

# 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<sup>3</sup>/h with fixed nest of boiler tubes and 9 different sizes for a volume flow of 450 to 10500 m<sup>3</sup>/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 |

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

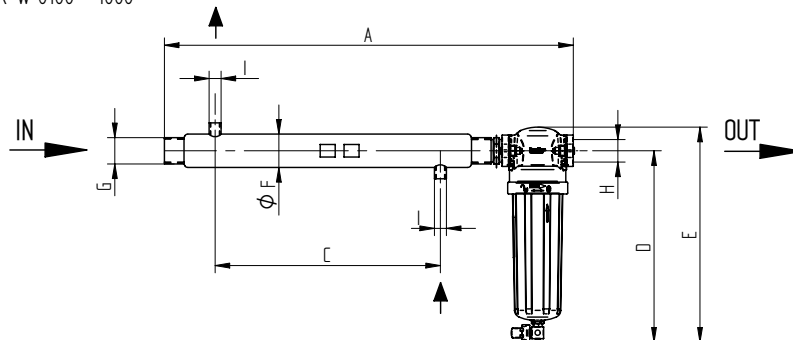
| Maximum operating temperature: |       |
|--------------------------------|-------|
| Air, inlet:                    | 200°C |
| Water, inlet:                  | 90°C  |
| Separator:                     | 65°C  |

| 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 |

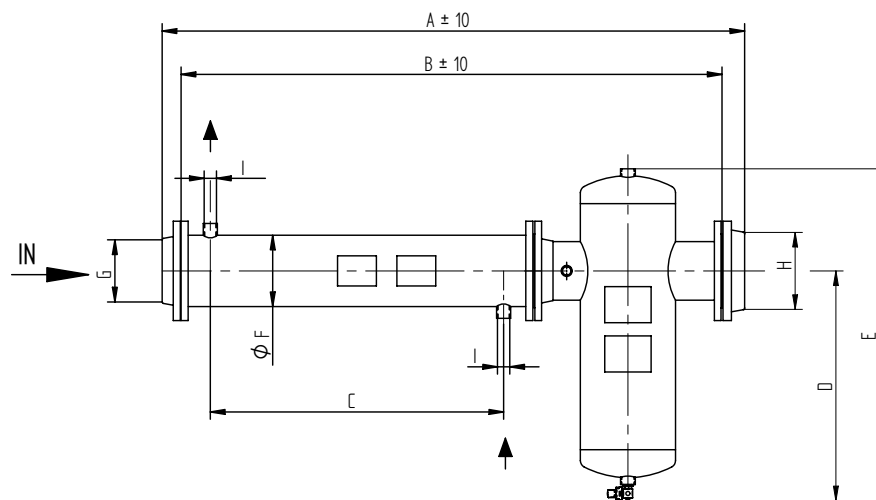
| Annotation:  |  |
|--|--|
| The flow capacity is related to a compressed air volume flow (at 1bar, 20°C) at 7 bar pressure, an air cooler inlet temperature of 120°C and an air cooler outlet temperature which is 10°C higher than the cooling water inlet temperature. |  |

## Aftercooler UFK-W 0100-5000

UFK-W 0100 - 1000



UFK-W 1650 - 5000



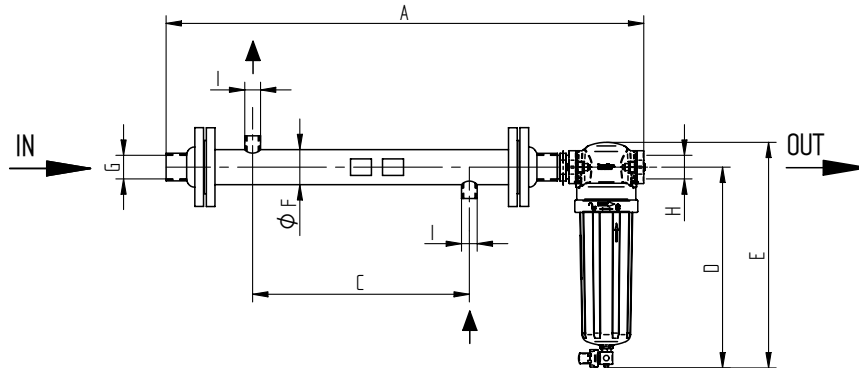
|   |        |  |   |
|---|--------|--|---|
| <b>Max. working pressure:</b><br>0100-5000: | 16 bar | <b>Maxl. operating temperature:</b><br>Air, Inlet: | 200°C   |
|   |        | Water, Inlet:                                      | 90°C  |
|   |        | Separator:   | 65°C  |
| <b>Test pressure:</b>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

| Size | Capacity at 7 bar g m <sup>3</sup> /h <sup>1</sup> ) | 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 ¾"  | 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         |

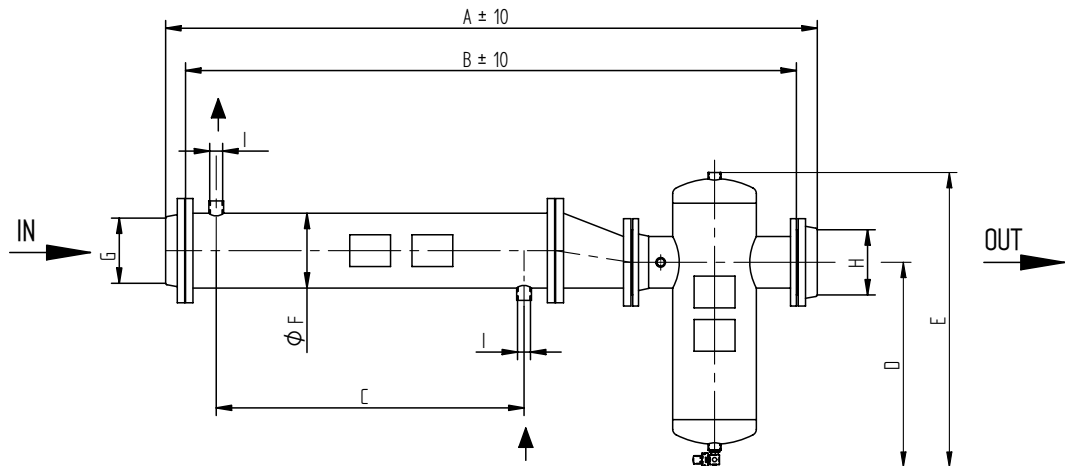
1) m<sup>3</sup>/h related to 1 bar abs. and 20°C

## Aftercooler UFK-W 0450 Z-10500 Z

UFK-W 0450 Z - 1000 Z



UFK-W 1650 Z - 10500 Z



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

| Size    | Capacity at 7 bar g m <sup>3</sup> /h <sup>1</sup> ) | 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 1 1/2" | G 3/4"   | DF-C0450          |
| 0650 Z  | 650  | 33,2        | 1120 | -    | 520  | 510  | 573  | 88,9   | G 2"     | G 2"     | G 3/4"   | DF-C0750          |
| 1000 Z  | 1000   | 49,4        | 1690 | -    | 1050 | 510  | 573  | 114,3  | G 2 1/2" | 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 1 1/4" | SG-Z 2750         |
| 3500 Z  | 3500   | 147         | 1955 | 1840 | 1050 | 805  | 1055 | 193,7  | DN 150   | DN 150   | G 1 1/4" | SG-Z 5000         |
| 5000 Z  | 5000   | 232         | 2080 | 1950 | 1050 | 980  | 1295 | 244,5  | DN 200   | DN 200   | G 1 1/4" | SG-Z 7500         |
| 7000 Z  | 7000   | 252         | 2290 | 2155 | 1050 | 980  | 1295 | 273    | DN 250   | DN 200   | G 1 1/4" | 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<sup>3</sup>/h related to 1 bar abs. and 20°C