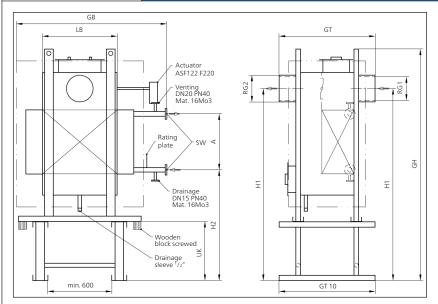
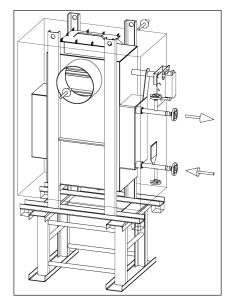


# CERTUSS Economiser for Universal 500 – 1800 TC

Name: Thomas Hamacher Date: 28. 04. 2014





Size Designation	Universal 500	Universal 600	Universal 700	Universal 850	Universal 1000	Universal 1300	Universal 1500	Universal 1800
Article No.	33.0018.1		33.0018.2		33.0018.4		33.0018.6	
Steam capacity kg/h	500	600	700	850	1000	1300	1500	1800
Device width, with insulation approx. mm	13	60	13	60	14	60	16	60
Device depth, across exhaust gas connection approx. mm	86	50	86	50	88	30	90	00
Device height, complete approx. mm	18	30	21	45	23	60	25	20
Internal diameter flue gas inlet mm	25	55	30	05	3!	55	50	)5
External diameter flue gas outlet mm	24	245 295		95	345		495	
Floor to middle of exhaust gas inlet/outlet approx. mm	1460 1750		50	1940		2025		
Floor to middle of water inlet approx. mm	875 990		90	1155		1165		
Clear width (housing inner dimension) mm	600			70	00	90	00	
Distance feed water connections approx. mm	375 52			25				
NW feed water connections PN 40 (Mat. 16Mo3) mm	25			32				
Height of substructure approx. mm	350 465			630				
Weight approx. kg	55	50	650		720		860	
Permissible heat output kW	21	25	32	38	45	55	66	76
Heating surface approx. m <sup>2</sup>	15		2	0	2	4	3	1
Pressure loss, exhaust gas end max. mbar	0.2	0.3	0.5	0.7	0.7	1.1	0	.9
Flue-gas volume, exhaust gas end m³	0.28		0.	33	0.42		0.63	
Volume flow, water end m³/h	0.5	0.6	0.7	0.85	1.0	1.3	1.5	1.8
Pressure loss, water end approx. bar	0.01			0.02	0.03	0.05	0.07	0.10

Dimensioning:

Boiler load 100%, fuel natural gas/light fuel oil, feed water 90°C, exhaust-gas cooling from 265°C to 122 - 133°C, operating pressure 35 bar (over).

### Tender text:

Economiser for increasing the boiler degree of efficiency and reduction of the CO<sub>2</sub> emission for steam boiler systems fired by natural gas and EL fuel oil consisting of:

Spiral-finned tube heat transfer surface, base tube with segmented fin fully welded with each other. Exchanger tubes of material P235GH-TC1, Ø 38.0 x min. 2.9 mm. The steel housing, made of 5 mm sheet steel, is gas-tight and welded stably for a maximum overpressure of 50 mbar. Calculation, design and manufacturing to EC Directive 2014/68/EU in corresponding module with extensive quality assurance system.



## CERTUSS accessories for Economiser Universal 500 – 1800 TC

Name: Thomas Hamacher Date: 28. 04. 2014

Shut-off valves, safety valve and piping accessories without CVE

Supplementary equipment Economiser 500 - 1300	mechanical / DN 25	86.0704.2
Supplementary equipment Economiser 1500 - 1800	mechanical / DN 32	86.0704.6

Shut-off valves, safety valve and piping accessories with CVE

Supplementary equipment Economiser 500 -1300 with CVE	mechanical / DN 25	86.0703.8
Supplementary equipment Economiser 1500 -1800 with CVE	mechanical / DN 32	86.0704.0

#### Electrical accessories

Supplementary equipment Economiser 500 - 1800 SC	electrical / time relay	86.0704.8
Supplementary equipment Economiser 500 - 1800 TC	electrical / time relay	86.0705.5

Flue pipe connection piece, double-walled, 750 mm, can be cut to length

Flue pipe connection piece Eco 500 – 600	Ø 250	39.0217.6
Flue pipe connection piece Eco 700 – 850	Ø 300	39.0217.7
Flue pipe connection piece Eco 1000 – 1300	Ø 350	39.0217.8
Flue pipe connection piece Eco 1500 – 1800	Ø 500	39.0217.9

## Supplementary equipment CERTUSS Economiser, complete packages

**Supplementary equipment Economiser complete with CVE for TC boiler.** Contains shut-off valves, safety valve, piping accessories, electrical accessories and flue pipe connection piece double-walled.

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Universal 500 – 600 TC	86.0702.0 S
Universal 700 – 850 TC	86.0702.1 S
Universal 1000 – 1300 TC	86.0702.2 S
Universal 1500 – 1800 TC	86.0702.3 S

**Supplementary equipment Economiser complete with CVE for SC boiler.** Contains shut-off valves, safety valve, piping accessories, electrical accessories and flue pipe connection piece double-walled.

Universal 500 – 600 SC	86.0701.0 S
Universal 700 – 850 SC	86.0701.1 S
Universal 1000 – 1300 SC	86.0701.2 S
Universal 1500 – 1800 SC	86.0701.3 S

**Supplementary equipment Economiser complete without CVE for TC boiler.** Contains shut-off valves, safety valve, piping accessories, electrical accessories and flue pipe connection piece double-walled.

Universal 500 – 600 TC	86.0702.5 S
Universal 700 – 850 TC	86.0702.6 S
Universal 1000 – 1300 TC	86.0702.7 S
Universal 1500 – 1800 TC	86.0702.8 S

**Supplementary equipment Economiser complete without CVE for SC boiler.** Contains shut-off valves, safety valve, piping accessories, electrical accessories and flue pipe connection piece double-walled.

Universal 500 – 600 TC	86.0701.5 S
Universal 700 – 850 TC	86.0701.6 S
Universal 1000 – 1300 TC	86.0701.7 S
Universal 1500 – 1800 TC	86.0701.8 S