

AKG-Line

GLOBAL STANDARD COOLER

**D Series
with DC Motor**



GLOBAL STANDARD AKG LINE D

Mobile Hydraulic Oil-To-Air Cooling Systems

Product Information

AKG-Line is a standard line of products from the market leader in high performance aluminium 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.

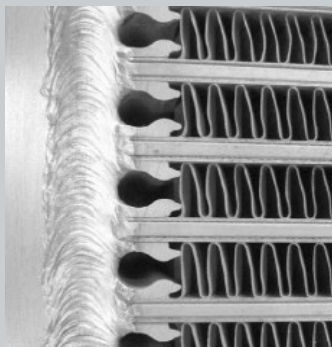
The **AKG-Line** type series consist of different models for mobile and stationary applications and are available through our global specialist dealer network. This line of products embraces all-purpose complete cooling systems that comply with European or American Standards, is suited for normal or rugged environmental operating conditions, is powered by AC-, DC- or hydraulic-motor-driven fans and is also available with noise-optimized models.

All of AKG's solutions have been developed with state-of-the-art technology, produced in compliance with the highest quality standards and are comprehensively tested in the company's own research and test facility.

Features of the D Series

- High-performance aluminium cooling assemblies with accessories
- DC motor powered fan (12V/24V)
- The heat is transferred from the medium 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, HFD liquids, diesel fuel and water with at least 50% of antifreeze and anticorrosive additives (other media available)
- Can be exposed to operating pressures of up to 26 bar

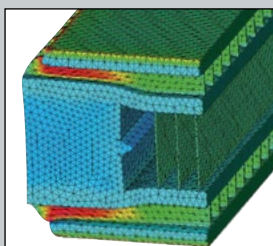
Flexible AKG hollow profile



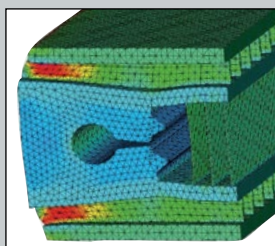
AKG-Line uses AKG hollow profiles to reduce local peak strains. This way the strength of heat exchangers is significantly increased and their service life time considerably prolonged.

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

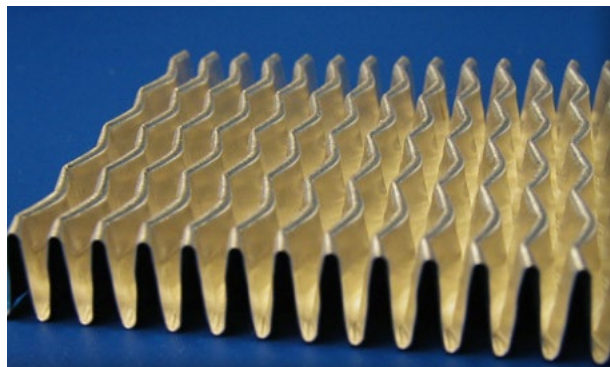


with hollow profile

Benefits

- Highly flexible complete, ready-to-use cooling packages
- Compact and robust design, field-tested during many years of use in rugged real life conditions
- 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 patented **AKG double-life** hollow sections designed to increase cooler service life
- As a standard, equipped with anti-clogging cooling air fins

Cooling Air Fins



D Series equipped with anti-clogging fins, easy to clean.

GLOBAL STANDARD AKG LINE D

Technical Data

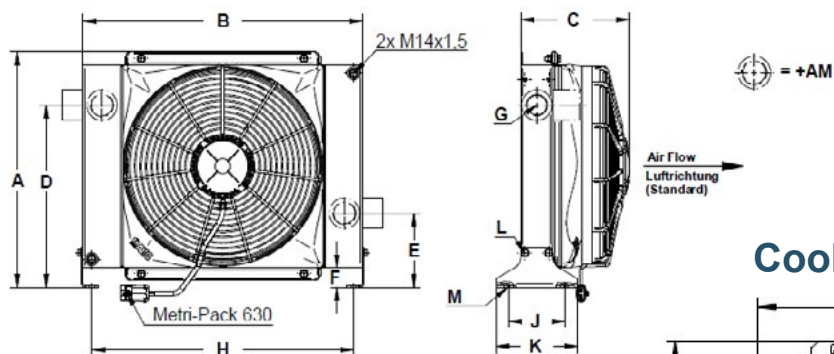
Model Size	Moto Voltage (V)	Metri-Pack 630 Female Plug Data	Number of fans	Approx. Current Consumption Per Fan (A)	Approx. Noise Level (dB(A), 1m)	Approx. Net Weight Of Assembly (kg)	Volume (l)	Working pressure (bar)
D4	12/24	Female Connector 10737825 Contact 12052456 Seal 15324994 TPA 12147060	1	8/4	80	6,4	1,4	26
D9	12/24		1	17/10	79	8,3	1,4	26
D11 / D11+AM	12/24		1	17/10	79	10,3	1,8	26
D17	12/24		1	29/20	81	14,2	2,7	26
D20 / D20+AM	12/24		1	29/20	81	19,5	5,1	26
D25	12/24		2	17/10	79	22,5	5,0	26
D40	12/24		2	29/20	81	31,0	7,1	26

Dimensions

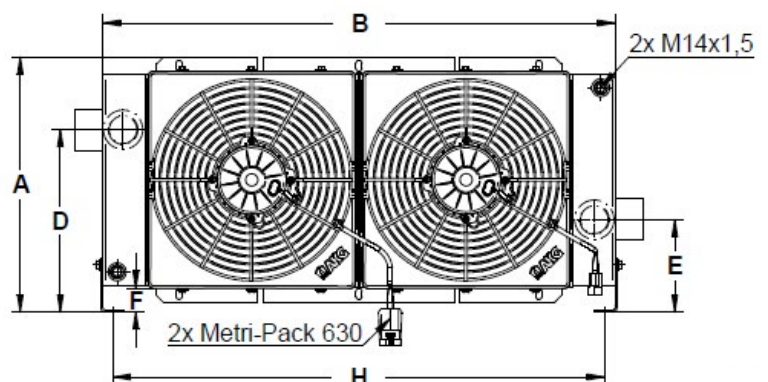
Model Size	A	B	C (approx.)	D*	E*	F	G	H	J	K	L	M
D4	309	350	170	161	161	39	G1	315	110	160	M8	LL 11x16
D9	371	400	170	194	194	39	G1	365	110	160	M6	LL 11x16
D11 / D11+AM	371	400	190	191 (284)	191 (99)	39	G1	365	110	160	M8	LL 11x16
D17	465	550	215	359	119	39	G1 1/4	515	110	160	M8	LL 11x16
D20 / D20+AM	465	540	245	359 (359)	119 (119)	39	G1 1/4	510	200	250	M8	LL 11x16
D25	371	740	220	264	119	39	G1 1/4	710	200	250	M8	LL 11x16
D40	465	940	245	359	119	39	G1 1/4	910	200	250	M8	LL 11x16

* [+ AM] all dimensions in (...)

Cooler Dimensions D4 to D20



Cooler Dimensions D25 to D40



Standard Scope of Supply of Oil-to-Air Cooling System

Cooler made of painted aluminium

Fan unit made of plastic

Support feed and fan-shroud (D4) all made of steel (powder coated)

Ordering Information

Model Size:	Motor Code:	Optional Custom Features:
D		
	12 V [12] 24 V [24]	with: - with Blower Fan [B] - PTFE Based Coating [+T] - ports in motor direction [+AM]
		without: - Fan-Unit [-FM] - Cooler only [C]

Order Code Example: Heat Exchanger, 9 kW, 12 V, sucking DC-fan > D9-12
Heat Exchanger, 25 kW, 24 V, blowing DC-fan > D25-24B

GLOBAL STANDARD AKG LINE DY

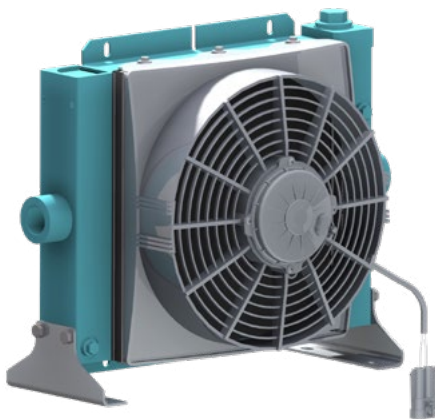
Mobile Hydraulic Oil-To-Air Cooling Systems with integrated Bypass

Product Information

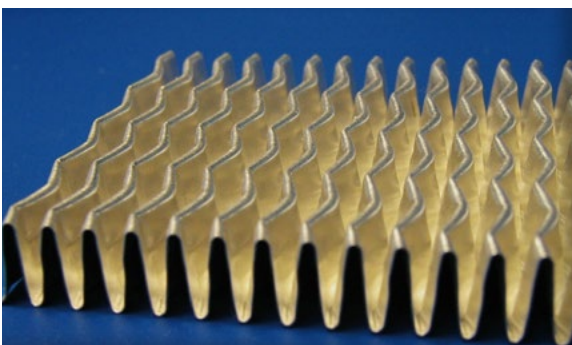
The **AKG-Line Bypass Series** consists of different models for mobile and stationary applications. It is available through our global specialist dealer network. This line of products embraces all-purpose complete cooling systems that comply with European or American Standards, is suited for normal or rugged environmental operating conditions and powered by AC- (AY), DC- (DY) or hydraulic-motor-driven (HY) fans.

Features of the DY series

- Avoiding overstraining at cold start conditions and high oil flows
- DC motor powered fan (12V/24V)
- Coolers can be universally used with hydraulic oil, transmission oil, engine oil and lubricating oil
- For the cooling of mineral oil, synthetic oil, biological oil as well as of HFA, HFB, HFC, HFD liquids, diesel fuel and water with at least 50% of antifreeze and anticorrosive additives (other media available)
- Can be exposed to operating pressures of up to 17 bar and operating temperatures of up to 120 °C
- Standard design with 2 bar opening pressure bypass valve (other pressures on request)



Cooling Air Fins

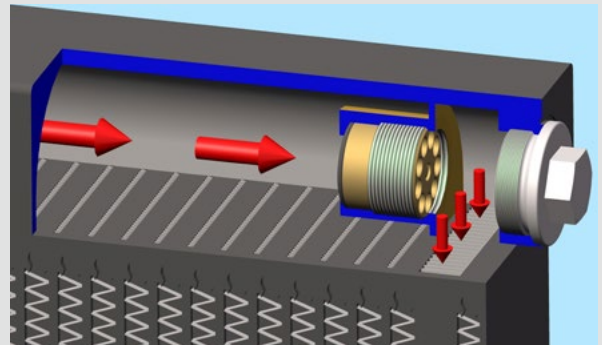


DY Series equipped with anti-clogging fins, easy to clean.

Operating Mode of integrated Bypass

Especially with high oil flows or at cold start conditions (low oil temperatures and high oil viscosities) high pressures can occur in the cooler core. In this case part of the volume flow is bypassing the cooler core through the integrated valve.

Like this a sufficient volume flow can be assured for the cooler and lubrication oil circuit - also with high pressure drops. Overstraining of the cooler core will be avoided effectively.



The installation of an external bypass is not necessary reducing costs and mounting space.

Benefits

- Compact design because of integration of bypass
- Faster approach of operating temperature
- Highly flexible, complete ready-to-use cooling packages
- 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 life span
- Standard equipped with fouling resistant cooling air fins

GLOBAL STANDARD AKG LINE DY

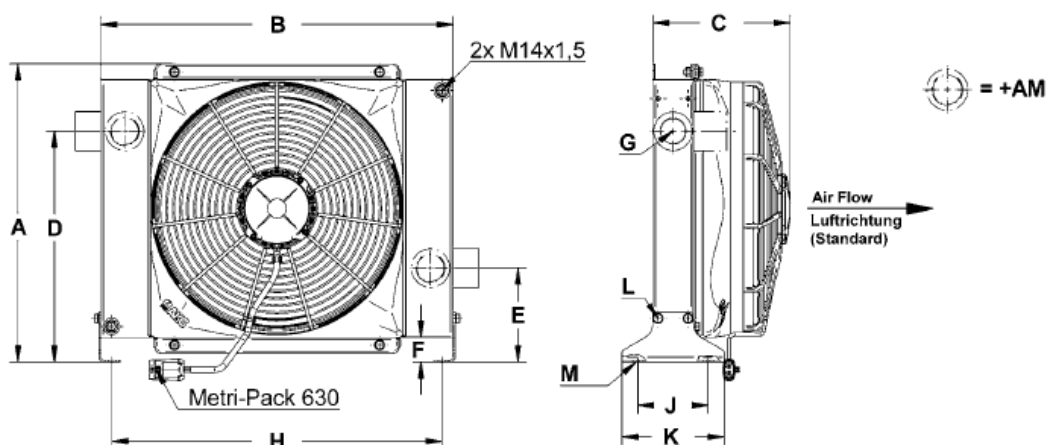
Technical Data

Model Size	Motor Voltage (V)	Metri-Pack 630 Female Plug Data	Number of fans	Approx. Current Consumption per Fan (A)	Approx. Noise Level (dB(A), 1m)	Approx. Net Weight of Assembly (kg)	Valve opening pressure (bypass) (bar)	Volume (l)	Working Pressure (bar)
DY11	12/24	Female Connector 10737825 Contact 12052456	1	17/10	79	10,3	2,0	1,8	17
DY20 + AM	12/24	Seal 15324994 TPA 12147060	1	29/20	81	19,5	2,0	5,1	17

Maßtabelle

Model Size	A	B	C (approx.)	D*	E*	F	G	H	J	K	L	M	All dimensions in mm
DY11	371	400	190	191 (284)	191 (99)	39	G1	365	110	160	M8	LL 11x16	
DY20 + AM	465	540	245	359 (359)	119 (119)	39	G1 1/4	510	200	250	M8	LL 11x16	

Cooler Dimensions DY11 and DY20 + AM



Standard Scope of Oil-to-Air Cooling System

Cooler made of painted aluminium with Bypass

Fan unit made of plastic

Support feed made of steel (powder coated)

Ordering Informationen

Model Size:	Motor Code:	Optional Custom Features:	
DY			
	12 V [12] 24 V [24]	with: - Blower Fan [B] - with Resistplast Coating [+R] - with Teflon Coating [+T]	without: - Fan-Unit [-FM] - Cooler only [C]

Order Code Example: Heat Exchanger, 9 KW, 12 V, sucking DC-fan, Bypass (2bar) -> DY9 - 12
Heat Exchanger, 25 KW, 24 V, blowing DC-fan, Bypass (2bar) -> DY25 - 24 B



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GLOBAL EXCELLENCE IN THERMAL MANAGEMENT

AKG is a leading global provider of customer-oriented system solutions, a reliable supplier of high-performance coolers, heat exchangers and thermal management systems that meet the highest quality standards.

The head office in Hofgeismar controls the progress and success of the Group, which has more than 3,000 employees and manufactures over 1.1 million heat exchangers per year in various designs. Worldwide, 11 independent production facilities in Germany, France, Latvia, Turkey, India, the USA, Brazil and China as well as 15 sales companies operate around the clock.

The AKG Group develops and produces high-performance heat exchangers as well as complete cooling modules and systems for construction machinery, compressed air systems, industrial coolers, agricultural and forestry machinery, vehicle construction, rail vehicles, aviation, municipal vehicles, household appliances and special applications.

For over 100 years, AKG heat exchangers have been synonymous with innovative solutions and the highest levels of engineering and manufacturing expertise.