DOING
HENAN GLORY

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东盈控股
DOING DOING HOLDINGS



河南国瑞油脂工程技术有限公司

Henan Glory Oils & Fats Engineering Co., Ltd

棕榈油及棕榈仁油加工设备

PALM OIL & PALM KERNEL OIL PROCESSING EQUIPMENT



Customer's success is DOING's success



DOING GROUP

我们的使命：客户的成功就是我们最大的成功。
我们致力于为每一位客户提供最优的解决方案、高品质的设备以及卓越的售后服务。

Our Mission: Customer's Success is DOING's Success.
We are committed to providing optimal solutions, high-quality equipment, and exceptional after-sales service to every customer.

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河南国瑞油脂工程技术有限公司 —— 您棕榈油加工解决方案的专业合作伙伴

关于我们

国瑞油脂是一家专业的油脂成套加工设备制造商。作为东盈控股的子公司，我们整合了研发、制造和项目管理，为您提供从概念到运营的一站式解决方案。

我们提供先进的设备及成套生产线，适用于：

- 棕榈鲜果串：杀酵、脱果、捣碎和压榨、油澄清
- 棕榈仁：仁壳分离、破碎、提取
- 毛油：精炼、分提
- 配套设备：储油罐、灌装包装设备、实验室仪器等

为什么选择国瑞油脂?

- **技术领先：**我们拥有独立的研发团队持续创新，持有多项专利，确保设备高效可靠。
- **全程服务：**从咨询、工艺及机械设计、厂房设计，到安装、调试及售后支持——我们全程相伴，为您保驾护航。
- **全球布局，本地支持：**我们的设备已远销全球90多个国家，包括印度尼西亚、马来西亚、尼日利亚等。我们在尼日利亚设有战略仓库，确保更快的发货速度和本地化支持。
- **品质承诺：**“质量第一，诚信至上”不仅仅是口号，更是融入每一台设备的制造理念。

公司愿景

成为油脂加工行业最具创新力的智能装备制造企业。

公司使命

以精益求精的品质和匠心，打造精良设备。您的成功，是我们最大的成功。

HENAN GLORY OILS & FATS ENGINEERING CO., LTD

Your Expert Partner in Palm Oil Processing Solutions

Who We Are

HENAN GLORY is a leading manufacturer of complete oils and fats processing plants. As part of DOING HOLDINGS, we integrate R&D, manufacturing, and project management to deliver turnkey solutions, from concept to operation.

We provide advanced machinery and complete production lines for:

- Fresh Fruit Bunches (FFB): Sterilization, Threshing, Digesting & Pressing, Oil Clarification
- Palm Kernel: Kernel & Shell Separation, Crushing, Extraction
- Crude Oil: Refining, Fractionation
- Supporting Equipment: Storage Tanks, Filling & Packaging Equipment, Laboratory Instruments, etc.

Why Choose HENAN GLORY?

- **Proven Technology:** Innovative R&D, multiple patents for efficient, reliable equipment.
- **Comprehensive Service:** Full support from design to after-sales – we ensure your success.
- **Global Reach, Local Presence:** Trusted in 90+ countries, Nigeria warehouse for fast delivery & local support.
- **Quality Commitment:** "Quality First, Credit Foremost" – built into every machine.

Our Vision

To become the most innovative intelligent manufacturing company in the oils and fats processing industry.

Our Mission

Our mission is to craft sophisticated equipment with unwavering quality and ingenuity. Your success is our greatest success.

OUR COMPANY & TEAM

公司与团队













OUR FACTORY & TECHNOLOGY

工厂与技术













COMPANY CERTIFICATES
公司资质证书





































ORGANIZATIONAL STRUCTURE
组织架构





BUSINESS SCOPE
经营范围

- 棕榈油加工设备
  Palm Oil Processing Equipment
- 棕榈仁油加工设备
  Palm Kernel Oil Processing Equipment
- 毛油精炼设备
  Crude Oil Refining Equipment
- 棕榈油分馏设备
  Palm Oil Fractionation Equipment
- 项目配套设备
  Support Equipment For Project



RAW MATERIAL OVERVIEW

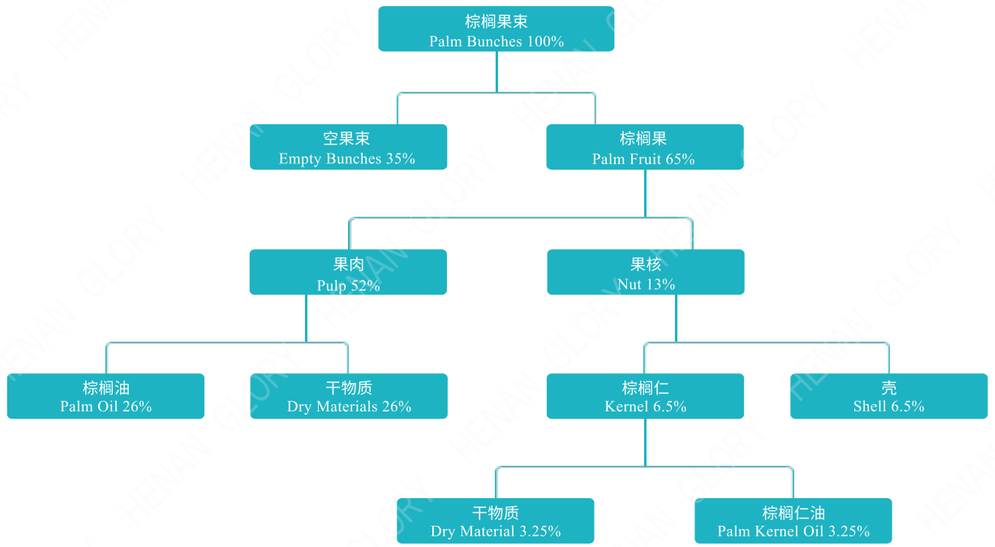
原料概述

油棕：世界级的油料作物
Oil Palm: A World-Class Oilseed Crop

油棕属于棕榈科，主要产地分布在热带地区和部分亚热带地区，它是一种重要的热带油料作物。油棕含油率很高，一般鲜果肉含油46~50%，棕仁含油50~55%。

Oil palm belongs to the palm family and is mainly distributed in tropical and some subtropical regions. It is one of the world's most important tropical oil crops. The oil content of oil palm is remarkably high: generally 46-50% in the fresh pulp (mesocarp), and 50-55% in the palm kernel.

果串含油量 Oil Content of FFB





棕榈果串
Palm Fruit Bunches



棕榈果
Palm Fruit



棕榈油
Palm Oil

PALM OIL SINGLE MACHINES

棕榈油单机设备

为满足客户多样化需求，我们设计研发了小型棕榈油加工设备，易于操作和维护，有效降低劳动强度。

To meet diverse customer needs, we provide small-scale palm oil processing equipment that is easy to operate and maintain, reducing labor intensity.

简易脱果机 Simple Type Thresher

处理量 Capacity (t/h)	1-2	参考图片 Picture
功率 Main Power (kw)	4	
转速 Shaft Speed (r/min)	480	
重量 Weight (kg)	700	
尺寸 Size (mm)	2200x1200x1500	

单螺旋棕榈榨油机 Single Screw Palm Oil Press

处理量 Capacity (kg/h)	500	参考图片 Picture
功率 Main Power (kw)	Diesel engine: 8HP Motor power: 4KW	
轴速 Main Shaft Speed (r/min)	25-35	
重量 Weight (kg)	260	
尺寸 Size (mm)	1500x800x1200	

双螺旋棕榈榨油机 Double Screw Palm Oil Press

处理量 Capacity (t/h)	1, 5, 10, 15	参考图片 Picture
功率 Main Power (kw)	7.5-30	
轴速 Main Shaft Speed (r/min)	20-12.5	
重量 Weight (kg)	1800-6500	
尺寸 Size (m^3)	3-10	

板框压滤机 Plate Filter Press

处理量 Capacity (kg/h)	500-1000	参考图片 Picture
功率 Main Power (kw)	2.2	
过滤面积 Filter area (m^2)	8	
重量 Weight (kg)	800	
尺寸 Size (mm)	2630x800x900	

SIMPLE PALM OIL PRESSING LINE

简易棕榈油压榨生产线



棕榈果串
Palm Fruit Bunches



1-2吨/小时简易脱果机，用于将棕榈果从果串中分离。成本低，效率高。
1-2 t/h Simple Type Thresher is used to separate palm fruits from the bunches. Low cost, high efficiency.





500公斤/小时单螺旋棕榈榨油机，用于提取棕榈果中的油脂。残油率低，配备柴油机或电机两种动力系统，适配不同电力条件。
500 kg/h Single Screw Palm Oil Press is used to extract oil from palm fruits. Low residual oil rate, available with diesel engine or electric motor, suitable for various power conditions.

or



1-2吨/小时双螺旋棕榈榨油机，用于提取棕榈果中的油脂。残油率低，效率高，适配生产线。
1-2 t/h Double Screw Palm Oil Press is used to extract oil from palm fruits. Low residual oil rate, high efficiency, ideal for production lines.



500-1000公斤/小时板框压滤机，用于过滤毛油中的杂质，得到更洁净的毛油。用途广泛，过滤效果好。
500-1000 kg/h Plate Filter Press is used to remove impurities from crude oil, obtaining cleaner crude oil. Widely used with excellent filtration performance.



棕榈毛油
Crude Palm Oil

1-5 T/H PALM OIL PRESSING LINE

1-5吨/小时棕榈油压榨生产线

1-5吨/小时棕榈油压榨生产线，由国瑞油脂工程师团队专为小型棕榈油加工厂研发设计，现已形成三种不同处理量的标准方案。生产线采用国际成熟的棕榈油提取技术，投资成本低，操作简便，生产效率高。
The 1-5 t/h palm oil pressing line is designed by Henan Glory engineering team specifically for small-scale palm oil mills. Three standardized solutions with different processing capacities are now available. The line adopts internationally proven palm oil extraction technology, featuring low investment cost, easy operation, and high production efficiency.

三种小型棕榈油压榨生产线如下图所示：
The three small-scale palm oil pressing lines are shown in the diagram below:



免安装棕榈油加工产线（1吨/小时）
Free-Installation Palm Oil Pressing Line (1 t/h)



小型棕榈油加工产线（1-5吨/小时）
Small Scale Palm Oil Pressing Line (1-5 t/h)



全自动小型棕榈油加工产线（5吨/小时）
Fully Automatic Small Palm Oil Pressing Line (5 t/h)

LARGE-SCALE PALM OIL PROCESSING PLANT

大型棕榈油加工厂

大型棕榈油加工厂处理量达10-120吨/小时，生产效率高、残油率低，并配备污油处理回收、棕榈仁回收等完整工艺。针对此类大型项目，国瑞油脂可提供工艺设计、厂房布局设计、设备制造、安装调试及相关配套服务。

Large-scale palm oil processing plants have a capacity of 10-120 t/h, featuring high efficiency and low residual oil rate, and are equipped with complete processes such as waste oil treatment and recovery and palm kernel recovery system. For such large-scale projects, Henan Glory can provide process design, plant layout design, equipment manufacturing, installation and commissioning, and other related supporting services.





原料接收站 Raw Material Receiving Station



成熟的新鲜棕榈果串从种植园经卡车运至厂区，过地磅称重后倒入卸料斜坡。卸料斜坡底部设有滑动门，由液压系统控制启闭。启动控制阀，滑动门开启，棕榈果串随即落入刮板输送机。

Fresh and ripe palm fruit bunches are transported from the plantation to the mill by truck. After being weighed on a weighbridge, they are discharged onto the receiving ramp. At the bottom of the ramp, a sliding door is installed and controlled by a hydraulic system for opening and closing. When the control valve is activated, the sliding door opens, and the palm fruit bunches fall directly into the drag chain conveyor.

杀酵站 Sterilization Station

杀酵工段是将300KPa的直接蒸汽注入杀酵罐，对棕榈果进行高温蒸煮约60分钟，破坏果实中的酶，避免油中的游离脂肪酸含量增高。同时高温会使果实变软，利于后续机械脱果，也减少了棕榈核的损坏。

In the sterilization station, 300 KPa direct steam is injected into the sterilizer to cook palm fruits at high temperature for about 60 minutes, to destroy the enzymes in the fruits and avoid the increase of FFA content in the oil. At the same time, the high temperature will make the fruit soften, it is easy for fruit threshing, and avoiding the damage of palm nut.







脱果站 Threshing Station



油棕果粒约占整个果串的60%。脱果的目的是将棕榈果从果串上分离下来，通常采用转鼓式脱果机进行机械脱果。分离后的棕榈果被送入压榨站；空果串则从转鼓另一端排出，可运至堆场存放，或作为覆盖物返回棕榈园循环利用，也可现场焚烧制成肥料施于农田。

Oil palm fruits account for about 60% of the entire FFB. The purpose of threshing is to separate the palm fruits from the FFB, typically using a rotary drum thresher. The separated palm fruits are then sent to the pressing station. The empty fruit bunches (EFB) are discharged from the opposite end of the drum. The EFB can be transported to a storage yard, returned to the plantation as mulch for recycling, or incinerated on site to produce fertilizer for farmland.

捣碎压榨站 Digesting & Pressing Station



捣碎工段将果肉与果核分离并捣烂果肉组织。捣碎罐内有多块挡板和绞刀，由顶部电机驱动以捣碎果肉。同时注入直接蒸汽蒸煮果肉，使榨油更容易。压榨工段采用双螺旋榨油机，通过液压控制系统调节榨螺间距，可适应不同品种的棕榈果，确保出油率稳定。

The digesting stage separates the pulp from the kernel and breaks down the pulp tissue. Inside the digester, there are multiple baffles and knives driven by a top motor, to mash the pulp. Meanwhile, direct steam is injected to cook the pulp, making oil extraction easier. The pressing stage uses double-screw palm oil press, which is adjusted by a hydraulic control system, suitable for different palm fruit varieties and ensuring a stable oil yield.

澄油站 Oil Clarification Station



澄油站采用先进的澄清与回收工艺，在保证油品质量的前提下，最大限度降低设备投资和油损失。机榨毛油经净化处理（沉降、过滤、分离）后得到的棕榈毛油，可直接销售或送往精炼工段进一步加工。净化过程中产生的残余物进入污水处理池，处理后的污泥可作为棕榈树的有机肥料。整套系统自动化程度高，节能环保。

The oil clarification station adopts advanced clarification and recovery technology to minimize equipment investment and oil loss while ensuring oil quality. After clarification (settling, filtration and separation), the purified palm oil can be sold directly or sent for further refining. The residual material from the purification process is discharged to a wastewater treatment pond, where the treated sludge can be used as organic fertilizer for oil palm trees. The entire system is highly automated, energy-saving, and environmentally friendly.

仁回收站 Kernel Recovery Station



仁回收站包含多道棕榈核处理工序：去除纤维、破碎、仁壳分离、仁烘干储存及壳的回收利用。最终仁壳分离率可达97-98%。分离后的仁经热风干燥后送入仁储仓储存，分离后的壳则送往锅炉房作燃料。

The kernel recovery station consists of multiple processing steps for palm nuts, including fiber removal, cracking, kernel-shell separation, kernel drying and storage, as well as shell recycling. The final kernel-shell separation rate can reach 97-98%. The separated kernels are dried with hot air and sent to the kernel storage silo, while the separated shells are sent to the boiler house as fuel.

动力房 Power House



由柴油发电机及汽轮发电机为整个棕榈油厂生产及生活用电提供动力，环保节能。
Diesel generators and steam turbine generators supply electricity for both production and domestic needs throughout the palm oil mill, ensuring energy efficiency and environmental friendliness.

锅炉房 Boiler Station



采用蒸汽锅炉为整个棕榈油加工过程提供热源。热力充足，产汽快，蒸汽品质高，运行平稳可靠。
Steam boilers provide the heat source for the entire palm oil processing operation. They deliver ample heat, rapid steam generation, high steam quality, and stable, reliable performance.

水处理 Water Treatment Station



水处理站将河水等原水经沉淀、过滤及化学处理等方法净化后，转化为纯水，为锅炉提供软水及工艺用水。这既保障了水质，也有助于确保成品油的品质。
The water treatment station purifies raw water (such as river water) through sedimentation, filtration, and chemical treatment to produce pure water, which will be used as soft water for the boiler and in oil processing, ensuring the good quality of water as well as the oil.

RAW MATERIAL OVERVIEW
原料概述

棕榈仁：一种用途广泛的珍贵油脂来源
Palm Kernel: A Valuable and Versatile Source of Oil

棕榈仁是棕榈果实的一部分，含油率约为50-55%。棕榈仁经加工可获得相对纯净的粗棕榈仁油，该油具有宜人的坚果香气。棕榈仁油可食用，因其有益健康，在日益发展的食品工业中用途广泛。
Palm kernel is a part of the palm fruit, with an oil content ranging from 50-55%. Processing palm kernel yields relatively pure crude palm kernel oil, which has a pleasant nutty aroma. Palm kernel oil is edible and has a wide range of uses in the growing commercial food industry due to its health benefits.



棕榈核
Palm Nut



棕榈仁
Palm Kernel



棕榈仁毛油
Crude Palm Kernel Oil

仁壳分离系统 Palm Kernel and Shell Separation System



处理量/Capacity：2-3 t/h, 4-6 t/h

国瑞油脂设计紧凑型棕榈仁壳分离系统，分离率达95-97%。该系统利用磁选机、分级筛、破碎机、风选机及旋风分离器，基于比重差异实现分离。
Henan Glory designs a compact palm kernel and shell separation system with a separation rate of 95-97%. The system utilizes the difference in specific gravity through a magnetic separator, grading screen, cracker, air separator, and cyclone.

PALM KERNEL OIL SINGLE MACHINE
热卖单机

纤维分离机 Fiber Separator

处理量 Capacity (t/h)	4	参考图片 Picture
功率 Main Power (kw)	7.5	
重量 Weight (kg)	1000	
尺寸 Size (mm)	700x2200x1500	

核分级筛 Palm Nut Grading Machine

处理量 Capacity (t/h)	5	参考图片 Picture
功率 Main Power (kw)	4	
进料速度 Input Speed (rpm)	1450	
出料速度 Output Speed (rpm)	25	
类型 Type	Perforated Rotating Drum	

棕榈核剥壳机 Palm Nut Cracker

处理量 Capacity (t/h)	1-2	参考图片 Picture
功率 Main Power (kw)	7.5	
转速 Shaft Speed (r/min)	950-1000	
重量 Weight (kg)	560	
尺寸 Size (mm)	1200x700x1200	

棕榈仁破碎机 Crusher

处理量 Capacity (kg/h)	500	参考图片 Picture
功率 Main Power (kw)	7.5	
转速 Shaft Speed (r/min)	650	
重量 Weight (kg)	400	
尺寸 Size (mm)	960x580x620	

立式蒸汽炒锅 Vertical Steam Cooker

处理量 Capacity (t/h)	1.0-6.5	参考图片 Picture
功率 Main Power (kw)	10-45	
轴速 Main Shaft Speed	24-33	
重量 Weight (kg)	6000-17000	
加热面积 Heating Area (m^2)	14.6-48	

棕榈仁榨油机 Palm Kernel Oil Press

处理量 Capacity (kg/h)	500	参考图片 Picture
功率 Main Power (kw)	45	
转速 Shaft Speed (r/min)	40-44	
重量 Weight (kg)	1800	
尺寸 Size (mm)	2670x1000x1726	

PALM KERNEL OIL PROCESSING LINE
棕榈仁油加工生产线

小型压榨厂 Small Scale Pressing Plant



处理量: 1-10t/d。理想的入门级解决方案，配备纤维分离器及仁壳分离系统。结构紧凑、功能齐全，非常适合希望以最低投资启动棕榈仁油生产的小型投资者。

Capacity: 1-10t/d. An ideal entry-level solution equipped with a fiber separator and kernel-shell separation system. Compact yet complete installation, perfect for small investors looking to start palm kernel oil production with minimal investment.

大型浸出厂 Large Scale Solvent Extraction Plant



处理量: 30-600t/d。完整的工业级解决方案，将压榨与溶剂浸出工艺融为一体。为追求极致效率的大型棕榈仁油生产商提供最高的自动化水平和出油率。

Capacity: 30-600t/d. A complete industrial solution integrating pressing with solvent extraction. Maximum automation and oil yield for large-scale palm kernel oil producers who demand peak efficiency.

PALM KERNEL OIL PRESSING PROCESS

棕榈仁油压榨工艺



棕榈核
Palm Nuts



仁壳分离
Palm Kernel and Shell Separating

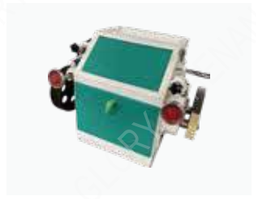


棕榈仁壳
Palm Kernel Shell

+



棕榈仁
Palm Kernel



破碎
Crushing



蒸炒
Steam Cooking



压榨
Pressing



过滤
Filtration

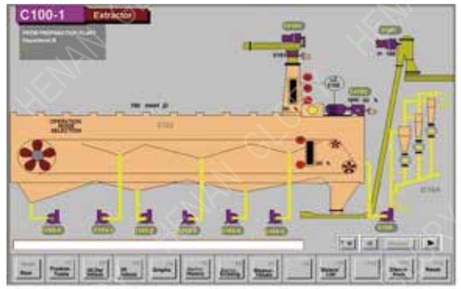


棕榈仁油
Crude Palm Kernel Oil

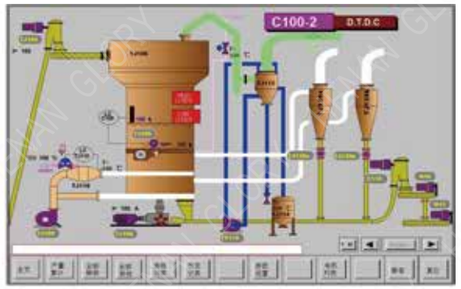
PALM KERNEL OIL SOLVENT EXTRACTION PROCESS

棕榈仁油浸出工艺

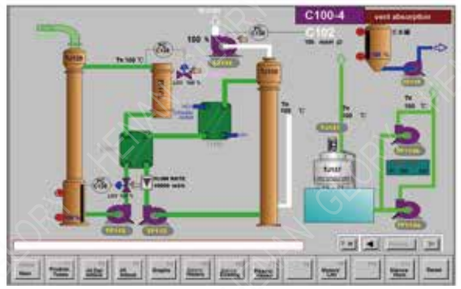
- 浸出系统——以E102箱链式浸出器为主体的浸出系统;
  Solvent extraction system——Solvent extraction system with E102 box chain extractor as the main body;
- 湿粕脱溶(烘干)系统——以E109D.T蒸脱机为主体的粕烘干系统;
  D.T.D.C system——Meal drying system with E109D. T steamer as the main body;
- 冷凝系统——以E116、E120、E126、E139、E139a为主体的溶剂蒸汽冷却回收系统;
  Condenser system——Solvent vapor cooling recovery system with E116, E120, E126, E139 and E139a as the main body;
- 回收系统——以E131和E133为主体的自由气回收系统。
  Recovery system——Free gas recovery system with E131 and E133 as the main body.



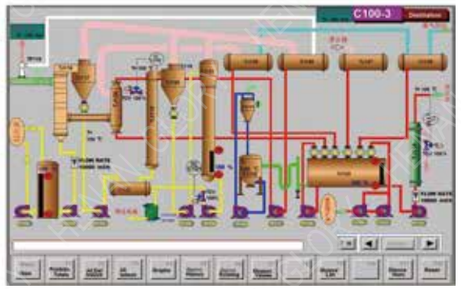
浸出系统
Solvent Extraction System



蒸脱系统
D.T.D.C System



冷凝系统
Condenser System



回收系统
Recovery System

CRUDE VEGETABLE OIL REFINING

食用油精炼

精炼的艺术：将毛油转化为高价值产品
The Art of Refining: Transforming Crude Oil into High-Value Products

精炼将毛棕榈油（CPO）转化为纯净的高价值产品。通过脱胶、脱酸、脱色、脱臭去除杂质，改善色泽与香气，获得安全稳定的优质食用油，可用于高附加值衍生产品。

Refining transforms crude palm oil (CPO) into pure, high-value products. Degumming, deacidification, decolorization, and deodorization remove impurities and enhance color and aroma, yielding safe, stable premium edible oil for high-value-added derivatives.


棕榈油
Palm Oil


棕榈仁油
Palm Kernel Oil


花生油
Peanut Oil


菜籽油
Rapeseed Oil


棉籽油
Cottonseed Oil


大豆油
Soybean Oil


葵花籽油
Sunflower Seed Oil


橄榄油
Olive Oil





BATCH-TYPE OIL REFINERY

间歇式精炼设备

间歇式精炼设备：通常用于日处理量1-20吨。加热方式：电加热或导热油加热。
Batch-type oil refinery: typically for 1-20 t/d. Heating: electric or thermal oil.

- 特点：操作简便、灵活、投资少，适用于多种油品。
  Advantages: simple operation, flexible, low investment, suitable for various oils.





SEMI-CONTINUOUS OIL REFINERY

半连续式精炼设备

半连续式精炼设备：可设计为日处理量5-30吨。
Semi-continuous oil refinery: can be designed with a capacity of 5-30 t/d.

- 特点：脱胶、脱色工段采用间歇式生产，脱酸、脱臭工段采用脱臭塔连续处理，效率更高、更节能、更经济，产品附加值更高。
  Features: degumming and decolorization units are batch-type, while deacidification and deodorization units use a deodorizing tower for continuous processing, resulting in higher efficiency, greater energy savings, better economy, and higher added value.





FULLY CONTINUOUS OIL REFINERY

全连续式精炼设备

全连续式精炼设备：通常适用于日处理量30-1200吨的大型炼油厂。
Fully continuous oil refinery: typically suitable for large-scale refineries with a capacity of 30-1200 t/d.

- 全连续式精炼设备的所有工段均为连续生产，能耗更低、油脂损耗更少，可获得质量更稳定的精炼食用油。
  All processes in a fully continuous refinery are continuous production, consuming less energy and experiencing less oil loss, resulting in more stable quality of refined edible oil.



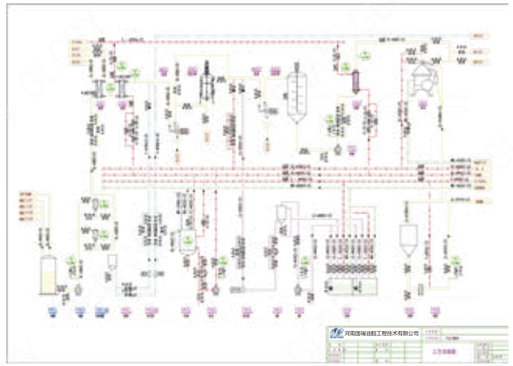




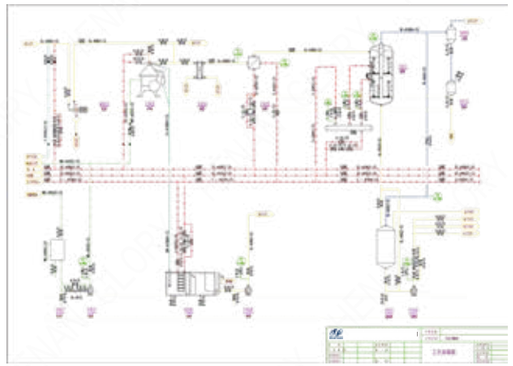
OIL REFINING PROCESS

精炼工艺

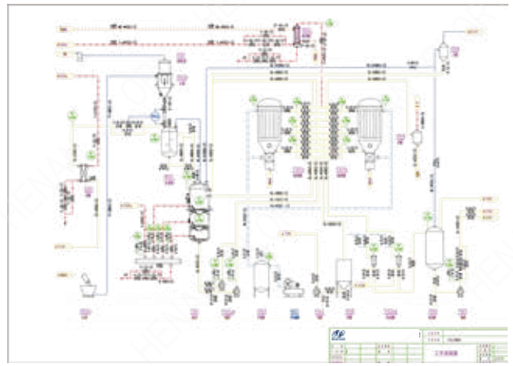
一般来说，精炼工艺包括四个工序：脱胶、脱酸、脱色和脱臭。
Generally, the oil refining process includes four stages: degumming, deacidification, decolorization, and deodorization.



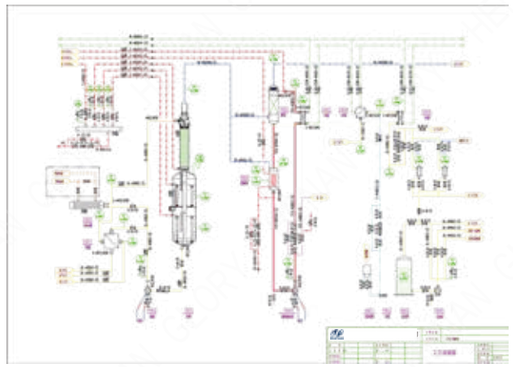
脱胶 Degumming



脱酸 Deacidification



脱色 Decolorization



脱臭 Deodorization

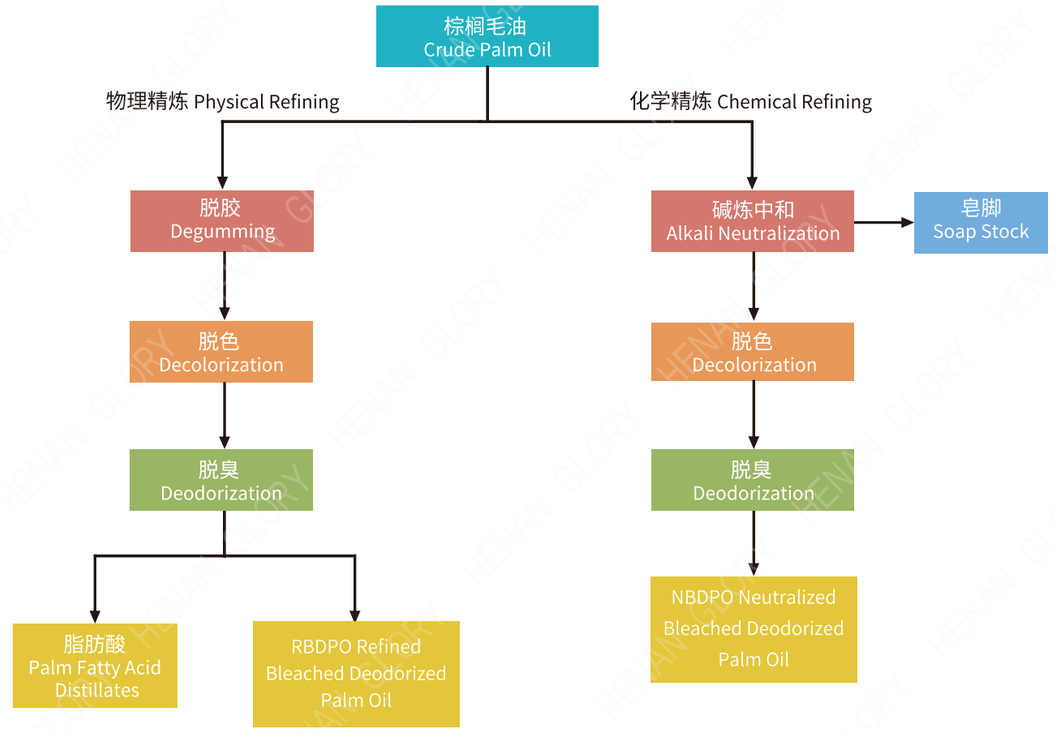
- 脱胶： 脱胶过程去除磷脂，防止油体浑浊，提高油脂稳定性。
  Degumming: The degumming process removes phospholipid to prevent cloudiness and improve oil stability.
- 脱酸： 脱酸阶段去除游离脂肪酸，防止油脂快速酸败。
  Deacidification: In the deacidification stage, free fatty acids are removed to prevent the oil from becoming rancid easily.
- 脱色： 脱色阶段去除不必要的色素，使油脂清亮、外观美观。
  Decolorization: The decolorization stage removes unwanted pigments to make the oil clean and visually appealing.
- 脱臭： 脱臭阶段蒸发引起异味的挥发性化合物，获得纯净、中性气味的油脂。
  Deodorization: In the deodorization stage, volatile compounds causing unpleasant odors are evaporated to obtain pure, neutral oil.

PHYSICAL REFINING VS. CHEMICAL REFINING

物理精炼与化学精炼

根据脱酸方法的不同，精炼工艺分为物理精炼工艺和化学精炼工艺。
Based on different deacidification methods, the oil refining process is divided into physical refining and chemical refining.

- 物理精炼工艺： 更适用于胶质含量低、酸价高的植物油，例如棕榈油、棕榈仁油、椰子油等。
  Physical refining: more suitable for vegetable oils with low gum content and high acid value, such as palm oil, palm kernel oil, coconut oil, etc.
- 化学精炼工艺： 适用于几乎所有类型的油脂。
  Chemical refining: suitable for almost all types of oils.



PARAMETER TABLE

参数表格

毛油质量指标 Quality of Crude Palm Oil

酸价 Acid Value (mg KOH/g)	≤10
游离脂肪酸含量 FFA Content (%)	≤5
水分 Water Content (%)	≤0.5
不溶性杂质 Insoluble Impurity (%)	≤0.1
DOBI (min)	≥2.4
含磷量 Phosphorus Content (ppm)	≤100

精炼后成品油质量指标 Quality of Final Product: RBD Palm Oil

色泽 Color (罗维朋比色槽 Lovibond Colorimetry 5/4)	Y25, R2.5
气味及色泽 Flavor and Color	自然 Natural
不溶性杂质 Insoluble Impurity (%)	≤0.05
水分及挥发物 Moisture and Volatile Compounds (%)	≤0.05
酸价 Acid Value (mg KOH/g)	≤0.2
过氧化值 Peroxide Value (mmol/kg)	≤0.5

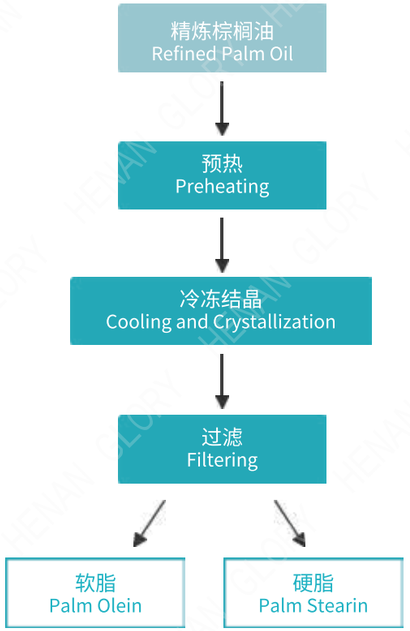
PALM OIL FRACTIONATION PROCESS

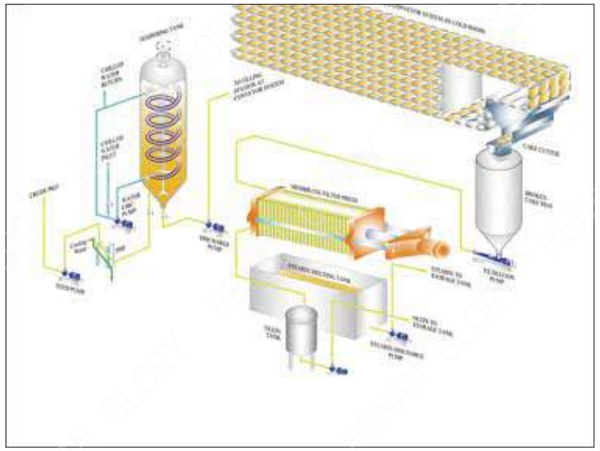
棕榈油分提工艺

油脂由不同熔点的三酰甘油组成，分提工艺旨在根据熔点和熔融百分比分离油酸和硬脂酸。通常，该工艺适用于棕榈油、棕榈仁油和椰子油。所得产品为油酸（液态油）和硬脂酸（固态脂肪）。

Since oils consist of triacylglycerols with different melting points, the fractionation process aims to separate olein and stearin based on their melting points and melt percentages. Generally, this process is suitable for palm oil, palm kernel oil, and coconut oil. The resulting products are olein (liquid oil) and stearin (solid fat).

分提工艺流程图如下:
The fractionation process is as follows:






精炼棕榈油
Refined Palm Oil


软脂
Palm Olein


硬脂
Palm Stearin

结晶工段 Crystallization Section

原料在结晶罐中按预设冷却程序降温。冷却曲线的设计取决于毛油品质和所需的油酸/硬脂酸馏分。结晶罐配备变频机械搅拌器，以保持油品混合均匀。当油品变为含有硬脂酸晶体的液态油酸浓稠浆状物时，即可进行过滤。如果结晶效果不理想，可将浆状物再加热后重新处理。

Raw material is cooled in the crystallizer according to a preset cooling program. The cooling profile design depends on the crude oil quality and the required olein/stearin fractions. The crystallizer is equipped with a variable frequency mechanical agitator to maintain uniform oil mixing. When the oil turns into a thick slurry containing stearin crystals in liquid olein, it is ready for filtration. If the crystallization result is unsatisfactory, the slurry can be reheated and reprocessed.





过滤工段 Filtration Section

结晶完成后，浆料经隔膜压滤机过滤。过程包括进料、过滤、挤压和卸饼。滤室满后停止泵送，膜片压干滤饼。残留油用压缩空气吹除。打开过滤器，硬脂滤饼经蒸汽熔化后储存。软脂流入储罐。过滤器需定期清洗。

After crystallization, the slurry is filtered using a membrane filter press. The process includes filling, filtration, squeezing, and cake discharge. When the chamber is full, pumping stops and the membrane presses the cake dry. Residual oil is removed with compressed air. The filter is opened, and the stearin cake is melted by steam and stored. Olein flows to the storage tank. The filter needs periodic cleaning.





SUPPORTING EQUIPMENT
辅助设备



吹瓶机
Bottle Blowing Machine



灌装机
Filling Machine



包装机
Packaging Machine



油罐
Oil Tank



实验室设备
Laboratory Equipment



地磅 Weighbridge

PRODUCTION CAPACITY
加工实力











1 数控等离子切割机 CNC Plasma Cutting Machine
2 数控铣床 CNC Milling Machine
3 冲击实验设备 Impact Testing Machine
4 自动焊接设备 Automatic Welding Equipment
5 氩弧焊 Argon Arc Welding

CUSTOMER VISIT

客户来访



印度尼西亚 Indonesia



科特迪瓦 Côte d'Ivoire



马达加斯加 Madagascar



坦桑尼亚 Tanzania



利比里亚 Liberia



印度尼西亚 Indonesia



乌克兰 Ukraine



美国 America



尼日利亚 Nigeria



马来西亚 Malaysia



贝宁 Benin



喀麦隆 Cameroon

PROJECT CASE

项目案例



尼日利亚 Nigeria



中国 China



尼日利亚 Nigeria



加纳 Ghana



肯尼亚 Kenya



印度尼西亚 Indonesia



塞拉利昂 Sierra Leone



马来西亚 Malaysia



印度尼西亚 Indonesia



肯尼亚 Kenya



刚果金 DRC



乌克兰 Ukraine

MACHINE DELIVERY

设备发货



菲律宾 Philippines



乌干达 Uganda



贝宁 Benin



科特迪瓦 Côte d'Ivoire



利比里亚 Liberia



坦桑尼亚 Tanzania



利比里亚Liberia



墨西哥 Mexico



马来西亚Malaysia



尼日利亚Nigeria



中国 China



尼日利亚Nigeria

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