



aerospace
climate control
electromechanical
filtration
fluid & gas handling
hydraulics
pneumatics
process control
sealing & shielding



Compressed air and gases Cooling Solutions



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:

- Air and water-cooled aftercoolers,
- Centrifugal or demister separators,
- Refrigeration and adsorption dryers,
- Condensate drains,
- Oil/water separators,
- Compressed air filters
- Water chillers and dry coolers.

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**.

Free your Energy

with the Parker Hiross solutions

| | | |
|--------------|---|---|
| aftercoolers |  | Water-cooled Hypercool (1 - 200 m ³ /min) |
| |  | Air-cooled Hypercool (1 - 75 m ³ /min) |
| separators |  | Hypersep centrifugal (1 - 210 m ³ /min) |
| |  | Hypersep demister (2 - 47 m ³ /min) |

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

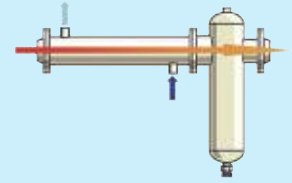
- Horizontal or vertical version for compact installation
- fixed or removable tube bundles
- carbon steel shell and copper tubes for standard applications
- completely in cupro-nickel for sea water
- completely in stainless steel for aggressive gas and/or water
- carbon steel shell and stainless steel tubes for aggressive air or gas
- For high pressures up to 40 barg and low pressures down to 1 barg (on request models for pressures up to 80 barg are available)

Accessories

- Centrifugal separator
- Demister separator
- Flanges and counterflanges kit

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

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 or demister separator installed at the Aftercooler outlet.

The range Hypercool

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



Free your Energy

Water-cooled aftercoolers

Full range of matching centrifugal separators Hypersep



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



Fixed configuration with stainless ribbed tubes

The Parker Hiross solutions

Air-cooled aftercoolers

Hypercool



For applications that require less vigorous air cooling, where no water is available, air-cooled aftercoolers can satisfy the most diverse operating requirements. A pneumatic version is also available for explosion-proof installations.

Versions

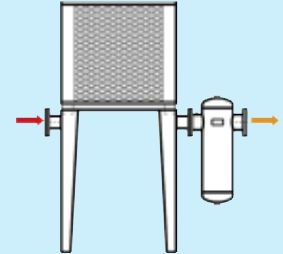
- modular
- standard with aluminium fins and copper tubes
- all copper (fins and tubes)
- for maritime or aggressive applications with epoxy protection
- low pressure drops design
- pneumatic (for operation without electrical power)
- IP55 protection class (standard ANT040-075)
- 25 barg working pressure (ANT040-075)
- standard maximum air inlet temperature: 150°C (for higher temperatures, special versions are available)

Accessories

- Centrifugal separator
- Flanges and counterflanges kit
- Support legs (for smaller models)

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

Operation



Hot compressed air passes through the Aftercooler tubes. Ambient cooling air is forced across these tubes by the fan, with fins on the tubes increasing the cooling effect. The air is cooled to a temperature which can be as little as 5°C above the ambient temperature. As the compressed air cools, so liquid condensate is created; this is efficiently removed by a centrifugal or demister separator installed at the Aftercooler outlet.

The range Hypercool

Models for air flows from 0,6 to 75 m³/min.

Free your Energy

Air-cooled aftercoolers

Robust construction and compact design

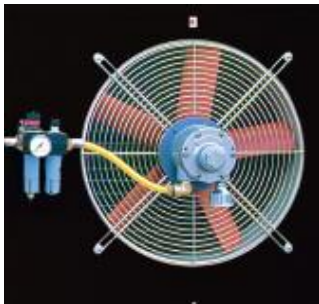
Standard protection with epoxy powder coating

Legs or support plate available on request for smaller models



Full range of matching centrifugal separators Hypersep

Extensive range of condensate drains Hyperdrain



Available with pneumatic motor for installations where electrical power is either not available or not recommended

The Parker Hiross solutions

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 vertical 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.

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.

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.

Free your Energy

Separators

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.



Extensive range of condensate drains **Hyperdrain**



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



Outlet thermometer for precision temperature control as option

Sight glass, standard up to STH021, for an easy verification of correct operation

Hypersep demister



Demister filter entirely in stainless steel which can be removed without removing the separator from the system for easier maintenance.

Very low pressure drops design

Operation

demister separators

The saturated air at the separator inlet flows through the first demister where the drops of condensate are trapped. They coalesce and increase in size until they fall under gravity and collect at the bottom of the separator. The use of a second demister in series ensures maximum condensate separation efficiency.

The range

Hypersep demister
For air flow from 2 up to 46,7 m³/min

The Parker Hiross solutions

Technical data

Hypercool

| Model | Air flow | | Connections | | Max press. barg | Dimensions (mm) | | | Weight kg |
|-------|---------------------|-------------------|-------------|-------|--------------------|-----------------|---|---|--------------|
| | m ³ /min | m ³ /h | air | water | | A | B | C | |

Water-cooled models with fixed tube-bundle

| | | | | | | | | | |
|--------|-----|------|--------|--------|----|------|-----|----|------|
| WFN002 | 1,2 | 72 | 3/4" | 3/8" | 16 | 720 | 78 | - | 2,5 |
| WFN004 | 3,5 | 210 | 1 1/2" | 1/2" | 16 | 980 | 85 | - | 5,5 |
| WFN007 | 6,5 | 390 | 1 1/2" | 3/4" | 16 | 1000 | 95 | - | 8,5 |
| WFN009 | 9 | 540 | 2" | 3/4" | 16 | 1020 | 105 | - | 10,5 |
| WFN013 | 13 | 810 | 2" | 3/4" | 16 | 1050 | 120 | - | 15 |
| WFN018 | 18 | 1080 | DN80 | 1" | 12 | 900 | 95 | 52 | 22 |
| WFN027 | 27 | 1620 | DN100 | 1 1/4" | 12 | 900 | 115 | 54 | 28 |
| WFN036 | 36 | 2160 | DN100 | 1 1/4" | 12 | 900 | 115 | 54 | 34 |
| WFN050 | 50 | 3000 | DN125 | 1 1/4" | 12 | 1300 | 100 | 58 | 84 |
| WFN060 | 60 | 3600 | DN150 | 1 1/4" | 12 | 1300 | 100 | 58 | 105 |
| WFN090 | 90 | 5400 | DN200 | 1 1/4" | 12 | 1300 | 100 | 62 | 143 |

Water-cooled models with removable tube-bundle

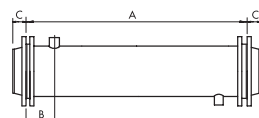
| | | | | | | | | | |
|--------|-----|-------|--------|--------|----|------|-----|----|-----|
| WRN003 | 3 | 180 | 1 1/2" | 1/2" | 16 | 849 | 72 | 77 | 16 |
| WRN007 | 7 | 420 | 1 1/2" | 1/2" | 16 | 1049 | 72 | 77 | 18 |
| WRN011 | 11 | 660 | 2" | 3/4" | 16 | 1299 | 122 | 82 | 22 |
| WRN016 | 16 | 960 | 2" | 3/4" | 16 | 1299 | 122 | 92 | 31 |
| WRN022 | 22 | 1320 | DN100 | 1" | 12 | 1299 | 122 | 55 | 40 |
| WRN028 | 28 | 1680 | DN100 | 1" | 12 | 1299 | 122 | 55 | 42 |
| WRN038 | 38 | 2280 | DN125 | 1 1/4" | 12 | 1299 | 123 | 58 | 61 |
| WRN050 | 50 | 3000 | DN125 | 1 1/4" | 12 | 1299 | 123 | 58 | 66 |
| WRN060 | 60 | 3600 | DN150 | 1 1/4" | 12 | 1299 | 115 | 58 | 82 |
| WRN090 | 90 | 5400 | DN200 | 1 1/4" | 12 | 1299 | 117 | 65 | 129 |
| WRN130 | 130 | 7800 | DN250 | 1 1/4" | 10 | 1299 | 116 | 71 | 192 |
| WRN170 | 170 | 10200 | DN300 | 2" | 10 | 1299 | 116 | 71 | 245 |
| WRN200 | 200 | 12000 | DN350 | 2" | 10 | 1299 | 118 | 71 | 330 |

Air-cooled models

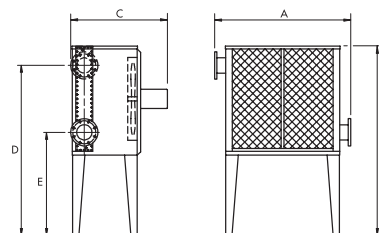
| Model | Air flow | | Air conn. | max press. barg | Dimensions (mm) | | | | | Weight kg |
|----------|---------------------|-------------------|--------------|--------------------|-----------------|------|------|------|------|--------------|
| | m ³ /min | m ³ /h | | | A | B | C | D | E | |
| ANS000 | 0,6 | 36 | 3/4" | 16 | 360 | 794 | 216 | 522 | 476 | 7,5 |
| ANS001 | 1,2 | 72 | 3/4" | 16 | 430 | 895 | 277 | 522 | 476 | 11 |
| ANS/T003 | 2,5 | 150 | 1 1/2" | 16 | 550 | 1140 | 403 | 657 | 567 | 22 |
| ANS/T004 | 3,5 | 210 | 1 1/2" | 16 | 550 | 1140 | 403 | 657 | 567 | 28 |
| ANT006 | 6 | 360 | 1 1/2" | 16 | 610 | 1336 | 453 | 753 | 663 | 30 |
| ANT009 | 9 | 540 | 2" | 16 | 702 | 1361 | 445 | 751 | 694 | 41 |
| ANT014 | 14 | 840 | 2" | 16 | 890 | 1523 | 500 | 815 | 756 | 75 |
| ANT018 | 18 | 1080 | DN80 | 12 | 1114 | 1857 | 560 | 892 | 892 | 85 |
| ANT028 | 28 | 1680 | DN100 | 12 | 1418 | 1807 | 560 | 892 | 792 | 134 |
| ANT036 | 36 | 2160 | DN100 | 12 | 1518 | 2075 | 580 | 690 | 690 | 190 |
| ANT040 | 40 | 2400 | DN150 | 9 | 1424 | 1983 | 1013 | 1780 | 1080 | 323 |
| ANT048 | 48 | 2880 | DN150 | 9 | 2550 | 1983 | 1013 | 1730 | 1130 | 478 |
| ANT064 | 64 | 3840 | DN200 | 9 | 2550 | 1983 | 1040 | 1730 | 1130 | 494 |
| ANT075 | 75 | 4500 | DN200 | 9 | 2550 | 1983 | 1040 | 1730 | 1130 | 514 |

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 barg 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.



water-cooled models



air-cooled models

Free your Energy

Technical data

Hypersep

| Model | Air flow | | Connections air/gas | | Max Press. barg | 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 | 1 1/4" | 1 1/4" | 16 | 109 | 367 | 34 | 2,2 |
| STH013 | 12,5 | 750 | 1 1/2" | 1 1/2" | 16 | 109 | 367 | 34 | 2,2 |
| STH021 | 21 | 1260 | 2" | 2" | 16 | 150 | 550 | 41 | 4,3 |
| STH040 | 40 | 2400 | 2 1/2" | 2 1/2" | 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 |

Flanged vertical models

| | | | | | | | | | |
|--------|-------|-------|-------|-------|----|-----|------|-----|-----|
| SFV029 | 29,4 | 1764 | DN80 | DN80 | 16 | 200 | 904 | 134 | 29 |
| SFV037 | 36,6 | 2196 | DN100 | DN100 | 12 | 230 | 1051 | 151 | 50 |
| SFV066 | 65,6 | 3936 | DN125 | DN125 | 12 | 275 | 1131 | 171 | 57 |
| SFV088 | 88,4 | 5304 | DN150 | DN150 | 12 | 285 | 1195 | 185 | 84 |
| SFV097 | 97,1 | 5826 | DN200 | DN200 | 12 | 330 | 1295 | 215 | 90 |
| SFV142 | 141,9 | 8514 | DN250 | DN200 | 10 | 340 | 1392 | 242 | 120 |
| SFV180 | 179,5 | 10770 | DN300 | DN200 | 10 | 375 | 1575 | 265 | 145 |
| SFV209 | 209,1 | 12546 | DN350 | DN200 | 9 | 415 | 1763 | 293 | 185 |

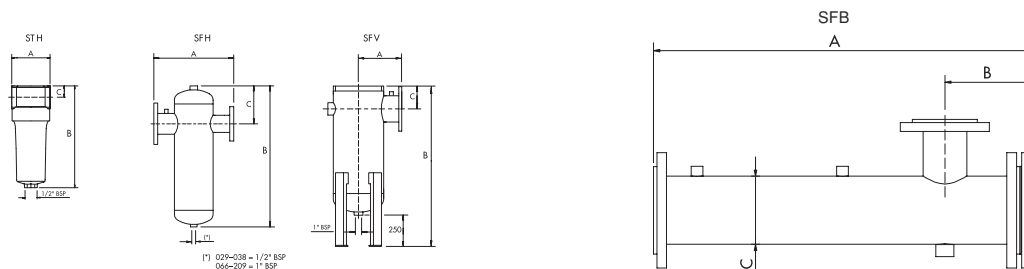
Demister models

| | | | | | | | | | |
|---------|------|------|-------|-------|---|-------|-----|-------|-----|
| SFB120 | 2 | 120 | DN125 | DN50 | 1 | 785 | 191 | 133 | 35 |
| SFB220 | 3,7 | 220 | DN150 | DN100 | 1 | 932 | 212 | 168,3 | 42 |
| SFB300 | 5 | 300 | DN150 | DN125 | 1 | 936 | 214 | 193,7 | 58 |
| SFB500 | 8,3 | 500 | DN200 | DN150 | 1 | 1422 | 285 | 273 | 105 |
| SFB700 | 11,7 | 700 | DN250 | DN200 | 1 | 1609 | 285 | 323,9 | 140 |
| SFB1000 | 16,7 | 1000 | DN300 | DN200 | 1 | 1610 | 285 | 355,6 | 180 |
| SFB1600 | 26,7 | 1600 | DN350 | DN250 | 1 | 18880 | 305 | 457 | 240 |
| SFB2000 | 33,3 | 2000 | DN450 | DN300 | 1 | 2130 | 355 | 508 | 310 |
| SFB2400 | 40 | 2400 | DN500 | DN350 | 1 | 2335 | 390 | 609,6 | 400 |
| SFB2800 | 46,7 | 2800 | DN500 | DN400 | 1 | 2155 | 415 | 609,6 | 435 |

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 barg 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 barg, average pressure drop 1 kPa (± 0,3 kPa).

Available on request models for special applications or in other materials.



Data contained in this publication is to be considered as indicative only.
The manufacturer reserves the right to modify data without prior notice.

The Parker Hiross solutions



FILCO, spol. s r.o.
Dvorská 464
CZ-503 11 Hradec Králové
Tel: +420 495 436 233
Fax: +420 495 453 086
info@filco.cz
www.filco.cz | www.zander.cz



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