



### Shell and tube heat exchanger stainless steel / carbon steel

Cetecoil® is the collective name for a range of heat exchangers with tubes made of acid proof stainless steel and suitable for many different media, such as steam, domestic hot water, heating water. When operating with steam, the Cetecoil is a very efficient condensate cooler. The Cetecoil heat exchanger is also very well-suited for use in systems in which continuous operation at high water velocities is required.

#### HIGH PRESSURES AND TEMPERATURES

Cetecoil heat exchangers have no gaskets and can operate at high pressures and high temperatures, even when handling media that are subject to sudden and big temperature variations, such as in steam and refrigeration systems. In their standard design, Cetecoil heat exchangers are rated for pressures up to 25 bar and temperatures up to 300°C.

#### FLEXIBLE RANGE

Cetecoil heat exchangers are manufactured in three different basic versions as regards materials and pressures, and these are designated R, S, D and E. All versions have stainless steel tubes.

Every basic version is manufactured in a number of sizes and different thermal lengths. This wide range makes it simple to order a suitable Cetecoil heat exchanger for virtually any operating conditions. For higher capacities, several heat exchangers can be connected in parallel or in series.

#### UNIQUE DESIGN WITH PATENTED TUBES

The stainless steel tubes are cross-ribbed. This improves the thermal properties of the tube, both on the inside and on the outside, which contributes towards a very high heat transfer rate. The performance of the heat exchanger is determined by the number of tubes and the tube length. The tubes are wound into a spiral around a central core. Each end is then secured into the tube plate. The tubes form together with the collecting chambers the 'coil' which is welded to the surrounding shell. In this design, the strength of an allwelded design is combined with high elasticity for absorbing thermal expansion. The upright position also means that Cetecoil needs a minimum of space.

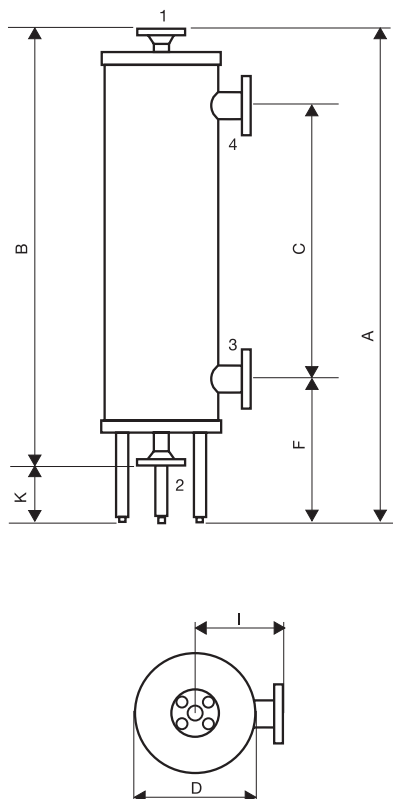
#### KEY BENEFITS

- Large high turbulence transfer surface: High power - Small space
- Low pressure drop, high  $\Delta T$
- No gaskets: No maintenance
- Ideal solution for high Primary/Secondary differential of temperature
- Up to 25 bar & up to 300°C with normalized flanges connections

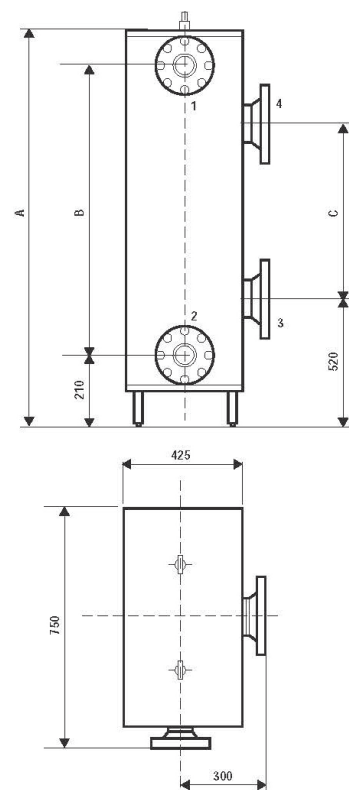
Cetecoil R/S/D/E Type	A (mm)	B (mm)	C (mm)	D (mm)	F (mm)	K (mm)	I (mm)	Connections		Volume		Dry Weight (kg)
								1 & 2 PN 16*	3 & 4 PN 16	Coil (Litres)	Shell (Litres)	
CETECOIL 480 - 4100												
480 - L	980	670	440	280	427	312	200	50	50	1,3	10,4	35
480 - M	1160	850	620	280	427	312	200	50	50	2,3	12,8	42
480 - H	1365	1055	825	280	427	312	200	50	50	3,3	15,8	50
850 - L	1070	760	530	280	427	312	200	50	50	2	11,5	40
850 - M	1365	1055	825	280	427	312	200	50	50	3,6	15,3	50
850 - H	1670	1360	1130	280	427	312	200	50	50	5,7	19	62
1450 - L	1145	875	585	280	418	270	200	50	65	3	16	51
1450 - M	1505	1235	935	280	418	270	200	50	65	6	22	66
1450 - H	1900	1630	1335	280	418	270	200	50	65	10	29	83
2150 - L	1170	935	580	340	413	235	235	50	80	6	21	61
2150 - M	1490	1255	900	340	413	235	235	50	80	11	26	80
2150 - H	1790	1555	1200	340	413	235	235	50	80	15	32	97
3300 - L	1255	973	420	430	547	270	270	65	100	14	40	115
3300 - M	1455	1173	620	430	547	270	270	65	100	20	47	145
3300 - H	1695	1413	860	430	547	270	270	65	100	26	58	177
4100 - L	1255	973	420	430	547	270	270	65	125**	16	38	119
4100 - M	1455	1173	620	430	547	270	270	65	125**	24	44	151
4100 - H	1695	1413	860	430	547	270	270	65	125**	32	52	186
CETECOIL 6600 - 8200												
6600 - L	1350	1040	385	-	-	-	-	100	150	28	70	200
6600 - M	1570	1240	585	-	-	-	-	100	150	42	86	300
6600 - H	1775	1475	820	-	-	-	-	100	150	56	110	440
8200 - L	1350	1040	385	-	-	-	-	125	150	32	66	220
8200 - M	1570	1240	585	-	-	-	-	125	150	48	76	340
8200 - H	1775	1475	820	-	-	-	-	125	150	68	98	460

Design subject to changes without prior notice. / \* PN16 on coil side for Cetecoil R & E / \*\* DN 100 for Cetecoil E type

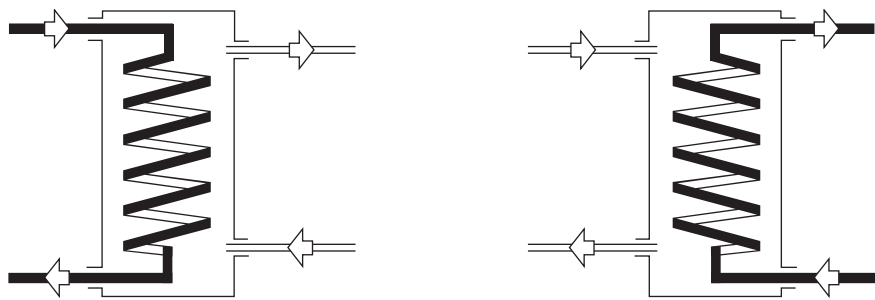
**CETECOIL 480-4100**



**CETECOIL 6600-8200**



## CONNECTION EXAMPLES (FLOW DIAGRAMS)



(The heat exchanger must always be connected with the media in counterflow and, if the materials allow, at the larger flow rate on the shell side.)

## OPERATING PRESSURE/OPERATING TEMPERATURE

Cetecoil Type	Max. operating pressure bar (gauge) at operating temperature					
	200°C		250°C		300°C	
	Coil	Shell	Coil	Shell	Coil	Shell
R	16	16	15	14	14	12
S	25	16	23	14	19	12
D	25	25	23	23	22	19
E	16	16	15	15	14	14

## MATERIALS

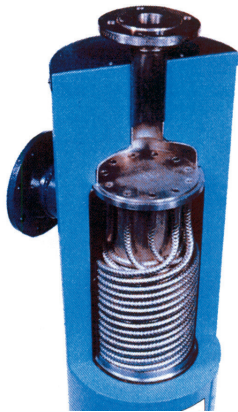
Cetecoil Type	Coil		Shell
	Tubes	Collecting chambers	
R	Stainless steel	Stainless steel	Carbon steel
S	Stainless steel	Carbon steel	Carbon steel
D	Stainless steel	Stainless steel	Carbon steel
E	Stainless steel	Stainless steel	Stainless steel

## EXAMPLES OF SUITABLE MEDIA IN THE COIL AND SHELL

Cetecoil Type	Coil (connections 1 and 2)	Shell (connections 3 and 4)
R	Steam, domestic hot water	Heating water
S	Steam, heating water	Heating water
D	Steam, domestic hot water	Heating water
E	Steam, domestic hot water	Domestic hot water

## INSULATION

The insulation consists of 50 mm thick mineral wool clad with tough Aluminium structural plate.



The tube coil inside the shell

## QUALITY STANDARD/APPROVAL

Designed and rated according to PED 2014/68/EU and AD2000. Approved by German TÜV. Stainless steel type AISI 316.



The cross-ribbed tube