



Kraken Air

COMPANY PROFILE

2021





Maltby-Made
KRAKEN

KA



from **800 CFM**
to **38 000 CFM**
in total **capacity**



premium efficiency motors
energy recovery system:

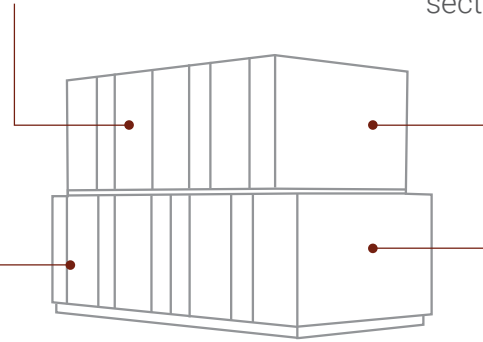
- cross-flow plate
- energy wheel



2 000 h
salt spray test
resistance
on the external coating

right or left hand
inspection site

fully assembled unit
or delivered by
sections



inlet and outlet
locations

2 inch polyurethane
sandwich panels
which eliminates
thermal bridges





KA LITE



from **800 CFM**
to **4 000 CFM**
in total **capacity**



**premium efficiency motors
energy recovery system:**

- cross-flow plate
- energy wheel



2 000 h
salt spray test
resistance
on the external coating



from **800 CFM**
to **4 000 CFM**
in total **capacity**



**premium
efficiency
motors**



2 000 h
salt spray test
resistance
on the external coating

right or left hand
inspection site

factory
assembled unit

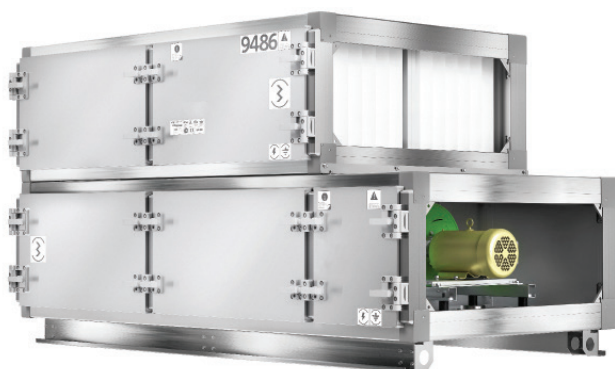
right or left hand
inspection site

inlet and outlet
locations

horizontal
or vertical
configurations.

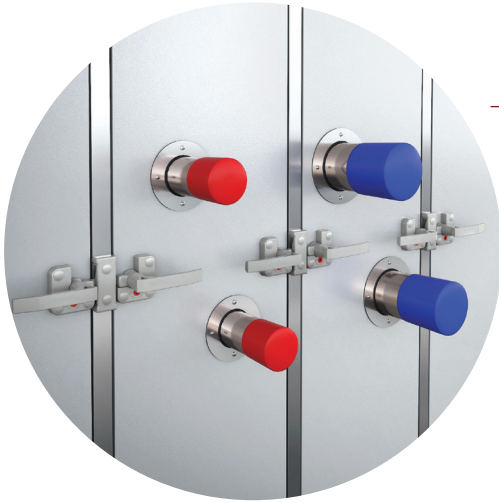
2 inch polyurethane
sandwich panels
which eliminates
thermal bridges

inlet and outlet
locations



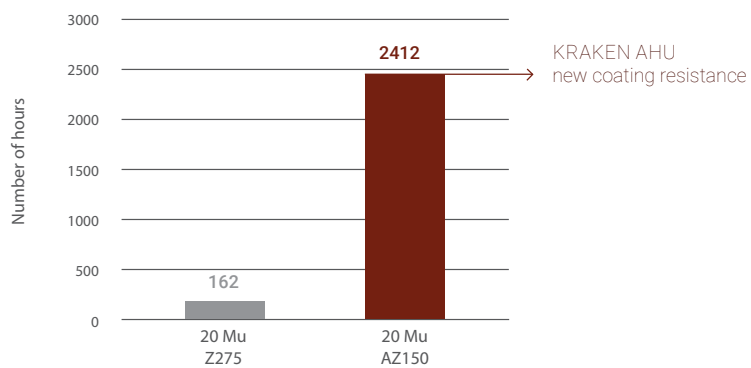


DESIGN



**MORE THAN 2,000
HOURS SALT SPRAY
TEST PROTECTION**

RESISTANCE TO CORROSION



Salt spray test according to ASATMB - 117

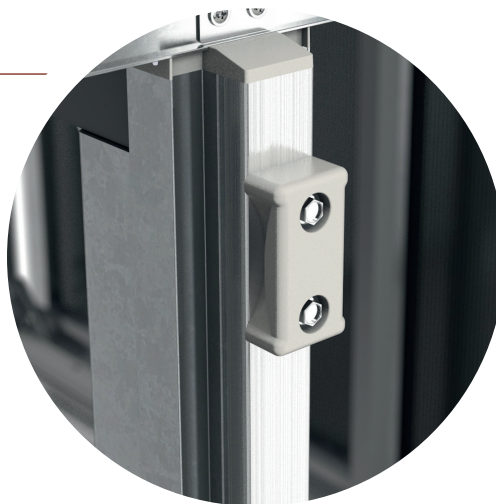


CASING SKIN

- » high rigidity and durability of the AHU structure
- » low absorption of heat radiation and UV
- » perfect resistance to weather conditions

FAN SECTION CAGE

- » high longitudinal stiffness of the structure
- » easy section assembly

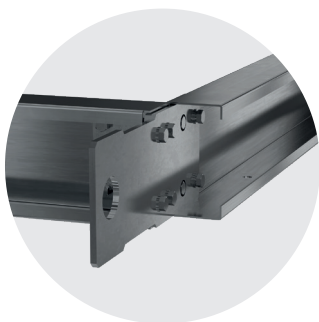


ALUMINUM
POSTS
AS **STANDARD**
FOR ALL TYPES
OF UNITS



V PROFILE

KA040-KA085



C PROFILE

KA100-KA380



CURB READY RAILS

KA8-KA380

GALVANIZED STEEL SUPPORT
AS **STANDARD**
FOR ALL TYPES OF UNITS

CONVENIENT

- » easy transport
- » great profile resistance to deflection

STRUCTURAL POSTS

- » thermally broken as standard
- » high resistance to weather conditions and UV radiation

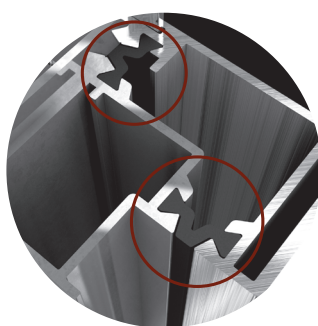
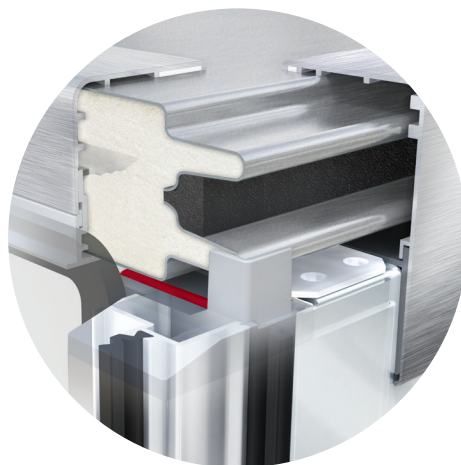
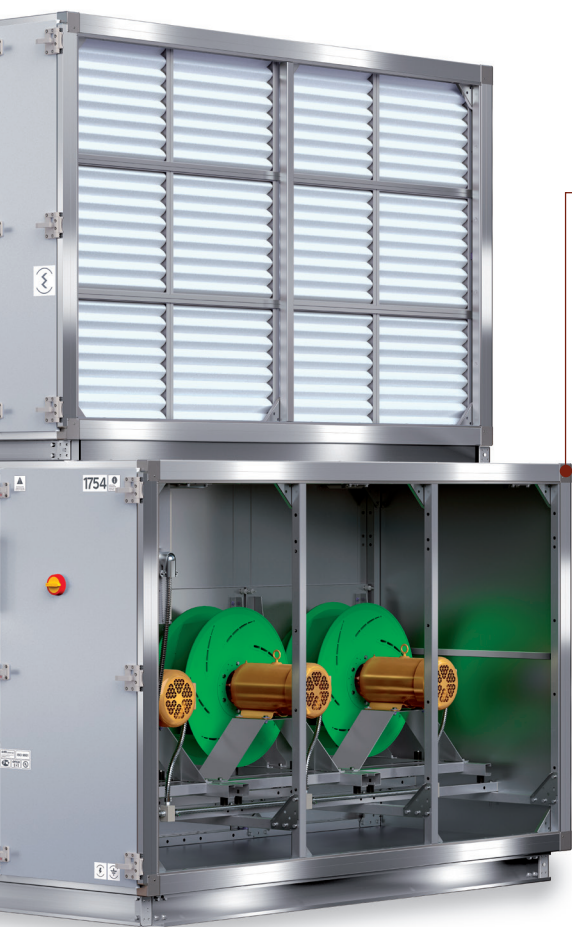


AIR TIGHTNESS

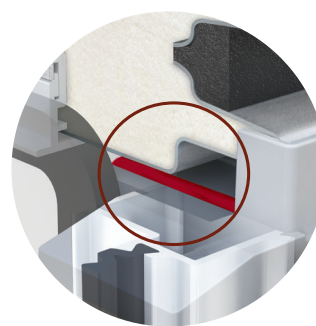


ERGONOMIC INSPECTION PANEL LOCK

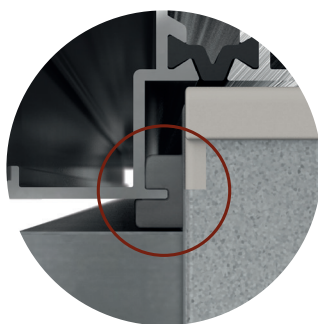
- » All units come with hinged panels
- » Kraken utilizes a patented Smart Hinge System which prevents seal damage when the panels are open
- » Perfect ergonomics with integrated handle and hinge function
- » Easy to use with quick opening and closing of inspection panels



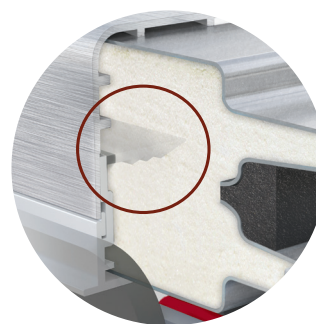
**THERMAL
BREAK**



**ADDITIONAL
POST SEALING**



**LABYRINTH
SEALING**



**ADDITIONAL
SEALING EDGE**

ALUMINUM STRUCTURAL POSTS WITH AN ADDITIONAL SEALING FIN AND A THERMAL INSERT

- » thermal break as standard - ensures no condensation outside the AHU
- » the fin ensures labyrinth sealing – currently the most effective solution on the market, mainly used in laboratory equipment
- » original solution consisting in the use of symmetrical channel tension filled with a sealing compound, which provides 100% tightness of the connection between the column and construction structure



ROOFTOP APPLICATIONS

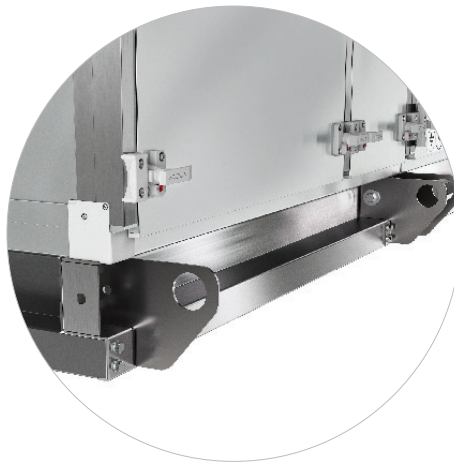
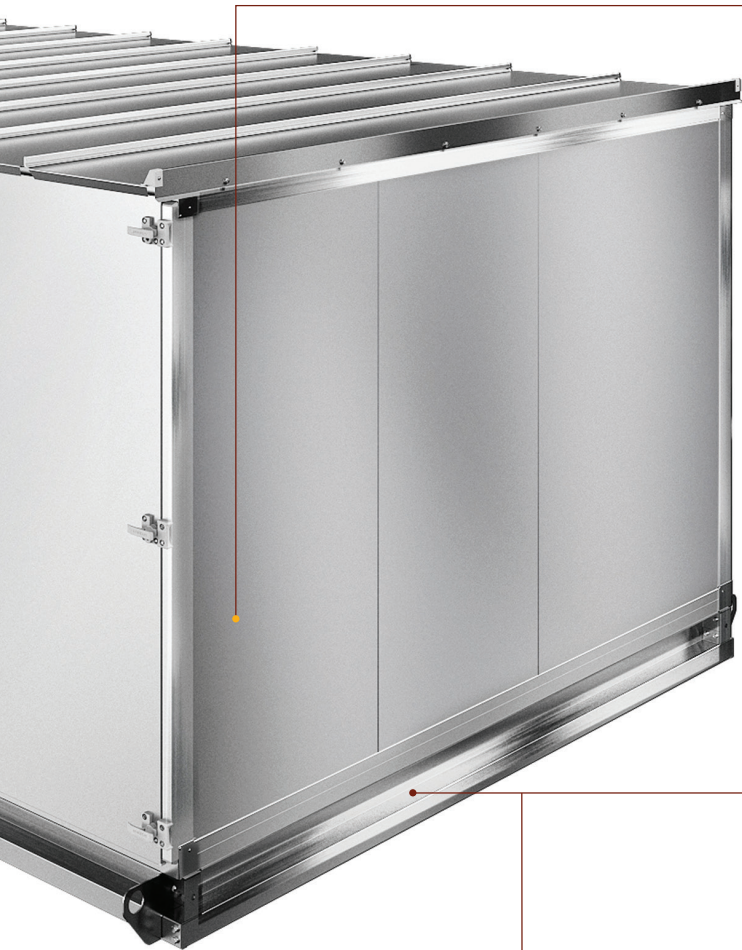


SECTIONAL ROOF

- » prevents water penetration
- » additional weather protection

VARIABLE INTAKE CONFIGURATIONS

- » top, bottom and side intake options
- » end – optional full face intake damper available units
- » dampers:
 - gear system for even distribution of the torque
 - extruded aluminum construction
 - low leakage
 - double wall blade construction



CURB READY RAILS

- » design -overhangs the side of the curb to avoid the need of flashing
- » integrated lifting lugs

VARIABLE DISCHARGE CONFIGURATION

- » end, top, bottom and side discharge options
- » optional discharge dampers and full end discharge dampers available



| KA 8-55 - SUPPLY & EXHAUST

Rated parameters					Recommended range of airflow																								
Size		KA 008				KA 012				KA 016				KA 020				KA 030				KA 040				KA 055			
15 000	[CFM]																												
10 000																													
5 000																													
0																													
		▷	⊗	⊕	◁	▷	⊗	⊕	◁	▷	⊗	⊕	◁	▷	⊗	⊕	◁	▷	⊗	⊕	◁	▷	⊗	⊕	◁	▷	⊗	⊕	◁
Min.		332	427	427	427	480	618	618	618	636	819	819	819	806	1037	1037	1037	1185	1524	1524	1524	1567	1945	1945	1945	2003	2419	2419	2419
Max.		2140	1883	1254	924	3091	2719	1817	1339	4096	3605	2486	1832	5186	4564	3331	2454	7622	6708	4835	3563	10078	8559	6697	4934	12880	10648	8758	6453
H _f	[inch]	3.54																											
H		21.97				21.97				24.02				27.17				32.48				37.20				41.14			
W		27.95				38.62				44.21				46.77				53.50				59.06				66.14			
W _i		24.02				34.68				40.28				42.83				49.57				55.12				62.20			
H _i		14.49				14.49				16.54				19.69				25.00				29.72				33.66			

| KA 65-380 - SUPPLY & EXHAUST

Rated parameters					Recommended range of airflow																												
Size		KA 065				KA 085				KA 100				KA 130				KA 170				KA 230				KA 300				KA 380			
75 000	[CFM]																																
50 000																																	
25 000																																	
0																																	
			▷	⊗	⊕	◁	▷	⊗	⊕	◁	▷	⊗	⊕	◁	▷	⊗	⊕	◁	▷	⊗	⊕	◁	▷	⊗	⊕	◁	▷	⊗	⊕	◁			
Min.		2 395	3 307	3 307	3 307	2 952	4 069	4 069	4 069	3 559	4 501	4 501	4 501	4 283	4 979	5 183	5 183	5 557	7 630	7 630	7 630	7 706	10 427	10 427	10 427	8 988	12 165	12 165	12 165				
Max.		15 402	14 553	10 640	7 840	18 983	17 907	13 199	9 725	22 883	19 807	16 026	11 809	27 540	21 909	19 697	14 513	35 731	33 576	26 348	19 414	49 540	45 883	35 609	26 238	57 783	53 531	43 761	32 245				
H _f	[inch]	3.54								3.15																							
H		42.60				46.57				54.21				54.21				65.98				75.16				75.16				93.94			
W		75.24				82.87				82.87				98.94				102.56				122.24				141.93				146.34			
W _i		71.30				78.94				78.94				95.00				98.62				118.31				137.99				142.40			
H _i		35.12				39.09				47.13				47.13				58.90				68.07				68.07				86.85			



KA 8-55 - CROSS-FLOW PLATE

Rated parameters			Recommended range of airflow																			
Size		KA 008			KA 012			KA 016			KA 020			KA 030			KA 040			KA 055		
10 000	[CFM]																					
7 500																						
5 000																						
2 500																						
0																						
Min.		446	427	427	697	618	618	846	819	819	1 067	1 037	1 037	1 526	1 524	1 524	2 089	1 945	1 945	2 732	2 419	2 419
Max.		1 699	1 254	924	2 650	1 817	1 339	3 218	2 486	1 832	4 058	3 331	2 454	5 799	4 835	3 563	7 939	6 697	4 934	10 386	8 758	6 453
H _f	[inch]	3.54																				
H		21.97			21.97			24.02			27.17			32.48			37.20			41.14		
W		27.95			38.62			44.21			46.77			53.50			59.06			66.14		
W _i		24.02			34.68			40.28			42.83			49.57			55.12			62.20		
H _i		14.49			14.49			16.54			19.69			25.00			29.72			33.66		

KA 65-380 - CROSS-FLOW PLATE

Rated parameters			Recommended range of airflow																					
Size	KA 065			KA 085			KA 100			KA 130			KA 170			KA 230			KA 300			KA 380		
60 000																								
45 000																								
30 000																								
15 000																								
0																								
	⊗	⊕	⊖	⊗	⊕	⊖	⊗	⊕	⊖	⊗	⊕	⊖	⊗	⊕	⊖	⊗	⊕	⊖	⊗	⊕	⊖	⊗	⊕	⊖
Min.	3 307	3 307	3 307	4 185	4 069	4 069	4 501	4 501	4 501	5 070	5 183	5 183	7 630	7 630	7 630	10 427	10 427	10 427	12 165	12 165	12 165	15 526	15 526	15 526
Max.	11 972	10 640	7 840	15 905	13 199	9 725	15 905	16 026	11 809	19 268	19 697	14 513	28 041	26 348	19 414	33 749	35 609	26 238	39 471	43 761	32 245	47 778	58 255	42 924
H _{fd}	3.54						3.15																	
H _{fu}	0.00			0.00			2.36			2.36			2.36			2.36			2.36			2.36		
H	42.6			46.57			54.21			54.21			65.98			75.16			75.16			93.94		
W	75.24			82.87			82.87			98.94			102.56			122.24			141.93			146.34		
W _i	71.3			78.94			78.94			95.00			98.62			118.31			137.99			142.40		
H _i	35.12			39.09			47.13			47.13			58.90			68.07			68.07			86.85		



KA 12 - 65 WITH ENERGY WHEEL

Rated parameters				Recommended range of airflow																		
Size		KA 012			KA 016			KA 020			KA 030			KA 040			KA 055			KA 065		
12 000	[CFM]																					
Min.		618	618	618	819	819	819	1037	1037	1037	1524	1524	1524	1945	1945	1945	2419	2419	2419	3307	3307	3307
Max.		2179	1817	1339	2664	2486	1832	4068	3331	2454	5869	4835	3563	7364	6697	4934	9536	8758	6453	12205	10640	7840
H _f	[inch]	3.54																				
H		21.97			24.02			27.17			32.48			37.20			41.14			42.60		
W		38.62			44.21			46.77			53.50			59.06			66.14			75.24		
W _i		34.68			40.28			42.83			49.57			55.12			62.20			71.30		
H _i		14.49			16.54			19.69			25.00			29.72			33.66			35.12		
H ₂		40.39			44.49			50.79			61.42			70.87			78.74			81.65		

KA 85-380 WITH ENERGY WHEEL

Rated parameters				Recommended range of airflow																		
Size		KA 085			KA 100			KA 130			KA 170			KA 230			KA 300			KA 380		
60 000	[CFM]																					
40 000																						
20 000																						
0																						
		⊖	⊕	⊖	⊖	⊕	⊖	⊖	⊕	⊖	⊖	⊕	⊖	⊖	⊕	⊖	⊖	⊕	⊖	⊖	⊕	⊖
Min.		4 069	4 069	4 069	4 501	4 501	4 501	4 979	5 183	5 183	7 630	7 630	7 630	10 427	10 427	10 427	12 165	12 165	12 165	15 526	15 526	15 526
Max.		15 121	13 198	9 724	15 122	16 026	11 809	21 698	19 697	14 513	23 578	26 348	19 414	32 704	35 609	26 238	45 678	43 761	32 245	48 968	58 255	42 924
H _{fd}	[inch]	3.54			3.15																	
H _{fu}		0.00			2.36			2.36			2.36			2.36			2.36			2.36		
H		46.57			54.21			54.21			65.98			75.16			75.16			93.94		
W		82.87			82.87			98.94			102.56			122.24			141.93			146.34		
W _i		78.94			78.94			95.00			98.62			118.31			137.99			142.4		
H _i		39.09			47.13			47.13			58.9			68.07			68.07			86.85		
H ₂		89.61			107.64			107.64			131.18			149.53			149.53			187.09		



KA LITE 8-40 - SUPPLY & EXHAUST

Rated parameters		Recommended range of airflow																							
Size		KA 008				KA 012				KA 016				KA 020				KA 030				KA 040			
15 000	[CFM]																								
10 000																									
5 000																									
0																									
																									
Min.		332	427	427	427	480	618	618	618	636	819	819	819	806	1 037	1 037	1 037	1 185	1 524	1 524	1 524	1 567	1 945	1 945	1 945
Max.		2 140	1 883	1 254	924	3 091	2 719	1 817	1 339	4 096	3 605	2 486	1 832	5 186	4 564	3 331	2 454	7 622	6 708	4 835	3 563	10 078	8 559	6 697	4 934
H _f	[inch]	3.54																							
H		21.97				21.97				24.02				27.17				32.48				37.20			
W		27.95				38.62				44.21				46.77				53.50				59.06			
W _i		24.02				34.68				40.28				42.83				49.57				55.12			
H _i		14.49				14.49				16.54				19.69				25.00				29.72			

KA LITE 8-40 - CROSS-FLOW PLATE

Rated parameters				Recommended range of airflow																			
Size	KA 008			KA 012			KA 016			KA 020			KA 030			KA 040							
10 000	[CFM]																						
7 500																							
5 000																							
2 500																							
0																							
																							
Min.		446	427	427	697	618	618	846	819	819	1 067	1 037	1 037	1 526	1 524	1 524	2 089	1 945	1 945				
Max.		1 699	1 254	924	2 650	1 817	1 339	3 218	2 486	1 832	4 058	3 331	2 454	5 799	4 835	3 563	7 939	6 697	4 934				
H _f	[in·h]	3.54																					
H		21.97			21.97			24.02			27.17			32.48			37.20						
W		27.95			38.62			44.21			46.77			53.50			59.06						
W _i		24.02			34.68			40.28			42.83			49.57			55.12						
H _i		14.49			14.49			16.54			19.69			25.00			29.72						



KA LITE 12 - 40 WITH ENERGY WHEEL

Rated parameters			Recommended range of airflow													
Size		KA 012			KA 016			KA 020			KA 030			KA 040		
12 000	[CFM]															
Min.		618	618	618	819	819	819	1 037	1 037	1 037	1 524	1 524	1 524	1 945	1 945	1 945
Max.		2 179	1 817	1 339	2 664	2 486	1 832	4 068	3 331	2 454	5 869	4 835	3 563	7 364	6 697	4 934
H _f	[inch]	3.54														
H		21.97			24.02			27.17			32.48			37.20		
W		38.62			44.21			46.77			53.50			59.06		
W _i		34.68			40.28			42.83			49.57			55.12		
H _i		14.49			16.54			19.69			25.00			29.72		
H ₂		40.39			44.49			50.79			61.42			70.87		

KA - VERTICAL CONFIGURATIONS

Rated parameters					Recommended range of airflow																				
Size		KA 008				KA 012				KA 016				KA 020				KA 030				KA 040			
15 000	[CFM]																								
10 000																									
5 000																									
0																									
Min.		332	427	427	427	480	618	618	618	636	819	819	819	806	1037	1037	1037	1185	1524	1524	1524	1567	1945	1945	1945
Max.		2140	1883	1254	924	3091	2719	1817	1339	4096	3605	2486	1832	5186	4564	3331	2454	7622	6708	4835	3563	10078	8559	6697	4934
H _{fd}	[inch]	3.54																							
H _{fu}		0.00				0.00				0.00				0.00				0.00				0.00			
H		21.97				21.97				24.02				27.17				32.48				37.20			
W		27.95				38.62				44.21				46.77				53.50				59.06			
W _i		24.02				34.68				40.28				42.83				49.57				55.12			
H _{ui}		19.69				19.69				19.69				25.00				25.00				29.72			
H _{di}		14.49				14.49				16.54				19.69				25.00				29.72			
H ₂		45.59				45.59				47.64				56.10				61.42				70.87			



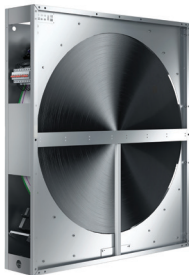
KRAKEN KEY COMPONENTS

FAN SECTIONS



- » Depending on unit size, Kraken will use either 1, 2, 3, 4, or 5 fans
- » Utilize ABB variable frequency drives
- » Utilize Baldor premium efficient motors (TEFC); Baldor EC Gold Series permanent magnet motors are an option. EC Gold meets the more stringent IE 4 requirements.
- » Motor bearing life is standard L10-400,000 hrs
- » All motors 7.5 HP and larger come standard with shaft grounding rings
- » Backdraft dampers are available
- » Available voltages depending on size: 115/1, 208/1, 230/1, 208/3, 230/3, 460/3, 575/3
- » Single point power for fans
- » Impeller is made from fiber reinforced polymer
- » Capable of 10" of total static pressure
- » Extremely quiet and energy efficient
- » Fan combination is more efficient than ECM/forward curved fan configurations

ENERGY RECOVERY WHEELS



- » Class leading efficiencies
- » 3A Molecular Sieve - 0.22% Leakage Rate
- » All wheels are total energy wheels
- » All wheels are AHRI 1060 certified
- » All wheels are equipped with VFD speed control

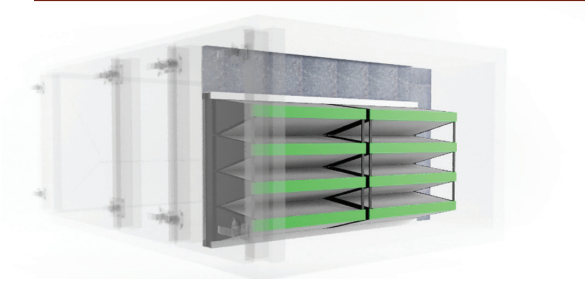
DAMPERS



- » Gears are made with fiber reinforced polymer and infused with nylon for long life and quiet operation
- » AMCA certified for 1", 4" and 8" of pressure.
- » Square shaft preventing actuator slippage
- » Indicator position shown on outside of damper for externally mounted dampers
- » Opposed blade

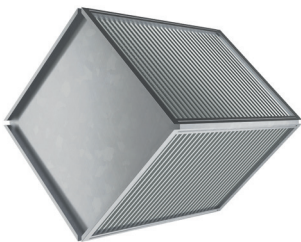


FILTERS



- » 2" MERV 8 or 4" MERV 13 pre filters
- » 12" MERV 13, 14, or 16 final filters
- » Final filters are Camfil Farr Durafil ® 4V
- » Final filters have lowest pressure drop of their respective ratings in the industry (initial pressure drops at 500 FPM of 0.33", 0.37", and 0.80")
- » All filters are UL 900 Class 2

ENERGY RECOVERY PLATES



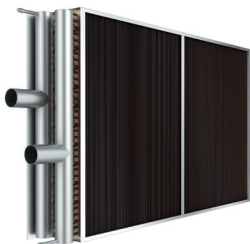
- » Dry efficiencies up to 87%
- » AHRI 1060 certified
- » Sensible only
- » Crossflow configuration
- » The exchanger consists of aluminum plates, the casing of aluminum extrusions, and side walls of Aluzinc sheet steel. The exchangers are silicone free

ULTRA LOW LEAKAGE DAMPERS



- » Dampers are Tamco Series 9000
- » Aluminum construction with polyurethane foam
- » AMCA certified for Class 1A low leakage for 1", Class 1 for 1", 4" and 8" of pressure.
- » Insulated blades with an R-value of 2.29

WATER / REFRIGERANT / STEAM COILS AND DRAIN PANS



- » Hot water, chilled water, refrigerant, and steam
- » All coils are AHRI certified
- » Optional stainless steel coil casing
- » Standard stainless steel drain pans
- » Coils can be swapped out typically in less than one hour
- » Coils can be provided with optional Blygold coating

ELECTRIC HEATER



- » Standard SCR controls
- » Door interlocking disconnect switch
- » 6 kW to 297 kW
- » Air flow switch

[illegible]



Kraken Air

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The features mentioned are subject to continuous upgrade and can change any time.
Kraken Air assuring continuous improvement for product and data and reserves the right to change design and specifications without
notice. 2021