

Plate Heat Exchangers



BSS, the UK's leading distributor of pipeline and heating solutions to all sectors of industry, is pleased to announce the introduction of the new range of BOSS Plate Heat Exchangers to their comprehensive range of equipment.

To ensure continuing growth, it is our aim to achieve maximum customer satisfaction through a policy of providing sound technical advice, quality products at realistic prices and prompt delivery. This equipment complements our existing range of water heating products, which includes boilers, tap water heaters, flue & chimney equipment and a comprehensive package of heating and ventilation controls.

BSS has a network of 59 branches strategically located throughout the UK to meet the demands of the heating engineer and industrial user. These branches offer an over-the-counter or delivery service in all stocked items including valves, fittings and tube, plastics, steam traps, pumps for all duties, heat exchange equipment, plumber's fittings, boiler mountings, gauges and thermometers, strainers and filters, and above ground drainage.



This catalogue features the range of bare plate heat exchangers which we offer to compliment our range of packaged tap water heaters.

Details of the full range of equipment supplied by BSS are available from your local BSS Branch (see page 8 for details).



BT2



BT5



BTL3



Design Features

The BOSS range of Plate Heat Exchangers has been developed in conjunction with the market leaders in Plate Heat Exchanger technology and design to ensure the highest quality of components and manufacture, giving you complete peace of mind.

Plate Heat Exchangers offer many advantages over traditional methods of heat transfer:

- Compact Construction due to a high heat transfer coefficient
- Low Liquid Hold-up Volume due to instantaneous heat transfer
- Low Weight Ratio due to compact construction & low liquid volume
- Pressure Drop can be designed to meet your system requirements
- Low Fouling Factors due to turbulent flow patterns and self cleaning properties
- Close Temperature Approach due to large effective heat transfer area, allowing a temperature cross which is not available with shell & tube heat exchangers
- Easy Inspection & Cleaning free access to heat transfer surfaces within the footprint of the heat exchanger
- Easily Extended due to frame type construction

Each BOSS Plate heat exchanger can be supplied with:

- 316 or 304 Stainless Steel Channel Plates
- Clip-On EPDM or Nitrile Gaskets

Material selection will be made to suit the individual application.



The BSS Group plc and its subsidiary companies assume that the user will take all necessary steps to ensure that all products purchased are suitable for the conditions in which they were intended to operate.

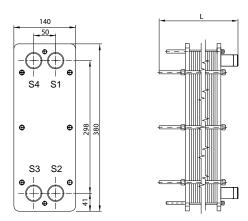
Every effort has been made to ensure that the information contained in this publication is accurate at the time of publishing but all illustrations and descriptions are intended to provide an approximation only and are not subject to contractual liability.

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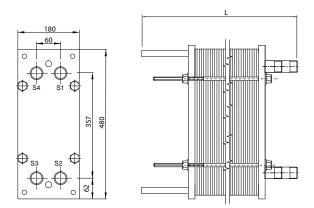


BOSS Plate Heat Exchanger Dimensions

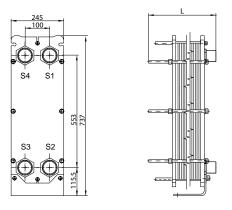
Overall length (L) will vary according to the required duty. Please contact BSS for details



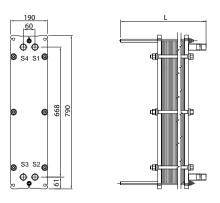
BOSS Model BT2 Plate Heat Exchanger



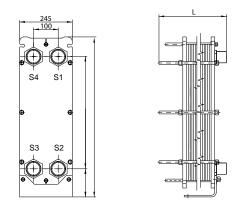
BOSS Model BM3 Plate Heat Exchanger



BOSS Model BT5M Plate Heat Exchanger



BOSS Model BTL3 Plate Heat Exchanger



BOSS Model BT5B Plate Heat Exchanger

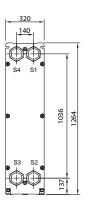
Operating Parameters

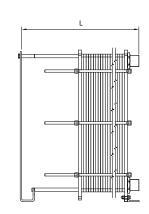
Maximum Working Pressure 10 Barg*
Maximum Working Temperature 120°C*

*Note:

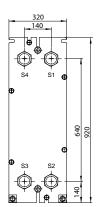
Actual maximum conditions will be determined by the duty profile which may limit the maximum operating pressure and / or temperature.

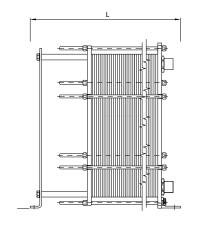




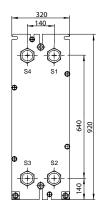


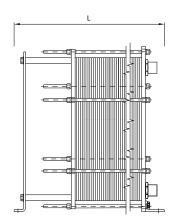
BOSS Model BTL6 Plate Heat Exchanger



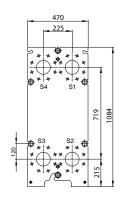


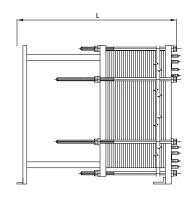
BOSS Model BM6M Plate Heat Exchanger





BOSS Model BM6 Plate Heat Exchanger

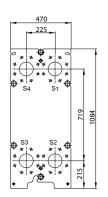


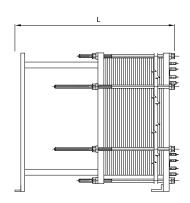


BOSS Model BM10B Plate Heat Exchanger

Connections

BT2 20 mm Screwed BSP
BM3 32 mm Screwed BSP
BTL3 32 mm Screwed BSP
BT5B/M 50 mm Screwed BSP
BM6/M 50 mm Screwed BSP
BTL6 50 mm Screwed BSP
BM10B/M 100 mm Studded PN10





BOSS Model BM10M Plate Heat Exchanger

Applications

The BOSS range of Plate Heat Exchangers can be installed in a variety of applications including:

- Hot Water Heating the Plate Heat Exchanger is ideally suited for Domestic Hot Water (DHW) generation in hotels, hospitals, nursing homes, restaurants, leisure centres, military bases, prisons etc. (BSS also supply Tap Water Heaters for this application – please refer to our BOSS Tap Water Heaters catalogue)
- System Pressure Break used to separate a boiler circuit from high pressure or dirty systems to provide protection to the boiler(s) with very little drop in operating temperature to the system
- Process Hot Water where instantaneous hot water is required for 'Washdown' applications or manufacturing processes eliminating the need for large volumes of stored water
- Swimming Pool Heating used to maintain swimming pools at the required temperatures without the need for high specification boilers capable of handling chlorinated water
- Heat Recovery minimising heat wastage by recovering the maximum amount of heat energy from waste product
- Chilled Water Systems used to protect expensive chillers from system debris whilst maintaining system temperatures very close to those leaving the chiller

Design Requirements

To enable BSS to provide a quotation for a suitable unit to meet your requirements, please provide the following information:

| Heat Load | (kW) |
|-------------|--------|
| i icat Load | (1/4/) |

| Primary fluid | (Water, glycol etc.) |
|------------------------------|----------------------|
| Primary flow rate | (l/s / kg/s) |
| Primary inlet temperature | (°C) |
| Primary outlet temperature | (°C) |
| Primary working pressure | (Bar) |
| Max. allowable pressure drop | (Bar / kPa) |

| Secondary fluid | (Water, glycol etc.) |
|------------------------------|----------------------|
| Secondary flow rate | (l/s / kg/s) |
| Secondary inlet temperature | (°C) |
| Secondary outlet temperature | (°C) |
| Secondary working pressure | (Bar) |
| Max. allowable pressure drop | (Bar / kPa) |

BOSS Plate Heat Exchangers are suitable for a wide range of primary and secondary media such as MTHW, LTHW, Chilled Water, Water / glycol solutions, thermal oils and Domestic Hot Water Services (DHW), subject to pressure and temperature limitations.





Associated Products & Information

Please find below other BOSS literature. All BSS brochures are available to download from our website, and those that are available as a hard copy can be ordered. Simply visit www.bssindustrial.co.uk and click on product information.



BOSS Air Separation and Dirt Removal ensures optimum efficiency of the heating system and minimises equipment failure and maintenance down time.



BSS supply a comprehensive range of circulating pumps, booster sets, condensate pumping sets and submersible pumps. Full details can be found in the **Pumps Range Guide.**



The BOSS Valves Range Guide A5 binder is a comprehensive guide to the BOSS range of valves which include Gate, Globe, Check, Ball, Butterfly, TMV, TRV and Commisioning Valves.

The BSS Technical Support

Team assist customers in getting the best engineering and supply chain solution to their heating requirements.

Our external sales engineers are supported by internal applications and product selection engineers.



The BOSS Heating & Hot
Water Services Guide
provides all the facts and
figures about the BSS heating
product range in one
handy A5 binder.



The BOSS range of Thermostatic & Regulating Valves provides accurate temperature control at point of use to prevent scalding.

The BOSSMix range is approved and designated TMV3 and TMV2.



BOSS Calorifiers

A full range of BOSS storage and non-storage calorifiers is available through BSS. Contact the BSS Technical Support Team or your local BSS branch.

699 Technical Services

Support in Technical & Heating Services

BSS offers specialist advice by phone or in person for specific technical product ranges.

- Heating system solutions for a variety of applications
- Specialist technical team selecting the comprehensive BSS range of heating and hot water generation
- · Regional technical sales staff
- Technical advice via qualified engineers

- 2-Dimensional CAD drawings in support of our products
- Technical quotation service
- DHWS package solutions
- Export services
- National coverage

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