# 人造石英板整线装备

**Artificial Quartz Slab Production Line** 

#### 广东纳德新材料有限公司

商务中心: 广东省佛山市禅城区湖景路 8 号 1 区 37 座 P1 号生产基地: 广东省肇庆市高新区凤岗路 7 号

T: 86-757-8669 9629 F: 86-757-8669 9629 E: sa@nadenet.com, nade@188.com www.nadenet.com

福建水头办事处地址:福建省南安市水头镇弘一机械城 H8 M: 86-139 0283 6660/86-139 2911 2035

广东云浮办事处地址: 广东省云浮市云城区河口镇云龙路口M: 86-139 2911 2035

#### GUANGDONG NADE NEW MATERIAL CO.,LTD

Business address: P1, Building 37, Zone 1, No 8 Hujing Road, Chancheng District, Foshan, Guangdong, China.

Factory address: No.7 Fenggang Road, High-Tech Zone, Zhaoqing city, Guangdong, China

Fujian Shuitou Office Address: H8, Hongyi Machinery Market, Shuitou Town, Nan'an City, Fujian, China

Guangdong Yunfu Office Address: Yunlong Crossing, Hekou Town, Yuncheng District, Yunfu City, Guangdong, China







## 公司简介

#### **Company Profile**

广东纳德新材料有限公司创建于 2005 年,纳德长期专注于石材磨抛与防污领域的专项技术开发,纳德积累了丰富的生产工艺技术。是目前唯一家能同时提供整线装备、磨块与金刚石制品、超洁亮纳米液防污材料及综合配套服务的企业。纳德自主研发的石材智能磨抛防污整线装备,已成功应用于石英石、无机石、天然花岗岩及大理石板材的加工,与传统机型相比,在节能减排、磨抛质量、智能控制以及清洁生产等方面都有明显的优势。纳德从提升磨抛品质和为客户提高综合效益两方面入手,坚持在磨块与金刚石制品的研发,为客户提供更优的解决方案。纳德致力于用超洁亮纳米技术解决石材的防污问题,经使用达到了可靠的防污效果。纳德在综合机械、磨块及化工技术的基础上,从 2017 年开始进行人造石英石技术的研究,所取得的研究成果,得到业内知名品牌的认可。

2016年,纳德通过国家高新技术企业认证;《广东省陶瓷抛光防污设备及新材料工程技术研究中心》等一批政府支持的专业研究机构先后落户纳德; 2019年5月,纳德《大板智能磨抛防污生产线》项目、《基于超洁亮技术的持久防滑功能陶瓷砖工艺技术研发与应用》项目通关国家级科技成果鉴定,总体技术分别达到国际领先和国际先进水平。

2019年1月27日,位于广东省肇庆市大旺高新开发区的生产基地正式起用,为纳德的再次腾飞提供了坚实的产业基础。在全国各大石材产区以及印度、土耳其、巴西、伊朗、阿联酋、哈萨克斯坦、越南等国家与地区设有售后服务机构。

Guangdong Nade New Material Co., Ltd was established in 2005. Many years of constantly dedicated research and development of stone calibrating, polishing and antifouling special technology. We accumulated a wealth of production experience and technology by taking many years polishing material and service. At present, we are a company that can provide stone machinery, abrasive and diamond tool, nano liquid and technical support and services at the same time. Nade independently did research and development of intelligent stone calibrating, polishing and nano polishing production line. Our machine has been successful applied in production of quartz stone, natural stone(marble), artificial quartz slab, and artificial inorganic stone. Our machine compared with traditional machine, has obvious advantages in energy conservation and emission reduction, polishinging quality, intelligent control and clean production. Nade focus on how to improve the stone calibrating, polishing and nano polishing quality and how to reduce the customers production costing, so we research and development abrasives and diamond tools to provide customers with better production problem solutions.

Nade is committed to solve the problem of antifouling of stone slab materials with super clean and bright nano-technology. Based on comprehensive machinery, abrasive and chemical technology field, Nade began to research on artificial quartz stone technology since 2017, and our research results have been gained acceptance by well-known brand stone manufacturer in our industry.

In 2016, Nade passed the national high-tech enterprise certification. A number of government-supported professional research institutions, such as Guangdong stone/ceramic polishing antifouling equipment and new material engineering technology research center, have successively settled in Nade. In May 2019, Nade passed the national scientific and technological achievement appraisal for the project of "intelligent polishing and squaring machine and Nano polishing production line for slab" and "Research and development and application of durable non-slip ceramic tile technology based on super clean and bright technology", the project passes through the national level science and technology achievement appraisal, the overall technology has reached international leading and advanced levels respectively.

On January 27th 2019, Nade new production base was built located in Dawang high-tech zone, Zhaoqing city, Guangdong province. New factory provide a solid industrial foundation for Nade's developing and more ability to serve to our customers. Nade has seting up many service centers in domestic main stone production zone and other oversea countries such as India, Turkey, Brazil, Iran, United Arab Emirates, Kazakhstan and Vietnam.

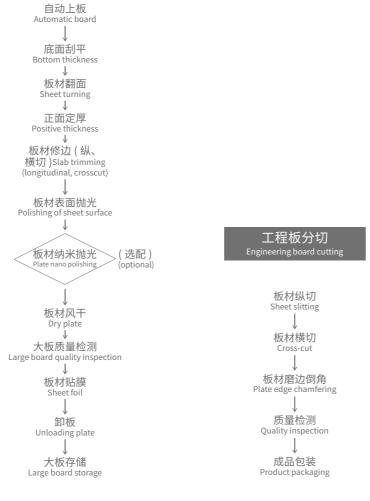
### 石英石板材生产流程介绍

Introduction Of Work Flow For Quartz Slab Production

#### 1、人造石英板压制成型部分



#### 2、抛光生产线部分



### 石英石整线设备—压制系统

Quartz Slab Production Line Equipment-Pressing System

纳德可以提供两种类型的压机供客户选择:气囊式压机和液压式压机

两种压机均系成熟工艺结构,具有良好的实际使用稳定性记录,系目前广泛使用的压机结构模式。其共性的特点是压制力大,振幅控制方式简单易操作,机器的产品工艺适应性高,结构合理维护便捷。

Nade can provide two types of press for customers: air bag press and hydraulic press.

Both types of press are mature products, which has a good stability record in practice. They are widely used presses at present. Its common characteristics are high pressure, simple and easy operation of viberation range, machine can be used for many different design with advantage of reasonable structure and convenient maintenance.





## 石英石整线设备—立式夹板固化炉

Quartz Slab Production Line Equipment-Vertical Splint Curing Oven

立式夹板固化炉采用两片钢板夹一片石英板的固化方式,用导热油方式对石英石板材进行双面加热恒温固化,加热温度均匀、能量消耗低、板材变形度小。用液压升降保证对位准确,立式夹板固化 炉可以根据产量选配 14 或 16 层 .

Vertical splint curing oven uses two pieces of steel plate with one piece of quartz slab. Quartz slab is cured by double sides heating and hardened by constant temperature with heat conducting oil. The heating temperature is uniform, the energy consumption is low, and the deformability of the slabs is less. Hydraulic lifting ensures accurate alignment. Vertical splint curing oven can choose 14 or 16 layers depending on output.



#### 石英石整线设备—原料系统

Quartz Slab Production Line Equipment-Raw Material System

原料仓储采用不锈钢罐式密封结构、粉料部分采用气力输送系统,确保原材料不在转运、存储过程中二次污染。配置自动计量、配料和输送系统,在扬尘口设置高效收尘装置。整个配料过程可实现中央操控。

Stainless steel tank for the storage of raw materials and pneumatic conveying system for the powder to ensure that raw materials are not polluted twice in the process of transshipment and storage. It is equipped with automatic weighting, proportioning and conveying system, and high efficiency dust collecting device is set up at the dust-raising port. The whole batching process can be centrally controlled.



# 石英石整线设备 树脂搅拌系统

Quartz Slab Production Line Equipment-Resin Mixing System

树脂搅拌系统通过在树脂存储罐体内连接循环管道,并不停慢速搅拌,使 树脂始终保持流动状态,以此确保树脂的粘度和性状始终保持高度的一致 性,保证板材在原料搅拌及布料、压制过程中的使用效果(可选配恒温系统)

Resin mixing system keeps the resin in a constant temperature state by adding heat circulating pipes (optional) into the resin storage tank and stirring at a slow speed. This can ensure the consistency of the viscosity and properties of the resin, and ensure the effect of the slab in the process of raw material mixing, distribution and pressing.



## 石英石整线设备-搅拌机

Quartz Slab Production Line Equipment-Mixer

行星搅拌机按照可搅拌湿料体积有大小不同,可以根据实际工艺灵活搭配。行星搅拌机主要用于石英石原料和树脂的均匀搅拌,采用多轴多浆科学、合理、交叉搅拌,搅拌均匀、效率高、无死角。 公转和自转都变频可调,以实现不同花色产品或配方的转速要求。

Planetary mixers can be selected flexiblely depending on the actual design and the volume of the wet material to be mixed. Planetary mixers are mainly used for uniform mixing of quartz grits and resins. Mixers adopt multi-axes, multi-arms, scientific, rational and cross mixing, to reach result of uniform and high efficiency. Revolution and rotation can be adjusted to meet the speed requirements of different products or formulations.



### 石英石整线设备-多色混料机

Quartz Slab Production Line Equipment-Ring Mixer

多色混料机在多色板生产时使用,用于将搅拌过的 2-3 种色料进行轻度不均匀混合,其混合的均匀程度可通过调整公转和自转的速度来达成。

Ring mixer is used in the production of multi-color slab. It is used to mix 2-3 kinds of mixed grits with slight uneven mixing. The uniformity of mixing can be achieved by adjusting the revolution speed and rotation speed.



#### 石英石整线设备-圆盘定厚机

Quartz Slab Production Line Equipment-Disc Calibrating Machine

专门设计用于人造石英石、人造无机石板材的定厚磨抛加工,产品已系列化,可根据实际需要进行选配。全新的横梁和箱体设计,加厚机架和底板,重心低运行平稳,切削效率高,加工板材平整度 好。定厚头具备自动升降功能,系统可根据金刚石刀头消耗程度及时自动补偿,同时具备板材厚度超差报警功能,智能化程度高。配备触摸屏,调整参数更方便,自动化程度高。

前台机一般选用 7 个定厚头加 4 个粗磨头的圆盘定厚磨机,该机采用双横梁设计,定厚和粗磨横梁摆动速度独立可调,加工效率更高。后面的粗磨头可以彻底的消除定厚刀头留下的刮痕,让板材背 面粗糙度更好。

Specially designed for calibrating and polishing of artificial quartz slab and artificial inorganic stone slabs, the products have been serialized and can be selected according to actual needs. The advantages are: new design of cross beam and box body, reinforced frame and bottom plate, low center of gravity, smooth operation, high cutting efficiency, good smoothness of processing slabs. The calibrating head has the function of automatic lifting. The system can compensate automatically in time according to the consumption of diamond tools. At the same time, it has the alarm function of thickness variation of slabs. Equipped with touch screen, it is more convenient to adjust parameters and has a high degree of automation.

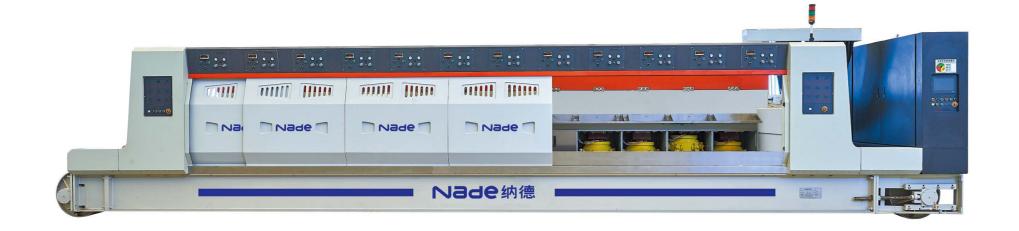
The first machine usually uses 7 calibrating heads and 4 rough grinding heads. This machine adopts double cross beam design. The swing speed of calibrating and rough grinding cross beam can be adjusted independently, and the processing efficiency is higher. The rough grinding heads can completely eliminate the scratches left by the calibrating heads, so that the backside of the slab is better.





### 石英石整线设备-自动连续磨机

Quartz Slab Production Line Equipment-Polishing Machine





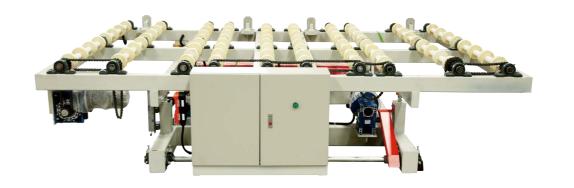


磨头采用高效同步节能电机,速度稳定,可节能 10% 以上。加厚机架和底板,全新横梁摆动结构设计,整机运行稳定,横梁摆动速度最快可达 60 米 / 分钟,抛光效率高。可根据需要选装 T1(L140mm)或 T2(L170mm)磨料,在保证磨抛质量的前提下更省磨料。配备板型轮廓扫描检测系统和磨头提升高度控制系统,边角抛光质量更好,自动化程度高。配备电子尺磨料检测系统,对应磨头磨料用完可自动报警并提醒操作工更换磨料,智能化程度高,采用大尺寸触摸屏,参数调整更便捷。

The polishing head adopts high-efficiency synchronous energy-saving motor, which has stable speed and can save more than 10% energy. The advantages are: reinforced frame and bottom plate, new beam swing structure design, stable operation of the whole machine, the fastest swing speed of the beam can reach 60 meters per minute, high polishing efficiency. T1 (L140 mm) or T2 (L170mm) Abrasives can be selected according to the need to save abrasives on the premise of ensuring the polishing quality. Equipped with profile scanning detection system and grinding head lifting height control system, the edge polishing quality is better and higher automation. Equipped with electronic ruler abrasive detection system, it can automatically alarm and remind operators to change Abrasives when abrasives are used up. It is highly intelligent and easy to adjust parameters by using large touch screen.

## 石英石整线设备—翻面机、翻板车

Quartz Slab Production Line Equipment-Loading machine and Over-turning machine



#### 上/下板翻板车 loading/unloading machine

该机采用高集成液压升降系统,设有缓冲减震装置,采用电机驱动辊子输送板材,有自动上板、自动下板和电动上下板等多种型号供选择

This machine adopts highly integrated hydraulic lifting system, equipped with cushioning and shock absorber. It adopts motor-driven rollers to convey slabs. Various models, such as automatic loader, unloader and motorized loader, unloader.

# **翻面机**Over-Turning machine

采用圆滚机构,实现板材 180 度翻面功能,翻转平稳,效率高。

Rolling mechanism is adopted to realize 180 degree turning of slabs smoothly and efficently.



### 石英石整线设备—修边线

Quartz Slab Production Line Equipment-Edge trimming line



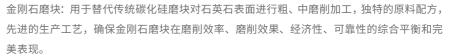
由一台双刀桥式纵向修边机和一台双刀桥式横向修边机组成,用于板材的长 边和短边的在线切割修正,切割效率高。采用同步带进行板材输送,配对中 装置,切割精度高,对角线误差小。采用触摸屏操作切割规格根据参数电动 调整,操作便捷,智能化程度高。 It is composed of a double-knife bridge longitudinal trimmer and a double-knife bridge transverse trimmer. It is used for on-line cutting of long and short edges of slab with high efficiency. Using synchronous belt for slab conveying with matching alignment device, the cutting accuracy is high and the diagonal error is small. Using touch screen to operate cutting specifications according to the parameters of electric adjustment, easy to operate, high degree of intelligence.

## 石英石磨抛加工用耗材—金刚石磨条、金刚石磨块

Consumables for quartz slab polishing-Diamond strips and Diamond abrasive

金刚石磨条:用于人造石英石的定厚加工,安装于圆盘定厚机定厚盘上,切削效率高、经济性好。

Diamond Strip: It is used to calibrate the thickness of artificial quartz slab. It is installed on disc of the machine. It has high cutting efficiency and low cost.



Diamond abrasive: It is used to replace the traditional silicon carbide abrasive for rough polishing. Its unique formula and advanced workmanship ensure the comprehensive balance and perfect performance of efficiency, grinding effect, economy and reliability







规格 SPEC (mm)	刀头长度 I,D(mm)	刀头厚度 HEIGHT OF SEGMENT(mm)	粒度 GRIT
155X20X20	22/24/40	15/20	24#-120#

型号 MODEL	尺寸 DIMENSION(mm)	粒度 GRIT	用途 USED FOR
T1 (L140)	133X56X17	24#~320#	粗磨、中磨 ROUGH AND MEDIUM POLISHING
T2 (L170)	164X56X17	24#~320#	粗磨、中磨 ROUGH AND MEDIUM POLISHING

## 石英石磨抛加工用耗材—树脂磨块、碳化硅磨块

Consumables for quartz slab polishing--Resin-bond and Silicon-carbide abrasive

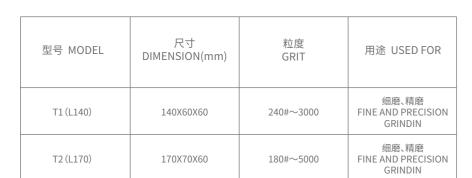
树脂磨块:用于石英石表面的细磨和精磨,能够继续提高表面光度,具有磨削效果好、使用寿命长、抛光效果好、综合成本低等特点。

Resin abrasive: used for fine grinding and polishing of quartz stone surface. It can continue to improve the surface gloss, with good grinding & polishing effect, service life long, comprehensive low cost and so on.

碳化硅磨块:用于石英石表面磨削

Silicon-carbide abrasive: For polishing surface of quartz slab





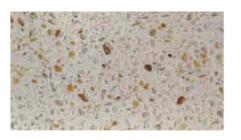


型号 MODEL	尺寸 DIMENSION(mm)	粒度 GRIT	
T1	128X80X52	240#~3000#	
T2	162X80X52	180#~5000#	

### 石英石产品

Quartz surfaces stone





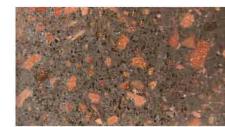




















# 石英石产品

Quartz surfaces stone

























# 销售网络



#### Domestic network 国内销售网络

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