PROGAS

*Industrial and Specialty Gas Delivery Systems*







## Delivering Safe & Efficient Gas Solutions

www.progassystems.com

# Progas Systems :

Progas Systems Pvt Ltd, established in 2013 focuses on engineering, procurement and construction of Industrial and Speciality gas handling systems, pressure reducing skids and interplant piping.

## Areas of Specialisation :

- **Industrial / Speciality Gas Pipeline Installation :**
  Experts in design and installation of safe and efficient gas pipelines for various applications.

- **Gas Handling Equipment Supply :**
  Providing a wide range of gas handling equipment like gas filling stations, changeover panels.

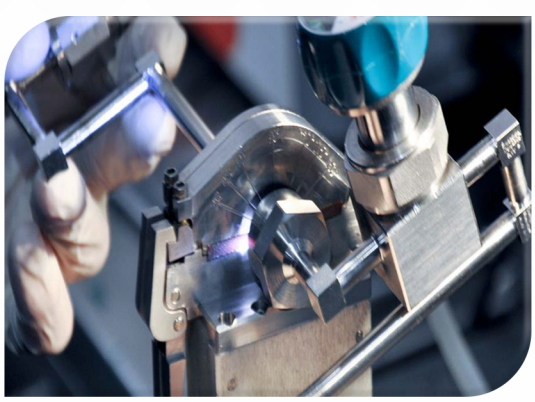
- **Maintenance and Repairs :**
  Ongoing servicing, maintenance, and emergency repair services to ensure your gas systems remain safe and functional.

- **Testing facility :**
  Class 10,000 Clean room for assembly of system and servicing of valves and a fabrication area where we manufacture skids, panels and specifically engineered items.





- **On site Services :**
  On site activities capabilities include piping or tubing, TIG welding or Orbital welding depending on the application, fabrication of structures and supports, pressure testing and commissioning of the gas handling equipment. Our hydrostatic onsite testing capability is 1000 bar and pneumatic testing capability is 500 bar.




## Why Choose Progas Systems?

- **Expertise and Experience:**
  With years of industry experience, we offer expert solutions tailored to meet the needs of our clients.

- **Safety Standards:**
  We prioritize safety in all our operations, ensuring every installation and maintenance service is performed to the highest industry standards.

- **Customer-Focused:**
  Our team works closely with customers to understand their unique needs and deliver customized gas solutions that maximize efficiency and minimize risks.

At **Progas Systems**, we are passionate about ensuring quality product supply and service. We are dedicated to reducing environmental impacts and optimizing gas systems for maximum performance and safety.

PROGAS
Industrial and Specialty Gas Delivery Systems

## Standard Tubing



Straight Tubing

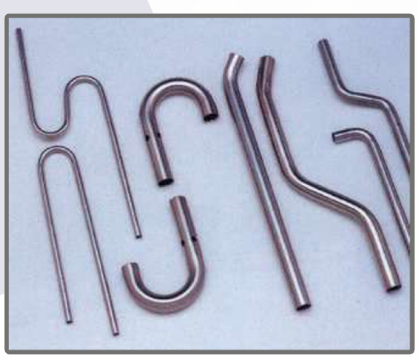


Coil Tubing

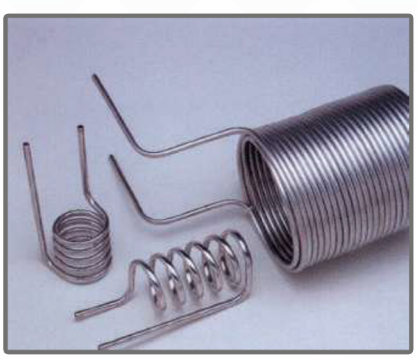
**Welded & Cold Drawn Tubing**

**Seamless Tubing**

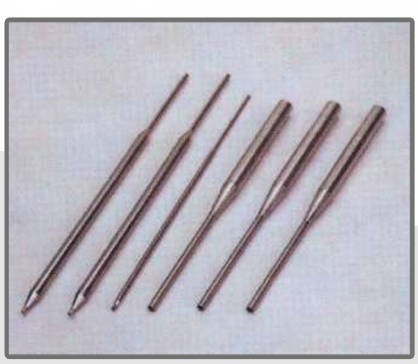
## Customized Tubing



Bended Tubing



Condenser Tubing



Swaged Tubing



Capillary Tubing

# • Fine Welded Tubing

## Standard Tubing :

- Strict tolerance in diameter and wall thickness
- Extra fine surface in both outside and inside
- Fully bright annealed for outstanding corrosion resistance

### ■ Application & Usage

| Applicable Industries | Applicable Industries | Materials |
|---|---|---|
| Ship Building | Hydraulic and Instrumentation Tubing | 304, 304L<br>316, 316L<br>321<br>310S(Automotive)<br>EN1.4435 |
| Automotive | Exhaust, Fuel and Engine Apparatus Tubing | |
| Boiler | Heat Exchanger Tubing | |
| Display & Electronics | Roller Shaft | |
| Medical, OA, Purifier | Fine Tubing | |
| Heater, Thermometer | Heat Resistant Tubing | |

### ■ Available Size & Dimensional Tolerance by Grade

Unit : mm(inch)

| Item | Size | Standard Grade | Extra Grade |
|---|---|---|---|
| O.D.<br>(Outside Diameter)<br>2.5mm~50.8mm<br>(0.098"~2") | 2.5~3.0(0.0984~0.1181) | -0, +0.050(±0.0020) | ±0.025(±0.0010) |
| | 3.1~6.0(0.122~0.236) | -0, +0.080(±0.0032) | ±0.025(±0.0010) |
| | 6.1~10.0(0.240~0.393) | -0, +0.080(±0.0032) | ±0.025(±0.0010) |
| | 10.1~15.0(0.398~0.591) | ±0.13(±0.005) | ±0.05(±0.002) |
| | 15.1~20.0(0.594~0.787) | ±0.13(±0.005) | ±0.05(±0.002) |
| | 20.1~50.8(0.791~2.000) | ±0.13(±0.005) | ±0.05(±0.002) |
| W.T.<br>(Wall Thickness)<br>15mm~3.0mm<br>(0.006"~0.12") | 0.15~0.3(0.006~0.012) | ±10% | -0, +10% |
| | 0.15~0.3(0.006~0.012) | ±10% | -0, +10% |
| | 0.71~1.0(0.028~0.039) | ±10% | -0, +10% |
| | 1.01~1.5(0.040~0.059) | ±10% | -0, +10% |
| | 1.51~3.0(0.059~0.12) | ±10% | -0, +10% |
| Length | 1,000~6,100(4~20ft) | +10, -0/(+0.4, -0) | |
| Straightness | Straight Tubing | 2mm/M | 1mm/M |
| Hardness(HV) | Annealed | 220 max, 2000 max in soils | |
| | Not Annealed | 270 min | |
| | Specified hardness | ±15% | |

PROGAS
Industrial and Specialty Gas Delivery Systems













# • TKF Ultra High Purity Products

- Weld & Metal Seal Fittings
- Tube & Pipe Fittings
- CGA Series (Cylinder Connection)
- Valves
- Clean Ball Valves
- SP Series
- SF Series
- Regulators
- MGC (Multi Gas component)
- Gas Filters
- IGS (Integrated Gas System)
- MFC (Mass Flow Controller) FUJIKIN
- PT1 Sensor
- PT 2 Sensor
- PT 3 Sensor
- Canister

SUNFLEX METAL INDUSTRIES
AN ISO 9001:2008 CERTIFIED COMPANY

PROGAS
Industrial and Specialty Gas Delivery Systems

# • ButtWeld Fitting



## Seamless Butt Welding Fittings

Seamless butt weld fittings are produced from Seamless tube and pipe by either hot or cold extrusion, forming, forging, machining, or by a combination of two or more of these. operation.

Seamless butt weld fittings are available in standard size, as published in this catalogue, and in nonstandard sizes. Standard size fittings are genellaly available ex stock.

## Seam Welded Butt Welding Fittings

Seam-Welded butt weld fittings are produced from hot or cold rolled, annealed and pickled sheet or plate, formed into half shells or segments and longitudinally seam-Welded. Seam-Welded Butt-Welding Fittings are available in standard sizes, as published in this catalogue, and in non-standard sizes.

## Material

### 90/10 Copper Nickel Alloy

- DIN 86013 2.1972, DIN 17664/2.0872
- BS2871, 2872, 2875 CN102
- EEMUA 144
- ASTM B466, B467, C70600, MIL-T-16420K C70600
- JIS H3300 C7060T

### 70/30 Copper Nickel Alloy

- DIN 17664 2.0882
- BS2871, 2872, 2875 CN107
- ASTM 8466, 8467, C71500, MIL-T-16420K C71500
- JIS H3300 C7150T

## Dimension

- DIN 86011, 86087, 86088, 86089, 86090
- 8S1640
- ANSI B16.9, B16.28
- JMS 7354

# • Forged Fittings



## Copper Nickel Forged Fittings

Stockist of Copper Nickel Forged Elbow, ASME 16.11, MSS SP-19, 83, 95.91 Forged Pipe Fittings, Cupro Nickel Forged Pipe Fittings. Cu-Ni 90-10 Forged Fittings, Global Supplier of Copper Nickel 70-30 Socket weld Fittings. Cu-Ni 90/10 Threaded Fittings Dealer in India

Manufacturer Of ASTM B461 Copper Nickel Bushing, Werkstofi No. 2.0812 Copper Nickel High Pressure Forged. Fittings, Copper Nickel T0130 Cross, Copper Nickel Equal Tee, Cu-Ni Full Couplings, BS 3199 Union, Cu-Ni UNS C70600 Forged 90 Deg Screwed Threaded Elbow in Mumbai, India.

## Standard Specification For Copper Nickel ASTM B466 Forged Pipe Fittings.

**Specifications:** ASTM B122, B171, 8466, 8467,

**Standard :** ASME 16.11, MSS SP-79, 83, 95, 97, BS 3799.

**Size:** 1/8" NB to 4 NB (Socketweld & Screwed-Threaded)

**Class:** 2000 LBS, 3000 LBS, 5000 LBS, 9000 LBS.

**Type:** Socketweld Fatings. Screwed-Threaded Fittings.

**Grades:** Copper Nickel 90/10 (C70600) Cupro Nickel-70130 (C71500), UNS C71640

SUNFLEX METAL INDUSTRIES
AN ISO 9001:2008 CERTIFIED COMPANY

PROGAS
Industrial and Specialty Gas Delivery Systems

# • Flange



## Composite Flange

Composite weld-neck and composite slip-on flanges are made up from components, an inner Flange (Welding collar) in Cu-Ni 90/10 or Cu-Ni 70/30 and an outer flange in Carbon Steel

Composite blind flanges are made up from a carbon steel blind flange with a welded-on and machined disc in Cu-Ni 90/10 or Cu-Ni 70/30.

## Solid Flanges

Solid flanges in Cu-Ni 90/10 or Cu-Ni 70/30 are produced from bar or plate by hot forging and machining.

## Product Range

Composite and solid flanges are available in standard sizes machining those of the relevant pipes and butt welding fittings. Non-standard size flanges are produced to certain minimum quantity limitations available on application.

## Material

- BS 2872 CN102, CN107.
- ASTM B151 C70600, C71500.
- JIS C7060, C7150.
- DIN CuNi10Fe1Mn, CuNi30Mn1Fe.

## Dimension

- BS4501
- ASTM B16.5
- DIN 86037
- JIS B2240

# Round Bars



### Cupro Nickel 90/10 Round Bar

Specifications: ASTM B151, ASME SB151.
Dimensions: EN, DIN, JIS, ASTM, BS, ASME, AISI.
Range: 5 mm to 500 mm thick in 100 mm to 6000 mm.
Round Bars: 6 mm to 120 mm. Square
Bars: 10 mm to 200 mm.
Finish: Black, Bright Polished, Rough Turned,
No. 4 Finish, Matt Finish, BA Finish.
Length: 100 mm to 3660 mm Long.
Form: Round, Square, Hex (A/F), Rectangle, Billet,
Ingot, Forging Etc.

# Plates / Sheets



### Standard Specification For Copper Nickel ASTM B466 Forged Pipe Fittings.

**Specifications:** ASTM B122, B171, 8466, 8467,
**Standard :** ASME 16.11, MSS SP-79, 83, 95, 97, BS 3799.
**Size:** 1/8" NB to 4 NB (Socketweld & Screwed-Threaded)
**Class:** 2000 LBS, 3000 LBS, 5000 LBS, 9000 LBS.
**Type:** Socketweld Fatings. Screwed-Threaded Fittings.
**Grades:** Copper Nickel 90/10 (C70600) Cupro Nickel-70130 (C71500), UNS C71640

# • European Standards

## Dimension :

SEAMLESS and SEAM Pipe according to DIN 1755 T3, DIN 86018, DIN 86019BS 2871.PT2 & EEMUA 144.

SEAMLESS and SEAM Pipe According to Metric Size, Navy(mm, inch) NDS Size.

| Outside Diameter of Pipe ØD | | | 10 bar | 14 bar | 16 bar | 20 bar |
|---|---|---|---|---|---|---|
| | | | Minimum Wall Thickness | Minimum Wall Thickness | Minimum Wall Thickness | Minimum Wall Thickness |
| Nominal | | Actual mm | Actual mm | Actual mm | Actual mm | Actual mm |
| inch | ND | | | | | |
| SEAMLESS | | | | | | |
| 1/8 | - | 10 | 1.0 | 1.0 | 1.0 | 1.0 |
| 1/4 | - | 12 | 1.0 | 1.0 | 1.0 | 1.0 |
| 3/8 | 10 | 16 | 1.0 | 1.0 | 2.0 | 2.0 |
| 1/2 | 15 | 20 | 1.0 | 1.0 | 2.0 | 2.0 |
| 3/4 | 20 | 25 | 1.5 | 1.5 | 2.0 | 2.0 |
| 1 | 25 | 30 | 1.5 | 1.5 | 2.5 | 2.5 |
| 1 1/4 | 32 | 38 | 1.5 | 1.5 | 2.5 | 2.5 |
| 1 1/2 | 40 | 44.5 | 1.5 | 1.5 | 2.5 | 2.5 |
| 2 | 50 | 57 | 1.5 | 1.5 | 2.5 | 2.5 |
| 2 1/2 | 65 | 76.1 | 2.0 | 2.0 | 2.5 | 2.5 |
| 3 | 80 | 88.9 | 2.0 | 2.5 | 2.5 | 2.5 |
| 4 | 100 | 108 | 2.5 | 2.5 | 3.0 | 3.0 |
| 5 | 125 | 133 | 2.5 | 3.0 | 3.0 | 3.0 |
| 6 | 150 | 159 | 2.5 | 3.0 | 3.0 | 3.5 |
| 7 | 175 | 193.7 | 2.5 | 3.5 | 3.5 | 3.5 |
| 8 | 200 | 219.1 | 3.0 | 3.5 | 3.5 | 4.5 |
| 10 | 250 | 267 | 3.0 | 4.0 | 4.0 | 5.5 |
| 12 | 300 | 323.9 | 4.0 | 5.0 | 5.0 | 7.0 |
| 14 | 350 | 368 | 4.0 | 5.5 | 5.5 | 8.0 |
| 16 | 400 | 419.1 | 4.0 | 6.0 | 6.0 | 9.0 |
| SEAMLESS or SEAM WELDED | | | | | | |
| 18 | 450 | 457.2 | 4.0 | 6.0 | 8.0 | 9.5 |
| 20 | 500 | 508 | 4.5 | 6.5 | 8.5 | 11.0 |
| SEAM WELDED | | | | | | |
| 24 | 600 | 610 | 5.0 | 8.0 | 10.5 | 13.0 |
| 28 | 700 | 711 | 6.0 | 9.0 | 12.5 | 15.0 |
| 32 | 800 | 813 | 6.0 | 10.0 | 13.5 | 17.0 |
| 36 | 900 | 914 | 8.0 | 11.0 | 15.5 | 19.0 |

## Standard

**The Applicable Standard Specifications for Cu-Ni 90/10 Pipes & Cu-Ni 70/30 Pipes**

| Kind Country | GERMANY | UNITED KINGDOM | U.S.AMERICA | FRANCE | JAPAN |
|---|---|---|---|---|---|
| SEAMLESS | DIN 86019<br>DIN 1755<br>DIN 85004(Navy) | BS 2871 PT2<br>EEMUA 144<br>NES 779 PT3(Navy) | ASTM B466<br>MIL-T-16420K Type Ⅰ<br>GRADE 1 | GAM MM11(Navy)<br>S.T.F.22.54./C.004(Navy) | H3300 |
| SEAM WELDED | DIN 86018 | BS 2875 | ASTM B467<br>ASTM B608<br>MIL-T-16420K Type Ⅱ<br>GRADE 1 or GRADE 2 | GAM MM11(Navy)<br>S.T.F.22.54./C.005(Navy) | H3320 |

ALDOTA

PROGAS
Industrial and Specialty Gas Delivery Systems

# Instrument Valve

## Needle Valve. Manifold. Check and Proportional Relief Valve







## Hexagonal Bar Stock Needle Valve

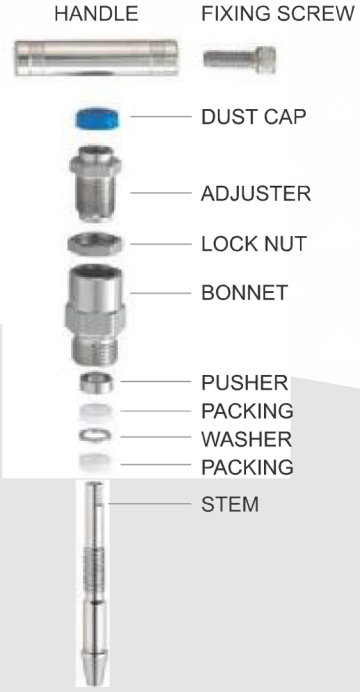
### SNV Series



**Features**

- Maximum working pressure:
  6000 psi (414bar) at 100°F (38°C)
- Working temperature:
  Delrin® Seat: -20°F (-28°C) to 200°F (93°C)
  PEEK Seat: -20°F (-28°C) to 400°F (204°C)
- Straight-through design provides high capacity with bi-directional flow and is roddable for easy cleaning.
- Teflon® packings can be adjusted to extend the valve life.
- Stem threads are rolled and lubricated to prevent galling and reduce operating torque.
- Sealing area below the threads protects from the contaminant by process and prevents lubricant washout.
- Safety back seating seal in fully open position to perform a secondary stem seal.
- Bonnet lock pin prevents accidental removal while in service.
- Optional sour gas service conforms to NACE MR0175.
- Hydro test performed with pure water at 1.5 times of working pressure
- 100% factory test
- Material traceability

**Material of Construction**




| Component | Valve Body Material | |
|---|---|---|
| | 316L S.S. | Carbon Steel |
| Body | 316L S.S./A479 | Carbon Steel/A108 |
| Bonnet | 316L S.S./A479 | Carbon Steel/A108 |
| Stem | 316L S.S./A276 | 304 S.S./A276 |
| Adjuster | 316L S.S./A276 | Carbon Steel/A108 |
| Lock Nut | 316L S.S./A276 | Carbon Steel /A108 |
| Handle | 303 S.S./A276 | Carbon Steel/A108 |
| Fixing Screw | 302 S.S. | Zinc plated steel |
| Packing | Teflon® | Teflon® |
| Washer | 316 S.S./A276 | 316 S.S./A276 |
| Pusher | 316 S.S./A276 | 316 S.S./A276 |
| Dust Cap | NBR | NBR |
| Lock Pin | 303 S.S./A276 | 303 S.S./A276 |
| Seat | Delrin® | Delrin® |

ALDOTA

PROGAS
Industrial and Specialty Gas Delivery Systems

# High Pressure Ball Valve

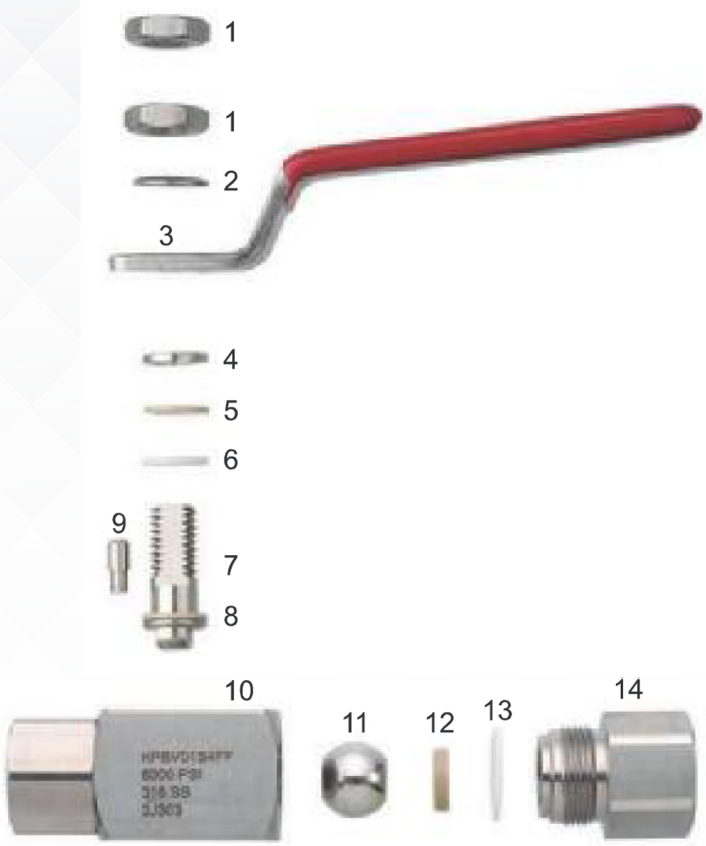
## HPBV series




### Features

- Maximum working pressure:
  6000 psi (414bar) at 100˚F (38°C)
- Working temperature:
  From-65˚F (-54˚C ) to 500˚F (260˚C ) with PEEK seat
  From-22˚F (-30˚C ) to 265˚F (130˚C ) with PVDF seat
  From -315˚F (-193˚C ) to 392˚F (200˚C ) with Devlon® V-API seat
- A 316 stainless steel handle covered with vinyl sleeve gives quarter turn rust-free operation.
- Valves with PEEK seats are supplied with red sleeves on handles. PVDF seats are identified with green sleeves while Devlon V-API with blue ones.
- A robust pin is to create a positive stop.
- The stem with shoulder provides blowout proof design to maintain seal integrity at all pressure.
- Optional sour gas service conforms to NACE MR0175.
- Ball valves are hydrostatic tested at the full rated pressure and low pressure pneumatic at 70 psi.
- 100% factory test
- Material traceability

### Material of Construction




| No. | Component | Material Grade<br>ASTM specification |
|---|---|---|
| 1 | Lock Nut | 304 S.S. |
| 2 | Fixing Washer | 304 S.S. |
| 3 | Handle | 316 S.S./A276 |
| 4 | Gland | 316 S.S./A276 |
| 5 | Back-up Ring | PEEK |
| 6 | Packing | Teflon® |
| 7 | Stem | 316 S.S./A276 |
| 8 | Gasket | PEEK |
| 9 | Pin | 303 S.S. |
| 10 | Body | 316 S.S./A479 |
| 11 | Ball | 316 S.S./A276 |
| 12 | Seat | PEEK[Note] |
| 13 | Seal | Teflon® |
| 14 | End Connector | 316 S.S./A479 |

# Two Ferrule Tube Fittings

316 stainless steel ranging from 1/8" to 1" (6mm to 25mm) O.D.





## Two Ferrule Tube Fittings





## Introduction

Tubelok tube fittings are designed to provide a leak-free connection and applied in chemical, petrochemical, oil refineries, shipbuilding, power generation and pulp and papers. The double ferrule design is a mechanism used for sealing and gripping tubing. Through the mechanical advantage and geometry, the tube fitting can overcome the variations in materials, wall thickness and hardness to provide an excellent seal performance.

The tube fitting consists of four parts: body, front ferrule, back ferrule and nut. The two ferrules separate sealing and tube gripping function and achieve excellent leak-free performance.

## Features

When the nut is tightened, the back and front ferrules move axially. The axial movement does not allow any torque transfer from the fitting to tubing and the mechanical properties of tubing are maintained. The front ferrule creates a seal against the fitting body and on the tubing outside diameter while the back ferrule axially advances the front ferrule and radially provides an effective tube grip.

## Material

Tubelok twin ferrule tube fittings are made of 316 stainless steel and supplied in metric and imperial sizes from 6mm O.D. to 25mm O.D. and 1/8"O.D. to 1"O.D. Straight fittings are machined from bar stock conforming to ASTM A276, ASME SA479, ASTM A479 and shaped bodies from forging ASME SA182 and ASTM A182.

## Easy Reference

Heads of tables are differentiated with color below:

Identifies fractional size

Identifies metric size

## Pressure Ratings

The pressure ratings of the Tubelok tube fittings are determined by the wall thicknesses of tubings on which they are installed. The maximum working pressure of tubings are listed in MAWP Table on following page.

CIRCOR | HALE HAMILTON

PROGAS
Industrial and Specialty Gas Delivery Systems

# SERIES PCU

## Portable Nitrogen Charging Unit

Our range of Portable Charging Units are used worldwide by both commercial and military customers. The PCU's support a range of applications across commercial airliners, business jet/helicopter operators as well as military assets including helicopters, transport planes and UAV's.

Whenever you need to top-up tires, suspension struts, accumulators, emergency inflation systems and many other nitrogen charging requirements, the PCU can fulfil your needs.




### HIGHLIGHTS

> Single or dual pressure outlets
> Over-pressure protection
> Charge pressure indication
> Hose vent feature
> On-board particulate filtration
> High-pressure hose, with a range of accessories
> Ergonomic, portable design, made easier with optional wheels and a telescopic handle
> Cylinder Volume: 6.8 Litres
> TPED Approved

### IDEAL USES

> Inflating Tires
> Charging Suspension Struts
> Servicing Airbag Landing Systems
> Charging Accumulators

**Maximum Cylinder Pressure:** 300 barg

**High-Pressure Outlet:** 207 barg

**Low-Pressure Outlet:** 35 barg

# FEATURES AND SPECIFICATIONS

## Note: HP - High-Pressure, LP - Low-Pressure




1. Charge Connection
2. Shut-off Valve
3. Pressure Regulator (HP)
   Range: 0 to 207 barg (0 to 3000 psig)
4. Outlet Connection (HP)
5. Pressure Regulator (LP)
   Range: 0 to 35 barg (0 to 500 psig)
6. Outlet Connection (LP)
7. Flexible Hose
   Fitted with hose end Schrader Valve to facilitate charging
8. Polyethylene Case
   > UV Resistant & Antistatic
   > Waterproof, Fireproof, Dustproof, Fungus- Proof & Moisture-Proof

## PRODUCT SPECIFICATION

| Series PCU | Dual Outlet HP & LP | Single Outlet HP | Single Outlet LP |
|---|---|---|---|
| Inlet Pressure | 300 barg (4350 psig) | | |
| Outlet Pressure | HP: 207 barg (3000 psig) LP: 35 barg (500 psig) | 207 barg (3000 psig) | 35 barg (500 psig) |
| Temperature Range | -34 to +60°C (-29 to +140°F) | | |
| Inlet Connection | G 1/4" (Male) | | |
| Hose End Connection | Quick Connector G1/4" (Male) Valve Plug. Inflating Connectors | | |
| Hose Length | 3 or 5 Meter | | |
| Drop Test | Compiled with MIL-STD-810G | | |
| Handle Option | With or Without Wheels | | |
| Medium Type | Nitrogen | | |

AMCO

PROGAS
Industrial and Specialty Gas Delivery Systems

# • Our Range of Valves

**• We Manufacture Gear Operated, Pneumatic and Electric Operated Valves.**

## Ball Valves
- 1 Pc 12 Pc 3 Pc
- Screwed | Socket Weld | Butt Weld | Flanged
- Soft & Metal Seat
- Floating & Trunnion Mounted (Fire Safe Design)







## Knife Edge Gate Valves
- Uni Directional | Bi Directional
- Wafer, Lugged & Flanged
- Soft & Metal Seat





## Damper Valve
- Wafer, Lugged & Flanged
- Metal Seat



## Wafer Check Valves
- Wafer Type
- With & Without Spring.
- Soft Seat




## Butterfly Valves
- Cenrtic | Double Offset | Triple Offset
- Wafer, Lugged & Flanged
- Soft & Metal Seat







AMCO

PROGAS
Industrial and Specialty Gas Delivery Systems

## Diaphragm Valve

- Weir & KB Type
- Flanged Only
- Unlined & Rubber Lined



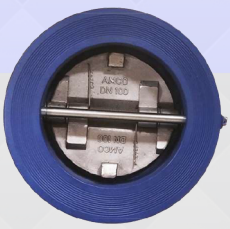
## Piston Valve

- Screwed | Socket Weld | Flanged
- Metal Seat, Glandless
- OS & Y Type, Bolted Bonnet, Rising Spindle
- IBR & NON IBR



## Dual Plate Check Valve

- Wafer, Lugged & Flanged
- Soft & Metal Seat



## Non Slam Check Valve (DCV)

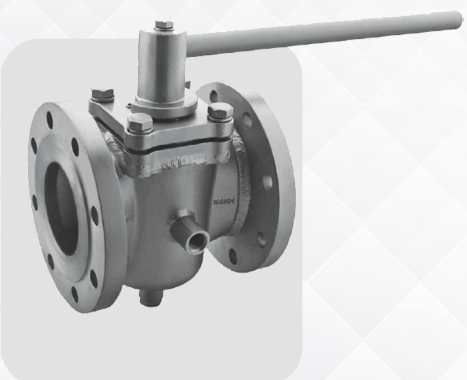
- Wafer
- Soft & Metal Seat



## • FEP & PFA Lined Valves



















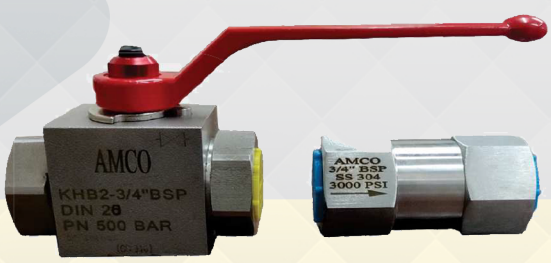
AMCO

PROGAS
Industrial and Specialty Gas Delivery Systems

## Gate, Globe & Check Valves (Lift & Swing Type)

- Screwed Socket Weld | Butt Weld | Flanged
- Metal Seat
- OS & Y Type, Bolted Bonnet, Rising Spindle
- IBR & Non IBR








## High Pressure Valves

- Ball Check Needle
- Soft Seat
- Screwed
- 1500 psi, 3000 psi, 6000 psi

## Strainers

- Y, T, Pot, Duplex, Self Cleaning Type
- Y Type-Screwed & Flanged
- T Type, Pot Type, Duplex, Self Cleaning Flanged
- Mesh Size To Customer Requirements



UKL
UNI KLINGER LIMITED

PROGAS
Industrial and Specialty Gas Delivery Systems



*Klinger AG, Responsible for Three path-breaking inventions: First ever Reflex Gauge Glass [1886].First ever Klingerit Compressed Asbestos Gasket Sheet [1899].First Seatless Glandless Piston Valve [1922].*

***KlingerAG,*** *inventor of the* ***Glandless and Seatless Piston Valves****, is responsible for giving UKL the solid foundation to build on these valves having bubble tight shut-off, zero-leak Class VI leakage.*



***Piston valves:*** *Today UKL has the complete range of Piston valves in Cast steel, Forged steel and Stainless steel materials. These valves are ideally recommended for critical media and utility applications like Steam, Hot water, Heat transfer fluid and many more applications.*



***Bellow Sealed*** *valves are recommended for the Heat transfer fluids and other process applications which are critical, super-critical and hazardous, with zero fugitive emissions and in line with the strict environment pollution laws. Bellow sealed valves also available for Nuclear applications on request.*



***High pressure Gate and Globe valves*** *in #1500 and #2500 pressure class, with pressure seal bonnet for extra safety, for the Power, Refinery, Fertilizer and Steel industries to name a few.*



***Double Orifice Float Trap Module (DOFT-M)*** *is a unique trap having salient features like, two orifices, high discharge capacity and only one delta pressure for all applications. Specially designed by UKL to meet the frequently varying condensate loads in many applications. It helps to a great extent in avoiding the opening of bypass valve, particularly in startup conditions.*



*With complete range of all kind of Steam Traps, UKL is firmly committed to serve the industry in all their important tasks of Energy Conservation & Condensate management Measures.*

***Thermodynamic Traps:*** *UKL is having the wide range of these kind of traps in Casted and Forged body construction for varied pressure range up to 250 bar(g)*



***Inverted Bucket Traps:*** *Built on Robust design, corrosion and erosion resistant materials, UKL inverted bucket trap is an ideal selection for almost all applications.*



***Balanced Pressure Thermostatic Traps:*** *Ensures effective tracing and utilization of sensible heat for demanding processes, using enthalpy/temperature difference.*



***Ball Float Traps:*** *These traps are able to handle very high amount of condensate discharge capacities by using Buoyancy / Density difference principle.*



***Sanitary Traps:*** *Are designed to remove condensate from clean and pure steam applications. Manufactured with SS316L body & cover and ensures complete draining of condensate.*

UKL
UNI KLINGER LIMITED

PROGAS
Industrial and Specialty Gas Delivery Systems

# A Variety of Valve Solutions. One Trusted Provider.

- Safety Valve & Control Valve Division

*To meet the growing market demand of API & ASME requirements in Safety Valves and Control Valves we have established state-of-the-art manufacturing facilities near to Pune (MS) under license of AST S.p.A. Italy.*

*Making a move forward Uni Klinger Limited has now taken its commitment, to the next level by associating with equally committed company, M/s. AST S.p.A., Italy to manufacture and marketing safety relief and control valves for Industries worldwide.*

*Founded in 1951, AST S.p.A. is one of the first Italian manufacturers of spring loaded safety relief valves and change-over valves. Since the very early days, it distinguished for the technology and the degree of customization of its products*








| | | | | | | |
|---|---|---|---|---|---|---|
| **Product Name** | UKL-AST Type SMU-7000 Pressure Relief Valve | UKL-AST Type SMF-7000 Pressure Relief Valve | UKL-AST Type SU-7000 Pressure Relief Valve | AST SMS-7100 Safety Valve For Steam Boiler ASME Section I Approved | Globe Type Control Valve | Self Actuated Pressure reducing valve |
| **End Connection** | Flange End as per ASME B16.5 | BSP/NPT (MXF) | Flange End as per ASME B16.5 | Flange End as per ASME B16.5 | Flanged End as per ASME B 16.5 | Flanged End as per ASME B 16.5 |
| **Inlet Sizes** | From NPS 1 to NPS 8 | From NPS 1/2 to NPS 1 | From NPS 1/2 to NPS 1 | From NPS 1 to NPS 8 | 1/2" To 10" | 1" To 4" |
| **Inlet Ratings** | Up to ASME 2500. Special solution ASME 4500 and up to API 10k available. | Up to API 6000 or ASME 2500 | Up to API 6000 or ASME 2500 | Up to ASME 2500 | Up to ASME 600 Rating | Up to ASME 300 Rating |
| **Outlet Sizes** | From NPS 2 to NPS 12. | From NPS 1 to NPS 1 1/2 | From NPS 1 to NPS 1 1/2 | From NPS 1.5 to NPS 12. | -------- | -------- |
| **Outlet Ratings** | ANSI Class 150 and 300 | ------ | -------- | ANSI Class 150 and 300 | -------- | -------- |
| **Orifice Sizes** | D" to "T" acc. to API 526; intermediate orifices (K2, P2,Q2, R2) and orifices up to 183.281 cm2 available | From "b" to "f" | From "b" to "f" | D" to "T" acc. to API 526 | -------- | -------- |
| **Set Pressure Range** | From 0.4 bar to 414 bar | From 0.8 bar to 400 bar (for gas), up to 1500 bar for liquid | From 0.8 bar to 400 bar (for gas), up to 1500 bar for liquid | Up to 414 Bar G | -------- | -------- |
| **Temperature Range** | From -267°C to 750 °C. | From -200°C to 400 °C | From -200°C to 400 °C | Up to 540 °C | -96°C to 538 °C. | up to 350 °C. |
| **Materials** | Carbon steel, alloy steel, hastelloy, monel and other materials upon request. | Carbon steel, alloy steel, hastelloy, monel and other materials upon request. | Carbon steel, alloy steel, hastelloy, monel and other materials upon request. | Carbon steel, alloy steel, and other | ASTM A 216 WCB , ASTM A217 WC6, ASTM A352LCB , ASTM A351 CF8 , ASTM A351 CF8M , ASTM A351 CF3M | ASTM A 216 WCB |
| **Special Feature** | Full Nozzle / Full Lift with Adjusting Blowdown Ring | Full Nozzle / Full Lift with Adjusting Blowdown Ring. Balance bellow design for screwed design also | Full Nozzle / Full Lift with Adjusting Blowdown Ring | Comply stringent requirement of ASME section I for power boilers. Overpressure 3% and Blowdown 2.5 to 4 % with the help of precise two ring design | The valve and actuator equipped with accessory, Such as pneumatic to digital positioner, Air filter regulator, stem flushing, solenoid valve, Limit switch, position transmitter, lock-up valve, booster, top / side mounted hand wheel | Downstream pressure balancing by stainless steel bellows. Spring & Actuator are replaceable, Provided in Screwed seat ring |

*Other products of AST SpA like Pilot Operated Safety Valve shall be imported with specialised Control Valve for Urea/Melamine application.*
*Safety valves are enlisted in Engineers India Limited, Thyssenkrupp, PDIL, BHEL, Toyo, AvantGarde, BGR Energy.*



**Pilot Operated Valve** **Control Valve**

PROGAS
Industrial and Specialty Gas Delivery Systems

# • Key strengths

## A) Revamping and Installation of Nitrogen Pressure Swing absorption system



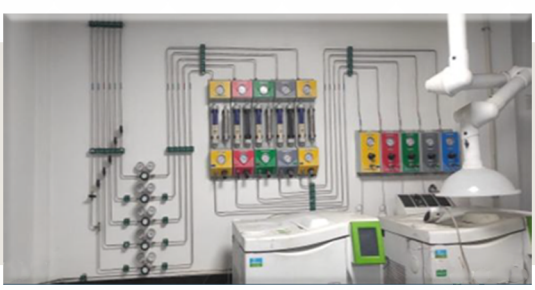
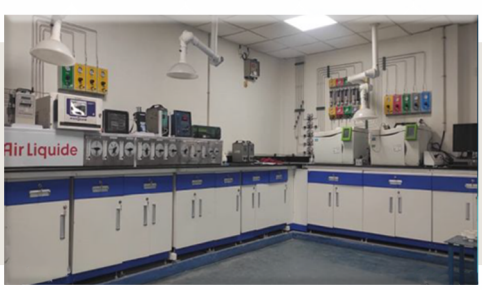



## B) Cylinder filling station for gases - Helium, Oxygen, Argon, Nitrogen & H2





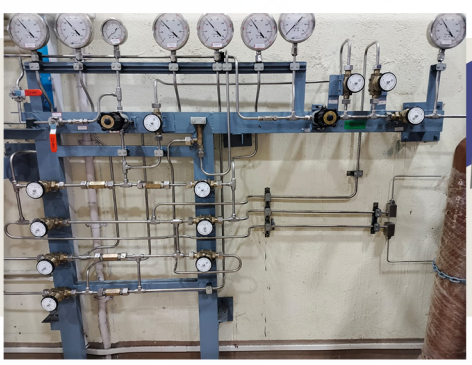
## C) Laboratory tubing work



## D) Helium Recovery system



PROGAS
Industrial and Specialty Gas Delivery Systems

## E) Turnkey Projects – Equipment Installation & Commissioning



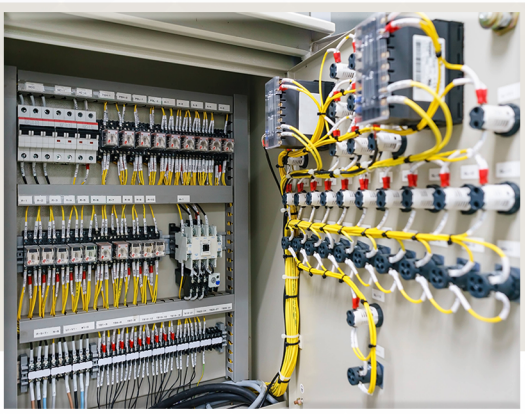
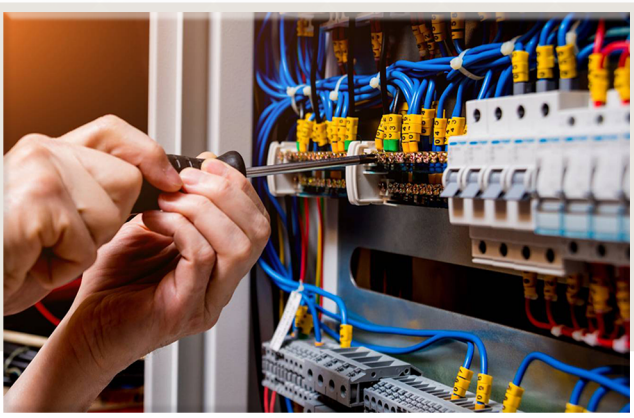
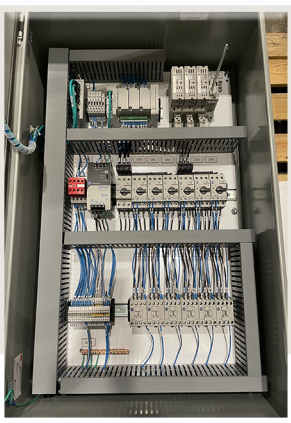









## F) Electrical & Automation projects

## G) SiCl4 decanting/loading station





## H) Cupro-Nickel Oxygen Piping & Skids

## I) Ultra-High Purity tubing of 5 grade purity gases














## Partnered With :

IKF | SUNFLEX METAL INDUSTRIES AN ISO 9001:2008 CERTIFIED COMPANY | CIRCOR | HALE HAMILTON

ALDOTA | AMCO | UKL UNI KLINGER LIMITED

# PROGAS Systems Pvt Ltd.

**Head Office** : Unit No- 23 Blue Chip Industrial Estate No. 5, Village Waliv, Sativali Road, Vasai East, Thane, Mumbai - 401 208, Maharashtra.

**Branch Office** : Gat No- 312/4, Nanekarwadi, Chakan Tal- Khed Dist- Pune, Pune- 410 501, Maharashtra.

**Fabrication Facility** : Plot No- PAP- D72, Mindewadi Phase, Talegaon, MIDC Pune - 410 507, Maharashtra.

TUVINDIA
TUV INDIA PVT. LTD.
ISO 9001:2015
tuv-nord.com/in

PROGAS
*Industrial and Specialty Gas Delivery Systems*

www.progassystems.com
sales@progassystems.com
enquiry@progassystems.com
admin@progassystems.com
+91 9962975639 / +91 8600001189