Valves with total shutoff at only 10 oz. of back pressure
- Exceed CGA flow specifications-1100 SCFH flow at 125 PSIG inlet pressure and 800 SCFH flow at 125 PSIG inlet pressure when 2 additional check valves are used in conjunction with the Quick Connects
- Spring loaded locking mechanism responds to fingertip action and achieves a gas-tight connection
- UL Listed

- For inert gas models, demand valve on supply side creates a positive seal when fitting is not connected
- Double seal socket connection on second seal provides added safety protection
- Installation and operating instructions
- 200 psig maximum operating pressure



PART NO.	DESCRIPTION	COMPONENTS		
QDB10*	Torch-to-Hose Set QDB11- Fuel Gas w/Check Valves	QDB12-Oxygen		
QDB20*	Hose-to-Hose Set QDB21– Fuel Gas w/Check Valves	QDB22-Oxygen		
QDB30*	Regulator-to-Hose QDB31– Fuel Gas w/Check Valves	QDB32-Oxygen		

QUICK CONNECTS-SETS - B SIZE (9/16"- 18)

QUICK CONNECTS-INDIVIDUAL

PART NO.	DESCRIPTION	COMPONENTS
	Torch-to-Ho	se
QDB11*	Fuel Gas w/Check Valve (9/16"- 18 LH)	QDB200-Male Plug QDB201-Female Socket
QDB12*	Oxygen w/Check Valve (9/16"- 18 RH)	QDB100-Male Plug QDB101-Female Socket
	Hose-to-Hos	se
QDB21*	Fuel Gas w/Check Valve (9/16"-18 LH)	QDB205-Male Plug QDB201-Female Socket
QDB22*	Oxygen w/Check Valve (9/16"-18 RH)	QDB105-Male Plug QDB101-Female Socket
	Regulator-to-H	lose
QDB31*	Fuel Gas w/Check Valve (9/16"- 18 LH)	QDB205-Male Plug QDB206-Female Socket
QDB32*	Oxygen w/Check Valve (9/16"- 18 RH)	QDB 1 05–Male Plug QDB 1 06–Female Socket
QDB33*	Inert Gas-Regulator-to- Hose (5/8"- 18 RH)	QDB300-Male Plug QDB301-Female Socke
QDB34*	Inert Gas-Hose-to-Machine (5/8"- 18 RH)	QDB302–Male Plug QDB303–Female Socket

^{*}Sold in retail clamshell packaging

KwikLok - OSHA Compliant** Quick Connects with Sleeve Lock Feature

QUICK CONNECTS-SETS - B SIZE (9/16"- 18)

PART NO.	DESCRIPTION	COMPONENTS
QDB40*	Torch-to-Hose Set w/Check Valves	QDB401-Fuel Gas QDB402-Oxygen
QDB50*	Hose-to-Hose Set w/Check Valves	QDB501-Fuel Gas QDB502-Oxygen
QDB60*	Regulator-to-Hose w/Check Valves	QDB601-Fuel Gas QDB602-Oxygen

QUICK CONNECTS-INDIVIDUAL UNITS

PART					
NO.	DESCRIPTION	COMPONENTS			
Torch-to-Hose					
QDB401*	Fuel Gas w/Check Valve (9/16"- 18 LH)	QDB200-Male Plug QDB551-Female Socket			
QDB402*	Oxygen w/Check Valve (9/16"- 18 RH)	QDB 100-Male Plug QDB550-Female Socket			
	Hose-to-Ho	ose			
QDB501*	Fuel Gas w/Check Valve (9/16"-18 LH)	QDB205-Male Plug QDB551-Female Socket			
QDB502*	Oxygen w/Check Valve (9/16"-18 RH)	QDB105-Male Plug QDB550-Female Socket			
	Regulator-to-Hose				
QDB601*	Fuel Gas w/Check Valve (9/16"-18 LH)	QDB205-Male Plug QDB661-Female Socket			
QDB602*	Oxygen w/Check Valve (9/16"-18 RH)	QDB105-Male Plug- QDB660 Female Socket			
QDB73*	Inert Gas-Regulator to-Hose (5/8"- 18 RH)	QDB300-Male Plug QDB730-Female Socket			
QDB74*	Inert Gas-Hoseto- Machine (5/8"-18 RH)	QDB302-Male Plug QDB740-Female Socket			

^{*}Sold in retail clamshell packaging **OSHA 29CFR 1915.55(f)(5), 1917.152 (d)(3)(iv), and 1926.350(f)(5)

WESTERN FLASHBACK ARRESTORS-OXY/FUEL GAS

Welders rely on Western's advanced Flashback Arrestors to help prevent serious incidents caused by reverse gas flows or flashbacks. Western's Flashback Arrestors are designed to stop flashbacks by preventing ignition of mixed gases and to protect equipment such as hoses, regulators and cylinders.

FEATURES AND SPECIFICATIONS

- Color-coded for gas service to provide added safety—oxygen (green), fuel gas (red)
- Internal check valves designed to prevent reverse flow and accidental mixing of oxygen and fuel gases
- Maximum operating pressures are 15 PSIG for acetylene, 22 PSIG for other fuel gases, and 125 PSIG for oxygen
- Rated capacity of 40 SCFH with a 5 PSIG pressure drop
- Torch and Regulator models provide downstream and upstream protection
- 10" maximum cutting capacity
- Reusable; manual resetting not required
- UL listed and 100% tested
- Complete installation, testing and operating instructions included
- Safe-Mate models feature quick connect design for quick and easy installation and disconnection
- 316 stainless steel flame trap

PART NO.	DESCRIPTION	COMPONENTS	
	FLASHBACK ARRESTOR SETS		FLASHBACK ARRESTORS
FA-10*	Flashback Arrestor Set, Torch Style	FA-100P, FA-200P	B-SIZE, 9/16" - 18
FA-30*	Flashback Arrestor Set, Regulator Adaptor Style	FA-130P, FA-230P	A PARA
	FLASHBACK ARRESTOR COMPONEN	TS	
FA-100P	Flashback Arrestor, Oxygen, Torch Style, B Size	9	FA-230P
FA-200P	Flashback Arrestor, Fuel Gas, Torch Style, B Size		
FA-130P	130P Flashback Arrestor, Oxygen, Regulator Adaptor Style, B Size		FA-130P
FA-230P	Flashback Arrestor, Fuel Gas, Regulator Adaptor Style,	B Size	
			FA-30 SET

^{*}Sold in retail clamshell packaging

	PART NO.	DESCRIPTION
FLASHBACK ARRESTOR COMPONENTS	FR50-OX	Flashback Arrestor, Oxygen, Regulator Style, B Size
AA mm	FR50-F	Flashback Arrestor, Fuel Gas, Regulator Style, B Size
	FA-60	Flashback Arrestor, Oxygen, Torch Style, C Size
9 mil 9 mil	FA-80	Flashback Arrestor, Oxygen, Torch Style, A Size
FA-71 FA-70	FA-81	Flashback Arrestor, Fuel Gas, Torch Style, A Size
	FA-90	Flashback Arrestor, Oxygen, Regulator Style, A Size
	FA-91	Flashback Arrestor, Fuel Gas, Regulator Style, A Size

SAFEMATES-QUICK CONNECT SETS WITH BUILT-IN FLASHBACK ARRESTORS

PART NO.	DESCRIPTION
QDF10	Torch-to-Hose Set w/Check Valves (Oxy/Fuel Gas)
QDF30	Regulator-to-Hose (Oxy/Fuel Gas)

WESTERN FLASHBACK ARRESTORS-BODIES & CGA ASSEMBLIES

Flashback Arrestor Bodies and Assemblies are available for special applications. Flashback Arrestor Bodies consist of 1/4" F and 1/4" M NPT connections. Assemblies for Adaptors and Pigtails consist of standard CGA connections on both the inlet and outlet sides of a Flashback Arrestor Body. Western also offers assemblies with ball seat

check valves for the inlet side of the Flashback Arrestor Body.

Flashback Arrestor Bodies extinguish flashes or flames before they reach the cylinder. Flashback Arrestor Assemblies are designed for installation on acetylene cylinders to prevent flashbacks into the cylinder. These Flashback Arrestor Bodies/Assemblies can be used in any lead not exceeding 3/8" pipe size which connects an acetylene cylinder to a regulator, manifold or other equipment. Rated flow capacity is 40 SCFH with a 5 PSIG pressure drop. These units are factory assembled and 100% tested for service.

	PART NO.	DESCRIPTION
FLASHBACK ARRESTORS-BODIES CGA		ARRESTOR BODIES
ADAPTOR ASSEMBLIES	*FA-2	1/4" NPT Female x 1/4" NPT Female
Pressures to 500 psig	*FA-3	1/4" NPT Female x 1/4" NPT Male
	FLASHI	BACK ARRESTOR W/ADAPTOR ASSEMBLIES
	*FA-300	CGA-300 Commercial Acetylene
FA-2CV	*FA-300CV	CGA-300 Commercial Acetylene w/Inlet Check Valve
	*FA-510	CGA-510 POL Acetylene
Flow→	*FA-510CV	CGA-510 POL Acetylene w/Inlet Check Valve
CGA-510 Nut & FA-510CV CGA-510		
Check Valve Nipple Cylinder Valve		

*U.L. listed

PART NO.	W/CV	DESCRIPTION	SERVICE	
FP-510	FP-510CV	Horizontal, 24" length	CGA 510, POL Acetylene	MANIFOLD PIGTAIL
FP-510P	_	Horizontal, 18" length	CGA 510, POL Acetylene	WITH FLASH ARRESTOR
				CGA Nut & Nipple Flash Arrestor Connection Check Valve Nipple FP-510CV

Please Note: Using Flashback Arrestors w/Check Valves as a precaution to avoid potentially dangerous situations is not a substitute for careful handling or strict adherence to safety rules and procedures for handling high pressure gases. Users should not tamper with the internal components of a Flashback Arrestor. Flashback Arrestors connot be cleaned or refilled after any flash in the system. They must be replaced if the pressure drop through the Arrestor reaches 10 PSIG or more at a rated capacity of 40 SCFH.

HOTSPOTTER

This all purpose propane flame tool operates off of the pressure of a standard propane tank—no regulator required. Appropriate for a wide variety of all—season maintenance/repair applications at commercial offices, factories, institutions, warehouses, parks, residential properties, farms and parking lots.

Features and Specifications:

- Delivers up to 550,000 BTU
- No smoke, no fumes
- Burn weeds, repair asphalt, seal tar, peel paint, remove road markings, melt ice, and thaw pipes
- Durable 10 ft. neoprene hose
- Accurate brass flow control shut-off valve
- Brass propane tank adaptor
- Spark ignitor
- Durable cast iron and steel nozzle (WB-101)
- Welded tube nozzle (WB-100 & WB-102)
- 31" Heavy-Duty Handle
- Meets NFPA 51 specifications
- Packaged in retail, self-service packaging
- Excess Flow Valve
- One year warranty



WB-101-Heavy Duty



WB-102-Standard Duty



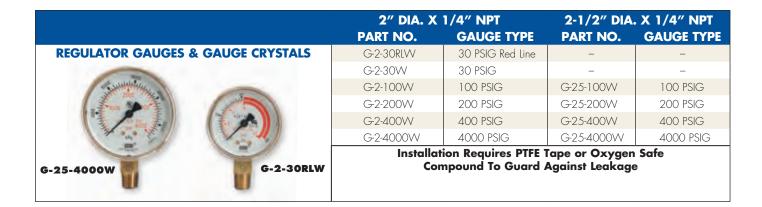




WB3-Cylinder CartPropane Cylinder and
Torch not included

PART NO.	DESCRIPTION
WB-100	Professional Series Hotspotter
WB-101	Heavy Duty Hotspotter
WB-102	Standard Duty Hotspotter
WB3	Propane Cylinder Cart with Hotspotter Holder

REPLACEMENT PARTS	DESCRIPTION
WB-100-13	Handle Assembly (WB-101)
WB-100-12	Nozzle Assembly (WB-101)
208-FPS	Shut-off Valve (VVB-101)
WB-100-19	Handle Assembly (WB-102)
WB-100-20	Nozzle Assembly (WB-102)
208-FS	Shut-off Valve (VVB-102)
WB-100-25	Hose Assembly (WB-101/102)

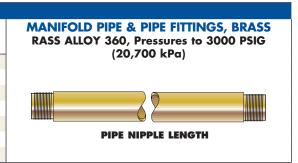


PART NO.	DESCRIPTION	PSIG SCALE	SERVICE	
G-204	"MC" Acetylene Tank	400	CGA-200	CYLINDER PRESSURE TESTING
G-304H	Commercial Acetylene with Hand-Tight Nut	400	CGA-300	GAUGES 2" BRASS
G-324H	Carbon Dioxide with Hand-Tight Nut	3000	CGA-320	
G-354H	Hydrogen with Hand-Tight Nut	3000	CGA-350	The state of the s
G-514AH	POL Acetylene, 90° with Hand-Tight Nut	400	CGA-510	
G-514H	POL Acetylene, with Hand-Tight Nut	400	CGA-510	
G-524	"B" Tank Acetylene	400	CGA-520	
G-544	Oxygen	3000	CGA-540	
G-544A	Oxygen	4000	CGA-540	
G-544H	Oxygen, with Hand-Tight Nut	3000	CGA-540	
G-544AH	Oxygen, with Hand-Tight Nut	4000	CGA-540	
G-584	Nitrogen, Argon, Helium	4000	CGA-580	0.50411
G-584H	Nitrogen, Argon, Helium, Hand-Tight Nut	4000	CGA-580	G-584H
WG-584H	Ni, Ar, He, Hand-Tight Nut with Bleed Valve	4000	CGA-580	

OD & WALL	LENGTH	STYLE	MATERIAL	PSI	
1/4" × .065	50 Feet	Coil	Copper, Annealed	3000	MANIFOLD TUBING
5/16" x .065	50 Feet	Coil	Copper, Annealed	2500	
3/8" x .065	50 Feet	Coil	Copper, Annealed	2000	COIL
	1/4" x .065 5/16" x .065	1/4" x .065 50 Feet 5/16" x .065 50 Feet	5/16" x .065	1/4" x .065 50 Feet Coil Copper, Annealed 5/16" x .065 50 Feet Coil Copper, Annealed	1/4" x .065 50 Feet Coil Copper, Annealed 3000 5/16" x .065 50 Feet Coil Copper, Annealed 2500

	PART NO.	DESCRIPTION	PSI	MATERIAL
MANIFOLD TUBING ADAPTOR BUSHINGS		Fits PH-1 Pigtail Handle		
	BT-2M1	1/4" NPTF x 1/4" OD Tubing Recess	3000	Brass
	BT-2M2	1/4" NPTF x 5/16" OD Tubing Recess	3000	Brass
BT-2M2	BT-2M3	1/4" NPTF x 3/8" OD Tubing Recess	3000	Brass
	BT-2M1-SS	1/4" NPTF x 1/4" OD Tubing Recess	6000	St. Steel

PART NO.	LENGTH	PART NO.	PART NO.	LENGTH	SIZE
*(1/2" PIPE \	WALL THICK!	NESS196") * THREADED P	(3/4" PIPE W	ALL THICKNI	SS230")
		INKEADED F	IFE MIFFLES		
WHF-3-2	1-1/2"	1/2" NPT	WHF-3-9	1-1/2"	3/4" NPT
WHF-3-2	2"	1/2" NPT	WHF-3-10	2"	3/4" NPT
WHF-3-1	1-1/2"	1/2" NPT	WHF-3-9	1-1/2"	3/4" NPT
WHF-3-3	4"	1/2" NPT	WHF-3-11	4"	3/4" NPT
WHF-3-19	6"	1/2" NPT	WHF-3-21	6"	3/4" NPT
WHF-3-5	8-1/2"	1/2" NPT	WHF-3-13	8-3/8"	3/4" NPT
WHF-3-7	11-1/2"	1/2" NPT	WHF-3-16	11-3/8"	3/4" NPT





PART NO.	REF A	REF B	REF F	ELBOWS	
WHF-4-8	1/2" NPT	1/2" NPT	1-1/4"	Figure 1	PIPE ELBOWS, FEMALE
WHF-4-11	3/4" NPT	3/4" NPT	1-3/8"	Figure 1	PRESSURES TO 3000 PSIG (20,700 kPa)
WHF-4-15	1/2" NPT	.843"847"	1-1/4"	Figure 2	
WHF-4-19	3/4" NPT	1.053″-1.057″	1-3/8"	Figure 2	<u> </u>
WHF-4-2	.843"847"	.843"847"	1-1/4"	Figure 3	
843"847	" = 1/2" Pipe	Slip*1.053″-1.0	57" = 3/4"	Pipe Slip	FIGURE 1 FIGURE 2 FIGURE 3

		PART NO.	REF A	REF B	REF C & D	REF E	CROSSES
PIPE CROSSES, FEMAL	E	WHF-4-9	1/2" NPT	1/2" NPT	1/2" NPT	2-1/2"	Figure 1
Pressures to 3000 PSIG (20,70	00 kPa)	WHF-4-12	3/4" NPT	3/4" NPT	3/4" NPT	2-3/4"	Figure 1
	I E	WHF-4-16	.843"847"	.843"847"	1/2" NPT	2-1/2"	Figure 2
		WHF-4-23	.843"847"	1/2" NPT	1/2" NPT	2-1/2"	Figure 3
A B A B	AB		.84	3"847" = 1/	2" Pipe Slip		
	ΙDΙ						
FIGURE 1 FIGURE 2 (SLIP THROUGH)	FIGURE 3						

PART NO.	REF A	REF B	REF C	REF E	TEES	
WHF-4-7	1/2" NPT	1/2" NPT	1/2" NPT	2-1/2"	Figure 1	Pipe Tees, Female
WHF-4-10	3/4" NPT	3/4" NPT	3/4" NPT	2-3/4"	Figure 1	Pressures to 3000 PSI (20,700 kPa)
WHF-4-14	.843"847"	.843"847"	1/2" NPT	2-1/2"	Figure 2	
WHF-4-18	1.053″-1.057″	1.053"-1.057"	3/4" NPT	2-3/4"	Figure 2	
WHF-4-13	1/2" NPT	1/2" NPT	.843"847"	2-1/2"	Figure 3	A B A B
WHF-4-21	.843"847"	1/2" NPT	1/2" NPT	2-3/4"	Figure 4	I E I E I
WHF-4-22	1.053″-1.057″	3/4" NPT	3/4" NPT	2-1/2"	Figure 4	FIGURE 1 C FIGURE 2
WHF-4-1	1.053″-1.057″	1.053"-1.057"	1.053″-1.057″	2-3/4"	Figure 5	A (SLIP THROUGH)
.843	3"847" = 1/2"	Pipe Slip*1.053"	-1.057" = 3/4"	Pipe Slip	•	
						EIGHDE 3
						E
						FIGURE 4 FIGURE 5 (SLIP THROUGH)

	PART NO.	GAS SERVICE	DESCRIPTION	MATERIA
FEMALE NPT OUTLET		CGA	VALVE OUTLETS TO FEMALE PIPE THREADS	
ADAPTORS FOR			Commercial Acetylene, to 500 PSIG:	
MANIFOLD PIPELINE,	15-1	CGA-300	RH Male .825"-14 NGO to 1/4" NPT Female	Brass
BRASS & STAINLESS STEEL 500 PSIG (3,400 kPa)			Carbon Dioxide, to 3000 PSIG:	
3000 PSIG (3,400 kPa)	CO-2-1	CGA-320	RH Male .825"-14 NGO, to 1/4" NPT Female	Brass
6000 PSIG (41,300 kPa)			Nitrous Oxide, to 3000 PSIG:	
	1321-1	CGA-326	RH Male .825"-14 NGO to 1/4" NPT Female	Brass
			Air, to 3000 PSIG:	
	1341-1	CGA-346	RH Male .825"-14 NGO to 1/4" NPT Female	Brass
			Air, to 3000 PSIG:	
	SS-1341-1	CGA-346	RH Male .825"-14 NGO to 1/4" NPT Female	St. Steel
			Air, to 5500 PSIG:	
	347-1	CGA-347	RH Male .825"-14 NGO to 1/4" NPT Female	Brass
ALC: N			Air, from 3,001 to 5500 PSIG:	
	SS-347-1	CGA-347	RH Male .825"-14 NGO to 1/4" NPT Female	St. Stee
			Hydrogen, Natural Gas, to 3000 PSIG:	
	800-1	CGA-350	LH Male .825"-14 NGO to 1/4" NPT Female	Brass
			Medical Mixtures, to 3000 PSIG:	
415-1 416-1	500-1	CGA-500	RH Female .885"-14 NGO to 1/4" NPT Female	Brass
			POL Acetylene, Propane, to 500 PSIG:	
	16-1	CGA-510	LH Female .885"-14 NGO to 1/4" NPT Female	Brass
			POL Acetylene, Propane, to 500 PSIG:	
	300-1	CGA-510	90° LH Female Nut .885″-14 NGO to 1/4″ NPT Female	Brass
			Oxygen, to 3000 PSIG:	
	415-1	CGA-540	RH Male .903"-14 NGO to 1/4" NPT Female	Brass
			Oxygen, to 3000 PSIG:	
	SS-415-1	CGA-540	RH Male .903"-14 NGO to 1/4" NPT Female	St. Stee
			Butane, Propane Liquid, 3000 PSIG:	
	414-1	CGA-555	LH Male .903"-14 NGO to 1/4" NPT Female	Brass
			Argon, Helium, Nitrogen to 3000 PSIG:	
	416-1	CGA-580	RH Female .965"-14 NGO to 1/4" NPT Female	Brass
			Industrial Air, to 3000 PSIG:	
	417-1	CGA-590	LH Female .965"-14 NGO to 1/4" NPT Female	Brass
			Refrigerant Gases, to 3000 PSIG:	
	60-1	CGA-660	RH Male 1.030"-14 NGO to 1/4" NPT Female	Brass
			Refrigerant Gases, to 3000 PSIG:	
	SS-660-1	CGA-660	RH Male 1.030"-14 NGO to 1/4" NPT Female	St. Stee
			Argon, Helium, Nitrogen from 5,501to 7500 PSIG:	
	SS-677-1	CGA-677	LH Male 1.030"-14 NGO to 1/4" NPT Female	St. Steel

PART NO.	GAS SERVICE	DESCRIPTION	MATERIAL	
	Medica	l Breathing Mix, to 3000 PSIG		MALE NPT OUTLET ADAPTORS
WMS-1-64	CGA-280	.745"-14 NGO, RH Male, Check Valve Outlet to 1/2" NPT	Brass	FOR MANIFOLD PIPELINE, BRASS & STAINLESS STEEL 500 PSIG (3,400 kPa)
	Comm	ercial Acetylene, to 500 PSIG		3000 PSIG (20,700 kPa)
B-10	CGA-300	.825"-14 NGO, RH Male to 1/4" NPT	Brass	6000 PSIG (41,300 kPa)
B-12	CGA-300	.825"-14 NGO, RH Male to 1/2" NPT	Brass	
B-13	CGA-300	.825"-14 NGO, RH Male to 3/4" NPT	Brass	
	Car	bon Dioxide, to 3000 PSIG		
B-20	CGA-320	.825"-14 NGO, RH Male to 1/4" NPT	Brass	
B-21	CGA-320	.825"-14 NGO, RH Male to 3/8" NPT	Brass	
B-22	CGA-320	.825"-14 NGO, RH Male to 1/2" NPT	Brass	
B-23	CGA-320	.825"-14 NGO, RH Male to 3/4" NPT	Brass	
	Nit	rous Oxide, to 3000 PSIG		
B-1320	CGA-326	.825"-14 NGO, RH Male to 1/4" NPT	Brass	B-20
B-1321	CGA-326	.825"-14 NGO, RH Male to 3/8" NPT	Brass	B-20
WMS-1-59	CGA-326	Check Valve Outlet to 1/2" NPT	Brass	
		Air, to 3000 PSIG		
B-1340	CGA-346	.825"-14 NGO, RH Male to 1/4" NPT	Brass	
WMS-1-62	CGA-346	Check Valve Outlet to 1/2" NPT	Brass	
B-1340SS	CGA-346	.825"-14 NGO, RH Male to 1/4" NPT	St. Steel	
		Air, to 5500 PSIG		
B-348	CGA-347	.825"-14 NGO, RH Male to 1/2" NPT	Brass	
	Hydrog	en, Natural Gas, to 3000 PSIG		
B-30	CGA-350	.825"-14 NGO, LH Male to 1/4" NPT	Brass	
B-32	CGA-350	.825"-14 NGO, LH Male to 1/2" NPT	Brass	
B-33	CGA-350	.880"-14 NGO, LH Male to 3/4" NPT	Brass	
	Acetylene	e, Butane, Propane, to 500 PSIG		
B-40	CGA-510	.885"-14 NGO, LH Female to 1/4" NPT	Brass	WMS-1-53
B-42	CGA-510	.885"-14 NGO, LH Female to 1/2 "NPT	Brass	
B-43	CGA-510	.885"-14 NGO, LH Female to 3/4" NPT	Brass	
		Oxygen, to 3000 PSIG		
B-50	CGA-540	.903"-14 NGO, RH Male to 1/4" NPT	Brass	
B-51	CGA-540	.903"-14 NGO, RH Male to 3/8" NPT	Brass	
B-52	CGA-540	.903"-14 NGO, RH Male to 1/2" NPT	Brass	
WMS-1-53	CGA-540	Check Valve Outlet to 1/2" NPT	Brass	
B-53	CGA-540	.903"-14 NGO, RH Male to 3/4" NPT	Brass	
B-50SS	CGA-540	.903"-14 NGO, RH Male to 1/4" NPT	St. Steel	
	Butane,	Propane (Liq/W), to 3000 PSIG		
B-60	CGA-555	.903"-14 NGO, LH Male to 1/4" NPT	Brass	

CONTINUED ON NEXT PAGE

PART NO. GAS SERVICE **DESCRIPTION** MATERIAL **MALE NPT OUTLET ADAPTORS** Oxygen, 3000 PSIG to 4000 PSIG FOR MANIFOLD PIPELINE, B-578 CGA-577 .960"-14 NGO, RH Male to 1/2" NPT Brass **BRASS & STAINLESS STEEL** 500 PSIG (3,400 kPa) 3000 PSIG (20,700 kPa) Argon, Helium, Nitrogen, Etc, to 3000 PSIG .965"-14 NGO, RH Female to 1/4" NPT B-70 CGA-580 Brass 6000 PSIG (41,300 kPa) .965"-14 NGO, RH Female to 1/4" NPT St. Steel B-70SS CGA-580 .965"-14 NGO, RH Female to 3/8" NPT B-71 CGA-580 Brass B-72 CGA-580 .965"-14 NGO, RH Female to 1/2" NPT Brass WMS-1-54 CGA-580 Check Valve Outlet to 1/2" NPT Brass .965"-14 NGO, RH Female to 3/4" NPT B-73 CGA-580 Brass Industrial Air, to 3000 PSIG B-80 CGA-590 .965"-14 NGO, LH Female to 1/4" NPT Brass CGA-590 965"-14 NGO, LH Female to 1/2" NPT B-82 Brass B-83 CGA-590 .965"-14 NGO, LH Female to 3/4" NPT Brass Refrigerant Gases, to 3000 PSIG CGA-660 1.030"-14 NGO, RH Male to 1/4" NPT B-660-SS St. Steel Air, Argon, Helium, Etc, to 6000 PSIG B-677-SS CGA-677 1.030"-14 NGO, LH Male to 1/4" NPT St. Steel B-678-SS CGA-677 1.030"-14 NGO, LH Male to 1/2" NPT St. Steel B-679-SS CGA-677 1.030"-14 NGO, LH Male to 3/4" NPT St. Steel Inert Gases, to 5500 PSIG

CGA-680

1.045"-14 NGO, RH Female to 1/2" NPT

B-682

PART NO.	W/CV	GAS SERVICE	DESCRIPTION	MATERIAL	
		To 500	PSIG (3,400 kPa)		MANIFOLD COUPLER TEES,
T-15	T-15CV	CGA-510	POL Acetylene, LH Male	Brass	BRASS & STAINLESS STEEL WITH & WITHOUT
FT-510	FT-510CV	CGA-510	POL Acet., LH Male w/ Flash Arrestor	Brass	CHECK VALVES
		То 3000	PSIG (20,700 kPa)		
T-CO-2	-	CGA-320	Carbon Dioxide, RH Female	Brass	
T-326	-	CGA-326	Nitrous Oxide, RH Female	Brass	0
T-346	T-346CV	CGA-346	Air, RH Female	Brass	
T-82	-	CGA-350	Hydrogen, LH Female	Brass	
T-62	T-62CV	CGA-540	Oxygen, RH Female	Brass	T-82
T-72	_	CGA-555	Propane (Liquid/Water) LH Female	Brass	
T-92	T-92CV	CGA-580	Nitrogen, Argon, Helium, RH Male	Brass	
		To 5500	PSIG (37,950 kPa)		
T-347	-	CGA-347	Air, RH Female	Brass	Turn _
T-347SS	-	CGA-347	Air, RH Female	St. Steel	- 000V
T-680	-	CGA-680	Inert Gases, RH Male	Brass	T-92CV

Brass

PART NO.	GAS SERVICE	DESCRIPTION	GAS	
	PRESSURES TO	3000 PSIG (20,7	00 kPa)	MANIFOLD 3-WAY OUTLET
T3-540	CGA-540	RH Male	Oxygen	COUPLER TEES, BRASS
T3-580	CGA-580	RH Female	Nitrogen, Argon, Helium	
T3-320	CGA-320	RH Male	Carbon Dioxide	- A
T3-346	CGA-346	RH Male	Compressed Air	T3-540
T3-326	CGA-326	RH Male	Nitrous Oxide	
T3-510	CGA-510	LH Female	Acetylene (pol)	

T4-540		WITH CGA N ressures to 3000		α)
T4-540	T 4 5 40 00 4			
1 10 10	T4-540CV	CGA-540	RH Male	Oxygen
T4-580	T4-580CV	CGA-580	RH Female	Nitrogen, Argon, Helium
T4-320		CGA-320	RH Male	Carbon Dioxide
T4-346		CGA-346	RH Male	Compressed Air
T4-510		CGA-340	LH Female	Acetylene (pol)
	T4-320 T4-346	T4-320 T4-346	T4-320 CGA-320 T4-346 CGA-346	T4-320 CGA-320 RH Male T4-346 CGA-346 RH Male

PART NO.	DESCRIPTION	MAX PSIG	GAS	GAS SERVICE	
MB-40-7	LH Female Outlets	500	POL Acet., Propane	CGA-510	MANIFOLD BLOCK ASSEMBLIES, BRASS
MB-50	RH Male Outlets	3000	Oxygen	CGA-540	
MB-50CV	With Check Valve Inlet Nipple	3000	Oxygen	CGA-540	312
MB-70	RH Female Outlets	3000	Nitrogen, Argon, Helium	CGA-580	
MB-70CV	With Check Valve Inlet Nipple	3000	Nitrogen, Argon, Helium	CGA-580	MB-7

	PART NO.	W/CV	MAX PSIG	MATERIAL				
MANIFOLD HEX BLOCKS, BRASS & STAINLESS STEEL		2" Block, Six Outlets						
DIAGO & STAINLESS STEEL	MB-6	1/4" NPT Female Side Outlets	3000	Brass				
	MB-6SS	1/4" NPT Female Side Outlets	6000	St. Steel				
9 5		2" Block, Seven Outlets						
	MB-7	1/4" NPT Female Side/Top Outlets	3000	Brass				
MB-7	MB-7SS	1/4" NPT Female Side/Top Outlets	6000	St. Steel				

	PART NO.	DESCRIPTION	MATERIAL	WORKING PRESSURE	GAS	SERVICE		
CHAIN & PLUG		TWO-I	PIECE ASSEMBLIES					
ASSEMBLIES, BRASS &	9326	RH Female Nut & Plug	Brass	0-3000	Nitrous Oxide	CGA-326		
STAINLESS STEEL	9346	RH Female Nut & Plug	Brass	0-3000	Air	CGA-346		
One and two-piece assemblies provide	9347	RH Female Nut & Plug	Stainless Steel	0-5500	Air	CGA-347		
gas-tight sealing • Meet all CGA	982	LH Female Nut & Plug	Brass	0-3000	Hydrogen, Nat. Gas	CGA-350		
specifications for sealing manifolds	915	LH Male Nut & Plug	Brass	0-500	POL Acetylene	CGA-510		
and cylinders	962	RH Female Nut & Plug	Brass	0-3000	Oxygen	CGA-540		
 CGA nut and blind nipple (plug) combination 	992	RH Male Nut & Plug	Brass	0-3000	Nitrogen, Argon, Helium	CGA-580		
CP-580	ONE-PIECE ASSEMBLIES							
CP-380	CP-326	RH Female Nut & Plug	Brass	3000	Nitros Oxide	CGA-326		
4	CP-346	RH Female Nut & Plug	Brass	3000	Air	CGA-346		
1	CP-350	LH Female Nut & Plug	Brass	3000	Hydrogen, Nat. Gas	CGA-350		
	CP-510	LH Male Nut & Plug	Brass	500	POL Acetylene	CGA-510		
Lucia	CP-540	RH Female Nut & Plug	Brass	3000	Oxygen	CGA-540		
992	CP-580	RH Male Nut & Plug	Brass	3000	Nitrogen, Argon, Helium	CGA-580		
	CP-590	LH Male Nut & Plug	Brass	3000	Industrial Air	CGA-590		

SPECIFICATIONS FOR PIGTAIL ASSEMBLIES

FOR 3000 PSIG STAINLESS STEEL BRAID/PTFE HOSE PIGTAILS FITTED WITH BRASS CONNECTIONS

Design & Material Data:

- Core consists of PTFE (polytetrafluoroethylene) with two outer reinforcing jackets of stainless steel braid (PTFE is inert to most chemicals and solvents, except molten alkali metals and fluorine at elevated temperatures and pressures)
- 1/4" nominal I.D.
- Braid consists of Type 304 full hard drawn stainless steel wire
- PTFE withstands temperatures from -65°F (-54C) through +450°F (232C)
- Burst pressure rating at room temperature: 12,000 PSIG
- Minimum bend radius of 3 inches provides for maximum life and safe performance
- Maximum 3000 PSIG working pressure on tubing
- Brass cylinder connections machined to CGA specifications for applicable gases
- All pigtails 100% tested before shipping and labelled for gas service and pressure rating
- Pressure ratings limited by CGA connection standards-the lowest pressure rating prevails

Notes:

- Burst pressure ratings for pigtails are determined at room temperature with the hose in a straight line. A safety factor of 4:1 or 5:1 should be used for normal applications. Impulse and shock pressure applications may require a higher safety factor.
- Do not apply heat to pigtails.

FOR 6000 PSIG STAINLESS STEEL BRAID/PTFE HOSE PIGTAILS FITTED WITH STAINLESS STEEL CONNECTIONS

Design & Material Data:

- Core consists of high pressure, reinforced PTFE (polytetrafluoroethylene) hose (PTFE is inert to most chemicals and solvents, except molten alkali metals and fluorine at elevated temperatures and pressures)
- PTFE fluid and ambient temperature range: -65°F (-54 C) through +450°F (232°C)
- 1/4" nominal I.D.
- .229" Minimum I.D. .495" Maximum O.D.
- Conductive; extruded PTFE dissipates static charges

- Braid consists of inner layer with type 304 SS stainless steel, two layers of stainless steel spiral wrap, plus an outer braid of stainless steel
- Burst pressure rating at room temperature: 24.000 PSIG (see note below)
- Type 316 stainless steel used for primary tube fittings with swaged design
- Most CGA cylinder connections machined of stainless steel to specifications for applicable gases
- Minimum bend radius of 3" provides for maximum life and safe performance
- All pigtails 100% tested and labeled for gas service and pressure rating

HOW TO SPECIFY A SPECIAL ORDER WESTERN PIGTAIL

TUBE/HOSE **TYPE & SIZE**

PF

Rigid Tube P4 = 1/4" OD

P = 5/16'' ODP6 = 3/8" OD*

PB = 5/16" ODPB6= 3/8" OD*

PS = 1/4" OD

Flex Hose

PF = 1/4" IDPFS = 1/4" ID**PF6 = .229" ID

INLET END CONNECTION

346N **All Styles**

CGA No. +N= CGA Nut/Nipple

Example: 540N CGA No. +B= CGA VO or Body

Example: 540B Fraction +M or F= ANSI Pipe Thread

Example: 1/4F

INLET END CONN. FINISH

All Styles

Blank = Brass = Plated

= St. Steel

OPTIONAL **FEATURES**

HTP

X

All Styles

Blank (None)

CV = Check Valve

FA = Flash Arrestor' HTP = Hand Tight N/N

w/Plastic Grip HTB = Hand Tight N/Nw/Brass H/T Nut

GA = Gauge

PH = Brass Handle VA = Shutoff Valve EL = 90° Elbow

Model P - 3000 PSIG (20,700kPa),....Rigid Copper Pigtail Model PB - 3000 PSIG (20,700kPa),....Rigid Brass Pigtail

Model PS - 6000 PSIG (41,300kPa),....Rigid Stainless Steel Pigtail Model PF - 3000 PSIG (20,700kPa),....Flexible PTFE Lined Pigtail Model PFS - 3000 PSIG (20,700kPa),....Flexible Nylon-Lined Pigtail

Model PF6 - 6000 PSIG (41,300kPa),....Flexible PTFE Lined Pigtail

^{*}Use with 3/8" OD Flash Arrestor option.

^{**}Max hose length = 240"

FOR 3000 PSIG THERMOPLASTIC HOSE PIGTAILS WITH STAINLESS STEEL OR BRASS CONNECTIONS

Note: Hydrogen and Helium use only.

Design & Material Data:

- Nylon core
- Nylon withstands temperatures from -65°F (-54°C) through +250°F (+121C)
- 1/4" nominal I.D.
- Synthetic fiber braid with polyurethane cover
- Minimum bend radius: 3"
- Burst pressure rating at room temperature: 12,000 PSIG (see note on page 44)
- CGA cylinder connections machined of brass to specifications for applicable gases

- Pressure ratings limited by CGA connections standards—the lowest pressure rating prevails
- Nylon core minimizes permeation of Helium and Hydrogen
- Non-conductive hose requires additional grounding for Hydrogen service
- Not available for oxygen service
- All Pigtails 100% tested and labeled for gas service and pressure rating

Western can make special pigtails in a variety of lengths and in any combination of compatible CGA fittings. However, Western is not responsible for misuse and service life of special pigtails when the applications are unknown to the company.

OUTLET END CONNECTION

1/2M

All Styles

CGA No. +N= CGA Nut/Nipple Example: 540N CGA No. +B= CGA VO or Body Example: 540B

Fraction +M or F= ANSI Pipe Thread **Example:** 1/4F

OUTLET END CONN. FINISH

All Styles

Blank = Brass PL = Plated SS = St. Steel

All Styles

Blank (None)

CV = Check Valve FA = Flash Arrestor*

HTP = Hand Tight N/N
with Plastic Grip

HTB = Hand Tight N/N with Brass H/T Nut

GA = Gauge PH = Brass Handle

VA = Shutoff Valve EL = 90° Elbow

OPTIONAL FEATURES

36

TUBE/HOSE

LENGTH

Rigid Tube 27 = 27 inches 36 = 36 inches

36 = 36 inches 48 = 48 inches

Flex Hose

Lengths in 6" Increments: 12"minimum 18"minimum-Spring Guard 300"maximum

Example:

12 = 12"
(Note: Lengths do not include connections)

BEND/SWIVEL OPTIONS

В

Rigid Tube Bends

COIL Standard on 48+"

DBL Two 3" Loops

Standard on 27" P, PB

SGL 6" Loop Standard, 36" P, PB, PS

SPCL Special Bend, Print Required

Flex Hose Only

B = Spring Guard B1 = Spring Guard

w/Swivel Inlet

32 = Spring Guard w/Swivel Outlet

B1.2 = Spring Guard w/Swivel, Both Ends

Use the chart above to develop specifications for Special Order Pigtails.

For example: PF-346N-HTP \times 1/2M-36B

represents 1/4" I.D. flexible PTFE lined Pigtail with CGA 346 Nut/Nipple Inlet Connection (brass) Hand-tight with plastic tip and 1/2" NTP M Outlet Connection (brass), 36" long with Spring Guard

	PART NO.	WITH CV	DESCRIPTION	GAS SERVICE		
RIGID PIGTAILS, BRASS	5/16" X .065" WALL BRASS TUBING 20" FINISHED LENGTH OVERALL					
ACETYLENE & LPG SERVICE Pressure to 500 PSIG (3,400 kPa)	P-15	P-1 <i>5</i> CV	LH M Propane, Mapp, Horiz.	CGA-510		
P-15-CV						

PART NO.	DESCRIPTION	GAS SERVICE	
HAND-TIGHT N	NUTS & NIPPLES* 5/16" x .065" W	ALL COPPER TUBE	HAND-TIGHT RIGID PIGTAILS FOR
PHC-320	RH F Carbon Dioxide	CGA-320	PLANT OR FILLING STATIONS with Brass Connections
PHC-326	RH F Nitrous Oxide	CGA-326	Pressure to 3000 PSIG (20,700 kPa)
PHC-346	RH F Air	CGA-346	36" Bent to 20" Finished Length Overall

	PART NO.	WITH CV	DESCRIPTION	GAS SERVICE
STAINLESS STEEL RIGID PIGTAILS with Stainless Steel Connections			049 WALL ST. STEEL TUBE 316 SS CGA FITTINGS	
*PRESSURES TO 3000 PSIG (20,700 kPa)		20″ F	inished Length Overall	
Type 304 Stainless Steel Tube TIG Welded For Long Service Life	PS-320	_	Carbon Dioxide, RH F	CGA-320
Type 316 Stainless Steel Welded Fittings	PS-540	PS-540CV	Oxygen, RH F	CGA-540
	-	PS-580CV	Nitrogen, Argon, RH M	CGA-580
	PS-590	_	Industrial Air, LH M	CGA-590
Available In Straight Lengths				
Use With Either Stainless Steel Or Brass Connections				

PART NO.	WITH CV	DESCRIPTION	GAS SERVICE	
5/1		WALL COPPER TUBE, DOUBLES to 3000 PSIG (20,700 kPa		RIGID PIGTAILS, BRASS FORGED HANDLE with Brass Connections
PH-326		RH F Nitrous Oxide	CGA-326	
PH-63	PH-63CV	RH F Oxygen	CGA-540	CGA Nut &
PH-73	-	LH F Propane (Liquid With.)	CGA-555	Check Valve Nipple
PH-83	-	LH F Hydrogen	CGA-350	
PH-93	-	LH M Industrial Air	CGA-590	
				Brass Pigtail Handle (Part PH-1) 27" Length Bent to 12" Overall Length
				PH-63CV

	PART NO.	WITH CV	DESCRIPTION	SERVICE
MANIFOLD RIGID PIGTAILS, COPPER TUBING with Brass Connections	ANNEALED 5/16" x .065" WALL COPPER TUBE			
PRESSURES TO 3000 PSIG (20,700 kPa)	P-63	P-63CV	RH F, Oxygen	CGA-540
	P-92	-	RH M, Nitrogen, Argon, Helium	CGA-580
P-92	P-1320	-	RH F, Nitrous Oxide	CGA-326
7" Length Bent to 12"	P-1340	-	RH F, Air	CGA-346

PART NO.	WITH CV	SERVICE			
	ANNEALED 5/16" x .065" WALL COPPER TUBE				
PV-1340	RH F, Air	CGA-346			

	PART NO.	DESCRIPTION
STAINLESS STEEL RIGID PIGTAILS Pressures to 6000 PSIG (41,300 kPa)		1/4" Female Both Ends
Fressures to 0000 F319 (41,300 KF4)	PS-4-36	36" Length, Straight
	PS-4-60	60" Length, Straight

SERVICE	PART NO.	DESCRIPTION	WORKING PRESSURE	
_	PF-4	1/4" NPT F x 1/4" F NPT	0-3000	STAINLESS STEEL FLEXIBLE PIGTAILS,
		with Spring Guard: Add B to End of Part No.		BRASS CONNECTIONS
		COMPLETE ASSEMBLIES	•	SUB ASSEMBLY FOR SPECIAL
CGA-300	PF-16	Commercial Acetylene, RH Female	0-500	CONFIGURATIONS
	PF-16CV	with Check Valve, Inlet		AVAILABLE IN A VARIETY
	PF-16HT	with Hand Tight Nut, One End		OF LENGTHS
CGA-320	PF-320	Carbon Dioxide, RH Female	0-3000	
		with Spring Guard add B to length		• 100% TESTED AND CLEANED
	PF-320HT	with Hand Tight Nut, One End		FOR OXYGEN SERVICE
CGA-326	PF-326	Nitrous Oxide, RH Female	0-3000	FOR HOSE SPECIFICATIONS
		with Spring Guard add B to length		SEE PAGE 64
	PF-326CV	with Check Valve, Inlet Side		
	PF-326HT	with Hand Tight Nut, One End		Type 304 SS Braid
CGA-346	PF-346	Air, RH Female	0-3000	End Connection Galvanized Carbon Steel
		with Spring Guard add B to length		Optional Spring Guard, Factory Installed
	PF-346CV	with Check Valve, Inlet Side		, , , , , , , , , , , , , , , , , , ,
	PF-346HT	with Hand Tight Nut, One End		
CGA-347	PF-347	Air, RH Female	3001-5500	
	PF-347CV	with Check Valve, Inlet Side		
	PF-347HT	with Hand Tight Nut, One End		
CGA-510	PF-15	POL Acetylene, LH Male	0-500	
	PF-15CV	with Check Valve, Inlet Side		Optional 360° Swivel Coil Grooves Secure Adaptor Resists Kinking Optional Spring Guard
	PF-15HT	with Hand Tight Nut, One End		, ladpor record remaining
CGA-540	PF-63	Oxygen, RH Female	0-3000	No.
		with Spring Guard add B to length		
	PF-63CV	with Check Valve, Inlet Side		
	PF-63HT	with Hand Tight Nut, One End		PTFE Hose Core
CGA-577	PF-577	Oxygen, RH Female	3001-4000	3" Minimum Bend Radius
	PF-577CV	with Check Valve, Inlet Side		
CGA-580	PF-92	Nitrogen, Argon, RH Male	0-3000	
		with Spring Guard add B to length		
	PF-92CV	with Check Valve, Inlet Side		
	PF-92HT	with Hand Tight Nut, One End		3" Minimum Bend Radius
CGA-590	PF-93	Industrial Air, LH Male		PTFE Hose Core 3" Minimum Bend Radius
	0-3000	with Spring Guard add B to length		
	PF-93CV	with Check Valve, Inlet Side		LIOW TO OPPED
004:55	PF-93HT	with Hand Tight Nut, One End	0001	HOW TO ORDER
CGA-680	PF-680	Inert Gases, RH Male	3001-5500	PF-XXX-XX
	PF-680CV	with Check Valve, Inlet Side		END CONNECTIONS LENGTH OPTIONS
00470	PF-680HT	with Hand Tight Nut, One End	4001.5505	From CGA 18", 24", 36", 48" B = Spring Guard Listing Below (Note: Lengths Do Not B1 = Spring Guard
CGA-701	PF-701	Oxygen, RH Female	4001-5500	include Connections) B1 = Spring Guard, With Inlet Swivel
	PF-701CV	with Check Valve, Inlet Side		Adaptor B2 = Spring Guard,
				Vith Outlet Swivel Adaptor
				, азрот

PART NO.	DESCRIPTION	MAX PSIG	GAS SERVICE	
	COMPLETE ASSEMBLIES	100% TESTED		THERMOPLASTIC FLEXIBLE PIGTAILS, NYLON
PFS-83	Hydrogen, LH F	0-3000	CGA-350	LINED, BRASS CONNECTIONS
PFS-83CV	with Check Valve, Inlet Side			
PFS-92	Helium, RH M	0-3000	CGA-580	
PFS-92CV	with Check Valve, Inlet Side			

	PART NO.	DESCRIPTION	MAX PSIG	SERVICE	
STAINLESS STEEL FLEXIBLE PIGTAILS, LINED,	COMPLETE ASSEMBLIES 100% TESTED & OXYGEN CLEANED				
STAINLESS STEEL PTFE CONNECTIONS	PF-346SS	Air, RH F	3000	CGA-346	
Inner Core—	PF-347SS	High Pressure Air, RH F	5500	CGA-347	
3" Minimum Inner SS Wire Braid—	PF-350SS	Natural Gas, LHF	3000	CGA-350	
Bend Radius Outer SS Wire—	PF-540SS	Oxygen, RH F	3000	CGA-540	
Spiral Wrap Inner SS Wire Spiral Wrap	PF-58OSS	Argon, Nitrogen, Etc, RH M	3000	CGA-580	
SS Fitting	PF-590SS	Air, Nitrogen, Etc, LH M	3000	CGA-590	
Outer SS Wire Wire Braid	PF-4SS	1/4" NPT Female to 1/4" NPT F	6000	-	
See page 46 for hose specifications Stainless Steel Connections					

PART NO.	DESCRIPTION	LENGTH	
	00% TESTED & CLEANED FOR OXYGE ALLY POLY BAGGED 3" MINIMUM BE		STAINLESS STEEL FLEXIBLE PIGTAILS, BRASS CONNECTIONS
PF2-4-12	1/4" NPT Female End Connections	12"	Pressures to 3000 PSIG (20,700 kPa)
PF2-4-18	1/4" NPT Female End Connections	18"	
PF2-4-24	1/4" NPT Female End Connections	24"	
PF2-4-36	1/4" NPT Female End Connections	36"	
PF2-4-48	1/4" NPT Female End Connections	48"	
PF2-4-60	1/4" NPT Female End Connections	60"	
PF2-4-72	1/4" NPT Female End Connections	72"	
			10
See page 44 for hose specifications			

	PART NO.	DESCRIPTION	LENGTH
STAINLESS STEEL FLEXIBLE PIGTAILS, STAINLESS STEEL CORRUGATED INNER		% TESTED & CLEANED FOR OXYGEN POLY BAGGED 2-3/4" MINIMUM BEND F	RADIUS
CORE, STAINLESS STEEL CONNECTIONS	HPF-4-18	1/4" NPT F x 1/4" NPT F	18"
Pressures to 3000 PSIG (20,700 kPa)	HPF-4-24	1/4" NPT F x 1/4" NPT F	24"
	HPF-4-36	1/4" NPT F x 1/4" NPT F	36"
	HPF-4-48	1/4" NPT F x 1/4" NPT F	48"

CRYOGENIC TRANSFER HOSES

For Oxygen, Nitrogen, Carbon Dioxide, Nitrous Oxide and Argon Cryogenic Liquids

- Use in cryo-biological and medical systems, and gas filling plants
- Constructed with 316 stainless steel for all wetted parts
- Machined CGA Stainless Steel end connections
- Cleaned for oxygen service
- Hoses meet all applicable FDA and CGA Guidelines
- Exceptional flexibility, hose resists kinking
- 1/2" ID

ACCESSORIES

- 90° stainless steel elbow extends hose life
- Phase separator speeds filling and controls splashing

PART NO.	DESCRIPTION	SERVICE
	Oxygen Hose Assembly	CGA-440
WMH-2-9	48"	
WMH-2-10	60"	
WMH-2-11	72"	
WMH-2-12	120"	
WMH-2-13	144"	
	Nitrogen, Argon Hose Assembly	CGA-295
WMH-2-14	48"	
WMH-2-15	60"	
WMH-2-16	72"	
WMH-2-17	120"	
WMH-2-18	144"	
F-61	F-61 Oxygen, SS Cylinder Fill Elbow 90°	
F-63	Nitrogen, Argon, SS Cylinder Fill Elbow 90°	CGA-295
F-62*	Phase Separator, 3/8" NPT F x 2-1/2" Long	_



^{*}To attach to Transfer Hose Assembly, use F-32 for CGA-295 or F-42 for CGA-440

	PART NO.	DESCRIPTION	PART	SERVICE	SAE FLARE	
BRASS SAE FLARE		Pressures to 500 PSIG (3,400 kPa)				
TUBING CONNECTIONS	F-10	.4375"-20 UNF-2B, RH F	Nut	CGA-165	1/4"	
	F-11	CGA-165 to 1/8" NPT M	Adaptor		1/4"	
	F-12	CGA-165 to 1/4" NPT M	Adaptor		1/4"	
	F-20	.625"-18 UNF-2B, RH F	Nut	CGA-182	3/8"	
	F-22	CGA-182 to 1/4" NPT M	Adaptor		3/8"	
F-11@ @ #	F-30	.750"-16 UNF-2B, RH F	Nut	CGA-295	1/2"	
	F-31	CGA-295 to 1/4" NPT M	Adaptor		1/2"	
	F-32	CGA-295 to 3/"8 NPT M	Adaptor		1/2"	
F-10	F-33	CGA-295 To 1/2" NPT M	Adaptor		1/2"	
	F-40	.875"-14 UNF-2B, RH F	Nut	CGA-440	5/8"	
F-30	F-41	CGA-440 to 1/4" NPT M	Adaptor		5/8"	
F-32	F-42	CGA-440 to 3/8" NPT M	Adaptor		5/8"	
	F-43	CGA-440 to 1/2" NPT M	Adaptor		5/8"	
	F-44	CGA-440 to 3/4" NPT M	Adaptor		5/8"	

CGA 622 SERIES FITTINGS

CGA 022 SERIES FITTINGS						
PART NO.	DESCRIPTION	SERVICE				
Pr	Pressures to 500 PSIG (3,400 kPa)					
Carbon Dioxide (R-744) CGA-						
622-2	Nut, Stamped CGA 622					
F-51	Adaptor, CGA 622 x 1/4" NPT					
F-52	Adaptor, CGA 622 x 3/8" NPT					
F-53	Adaptor, CGA 622 x 1/2" NPT					
WMH-2-29	Hose Assembly, CGA 622, 48"					
WMH-2-30	Hose Assembly, CGA 622, 60"					
WMH-2-31	Hose Assembly, CGA 622, 72"					
WMH-2-32						
WMH-2-33	Hose Assembly, CGA 622, 144"					

CGA 624 SERIES FITTINGS

PART NO.	SERVICE	
	Pressures to 500 PSIG (3,400 kPa)	
	Nitrous Oxide (R-744a)	CGA-622
F-73	Adaptor, CGA 624 x 1/2" NPT	
WMH-2-34	Hose Assembly, CGA 624, 48"	
WMH-2-35	Hose Assembly, CGA 624, 60"	
WMH-2-36	Hose Assembly, CGA 624, 72"	
WMH-2-37	Hose Assembly, CGA 624, 120"	
WMH-2-38	Hose Assembly, CGA 624, 144"	

Western has manufactured quality manifold systems since 1978. We offer a wide variety of Industrial, Healthcare, and Spec Gas Manifold options to meet your needs.

Manifold options and accessories include:

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- Station drops and related accessories
- Alarms
- Pressure switches
- Cylinder Brackets
- Mounting Brackets
- Flashback Arrestors
- Fuel Gas Safety Kits



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CYLINDER ADAPTORS

Adaptors connect a regulator to a cylinder or other equipment when different CGA threads on the mating parts make a direct connection impossible.

Adaptors must be selected with care to ensure that regulators and other equipment are used only with compatible gases and pressure ratings.

A mixture of non-compatible gases in any system is a possible hazard. Regulators and all other parts of an adapted system must be thoroughly purged of all contaminants, especially organic material and residual gases. Replace worn or damaged fittings immediately to ensure safe and dependable operation.

Adaptors should not be used as permanent installations. For long-term use, the appropriate CGA regulator should be used on all cylinders and gas systems.

		СУЦІ		DER ADAPTORS TABLE REGULATOR CGA PLUS COMPONE	NT PARTS
	PART N	NUMBERS			
CYLINDER CYLINDER REGULATOR					
ADAPTOR	NUT	NIPPLE	ADAPTOR	FROM CYLINDER SERVICE	TO REGULATOR SERVICE
322	305-2	305-3	1 <i>5</i> -1A	CGA-200 "MC" Acetylene	CGA-300 Commercial Acetylene
321	305-2	305-3	300-1A	CGA-200 "MC" Acetylene	CGA-510 POL Acetylene 90°
324	305-2	305-3	16-1A	CGA-200 "MC" Acetylene	CGA-510 POL Acetylene
305	305-2	305-3	305-1	CGA-200 "MC" Acetylene	CGA-520 "B" Tank 90°
314	305-2	305-3	314-1	CGA-200 "MC" Acetylene	CGA-520 "B" Tank
831	284	283	415-1-A	CGA-280 Medical Mixtures	CGA-540 Oxygen
841	29-2	X-29-3	X-417-1	CGA-296 Ind Mix (Oxygen)	CGA-590 Industrial Air
304	16-2	X-16-3	X-302-1	CGA-300 Commercial Acetylene	CGA-200 "MC" Acetylene
16	16-2	16-3	16-1	CGA-300 Commercial Acetylene	CGA-510 POL Acetylene
61	16-2	16-3	300-1-B	CGA-300 Commercial Acetylene	CGA-510 POL Acetylene
1690	16-2	X-16-3	X-301-1	CGA-300 Commercial Acetylene	CGA-510 POL Acetylene 90°
316	16-2	16-3		CGA-300 Commercial Acetylene	CGA-520 "B" Tank
806	CO-2	CO-3	416-1	CGA-320 Carbon Dioxide	CGA-580 Nitrogen
827	14-2	14-3	415-1	CGA-346 Air	CGA-540 Oxygen
828	14-2	14-3	416-1	CGA-346 Air	CGA-580 Nitrogen
843	14-2	14-3	417-1	CGA-346 Air	CGA-590 Industrial Air
808	82	83	416-1	CGA-350 Hydrogen	CGA-580 Nitrogen
1453	410-2	410-3	16-1	CGA-410 Canadian Acetylene	CGA-510 POL Acetylene
872	500-2	15-8	415-1	CGA-500 Medical Mixtures	CGA-540 Oxygen
873	500-2	15-8	416-1	CGA-500 Medical Mixtures	CGA-580 Nitrogen
874	500-2	15-8	417-1	CGA-500 Medical Mixtures	CGA-590 Industrial Air
320	15-2	15-8	302-1	CGA-510 POL Acetylene	CGA-200 "MC" Acetylene
15	15-2	15-8	15-1	CGA-510 POL Acetylene	CGA-300 Commercial Acetylene
51	15-2	15-8	15-1	CGA-510 POL Acetylene	CGA-300 Coml Acet 1 Piece
818	15-2	15-8	800-1	CGA-510 POL Acetylene	CGA-350 Hydrogen
1516	15-2	15-8		CGA-510 POL Acetylene	CGA-410 Canadian Acetylene
820	15-2	15-8	300-1	CGA-510 POL Acetylene	CGA-510 POL Acetylene 90°
315	15-2	15-8	301-1	CGA-510 POL Acetylene	CGA-520 "B" Tank
306	300-2		306-1	CGA-520 "B" Tank Acetylene	CGA-200 "MC" Acetylene
319	300-2	300-3	15-1	CGA-520 "B" Tank Acetylene	CGA-300 Commercial Acetylene
317	300-2	300-3	16-1	CGA-520 "B" Tank Acetylene	CGA-510 POL Acetylene
318	300-2	300-3	300-1	CGA-520 "B" Tank Acetylene	CGA-510 POL Acetylene 90°
832	62	63	1341-1	CGA-540 Oxygen	CGA-346 Air
416	62	63	416-1	CGA-540 Oxygen	CGA-580 Nitrogen
802	72	73	16-1	CGA-555 Propane (LqVV)	CGA-510 POL Acetylene
809	72	73	416-1	CGA-555 Propane (LqW)	CGA-580 Nitrogen
810	92	15-8	CO-2-1	CGA-580 Nitrogen	CGA-320 Carbon Dioxide
830	92	15-8	1341-1	CGA-580 Nitrogen	CGA-346 Air
811	92	15-8	800-1	CGA-580 Nitrogen	CGA-350 Hydrogen
415	92	15-8	415-1	CGA-580 Nitrogen	CGA-540 Oxygen
812	92	15-8	414-1	CGA-580 Nitrogen	CGA-555 Propane (LqW)
813	92	15-8	417-1	CGA-580 Nitrogen	CGA-590 Industrial Air
858	93	15-8	1341-1	CGA-590 Industrial Air	CGA-346 Air
815	93	15-8	416-1	CGA-590 Industrial Air	CGA-580 Nitrogen

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- Regulator and Flowmeter in ONE
- Hand Tight Cylinder Connection

VN-500 500 PSI Test Pressure VN-250 250 PSI Test Pressure



PART NUMBER	DESCRIPTION
VN-250	Nitrogen Purging/Test Regulator w/250 PSI
VN-500	Nitrogen Purging/Test Regulator w/500 PSI

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NUMBER	GAS	CGA	FLOW SETTINGS (CFH)
ACU-200	$CO_2 + ARGON$	580	OFF, 10, 17, 22.5, 25, 30, 40, 45, 50, 55, 60

^{*}Flows calibrated for mixture of Ar75%, CO₂ 25%

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