



Creating Excellence, Building Reputation
Unvented Water Storage From The Experts...



HIGH QUALITY
ASSURED



ErP
COMPLIANT



BEST IN CLASS
EFFICIENCY







QUICK
REHEAT TIME



HEAT PUMP
MODELS AVAILABLE

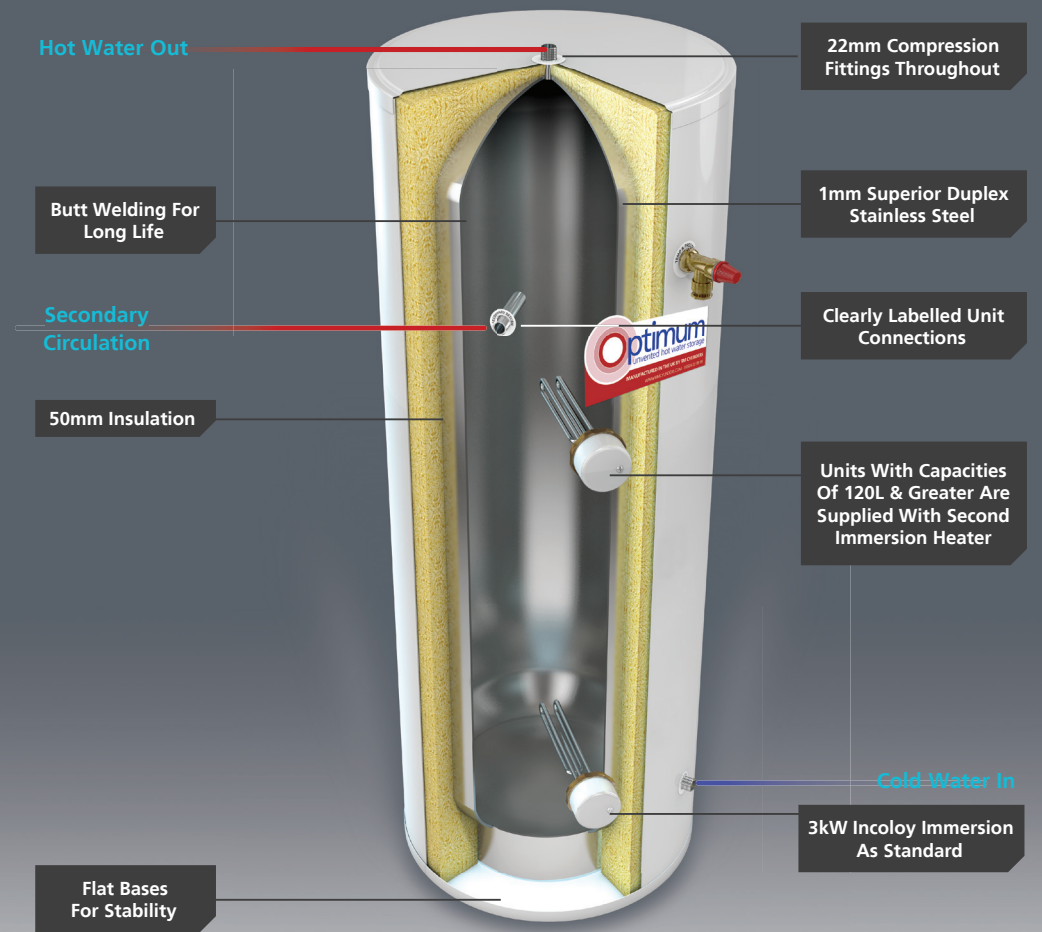


- HEAT PUMP PACKS 
- UNDERFLOOR HEATING SYSTEMS 
- SOLAR SYSTEMS 
- VENTILATION SYSTEMS 

Optimum Direct Cylinder...

Electrically Heated Hot Water Storage

Secondary Circulation applies to:
210L, 250L, & 300L units only.



- Optional Upgrades:
- Upgraded Connection Size & Inlet Group
 - Upgrade To Titanium or 6kW Immersions For Commercial Applications

Technical Specification of Optimum Direct:

Model	O90D	O120D	O150D	O180D	O210D	O250D	O300D
Code	TROMVD-0090LFC	TROMVD-0120LFB	TROMVD-0150LFB	TROMVD-0180LFB	TROMVD-0210LFC	TROMVD-0250LFC	TROMVD-0300LFC
Capacity	90	120	150	180	210	250	300
Height (mm)	720	900	1100	1280	1470	1720	1980
Diameter (mm)	545	545	545	545	545	545	545
Weight Empty (kg)	21	26	33	38	41	46	55
Weight Full (kg)	111	146	183	218	251	296	355
Standing Loss (kWh/day)	1.25	1.44	1.64	1.82	1.92	2.19	2.24
Standing loss (watts)	52	60	68	76	80	91	93
ErP Band	C	C	C	C	C	C	C
ErP Profile	M	M	M	L	L	XL	XL
Energy Efficiency (η _{wh} %)	36	36	36	37	37	38	38
ErP Usage (kWh/day) Qelec	8.580	8.7000	8.400	15.630	16.760	27.390	27.720
ErP Usage (yearly) AFC	1884	1911	1845	3432	3680	6015	6087
Noise Level (db)	15	15	15	15	15	15	15

Supplied with
the following
components:



Cold Water Inlet Set



Tundish



T&P Relief Valve



Expansion Vessel

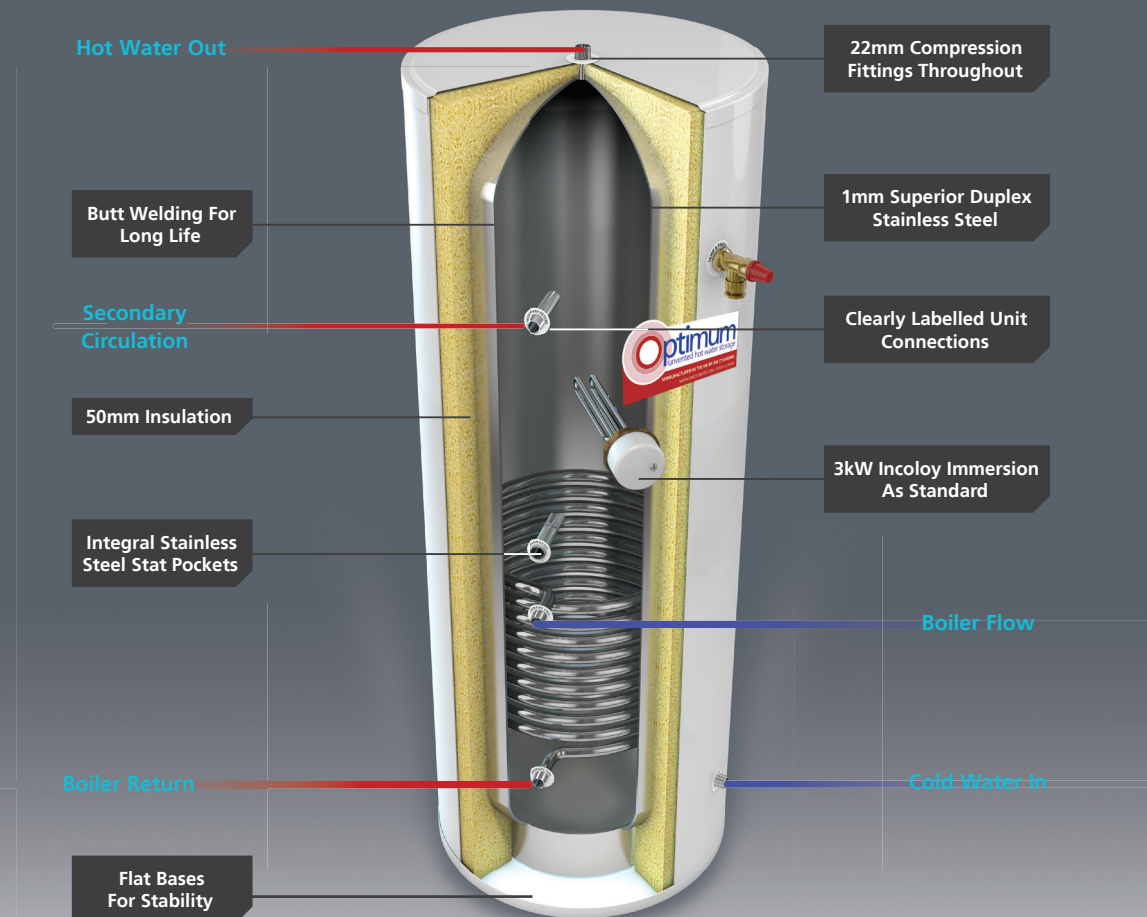


3kW Immersion

Optimum Indirect Cylinder...

Gas Boiler Heated Hot Water Storage

Secondary Circulation applies to:
210L, 250L, & 300L units only.



Optional Upgrades:

- Upgraded Connection Size & Inlet Group
- Upgrade To Titanium or 6kW Immersions For Commercial Applications

Technical Specification of Optimum Indirect:

Model	O90I	O120I	O150I	O180I	O210I	O250I	O300I
Code	TROMVI-0090LFC	TROMVI-0120LFB	TROMVI-0150LFB	TROMVI-0180LFB	TROMVI-0210LFC	TROMVI-0250LFC	TROMVI-0300LFC
Capacity	86.39	116.39	146.39	175.86	205.25	245.25	295.25
Height (mm)	720	900	1100	1280	1470	1720	1980
Diameter (mm)	545	545	545	545	545	545	545
Weight Empty (kg)	23	30	38	42	45	51	60
Weight Full (kg)	109	146	184	218	250	296	355
Standing Loss (kWh/day)	1.25	1.44	1.64	1.82	1.92	2.19	2.24
Standing loss (watts)	52	60	68	76	80	91	93
Heat Exchanger (kW)	5.30	9.80	10.24	11.54	12.67	14.97	17.26
Indirect Reheat (mins)	26	33	36	41	45	47	48
ErP Band	C	C	C	C	C	C	C

Supplied with
the following
components:



Cold Water Inlet Set



Tundish



T&P Relief Valve



Expansion Vessel



2 Port Zone Valve



Dual Thermostat

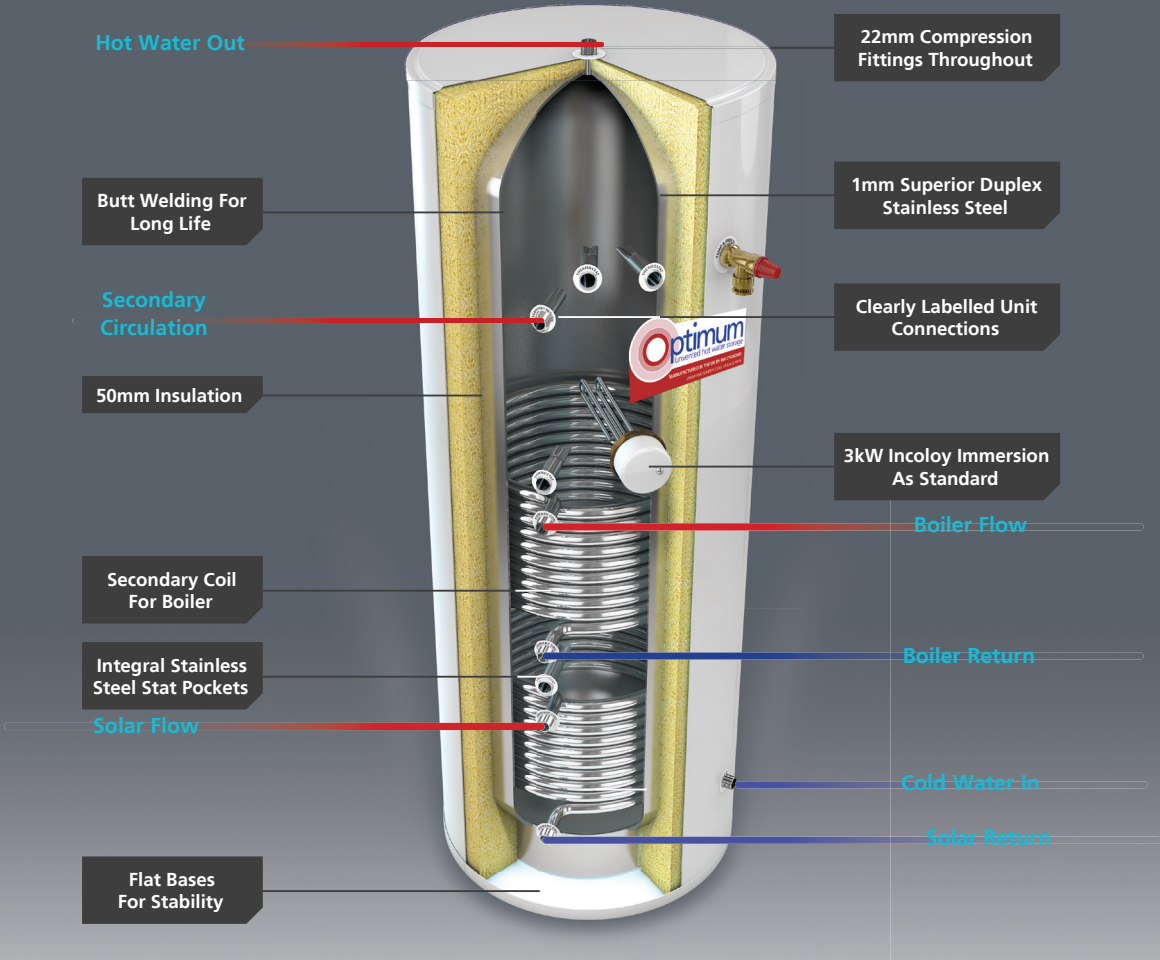


3kW Immersion

Optimum Twin Coil Cylinder...

Gas Boiler & Solar Heated Hot Water Storage

Secondary Circulation applies to:
210L, 250L, & 300L units only.



Technical Specification of Optimum Twin Coil:

Model	O180T	O210T	O250T	O300T
Code	TROMVS-0180LFB	TROMVS-0210LFC	TROMVS-0250LFC	TROMVS-0300LFC
Capacity	171.71	202.24	241.10	290.50
Height (mm)	1280	1470	1720	1980
Diameter (mm)	545	545	545	545
Weight Empty (kg)	45	48	53	63
Weight Full (kg)	217	250	294	353
Standing Loss (kWh/day)	1.82	1.92	2.19	2.24
Standing loss (watts)	76	80	91 x	93
Heat Exchanger (kw) - Solar	11.54	12.67	14.97	17.26
Heat Exchanger (kw) - Primary	9.80	11.54	12.67	12.67
Indirect Reheat (mins)	24	29	33	37
ErP Rating	C	C	C	C

Supplied with
the following
components:



Cold Water Inlet Set



Tundish



T&P Relief Valve



Expansion Vessel



2 Port Zone Valve



Dual Thermostat



Energy Cut Out Stat



3kW Immersion

Optimum Slimline Direct Cylinder...

Space Saving Electrically Heated Hot Water Storage

Secondary Circulation applies to:
210L, 250L, & 300L units only.

Hot Water Out

22mm Compression
Fittings Throughout

Butt Welding For
Long Life

1mm Superior Duplex
Stainless Steel

50mm Insulation

Units With Capacities
Of 120L & Greater Are
Supplied With Second
Immersion Heater

Flat Bases
For Stability

Cold Water In

3kW Incoloy Immersion
As Standard

Optional Upgrades:

- Upgraded Connection Size & Inlet Group
- Upgrade To Titanium or 6kW Immersions For Commercial Applications

Technical Specification of Optimum Slimline Direct:

Model	O60SD	O90SD	O120SD	O150SD	O180SD	O210SD
Code	TROMVD-0060SFC	TROMVD-0090SFC	TROMVD-0120SFC	TROMVD-0150SFC	TROMVD-0180SFC	TROMVD-0210SFC
Capacity	54	86	115	145	175	202
Height (mm)	600	900	1165	1430	1710	1920
Diameter (mm)	475	475	475	475	475	475
Weight Empty (kg)	19	22	26	33	38	41
Weight Full (kg)	72	106	140	177	212	243
Standing Loss (kWh/day)	1.02	1.14	1.37	1.60	1.70	1.80
Standing loss (watts)	43	48	57	67	71	75
ErP Band	C	C	C	C	C	C
ErP Profile	M	M	M	M	L	L
Energy Efficiency ($\eta_{wh}\%$)	37	36	36	34	34	37
ErP Usage (kWh/day) Qelec	7.251	7.110	7.480	7.570	13.985	13.970
ErP Usage (yearly) AFC	1592	1561	1643	1662	3071	3068
Noise Level (db)	15	15	15	15	15	15

Tested in accordance with BSEN 12897 & BSEN 50440:2015

Supplied with
the following
components:



Cold Water Inlet Set



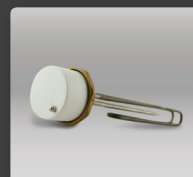
Tundish



T&P Relief Valve



Expansion Vessel

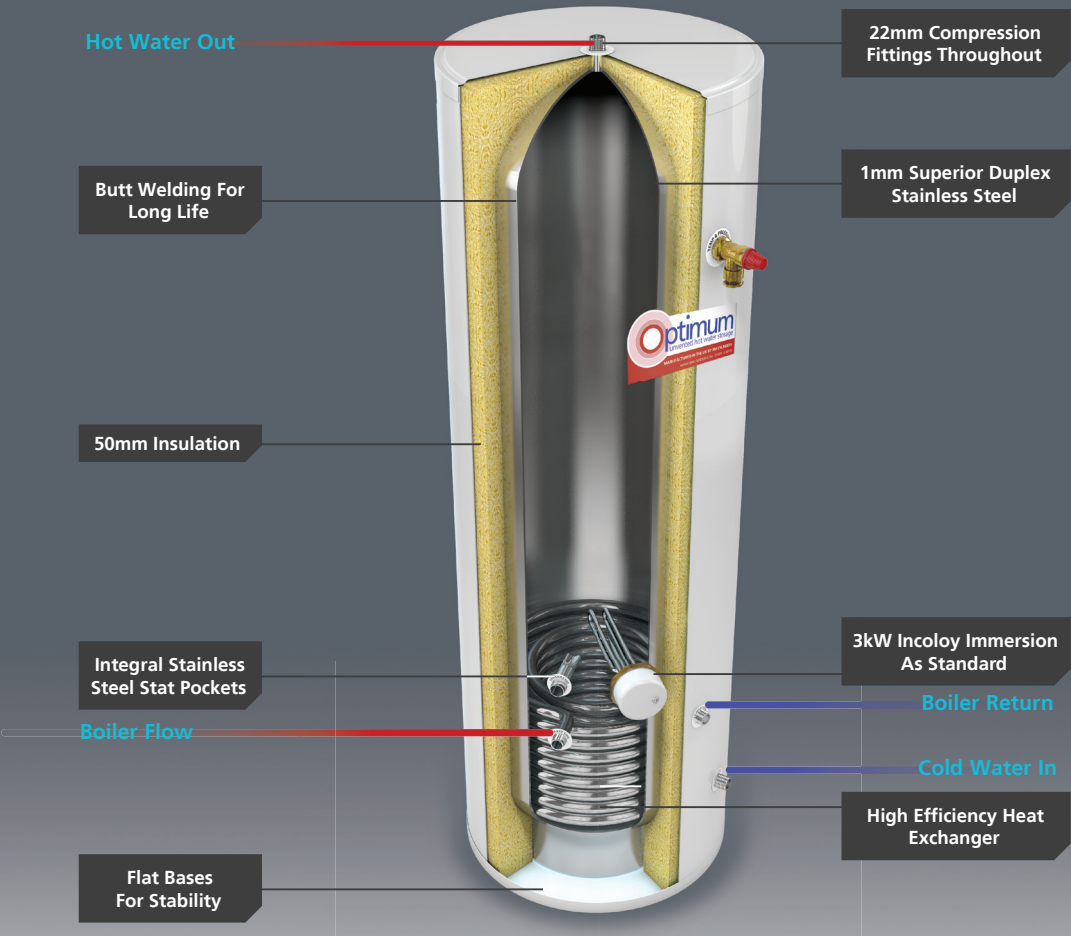


3kW Immersion

Optimum Slimline Indirect Cylinder...

Space Saving Gas Boiler Heated Hot Water Storage

Secondary Circulation applies to:
210L, 250L, & 300L units only.



Optional Upgrades:

- Upgraded Connection Size & Inlet Group
- Upgrade To Titanium or 6kW Immersions For Commercial Applications

Technical Specification of Optimum Slimline Indirect:

Model	O60SI	O90SI	O120SI	O150SI	O180SI	O210SI
Code	TROMVI-0060SFC	TROMVI-0090SFC	TROMVI-0120SFC	TROMVI-0150SFC	TROMVI-0180SFC	TROMVI-0210SFC
Capacity	51	81	109	140	170	191
Height (mm)	600	900	1165	1430	1710	1920
Diameter (mm)	475	475	475	475	475	475
Weight Empty (kg)	21	23	30	38	42	45
Weight Full (kg)	71	103	139	177	211	242
Standing loss (kWh/day)	1.02	1.14	1.37	1.60	1.70	1.80
Standing loss (watts)	43	48	57	67	71	75
Heat Exchanger (kW)	16.40	15.73	15.63	16.33	15.90	18.15
Indirect Reheat (mins)	13	14	19	24	29	33
ErP Band	C	C	C	C	C	C

Tested in accordance with BSEN 12897

Supplied with the following components:



Cold Water Inlet Set



Tundish



T&P Relief Valve



Expansion Vessel



2 Port Zone Valve



Dual Thermostat

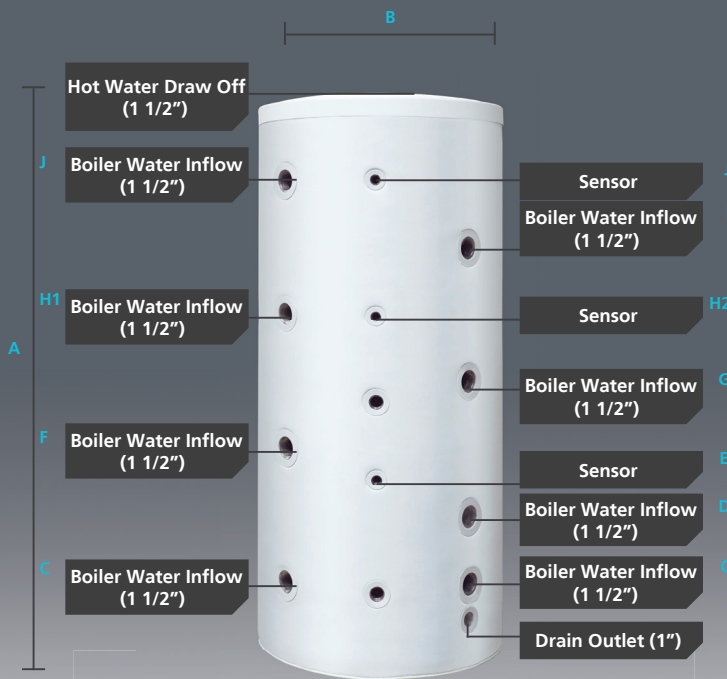


3kW Immersion

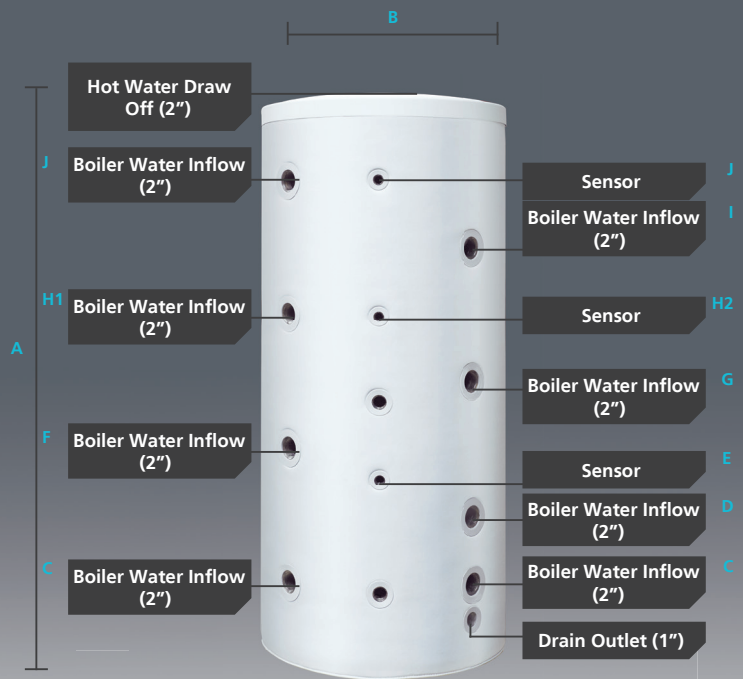
Mild Steel Buffer Tanks

- Nominal capacity of 300 to 5000 litres
- Made from quality St 37-2 steel
- 100 mm ECO SKIN fleece insulation (up to 5,000 l)
- Large-surface pipe array on PSR/PSRR models
- 240 mm flange on PSF models for installing a finned tube heta exchanger or built-in heater
- Operating pressure = 3 bar, test pressure 4.5 bar in buffer tank
- Operating pressure max. 10 bar, test pressure 15 bar in pipe array on PSR/PSRR models
- 4 regulating sleeve threads. „Female thread on PSF/PSM and PSR/PSRR models
- 2x sensor channels for variable positioning of sensor models
- Operating temperature = 95°C (110°C in pipe array)
- External powder coating up to 2000 litres
- External anti-rust coating (from 3,000 l upwards)

Dimensions (300-2000L)



Dimensions (3000-5000L)



Buffer:

Capacity	100L	200L	300L	400L	500L	800L	1000L	1500L	2000L	3000L	4000L	5000L
Code Without Coil	BBMSD-00100nfc	BBMSD-00200NFC	BBMSD-00300NFC	BBMSD-00400NFC	BBMSD-00500NFC	BBMSD-00800NFC	BBMSD-01000NFC	BBMSD-01500NFC	BBMSD-02000NFC	BBMSD-03000NFC	BBMSD-04000NFC	BBMSD-05000NFC
Code With Coil	BBMSI-00100NFC	BBMSI-00200NFC	BBMSI-00300NFC	BBMSI-00400NFC	BBMSI-00500NFC	BBMSI-00800NFC	BBMSI-01000NFC	BBMSI-01500NFC	BBMSI-02000NFC	BBMSI-03000NFC	BBMSI-04000NFC	BBMSI-05000NFC
Height (A)	1100	1105	1450	1830	1900	1730	2050	2000	2500	2750	2355	2855
Diameter (B)	550	750	750	750	550	790	790	1100	1100	1250	1600	1600
Weight (empty)	50	60	75	90	105	125	150	210	235	300	380	440
Hot water volume	111	223	305	387	467	728	883	1479	2023	2935	3985	4981
C	220	220	220	220	215	250	250	385	385	410	445	445
D	-	-	390	450	455	435	500	660	660	725	675	760
E	130	315	500	575	610	570	570	485	800	825	790	920
F	-	485	560	680	675	620	740	-	930	1040	910	1075
G	-	555	730	905	915	820	980	1152	1205	1360	1140	1390
H1	-	605	900	1135	1145	1020	1240	960	1480	1680	1365	1705
H2	820	785	900	1135	1145	1020	1240	1122	1480	1680	1365	1705
I	-	785	1070	1365	1375	1215	1485	1535	1755	1995	1605	2020
J	885	885	1235	1580	1605	1410	1730	1435	2025	2310	1840	2335
Energy Efficiency Class	C	C	C	C	C	C	C	C	C	C	C	C
Max Working Pressure	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Max Working Temperature	95	95	95	95	95	95	95	95	95	95	95	95

Samsung Heat Pump

Heat your home using free energy from the outside air

The Samsung Eco Heating System utilises Heat Pump technology to use the heat energy from the ambient air, which is a free and renewable energy source, for low cost heating and hot water production.

Efficient heating

An efficient Heat Pump system provides efficient heating and domestic hot water throughout the year, even in ambient temperatures of -25°C.

Compact installation

The EHS Mono system utilises an outdoor unit, which combines the refrigerant and water circuits, removing the need for internal installation space. The compact size and low noise level of the outdoor unit provides an unobtrusive solution for domestic applications.

Hybrid capability

Available in a range of 5 outputs to suit most applications, the EHS Mono system includes flexible control options and Hybrid capability, whereby the system can be used in conjunction with Solar and/or Boiler installations.



Heat Pump Outdoor Units:

Code								
Power Supply			Ø, #, V, Hz	1, 2, 220-240, 50	1, 2, 220-240, 50	1, 2, 220-240, 50	1, 2, 220-240, 50	1, 2, 220-240, 50
Performance (A2W #1)	Nominal Capacity* ¹⁾	Heating	W	5,000	9,000	12,000	14,000	16,000
	Nominal Current Input* ¹⁾	Heating	A	5.1	9.2	12	14.3	17.1
	SCOP * ¹⁾		-	4.510	4.409	4.454	4.489	4.481
Electric Specification	Max Current		A	16	22	28	30	32
Water Side	Piping Connections	In / Out	Ø, inch	1" (BSPP)	1" (BSPP)	1" (BSPP)	1" (BSPP)	1" (BSPP)
Refrigerant Side	Refrigerant	Type	-	R410A(GWP>150)				
Sound	Sound Pressure* ³⁾	Heating	dB (A)	45	48	50	51	52
	Sound Power		dB (A)	61	63	64	65	66
External Dimension	Weight	Net	kg	59	76	108	108	108
	Dimensions (WxHxD)	Net	mm	880 x 798 x 310	940 x 998 x 330	940 x 1,420 x 330	940 x 1,420 x 330	940 x 1,420 x 330
Operating Range	Leaving Water	Heating	°C	25 ~ 55	25 ~ 55	25 ~ 55	25 ~ 55	25 ~ 55

*1~2) A2W rating conditions in accordance with Eurovent Rating Standard for Liquid Chilling Packages RS-6/C/001-2011.

*1) A2W Condition #1 : (Heating) Water In/Out 30°C/35°C, Outdoor Air 7°CDB/6°CWB.

*3) Sound Pressure was acquired in an anechoic room. Thus actual noise level may be different depending on the installation conditions.

Smartplumb Compact Heat Pump

The Smart Plumb Compact by RM Cylinders is the most innovative pre-plumbed solution for heat pump systems. The cylinder/buffer combo is pre-plumbed, wired and commissioned before it leaves the factory. The buffer / low loss header acts as an intermediary vessel for the heating system which helps system flow rate and defrost cycling. With the cylinder sitting over the buffer tank the foot print has been greatly reduced. The control wires are all hidden behind the cable cover. The pipework is manufactured from 316L stainless tube.



Dimensions & Weights		Unit	180 Litre	230 Litre
Net Weight		kg	85	90
Shipping Weight		kg	91	96
Net Dimensions (HxWxL)		mm	1950 x 595 x 625	
Shipping Dimesnsions (HxWxL)		mm	2155 x 800 x 1200	
DHW Cylinder				
Rated Storage Volume		L	180	230
Maximum Storage Temperature		°C	80	80
Standing Heat Loss		kWh/24h	1.855	1.968
Water Connections				
Primary Circuit	Min flow rate	L/min	7/16	16
	Heat pump Flow & Return	mm	28Ø	
Secondary Circuit	Heating Flow Zone 1, 2, 3	mm	22Ø	
	Heating Return	mm	28Ø	
DHW Circuit	Cold Inlet	mm	22Ø	
	Hot Outlet	mm	22Ø	
Expansion Vessel	Volume	Litre	8	
	Pre-Charge Pressure	Bar	1.5	
	Connection	BSP	1/2"	

RM Solar Systems

High Efficiency Solar Systems

Flat Roof Frame Opt.



Our residential flat-roof solar systems can be mounted flush or tilted up to accommodate any residential flat-roof solar system design. Flat roof properties can be fitted with a frame for the solar panel to sit at the correct, most productive angle for the residents.

Mounting Angle



Solar panels or PV arrays are most efficient, when they are perpendicular to the sun's rays. The default value is a tilt angle equal to the station's latitude plus 15 degrees in winter, or minus 15 degrees in summer.

Multiple Mounting



We supply mounting kits for sloped and flat rooves and both tile and slate rooves. The mounting kits are designed to accommodate all residential properties with easy installation and no damage to the roof.

Remote Controlling



With VBus@Touch, you've got your solar system at your fingertips wherever you are. You can switch back and forth in-between different display charts and run your finger along a graph to monitor temperature developments to-the-minute.



The sleek Rm Cylinders Navitas On-roof solar system is designed and manufactured to work in Northern European climates. The collector's black finish makes it an attractive addition to any roof. The unique patented ventilation system ensures the collector provides maximum output while reducing heat loss from inside the collector.

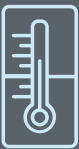
- We are so confident of the quality of our solar collectors that we have tested to double and sometimes four times the requirements of EN12975:1-2 and they are Solar Keymark.
- The high efficiency collectors are further tested to determine



their maximum impact force resistance levels and the maximum positive and negative loading force that the collectors can resist.

- The RM Navitas range offers both vertical and horizontal options
- All testings has been carried out by the Building Research Establishment (BRE) in Watford.

System Types



Warmth & comfort

RM Cylinders have developed a wide ranging portfolio of solutions for heating and hot water systems. So whether it's a heat pump, underfloor heating or our industry leading SmartPlumb range of pre-plumbed cylinders, Joule have a solution for you.



Well being

Underfloor heating provides a balanced level of radiant heat and air warming. If the heating is provided by high air temperatures this can dry the skin and eyes. Warming the floor reduces the occurrence of dust mites that cause allergies.



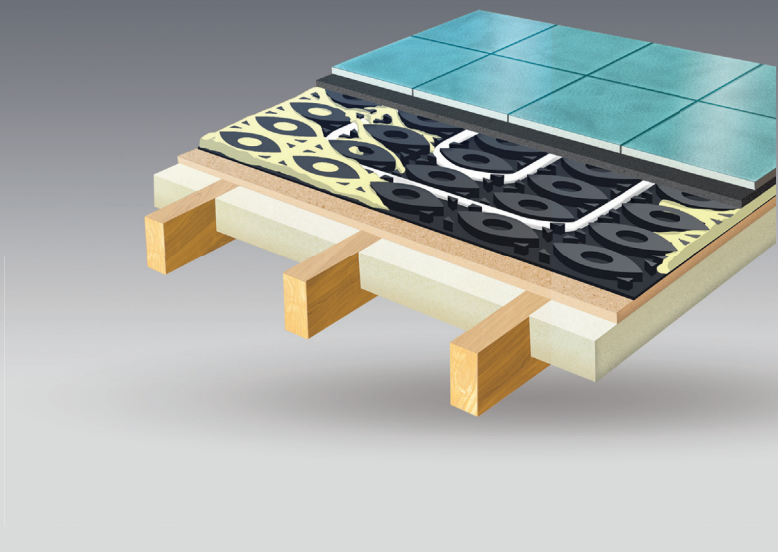
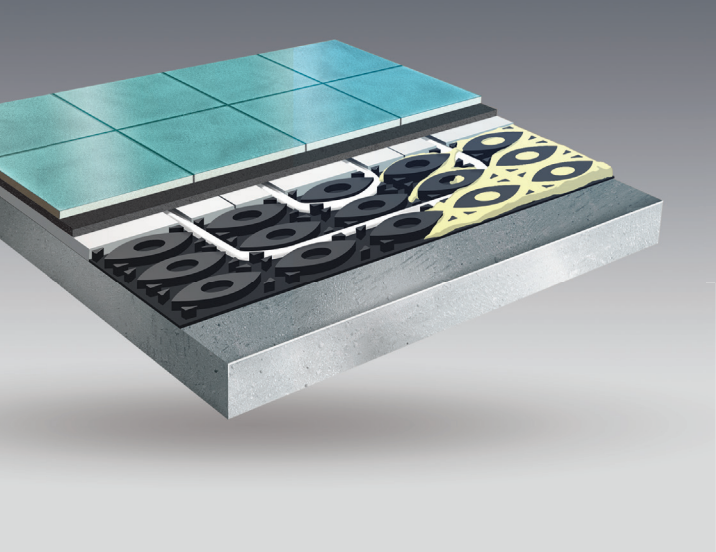
Renewables

Renewable heat is easier to produce efficiently at low water temperatures. Underfloor heating uses low temperature water leaving an ideal match with renewable energy heat sources



Efficiency

InvaHeat's products are designed specifically to work at low water temperatures, improving the efficiency of the heat pump, reducing running costs and saving you money.



Pipes

A range of piping options is available for our underfloor heating systems with the right performance characteristics for every location and requirement



Underfloor Solutions

With a large number of proven fixing systems on the market; InvaHeat can provide a solution for all situations.



Controls

InvaHeat provides a wide variety of controls to fit every scenario, whether it is wired, wireless or networked.



Tech

InvaHeat offers a full indemnified design and CAD service . Professional CAD drawings will be supplied with every system detailing all circuit information & manifold positions.

7
YEAR
WARRANTY



**LOW NOISE
LEVEL**



**BEST IN CLASS
EFFICIENCY**



**COMPATIBLE WITH
OTHER HEAT SOURCES**



**ECO DESIGN
CERTIFIED**



The Smart Plumb Compact by RM Cylinders is the most innovative pre-plumbed solution for heat pump systems. The cylinder/buffer combo is pre-plumbed, wired and commissioned before it leaves the factory. The buffer / low loss header acts as an intermediary vessel for the heating system which helps system flow rate and defrost cycling. With the cylinder sitting over the buffer tank the foot print has been greatly reduced. The control wires are all hidden behind the cable cover. The pipework is manufactured from 316L stainless tube.



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