

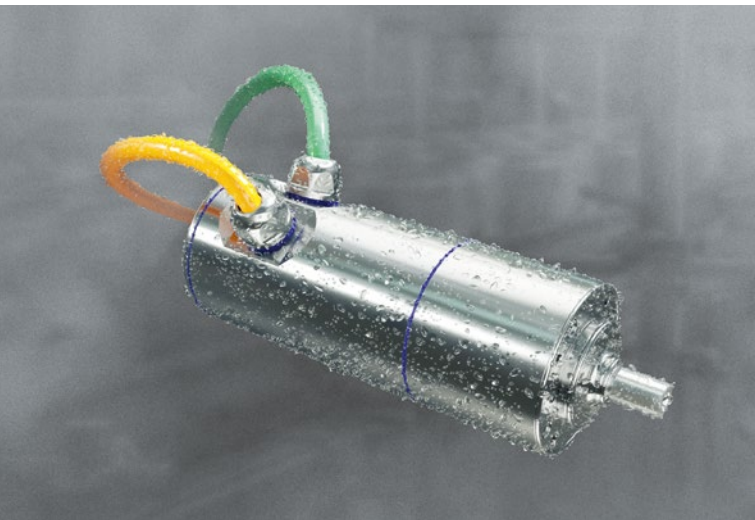
No corners or edges

Stainless steel servomotors and servo gearmotors
in a hygienic design



A clean solution!

To comply with the specific requirements applicable to hygienic areas, we have developed our product portfolio with a clear focus on a high level of flexibility and robustness. These drives are particularly suitable for use in the food, beverage, and pharmaceutical industries, where hygiene is critical and cleaning is intensive. Thanks to our MOVI-C® modular automation system, we can offer you the ideal drive for every system.



The stainless steel servo gearmotors in the PSH..CM2H.. series meet the strict guidelines of the European Hygienic Engineering Design Group (EHEDG) and the U.S. Food and Drug Administration (FDA). Thanks to their adapted housing design and the use of high-quality stainless steels, our servo drives are ideal for long-term use in damp environments. Boasting a particularly smooth surface with a roughness of less than 0.8 µm and rounded radii in excess of 3 mm, the servo drives are easy to clean, since there are no corners or edges to deal with.

1 The hygienic solution

Exceptional properties and an outstanding hygienic design

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2 Areas of application

Horizontal fill and seal machines
Cutting machines/slicers
Horizontal FFS machines
Vertical FFS machines

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3 Technical data

Precise information about performance and specifications

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These compact drives, comprising a synchronous servomotor and a planetary gear unit, are resistant to hot steam and corrosive cleaning agents. As a result, they are perfectly suited to clean-in-place (CIP) and sterilization-in-place (SIP) processes. The stainless steel servomotors in the CM2H.. series from SEW-EURODRIVE have been designed with **IP69K degree** of protection, so can easily cope with the challenges posed by acids, alkalis, high humidity, and varying temperatures. Their sturdy design ensures both a long service life and maximum availability.

The European Hygienic Engineering & Design Group (EHEDG) is a consortium of machinery and component manufacturers and experts from the food industry, research institutes, and health authorities. As an **EHEDG member**, we are committed to promoting the hygienic design of drives in all areas of the food industry. Our mission is to ensure safe food production – and our products are designed with exactly this in mind.



The hygienic solution

PSH..CM2H.. series stainless steel servo gearmotors

Fast cleaning

Rapid product changeover and faster cleaning processes. Simple cleaning and corrosion-resistant surfaces thanks to hygienic design and use of stainless steel.

Compact design

Thanks to pre-installed gear unit on the motor unit. Optimized servo gearmotors for particularly precise and dynamic applications in the food industry.

Easy startup

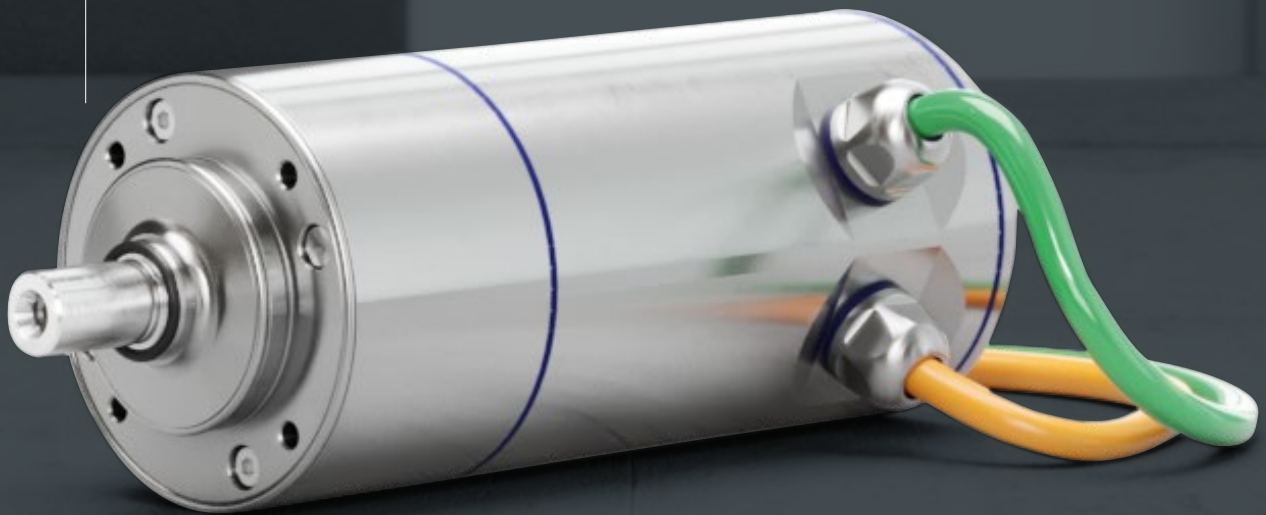
Short machine development time and faster installation thanks to the electronic nameplate.

High quality

Best “Made in Germany” quality for maximum machine design flexibility, durability, short delivery routes, and long-lasting product availability.

- **Robust**, degree of protection up to **IP69K**, and therefore suitable for high-pressure and steam-jet cleaning
- Resistant to aggressive and strong cleaning agents as well as hot steam; suitable for CIP/SIP – **clean in place** and **sterilization in place**
- **Hygienic** and **ergonomic design** with no corners, edges, or cavities; radii > 3 mm, roughness < 0.8 µm
- Designed according to the guidelines of the **EHEDG** – European Hygienic Engineering & Design Group
- **Drives comply with FDA** – Food and Drug Administration – requirements

- Nominal torque of **1.0 Nm to 103.6 Nm**
- Feedback systems (HIPERFACE® and resolvers) for **dynamic** and **safe positioning**
- **Stainless steel class V2A 1.4301 (AISI 304)**
- Entire portfolio comprising **5 sizes**, each in different lengths
- **Available with optional brake**
- Hygienic **cable glands**
- Seals **heat-resistant to 120 °C**



- **UL/CSA**-approved
- Maintenance-free
- Short delivery times
- **Simple, flexible, and modular**, with open communication interfaces
- **Optimized operation** on MOVIDRIVE® inverters from the MOVI-C® modular automation system
- **Higher productivity** thanks to **shorter cleaning time**
- Hygiene **risk minimization** for the machine

Areas of application

Horizontal fill and seal machines

Horizontal fill and seal machines are used in the food processing industry to fill pots, tubs, and jars with yogurt, pudding, and drinks. The containers fed into the machine are **separated, sterilized, filled, closed, sealed, inspected,** and finally **conveyed out**. The work steps are automated and need to be very precisely synchronized so as to ensure a high throughput.



1 PSH..CM2H.. series stainless steel servo gearmotor



2 CM2H.. series stainless steel servomotor with B5 flange and KES gear unit



Slicers

Slicers are used for efficient portioning processes with **precise** and **consistent cutting quality**. Slicers ensure efficient portioning processes with precise results and consistent cutting quality. These automated cutting machines can slice tough raw ham, boiled sausage, salami, cheese, and even plant-based products at speeds of up to 1500 slices per minute. The products are **fed automatically** into the machine and **processed** in lengths of up to 1800 mm. The direct drive for all components and the special cutters ensure a perfect slicing and portioning result. An open machine design with a clear layout allows for **easy cleaning** and maintenance, as well as rapid product changeover.

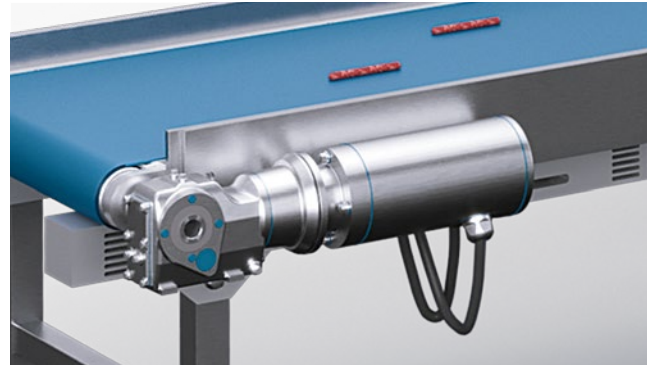


1 PSH...CM2H... series stainless steel servomotor with B5 flange



Horizontal FFS machines

Horizontal FFS machines are ideal for **packaging individual goods** in the food industry, such as chocolate bars and cookies. Thanks to SEW-EURODRIVE automation, **flexible format changes can be made rapidly, easily, and automatically**, thus enabling producers to handle various products and bag sizes with one single packaging machine.



1 CM2H.. series stainless steel servomotor with B5 flange and KES gear unit



Vertical FFS machines

Vertical FFS machines are ideal for packaging **bulk materials** such as nuts or candy. Bag size, pack weight, and product properties are decisive factors for the **automation of machine functions** and **motions**. The function libraries contained in the StarterSET include specially developed print mark correction functions for precisely monitoring the print image of the film to be processed.



1
PSH..CM2H.. series stainless steel servo gearmotors



2
CM2H.. series stainless steel servomotor with B5 flange and KES gear unit



Technical data

PSH..CM2H.. stainless steel servo gearmotor



Gear unit type	Gear ratio	Gear unit size	Motor size	Nominal torque M_n Nm	Power range kW	Flange diameter (outer) mm
PSH	3, 5, 7, 10	111	42S 42M 42L	1.0 – 5.7	0.22 – 0.38	73
		211	52S 52M 52L	2.3 – 13.8	0.46 – 0.61	88
		311	62S 62M 62L	3.1 – 27.6	0.68 – 0.97	107
		411	72S 72M 72L	6.0 – 56.1	1.23 – 1.83	138
		511	82S 82M 82L 82H	9.1 – 103.6	1.63 – 2.60	150

CM2H.. stainless steel servomotor



Motor	Standstill torque M_0 Nm	Dynamic limit torque M_{pk} Nm	Rated speed min^{-1}	Power range kW	Mass moment of inertia J_{mot} 10^{-4} kgm^2	Flange diameter (outer) mm
CM2H42S	0.45	1.7	9000	0.30	0.12	73
CM2H42M	0.75	3.1	8000	0.40	0.18	
CM2H42L	1.1	4.3	6000	0.50	0.24	
CM2H52S	1.4	5.2	5500	0.60	0.50	88
CM2H52M	2	7.1	4500	0.70	0.73	
CM2H52L	2.6	9.2	4000	0.80	0.95	
CM2H62S	2.2	7	5000	0.80	1.30	107
CM2H62M	3.9	12.3	4000	1	2.30	
CM2H62L	5.5	7.2	3000	1.30	3.30	
CM2H72S	4.7	14.7	4500	1.60	4.50	138
CM2H72M	8.5	26.8	3000	2.01	8	
CM2H72L	11.4	35.9	3000	2.32	11.50	
CM2H82S	6.6	20.7	4500	2.07	12	150
CM2H82M	12.30	38.7	3000	2.73	21	
CM2H82L	16.30	51.3	2500	3.04	30	
CM2H82H	20.40	64.2	2500	3.43	39	

For even more hygienic solution options

CM2H.. stainless steel servomotor with B5 flange



The B5 flange on the stainless steel servomotor makes it easier to fit the servomotor to various stainless steel gear units from the SEW-EURODRIVE modular automation system. This results in a **wide variety** of new **potential combinations** for a diverse range of applications.

Thanks to their special housing design and the use of **high-quality stainless steel**, the series of helical-bevel gear units (KES.), helical gear units (RES.), and SPIROPLAN® right-angle gear units (WES.) are ideal for permanently damp environments and for meeting the requirements of the food, beverage, and pharmaceutical industries, where hygiene is critical and cleaning is intensive. Just like the stainless steel servomotors, their smooth surfaces are **easy to clean, offer excellent resistance to acids**, and are also **resistant to alkalis**. Indentations in the housing have been largely avoided to minimize the number of places where liquids and dirt can be deposited and accumulate. The entirely stainless steel design thus effectively **prevents any form of corrosion**. Furthermore, all seals and connections are protected to IP69K (excluding shaft output).

Motor	Standstill torque M_0 Nm	Dynamic limit torque M_{pk} Nm	Rated speed min^{-1}	Power range kW	Mass moment of inertia J_{mot} 10^{-4} kgm^2	Flange diameter (outer) mm
CM2H42S	0.45	1.7	9000	0.30	0.12	73
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CM2H52M	2	7.1	4500	0.70	0.73	
CM2H52L	2.6	9.2	4000	0.80	0.95	
CM2H62S	2.2	7	5000	0.80	1.30	107
CM2H62M	3.9	12.3	4000	1	2.30	
CM2H62L	5.5	7.2	3000	1.30	3.30	
CM2H72S	4.7	14.7	4500	1.60	4.50	138
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CM2H82S	6.6	20.7	4500	2.07	12	150
CM2H82M	12.30	38.7	3000	2.73	21	
CM2H82L	16.30	51.3	2500	3.04	30	
CM2H82H	20.40	64.2	2500	3.43	39	



Stainless steel gear units – helical gear units, helical-bevel gear units, and SPIROPLAN® right-angle gear units

The RESF.. helical gear units in a flange-mounted design can be optimally integrated into machines. The efficiency-optimized KES.. helical-bevel gear units and WES.. SPIROPLAN® right-angle gear units are also available in a shaft-mounted design as a hollow shaft with key, hollow shaft with shrink disk, and hollow shaft with TorqLOC®.



Type	Max. output torque Nm	Gear unit ratio i
KES..37	200	3.98 – 106.38
KES..47	400	4.64 – 131.87
KES..57	600	4.69 – 145.14
KES..67	820	5.20 – 144.79
RESF27	130	3.37 – 135.09
RESF37	200	3.41 – 134.82
WES..19	80	5.09 – 167.59
WES..29	130	4.68 – 188.47

→ **Countless add-on options**
and a simple and faster route to the finished machine!





Other hygienic design topics
that might interest you

PSH..CM2H.. stainless steel servo gearmotors

RES/KES series stainless steel gear units

Machine automation

Food production and packaging

Reference – VMS filling machine



Simply scan the QR code to find out more!

https://www.sew-eurodrive.de/products/garmotors/stainless_steel_garmotors/psh-cm2h-stainless-steel-servo-garmotors/psh-cm2h-stainless-steel-servo-garmotors.html

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