

# Film Stretching Line

---

Flexible. Reliable. Efficient.

灵活 · 可靠 · 高效 ·

## Design, engineering and production by a single supplier

DORNIER is the reliable partner for all requirements relating to any aspect of the production of application-specific lines for manufacturing biaxially orientated films (polyester, polypropylen, polyamid, PEN uvm.). Whether single components or a customized turnkey line: DORNIER designs, engineers and manufactures everything in-house.

## History

The world-renowned aircraft manufacturer Dornier began building textile machines after the Second World War. In 1950, Lindauer DORNIER GmbH was founded in what remains the company's headquarters at Lindau-Rickenbach by Peter Dornier, son of the famous aviation pioneer Claude Dornier. The first fruits of the search for a new field of activity there were shuttle weaving machines. But soon afterwards, Lindauer DORNIER GmbH also began making specialty machines, including dryers for the cardboard, paper and construction panel industry. In the mid-1960s, film stretching lines for the packaging and plastic film industry and textile finishing machines for tubular knit goods were added to the product portfolio.

In the course of the market introduction of polyester and the invention of polypropylene, the company found a new business field in 1955: it developed and supplied components for film stretching lines, which produced film, among other things, for the packaging of foods. Soon after, DORNIER engineers converted the company's own textile stretching frame for film production: Secured by numerous patents, it quickly became a bestseller in the film manufacturing industry. Within a few years, the young company from Lake Constance supplied all the important film production markets in the world.

As in the following decades, well-known companies such as Agfa, Kodak or Celanese increasingly demanded DORNIER film stretching line components, the scope of supply was constantly expanded. In the mid-1990s, the demand was so strong that the company delivered its first complete film production lines. Today, film manufacturers use DORNIER systems not only to produce packaging for food and liquids, but also hi tech films for smartphones and tablets as well as battery, electrical insulation and special films.

With the product line DORNIER Composite Systems®, founded in 2014, we continuously offer new answers to the high demands of the very active fiber composite industry with innovative production lines for all types of composite semi-finished products.

## 设计，构建，生产由单一供应商完成

多尼尔作为可靠的合作伙伴，可提供满足各种需求的生产双向拉伸薄膜（聚酯、聚丙烯、聚酰胺、PEN 等）的专用生产线。无论是单个组件还是定制的关键工程产线均由多尼尔自行设计、施工和制造。

## 历史

世界著名飞机制造商多尼尔在二战后开始制造纺织机械。重新定位的原因是：盟军禁止该公司在德国制造飞机。1950年著名航空先驱克劳德·多尼尔的儿子彼得·多尼尔在该公司位于林道-维康巴赫的总部建立了林道尔·多尼尔有限公司。在新领域的第一个研究成果是有梭织机。不久，林道尔·多尼尔有限公司开始生产特种机械，包括纸板、纸张及建筑板材行业的干燥机。上世纪60年代中期，多尼尔产品系列加入了用于包装和塑料薄膜工业的薄膜拉伸生产线及圆筒针织品的纺织后整理机器。

在聚酯的市场推广和聚丙烯的发明过程中，公司于1955年拓展了一个新的业务领域：开发并提供用于薄膜拉伸生产线的组件，可生产薄膜，和其它组分一起用于食品包装。很快，多尼尔的工程师将公司的纺织拉伸框架用于薄膜生产：凭借众多专利，它迅速成为薄膜制造行业的畅销产品。仅在几年之内，这家来自博登湖畔的年轻公司占领了世界上所有重要的薄膜生产市场。

在接下来的几十年中，随着诸如Agfa、Kodak、Celanese等知名公司对多尼尔薄膜拉伸生产线组件的需求日益增加，其供应范围也在不断扩大。在1990年代中期，在强势的市场需求下，公司交付了第一条完整的薄膜生产线。如今，薄膜制造商不仅使用多尼尔生产线生产可用于食品和液体的包装薄膜，还可生产智能手机和平板电脑用的高科技薄膜以及电池薄膜，电子绝缘膜和特殊薄膜。

2014年，我们推出获得专利的多尼尔复合材料生产线，以各种半成品复合材料产品的创新生产线的形式，不断为日新月异的纤维复合材料行业的高要求提供新的答案。





# INNOVATIVE BY TRADITION

## 传统创新

### “Made in Germany”

All film stretching lines by DORNIER are “Made in Germany”. The high production depth demonstrates the strength of the company’s in-house value creation. It enables us to offer our customers the highest possible quality, durability and flexibility for efficient, process-reliable and scalable film production.

### “德国制造”

多尼尔所有的薄膜拉伸生产线均为“德国制造”。高深度产品展示了中国内部价值创造的优势。保证了我们可以为客户提供高质量、耐用、高效灵活、工艺可靠及量化的薄膜生产。



### Quality creates value: individual serial production

No line is alike; each one is designed, developed and built specifically for its intended purpose in close consultation with the customer. Even so, all lines have something in common: high economic efficiency, quality and reliability are standard.

### 品质创造质量: 个性化的批量生产

没有一模一样的生产线。每一条都是在与客户密切协商的基础上专门为其预期目的而设计、开发和制造的。即便如此，所有生产线都有些共同之处：高经济性、质量和可靠性是标准。





# FUTURE SOLUTIONS FOR MEGA TRENDS: FILM STRETCHING LINES FROM DORNIER

面向未来趋势的解决方案：  
来自多尼尔的薄膜拉伸线

## Current mega trends include DORNIER films

### Digitalisation

This mega trend, launched by the introduction of the iPhone, continues to boost sales of optically highly pure film. It is produced worldwide on DORNIER lines and can be found in flat screens on which Netflix, Amazon and Co. are streamed, as well as in the displays of tablets and smartphones.

### Energy revolution & electrical mobility

Battery separator film is also produced on DORNIER film stretching lines. It separates cathode and anode in batteries from photovoltaic systems, electric car batteries and smartphone batteries.

### Flexible packaging

Another trend is “flexible packaging”. Here, food and liquids are packaged or filled precisely and resealable according to their shape and volume. This significantly reduces the amount of film used and protects the food providing freshness of the product.

## 当前包括多尼尔薄膜在内的大趋势

### 数字化

通过iPhone的推出，这种大趋势继续推动着光学高纯度薄膜的销售。它在全球的多尼尔生产线上生产，而且可以在Netflix、亚马逊、Co.等主流媒体使用的平板显示器或者如平板电脑及智能手机上见到。

### 能源革命和电动化

电池隔膜也可以在多尼尔薄膜拉伸生产线上生产。它将光伏系统、电动汽车电池和智能手机电池中的正极和负极分开。

### 柔性包装

另一个趋势是“柔性包装”。在这里，食物和液体可以被包装或精确地填充，并根据其形状和体积重新密封。这大大减少了薄膜的使用量，并保护了食品，使产品保持新鲜



## High quality film production with DORNIER lines

- Planning, design and manufacturing from a single source
- Quality “Made in Germany”
- Individual components or complete film production lines according to customer requirements
- A modular machine concept
- Integrated, customised control system
- Worldwide on-site service
- A maximum of economical efficiency

## 多尼尔高品质薄膜生产线

- 计划、设计和制造均为同一个供货商
- “德国制造”品质
- 根据客户需求的单个组件或完整的薄膜生产线
- 模块化机器概念
- 集成、定制控制系统
- 全球在线服务
- 经济效益最大化

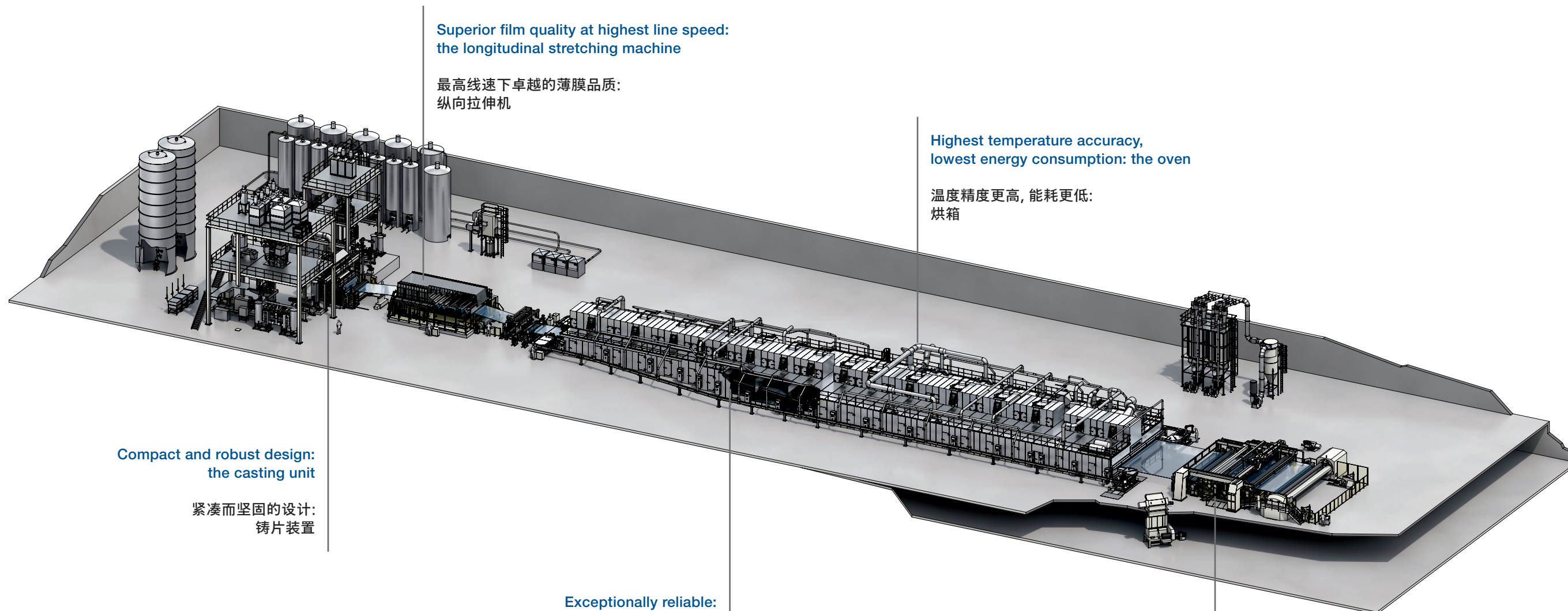


# BENCHMARK FOR PRODUCTIVITY AND FLEXIBILITY

# 生产力和灵活性的基准

Direct Link: Industry 4.0

Intelligent Control Technology



Superior film quality at highest line speed:  
the longitudinal stretching machine

最高线速下卓越的薄膜品质:  
纵向拉伸机

Highest temperature accuracy,  
lowest energy consumption: the oven

温度精度更高, 能耗更低:  
烘箱

Compact and robust design:  
the casting unit

紧凑而坚固的设计:  
铸片装置

Exceptionally reliable:  
the clip made by DORNIER

值得信赖:  
由多尼尔制造的夹子

Operator-friendly and vibration-free:  
the take-up transfer unit

操作方便且无振动:  
牵引与传输装置

### Full process reliability at high production speeds

The high production speed of DORNIER lines, combined with the consistently high availability, ensures maximum productivity. With their legendary process reliability, the lines produce fast and efficiently – ensuring customers full satisfaction.

### 高生产速度下整个工艺的可靠性

多尼尔生产线的高生产速度以及一贯地高可用性确保了最高的生产率。凭借其卓越的工艺可靠性, 这些生产线可快速高效地生产 – 确保客户完全满意。



# COMPACT AND ROBUST DESIGN: THE CASTING UNIT

## 紧凑而坚固的设计: 铸片装置



### High throughput consistency: the extrusion systems

Extrusion lines from DORNIER are available as single extruders with melt pump or as cascade systems. Customers appreciate the very high throughput consistency, temperature uniformity and low viscosity reduction. The extruders are equipped with electric or oil heating and air cooling; they are available in combination with filter systems, melt pump, melt line and die. Filters for cleaning the polymer melt are available as single filters. Twin screw extruders can also be used for extrusion to ensure maximum flexibility in case of raw material changes.

### Robust and vibration-free: the casting units

DORNIER manufactures casting units for the production of polyester film. The largest casting roll supplied so far has a diameter of 2,000 mm and a width of 3,500 mm. The casting units are optionally equipped with a second cooling or take-off roller; this allows free access to the die. Their robust and stable design prevents vibrations and thus unwanted thickness fluctuations. DORNIER casting rolls have stable die frames and rollers are driven by torque drives. The melt is applied to the casting roll with operator-friendly and automatically pinning systems.

### 输出稳定性: 挤出系统

多尼尔的挤出生产线既可以采用单螺杆挤出机带熔体泵或者串联挤出系统的方式。客户非常欣赏其输出稳定性、温度均匀性和小的粘度降。挤出机可采用电或油加热和空气冷却；它们可与过滤器系统、熔体泵、熔体管道和模头结合使用。聚合熔体清洁过滤器为单体过滤器。双螺杆挤出机也可用于挤出系统，以确保在更换原材料时具有最大的灵活性。

### 坚固且无振动: 铸片装置

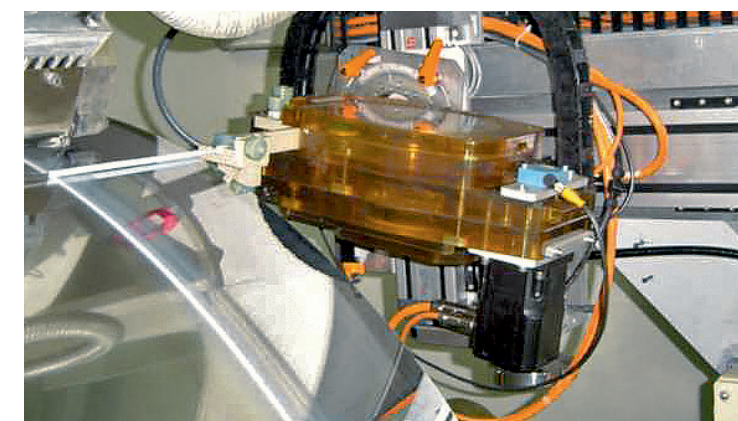
多尼尔生产用于生产聚酯薄膜的铸片装置。迄今为止提供的最大的铸片辊直径为2,000毫米，宽度为3500毫米。铸片单元可以选择性地配备第二冷却辊或剥离辊，这种设计可允许自由接近模头。其坚固而稳定的设计可防止振动，从而防止不必要的厚度波动。多尼尔铸片鼓具有稳定的模头支架并且滚筒由力矩电机驱动。熔体通过易于操作的自动贴服系统贴附到铸片鼓上。

### Dosing and drying (unit)

In DORNIER film stretching lines, the granulate conveying system with dosing scales and mixing devices is arranged in such way to ensure highest dosing accuracy also allowing inline flake recycling.

### 计量和干燥单元

在多尼尔薄膜拉伸生产线中，带有计量秤和混合装置的粒料输送系统以确保最高计量精度的方式进行布置，还可以实现在线碎膜回收。





# SUPERIOR FILM QUALITY AT HIGHEST LINE SPEED: THE LONGITUDINAL STRETCHING MACHINE

## Highest film quality: the longitudinal stretching machine

The longitudinal stretching machines (MDO – Machine Direction Orienter) are extremely robust, easy to maintain and convince with maximum line speed. The MDO stretches polyester, polypropylene and polyamide films as well as special materials with superior quality. A longitudinal stretch comprises heating, stretching and cooling zones. The first two zones are heated with thermal oil, hot water or steam; cooling is carried out with water or thermal oil. Direct drives (e. g. torque) for highest speed and torque accuracy are being used.

## Accurate thickness profile: the thickness gauge stations

DORNIER systems are equipped with two thickness gauge stations for high-precision control of the thickness profile; one is located after the casting unit, the other shortly before the edge trimming of the final film before winding. All common measuring systems can be used.

## Quick roller exchange: the inline coater

Coaters are available for single side or double side coatings. In both cases, the web flow is different. Easy access to the coating stations is provided via operating corridors. A drawer system ensures the quick exchange of the coating rollers (also available as an upgrade for retrofitting).

# 最高线速下卓越的薄膜品质: 纵向拉伸机

## 最高的薄膜品质: 纵向拉伸机

纵向拉伸机 (MDO – 沿机器方向拉伸) 极其牢固, 易于维护, 并以最大的生产线速度令人信服。纵向拉伸机可拉伸聚酯, 聚丙烯和聚酰胺薄膜以及其它特殊材料而得到优越的性能。纵向拉伸机包括加热, 拉伸和冷却区。前两个区可用导热油, 热水或蒸汽进行加热; 冷却区用水或导热油进行冷却。直接驱动 (如力矩电机) 的使用确保了最高速度和力矩的精确控制。

## 精确的截面厚度: 测厚仪工作站

多尼尔系统配备了两个测厚仪工作站, 用于精确控制截面厚度; 一个位于铸片单元之后, 另一个位于收卷机之前成品膜的切边处理之前。所有常见的测量系统均可被使用。

## 快速更换涂布辊: 在线涂布机

涂布机可用于单面或双面涂布。在这两种情况下, 薄膜输送是不同的。通过操作通道可方便进入涂布站。抽取系统可确保快速更换涂布辊 (也可进行升级改造)。





# EXCEPTIONALLY RELIABLE: THE CLIP MADE BY DORNIER

## Stable, robust and flexible

For more than 60 years: The well-proven clips from DORNIER with exclusive roller bearings reliably grip film even with the smallest material thickness and transport it safely and efficiently through the transverse stretching machine.

## Uninterrupted clip guiding

DORNIER transverse stretching machines have a clip guiding system that guides the film from the inlet to the outlet without interruption. Depending on the application, different types of clips are available. The returning chain track can be arranged inside or outside the oven, depending on the film type produced.

## One espresso cup lubricant per day

The entire clip guiding system needs an amount of lubricant as small as about 50 cm<sup>3</sup> per day, which is less than the content of a cup of espresso. This saves costs and ensures the highest standards of cleanliness und film quality.

## Significantly less wear and tear

High production speeds lead to high wear? Not at DORNIER. The patented, spring-loaded clip guide system in the chain reversing heads of the transverse stretching machine significantly reduces wear.

## 稳定，牢固且灵活

超过60年的经验：多尼尔久经考验的带专用滚子轴承的夹子即使最小的材料厚度也能牢固夹持薄膜，并安全有效地输送其通过横向拉伸机。

## 不间断的夹子引导

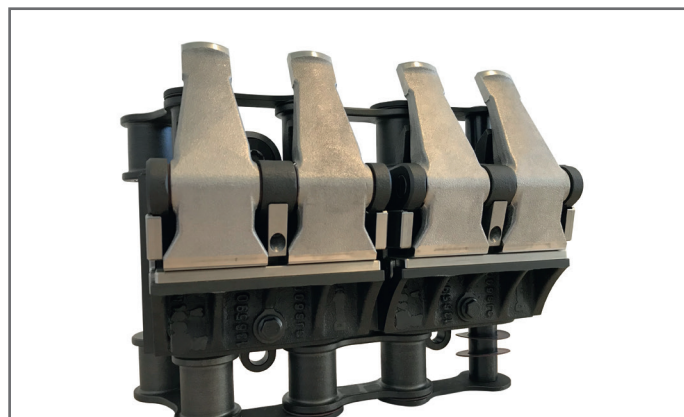
多尼尔横向拉伸机具有夹子引导系统，可将薄膜从入口引导到出口且不间断。根据应用，可以使用不同类型的夹子。返回链轨可以布置在烘箱的内部或外部这取决于生产的薄膜类型。

## 每天需要的润滑油相当于一杯浓缩咖啡

整个夹子导向系统每天需要的润滑油量小至约50cm<sup>3</sup>，少于一杯浓缩咖啡的量。这样可以节省成本，并确保最高标准的清洁度和薄膜品质。

## 磨损显著减少

高生产速度导致高磨损？这不会发生在多尼尔。专利的链条回转头上的夹子弹簧荷载导向系统大大降低了磨损。



## 值得信赖: 夹子多尼尔制造



## High dimensional stability: MD-Relax

The MD-Relax system for the transverse stretching machine is based on a variable clip pitch ensuring a very high dimensional stability by controlled inline relaxation of the film in machine direction. There is no need for additional offline post-treatment. Films from DORNIER film production lines are therefore ideal starting materials for applications with high heat exposure, such as film for photovoltaics cells, displays or rechargeable batteries.

## 高尺寸稳定性: 纵向收缩系统

用于横向拉伸机的纵向收缩系统基于可变的夹子间距，通过控制机器方向上的在线松弛来确保非常高的薄膜尺寸稳定性。无需进行额外的离线后处理。因此，多尼尔生产线生产的薄膜是应用于暴露在高热辐射环境下的理想原材料，例如用于光伏电池，显示器或可充电电池。



# HIGHEST TEMPERATURE ACCURACY, LOWEST ENERGY CONSUMPTION: THE OVEN

温度精度更高, 能耗更低: 烘箱

## Benchmark since years: the transverse stretching machine

DORNIER's Transverse Direction Orienter (TDO) machines are highly efficient and maintenance-friendly. They run reliably even at production speeds of 600 m/min. Their closed design and intelligent air guiding ensure minimum energy consumption and excellent heat transfer. Thus, the temperature is optimally distributed and the air velocity is kept constant in machine and transverse direction.

The TDOs consist of heating and stretching zones as well as wide crystallization, tempering and cooling zones. The zones that can be heated either using thermal oil, gas, electricity or steam are available with lengths of 3,050 mm, 4,575 mm and 6,100 mm. Depending on film type and thickness, the ovens can be equipped with different chain track systems. The maximum stretching width of a TDO is more than 12,000 mm. Another special feature of the DORNIER TDO is the special monorail clip guide system, which is mounted floating in the oven.

## Intelligent use of thermal heat

The patented and intelligent airing system leads exhaust air into the following oven zone. Heat is thus used optimally and primary energy is saved. An additional, external heat recovery system provides further energy saving potential.



## 多年来的基准: 横向拉伸机

多尼尔的横向拉伸 (TDO) 机非常高效且易于维护。它们能以600米/分的速度可靠地运行。其封闭式设计和智能气流导向系统可确保最低的能耗和出色的热传递。因此, 温度是最优分配的, 并且在纵向和横向方向上的空气速度保持恒定。

横向拉伸机由预热和拉伸区以及宽的结晶区, 回火和冷却区组成。长度分别为3,050毫米, 4,575毫米和6,100毫米的区可使用导热油, 天然气, 电力或蒸汽加热。根据薄膜类型和厚度, 它可以配备不同的链轨系统。横向拉伸机的最大拉伸宽度大于12,000毫米。多尼尔横向拉伸机的另一个特殊功能是特殊的单轨夹子导向系统, 该系统安装于浮动烘箱中。

## 智能的热能利用

专利的智能通风系统可以把排放出来空气导向下一个烘箱区域。因此热量使用得到优化并节省初级回路的能耗。此外, 外部热回收系统可进一步提供潜在的节能。





# OPERATOR-FRIENDLY AND VIBRATION-FREE: THE TAKE-UP TRANSFER UNIT

## 操作方便且无振动: 牵引与传输装置



### Stable and vibration-free: the take-up transfer unit

The take-up transfer units (TUT) are extremely stable and therefore vibration-free. A simple roll exchange to the top is easily possible. All rollers of the take-up transfer unit (guide, cooling, corona and rubberized nip rollers) are individually driven by direct drives (torque). Take-up transfer units of the polyester, polypropylene and polyamide plants are equipped with corona treatment stations. A flame treatment station can be provided for BOPP film. If required, rollers can also be internally cooled. The roll diameter depends on the width of the film. The film is fed manually on the operating side through an threading gap. DORNIER has already supplied take-off devices for end film widths of up to 10,600 mm. All rollers are built with a carbon fiber roller body core. This provides high stability at lowest power requirement.

Functionality: The take up and transfer unit pulls the film out of the TDO with controlled tension. The first roller is a measuring roller which controls the film tension between the TDO and the take-off device. The film is then cooled by cooling rollers and passes through the second thickness gauge station, which controls the thickness profile via control of the die lip gap at the casting unit. Following this the film is being trimmed on both sides; the edge strips are recycled in a grinder.

### 稳定且无振动: 牵引与传输装置

牵引传输单元 (TUT) 非常稳定因此无振动。可以轻松地从顶部更换滚筒。牵引传输单元的所有辊 (导向辊, 冷却辊, 电晕辊和橡胶压辊) 均由直接驱动器 (力矩) 单独驱动。聚酯, 聚丙烯和聚酰胺工厂的牵引传输装置配有电晕处理站。可以为BOPP薄膜提供火焰处理站。如果需要, 还可以对辊进行内部冷却。滚筒的直径取决于薄膜的宽度, 薄膜在操作侧可通过穿膜间隙手动穿膜。DORNIER已提供牵引传输装置最终膜宽达10,600毫米。所有滚筒均采用碳纤维作为辊筒主体。这样可在最低功率要求下提供高的稳定性。

功能: 牵引传输单元以受控的张力将薄膜从横向拉伸机中拉出。第一根辊是测量辊, 其控制TDO和牵引传输单元之间的膜的张力。然后薄膜通过冷却辊冷却, 并通过第二测厚仪工作站, 该站通过在铸片单元处模唇间隙来控制薄膜厚度。在此之后, 对薄膜两侧进行切边处理; 边膜送去粉碎机回收。

### Full width, fully automatic: the winder

At the end of the manufacturing process, the film is wound in full width onto an automatic turret winder (diameter up to 1,400 mm). The winder features an ergonomic design and short roll exchange cycles.

### 全幅宽, 全自动: 收卷机

在制造过程最后, 将薄膜全幅收卷到自动翻转收卷机上 (直径最大为1400毫米)。收卷机采用人体工程学设计, 更换卷芯周期短。





# COMPLEX TECHNOLOGY, SIMPLE HANDLING: INTELLIGENT CONTROL TECHNOLOGY

复杂的技术, 简单的操作: 智能控制技术

## Integrated and customised: the control system

DORNIER supplies tailor-made, integrated control system based on the Siemens SIMATIC S7 PLC and state-of-the-art bus systems for all systems and plants. Visualization is carried out via Siemens WINCC. The latest multi-motor drive systems (AC synchronous motors with frequency control) are installed. Components provided by the customer, purchased components or auxiliary equipment can also be integrated. The connection to frequency process control systems is prepared as standard.

## Downstream plant components

The type and configuration of downstream plant components depends on the product portfolio and the degree of automation. Slitters (cutting machines) are used for cutting films, which are oriented to the rolls delivered from the winder. Further optional system components that can be integrated into the control system: Film grinders, regranulating plants and flake handling systems.

## 集成和定制: 控制系统

多尼尔为所有系统和工厂提供基于西门子SIMATIC S7可编程控制器和最先进总线系统的定制集成控制系统。可视化是通过西门子WINCC实现的。安装了最新的多电机驱动系统(变频控制的交流同步电机)。客户提供的组件、购买的组件或辅助设备也可以集成。与变频过程控制系统的连接将按标准准备。

## 下游工厂的组件

下游工厂组件的类型和配置取决于产品组合和自动化程度。分切机用于分切薄膜，薄膜的方向与收卷机来的母卷向对应。其他可以集成到控制系统中的可选系统组件有：薄膜粉碎机，造粒设备和碎膜处理系统。



## Smart film production: digitalisation of DORNIER quality

Worldwide 24/7 availability of spare parts, high process reliability of the systems and optimum maintenance intervals thanks to intelligent monitoring and production adaptation – the smart mechanical engineering of the future is already standard today in DORNIER film stretching lines. This allows customers to design their manufacturing processes and sequences individually and flexibly.

## 智能化薄膜生产: 多尼尔质量数字化

在世界范围内备件在24/7可获得，系统的高工艺可靠性和最佳的设备维护周期，得益于智能监控和生产可调节性 - 未来的智能机械工程在今天已经成为多尼尔薄膜拉伸生产线的标配。这使得客户可以独立灵活地设计其生产过程和顺序。



# GREEN MISSION: SUSTAINABILITY AS A CORPORATE STRATEGY

## Waste reduction and recycling: high-quality film made from recycled materials

The reduction of waste is crucial for sustainable management. Most of the film waste is therefore returned to the production process. Because this material does not have to be melted again, there is no IV drop. Waste from the start-up process, non-specification-compliant film and slitter waste are also added to the virgin material as recycling material.

The longevity, reliability, productivity and energy efficiency of the film stretching lines "Made in Germany" show: At DORNIER, sustainability is not a fad, but the basis and result of long-term corporate strategy.

## 减废和回收:由回收材料制成的高质量薄膜

减少浪费对于可持续管理至关重要。因此大多数薄膜废料需重新回到生产过程中。由于该材料不需再次熔融，因此没有IV下降。开车过程中生产的废料、不合格的薄膜和分切机废料也作为回收材料添加到洁净原材料中。

“德国制造”的薄膜拉伸生产线其寿命，可靠性，生产率和能源效率表明：在多尼尔可持续发展不是一时兴起，而是企业长期战略的基础和结果。

# 绿色使命: 可持续性的企业战略



## More energy-efficient production: up to 35 % less energy consumption

Thanks to the optimized and patented air flow in DORNIER TDOs, the consumption of thermal energy can be reduced by up to 35 %. This means that even plants up to 50 years old can be adapted to modern sustainability requirements. The longevity and energy efficiency of DORNIER film stretching lines is also ensured by continuous upgrades for the control and drive technology.

## 更高效的生产: 能耗降低多达35 %

得益于优化后且获得专利的多尼尔横向拉伸机的气流系统，热能消耗降低可达35%。这意味着即使是运行长达50年的工厂也可以适应现代可持续发展的要求。通过不断升级控制和驱动技术，进一步确保了多尼尔薄膜拉伸生产线的使用寿命和能效。





# SERVICE FOR YOUR SUCCESS: SERVICE ADDS VALUE®

为您的成功服务: 服务增值

## Worldwide on site

In addition to the Service Center in Lindau, you can reach DORNIER's service staff in all the important sales markets for plant and machinery. In the USA, India, China and Turkey DORNIER operates its own subsidiaries. The service staff communicate in German, English and French, Spanish, Italian, Russian, Chinese, Hindi, Portuguese, Romanian and Turkish.

## Inspections, upgrades and conversion sets

Whatever applications you manufacture film for – maintaining and further developing your performance at the highest level is DORNIER's top priority. Whether it's checking machine efficiency, customer-specific conversions or state-of-the-art retrofitting for older machine generations: DORNIER meets the high quality demands of its customers far beyond the purchase of the system.

## 全球在线

除了林道的服务中心之外，还可以联系我们机器所在的所有主要工厂和销售市场的服务人员。在美国、印度、中国和土耳其，多尼尔还有自己的分支机构。服务人员可以用德语，英语，法语，西班牙语，意大利语，俄语，中文，印地语，葡萄牙语和罗马尼亚语进行交流。

## 检查、升级和转换件

无论生产薄膜的应用是什么，保持最高水平和进一步提高性能都是多尼尔的头等大事。无论是检查机器效率，定制转换还是旧机器的最新升级：多尼尔都可以满足客户的高质量要求而不仅仅是购买系统。





# DIRECT LINK 4.0: DORNIER CUSTOMER PORTAL

## 直接连接4.0: 多尼尔客户端



### Direct Link 4.0: the DORNIER Customer Portal myDoX®

With the myDoX® customer portal, DORNIER customers organize their production at the highest technological level. It complements and expands the personal technical service. In addition to a 24/7 online shop, myDoX® offers a direct line 4.0 to experts and information from DORNIER.



### 直接连接 4.0: 多尼尔客户端myDoX®

通过客户端myDoX®, 多尼尔客户可以在最高技术水平上组织生产。它补充和扩展了多尼尔的个人技术服务。除了24/7在线商店, myDoX® 还提供4.0直接连接来自多尼尔的专家及信息。

### The benefits of myDoX®

- Online shop for original parts (DoXPOS – Parts Order System)
- Access to previous orders and current quotations
- Retrieving user documentation (DoXDocu)
- Perfect data overview thanks to individually definable machine groups and numbers

### Log on and get started right away

The system (powered by SAP HANA) is based on HTML5 and latest database technology, does not require plug-ins and can easily be operated on PC, smartphone or tablet computer.

### 24/7 online shop for original parts: DoXPOS

Ordering original parts from DORNIER directly and quickly via the online shop: Simply put the required parts from the spare parts catalogue into the shopping basket – DORNIER is going to ensure prompt on-site delivery.

### myDoX®的优势

- 原装零件在线商店(DoXPOS – 零件订购系统)
- 读取以前的订单和当前报价
- 检索用户文档 (DoXDocu)
- 得益于单独定义的机器组和编号可完美的进行数据概览

### 注册并立即使用

该系统（由SAP提供支持）基于HTML5和最先进的数据库技术，不需要任何插件，可以通过PC，智能手机，平板电脑轻松操作。

### 24/7 – 原装零件在线商店: DoXPOS

通过在线商店直接快速订购多尼尔原装备件：将备件目录中的所需零件添加到购物车中– 多尼尔确保及时交付。





**Lindauer DORNIER GmbH**

Rickenbacher Str. 119  
88131 Lindau, Germany  
Telephone +49 8382 7030

**American DORNIER Machinery Corp.**

P.O. Box 668865  
Charlotte, N.C. 28266, USA  
Telephone +1 704 697 3310

**DORNIER Machinery India  
Private Limited**

201-A, Sangeet Plaza  
Marol Maroshi Road  
Andheri (East)  
Mumbai 400 059, India  
Telephone +91 22 292 506 74

**DORNIER Makina Ltd. Sti.**

Oruç Reis Mahallesi  
Giyimkent Sitesi 6. Sokak B64 No. 38-40  
34235 Esenler/Istanbul, Turkey  
Telephone +90 212 4266 998

**DORNIER Machinery (Shanghai) Co. Ltd.**

WaiGaoQiao Tax Free Zone  
299 FuTeZhong Road  
Area B G/F Block 45  
Shanghai 200131, China  
Telephone +86 21 504 628 38

[www.lindauerdornier.com](http://www.lindauerdornier.com)  
[sales.sm@lindauerdornier.com](mailto:sales.sm@lindauerdornier.com)