

基本参数 COMMON SPECIFICATIONS



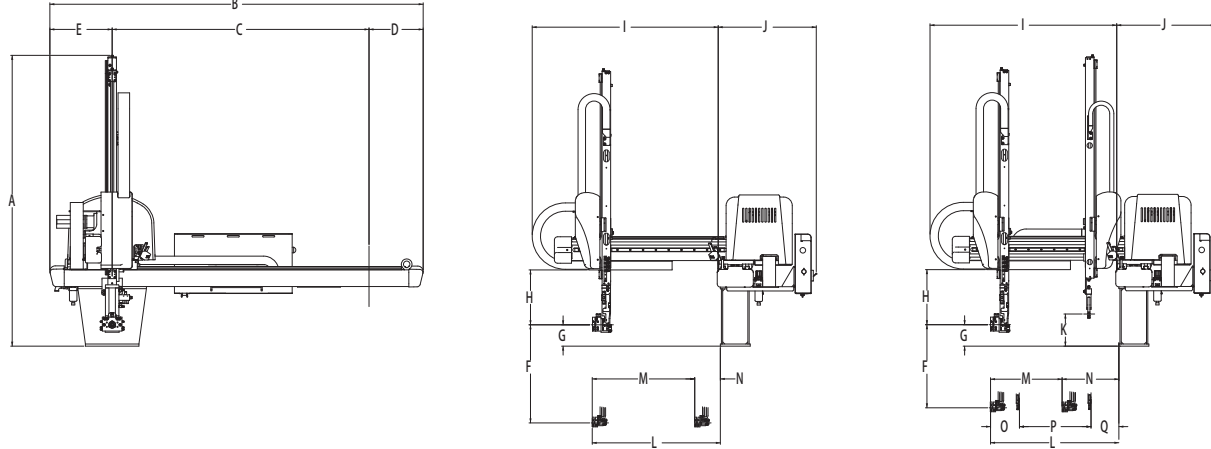
电源 Power	使用空气压力 Air Pressure	驱动方式 Drive System	姿势(气缸) Posture (Air Cylinder)	气缸推力(压力为0.49MPa时) Air Cylinder Driving Force(Air Pressure at 0.49MPa)		控制箱 Control Box
				最大可搬重量(含夹具重量) Max. Load(Incl Chuck Weight)	姿势力矩 Posture Torque	
AC200V±10% (50/60Hz)	0.49Mpa	AC伺服马达 AC Servo Motor	90°固定 90°Fixed	3kg(据参数的设定,最大可搬重量可能超过3kg) (As per setting of parameter,max.load may be over 3kg)	4.9N.m	STEC-NA2

综合参数 GENERAL SPECIFICATIONS

机种 Mode	行程(移动量)(mm)Stroke				电源设备容量 (KVA)	最大消费电力 (KW)	总重量(kg) Net Weight		空气消费量 (NI/周期) Air Consumption (NI/cycle)	往返精度(mm) Accuracy of Movement
	Ⓞ上下Vertical	Ⓞ上下Vertical	前后Crosswise	走行Traverse			本体 Main Body	操作盒 Pendant		
eS-650	650 [800]	—	Ⓞ 120~600	1200 (1000)	2.0	1.0	136	1.1	2.93	±0.1
eS-650s		Ⓞ 700 [850]	Ⓞ 265~600 Ⓞ 130~465	<1400> [1600]	3.2	1.7	152			

★ 将走行行程为1200及1600mm行程的走行体向取出侧移动200mm时,走行行程将变为1000及1400mm。
Make the traverse as 1200 and 1600mm moving forward to extracting side as 200mm,it will be 1000 and 1400mm

★ 本体重量中包含控制箱及电缆线的重量。
Net weight includes the weight of control box and cable.



外形尺寸 (mm)		eS-650	eS-650s
A 全高	Overall height	1300 [1440*1]	1360 [1500*1]
B 全幅	Overall width	1744(1744)<2164>[2164]	
C 走行行程	Traverse stroke	1200 (1000) <1400> [1600]	
D 落下侧突出位置	Overhang,release side	253(253)<273>[273]	
E 取出侧突出位置	Overhang,extract side	291(491)<491>[291]	
F Ⓞ 制品侧上下行程	Ⓞ Vertical stroke	650 [800]	
G Ⓞ 制品侧上下待机位置	Ⓞ Vertical standby	100	
H 夹具安装位置上方有效尺寸	Bottom of crosswise to chuck mount position	257	
I 前后单元	Crosswise arm	871	
J 本体厚度	Thickness	460	
K Ⓞ 水口侧上下待机位置	Ⓞ Vertical standby	—	150
L Ⓞ 制品前进MAX	Ⓞ Crosswise reach max	600	
M Ⓞ 制品前进行程MAX	Ⓞ Crosswise stroke max	480	335
N Ⓞ 制品前后待机MIN	Ⓞ Crosswise standby min	120	265
O Ⓞ Ⓞ 接近MIN	Ⓞ Ⓞ Proximity min	—	135
P Ⓞ 水口侧前行程MAX	Ⓞ Crosswise stroke max	—	335
Q Ⓞ 水口侧前待机MIN	Ⓞ Crosswise standby min	—	130

Ⓞ []尺寸表示选项行程
Ⓞ Ⓞ 表示制品侧手臂
Ⓞ Ⓞ 表示水口侧手臂
Ⓞ 水口夹的厚度为20mm
Ⓞ 姿势部厚度90mm,不含气管的厚度
Ⓞ 水口侧上下行程比制品侧长50mm。
*()表示横走行行程为1000mm时的尺寸
< >表示横走行行程为1400mm时的尺寸
*1表示制品上下行程为800mm时的尺寸

Ⓞ []figure in shows option stroke.
Ⓞ Ⓞ stands for product side arm
Ⓞ Ⓞ stands for runner side arm
Ⓞ Thickness of runner chuck is 20mm.
Ⓞ Thickness of posture is 90mm excluding the thickness of piping.
Ⓞ The vertical stroke of runner side is 50mm longer than product side.
*() shows for traverse as 1000mm
< > shws for traverse as 1400mm
*1 shows the product vertical as 800mm

★ 因改良的原因,规格及外观有所改变时,恕不另行通知。 All stated here is subject to change without advance notice.

★ 星精机械(上海)有限公司
上海市宜山路900号科技大楼C座501室
TEL:021-5423 4571 FAX: 021-5423 4570

★ 星精机械(上海)有限公司 深圳分公司
深圳市宝安区沙井岗松山工业区中日龙路3号北座
TEL:0755-2962 2620 FAX: 0755-2962 2341

★ 星精机械(上海)有限公司 广州分公司
广州市天河区燕岭路89号燕桥大厦340室
TEL:020-3708 4205 FAX: 020-3708 4277

★ 星精机械(上海)有限公司 武汉办事处
湖北省武汉市经济技术开发区东风三路东合中心B座
1001室
TEL:027-8425 3500 FAX: 027-8479 2646

★ 星精机械(上海)有限公司 厦门办事处
厦门市集美区杏滨街道杏前路22号钢贸大厦1512A
TEL:0592-5779 994 FAX: 0592-5779 994

★ 星精机械(上海)有限公司 大连办事处
大连市经济技术开发区九号办公区发展大厦788室
TEL:0411-8217 6506 FAX: 0411-8217 6507

★ 星精机械(上海)有限公司 天津分公司
天津市南开区滨水西道奥城商业广场写字楼C4座519
TEL:022-5838 7675 FAX: 022-5811 2975

★ 星精机械(上海)有限公司 昆山分公司
江苏省昆山市城北庆路908号信息港大厦304室
TEL:0512-5782 2231 FAX: 0512-5782 2844

★ 星精机械(上海)有限公司 苏州办事处
江苏省苏州新区珠江路117号创新中心大厦C栋403室
TEL:0512-6805 8385 FAX: 0512-6805 8250

★ 星精机械(上海)有限公司 青岛分公司
山东省青岛市城阳区兴阳路308号办公1013
TEL:0532-5556 5517 FAX: 0532-5556 5518

★ 星精机械(上海)有限公司 重庆办事处
重庆市渝北区金渝大道68号新科国际2栋3公高17-18号
TEL:023-6036 0877 FAX: 023-6036 0968

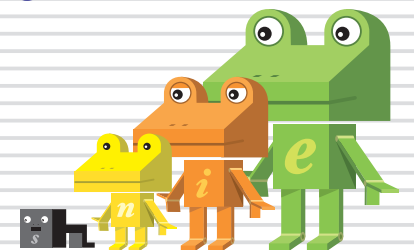
★ 星精机械(上海)有限公司 深圳龙岗办事处
深圳市龙岗区盛世花园二期1号楼1409室
TEL:0755-8925 0655 FAX: 0755-8925 0655

2012年07月版



eS-650
eS-650s

5/3轴AC伺服马达驱动机械手
5/3 Axes Ac Servo motor driving Robot





采用链接式拖链,方便交换
Use linking chain, easy to exchange

手动按钮
Manual Button



姿势部加装了夹具快速交换金具,方便夹具交换。
省去了以前的配管与配线作业,按手动按钮便可简单地交换夹具!
Add the jig of quick chuck change to posture unit, easy to exchange the chuck.
Saving the time of assembling the pipe and wire as before.
Now it can exchange the chuck easily to use the manual button

eS-650 eS-650s

适用注塑机:35ton~100ton
Injection Press Range 35ton~100ton



STEC-NA2

装载7.5英寸的彩色液晶触摸屏,
高操作性的操作盒型控制器
Color LCD touch screen with 7.5 inches,
High Operational controller

水口夹带直接感应开关,省去了调整作业,夹头部位打开量大,直径较大的水口也可夹取。

Sprue chuck with direct sensor switch. Save the time of regulating. The head of chuck is always open. Sprue with bigger diameter also can clamp



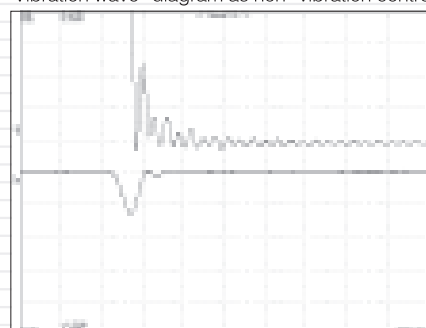
高刚性线性导轨,机器能更加稳定顺畅运作。
High rigidity & Linear Guide. The robot can operate stably and smoothly.

控振控制 Vibration Control

因如图所示的控振控制系统的追加,机器的振动比以前的机器 **减少了50%以上**,使机器能更加顺畅地运作。
Shown as adding vibration control system. The vibration of robot is reduced by more than 50%. It can make the robot operate smoothly.

无控振控制时的振动波形图:

Vibration wave-diagram as non-vibration control



有控振控制时的振动波形图:

Vibration wave-diagram as vibration control



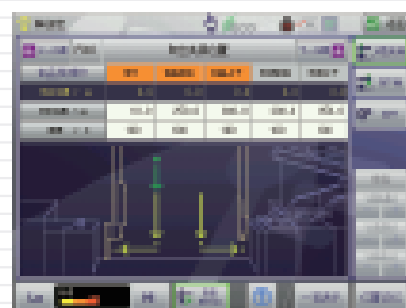
周期缩短 Shorten cycle

此款机器的周期比以前的同级别机器 **缩短了10%**
The cycle of this robot is shorten 10% than level of other robot.

STEC-NA2 操作盒的特点 Feature of pendant

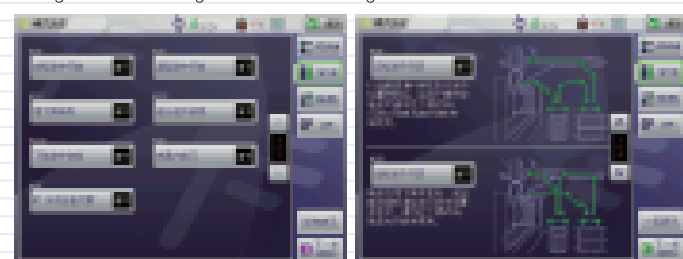
★ 装载7.5英寸的彩色液晶触摸屏
Color LCD touch screen with 7.5 inches

直观的图片,图解便于操作,大画面能显示更多信息。
Intuitive picture, specification is easy to operate. Big picture can show more information.



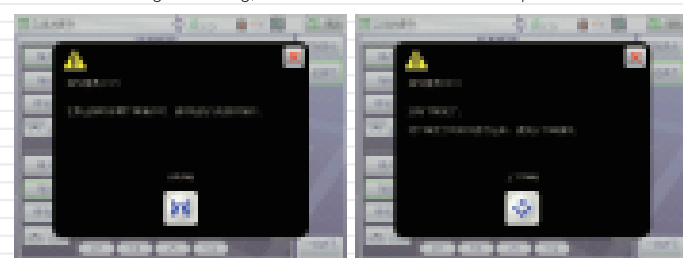
★ 触摸屏 /Touch Screen

省去了繁琐的光标移动,可直接按目的按钮进行画面切换及设定。
Saving the time of moving cursor. It can exchange and set the screen aimed to the button



★ 报警解决方法提示 /Solution clue on alarming

机械手报警等不运转时,显示报警内容的同时,提示解决方法。
Robot is not running or alarming, the contents of alarm is shown and pointed to solution.



★ 3国语言切换 /Three languages exchange

可3国语言切换(可进行英文、日文、简体中文的切换)
Three languages exchange(English, Japanese and Chinese(new))
可直接在画面上简单地显示语言的切换。
Exchange the language simply on the screen

★ 操作盒支架 /Pendant Stand

将操作盒安放到支架上,更方便操作。
Put the pendant on the stand and operate conveniently

(选项功能/Option)

绝对式马达 Absolute motor

★ 短暂停顿或机器停止时,因各轴的位置已记忆,机器再次运转时,不需要用原点复归来确定各轴的位置,可直接恢复自动运转。
When it paused or stopped, the robot will work again. It is unnecessary to use start return to confirm the location of every axis due to it memorized. It can work automatically.

标准功能 Standard Function

- ★ 装箱动作(各轴256点) /Packaging Motion(Max.256 points)
- ★ 自由装箱点(115点 × 2处) /Free Packaging Motion (115points X 2stage)
- ★ 取出侧及前进侧姿势控制 /Crosswise Product Extract Side Posture Control
- ★ 走行途中姿势 /Posture Control During Traverse
- ★ 落下侧下降途中姿势 /Posture Midway descent at release side
- ★ 顶针连动 /Ejector Link
- ★ 不良品排出回路 /Defective product reject circuit
- ★ 初期不良品排出回路 /Initial defective product reject circuit
- ★ 取出下降待机 /Delayed arm Descent
- ★ 水口途中落下(走行,复归) /Midway Runner Release (Move, Revert)
- ★ 水口模内开放 /Runner release within mold
- ★ 吸着确认单元(1回路) /Additional vacuum sensing unit (1circuit)
- ★ 横走行待机 /Delayed traverse
- ★ 滑移取出回路 /undercut extract circuit
- ★ 输送带启动信号 /Start signal of Conveyor
- ★ 内部存储记忆(最大50种类型) /Internal Memory(for Max 50 molds)
- ★ 设定值锁定功能 /Lock function of setting value
- ★ 固定可动切换 /Extraction from fixed mold
- ★ 夹具快速交换配件 /Quick Mount chuck attachment
- ★ 3国语言切换(简体中文、日文、英文) /Three language exchange (Chinese(new), Japanese, English)
- ★ 前后自由伺服点 /Crosswise Free Servo point

集中伺服放大器 Centralized Servo Amplifier

★ 搭载了伺服放大器与电源集中一体的伺服单元,省空间同时维护简单。万一某个轴的伺服放大器发生异常时,只需交换伺服单元中的该伺服放大器即可。不需要繁琐的ID设定,只需向伺服单元中插入需换部品,可自动识别轴及马达容量。另外,因所有的配线都配在伺服单元侧,伺服放大器交换时不需插拔信号线。
Servo Unit with servo amplifier and power. Saving the space and maintain simply. In case of the servo amplifier of some axis occurs to abnormal change, it only needs to replace the servo amplifier in the servo unit. It is unnecessary to set ID and only insert the replacement to the servo unit and recognize the axis and motor capacity. Otherwise, all wire is assembled to the servo unit. There is no need to pull out the signal interlock when replacing the servo amplifier.

周期 Cycle (标准行程/Standard Stock)

- ★ 取出周期: 0.95秒 /Extraction Cycle: 0.95 second
- ★ 全周期: 4.6秒 /All cycle: 4.6 second

选项功能 Option Function

- ★ 夹具内剪刀回路 /Air nipper in chuck circuit
- ★ NT剪切·可动侧(有单元) /NT gate cutting on crossmember of moving mold side (w/unit)
- ★ 吸着确认单元2回路 /Additional vacuum sensing unit (2 circuits)
- ★ 吸着确认单元4回路 /Additional vacuum sensing unit (4 circuits)
- ★ 制品2点开放 /Release product at two different points
- ★ 制品4点开放 /Release product at four different points
- ★ 上升途中闭模 /Mold close during ascend
- ★ 回转单元 /Rotation Unit
- ★ 欧规12 /EUROMAP 12
- ★ 制品确认 /LS-4 /Product confirmation LS-4
- ★ 顶针后退连动 /Ejector return link
- ★ 欧规67 /EUROMAP 67
- ★ 夹具减压阀 /Chuck pressure regulator
- ★ 警报灯(红色·无蜂鸣器) /Alarm Lamp (Red color, w/o buzzer)
- ★ 操作盒支架 /Pendant stand

STAR SEIKI自1964年在日本成立以来,在世界各地设立了多个营业所,售后服务点及工厂。47年间,在全世界生产了超过150,000台射出注塑机用机械手。中国深圳工厂从2000年开始,生产了超过20,000台射出注塑机用机械手。2010年,在中国开发的新机种,在襄樊工厂生产出的机器品牌确定为

STAR SEIKI has many sales offices and factory all over the world since 1964 established in Japan. It produced automatic unloader for IMM over 150,000 sets in the world during 47 years. Shenzhen factory in China is started to produce from 2000. It produced over 20,000 sets of robot. In 2010, we developed new products in Xiangfan factory. The brand is eins STAR.