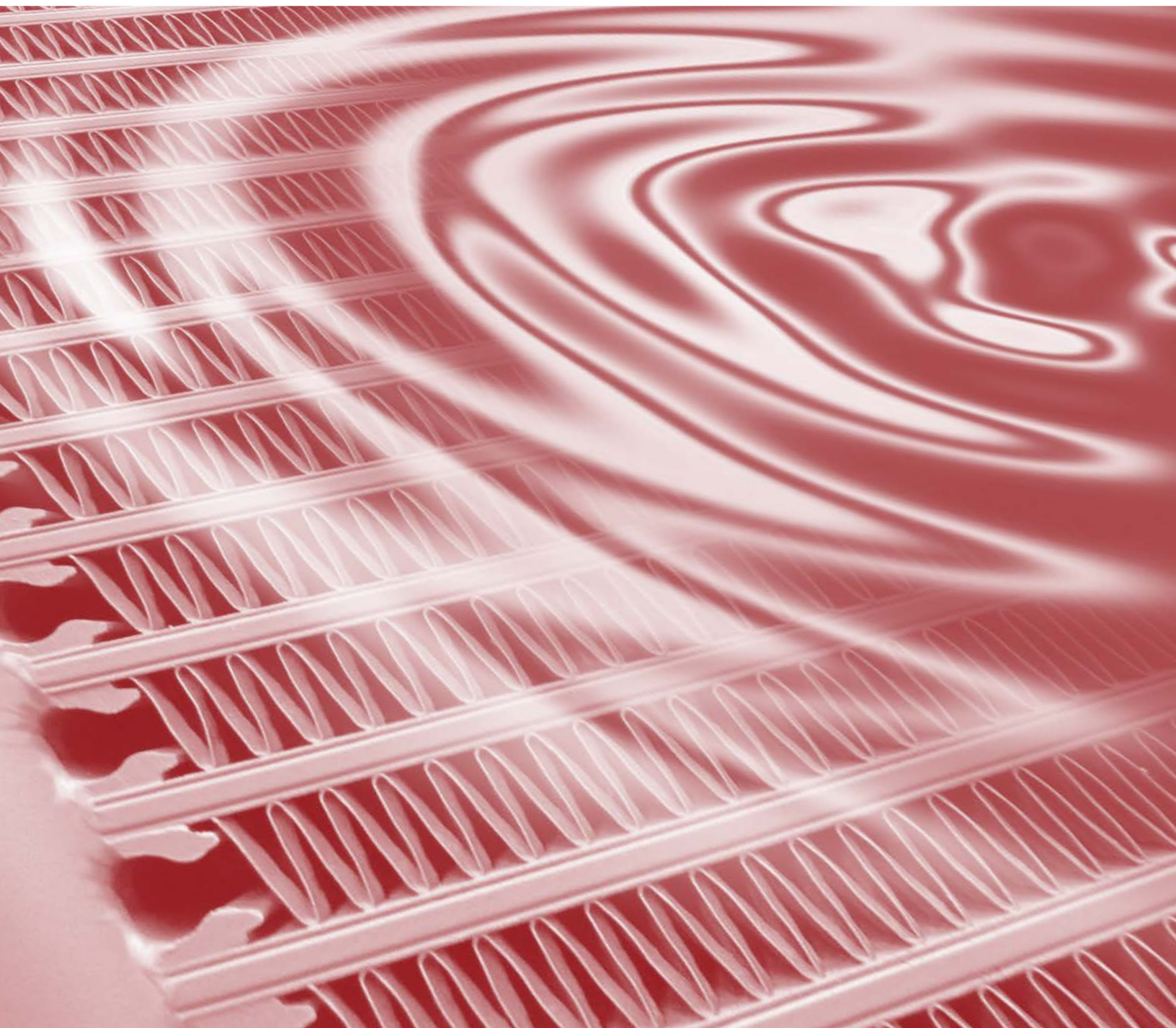




GLOBAL STANDARD COOLER

Cool-Line

HD



HEAVY DUTY COOLERS FOR SEVERE APPLICATIONS

PRODUCT INFORMATION

AKG HD Series is a standard line of products from the market leader in high performance aluminum cooling systems. AKG is best known for its world-wide presence, German engineering and extremely reliable product quality on the one hand and very competitive prices on the other hand.

The HD type series consist of different models for mobile and stationary applications and are available through our global specialist dealer network. This line of products embraces all-purpose complete cooling systems that comply with European or American Standards and is suited for normal or rugged environmental operating conditions.

FEATURES OF THE HD SERIES:

- High-Performance cooling assemblies
- AC-motor powered fan
- The heat is transferred from the fluid to be cooled to the ambient air
- Cooler can be universally used in hydraulic oil, transmission oil, engine oil, lubricating oil and coolant circuits
- For the cooling of mineral oil, synthetic oil, biological oil as well as of HFA, HFB, HFC and HFD liquids and water with at least 50 per cent of antifreeze and anticorrosive additives (other media available)
- Can be exposed to operating pressures of up to 17 bar.
- Capable of high flows and high viscosity fluids for industrial and process markets.

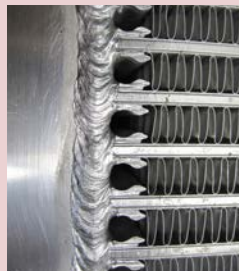
FEATURES OF THE HD SERIES:

- Highly flexible complete, ready-to-use cooling packages
- Compact and robust design, field-tested during many years of use in rugged real life conditions
- Largest and most comprehensive series of industrial coolers
- Best heat transfer results per given cooler size due to comprehensive research and development
- Highest quality due to professional engineering and in-house manufacturing
- Available from stock or at short notice
- As a standard, equipped with AKG's patented **double-life** hollow sections designed to increase cooler service life
- As a standard feature, uses louvered high-performance air fins

HD Series FEATURES/BENEFITS

- HD optimized series coolers with louvered fin design provides the best HEAT TRANSFER per given cooler size in the industry.
- Nine cooler models available in 4 different cooler sizes for flows from 20 to 500 gpm.
- HD optimized series coolers have proprietary R & D designed, engineered and tested internal and external fins unique to AKG THERMAL SYSTEMS coolers.
- HD optimized series coolers offer the largest, most comprehensive cooler size ranges with competitive pricing and deliveries from stock.

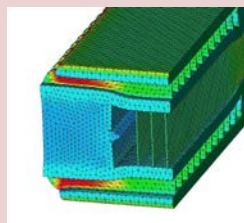
PATENTED FLEXIBLE AKG HOLLOW PROFILE



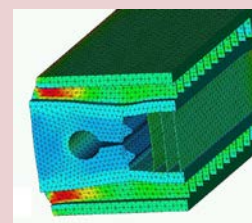
HD uses patented AKG hollow profiles to reduce local peak strains. This way the strength of heat exchangers is significantly increased and their service life time is considerably prolonged.

AKG HOLLOW PROFILE FEATURES

- Reduced Strain:
Strength calculations show that when using AKG hollow profiles maximum strain is reduced by a factor of 2
- Prolonged Service Life Time:
Extensive rig tests have shown that service life time increases by a factor ranging from 3 to 5

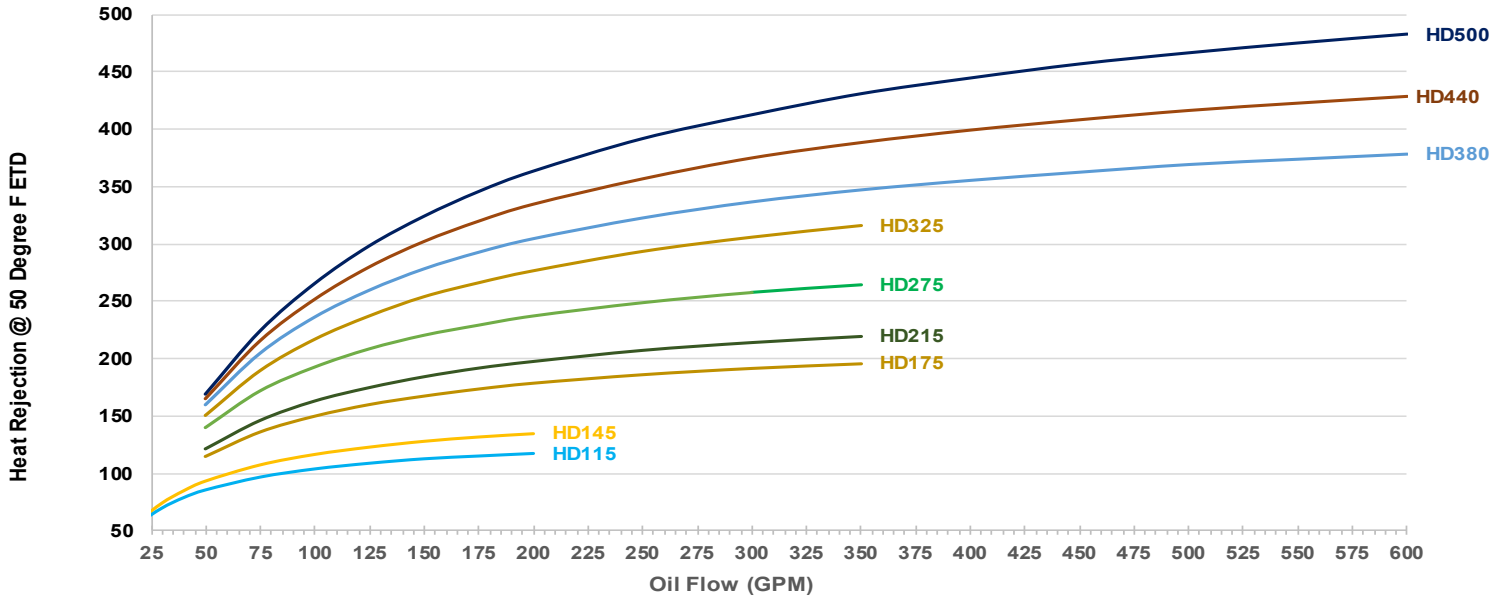


with standard profile



with hollow profile

HD PERFORMANCE CHART



Specifications:	
Maximum Working Pressure	250 PSI
Maximum Working Temperature	250°F

Materials	
Cooler	Aluminum
Shroud	Power Painted Steel
Fan Guard	Zinc Plated Steel
Fan Blade	Polypropylene Blades Aluminum Hub
Mounting Brackets	Power Painted Steel

SELECTION PROCEDURES

The performance curves above are based on the following :
 • 50 SUS Oil.
 • 50 °F Entering Temperature Difference (ETD)

If your application conditions are different, use the following selection procedure:

STEP 1. Determine the Heat Load

In most cases you can use 1/3 of the input horsepower.
 Example: 30 HP Power Unit = 10 HP Heat Load

STEP 2. Determine the Actual ETD Desired

Entering OIL Temperature — Entering AIR Temperature = ETD
 The Entering oil temperature is the highest desired oil temperature. The entering air temperature is the highest anticipated ambient air temperature, plus any pre-heating of the air prior to it entering the cooler.

STEP 3. Calculate the Adjusted BTU/hr for Selection

$$\text{Horse power} \times \frac{50}{\text{Desired ETD}} = \text{Horsepower For Use With Selection Chart}$$

STEP 4. Determine The Model From The Curves

Read up from the GPM to the required heat rejection.
 Select any model on, or above this point.

HD SERIES TECHNICAL DATA

Model Size	HP RPM	Motor Frame	Voltage (3 Phase)	Hz	Full Load Amps 230 V	Approx. Noise Level (dB(A), 1m)	Working Pressure (psi)
HD115	5 1200	213/5T	208-230/460	50/60	15.1-13.7 /6.83A	78	250
HD145	10 1200	254/6T	208-230/460	50/60	28.5-26.6 /13.3A	78	250
HD175	10 1200	254/6T	208-230/460	50/60	28.5-26.6 /13.3A	87	250
HD215	20 1200	284/6T	208-230/460	50/60	53.5-48.4 /24.2A	81	250
HD275	10 1200	254/6T	208-230/460	50/60	28.5-26.6 /13.3 A	89	250z
HD325	20 1200	284/6T	208-230/460	50/60	53.5-48.4 /24.2A	94	250
HD380	15 1200	284/6T	208-230/460	50/60	39.6-35.8 /17.9A	89	250
HD440	25 1200	324/6T	208-230/460	50/60	67.2-60.8 /30.4A	90	250
HD500	40 1200	364/5T	208-230/460	50/60	103-93 /46.5A	95	250

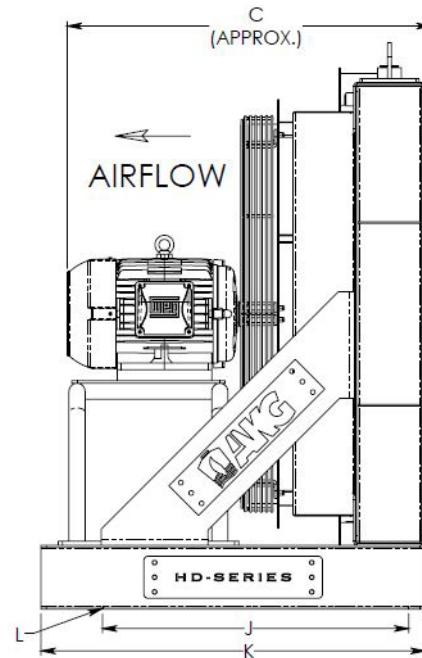
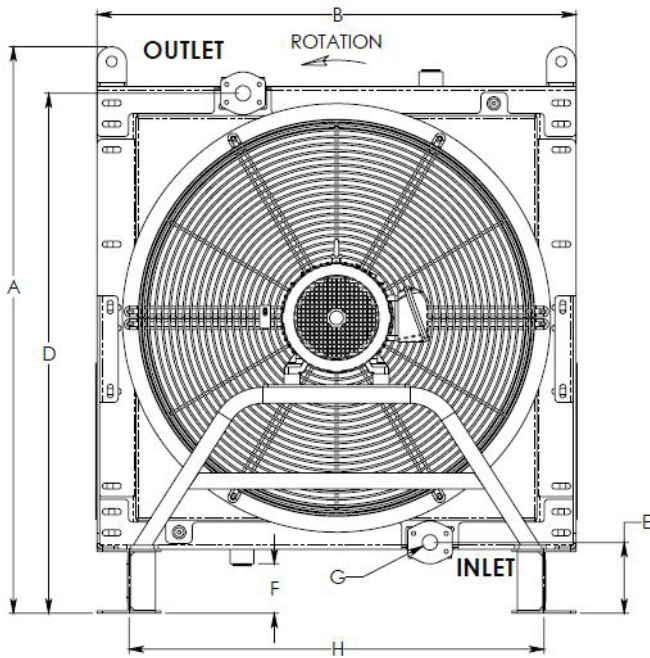
Electric Motors are TEFC and are not thermally protected
 Electric Motors are Dual Rated 50/60 HZ and CE marked
 Actual rating may vary with motor brand. Check motor nameplate for actual rating.
 Motor RPM is reduced by 1/6 for 50 Hz service

HD SERIES DIMENSIONS

Model Number	A	B	C	D	E	F	G	H	J	K	L
HD115	1348	1140	867	1237	169	118	2" SAE 4-BOLT FLANGE	988	689	914	9/16x1.5
HD145	1348	1140	983	1237	169	118	2" SAE 4-BOLT FLANGE	988	689	914	9/16x1.5
HD175	1463	1330	975	1383	173	118	3" SAE 4-BOLT FLANGE	1178	689	914	9/16x1.5
HD215	1463	1330	1039	1383	173	118	3" SAE 4-BOLT FLANGE	1178	689	914	9/16x1.5
HD275	1763	1616	1049	1723	133	118	3" SAE 4-BOLT FLANGE	1464	894	1016	9/16x1.5
HD325	1763	1616	1078	1723	133	118	3" SAE 4-BOLT FLANGE	1464	894	1016	9/16x1.5
HD380	1867	2033	1143	1814	146	120	4" SAE 4-BOLT FLANGE	1832	894	1016	9/16x1.5
HD440	1867	2033	1179	1814	146	120	4" SAE 4-BOLT FLANGE	1832	894	1016	9/16x1.5
HD500	1867	2033	1187	1814	146	120	4" SAE 4-BOLT FLANGE	1832	894	1016	9/16x1.5

*All dimensions are in mm unless otherwise mentioned

COOLER DIMENSIONS HD



ORDERING INFORMATION

HD SERIES STANDARD	MODEL SIZE SELECTED	MOTOR CODE	CUSTOM FEATURE CODE
	115	3 = THREE PHASE	AD = SAE TO NPT
	145	3EXP = EXPLOSION	H=HERESITE
	175	PROOF 3 PH	RG= ROCK GUARD
	215		
	275		
	325		
	380		
	440		
	500	5 = 575V 3 PH	



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AKG – A STRONG GLOBALLY INTEGRATED GROUP OF COMPANIES

AKG is a globally leading supplier of high-performance coolers and heat exchangers as well as customized system solutions, that comply with the highest quality standards.

On a world-wide scale, 2,500 employees work at 12 Production plants: 4 in Germany, 2 in USA, France, China, Latvia, India, Brazil and Turkey. Together with a number of additional oversea sales companies they are on duty around the clock.

The longstanding and competent partnership with global OEM customers from 22 lines of business such as construction machinery, compressed-

air systems, agricultural and forestry machines, vehicle construction and many other fields of application give fresh and innovative impetus to the mobile and industrial standard type series.

AKG operates one of the world's largest research, development, measurement and validation centres for cooling solutions and customized applications. For 98 years AKG's heat exchangers have stood for innovative solutions as well as highest engineering and manufacturing competence.

Aluminum Coolers – Made by AKG

DIN EN ISO 9001

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