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SANGWON INTECH

Innovation of factory
automation component

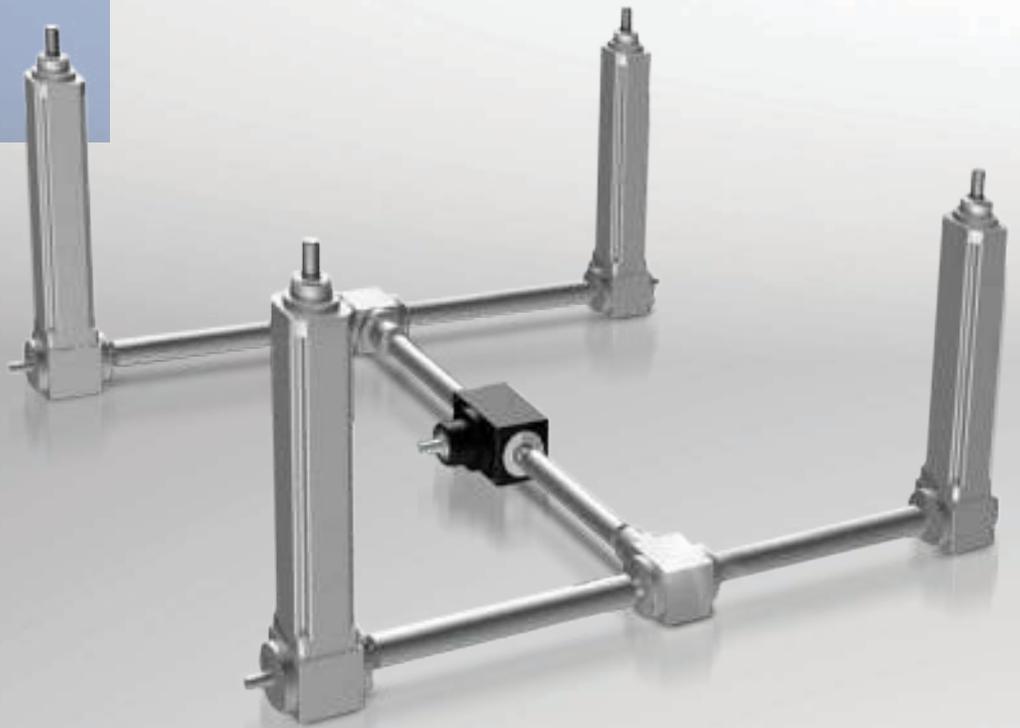


SANGWON
Intech

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SangWon Intech

INTRO



通过技术和质量的差异化，发展 成为自动化机械与产业设备事业 领域的最强企业。

着眼未来，拥有更好的明天，克服变化带来的
问题，以无尽的热情和强大的技术实力，
开创产业设备事业领域的未来。
以寄托心灵的技术和开创未来的动力，从一个小小的
零件到复杂的系统，怀揣为客户着想之心，
生产最好的产品。



SangWon Intech

HISTORY

Innovation
of factory
Automation
Component





用今天的 热情创造明天的价值。

引领韩国产业自动化设备发展的SANGWON INTECH, 针对全球市场, 开拓为客户的生活带来便利的领域, 不断取得了发展。

SANGWON INTECH有效地应对快速变化的市场和竞争环境, 在无限竞争时代, 以强大的竞争力为满足客户需求而竭尽全力。

- 2016**
- ▶ 2月~9月, 向AVACO供应螺旋千斤顶系统 (Screw Jack System)
 - ▶ 5月, 为ULVAC KOREA开发和供应用于真空环境的齿轮箱(Gear Box)
 - ▶ 6月, 为韩华开发和供应蜗杆螺旋千斤顶 (Worm Screw Jack)
 - ▶ 7月, 开发出三种新产品
 - 线性致动器(LINEAR ACTUATOR)/
 - 多轴齿轮箱/电动升降器(MOTOR POWER BASE)
 - ▶ 10月, 向三星DISPLAY供应螺旋千斤顶系统
- 2015**
- ▶ 5月, 为韩国光洋系统(KOYO THERMO SYSTEMS) 开发新型动力缸(POWER CYLINDER)
 - ▶ 7月, 向LG DISPLAY供应螺旋千斤顶系统
 - ▶ 10月, 向三星SDI供应动力缸
 - ▶ 12月, 开始向AVACO供应螺旋千斤顶系统
 - ▶ 12月, 与SEMES签订2016年齿条千斤顶(RACK JACK) 供应合同
- 2014**
- ▶ 3月, 向SFA供应齿条千斤顶系统
 - ▶ 9月, 向LG DISPLAY供应螺旋千斤顶和动力缸
 - ▶ 11月, 开发出用伺服电机驱动的电动升降机 (MOTOR LIFTER)
 - ▶ 12月, 向三星供应用伺服电机驱动的电动升降机
- 2013**
- ▶ 5月, 向韩国光洋系统供应新型动力缸
 - ▶ 6月, 向BOE供应动力缸系统
 - ▶ 11月, 向双龙汽车供应锥齿轮系统(BEVEL GEAR SYSTEM)
 - ▶ 12月, 向LG DISPLAY供应齿条千斤顶
- 2012**
- ▶ 10月, 为韩国光洋系统开发新型号及开始供应动力缸
 - ▶ 12月, 向LG DISPLAY供应动力缸系统
- 2008**
- ▶ 7月, 开发出升降基座(BASE CYLINDER)
 - ▶ 9月, 向三星LCD供应线型升降基座 (LINE BASE CYLINDER)
 - ▶ 11月, 向LG DISPLAY供应动力缸系统
- 2005**
- ▶ 1月, 在PDP玻璃印刷系统(PDP GLASS PRINTING SYSTEM) 应用磁驱动器(MAGNET DRIVE) 用于第七代的磁驱动器/在PDP玻璃(ITO) 冷却系统(PDP GLASS(ITO) COOLING SYSTEM) 应用升降器(POWER BASE)
 - ▶ 3月, 为LG DISPLAY的LPL开发用于P7目视和取向检查器的升降器并启用
 - ▶ 4月, 在三星LCD应用T ITO & OC及BM线型升降器(LINE POWER BASE)
 - ▶ 6月, 收到起亚汽车华城工厂的FEM自动供给LINE D/T和L/F订单
- 2004**
- ▶ 2月, 在LG第六代T.F.T生产线应用升降器
 - ▶ 4月, 为三星SDI T7 LINE MITER开发齿轮箱
 - ▶ 8月, 制作凸轮正时带轮式(CAM TIMING PULLEY TYPE) 电动升降机
 - ▶ 11月, 向韩国FAG轴承供应轴承磨削液液压升降器 (BEARING GRINDING LINE HYD' LIFT)
 - ▶ 12月, 韩泰轮胎(株)- 中国江苏PCR LTR第五次CNV
- 2003**
- ▶ 2月, 开发用于核磁共振成像仪(M.R.I)的 FEED' G系统
 - ▶ 3月, 开发凸轮与主轴式(CAM & SPINDLE TYPE) 电动升降机
 - ▶ 7月, 为S.C.P(三星康宁精密玻璃) 设计锯切机(SAW CUTTING MACHINE)
 - ▶ 8月, 为三星SDI天安工厂制作P.D.P批量生产第二期涂层、模块组装线设备

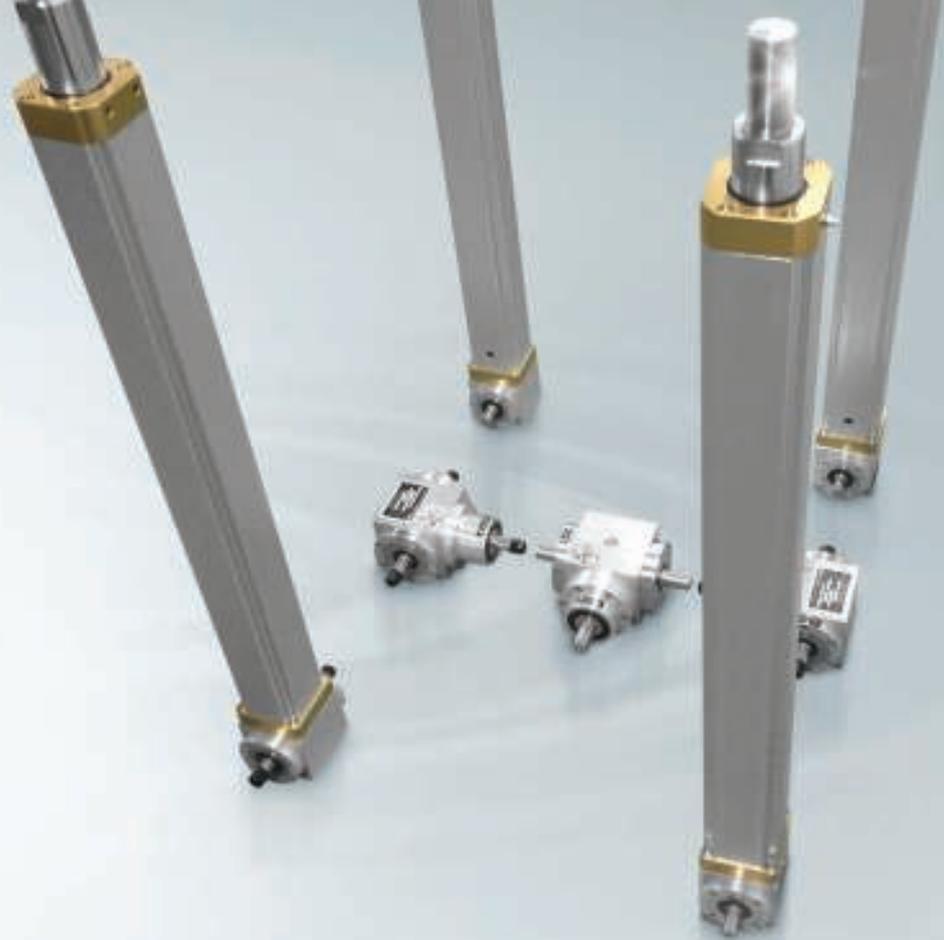
POWER CYLINDER

Innovation of factory automation component

Product List

POWER CYLINDER	06
SCREW JACK	20
- SCREW JACK - MSN	
- SCREW JACK - MSS	
RACK JACK	38
- RACK JACK - SWP SERIES	
- RACK JACK - SSP SERIES	
CAM BASE	48
BEVEL GEAR BOX	54
SERVO BOX	60
BASE CYLINDER	66
POWER BASE	72





SPECIFICATIONS

产品名称	POWER CYLINDER				特点
Lubrication	Grease				· 用于精密机械加工各种配件 · 采用最佳材料制作
Material	ALUMINIUM · STKM13C				
Gear	Spiral Bevel Gear	Worm Gear	Spur Gear	Helical Gear	· 采用最低噪声和防震设计，轻柔驱动
Ratio	1 : 1 ~ 4 : 1	10 : 1 ~ 30 : 1	1 : 1 ~ 5 : 1		
Efficiency (%)	94 ~ 97%	50 ~ 60%	94 ~ 97%		
Max. Input Speed (rpm)	1,500rpm				· 防止产生微颗粒物 (Particle)
Protection Class	IP65				
Life Cycle (h)	>10,000				· 实现最长时间耐久性 · 防止内部冲击造成损坏
Orientation	Any				
安装方向	水平、垂直、倾斜等安装角度不受限制				
Ambient Temperature (°C)	-20°C ~ 50°C				
Ambient Humidity (%)	80%以下				
高度	1000米以下				
使用条件	无腐蚀性气体、爆炸性气体等				

POWER CYLINDER

Innovation of factory automation component

SR2510 SERIES

SIDE DOUBLE ROD TYPE

- 实现避免负载中心部干涉的系统
- 安静而高速升降，实现高精度地反复前进和后退

动力缸的型号组成

SR(B) B2 - BL 2510 - 500ST

1

2

3

4

5

1 动力缸的规格

2 齿轮的种类和减速比

B : BEVEL GEAR RATIO(B, B2)

W : WORM GEAR RATIO

(W15, W20, W30)

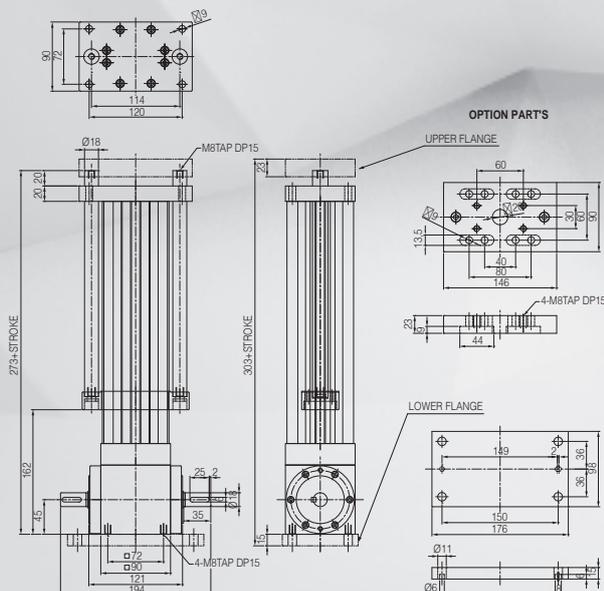
3 螺杆种类

BL : BALL SCREW

TL : TM SCREW

4 OUTDIA, LEAD

5 STROKE



Customizable
可定制

Innovation of factory automation component

SA2510 SERIES

SIDE BRACKET TYPE

- 利用侧架(Side Bracket)实现多种应用系统
- 安静而高速升降，实现高精度地反复前进和后退

动力缸的型号组成

SA(B) B2 - BL 2510 - 500ST



① 动力缸的规格

② 齿轮的种类和减速比

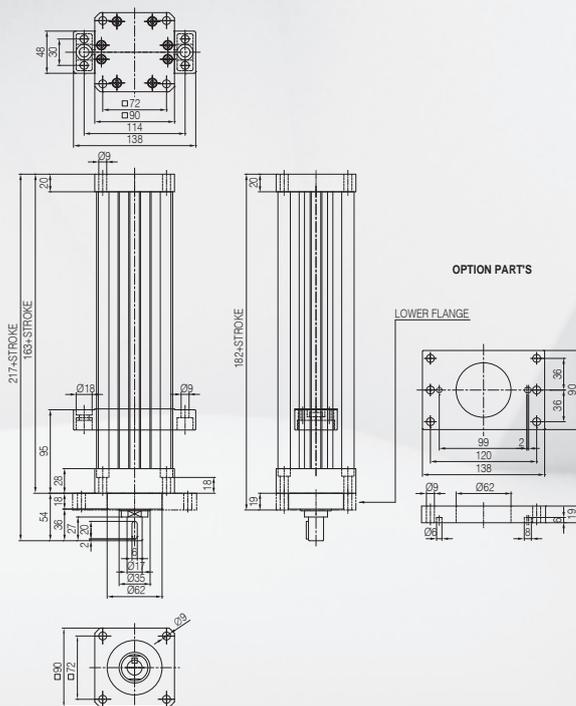
B : BEVEL GEAR RATIO(B, B2)
W : WORM GEAR RATIO
(W15, W20, W30)

③ 螺杆种类

BL : BALL SCREW
TL : TM SCREW

④ OUTDIA, LEAD

⑤ STROKE



Customizable
可定制



Innovation of factory automation component

POWER CYLINDER

精密电动气缸, 容易安装、易于维护,
采用螺旋锥齿轮(Spiral Bevel Gear), 使齿隙(Backlash)最小化

动力缸的型号组成

MSR45 B2 - BL 3210 - B 500ST

① ② ③ ④ ⑤ ⑥

① 动力缸的规格

② 齿轮的种类和减速比

B : BEVEL GEAR RATIO(B, B2, B3)

W : WORM GEAR RATIO
(W10, W15, W20, W30)

H : HELICAL GEAR(H3)

S : SPUR GEAR(S2,5)

③ 螺杆种类

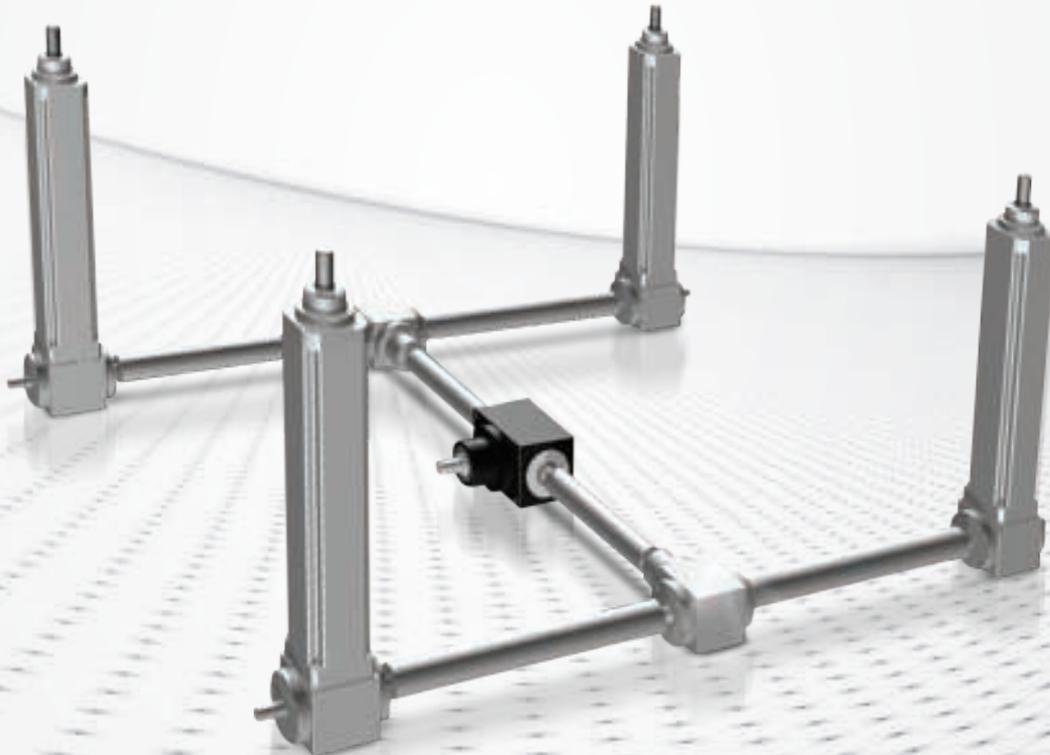
BL : BALL SCREW

TL : TM SCREW

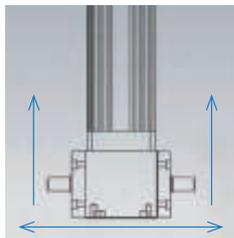
④ OUTDIA, LEAD

⑤ 有、无波纹管(BELLOWS)

⑥ STROKE



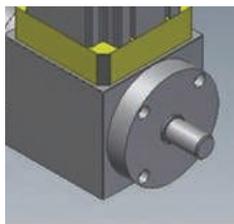
动力缸的使用顺序



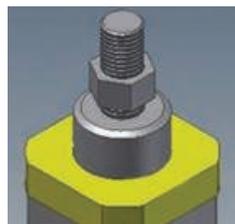
最重要的是使气缸保持水平，否则会产生噪声和震动。

ALIGNMENT

把两台以上旋转和升降机械组合在一起使用时，要与旋转和升降中心线准确地保持在一条直线上，以防止运动轴扭曲和热膨胀，以及使轴承载荷适当得到分配。



若把气缸强行组装在框架里，则有可能产生ROD的偏心现象，这会对气缸的寿命造成严重的后果。



组装上、下部分时要谨防因固定螺栓造成扭曲。



利用位于ROD末端的螺丝，使各气缸保持相同的水平位置。若不能保持水平，则有可能产生偏心荷载和电机过载现象。

POWER CYLINDER的应用



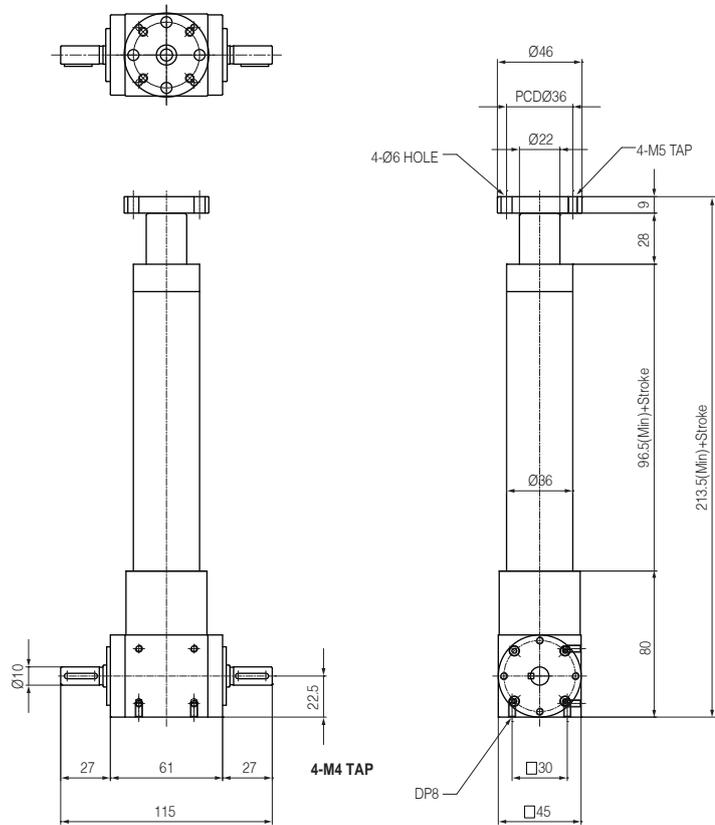
型号	MAIN	SUB
MSR45	S45	S45
MSR75	S90	S75
MSR80, MSR10	S90	S75
MSR110, MSR20W	S120	S110

*根据设计和安装条件，有变动可能，请咨询本公司。

POWER CYLINDER MSR45B-BL1205

DRAWING

Customizable 



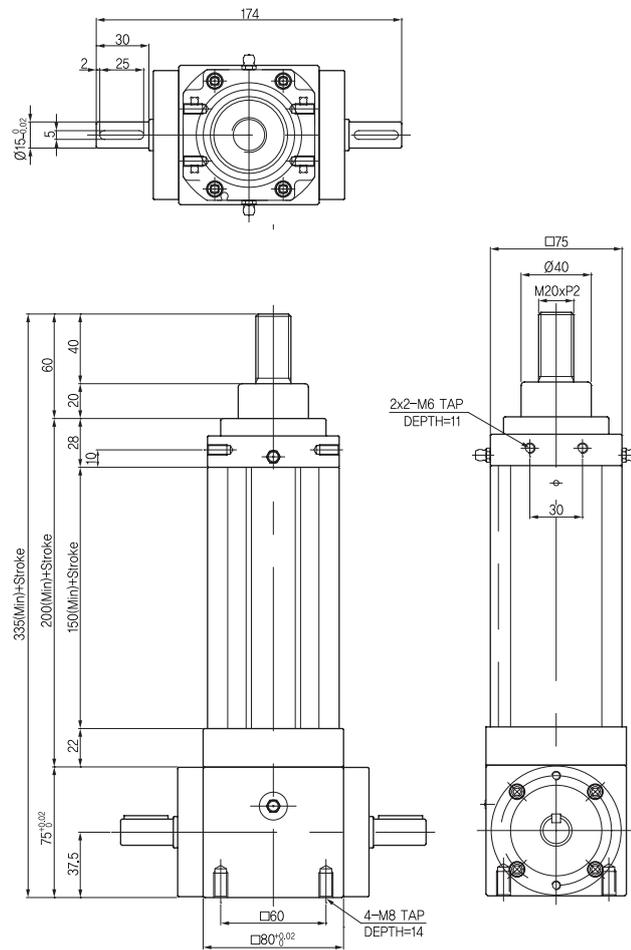
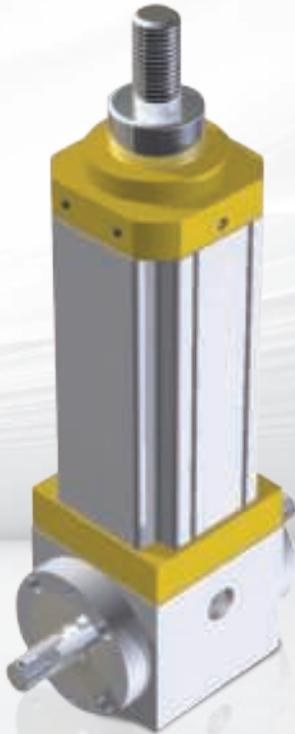
适用丝杠(TM SCREW)	减速比	最大载荷
$\varnothing 1205$	1 : 1	10kg

* 锥齿轮式(Bevel Gear Type)轻负荷动力缸

POWER CYLINDER MSR80B - BL2510, 2020

DRAWING

Customizable 



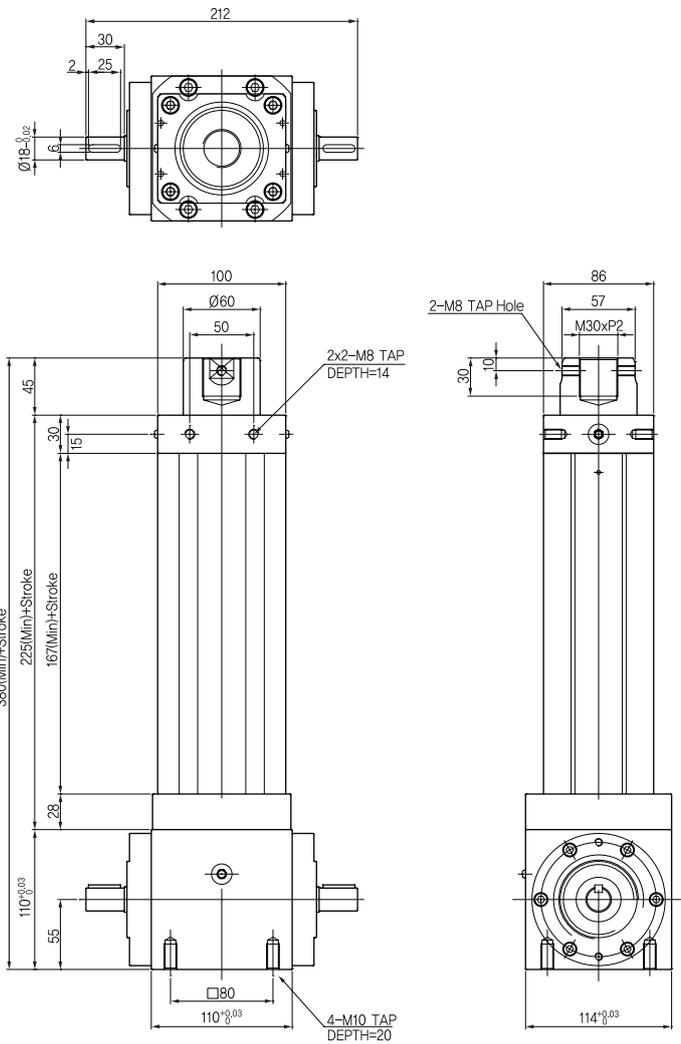
适用滚珠丝杠 (BALL SCREW)	减速比	最大载荷
Ø2020, Ø2510	1:1	200kg

* 锥齿轮式轻负荷动力缸

POWER CYLINDER MSR110B2 - BL3210

DRAWING

Customizable 



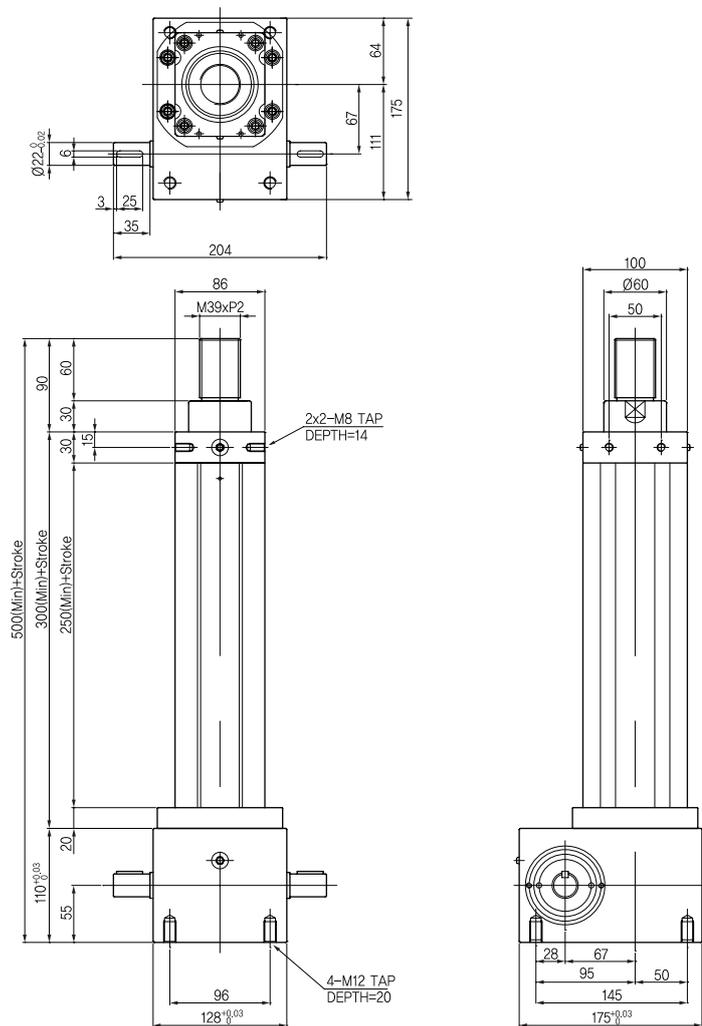
适用滚珠丝杠 (BALL SCREW)	减速比	最大载荷
$\varnothing 3210$	2 : 1	1000kg

* 锥齿轮式(Bevel Gear Type)重负荷Power Cylinder

POWER CYLINDER MSR20W15 - BL3210

DRAWING

Customizable 



适用滚珠丝杠 (BALL SCREW)	减速比	最大载荷
Ø3210	15 : 1	1000kg

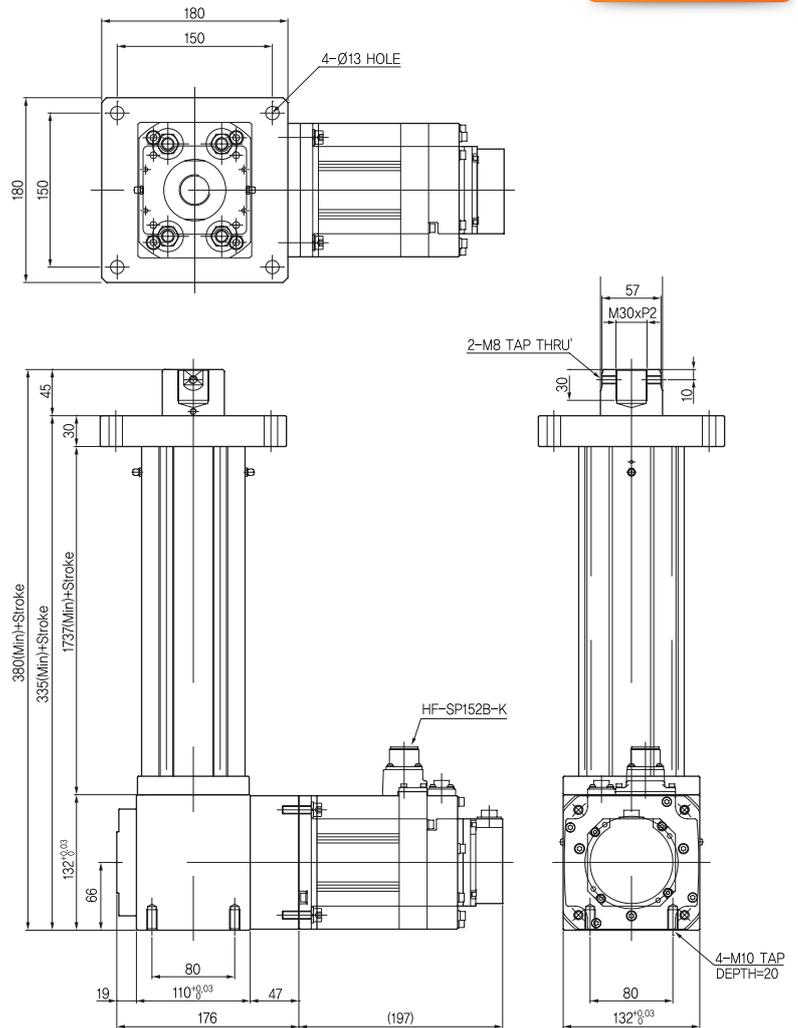
* 蜗轮式(Worm Gear Type)

POWER CYLINDER

MSR110B2 - BL3210 - M

DRAWING

Customizable 



适用滚珠丝杠 (BALL SCREW)	减速比	最大载荷
Ø3210	2 : 1	1000kg

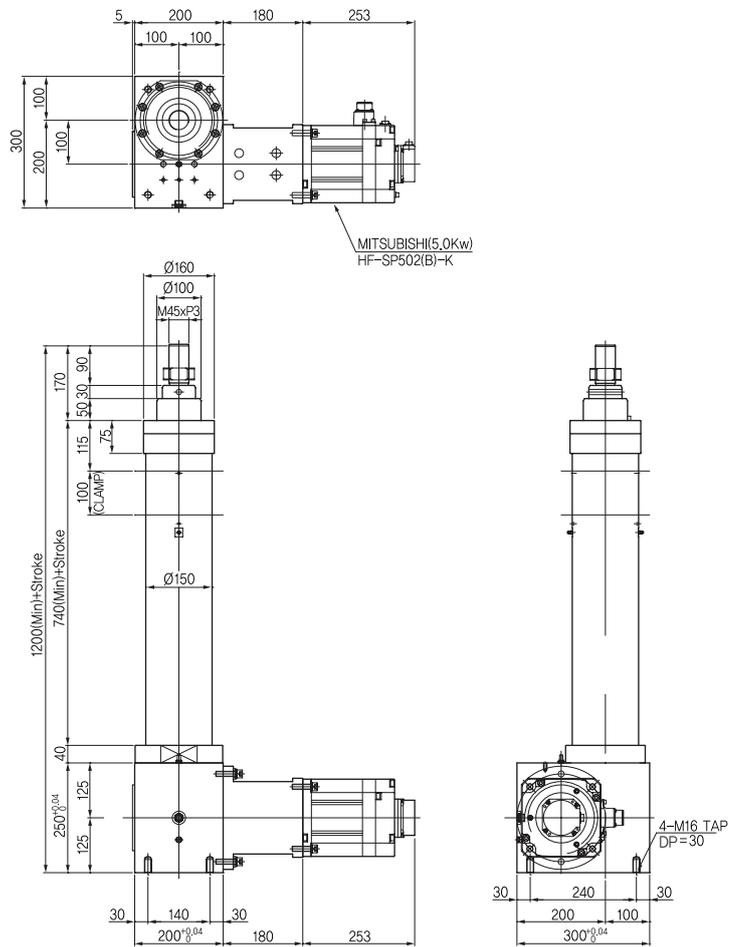
* 电机一体型重负荷动力缸

POWER CYLINDER

MSR50W20 - BL5020 - M

DRAWING

Customizable 



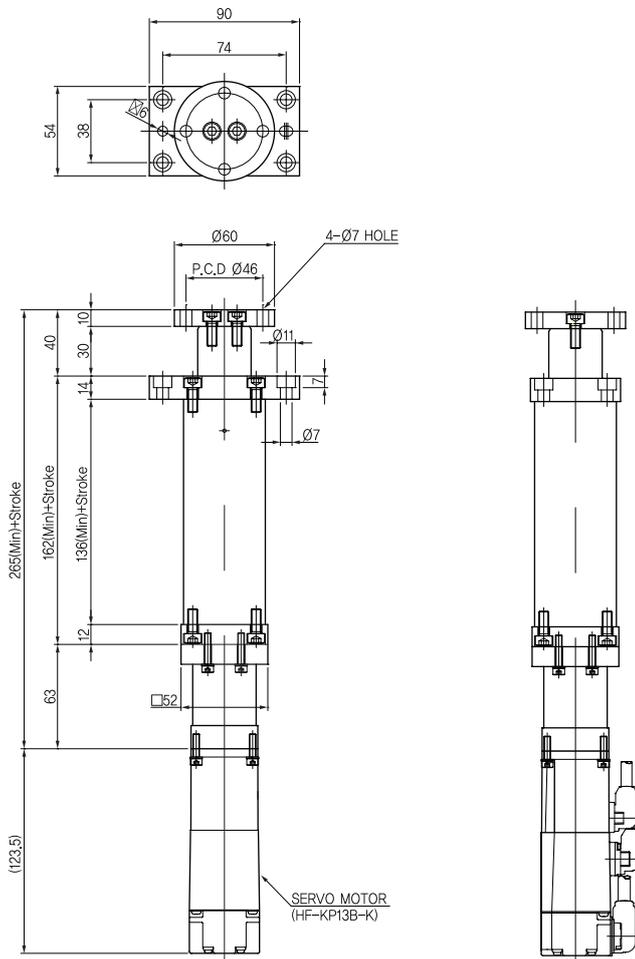
适用滚珠丝杠 (BALL SCREW)	减速比	最大载荷
Ø5020	20 : 1	5000kg

* 蜗轮式(Worm Gear Type)电机一体型动力缸

POWER CYLINDER MSR03S - BL2005 - M

DRAWING

Customizable 



适用滚珠丝杠 (BALL SCREW)	减速比	最大载荷
Ø2005	1:1	20kg

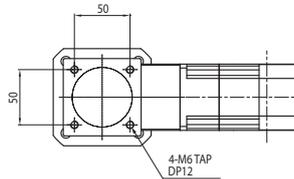
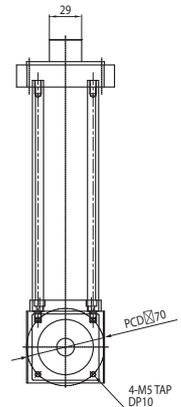
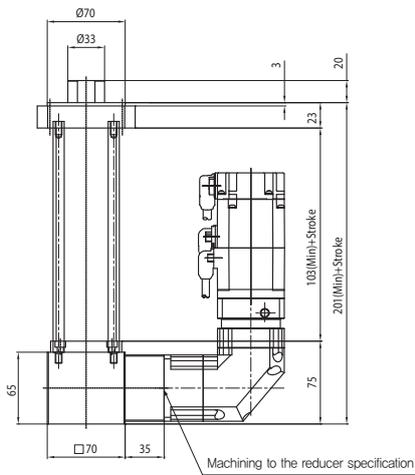
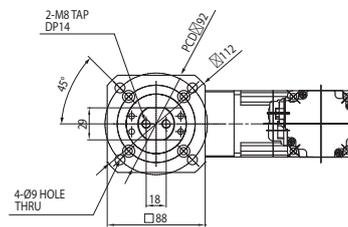
* 电机直连型动力缸

POWER CYLINDER

SRM70B2-BL2005-M

DRAWING

Customizable 



适用滚珠丝杠 (BALL SCREW)	减速比	最大载荷
Ø2005	2 : 1	50kg

* 减速器和电机一体型动力缸

SCREW JACK MSN

Innovation of factory automation component

Product List

POWER CYLINDER	06
SCREW JACK	20
- SCREW JACK - MSN	
- SCREW JACK - MSS	
RACK JACK	38
- RACK JACK - SWP SERIES	
- RACK JACK - SSP SERIES	
CAM BASE	48
BEVEL GEAR BOX	54
SERVO BOX	60
BASE CYLINDER	66
POWER BASE	72





SPECIFICATIONS

产品名称	POWER CYLINDER				特点
Lubrication	Grease				· 用于精密机械加工各种配件 · 采用最佳材料制作
Material	ALUMINIUM · STKM13C				
Gear	Spiral Bevel Gear	Worm Gear	Spur Gear	Helical Gear	· 采用最低噪声和防震设计，轻柔驱动
Ratio	1:1 ~ 4:1	10:1 ~ 30:1	1:1 ~ 5:1		
Efficiency (%)	94 ~ 97%	50 ~ 60%	94 ~ 97%		
Max. Input Speed (rpm)	1,500rpm				· 防止产生微颗粒物
Protection Class	IP65				
Life Cycle (h)	>10,000				· 实现最长时间耐久性 · 防止内部冲击造成损坏
Orientation	Any				
安装方向	水平、垂直、倾斜等安装角度不受限制				
Ambient Temperature (°C)	-20°C ~ 50°C				
Ambient Humidity (%)	80%以下				
高度	1000米以下				
使用条件	无腐蚀性气体、爆炸性气体等				

Innovation of factory automation component

SCREW JACK-MSN

螺帽(Nut)升降型螺旋千斤顶，容易安装、易于维护，
采用螺旋锥齿轮，使齿隙最小化

螺旋千斤顶 – MSN的型号组成

MSN45 B2 - BL 3210 - B 500ST



① 螺旋千斤顶的规格(MSN)

② 齿轮的种类和减速比

B : BEVEL GEAR RATIO
(B, B2, B3)

W : WORM GEAR RATIO
(W10, W15, W20, W30)

③ 螺杆种类

BL : BALL SCREW
TL : TM SCREW

④ OUTDIA, LEAD

⑤ 有、无波纹管(BELLOWS)

⑥ STROKE

SCREW JACK – MSN APPLICATIONS



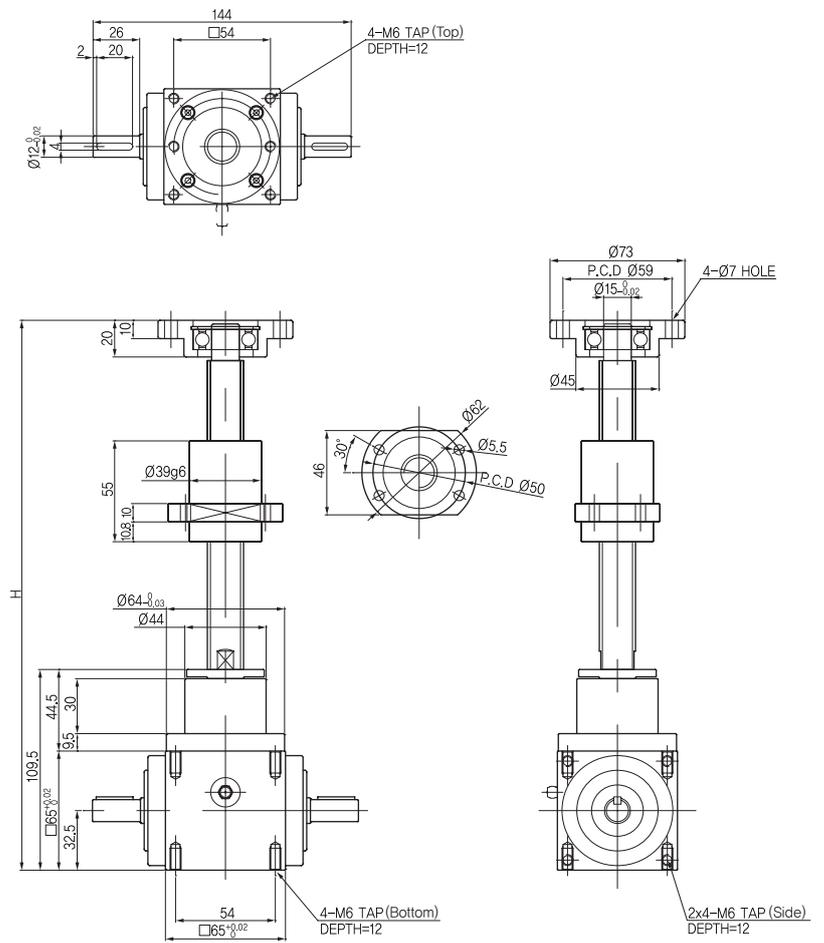
型号	MAIN	SUB
MSN45	S45	S45
MSN65	S75	S65
MSN75	S90	S75
MSN90	S110	S90
MSN110	S120	S110

* 根据设计和安装条件，有变动可能，请咨询本公司。

SCREW JACK-MSN MSN65 - BL2020

DRAWING

Customizable 



适用滚珠丝杠 (BALL SCREW)	减速比	最大载荷
$\varnothing 2020$	1 : 1	50kg

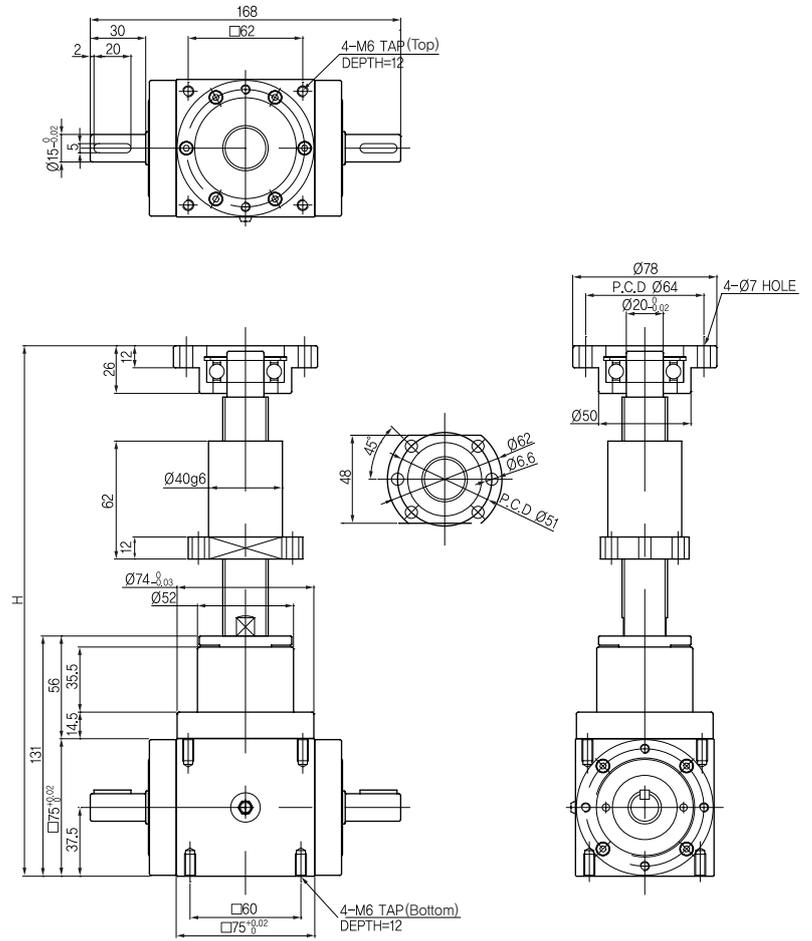
* 锥齿轮式螺帽升降型螺旋千斤顶

SCREW JACK-MSN

MSN75 - BL2510

DRAWING

Customizable 



适用滚珠丝杠 (BALL SCREW)	减速比	最大载荷
$\varnothing 2510$	1:1	100kg

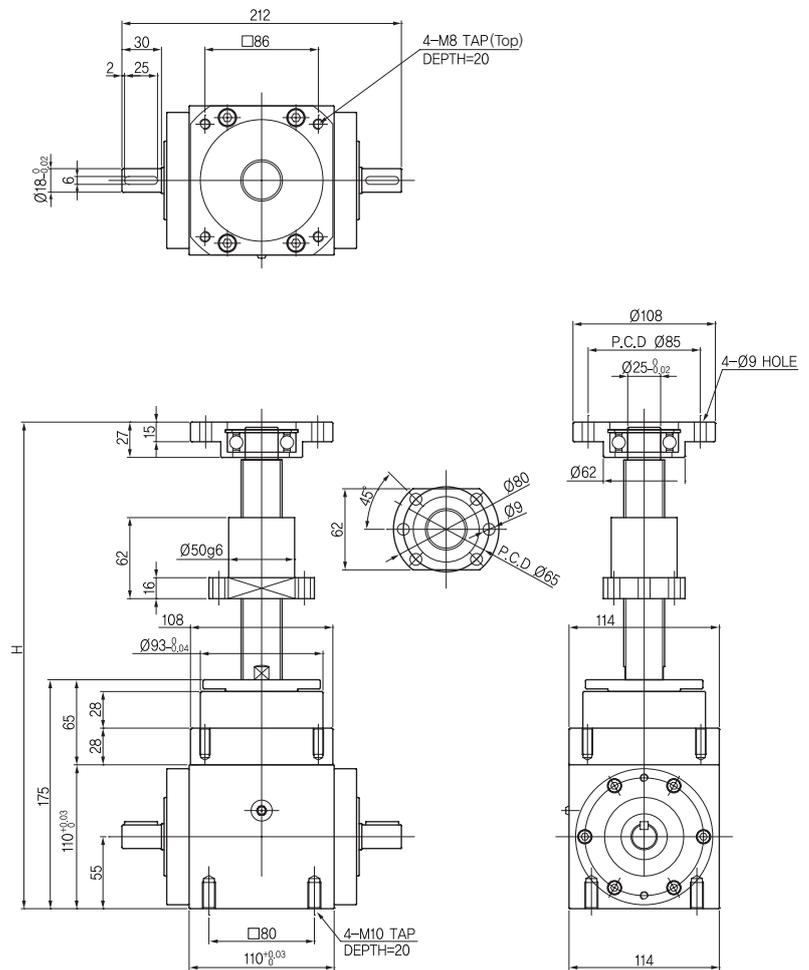
* 锥齿轮式螺帽升降型螺旋千斤顶

SCREW JACK-MSN

MSN110B2 - BL3210

DRAWING

Customizable 



适用滚珠丝杠 (BALL SCREW)	减速比	最大载荷
$\varnothing 3210$	2 : 1	500kg

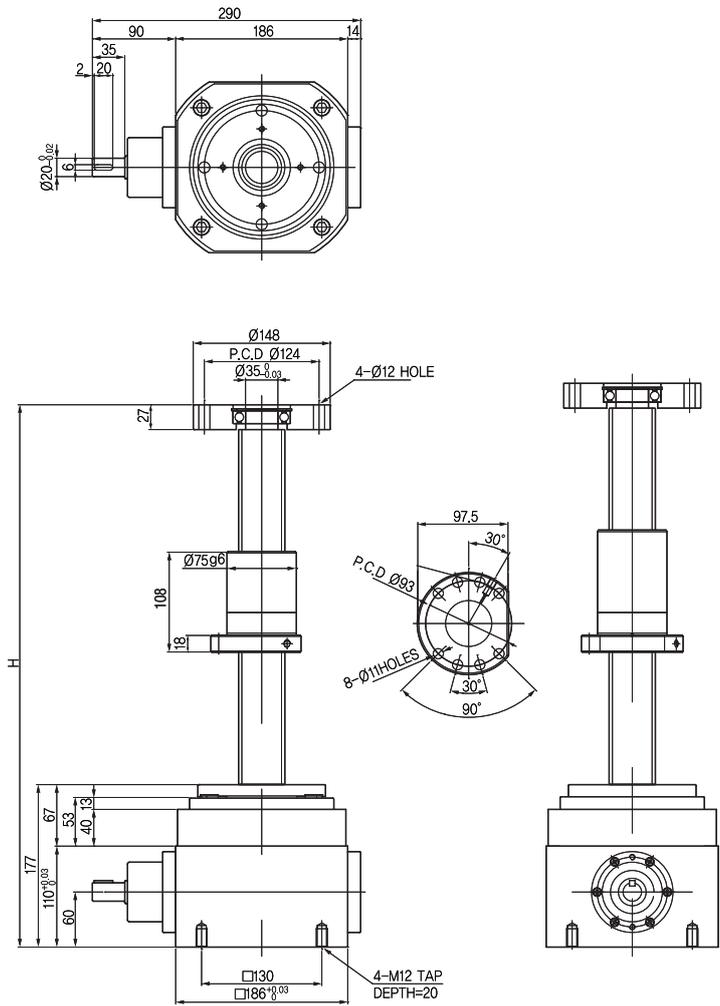
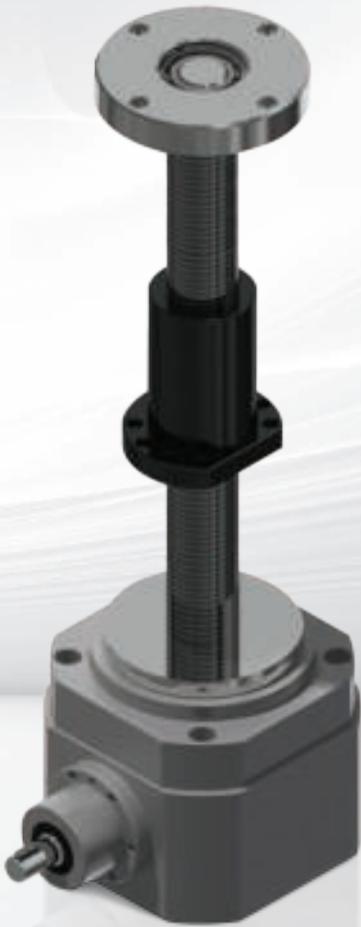
* 锥齿轮式螺帽升降型螺旋千斤顶

SCREW JACK-MSN

MSN40B4 - BL5020

DRAWING

Customizable 



适用滚珠丝杠 (BALL SCREW)	减速比	最大载荷
$\varnothing 5020$	2 : 1	1500kg

* 锥齿轮式螺帽升降型螺旋千斤顶

SCREW JACK MSS

Innovation of factory automation component

Product List

POWER CYLINDER	06
SCREW JACK	20
- SCREW JACK - MSN	
- SCREW JACK - MSS	
RACK JACK	38
- RACK JACK - SWP SERIES	
- RACK JACK - SSP SERIES	
CAM BASE	48
BEVEL GEAR BOX	54
SERVO BOX	60
BASE CYLINDER	66
POWER BASE	72





SPECIFICATIONS

产品名称	POWER CYLINDER				特点
Lubrication	Grease				· 用于精密机械加工各种配件 · 采用最佳材料制作
Material	ALUMINIUM · STKM13C				
Gear	Spiral Bevel Gear	Worm Gear	Spur Gear	Helical Gear	· 采用最低噪声和防震设计，轻柔驱动
Ratio	1:1 ~ 4:1	10:1 ~ 30:1	1:1 ~ 5:1		
Efficiency (%)	94 ~ 97%	50 ~ 60%	94 ~ 97%		
Max. Input Speed (rpm)	1,500rpm				
Protection Class	IP65				· 防止产生微颗粒物
Life Cycle (h)	>10,000				· 实现最长时间耐久性 · 防止内部冲击造成损坏
Orientation	Any				
安装方向	水平、垂直、倾斜等安装角度不受限制				
Ambient Temperature (°C)	-20°C ~ 50°C				
Ambient Humidity (%)	80%以下				
高度	1,000米以下				
使用条件	无腐蚀性气体、爆炸性气体等				

Innovation of factory automation component

SCREW JACK-MSS

螺杆升降型螺旋千斤顶, 容易安装、易于维护
可以以锥齿轮、蜗轮等多种形式构成

螺旋千斤顶 – MSS的型号组成

MSS05 B2 - BL 1605 - B 100ST



① 螺旋千斤顶的规格(MSS)

② 齿轮的种类和减速比

B : BEVEL GEAR RATIO
(B, B1.5, B2, B2.5, B3)
W : WORM GEAR RATIO
(W10, W15, W20, W30)

③ 螺杆种类

BL : BALL SCREW
TL : TM SCREW

④ OUTDIA, LEAD

⑤ 有、无波纹管(BELLOWS)

⑥ STROKE

SCREW JACK – MSS APPLICATIONS



型号	MAIN	SUB
MSS05	S75 - B8	S65 - B8
MSS10	S90 - B8	S75 - B8
MSS15	S120 - B8	S110 - B8

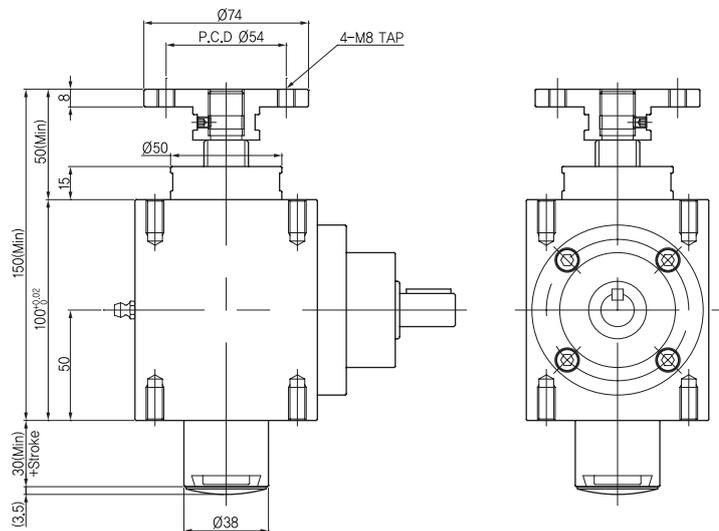
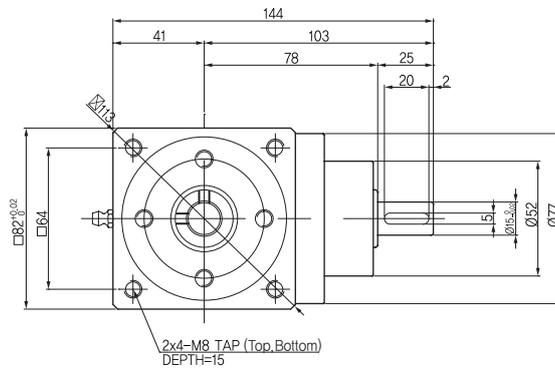
* 根据设计和安装条件, 有变动可能, 请咨询本公司。

SCREW JACK-MSS

MSS10B1.5 - BL2005

DRAWING

Customizable 



适用滚珠丝杠 (BALL SCREW)	减速比	最大载荷
Ø2005	1.5 : 1	150kg

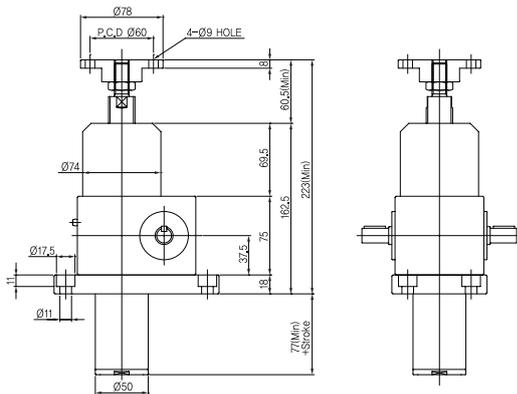
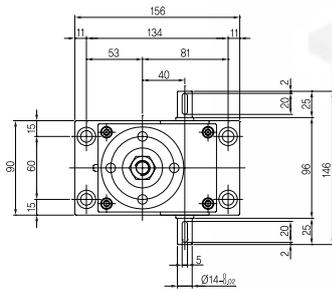
* 锥齿轮式螺杆升降型螺旋千斤顶

SCREW JACK-MSS MSS10W10 - BL2525

SCREW JACK-MSS MSS15W10 - BL3240

DRAWING

Customizable 

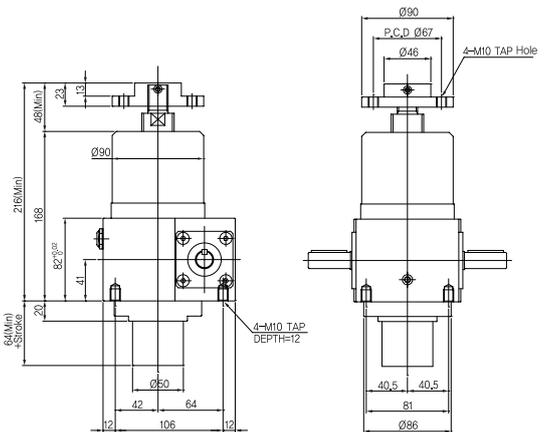
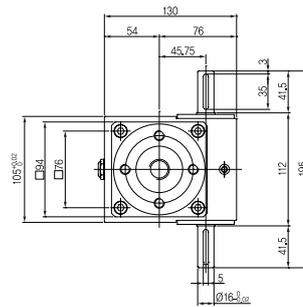


适用滚珠丝杠 (BALL SCREW)	减速比	最大载荷
Ø2525	10 : 1	250kg

* 蜗轮式螺杆升降型螺旋千斤顶

DRAWING

Customizable 



适用滚珠丝杠 (BALL SCREW)	减速比	最大载荷
Ø3240	10 : 1	350kg

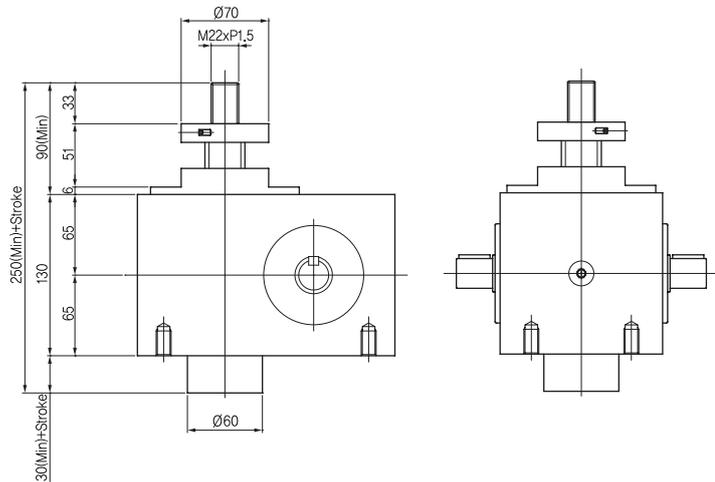
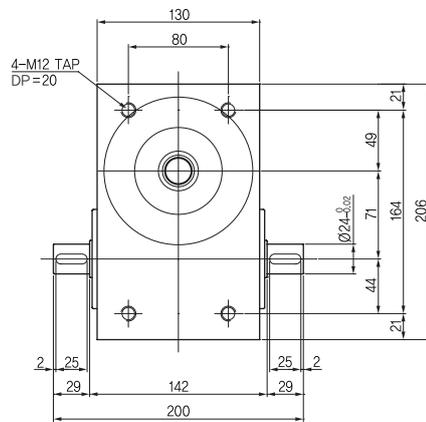
* 蜗轮式螺杆升降型螺旋千斤顶

SCREW JACK-MSS

MSS20W20 - TL3206

DRAWING

Customizable 



适用丝杠(TM SCREW)	减速比	最大载荷
Ø3206	20 : 1	1000kg

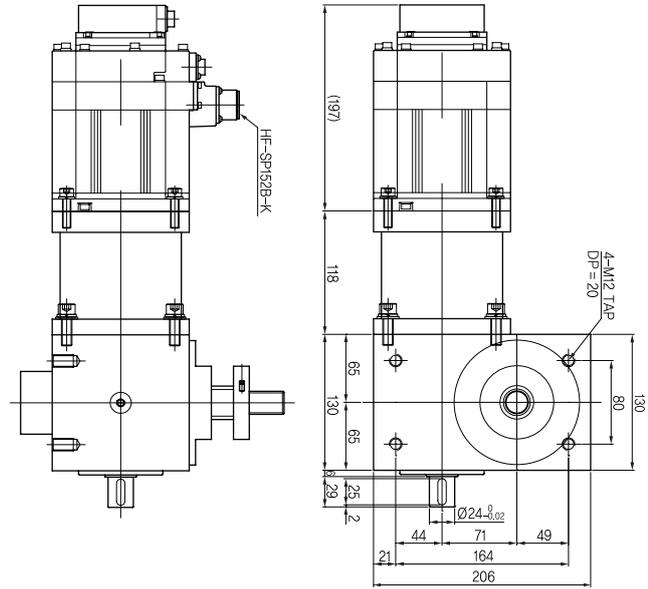
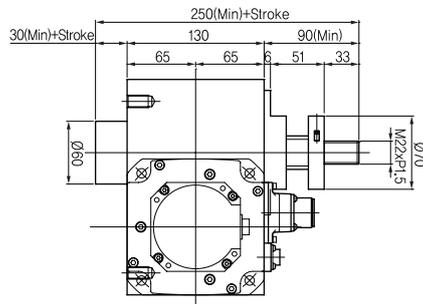
* 锥齿轮式螺杆升降型螺旋千斤顶

SCREW JACK-MSS

MSS20W20 - TL3206 - M

DRAWING

Customizable 



适用丝杠(TM SCREW)	减速比	最大载荷
Ø3206	20 : 1	1000kg

* 蜗轮式螺杆升降型螺旋千斤顶(电机一体型)

RACK JACK SWP

Innovation of factory automation component

Product List

POWER CYLINDER	06
SCREW JACK	20
- SCREW JACK - MSN	
- SCREW JACK - MSS	
RACK JACK	38
- RACK JACK - SWP SERIES	
- RACK JACK - SSP SERIES	
CAM BASE	48
BEVEL GEAR BOX	54
SERVO BOX	60
BASE CYLINDER	66
POWER BASE	72





SPECIFICATIONS

产品名称	RACK JACK (SWP · SSP系列共同)		特点
Lubrication	Grease		<ul style="list-style-type: none"> · 用于精密机械加工各种配件 · 采用最佳材料制作 · 把单元(Unit)和轴(Shaft)另进行组装, 因此易于维护
Material	ALUMINIUM · SM45C		
Gear	Rack Gear	Pinion Gear	
后处理	Hard Chromium Plating · HRC 45 ~ 53		
Max. Speed (mm/sec)	Max. 40~90mm/sec		
Life Cycle (h)	>10,000		
Orientation	Any		
同步误差	Max. 0.3mm		
高度调节范围	±3mm		
Protection Class	IP65		
Ambient Temperature (°C)	-20°C ~ 50°C		<ul style="list-style-type: none"> · 防止产生微颗粒物
Ambient Humidity (%)	80%以下		
高度	1,000米以下		
使用条件	无腐蚀性气体、爆炸性气体等		

Innovation of factory automation component

RACK JACK-SWP

高效率，高速往返

RACK JACK - SWP系列的型号组成

SWP 01 - W × L - B 100ST - R



① RACK JACK规格(SWP)

② RACK JACK型号

SWP01 : 50kg
SWP03 : 200kg
SWP05 : 300kg

③ SIZE

W : WIDTH(宽)
L : LENGTH(长)

④ 有、无波纹管(BELLOWS)

⑤ STROKE

⑥ WORM REDUCER

RACK JACK - SWP系列的应用



RACK JACK - SWP系列的水平调节装置

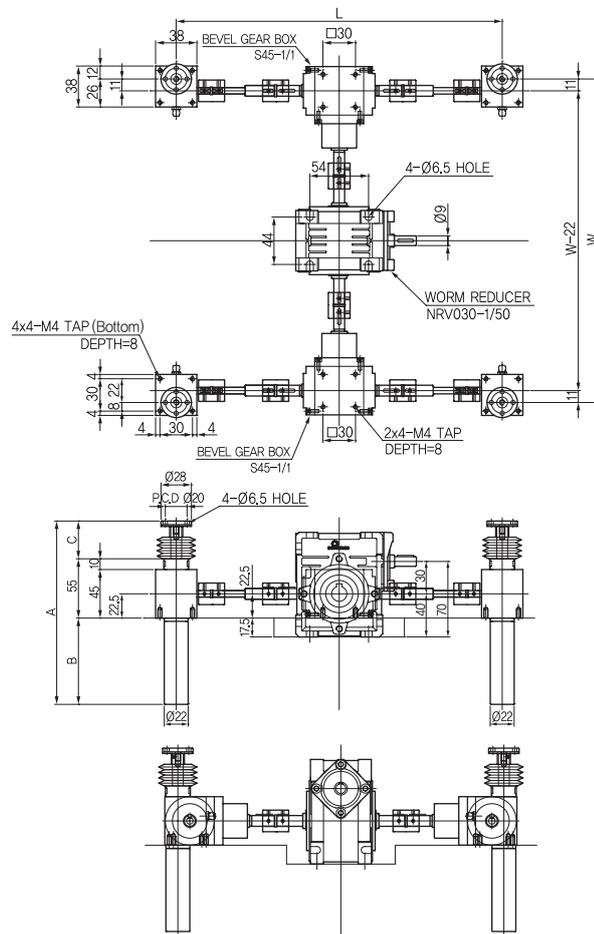


- 拧开螺母后，利用法兰接头(Flange Joint)调整水平
- 水平调整范围为±5mm

RACK JACK SWP01 SERIES

DRAWING

Customizable 



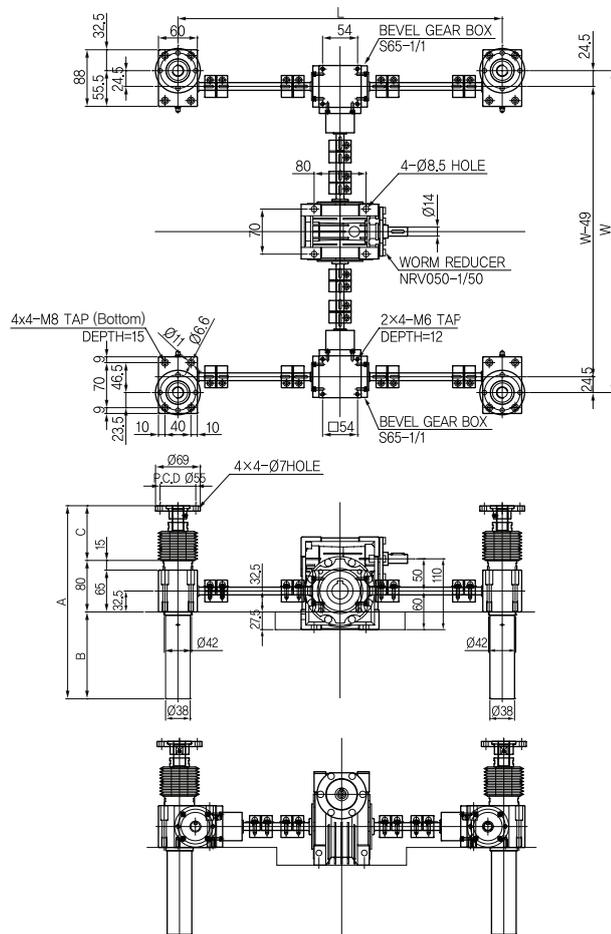
NO.	MODEL	W(MIN)	L(MIN)	A(MIN)	B+ST	C(MIN)
1	SWP01	300	300	120	30 + ST	35
NO.	MODEL	BEVEL GEAR BOX		WORM REDUCER		
1	SWP01	S45 - 1/1		NRV030 - 1/50		

* 旋转一次驱动44mm，最大载荷50kg

RACK JACK SWP05 SERIES

DRAWING

Customizable 



NO.	MODEL	W(MIN)	L(MIN)	A(MIN)	B+ST	C(MIN)
1	SWP01	450	450	160	30+ST	45
NO.	MODEL	BEVEL GEAR BOX		WORM REDUCER		
1	SWP01	S65 - 1/1		NRV050 - 1/50		

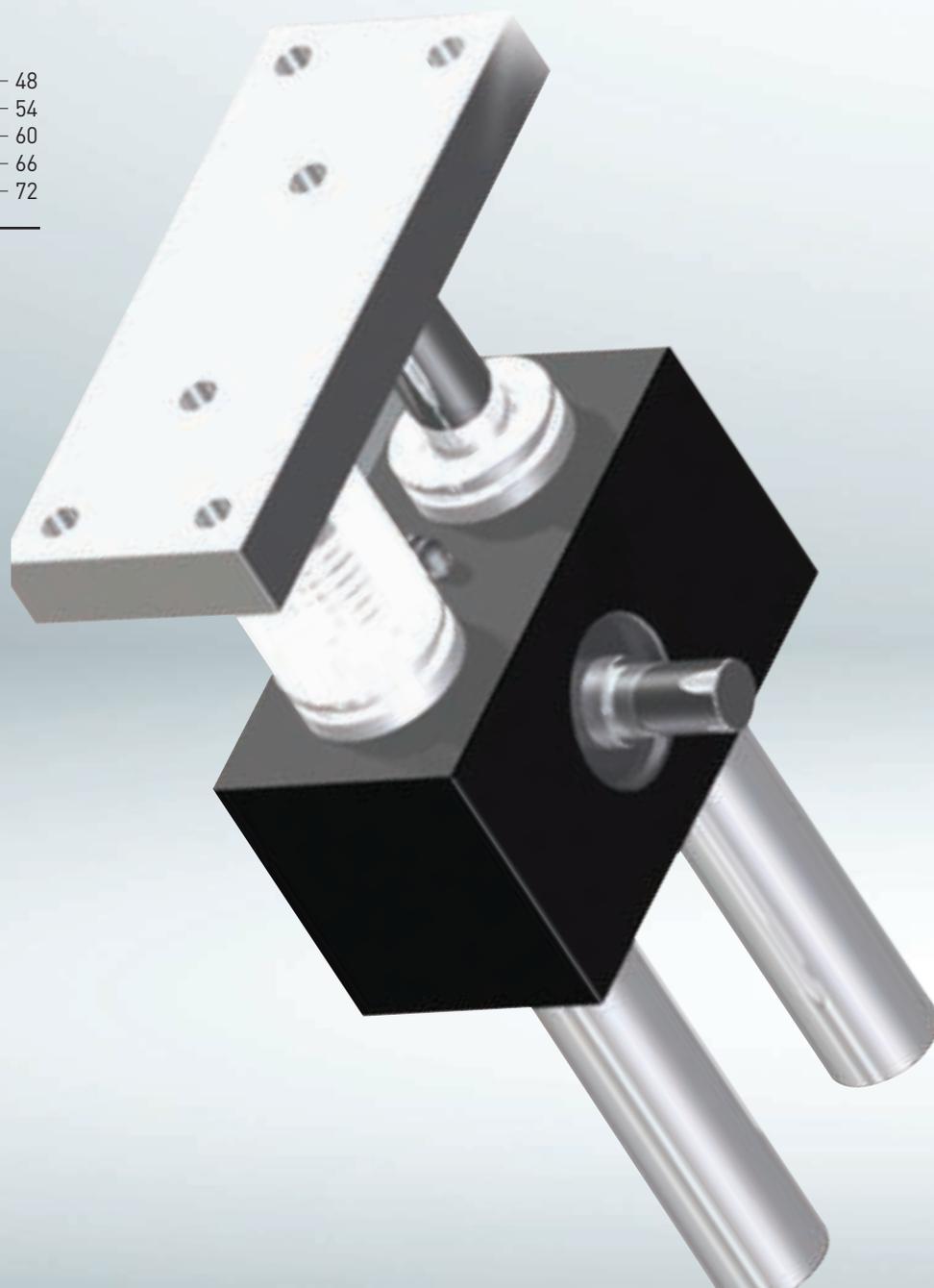
* 旋转一次驱动88mm，最大载荷300kg

RACK JACK SSP

Innovation of factory automation component

Product List

POWER CYLINDER	06
SCREW JACK	20
- SCREW JACK - MSN	
- SCREW JACK - MSS	
RACK JACK	38
- RACK JACK - SWP SERIES	
- RACK JACK - SSP SERIES	
CAM BASE	48
BEVEL GEAR BOX	54
SERVO BOX	60
BASE CYLINDER	66
POWER BASE	72





Innovation of factory automation component

RACK JACK-SSP

高效率，高速往返

RACK JACK - SWP系列的型号组成

SSP 01 - W × L - B 100ST - R



① RACK JACK规格(SSP)

② RACK JACK型号

SSP01 : 30kg
SSP02 : 100kg
SSP05 : 300kg
SSP10 : 1000kg
SSP20 : 2000kg

③ SIZE

W : WIDTH(宽)
L : LENGTH(长)

④ 有、无波纹管(BELLOWS)

⑤ STROKE

⑥ WORM REDUCER

RACK JACK - SSP系列的应用

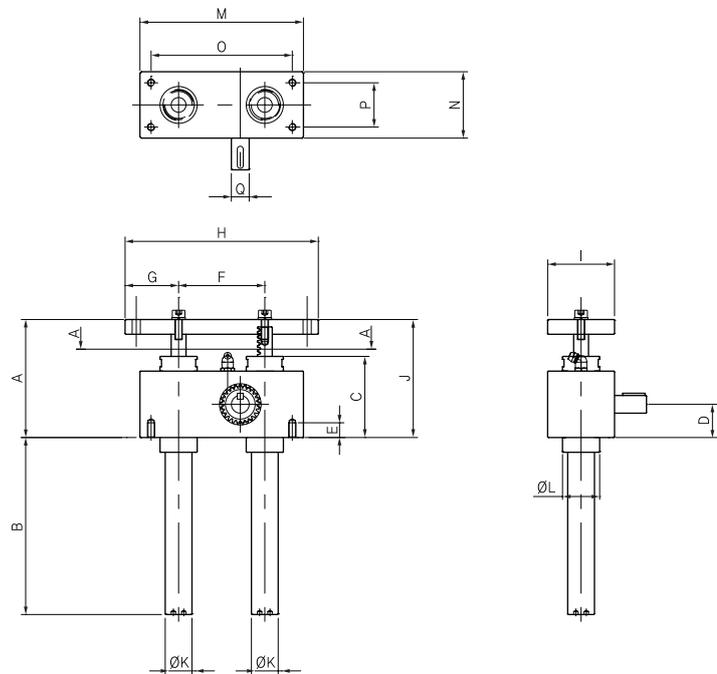


* 根据设计和安装条件，有变动可能，请咨询本公司。

RACK JACK SSP SERIES

DRAWING

Customizable 



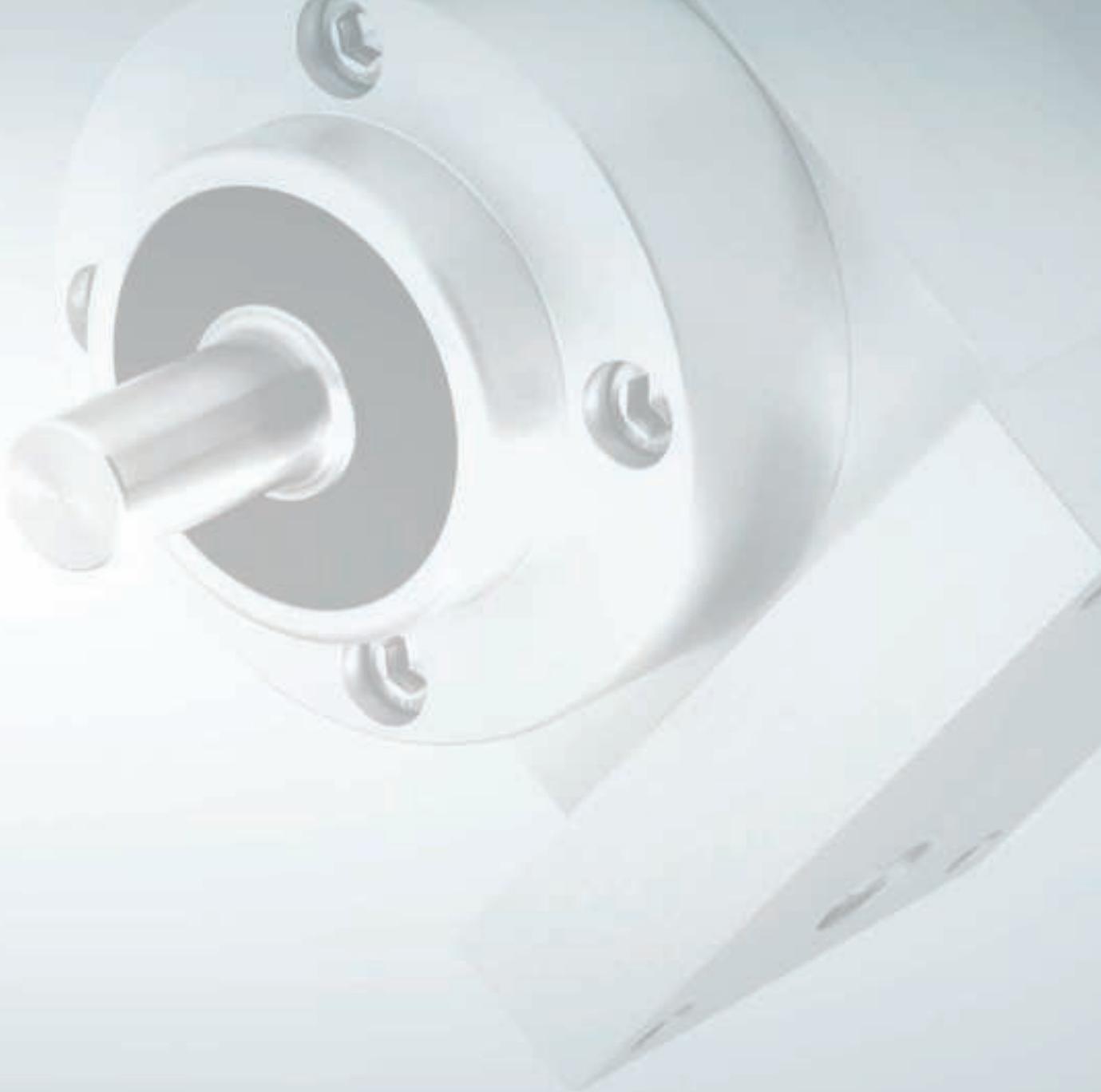
STANDARD TYPE

NO.	MODEL	A(Min)	B+ST	C	D	F	G	H	I	J	ØK	ØL	M	N	P	ØQ
1	SSP01	80	20	55	M5 DP10	58	36	130	45	80	18	25	110	45	30	12
2	SSP02	110	30	65	M6 DP12	72	39	150	50	110	26	30	120	50	35	15
3	SSP05	145	40	90	M8 DP15	90	50	190	64	145	38	45	150	64	44	15
2	SSP10	215	50	140	M12 DP20	160	75	310	95	215	60	70	270	95	65	35
3	SSP20	280	70	175	M16 DP30	216	102	420	120	280	76	89	380	120	80	40

CAM BASE

Innovation of factory automation component





Product List

POWER CYLINDER	06
SCREW JACK	20
- SCREW JACK - MSN	
- SCREW JACK - MSS	
RACK JACK	38
- RACK JACK - SWP SERIES	
- RACK JACK - SSP SERIES	
CAM BASE	48
BEVEL GEAR BOX	54
SERVO BOX	60
BASE CYLINDER	66
POWER BASE	72

Innovation of factory automation component

CAM BASE

凸轮升降器(Cam Base)的型号组成

SCP 02 - 20ST



① CAM BASE规格(SCP)

② CAM BASE型号

③ STROKE

SCP02
SCP10

SCP02 - 20ST, 30ST
SCP10 - 10ST

凸轮升降器的规格

CAM

- 偏心轴 ±10mm
- Camfollower Bearing / CF08 - 4.73KN

ROD

- Ø25 Grinding
- Hard Chromium Plating / 20µm - Hrc60~70

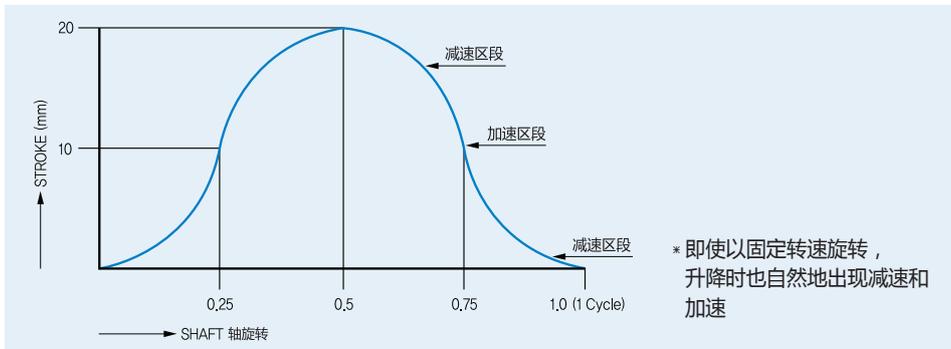
BUSH

- IGUS / Engineering Plastic
- Particle "0"

BODY

- AL6061
- Alumite Coating

轴旋转和行程(Stroke)位移的关系



凸轮升降器的应用

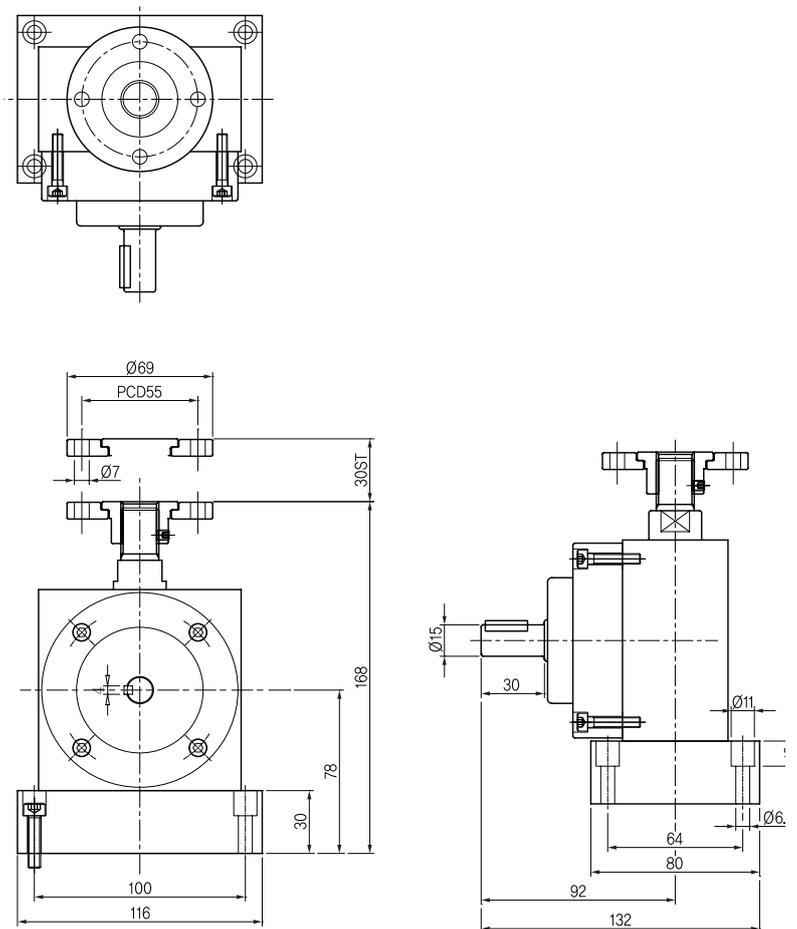


* 根据设计和安装条件, 有变动可能, 请咨询本公司。

CAM BASE SCP02 SERIES (30 Stroke)

DRAWING

Customizable 



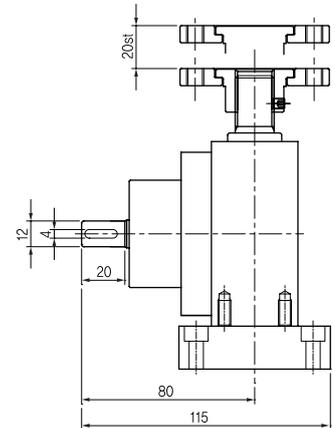
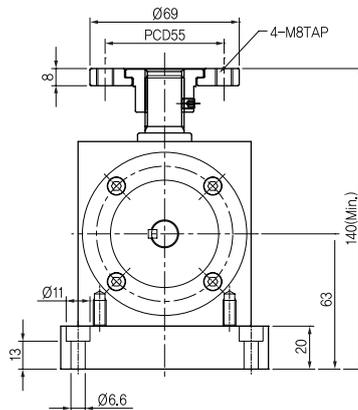
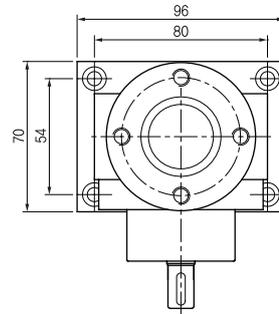
电机旋转方向	STROKE	最大载荷
单项无限旋转	30mm	15kg

* 蜗轮式螺杆升降型螺旋千斤顶(电机一体型)

CAM BASE
SCP02 SERIES (20 Stroke)

DRAWING

Customizable 



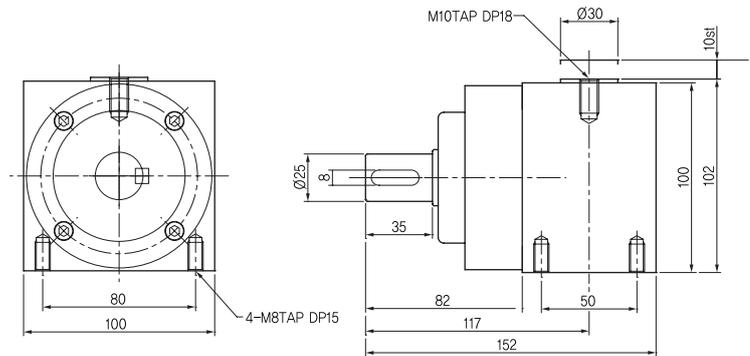
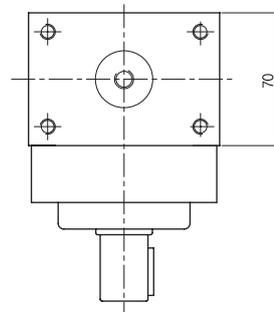
电机旋转方向	STROKE	最大载荷
单向无限旋转	20mm	70kg

* 锥齿轮式螺杆升降型螺旋千斤顶

CAM BASE
SCP10 SERIES (10 Stroke)

DRAWING

Customizable 



电机旋转方向	STROKE	最大载荷
单向无限旋转	10mm	150kg

* 蜗轮式螺杆升降型螺旋千斤顶(电机一体型)

BEVEL GEAR BOX

Innovation of factory automation component

Product List

POWER CYLINDER	06
SCREW JACK	20
- SCREW JACK - MSN	
- SCREW JACK - MSS	
RACK JACK	38
- RACK JACK - SWP SERIES	
- RACK JACK - SSP SERIES	
CAM BASE	48
BEVEL GEAR BOX	54
SERVO BOX	60
BASE CYLINDER	66
POWER BASE	72



SPECIFICATIONS

GEAR BOX SIZE		S45	S65	S75	S90	S100	S110	S120	S140-2	S150
Acceleration Torque (Nm)	i=1:1	2.5	18	30	40	85	97.0	143.0	-	440
	i=1.5:1	-	-	-	34.5	-	68.5	70.5	-	-
	i=2:1	-	-	-	-	-	60.5	114.5	108	-
	i=3:1	-	-	-	-	-	55.5	68.5	-	-
Emergency Stop Torque = Max. Torque (Nm)	i=1:1	3.0	26.5	42.0	56.0	90	102.0	151.0	-	454
	i=1.5:1	-	-	-	49.5	-	74.5	80.0	-	-
	i=2:1	-	-	-	-	-	65.5	120.5	114	-
	i=3:1	-	-	-	-	-	59.0	74.5	-	-
Max. Input Speed (rpm)	-	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000	3,000
Efficiency (%)	-	94 ~ 97	94 ~ 97	94 ~ 97	94 ~ 97	94 ~ 97	94 ~ 97	94 ~ 97	94 ~ 97	94 ~ 97
Life Cycle (h)	-	>10,000	>10,000	>10,000	>10,000	>10,000	>10,000	>10,000	>10,000	>10,000
Orientation	-	Any								
Lubrication	-	Grease								
Ambient Temperature (°C)	-	-20 to +50								
Protection Class	-	IP65								
Backlash Eco / Standard / Premium (Arcmin)	-	>15/<15/<8	>15/<15/<8	>15/<15/<8	>15/<15/<8	>15/<15/<8	>15/<15/<8	>15/<15/<8	>15/<15/<8	>15/<15/<8



BEVEL GEAR BOX

Innovation of factory automation component

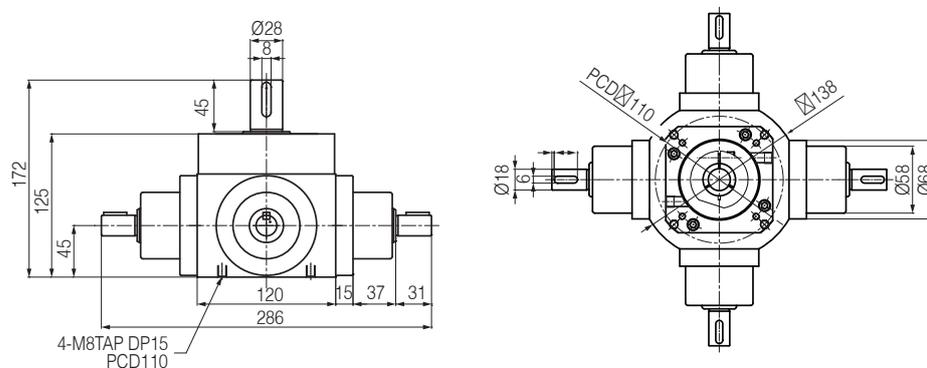
SV(S)120-S4(6)-G2/1

Features

- 有4(6)个输出轴，当组成4(6)轴舵系统(Actuator System)时，与已有系统相比简化而节省费用
- 可应对高速旋转




Customizable
可定制



SPECIFICATIONS

高精度，齿隙小，应对高速旋转

GEAR BOX SIZE		SV(S)120-S4(6)-G2/1	SVS120-S4(6)-G2/1-R10
Acceleration Torque(Nm)	i=2:1		
Emergency Stop Torque=Max, Torque (Nm)	i=2:1		
Max, Input Speed (rpm)		3,000	
Efficiency (%)		94~97	
Life Cycle (h)		>10,000	
Orientation		Any	
Lubrication		Grease	
Ambient Temperature (°C)		-20 to +50	
Protection Class		IP65	
Backlash Eco / Standard Premium (Arcmin)		>15 / <15 / <8	

多轴齿轮箱的型号组成

SV(S)120 - S4(6) - G2/1 - R10



- ① 多轴齿轮箱的固有型号
- ③ 输出轴数量
- ⑤ 行星减速器减速比
- ② 型号号码
- ④ 输入输出减速比

Innovation of factory automation component

BEVEL GEAR BOX

高精度，齿隙小，应对高速旋转

锥齿轮箱的型号组成

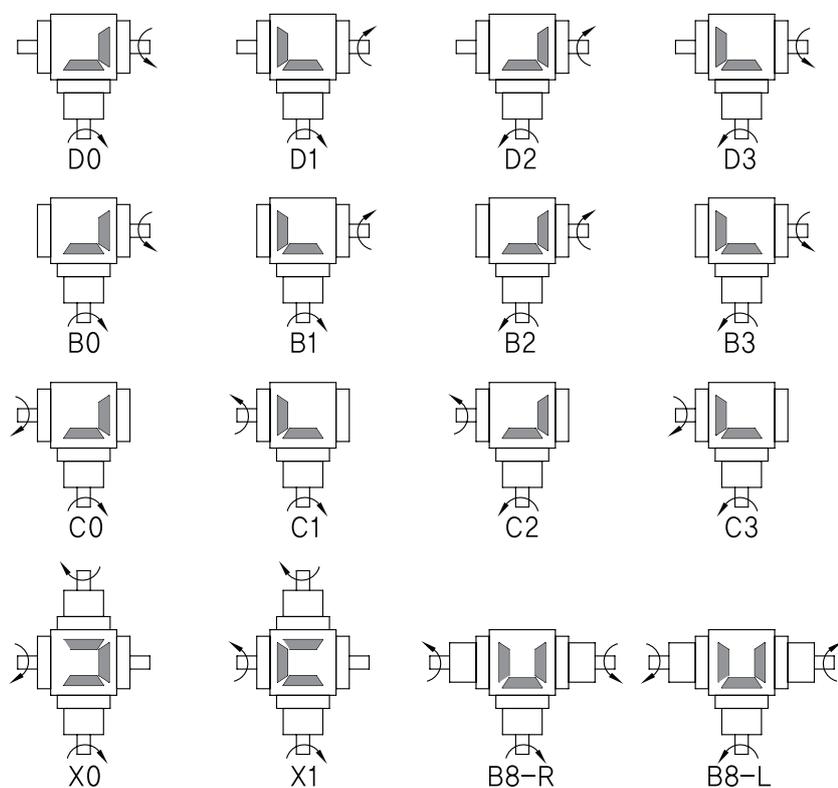
S 75 - D0 - I20



- ① 齿轮箱的固有型号
- ② 各型号的号码
- ③ 旋转方向型号
- ④ 特殊规格

Ix : 输入轴外径 / O_x : 输出轴外径

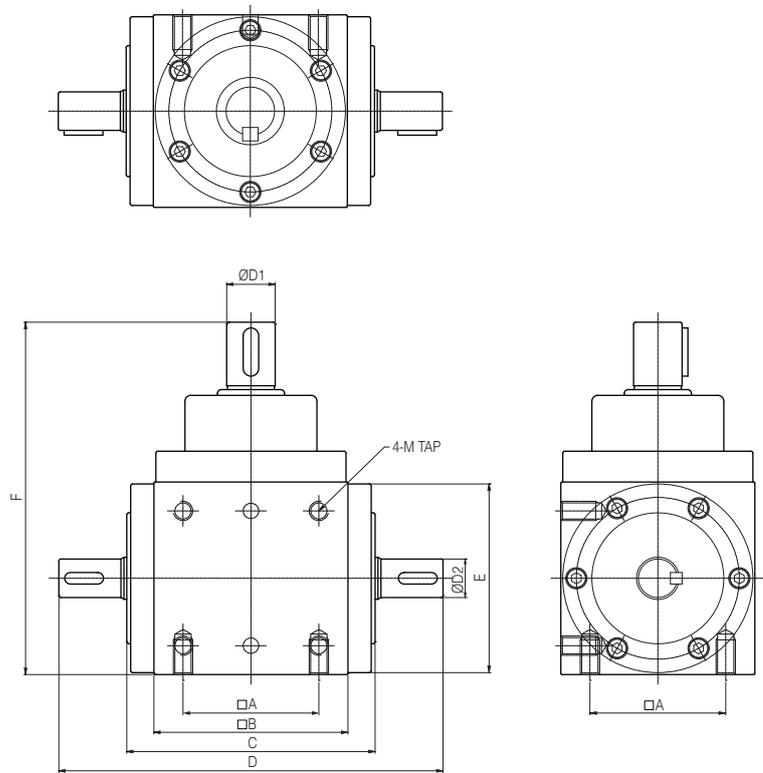
锥齿轮箱各旋转方向的型号



BEVEL GEAR BOX

DRAWING

Customizable 

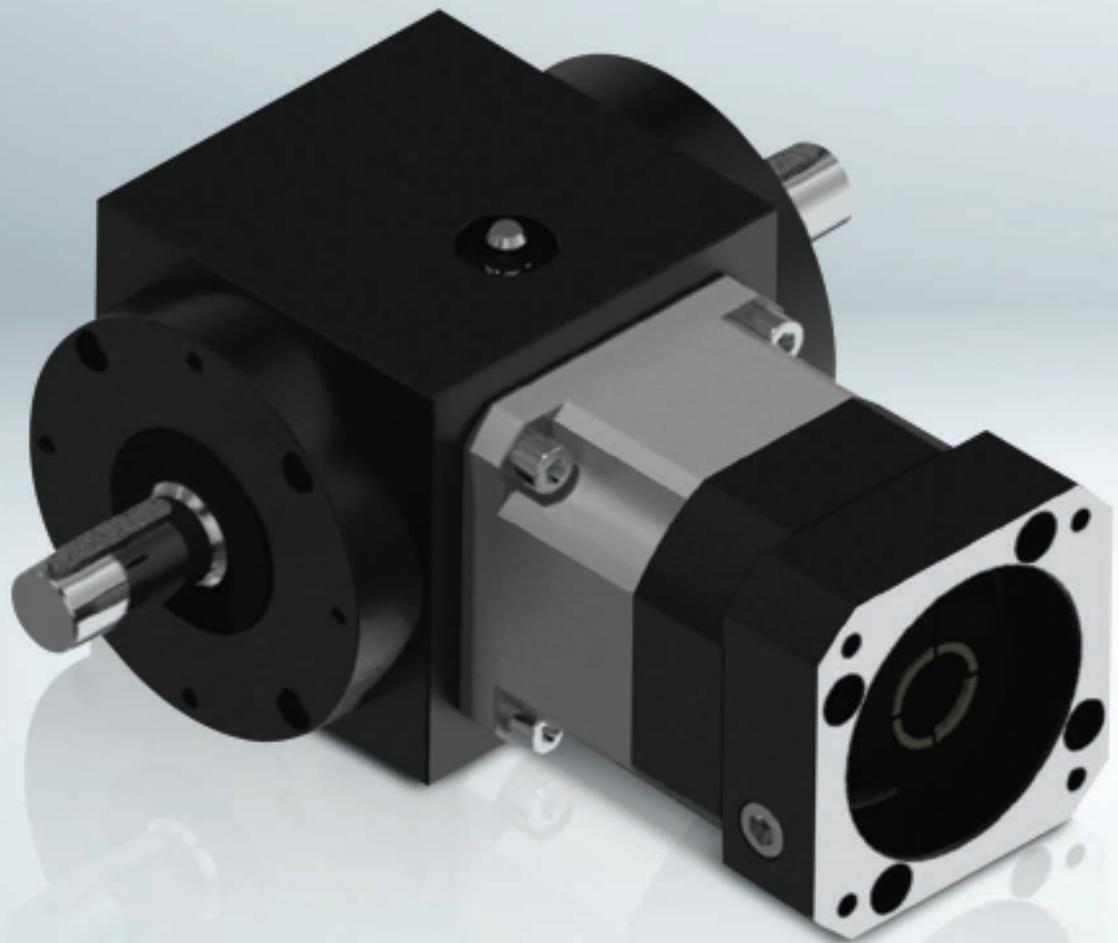


MODEL	A	B	C	D	E	F	D1	D2	M	容许扭矩 (N'm)
S45	30	45	65	115	45	100.5	10	10	4	2
S65	54	65	84	144	64	132.5	15	12	6	17
S75	60	75	104	168	74	157.5	20	15	6	29
S90	72	90	118	194	88	180	22	18	8	33
S100	70	100	128	198	98	183	25	20	10	62
S110	80	110	146	244	103	228	28	28	10	96
S120	100	120	158	270	115	235	32	32	10	136
S140-2	100	130	163	254	186	263	30	25	12	114
S150	110	150	186	318	148	306	40	40	12	454

SERVO BOX

Innovation of factory automation component

高精度，齿隙小，应对高速旋转



PLANETARY • BEVEL GEAR REDUCERS SR SERIES



Product List

POWER CYLINDER	06
SCREW JACK	20
- SCREW JACK - MSN	
- SCREW JACK - MSS	
RACK JACK	38
- RACK JACK - SWP SERIES	
- RACK JACK - SSP SERIES	
CAM BASE	48
BEVEL GEAR BOX	54
SERVO BOX	60
BASE CYLINDER	66
POWER BASE	72

伺服箱(Servo Box)的型号组成

SR 45 - 10



① SERVO BOX规格(SR)

② SERVO BOX型号

SR45, 65, 75, 90, 110, 120, 150

③ RATIO

SINGLE STAGE : 3, 4, 5, 6, 7, 8, 9, 10

DOUBLE STAGE : 15, 20, 25, 30, 35, 40,

50, 60, 70, 80, 90, 100

SERVO BOX

Innovation of factory automation component

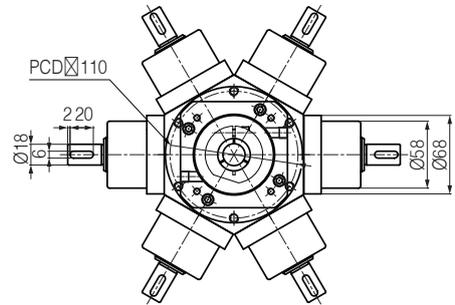
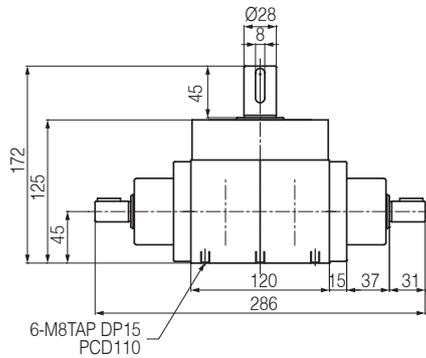
SVS120-S4(6)-G2/1-R10

Features

- 有4(6)个输出轴，当组成4(6)轴舵系统时简化而节省费用
- 可组成多种应用系统
- 伺服电机(SERVO MOTER)直连式



Customizable
可定制



SPECIFICATIONS

高精度，齿隙小，应对高速旋转

GEAR BOX SIZE		SV(S)120-S4(6)-G2/1	SVS120-S4(6)-G2/1-R10
Acceleration Torque(Nm)	i=2:1		
Emergency Stop Torque=Max, Torque (Nm)	i=2:1		
Max, Input Speed (rpm)		3,000	
Efficiency (%)		94~97	
Life Cycle (h)		>10,000	
Orientation		Any	
Lubrication		Grease	
Ambient Temperature (°C)		-20 to +50	
Protection Class		IP65	
Backlash Eco / Standard Premium (Arcmin)		>15 / <15 / <8	

多轴齿轮箱的型号组成

SV(S)120 - S4(6) - G2/1 - R10



① 多轴齿轮箱的固有型号

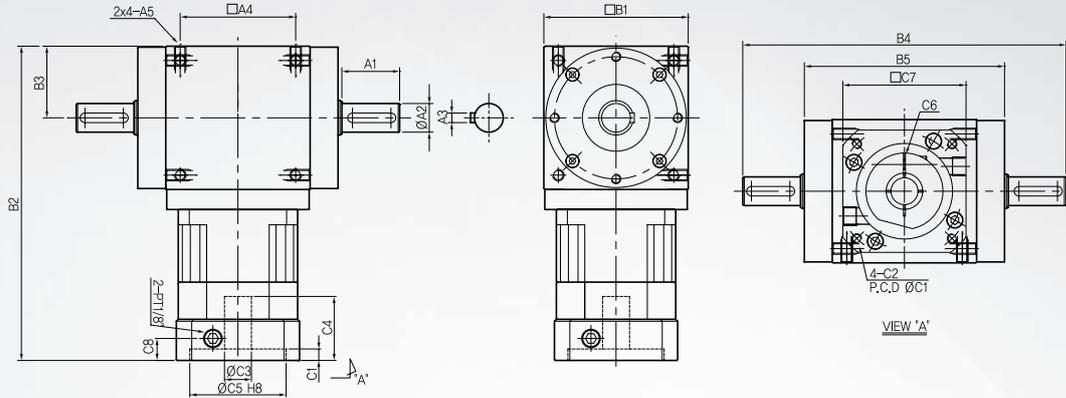
② 型号号码

③ 输出轴数量

④ 输入输出减速比

⑤ 行星减速器减速比

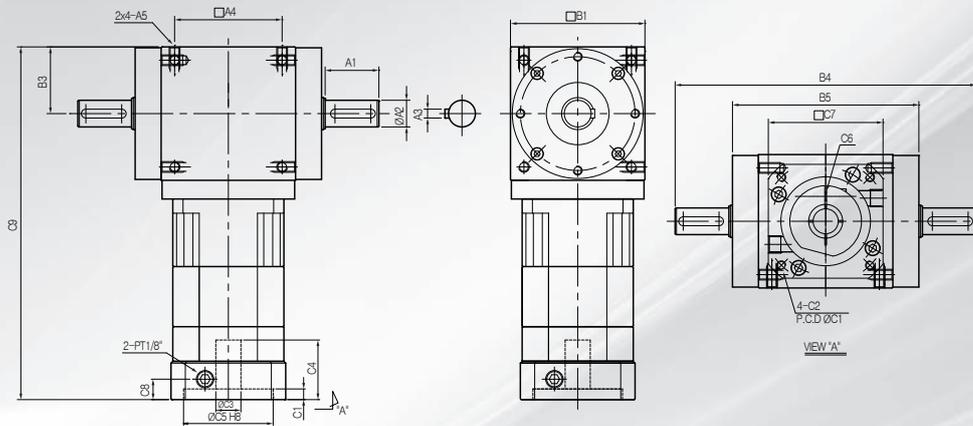
SERVO BOX SINGLE - 1 STAGE



	Code	Model	45	65	75	90	110	120	150
	A	A1		21	26	30	34	43	45
A2			10	12	15	18	28	32	40
A3			3	4	5	6	8	10	12
A4			30	54	60	72	80	100	110
A5			M4 DP8	M6 DP10	M6 DP10	M8 DP15	M10 DP18	M10 DP18	12
B	B1		45	65	75	90	110	120	150
	B2		127	164	173	230.5	293	298	374.5
	B3		22.5	32.5	37.5	45	55	60	75
	B4		115	144	168	194	244	270	318
	B5		61	84	104	120	146	174	186
C	C1		5	6	6	9	9	10	10
	C2		M4	M5	M5	M6	M6	M8	M10
	C3		8	14	14	19	19	24	35
	C4		26	33.5	33.5	59	59	67	84.5
	C5		30, 40, 50	50, 60, 70	50, 60, 70	50, 70, 80, 95, 110, 130	50, 70, 80, 95, 110, 130	70, 80, 95, 110, 130	110, 114.3, 130, 180
	C6		M3	M5	M5	M6	M6	M8	M10
	C7		46, 55, 60, 76	64, 70, 80	64, 70, 80	92, 110, 130, 142	92, 110, 130, 142	130, 150	146, 150, 180, 190
	C8		9	11.5	11.5	16	16	19.5	98.5

Model No.	Unit	Ratio	45	65	75	90	110	120	150
Rated Output Touque	Nm	3	17	54	60	145	190	301	553
		4	15	48	54	128	177	269	491
		5	14	45	51	132	182	278	510
		6	13	41	47	125	174	252	466
		7	13	41	47	123	172	258	473
		8	12	39	45	115	160	241	442
		9	11	40	46	120	155	227	412
		10	12	40	46	116	151	246	452
Rated Input Speed	rpm	3~10	3000	3000	3000	3000	3000	3000	
MAX. Input Speed	Nm	3~10	6000	6000	6000	6000	5000	5000	
Torsional Rigidity	Nm / arc min	3~10	5	6	7	14	16	27	
Efficiency	%	3~10	≥97%						
Operating Temperature	°C	3~10	-25°C ~ +90°C						
Lubrication		3~10	VIGO GREASE RE#0 / SHELL GADUS T220-2						
Noise Level	dB	3~10	≤56	≤60	≤60	≤60	≤62	≤63	

SERVO BOX DOUBLE - 2 STAGE



	Code	Model	45	65	75	90	110	120	150
	A	A1		21	26	30	34	43	45
A2			10	12	15	18	28	32	40
A3			3	4	5	6	8	10	12
A4			30	54	60	72	80	100	110
A5			M4 DP8	M6 DP10	M6 DP10	M8 DP15	M10 DP18	M10 DP18	12
B	B1		45	65	75	90	110	120	150
	B3		22.5	32.5	37.5	45	55	60	75
	B4		115	144	168	194	244	270	318
	B5		61	84	104	120	146	174	186
	C	C1		5	6	6	9	9	10
C2			M4	M5	M5	M6	M6	M8	M10
C3			8	14	14	19	19	24	35
C4			26	33.5	33.5	59	59	67	84.5
C5			30, 40, 50	50, 60, 70	50, 60, 70	50, 70, 80, 95, 110, 130	50, 70, 80, 95, 110, 130	70, 80, 95, 110, 130	110, 114.3, 130, 180
C6			M3	M5	M5	M6	M6	M8	M10
C7			46, 55, 60, 76	64, 70, 80	64, 70, 80	92, 110, 130, 142	92, 110, 130, 142	130, 150	146, 150, 180, 190
C8			9	11.5	11.5	16	16	19.5	98.5
C9			167.5	197.8	205.3	274	295	354	441

Model No.	Unit	Ratio	45	65	75	90	110	120	150
Rated Output Touque	Nm	15	17	54	60	145	190	301	553
		20	15	48	54	128	177	269	491
		25	14	45	51	132	182	278	510
		30	13	41	47	125	174	252	466
		35	13	41	47	123	172	258	473
		40	12	39	45	115	160	241	442
		50	14	45	51	132	155	278	510
		60	13	41	47	125	148	252	466
		70	13	41	47	123	146	258	473
		80	12	40	46	115	138	241	442
		90	11	40	46	120	143	227	412
100	12	40	46	116	151	246	452		
Rated Input Speed	rpm	15~100	3000	3000	3000	3000	3000	3000	
MAX. Input Speed	Nm	15~100	6000	6000	6000	6000	5000	5000	
Torsional Rigidity	Nm / arc min	15~100	5	6	7	14	16	27	
Efficiency	%	15~100	≥94%						
Operating Temperature	°C	15~100	-25°C ~ +90°C						
Lubrication		15~100	VIGO GREASE RE#0 / SHELL GADUS T220-2						
Noise Level	dB	15~100	≤56	≤60	≤60	≤60	≤62	≤63	

BASE CYLINDER

Innovation of factory automation component

Product List

POWER CYLINDER	06
SCREW JACK	20
- SCREW JACK - MSN	
- SCREW JACK - MSS	
RACK JACK	38
- RACK JACK - SWP SERIES	
- RACK JACK - SSP SERIES	
CAM BASE	48
BEVEL GEAR BOX	54
SERVO BOX	60
BASE CYLINDER	66
POWER BASE	72





SPECIFICATIONS

产品名称	BASE CYLINDER (SWA-S・SWA-D系列共同)		特点
Lubrication	Grease		· 与偏心荷载无关, 可使宽大的桌面精密地保持水平
Material	ALUMINIUM・SM45C		
驱动方式	Air Cylinder + Rack & Pinion Combination		· 采用气压和液压 · 无需另外的驱动装置
Gear	Rack Gear	Pinion Gear	
后处理	Hard Chromium Plating・HRC 45 ~ 53		
使用压力 (Mpa)	0.3 ~ 0.6 (Mpa)		
Max. Speed (m/min)	(무부하시) Max. 10m/min		
Life Cycle (h)	>10,000		
Orientation	Any		
Protection Class	IP65		· 防止产生微颗粒物
同步误差	Max. 0.3mm		· 实现最长时间耐久性 · 防止内部冲击造成损坏
高度调节范围	±3mm		
Ambient Temperature (°C)	-20°C ~ 50°C		
Ambient Humidity (%)	80%以下		
高度	1,000米以下		
使用条件	无腐蚀性气体、爆炸性气体等		

Innovation of factory automation component

BASE CYLINDER

改进已有升降器的缺点,
容易安装、易于维护,
与偏心荷载无关可精密地保持水平



升降基座的型号组成

SWA 40 D - B 100ST - R



① 升降基座的规格

SWA : AIR CYLINDER
SWH : HYDRAULIC CYLINDER

② CYLINDER DIA

③ 气缸种类

D : DOUBLE
S : SINGLE

④ 有、无波纹管(BELLOWS)

⑤ STROKE

⑥ SENSOR

升降基座的应用



* 根据设计和安装条件, 有变动可能, 请咨询本公司。



升降基座的选择

结构		Air Cylinder + Rack & Pinion Gear Combination
使用的流体		Compressor Air
使用压力		0.3 ~ 0.6 Mpa
材料	Cylinder Body	AL6061
	Gear	SM45C
	Rod	SM45C
后处理	Cylinder Body	Alumite
	Gear	High Frequency Heat Treatment(Hrc 40~45)
	Rod	Hard Chromium Plating(15)
	Flange, Nut, Shaft	Hard Chromium Plating
速度		Max10m/min
同步误差		Max0.3mm
高度调节范围		±3mm
允许温度	Packing(Nitrile Rubber)	-55 to 120°C
	Cylinder Grease(clean)	-40 to 200°C
	Gear Grease(clean)	-40 to 200°C
Up, Down Cushion		Air Cushion / Urethane Cushion

气缸的推力计算(Cylinders Force)

$$F = P \times A \times f$$

F: 气缸推力(N), P: 压力(Mpa), A: 活塞面积(mm²), f: 负荷率(N)

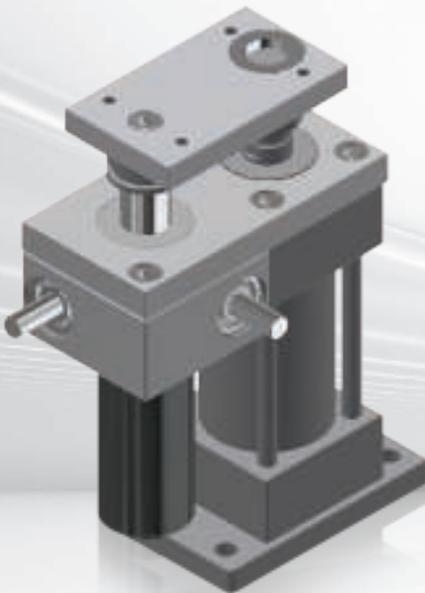
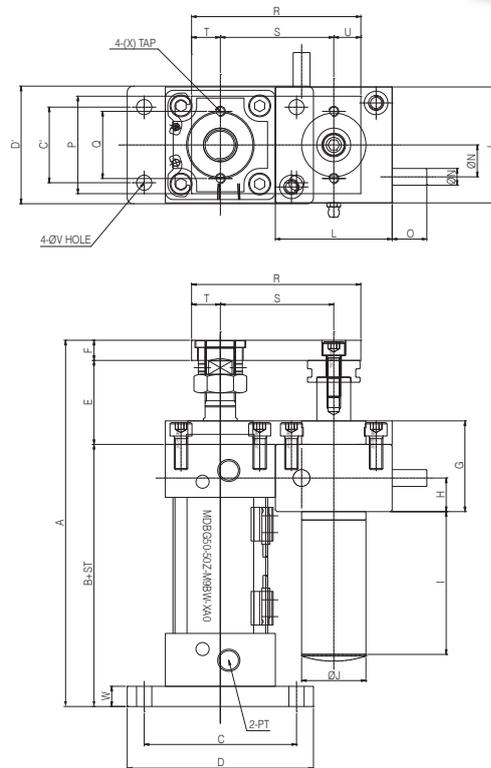
计算公式例子

$$\pi D^2 / 4 \times 0.5(\text{Mpa}) \times 0.6(\text{Margin } 40\%)$$

BASE CYLINDER SWA - D SERIES

DRAWING

Customizable 



STANDARD TYPE

NO.	MODEL	A(Min)	B+ST	C(C')	D(D')	E	F	G	H	I(Min)	ØJ	K	L
1	SWA40D	149	94	72(36)	90(55)	43	12	54	20	2	32	34.5	69
2	SWA50D	168	106	90(45)	110(70)	50	12	54	20	2	32	34.5	69
3	SWA63D	168	106	100(50)	120(80)	50	12	54	20	2	32	34.5	69
4	SWA80D	206	130	126(63)	153(100)	58	18	65	25	2	40	35	80
5	SWA100D	206	130	150(75)	178(120)	58	18	65	25	2	40	35	80

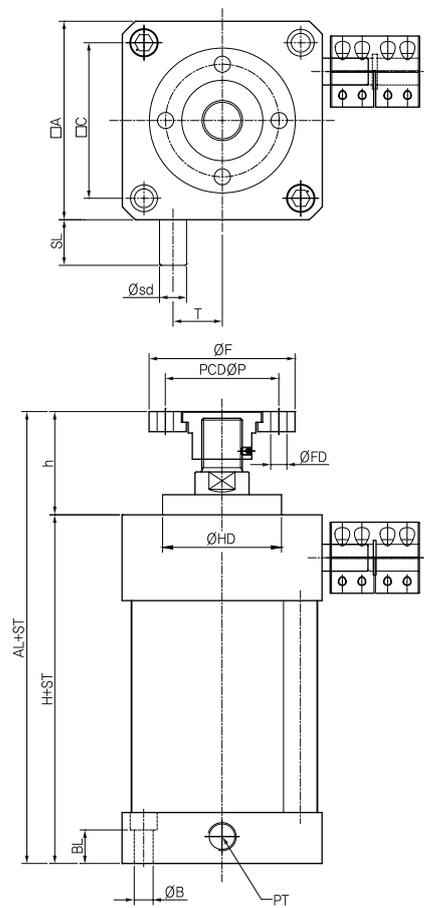
NO.	MODEL	M	ØN	O	P	Q	R	S	T	U	V	W	X	PT
1	SWA40D	19	10	20.5	58	40	85	61	13	11	7	10	M6	1/8
2	SWA50D	19	10	20.5	58	40	95	67	17	11	9	12	M6	1/4
3	SWA63D	19	10	20.5	58	40	100	73	16	11	9	12	M6	1/4
4	SWA80D	25	15	25	88	60	130	94	20	16	12	16	M10	3/8
5	SWA100D	25	15	25	88	60	145	104	25	16	14	16	M10	3/8

- 标准扭矩(20、50、75、100)/除标准扭矩外,变更气缸类型时,请另行咨询。

BASE CYLINDER SWA - S SERIES

DRAWING

Customizable 



STANDARD TYPE

CYL'INDIA	A	AL	B	BL	C	F	FD	H	h	HD	sd	SL	T	P	PT
Ø80	94	160	9	18	76	69	7	112	48	64	15	15	25	55	3/8
Ø100	114	160	11	18	92	69	7	112	48	64	15	15	25	55	3/8
Ø125	267	267	12	25	116	108	12	190	77	88	20	34	36,5	84	1/2

POWER BASE

Innovation of factory automation component

Product List

POWER CYLINDER	06
SCREW JACK	20
- SCREW JACK - MSN	
- SCREW JACK - MSS	
RACK JACK	38
- RACK JACK - SWP SERIES	
- RACK JACK - SSP SERIES	
CAM BASE	48
BEVEL GEAR BOX	54
SERVO BOX	60
BASE CYLINDER	66
POWER BASE	72





SPECIFICATIONS

产品名称	POWER BASE (PPB Series)		特点
Lubrication	Grease		· 用于精密机械加工各种配件 · 采用最佳材料制作 · 把单元和轴另进行组装，因此易于维护
Material	ALUMINIUM · SM45C		
Gear	Rack Gear	Pinion Gear	· 齿条研磨加工而成，使齿隙和抖动最小化 · 轴套使用低摩擦高效率材料加工而成 · 实现最长耐久性(齿轮、轴套)
后处理	Hard Chromium Plating · HRC 45 ~ 53		
Life Cycle (h)	>10,000		
Orientation	Any		
同步误差	Max. 0.3mm		
高度调节范围	±3mm		
Protection Class	IP65		
Ambient Temperature (°C)	-20°C ~ 50°C		
Ambient Humidity (%)	80%以下		
高度	1,000米以下		
使用条件	无腐蚀性气体、爆炸性气体等		· 防止产生微颗粒物 · 实现最长时间耐久性 · 防止内部冲击造成损坏

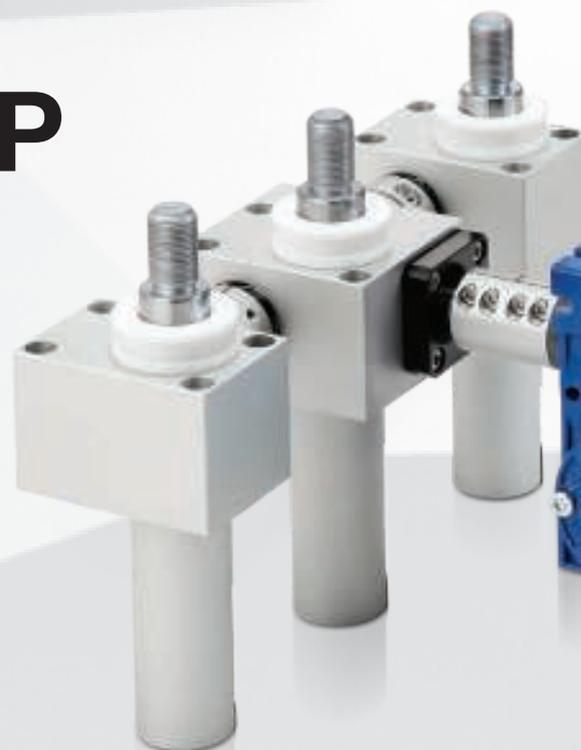
POWER BASE

Innovation of factory automation component

MP30-NRV040-6P

Actuator type POWER BASE

- 舵(Actuator)式升降器，容易组成4轴以上的系统
- 重负荷(300kg以下)升降系统
- 采用精密的齿条(RACK)：把噪声、震动最小化



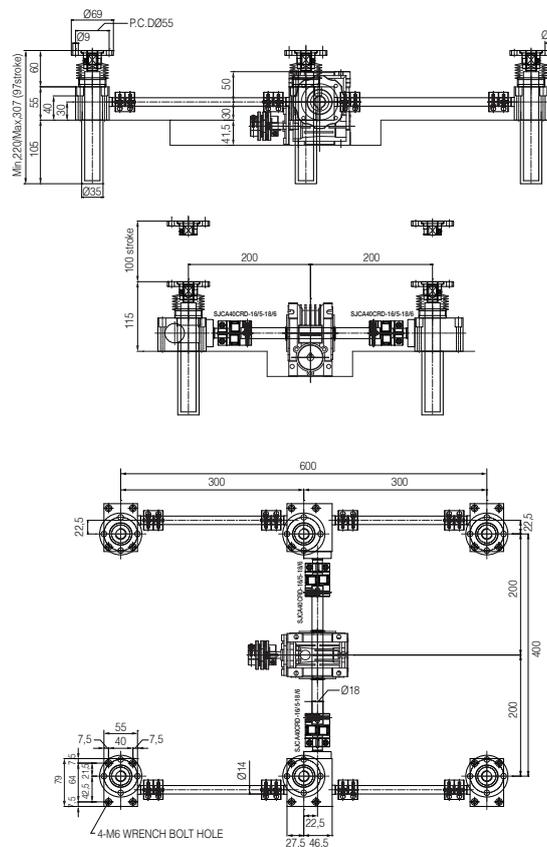
SPECIFICATIONS

高精度，齿隙小，应对高速旋转

产品名称	POWER BASE (PPB Series)	特点
Lubrication	Grease	· 用于精密机械加工各种配件 · 采用最佳材料制作 · 把单元和轴另进行组装，因此易于维护
Material	ALUMINIUM · SM45C	
Gear	Rack Gear Pinion Gear	· 齿条研磨加工而成，使齿隙和抖动最小化 · 轴套使用低摩擦高效率材料加工而成 · 实现最长耐久性(齿轮、轴套)
后处理	Hard Chromium Plating · HRC 45 ~ 53	
Life Cycle (h)	>10,000	
Orientation	Any	
同步误差	Max. 0.3mm	
高度调节范围	±3mm	· 防止产生微颗粒物 · 实现最长时间耐久性 · 防止内部冲击造成损坏
Protection Class	IP65	
Ambient Temperature (°C)	-20°C ~ 50°C	
Ambient Humidity (%)	80%以下	
高度	1,000米以下	· 实现最长时间耐久性 · 防止内部冲击造成损坏
使用条件	无腐蚀性气体、爆炸性气体等	



Customizable
可定制



多轴齿轮箱的型号组成

SV(S)120 - S4(6) - G2/1 - R10

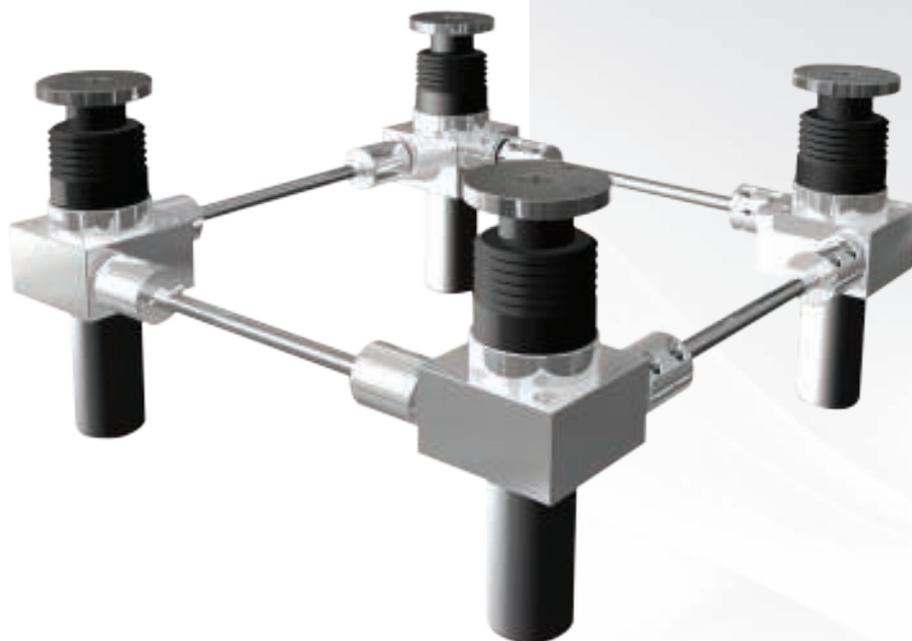


- ① 多轴齿轮箱的固有型号
- ② 型号号码
- ③ 输出轴数量
- ④ 输入输出减速比
- ⑤ 行星减速器减速比

Innovation of factory automation component

POWER BASE

改进已有升降器的缺点,
容易安装、易于维护,
与偏心荷载无关可精密地保持水平



升降器的型号组成

PPB 05 F-B 100ST



- | | |
|-------------|--------------------|
| ① 称号 | ③ 上部有、无法兰 |
| ② MODEL | ④ 有、无波纹管(BELLOWS) |
| 05 : 500kg | ⑤ STROKE |
| 10 : 1000kg | 20mm / 30mm / 50mm |
| 30 : 3000kg | 75mm / 100mm |

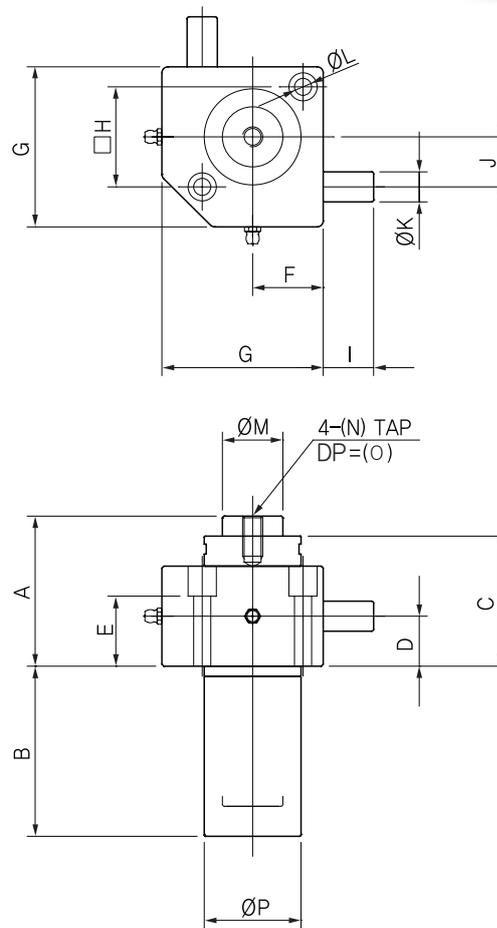
升降器介绍

- 改进原有产品存在的问题的精密升降器
- 防止外壳破损
- 安装方便
- 使齿隙最小化
- 设计紧凑
- 提高安装后的精度

POWER BASE STANDARD TYPE

DRAWING

Customizable 



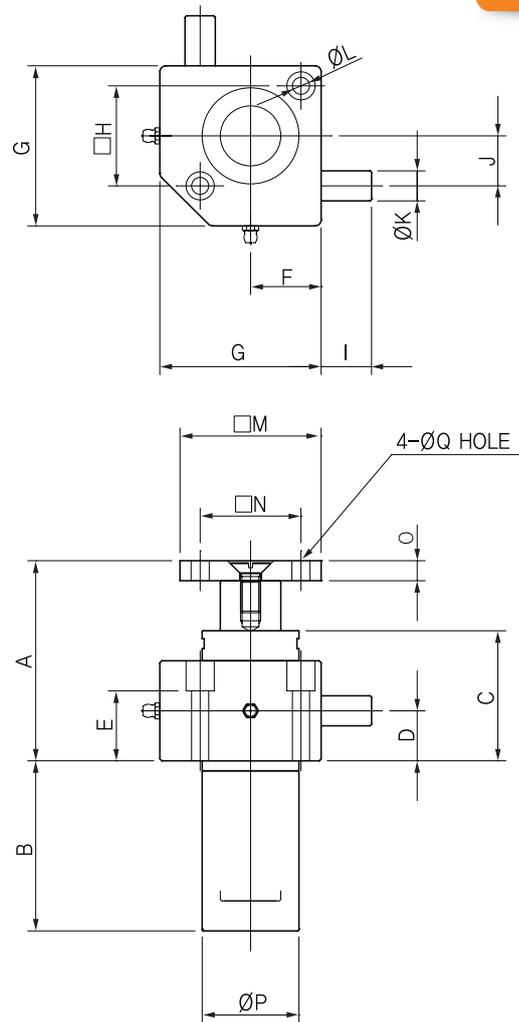
STANDARD TYPE

NO.	MODEL	A(Min)	B+ST	C	D	E	F	G	□H	I	J	ØK	ØL	ØM	N	O	ØP	ØQ
1	PPB05F	80	35	54	20	20	16	69	50	20,5	19	10	6,9	55	50	8	38	7
2	PPB10F	100	35	65	25	35	35	80	50	25	25	15	8,5	69	50	10	48	9
3	PPB30F	130	10	115	62	—	36,5	109	100	58,5	39,5	25	14	40 (RACK)	M12	20	40 (RACK)	12

POWER BASE FLANGE TYPE

DRAWING

Customizable 



FLANGE TYPE

NO.	MODEL	A(Min)	B+ST	C	D	E	F	G	□H	I	J	ØK	ØL	ØM	N	O	ØP	ØQ
1	PPB05F	80	35	54	20	20	16	69	50	20.5	19	10	6.9	55	50	8	38	7
2	PPB10F	100	35	65	25	35	35	80	50	25	25	15	8.5	69	50	10	48	9
3	PPB30F	130	10	115	62	-	36.5	109	100	58.5	39.5	25	14	40 (RACK)	M12	20	40 (RACK)	12

Innovation of factory automation component

SANGWON INTECH



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