



Compressed air and gases

Cooling Solutions



ENGINEERING YOUR SUCCESS.

Protect the Environment and your Investments...

Air or gases from compressors or blowers are often too humid, contaminated or hot to be used in the distribution or production chain without prior treatment. Aftercoolers can play an essential role in this treatment. The use of high-quality compressed air and gas is essential to ensure the continuity and reliability of industrial processes, the highest quality standards for finished products and the optimization of production costs.

Parker Hiross offers a complete range of solutions for industrial applications including:

- **Water-cooled aftercoolers**
- **Centrifugal separators**
- **Refrigeration and adsorption dryers**
- **Condensate drains**
- **Oil/water separators**
- **Compressed air filters**
- **Water chillers**

Caring for the environment:

Parker Hiross has been awarded ISO14001 certification and puts environmental standards at the heart of its production and design. The Parker Hiross solutions guarantee:

- Zero pollution risks, due to a refrigeration system developed and accurately tested to avoid any refrigerant loss.
- No water loss, thanks to the use of water in closed circuit;
- Top energy efficiency, reducing electrical energy consumption to a minimum.

A safe investment:

Designed for industrial applications, Parker Hiross solutions ensure:

- **Careful energy consumption**, by means of the components and technical choices, which aim to reach the maximum energy efficiency and control accuracy in any condition.
- **Reduced maintenance**, thanks to the high quality approach to product design, commissioning and operation.
- **Maximum flexibility** of use in any application;
- **High wear-and-tear resistance.**

...with the Parker Hiross solutions.

Aftercoolers



Water-cooled Hypercool
(1- 200 m³/min)

Separators



Hypersep centrifugal
(1 - 210 m³/min)

Free your Energy!

Water-cooled aftercoolers

Hypercool

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, as in addition to removing condensate, they also filter out impurities and control the air temperature, which can be very high at the compressor outlet. A high quality aftercooler properly sized is therefore an excellent investment that can help ensure that the compressed air system works properly thereby guaranteeing the quality of the finished product.

Versions

- Horizontal version for compact installation
- fixed or removable tube bundles
- carbon steel shell and copper tubes for standard applications
- completely in cupro-nickel for sea water (on request)
- completely in stainless steel for aggressive gas and/or water
- carbon steel shell and stainless steel tubes for aggressive air or gas
- For high pressures up to 40 barg available on request

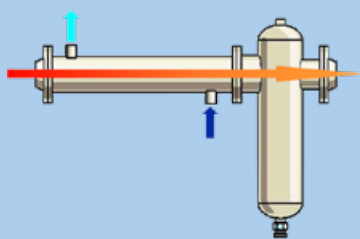
Accessories

- Centrifugal separator
- Flanges and counterflanges kit

PED approval is offered as standard for all models. Other International pressure vessel approvals available on request.

The range Hypercool

Model with fixed or removable tube bundle for air flow rates from 1.2 to 200 m³/min.



Operation

Hot compressed air passes through the Aftercooler tubes. Cooling water passes around the tubes in counterflow, the internal baffles forcing it to make several passes for increased efficiency. The air is cooled to a temperature which can be as little as 5 °C above the cooling water inlet temperature. As the compressed air cools, so liquid condensate is created; this is efficiently removed by a centrifugal separator installed at the Aftercooler outlet.

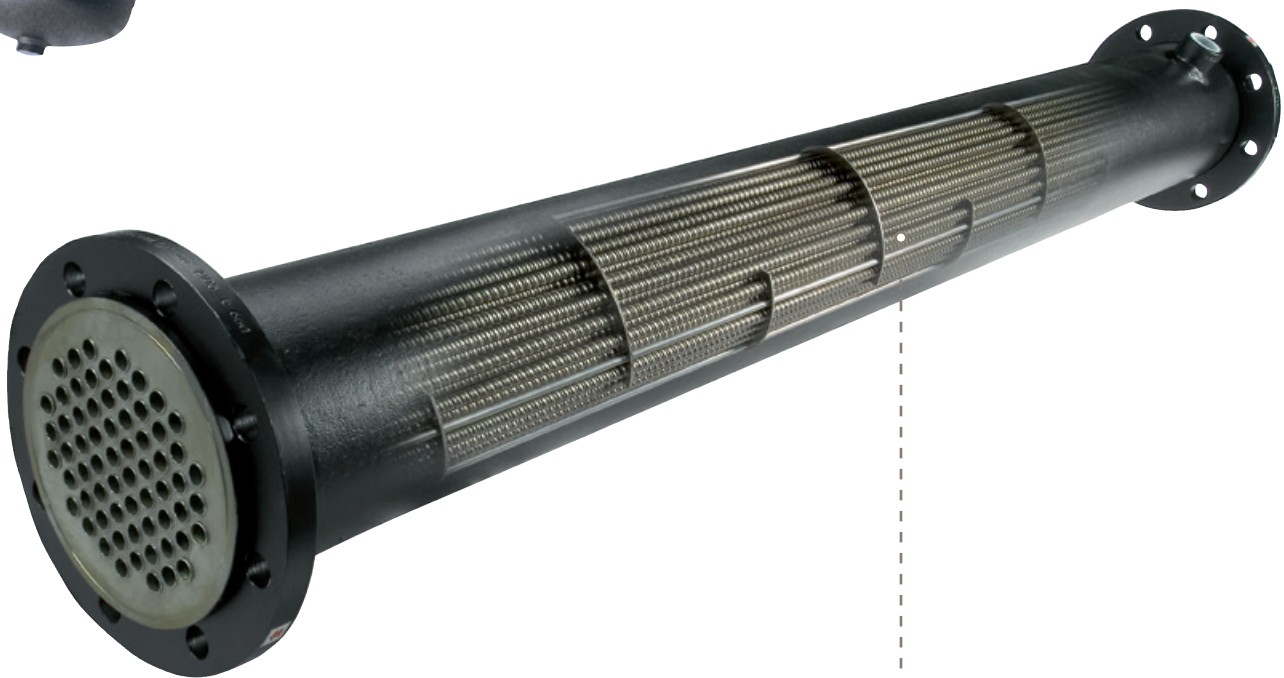
Water-cooled aftercoolers

Hypercool

Removable version with ribbed tubes ensures high performance with low pressure drops



Full range of matching centrifugal separators Hypersep



Fixed configuration with stainless ribbed tubes

Separators

Hypersep centrifugal

Hypersep removes more than 99 % of the liquid condensate present in the compressed air network. Hypersep is very compact and easy to install and is offered with a full range of threaded and flanged air connections. It needs no external power source, and it works automatically without any maintenance requirements. Hypersep even removes rust, oil and other impurities, significantly improving the performance of filters and other

downstream equipments. The result is reduced maintenance and downtime. Hypersep's low pressure drops configuration keeps system energy costs at a minimum.

Versions

- Horizontal or configuration
- in stainless steel
- for high or low air flow

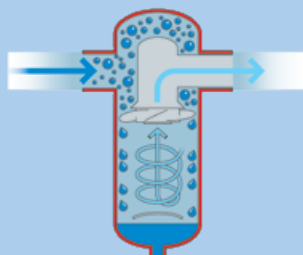
Accessories

- wall mounting kit
- counterflange kit
- full range of complementary condensate drains (internal, float, timed, electronic)

PED approval is offered as standard for all models. Other International pressure vessel approvals available on request.

The range Hypersep

Flanged and threaded models (in horizontal or vertical configuration) for air flow rates from 0.9 to 209.1 m³/min. Models for greater air flow rates available on request.



Operation

centrifugal separator. The moisture-laden air is forced to pass through a directional diffuser which spins the air around the separator's body. Droplets of water are then impinged on the separator wall by centrifugal force and collected at the base of the separator.

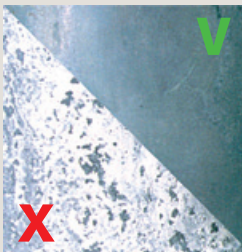
Separators

Hypersep centrifugal



The patented seal mechanism prevent Hypersep from being accidentally opened during operation

Extensive range of condensate drains
Hyperdrain



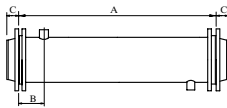
Hiroshield protection:

all threaded models in aluminium feature unique Hiroshield surface protection treatment, applied both inside and outside. Hiroshield ensures that Hypersep can withstand even the toughest industrial conditions.

Technical data Hypercool

Model	Air flow		Connections		Max. press. bar(g)	Dimensions mm			Weight kg
	m ³ /min	m ³ /h	air	water		A	B	C	
Water-cooled models with fixed tube-bundle									
WFN050	50	3000	DN125	1 ¼"	12	1300	100	58	84
WFN090	90	5400	DN200	1 ¼"	12	1300	100	62	143
Water-cooled models with removable tube-bundle									
WRN007	7	420	1½"	1/2"	16	1049	72	77	18
WRN016	16	960	2"	3/4"	16	1299	122	92	31
WRN028	28	1680	DN100	1"	12	1299	122	55	42
WRN050	50	3000	DN125	1¼"	12	1299	123	58	66
WRN090	90	5400	DN200	1¼"	12	1299	117	65	129
WRN130	130	7800	DN250	1¼"	10	1299	116	71	192
WRN170	170	10200	DN300	2"	10	1299	116	71	245

Performances refer to models in standard materials, operating with clean cooler, with air at FAD 20°C / 1 bar A, and at the following working conditions: air suction 25 °C/60 %RH, 7 bar_g working pressure, 120 °C compressed air inlet temperature (for water-cooled models), temperature approach between air outlet and water inlet (water-cooled models) or cooling air (air-cooled models) of ca. 10 °C. The performance of models with non standard materials may differ from those quoted above. Power supply for air-cooled models: ANS single-phase, ANT three-phase. On models with corresponding separator, the air outlet fitting may differ from that indicated above. For technical data for WFB aftercoolers please contact your local Parker Hiross agent.

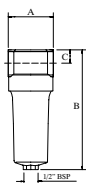


Technical data Hypersep

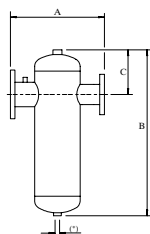
Model	Air flow		Connections air/gas		Max. press. bar(g)	Dimensions mm			Weight kg
	m ³ /min	m ³ /h	in	out		A	B	C	
Threaded models									
STH001	0,9	54	3/8"	3/8"	16	89	267	24	1,1
STH002	2,1	126	1/2"	1/2"	16	89	267	24	1,1
STH003	3	180	3/4"	3/4"	16	89	267	24	1,1
STH006	5,5	330	1"	1"	16	109	367	34	2,2
STH009	9	540	1¼"	1¼"	16	109	367	34	2,2
STH013	12,5	750	1½"	1½"	16	109	367	34	2,2
STH021	21	1260	2"	2"	16	150	550	41	4,3
STH040	40	2400	2½"	2½"	16	188	733	56	12,5
STH046	46	2760	3"	3"	16	188	733	56	12,5
Flanged horizontal models									
SFH029	29,4	1764	DN80	DN80	16	400	720	200	28
SFH030	30	1800	DN100	DN80	16	400	720	200	29
SFH037	36,6	2196	DN100	DN100	16	460	880	230	48
SFH038	38	2280	DN125	DN100	16	460	880	230	49
SFH066	65,6	3936	DN125	DN125	16	550	980	260	55
SFH067	67	4020	DN150	DN125	16	550	980	260	56
SFH088	88,4	5304	DN150	DN150	16	570	1060	290	82
SFH089	89	5340	DN200	DN150	16	570	1060	290	85
SFH097	97,1	5826	DN200	DN200	16	660	1160	320	126
SFH142	141,9	8514	DN250	DN200	10	680	1255	351	148
SFH180	179,5	10770	DN300	DN200	10	750	1455	390	160
SFH209	209,1	12546	DN350	DN200	9	830	1655	430	205

For STH/SFH/SFV performances refer to air at FAD 20 °C/1 bar A, and at the following working conditions: air suction 25 °C / 60 % RH, 7 bar(g) working pressure, 35 °C compressed air inlet temperature, 7kPa pressure drop. STH in aluminium, SFH/SFV in carbon steel. For SFB performances refer to models operating with clean separator, gas flow at 20 °C/1bar A. Nominal working conditions: 60 % CH₄, 35 % CO₂, 5 % other gases, working pressure 0,2 bar(g), average pressure drop 1 kPa (± 0,3 kPa). Models for special applications or in other materials are available on request.

STH



SFH



(*) 029-038 = 1/2" BSP
066-209 = 1" BSP

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