

CRH Series

HIGH INLET TEMPERATURE REFRIGERATED AIR DRYERS 20–125 SCFM



Champion specializes in delivering the best compressed air quality to your working environment. Removing water, solid particulates and oil from compressed air has many benefits which all lead to increased productivity and reduced overhead costs. The CRH Series is designed to work with reciprocating air compressors through 30 horsepower, and is ideally suited for body shops, auto service centers and light industrial facilities. The space saving design integrates a refrigerated air dryer and a particle/oil removal filter all in one compact package. There is no need for an additional after-cooler because the CRH Series accepts air directly from your reciprocating compressor. This allows you to receive clean compressed air while saving floor space.

CRH SERIES FEATURES

- ▶ Reliable 50° F pressure dew point provides dry air
- ▶ Stainless steel heat exchangers with high heat transfer coefficients allow inlet temperatures to 180° F (82° C)
All models feature air-to-air and air-to-refrigerant heat exchangers
- ▶ Integral CFF Series Grade B Separator/Filter—removes solid particles to 3 micron and oil to 5 ppm
- ▶ Zero air-loss condensate drains with reliable pneumatic operation
- ▶ Environmentally-friendly R407c refrigeration system maintains reliable dew point temperatures automatically Hermetic, no-maintenance refrigeration compressors
- ▶ Fan switch allows operation in low (35° F, 2° C) ambient temperatures
- ▶ Power cord with molded plug
- ▶ Instrumentation has convenient on/off switch for start-up and fault light for system malfunction
- ▶ CSA certified 115 volt models
- ▶ Maintenance kits available for ease of service



CHAMPION®

CAPACITY FOR FLOWS BASED ON 180° F, 82° C INLET (for typical applications where there is no after-cooler installed upstream)

MODEL NUMBER	FLOW CAPACITY SCFM (1) @ 175 PSIG		USE WITH AIR COMPRESSOR SIZE (HP)		FLOW CAPACITY SCFM (1) @ 150 PSIG		USE WITH AIR COMPRESSOR SIZE (HP)		FLOW CAPACITY SCFM (1) @ 125 PSIG		USE WITH AIR COMPRESSOR SIZE (HP)		FLOW CAPACITY SCFM (1) @ 100 PSIG		USE WITH AIR COMPRESSOR SIZE (HP)	
	60 HZ	50 HZ	60 HZ	50 HZ	60 HZ	50 HZ	60 HZ	50 HZ	60 HZ	50 HZ	60 HZ	50 HZ	60 HZ	50 HZ	60 HZ	50 HZ
CRH20	23	20	5	5	22	18	5	5	20	17	5	5	18	15	5	5
CRH25	29	24	7.5	7.5	27	23	7.5	7.5	25	21	7.5	5	23	19	5	5
CRH35	41	31	10	7.5	38	29	10	7.5	35	27	10	7.5	32	24	7.5	7.5
CRH50	58	58	15	15	54	54	15	15	50	50	15	10	45	45	10	10
CRH75	87	71	20	20	81	66	20	15	75	61	20	15	68	55	15	15
CRH100	116	97	25	25	108	90	25	20	100	83	25	20	91	76	20	15
CRH125	145	121	30	30	135	112	30	30	125	104	30	25	114	95	25	20

(1) Capacity @ 180° F, 82° C inlet temperature, 160° F, 71° C inlet pressure dew point, 95° F, 35° C ambient temperature, 50° F, 10° C outlet pressure dew point, and less than 5 psi, 0.35 kgf/cm2 pressure drop.

CAPACITY FOR FLOWS BASED ON 100° F, 38° C INLET (for typical applications where there is an after-cooler installed upstream)

MODEL NUMBER	FLOW CAPACITY SCFM (1) @ 175 PSIG		USE WITH AIR COMPRESSOR SIZE (HP)		FLOW CAPACITY SCFM (1) @ 150 PSIG		USE WITH AIR COMPRESSOR SIZE (HP)		FLOW CAPACITY SCFM (1) @ 125 PSIG		USE WITH AIR COMPRESSOR SIZE (HP)		FLOW CAPACITY SCFM (1) @ 100 PSIG		USE WITH AIR COMPRESSOR SIZE (HP)	
	60 HZ	50 HZ	60 HZ	50 HZ	60 HZ	50 HZ	60 HZ	50 HZ	60 HZ	50 HZ	60 HZ	50 HZ	60 HZ	50 HZ	60 HZ	50 HZ
CRH20	32	27	10	7.5	30	25	7.5	7.5	28	23	7.5	7.5	25	21	7.5	5
CRH25	40	33	10	10	37	31	10	7.5	34	29	10	7.5	31	26	7.5	7.5
CRH35	55	43	15	10	51	40	15	10	47	37	10	10	43	33	10	10
CRH50	78	78	20	20	73	73	20	20	67	67	15	15	61	61	15	15
CRH75	118	96	25	25	110	90	25	25	102	83	25	20	92	75	20	20
CRH100	157	131	30	30	146	122	30	30	136	113	30	25	123	102	25	20
CRH125	197	164	20(2)	20(2)	183	152	20(2)	30	170	142	20(2)	30	155	129	30	25

(2) Capacity @ 100° F, 38° C inlet temperature, 100° F, 38° C inlet pressure dew point, 100° F, 38° C ambient temperature, 50° F, 10° C outlet pressure dew point, and less than 10 psi, 0.7 kgf/cm2 pressure drop.

SPECIFICATIONS

MODEL NUMBER	STANDARD VOLTAGES	MAXIMUM WORKING PRESSURE	MAXIMUM INLET TEMPERATURE	AMBIENT TEMPERATURE RANGE	IN/OUT CONNECTIONS NPT OR BSP	DIMENSIONS IN [MM]			WT LB [KG]
						H	W	D	
CRH20	115/1/60 or 220-240/1/50	250 psig 17.6 kg/cm²	180° F 82° C	35-110° F 2-43° C	1/2"	28 [718]	10 [257]	13 [327]	79 [36]
CRH25					1/2"	28 [718]	10 [257]	13 [327]	80 [36]
CRH35					1/2"	28 [718]	10 [257]	13 [327]	81 [37]
CRH50					3/4"	37 [933]	17 [429]	17 [429]	150 [68]
CRH75					3/4"	37 [933]	17 [429]	17 [429]	155 [70]
CRH100	230/1/60				1"	46 [1162]	17 [429]	17 [429]	187 [85]
CRH125					1"	46 [1162]	17 [429]	17 [429]	189 [86]



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