

**Hydraulic
& Offshore
SUPPLIES**



**PANAM STAINLESS STEEL
INSTRUMENTATION
VALVES & FITTINGS**

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R&G
FLUID POWER GROUP

Products



Tube Fittings

- Tube Fittings are available in Single & Double Ferrule Design.
- Tube Fittings are available in SS 316, Duplex, Monel, Hastalloys & Brass Materials.
- Variety of end connections, Male & Female NPT, BSPP, BSPT & 37° Flare.
- Maximum working pressure up to 10,000 psig. (689 bar).
- Size ranging from 1/16" to 2" OD and 3mm to 50mm OD.
- Low Torque.
- Leak tight connections, with standing high pressure.
- NACE certification available upon request.
- Heat code traceability



37° JIC Fittings (Flare Fittings)

- Flare Fittings are available in SS 316, Duplex, Monel & Hastalloys Materials.
- Variety of end connections, Male & Female NPT, BSPP, BSPT, 37° Flare, Swivel & JIC Swivel.
- Maximum working pressure up to 10,000 psig. (689 bar).
- Size ranging from 1/16" to 2"
- Leak tight connections, with standing high pressure.
- NACE certification available upon request.
- Heat code traceability

Products



Pipe Fittings

- Pipe Fittings are available in SS 316, Duplex, Super Duplex, Inconel, Monel & Hastalloys Materials.
- Variety of end connections, Male & Female NPT, BSPP, BSPT & Tube / Pipe Socket Weld.
- Maximum working pressure up to 10,000 psig. (689 bar).
- Size ranging from 1/8" to 2".
- NACE certification available upon request.
- Heat code traceability.



High Pressure Pipe Fittings

- High Pressure Fittings are available in SS 316, Duplex, Monel & Hastalloys Materials.
- Variety of end connections, Male & Female NPT, BSPP, BSPT, 37° Flare, Swivel, JIC Swivel & Tube / Pipe Socket Weld.
- Maximum working pressure up to 15,000 psig. (1,034 bar).
- Size ranging from 1/16" to 2".
- Leak tight connections, with standing high pressure.
- NACE certification available upon request.
- Heat code traceability

Products



Weld Fittings

- Weld Fittings are available in SS 316, Duplex, Monel & Hastalloys Materials.
- Variety of end connections, Male & Female NPT, BSPP, BSPT & Tube / Pipe socket weld.
- Maximum working pressure up to 10,000 psig. (689 bar).
- Size ranging from 1/16" to 2"
- Leak tight connections, with standing high pressure.
- NACE certification available upon request.
- Heat code traceability



2-3-5 Valve Manifolds

- Manifold Valves are available in SS 316, Duplex, Monel & Hastalloys Materials.
- Available in 2 Valves, 3 Valves and 5 Valves, in various configuration such as pipe to pipe, pipe to flange and flange to flange.
- Maximum working pressure up to 10,000 psig. (689 bar).
- PTFE standard gland packing, Alternate graphoil packing for high temperature. Max. temperature upto 538°C (1000°F).
- Non-Rotating vee tip / Ball tip provides repetitive & leak tight shutt-off.
- NACE certification available upon request.
- Heat code traceability.

Products



Gauge Root Valves

- Gauge Root Valves are available in SS 316, Duplex, Monel & Hastalloys Materials.
- Maximum working pressure up to 10,000 psig. (689 bar).
- Size ranging from 1/2" to 3/4".
- PTFE standard gland packing, Alternate graphoil packing for high temperature. Max. temperature upto 538°C (1000°F).
- Non-Rotating vee tip / ball tip provides repetitive & leak tight shutt-off.
- Available in soft seat.
- NACE certification available upon request.
- Heat code traceability.



Needle Valves

- Needle Valves are available in IB, HB, HP, SB & Mini Series.
- Needle Valves are available in SS 316, Duplex, Monel & Hastalloys Materials in forged & bar stock construction.
- Variety of end connections - Male & Female NPT, BSPP, BSPT, ISO tapered pipe ends & **PANAM**® tube fittings.
- Maximum working pressure up to 20,000 psig. (1,379 bar).
- Size ranging from 1/8" to 1"
- PTFE standard gland packing, Alternate graphoil packing for high temperature. Max. temperature upto 538°C (1000°F).
- Non-Rotating vee tip / Ball tip provides repetitive & leak tight shutt-off.
- NACE certification available upon request.
- Heat code traceability.

Products



Ball Valves

- Ball Valves are available in 2 and 3 T port & L port configurations.
- Ball Valves are available in SS 316, Duplex, Monel & Hastalloys Materials.
- Variety of end connections - Male & Female NPT, BSPP, BSPT & **PANAM**® tube fittings.
- Maximum working pressure up to 10,000 psig. (689 bar).
- Floating ball design ensures leak proof shut-off at high pressure.
- Size ranging from 1/8" to 2".
- Delrin, PTFE, PEEK & KEL-F seat available.
- Anti blow out internally loaded stem for safety.
- Panel mount and leaver handle option available in selected sizes.
- NACE certification available upon request.
- Heat code traceability.



Check Valves

- Check Valves are available in SS 316, Duplex, Monel & Hastalloys Materials.
- Variety of end connections - Male & Female NPT, BSPP, BSPT & **PANAM**® tube fittings.
- Maximum working pressure up to 6,000 psig. (414 bar).
- Size ranging from 1/8" to 1".
- Cracking pressure 1/3, 1, 5, 10, 25, 50, 75 & 100 psig.
- NACE certification available upon request.
- Heat code traceability.

Products



Relief Valves

- Relief Valves are available in SS 316, Duplex, Monel & Hastalloys Materials.
- Variety of end connections - Male & Female NPT, BSPP, BSPT.
- Maximum working pressure up to 15,000 psig. (1,034 bar).
- Size ranging from 1/8" to 1/2" & 6mm OD to 12mm OD.
- Standard Orifice 4.8mm
- Relief pressure adjustable externally.
- Lock wire feature secures a given pressure setting.
- NACE certification available upon request.
- Heat code traceability.



Filters

- Filters Valves are available in SS 316 & Brass Materials.
- Variety of end connections - Male & Female NPT, BSPP, BSPT.
- Maximum working pressure up to 6,000 psig. (414 bar).
- Size ranging from 1/8" to 1/2" & 3mm OD to 12mm OD.
- Safe union bonnet design for high pressure ratings.
- Filter element can be replaced without removing body from system.
- NACE certification available upon request.
- Heat code traceability.

Products



Double Block & Bleed Valves

- Double Block & Bleed Valves are available in SS 316, Duplex, Monel & Hastalloys Materials.
- Variety of end connections - Flange to Flange, Flange to NPT, NPT to NPT & Mono Flange.
- Maximum working pressure up to 10,000 psig. (689 bar).
- Size ranging from 1/2" to 3" - Class 150 to 2500.
- Ball seats material - PTFE (Virgin or Filled), PVDF, Nylon, PEEK & PCTFE.
- Bubble tight shutoff.
- Design to comply with requirements of ANSI /ASME 16:34.
- NACE certification available upon request.
- Heat code traceability.



Swivel Gauge Adapters

- Swivel Gauge Adapters are available in SS 316, Duplex, Super Duplex, Monel & Hastalloys Materials.
- Variety of end connections - Male & Female NPT, BSPP, BSPT.
- Maximum working pressure up to 10,000 psig. (689 bar).
- Gauge positioning enables easy viewing of the gauge in any direction through 360°.
- Silver plated swivel thread and bearing surface to prevent thread galling and maximizing re-make opportunities.
- NACE certification available upon request.
- Heat code traceability.

Products



Pressure Regulators

- Pressure Regulators are available in SS 316 & Brass Materials.
- Maximum working pressure up to 6,000 psig. (414 bar).
- 1/4" NPT Inlet and outlet connection.
- Piston sensed design is safe and reliable.
- Adjustable stop limits maximum outlet pressure.
- NACE certification available upon request.
- Heat code traceability.



Air Headers

- Air Headers are available in SS 316 & Carbon Steel Materials.
- Variety of end connections - Threaded, Flanged, Socket Weld, Tapered & Straight.
- Maximum working pressure up to 6,000 psig. (414 bar).
- Size ranging from 1/2 to 2" - Class 150 to 2500.
- All NPT thread will be as per ANSI B 2.1 & Socket weld will be as per ANSI B 16.11.
- Radiography testing & liquid penetrate testing of butt-welding joints as per ASME BPVC section V.
- Small thin design & light weight design allows you to combine with other valves in series for safe shutoff.
- NACE certification available upon request.
- Heat code traceability.

Products



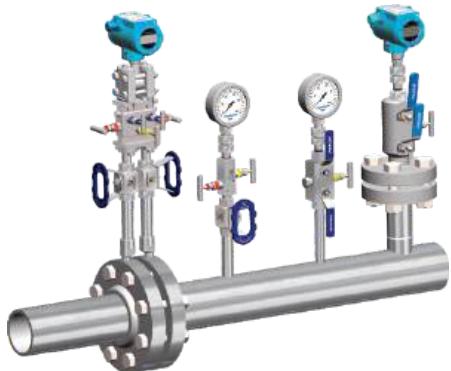
Condensate Pots

- Condensate Pots are available in SS 316 & Carbon Steel Materials.
- Variety of end connections - Threaded, Flanged, Socket Weld.
- Maximum working pressure up to 6,000 psig. (414 bar).
- Size ranging from 1/2 to 2" - Class 150 to 2500.
- All NPT thread will be as per ANSI B 2.1 & Socket weld will be as per ANSI B 16.11.
- Radiography testing & liquid penetrate testing of butt-welding joints as per ASME BPVC section V.
- NACE certification available upon request.
- Heat code traceability.

Flange Adapters

- Flange Adapters are available in SS 316, Duplex, Monel & Hastalloy Materials.
- Variety of end connections - Threaded, Flanged, Socket Weld.
- Maximum working pressure up to 10,000 psig. (689 bar).
- Available in Panam Tube Fitting end connection up to 50mm in metric sizes & 2" in imperial sizes.
- Flange type meet ASME, DIN, EN and JIS standards. Full range of sealing faces including Flat Face, Rised Face, RTJ and Tongue and Groove.
- EN 10204 type 3.1B test certificates are supplied with materials.
- Heat code traceability.

Products



Pre-Fabricated Hookups

- Pre-Fabricated Hookups are available in SS 316/316L & various Alloys.
- Variety of valve types - Ball Valve, Gate Valve, Globe Valve, Needle Valve, Double Block & Bleed Valves.
- Maximum working pressure upto 6,000 psig. (414bar).
- Size ranging from 1/2" to 2" - Class 150 to 2500.
- Various type of process connections - Flanged, Welded or Threaded.
- Compact design
- Low-maintenance
- NACE certification available upon request.
- Design to comply with requirements of ASME 16.34, ASME 16.11
- Compliance to fugitive emissions
- IBR certification is required
- Heat code traceability

Pressure Transmitters

- 4-20 mA output signal + Hart 5/Hart 7 Protocol.
- Programmable range, Zero Shift, Characteristics and damping ratio with Local Panel Keys.
- Safety Version SIL 2/SIL 3.
- Intrinsic Safety Certificate ATEX, IECEx.
- Explosion Proof Certificate ATEX, IECEx.
- Accuracy 0.075% (0.05%, 0.04% available on request).
- Backlit LED Display.
- Aluminium or Stainless Steel Housing.
- IP Class 66, 67, 68.

Products



Temperature Transmitters

- 4-20 mA output signal + Hart Protocol.
- Programmable Sensor Type, Programmable Measurement Range.
- RTD Lead wire compensation.
- Thermocouple Cold Junction Compensation.
- Autodiagnostic Features.
- Intrinsic Safety (ATEX), Explosion Proof (ATEX, IECEx) Version
- DIN Rail mounted, Head Mounted and Pipe Mounted Transmitter version available.
- RTD (Pt100, Pt200, Pt500, Pt1000, Cu100, Ni100) 2 wire, 3 wire & 4 wire available both Simplex and Duplex as per IEC 60751
- Thermocouple Type B, E, J, K, N, R, S, T available both Simplex and Duplex as per IEC-60584
- Temperature Sensor Head - Aluminium or SS
- Themowell available in Bar Stock Design upto 1400 mm
- Material of Thermowell - SS 316, all exotic material on request



Pressure Gauges

- Sensing Element - Bourdon Type, Diaphragm Type, Capsule Type, Bellow Type.
- Gauge, Vacuum & Compound Ranges available.
- Sensing Element MOC SS316, SS 316L & Monel.
- Dial Size - 63mm, 100mm, 150mm, 160mm.
- Accuracy Class 1.0 & 1.6 as per ASME B40.100
- External & Internal Zero Adjustment available
- Over range Protection 130%.
- ATEX Certificate available on selected models
- Front Panel & Surface Mounting.
- Ingress Protection IP54, IP65, IP66 & IP67.
- Suitable for Gas & Liquid Application.
- Customized Process Connection available.

Products



Temperature Gauges

- Sensor: Bimetallic, Gas Filled.
- Stem Diameter 6mm, 8mm, 10mm & 12 mm, Others available on request.
- Stem length upto 4000 mm, Higher length available on request.
- Robust Hermetically Sealed Case, Toughened Borosilicate Glass available.
- Dial Size 63mm, 100mm, 115 mm, 150mm, 160mm.
- Accuracy Class: 1 as per EN 13190, ASME B 40.200
- External Zero adjustment.
- Wetted Part SS316, Other material on request.
- Mounting Lower, Back, Every angle (adjustable Stem & Dial).
- Ingress Protection: IP 65, IP 66, IP 67, IP 68.
- Suitable for Gas & Liquid Application.
- Temperature measurement in Harsh & Aggressive Environment.



Grab Sampling Systems

- Easy to install and operate.
- Collection and of samples made easy.
- "Fit for Use" in industry for sample collection.
- Fully configurable, locally built and supported.
- Closed Loop and open loop option available.
- Transportation of samples without risk of spillage or evaporation.
- Ordered as a single part number.

Products



Flow Elements

- Cone Flow Meter, Wedge Flow Meter, Venturi available.
- Multi-Stage Restriction Orifice Assemblies, Restriction Orifice Assemblies, Multi-Bore Restriction Orifice Assemblies.
- Suitable for liquid, gas and steam flow measurement.
- Calibration may be performed if required
- Flow measurement with low differential pressures.
- Designs based on ISO 5167-4.
- A wide range of materials is available.
- Available sizes 0.5" to 80" NB.



Bellow Sealed Valves

- Instrument Isolating Valve, 2/3/5 Valve Manifold.
- Working Pressure up to 200 bar.
- Working Temperature up to 325° C.
- Size Range - 1/4", 1/2", Others available on request.
- Variety of end connections available upon request.
- 316 SS, Other materials on request.
- Low Operating Torque.
- Precision formed Metal Bellows.
- Non-Rotating Stem Tip for reliable repetitive shut off.
- Suitable for Panel & Bottom Mounting.
- Suitable for Oil & Gas, Marine, Nuclear applications.
- Heat code traceability.
- Fugitive Emission Testing.

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