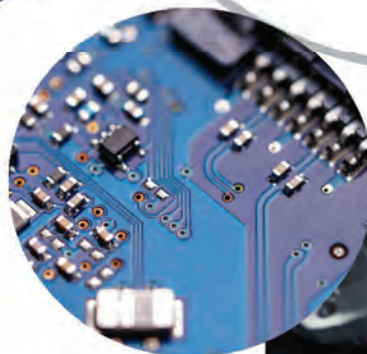
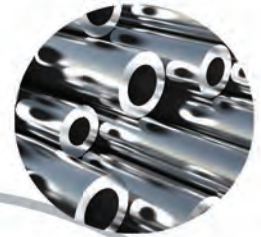


# haco



## X<sup>1</sup> X-CC compressed air aftercoolers

flow capacity: 100 - 3500 scfm (170 - 5947 Nm<sup>3</sup>/hr)



# X-CC compressed air aftercoolers

flow capacity: 100 - 3500 scfm (170 - 5947 Nm<sup>3</sup>/hr)

# X<sup>1</sup>

Leading edge technology and hundreds of years of **experience**...nano-purification solutions, your world-class manufacturer of state-of-the-art compressed air and gas solutions to industry.

Our commitment at nano is to work alongside our **customers** and provide unique solutions with the highest quality products to solve your specific challenges.

A wealth of experience and leading edge products are only part of the equation. nano recognize that world-class customer **service** is the most important component to any successful business.

Experience. Customer. Service... **nano**



## clean and dry

Clean and dry compressed air is essential in every efficient and profitable manufacturing and process operation worldwide. nano's vast experience includes food, beverage, chemical, laboratory, medical and natural gas applications.

nano understand your needs and has created the nano X<sup>1</sup> range of high performance aftercooler products to ensure the performance and energy efficiency of downstream compressed air treatment equipment at an affordable price with unrivaled reliability.



## design

Our experienced team of design engineers are always looking for new and unique technologies and products to bring you the highest level of performance and lowest overall operating cost.



## research & development

Our R&D team endeavor to provide solutions that go beyond developing an existing product. They are continually researching new technologies which can provide unique advantages over competitive offerings.

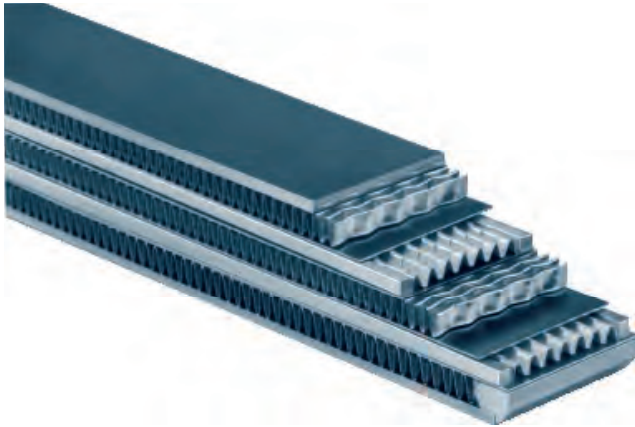


## manufacture

The reliable and energy saving nano X<sup>1</sup> range of aftercoolers are manufactured in a state-of-the-art facility to the highest standards of build quality to ensure equipment reliability and high levels of performance.



# X<sup>1</sup> X-CC compressed air aftercoolers



- advanced technology designs
- up to 60% smaller than conventional fin and tube designs
- rugged bar & plate designs
- reduced air side fouling
- competitive prices
- shipments available from stock

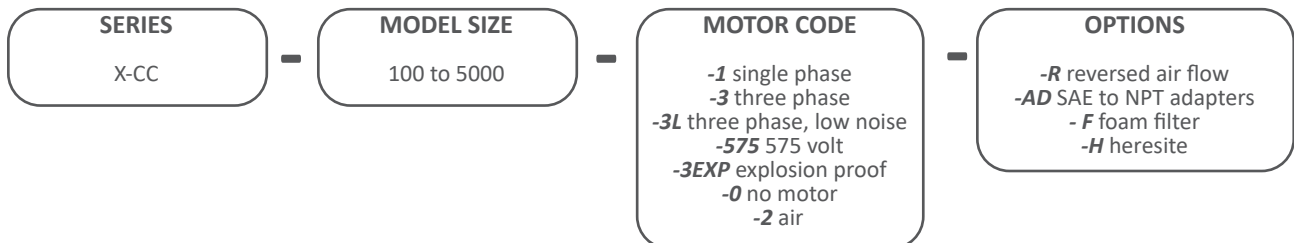
## specifications

aftercooler specifications	
maximum working pressure (psi)	250
maximum working temperature (°F)	250
cooler material	aluminum
shroud material	powder painted steel
fan guard material	zinc plated steel
fan blade material	polypropylene blades / aluminum hub
mounting brackets	powder painted steel

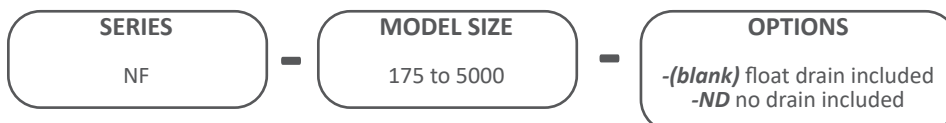
moisture separator specifications	NWS 0175 to 1500
recommended operating temperature range (°F)	35 to 176
design operating temperature range (°F)	35 to 176
design operating pressure range (psig)	22 to 232
condensate drain (included)	NDK 1500

## ordering information

### aftercoolers



### moisture separators



# performance

The X-CC series is a complete aftercooler package designed to work on most models of rotary and piston air compressors. To select the appropriate model, simply determine compressor horsepower, and select the model from the chart.

rotary compressor	air compressor	internal air flow <sup>(1)</sup>	recommended X-CC model <sup>(3)</sup>
	horsepower	maximum cfm	
	20 hp	113	X-CC100
	25 - 40 hp	245	X-CC200
	50 - 75 hp	539	X-CC450
	100 - 125 hp	785	X-CC600
	150 - 200 hp	1569	X-CC1000
	225 - 350 hp	2300	X-CC1600
	400 - 500 hp	3016	X-CC2000
550 - 700 hp	4316	X-CC2500	
750 - 1000 hp	4800	X-CC3500	

piston compressor	air compressor	internal air flow <sup>(2)</sup>	recommended X-CC model <sup>(3)</sup>
	horsepower	maximum cfm	
	20 hp	83	X-CC100
	25 - 30 hp	181	X-CC200
	40 - 70 hp	432	X-CC450
	75 - 100 hp	638	X-CC600
	125 - 200 hp	1256	X-CC1000
	225 - 300 hp	2133	X-CC1600
	350 - 400 hp	3400	X-CC2000
500 - 600 hp	4458	X-CC2500	
700 - 850 hp	4800	X-CC3500	

(1) based on 200°F from compressor  
 (2) based on 250°F from compressor  
 (3) consult factory for low noise option sizing

**sizing notes**

*recommendations are based on the following:*

**heat removal**  
 aftercooler = compressor horsepower x 1.15 (motor service factor) x .17 (this assumes 17% of input horsepower is rejected to heat)

**15°F approach temperature**  
 compressor air outlet temperature - ambient air temperature

**temperatures**  
 ambient air temperature + 15°F = compressed air outlet temperature

**flows**  
 compressor horsepower x 4.5 = scfm flow

*all flow rates are based on less than a 4 psi pressure drop @ 100 psi operating and 100°F ambient and 50% relative humidity*

## moisture separators

aftercooler	separator	series maximum capacity
X-CC100	NF 0175 WS	X-CC100
X-CC200	NF 0325 WS	X-CC200
X-CC450	NF 0700 WS	X-CC450
X-CC600	NF 0700 WS	X-CC600
X-CC1000	NF 1250 WS	X-CC1000
X-CC1600	NF 1500 WS	X-CC1600
X-CC2000	NFE 3000 WS-ND	X-CC2000
X-CC2500	NFE 3000 WS-ND	X-CC2500
X-CC3500	NFE 3000 WS-ND	X-CC3500

Pressure drop is 1.0 psi at the above flow rates.





## electrical motor data

model	HP RPM	motor frame	single phase			three phase		
			voltage	Hz	full load amps 230 V	voltage	Hz	full load amps 230V
X-CC100	⅓ 3450	IEC 63	115/230	60	2.6	208-230/460 190/380	60 50	1.1
X-CC200	½ 3450	IEC 71	115/230	60	3.5	208-230/460 190/380	60 50	1.6
X-CC450	½ 1725	NEMA 56C	115-230/460	60	4.0	208-230/460	60*	2.0
X-CC600	1 1725	NEMA 56C	115-230/460	60	6.4	208/230/460	60*	3.8
X-CC1000	2 1725	NEMA 56C	115/230	60	9.2	208-230/460	60*	6.2
X-CC1600	5 1725	NEMA 184TC	230	60	23	208-230/460	60*	13.2
X-CC2000	7½ 1725	NEMA 213TC	CF	CF	CF	208-230/460	60*	19.6
X-CC2500	7½ 1725	NEMA 213TC	CF	CF	CF	208-230/460	60*	19.6
X-CC3500	10 1725	NEMA 213TC	CF	CF	CF	208-230/460	60*	26.0

- (1) electric motors are vb and are not thermally protected  
 (2) actual rating may vary with motor brand. Check motor nameplate for actual rating  
 (3) motor RPM is reduced by 1/6 for 50 Hz service  
 (4) -3 phase motor available is 50 Hz

## air motor data

model number	air pressure to motor (PSI)	motor air consumption (CFM)	air motor connection size	fan RPM
X-CC100	30	10	¼" NPT	3450
X-CC200	60	17	¼" NPT	3450
X-CC450	40	25	¼" NPT	1725
X-CC600	40	25	¼" NPT	1725
X-CC1000	60	70	½" NPT	1725
X-CC1600	60	150	1¼" NPT	1725
X-CC2000	80	200	1¼" NPT	1725
X-CC2500	80	200	1¼" NPT	1725
X-CC3500	100	240	1¼" NPT	1725

- (1) air pressure to motor MUST be regulated and lubricated  
 (2) DO NOT EXCEED fan RPM listed above  
 (3) mufflers are included with all motors

# dimensions

## aftercoolers

model number	A	B	C <sup>(1)</sup>	D	E	F	G	H <sup>(2)</sup>	J	K	L	M	N	approx. weight (lbs)	
														net	shipping
X-CC100	12.56	16.22	14.96	10.79	2.52	0.75	1.02	1"	14.72	3.94	3.50	8.19	M8x10	30	40
X-CC200	16.30	19.88	11.46	14.53	2.52	0.75	1.77	1½"	18.66	3.94	3.50	8.19	M8x10	50	60
X-CC450	20.98	26.38	12.83	18.82	3.15	0.98	1.77	2"	25.20	4.92	4.53	10.98	M10x20	95	137
X-CC600	23.19	30.31	18.74	21.02	3.15	0.98	1.77	2"	29.13	4.92	4.53	10.98	M10x15	125	163
X-CC1000	27.56	37.01	22.56	25.16	4.37	1.89	1.77	2½"	37.87	5.91	7.87	15.98	M12x20	195	240
X-CC1600	37.32	43.86	23.62	30.79	4.29	1.89	1.77	3"	41.73	5.91	7.87	15.98	M12x20	296	350
X-CC2000	38.98	42.91	29.80	30.59	10.98	2.13	1.77	4"	43.62	5.39	7.87	15.47	M12x20	320	380
X-CC2500	45.43	48.82	30.26	34.33	11.65	1.65	1.77	4"	49.51	5.39	7.87	16.00	M12x20	440	505
X-CC3500	57.87	52.76	30.55	43.98	17.56	3.35	2.00	4" <sup>(3)</sup>	50.55	7.80	20.00	20.00	¾"x1-1½"	550	645

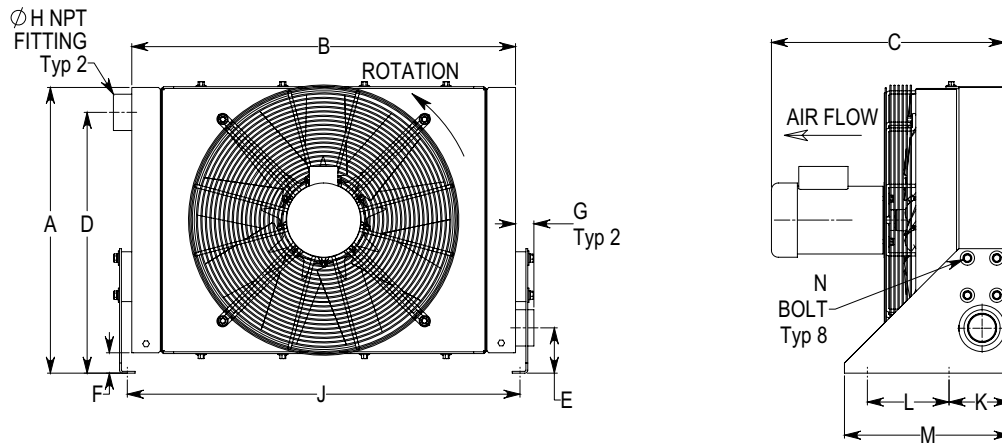
(1) approximate

(2) NPT

(3) SAE 4-bolt flanges may be converted to NPT by adding "-AD" to the end of the model code

(4) dimensions shown in inches

(5) we reserve the right to make reasonable changes without notice



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