

Leshan 乐善®

S Series

先普全电吹瓶机系列
Full Electric EBM Machine

乐善改变吹瓶世界
LESHAN change the blowing routine
Stock code: 871695

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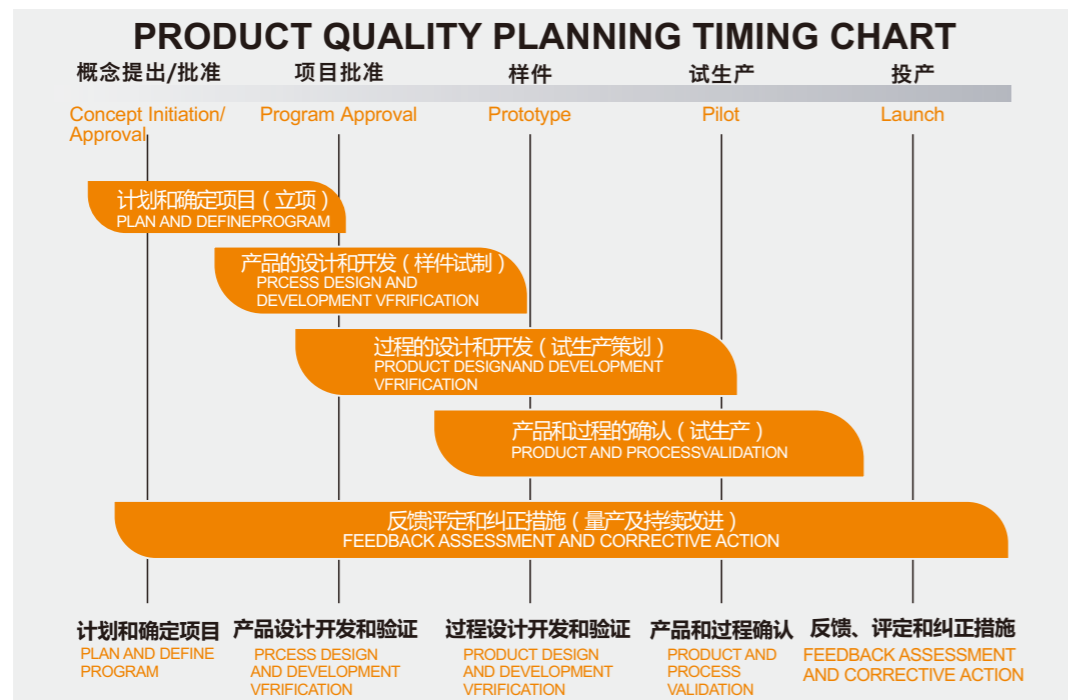
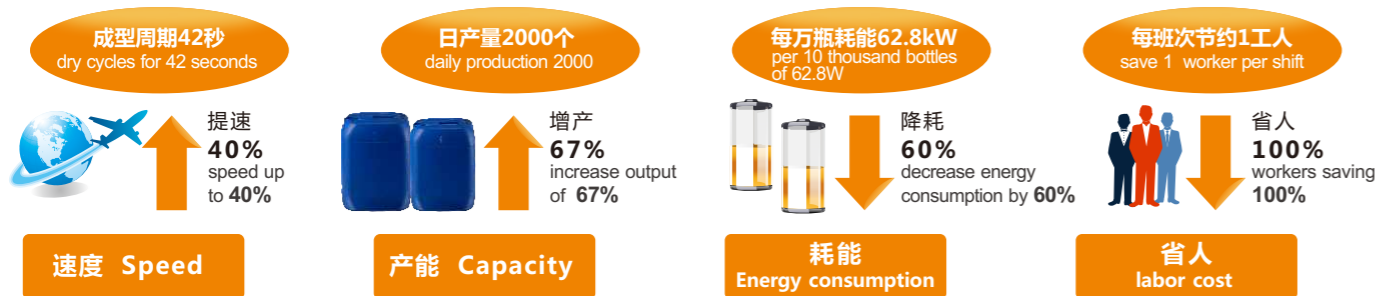


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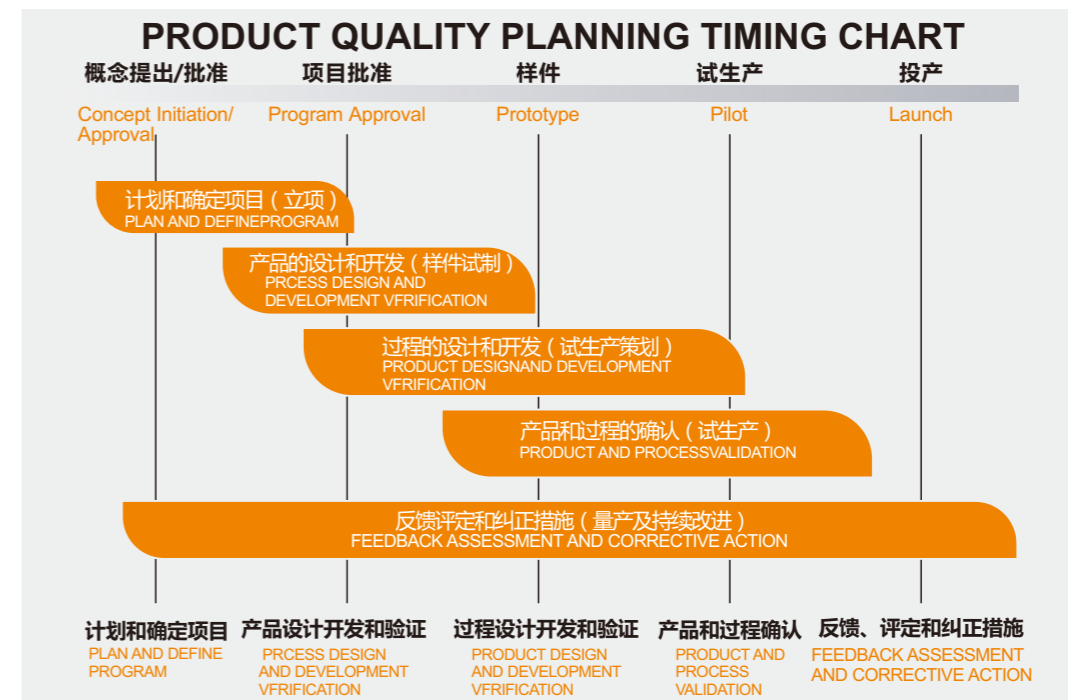




全电机产品策略-化工桶 Full Electric EBM Machine for Chemical Products Strategy

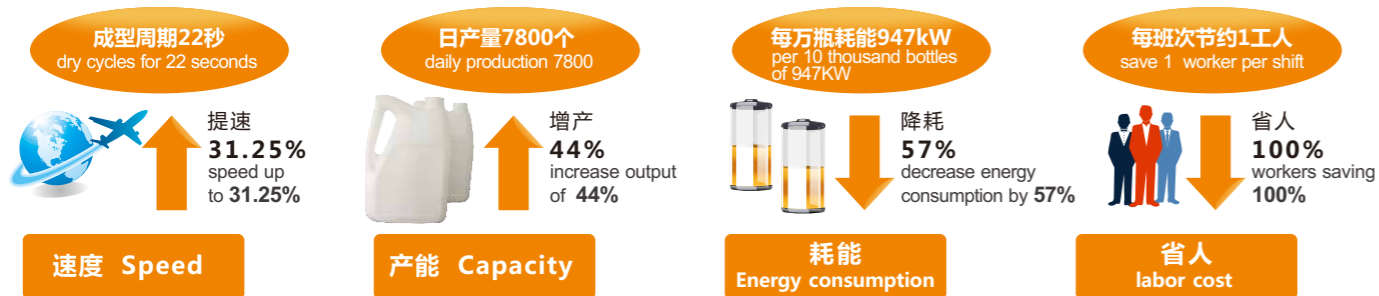


全电机产品策略-奶瓶吹瓶机 Full Electric Milk Bottle Machine Product Strategy





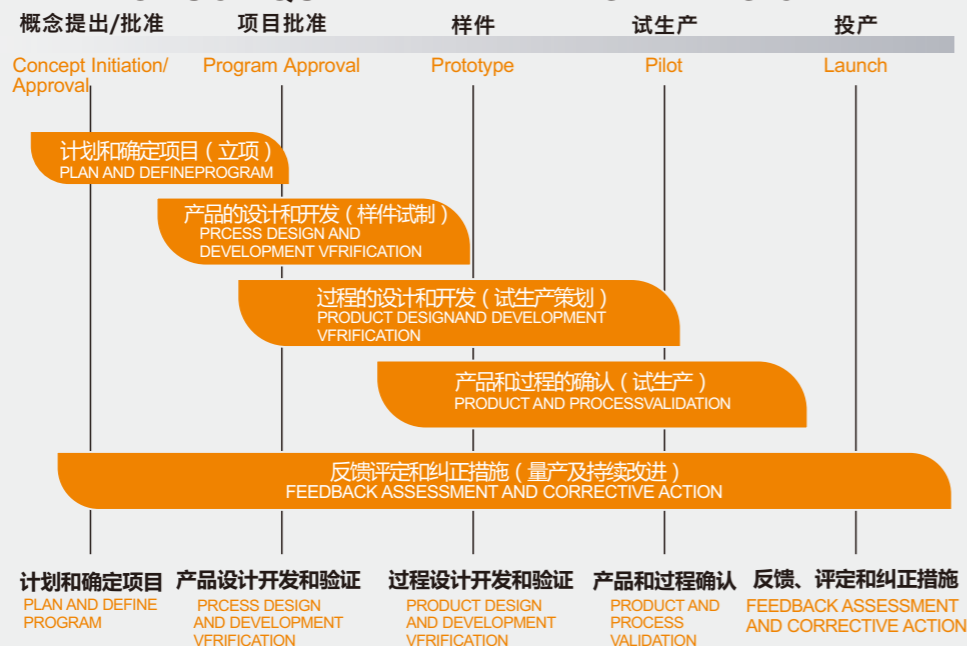
全电机产品策略-机油罐 Full Electric Oil Tank Product For Chemical Products Strategy



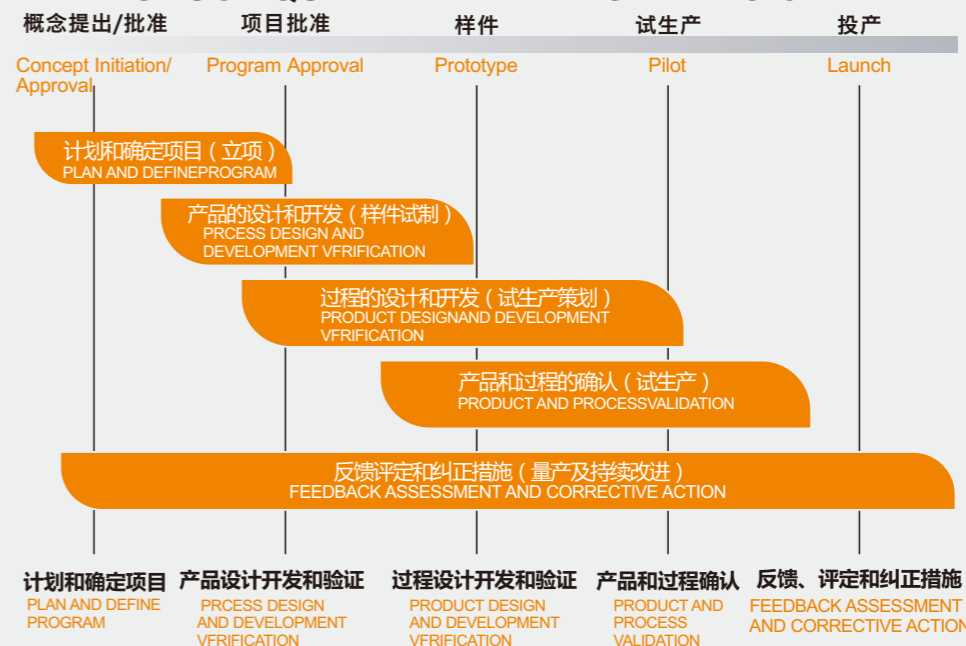
全电机产品策略-洗洁精吹瓶机 Full Electric EBM machine product strategy



PRODUCT QUALITY PLANNING TIMING CHART



PRODUCT QUALITY PLANNING TIMING CHART





全电吹瓶机系列-机油罐吹瓶机

Full-electric Blow Molding Machine Oil Tank Product Blow Molding Machine

乐善改变吹瓶世界
LESHAN change the blowing routine



1 电动锁模架 Electric clamping frame

- * 电动锁模采用偏心齿轮结构，具有自锁功能，降低能耗，快速响应。
- * 锁模架设计降低高度，整个机器的高度可以往下降。
- * The electric clamping adopts the eccentric gear structure and has self-locking function to reduce energy consumption and respond quickly.
- * Machine height reduce: by reduce the height of clamping frame.



2 电动插笔 Electric blow pin

- * 线性导轨导向，提高插笔动作精确度，
- * 插笔无管连接实现吹排气功能及运水冷却，整齐美观，避免接头漏水引起故障。
- * Linear guide rail for improved blow pin movement accuracy.
- * The blow pin has no pipe connection to realize the blowing and exhausting function and the water cooling, neat and tidy, avoiding the leakage caused by the joint leakage.



3 电动抬头 Electric lifting head

- * 伺服电机，运行精度高。
- * 快速抬头，缓速平稳下降。
- * 实现抬头任意点滞留，便于维修。
- * Servo motor with high running accuracy.
- * Quickly head lifting and slow down smoothly.
- * Achieve head-lifting at any point for easy maintenance.



4 电动升降平台 Electric lifting platform

- * 配直线导轨，运行精度高。
- * 快速抬头，缓速平稳下降。
- * 重心低运行平稳，操作人性化。
- * With linear guide, high running precision.
- * Quickly head lifting and slow down smoothly.
- * The center of gravity is low and stable, the operation is user-friendly.



5 模具 Mold

- * 带模具温度检测功能，大流量进出水。
- * 冷却效果良好，管线布局简单美观。
- * Mold temperature detection function, Big flow in and out of water.
- * Cooling effect is good and the pipeline layout is simple and tidy.

副模半包式冷却系统 Vice mold semi-package cooling system

- * 缩短产品成型周期，减少产品的变形。
- * 副插笔二次冷却定径的作用。
- * Shorten product molding cycle and reduce product deformation.
- * Vice blowing pin for calibration cooling.

Good quality

Start with the craft details, understand what you need



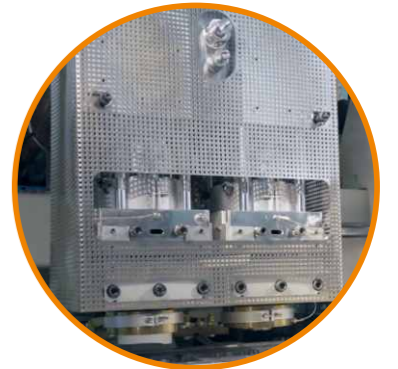
好品质

始于工艺细节 懂您所需



7 电动壁厚 Electric parison control system

- * 100点电动伺服壁厚控制系统，响应速度1MS，重复精度0.005mm。
- * 伺服电机驱动、滚珠丝杆传递动力。
- * 精度更易控制，质量更有保证；
- * 100-point electric parison control system with response speed of 1MS and repeatability of 0.005mm.
- * Servo motor drive and ball screw transmit power.
- * Accuracy is easier to control and quality is more assured;



6 模头 Die head

- * 双层带液位线抽杯模头，中心距280mm。
- * 优化的流道设计，换色快捷。
- * 增加模头保护罩，防止操作中碰到发热板。
- * Double-layer with view strip line, center distance of 280mm.
- * Optimized flow path design, fast color change.
- * Increase the die head protection cover to prevent operator from touching the heating plate.

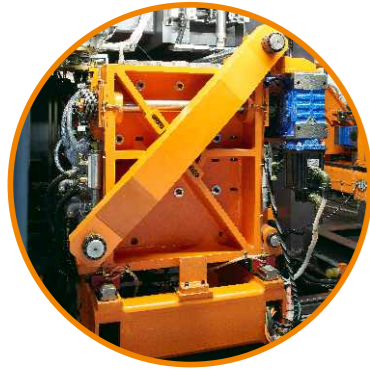
全电吹瓶机系列-化工桶吹瓶机

Full-electric Blow molding Machine Series-Chemical Products Blow molding Machine

Smarter.Full-electric

All-electric EBM machine for chemical product, low energy consumption. The machine can be diagnosed remotely online for faults.

智·汇全电 芯·随我动
全电化工桶吹瓶机,低能耗
可远程在线诊断机器运行故障问题。



1 全电动单摆锁模架 Fully electric single station clamping frame

- * 锁模板：可以承受28吨锁模力，配合三支直径Φ60拉杆；
- * 抗拉强度提高，承受较大锁模力，使用寿命长；
- * Clamping plate: can withstand 28 tons of clamping force, matched with three rods with diameter Φ60;
- * Increased tensile strength, with large clamping force and long service life;



2 电动抬头 Electric head lifting

- * 机架由H钢杆焊接，配直线导轨，运行精度高；
- * 重心低运行平稳,操作人性化；
- * 线轨上配有护罩,使用寿命长；
- * 运行极限位置有机械限位；
- * The frame is welded by H steel rod and equipped with linear guide rails with high running precision;
- * The center of gravity is low and the operation is smooth, the operation is humanized;
- * The rail is equipped with a shield and with long service life
- * There is a mechanical limit at the operating limit position;



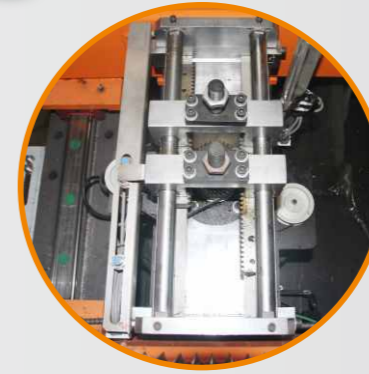
3 重负载电动摆架 Heavy trail electric station

- * 移模采用齿轮齿条结构，可实现较多的摆架移动距离；
- * 摆架集合电动开合盖功能，电动升降拉宽功能；
- * 偏心齿轮锁模：具有自锁，降低能耗，快速响应；
- * The shifting adopts gear and rack structure, which can realize more moving distance of the carriage;
- * The carriage is equipped with an electric stretching function, electric lifting and widening function;
- * Offset heart gear clamping: self-locking, reducing energy consumption and quick response;



4 电动开合盖 Electric stretching

- * 将原来液压驱动变为电机驱动，控制更为精准和平稳，
- * 减速机带有自锁，可以降低能耗；
- * 可适应不同制品尺寸变化。
- * Turning the original hydraulic drive into motor drive for more precise and smooth control;
- * The reducer is with self-locking function which can reduce energy consumption;
- * Can adapt to different product size changes;



5 电动升降与电动拉宽 Electric lifting and electric widening

- * 配有行星减速机和同步齿轮齿条组成，快速实现正反方向定位和调节拉宽行程范围；
- * 配有同步带传动，运行无噪音，无污染；
- * It is equipped with a Xingxing reducer and synchronous rack and gear to quickly realize the positioning in the forward and reverse directions and adjust the range of the widened stroke;
- * Equipped with synchronous belt drive, no noise, no pollution;



7 电动机械手二次吹气测漏 Electric manipulator/ post calibration/ leak test

- * 调节时可在触摸屏上自由输入条件范围；
- * 高精度齿轮齿条往复运动；
- * 集合二次吹气定径功能；测漏功能。机械手水平上下夹取功能；
- * 机械手水平上下可调解范围适应不同的制品；
- * The condition range can be freely input on the touch screen during adjustment;
- * High-precision rack and gear reciprocating motion;
- * With secondary calibration function; leak detection function. The robot hands can realize horizontally pulls up and down;
- * The robot hands can adjust the range to adapt to different products;



6 电动除溢装置 Electric deflasher device

- * 配蜗轮蜗杆减速机，具有自锁功能；
- * 合模组件具有自锁功能，降低能耗；
- * 适应大制品，需较大锁模力来打水口料的；
- * With worm gear reducer, with self-locking function;
- * The mold close component has a self-locking function to reduce energy consumption;
- * Adapt to large products, requiring large clamping force to remove the scraps;



全电吹瓶机系列-奶瓶吹瓶机

Full electric blow molding machine series -
Milk bottle blow molding machine

Eco-friendly full-electric, unlimited energy!

Electric blow pin and bottle feeding device,
low energy consumption High output, high
efficiency, and reduced production costs.



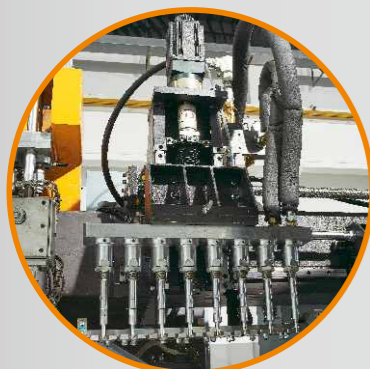
1 全电动下打水口装置 Full electric deflasher device

- * 由伺服电机驱动 (PLC) 快速响应, 运行平稳;
- * Fast response by servo motor drive (PLC), stable operation;



2 电动摆架 Electric carriage

- * 移模采用齿轮齿条结构, 可实现较多的摆架移动距离;
- * 偏心齿轮锁模: 具有自锁, 降低能耗, 快速响应;
- * 摆架重复定位精准;
- * The shifting adopts rack and gear structure, which can realize more moving distance of the carriage;
- * Offset heart gear clamping: self-locking, reducing energy consumption and quick response;
- * Repeated positioning accuracy



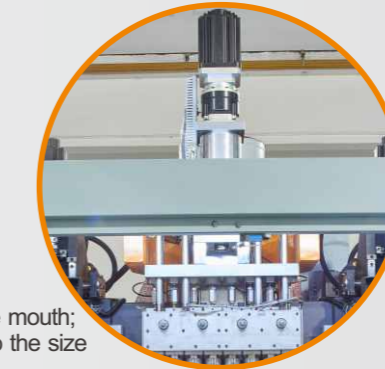
3 电动移动插笔 Electric movable blow pin device

- * 使用伺服电机的插笔, 提升了插笔的运行平稳性;
- * 效率更快, 产量高;
- * Using the blow pin of the servo motor improves the smoothness of the blow pin.
- * Faster efficiency, higher output



4 锣口机 Spin trimmer

- * 皮带轮转盘, 皮带可自由带动制品正常运行, 360度可转;
- * 机外锣口装置, 用于剔除瓶口多余溢料;
- * 导向板平台, 可满足根据不同制品的瓶口大小调节;
- * Pulley turntable, belt can freely drive the product to run normally, 360 degrees can be turned;
- * Spin trimmer, to remove the excess spillage from ottle mouth;
- * The guide plate platform can be adjusted according to the size of the bottle mouth of different products;



5 电动壁厚 Servo parison control

- * 100点电动伺服壁厚控制系统, 响应速度1ms, 重复精度0.005mm;
- * 伺服电机驱动、滚珠丝杆传递动力、模头结构采用拉杯式结构, 精度更易控制, 质量更有保证;
- * Brand new 100 point electric servo parison control system, Response speed 1ms, repeated accuracy 0.005mm;
- * Servo driven by electric and power transfer by ballscrew, Cup pulling die head for more easier to control the accuracy and guaranteed quality;

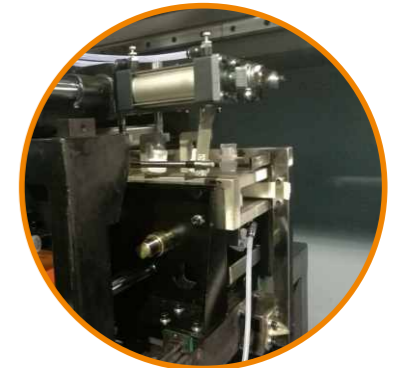
绿色全电, 动能无限!

电动插笔兼送瓶装置, 低能耗
产量高, 风驰电掣, 降低生产成本。



7 电动抬头 Electric head lifting

- * 双转盘翻转式抬头设计, 抬头多点控制转速, 快速抬头, 缓速平稳下降, 动作更加平稳。
- * Multiple speed control for die head, fast lift up, and slowly decent, providing stable head lifting motion.



6 电动旋转切瓶口装置 Electric scraper

- * 电机通过同步齿装置来实现同步运行;
- * 效率更快, 产量高;
- * Electric synchronization is achieved by synchronous gear device;
- * Faster efficiency, higher output;





全电吹瓶机系列-洗洁精吹瓶机 Full electric blow molding machine series - Dishwashing liquid blow molding machine

Small Motor, Big Power!

Gear Clamping, Low Consumption
Fieldbus Technology,
Realize Digital Communication.

小驱动，大动力！
电动齿轮锁模，低能耗
现场总线技术，实现工厂数字通信



1 电动壁厚 Servo parison control

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2 电动抬头 Electric head lifting

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- * Multiple speed control for die head, fast lift up, and slowly decent, providing stable head lifting motion;



3 电动插笔 Servo blow pin

- * 插笔采用双向导轨设计，使用精密研磨滚珠丝杆，提升了插笔的运行平稳性。
- * Double direction guide rail design for blow pin, with precise ball screw, increasing the riding stability of blow pin.



4 电动锁模 Servo mold clamping

- * 专利首创电动锁模技术，小功率电机配大速比减速机，合模力大。
- * 电机中间发力，前后锁模板受力均匀。
- * 1秒快速开合模（250开模距离）。
- * Self developed patented electric mode-locked technology, small power motor with large speed ratio reducer, clamping force is large.
- * The force of the front and rear clamping plates is uniform.
- * 1 second mold open/mold close (250mm mold open stroke).



5 电动摆架 Servo Carriage

- * 后驱式锁模架设计，重心下移不晃动，运行更平稳；
- * Rear drive for mold clamping, the center of gravity moves downward without shaking, and runs more smoothly.



7 电动升降平台 Electric platform elevating

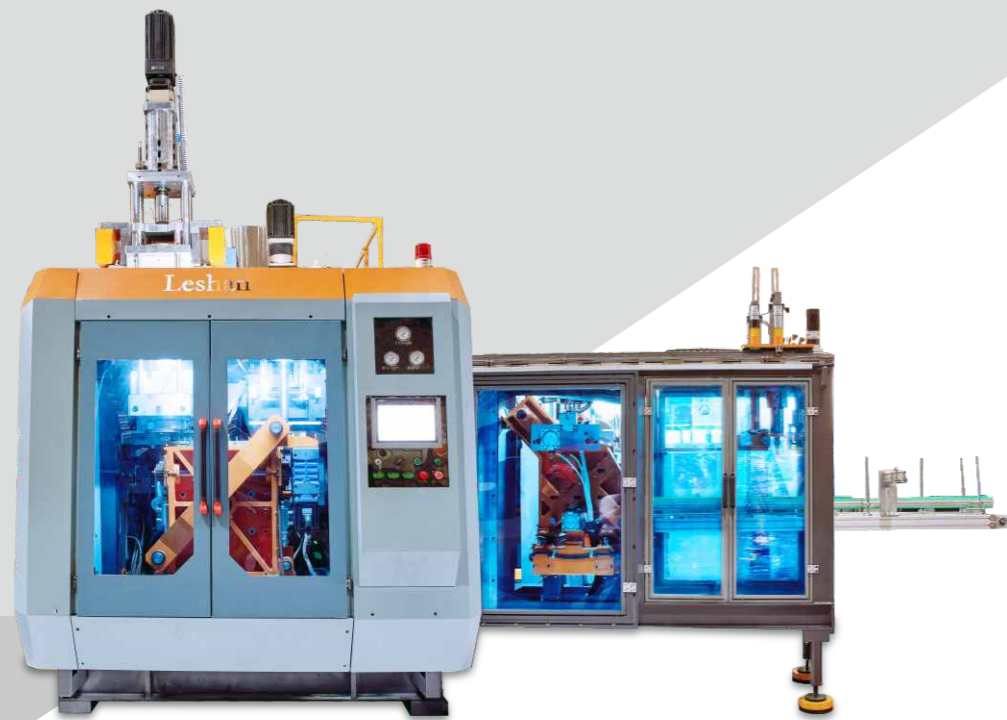
- * 蜗轮蜗杆减速机嵌管导向技术，赋予更大的内部空间给成品输送带。
- * Electric driven lifting plate adopting worm gear reducer and guiding technology to achieve the stability, gives greater interior space to the finished conveyor belt.



6 伺服机械手 Servo Manipulator

- * 三合一悬臂式机械手，整体安装，定位精准。
- * 3 in 1 cantilever manipulator, integral assembly, accurate positioning.





成本与效益 COST AND BENEFITS

单机对比 Machine Comparison			
项目 Project	液压机 Hydraulic Machine	全电机 Full Electric Machine	对比 Comparison
模腔数 Cavity	1	1	/
生产周期 (s) Cycle Time (s)	70	42	全电机提速40% full electric machine speed up 40%
每24小时产量 (pcs) Output/24h (pcs)	1200	2000	全电机产量提升67% full electric machine output increase by 67%
每小时实测能耗 (kWh) Actual Energy Consumption/h (Kwh)	80kw/h	52.4kw/h	全电机节省提升34.5% full electric machine save Promotion by 34.5%
平均每万瓶耗能 Average Energy Consumption (kw/10000pcs)	1.7万 17 thousand	6288	全电机每万瓶生产耗电节约60% produce every 10,000pcs bottles,full electric machine saving electricity 60%
工人 Worker	2人 2 person	1人 1 person	全电机每班节约1个工人 full electric machine saving 1 labor

30L 化工桶生产方案对比 Solution Comparison (30L Chemical Products)			
项目 Project	液压机 Hydraulic Machine	全电机 Full Electric Machine	对比 Comparison
设备投资 (元) Equipment Investment (RMB)	42.67万 426.7 thousand	141.38万 1.4138 million	全电机比液压机投资多98.71万元 the investment volume of full electric machine is higher than hydraulic machine 987.1 thousand
年产量 (300天) pcs Output/year (300days) pcs	36万 360 thousand	60万 600 thousand	全电机每年增加24万瓶 full electric machine output/ year increase 240 thousand pcs profit
电费 (300天) kWh Electric Charge (300 days) kWh	57.6万 576 thousand	37.7万 377 thousand	全电机年节省19.9万度电, 年节省19.9万元(1元/kW) in a whole year, full electric machine saving 19.9kW, saving 199 thousand (¥1/kw)
人工 (两班制,每人4000元/月) Labor cost (two shift, ¥4,000/month/person)	19.2万 192 thousand	9.6万 96 thousand	全电机年节省人工19.2万元 in a whold year, saving labor cost 192 thousand



成本与效益 COST AND BENEFITS

单机对比 Machine Comparison			
项目 Project	液压机 Hydraulic Machine	全电机 Full Electric Machine	对比 Comparison
模腔数 Cavity	8+8	8+8	/
生产周期 (s) Cycle Time (s)	12	8.5	全电机提速29% full electric machine speed up 29%
每24小时产量 (pcs) Output/24h (pcs)	11.5万 115 thousand	16万 160 thousand	全电机产量提升39% full electric machine output increase by 39%
每小时实测能耗 (kWh) Actual Energy Consumption/h (Kwh)	49kw/h	40kw/h	全电机节省提升18% full electric machine save Promotion by 18%
平均每万瓶耗能 Average Energy Consumption (kw/10000pcs)	102	59	全电机每万瓶生产耗电节约42% produce every 10,000pcs bottles,full electric machine saving electricity 42%
工人 Worker	2人 2 person	1人 1 person	全电机每班节约1个工人 full electric machine saving 1 labor

8+8 奶瓶生产方案对比 Solution Comparison (100ML Milk Bottle)			
项目 Project	液压机 Hydraulic Machine	全电机 Full Electric Machine	对比 Comparison
设备投资 (元) Equipment Investment (RMB)	428.7万 42.87 thousand	904万 90.4 thousand	全电机比液压机投资多47.53万元 the investment volume of full electric machine is higher than hydraulic machine 475.3 thousand
年产量 (300天) pcs Output/year (300days) pcs	34.5万 345 thousand	48万 480 thousand	全电机每年增加13.5万瓶 full electric machine output/ year increase 135 thousand pcs profit
电费 (300天) kWh Electric Charge (300 days) kWh	35.28万 352.8 thousand	28.8万 288 thousand	全电机年节省6.48万度电, 年节省6.48万元(1元/KW) in a whole year, full electric machine saving 6.48 kW, saving 64.8 thousand (¥1/kw)
人工 (两班制,每人4000元/月) Labor cost (two shift, ¥4,000/month/person)	19.2万 192 thousand	9.6万 96 thousand	全电机年节省人工9.6万元 in a whold year, saving labor cost 96 thousand



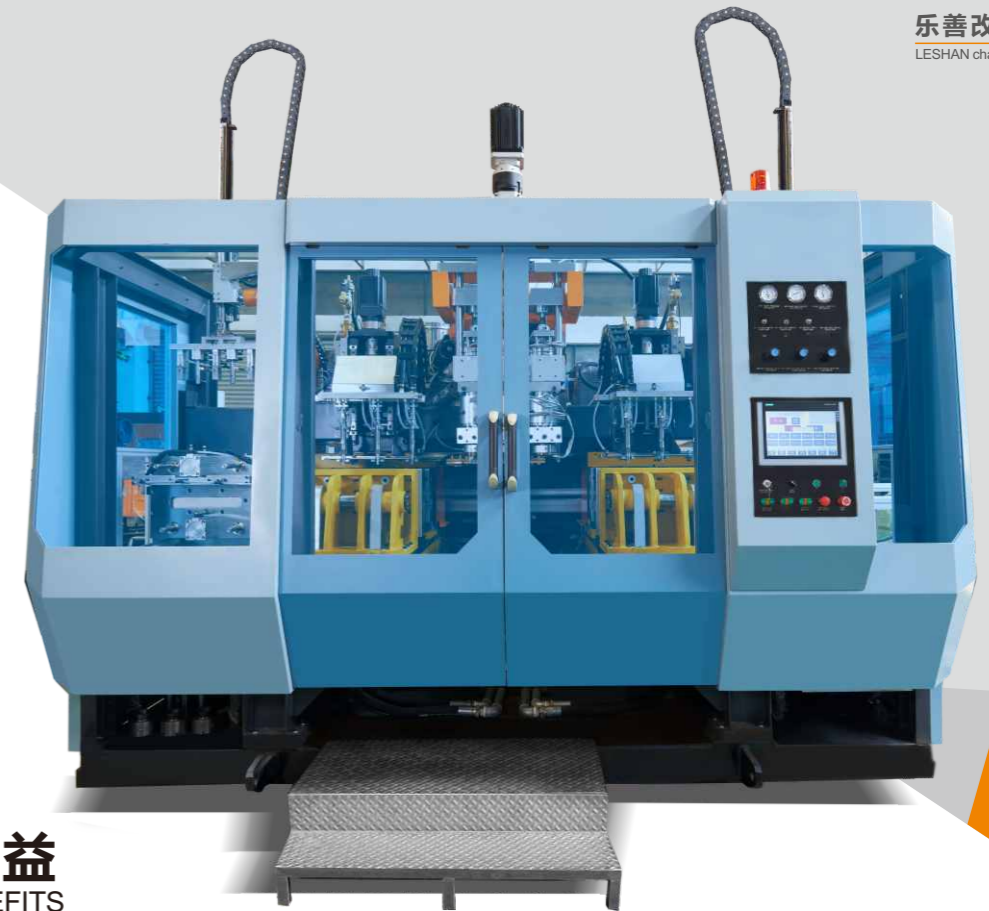
成本与效益 COST AND BENEFITS

单机对比 Machine Comparison

项目 Project	液压机 Hydraulic Machine	全电机 Full Electric Machine	对比 Comparison
模腔数 Cavity	2	2	/
生产周期 (s) Cycle Time (s)	32	22	全电机提速31.25% full electric machine speed up 31.25%
每24小时产量 (pcs) Output/24h (pcs)	5400	7800	全电机产量提升44% full electric machine output increase by 44%
每小时实测能耗 (kWh) Actual Energy Consumption/h (Kwh)	49.8kw/h	30.8kw/h	全电机产量提升38.15% full electric machine output increase by 38.15%
平均每万瓶耗能 Average Energy Consumption (kw/10000pcs)	2213kw	947.7kw	全电机每万瓶生产耗电节约57% produce every 10,000pcs bottles,full electric machine saving electricity 57%
工人 Worker	2人 2 person	1人 1person	全电机每班节约1个工人 full electric machine saving 1 labor

4L 机油罐生产方案对比 Solution Comparison (4L Oil Tank Product)

项目 Project	液压机 Hydraulic Machine	全电机 Full Electric Machine	对比 Comparison
设备投资 (元) Equipment Investment (RMB)	43万 430 thousand	120万 1.2 million	全电机比液压机投资多77.12万元 the investment volume of full electric machine is higher than hydraulic machine 77.12 thousand
年产量 (300天) pcs Output/year (300days) pcs	160万 1.60 thousand	234万 2.34 thousand	全电机每年增加74万瓶 full electric machine output/ year increase 740 thousand pcs profit
电费 (300天) kWh Electric Charge (300 days) kWh	36万 360 thousand	220万 22 thousand	全电机年节省14万度电, 年节省14万元(1元/kw) in a whole year, full electric machine saving 14kW, saving 140 thousand (¥1/kw)
人工 (两班制,每人4000元/月) Labor cost (two shift, ¥4,000/month/person)	19.2万 192 thousand	9.6万 96 thousand	全电机年节省人工19.2万元 in a whole year, saving labor cost 192 thousand



成本与效益 COST AND BENEFITS

单机对比 Machine Comparison

项目 Project	液压机 Hydraulic Machine	全电机 Full Electric Machine	对比 Comparison
模腔数 Cavity	2x2	2x3	全电机每台机多2腔 full electric machine each mold increase 1 cavity
生产周期 (s) Cycle Time (s)	30	18	全电机提速40% full electric machine speed up 40%
每24小时产量 (pcs) Output/24h (pcs)	11500	28800	全电机产量提升150% full electric machine output increase by 150%
每小时实测能耗 (kWh) Actual Energy Consumption/h (Kwh)	35	48.6	/
平均每万瓶耗能 Average Energy Consumption (kw/10000pcs)	730	404	全电机每万瓶生产耗电节约45% produce every 10,000pcs bottles,full electric machine saving electricity 45%
工人 Worker	2人 2 person	1人 1person	全电机每班节约1个工人 full electric machine saving 1 labor

1.29L 洗洁精生产方案对比 Solution Comparison (1.29L Dishwashing Liquid Bottle)

项目 Project	液压机 Hydraulic Machine	全电机 Full Electric Machine	对比 Comparison
设备投资 (元) Equipment Investment (RMB)	50万*4 500 thousand x 4	120万*2 1.2 million x 2	全电机比液压机投资多40万元 the investment volume of full electric machine is higher than hydraulic machine 400 thousand
年产量 (300天) pcs Output/year (300days) pcs	1380万 13.8 million	1728万 17.28 million	全电机每年增加348万瓶, 年增收104万元 (0.3元/瓶) full electric machine output/ year increase 3.48million pcs profit increase 1.04million (¥0.3/bottle)
电费 (300天) kWh Electric Charge (300 days) kWh	100.8万 1.008 million	69.98万 699.8 thousand	全电机年节省30.82万度电, 年节省30.82万元(1元/kw) in a whole year, full electric machine saving 308.2kW, saving ¥302.8 thousand (¥1/kw)
人工 (两班制,每人4000元/月) Labor cost (two shift, ¥4,000/month/person)	16人/天 16 person/day	4人/天 4 person/day	全电机年节省人工57.6万元 in a whole year, saving labor cost 576 thousand

精工制造·品质卓越

五大优势 为您提供更好的使用体验



研发能力 R & D capabilities



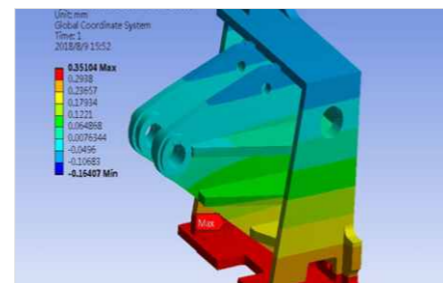
专业团队：乐善工程部有30多位机械/自动化/电器/液压/高分子专业工程师。

Professional team: Leshan Engineering Department has more than 30 mechanical / Automation / electric / hydraulic / polymerspecialty Engineer.



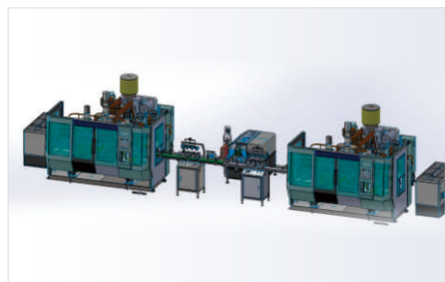
数字化设计：乐善公司使用Solidwork 软件进行所有的的设计，有效提高设计效率和精准性。

Digital design: Solidwork software was used for all design, improve design efficiency and accuracy.



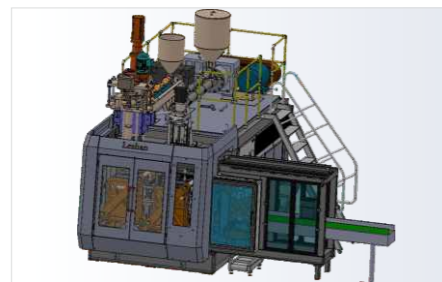
仿真测试：设计后，对安装尺寸、受力进行模拟运算和校验。

Simulation test: after design, the installation size and force are simulated and checked.



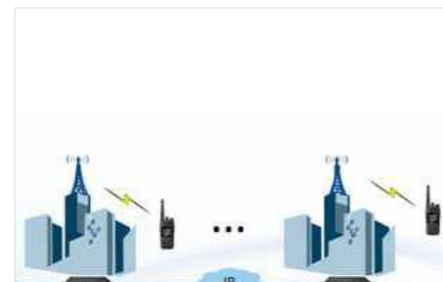
柔性生产线：把多台设备联结起来组成生产线，依靠计算机管理，整合多种生产模式，从而能够减少生产成本做到物尽其用。

Flexible production line: the combination of multiple equipment to form a production line, relying on computer management, integration of a variety of production modes, so that the production cost can be reduced to achieve the best use.



AutoCAD Mechanical：创建3D实体模型,清晰向用户展现订制品的外观。

AutoCAD Mechanical: create 3D entity model, clearly show users the appearance of ordering products.



数字通信：实现双向控制和手机通讯,老板即使休假也能掌握工厂的生产实况。

Digital communication: two-way control and mobile phone communication, The boss can grasp the production status of the factory even if he takes a vacation.



气动系统方面 Pneumatic system



优化气路布局

吹气气路与动作气路从主路分开。
optimizing the layout of the gas path

The Pneumatic system for blowing and motions are separated from the main road.

插笔增强吹排气功效

16主吹气管, 2*12排气管, 加快制品冷却, 缩短生产周期。
Blowing pin is enhance the effect of blowing and exhausting
The cooling device on machine will speed up the cooling time and shorten the production time.

机械手二次冷却定径

悬臂式机械手具备抓取制品、制品二次定径及冷却的功能。
manipulator includes functions of Post-cooling Sizing

Forward and backward revolving robot hand, with the feature of take out the bottle from mold, secondary sizing and post cooling.

超低温气体冷却系统

提供数字化控制的干燥低温气体。
Ultra low temperature gas cooling system
provides digital control dry low temperature gas.

水路系统方面 Water system



插笔和机械手均有水道冷却, 加快制品冷却速度。
仿形模具水道冷却, 散热布局更加均匀。

优化水管线路布局, 2寸主管一进一出, 分2路供左右摆架用水。

blow pin and manipulator have water cooling, accelerate the cooling rate of products. profile mold water channel, and the layout of heat dissipation is more uniform.

Optimize the layout of water pipe line, 2 inch main pipe in and out, 2 roads for the left and right swing rack water.

机械运动方面 Mechanical motion



采用伺服电机控制, 响应速度快, 运动轨迹曲线平滑, 达到快速运行的目的。

Servo motor control, fast response and smooth trajectory, achieve fast operation.

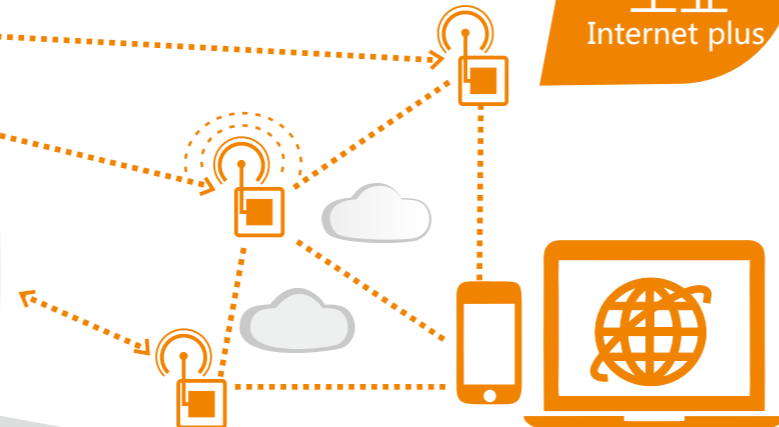
节能降耗方面 Energy saving and consumption reduction



动作搭载伺服电机驱动以及专利锁模技术的应用, 使机器动作能耗比传统液压机低50%-60%。

另外, 应用的电动壁厚控制系统也比传统液压壁厚控制耗能低10%-15%。

With servo motor and new clamping technology, the full electric EBM machine save energy consumption 50%-60% comparing to traditional hydraulic machine. And the electric parison control system can also save energy consumption 10%-15% comparing to hydraulic parison control system.



互联网+
工业
Internet plus

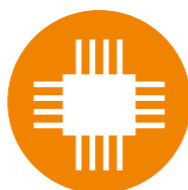


人性化
设计
User friendly
design



互联网+
Internet+

1、智能制造——西门子ProfiNet总线技术。
1.intelligent manufacturing -- SIEMENS ProfiNet bus technology.



总线技术
Busing Technique

2、整机采用现场总线技术，对等式通信网络。
2.The whole machine adopts fieldbus technology and equalities communication network.



远程维护
Remote Maintenance

3、远程维护系统
能远程在线诊断机器运行故障问题、在线修改机器运行程序。
3.Remote maintenance system
It can diagnose the machine running fault online and modify the machine running program online.



视觉检测
Visual Inspection

4、视觉检测系统
筛选出制品尺寸、制品表面和瓶口尺寸均合格的制品。
4.Visual inspection system
The products that are qualified for size, surface and bottle size are selected.



壁厚控制
Parison Control System

5、可视化瓶样厚薄控制
100点厚薄控制系统，可屏幕监测料管变化。
5.Visualized bottle sample thickness control
The 100 point thickness control system can monitor the change of parison on screen.



红外感应
Infrared Induction

6、红外感应监测系统
多重保护机械手：上水口没打掉，机械手不往下取瓶；下水口没打掉，机械手不放下瓶到输送带
6.infrared sensing monitoring system
Multiple protection manipulator: if the up deflash is not cut, the manipulator does not go down to take the bottle, if the down deflash is not cut, the manipulator does not put the bottle to the conveyor belt.



安全防护

1.安全防护
各运动部件如合模、摆架摆动等均设有防护装置。

Safety Protection

1.safety protection
All the moving parts such as clamping, carriage are equipped with protective devices.



机械手

2、悬臂式机械手可平放，可解决原运输时因货柜高度不足需拆除机械手的问题，减少在客户现场组装机械手。

Robot Hand

2.Cantilevered robot hand save the space during transportation and save the assembling time after machine arrived your factory.

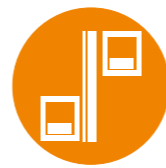


智能调节

3、数字化调节，减轻工人的维修难度。

Intelligent Adjust

3.Comfort height,easy to touch the adjusted screw on die head when stretching out the handwhen stretching out the hand.



电动升降

4、提供广阔的机身空间给制品输送带通过。

Electric Elevating Platform

4.provides wide body space for product conveyor belt.



机械

5、机架采用前后分体，模块化模式，可直接装货柜，轻松运输。

Machinery

5.Easy to loading,the machine rack can be separated from front and back during transportation.



电器


6、电柜箱采用三层折叠平推式门，减少空间浪费。

Electrical

6.Saving space,electricity distributing box install the horizontal sliding door.



机型基本信息-化工桶吹瓶机 Basic Information >>>

制品名称	Product Name	化工桶瓶 Chemical Products	
容量	Volume	30L	
净重	Net weight	1.5kg	
成型周期	Cycle time	42S	
日产量	Daily Output	2000pcs/day	

Model :S1-450+1-90 30L		
模架数量	Carriage QTY	1
模头数量	DieheadQTY	1
螺杆直径	Screw Diameter	Inner layer Φ 90 outer layer Φ 75
螺杆挤出量	Extrusion Capacity	160kg/hr 90kg/hr

最大开模距离	Max Mold Stroke	950mm
最小合模距离	Min Mold Stroke	500mm
锁模板尺寸	Clamping Plate Size	W 600mm * H 700mm
锁模力	Clamping Force	28T
装机总功率	Install Total Power	175KW


机型基本信息-奶瓶吹瓶机 Basic Information >>>

制品名称	Product Name	奶瓶 Milk Bottle	
容量	Volume	100ML	
净重	Net weight	8.5g	
成型周期	Cycle time	8.5	
日产量	Daily Output	160000	

Model :S2-200+02-85-8		
模架数量	Carriage QTY	2
模头数量	DieheadQTY	8
螺杆直径	Screw Diameter	Φ 85
螺杆挤出量	Extrusion Capacity	130kg/hr

最大开模距离	Max Mold Stroke	450mm
最小合模距离	Min Mold Stroke	250mm
锁模板尺寸	Clamping Plate Size	W 600mm * H 340mm
锁模力	Clamping Force	12.7T
装机总功率	Install Total Power	70KW


机型基本信息-机油罐吹瓶机 Basic Information >>>

制品名称	Product Name	机油罐 Oil tank Product	
容量	Volume	4L	
净重	Net weight	190g	
成型周期	Cycle time	22S	
日产量	Daily Output	7200-7800pcs/day	

Model :S1-250+02-75-55-25-2		
模架数量	Carriage QTY	1
模头数量	DieheadQTY	280 CD
螺杆直径	Screw Diameter	Inner layer Φ 55 Liquid level line Φ 25 outer layer Φ 75
螺杆挤出量	Extrusion Capacity	30kg/hr 2kg/hr

最大开模距离	Max Mold Stroke	500mm
最小合模距离	Min Mold Stroke	250mm
锁模板尺寸	Clamping Plate Size	W 690mm* H490mm
锁模力	Clamping Force	240KN
装机总功率	Install Total Power	88.6kW

机型基本信息-洗洁精吹瓶机 Basic Information >>>

制品名称	Product Name	洗洁精瓶 Detergent Bottle	
容量	Volume	1.29L	
净重	Net weight	88g	
成型周期	Cycle time	18S	
日产量	Daily Output	28800pcs/day	

Model :S2-250+02-85+65-3		
模架数量	Carriage QTY	2
模头数量	DieheadQTY	3
螺杆直径	Screw Diameter	Inner layer Φ 85 outer layer Φ 65
螺杆挤出量	Extrusion Capacity	130kg/hr 60kg/hr

最大开模距离	Max Mold Stroke	250mm
最小合模距离	Min Mold Stroke	500mm
锁模板尺寸	Clamping Plate Size	W 600mm* H 340mm
锁模力	Clamping Force	200KN
装机总功率	Install Total Power	114.7kW

选配功能 Optional Configuration

提升机器性能的选配功能

Optional Configuration for Performance Improvement

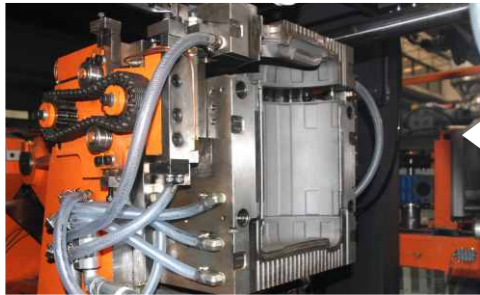


冷热共用切刀(导轨式/导柱式)

- 线性导轨结构，驱动轻盈灵活；
- 气缸驱动，横冷刀使用时，无需加温，耗能小；
- 冷刀、热刀互换只需更换刀片即可，方便快捷；

Cool/Hot Cutter(guide rail type/ guide pillar type)

- Linear guide rail structure, move fast;
- Cutter driven by cylinder, to save the energy, when using cool cutter, no need to warm up the cutter.
- Cool/hot cut only need to change the blade;



上下开合盖

适用于那种手柄、平底有内凹，且凹进较多的制品。

Open and Close Insert on Mold

Suitable for those kind of handle, flat bottom with concave, and concave more products.



机内锣口装置

用于剔除瓶口多余溢料。

spin trimmer device

To remove the excess spillage from the bottle mouth.



机械手

集合二交吹气定径功能，测漏功能。

机械手水平上下可调解范围适应不同的制品。

Electric manipulator

With secondary calibration function; leak detection function.
The robot hands can adjust the range to adapt to different products;



视觉检测

对制品的外观尺寸和外观光洁度进行检测，适用于人工成本高或招工困难的地区。

Visual Inspection

The inspection of the appearance and appearance of the products is suitable for the areas with high labor cost or difficulty in recruiting workers.



侧打针功能

适用于没有瓶口的产品，或有2个或以上的、位于不同方向的瓶口的产品。

Side Needle Function

It is suitable for products with no bottle mouth or 2 or more bottles in different directions.



吹排气插笔功能

- 加快吹瓶时瓶样内部表面的冷却速度；
- 有两种气循环的控制模式可选；
- 提高生产效率，缩短瓶样成型周期。

Blow & Exhaust Blow Pin

- Speed up the cooling;
- There are two kinds of air cycle function for alternative;
- Increase the productivity and shorten the cycle time.



二次定径冷却装置(T16288A)

- 加快吹瓶时瓶样内部表面的冷却速度；
- 提高瓶样离模温度，把瓶口定径及冷却转移到二次定径位置；
- 提高生产效率，缩短瓶样成型周期。

Secondary Sizing Device(T16288A)

- Speed up the cooling;
- Sizing and cooling the bottle neck at second time;
- Increase the productivity and shorten the cycle time.



机外锣口装置

用于剔除瓶口多余溢料。

Outside spin trimmer device

To remove the excess spillage from the bottle mouth.

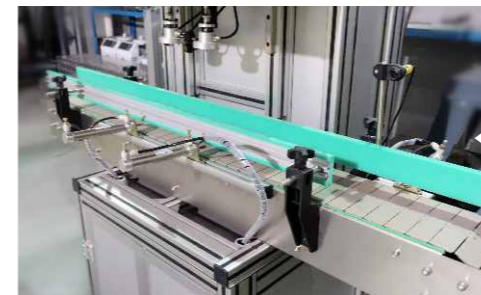


模内贴标

吹制品前把标签放入模具内，再借用制品本身的热度将标贴紧贴于制品表面。

In Mold Labeling

Before blowing the product, put the label into the mold, and then use the heat of the product itself to stick the sticker on the surface of the product.



测漏机

制品在线测漏机，可以有效的检测出瓶子是否有漏气的现象。

Leakage Detection Machine

Test whether bottle leakage on production line.



中央供料系统

中央供料最新研发的电气自动化控制系统，可连接以太网，实现互联网远程监控和访问，实时监控设备运行状态并可连接客户数据库，上传生产数据和生产报表，从而达到在办公室或控制中心对整厂进行集中控制的效果。

Central Feeding System

The latest electromatic system,it could achieve remote access or monitoring after connecting Ethernet.Offer the real-time monitoring.It could connect the your database and upload production statement.

先普全电吹瓶机系列 Full Electric EBM Machine

类别	Category	先普系列全电动 Samp Type Series Full-Electric				
机型	Model	S2-200+02-85-8	S1-450+01-90+75-1	S1-250+02-75-55-25-2		
基本参数 Specification						
项目	Items	Units	参数Specification			
类别	Category	/	8头 8 heads	直线导轨Linear Guide Way	直线导轨Linear Guide Way	
制品最大容量	Max. Blow Volume	L	0.5	30	5	
适用原料	Material	/	HDPE,PP	HDPE,PP	HDPE,PP	
模头坯料数量	No.Of Die Head	/	8	1	2	
模头中心距	Die Head Distance (Center to Center)	mm	80	/	/	
机器净重约	Net Weight	kg	13000	18000	18000	
机器外形尺寸	Machine Dimension	mm L×H×W	5000x3750x4000	5370x5390x4400	5370x5390x4400	
			模头 Die Head		模头 Die Head	
模头加热段数	Die Head Heating Zone	/	17	3	5	
模头加热功率	Die Head Heating Power	kW	8.5	13.8	13.8	
开合模系统 Clamping Unit						
模架数量	No.Of Station	/	2	1	1	
最小合模距	Min Clamping Distance Of Mold	mm	250	500	250	
最大开模距	Max Clamping Distance Of Mold	mm	450	950	500	
模板尺寸	Effective Dimension Of Mold Plate	mm W×H	600×390	600×700	690×490	
摆架行程	Carriage Stroke	mm	750	900	750	
锁模力	Clamping Force	kN	200	280	240	
挤出系统 Extruder Unit						
螺杆直径	Extruder Diameter	mm	85	90	75	
螺杆长径比	Extruder Length/Diameter Ratio	L/D	24	24	24	
螺杆转速	Extruder Rotating Speed/r/min	r/min	20-66	66	20-78	
最大塑化能力	Max Extrusion Capacity	kg/h	130	160	90	
挤出电机功率	Extruder Motor Power	kW	30	37	22	
机筒加热段数	Barrel Heating Zone	/	3	4	3	
机筒加热功率	Barrel Heating Power	kW	10.4	17	9	
动力系统 Power Unit						
插笔电机额定功率	Blow Pin Motor Rated Power	kW	3	3	4.5	
锁模电机额定功率	Mold clamping Motor Rated Power	kW	7.5	7.5	11	
摆架电机额定功率	Carriage Motor Rated Power	kW	5.5	5.5	7.5	
抬头电机额定功率	Head Lifting Motor Rated Power	kW	2.2	2.2	2.2	
平台升降电机额定功率	Platform Lifting Motor Rated Power	kW	1.5	1.5	1.5	
气动系统额定工作压力	Pneumatic System Rated Working Pressure	Mpa	0.8	0.8	0.8	
水冷系统工作压力	Cooling System Pressure	Mpa	0.4	0.4	0.4	
耗气量	Air Consumption	m³/h	22	28	28	
热切刀变压器功率	Hot Cutter Power	kW	2	2	2	
总功率	Total Power	kW	87.32	126	88.6	
备注/Remarks	以上机型均可叠加100点壁厚控制系统, 叠加后改变的参数如下/ All the machines above can be optionally equipped with 100 points parison control system, parameters would be changed as below:					
壁厚伺服电机额定功率	Parison Servo Motor Rated Power	kW	4.5	7.5	4.5	
装机总功率II	Total Installed Power II	kW	91.82	133.5	93.1	
备注/Remarks :	以上机型均可搭载后置机械手, 叠加后改变的参数如下 The above models can be equipped with robot hand. The parameters to be changed after superimposition are as follows.					
主轴电机额定功率	Spindle Motor Rated Power	kW		1.5	1.5	
Y轴电机额定功率	Y-axis Motor Rated Power	kW		0.75	0.75	
装机总功率III	Total Installed Power III	kW		135.75	95.35	
模板尺寸	Effective Dimension Of Mold Plate	(mm)				

备注: 以上规格参数、设计如有变更, 恕不另行通知。
Note: The Specifications and Design Are Subject To Change Without Previous Advice.

先普全电吹瓶机系列 Full Electric EBM Machine

类别	Category	先普系列全电动 Samp Type Series Full-Electric				
机型	Model	S2-200+02-85-8	S2-200+02-85-3	S2-250+02-85+65-3		
基本参数 Specification						
项目	Items	Units	参数Specification			
类别	Category	/	8头 8 heads	3头 3 heads	3头 3 heads	
制品最大容量	Max. Blow Volume	L	0.5	1.6	1.6	
适用原料	Material	/	HDPE,PP	HDPE,PP	HDPE,PP	
模头坯料数量	No.Of Die Head	/	8	3	3	
模头中心距	Die Head Distance (Center to Center)	mm	80	180	180-200	
机器净重约	Net Weight	kg	12000	12000	12000	
机器外形尺寸	Machine Dimension	mm L×H×W	4870X3920X3100	4870X3920X3100	4870X3920X3100	
模头 Die Head						
模头加热段数	Die Head Heating Zone	/	17	7	7	
模头加热功率	Die Head Heating Power	kW	9	10.5	11.5	
开合模系统 Clamping Unit						
模架数量	No.Of Station	/	2	2	2	
最小合模距	Min Clamping Distance Of Mold	mm	250	250	260	
最大开模距	Max Clamping Distance Of Mold	mm	450	450	515	
模板尺寸	Effective Dimension Of Mold Plate	mm W×H	600×340	600×340	692×490	
摆架行程	Carriage Stroke	mm	750	750	750	
锁模力	Clamping Force	kN	160	160	160	
挤出系统 Extruder Unit						
螺杆直径	Extruder Diameter	mm	85	85	65	
螺杆长径比	Extruder Length/Diameter Ratio	L/D	24	24	24	
螺杆转速	Extruder Rotating Speed/r/min	r/min	20-66	20-66	20-53	
最大塑化能力	Max Extrusion Capacity	kg/h	130	130	32	
挤出电机功率	Extruder Motor Power	kW	30	30	15	
机筒加热段数	Barrel Heating Zone	/	3	3	3	
机筒加热功率	Barrel Heating Power	kW	15	15	9	
动力系统 Power Unit						
插笔电机额定功率	Blow Pin Motor Rated Power	kW	3	3	3	
锁模电机额定功率	Mold clamping Motor Rated Power	kW	7.5	7.5	7.5	
摆架电机额定功率	Carriage Motor Rated Power	kW	5.5	5.5	5.5	
抬头电机额定功率	Head Lifting Motor Rated Power	kW	2.2	2.2	2.2	
平台升降电机额定功率	Platform Lifting Motor Rated Power	kW	/	1.5	1.5	
气动系统额定工作压力	Pneumatic System Rated Working Pressure	Mpa	0.8	0.8	0.8	
水冷系统工作压力	Cooling System Pressure	Mpa	0.4	0.4	0.4	
耗气量	Air Consumption	m³/h	28	28	28	
热切刀变压器功率	Hot Cutter Power	kW	2	2	2	
总功率	Total Power	kW	60.2	118.2	118.2	
备注/Remarks	以上机型均可叠加100点壁厚控制系统, 叠加后改变的参数如下/ All the machines above can be optionally equipped with 100 points parison control system, parameters would be changed as below:					
壁厚伺服电机额定功率	Parison Servo Motor Rated Power	kW	4.5	4.5	4.5	
装机总功率II	Total Installed Power II	kW	64.7	122.7	122.7	
备注/Remarks :	以上机型均可搭载后置机械手, 叠加后改变的参数如下 The above models can be equipped with robot hand. The parameters to be changed after superimposition are as follows.					
主轴电机额定功率	Spindle Motor Rated Power	kW		1.5	1.5	
Y轴电机额定功率	Y-axis Motor Rated Power	kW		0.4	0.4	
装机总功率III	Total Installed Power III	kW		124.6	124.6	
模板尺寸	Effective Dimension Of Mold Plate	(mm)				

先普全电吹瓶机系列 Full Electric EBM Machine

模块Unit	功能配置Configuration and Function	标准配置 Standard configuration	备选配置 Optional configuration
挤出机及 模头部分 Extruder and Die Head Parts	硬齿面齿轮减速箱Hardened gear reducer	●	
	皮带传动机构Belt drive mechanism	●	
	乐善节能挤出电机 (30kW以下, 含30kW) Leshan energy-saving extrusion motor (30kW or less, including 30kW)	●	
	皮带罩Belt cover	●	
	不锈钢料斗 (带放料口) Stainless steel hopper (with discharge port)	●	
	自动缺料报警Automatic empty hopper alarm	●	
	网带式发热圈及发热板Cable heating ring and heating plate	●	
	机筒冷却风机Barrel cooling fan	●	
	镶合金螺杆Inlaid alloy screw	●	
	连续挤出式模头Continuous extrusion die head	●	
	电机直连式减速箱机构Motor direct connection reducer mechanism		○
	磁力架Magnetic frame		○
	配合真空上料机、四合一上料系统、螺旋式上料机所用料斗Equipped with hopper for material feeder, Four-in-one feeding system, spiral feeder, etc.		○
	模头防烫保护罩Anti-hot protective cover for die head		○
	手动换网机构 (机架总成需变更) Manual fitter net changing mechanism(Frame assembly need to be changed)		○
	电动换网机构 (机架总成需变更) Electric screen changing mechanism(Frame assembly need to be changed)		○
	锥套式皮带传动机构Cone belt drive mechanism		○
	三相异步电机Three phrase asynchronous motor		○
	瓷接头式发热圈或发热板Porcelain connector heating ring and heating plate		○
陶瓷式发热圈及发热板Porcelain heating ring and heating plate		○	
锁模机构 部分 Clamping Mechanism Parts	偏心齿轮锁模机构Eccentric gear locking mechanism	●	
	标准机型锁模力 (参考画册参数) Standard model clamping force (Refer to album parameters)	●	
	标准机型容模尺寸 (参考画册参数) Standard model allowed mold size(Refer to album parameters)	●	
	摆架运动采用伺服电机驱动, 齿轮齿条传动Swing movement using servo motor drive, rack and pinion drive	●	
	开合模运动采用伺服电机驱动Opening and closing movements using servo motor drive	●	
	运动导向采用线性导轨Motion guide using linear guides	●	
	同步齿轮机构Synchronous gear mechanism	●	
模具装卸机构 (电葫芦) Mold Loading crane mechanism(electric hoist)		○	
机架部分 Frame Parts	前后分体式机架Before and after split rack	●	
	嵌管式导向升降机构Embedded pipe guide lifting mechanism	●	
	电动升降Electric lifting	●	
	升降用蜗轮蜗杆减速机Lifting Worm Gear Reducer	●	
	电动抬头机构Electric lifting head mechanism	●	
	预留机械手安装位置Reserved the position for robot hand	●	
	模头支撑架Die head supporting frame	●	
	楼梯Stairs		○
平台护栏Platform guard railing		○	
避震脚Foot shock		○	
安全门 部分 Safety Door Parts	御风型安全门外观 (参考画册) Royal style safety door appearance (reference album)	●	
	标准配色 (参考画册) Standard color(Refer to album)	●	
	浅蓝色半透明亚克力观察窗Light blue translucent acrylic viewing window	●	
	主电箱Main carbinet	●	
	悬挂式后侧门Hanging rear door	●	
	前安全门防护网Front safety door protection net	●	
	伺服控制器电箱Servo controller box	●	
	与标准配色不同的配色要求Different color matching requirements with standard color matching		○

先普全电吹瓶机系列 Full Electric EBM Machine

模块Unit	功能配置Configuration and Function	标准配置 Standard configuration	备选配置 Optional configuration
插笔架 部分 Blow Pin Parts	插笔上下运动采用伺服电机驱动, 滚珠丝杆传动Insertion pen up and down movement servo motor drive, ball screw drive	●	
	上下运动导向采用线性导轨Up and down motion guide using linear guide rail	●	
	手动手轮左右调节插笔架, 导向柱Manual hand wheel to adjust the blow pin from left to right, guide of pillar	●	
	手动前后调节丝杆调节插笔架Manual hand wheel to adjust the blow pin from front to back	●	
	前调式插笔杆Pre-modulation blow pin	●	
	多插笔配分气分水块Multi blow pin with air and water distributor	●	
	可拆卸式剪口环Removable cutting ring	●	
	气循环插笔Air circulation blow pin		○
	旋转式斜插笔架Rotary oblique blow pin		○
上提式插笔架Uplift blow pin		○	
切刀部分 Knife Parts	通用冷热共用切刀 (横向) Universal hot and cold sharing knife (horizontal)	●	
	1-2千瓦热切刀变压器1-2 KW hot knife transformer	●	
	通用热切刀 (前后) Universal hot knife (front and rear)		○
	封口切刀Seal knife		○
	多模头特殊用冷切刀Multi-die head special cold knife		○
	冷切刀片Cold cutting blade		○
	进口热切刀片Imported hot cutting blade		○
电气控制 部分 Electrical Control Parts	SIEMENS S7-200控制系统SIEMENS S7-200 Control system	●	
	SIEMENS TP1200 12"彩色触摸屏SIEMENS Tp1200 12" Color Touch Screen	●	
	SIEMENS 交流接触器SIEMENS AC Contactor	●	
	安川变频器YASKAWA Inverter	●	
	CO-TRUST控温模块CO-TRUST Temperature Control Module	●	
	转速、位移、压力、流量、温度、时间参数设定、编辑、存取; Speed, displacement, pressure, flow, temperature and time parameters can be set, edited, accessed	●	
	100套模具工艺参数储存功能Receipt Data Storage of 100 Sets of Mould	●	
	故障报警、记录、自诊断功能; Malfunction Alarm, Malfunction Record, Malfunction Self-diagnose	●	
	输入、输出、动作状态、动作时间监控功能; Monitoring of Input, Output, Action State and Action Time	●	
	自动计算产量、自动复位功能; Output Auto-counting, Auto-reset	●	
	左右摆架自动平衡系统; Station auto-balanced system	●	
	一键恢复功能; Auto-reset	●	
	挤出机温度超高、超低保护; Protecting Extruder from Low Temperature and High Temperature	●	
	模具温度报警功能; Mould Temperature Alarm	●	
	油温超高报警功能; Oil High Temperature Alarm	●	
	中英文操作界面, 多语种HMI Chinese and English operation screen, multilingual HMI	●	
	电抗组件Reactance assembly	●	
	伺服电机及控制器均采用台达品牌Servo motor and controller adopt SINTD brand	●	
	电脑控温Computer temperature control	●	
	远程维护系统Remote Maintenance System	●	
	模内贴标功能In-mold labeling program		○
	侧打针功能Side inject blowing system		○
	模具抽芯功能Mold pin moving system		○
模头防静电装置Die head static remover		○	
模咀用温控表控制Head nozzle controlled with temperature-controlled meter		○	
电动100点壁厚控制系统Electric 100-point wall thickness control system		○	
模具电动开合盖功能Mold electric opening and closing cover function		○	
其他语言操作界面Other language operation interface		○	
总线技术Bus technology		○	
伺服电机及控制器采用西门子品牌Servo motor and controller adopt Siemens brand		○	

