



混合机和混料系统 MIXER AND BATCHING SYSTEM



苏州麦科威化工设备有限公司
Mechwell Chemical Machinery Co.,Ltd

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公司简介

麦科威公司致力于为塑料行业，化工及石化行业提供散装物料的处理系统及其相关的机械和部件。对物料特性的掌握和对物料处理工艺过程的全面了解是我们的长处。我们善于解决物料在输送，储存，称重计量，混合以及过筛过程中存在的问题并提供最佳的解决方案和整体项目规划，并最终建设一个依据客户需求量体裁衣的交钥匙工程。

凭借多年积累的全面经验和孜孜以求的创新理念，我们为市场提供高质量和高技术含量的产品。我们不但拥有机械制造的能工巧匠，也具备现代化的制造方法，这些正是精密产品的有力保证。

本公司目前生产下列产品：

- 塑料高速混合机和冷却混合机，最大到2000升高混和6000升冷混。
- 卧式双螺带混合机，最大到9000升
- 全自动配料、混料和气力输送系统
- 犁刀混合机最大到6000升
- 用于气力输送的部件包括旋转阀，换向阀和除尘过滤器
- 用于粉料和粒料的振动筛，振动流化床冷却/干燥机
- 用于粉料和粒料的真空吸料机，最大输送量到7000公斤/小时
- 用于粉料和粒料的螺旋输送机，最大螺杆直径到500毫米
- 用于粉料和粒料的管链输送机，最大产量到50立方/小时



Company introduction

Mechwell focus on building bulk solid handling plant and supplying related machines and components to plastic, chemical and petrochemical industry. Our strength are the best understanding of bulk material properties and the handling process. We are good at solving problems which exist in bulk solid conveying, storage, weighing, mixing and screening. Meanwhile, We offering optimal solutions and proposals of the whole project. Eventually, Mechwell will provide our customer a tailor-made, turn-key plant.

With comprehensive experience, creative and innovative emotion. Mechwell uses high technology and develops high-quality products for the market. Highly qualified and skilled workers、modern producing methods ensure that Mechwell has precise products and flexible systems.

We provide below machines and plants to domestic and international market:

- High speed mixer and cooling mixer unit, capacity up to 2000 liters for hot mixer and 6000 liters for cooling mixer.
- Horizontal double ribbon blender, capacity up to 9000 liters
- Automatic metering, weighing, mixing and pneumatic conveying plant.
- Shovel & Chopper Blender, capacity up to 6000 liters
- Components for pneumatic conveying such as Rotary valve, Diverter valve and de-dusting & vent filters.
- Vibration screen for powder & pellets, Vibration Fluid-bed Cooler/Dryer
- Vacuum loaders for powder & pellets, capacity up to 7000 kg/h
- Screw conveyor for powder and pellets, maximum screw diameter 500mm.
- Tube Chain Conveyor for powder and pellets, maximum capacity up to 50 cum/hr



RH/LH 热/冷混合机组 RH/LH Heating/cooling Mixer Combination

应用范围:

适用于塑料、橡胶、化工、食品等行业，粉、粒状物料的混合、着色和干燥。典型应用于PVC干混料的制备、塑料填充改性、挤出机造粒前的初混、木塑生产前的多组分混合等。

主要特点:

- 所有重要部件（锅体、搅拌桨、配电箱等）都在公司内部制造，保证机器质量。
- 所有与物料接触部位都采用不锈钢或铝合金，不会对物料污染。
- 冷却效率高、混合时间短、清理方便快捷，能实现高效高产。
- 提高了冷却效率，减少了水的消耗。
- 搅拌桨可按不同用途进行设计制造。
- 搅拌桨耐磨涂层，增加使用寿命，并通过动、静平衡试验，运行平稳。
- 快速、完善的售后服务。

Application:

Suitable for plastics, rubber, chemical and food industry, for powder or granulate material blending, coloring and drying. Typical application includes: Production of PVC dry blend, filling and modification of plastics, pre-mixing of compounding process and premix of Wood-Plastic Composites.

Features:

- All important parts (bowl, mixing tool, control cabinet) are manufactured in our company, which ensure the quality of machine.
- All material in contact with product is in SS304 or aluminum alloy and the product will not be contaminated.
- High cooling efficiency, short mixing time, easy and convenient to clean, and can reach high output.
- Improved cooling efficiency and reduced water consumption.
- Mixing tool can be designed according to different application.
- Mixing tool coated with wear-resistant material, which can increase service life and pass dynamic and static balance test, running smoothly.
- Rapid, perfect after-sales service.

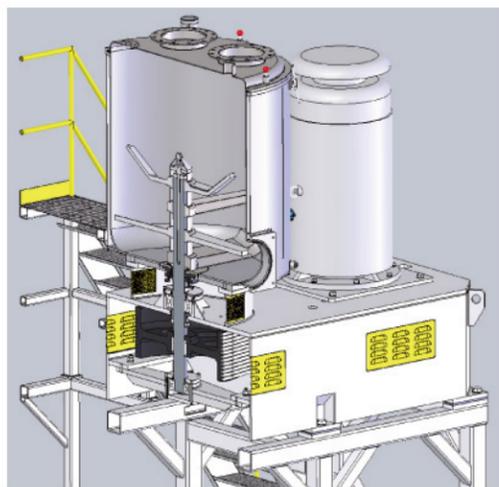
Mechwell RH/LH 系列混合机组
Mechwell RH/LH Heating/Cooling Mixer Combination

RH热混/LH冷混技术参数

型号 Model	锅体总容积/净容积		驱动功率		桨叶速度		单批物料重量 Batch Weight(kg)
	Bowl Volume Total/Effective(l)		Motor Rating(kw)		Tool Speed(1/min)		
	RH热混	LH冷混	RH热混	LH冷混	RH热混	LH冷混	
RH 300 / LH 1000	300/240	1000/700	75/90	15/18.5	900	117	120
RH 500 / LH 1800	500/400	1800/1260	90/110	15/18.5	690	85	200
RH 600 / LH 2100	600/480	2100/1470	100/132	18.5/22	660	75	240
RH 800 / LH 3000	800/640	3000/2100	132/160	22/30	643	56	320
RH 1000 / LH 3500	1000/800	3500/2450	160/200	30/37	610	51	400
RH 1200 / LH 4200	1200/960	4200/2940	200/250	37/45	610	51	480
RH 1500 / LH 5000	1500/1200	5000/3500	250/315	45/55	550	47	600
RH 2000 / LH 6000	2000/1600	6000/4200	315/355	45/55	500	41	800

堆积密度按0.5t/m³ 计算
Based on bulk density of the mix 0.5t/ m³

Mechwell RH 系列高速热混机
Mechwell RH Series High Speed Mixer



锅体
与物料接触的部分都采用不锈钢制作,带保温层,内壁高度抛光,无物料粘结.

Bowl
All material in contact with product is in SS304. Heat insulation, with highly polished. No product will remain.

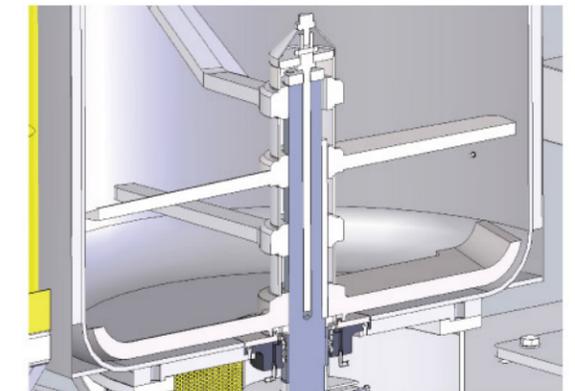


钢体盖
与物料接触处全不锈钢制作。内表面抛光处理,具有良好的自洁性,防尘密封。带有液体料加料孔及人工加料孔,方便连接。

Lid
All material in contact with product is in SS304. With highly polished inside walls, have good self-cleaning. Dust-proof sealing. With liquid material feeder hole and manual feeding hole which are convenient to connect.

混合桨叶
三层或四层不锈钢304铸造。物料在混合过程中无死角区域,可获得最佳涡流。间距可调节,可单片更换磨损的桨叶。表面带有耐磨涂层,使用寿命长。

Mixing tool
3 or 4 layers casting SS304.
There is no dead corner region during mixing, and can achieve the best mix. Tool's interval adjustable, worn blade can be replaced individually. Surface areas are provided with wear resistant coating and can increase working life time



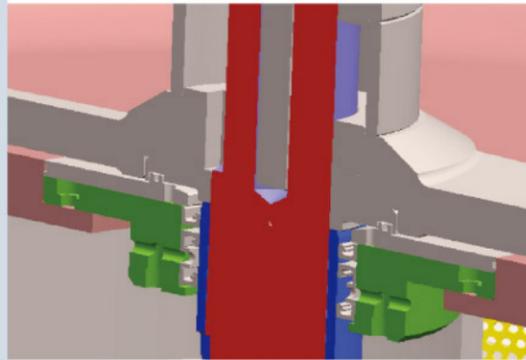


折流板

安装在锅体侧壁上，可手动调节角度后锁紧。

Deflector

Installed on the wall and can be locked after manual adjusting.



主轴密封

金属迷宫式密封加吹气密封加油封密封，保证物料不会泄漏。轴套经表面硬化处理，无磨损，更换油封后，密封性能和新的一样。

Shaft bearing & sealing

Labyrinth with purging air sealing plus oil sealing to ensure the material can not leak out. Bushing surface with hardening treatment, and no wear and tear. After replacing oil sealing, the sealing performance is the same as new one.



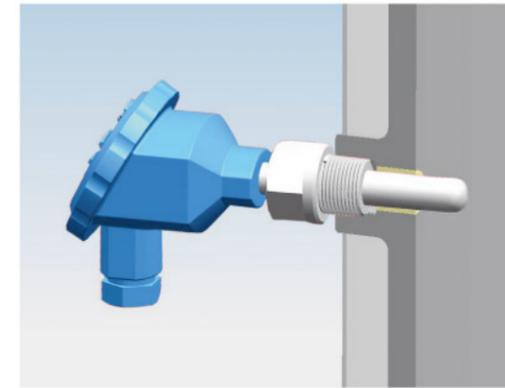
放料阀

大尺寸放料盘，出料速度快。与锅底完全吻合，无死角。采用气缸驱动，灵活可靠。专用密封圈密封，无泄漏现象。铰链式设计，可完全打开，方便彻底清理。

Discharge plate

Large size discharge plate, the speed of discharge material is quick. Fitted exactly to the bottom dish with no dead corner. Driven with pneumatic cylinder, flexible and reliable.

Hinged type design for easy access and cleaning.



温度控制

PT100热电阻，带4~20mA变送器输出，由控制系统对物料温度进行实时监控；探头带有耐磨涂层，使用寿命长。聚四氟乙烯护套用于安装部位与锅壁的绝热。两个热电阻，一个控制一个过热报警。

Temperature measurement

Thermo-sensor PT100, with analog signal (4~20mA) transmitter for remote temperature indication and central control of mixing system. Probe with antiwear coating, the service life is long. PTFE sleeve for heat insulation installed on the wall of container.

Two sensors, one for discharge control another one for over heat protection.



驱动电机

采用变频调速电机，可随意调节主轴转速。

Driving motor

Driven by frequency inverter, the speed of shaft to be adjustable.

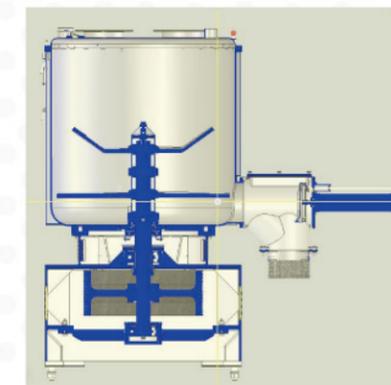


开盖装置

采用气动或手轮开盖，安全可靠。即使停电停气也可打开锅盖。

Lid open device

Open and handle by Pneumatic cylinder or hand wheel, safe and reliable. Lid can be opened even no electricity power and compressed air supply.



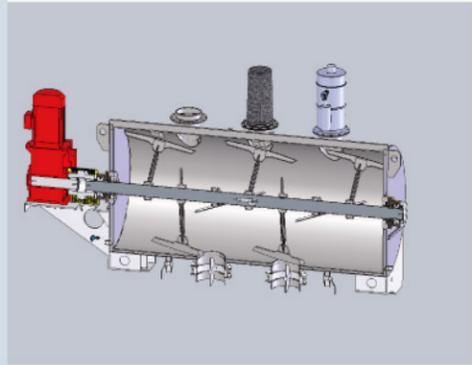
主轴轴承

两组独立的自定心轴承支撑在皮带轮的上、下两侧，消除在传动皮带的张力下轴的弯曲现象。轴承通过油脂润滑。

Shaft bearing

Two independent self-centering bearing supported by the upper and lower sides of V-belt wheel to eliminate bending phenomenon of shaft during belt tension. Bearing lubricated by grease.

Mechwell LH 系列冷却混合机
Mechwell LH Series Horizontal Cooling Mixer



混合锅体

卧式设计，整个内表面（锅体+锅盖+侧壁）全都通水冷却。采用迷宫式水流冷却系统，使冷却效率明显提高，并降低水的消耗。所有与物料接触部分为304不锈钢，内表面抛光。

Mixer container

Horizontal design with jacket for cooling. The whole internal surface (housing +lid +side wall) is cooled by cycled water. A maze-flow cooling system is to significantly improve the cooling efficiency, and reduce water consumption. Material in contact with product is SS304, internal surface polished.

锅体上盖

锅体上盖也采用双层结构，内部通水冷却。所有与物料接触部分为304不锈钢，内表面抛光。

Lid

Lid is designed in jacket structure, inside is cooled by water. Material in contact with product is SS304, internal surface polished.

搅拌桨

搅拌桨的设计可以使物料在轴向和径向都得到混合，有助于物料的分散和排料。桨叶式设计，桨叶位置和角度可以调节。

Mixing tool

Agitator provides radial and axial mixing effect to help product distribution and easy discharging. Paddle type design, paddle position and angle can be adjusted.

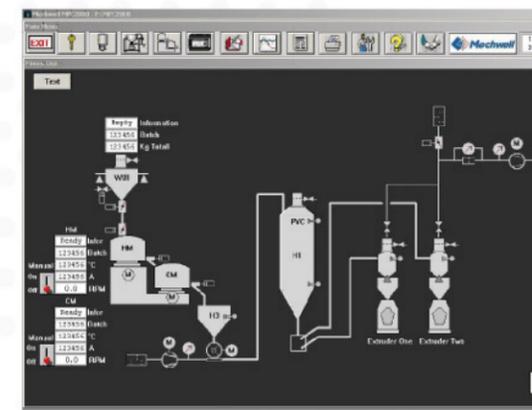
开盖装置

电动推杆用于开盖驱动
 气弹簧用于支撑
 行程开关用于开盖和电机互锁
 可以全部开启以方便清洁内部
 快速搭扣用于上盖的锁紧

Lid open device

Lid open by electrical lifting spindle drive
 Gas spring for supporting when lid open
 Limit switch for safety interlock with motor
 To be able totally open for easy access and cleaning of mixer
 Lid locking by quick clamping device

选项：气缸驱动/液压油缸驱动
 Option: Pneumatic cylinder / hydraulic cylinder



驱动

采用齿轮减速机进行驱动，输出力矩大，运行平稳。

Driving

Driven through gear reducer, Large output torque, lower noise, smooth running.

主轴支撑和密封

主轴由混合锅体外的两个自定心轴承支撑。
 主轴和侧板之间的缝隙由迷宫密封加吹气密封加油封密封组合密封，保证物料不会泄漏。

Shaft support & sealing

Shaft held in self-aligning roller bearings outside the mixing drum. The gap between shaft and side plate is sealed by Labyrinth with purging air plus oil sealing to ensure the material can not leak out.

放料阀

大尺寸放料盘，出料速度快。与锅底完全吻合，无死角。采用气缸驱动，灵活可靠。
 专用密封圈密封，无泄漏现象。

Discharge plate

Large size discharge plate, fast product discharge is possible. Fitted exactly to the bottom dish with no dead corner. Driven with pneumatic cylinder, flexible and reliable.

选项：气动蝶阀
 Option: Pneumatic butterfly valve

自动控制

无论是单独的混合机，还是一个完整的混合系统，控制系统都提供了手动和自动两种控制模式。其中包括程序逻辑控制、温度控制和电机驱动。

Automation

For both mixer unit and mixing plant, we provide two types of control operation: automatic and manual. the control cabinet include typically logical program, temperature control and motor driven.

卧式双螺带混合机WHS Horizontal Double Ribbon Blender WHS



应用:
适用于塑料、化工、食品等行业，用于粒状或粉状物料与添加剂或颜料的混合，也可以用于固态粉料和少量液态添加剂混合。典型应用如：塑料着色、PVC粉料干混、共混物和填充物的初混。也可以作为物料冷却设备使用。

特点:
双螺带的搅拌桨，使得混合、分散效果更好；低速混合，没有摩擦热产生，非常适合于需要限制混合温度的物料初混、二次混合、着色等。上盖可以全部开启，方便清理混合机内部；吹气式轴承密封，可以保证粉料不会进入轴承。

双螺带卧式混合机参数表

型号 Model	有效容积 working capacity(M ³)	批次最大产量 working capacity(kg)	转速(r/min) spee(rpm)	驱动功率 power(KW)	设备重量 weight(kg)	L	C	H
WHS300	0.18	180	62	5.5	550	2030	630	980
WHS500	0.3	300	62	7.5	900	2320	730	1130
WHS1000	0.6	600	49	11	1600	3140	980	1400
WHS1500	0.9	900	47	15	1800	3300	1050	1550
WHS2000	1.2	1200	33	15	2500	3460	1200	1650
WHS3000	1.8	1800	33	18.5	3400	3850	1300	1700
WHS4000	2.4	2500	27	22	4000	4450	1400	2000
WHS5000	3	3000	27	30	4680	4760	1550	2100
WHS6000	3.6	3600	27	37	5600	5230	1560	2200
WHS8000	4.8	4800	22	45	6500	5380	1720	2500
WHS10000	6	6000	22	55	7800	5520	1750	2650
WHS15000	9	9000	14	75	11000	5820	2000	2900

Application:

Suitable for plastic, chemical and food industries. Work as blending equipment for powder or pellets with additives or color pigment. Can also blending for solid powder with minority liquid additives. Typical applications includes: Plastics coloring, PVC dry blending, pre mixing of compounds with fillers. Can be work as cooler for bulk solid material.

Feature:

Special designed double ribbon agitator benefit to excellent blending and distribution. Low speed mixing with lower heat generated, suitable heat-sensitive product and low temperature.

Totally open lid for easy clean. Shaft sealing by purging air to prevent fine powder go into bearing.

Mechwell 犁刀混合机WHP Mechwell Shovel & Chopper Blender WHP



应用:
处理散状物料（粉状，粒状，纤维状）
将液体料附着在固体物料表面（液体料+粒料）
处理可泵送的浆料

特点:
混合质量高
混合时间短
混合过程平稳
实用性高
使用及维护成本低
内部清理方便快捷

Application:

Processing bulk materials (powdery, granular, fibrous)
Supply of liquids to the dry solid materials (moistening + granulating)
Processing pumpable materials

Feature:

Highest quality mixes
Short mixing times
Gentle treatment of the product
Maximum availability
Low maintenance mixer concept
Easy accessibility to all inside parts of the mixer



犁刀混合机WHP技术参数

型号 Model	筒体总容积 Drum Volume(l)	净容积 Net Volume(l)	主轴电机 Shaft Motor (kw)	桨叶速度 Tool Speed(r/min)	飞刀电机 Chopper Motor(kw)	单批物料重量 Batch Weight(kg)
WHP200	200	100-120	4-5.5	135	1.5/2只	100-120
WHP500	500	250-300	5.5-7.5	89	1.5/2只	250-300
WHP1000	1000	500-600	7.5-11	83	3/3只	500-600
WHP1500	1500	750-900	11-15	83	3/3只	750-900
WHP2000	2000	1000-1200	15-22	65	3/3只	1000-1200
WHP3000	3000	1500-1800	18.5-30	53	4/4只	1500-1800
WHP4000	4000	2000-2400	22-37	53	4/4只	2000-2400
WHP5000	5000	2500-3000	30-45	47	4/4只	2500-3000
WHP6000	6000	3000-3600	37-55	47	4/4只	3000-3600



存储料仓
Storage Silo



小料称量
Additives Weigher



中央除尘器
Central de-dust plant



混合机组
Mixer Unit



负压电子秤用于主料计量
Suction Scale For Main Components



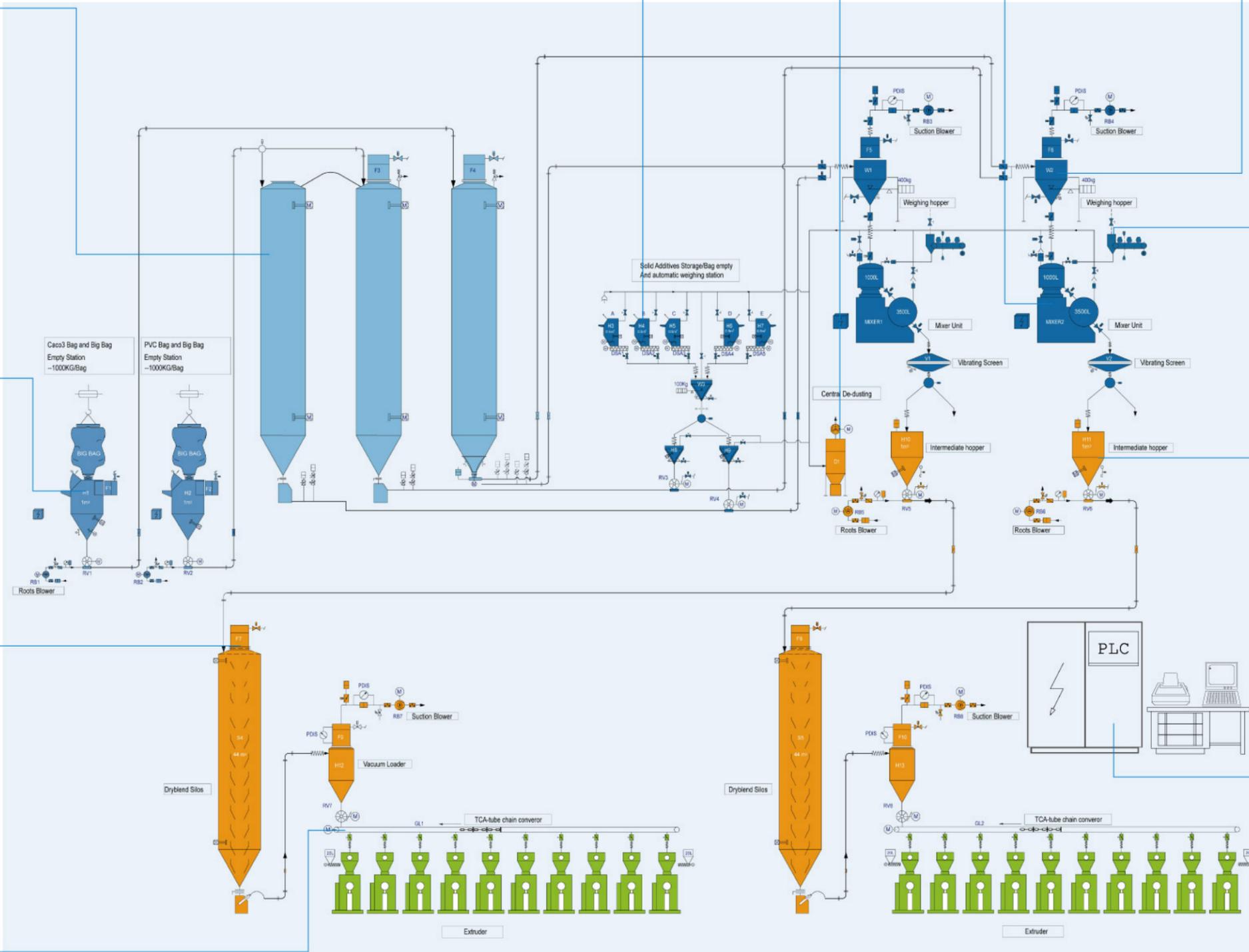
倒袋站
Bag Empty Station



料仓过滤器
Bin filter



挤出机供料
Extruder Feeding



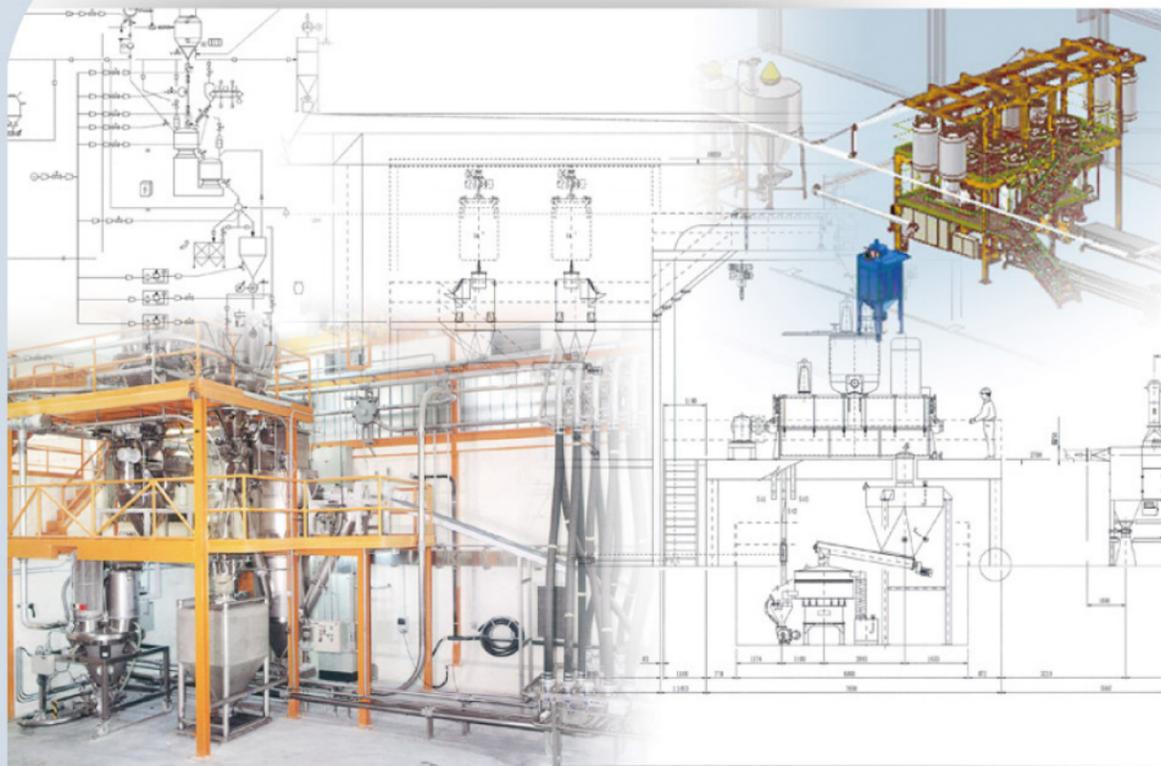
微量料加料
Micro Components Feeding



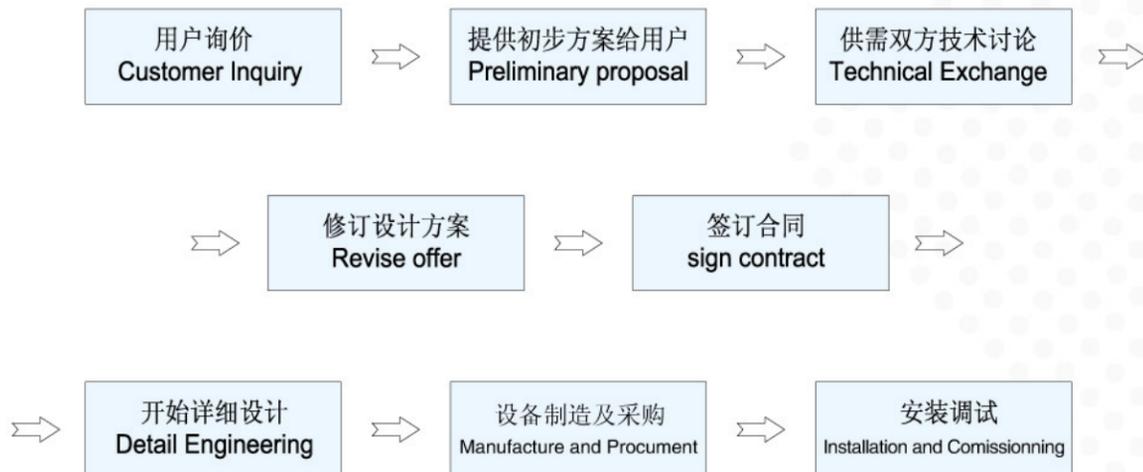
中间料斗
Intermediat Hopper



电控系统
Control Room



从设计、制造直到安装调试，一切以用户的要求为中心
Customer-oriented work: from design, manufacture through to installation and commissioning



主要客户
Major customers

产品:
自动计量、输送、混合系统。
热冷混合机组 RH/LH。

Product:
Automatic Dosing, Weighing, Conbeying & Mixing Plant.
RH/LH Heating/Cooling Mixer Combination.

国内主要客户 Domestic Customer:

蓝山屯河
新疆蓝山屯河型材有限公司
XINJIANG BULE RIDGE TUNHE

天津金鹏集团
Tianjin Jinpeng Group
天津开发区金鹏塑料型材制造有限公司
TIANJIN JINPENG GROUP

张家港爱丽塑料有限公司
ZHANGJIAGANG ELEGANT PLASTICS CO., LTD.

德国瑞好
Unlimited Polymer Solutions
瑞好聚合物(苏州)有限公司
REHAU POLYMERS (SUZHOU) CO., LTD

海螺型材
芜湖海螺型材科技股份有限公司
WUHU CONCH PROFILES AND SCIENCE CO., LTD

华邦集团
山东华邦塑钢型材有限公司
SHANGDONG HUABANG SUGANG XINGCAI CO., LTD

泰州华丽塑料有限公司
TAIZHOU HUALI PLASTIC CO., LTD.

北新集团建材股份有限公司
BEIJING NEW BUILDING MATERIAL S PUBLIC LIMITED COMPANY

TEKNORAPEX
特诺尔爱佩斯(苏州)高新塑料有限公司
TEKNOR APEX (SUZHOU)

国外主要客户 International Customer:

印度(INDIA)
KLJ POLYMERS AND CHEMICALS LTD.

俄罗斯(RUSSIA)
WINTECH PLASTIK LTD

印度(INDIA)
PIONEER POLYEATHERS

马来西亚(MALAYSIA)
SUMO HOSE MANUFACTURING SDN BHD

土耳其(TURKEY)
ADOPEN TLASTIK

印度(INDIA)
POLYCAB WIRE INDUSTRIES PVT.LTD

印度(INDIA)
SANKHLA POLYMER PVT. LTD
BNK PLASTICE PVT.LTD

迪拜(DUBAI)
GULF DURA INDUSTRIES LTD.

新加坡(SINGAPORE)
SINGAPORE POLYMER CORPORATION PET LTD

项目实例
Examples of projects

天津金鹏集团 天津金鹏项目 2009
Tianjin Jinpeng Group TIANJIN JINPENG



华邦集团 山东华邦项目(二期) 2011
HUABANG GROUP SHANDONG HUABANG



ADOPEN

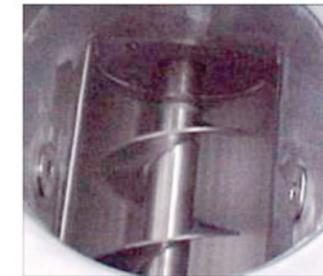
伊朗项目 2010
ADOPEN PLASTIK(IRAN)

客户产品:



KLJ 印度项目 2011
KLJ GROUP





一个现代化的物料处理系统，往往是一个量体裁衣工程。每个客户都有自己的要求。我们通过与客户的密切合作完成所有工作，从早期的项目规划，系统设计一直到设备制造和安装调试，我们的工作紧紧围绕着用户的要求展开。

麦科威的供货范围涵盖了原料接收、料仓储存、气力输送系统、电子秤计量、物料混合、为挤出机供料，以及连接各部分的电脑自动化控制系统。

麦科威公司开发，设计和制造散装物料处理系统，这也包括对现有老系统的改造，扩产以及现代化升级。

麦科威公司对用户的支持并不会随着项目的完工而结束，我们还提供培训和指导。我们的客户可以得到这样的保证：一旦系统出现故障，麦科威的技术服务人员将在可能的最短时间到达现场。

Almost all modern material handling system are tailor made projects, each customer has their own individual demand. We carry out all work in close cooperation with our customers from early project phase through to equipment manufacture, installation and commissioning.

Mechwell's scope of service includes raw materials acceptance facilities, silo storage, pneumatic conveying systems, dosing and weighing systems, equipment for feeding to process systems and associated plant automation by means of computer.

Mechwell develops, designs and implement bulk materials handling systems. That includes conversion and modernization of an existing system as well as systematic extension and upgrading.

Mechwell's assistance does not end after the plant has been completed. Besides offering training courses and instruction, our customers receive the guarantee that, in case of a fault a Mechwell service technician will be on the spot in the shortest possible time.

部件的质量和正确使用是物料处理系统可靠性的保证
A reliable system depends on good quality and right application of components

每一个物料处理系统都重复的使用着这些
 部件：旋转阀、换向阀、插板阀、过滤器、螺旋加料器等。这些部件的设计是否正确，制造

These components repeatedly installed in every material handling systems: they are Rotary valve, Diverter valve, Slide gate valve, Filter, Screw feeder etc. A specific designing, precise manufacture and correct selection is the guarantee of a reliable system.

设计、制造、选用 —— 一个都不能错
Designation, Manufacture and Application—All are important

决定性因素是物料的特性和使用条件。依据用户提供的这些条件而设计制造和选用的部件才能够组成完美的系统。

The key factor is the material properties and working conditions. Based on these information collected from customer, we select the right designed and manufactured components to establish a perfect system.