



*Specialist Valve  
Engineering  
& Aftermarket  
Support Services*



**SEVERN**  
**unival**

**Severn Unival Limited, a wholly owned subsidiary of the Severn Group plc, is considered by many to be the UK's leading specialist in the area of Valve Aftermarket support. The range of valve specialist services developed and presented by the company is unique.**

### GROUP ORGANIGRAM



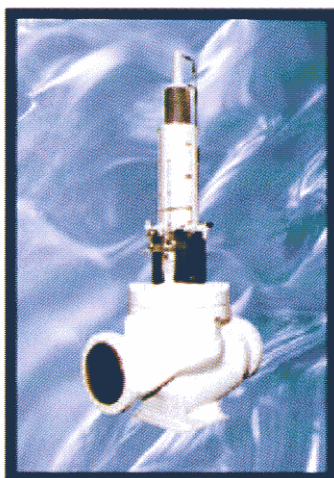
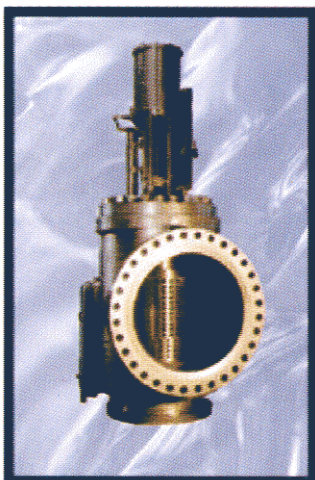
### Valve Commissioning & Repair Support

**Severn Unival** provide a Worldwide Aftermarket support service for all the Control Valve & Actuator products manufactured AND historically supplied by the **Severn Glocon, Severn Instruments, Serck Glocon and Unival Controls** companies.

The UK installed product base is fully supported by the five Repair Workshops located in **Huddersfield, Aberdeen, Winnington, Teeside & Gloucester**.

To fully support the needs of our International based customers **Severn Unival** are establishing working alliances with established repair contractors worldwide.

**Bahrain** has been selected to be the first overseas base for Severn Unival. The Repair & Technical centre has been established to provide direct support to established customers in the Middle East area.



#### Established Product 'Upgrade' Packages

In addition to offering the commissioning and repair / service support **Severn Unival** have developed a proactive 'Valve Upgrade' logic to support the historically supplied valves. This service has been developed to allow customers the opportunity to introduce current technology and design features into historically supplied valves manufactured by the companies incorporated into the group.

The introduction of a suitable 'Upgrade' package can provide significant cost savings in the areas of maintenance, plant efficiency and operation.

### Valve On-Site / Field Repair & Commissioning Services

**Severn Unival** employ a team of highly experienced field service engineers. These engineers are qualified to carry out the full spectrum of on site service work covered by the company.

The majority of the team are qualified and certified for UK and Norwegian Offshore North Sea operation.



**Provider of  
Aftermarket Services  
to all  
Process Industry  
Areas**

Specialist Field Service support can be organised for any location in the world.

**Severn Unival** offer a "24 hour" call out service. Fully equipped mobile on-site & offshore workshop facilities are also available.

## Control & Control Choke Valve Retrofit Solutions

Severn Unival have a proven expertise in the Retrofitting of existing valve designs. The use of a Retrofit Valve solution to solve an existing valve related problem provides a **cost affective alternative to the purchase of a new valve product**.

In addition to the obvious commercial benefits provided by the use of a number of the critical original valve components (usually Body, Bonnet, Actuator and Instruments), the use of a Retrofit solution **eliminates the need for expensive pipework modifications**.



All valves Retrofitted by **Severn Unival** are re-registered and provided with full technical documentation (i.e. Technical Specification Sheet performance guarantee and selected material certification).

The Retrofitted valves are re-registered (i.e. new **Severn Unival** unique No. is issued). Special nameplates are fitted to provide a cross-reference to the original manufacturers Serial or identification No. to provide a full audit trail to meet the requirements of both Quality & Safety.

These valve solutions are offered with a **full guarantee and warranty** equivalent to that expected for a new valve product.

## Re-Engineered Control Valve Solutions

Many operating companies are becoming aware of the potential financial benefit to be gained through the more pro-active use of their '**Surplus**' and / or '**Used**' valve population. The specialist design knowledge and expertise within **Severn Unival** has been harnessed to establish a proactive service targeted to best utilise any 'Surplus Stock' inventory.

Valves Re-Engineered by **Severn Unival** are reregistered and provided with full technical documentation (i.e. Technical Specification Sheet performance guarantee and selected material certification). Re-Engineered valve solutions are also offered with a **full guarantee and warranty** equivalent to that expected for a new valve product.

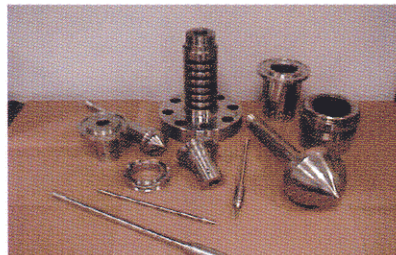
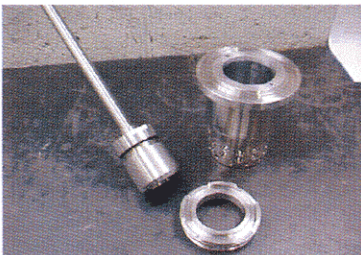
The Re-Engineered valves are re-registered (i.e. new **Severn Unival** unique No. is issued). Special nameplates are fitted to provide a cross-reference to the original manufacturers Serial No. to provide a **full audit trail** to meet the requirements of both Quality & Safety.

Re-Engineered valve solutions can be used to achieve **fast track delivery** turnaround schedules on both standard and non-standard applications.

## Supply of OEM & Equivalent Replacement Spare Parts

**Severn Unival** offer their customers the option to specify the use of either original OEM spare parts in any repair carried out by the company.

In addition to the above, **Severn Unival** offer the customer the opportunity to gain benefit from the use of fully guaranteed '**Equivalent Replacement Spare Parts**' designed and manufactured by the company.



All 'Equivalent Replacement Spare Parts' designed and manufactured by **Severn Unival** are:

- **manufactured in accordance with ISO 9001 QA / QC procedures**
- **provided with full material certification**
- **guaranteed to provide equal or better performance than the original component**

Use of Equivalent Replacement Spare Parts has been proven to provide significant **commercial benefit** to the valve user and provides an effective means to **reduce stock inventory levels**. The use of these service allows the opportunity to utilise **fast track manufacture** of the spares to minimise the need for "**just in case spares**" pre-ordered for any planned shutdown.

## Custom Engineered - Control & Control Choke Valves

Severn Unival have a proven expertise in the development of Custom Engineered Control & Choke Valve products to suit the most **extreme service** valve applications.

These valve solutions are often supplied to replace existing valves that have failed to meet the operational requirements of the application.



Custom Engineered Valve designs, supplied by **Severn Unival**, have been used to eliminate a wide range of problems created by the original valve design used.

Application References can be given for valves with specially design trim to eliminate or reduce the effects of:

- **Aerodynamic and Hydrodynamic Valve Noise**
- **Mechanical Vibration**
- **Trim and Pressure Envelope Erosion**
- **Liquid Cavitation**
- **Internal & External Corrosion**

Use of specialist materials of construction is common for both the internal and external components of the valve. Typical **specialist materials** available include:

- **Duplex and Super Duplex Stainless Steel**
- **Titanium**
- **Hastelloy B & C**
- **Monel**
- **Solid Tungsten Carbide or Ceramic (Trim only)**

Based on the common need to solve the problem quickly, Custom Engineered valve products can be manufactured on a “fast track” basis. Custom Engineered Valves are usually designed to fit into the existing pipework configuration. The use of a dimensionally compatible valve eliminates the excessive cost often associated with introducing piping modifications.

## Application Engineering & Technical Services

Experience has shown that many valve operation problems experienced in the field can be traced back to the valve sizing & selection processes used by the valve suppliers Technical Sales group.

The majority of valve companies rely totally on their Sales Engineers to promote the correct solution. Valve sizing & selection software packages do not have the facility to evaluate the specific application requirements.

**Severn Unival** have an exceptional depth of application and technical expertise. This expertise is used to supplement the information provided by the sizing & selection software. The application of **Severn Unival's 'Repair Intelligence Circle'** logic ensures that this depth of application and technical knowledge will continue to grow.



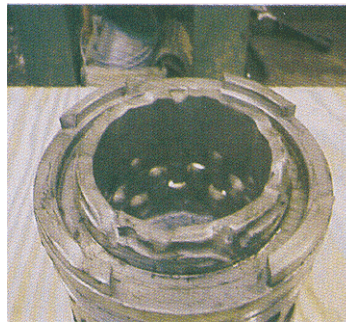
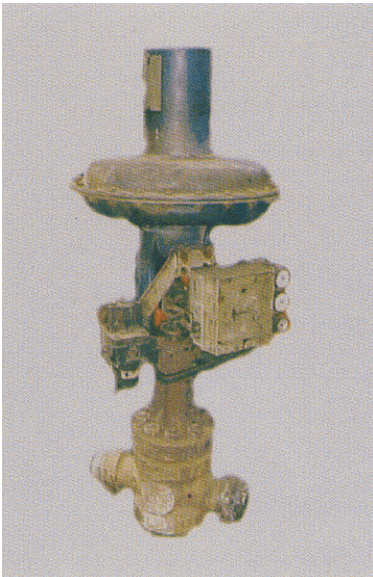
Application & Technical Survey Reports can be provided to assist in evaluation of current or future predicted operational problems. Historical application and design based knowledge is included within the individual Reports.

## Workshop Repair Services

In addition to the provision of repair / service support to our internal group valve products, **Severn Unival** provide expertise and comprehensive repair support service for any type or design of valve product.

**Severn Unival** operate a comprehensive Quality based repair and service logic, fully accredited to the requirements of ISO En 9001. The procedures and systems have been specifically developed to complement the Specialist Aftermarket activities of the company.

All five UK Repair & Service Centres, operated by the company, are fully equipped and capable of providing the local focal point for major shutdown valve repair activities.



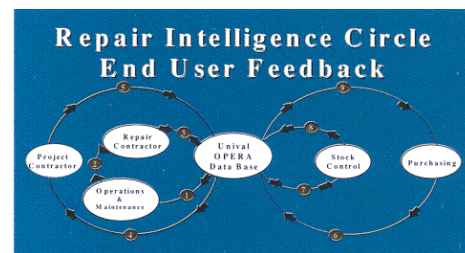
The flexibility of the skilled labour workforce provides the opportunity to man any of the regional Repair workshop Centres to balance the fluctuating workload common to the repair and service industry. Where necessary, transfer of specialist equipment can be arranged on the same basis.

The procedures and practices currently employed by **Severn Unival** are complementary to those called for by the new “**Pressure Equipment Directive**” legislation soon to be made mandatory in all EEC countries.

## Valve Failure Analysis – Studies & Reports

The proven technical expertise of **Severn Unival’s** Engineering Group has been utilised by many major customers to support their efforts to achieve a “**Continuous Improvement**” environment.

All valves, returned for repair, are stripped and subjected to detailed inspection by technically qualified personnel. A ‘Level 2’ Inspection Report (with supportive digital photographs) is carried out on all valves where the amount of damage is considered to be excessive.



Information, extracted at the initial inspection stage of the repair process, is stored within **Severn Unival’s** ‘**OPERA**’ database. The information is used as an integral part of the **Repair Intelligence Circle** logic utilised by the company. When requested a detailed ‘**Level 3**’ **Valve Failure Investigation Reports**, with full explanation of the likely failure cause and recommended actions, are carried out at no cost to the customer.

## Valve Performance & Trend Analysis

Valve performance and trend analysis information gathered from the use of **Severn Unival’s** ‘**OPERA**’ Database system and ‘**Repair Intelligence Circle**’ operating logic is used proactively by the company’s ‘**Support Services Group**’. Information from the system is made available to the valve user, and / or his support contractors, to complement our targeted goal to provide a service consistent with the desire for “**Continuous Improvement**”.

The information extracted from the system can be used proactively to **reduce stock inventory levels** and allow more informed evaluation of valve failure probability for shutdown planning.

## Valve / Spares Management & Supply Services

The enhanced Aftermarket Support service provided, as standard, by **Severn Unival** to all its customers can be developed into a formal **Valve or Spares Management contract**.

**Severn Unival** believe that a successful Valve or Spares management contract can only be developed after a full understanding of the valve users existing operating logic is understood. Any successful Valve Management contract must be developed with full co-operation from operator's site and maintenance groups. **A Team mentality is essential.**

To best meet the specific requirements of the individual end user **Severn Unival** offer a modular approach to creation of the contract. Specialist modules complementary to the goals for such contracts have been created to cover all the potential needs of the valve end user.

### Regional Repair & Service Centre locations



#### HUDDERSFIELD

**Repair / Service & Technical Centre**  
 Milford Buildings, Milford Street,  
 Huddersfield, West Yorkshire.  
 HD1 3DY

Tel: (0) 1484 518080  
 Fax: (0) 1484 518087  
 E-Mail: [unival@unival.demon.co.uk](mailto:unival@unival.demon.co.uk)

GLOUCESTER	WINNINGTON	MIDDLESBROUGH	ABERDEEN	BAHRAIN
<b>Repair Centre</b> St. Luke Street, Southgate Street, Gloucester, Gloucestershire. GL1 5RE  Tel: 01452 318914 Fax: 01452 318915	<b>Repair Centre</b> North West Wkshop, Avenue Eng. Park, Winnington Ave, Winnington, North Cheshire. CW8 4FT Tel: 01606 783278 Fax: 01606 783279	<b>Repair Centre</b> 10a, Mickleton Rd, Riverside Ind. Est, Middlesbrough, North Yorkshire. TS2 1RQ  Tel: 01642 254084 Fax: 01642 252022	<b>Repair Centre</b> Unit1, Howe Moss Dr, Kirkhill Ind. Estate, Dyce, Aberdeen, AB21 0GL  Tel: 01224 729999 Fax: 01224 729988	<b>Repair Center</b> Office -124 Road -4629 Nuwaidirat, Area - 646 State of Bahrain  Tel: 973 625590 Fax: 973 625591

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