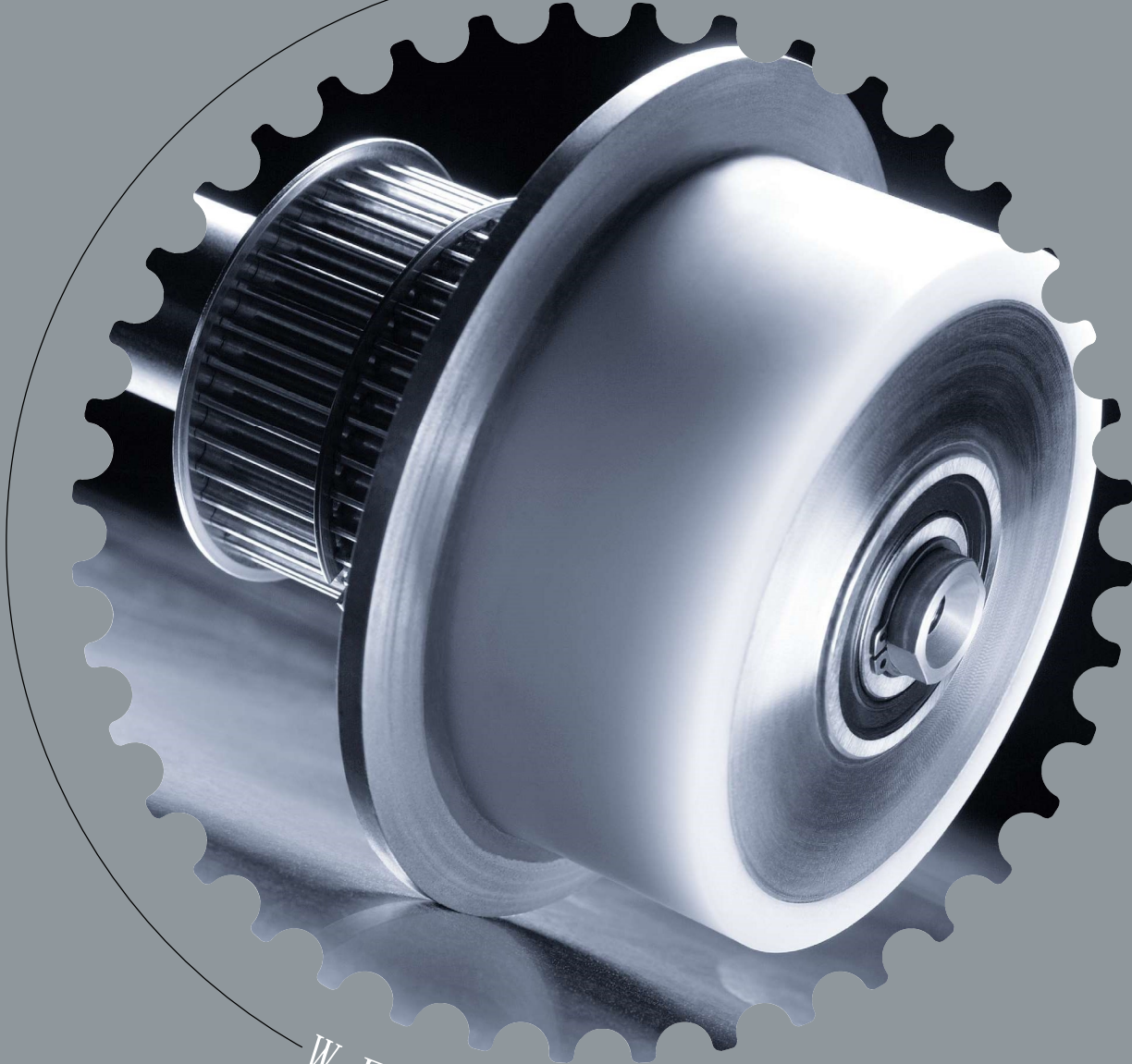


THE POWER OF [E]MOTION



WF Tragrollen - Schwerlast

WF Conveyor Rollers - Heavy-duty

 **WALTHER FLENDER®**
DIE GRUPPE

THE POWER OF [E]MOTION

CN We are in motion for you ...

...我们以创新的服务理念和个性化的系统的解决方案与您共同开发。Walther Flender集团代表着专业知识、经验和承诺。除了汽车行业外，在驱动和输送技术，夹紧和轴承技术领域拥有一流的技术和工匠的专业知识。我们期待为您提供更多的方案。

70多年来，作为一个家族企业和正时皮带传动的市场领导者，我们提供完整的产品系列：从单独制造的零件，到驱动组件和预安装的组件，再到针对特定行业的完整解决方案。

沃特福兰德集团 - 核心技术

传动技术：正时皮带传动，非正时皮带传动，变频器，齿轮，集成组件。

输送技术：输送单元、机盖、系统组件。

夹紧和轴承技术：胀紧套，调整圈，滑动轴承。

汽车：转向部件，轴承座，正时皮带，雨刷片，传感器。

GB We are in motion for you ...

... with innovative, new service ideas and individual system solutions which we develop together with you. The Walther Flender Group stands for expertise, experience and commitment. With top class technology and craftsman's know-how in the areas of drive and conveyor technology, clamping and bearing technology, in addition to the automotive sector.

We're looking forward to do more for you.

For more than 70 years as a family company and a market leader for timing belt drives, we have been offering a complete product range: from individually manufactured single parts, to drive assemblies and ready-to-install components, to industry-specific complete solutions.

The Walther Flender Group – core skills

Drive technology: Timing belt drives, non-positive belt drives, frequency inverters, gears, assemblies

Conveyor technology: Conveyor units, machine covers, system components

Clamping and bearing technology: Clamping sets, adjusting rings, sliding bearings

Automotive: Steering parts, wheel bearing sets, timing belts, wiper blades, sensors



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CN 关于我们直径为20毫米或更大的用于托盘输送的辊轮信息，负载单元和类似的应用，可以在我们的目录“Idlers for conveyor technology”中找到。

GB Information on our conveyor rollers with a diameter of 20 mm or more for pallet transport, unit loads and similar applications can be found in our catalog “Idlers for conveyor technology” from Deussen.

标准化，但设计灵活- 我们的模块化重载输送辊轮

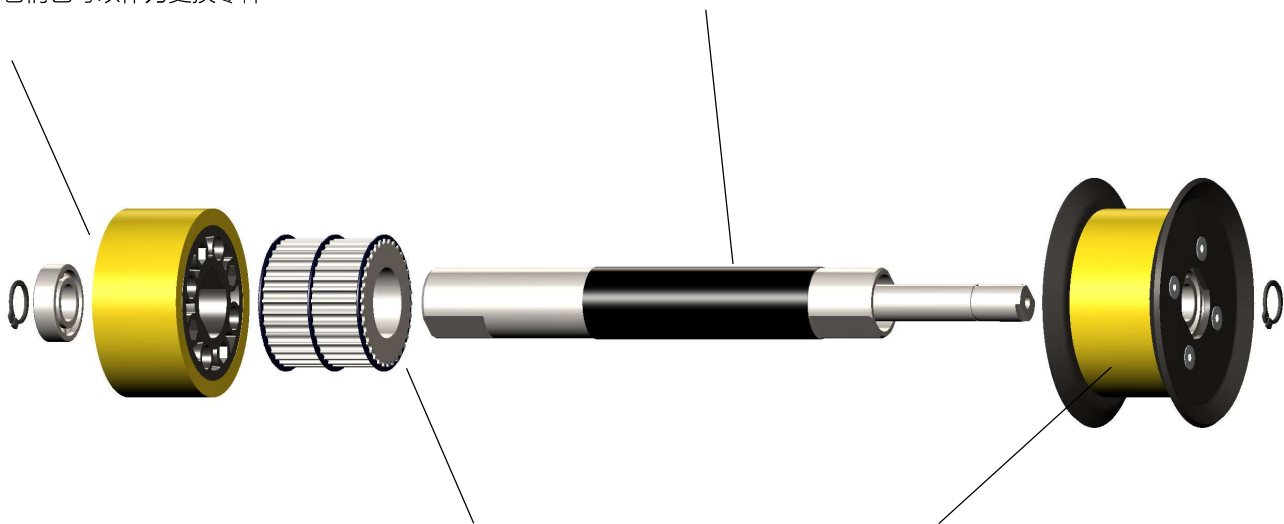
沃特福兰德生产的重载滑橇输送辊轮主要用于汽车行业，至今已有25年以上的历史。因此，自1985年开始，我们已经开发了超过850种不同型号的输送辊轮。模块化输送辊轮的概念是我们产品线的亮点。它让我们能够应对一些独特的设计需求。甚至我们的解决方案基本上都是由标准组件组成的。

模块化的输送辊轮不可估量的优势显而易见。基于标准组件，甚至在很大数量的时候我们也能做到很快交货。它们具备易于安装和效率高的特点。因此，我们的客户即使面临各种各样的约束条件，依然可以保持最大的灵活性。

**总结：WF输送辊轮代表着灵活性，高效，工艺可靠和高质量。
当然，核心零部件“Made in Germany”。**

所有单个零件**都有库存**所以
它们也可以作为更换零件

只有轴和连接管是按照客户规格制造的



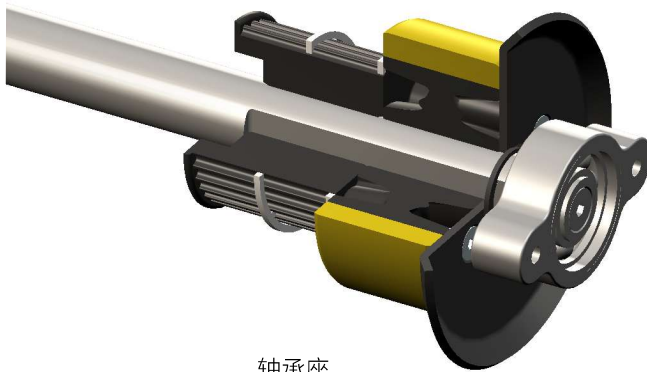
M-Flex辊轮全部无焊接：
借助于承插式以及超级过盈的安装

同时可以提供**抗静电，导电**包胶轮

高可靠性的设计理念- 模块化输送辊轮 和M-Flex 输送辊轮

M-Flex 输送辊轮和模块化输送辊轮，取得了多年的成功，提供快速的响应和大量的衍生设计。所有的单一零件都有库存，因此他们也可以作为更换备件。只有轴和连接管根据客户需求制造。这些辊轮具有高运行可靠性和低维护成本。

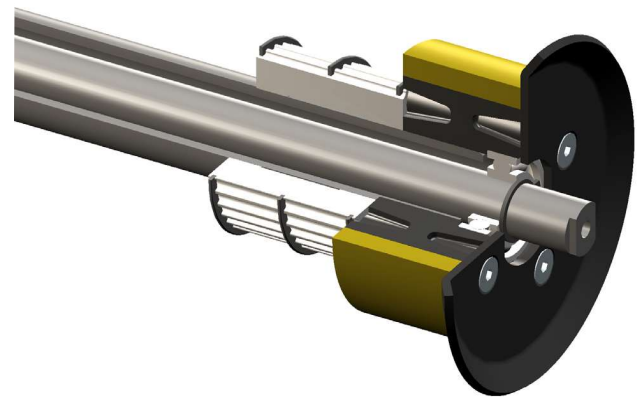
模块化输送辊轮的原理



轴承座

带法兰和塑料带轮

M-Flex 输送辊轮的原理



带法兰和WF标准钢同步带轮

新型的M-Flex 输送辊轮是基于久经考验的轴承座式模块化输送辊轮系统开发而来。通过连接管与包胶轮的承插式组合使这个经典的安装成为可能。模块化组件的使用使得为特定应用选择最佳的输送辊轮成为可能。

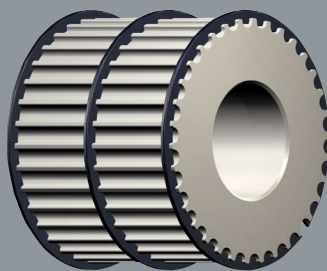
轮毂特殊的设计从各个角度限制位移，以防止包胶层与轮芯之间产生滑动，从而更大程度上减少了“脱胶风险”。

可实现的设计：

- ++包胶轮D=125mm, D=140mm; 宽度=50mm, 60mm, 70mm。
- ++可以根据要求提供特殊的设计。
- ++可以提供无法兰，单边法兰，双边法兰的设计。

CN 其他输送辊轮产品
沃特福兰德集团

- ++ 金属材质的同步带轮，法兰和连接管
- ++ PUR及Vulkollan材质的包胶轮
- ++ 宽度不受限制
- ++ 无焊接
- ++ 公差环版本辊轮
- ++ 不会因为焊接导致材料变形，因此同心度不会发生变化
- ++ 包胶轮损坏后可单独更换
- ++ 特殊版本也适用于潮湿区域



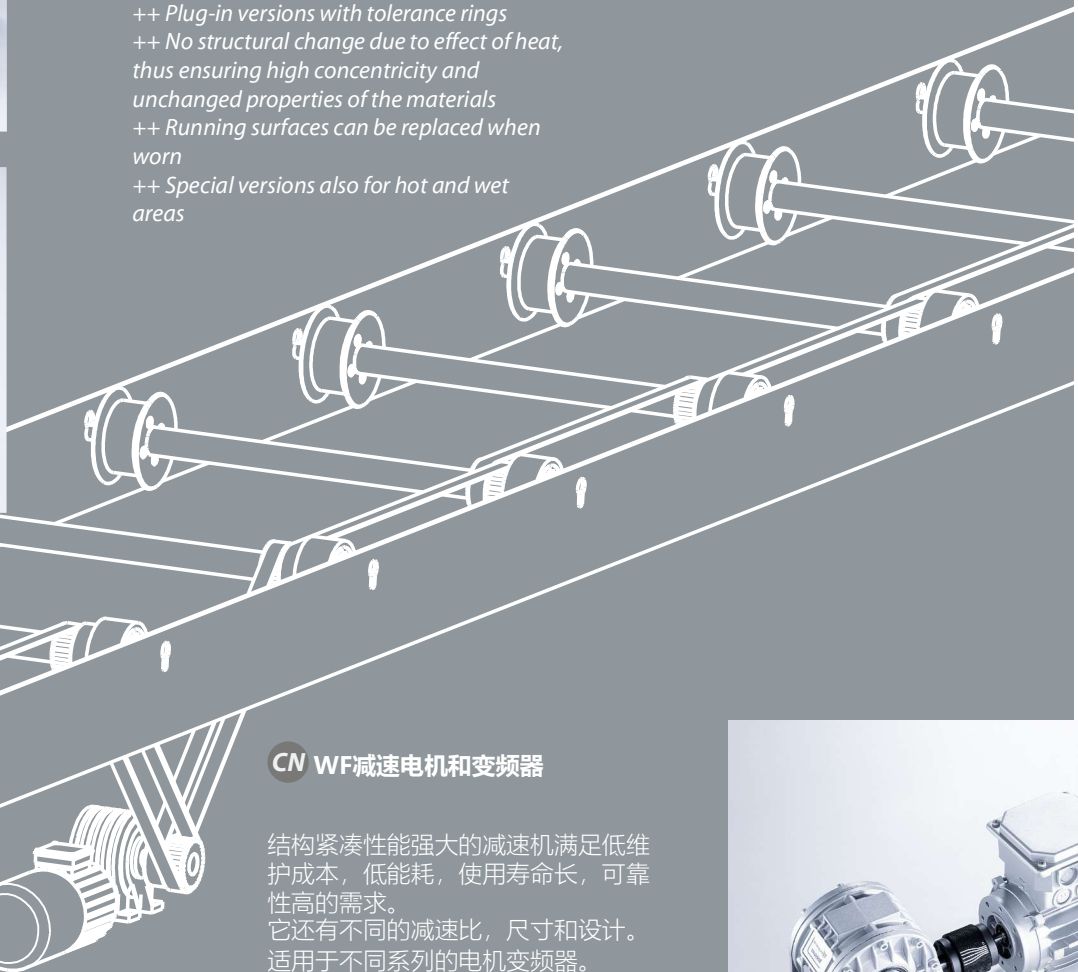
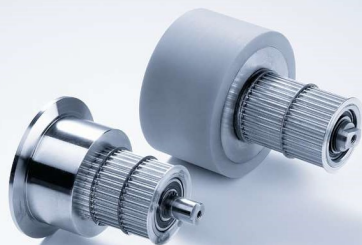
CN 沃特福兰德为SIKD输送而设计的标准同步带轮

尤其适用在重载工况下。在输送设备中，特制的弹性法兰取代了传统常规法兰。通过特殊的设计固定在卡槽内。由于对冲击的抵抗能力明显提高，所以在运输和组装的过程中几乎不可能出现损坏。



GB Additional conveyor roller products of the Walther Flender Group

- ++ Pulleys, flanges and tubes of steel construction
- ++ Running surfaces made of PUR, Vulkollan
- ++ Unlimited widths
- ++ Welded joints
- ++ Plug-in versions with tolerance rings
- ++ No structural change due to effect of heat, thus ensuring high concentricity and unchanged properties of the materials
- ++ Running surfaces can be replaced when worn
- ++ Special versions also for hot and wet areas



CN WF减速电机和变频器

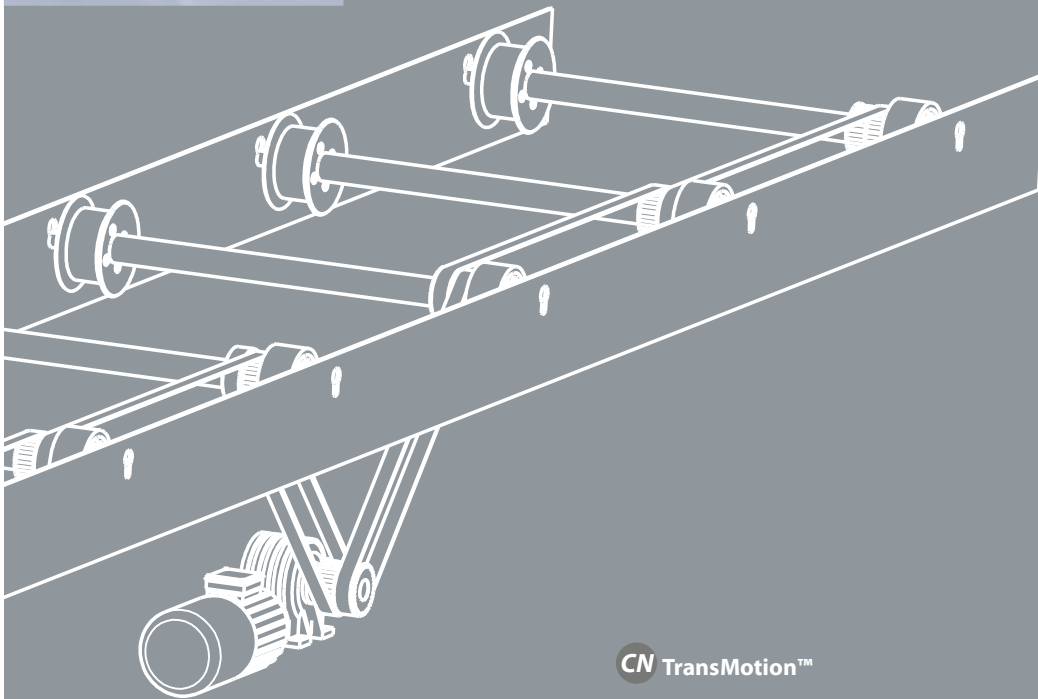
结构紧凑性能强大的减速机满足低维护成本，低能耗，使用寿命长，可靠性高的需求。它还有不同的减速比，尺寸和设计。适用于不同系列的电机变频器。输出功率可以从0.4KW覆盖到2000KW。





GB *WF standard pulleys for skid conveyor technology*

Especially for the heavy-duty conditions of conveyor technology, the guard plates normally provided on pulleys were replaced by special rings permanently seated in grooves. Due to the significantly higher resistance to mechanical impact, damage during transport and assembly under normal conditions is virtually impossible.



CN 部件

其中一个我们多年的发展成果是：模块化的组件适用于链轮，包胶和滑撬输送辊轮。使用创新的材料并经过复杂的成型工艺。这些组件有大量的库存，使它可以快速的被调度。

GB Components

One result of our many years of development work is that modular individual components are available for sprockets, bandages and skid conveyor rollers, made of innovative materials in sophisticated shaping processes. Extensive inventories of these components make for quick dispatch.



CN TransMotion™

我们开发的高性能同步带尤其适合输送系统。当然，我们也从我们广泛的同步带产品线提供其他行业的解决方案。



GB *WF gear motors and frequency inverters*

The compact, high-performance gears fulfil the requirements for low maintenance costs, low energy consumption, long service life and high reliability. They are available in various reduction ratios, designs and sizes. We also offer various suitable frequency converter series for motor power outputs from 0.4 kW to 2,000 kW.

GB TransMotion™

This high-performance belt was developed especially for conveyor systems. Of course, we also offer alternative solutions from our extensive line of belts.

技术优势

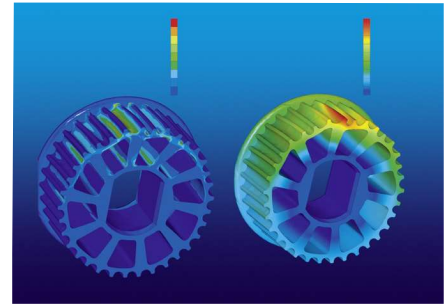
CN 与科技院校和塑料制造行业合作开展的广泛开发工作有助于不断地优化现有的解决方案。三维模拟分析已经成为研发中的标准流程，它能够进行完整的有限元和强度分析，任何在规划和开发过程中的客户都将获得保障的货期和售后服务。这是我们为您提供的基本保障。

除了计算机辅助模拟，我们还在我们自己的测试实验室为客户提供产品测试。例如，可以测试在不同特定负载下的抗疲劳断裂性能或者不同包胶材质的耐磨性能。我们也可以进行对传递扭矩的连接部件或各种类型同步带的抗拉断性能测试。这使我们不仅仅能提供标准品，久经考验的输送辊轮，还可以开发具有高工艺的新系统。我们的实验室配备自己的滑撬辊轮输送机，因此使我们模拟和测试特殊需求成为可能。

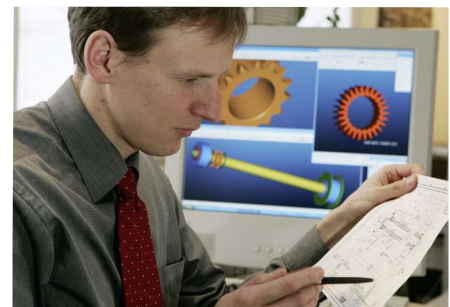
除了机械驱动组件，我们还可以对我们的变频器和减速电机的相互作用进行内部测试。

基于这个目的，我们大约在三年前设立了一个新的，设备更全的测试实验室。这个实验室位于德国杜塞尔多夫，面积50平方米。使WF的技术人员能够模拟变速器，电机和变频器的相互作用，以优化未来的传动系统。这使得提前消除错误和定义负载范围成为可能。通过调节变压器，变频器也可以适用于国际标准。

通过我们的规划，您可以获得可靠的供应和具有帮助的售后服务。



Festigkeitsanalyse
Strength analyses



3D-CAD-gestützte Konstruktion
3-D CAD engineering work

GB Extensive development work carried out in collaboration with technical universities and the plastics processing industry have contributed to ongoing optimizing of the available solutions. 3-D CAD engineering work has become standard in our company, as have complete FEM component and strength analyses. Anyone who uses our services in planning and development can count on guaranteed delivery and after-sales service. That's just a simple matter of fact.

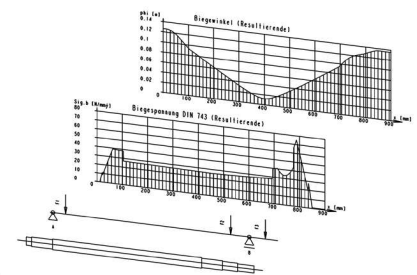
In addition to computer-assisted simulations, we also offer our customers testing of the products in our own test lab. For example, it is possible to test the resistance to fatigue breakage under certain load scenarios or the wear resistance of the different freewheel body coatings. We can also conduct tests of connecting components for torque transmission or the tear resistance of various belt types. This allows us to offer not only our standard, time-tested conveyor roller conveyors, but also to develop new systems with high process reliability. Our test lab is equipped with its own roller conveyor, so that special requests can be simulated and tested for feasibility.

In addition to the mechanical drive components, we can also conduct in-house testing of the interplay of our frequency converters and gear motors.

For this purpose, a new and fully equipped test lab was set up about three years ago. The lab in Düsseldorf, with a surface area of ca. 50 sqm, enables WF technicians to simulate the interplay of transmissions, motors and frequency converters, in order to optimize the future drive train. This makes it possible to eliminate errors in advance and to define load limits. With the aid of a regulating transformer, the frequency converters can also be adapted to international standards.

In addition, the interplay of customer-specific components with WF drive components can be tested here.

By planning with us, you can count on reliable operation and helpful after sales service.



Rechnergestützte Dimensionierung
Computeraided dimensioning



Testlabor im eigenen Haus
In-house test lab

装配简介



输送辊轮自动化装配线



使用卧式压力机装配模块化输送辊轮



检测输送辊轮跳动



立式装配压机



输送辊轮完成包装准备发货

全球制造

- CN** 我们的产品在全球共有四个生产基地：
++ 在杜塞尔多夫生产面积有22000平方米
++ 在德国南部生产面积有1600平方米
++ 在萨克森-安哈尔特州生产面积有9.500平方米
++ 在中国3000平方米

- GB** *We produce at altogether four locations in global for you:*
++ *In Düsseldorf with production area of 22.000 sq. meters*
++ *In South Germany with a production area of 1.600 sq. meters*
++ *In Sachsen-Anhalt with a production area of 9.500 sq. meters*
++ *In China 3.000 sq. meters*

CN 输送辊轮项目数据表

Walther Flender GmbH

邮政编码: 215500

电话: +86 (0) 512-52150058

E-Mail: Info@walther-flender-china.com

公司 _____

姓名/部门 _____

街道 _____

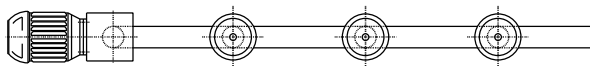
城市 _____

电话 _____

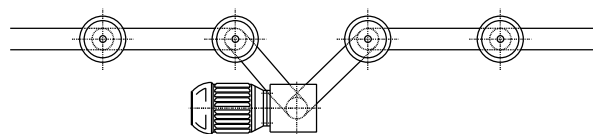
传真 _____

E-Mail _____

驱动参数:



电机位于末端



电机位于中间

电机转速 n _____ min⁻¹
 功率 P _____ kW
 额定扭矩 M_{Nenn} _____ Nm
 启动扭矩 M_{An} _____ Nm
 制动扭矩 M_{Br} _____ Nm
 行驶速度 n_{ab} _____ min⁻¹
 电机带轮齿数 z_{ab} _____ 齿数
 工作时间 _____ 小时/天
 启停周期 _____ 启停次数/天
 其他参数 _____

启动特定:

非调节型

变频调节型

极数切换型

负载参数:

滑橇重量 _____ kg
 移动线速度 v_F _____ m/s
 加速度 a_F _____ m/s²
 减速度 -a_F _____ m/s²
 输送辊轮转速 n_R _____ min⁻¹

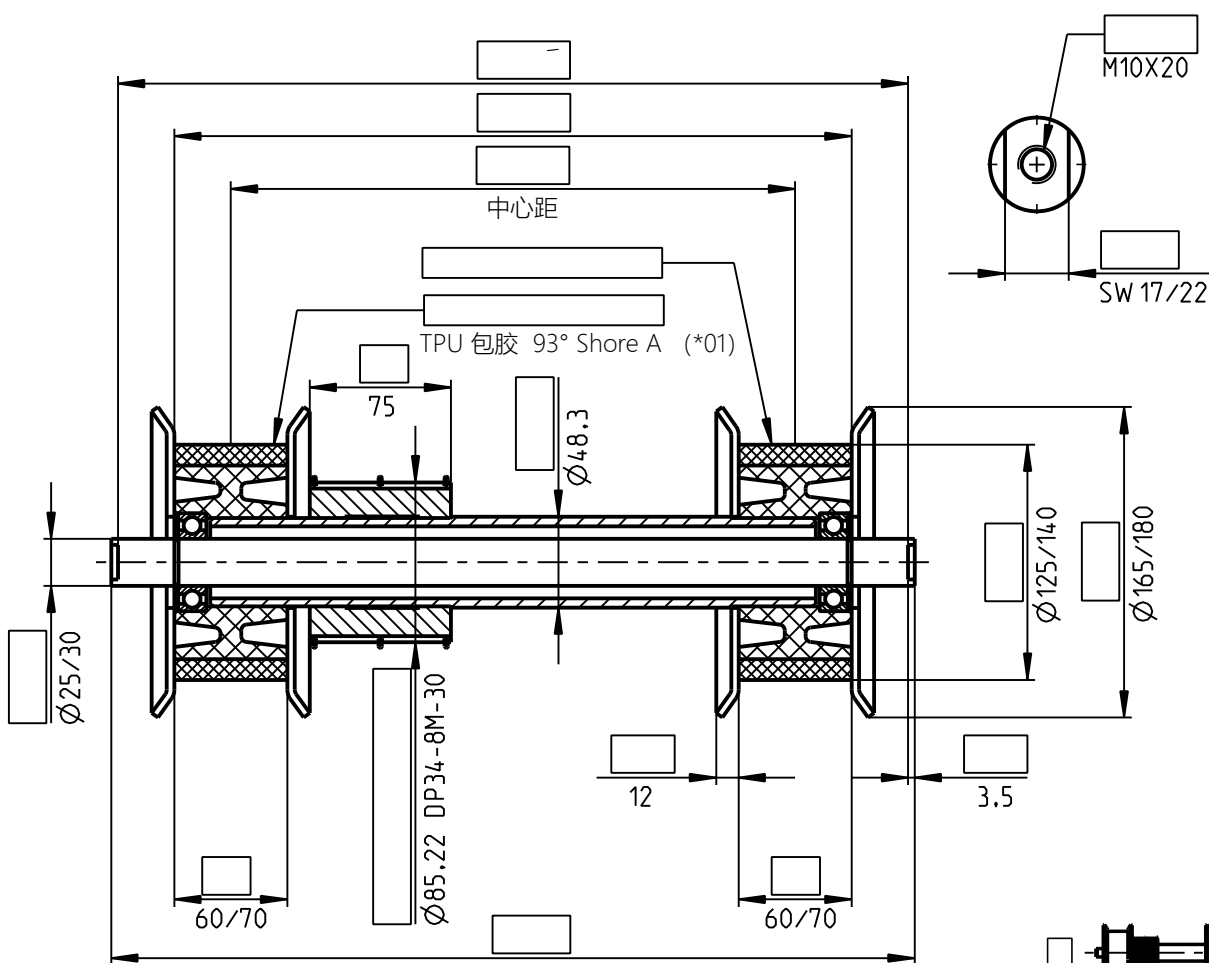
滑橇长度 _____ m
 辊轮数量/台 _____ 根
 辊轮中心距 _____ mm

辊轮数据:

中心距 _____ mm
 运行中接触面宽度 _____ mm
 包胶轮直径 _____ mm
 最高工作温度 _____ °C
 数量 _____ 根
 其他参数 _____

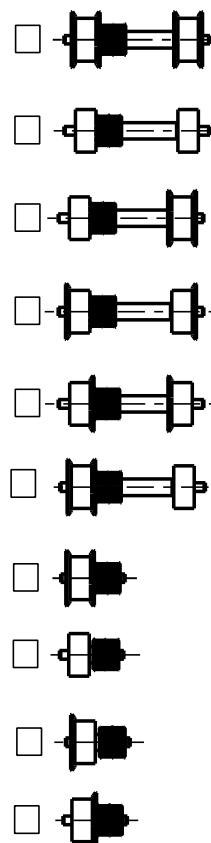
辊轮运行 根据WF的标准
 PU包胶 是/否
 需要导电 是/否
 金属运行表面 是/否
 客户图纸/设计 是/否

CN M-Flex 输送辊轮项目技术参数



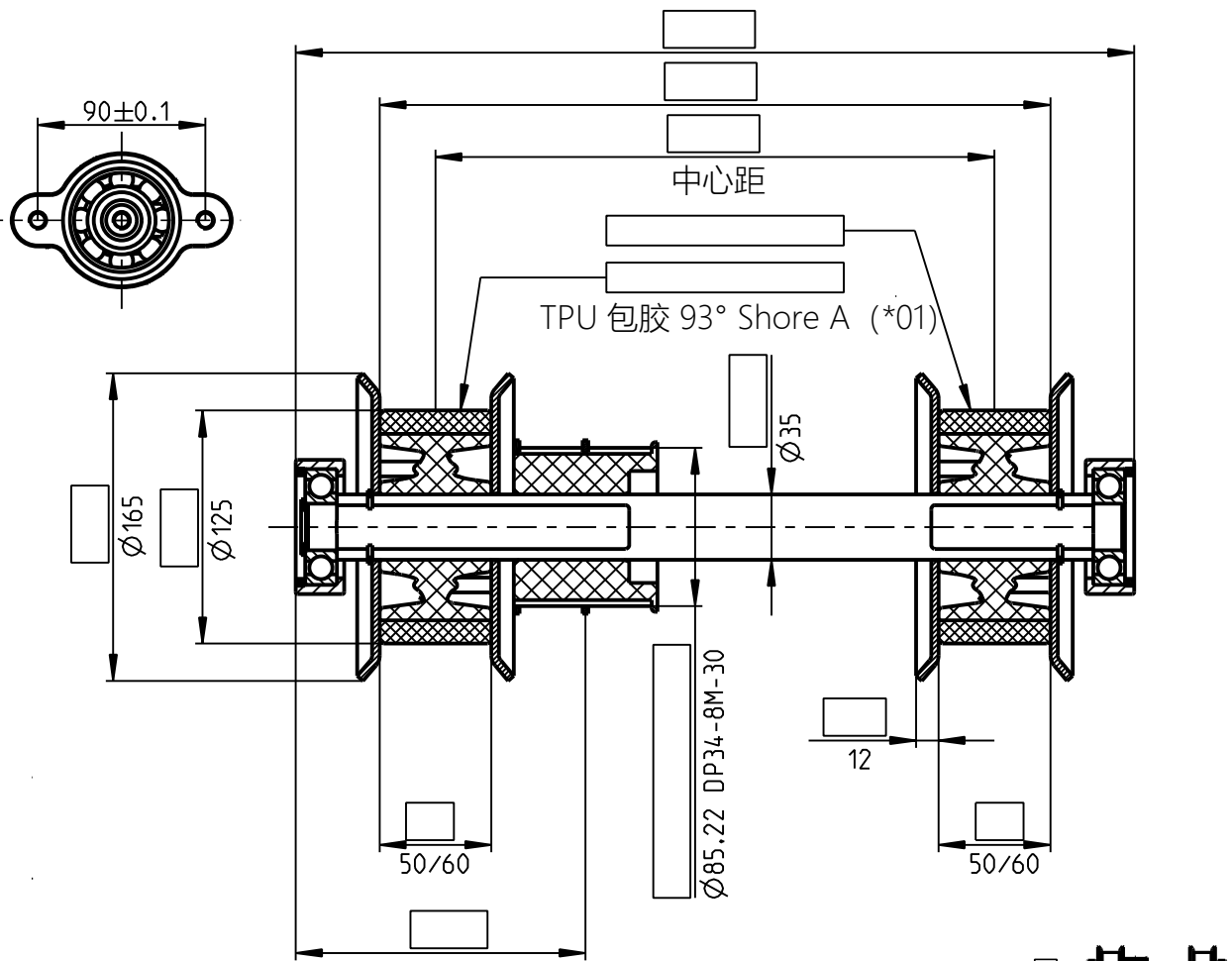
请填入已知的尺寸
规格符合沃特福兰德标准

| 输送辊轮/运行表面 | 数量 |
|----------------------|----|
| TPU包胶 93° Shore A | |
| TPU包胶 93° Shore A/导电 | |
| 钢轮 | |



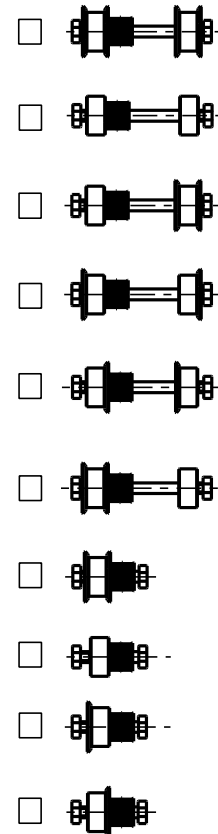
请标明需要的输送滚轮类型

CN 模块化输送辊轮项目技术参数



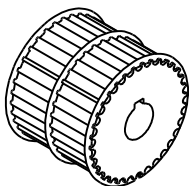
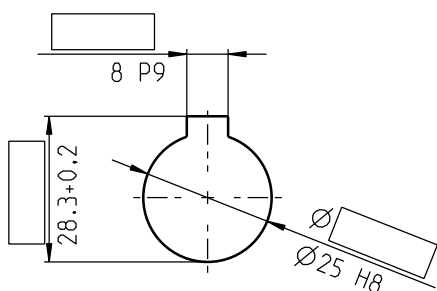
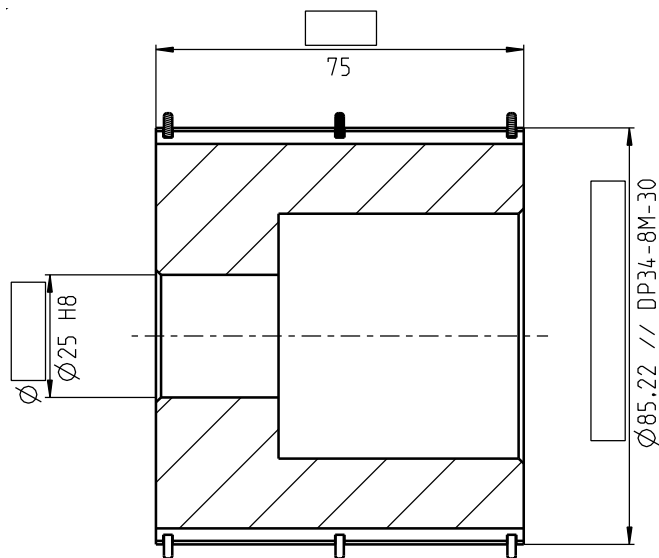
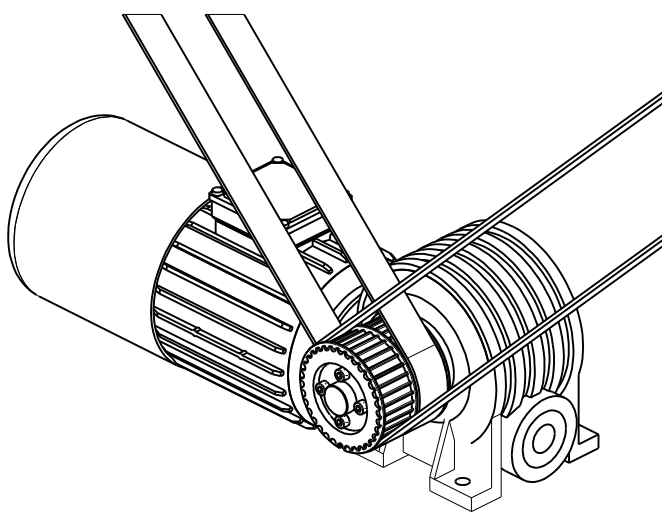
请填入已知的尺寸
规格符合沃特福兰德标准

| 输送滚轮/运行表面 | 数量 |
|-----------------------|----|
| TPU 包胶 93° Shore A | |
| TPU 包胶 93° Shore A/导电 | |
| 钢轮 | |



请注明需要的输送滚轮类型

CN 电机同步带轮项目技术参数

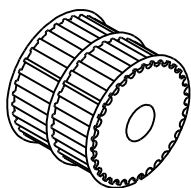


同步带轮

带键槽

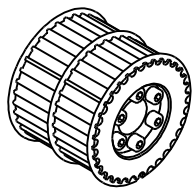


如果内有详细的信息我们将按照DIN6885标准来生产键槽。
(标准公差P9)



同步带轮

只带精加工孔



同步带轮

带胀紧套



胀紧套的选择取决于同步带轮和轴的尺寸及形状。
您可以在这里输入您想要的胀紧套型号

MLC

或者空白，胀紧套交由我们来设计。

GB Project Data Sheet Conveyor Rollers

Walther Flender GmbH

Postal Code : 215500

Tel: +86 (0) 512-52150058

E-Mail: Info@walther-flender-china.com

Company _____

Name / Department _____

Street / P.O. Box _____

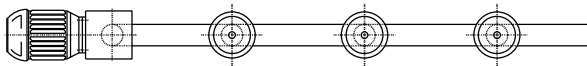
Zip code / City _____

Phone _____

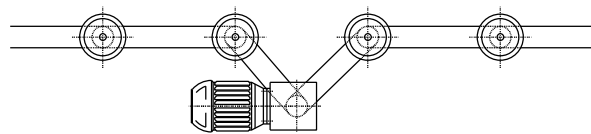
Fax _____

E-Mail _____

Drive data:



Located at end of line



Located at center of line

| | | | |
|------------------|-----------|-------|--------------------|
| Motor speed | n | _____ | rpm |
| Power | P | _____ | kW |
| Rated torque | M_{Nom} | _____ | Nm |
| Starting torque | M_{ST} | _____ | Nm |
| Braking torque | M_{Br} | _____ | Nm |
| Drive speed | n_{abs} | _____ | rpm |
| No. of teeth | Z_{abs} | _____ | $teeth$ |
| Operating period | | _____ | $hours\ per\ day$ |
| Starting cycles | | _____ | $starts\ per\ day$ |
| Miscellaneous | | _____ | |
| | | _____ | |

Starting characteristics

Non-regulated

Freq-inv. regulated

Pole-switching

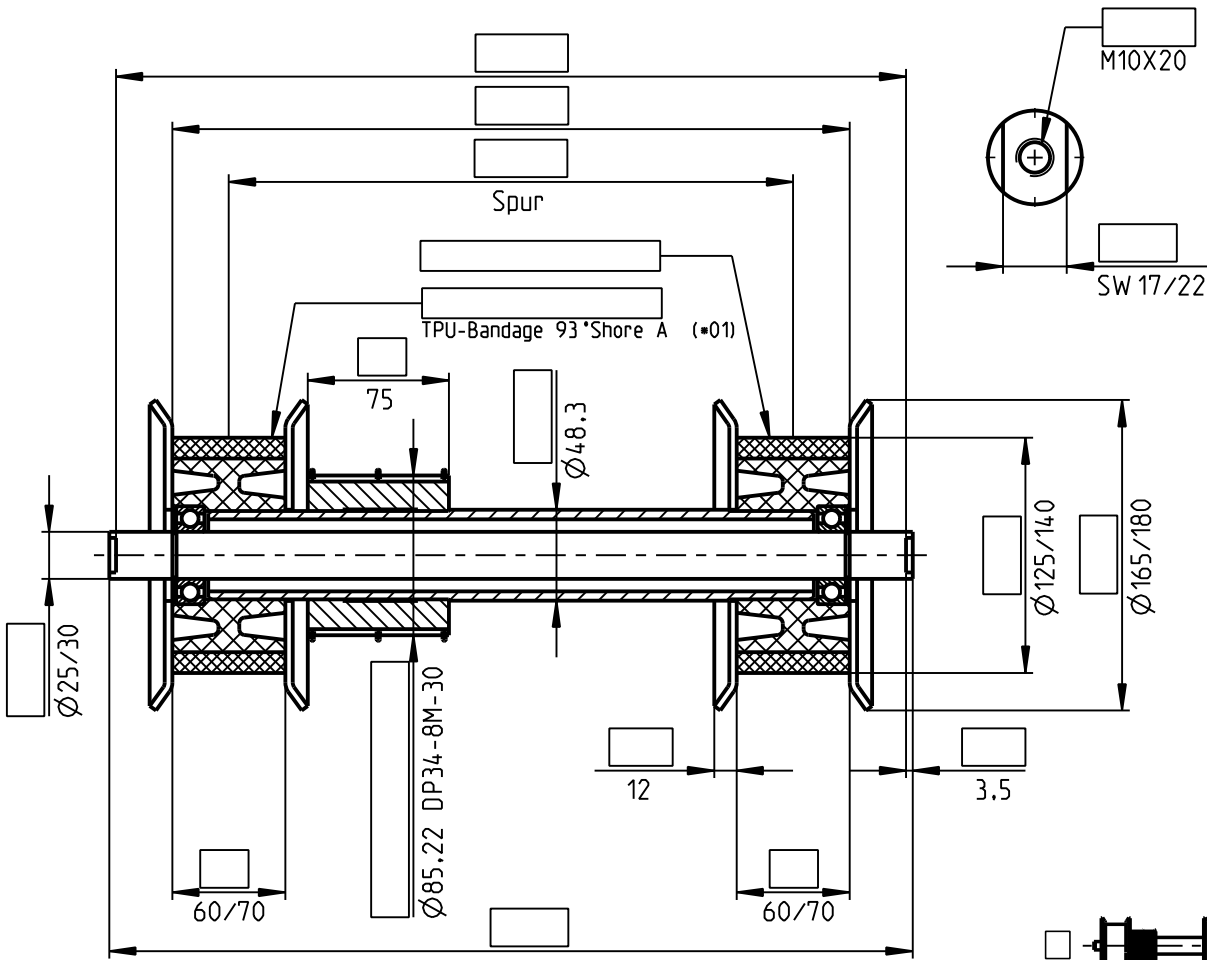
Loading data:

| | | | | | | |
|-----------------|--------|-------|-------------------|------------------------|-------|--------|
| Skid weight | _____ | kg | Skid frame length | _____ | m | |
| Conveyor speed | v_C | _____ | m/s | Number of rollers/unit | _____ | $pcs.$ |
| Acceleration | a_F | _____ | m/s_2 | Roller spacing T | _____ | mm |
| Deceleration | $-a_F$ | _____ | m/s_2 | (axel-base) | | |
| Roller rotation | n_R | _____ | rpm | | | |

Carrier roller data:

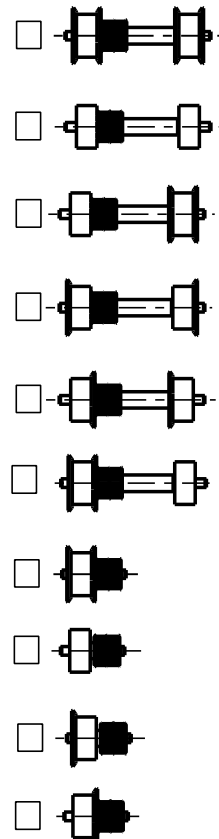
| | | | | | |
|-------------------------------|-------|-------------|-------------------------|-------|--------------------------|
| Track width | _____ | mm | Roller drive | _____ | according to WF-variants |
| Running surface width | _____ | mm | PUR coating | _____ | Yes/No |
| Roller diameter $\boxtimes D$ | _____ | mm | Electrically conductive | _____ | Yes/No |
| Temperature, max. | _____ | $^{\circ}C$ | Steel running surface | _____ | Yes/No |
| Quantity | _____ | $pcs.$ | Customer drawing/Design | _____ | Yes/No |
| Miscellaneous | _____ | | | | |
| | _____ | | | | |
| | _____ | | | | |

GB Project Data Sheet Modular conveyor roller M-Flex



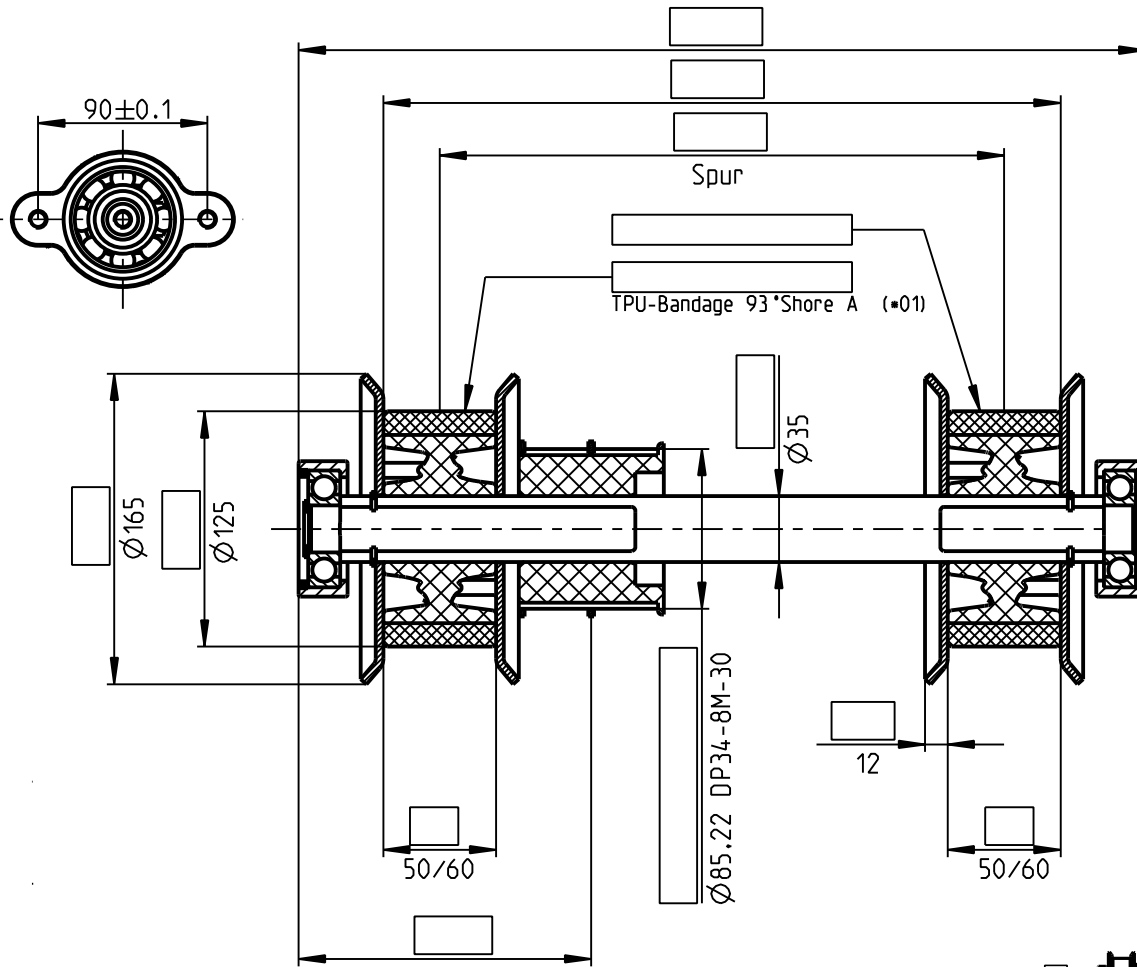
Please enter the desired dimensions, if known.
The specifications correspond to the Walther Flender standard.

| Conveyor roller / Running surface | Quantity |
|---|----------|
| TPU Coating 93° Shore A | |
| TPU Coating 93° Shore A - electrically conductive | |
| Steel | |



Please mark the desired conveyor roller version.

GB Project Data Sheet Modular Conveyor Roller



Please enter the desired dimensions, if known.
 The specifications correspond to the Walther Flender standard.

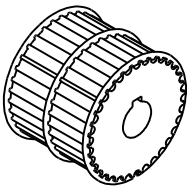
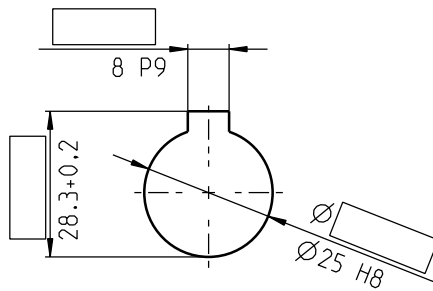
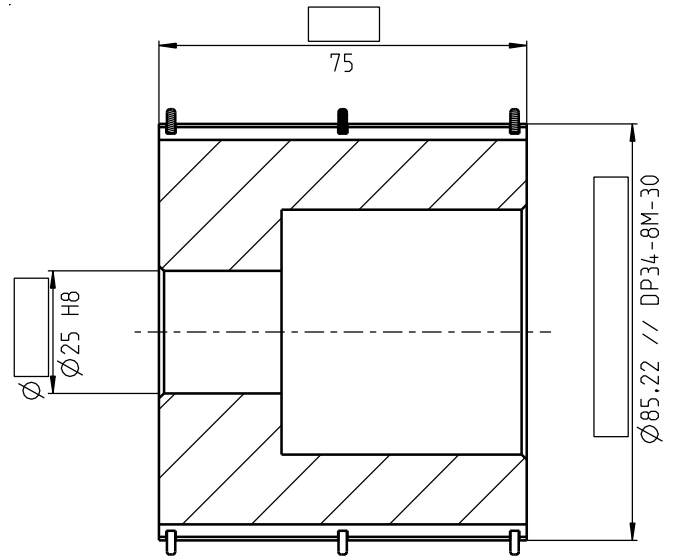
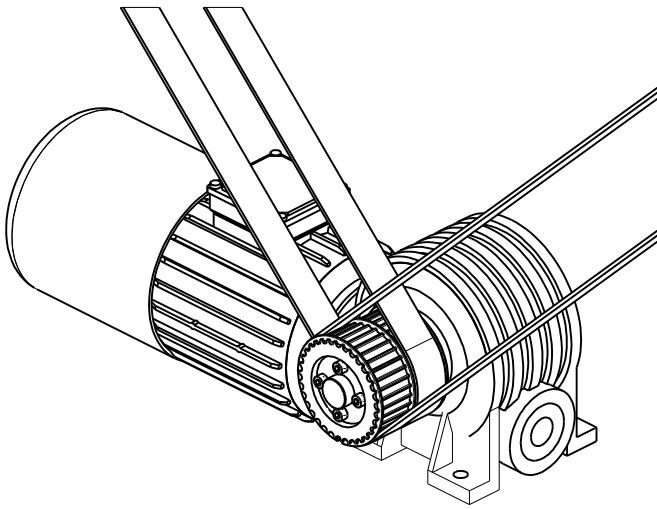
| Conveyor roller / Running surface | Quantity |
|---|----------|
| TPU Coating 93° Shore A | |
| TPU Coating 93° Shore A - electrically conductive | |
| Steel | |

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Please mark the desired conveyor roller version.

GB Project Data Sheet

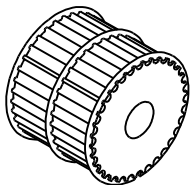
Motor pulley



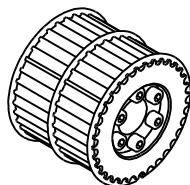
Timing belt pulley
with keyway



Without detailed informations we produce the keyway for **DIN 6885** (Standard tolerance P9)



Timing belt pulley
only with finish bore



Timing belt pulley
with clamping set



The choice of the clamping set is dependent on the timing belt pulley or of the shaft geometry.
You can enter your desired clamping set-types here.

MLC

Or leave it blank and the clamping set is designed by us.

产品概述

WF M-Flex输送辊轮

- ++ 双边驱动
- ++ 包胶轮D=140mm和D=125mm，材质TPU，也可提供导电版本
- ++ 快速选择和多样性
- ++ 与带键槽的辊轮兼容

WF 模块化输送辊轮

- ++ 双边驱动
- ++ 包胶轮D=125mm，材质TPU，也可提供导电版本
- ++ 快速选择和多样性

WF单边驱动输送辊轮

- ++ 特别适合于低负载和低加速度的场合

WF 双边驱动输送辊轮

- ++ 主要应用与高负载和/或高加速度的场合

WF 单边输送辊轮

- ++ 适用于非常大的负载或者大中心距的场合

WF 同步带和同步带轮

- ++ 有欧洲最大的同步带仓库之一
- ++ 有全面的标准系列和非标定制了例如：
TransMotion™ 系列同步带特别适合输送系统
- ++ 各种标准同步带轮
- ++ 特殊设计的同步带轮可以根据客户图纸提供

WF 减速电机和变频器

- ++ 蜗轮，直齿锥齿轮，圆柱齿轮和直角齿轮以及特殊齿轮
- ++ 模块化设计各种尺寸和形状
- ++ 三相，制动和单向交流电机
- ++ 变频电机输出功率从0.4KW-2000KW

WF 胀紧套

- ++ 通过轴和孔进行传递扭矩简单可靠
- ++ 可即装并具有自适应性
- ++ 高效可靠



Product Overview

WF Modular M-Flex conveyor roller

- ++ Driven on both sides
- ++ Running surface $D=140$ mm and $D=125$ mm made from TPU, also available with electrical conductivity
- ++ Rapid availability and many variations
- ++ Compatible with rollers with key ways

WF Modular conveyor rollers

- ++ Driven on both sides
- ++ Running surface $D=125$ mm made from TPU also available with electrical conductivity
- ++ Rapid availability and many variations

WF Rollers driven on one side

- ++ Specially for applications with low loads and low acceleration values

WF Rollers driven on both sides

- ++ Principally for higher roller loads, and/or higher accelerations

WF Stub conveyor rollers

- ++ A roller used for very heavy loads and/or large roller separation

WF Timing belt drives and pulleys

- ++ One of the most extensive stocks of timing belts in Europe
- ++ Comprehensive standard range and individual designs
E.g. TransMotion™: high-performance belt especially for conveyor systems
- ++ Wide range of standard pulleys
- ++ Pulleys as a special design according to customer drawing

WF gear motors and frequency inverters

- ++ Worm gears, straight bevel gears, cylindrical gears and right angled gears, as well as special gears
- ++ Modular design in various sizes and shapes
- ++ Three-phase, braking and one-phase AC motors
- ++ Frequency converters for motor output from 0.4 kW to 2,000 kW

WF clamping sets

- ++ Uncomplicated and reliable transmission of torques from shaft and hub
- ++ Ready-to-install and adaptable line of models
- ++ High reliability



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