

UBE

COMPREHENSIVE
UPGRADE
DIE CASTING MACHINE
Sh3
全面升级
Sh3压铸机

UBE

总部：宇部兴产机械株式会社

地址：山口县宇部市大字小串字冲之山1980番地
1980, Okinoyama, kogushi, Ube city
Yamaguchi prefecture 755-8633, Japan
Tel : +81-836-22-0072 Fax : +81-836-22-6457

宇部兴产机械（上海）有限公司

中国上海市浦东外高桥保税区富特北路91号
No.91, Futebei Road, Waigaoqiao Free Trade Zone,
Pudong New Area, Shanghai, 200131 China
Tel : +86-021-58681633 Fax : +86-021-58681634/0634

中国区销售公司：上海宇部机械商贸有限公司

中国上海市浦东新区巨峰路1058号3座10楼
10.Floor, No.3 Building, No.1058, Jufeng Road,
Pudong New Area, Shanghai, 201208 China
Tel : +86-021-50133223 Fax : +86-021-50133220

东京分公司：

东京都港区芝浦1-2-1シーバンスN館21階
21F Seabans North Building, 1-2-1 Shibaura,
Minato-ku, Tokyo 105-6791 , Japan
Tel : +81-3-5419-6212 Fax : +81-3-5419-6296

台北分公司：

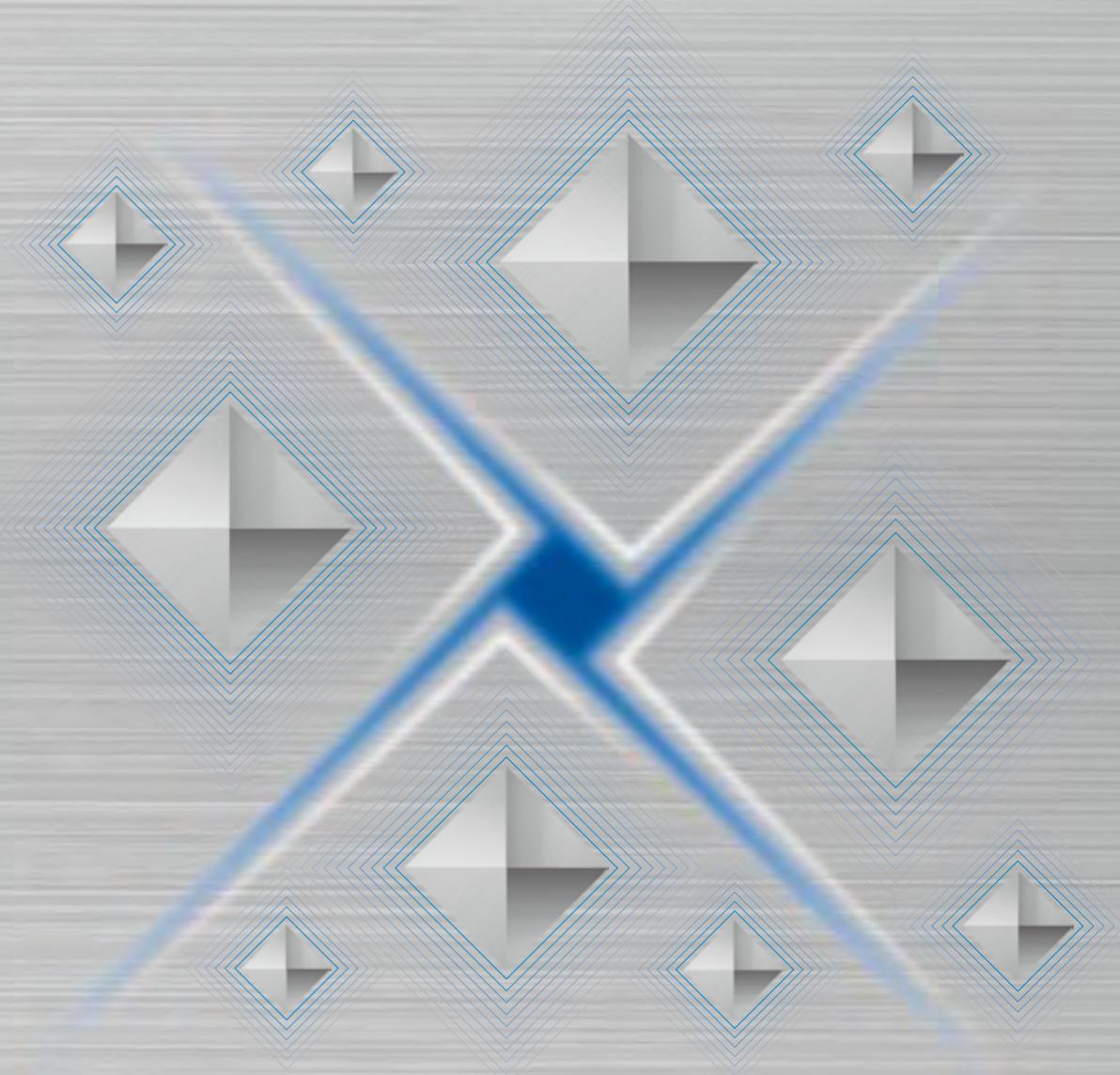
台北市南京东路1段120号7F-1 资生大楼
7F-1, No. 120Sec.1, Nanking E. Road, Taipei, 104-54, R.O.C
Tel : +886-2-2542-0668 Fax : +886-2-2542-0226

韩国首尔分公司：

2nd Floor, KOAMI bldg., 13-31, Yido-Dong,
Youngdeungpo-ku, Seoul 150-729, KOREA
Tel : +82-2-784-0486 Fax : +82-2-784-0489

泰国分公司：

122/2 Krungthepkreetha Road, Kwang Saparnsung,
Khet Saparnsung Bangkok 10250
Tel:+66-2735-8503,4 Fax:+66-2735-8505



宇部兴产机械(上海)有限公司

UB-Sh3 系列

High Quality die casting machine

高品质压铸机

型号TYPE:

UB250Sh3



High Quality Die Casting Machine UBE

Sh3介绍

Introduction of Sh3

UB-Sh3系列压铸机秉承了宇部机械高刚性、高稳定性和高填充力等优点。

UB-Sh3 series Die Casting Machine takes the high rigidity, high stability and high filling power etc properties of UBE machineries.

采用宇部特有的单活塞压射系统、差动控制，具有启动稳定、高速填充力大的特点，并结合压射活塞内部UNI-FF机械减速结构，消除了高速填充结束后的压力峰值，充分实现了无胀模、无飞边压铸，保证了铸件的内部品质，并延长机械使用寿命。

UBE's one-piston run around system is adopted, so that it features stable and high speed startup and high filling power. Moreover by combining UNI-FF mechanical deceleration structure inside injection piston, the pressure peak after high speed filling will be eliminated, so that die casting without burrs will be fully realized, the internal quality of casting will be ensured, and the service life of machine will be prolonged.

五大优点

Five Major Advantages

- 1 彩屏设定 Color touch screen setting----操作方便 Easy operation
- 2 曲线显示 Shot curve display ----品质保证 Quality assurance
- 3 单活塞压射 One-piston run around system ----高填充力 High filling power
- 4 机械减速 Mechanical deceleration----重复性高、位置精确
High repeatability, accurate position
- 5 超高刚性 Super high rigidity ----延长使用寿命 Prolong service life of machine

High Quality Die Casting Machine UBE

UB-Sh3 Series

UB-Sh3系列的压铸控制、 管理系统Cast-Navi UB-Sh3series die casting control, Management system Cast-Navi

能够全面掌握压铸的全过程，铸造条件集中在触摸屏上设定各种参数，动作一目了然，操作方便并可存储100套产品压射参数，使用更便捷。

Overall Master the wholeprocess of diecasting. The casting conditions are concentrated on the touch screen to set various parameters, the actions are clear at a glance, the operation is easy, and 100 sets of product injection parmeter can be stored. The application is more convenient.



CAST NAVI®

铸造参数管理 Casting parameter Management

通过TFT液晶面板+触摸面板直接设定参数
可记忆100个模具的铸造条件
在线编辑（铸造时，可对其他保存数据进行编辑）
铸造条件变更历史记录
铸造条件计算功能（自动演算）
密码系统的权限设定
TFT LCD panel + touch panel for direct parameter settings
Storage of casting conditions for 100 dies
Online editing (editing of other stored data during casting)
Storage of casting condition change history
Casting condition calculation function (automatic calculation)
Password-based security function

铸造监测器 Casting Monitoring

射出波形显示（射出速度，铸造压力，头压，杆压）
射出波形的重复改写
射出master波形的记录/显示
监测波形数据
铸造工程时间柱形图显示（master记录/比较）
Graphical shot profile display (injection speed, casting pressure, head pressure, and rod pressure)
Allows overlapped display of saved shot profiles
Master shot profile storage/display
Monitoring shot profile data
Casting process time bar chart display (master storage/comparison)

产品质量管理 Product quality Management

质量报告显示
质量管理功能（每个计测数据的上下限）
利用Cast Trend来收集计测数据
Quality report display
Quality management function (upper and lower limit monitoring function)
Cast Trend for collecting monitoring data

产品管理 Production Management

生产报告（每个模具）显示
每班组的生产报告显示
Production report (by die) display
Production report (by shift) display

维护管理 Maintenance Management

报警历史记录
维护报警计数器（冲头和熔杯）
总运行时间和总产量计数器I/O监视器
Alarm history
Maintenance alarm counter (plunger tip, and sleeve)
Total operating time and total production quantity counter I/O monitor



**铸造参数计算功能 (自动演算)
Casting parameters calculation function
(Automatic calculation)**



设备监测画面 Machine monitor screen

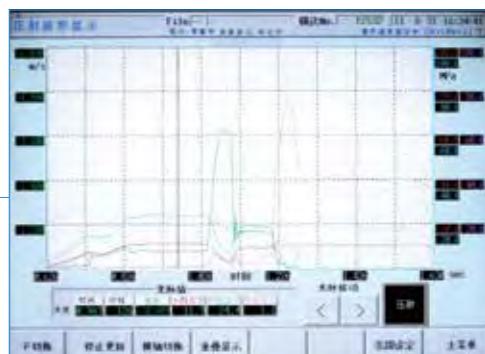
设备的状态能通过指示灯进行确认。
Status of the machine can be verified by the lamp indications.



工艺流程条形图显示 Process bar chart display
显示循环期间的9个步骤
Displays nine stages of cycle time



品质设定 Quality setting
每个运行状态中计测项目取出、警报的NG信号输出
NG signal out-put to Extractor and alarm for each operation parameter



**射出波形图显示
Graphical shot profile display**



设定值变更记录 Setting change history

现行数据中过去200次变更的历史记录显示
Display of history showing the last 200 changes in current data



趋势显示画面 Trend screen
显示过去射出的趋势图
Displays the trend graphs of the history



冲头, 熔杯和维护计数器 Tip, sleeve, maintenance counter
冲头, 熔杯和其他2点等4个项目的维护警报指示
显示总循环时间以及总生产量
Indicating maintenance alarms for four items including the tip, sleeve, and two other items
Display the total cycle time and total production quantity

UB-Sh3 Series

宇部专利

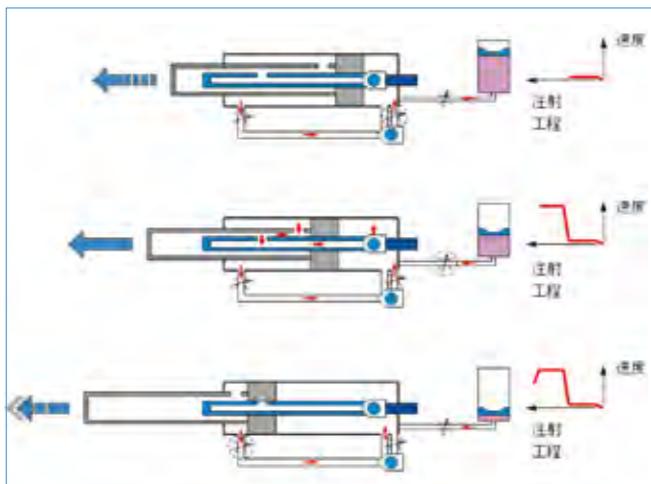
UBE patent

UNI-FF机械减速，减速位置精确，调整方便
UNI-FF mechanical deceleration system
Easy setting of accurate deceleration position

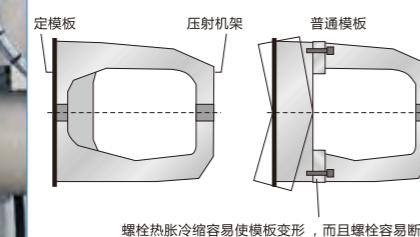
一般压铸法
Ordinary die casting system



UNI-FF压铸法
UNI-FF die casting system



D型框架构造



整体D型压射框架
提高其压射的整体刚性
防止压射的振动和同心度的偏移
提高连接部位的寿命

D frame injection bracket
Improve the whole rigidity of the injection
Prevent the vibration of injection and deflection of concentricity
Prolong the service life of the connection part



单活塞压射回路
差动控制，启动平稳
可控制性好，高填充力
One-piston run around circuit
Stable startup
Good controllability, high power casting

安全钩
Safety hook

高品质日本原产液压部件
保证油路稳定
Original high quality hydraulic components imported from Japan
Ensure the stability of oil condition

超高刚性----延长机械使用寿命
Super high rigidity
Prolong the service life of machine

High Quality Die Casting Machine UBE

自动给汤装置 Automatic ladler

NO.	项目	UCL-02	item	UCL-02
1	适用压铸机	UB250Sh3、UB350Sh3	applicable die casting machine	UB250Sh3、UB350Sh3
2	取汤有效行程	350mm (炉开口、深、高)	effective ladling depth	350mm (depend on furnace opening square,depth,height)
3	给汤精度	±2.0% (处于最大给汤量时)	accuracy ladling	±2.0% (with the max. ladling weight)
4	驱动方式	手臂驱动： 0.75kwAC马达(变频器控制) 汤勺驱动： 0.18kwAC马达(变频器控制)	Power device	arm driving motor : 0.75kw AC motor (inverter control) ladle driving motor : 0.18kw AC motor (inverter control)



自动喷淋装置 Automatic Sprayer

NO.	项目	UCSP-02	item	UCSP-02
1	适用压铸机	UB250Sh3、UB350Sh3	applicable die casting machine	UB250Sh3、UB350Sh3
2	气管数量	17根	number of air blow nozzle	17pcs
3	喷淋管数量	34根(固定、可动同时吹)	number of spray nozzle	34pcs (fixed,moving blow same time)
4	供应空气压力	0.5~0.6MPa	air pressure	0.5~0.6MPa
5	脱模剂供给口尺寸	Rc 1/2B	liquid supply port diameter	Rc 1/2B
6	动力源	升降：气 旋转：气	power device	rise : air turn : air



自动取件装置 Automatic Extractor

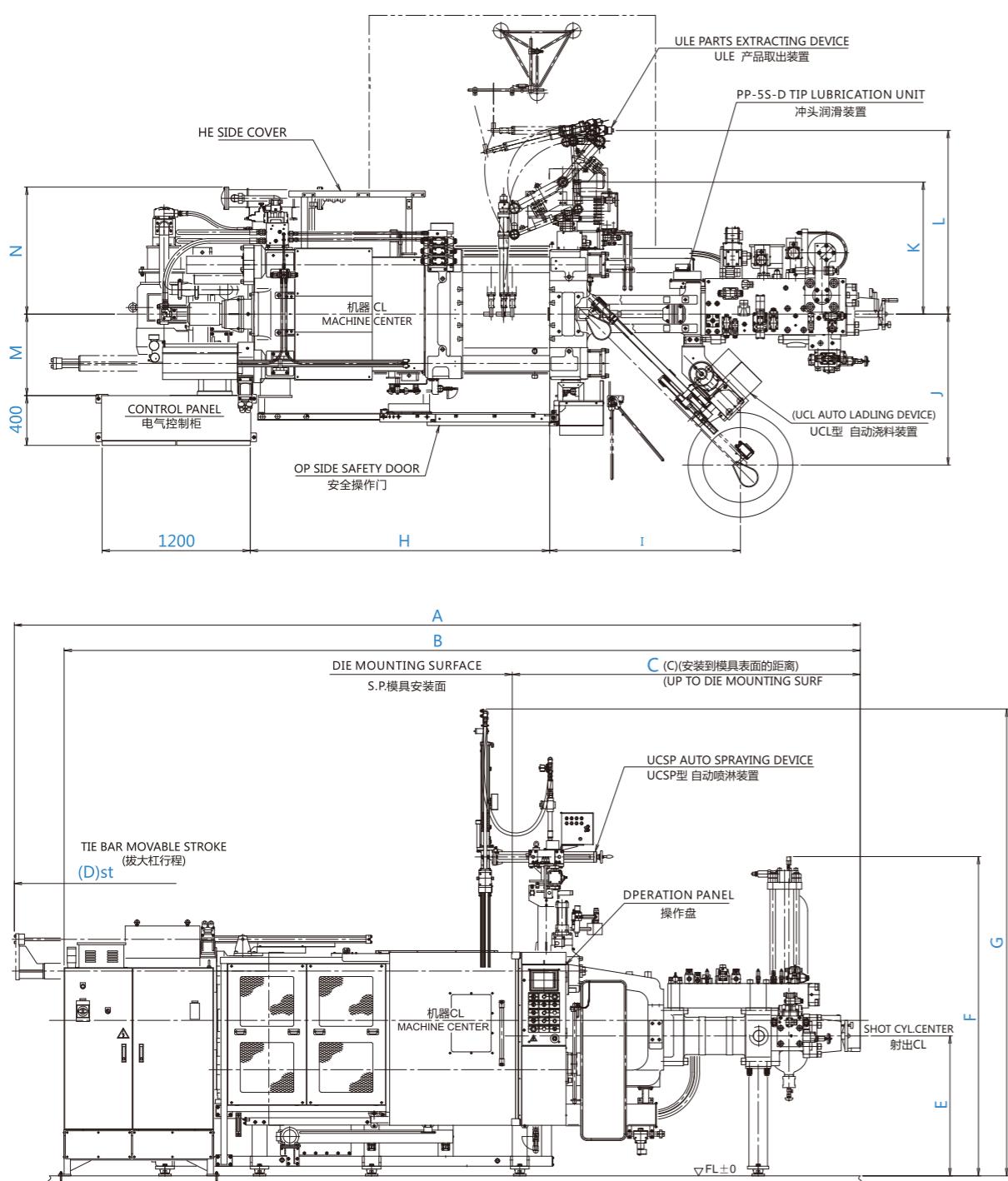
NO.	项目	ULE-02	item	ULE-02
1	适用压铸机	UB250Sh3、UB350Sh3	applicable die casting machine	UB250Sh3、UB350Sh3
2	安装位置	压铸机反操作侧定模板旁	Location of installation	Opposite from operating side of die casting machine
3	夹取方式	料柄夹取方式	Chuck type	Biscuit chuck type
4	产品检测	光感应开关2个 (安装于底座上)	No. of product sensors	2pcs (photoelectric sensor)
5	模厚调整行程	120mm	Die thickness adjustment stroke	120mm
6	取出行程	1300mm	Traveling stroke	1300mm
7	抽取行程	120mm	removal stroke	120mm
8	卡爪反转角度	90°	Chuck rotating angle	90°
9	最大搬运重量	2.8kg	Max. carrying weight	2.8kg
10	空气入口直径	Rc 1/4B	Air supply port diameter	Rc 1/4B



本内容今后为了改进可能没有预告改变某些参数
The contents and specifications in the catalogue are subject to changes without notice in advance

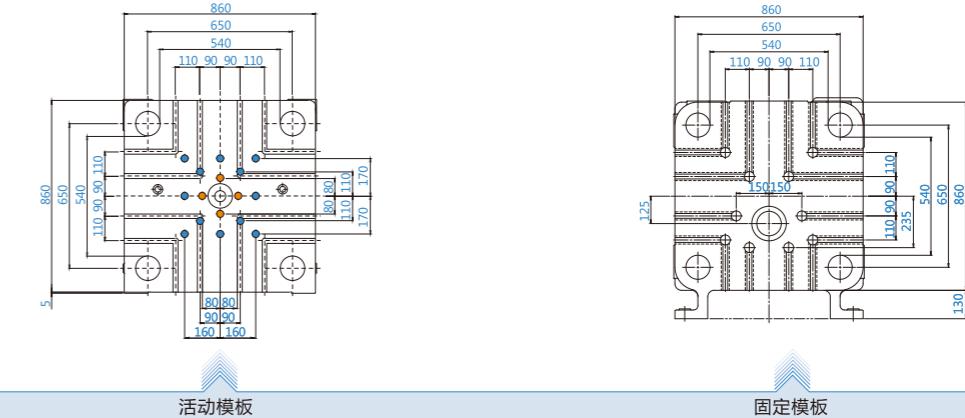
	A	B	C	D	E	F	G	H	I	J	K	L	M	N
UB250Sh3	5810	2450		1080	2270	3670	2160	1375	1305	1060	1475	550	1025	

本内容今后为了改进可能没有预告改变某些参数 The contents and specifications in the catalogue are subject to changes without notice in advance



模板尺寸图 Die Mounting Dimensional Diagram

UB250Sh3



	项目 Item	单位 Unit	UB250Sh3
锁模单元 Die clamping unit	锁模力 Clamping force	kN(ton)	2450(250)
	模板尺寸 Platen size	mm	860 x 860
	拉杆间距 Space between tie bars	mm	540 x 540
	拉杆直径 Tie bar diameter	mm	110
	锁模行程 Die clamping stroke	mm	360
	模具厚度 Die height	mm	300~600
顶出单元 Ejection Unit	模厚调节速度 Die height speed	mm/min	72
	顶出力 Ejection force	kN(ton)	122.5(12.5)
	顶出行程 Ejection stroke	mm	80
模芯 Core	模芯阀(动模) No.of core valve(on movable platen)	PIECE	2
	接口尺寸 Size of port	Rc	3/4
	接口数量 Number of ports	set	2
	压力 Operation pressure	MPa	13.7
压射单元 Injection unit	压射力 Injection force(nominal maximum)	kN(ton)	264.6(27)
	压射行程 Injection stroke	mm	415
	冲头冲击量 Tip projection	mm	150
	减速调节位置 Deceleration position range	mm	-10 ~ -115
	铸进位置 Injection position(from M/C center)	mm	-125
	压射速度(最大) Injection Velocity(Maximum)	m/sec	5
	冲头直径(标准) Tip diameter(standard)	mm	60
动力单元 Power unit	冲头直径(最小-最大) Tip diameter(Minimum-Maximum)	mm	50~70
	油泵马达 Oil pump motor	set	22kw, 6P, 380V, 50Hz
机器尺寸 Machine size	模厚调节马达 Die height motor	set	1.5kw, 4P, 380V, 50Hz
	长 x 宽 x 高 L x W x H	mm	5810 x 1975 x 2270
	机器中心高度 Machine center height	mm	1205
其他 Others	重量 weight	Ton	10
	油箱容量 Hydraulic tank	L	460
	油冷却所需供水量 Water for oil cooler	L/min	55
铸造能力 Casting capacity	压缩空气 Compressed air	MPa	0.49
	冲头直径 Plunger tip dia	mm	50 最小 60 标准 70 最大
	铸造压力 Casting pressure	MPa	134 93 69
	铸造面积 Casting area	cm ²	149 184 357
	实际射出重量 Net injection weight	kg	1.69 2.44 3.31

本内容今后为了改进可能没有预告改变某些参数 The contents and specifications in the catalogue are subject to changes without notice in advance

250Sh3 标准·选配

规格名称		specification item		standard	option
合模	1 模板(固定、可动)T槽机械加工	die plate (fixed,moving) with T-slot machining	<input checked="" type="radio"/>	<input type="radio"/>	
	2 数字式载荷表(固定板操作侧上部)	digital load meter (on the fixed platen operation side tie bar upper)	<input checked="" type="radio"/>	<input type="radio"/>	
	3 模厚调整装置	die height adjustment	<input checked="" type="radio"/>	<input type="radio"/>	
	4 模厚位置检出LS方式	die height position LS detection	<input checked="" type="radio"/>	<input type="radio"/>	
	5 模厚位置检出数字方式	die height position digital detection	<input type="radio"/>	<input checked="" type="radio"/>	
	6 曲轴部分润滑方式	toggle unit lubrication device	<input checked="" type="radio"/>	<input type="radio"/>	
	7 操作侧上部拔大杠装置	tie ber pull-out device	<input checked="" type="radio"/>	<input type="radio"/>	
	8 大杠镀铬	tie ber chrome planting	<input checked="" type="radio"/>	<input type="radio"/>	
	9 导向杆镀铬	guide rod chrome planting	<input checked="" type="radio"/>	<input type="radio"/>	
	10 预计注汤回路	provisional pouring start signal	<input checked="" type="radio"/>	<input type="radio"/>	
射出	1 标准熔杯	standard sleeve specifications	<input checked="" type="radio"/>	<input type="radio"/>	
	2 标准铸造用部品	standard injection parts	<input checked="" type="radio"/>	<input type="radio"/>	
	3 指定熔杯、冲头直径	customer specific sleeve,tip diameter	<input checked="" type="radio"/>	<input type="radio"/>	
	4 活塞式蓄能器	piston type accumulator	<input checked="" type="radio"/>	<input type="radio"/>	
	5 活塞式蓄能器(美国式样)	piston type accumulator (ASME)	<input type="radio"/>	<input checked="" type="radio"/>	
	6 追加真空用射出LS	additional LS for vacuum device	<input checked="" type="radio"/>	<input type="radio"/>	
	7 UNI-FF射出装置	UNI-FF injection device	<input checked="" type="radio"/>	<input type="radio"/>	
	8 ACC自动增压回路	accumulator automatic pressure-release circuit	<input checked="" type="radio"/>	<input type="radio"/>	
中子	1 中子自由选择回路	core sequence-selection circuit	<input checked="" type="radio"/>	<input type="radio"/>	
	2 中子1安装(可动侧)	core on moving platen (#1)	<input checked="" type="radio"/>	<input type="radio"/>	
	3 中子2安装(可动侧)	core on moving platen (#2)	<input checked="" type="radio"/>	<input type="radio"/>	
	4 中子3安装(固定侧)	core on fixed platen (#3)	<input checked="" type="radio"/>	<input type="radio"/>	
	5 中子减压阀	core pressure reducing valve	<input type="radio"/>	<input checked="" type="radio"/>	
	6 中子取出口(中子1用):2個	hydraulic port for core (#1:2pcs)	<input checked="" type="radio"/>	<input type="radio"/>	
	7 中子取出口(中子2用):2個	hydraulic port for core (#2:2pcs)	<input checked="" type="radio"/>	<input type="radio"/>	
	8 中子取出口(中子3用):2個	hydraulic port for core (#3:2pcs)	<input type="radio"/>	<input checked="" type="radio"/>	
	9 特殊中子插口	customer specific core signal metal connector	<input type="radio"/>	<input checked="" type="radio"/>	
液压·冷却水	1 矿物油	mineral type of hydraulic oil applicable	<input checked="" type="radio"/>	<input type="radio"/>	
	2 难燃性液压油(水乙二醇)	nonflammable hydraulic fluid specification (water-based glycerin applicable)	<input type="radio"/>	<input checked="" type="radio"/>	
	3 油面报警(1处接点)	oil level alarm (one contact point output)	<input type="radio"/>	<input checked="" type="radio"/>	
	4 油温报警	oil temperature gauge	<input type="radio"/>	<input checked="" type="radio"/>	
	5 甘油压力表	glycerin filled pressure gauge	<input checked="" type="radio"/>	<input type="radio"/>	
	6 磁力分离机	magnetic separator	<input checked="" type="radio"/>	<input type="radio"/>	
	7 金属网式样软管(液压)	wire-braided hydraulic hose	<input type="radio"/>	<input checked="" type="radio"/>	
	8 油冷却器ON-OFF控制	oil cooler cooling water ON-OFF circuit	<input type="radio"/>	<input checked="" type="radio"/>	
	9 可动操作侧供水	moving platen operation side water supply	<input checked="" type="radio"/>	<input type="radio"/>	
	10 固定操作侧供水	fixed platen operation side water supply	<input checked="" type="radio"/>	<input type="radio"/>	
	11 固定反操作侧排水	fixed platen helper side water drain	<input checked="" type="radio"/>	<input type="radio"/>	
安全	1 操作侧手动式安全门	manual door on operation side	<input checked="" type="radio"/>	<input type="radio"/>	
	2 反操作侧手动安全门	manual door on helper side	<input checked="" type="radio"/>	<input type="radio"/>	
	3 操作侧自动安全门	automatic door on operation side	<input checked="" type="radio"/>	<input type="radio"/>	
	4 操作侧曲肘盖板	operator side toggle cover	<input checked="" type="radio"/>	<input type="radio"/>	
	5 反操作侧曲肘盖板	helper side toggle cover	<input checked="" type="radio"/>	<input type="radio"/>	
	6 动模板部曲肘上罩	upper toggle cover	<input checked="" type="radio"/>	<input type="radio"/>	
	7 反操作侧安全栅	helper side safety fence	<input checked="" type="radio"/>	<input type="radio"/>	
	8 开模位置安全钩	die open limit safety hook	<input checked="" type="radio"/>	<input type="radio"/>	
	9 紧急停止按钮	emergency stop button	<input checked="" type="radio"/>	<input type="radio"/>	
	10 增加紧急停止按钮	additional emergency stop button	<input checked="" type="radio"/>	<input type="radio"/>	
	11 带联锁控制柜	control panel door with interlock	<input checked="" type="radio"/>	<input type="radio"/>	
	12 安全插座用互锁	safety plug interface	<input type="radio"/>	<input checked="" type="radio"/>	

250Sh3 标准·选配

规格名称		specification item		standard	option
电气·控制	1 电源电压、频率(AC380V,50/60Hz)	voltage,frequency (AC380V,50/60Hz)	<input checked="" type="radio"/>	<input type="radio"/>	
	2 异电压	abnormal voltage specifications	<input type="radio"/>	<input checked="" type="radio"/>	
	3 数字设置触摸屏方式	data setting on touch panel	<input checked="" type="radio"/>	<input type="radio"/>	
	4 电动马达全闭外扇	full-enclosed outer fan motor	<input checked="" type="radio"/>	<input type="radio"/>	
	5 控制柜操作用AC100V插口	outlet (100V) in control panel	<input checked="" type="radio"/>	<input type="radio"/>	
	6 异常警告灯	alarm signal display	<input checked="" type="radio"/>	<input type="radio"/>	
	7 带漏电保护	earthing interrupter	<input type="radio"/>	<input checked="" type="radio"/>	
	8 控制柜空调	control panel cooler	<input type="radio"/>	<input checked="" type="radio"/>	
	9 带闭锁控制柜门手柄更改	control panel handle enabling securing of padlock	<input checked="" type="radio"/>	<input type="radio"/>	
	10 联锁信息	interlock message	<input checked="" type="radio"/>	<input type="radio"/>	
	11 报警信息	alarm message	<input checked="" type="radio"/>	<input type="radio"/>	
	12 批次计数器	lot counter	<input checked="" type="radio"/>	<input type="radio"/>	
	13 生产中总的压铸计数器	cumulative shot counter	<input checked="" type="radio"/>	<input type="radio"/>	
	14 累计运转时间显示	cumulative job timer	<input checked="" type="radio"/>	<input type="radio"/>	
	15 周期监视显示	cycle monitor	<input checked="" type="radio"/>	<input type="radio"/>	
	16 PLC I/O监视	PLC I/O monitor	<input checked="" type="radio"/>	<input type="radio"/>	
	17 全自动回路	full automatic circuit	<input type="radio"/>	<input checked="" type="radio"/>	
	18 其他公司自动化互锁	interface for automatic devices by other manufacturers	<input type="radio"/>	<input checked="" type="radio"/>	
	19 驱动数据记忆(时长、中子)	operation data memory (timer,core)	<input checked="" type="radio"/>	<input type="radio"/>	
	20 压射监视用互锁	Cast Trend interface	<input type="radio"/>	<input checked="" type="radio"/>	
其他	1 标准设备颜色	machine color (UBE standard)	<input checked="" type="radio"/>	<input type="radio"/>	
	2 指定设备颜色	customer specific machine color	<input type="radio"/>	<input checked="" type="radio"/>	
	3 底脚埋入式样	foundation channel system	<input checked="" type="radio"/>	<input type="radio"/>	
	4 底脚螺栓式样	foundation anchor system	<input type="radio"/>	<input checked="" type="radio"/>	
	5 底脚固定	foundation anchor parts	<input checked="" type="radio"/>	<input type="radio"/>	
	6 冲头润滑装置	tip lubricator	<input type="radio"/>	<input checked="" type="radio"/>	
	7 冲头润滑混合式	tip lubrication mixing system	<input type="radio"/>	<input checked="" type="radio"/>	
	8 冲头润滑油(20kg)	tip lubrication oil	<input type="radio"/>	<input checked="" type="radio"/>	
	9 充氮气软管	nitrogen gas refilling hose	<input type="radio"/>	<input checked="" type="radio"/>	
	10 模具温度显示(可动侧2点、固定侧2点)	die temperature monitor	<input type="radio"/>	<input checked="" type="radio"/>	
预备品	11 压射监视装置	Cast Trend	<input type="radio"/>	<input checked="" type="radio"/>	
	12 工具箱	tools	<input type="radio"/>	<input checked="" type="radio"/>	
	1 熔杯套(标准1个)	sleeve bush (standard 1pcs)	<input checked="" type="radio"/>	<input type="radio"/>	
	2 熔杯套(追加)	additional sleeve bush	<input type="radio"/>	<input checked="" type="radio"/>	
	3 冲头(标准1根)	plunger tip (standard 1pcs)	<input checked="" type="radio"/>	<input type="radio"/>	
	4 熔杯(标准1根)	plunger sleeve (standard 1pcs)	<input checked="" type="radio"/>	<input type="radio"/>	
	5 冲杆(标准1根)	plunger rod (standard 1pcs)	<input checked="" type="radio"/>	<input type="radio"/>	
	6 冲杆(增加)	additional plunger rod	<input type="radio"/>	<input checked="" type="radio"/>	
	7 水管+O型圈(标准1个)	water tube and O-ring (standard 1pcs)	<input checked="" type="radio"/>	<input type="radio"/>	
	8 水管+O型圈(增加)	additional water tube and O-ring	<input type="radio"/>	<input checked="" type="radio"/>	
自动化装置	9 冲头连接件(标准1个)	tip joint (standard 1pcs)	<input checked="" type="radio"/>	<input type="radio"/>	
	10 冲头连接件(增加)	additional tip joint	<input type="radio"/>	<input checked="" type="radio"/>	
	1 自动给汤装置	automatic ladler (UCL-02)	<input type="radio"/>	<input checked="" type="radio"/>	
	2 给汤量不足信号输出	molten metal surface level drop signal output	<input type="radio"/>	<input checked="" type="radio"/>	
	3 汤勺2个(尺寸从下列规格中选择)	ladle 2pcs	<input type="radio"/>	<input checked="" type="radio"/>	
	4 0.5kg汤勺	0.5kg ladle	<input type="radio"/>	<input checked="" type="radio"/>	
	5 1.0kg汤勺	1.0kg ladle	<input type="radio"/>	<input checked="" type="radio"/>	
	6 1.4kg汤勺	1.4kg ladle	<input type="radio"/>	<input checked="" type="radio"/>	
	7 2.0kg汤勺	2.0kg ladle	<input type="radio"/>	<input checked="" type="radio"/>	
	8 2.8kg汤勺	2.8kg ladle	<input type="radio"/>	<input checked="" type="radio"/>	
	9 自动喷淋装置	automatic spray	<input type="radio"/>	<input checked="" type="radio"/>	
	10 喷淋座(AIR17+LIQ34)	spray cassette (air 17pcs+liq. 34pcs)	<input type="radio"/>	<input checked="" type="radio"/>	
	11 喷淋座(AIR10+LIQ20)	spray cassette (air 10pcs+liq. 20pcs)	<input type="radio"/>	<input checked="" type="radio"/>	
	12 脱模剂压送罐(200L)	lubricant booster tank (200L)	<input type="radio"/>	<input checked="" type="radio"/>	
自动化装置	13 产品取出装置	automatic extractor	<input type="radio"/>	<input checked="" type="radio"/>	
	14 光电式产品检出式样	photoelectric product detection sensor	<input type="radio"/>	<input checked="" type="radio"/>	