



## 企业介绍

## Enterprise Introduction

- *Oxygen Depletion Safety Shut-off System*
- *Thermocouple for Gas Appliance*
- *Pilot for Gas Appliance*
- *Thermopile*

- 缺氧保护系统
- 燃气热电偶
- 长明火
- 热电堆

**BENAN**

深圳市贝来加尔科技有限公司  
*Shenzhen Benan Technique Co.,Ltd.*

# 目录 Contents



- 公司概况 *Company profile*
- 产品系列 *Product series*
- 品控体系 *Quality control system*
- 热电堆 *Thermopile*

# 公司概况 *Company profile*



深圳市贝来科技有限公司位于国家级科技孵化器——深圳龙岗留学生创业园内，是由归国留学生创办，以研发、生产和销售燃气具安全保护装置为主要业务的高新技术企业（高新技术资质号：S2007980）。公司拥有以归国留学生为核心、素质精良的管理和研发团队，拥有国际水平的实验检测设备，拥有独立的知识产权（专利号分别为：ZL 2005 20061946.5；ZL 2007 20119271.4；200710075345.3）。

技术水平和产品质量均达国际先进水平，在国内同行中处于领先地位。产品在2006年通过CSA C US和ROHS认证（认证号分别为：1784327；GZ0610162601B），公司在2007年通过ISO9000质量管理体系认证（认证号：PRC000349）。我公司已与美国DESA、ENERCO、BOSCH AND SIEMENS HOME等国际大燃气具制造商建立了业务合作关系。

*Shenzhen Benan Sinceience & Technology Co., Ltd located in Shenzhen LongGang Overseas Students innovative undertaking Park, which is the national classs science Incubator. We are a hi-tech enterprise established by returned overseas students and focused on R&D, production and sales of gas appliances safety protection equipment. ( Hi-tech qualification No.: S2007980).*

*We have high-quality management as well we R&D team mainly consisted by returned overseas students, assess world-class experiment and quality – checking equipment and independent Intellectual Property. ( Patent No.: ZL 2005 20061946.5; ZL 2007 20119271.4; 200710075345.3 )*

*Both our technology level and quality level have arrive national advanced degree, and now we in leading position in domestic. Our products have passed CSA C US and ROHS Certificate (Certificate No.: 1784327; GZ0610162601B) in 2006 ; and we passed ISO9000 quality management certificate (Certificate No.: PRC000349) . We have established business relationship with USA DESA、ENERCO、BOSCH AND SIEMENS HOME etc big national gas appliances manufacturer.*

*Our Email: [benan@126.com](mailto:benan@126.com)*

# 公司概况 *Company profile*



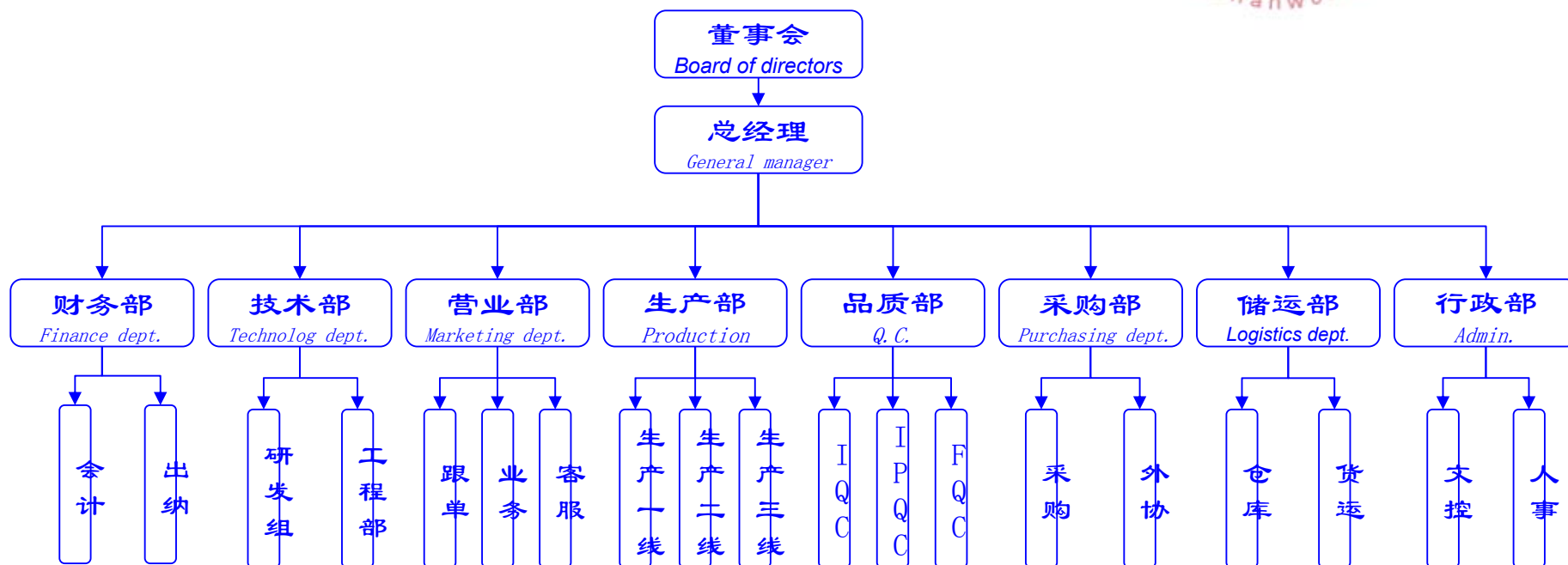
## 股权结构 *Ownership structure*



# 公司概况 *Company profile*



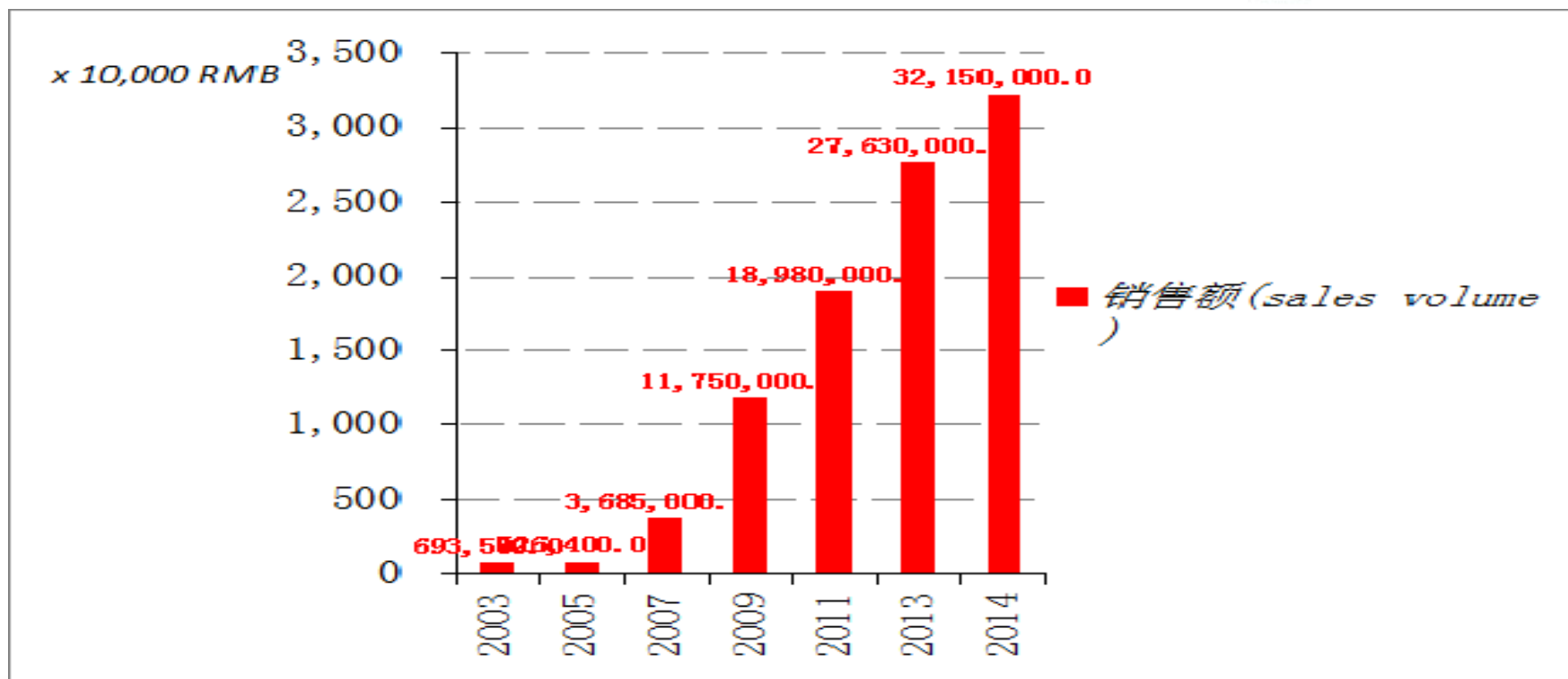
## 组织架构 *Organizational structure*



# 公司概况 *Company profile*



## 发展历程 *Development History*



# 公司概况 *Company profile*



## 企业资质 *Enterprise qualification*



*National high-tech enterprises*



*High-tech enterprises in Shenzhen*



*Supplier assessment certificate*



# 公司概况 *Company profile*



## 知识产权 *Intellectual property*



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# 产品系列 *Product series*



热电偶系列

缺氧保护系列

长明火系列

热电堆系列

*Thermocouple  
series*

*ODS series*

*Pilot series*

*Thermopile  
series*

# 产品系列 *Product series*



## 热电偶系列 *Thermocouple series*



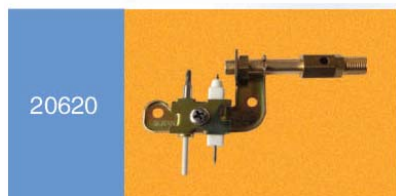
热电偶技术数据:  
热电势:  $\geq 15\text{mV}$  (无负载15秒)  
工作温度:  $\leq 750^\circ\text{C}$   
环境温度:  $\leq 300^\circ\text{C}$   
内部电阻: 设计值  $\pm 3$  毫欧

*Output Voltage*  $\geq 15\text{mV}$   
*Operating Temperature*:  $\leq 750^\circ\text{C}$   
*Ambient Temperature*:  $\leq 300^\circ\text{C}$   
*Resistance*: Design Digit  $\pm 3\text{m}\Omega$

# 产品系列 *Product series*



## 缺氧保护系列 *ODS series*



燃气类型：液化石油气, 天然气;  
燃气压力：不大于69毫巴;  
输出电势：不小于15毫伏(无负载15秒)  
内部电阻：不大于30毫欧

*Gas type: LPG or NG;  
Gas pressure:  $\leq 69\text{mbar}$   
Output voltage:  $\geq 15\text{mV}$   
Thermocouple Resistance:  $\leq 30\text{m}\Omega$*

# 产品系列 *Product series*



## 长明火系列 *Pilot series*

20310



20320



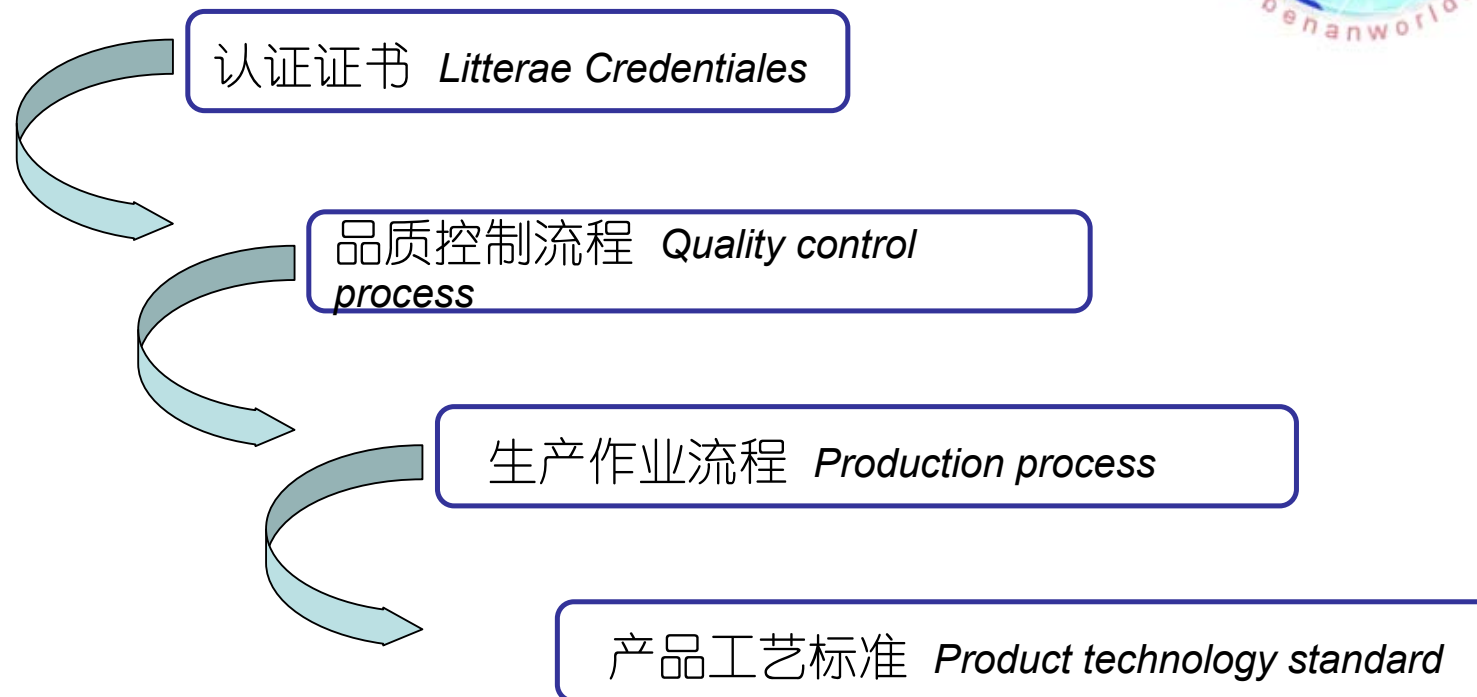
20530



燃气类型：液化石油气, 天然气;  
燃气压力：不大于69毫巴;  
输出电势：不小于15毫伏(无负载15秒)  
内部电阻：不大于30毫欧

Gas type: LPG or NG;  
Gas pressure:  $\leq 69\text{mbar}$   
Output voltage:  $\geq 15\text{mV}$   
Thermocouple Resistance:  $\leq 30\text{m}\Omega$

# 品控体系 *Quality control system*



# 品控体系 Quality control system



## 认证证书 Certificates



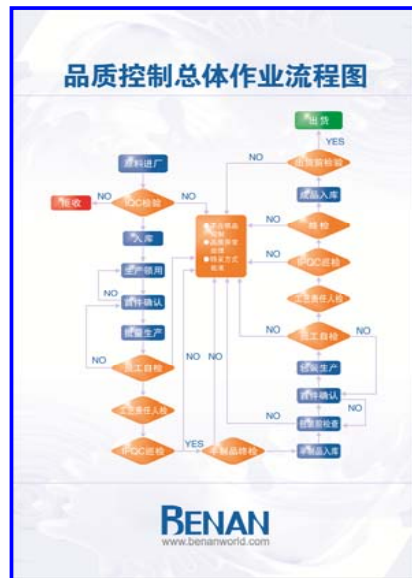
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# 品控体系 *Quality control system*

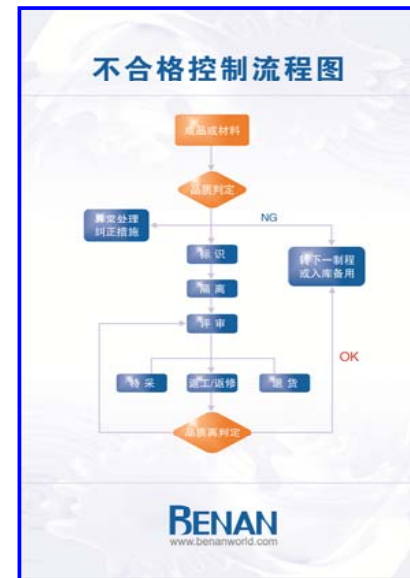


## 品控流程 *Quality control process*

*The quality control process*



*Defective products control process*



# 品控体系 Quality system



## 样本检验标准 Standard AQL

MIL-STD-105E抽样检验表

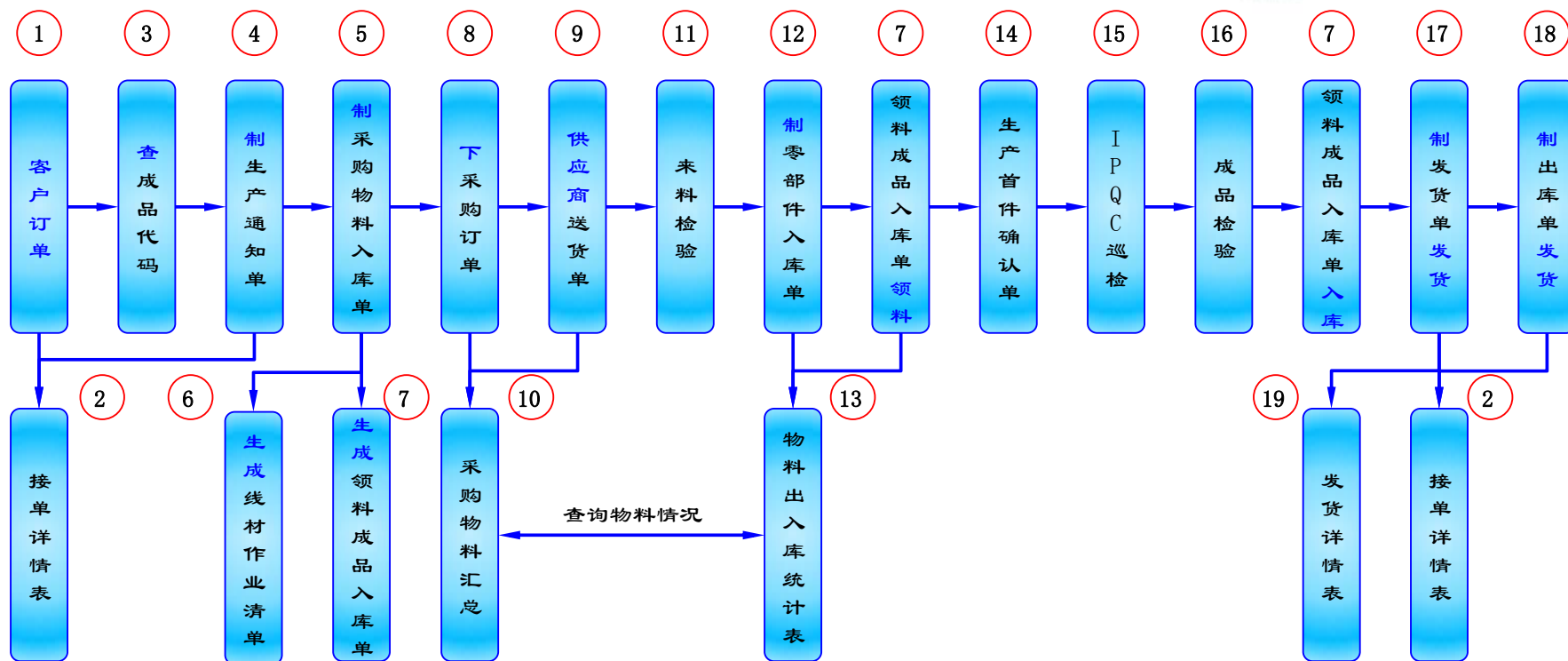
样品数据分类表					普通检验单次抽样计划																																				
样本总数		样本级数			样本代码	样本数	0.010		0.015		0.025		0.040		0.065		0.10		0.15		0.25		0.40		0.65		1.0		1.5		2.5		4.0		6.5		10				
L	H	1	2	3			AC	RE	AC	RE	AC	RE	AC	RE	AC	RE	AC	RE	AC	RE	AC	RE	AC	RE	AC	RE	AC	RE	AC	RE	AC	RE	AC	RE	AC	RE	AC	RE			
2	8	A	A	B	A	2	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2
9	15	A	B	C	B	3	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2
16	25	B	C	D	C	5	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2
26	50	C	D	E	D	8	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2
51	90	C	E	F	E	13	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2
91	150	D	F	G	F	20	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2
151	280	E	G	H	G	32	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2
281	500	F	H	J	H	50	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2
501	1200	G	J	K	J	80	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2
1201	3200	H	K	L	K	125	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2
3201	10000	J	L	M	L	200	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2
10001	35000	K	M	N	M	315	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2
35001	150000	L	N	P	N	500	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2
150001	500000	M	P	Q	P	800	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2
					Q	1250	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2
					R	2000	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	0	1	2



# 品控体系 Quality control system



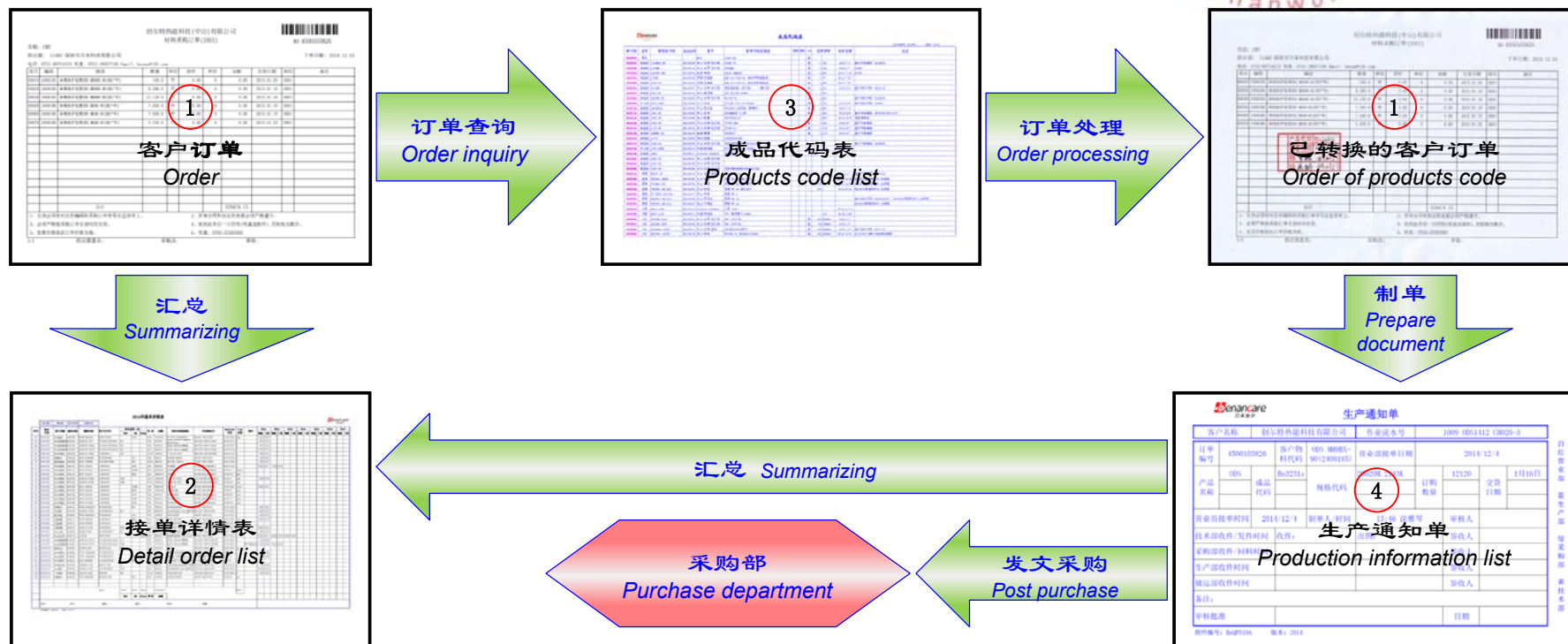
## 生产运营总流程 The total process of production



# 品控体系 Quality control system



## 生产运营总流程 The total process of production

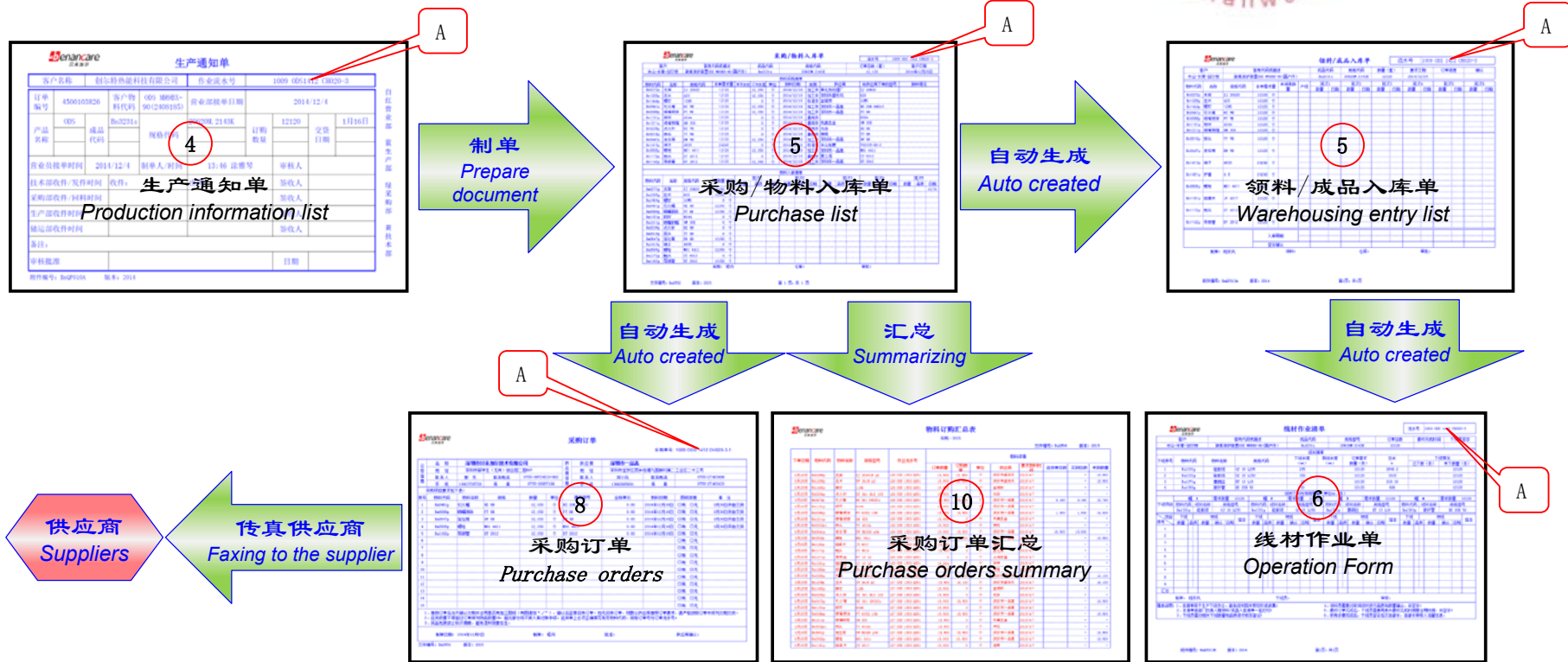


# 品控体系 Quality control system



## 生产运营总流程 The total process of production

“A”为作业流水号：1009 ODS1412 CH020-3



# 品控体系 Quality control system



## 生产运营总流程 The total process of production

4

供应商送货单  
Supplier delivery

物料名称	规格	数量	单位	送货单号	备注
PT 8062.10M		133	005	1501	2012-1
HW 86028 P34		133	005	1501	2012-1
HC 341 292837		133	005	1501	2012-1
PT 8062.10M		1500	PCS	133	005 1501 2012-1
HW 86028 P34		1500	PCS	133	005 1501 2012-1
HC 341 292837		1500	PCS	133	005 1501 2012-1



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来料检验报告  
Inspection Report

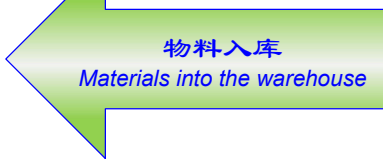
物料名称	规格	数量	单位	检验日期	检验结果
PT 8062.10M		133	005	2012-1	合格
HW 86028 P34		133	005	2012-1	合格
HC 341 292837		133	005	2012-1	合格
PT 8062.10M		1500	PCS	2012-1	合格
HW 86028 P34		1500	PCS	2012-1	合格
HC 341 292837		1500	PCS	2012-1	合格



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零部件入库单  
Parts Warehousing Entry

物料代码	物料名称	规格代码	数量	单位	流水号	备注
Bu0051p	精镗铰床	PT 8062.10M	133	005	1501	2012-1
Bu0041p	定位套	HW 86028 P34	133	005	1501	2012-1
Bu0472p	钻头嘴	HC 341 292837	133	005	1501	2012-1
Bu0084p	精镗铰床	PT 8062.10M	1500	PCS	133	005 1501 2012-1
Bu0059p	定位套	HW 86028 P34	1500	PCS	133	005 1501 2012-1
Bu0057p	精镗铰床	PT 8062.10M	1500	PCS	133	005 1501 2012-1
Bu0052p	钻头嘴	HC 341 292837	1500	PCS	133	005 1501 2012-1



13

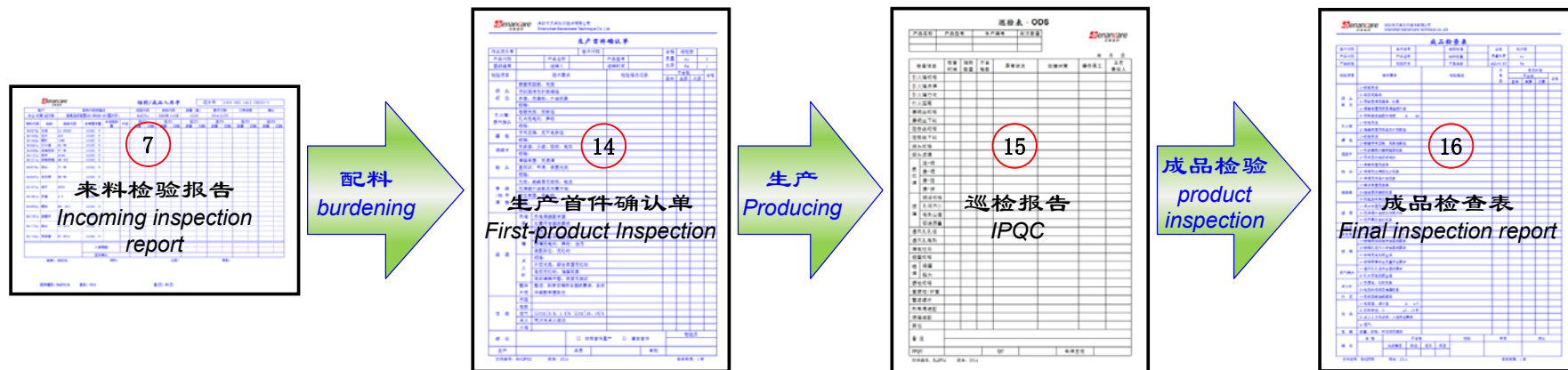
物料出入库统计表  
Storage listing

物料代码	物料名称	规格	数量	单位	日期	备注
Bu0051p	精镗铰床	PT 8062.10M	133	005	2012-1	入库
Bu0041p	定位套	HW 86028 P34	133	005	2012-1	入库
Bu0472p	钻头嘴	HC 341 292837	133	005	2012-1	入库
Bu0084p	精镗铰床	PT 8062.10M	1500	PCS	2012-1	入库
Bu0059p	定位套	HW 86028 P34	1500	PCS	2012-1	入库
Bu0057p	精镗铰床	PT 8062.10M	1500	PCS	2012-1	入库
Bu0052p	钻头嘴	HC 341 292837	1500	PCS	2012-1	入库

# 品控体系 *Quality control system*



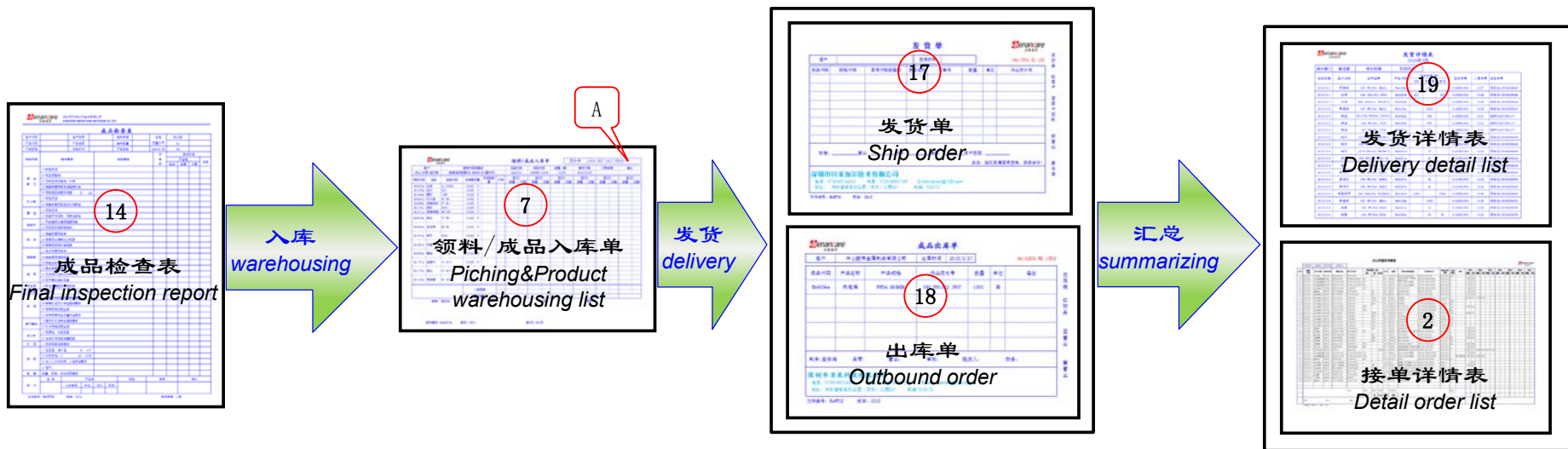
## 生产运营总流程 *The total process of production*



# 品控体系 Quality control system



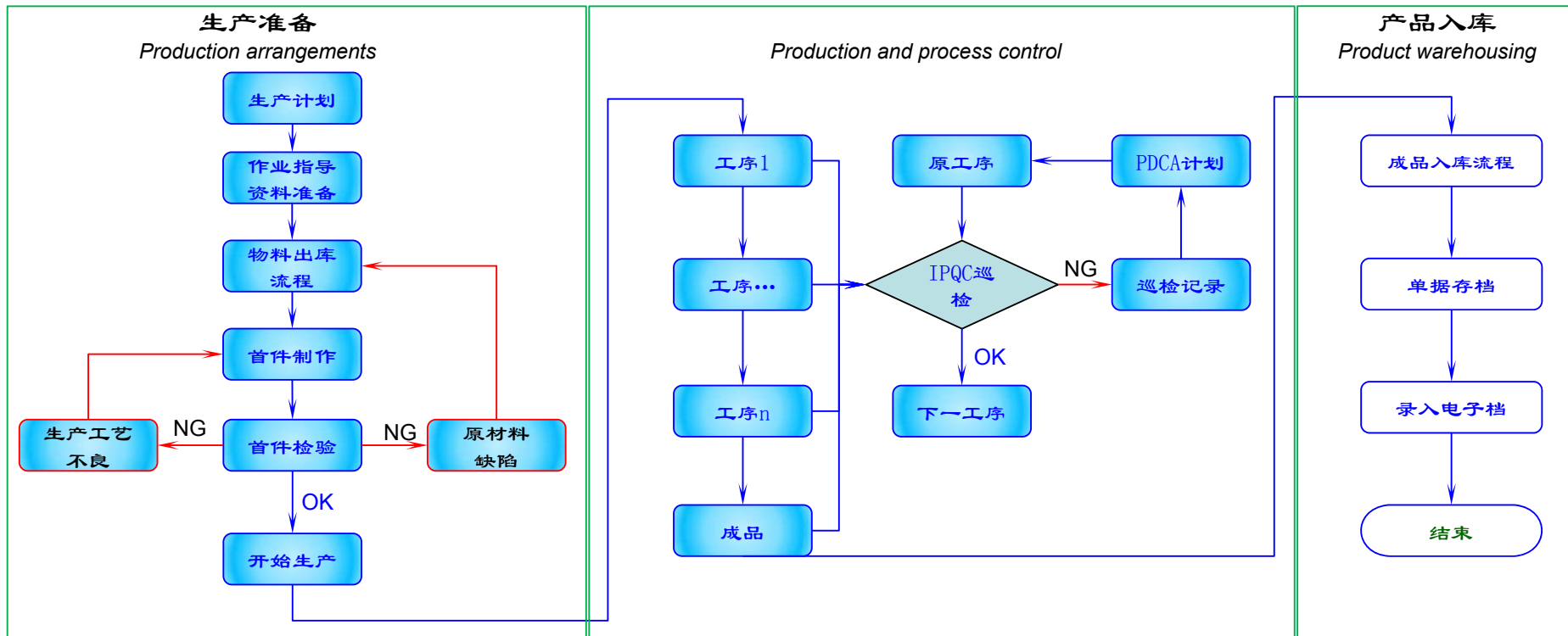
生产运营总流程 The total process of production



# 品控体系 Quality control system



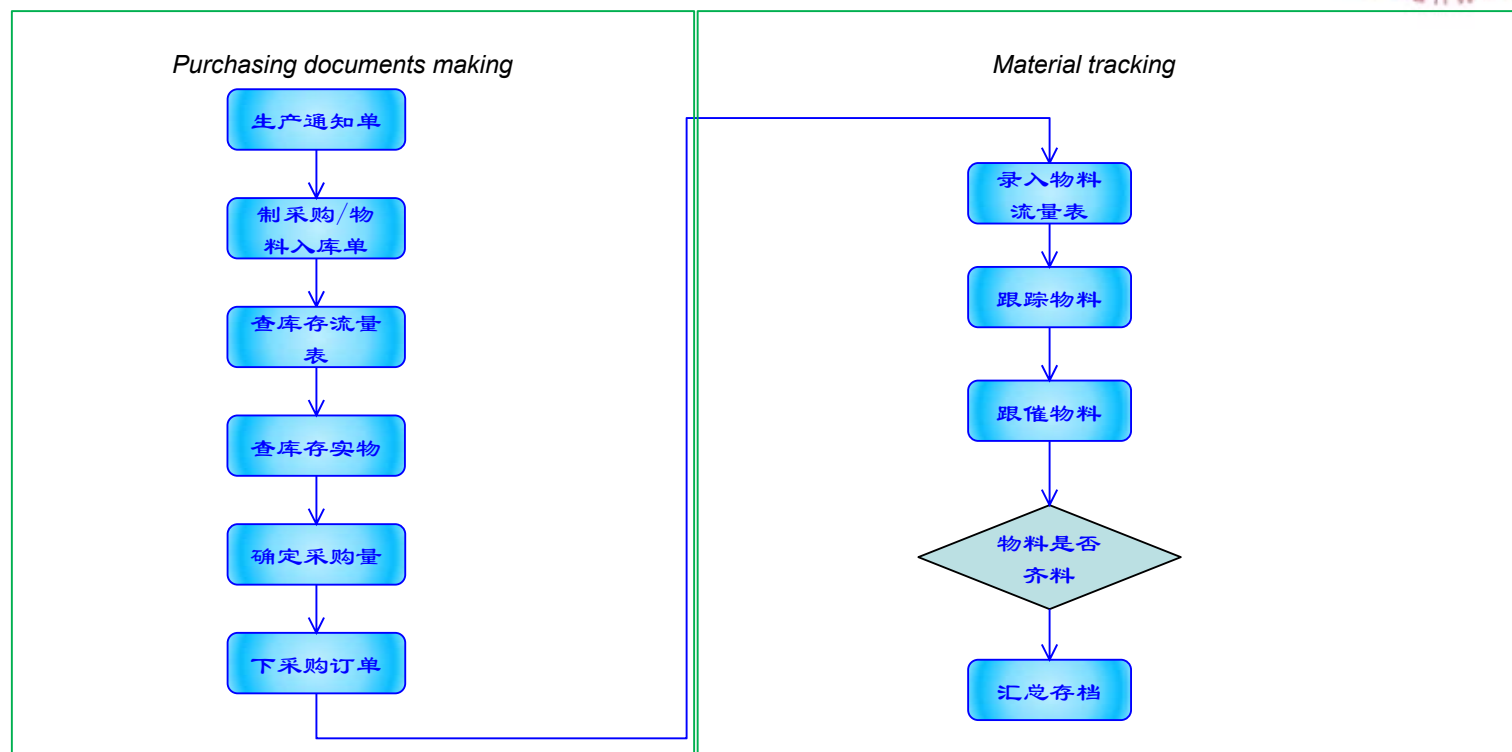
## 生产作业流程 Production process



# 品控体系 *Quality system*



## 采购流程 *Purchase Process*

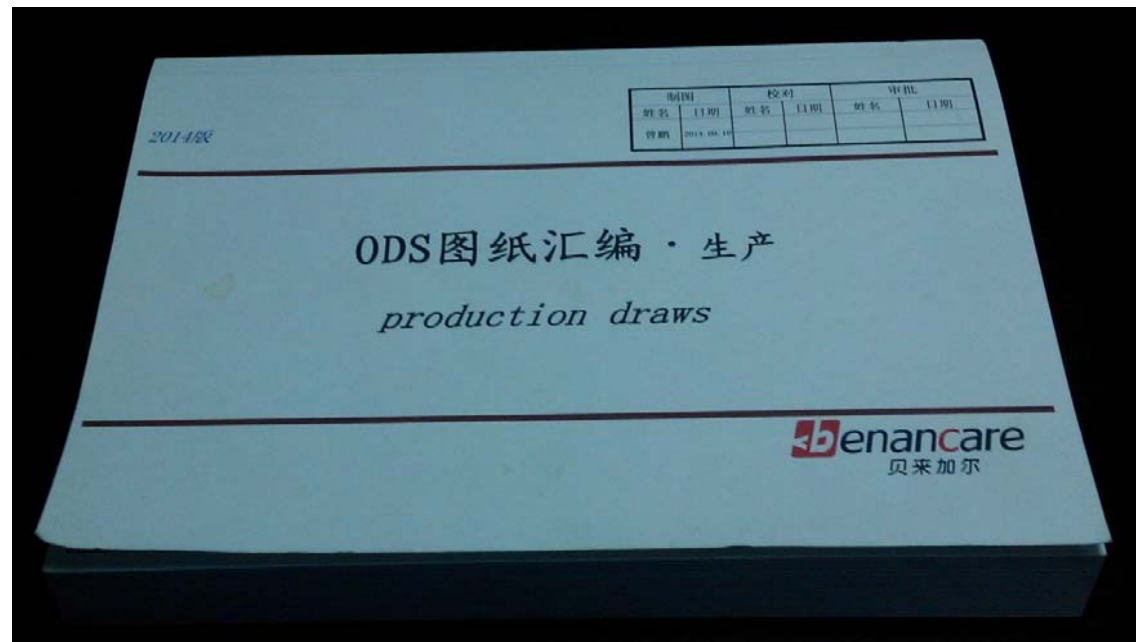




# 品控体系 *Quality control system*



产品图纸汇总 *Product's drawings*



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# 品控体系 *Quality control system*

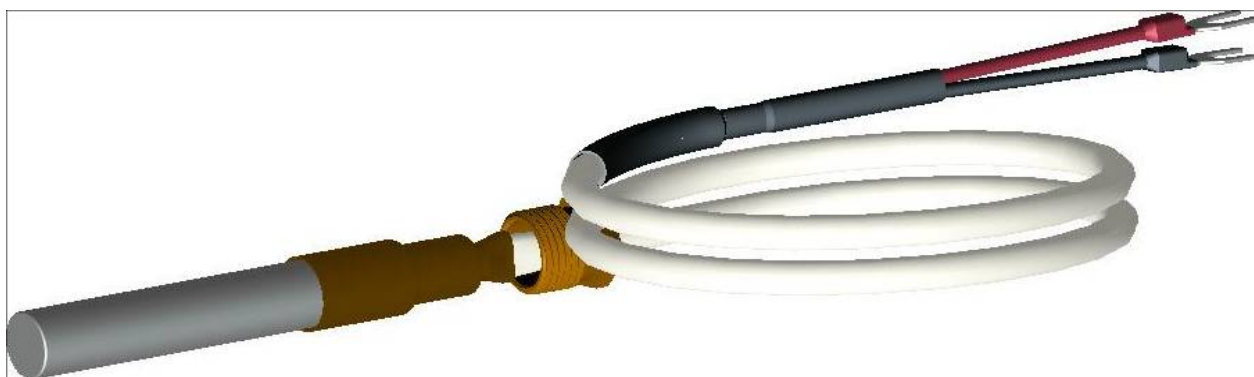


零件图纸汇总 *Parts' drawings*



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# 热电堆 *Thermopile*



热电堆技术数据：  
空载热电势： $\geq 700\text{mV}$   
工作温度： $\leq 850^\circ\text{C}$   
环境温度： $\leq 300^\circ\text{C}$   
内部电阻：设计值 $\pm 20\text{毫欧}$

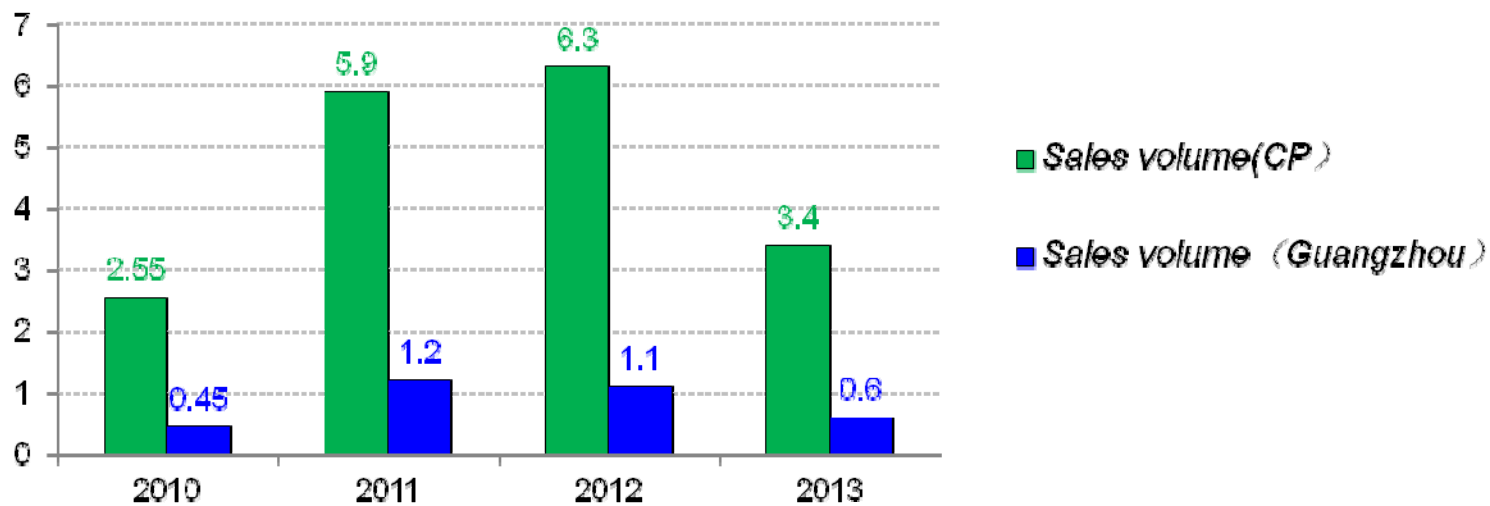
*Thermopile's technical data :*  
*Open Voltage* $\geq 700\text{mV}$   
*Operating Temperature* $\leq 850^\circ\text{C}$   
*Ambient Temperature* $\leq 300^\circ\text{C}$   
*Resistance: Design Dig* $\pm 20\text{m}\Omega$

# 热电堆 *Thermopile*



历年销售量 *Calendar year sales*

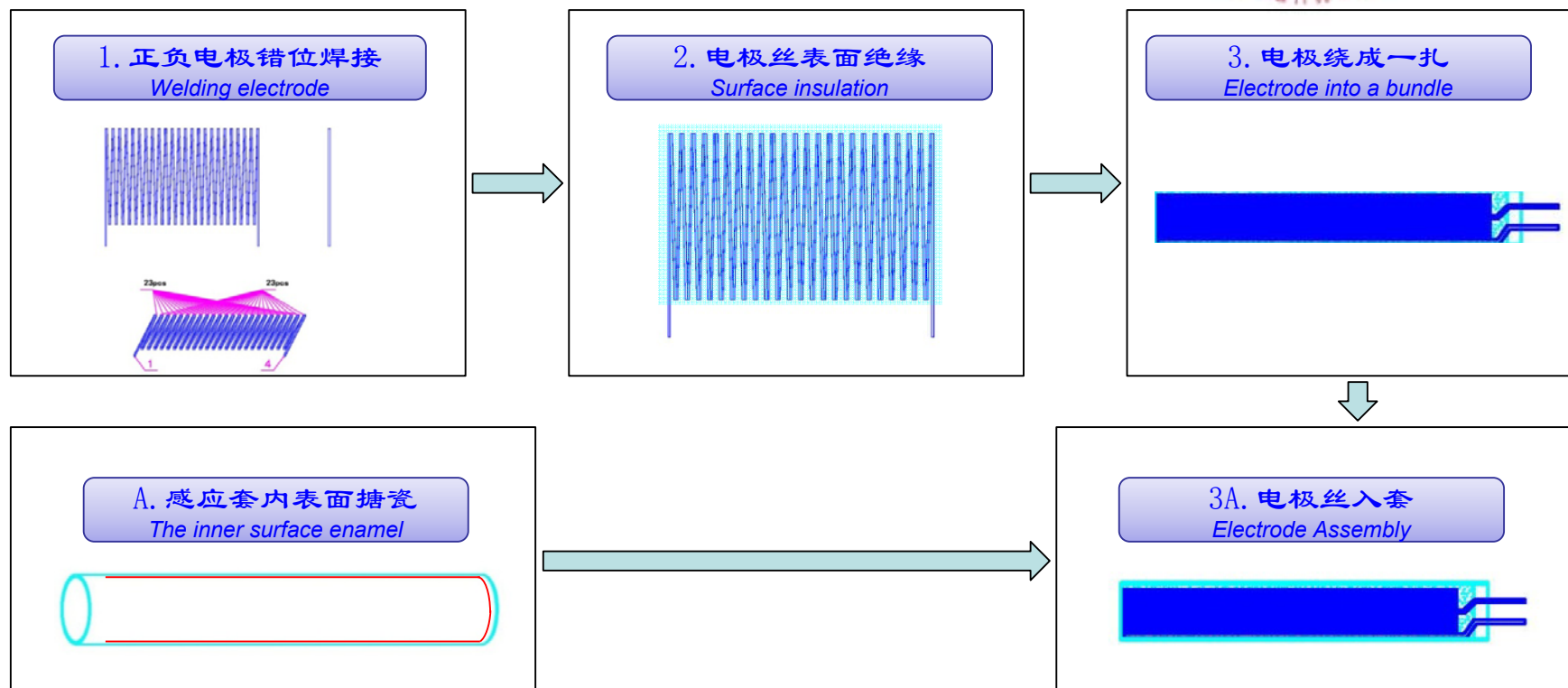
ten thousand(pcs)



# 热电堆 Thermopile



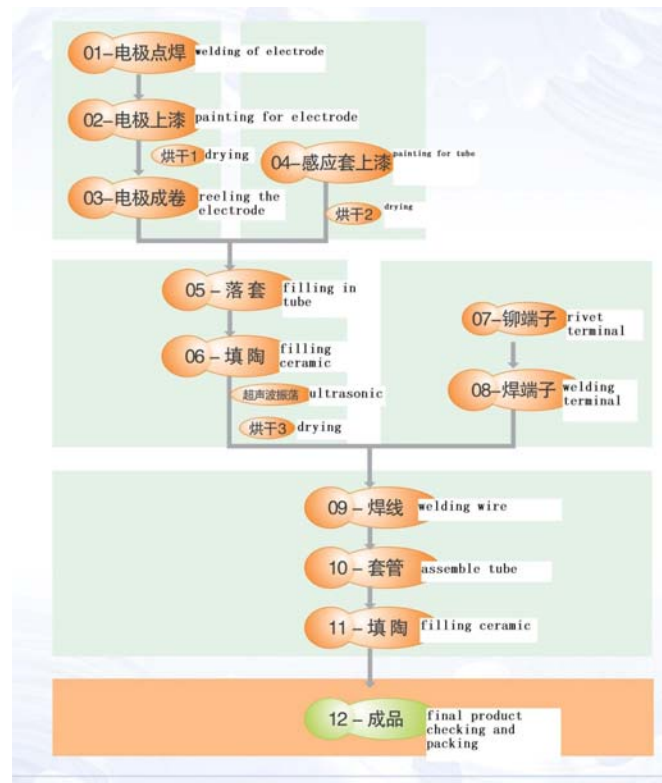
## 核心技术 The core technology



# 热电堆 Thermopile



## 热电堆作业流程 Thermopile's operation process

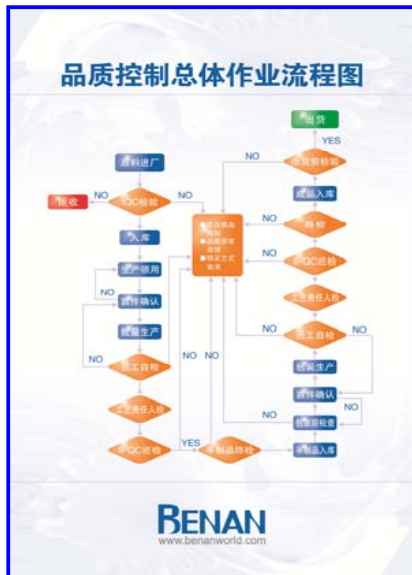


# 热电堆 Thermopile



## 热电堆品质控制作业流程 Quality control process of thermopile

The quality control process



Defective products control process



Process control plan

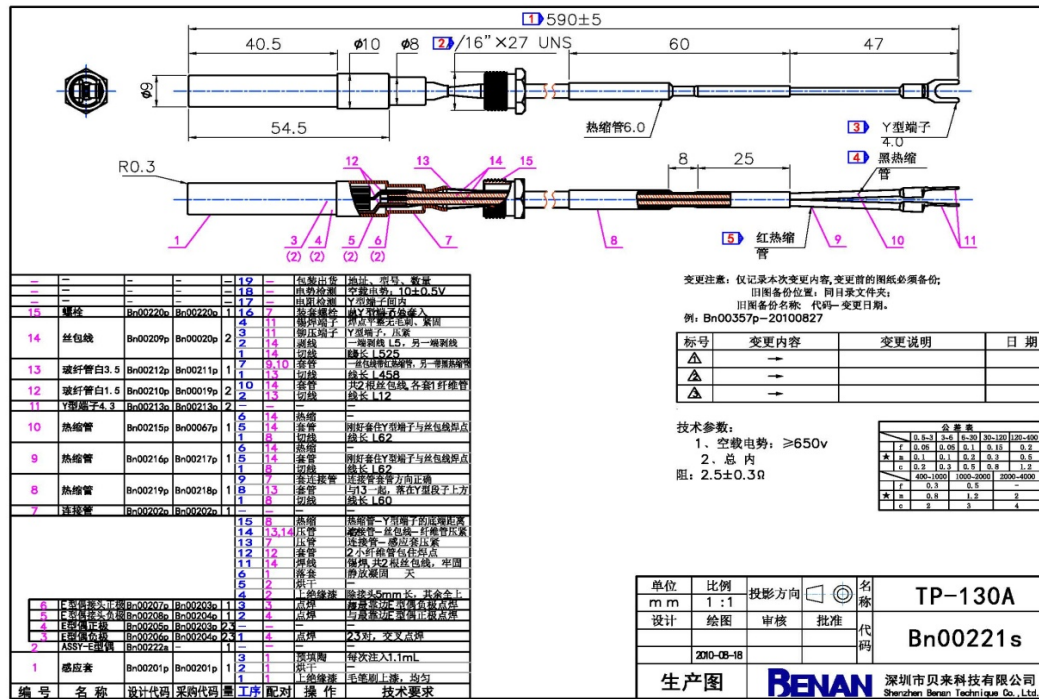
**Process Control Plan**

No.	Process of manufacturing	Control Point	Control Method	Control Frequency	Control Location	Control Responsibility	Control Record	Control Status
1	Raw material inspection	Raw material inspection	Visual inspection	100%	Raw material warehouse	Quality Control	Inspection Report	OK
2	Production process	Production process	Visual inspection	100%	Production line	Quality Control	Inspection Report	OK
3	Finished product inspection	Finished product inspection	Visual inspection	100%	Finished product warehouse	Quality Control	Inspection Report	OK
4	Shipping	Shipping	Visual inspection	100%	Shipping area	Quality Control	Inspection Report	OK
5	Customer inspection	Customer inspection	Visual inspection	100%	Customer site	Quality Control	Inspection Report	OK
6	Returned product inspection	Returned product inspection	Visual inspection	100%	Returned product warehouse	Quality Control	Inspection Report	OK
7	Customer complaint	Customer complaint	Customer complaint	100%	Customer site	Quality Control	Customer Complaint Report	OK
8	Customer return	Customer return	Customer return	100%	Customer site	Quality Control	Customer Return Report	OK
9	Customer return	Customer return	Customer return	100%	Customer site	Quality Control	Customer Return Report	OK
10	Customer return	Customer return	Customer return	100%	Customer site	Quality Control	Customer Return Report	OK
11	Customer return	Customer return	Customer return	100%	Customer site	Quality Control	Customer Return Report	OK
12	Customer return	Customer return	Customer return	100%	Customer site	Quality Control	Customer Return Report	OK
13	Customer return	Customer return	Customer return	100%	Customer site	Quality Control	Customer Return Report	OK
14	Customer return	Customer return	Customer return	100%	Customer site	Quality Control	Customer Return Report	OK
15	Customer return	Customer return	Customer return	100%	Customer site	Quality Control	Customer Return Report	OK
16	Customer return	Customer return	Customer return	100%	Customer site	Quality Control	Customer Return Report	OK
17	Customer return	Customer return	Customer return	100%	Customer site	Quality Control	Customer Return Report	OK
18	Customer return	Customer return	Customer return	100%	Customer site	Quality Control	Customer Return Report	OK
19	Customer return	Customer return	Customer return	100%	Customer site	Quality Control	Customer Return Report	OK
20	Customer return	Customer return	Customer return	100%	Customer site	Quality Control	Customer Return Report	OK

# 热电堆 Thermopile



## 热电堆生产工艺 Thermopile's production process

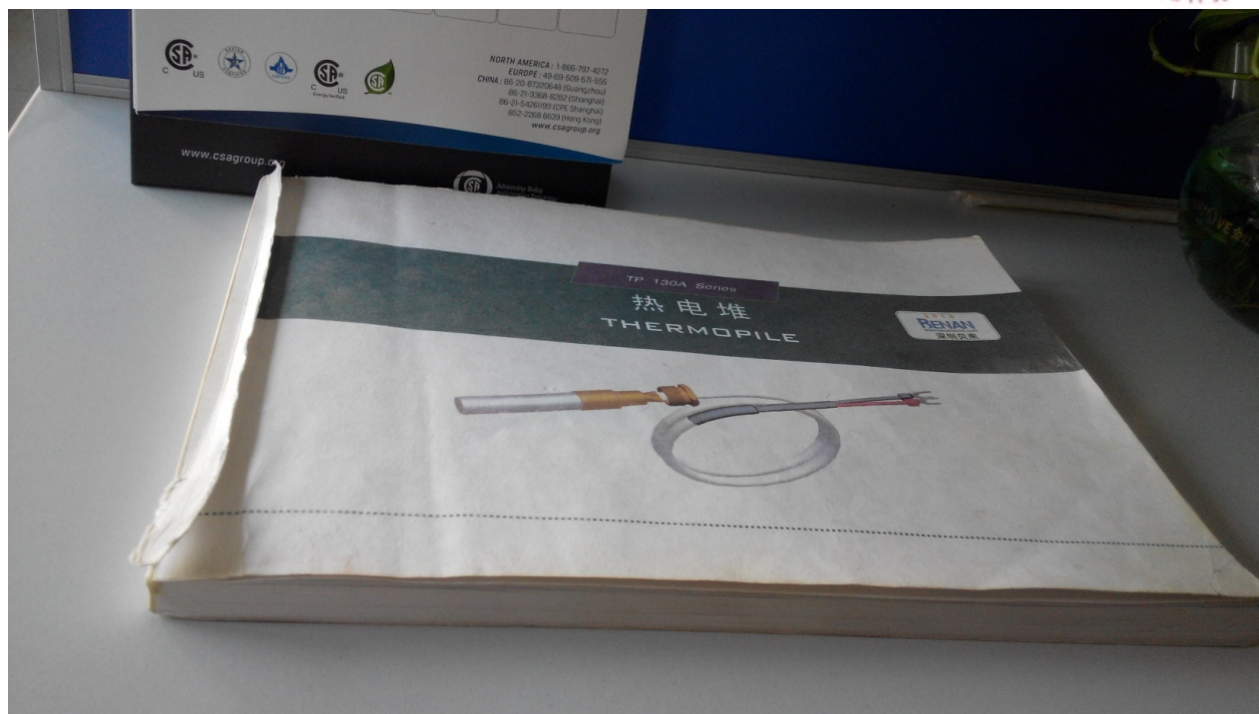




# 热电堆 Thermopile



热电堆产品图纸汇总 *Thermopile's product ion drawings*



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# 公司图片 *Company pictures*



办公室 *Office*

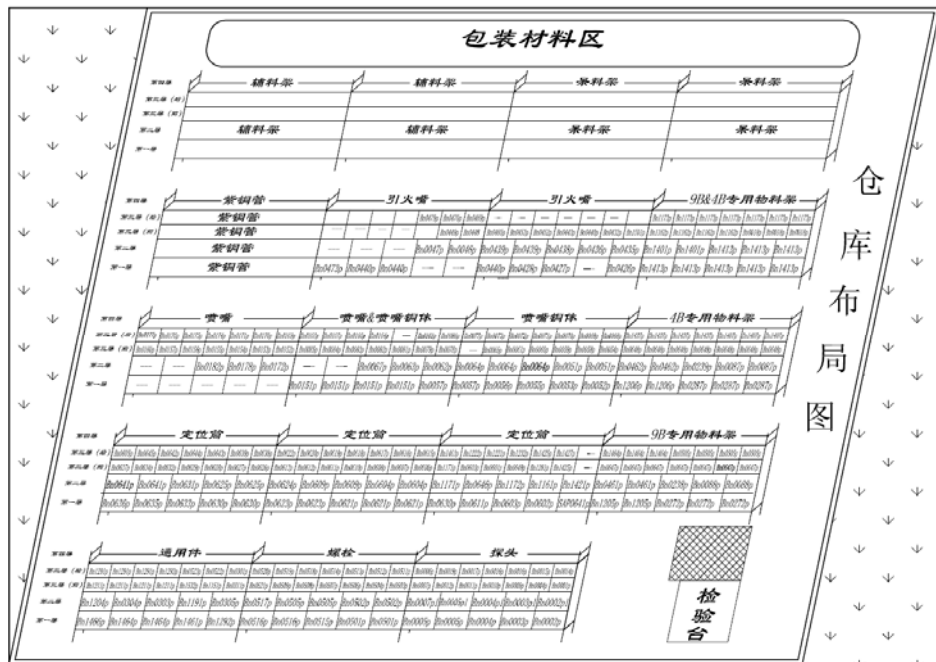


专家 专业 专致 为您服务

# 公司图片 Company pictures



## 库房 Warehouse



# 公司图片 *Company pictures*



生产车间 *Production workshop*



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