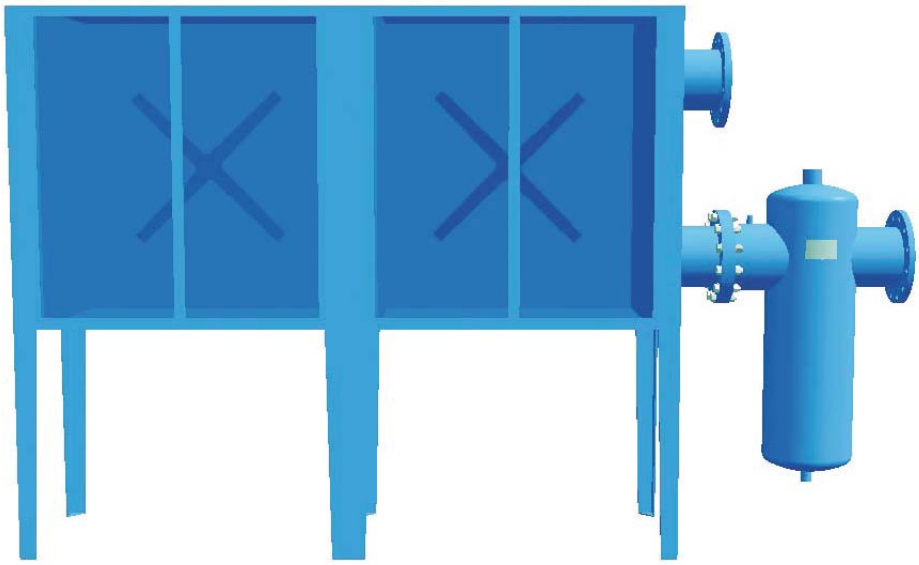
Aftercooler for compressed air and gases UFK-L

The aftercooler UFK-L is designed to cool compressed air, but can be used for other gases as well.



Product description:

The UFK-L as an additional piece of equipment after the compressor supports an efficient and economical purification of compressed air.

The warm incoming air is lead over the cooling pipes where the cooling air is adsorbing the heat. The generated condensate will be drained by a cyclone separator.

In this product series, 12 different housings are available ranging from a volume flow of 65 to 5000 m^3/h.

Features:

The air cooled aftercooler consists of the cooling device in a steel plate cabinet, the fan with integrated electric motor and a cyclone separator.

Technical Data

Materials:	
Housing	carbon steel
Surface finish	Polyester resin coating resp. cathodic dip-coating

Maximum operating pressure:	
0065 - 0300	16 bar
0450-5000	12 bar

Maximum operating temperature:
120°C

Maximum ambient temperature:
45°C

Connection:
1”-2½” BSP DN 80-DN 150 (see technical drawings)

Electr. connection:	
Motor 0065-0125 0175-5000	 230 V/1/50 Hz 400 V/3/50 Hz

Annotation:
The flow capacity is related to a compressed air volume flow (at 1bar, 20°C) at 7 bar pressure, an air cooler inlet temperature of 120°C and an air cooler outlet temperature which is 10°C higher than the ambient temperature.

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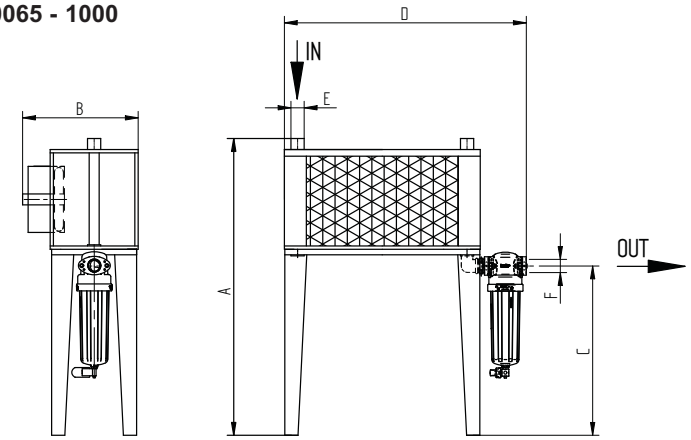
Aftercooler UFK-L 0065-5000

Operating parameters:	
Max. operating pressure: 0065-0300: 0450-5000:	 16 bar 12 bar
Test pressure: 0065-0300: 0450-5000:	 24 bar 18 bar
Max. operating temperature:	120°C
For operating conditions not according to standard see tables with correction factors	

Type 0065 - 1000



Correction factors:

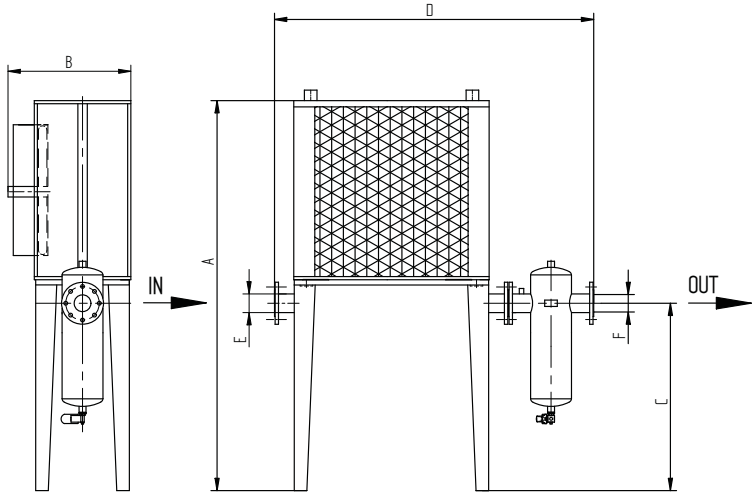
Ambient temperature						
°C	20	25	30	35	40	45
CF	1.04	1	0.94	0.87	0.77	0.65

Air inlet temperature							
°C	60	70	80	90	100	110	120
CF	1.59	1.44	1.32	1.21	1.12	1.05	1

△T = Air inlet temperature - Air outlet temperature					
°C	3	6	9	12	15
CF	0.45	0.72	1	1.28	1.55

Operating pressure								
bar	5	6	7	8	9	10	11	12
CF	0.86	0.93	1	1.06	1.11	1.15	1.19	1.22

Type 1350 - 5000



Size	Max. air flow rate		Fan cooling airflow	Power cons.	Power supply	Weight	Dimensions						Cyclone separator
	m^3/h	l/min.	m^3/h	Watt	V/Ph/Hz	kg	A mm	B mm	C mm	D mm	Ø E	Ø F	
0065	60	1.000	20	800	230/1/50	20	955	270	555	585	G 1	G ½	DF-C 0120
0125	120	2.000	20	800	230/1/50	22	955	270	555	620	G 1	G ¾	DF-C 0210
0175	180	3.000	115	2980	400/3/50	31	1145	270	585	840	G 1½	G ¾	DF-C 0210
0300	240	4.000	135	3790	400/3/50	34	1145	330	675	1050	G 1½	G 1	DF-C 0320
0450	390	6.500	690	6500	400/3/50	51	1145	360	675	1055	G 2	G 1½	DF-C 0450
0750	720	12.000	760	8200	400/3/50	97	1625	655	675	1055	G 2	G 2	DF-C 0750
1000	960	16.000	760	8200	400/3/50	120	1625	655	675	1055	G 2½	G 2	DF-C 1100
1350	1200	20.000	660	12000	400/3/50	240	2120	490	765	1390	G 3	G 3	SG-Z 1950
1950	1800	30.000	660	12000	400/3/50	280	2060	490	945	1970	DN 100	DN 100	SG-Z 1950
2500	2400	40.000	2x760	2x8200	400/3/50	300	2060	490	945	2290	DN 100	DN 100	SG-Z 1950
3500	3000	50.000	2x470	2x8400	400/3/50	310	2000	620	1020	3245	DN 125	DN 125	SG-Z 2750
5000	4500	75.000	2x470	2x8400	400/3/50	390	2100	770	980	3370	DN 150	DN 150	SG-Z 5000

Aftercooler for compressed air and gases UFK-W, water-cooled

The aftercooler UFK-W is designed to cool compressed air, but can be used for other gases as well.

Product description:

The UFK-W as an additional piece of equipment after the compressor supports an efficient and economical purification of compressed air.
The cooler works in a counterflow procedure where the hot compressed air is cooled down by eliminating heat over the cooling tubes to the cooling water. The generated condensate will be drained by a cyclone separator.
This product series offers 9 different housings ranging from a volume flow of 100 to 5000 m^3/h with fixed nest of boiler tubes and 9 different sizes for a volume flow of 450 to 10500 m^3/h. with removable nest of boiler tubes (related to 7 bar g).

Features:

The Aftercooler can be delivered with fixed nest of boiler tubes as well as with moveable nest of boiler tubes. Furthermore all aftercoolers are equipped with a cyclone separator. The coolers consist of enlarged surface insertions made out of copper. The shell, the pipes and the flanges are made of steel.

Technical Data

Materials:	
Housing	Steel
Radiator tube bundel	Copper
Shell, pipes and flanges	Steel
Surface finish	Polyester resin coating resp. cathodic dip-coating

Aftercooler:	
0100-5000	with fixed nest of boiler tubes for clean cooling water
0450 Z-10500 Z	with moveable nest of boiler tubes for dirty cooling water

Maximum operating pressure:	
0100 - 5000	16 bar
0450 Z - 5000 Z	16 bar
7000 Z - 10500 Z	10 bar

Maximum operating temperature:	
Air, inlet:	200°C
Water, inlet:	90°C
Separator:	65°C

Annotation:
The flow capacity is related to a compressed air volume flow (at 1bar, 20°C) at 7 bar pressure, an air cooler inlet temperature of 120°C and an air cooler outlet temperature which is 10°C higher than the cooling water inlet temperature.

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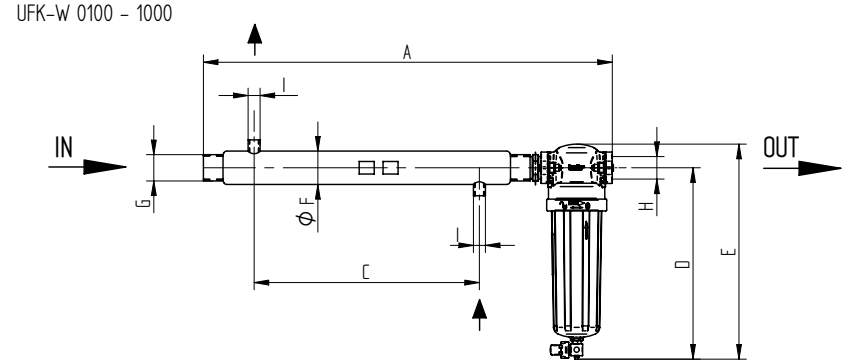
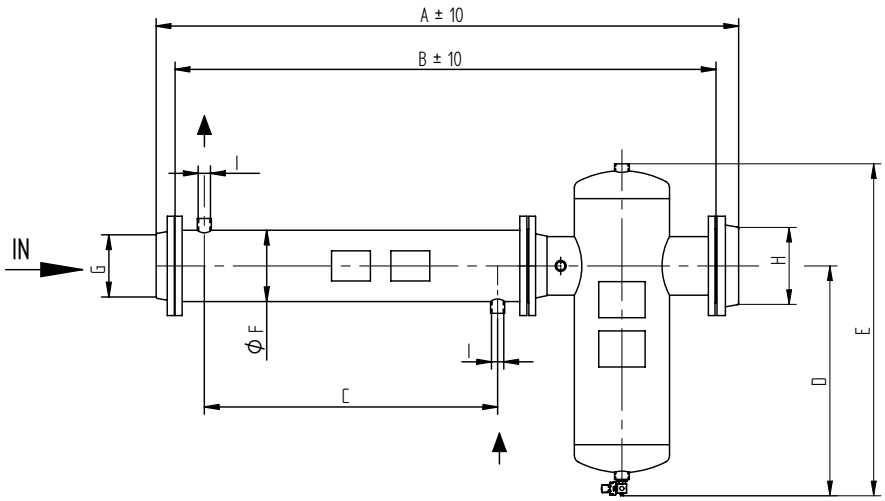
Aftercooler UFK-W 0100-5000

UFK-W 0100 – 1000



UFK-W 1650 – 5000



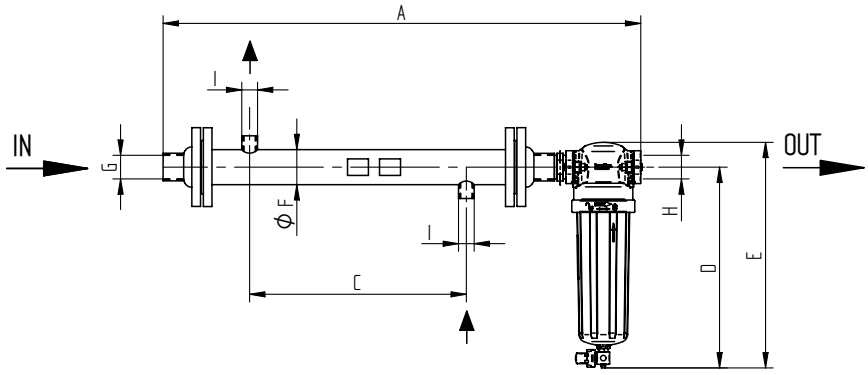
Max. working pressure:		**Maxl. operating temperature:**	
0100-5000:	16 bar	Air, Inlet:	200°C
		Water, Inlet:	90°C
		Separator:	65°C
Test pressure:		**Paint coat:**	Polyester resin coating resp. cathodic dip-coating
0100-5000:	24 bar		

Size	Capacity at 7 bar g m^3/h[1)]	Weight (kg)	A mm	B mm	C mm	D mm	E mm	Ø F mm	G	H	I	Cyclone separator
0100	100	6,3	965	-	600	322	369	42,4	G 1“	G ¾“	G ⅜“	DF-C 0210
0300	300	10,0	975	-	600	322	369	60,3	G 1½“	G 1“	G ½“	DF-C 0320
0450	450	15,2	1090	-	600	510	573	88,9	G 2“	G 1½“	G ¾“	DF-C 0450
0650	650	16,3	1090	-	600	510	573	88,9	G 2“	G 2“	G ¾“	DF-C 0750
1000	1000	31,2	1780	-	1100	510	573	114,3	G 2½“	G 2“	G 1“	DF-C 1100
1650	1650	70	2000	1895	1100	560	740	139,7	DN 80	DN 80	G 1“	SG-Z 1650
2250	2250	102	1860	1745	1100	680	890	168,3	DN 125	DN 125	G 1¼“	SG-Z 2750
3500	3500	142	1960	1845	1100	805	1055	193,7	DN 150	DN 150	G 1¼“	SG-Z 5000
5000	5000	227	2085	1955	1100	980	1295	244,5	DN 200	DN 200	G 1¼“	SG-Z 7500

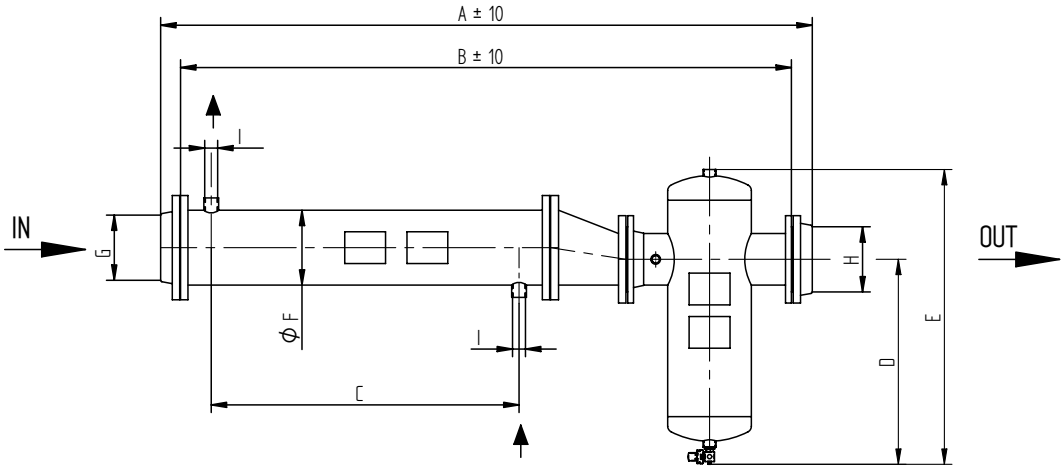
1) m^3/h related to 1 bar abs. and 20°C

Aftercooler UFK-W 0450 Z-10500 Z

UFK-W 0450 Z – 1000 Z



UFK-W 1650 Z – 10500 Z



Max. working pressure:		**Max. operating temperature:**	
0450Z - 5000Z:	16 bar	Air, Inlet:	200°C
7000Z - 10500Z:	10 bar	Water, Inlet:	90°C
		Abscheider:	65°C
Test pressure:		**Paint coat:**	Polyester resin coating resp. cathodic dip-coating
0450Z - 5000Z:	24 bar		
7000Z - 10500Z:	15 bar		

Size	Capacity at 7 bar g $m^3/h^{1)}$	Weight (kg)	A mm	B mm	C mm	D mm	E mm	Ø F mm	G	H	I	Cyclone separator
0450 Z	450	32,2	1120	-	520	510	573	88,9	G 2“	G 1½“	G ¾“	DF-C0450
0650 Z	650	33,2	1120	-	520	510	573	88,9	G 2“	G 2“	G ¾“	DF-C0750
1000 Z	1000	49,4	1690	-	1050	510	573	114,3	G 2½“	G 2“	G 1“	DF-C1100
1650 Z	1650	102	1975	1870	1050	560	740	139,7	DN 80	DN 80	G 1“	SG-Z 1650
2250 Z	2250	107	1855	1740	1050	680	890	168,3	DN 125	DN 125	G 1¼“	SG-Z 2750
3500 Z	3500	147	1955	1840	1050	805	1055	193,7	DN 150	DN 150	G 1¼“	SG-Z 5000
5000 Z	5000	232	2080	1950	1050	980	1295	244,5	DN 200	DN 200	G 1¼“	SG-Z 7500
7000 Z	7000	252	2290	2155	1050	980	1295	273	DN 250	DN 200	G 1¼“	SG-Z 7500
10500 Z	10500	362	2480	2330	1050	1275	1655	323,9	DN 300	DN 250	G 2“	SG-Z 10500

1) m^3/h related to 1 bar abs. and 20°C