OVER 65 YEARS OF LEADERSHIP IN ENGINEERING AND HIGH PERFORMANCE PLASTICS

COMPONENTS FOR INTRALOGISTICS SYSTEMS
In 1968 faigle started to develop the first roller made of thermoplastic polyurethane. Since then, faigle has continued to successfully develop and refine its plastic rollers. Today, faigle supplies millions of rollers every year for sorting plants, conveying systems and warehouse logistic systems to renowned manufacturers like Vanderlande, Beumer, TGW, Siemens and many more.

faigle rollers are used all around the world in any type of application which combines a demand for long service life and high performance. They are just as capable of meeting the harsh requirements for continuous use in subway escalators as they are of meeting the demands of fast-moving luggage sorting systems. Not only can faigle lay claim to a leading position among international competitors, but we also impress with a wide range of tailor-made products for Intralogistics systems which represent excellent value for money.
APPLICATION ENGINEERING, DEVELOPMENT
The faigle Development and Technology Centre is home to experienced engineers who work together to transform specific customer requirements into tailor-made faigle solutions.

In the process, they can fall back on a knowledge database full of empirical data, test results and expertise from over 65 years of faigle development.

Our engineers work with state-of-the-art tools:
- 3D CAD Pro/ENGINEER
- Finite Element Method (FEM) based systems for computer-assisted strength calculations
- Mould flow analysis for simulation and optimisation of injection moulding processes
- Rapid Prototyping for fast and cost-effective manufacturing of demonstration models and prototypes

QUALITY ASSURANCE LABORATORY
Testing of faigle rollers is performed with state-of-the-art equipment in our laboratory.
- Dynamical roller test benches
- Dimension control
- IR-spectroscopy
- CAQ System
- Digital Microscope
- Peeling-test
- Linear-tribological-test bench
- Rolling resistance test stand
- Ball bearing noise level test
- Flattening test

DYNAMICAL ROLLER TEST BENCH
Technical Specification
Speed: up to 5 m/s adjustable
Max. load: 300N – 8000 N
dynamical load programs (2 load levels) possible
Possible roller Ø: up to 160 mm

ROLLING RESISTANCE TEST STAND
Technical Specification
Speed: up to 5 m/s
adjustable acceleration
Max. load: 900 N
Possible roller Ø: 50 - 205 mm
Our roller treads are made from faigle's own PAS® PU-H, a thermoplastic polyurethane. You have a choice of different hardness levels for your application.

**ABRASION RESISTANCE**

PAS® PU-H offers many times higher abrasion resistance than, for example, rubber. This makes PAS® PU-H the perfect roller material for the tough conditions in continuous operation. For you, this means less contamination of the rails due to abrasion as well as an exact guidance of the system over a long time.

**TEAR RESISTANCE**

The high tear resistance of PAS® PU-H prevents damage to the running surfaces, e.g. due to sharp edges or chips, from developing into larger cracks or crevices. This increases the operational safety of your system and you are protected from sudden failures by breaks in joints.

**DAMPING BEHAVIOUR**

PAS® PU-H has excellent damping properties and is able to absorb shock and disturbing vibrations effectively. Thus, our material guarantees that your system runs quietly and with low vibration.

**ELASTIC RECOVERY**

PAS® PU-H has excellent elastic recovery properties, lying well above the level of e.g. cast polyurethane. This effectively prevents the permanent deformation or flattening of the rollers in your application. For particularly demanding applications, our specially developed PAS® PU-TCS is at your disposal.

**HYDROLYSIS RESISTANCE**

Conventional polyurethane can be badly damaged by water penetration. Therefore, with PAS® PU-H faigle has developed a special hydrolysis-resistant material to conquer this problem. Various tests and more than 20 years of using this material in the field has proven that by using our material the lifetime in a humid environment can be more than doubled compared to conventional materials. This allows carefree use of our rollers also in regions where other materials fail.

**BALL BEARINGS**

Every year, faigle procures over 15 million ball bearings from long-term, approved and audited European and Asian suppliers. This gives us great experience in specifying and testing ball bearings. In addition to the proven premium brands, we can also supply our own faigle SFBC ball bearings. These are high-quality, Chinese bearings that are manufactured, tested and regularly audited according to the faigle standard. There are a variety of designs available: In addition to the standard ball bearings with rubber seals, low-friction, deep-freeze or stainless steel bearings are also available. You benefit from our top conditions in ball bearing procurement and can rely on the operational reliability and tested quality of the ball bearings used by faigle.
faigle COMPONENTS FOR INTRALOGISTICS
VERSATILE

SUPPORT AND GUIDING ROLLERS
- High load capacity
- Hydrolysis resistant
- Excellent wear resistance
- High quality ball bearings
- Long service life

DIVERTER ROLLERS
- High grip
- Reliable bonding of tire
- Static dissipative

SUPPORT AND GUIDING ROLLERS SE
- Energy efficient & quiet
- Unique damping system
- Low-vibration concentricity
- Modern colour concept

HEAVY DUTY CHAIN SLIDE-RAILS
- Highest compression strength
- Excellent wear resistance
- Low friction

SHUTTLE WHEELS
- High grip
- Precise roundness
- Vibration dampening

SHUTTLE FLAPS
- Highest durability
- Function integration
- Replacement for machined metal part

WHEEL SHAFTS MADE OF PLASTIC
- Damping of vibrations as well as impact-resistance
- Corrosion resistant
- Replacement of metal which leads to much lower weight

CUSTOM MADE PRODUCTS & ASSEMBLIES
- Specifically designed for various applications
- Exclusive production for one customer
- Product development together with faigle engineers
- In-house assembly

CUSTOMER VALUE

- High load capacity
- Hydrolysis resistant
- Energy efficient
- Extremely abrasion resistant
- Low flattening
- High Quality ball bearings
- Noise and vibration dampening