

Declaration of Conformity

according to

The Pressure Equipment (Safety) Regulations 2016 Consumer Protection Health and Safety 2016 No. 1105

for the design, manufacturing, product verification of the pressure equipment of

Brazed Plate Heat Exchangers (BPHE)

Conformity assessment procedure according to Part 3,
paragraph 42, subparagraph (d)
Approved Body in accordance to Part 4, paragraph 51

Module B (production type) + D

Identification number of Approved Body
UKCA marking on pressure equipment

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The Manor House, Howbery Park, Wallingford, OX10 8BA
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1521

**UK
CA 1521**

Certificates

Module D:
Module B (production type):

Design data of vessel

BPHE Series

AP, APS, GBE, GBH-DW, GBS, GBS-DW, GCS, GKE, GKS, GML, GNS, GVH, GWH, MBS, NP,
WH, WP

Rules & Standards

The Pressure Equipment (Safety) Regulations 2016
ASME Boiler & Pressure Vessel Code, Section VIII, Division 1

Pressure equipment subject to essential safety requirement according to Part 1, paragraph 6, (1)
subparagraph (a), intend (i)

Fluids according to Schedule 3, paragraph 3

Group 1

Applicable hazardous categories of pressure equipment

I; II; III; IV

Data of working limits

Reihe, Typ / Series, Type *)	Durchströmung / Flow arrangement	Side 1:	Side 2:	Side 3:	Side 4:
AP 420	TIO	TS = -196 ... 125 °C PS = -1 ... 21 bar	TS = -196 ... 125 °C PS = -1 ... 21 bar	TS = -196 ... 125 °C PS = -1 ... 21 bar	Not applicable
		TS = -196 ... 200 °C PS = -1 ... 17 bar	TS = -196 ... 200 °C PS = -1 ... 17 bar	TS = -196 ... 200 °C PS = -1 ... 17 bar	
AP 760	TIO	TS = -196 ... 60 °C PS = -1 ... 22 bar	TS = -196 ... 60 °C PS = -1 ... 22 bar	TS = -196 ... 60 °C PS = -1 ... 22 bar	Not applicable
		TS = -196 ... 200 °C PS = -1 ... 16 bar	TS = -196 ... 200 °C PS = -1 ... 16 bar	TS = -196 ... 200 °C PS = -1 ... 16 bar	
APS ... 24 ...		TS = -196 ... 200 °C PS = -1 ... 20 bar	TS = -196 ... 200 °C PS = -1 ... 20 bar	TS = -196 ... 200 °C PS = -1 ... 20 bar	Not applicable
APS ... 5 ...		TS = -196 ... 200 °C PS = -1 ... 20 bar	TS = -196 ... 200 °C PS = -1 ... 20 bar	TS = -196 ... 200 °C PS = -1 ... 20 bar	Not applicable
GBE 100, 200, 220, 240, 400	C	TS = -20 ... 150 °C PS = -1 ... 16 bar	TS = -20 ... 150 °C PS = -1 ... 16 bar	Not applicable	Not applicable
GBE 500	C	TS = -20 ... 150 °C PS = -1 ... 25 bar	TS = -20 ... 150 °C PS = -1 ... 16 bar	Not applicable	Not applicable
GBH-DW 400, 500	C, DS, U, X, Z, and combinations thereof	TS = 0 ... 200 °C PS = -1 ... 45 bar	TS = 0 ... 200 °C PS = -1 ... 45 bar	Not applicable	Not applicable
GBH-DW 500	DUO, TIO	TS = 0 ... 200 °C PS = -1 ... 45 bar	TS = 0 ... 200 °C PS = -1 ... 45 bar	TS = 0 ... 200 °C PS = -1 ... 45 bar	Not applicable
GBS 100	C, DS, U, X, Z, and combinations thereof	TS = 0 ... 200 °C PS = -1 ... 31 bar	TS = 0 ... 200 °C PS = -1 ... 31 bar	Not applicable	Not applicable
	DUO, TIO	TS = 0 ... 200 °C PS = -1 ... 25 bar	TS = 0 ... 200 °C PS = -1 ... 25 bar	TS = 0 ... 200 °C PS = -1 ... 25 bar	
GBS 100R, 200, 220, 240, 300, 400, 420, 500, 505, 600, 700, 790, 800, 900, GCS 505	C, DS, U, X, Z, and combinations thereof	TS = -196 ... 200 °C PS = -1 ... 31 bar	TS = -196 ... 200 °C PS = -1 ... 31 bar	Not applicable	Not applicable
GBS 1000 H	C, Z, X, U, DS	TS = -196 ... 200 °C PS = -1 ... 35 bar	TS = -196 ... 200 °C PS = -1 ... 35 bar	Not applicable	Not applicable
GBS 1000 M	C, Z, X, U	TS = -196 ... 200 °C PS = -1 ... 35 bar	TS = -196 ... 200 °C PS = -1 ... 35 bar	Not applicable	Not applicable
GBS 500, GBS 700	DUO, TIO, TD	TS = -196 ... 200 °C PS = -1 ... 31 bar	TS = -196 ... 200 °C PS = -1 ... 31 bar	TS = -196 ... 200 °C PS = -1 ... 31 bar	Not applicable

Reihe, Typ / Series, Type *)	Durchströmung / Flow arrangement	Side 1:	Side 2:	Side 3:	Side 4:
GBS 100R, 200, 220, 240, 300, GBS 400, 700, 800, 900, 1000 (except L pattern)	DUO, TIO	TS = -196 ... 200 °C PS = -1 ... 25 bar	TS = -196 ... 200 °C PS = -1 ... 25 bar	TS = -196 ... 200 °C PS = -1 ... 25 bar	Not applicable
GBS 418	C, DS, U, X, Z, and combinations thereof	TS = -196 ... 125 °C PS = -1 ... 40 bar	TS = -196 ... 125 °C PS = -1 ... 40 bar	Not applicable	Not applicable
		TS = -196 ... 200 °C PS = -1 ... 33 bar	TS = -196 ... 200 °C PS = -1 ... 33 bar		
	DUO	TS = -196 ... 125 °C PS = -1 ... 40 bar	TS = -196 ... 125 °C PS = -1 ... 40 bar	TS = -196 ... 125 °C PS = -1 ... 40 bar	
		TS = -196 ... 200 °C PS = -1 ... 33 bar	TS = -196 ... 200 °C PS = -1 ... 33 bar	TS = -196 ... 200 °C PS = -1 ... 33 bar	
GBS 525	C, DS, U, X, Z, and combinations thereof	TS = -196 ... 125 °C PS = -1 ... 36 bar	TS = -196 ... 125 °C PS = -1 ... 34 bar	Not applicable	Not applicable
		TS = -196 ... 200 °C PS = -1 ... 32 bar	TS = -196 ... 200 °C PS = -1 ... 30 bar		
	DUO	TS = -196 ... 125 °C PS = -1 ... 29 bar	TS = -196 ... 125 °C PS = -1 ... 29 bar	TS = -196 ... 125 °C PS = -1 ... 29 bar	
		TS = -196 ... 200 °C PS = -1 ... 25 bar	TS = -196 ... 200 °C PS = -1 ... 25 bar	TS = -196 ... 200 °C PS = -1 ... 25 bar	
GBS 757	C, DS, U, X, Z, and combinations thereof	TS = -196 ... 125 °C PS = -1 ... 35 bar	TS = -196 ... 125 °C PS = -1 ... 35 bar	Not applicable	Not applicable
		TS = -196 ... 200 °C PS = -1 ... 30 bar	TS = -196 ... 200 °C PS = -1 ... 30 bar		
	DUO	TS = -196 ... 125 °C PS = -1 ... 35 bar	TS = -196 ... 125 °C PS = -1 ... 35 bar	TS = -196 ... 125 °C PS = -1 ... 35 bar	
		TS = -196 ... 200 °C PS = -1 ... 30 bar	TS = -196 ... 200 °C PS = -1 ... 30 bar	TS = -196 ... 200 °C PS = -1 ... 30 bar	
GBS 760	C, DS, U, X, Z, and combinations thereof	TS = -196 ... 200 °C PS = -1 ... 27 bar	TS = -196 ... 200 °C PS = -1 ... 20 bar	Not applicable	Not applicable
GBS 910	C, DS, U, X, Z, and combinations thereof	TS = -196 ... 125 °C PS = -1 ... 36 bar	TS = -196 ... 125 °C PS = -1 ... 32 bar	Not applicable	Not applicable
		TS = -196 ... 200 °C PS = -1 ... 30 bar	TS = -196 ... 200 °C PS = -1 ... 26 bar		
GBS 1000 L	C, DS, U, X, Z, and combinations thereof	TS = -196 ... 200 °C PS = -1 ... 31 bar	TS = -196 ... 200 °C PS = -1 ... 20 bar	Not applicable	Not applicable
GBS 1000 L	DUO, TIO	TS = -196 ... 200 °C PS = -1 ... 25 bar	TS = -196 ... 200 °C PS = -1 ... 16 bar	TS = -196 ... 200 °C PS = -1 ... 25 bar	
GBS-DW 400, 500	C, DS, U, X, Z, and combinations thereof	TS = 0 ... 200 °C PS = -1 ... 16 bar	TS = 0 ... 200 °C PS = -1 ... 16 bar	Not applicable	Not applicable
		TS = 0 ... 200 °C PS = -1 ... 16 bar	TS = 0 ... 200 °C PS = -1 ... 16 bar		
GKE 108, 228, 229, 770 H,M	C	TS = 0 ... 200 °C PS = -1 ... 16 bar	TS = 0 ... 200 °C PS = -1 ... 16 bar	Not applicable	Not applicable
GKE 550 H, M	C	TS = -196 ... 200 °C PS = -1 ... 30 bar	TS = -196 ... 200 °C PS = -1 ... 25 bar	Not applicable	Not applicable
GKE 550 T	C	TS = -196 ... 200 °C PS = -1 ... 30 bar	TS = -196 ... 200 °C PS = -1 ... 20 bar	Not applicable	Not applicable
GKS 108, 228, 229, 770 H, M	C, DS, U, X, Z, and combinations thereof	TS = -196 ... 200 °C PS = -1 ... 31 bar	TS = -196 ... 200 °C PS = -1 ... 31 bar	Not applicable	Not applicable
GKS 550	C, DS, U, X, Z, and combinations thereof	TS = -196 ... 200 °C PS = -1 ... 40 bar	TS = -196 ... 200 °C PS = -1 ... 40 bar	Not applicable	Not applicable
GKS 770 H	TD	TS = -196 ... 200 °C PS = -1 ... 46 bar	TS = -196 ... 200 °C PS = -1 ... 41 bar	TS = -196 ... 200 °C PS = -1 ... 46 bar	Not applicable
GML 400, 500	C, X, Z, and combinations thereof	TS = -196 ... 200 °C PS = -1 ... 75 bar	TS = -196 ... 200 °C PS = -1 ... 75 bar	Not applicable	Not applicable
		TS = -196 ... 200 °C PS = -1 ... 65 bar	TS = -196 ... 200 °C PS = -1 ... 60 bar		
GNS 100	C, U, X, and combinations thereof	TS = 0 ... 200 °C PS = -1 ... 16 bar	TS = 0 ... 200 °C PS = -1 ... 16 bar	Not applicable	Not applicable
GNS 100R, 200, 220, 240, 300, 400, 500, 700, 800, 900	C, DS, U, X, Z, and combinations thereof	TS = -196 ... 200 °C PS = -1 ... 16 bar	TS = -196 ... 200 °C PS = -1 ... 16 bar	Not applicable	Not applicable
		TS = -196 ... 200 °C PS = -1 ... 16 bar	TS = -196 ... 200 °C PS = -1 ... 16 bar		
GVH 100	C, U, X, and combinations thereof	TS = 0 ... 200 °C PS = -1 ... 35 bar	TS = 0 ... 200 °C PS = -1 ... 35 bar	Not applicable	Not applicable
		TS = 0 ... 340 °C PS = -1 ... 30 bar	TS = 0 ... 340 °C PS = -1 ... 30 bar		
GVH 108, 200, 220, 228, 229, 240, 300, 400, 500, 700, 800, 900	C, DS, U, X, Z, and combinations thereof	TS = -196 ... 200 °C PS = -1 ... 25 bar	TS = -196 ... 200 °C PS = -1 ... 25 bar	Not applicable	Not applicable
		TS = -196 ... 340 °C PS = -1 ... 20 bar	TS = -196 ... 340 °C PS = -1 ... 20 bar		
GVH 500	DUO	TS = -196 ... 200 °C PS = -1 ... 25 bar	TS = -196 ... 200 °C PS = -1 ... 25 bar	TS = -196 ... 200 °C PS = -1 ... 25 bar	Not applicable
		TS = -196 ... 340 °C PS = -1 ... 20 bar	TS = -196 ... 340 °C PS = -1 ... 20 bar	TS = -196 ... 340 °C PS = -1 ... 20 bar	
GVH 700	DUO	TS = -196 ... 200 °C PS = -1 ... 20 bar	TS = -196 ... 200 °C PS = -1 ... 20 bar	TS = -196 ... 200 °C PS = -1 ... 20 bar	Not applicable
		TS = -196 ... 340 °C PS = -1 ... 16 bar	TS = -196 ... 340 °C PS = -1 ... 16 bar	TS = -196 ... 340 °C PS = -1 ... 16 bar	

Reihe, Typ / Series, Type *)	Durchströmung / Flow arrangement	Side 1:	Side 2:	Side 3:	Side 4:
GVH 1000 H	C, U, X, and combinations thereof	TS = -196 ... 200 °C PS = -1 ... 20 bar	TS = -196 ... 200 °C PS = -1 ... 20 bar	Not applicable	Not applicable
		TS = -196 ... 340 °C PS = -1 ... 16 bar	TS = -196 ... 340 °C PS = -1 ... 16 bar		
GWH 220, 240, 400, 500, 700, 900	C, X, and combinations thereof	TS = -196 ... 200 °C PS = -1 ... 55 bar	TS = -196 ... 200 °C PS = -1 ... 55 bar	Not applicable	Not applicable
MBS 730		TS = -196 ... 200 °C PS = -1 ... 31 bar	TS = -196 ... 200 °C PS = -1 ... 31 bar	TS = -196 ... 200 °C PS = -1 ... 31 bar	TS = -196 ... 200 °C PS = -1 ... 31 bar
WH 22, 4, 5, 7, 9	C, X, Z, and combinations thereof	TS = -196 ... 200 °C PS = -1 ... 45 bar	TS = -196 ... 200 °C PS = -1 ... 45 bar	Not applicable	Not applicable
WP 1E	C	TS = 0 ... 200 °C PS = -1 ... 16 bar	TS = 0 ... 200 °C PS = -1 ... 16 bar	Not applicable	Not applicable
WP 1	C, U, X, Z, and combinations thereof	TS = 0 ... 200 °C PS = -1 ... 31 bar	TS = 0 ... 200 °C PS = -1 ... 31 bar	Not applicable	Not applicable
	DUO, TIO	TS = 0 ... 200 °C PS = -1 ... 25 bar	TS = 0 ... 200 °C PS = -1 ... 25 bar	TS = 0 ... 200 °C PS = -1 ... 25 bar	
WP 1R, 2, 22, 24, 3, 4; 5, 7, 8, 9, 10 (except L pattern)	C, DS, U, X, Z, and combinations thereof	TS = -196 ... 200 °C PS = -1 ... 31 bar	TS = -196 ... 200 °C PS = -1 ... 31 bar	Not applicable	Not applicable
WP 22, 24, 5, 7, 9	C, X, Z, and combinations thereof	TS = -196 ... 200 °C PS = -1 ... 40 bar	TS = -196 ... 200 °C PS = -1 ... 40 bar	Not applicable	Not applicable
WP 24, 5, 7	DUO, TIO, TD	TS = -196 ... 200 °C PS = -1 ... 31 bar	TS = -196 ... 200 °C PS = -1 ... 31 bar	TS = -196 ... 200 °C PS = -1 ... 31 bar	Not applicable
WP 1R, 2, 22, 3, 4, 8; 9; 10 (except L pattern)	DUO, TIO	TS = -196 ... 200 °C PS = -1 ... 25 bar	TS = -196 ... 200 °C PS = -1 ... 25 bar	TS = -196 ... 200 °C PS = -1 ... 25 bar	Not applicable
NP 1	C, U, X, Z, and combinations thereof	TS = 0 ... 200 °C PS = -1 ... 16 bar	TS = 0 ... 200 °C PS = -1 ... 16 bar	Not applicable	Not applicable
NP 1R, 2, 22, 24, 3, 4; 5, 7, 8, 9	C, DS, U, X, Z, and combinations thereof	TS = -196 ... 200 °C PS = -1 ... 16 bar	TS = -196 ... 200 °C PS = -1 ... 16 bar	Not applicable	Not applicable
	DUO, TIO	TS = -196 ... 200 °C PS = -1 ... 16 bar	TS = -196 ... 200 °C PS = -1 ... 16 bar	TS = -196 ... 200 °C PS = -1 ... 16 bar	

*) The name of a Braze Plate Heat Exchanger (BPHE) model consists of letters and numerals to describe model series and type. The complete name of a BPHE contains additional letters and numerals describing plate pattern, plate partition, flow arrangement, number of plates or other features – for instance AE, H, L, M. All BPHE variants are covered if their specific maximum working temperatures and maximum working pressures are within the working limits of their series, type and flow arrangements as mentioned above.

The manufacturer herewith declares that design, manufacturing and product verification of pressure vessels mentioned above is in conformance with The Pressure Equipment (Safety) Regulations 2016.

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