

NEWARK
CYLINDERS



EXPERT MANUFACTURERS OF BESPOKE:

CYLINDERS - THERMAL STORES - BUFFER VESSELS

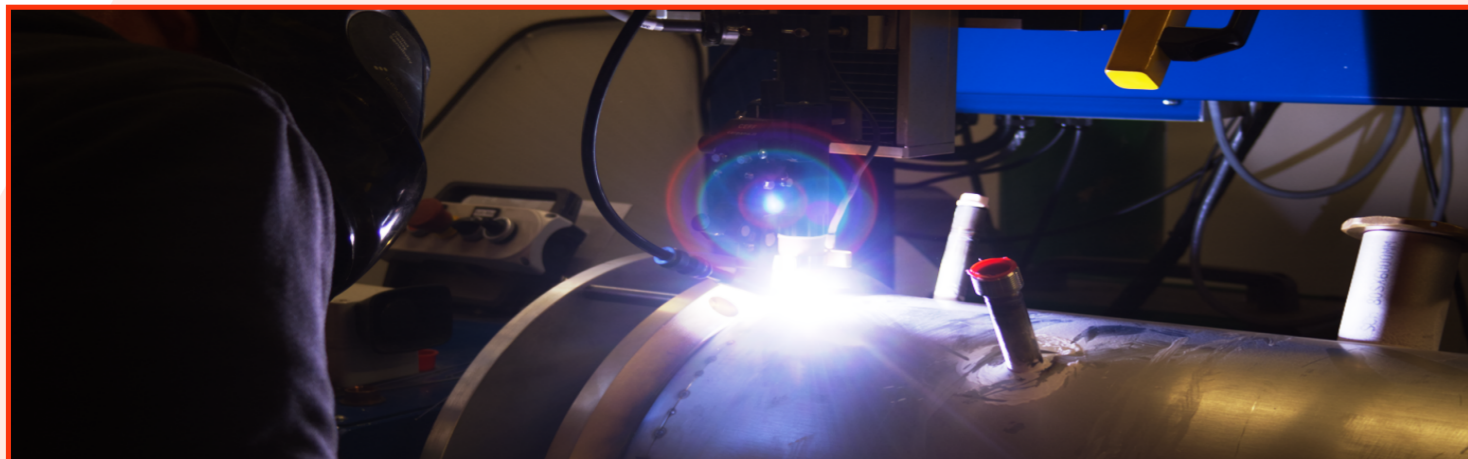


S E R V I C E G U I D E

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ABOUT NEWARK CYLINDERS

Excellent Service | Supportive Collaboration |
Constant Improvement | High Quality Standards



Founded in 1977, Newark Cylinders is a family-run business specialising in the manufacture of bespoke hot water storage solutions, crafted from high-quality stainless steel and copper.

Our product range includes everything from small-scale marine calorifiers and domestic cylinders to large industrial calorifiers, thermal stores, unvented cylinders, and buffer vessels. Each unit is fully customisable and built to meet your exact specifications.

With over 45 years of industry experience, we continue to evolve with the changing needs of our customers, while remaining committed to environmental sustainability and energy efficiency.

From our origins as a copper cylinder manufacturer under the stewardship of John and Janet Smith, to expanding into stainless steel and a wider product offering, Newark Cylinders has remained at the forefront of UK hot water cylinder manufacturing. Today, it continues to be run by the Smith family, with John and Janet's sons, Mark and Andrew, managing the business. Together, they have a combined 80+ years of experience in the cylinder manufacturing business.



Newark Cylinders Founder John Smith checking one of our copper cylinders (October 1980)

All of our products are manufactured in-house at our production facility in Nottinghamshire. By combining skilled craftsmanship with modern machinery, we ensure every made-to-order unit is produced with care and precision.

Our cylinders are designed to integrate seamlessly with a wide range of heat sources, including solar panels, wood burners, pellet boilers, gas and oil boilers, as well as air and ground source heat pumps.

WHY CHOOSE NEWARK CYLINDERS:

Adaptability and Customisation

No matter what your requirements are, we have the versatility to manufacture exactly what you need.

Quick Turnaround

From initial enquiry to delivery, we are efficient in promptly completing your order.

Manufactured in the UK

Whether you're looking for a Hot Water Cylinder, Thermal Store, or Buffer Vessel, all of our products are manufactured in-house.

Sustainability

By offering a variety of products, we are confident that we can contribute to the efficiency of your hot water supply.

SPECIFY EVERY DETAIL

The variables that we can offer within the specification of a bespoke cylinder design include:

DIMENSIONS	MATERIALS & BUILD	CONNECTIONS & INTEGRATION
Custom Heights	Copper & Stainless Steel	Any connection size, quantity, position
Custom diameters	Pressure ratings to spec	Custom coil sizes and quantities
8 to 1,500 litre capacity	Choice of insulation thickness and finish	Compatible with all heat sources*
*Heat pump, solar thermal, solar PV, solid fuel, gas/oil boilers, etc		

All of these can be mixed and matched to create the optimal cylinder (or range of cylinders) for each project.

DOMESTIC & COMMERCIAL

Hot Water Cylinders (vented & unvented, heat pump ready)

Thermal Stores (vented or pressurised)

Buffer Vessels (8-100L, vented or pressurised)

Combined HP Buffer Cylinders

OTHER BESPOKE SOLUTIONS

Custom copper and stainless steel products for any application

INDUSTRIAL & MARINE

Industrial Calorifiers

Marine Calorifiers

SYSTEM COMPONENTS

Low Loss Headers, Volumisers, High Temperature Header Tanks

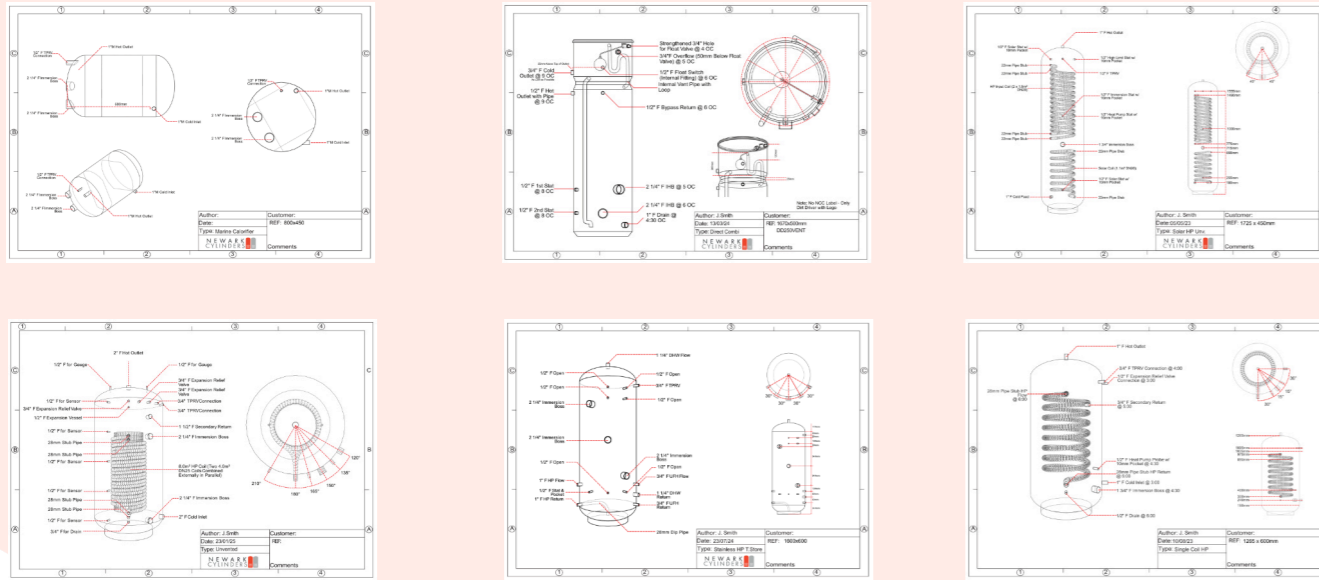
AVAILABLE PRODUCTS TYPES & SIZES

Copper	
Vented Cylinder	40 - 1150 litres
Unvented Cylinder	80 - 1150 litres
Combination Cylinder	40 - 430 litres
Thermal Store	140 - 1150 litres
Buffer Vessel	40 - 1150 litres
Industrial Calorifer	500 - 1150 litres
High Temperature Header Tank	20 - 65 litres
Marine Calorifier	28 - 140 litres
Stainless Steel	
Vented Cylinder	90 - 2000 litres
Unvented Cylinder	90 - 2000 litres
Thermal Store	140 - 2000 litres
Buffer Vessel	50 - 2000 litres
Heat Pump Buffer Vessel	8 - 50 litres
Industrial Calorifier	600 - 2000 litres
High Temperature Header Tank	20 - 65 litres

BESPOKE CYLINDER SOLUTIONS

WHY CHOOSE A BESPOKE HOT WATER CYLINDER

- Endless Customisation
- Collaborative Design Process
- Quality You Can Trust



For many years, **Newark Cylinders** has designed and manufactured a variety of standalone bespoke solutions for thousands of customers.

Our “made-to-order” service is the key aspect of our business, and positions us as experts in creating customised hot water cylinders, buffer vessels, thermal stores, header tanks, and more.

From 8 litres to 2000 litres, we can manufacture hot water solutions in various heights and diameter combinations, with customisable connection positions, sizes, and quantities.

Our team brings together technical expertise and industry knowledge to every project, ensuring that you get a product that performs flawlessly. Our bespoke service offers unparalleled flexibility, meaning every product we manufacture can be as unique as the projects they are intended to serve.

We pride ourselves on delivering high-quality, durable products, which provide reliable hot water storage solutions that you and your clients can depend on for many years to come.

Standard cylinders have a valuable place in the market. Homeowners often choose quick and inexpensive fixes when they can.

However, for those special jobs with unique challenges, a **bespoke** cylinder can become necessary. Homes with limited space, strange pipe layouts, or complex systems often need custom-made cylinders. Standard cylinders may not meet these specific needs.

What are the options and customised features for a bespoke cylinder?

While standard hot water cylinders offer a straightforward solution, they may not always be the best fit for every installation. At Newark Cylinders, we specialise in manufacturing bespoke hot water cylinders tailored to unique requirements. Whether you need a specific size, shape, material, or coil configuration, our expertise ensures a solution that maximises efficiency and performance.

Because of the nature of being a bespoke hot water cylinder, several variables that can be considered when designing a hot water tank.



Insulation Thickness & Finish

The minimum thickness of insulation depends on the volume of the cylinder. Investing in extra insulation can save you money over the cylinder's lifetime.

Dimensions, volume and shape

Heights and diameter options can be mixed and matched to create a unit which is tall and thin, short and wide, or anything in between. The shape of a product can even be customised to suit unique installation spaces, and/or ease restrictive access issues.



BESPOKE VS STANDARD HOT WATER CYLINDERS

Material: Copper or Stainless Steel

Bespoke hot water cylinders can be manufactured in copper or stainless steel. Both have their pros and cons though.

For example, stainless steel can handle high pressure better than copper with the same wall thickness. However, copper is well-known for its great antibacterial and antimicrobial properties.

Pressure Ratings

If your system requires a higher-than-normal working pressure, a bespoke cylinder with a thicker grade of material can accommodate this.

We currently work with up to 2mm thick stainless steel, or up to 5mm thick copper.

Connection Sizes and Positions

The positions of flow and return connections, immersion heaters, thermostat pockets, valve connections, etc, can be specified to suit the installation's requirements perfectly. This can minimise the re-positioning of pipework, reducing labour, saving time and making future maintenance easier.

Multi-Heat Source Compatibility

Unlike many standard cylinders, a bespoke model makes it possible to combine multiple heat sources including solar PV, heat pump, wood burner, and gas/oil boiler.

Single or Multiple Coil System

The coil configuration of a cylinder directly impacts the efficiency of transferring heat, especially when the cylinder is used in a heat pump or solar system.

Factors	Bespoke	Standard
Longevity	Can be made to last	Adequate lifespan
Space Efficiency	Designed for restrictive spaces	Designed for the majority of available spaces
Performance	Optimised	Limited
Versatility	Built to suit each system's specific heat source(s)	Limited Options
Lead Time	Longer due to customisation	Readily available
Availability	Made to order	Off-the-shelf purchase
Cost	Higher initial cost, long-term benefits	More affordable in the short term
Installation	Doesn't require pipework modifications	May require pipework modifications
Energy Efficiency	Designed for maximum efficiency	Adequate efficiency



SCAN TO LEARN MORE

ENGINEERED TO **YOUR** SPECIFICATIONS: BESPOKE CYLINDER EXAMPLES



250L COPPER VENTED THERMAL STORE (1700 X 450mm)

Manufactured for Neon Heating's showroom, they required a bespoke unit built to handle multiple heat sources, including solar, oil, gas, AGA, and stove.

Designed for efficient hot water delivery through 1.62m Solar Input coil and a 3.24m² Domestic Hot Water Output, it is ideal for versatile systems.

450L STAINLESS STEEL PRESSURISED THERMAL STORE (1740 X 600mm)

This 450L stainless steel pressurised thermal store is a custom-built unit designed for modern, multi-source heating systems. It features twin coils for solar and heat pump input, with dedicated connections for wood boilers, duct heaters, and central heating

With excellent insulation and a sleek metallic cased finish, it offers high performance, low heat loss, and the flexibility to suit complex, pressurised installations.



"For a large near passivhaus new build, we were asked to install a heating system that links UFH and heat distribution via MVHR to a boiler stove, with dual immersion heaters supplied from a large PV array taking over in the summer.

Newark Cylinders helped us to specify and build the bespoke pressurised thermal store that sits at the heart of this system. After its first winter season our client is very pleased with how the system enabled him to manage periods of peak heating requirement."

- Justin Ford, Invicta Clean Energy



600L STAINLESS STEEL (1950 X 650mm)

Shetland-based business GTS required a cylinder with 4x 1 3/4" immersion bosses along with various connections. This included a 1 1/4" flow and return connections for plate heat exchange, and 3x 1/2" control connections.

The cylinder has a dimension of 1950 x 650mm with an insulation thickness of 50mm.

180L UNVENTED STAINLESS STEEL HEAT PUMP CYLINDER WITH 65L BUFFER VESSEL COMBINATION (1900 X 600mm)

Combining a 180L unvented stainless steel cylinder with a 65L buffer vessel, this combi design included a 3.0m² heat pump input coil (2 x 1.5m² DN20 SS coils, combined in parallel).

The 180L heat pump cylinder included several connections; a 2x 1/2" F BSP connections with fitted 10mm dry pockets, a 1/2" F TPRV, a 1/2" F drain valve, and 22mm compression cold inlet and heat outlet.

The 65L buffer vessel includes 4x 1" F direct connections, a 1/2" F auto air vent connection, and a 1/2" connection for controls.



300L VENTED STAINLESS STEEL CYLINDER (1950 X 450mm)

This bespoke 300L vented stainless steel cylinder from was engineered for high performance and versatility. It featured a 64kW boiler coil (6.0m² DN25 convoluted stainless steel) with 1 1/4" F BSP connections, dual 1 3/4" F BSP immersion heater bosses, and a 1/2" F BSP boiler stat pocket with a 10mm pocket.

Cold mains inlet and hot water outlet are 1" F BSP, with a 3/4" F BSP secondary return. All connections were positioned within 180° for straightforward installation.

The uncased cylinder means the green foam insulation is exposed.

STANDARDISED CYLINDER SOLUTIONS DESIGN YOUR OWN RANGE

- Bespoke Features
- Save time and money
- Optimised design
- Exclusive to you



With **Newark Cylinders' Standardised Cylinder Solutions**, you have the ability to create a bespoke range of cylinders which are then standardised to specifically suit the majority of your company's installations.

By investing time into creating a standardised range, you can avoid having to spend time later on specifying each individual cylinder. Whether you have minimum requirements to meet, innovative ideas to incorporate, or restrictive obstacles to overcome, you can design an exclusive range that's optimised, and meets all of your project's demands.

Many of our customers have benefited by having a standardised specification designed, ready to be ordered whenever they are required.



NEWARK
CYLINDERS
An AQUINOX approved product

Super Cylinder
Ultra-High Efficiency Cylinders



Heat Geek Mini Store
Turn Your Heat Pump Into A Combi!



Designed by

Heat  Geek





At Newark Cylinders, we don't just deliver products; we deliver exceptional service.

Our commitment to excellence is echoed in the words of our satisfied customers on Trustpilot.

Experience the difference with Newark Cylinders – where extraordinary customer service is our promise.

FIRST CLASS KNOWLEDGE & SERVICE

"Newark Cylinders provided their knowledge to supply our customer with the exact cylinder they required. The pre-sales and post-sales support was first class. Newark Cylinders will be our first call whenever we need a custom built calorifier. A special thank you to Tom for his patience."

COMPLICATED JOB MADE EASY

"I needed a bespoke tank making to replace a buffer tank in a tight space, with an immersion and a pressure valve and the existing connections. The team at Newark did a great job, even getting some special brackets made for me. The finished job fitted perfectly, quick turn around and at a reasonable price. Thanks again guys!"

GREAT ORDERING EXPERIENCE

"We needed a one-off stainless cylinder at short notice and they were not only good value for money but managed to deliver faster than quoted, just when we needed it. The quality is excellent and we would not hesitate to use them again."

GOING THE EXTRA MILE

"Not only do you get a good product, their delivery time is great. But more than that, these guys rectified an issue I had quickly and were even willing to make adjustments to their website when a problem was pointed out. There are not many companies out there who go the extra mile, but Newark Cylinders did."

DELIVERING WHAT YOU NEED

"Newark Cylinders are a friendly and thoughtful business and aim to deliver what you need."

TOP-NOTCH SERVICE

"I have had several custom cylinders made and delivered by Newark Cylinders. Their service is absolutely top-notch, and their communication skills are excellent."

I will definitely be using them every time. Overall, I give them a perfect 10 out of 10!"

AQUINOX

STAINLESS®

We have been manufacturing our products to an internal quality standard since 2012, known as Aquinox Stainless®.

To be badged as "Aquinox Stainless®", a product must meet all of the following criteria:

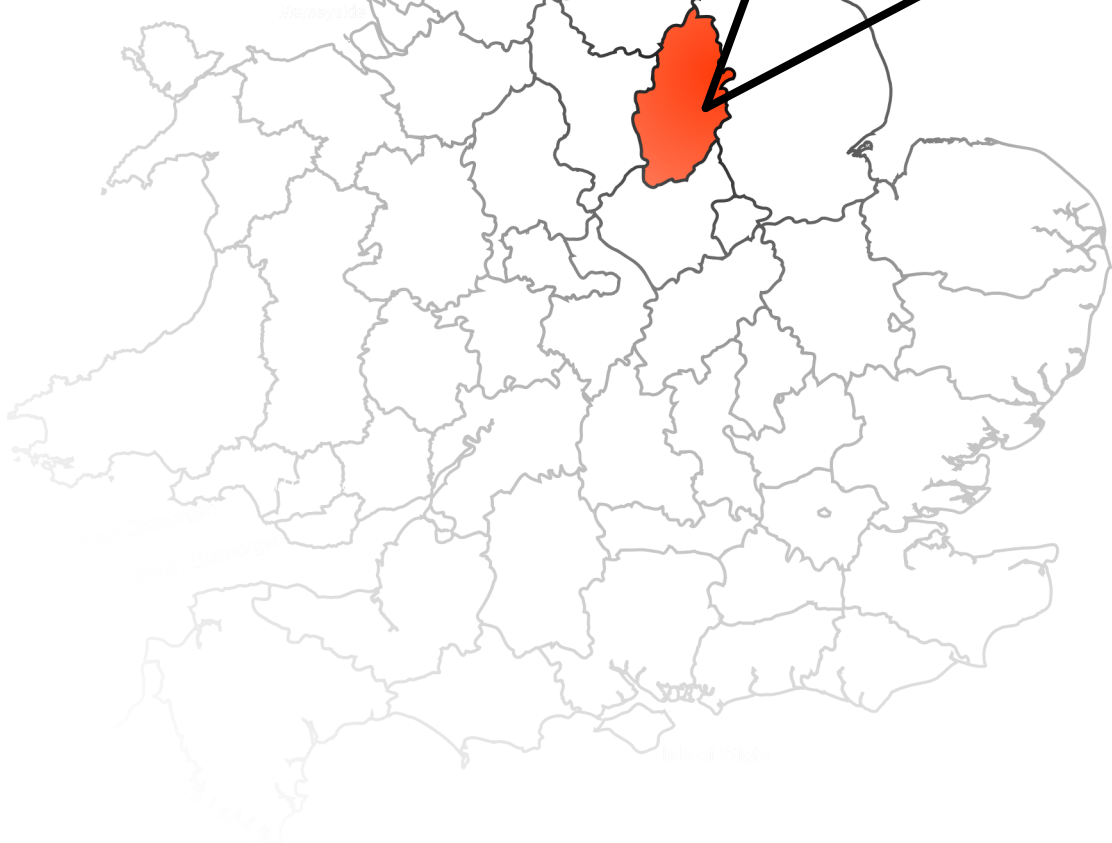
- Have been manufactured from LDX 2101 Duplex stainless or 316L stainless steel (materials applicable to certain diameters)
- Have been manufactured to BSEN 12897:2016 A1:2020
- Have been manufactured to our current KIWA Reg4
- Have been manufactured by the expert engineers at Newark Cylinders
- Be covered by the Newark Cylinders workmanship and customer service guarantee
- Have undergone 5 individual quality checks at key points in the manufacture:
 - Specification conformity 1
 - Internal clearance check
 - Specification conformity 2
 - Pressure test
 - Final cosmetic check

Products include:

- All bespoke Stainless Steel Cylinders/Thermal Stores/Buffer Vessels
- Super Cylinders (HG Series) – designed by Heat Geek
- Heat Geek Mini Stores
- Aquinox Stainless® Heat Pump Buffer Vessels

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