

## TECHNICAL DATA SHEET

# HYDRAVEND HOSE ASSEMBLIES



### DESCRIPTION

The **Hydravend range** of flexible hoses is designed for the safe and taint free conveyance of potable water supplies for both free standing appliances and domestic plumbing. The Hydravend range has been designed to incorporate the following key attributes:

- **All materials approved to Water Regulation Advisory Scheme (WRAS)**
- **Co-extruded polyester liner with mirror smooth surface finish to reduce the risk associated with build-up of micro-organisms present in all potable water supplies**
- **High matt white surface finish facilitating easy cleaning**
- **Flexibility and excellent kink resistance**

### APPLICATION

The Hydravend range is extensively used in the UK vending and plumbing market. This is due to its superior performance in delivering a taint free water supply and its high matt finish helping to keep environments hygienic. The Hydravend range is ideally suited for:

- **Free standing and desk top drinks vending machines**
- **Coffee brewers**
- **Water filtration equipment**
- **Ice making equipment**
- **Domestic and commercial tap connectors**

### GENERAL PERFORMANCE DATA

HOSE SIZE	INTERNAL BORE (MM)	MIN BEND RADIUS @ 20°C	WORKING PRESSURE AT 20°C (BAR)	INTERMITTENT WORKING PRESSURE AT 65°C (BAR)	SECURITY PRESSURE AT 20°C (BAR)
DN6	6.7	22mm	12	6	18
DN8	8.0	30mm	12	6	18
DN10	10.0	37mm	12	6	18
DN12	12.7	49mm	12	6	18

#### 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.

## TECHNICAL DATA SHEET

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#### GENERAL CONSTRUCTION DATA

END CONNECTION	SIZE RANGE	MATERIAL	STANDARD
FEMALE SWIVEL	1/4 BSP - 3/4 BSP	CW614N/CW617N	EN12164/5
FEMALE SWIVEL ELBOW	3/8 BSP - 3/4 BSP	CW614N	EN 12164
MALE TAPER	1/4 BSP - 3/4 BSP	CW614N	EN12164
COMPRESSION 15MM	15mm	CW614N/CW617N	EN1254-2, ISO 6957
COMPRESSION 22MM	22mm	CW614N/CW617N	EN1254-2, ISO 6957
COMPRESSION SERVICE VALVE	15mm	CW614N/CW617N	EN1254-2
COMPRESSION SERVICE VALVE	22mm	CW614N/CW617N	EN1254-2
STANDPIPE	8mm - 22mm	CW614N/CW617N	EN12164/5
PUSH-FIT BRASS	10mm - 22mm	CW614N/CW617N	EN12164/5
MONO BLOCK	8mm - 12mm	CW614N	EN12164
PUSHFIT PLASTIC	15mm - 22mm	Acetyl Black	BS6920
FEMALE SWIVEL	1/2 BSP - 3/4 BSP	Nylon Black or Natural	BS6920
FEMALE ELBOW SWIVEL	3/4 BSP	Nylon Black, Translucent	BS6920
FEMALE NUT	3/4 BSP	Nylon 30% GF, Black or Natural	NA
WASHER	1/4 BSP - 3/4 BSP	Fibre, EPDM & Silicon	BS6920
O RINGS & WASHERS	Various	EPDM	BS6920
HOSE LINER	DN06 - DN13	Polyester	BS6920
HOSE OUTER LAYER	DN06 - DN13	PVC White (Non Phenol)	
HOSE BRAID		Polyester Yarn	
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**

#### HOSE DATA

Hydravend incorporates unique liner manufactured from polyester (Hytrel). The liner is designed to reduce the growth of waterborne micro-organisms compared to other materials. Quality is assured through:

- **Batch Code: Unique code to identify date of manufacture**
- **WRAS Identification No**
- **Range Name: Qualflex Hydravend**
- **Working pressure: Maximum temperature and pressure**

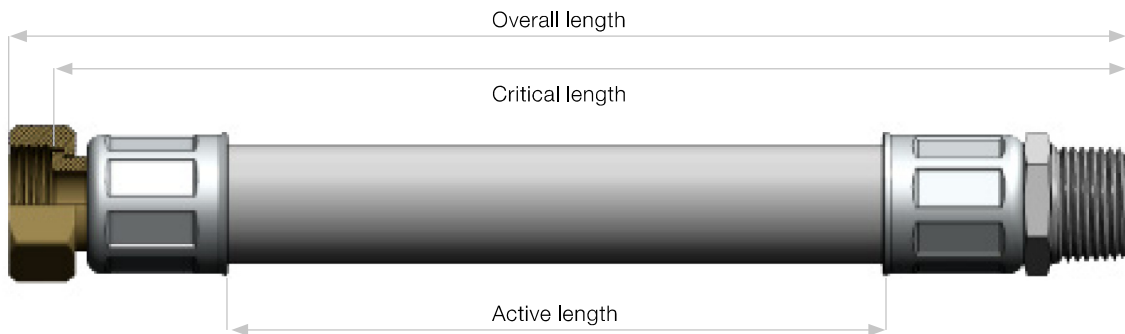
## TECHNICAL DATA SHEET

### HYDRAVEND HOSE ASSEMBLIES

#### LENGTH

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



**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.

#### 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**

#### CHEMICAL RESISTANCE

The Hydravend range is designed for use with hot and cold potable water supplies. The Hydravend 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 DATA SHEET

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#### INSTALLATION

Check the application does not exceed the rated temperature or pressure as stated for both continuous and transient variations. Hydravend 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](http://www.hydraelectric.com).

#### QUALITY ASSURANCE

Hydraelectric is ISO 9001: 2008 compliant as certified by British Standards Institute under certification number FM592672. The Hydravend 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%

#### TECHNICAL ASSISTANCE

Please contact our Sales or Technical Support team on **0044 (0) 1932 334200**, or visit our website [www.hydraelectric.com](http://www.hydraelectric.com)