

# THERMAL STORES

**OPEN VENTED THERMAL STORES** PROVIDING HEATING AND MAINS PRESSURE HOT WATER G GLEDHILL BOILERMATE G GLEDHILL TORRENT



# BUILT ON EXPERIENCE

THE GLEDHILL BRAND HAS BEEN SYNONYMOUS WITH QUALITY MANUFACTURING AND EXPERTISE FOR ALMOST A CENTURY. ALL OUR THERMAL STORES ARE MANUFACTURED FROM DUPLEX STAINLESS STEEL AT OUR CENTRE OF EXCELLENCE FOR STAINLESS STEEL IN BLACKPOOL, WHERE PRECISION ENGINEERING AND INNOVATION PRODUCES A UNIFORMED AND CONSISTENT QUALITY ACROSS OUR PRODUCTS.

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# WHAT IS A THERMAL STORE?

A THERMAL STORE IS THE PERFECT SOLUTION FOR A HOME'S HEATING AND WATER REQUIREMENTS. OFFERING MAINS PRESSURE HOT WATER WITH VIRTUALLY ZERO MAINTENANCE, THERMAL STORES ARE DESIGNED TO REDUCE HEATING COSTS BY PROVIDING COMPLETE FLEXIBILITY FOR HOUSEHOLDERS TO USE MULTIPLE ENERGY SOURCES.

The hot water within the store circulates around the heating system to heat the property, while mains cold water is instantaneously heated through a plate heat exchanger, to provide hot water.

All our thermal stores enable greater flexibility of location in the building, as there is no requirement to install discharge pipework to an outside wall.

# **BENEFITS OF THERMAL STORES**



PROVIDE MAINS PRESSURE HOT WATER



USE FOR BOTH HEATING AND HOT WATER



NO ANNUAL MAINTENANCE OR SAFETY CHECK REQUIREMENT



**NO DISCHARGE PIPEWORK** 



NO RISK OF LEGIONELLA



NO G3 QUALIFICATION REQUIREMENT

# **OUR NETWORK**

IN ANSWER TO THE DEMANDS OF CUSTOMERS WE HAVE SPECIFICALLY TAILORED OUR DISTRIBUTION NETWORK TO ENSURE OUR PRODUCTS REACH THEIR DESTINATION IN A DIRECT AND EFFICIENT MANNER.

Our unique structure, consisting of five distribution hubs, is geographically situated for effective, widespread product availability. Headed by our central sales and logistics team at our Blackpool headquarters and transported via our own fleet of Gledhill vehicles, we have ultimate control over the delivery of our products, enabling us to add value to our customers, meet demanding orders and high service expectations.

# FOR ALL TECHNICAL ENQUIRIES

# **TECHNICAL**

T: **01253 474 584** 

E: TECHNICALSUPPORT@GLEDHILL.NET

# **FOR ALL ORDERS CONTACT**

# SALES & LOGISTICS TEAM

T: 08000 427 427

E: ORDERS@GLEDHILL.NET



# **BOILER**MATE THERMAL STORE

BOILERMATE IS AN OPEN VENTED THERMAL STORE, WHICH HAS BEEN DESIGNED SPECIFICALLY TO WORK ALONGSIDE A BOILER TO PROVIDE MAINS PRESSURE HOT WATER. THERE ARE THREE CONFIGURATIONS **AVAILABLE:** 

## **BOILERMATE OV PRE-PLUMBED**

Designed for use with an open vented, heat only boiler, the BoilerMate OV Pre-Plumbed supplies instantaneous mains pressure hot water directly to the taps, whilst also providing central heating.

# **BOILERMATE SP & BOILERMATE** SP PRE-PLUMBED

Designed for use with a sealed primary system, the BoilerMate SP and SP Pre-Plumbed can be used with a system boiler, a central plant system or a district heating system.





HEATER



To enable retrofit installations of previous BoilerMate models, you will require the following extras:

## OPTIONAL EQUIPMENT KITS FOR BMST-SPPP

Extra Code	Description
BCK002	Sealed primary header tank kit
BCK003	Switch Back up conversion 6kW to 3kW kit
BCK004	Timer kit
BCK005	Sealed system ROBOKIT (18L)
BCK007	Pump over run kit
BCK008	DHW scale prevention kit

## **OPTIONAL EQUIPMENT** KITS FOR BMST-SP

Extra Code	Description
BCK002	Sealed primary header tank kit
BCK003	Switch Back up conversion 6kW to 3kW kit
BCK004	Timer kit
BCK005	Sealed system ROBOKIT (18L)
BCK006	Second Heating Zone kit
BCK007	Pump over run kit
BCK008	DHW scale prevention kit

# **OPTIONAL EQUIPMENT** KITS FOR BMST-OVPP

Extra Code	Description
BCK001	Open vented header tank kit
BCK003	Switch Back up conversion 6kW to 3kW kit
BCK004	Timer kit
BCK006	Second Heating Zone kit
BCK007	Pump over run kit
BCK008	DHW scale prevention kit

# ALL BOILERMATE MODELS COME WITH A 5 YEAR WARRANTY FOR PEACE OF MIND.

# AN EASY INSTALLATION

As the BoilerMate is open vented, there is no requirement for an external expansion vessel or discharge pipework.

Perfect for apartments both the BoilerMate OV and BoilerMate SP are available in Pre-Plumbed configurations for quicker and uniformed installations.



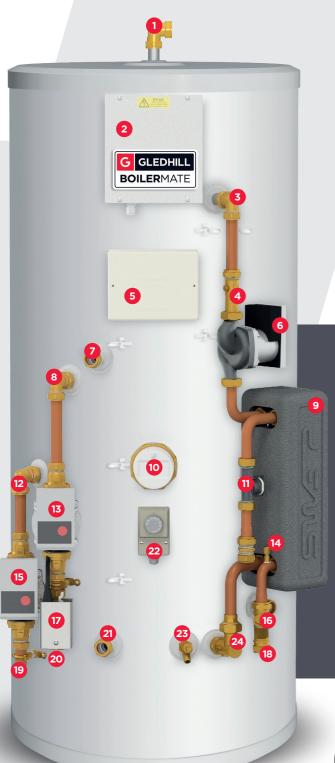
G GLEDHILL

BOILERMATE



# **BOILER**MATE OV PRE-PLUMBED

150 | 180 | 210 LITRES



# **KEY FEATURES**

- Mains pressure hot water giving power shower performance
- Suitable with open vented heat only boiler
- Increased system efficiency, reducing running costs
- No annual maintenance or safety check requirement
- No G3 qualification requirement for installation
- Optional extras available to purchase separately. See page 3.
- Fitting template provided to speed up installation time

# **COMPONENTS**

- 1 90 degree elbow (22mm compression)
- 2 Domestic hot water PCB box
- **3** Compression elbow (22mm)
- **4** Straight isolator (22mm to FF3/4")
- **5** System wiring panel
- 6 Domestic hot water pump (PWM2)
- **7** Boiler flow (22mm compression)
- 8 Compression elbow (22mm)
- 9 Domestic hot water PHE (insulated) 24 plate
- **10** 3kW immersion heater (backup)
- 11 Flow sensor and hot water sensor

- **12** Compression elbow (22mm)
- 13 Central heating pump (including isolation valves)
- 14 Cold water sensor
- **15** Boiler pump (including isolation valves)
- **16** Cold feed
- 17 Central heating zone valve (22mm)
- **18** Inline strainer (22mm)
- **19** Boiler return
- 20 Central heating flow
- 21 Central heating return (22mm)
- 22 Store control thermostat
- 23 Drain valve
- **24** Bent isolator CV fitted (22mm to FF3/4")

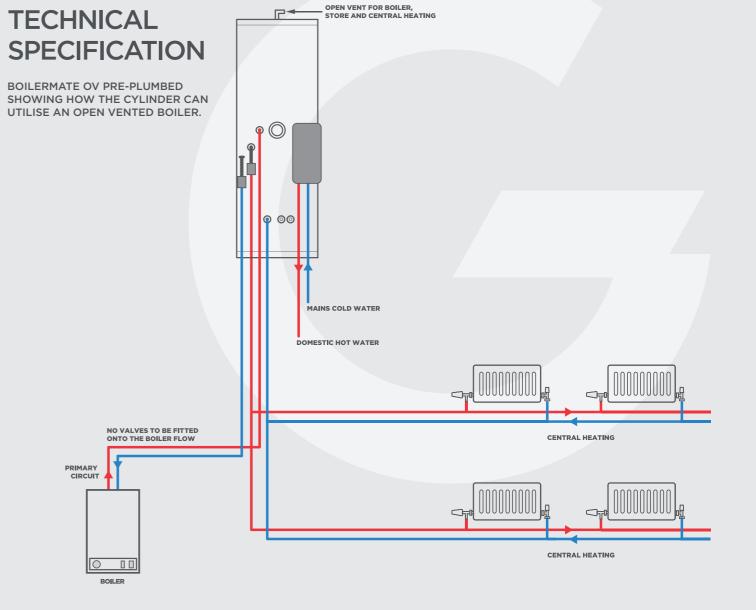












# **BOILERMATE OV PRE-PLUMBED**

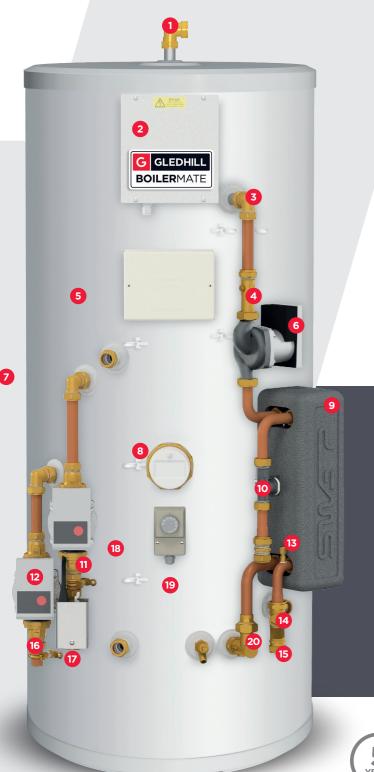
Description		BMSTOV150PP	BMSTOV180PP	BMSTOV210PP
ErP rating		С	С	С
Heat loss	watts	47	55	62
Capacity	litres	151	181	211
Unit height	mm	1118	1306	1494
Unit diameter	mm	550	550	550
Max. hot water flow rate	litres/minute	12.6	12.6	12.6
	bath	1 or	1	2
Maximum dwelling type	shower room	1	1	1
	bed	1-2	2-3	2-4

### NOTES:

- 1. The height stated is to the top of the unit plus 550mm, which should allow for a 25mm thick shelf/board and room for servicing. This will need to be increased by 125mm if the automatic fill method is chosen.
- 2. OV model heated by a 30kW boiler at 15 l/m
- 3. Full thermal store volume reheated from 35°C to 75°C.
- 4. Please refer to the installation manual for the minimum cupbard space requirement. This can be reduced by approximately 35mm if the insulation is removed from the plate heat exchanger.

# **BOILER**MATE SP

150 | 180 | 210 LITRES



# **KEY FEATURES**

- Mains pressure hot water giving power shower performance
- Used in conjunction with a sealed primary or system boiler
- Increased system efficiency, reducing running costs
- No annual maintenance or safety check requirement
- No G3 qualification requirement for installation
- Optional extras available to purchase separately. See page 3
- Suitable for use with a central plant system or a district heating system.
- Fitting template provided to speed up installation time.

# **COMPONENTS**

- 1 90 degree elbow
- (22mm compression) 2 Domestic hot water PCB box
- **3** Compression elbow (22mm)
- **4** Straight isolator (22mm
- 5 Bent isolator CV fitted (22mm to FF3/4")
- 6 Domestic hot water pump
- **7** Store PHE (insulated) 24 plate
- 8 Boiler flow (22mm compression)
- 9 Domestic hot water PHE (insulated) 24 plate

- 10 Flow sensor and hot water sensor
- 11 Boiler return (22mm compression)
- 12 Store pump
- 13 Cold water sensor
- **14** Cold feed
- **15** Inline strainer (22mm)
- **16** Drain valve
- 17 Bent isolator (22mm to FF3/4")
- 18 Store control thermostat
- 19 3kW immersion heater (backup)
- 20 Bent isolator CV fitted (22mm to FF3/4")





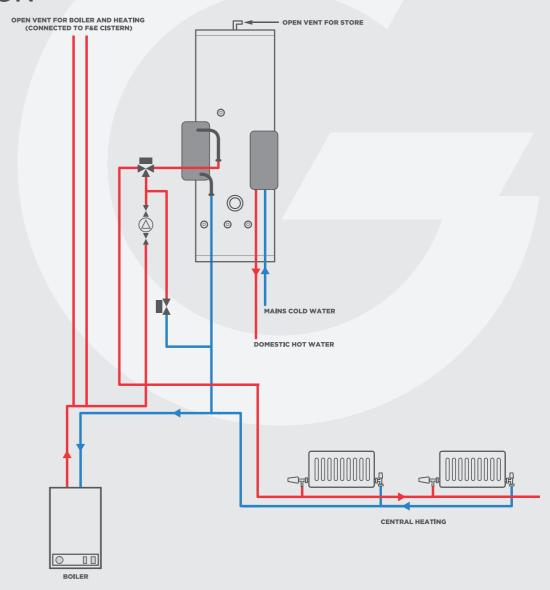




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# **TECHNICAL SPECIFICATION**

**BOILERMATE SP SHOWING** HOW THE CYLINDER CAN UTILISE A SEALED PRIMARY SYSTEM.



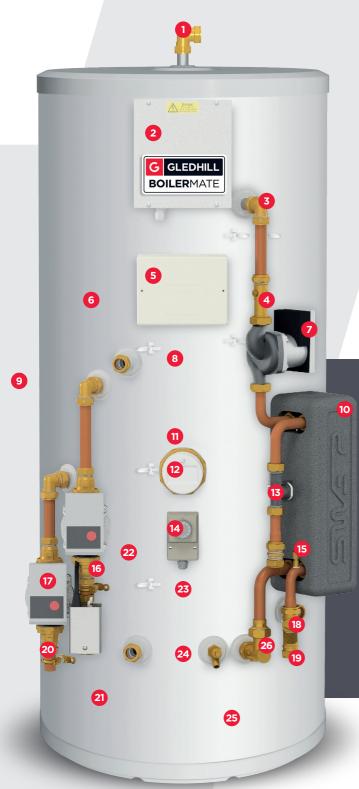
## **BOILERMATE SP**

Description		BMSTOV150PP	BMSTOV180PP	BMSTOV210PP
ErP rating		С	С	С
Heat loss	watts	47	55	62
Capacity	litres	151	181	211
Unit height	mm	1118	1306	1494
Unit diameter	mm	550	550	550
Max. hot water flow rate	litres/minute	12.6	12.6	12.6
	bath	1 or	1	2
Maximum dwelling type	shower room	1	1	1
	bed	1-2	2-3	2-4

- 1. The height stated is to the top of the unit plus 550mm, which should allow for a 25mm thick shelf/board and room for servicing. This will need to be increased by 125mm if the automatic fill method is chosen.
- 2. SP model heated from a heat source at 82.5°C at 16 l/m. 3. Full thermal store volume reheated from 35°C to 75°C.
- 4. Please refer to the installation manual for the minimum cupbard space requirement. This can be reduced by approximately 70mm if the insulation is removed from the plate heat exchangers.

# **BOILERMATE SP PRE-PLUMBED**

150 | 180 | 210 LITRES



# **KEY FEATURES**

- Mains pressure hot water giving power shower performance
- Used in conjunction with a sealed primary or system boiler
- Increased system efficiency, reducing running costs
- No annual maintenance or safety check requirement
- No G3 qualification requirement for installation
- Optional extras available to purchase separately. See page 3
- Suitable for use with a central plant system or a district heating system.
- Fitting template provided to speed up installation time
- Manifold configuration comes complete with two heating zones and pump

# **COMPONENTS**

- 1 90 degree elbow (22mm compression)
- 2 Domestic hot water
- 3 Compression elbow
- 4 Straight isolator (22mm to FF3/4")
- 5 System wiring panel
- 6 Bent isolator CV fitted (22mm to FF3/4")
- 7 Domestic hot water pump (PWM2)
- 8 Boiler zone valve
- 9 Store PHE (insulated)
- 10 Domestic hot water PHE (insulated) 24 plate
- 11 Auto bypass valve
- 12 Central heating zone 1

- 13 Flow sensor and hot water sensor
- 14 Central heating zone 2
- 15 Cold water sensor
- 16 Hot water outlet (22mm compression)
- 17 Store pump
- 18 Cold feed
- 19 Inline strainer (22mm)
- 20 Drain valve
- 21 Central heating boiler return
- 22 Store control thermostat
- 23 3kW immersion heater (backup)
- 24 System pump
- 25 Boiler flow
- 26 Bent isolator CV fitted (22mm to FF3/4")

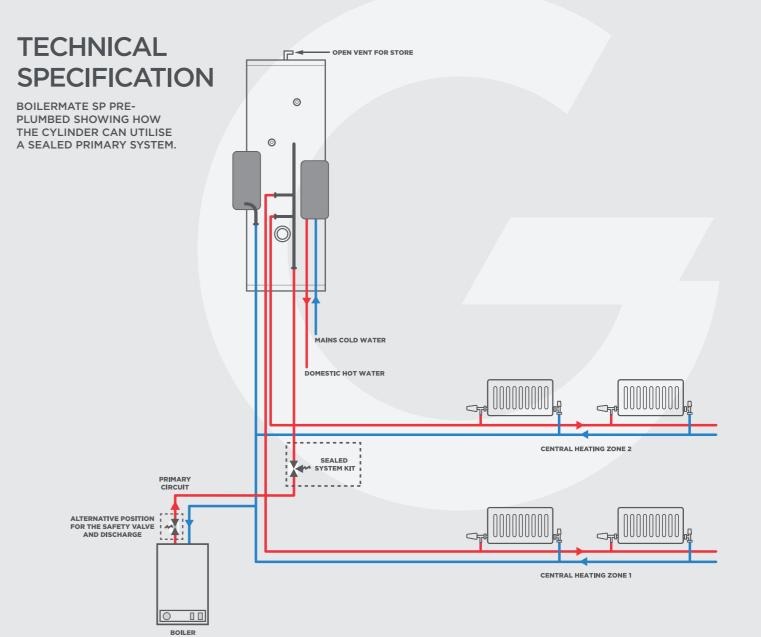








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## **BOILERMATE SP PRE-PLUMBED**

Description		BMSTOV150PP	BMSTOV180PP	BMSTOV210PP
ErP rating		С	С	С
Heat loss	watts	47	55	62
Capacity	litres	151	181	211
Unit height	mm	1118	1306	1494
Unit diameter	mm	550	550	550
Max. hot water flow rate	litres/minute	12.6	12.6	12.6
	bath	1 or	1	2
Maximum dwelling type	shower room	1	1	1
	bed	1-2	2-3	2-4

- 1. The height stated is to the top of the unit plus 550mm, which should allow for a 25mm thick shelf/board and room for servicing. This will need to be increased by 125mm if the automatic fill method is chosen.
- 2. SP model heated from a heat source at 82.5°C at 16 I/m3. Full thermal store volume reheated from 35°C to 75°C.
- 4. Please refer to the installation manual for the minimum cupbard space requirement. This can be reduced by approximately 70mm if the insulation is removed from the plate heat exchangers.

# **TORRENT STAINLESS**

THE TORRENT STAINLESS IS
MANUFACTURED FROM STAINLESS
STEEL AT OUR BLACKPOOL
HEADQUARTERS.

Torrent provides the flexibility for homeowners to select the thermal store which best suits their requirements, allowing them to maximise the available heat sources, whether they are traditional boilers, electric immersions, or increasingly popular alternative energy fuel sources.

The cylinder is open vented, enabling uncontrolled heat sources such as woodburning stoves to be used.

INTEGRATED PCB AND SOFTWARE

G GLEDHILL

**TORRENT** 

- HIGH STORE TEMPERATURES CAN BE UTILISED, PROVIDING GREATER BENEFIT FROM SOLID FUEL INPUTS
- ENERGY SAVING WITH A HIGH EFFICIENCY PUMP







5 YEAR WARRANTY

GAS OR OIL
BOILERS

IMMERSION HEATER

SOLID FUEL

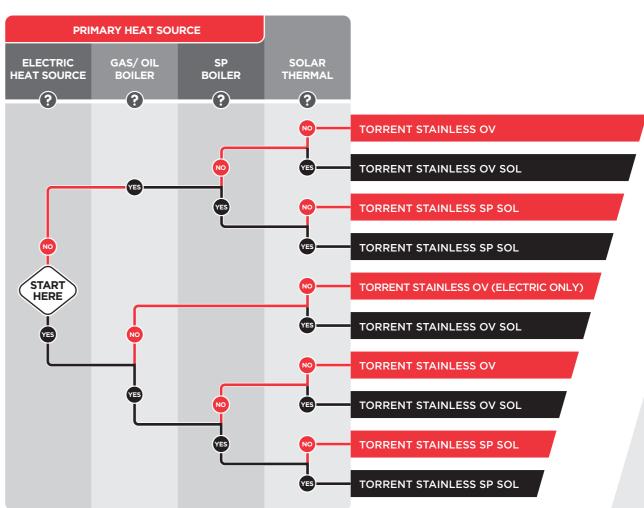
SOLAR THERMAL

# WHICH TORRENT DO I NEED?

OUR SELECTION CHART BELOW WILL HELP YOU IDENTIFY THE MOST SUITABLE TORRENT STAINLESS MODEL FOR YOUR INSTALLATION.

To use the chart, identify the available heat sources for your cylinder in each section, and follow the lines to identify the model required.

# **DOES THE SITE HAVE:**



- All models come complete with back up immersion.
- All models come complete with solid fuel connections.
- Where a Torrent STAINLESS SP is selected, heating should be provided directly by the boiler as the store will only provide auxiliary heating.
- Where a Torrent STAINLESS SP is selected and no solar input is required, connecting the solar and boiler coils will maximise the boiler input and reduce reheat times.
- For all solid fuel installations, the feed and expansion tank should be of copper construction, available to order from Gledhill at the time of purchase.

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# TORRENT STAINLESS OV

150 | 180 | 210 | 250 | 350 LITRES



# **KEY FEATURES**

- Utilises open vented boiler to heat the store directly, with 3kW immersion heaters for emergency back-up
- 3kW immersion heaters available when electric only is used as the primary heat source
- Utilises solid fuel connections
- Provides mains pressure hot water
- Blanking caps supplied

## COMPONENTS

- 1 Open vent
- **3** On-peak immersion heater
- **5** Control thermostat
- **6** Control thermostat
- **7** Control thermostat
- 8 Central heating flow
- 9 Central heating return
- 11 Plate heat exchanger flow

- 12 Plate heat exchanger return
- 13 Open vented flow
- 14 Open vented return
- **15** Solid fuel flow
- **16** Solid fuel return
- 17 Solid fuel overheat thermostat
- 18 Solid fuel control thermostat



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WARRANTY

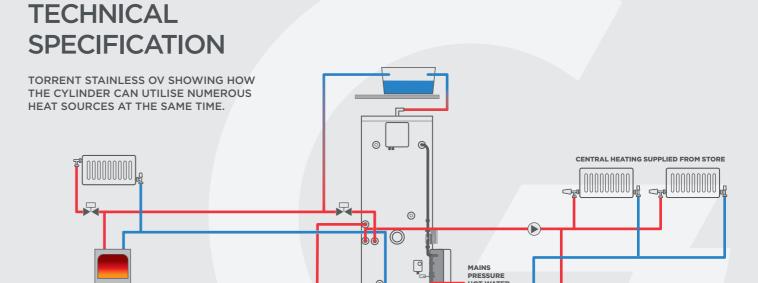
IMMERSION

HEATER



BOILERS





# **TORRENT STAINLESS OV**

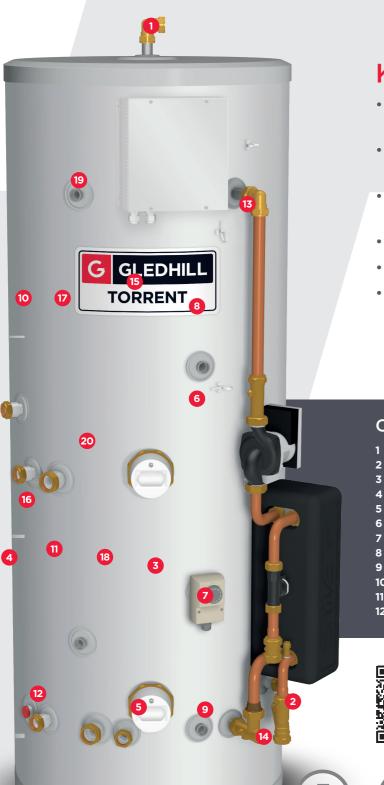
**OPEN VENTED** 

Description		TST150OV	TST180OV	TST210OV	TST250OV	TST350OV
ErP rating		В	В	В	С	С
Heat loss	watts	47	55	62	74	79
Capacity	litres	148	178	208	248	345
Unit height	mm	1118	1306	1494	1744	1765
Unit diameter	mm	550	550	550	550	630
Max. hot water flow rate	litres/minute	26.5	26.5	26.5	26.5	26.5
	bath	1	1	2	2	3
Maximum dwelling type shower room bed	shower room	-	1	1	2	2
	1-2	2-3	2-3	3-4	4-5	

- · Additional height for feed and expansion tank will need to be allowed if it is to be sited in the same cupboard.
- · Vent pipes shown through the side of the feed and expansion tank may not be suitable for all systems. Installers must check suitability.
- The standard open vented store relies on a feed and expansion tank suitably sited above the highest radiator point to provide sufficient
- The feed and expansion tank must be sized to take the water expansion of the whole system (ie. solid fuel boiler, cylinder, open flue boiler and auxiliary heating).
- The feed and expansion tank is not supplied as standard with the unit, but is available as an optional extra at the time of order.
- · For all solid fuel applications, copper feed and expansion tanks are required and are available as an optional extra at the time of order.

# TORRENT STAINLESS OV SOL

150 | 180 | 210 | 250 | 350 LITRES



# **KEY FEATURES**

- Specifically designed for use with solar thermal panels
- Utilises open vented boiler to heat the store directly
- 3kW immersion heater for emergency back-up
- Utilises solid fuel connections
- Provides mains pressure hot water
- Blanking caps supplied

## **COMPONENTS**

- 1 Open vent
- 2 Cold feed

- **6** Control thermostat
- **7** Control thermostat
- **8** Solar sensor pocket
- **9** Solar sensor pocket
- 10 Central heating flow 11 Central heating return

- 13 Plate heat exchanger flow
- 14 Plate heat exchanger return
- **15** Open vented flow
- 16 Open vented return
- 17 Solid fuel flow
- **18** Solid fuel return
- 19 Solid fuel overheat thermostat
- 20 Solid fuel control thermostat



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5 YEAR

WARRANTY



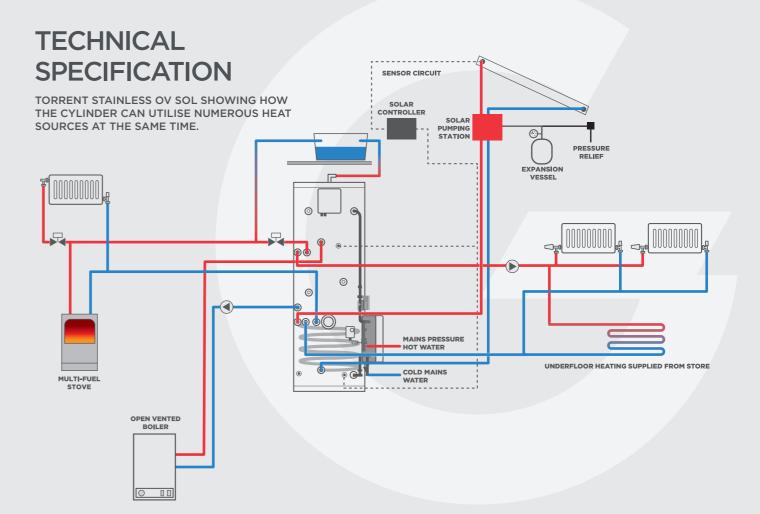




FUEL



SOLAR THERMAL



# **TORRENT STAINLESS OV SOL**

Description		TST1500VSOL	TST1800VSOL	TST2100VSOL	TST250OVSOL	TST350OVSOL
ErP rating		В	В	В	С	С
Heat loss	watts	47	55	62	74	79
Capacity	litres	148	178	208	248	345
Unit height	mm	1118	1306	1494	1744	1765
Unit diameter	mm	550	550	550	550	630
Dedicated solar volume	litres	64	74	84	97	130
Max. solar collector area <sup>1</sup>	m²	2.22	2.54	2.91	3.88	4.64
Solar heat exch. surface area	m²	0.78	0.78	1.27	1.27	1.27
Max. hot water flow rate	litres/minute	26.5	26.5	26.5	26.5	26.5
Maximum dwelling type	bath	1	1	1	2	2
	shower room	-	-	1	1	2
	bed	1-2	2-3	2-3	3-4	4-5

- 1 To comply with the Building Regulations ADL1 Domestic Heating Compliance Guide.
- · Additional height for feed and expansion tank will need to be allowed if it is to be sited in the same cupboard.
- · Vent pipes shown through the side of the feed and expansion tank may not be suitable for all systems. Installers must check suitability.
- The standard open vented store relies on a feed and expansion tank suitably sited above the highest radiator point to provide sufficient head for the system. As the domestic hot water is at mains pressure, the Torrent Stainless OV Sol itself can be sited anywhere in the property.
- The feed and expansion tank must be sized to take the water expansion of the whole system (ie. solid fuel boiler, cylinder, open flue boiler and auxiliary heating).
- The feed and expansion tank is not supplied as standard with the unit, but is available as an optional extra at the time of order.
- · For all solid fuel applications, copper feed and expansion tanks are required and are available as an optional extra at the time of order

# TORRENT STAINLESS SP SOL

150 | 180 | 210 | 250 | 350 LITRES



# **KEY FEATURES**

- Specifically designed for use with solar thermal panels
- Sealed primary boiler connections as standard
- 3kW immersion heater for emergency back-up
- Utilises solid fuel connections
- Provides mains pressure hot water
- Where there is no solar input, the coils can be connected to maximise heat input, reducing reheat time
- Blanking caps supplied

## **COMPONENTS**

- 1 Open vent
- 2 Cold feed

- 5 Primary coil return
- 6 Solar coil flow
- **7** Solar coil return 8 Control thermostat
- **9** Control thermostat
- 10 Solar sensor pocket
- 11 Solar sensor pocket 12 Central heating flow

- **13** Central heating return
- **14** Drain
- 15 Plate heat exchanger flow
- 16 Plate heat exchanger return
- 17 Solid fuel flow
- **18** Solid fuel return
- 19 Solid fuel overheat thermostat
- 20 Solid fuel control thermostat



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HEATER

5 YEAR

WARRANTY

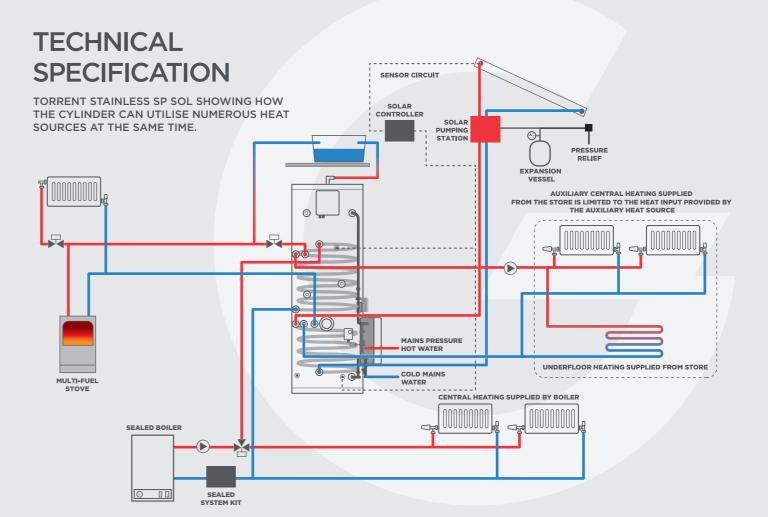
IMMERSION GAS OR OIL

BOILERS



FUEL





# **TORRENT STAINLESS SP SOL**

Description		TST150SPSOL	TST180SPSOL	TST210SPSOL	TST250SPSOL	TST350SPSOL
ErP rating		В	В	В	С	С
Heat loss	watts	47	55	62	74	79
Capacity	litres	148	178	208	248	345
Unit height	mm	1118	1306	1494	1744	1765
Unit diameter	mm	550	550	550	550	630
Dedicated solar volume	litres	64	74	84	97	130
Max. solar collector area <sup>1</sup>	m²	2.22	2.54	2.91	3.88	4.64
Solar heat exch. surface area	m²	0.78	0.78	1.27	1.27	1.27
Max. hot water flow rate	litres/minute	26.5	26.5	26.5	26.5	26.5
	bath	1	1	1	2	2
Maximum dwelling type	shower room	-	-	1	1	2
	bed	1-2	2-3	2-3	3-4	4-5

- 1 To comply with the Building Regulations ADL1 Domestic Heating Compliance Guide.
- · Additional height for feed and expansion tank will need to be allowed if it is to be sited in the same cupboard.
- · Vent pipes shown through the side of the feed and expansion tank may not be suitable for all systems. Installers must check suitability.
- The standard open vented store relies on a feed and expansion tank suitably sited above the highest radiator point to provide sufficient head for the system connected to the store. As the domestic hot water is at mains pressure, the Torrent Stainless SP Sol itself can be sited anywhere in the property.
- The Torrent Stainless SP Sol can be installed as a standard 'S' plan or 'Y' plan. The benefit of this is more flexibility on the location of the feed and expansion tank. However, when installed this way the central heating output will not gain heat from the solar thermal input to the thermal store.
- The feed and expansion tank must be sized to take the water expansion of the whole system (ie. solid fuel boiler, cylinder, open flue boiler
- The feed and expansion tank is not supplied as standard with the unit, but is available as an optional extra at the time of order.
- · For all solid fuel applications, copper feed and expansion tanks are required and are available as an optional extra at the time of order

### **SPARES**

Gledhill products are manufactured to the highest quality standards. In the unlikely event that you require a spare part, you can contact Gledhill Spare Parts, on:

### 01253 474412

or visit www.gledhill-spares.net

## **HERE TO HELP**

If you're looking for technical assistance while you're on the job, give our technical team a call. With many years' experience, they're an invaluable resource to have at the end of the phone.

# FOR TECHNICAL ADVICE PLEASE CALL

01253 474584



Gledhill Building Products Limited Sycamore Estate, Squires Gate, Blackpool FY4 3RL

T: 01253 474550 E: enquiries@gledhill.net









WWW.GLEDHILL.NET

