YUDO

KAB ISO9001

中文 / English

General Catalog

Part 1

Take-Out Robot

Take-Out Robot

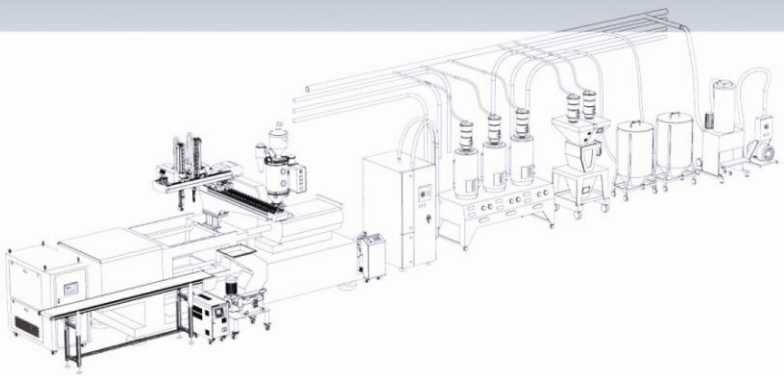
Auxiliary Equipment

Auto Feeding System

PLASTICS TOTAL SOLUTION

KAB ISO9001

P·L·A·S·T·I·C·S A·U·T·O·M·A·T·I·O·N



YUDO

威海柳道機械有限公司
WEIHAI YUDO-SUNS CO.,LTD.
山东省 威海经济技术开发区 贝卡尔特路90-1号
90-1,BeikaErT Road,Economic Development Zone,WeiHai,China
Tel : (86)631-597-2588
Fax : (86)631-597-2589
Email : weihaiyudo@yudosuns.com.cn

昆山柳道機械有限公司
KUNSHAN YUDO-SUNS CO.,LTD.
江苏省 昆山市 玉山镇 柏庐南路999号 吉田大厦2003室
Room 2003,Jitian Building,No.999 Bailu Nan Road,YuShan Town, Kunshan,JiangSu,China
Tel : (86)512-5791 0286
Fax: (86)512-5791-0285

YUDO-SUNS CO.,LTD.
www.yudosuns.com

Contents

P·L·A·S·T·I·C·S A·U·T·O·M·A·T·I·O·N

Company Brief

YUDO以1980年成立的柳道实业为中心，通过专业化的附属公司成长为塑胶产业的企业。YUDO专业生产热流道系统，机械手、工厂自动化、合理化系统、Auto Feeding system等，以成功积累的精密控制技术经验迈向世界。

威海柳道机械有限公司是于2008年以韩国YUDO-SUNS公司成立的独立法人,1992年与日本STAR SEIKI合作生产机械手，并与意大利Plastic Systems合伙生产Auto Feeding System。

YUDO is originated from YUDO co.,ltd, a mother company of YUDO , established in 1980 , which has a specialty in manufacturing hot runner system , take-out robot , factory automation and auto feeding system etc. YUDO will be a world leading company in plastic Industy.

Weihai YUDO-SUNS is invested by YUDO-SUNS in korea in 2008 with partnership Plastic Systems in Italy, which has a specialty in manufacturing auto feeding system , and STAR SEIKI in Japan which has specialty in manufacturing take-out robots.

全轴伺服马达驱动机械手

AC motor driving automatic unloader

TL–500s

35~100t	锁模力 Injection Press Range **35~100ton**	5	驱动轴数:5/3 The Number of Servo Axes: 5/3
	单截手臂 Single ARM	NA1a	控制箱 **STEC – NA1a** Controller

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 (气压为0.49MPa时) Air Cylinder Driving Force (Air Pressure at 0.49 MPa)		控制箱 Control Box
				最大可搬重量 (含夹具重) 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	2 kg	4.6 N-m	STEC-NA1a

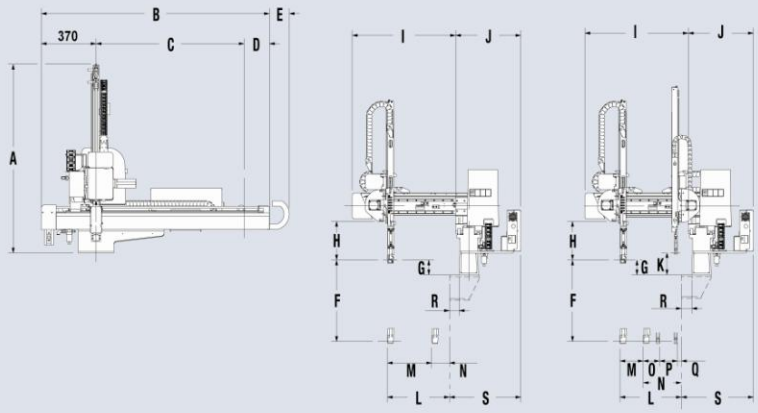
综合参数 GENERAL SPECIFICATIONS

机种 Model	行程 (移动量) (mm) Stroke				电源设备容量 (KVA)	最大消费电力 (KW)	本体重量 (kg) Net Weight		空气消费量 (N ℓ/循环)
	Ⓟ上下 Vertical	Ⓡ上下 Vertical	前后 Crosswise	走行 Traverse	Electric Consumption	Max Power Consumption	本体 Main Body	操作盒 Pendant	Air Consumption (N ℓ/cycle)
TL–500	550 <650> (750)	–	90-410 (90-510)	1000 [800] <1200> (1400)	2.50	1.30	130	0.86	2. 90
TL–500s		600 <700> (800)	Ⓟ 130-410 Ⓡ 30-310 (Ⓟ 130-510) (Ⓡ 30-410)		4.00	2.10	140		

- [ ] < > ( ) 内的尺寸表示选项行程
- 本体重量包括控制箱及电缆线的重量
- Ⓟ 表示制品侧手臂 Ⓡ表示水口侧手臂

- Figure in [ ] < > ( ) shows option stroke.
- Net weight includes the weight of interlock box and driver box.
- In the column of stroke, Ⓟstands for product side arm and Ⓡstands for runner side arm.

外形尺寸 OUTER DIMENSIONS



外形尺寸			TL–500	TL–500s
A	全高	Overall height	1277 <1333>*1 (1453)*2 mm	
B	全幅	Overall width	1541 [1361]*3 <1721>*4 (1901)*5 mm	
C	走行行程	Traverse stroke	1000 [800] <1200> (1400) mm	
D	落下侧突出位置	Overhang, release side	171 [191] <151> <131> mm	
E	护线履带突出位置	Cable guide overhang	135 [135] <135> (233) mm	
F	Ⓟ制品侧上下行程	Ⓟ Vertical stroke	550 <650> (750) mm	
G	Ⓟ制品侧上下待机位置	Ⓟ Vertical standby	100mm	
H	夹具安装位置上方有效寸尺	Bottom of crosswise to chuck mount position	257mm	
I	前后单元	Crosswise arm	698 (798) mm	
J	本体厚度	Thickness		
K	Ⓡ侧上下待机位置	Ⓡ Vertical standby	–	150mm
L	Ⓟ制品前进 MAX	Ⓟ Crosswise reach max	410 <510> mm	
M	Ⓟ制品前进行程 MAX	Ⓟ Crosswise stroke max	320 (420)*6 mm	280 <380>*6 mm
N	Ⓟ制品前后待机 MIN	Ⓟ Crosswise standby min	90mm	130mm
O	ⓅⓇ接近 MIN	ⓅⓇ Proximity min	–	100mm
P	Ⓡ前后行程 MAX	Ⓡ Crosswise stroke max	–	280 <380> mm
Q	Ⓡ前后待机 MIN	Ⓡ Crosswise standby min	–	30mm
R	架台偏差	Base offset	70.5mm	
S	模具安装面~BOX端面	Mold mounting face ~ Box end face	487mm	

- ○( )尺寸表示选项行程.
- ○水口夹的厚度为22mm.
- ○姿势部厚度40mm.但因配管的原因多少会有增加
- ○水口侧上下行程比制品侧上下行程多50mm.
- *1 表示制品侧上下行程为650mm时的尺寸
- *2 表示制品侧上下行程为750mm时的尺寸
- *3 表示走行行程为800mm时的尺寸
- *4 表示走行行程为1200mm时的尺寸
- *5 表示走行行程为1400mm时的尺寸
- *6 表示制品前进MAX500mm时的尺寸

- ○Figure in( )shows option stroke.
- ○Thickness of runner chuck is basically about22mm.
- ○Thickness of posture area is basically about 40mm(depends on tubing).
- ○Runner side vertical stroke is 50mm longer than that of product side.
- *1 for product side vertical stroke 650mm.
- *2 for product side vertical stroke 750mm.
- *3 for traverse stroke 800mm.
- *4 for traverse stroke 1200mm.
- *5 for traverse stroke 1400mm.
- *6 for product side crosswise advance max500mm.

TL-700/TL-700s

全轴伺服马达驱动机械手

AC motor driving automatic unloader

TL–700s

锁模力 75~350t
Injection Press Range **75~350ton**

驱动轴数:5/3
The Number of Servo Axes: 5/3

单截手臂
Single ARM

控制箱 **STEC – NA1a**
Controller

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 (气压为0.49MPa时) Air Cylinder Driving Force (Air Pressure at 0.49 MPa)		控制箱 Control Box
				最大可搬重量 (含夹具重) 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	5 kg	9.5 N-m (14.5 N-m)	STEC-NA1a

综合参数 GENERAL SPECIFICATIONS

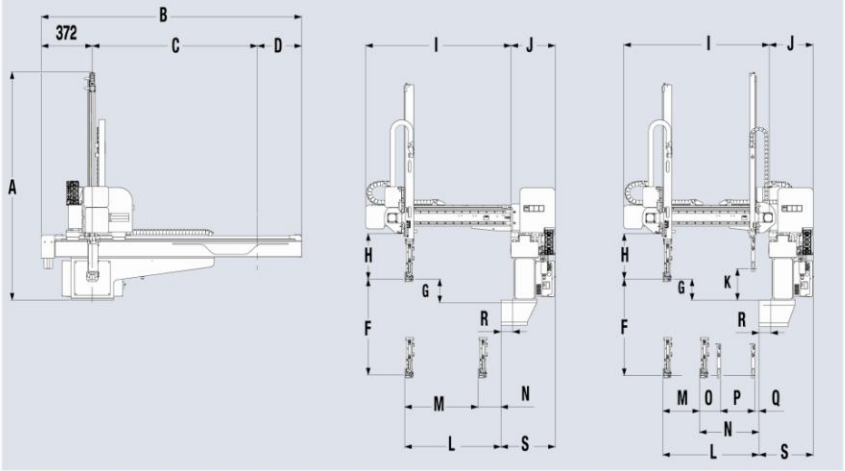
机种 Model	行程 (移动量) (mm) Stroke				电源设备容量 (KVA) Electric Consumption	最大消费电力 (KW) Max Power Consumption	本体重量 (kg) Net Weight		空气消费量 (N ℓ/循环) Air Consumption (N ℓ/cycle)
	Ⓟ 上下 Vertical	Ⓡ 上下 Vertical	前后 Crosswise	走行 Traverse			本体 Main Body	操作盒 Pendant	
TL–700	700 <800> (900)	–	80-700 (80-850)	1200 <1400> (1600)	2.40	1.30	180	0.86	2.90
TL–700s		750 <850> (950)	Ⓟ 166-700 Ⓡ 30-564 (Ⓟ 166-850) (Ⓡ 30-714)		4.00	2.10	212		

- < >( ) 内的尺寸表示选项行程
- 本体重量包括控制箱及电缆线的重量
- Ⓟ 表示制品侧手臂 Ⓡ表示水口侧手臂

- Figure in < >( ) shows option stroke.
- Net weight includes the weight of interlock box and driver box.
- In the column of stroke, Ⓟstands for product side arm and Ⓡstands for runner side arm.

TL-700/TL-700s

外形尺寸 OUTER DIMENSIONS



外形尺寸

			TL–700	TL–700s
A	全高	Overall height	1536 <1656>*1 (1721)*2 mm	
B	全幅	Overall width	1894 <2094>*3 (2294)*4 mm	
C	走行行程	Traverse stroke	1200 <1400> (1600) mm	
D	落下侧突出位置	Overhang, release side	322mm	
F	Ⓟ 制品侧上下行程	Ⓟ Vertical stroke	700 <800> (900) mm	
G	Ⓟ 制品侧上下待机位置	Ⓟ Vertical standby	180mm	
H	夹具安装位置上方有效寸尺	Bottom of crosswise to chuck mount position	307mm	
I	前后单元	Crosswise arm	1040 (1190) mm	
J	本体厚度	Thickness	320mm	
K	Ⓡ 侧上下待机位置	Ⓡ Vertical standby	–	230mm
L	Ⓟ 制品前进 MAX	Ⓟ Crosswise reach max	700 (850) mm	
M	Ⓟ 制品前进行程 MAX	Ⓟ Crosswise stroke max	620 (770)*5 mm	534 <684> mm
N	Ⓟ 制品前后待机 MIN	Ⓟ Crosswise standby min	80mm	166mm
O	ⓅⓇ 接近 MIN	ⓅⓇ Proximity min	–	136mm
P	Ⓡ 前后行程 MAX	Ⓡ Crosswise stroke max	–	534 (684) mm
Q	Ⓡ 前后待机 MIN	Ⓡ Crosswise standby min	–	30mm
R	架台偏差	Base offset	86mm	
S	模具安装面~BOX端面	Mold mounting face ~ Box end face	395mm	

○( )尺寸表示选项行程.
○水口夹的厚度为25mm.
○姿势部厚度63mm.不含气管的厚度
○水口侧上下行程比制品侧长50mm.。
○加装回转机构(选项功能)时,G尺寸变为207mm.
另外,单姿势部为108mm。
*1 表示制品上下行程为800mm时的尺寸。
*2 表示制品上下行程为900mm时的尺寸。
*3 表示走行行程为1400mm时的尺寸。
*4 表示走行行程为1600mm时的尺寸。
*5 表示制品前进MAX850mm时的尺寸。

○Figure in( )shows option stroke.
○Thickness of runner chuck is basically about 25mm.
○Thickness of posture area is basically about 63mm(depends on tubing).
○Runner side vertical stroke is 50mm longer than that of product side.
○When product rotation structure is equipped as an potion,
G side is 207mm,and thickness of posture section is 108mm.
*1 for producr side vertical stroke 800mm.
*2 for product side vertical stroke 900mm.
*3 for traverse stroke 1400mm.
*4 for traverse stroke 1600mm.
*5 for producr side crosswise advance max 850mm.

全轴伺服马达驱动机械手

AC motor driving automatic unloader

TLW-700s

75~350t	锁模力 Injection Press Range 75~350ton	5	驱动轴数:5/3 The Number of Servo Axes: 5/3	双截手臂 Double ARM	NA1a 控制箱 STEC – NA1a Controller

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 (气压为0.49MPa时) Air Cylinder Driving Force (Air Pressure at 0.49 MPa)		控制箱 Control Box
				最大可搬重量 (含夹具重) 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	5 kg	9.5 N-m (14.5 N-m)	STEC-NA1a

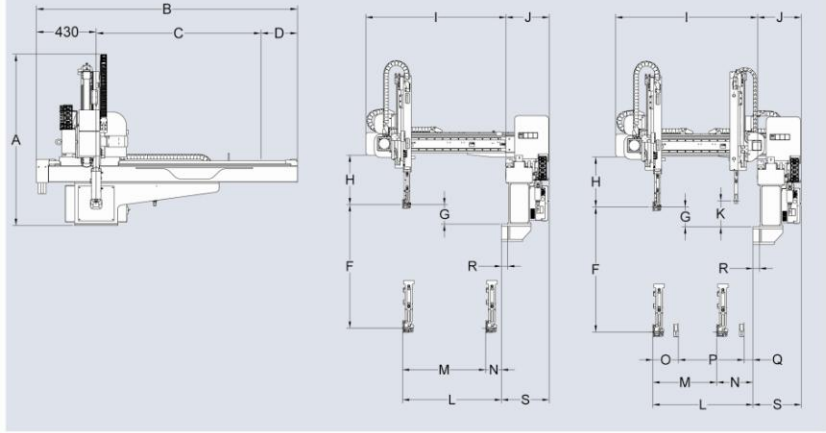
综合参数 GENERAL SPECIFICATIONS

机种 Model	行程 (移动量) (mm) Stroke				电源设备容量 (KVA) Electric Consumption	最大消费电力 (KW) Max Power Consumption	本体重量 (kg) Net Weight		空气消费量 (N ℓ/循环) Air Consumption (N ℓ/cycle)
	Ⓟ 上下 Vertical	Ⓡ 上下 Vertical	前后 Crosswise	走行 Traverse			本体 Main Body	操作盒 Pendant	
TLW–700	700 <800> (900)	–	73-700 (73-850)	1200 <1400> (1600)	3.10	1.70	189	0.86	2.90
TLW–700s		750 <850> (950)	Ⓟ 211-700 Ⓡ 66-555 (Ⓟ 211-850) (Ⓡ 66-705)		4.70	2.50	221		

- < > ( ) 内的尺寸表示选项行程
- 本体重量包括控制箱及电缆线的重量
- Ⓟ 表示制品侧手臂 Ⓡ表示水口侧手臂

- Figure in < > ( ) shows option stroke.
- Net weight includes the weight of interlock box and driver box.
- In the column of stroke, Ⓟstands for product side arm and Ⓡstands for runner side arm.

外形尺寸 OUTER DIMENSIONS



外形尺寸			TLW–700	TLW–700s
A	全高	Overall height	1233 <1310>*1 (1360)*2 mm	
B	全幅	Overall width	1879 <2079>*3 (2279)*4 mm	
C	走行行程	Traverse stroke	1200 <1400> (1600) mm	
D	落下侧突出位置	Overhang, release side	249mm	
F	Ⓟ 制品侧上下行程	Ⓟ Vertical stroke	700 <800> (900) mm	
G	Ⓟ 制品侧上下待机位置	Ⓟ Vertical standby	140mm	
H	夹具安装位置上方有效寸尺	Bottom of crosswise to chuck mount position	380mm	
I	前后单元	Crosswise arm	1057 (1207) mm	
J	本体厚度	Thickness	325mm	
K	Ⓡ 侧上下待机位置	Ⓡ Vertical standby	–	190mm
L	Ⓟ 制品前进 MAX	Ⓟ Crosswise reach max	700 (850) mm	
M	Ⓟ 制品前进行程 MAX	Ⓟ Crosswise stroke max	627 (777)*5 mm	489 <639> mm
N	Ⓟ 制品前后待机 MIN	Ⓟ Crosswise standby min	73mm	211mm
O	ⓅⓇ 接近 MIN	ⓅⓇ Proximity min	–	145mm
P	Ⓡ 前后行程 MAX	Ⓡ Crosswise stroke max	–	489 (639) mm
Q	Ⓡ 前后待机 MIN	Ⓡ Crosswise standby min	–	66mm
R	架台偏差	Base offset	90mm	
S	模具安装面~BOX端面	Mold mounting face ~ Box end face	403mm	

- ○( )尺寸表示选项行程.
- ○水口夹的厚度为25mm.
- ○姿势部厚度63mm.不含气管的厚度
- ○水口侧上下行程比制品侧长50mm.。
- ○加装回转机构(选项功能)时,G尺寸变为207mm.
  另外,單姿勢部為108mm。
- *1 表示制品上下行程为800mm时的尺寸。
- *2 表示制品上下行程为900mm时的尺寸。
- *3 表示走行行程为1400mm时的尺寸。
- *4 表示走行行程为1600mm时的尺寸。
- *5 表示制品前进MAX850mm时的尺寸。

- ○Figure in( )shows option stroke.
- ○Thickness of runner chuck is basically about 25mm.
- ○Thickness of posture area is basically about 63mm(depends on tubing).
- ○Runner side vertical stroke is 50mm longer than that of product side.
- ○When product rotation structure is equipped as an potion,
  G side is 207mm,and thickness of posture section is 108mm.
- *1 for producr side vertical stroke 800mm.
- *2 for product side vertical stroke 900mm.
- *3 for traverse stroke 1400mm.
- *4 for traverse stroke 1600mm.
- *5 for producr side crosswise advance max 850mm.

全轴伺服马达驱动机械手

AC motor driving automatic unloader

TLW-1100s

锁模力 350~850t
Injection Press Range
350~850ton

驱动轴数:5/3
The Number of Servo Axes: 5/3

双截手臂
Double ARM

控制箱
STEC – NA1a
Controller

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 (气压为0.49MPa时) Air Cylinder Driving Force (Air Pressure at 0.49 MPa)		控制箱 Control Box
				最大可搬重量 (含夹具重) 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	10kg (15kg)	32.3 N-m (54.9 N-m)	STEC-NA1a

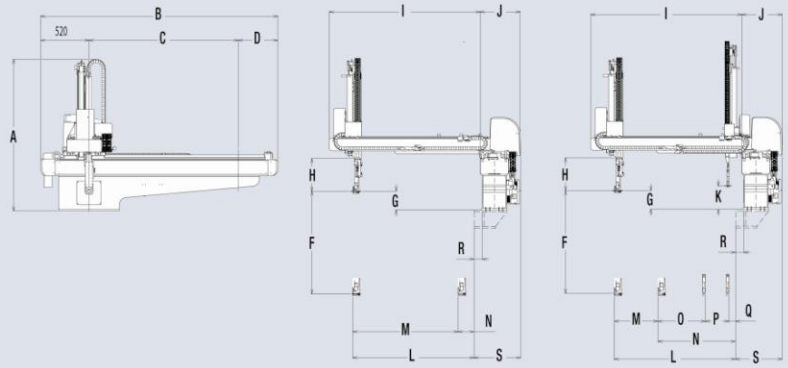
综合参数 GENERAL SPECIFICATIONS

机种 Model	行程 (移动量) (mm) Stroke				电源设备容量 (KVA) Electric Consumption	最大消费电力 (KW) Max Power Consumption	本体重量 (kg) Net Weight		空气消费量 (N ℓ/循环) Air Consumption (N ℓ/cycle)
	Ⓟ 上下 Vertical	Ⓡ 上下 Vertical	前后 Crosswise	走行 Traverse			本体 Main Body	操作盒 Pendant	
TLW-1100	1100 <1400> (1700)	–	170-1300 (170-1500)	1600 <1800> (2000) [2200]	3. 80	2. 00	478	0.86	14. 30
TLW-1100s		1150 <1450> (1750)	Ⓟ 230-1300 Ⓡ 70-1140 Ⓟ 230-1500 Ⓡ 70-1340		5. 40	2. 80	520		

- [ ]< >( ) 内的尺寸表示选项行程
- 本体重量包括控制箱及电缆线的重量
- Ⓟ 表示制品侧手臂 Ⓡ表示水口侧手臂

- Figure in [ ]< >( ) shows option stroke.
- Net weight includes the weight of interlock box and driver box.
- In the column of stroke, Ⓟstands for product side arm and Ⓡstands for runner side arm.

外形尺寸 OUTER DIMENSIONS



外形尺寸			TLW-1100	TLW-1100s
A	全高	Overall height	1625 <1805>*1 (1925)*2 mm	
B	全幅	Overall width	2543 <2743>*3 (2943)*4 [3143]*5 mm	
C	走行行程	Traverse stroke	1600 <1800> (2000) [2200] mm	
D	落下侧突出位置	Overhang, release side	423mm	
F	Ⓟ 制品侧上下行程	Ⓟ Vertical stroke	1100 <1400> (1700) mm	
G	Ⓟ 制品侧上下待机位置	Ⓟ Vertical standby	200mm	
H	夹具安装位置上方有效寸尺	Bottom of crosswise to chuck mount position	351mm	
I	前后单元	Crosswise arm	1614 (1814) mm	
J	本体厚度	Thickness	435mm	
K	Ⓡ 侧上下待机位置	Ⓡ Vertical standby	–	250mm
L	Ⓟ 制品前进 MAX	Ⓟ Crosswise reach max	1300 (1500) mm	
M	Ⓟ 制品前进行程 MAX	Ⓟ Crosswise stroke max	1130 (1330) mm	1070 <1270> mm
N	Ⓟ 制品前后待机 MIN	Ⓟ Crosswise standby min	170mm	230mm
O	ⓅⓇ接近 MIN	ⓅⓇ Proximity min	–	160mm
P	Ⓡ 前后行程 MAX	Ⓡ Crosswise stroke max	–	1070 (1270) mm
Q	Ⓡ 前后待机 MIN	Ⓡ Crosswise standby min	–	70mm
R	架台偏差	Base offset	83mm	
S	模具安装面~BOX端面	Mold mounting face ~ Box end face	499mm	

○( )尺寸表示选项行程
○水口夹的厚度为25mm
○姿势部厚度100mm.不含气管的厚度
○水口侧上下行程比制品侧长50mm.。
*1 表示制品上下行程为1400mm时的尺寸
*2 表示制品侧上下行程为1700mm的尺寸
*3 表示走行行程为1800mm时的尺寸
*4 表示走行行程为2000mm时的尺寸
*5 表示走行行程为2200mm时的尺寸

○Figure in( )shows option stroke.
○Thickness of runner chuck is basically about25mm.
○Thickness of posture area is basically about 100mm(depends on tubing).
○Runner side vertical stroke is 50mm longer than that of product side.
*1 for product side vertical stroke 1400mm.
*2 for product side vertical stroke 1700mm.
*3 for traverse stroke 1800mm.
*4 for traverse stroke 2000mm.
*5 for traverse stroke 2200mm.

全轴伺服马达驱动机械手

AC motor driving automatic unloader

TLW-1700s

锁模力 Injection Press Range 600~1300ton

驱动轴数:5/3 The Number of Servo Axes: 5/3

双截手臂 Double ARM

控制箱 STEC – NA1a Controller

基本参数 COMMON SPECIFICATIONS

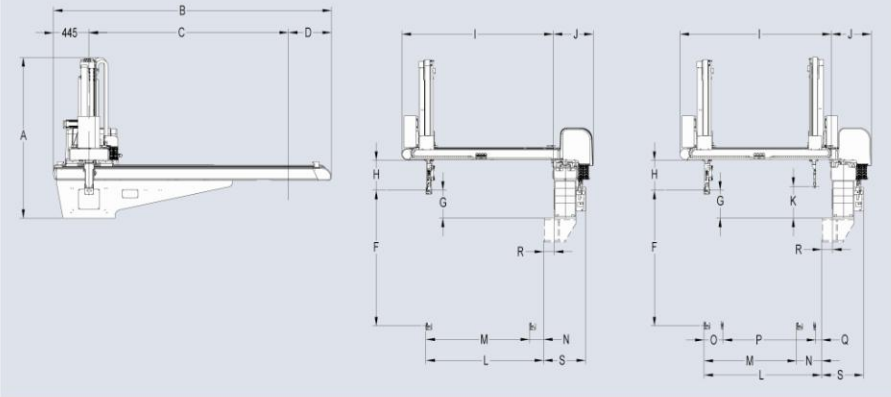
电源 Power	使用空气压力 Air Pressure	驱动方式 Drive System	姿势 (气缸) Posture (Air Cylinder)	气缸推力 (气压为0.49MPa时) Air Cylinder Driving Force (Air Pressure at 0.49 MPa)		控制箱 Control Box
				最大可搬重量 (含夹具重) Max Load, Incl. Chuck Weight	姿势力矩 Posture Torque	
AC200V ±10% 50/60Hz	0.49MPa	AC伺服马达 AC Servo Motor	90° 固定 90° Fixed	25kg (35kg)	88 N-m	STEC-NA1a

综合参数 GENERAL SPECIFICATIONS

机种 Model	行程 (移动量) (mm) Stroke				电源设备容量 (KVA) Electric Consumption	最大消费电力 (KW) Max Power Consumption	本体重量 (kg) Net Weight		空气消费量 (NL/循环) Air Consumption (NL/cycle)
	Ⓟ上下 Vertical	Ⓡ上下 Vertical	前后 Crosswise	走行 Traverse			本体 Main Body	操作盒 Pendant	
TLW-1700	1700 (2000)	–	250~1550	2500 (3000)	5.30	2.75	852	0.86	50.05
TLW-1700s		1750 (2050)	Ⓟ390~1550 Ⓡ150~1310		7.60	3.90	935		

- ( ) 内的尺寸表示选项行程
- 本体重量包括控制箱及电缆线的重量
- Ⓟ 表示制品侧手臂 Ⓡ表示水口侧手臂
- Figure in ( ) shows option stroke.
- Net weight includes the weight of interlock box and driver box.
- In the column of stroke, Ⓟstands for product side arm and Ⓡstands for runner side arm.

外形尺寸 OUTER DIMENSIONS



外形尺寸			TLW-1700	TLW-1700s
A	全高	Overall height	2016 (2166*3) mm	
B	全幅	Overall width	3485 (4045*3) mm	
C	走行行程	Traverse stroke	2500 (3000*3) mm	
D	落下侧突出位置	Overhang, release side	540 (600) mm	
F	Ⓟ制品侧上下行程	Ⓟ Vertical stroke	1700 (2000*1) mm	
G	Ⓟ制品侧上下待机位置	Ⓟ Vertical standby	350mm	
H	夹具安装位置上方有效寸尺	Bottom of crosswise to chuck mount position	374mm	
I	前后单元	Crosswise arm	1898mm	
J	本体厚度	Thickness	500mm	
K	Ⓡ侧上下待机位置	Ⓡ Vertical standby	–	400mm
L	Ⓟ制品前进 MAX	Ⓟ Crosswise reach max	1550mm	
M	Ⓟ制品前进行程 MAX	Ⓟ Crosswise stroke max	1375mm	1235mm
N	Ⓟ制品前后待机 MIN	Ⓟ Crosswise standby min	250mm	390mm
O	ⓅⓇ接近 MIN	ⓅⓇ Proximity min	–	240mm
P	Ⓡ前后行程 MAX	Ⓡ Crosswise stroke max	–	1160mm
Q	Ⓡ前后待机 MIN	Ⓡ Crosswise standby min	–	150mm
R	架台偏差	Base offset	50mm	
S	模具安装面~BOX端面	Mold mounting face ~ Box end face	526mm	

○( )尺寸表示选项行程
○水口夹的厚度为25mm
○姿势部厚度110mm.不含气管的厚度
○水口侧上下行程比制品侧长50mm.。
*1 表示制品上下行程为2000mm时的尺寸
*2 表示走行行程为3000mm时的尺寸
*3 表示走行行程为3000mm时的尺寸
*4 表示制品上下行程为2000mm时的尺寸

○Figure in( )shows option stroke.
○Thickness of runner chuck is basically about25mm.
○Thickness of posture area is basically about 110mm(depends on tubing).
○Runner side vertical stroke is 50mm longer than that of product side.
*1 for product side vertical stroke 2000mm.
*2 for traverse stroke 3000mm.
*3 for traverse stroke 3000mm.
*4 for product side vertical stroke 2000mm.

全轴伺服马达驱动机械手 （纵走型 Longitudinal type）

AC motor driving automatic unloader

TL-700sH

75~350t	锁模力 Injection Press Range 75~350ton	5	驱动轴数:5/3 The Number of Servo Axes: 5/3	单截手臂 Single ARM	NA1a 控制箱 STEC – NA1a Controller

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 (气压为0.49MPa时) Air Cylinder Driving Force (Air Pressure at 0.49 MPa)		控制箱 Control Box
				最大可搬重量 (含夹具重) 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	5 kg	9.5 N-m (14.5 N-m)	STEC-NA1a

综合参数 GENERAL SPECIFICATIONS

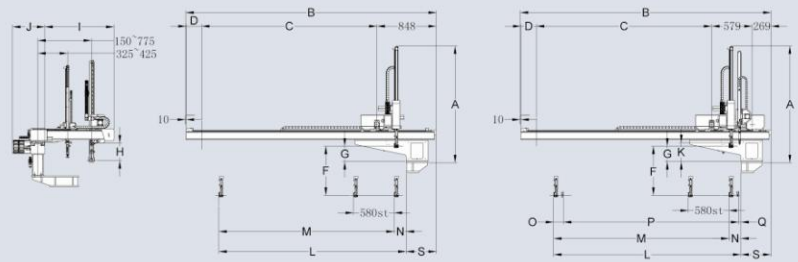
机种 Model	行程 (移动量) (mm) Stroke				电源设备容量 (KVA) Electric Consumption	最大消费电力 (KW) Max Power Consumption	本体重量 (kg) Net Weight		空气消费量 (N ℓ/循环) Air Consumption (N ℓ/cycle)
	Ⓟ 上下 Vertical	Ⓡ 上下 Vertical	前后 Crosswise	走行 Traverse			本体 Main Body	操作盒 Pendant	
TL-700H	700 <800> (900)	–	80·700	2500 (3500)	2.40	1.30	284 (299)	0.86	2.90
TL-700sH		750 <850> (950)	Ⓟ 166700 Ⓡ 30·564		4.00	2.10	322 (337)		

- ( ) 内的尺寸表示选项行程
- 本体重量包括控制箱及电缆线的重量
- Ⓟ 表示制品侧手臂 Ⓡ表示水口侧手臂

- Figure in ( ) shows option stroke.
- Net weight includes the weight of interlock box and driver box.
- In the column of stroke, Ⓟstands for product side arm and Ⓡstands for runner side arm.

TL-700H/TL-700sH
TL SERIES

外形尺寸 OUTER DIMENSIONS



外形尺寸			TL-700H	TL-700sH
A	全高	Overall height	1650<1750>*1 (1850)*2 mm	
B	全幅	Overall width	3573 (4073)*3 mm	
C	走行行程	Traverse stroke	2500 (3500)mm	
D	落下侧突出位置	Overhang, release side	220mm	
F	Ⓟ 制品侧上下行程	Ⓟ Vertical stroke	700 <800> (900) mm	
G	Ⓟ 制品侧上下待机位置	Ⓟ Vertical standby	220mm	
H	夹具安装位置上方有效寸尺	Bottom of crosswise to chuck mount position	252mm	
J	本体厚度	Thickness	1447mm	
K	Ⓡ 侧上下待机位置	Ⓡ Vertical standby	–	270mm
N	Ⓟ 制品前后待机 MIN	Ⓟ Crosswise standby min	170mm	
O	ⓅⓇ 接近 MIN	ⓅⓇ Proximity min	–	140mm
Q	Ⓡ 前后待机 MIN	Ⓡ Crosswise standby min	–	30mm
R	架台偏差	Base offset	5mm	

- ○( )尺寸表示选项行程.
- ○水口夹的厚度为25mm.
- ○姿势部厚度63mm.不含气管的厚度
- ○水口侧上下行程比制品侧长50mm.。
- ○加装回转机构(选项功能)时,G尺寸变为207mm.
  另外.單姿勢部為108mm。
- *1 表示制品上下行程为800mm时的尺寸。
- *2 表示制品上下行程为900mm时的尺寸。
- *3 表示走行行程为3500 mm时的尺寸。

- ○Figure in( )shows option stroke.
- ○Thickness of runner chuck is basically about 25mm.
- ○Thickness of posture area is basically about 63mm(depends on tubing).
- ○Runner side vertical stroke is 50mm longer than that of product side.
- ○When product rotation structure is equipped as an potion,
  G side is 207mm,and thickness of posture section is 108mm.
- *1 for producr side vertical stroke 800mm.
- *2 for product side vertical stroke 900mm.
- *3 for traverse stroke 3500mm.

选项功能

○: 选项功能　◎: 标准功能　–: 不可加装

	功能名称	编号	功能说明	对应机种					
				TL-500(s)	TL-700(s)	TLW-700(s)	TLW-1100(s)	TLW-1700(s)	TL-700(s)H
TL系列	固定可动切换	0014-03	标准机是从可动侧的模具中取出制品.追加固定可动切换后,如切换到固定侧,将可从固定侧的模具中取出制品.	◎	◎	◎	◎	◎	◎
	剪刀回路 (夹具内)	0008-01	利用保留夹具内的剪刀(1回路)进行浇口剪切时,需要此功能.自动运转中剪刀在落下侧的制品开放位置,制品开放前动作.	○	○	○	○	○	○
	吸着确认2回路	0007-04	利用真空发生单元2回路取出制品	○	○	○	○	○	○
	NT剪切,可动侧 (单元有)	0009-01	为了剪切制品的浇口,利用安装在落下侧的走行体尾端的NT单元的剪刀剪切浇口.	○	○	○	○	○	○
	滑移取出回路	0016-01	从有滑移构造的模具中取出制品时需要此功能.如追加此功能,可在模具内把持住制品,通过夹具的滑移取出制品.	◎	◎	◎	◎	◎	◎
	制品确认开关 (LS-4)	0087-02	安装在上升途中确认制品的开关(LS-4),通过此开关检测确认1个取出的制品.	○	○	○	○	○	○
	模具内夹具开放 (制品确认)	0022-02	在模内把持住制品及浇口,拉拔取出后,在模内放开制品及浇口.这时,感应器确认制品及浇口.如感应器没检测到制品及浇口时,会警报停机.	○	○	○	○	○	○
	不良品排出回路	–	通过与注塑机的不良品信号联动,进行不良品排出动作.	◎	◎	◎	◎	◎	◎
	横走行待机	–	开模没完成时,如模具上的障碍物与取出机或夹具板相干涉时,使手臂在走行复归途中在走行体上待机,等待开模完成.	◎	◎	◎	◎	◎	—
	6国语言切换	–	操作盒的显示可选择日文,英文,简体中文,繁体中文,韩文及泰文(不选用繁体中文时，可选择越南文)	◎	◎	◎	◎	◎	◎
	前进取出侧姿势控制 (I,II)	0020-02	尺寸较长产品从上下方向取出及尺寸较长夹具投上下方向安装时，若直接走行，会与注塑机的安全门相干涉，或姿势动作时，会与机械手导轨相干涉的情况下，在取出上升位置将其移动到可以姿势动作的位置后，再做姿势动作，从而避免干涉。	◎	◎	◎	◎	◎	◎
	走行途中姿势	0021-01	落下侧在各位置处执行姿势动作后再做下降动作，在落下侧做走行复归时使用，走行移动完了时及走行移动开始时的姿势动作能顺利进行，能缩短循环时间。	◎	◎	◎	◎	◎	◎
	取出侧下降待机	0054-01	成型机在开模前，使上下臂与模具上面接近，下降行程调到最短，可缩短取出时间。	◎	◎	◎	◎	◎	◎
	装箱动作 (个轴最大256点)	–	将制品按等间距排放装箱	◎	◎	◎	◎	◎	◎
	装箱自由点 (最大200点)	0051-01	标准的装箱，为了等距离地放入制品，根据制品形状的不同，不能进行等距离地装箱的情况下使用。	◎	◎	◎	◎	◎	◎
	水口途中落下	–	将水口放置在与制品不同的位置	◎	◎	◎	◎	◎	◎
	内部记忆存储记忆 (最大50种类型)	–	机械手内部能记忆存储50种模具的信息。	◎	◎	◎	◎	◎	◎
	吸着确认单元 (1回路)	–	制品用吸着回路取出时，1回路为标准回路	◎	◎	◎	◎	◎	◎
	制品2点开放	0001-02	进行制品再两点开放.制品夹具变为2回路.	○	○	○	○	○	○
	警报灯 (红色,无蜂鸣器)	0024-01	取出机有警报(异常)发生时,警报灯亮.不同的机种警报灯的安装位置将不同,需确认.	○	○	○	○	○	○
	夹具快速交换配件	0043-01	为了夹具板能更容易地安装和卸下，安装夹具快速交换用配件。	○	○	○	○	○	○
	自动更换夹具	5201-01	夹具交换时，在设定位置自动交换夹具。	○	○	○	○	○	○
	姿势力矩强化 (14.5N.m,最大可搬5kg)	0029-02	强化机械手的姿势部，提高夹具反转时的扭矩。	—	○	○	—	—	—
	回转机构 (I,II,III,IV)	0025-01~04	进行夹具回转动作.可选择在模内,模外,落下侧进行回转动作.	—	—	—	○	○	○
	模开途中下降	0056-01	在开模途中使取出机的手臂进入模内,从而缩短开模的时间,缩短循环周期.	○	○	○	○	○	○
	上升途中闭模	0055-01	从模内上升的途中开始闭模,从而缩短闭模的时间,缩短循环周期.	○	○	○	○	○	○

※因选项功能的组合,有可能超过控制箱的信号容量,请咨询营业担当者.

Option List

○: built in standard function　◎: possible adopt　—: impossible adopt

	Option Name	Code No.	Description	Corresponding Robots					
				TL-500(s)	TL-700(s)	TLW-700(s)	TLW-1100(s)	TLW-1700(s)	TL-700(s)H
TL Series	Extraction from fixed mold	0014-03	Stadard machines is designed to extract products form the moving-side mold. To extract products form the fixed mold after molding,use the operation mode for this fixed-side extraction	◎	◎	◎	◎	◎	◎
	Air nipper in chuck	0008-01	Used to take the cutting of direct gates or side gates with the air nipper in the chuck plate.When in automatic operation,cutting is made at product release position gefore the product release."	○	○	○	○	○	○
	Additional vacuum sensing unit	0007-04	Products are extracted with vacuum generator(tacovam)2 circuits.	○	○	○	○	○	○
	NT gate cut motion	0009-01	For purposes of product gate processing,the air nipper in the NT unit mounted at the end of the release-side traverse rail is used to cut gates at 2 points.	○	○	○	○	○	○
	Extract circuit for under - cut mold	0016-01	Unter-cut products may cause cracks or cannot be extracted if the arm is returned as it is after the chuck was closed.under-cut products can be extracted by sliding the chuck plate after the product chuck was closed.	◎	◎	◎	◎	◎	◎
	Limit SW for product confirmation	0087-02	Limit switch(LS-4) mounted at the during ascent position detects an extracted product	○	○	○	○	○	○
	Release within mold (Product Confirmation)	0022-02	Used to release products or runners within mold after pulling them out of the mold.This mode.If the product confirmation is not ON.it outputs an alarm at the ascent end and spops the releasing within mold.	○	○	○	○	○	○
	Defective product reject circuit	–	Defective products are separated from other products interlocked with the defect signal of IMM	◎	◎	◎	◎	◎	◎
	Delayed traverse	–	Used to let the unloader stand by outside the molding machine's door if there are obstacles in the mold moving section	◎	◎	◎	◎	◎	—
	Six lanauage change	–	Language switching between six languages can be used for display.Languages, that can be displayed are japanese,English,Chinese(new character format), Chinese(old character format), korean,and Thai. As Chinese (old character format) is not selected, Vietnamese is selectable.	◎	◎	◎	◎	◎	◎
	Crosswise product Extract Side Posture Control (I . II)	0020-02	In order to avoid interference with the safety door of IMM or the traverse rail, used to carry out posture action until arm ascent to a proper position if extracting vertically extended products and the long chuck installed vertically.	◎	◎	◎	◎	◎	◎
	Posture Control During Traverse	0021-01	If traverse return is done on release side, the product release after posture is carried out at product release position. All the cycles can also be shorten by carrying out posture smoothly as traverse moving over and starting to return.	◎	◎	◎	◎	◎	◎
	Delayed arm Descent	0054-01	Used to shorten the extraction time by letting the product-side/runner-side vertical arm stand by close to the mold before mold open, so the extraction stroke is adjusted to the shortest .	◎	◎	◎	◎	◎	◎
	Packaging Motion (Max.256 points)	–	Used to packaging products at regular space.	◎	◎	◎	◎	◎	◎
	Packaging Free Motion (Max.200 points)	0051-01	Used to make packaging operation at an arbitrary position due to the irregular products, while standard packaging is designed to place the regular products.	◎	◎	◎	◎	◎	◎
	Midway Runner Release	–	Runner is released at a place different from product.	◎	◎	◎	◎	◎	◎
	Internal Memory (for Max,50 molds)	–	Memory for up to 50 different molds is possible.	◎	◎	◎	◎	◎	◎
	Vacuum Confirmation (One Circuit)	–	When products are extracted with circuits, 1 circuit is as the standard circuit.	◎	◎	◎	◎	◎	◎
	Releasing products at 2 different points	0001-02	Two different products are extracted and released to different positions on the release side.Two circuits are required for the chucking.	○	○	○	○	○	○
	Alarm lamp (Red color,w/o buzzer)	0024-01	The alarm lamp is switched on a light when there is a alarm (error) in the robot.Mounting positions are different with robots	○	○	○	○	○	○
	Quick mount chuck attachment	0043-01	Quick mount chuck attachment is used to install and unload the chuck plate easi	○	○	○	○	○	○
	Automatically change chuck	5201-01	Chuck is changed automatically at the setting place.	○	○	○	○	○	○
	Reinforcement of posture torque (14.5N.m,max,payload 5kg)	0029-02	Reinfore the posture part, and improve torque when chuck rotate.	—	○	○	—	—	—
	Product retation structure(I,II,III,IV)	0025-01~04	Used to prevent product from hitting the robot in the mold,within the mold or on the release side by rotating the chuck plate.	—	—	—	○	○	○
	Descent during mold open	0056-01	Used to shorten the molding cycle by starting the descending of arm on the way to mold open.	○	○	○	○	○	○
	Mold close during arm ascent	0055-01	Used to shorten the molding time ty starting the mold closing on the way to ascent.	○	○	○	○	○	○

※ Some combinations of options may not be available due to excess of controller's capacity.

SK-500/SK-500s

横走行一轴伺服马达驱动机械手

1 Axes AC motor driving automatic unloader

SK-500s

锁模力 Injection Press Range	单截手臂 Single ARM	控制箱 Controller
30~75t **30~75ton**	**U**	CA3 **STEC – CA3**

基本参数 COMMON SPECIFICATIONS

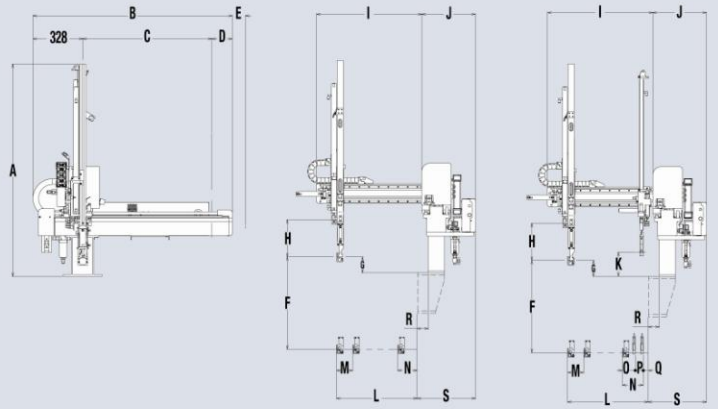
电源 Power	电源设备容量(KVA) Electric Consumption	最大消费电力(KW) Max Power Consumption	使用空气压力 Air Pressure	驱动方式 Drive System	气缸推力 (气压为0.49MPa时) Air Cylinder Driving Force (Air Pressure at 0.49 MPa)		控制箱 Control Box
					最大可搬重量 (含夹具重) Max Load, Incl. Chuck Weight	姿势力矩 Posture Torque	
AC200V-220V ±10%	0.8	0.45	0.49MPa	上下,前后: 气缸 走行: AC伺服马达 Vertical/Crosswise: Air Cylinder Traverse: Ac Servo Motor	2 kg	4.0 N-m	STEC-CA3

综合参数 GENERAL SPECIFICATIONS

机种 Model	行程 (移动量) (mm) Stroke					本体重量 (kg) Net Weight	空气消费量 (N ℓ/循环) Air Consumption (N ℓ/cycle)
	Ⓟ 上下 Vertical	Ⓡ 上下 Vertical	Ⓟ 前后 Crosswise	Ⓡ 前后 Crosswise	走行 Traverse		
SK–500	650	–	100	–	(800) <1000>	85.4 <89.6>	10.2
SK–500s		700		50		90.0 <94.2>	12.8

- ( ) 指行走行程800mm, < > 指行走行程1000mm
- 本体重量包括控制箱及电缆线的重量
- Ⓟ 表示制品侧手臂 Ⓡ表示水口侧手臂
- Figure in ( ) shows for traverse 800mm, < > shows for traverse stroke 1000mm.
- Net weight includes the weight of interlock box and driver box.
- In the column of stroke, Ⓟstands for product side arm and Ⓡstands for runner side arm.

外形尺寸 OUTER DIMENSIONS



外形尺寸		SK–500	SK–500s
A 全高	Overall height	1316mm	
B 全幅	Overall width	(1237) <1466> mm	
C 走行行程	Traverse stroke	(800) <1000> mm	
D 落下侧突出位置	Overhang, release side	130mm	
E 护线履带突出位置	Cable guide overhang	0mm	
F Ⓟ 制品侧上下行程	Ⓟ Vertical stroke	650mm	
G Ⓟ 制品侧上下待机位置	Ⓟ Vertical standby	100mm	
H 夹具安装位置上方有效寸尺	Bottom of crosswise to chuck mount position	230mm	
I 前后单元	Crosswise arm	653mm	
J 本体厚度	Thickness	333mm	
K Ⓡ 侧上下待机位置	Ⓡ Vertical standby	–	150mm
L Ⓟ 制品前进 MAX	Ⓟ Crosswise reach max	500mm	
M Ⓟ 制品前进行程 MAX	Ⓟ Crosswise stroke max	100 mm	100mm
N Ⓟ 制品前后待机 MIN	Ⓟ Crosswise standby min	78mm	120mm
O ⓅⓇ 接近 MIN	ⓅⓇ Proximity min	–	90mm
P Ⓡ 前后行程 MAX	Ⓡ Crosswise stroke max	–	50mm
Q Ⓡ 前后待机 MIN	Ⓡ Crosswise standby min	–	30mm
R 架台偏差	Base offset	69mm	
S • • • • • ~BOK•• •• • •	Mold mounting face ~ Box end face	362mm	

- ◆ Ⓟ 表示制品侧 Ⓡ表示水口侧
- ◆ * 选项功能, ( )指走行行程800
  < >指走行行程1000
- ◆ 水口侧上下行程比制品侧长50mm
- ◆ 姿势部厚度43mm,不含气管的厚度
- ◆ 水口夹具的厚度22mm

* 因改良等原因,规格及外观有所变更时,不再另行通知,敬请包涵

- ◆ Ⓟ stands for product side and Ⓡ stands for runner side.
- ◆ Figure in * Option.
  Figures in ( )show for traverse stroke 800mm.
  < >show for traverse stroke 1000mm
- ◆ Runner side vertical stroke is 50mm longer than product side.
- ◆ Thickness of posture(wrist) section is 43mm Depending on piping. This may become thicker.
- ◆ Thickness of runner chuck is 22mm

* all stated here is subject to change without advance notice

SK-600/SK-600s
SK-800/SK-800s

横走行一轴伺服马达驱动机械手
1 Axes AC motor driving automatic unloader

SK–800s

锁模力 Injection Press Range	单截手臂 Single ARM	控制箱 Controller
50~100, 100~220ton		STEC – CA3

基本参数 COMMON SPECIFICATIONS

电源 Power	电源设备容量(KVA) Electric Consumption	最大消费电力(KW) Max Power Consumption	使用空气压力 Air Pressure	驱动方式 Drive System	气缸推力 (气压为0.49MPa时) Air Cylinder Driving Force (Air Pressure at 0.49 MPa)		控制箱 Control Box
					最大可搬重量 (含夹具重) Max Load, Incl. Chuck Weight	姿势力矩 Posture Torque	
AC200V-220V ±10%	0.8	0.48	0.49MPa	上下,前后: 气缸 走行: AC伺服马达 Vertical/Crosswise: Air Cylinder Traverse: Ac Servo Motor	3 kg	4.45 N-m	STEC-CA3

综合参数 GENERAL SPECIFICATIONS

机种 Model	行程 (移动量) (mm) Stroke					本体重量 (kg) Net Weight	空气消费量 (NL/循环) Air Consumption (NL/cycle)
	上下 Ⓟ Vertical	上下 Ⓡ Vertical	前后 Ⓟ Crosswise	前后 Ⓡ Crosswise	走行 Traverse		
SK–600	600	–	150	–	{1000} (1200) <1400>	160.0	15.0
SK–600s		650		100		171.0	20.0
SK–800	800	–		–	(1200) <1400> [1600]	166.5	19.0
SK–800s		850		100		178.0	24.0

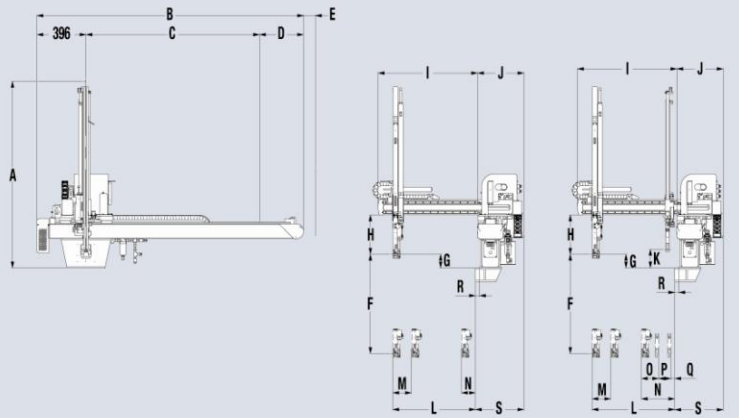
- { } 指行走行程1000mm, ( ) 指行走行程1200mm
  < > 指行走行程1400mm, [ ] 指行走行程1600mm
- 本体重量包括控制箱及电缆线的重量
- Ⓟ 表示制品侧手臂 Ⓡ表示水口侧手臂

- Figure in { } shows for traverse 1000mm, ( ) shows for traverse stroke 1200mm.
  < > shows for traverse stroke 1400mm. [ ] shows for traverse stroke 1600mm.
- Net weight includes the weight of interlock box and driver box.
- In the column of stroke, Ⓟstands for product side arm and Ⓡstands for runner side arm.

SK-600/SK-600s
SK-800/SK-800s

SK SERIES

外形尺寸 OUTER DIMENSIONS



外形尺寸		SK–600	SK–600s	SK–800	SK–800s
A 全高	Overall height	1304mm		1503mm	
B 全幅	Overall width	{1750} (1950) <2150> [2350] mm			
C 走行行程	Traverse stroke	(1200) <1400> mm		(1200) <1400> [1600] mm	
D 落下侧突出位置	Overhang, release side	354mm			
E 护线履带突出位置	Cable guide overhang	96mm			
F Ⓟ 制品侧上下行程	Ⓟ Vertical stroke	600mm		800mm	
G Ⓟ 制品侧上下待机位置	Ⓟ Vertical standby	100mm			
H 夹具安装位置上方有效寸尺	Bottom of crosswise to chuck mount position	327mm			
I 前后单元	Crosswise arm	800mm			
J 本体厚度	Thickness	376mm			
K Ⓡ 侧上下待机位置	Ⓡ Vertical standby	–	150mm	–	150mm
L Ⓟ 制品前进 MAX	Ⓟ Crosswise reach max	700mm			
M Ⓟ 制品前进行程 MAX	Ⓟ Crosswise stroke max	150mm			
N Ⓟ 制品前后待机 MIN	Ⓟ Crosswise standby min	113mm	169mm	113mm	169mm
O ⓅⓇ 接近 MIN	ⓅⓇ Proximity min	–	139mm	–	139mm
P Ⓡ 前后行程 MAX	Ⓡ Crosswise stroke max	–	100mm	–	100mm
Q Ⓡ 前后待机 MIN	Ⓡ Crosswise standby min	–	30mm	–	30mm
R 架台偏差	Base offset	33.5mm			
S ・・・・・←BOX・・・・・	Mold mounting face ~ Box end face	391mm			

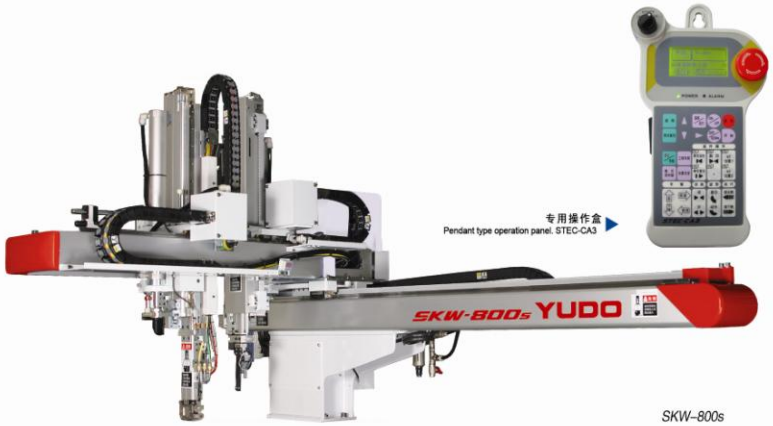
◆ Ⓟ表示制品侧 Ⓡ 表示水口侧
◆ * 选项功能,{ }指走行行程1000
( )指走行行程1200, < >指走行行程1400
[ ]指走行行程1600
◆ 水口侧上下行程比制品侧长50mm
◆ 姿势部厚度85.1mm,不含气管的厚度
◆ 水口夹具的厚度25mm
* 因改良等原因,规格及外观有所变更时,不再另行通知,敬请包涵

◆ Ⓟ stands for product side and Ⓡ stands for runner side.
◆ Figure in * Option.
Figures in { }show for traverse stroke 1000mm, ( )show for traverse stroke 1200mm
< >show for traverse stroke 1400mm, [ ]show for traverse stroke 1600mm
◆ Runner side vertical stroke is 50mm longer than product side.
◆ Thickness of posture(wrist) section is 85.1mm Depending on piping. This may become thicker.
◆ Thickness of runner chuck is 25mm
* all stated here is subject to change without advance notice

SKW-600/SKW-600s
SKW-800/SKW-800s
SKW-900/SKW-900s

横走行一轴伺服马达驱动机械手

1 Axes AC motor driving automatic unloader



SKW–800s

锁模力	双截手臂	控制箱
Injection Press Range	Double ARM	STEC – CA3
50~350ton		Controller

基本参数 COMMON SPECIFICATIONS

电源 Power	电源设备容量(KVA) Electric Consumption	最大消费电力(KW) Max Power Consumption	使用空气压力 Air Pressure	驱动方式 Drive System	气缸推力 (气压为0.49MPa时) Air Cylinder Driving Force (Air Pressure at 0.49 MPa)		控制箱 Control Box
					最大可搬重量 (含夹具重) Max Load, Incl. Chuck Weight	姿势力矩 Posture Torque	
AC200V-220V ±10%	0.8	0.48	0.49MPa	上下,前后: 气缸 走行: AC伺服马达 Vertical/Crosswise: Air Cylinder Traverse: Ac Servo Motor	3 kg	4.45 N-m	STEC-CA3

综合参数 GENERAL SPECIFICATIONS

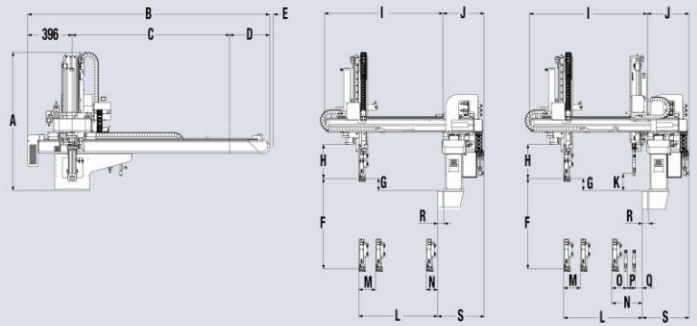
机种 Model	行程 (移动量) (mm) Stroke					本体重量 (kg) Net Weight	空气消费量 (N ℓ/循环) Air Consumption (N ℓ/cycle)
	上下 Ⓟ Vertical	上下 Ⓡ Vertical	前后 Ⓟ Crosswise	前后 Ⓡ Crosswise	走行 Traverse		
SKW–600	600	–	150	–	(1200) <1400>	203.6	18.4
SKW–600s		650		100		225.6	24.3
SKW–800	800	–		–	(1200) <1400> [1600]	221.8	22.7
SKW–800s		850		100		252.4	30.1
SKW–900	900	–		–	[1600]	233.9	24.9
SKW–900s		950		100		268.8	32.9

- ( ) 指行走行程1200mm, < > 指行走行程1400mm
  [ ] 指行走行程1600mm
- 本体重量包括控制箱及电缆线的重量
- Ⓟ 表示制品侧手臂 Ⓡ表示水口侧手臂

- Figure in ( ) shows for traverse 1000mm, < > shows for traverse stroke 1200mm.
  [ ] shows for traverse stroke 1400mm.
- Net weight includes the weight of interlock box and driver box.
- In the column of stroke, Ⓟstands for product side arm and Ⓡstands for runner side arm.

SKW-600/SKW-600s
SKW-800/SKW-800s
SKW-900/SKW-900s

外形尺寸 OUTER DIMENSIONS



外形尺寸		SKW–600	SKW–600s	SKW–800	SKW–800s	SKW–900	SKW–900s
A 全高	Overall height	1127mm		1227mm		1277mm	
B 全幅	Overall width	(1951) <2151> [2351] mm					
C 走行行程	Traverse stroke	(1200) <1400> mm		(1200) <1400> [1600] mm		[1600] mm	
D 落下侧突出位置	Overhang, release side	355mm		355mm		355mm	
E 护线履带突出位置	Cable guide overhang	0mm		0mm		0mm	
F Ⓟ 制品侧上下行程	Ⓟ Vertical stroke	600mm		800mm		900mm	
G Ⓟ 制品侧上下待机位置	Ⓟ Vertical standby	100mm		100mm		100mm	
H 夹具安装位置上方有效寸尺	Bottom of crosswise to chuck mount position	307mm		307mm		307mm	
I 前后单元	Crosswise arm	1052mm		1052mm		1052mm	
J 本体厚度	Thickness	370mm		370mm		370mm	
K Ⓡ 侧上下待机位置	Ⓡ Vertical standby	–	150mm	–	150mm	–	150mm
L Ⓟ 制品前进 MAX	Ⓟ Crosswise reach max	700mm		700mm		700mm	
M Ⓟ 制品前进行程 MAX	Ⓟ Crosswise stroke max	150mm		150mm		150mm	
N Ⓟ 制品前后待机 MIN	Ⓟ Crosswise standby min	100mm	170mm	100mm	170mm	100mm	170mm
O ⓅⓇ 接近 MIN	ⓅⓇ Proximity min	–	140mm	–	140mm	–	140mm
P Ⓡ 前后行程 MAX	Ⓡ Crosswise stroke max	–	100mm	–	100mm	–	100mm
Q Ⓡ 前后待机 MIN	Ⓡ Crosswise standby min	–	30mm	–	30mm	–	30mm
R 架台偏差	Base offset	88.5mm		88.5mm		88.5mm	
S	Mold mounting face ~ Box end face	446mm					

- Ⓟ 表示制品侧 Ⓡ表示水口侧
- * 选项功能, ( )指走行行程1200mm, < >指走行行程1400mm
  [ ]指走行行程1600mm
- 水口侧上下行程比制品侧长50mm
- 姿势部厚度85.1,不含气管的厚度
- 水口夹具的厚度25mm

* 因改良等原因,规格及外观有所变更时,不再另行通知,敬请包涵

- Ⓟstands for product side and Ⓡstands for runner side.
- Figure in * Option.
  Figures in ( )show for traverse stroke 1200mm, < >show for traverse stroke 1400mm
  [ ]show for traverse stroke 1600mm
- Runner side vertical stroke is 50mm longer than product side.
- Thickness of posture (wrist) section is 85.1 Depending on piping. This may become thicker.
- Thickness of runner chuck is 25mm

* all stated here is subject to change without advance notice hout advance notice

SKW-1000s/SKW-1000s
SKW-1200s/SKW-1200s

横走行一轴伺服马达驱动机械手

1 Axes AC motor driving automatic unloader

SKW-1200s

锁模力 Injection Press Range	双截手臂 Double ARM	控制箱 Controller
280~550t		STEC – CA3

基本参数 COMMON SPECIFICATIONS

电源 Power	电源设备容量(KVA) Electric Consumption	最大消费电力(KW) Max Power Consumption	使用空气压力 Air Pressure	驱动方式 Drive System	气缸推力 (气压为0.49MPa时) Air Cylinder Driving Force (Air Pressure at 0.49 MPa)		控制箱 Control Box
					最大可搬重量 (含夹具重) Max Load, Incl. Chuck Weight	姿势力矩 Posture Torque	
AC200V·220V ±10%	0.8	0.48	0.49MPa	上下,前后: 气缸 走行: AC伺服马达 Vertical/Crosswise: Air Cylinder Traverse: Ac Servo Motor	10 kg	16.3 N-m	STEC-CA3

综合参数 GENERAL SPECIFICATIONS

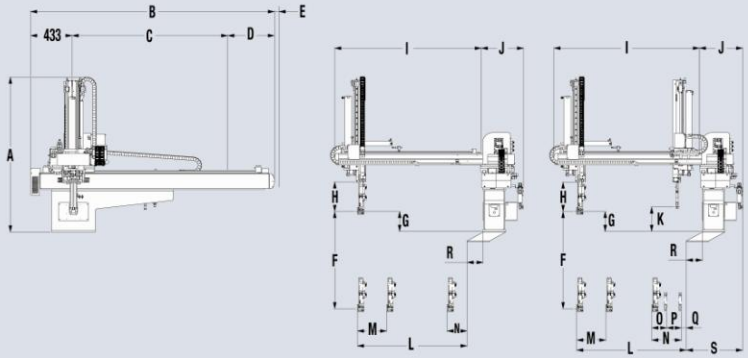
机种 Model	行程 (移动量) (mm) Stroke					本体重量 (kg) Net Weight	空气消费量 (N ℓ /循环) Air Consumption (N ℓ /cycle)
	上下 Ⓟ Vertical	上下 Ⓡ Vertical	前后 Ⓟ Crosswise	前后 Ⓡ Crosswise	走行 Traverse		
SKW–1000	1000	–	300	–	(1600) <1800> [2000]	440.8	45.0
SKW–1000s		1050		150		482.0	58.0
SKW–1200	1200	–		–		439.8	52.0
SKW–1200s		1250		150		480.0	67.0

- ( ) 指行走行程1600mm, < > 指行走行程1800mm
  [ ] 指行走行程2000mm
- 本体重量包括控制箱及电缆线的重量
- Ⓟ 表示制品侧手臂 Ⓡ表示水口侧手臂

- Figure in ( ) shows for traverse 1600mm, < > shows for traverse stroke 1800mm.
  [ ] shows for traverse stroke 2000mm.
- Net weight includes the weight of interlock box and driver box.
- In the column of stroke, Ⓟstands for product side arm and Ⓡstands for runner side arm.

SKW-1000s/SKW-1000s
SKW-1200s/SKW-1200s

外形尺寸 OUTER DIMENSIONS



外形尺寸		SKW–1000	SKW–1000s	SKW–1200	SKW–1200s
A 全高	Overall height	1490mm		1590mm	
B 全幅	Overall width	(2513) <2713> [2913] mm			
C 走行行程	Traverse stroke	(1600) <1800> [2000] mm		(1600) <1800> [2000] mm	
D 落下侧突出位置	Overhang, release side	480mm		480mm	
E 护线履带突出位置	Cable guide overhang	47mm		47mm	
F Ⓟ 制品侧上下行程	Ⓟ Vertical stroke	1000mm		1200mm	
G Ⓟ 制品侧上下待机位置	Ⓟ Vertical standby	200mm		200mm	
H 夹具安装位置上方有效寸尺	Bottom of crosswise to chuck mount position	307mm		307mm	
I 前后单元	Crosswise arm	1501mm		1501mm	
J 本体厚度	Thickness	440mm		440mm	
K Ⓡ 侧上下待机位置	Ⓡ Vertical standby	–	250mm	–	250mm
L Ⓟ 制品前进 MAX	Ⓟ Crosswise reach max	1100mm		1100mm	
M Ⓟ 制品前进行程 MAX	Ⓟ Crosswise stroke max	300mm		300mm	
N Ⓟ 制品前后待机 MIN	Ⓟ Crosswise standby min	205mm		205mm	
O ⓅⓇ 接近 MIN	ⓅⓇ Proximity min	–	155mm	–	155mm
P Ⓡ 前后行程 MAX	Ⓡ Crosswise stroke max	–	150mm	–	150mm
Q Ⓡ 前后待机 MIN	Ⓡ Crosswise standby min	–	50mm	–	50mm
R 架台偏差	Base offset	165mm		165mm	
S	Mold mounting face ~ Box end face	535mm			

- Ⓟ 表示制品侧 Ⓡ表示水口侧
- * 选项功能, ( )指走行行程1600mm, < >指走行行程1800mm
  [ ]指走行行程2000mm
- 水口侧上下行程比制品侧长50mm
- 姿势部厚度85.1mm,不含气管的厚度
- 水口夹具的厚度25mm

* 因改良等原因,规格及外观有所变更时,不再另行通知,敬请包涵

- Ⓟ stands for product side and Ⓡ stands for runner side.
- * Figure in * Option.
  Figures in ( )show for traverse stroke 1600mm, < >show for traverse stroke 1800mm
  [ ]show for traverse stroke 2000mm
- Runner side vertical stroke is 50mm longer than product side.
- Thickness of posture(wrist) section is 85.1mm Depending on piping. This may become thicker.
- Thickness of runner chuck is 25mm

* all stated here is subject to change without advance notice

选项功能

○: 选项功能　◎: 标准功能　–: 不可加装

	功能名称	编号	功能说明	对应机种		
				SK-500/600/800s	SKW-600/800/900s	SKW-1000/1200s
SK系列	固定可动切换	0014-03	标准机是从可动侧的模具中取出制品.追加固定可动切换后,如切换到固定侧,将可从固定侧的模具中取出制品.	○	○	○
	剪刀回路 (夹具内)	0008-01	利用取出机本体上安装的夹具内剪刀(1回路)进行浇口剪切时,需要此功能.自动运转中剪刀在落下侧的制品开放位置,制品开放前动作.	○	○	○
	吸着确认2回路	0007-04	利用真空发生单元2回路取出制品	○	○	○
	NT剪切,可动侧 (单元有)	0009-01	为了剪切制品的浇口,利用安装在落下侧的走行体尾端的NT单元的剪刀剪切浇口.	○	○	○
	滑移取出回路	0016-01	从有滑移构造的模具中取出制品时需要此功能.如追加此功能,可在模具内把持住制品,通过夹具的滑移取出制品.	◎	◎	◎
	制品确认开关 (LS-4)	0087-02	安装在上升途中确认制品的开关(LS-4),通过此开关检测确认1个取出的制品.	○	○	○
	模具内夹具开放 (制品确认)	0022-02	在模内把持住制品及浇口,拉拔取出后,在模内放开制品及浇口.这时,感应器确认制品及浇口.如感应器没检测到制品及浇口时,会警报停机.	○	○	○
	不良品排出回路	–	通过与注塑机的不良品信号连动,进行不良品排出动作.	◎	◎	◎
	横走行待机	–	开模未完成,如模具上的障碍物与取出机或夹具板相干涉时,使手臂在走行复归途中走行体待机,等待开模完成.	◎	◎	◎
	6国语言切换	–	操作盒的显示可选择日文,英文,简体中文,繁体中文,韩文及泰文	◎	◎	◎
	落下侧下降低速	–	在取出侧,为提高周期循环,让手臂高速落下,在落下侧,为避免制品从夹具(吸盘)中脱落,使手臂低速下降.	◎	◎	◎
	走行位置动作	–	在输送带或容器中利用相同孔距的间隔并排开放制品.	◎	◎	◎
	取出模式1,2	–	模内的制品或水口到达指定位置的动作途径路有2种选择.	◎	◎	◎
	吸着确认单元 (1回路)	–	制品用吸着回路取出时，1回路为标准回路	◎	◎	◎

※因选项功能的组合,有可能超过控制箱的信号容量,请咨询营业担当者.

Option List

○: possible adopt　◎: built in standard function　—: impossible adopt

	Option Name	Code No.	Description	Corresponding Robots		
				SK-500/600/800s	SKW-600/800/900s	SKW-1000/1200s
SK Series	Extraction from fixed mold	0014-03	Stadard machines is designed to extract products form the moving-side mold.To extract products from the fixed mold after molding,use the operation mode for this fixed-side extraction	○	○	○
	Air nipper in chuck	0008-01	Used to take the cutting of direct gates or side gates with the air nipper in the chuck plate.When in automatic operation,cutting is made at product release position before the product release.	○	○	○
	Additional vacuum sensing unit	0007-04	Products are extracted with vacuum generator(tacovam)2 circuits.	○	○	○
	NT gate cut motion	0009-01	For purposes of product gate processing,the air nipper in the NT unit mounted at the end of the release-side traverse rail is used to cut gates at 2 points.	○	○	○
	Extract circuit for under - cut mold	0016-01	Unter-cut products may cause cracks or cannot be extracted if the arm is teturned as it is after the chuck was closed.under-cut products can extracted by sliding the chuck plate after the product chuck was closed.	◎	◎	◎
	Limit SW for product confirmation	0087-02	Limit switch(LS-4) mounted at the during ascent position detects an extracted product	○	○	○
	Release within mold (Product Confirmation)	0022-02	Used to release products or runners within mold after pulling them out of the mold.This mode also makes a product confirmation with sensor before releasing within mold.If the product confirmation is not ON,it outputs an alarm at the ascent end and stops the ascent end and stops the releasing within mold.	○	○	○
	Defective product reject circuit	–	Defective products are separated from other products interlocked with the defect signal of IMM.	◎	◎	◎
	Delayed traverse	–	Used to let the unloader stand by outside the molding machine's door if there are obstacles in the mold moving section	◎	◎	◎
	Six lanauage change	–	Language switching between six languages can be used for display,Languages that can be displayed are japanese,English,Chinese (new character format), Chinese(old character format),korean,and Thai	◎	◎	◎
	Release side descent slow speed	–	Arm descends at a high speed to accelerate the cycle on the product extract side,On the release side,arm descends at a low speed so that the product does not drop from the chuck	◎	◎	◎
	Traverse position motion	–	Two motions before extracting product or runner can be selected.	◎	◎	◎
	Product extract mode 1,2	–	Only runner side arm moves to remove the runner.Product drops after the three-plate chuck plate opened.	◎	◎	◎
	Vacuum Confirmation (One Circuit)	–	When products are extracted with circuits, 1 circuit is as the standard circuit.	◎	◎	◎

※ Some combinations of options may not be available due to excess of controller's capacity.

Smus - Series 浇口取出专用回转机械手
Swing type sprue picker

SMUS–600

锁模力 Injection Press Range	控制箱 Controller
30~80, 80~160, 150~250ton	STEC – K2

基本参数 COMMON SPECIFICATIONS

电源 Power	最大消费电力 Max Power Consumption	使用空气压力 Air Pressure	最大可搬重量 Max Load, Incl. Chuck Weight	控制箱 Control Box
AC200V-220V ±10% 50/60Hz	0.3A 200V MAX	0.49Mpa	2 kg	STEC-K2

综合参数 GENERAL SPECIFICATIONS

机种 Model	行程 (移动量) (mm) Stroke 上下 Vertical (Air)	前后 Crosswise	回转 Swing (Air)	最前进位置 (mm) Max Reach	上下待机位置 (mm) Vertical Stand by Position	空气消费量 (N ℓ/循环) Air Consumption (N ℓ/cycle)
SMUS–450	450	75	50-90°	Max.350	168	7.4
SMUS–600	600					9.0
SMUS–800	800	100		Max.450		10.8

Control Box STEC-K2

选项功能	Option
吸着确认单元	Vacuum confirmation unit
落下侧低速下降	Slow speed descent at release side
夹具内剪刀	Air nipper in chuck
不良品排除回路	Defective product reject circuit
夹具部反转单元 (C型号)	Chuck twist (c type)
指定颜色	Special paint color

特长 FEATURES

简洁,紧凑的设计
SIMPLE & COMPACT DESIGN

重新考虑部品的配置, 去掉了多余的配管,配线重视设计,形成了简洁,紧凑的设计
Simple and compact sprue picker is realized eliminating the unnecessary wiring/pipings.

安全性
SAFE OPERATION

在操作盒上装置了可随时停止取出机运行的," 紧急停止开关"
E-stop swich is adopted on operation pendant for safety operation.

多国语言显示功能
SELECTABLE LANGUAGE

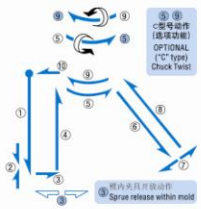
订购时可从中文,日文,英文及韩文选择语言
换模记忆功能
可记录15种不同模具的设定信息。

When ordering, display language on pendant can be selected from Japanese/English/Chinese/Korean.

Mold change memory
Memory for up to 15 different molds is possible.

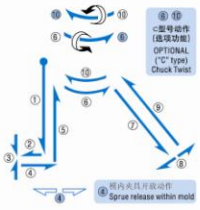
基本动作 MOTION PATTERN

模式1 TYPE 1



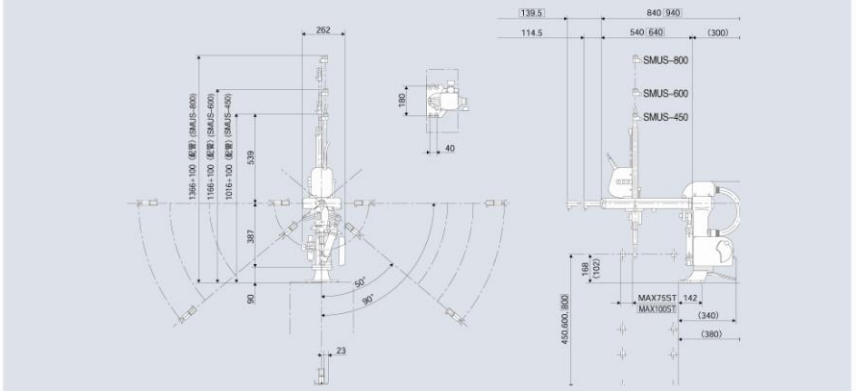
1. 下降 Descent
2. 夹取注塑品 Sprue grip
3. 后退 Crosswise retreat
3. 放下注塑品 Sprue release within mold
4. 上升 Ascent
5. 回转 Swing action
5. 夹具部反转 Chuck twist
6. 下降 Arm extend
7. 放下注塑品 Sprue release
8. 上升 Arm retreat
9. 回转复位 Swing return
9. 夹具部反转 Chuck twist return
10. 返回待机位置 Crosswise advance

模式2 TYPE 2



1. 下降 Descent
2. 前进 Crosswise advance
3. 夹取成形品 Sprue grip
4. 后退 Crosswise retreat
4. 放下成形品 Sprue release within mold
5. 上升 Ascent
6. 回转机械 Swing action
6. 反转夹具部 Chuck twist
7. 下降 Arm extend
8. 放下成形品 Sprue release
9. 上升 Arm retreat
10. 回转复位 Swing return
10. 反转复位夹具部 Chuck twist return

外形尺寸 OUTER DIMENSIONS



" □ " 中的尺寸表示 SMUS–800 的尺寸
" 〈 〉" 内的尺寸表示带夹具部反转单元 (C型号) 的尺寸

" □ " Dimensions show the sizes for SMUS–800 .
" 〈 〉" dimensions show the sizes for Robots with Chuck Rotation Unit (C types)

适用于三板模的回转式机械手
Swing type sprue picker for *three-plate molds*

SMUS-600S

锁模力 30~250t
Injection Press Range
30~80, 80~160, 150~250ton

控制箱 K2
STEC – K2
Controller

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 (气压为0.49MPa时) Air Cylinder Drving Force (Air Pressure at 0.49 MPa) 最大可搬重量 Max Load, Incl. Chuck Weight	控制箱 Control Box
AC200V-220V ±10% 50/60Hz	0.49MPa	气缸	90° 固定	2 kg	STEC-K2

综合参数 GENERAL SPECIFICATIONS

机种 Model	行程 (移动量) (mm) Stroke 上下 Vertical	前后 Crosswise	回转 Swing (Air)	取前进位置 (mm)	上下待机位置 (mm)	电源设备容量(KVA) Electric Consumption	最大消费电力 (W) Max Power Consumption	本体重量 (kg) Net Weight	空气消费量 (N ℓ/循环) Air Consumption (N ℓ/cycle)
SMUS-450S	Ⓟ450 Ⓡ450	Ⓟ75 Ⓡ75						50	17
SMUS-600S	Ⓟ600 Ⓡ600	Ⓟ75 Ⓡ75	50-90°	Ⓟ490 Ⓡ315	Ⓟ204 Ⓡ164	0.6	24	52	20
SMUS-800S	Ⓟ800 Ⓡ800	Ⓟ75 Ⓡ75						54	25

• Ⓟ表示制品侧手臂 Ⓡ表示水口侧手臂

• In the column of stroke., Ⓟ stands for product side arm and Ⓡ stands for runner side arm.

Control Box STEC-K2

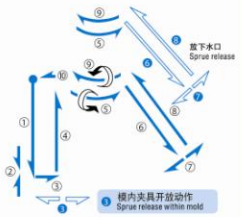
选项功能 Option

液晶显示器显示：模式选择，时间设定及警报内容等必要信息。可记忆15组不同模具资料，还具有记忆5中警报内容的功能。

The STEC-K2 displays all necessary information on its liquid crystal display. The includes mode selection, timer setting and timer display.condition setting change memory (15molds) and alarm past record indication (5cases) can be used.

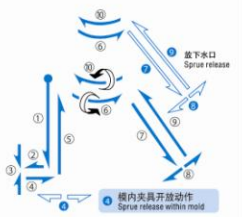
基本动作 MOTION PATTERN

模式1 TYPE 1



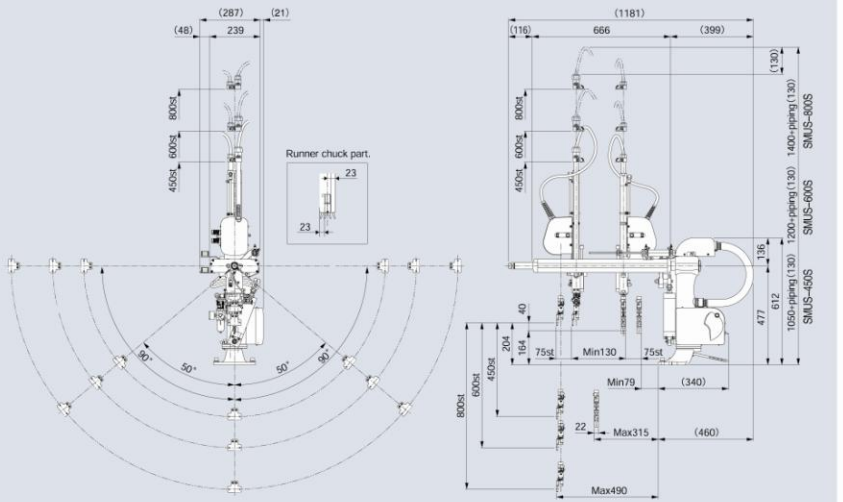
① 下降 Descent
② 夹取注塑品 Product grip
③ 后退 Crosswise retreat
③ 放下注塑品 Product release within mold
④ 上升 Ascent
⑤ 回转 夹具部反转(只有制品侧) Swing action Chuck twist (product side)
⑥ 下降 Arm extend
⑦ 放下注塑品 Product release
⑧ 上升 Arm retreat
⑨ 回转复位 夹具部反转(只有制品侧) Swing return Chuck twist return (product side)
⑩ 返回待机位置 Crosswise advance

模式2 TYPE 2



① 下降 Descent
② 前进 Crosswise advance
③ 夹取注塑品 Product grip
④ 后退 Crosswise retreat
④ 放下注塑品 Product release within mold
⑤ 上升 Ascent
⑥ 回转 夹具部反转 (只有制品侧) Swing action Chuck twist (product side)
⑦ 下降 Arm extend
⑧ 放下注塑品 Product release
⑨ 上升 Arm retreat
⑩ 上升 Swing return 回转复位 夹具部反转复位(只有制品侧) Swing return Chuck twist return (product side)

外形尺寸 OUTER DIMENSIONS



◆因改良等原因, 规格及外观有所变更时,不再另行通知,敬请包涵。 ※ All stated here is subject to change without advance notice.