

## 35 to 4,000 SCFM Capacity Custom Capacities Available

LRC's Air Compressor Aftercoolers (WHC - Horizontal unit; WVC - Vertical unit) are designed to cool and dry compressed air using ambient air. Available in either belt drive or direct drive fan configurations, LRC's line of WHC/WVC Aftercoolers are manufactured for years of dependable service and provide maximum heat transfer efficiency. Available in 35 to 4,000 SCFM capacity, LRC's Air Compressor Aftercoolers pre-cool hot compressed air to an efficient temperature prior to use in an air dryer. WHC/WVC Aftercoolers also remove harmful oil, water and other contaminants to keep your compressor system running at peak efficiency. All WHC/WVC Aftercoolers are thoroughly tested for dependable performance. LRC's experienced team of Application Engineers can design a single unit or OEM models to meet your specific needs.

- 19 Air Compressor Aftercoolers available, and custom units can be manufactured to meet your specific application
- Dependable direct drive motors or heavy duty belt drive motors provide maximum performance
- Galvanized steel casing provides corrosion protection for years of service
- Motors are factory wired to a control box for easy installation
- Efficient coil design ensures maximum heat transfer performance
- ETL certified



### Options Available – Call for details

#### Multi-circuiting

Custom circuiting available to support multiple compressed air systems or special applications.

#### Motors

High efficiency motors available to save energy. Low RPM, low noise units, and variable speed fan motors and controls are available, call for details.

#### Fins

8 to 14 fins per inch available. Copper fins, or phenolic, epoxy, or polyester coated aluminum fins can be ordered.

#### Custom Configurations

Units can be designed to meet any unique or specialized application. Call LRC's Application Engineers for more information.

### Product Number Designation Example

**WHC-450** can be broken down as  
WHC = Horizontal Air  
Compressor Aftercooler  
450 = SCFM capacity at 250 F  
Inlet and 15 F Approach  
Temperature



### WHC Capacities – Horizontal Unit

Model No.	SCFM Capacities @ 5°F, 10°F, 15°F, 20°F Approach Temperature											
	150°F Inlet Temp.				200°F Inlet Temp.				250°F Inlet Temp.			
	Approach Temperature				Approach Temperature				Approach Temperature			
	5°F	10°F	15°F	20°F	5°F	10°F	15°F	20°F	5°F	10°F	15°F	20°F
WHC-35	28	34	38	43	27	33	37	42	26	30	35	39
WHC-50	37	48	55	62	36	47	53	60	35	42	50	56
WHC-65	49	64	73	83	47	61	70	80	43	57	65	75
WHC-80	58	70	83	90	57	69	82	89	56	68	80	87
WHC-100	77	97	114	133	75	93	109	135	70	85	100	120
WHC-120	97	114	133	152	93	109	135	148	85	100	120	141
WHC-150	109	137	169	190	105	131	162	183	97	122	150	174
WHC-240	214	238	266	292	207	228	257	287	191	211	240	272
WHC-300	218	264	345	395	212	252	324	380	196	232	300	355
WHC-450	244	384	500	590	236	368	482	568	220	340	450	530
WHC-640	475	600	710	820	465	580	685	800	445	540	640	750

Performance data based on 80–125 PSIG

Model No.	300°F Inlet Temp.				350°F Inlet Temp.			
	Approach Temperature				Approach Temperature			
	5°F	10°F	15°F	20°F	5°F	10°F	15°F	20°F
WHC-35	23	26	31	34	22	23	26	29
WHC-50	31	37	44	51	27	32	36	43
WHC-65	38	52	59	69	34	46	52	62
WHC-80	54	65	74	84	50	61	72	79
WHC-100	63	75	89	105	52	63	76	90
WHC-120	75	89	105	128	63	76	90	109
WHC-150	86	109	134	157	73	92	111	130
WHC-240	170	188	214	250	144	158	180	215
WHC-300	174	205	266	318	152	172	220	260
WHC-450	202	300	400	470	175	252	340	400
WHC-640	400	475	575	670	335	395	475	545

Performance data based on 80–125 PSIG

Our Application Engineers can help you design the system you need. Call us today, 562-944-1969, and we'll get you the right LRC product for your project.

### WVC Capacities – Vertical Unit

Model No.	SCFM Capacities @ 5°F, 10°F, 15°F, 20°F Approach Temperature											
	150°F Inlet Temp.				200°F Inlet Temp.				250°F Inlet Temp.			
	Approach Temperature				Approach Temperature				Approach Temperature			
	5°F	10°F	15°F	20°F	5°F	10°F	15°F	20°F	5°F	10°F	15°F	20°F
WVC-770	585	725	835	950	574	700	815	925	540	655	770	880
WVC-1010	600	900	1,080	1,250	585	890	1,070	1,225	570	850	1,010	1,150
WVC-1300	1,060	1,240	1,420	1,600	1,040	1,210	1,380	1,500	970	1,130	1,300	1,480
WVC-1800	1,510	1,720	1,980	2,260	1,460	1,660	1,910	2,180	1,370	1,565	1,800	2,050
WVC-2200	1,850	2,150	2,420	2,750	1,770	2,070	2,350	2,680	1,670	1,950	2,200	2,500
WVC-2600	2,170	2,680	2,860	3,270	2,100	2,400	2,760	3,150	1,970	2,260	2,600	2,970
WVC-3500	2,920	3,350	3,850	4,400	2,810	3,250	3,710	4,260	2,650	3,050	3,500	4,000
WVC-4000	3,410	3,830	4,400	4,980	3,300	3,700	4,250	4,850	3,100	3,480	4,000	4,520

Performance data based on 80–125 PSIG

Model No.	300°F Inlet Temp.				350°F Inlet Temp.			
	Approach Temperature				Approach Temperature			
	5°F	10°F	15°F	20°F	5°F	10°F	15°F	20°F
WVC-770	490	585	685	800	425	490	575	685
WVC-1010	495	780	910	1,050	435	680	800	900
WVC-1300	870	1,020	1,190	1,350	740	880	1,030	1,190
WVC-1800	1,260	1,435	1,650	1,880	1,010	1,150	1,320	1,510
WVC-2200	1,530	1,742	2,020	2,300	1,350	1,560	1,760	2,000
WVC-2600	1,810	2,080	2,385	2,720	1,580	1,810	2,080	2,380
WVC-3500	2,430	2,800	3,210	3,860	2,120	2,440	2,800	3,200
WVC-4000	2,850	3,200	3,680	4,200	2,500	2,800	3,200	3,620

Performance data based on 80–125 PSIG

Compressor	Avg. Discharge Temperature
Rotary Screw	150 to 200°F
Two Stage	250°F
Single Stage	300°F

Above are average compressor discharge temperatures. For accurate capacity selection, measure the discharge temp. of your compressor as it may differ.

### WHC Specification Data

Model No.	CFM	Fan Dia	Motor HP	AMPS @ 1Ø/60Hz		Inlet (MPT)	Outlet (MPT)	Ship Weight
				115V	208/230V			
WHC-35	1,230	12	(1) 1/6	5.2	2.6	1	1	100
WHC-50	1,180	12	(1) 1/6	5.2	2.6	1 1/4	1 1/4	105
WHC-65	1,150	12	(1) 1/6	5.2	2.6	1 1/2	1 1/2	110
WHC-80	1,360	14	(1) 1/6	5.2	2.6	1 1/2	1 1/2	115
WHC-100	1,700	16	(1) 1/6	5.2	2.6	1 1/2	1 1/2	133
WHC-120	2,320	16	(1) 1/6	5.2	2.6	1 1/2	1 1/2	145
WHC-150	2,550	16	(1) 1/6	5.2	2.6	1 1/2	1 1/2	165
WHC-240	4,020	18	(2) 1/6	10.4	5.2	2	2	225

Motors also available in 230V/3/60 or 460/3/60 configurations. Consult factory for more information.

Model No.	CFM	Fan Dia	Motor HP	AMPS @ 3Ø/60Hz		Inlet (MPT)	Outlet (MPT)	Ship Weight
				230V	460V			
WHC-300	4,700	18	(2) 1/4	2.8	1.4	2	2	273
WHC-450	4,800	18	(2) 1/4	2.8	1.4	2	2	278
WHC-640	6,930	18	(3) 1/4	4.2	2.1	2 1/2	2 1/2	313

Motors also available in 115V/1/60 or 230/1/60 configurations. Consult factory for more information.

### How to Select Your Aftercooler

1. Determine the SCFM output desired.
2. Determine the compressed air temperature entering the aftercooler.
3. Determine the desired approach temperature.
4. Using the Performance Data (page 2), find the inlet temperature that corresponds to the desired approach temperature.
5. Using the selected inlet column in either the WHC or WVC tables, find a SCFM capacity that meets or slightly exceeds the desired SCFM output.
6. Once the selected SCFM capacity has been determined, find the appropriate model number in the left column of the row selected.

### Selection Example

Two stage compressor with 77 SCFM output. Compressed air discharge temperature is 250 F. Desired approach temperature is 15 F

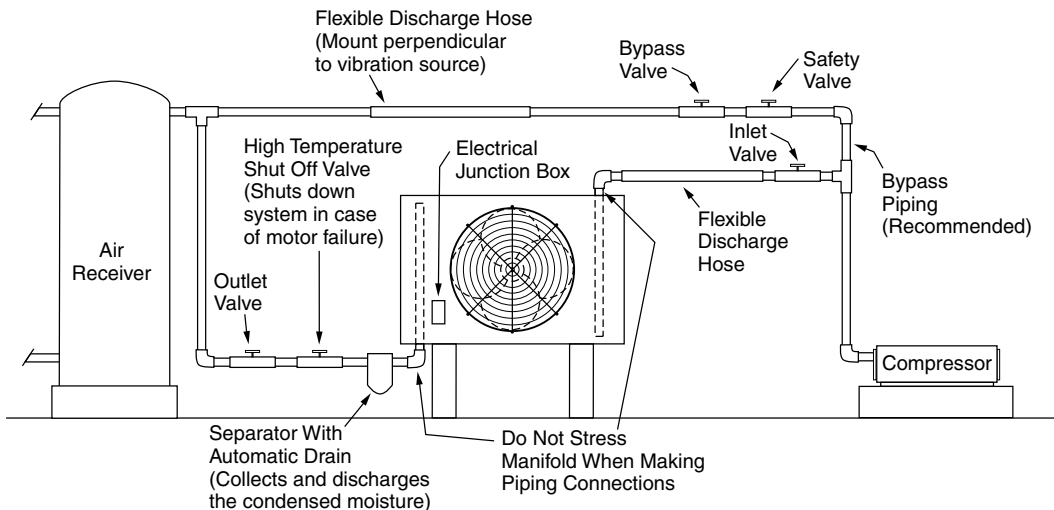
### Solution

1. Using the performance data on page 2, find the section that indicates an inlet temperature of 250 F
2. Below the 250 F inlet temperature, find the desired approach temperature, which is 15 F
3. Using the 15 F column, move down the chart until a capacity that meets or exceeds 77 SCFM output is found. In this example, 80 SCFM is the closest capacity.
4. Once the capacity figure is selected, move to the model number column of the of the capacity row selected to determine the correct model number. In this example, the correct model number would be WHC-80.

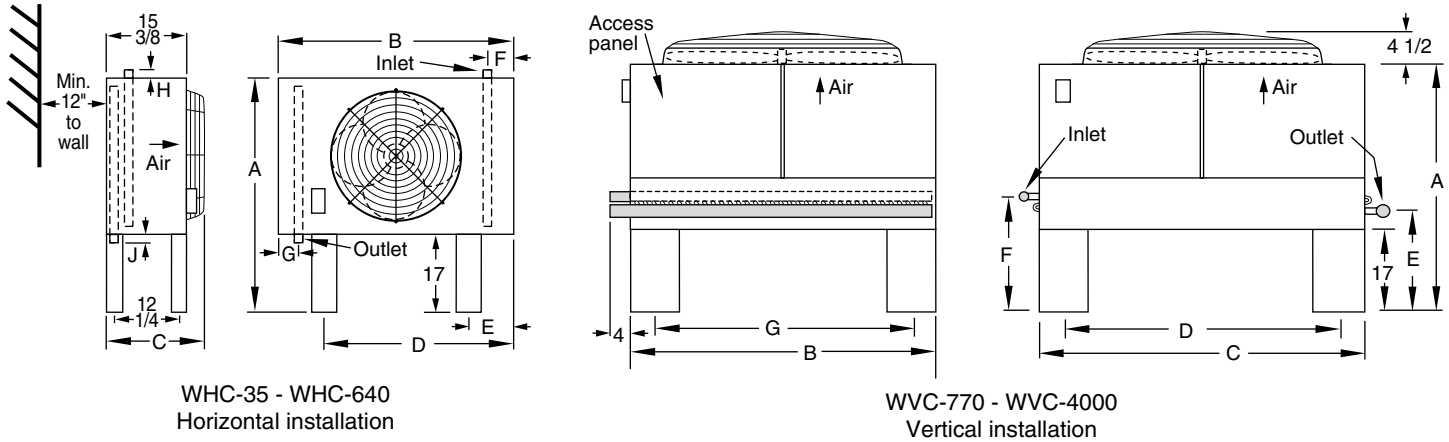
### WVC Specification Data

Model No.	CFM	Fan Dia	Motor HP	AMPS @ 3Ø/60Hz		Inlet (MPT)	Outlet (MPT)	Ship Weight
				230V	460V			
WVC-770	8,600	(1) 36	(1) 2	5	2.5	3	3	560
WVC-1010	14,600	(1) 42	(1) 2	5	2.5	3	3	875
WVC-1300	21,000	(1) 48	(1) 2	5	2.5	3	3	990
WVC-1800	17,950	(2) 36	(2) 2	10	5	4	4	1,000
WVC-2200	29,800	(2) 42	(2) 2	10	5	4	4	1,100
WVC-2600	29,660	(2) 48	(2) 2	10	5	4	4	1,500
WVC-3500	29,200	(2) 48	(2) 2	10	5	4	4	1,700
WVC-4000	34,670	(2) 48	(2) 2	10	5	4	4	2,000

### Suggested Installation Diagram



**Our Application**  
 Engineers can help you design the system you need. Call us today, 562-944-1969, and we'll get you get the right LRC product for your project.



WHC-35 - WHC-640  
Horizontal installation

WVC-770 - WVC-4000  
Vertical installation

### WHC Dimensional Data

Model No.	Dimensions in Inches								
	A	B	C	D	E	F	G	H	J
WHC-35	39 1/2	25	18	20 5/8	4 3/8	1 7/16	1 7/16	2 1/2	1 1/2
WHC-50	39 1/2	25	18	20 5/8	4 3/8	1 7/16	1 7/16	2 1/2	1 1/2
WHC-65	39 1/2	25	18	20 5/8	4 3/8	1 7/16	1 7/16	2 1/2	1 1/2
WHC-80	39 1/2	28	18	23 5/8	4 3/8	1 7/16	1 7/16	2 1/2	1 1/2
WHC-100	39 1/2	32	18	27 5/8	4 3/8	1 7/16	1 7/16	2 1/2	1 1/2
WHC-120	39 1/2	37	18	32 5/8	4 3/8	1 7/16	1 7/16	2 1/2	1 1/2
WHC-150	39 1/2	44	18	39 5/8	4 3/8	1 7/16	1 7/16	2 1/2	1 1/2
WHC-240	45 1/2	55	19	49 5/8	5 3/8	2 5/16	1 5/16	3	2
WHC-300	45 1/2	60	19	54 5/8	5 3/8	2 5/16	1 5/16	3	2
WHC-450	45 1/2	65	19	59 5/8	5 3/8	2 5/16	1 5/16	3	2
WHC-640	45 1/2	75	19	69 5/8	5 3/8	2 5/16	1 15/16	3	2



### WVC Dimensional Data

Model No.	Dimensions in Inches						
	A	B	C	D	E	F	G
WVC-770	46 1/2	48 1/2	51	43 3/4	21	24	41 1/4
WVC-1010	46 1/2	59	61	53 3/4	21	24	51 3/4
WVC-1300	46 1/2	66	72	64 3/4	21	24	55 3/8
WVC-1800	46	59	89	81 3/4	21	24	51 3/4
WVC-2200	48	59	119	111 3/4	22 1/2	25 1/2	51 3/4
WVC-2600	48	59	119	111 3/4	22 1/2	25 1/2	51 3/4
WVC-3500	48	59	119	111 3/4	22 1/2	25 1/2	51 3/4
WVC-4000	48	59	146 1/2	139 1/4	22 1/2	25 1/2	51 3/4

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### OUR UNCONDITIONAL GUARANTEE

We're proud of the workmanship that goes into every LRC product. Because of our exacting design and manufacturing standards, and our thorough testing prior to shipping, we unconditionally guarantee our products to be free from manufacturing defects for one year. You can count on LRC Coil for quality heat transfer products.

At LRC, we are continuously working to improve our products, therefore, we reserve the right to make changes without notice.

### Recommended Maintenance

LRC recommends cleaning the coils regularly with compressed air to remove any dirt and dust accumulation from the fins.

The automatic drain on the separator (supplied by others) should be checked regularly.

Use a chlorinated solvent to remove any oil and carbon accumulation from inside the tubes. Do not use strong solvents, acids, or caustic cleaners.