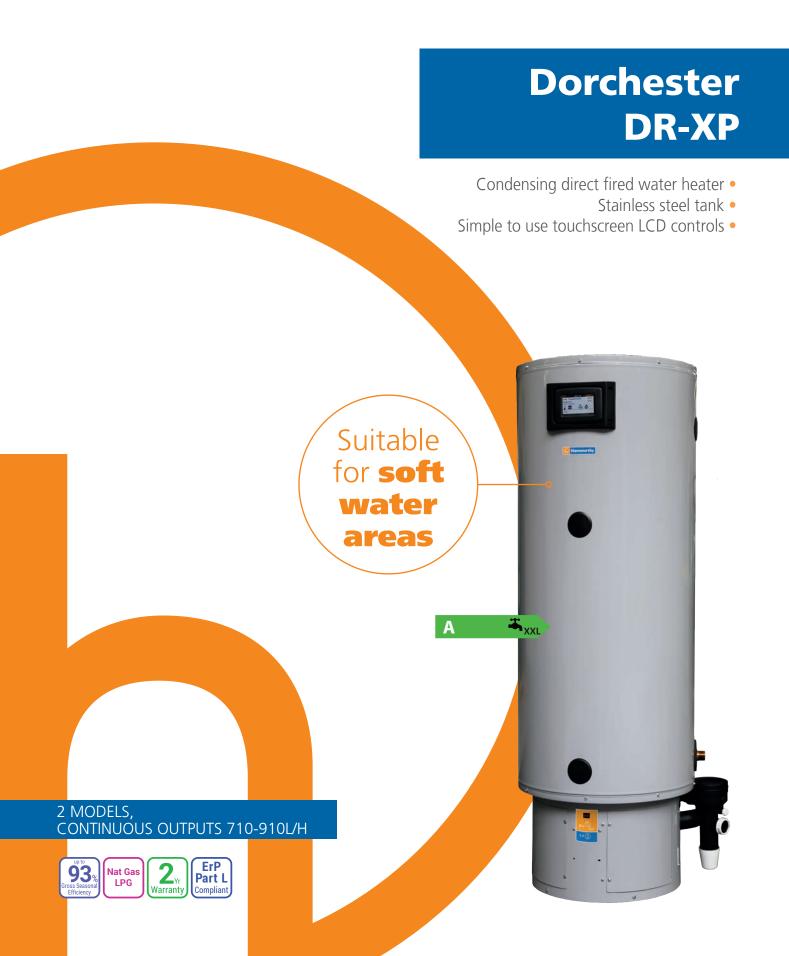


Heating at work.



## **CONTENTS**

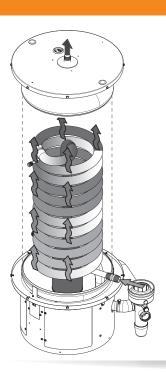
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### **Stainless steel**

The Dorchester DR-XP is the only water heater with a stainless steel tank in the Dorchester range.

This makes it an ideal choice for soft water areas as no anode protection is required.





## Quick to install, operate and maintain

The Dorchester DR-XP range of pre-mix, condensing water heaters are designed to meet the needs of smaller projects in soft water areas such as Scotland and the South West.

Choose from 2 models with gas inputs from 38 -50kW, continuous outputs (@44°C  $\Delta$ T) from 710l/h to 910l/h and a storage capacity of 184 litres.

The direct fired water heaters are simple to install with plug and play technology. Fully room sealed and with flexible flue options enable installation almost anywhere in the building.

Featuring automatic spark ignition and an easy to use LCD touch screen display for simple operation, control and fault diagnostics. All components are easily accessed for maintenance and servicing.

With a load profile of XXL, ErP efficiency rating A and  $NO_x$  levels of 53mg/kWh these products are not only efficient but also fully compliant with current ErP regulations.

## **Key benefits**



Fits through a standard doorway



No anode protection needed



Plug and play installation



Easy access for service and maintenance



Flexible flue options

## **Key features:**

- Ocondensing direct fired gas water heater
- 2 models: 34.9 and 45.1kW output
- Storage capacity 184 litres
- Ontinuous outputs (@44°C): 710 and 910 l/h
- Natural gas and LPG
- Fully room sealed
- Automatic spark ignition

### Optional kit (Page 6)

Unvented supply kit

### Controls (Page 10)

- LCD touchsreen
- Temperature control and protection
- Setpoint indication during operation
- Volt free alarm signal for BMS
- Frost protection
- Error indication
- Hysteresis control
- External on/off control

### Flues (Page 11)

- Horizontal or vertical flue terminal kit
- B23 open flue systems
- C13 concentric room sealed flue systems
- C33 concentric room sealed flue systems
- C53 twin duct room sealed flue systems

### **Service & Warranty** (Page 16)

- 2-year warranty
- Range of service options
- Ommissioning

# Anatomy of the Dorchester DR-XP

- 1 Stainless Steel storage vesse
- 2 Submerged combustion chamber with spiral heat exchanger
- (3) Low NO<sub>x</sub>, pre-mix modulating gas burner
- 4 Side mounted hot and cold recirculation tapping:
- (5) Insulation
- **6** Service access
- 7 LCD touchscreen display

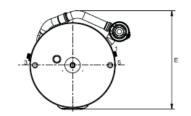




# Technical data & dimensions

All Models

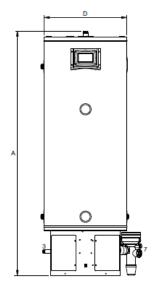
	Dorchester DR-XP model	Units	DR-XP 35-200	DR-XP 45-200
	Continuous output with 44°C ∆T	l/h	710	910
	1st hour output with 44°C ∆T	I	1100	1200
	Continuous output with 50°C ∆T	l/h	620	800
	1st hour output with 50°C $\Delta$ T	I	870	1100
Water	Continuous output with 55°C ∆T	l/h	570	730
>	1st hour output with 55°C $\Delta$ T	I	770	900
	Storage capacity	litres	184	184
	Maximum working pressure	kPa (bar)	800 (8)	800 (8)
	ErP load profile	-	XXL	XXL
	Water Heating energy efficiency	%	93	91
_	ErP efficiency rating	-	А	А
Energy	Heating-up time, $\Delta T = 44^{\circ}C$	min.	17	13
ш	Heating-up time, $\Delta T = 50$ °C	min.	18	14
	Heating-up time, $\Delta T = 55^{\circ}C$	min.	19	15
	Input, gross – maximum	kW	37.8	48.9
SE	Input, net - maximum	kW	34.9	45.1
Nat Gas	Output – maximum	kW	35.9	46.2
Z	Gas inlet pressure – nominal	mbar	20	20
	Gas flow rate – maximum @1013.25 mbar and 15°C	m³/h	3.7	4.8
	Input, gross – maximum	kW	37.0	47.8
	Input, net - maximum	kW	33.4	43.1
LPG.	Output – maximum	kW	34.9	45.4
	Gas inlet pressure – nominal	mbar	37	37
	Gas flow rate – maximum @1013.25 mbar and 15°C	m³/h	1.4	1.8
	Mass flow rate flue gases Nominal/minimal @15°C, 9% CO <sub>2r</sub> N.T.P. (Nat. Gas - G20)	kg/h	61/42	79/42
Flue	Flue gas temperature – maximum	°C	65.0	75.0
正	NOx emission, dry air free, European Class 6. Maximum (at part load)	mg/kWh	53	53
	Pressure at the flue outlet only (B23) with zero pressure at air inlet	Pa	176	291
-ea	Power consumption	W	160	230
Electrical	Electrical supply	Vac	230V 1PH 50Hz	230V 1PH 50Hz
ш	Voltage tolerance	% of Vac	(-15+10%)	(-15+10%)
	Sound level	dB	63	69
Misc.	Weight when empty	kg	79	79
Σ	Approximate shipping weight	kg	97	97
	Maximum floor load/ weight filled with water	kg	261	261

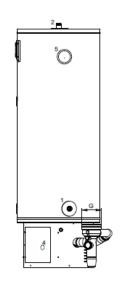


### **Clearances**

Ensure there is sufficient clearance to access the water heater:

- 1000mm at front
- 500mm at the rear, left and right side





	Dimensions	Unit	DR-XP 35-200	DR-XP 45-200
Α	Device height (total height)	mm	1655	1655
D	Device diameter	mm	560	560
E	Device width	mm	730	730
G	Air intake/Flue gas outlet Ø	mm	80/125	80/125
Н	Height air intake / Flue gas outlet	mm	300	300
K	Height gas connection	mm	170	170
M	Height cold water supply connection	mm	400	400
N	Height hot water outlet connection	mm	1655	1655
R	Height drain valve connection	mm	200	200
S	Height T&P-valve connection	mm	1420	1420
W	Height condensate outlet connection / siphon	mm	160	160
1	Cold water supply connection (male)	-	1"	1"
2	Hot water outlet connection (male)	-	1"	1"
3	Gas control valve connection (male)	-	3/4"	3/4"
4	Drain valve connection (male)	-	3/4"	3/4"
5	T&P-valve connection (male)	-	1"	1"
7	Condensate outlet connection (female)	mm	40	40

### Unvented kits

The optional unvented supply kit is essential for any unvented application and includes an expansion vessel sized for the water heater and local pipework only.

Each unvented supply kit is sized 1" and comprises the following items:

- Strainer
- Non adjustable pressure reducing valve factory set at 3.5bar
- Non return valve
- 34" Expansion relief valve, 6 bar
- > Temperature and pressure relief valve, 7 bar, 95°C
- 24 litre expansion vessel, 3.5 bar cushion pressure.

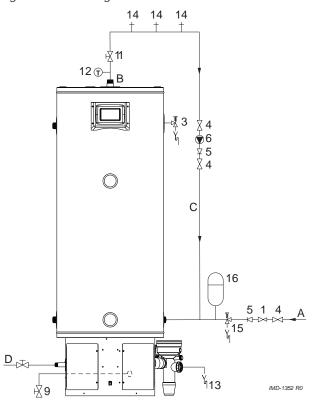
For large hot water systems or systems with additional storage tanks, additional expansion vessel capacity may be required.

The unvented supply kit allows the water heater to be fed directly from the mains water supply or boosted cold water supply, without the need for header tanks.

Each unvented supply kit is designed to be used with an individual water heater. Multiple water heater installations should be provided with one unvented supply kit per water heater.

The kit contains all the essential components to comply with the Water Supply (water fittings) Regulations 1999 (WRAS), including a suitably sized pressure and temperature relief valve, which locates directly into the water heater.

Fig. Installation diagram



### **Expansion vessel sizing calculation**

Required expansion vessel volume  $(V_2)$  can be calculated using the following formula:

$$V_2 = \sum X V_1$$

$$1 - P_C / P_W$$

Where

V<sub>2</sub> = Required expansion vessel

V, = Total system volume (cylinder plus pipework)

 $\Sigma$  = Water expansion factor

P<sub>c</sub> = Expansion vessel cushion pressure (absolute)

P<sub>w</sub> = Working pressure (absolute) = Expansion valve setting + 1 bar

### **Basic pipework volume calculation**

To calculate pipe volume for use in expansion vessel sizing calculation, use the formula:

Volume (litres) per metre =  $0.0031428 \times r^2$ Where r = Internal radius = ( $1/2 \times r^2$  Outside Diameter) - wall thickness), in mm and L = length of pipe, in metres

#### Example

For a 10 m length of EN 1057 copper pipe, 22mm outside diameter, with wall thickness 0.9 mm, the internal radius r = ((22/2) - 0.9) = 10.1 mm.

Volume of water per metre =  $0.0031428 \times r^2$ 

 $= 0.0031428 \times 10.1 \times 10.1$ 

= 0.3206 litres/metre

Therefore total volume of water in 10 m of pipe is 10 x 0.3206 = 3.206 litres.

# **Expansion factor for different** water temperatures

Temperature °C	50	55	60	65	70
Expansion Factor $\Sigma$	0.0118	0.0142	0.0168	0.0196	0.0225

- Pressure reducing
   valve
   (mandatory if the
   mains water pressure
   is too high)
- 3. T&P valve (optional)
- 4. Stop valve (recommended)
- 5. Non-return valve
- 6. Circulation pump (optional)
- 9. Drain valve
- 10. Manual gas valve

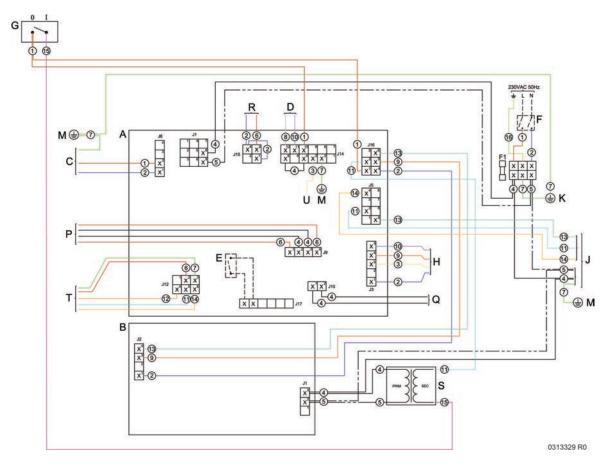
- 11. Service stop valve
- 12. Temperature gauge (optional)
- 13. Condensate drain
- 14. Draw-off point
- 15. Expansion valve
- 16. Expansion vessel
- A. Cold water supply
- B. Hot water outlet
- C. Circulation pipe
- D. Gas supply

# **Electrical connections**

Description	Unit	DR-XP 35-200	DR-XP 45-200
Energy efficiency class (Energy label)	-	А	А
Energy efficiency	%	93	91
Daily electricity consumption	kWh	0,249	0,277
Daily fuel consumption	kWh GCV	25,816	26,274
Mixed water 40 °C (V40)	I	∞	∞

### 13.5 Electrical wiring diagram

Fig. Electrical wiring diagram



# Specification

### Construction

The Dorchester DR-XP is made from stainless steel (grade 444), with the vessel being fully insulated to minimise standing losses. The water heater can operate up to 8bar water pressure. Removable doors are located in the front base of the water heater to provide easy access for maintenance on gas burner and controls.

#### **Burner**

The burner is at the bottom of the unit. The pre-mix modulating burner enables this range to achieve ErP compliant  $NO_X$  emissions of 53mg/kWh.

### **Installation and setup**

The Dorchester DR-XP is quick to install and setup with Plugand-Play technology. Simply connect air inlet, exhaust outlet, water, electricity, and gas, set the temperature and the system is setup for operation. A graphical touchscreen display indicates operational status of water heater.

### Anode protection

No anode protection is required thanks to the tank being constructed in high grade stainless steel.

### **ErP compliance**

With NO $_{\rm X}$  emissions of 53mg/kWh or less across the range and Load profiles or XXL the Dorchester DR-XP is compliant with the ErP regulations for water heaters. The 2013 published Ecodesign and Energy Labelling regulations (ErP) were introduced as a step towards achieving more energy savings. Since 2015, increasingly stricter sets of minimum efficiency requirements for water heaters (excluding hot water storage tanks and solar water heaters) have been enforced. The minimum energy efficiency level that applies is dependent on the so-called "load profile" of a water heater, ranging from 3XS to 4XL. NOx emission levels were enforced for water heaters from 26 September 2018. For conventional water heaters, the limits are 56 mg/kWh (gaseous fuels).

### **Condensing effect**

In the heat exchange process, as the flue gases become cooler they pass into the lower layer of the tank where the coldwater inlet tops up the supply of water. This maximises the opportunity to condense, releasing the latent energy in the process. The condensate in the flue gases is discharged via the condensate trap at the base of the unit.

#### **LPG**

All Dorchester DR-XP water heaters are suitable for LPG fuel. An LPG conversion kit can be supplied as an optional extra, the fuel type must be specified at the time of ordering. It is strongly recommended that on LPG installations, gas detection equipment is fitted, and that the equipment is positioned near the heater and at low level.

### **Safety**

The HSC approved code of practice and guidance document L8, makes it clear that if the risk of Legionella is to be minimised, then the recommendations must be observed in so far as they relate to hot & cold-water systems.

Dorchester water heaters conform to these requirements as follows:

- Generous flow and return connections
- Adequately sized drain
- Base designed to avoid sludge traps
- Number of tappings correctly positioned to facilitate recirculation, destratification and to avoid stagnation
- Designed to meet unvented supply requirements

# Open vented or unvented systems

The water heaters are suitable for open vented water systems i.e. those fed typically via a header tank and float valve arrangement. They may also be used in unvented water systems fed directly from the mains cold water supply if an optional unvented water supply kit is used. See page 6 for details of Hamworthy's unvented supply kit.

## How does it work?

The burner is located on the base of the unit for a bottom fired heat exchanger.

The submerged combustion chamber with spiral heat exchanger enables it to operate in condensing mode during hot water demand periods.

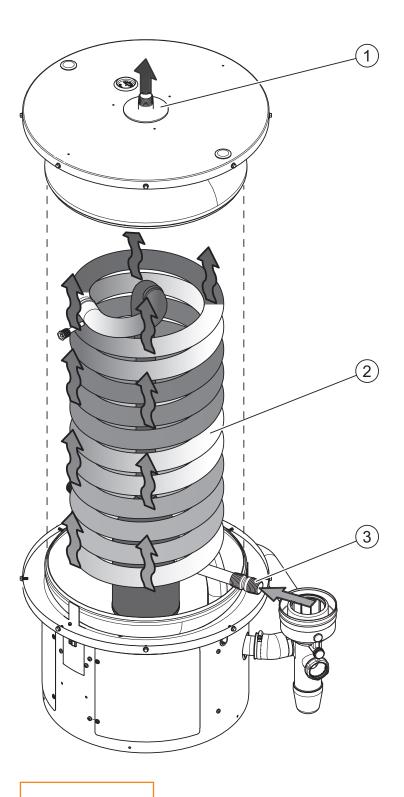
Spark and flame lonization are proven via a combustion probe, giving direct burner ignition (no pilot).

Pre-mix technology and gas-air ratio control gives close load matching to the hot water demand of your premises.

The control set point is adjustable between 40 –  $85^{\circ}$ C

When a demand for heat is detected by the temperature sensor (NTC type) the appliance will operate in the following sequence

- Pre-purge
- Air switch proves (closes)
- Spark ignition activated & gas valve opens
- Flame detection proved
- Water heated to set point
- Switch Off, gas valve closes
- Post purge fan



### Key

- 1 Hot water outlet
- 2 Heat exchanger
- 3 Cold water inlet

### Controls

The Dorchester DR-XP range features integrated controls operated through an LCD touch screen display. Settings can be programmed via the easy to use control panel.

When in the 'on' mode and heating the water, the display will switch between showing the actual temperature and the set point temperature. When not heating, the display will only show the actual temperature. When the water heater is switched off it will display 'off', unless the frost protection is activated where it will show the actual water temperature.

It can also display error conditions and service conditions.

### **User interface**

The operator interface consists of:

- a control switch on the front side of the water heater between the doors
- o a touchscreen display to navigate through the menu and view or enter settings, functions, values and errors

The display is completely menu-driven and enables the user to change settings and to verify the status and history of the water heater.

### **Control Switch**

With the control switch you can turn the water heater on  ${\sf I}$  or off  ${\sf O}$ .

### **Display**

The display can show two different types of screens:

- A home screen that shows texts and symbols to indicate the actual status of the water heater.
- A control screen where you can change settings and view more information

### **Operating modes**

The DR-XP has 3 operating modes:

- OFF mode
- ON mode
- External ON mode (EXT mode)

#### OFF mode

In the OFF mode the water heater is de-activated. The control switch is set in the position 0.

### ON mode

In the ON mode the water heater responds to the heat demand. The control switch is set in the position I.

### External ON mode

In the external ON mode, the water heater will respond to a heat demand when the relay switch is closed.

### **Error conditions**

If there is an error, the display shows the status text Error with an exclamation mark.



### **Flues**

The Dorchester DR-XP water heaters are designed to operate as room sealed appliances or in open flue systems. Available with a choice of flue options, using a range of matched components, can provide versatility in where the water heater is located. Options are available for room sealed concentric or twin duct, or open flue single pipe arrangements.

Balanced flues can reduce the cost of installation and simplify flue runs. Room sealed configurations reduce the volume of ventilation air required, resulting in tighter and more energy-efficient buildings. Open flue applications provide solutions where balanced flue terminals are unsuitable, or where existing flue routes are to be retained.

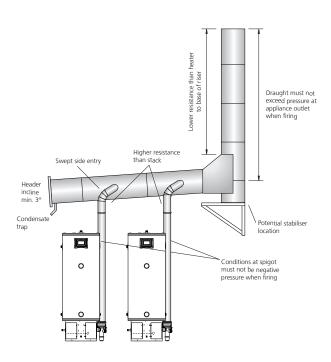
### Flue system construction

The flue system must be capable of handling saturated flue gases. Flue construction should be fully welded and CE marked for positive pressure application. All Hamworthy flue components have been matched and tested specifically for use with these water heaters. This ensures optimum performance from the installation and simplifies the necessary sizing calculations.

Flue components are constructed from polypropylene for concentric, twin duct and open flue arrangements. Flue pipes are joined with a simple push fit connection with a silicone seal ensures water and pressure tight joints every time and clamp bands complete the installation.

### **Multiple appliance flue systems**

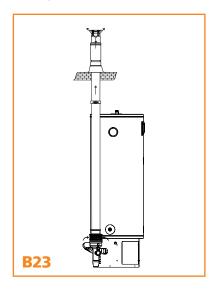
It is suitable to install multiple Dorchester DR-XP water heaters on a common flue.





# Type B23 open flue systems

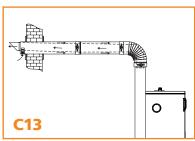
Dorchester DR-XP open flues are arranged for air supply directly from the plant room with vertical flue discharge. Ducting between the heater and the flue terminal is made using single tubes.

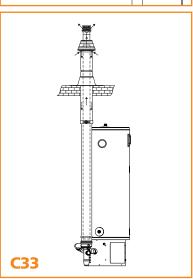


Model	Diameter (mm)	Maximum	Elbow equiv. length (m)	
Wodel		length (m)	90°	45°
DR-XP 35-200	80	50	3.9	1.1
DR-XP 45-200	80	50	3.9	1.1

# Type C13 concentric flue systems

The Dorchester DR-XP can be flued with either horizontal or vertical discharge through concentric terminals. Ducting from heater to terminal can be made using concentric tubes.





Model	Diameter	Maximum	Elbow equiv. length (m)
	(mm)	length (m)	45° /90°
DR-XP 35-200	80/125	20	5
DR-XP 45-200	80/125	20	5

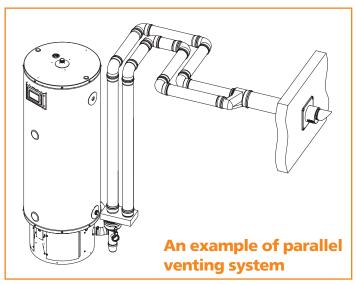
# Type C13, C33 and C53 parallel flue systems

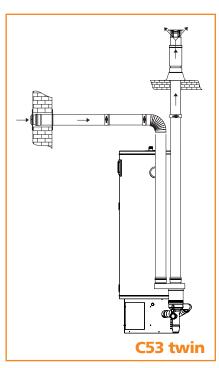
Dorchester DR-XP room sealed flues can be arranged for horizontal air supply and vertical flue discharge. Ducting between the heater and the air/flue terminals is made using single tubes.

### C13 and C33 flue systems use a concentric terminal while C53 use twin ducts

Model	Diameter (mm)	Maximum	Equivalent lengths* (m)		
		length* (m)	90°	45°	
DR-XP 35-200	80	50	3.9	1.1	
DR-XP 45-200	80	50	3.9	1.1	

<sup>\*</sup>For flue discharge and air supply





# Application and water system

#### Location

The location chosen for the water heater must permit the provision of a satisfactory flue system and an adequate air supply. The location must also provide adequate space for servicing and air circulation around each unit. This includes any electrical trunking laid along the floor and to the appliance.

The water heater mounting surface should be a non-combustible flat and level surface capable of supporting the weight of the water heater when full of water and any additional ancillary equipment.

Any combustible material adjacent to the water heater and the flue system must be so placed or shielded to ensure that its temperature does not exceed 65°C.

Adequate space to enable installation and servicing should be provided, with due consideration to ensuring access to the clean out door and removal of the burner assembly.

### **Layout**

Dorchester DR-XP water heaters are suitable for installation in either single or multiple configurations. If additional storage is required to meet peak demands the water heater can be connected to one or more storage tanks. If a storage tank is used an additional loading pump and thermostats are required to ensure proper control over the stored water temperature.

### **Water quality**

Due to the variable chemical composition of distributed water supplies it is necessary to identify the properties of the cold water feed to the water heater. In common with all types of water heating equipment, scale will develop during normal use and it is therefore essential that appropriate steps are taken to ensure reliable and continuous operation of the plant.

Contact should be made with the local water provider to determine the quality of the feed water and reference should be made to water treatment specialists for appropriate advice.

The water heater warranty requires that the chloride levels of the water in the heater must be less than 200ppm.

There is an upper limit to water hardness of 14.3° or 205 ppm, however where domestic feed water hardness is very high, water treatment should be considered to reduce the hardness.

### **Open vented systems**

For Hamworthy Dorchester DR-XP open vented systems, the feed cistern and water supply from the feed system must be so sized as to ensure that the make-up water is equivalent to or exceeds the maximum draw off rate of the heater systems and any other system requirements. The hot water flow pipe from each heater must be fitted with a ¾" (20 mm) relief valve and an open vent 1¼" (32 mm) and a cold feed 1" (28 mm) minimum.

No isolating valves should be fitted between the water heater and the draw off point for relief valve and open vent.

The maximum working head of the heater is 80 m (260 feet). Dead legs to water draw off points should be as short as possible and must not exceed the lengths laid down in the water supply (water fittings) regulations. These regulations state that the maximum lengths of pipe supplying a hot water draw off tap measured along the axis of the pipe from the heater, cylinder or tank from a secondary circuit are as listed below:

Pipes not greater than 19 mm I/D—maximum dead leg is 12 m. Pipes in range 19–24 mm I/D—maximum dead leg is 7.6 m. Pipes greater than 25 mm I/D—maximum dead leg is 3 m.

### **Unvented systems**

Hamworthy can offer a pre-assembled, WRAS approved unvented kit to ensure safe and compliant connection to mains cold water supplies.

The kit comes complete with water 'train', non-return valve, pressure reducing valve, strainer, expansion vessel & connection, and 6 bar expansion relief valve. This simplifies site installation, allowing the water main to be connected to the supplied water train which is then connected to the heater.

Each unvented system kit is supplied with a 25 litre expansion vessel to accommodate the stored hot water expansion from the water heater. Due to the variable nature of hot water circuits an additional expansion vessel may be required to accommodate expansion from the hot water store within the distribution pipework or additional storage tanks where used. Hamworthy can supply a range of expansion vessels up to 1000 litre capacity suitable for potable hot water systems to suit most requirements.

A dedicated socket is provided on all Dorchester DR-XP water heaters exclusively for the fitment of the temperature and pressure relief valve, the discharge of which should be via an air break to a tundish.

For comprehensive recommendations on the design, installation and testing of services supplying water within buildings, attention is drawn to the appropriate sections of BSEN 806 Parts 1 to 5 and BS 8558: 2011.

# Hydraulic schemes

# Unvented cold water supply

Typical pipework arrangement for a single Dorchester DR-XP water heater on an unvented system.

The Water Supply (Water Fittings) regulations 1999 require a number of essential controls pre-set to specific pressure and temperature settings for unvented systems. To ensure the controls are correctly sized for the application, set to appropriate levels and assembled in the correct order, Hamworthy Heating offer the unvented kit, a single "water train" with a separate T&P (temperature and pressure) relief valve sized to suit the energy input of the water heater. The T&P relief discharge should be via an air break to a tundish.

Each unvented supply kit is designed to be used with an individual water heater. Multiple heater installations require one unvented kit per water heater.

Larger systems with additional storage may require larger capacity expansion vessel.

Consult with Hamworthy Technical for a full range of Hamworthy expansion vessels.

# Open vented cold water supply

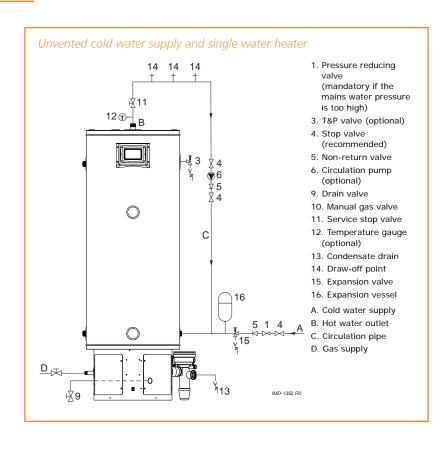
Typical pipework arrangement for a single Dorchester DR-XP water heater on an open vented system.

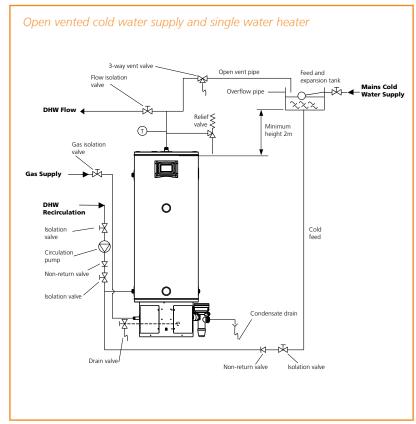
With open vented systems the feed and expansion tank must be sized to provide sufficient cold water storage and accommodate expanded system water without the risk of overflowing.

System operating pressure is directly related to the height of the feed and expansion tank. Care must be taken therefore to locate the feed and expansion tank such that it provides sufficient head pressure so that flow can be maintained at all outlets likely to be operating concurrently.

The minimum recommended height of the bottom of the feed and expansion tank above the water heater is 2m.

For comprehensive recommendations on the design, installation and testing of services supplying water within buildings please refer to BS 6700.





# Services and warranty

### Commissioning

We strongly recommend that all water heaters are commissioned by our service department. As well as ensuring your product is set up correctly for maximum efficiencies you will receive extra benefits on warranty (see below). On completion, you will get a report with details of the initial operating settings.

#### **Service**

Installed water heaters will experience a wide variation in operating conditions that can occur due to differing patterns of usage and the variable chemical nature of distributed water supplies. It is therefore strongly recommended that water heaters be drained and inspected within 3 months of the initial commissioning. Once the levels of calcium deposition are established a suitable maintenance schedule can be implemented, however as a minimum all water heaters should be serviced annually. To maintain your water heaters, we have a range of servicing options that can be tailored to your requirements. For more information on commissioning and service please contact Hamworthy Heating Service Department.





#### **Warranty**

The Dorchester DR-XP comes with a 2-year warranty (except for consumables in line with our Terms and Conditions). Where the product is commissioned by Hamworthy service engineers within 6 months of delivery date, then the two-year warranty covers parts and labour from date of commissioning. We offer tailored packages to suit individual customer requirements, many of which include extended warranty benefits. Full details of warranty terms and conditions are available on request.

### **Service**

Tel: **01202 662555** 

Email: service@hamworthy-heating.com

### **Spares**

Tel: **01202 662525** Fax: **01202 662551** 

Email: spares@hamworthy-heating.com

### **Spares**

Essential to any maintenance and service regime is the availability of quality spare parts.

By coming to us you can be assured of genuine spare parts and may also benefit from technological improvements. We have a long-term commitment to spare parts for our products.

#### **Delivery**

Dorchester water heaters are delivered factory assembled and mounted within frames and shrink-wrapped. Standard delivery for all Hamworthy products is free of charge.

Deliveries are closely co-ordinated with the customer, to suit the site construction programme. Products are delivered to ground level and it is the responsibility of the customer to arrange movement of products from here to the required location on site. To enquire about special delivery services including FORS and time critical deliveries (additional charges apply) please contact our customer services team.

## Complete your system

As well as energy efficient water heaters, we supply commercial boilers and hot water storage tanks to help complete your system.

# System equipment

### **Powerstock storage tanks**

Powerstock hot water storage tanks are the perfect partner for Dorchester water heaters where large volumes of hot water are required with intermittent use.

Available in 300, 500, 750 and 1000 litre capacities, these high quality glass lined storage tanks can be installed in single or multiple configurations to match the hot water demand and increase system security.

Powerstock are suitable for both unvented and open vented applications.



### **Trigon solar thermal system**

A complete solar hot water system including solar collectors, transfer stations, and controller.

### **Burstock expansion vessel**

Floor standing expansions vessels for use with sealed heating and hot water systems. Available in 10 models from 25 to 1000 litres.

### **Boilers**

# Floor standing condensing boilers

We have an extensive range of floor standing modular boilers with outputs from 70kW up to 1050kW. With natural gas and LPG options available they can be used across the UK.

The Upton and Wessex ModuMax mk3 boilers are designed as vertically stacking modular boilers to fit in the smallest of plant rooms – offering over 1MW output from 1 metre squared footprint.

Purewell Variheat mk2 boilers are built around a cast iron heat exchanger for tolerance to older heating circuits, making them a perfect choice for refurbishment and replacing old atmospheric boilers.

For larger heat loads or simplified design, the Varmax boilers do not need to be installed with a primary circuit and have split temperature return connections for improved efficiency.



### Wall hung condensing boilers

The Stratton mk2 wall hung boiler offers the benefits of a long life and corrosion resistance with a stainless steel heat exchanger. It can also fit into low height plant rooms thanks to a built in flue gas non return valve and low height pipework kits.

### **Pressure jet boilers**

For higher heating demands and a greater choice of fuel options including oil and biofuel, Hamworthy can provide pressure jet/power flame boilers. With outputs from 440kW right up to 10MW, and a choice of matched burners.

## **About Hamworthy**

Hamworthy Heating is a leading British commercial boiler manufacturer. Our energy efficient heating, hot water and renewable solutions are used in buildings across the UK.

## The Hamworthy difference

### **British engineering excellence**

Here in the UK, we design, test, manufacture and source market-leading products. We know our products inside out, back to front and from start to finish. You can trust that we know what we're talking about.

### Lifetime support

From design and specification, through to commissioning, training and maintenance, as well as commitment to spares availability. We provide long term support for businesses with their commercial heating and hot water needs.

### **People first**

It's not just our products that set us apart, it's our people. Truly excellent customer service, great technical knowledge and being easy to deal with.

That's the Hamworthy difference.













# **Everyone's got history, we've got heritage**

Our roots date back to 1914 when two brothers in Poole set up Hamworthy Engineering. Decades of experience go in to every nut, screw and bolt. Every phone call, text and email. Since 2008, we've been part of Groupe Atlantic, a company with a similar ethos to us. Groupe Atlantic was founded in 1968 by two engineers and is now one of the market leaders in the European heating and hot water industry. We're now part of their growing UK, ROI and North America Divisions.









#### **Our associations**

We are an active member of trade associations and professional bodies supporting the industries we work in.

#### **Our accreditations**

International Organisation for Standardisation (ISO) is the world's largest developer of voluntary International Standards. We are proud to have been awarded the following ISO accreditations:

- ISO 9001 Quality Management System
- ISO 14001 Environmental Management System
- ISO 45001 Health and Safety Management System

When you deal with Hamworthy, have confidence that we're working within a defined set of standards that is internationally recognised.













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Contact our in-house technical support team on

01202 662505

#### Your local contact is:

British engineering excellence from Hamworthy Heating; the commercial heating and hot water specialists.





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#### Hamworthy Heating Accreditations

ISO 9001 Quality Management System ISO 14001 Environmental Management System ISO 45001 Health & Safety Management System



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Hamworthy Heating reserves the right to make changes and improvements which may necessitate alteration to product specification without prior notice.