Incorporating Sapphire Technology for the 21st Century

British manufacturer of accurate and reliable Electro-Hydraulic Servo Valves

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Company History

Founded in 1983 to provide a cost effective, fast turnaround Service/Repair of Electro-Hydraulic Servovalves.

- Introduced “Sapphire Technology” in 1988 to eliminate "ball glitch" and increase Servovalve life.
- Production of new Servovalves in 1990 with all the benefits of new materials and machining technology.
- A further 19 world-wide distributors added in 15 years.
- In 2010 Star’s quality and performance resulted in their valves being used on the SpaceX rocket travelling to the International Space Station.
- 2012 moved to new premises including "State of the Art" machining facilities, Clean Air Assembly and Test, Dedicated Development facilities.
- 2013 Development of 3 Stage Valves.
- 2015 Development of 850 Servovalve.
- 2017 Atex / IS approval.
Servo valve – Service/Repair Upgrade

With over 30 years’ experience Star has built an impressive reputation for a cost effective, fast turnaround service/repair of the following manufacturers servo valves:

- Abex
- Atchley
- Bosch Rexroth
- Dowty
- Dynamic/Dyval
- E.M.G.
- Herion
- Instron
- Matisa
- Moog
- M.T.S.
- Oilgear
- Parker
- Pegasus
- Plasse
- Schneider
- Sopelem
- T.S.S.
- Ultra
- Vickers

Service - Repair Schedule

- Valve completely dismantled.
- Magnets fully demagnetised.
- Ultrasonically clean and microscopically inspect all components.
- Valve reassembled in clean air conditions.
- Flow Plot and Technical data supplied with every valve.
- Full warranty on all repairs.

For more information please contact –
Jason Nottingham +44 (0) 1684 296176
sales@star-hydraulics.co.uk
Products

Benefits and Features

“Sapphire Technology” ball in slot design
- Incorporated into Star designs since 1988
- Many millions of cycles per service life
- Increased spool life due to spool rotation
- Ultra low coefficient of friction sapphire to steel
- Feedback mechanism unhindered by spool rotation
- Extended warranties available

Sapphire flow
- Ensuring first stage stability
- Precisely matched flow properties
- Long life in extreme environments

Custom spool lap & bushing port geometries
- Zero overlap
- Overlap (closed centre)
- Underlap (open centre)
- Dual gain
- Asymmetric gain

Special connectors
- MIL-C-5015
- MIL-DTL-38999
- Conduit style male/female
- Hermetic

Safety
- Intrinsic safety
- Class, Div & Zone coverage
- Mechanical failsafe
- Double & triple coil redundancy

Sealing materials
- Nitrile
- Fluorocarbon (Viton)
- Ethylene-Propylene
- Fluorosilicone
Facilities

Valve Assembly

This is a key function where very experienced staff assemble both new and repaired valves in a clean environment.

Valve Testing Centre

Dedicated Test Room with Performance Qualification Test Rigs. Fluid cleanliness is better than ISO4406-1999 Code 12/10/8 – SAE AS4059 class 2

Total Manufacturing Facility

Studer Grinding  Charmilles Technologies Roboform EDM  Sunnen Honing and Lapping

4 Axis Bridgeport CNC Machining Centre  CMM Machine  4 Axis Doosan CNC Lathe

With "State of the Art" Machining Facility Star Hydraulics are pleased to offer close tolerance machining services.
International Distribution & Service Partner Network*

Star Hydraulics Ltd have official distributors in the following countries; countries marked with an asterisk* are Star Hydraulics approved service, repair and upgrade providers.

Australia *  India *  Serbia
Benelux  Israel  Russia
Brazil  Italy  South Africa
Canada  Japan *  South Korea *
China  Malaysia  Spain / Portugal
Denmark  Mexico  Sweden
Egypt  Norway  Switzerland
France *  Poland  Turkey
Germany *  Scandinavia  USA *

For the complete list of our global distributors and their contact details please visit www.star-hydraulics.co.uk
Industries

- **Aerospace Testing**

- **Automotive Testing**
  Fatigue, Springs, Steering components, Shock absorbers, Tow-bar, Tyres, Seats, Engine.

- **Flight Simulators**
  Civil, Military, Leisure.

- **Motorsport**
  F1, Fatigue testing, Engine Dynamometers, Carbon fibre testing.

- **Plastics**
  Injection moulding, Parison control in Blow Moulding, Tensile testing.

- **Power Generation**
  Fossil, Gas, Nuclear, Turbine speed control, Steam control valves.

- **Rail**
  Ballast Tamper, Stone Blowers.

- **Rolling Mills**
  Steel, Aluminium, Copper, Paper.

- **ROV’s**
  (Remotely Operated Vehicles) Subsea Trenching, Submerged Mining and Marine Renewables.

- **Sawmills**
  Timber sizing, Production of Composite Timbers.

- **Seismic**
  Vibration control of Seismic Waves for Oil/Gas Exploration.
Solutions for every sector...
Star Hydraulics have an excellent in house training facility and we welcome you and your colleagues to attend our free training seminars available on the following subjects:

- Servo Valve Operation.
- Filtration – Cleanliness Codes.
- Flushing and Commissioning of Hydraulic Servo Systems.

Please contact us on 01684 296176 to arrange your free training seminar today.

Manufactured in the UK and Quality Assured

ISO9001:2008

Star Hydraulics Ltd.
Severn Drive, Tewkesbury Business Park, Tewkesbury
Gloucestershire. GL20 8SF. England, UK.

Tel. 44 (0) 1684 296176 sales@star-hydraulics.co.uk
Fax. 44 (0) 1684 850714 www.star-hydraulics.co.uk