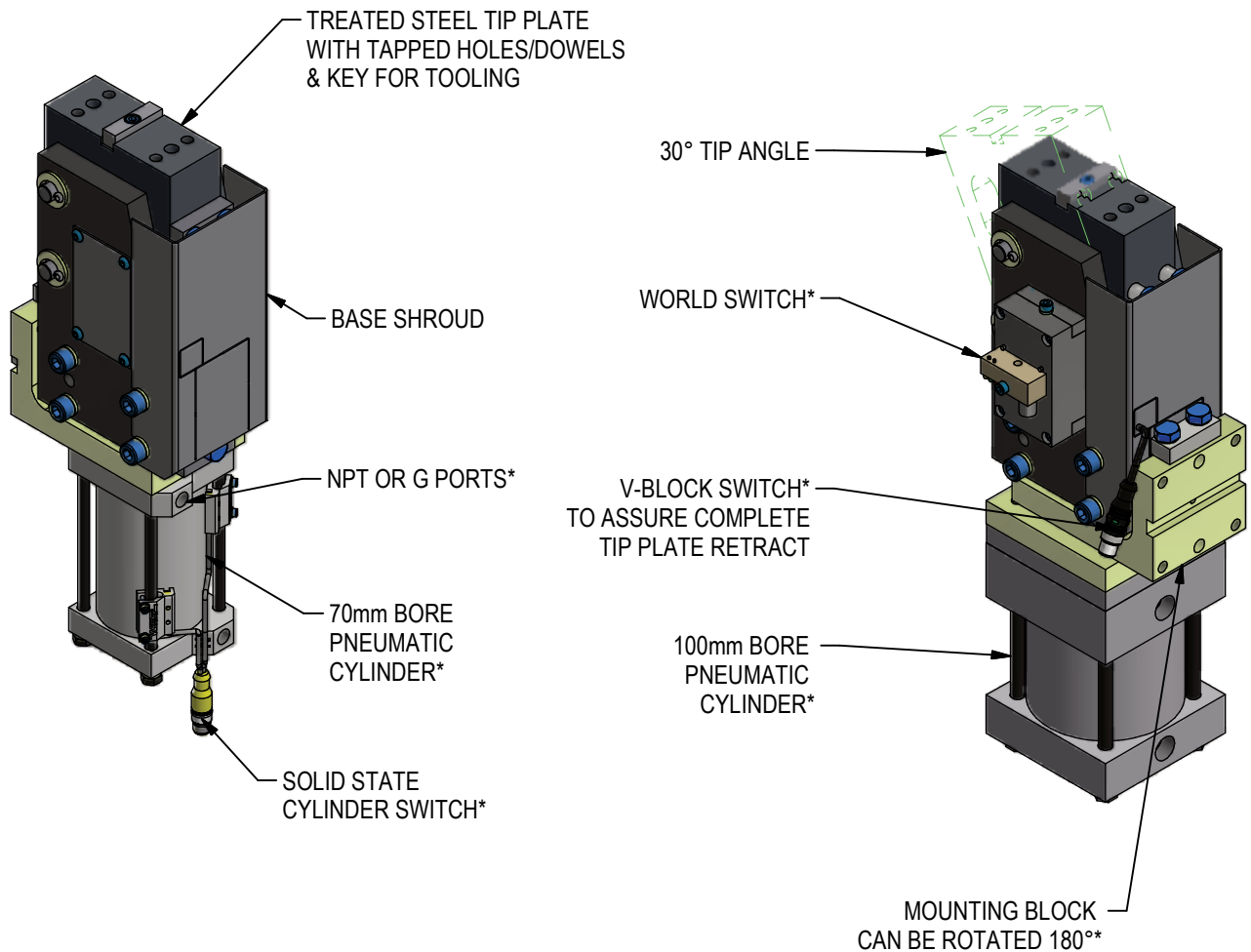


## SST SERIES PART POSITIONER

**ONE ACTUATOR TO EXTEND AND TIP TOOLING AWAY  
REPEATABLE RETRACTED POSITION**



PART POSITIONER CONFORMS TO INDUSTRY STANDARD REPEATABILITY TOLERANCES FOR GEOMETRY STATIONS

\*OPTIONAL

RELEASED 6/5/18

# ORDERING INFORMATION

NOTE: ALL BOXES MUST BE FILLED IN FOR A COMPLETE PART NUMBER

S	S	T	0	3	0	A								0	0
---	---	---	---	---	---	---	--	--	--	--	--	--	--	---	---

**Actuator (See Sheet 5)**

- 01 Welker 70mm Bore with NPT Ports
- 02 Welker 70mm Bore with G Ports
- 05 Welker 100mm Bore with NPT Ports
- 06 Welker 100mm Bore with G Ports

**Shroud (See Sheet 6)**

- 0 Base Shroud
- 1 Extra Tip Plate Shrouding\*

**Mount (See Sheet 7)**

- A Mounting Base as Shown
- B Mounting Base Rotated 180 degrees

**Switch Options (See Sheets 8, 9)**

**Switch Position (See Sheets 8, 9)**

- 1 Switch @ Position 1
- 2 Switch @ Position 2
- 3 Switch @ Position 3
- 4 Switch @ Position 4

**Port Position (See Sheet 5)**

- A Port @ Position 1
- B Port @ Position 2
- C Port @ Position 3
- D Port @ Position 4

**V-Block Switch (See Sheet 10)**

- 0 No V-Block Switch
- S V-Block Switch

\*Extra tip plate shrouding not available on SST with World Switch

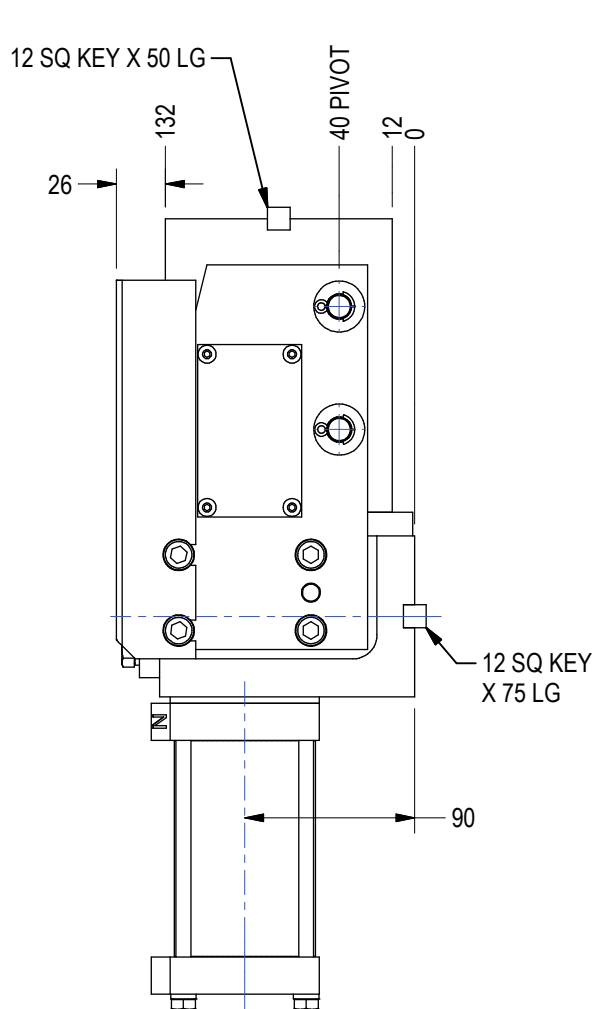
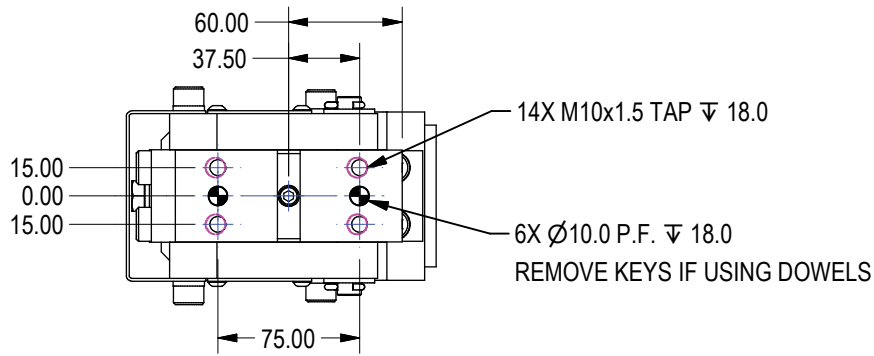
UNIT WEIGHTS**	
UNIT	WEIGHT (LBS)**
70mm BORE CYLINDER	44.5
100MM BORE CYLINDER	54.5

\*\*WEIGHTS SHOWN ARE APPROXIMATE AND WILL VARY WITH OPTION SELECTION.

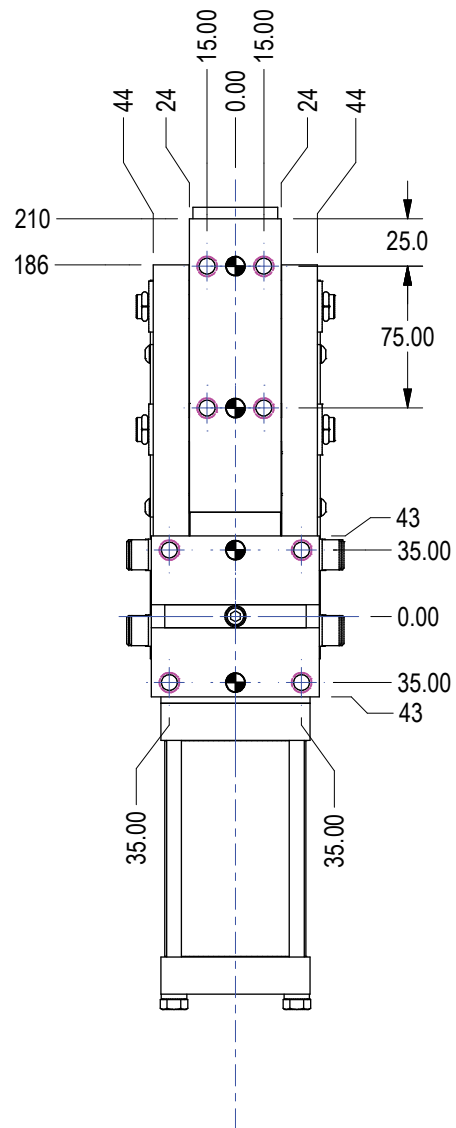
(DO NOT SCALE DRAWING)



# DIMENSIONS



**UNIT SHOWN RETRACTED**



WELKER PART POSITIONER  
WEB PAGE

(DO NOT SCALE DRAWING)

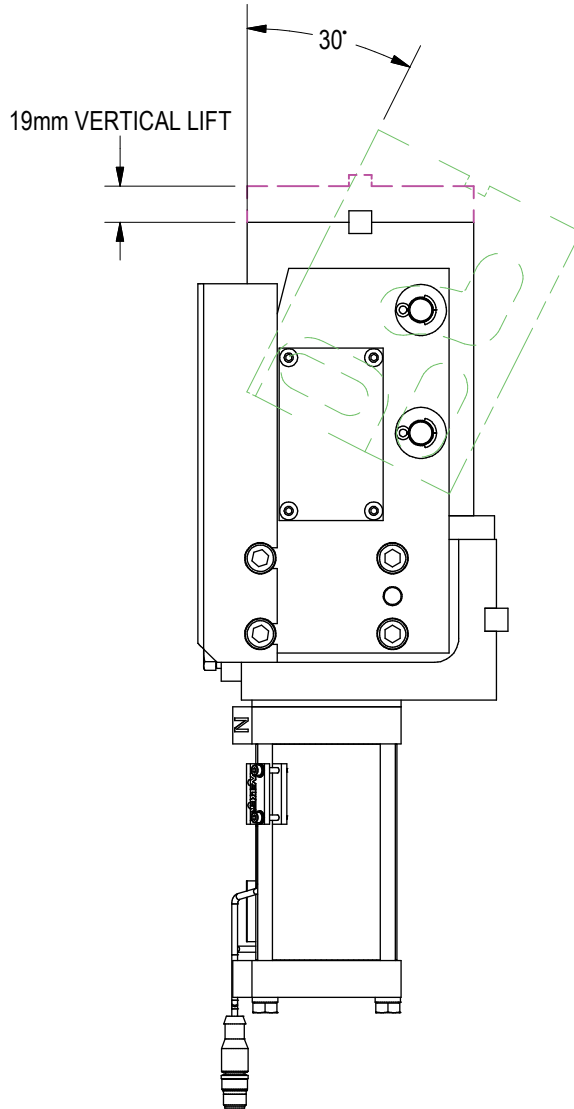
**ENGINEERED PRODUCTS**

(800) 229-0890 [www.welkerproducts.com](http://www.welkerproducts.com)

# TIP ANGLE INFORMATION

S S T 0 3 0 A 0 1 0 A L 3 1 A 0 0 0

Angle  
SST 30



UNIT'S TIP PLATE TRAVELS  
VERTICALLY THEN TIPS OUT TO 30°

(DO NOT SCALE DRAWING)



ENGINEERED PRODUCTS

(800) 229-0890 www.welkerproducts.com

# ACTUATOR INFORMATION

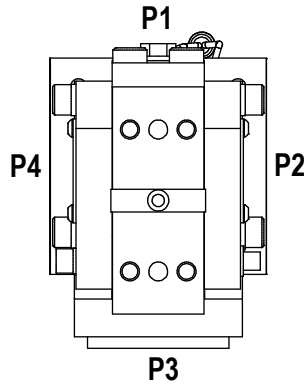
S
S
T
0
3
0
A
0
1
0
A
L
3
1
A
0
0
0

**Actuator**

- 01 Welker 70mm Bore w/ NPT Ports
- 02 Welker 70mm Bore w/ G Ports
- 05 Welker 100mm Bore w/ NPT Ports
- 06 Welker 100mm Bore w/ G Ports

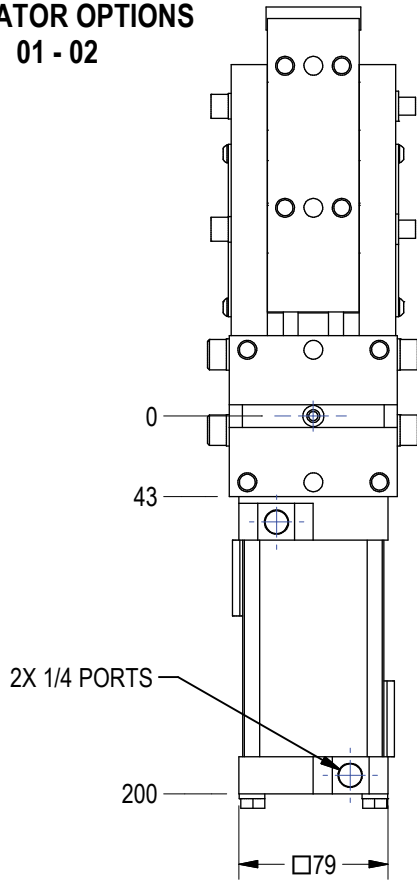
**Port Position**

- A Port @ P1
- B Port @ P2
- C Port @ P3
- D Port @ P4

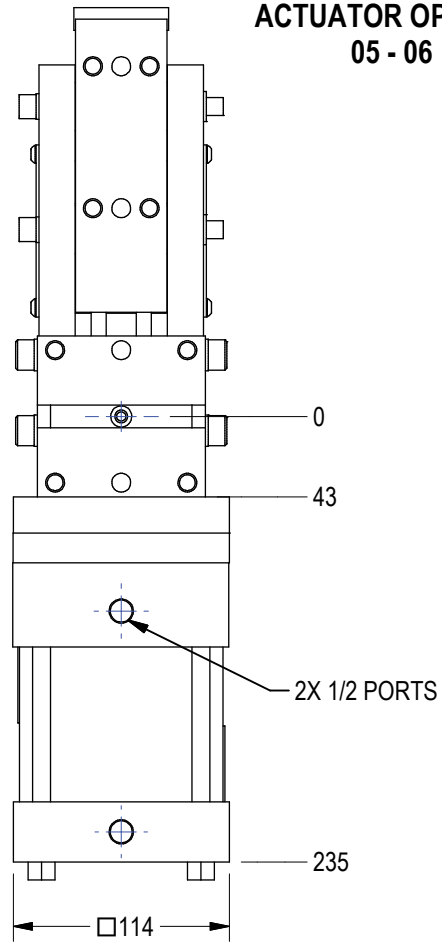


PORTS SHOWN AT  
"C" POSITION P3

**ACTUATOR OPTIONS  
01 - 02**



**ACTUATOR OPTIONS  
05 - 06**



TIP ANGLE	CYLINDER STROKE
30°	50

NOTE: DIMENSIONS SHOWN ARE mm

(DO NOT SCALE DRAWING)

ENGINEERED PRODUCTS

(800) 229-0890 [www.welkerproducts.com](http://www.welkerproducts.com)

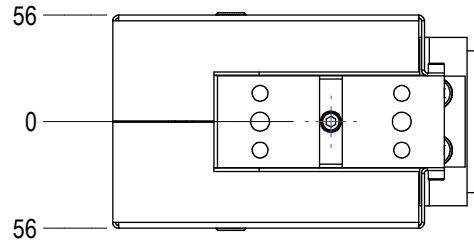
# SHROUD INFORMATION

S S T 0 3 0 A 0 1 0 A L 3 1 A 0 0 0

**Shroud**

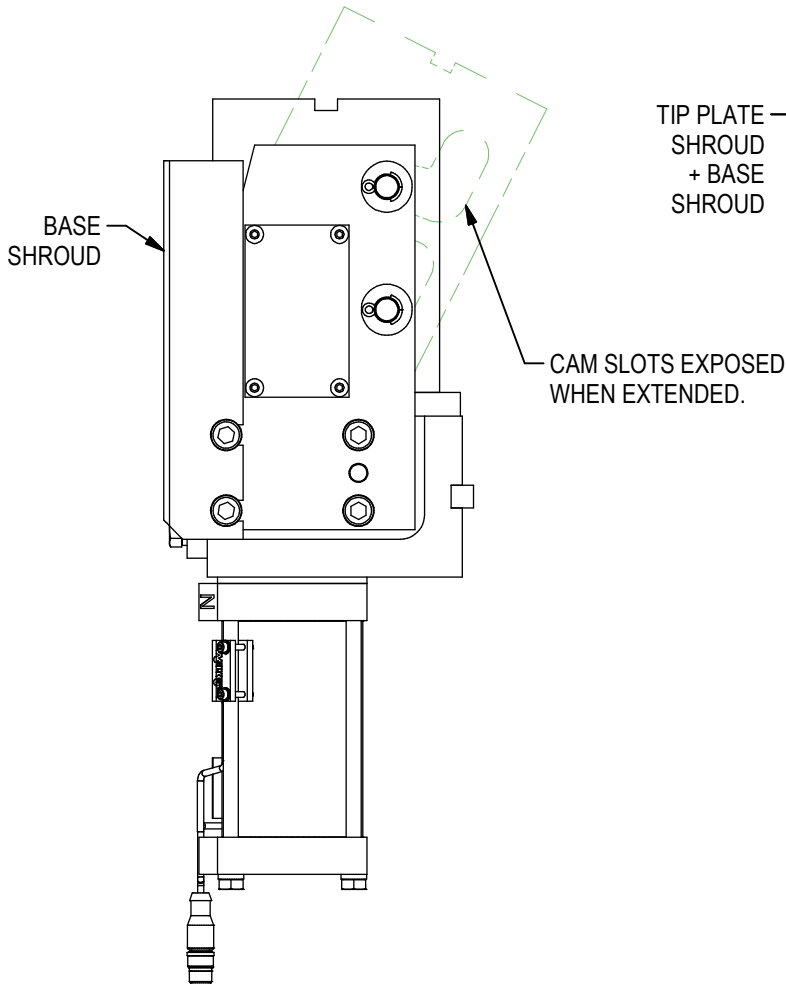
- 0 Base Shroud
- 1 Tip Plate Shrouds  
(Recommended for heavily contaminated environments such as MIG and arc welding)

NOTE: SHROUD OPTION "1" IS NOT AVAILABLE ON SST WITH WORLD SWITCH

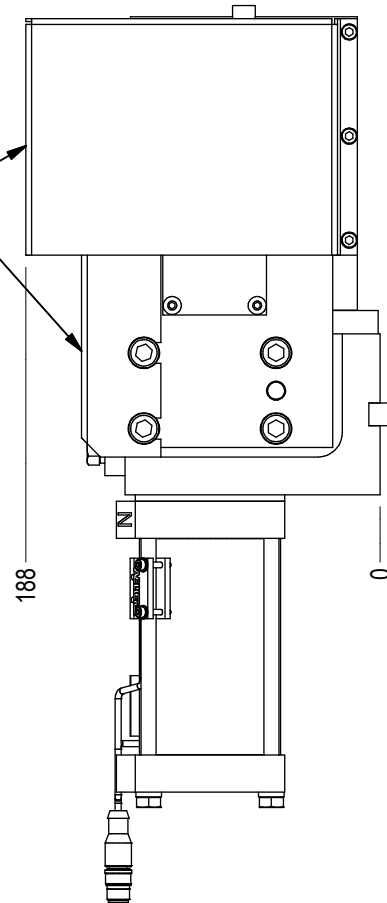


## TIP PLATE SHROUDS OPTION "1"

## BASE SHROUD OPTION "0"



TIP PLATE SHROUD + BASE SHROUD



(DO NOT SCALE DRAWING)



ENGINEERED PRODUCTS

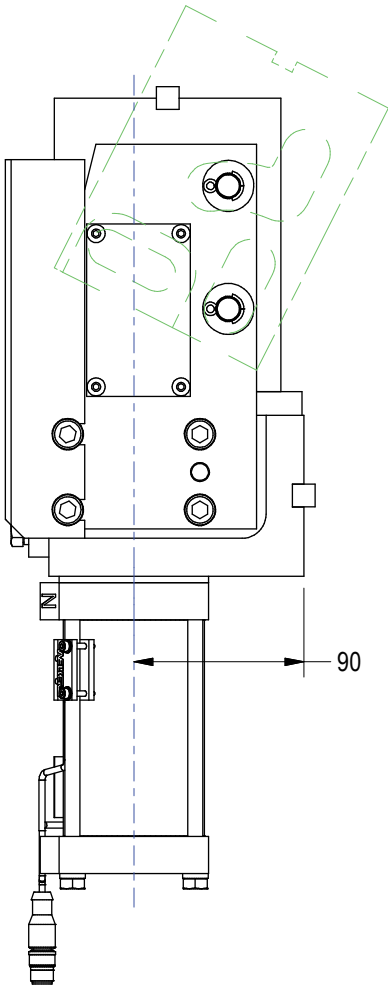
(800) 229-0890 www.welkerproducts.com

# MOUNT INFORMATION

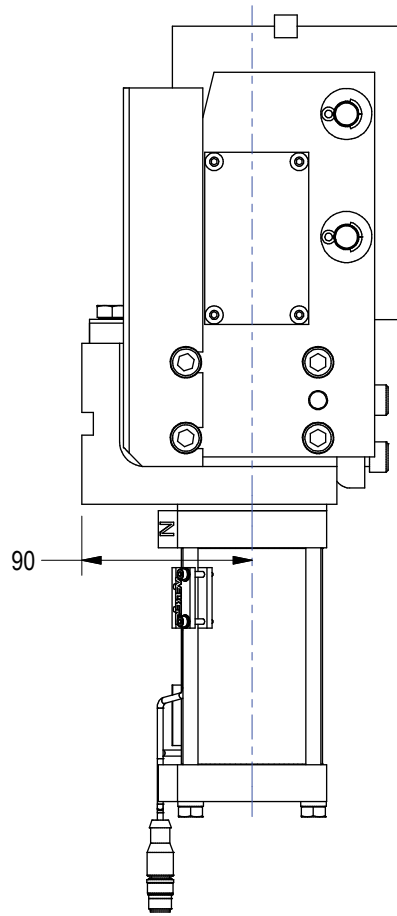
S S T 0 3 0 A 0 1 0 A L 3 1 A 0 0 0

**Mount**

- A Base Mount @ 0
- B Base Mount @ 180



**MOUNT "A"**



**MOUNT "B"**

(DO NOT SCALE DRAWING)



ENGINEERED PRODUCTS

(800) 229-0890 www.welkerproducts.com

# WORLD SWITCH INFORMATION

S
S
T
0
3
0
A
0
1
0
A
V
E
2
A
0
0
0

**Switch Options** \_\_\_\_\_

- L3** Solid State Cylinder Switch (See sheet 9)
- VE** World Switch (see chart below)

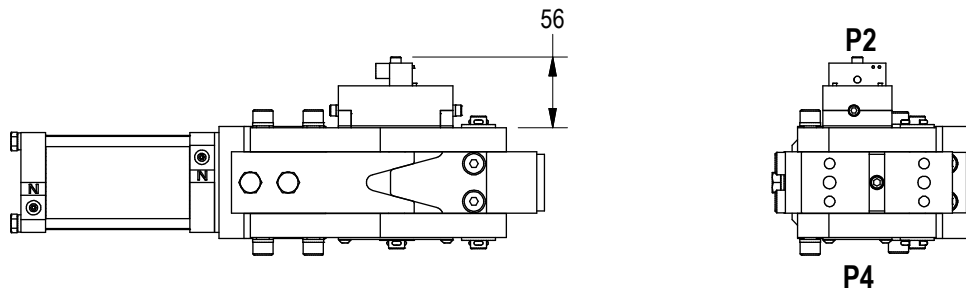
**Switch Position** \_\_\_\_\_

- 2** Switch @ Position 2
- 4** Switch @ Position 4

## WORLD SWITCH CHART

	Order Number SO1 EXTEND / SO1 RETRACT	Part Number	Manufacturer	Description All switches Quick Disconnect
<b>SST</b> <b>World Switches</b>	<b>AE / AR</b>	Ni2-Q6.5-AP6-0.1-FS 4.4X3/S304	Turck	3-Wire, 4-Pin, DC M12 X 1 (PNP)
	<b>BE / BR</b>	Ni2-Q6.5-ADZ32-0.1-FSB 5.4X4/S304	Turck	4-Wire, 5-Pin, AC/DC 1/2-20 (N.O.)
	<b>CE / CR</b>	Ni2-Q6.5-AN6-0.1-FS 4.4X3/S304	Turck	3-Wire, 4-Pin, DC M12 X 1 (NPN)
	<b>DE / DR</b>	NBN2-F581-100S6-E8-V1	Pepperl & Fuchs	3-Wire, 4-Pin, DC M12 X 1 (PNP)
	<b>EE / ER</b>	BES-Z02KR2-PSC20F-P100-S04-V	Balluff	3-Wire, 4-Pin, DC M12 X 1 (PNP)
	<b>HE / HR</b>	Ni2-Q6.5-0.1M-BDS-2AP6X3-H1141/S34	Turck	3-Wire, 4-Pin, DC M12 X 1 (PNP)
	<b>JE / JR</b>	IN5374	Efector	4-Wire, 4-Pin, DC M12 X 1 (PNP)

**Standard Switch Option - All other options may affect price and delivery**



VIEW SHOWN WITH WORLD SWITCH  
 WORLD SWITCHES ARE AVAILABLE **ONLY** WITH SWITCH POSITIONS 2 & 4.  
 TIP PLATE SHROUD ONLY - NOT AVAILABLE WITH WORLD SWITCH ON SST

(DO NOT SCALE DRAWING)

ENGINEERED PRODUCTS

(800) 229-0890 www.welkerproducts.com



# CYLINDER SWITCH INFORMATION

S
S
T
0
3
0
A
0
1
0
A
L
3
1
A
0
0
0

**Switch Options**

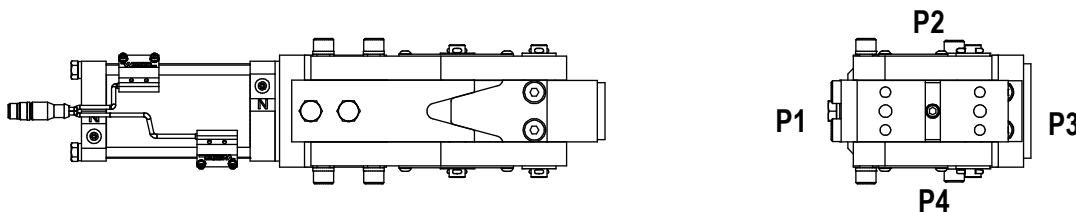
- L3** Solid State Cylinder Switch (see chart below)
- AE** World Switch (see sheet 8)

**Switch Position**

- 1** Switch @ Position 1
- 2** Switch @ Position 2
- 3** Switch @ Position 3
- 4** Switch @ Position 4

	Sw itch Option	Part Number	Manufacturer	Description
<b>Cylinder Switches</b>	<b>L3</b>	<b>SWITCH L3</b> L3 sw itch is w eld field immune, comparable to World Sw itches. L3 is a dual sensor, single connector sw itch: 1 sw itch required per cylinder	Welker	4-Wire, 4-Pin, DC (PNP) M12 X 1 Quick Disconnect
	<b>L5</b>	<b>MK5113</b> L5 a single sensor sw itch: 2 sw itches are required per cylinder	ifm Efector	3-Wire, 4-Pin, DC (NPN) M12 X 1 Quick Disconnect

**Standard Sw itch Option - All other options may affect price and delivery**



VIEW SHOWN WITH SOLID STATE CYLINDER SWITCH IN POSITION 1

(DO NOT SCALE DRAWING)

ENGINEERED PRODUCTS

(800) 229-0890 www.welkerproducts.com

# V-BLOCK SWITCH INFORMATION

S S T 0 3 0 A 0 1 0 **A** L 3 1 A **0** 0 0

**Mount**

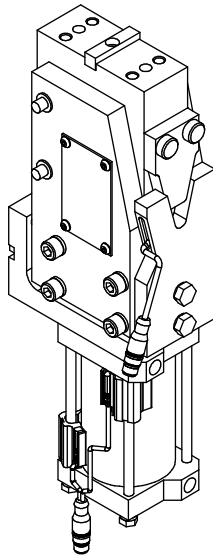
- A** Base Mount @ 0
- B** Base Mount @ 180

**V-Block Switch Options**

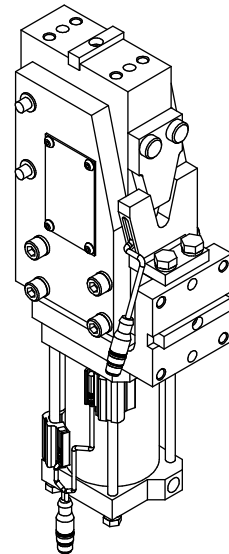
- 0** No V-Block Switch
- S** V-Block Switch

NOTE: BASE SHROUD NOT SHOWN FOR CLARITY

V-BLOCK SWITCH MOUNT "A"



V-BLOCK SWITCH MOUNT "B"



V-BLOCK SWITCH FEATURES:

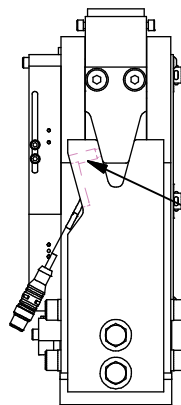
4 LEDs: (2) GREEN, POWER ON, (2) YELLOW, OUTPUT

ANTI-VIBRATION DETENT

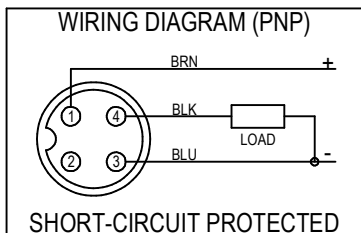
EUROFAST M12X1 MALE 4 PIN

Ø4.22mm FIREFAST 300mm TOTAL LENGTH INCLUDING CONNECTOR

FOR DETAILED SWITCH SPECIFICATIONS SEE WELKER SMART STOP CATALOG



SWITCH IS EMBEDDED IN LOWER WEDGE PLATE TO ENSURE COMPLETE TIP PLATE RETRACT



(DO NOT SCALE DRAWING)



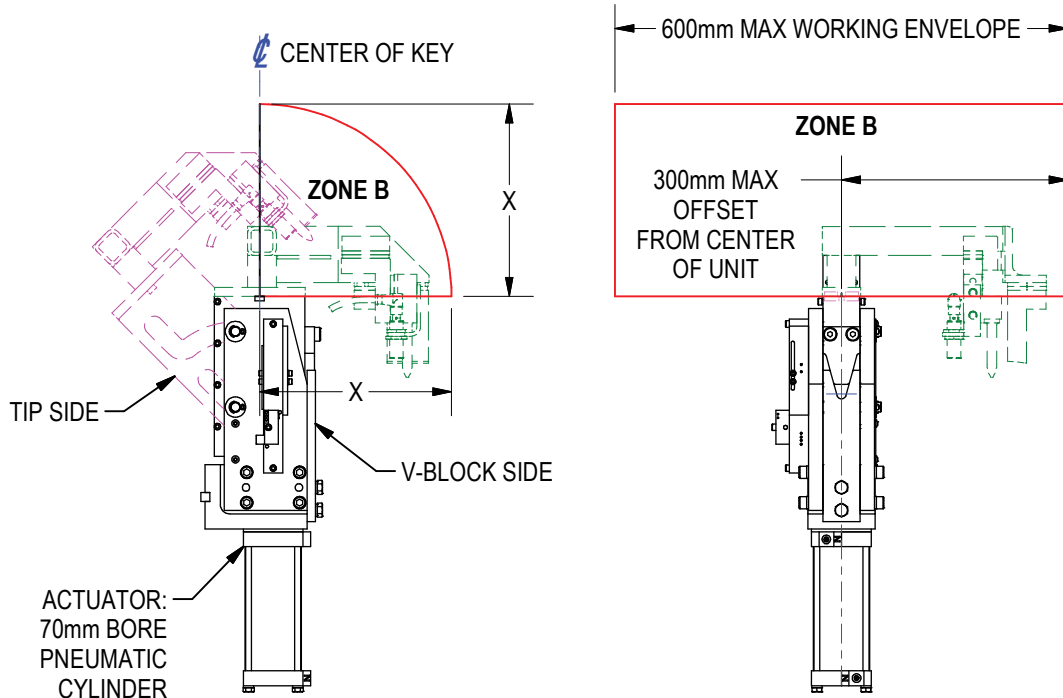
ENGINEERED PRODUCTS

(800) 229-0890 www.welkerproducts.com

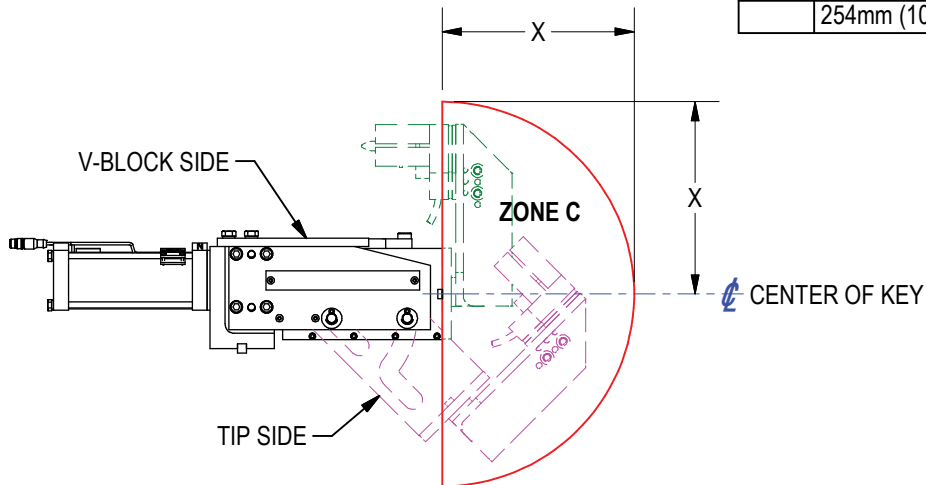
# SST PART POSITIONER APPLICATION DATA: 70mm BORE CYLINDER

## VERTICAL APPLICATIONS

NOTE: CENTER OF GRAVITY AND PART CONTACT TOOLING MUST BE WITHIN DESIGNATED ZONE



## HORIZONTAL APPLICATIONS



70mm BORE CYLINDER		
ZONE	DIM X	MAX LOAD
B	152mm (6")	70 LBS @ 60 PSI
	152mm (6")	70 LBS @ 80 PSI
	254mm (10") MAX	30 LBS @ 60 PSI
	254mm (10") MAX	40 LBS @ 80 PSI
C	254mm (10")	10 LBS @ 60 PSI
	254mm (10")	18 LBS @ 80 PSI

(DO NOT SCALE DRAWING)

**WELKER**

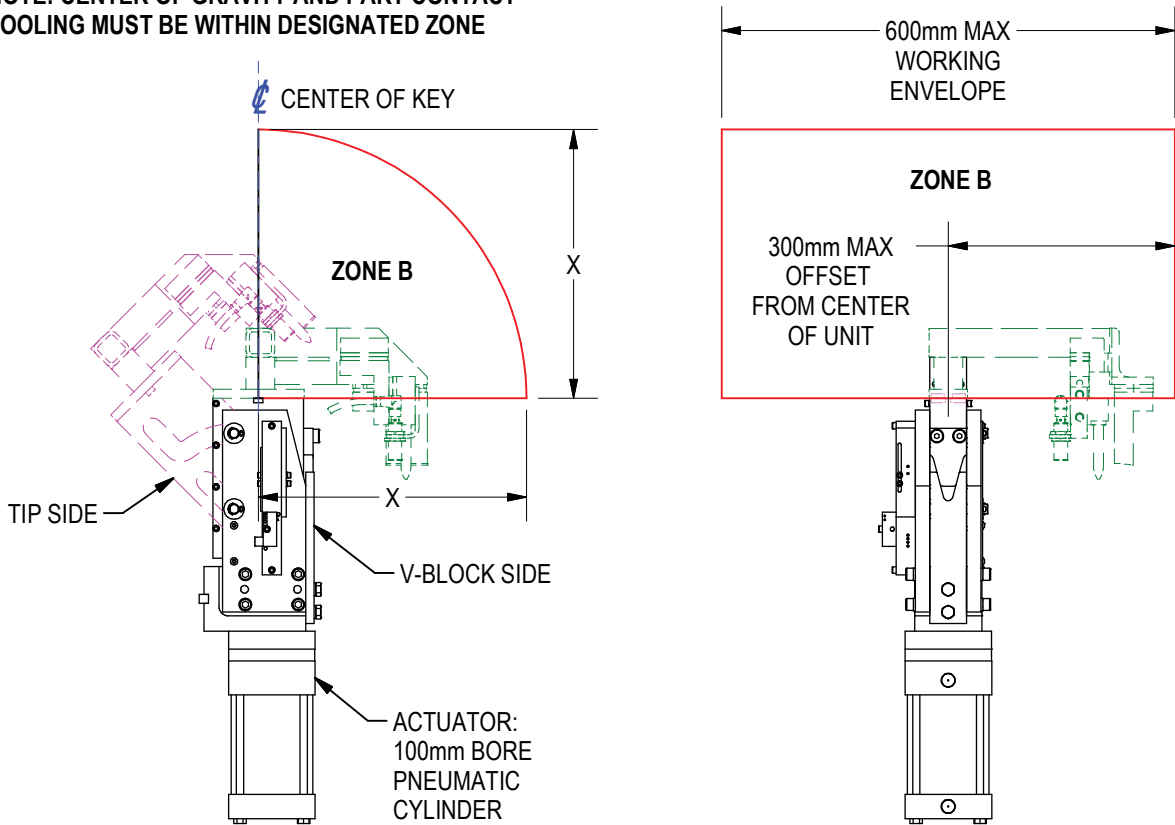
ENGINEERED PRODUCTS

(800) 229-0890 www.welkerproducts.com

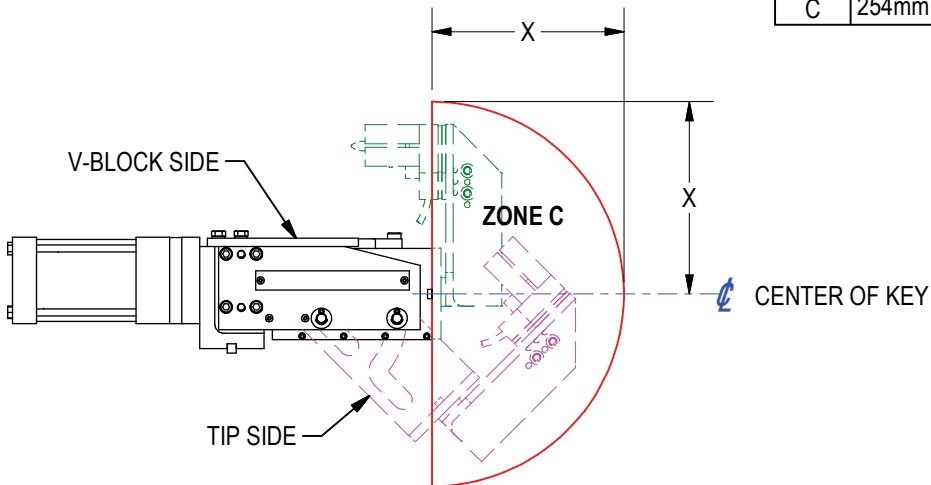
# SST PART POSITIONER APPLICATION DATA: 100mm BORE CYLINDER

## VERTICAL APPLICATIONS

NOTE: CENTER OF GRAVITY AND PART CONTACT TOOLING MUST BE WITHIN DESIGNATED ZONE



## HORIZONTAL APPLICATIONS



100mm BORE CYLINDER		
ZONE	DIM X	MAX LOAD
B	355mm (14") MAX	45 LBS @ 60 PSI
	355mm (14") MAX	60 LBS @ 80 PSI
C	254mm (10")	30 LBS

(DO NOT SCALE DRAWING)



ENGINEERED PRODUCTS

(800) 229-0890 www.welkerproducts.com

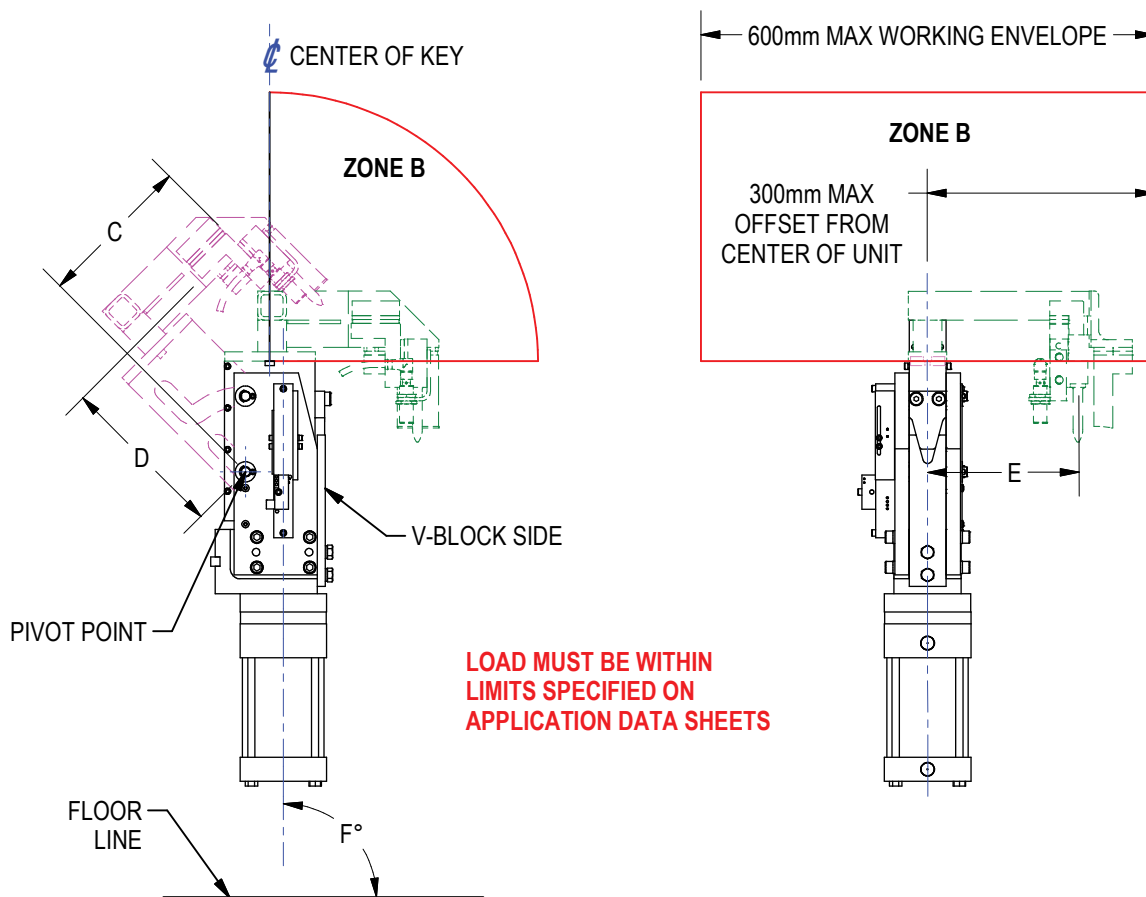
## SST PART POSITIONER: REQUIRED CRITERIA FOR APPLICATION APPROVAL

APPLICATION DATA MUST BE SUBMITTED FOR WELKER APPROVAL WITH THE FOLLOWING CRITERIA FOR ALL PART POSITIONER APPLICATIONS. PLEASE ATTACH THIS WORKSHEET TO YOUR BUY OFF AND INCLUDE A MINIMUM OF TWO SCREEN SHOTS OF YOUR APPLICATION WITH UNIT TIP PLATE IN EXTENDED POSITION.

**FLOW CONTROLS ARE REQUIRED FOR ALL APPLICATIONS.**

REF	DESCRIPTION	VALUE
	WELKER UNIT PART NUMBER	
	WEIGHT/MASS OF LOAD (TOOLING PLUS PARTS)	lbf
C	DISTANCE FROM PIVOT POINT TO LOAD CENTER OF GRAVITY	mm
D	DISTANCE FROM PIVOT POINT TO LOAD CENTER OF GRAVITY	mm
E	DISTANCE FROM CENTER OF KEYWAY TO LOAD CENTER OF GRAVITY	mm
F	ORIENTATION OF UNIT TO FLOOR	°

**PLEASE SUBMIT VIEWS BELOW FOR APPROVAL**



<b>WELKER APPROVAL</b>			
SUBMITTED BY		DATE	
PHONE NUMBER		EMAIL	
COMPANY NAME		PROGRAM	
WELKER APPROVAL BY		DATE	

ACTUATOR	EXTEND TORQUE	RETRACT TORQUE
70mm BORE CYLINDER	300in-lbf	225in-lbf
100mm BORE CYLINDER	600in-lbf	450in-lbf

(DO NOT SCALE DRAWING)

**ENGINEERED PRODUCTS**

(800) 229-0890 [www.welkerproducts.com](http://www.welkerproducts.com)