



The most compact unit of its kind because of its extended tube surface, the Purestream Water-Cooled After-coolers are suitable for packaged compressors or any site where space is limited. Built with either patented Helical or plain tubes, 51 series After-coolers are designed to deliver a 15-20 degree Fahrenheit approach temperature, depending on water temperature and quantity. The 59 series delivers a 5-10 Fahrenheit approach. As hot compressed air flows through the extended surface tubes of the Purestream Water-Cooled After-cooler, the cooling water flows on the outside of the tubes in the opposite direction. This counter-flow arrangement makes the tube walls progressively colder for maximum cooling efficiency. Heat from the compressed air is transferred throughout the tube walls to the water, thereby reducing the air temperature until the dew point is reached. Further cooling causes the vapor to condense on the tube walls forming water droplets, thus reducing the water vapor content of the compressed air.

PRODUCT FEATURES

- Available with patented Helical tubes offering extended tube surface for maximum efficiency
- Alternate materials - stainless steel, admiralty, cupro-nickel, brass, etc.
- Also available in plain tube allowing for lower pressure drop
- Standard capacities range from 10 SCFM to 27,000 SCFM. Compact size, vertical or horizontal mounting
- Built to ASME and TEMA standards
- Threaded and flanged models
- Removable bundle configuration facilitates cleaning,
- Custom designs of up to 3,000 PSIG and higher are available depending on application.
- Special designs available – consult factory.

Flow rates are based on the following operating conditions:

- 100 psig operating pressure with a cooling water temperature of 80°F
- Ambient temperature of 75°F at 50% RH
- 51 Series at 250°F entering air temperature cooled to 15°F approach temperature of cooling water
- 59 Series at 250°F entering air temperature cooled to 10°F approach temperature of cooling water
- Maximum working pressures for models W0035 – W0065: 300 psig, W0039 – W0069: 300 psig, all other models: 200 psig
- Typical inlet temperatures of various compressors: Single stage = 350°F, Two stage = 250°F, Rotary = 200°F
- Dimensions for 51 Series is 51- 1/8" length, 59 Series is 59" length

Model 51 Series	Pipe Size Npt	Water Flow Gpm	Flow		Weight
		@ 250°F / 400 °F	SCFM @ 250 °F	SCFM @ 400 °F	lbs
W0045	2"	1.7 / 5.8	76	76	22
W0055	2-1/2"	2.4 / 7.7	134	134	30
W0065	3"	3.4 / 11.6	220	220	46
W0070	2-1/2" Flange	3.4 / 11.6	220	220	60
W0110	3" Flange	6.3 / 19.3	350	350	89
W0160	4" Flange	4.8 / 23.2	500	500	122
W0210	4" Flange	9.6 / 29.0	600	600	128
W0270	5" Flange	11.5 / 34.7	765	765	168
W0350	5" Flange	15.4 / 42.4	1050	1050	181
W0420	8" Flange	23.1 / 72	1200	1200	265
W0650	10" Flange	36.6 / 111	2010	2010	389
W0900	10" Flange	48.1 / 160	2785	2785	399
W1250	12" Flange	87 / 193	3840	3840	600
W1500	14" Flange	72.1 / 241	4785	4785	775

Model 59 Series	Pipe Size Npt	Water Flow Gpm	Flow		Weight
		@ 250°F / 400 °F	SCFM @ 250 °F	SCFM @ 400 °F	lbs
W0039	1-1/2"	1.5 / 4.8	37	37	20
W0049	2"	1.7 / 5.5	69	69	26
W0059	2-1/2"	2.4 / 7.7	120	120	34
W0069	3"	3.9 / 10.6	210	210	53
W0090	2-1/2" Flange	3.9 / 10.6	210	210	69
W0140	3" Flange	6.7 / 17.0	320	320	102
W0180	4" Flange	7.7 / 19.0	460	460	137
W0230	4" Flange	10.0 / 28.0	550	550	144
W0330	5" Flange	12.5 / 31.0	720	720	188
W0380	5" Flange	15.4 / 38.6	955	955	205
W0490	8" Flange	25.1 / 69.6	1145	1145	297
W0710	10" Flange	38.5 / 116	1915	1915	440
W0980	10" Flange	53.0 / 145	2630	2630	450
W1400	12" Flange	63.5 / 169	3635	3635	660
W1700	14" Flange	72.1 / 193	4315	4315	850
W2000	14" Flange	81.7 / 212	4880	4880	950
W3000	18" flange	135 / 387	7180	7180	1250
W4000	20" Flange	188 / 531	9575	9575	1600
W5000	20" Flange	222 / 579	11970	11970	1950



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