Harrison Valve™ is a global supplier of precision valve products serving a broad range of applications, industries and markets. Our mission is to provide each of our customers with the highest quality products, at market competitive prices.

Quality is paramount at Harrison Valve™. All Harrison valves are produced to meet or exceed the highest US and international standards; including ISO 10297 and CGA V-9. Harrison Valves™ are rigorously tested through a robust quality assurance system, and Harrison Valve™ maintains carefully monitored manufacturing processes to ensure that all Harrison valves meet or exceed design and performance specifications.

Harrison Valve™ strives to provide our customers with significant value by offering cost competitive valve solutions. We are able to do so by maintaining a low cost of production, and by effectively managing a wide range of manufacturing efficiencies. These efforts ultimately result in reduced manufacturing costs which we pass directly to our OEM customers and global distribution partners.

Harrison Valve™ strives to better serve global markets by continually engineering products that provide more innovative solutions for today’s compressed gas applications. Please continue to explore our site to familiarize yourself with our extensive and expanding product line. Please contact us directly if we may be of assistance.

HARRISON VALVE PRODUCTS

1641 E. St. Andrews Place, Santa Ana CA 92705 • 877.598.6657 • www.harrisonvalve.com

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Brass Residual Pressure Valves
O-Ring Seal Technology for all Industrial and Medical Gases

NGT Tapered Threads for Steel Cylinders

KEY FEATURES:
- Harrison VRP Series valves retain 30-50PSI pressure when valve is left open.
- Harrison VRP Series valves eliminate the expense of time consuming purge and clean cycles.
- Positive 30-50PSI pressure maintains the integrity of the cylinder contents against contaminants.
- Universal adapters for Harrison VRP series valves accommodate most major manufacturer's residual pressure valves.
- O-ring seal technology provides superior leak integrity.
- Lower plugs are designed specific for the gas service intended.
- Easy operation under all pressures.
- 100% leak testing on entire production.
- Meets and exceeds CGA V9 and ISO 10297 and ISO 15996 for residual pressure valves.
- Unitized plug with robust hex and threads insure easy installation.
- Most valves supplied with threaded inlet for siphon tubes.
- Oxygen valves passed stringent adiabatic oxygen compression testing per ISO standards.

DESIGN SPECIFICATIONS
Maximum Working Pressure 3000 PSIG 412 BAR
Burst Pressure 15,000 PSIG 1035 BAR
Operating Temperature Min: -50F -45C
Max: 130F 55C
Storage Temperature Min: -65F -54C
Max: 155F 68C
Minimum Cycle Life 5000 Cycles

Harrison Filling Adaptors Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AD-T00L</td>
<td>Locking Tool</td>
</tr>
<tr>
<td>AD320HT</td>
<td>Retractable Pin Nipple, CGA320</td>
</tr>
<tr>
<td>AD346HT</td>
<td>Retractable Pin Nipple, CGA346</td>
</tr>
<tr>
<td>AD350HT</td>
<td>Retractable Pin Nipple, CGA350</td>
</tr>
<tr>
<td>AD540HT</td>
<td>Retractable Pin Nipple, CGA540</td>
</tr>
<tr>
<td>AD580HT</td>
<td>Retractable Pin Nipple, CGA580</td>
</tr>
<tr>
<td>AD590HT</td>
<td>Retractable Pin Nipple, CGA590</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Gas Service</th>
<th>CGA</th>
<th>Outlet Thread</th>
<th>Inlet</th>
<th>Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>VRP320-6-1-XXX</td>
<td>Carbon Dioxide</td>
<td>320</td>
<td>.725-14NGO RH EXT</td>
<td>3/4&quot;NGT</td>
<td>CG1</td>
</tr>
<tr>
<td>VRP346-6-1-XXX</td>
<td>Breathing Air</td>
<td>346</td>
<td>.825-14NGO RH EXT</td>
<td>3/4&quot;NGT</td>
<td>CG1</td>
</tr>
<tr>
<td>VRP350-6-5-XXX</td>
<td>Hydrogen</td>
<td>350</td>
<td>.825-14NGO LH EXT</td>
<td>3/4&quot;NGT</td>
<td>CG1</td>
</tr>
<tr>
<td>VRP540-6-1-XXX</td>
<td>Oxygen</td>
<td>540</td>
<td>.903-14NGO RH EXT</td>
<td>3/4&quot;NGT</td>
<td>CG1</td>
</tr>
<tr>
<td>VRP580-6-1-XXX</td>
<td>Inert (Helium, Nitrogen, Argon)</td>
<td>580</td>
<td>.965-14NGO RH INT</td>
<td>3/4&quot;NGT</td>
<td>CG1</td>
</tr>
<tr>
<td>VRP590-6-1-XXX</td>
<td>Air, Sulphur Hex.</td>
<td>590</td>
<td>.965-14NGORH INT</td>
<td>3/4&quot;NGT</td>
<td>CG1</td>
</tr>
</tbody>
</table>

The suffix "xxxx" denotes pressure relief device burst disc rupture pressure. Refer to the safety device ordering information chart for pressures available.
Fusible backed pressure relief devices in 212F nominal melting temperatures are standard with CGA350. Change the numeral in position 6 from a "1" to "5" for all valves other than CGA350 requiring 212F fusible metal safeties.

HARRISON PRECISION VALVE PRODUCTS
877.598.6657 • www.harrisonvalve.com
Brass and Chrome Plated Cylinder Valves

O-Ring Seal Technology for all Industrial and Medical Gases

NGT Tapered Threads for Steel Cylinders
Designed for service pressures up to 3000PSI

KEY FEATURES:
- O-ring seal technology provides superior leak integrity.
- Lower plugs are designed specific for the gas service intended.
- Easy operation under all pressures.
- 100% leak testing on entire production.
- Meets and exceeds CGA V9 and ISO 10297.
- Unitized plug with robust hex and threads insure easy installation.
- Most valves supplied with threaded inlet for siphon tubes.
- Oxygen valves passed stringent adiabatic oxygen compression testing per ISO 10297.
- All valves are bagged and cleaned for oxygen service per CGA G4.1.
- Common design safety and hand wheels readily available.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Gas Service</th>
<th>CGA</th>
<th>Outlet Thread</th>
<th>Inlet</th>
<th>Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>V280-6-1-XXXX</td>
<td>Medical Breathing Mixtures</td>
<td>280</td>
<td>.745-14NGO RH EXT</td>
<td>3/4*NGT</td>
<td>CG1</td>
</tr>
<tr>
<td>V296-6-1-XXXX</td>
<td>Industrial Oxygen Mixture</td>
<td>296</td>
<td>.803-14UNS-2B RH INT</td>
<td>3/4*NGT</td>
<td>CG1</td>
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<tr>
<td>V320-4-1-XXXX</td>
<td>Carbon Dioxide</td>
<td>320</td>
<td>.725-14NGO RH EXT</td>
<td>1/2*NGT</td>
<td>CG1</td>
</tr>
<tr>
<td>V320-6-1-XXXX</td>
<td>Carbon Dioxide</td>
<td>320</td>
<td>.725-14NGO RH EXT</td>
<td>3/4*NGT</td>
<td>CG1</td>
</tr>
<tr>
<td>V320-6-1-XXXX-7</td>
<td>Carbon Dioxide</td>
<td>320</td>
<td>.725-14NGO RH EXT</td>
<td>3/4*NGT 70/S</td>
<td>CG1</td>
</tr>
<tr>
<td>V326-6-1-XXXX</td>
<td>Nitrous Oxide</td>
<td>326</td>
<td>.825-14NGO RH EXT</td>
<td>3/4*NGT</td>
<td>CG1</td>
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<tr>
<td>V326-6-1-XXXX-7</td>
<td>Nitrous Oxide</td>
<td>326</td>
<td>.825-14NGO RH EXT</td>
<td>3/4*NGT 70/S</td>
<td>CG1</td>
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<tr>
<td>V346-6-1-XXXX</td>
<td>Breathing Air</td>
<td>346</td>
<td>.825-14NGO RH EXT</td>
<td>3/4*NGT</td>
<td>CG1</td>
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<tr>
<td>V346-6-1-XXXX-7</td>
<td>Breathing Air</td>
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<td>.825-14NGO RH EXT</td>
<td>3/4*NGT 70/S</td>
<td>CG1</td>
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<tr>
<td>V350-6-5-XXXX</td>
<td>Hydrogen</td>
<td>350</td>
<td>.825-14NGO LH EXT</td>
<td>3/4*NGT 70/S</td>
<td>CG1</td>
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<tr>
<td>V350-6-5-XXXX</td>
<td>Hydrogen</td>
<td>350</td>
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<td>3/4*NGT 70/S</td>
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<tr>
<td>V500-6-1-XXXX</td>
<td>Medical Gas Mixture</td>
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<tr>
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<td>V540-6-1-XXXX-7</td>
<td>Oxygen</td>
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<td>555</td>
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<td>V580-4-1-XXXX</td>
<td>Inert (Helium, Nitrogen, Argon)</td>
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<td>.965-14NGO RH INT</td>
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<tr>
<td>V580-6-1-XXXX</td>
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<td>580</td>
<td>.965-14NGO RH INT</td>
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<td>CG1</td>
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<tr>
<td>V580-6-1-XXXX-7</td>
<td>Inert (Helium, Nitrogen, Argon)</td>
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<td>V590-6-1-XXXX</td>
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<td>CG1</td>
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<tr>
<td>V590-6-1-XXXX-7</td>
<td>Inert (Helium, Nitrogen, Argon)</td>
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<tr>
<td>V660-6-1-XXXX</td>
<td>Sulfur Dioxide</td>
<td>660</td>
<td>1.030-14NGO RH INT</td>
<td>3/4*NGT</td>
<td>CG1</td>
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</tbody>
</table>

The suffix "xxxx" denotes pressure relief device burst disc rupture pressure. Refer to the safety device ordering information chart for pressures available.

Chrome plating: To order, change the letter "V" in the part number to letter "VC". Example: V540-6-1-xxxx becomes VC540-6-1-xxxx.

Fusible backed pressure relief devices in 212F nominal melting temperatures are standard with CGA350, and CGA695 valves. Change the numeral in position 6 from a "1" to "5" for all valves other than CGA350 and CGA695 requiring 212F fusible metal safeties. Fusible metal safeties at 165F are available special order.

<table>
<thead>
<tr>
<th>Cylinder Service</th>
<th>Pressure Relief</th>
<th>Disc Rupture Range 165F</th>
<th>Pressure Relief Device Replacement Part Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pressure In PSI</td>
<td>Device Stamping</td>
<td>Minimum</td>
<td>Maximum</td>
</tr>
<tr>
<td>1800</td>
<td>3000</td>
<td>2700</td>
<td>3000</td>
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<tr>
<td>2015</td>
<td>3360</td>
<td>3025</td>
<td>3360</td>
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<td>2265</td>
<td>3775</td>
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<tr>
<td>3000</td>
<td>5000</td>
<td>4500</td>
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</tr>
</tbody>
</table>

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Brass and Chrome Plated Cylinder Valves

O-Ring Seal Technology for all Industrial and Medical Gases

Parallel / Straight Threads for Aluminum Cylinders

KEY FEATURES:
- O-ring seal technology provides superior leak integrity.
- Lower plugs are designed specific for the gas service intended.
- Easy operation under all pressures.
- 100% leak testing on entire production.
- Meets and exceeds CGA V9 and ISO 10297.
- Unitized plug with robust hex and threads insure easy installation.
- Most valves supplied with threaded inlet for siphon tubes.
- Oxygen valves passed stringent adiabatic oxygen compression testing per ISO 10297.
- All valves are bagged and cleaned for oxygen service per CGA G4.1.
- Common design safety and hand wheels readily available.
- All valves are supplied with inlet O-ring.

### Part Number Gas Service CGA Outlet Thread Inlet Safety

| V220-3-1-XXXX | Carbon Dioxide | 320 | .725-14NGO RH EXT | .750-16UNF2A | CG1 |
| V220-5-1-XXXX | Carbon Dioxide | 320 | .725-14NGO RH EXT | 1.125-12UNF2A | CG1 |
| V236-5-1-XXXX | Nitrous Oxide | 326 | .825-14NGO RH EXT | 1.125-12UNF2A | CG1 |
| V236-5-1-XXXX | Breathing Air | 346 | .825-14NGO RH EXT | 1.125-12UNF2A | CG1 |
| V350-5-1-XXXX | Hydrogen | 350 | .825-14NGO LH EXT | 1.125-12UNF2A | CG5 |
| V500-5-1-XXXX | Medical Gas Mixture | 500 | .885-14NGO LH EXT | 1.125-12UNF2A | CG1 |
| V540-3-1-XXXX | Oxygen | 540 | .903-14NGO RH EXT | .750-16UNF2A | CG1 |
| V540-5-1-XXXX | Oxygen | 540 | .903-14NGO RH EXT | 1.125-12UNF2A | CG1 |
| V580-3-1-XXXX | Inert (Helium, Nitrogen, Argon) | 580 | .985-14NGO RH INT | .750-16UNF2A | CG1 |
| V580-5-1-XXXX | Inert (Helium, Nitrogen, Argon) | 580 | .985-14NGO RH INT | 1.125-12UNF2A | CG1 |
| V590-5-1-XXXX | Industrial Air, Sulphur Hexafluoride | 590 | .985-14NGO LH INT | 1.125-12UNF2A | CG1 |
| V680-5-1-XXXX | Sulphur Dioxide | 680 | 1.030-14NGO RH INT | 1.125012UNF2A | CG1 |

The suffix "xxxx" denotes pressure relief device burst disc rupture pressure. Refer to the safety device ordering information chart for pressures available.

Chrome plating: To order, change the letter "V" in the part number to letter "CV" example: V540-5-1-xxxx becomes VC540-5-1-xxxx.

Fusible backed pressure relief devices in 212F nominal melting temperatures are standard with CGA350.
NGT Tapered Threads for Steel Cylinders

KEY FEATURES:
• O-ring seal technology provides superior leak integrity.
• Lower plugs are designed specific for the gas service intended.
• Easy operation under all pressures.
• 100% leak testing on entire production.
• Meets and exceeds CGA V9 and ISO 10297.
• Unitized plug with robust hex and threads insure easy installation.
• Most valves supplied with threaded inlet for siphon tubes.
• Oxygen valves passed stringent adiabatic oxygen compression testing per ISO 10297.
• All valves are bagged and cleaned for oxygen service per CGA G4.1.
• Common design safety and hand wheels readily available.

### Part Number | Gas Service | CGA | Outlet Thread | Inlet | Safety
--- | --- | --- | --- | --- | ---
VC280-6-1-XXXX | Medical Breathing Mixtures | 280 | .745-14NGO RH EXT | 3/4"NGT | CG1
VC296-6-1-XXXX | Industrial Oxygen Mixture | 296 | .803-14UNS-2B RH INT | 3/4"NGT | CG1
VC320-6-1-XXXX | Carbon Dioxide | 320 | .75-14NGO RH EXT | 3/4"NGT | CG1
VC326-6-1-XXXX | Nitrous Oxide | 326 | .825-14NGO RH EXT | 3/4"NGT | CG1
VC500-6-1-XXXX | Medical Gas Mixture | 500 | .885-14NGO LH EXT | 3/4"NGT | CG1
VC540-6-1-XXXX | Oxygen | 540 | .903-14NGO RH EXT | 3/4"NGT | CG1
VC580-6-1-XXXX | Inert (Helium, Nitrogen, Argon) | 580 | .965-14NGO RH INT | 3/4"NGT | CG1
VC590-6-1-XXXX | Inert (Helium, Nitrogen, Argon) | 590 | .965-14NGO LH INT | 3/4"NGT | CG1
VC660-6-1-XXXX | Sulfur Dioxide | 660 | 1.030-14NGO RH INT | 3/4"NGT | CG1

The suffix "xxxx" denotes pressure relief device burst disc rupture pressure. Refer to the safety device ordering information chart for pressures available.
O-Ring Seal Technology for all Industrial and Medical Gases

Parallel / Straight Threads for Aluminum Cylinders

KEY FEATURES:
- O-ring seal technology provides superior leak integrity.
- Lower plugs are designed specific for the gas service intended.
- Easy operation under all pressures.
- 100% leak testing on entire production.
- Meets and exceeds CGA V9 and ISO 10297.
- Unitized plug with robust hex and threads insure easy installation.
- Most valves supplied with threaded inlet for siphon tubes.
- Oxygen valves passed stringent adiabatic oxygen compression testing per ISO 10297.
- All valves are bagged and cleaned for oxygen service per CGA G4.1.
- Common design safety and hand wheels readily available.
- All valves are supplied with inlet O-ring.

### Part Number Gas Service CGA Outlet Thread Inlet Safety
VC320-3-1-XXXX Carbon Dioxide 320 .725-14NGO RH EXT .750-16UNF2A CG1
VC320-5-1-XXXX Carbon Dioxide 320 .725-14NGO RH EXT 1.125-12UNF2A CG1
VC326-5-1-XXXX Nitrous Oxide 326 .825-14NGO RH EXT 1.125-12UNF2A CG1
VC346-5-1-XXXX Breathing Air 346 .825-14NGO RH EXT 1.125-12UNF2A CG1
VC350-5-5-XXXX Hydrogen 350 .825-14NGO LH EXT 1.125-12UNF2A CG1
VC500-5-1-XXXX Medical Gas Mixture 500 .885-14NGO LH EXT 1.125-12UNF2A CG1
VC540-3-1-XXXX Oxygen 540 .903-14NGO RH EXT .750-16UNF2A CG1
VC540-5-1-XXXX Oxygen 540 .903-14NGO RH EXT 1.125-12UNF2A CG1
VC580-3-1-XXXX Inert (Helium, Nitrogen, Argon) 580 .965-14NGO RH INT .750-16UNF2A CG1
VC580-5-1-XXXX Inert (Helium, Nitrogen, Argon) 580 .965-14NGO RH INT 1.125-12UNF2A CG1
VC590-5-1-XXXX Industrial Air, Sulphur Hexaflouride 590 .965-14NGO LH INT 1.125-12UNF2A CG1
VC580-5-1-XXXX Sulphur Dioxide 660 1.030-14NGO RH INT 1.125012UNF2A CG1

The suffix "xxxx" denotes pressure relief device burst disc rupture pressure. Refer to the safety device ordering information chart for pressures available.
Small Cylinder Acetylene Valves

Hand Knob Operation for Acetylene Gases

Tapered, NGT Threads for Steel Cylinders

All Harrison Valves™ are produced to meet or exceed the highest US and international standards, including ISO 10297 and CGA V-9. Harrison Valves™ are rigorously tested through a robust quality assurance system, and Harrison Valve™ maintains carefully monitored manufacturing processes to ensure that all Harrison Valves™ meet or exceed design and performance specifications.

KEY FEATURES:
- Handwheel design permits easy access to the valve stem and bonnet to perform leak checks in compliance with DOT requirements.
- Positive valve stem nut seal with the valve body eliminates the need for constant tightening of packing nuts.
- Self locking zinc coated steel nut affixes handwheel to the sturdy brass stem.
- Proven double o-ring design technology assures positive leak tight operation extending service life.
- Easy low torque operation eliminates the need for wrenches or keys.
- Handwheel eliminates costly valve repairs reducing overall cost of ownership.
- Easy operation under all pressures.
- 100% leak testing on entire production.
- Meets and exceeds CGA V9 and ISO 10297.
- All valves bagged for cleanliness no matter the gas service intended.

SPECIFICATIONS:
All valves are supplied with safety relief devices as specified by the Compressed Gas Association Standard S1.1. Safety relief devices are a CG3 safety device (212F fusible metal for cylinders not exceeding 500psig.)

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CGA Designation</th>
<th>Gas Service</th>
<th>Inlet Thread Size</th>
<th>Safety Device</th>
<th>Fusible Metal</th>
</tr>
</thead>
<tbody>
<tr>
<td>A200H</td>
<td>CGA200</td>
<td>Small MC Acetylene Cylinder</td>
<td>3/8 NGT</td>
<td>CG3</td>
<td>212F Fusible Metal</td>
</tr>
<tr>
<td>A520H</td>
<td>CGA520</td>
<td>Small B Acetylene Cylinder</td>
<td>3/8 NGT</td>
<td>CG3</td>
<td>212F Fusible Metal</td>
</tr>
</tbody>
</table>
Small Cylinder Acetylene Valves
Wrench Operated Stem for Acetylene Gases

All Harrison Valves™ are produced to meet or exceed the highest US and international standards; including ISO 10297 and CGA V-9. Harrison Valves™ are rigorously tested through a robust quality assurance system, and Harrison Valve™ maintains carefully monitored manufacturing processes to ensure that all Harrison Valves™ meet or exceed design and performance specifications.

KEY FEATURES:
• Designed utilizing universal specifications and parts.
• 212F fusible metal safety device cast directly into the valve body.
• Bonnet nuts are secured with a pin for guaranteed tightness.
• Tough carbon steel stem for years of service life.
• 100% leak testing on entire production.
• Meets and exceeds CGA V9 and ISO 10297.
• All valves bagged for cleanliness no matter the gas service intended.

SPECIFICATIONS:
All valves are supplied with safety relief devices as specified by the Compressed Gas Association Standard S1.1. Safety relief devices are a CG3 safety device (212F fusible metal for cylinders not exceeding 500psig.)

### Table: Part Number Specifications

<table>
<thead>
<tr>
<th>Part</th>
<th>CGA Designation</th>
<th>Gas Service</th>
<th>Inlet Thread Size</th>
<th>Safety Device</th>
<th>Fusible Metal</th>
</tr>
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<tbody>
<tr>
<td>A200</td>
<td>CGA200</td>
<td>Small MC Acetylene Cylinder</td>
<td>3/8 NGT</td>
<td>CG3</td>
<td>212F Fusible Metal</td>
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<tr>
<td>A520</td>
<td>CGA520</td>
<td>Small B Acetylene Cylinder</td>
<td>3/8 NGT</td>
<td>CG3</td>
<td>212F Fusible Metal</td>
</tr>
</tbody>
</table>
Large Acetylene Cylinder Valves

CGA300 and CGA510 for Acetylene Service

Tapered, NGT Threads for Steel Cylinders

All Harrison Valves™ are produced to meet or exceed the highest US and international standards; including ISO 10297 and CGA V-9. Harrison Valves™ are rigorously tested through a robust quality assurance system, and Harrison Valve™ maintains carefully monitored manufacturing processes to ensure that all Harrison Valves™ meet or exceed design and performance specifications.

KEY FEATURES:
• O-ring seal technology provides superior leak integrity.
• Easy operation under all pressures.
• 100% leak testing on entire production.
• Meets and exceeds CGA V9 and ISO 10297.
• All valves bagged for cleanliness no matter the gas service intended.
• Lower plugs are designed specific for the gas service intended.
• Common design handwheels readily available.

SPECIFICATIONS:
All A300 and A510 series valves are supplied without a safety device. All A300 and A510 series valves are to be used in manifolds or in conjunction with a fusible metal CG3 plug when utilized in a large acetylene cylinder.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CGA Designation</th>
<th>Gas Service</th>
<th>Inlet Thread Size</th>
<th>Safety Device</th>
<th>Service / Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>A510-4-0</td>
<td>CGA510</td>
<td>Acetylene</td>
<td>1/2 NGT</td>
<td>No safety device</td>
<td>No safety device</td>
</tr>
<tr>
<td>A510-6-0</td>
<td>CGA510</td>
<td>Acetylene</td>
<td>3/4 NGT</td>
<td>No safety device</td>
<td>No safety device</td>
</tr>
<tr>
<td>A510-8-0</td>
<td>CGA510</td>
<td>Acetylene</td>
<td>1 NGT</td>
<td>No safety device</td>
<td>No safety device</td>
</tr>
<tr>
<td>A300-6-0</td>
<td>CGA300</td>
<td>Acetylene</td>
<td>3/4 NGT</td>
<td>No Safety Device</td>
<td>No safety device</td>
</tr>
<tr>
<td>A300-8-0</td>
<td>CGA300</td>
<td>Acetylene</td>
<td>1 NGT</td>
<td>No Safety Device</td>
<td>No safety device</td>
</tr>
</tbody>
</table>

Fusible Plugs For Acetylene

KEY FEATURES:
• Produced from high quality brass and steel alloy rod.
• Meticulously controlled fusible alloy assures accurate and consistent melt temperatures.
• Fusible alloy is cast into plug body to ensure an extremely strong bond between alloy and plug body.
• Fusible plug stamped with fusible metal yield temperature.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Thread Size</th>
<th>Fuse Metal</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFP-212-1</td>
<td>1/8&quot; NPT</td>
<td>212°F</td>
</tr>
<tr>
<td>BFB-212-1</td>
<td>1/8&quot; NPT</td>
<td>212°F</td>
</tr>
<tr>
<td>BFB-212-2</td>
<td>1/4&quot;NPT</td>
<td>212°F</td>
</tr>
</tbody>
</table>
**AV Series – Vertical Outlet Acetylene Valves**

**O-Ring Seal Technology for Acetylene Gases**

**Tapered, NGT Threads for Steel Cylinders**

All Harrison Valves™ are produced to meet or exceed the highest US and international standards; including ISO 10297 and CGA V-9. Harrison Valves™ are rigorously tested through a robust quality assurance system, and Harrison Valve™ maintains carefully monitored manufacturing processes to ensure that all Harrison Valves™ meet or exceed design and performance specifications.

**KEY FEATURES:**
- Handwheel design to replace old “Linde” style Acetylene cylinder valves and vertical outlets.
- No wrench needed for operation.
- O-ring seal technology provides superior leak integrity.
- Easy operation under all pressures.
- 100% leak testing on entire production.
- Meets and exceeds CGA V9 and ISO 10297.
- All valves bagged for cleanliness no matter the gas service intended.
- Lower plugs are designed specific for the gas service intended.

**SPECIFICATIONS:**
All VA510 series valves are supplied without a safety device. All AV510 series valves are to be used in manifolds or in conjunction with a fusible metal CG3 plug when utilized in a large acetylene cylinder.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CGA Designation</th>
<th>Gas Service</th>
<th>Inlet Thread Size</th>
<th>Safety Device</th>
<th>Service/Safety</th>
</tr>
</thead>
<tbody>
<tr>
<td>AV510-6-0</td>
<td>CGA510</td>
<td>Acetylene</td>
<td>3/4” NGT</td>
<td>No safety Device</td>
<td>No Safety Device</td>
</tr>
</tbody>
</table>

**Fusible Plugs For Acetylene**

**KEY FEATURES:**
- Produced from high quality brass and steel alloy rod.
- Meticulously controlled fusible alloy assures accurate and consistent melt temperatures.
- Fusible alloy is cast into plug body to ensure an extremely strong bond between alloy and plug body.
- Fusible plug stamped with fusible metal yield temperature.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Thread Size</th>
<th>Fuse Metal</th>
</tr>
</thead>
<tbody>
<tr>
<td>SFP-212-1</td>
<td>1/8” NPT</td>
<td>212°F</td>
</tr>
<tr>
<td>BFB-212-1</td>
<td>1/8” NPT</td>
<td>212°F</td>
</tr>
<tr>
<td>BFB-212-2</td>
<td>1/4”NPT</td>
<td>212°F</td>
</tr>
</tbody>
</table>
Medical Pin Index Valves

O-Ring Seal Technology for all Medical Gases

Yoke Outlet Pin Index System Connection
Straight, Parallel Threads for Aluminum Cylinders

KEY FEATURES:
- O-ring seal technology provides superior leak integrity.
- Easy operation under all pressures.
- Protective and attractive chrome plated finish.
- 100% leak testing on entire production.
- Meets and exceeds CGA V9 and ISO 10297.
- Passed stringent adiabatic oxygen compression testing per ISO 10297.
- All valves bagged and tagged for oxygen service per CGA G4.1.
- All valves pre-drilled to accept aftermarket toggle device.
- All straight thread inlet valves are supplied with cylinder sealing o-ring.
- All valves are supplied with protective caps on inlet threads.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Gas Service / Description</th>
<th>CGA</th>
<th>Inlet</th>
</tr>
</thead>
<tbody>
<tr>
<td>P870-3-4-3360</td>
<td>Oxygen</td>
<td>870</td>
<td>.750-16UNF2A</td>
</tr>
<tr>
<td>P870-3-4-3360T</td>
<td>Oxygen with toggle</td>
<td>870</td>
<td>.750-16UNF2A</td>
</tr>
<tr>
<td>P870-3-4-3360Z</td>
<td>Oxygen with &quot;Z&quot; valve hand knob</td>
<td>870</td>
<td>.750-16UNF2A</td>
</tr>
<tr>
<td>P880-3-4-3360</td>
<td>Oxygen-CO2 mixture</td>
<td>880</td>
<td>.750-16UNF2A</td>
</tr>
<tr>
<td>P890-3-4-3360</td>
<td>Oxygen-Helium mixture</td>
<td>890</td>
<td>.750-16UNF2A</td>
</tr>
<tr>
<td>P910-3-1-3360</td>
<td>Nitrous Oxide</td>
<td>910</td>
<td>.750-16UNF2</td>
</tr>
<tr>
<td>P930-3-4-3360</td>
<td>Helium</td>
<td>930</td>
<td>.750-16UNF2A</td>
</tr>
<tr>
<td>P940-3-1-3360</td>
<td>Carbon Dioxide</td>
<td>940</td>
<td>.750-16UNF2A</td>
</tr>
<tr>
<td>P950-3-4-3360</td>
<td>Medical Air</td>
<td>950</td>
<td>.750-16UNF2A</td>
</tr>
<tr>
<td>P960-3-4-3360</td>
<td>Nitrogen</td>
<td>960</td>
<td>.750-16UNF2A</td>
</tr>
<tr>
<td>P965-3-4-3360</td>
<td>Nitrous Oxide - Oxygen mixture</td>
<td>965</td>
<td>.750-16UNF2A</td>
</tr>
<tr>
<td>P973-3-4-3360</td>
<td>Medical Gas Mixtures</td>
<td>973</td>
<td>.750-16UNF2A</td>
</tr>
</tbody>
</table>

All valves are supplied with safety relief devices as specified by the Compressed Gas Association Standard S1.1. Safety relief devices are flush style CG-4 devices backed by 165 F fuse metal, except valves specified for Carbon Dioxide (CGA 940) and Nitrous Oxide (CGA 940), where a CG-1 hex style pressure relief device without fuse metal is required.

All valves are supplied with rupture discs rated for cylinders with a service pressure of 2,015 psig. Rupture discs rated for other cylinder service pressures are available upon request.

Optional Features:
Z Valve Handknob Example: P870-3-4-3360 changes to P870-4-3-3360Z
Chrome Plated Toggle Example: P870-3-4-3360 changes to P870-4-3-3360T
Gauge Port Example: P870-3-4-3360 changes to P870-4-3-3360G
Medical Pin Index Valves

O-Ring Seal Technology for all Medical Gases

Yoke Outlet Pin Index System Connection
NGT Tapered Threads for Steel Cylinders

KEY FEATURES:
- O-ring seal technology provides superior leak integrity.
- Easy operation under all pressures.
- Protective and attractive chrome plated finish.
- 100% leak testing on entire production.
- Meets and exceeds CGA V9 and ISO 10297.
- Passed stringent adiabatic oxygen compression testing per ISO 10297.
- All valves bagged and tagged for oxygen service per CGA G4.1.
- All valves pre-drilled to accept aftermarket toggle device.
- All straight thread inlet valves are supplied with cylinder sealing o-ring.
- All valves are supplied with a protective thread cover.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Gas Service / Description</th>
<th>CGA</th>
<th>Inlet</th>
</tr>
</thead>
<tbody>
<tr>
<td>P870-4-4-3360</td>
<td>Oxygen</td>
<td>870</td>
<td>1/2” NGT</td>
</tr>
<tr>
<td>P870-4-4-3360T</td>
<td>Oxygen with toggle</td>
<td>870</td>
<td>1/2” NGT</td>
</tr>
<tr>
<td>P880-4-4-3360</td>
<td>Oxygen-CO2 mixture</td>
<td>880</td>
<td>1/2” NGT</td>
</tr>
<tr>
<td>P890-4-4-3360</td>
<td>Oxygen-Helium mixture</td>
<td>890</td>
<td>1/2” NGT</td>
</tr>
<tr>
<td>P910-4-1-3360</td>
<td>Nitrous Oxide</td>
<td>910</td>
<td>1/2” NGT</td>
</tr>
<tr>
<td>P930-4-4-3360</td>
<td>Helium</td>
<td>930</td>
<td>1/2” NGT</td>
</tr>
<tr>
<td>P940-4-1-3360</td>
<td>Carbon Dioxide</td>
<td>940</td>
<td>1/2” NGT</td>
</tr>
<tr>
<td>P950-4-4-3360</td>
<td>Medical Air</td>
<td>950</td>
<td>.750-16UNF2A</td>
</tr>
<tr>
<td>P960-4-4-3360</td>
<td>Nitrogen</td>
<td>960</td>
<td>1/2” NGT</td>
</tr>
<tr>
<td>P965-4-4-3360</td>
<td>Nitrous Oxide - Oxygen mixture</td>
<td>965</td>
<td>1/2” NGT</td>
</tr>
<tr>
<td>P973-4-4-3360</td>
<td>Medical Gas Mixtures</td>
<td>973</td>
<td>1/2” NGT</td>
</tr>
</tbody>
</table>

All valves are supplied with safety relief devices as specified by the Compressed Gas Association Standard S1.1. Safety relief devices are flush style CG-4 devices backed by 165 F fuse metal, except valves specified for Carbon Dioxide (CGA 940) and Nitrous Oxide (CGA 940), where a CG-1 hex style pressure relief device without fuse metal is required.

All valves are supplied with rupture discs rated for cylinders with a service pressure of 2,015 psig. Rupture discs rated for other cylinder service pressures are available upon request.

Optional Features:
Chrome Plated Toggle Example: P870-4-4-3360 changes to P870-4-4-3360T
CGA540 Outlet, Chrome Plated for Durability

All Harrison Valves™ are produced to meet or exceed the highest US and international standards. Harrison Valves™ are rigorously tested through a robust quality assurance system, and Harrison Valve™ maintains carefully monitored manufacturing processes to ensure that all Harrison Valves™ meet or exceed design and performance specifications.

KEY FEATURES:
- Compact design for use with aluminum medical and composite oxygen cylinders for homecare, hospital and emergency oxygen applications.
- Easy to read markings with Open/Close on durable easy to grip handwheel.
- Durable chrome plated brass body resists corrosion.
- Compact design especially suited for use with compact oxygen systems.
- Durable lower plug with Teflon coating for easy operation.
- Easy operation under all pressures.
- 100% leak testing on entire production.
- All valves bagged for cleanliness.
- Common design internal parts and handwheels readily available.
- Single unit, compact pressure relief device with 165°F fusible metal safety for maximum cylinder protection.
- Oxygen cleaned to CGA G4.1 specification.

OPTIONS AND SPECIFICATIONS:
All valves are supplied with safety relief devices as specified by the Compressed Gas Association Standard S1.1. Safety relief devices are flush style CG-4 devices backed by 165°F fuse metal. Rupture discs rated for many cylinder service pressures are available upon request.
Recreational Scuba Diving Valves

Packed Pressure Seal Technology

SCUBA INTERNATIONAL DIN/YOKE VALVE
Straight, Parallel Threads for Aluminum Cylinders

KEY FEATURES:
- Standard Yoke Outlet w/ spin out adapter
- Converts a standard SCUBA YOKE to a 230 BAR DIN Outlet
- Exceeds CGA V9 standards for cylinder valves for compressed gases.
- Cycle tested 5000 times to exceed all real world applications.
- Engineered with high flow characteristics to maximize regulator performance.
- Valve design allows for easy and comfortable cylinder handling.
- Slant back hand wheel allows easy access.
- Positive hand wheel grip for easy identification of on/off direction.
- Designed with proven and readily available replacement valve parts.
- DOT approved burst disc assembly uses integrated disc and plug design.

SPECIFICATIONS:
Pressures:
3000PSI Service Pressure, 12,000PSI Test Pressure
Temperature – Storage
Minimum: -65 F  Maximum: 155 F
Temperature – Operating
Minimum: -50 F  Maximum: 120 F
Cycle Tested
Minimum: 5000 Cycles, full pressure Nitrogen
Operating Torque @ 0 PSIG Inlet Pressure 1 – 2 in. lb.
Closing Torque @ 2000 PSIG Inlet Pressure 2 – 3 in. lbs.

DIMENSIONS:
Overall Height: 3.875
Overall Length Installed height: 2.875

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Gas Service / Description</th>
<th>Outlet</th>
<th>Inlet</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSV-C-48</td>
<td>Breathing Air, Diving applications</td>
<td>DIN/YOKE</td>
<td>3/4” Aluminum Cylinders</td>
</tr>
</tbody>
</table>

All valves are supplied with safety devices as specified by the Compressed Gas Association Standard S1.1

Standard HSV-C-48 valves are supplied with safeties for 3000PSI service pressure cylinders and supplied with a 5000PSI safety.

Rupture discs rated for other cylinder service pressures are available upon request.

See rear of specification page for overhaul parts, kits and repair instructions.
Recreational Scuba Diving Valves

Packed Pressure Seal Technology

SCUBA “K” Valve Connection, CGA850 Yoke Connection
Straight, Parallel Threads for Aluminum Cylinders

KEY FEATURES:
• Exceeds CGA V9 standards for cylinder valves for compressed gases.
• Cycle tested 5000 times to exceed all real world applications.
• Engineered with high flow characteristics to maximize regulator performance.
• Valve design allows for easy and comfortable cylinder handling.
• Slant back hand wheel allows easy access.
• Positive hand wheel grip for easy identification of on/off direction.
• Designed with proven and readily available replacement valve parts.
• DOT approved burst disc assembly uses integrated disc and plug design.

SPECIFICATIONS:
Pressures:
3000PSI Service Pressure, 12,000PSI Test Pressure
Temperature – Storage
Minimum: -65 F
Maximum: 155 F
Temperature – Operating
Minimum: -50 F
Maximum: 120 F
Cycle Tested
Minimum: 5000 Cycles, full pressure Nitrogen
Operating Torque @ 0 PSIG Inlet Pressure 1 – 2 in. lb.
Closing Torque @ 2000 PSIG Inlet Pressure 2 – 3 in. lbs.

DIMENSIONS:
Overall Height: 3.875
Overall Length Installed height: 2.875

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Gas Service / Description</th>
<th>CGA</th>
<th>Inlet</th>
</tr>
</thead>
<tbody>
<tr>
<td>HSV-48</td>
<td>Breathing Air, Diving applications</td>
<td>850</td>
<td>¾” Aluminum Cylinders</td>
</tr>
</tbody>
</table>

All valves are supplied with safety devices as specified by the Compressed Gas Association Standard S1.1

Standard HSV-48 valves are supplied with safeties for 3000PSI service pressure cylinders and supplied with a 5000PSI safety.

Rupture discs rated for other cylinder service pressures are available upon request.

See rear of specification page for overhaul parts, kits and repair instructions.
**High Pressure Line Valves**

**Panel Mount and Line Applications**

**KEY FEATURES:**
- Durable chrome plated brass body resists corrosion.
- Compact design especially suited for use on compressor panels and cascade systems.
- Very low torque operation under all pressures.
- Dependable packed seal design using common valve parts readily available.
- Wide variety of use; Panel Mount, Line Valve, and Line Valve with Bleed for use with filling pigtails.
- Easy to read markings; Open/Close, 6000PSI, Line Direction Arrows.
- 100% Factory tested with nitrogen at full working pressure.

**SPECIFICATIONS:**

**Pressures:**
- 6000PSI Service Pressure, 24,000PSI Test Pressure

**Temperature – Storage**
- Minimum: -65 F
- Maximum: 155 F

**Temperature – Operating**
- Minimum: -50 F
- Maximum: 120 F

**Cycle Tested**
- Minimum: 5000 Cycles, full pressure Nitrogen

**Operating Torque @ 0 PSIG Inlet Pressure**
- 1 – 2 in. lb.

**Closing Torque @ 2000 PSIG Inlet Pressure**
- 2 – 3 in. lbs.

**FLOW DATA:**
- Flow Constant: Cv – Full Open .284
- Flow CFM @ 2000 PSIG Inlet 280

**DIMENSIONS:**
- Overall Length: 2.50
- Overall Length Installed Inline 2.11
- Centerline of inlet to top of handle 2.70

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
<th>Inlet</th>
<th>Outlet</th>
<th>Drawing</th>
</tr>
</thead>
<tbody>
<tr>
<td>HLV-1</td>
<td>Line valve</td>
<td>¼&quot;F.NPT</td>
<td>¼&quot; M.NPT</td>
<td>Figure #1</td>
</tr>
<tr>
<td>HLV-2</td>
<td>Line valve with panel feature</td>
<td>¼&quot;F.NPT</td>
<td>¼&quot; M.NPT</td>
<td>Figure #2</td>
</tr>
<tr>
<td>HLV-3</td>
<td>Line valve with bleed feature</td>
<td>¼&quot;F.NPT</td>
<td>¼&quot; F.NPT</td>
<td>Figure #3</td>
</tr>
</tbody>
</table>

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