

# WHOLE MANUFACTURING PLANT SYSTEM PROJECTS

## --Syringe and syringe needle Production Line

TO: 北京刘晋伟 Russia

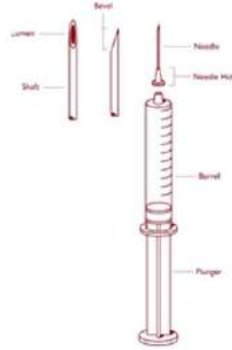
Shanghai Poyton Industry Co.,Ltd is one key of Shanghai GS machinery Group(GS Group has long history to manufacture injection system for 20 years),Which is a high technical enterprise specializing in designing and manufacturing high precision equipment. Poyton had aim to develop Vacuum Blood Collection tube production machine lines, Medical Syringe production lines, IV sets or infusion sets production lines etc. Medical machine including High speed, high precision, and high level Auto system of Production equipment since it established before 10 years. Poyton Rely on GS Group resources as well as Cooperation and development by Japan, Spain etc. professional scientific research personnel, and had completed with Pet tube ,Syringe high Injection system and Fully auto assembly machine ,especially Poyton is currently the only Comprehensive service and manufacturer of Whole production machine Lines for PET vacuum blood collection tube in China.

Also we can provide Turnkey solution including training, design, layout, technology transfer, installation etc. Fully service.

## 8) ISO 9001 and CE



PART 1 COMMERCIAL PROPOSAL



产量与型号需求 Syringe Size Capacity needed

工作时间设定: 16 小时 / 天,

Working hours: 16 hours/day and it should add working hour according to marketing.

Syringe: Luer slip --1ml, 3ml, 5ml, 10ml, 20ml --150,000,000PCS/year

1ml-12%, 3ml\_30%, 5ml-35%, 10ml-15%, 20ml-8%

Syringe needle : 21G/22G/23G- 150,000,000million/year

Рабочее время: 16 часов в день, и он должен добавить рабочий час в соответствии с маркетингом.

Шприц: Luer slip - 1 мл, 3 мл, 5 мл, 10 мл, 20 мл - 150 000 000 шт / год

1 мл-12%, 3 мл\_30%, 5 мл-35%, 10 мл-15%, 20 мл-8%

Шприцевая игла: 21G / 22G / 23G- 150 000 000 миллионов фунтов / год

#### 4) 设备价格 Equipment price

No.	Name	Type	No.	Unit price ( USD )	Total price ( USD )	Remark
1	Injection molding machine 注塑机 машина для литья под давлением	PY-260T	4sets			
2	Injection molding machine 注塑机	PY-200T	4sets			
3	Injection molding machine 注塑机	PY-160	3sets			
	Barrel Mold -1cc-luer slip 3part cold runner Пресс-форма 1cc-luer	1x32	1set			

Plunger Mold 1cc--3parts cold runner Плу жерная пресс-форма 1cc - 3-ходовой хол одный питатель	1x48	1set			
Barrel Mold –3cc-luer slip 3part cold runner	1x56	1set			
Plunger Mold 3cc--3parts cold runner	1x56	1set			
Barrel Mold –5cc-luer slip -3part cold runne r	1x56	1set			
Plunger Mold –5cc--3parts cold runner  5cc	1x56	1set			
Barrel Mold –10cc-luer slip -3part cold runn er	1x24	1set			
Plunger Mold –10cc--3parts cold runner	1x32	1set			
Barrel Mold –20cc-luer slip -3part cold runn er	1x24	1set			
Plunger Mold –20cc--3parts cold runner	1x32	1set			
Needle hub mold cold runner (21G/22G/23 G)	1x120	3sets			
Needle cap mold cold runner (short ,middl e and longer ) Игольчатый колпачок фор мы холодного бегуна (короткий, средний и длинный)	1x96	3sets			

	Auto Loader Автозагрузчик		11sets			
	Crusher Дробилка		6sets			
	Mixer Смеситель		4sets			
	Cooling tower with 2pcs water pump Охлаждающая башня с водяным насосом 2шт.	100tons	1set			
No.	Item	Spec.	Qty	UNIT PRICE (USD)	TOTAL (USD)	Remark
1	Syringe assembly machine ( 2ml/5ml/10ml) 组装机 Машина для сборки шприцев (2 мл / 5 мл / 10 мл)		5sets			
2	Barrel pad printing machine with silicon spraying system (2ml/5ml/10ml) 高速移印机 Печатная машина (2 мл / 5 мл / 10 мл)		5sets			
3	Fully auto syringe needle assembly machinery with CCD detection/reject system автоматическое оборудование для сборки игл шприца с системой обнаружения / отбраковки ПЗС		1set			
4	Blister Packing machinery Блистерная упаковочная техника		3sets			
	Blister Mold Пресс-форма		5sets			

	Feeding system (3ml and 5ml ) система подачи (3 мл и 5 мл)		2sets			
	Fully auto Feeding needle system автоматическая система подачи иглы		3sets			
	Fully auto Printing system автоматическая система печати		3sets			
	ETO sterlization Стерилизация ETO		1set			
	Air Compressor,air tank, three class filter and dry system 全套空压系统 Воздушный компрессор, воздушный резервуар, трехуровневый фильтр и система сушки	50KW	1set			
	spare parts for all over machine 2 years 2 年 配件 Запасные части на 2 года работы					
	Others needed equipment set (like Hand cart, carton box bending M/C etc. ) 其他需求设备 (纸板包装机等) Прочее вспомогательное (например, ручная тележка, картонная коробка, изгибающая M / C и т.д.)	Etc.				Budget
	All over raw material to test machine 设备测试所有物料 сырьё для тестирования машины					

Others 其他						
1	Lab Room Device 实验室理化室所有 仪器 лабораторное оборудование		Etc.			QC control for check all over raw material , finished products etc. --budget Контроль качества для проверки всего сырья, готовой продукции и т. Д. - бюджет
2	GMP clean room (You just are ready for Building )- just budget for your ref. GMP чистой комнате (вы просто готовы для строительства) - просто бюджет для вашего исх.  净化车间					1000m2 GMP room --budget included all over all material and installation etc. - Building 2500m2 Needed <b>-discuss</b> 1000m2 помещение GMP - бюджет включает в себя весь материал и установку и т. Д. - Здание 2500m2 Необходимость - <b>обсуждение</b>
3	Pure Water 纯水设备		Etc.			
Other additional charges:						



2. Tickets 来回机票: round trip ticket --maybe updated according to actual ticket cost.

3. Others Charges:

Taxes and arrangement of permits and certificated which may be required by the authorities of Gov. Of buyer's country during staying .

Medical cares and treatment

Any others expenses to be incurred for their supervision services.

#### Training of Buyer's Engineer

Upon request of buyer, supplier shall give training to the buyer's technical engineers at the supplier's site in China .

It need at 2-3 Engineers (Injection molding system, Fully auto assembly machine system and QC system )

2. Билеты 机票 机票: Билет в оба конца - может быть обновлен в соответствии с фактической стоимостью билета.

3. Другие сборы:

Налоги и оформление разрешений и сертификатов, которые могут потребоваться властями штата. Страна покупателя во время пребывания.

Медицинские заботы и лечение

Любые другие расходы, связанные с их надзорными услугами.

Обучение инженера покупателя

По просьбе покупателя поставщик должен обучать технических инженеров покупателя на месте поставщика в Китае.

Это необходимо на 2-3 инженеров (система литья под давлением, полностью автоматическая система сборочных машин и система контроля качества)

Поставщик должен взять на себя ответственность за местный отель и питание в рабочие дни.plier should take charge of local hotel and meals in working days.

Container Ref 集装箱 .: GMP clean room raw material : 6PCS 40HQ (净化车间材料) ;  
Others machine 设备 13-14  
PCS 40HQ

Others

1. Period of Validity:30days. 报价有效期

2. Terms of Payment:Terms of payment: 50%TT deposit , the balance 50%TT before shipments 。 50% 定金, 出货前 50%.

3 Time of Delivery : 5months basing on and after all of contract order , deposit payment.raw material and technical confirmed 交货期: 5个月

4. Guarantee of quality: The Supplier shall guarantee the period of 12 months after the buyer's get B/L copy documents. 质保: 12个月

## PART II TECHICAL PROPOSAL





## 1. General

### 2) Utility requirement

Electricity : 3P 220/380V arx. KW/Hr.

Compressor Air: aprx. M3/Min, At 6Kgf/cm

Water Consumption: apr. 1Ton/day or lower (excluding circulating water)

### 3) Space requirements

Serialization room :aprx.

Syringe&needle assembly machine : aprx.

Injection molding system room :aprx.

Box, carton packing room :aprx.

Raw material storage

Finished products storage:

Utility Consumption as followings Потребление коммунальных услуг следующим образом

Item	Kw/hr. Per	TOTAL KW/Hr.	Air	Water		Space(M2)
Injection molding machine	20KW*11	100KW ( fact)		300Ltr/min	circulation	200 m2 (total )
Auto loader (connect)	1KW*11	11KW				Included
Chiller	0	0				
Robot	0	0				
Water cooling tower	8KW*1	8KW		800ltr	Circulation	Included
Others/injection room (crusher/mixer etc.)		20KW				60m2 for semi-finished products

Printing MC	2.5kwx5	12.5KW	800Ltr/min			100m2
Assembly MC	2.5KWX5	12.5KW	2000ltr/min			100m2
Blister packing MC etc.	10KWX3	30KW	1000ltr/min			120m2
Needle assembly MC	15KWX1	15KW	2000Ltr/m			120m2
EO sterilizer system	54KWX1	54KW		2-3ltr/cycle	120ltr/cycle	100m2
Air compressor	50Kwx1	50KW				40m2
Air condition for Clean room system		150KW				100m2
Lab. Room		20KW				30m2
Raw material and finished products storage						500m2
TOTAL		400KW/H 电力需求	6000Ltr/m	1ton/day		Clean room : 1000m2 , total 2500m2 车间要求

Labor/Engineer requirement

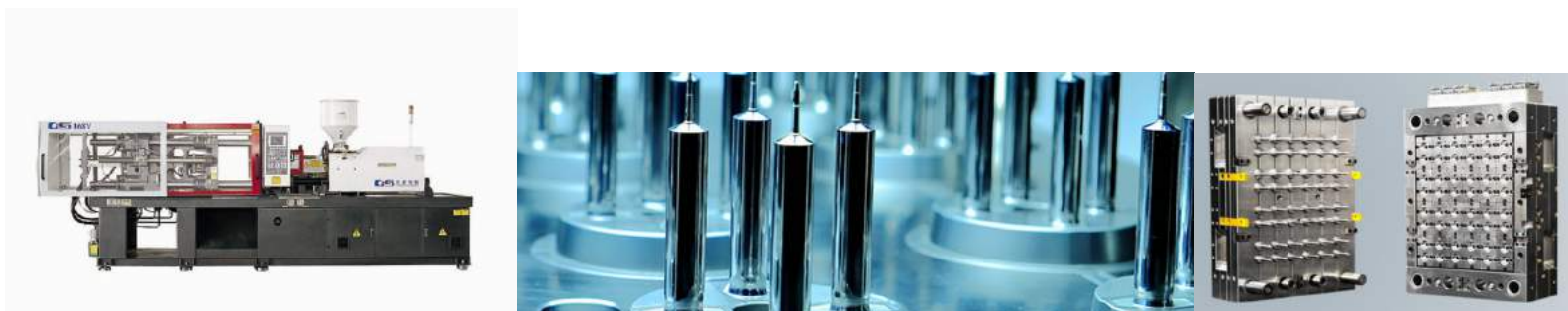
Item	NO.	SHIT	TOTAL	remark
Production manager	1	1		

Supervisor/Injection molding machine	1	3		
Injection molding machine operator	12	3		Included crusher
Printing operation	4	3		skilled future and reduce
Syringe assembly line	4	3		
Needle assembly machine	2	3		
Blister packing	4	3		
Packing(BOX+CARTON)	5	1		
Sterilization	2	1		
QC	2	1		
Maintenance	1	1		
Store and warehouse	1	1		
Cleaner	1	1		
Electrician	1	1		As required
Total	35-40			(skilled and should be less )

## Specification of Machinery

### Injection Molding Machine and Mold system Литьевая формовочная машин

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- 1) Injection Mold Cold runner Type ( Option :Hot runner )
- 2) Injection Molding Machine (Normal and Option : HIGH SPEED TYPE )
- 3) Suggestion: If big capacity and high cost for labor and suggestion choose HIGH SPEED INJECTION MOLDING MAHINE WITH HOT RUNNER

	型号		PY-MD160 (sample )		
			A	B	C
注射装置 INJECTIONUNIT	螺杆直径 Screw Diameter	mm	40	45	50
	螺杆长径比 Screw L/D Ratio	L/D	22.5	20	18



	理论注射容量 Shot size(Theoretical)	cm <sup>3</sup>	253	320	395
	注射重量 ( PS) Injection Weight	g	230	291	359
	注射速率 ( PS ) Injection Rate	g/s	100	126	156
	塑化能力 ( PS ) Plasticizing capacity	g/s	13.9	18	21.6
	注射压力 Injection Pressure	Mpa	240	190	154
	螺杆转速 Screw Speed	Rpm	0-195		
合模装置 CLAMPINGUNIT	锁模力 Clamp Tonnage	KN	1600		
	移模行程 Toggle stroke	mm	430		
	拉杆内距 Space Between Tie Bars	mm	470*470		
	最大模厚 Max.Mold Height	mm	520		
	最小模厚 Min.Mold height	mm	180		
	顶出行程 Ejector stroke	mm	140		
	顶出力 Ejector tonnage	KN	33		
	顶出杆根数 Ejector Number	piece	5		
其它 OTHERS	最大油泵压力 Max.Pump Pressure	Mpa	17.5		
	油泵马达 pump motor power	KW	15		
	电热功率 Heater Power	KW	9.75		
	外型尺寸 Machine Dimension(L*W*H)	m	4.9*1.29*1.96		

机器重量 Machine Weight	t	5.3
料斗容积 ( PS ) Hopper Capacity	Kg	25
油箱容积 Oil Tank Capacity	L	350

## 2. Fully auto Disposable Syringe Assembly Machine

It can connect with Blister packing machine to realize fully auto and save labor cost 2. Полностью автоматический одноразового шприца машина

Он может подключаться с Блистерной упаковки машина в полной мере реализовать автоматическое и сохраните стоимость труда



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Production SPEC	Capacity (PCS/H)	Size	Weight	Power	Consumption	Operation	Others Information about machine
1ml	16000-18000PCS					1	Type of machine: Rotary type
2-3ml	18000-25000PCS						Main Driving Motor: DC Motor 1HP

5ml	18000-25000PCS	4200*3000*2100	2000kg	AC220V/2.5KW	0.3 m <sup>3</sup> /min		Frame Material: AL6061
10ml	12000-18000PCS						System Control: PLC controller (Siemens from Germany brand )
20ml	8000-14000PCS						Safety Window Cover: Installed
30ml	8000-14000PCS						Others: International Famous brand from Germany and Japan and Taiwan
50ml	6000-8000PCS						

### 3. Fully auto Barrel Printing Machine Автоматическая печатная машина



Production	Capacity (PCS/H)	Size(MM)	Weight	Power	Consumption	Operation	Others Information about machine
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SPEC							
1ml	16000-18000PCS	4600*3000*2200	2000kg	AC220V/6KW	0.3 m <sup>3</sup> /min	1	1, Type of machine: Rotary type 2. Main Driving Motor: DC Motor 1HP 3. Frame Material: AL6061 4. System Control: PLC controller (Siemens from Germany brand ) 5. Safety Window Cover: Installed 6. Others: International Famous brand from Germany and Japan and Taiwan 7.Silicon: Nozzle spraying from Japan brand
2-3ml	18000-25000PCS						
5ml	18000-25000PCS						
10ml	12000-18000PCS						
20ml	8000-14000PCS						
30ml	8000-14000PCS						
50ml	6000-8000PCS						

## 4. Fully auto Blister Packing machine

( it can connect fully auto assembly machine and also included Fully auto feeding syringe loader system, feeding needle system ,high speed printing system for Lot no. )



Production SPEC	Capacity (PCS/H)	Size(MM)	Weight	Power	Consumption	Operation	Others Information about machine
1ml	20000PCS/H	6000*2000*1800	2000kg	380V×50HZ×3P+ N+E 10KW	0.5 m <sup>3</sup> /min	1--2	1, Type of machine: Servo control 2. Main Driving Motor: Servo driver 3. Frame Material: AL6061 and stainless 4. System Control: PLC controller (Siemens from Germany brand ) 5. Safety Window Cover: no 6. Others: International Famous brand from Germany and Japan and Taiwan
2-3ml	19000PCS/H						
5ml	18000PCS/H						
10ml	12000PCS/H						
20ml	10000PCS/H						
30ml	8000PCS/H						
50ml	6000PS/H						

## 5. Syringe needle automatic assembly equipment



Production SPEC	Capacity (PCS/H)	Size(MM)	Weight	Power	Consumption	Operation	Others Information about machine
21G/22G/23G	50000	8500*4000*1800	4500kg	380V×50HZ×3P+ N+E 20KW	1.3 m <sup>3</sup> /min	2	1. Main Frame material: AL6061& Stainless 2. Parts feeder: Low noise vibrator feeder (pre-feeding system ) 3. Needle Bonding : Wheel type with servo

							controller 4. Epoxy drying :Drying tunnel: 90-130degree 5. Inspection Range and reject :CCD system (reverse needle, point of needle, Blockage, bent needle, no cannula,no cap etc. 6. Reject: Auto way
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## 6. Ethylene Oxide Sterilization Equipment

Sterilization Machine construction

Sterilization machine is composed of cabinet, hot water circulating heating system, evacuating device, humidifying device, epoxy ethane gratification system and residual gas processing plant, and the control system.



## 主要技术参数

## Primary technical parameters

内部容积: 1、3、6、10、15、20、25、30m <sup>3</sup>	Inside Volume: 1、3、6、10、15、20、25、30m <sup>3</sup>
湿度: 60%RH ± 10%	Humidity: 60%RH ± 10%
装载率: 70%	Loading Rate: 70%
参数显示、记录、打印、储存	Parameters Display, Record, Print, Storage
温度: 0-60℃, PID调节	Temperature: 0-60℃, PID adjustable
时间: 任意调节	Time: User Specific
电加热最大功率: 3-36KW	Max Electrical Heating Power: 3-36KW
温度均匀性: ± 3℃	Max Temperature Deviation: ± 3℃

# Thanks!