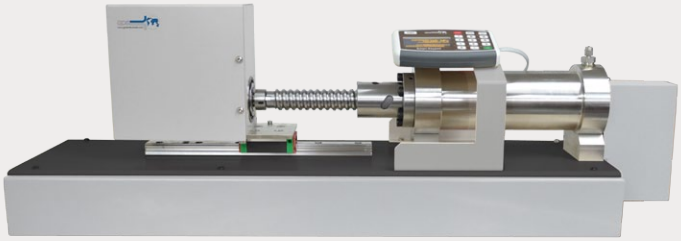


Advanced High Pressure/Volume Controller - Corrosive Fluid Version (HPDPC-H)

The GDS High Pressure Syringe Pumps are positive displacement pumps that have been developed from the proven pressure controller range that GDS Instruments have been making for over 40 years. The HPDPC-H version has been enhanced with features that are ideal for core testing and reservoir analysis. These include flow rate control, enhanced resolution and the use of high corrosion resistance Hastelloy. With the ability to operate in pressure, volume or flow control modes, either directly from the keypad or remotely via software, the HPDPC-H is a versatile and simple to use pump.

All wetted metallic parts made from Hastelloy C-276 with seals utilising Carbon filled PTFE and FFKM o-rings. This provides a highly corrosion resistant version for use with aggressive fluids that can be present in deep cores.

Key Features:	Benefits to the User:
Hastelloy barrel, piston and transducer:	A superalloy, Hastelloy has outstanding resistance to highly oxidizing and reducing agents, making it a great choice for severe corrosive environments.
5 part composite carbon filled PTFE seals and FFKM o-rings:	Corrosion resistant seals way beyond what any rubbers can resist.
Bi-metallic anti-abrasive aluminium-bronze guidance ring:	Although all wetted parts of the controller are Hastelloy, the important components that are required to ensure free running and long life of the controller are still designed in around the Hastelloy components.
Increased resolution of volume change as standard:	The increased resolution allows extremely slow flow rates to be resolved.
Externally mounted Hastelloy/ceramic pressure transducer:	Being externally mounted means it can be easily flushed/cleaned.
Controllers can be used with different fluids:	Suitable for a wide range of applications in varied fields like petrochemical applications, EOR, reaction feed, alternative fuels, biomass, etc.

Performance Specifications

Pressure	Working Range	up to 64MPa
	Accuracy	0.1% FRO
	Resolution	1 KPa
Volume	Capacity	200 mL
	Accuracy	0.1% measured valve (±5mm^3 below 100 kPa)
	Resolution	0.0001 ml
Flow	Minimum Rate	0.00001ml/min
	Maximum Rate	22.5ml/min
	Accuracy	0.5%
Expected Seal Life (Water)	Greater then 2 years	

Syringe Pump Key Features

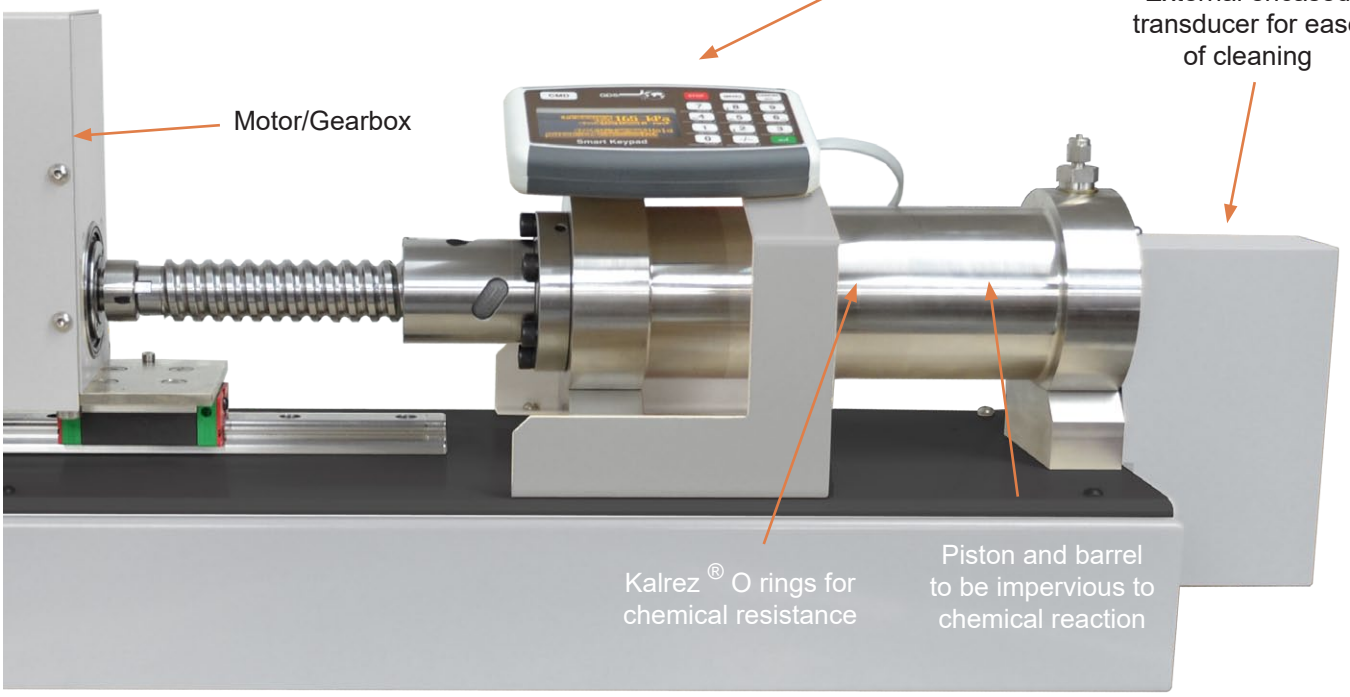


Fig. 2 Hastelloy version features

Syringe Pump Applications:

The GDS Hastelloy High Pressure Syringe Pump can handle fluids of various substances and viscosities like liquefied gases, viscous fluids, pastes and slurries, as well as hazardous and corrosive materials.

The HPDPC-H can be used as advanced fluid delivery and control tools in a variety of applications in academic/research, energy, chemical and petrochemical, pharmaceutical and other fields. Indicative applications of the HPSP are:

- Supercritical fluid applications in materials production
- Reaction feed
- Enhanced Oil Recovery (EOR), reservoir engineering and other petrochemical applications
- Core flow analysis
- Alternative fuels, biomass

The HPDPC-H can be customised to meet the specific requirements of your application.

Why Buy GDS?

GDS have supplied equipment to over 84% of the world's top 50 Universities:

GDS have supplied equipment to over 84% of the world's top 50 Universities who specialise in Civil & Structural Engineering, according to the "QS World University Ranking 2019" report.

GDS also work with many commercial laboratories including BGC Canada, Fugro, GEO, Geolabs, Geoteko, Golder Associates, Inpijn Blokpoel, Klonn Crippen, MEG Consulting, Multiconsult, Statens Vegvesen, NGI, Ramboll, Russell Geotechnical Innovations Ltd, SA Geolabs, SGS, Wiertsema and Partners to name a few.

TOP 50

Would you recommend GDS equipment to your colleague, friend or associate?

100% of our customers answered "YES"

Results from our post-delivery survey asked customers for feedback on their delivery, installation (if applicable), supporting documentation, apparatus and overall satisfaction with GDS. The survey ran for two years.

Made in the UK:

All GDS products are designed, manufactured and assembled in the UK at our offices in Hook. All products are quality assured before they are dispatched.

GDS are an ISO9001:2015 accredited company. The scope of this certificate applies to the approved quality administration systems relating to the "Manufacture of Laboratory and Field Testing Equipment".

40 YEARS OF BRITISH INNOVATION

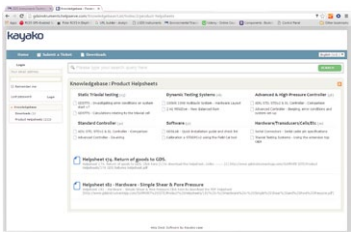
Extended Warranties:

All GDS apparatus are covered by a 12 month manufacturers warranty. In addition to the standard warranty, GDS offer comprehensive extended warranties for 12, 24 and 36 months, for peace of mind against any repairs in the future. The extended warranties can be purchased at any time during the first 12 months of ownership.

2 YEAR EXTENDED WARRANTY
1 YEAR EXTENDED WARRANTY
3 YEAR EXTENDED WARRANTY

GDS Training & Installation:

All installations & training are carried out by qualified engineers. A GDS engineer is assigned to each order throughout the sales process. They will quality assure the apparatus prior to shipping, if installation has been purchased, install the apparatus on the customers site & provide the training.

Technical Support:

GDS understand the need for ongoing after sales support, so much so that they have their own dedicated customer support centre. Alongside their support centre GDS use a variety of additional support methods including remote PC support, product helpsheets, video tutorials, email and telephone support.