Hankison™

A-AV Water-Cooled Aftercoolers

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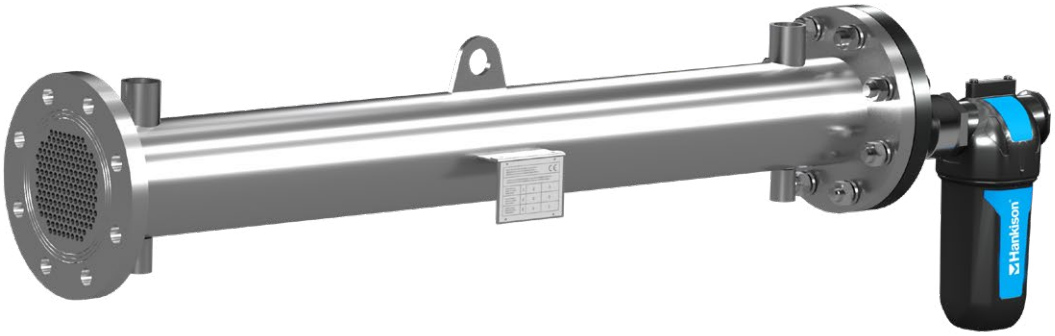
Water-Cooled Aftercoolers
A-AV Overview

Water-cooled shell and tube aftercoolers can be used to cool compressed air easily and effectively. The counter-current heat exchanger allows the **compressed air temperature to be reduced to the required conditions, optimising the downstream process.** This is the case for adsorption dryers which prefer moderate inlet temperatures achievable with the A-AV. The air temperature obtained is slightly higher than the water temperature.

Cooling compressed air, which is in most cases humid, leads to the formation of condensate, which can be separated by a condensate separator installed at the heat exchanger outlet.

Reductions for connection to the compressed air system are optional.



High reliability

Versatility

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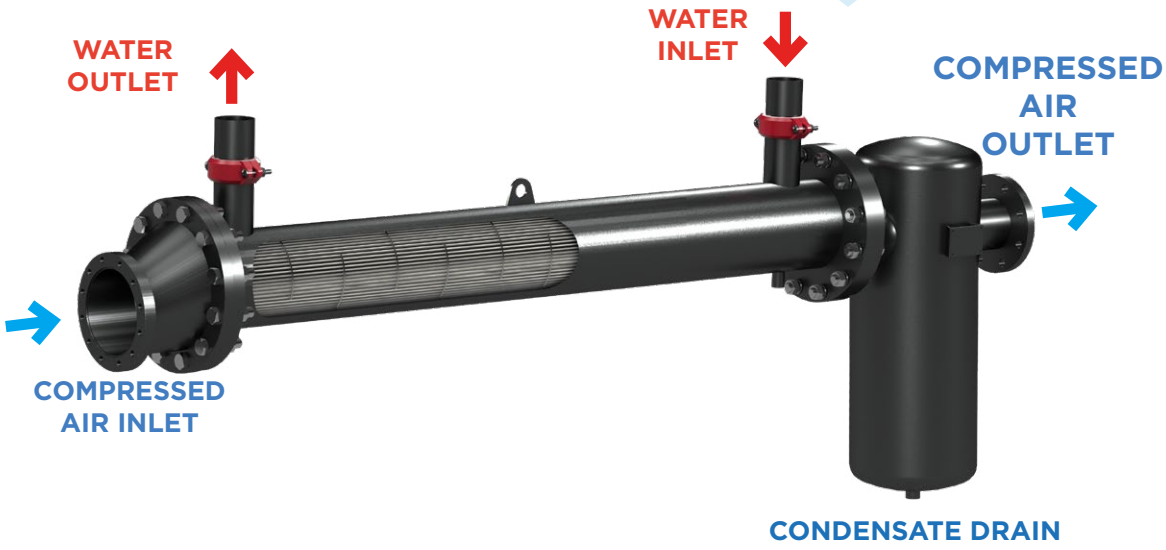
Water-Cooled Aftercoolers
A-AV Principle of Operation

In the heat exchanger, the compressed air flow passes through stainless steel pipes immersed in cold water, on the shell side. The cold water flow proceeds in counter-current and is diverted by the diaphragms used to increase the heat exchange coefficient.

The A-AV range, with an appropriate exchanger sizing, has limited pressure drops on the compressed air side, and simultaneous excellent thermal performance.

The cyclone separator, installed at the tube outlet, provides a swirling motion that separates the condensate from the compressed air, conveying it by gravity towards the drain.

In most applications, the cooling water used in the A-AV can be supplied by a liquid cooler. Hankison can supply a wide range of chillers to meet applications with cooling capacities from 1 kW to 365 kW.



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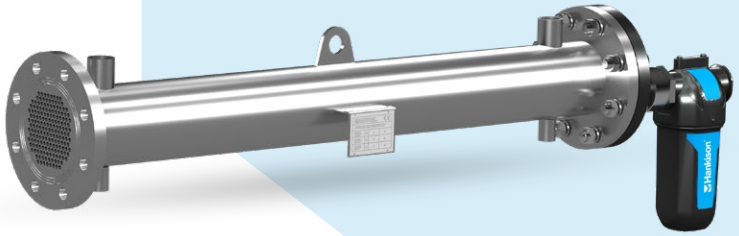
Options



OPTION SS

Aftercooler equipped with
stainless steel exchanger

Inlet adaptor

OPTION IA

Inlet adaptor
Simplifies connection to the plant piping

OPTION WS

Cooler only
Without separator & adaptors

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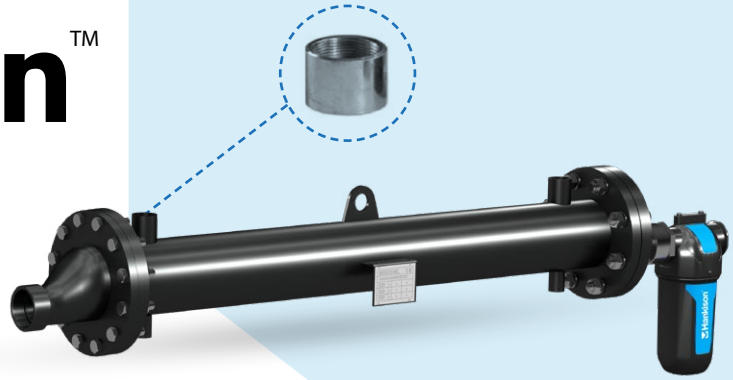
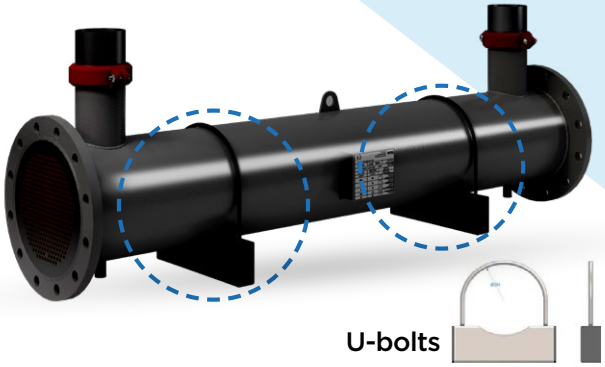
Options



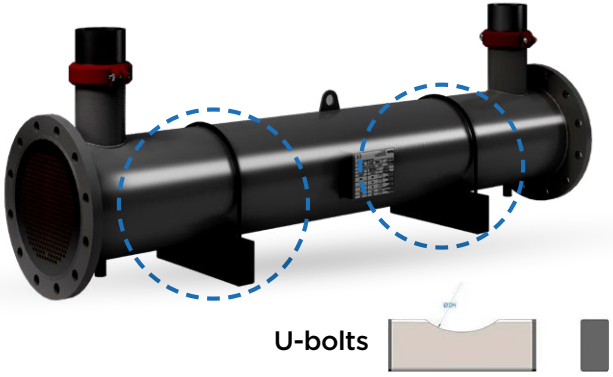
OPTION BS

Additional BSP connection for water



OPTION UB

U-bolt: to safely hold cooler to the ground

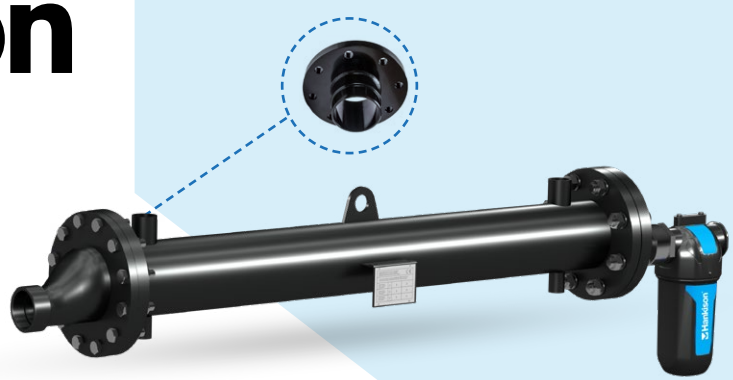


OPTION UW

Welded U-bolt: to safely hold cooler to the ground

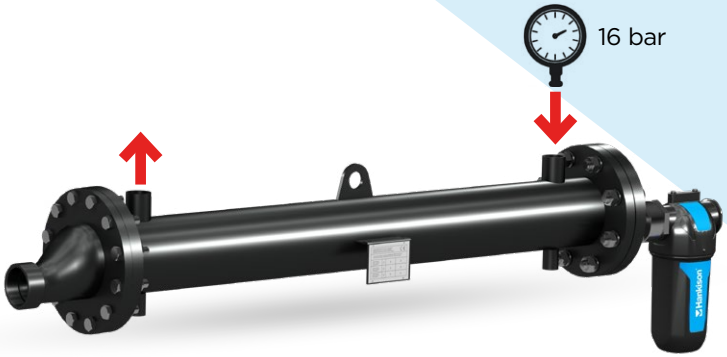
Request a quote

Options



OPTION WF

Welded flanges for water connections



OPTION WH

Water circuit High Pressure

Max. Water pressure: 16 bar

OPTION UH

Cooler High Pressure

Max. Air Pressure: 30 bar

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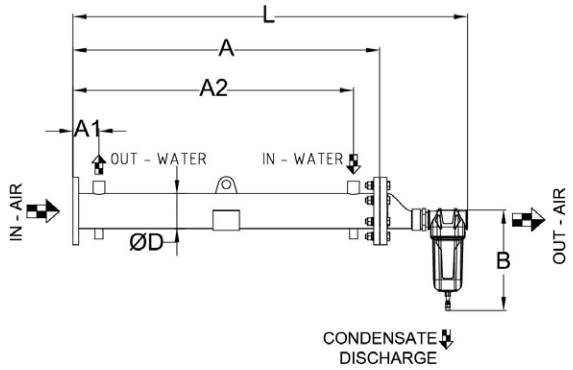
Water-Cooled Aftercoolers
A-AV Specifications



Working reference parameters	
Parameter	Value
Pressure	A-AV 27–350 7 bar (max 16 bar)
Compressed air inlet temperature	120 °C * (min 1°C – max +200 °C)
Inlet temperature	15 °C (min 1 °C – max. 90 °C)
Maximum water inlet pressure	10 bar
Ambient temperature	1 – 65 °C

*Compressor air intake conditions: 25 °C / RH 50%

Model	Max air flow		AIR connection		Water	Drain connection (BSP)	Dimensions [mm]								Weight			
	[m³/h]	[lt/min]	IN	OUT	IN/OUT		A	A1	A2	B	D	E	L	H	A [kg]	AV [kg]	A_S [kg]	AV_S [kg]
27	160	2.667	DN 100	1-1/2" BSP	1" BSP	1/2" BSP	85	915	1000	356	114.3	548	1278	1555	52	52	34	52
42	250	4.167	DN 100	1-1/2" BSP	1" BSP	1/2" BSP	85	1065	1150	356	114.3	548	1433	1715	40	55	40	55
75	450	7.500	DN 100	1-1/2" BSP	1" BSP	1/2" BSP	85	1215	1300	357	114.3	548	1583	1865	45	58	45	58
125	750	12.500	DN 100	2" BSP	DN 40	1/2" BSP	92	1300	1500	474	114.3	595	1831	2164	47	60	47	60
160	1.000	16.667	DN 125	3" BSP	DN 40	1/2" BSP	100	1400	1500	700	139.7	730	1929	2413	65	85	65	85
270	1.600	26.667	DN 125	3" BSP	DN 50	1/2" BSP	105	1445	1550	700	139.7	730	1979	2463	71	88	71	88
350	2.100	35.000	DN 150	3" BSP	DN 65	1/2" BSP	112	1488	1600	700	168.3	816	2044	2571	120	120	95	120

A : standard - carbon steel exchanger (horizontal installation) / AV : carbon steel exchanger (vertical installation)
A_S : stainless steel exchanger (horizontal installation) / AV_S : stainless steel exchanger (vertical installation)

* Product specifications may be subject to change without prior notice. Contact us to obtain the newest datasheets, more technical drawings and more information about options, correction factors and suggested filtration.

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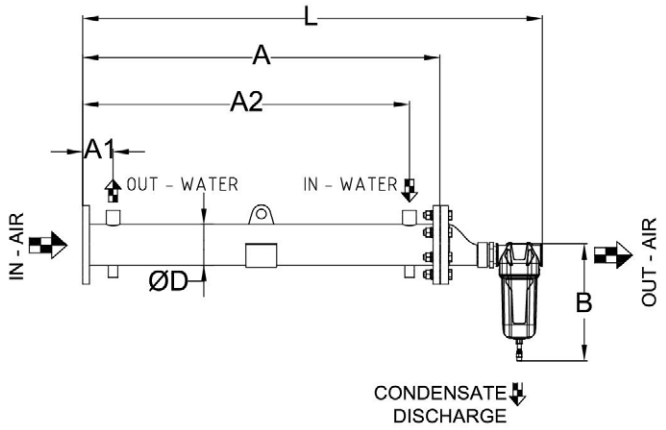
Water-Cooled Aftercoolers
A-AV Specifications



Working reference parameters	
Parameter	Value
Pressure	A-AV 450–1830: 7 bar (max 16 bar) / A-AV 2500–6300: 7 bar (max 12 bar)
Compressed air inlet temperature	120 °C * (min 1 °C – max +200 °C)
Inlet temperature	15 °C (min 1 °C – max. 90 °C)
Maximum water inlet pressure	10 bar
Ambient temperature	1 – 65 °C

*Compressor air intake conditions: 25 °C / RH 50%

Model	Max air flow		AIR connection		Water	Drain connection (BSP)	Dimensions [mm]								Weight			
	[m³/h]	[lt/min]	IN	OUT	IN/OUT		A	A1	A2	B	D	E	L	H	A [kg]	AV [kg]	A_S [kg]	AV_S [kg]
450	2.700	45.000	DN 200	DN 100	DN65	3/4" BSP	112	1488	1600	840	193.7	1005	2120	2620	105	145	105	145
560	3.400	56.667	DN 200	DN 100	DN80	3/4" BSP	112	1475	1600	840	219.1	1005	2120	2620	170	210	170	210
800	4.800	80.000	DN 250	DN 150	DN100	3/4" BSP	137	1263	1400	995	273	1169	1975	2650	250	310	250	310
1000	6.200	103.333	DN 250	DN 150	DN100	3/4" BSP	137	1262	1400	1014	273	1239	2045	2665	270	330	270	330
1250	7.500	125.000	DN 250	DN 150	DN100	1" BSP	138	1513	1650	1049	273	1169	2365	2900	310	370	310	370
1830	11.000	183.333	DN 300	DN 200	DN125	1" BSP	150	1500	1650	1250	323.9	1462	2415	3175	445	535	445	535
2500	15.000	250.000	DN 400	DN 250	DN150	1-1/2" BSP	200	1350	1553	1463	403.4	1895	2540	3400	650	820	650	820
3800	23.000	383.333	DN 450	DN 250	DN200	1-1/2" BSP	250	1350	1600	1490	457.2	2131	2720	3725	875	1100	875	1100
5100	31.000	516.667	DN 500	DN 300	DN200	2" BSP	250	1550	1750	1900	508	2477	3100	4155	1510	1825	1510	1825
6300	38.000	633.333	DN 600	DN 350	DN200	2" BSP	250	1500	1750	2040	609.6	2834	3235	4415	1625	2120	1625	2120

Request a quote

Aftermarket Solutions

Proper maintenance of your compressed air-drying equipment can prevent high costs and lost time due to down time of your installation. Regular maintenance is required not only to minimize the risk of compressed air system breakdowns, but to extend the lifetime of your machines.

Yearly maintenance improves dryers' and compressors efficiency and helps to identify issues in advance that may cause the compressor or dryer to consume more energy than necessary.

For all our dryers, we have genuine Hankison spare parts and Maintenance Kits are available on stock. The kits are meeting the required frequency for maintenance, 1-year, or 5-years. For our desiccant dryers we can deliver molecular sieve and activated alumina in different sizes from stock, like our Premium HQ-A4, which is our 4mm premium quality activated alumina.

Refrigerant Dryers

- 1 year service kits
- Main components

Desiccant Dryers

- 1 year service kits
- 5 year service kits
- Main components
- Desiccant test kit

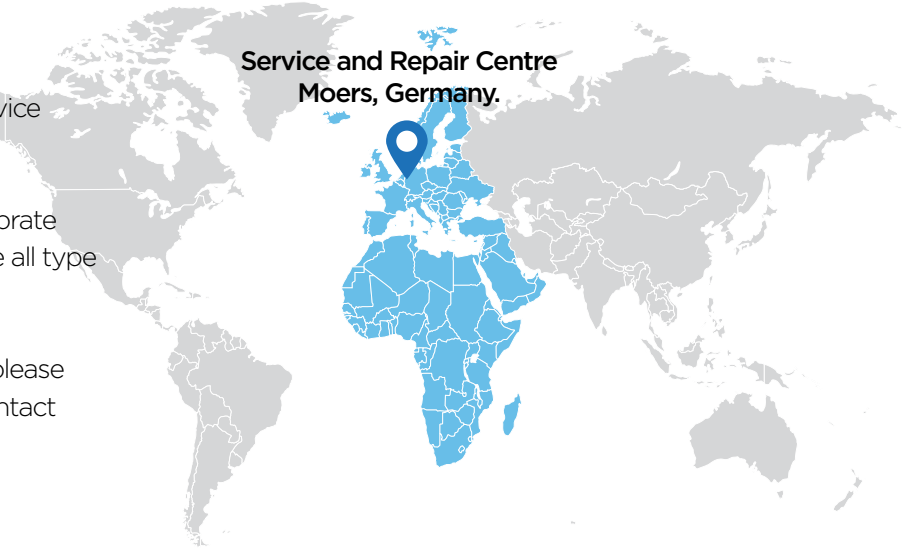
Filters

- Elements
- Accessories

Service Centres

Beside our large distribution, service network in Europe, Hankison has a state of the art Service and Repair Centre in the Germany located in Moers with highly educated engineers and technicians. In this Service Centre we can calibrate our customers' dewpoint sensors and analyse all type of desiccants in our laboratory.

For further details, information and support, please visit our website **www.hankisonair.com** or contact your local Hankison distributor.



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Compressed Air
Technology Innovation

Hankison is a global leader in the manufacture of efficient dehydration, filtration, and air purification solutions. Thanks to our range of technologically advanced products delivering clean, dry air, you can reduce your operational costs and enhance your compressed air equipment longevity, and end product quality. Visit our website, discover our extensive portfolio of products and request a quote today.

Hankison™

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