

Hypercool

Water Cooled Aftercooler



Compressed air and gases contain high levels of liquid water vapour. Effective water removal leads to reduced maintenance costs, enhanced system operation and improved product quality. Hypercool represents the vital first step in this process, eliminating over 80% of the water present within compressed air and gas systems.

Many industrial applications require controlled compressed air or gas temperature for efficient operation, a requirement for which Hypercool is perfectly suited.

Hypercool has been specifically designed to achieve maximum cooling at minimum cost, within a package designed to withstand the rigors of modern industry.

The ribbed tubing design offers high heat exchange efficiency with minimal pressure drops. An endless range of models includes fixed and removable aftercoolers, high pressure configurations and versions with special materials for any gas and water quality requirement.



Product Features:

- Permits significant energy and capital investment savings
- Optimises the compressed air system performance or gas treatment station
- Reduces maintenance and improves product quality
- Designed to ensure reliable continuous operation
- Very low pressure drops with optimum cooling performances



ENGINEERING YOUR SUCCESS.

Aftercoolers can be installed immediately downstream of compressors or blowers in order to remove over 80% of the condensate. Their function is to protect the entire compressed air system or production process. They control the air or gas temperature, which can be very high at the compressor outlet.

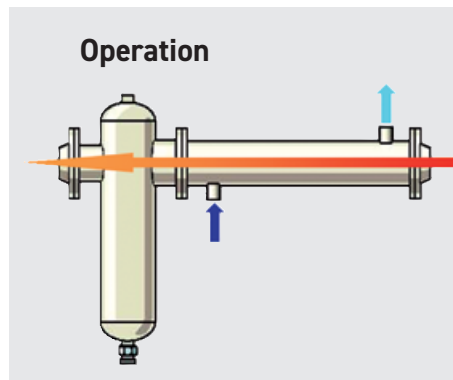
A high quality aftercooler properly sized is an excellent investment that can help ensure that the compressed air or gas system works properly thereby guaranteeing the quality of the finished product.



Fixed configuration with ribbed tubes, ensures high performance with low pressure drops.



Removable version with ribbed tubes, ensures high performance with low pressure drops; designed for easy maintenance.



Compressed air or gas passes through the cooler tubes. Cooling water passes around the tubes in counterflow. The air or gas is cooled down to a temperature which can be as little as 5 °C above the water inlet temperature.

Water condensate is created and efficiently removed by the separator installed at the cooler outlet.

Models:

WFN/WRN

steel shell and copper tubes

WRS

steel shell and stainless tubes,

WRA

completely stainless steel

Versions:

- fixed or removable tube bundles
- carbon steel shell and copper tubes for standard applications
- completely in cupro-nickel for sea water use (available on request)
- completely in stainless steel for aggressive gas and/or water
- carbon steel shell and stainless steel tubes for aggressive air or gas
- high pressure models are available on request
- stainless steel centrifugal water separators are available on request

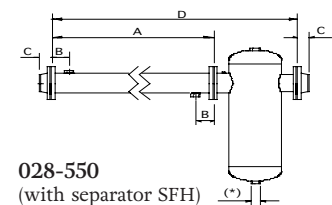
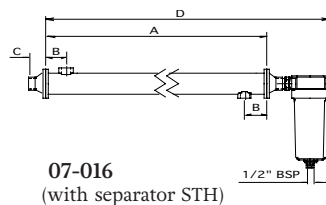
Accessories:

- Centrifugal separator
- Demister separator (available on request)
- Flanges and counterflanges kit
- PED 2014/68/EU approval is offered as standard for all models

Technical data

| Model | Technical data | | | | | Dimensions (mm) | | | | Weight (kg) |
|------------------------------|-------------------|---------------------|------------|--------------------|--------|-----------------|-------|----|-------|----------------|
| | Air Flow | | max Press. | Cooler Connections | | A | B | C | D | |
| | m ³ /h | m ³ /min | barg | Air* | Water | | | | | |
| Standard version | | | | | | | | | | |
| WFN050 | 3.000 | 50 | 12 | DN125 | 1¼" | 1.300 | 100 | 58 | 1.963 | 71 |
| WFN090 | 5.400 | 90 | 12 | DN200 | 1¼" | 1.300 | 100 | 65 | 1.990 | 121 |
| Removable tube-bundle | | | | | | | | | | |
| WRN007 | 420 | 7 | 16 | DN 50 | 1/2" | 1.050 | 72 | 77 | 1.257 | 20 |
| WRN016 | 960 | 16 | 16 | DN 80 | 3/4" | 1.300 | 122 | 92 | 1.563 | 37 |
| WRN028 | 1.680 | 28 | 12 | DN 100 | 1" | 1.300 | 122 | 55 | 1.703 | 54 |
| WRN050 | 3.000 | 50 | 12 | DN 125 | 1¼" | 1.300 | 123 | 58 | 1.853 | 71 |
| WRN090 | 5.400 | 90 | 12 | DN 200 | 1¼" | 1.300 | 117 | 65 | 1.873 | 161 |
| WRN130 | 7.800 | 130 | 10 | DN 250 | 1½" | 1.300 | 116 | 71 | 1.983 | 194 |
| WRN170 | 10.200 | 170 | 10 | DN 300 | 2" | 1.300 | 116 | 71 | 2.053 | 244 |
| WRN250 | 15.000 | 250 | 10 | DN 350 | DN 65 | 1.500 | 196,5 | 71 | 2.503 | 351 |
| WRN350 | 21.000 | 350 | 10 | DN 450 | DN 80 | 1.500 | 148,5 | 75 | 2.703 | 400 |
| WRN450 | 27.000 | 450 | 10 | DN 500 | DN 100 | 1.500 | 199,5 | 78 | 3.436 | 609 |
| WRN550 | 33.000 | 550 | 10 | DN 600 | DN 100 | 1.515 | 200 | 83 | 3.606 | 931 |

Performances refer to clean Cooler conditions with air at FAD 20°C / 1 bar A, and at the following working conditions: air suction 25°C / 60%RH, 7 barg working pressure, 120°C compressed air inlet temperature, temperature approach between air outlet and water inlet of ca. 10°C. Maximum air inlet temperature: 200°C (for higher temperatures and other gases contact Parker Sales Companies).



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