

# VARITUBE<sup>®</sup> E Universal Tubular Heat Exchanger

Or Innovative Engineering – Quality in Line.



Process Engineering GEA TDS GmbH

## VARITUBE<sup>®</sup> E



#### Application

The VARITUBE® E (VT E) heat exchanger is mainly used for heating of CIP media and hot water generation for volume flow rates of up to 165 m<sup>3</sup>/h. Due to its hygienic design it is also ideally suitable for simple cooling and heating applications for various products in the food industry.

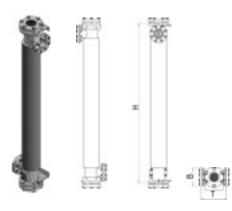
#### Design

VARITUBE® E – a tubular heat exchanger which guides the product through several straight inner tubes surrounded by a service medium in a shell. The "floating" design of the inner bundle compensates for the different thermal expansion between shell and inner tube bundle caused by high temperature differences. The intermediate flange on the dynamically sealed side has a radially positioned leakage "tellpipe" to ensure that any leakages on the product or shell side can easily be detected. The inner bundle can be removed for inspection purposes.

#### Further characteristics of the VT E

- Easy assembly and disassembly
- Low operating and service costs
- Stainless steel air gap insulation and counterflanges included in the scope of supply





Туре	H = 2,000 mm		Weight empty	Connections			Volume (I)	
			(kg)	Product		Condensate	Product side	Shell side
VT E 7-2,0	150	180	33	DN 40	DN 40	DN 40	1.6	3.5
VT E 19-2,0	185	210	42	DN 50	DN 65	DN 65	4.3	6.0
VT E 37-2,0	225	280	96	DN 80	DN 80	DN 80	8.5	14.8
VT E 54-2,0	250	310	111	DN 100	DN 100	DN 100	17.4	18.3
VT E 76-2,0	280	380	183	DN 150	DN 125	DN 125	32.4	31.9

#### Technical Data

#### Materials

- Inner tubes: AISI 316Ti (1.4571)
- Shell: AISI 304 (1.4301)
- Gaskets: EPDM/PTFE

#### Connections

- Product side: hygienic flanges
- Medium side: flanges acc. to DIN 2633, PN 16

#### Operating temperature/pressure

- Inner tubes 150° C/23 bar
- Shell 190° C/12 bar

Туре	Flow rate [m <sup>3</sup> /h]	Pressure drop [kPa]	Max. heat load [kW]	Delta T (K)
VT E 7-2,0	3.0 - 8.5	5-20	130	32-13
VT E 19-2,0	8.0 - 24.0	5-35	360	32-13
VT E 37-2,0	15.0 - 45.0	6-44	680	33–13
VT E 54-2,0	22.5 - 66.0	7-56	995	33–13
VT E 76-2,0	55.0 - 165.0	8-64	1,720	23-9

Output data referring to end heating of 85° C and steam pressure of 3,0 barÜ (143° C).



To find out more about GEA TDS process technology, see www.gea-tds.com.



#### Process Engineering

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