

TECHNICAL DATA SHEET

EXCEL HOSE RANGE



DESCRIPTION

The **Excel range** with stainless steel over braid and liner manufactured from cross linked polyethylene (PEX). The range is used extensively in the UK to meet the stringent demands in providing flexible hose connection in health care & public service markets. It provides a safe and taint free conveyance of potable water supplies for domestic and commercial plumbing applications, key attributes are:

- **Reduction in the risks associated with micro bacterial colonisation and potential for cross infections**
- **All materials have been tested and approved to BS 6920 in accordance with Water Regulation Advisory Scheme (WRAS) for both hot and cold water**
- **Unique green tracer band for easy identification against other materials**
- **Robust construction with excellent abrasion and crush resistant**
- **Wide selection of standard plumbing connections**
- **Customised design options available for OEM clients**

APPLICATION

- **Hospitals**
- **Care homes for the elderly**
- **Hotels**
- **Public Services**
- **Schools & Colleges**

GENERAL PERFORMANCE DATA

HOSE REF	MIN BEND RADIUS	WORKING PRESSURE AT 20°C (BAR)	WORKING PRESSURE AT 65°C (BAR)	SECURITY PRESSURE AT 20°C (BAR)	FLOW RATE AT 3 BAR (LIT/MIN)
DN8	35mm	12	6	18	28
DN10	50mm	12	6	18	48
DN13	60mm	12	6	18	74

Working:

Pressure & temperature are stated as the maximum continuous value.

Security:

Pressure is stated as the peak pressure to be attained for short durations or transient pressure spikes. Installations where water hammer exceeds the limits stated will invalidate warranty.

Bend:

Minimum by which the hose can be bent without causing excessive stress to the hose fabric or kink.

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GENERAL CONSTRUCTION DATA

END CONNECTION	SIZE RANGE	MATERIAL	STANDARD
FEMALE SWIVEL	1/4BSP, 3/4"BSP	CW614N/CW617N	EN12164/5
FEMALE SWIVEL ELBOW	3/8BSP, 3/4"BSP	CW614N	EN 12164
MALE TAPER	1/4BSP, 3/4"BSP	CW614N	EN12164
COMPRESSION 15MM	15mm	CW614N/CW617N	EN1254-2, ISO 6957
COMPRESSION 22MM	22mm	CW614N/CW617N	EN1254-2, ISO 6957
COMPRESSION ISO VALVE	15mm	CW614N/CW617N	EN1254-2
COMPRESSION ISO VALVE	22mm	CW614N/CW617N	EN1254-2
STANDPIPE	15mm - 22mm	CW614N/CW617N	EN12164/5
PUSH-FIT BRASS	10mm - 22mm	CW614N/CW617N	EN12164/5
MONO BLOCK	8mm to 12mm	CW614N	EN12164
PUSH FIT PLASTIC	15mm - 22mm	Acetyl Black	BS6920
FEMALE SWIVEL	1/2BSP,3/4BSP	Nylon Black	BS6920
FEMALE ELBOW SWIVEL	3/4BSP	Nylon Black	BS6920
STANDPIPE	22mm	Acetyl Black	BS6920
WASHER	1/2BSP,3/4BSP	Fibre & Silicon	BS6920
O RINGS	Various	EPDM	BS6920
HOSE LINER	DN10 - DN25	Cross linked polyethylene (PEX)	BS6920
HOSE BRAID	DN10 - DN26	Stainless Steel 304	EN 10204 3.1
FERRULE	DN10 - DN27	Stainless Steel 304	EN 10088-2

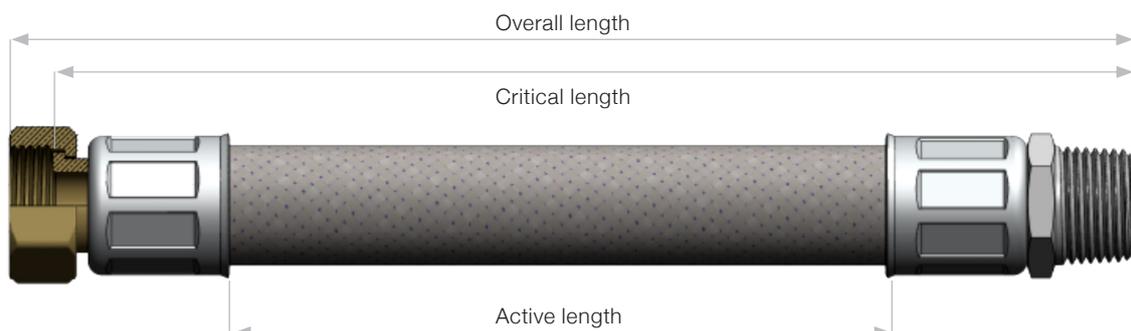
Note:

- **External Brass fittings are supplied with nickel plated finish to avoid tarnishing**
- **Male Taper fittings should be used with female swivel or push fit connections to avoid twisting and torsion stress**
- **Compression Connections tested for Stress Corrosion Cracking to ISO 6957:1998**

DIMENSIONING

Hose assemblies are quoted by their overall length; as measured from end face to end face for each fitting. The standard manufacturing tolerance on overall length is:

- **<500mm +/- 5.00mm**
- **>500mm +/- 10.00mm**



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Critical length is the distance between hose mating faces. This must be 10% greater than the actual distance between the two corresponding fixed mating parts to avoid tensile stress whilst in service.

Active length is the length by which pressure and movement is absorbed by the flexible hose.

HOSE DATA

The Excel range incorporates unique liner manufactured from cross linked polyethylene (PEX). The liner is designed to reduce the growth of waterborne micro-organisms compared to other materials. The hose and liner are identified by:

- **Batch code and identification code for traceability**
- **Green tracer for easy identification in service**

FERRULE DATA

The ferrule is an integral part of the swage joint, between the end fitting and the flexible hose. The integrity of the ferrule must be maintained throughout its service.

Note: Do not use grippers or spanners to secure against the end connections

The ferrule contains important information:

- **WRAS Identification: QWRAS**
- **Temperature: 6 bar @ 65°C**
- **Date of manufacture: Year and month code**

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEPT	OCT	NOV	DEC
A	B	C	F	G	H	L	N	P	S	T	V

STANDARDS

Water Regulations Advisory Scheme (WRAS) approved and complies with requirements of:

- **The Water Supply (Water Fittings) Regulations 1999**
- **The Water Byelaws 2004 Scotland**
- **Water Supply (Water Fittings) Regulations Northern Ireland 2009**

QUALITY ASSURANCE

Hydraelectric is ISO 9001: 2008 compliant as certified by British Standards Institute under certification number FM592672. The Excel range is manufactured under strict quality assurance systems to ensure compliance, the following tables summarises the different tests available for product development and manufacturing, these are updated and subject to change.

TEST	DEVELOPMENT	PRODUCTION
WORKING PRESSURE	Material, Process & new Product.	QA Audit
BURST PRESSURE	Material, Process & new Product.	QA Audit
THERMAL AGEING AND FATIGUE	Material, Process & new Product.	QA Audit
TENSILE PULL TEST	Material, Process & new Product.	Audit
VISUAL COMPLIANCE		100%
OVERALL LENGTH		100%

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INSTALLATION

Check the application does not exceed the rated temperature or pressure as stated for both continuous and transient variations. Excel range must not be exposed to water or ambient temperature below 5°C. Flexible hoses should be installed by a competent Plumber or Engineer in accordance with standards and recommendations of BS 6700:2006. Installation guide parts 1 & 2 available on Hydraelectric website www.hydraelectric.com.

CHEMICAL RESISTANCE

The Excel range is designed for use with hot and cold potable water supplies. The Excel range should not be used in closed systems or in the presence of chemical inhibitors or solder fluxes.

Caution: Brass Fittings used on cold water lines will gather condensation and may become exposed to environments which are alkaline and corrosive, please see installation guide for best practices.

TECHNICAL ASSISTANCE

Please contact our Sales or Technical Support team on **0044 (0) 1932 334200**