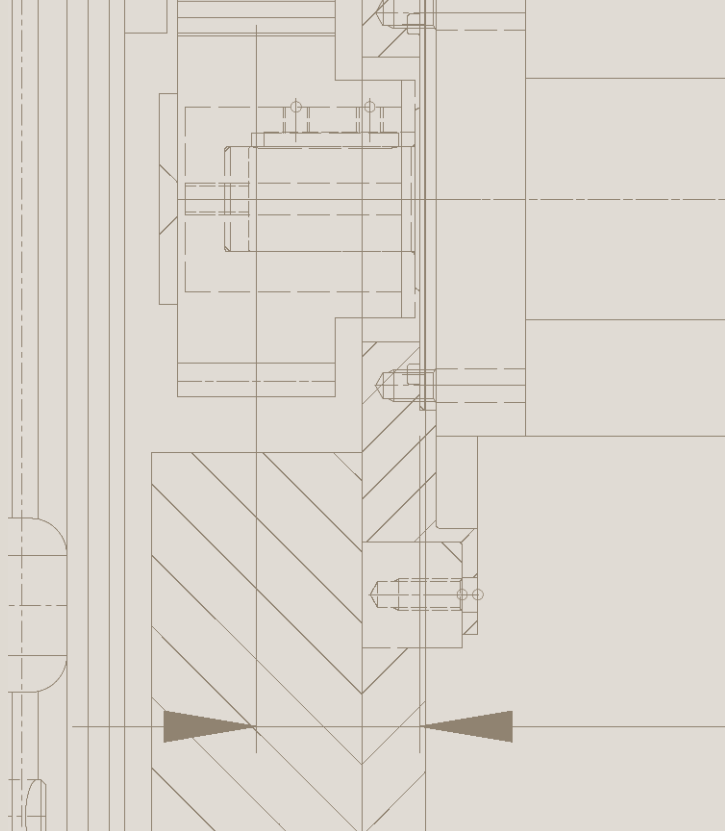


**KOLLMORGEN**®



# IP69K

hygiejne servomotor



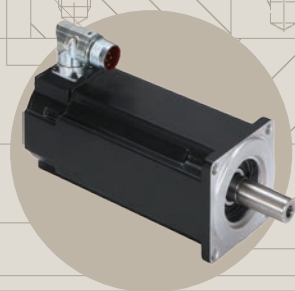
DELTA ELEKTRONIK A/S

# Universal Drive Solutions for the Food, Beverage, and Pharmaceutical Industries

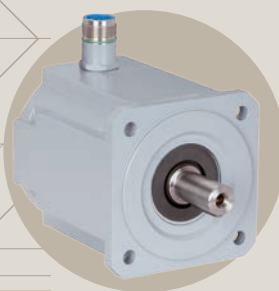
## Motors from Kollmorgen provide the perfect mix of performance and hygiene

The Kollmorgen modular system includes a wide range of motors with carefully graduated performance data, a variety of connection options, and feedback devices. With more than 500,000 standard motor designs, you will definitely find a suitable motor to meet your requirements.

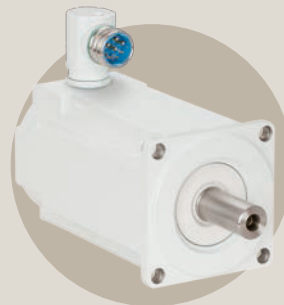
Meeting the strict legal regulations and the customers' requests for innovative yet cost-effective drive solutions always poses a challenge to the mechanical engineer. Drive solutions from Kollmorgen provide the perfect mix of hygiene and performance data for applications in normal and difficult operating environments, as well as for hygienic drives. Kollmorgen has invested more than 70 years of experience in the AKM, AKM Washdown, AKM Washdown Food and AKMH stainless steel motor ranges that prove themselves on a daily basis in the testing conditions of the food, beverage, and pharmaceutical industries.



AKM



AKM Washdown



AKM Washdown Food



AKMH Hygienic Stainless Steel

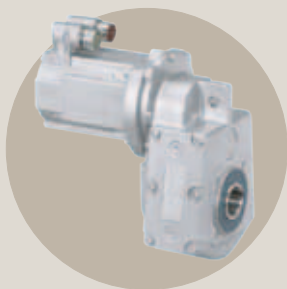
	AKM	AKM Washdown	AKM Washdown Food	AKMH
Area of application	Dry area	Wet area	Wet area	Wet area, hygienic
Suitable for high-pressure and high-temperature cleaning		Limited	Limited	X
Round stainless steel housing				X
Stainless Steel Shaft	X	X	X	X
FDA-compliant, coating suitable for use with food products			X	Stainless Steel Housing
Needle Printed Nameplate		X	X	
Laser cut rating plate				X
EHEDG/3A-compliant				X
FDA-compliant bearing grease and rotary shaft seal			X	X
Protection class	IP65	IP67	IP67	IP69K
Certifications	CE, UR, cUR, RoHS, GOST-R	CE, UR, cUR, RoHS, GOST-R	CE, UR, cUR, RoHS, GOST-R, FDA non-migration	CE, UR, RoHS, EHEDG, NSF/ANSI169, FDA, 3A, USDA
Frame Sizes	1 - 8	2 - 6	2 - 6	2 - 6
Continuous Stall Torque (Nm)	0.19 - 180	0.48 - 24.5	0.48 - 24.5	0.4 - 22
Feedback options	Comcoder, BiSS, EnDAT, Hiperface resolver	Comcoder, BiSS, EnDAT, Hiperface resolver	Comcoder, BiSS, EnDAT, Hiperface resolver	SFD3, Hiperface DSL (single-turn, multi-turn)
Optional Holding Brake	X	X	X	X
Optional single cable connection	X	X	X	Standard
Relative Price	€	€+	€++	€+++

# From Special to Standard Solution Thanks to Co-Engineering

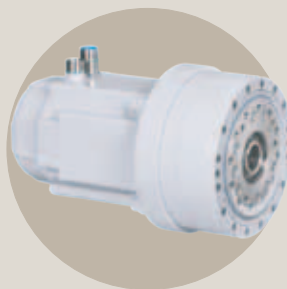
## Powerful, ready-to-install, washable: hygienic motor/gearhead combinations

Thanks to the Washdown, Washdown Food and Hygienic type AKM gearmotors, Kollmorgen has been able to realize most of the transport and rotary applications in the food and beverage industry, as well as downstream packaging using standardized drive solutions. This is based on combining an AKM servomotor with highly efficient gearheads.

The main advantages of the ready-to-install drive units with a consistent, hygienic design include: significantly reduced cleaning times due to smooth and water-repellant surfaces, low energy costs thanks to the highly efficient motor/gearhead combinations, as well as simplified design options for machines implemented by means of space-saving assembly without additional stainless steel casings. Thanks to the use of FDA-compliant materials and the specially rounded housing design, motor/gearhead combinations from Kollmorgen meet the highest hygiene standards and reduce the risk of product contaminations and recall campaigns.



AKM41E-BF06



AKM62L-F2CS-A35-59



AKM62K-BK17

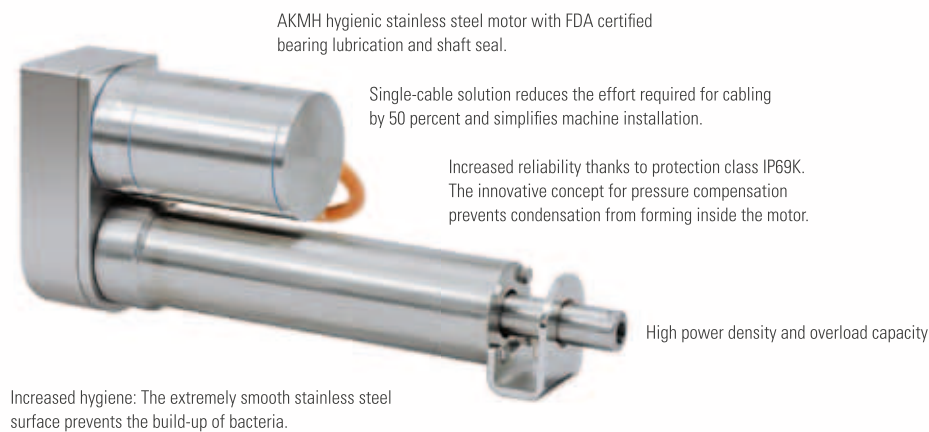


AKMH65M-AQT160-004

Type		AKM41E-BF06	AKM62L-F2CS-A35-59	AKM62K-BK17	AKMH65M-AQT160-004
Version		Washdown, coated	Washdown, coated	Washdown-Food, coated	Hygienic, stainless steel
Rated output torque	Nm	51	668	175	64
Endurable acceleration torque	Nm	76	1390	400	876
Average output speed	rpm	75	28	181	675
Maximum output speed	rpm	95	67	200	1000
Gear ratio		31.5	59	19.39	4
Transmitter		Resolver	Resolver	Resolver	Digital resolver SFD3, Hiperface DSL
Special features			Circumferential backlash of less than 1 arcmin, holding brake	FDA-compliant coating, lubrication, and bearing grease	Circumferential backlash of 13 arcmin, single cable solution
Benefits		<ul style="list-style-type: none"> <li>Developed for regular cleaning with common cleaning products with pH2 of up to 12</li> <li>Space-saving motor/gearhead technology</li> <li>Increased service life in rough environmental conditions</li> </ul>	<ul style="list-style-type: none"> <li>High peak performance and minimal circumferential backlash</li> <li>Extremely compact design including highest torque efficiency</li> <li>Long service life thanks to washdown coating</li> </ul>	<ul style="list-style-type: none"> <li>Lower energy cost thanks to high efficiency of the servomotor and gearhead</li> <li>Suitable for indirect contact with food products</li> <li>Simple to clean thanks to rounded housing design</li> </ul>	<ul style="list-style-type: none"> <li>Fast to clean thanks to hygienic design and single cable solution</li> <li>Simple startup by means of electronic rating plate and single cable connection technology</li> <li>Reduced risk of food products having to be recalled thanks to hygienic design</li> </ul>

## More freedom in hygienic machine design

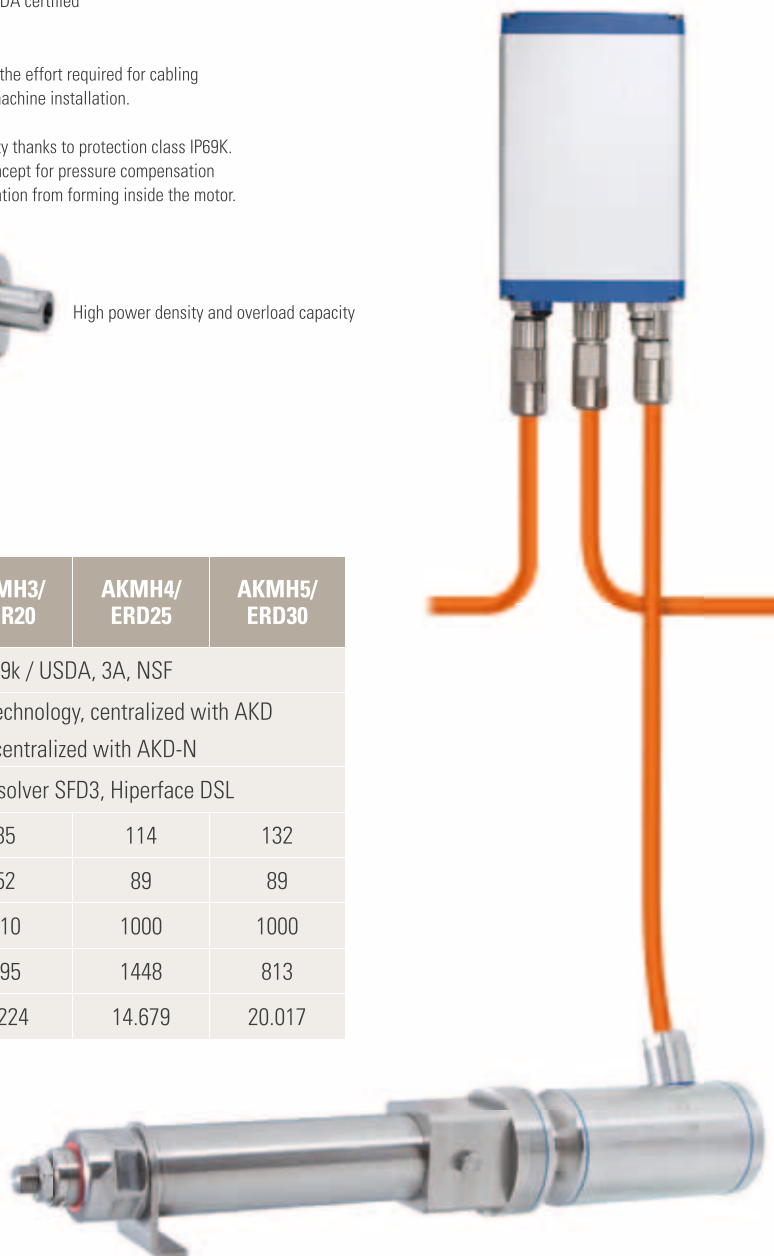
Four sizes with variable feed up to 1000 mm, centralized or decentralized connection technology, encoder and brake options, and seamless integration in all Kollmorgen automation solutions – various options to build optimally adapted hygienic linear drives. So machines are even simpler with Kollmorgen. Thanks to the IP69K design you have an open machine design without protective housing, and the single-cable technology reduces the effort required for cabling by 50 percent. Simple and more freedom!



## Overview of performance data

Stainless steel linear actuators		AKMH2/ ERD15	AKMH3/ EDR20	AKMH4/ ERD25	AKMH5/ ERD30
Protection class / hygiene standard		IP69k / USDA, 3A, NSF			
Connection technology / servo amplifier		Single-cable technology, centralized with AKD or decentralized with AKD-N			
Encoder options		Digital Resolver SFD3, Hiperface DSL			
Motor diameter	mm	72.5	85	114	132
Actuator diameter	mm	42	52	89	89
Feed (max)	mm	610	610	1000	1000
Feed speed (max)	mm/s	1016	495	1448	813
Feeding force	kN	0.89	2.224	14.679	20.017

Significantly less effort required for cabling and shorter cable routing paths thanks to single-cable technology and decentralized AKD™-N servo amplifier.

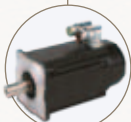


# AKD Servo Drive PLC interface

AKD servo drive is specifically designed with the versatility, communications, and power you need to expand machine performance and increase integration speeds. Motor set-up is plug-and-play and multiple Ethernet connectivity options provide both open and closed protocols. Online troubleshooting and data verification enable faster, bug-proof programming. And a broad power range in a smaller, compact design allows you to use these robust drives with a single interface while experiencing industry-leading, high-performance servo loops.



Micron™ Gearheads



AKM™ Servomotors



Kollmorgen Cartridge DDR™ Motors



Housed Direct Drive Rotary Motors



Direct Drive Linear Motors\*



Linear Positioners



Multi-Axis Precision Tables

## Best-in-Class Components

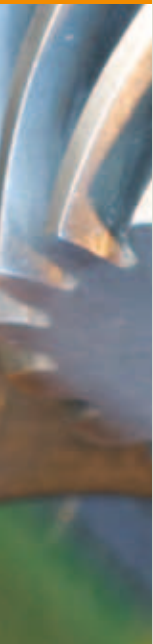
AKD works seamlessly with Kollmorgen motors and positioners—well-known for quality, reliability, and performance.



PLC or Motion Controller



AKD™ Servo Drive



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