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山东力夭机械设备有限公司 | 济南真诺机械有限公司 Shandong Light M & E Co., Ltd. | Jinan Arrow Machinery Co., Ltd.



















专利号:ZL-2013 2 0538224.9(成型装置) 专利号:ZL-2013 2 0674774.3(震动除油机) 专利号:ZL-2013 2 0674772.4(冷却装置) 专利号:ZL-2013 2 0674869.5(冷却装置)









专利号: ZL 2013 2 0674773.9(复合成型机) 专利号: ZL 2013 2 0844785.1(膨化挤压机)









# 完美品质/专业专注/真心实意/一诺千金

**Excellent Quality Prominent Service Faithful Attitude Promise Fulfilled** 



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# About US 关于我们

山东力天机械设备有限公司/济南真诺机械有限 公司以研发、生产、销售各种先进的挤压膨化食品机 械及成套设备为主营,自2006年成立至今,现已发展 成为中国最大的挤压膨化机械制造商。具体产品包 括:单双螺杆挤压机、TS挤压机、烘干设备、油炸设 备、喷涂调味设备、早餐谷物生产线、营养方便米饭 生产线、蛋白素肉生产线、休闲食品生产线、五谷营 养粉/变性淀粉/面包糠等食品添加辅料生产线、宠物 食品水产饲料生产线等等,公司多年来一直秉承"真 心实意,一诺千金"的理念,为客户提供符合实际生 产的定制化解决方案,与客户合作共赢。

公司拥有能快速为您量身打造方案的精英销售团 and win-win cooperating with customers. 队,从业二十年的机械设计人才,熟稔机械加工的高 级技工,深谙食品加工工艺的资深售后人员,这一切 都保证每一个客户的订单无后顾之忧,也促成了公司 和马来西亚、日本、斯里兰卡、巴基斯坦等地区直销 代理的长期稳定合作。

我们有近20年的出口经验,出口118个国家,具 有CE证书、ISO9001证书和六个专利证书, 我们拥有 20000平方的工厂, 10个部门和120位员工组成。

Shandong Light M&E CO.,LTD (Jinan Arrow Machinery CO., LTD) is mainly engaged in the research and development, manufacture and sales of various advanced extruded food machinery and complete equipment. Since found in the year of 2006, we already development into the biggest extruded food machinery manufacturer of China; mainly including: Double screw / Single screw extruder, Rotary head Kurkure Extruder, dryer / Roaster, fryer, coating and flavoring machine, breakfast cereal / corn flakes processing line, Nutrition rice / instant rice / Fortified rice processing line, soya protein processing line, puffy snacks processing line, Nutrition powder / Modified starch/bread crumbs and other food additives processing line, pet food/ aquatic feed processing line; Our company have been adhering to the concept of "Faithful Attitude Promise Fulfilled" for many years, providing customers with customized solutions that meet actual production.

We have an elite sales team who can recommend the most suitable products for you, and a group of professional mechanical engineers who have more than twenty years' experience. Our senior mechanicians are masters of machine manufacture, and our after-sales service personnel are reliable experts in food processing field. All of these guarantee Best Quality and Excellent Performance, and keep you free from further production worries.

We have exported to 118 countries with over 20 years experiences in this industry, got CE and ISO9001 certificates and 6 patents in the past years. We own 20000 square meters factory with 10 departments constituted by 120 persons.





汇聚八方精英,专注创新研发,确保完美品质,铸造力天品牌!

With All The Experts, Dedicate To Innovation&Research, Guarantee Excellent Quality Build Shandong Light Brand



# Cooperate Customers 合作客户



















-03-

# Company Team 公司团队





研发团队一专业团队、高端品质、量身打造食品生产工程方案
Research and development team
Professional team, High quality customized whole food process project solution.



Production team-Our senior technicians are masters of machine manufacture.



销售团队Sales Team



技术团队— 从业二十年的机械设计人才 A group of professional mechanical engineers who have more than twenty years' experience

#### **Pre-Sales Service**

Inquiry and consulting support. 

Sample testing support. 

New product development and Machine design.



服务团队——深谙食品加工工艺的资深售后人员

Service engineer team-and our after-sales service personnel are reliable experts in food processing field.

#### **After-Sales Service**

Training how to instal the machine, training how to use the machine. Engineers available to service machinery overseas.





国际物流 International logistics





























国际展会 International fair

-05- -06-

# D天机械/真诺机械

### Kurkure /Cheetos /Niknak /Corn Curls Process Line

- 拌粉机/ Flour Mixer
- 2 螺旋输送机/ Screw Conveyer
- ③ 旋转头挤压机/ Rotary Head Extruder
- 4 提升机/ Hoister
- 5 分离筒/ Separate Drum
- ⑥ 振动喂料机/ Vibrate Feeder





#### 设备介绍 Introduction

奇多是一种特殊的挤压型小食品,嚼在嘴里非常脆。玉米糁与一定比例的水分混合后进入旋转头挤压机中,在挤压机两个转盘的挤压与揉搓作用下,玉米糁形成不规则的扭曲形状,然后切刀将其切成所需长度的产品。奇多可以油炸后调味,也可焙烤后调味,因其美味而深受消费者欢迎。

Kurkure/ Cheetos are kind of special extruded snacks, very crunchy and delicious in taste. They are made by a special extrusion process. The corn grits are moisturized by water in the flour mixer and fed to the Rotary Head Extruder. In the extruder, due to the rubbing of two rotary plates, the corn grits are squeezed and twisted to curls shapes. The cutting knives can cut them into required length. The Kurkure/ Cheetos can be fried in fryer or toasted in oven and then cooled before flavoring. Seasoning is sprayed onto their surface to get different delicious tastes. Due to their delicious tastes and nutrition, they are quite popular with consumers.

- 1 拌粉机/ Flour Mixer
- 螺旋输送机/ Screw Conveyer 旋转头挤压机/ Rotary Head Extruder
- 4 提升机/ Hoister
- 5 烤箱/ Multi-layer Oven
- 6 调味线/ Flavoring Line

#### 技术参数 Technical Parameter

| 型号<br>Model                                 | 装机功率<br>Installed Power | 实耗功率<br>Power Consumption | 生产能力<br>Output | 外形尺寸<br>Size      |
|---|-------------------------|---------------------------|----------------|-------------------|
| LTTS-IF系列油炸型生产线 Fried Kurkure/Cheetos Line  | 134kw                   | 94kw                      | 125-140kg/h    | 17000×1100×2500mm |
| LTTS-IIF系列油炸型生产线 Fried Kurkure/Cheetos Line | 136kw                   | 95kw                      | 200-230kg/h    | 17300×1200×2600mm |
| LTTS-IIF系列油炸型生产线 Fried Kurkure/Cheetos Line | 196kw                   | 147kw                     | 400-460kg/h    | 17300×2000×2600mm |
| LTTS-IB系列焙烤型生产线 Baked Kurkure/Cheetos Line  | 74kw                    | 52kw                      | 125-140kg/h    | 16000×1100×2500mm |
| LTTS-IIB系列焙烤型生产线 Baked Kurkure/Cheetos Line | 76kw                    | 53kw                      | 200-230kg/h    | 16300×1200×2600mm |











# DAK机械/真诺机械

# Core Filling /Puffing Snacks Process Line

- 1 拌粉机/ Flour Mixer
- 2 螺旋输送机/ Screw Conveyer
- 3 双螺杆挤压机/ Double-screw Extruder
- 4 夹心机/ Core Filler



小面包整形机 Bread Pan Shaper

### 设备介绍 Introduction

该生产线是我公司在吸收国外同类设备先进技术的基础上,自行研发的新一代膨化食品生产设备,其技术性能和产品质量均达到同类设备的先进水平;生产线从配料、挤压、膨化、成型、夹心、切断、喷涂到成品一次完成,完全实现自动化。该生产线具有机型多,设备配置灵活,原料范围广泛,产品种类繁多,操作简单等特点。通过变换模具和生产工艺,可以生产夹心饼、膨化米果、麦烧、营养早餐等产品,适合于各种食品厂家。

This process line is a typical type extruded food machine studied and developed by ourselves on the basis of learning from advanced technology in the world so that both its technical performance and products quality reach to the most advanced level in the world. This line can finish mixing, extruding, shaping, core-filling, cutting, baking and flavoring in one-pass operation automatically. This line features lots of types, flexible collocation, extensive applied raw materials, various snacks and easy operation. By changing the moulds and process technology, this line can produce core-filled snacks, like chocolate filled bar, cream filled pillow, rice cake, cereal bar, sheet snacks etc.



- 4 拌粉机/ Flour Mixer
- 2 螺旋输送机/ Screw Conveyer
- 3 双螺杆挤压机/ Double-screw Extruder
- 4 风送机/Air Conveyer5 烤箱/Multi-layer Oven
- 6 调味线/ Flavoring Line

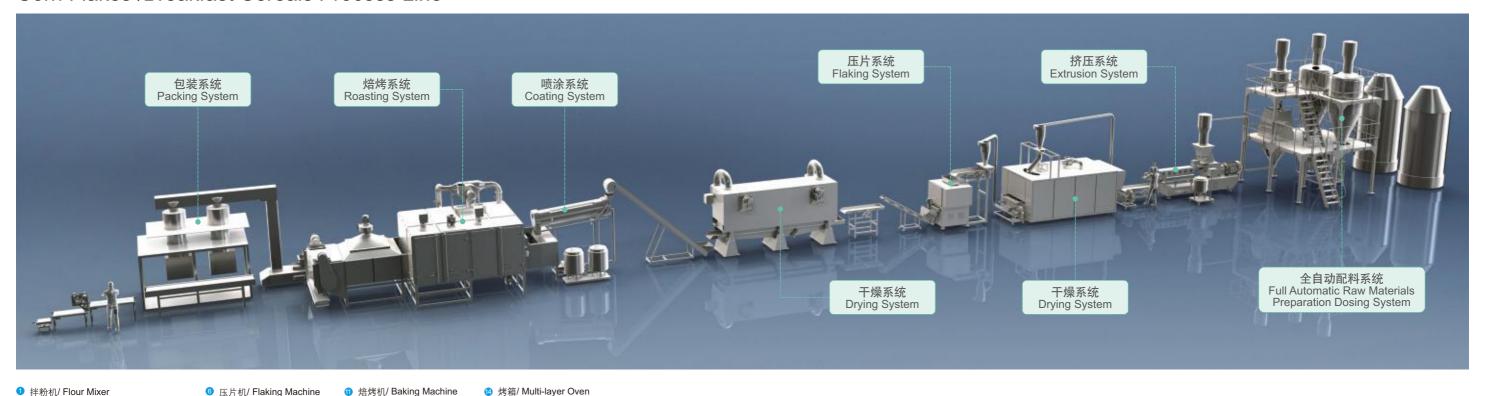
#### 技术参数 Technical Parameter

| 型号<br>Model                           | 装机功率<br>Installed Power | 实耗功率<br>Power Consumption | 生产能力<br>Output | 外形尺寸<br>Size      |
|---------------------------------------|-------------------------|---------------------------|----------------|-------------------|
| FT63系列生产线 Puffing Snacks Process Line | 150kw                   | 110kw                     | 250-300kg/h    | 23000×1500×2200mm |
| FT75系列生产线 Puffing Snacks Process Line | 186kw                   | 139.5kw                   | 300-500kg/h    | 24000×2000×2800mm |
| FT95系列生产线 Puffing Snacks Process Line | 295kw                   | 222kw                     | 800-1200kg/h   | 31000×3500×4300mm |
| LT65系列生产线 Puffing Snacks Process Line | 84kw                    | 59kw                      | 120-150kg/h    | 21000×1200×2200mm |
| LT70系列生产线 Puffing Snacks Process Line | 132kw                   | 92kw                      | 200-250kg/h    | 23000×1500×2200mm |
| LT85系列生产线 Puffing Snacks Process Line | 239kw                   | 167kw                     | 300-500kg/h    | 28000×3500×4300mm |



# 》方天机械/真诺机械

### Corn Flakes /Breakfast Cereals Process Line



- 拌粉机/ Flour Mixer
- 2 螺旋输送机/ Screw Conveyer
- 3 双螺杆挤压机/ Double-screw Extruder
- 6 压片机/ Flaking Machine
- 7 风送机II/ Air Conveyer II
- <sup>13</sup> 喷糖机/ Sugar Sprayer
- 個 烤箱/ Multi-layer Oven
- ② 风送机III/ Air Conveyer III ⑤ 冷却机/ Cooling Machine



#### 设备介绍 Introduction

玉米片/早餐谷物是一种具有很高营养价值的早餐食品。它们通常以玉米粉和其他谷物为 主要原料,经过混合、挤压、压片、干燥、高温焙烤以及涂糖、冷却后制成酥脆香甜的脆 片。玉米片主要是用于早餐拌以牛奶和咖啡食用,也可作为休闲零食。这条生产线还可以生 产其他形状的早餐谷物产品,如圆圈状、小球、月亮形等。

Corn flakes processing line can produce breakfast cereal which is one kind of nutritional convenient food which is produced by this process line, using grist as basic material, with different shapes, such as, granule, flake, animal, etc. One outstanding characteristic of the breakfast cereal is that it contains abundant compound carbohydrates and dietary fibre, strengthens lots of microelements, such as vitamin and mineral, and also can be added with cocoa and sugar, like honey and maltose. It can be drunk directly after mixed into coffee, milk, yoghourt or functional drink. Children can eat breakfast cereal as sweet crispy snack.

#### 技术参数 Technical Parameter

| 型号Model                    | 装机功率 Installed Power | 实耗功率 Power Consumption | 生产能力 Output  | 外形尺寸Size          |  |  |
|----------------------------|----------------------|------------------------|--------------|-------------------|--|--|
| FT63系列生产线Corn Flakes Line  | 344kw                | 246kw                  | 250-300kg/h  | 41000×1500×2200mm |  |  |
| FT75系列生产线Corn Flakes Line  | 583kw                | 437kw                  | 300-500kg/h  | 52000×2000×2800mm |  |  |
| FT95系列生产线Corn Flakes Line  | 740kw                | 555kw                  | 800-1000kg/h | 56200×3500×4300mm |  |  |
| LT65L系列生产线Corn Flakes Line | 222kw                | 155kw                  | 100-150kg/h  | 39000×1200×2200mm |  |  |
| LT70L系列生产线Corn Flakes Line | 326kw                | 228kw                  | 200-250kg/h  | 41000×1500×2200mm |  |  |
| LT85L系列生产线Corn Flakes Line | 433kw                | 303kw                  | 300-500kg/h  | 43000×3500×4300mm |  |  |



-11--12-

# ■ 三角片/多力多滋/玉米薄饼生产线

# Doritos /Tortilla /Corn Chips Process Line

- ① 拌粉机/ Flour Mixer
- 2 螺旋输送机/ Screw Conveyer
- 3 双螺杆挤压机/ Double-screw Extruder
- 4 報切机/ Roller Cutting Machine
- 5 提升机/ Hoister
- 6 分离筒/ Separate Drum
- 振动喂料机/ Vibrate Feeder
- 8 连续油炸机/ Continuous Fryer



### 设备介绍 Introduction

三角片/多力多滋/玉米薄饼生产线是玉米粉经挤压、成型及油炸而成。它的主要配料是玉米粉、水、植物油和盐。该产品大多数情况下由黄玉米制成,也可采用白玉米、红玉米来生产。经过油炸后,用各种味道的调味粉喷洒在表面。因其清脆可口,而备受儿童及成年人的喜爱。

The Doritos /Tortilla /Corn Chips are kinds of snacks made from corn powder, which are extruded, cut and then fried. The main raw materials are corn powder, water, vegetable oil and salt. Although usually made of yellow corn (as pictured), they can also be made of white or red corn or wheat flour. After frying and flavoring, we get very crunchy triangle or other shapes chips which are popular with both children and adult.

#### 技术参数 Technical Parameter

| 型묵<br>Model                   | 装机功率<br>Installed Power | 实耗功率<br>Power Consumption | 生产能力<br>Output | 外形尺寸<br>Size      |
|-------------------------------|-------------------------|---------------------------|----------------|-------------------|
| FT63系列生产线Doritos Process Line | 205kw                   | 149kw                     | 250-300kg/h    | 24000×1500×2200mm |
| FT75系列生产线Doritos Process Line | 240kw                   | 180kw                     | 300-500kg/h    | 25000×1500×2800mm |
| FT95系列生产线Doritos Process Line | 368kw                   | 276kw                     | 700-1000kg/h   | 27000×1500×3000mm |
| LT65系列生产线Doritos Process Line | 143kw                   | 100kw                     | 120-150kg/h    | 22000×1200×2200mm |
| LT70系列生产线Doritos Process Line | 187kw                   | 131kw                     | 200-250kg/h    | 24000×1500×2200mm |
| LT85系列生产线Doritos Process Line | 232kw                   | 174kw                     | 300-500kg/h    | 23000×1500×2300mm |



# ■锅巴/沙拉/尖角脆/妙脆角生产线

# Crispy Chips /Bugles /Sticks Process Line

- 1 拌粉机/ Flour Mixer
- 2 螺旋输送机/ Screw Conveyer
- 3 双螺杆挤压机/ Double-screw Extruder
- ④ 牵引切断机/ Pulling and Cutting Machine
- 5 自动油炸机/ Automatic Fryer
- ⑥ 八角筒调味机/ Eight Square Seasoning Machine





### 设备介绍 Introduction

锅巴/沙拉/尖角脆生产线是双螺杆挤压膨化技术替代传统式锅巴等生产的新技术。生产线集混合、熟化、膨化、成形于一体,且无需锅炉,生产工序简化、高效、环保低碳。原料既可以是大米粉、玉米粉、面粉等单一物料,也可以是其混合料。仅通过变换模具和成型机与切断机即可改变形状。条状、带波纹的方片状、菱形片状、波浪形片状、枕头形以及号角形等。生产的锅巴、沙拉条、沙拉片、尖角脆、妙脆角等食品花色多样、口感酥脆而不油腻。

This process line uses double screw extruding technique to replace the traditional steam boiling process. It includes mixing, extruding, shaping, frying and flavoring process, no needing boiler, with simple process, high efficiency and little pollution. The raw materials can be rice powder, corn powder, wheat flour individually or their mixture. Only by changing the moulds, shaping or cutting machine, the shapes can be various, like sticks, square sheet rib chips, diamond chips, wavy chips, pillow shapes and bugles etc. The taste is savory and not greasy.

#### 技术参数 Technical Parameter

| 型묵<br>Model                             | 装机功率<br>Installed Power | 实耗功率<br>Power Consumption | 生产能力<br>Output | 外形尺寸<br>Size      |
|---|-------------------------|---------------------------|----------------|-------------------|
| FT63生产线Chips/Bugles/Sticks Process Line | 129kw                   | 96kw                      | 250-300kg/h    | 20000×1500×2200mm |
| FT75生产线Chips/Bugles/Sticks Process Line | 240kw                   | 180kw                     | 300-500kg/h    | 23000×1500×2800mm |
| FT95生产线Chips/Bugles/Sticks Process Line | 371kw                   | 278kw                     | 800-1000kg/h   | 27000×1500×3000mm |
| LT65生产线Chips/Bugles/Sticks Process Line | 92kw                    | 64kw                      | 120-150kg/h    | 19000×1500×2200mm |
| LT70生产线Chips/Bugles/Sticks Process Line | 111kw                   | 78kw                      | 200-250kg/h    | 20000×1500×2200mm |
| LT85生产线Chips/Bugles/Sticks Process Line | 240kw                   | 180kw                     | 300-500kg/h    | 23000×1500×2300mm |



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# DAK机械/真诺机械

# Nutrition Powder /Baby Rice Powder /Modified Starch Process Line



#### 设备介绍 Introduction

该生产线以大米、玉米、豆类等各种谷物为原料,经挤压膨化、干燥、粉碎和混合,可生产各种营养粉,如婴儿米粉、芝麻糊和豆粉等。生产线从投料开始工艺流程自动完成,操作简单,无粉尘泄露,卫生节能。可方便地配以各种原料和营养素。

This process line uses rice, corn, beans and all kinds of grains as raw materials. Through extruding, inflating, drying, crushing and mixing, it could produce many kinds of nutrition powder, such as baby rice powder, sesame paste, beans powder and so on. This line could finish all the process automatically from the feeding to the end. It has features of easy operation, without leak of powder dust, sanitation, saving energy and easy to add all kinds of raw materials and nutriment.

预糊化淀粉/变性淀粉生产线是专门设计用于生产多元化的变性淀粉,例如改性淀粉,预凝胶淀粉。变性淀粉广泛用于纺织,食品加工,石油钻探,造纸,建筑等行业。

Pre-gelatinized starch/Modified starch process line is specially designed for producing Denatured Starch, Modified Starch, Pre Gel Starch. Modified Starch is widely used in textile, food process, oil drilling, paper, construction industries etc.

#### 技术参数 Technical Parameter

| 型号<br>Model                             | 装机功率<br>Installed Power | 实耗功率<br>Power Consumption | 生产能力<br>Output | 外形尺寸<br>Size      |
|---|-------------------------|---------------------------|----------------|-------------------|
| FT63系列生产线 Nutrition Powder Process Line | 160kw                   | 117kw                     | 250-300kg/h    | 21000×1500×2200mm |
| FT75系列生产线 Nutrition Powder Process Line | 248kw                   | 186kw                     | 300-500kg/h    | 28500×3500×4300mm |
| FT95系列生产线 Nutrition Powder Process Line | 384kw                   | 288kw                     | 800-1200kg/h   | 36000×3500×4300mm |
| LT65系列生产线 Nutrition Powder Process Line | 88kw                    | 62kw                      | 120-150kg/h    | 19000×1200×2200mm |
| LT70系列生产线 Nutrition Powder Process Line | 142kw                   | 99kw                      | 200-250kg/h    | 21000×1500×2200mm |
| LT85系列生产线 Nutrition Powder Process Line | 257kw                   | 180kw                     | 300-500kg/h    | 30000×3500×4300mm |



- 1 拌粉机/ Flour Mixer
- 2 螺旋输送机/ Screw Conveyer
- 3 双螺杆挤压机/ Double-screw Extruder
- 4 提升机/ Hoister
- 5 烤箱/ Multi-layer Oven
- 6 粉碎机组/ Grinder System
- ₱ 粉剂包装机/ Powder Packing Machine









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# 强化大米/营养米/人造米/即食米/冲泡米/米粥生产线

第一部分 食品生产线介绍 Part I Food Process Line



# Fortified Rice / Nutrition Rice / Artificial Rice / Enriched Rice / Instant Rice / Rice Porridge Process Line

- ◆ 拌粉机/ Flour Mixer
- 2 螺旋输送机/ Screw Conveyer
- 3 双螺杆挤压机/ Double-screw Extruder
- 4 振动冷却机/ Vibrate Cooler
- 5 风送机/ Air Conveyer
- 6 预干燥/ Vibrate Pre-dryer
- 风送机/ Air Conveyer
- 3 干燥机/ Multi-layer Dryer9 Z型提升机/ Z Type Elevator
- ⑩ 逆流翻版冷却机/ Counter Flow Cooler



- 1 拌粉机/ Flour Mixer
- ② 螺旋输送机/ Screw Conveyer
- 3 双螺杆挤压机/ Double-screw Extruder
- 4 振动冷却机/ Vibrate Cooler
- 5 风送机/ Air Conveyer
- 6 干燥机/ Multi-layer Dryer
- 7 冷却机/ Cooling Machine

### 设备介绍 Introduction

该生产线是针对传统的碾米工艺生产中大米里大量流失的营养成分而研发。大米及其副产品可以通过挤压工艺制成附加值极高的产品。在这个过程中,碎米及米糠可被重新利用。整个生产工艺流程简单易操作:碎米经粉碎后与一定量的水分、油等混合,在一定温度下,原料在挤压机中熟化,然后经模具挤出后形成米状,最后将再造的米粒在低温下干燥。这一挤压技术有效避免了营养成分的流失,从而成为营养丰富的强化大米。

This process line is studied in concern with the loss of nutritional elements in the rice which is made by the traditional rice processing. Rice and its by-products can be produced into high nutritional foods by adding additional nutrient components before extrusion cooking. Further, by this process, the broken rice and rice bran can be reused. Process for making artificial rice grains, comprises mixing rice flour, water and oil and cooking them in extruder, forming into rice-grain shape, drying and cooling in low temperature. The technique makes it feasible to avoid the loss of nutrition.

#### 技术参数 Technical Parameter

| 型묵<br>Model                              | 装机功率<br>Installed Power | 实耗功率<br>Power Consumption | 生产能力<br>Output | 外形尺寸<br>Size      |
|--|-------------------------|---------------------------|----------------|-------------------|
| FT63系列生产线 Artificial Rice Process Line   | 138kw                   | 102kw                     | 200-250kg/h    | 16000×1500×2200mm |
| FT75系列生产线 Artificial Rice Process Line   | 180kw                   | 135kw                     | 250-350kg/h    | 18000×3500×4300mm |
| FT75×2系列生产线 Artificial Rice Process Line | 290kw                   | 245kw                     | 500-700kg/h    | 18000×5000×4300mm |
| FT75×3系列生产线 Artificial Rice Process Line | 400kw                   | 355kw                     | 750-1050kg/h   | 18000×6500×4300mm |
| FT95系列生产线 Artificial Rice Process Line   | 260kw                   | 195kw                     | 600-800kg/h    | 21000×3500×4300mm |
| LT70L系列生产线 Artificial Rice Process Line  | 120kw                   | 84kw                      | 150-200kg/h    | 16000×1500×2200mm |











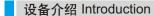
# D天机械/真诺机械

# American-style Bread Crumbs / Panko Crumb / Flakes Crumb Process Line

- 1 拌粉机/ Flour Mixer
- 2 螺旋输送机/ Screw Conveyer







该生产线是基于先进的挤压技术设计而成的,其质量与运行均达到国内先进水平。生产线改变了传统面包糠的生产工艺。生产流程为拌料、挤压、切断、破碎、干燥全部自动化完成。面包糠广泛应用于食品添加辅料,用于裹涂在油炸食品表面,如:炸鸡肉、鸡翅、鸡腿,汉堡肉饼,海产品(虾、鱼肉)、洋葱圈等,使其色泽金黄诱人、味香酥脆、可口鲜美、营养丰富。

This process line is researched and developed on the basis of international advanced technology. The performance and quality have reached the highest domestic level of the same line. The line changes the traditional process. From mixing materials, extruding, cutting, drying to finished products are done in one automatic line. The Extruded Bread Crumbs are light and crispy with innovative shapes (small rings, crescent, small stars, balls, granule etc). They are widely used as food coating additives on the surface of frying food like: fried chicken, burger patty, sea foods (shrimp, fish), onion ring etc to obtain a very crispy and savory texture as well as unique and attractive fried foods' golden color presentation.

#### 技术参数 Technical Parameter

| 型号<br>Model                        | 装机功率<br>Installed Power | 实耗功率<br>Power Consumption | 生产能力<br>Output | 外形尺寸<br>Size      |
|------------------------------------|-------------------------|---------------------------|----------------|-------------------|
| FT63系列生产线 Bread Crumb Process Line | 86kw                    | 63kw                      | 250-300kg/h    | 28300×2100×2800mm |
| FT75系列生产线 Bread Crumb Process Line | 186kw                   | 139kw                     | 300-500kg/h    | 33000×2100×2800mm |
| FT95系列生产线 Bread Crumb Process Line | 295kw                   | 222kw                     | 800-1000kg/h   | 31000×3500×4300mm |
| LT65系列生产线 Bread Crumb Process Line | 57.4kw                  | 37kw                      | 120-150kg/h    | 27800×2100×2800mm |
| LT70系列生产线 Bread Crumb Process Line | 68.4kw                  | 45kw                      | 200-250kg/h    | 28300×2100×2800mm |
| LT85系列生产线 Bread Crumb Process Line | 131kw                   | 85kw                      | 300-500kg/h    | 31000×2100×2800mm |



- 1 拌粉机/ Flour Mixer
- 2 螺旋输送机/ Screw Conveyer
- ③ 双螺杆挤压机/ Double-screw Extruder
- ④ 振动冷却机/ Vibrate Cooler
- 6 吸风上料机/ Crumbs Sucking Conveyor
- ⑥ 圆形振动筛/ Vibrate Sifter
- 吸风上料机/ Crumbs Sucking Conveyor
- ⑥ 振动筛分机/ Vibrate Sifter

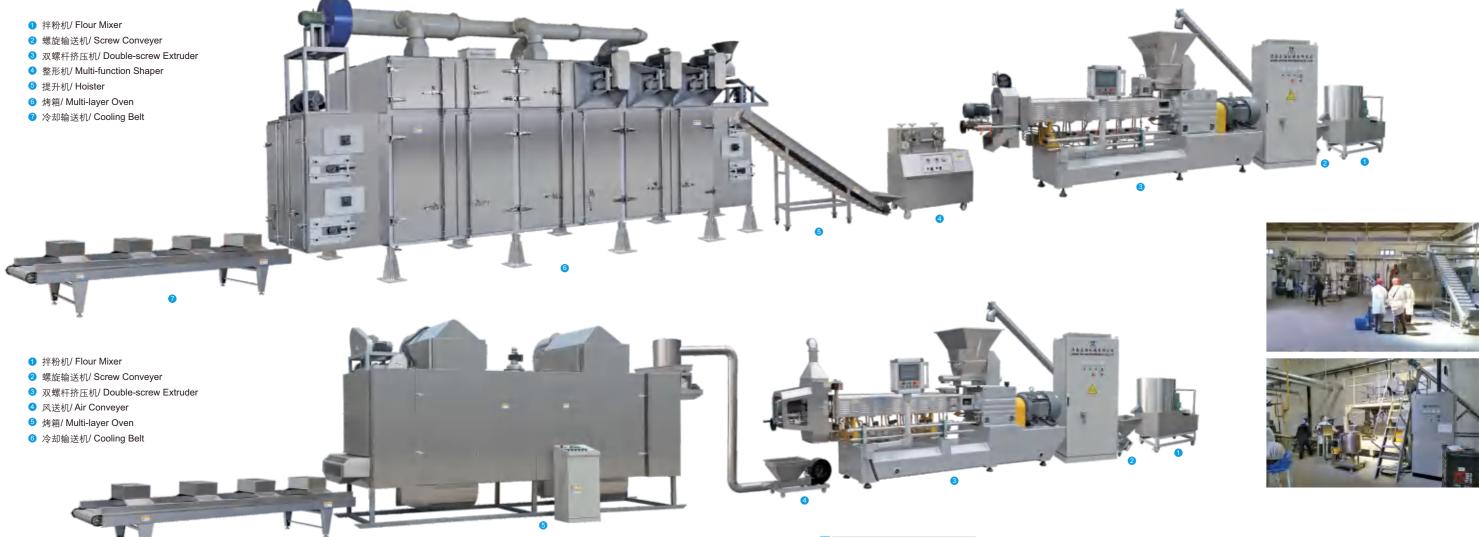


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# D 天机械/真诺机械

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# Textured Soya Protein /Vegetarian Soya Meat /Soya Nugget Food Process Line



#### 设备介绍 Introduction

该生产线是我公司在多年挤压设备生产经验的基础上,结合国内外先进设备研发制的。生产线以脱脂豆粕、花生粕为主要原料,经搅拌、挤压剪切,形成层片纤维组织;其产品蛋白含量高,具有肉的状态和口感,有吸油、吸水、吸味的特点;不含胆固醇和动物脂肪。可广泛用于肉制品、快餐食品、速冻食品,也可制成各种素肉休闲食品和素食菜肴。

This process line is developed and manufactured on base of our experience combined with the advanced machines from foreign countries. This line takes defatted soybean meal and peanut meal as main raw materials. After mixing, extruding, cutting and drying, the meal becomes layer fiber texture. The finished products have high protein; look and taste like meat; easy to absorbing oil, water and flavor; without cholesterol and animal fat, so it is widely used in meat products industry, fast food production, deep frozen food production, and all kinds of vegetarian snacks and food.

#### 技术参数 Technical Parameter

| 型号<br>Model                | 装机功率<br>Installed Power | 实耗功率<br>Power Consumption | 生产能力<br>Output | 外形尺寸<br>Size      |
|----------------------------|-------------------------|---------------------------|----------------|-------------------|
| FT63系列生产线 TVP Process Line | 120kw                   | 75kw                      | 150-300kg/h    | 13500×2300×2400mm |
| FT75系列生产线 TVP Process Line | 183kw                   | 128kw                     | 300-500kg/h    | 14500×2300×2400mm |
| FT95系列生产线 TVP Process Line | 261kw                   | 183kw                     | 800-1000kg/h   | 17000×2400×3000mm |

FT95系列生产线 TVP Process Line 261kw 183kw 800-1000kg/h 17000×2400×3000mm

# ▼ カ天机械/真诺机械

### 3D Pellet Snacks Process Line











- 1 拌粉机/ Flour Mixer
- 2 螺旋输送机/ Screw Conveyer
- ③ 双螺杆挤压机/ Double-screw Extruder
- 4 成型机/ Forming Machine
- 5 提升机 I / Hoister-I

- ⑥ 滚筒干燥机/ Rotary Pre-dryer
- 7 提升机 II / Hoister-II
- 8 筛选机/ Vibrant Sifter
- ⊕ 提升机 III / Hoister-III
- ⑪ 连续干燥机/ Continuous Dryer
- ⑪ 冷却机/ Cooling Machine

### 设备介绍 Introduction

双层立体复合生产线,采用一次挤压工艺生产双层立体复合膨化食品。 主要原料以马铃薯淀粉,马铃薯全粉,玉米淀粉,小麦 粉,玉米粉,木薯淀粉为主。通过挤压机的挤压熟化,原料被挤压成为双层,并通过成型机将产品复合并成型为所需形状。通过更换 成型机上的滚切辊,还可以用来生产诸多不同的形状,如三角、椭圆、球拍、六边型、矩形、圣诞树、动物、弯条、心形状。经过干 燥、油炸后,产品尺寸膨大数倍,经过喷涂不同口味的调味粉,口感酥脆。

该生产线设计合理,生产工艺独特,高度自动化,性能稳定,可实现挤压,熟化,复合成型,干燥于一体,是投资3D复合食品的 理想选择。

This Process Line uses potato starch, potato flour, corn starch, corn powder, wheat flour, cassava starch etc as main materials, by the process of mixing, extruding, shaping and drying to produce dried double layer 3D pellets.

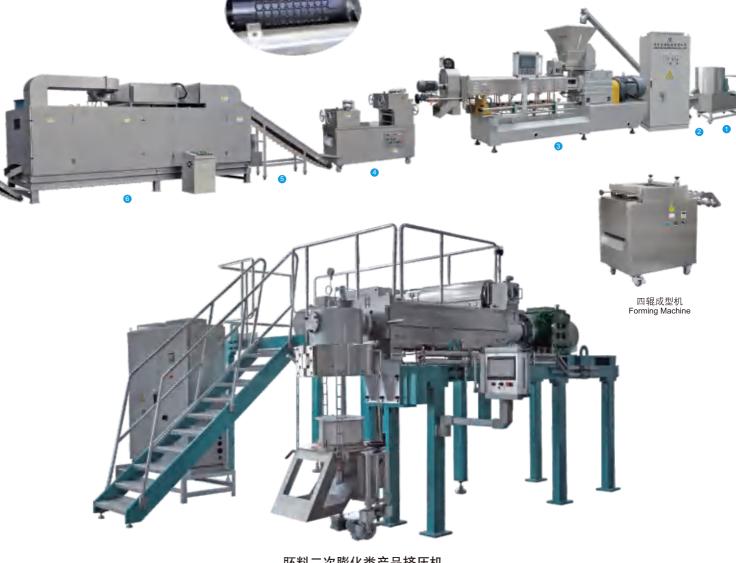
After changing cutting roller on Shaping machine, this line can produce many innovative shapes, like Triangle, Oval, Racket, Hexagonal (Sixer), Rectangle, Christmas tree, Animal, Zig Zag, Heart etc. After frying, the pellet will expand to several times, spraying some seasoning powder will make them much crispy and savory.

This line is characterized by unique technique, rational configuration, high automation and stable performance.

#### 技术参数 Technical Parameter

| 型号<br>Model                       | 装机功率<br>Installed Power | 实耗功率<br>Power Consumption | 生产能力<br>Output | 外形尺寸<br>Size      |
|-----------------------------------|-------------------------|---------------------------|----------------|-------------------|
| FT63系列生产线 3D Pellet Process Line  | 197kw                   | 145kw                     | 150-200kg/h    | 28000×2000×2000mm |
| FT75系列生产线 3D Pellet Process Line  | 234kw                   | 164kw                     | 250-300kg/h    | 30000×2000×2000mm |
| FT95系列生产线 3D Pellet Process Line  | 330kw                   | 250kw                     | 400-600kg/h    | 43000×2000×3200mm |
| LT100系列生产线 3D Pellet Process Line | 172kw                   | 120kw                     | 100kg/h        | 27000×2000×2000mm |

适用产品:油炸膨化食品、虾片、双层复合等。Applied Products: Ready-to-fry Pellets, Shrimp Chips, 3D Snacks, Fried Wheat Pellet Snacks.



胚料二次膨化类产品挤压机 Cooking and Forming Extrusion System





Screw /Shell /Chips /Pellet Extruding & Frying Process Line



### 设备介绍 Introduction

该生产线主要以马铃薯淀粉、玉米淀粉、木薯淀粉和面粉等为原料,经过单螺杆挤压机挤压熟化后,切断成各种形状的半成品胚料。通过更换不同的模具可以生产出贝壳、螺旋、管状、片状等立体和平面形状新颖的产品,再经过油炸膨化后,通过滚筒调味设备喷洒调味粉,即可成为香脆可口、味道鲜美的休闲食品。该生产线拥有易操作,搭配组合灵活,易维护等优点,客户可根据实际情况来选择半自动,全自动生产线。亦可以通过搭配不同的整形设备生产出3D、波纹片、虾片等膨化食品,深受消费者欢迎。

This process line mainly use potato starch/flour, corn starch, cassava starch, wheat flour as main materials, through mixing, extruding, cutting and drying to produce various shapes pellets, like shell, screw, spiral, tube pellets. After oil frying and flavoring with different seasoning, these pellets will become crispy and delicious snacks food. It has features of easy operation, combination flexible, simple maintenance, By changing the drying and frying machines, it can realize Semi-automatic or Full-automatic process accordingly. By working with different shaping machine, can produce 3D pellets, waved chips, shrimp chips.

#### 技术参数 Technical Parameter

| 型묵<br>Model                           | 装机功率<br>Installed Power | 实耗功率<br>Power Consumption | 生产能力<br>Output | 外形尺寸<br>Size      |
|---------------------------------------|-------------------------|---------------------------|----------------|-------------------|
| FT63系列生产线 Pellet Snacks Process Line  | 142kw                   | 107kw                     | 150-200kg/h    | 27000×2000×2000mm |
| FT75系列生产线 Pellet Snacks Process Line  | 178kw                   | 125kw                     | 250-300kg/h    | 29000×2000×2000mm |
| FT95系列生产线 Pellet Snacks Process Line  | 278kw                   | 225kw                     | 400-600kg/h    | 42000×2000×3200mm |
| LT100系列生产线 Pellet Snacks Process Line | 117kw                   | 82kw                      | 80-100kg/h     | 26000×2000×2000mm |

适用产品:油炸膨化食品、虾片、双层复合等。Applied Products: Ready-to-fry Pellets, Shrimp Chips, 3D Snacks, Fried Wheat Pellet Snacks.



虾片/波纹片牵引、切断机 Shrimp Chips/Waved Chips Roller Cutting Machine

- 1 拌粉机/ Flour Mixer
- ② 螺旋输送机/ Screw Conveyer
- ③ 单螺杆挤压机/ Single-screw Extruder
- 4 牵引切断机/ Drawing and Cutting Machine
- 5 冷却床/ Cooling Machine
- 6 热风干燥机/ Drying Machine
- 自动油炸机/ Automatic Fryer
- ⑧ 调味线/ Flavoring Line

# ■油炸新鲜马铃薯片生产线

冲型机 Punching Machine



#### 设备介绍 Introduction

该生产线以新鲜马铃薯为原料,经过清洗、去皮、切片、漂烫、油炸、脱油、调味和冷却等工序生产薯片产品。该生产线完全实现自动化,操作简单。

This process line use fresh potato as raw material, through washing, peeling, slicing into chips, then frying, de-oiling, flavoring and cooling, final get potato chips products. This line is full automatic continous processing, easy operation.

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# **7°**力天机械/真诺机械

# Automatic Continuous Caramel Popcorn Process Line

- 1 螺旋输送机/ Screw Conveyor
- ② 高温膨化机/ Hot Air Popper
- ③ 分离筛选机/ Sifting Tumbler
- 4 风送机/ Air Conveyor

- 3 涂层机/ Coating Kettle







# 设备介绍 Introduction

高温膨化机是一种自动连续型爆米花设备,采用国外先进技术设计而成,品质可靠。玉米在高温膨化机的高温作用下膨化成球 形、蝶形爆米花等。然后喷涂黄油,糖浆,糖液,巧克力浆等,带给人视觉和味觉上的享受,因此广受欢迎。

Hot Air Popper is a kind of automatic continuous popcorn machine with high quality and advanced foreign technology. With the high temperature, the corns are popped into mushroom popcorn, butterfly popcorn etc. Then coated with caramel, butter, sugar syrup, chocolate syrup etc, the popcorn will become feast both to eyes and to the tongue. Thus, the caramel popcorn gain popularity among people.



# 自动连续型调味爆米花生产线

# Automatic Continuous Savory Popcorn Process Line

- 1 螺旋输送机/ Screw Conveyor
- ② 高温膨化机/ Hot Air Popper
- ③ 分离筛选机/ Sifting Tumbler



#### 技术参数 Technical Parameter

| 型号<br>Model                     | 功率<br>Power | 加热温度<br>Heating Temperature | 生产能力<br>Output | 外形尺寸<br>Size      | 加热方式<br>Heating Source |
|---------------------------------|-------------|-----------------------------|----------------|-------------------|------------------------|
| LT-PM80高温膨化机<br>Hot Air Popper  | 17.34kw     | <b>0~300</b> °C             | 80-100kg/h     | 16500×2500×3300mm | 电/气<br>Electric/Gas    |
| LT-PM200高温膨化机<br>Hot Air Popper | 38.55kw     | 0~300°C                     | 200-240kg/h    | 19500×3000×3300mm | 电/气<br>Electric/Gas    |

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### 力天机械/真诺机械 LIGHT M & E/ARROW EXTRUSION

# Fried Dough Snacks Process Line

- 1 拌面机/ Dough Mixer
- 2 一次压延机/ Dough Rolling Machine
- 5 提升机 / Hoister
  - 6 连续油炸机/ Continuous Fryer





#### 设备介绍 Introduction

该生产线将面粉等原料与水进行混合,通过多道压辊进行压制加工,采用特制切刀分切成不同的形状,并经过油炸使其膨化。油炸后再进行调味与烘干,即制成美味可口的休闲食品,该生产线设计合理、操作简单。

This process line uses wheat flour as main materials, after making the dough, sheets the dough by compound rollers, and then shapes the sheet into different shapes. After frying and flavoring, we can get crispy and savory snacks food. This line has features of continuous working, stable performance, and compact design.

### 技术参数T Technical Parameter

| 型号<br>Model  | 装机功率<br>Installed Power | 实耗功率<br>Power Consumption | 生产能力<br>Output | 外形尺寸<br>Size      |
|--|-------------------------|---------------------------|----------------|-------------------|
| LTM-E油炸面食生产线(电力型)<br>Fried Wheat Snacks Process Line(Electric Heating) | 60kw                    | 50kw                      | 150-200kg/h    | 23000×1500×1800mm |
| LTM-G油炸面食生产线(燃气型)<br>Fried Wheat Snacks Process Line(Gas Heating)      | 12L/H(Diesel)           | 8-12L/H(Diesel)           | 150-200kg/h    | 23000×1600×1800mm |

# ■方便即食面生产系统

# **Instant Noodles Production System**





### 设备介绍 Introduction

非油炸速食面是一种新型的冲泡速食面,可避免传统油炸方便面带来的高油脂,非油炸更健康。 真诺非油炸速食面生产线利用双螺杆挤压机挤压熟化原理,通过变换模具和切断可作出不同形状的熟 化/半熟化米线、面、杂粮面等产品;具有自动化程度高,节省能源,占地空间小等特点。

Non-fried instant noodle is the new type instant noodles, which can avoid the high fats caused by traditional fried instant noodles, making non-fried instant noodles more healthy. ARROW non-fried instant noodle production line adopt the double screw extrusion cooking technology, by changing molds and cutting machine, can make different shapes of cooked / semi-cooked rice noodles, wheat noodles, multi-grain noodles and other products, with features of high level of automation, energy and space saving.



### 力天机械/真诺机械 LIGHT M & E/ARROW EXTRUSION

# Shrimp /Fish Feed /Aquatic Feed Project













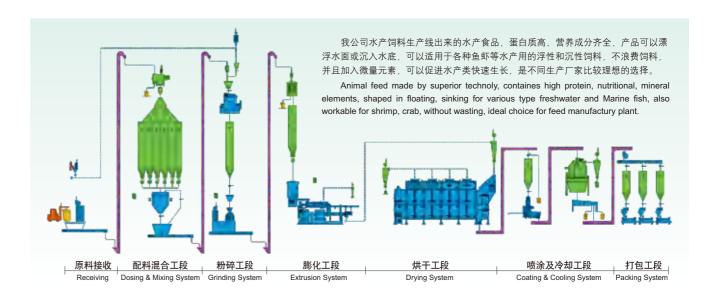
- 自动配料系统/ Auto Dosing system
- 2 双螺杆挤压机/ Double-screw Extruder
- 3 风送机/ Air Conveyer
- 4 烤箱/ Multi-layer Oven
- 5 Z型提升机/ Z Type Elevator
- 6 调味线/ Flavoring Line
- 风送机/ Air Conveyer 逆流翻版冷却机/ Counter Flow Cooler
- 9 包装机packing machine

#### 设备介绍 Introduction

我司开发的双螺杆挤压式水产饲料生产线,学习欧洲技术,采用单元螺杆组合结构,并可实现生产参数的精准控制,挤出过程可使蛋白质分解,易于消化吸收;我公司水产饲料生产线出来的水产食品,蛋白质高、营养成分齐全,产品可以漂浮水面或沉入水底,可以适用于各种鱼虾等水产用的浮性和沉性饲料,不浪费饲料,并且加入微量元素,可以促进水产类快速生长,是不同生产厂家比较理想的选择。

Twin-screw Extrusion animal feed process line, based on Euro technology, adopt modular –screw design, achieve accurate control on production parameters. Protein will be decompositied, become easy get digest feed during extrusion process. Animal feed made by superior technoly, containes high protein, nutritional, mineral elements, shaped in floating, sinking for various type freshwater and Marine fish, also workable for shrimp, crab, without wasting, ideal choice for feed manufactury plant.





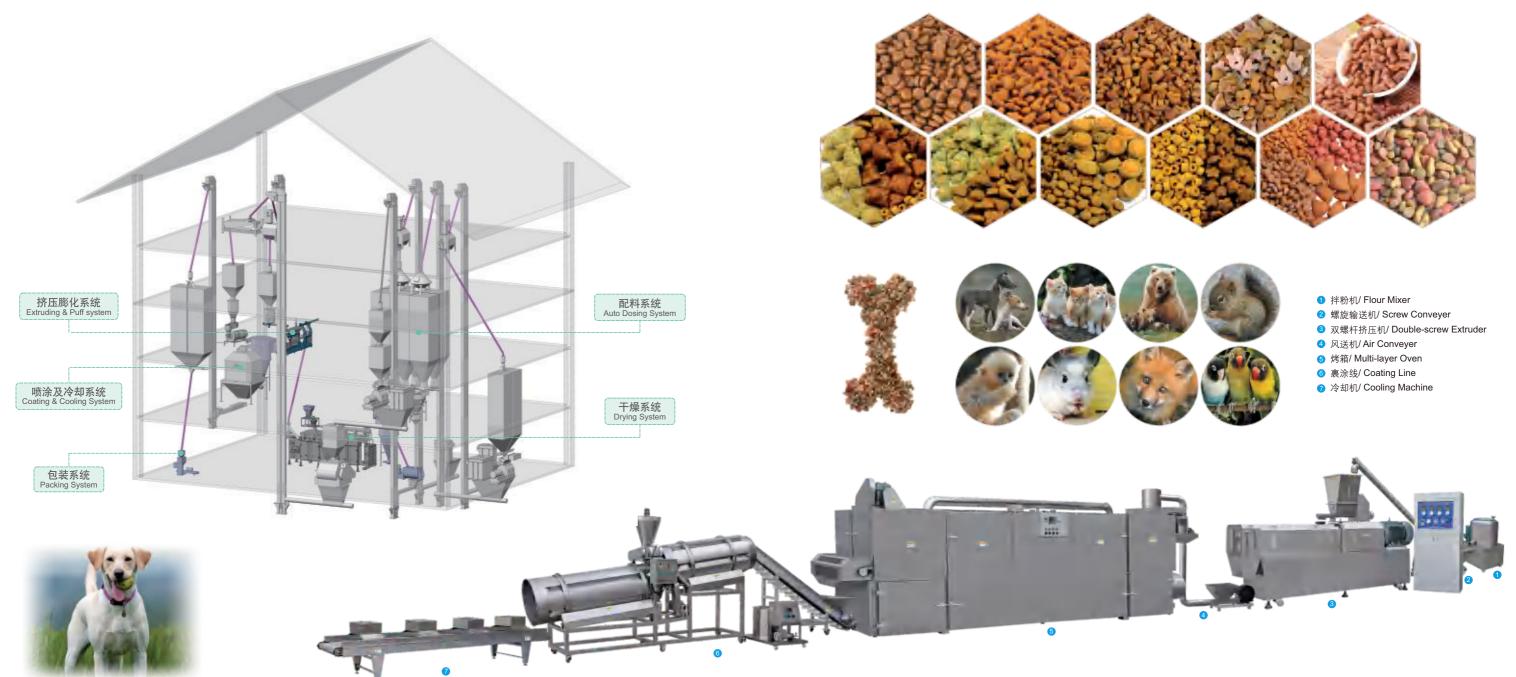
#### 技术参数 Technical Parameter

| 型号<br>Model                      | 装机功率<br>Installed Power | 实耗功率<br>Power Consumption | 生产能力<br>Output | 外形尺寸<br>Size      |
|----------------------------------|-------------------------|---------------------------|----------------|-------------------|
| LT90系列生产线 Pet Food Process Line  | 287kw                   | 216kw                     | 1-1.5T/h       | 40000×2400×4000mm |
| FT95系列生产线 Pet Food Process Line  | 383kw                   | 287kw                     | 1.5-2T/h       | 40000×3000×4000mm |
| FT115系列生产线 Pet Food Process Line | 424kw                   | 318kw                     | 2-3T/h         | 42000×3000×4000mm |
| FT130系列生产线 Pet Food Process Line | 502kw                   | 376kw                     | 4-5T/h         | 46000×3000×4000mm |

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# Pet Dog Cat And Animal Food Process Line



### 设备介绍 Introduction

随着宠物种类的不断增加,市场对宠物食品的要求和需求也不断提高。公司根据这一市场需要,研制和开发了多种型号的宠物食品生产线,根据产量的不同,该生产线也有多种配置。该生产线以肉粉、鱼粉、骨粉、玉米粉、豆粉等为主要原料,通过调整原料、温度、水分等工艺参数,生产形状新颖、口感独特、营养丰富、组织细腻的食品,适合不同宠物的口味。该生产线广泛适用于生产狗、猫、狐狸、鸟等宠物食品,是大中小型生产厂家理想的选择。

With the increasing variety of pet, people require more and more different pet foods. In order to meet various feeding demands, our Company developed this line, easy operation, friendly human-machine interface, accurate control to ensure the food can be processed under stable temperature, pressure, humidity and other circumstance.

This line mainly use the meat meal, fish meal, bone powder, corn powder, soya meal and other grains' powder as main materials to produce the innovative shapes, high nutritional and savory taste pet food for dog, cat, fox, bird etc.

#### 技术参数 Technical Parameter

| 型号<br>Model                      | 装机功率<br>Installed Power | 实耗功率<br>Power Consumption | 生产能力<br>Output | 外形尺寸<br>Size      |
|----------------------------------|-------------------------|---------------------------|----------------|-------------------|
| LT65系列生产线 Pet Food Process Line  | 80kw                    | 56kw                      | 150-180kg/h    | 22500×1200×2200mm |
| LT70系列生产线 Pet Food Process Line  | 128kw                   | 90kw                      | 300-500kg/h    | 25000×1500×2200mm |
| LT85系列生产线 Pet Food Process Line  | 175kw                   | 123kw                     | 800-1000kg/h   | 30000×3500×4300mm |
| LT90系列生产线 Pet Food Process Line  | 287kw                   | 216kw                     | 1000-1500kg/h  | 40000×2400×4000mm |
| FT75系列生产线 Pet Food Process Line  | 186kw                   | 139.5kw                   | 800-1000kg/h   | 24000×2000×2800mm |
| FT95系列生产线 Pet Food Process Line  | 383kw                   | 287kw                     | 1.5-2T/h       | 40000×3000×4000mm |
| FT115系列生产线 Pet Food Process Line | 424kw                   | 318kw                     | 2-3T/h         | 42000×3000×4000mm |
| FT132系列生产线 Pet Food Process Line | 502kw                   | 376kw                     | 4-5T/h         | 46000×3000×4000mm |

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# ■ 咬胶型/夹心型宠物食品零食生产线

# Pet Chewing /Jam Center Filled Pet Snacks Food Process Line



#### 设备介绍 Introduction

该生产线以淀粉、面粉、动物皮及其他食品添加剂等为原料,利用独特的挤压方法和模具,生产各种条状、棒状、麻花状、双色或多色形状各异及夹心的食品。通过调整配方,即可提供宠物的营养需求,又能满足宠物喜欢咀嚼的喜好。

3 单螺杆挤压机/ Single-screw Extruder

This process line adopts starch, wheat flour and food additives to produce innovative shapes pet chewing food by extrusion technology, such as strip, stick, twist, bone, core filled bar and so on. By adjusting the formulations, the extruded food can meet different needs like cleaning the teeth, chewing toy for smaller pets and adding nutrition.



# ■冷挤压/低温烘焙宠物食品设备

# Cold Treat Extrusion Pet Foods Making Machine

### 设备介绍 Introduction

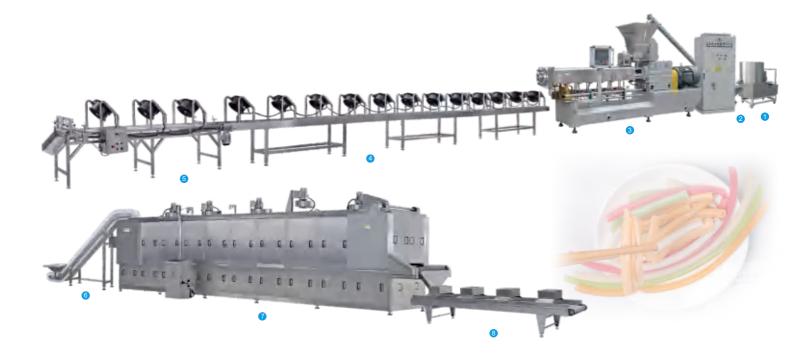
- 设备由驱动、喂料、挤出部分,模具和成型切断部分,控制系统组成。
- 产品: 宠物干粮低温烘焙粮、宠物半湿粮、肉粒肉条、宠物罐头等;
- 原料: 鲜肉和肉粉、豆粉、蛋白粉、谷物、纤维及其他微量营养成分等;
- 挤出成型温度可控,配备不同冷却介质,可达到原料所要求的低温挤出
- 通过调整配方和模具可生产不同形状和硬度的颗粒、条棒状、片状等。
- Machine equiped drive part, feeding part, extruding part, mould part, cutting part and controller.
- **Product:** pet dried low temperature baked feeds, pet meat feed and sticks, canned pet foods etc.
- Material: fresh meat paste and meal, soya flour, grains flour, fibers etc.
- Controllable extrusion temperature, equipped with different cooling media, can achieve the low temperature extrusion required by raw materials.
- This extruder can produce various shapes products: particles, rods, flakes, etc, through adjusting the formula and the design of the mould.



7 烤箱/ Multi-layer Oven

# 大米吸管/挤压可降解餐具生产线

### Extrusion Rice Straw Process Line



- 1 拌粉机/ Flour Mixer
- ② 螺旋输送机/ Screw Conveyer
- ③ 双螺杆挤压机/ Double-screw Extruder
- 4 水平长冷却输送机/ Long Cooling Belt
- 1 切断机/ Cutter
- 2 提升机/ Hoister
- 烤箱/ Multi-layer Oven 冷却机/ Cooling Machine

#### 设备介绍 Introduction

大米吸管及其他可降解餐具生产线是以大米粉和淀粉为主要原料,通过挤压熟化工艺生产。大米吸管外观和常规塑料吸管相同,并且可以直接食用,可完全降解,非常的安全卫生。

The main raw materials of rice straw and other degradable dinnerware are rice four and starch, their production through extruder extrusion and cooking. The appearance of rice straw is similar as the normal plastic straw, and it can be eaten directly, these rice straw can be completed degradation, very safe and hygienic.



### 技术参数 Technical Parameter

| 型号<br>Model                    | 装机功率<br>Installed Power | 实耗功率<br>Power Consumption | 生产能力<br>Output | 外形尺寸<br>Size      |
|--------------------------------|-------------------------|---------------------------|----------------|-------------------|
| LT100系列生产线 Series Process Line | 100kw                   | 70kw                      | 80-100kg/h     | 40000×2200×2400mm |
| FT63系列生产线 Series Process Line  | 150kw                   | 105kw                     | 150-200kg/h    | 50000×2000×2400mm |
| FT75系列生产线 Series Process Line  | 200kw                   | 140kw                     | 250-350kg/h    | 60000×2000×2400mm |

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# · 力天机械/真诺机械

# Fantastic Technology Double Screw Extruder



FT95多功能双螺杆挤压膨化机 Series Multi-functional Double Screw Extruder

### 设备优势 Advantages



- 螺杆可自由排列组合, 以满足不同产品需求。
- Multi-functions for different Snacks Applications: FT Series uses the Modular Circular Groove Screws.



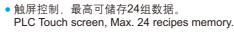
- 机筒衬套选用合金材料, 使用寿命长。
- Much Longer Using Life of Excellent Modular Screws and Square Barrels.
- 不同的加热方式可供选择,维护成本低。
- Different Heating Sources Options and Low Maintenance charge.











filtration system and cooling system;

imported, NSK Brand Japan.

专业的齿轮加工及箱体装配,自带冷却、润滑、过滤、系统的分配箱。 Stable Performance and Longer Using Life guaranteed by Top Grade Gear Box and Bearings. Automatic lubricating system,

Gear box, adopt alloy steel, bearing units is

- 电器件选用国外优秀品牌:西门子,欧姆龙, 富士,台达,LG。
- Reliable Parts Supplier Partners: SIEMENS-CHINA, OMRON, FUJI, DELTA, LG.
- 直线对头切,电机直连,切断强劲有力。Powerful Direct-Cutting System with Linear
- Slide Rail, available for high production.

#### 技术参数 Technical Parameter

| 型号Model | 主电机功率Main Drive Power | 生产能力 Output  | 外形尺寸Size         | 适用产品Applied Products                  |
|---------|-----------------------|--------------|------------------|---------------------------------------|
| FT75    | 75 / 110kw            | 200-500kg/h  | 3800×1100×2200mm | 油炸膨化食品、膨化食品、宠物食品、                     |
| FT95    | 110 / 132 / 146kw     | 600-1200kg/h | 4000×1200×2500mm | 水产饲料、玉米片、早餐谷物等                        |
| FT115   | 132 / 160kw           | 2-3T/h       | 5000×1300×2600mm | Pellets, Puffs, Pet Food, Fish Feed,  |
| FT132   | 160 / 200kw           | 4-5T/h       | 6000×1400×2700mm | Corn Flakes and Breakfast Cereals etc |

# FT系列多功能挤压机

是在借鉴**瑞士技术**的基础上

开发出来的 高端机型

FT Series Multi-functional Double Screw Extruder is developed based on Swiss Technology



FT75-32D新型多功能双螺杆挤压膨化机 Multi-functional Double Screw Extruder



FT75-28D/20D多功能双螺杆挤压膨化机 Multi-functional Double Screw Extruder



FT63-20D双螺杆挤压膨化机 Double Screw Extruder



FT63-32D多功能双螺杆挤压膨化机 Multi-functional Double Screw Extruder



FT36实验双螺杆挤压膨化机 Double Screw Lab Extruder

#### 技术参数 Technical Parameter

| IXA 9 X Toolimoon aramotor |                       |             |                  |  |  |  |
|----------------------------|-----------------------|-------------|------------------|--|--|--|
| 型号 Model                   | 主电机功率Main Drive Power | 生产能力 Output | 外形尺寸Size         | 适用产品Applied Products                                   |  |  |
| FT75-32D                   | 110kw                 | 500kg/h     | 5000×1100×2200mm |  |  |  |
| FT75-28D                   | 75kw                  | 500kg/h     | 3800×1100×2200mm | 油炸膨化食品、膨化食品、宠物食品、                                      |  |  |
| FT75-20D                   | 55 / 75kw             | 300-400kg/h | 3500×1100×2200mm | 水产饲料、玉米片、早餐谷物等<br>Pellets, Puffs, Pet Food, Fish Feed, |  |  |
| FT63-32D                   | 90kw                  | 150kg/h     | 3300×930×2000mm  | Corn Flakes and Breakfast Cereals etc                  |  |  |
| FT63-20D                   | 55kw                  | 200-250kg/h | 3200×930×2000mm  |  |  |  |
| FT36                       | 11 / 18.5kw           | 10-30kg/h   | 2000×600×1500mm  | 实验用测试膨化率等参数<br>Experiment Puffing Parameters           |  |  |

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### 力天机械/真诺机械 LIGHT M & E/ARROW EXTRUSION

# Series of Double Screw Extruder



### 设备组成 Machinery components

- 大料仓
- Big Sile
- 双轴调质器
- Double Axis ConditionerSupport Platform
- 支撑平台对头切刀
- Facing Cutter
- 85双螺杆膨化机
- Double Screw Extruder 85

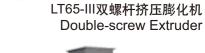


#### 技术参数 Technical Parameter

| 型号 Model | 主电机功率Main Drive Power | 生产能力 Output | 外形尺寸Size         |
|----------|-----------------------|-------------|------------------|
| LT85     | 75kw                  | 500-700kg/h | 4300×3500×5300mm |

适用产品:宠物食品、水产饲料、玉米片和早餐谷物、膨化食品等。Applied Products: Pet Food, Fish Feed, Corn Flakes and Breakfast Cereals, Puffs.





LT70CL双螺杆挤压膨化机

Double-screw Extruder



Double-screw Extruder

LT70L双螺杆挤压膨化机 Double-screw Extruder

### 技术参数 Technical Parameter

| 型号<br>Model | 装机功率<br>Installed Power | 主电机功率<br>Main Drive Power | 生产能力<br>Output | 外形尺寸<br>Size    | 适用产品<br>Applied Products  |
|-------------|-------------------------|---------------------------|----------------|-----------------|---|
| F85         | 99kw                    | 75kw                      | 500kg/h        | 5000×980×2200mm | 宠物食品、蛋白、淀粉、膨化食品Pet Food,Protein,Snacks  |
| LT70        | 53kw                    | 37kw                      | 200-250kg/h    | 3200×760×2000mm | 膨化食品、早餐谷物,宠物食品等   |
| LT65-III    | 34kw                    | 22kw                      | 150kg/h        | 2550×900×1850mm | Snacks, Breakfast Cereals, Pet Food   |
| LT70L       | 53kw                    | 37kw                      | 200-250kg/h    | 3200×930×2000mm | 宠物食品、营养米、膨化食品、早餐谷物  |
| LT65L       | 47kw                    | 30kw                      | 180kg/h        | 3500×950×1850mm | Pet Food /Nutrition Rice /Snacks  |
| LT70CL      | 53kw                    | 37kw                      | 200-250kg/h    | 3200×930×2000mm | 顶级配置(含线性对头切,不锈钢控制柜,PLC控制)<br>Top Configuration (Facing Cutter, Fully Stainless<br>Steel PLC Hand-touching Screen Control Panel) |

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# ■十字环流高效干燥机

# **Cross Circulation Efficient Dryer**



### 设备介绍 Introduction

- 广泛适用于饲料、食品行业的粒状、片状及条状等物料的干燥(稳定、冷却)处理。
- 采用热风循环双向十字穿流方式,配合排湿风机, 风向自上而下强制穿透物料,热风排除物料水分。
- 有效解决膨化水产饲料和一般颗粒饲料或食品的 熟化、烘干的难题,颗粒达到理想耐水性能,提 高颗粒外观质量。
- 内循环热风系统, 耗能低, 成本小, 可靠性好。
- 与物料接触部分全为不锈钢制作,保证了产品的 品质和设备耐腐蚀性。

- Widely used in feed, food and other industries aging stability and drying.
- Adopt hot air circulation bi-directional cross flow method, equipping with moisture removing fan, the wind direction forcibly penetrates the materials from top to bottom and the hot air discharges the materials moisture.
- Effectively solve the bulking aquatic feed and pellet feed or food curing, drying, particles reach the ideal water resistance, improve grain appearance quality.
- Internal circulating hot air system, low energy consumption, low cost, good reliability.
- Adjustable materials distributor and even distribution materials device make the materials distribute more evenly, ensuring the homogeneity of the drying materials.



# 系列定制烘烤、干燥、冷却方案

# Series of Customized Roasting, Drying Cooling Solution



### 设备介绍 Introduction

- 本系列主要根据客户需求和产品特性来设计符合客户 要求的设备。
- 它同时具有密封性好,热效率高,产量大,温度控制精度高,自动化程度高,能耗小,故障率低等优点,特质输送带符合食品安全高标准,深受欧洲食品企业欢迎。
- 它温度控制范围大,可以是高温烘烤机亦可以是低温 干燥机,具有强制排潮功能,多种加热方式任选,可 选装布料,冷却,输送带清洗等功能。
- 根据不同产品特性,可设计成单层或者多层,不同长度,不同宽度等。

- This Series of Solution is custom designed to suit unique process and products features.
- It has features of fully welded, high air-proofness, high thermal efficiency, large output, high temperature-controlling accuracy, high automation, low energy consumption, low defects, and high sanitation owing to the special designed conveyor. Thanks to these unique advantages, this series are quite popular in european food process industry.
- It has wide range of operating temperature, so it can be a hot air baker /roaster, or can also be a low temperature dryer. It has enforced moisture exhausting function and is available for any heating source. It can also be equipped with other optional auxiliary functions, like feeder, spreader, cooler, belt cleaning etc.
- Depending on different products features, it can be single-pass, multistage and multi-pass with various length and width.



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# 系列烘烤设备/烤箱

# Series of Oven /Roaster



# 系列干燥设备



# Series of Drying Machine /Dryer



焙烤机 Baking Machine



LTD-5PD五层干燥机 Five-layer Dryer

滚筒干燥机 Rotary Dryer

### 技术参数 Technical Parameter

| 型묵<br>Model   | 电(油)耗<br>Electric/Gas/Diesel                   | 加热温度<br>Heating Temperature | 生产能力<br>Output | 外形尺寸<br>Size      | 适用产品<br>Applied Products   |  |
|---|--|-----------------------------|----------------|-------------------|--|--|
| LTM-10Z五层十米烤箱<br>(蒸汽/电/燃气/燃油加热)<br>Five-layers Ten Meter Dryer<br>(Steam/Electric/Gas/Diesel heating) | 120kw/h<br>10-28m³/h(Gas)<br>16-26kg/h(Diesel) | 60~180°C                    | 500kg/h        | 12000×1500×2600mm | 挤压油炸食品,营养米,<br>强化米,膨化食品,宠物<br>Extruded Pellets, Nutrition rice,<br>Fortified rice, puffy, Pet food |  |
| LTD-5D五层电烤箱<br>Five-layer Electric Oven   | 60kw/h   | ~180°C                      | 250kg/h        | 5800×1300×2400mm  | 膨化食品、玉米片早餐谷物、<br>宠物、营养粉、变性淀粉等  |  |
| LTD-5G五层燃气/油烤箱<br>Five-layer Gas/Diesel Oven  | 16-22m³/h(Gas)<br>7-14kg/h(Diesel)             | ~180°C                      | 250kg/h        | 6000×1500×2400mm  | Puffs, Corn Flakes & Breakfast<br>Cereals, Pet Food, Nutritional<br>Powder, Modified Starch etc    |  |
| LTD-5PD五层干燥机<br>Five-layer Dryer  | 30kw/h   | ~90°C                       | 80-150kg/h     | 7700×1300×2220mm  | 挤压油炸食品,人造米<br>Extruded Pellets, Artificial Rice  |  |
| 滚筒干燥机<br>Rotary Dryer   | 75kw/h<br>4.8-10m₃/h(Gas)                      | ~180°C                      | 250kg/h        | 6800×1300×2600mm  | 3D挤压油炸食品<br>Extruded 3D Pellets,   |  |

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### 力天机械/真诺机械 LIGHT M & E/ARROW EXTRUSION

# Fried Snacks Process System



- 振动喂料/ Vibrant Feeder
- ② 连续油炸机/ Continuous Belt Fryer
- ⑤ 振动脱油机/ Vibrant De-oiling Machine
- ④ 调味线/ Single Drum Flavoring Machine
- ⑤ 冷却输送机/ Cooling Conveyor



#### 技术参数 Technical Parameter

| 型号<br>Model | 驱动功率<br>Drive Power | 加热温度<br>Heating Temperature | 生产能力<br>Output | 外形尺寸<br>Size      | 适用产品<br>Applied Products   |
|-------------|---------------------|-----------------------------|----------------|-------------------|--|
| LTCF-300    | 4.3kw               | <250°C                      | 100-300kg/h    | 13100×1200×3500mm | 半膨化食品,二次膨化胚料,面食 类产品,豆类、坚果类产品,新鲜                                      |
| LTCF-400    | 4.3kw               | <250°C                      | 300-500kg/h    | 16300×1200×3500mm | 果蔬类产品如薯片、香蕉片等  |
| LTCF-500    | 4.9kw               | <250°C                      | 500-800kg/h    | 21500×1200×3500mm | Half-Puffed Snacks, Extruded 2D/<br>3D Pellets, Dough Snacks, Beans, |
| LTCF-650    | 6.85kw              | <250°C                      | 800-1000kg/h   | 25100×1500×3800mm | Nuts, Fresh Vegetables, Onions, Potato Chips, Banana Chips,          |
| LTCF-800    | 10kw                | <250°C                      | 1000-1300kg/h  | 28300×1500×3800mm | Plantain Chips etc.  |

### 设备介绍 Introduction

热交换炉 Heat Exchanger Furnace

油泵 Pump

> 该线是专为食品产品的油炸,脱油,调味及冷却工业化生产而设计的。它包括喂料系统,连续油炸系统,脱油系统,调味系统 和冷却系统,具有自动化程度高,产量大,连续化生产等特点。最大程度的减少人为因素,以保障高效获得更优质的产品。

滚筒滤油机 Rotary Oil Filter 油罐 Oil Tanks 油罐 Oil Tanks

它适用范围广,可加工膨化食品,二次膨化胚料,面食类产品,豆类、坚果类产品,新鲜果蔬类产品等。根据不同产品特性,可配单层或者双层网带的油炸机。

同时公司提供相关配套设施,如油罐,油泵,滤油机,管路连接和程序操作等,可实现油位实时监控,自动补油,滤油等功能,以降低生产成本。

This Fried Snacks Process System is specially designed for industrial use, including feeding system, continuous frying system, de-oiling system, flavoring system and cooling system.

So it is fully automatic with high capacity and continuous process, which can avoid any workers mistake, and get the perfect fried food more precisely and efficiently.

It has widely applications, like puffed snacks, extruded pellets, dough snacks, beans, nuts, fresh vegetables, onions, potato chips, banana chips, plantain chips etc. For different food, we will apply either single belt or double belt fryers.

And we also provide auxiliary machinery or services, like oil tanks, pumps, oil filters, pipes and programs etc, they will help to monitor the oil level, feed oil automatically, filter oil, so as to save much more production cost.

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# 系列调味/喷涂设备

# Series of Flavoring Line /Coating Line









LTS-PT 滚筒喷涂线 Glazing Coating Line & Sugar/Slurry Tanks



LTS-BJ四头八角筒 Four Heads Rotary Seasoning Machine

### 技术参数 Technical Parameter

| 퓇号Model                                  | 装机功率Installed Power | 生产能力Output  | 外形尺寸Size         |
|--|---------------------|-------------|------------------|
| LTS-II 双滚筒调味线 Double-drum Flavoring Line | 9kw                 | 150-200kg/h | 5000×1500×2000mm |
| LTS-I 单滚筒调味线 Single-drum Flavoring Line  | 3kw                 | 150-200kg/h | 3000×1000×1800mm |
| LTS-PT 滚筒喷涂线Drum Coating Line            | 20kw                | 150-200kg/h | 6000×1800×2300mm |
| LTS-BJ 八角筒Eight Square Seasoning Machine | 0.55kw              | 10kg/Once 次 | 1000×1200×1700mm |

# 系列粉碎系统

# 力天机械/真诺机械 LIGHT M & E/ARROW EXTRUSION

# Series of Micro-Grinding System



LTFS-800 粉碎系统 Grinding System



粗碎机



SFSP 粉碎机 Hammer Mill

### 力天机械/真诺机械 LIGHT M & E/ARROW EXTRUSION

# Series of Packing Machine



大型立式全自动包装机配套系列 Large-sized Vertical Automatic Packing Machine Series

#### 技术参数 Technical Parameter

| 机 型 Model              | LT-420          | LT-520           | LT-720           |
|------------------------|-----------------|------------------|------------------|
| 最大包装速度 Capacity        | Max 70bags/min  | Max 60bags/min   | Max 45bags/min   |
| 制袋尺寸 Bag Size          | Width:60-200mm  | Width:80-250mm   | Width:140-350mm  |
|                        | Length:60-300mm | Length:80-350mm  | Length:20-450mm  |
| 电源类型 Power Source      | 2.2kw 220V/50Hz | 2.5kw 220V/50Hz  | 4.5kw 220V/50Hz  |
| 外形尺寸 Machine Dimension | 1530×970×1600mm | 1430×1200×1700mm | 1780×1350×2050mm |







自动粉末包装机 Automatic Powder Packing Machine



立式自动包装机 Volumetric Vertical Packing Machine





# 国际品牌电器元件・确保设备稳定可靠

International brand electrical components, to ensure that the equipment is stable and reliable











RIELLO











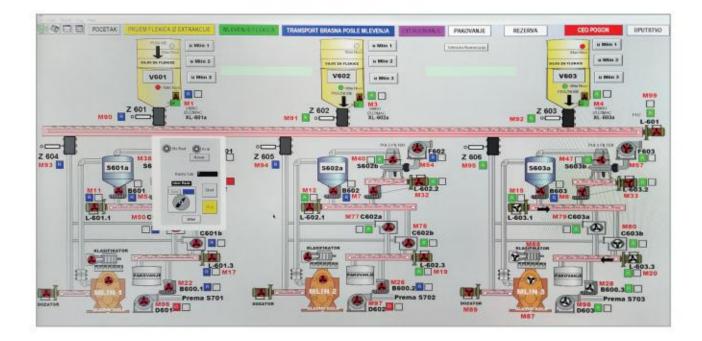




**OMRON** 



**SIEMENS** 









PROFESSIONAL
TECHNIQUE AND SERVICE

# 专业团队 专业服务 创造力天辉煌明天

### 售后服务承诺 After-sales Service Commitment

- 1. 提供生产配方、安装调试、操作培训等服务:专业工程师进行机器安装调试,培训企业员工熟练操作,解决机器运转遇到的问题,常年进行机器维护。
- 2. 专业机器维修, 保养服务:长久的零部件保修保养服务, 终生优惠提供零部件, 设备免费保修一年。
- 3. 完善的客户产品质量追踪体系:对客户产品建立完整的售后质量追踪报告,专业分析,及时反馈。
- 4. 可非标准化生产:根据客户要求,设计并供应非标准化产品,满足顾客特殊化需求。
- 5. 立足全球客户需求:以"服务全球顾客"为宗旨,提供设备、工艺、原料、包装等方面的全方位咨询售后服务,真正做到让顾客无后顾之忧。
- 1. Provide production formula, installation, debugging, operator training services. Professional engineers provide machine installation, training, enterprise employees, solve problem, long time for machine maintenance
- 2. Professional machine maintenance and services. The warranty time of machine and parts is 1 year. Long time maintenance service for spare parts, components.
- 3. Perfect product quality tracking system after sale. Establish a complete product quality tracking report for every customer, professional analyze, timely feedback.
- 4. To design and supply non-standard products according to the customer request.
- 5. For the sake of the global customer, we provide equipment and technology, raw material, packing, etc. Comprehensive consulting service, let customer worry-free truly.

