



铭森环保
MINGSENHUANBAO

商丘铭森环保设备有限公司

Shangqiu Mingsen Environmental Protection Equipment Co., Ltd.

致力于废旧物资循环再生领域

DEVOTED IN THE FIELD OF WASTE TO WEALTH

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企业简介

COMPANY INTRODUCTION

商丘铭森环保设备有限公司位于河南省商丘市虞城县工业园区，是一家集研发、生产和销售的现代化企业，公司专注于裂解设备和蒸馏设备领域，拥有专业的研发人员4名，高级工程师8名，技术员18名，专业生产工人50多名，公司一贯坚持“质量至上、服务至上”的宗旨，凭借高质量的产品，良好的声誉，优质的服务，产品畅销全国20多个省份，出口马来西亚、泰国、韩国、菲律宾、葡萄牙、俄罗斯、中东地区等60多个国家。

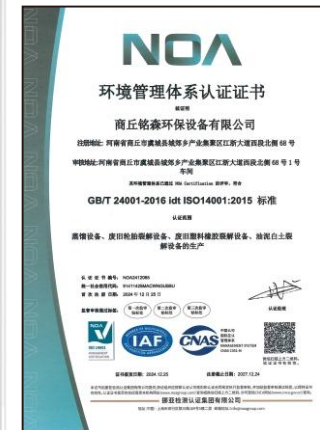
Shangqiu Mingsen E. P. Equipment Co., Ltd located in Industrial Zone of Yucheng country, Shangqiu city, Henan Province, which is a modern factory combined R&D, Manufacturing and Sale, company focus on the pyrolysis and distillation area, own professional 4 R&D personals, 8 high-tech engineers, 18 technicians, our company insist on the principal of 'Service First, Quality First', with high qualitative production, good reputation and Excellent Service, production has been sold to more than 20 provinces in local market, exported to Malaysia, Thailand, Korea, Philippines, Portugal, Russia, Middle East etc... more than 60 countries.

我们的优势:

- 1、良好的质量控制
- 2、极具竞争力的价格
- 3、最先进的技术产品
- 4、最优秀的生活消费类电子产品专业团队。
- 5、顺畅的沟通
- 6、有效的OEM&ODM服务

OUR ADVANTAGE :

- 1、Good quality control
- 2、Highly competitive prices
- 3、state-of-art technology products
- 4、Best professional team of lifestyle consumer electronics.
- 5、Smooth communication
- 6、Effective OEM&ODM service





服务流程 Service Flow Chart



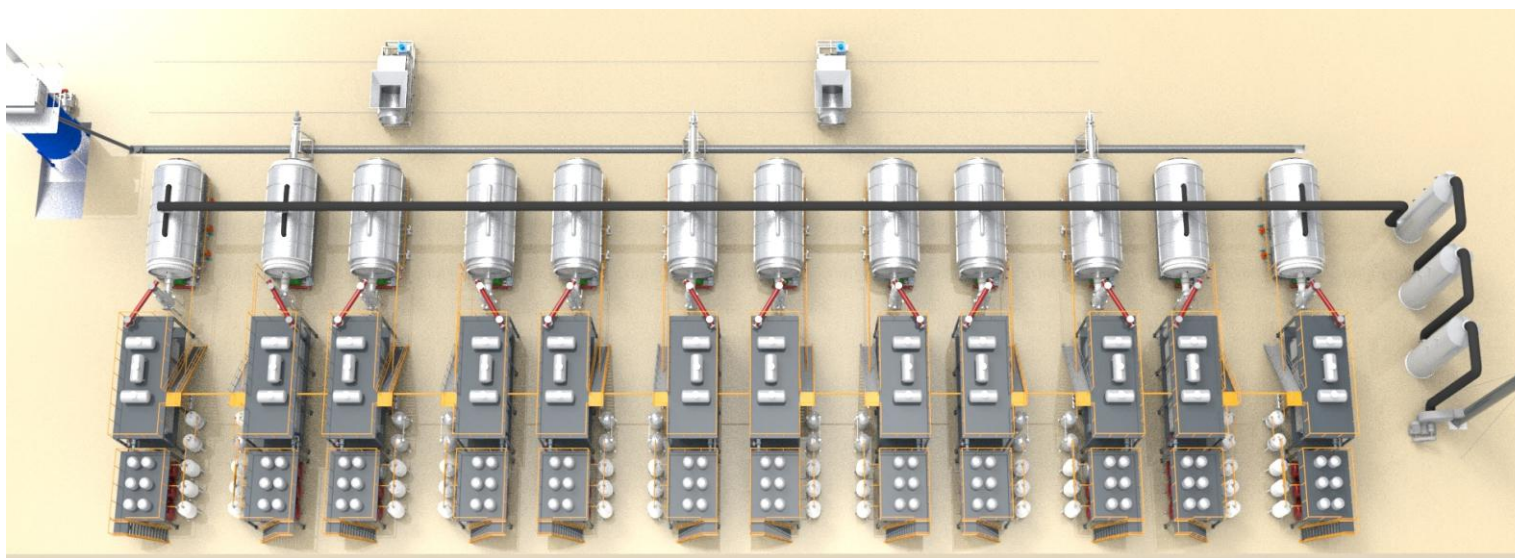
产品目录

PRODUCTION CATALOGUES

裂解设备 PYROLYSIS PLANT

裂解设备，又称热解、热裂解、高温无氧裂解、碳化设备等，是指将有机物质置于无氧或低氧的密封容器中加热，使高分子化合物有机物制品中原高聚物进行较彻底的大分子裂解裂化，使其回到相对低分子质量状态或单体态。

Pyrolysis technology, also known as cracking, thermal pyrolysis, high-temperature anaerobic pyrolysis, carbonization plant, etc, refers to feed the organic substances to anaerobic or low-oxygen sealed reactor for heating, for cracking the macromolecular of chemosynthetic organic products to low-molecular compounds, so that it returns to a relative low molecular mass state or monomer state.



裂解设备适用原料 Available Feedstock for Pyrolysis Plant



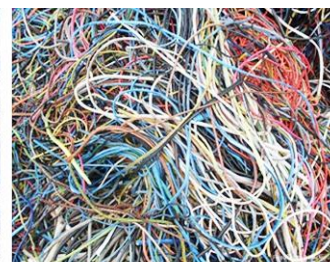
WASTE TIRE
废轮胎



OTR
工程胎



WASTE BYCLE/MOTOR TIRE
自行车/摩托车胎



WASTE CABLE SKIN
废电缆皮



WASTE RUBBER
废橡胶

RUBBER TYPES

PLASTIC TYPES



废铝塑
WASTE ALUMINIUM PLASTIC



废光伏板
WASTE PHOTOVOLTAIC PANEL



废电子元件
WASTE ELECTRICITY PART



造纸厂废塑料
WASTE PLASTIC FROM PAPER MILL



生活垃圾分选废塑料
WASTE PLASTIC FROM M. S. W



废钻井/煤焦油油泥
WASTE OIL SLUDGE



油田废料
INDUSTRIAL WASTE



含水废料
MOISTURE WASTE



废亚克力制品
WASTE PMMA



医疗垃圾
MEDICAL WASTE

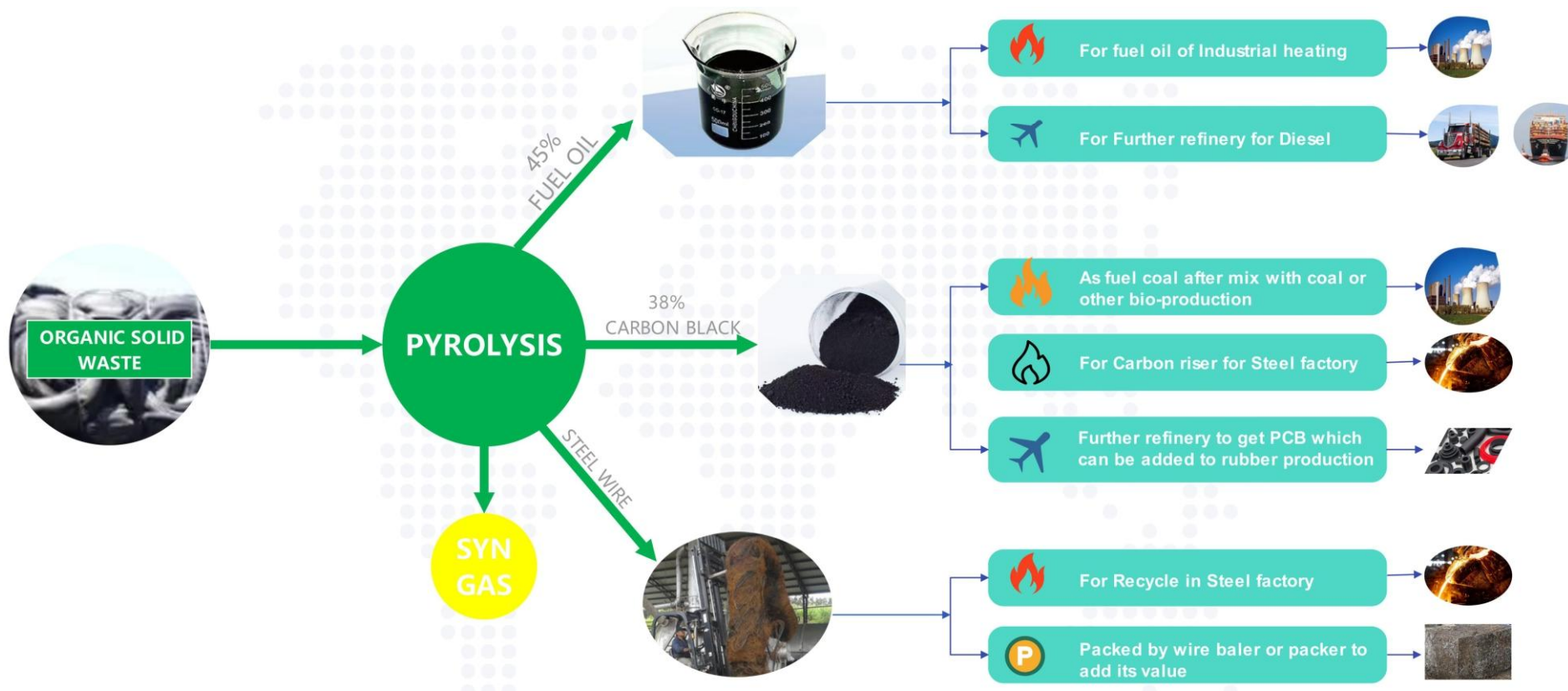
OTHER WASTE

Note: Pyrolysis machine design different according different feedstock, please provide your sample or sample data for our engineer design, we provide free consultant for you.

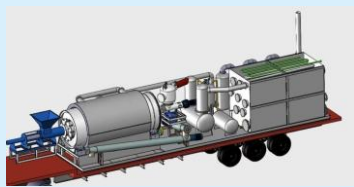
注：不同的原料适用不同的裂解设备设计，请提供您的样品实物或样品数据供我们工程师设计，我们为您提供免费的咨询服务。

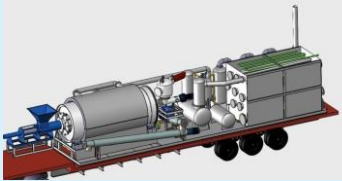


裂解设备终端产品及用途 PYROLYSIS PLANT END PRODUCTION & USAGE



裂解设备选型 Different Model of Pyrolysis Plant

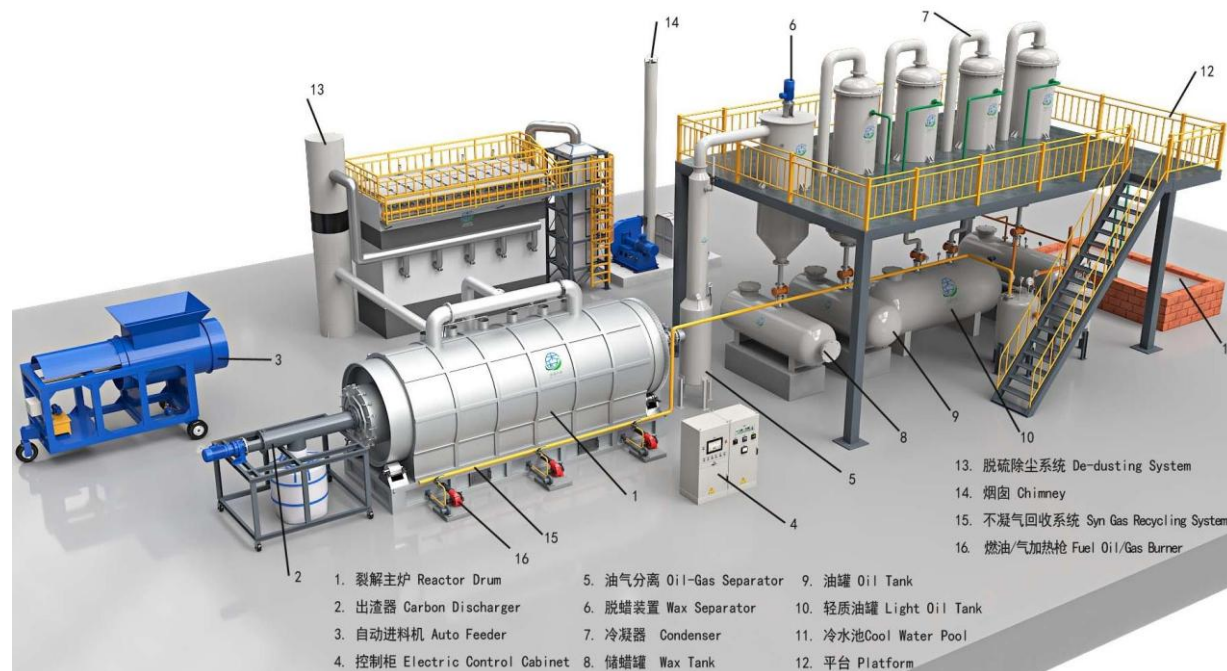
裂解设备选型 Model Choice of Pyrolysis Plant	间歇式裂解 Batch Design MSBP-23001	撬装式裂解设备 Skid-mounted Design MSKP-24002	半连续式裂解 Semi-Continuous Design MSCP-24008	连续式裂解 Continuous Design MSCP-24006
				
生产过程 Working Process	开炉门-液压自动进料-烧火加热-停炉冷却至 80 度-出渣-开炉门出渣出钢丝 Open Feeding Door for Feeding-Heating for Oil-Stop for cooling Reactor-Discharge	开炉门-液压自动进料-烧火加热-停炉冷却至 80 度-出渣-开炉门出钢丝 Open Feeding Door for Feeding-Heating for Oil-Stop for cooling Reactor-Discharge	高温密封进料-烧火加热-停炉冷却至 200~300 度-出渣-出小钢丝球(原料如果是胶块) Auto Feeder by sealing-Start Heating for Oil-Stop for cooling Reactor-Discharge	边进料边出渣, 24 小时持续运转, 连续生产 45~60 天 Continuous Feeding and Discharging, running 24 *45~60 days according different material
单台处理量 Unit Capacity	5~20吨/天 5~20TPD	1~4吨/炉 1~4TPD	15~25吨/天 15~25TPD	20~70吨/天 20~70TPD
进料尺寸要求 Feedstock Size	≤ 1600mm	≤ 1600mm	≤ 100mm	≤ 80cm
原料预处理 Feedstock Pretreating	0	0	需破碎机或磨粉机或磁选机破碎至需要尺寸 Require Pre-treat to fixed size (Shredder/Grinder or Magnetic Separator)	需破碎机或磨粉机或磁选机破碎至需要尺寸 Require Pre-treat to fixed size (Shredder/Grinder and Magnetic Separator)
PLC	可选 Optional	可选 Optional	可选 Optional	配备 Equipped with

裂解设备选型 Model Choice of Pyrolysis Plant	间歇式裂解 Batch Design MSBP-23001	撬装式裂解设备 Skid-mounted Design MSKP-24002	半连续式裂解 Semi-Continuous Design MSCP-24008	连续式裂解 Continuous Design MSCP-24006
				
人工数量 Labor Qty	3~6人/班 3~6 persons/shift	2~6人/班 2~6 persons/shift	1~4人/班 1~4 persons/shift	1~4人/班 1~4 persons/shift
主炉冷却时间 Reactor Cooling Time	3~12 Hour	2~5 Hour	3~5 Hour	0 Hour
耗电量 Power	12~25KW/h	12~25KW/h	15~30KW/h	50KW/h
检修周期 Maintenance Period	1天/Day	1天/Day	7~10天/Day	45~60天/Day
出渣方式 Carbon Discharge Way	建议 80℃以下出渣, 也可 200℃出渣 Discharge ≤ 80℃ or 200℃	建议 80℃以下出渣, 也可 200℃出渣 Discharge ≤ 80℃ or 200℃	200~300℃可出渣 Discharge ≥ 200℃~300℃	连续出渣 Continuous Discharging
运输 Transportation	2x17.5m 平板 1x40FR+2x40HC	1x17.5m 平板 1x40HC	2x17.5m 平板+1x13m高栏 1x40FR+2x40HC	2x17.5m 平板+1x13m高栏 2pcs 40FR+1x40HC
安装 Installation	(2个焊工+1小工)*20天 (2 Welders+1 labor)*20 days	(1小工)*1天 (1 labor)*1 day	(2个焊工+1小工)*20天 (2 Welders+1 labor)*20 days	(6焊工+3小工)*40天 (6 Welders+3 labor)*40 days

注: 根据不同的原材料定制不同的机器结构, 像针对油泥的防结焦装置, 针对塑料的脱蜡装置, 针对轮胎橡胶高效的升温 & 降温结构等...

Note: Customize machine structure according different feedstock characteristics, anti-coking structure for waste oil sludge, de-waxer for waste plastic, high-efficiency heating & cooling structure for waste rubber tire, etc...

MSBP-23001 间歇式裂解设备 MSBP-23001 BATCH TYPE PYROLYSIS PLANT



1. 性价比高，冷凝器冷却行程及冷却面积支持出油率高，油品质好，使用寿命长，易清理维修；
 2. 安全性：全自动埋弧焊接技术，搭接焊接，超声波无损检测，人工及自动安全装置；
 3. 废气回收装置：废气回收后充分燃烧，节省燃料，放置污染；
 4. 独特的保温设计：国家专利，优异的保温功效，良好的节能效果；
 5. 独特的油品分馏设计：根据油品密度分为轻质，中止和重质燃料油，满足客户对分类的要求；
1. Cost-effective, condenser cooling tubes and cooling area support high oil yield, good oil quality, longer lifetime, clean and repair easily;
 2. Safety: Automatic submerged arc welding technology, lap welding, ultrasonic non-destructive testing, manual and automatic safety devices;
 3. Syn gas recycling system: full combustion after syn gas recovery, fuel saving and anti-pollution;
 4. Unique thermal insulation design: national patent, excellent thermal insulation efficiency, good energy-saving effect;
 5. Unique Oil Fractionating Design: Separate Light oil, medium density oil and heavy fuel oil according different density, which satisfy the customers' requirement on oil quality.

年处理20000吨间歇式设备经济效益分析

20000TPA Batch Type Pyrolysis Plant Economic-benefit Analysis

序列 Series	项目 Item	单位 Unit	单位成本 Unit Cost USD	数量 Qty	总金额 Total Amount USD
1.投入/Input:					
1.1	废旧轮胎/Waste Tire	吨	205	20000	4,100,000.00
1.2	工厂运营费用/天 Factory Operating Fee/Day				
1.2.1	车间周转运输费用 Workshop transportation Cost				1,800.00
1.2.2	人工费用 Labor Cost	2班/天 2 shifts/day	35	5 persons	52,500.00
1.2.3	电费/Power Cost	KW	0.16	150	7,200.00
1.2.4	燃料/Fuel Cost	吨/TON	500	0.8	120,000.00
1.2.5	折旧费/Depreciation				840
投入总和:				USD 4,282,340.00	
2.产出/Output:					
2.1	炭黑/Carbon Black	吨/TON	84	7600	638,400.00
2.2	钢丝/Steel Wire	吨/TON	334	3000	1,002,000.00
2.3	油/Fuel Oil	吨/TON	542	8000	4,336,000.00
产出总和/Output Sum				USD 5,976,400.00	
年净利润/Annually Net Profit				USD 1,694,060.00	

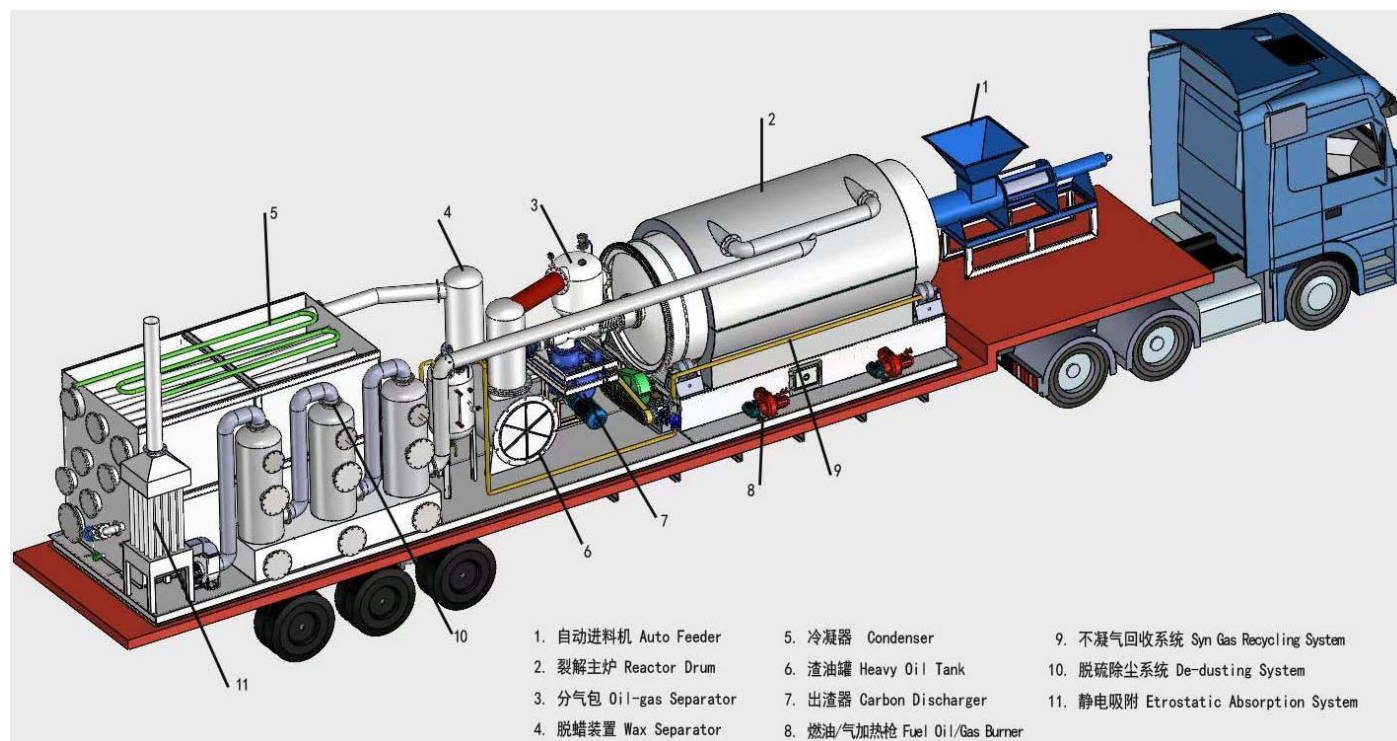
注：以上市场价格基于 2025 年 3 月中国市场, USD:CNY=1 :7.2,年工作日按照 300 天核算。

Note: Above market Cost based on March, 2025 Chinese Market, USD:CNY=1 :7.2, Annually working days based on 300 days.

间歇式裂解设备运转现场 Running site of Batch type pyrolysis plant



MSKP-24002 撬装一体式裂解设备 MSKP-24002 SKID-MOUNTED PYROLYSIS PLANT



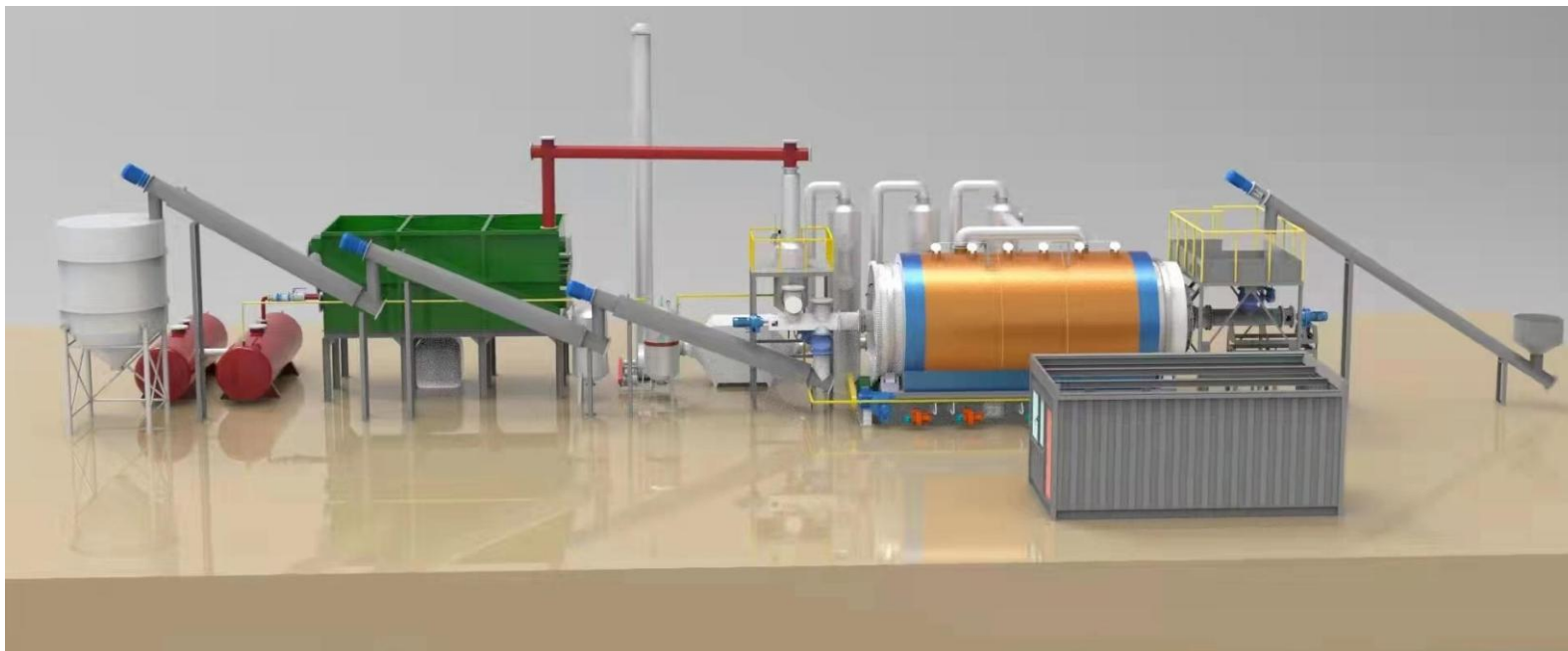
1. 移动撬装式设计，性价比高，为客户提供方便；
2. 安全性：全自动埋弧焊接技术，搭接焊接，超声波无损检测，微负压生产；
3. 废气回收装置：废气回收后充分燃烧，节省燃料，放置污染；
4. 独特的脱硫除尘设计：国家专利，静电吸附，喷淋消烟除尘装置保证排放环保无二次污染

1. Mobile Skid-mounted Pyrolysis Design, high cost-effect, provide best convenience for customer;
2. Safety: Automatic submerged arc welding technology, lap welding, ultrasonic non-destructive testing, micro-negative production;
3. Syn gas recycling system: full combustion after syn gas recovery, fuel saving and anti-pollution;
4. Unique de-dusting de-sulphurization system: National patent, Electrostatic absorption, spray de-dusting system, ensure emission eco-friendly and no second time pollution.

撬装式裂解设备运转现场 Running site of Pre-assembled pyrolysis plant



MSCP-24008 半连续式裂解设备 MSCP-24008 SEMI-CONTINUOUS PYROLYSIS PLAN



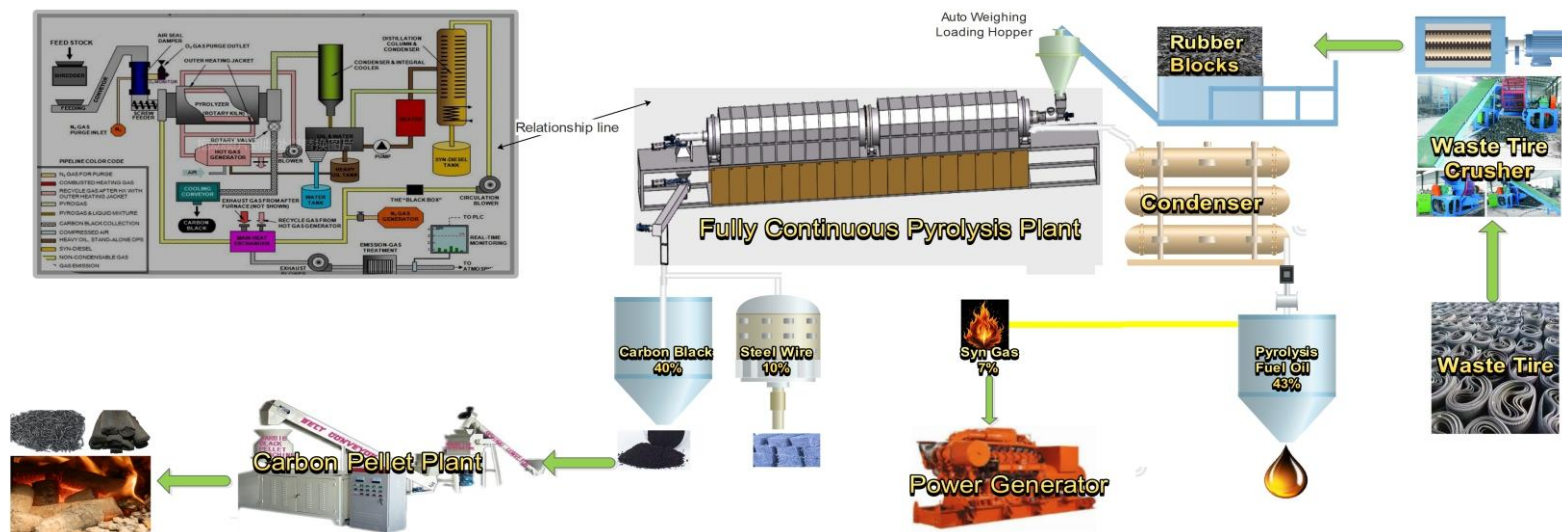
1. 自动进料，无需人工开门关门，安全环保；
 2. 全自动高温密闭出渣，无需人工，环保清洁无灰；
 3. 人工费用成本低，设备使用性价比高，适用于人力成本较高的地区；
 4. 废气回收装置：废气回收后充分燃烧，节省燃料，放置污染；
 5. 独特的脱硫除尘设计：国家专利，静电吸附，喷淋消烟除尘装置保证排放环保无二次污染
1. Auto feeder, no need labor working for feeding or discharging, safe and eco-friendly;
 2. Fully Automatic high temperature discharge carbon by fully sealed, no need labor, no dust with eco-friendly;
 3. Lower labor cost, higher machine quality-priceratio, more suitable for the area of higher labor cost;
 4. Syn gas recycling system: full combustion after syn gas recovery, fuel saving and anti-pollution;
 5. Unique de-dusting de-sulphurization system: National patent, Electrostatic absorption, spray de-dusting system, ensure emission eco-friendly and no second time pollution.

半连续式裂解设备运转现场 Running site of Semi-continuous pyrolysis plant



MSFP-24006 全连续式裂解设备 MSFP-24006FULLY CONTINUOUS PYROLYSIS PLANT

WASTE RUBBER BLOCKS CONTINUOUS PYROLYSIS FLOW CHART



1. 全自动连续式密封运行，安全环保无污染；
2. 24 小时不间断连续式生产，高效生产，每 24 小时处理量可达到 30~60 吨（根据不同原料密度）；
3. 随时连续进料连续出料，无需冷却，45~60 天内无需停产，大大提高生产效率，节能环保，可回收 90% 废气和 70% 燃料；
4. PLC 控制，操作间按键操作即可，80% 以上工作无需人工操作。
5. 独特的防粘壁结构，可实现特殊大尺寸原料的连续化生产；
6. 脱硫除尘设计：国家专利，环保无二次污染，去除烟尘中的酸性气体，可达到一般危险废弃物处理标准。

1. Fully Sealed Running based on safe and Eco-Friendly, Continuous Running without open door, feeding without oxygen;
2. Biggest capacity for continuous running is 50-60tons/24hours per line(based on Different density of feedstock),high working efficiency;
3. Continuous Running allow feeding and discharging at anytime, no need stop for cooling down within 45-60 days, no need waiting, greatly saved the fuel cost and time, running cost can be 20% less than batch type, especially recycle 90% syn gas and saved 70% fuel cost;
4. PLC system ensure button operating in room, more than 80% working no need manual operating in workshop;
5. Unique anti-cokingstructure, which can achieve special big size feedstock fully continuous production;
6. De-sulphurization and De-dusting system: National standard, eco-friendly without second-pollution, emission can achieve normal standard of solid waste.

50吨连续化设备经济效益分析-越南市场

50TPD Fully Continuous Pyrolysis Plant Economic-benefit Analysis

序列 Series	项目 Item	单位 Unit	单位成本 Unit Cost 10 Thosand vnd	数量 Qty	总金额 Total Amount 10 Thosand vnd
1.投入/Input:					
1.1	废旧轮胎/Waste Tire	吨	400	50	20000
1.2	工厂运营费用/天 Factory Operating Fee/Day				
1.2.1	废轮胎市场收取费用 Waste tire transportation cost from market				17.5
1.2.2	撕碎(胶块) 费用 Rubber Blocks Shredder Fee			Covered in the labor and power cost	
1.2.3	车间周转运输费用 Workshop transportation Cost				5.25
	人工费用 Labor Cost	3班/天 3 shifts/day	50	6 人	900
1.2.5	电费/Power Cost	kw	0.28	9600	2688
1.2.6	燃料/Fuel Cost	吨	1092	0.107	116.844
1.2.7	折旧费/Depreciation				19.25
1.2.8	辅助材料费/ Cost of Ancillary Materials				11.55
投入总和:				23758. 394	
2.产出/Output:					
2.1	炭黑/ Carbon Black	吨	100	20	2000
2.2	钢丝/ Steel Wire	吨	250	5	1250
2.3	油/ Fuel Oil	吨	1092	19.5	21294
2.4	废气/ Syn Gas	CBM	0.35	8000	2800
产出总和/Output Sum				27344	
日净利润/Daily Net Profit				3585.606	
月净利润/Monthly Net Profit				89640.15	
年净利润/ Annually Net Profit				1075681.8	

注: 人民币对换 VND 1:3500,以上价格基于 2024 年 5 月越南市场

Note: CNY VS VND Exchange:1:3500,Above Cost based on May, 2024 Vietnam Market

全连续式裂解设备运转现场 Running site of Fully-continuous pyrolysis plant



蒸馏设备 DISTILLATION PLANT

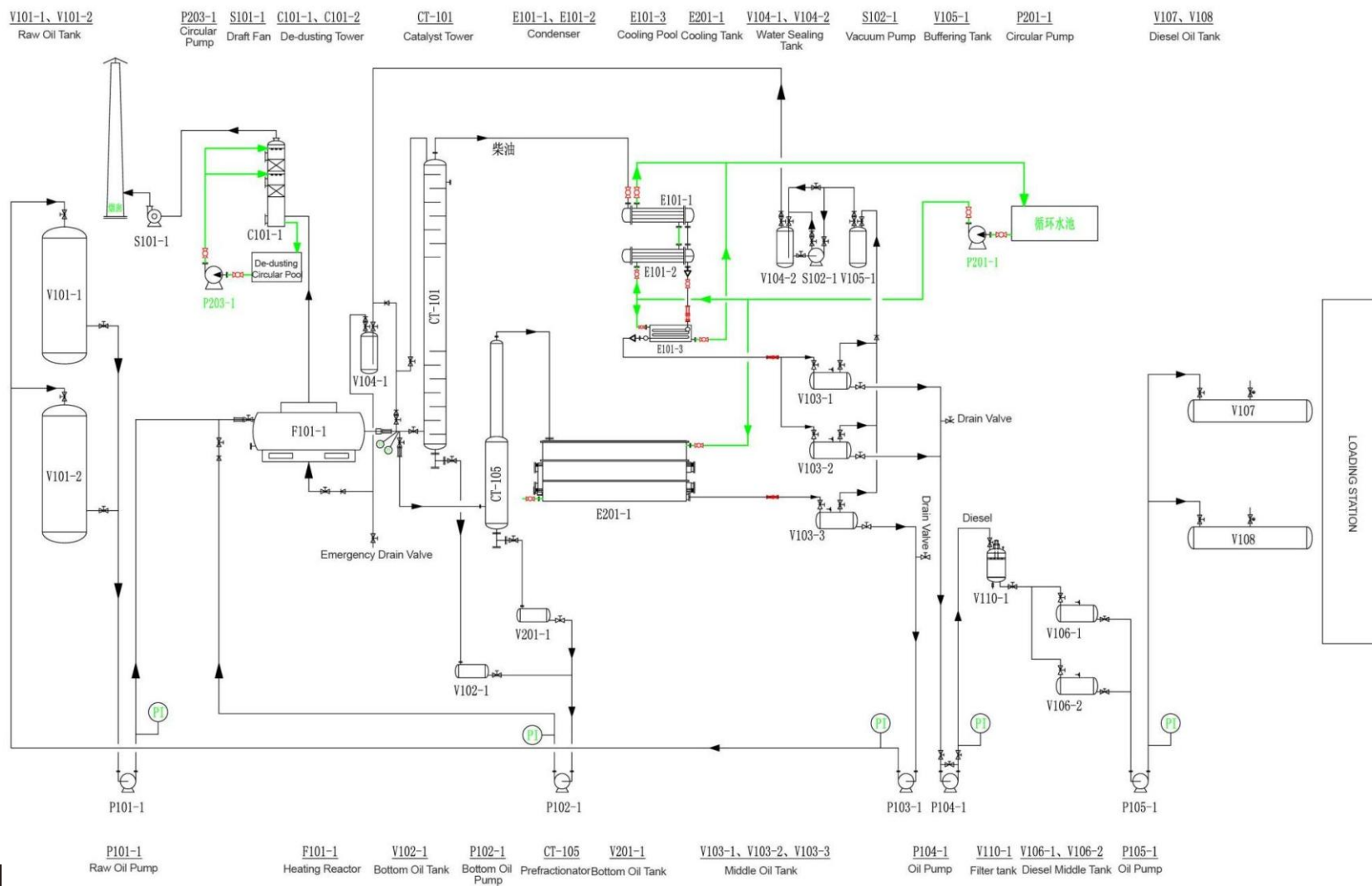
蒸馏设备，又称精炼设备、分馏设备、提纯设备等，是通过加热、汽相催化、冷凝、冷却的过程使液体混合物中不同沸点的组分互相分离的设备。原油、废机油、裂解燃料油及其他废油是烃类和非烃类组成的复杂混合物，如原油中沸点在40~205℃之间的组分称为汽油；180~300℃之间的组分称为煤油；250~350℃之间的组分称为柴油；350~520℃之间的组分称为润滑油；520℃以上的组分为重质燃料油。

Distillation Equipment, also known as refining equipment, fractional distillation machine, purification plant, etc., which separates different components from the liquid mixture based on different boiling points, via the process of heating, Catalytic Distillation, condensation and cooling down. Crude oil, used engine oil, pyrolysis fuel oil and other waste oil all belongs to the mixture of hydrocarbons and non-hydrocarbons, such as crude oil, boiling point of gasoline is between 40 °C and 205 °C ; Kerosene Boiling point is 180 ~ 300 °C ; Diesel Boiling point is 250 ~ 350 °C ; Lubricating oil Boiling point is 350 ~ 520 °C; Heavy Fuel oil Boiling point is more than 520 °C.

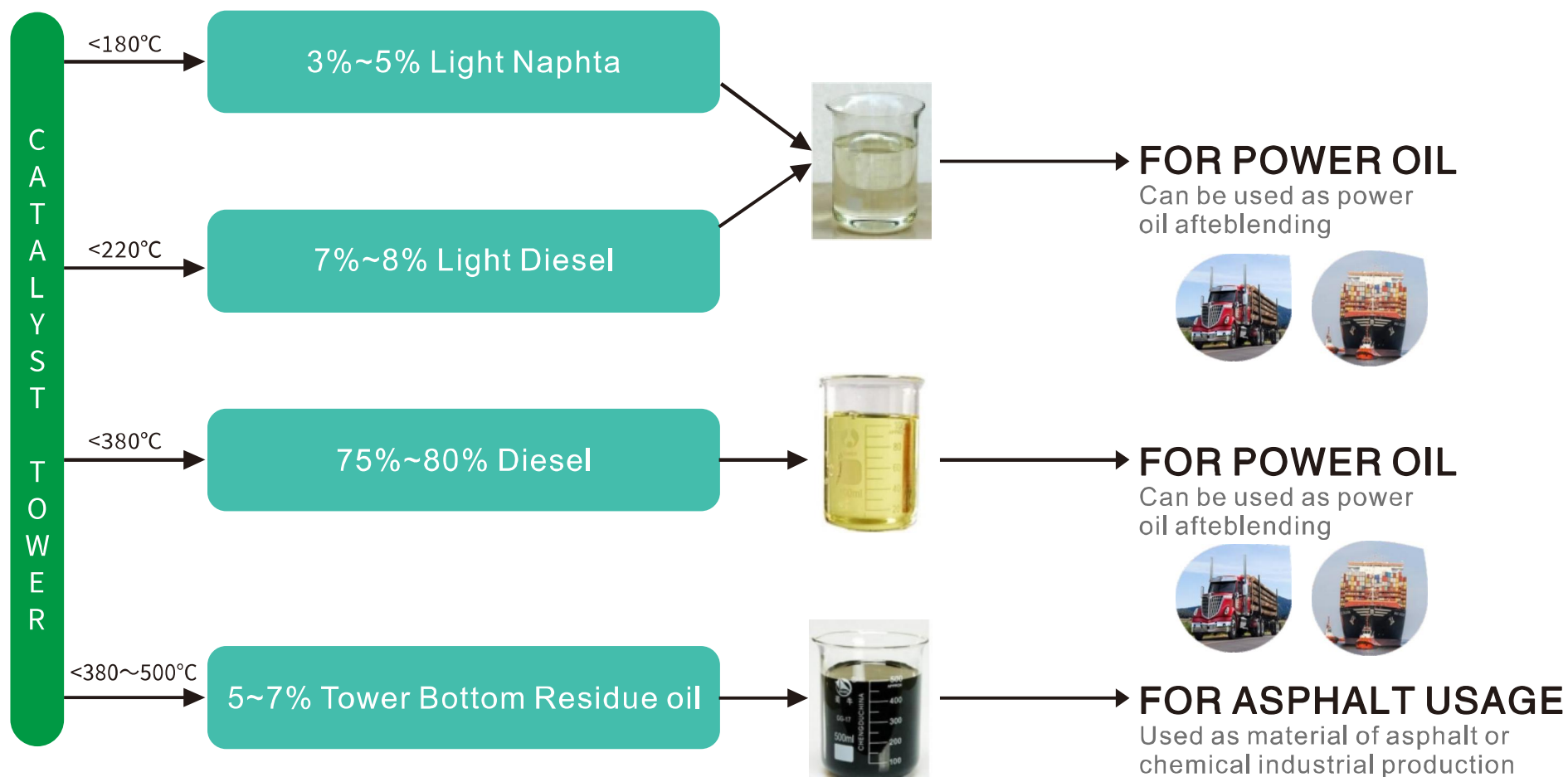


蒸馏工艺流程图及相关配置技术参数 DISTILLATION PLANT TECH FLOW CHART & TECHNICAL PARAMETER

Crude Oil/Waste Oil/Pyrolysis Oil Distillation Machine Working Flow Chart



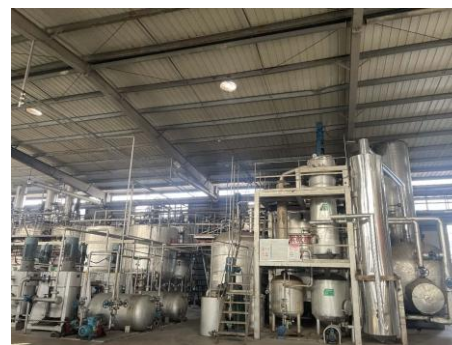
蒸馏设备终端产品及用途 DISTILLATION PLANT END PRODUCTION & USAGE



蒸馏设备选型 Different Model of Distillation Plant

项目 Item	MSBD-23001 间歇式蒸馏 BATCH DESIGN DISTILLATION	MSSD-24002 半连续式蒸馏设备 SEMI-CONTINUOUSDESIGN DISTILLATION	MSCD-24003 高配型蒸馏设备 TOP CONFIGURATION DISTILLATION
外观设计/ Design			
自动化/Automatic	无/None	半自动/Semi-Automatic	全自动/Fully-Automatic
连续化/Continuous	无/None	半连续化/Semi-Automatic	连续化/Continuous
处理量/Capacity	5tons ~50 tons/day	5tons ~350 tons/day	5 tons ~350 tons/day
采用工艺/ Technology Adopt	Heating Process without catalyst Reaction /加热无任何化学催化反应	Heating Process + Acid/Alkali Reaction /加热+酸碱反应	Pretreating+Gasified Catalyst+Filter System 预处理+气相催化+精制过滤
终端产品颜色/ End Production Color	类似于柴油/Looks like Diesel	类似于柴油/Looks like Diesel	同柴油一样/Same as Diesel
终端产品气味/ End Production Smell	不像柴油/Not Like diesel	类似于柴油/Looks like Diesel	同柴油一样/Same as Diesel
柴油标准/ Diesel Standard	每一项都不符合柴油标准/ Nothing index meet standard	某些指标符合柴油标准/ Some index meet standard	所有指标都符合国三柴油标/ All meet standard, only sulfur content difficult to meet Euro/National standard
储存一段时间后的变化/ Appearance After storage for a while	储存一段时间后颜色和气味将和塑料/轮胎 油一样/Color and smell will be same as tire/plastic oil after storage for a period	储存一段时间后颜色和气味将和塑料/轮胎油一样 /Color and smell will be same as tire/plastic oil after storage for a period	颜色和气味与柴油一样并能固色固味6个月 以上/Diesel fixed color and smell can be kept as long as 6 months
终端产品用途/Usage	燃料油用于加热/Heating as Furnace Oil	用于船舶, 拖拉机等可以用粗柴油的机器 /Boat,tractors which can adopt crude diesel	动力油和发电机/Power oil for engines and electric generator
Note: 根据不同的原材料定制不同的工艺, 比如针对流动性好的原料设计连续式蒸馏, 针对杂质较多的原料油设计半连续式等... Customize technology according different feedstock characteristics, eg.continuous design for good quality feedstock like purity waste engine oil, semi-continuousdesign for high ash content feedstock oil like pyrolysis fuel oil, high-efficiencyheating & cooling structure,etc...			

废油蒸馏设备运转现场 RUNNING SITE OF WASTE OIL DISTILLATION PLANT



炭黑颗粒机 CARBON PELLET PLANT

裂解设备的产品炭黑可以经过深加工得到炭黑颗粒或者精细炭黑使其市场化价值最大化。

Carbon black from pyrolysis plant can be further refined or further processed to get higher valued production.

CARBON PELLET PLANT



序号 No.	型号 Model	日处理量 Daily Capacity	电机功率 Motor power	颗粒尺寸 Pellet diameter	颗粒参数 Pellet Parameter
1	MSCP-300	3-5TON	15 KW	8-12 MM	(1) 密度/Density:0.8—1.2g/cm (2) 热值/Calorific Value:5000~6000kcal
2	MSCP-500	8-12TON	22 KW	26-32MM	
3	MSCP-600	15-18TON	30 KW	26-32MM	

炭黑精炼系统 CARBON REFINERY PLANT

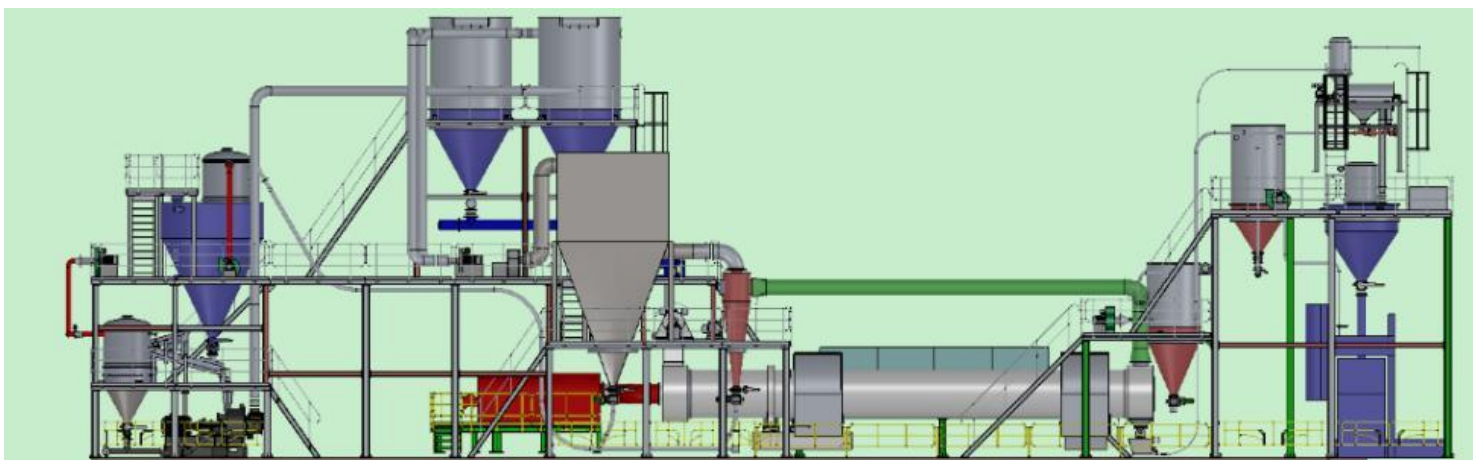
废轮胎裂解炭黑的深加工过程包括超细粉碎、表面改性和湿法造粒 3 个主要阶段。废轮胎经热裂解（热解终温 530 °C）碳化工艺处理后，热裂解反应器排出炭渣和钢丝；炭渣经预处理单元磁选除铁机磁性除铁，去除钢丝铁屑杂质，形成粗炭黑并经料仓回收；粗炭黑经炭黑粉碎单元的粉碎机超细研磨，研磨至符合与工业炭黑相近的粒度，形成细炭黑并经料仓回收；细炭黑经炭黑活化改性单元的连续活化包覆机活化改性，以获得补强性能较好的橡胶用炭黑，形成活化后的粉剂炭黑并经料仓回收；废轮胎裂解炭黑经超细研磨、活化改性和造粒后，可代替工业炭黑或与工业炭黑并用，可用作轮胎及其它橡胶制品的生产原料。

Further refinery of pyrolysis carbon black mainly includes three stages: ultrafine grinding, surface modification and wet granulation.

After waste tires pyrolysis process (final pyrolysis temperature @ 530°C), discharge the carbon black and steel wire from pyrolysis reactor; Carbon black are magnetically separated from iron by magnetic separator to remove steel wire and other iron impurities, get crude carbon black and collected them in silo;

Crude carbon black is ultra-fine grounded by pulverizer, grinding it to particle size which similar as industrial carbon black, named as fine carbon black and collected them in silo; Fine carbon black is activated and modified by the continuous activating coating machine to achieve the activated and modified carbon black. Which has better reinforcing performance for rubber production, named as activated powder carbon black and collected them in silo;

Refined carbon black, which processed by ultra-fine grinding, activation modification and granulation process from crude pyrolysis carbon black, can be used as raw material of tires and other rubber production instead of some industrial standard carbon black, or can be mixed with standard carbon black by fixed ratio.



钢丝打包机&打捆机 STEEL WIRE BALER & BLOCK PACKER

裂解后的毛钢丝杂乱，不方便运输，根据客户需要选择打包或者打捆后大大节省存储空间，节约运输成本，及时高效地解决裂解毛丝的运输存储问题。

Steel wire after pyrolysis got messy, with baler or Block packer plant, can be best economical for storage and transportation, high efficiency improve the recycling efficiency

钢丝自动打捆机 STEEL WIRE BALER

Steel Wire Baler



型号 Model	外形尺寸/Machine Size	功率/Power	设备重量/Machine Weight	打捆尺寸/Baler Size
MSZD210	L3800*W1400*H1300mm	11 KW	1200KGS	50*70 cm
MSZD220	L4300*W1500*H1600mm	15 KW	1700KGS	70*80 cm
MSZD230	L5600*W2000*H1600mm	22 KW	3300KGS	100*100cm

钢丝自动打包机 Auto Steel Wire Block Packer

Auto Steel Wire Block Packer



序号 Items	配件 Parts	型号 Specification
1	电机 Motor	22KW
2	主油缸 MasterCylinder	内径 280mm,1个 InnerDia280mm,1pc
3	侧油缸 SideCylinder	内径 280mm,2个 InnerDia280mm,2pcs
4	门盖缸 Doorcovercylinder	内径 140mmInnerDia140mm
5	料箱尺寸 Feeding box size	1200mm*900mm*H600mm
6	成品尺寸 End Production Size	220X220X500mm
7	每小时产量 Capacity per Hour	360kg,6 pcs,60kg/pc,6块，每块 60kg

废轮胎手动处理设备 WASTE TYRE MANUAL RECYCLING PLANT



切圈机 Ring cutter

生产能力(条/小时) Productivity	电机功率(KW) Power
50条piece/h	3KW
主机转速 Spindle speed	重量(kg) Weight
56.8r/min	500kg
外形尺寸(mm) Dimensions	
1800 × 900 × 1500mm	



圈口钢丝分离机 Steel wire separator

生产能力(条/小时) Productivity	设备功率(KW) Power
60条piece/h	11kw
主机转速 Spindle speed	重量(kg) Weight
95r/min	1100kg
外形尺寸(mm) Dimensions	
1500 × 900 × 1300mm	



切条机 Strips cutter

生产能力(条/小时) Productivity	电机功率(KW) Power
1700m/h	4KW
主机转速 Spindle speed	重量(kg) Weight
74m/h	900kg
外形尺寸(mm) Dimensions	
1400 × 800 × 1500mm	

液压切断机 Hydraulic tyre cut machine



Model	QDY700
Motor(kw)	5.5
Processing range(mm)	750-1200
Weight(kg)	1800
Dimension(mm)	1720 × 750 × 1880
Production	10-30pieces tire/hour



切块机 pieces cutter

生产能力(条/小时) Productivity	电机功率(KW) Power
1000kg/h	7.5KW
主机转速 Spindle speed	重量(kg) Weight
74m/h	800kg
外形尺寸(mm) Dimensions	
1000 × 900 × 1150mm	

液压抽钢丝机 Hydraulic remove steel machine



Model	QDY700
Motor(kw)	5.5
Processing range(mm)	750-1200
Weight(kg)	1800
Dimension(mm)	1720 × 750 × 1880
Production	10-30pieces tire/hour

废轮胎自动处理设备 WASTE TYRE AUTO RECYCLING PLANT

高效自动钢丝分离机 Hydraulic Automatic Steel Wire Separator



钢丝分离机技术参数 Technical Parameters of Steel Wire Separator

Model 型号	Application 适用整胎尺寸	Machine Size 机器尺寸	Machine Weight 设备重量/KG	Equipped KW 功率/KW	Operating Mode 操作模式	Capacity 处理量	Machine Package 运输包装	Function 功能
MSWS-1200	≤1200mm	4200*900 *1700mm	2000 KGS	15	Fully Automatic	1~20TPD	1*20GP	Separate steel wire from waste tire, for higher efficient crushing.

全自动整胎破碎机 Fully Automatic Waste tire Shredder

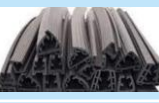


轮胎破碎机技术参数 Technical Parameters of Waste Tire Shredder

Model 型号	Application 适用整胎尺寸	Output Size 破碎后尺寸	Machine Weight 设备重量/KG	Equipped Power 功率/KW	Production Efficiency (t/hour) 生产效率(吨/小时)	Operating Mode 操作模式	Machine Package 运输包装	Function 功能
MSTS-3TS	≤1400mm	60*60mm	15600 KGS	120	2-4	Fully Automatic	1*40HQ	Crushing the waste tire to be required blocks, greatly save storage space, reduce transportation costs, improve the recycling effective, solve the problem of tire pollution in time.
MSTS-1TS	≤800mm	50*50mm	7500 KGS	50	1-1.5	Fully Automatic	1*20HQ	

各种原料废料出油率一览表 OIL YIELD FROM DIFFERENT MATERIAL

类型 Type	图片 Photo	原料 Raw Material	出油率 OilYield
废旧轮胎及其它橡胶制品 Waste Tires& Other Waste rubber productions		钢丝(汽车)胎 SteelTires	40~45%
		尼龙(汽车)胎 Nylon Tires	~40%
		自行车胎等 Bikes/Motorcycle Tires	~38%
废塑料 Waste Plastic		地膜等 HDPE	85~90%
		LDPE	45~50%
		ABS	~40%
		生活垃圾分选出的 混合塑料 Mixed Plastic after Separating from MSW	~50%
		编织袋&手提袋 Weaves& Handbags	~75%
废塑料 Waste Plastic		饮料瓶盖 PP	~25%
电子产品废料 Electronic Waste		光伏板 Waste Photovoltaic Panel	~20%
		废旧电池 Waste Battery	~20%
电缆皮 Waste Cable Skin		海底电缆皮 PE Cable Skin	~85%
		PVC 电缆皮 PVC Cable Skin	~25%
		纯橡胶电缆皮 Rubber Cable Skin	~35%

电缆皮 Waste Cable Skin		电话线 Telephone Cable Skin	~50%
		铁厂废料 Waste plastic & Rubber Mixture	28%
纸浆料 Waste Plastic from the paper mixture		粗料 Crude Material	~15%
		水洗料 Washing Material	~28%
		机头料 Melted Material	~78%
其它 Other		有机玻璃制品 PMMA	80%~85%
		废铝塑制品 Waste Aluminium Plastic Production	~30%
		橡胶鞋底 Rubber Shoe Soles	15~45%
		地毯料 Carpets	~15%
		车玻璃压条 Car Glass rubber bead	~50%
		含水杂料 Waste mixed Material	~15%
		钻井落地油泥	20~50%
油泥 Oil Sludge		煤焦油渣	25~40%

裂解终端产品油品&炭黑指标

END PRODUCTION PYROLYSIS OIL&CARBON PARAMETER

项目 Project	轮胎热解油 Tire pyrolysis Oil	标号 Standard
密度@20℃ Density(kg/m ³)	0.88~0.92	GB/T1884
硫含量 Sulphur Content(ppm)	8800	SH/T0689
灰分 Ash Content(%)	≤0.1%	GB/T 508
水分和沉淀物 Water & Sediment Content(%)	≤0.5%	GB/T 260
闭口闪点 Flash Point(closed)(℃)	32	GB/T 261
倾点 Pour Point(℃)	-6	SH/T 0248
运动粘度@40℃ Viscosity (mm ² /s)	≤5.5≤24	GB/T 265
热值/Calories(MJ/KG)	45	
C(%)	84.55	
H(%)	9.59	
N(%)	0.83	
S(%)	0.537	
0+Other(%)	4.493	

检验项目 Test Item	单位 Unit	裂解炭黑检测值 Crude Carbon Black Test Value	检验标准 Test Method
吸碘值 Iodine No.	g/kg	79	GB/T3780.1-2006
吸油值 (B法-DBP) DBP Absorption(B-DBP)	10 ⁻⁵ m ³ /kg	87	GB/T3780.2-2007
CTAB 吸附比表面积 CTAB Absorption Ratio Surface Area	10 ³ m ² /kg	74	GB/T3780.5-2008
加热减量 (125℃) Heating Loss(125℃)	%	0.8	GB/T3780.8-2008
灰分 (825℃) Ash Content(825℃)	%	15.0	GB/T3780.10-2009
PH 值 PH Value		8.2	GB/T3780.7-2006
45 μm筛余物 45μm Screenings	Mg/kg	323	GB/T3780.21-2006
500μm筛余物 500μm Screenings		0	
挥发分 (950℃) Volatiles(950℃)	%	3.75	GB/T7047-2006
杂质 Impurity		无	GB/T3780.12-2007
甲苯透光率* Methylbenzene Luminousness	%	99	GB/T3780.15-2006
300%定伸应力 300% Stress at Definite Elongation	Mpa	-7.7	GB/T3780.18-2007
拉伸强度 Tensile Strength	Mpa	-8.0	
拉断伸长率 Elongation at break	%	+8	

炭黑深加工后指标 REFINED CARBON BLACK PARAMETER

以不含钢丝或金属的轮胎裂解炭黑为原料，通过添加30%改良剂搅拌改造后，再生炭黑可转变为工业级补强炭黑，在此列出4种补强炭黑指标：

Take the crude pyrolysis carbon black as raw material, after refined by our carbon refinery plant, refined carbon black can be added 30% for making the industrial grade reinforcing production, following parameter for 4 different levels carbon black N330, N550, N660, N774:

检验项目 Test Item	单位 Unit	N774	N660	N550	N330	检验标准 Test Method
吸碘值 Idole No.	g/kg	29	38	44	82	GB/T3780.1-2006
吸油值（B 法-DBP） DBP Absorption(B-DBP)	10 ⁻⁵ m³/kg	74	93	118	101	GB/T3780.2-2007
加热减量（125℃） Heating Loss(125℃)	%	0.3	0.3	0.2	0.2	GB/T3780.8-2008
灰分（825℃） Ash Content(825℃)	%	≤0.75	≤0.75	≤0.75	≤0.75	GB/T3780.10-2009
150 m 筛余物 150 m Screenings	Mg/kg	100	100	100	100	GB/T3780.21-2006
300%定伸应力 Modulus @300% (Cure time 30 mins)	Mpa	-3.2	-1.7	-0.8	-0.8	GB/T3780.18-2007
拉伸强度 Tensile Strength	Mpa	-3.4	-3.6	-3.5	-1.7	
拉断伸长率 Elongation at break	%	6	-2	-6	-2	
等级 Grade	N774 合格 Qualified N774		N660 合格 Qualified N660	N550 合格 Qualified N550	N330 合格 Qualified N330	

高配蒸馏终端产品油品指标 REFINED OIL PARAMETER FROM NO.3 DESIGN

项目Project	轮胎毛油蒸馏后柴油 Diesel after Refine Tire pyrolysis Oil	铝塑毛油蒸馏后柴油 Diesel after Refine Waste Plastic pyrolysis Oil	废机油蒸馏后柴油 Diesel after Refine Used Engine Oil	标号 Standard
密度@20℃ Density(kg/m ³)	0.85	0.78	0.82	GB/T1884
硫含量 Sulphur Content(ppm)	2800	10	50	SH/T0689
灰分 Ash Content(%)	≤0.01%	≤0.01%	≤0.01%	GB/T 508
水分 Water Content(%)	痕迹 Trail	痕迹 Trail	痕迹 Trail	GB/T 260
闭口闪点 Flash Point(closed)(℃)	45	35	50	GB/T 261
酸度 Acidity	≤7	≤7	1.8	GB/T 258
十六烷值 Cetane Index	≥43	≥48	58	SH/T 0694
冷滤点 Freezing Point(℃)	-43	-35	-47	SH/T 0248
色度 Chroma(#)	≤3.5	≤3.5	0.8	GB/T 6540
运动粘度@20℃ Viscosity (mm ² /s)	3.32	2.27	3.5	GB/T 265

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