

# **HYGIENIC COMPONENTS**

SAFEGUARD THE PROCESS



#### HOW TO ENSURE THE HYGIENE OF YOUR PROCESSES

# FAST CLEANING WITHOUT COMPROMISE

As the person in charge of a food manufacturer or pharmaceutical company, you know it best yourself: cleanability and hygiene are everything.

Residue-free cleaning is only possible if the components installed in your system **do not have any dead spaces**, **corners** or **edges**. If, on the other hand, components have critical spots, airborne spores can get into the product to be processed. This contamination endangers your process.

Hygienic components from MOVET do not provide a foothold for contamination thanks to their **well thought-out designs** and **smooth surfaces**. Seals protect the mechanics. Dead spaces are **reliably closed**. Parts are **visually detecta-**

**ble** thanks to the blue design and can thus be found quickly in case of loss. Components from our company are made of **food-grade materials** and are resistant to aggressive cleaners; soiling is easy to remove. You benefit from shorter cleaning times and reduced water consumption. Hazards such as the spread of bacteria are minimised.

MOVET has the right product for each of the different industries and applications: from standard products to hygienic components. Special solutions are implemented according to technical drawings, hand sketches or on the basis of a worn part.

Our experts will be happy to advise you.





Food compliant materials



Following hygienic design principles



Smooth surfaces



100% Tightness



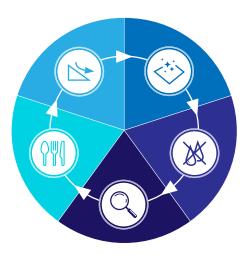
Visual Detectability



#### BE HYGIENIC. BE SMART. BE CLEAN.

# 5 FACTORS OF EASY TO CLEAN COMPONENTS

Hygienic components sustainably reduce the risk of contamination, simplify the maintenance routine and make **the entire cleaning process more ecological**. At the same time, **production costs are reduced** and **cleaning times are shortened**. The use of a **high-pressure cleaner** is possible with up to **8 bar**. Food safety increases significantly. You produce safe food or medicine.



#### 5 factors of easy-to-clean components

for fast cleaning and proactive protection

- 1. Food compliant materials
- 2. Following hygienic design principles
- 3. Smooth surfaces
- 4. 100% Tightness
- 5. Visual Detectability

#### 1. Food compliant materials

- √ No material coatings
- ✓ Corrosion resistant components
- ✓ Materials do not pass on anything to the product
- √ Food safe materials
- ✓ Sealing material on PU or NBR basis
- ✓ Corresponding certifications are fulfilled
- ✓ Food grade fat filling

#### 2. Following hygienic design principles

- ✓ Hygienic design compliant components
- ✓ Rounded geometry
- ✓ Sealed fastening elements
- ✓ Water can run off without leaving any residue

#### 3. Smooth surfaces

- ✓ Roughness of less than Ra 0.8 µm
- ✓ Particle adhesion is sustainably prevented

#### 4. 100% Tightness

- ✓ Sealing the moving parts
- ✓ Particles cannot penetrate
- ✓ Particles cannot escape
- ✓ Corners, dead spaces and crevices are covered
- ✓ Meets the highest protection class **IP69K**

#### 5. Visual Detectability

- ✓ Blue moving parts
- ✓ Visually easy to verify
- ✓ Detectable by optical monitoring tools
- ✓ Prevents confusion with food



#### BE HYGIENIC.



# THE BLUE WATERPROOF FLANGE BEARING

Blue Waterproof units are interchangeable with all bearing units used worldwide thanks to the same external dimensions. Therefore, they can be used for all existing machines. The system consists of a housing with stainless steel bearing insert, a protective cap and a shaft seal.

The flange bearing system facilitates cleaning and shortens the cleaning time. This is made possible by bidirectional seals, a well thought-out design and bearing inserts lubricated for life.

#### **HYGIENIC CONSTRUCTION**

No inward-facing dirt niches are formed. Dirt edges or dead spaces are not present. Double seals do not allow substances to escape into or out of the bearing. The special geometry of the seals is designed so that the **sealing lip** on the shaft **always faces outwards**.

A spring element in the shaft seal, which could fall out, was deliberately omitted.



#### **FOOD COMPLIANT MATERIALS**

The flexible sealing material TPU (thermoplastic polyurethane elastomer) is extremely resistant to vegetable, animal and mineral fats. The wear and abrasion resistance is high.

#### **SMOOTH SURFACES**

The smooth surfaces of the individual components allow media to flow off easily and prevent product residues from sticking. The cleaning time is shortened. Costs are reduced.



#### BE HYGIENIC.



# THE BLUE WATERPROOF HOUSING

#### THAT IS WHY OUR THERMOPLASTIC ENCLOSURE IS INTERESTING FOR YOU

- ✓ Plastic (PBT) is resistant to many chemicals
- ✓ Easy to clean thanks to smooth outer surfaces
- ✓ Overload protection through stainless steel reinforcement sleeves
- ✓ Optional gasket-fitted cap screws or cap nuts in stainless steel 3-A
- ✓ Long-lasting safety over many cleaning cycles
- ✓ Easy detection due to blue colour

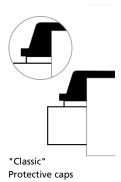
#### Relubrication-free

Due to housing without grease nipple, as the insert is lubricated for life



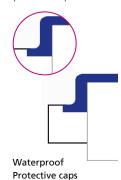
#### Risk point

due to dirty edge



#### Without risk point

due to surface-pressed protective cap



#### **HYGIENIC CONSTRUCTION**

The dirt edge between the housings and the protective caps has been eliminated.

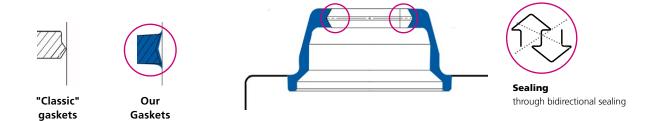
This special development is **only available from MOVET**. In conventional systems, the protective cap is connected to the housing in such a way that dirt can get stuck between the elements.



#### BE SMART.



# THE WATERPROOF SEALING SYSTEM

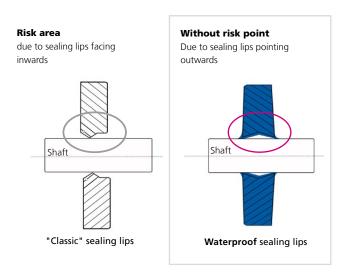


#### **100% TIGHTNESS**

In conventional bearings, microorganisms and other substances can overcome the seal. On the reverse side, they multiply undisturbed. Airborne spores can then contaminate the processed goods if the population is high enough. The consequences can be dramatic for product manufacturers. Seals from MOVET have bi-directional protection. The result is a waterproof and dustproof connection of the components, tested to **IP69K**.

#### HOW YOUR PROCESS RELIABILITY IS INCREASED BY BIDIRECTIONAL PROTECTION

- ✓ Particles neither get in nor out
- ✓ No destruction of the surface tension of the lubricant
- ✓ Clean product zones, as bearing grease cannot leak out



#### **HYGIENIC CONSTRUCTION**

The special geometry of the Waterproof seals is designed so that the sealing lips always face outwards.

This means that no wedge-shaped, inwardly directed dirt niches are formed. Risky spots are therefore not present.

#### LONG-TERM FUNCTIONAL

When installed, the pre-tensioned seals achieve a reliable and permanent seal. The flush fit ensures that the function is fulfilled in the long term.

#### VISUAL DETECTABILITY

The blue contrast colour increases process reliability. If contamination by splintering parts is suspected, the blue seals and housing material are visually detectable.



#### BE CLEAN.

# LUBRICATED-FOR-LIFE STAINLESS STEEL INSERTS

# Where are 200 kg of grease?

Average quantities of grease consumed at **253 conventional bearing positions** in the production line:







No grease nipple
Required, as the insert is lubricated for life

The stainless steel insert is lubricated for life, with food-grade grease filling according to NSF H-1 approval. A grease nipple on the housing is therefore not required. Incorrect relubrication is ruled out.

**Expenditure on maintenance intervals is reduced.** Components do not need to be relubricated and grease does not need to be removed.

**The water requirement is reduced** because excess grease does not have to be removed from the surfaces. This saves resources and reduces the burden on the environment.

There is no need to buy and replace new bearings due to incorrect relubrication. This saves additional costs.



#### **REDUCE YOUR CLEANING EFFORT**

# **CERTIFIED LEVELLING FEET**

#### THAT'S WHY CERTIFIED MACHINE FEET ARE THE PERFECT COMPLEMENT TO YOUR MACHINE:

- ✓ 100% tightness of the moving parts
- ✓ Simplification of the cleaning process
- ✓ Germ infestation is sustainably prevented
- ✓ Food safety through visually detectable seals





**3-A levelling foot**with mounting sleeves and vulcanised anti-slip
coating EPDM blue



## HYGIENIC SOLUTIONS FOR YOUR REQUIREMENTS



# NORMS AND SANITARY STANDARDS

At MOVET, you receive components that have been developed according to the highest quality standards.

#### **FOOD COMPLIANT MATERIALS**

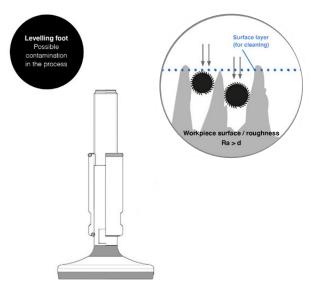
#### WE ADHERE TO THESE REGULATIONS

- ✓ FDA regulations
- ✓ EU Regulation 1935/2004
- ✓ EU Regulation 10/2011

- ✓ EU Regulation 2023/2006
- ✓ Tested according to **IP69K**
- √ Sanitary Standards

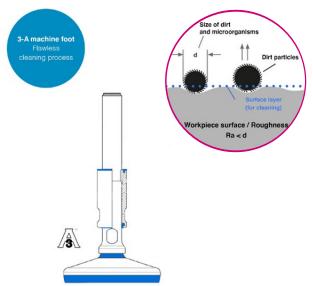
#### **SMOOTH SURFACES**

#### **SURFACE FINISH IN COMPARISON**



#### "Classic" levelling feet

Due to the rougher surfaces of "classic" levelling feet, dirt particles can remain in the material surface during the cleaning process.



#### **Levelling feet from MOVET**

The 3-A standard defines a surface roughness below Ra 0.8  $\mu$ m. Machine feet from MOVET offer you maximum surface quality. A cleaning process could not be more effortless.



#### LASTING PREVENTION OF GERM INFESTATION



# 3-A CERTIFIED MACHINE COMPONENTS



#### **HYGIENIC NUT STAINLESS STEEL 3-A**



- ✓ Captive gaskets
- ✓ Crush-proof (prevention of overloading)
- ✓ Polished surface, < Ra 0.8 µm

#### **HYGIENIC SCREW STAINLESS STEEL 3-A**



- ✓ Captive gaskets
- ✓ Crush-proof (prevention of overloading)
- ✓ Polished surface, < Ra 0.8 µm

#### **HYGIENIC U-HANDLES STAINLESS STEEL 3-A**



- ✓ With 4-fold silicone gasket
- ✓ Enable fastening without dead space
- ✓ Dirt particles do not stick

#### **HYGIENIC STAR KNOB STAINLESS STEEL 3-A**



- ✓ Comprehensive front hygiene protection
- ✓ Counteracts dirt accumulation
- ✓ The blue silicone seals are visually detectable

#### **HYGIENIC TURN LATCH STAINLESS STEEL 3-A**

#### NEU



- $\checkmark$  Reliably pull the enclosure door onto the sealing frame
- √ The adhesion of dirt is blocked
- ✓ Ergonomic for heavy doors

KOMPONENTEN

#### **HYGIENIC TURN LATCH STAINLESS STEEL 3-A**



Triangular spanner flat, **Type A** 



Two-sided spanner flat, **Type D** 

- ✓ Two seals secure the closure technology
- ✓ With special certified silicone seals
- ✓ Slopes make it easier to close the door



Two-sided spanner flat, **Type E** 

#### **HYGIENIC TURN LATCH SELF-SEALING STAINLESS STEEL 3-A**

#### NEU



- ✓ Control cabinet doors can be reliably pulled onto the sealing frame
- ✓ Variable adjustment is possible due to the screwable tongue
- √ Two seals keep the closure technology tight

#### **KEY FOR TURN LATCH 3-A**



Key for turn latch, triangular, **Type A** 



Key for turn latch, two-sided, **Type D** 

✓ Suitable for operating the 3-A twist locks



Key for turn latch, two-sided, **Type E** 

#### SILICONE GASKETS 3-A



Construction components

- ✓ Certified
- **✓** Universal
- √ Applicable

#### On request

Customised gaskets

Our experts will be happy to advise you.

#### PROCESS-SAFE AND HYGIENICALLY FLAWLESS

# **BLUE MODULAR BELTS**

Especially in demanding hygiene areas, modular belts with optimal cleaning properties and variation options are needed. The very low friction values make the individual processes of the conveyor systems energy-efficient. The blue colour makes them easy to find.



#### Modular conveyor belts for wet applications



#### SCANBELT 12-401

Open modular belt with rounded, grid-shaped surface. Maximum air throughput for cooling processes. Low pitch for smallest belt transfers (knife edge) with excellent cleaning properties at the same time.



#### **SCANBELT 25-800**

Closed belt with smooth surface especially for food transport. Smooth surfaces on the top and bottom allow unhindered drainage of the cleaning media.



#### SCANBELT 50-801

Open modular belt with smooth surface and high tensile strength. Rounded structures favour gentle product handling.



#### **SCANBELT S. 101**

The radius belt with low collapse factor. Optimal for S and J curves for spiral conveyors or complex curve applications. High traction meets low product adhesion.

CONFIGURE MODULAR BELT NOW WWW.K.MOVET.DE



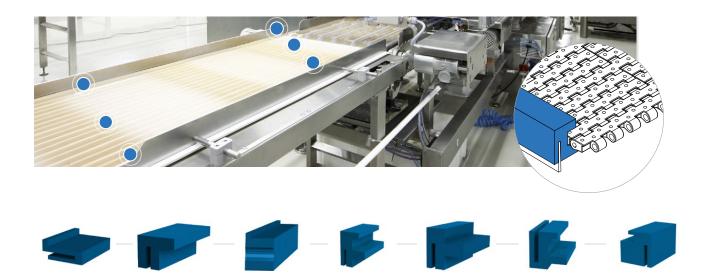


### THE PERFECT ADDITION FOR YOUR MODULAR BELT

# **CONVEYOR WEAR STRIPS**

All our conveyor wear strips are certified for use in the food sector. And are characterised by **optimum toughness, wear, impact and break resistance**. The use of pure material (PE 1000) results in a long service life.

- √ High chemical resistance
- ✓ Antistatic properties (optional)
- ✓ Special designs possible



#### **VERSATILE AND FLEXIBLE IN USE**

# FIX ADHESIVE STRIPS

Depending on the thickness and radius, Movet Fix conveyor wear strips are also used in radius applications and thus make filigree designs possible. The wear-resistant strip material improves energy efficiency through low friction values. The optimum adhesive force is achieved immediately.

- ✓ Quick assembly
- ✓ Wear protection to stick on
- ✓ Antistatic, ESD on request

#### On request

• Individual widths up to 650 mm





#### INCREASES THE SERVICE LIFE OF THE CONVEYOR SYSTEM

# **MULTIFLEX-CHAIN TYPE 1702**

The Multiflex chain type 1702 is particularly suitable for crate washers. Thanks to reinforced top plates, the wear resistance is high. The hinge bar is made of stainless steel. Reinforced hinges ensure a high tensile force. High-quality materials additionally ensure quiet running properties.

- √ For crate washers
- ✓ Reverse operation possible
- ✓ Smallest possible curve radius 140 mm

#### On request

• Driver assembly



#### **REDUCES DOWNTIME**

# POLY-STEEL ROLLER CHAIN

The optimised plastic material enables lubricant-free application and **increased wear resistance in wet and humid environments**. Bolts, external or angular lugs are made of stainless steel. The operating temperature range is from -20°C to +80°C. The chains operate completely maintenance-free. Downtimes and costs are reduced, the environment is protected. Due to the material combination, they also run quietly.

- ✓ Maintenance-free
- ✓ High durability
- ✓ Low noise
- ✓ Lightweight
- ✓ Environmentally friendly
- ✓ Special attachments available





#### **DETECTABLE AND HYGIENICALLY FLAWLESS**

# MOVET SPECIAL GASKETS

MOVET special gaskets can be adapted to all conditions and areas. Low and very high pressures are possible, such as in hydraulic systems or vacuum applications. They can also be used for axial and radial combined movements.

The **IP69K** test showed that the bidirectional sealing is absolutely safe. When selecting materials, chemical resistance, matching the physical properties, are the main criteria.

There is no universal seal, but there is an ideal material for your application. MOVET supports you in the selection process and focuses on technical solutions and economic considerations. Size, colour and material depend on your requirements. Detectable or antistatic materials are possible.

- ✓ Specifically designed
- ✓ Speed adjusted
- ✓ Axial movement possible

#### THE MOVET PRINCIPLE

Simply what you need:

**CHOOSE ANY SIZE, COLOUR AND MATERIAL** 







# Resistant Against many chemicals Food safe No ingredients are released into the food Custom-made gaksets possible POUBLE LIP-SEAL Absolutely tight due to bidirectional lip seal





A brand by
HADI GmbH
Industrievertretungen
Stuttgarter Straße 11
73614 Schorndorf
Germany

Phone: +49 7181/980 32 00 Fax: +49 7181/980 32 48 Email: info@movet.de

#### www.movet.de

