

ULTRA-WIDE WET PROCESS
PRODUCTION LINE

FROM PLANT DESIGN TO
MASS PRODUCTION

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TOTAL SOLUTION

Lithium-ion battery wet separator production equipment

锂电池湿法隔膜生产设备

ST YOUNGWON's greeting 问候语

'ST YOUNGWON' is a specialized company that manufactures innovative production systems for lithium-ion battery wet separators. Through one-stop consulting, we aim to lead the global market by providing advanced technology and excellent solutions.

'ST YOUNGWON' production systems produce the world's best equipment capable of wide and high-speed production, achieving maximum efficiency and capacity. In addition, our experienced R&D team develops cutting-edge design innovations and engineering systems that exceed customer expectations. To reduce customer costs, we continuously research and develop eco-friendly equipment that can produce high-performance lithium-ion battery wet separators by increasing length and width at higher speed.

'ST YOUNGWON' strives to provide high-quality products and various solutions for the benefits of individuals, corporates, and our society.

ST永稳是一家专注于锂电池湿法隔膜设备制造及具有创新理念的生产企业。

ST永稳现具备生产世界上幅宽最宽且超高速的湿法隔膜设备,从而大幅度降低客户生产成本来实现最大效率。我司拥有经验丰富的R&D团队,可研发超出客户期望值的最尖端设计及工程系统,而且将不断研发及生产更宽更快更稳的高性能锂电池湿法隔膜的设。我司目标是通过一站式咨询服务提供尖端技术和优质解决方案,并引领全球市场。

ST永稳提供多种产品和解决方案,携手客户一起努力,为社会做出杰出贡献。

Equipment manufacturer that supplies lithium-ion battery wet separator production line

锂电池湿法隔膜设备制造商

Stretching Wider, Faster and Stable

更宽，更快，更稳

To your esteemed company, which aims to leap forward as a global top-tier company for the highest corporate value, ST YOUNGWON as an experienced manufacturer of secondary battery separator production line equipment proposes the lithium-ion battery material business.

ST永稳作为锂电池隔膜生产设备企业，为跃升为全球超一流企业的贵公司，在专业领域给出建议和方案。

ST YOUNGWON, your trusted partner ST 永稳, 您值得信赖的合作伙伴

If you are interested in the production of lithium-ion battery separator materials, our company, as a reliable partner, provides comprehensive consulting for starting the separator business and quickly resolves the comprehensive issues that you may be concerned about, achieving customer goals through customer-centered integrated solutions.

如果贵司对锂电池隔膜产业感兴趣，我司将作为合作伙伴，针对隔膜产业给与全方位咨询，快速解决企业疑惑的综合问题，以客户为中心制定方案从而实现企业目标。



CONSULTING 全方位咨询

The 'customized solutions' provided by ST YOUNGWON support our accumulated practical know-how and expertise based on one-stop consulting, from factory concept to mass production stabilization.

ST 永稳将用现场实战生产经验和专业化知识为企业提供一站式服务制作“定制化解决方案”，并从工厂规划到初期稳定化量产给与支持。



One-stop consulting 一站式服务

According to your specific needs, providing a comprehensive solution from 'factory concept > design > construction > project management > production line operation training > initial mass production'.

根据企业需求, 提供从‘工厂规划 > 设计 > 施工 > 项目管理 > 生产线操作培训 > 初期量产’的全流程解决方案。

Solution 解决方案

Process control technical support

流程管理优化

Facility upgrade support

设施改造

Operations management system construction

运营管理体系构建

Quality control technical support

质量管理, 技术支持

Solutions to meet client needs

满足客户需求方案

Built-to-Suit solution 客户定制化解决方案

Comprehensive solutions provided by senior separator experts with over 15 years of experience in project management 'Process Management Optimization Support > Facility Upgrade Support > Operations Management System Setup > Quality Management Support > Solutions to Satisfy Client Needs'

15年资深隔膜产能技术专家提供全方位解决方案 > ‘流程管理优化 > 设施改造 > 运营管理体系构建 > 质量管理 > 满足客户需求方案’

DURONIC 8300

Ultra-wide wet separator production line for lithium-ion battery

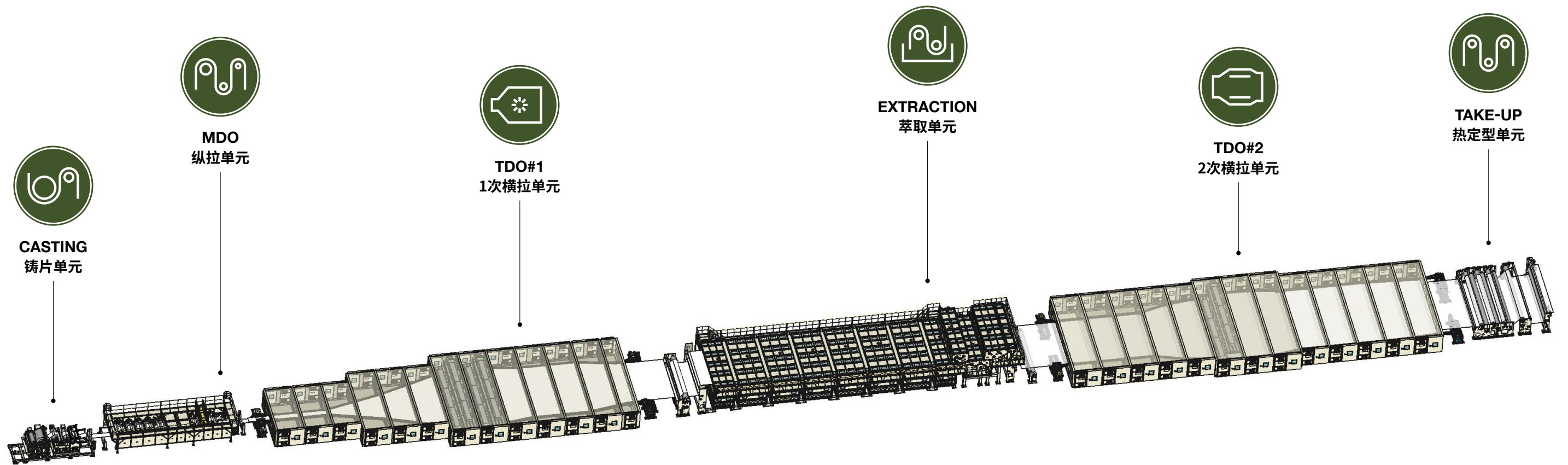
锂电池湿法隔膜超宽生产线

World's first and largest! Ultra-wide 8m-class separator mass production equipment

世界最初! 最大!! 超宽8米级锂电池湿法隔膜量产设备

Larger-size and faster-speed production ensures larger surface area of separator produced an hour by 60% more. Realizing uniform micropores and thicknesses (5-10µm) by means of wet process

更宽, 更快, 更稳的生产可确保每小时湿法隔膜的产能增加60%以上。
通过湿法工艺实现均匀的孔隙和厚度 (5-10µm)。



Machine Speed 机械速度	120m/min (max)
Total Length 设备总长	170m
Output Roller Width 出口辊宽	8,300mm

UFLOW 85

It is remarkable that UFLOW 85 combine the excellent manufacturing performance of DURONIC 8300 with coating process in line, which ensures significantly enhancing production efficiency.

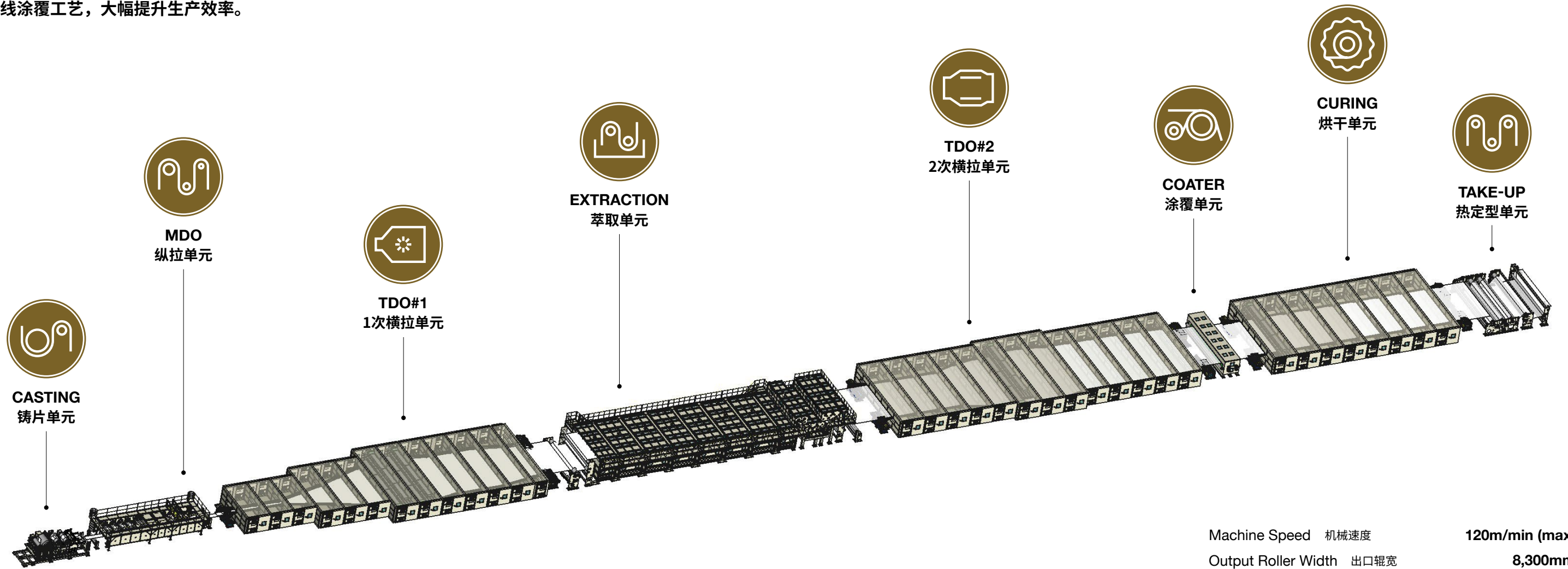
UFLOW 85的特点是结合了DURONIC 8300 的制造优异性能和在线涂覆工艺，大幅提升生产效率。

Launch of the Coating (COATER) Process Combination model (2024)

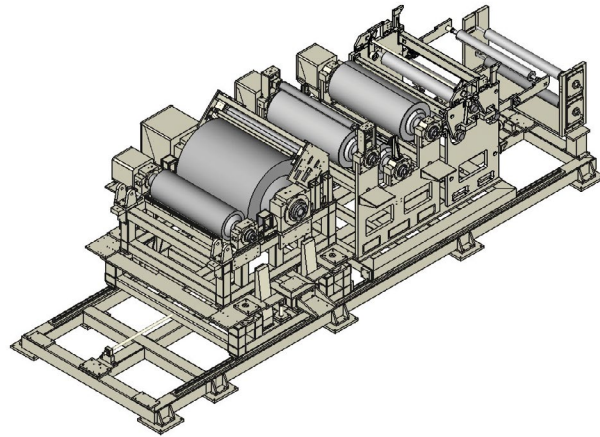
结合工艺的涂覆设备出世 (2024年)

Significantly simplifies the process, saves space and time, reduces production costs, and minimizes quality variation compared to existing coating methods.

相对于传统涂覆方式，我司设备的优点是大幅简化工艺，节省空间和时间，从而降低生产成本，并缩小质量差异。



CASTING UNIT 铸片单元



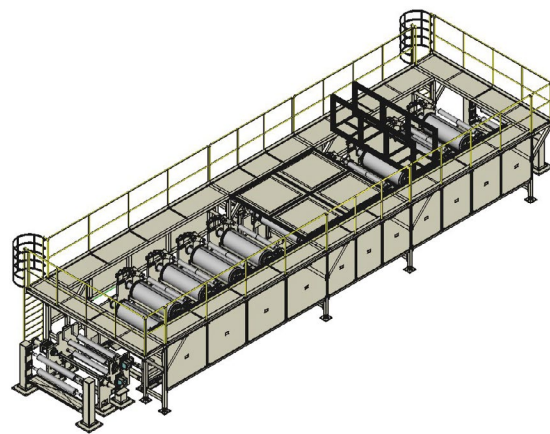
Forming the hot melt of the raw materials into a sheet form

将挤出的熔体流延后形成含有孔隙的厚片

Speed 速度
~20m/min

Roll Width 辊宽
1,400mm

MDO UNIT 纵拉单元



Stretching the sheet in a longitudinal direction

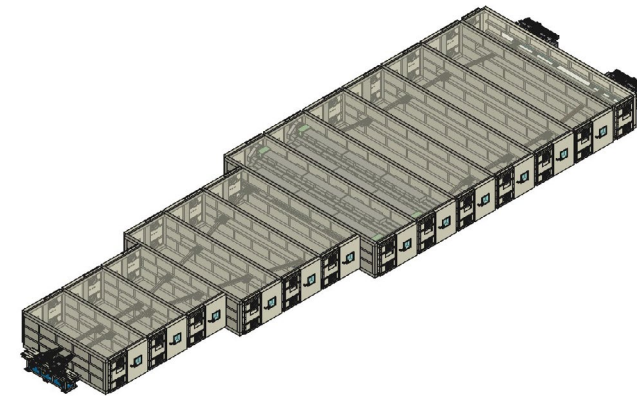
将流延厚片进行纵向拉伸

Speed 速度
~120m/min

Stretch Ration 拉伸比
1 : 1~10

Roll Width 辊宽
1,400mm

1ST TDO UNIT 1次横拉单元



Elongating the sheet in the transverse direction

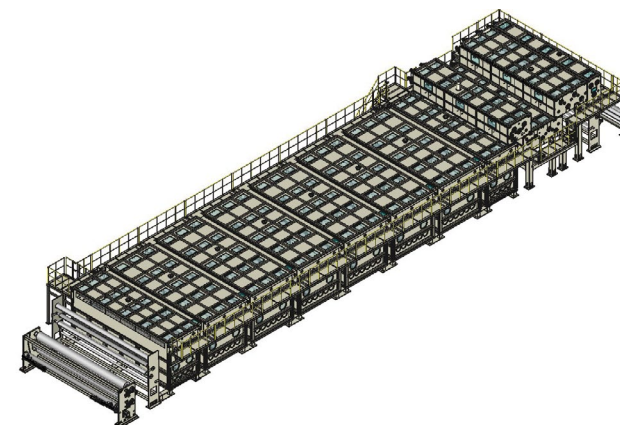
纵向拉伸后的流延厚片横向拉伸

Speed 速度
~120m/min

Stretch Ration 拉伸比
1 : 4.5~11

Outlet Width 出口幅宽
9,000mm

EXTRACTION UNIT 萃取单元



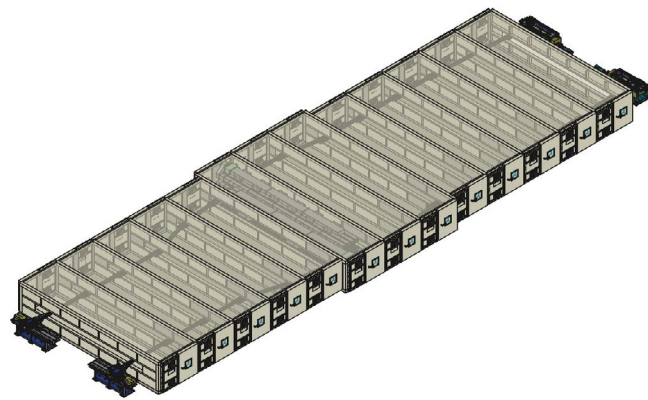
Creating micropores by dissolving and extracting paraffin oil within the film dipping through many MC tanks

通过多个萃取槽里MC溶剂萃取成微孔的基膜

Speed, Dipping Length 速度, 浸液长度
~120m/min, About 150m

Roll Width, MC Tanks 辊宽, 萃取槽数量
6,500mm , 8EA

2nd TDO UNIT 2次横拉单元



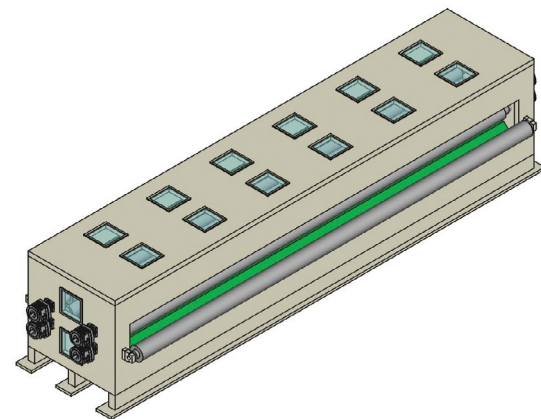
Elongating the extracted film again in the transverse direction
萃取出的基膜进行2次横向拉伸

Speed 速度
~120m/min

Stretch Ratio 拉伸比
1 : 1.1~2.0

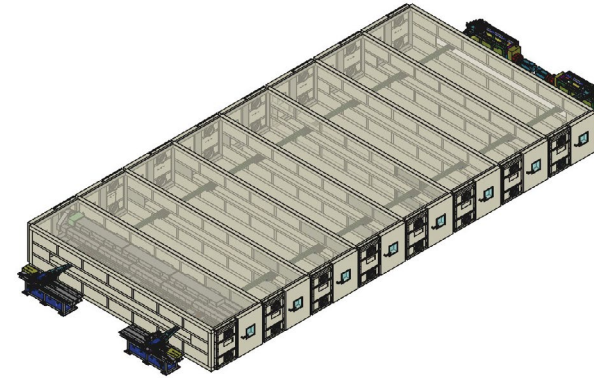
Outlet Width 出口幅宽
~9,000mm

COATER UNIT 涂覆单元



Double-sided coating process
在线涂覆工艺

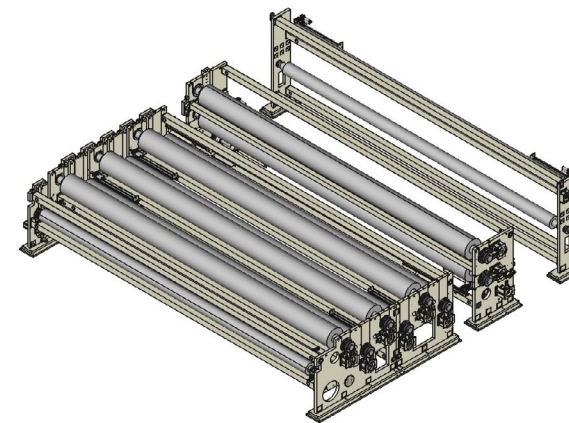
CURING UNIT 烘干单元



Drying process
烘干工艺

Speed 速度
~120m/min(max)

TAKE-UP UNIT 热定型单元



Heat treating the film to fix its shape

将基膜热处理定型

Double Jacket Type 夹套型

Roll Width 辊宽
8,300mm

HISTORY 历程

Growth power accompanied by
the powerful technology of a new company

拥有高新技术的成长型新生企业

2021. 02

Incorporation of
ST YOUNGWON

公司成立

2022. 03, 05

Contracted for 2 wet
separator production lines

签约两条湿法隔膜产线

Certified as Venture
Busines

风险企业认证

2022. 06

Established Research
Center

成立企业研究院

Expanded and relocated
headquarters and 1st
factory

总部搬迁并扩建第一工厂

2022. 08

Contracted for 2
Extraction equipments

签约两套萃取设备

2022. 11

Commendation of the
Head of Small and
Medium Enterprises
and Startups in Daegu-
Gyeongbuk Region

大邱庆北地区中小初创企业
代表表彰获奖

2022. 12

Shipped 2 wet separator
production lines

出口两条湿法隔膜产线

2024. 01

Shipped 2 wet process
separator production lines

出口两条湿法隔膜产线

2023. 12

Won the 'Export Tower
Prize' for \$30M

获得第60届贸易协会“3000
万美金”出口级别的奖状

2023. 09

Commendation by the
Minister of Small and
Medium Enterprises and
Startups

中小企业长官部获奖

2023. 07, 08

Established 2nd factory
第二工厂成立

Commendation by the
Mayor of Daegu

获得大邱市表彰

2023. 04

Designated as Company
specializing in materials,
parts and machinery

材料, 配件, 机械
专业企业认证

2023. 01

Contracted for 4 wet
separator production lines

签约四条湿法隔膜产线

Patents 专利, 认证

6 patents, 3 certifications 6项专利, 3项认证

01



Clip opening and closing apparatus for film stretching
横拉链夹闭夹器装置

02



Extracting solvent apparatus for oil extraction and drying system for manufacturing wet separator
二次电池隔膜制造用溶剂提取装置

03



Air circulation system of TDO stretching equipment
横拉设备的空气循环系统

04



Extracting solvent apparatus for manufacturing secondary battery separator
二次电池隔膜制造用溶剂提取装置

05



Machine direction orientation of stretching apparatus for manufacturing secondary battery separator
锂离子薄膜制造用纵拉拉伸装置

06



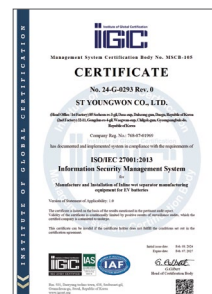
Nozzle apparatus and nozzle system for hot air supplying of film stretching equipment
隔膜拉伸设备热风喷嘴装置和喷嘴系统

07



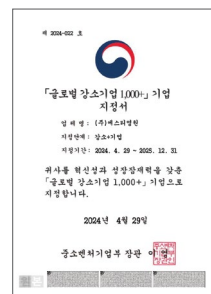
ISO 45001:2018

08



ISO/IEC 27001:2013

09



Global Small Giant 1000

ST YOUNGWON VISION 愿景

ST YOUNGWON always thinks from the customer's perspective. Creating value for customers is the most important value that a company should pursue. The establishment of strategies based on the innovation of technology and thinking, as well as the creation of more creative and challenging values, are ST YOUNGWON's efforts to achieve the goals of our customers. Additionally, through customer-centered integrated solutions, leading our customers' businesses to success is the direction in which ST YOUNGWON ultimately aims to advance.

ST 永稳始终以客户为中心, 从企业的立场出发, 为企业创造重要价值。在战略制定, 技术及思维的创新上, 努力实现企业目标, 给企业提供更具创意和挑战性的价值创造。ST 永稳携手企业走向成功。

