

**CERTECON**  
80 – 650



## Exhaust gas heat exchanger at a glance

### Energy Saving with CERTECON

#### CERTECON Flue gas heat exchangers

An innovative solution for saving energy during operation of the oil- or gas-heated CERTUSS steam generators of the Junior 80 – 400 and Universal 500 – 600 series. Depending on the output level, operating pressure and utilization of the steam generator, the combustion-specific degrees of efficiency increases to up to 98%.

#### CERTECON Flue gas heat exchangers

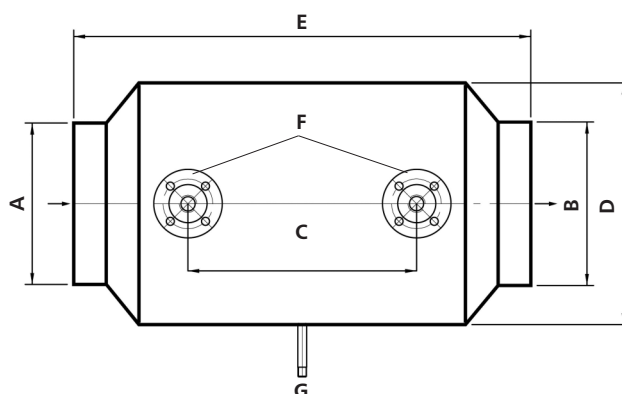
are compact with small dimensions are inserted horizontally or vertically in the flue gas flue between the steam generator and exhaust gas stack. At the water end they have to be installed between the boiler feed pump and the steam generator. To a certain extent an additional protection of the heating system in steam generators against deposits and corrosions at residues in the feed water also exists.

#### CERTECON Flue gas heat exchangers

continuously return the gained energy to the steam generators. The burner output is reduced correspondingly. External heat intake is not required. They are approved solely for the operation with CERTUSS steam generators.

#### CERTECON Flue gas heat exchangers

have a robust heat exchanger package made of high-quality boiler tubes. They are adapted optimally to the respective sizes of the CERTUSS steam generators. Depending on the boiler size the flue gas temperature is reduced to 130 °C to 160 °C, whereby the danger of the dew point being underpassed in the exhaust gas stack is avoided.



CERTECON		80 - 120		150 - 200			250 - 650				
CERTUSS Steam generator	Type	Junior								Universal	
		80	120	150	200	250	300	350	400	500	600
<b>A</b> Flue gas inlet Ø internal	mm	180		200			250				
<b>B</b> Flue gas outlet Ø external	mm	178		198			248				
<b>C</b> Centre-to-centre distance connecting pieces	mm	220		270			350				
<b>D</b> Outer diameter	mm	250		280			370				
<b>E</b> Installation length	mm	590		640			740				
<b>F</b> Nominal width water inlet/outlet PN 100	DN	15					20				
<b>G</b> Nominal width condensate connection	DN	1/2"									
* Heat output at full load up to	approx. kW	0.9	1.5	1.5	4.0	4.0	4.5	5.0	5.5	6.0	7.0
Connected burner output max.	kW	58	87	109	145	182	218	255	291	364	436
Heating flue gas temperature max.	°C	350									
Weight without water filling	kg	24		33			66				
Pressure equipment volume V	l.	1.49		3.16			5.66				
** Operating overpressure PS	bar	10 - 40		10 - 13	16 - 32	40	10 - 32			40	
Product PS x V	max.	59.6		41.08	101.12	126.4	181.12			226.4	
PED 2014/68/EU, Annex II, Diagram 5, Category		GIP		I	II	IV	II			IV	

\* The values can deviate depending on the operating pressure, connected burner output and degree of utilization of the steam generator.

\*\* Select the operating overpressure as at the associated steam generator.

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