



HALE HAMILTON

Excellence in Pressure & Flow Control

A division of **CIRCOR** International, Inc.

Market leaders in the design and manufacture of high performance pressure and fluid control components and systems for a wide range of applications



**CYLINDER FILLING
& SUPPLY SYSTEMS**



**TURBINE
FUEL CONTROL**



**PROCESS &
OFF SHORE**



CNG FILLING

WELCOME

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HISTORY:

Established in 1947, and based in Uxbridge, Middlesex, Hale Hamilton Ltd is a world leader in the design, manufacture and supply of high performance, high pressure control solutions for a variety of Industrial and Defence applications.

PRODUCTS:

With products ranging from individual valves through to fully integrated, bespoke control systems, Hale Hamilton is the ideal partner to satisfy the demanding requirements of our customers in the control of pressure and flow, including; pressure regulators, stop valves, relief valves, check valves and filters.

APPLICATIONS:

Producing such a comprehensive range of products enables Hale Hamilton to supply to a very broad industrial base. Particular expertise centres around the Industrial Gas market where products are used for the filling of high pressure cylinders gas supply systems and the control of CNG (Compressed Natural Gas).

In addition, we have particular expertise in; Gas Turbines, Off shore, high pressure compressors and high pressure blow moulding applications.

THE FUTURE:

In support of our customers, as a design authority, our principle assets are the knowledge, experience and commitment of our people. Through this expertise, we will continue meeting and exceeding our customers' ever changing expectations.

This will be achieved through; innovation, development and the continued introduction of new pressure and flow components and systems.

COMPANY PHILOSOPHY



VISION:

To provide critical technologies that help customers worldwide to use fluids safely and efficiently while improving everyday life.

MISSION:

To deliver fluid-control solutions by focusing the considerable talents of our employees to meet the diverse needs of our customers worldwide.

We pride ourselves on offering our clients a complete and comprehensive service, comprising:



COLLABORATIVE DESIGNS:

We manufacture one of the broadest range of high pressure / high flow control valves and systems, one of our key strengths is our ability and willingness to work with our clients designing application specific solutions to satisfy our clients exacting needs.

PROJECT MANAGEMENT:

Recognising the growing pressures within our customers business we offer full project management services, encompassing all aspects of supply, whilst maintaining regular close contact with our customers, ensuring all projects are delivered on time and within budget.



'ONE STOP SHOP':

We recognise that time is of the essence to our clients, and therefore we are not just a valve or systems supplier, but a full business partner taking on the complete supply of projects, including; initial design, prototype build, manufacture, installation, commissioning, maintenance and training.

AFTER SALES SERVICE:

Helping our clients maintain high productivity is one of our key goals. With this in mind, we have a dedicated service team.



QUALITY:

Hale Hamilton is an ISO9001:2000 company, accredited by LRQA.



VALVES FOR THE GAS INDUSTRY

Hale Hamilton's range of component valves and ancillaries are designed to meet the latest industry requirements, including those relating to; adiabatic shock (CTE/BAM), PED, TPED & ATEX.

Our standard range of valves are compatible with most industrial & Speciality gas applications including Medical grade Oxygen.

Bespoke products and modifications to existing standard products are also available to ensure we meet our customers' exacting needs at all times.

Stop Valves



SV 47
1/4" Manual



SV 60
1/2" Manual and Actuated



SV 130
Manual Balanced 1/2" to 3/4"

Hale Hamilton design and manufacture a broad range of manual and actuated stop valves, with operating pressures to 420 bar. Many of the products are adiabatic shock tested for use with both Industrial & Medical grade Oxygen. The applications are wide and varied, including Cylinder Filling and Gas supply systems.

Spring Loaded Regulators



Series 28
3/8" to 1/2"



L/G Series
Precision Regulator



Series 24
Ultra High Flow

A versatile range of spring loaded pressure regulators for use with most types of Industrial and speciality gases, including Oxygen. Standard inlet pressures up to 465 bar, with available outlets pressures down to 0.7 bar.

Relief Valves



RS Differential Series
3/8"



RV Direct Acting Series
1/4" to 1/2"



RVA Differential Series
1/4" to 1"



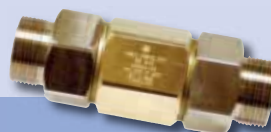
CFLRV Series
Ultra High Purity

Protection of control valves and associated equipment within high pressure gas systems is of paramount importance. With this in mind, Hale Hamilton's range of pressure relief valves are ideally positioned to provide the level of protection necessary.

Check Valves



NRS Soft Seated
1/4" to 1"



NRS Hard Seated
1/4" to 1"



HP/UHP 10 Series
High and Ultra High Purity
1/4" NPT and 1/4" VCR

Available in either hard or soft seated, this range of check valves has been developed for use within gas applications, including, inert, speciality and oxygen service.



N series
Manual Balanced 1/4" to 2"



ASV 130
Inline Actuated 1/2" to 3/4"



ASV 145
Manifold Actuated 1/4"



UHP 3600
1/4 turn manual for UHP applications

Dome Loaded Regulators



RL Series
Low Pressure Regulator
3/8" to 3"



RH Series
High Pressure Balanced Regulator
1" to 2"



RH Series
Proportional Controller Unit

A broad range of High Flow & High pressure Dome loaded controllers, with inlet pressures to 465 bar. The RH range of proportionally controlled controllers is proving to be of particular interest within Cylinder Filling and gas supply applications, where; high accuracy, repeatability and guaranteed mass of gas is required.



LPR Low Pressure
3/8"

Filters



F100 Inline series
1/4" to 2"

Available in wire mesh, sintered bronze, inline and "Y" shape, Hale Hamilton offer a range of filters with pressures to 414 bar and standard nominal bore to 38mm and filtration levels to 2.5 Micron.

Back Pressure Maintaining Valves



DR Series
Dome Loaded Control 1/2" to 3"



L/G Series
Spring Loaded 3/8" to 3/4"



CFPM1 Series
Ultra High Purity 1/2" VCR

A comprehensive range of Dome loaded, spring loaded, Inline and cartridge mounted products provide our customers with a comprehensive choice of products.

SYSTEMS FOR THE GAS INDUSTRY

Working in partnership with our clients, we design, manufacture, install & commission complete Cylinder Filling and Gas Supply Systems. Manual, actuated and proportional controlled systems are all standard offerings within our range. Products include;

SINGLE CYLINDER FILLING SYSTEMS

Hale Hamilton's Single Cylinder Filling System is the core component to the integrated solution of Filling Medical Oxygen Cylinders. The system offers excellent flexibility and control to users, eliminating repetitive manual tasks whilst reducing filling times. By utilising a gravimetric fill process, repeatable and consistent mass of gas is filled.

In addition, fill pressures are automatically selected for different applications – allowing multiple pressures and cylinder configurations to be filled from the same system. Cylinders can be filled from any residual pressure up to 300 bar.

AUTOMATIC GAS SUPPLY PANELS

A constant outlet pressure is maintained regardless of inlet pressure or flow rate fluctuations. Pre-programmed pressure control routines are available to control all aspects of regulator performance including rate of pressure change.

PACK FILLING SYSTEMS

Our modular pack filling systems (Industrial & Medical), available as Individual skids or full 'Turnkey' plant are built up from core systems and then complimented with additional filling modules and / or filling stations.

POINT OF USE GAS SUPPLY PANELS

Systems for the control and supply of High & Ultra High Purity Gas applications.

HYDROGEN SUPPLY PANELS

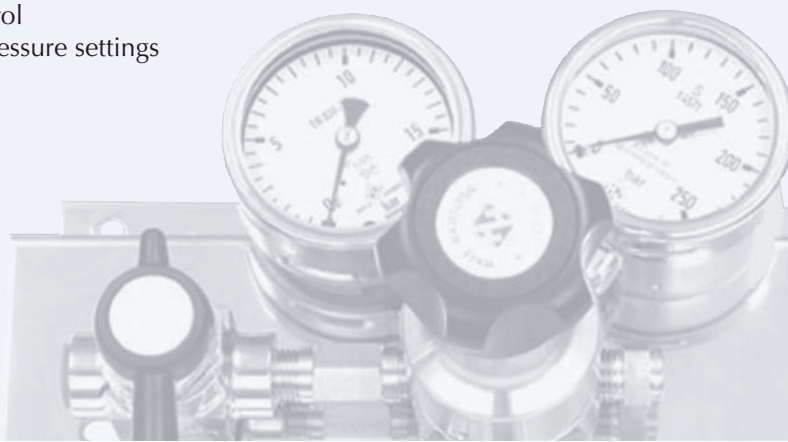
A standard range of panels or customer specific solutions are available for the safe control of Hydrogen.

BREATHING AIR CYLINDER FILLING

The Autocharge Cylinder Filling system has been developed primarily for the safe and efficient filling of breathing air cylinders used within Fire Fighting and Diving applications.

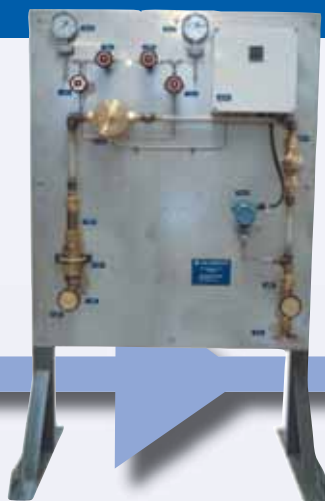
Key features include;

- Increased operator safety when filling cylinders
- Proportional control provides repeatable & consistent mass of gas
- Push button control
- Programmable pressure settings





Single Cylinder Filling



Automatic Gas Supply Panel



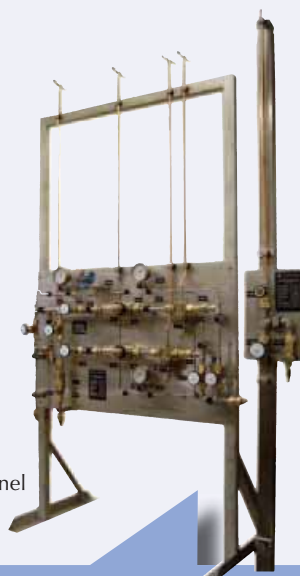
Pack Filling Systems

DESIGN
•
BUILD
•
INSTALL
•
COMMISSION



Automated Cylinder Filling System

Hydrogen Supply Panel



Point of use Regulator Panels



VALVES AND SYSTEMS FOR CNG APPLICATIONS

PRIORITY MANIFOLDS

Capitalising on our extensive experience in the high pressure gas industry, Hale Hamilton have developed a comprehensive range of components and systems for use within the CNG Filling market.



Two sizes of manifolds are available in any configuration required to meet our customer's specific applications. Standard options include; 1, 2 & 3 line both with and without direct compressor fill for both Cars and buses / light commercial vehicles.

Two sizes of valve are available; 1/2" (1000 Nm³/hr) and 3/4" (5000 Nm³/hr).

All valves within the manifold are either of cartridge design or surface mount, providing the following benefits;

- Reduced space envelope
- Ease of installation & field maintenance
- Reduced total acquisition cost
- Reduced potential for leaks

Pressure Regulators



GLP 20 Mk I
Spring Loaded - Adjustable
 $\frac{3}{8}$ " to $\frac{1}{2}$ "



GLP 20 Mk II
Spring Loaded - Tamper proof
 $\frac{3}{8}$ " to $\frac{1}{2}$ "



RH Series
High Pressure Balanced Regulator
1" to 2"

Relief Valves



RS Series
Banjo and Right Angle Connection
 $\frac{3}{8}$ "



RVA Series
Inline Connection
 $\frac{1}{4}$ " to 1"

Check Valves & Filters



NRS Soft Seated Range



VINRS Cartridge Range



F100 Series
Inline Filter

Ancillaries



Isolating Ball Valve



Pressure Gauge



Purge Valve

OTHER MARKETS

Turbine Applications



DV4
Auto- Drain Valve



ASV 134
Liquid Fuel Purge Valve



RDU 22
Fuel Gas Train
Primary Fuel Gas Control

Hale Hamilton continues to be leaders in the design, manufacture & supply of specialist valves for the Gas Turbine market.

Compressor & OEM Applications



Back Pressure Maintaining Valve
– Cartridge mounted.



Automatic Gas
Changeover System



Dome loaded Controller for
Blow Moulding applications.



Solenoid Valve Manifold
Analysis application.

Our expertise in the control of high pressure compressed gases positions Hale Hamilton as a leading player in the high pressure compressor and OEM market sector.

Off - Shore Applications



GLD 20



Series 28

With a comprehensive range of high pressure regulators, with operating pressures to 690 bar, Hale Hamilton are ideally positioned to support the Off shore Oil & Gas industry.

SUPPORT SERVICES

Services

- Engineering •Technical Support •Testing •Development
- Prototyping •HAZOP •FMECA •Test Specifications
- Cycle Testing •Operating Manuals •Service Instructions
- Value Engineering •Interface Drawings
- Project Management •Design Services •Specifications
- System Integration •Field Services
- Shock & Vibration Testing
- General Arrangement Drawings •Warranty
- Environmental Stress Screening •NDT

ISO9001:2000

Hale Hamilton are accredited by LRQA to ISO9001: 2000 (August 2003).



ATEX / PED / TPED

Other statutory and regulatory requirements met by Hale Hamilton include the ATEX Directive (94/9/EC), European Pressure Equipment Directive (PED 97/23/EC) Transportable Pressure Equipment Directive (TPED1999/36/EC) .

Fully Traceability

All products and systems will be supplied complete with a QA Certificate of Conformity.
Where a customer requires equipment to be fully traceable, in terms of raw material supply, process records and assembly and test data, this service is available.

Customer Service

Our aim is to provide our customers with the most consistent and reliable products and service, designed and manufactured to meet their requirements and delivered on time.

Our quality control system has been developed to meet this aim first time, every time. We are committed to achieving these product and service standards, and to achieving total customer satisfaction.



Product support team on the road



Product Support

Hale Hamilton product support personnel are available for installation, commissioning, trials, test, maintenance, repair or re-certification. Our personnel are also available to work together with our customer's engineers, where capacity or capability is required.

Contractor Logistics Support(CLS)

In specific customer contracts, we are able to offer an appropriate level of logistic support, such as Scheduled Maintenance activities, Vendor Managed Inventory (VMI), all the elements of Through Life Support (TLS), specific product/ system Configuration Management, Documentation Management and Risk Assessment for example.



Refurbishment of a dome controller



Kitting an order for assembly

Spares

Hale Hamilton support our customers world-wide with the supply of individual component parts, part kits, valve sub-assemblies, valve inserts, fasteners and seats, seals and gaskets. Complete valve assemblies can be supplied as system spares.

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Defence Products
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