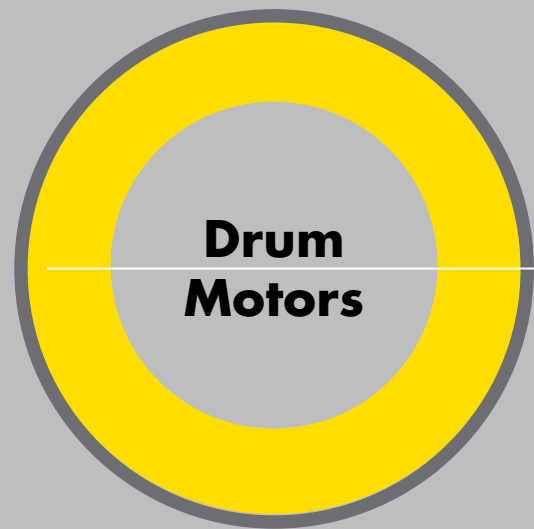




Interroll Drum Motors  
**Energy-efficient drives for  
unit load handling**



Asynchronous

S-Series  
i-Series

Frequency inverters,  
Options,  
Accessories

Synchronous

D-Series



Interroll Drum Motors are extremely efficient with efficiencies up to 83%



## Interroll Drum Motors: Efficient, space-saving, hygienic



Design that meets space-saving and hygiene requirements



Reliable baggage transport at the airport

Different material handling tasks require different solutions. However, the requirements are always the same: high efficiency, simple assembly, broad performance spectrum and maintenance-free.

Interroll Drum Motors are the perfect drive solution for material handling equipment in numerous industrial applications. Material handling systems in logistics and warehousing, packaging and sorting systems, the food industry or at airports – all profit from the compact design and high efficiency of Interroll Drum Motors, which are available in asynchronous and synchronous designs. The drum motors are perfectly suited for use in the food and pharmaceutical industries because, with protection class IP66/IP69K, they meet the highest hygiene requirements

complying with European Hygienic Engineering & Design Group (EHEDG) design criteria, Ecolab cleaning procedures and the regulations of the United States Food and Drug Administration (FDA) and European Commission Framework Regulation 1935/2004. If high dynamics and performance are what you want, such as in high-performance applications for packaging and sorting systems, Interroll Synchronous Drum Motors are the first choice.

The high efficiency of Interroll Drum Motors – up to 83 percent, depending on the type of motor – benefits every application and every system operator. Expanding your position in today's highly competitive global market requires efficiently organizing material flow processes and continuously improving your cost structure. The low overall operating costs of these drum motors make it very easy.

Depending on the application and requirements, three motor series and numerous accessories and options are available:

- ☉ S-Series – compact drive for light-duty conveyors
- ☉ i-Series – powerful drive for conveyors with a high-duty cycles
- ☉ D-Series – compact and robust drive for small belt conveyors with high dynamics

# There are many reasons...

... for using space-saving Interroll Drum Motors instead of conventional motors. Because the motor, gearbox and bearings are mounted within the drum shell, a drum motor takes up much less space than other motors. As a result, the belt conveyors have a **more compact** design and a **more space-saving** installation.

The installation of Interroll Drum Motors is significantly **faster and easier** – less than a quarter of the installation time needed for a drive with many individual components. Fewer components mean reduced costs for conveyor design and purchasing of parts.

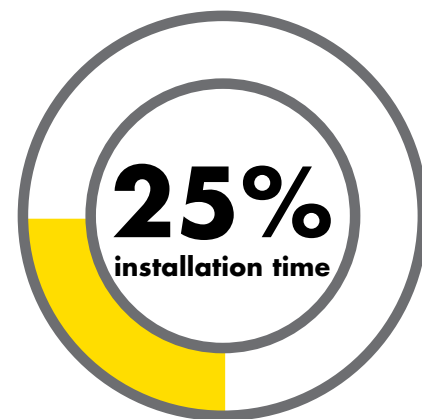
**Wear-resistant** Interroll Drum Motors keep operating at 100 percent even under aggressive environmental conditions, such as water, dust, grit, chemicals, grease, oil and even during high pressure wash-down procedures.

Thanks to the smooth, stainless steel finish and the hermetically sealed, totally enclosed design, **hygienic** Interroll Drum Motors are much easier to clean. This reduces the risk of contamination in food processing.

Our asynchronous drum motors have an efficiency of up to 78 percent; our synchronous drum motors offer up to 83 percent efficiency. This is what we mean with **true energy efficiency**, an unusual attribute for motors of this type and size.

Interroll Drum Motors have no protruding parts and, with the fixed external shafts, likely are the **safest drives** on the market for state-of-the-art material handling equipment.

Based on the design, the motors' internal components are protected against external influences, thereby rendering them **virtually maintenance-free**. In this way, Interroll Drum Motors ensure trouble-free operation in all types of applications.



Quick installation of Interroll Drum Motors compared to conventional drives



“Without taking into consideration the time and money saved on installation and maintenance, four times longer service life alone produces savings of 68.75%. Investing in a Drum Motors is more profitable than a conventional motor even with higher initial costs.  
The Interroll Drum Motors were, therefore, the right choice. They play an important role in enabling us to provide complete solutions that are truly hygienic, reliable and economic.”  
Miguel H. Alonso, Grupo HRG, Spain

„After conducting an in-depth analysis of the performance of the Interroll Drum Motor in our plant by the Technical University Aalborg, the results were more than convincing: up to 47% lower primary energy consumption.”  
Frank Lund, Purchasing Manager at Danish Crown, Denmark

„Besides aspects of compact design and efficient cleaning, we were faced with completely new challenges, such as directional changes by 90 degrees and continuous stop-and-go operation. We had to ensure the control of every movement of the conveyor system with high precision, and that is the point where the Interroll Synchronous Drum Motors come into their own.”  
Antoine Aveline, Industrialization Engineer at Meralliance, France



# Interroll Drum Motor overview



	80S	80i	113S	113i	138i	165i	217i	80D	88D	113D
<b>Technology</b>	Asynchron	Asynchron	Asynchron	Asynchron	Asynchron	Asynchron	Asynchron	Synchron	Synchron	Synchron
<b>Diameter</b>	81.5 mm 3.21"	81.5 mm 3.21"	113.3 mm 4.46"	113.5 mm 4.46"	138.0 mm 5.43"	164.0 mm 6.46"	217.5 mm 8.56"	81.5 mm 3.46"	88 mm 3.46"	113.5 mm 4.47"
<b>Gear material</b>	Technopolymer	Steel	Technopolymer	Steel	Steel	Steel	Steel	Steel	Steel	Steel
<b>Rated Power</b>	0.025 to 0.110 kW 0.070 to 0.110 HP	0.033 to 0.120 kW 0.02 to 0.160 HP	0.040 to 0.330 kW 0.050 to 0.440 HP	0.058 to 0.370 kW 0.080 to 0.500 HP	0.074 to 1.000 kW 0.2 to 1.34 HP	0.306 to 2.200 kW 0.5 to 3.0 HP	0.306 to 3.000 kW 0.5 to 4.02 HP	0.145 to 0.425 kW 0.2 to 0.56 HP	0.145 to 0.425 kW 0.2 to 0.56 HP	0.145 to 0.425 kW 0.2 to 0.56 HP
<b>Rated torque</b>	3.4 to 21.4 Nm 23 to 160.3 lbf in	2.3 to 26.8 Nm 16.4 to 196.0 lbf in	5.5 to 43.8 Nm 22.6 to 439.8 lbf in	7.4 to 86.4 Nm 48.3 to 568.7 lbf in	14.7 to 174.4 Nm 108.4 to 1286.1 lbf in	28.1 to 365.2 Nm 204.2 to 3200.7 lbf in	28.1 to 533.60 Nm 204.2 to 3931.9 lbf in	1.8 to 60 Nm 91 to 531 lbf in	1.8 to 60 Nm 92 to 531 lbf in	1.8 to 60 Nm 93 to 531 lbf in
<b>Belt pull*</b>	84 to 925 N 14 to 100 lbf	58 to 657 N 10 to 122 lbf	96 to 772 N 10 to 197 lbf	132 to 1522 N 11 to 356 F/min	216 to 2527 N 40 to 473 lbf	347 to 4453 N 64 to 991 lbf	261 to 4907 N 48 to 918 lbf	43 to 1472 N 57 to 330 lbf	39 to 1364 N 53 to 307 lbf	31 to 1062 N 41 to 239 lbf
<b>Velocity of the shell*</b>	0.049 to 0.913 m/s 24 to 212 F/min	0.100 to 0.980 m/s 11 to 231 F/min	0.068 to 1.107 m/s 16 to 266 F/min	0.048 to 1.515 m/s 11 to 356 F/min	0.041 to 2.005 m/s 16 to 472 F/min	0.084 to 2.527 m/s 20 to 598 F/min	0.126 to 3.344 m/s 26.1 to 450 F/min	0.040 to 1.600 m/s 16 to 315 F/min	0.043 to 1.728 m/s 16 to 341 F/min	0.055 to 2.219 m/s 22 to 437 F/min
<b>Shell length SL</b>	260 - 952 mm 10.6" to 37.5"	193 to 1093 mm 7.6" to 43.0"	240 to 1090 mm 9.4" to 42.9"	250 to 1400 mm 9.8" to 55.1"	300 to 1600 mm 11.8" to 63.0"	400 to 1750 mm 15.7" to 68.9"	400 to 1750 mm 15.7" to 68.9"	210 to 900 mm 8.2" to 35.4"	210 to 600 mm 8.2" to 23.6"	210 to 900 mm 8.2" to 35.4"
<b>Friction drive belt</b>	√	√	√	√	√	√	√	√	x	√
<b>Positive drive belt</b>	x	√	x	√	√	√	√	√	√	√
<b>Without belt</b>	x	√	x	√	√	√	√	√	√	√

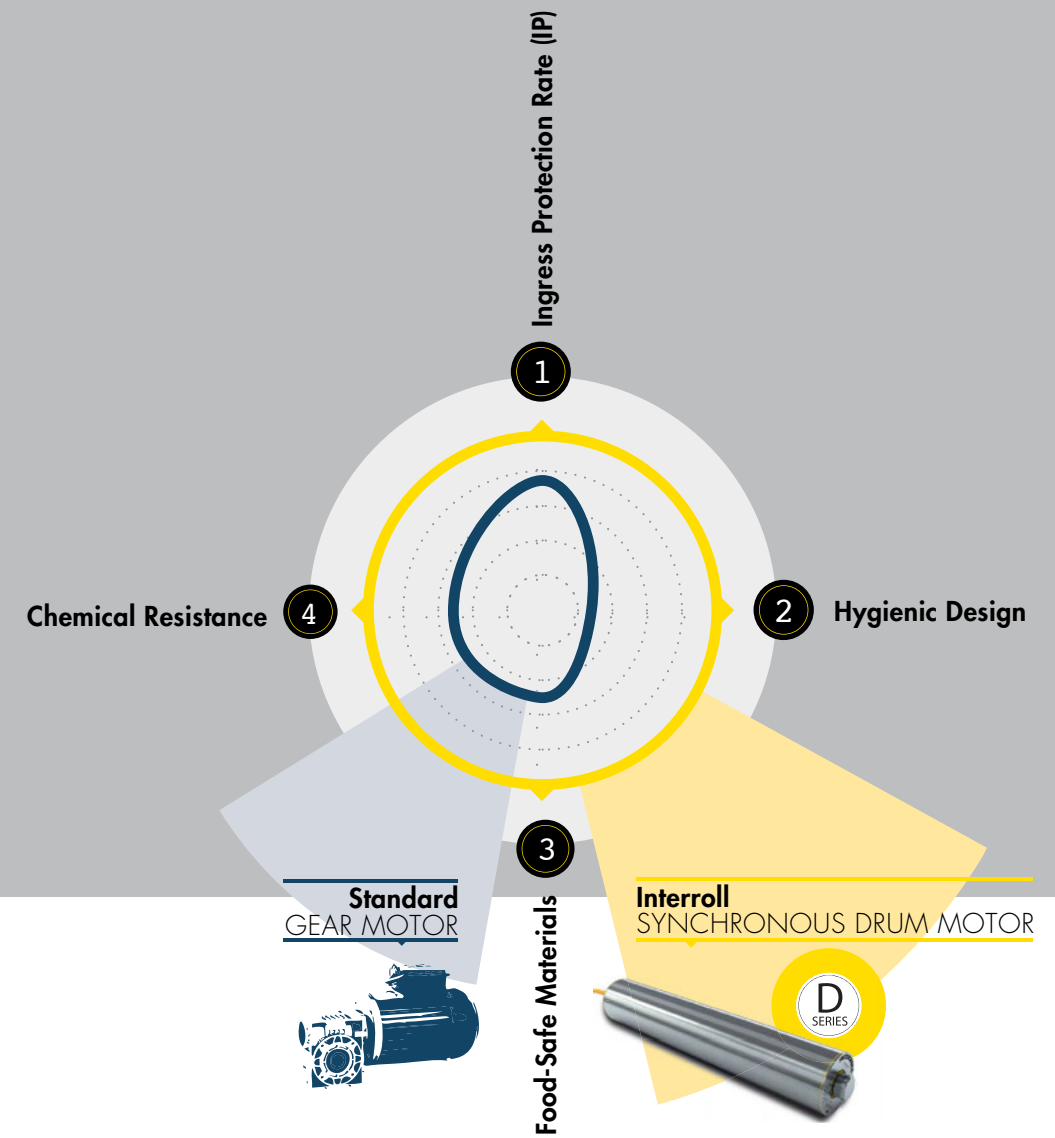
Note: \* Values of belt pull and velocity are given for the shown diameter  
For detailed technical data and further information on application guidelines, accessories etc. please visit [interroll.com](http://interroll.com)

# Interroll: Food Safety Comparison



To help food manufacturers all over the world comply with all of the strict regulations in terms of hygiene in their material handling processes, Interroll has created the most hygienic conveyor drive currently available on the market.

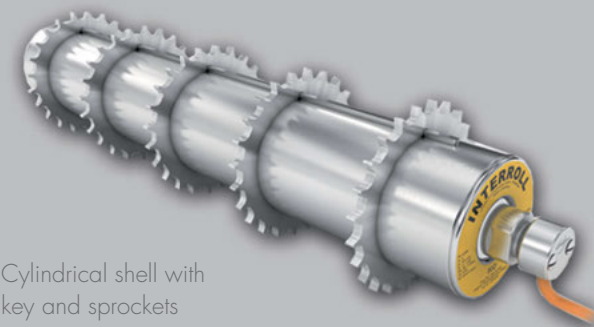
Conventional gear motors are bulky, complex to install, and most importantly, non-hygienic: tested and verified as non-cleanable by the independent organization Danish Technological Institute, they require expensive cabinets and guarding. The Interroll Drum Motor, instead, can be hygienically cleaned and disinfected regularly using high pressure water, steam and chemicals. This helps you achieve the highest possible hygiene standards.



IP 54	1	IP 66 - IP 69 K
Stainless Steel Enclosure	2	EHEDG
Mixed Materials - No Certification	3	(EC) 1935 / 2004, FDA
Mixed Materials - No Certification	4	Ecolab 5 Years



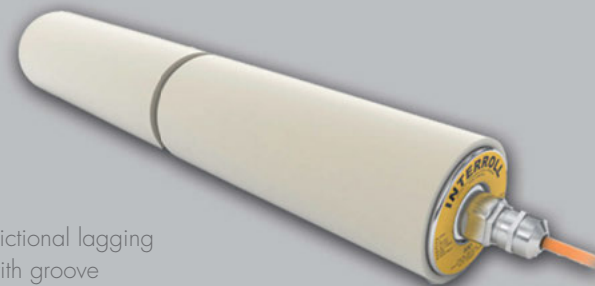
Hexagon shell with stainless steel sprockets



Cylindrical shell with key and sprockets



Profiled lagging for plastic modular belts



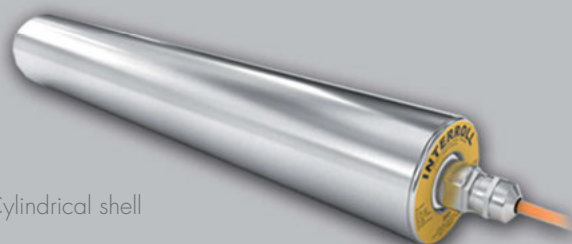
Frictional lagging with groove



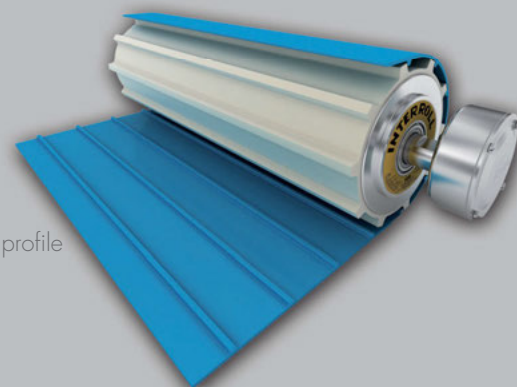
PU rubber coating for form-fit driven belts



Crowned shell



Cylindrical shell



Multiprofile

# Torque transmission: a perfect solution for every conveyor belt

The torque of the drum motor can be transmitted in different ways. Depending on the conveyor belt – plastic modular belts, positive drive solid homogeneous belts, belts made of steel braid or wire or the classic friction-driven belts made of rubber, PVC and PU – Interroll offers the perfect torque transmission method for every application.

All options are **easy to clean** and are **high resistance to the cleaning chemicals** used in food processing.

A specialty is the **new Multiprofile** for positive drive solid homogeneous belts: with only one profile, it is possible to drive **nine different belts**.

The Interroll Multiprofile is extremely easy to clean and meets the highest hygiene standards. In addition, it features low-noise running as well as a high resistance to oil, grease, and chemicals.

## Interroll Centre of Excellence



The Interroll Center of Excellence for Drum Motors in Baal (near Düsseldorf) is responsible within the global Interroll Group for all technical concerns ranging from development and application engineering to production and support for local Interroll companies.

The production area also includes the Coating Center for rubber-coated drum motors, which are intended for the hygienic production lines of the food industry.

Maximum efficiency tops the task list for the international team consisting of engineers and technicians of the Interroll Research Center (IRC). In close collaboration with the global Centers of Excellence, product management and sales, the work carried out here is aimed at new solutions and the improvement of existing products.

## **About Interroll**

Established in 1959 Interroll has grown to become the world's leading supplier of key products for intralogistics. Whether boxes, pallets or soft goods are to be handled, no other supplier has such a comprehensive range of products on offer.

That is why system integrators, OEMs and operators select Interroll as their partner for their internal logistics business. Worldwide.

The Interroll global network ensures quick delivery and superior service for every local customer. We inspire our customers and provide opportunities for them to increase efficiency.

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Interroll reserves the right to modify the technical features of its products at any time. Technical information, volumes, data and features are only rough guidelines.