TAIWAN 台灣聯塑
UNION PLASTIC

致力为客户创造财富与未来

DEVOTED TO CREATING FORTUNE AND FUTURE FOR CUSTOMER



# HD SERIES

## MULTI COMPONENTS INJECTION MOLDING MACHINE

## 多组份注塑机




honzen-machine.com

TAIWAN 台灣聯塑
UNION PLASTIC

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# ORIGIN



## SINCE 2018

全资收购成立于1984年的机械行业著名企业台湾联塑集团–联塑（杭州）机械有限公司。

Made wholly-owned acquisition of the well-known enterprise in machinery industry Union Plastic (Hangzhou) Machinery Co., Ltd. of Taiwan Union Plastic Group established in 1984.

### INHERIT
### 传承

40年智慧与文化的结晶，以及技术力量与底蕴的沉淀。

35 years of wisdom and culture, as well as the technical strength and background.

### OPTIMIZE
### 优化

双色，多色等业内领先技术。完成全系列两板机研发，为大型双色，多色，对射提供解决方案。

Leading technology of multi-components. Completed research and development of full series of two platen machine in order to provide multi-components and swivel platen solution in big size.

### CHANGE
### 改变

从“心”出发，以新的发展理念与管理模式，致力于为客户创造价值，为员工创造前途，为行业及人类社会创造贡献。

Fresh start with HEART. With new philosophy and management, devoted to creating value for customer, future for employee, contribution for plastic industry and human society.

# 致力为客户创造财富与未来
DEVOTED TO CREATING FORTUNE AND FUTURE FOR CUSTOMER




## 企业理念
PHILOSOPHY

质量·服务·创新
QUALITY · SERVICE · INNOVATIVE

## 企业精神
SPIRIT

科技为本·速度致胜
TECHNOLOGY BASED · SPEED WINS

## 企业使命
MISSION

致力为客户创造财富与未来
DEVOTED TO CREATING FORTUNE
AND FUTURE FOR CUSTOMER





厂房面积 Area
200,000m²

加工设备 CNC
30+

员工 Employees
500+

锁模力 Clamping force
90T–6600T



**FLEXIBLE MULTI-COMPONENTS CREATE MORE VALUE**

灵活的多组份创造更多价值



AUTOMOBILE INDUSTRY
—汽车行业—

鸿正在原有技术领先的基础上，
更加优化了多色（多组份）机型。

HONZEN is optimizing the multi-color (multi-components)models on the basis of the original technology leadership.



HOME APPLICANCE INDUSTRY
—白色家电行业—



CONSTRUCTION INDUSTRY
—建筑行业—



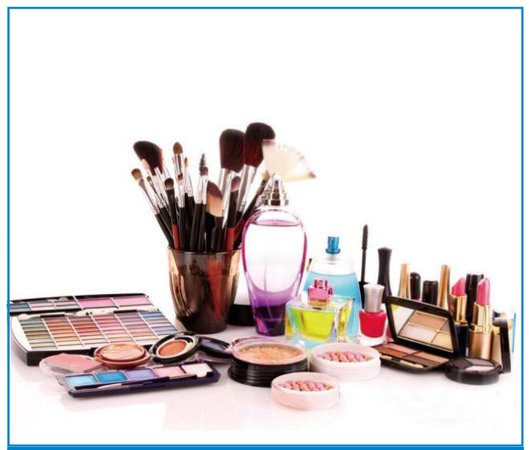
ELECTRONICS INDUSTRY
—电子电器行业—

鸿正 完成了全系列两板机研发，为大型多色（多组份）及对射提供解决方案。

HONZEN has completed research and development of full series of two platen machine in order to provide multi-color (multi-component) solution in big size.



MEDICAL INDUSTRY
—医药行业—



PACKAGING INDUSTRY
—包装行业—



## APPLICATION FIELD
## 行业应用领域

在消费产品款式千变万化的今天，既要外型美观、设计精巧，也要迅速配合市场需求。设计师会根据消费产品不同的用途，在不同的部位上，采用不同的物料，以应付特定环境的需要，达到延长产品寿命、增加美观及实用性的目的。这种实用性的设计要求无疑将导致生产技术也随之复杂化，多色（多组份）注塑工艺就是应这一潮流而生的。

多色（多组份）应用领域覆盖汽车、家居用品、电子及家电、建筑、包装及医疗器材等众多行业。随着技术的进步，多色（多组份）注塑成型技术的应用也日益广泛。

台湾联塑的多色（多组份）技术可追溯至90年代初。鸿正在收购台湾联塑后，在原有技术领先的基础上，更加优化了多色（多组份）机型。并完成了全系列两板机研发，为大型多色（多组份）及对射提供解决方案。

In this day, the consumer product styles are changing frequently, they require attractive appearance and exquisite design, but also quickly to meet market demand. Designers will use different materials in different parts according to different uses of consumer products to meet the needs of specific environments, to achieve the purpose of extending product life, increasing aesthetics and practicality. This practical design requirement will undoubtedly lead to complicated production technology. The multi-color (multi-component) injection molding process is born out of this trend.

Multi-color (multi-component) application areas cover many industries such as automobiles, household, electronics and home appliances, construction, packaging and medical equipment. With the advancement of technology, the application of multi-color (multi-component) injection molding technology has become increasingly widespread.

TUP multi-color (multi-component) technology dates back to the early 1990s. After the acquisition, HONZEN is optimizing the multi-color (multi-component) models on the basis of the original technology leadership. And has completed research and development of full series of two platen machine in order to provide multi-color (multi-component) solution in big size.

# FEATURES
## HD Series 特点



### 高速高精度转盘
### HIGH SPEED AND PRECISION TURNTABLE

高精度转盘通过伺服电机控制其动作，快速稳定，高负载强度。
电脑通过旋转编码器实时监控转盘位置偏差

The high-precision turntable is controlled by servo motor, which is fast and stable with high load intensity. The controller monitors the turntable position deviation in real time through the rotary encoder

### 超大容模量
### LARGE SPACE FOR MOULD

宽导柱设计，适用更多模具类型，从而降低采购成本

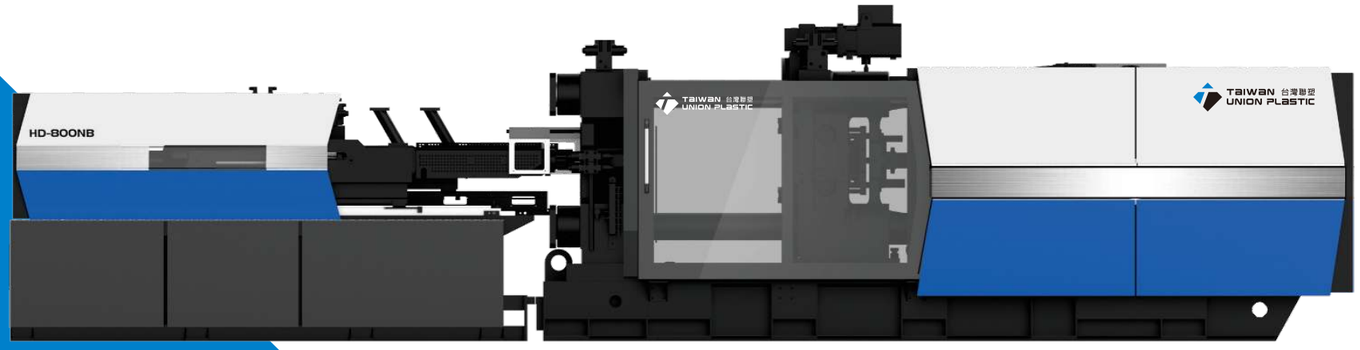
Super wide tie bar design, suitable for more mould types, thereby reducing procurement costs



### 专利转盘夹爪
### PATENTED TURNTABLE STOPPER

杜绝转盘下垂。采用整体底座，简化结构，可靠性更高

Completely keep turntable from dropping. Adopted integrated base, simplified structure and higher reliability






### 滑脚
### SLIDING FOOT

加长加宽的动模板支撑设计，即使是较重的模具也可实现最佳的模板平行度

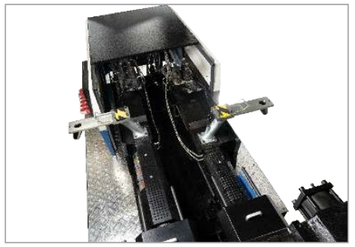
Lengthened and widened sliding foot of moving platen optimizes platen parallelism even with heavy mould



### 高精密线性导轨射出机构
### HIGH PRECISION LINEAR GUIDE ON INJECTION UNIT

注射和塑化系统采用线性导轨，高精度高刚性及低摩擦系数

Injection and plasticizing system adopts linear guide with high precision, high rigidity and low coefficient of friction



### 高效的液压系统
### HIGH EFFICIENT HYDRAULIC SYSTEM

配备独立的伺服液压动力系统。油路布置合理，压力损失小

Equipped with independent hydraulic servo system. Reasonable oil circuit layout and low pressure loss



### 多角度射台搭配
### FLEXIBLE COMBINATIONS OF MULTI-COMPONENTS

满足制品多样化及个性化需求

Meets customized needs of parts in diversification and individuation

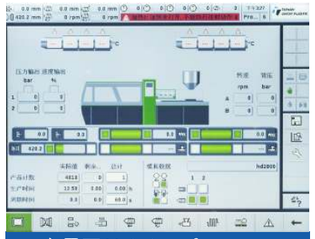
# CONTROL SYSTEM
## 控制系统

### 专用控制器
Special controller

友好的人机界面及高精度电脑控制系统，操作便捷，运转稳定，扩展性极佳。可配备MES系统，实现生产车间联网管理。

Friendly human-machine interface and high-precision control system, convenient operation, stable running and excellent extensibility. Able to equip with MES system to realize network management of production workshop.





主界面 Main interface page


开锁模页面 Lock mode page


注射页面 Injection page


中子页面 Core page

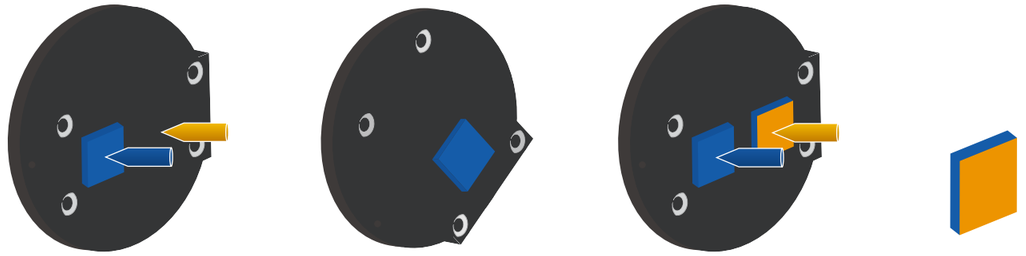

射台页面 Shoot page


生产设定页面 Production set page





# TURNTABLE TECHNOLOGY
## 转盘技术



两组份部件（模具中两个工位），通过高精度转盘转动180度将预注射的坯件移动到第二工位。对于三种或四种组分（三个或四个工位），此旋转角度分别为120度或90度。

Two component parts (two stations in the mould), the perform is moved to the 2nd injection position by a 180°rotation through high precision turntable. In the case of three or four components (three or four stations), the angle of rotation is 120°or 90°.

### 特点 FEATURES

❶ 预注塑件将留在型芯上，这样就几乎不存在翘曲
❷ 周期时间短
❸ 尤其适用于多模腔

The perform stays in the core, no possibility of becoming twisted
Short cycle time
Specially suitable for multi-cavity mould

对于三种或四种组分（三个或四个工位）
此旋转角度分别为
**120° 或 90°**

### 可搭配射台组合 Available with configuration of

P L V W M



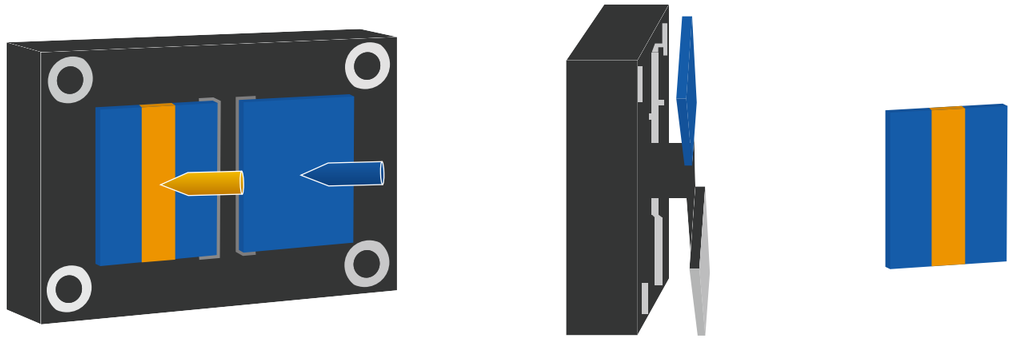








# INDEX PLATE
## 转轴技术



在动模板中心配备可180°旋转的转动机构，带动模具轴向运动，将预注射的坯件移动到第二工位。

The center of the moving platen is equipped with a rotating structure that can rotate 180 °, which drives the mould to axial motion and moves the preform to the 2nd station.

### 特点 FEATURES

- 周期时间短
- 与转盘相比，在大多数情况下需要的拉杆间距较小

Short cycle time
Need less tie bar distance compared to turntable in most instances

### 可搭配射台组合 Available with configuration of

P L V W M



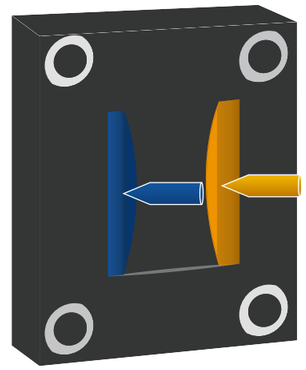


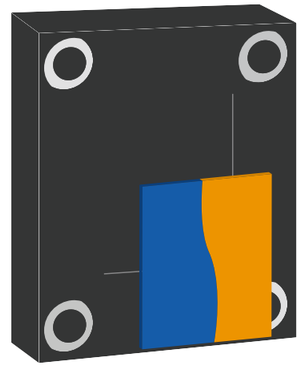






# BI-INJECTION
## 双注射





双注射是将两种颜色的相同原料通过两个独立的浇口注射到模腔中，制品上没有准确的分型线。

Bi-injection is the injection of the same raw materials of two colors into the cavity through two independent gates. No accurate parting line on the product.

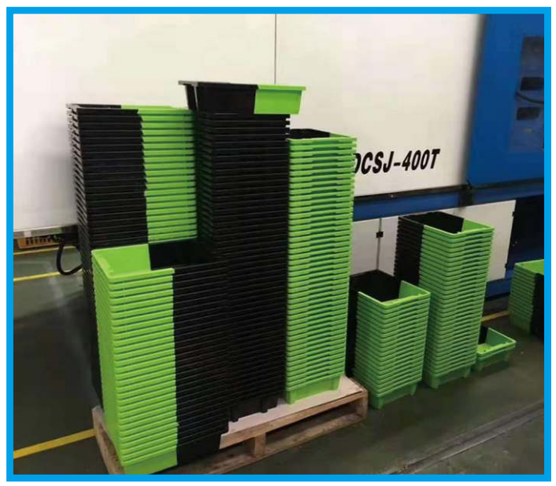
### 特点 FEATURES

- 模具成本低（仅限单腔模具）
- 工艺过程简单

Low cost for mould (One cavity mould only)
Simple molding process

### 可搭配射台组合 Available with configuration of

P L V W M

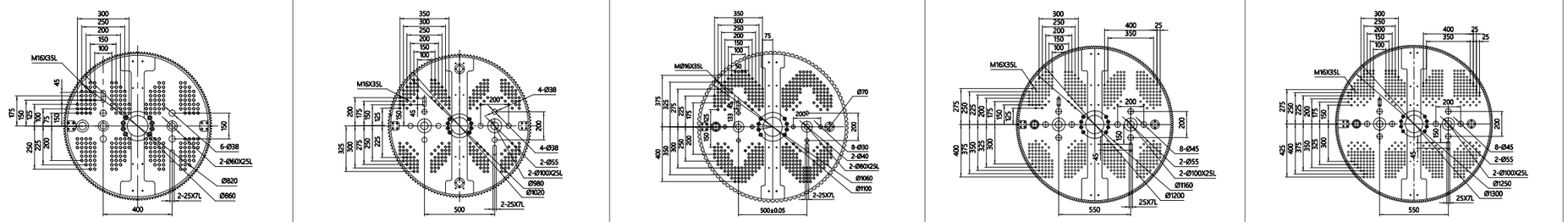


## HD 技术参数表 SPECIFICATIONS

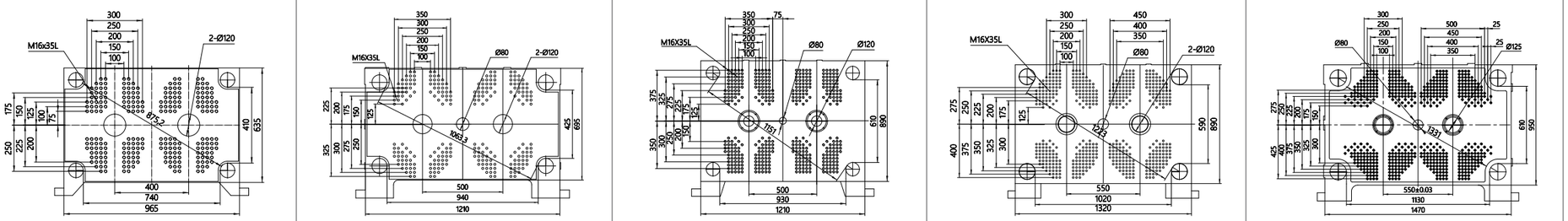
备注：正常情况下改善规格参数，恕不另行通知　Note：Due to improvement, parameters may be changed without prior notice.

| 说明 | DESCRIPTION | UNIT | HD160 | | | | | | HD230 | | | | | | HD280 | | | | | | HD350 | | | | | | HD450 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **注射单元** | **INJECTION UNIT** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 国际标准规格 | International size | / | 230 | | | 300 | | | 230 | | | 300 | | | 300 | | | 470 | | | 470 | | | 720 | | | 720 | | | 1380 | | |
| 螺杆直径 | Screw diameter | mm | 24 | 26 | 28 | 30 | 32 | 36 | 24 | 26 | 28 | 30 | 32 | 36 | 30 | 32 | 36 | 36 | 38 | 42 | 36 | 38 | 42 | 42 | 45 | 48 | 42 | 45 | 48 | 45 | 50 | 55 |
| 螺杆长径比 | Length /Diameter ratio | L/D | 21 | 19 | 18 | 22 | 20.5 | 18 | 21 | 19 | 18 | 22 | 20.5 | 18 | 22 | 20.5 | 18 | 22 | 20.5 | 18 | 21 | 20 | 18 | 24 | 22 | 21 | 24 | 22 | 21 | 23 | 21 | 19 |
| 理论注射容积 | Theoretical shot volume | $cm^3$ | 63 | 74 | 86 | 106 | 120 | 152 | 63 | 74 | 86 | 106 | 120 | 152 | 106 | 120 | 152 | 198 | 221 | 279 | 198 | 221 | 279 | 346 | 397 | 452 | 346 | 397 | 452 | 493 | 608 | 736 |
| 射胶量（PS） | Shot weight (PS) | g | 57 | 67 | 78 | 96 | 110 | 138 | 57 | 67 | 78 | 96 | 110 | 138 | 96 | 110 | 138 | 183 | 201 | 254 | 183 | 201 | 254 | 315 | 361 | 411 | 315 | 361 | 411 | 448 | 553 | 670 |
| 射胶压力 | Injection pressure | Mpa | 367 | 312 | 270 | 280 | 246 | 194 | 367 | 312 | 270 | 280 | 246 | 194 | 280 | 246 | 194 | 228 | 205 | 168 | 228 | 205 | 168 | 208 | 182 | 160 | 208 | 182 | 160 | 280 | 226 | 187 |
| 射出速率 | Injection rate | $cm^3/s$ | 73 | 85 | 99 | 95 | 108 | 137 | 90 | 106 | 123 | 119 | 136 | 172 | 150 | 171 | 216 | 184 | 204 | 249 | 184 | 204 | 249 | 201 | 183 | 208 | 258 | 292 | 332 | 190 | 236 | 285 |
| 射胶行程 | Injection stroke | mm | 140 | | | 150 | | | 140 | | | 150 | | | 150 | | | 195 | | | 195 | | | 250 | | | 250 | | | 310 | | |
| 螺杆转速 | Screw speed | r/min | 300 | | | 280 | | | 300 | | | 280 | | | 280 | | | 210 | | | 210 | | | 180 | | | 210 | | | 141 | | |
| 料管中心距 | Distance between barrel centers | mm | 400 | | | | | | 500 | | | | | | 500 | | | | | | 550 | | | | | | 550 | | | | | |
| **锁模单元** | **CLAMPING UNIT** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 锁模力 | Clamping force | kN | 160 | | | | | | 230 | | | | | | 280 | | | | | | 350 | | | | | | 450 | | | | | |
| 模板最大间距 | Max. daylight | mm | 900 | | | | | | 1070 | | | | | | 1230 | | | | | | 1330 | | | | | | 1350 | | | | | |
| 移模行程 | Mold opening stroke | mm | 340 | | | | | | 420 | | | | | | 580 | | | | | | 580 | | | | | | 600 | | | | | |
| 四柱间距 | Distance between tie bars | mm | 740x410 | | | | | | 940x425 | | | | | | 930x610 | | | | | | 1020x590 | | | | | | 1130x610 | | | | | |
| 最小模具尺寸 | Min. mould dimension | mm | 300x280 | | | | | | 350x350 | | | | | | 400x350 | | | | | | 450x370 | | | | | | 475x400 | | | | | |
| 容模量 | Mould thickenss range | mm | 200-560 | | | | | | 200-650 | | | | | | 200-650 | | | | | | 200-750 | | | | | | 200-750 | | | | | |
| 顶出力 | Ejector force | kN | 3.4x2 | | | | | | 3.4x2 | | | | | | 4.9x2 | | | | | | 4.9x2 | | | | | | 7.7x2 | | | | | |
| 顶出行程 | Ejector stroke | mm | 100 | | | | | | 110 | | | | | | 150 | | | | | | 150 | | | | | | 185 | | | | | |
| 顶针杆数 | No.of ejector pins | Pcs | 6 | | | | | | 6 | | | | | | 10 | | | | | | 10 | | | | | | 10 | | | | | |
| 转盘直径 | Rotary table diameter | mm | 860 | | | | | | 1020 | | | | | | 1100 | | | | | | 1200 | | | | | | 1300 | | | | | |
| 转盘承重 | Load platen rotary table | ton | 1 | | | | | | 1.7 | | | | | | 2.5 | | | | | | 3.2 | | | | | | 3.5 | | | | | |
| 模具数量 | Mould sets | set | 2 | | | | | | 2 | | | | | | 2 | | | | | | 2 | | | | | | 2 | | | | | |
| **其他** | **GENERAL UNIT** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 系统压力 | system pressure | Mpa | 17.5 | | | | | | 17.5 | | | | | | 17.5 | | | | | | 17.5 | | | | | | 17.5 | | | | | |
| 油泵马达功率 | Pump motor power | KW | 2–24 | | | | | | 2–25 | | | | | | 2–31 | | | | | | 2–31 | | | | | | 2–33 | | | | | |
| 电热功率 | Heater power | KW | 4.5 | | | 7 | | | 4.5 | | | 7 | | | 7 | | | 9 | | | 9 | | | 12 | | | 12 | | | 19 | | |
| 温度控制区数 | Number of heating zone | UNIT | 3+1 | | | 3+1 | | | 3+1 | | | 3+1 | | | 3+1 | | | 3+1 | | | 3+1 | | | 3+1 | | | 3+1 | | | 4+1 | | |
| 油箱容量 | Oil tank capacity | L | 350 | | | | | | 600 | | | | | | 600 | | | | | | 600 | | | | | | 900 | | | | | |
| 理论重量 | Theoretical weight | T | 8 | | | | | | 11 | | | | | | 14 | | | | | | 16 | | | | | | 20 | | | | | |
| 机器外形尺寸 | Machine dimension (L×W×H) | m | 5.6x1.9x1.9 | | | | | | 6.2x2.2x2.0 | | | | | | 7.0x2.3x2.2 | | | | | | 7.3x2.4x2.3 | | | | | | 8.0x2.5x2.4 | | | | | |

动模板尺寸图
Platen dimensions
Moving platen




定模板尺寸图
Platen dimensions
Mounting hole for robot/sprue
picker top view from fixed platen

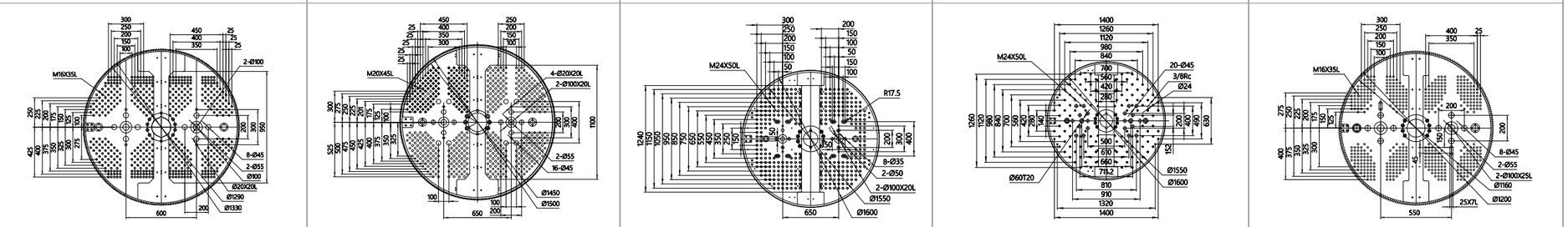


## HD 技术参数表 SPECIFICATIONS

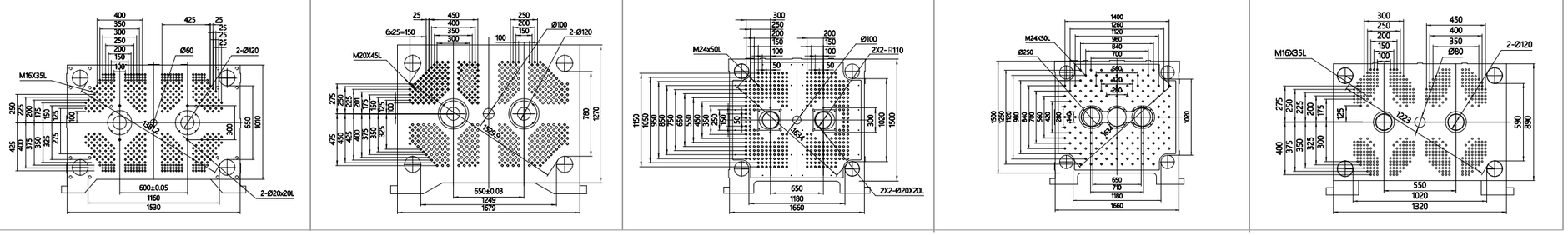
备注：正常情况下改善规格参数，恕不另行通知　Note：Due to improvement, parameters may be changed without prior notice.

| 说明 | DESCRIPTION | UNIT | HD550 | | | | | | HD650 | | | | | | HD850 | | | | | | HD1000 | | | | | | HD400NB（笔电专用Note Book Special） | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **注射单元** | **INJECTION UNIT** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 国际标准规格 | International size | / | 720 | | | 1380 | | | 720 | | | 1380 | | | 1380 | | | 2960 | 3600 | | 1380 | | | 2960 | 3600 | | 230 | | | 300 | | |
| 螺杆直径 | Screw diameter | mm | 42 | 45 | 48 | 45 | 50 | 55 | 42 | 45 | 48 | 45 | 50 | 55 | 45 | 50 | 55 | 60 | 70 | 80 | 45 | 50 | 55 | 60 | 70 | 80 | 24 | 26 | 28 | 30 | 32 | 36 |
| 螺杆长径比 | Length /Diameter ratio | L/D | 24 | 22 | 21 | 23 | 21 | 19 | 24 | 22 | 21 | 23 | 21 | 19 | 23 | 21 | 19 | 22 | 22 | 19 | 23 | 21 | 19 | 22 | 22 | 19 | 21 | 19 | 18 | 22 | 20.5 | 18 |
| 理论注射容积 | Theoretical shot volume | $cm^3$ | 346 | 397 | 452 | 493 | 608 | 736 | 346 | 397 | 452 | 493 | 608 | 736 | 493 | 608 | 736 | 975 | 1615 | 2110 | 493 | 608 | 736 | 975 | 1615 | 2110 | 63 | 74 | 86 | 106 | 120 | 152 |
| 射胶量（PS） | Shot weight (PS) | g | 315 | 361 | 411 | 448 | 553 | 670 | 315 | 361 | 411 | 448 | 553 | 670 | 448 | 553 | 670 | 887 | 1470 | 1920 | 448 | 553 | 670 | 887 | 1470 | 1920 | 57 | 67 | 78 | 96 | 110 | 138 |
| 射胶压力 | Injection pressure | Mpa | 208 | 182 | 160 | 280 | 226 | 187 | 208 | 182 | 160 | 280 | 226 | 187 | 280 | 226 | 187 | 304 | 223 | 171 | 280 | 226 | 187 | 304 | 223 | 171 | 367 | 312 | 270 | 280 | 246 | 194 |
| 射出速率 | Injection rate | $cm^3/s$ | 258 | 292 | 332 | 190 | 236 | 285 | 258 | 292 | 332 | 190 | 236 | 285 | 190 | 236 | 285 | 311 | 423 | 553 | 190 | 236 | 285 | 311 | 423 | 553 | 115 | 135 | 156 | 191 | 218 | 275 |
| 射胶行程 | Injection stroke | mm | 250 | | | 310 | | | 250 | | | 310 | | | 310 | | | 345 | 420 | | 310 | | | 345 | 420 | | 140 | | | 150 | | |
| 螺杆转速 | Screw speed | r/min | 210 | | | 141 | | | 170 | | | 141 | | | 141 | | | 115 | | | 141 | | | 115 | | | 350 | | | 280 | | |
| 料管中心距 | Distance between barrel centers | mm | 600 | | | | | | 650 | | | | | | 650 | | | | | | 710 | | | | | | 550 | | | | | |
| **锁模单元** | **CLAMPING UNIT** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 锁模力 | Clamping force | kN | 550 | | | | | | 650 | | | | | | 850 | | | | | | 1000 | | | | | | 400 | | | | | |
| 模板最大间距 | Max. daylight | mm | 1510 | | | | | | 1720 | | | | | | 2100 | | | | | | 2100 | | | | | | 1330 | | | | | |
| 移模行程 | Mold opening stroke | mm | 660 | | | | | | 720 | | | | | | 1000 | | | | | | 1250 | | | | | | 580 | | | | | |
| 四柱间距 | Distance between tie bars | mm | 1160x650 | | | | | | 1249x780 | | | | | | 1180x1020 | | | | | | 1180x1020 | | | | | | 1020x590 | | | | | |
| 最小模具尺寸 | Min. mould dimension | mm | 500x450 | | | | | | 550x500 | | | | | | 825x715 | | | | | | 825x715 | | | | | | 450x370 | | | | | |
| 容模量 | Mould thickenss range | mm | 300-850 | | | | | | 350-1000 | | | | | | 500-1100 | | | | | | 550-1250 | | | | | | 200-750 | | | | | |
| 顶出力 | Ejector force | kN | 7.7x2 | | | | | | 8.7x2 | | | | | | 8.7x2 | | | | | | 8.7x2 | | | | | | 4.9x2 | | | | | |
| 顶出行程 | Ejector stroke | mm | 185 | | | | | | 185 | | | | | | 250 | | | | | | 250 | | | | | | 150 | | | | | |
| 顶针杆数 | No.of ejector pins | Pcs | 5x2 | | | | | | 9x2 | | | | | | 9x2 | | | | | | 9x2 | | | | | | 5x2 | | | | | |
| 转盘直径 | Rotary table diameter | mm | 1330 | | | | | | 1500 | | | | | | 1600 | | | | | | 1600 | | | | | | 1200 | | | | | |
| 转盘承重 | Load platen rotary table | ton | 3.8 | | | | | | 4 | | | | | | 7 | | | | | | 8 | | | | | | 3.2 | | | | | |
| 模具数量 | Mould sets | set | 2 | | | | | | 2 | | | | | | 1 | | | | | | 1 | | | | | | 2 | | | | | |
| **其他** | **GENERAL UNIT** | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 系统压力 | system pressure | Mpa | 17.5 | | | | | | 17.5 | | | | | | 17.5 | | | | | | 17.5 | | | | | | 17.5 | | | | | |
| 油泵马达功率 | Pump motor power | KW | 2–33 | | | | | | 2–33 | | | | | | 33+58 | | | | | | 41+54 | | | | | | 31+33 | | | | | |
| 电热功率 | Heater power | KW | 12 | | | 19 | | | 12 | | | 19 | | | 19 | | | 26 | | 31 | 19 | | | 26 | | 31 | 4.5 | | | 7 | | |
| 温度控制区数 | Number of heating zone | UNIT | 3+1 | | | 4+1 | | | 3+1 | | | 4+1 | | | 4+1 | | | 4+1 | | 5+1 | 4+1 | | | 4+1 | | 5+1 | 3+1 | | | 3+1 | | |
| 油箱容量 | Oil tank capacity | L | 1000 | | | | | | 1000 | | | | | | 1200 | | | | | | 1200 | | | | | | 600 | | | | | |
| 理论重量 | Theoretical weight | T | 28 | | | | | | 35 | | | | | | 50 | | | | | | 52 | | | | | | 20 | | | | | |
| 机器外形尺寸 | Machine dimension (L×W×H) | m | 8.2x2.6x2.5 | | | | | | 9.2x3.0x2.4 | | | | | | 11x3.1x2.6 | | | | | | 11. 3x3.05x2.64 | | | | | | 7.3x2.2x2.3 | | | | | |

动模板尺寸图
Platen dimensions
Moving platen




定模板尺寸图
Platen dimensions
Mounting hole for robot/sprue
picker top view from fixed platen

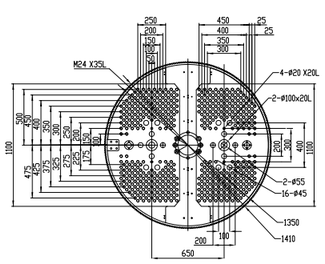


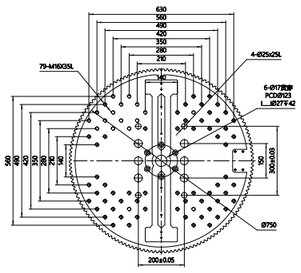
## HD 技术参数表 SPECIFICATIONS

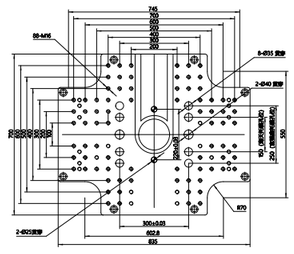
备注：正常情况下改善规格参数，恕不另行通知　Note：Due to improvement, parameters may be changed without prior notice.

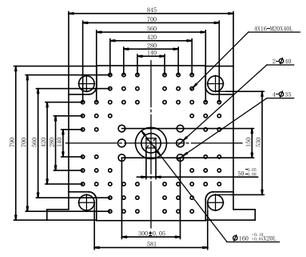
| 说明 | DESCRIPTION | UNIT | HD800NB（笔电专用Note Book Special） | | | | HD250P（制笔专用Pen-making Special） | | | | | | HD200BR（牙刷专用Toothbrush Special） | | | | HD250BR（牙刷专用Toothbrush Special） | | | | | | HD320BR（牙刷专用Toothbrush Special） | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **注射单元** | **INJECTION UNIT** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 国际标准规格 | International size | / | 720 | | 880 | | 300 | | | 470 | | | 470 | | | | 470 | | | 720 | | | 470 | | | 720 | | |
| 螺杆直径 | Screw diameter | mm | 36 | 38 | 42 | 45 | 30 | 32 | 36 | 36 | 38 | 42 | 36 | 38 | 42 | 45 | 36 | 38 | 42 | 42 | 45 | 48 | 36 | 38 | 42 | 42 | 45 | 48 |
| 螺杆长径比 | Length /Diameter ratio | L/D | 21 | 20 | 21 | 21 | 22 | 20.5 | 18 | 22 | 20.5 | 18 | 22 | 20.5 | 24 | 22.4 | 22 | 20.5 | 18 | 24 | 22 | 21 | 22 | 20.5 | 18 | 24 | 22 | 21 |
| 理论注射容积 | Theoretical shot volume | $cm^3$ | 254 | 283 | 346 | 397 | 106 | 120 | 152 | 198 | 221 | 249 | 198 | 221 | 270 | 310 | 198 | 221 | 279 | 346 | 397 | 452 | 198 | 221 | 279 | 346 | 397 | 452 |
| 射胶量（PS） | Shot weight (PS) | g | 231 | 251 | 315 | 361 | 96 | 110 | 138 | 183 | 201 | 254 | 183 | 201 | 246 | 282 | 183 | 201 | 254 | 315 | 361 | 411 | 183 | 201 | 254 | 315 | 361 | 411 |
| 射胶压力 | Injection pressure | Mpa | 284 | 255 | 254 | 221 | 280 | 246 | 194 | 228 | 205 | 168 | 228 | 205 | 168 | 146 | 228 | 205 | 168 | 208 | 182 | 160 | 228 | 205 | 168 | 208 | 182 | 160 |
| 射出速率 | Injection rate | $cm^3/s$ | 256 | 285 | 330 | 378 | 119 | 136 | 172 | 147 | 164 | 200 | 127 | 142 | 173 | 199 | 117 | 130 | 159 | 161 | 184 | 210 | 117 | 130 | 159 | 161 | 184 | 210 |
| 射胶行程 | Injection stroke | mm | 250 | | 250 | | 150 | | | 195 | | | 195 | | | | 195 | | | 250 | | | 195 | | | 250 | | |
| 螺杆转速 | Screw speed | r/min | 250 | | 210 | | 250 | | | 210 | | | 200 | | | | 250 | | | 210 | | | 250 | | | 210 | | |
| 料管中心距 | Distance between barrel centers | mm | 650 | | | | 200 | | | | | | 300 | | | | 300 | | | | | | 300 | | | | | |
| **锁模单元** | **CLAMPING UNIT** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 锁模力 | Clamping force | kN | 800 | | | | 250 | | | | | | 200 | | | | 250 | | | | | | 320 | | | | | |
| 模板最大间距 | Max. daylight | mm | 1570 | | | | 1025 | | | | | | 950 | | | | 980 | | | | | | 1220 | | | | | |
| 移模行程 | Mold opening stroke | mm | 720 | | | | 465 | | | | | | 440 | | | | 450 | | | | | | 560 | | | | | |
| 四柱间距 | Distance between tie bars | mm | 1230x680 | | | | 570x520 | | | | | | 520x470 | | | | 580x530 | | | | | | 655x655 | | | | | |
| 最小模具尺寸 | Min. mould dimension | mm | 500x450 | | | | 400x350 | | | | | | 364x329 | | | | 400x350 | | | | | | 450x450 | | | | | |
| 容模量 | Mould thickenss range | mm | 350-850 | | | | 200-560 | | | | | | 200-510 | | | | 200-530 | | | | | | 200-660 | | | | | |
| 顶出力 | Ejector force | kN | 8.7x2 | | | | 2.7x2 | | | | | | 3.4x2 | | | | 2.7x2 | | | | | | 4.9x2 | | | | | |
| 顶出行程 | Ejector stroke | mm | 240 | | | | 150 | | | | | | 120 | | | | 130 | | | | | | 150 | | | | | |
| 顶针杆数 | No.of ejector pins | Pcs | 9x2 | | | | 6 | | | | | | 950 | | | | 6 | | | | | | 6 | | | | | |
| 转盘直径 | Rotary table diameter | mm | 1410 | | | | 800 | | | | | | 300 | | | | / | | | | | | / | | | | | |
| 转盘承重 | Load platen rotary table | ton | 6 | | | | 0.8 | | | | | | 0.2 | | | | 0.2 | | | | | | 0.4 | | | | | |
| 模具数量 | Mould sets | set | 2 | | | | 1 | | | | | | 1 | | | | 1 | | | | | | 1 | | | | | |
| **其他** | **GENERAL UNIT** | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 系统压力 | system pressure | Mpa | 17.5 | | | | 17.5 | | | | | | 17.5 | | | | 17.5 | | | | | | 17.5 | | | | | |
| 油泵马达功率 | Pump motor power | KW | 33+54 | | | | 20 | | | 20 | | | 20x2 | | | | 16 | | | 20 | | | 16 | | | 20 | | |
| 电热功率 | Heater power | KW | 10 | | 14 | | 7 | | | 9 | | | 9 | | | | 9 | | | 12 | | | 9 | | | 12 | | |
| 温度控制区数 | Number of heating zone | UNIT | 3+1 | | 4+1 | | 3+1 | | | 3+1 | | | 4+1 | | | | 3+1 | | | 3+1 | | | 3+1 | | | 3+1 | | |
| 油箱容量 | Oil tank capacity | L | 1000 | | | | 600 | | | | | | 510 | | | | 500 | | | | | | 600 | | | | | |
| 理论重量 | Theoretical weight | T | 45 | | | | 11 | | | | | | 7 | | | | 11 | | | | | | 13 | | | | | |
| 机器外形尺寸 | Machine dimension (L×W×H) | m | 8.7×3.1×2.4 | | | | 5.6x1.8x2.2 | | | | | | 6.32x1.75x1.86 | | | | 6.2x1.7x1.9 | | | | | | 6.8x2.0x2.2 | | | | | |

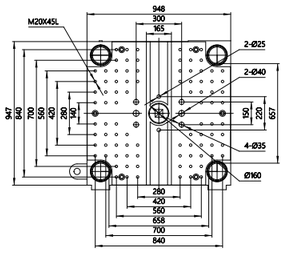
动模板尺寸图
Platen dimensions
Moving platen



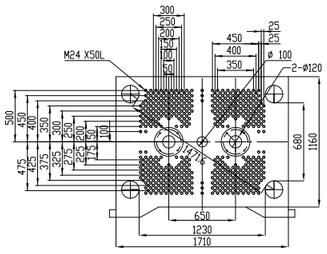



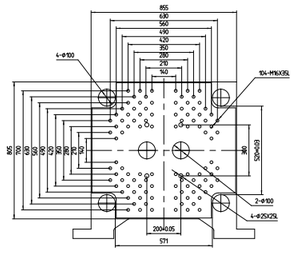



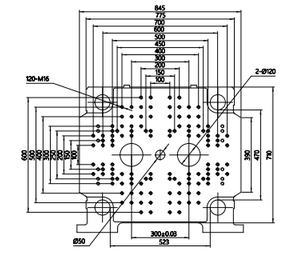



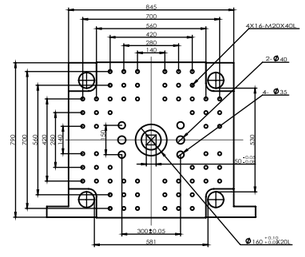



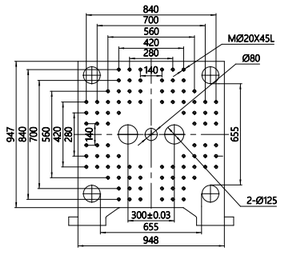

定模板尺寸图
Platen dimensions
Mounting hole for robot/sprue
picker top view from fixed platen



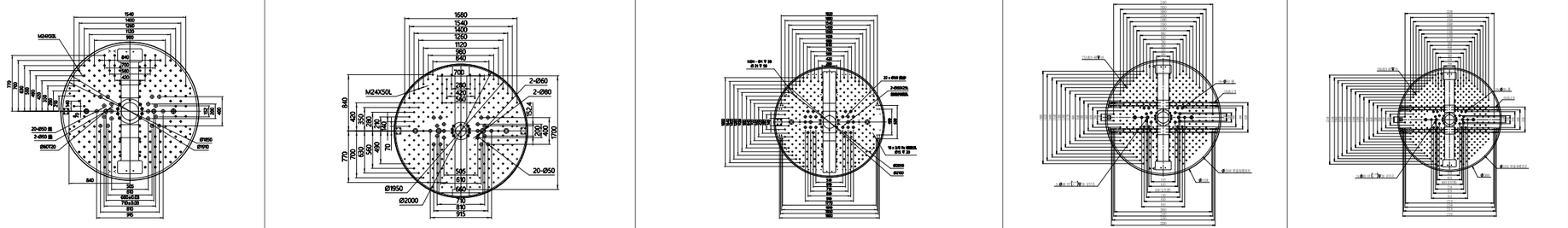



## HD 技术参数表 SPECIFICATIONS

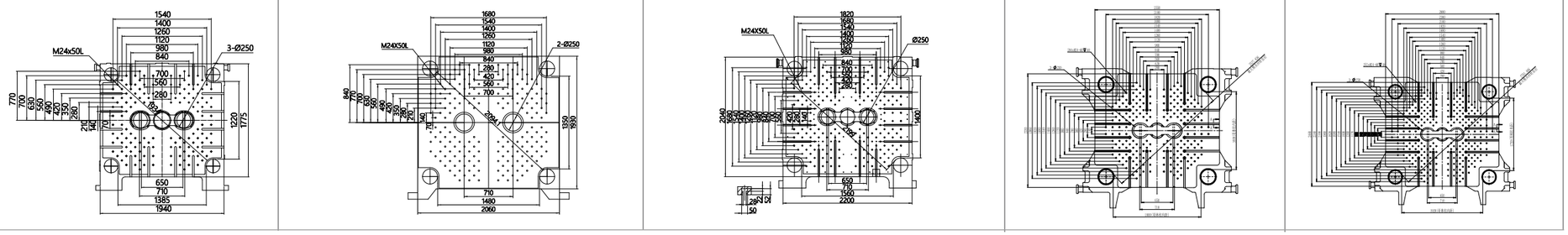
备注：正常情况下改善规格参数，恕不另行通知　Note：Due to improvement, parameters may be changed without prior notice.

| 说明 | DESCRIPTION | UNIT | HD-1300LP/3HD1300LP | | | | | HD1500LP/3HD1500LP | | | | | | | HD1700LP/3HD1700LP | | | | | | | HD-2000/3HD-2000LP | | | | HD-2500/3HD-2500LP | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **注射单元** | **INJECTION UNIT** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 国际标准规格 | International size | / | 1380 | | | 2960 | 3600 | 1700 | | 2960 | 3600 | | 4950 | | 1380 | | 2960 | 3600 | 4950 | | 720 | 2960 | 3600 | 4950 | 720 | 3600 | 4950 | 6870 | 1380 |
| 螺杆直径 | Screw diameter | mm | 45 | 50 | 55 | 60 | 70 | 55 | 60 | 60 | 70 | 80 | 80 | 90 | 45 | 50 | 60 | 70 | 80 | 90 | 42 | 60 | 70 | 80 | 42 | 70 | 80 | 90 | 45 |
| 螺杆长径比 | Length /Diameter ratio | L/D | 22 | 21 | 22 | 22 | 22 | 21.4 | 19.7 | 22 | 22 | 19 | 22 | 19 | 22 | 21 | 22 | 22 | 22 | 19 | 20 | 22 | 22 | 22 | 20 | 22 | 22 | 22 | 22 |
| 理论注射容积 | Theoretical shot volume | $cm^3$ | 493 | 608 | 736 | 975 | 1615 | 736 | 876 | 975 | 1615 | 2110 | 2311 | 2925 | 493 | 608 | 975 | 1615 | 2311 | 2926 | 346 | 975 | 1615 | 2311 | 346 | 1615 | 2311 | 2925 | 493 |
| 射胶量（PS） | Shot weight (PS) | g | 448 | 553 | 670 | 887 | 1470 | 670 | 797 | 887 | 1470 | 1920 | 2103 | 2662 | 448 | 553 | 887 | 1470 | 2103 | 2662 | 315 | 887 | 1470 | 2103 | 315 | 1470 | 2103 | 2662 | 448 |
| 射胶压力 | Injection pressure | Mpa | 280 | 227 | 187 | 304 | 223 | 231 | 194 | 304 | 223 | 171 | 214 | 169 | 280 | 226 | 304 | 223 | 214 | 169 | 208 | 304 | 223 | 214 | 208 | 223 | 214 | 235 | 280 |
| 射出速率 | Injection rate | $cm^3/s$ | 190 | 236 | 285 | 311 | 423 | 285 | 339 | 311 | 423 | 553 | 543 | 687 | 190 | 236 | 311 | 423 | 543 | 687 | 200 | 311 | 423 | 543 | 200 | 423 | 543 | 635 | 190 |
| 射胶行程 | Injection stroke | mm | 310 | | | 345 | 420 | 310 | | 345 | 420 | | 460 | 460 | 310 | | 345 | 420 | 460 | | 250 | 345 | 420 | 460 | 250 | 420 | 460 | 460 | 310 |
| 螺杆转速 | Screw speed | r/min | 141 | | | 130 | | 230 | | 130 | | | 142 | | 141 | | 130 | | 142 | | 180 | 160 | 130 | 145 | 180 | 130 | 145 | 125 | 135 |
| 料管中心距 | Distance between barrel centers | mm | 710 | | | | | 710 | | | | | | | 710 | | | | | | | 710 | | | | 710 | | | |
| **锁模单元** | **CLAMPING UNIT** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 锁模力 | Clamping force | kN | 1300 | | | | | 1500 | | | | | | | 1700 | | | | | | | 2000 | | | | 2500 | | | |
| 模板最大间距 | Max. daylight | mm | 2650 | | | | | 3050 | | | | | | | 3100 | | | | | | | 3500 | | | | 3800 | | | |
| 移模行程 | Mold opening stroke | mm | 1200 | | | | | 1400 | | | | | | | 1450 | | | | | | | 1800-2700 | | | | 2000-3000 | | | |
| 四柱间距 | Distance between tie bars | mm | 1380x1220 | | | | | 1460x1340 | | | | | | | 1560x1400 | | | | | | | 1800×1600 | | | | 2060×1860 | | | |
| 最小模具尺寸 | Min. mould dimension | mm | 966x850 | | | | | 1020x935 | | | | | | | 1092x980 | | | | | | | 1260×1120 | | | | 1422×1302 | | | |
| 容模量 | Mould thickenss range | mm | 600-1450 | | | | | 700-1650 | | | | | | | 700-1650 | | | | | | | 800-1700 | | | | 800-1800 | | | |
| 顶出力 | Ejector force | kN | 8.7x2 | | | | | 16. 6x2 | | | | | | | 16.6x2 | | | | | | | 24.7×2 | | | | 24.7×2 | | | |
| 顶出行程 | Ejector stroke | mm | 250 | | | | | 300 | | | | | | | 300 | | | | | | | 300 | | | | 300 | | | |
| 顶针杆数 | No.of ejector pins | Pcs | 11x2 | | | | | 11x2 | | | | | | | 11x2 | | | | | | | 10×2 | | | | 10×2 | | | |
| 转盘直径 | Rotary table diameter | mm | 1910 | | | | | 2000 | | | | | | | 2100 | | | | | | | 2450 | | | | 2800 | | | |
| 转盘承重 | Load platen rotary table | ton | 9 | | | | | 12 | | | | | | | 15 | | | | | | | 18 | | | | 25 | | | |
| 模具数量 | Mould sets | set | 1 | | | | | 1 | | | | | | | 1 | | | | | | | 2 | | | | 2 | | | |
| **其他** | **GENERAL UNIT** | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 系统压力 | system pressure | Mpa | 17.5 | | | | | 17.5 | | | | | | | 17.5 | | | | | | | 24/17.5 | | | | 24/17.5 | | | |
| 油泵马达功率 | Pump motor power | KW | 54+54 | | | | | 54+41×2 | | | | | | | 54+41×2 | | | | | | | 62 | 62 | 42×2 | 20 | 62 | 42×2 | 50×2 | 32 |
| 电热功率 | Heater power | KW | 19 | | 26 | 31 | | 17.4 | 26 | 31 | 38 | | | | 19 | 31 | 38 | 12 | | | | 25.8 | 31 | 38 | 12 | 31 | 38 | 44.5 | 19 |
| 温度控制区数 | Number of heating zone | UNIT | 4+1 | | 4+1 | 5+1 | | 4+1 | 4+1 | 5+1 | 5+1 | | | | 4+1 | 4+1 | 5+1 | 3+1 | | | | 3+1 | | 4+1 | 3+1 | 3+1 | | 4+1 | |
| 油箱容量 | Oil tank capacity | L | 1300 | | | | | 1450 | | | | | | | 1450 | | | 500 | | | | 2500 | | | 350 | 2800 | | | 450 |
| 理论重量 | Theoretical weight | T | 61 | | | | | 80 | | | | | | | 95 | | | | | | | 120 | | | | 150 | | | |
| 机器外形尺寸 | Machine dimension (L×W×H) | m | 12.5x3.4x2.8 | | | | | 13x3.35x3.24 | | | | | | | 13.3x3.5x3.2 | | | | | | | 14×4×3.8 | | | | 15×8. 5×4. 03 | | | |

动模板尺寸图
Platen dimensions
Moving platen




定模板尺寸图
Platen dimensions
Mounting hole for robot/sprue
picker top view from fixed platen



## HD 系统功能配置表 STANDARD AN OPTIONAL FUNCTIONS

| HD系列功能配置表 | Standard and Optional functions | 标 配 STD | 选 配 OPT |
|---|---|---|---|
| **锁模单元** | CLAMPING UINIT | | |
| 开合模比例控制 | Mold open/close proportional control | | ● |
| 开合模闭环控制 | Mold open/close closed–loop control | | ● |
| 顶出闭环控制 | Eject closed–loop control | | ● |
| **液压单元** | HYDRAULIC UNIT | | |
| 伺服油泵 | Servo motor system | ● | |
| 加大油泵电机功率 | Increased pumo motor power | | ● |
| 多组顺序注射功能 | Multi–sequential injection function | | ● |
| 注射伺服阀 | Servo valve for injection | | ● |
| 液压油位报警 | Hydraulic oil level alarm | | ● |
| 吸油口锁闭装置 | Oil suction lock device | ● | |
| 冷水阀 | Cooling valve | | ● |
| **电气单元** | ELELECTRIC UNIT | | |
| 科霸控制器 | KEBA controller | ● | |
| 各动作工况实时监视功能 | Real time working condition monitoring | ● | |
| 生产资料监测功能 | Production data monitoring | ● | |
| 故障报警显示功能 | Fault alarm | ● | |
| 注射压力转保压功能 | Injection pressure turns to pressure holding | | ● |
| I/O监测显示 | I/O monitoring | ● | |
| 三色报警灯 | 3color alarm | | |
| 电机过载保护 | Motor overload protection | ● | ● |
| 前后门紧急停止按钮 | Emergency stop for safety door | ● | |
| 380V/16A五芯插座6组(HD-500及以下) | 380V/16A 5 pins socketx6 (HD–500 and below) | ● | |
| 220V/10A三芯插座1组 | 220V/10A 3 pins socketxl | ● | |
| 380V/32A五芯插座(HD-600及以上) | 380V/32A 5 pins socketx6 (HD–600 and above) | ● | |
| 伺服动力系统变电压 | Servo power system transformer | | ● |
| 欧规12机械手接口 | Euromap 12 robot interface | | ● |
| 欧规67机械手接口 | Euromap 67 robot interface | | ● |
| 加热双重保护 | Heating double protection | ● | |
| 安全继电器监控 | Safety replay monitoring | | ● |
| 加热固态继电器控制 | SSR heating control | ● | |
| 实时锁模力监测 | Real time clamping force monitoring | | ● |
| 实时能耗监测 | Real time power consumption monitoring | | ● |
| 热流道控制系统与接口 | Hot runner control and interface | | ● |
| 注塑机生产管理MES系统 | MES production management system | | ● |
| **其他配置** | OTHERS | | |
| HD系列标准配色 | HONZEN standard color for HD Series | ● | |
| 防震机床垫脚 | Leveling pad | ● | |
| 地脚螺栓 | Anchor bolt | | ● |
| 常用工具、易损件、模具压板、说明书 | General tools, spare parts, mold clamp, operation manual | ● | |
| 特殊配色 | Special color | | ● |
| 加高机身 | Higher machine base | | ● |
| 机械手 | Robot | | ● |
| 磁力架 | Hopper magnet | | ● |
| 冷水机 | Chiller | | ● |
| 模温机 | Mold temperature controller | | ● |
| 除湿机 | Dehumidifier | | ● |
| 自动上料机 | Auto–loader | | ● |



备注：正常情况下改善规格参数，恕不另行通知

| HD系列功能配置表 | Standard and Optional functions | 标 配 STD | 选 配 OPT |
|---|---|---|---|
| **注射单元** | INJECTION UNIT | | |
| 标准螺杆 | Standard screw | ● | |
| 特殊螺杆 | Special screw | | ● |
| 单缸注射结构 | Single injection cylinder structure (Screw dia. 55mm and below) | ● | |
| 螺杆转速显示 | Screw rotation speed display | ● | |
| 液压储料马达 | Hydraulic motor for plasticizing | ● | |
| 储料背压比例控制 | Proportional back pressure control | ● | |
| 下料口温度监测 | Feeding zone temperature control | | ● |
| 喷嘴防护罩 | Nozzle cover | ● | |
| 座台集中润滑装置 | Centralized lubrication for injection carriage | | ● |
| 陶瓷加热圈 | Ceramic heater band | ● | |
| 气体辅助注射接口 | Gas assisted injection interface | | ● |
| 电动加料功能 | Servo motor for plasticizing | | ● |
| 干燥料斗 | Hopper dryer | | ● |
| 不锈钢料斗 | Stainless steel hopper | | ● |
| **锁模单元** | CLAMPING UINIT | | |
| 螺丝孔模板 | Screw hole platen | ● | |
| 模板（欧规2模具安装尺寸） | Platen with EUROMAP 2 mold mounting dimensions | | ● |
| 高刚性5铰链锁模机构 | High rigidity toggle system | ● | |
| 液压、电气安全保护 | Hydraulicand electrical interlock device | ● | |
| 机械安全保护 | Mechanical safety device | | ● |
| 自动调模功能 | Mold height auto–adjustment function | ● | |
| 伺服电机转盘驱动 | Turntable controlled by servo motor | ● | |
| 开关模、脱模电子尺控制 | Mold open/close and ejector controlled by transducer | ● | |
| 定量式自动集中润滑系统 | Quantitative automatic centralized lubrication | ● | |
| 可调节式模板支撑装置 | Adjustable platen supporting device | ● | |
| 动模板移动高硬度轨道板 | Moving platen with high rigidity rail board | ● | |
| 合模区移动安全顶盖板 | Top safety cover for clamping unit | | ● |
| 自动安全门（HD-400及以下） | Automatic safety door（HD-400 and below） | | ● |
| 自动安全门（HD-450及以上） | Automatic safety door（HD-450 and above） | ● | |
| 欧规18机械手安装位置 | Euromap 18 robot mounting interface | | ● |
| 磁力模板 | Magnetic platen | | ● |
| 液压/电动旋转脱模装置 | Hydraulic/electrical unscrew device | | ● |
| 两组分水器 | Water manifoldx2 | ● | |
| 快插接头分水器 | Water manifold with quick coupling | | ● |
| 一组吹气阀 | Air blasterx1 | ● | |
| 两组吹气阀 | Air blasterx2 | | ● |
| 四组吹气阀 | Air blasterx4 | | ● |
| 2组抽芯（动模） | Core pullerx2 (On moving platen) | ● | |
| 3组抽芯（动模2组，定模1组） | Core pullerx3 (1 on moving platen, 1 on fixed platen) | | ● |
| 4组抽芯（动模2组，定模2组） | Core pullerx4 (2 on moving platen, 2 on fixed platen) | | ● |
| 顺序阀 | Sequential shut off valve | | ● |
| 合模快速装置 | Quick clamping device | | ● |
| 开模顶出同步（顶出无比例控制） | Eject during mold opening (Eject without proportional control) | | ● |
| 开模顶出同步（顶出比例控制） | Eject during mold opening (Eject with proportional control) | | ● |
| 开模储料同步（储料比例控制） | Charge during mold opening (Charge with proportional control) | | ● |
| 开模，顶出，储料同步（比例控制） | Charge and eject during mold opening | | ● |