

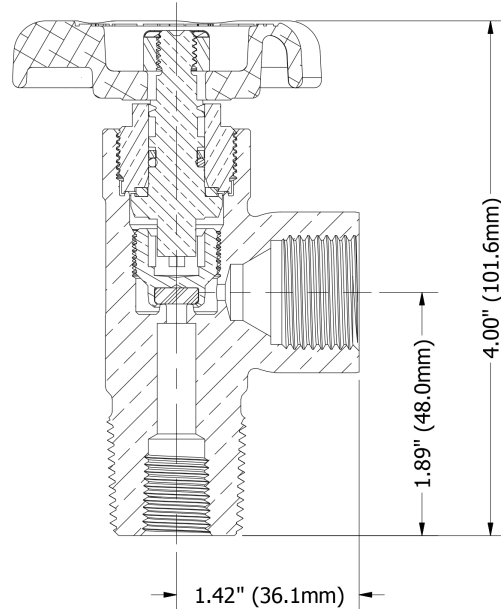
Industrial Gas Valves

GSV Series Cylinders

For Manifold, Oxygen and Fuel Gas



GSV58060



For further ordering information, refer to the GSV Specifications, the GSHV Specification and the Valve Part Numbering Matrix on the following pages.

Ordering Information				
Sherwood Part Number	CGA Outlet	Outlet Thread Size	Inlet Thread Size	Description
<i>GSV O-Ring-Style Manifold Valves</i>				
GSV32040	320	.825"-14 NGO	1/2"-NGT	No PRD
GSV32060	320	.825"-14 NGO	3/4"-NGT	No PRD
GSV35040	350	.825"-14 NGO	1/2"-NGT	No PRD
GSV35060	350	.825"-14 NGO	3/4"-NGT	No PRD
GSV54040	540	.903"-14 NGO	1/2"-NGT	No PRD
GSV54060	540	.903"-14 NGO	3/4"-NGT	No PRD
GSV58040	580	.965"-14 NGO	1/2"-NGT	No PRD
GSV58060	580	.965"-14 NGO	3/4"-NGT	No PRD
GSHV68040	680	1.045"-14 NGO	1/2"-NGT	No PRD
GSHV68060	680	1.045"-14 NGO	3/4"-NGT	No PRD
<i>GSV O-Ring-Style Cylinder Valves, Tapered Thread for Fuel Gas and Oxygen</i>				
GSV02440	024	.875"-14 UNF	1/2"-NGT	No PRD
GSV02440CC	024	.875"-14 UNF	1/2"-NGT	No PRD; Cap and Chain
GSV02540	025	.875"-14 UNF	1/2"-NGT	No PRD
GSV02540CC	025	.875"-14 UNF	1/2"-NGT	No PRD; Cap and Chain

For Product Markings Reference, see **(A)** on the following page

GSV Series

Global Industrial Gas Valves

Design Specifications		
	English	Metric
Maximum Working Pressure	3,500 PSI	241 Bar
Burst Pressure	10,000 PSI	689 Bar
Operating Temperature Range	-50° F → +149° F	-45° C → +65° C
Storage Temperature Range	-65° F → +155° F	-54° C → +68° C
Leak Rate Internal/External	1x10 ⁻³ atm cc/sec.	1x10 ⁻³ Bar mL/sec.
Minimum Cycle Life	2000 Cycles	
Cv Flow Factor	Standard: .690 CO ₂ /Manifold: 1.23	
Closing Torque	20–30 in.-lbs.	2.2–3.3 N-m
Operating Torque	10–20 in.-lbs.	1.1–2.2 N-m
Bonnet Installation Torque	50–60 ft.-lbs.	68-81 N-m
Handwheel Nut Installation Torque	15–35 in.-lbs.	1.7–3.9 N-m
PRD Installation Torque	25-35 ft.-lbs.	34–47 N-m
PRD Flow Capacity	60 cfm @ 100 PSI	1700 L/min. @ 6.9 Bar

Materials of Construction	
Part Description	Materials of Construction
Body	Forged Brass C37700; Chrome Plating When Applicable
Bonnet	Brass C36000; Chrome Plating When Applicable
Handwheel	Aluminum A380
Handwheel Nut	Steel Class 8, Zinc Plating
Lower Plug	Brass C48500
Lower Plug Seat	Nylon Zytel 101
PRD	Plug: Brass C36000; Chrome Plating When Applicable Rupture Disc: Nickel Alloy 201; Copper C22000 Webbed Seal Gasket: Copper Dead Soft C11000
Stem	Brass C36000
O-Ring	Ethylene Propylene (EPDM)
Back-up O-Ring	PTFE
Thrust Washer	Delrin® 500 AF

Standards Conformance	
CGA V-9	Standard for Gas Cylinder Valves
CGA S1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Specifications
ISO 10297	International Standard for Cylinder Valves Design Specifications
ISO 11363-1	25E Inlet Thread Specifications
A-A-59860	U.S. General Services Administration Standards for Gas Cylinder Valves

Inlet O-Ring for Straight Threaded GSV Valves		
Sherwood Part Number	Size	Material
G907A	.625 UNF	Buna-N
G210A-9	.750 UNF	Buna-N
G216B	1.125 UNF	Buna-N
G016T	.625 UNF	PTFE
G210T	.750 UNF	PTFE
P1100X15-20T	1.125 UNF	PTFE

Lubricants	
Christo-Lube	Used in Valves for All Industrial Gas Applications

Replacement Parts	
Sherwood Part Number	Description
1251-6	Handwheel Nut
1919A	Handwheel
P625-19X9-XX	Pressure Relief Device Unitized Assembly Includes: Plug, Rupture Disc and Webbed Seal Washer

GSHV Series

Global Industrial Gas Valves

Design Specifications		
	English	Metric
Maximum Working Pressure	6,400 PSI	441 Bar
Burst Pressure	13,500 PSI	931 Bar
Operating Temperature Range	-50° F → +149° F	-45° C → +65° C
Storage Temperature Range	-65° F → +155° F	-54° C → +68° C
Leak Rate Internal/External	1x10 ⁻⁴ atm cc/sec.	1x10 ⁻⁴ Bar mL/sec.
Minimum Cycle Life	2000 Cycles	
Cv Flow Factor	Standard: .690	
Closing Torque	20–30 in.-lbs.	2.2–3.3 N-m
Operating Torque	10–20 in.-lbs.	1.1–2.2 N-m
Bonnet Installation Torque	60–70 ft.-lbs.	81–95 N-m
Handwheel Nut Installation Torque	15–35 in.-lbs.	1.7–3.9 N-m
PRD Installation Torque	40–50 ft.-lbs.	54–68 N-m
PRD Flow Capacity	60 cfm @ 100 PSI	1700 L/min. @ 6.9 Bar

Materials of Construction	
Part Description	Materials of Construction
Body	Forged Brass C37700; Chrome Plating When Applicable
Bonnet	Brass C36000; Chrome Plating When Applicable
Handwheel	Aluminum A380
Handwheel Nut	Steel Class 8, Zinc Plating
Lower Plug	Brass C48500
Lower Plug Seat	Nylon Zytel 101
PRD	Plug: Brass C36000; Chrome Plating When Applicable Rupture Disc: Nickel Alloy 201; Copper C22000 Webbed Seal Gasket: Copper Dead Soft C11000
Stem	Brass C36000
O-Ring	Ethylene Propylene (EPDM)
Back-up O-Ring	PTFE
Thrust Washer	Delrin® 500 AF

NOTE: GSHV Series valves are not for use with CNG applications. For CNG Service, see NGSHV Series on pages 15-17. No mechanical addition of force is to be used with handwheel-style valves without the use of controlled torque.

Standards Conformance	
CGA V-9	Standard for Gas Cylinder Valves
CGA S1.1	Standard for Pressure Relief Devices
CGA V-1	Compressed Gas Cylinder Valve Outlet and Inlet Specifications
ISO 10297	International Standard for Cylinder Valves Design Specifications
ISO 11363-1	25E Inlet Thread Specifications
A-A-59860	U.S. General Services Administration Standards for Gas Cylinder Valves

Lubricants	
Christo-Lube	Used in Valves for All Industrial Gas Applications
Turmoxygen	Used in Valves for Oxygen Service

Replacement Parts	
Sherwood Part Number	Description
1251-6	Handwheel Nut
1919A	Handwheel
P625-19X9H-XX	Pressure Relief Device Unitized Assembly Includes: Plug, Rupture Disc and Webbed Seal Washer

For further ordering information, refer to the Selection of Pressure Relief Devices on page 18, the Pressure Relief Device Numbering Matrix on page 21, the Product Markings Reference on page 22 and the valve Part Numbering Matrix on page 24.

Valve Part Numbering Matrix: Global Valves

GSV A X 0 6 1 - 38 B

Valve Category	
GSV	= Global Valve
GSRPV	= Global Residual Pressure Valve
GSHV	= Global High-Pressure Valve
NGSV	= Global Valve for Hydrocarbon-Based Gases
NGSHV	= Global Valve for High-Pressure Hydrocarbon-Based Gases

Outlet Designation
Letter or Number from the Associated Specification

Safety Type	
0	= No Safety
1	= Unbacked Frangible Disc
2	= 165° Fuse Plug
3	= 212° Fuse Plug
4	= Backed Frangible Disc with 165° Fusible Metal
5	= Backed Frangible Disc with 212° Fusible Metal
H	= Backed Frangible Disc with 255° Fusible Metal

Plating	
(BLANK)	= Unplated
A	= Chrome Plated

Safety Pressure	
28	= 3000 Max. PSI
32	= 3360 Max. PSI
35	= 3775 Max. PSI
38	= 4000 Max. PSI
39	= 4351 Max. PSI
43	= 4450 Max. PSI
46	= 4833 Max. PSI
47	= 4917 Max. PSI
48	= 5000 Max. PSI
55	= 5833 Max. PSI
63	= 6665 Max. PSI
65	= 6750 Max. PSI
71	= 7500 Max. PSI
78	= 8333 Max. PSI
85	= 9000 Max. PSI
95	= 10,000 Max. PSI
190	= 190 Bar
216	= 216 Bar
250	= 250 Bar
270	= 270 Bar
300	= 300 Bar

Special Features	
00	= Safety Port Machined Safety Not Installed
B	= Cleaned for O ₂ Service and Bagged
CC	= Cap and Chain
FT	= Filter
GH	= Gauge Hole
HC	= Rubber Handwheel Cover
LX	= Lexan® Handwheel
MA	= Stamped: Argon
MB	= Stamped: Air Breathing
MC	= Stamped: Carbon Dioxide
MD	= Stamped: CO ₂ Med.
MG	= Stamped: Acetylene
MM	= Stamped: Carbon Monoxide
MN	= Stamped: Nitrogen O.F.
MO	= Stamped: Oxygen
MQ	= Stamped: Oxygen-Hel. Med.
MR	= Stamped: Air Industrial
MS	= Stamped: Sulphur Hexafluoride
MY	= Stamped: Hydrogen
M1	= Stamped: Inert O.F.
M2	= Stamped: Inert O.T.
M3	= Stamped: Nitrous Oxide Med.
M4	= Stamped: Oxygen Med.
M7	= Stamped: 6000 PSI
T	= ¼" NPT Tapped Inlet
VS	= Vented Flare Safety (Hydrogen)
-3	= 3 Threads Oversize
-4	= 4 Threads Oversize
-7	= 7 Threads Oversize
-24	= 24 Threads Oversize
When Inlet Designation is 5	
-50	= .500-20 UNF Inlet Thread
-62	= .625-18 UNF Inlet Thread
-75	= .750-16 UNF Inlet Thread
-87	= .875-14 UNF Inlet Thread

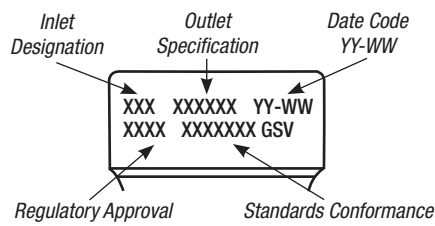
Outlet Code	
(NONE)	= CGA Outlet
ABN	= Brazil, ABNT
AS	= Australia, AS2473
BS	= British Standard
DIN	= Germany
IND	= Chile, INDURA
INF	= Mexico, INFRA
IRA	= Argentina, IRAM
JIS	= Japan
NF	= France
SMS	= Sweden

Inlet Designation	
3	= ⅜"-18 NGT
4	= ½"-NGT
4FPT	= ¼"-18 NPT Female
5	= Straight Thread, 1½"-12 UNF (Unless Changed by Special Feature)
6	= ¾"-14 NGT
7	= ¾"-14 SGT
8	= 1"-11½ NGT
8MPT	= ½"-14 NPT
12FRT	= ¾"-14 NPT Female
17E	= 17,4 ISO/DIS 11116
25E	= 25,8 ISO/DIS & DIN 28,8
25P	= M25 x 2
198	= DIN W19,8
313	= DIN W31,3
SP12	= ¾"-14 NPSM
V1	= JIS 20 x 14
V2	= JIS 28 x 14
V3	= JIS 28 x 14 Reduced Length
W1	= 1-14 AS2473
W6	= 0.06-14 AS2473
W71	= 0.715-14 AS2473

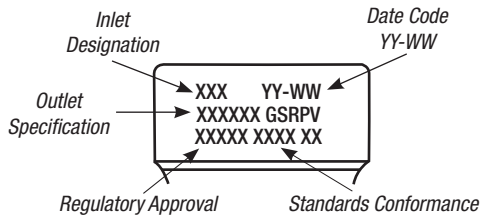
New Part Number Cross Reference		
Previous PN Prefix	New PN Prefix	New PN Example
GV	GSV	GSV58061-32
GVHM	GSHV	GSHV70261-85
GVT	GSVT	GSVT30060
GRPV	GSRPV	GSRPV32061-28
NGV	NGSV	NGSV35065-32
NGVHM	NGSHV	NGSHV69565-55
NGRPV	NGSRPV	NGSRPV35061-38

Product Markings Reference

A GSV, GSHV, GSV Acetylene, GSVT and NGSV Series



B GSRPV and NGSRPV Series



Inlet Code	
Inlet Code	Inlet Thread Designation
4FPT	¼"-18 NPT Female
06N	¾"-18 NGT
8MPT	½"-14 NPT
08N	½"-14 NGT
12FPT	¾"-14 NPT Female
12N	¾"-14 NGT
12S	¾"-14 SGT
16N	1"-11½ NGT
U8	½"-20 UNF
U10	¾"-18 UNF
SP12	¾"-14 NPSM
U12	¾"-16 UNF
U14	7/8"-14 UNF
U18	1½"-12 UNF
17E	17,4 ISO/DIS 11116
198	DIN 477 W18,8 x ¼
25E	25,8 ICO/DSI 10920.2 & DIN 477 28.8 x ¼
313	DIN 477 W31,3 x ¼
V1	20 X 14 JIS B 8246
V2	28 X 14 JIS B 8246
V3	28 X 14 JIS B 8246 (Reduced Length)
W6	0.06-14 AS2473
W71	0.715-14 AS2473
W1	1-14 AS2473
18P	M18 x 1,5
25P	M25 x 2

Outlet Codes	
Code	Description
CGA	CGA Outlet
ABN	Brazil, ABNT
AS	Australia, AS2473
BS	British Standard
DIN	Germany
IND	Chile, Indura
INF	Mexico, INFRA
IRA	Argentina, IRAM
JIS	Japan
NF	France
SMS	Sweden

NOTE: Date codes include the last two digits of the year manufactured and two digits to represent the week manufactured. For example, the year is represented as "19" for 2019 or "20" for 2020. For example, the week is represented as "01" for first week of the year manufactured and "10" for tenth week of the year manufactured.