The background of the entire page is a dark red color with a faint, glowing chemical structure. The structure consists of interconnected hexagonal and pentagonal rings, with various atoms labeled: CH<sub>3</sub>, OH, NH<sub>2</sub>, and N(CH<sub>3</sub>)<sub>2</sub>. The structure is rendered in a lighter red color, giving it a three-dimensional, glowing appearance.

# TESUCO

**TECHNICAL SUPPLIES COMPANY**



## High Purity

**QUALITY GAS EQUIPMENT**

[tesuco.com.au](http://tesuco.com.au)

| GENTEC | REGULATOR | STAGE | MATERIAL    | INLET PRESSURE        | OUTLET PRESSURE | GAS CODE                | INLET FITTING                | VALVE               | OUTLET FITTING     |
|--------|-----------|-------|-------------|-----------------------|-----------------|-------------------------|------------------------------|---------------------|--------------------|
| G      | R         | 1     | C Chrome    | A 20,000 kPa          | N 170 kPa       | AC Acetylene            | 00 None                      | 0 None              | 0 None             |
|        |           |       |             |                       |                 | AI Air                  | A1 AS Type 10 / BS 3         | V Isolation Valve   | 1 1/4" NPT M       |
|        |           |       |             | B 30,000 kPa          | O 680 kPa       | AM Ammonia              | A2 AS Type 20 / BS 2,4       | N Needle Valve      | 2 1/2" Compression |
|        |           |       |             |                       |                 | AR Argon                | A3 AS Type 30 / BS 8 / DIN 6 | C Check Valve (NRV) | 3 G3/8" F          |
|        |           |       |             |                       |                 | AS Arsine               | A4 AS Type 31 / BS 6 / DIN 7 |                     | 4 1/4" Compression |
|        |           |       |             |                       |                 | BI Butadiene            | A5 AS Type 32 / BS 10        |                     | 5 5/8"-18 UNF RH   |
|        |           |       | S Stainless | A 20,000 kPa          | N 170 kPa       | BU Butane               | A6 AS Type 50                |                     | 6 5/8"-18 UNF LH   |
|        |           |       |             |                       |                 | BY Butylene (Butene)    | A7 AS Type 60                |                     | 8 1/8" Compression |
|        |           |       |             | B 30,000 kPa          | O 680 kPa       | CD Carbon Dioxide       | A8 AS Type 51                |                     | 9 6 mm Pushfit     |
|        |           |       |             |                       |                 | CM Carbon Monoxide      | A9 AS Type 30 Handwheel      |                     | A 1/4" Hose Barb   |
|        |           |       |             |                       |                 | CH Chlorine             | B1 BS Type 14 / AS Type 44   |                     | B 3/8" Hose Barb   |
|        |           |       |             |                       |                 | DE Deuterium            | B2 BS Type 15 / AS Type 45   |                     | C 5/16" Hose Barb  |
|        |           |       |             | C 40,000 kPa          | Q 20,000 kPa    | EA Ethane               | C1 CGA 180                   |                     |                    |
|        |           |       |             |                       |                 | EY Ethylene (Ethene)    | C2 CGA 330                   |                     |                    |
|        |           |       | 2           | C Chrome              | N 170 kPa       | HE Helium               | C3 CGA 350                   |                     |                    |
|        |           |       |             |                       |                 | HY Hydrogen             | C4 CGA 580                   |                     |                    |
|        |           |       |             | B 30,000 kPa          | O 680 kPa       | HC Hydrogen Chloride    | C5 CGA 660                   |                     |                    |
|        |           |       |             |                       |                 | HF Hydrogen Fluoride    | C6 CGA 540                   |                     |                    |
|        |           |       |             |                       |                 | HS Hydrogen Sulphide    | C7 CGA 590                   |                     |                    |
|        |           |       |             |                       |                 | KR Krypton              | D1 DIN #1                    |                     |                    |
|        |           |       |             |                       |                 | ME Methane              | D2 DIN #6 / AS Type 30       |                     |                    |
|        |           |       |             | S Stainless           | P 1700 kPa      | NE Neon                 | D3 DIN #8                    |                     |                    |
|        |           |       |             |                       |                 | ND Nitrogen Dioxide     |                              |                     |                    |
|        |           |       |             | C Chrome Plated Brass | N 170 kPa       | NC Nitric Oxide         |                              |                     |                    |
|        |           |       |             |                       |                 | NI Nitrogen             |                              |                     |                    |
|        |           |       |             |                       |                 | NS Nitrous Oxide        |                              |                     |                    |
|        |           |       |             |                       |                 | OX Oxygen               |                              |                     |                    |
|        |           |       |             |                       |                 | LP Propane (LPG)        |                              |                     |                    |
|        |           |       |             |                       |                 | PR Propylene (Propene)  |                              |                     |                    |
|        |           |       |             |                       |                 | SI Silane               |                              |                     |                    |
|        |           |       |             |                       |                 | SD Sulphur Dioxide      |                              |                     |                    |
|        |           |       |             |                       |                 | SH Sulphur Hexafluoride |                              |                     |                    |
|        |           |       |             |                       |                 | XE Xenon                |                              |                     |                    |
|        |           |       |             |                       |                 | SP Special              |                              |                     |                    |

# High Purity Regulator Selection Matrix

- 
Chrome Plated Brass
- 
Stainless Steel

Note: For 170 kPa Single stage, only 20,000 kPa inlet is available.  
 For Q=20,000 kPa only Single stage SS (GR1SCQ) is available.  
 All others are GR -- B.  
 For corrosive mixtures, use stainless steel



GR1CB0

## SINGLE STAGE

### Series: R21

The R21 series regulator is a diaphragm - sensed single stage high purity regulator, designed for applications where low flow is desired, available in nickel plated brass or stainless steel. Maximum outlet pressures are provided in 170 kPa, 680 kPa, 1700 kPa, and 3400 kPa. The Gentec range also includes a high pressure 20,000 kPa stainless steel regulator which can be used for all gases.

## SPECIFICATIONS

|                      |                              |                 |
|----------------------|------------------------------|-----------------|
| Body port size       | 1/4" NPT (F)                 |                 |
| Purity               | 6.0 (99.9999%)               |                 |
| Safety test pressure | 1.5 x maximum inlet pressure |                 |
| Temperature range    | -40°C to 74°C                |                 |
| Weight               | 1 kg                         |                 |
| Materials            |                              |                 |
| Body                 | Nickel-plated brass          | Stainless Steel |
| Seat                 | PCTFE                        | PCTFE           |
| Diaphragm            | 316 L                        |                 |



GR2CB0

## DUAL STAGE

### Series: R31

The R31 series regulator is a diaphragm - sensed dual stage high purity regulator, designed for applications where a consistent outlet pressure and flow is desired. Available in nickel plated brass or stainless steel. Maximum outlet pressures are available in 170 kPa, 680 kPa, and 1700 kPa. All dual stage regulators have a standard 30,000 kPa inlet pressure.

## SPECIFICATIONS

|                   |                     |                 |
|-------------------|---------------------|-----------------|
| Body port size    | 1/4" NPT (F)        |                 |
| Purity            | 6.0 (99.9999%)      |                 |
| Temperature range | -40°C to 74°C       |                 |
| Weight            | 1.3 kg              |                 |
| Materials         |                     |                 |
| Body              | Nickel-plated brass | Stainless Steel |
| Seat              | PCTFE               | PCTFE           |
| Diaphragm         | 316 L               |                 |

# High Purity Regulators



GL1CDO

## LINE REGULATOR

Series: R21

The R21 series regulator is a diaphragm - sensed single stage high purity regulator, designed for applications where low flow is desired, available in nickel plated brass or stainless steel. Maximum outlet pressures provided are 680 kPa or 1700 kPa.

### SPECIFICATIONS

|                      |                              |                 |
|----------------------|------------------------------|-----------------|
| Body port size       | 1/4" NPT (F)                 |                 |
| Purity               | 6.0 (99.9999%)               |                 |
| Safety test pressure | 1.5 x maximum inlet pressure |                 |
| Temperature range    | -40°C to 74°C                |                 |
| Weight               | 1 kg                         |                 |
| Materials            |                              |                 |
| Body                 | Nickel-plated brass          | Stainless Steel |
| Seat                 | PCTFE                        | PCTFE           |
| Diaphragm            | 316 L                        |                 |

## PORTABLE CYLINDER REGULATOR

Series: H229

The H229 portable cylinder regulator is a compact, fixed flow, piston sensed regulator for calibration gases and industrial hygiene. The units have C-10 inlet for connection to disposable gas mixture cylinders. The regulators are available in chrome plated brass or stainless steel. Flow rates available are 0.25, 0.5, 1.0, 1.5, 2.5 and 6.0 lpm.



GRPCC1050

### SPECIFICATIONS

|                          |                     |                       |
|--------------------------|---------------------|-----------------------|
| Material of construction |                     |                       |
| Body                     | Chrome-plated brass | 316 L stainless steel |
| Seat                     | PTFE                | PTFE                  |
| Piston                   | Brass               | Stainless steel       |
| Gauge                    | Chrome-plated brass | Stainless steel       |
| Inlet connection         | 5/8-18 UNF (C-10)   |                       |
| Outlet connection        | 3/16" hose barb     |                       |
| Inlet pressure           | 7,000 kPa           |                       |

### PART NO

### DESCRIPTION

|           |  |
|-----------|--|
| GRPCC1025 | Portable cylinder regulator, In: 7,000 kPa, Out: 0.25 slpm |
| GRPCC1050 | Portable cylinder regulator, In: 7,000 kPa, Out: 0.5 slpm  |



## BENCH MOUNT

Part No: GOLBC3410

Bench mount regulators are designed for central gas systems where control is needed at the application point. The units are bottom entry with a column for mounting flush to a bench surface. They feature an isolation valve, adjustable pressure and easy to read 50 mm pressure gauges.

### SPECIFICATIONS

|                   |                     |
|-------------------|---------------------|
| Gas service       | Non-corrosive gases |
| Inlet connection  | 1/4" NPT Male       |
| Outlet connection | 1/4" NPT Female     |
| Delivery pressure | Max. 1,000 kPa      |
| Purity            | 6.0 (99.9999%)      |
| Country of origin | China               |



## SURFACE MOUNTED

Part No: GOLSC3410

Surface mount regulators are designed for central gas systems where control is needed at the application point. The units have a wall mounting block with a side entry to allow for pipework that is mounted flush to the wall surface. They feature an isolation valve, adjustable pressure and easy to read 50 mm pressure gauges.



## WALL MOUNTED

Part No: GOLWC3410

Wall mount regulators are designed for central gas systems where control is needed at the application point. The units are rear entry for mounting flush to the wall surface where pipework is mounted within the wall or fed through the wall. They feature an isolation valve, adjustable pressure and easy to read 50 mm pressure gauges.



# High Purity

## Manual Manifolds



GPS60C2010

### SINGLE INLET

Series: P3200

P3200 series specialty gas control panel is a single-bank control system, designed to provide accurate control of a variety of gases used in research laboratories, laser gas systems, process analyzers, etc. Vent valves can be integrated for purging to ensure maximum purity of gas and minimize contaminants. The vent and inlet valve connections are orbital welded to minimise possibility of leaks. This panel is available in both stainless steel and brass.

#### SPECIFICATIONS

|                   |   |
|-------------------|---|
| Gas service       | All gases dependent on material compatibility |
| Inlet connection  | 1/4" NPT Female                               |
| Outlet connection | 1/4" pipe compression fitting                 |
| Delivery pressure | Max. 1,000 kPa                                |
| Purity            | 6.0 (99.9999%)                                |

| PART NO    | DESCRIPTION         |
|------------|---------------------|
| GPS60C2010 | Chrome plated brass |
| GPS60S2010 | Stainless steel     |



GPT60C2010

### TWIN INLET

Series: P3300

The P3300 series control panel is a twin manual panel which allows the manual changeover from one gas source to another. There is a check valve at both ends between inlet pressure gauge and regulator to allow cylinder replacement without shutting off the system. The connections for the vent valves and inlet valves are orbital welded to minimise possibility of leaks.

#### SPECIFICATIONS

|                      |   |
|----------------------|---|
| Gases                | All gases dependent on material compatibility |
| Inlet configuration  | 6 O'clock (2 sides)                           |
| Outlet configuration | 12 O'clock                                    |
| Delivery pressure    | 1,000 kPa                                     |
| Purity               | Max. 6.0 (99.9999%)                           |

| PART NO    | DESCRIPTION         |
|------------|---------------------|
| GPT60C2010 | Chrome plated brass |
| GPT60S2010 | Stainless steel     |

# High Purity

## Auto-Change Manifolds



GMSA60C2010



GMSD60S2010

Auto changeover panels are a dual-bank semi-automatic changeover system, providing a continuous gas supply without interrupting the system during cylinder(s) replacement. When the primary bank is nearly depleted, a changeover will automatically occur, and the reserve bank will begin to supply gas to the system. The inlet valve on each bank provides the user additional safety while replacing the cylinder(s) on the empty bank before the next changeover occurs. The GMSD series includes a line regulator which executes a second stage pressure reduction, providing a selectable, consistent outlet pressure and flow. Available in both stainless steel and brass.

### FEATURES

- Inlet filter
- Pressure adjusting knob
- Pressure gauges
- Isolation valves with OPEN / CLOSE window
- Purge valves with OPEN / CLOSE window
- Safety relief valve
- Non-return valves
- Stainless steel mounting panel

### SPECIFICATIONS

|                      |   |
|----------------------|---|
| Gas service          | All gases dependent on material compatibility |
| Inlet connection     | 1/4" NPT Female                               |
| Outlet connection    | 1/4" pipe compression fitting                 |
| Inlet configuration  | 6 O'clock (two sides)                         |
| Outlet configuration | 12 O'clock                                    |
| Delivery pressure    | 1,000 kPa                                     |
| Purity               | 6.0 (99.9999%)                                |

| PART NO     | REGULATOR MATERIAL  | DIMENSIONS (mm)               | WEIGHTS (kg) |       |
|-------------|---------------------|-------------------------------|--------------|-------|
|             |                     |                               | NET          | GROSS |
| GMSD60C2010 | Chrome plated brass | (H) 315<br>(W) 400<br>(D) 143 | 7.10         | 8.00  |
| GMSD60S2010 | Stainless steel     | (H) 315<br>(W) 400<br>(D) 143 | 6.90         | 7.65  |
| GMSA60C2010 | Chrome plated brass | (H) 220<br>(W) 406<br>(D) 143 | 6.01         | 6.89  |
| GMSA60S2010 | Stainless steel     | (H) 220<br>(W) 406<br>(D) 143 | 5.79         | 6.55  |

# High Purity

## Point of Use Unit Panels



G01A60C4010



G02A60C4010



G03A60C4010

### OUTLET PANELS

Series: P4400

The P4400 series outlet panels provide final pressure control at the point of use with a maximum inlet pressure of 4,000 kPa and adjustable outlet pressure up to 1,000 kPa. Constructed from chrome plated brass the P4400 intended for non-corrosive gases and is available in single, twin or triple outlet panels.

### SPECIFICATIONS

|                      |                                  |
|----------------------|----------------------------------|
| Gas service          | Non-corrosive gases              |
| Inlet connection     | 1/4" NPT Female                  |
| Outlet connection    | 1/4" NPT Female                  |
| Inlet configuration  | 12 O'clock                       |
| Outlet configuration | 6 O'clock                        |
| Delivery pressure    | Max. 1,000 kPa                   |
| Purity               | 6.0 (99.9999%)                   |
| Warranty             | 1 Year (manufacturer's warranty) |
| Country of origin    | China                            |

### PART NO

### DESCRIPTION

|             |               |
|-------------|---------------|
| G01A60C4010 | Single outlet |
| G02A60C4010 | Twin outlet   |
| G03A60C4010 | Triple outlet |



# High Purity

## High Pressure Flexible Hoses



GHF20WP

### PTFE LINED

PTFE lined high pressure, high purity gas supply hoses. They are suitable for use with high purity gases up to 6.0 (99.9999%) purity.

#### SPECIFICATIONS

|                                      |   |
|--------------------------------------|---|
| <b>Gas service</b>                   | Non-corrosive gases<br>(not recommended for helium) |
| <b>Connection</b><br>Inlet<br>Outlet | 1/4" NPT Female<br>1/4" NPT Female                  |
| <b>Purity</b>                        | 6.0 (99.9999%)                                      |
| <b>Lining</b>                        | PTFE  |
| <b>Country of origin</b>             | China   |
| <b>Warranty</b>                      | 1 Year (manufacturer's defect)                      |

#### PART NO

#### DESCRIPTION

|                |  |
|----------------|--|
| <b>GHF09WP</b> | Flexible lead stainless steel 900 mm   |
| <b>GHF20WP</b> | Flexible lead stainless steel 2,000 mm |



GHF20WS

### STAINLESS STEEL LINED

High pressure, high purity gas supply hoses. They are suitable for use with high purity gases up to 6.0 (99.9999%) purity. These hoses are also suitable for toxic and corrosive gases and gas mixtures.

#### SPECIFICATIONS

|                                      |                                    |
|--------------------------------------|------------------------------------|
| <b>Gas service</b>                   | All gases                          |
| <b>Connection</b><br>Inlet<br>Outlet | 1/4" NPT Female<br>1/4" NPT Female |
| <b>Purity</b>                        | 6.0 (99.9999%)                     |
| <b>Lining</b>                        | Stainless steel                    |
| <b>Country of origin</b>             | China                              |
| <b>Warranty</b>                      | 1 Year (manufacturer's defect)     |

#### PART NO

#### DESCRIPTION

|                |  |
|----------------|--|
| <b>GHF09WS</b> | Flexible lead stainless steel 900 mm   |
| <b>GHF20WS</b> | Flexible lead stainless steel 2,000 mm |

# High Purity Accessories



GPSB



## PROTOCOL STATIONS

The protocol station is a small high pressure distribution block that allows the regulator to be mounted on a wall or bench and is suitable for both single and dual-stage regulators. The protocol station is an inexpensive, versatile piece of equipment which improves safety, convenience, organisation and is available in chrome plated brass or stainless steel.

### SPECIFICATIONS

|                   |   |
|-------------------|---|
| Gas service       | All gases dependent on material compatibility |
| Connection        |   |
| Inlet             | 1/4" NPT Female                               |
| Outlet            | 1/4" NPT Female                               |
| Purity            | 6.0 (99.9999%)                                |
| Country of origin | China   |
| Warranty          | 1 Year (manufacturer's defect)                |

| PART NO | DESCRIPTION                             |
|---------|---|
| GPSB    | Gentec protocol station chrome plated   |
| GPSS    | Gentec protocol station stainless steel |



FM293-3L-X

## HIGH PURITY FLOWMETER

Gentec flowmeters are designed and manufactured to meet the highest standards of performance and accuracy for both scientific and medical applications where fine control of low rate is required. Models are available across a wide flow range.

### SPECIFICATIONS

|                   |                                |
|-------------------|--------------------------------|
| Gas service       | Non-corrosive gases            |
| Connection        |                                |
| Inlet             | 1/8" NPT Female                |
| Outlet            | 1/8" NPT Female                |
| Purity            | 6.0 (99.9999%)                 |
| Flowmeter black   | Acrylic                        |
| Country of origin | China                          |
| Warranty          | 1 Year (manufacturer's defect) |

| PART NO     | DESCRIPTION                    |
|-------------|--------------------------------|
| FM293-3L-X  | High purity flowmeter 3 L/min  |
| FM293-16L-X | High purity flowmeter 16 L/min |
| FM293-75L-X | High purity flowmeter 75 L/min |



## OXYTURBO REGULATOR BRACKET

For OT Major Range

The OT194820 is a Stainless Steel bracket suitable for mounting GENTEC Single Stage High Purity Cylinder Regulators and Line regulators to a wall or fixed surface. (Regulators are supplied with suitable screws for attaching to suitable brackets)

### PART NO

OT194820



APSDB

## PRESSURE SWITCHES

### SPECIFICATIONS

|                                  |                       |
|----------------------------------|-----------------------|
| <b>Materials of construction</b> |                       |
| Body                             | 316 L Stainless steel |
| Head                             | ABS plastic           |
| Wetted parts                     | 316 L Stainless steel |
| <b>Inlet connections</b>         | 1/4" NPT              |
| <b>Gas service</b>               | All gases             |
| <b>Pressure set points</b>       | 2                     |
| <b>Maximum inlet pressure</b>    | 40,000 kPa            |
| <b>Power rating</b>              | 15 to 35 VAC/DC       |
| <b>Power consumption</b>         | Max.1000 W            |
| <b>Temperature range</b>         | 0°C to +80°C          |
| <b>IP rating</b>                 | IP 65                 |
| <b>Signal output</b>             | 20 mA                 |
| <b>Accuracy</b>                  | 0.5% Pressure span    |
| <b>Rotation</b>                  | 330°                  |

### PART NO

### DESCRIPTION

|       |                                      |
|-------|--------------------------------------|
| APSDB | Digital pressure switch (BSP thread) |
| APSDN | Digital pressure switch (NPT thread) |

# High Purity Accessories



AA2



AAT

## ALARMS

Gas alarm panels are installed to give visual or audible and visual indication of a depleted gas supply. These devices include, but are not limited to, pre-set and adjustable contact gauges, pressure switches, strobes and indicators and adaptors, depending upon the application. Gas alarm panels are available in a single or two channel versions. The single channel alarm panel is most suitable for manual manifolds while the two channel panel can be used with semi-automatic manifolds, where the status of both sides can be easily monitored.

## SPECIFICATIONS

|                           |                         |
|---------------------------|-------------------------|
| Materials of construction | Durable PVC plastic     |
| Power rating              | 24 VAC/DC               |
| Channels                  | 2                       |
| Power consumption         | Max. 2 W                |
| IP rating                 | IP40                    |
| Power connections         | Hard wired to terminals |
| Temperature range         | -20°C to +50°C          |
| Noise level (buzzer)      | 85dB (A) at 10 cm       |
| Flammability rating       | UL94-HB                 |

## PART NO

## DESCRIPTION

|         |   |
|---------|---|
| AA2     | Visual & audible 2 channel complete with separate flashing ref strobe and plug pack. No contact gauges  |
| AA2100  | Visual and audible 2 channel complete with separate flashing red strobe, plug pack and 2 contact gauges |
| AAT     | Audible and visual alarm panel with separate neon light, inc. Plug pack, no contact gauges              |
| AAT1100 | Alarm panel with neon audible and visual inc. Plug pack. 1 x 1,000 kPa contact gauges                   |
| AAT2100 | Alarm panel audible and visual 2 x 1,000 kPa contact gauge  |



ACG1000

## CONTACT GAUGES

A contact gauge replaces the high pressure gauge in the regulator and sends a signal to the alarm panel when the pressure in the cylinder reaches the pre-set contact point. These high quality contact gauges are manufactured by WIKA in Germany and have a robust stainless steel case.

### SPECIFICATIONS

|                                  |   |
|----------------------------------|---|
| <b>Materials of construction</b> |   |
| Case                             | 316 Stainless steel                           |
| Window                           | Clear plastic                                 |
| Wetted parts                     | Cu alloy                                      |
| <b>Gas service</b>               | All gases dependent on material compatibility |
| <b>Inlet connections</b>         | G 1/4" (1/4" BSPP)                            |
| <b>Pre-set pressure</b>          | 1,000 kPa                                     |
| <b>Maximum inlet pressure</b>    | 30,000 kPa                                    |
| <b>Power rating</b>              | 4.5 to 24 VAC/DC                              |
| <b>Power consumption</b>         | Max. 2.4 W                                    |
| <b>Temperature range</b>         | -20°C to +60°C                                |
| <b>IP rating</b>                 | IP 65   |
| <b>Identifications markings</b>  | Maximum pressure<br>Set pressure              |
| <b>Warranty</b>                  | 1 Year (manufacturer's defect)                |
| <b>Country of origin</b>         | China   |

| PART NO  | DESCRIPTION  |
|----------|--|
| ACG1000  | Contact alarm gauge                                      |
| ACG1000S | Contact alarm gauge stainless steel                      |
| ACGA     | Adaptor 1/4" NPT - 1/4" BSPP<br>For contact alarm gauges |



AST

## STROBES AND INDICATORS

| PART NO | DESCRIPTION   |
|---------|---|
| AATN    | Remote neon indicator for audible and visual alarm<br>supplied with 4 m cable |
| AST     | Alarm LED flashing strobe 12-24 volt DC unit only                             |



# High Purity Valves



BP-DV11HLNT4FNT4

## ISOLATION VALVES

Gentec diaphragm valves are designed and manufactured for high purity applications with metal to metal seal to ensure optimum performance and minimum particle generation. The units have an open/closed indicator window to give instant confirmation of closure status. The units are also helium leak tested.

### SPECIFICATIONS

|                          |                                |
|--------------------------|--------------------------------|
| <b>Connection</b>        |                                |
| Inlet                    | 1/4" NPT                       |
| Outlet                   | 1/4" FNPT                      |
| <b>Country of origin</b> | China                          |
| <b>Warranty</b>          | 1 Year (manufacturer's defect) |

### PART NO

### DESCRIPTION



**BP-DV11HLNT4FNT4**

Isolation valve plated brass  
1/4" NPT M - FM with status window.  
For Gentec regulator outlet  
Maximum pressure 3,500 kPa



**BP-DV13MHB-FNT4**

Isolation/purge valve 1/4" NPT plated brass, 3 ports  
For Gentec panes and manifolds  
Maximum pressure 20,000 kPa



**BP-DV13MH-FNT4**

Isolation valve  
1/4" NPT plated brass, 2 ports  
For twin cylinder manifolds  
Maximum pressure 20,000 kPa



**SL-DV54MHB-FNT4**




Isolation/purge valve  
1/4" NPT stainless steel, 3 port  
For Gentec panels and manifolds  
Maximum pressure 20,000 kPa



G-207CP

### NEEDLE VALVES

Gentec needle valves are designed and manufactured for high pressure, high purity applications. All valves are nitrogen pressure leak tested to maximum operating pressures.

|   | PART NO          | DESCRIPTION  |
|---|------------------|--|
|  | G-207CP          | Needle valve<br>For Gentec HP regulators<br>Maximum pressure 3,500 kPa                     |
|  | SS-NV13-FNT4-V   | Needle valve "V" type 1/4" NPT<br>Straight stainless steel<br>Maximum pressure 34,500 kPa  |
|  | SS-NV13-FNT4-V-A | Needle valve "V" type 1/4" NPT<br>90 degree stainless steel<br>Maximum pressure 34,500 kPa |

# High Purity Valves



SS-BV15-FNT4

### BALL VALVES

Gentec ball valves are designed and manufactured for high purity applications with stainless steel ball and PTE bushing. All valves are nitrogen pressure leak tested to maximum operating pressures. Valves are available in 2, 3 or 5 way options. Valves are available for panel mounting.

|  | PART NO         | DESCRIPTION   |
|--|-----------------|---|
|  | SS-BV15-FNT4    | Genlok ball valve<br>1/4" NPT FM - 1/4" NPT FM                            |
|  | BP-BV35-FNT4-FB | Genlok ball valve<br>3 Way 1/4" NPT FM<br>Chrome plated brass             |
|  | SS-BV35-FNT4    | Genlok ball valve<br>3 Way 1/4" NPT FM<br>Stainless steel MWP: 17,200 kPa |
|  | SS-BV52-FNT4    | Genlok ball valve<br>5 Way 1/4" NPT FM                                    |



SPRGCCV

## NON-RETURN VALVES

Gentec non return valves (or check valves) are designed and manufactured to meet the highest standards of performance of stainless steel with fluoro rubber o-rings.

### SPECIFICATIONS

|                   |                                |
|-------------------|--------------------------------|
| Connection        |                                |
| Inlet             | 1/4" NPT                       |
| Outlet            | 1/4" NPT                       |
| Maximum pressure  | 20,000 kPa                     |
| Country of origin | China                          |
| Warranty          | 1 Year (manufacturer's defect) |

### PART NO

### DESCRIPTION



G-B4CP4-1

Non return valve brass 1/4" NPT - 1/4" NPT FM



SS-CV11-NT4-VI-3

Check valve 1/4" NPT stainless steel for twin and single manifolds

# High Purity Valves



SPRBRV1114

## RELIEF VALVES

Gentec relief valves are designed and manufactured to meet the highest standards of performance of chrome plated brass or stainless steel. The valves are available in a wide range of pressures and are adjustable within a range for accurate calibration.

### SPECIFICATIONS

|                                      |                                |
|--------------------------------------|--------------------------------|
| <b>Connection</b><br>Inlet<br>Outlet | 1/4" NPT<br>1/4" NPT           |
| <b>Maximum pressure</b>              | 30,000 kPa                     |
| <b>Country of origin</b>             | China                          |
| <b>Warranty</b>                      | 1 Year (manufacturer's defect) |

| PART NO       | DESCRIPTION  |
|---------------|--|
| SPRBRV1114    | Relief valve 140 kPa<br>1/4" NPT M - 1/4" NPT FM<br>For Gentec high purity regulators                  |
| SPRBRV11170   | Relief valve 1700 kPa<br>1/4" NPT M - 1/4" NPT FM<br>For Gentec high purity regulators                 |
| SPRBRV1168    | Relief valve 680 kPa<br>1/4" NPT M - 1/4" NPT FM<br>For Gentec high purity regulators                  |
| SS-RV11-100   | Relief valves 680 kPa stainless steel<br>1/4" NPT M - 1/4" NPT FM<br>For Gentec high purity regulators |
| SS-RV11-250   | Relief valve 1700 kPa stainless steel<br>1/4" NPT M - 1/4" NPT FM<br>For Gentec high purity regulators |
| SS-RV31RE-290 | Relief valve 316 stainless steel<br>Fluororubber Seat<br>Preset pressure: 290 psi                      |
| SS-RV31YF-580 | Relief valve 316 stainless steel<br>EDPM Seat<br>Preset pressure: 580 psi                              |





SS-MA-OD4-NT4

The Gentec range of Genlok fittings feature a superior mechanical design and provide excellent sealing and tube gripping performance that result in leak-tight tube connections and torque free assembly. They have been specifically designed to withstand high pressure, vibration, vacuum and temperature changes.

## SPECIFICATIONS

|   |                                    |
|---|------------------------------------|
| <b>Materials of construction</b><br>Fittings/Ferrules | 316 L Stainless steel              |
| <b>Purity</b>   | 6.0 (99.9999)                      |
| <b>Maximum pressure</b>                               | Dependant on tubing wall thickness |
| <b>Country of origin</b>                              | China                              |
| <b>Warranty</b>                                       | 1 Year (manufacturer's defect)     |







|  | PART NO        | TYPE             | DESCRIPTION   |
|--|----------------|------------------|---|
|  | SS-MA-OD4-NT4  | Male adaptor     | Tube to pipe<br>1/4" NPT M - 1/4" tube                  |
|  | SS-MC-TF2-NT4  | Male connector   | 1/4" NPT - 1/8" Genlok                                  |
|  | SS-MC-TF4-NT2  | Male connector   | 1/8" NPT - 1/4" Genlok                                  |
|  | SS-MC-TF4-NT4  | Male connector   | 1/4" NPT - 1/4" Genlok                                  |
|  | SS-MC-TF8-NT4  | Male connector   | 1/4" NPT - 1/2" Genlok                                  |
|  | SS-FA-OD4-FNT4 | Female adaptor   | Genlok tube to Female thread<br>1/4" NPT FM - 1/4" Pipe |
|  | SS-FC-TF8-FNT4 | Female connector | 1/4" NPT - 1/2" Genlok                                  |
|  | SS-FC-TF4-FNT4 | Female connector | 1/4" NPT - 1/4" Genlok                                  |

# High Purity

## Genlok Fittings

|   | PART NO        | TYPE            | DESCRIPTION               |
|---|----------------|-----------------|---------------------------|
|    | SS-ME-TF2-NT2  | Male elbow      | 1/8" NPT - 1/8" Genlok    |
|   | SS-ME-TF4-NT2  | Male elbow      | 1/8" NPT - 1/4" Genlok    |
|   | SS-ME-TF4-NT4  | Male elbow      | 1/4" NPT - 1/4" Genlok    |
|   | SS-ME-TF6-NT4  | Male elbow      | 1/4" NPTM - 3/8" Genlok   |
|   | SS-ME-TF8-NT4  | Male elbow      | 1/4" NPT - 1/2" Genlok    |
|    | SS-U-TF4       | Union connector | 1/4" NPT - 1/8" Genlok    |
|   | SS-U-TF8       | Union connector | 1/2" Genlok               |
|   | SS-UE-TF4      | Union elbow     | 1/4" Genlok - 1/4" Genlok |
|  | SS-BU-TF4      | Bulkhead union  | 1/4" - 1/4" Genlok        |
|  | SS-UT-TF4      | Union tee       | 1/4" Genlok               |
|   | SS-UT-TF8      | Union tee       | 1/2" Genlok               |
|  | SS-MBT-TF4-NT4 | Male branch tee | 1/4" NPT M - 1/4" Genlok  |
|   | SS-MBT-TF6-NT4 | Male branch tee | 1/4" NPT M - 3/8" Genlok  |
|  | SS-PHP-NT4     | Blanking plug   | Stainless steel 1/4" NPT  |
|   | SS-P-TF6       | Blanking plug   | 3/8"                      |

# High Purity Genlok Fittings

|   | PART NO         | TYPE        | DESCRIPTION                             |
|---|-----------------|-------------|---|
|    | SS-C-TF4        | Cap         | 1/4" NPT                                |
|   | SS-C-TF6        | Cap         | 3/8"                                    |
|    | SS-N-TF4        | Nut         | 1/4" NPT                                |
|   | SS-N-TF6        | Nut         | 3/8"                                    |
|   | SS-FSET-TF4     | Ferrule set | 1/4" NPT                                |
|   | SS-FSET-TF6     | Ferrule set | 3/8"                                    |
|  | SS-PRE-NT2-FNT4 | Elbows      | 1/4" F to 1/8" M NPT                    |
|  | SS-PMHC-HD4-NT4 | Hose barb   | 1/4" - 1/4" Male NPT                    |
|   | SS-PMHC-HD6-NT4 | Hose barb   | 3/8" - 1/4" Male NPT                    |
|   | SS-PTHC-HD4-OD4 | Hose barb   | 1/4" - 1/4" hose                        |
|   | SS-PTHC-HD6-OD4 | Hose barb   | 3/8" - 1/4" hose                        |
|  | SPR01R1RS       | Adaptor     | Stainless steel 1/4" NPT M - 1/4" NPT M |
|   | SS-PHLN-NT4-2.5 | Adaptor     | 1/4" NPT M - 1/4" NPT M 2.5 cm          |
|   | SS-PRA-FNT4-NT2 | Adaptor     | 1/8" M NPT to 1/4" F NPT                |
|   | SS-PRB-NT4-FNT2 | Adaptor     | 1/8" NPT FM to 1/4" NPT M               |

# High Purity

## Inlet Connections



### AUSTRALIAN STANDARD

Tesuco® caters for the various conversions need between international manufacturers. All Australian standard inlet connections consist of a stainless steel stem and nut and adhere to the AS 2473.2 Standard.

| PART NO | DESCRIPTION       |
|---------|-------------------|
| SPRA10S | Type 10, 1/4" NPT |
| SPRA20S | Type 20, 1/4" NPT |
| SPRA30S | Type 30, 1/4" NPT |
| SPRA31S | Type 31, 1/4" NPT |
| SPRA32S | Type 32, 1/4" NPT |
| SPRA50S | Type 50, 1/4" NPT |
| SPRA60S | Type 60, 1/4" NPT |



### WASHERS

Listed are our range of washers that correspond with the Australian standard inlet connections available.

| PART NO | DESCRIPTION                         |
|---------|-------------------------------------|
| SPR010  | 'O'-ring for Type 10, 20 & 21 stems |
| SPR050  | 'O'-ring For Type 50/60 stems       |

# High Purity Inlet Connections



## BRITISH STANDARD

Tesuco® caters for the various conversions need between international manufacturers. All British standard inlet connections consist of a stainless steel stem and nut and adhere to the BS 341 standard.

| PART NO | DESCRIPTION      |
|---------|------------------|
| SPRB14S | BS 14 - 1/4" NPT |
| SPRB15S | BS 15 - 1/4" NPT |



## WASHERS

Listed are our range of washers that correspond with the British standard inlet connections available.

| PART NO  | DESCRIPTION                     |
|----------|---------------------------------|
| SPROBS14 | 'O'-ring for BS14/15 connection |



# High Purity

## Inlet Connections



### CGA STANDARDS

#### US Compressed Gas Association

Tesuco® caters for the various conversions need between international manufacturers. The following connections adhere to the US compressed gas association standard.

| PART NO  | DESCRIPTION                                     |
|----------|---|
| SPRC180S | Nut and stem stainless steel CGA 180 - 1/4" NPT |
| SPRC330S | Nut and stem stainless steel CGA 330 - 1/4" NPT |
| SPRC350S | Nut and stem stainless steel CGA 350 - 1/4" NPT |
| SPRC540C | Nut and stem chromed brass CGA 540 - 1/4" NPT   |
| SPRC580S | Nut and stem stainless steel CGA 580 - 1/4" NPT |
| SPRC590S | Nut and stem stainless steel CGA 590 - 1/4" NPT |
| SPRC660S | Nut and stem stainless steel CGA 660 - 1/4" NPT |



### WASHERS

Listed are our range of washers that correspond with the CGA US compressed gas association inlet connection standards.

| PART NO  | DESCRIPTION                     |
|----------|---------------------------------|
| SPROC180 | 'O'-ring for CGA 180 connection |
| SPROC330 | 'O'-ring for CGA 330 connection |
| SPROC660 | 'O'-ring for CGA 660 connection |

# High Purity Inlet Connections



SPRD01S



SPRD06S



SPRD08S

## GERMAN STANDARDS

### DIN

Tesuco® caters for the various conversions need between international manufacturers. All British standard inlet connections consist of a stainless steel stem and nut and adhere to the BS 341 standard.

| PART NO | DESCRIPTION       |
|---------|-------------------|
| SPRD01S | DIN 01 - 1/4" NPT |
| SPRD06S | DIN 06 - 1/4" NPT |
| SPRD08S | DIN 08 - 1/4" NPT |
| SPRD14S | DIN 14 - 1/4" NPT |



SPRD01

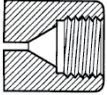
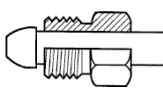
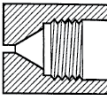
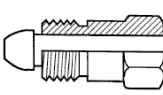
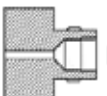


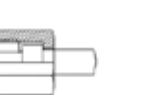
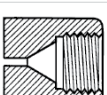
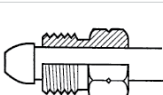
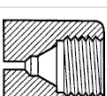
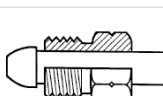
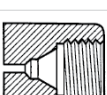
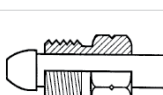
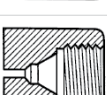

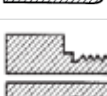








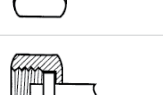
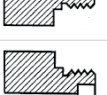

## WASHERS

Listed are our range of washers that correspond with the German standard inlet connections

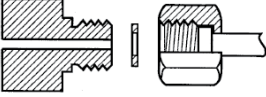
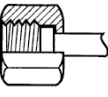
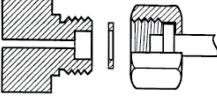



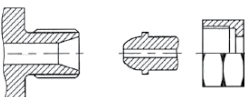
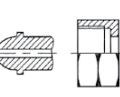
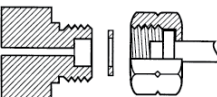

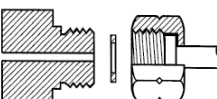

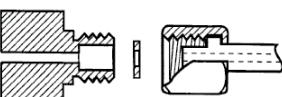
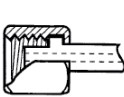

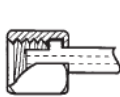
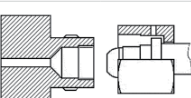

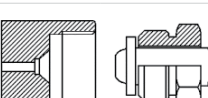





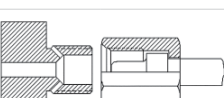
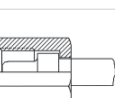


| PART NO | DESCRIPTION                         |
|---------|-------------------------------------|
| SPRD01  | 'O'-ring for DIN01/DIN06 connection |
| SPRD08  | 'O'-ring for DIN08 connection       |

# High Purity

## Comparison Table

| TYPE | OUTLET  | CONNECTION  | DESCRIPTION   | BS 341.3 | CGA V-1 | DIN 477 |
|------|---|---|---|----------|---------|---------|
| 10   |    |    | 5/8" BSP RH Internal, 14 T.P.I.<br>Internal angled sealing face, thread I.D. 21.0 mm<br>Gases: oxygen, helium, argon, non-flammable non-toxic mixtures  | #3       |         |         |
| 11   |    |    | 5/8" BSP RH Internal, 14 T.P.I.<br>Internal angled sealing face, internal recess diameter 23.5 – 24.0 mm Gases<br>(up to 25,000 kPa): oxygen  |          |         |         |
| 16   |    |    | 1.103" NGO RH External, 14 T.P.I.<br>Internal angled sealing face, thread O.D. 27.9 mm, centre hole<br>13.3 x 10.2 mm deep<br>Gases (up to 31,500 kPa): oxygen  |          | 701     |         |
| 17   |    |    | W21.8 RH External, 14 T.P.I.<br>Internal angled sealing face, thread O.D. 21.8 mm, centre hole<br>13.3 x 22 mm deep<br>Gases: oxygen  |          |         |         |
| 20   |    |    | 5/8" BSP LH Internal, 14 T.P.I.<br>Internal angled sealing face, thread I.D. 21.0 mm.<br>Gases: acetylene, carbon monoxide, ethane, ethylene, hydrogen,<br>methane, flammable gases, flammable non-toxic mixtures | #2, 4    |         |         |
| 21   |   |   | 0.885" NGO LH Internal, 14 T.P.I.<br>Internal angled sealing face, thread I.D. 21.0 mm<br>Gases: LPG, butane, propane, propylene  |          | 510     |         |
| 22   |  |  | 1.045" NGO LH Internal, 14 T.P.I.<br>Internal angled sealing face, thread I.D. 24.6 mm<br>Gases (up to 31,500 kPa): hydrogen, methane   |          | 695     |         |
| 23   |  |  | 1.125" NGO LH Internal, 14 T.P.I.<br>Internal angled sealing face, thread I.D. 26.6 mm<br>Gases (up to 31,500 kPa): hydrogen, methane   |          | 703     |         |
| 24   |  |  | 1/4" BSP LH External, 19 T.P.I.<br>Flat end sealing face, thread O.D. 13.0 mm<br>Gases: flammable gases, flammable non-toxic mixtures   | #17      |         |         |
| 25   |  |  | W21.8 LH External, 14 T.P.I.<br>Internal angled sealing face, thread I.D. 21.8 mm, centre hole<br>10.0 x 22 mm deep<br>Gases: acetylene   |          |         |         |
| 26   |  |  | 0.903" NGO LH External, 14 T.P.I.<br>Internal angled sealing face, thread O.D. 22.9 mm, centre hole<br>15.0 x 5.6 mm deep<br>Gases: LPG (liquid withdrawal only)  |          | 555     |         |
| 30   |  |  | 0.860" WHIT RH, 14 T.P.I.<br>Flat end sealing face, thread O.D. 21.8 mm<br>Gases: carbon dioxide, nitrous oxide   | #8       |         | No. 6   |
| 31   |  |  | 5/8" BSP RH External, 14 T.P.I.<br>Flat end sealing face, thread O.D. 22.8 mm<br>Gases: sulphur hexafluoride, methyl bromide, phosgene  | #6       |         | No. 7   |
| 32   |  |  | 1/2" BSP RH External, 14 T.P.I.<br>Flat end sealing face, thread O.D. 20.8 mm<br>Gases: ammonia, sulphur dioxide  | #10      |         |         |

# High Purity Comparison Table

| TYPE | OUTLET  | CONNECTION  | DESCRIPTION   | BS 341.3 | CGA V-1 | DIN 477 |
|------|---|---|---|----------|---------|---------|
| 33   |    |    | 1/4" BSP RH External, 19 T.P.I.<br>Flat end sealing face, thread O.D. 13.0 mm<br>Gases: non-flammable non-toxic mixtures  | #16      |         |         |
| 34   |    |    | 3/4" BSP RH External, 14 T.P.I.<br>Flat end sealing face, thread O.D. 26.3 mm<br>Gases: refrigerant gases   |          |         | No. 9   |
| 40   |    |    | 5/8" BSP LH, External 14 T.P.I.<br>Flat end sealing face, thread O.D. 22.8 mm<br>Gases: cyanogen, ethylene oxide, hydrogen cyanide, vinyl chloride  | #7       |         |         |
| 41   |    |    | 3/8" BSP LH External, 19 T.P.I.<br>Internal angled sealing face, thread O.D. 16.5 mm<br>Gases: LPG, butane, propane,  |          |         | No. 4   |
| 42   |    |    | 1/2" BSP LH External, 14 T.P.I.<br>Flat end sealing face, thread O.D. 20.8 mm<br>Gases: ethylamine, ethylene oxide  | #11      |         |         |
| 43   |   |   | 0.825" NGO LH External, 14 T.P.I.<br>Flat end sealing face, thread O.D. 20.8 mm<br>Gases: hydrogen bromide, hydrogen chloride, hydrogen sulphide, methyl mercaptan  |          | 330     |         |
| 44   |  |  | 3/8" BSP RH External, 14 T.P.I.<br>Flat end sealing face, thread O.D. 16.5 mm<br>Gases: non-flammable toxic mixtures  | #14      |         | No. 11  |
| 45   |  |  | 3/8" BSP LH External, 14 T.P.I.<br>Flat end sealing face, thread O.D. 16.5 mm<br>Gases: flammable toxic mixtures  | #15      |         |         |
| 50   |  |  | W24x2 RH External, 14 T.P.I. Internal angled sealing face, thread O.D. 24.0 mm, 1st centre hole 13.3 x 8.1 mm deep<br>Gases: nitrogen, neon, krypton, xenon, nitrogen/carbon dioxide mixtures<br>non-flammable non-toxic non-oxidising mixtures |          |         |         |
| 51   |  |  | 1.045" NGO RH Internal, 14 T.P.I.<br>Internal angled sealing face, thread I.D. 24.6 mm<br>Gases (up to 31,500 kPa): argon, helium, nitrogen, neon, krypton, xenon   |          | 680     |         |
| 52   |  |  | 1.030" NGO LH External, 14 T.P.I.<br>Internal angled sealing face, thread O.D. 26.0 mm, centre hole 15.00 x 7.1 mm deep<br>Gases (up to 42,500 kPa): argon, helium, nitrogen, neon, krypton, xenon  |          | 677     |         |
| 60   |  |  | W27x2 RH External, 14 T.P.I.<br>Internal angled sealing face, thread O.D. 27.0 mm, 1st centre hole 18.2 x 8.1 mm deep<br>Gases: air   |          |         |         |
| 61   |  |  | 0.825" NGO RH External, 14 T.P.I.<br>Internal angled sealing face, thread O.D. 20.8 mm, centre hole 12.8 x 12.1 mm deep<br>Gases (up to 31,500 kPa): air  |          | 347     |         |
| 62   |  |  | 1.125" NGO RH Internal, 14 T.P.I.<br>Internal angled sealing face, thread I.D. 26.6 mm<br>Gases (up to 42,500 kPa): air   |          | 702     |         |





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