



瑞图生态股份公司
RETO ECO-SOLUTIONS, INC.
NASDAQ: RETO

固废综合处理系统事业部
Solid Waste Integrated
Treatment Systems Department

PRODUCT MANUAL

产 / 品 / 手 / 册



瑞图生态股份公司
RETO ECO-SOLUTIONS, INC.

中国智造 德国品质
民族品牌 工匠精神



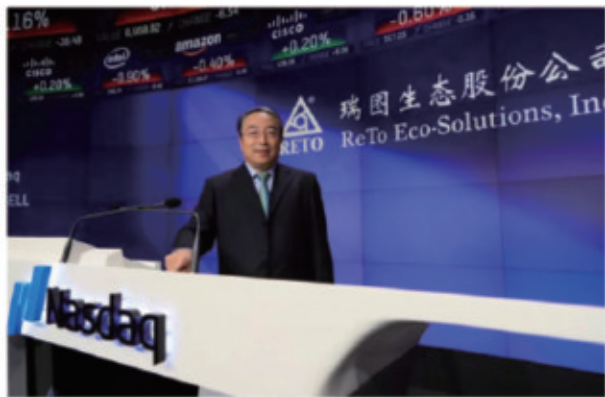
地址：北京市朝阳区安立路60号B座24层
电话：400-698-8624
网址：www.retoeco.cn
邮箱：info@retoeco.com

瑞图遵循生态系统的自然规律，对废弃物综合利用，恢复被破坏区域的生态功能和自然属性，让其重新被人类利用，实现生态修复与区域经济发展的双赢局面。多年以来，瑞图已经形成成熟的一站式生态治理方案与商业模式。

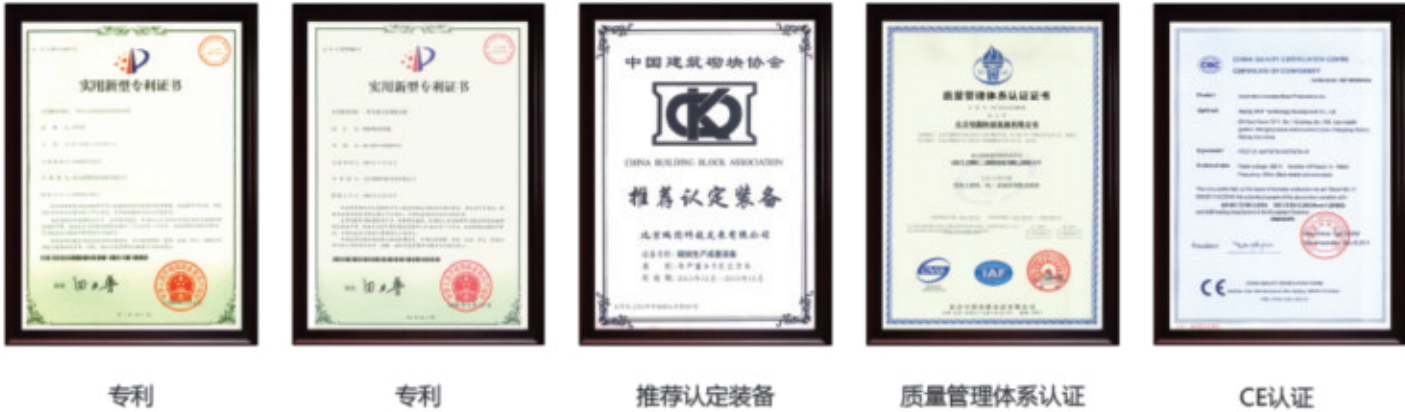
主营业务：

1. 固体废弃物综合利用，包括固体废弃物综合利用的技术研发、装备制造及固废利用所形成终端产品的生产与销售。
2. 对被破坏区域的生态治理与修复，包括植被恢复、土壤改善、水污染治理和进一步的商业开发和利用，产生经济效益。
3. 开发新型家庭生态改善产品，将环保建材以及家庭生态产品引入家庭，从改善以家庭为单位的小环境，让整体生态大环境得以改善。

Corporate Qualification and Certification
企业资质及认证



- | | |
|---------------|------------------|
| ①瑞图股份赴美敲钟 | ④瑞图股份创始股东留影 |
| ②股东与纳斯达克工作人员 | ⑤董事长手持纳斯达克赠与的水晶杯 |
| ③董事长在NASDAQ留影 | ⑥纽约时代广场 |



Company Introduction 公司简介

瑞图砖机·德国品质 Fully Automatic·Fully Satisfactory



RETO Eco-Solutions, Inc. specializes in manufacture and sales of eco-friendly construction materials using solid waste as raw materials, and equipment for the production of environmentally-friendly building materials for the construction of urban eco-environment such as the construction of a sponge city, consultation, design and project implementation. In addition, RETO also provides integrated solutions such as engineering support, technical consultation and after-sales service for manufacturers and environmental protection projects that produce eco-friendly building materials.

RETO is the earliest company in China to develop, produce, and export large-scale automatic waste resource utilization equipment. It is also the first block manufacturer that have exported equipment to developed countries such as USA, Canada.

While fully absorbing the advantages of integrating European and American equipment, RETO R&D team devotes itself to research and innovation and has developed our own brand equipment. Its solid waste equipment, as a well-known Chinese brand, can rival the top international brands. With several hundred units set up in the world, all the equipment operates stably both at home and abroad.

RETO designed and manufactured solid waste equipment using pretreated solid waste through batching and mixing, vibration molding and other processes to produce various types eco-friendly building materials which can be widely used in municipal engineering, water conservancy projects, roads construction, construction engineering and sponge city engineering construction and so on.

RETO Eco-Solutions, Inc. was listed successfully in Nasdaq, America in November, 2017.
Stock Code: RETO

瑞图生态股份公司专注于生产和销售以固体废弃物为原材料的生态环保建筑材料及用于生产环保建材的设备和为城市生态环境建设，如：海绵城市建设，提供咨询、设计及项目实施。此外，公司还为生产生态环保型建材的制造商和环保项目提供工程支持、技术咨询、售后服务等整体解决方案。

瑞图是中国最早研制、生产并出口大型全自动固废资源利用装备生产企业，也是中国最早出口到发达国家的装备生产商。

在充分吸收融合欧美装备的优势技术基础上，瑞图研发团队潜心专研、不断创新，研制出了独具特色的装备，其固废装备作为中国知名品牌，可以媲美国际顶尖品牌，几百台套的设备在国内、外稳定运行。

瑞图设计制造的固废装备将经过预处理的固体废弃物通过配料搅拌、振动成型等工艺生产出各种不同类型和用途的生态环保建材，这些建材可广泛用于市政工程、水利工程、道路工程、建筑工程及海绵城市工程建设。

诚信
INTEGRITY

优质
QUALITY

创新
INNOVATION



The Core Technology

保障瑞图全自动生产线稳定运行的核心技术

Master of Fully Automatic Block Production Line
混凝土制品全自动生产线领航者



► 成型系统

专利的多轴高频振动技术，配合悬浮式振动台放大振动力，使制品均匀密实。脱模刹车装置、栈板定位装置，从细节上确保制品质量。液压驱动的快速强制布料装置，经久耐用。

应用低速巡航技术，控制电机温度，延长使用寿命。

► Block Making Machine

High quality products: patent multi-shafts vibrator combines floating vibration table make concrete products even and compact. With off-mold brake and pallet position device guarantees product quality from details.

Prolong equipment life: Cruising technique keeps motor temperature. Hydraulic drive compulsory feeding which is durable for batching rough material.



► 码垛系统

采用独立液压系统，数码控制码放精确，齿轮齿条驱动避免因运行不稳而发生产品掉落。

► Cubing System

High Stability: independent hydraulic station.

Accurate cubing: digital encoder & Inverter.

Avoid products drop out: gear-rack transmitting ensures stable movement of cuber.

► 转运输送系统

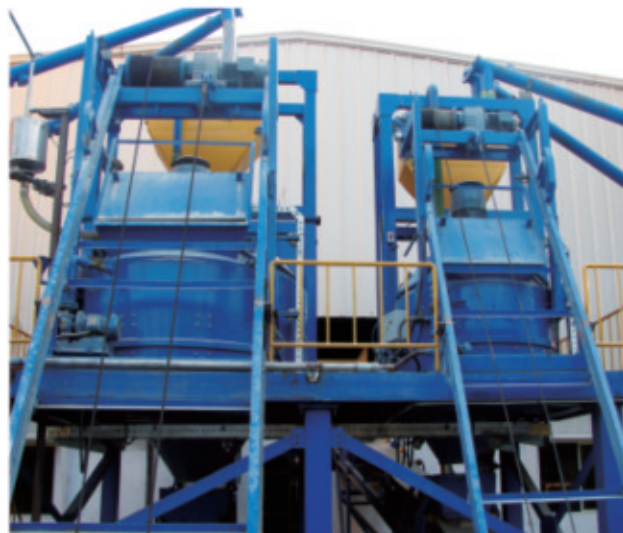
特有12层子母车设计，使用多重定位和变频调速技术相结合，使运输过程平稳精确。结合自锁互锁等安全技术，实现生产过程中的无人值守。

► 12 Layers Handling System

Accurate positioning: multi-positioning & patent driven system.

Stable movement: variable frequency technique.

Unattended operation: safety engineering such as self-locked & interlocking.



► 配料搅拌系统

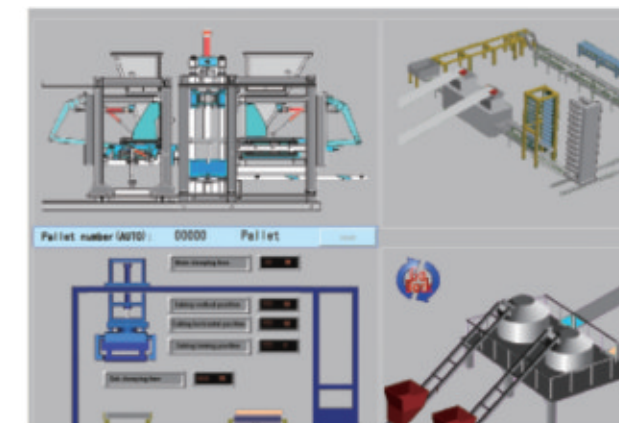
搅拌系统全程全自动称量，采用最适合干硬性混凝土制品生产的立式行星强制搅拌机，使搅拌均匀快速。微波测湿仪确保水灰比精准。

► Batching and Mixing System

Fast & even mixing: planetary mixer.

Accurate water cement ratio: brand microwave moisture measurement.

Accurate weighing: computer control.



► 控制系统

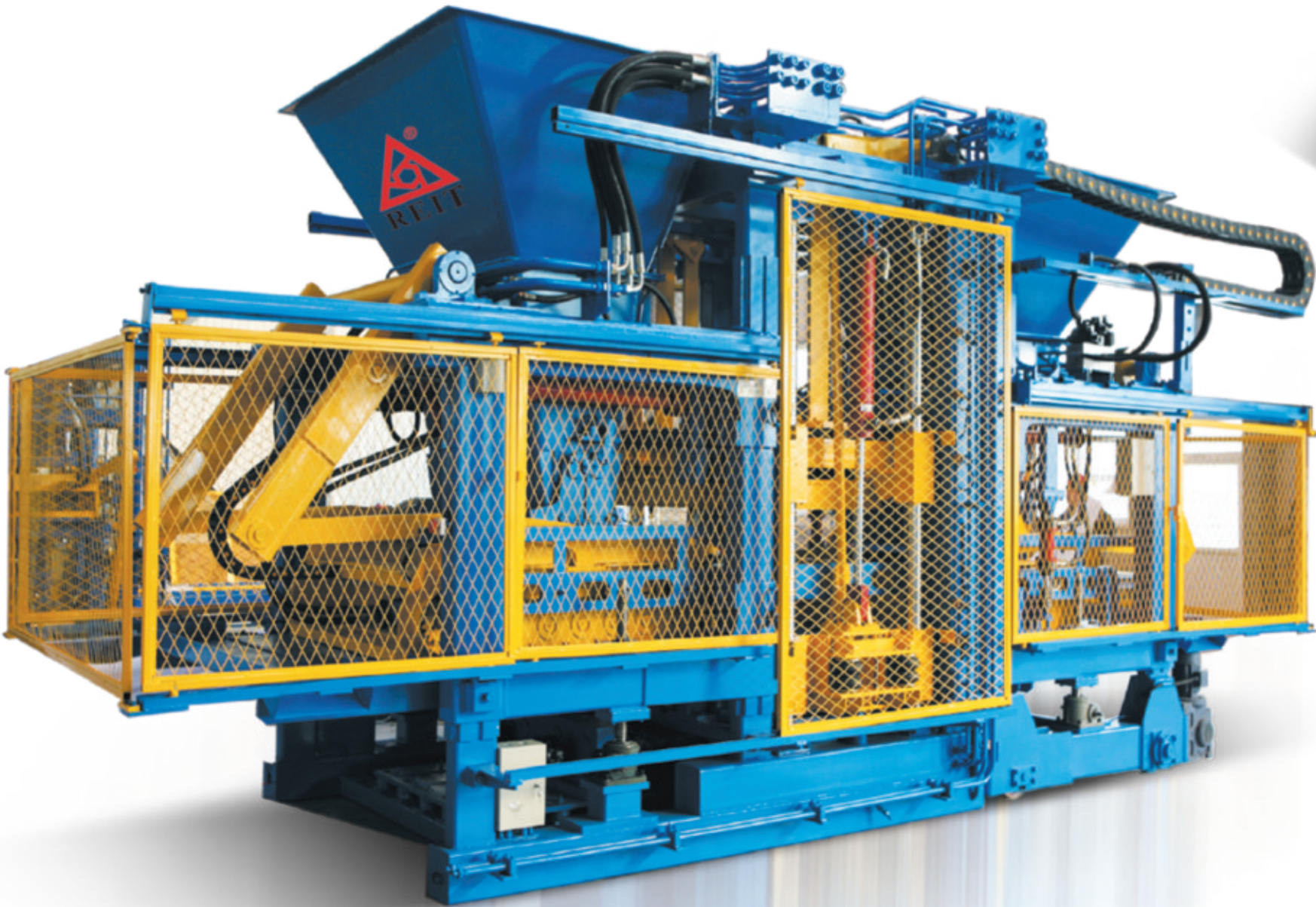
采用西门子等国际知名元器件，程序成熟易用，可视化操作，技术参数方便调整。

► Control Group

Adopt world-famous brand components. Mature visualized software easy to operate, with auto error diagnosis and remote control function.

整套全自动生产线采用变频技术，使设备节能20%，并提高产品质量。
Whole set of production line uses variable-frequency technique, saving 20 percent energy.

Shaping Your Success
一流的砌块设备 专业的售后服务



RTQT15混凝土砌块成型机
RTQT15 Block Making Machine



空气弹簧 Air Bag



快速布料装置 Fast Feeding Device



振动台、栈板定位装置
Floating Vibration Table and
Pallet Positioning Device



液压系统 Hydraulic System



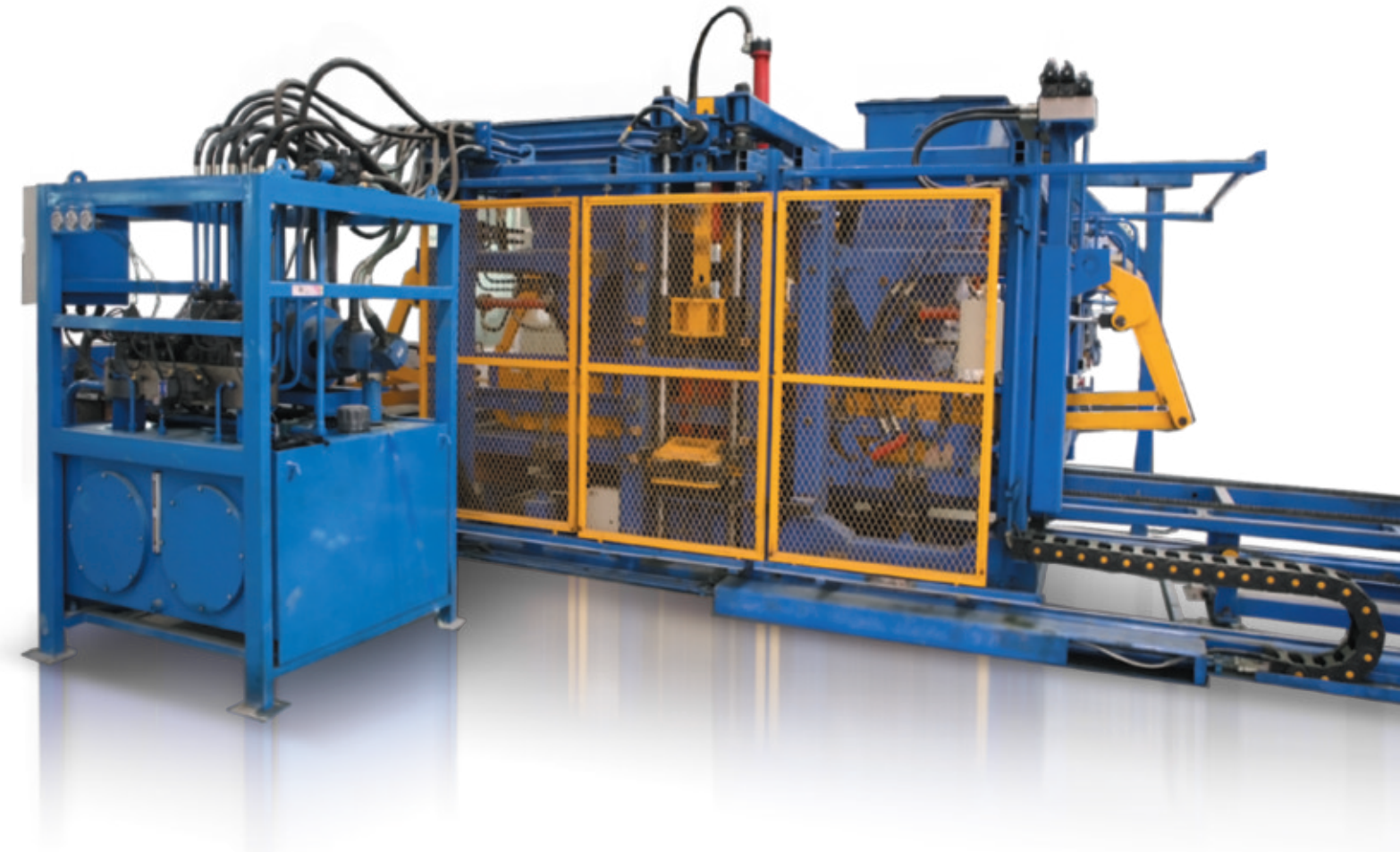
控制系统 Control Group

► RTQT15混凝土砌块成型机 RTQT15 Block Making Machine

技术参数	成型周期 Operation Cycle	产品高度 Height of Product	栈板尺寸 Pallet Size	有效成型尺寸 Working Area
Technical Parameters	15-30(s)	60-450(mm)	1400x1150(mm)	1300x1050(mm)



RTQT12混凝土砌块成型机
RTQT12 Block Making Machine



RTQT9混凝土砌块成型机
RTQT9 Block Making Machine

► RTQT12混凝土砌块成型机 RTQT12 Block Making Machine

技术参数	成型周期 Operation Cycle	产品高度 Height of Product	栈板尺寸 Pallet Size	有效成型尺寸 Working Area
Technical Parameters	15-25(s)	50-500(mm)	1400×900(mm)	1260×830(mm)

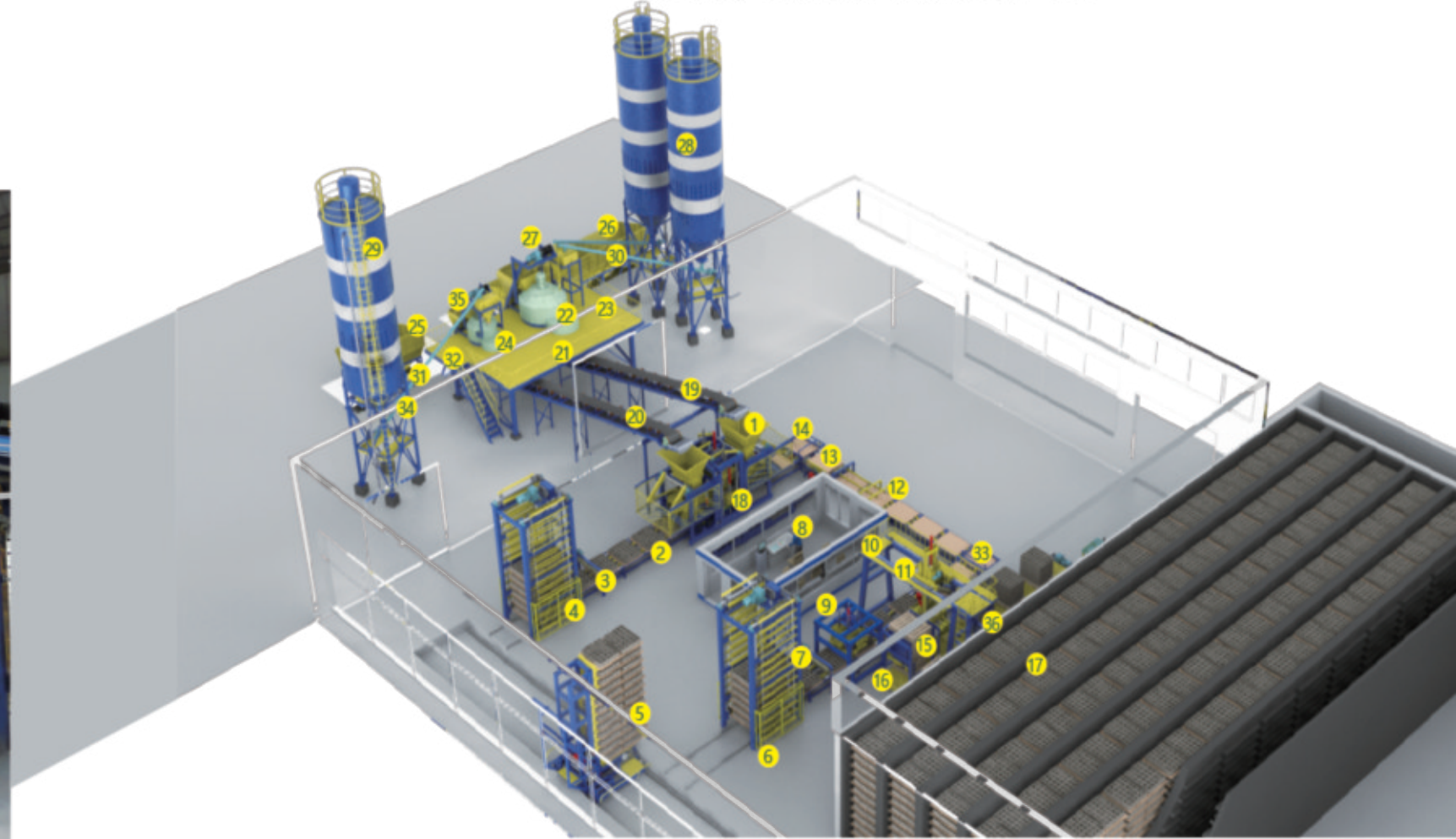
► RTQT9混凝土砌块成型机 RTQT9 Block Making Machine

技术参数	成型周期 Operation Cycle	产品高度 Height of Product	栈板尺寸 Pallet Size	有效成型尺寸 Working Area
Technical Parameters	15-30(s)	50-500(mm)	1350x700(mm)	1250x630(mm)

Shaping Your Success

一流的砌块设备 专业的售后服务

RETO Fully Automatic Block Production Line Model-A 封闭式全自动混凝土砌块生产线



- | | | | | | |
|--|--|--|---|---|---|
| 1 成型主机
Concrete Block
Making Machine | 2 升板节距机
Green Block
Conveyor | 3 产品刷
Rotate Brush
for Block | 4 升板机
Chain Elevator | 5 程控子母车
Finger Car | 6 降板机
Chain Lowerator |
| 7 降板节距机
Dry Block
Conveyor | 8 中央控制室
Centre Control
Room | 9 整码装置
Pre Cubing
Device | 10 码垛机
Automatic Cuber | 11 栈板清洁装置
Pallet Cleaning
Device | 12 栈板节距机
Pallet Cross
Transfer Device |
| 13 翻板机
Pallet Turning
Device | 14 栈板仓
Pallet Hopper | 15 托板仓
Product pallet
Magazine | 16 成品输送机
Slat Conveyor | 17 养护窑
Curing Kilns | 18 机内降板机
Transferring Device
Inside |
| 19 底料出料皮带
Wet Concrete Con-
veying Belt (for Base) | 20 面料出料皮带
Wet Concrete Con-
veying Belt (for Face) | 21 搅拌平台
Mixer Platform | 22 底料搅拌机
Planetary Mixer
(for Base) | 23 底料水泥称
Cement weighing
Batcher (for Base) | 24 面料搅拌机
Planetary Mixer
(for Face) |
| 25 面料配料站
Aggregate Batcher
(for Face) | 26 底料配料站
Aggregate Batcher
(for Base) | 27 底料提升机
Aggregate skip
Hoister (for Base) | 28 水泥仓
Cement Silos
(for Base) | 29 水泥仓
Cement Silos
(for Base) | 30 水泥螺旋输送机
Cement Screws
(for Base) |
| 31 水泥螺旋输送机
Cement Screws
(for Face) | 32 面料颜色称重系统
Color Dosing System
(for Face) | 33 栈板收集仓
Pallet-collecting
Hopper | 34 面料水泥称
Cement Weighing
Batcher (for Face) | 35 面料提升机
Aggregate Skip
Hoister (for Face) | 36 喷水装置
Atomizing Device |

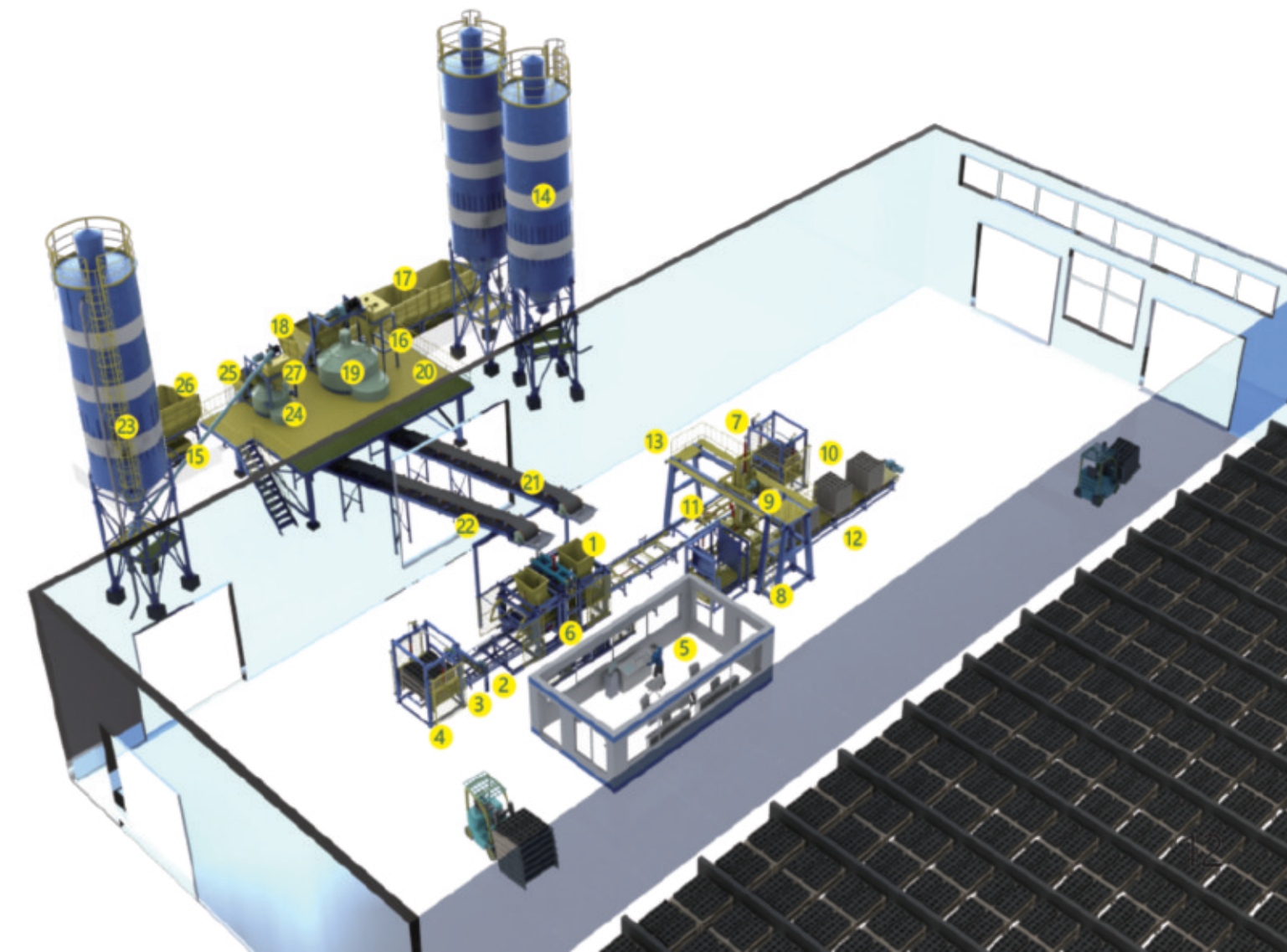
Shaping Your Success

一流的砌块设备 专业的售后服务

RETO Fully Automatic Block Production Line Model-B 开式全自动混凝土砌块生产线



- | | | | | | |
|--|---|--|--|---|--|
| 1 成型主机
Concrete Block
Making Machine | 2 升板节距机
Green Block
Conveyor | 3 产品刷
Rotate Brush
for Block | 4 顶板机
Elevator | 5 中央控制室
Center Control Rom | 6 机内降板机
Transferring Device
Inside |
| 7 栈板清洁装置
Pallet cleaning
Device | 8 托板仓
Product Pallet
Magazine | 9 成品输送机
Slat Conveyor | 10 降板机
Lowerator | 11 降板节距机
Dry Block Conveyor | 12 整码装置
Pre Cubing Device |
| 13 码垛机
Automatic Cuber | 14 水泥仓
Cement Silo
(for Base) | 15 水泥螺旋输送机
Cement Screws | 16 底料水泥称
Cement Weighing
Batcher (for Base) | 17 底料配料站
Aggregate Batcher
(for Face) | 18 底料提升机
Aggregate Skip
Hoister (for Face) |
| 19 底料搅拌机
Planetary Mixer
(for Face) | 20 搅拌平台
Mixer Platform | 21 底料出料皮带
Wet Concrete Con-
veying Belt (for Base) | 22 面料出料皮带
Wet Concrete Con-
veying Belt (for Face) | 23 水泥仓
Cement Silo
(for Face) | 24 面料搅拌机
Planetary Mixer
(for Face) |
| 25 面料提升机
Aggregate Skip
Hoister (for Face) | 26 面料配料站
Aggregate Batcher
(for Face) | 27 面料水泥称
Cement Weighing
Batcher (for Face) | | | |



► 定制化生产线

瑞图能根据客户的实际需求,定制拥有不同转运、码垛和养护模式的全自动生产线,满足不同的投资和产品需要。

► Customized Block Production Line

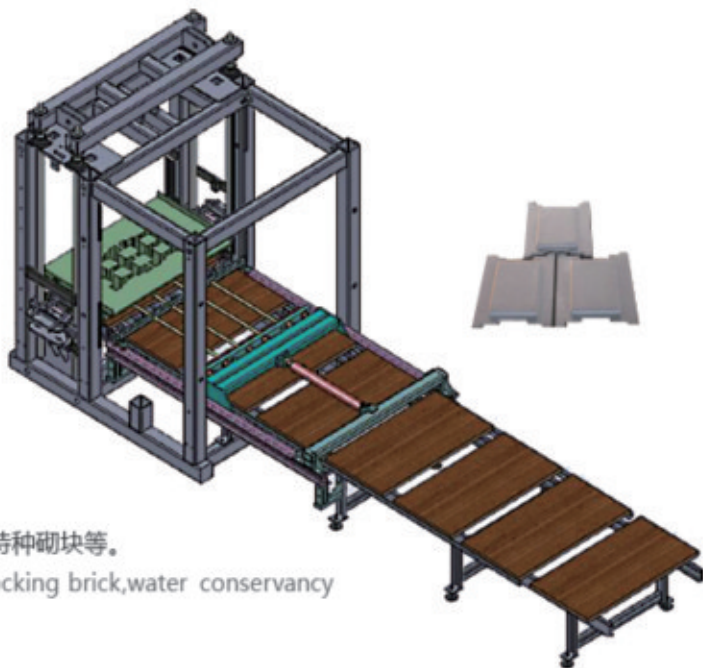
According to various demands of customers, RETO can design and manufacture special automatic block production line with different handling, cubing and curing system.

RETO Special Device

特殊装置



► 保温砌块苯板插入装置
Automatic Foam Plate Device
保温“砖”家



► 横向拉孔装置
Horizontal Pull Holes Device

横向拉孔装置用于联锁砖、水利砌块、护坡砌块、特种砌块等。
Horizontal Pull Holes Device is used for interlocking brick,water conservancy block,slope protection block,special blocks,etc.



► 四刀劈裂机 Concrete Block Splitter

技术参数	Technical Parameters
生产速度 Production Rate	300-400 Piece/Hour
产品宽度 Product Width	600(mm)
成品高度 Product Height	40-300(mm)

Capacity Table

产能表

产品 Product	产量 Capacity	主机型号 Host Model			
		RTQT6	RTQT9	RTQT12	RTQT15
地面砖 Paver 200x100x60mm	块/板 Piece/Pallet	21	36	44	60
	平方米/小时 m²/Hour	76	129	158.4	216
	万平方米/年 10⁴ m²/Year	36.5	62	76	103.7
多孔砖 Multi Hole Brick 240x115x90mm	块/板 Piece/Pallet	15	25	36	46
	块/小时 Piece/Hour	3600	6000	8640	11040
	万块/年 10⁴ Piece/Year	1728	2880	4147	5299
标准砌块 Standard Hollow Brick 390x190x190mm	块/板 Piece/Pallet	6	9	12	15
	块/小时 Piece/Hour	1200	1800	2400	3000
	万块/年 10⁴ Piece/Year	576	864	1152	1440
标准砖 Standard Brick 240x115x53mm	块/板 Piece/Pallet	30	50	60	85
	块/小时 Piece/Hour	7200	12000	14400	20400
	万块/年 10⁴ Piece/Year	3456	5760	6912	9792
水利砌块 Hydraulic Block	块/板 Piece/Pallet	2	4	6	8
	块/小时 Piece/Hour	270	540	830	1080
	万块/年 10⁴ Piece/Year	130	260	399	518
Solid Block 400x200x200 (8inch)	块/板 Piece/Pallet	6	9	12	15
	块/小时 Piece/Hour	1080	1620	2160	2700
	万块/年 10⁴ Piece/Year	518.4	618.4	1036	1296
Solid Block 400x200x150 (6inch)	块/板 Piece/Pallet	8	12	15	18
	块/小时 Piece/Hour	1140	2160	2700	3240
	万块/年 10⁴ Piece/Year	691.2	1036.8	1296	1555.2
Solid Block 400x200x100 (4inch)	块/板 Piece/Pallet	10	18	24	30
	块/小时 Piece/Hour	1800	3240	4320	5400
	万块/年 10⁴ Piece/Year	864	1555.2	2074	2592

说明：产量为计算值.年产量按（2×8）小时/天，300天/年计算。
Note: The production capacity is calculated. Annual output is based on the condition: 2x8hour/day,300 days/year.

Brick Type Selection

砖型选择



Applications of Products

产品应用

▶ 花盆砖应用
Flowerpot Brick Application



▶ 墙体砖应用
Application of Wall Brick



▶ 检查井砌块应用
Check The Well Block Application



▶ 劈裂砌块应用
Split Block Application

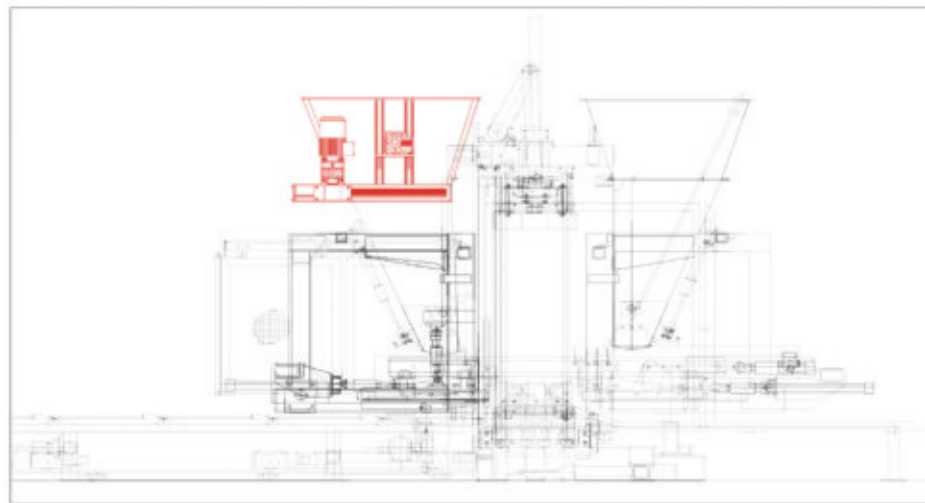


▶ 水利护坡应用
Water Slope Protection Application



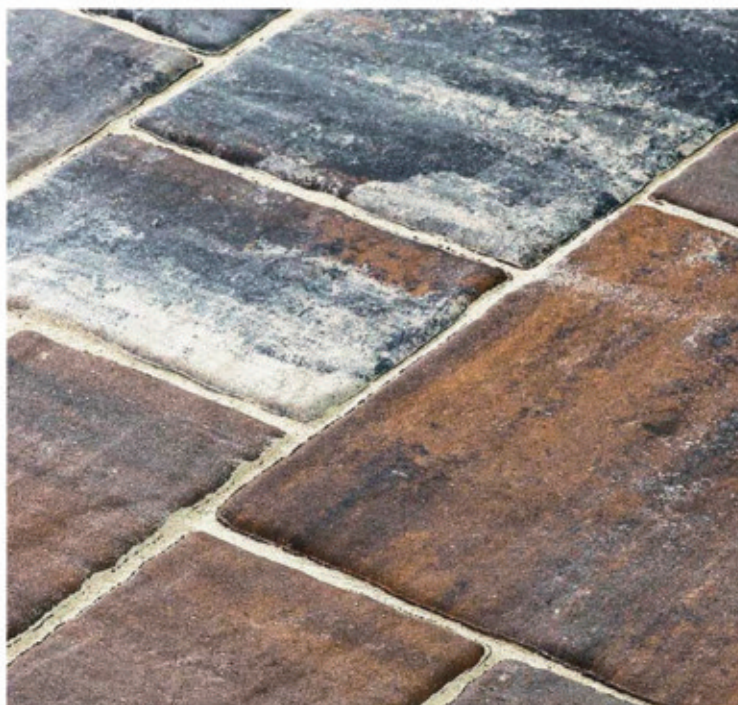
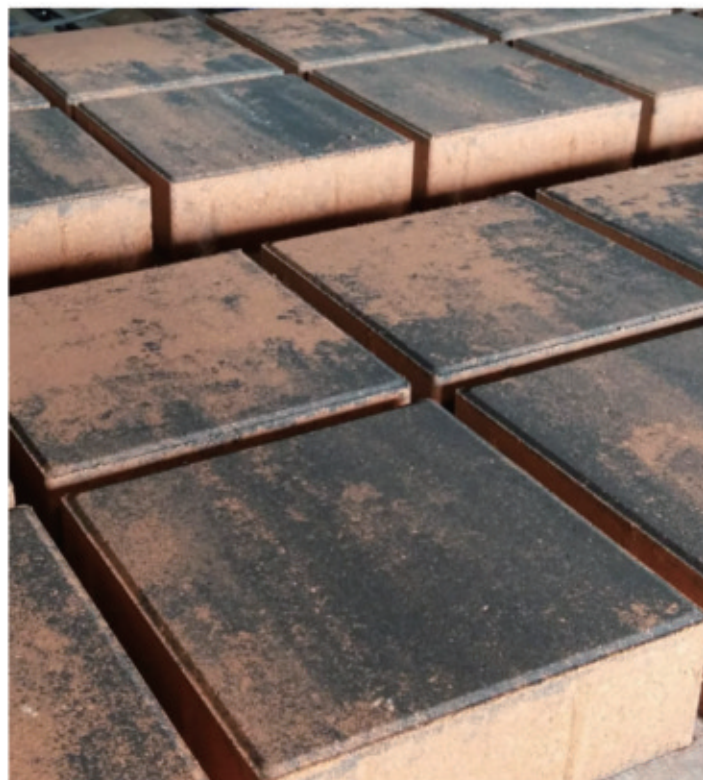
▶ 市政路面砖应用
Application of Municipal Road Brick





混凝土地砖幻彩混色系统

幻彩混色



在实际应用铺装中，一改平淡直接的色彩模式，颜色过度自然，可创造出风格各异的装饰效果，充满清新自然的意境。同时也可以底料混色，适合劈裂设备，可开发具有高附加值的多彩劈裂产品。

多种颜色混色

精巧结构，可靠性高

无极变频，完美混色

自定义配方设计，开发风格独特产品

性价比高，开拓更大利润空间

Resource Comprehensive Treatment System

资源化综合处理体系



城市生活垃圾无害化处理

Urban Waste Treatment

► WDM城市生活垃圾处理技术的优势

全程全封闭自动化处理，无异味、无人员接触；
分选高效，废弃物处理周期短。抑制二恶英和渗滤液的产生；
能量自循环利用；
适用不同城市的各种混合垃圾，无需事先分选；
投资强度小，占地面积少。

► Advantage of WDM municipal solid waste disposal

All closed fully automatic disposal, without odor and people contact.
High efficiency separation, Short waste processing cycle. Preventing generation of dioxin and leachate.
Ducing energy for self using and selling.
Suitable for mixed waste from various cities, with no need for pre-separation.
Less demand for investment and land.

Solid Waste Utilization

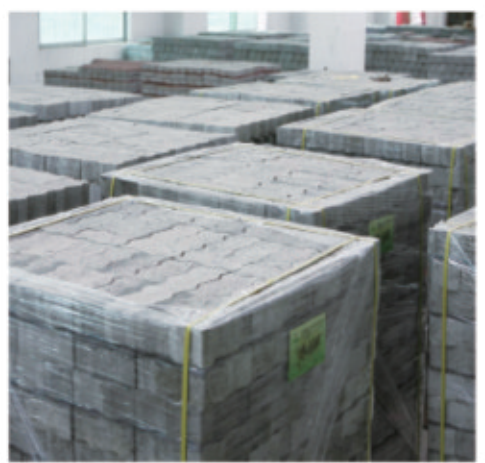
固体废弃物再利用

► 建筑垃圾处理

建筑垃圾资源化再利用是建筑垃圾处理的最好方式。使用建筑垃圾生产环保建材，例如空心砖，广场砖，等环保砖块，解决了建筑垃圾处理过程中发生的巨额费用及造成的环境污染。

► Building Waste Treatment

Building waste reuse is an idea method for disposal. By using these waste to produce environmental building material such as block and pave, a huge financial and environmental expenditure could be avoided for society.

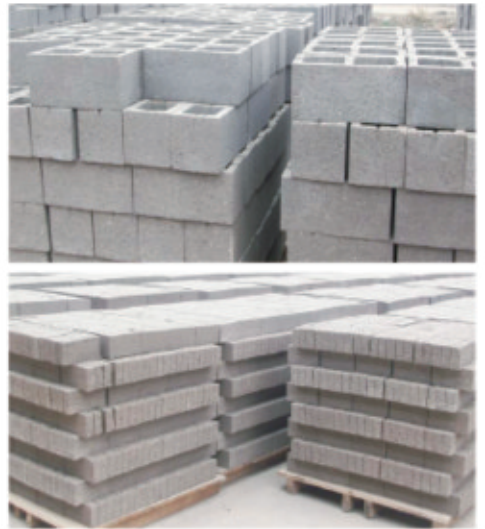


► 粉煤灰、尾矿综合运用

瑞图与美国知名大学合作研发粉煤灰的高效利用方案，制砖粉煤灰添加比例高达95%左右。此外瑞图还为客户提供以金属尾矿生产环保建材的综合利用方案。

► Fly Ash, Metal Tailings Utilization

Via cooperating with universities university, RETO provides clients highly efficient solution for using fly ash to produce block, which addition proportion can reach 95%. And REIT also offers clients solution for tailing integrated utilization.



► 金属冶炼回收

瑞图的金属冶炼回收装备，用震动和冲压相结合的成型方法，使矿粉块化进行二次熔炼。

► Metal Recovery for Smelting

RETO's metal recovery equipment takes combination of vibration and press to shape mineral powder into cylindrical, thus meet the requirement of metal smelting.



RETO Client 瑞图客户



服务与承诺 Service and Commitment

瑞图承诺：一年质保，终身服务。

瑞图坚信服务质量对于我们的企业生存发展至关重要：在国内，瑞图是唯一一家践行专职工程师售后巡回服务制的砖机企业。而在国际市场中，瑞图已先后在印度、阿尔及利亚和美国等地设立服务中心，并雇佣当地工程师为客户提供7x24小时的快捷服务。

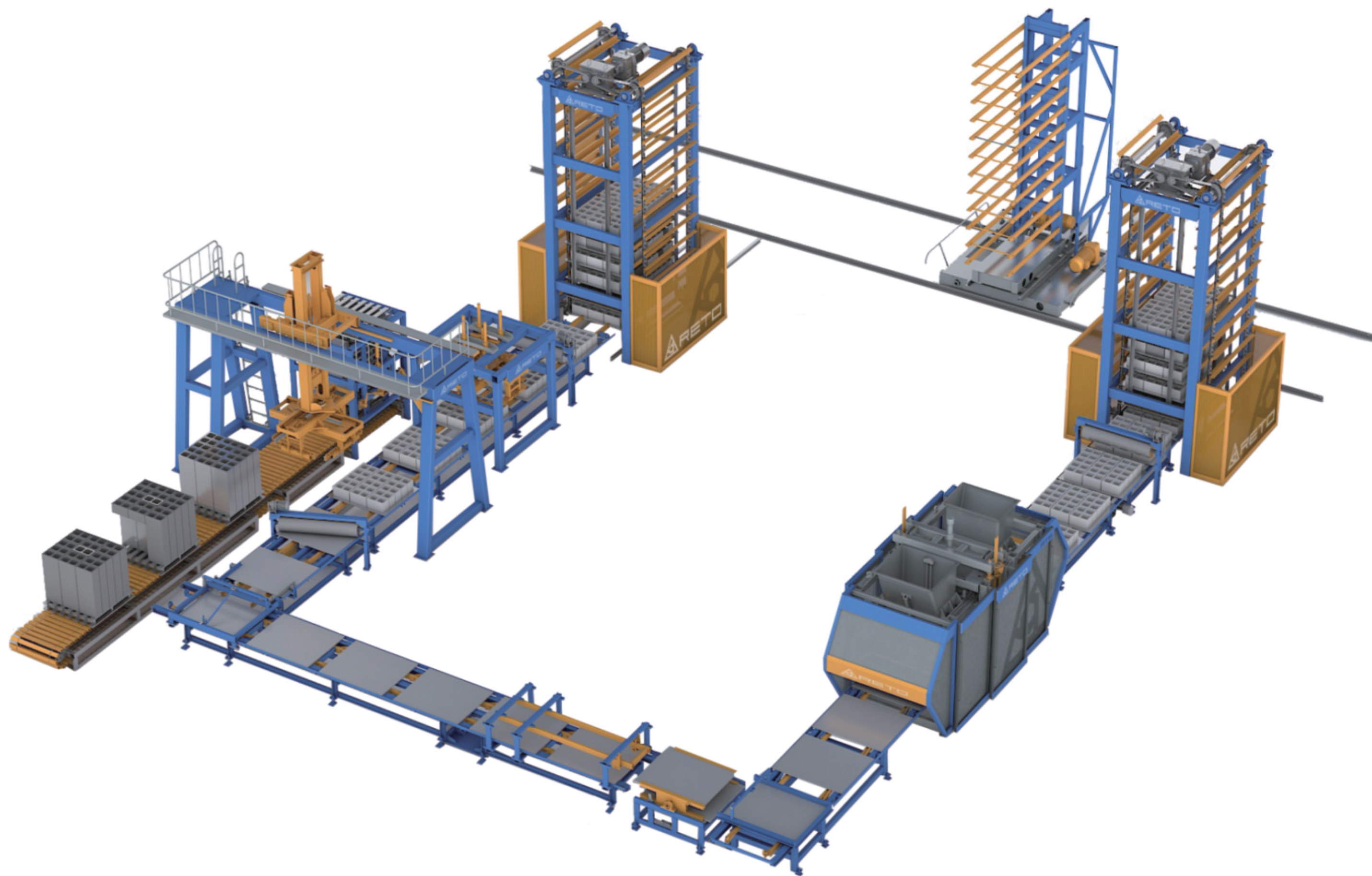
RETO promises: one year guarantee, life time service.

RETO believes that service quality is vital for our survival and development: In domestic, RETO is the only block machine supplier who fulfills service engineer travel system, while in international market, RETO has already set up branches in India, Algeria and USA, employs local engineer to provide 7x24hrs convenient service for customers.

Shaping Your Success

一流的砌块设备 专业的售后服务

全新全线图

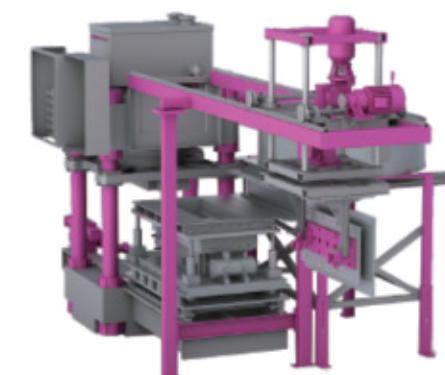
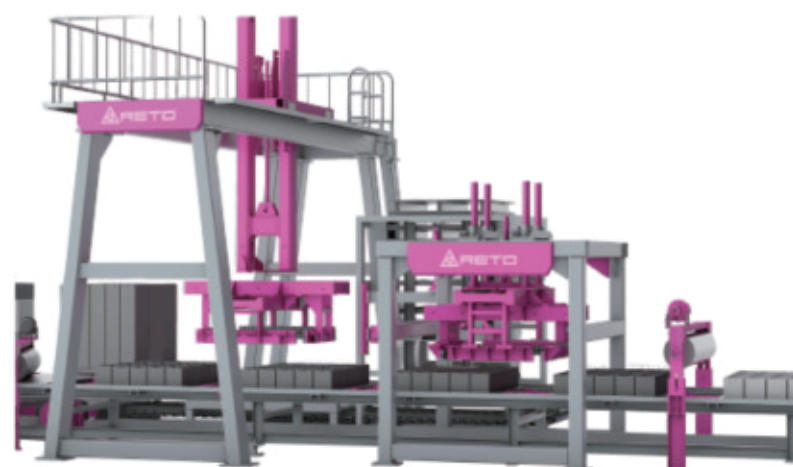


Shaping Your Success

一流的砌块设备 专业的售后服务

全新配色及小型设备

时尚配色

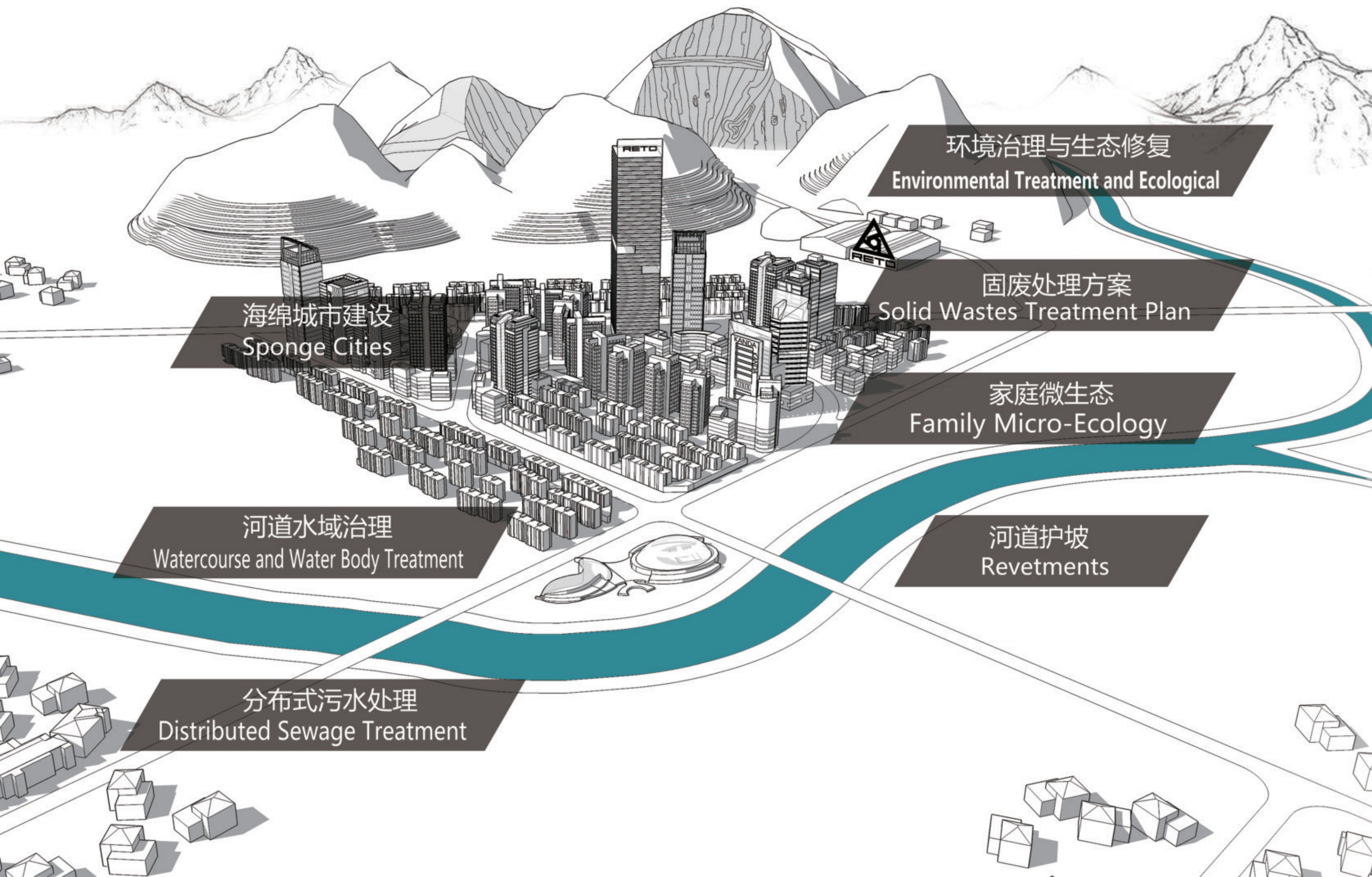


标准配色
(默认)



经典配色





环境治理与生态修复
Environmental Treatment and Ecological

固废处理方案
Solid Wastes Treatment Plan

家庭微生态
Family Micro-Ecology

河道水域治理
Watercourse and Water Body Treatment

河道护坡
Revetments

分布式污水处理
Distributed Sewage Treatment

海绵城市建设
Sponge Cities