

# Instrument Air & Gas Preparation



Engineering GREAT Solutions



**Stainless steel solutions to protect sensitive and expensive instrumentation and controls**



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## Engineering GREAT solutions through people, products, innovation and service

IMI Precision Engineering is a world-leader in fluid and motion control. Building close, collaborative relationships with our customers, we gain a deep understanding of their engineering needs and then mobilise our resources and expertise to deliver distinctive products and solutions.

Wherever precision, speed and engineering reliability are essential, our global footprint, problem-solving capability and portfolio of high performance products enables us to deliver GREAT solutions which help customers tackle the world's most demanding engineering challenges.

> **Reliability**

We deliver and support our high quality products through our global service network.

> **High performance products**

Calling on a world-class portfolio of fluid and motion control products including IMI Norgren, IMI Buschjost, IMI FAS, IMI Herion and IMI Maxseal. We can supply these singly, or combined in powerful customised solutions to improve performance and productivity.

> **Partnership & Problem Solving**

We get closer to our customers to understand their exact challenges.

# Setting the standard for safety, reliability and performance

IMI Precision Engineering has over 80 years experience in providing oil, gas and chemical solutions that are proven in safety, reliability and durability, in the most extreme environmental and operating conditions around the globe.

With world-class product ranges including IMI Norgren, IMI Buschjost, IMI Herion and IMI Maxseal, our products are designed to work effectively in aggressive environments and extreme temperatures and meet international standards such as:

- > ATEX
- > TÜV
- > TRCU
- > INMETRO
- > CSA
- > KOSHA
- > DVGW
- > FM AND UL
- > NEMA



At the heart of our offering to the Energy sector are stainless-steel solenoid valves and air preparation equipment (filters, regulators and filter-regulators), pneumatic and hydraulic pressure switches, I/P and E/P convertors, 2/2 way and 3/2 way process valves and Redundant Valve Manifold (RVM) systems.

Our work with leading national and international oil and gas companies and global suppliers means that we talk our customers' language, and can bring specialised experience about legislation, standards and specifications.



*Production*



*Transportation*



*Refining*



*Petrochemical*



*Chemical*



*Power Generation*



# Gas & Air preparation solutions

IMI Precision Engineering Instrument Gas & Air preparation solutions protect sensitive and expensive instrumentation and controls from water, oil or particle contamination.

Proper Gas & Air preparation can reduce or eliminate the number of unplanned shutdowns due to:

- > Corrosion from condensates
- > Clogging from particulates
- > Seal softening and leakage due to attack from aggressive oils



IFR

Suitable for  
extreme  
temperature  
environments



## Oil & Gas solutions

IMI Precision Engineering has provided air preparation solutions to the Oil, Chemical & Gas sector for over 30 years.

These solutions include a large range of pressure regulators as well as particle, oil and water removal filters. Conforming to stringent legislation and offering reliable performance and control in the harshest of environments, they help minimise shutdowns and unplanned maintenance in both on and offshore applications.



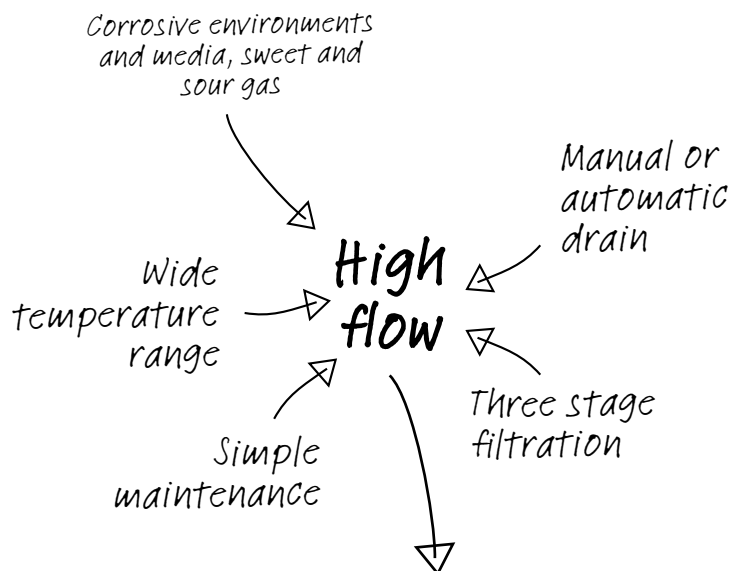
### F05 & F22H

- > 316 Stainless Steel for corrosive environments
- > Manual or automatic condensate drain
- > Stainless Steel service life indicators
- > Suitable for instrument air or hydrocarbon gas

# Filtration systems

IMI Norgren's series of 316 Stainless Steel filters are specially suited for offshore applications.

- > Protects sensitive and expensive instrumentation and equipment
- > Suitable for use in environments subject to wide temperature fluctuations
- > Reduce or eliminate the number of unplanned shutdowns
- > Simple maintenance
- > Suitable for offshore and onshore use
- > F22: 1/2 Port General purpose filters for particle and water removal
- > F22H: 1/2 Port Oil and fine particle removal filters. Three stage filtration: 5µm, 25µm and oil removal filter set for extended service intervals. Water removal, 0.01µm particle removal and oil removal to 0.01 ppm.
- > F05: 1/4 Port miniature particle, water and oil removal filters



# Regulation

IMI Norgren's range of pressure regulators and filter / regulators offer reliable pressure control for the most challenging applications.

## Regulators

- > R05 – 1/4 port miniature, 20 bar (300 psi)
- > R38 – 1/4 port, 31 bar inlet (450 psi), precision control
- > R22 – 1/2 port high flow, control to 17 bar (250 psi) outlet

## Filter / regulator combination units

- > B05 – 1/4 port miniature 20 bar (300 psi)
- > B38P – 1/4 and 3/8 port, high flow
- > B38 – 1/4 port – high accuracy, 1/2 port – high flow
- > IFR – 1/4, 1/2 port filter regulator, seal options to -50°C (-58°F)
- > 316 stainless steel for corrosive environments
- > Filter / regulators combination units offer manual or automatic condensate drains

High flow  
 Optional precision control  
 Efficient water & particle removal



B38



B05



R22



B38P



R38



# High pressure Regulation

Proven solutions for high pressure liquid & gas regulation.

## Spring loaded regulators

- > Heavy duty quick adjustment regulators from 1/4 to 1 porting
- > Liquid & Gas operating temperatures: -40°C to +150°C (-40°F to +300°F)
- > J44 – 1/2 port, steam applications to 300°C (570°F)
- > Piston, diaphragm, differential, back pressure, balanced and unbalanced configurations
- > J50 – 3/8 port, 750 bar (10,875 psi) inlet, outlet control to 550 bar (7975 psi)
- > J55 – 1/2 port 420 bar inlet (6090 psi) inlet, outlet control to 103 bar (1490 psi)

## Dome loaded regulators

- > Pilot operated, balanced valve regulators in 3/8 to 2 porting
- > Liquid & Gas operating temperatures: -40°C to +150°C (-40°F to +300°F)
- > Up to 420 bar (6000 psi) inlet pressure and 300 bar outlet (4350 psi)
- > Series K16, K50





# Compressed air dryer systems with AMT technology

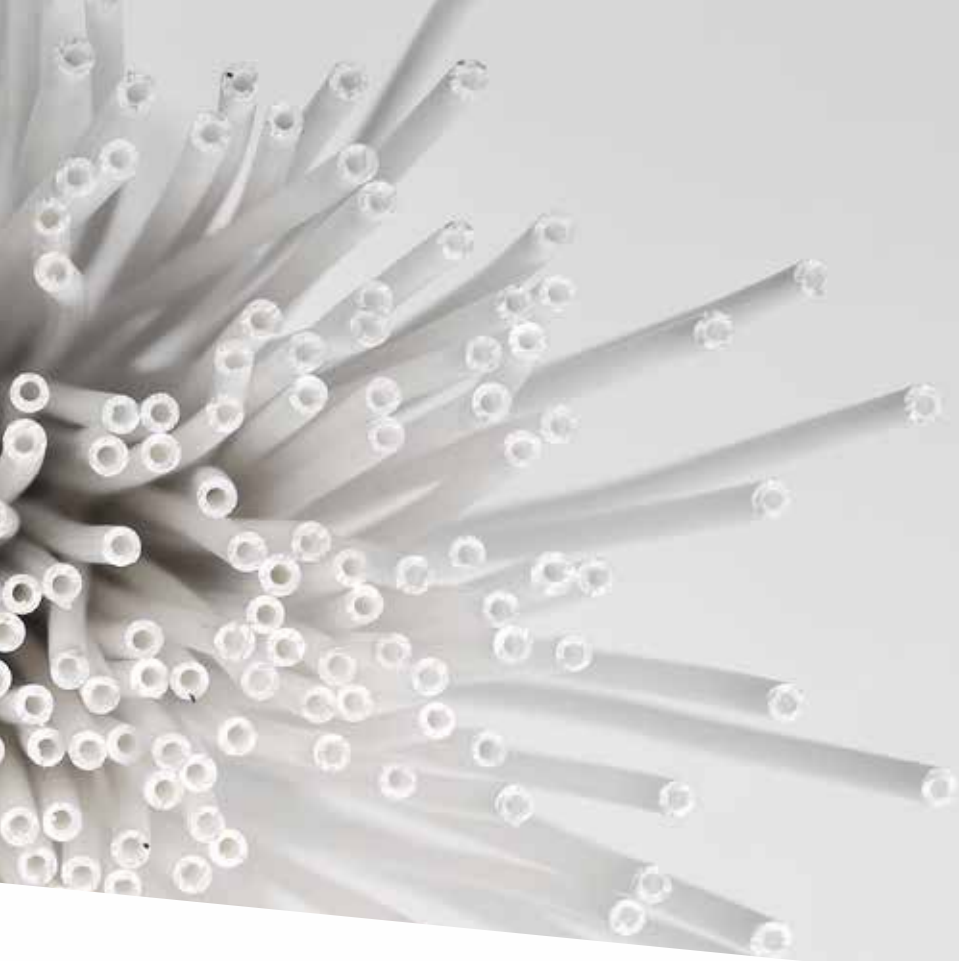
IMI Norgren's patented Adsorbent Media Tube (AMT) technology takes the best of current desiccant and membrane dryer systems, and eradicates the flaws associated with their short lifecycles, and the costs of regular replacement.

- > It dries better than any current solution, no matter how extreme the environment
- > It lasts up to 6 years, compared to 6-24 months, in most applications
- > It's more reliable and means far less maintenance
- > Prevents unplanned shutdowns

A result of our expertise and deep experience in air preparation solutions, the AMT air dryer system is a far more effective, robust and reliable way of removing moisture and contaminants from compressed air in oil & gas applications.

## Patented technology for improved performance:

- > Service life of up to 18,000 hours (six years)
- > Compact and flexible design, horizontally or vertically mounted
- > Aluminium or stainless steel construction
- > Typical dew point suppression of 40°C
- > Superior moisture uptake
- > High energy efficiency
- > Unaffected by saturation
- > Faster regeneration
- > Resistant to vibration
- > No by-products produced



AMT dryer



Conventional dryer



IMI Precision Engineering operates four global centres of technical excellence and a sales and service network in 75 countries, as well as manufacturing capability in the USA, Germany, China, UK, Switzerland, Czech Republic, Mexico and Brazil.

For information on all IMI Precision Engineering companies visit [www.imi-precision.com](http://www.imi-precision.com)

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