

# Heat Geek Mini Store

Turn Your Heat Pump Into A Combi!



An Aquinox Stainless approved product, manufactured by

NEWARK  
CYLINDERS 

**AQUINOX**  
STAINLESS

Designed by  
Heat  Geek

Mini Store v1.2 - April 2025 | 1

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# Introducing The Mini Store |

Renewable sources of energy need somewhere to store hot water, as they don't have the extreme power density of gas and, therefore, have to heat the water more slowly. The problem though, is that 22 million homes in the UK either don't have a hot water storage cylinder, or don't have the space available to site one, resulting in homeowners struggling to decarbonise their heating.

To solve this problem, bespoke hot water cylinder manufacturer, **Newark Cylinders**, have launched the **Heat Geek Mini Store** - a range of super-compact, highly efficient, **Shell & Tube Heat Exchangers**, designed by leading heating experts, **Heat Geek**.

At around a quarter to a third of the size of conventional hot water cylinders, the Mini Store range offers installers and homeowners a highly viable back up option for decarbonising homes, in instances where the market leading **HG Series/Super Cylinders** (or any other cylinder on the market) simply won't fit.

Mini Stores also make gas boilers the most efficient they can possibly be on hot water, but if you can afford to decarbonise your heating system by swapping your boiler for a heat pump, the introduction of the Mini Stores means that there is now no good reason not to.

## Mini Store Benefits:

1. Operating with flow temperatures as low as 40-45°C, they are ideal for use with Heat Pumps.
2. Very high hot water flow rates can be achieved (compared to a standard combination boiler), allowing up to **three** showers to be run simultaneously.
3. Their recharge times are unmatched by any standardised hot water storage solution currently available.
4. They are so compact that they'll fit into almost any property - in kitchen cupboards, small airing cupboards, under-stairs cupboards, low roof spaces, or anywhere that you have a small amount of spare room. They can even be laid horizontally, and/or wall-mounted for extra versatility. They are also reversible, in that they can be installed upside-down, in case swapping the positions of the coil connections with the heat source flow & return connections proves to make piping them up easier.

**The choice of installer** is very important for setting up your Mini Store optimally. Heat Geek installers have the fundamental knowledge required to tune the control parameters and accompany the cylinder with the most efficient heating system design. Please refer to the [Heat Geek installer map](#) to find and contact your local installers.

In conclusion, the Mini Stores offer installers and homeowners a highly viable back up option for decarbonising homes, in cases where installing a **Heat Geek Super Cylinder** just isn't possible.

This document provides full specifications for the Mini Stores, including diagrams, general specifications (the features which are consistent across all models), model specifications (the features which vary), and describes the various orientation and mounting options that are available.

**All Sales and after-sales product support, is handled by Newark Cylinders.** Their contact information can be found on the final page of this document.

# Product Support & Guarantee |

All sales and after-sales product support, is handled by **Newark Cylinders**. Their contact information can be found on the final page of this document.

## Manufacturer's Guarantee

All **Mini Stores** are guaranteed by Newark Cylinders for 7 years against manufacturing defects, provided they have been used and maintained in full accordance with the guidance provided in this document. This guarantee does not cover against corrosion, stress fatigue, accidental damage, or any other reason for failure which is out of Newark Cylinders' control.

For more details regarding our Guarantees, standard practices, and returns procedure, please visit

[https://newarkcylinders.co.uk/refund\\_returns/](https://newarkcylinders.co.uk/refund_returns/)

## Installation, Performance, & System Design Support

For any installation, performance, or system design-related queries, please consult a or **Heat Geek Elite/ Verified Installer**, all of whom can be found at <https://www.heatgeek.com>

# General Installation Guidance |

## 1. Maximum Secondary Working Pressure

The incoming mains pressure (through the coil) should not exceed 4.0 bar. It is recommended that the supplied pressure reducing valve be fitted on the incoming cold mains, to ensure the pressure within the coil stays below this level.

## 2. Specification Guidance:

It is recommended that you opt for the largest Mini Store that will fit into the available space as, the larger the store volume, the lower the required store temperature and therefore, the more efficiently it will operate. Other variables to be aware of are your bath and shower flow rates. The higher these are, the higher the store temperature will need to be. We, therefore, suggest fitting flow limiters/ aerators to all of these outlets. For a fully assured specification, please use a Verified or Elite Heat Geek Installer.

## 3. Refrigerants

We suggest that only higher-temperature refrigerants be used with Mini Stores, such as R290 and R32. If not, this may struggle with lower power-output heat pumps (<7kW).

## 4. Water Quality

We strongly recommend following VDI 2035 guidance on water quality to ensure longevity.

## 5. Orientation Options

Mini Stores can be installed in vertical or horizontal orientations, as shown on page 7. In horizontal installations, the flow and return from the heat source should be piped as vertically as possible. This will ensure that heat circulates the entirety of the tank.

## 6. Mounting Options

Where possible, Mini Stores are intended to be floor standing and vertically oriented. Wherever necessary though, they can be mounted in any of the alternative ways shown on page 8, using the universal Mini Store Support Brackets. The brackets have a suggested torque setting of 25Nm and are available as optional extras - see price list for details.

## 7. Venting & Draining Options

All Mini Stores have four open ½" F BSP connections - one in each end and two in the body. These connections give the installer multiple options for venting and draining points. Which ones are *selected* as the vent & drain points depends on the unit's orientation. 1x air-bleed valve and 3x Allen plugs are supplied for these connections, but in some cases, you may want to swap one of the plugs for a drain valve. Vertical, floor standing units should be drained via the "heat source return" connection. See pages 6 & 7 for further details.

## 8. Insulation

All Mini Stores have 50mm insulation. We recommend insulating all adjoining pipework and sealing all joints, to a minimum of 1.0m from the Mini Store.

## 9. Expansion Within The DHW Coil

As long as there is at least 2 metres of 15mm or 1 metre of 22mm cold pipework before the coil's cold inlet connection (and no check valve within that 2m), then there will be sufficient volume for the heated water to expand back into it. If there is less than 2m of pipework before the DHW coil's inlet connection, then excessive pressure can build up, potentially damaging the Mini Store. In this case, a 2 Litre expansion vessel should be fitted on a non-isolatable section of the DHW pipework.

## Connection Sizes & Functions

1" F BSP Heat Input Flow (with internal tube up into centre of dome)

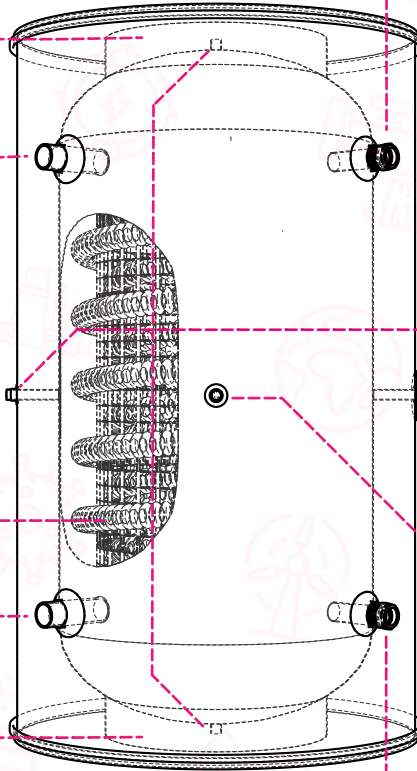
Ringstand on top to make Mini Stores reversible

28mm Pipe Stub for DHW Coil Outlet

Domestic hot water extraction coil

28mm Pipe Stub for DHW Coil Inlet

Ringstand on base



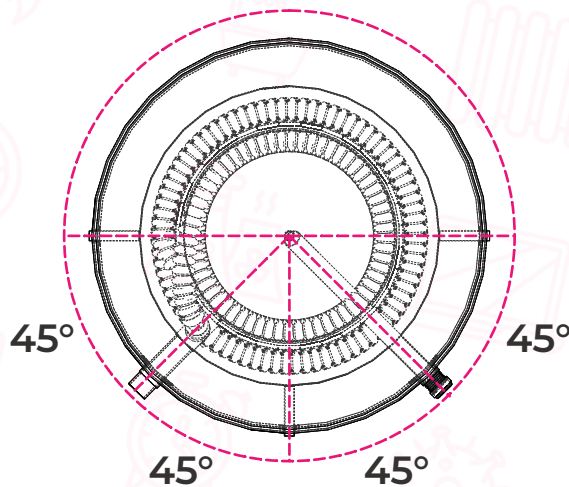
4x 1/2" F BSP connections - one in each end and two in the body at 90° and 270°

These connections give the installer multiple options for venting and draining points. Which ones are selected as the vent & drain depends on the unit's orientation

3x Allen plugs and 1x bleed valve are supplied for these

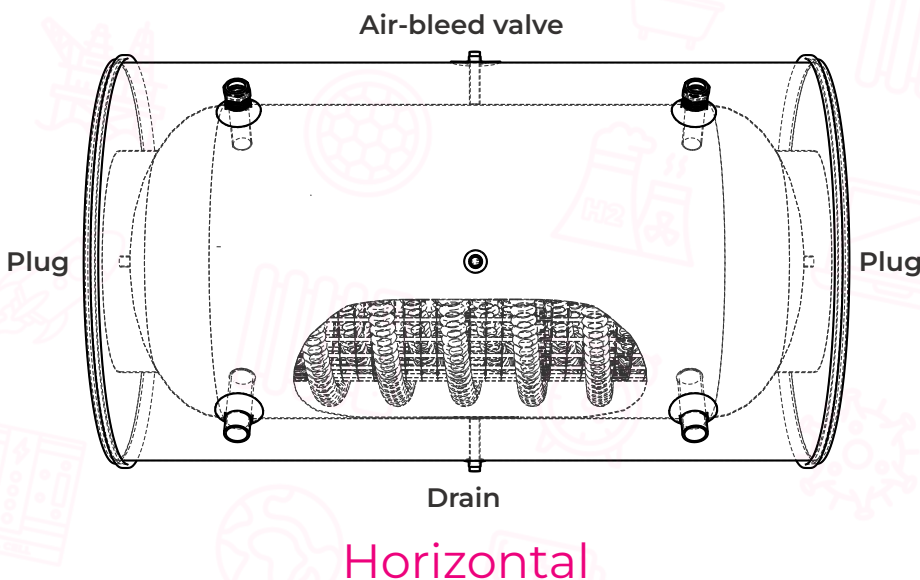
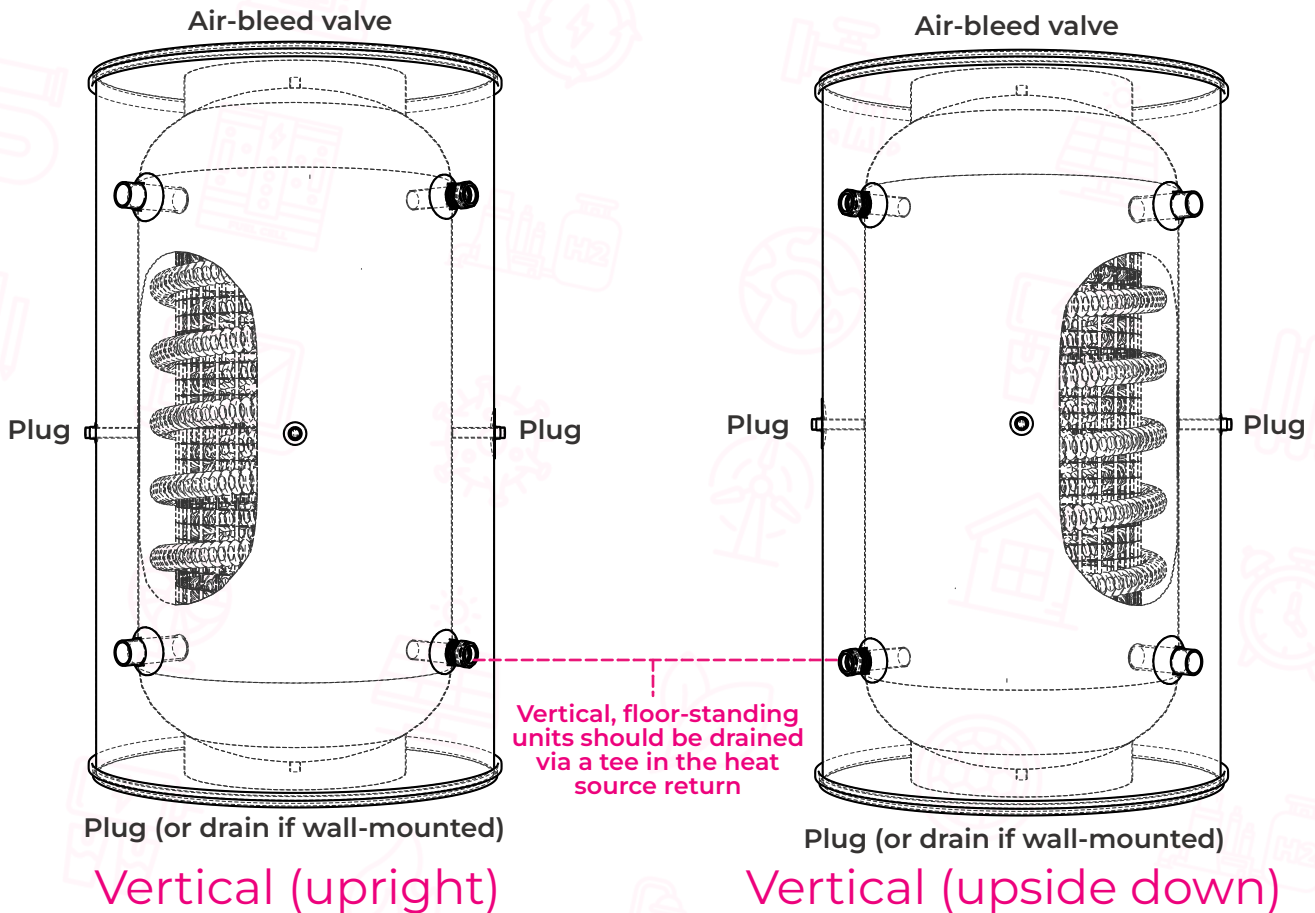
1/2" F BSP with fitted 10mm stat pocket

1" F BSP Heat Input Return (with internal tube down into centre of dome) (Vertical, floor standing units should be drained via this connection)



## Orientation Options

**Mini Stores** can be installed in any of the vertical or horizontal orientations below, with their air-bleed valves, plugs, and drain valves positioned as shown:

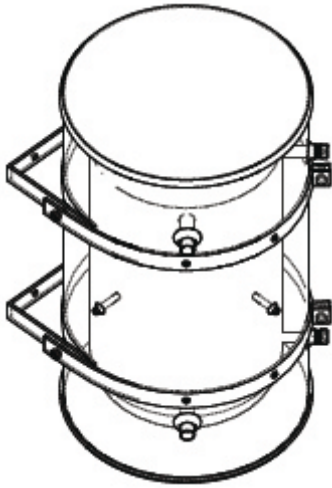


**Note;** The optimal horizontal orientation is with the heat source flow & return connections pointing vertically upwards.

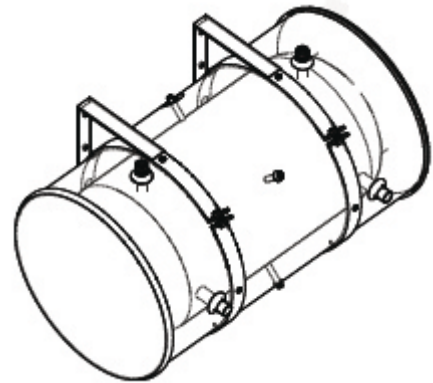
Other orientations are acceptable, but the heat source connections **must** be kept within the top half of the Mini Store.

Attention should be paid to where the drain connection ends up, to ensure it is accessible.

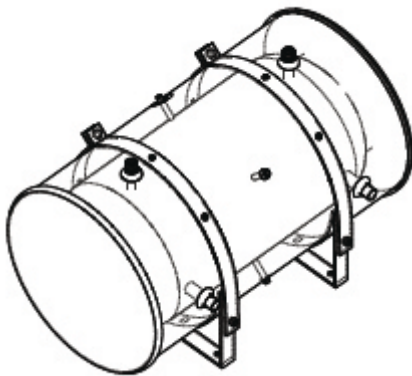
Where possible, **Mini Stores** are intended to be floor standing and vertically oriented. Wherever necessary though, they can be mounted in any of the alternative ways shown below, using the universal **Mini Store Support Brackets** (provided your wall is suitable for carrying the full wet weight of the unit):



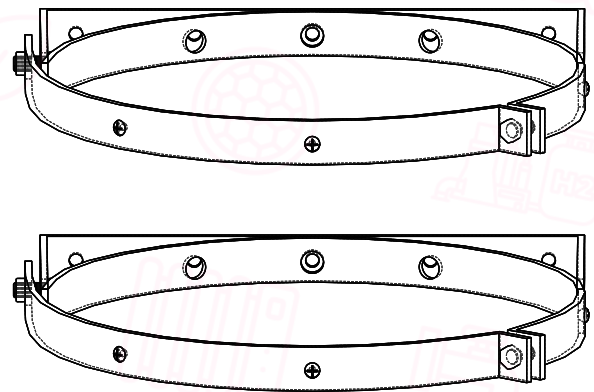
Wall mounted, vertically



Wall mounted, horizontally



Floor standing, horizontally



Support Brackets

Brackets have a suggested torque setting of 25Nm. Holes are provided for the addition of self-tappers though, in case the installer feels they are needed. A pair of brackets has a net weight of approx. 8kg.

Sets of brackets are available as optional extras - see price list for details



# General Specification |

## Features which are consistent across all Models

<b>Product Type:</b>	<b>Shell and Tube Heat Exchanger</b>
<b>Pressurisation Description:</b>	Pressurised
<b>Manufacturing Material:</b>	1.0mm Duplex Stainless Steel
<b>Orientation &amp; Mounting:</b>	Vertical & floor-standing as standard. Can also be used horizontally, or wall-mounted vertically, with the use of additional support brackets or cradles. See pages 7 & 8 for specific information.
<b>Recommended Shell Set Pressure:</b>	1.5 Bar
<b>Shell Maximum Working Pressure:</b>	6.0 Bar
<b>Shell Test Pressure:</b>	9.0 Bar
<b>Heat Exchanger/ Coil Max. Working Pressure:</b>	4.0 Bar
<b>Heat Exchanger/ Coil Tube &amp; Connection Size:</b>	DN20 with 28mm pipe stub connections
<b>HP Probe Pockets:</b>	1 x ½" F BSP with fitted 10mm pocket
<b>Heat Input Flow:</b>	1" F BSP (with internal tube up into dome)
<b>Heat Input Return:</b>	1" F BSP (with internal tube down into dome)
<b>Vent &amp; Drain Valve Connections:</b>	4x ½" F BSP (Positioned to give options. Correct vent and drain positions should be determined based on how the unit is oriented - see pages 6 & 7 for guidance)
<b>Immersion Heater Boss(es):</b>	None in this version - We plan to offer one as an optional upgrade in V2.0
<b>Connection Positions:</b>	As per diagrams on page 6
<b>Insulation thickness:</b>	50mm - We recommend insulating all adjoining pipework and sealing all joints, up to a minimum of 1.0m from the Mini Store
<b>Nominal Overall Dimensions:</b>	Variable - See Model spec's on page 10
<b>Standing Heat Loss:</b>	Variable - See Model spec's on page 10
<b>A-G ERP Heat Loss Rating:</b>	C or above
<b>Finish:</b>	RAL 4010 Pink Case with black lids
<b>Components Included:</b>	1x 22mm Pressure reducing valve (3 bar preset but adjustable up to 4 bar) 1x 10mm stat pocket (fitted) 1x ½" Bleed valve (for vent connection) 3x ½" Allen plugs (to plug unused vent/drain connections)
<b>Label Position:</b>	Supplied Loose

## Mini Store XS - As per General Spec. on page 9, plus:

Volume:	60L
Shell Dimensions (exc both ringstands):	595x375mm
Nominal Overall Dimensions:	635x475mm
Weight (empty)	24kg (+9kg if brackets are used)
Weight (full)	84kg (+9kg if brackets are used)
Standing Heat Loss:	0.96 kWh/24h

## Mini Store - As per General Spec. on page 9, plus:

Volume:	80L
Shell Dimensions (exc both ringstands):	790x375mm
Nominal Overall Dimensions:	830x475mm
Weight (empty)	31kg (+9kg if brackets are used)
Weight (full)	111kg (+9kg if brackets are used)
Standing Heat Loss:	1.08 kWh/24h

## Mini Store FAT - As per General Spec. on page 9, plus:

Volume:	110L
Shell Dimensions (exc both ringstands):	790x450mm
Nominal Overall Dimensions:	830x550mm
Weight (empty)	35kg (+9kg if brackets are used)
Weight (full)	145kg (+9kg if brackets are used)
Standing Heat Loss:	1.27 kWh/24h

## Mini Store Tall - As per General Spec. on page 9, plus:

Volume:	110L
Shell Dimensions (exc both ringstands):	1060x375mm
Nominal Overall Dimensions:	1100x475mm
Weight (empty)	39kg (+9kg if brackets are used)
Weight (full)	149kg (+9kg if brackets are used)
Standing Heat Loss:	1.27 kWh/24h

## Mini Store XL - As per General Spec. on page 9, plus:

Volume:	130L
Shell Dimensions (exc both ringstands):	960x450mm
Nominal Overall Dimensions:	1000x550mm
Weight (empty)	42kg (+9kg if brackets are used)
Weight (full)	172kg (+9kg if brackets are used)
Standing Heat Loss:	1.40 kWh/24h

# Performance Data |

The tables below show the number of minutes the user will receive of continual flow at the indicated flow rate. The colour codes indicate the approximate size of cylinder and what store temperature you should select, relative to your heat pump size and incoming flow temperature. Note that fitting flow restrictors at the outlets dramatically lowers the required store temperature and increases efficiency. See the cylinder recharge tables on page 19 for recharge times.

Heat delivery time is based on Vailant aroTherm plus, 3°C hysteresis, with 10m 28mm primary run in spring. Winter will have quicker delivery of heat.

Rule of thumb - Add 2-6°C to store temp for bath use.

<b>13°C Inlet temperature</b>						
					- Single shower 1-3 users	
<b>Hot water duration for 5L/m shower</b>					- Single shower 3+ users	
Assumes 40°C shower, 13°C inlet temperature, 2.5 min heat delivery time		Second shower @5l/m			- Two showers 2-3 users	
					- Two showers 4+ users	
					- Three showers 4+ users	
Store temperature	4kW	6kW	8kW	10kW	12kW	14kW
Mini Store xs - 60L	Run time (minutes)					
45°C	-	-	-	-	-	-
50°C	6.5	8.5	16.5	3hr+	3hr+	3hr+
55°C	10	14.5	31.5	3hr+	3hr+	3hr+
60°C	14	20.5	46	3hr+	3hr+	3hr+
65°C	18	27	61	3hr+	3hr+	3hr+
70°C	22	33	75.5	3hr+	3hr+	3hr+
Mini Store - 80L						
45°C	-	5	8	3hr+	3hr+	3hr+
50°C	9	13	27.5	3hr+	3hr+	3hr+
55°C	14.5	21	47	3hr+	3hr+	3hr+
60°C	19.5	29.5	67	3hr+	3hr+	3hr+
65°C	24.5	37.5	86.5	3hr+	3hr+	3hr+
70°C	30	45.5	106	3hr+	3hr+	3hr+
Mini Store Fat / Tall - 110L						
45°C	6	8	16	3hr+	3hr+	3hr+
50°C	13.5	19.5	43	3hr+	3hr+	3hr+
55°C	20.5	30.5	70	3hr+	3hr+	3hr+
60°C	27.5	42	97	3hr+	3hr+	3hr+
65°C	34.5	53	124.5	3hr+	3hr+	3hr+
70°C	41.5	64.5	151.5	3hr+	3hr+	3hr+
Mini Store XL 130L						
45°C	7.5	10.5	21.5	3hr+	3hr+	3hr+
50°C	16	23.5	53.5	3hr+	3hr+	3hr+
55°C	24.5	37	85.5	3hr+	3hr+	3hr+
60°C	32.5	50.5	117.5	3hr+	3hr+	3hr+
65°C	41	63.5	149.5	3hr+	3hr+	3hr+
70°C	49.5	76.5	3hr+	3hr+	3hr+	3hr+

<b>13°C Inlet temperature</b>						
						- Single shower 1-3 users
<b>Hot water duration for 6L/m shower</b>						- Single shower 3+ users
Assumes 40°C shower, 13°C inlet temperature, 2.5 min heat delivery time		Second shower @6l/m				- Two showers 2-3 users
						- Two showers 4+ users
						- Three showers 4+ users
Store temperature	4kW	6kW	8kW	10kW	12kW	14kW
<b>Mini Store xs - 60L</b>						
45°C	-	-	-	-	-	-
50°C	-	5	6.5	12.5	3hr+	3hr+
55°C	7.5	9	13	28.5	3hr+	3hr+
60°C	10	13	19.5	44.5	3hr+	3hr+
65°C	13	17	25.5	60.5	3hr+	3hr+
70°C	16	21	32	76.5	3hr+	3hr+
<b>Mini Store - 80L</b>						
45°C				5	3hr+	3hr+
50°C	7	8.5	12	26	3hr+	3hr+
55°C	10.5	13.5	20.5	47.5	3hr+	3hr+
60°C	14.5	19	29	69	3hr+	3hr+
65°C	18.5	24	37.5	90.5	3hr+	3hr+
70°C	22	29.5	46	112	3hr+	3hr+
<b>Mini Store Fat / Tall - 110L</b>						
45°C		5.5	7	13.5	3hr+	3hr+
50°C	10	12.5	18.5	43	3hr+	3hr+
55°C	15	20	30	72.5	3hr+	3hr+
60°C	20.5	27	42	102	3hr+	3hr+
65°C	25.5	34.5	53.5	131.5	3hr+	3hr+
70°C	31	41.5	65	161	3hr+	3hr+
<b>Mini Store XL 130L</b>						
45°C	5.5	7	9.5	19.5	3hr+	3hr+
50°C	12	15.5	23	54.5	3hr+	3hr+
55°C	18	24	37	89	3hr+	3hr+
60°C	24.5	32.5	50.5	124	3hr+	3hr+
65°C	30.5	41	64	159	3hr+	3hr+
70°C	36.5	49.5	78	3hr+	3hr+	3hr+

13°C Inlet temperature						
						- Single shower 1-3 users
<b>Hot water duration for 8L/m shower</b>						- Single shower 3+ users
Assumes 40°C shower, 13°C inlet temperature, 2.5 min heat delivery time		Second shower @8l/m				- Two showers 2-3 users
						- Two showers 4+ users
						- Three showers 4+ users
Store temperature	4kW	6kW	8kW	10kW	12kW	14kW
<b>Mini Store xs - 60L</b>						
45°C	-	-	-	-	-	-
50°C	-	-	-	-	-	-
55°C	-	-	5.5	6.5	8.5	20
60°C	6.5	7	8.5	10.5	15.5	39.5
65°C	8	9.5	11	14.5	22.5	59
70°C	10	11.5	14	18.5	29	78.5
<b>Mini Store - 80L</b>						
45°C	-	-	-	-	-	-
50°C	-	5	5.5	6.5	9	21
55°C	7	8	9.5	12	18	47
60°C	9.5	11	13.5	17.5	27	73
65°C	12	14	17.5	23	36	99
70°C	14.5	17	21	28.5	45	125
<b>Mini Store Fat / Tall - 110L</b>						
45°C	-	-	-	-	-	-
50°C	6.5	7	8.5	10.5	16	41
55°C	10	11.5	14	18.5	28.5	76.5
60°C	13.5	15.5	19.5	26	41	112.5
65°C	17	20	24.5	33.5	53.5	148.5
70°C	20	24	30	41	66	3hr+
<b>Mini Store XL 130L</b>						
45°C	-	-	-	5	7	14.5
50°C	8	9	11	14	21.5	57
55°C	12	14	17.5	23	36.5	99.5
60°C	16	19	23.5	32	51	142
65°C	20	24	30	41	66	3hr+
70°C	24.5	29	36.5	50	80.5	3hr+

<b>13°C Inlet temperature</b>						
						- Single shower 1-3 users
<b>Hot water duration at 10L/m</b>						- Single shower 3+ users
Assumes 40°C shower, 13°C inlet temperature, 2.5 min heat delivery time		Second shower @8l/m				- Two showers 2-3 users
						- Two showers 4+ users
						- Three showers 4+ users
Store temperature	4kW	6kW	8kW	10kW	12kW	14kW
<b>Mini Store xs - 60L</b>						
45°C	-	-	-	-	-	-
50°C	-	-	-	-	-	-
55°C	-	-	-	-	-	-
60°C	-	-	5	5	6	7.5
65°C	5.5	6	6.5	7.5	9	11.5
70°C	7	7.5	8.5	10	12	16
<b>Mini Store - 80L</b>						
45°C	-	-	-	-	-	-
50°C	-	-	-	-	-	-
55°C	5	5.5	6	6.5	7.5	9.5
60°C	7	7.5	8.5	9.5	11.5	15.5
65°C	9	9.5	11	13	16	21
70°C	10.5	12	13.5	16	20	27
<b>Mini Store Fat / Tall - 110L</b>						
45°C	-	-	-	-	-	-
50°C	-	-	5	5.5	6.5	8
55°C	7	7.5	8.5	10	12	16
60°C	9.5	10.5	12	14.5	17.5	24
65°C	12	13.5	15.5	18.5	23.5	32
70°C	15	16.5	19.5	23	29	39.5
<b>Mini Store XL 130L</b>						
45°C	-	-	-	-	-	-
50°C	6	6.5	7	8	9.5	12.5
55°C	9	10	11	13	16	21.5
60°C	12	13.5	15.5	18	23	31
65°C	15	17	19.5	23.5	29.5	40.5
70°C	18	20.5	23.5	28.5	36	49.5

10°C Inlet Temperature						
						- Single shower 1-3 users
<b>Hot water duration at 5L/m</b>						- Single shower 3+ users
Assumes 40°C shower, 10°C inlet temperature, 2.5 min heat delivery time		Second shower @5l/m				- Two showers 2-3 users
						- Two showers 4+ users
						- Three showers 4+ users
Store temperature	4kW	6kW	8kW	10kW	12kW	14kW
Mini Store xs - 60L	Run time minutes					
45°C	-	-	-	-	-	-
50°C	5.5	6.5	9.5	39.5	3hr+	3hr+
55°C	8.5	11	18	85	3hr+	3hr+
60°C	12	16	26.5	130	3hr+	3hr+
65°C	15	20.5	35	175	3hr+	3hr+
70°C	18.5	25	43.5	3hr+	3hr+	3hr+
Mini Store - 80L						
45°C				12.5	3hr+	3hr+
50°C	8	10	16	72.5	3hr+	3hr+
55°C	12	16	27	132.5	3hr+	3hr+
60°C	16.5	22.5	38.5	3hr+	3hr+	3hr+
65°C	20.5	28.5	50	3hr+	3hr+	3hr+
70°C	25	35	61	3hr+	3hr+	3hr+
Mini Store Fat / Tall - 110L						
45°C	5	6.5	9.5	37	3hr+	3hr+
50°C	11	15	25	120	3hr+	3hr+
55°C	17	23.5	40.5	3hr+	3hr+	3hr+
60°C	23	32	56	3hr+	3hr+	3hr+
65°C	29	40.5	71.5	3hr+	3hr+	3hr+
70°C	35	49.5	87	3hr+	3hr+	3hr+
Mini Store XL 130L						
45°C	6.5	8	12.5	53.5	3hr+	3hr+
50°C	13.5	18	30.5	151.5	3hr+	3hr+
55°C	20.5	28.5	49	3hr+	3hr+	3hr+
60°C	27.5	38.5	67.5	3hr+	3hr+	3hr+
65°C	34.5	48.5	86	3hr+	3hr+	3hr+
70°C	41.5	59	104.5	3hr+	3hr+	3hr+

10°C Inlet Temperature						
					- Single shower 1-3 users	
<b>Hot water duration at 6L/m</b>					- Single shower 3+ users	
Assumes 40°C shower, 10°C inlet temperature, 2.5 min heat delivery time		Second shower @6l/m			- Two showers 2-3 users	
					- Two showers 4+ users	
					- Three showers 4+ users	
Store temperature	4kW	6kW	8kW	10kW	12kW	14kW
<b>Mini Store xs - 60L</b>						
45°C	-	-	-	-	-	-
50°C	-	-	-	6.5	19.5	3hr+
55°C	6	7.5	9.5	14.5	57	3hr+
60°C	8.5	10.5	14	22.5	95	3hr+
65°C	11	13.5	18.5	31	132.5	3hr+
70°C	13.5	17	23	39	170	3hr+
<b>Mini Store - 80L</b>						
45°C	-	-	-	-	-	-
50°C	6	7	8.5	13.5	52	3hr+
55°C	9	11	15	24.5	102	3hr+
60°C	12.5	15.5	21	35	152.5	3hr+
65°C	15.5	19.5	27	46	3hr+	3hr+
70°C	19	24	33	57	3hr+	3hr+
<b>Mini Store Fat / Tall - 110L</b>						
45°C			5	7	23	3hr+
50°C	8.5	10.5	13.5	22	92	3hr+
55°C	13	16	22	37	161	3hr+
60°C	17.5	22	30.5	52	3hr+	3hr+
65°C	22	28	39	67	3hr+	3hr+
70°C	26.5	33.5	47	82	3hr+	3hr+
<b>Mini Store XL 130L</b>						
45°C	5	5.5	7	10	36	3hr+
50°C	10	12.5	17	27.5	117.5	3hr+
55°C	15.5	19.5	26.5	45.5	3hr+	3hr+
60°C	21	26.5	36.5	63	3hr+	3hr+
65°C	26	33.5	46.5	81	3hr+	3hr+
70°C	31.5	40	56.5	98.5	3hr+	3hr+



10°C Inlet Temperature						
						- Single shower 1-3 users
<b>Hot water duration at 8L/m</b>						- Single shower 3+ users
Assumes 40°C shower, 10°C inlet temperature, 2.5 min heat delivery time		Second shower @8l/m				- Two showers 2-3 users
						- Two showers 4+ users
						- Three showers 4+ users
Store temperature	4kW	6kW	8kW	10kW	12kW	14kW
<b>Mini Store xs - 60L</b>						
45°C	-	-	-	-	-	-
50°C	-	-	-	-	-	-
55°C	-	-	-	-	5.5	7.5
60°C	5.5	6	6.5	7.5	10	15
65°C	7	8	9	11	14.5	22.5
70°C	8.5	10	11.5	14	18.5	30.5
<b>Mini Store - 80L</b>						
45°C	-	-	-	-	-	-
50°C	-	-	-	5	6	8
55°C	6	6.5	7.5	9	11.5	18
60°C	8.5	9.5	11	13	17.5	28.5
65°C	10.5	12	14	17.5	23.5	38.5
70°C	12.5	14.5	17	21.5	29.5	48.5
<b>Mini Store Fat / Tall - 110L</b>						
45°C	-	-	-	-	-	-
50°C	5.5	6	7	8	10	16
55°C	8.5	9.5	11	13.5	18.5	29.5
60°C	11.5	13	15.5	19.5	26.5	43.5
65°C	14.5	17	20	25	34.5	57.5
70°C	17.5	20.5	24.5	31	42.5	71.5
<b>Mini Store XL 130L</b>						
45°C	-	-	-	-	-	6
50°C	7	7.5	9	10.5	14	22.5
55°C	10.5	12	14	17.5	23.5	39
60°C	14	16	19	24	33	55.5
65°C	17.5	20.5	24.5	31	42.5	72
70°C	21	24.5	29.5	37.5	52.5	88.5

<b>10°C Inlet Temperature</b>						
						- Single shower 1-3 users
<b>Hot water duration at 10L/m</b>						- Single shower 3+ users
Assumes 40°C shower, 10°C inlet temperature, 2.5 min heat delivery time	Second shower @8l/m					- Two showers 2-3 users
						- Two showers 4+ users
						- Three showers 4+ users
Store temperature	4kW	6kW	8kW	10kW	12kW	14kW
<b>Mini Store xs - 60L</b>						
45°C	-	-	-	-	-	-
50°C	-	-	-	-	-	-
55°C	-	-	-	-	-	-
60°C	-	-	-	-	-	5
65°C	5	5	5.5	6	7	8
70°C	6	6.5	7	8	9	11
<b>Mini Store - 80L</b>						
45°C	-	-	-	-	-	-
50°C	-	-	-	-	-	-
55°C	-	-	5	5.5	6	6.5
60°C	6	6.5	7	8	9	10.5
65°C	7.5	8.5	9	10.5	12	15
70°C	9.5	10	11.5	13	15	19
<b>Mini Store Fat / Tall - 110L</b>						
45°C	-	-	-	-	-	-
50°C	-	-	-	-	5	5.5
55°C	6	6.5	7	8	9	11
60°C	8.5	9	10	11.5	13.5	16.5
65°C	10.5	12	13	15	18	22
70°C	13	14.5	16	18.5	22	27.5
<b>Mini Store XL 130L</b>						
45°C	-	-	-	-	-	-
50°C	5	5.5	6	6.5	7.5	8.5
55°C	8	8.5	9.5	10.5	12.5	15
60°C	10.5	11.5	13	15	17.5	21.5
65°C	13	14.5	16.5	19	22.5	28.5
70°C	16	17.5	20	23	27.5	35

# Performance Data |

The below tables show approximately how quickly the store can get back up to temperature when required. Note we suggest Mini Stores to be left to always on as they are effectively a heat exchanger, rather than hot water storage and with a hysteresis of around 3°C. Please consult your Heat Geek for help with specification.

<b>Recharge Time: 40 to 55°C (minutes)</b>						
Model	4kW	6kW	8kW	10kW	12kW	14kW
60L Mini Store xs	15.7	10.5	7.8	6.3	5.2	4.5
80L Mini Store	20.9	14	10.5	8.4	7	6
110L Mini Store T / F	28.8	19.2	14.4	11.5	9.6	8.2
130L Mini Store XL	34	22.7	17	13.6	11.3	9.7

<b>Mins per °C</b>						
Model	4kW	6kW	8kW	10kW	12kW	14kW
60L Mini Store xs	1.05	0.7	0.52	0.42	0.35	0.3
80L Mini Store	1.39	0.93	0.7	0.56	0.47	0.4
110L Mini Store T / F	1.92	1.28	0.96	0.77	0.64	0.55
130L Mini Store XL	2.27	1.51	1.13	0.91	0.75	0.65

To place an order for a Mini Store,  
please fill in the [Mini Store order form](#)  
on our website, by clicking/ tapping  
the link above, or by scanning the QR  
code below.

Orders which are placed for standardised, bespoke products, will be taken as approval and confirmation that their specification perfectly describes the product that is required, with an adequate amount of detail and accuracy.

Newark Cylinders do not personally performance test the standardised, bespoke products that they manufacture to third party designs. It is, therefore, each customer's responsibility to research and verify with the designer, that the product being ordered meets the exact requirements of its intended purpose. Newark Cylinders will not take any responsibility for products which don't perform as expected. All products are manufactured to order and, as a result, returns cannot be accepted unless the product is faulty or has not been manufactured to the advertised specification.

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CYLINDERS



01636 678437

Brunel Drive  
Northern Road Industrial Estate  
Newark  
Nottinghamshire  
NG24 2EG

## Changes made from v1.1 to v1.2

- Guidance has been added to page 5 regarding when an expansion vessel should be added to the system to protect the DHW coil from over-pressurisation during heating.
- Prices have been updated in line with rising material and labour costs.
- A second page has been added to the price list which details important buyer responsibilities when ordering.
- Nothing has changed within the Mini Store specifications, but all feedback is being noted, ready for a major update later this year. If you have any suggestions for changes, features, or upgrade options that you'd like to see, we'd love to hear them.