

Konformitätserklärung / Declaration of Conformity

für Druckgeräte gemäß der Richtlinie 2014/68/EU
des Europäischen Parlaments und des Rates
vom 15. Mai 2014
(Druckgeräterichtlinie - DGRL)
über die Konstruktion, Fertigung, Prüfung für

of pressure equipment according to Directive 2014/68/EU
of the European Parliament and the Council
of 15 May 2014
(Pressure Equipment Directive - PED)
in design, manufacturing, product verification for

Gelötete Plattenwärmeübertrager / Brazed Plate Heat Exchangers

Konformitätsbewertungsverfahren nach Anhang II /
Conformity assessment procedure in accordance to Annexure II
Benannte Stelle gemäß DGRL, Artikel 24 /
Notified Body in accordance to PED, article 24

Modul B (Baumuster) + D /
Module B (production type) + D
TÜV Thüringen e.V.
Melchendorfer Straße 64, 99096 Erfurt,
Germany

Registriernummer der Benannten Stelle / Notification number of Notified Body
CE-Kennzeichnung der Druckgeräte / CE marking on pressure equipment

0090
CE - 0090

Zertifikate / certificates

Modul D / Module D:
Modul B (Baumuster) / Module B (production type):

0090 151 0002
0662 / 52552 / 22

Angaben zum Behälter / Design data of vessel

Reihe / Series

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

Normen, Regelwerk / Standards

Richtlinie 2014/68/EU (DGRL) / Directive 2014/68/EU (PED)
ASME Boiler & Pressure Vessel Code, Section VIII, Division 1

Druckgerätegruppe gemäß DGRL, Artikel 4 / Pressure equipment group according to PED, article 4

(1)

Fluidgruppe (FG) gemäß DGRL, Artikel 13 / Fluid group (FG) according to PED, article 13

Gruppe/group 1

Kategorien der Druckgeräte nach Anhang II / Categories of pressure equipment referring to annexure II

I; II; III; IV

Angaben der Betriebsgrenzen / Data of working limits

(Siehe Typenschild / See name plate)

| 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 ... 200 °C PS = -1 ... 17 bar | TS = -196 ... 125 °C PS = -1 ... 21 bar TS = -196 ... 200 °C PS = -1 ... 17 bar | TS = -196 ... 125 °C PS = -1 ... 21 bar TS = -196 ... 200 °C PS = -1 ... 17 bar | Not applicable |
| AP 760 | TIO | TS = -196 ... 60 °C PS = -1 ... 22 bar TS = -196 ... 200 °C PS = -1 ... 16 bar | TS = -196 ... 60 °C PS = -1 ... 22 bar TS = -196 ... 200 °C PS = -1 ... 16 bar | TS = -196 ... 60 °C PS = -1 ... 22 bar TS = -196 ... 200 °C PS = -1 ... 16 bar | Not applicable |
| 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 DUO, TIO | TS = 0 ... 200 °C PS = -1 ... 31 bar TS = 0 ... 200 °C PS = -1 ... 25 bar | TS = 0 ... 200 °C PS = -1 ... 31 bar TS = 0 ... 200 °C PS = -1 ... 25 bar | Not applicable TS = 0 ... 200 °C PS = -1 ... 25 bar | Not applicable |
| 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 |
| 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 |

| Reihe, Typ / Series, Type *) | Durchströmung / Flow arrangement | Side 1: | Side 2: | Side 3: | Side 4: |
|--|--|--|--|--|----------------|
| | | 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 | | |
| GBS 525 | 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 | | |
| GBS 757 | 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 |
| | DUO, TIO | TS = 0 ... 200 °C PS = -1 ... 16 bar | TS = 0 ... 200 °C PS = -1 ... 16 bar | TS = 0 ... 200 °C PS = -1 ... 16 bar | |
| GKE 108, 228, 229 | 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 |
| | DUO | TS = -196 ... 200 °C PS = -1 ... 65 bar | TS = -196 ... 200 °C PS = -1 ... 60 bar | TS = -196 ... 200 °C PS = -1 ... 65 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 |
| | 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 | |
| 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 | |
| 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 |

| Reihe, Typ / Series, Type *) | Durchströmung / Flow arrangement | Side 1: | Side 2: | Side 3: | Side 4: |
|---|--|--|--|--|--|
| 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 | |

*) Die Bezeichnung eines gelöteten Plattenwärmetauschers (BPHE) besteht aus Buchstaben und Ziffern zur Beschreibung der Modellreihe und des Typs. Der vollständige Name eines BPHE enthält zusätzliche Buchstaben und Ziffern, die das Plattenmuster, die Plattenaufteilung, die Durchströmung, die Anzahl der Platten oder andere Merkmale beschreiben - z. B. AE, H, L, M. Alle BPHE-Varianten sind abgedeckt, wenn ihre spezifischen maximalen Betriebstemperaturen und maximalen Betriebsdrücke innerhalb der Betriebsgrenzen ihrer Serie, Typ und der Durchströmung, wie oben genannt, liegen. /

The name of a Brazed 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.

Der Hersteller erklärt hiermit, daß Konstruktion, Herstellung und Prüfung der vorgenannten Druckbehälter den Anforderungen der Richtlinie 2014/68/EU (DGRL) entsprechen.

The manufacturer herewith declares that design, production and product verification of pressure vessels mentioned above is in conformity with Directive 2014/68/EU (PED).

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