

Pressure Reducing Sets Simplex and Duplex

Classification

- BS EN 737, HTM 2022, HTM02 and C11

Services for use

- Oxygen
- Compressed Air
- Medical or Surgical use

Formats

- Simplex, munsen ring mounted or similar (provided by the installer)
- Duplex, mounted onto a base plate by Penlon

Construction

- For duplex stations only, stainless steel powder coated base plate
- All components degreased for oxygen use
- Quarter turn ball valves die cast nickel plated brass alloy body with nitrile seals
- Non relieving Regulators 20 bar rated
- Brass relief valve, 1/4" thread BSP
- Gauge monitoring 0 to 11 bar bottom entry connection (other sizes available)

Available Sizes

- 15 mm pipework - 200 mm stubs
- 22 mm pipework - 200 mm stubs
- 28 mm pipework - 200 mm stubs
- 35 mm pipework - 200 mm stubs
- 42 mm pipework - 200 mm stubs
- 54 mm pipework - 200 mm stubs

Flow Rates

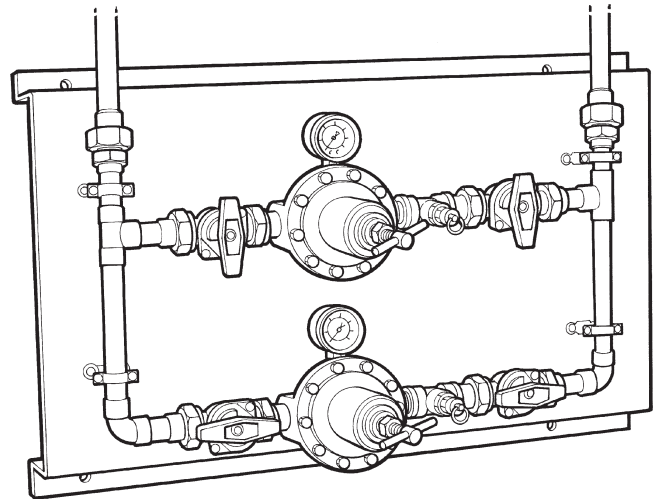
- 15 mm - 1000 l/min
- 22 mm - 3000 l/min
- 28 mm - 5000 l/min
- 35 mm - Available on request
- 42 mm - Available on request
- 54 mm - Available on request

Pressure Reduction Capacity

- Inlet pressure from 11 to 9 Bar
- Outlet pressure reduced to 7 or 4 Bar

Relief Valve Settings

- 11/10 to 7 Bar stations - 9 Bar relieving
- 7 to 4 Bar stations - 5.5 Bar relieving



Part Numbers

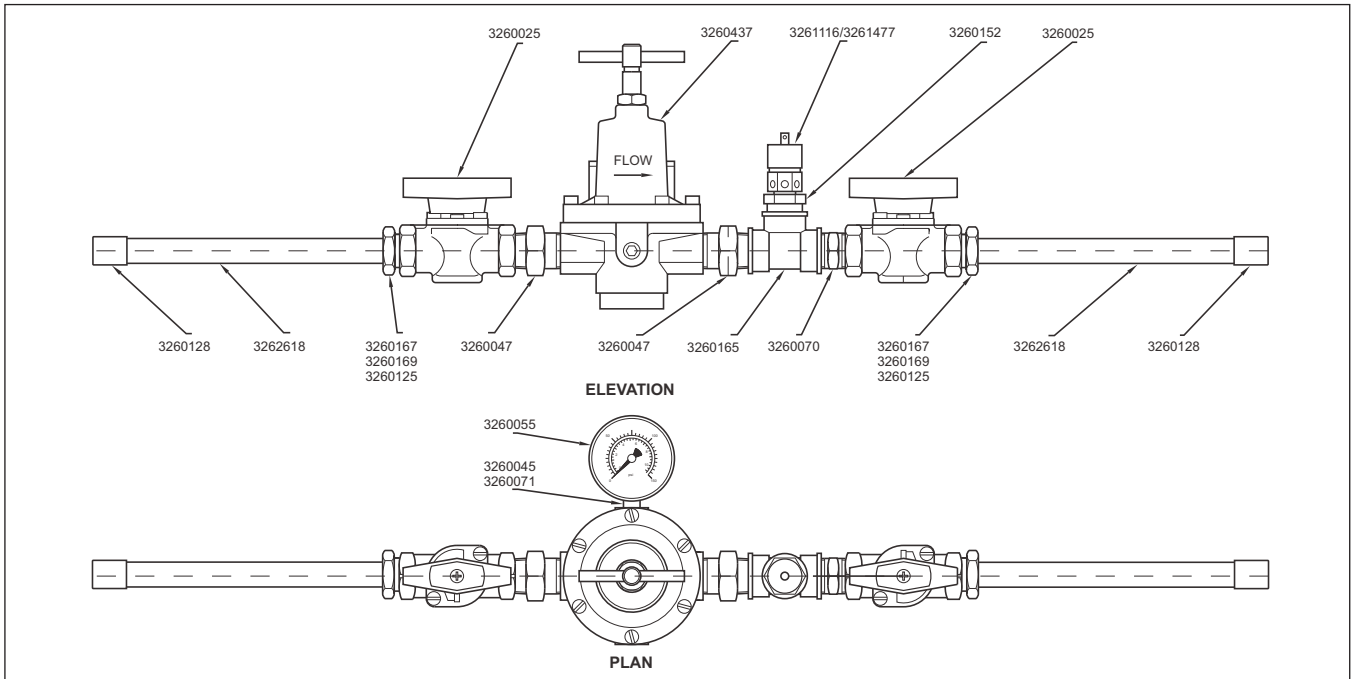
	Application	Pipework Size	Pressure
3269636	Simplex	15 mm	7 to 4 Bar
3269638	Simplex	22 mm	7 to 4 Bar
3269640	Simplex	28 mm	7 to 4 Bar
3269635	Simplex	15 mm	10 to 7 Bar
3269635	Simplex	22 mm	10 to 7 Bar
3269639	Simplex	28 mm	10 to 7 Bar
3269636	Duplex	15 mm	7 to 4 Bar
3269638	Duplex	22 mm	7 to 4 Bar
3269640	Duplex	28 mm	7 to 4 Bar
3269635	Duplex	15 mm	10 to 7 Bar
3269635	Duplex	22 mm	10 to 7 Bar
3269639	Duplex	28 mm	10 to 7 Bar

Refer to next pages for further information



Pressure Reducing Sets

15 mm Simplex Regulator Set • 1-Gauge

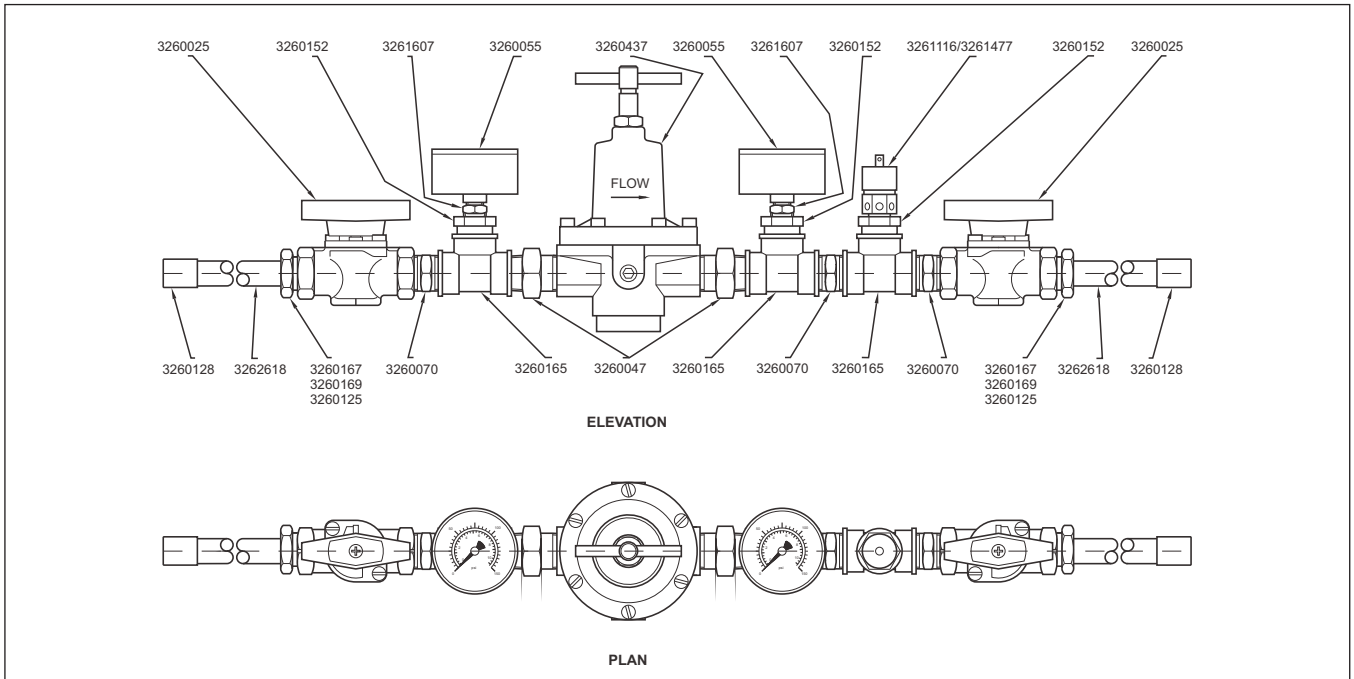


Part No.	Description	Part No.	Description
3260025	CHW x 1/2" Ball Valve	3260437	1/2" Regulator NORGREN (N/REL)
3260045	1/8" Female Elbow Brass	3261116	1/4" Pressure Relief Valve 5.5 Bar Plant
3260047	1/2" Male Flatface Union	3261477	1/4" Pressure Relief Valve 9 Bar Plant
3260055	0 - 11 Bar 50 mm 1/8" CBC Gauge	3262618	15 mm Table 'X' Copper (200 mm Long)
3260070	1/2" Nipple Hexagonal Brass		
3260071	1/8" Nipple Hexagonal Brass		
3260125	O-Ring BS 014NI70		
3260128	15 mm Plastic Pipe Cap		
3260152	1/2" x 1/4" Reducing Bush Brass		
3260165	1/2" Tee Brass		
3260167	15 mm Tubing Nut		
3260169	15 mm Tube Sleeve		



Pressure Reducing Sets

15 mm Simplex Regulator Set • 2-Gauge

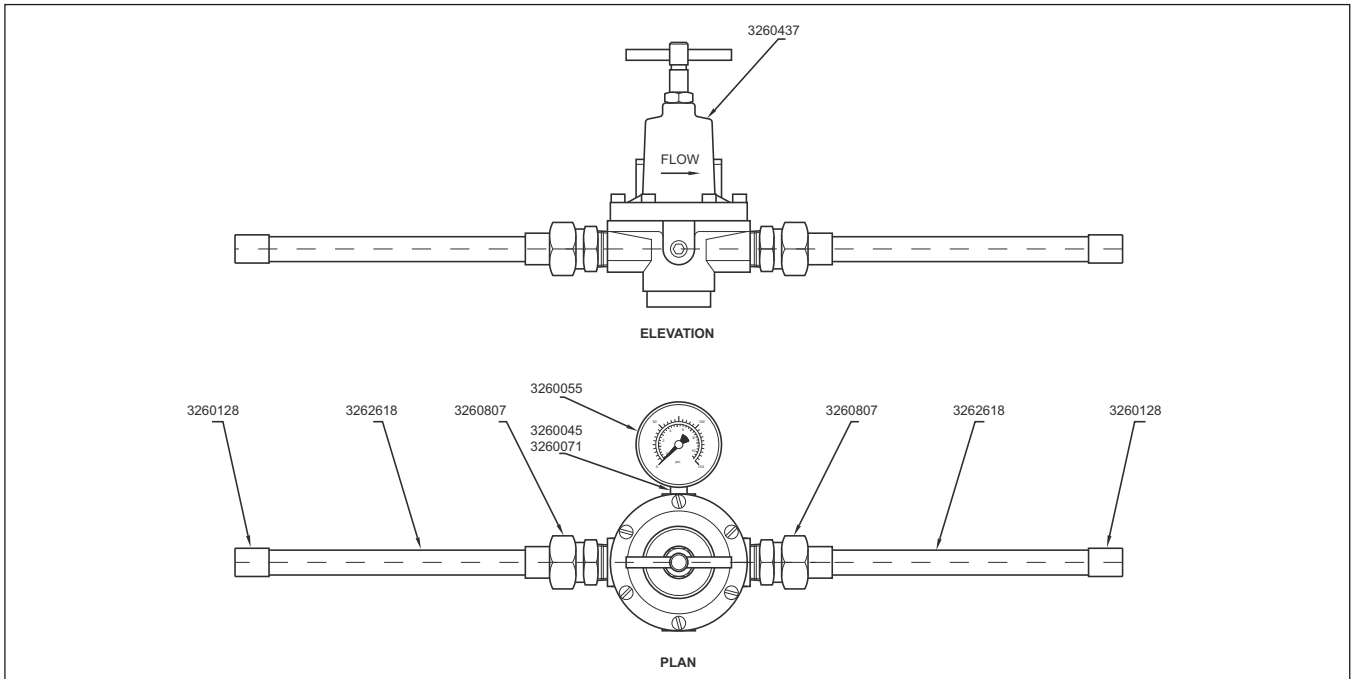


Part No.	Description	Part No.	Description
3260025	CHW x 1/2" Ball Valve	3261477	1/4" Pressure Relief Valve 9 Bar Plant
3260047	1/2" Male Flatface Union	3261607	1/4"x 1/8" Reducing Bush Brass
3260055	0 - 11 Bar 50 mm 1/8" CBC Gauge	3262618	15 mm Table 'X' Copper (200 mm Long)
3260070	1/2" Nipple Hexagonal Brass		
3260125	O-Ring BS 014NI70		
3260128	15 mm Plastic Pipe Cap		
3260152	1/2" x 1/4" Reducing Bush Brass		
3260165	1/2" Tee Brass		
3260167	15 mm Tubing Nut		
3260169	15 mm Tube Sleeve		
3260437	1/2" Regulator NORGREN (N/REL)		
3261116	1/4" Pressure Relief Valve 5.5 Bar Plant		



Pressure Reducing Sets

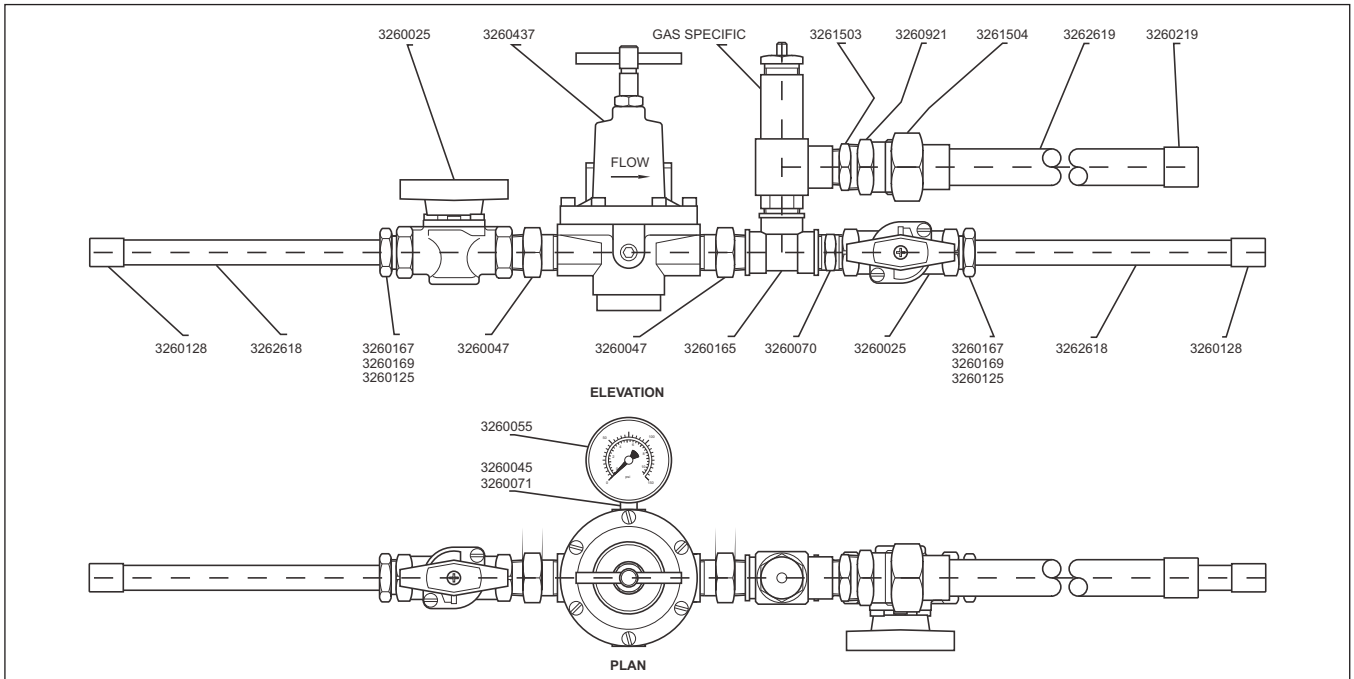
15 mm Simplex Regulator Set • No PRV



Part No.	Description	Part No.	Description
3260045	1/8" Female Elbow Brass		
3260055	0 - 11 Bar 50 mm 1/8" CBC Gauge		
3260071	1/8" Nipple Hexagonal Brass		
3260128	15 mm Plastic Pipe Cap		
3260437	1/2" Regulator NORGREN (N/REL)		
3260807	1/2" x 15 mm Copper Union GHD69		
3262618	15 mm Table 'X' Copper (200 mm Long)		



Pressure Reducing Sets 15 mm Simplex Regulator and Exit

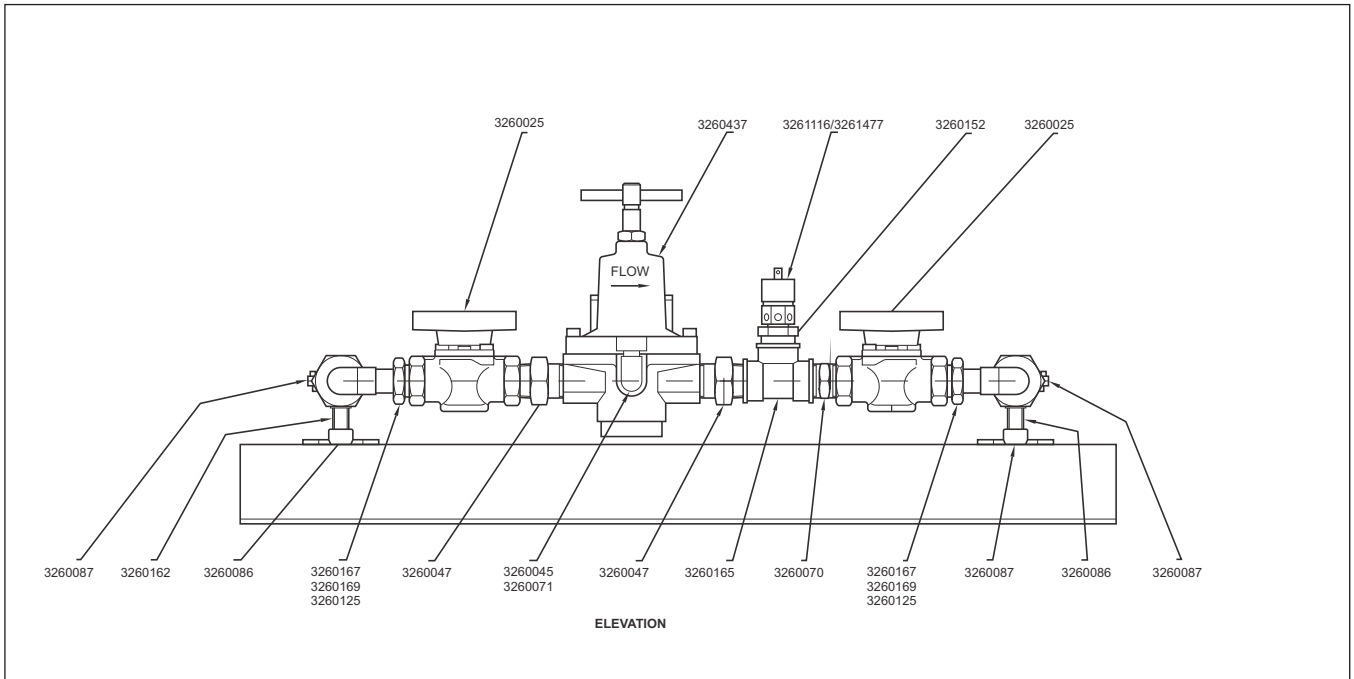


Part No.	Description	Part No.	Description
3260025	CHW x 1/2" Ball Valve	3260437	1/2" Regulator NORGREN (N/REL)
3260045	1/8" Female Elbow Brass	3260921	1/2" 1" x 3/4" Adaptor Brass YP 72
3260047	1/2" Male Flatface Union	3261503	3/4" x 1/2" Reducing Nipple Brass
3260055	O - 11 Bar 50 mm 1/8" CBC Gauge	3261504	1" x 22 mm Uni Nut/Sleeve GHD 68
3260070	1/2" Nipple Hexagonal Brass	3262618	15 mm Table 'X' Copper (200 mm Long)
3260071	1/8" Nipple Hexagonal Brass	3262619	22 mm Table 'X' Copper (200 mm Long)
3260125	O-Ring BS 014NI70	GAS SPECIFIC	1/2" Pressure Relief Valve
3260128	15 mm Plastic Pipe Cap		
3260165	1/2" Tee Brass		
3260167	15 mm Tubing Nut		
3260169	15 mm Tube Sleeve		
3260219	22 mm Plastic Pipe Cap		



Pressure Reducing Sets

15 mm Duplex Regulator Set • 4 Bar and 7 Bar

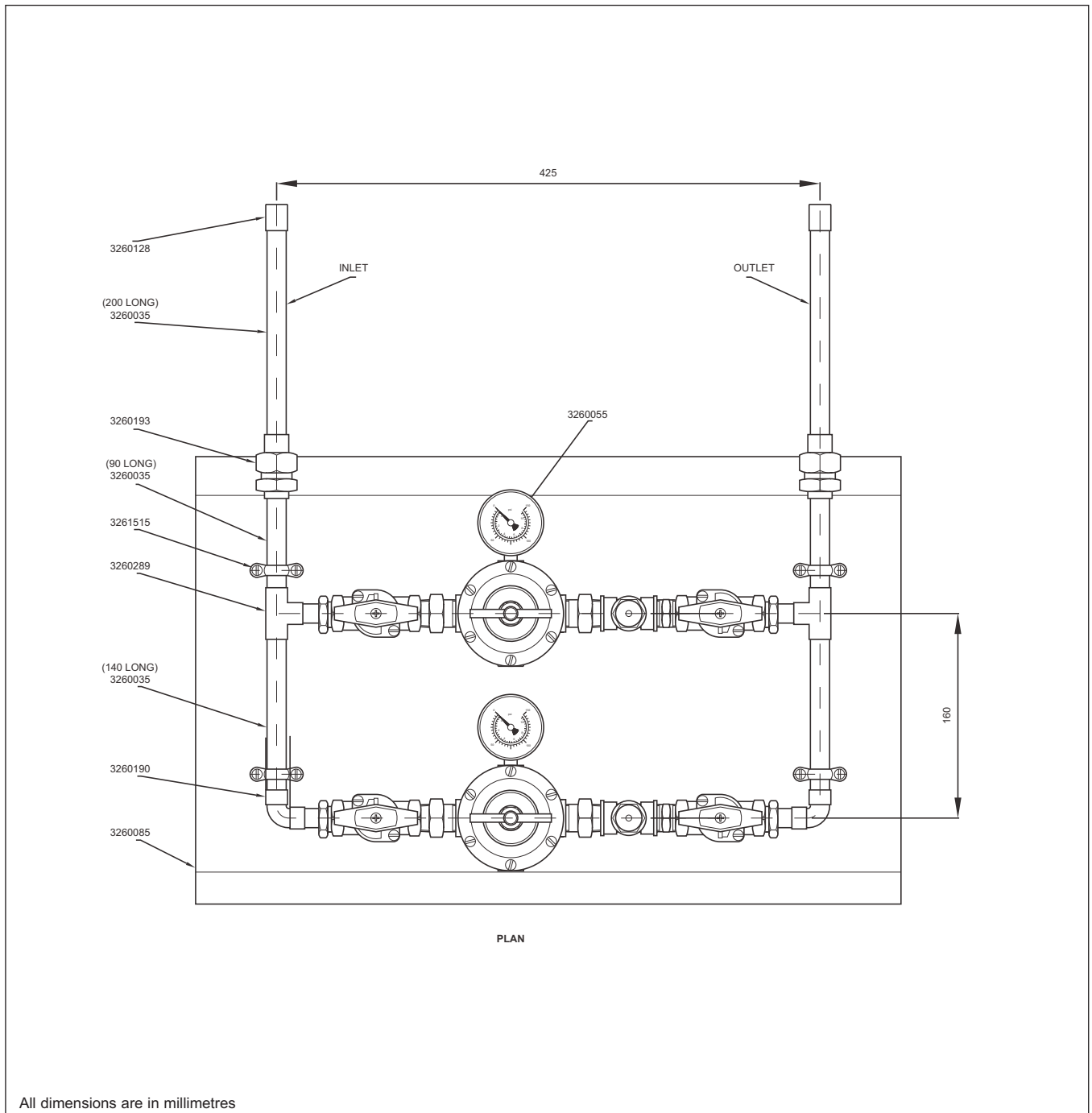


Part No.	Description	Part No.	Description
3260025	CHW x 1/2" Ball Valve	3260152	1/2" x 1/4" Reducing Bush Brass
3260035	Table 'X' Copper Tube 15 mm	3260162	M10 A2 Stud
3260045	1/8" Female Elbow Brass	3260165	1/2" Tee Brass
3260047	1/2" Male Flatface Union	3260167	15 mm Tubing Nut
3260055	O - 11 Bar 50 mm 1/8" CBC Gauge	3260169	15 mm Tube Sleeve
3260070	1/2" Nipple Hexagonal Brass	3260190	15 mm Elbow Copper
3260071	1/8" Nipple Hexagonal Brass	3260193	15 mm Union Copper/Copper GHD11
3260085	1/2" Duplex Regulator Back Plate	3260289	15 mm Tee Copper
3260086	Munsen Ring Base M10 Female	3260437	1/2" Regulator NORGREN (N/REL)
3260087	Munsen Ring 15 mm x M10 Brass	3261116	1/4" Pressure Relief Valve 5.5 Bar Plant
3260125	O-Ring BS 014NI70	3261477	1/4" Pressure Relief Valve 9 Bar Plant
3260128	15 mm Plastic Pipe Cap	3261515	M5 x 10 Slot P.H. F.O.C.



Pressure Reducing Sets

15 mm Duplex Regulator Set • 4 Bar and 7 Bar



High Lift Safety Relief Valve

High Lift Safety Valves with atmospheric discharge suitable for Air.

The flow is de-rated and measured in accordance with BS 6759 Part 2:1984.

Full Category IV PED approval CE 0038.

The valves re-seat by minus 10% of set pressure.

Features & Benefits

- Soft valve seat for 'bubble tight' seal
- High lift for high performance to BS 6759 Part 2: 1984
- Atmospheric discharge
- Pressure range 0.5 bar G. to 27.5 bar G.
- Valve seat material to suit air and inert gases
- Temperature range -40°C to +140°C
- Main components made from brass and Stainless Steel
- 1/4" BSP thread

Testing

All Penlon Relief Valves are given a hydraulic seat tightness test before leaving the factory and the adjustment range is clearly marked.

Where actual setting is required, this 'set pressure' is shown.

Special tests or witness testing can be arranged at extra cost.

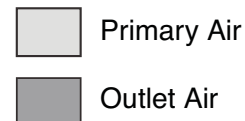
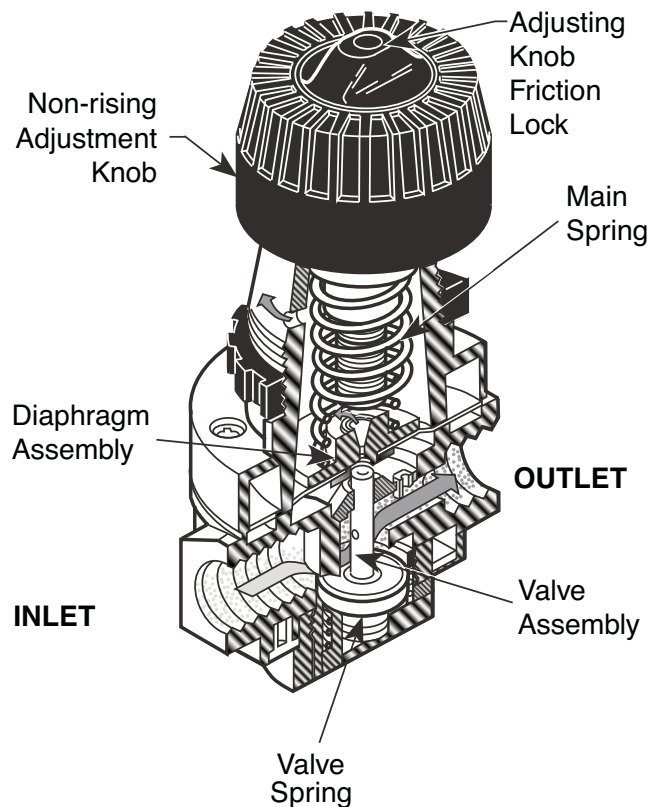


General Purpose Regulators

Used to provide a convenient and low cost method to reduce a supplied air pressure to a desired outlet pressure and transform a fluctuating air supply to a relatively constant reduced air pressure within the operating range of the regulator. This type of regulator is generally used in a wide variety of applications where reduced pressure is highly desirable for energy conservation, safety requirements, air circuit control and air instrumentation.

Operation

Turning the adjusting knob clockwise forces the main spring downward onto the flexible diaphragm which presses down onto the valve stem. The diaphragm and valve stem move downward forcing the balanced valve off its seat, which allows air to flow past the valve to the outlet side of the regulator and downstream to the air system. A precisely positioned aspirator tube communicates secondary pressure to the diaphragm resulting in instant compensation in order to maintain the desired secondary set pressure. The diaphragm, valve stem and valve move upward, compressing the regulating main spring. Upward movement stops when the spring force acting on the diaphragm balances the pressure force acting below the diaphragm. For best performance, regulated pressure should always be set by increasing the pressure up to the desired setting.



R30 Regulator

Installation and Maintenance Information

Installation

1. Refer to above caution.
2. Maximum pressure rating is 300 psig (21 bar).
Temperature range is 32°F to 150°F (0°C to 66°C).
3. Install the unit ahead of and as close as possible to where regulated air is needed.
4. Install the unit with the air flowing through the body in the direction indicated by the arrow.
5. Install the same pipe size unit as the pipe size in use. Avoid using fittings, couplings etc. that restrict the airflow, unless maximum flow is not needed.
6. Regulator may be installed so that adjusting handle is in any position. Attach gauge to one 1/4" gauge port and plug the other 1/4" gauge port.
7. Turning the adjusting screw clockwise raises the regulated pressure, and turning it counterclockwise lowers the regulated pressure.

Maintenance

1. At least every six months remove bottom plug and clean plug, body and valve.
2. **To Disassemble:** Shut off air supply and vent air lines on both sides of regulator. Turn adjusting screw counterclockwise to relieve compression or spring. Remove cover, retaining ring, bonnet, spring disc, and piston. By removing bottom plug and spring, the valve can be removed from the bottom of the regulator.
3. **To Assemble:** Relubricate all seals and sealing surfaces with lubricant. Replace valve, bottom spring, and bottom plug. Insert piston into body, place spring, spring disc, and bonnet in position, and install retaining ring and cover. **Retaining Ring Must Be Fully Seated In Groove.**
4. **If Unit Will Not Regulate To Pressure Needed, Or If Pressure Drop Becomes Excessive:** Remove bottom plug, spring and valve. Clean and check o-rings, valve and valve seat for wear or damage. Relubricate o-rings with lubricant. Replace worn or damaged parts.

NOTE: Only Use Oxygen Compatible Lubricant

WARNING

TO AVOID UNPREDICTABLE SYSTEM BEHAVIOR THAT CAN CAUSE PERSONAL INJURY AND PROPERTY DAMAGE:

- Disconnect electrical supply (when necessary) before installation, servicing, or conversion.
- Disconnect air supply and depressurize all air lines connected to this product before installation, servicing, or conversion.
- Operate within the manufacturer's specified pressure, temperature, and other conditions listed in these instructions.
- Medium must be moisture-free if ambient temperature is below freezing.
- Service according to procedures listed in these instructions.
- Installation, service, and conversion of these products must be performed by knowledgeable personnel who understand how pneumatic products are to be applied.
- After installation, servicing, or conversion, air and electrical supplies (when necessary) should be connected and the product tested for proper function and leakage. If audible leakage is present, or the product does not operate properly, do not put into use.
- Warnings and specifications on the product should not be covered by paint, etc. If masking is not possible, contact your local representative for replacement labels.

WARNING

PRODUCT RUPTURE CAN CAUSE SERIOUS INJURY.
DO NOT CONNECT REGULATOR TO BOTTLED GAS.
DO NOT EXCEED MAXIMUM PRIMARY PRESSURE RATING.

WARNING

FAILURE OR IMPROPER SELECTION OR IMPROPER USE OF THE PRODUCTS AND/OR SYSTEMS DESCRIBED HEREIN OR RELATED ITEMS CAN CAUSE DEATH, PERSONAL INJURY AND PROPERTY DAMAGE.

This document and other information from The Company, its subsidiaries and authorized distributors provide product and/or system options for further investigation by users having technical expertise. It is important that you analyze all aspects of your application, including consequences of any failure and review the information concerning the product or systems in the current product catalog. Due to the variety of operating conditions and applications for these products or systems, the user, through its own analysis and testing, is solely responsible for making the final selection of the products and systems and assuring that all performance, safety and warning requirements of the application are met.

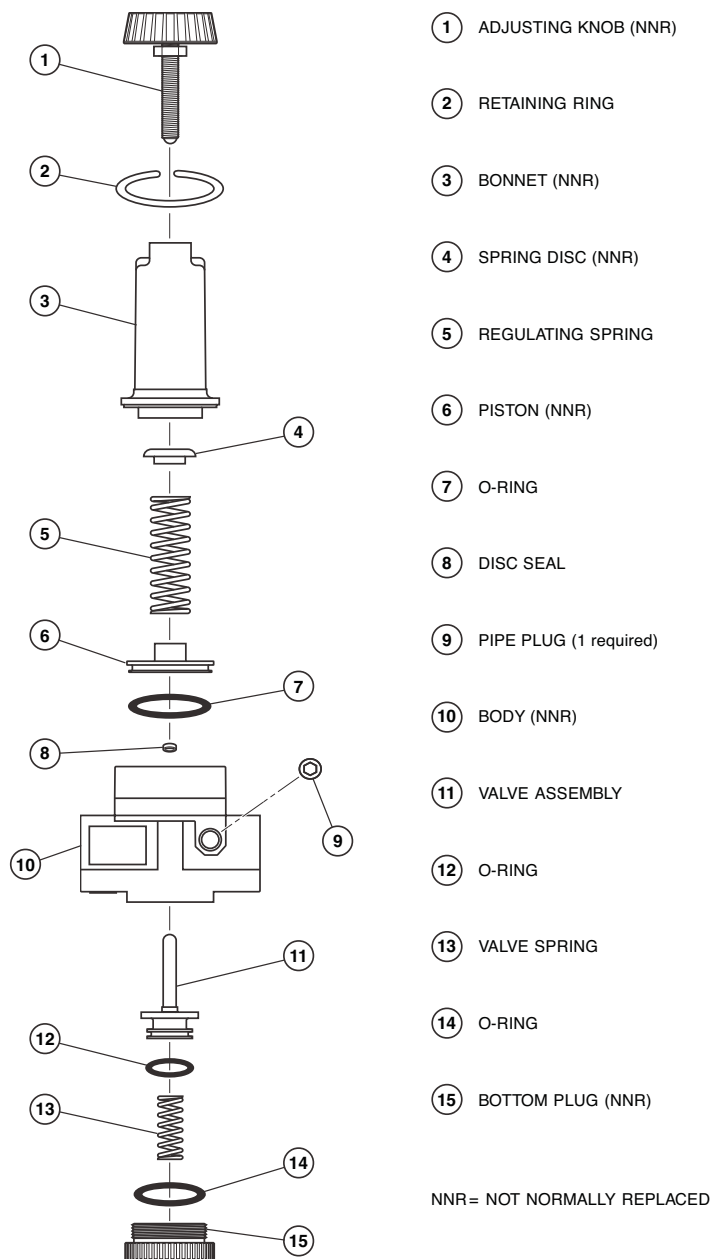
The products described herein, including without limitation, product features, specifications, designs, availability and pricing, are subject to change by The Company and its subsidiaries at any time without notice.

Repair Kits and Replacement Parts

High-Pressure Spring (0-180 psi)	RRP-95-220
Standard-Pressure Spring (0-125 psi)	RRP-95-226
Standard-pressure Gauge (0-160 psi)	GRP-95-229
High-Pressure Gauge (0-300 psig)	RRP-95-231
Piston Kit - Nonrelieving	RRP-95-451
Pipe-Mounting Bracket	GRP-95-734

R30 Regulator

Installation and Maintenance Information



All dimensions are in millimetres