



科瑞股份有限公司 TCP PIONEER INCORPORATED



公司简介 Company Introduction

科 端 股份有限公司专业从事液态食品各项前处理加工设备,并可结合优质品牌后段充填/包装设备的厂家,提供整厂/整线交钥匙工程,包括工程规划、制程系统设计、设备与管道的安装…。

1987年成立至今所承包乳品厂、饮料厂的设备逾三百多家,安装逾200条整线设备及无以计数前处理系统与单机设备,业务范围涵盖中国大陆、中国香港、日本、泰国、越南、菲律宾、新加坡、马来西亚、印尼、缅甸、柬埔寨等东南亚区域及美国、澳洲、欧洲、俄罗斯、中东、非洲等地。

科瑞本部办公室及工厂设立后,接续分别于1996、1998及2001年在上海、北京和广州成立分公司。并于2002年在上海设立两个机械组装厂(上海科瑞机械/上海科劲机械),两厂设备的制作皆可满足CE及UL等国际认证要求。

TCP Pioneer Inc. specializes in upstream processing equipment for liquid food, and can provide turnkey projects for complete factories/production lines by combining with high-quality branded filling/packaging equipment manufacturers. This includes engineering planning, process system design, equipment and pipeline installation, etc.

Established in 1987, TCP Pioneer has undertaken over 300 dairy and beverage factories, installed more than 200 production lines, countless upstream processing systems and stand-alone equipment. Our business scope covers mainland China, Hong Kong, Japan, Thailand, Vietnam, Philippines, Singapore, Malaysia, Indonesia, Myanmar, Cambodia, other South East Asia regions, as well as the United States, Australia, Europe, Russia, the Middle East, Africa, and so on...

After the establishment of TCP Pioneer head office and factory, the others branch offices were established in Shanghai, Beijing, and Guangzhou in 1996, 1998, and 2001 respectively. In 2002, two more machinery assembly factories were established in Shanghai (Shanghai TCP Pioneer Machinery & Shanghai HI-TEC Machinery). The equipment in both factories meets the international standards such as CE, UL and others.

科瑞总部 TCP Head Office









产品范围及设备项目

Product Scope & Equipment List

乳品厂/饮料厂 Dairy & Beverage Plant

- ◆ 茶、咖啡原汁各式萃取设备Concentrated Tea, Coffee Extraction Equipment
- ◆ 连续式溶糖/溶粉系统 Continuous Sugar/Powder Dissolving System
- ◆ 粉体溶解、调配、发酵系统 Powder Mixing, Blending, Fermentation System
- ◆ 管式及板式超高温/高温杀菌机 (可含有真空脱气及均质机) Tubular & Plate UHT/HTST Pasteurizer (with Optional Vacuum Deaerator & Homogenizer)
- ◆ 中央清洗液供应系统 Central Cleaning-In-Place (CIP) Supplying System
- ◆ 各类瓶、罐 洗瓶/双充填/封盖机
 Rinsing/Piston Filling/Liquid Filling/Capping Equipment for Various
 Types & Bottles and Cans
- ◆ 隧道式杀菌/冷却/回温机
 Tunnel Pasteurization/Cooling/Warming Equipment
- ◆ 瓶、罐输送及相关包装机械 Conveyors for Bottle, Can and Relevant Packaging Equipment













中试型咖啡、茶汁压力/滴漏式萃取设备 Coffee, Tea Pressure/Drip Type Pilot Extraction Unit





离心过滤机

CENTRIFUGAL FILTER



茶渣挤压机





Soaking Type Tea Extraction System





浸泡式茶汁萃取设备

Soaking Type Tea Extraction System



澄清及暂储存系统

Clarification & Buffer Storage System

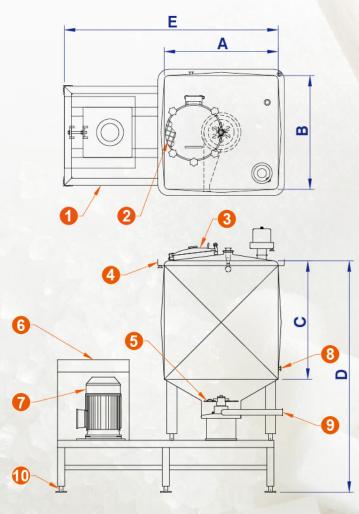


高速搅拌机 是一种能达到快速溶解生产需求的设备,精密加工的混合搅拌叶轮在连续高速运转时,将发挥极其强大的搅拌力量,使混合液沿方型桶壁朝着中心向上传输混合,再向下循环混合,以达到快速溶合的目的。

处理产品:颗粒、粉体、液体……等产品的溶解/乳化/调配与混合。

High Speed Mixer can provide high efficiency production. With its precise mixing blades, it can generate very high mixing force, allowing the product to flow upward & downward towards the center to create desirable mixing result.

Products handled: particles, powder, liquid, etc. for dissolving, emulsifying, blending and mixing.



主要结构 Configuration

- 1 马达机架 Motor Skid
- 2 活动式挂网 Removable Net
- 3 人孔 Manhole
- 4 接水盘 Water Collecting Tray
- 5 搅拌叶片 Agitator Blade
- 6 马达防护罩 Motor Protector
- 7 马达 Motor
- 8 取样阀 Sampling Valve
- 9 出料口 Discharge
- 10 调整脚 Adjustable Feet

选项 Available Options

- ◆ 换热夹层及隔热保温层 (不锈钢 SUS304)

 Heat removing clamp and heat insulation vacuum layer
 (SUS304 stainless steel)
- ◆ 温控器 Temperature controller.
- ◆ 针对特殊产品的特殊搅拌片
 Choice of specific agitator for particular product
- ◆ 操作平台 Operation platform
- ◆ 出口产品输送泵
 Discharge product conveyor pump
- ◆ 高效粉末提升输送机High efficiency powder raising conveyor



TCP 真空混料机 是就原高速搅拌溶粉机的基础,进一步研发出新一代借由抽真空建立负压状态的固/液混合溶解系统! 液面下的混料作业不光可达完整溶解的混合液,亦可充分避免作业过程中空气的融入。全套系统可精准控制不同粉料/液料的添加量,溶解过程始终保持动态平衡。

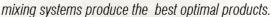
相较于高速搅拌溶粉机,真空混料机可实现多样化的物料及大批量的连续混合,可依不同的生产要求执行批次溶解或搭配循环罐的混料溶解,所体现的混料/溶解效率皆有极为显赫的成果。

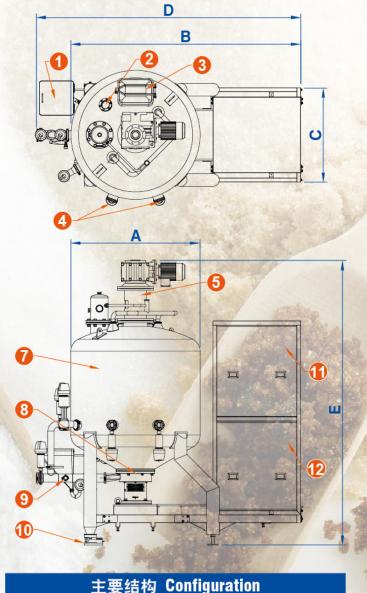
VACUUM MIXER "A next-generation dissolving system." developed from the current high speed mixer.

TCP Vacuum Mixer blends both solid / liquid state of media under vacuum condition by ensuring a complete solubilization, while reducing the incorporation of air into the mix.

TCP Vacuum Mixer possesses a precise amount of powder / liquid ingredients added, and maintains a stable process during mixing. Compared to the high speed powder mixer, the vacuum mixer is more efficient in mixing wide varieties of ingredient in large quantities continuously and achieving an efficient result.

The mixing process can be either in batch style dissolving or collocate with a circulation tank according to the requirements. Both







- 1 小料斗 Ingredient Hopper
- 2 检视窗 (附照明) Sight Glass (with light)
- 3 人孔盖 Manhole Cover
- 4 粉料入口 Ingredient Inlet

- 5 顶部辅助搅拌电机 Anchor Type Mixer
- 6 控制盘 Control Panel
- 7 混料罐体 Mixing Tank
- 高部混料机构
 Bottom Shear Mixer

- 9 取样口 Sampling Port
- 10 荷重模块 Load Cell
- 11 真空系统组件 Components of Vacuum System
- 12 底部主搅拌电机 Shear Mixer Motor







糖粉输送机

Granulated Sugar Delivery System



糖液过滤储存系统

Syrup Filtration & Storage Systems









中控室

Central Control Room



中控室



杀菌系统之设计与制造配合美国3A食品机械之卫生标准及USDA设计标准,并可依需要提供美国UL或欧洲CE的认证文件,杀菌机之设计非常注重以尽可能节能并达到杀菌之效果,并控制于加热升温与降温冷却之过程中间充分发挥其热回收效率又必保证产品加工之安全性。制程设计严密精确加之流量变频调速控制,以确保产品之热交换温度稳定达到杀菌完整与效果。

The design and manufacturing of our pasteurization system conform with sanitary standards of 3A Food Machinery as well as USDA design standards in US. We can also provide UL or CE certification upon request. Our design of pasteurizer aims to achieve the best pasteurizing result with minimum energy consumption. During heating and cooling processes, energy recovery is fully considered with guarantee to the safety of food processing. Continuous and effective pasteurization with constant temperature is obtained through variable frequency control drive & accurate programming.





5桶式CIP清洗液供应系统

5-Tank Type CIP Solution Supplying System



4桶式CIP清洗液供应系统

4-Tank Type CIP Solution Supplying System



3桶式CIP清洗液供应系统

3-Tank Type CIP Solution Supplying System



2桶式CIP清洗液供应系统

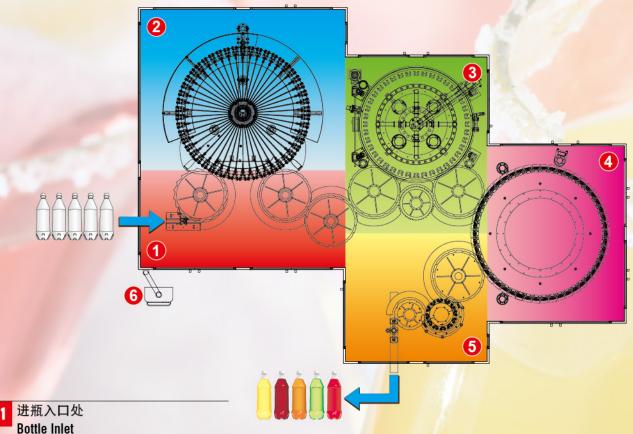
2-Tank Type CIP Solution Supplying System



科 端 藉由与意大利厂家技术合作之基础所设计生産的瓶/罐充填机,集洗瓶、单/双充填、封盖于一体, 其充填速度从12000BPH~36000BPH视不同瓶型、容量,可适用于一般液态饮品如:饮用水、茶汁、果 <mark>汁、运动饮料或高浓度/粘度如:优格、优格乳和果奶等含或不含果粒/果纤的饮品。机身采全包复不锈钢</mark> 结构,所有与産品接触部件皆爲SUS 316材质,符合食品卫生级标准,全机以PLC自动控制,操作调整方 便省力、机身外表光洁、操作安全可靠。

Based on the technical cooperation between TCP and Italian manufacturer, we developed our filler which is a combination of bottle rinser, single/double filler and capper. The filling capacity ranges from 12,000BPH to 36,000BPH, depending on bottle type and size. It is applicable for normal liquid beverages such as drinking water, tea, juice, isotonic drink or high viscosity drinks such as yoghurt, yoghurt milk and flavored milk with or without sac/pulp. The whole machine is made from stainless steel and all contact surfaces with products are SUS 316 material, meeting food sanitation standard. It is PLC controlled, ensuring convenient and safe operation and clean exterior.

四机一体充填机俯视图 4 in 1 Filler Overview:



- 洗瓶机 **Bottle Rinser**
- 活塞式果粒/果纤充填机 Piston Sac/Fruit Pulp Filler
- 重力式液体充填机 **Gravity Liquid Filler**
- 封盖机及成品出口 Capper and Finished Product Discharge
- 可移动式触控操作屏幕 Movable Touch-Screen Control Panel



各式瓶及罐充填系统







易拉罐线果纤/果粒活塞式充填机











倒瓶输送机(瓶盖杀菌)

Tilting Conveyor (for Cap Sterilization)



倒瓶输送机(瓶盖杀菌)

Tilting Conveyor (for Cap Sterilization)



单层隧道杀菌/冷却/回温机

Single Layer Tunnel Pasteurizer/Cooler/Warmer



双层隧道杀菌/冷却/回温机

Double Layer Tunnel Pasteurizer/Cooler/Warmer





























