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整线解决方案，一站式交钥匙服务

Whole line solution, One stop turnkey servic.

CE

IBM
MACHINERY

注吹机专业制造商

PROFESSIONAL MANUFACTURER
OF INJECTION BLOW MLODNG MACHINE

ZI-QIANG Machinery 自强机械

张家港市自强机械有限公司

ZHANGJIAGANG ZIQIANG MACHINERY CO, LTD.

张家港市塘桥镇人民西路何桥第二社区服务站对面

The opposite ofHegiao second community service station.Renmin west road ,Tangqiao town,Zhangjiagang city.

lujianzhong@ziqiangmachine.com

+86-512-58358081 +86-512-58358082 www.ziqiangmachinery.com www.ziqiangmachine.com

wechat

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ZI-QIANG Machinery 自强机械

全自动一步法 **注 - 吹** 中空成型机生产厂商

高精度 **注 - 吹** 模具及配套辅机生产厂商

Automatic one-step **Injection Blow Molding** Machine Manufacturder.

High Precision **Injection Blowing Mold** and Auxiliary Machine Manufacturer

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COMPANY PROFILE

企业简介

张家港市自强机械有限公司主要从事研发，生产销售和贸易于一体的全自动一步法“注 - 吹”中空成型机和配套“注 - 吹”模具生产厂商。公司位于全国卫生文明城市 - 张家港市，地理位置优越，交通便捷。

张家港市自强机械有限公司有着卓越的研发团队，公司汇集行业多名从事“注 - 吹”机械，“注 - 吹”模具的工程技术人员。有着丰富的理论和实践经验，能为客户提供详尽周到的“售前”“售中”“售后”服务。

公司产品应用领域涵盖医药包装，食品包装，保健品包装，化妆品包装，等塑料包装。可生产 HDPE,LDPE,PP,PS(乳酸菌), 高透明 PS,ABS, 环保玉米料 ,EVA,PCTG 等 1ml-1000ml 的塑料制品。

张家港市自强机械有限公司秉承“自强，诚信，务实，创新，责任”的企业发展宗旨，打造一站式“交钥匙”工程，生产用户满意，品质一流的高端“注 - 吹”产品。

Zhangjiagang Ziqiang Machinery Co., Ltd. is mainly engaged in the research and development, production, sales and trade of automatic one-step "injection-blowing" blow molding machine and supporting "injection-blowing" mold manufacturer. The company is located in Zhangjiagang City, a national health and civilized city. It enjoys an advantageous geographical location and convenient transportation.

Zhangjiagang Ziqiang Machinery Co., Ltd. has an excellent R&D team. The company brings together many engineering and technical eersonne engaged in "injection-blowing" machinery and "injection-blowing" molds. With rich theoretical and practical experience, we can provide customers with detailed and thoughtful "pre-sale", "sale" and "after-sale" services.

The company's product applications cover pharmaceutical packaging, food packaging, health care packaging, cosmetic packaging, and other plastic packaging. It can produce 1ml-1000ml plastic products such as HDPE, LDPE, PP, PS (lactic acid bacteria), high transparent PS, ABS, environmental corn material, EVA, PCTG and so on.

Zhangjiagang Ziqiang Machinery Co., Ltd. adheres to the enterprise development tenet of “self-reliance，integrity, pragmatism, innovation and responsibility”，and builds a one-stop “turnkey” project to produce high-end "injection-blowing" products with satisfactory user quality and first-class quality.



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OPEAR TING PRINCIPLE
工作原理

1 注塑工位 Preform injection

塑性熔体在适当注射压力下射入型坯。并且瓶子颈部被精确成型。经过适当的控制后，模具打开，芯棒连同型坯转到注塑工位。

The botle neck wil be molded accurately after injecting the material into the cavity, After proper controlthe mold open andThe mandrel and shape blank are transferred to the injection molding station

2 吹塑工位 Blow molding

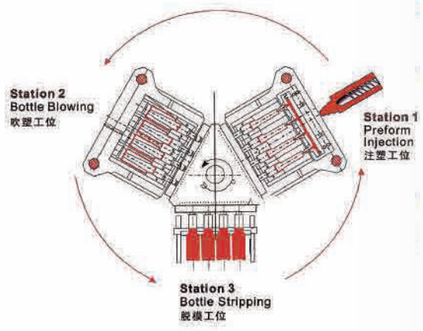
吹塑在该型腔，经冷却成型工位完成。（模具型腔决定瓶子的形状和外观。）型坯被从芯棒出来的空气吹胀，紧贴模具，然后，模具打开，芯棒连同瓶子转到脱模工位。

Blowing action was done at this part, molding would be complete after coolng. (bottle shape decides the number of cavity).The air came out from the mandrils huffs the cavity,making the cavity cling to the mold.Then the mold open and turn the mandrel and bottle to the release station

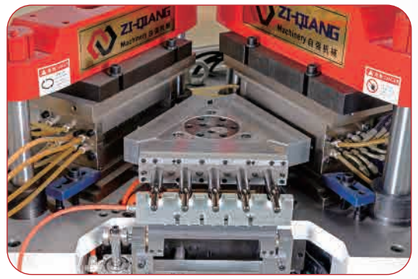
3 脱模工位 Stripper

在这一工位完成脱模，然后就通过流水线进行包装或者灌装了。注射、吹塑、脱模三动作同时进行，高效节能。

The botles automatically wil be ejected from the cold rods at this position and then to be packed.The three actions of injection. Blowing and Enjection work at the same time.which makes the machine of high efficiency and low waste.with botles.



1. 备料 / 注料装置 Stock Preparation/injection Device
2. 热流道 Hot Runner
3. 芯棒 Core Rod
4. 瓶坯 Bottle Preform
5. 注塑模腔 Injection Mold
6. 注塑工位 Injection Station
7. 吹塑工位 Blow Station
8. 吹塑模腔 Blow Mold
9. 脱模工位 Stripping Station



THE COMPARISON OFINJECTION BLOWING AND EXTRUSION BLOWING
注吹与挤吹的比较

序号 NO.	注吹 Injection Blowing	挤吹 Extrusion Blowing
1	瓶子重量变化约 1% The weight of the bottle changes by about 1%	瓶子重量变化约 3% The weight of the bottle changes by about 3%
2	壁厚均匀 Uniform wall thickness	壁厚变化 10-20% The wall thickness varies by 10-20%
3	无截坯口 No blank opening	有截坯口，并削弱瓶底强度 It has a cut-off mouth and reduces the strength of the bottle bottom
4	瓶底上凸性很好 The bottom of the bottle is very convex	因有截坯口瓶底上凸性差 Bad convexity at the bottom of the bottle
5	生产过程不产生废料 The production process does not produce waste	20-40% 的边角料 20-40% scraps
6	不能成型壁厚很薄的产品 Products with very thin wall thickness cannot be formed	利用控制器可调节壁厚 The wall thickness can be adjusted using the controller
7	生产时对环境的变化不敏感 Production is not sensitive to changes in the environment	需要更多的调整以维持正常 More adjustments are needed to maintain normality
8	腔数多、产量高、瓶口平 Large number of cavities, high yield, flat mouth	腔数较少、产量低、瓶口不平整 less cavities, low output, uneven bottle neck
9	模具寿命较长，适合长期生产价格高 Mold life is long, suitable for long-term production price	模具寿命短，适合短期生产价格低 Mold life is short, suitable for short-term production price is low
10	系统紧凑，占地少 Compact system, small footprint	辅机多，占地多 More auxiliaries, more land
11	较难成型椭圆形产品 More difficult to shape oval products	较易成型 Easier to form

APPLICATION FIELD
应用领域



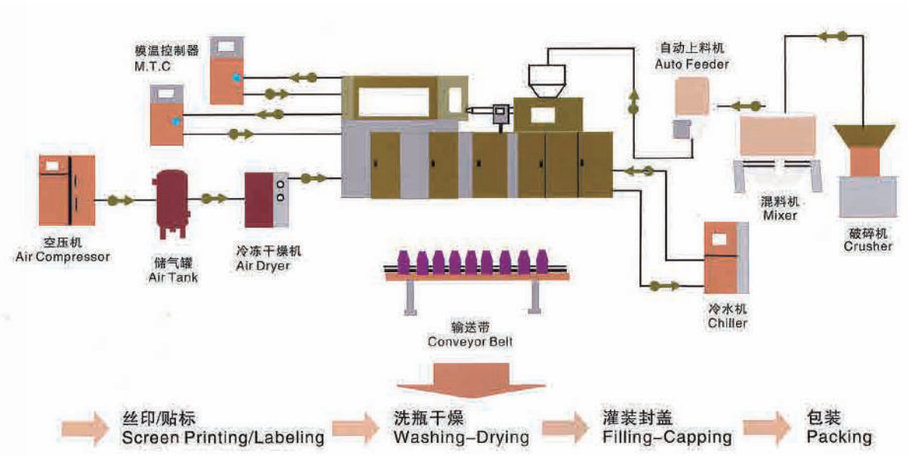
化妆品工业 Cosmetic industry

化学工业 Chemical industry

制药工业 Pharmacy industry

食品工业 Food industry

PRODUCTION LINE COMPONENTS
生产线组成



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ZQ40 注 - 吹中空成型机 (欧式)

Injection-Blow Molding Machine (European)



- 全系欧式结构，锁模力比同行业产品大 20%-30%。
- 标配伺服回转，结构简单，操作方便。
- 独特增压锁模结构，增压缸不参与开合模动作，能耗比同行业产品低 10%-20%

- •Full European-style structure, the clamping force is 20%-30% larger than the products in the same industry.
- •Standard servo rotation, simple structure and convenient operation
- •Unique pressurized clamping structure, the booster cylinder does not participate in the opening and closing mode, and the energy consumption is 10%-20% lower than that of the same industry

ZQ40 制品容积对应的每模型腔数 (仅供参考)

Mold cavitation(For reference)

制品容量 ApproxVolume	10ml	30ml	60ml	100ml	250ml	500ml	1000ml
腔 数 Max.cavitation	9	8	6	4	3	2	1

主要技术参数

Main Technical Paramters

名 称	ITEM	单位	ZQ40
注射系统	Injection System		
螺杆直径	Screw Diameter	mm	40/45
长径比	Screw L/D	%	22:1
注射量	Injection weight!	g	190/260
加热功率	Heating power	KW	7.5
加热段数	Number of barrel zone		3+N
注射行程	Injection stroke	mm	120
合模系统	Clamping System		
注塑模锁模力	Clamping force of injection	KN	400
注塑开模行程	Opening stroke for injection	mm	165
吹塑模锁模力	C lamping force of blowing	KN	60
吹塑开模行程	Opening stroke for blowing	mm	140
塔台提升高度	Lifing height of rotary ta ble	mm	70
模具	Mould		
模具最大平面	Max.Platen size(LxW)	mm	480x340
模具厚度	Mold thickness	mm	180
制品最大直径	Dia.of bottle	mm	120
制品最大高度	Botle height	mm	220
制品最大容积	Suitable bottle height	mm	1-1500
脱模行程	Stripping stroke	mm	220
液压系统	Hydraulic system		
系统压力	Hydraulic Pressure	Map	14
主电机功率	Motor power	KW	11
空循环时间	Dry cycle	S	3.5
总功率	Total Power	KW	20
运转功率	Operating power	%	52-70
其他参数	Others		
压缩空气压力	Min.Air pressure ofcompressed air	MPa	0.7- 1.2
压缩空气排量	compressed air capacity	M^3/min	0.7
冷却水用量	Water flowage	M^3/h	3.5
冷却水压力	Cooling water pressure	MPa	0.3-0.4
外形尺寸	Dimension(Lx W x H)	M	3.5x1.3x1.7
设备重量	Net weight	Ton	3.8

注 : 以上参数仅供参考，由于设备改进，本公司有权修改。

Note: the above parameters are for reference only.Due to the improvement of the equipment, the company has the right to modify them

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ZQ60 注 - 吹中空成型机 (欧式)

Injection-Blow Molding Machine (European)



- 全系欧式结构，锁模力比同行业产品大 20%-30%。
- 标配伺服回转 , 结构简单 , 操作方便。
- 独特增压锁模结构 , 增压缸不参与开合模动作 , 能耗比同行业产品低 10%-20%

- •Full European-style structure, the clamping force is 20%-30% larger than the products in the same industry.
- •Standard servo rotation, simple structure and convenient operation
- •Unique pressurized clamping structure, the booster cylinder does not participate in the opening and closing mode, and the energy consumption is 10%-20% lower than that of the same industry

ZQ60 制品容积对应的每模型腔数 (仅供参考)

Mold cavitation(For reference)

制品容量 ApproxVolume	10ml	30ml	60ml	100ml	250ml	500ml	1000ml
腔 数 Max.cavitation	14	12	10	8	5	3	2

主要技术参数

Main Technical Paramters

名 称	ITEM	单位	ZQ60
注射系统	Injection System		
螺杆直径	Screw Diameter	mm	45/50
长径比	Screw L/D	%	22:1
注射量	Injection weight!	g	260/383
加热功率	Heating power	KW	14
加热段数	Number of barrel zone		3+N
注射行程	Injection stroke	mm	160
合模系统	Clamping System		
注塑模锁模力	Clamping force of injection	KN	600
注塑开模行程	Opening stroke for injection	mm	140
吹塑模锁模力	C lamping force of blowing	KN	100
吹塑开模行程	Opening stroke for blowing	mm	140
塔台提升高度	Lifing height of rotary ta ble	mm	70
模具	Mould		
模具最大平面	Max.Platen size(LxW)	mm	600x390
模具厚度	Mold thickness	mm	240
制品最大直径	Dia.of bottle	mm	120
制品最大高度	Botle height	mm	220
制品最大容积	Suitable bottle height	mm	1-2000
脱模行程	Stripping stroke	mm	230
液压系统	Hydraulic system		
系统压力	Hydraulic Pressure	Map	14
主电机功率	Motor power	KW	18.5/22
空循环时间	Dry cycle	S	4
总功率	Total Power	KW	37
运转功率	Operating power	%	52-70
其他参数	Others		
压缩空气压力	Min.Air pressure ofcompressed air	MPa	0.7- 1.2
压缩空气排量	compressed air capacity	M^3/min	0.7
冷却水用量	Water flowage	M^3/h	4
冷却水压力	Cooling water pressure	MPa	0.3-0.4
外形尺寸	Dimension(Lx W x H)	M	3.8x1.4x.18
设备重量	Net weight	Ton	5

注 : 以上参数仅供参考，由于设备改进，本公司有权修改。

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ZQ80 | 注 - 吹中空成型机 (欧式)
Injection-Blow Molding Machine (European)



- 全系欧式结构，锁模力比同行业产品大 20%-30%。
- 标配高精度角度分割器，可实现开合模与转塔升降同步。
- 独特增压锁模结构，增压缸不参与开合模动作，标配液压双系统，能耗比同行业产品低 20%-30%。

- •Full European-style structure, the clamping force is 20%-30% larger than the products in the same industry.
- •Standard high-precision angle divider can realize the synchronization of opening and closing mode and turret lifting.
- • Unique pressurized clamping structure, the booster cylinder does not participate in the opening and closing mode action, and the hydraulic double system is standard. The energy consumption is 20%:30% lower than that of the same industry.

ZQ80 制品容积对应的每模型腔数 (仅供参考)
Mold cavitation(For reference)

制品容量 ApproxVolume	10ml	30ml	60ml	100ml	250ml	500ml	1000ml
腔 数 Max.cavitation	20	18	14	12	8	5-6	3-4

主要技术参数
Main Technical Paramters

名 称	ITEM	单位	ZQ80
注射系统	Injection System		
螺杆直径	Screw Diameter	mm	55
长径比	Screw L/D	%	22:1
注射量	Injection weight!	g	466
加热功率	Heating power	KW	11
加热段数	Number of barrel zone		4+N
注射行程	Injection stroke	mm	180
合模系统	Clamping System		
注塑模锁模力	Clamping force of injection	KN	800
注塑开模行程	Opening stroke for injection	mm	140
吹塑模锁模力	C lamping force of blowing	KN	120
吹塑开模行程	Opening stroke for blowing	mm	140
塔台提升高度	Lifing height of rotary ta ble	mm	70
模具	Mould		
模具最大平面	Max.Platen size(LxW)	mm	800x400
模具厚度	Mold thickness	mm	280
制品最大直径	Dia.of bottle	mm	120
制品最大高度	Botle height	mm	220
制品最大容积	Suitable bottle height	mm	1-2000
脱模行程	Stripping stroke	mm	230
液压系统	Hydraulic system		
系统压力	Hydraulic Pressure	Map	14
主电机功率	Motor power	KW	18.5+18.5
空循环时间	Dry cycle	S	4
总功率	Total Power	KW	55
运转功率	Operating power	%	52-70
其他参数	Others		
压缩空气压力	Min.Air pressure ofcompressed air	MPa	0.8- 1.2
压缩空气排量	compressed air capacity	M^3/min	0.8
冷却水用量	Water flowage	M^3/h	4
冷却水压力	Cooling water pressure	MPa	0.3-0.4
外形尺寸	Dimension(Lx W x H)	M	4.5x1.6x2
设备重量	Net weight	Ton	10

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ZQ110 注 - 吹中空成型机 (欧式)
Injection-Blow Molding Machine (European)



- 全系欧式结构，锁模力比同行业产品大 20%-30%。
- 标配高精度角度分割器，可实现开合模与转塔升降同步。
- 独特增压锁模结构，增压缸不参与开合模动作，标配液压双系统，能耗比同行业产品低 20%-30%。

- •Full European-style structure, the clamping force is 20%-30% larger than the products in the same industry.
- •Standard high-precision angle divider can realize the synchronization of opening and closing mode and turret lifting.
- •Unique pressurized clamping structure, the booster cylinder does not participate in the opening and closing mode action, and the hydraulic double system is standard. The energy consumption is 20%:30% lower than that of the same industry.

ZQ110 制品容积对应的每模型腔数 (仅供参考)
Mold cavitation(For reference)

制品容量 ApproxVolume	10ml	30ml	60ml	100ml	250ml	500ml	1000ml
腔 数 Max.cavitation	24	22	18	14	10	8	6

主要技术参数
Main Technical Paramters

名 称	ITEM	单位	ZQ110
注射系统	Injection System		
螺杆直径	Screw Diameter	mm	65
长径比	Screw L/D	%	22:1
注射量	Injection weight!	g	540
加热功率	Heating power	KW	20
加热段数	Number of barrel zone		5+N
注射行程	Injection stroke	mm	200
合模系统	Clamping System		
注塑模锁模力	Clamping force of injection	KN	1100
注塑开模行程	Opening stroke for injection	mm	140
吹塑模锁模力	C lamping force of blowing	KN	150
吹塑开模行程	Opening stroke for blowing	mm	140
塔台提升高度	Lifing height of rotary ta ble	mm	70
模具	Mould		
模具最大平面	Max.Platen size(LxW)	mm	1100x460
模具厚度	Mold thickness	mm	280
制品最大直径	Dia.of bottle	mm	120
制品最大高度	Botle height	mm	220
制品最大容积	Suitable bottle height	mm	1-2000
脱模行程	Stripping stroke	mm	260
液压系统	Hydraulic system		
系统压力	Hydraulic Pressure	Map	14
主电机功率	Motor power	KW	22+22
空循环时间	Dry cycle	S	4
总功率	Total Power	KW	80
运转功率	Operating power	%	52-70
其他参数	Others		
压缩空气压力	Min.Air pressure ofcompressed air	MPa	0.7- 1.2
压缩空气排量	compressed air capacity	M^3/min	0.7
冷却水用量	Water flowage	M^3/h	4
冷却水压力	Cooling water pressure	MPa	0.3-0.4
外形尺寸	Dimension(Lx W x H)	M	5x1.8x2.2
设备重量	Net weight	Ton	15

注 : 以上参数仅供参考，由于设备改进，本公司有权修改。
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ZQ135 注 - 吹中空成型机 (欧式)
Injection-Blow Molding Machine (European)



- 全系欧式结构，锁模力比同行业产品大 20%-30%。
- 标配高精度角度分割器，可实现开合模与转塔升降同步。
- 独特增压锁模结构，增压缸不参与开合模动作，标配液压双系统，能耗比同行业产品低 20%-30%。

- •Full European-style structure, the clamping force is 20%-30% larger than the products in the same industry.
- •Standard high-precision angle divider can realize the synchronization of opening and closing mode and turret lifting.
- •Unique pressurized clamping structure, the booster cylinder does not participate in the opening and closing mode action, and the hydraulic double system is standard. The energy consumption is 20%:30% lower than that of the same industry.

ZQ135 制品容积对应的每模型腔数 (仅供参考)
Mold cavitation(For reference)

制品容量 ApproxVolume	10ml	30ml	60ml	100ml	250ml	500ml	1000ml
腔 数 Max.cavitation	30	26	22	18	14	10	8

主要技术参数
Main Technical Paramters

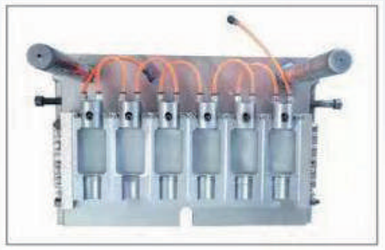
名 称	ITEM	单位	ZQ135
注射系统	Injection System		
螺杆直径	Screw Diameter	mm	70
长径比	Screw L/D	%	22:1
注射量	Injection weight!	g	650
加热功率	Heating power	KW	30
加热段数	Number of barrel zone		6+N
注射行程	Injection stroke	mm	200
合模系统	Clamping System		
注塑模锁模力	Clamping force of injection	KN	1350
注塑开模行程	Opening stroke for injection	mm	140
吹塑模锁模力	C lamping force of blowing	KN	200
吹塑开模行程	Opening stroke for blowing	mm	140
塔台提升高度	Lifing height of rotary ta ble	mm	70
模具	Mould		
模具最大平面	Max.Platen size(LxW)	mm	1300x500
模具厚度	Mold thickness	mm	280
制品最大直径	Dia.of bottle	mm	120
制品最大高度	Botle height	mm	220
制品最大容积	Suitable bottle height	mm	1-2000
脱模行程	Stripping stroke	mm	280
液压系统	Hydraulic system		
系统压力	Hydraulic Pressure	Map	14
主电机功率	Motor power	KW	37+37
空循环时间	Dry cycle	S	4
总功率	Total Power	KW	95
运转功率	Operating power	%	52-70
其他参数	Others		
压缩空气压力	Min.Air pressure ofcompressed air	MPa	0.7- 1.2
压缩空气排量	compressed air capacity	M^3/min	0.7
冷却水用量	Water flowage	M^3/h	4
冷却水压力	Cooling water pressure	MPa	0.3- 0.4
外形尺寸	Dimension(Lx W x H)	M	5.5x2x2.4
设备重量	Net weight	Ton	18

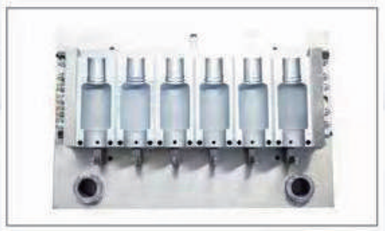
注 : 以上参数仅供参考，由于设备改进，本公司有权修改。
Note: the above parameters are for reference only.Due to the improvement of the equipment, the company has the right to modify them

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ZQ SERIES AUTOMATICLBM MOULD CHARACTERISTICS

ZQ 系列注吹机模具特点









■ 注塑模、吹塑模型腔、颈块活动设计，油路、水路特殊设计保证管坯瓶身尺寸稳定。且方便更换。

■ 注塑模体、吹塑模体材质采用 4Cr13 不锈钢或者进口高强度 S136 台金钢，延长使用寿命。吹塑模体还可用镁铝材质，冷却效果好。

■ 最优化的热流道系统、瓶胚设计，保证克重偏差和壁厚偏差最小化。

■ 特殊结构芯棒，成型周期快，芯棒冷却效果好。

■ 瓶口和丝牙尺寸精确，和瓶盖 100% 密封。

■ 瓶口和瓶底无毛边废料，无废料。

■ 制品尺寸、重量、合模线、瓶身厚度一致性好。

■ The activity designed cavity and neck of injection mold and special designed oil way which can be changed conveniently to ensure the tube billet size, the stable temperature.

■ Injection mold material adopt imported $136 steel alloy or 4Cr13 stainless steel. The high strength steel increase the service life.

■ The optimized hot runner system and bottle embryo to ensure the gram weight deviation and wall thickness deviation minimization. The special structure of mandrel will keep the fast molding cycle and good core cooling effect.

■ The mouth and thread are accurate in size and 100% sealed.

■ There are no burrs and non-waste on the mouth and bottom of the bottle.

■ The product size, weight, mold line and bottle thickness are consistent.





AUXILIARY EQUIPMENT

辅助设备



■ 打包机 Packing Machine



■ 瓶子视觉检测机 Bottle visual inspection machine



■ 模温机 Mold Temperature Controller



■ 冷水机(选配) Chiller(Optional)



■ 螺杆式空压机 Screw air compressor



■ 空压机 Air Compressor



■ 自动上料机 (选配)
Auto Loader(Optional)

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化妆品瓶 Cosmetic Bottles



医药瓶系列 Pharmaceutical Bottles



眼药水瓶系列 Eyedroppers



日化用品系列 Daily Chemical Bottles



广口瓶系列 Wide Mout Jar



奶瓶系列 Feeding Bottle



500-1000ml 瓶 500-1000ml bottle



PP 瓶 PP bottle

ZI-QIANG Machinery 自强机械

SERVICE
售后服务

安装调试服务

设备的安装调试至合格验收由经验丰富的资深工程师负责，直至设备能正常进入生产状态。

Our experienced senior engineers will beresponsible not only for equipment installation, but also successful and stable production status and overall traning.

预防性维护

我们对卖出的产品有定期的回访，提醒客户做预防性的检修和维护，避免机器磨损，节省维修费用或更换零件费用。

To aviod machine wear out and save mainte nance cost, we have regular reminder serviceto advise preventive maintenance of machine and molds.

维修服务热线

只要您的设备出现紧急状况，立即联络我们的售后服务热线，我们的服务热线全天候接听您的电话，24x7。

Our service hotline is available all day,2417.As long as your equipment has anemergency, pls contact us..

充足的零配件供应

我们随时准备了充足的设备零部件作为库存，能缩短客户机器停工期。减少延误交货期造成的损失。

Adequate inventory of equipment parts shortenthe downtime of customer equipment andreduce the loss caused by delayed in delivery-of the goods.

专业的技术培训

除正常的安装现场技术培训外，我们可为用户提供一对一的机器操作，模具工艺，维修保养等专题培训。

In addition to normal installation technicaltraining, we provide personal training to helpusers understand machine operation,mouldprocess,-maintenance,etc..