

# 手机护套注塑解决方案

Cell phone case injection molding solution



# 手机护套注塑解决方案 / Cell Phone Cases Injection Molding Solution



**1** 稳定  
STABLE

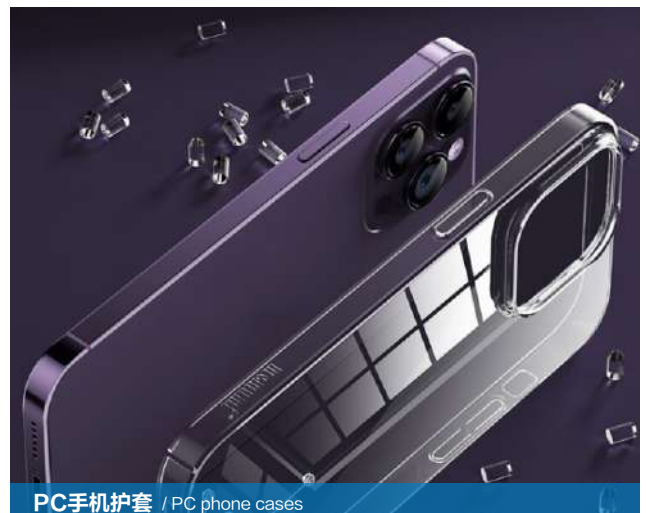
**2** 高效  
EFFICIENT

**3** 兼容  
COMPATIBLE

**4** 配套方案  
MATCHING SCHEME

## 方案亮点 / Scheme Highlights

- 从注塑成型到取出一站式解决方案，减少人工，提高生产效率；
  - 解决客户配套需求；
  - 针对产品需求，特殊的注射成型结构，提升产品的外观质量；
  - TPU和PC通用的高效螺杆；
  - 按护套尺寸的可调整治具，降低成本；
  - 卓越的性价比。
- One-stop solution from injection molding to take-out, reducing labor and increasing production efficiency.
  - Solving customer matching needs.
  - Special injection molding structure to meet product requirements and improve product appearance quality.
  - High efficiency screw for TPU and PC.
  - Adjustable jigs by sheath size to reduce cost.
  - Excellent cost-effective.



## 设备特点 / Equipment Features

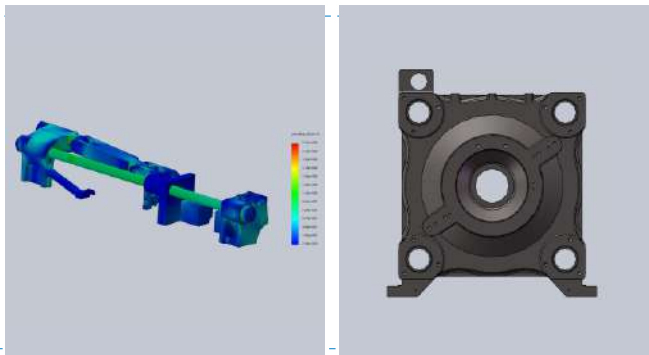
手机壳有壁薄、外观要求高的特点，其中的PC、TPU、PLA等原料最为普遍。针对客户此类产品特点，特推出手机护套专用机器，在TS机基础上有以下几个方面的特点：

Cell phone cases have the characteristics of thin walls and high appearance requirements, Raw materials such as PC, TPU, PLA are the most common. For the characteristics of such products, we have launched a special machine for cell phone cases, which has the following characteristics on the basis of TS machine.



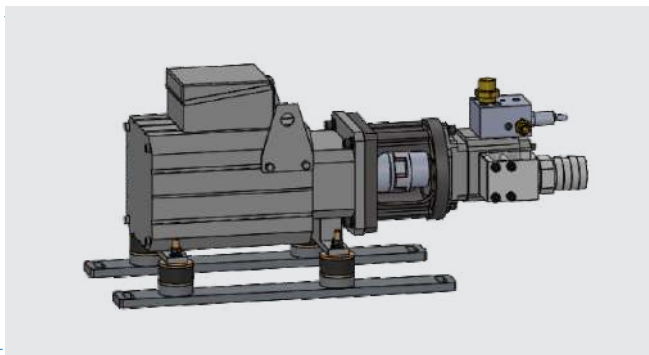
模板强度升级，模板变形量0.2mm/m，刚性极高，在高速高压工况保证产品精度；

Upgrading the strength of the template, the deformation of the template is 0.2mm/m, and the rigidity is extremely high to ensure the accuracy of the product in high speed and high pressure working conditions.



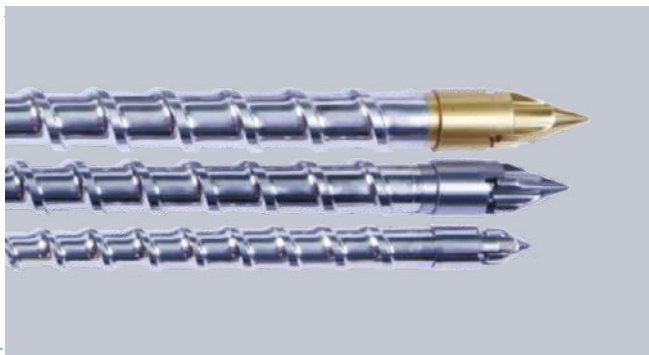
加大动力，最大注射速度145mm/s，注射压力290MPa，比标准机提升30%以上；

Increased power, maximum injection speed of 145mm/s and injection pressure of 290MPa, which is more than 30% higher than the standard machine.



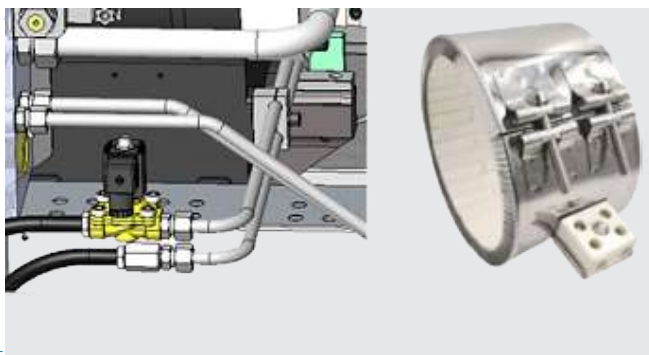
高等级专用螺杆组件，满足PC、TPU壳件高速高压的工况；

High-grade special screw assembly parts to meet the high-speed and high-pressure working conditions of PC and TPU shell parts.



采用陶瓷加热组件及下料口温控，让温度控制更精准灵敏，提升良率。

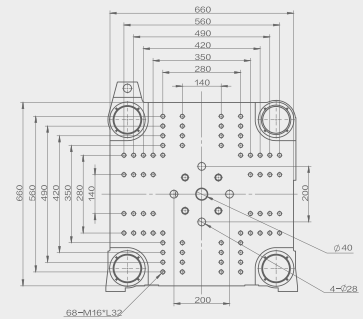
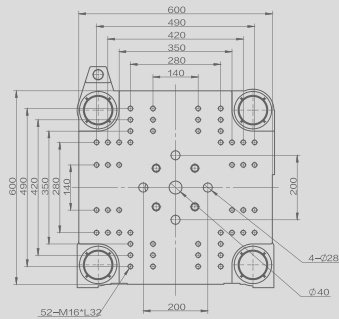
Adopt ceramic heating component and temperature control of the material inlet port, so that the temperature control is more accurate and sensitive to improve the yield.



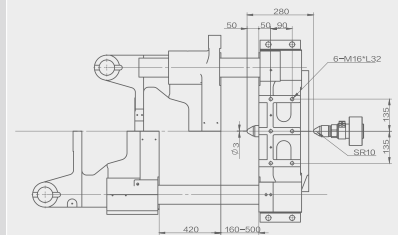
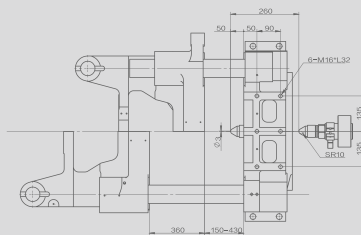
# 产品参数 / Product Parameters

注射部份	INJECTION UNIT	UNITS	TS130-MP		TS170-MP	
螺杆直径	Screw Diameter	mm	28	32	32	36
螺杆长径比	Screw L/D Ratio	L/D	21.0	21.0	21.0	21.0
螺杆行程	Screw Stroke	mm	150	150	170	170
注射容积	Shot Volume	cm <sup>3</sup>	92	121	137	173
注射重量(PS)	Shot Weight(ps)	g	84	110	124	157
		oz	3.0	3.9	4.4	5.5
注射压力	Injection Pressure	kgf/cm <sup>2</sup>	3126	2393	2912	2301
注射速率	Injection Rate	cm <sup>3</sup> /s	89	117	117	148
注射速度	Injection Rate	mm/s	145	145	145	145
螺杆转速	Screw Speed	rpm	260		260	
射咀推力	Nozzle Contact Force	t	4.2		4.2	
射咀行程	Nozzle Stroke	mm	260		260	
锁模部份	CLAMPING UNIT	UNITS	TS130-MP		TS170-MP	
锁模力	Clamping Force	t	130		170	
开模行程	Opening Stroke	mm	360		420	
模板尺寸(水平×垂直)	Platen size(H×V)	mm	600x600		680x680	
导柱内距(水平×垂直)	Space Between Tie Bars(H×V)	mm	410x410		455x455	
容模量(最薄-最厚)	Mould Thickness (Min)	mm	150		160	
	Mould Thickness (Max)	mm	430		500	
模板最大距离	Max. Daylight	mm	790		920	
顶出推力	Ejector Force	t	5.5		5.5	
顶出行程	Ejector Stroke	mm	120		140	
定位法兰	Locating Ring	mm	100		125	
电力/电热	POWER/HEATING	UNITS	TS130-MP		TS170-MP	
系统压力	System Pressure	kgf/cm <sup>2</sup>	175		175	
油泵电机功率	Pump Power	kw	18		22	
电热量	Heating Power	kw	6.2 / 6.8		6.8 / 9.7	
温度控制段数	Number of Temp Control Zones		4+1		4+1	
其它	OTHERS	UNITS	TS130-MP		TS170-MP	
机器尺寸(长×宽×高)	Machine Dimensions(L×W×H)	m	4.7x1.24x1.88		5.3x1.38x1.96	
油箱容积	Oil Tank Capacity	L	150		200	
机器重量	Machine Weight	t	3.5		4.2	

模板正面尺寸  
Platen dimensions



模板侧面尺寸  
Platen dimensions

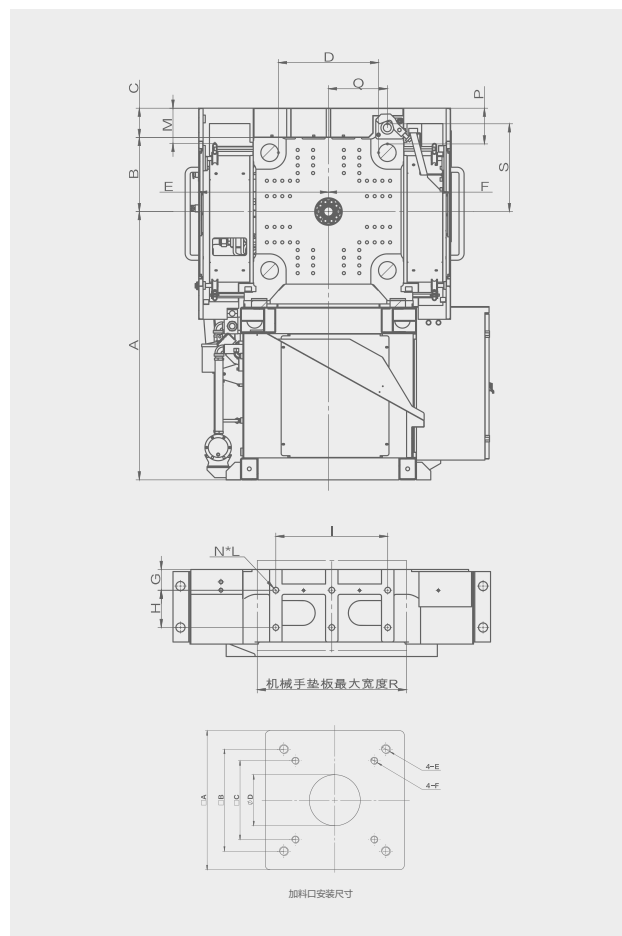
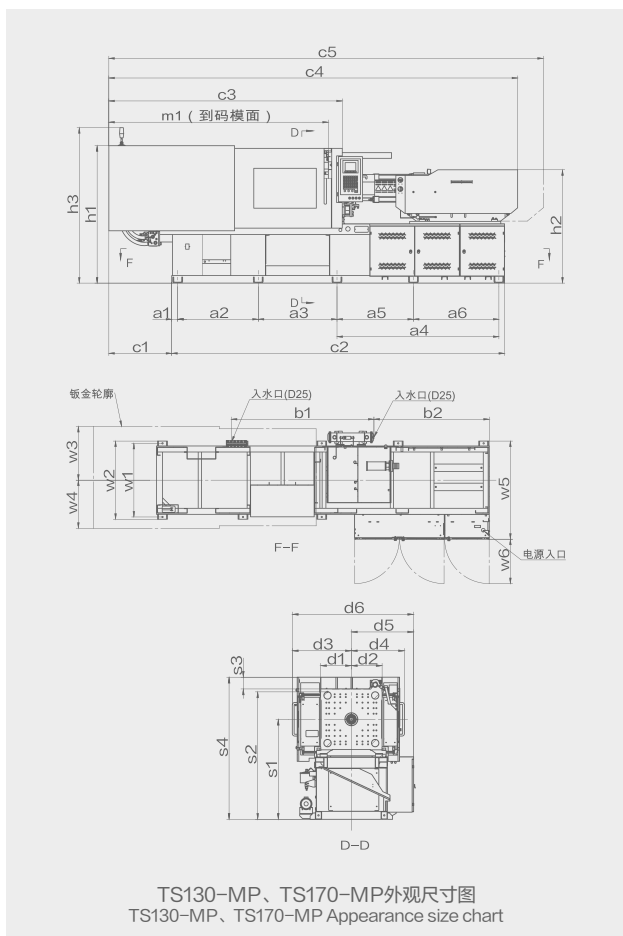


由于技术不断发展、设计的改进及更新，以上规格如有更改，恕不另行通知。

Due to the continuous development of technology, improvement and update of design, the above specifications are subject

## 产品规格 / Product Specification

## 产品安装尺寸 / Installation Dimensions



### 外观尺寸 Appearance size

机型 Model	TS130-MP	TS170-MP	机型 Model	TS130-MP	TS170-MP
a1	80	80	h1	1650	1725
a2	791	891	h2	1415	1465
a3	884	1013	h3	1890.5	1965.5
a4	1940	2020	w1	790	870
a5	1764	1836	w2	850	930
a6	1312	1459	w3	582	622
c1	714	782	w4	547	587
c2	3770	4094	w5	1115	1195
c3	2513	2805	w6	590	590
c4	4428	4900	s1	1180	1220
c5	4688	5180	s2	1455	1527.5
d1	307	342	s3	133	133
d2	307	342	s4	1615	1690
d3	611.5	651.5	m1	2360	2640
d4	576.5	616.5			
d5	690	730			
d6	1301.5	1381.5			

### 机械手安装接口尺寸 Robot assemble connecting size

机型 Model	TS130-MP	TS170-MP
A	1180	1220
B	302	337
C	133	133
D	410	455
E	550	590
F	515	555
G	50	50
H	90	90
I	270	270
L	M16	M16
M	160	160
N	6	6
P	160	162.5
Q	240	267.5
R	320	360
S	368	399

### 加料口安装尺寸 Material inlet port installation size

机型 Model	TS130-MP	TS170-MP
A	150	150
B	110	110
C	85	85
D	55	55
E	M10	M10
F	M8	M8

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# 标准系列配置表 / Configuration table of Standard Series

锁模部分 Mold Clamping	TS130-MP	TS170-MP
机铰用铜套 Bushes for Toggle	●	●
拉杆导套用含油铜套 Oiled bushes for tie bars	●	●
液压马达齿轮调模 Hydraulic gear pump for mold adjust	●	●
模具强制复位装置 Installation of forced reset device for mold	●	●
模板码模孔 Stencil code mold hole	●	●
成品滑道 Finished slide	●	●
机械安全锁保护 Mechanical safety lock protection	●	●

注射部分 Glue Injection	TS130-MP	TS170-MP
TPU专用螺杆组件 TPU special screw assembly parts	●	●
特别混色螺杆组件 Special color mixing screw assembly parts	○	○
下料口温度检测 Temperature detector in material inlet port	●	●
陶瓷发热圈 ceramic heating ring	●	●
冷水环增加电磁阀 Add solenoid water valve for cold water ring	●	●
加长射嘴50mm Lengthen nozzle by 50mm	○	○
射移、射胶用线轨 Linear guiders for injection&carriage movement	●	●
双射移油缸 Double-injection shift cylinder	●	●
全封闭保温罩 Totally enclosed heat insulation cover	●	●
射嘴防护罩 Nozzle shield	●	●
螺杆防冷启动功能 Screw anti-cold start function	●	●
自动清料功能 Automatic cleaning function	●	●
熔胶前、后松退可选 Pre- and post-melting loosening and releasing optional	●	●
移位卸料装置 Shift unloading device	○	○
射嘴及料管多段PID温度控制 Multi-stage PID temperature control for nozzle and material tube	●	●

钣金部分 Metal Plate	TS130-MP	TS170-MP
机铰顶盖板 Machine hinge top cover plate	●	●
更改钣金颜色 Change of sheet metal color	○	○
6进6出运水架 (进出) 配D12快插接头 6-in/6-out water carrier (in/out) with D12 quick connector	●	●
8进8出运水架 (进出) 配D12快插接头 8-in/8-out water carrier (in/out) with D12 quick connector	○	○

液压部分 Hydraulic Part	TS130-MP	TS170-MP
抽芯一组 Core pull set	●	●
加装射移单向阀 Adding injection shift check valve	●	●
手动背压 Manual back pressure	●	●
数控背压 CNC back pressure	○	○
旁路滤油器装置 Bypass oil filter unit	●	●
外置置式冷却器 External condenser	●	●
调模刹车液压马达 Hydraulic motor for mold adjustment brake	○	○

电气部分 Electrical Part	TS130-MP	TS170-MP
三色报警灯 Installation of three-color alarm light	●	●
一组2+3 220V/10A插座 One set 2+3 220V/10A power socket	●	●
二组三相32A插座 2 sets 3P 32A power socket	●	●
模具返回确认 mould for return confirmation	●	●
射嘴独立控制 Independent nozzle control	●	●
加热用固态继电器 Solid state relay for heating	●	●
配12吋显示屏 With 12" display	●	●
油温过高报警 High oil temperature alarm	●	●
料管加热强制保护 Compulsory protection for tube heating	●	●
多种操作语言 Multiple operating languages	●	●
急停开关保护 Emergency stop switch protection	●	●
质量数据过程控制界面 Quality data process control interface	●	●
生产统计过程控制 (SPC) 实时列表界面 Production Statistical Process Control (SPC) real-time list interface	●	●

其它配置 Other Part	TS130-MP	TS170-MP
说明书 Instruction manual	●	●
避震脚 Shock absorber feet	●	●
工具箱及工具一套 Toolbox and tools set	●	●
弓形码模夹 Bow yard mold clip	●	●

备注: 标准配置 “●” 和备选配置 “○”  
Remark: Standard “●” Optional “○”

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拓斯达科技 公众号



拓斯达科技官方 抖音号



拓斯达 小程序