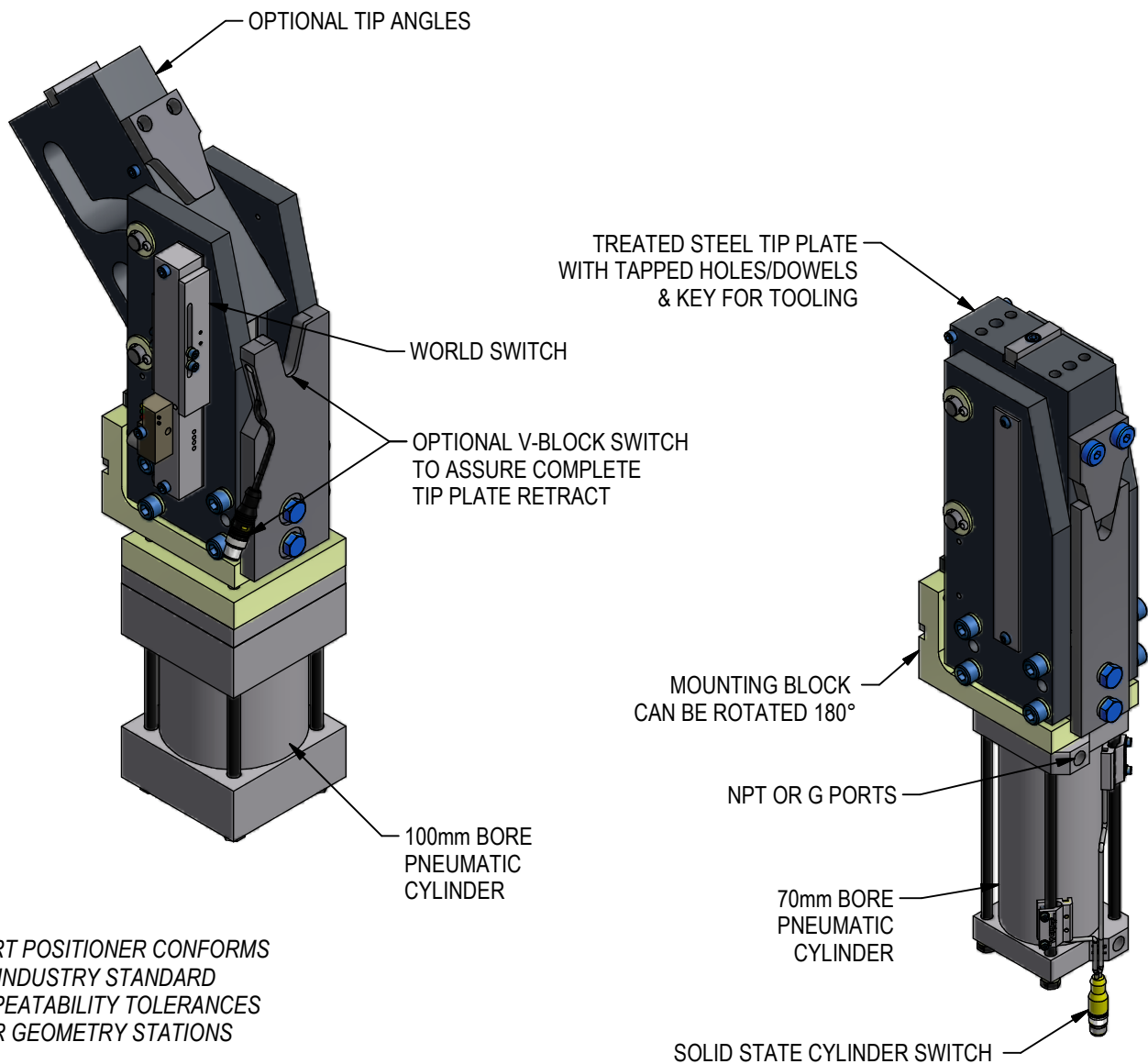


LST/SST SERIES PART POSITIONER

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



PART POSITIONER CONFORMS TO INDUSTRY STANDARD REPEATABILITY TOLERANCES FOR GEOMETRY STATIONS

RELEASED 5/5/16

ORDERING INFORMATION

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

				A								0	0
--	--	--	--	---	--	--	--	--	--	--	--	---	---

Series

- LST Long Stroke Positioner
- SST Short Stroke Positioner

Angle (See Sheet 4)

- 045 Optional angles vary with series

Actuator (See Sheet 5)

- 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

Shroud (See Sheet 6)

- 0 No Shrouds
- 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

SEE SHEET 11 FOR UNIT WEIGHTS

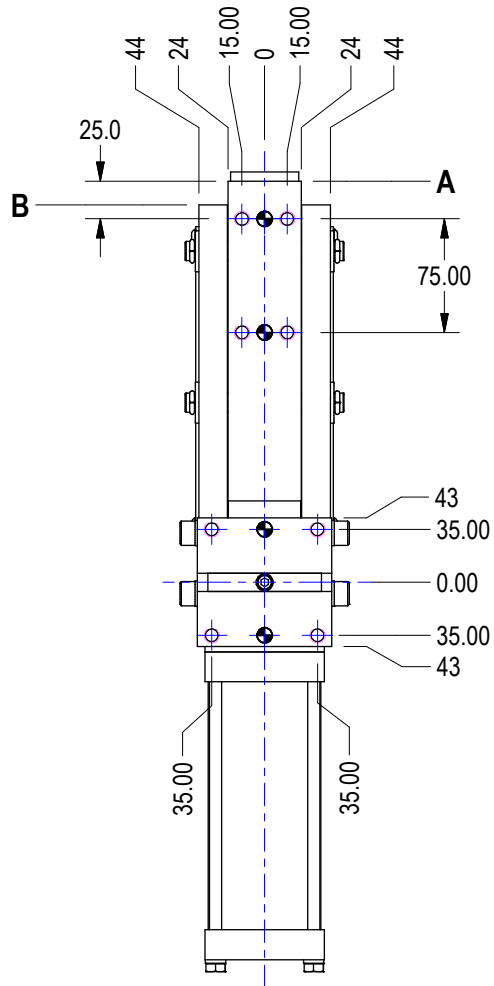
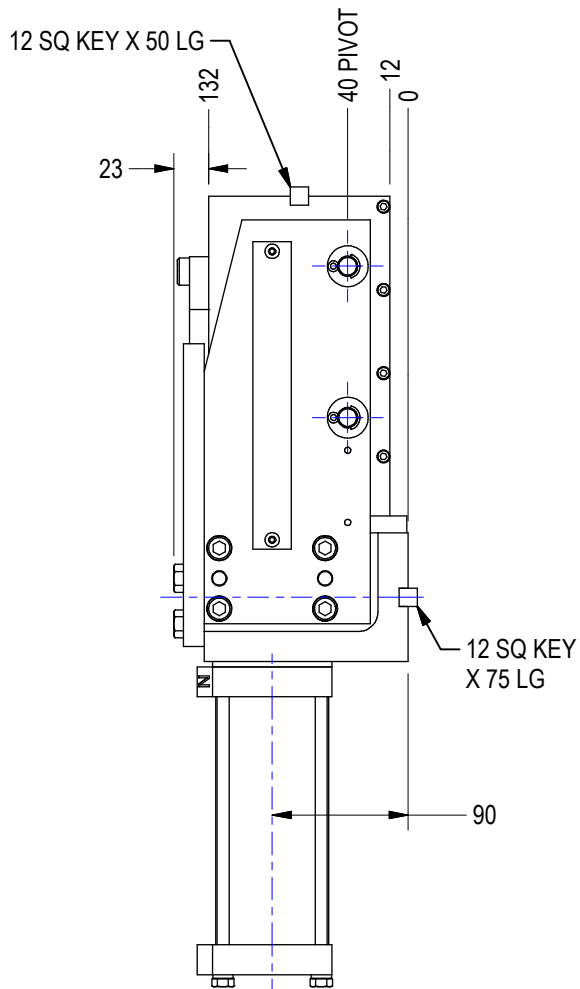
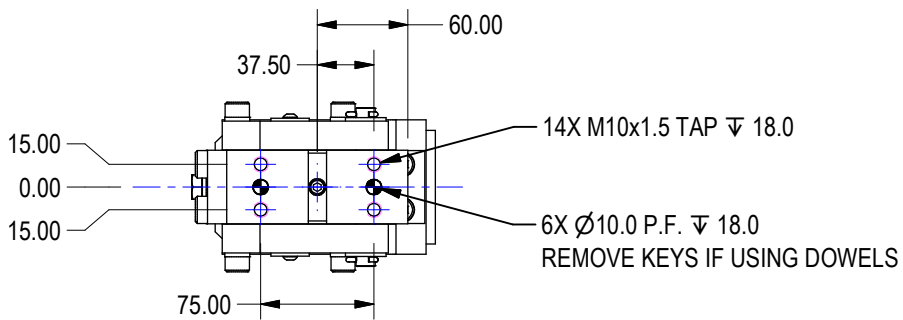
(DO NOT SCALE DRAWING)



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DIMENSIONS



UNIT SHOWN RETRACTED

SERIES	DIM. A	DIM. B
LST	265	250
SST	210	186



WELKER PART POSITIONER
WEB PAGE

(DO NOT SCALE DRAWING)



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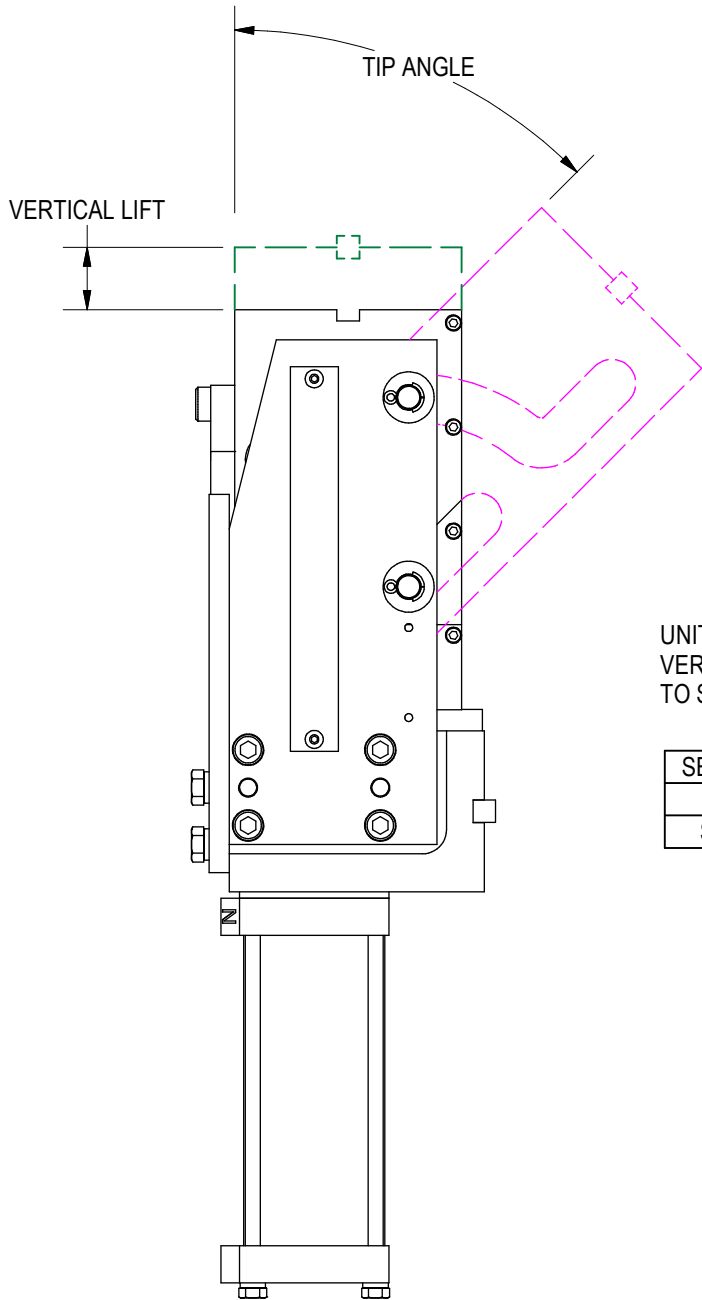
(800) 229-0890 www.welkerproducts.com

TIP ANGLE INFORMATION

L
S
T
0
4
5
A
0
1
0
A
L
3
1
A
0
0
0

Angle

LST 11, 22, 31, 39 & 45
 SST 30



UNIT'S TIP PLATE TRAVELS VERTICALLY THEN TIPS OUT TO SELECTED ANGLE.

SERIES	VERTICAL LIFT
LST	33
SST	19

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ACTUATOR INFORMATION

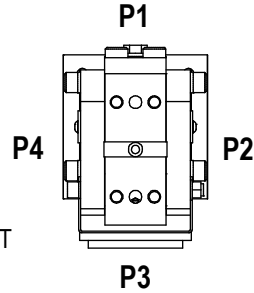
L S T
0 4 5
A
0 1
0
A
L 3
1
A
0
0 0

Actuator

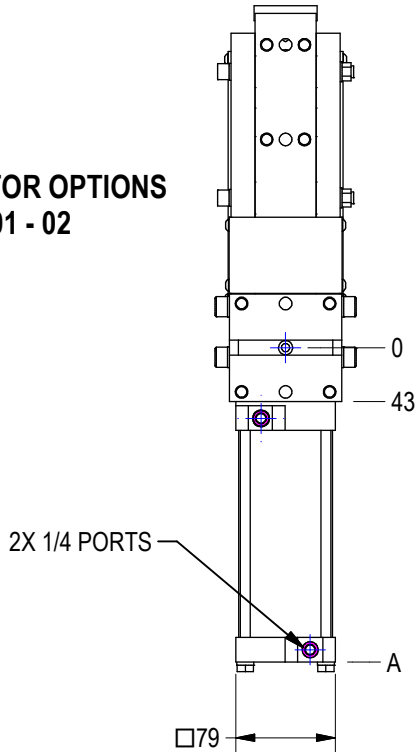
- 01 Welker 70mm Bore w/ NPT Ports
- 02 Welker 70mm Bore w/ G Ports
- 05 Welker 100mm Bore w/ NPT Ports
- 06 Welker 100mm Bore w/ G Ports

Port Position

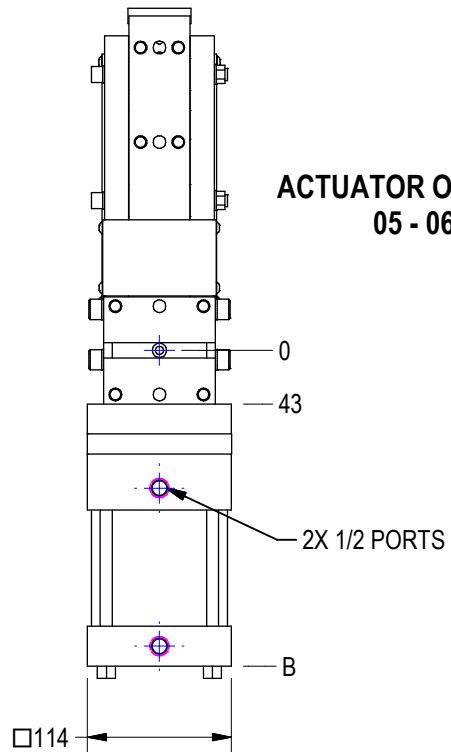
- A Port @ P1
- B Port @ P2
- C Port @ P3
- D Port @ P4



**ACTUATOR OPTIONS
01 - 02**



**ACTUATOR OPTIONS
05 - 06**



TIP ANGLE	A	B	CYLINDER STROKE
11° (LST)	250	252	60
22° (LST)	250	262	70
31° (LST)	250	272	80
39° (LST)	250	282	90
45° (LST)	250	292	100
30° (SST)	200	236	50

NOTE: DIMENSIONS SHOWN ARE mm

(DO NOT SCALE DRAWING)

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ENGINEERED PRODUCTS

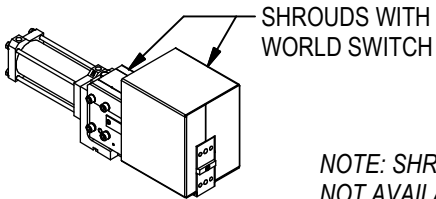
(800) 229-0890 www.welkerproducts.com

SHROUD INFORMATION

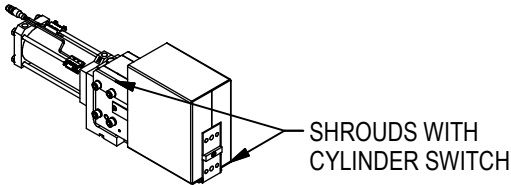
L S T 0 4 5 A 0 1 0 A L 3 1 A 0 0 0

Shroud

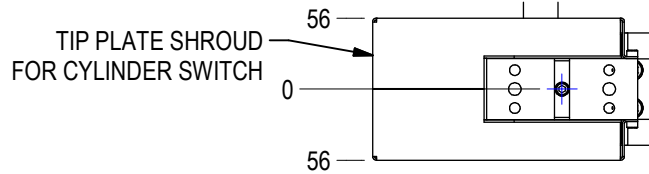
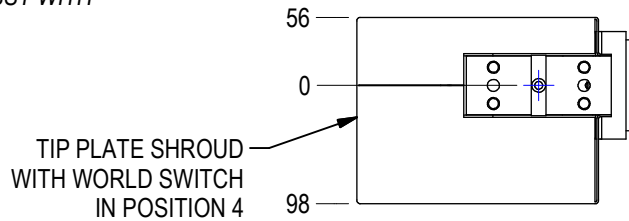
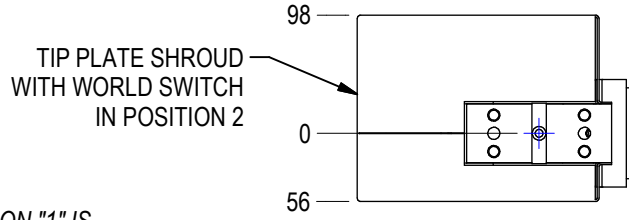
- 0 No Shrouds
- 1 Tip Plate Shrouds
(Recommended for heavily contaminated environments such as MIG and arc welding)



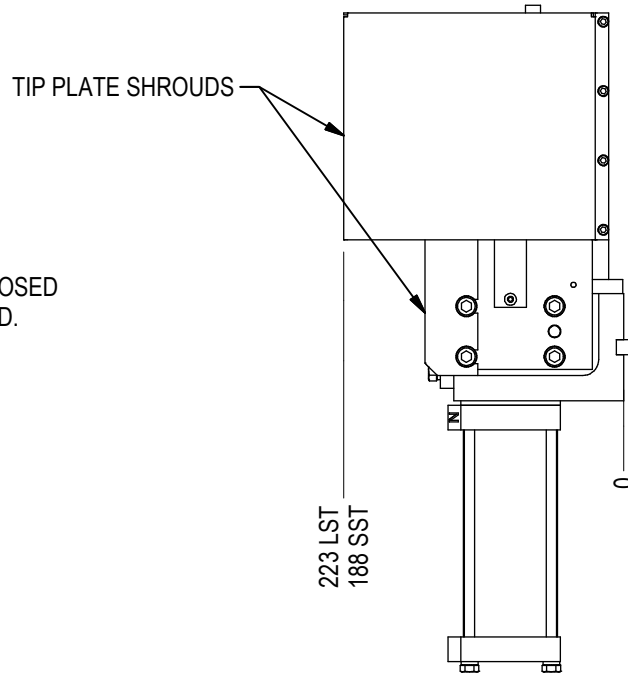
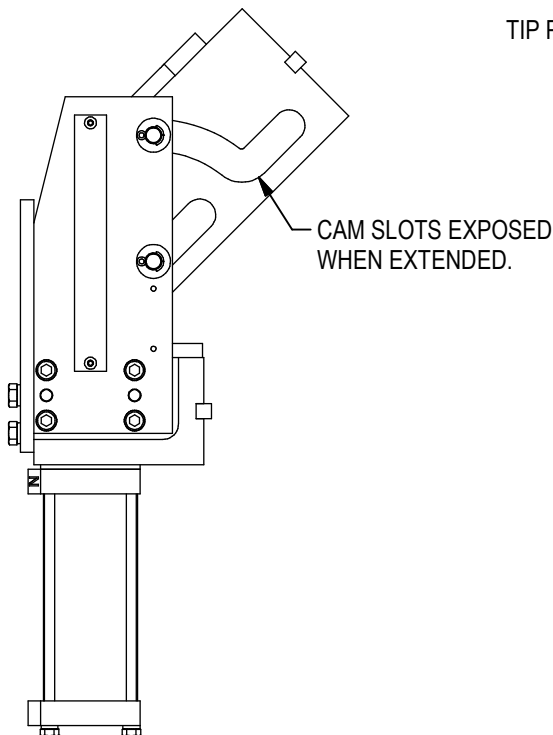
NOTE: SHROUD OPTION "1" IS NOT AVAILABLE ON SST WITH WORLD SWITCH



TIP PLATE SHROUDS OPTION "1"



NO SHROUD OPTION "0"



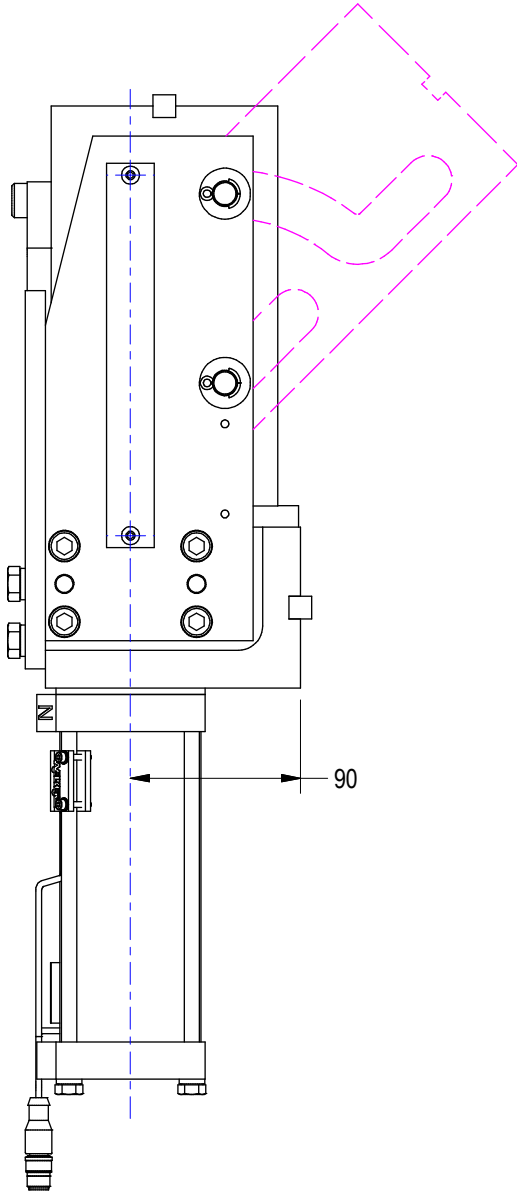
(DO NOT SCALE DRAWING)

MOUNT INFORMATION

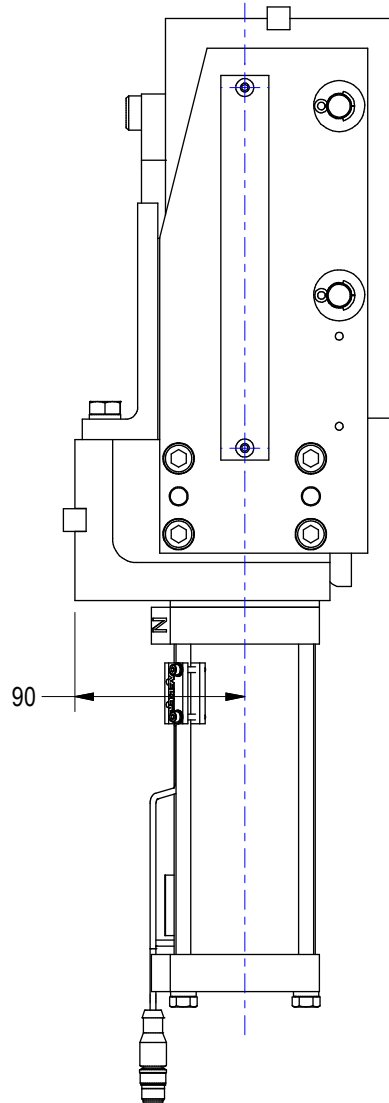
L S T 0 4 5 A 0 1 0 A L 3 1 A 0 0 0

Mount _____

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



MOUNT "A"



MOUNT "B"

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WORLD SWITCH INFORMATION

L
S
T
0
4
5
A
0
1
0
A
A
E
2
A
0
0
0

Switch Options _____

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

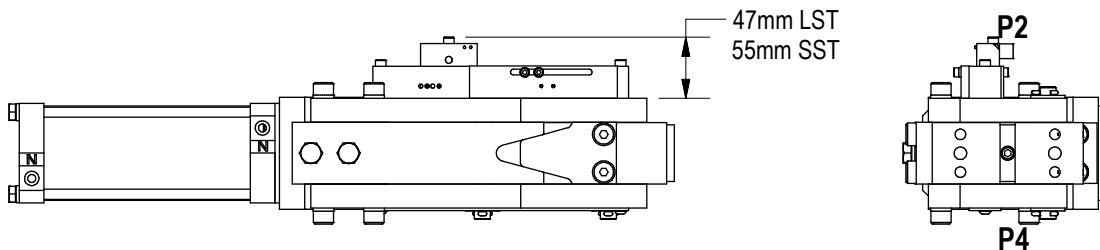
Switch Position _____

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

WORLD SWITCH CHART

S01 Sensor Position - Switch Option	"E"xtended "R"etracted	Manufacturer's Part Number	Mfr.	Description
A	E or R	Ni2-Q6.5-AP6-0.1-FS 4.4X3/S304	Turck	3-Wire, 4-Pin, DC M12 X 1 (PNP) Quick Disconnect
B	E or R	Ni2-Q6.5-ADZ32-0.1-FSB 5.4X4/S304	Turck	4-Wire, 5-Pin, AC/DC 1/2-20 (N.O.) Quick Disconnect
C	E or R	Ni2-Q6.5-AN6-0.1-FS 4.4X3/S304	Turck	3-Wire, 4-Pin, DC M12 X 1 (NPN) Quick Disconnect
D	E or R	NBN2-F581-100S6-E8-V1	Pepperl & Fuchs	3-Wire, 4-Pin, DC M12 X 1 (PNP) Quick Disconnect
E	E or R	BES-Z02KR2-PSC20F-P100-S04-V	Balluff	3-Wire, 4-Pin, DC M12 X 1 (PNP) Quick Disconnect
H	E or R	Ni2-Q6.5-0.1M-BDS-2AP6X3-H1141/S34	Turck	3-Wire, 4-Pin, DC M12 X 1 (PNP) Quick Disconnect
J	E or R	IN5374	Efector	4-Wire, 4-Pin, DC M12 X 1 (PNP) Quick Disconnect

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 AVAILABLE WITH WORLD SWITCH ON LST,
 NOT AVAILABLE WITH WORLD SWITCH ON SST

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CYLINDER SWITCH INFORMATION

L
S
T
0
4
5
A
0
1
0
A
L
3
1
A
0
0
0

Switch Options

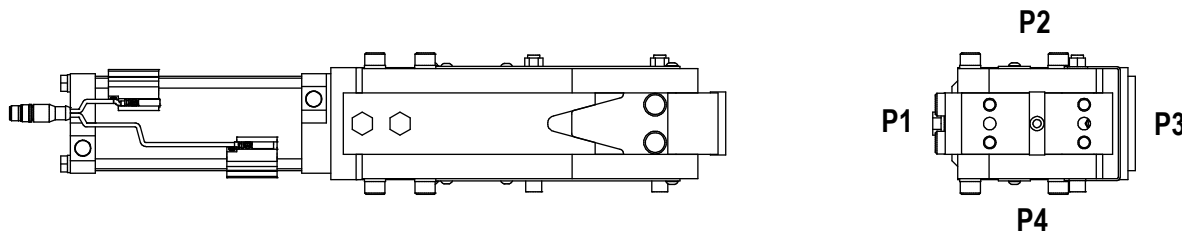
- L3** Solid State Cylinder Switch (see chart below)
- AE** World Switch (see sheet 8)

Switch Position

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

	Switch Option	Part Number	Manufacturer	Description
Cylinder Switches	L3	SWITCH L3 L3 switch is weld field immune, comparable to World Switches	Welker	4-Wire, 4-Pin, DC (PNP) M12 X 1 Quick Disconnect
	L5	MK5113 (This is a single sensor switch: 2 switches are installed per cylinder)	ifm Efeotor	3-Wire, 4-Pin, DC (NPN) M12 X 1 Quick Disconnect

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



VIEW SHOWN WITH SOLID STATE CYLINDER SWITCH IN POSITION 1

(DO NOT SCALE DRAWING)

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V-BLOCK SWITCH INFORMATION

L S T 0 4 5 A 0 1 0 **A** L 3 1 A **0** 0 0

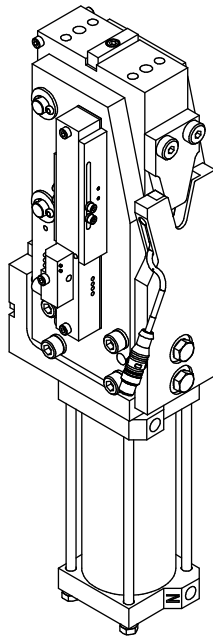
Mount

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

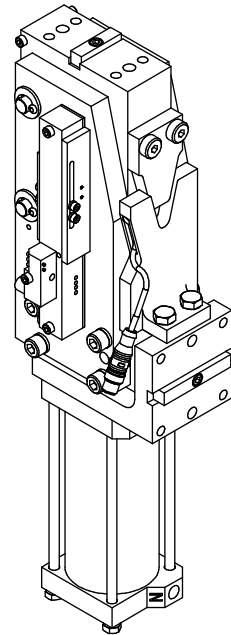
V-Block Switch Options

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

V-BLOCK SWITCH MOUNT "A"



V-BLOCK SWITCH MOUNT "B"



V-BLOCK SWITCH FEATURES:

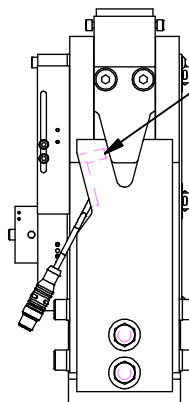
4 LEDS: (2) GREEN, POWER ON, (2) YELLOW, OUTPUT

ANTI-VIBRATION DETENT

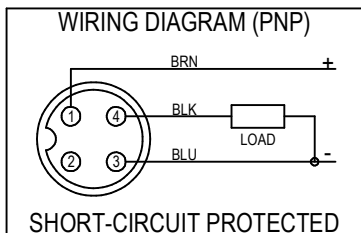
EUROFAST M12X1 MALE 4 PIN

Ø4.22mm FIREFAST 300mm TOTAL LENGTH INCLUDING CONNECTOR

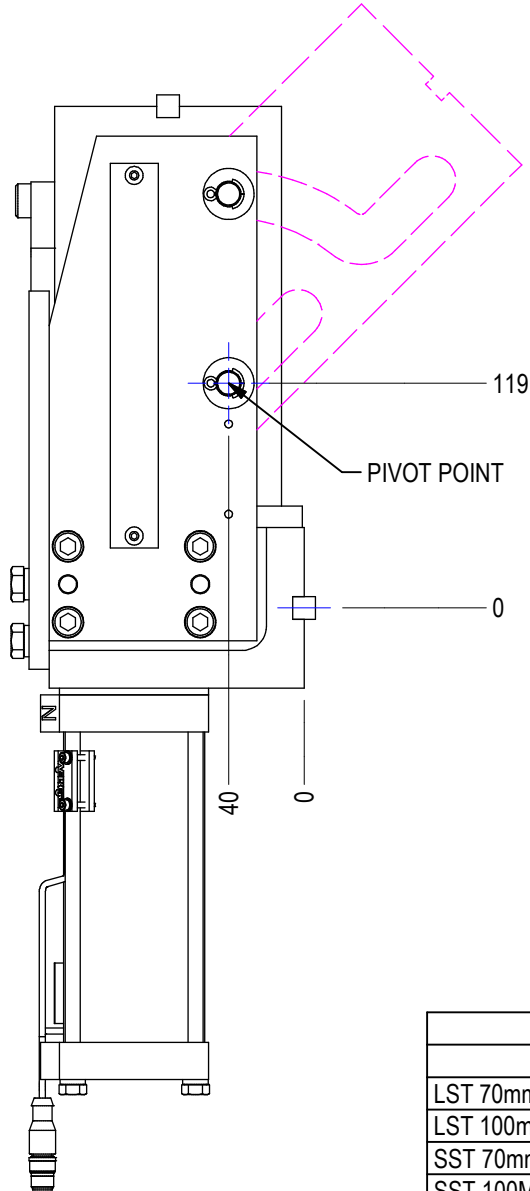
FOR DETAILED SWITCH SPECIFICATIONS SEE WELKER SMART STOP CATALOG



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



UNIT WEIGHTS



UNIT WEIGHTS**	
UNIT	WEIGHT (LBS)**
LST 70mm BORE CYLINDER	53
LST 100mm BORE CYLINDER	64
SST 70mm BORE CYLINDER	44.5
SST 100MM BORE CYLINDER	54.5

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

(DO NOT SCALE DRAWING)

WELKER

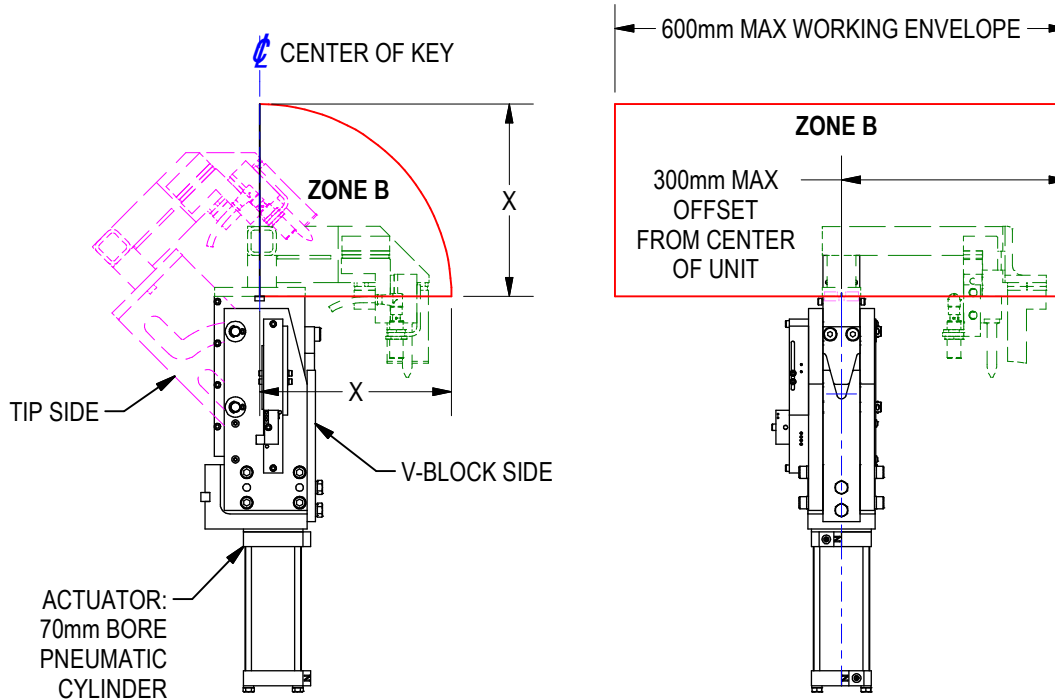
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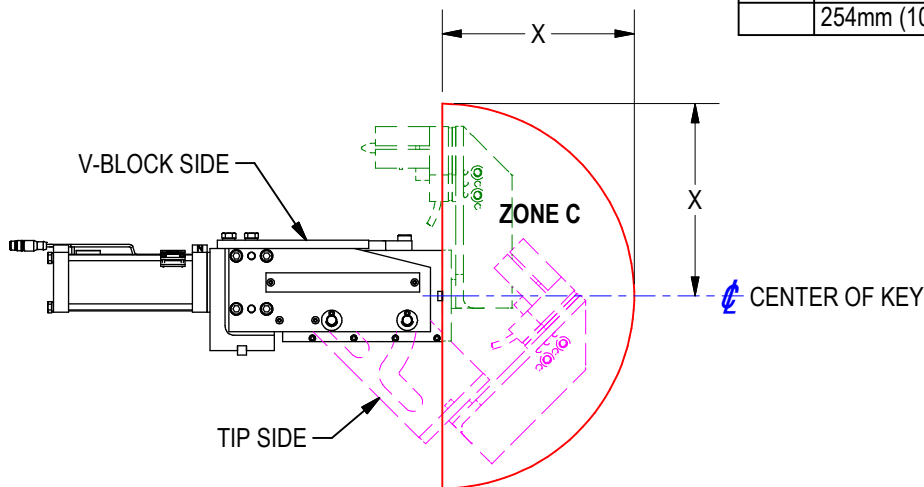
LST/SST PART POSITIONER APPLICATION DATA: 70mm BORE CYLINDER

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

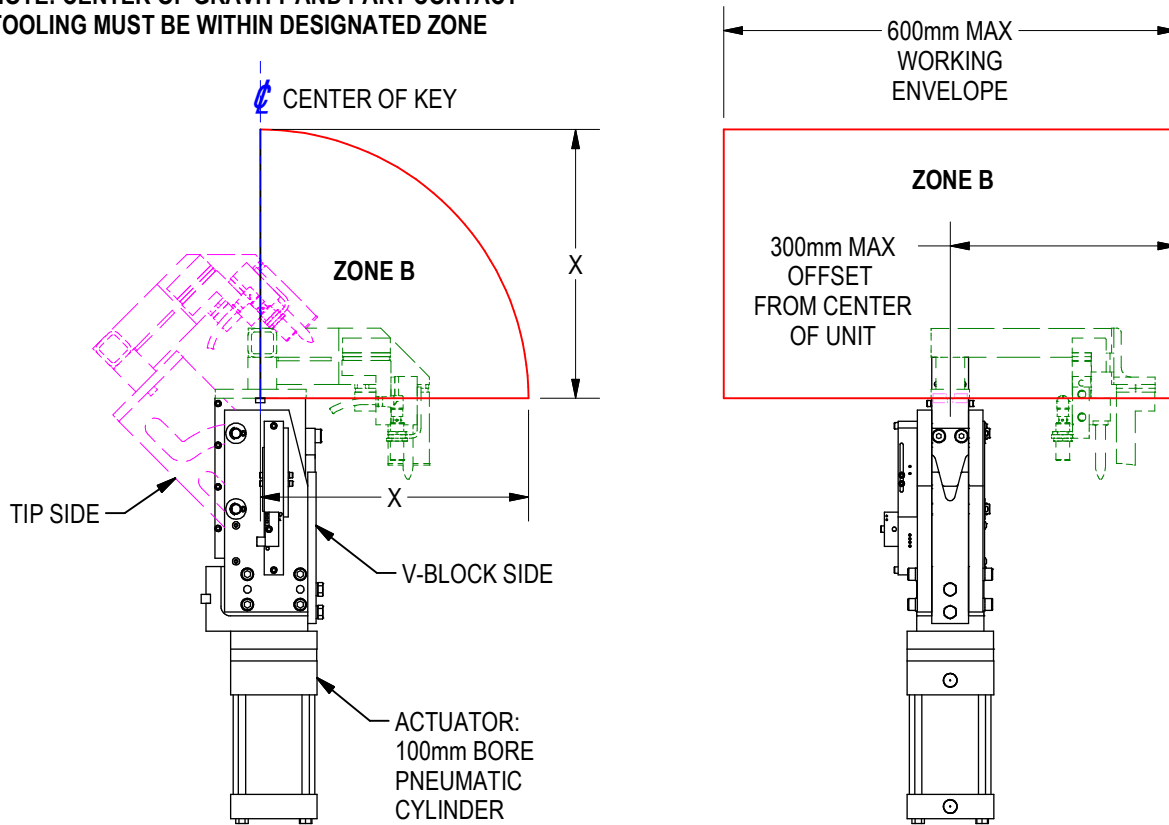
ENGINEERED PRODUCTS

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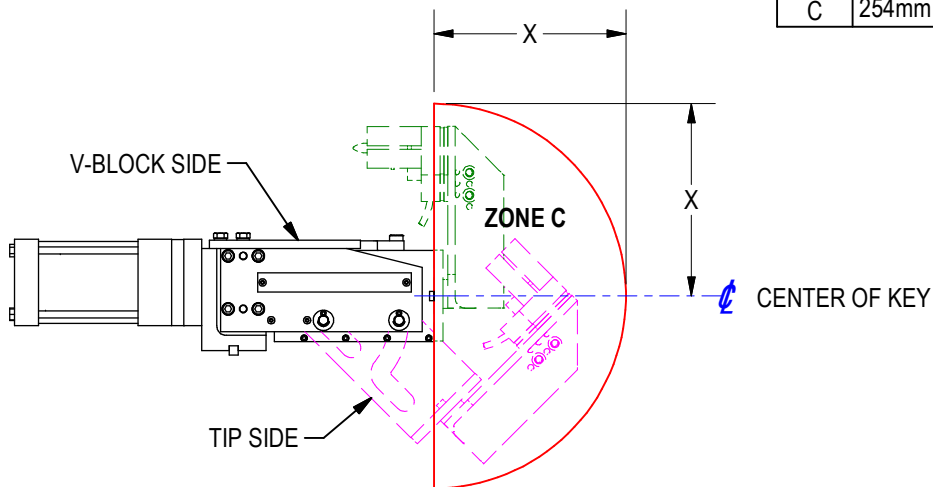
LST/SST PART POSITIONER APPLICATION DATA: 100mm BORE CYLINDER

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

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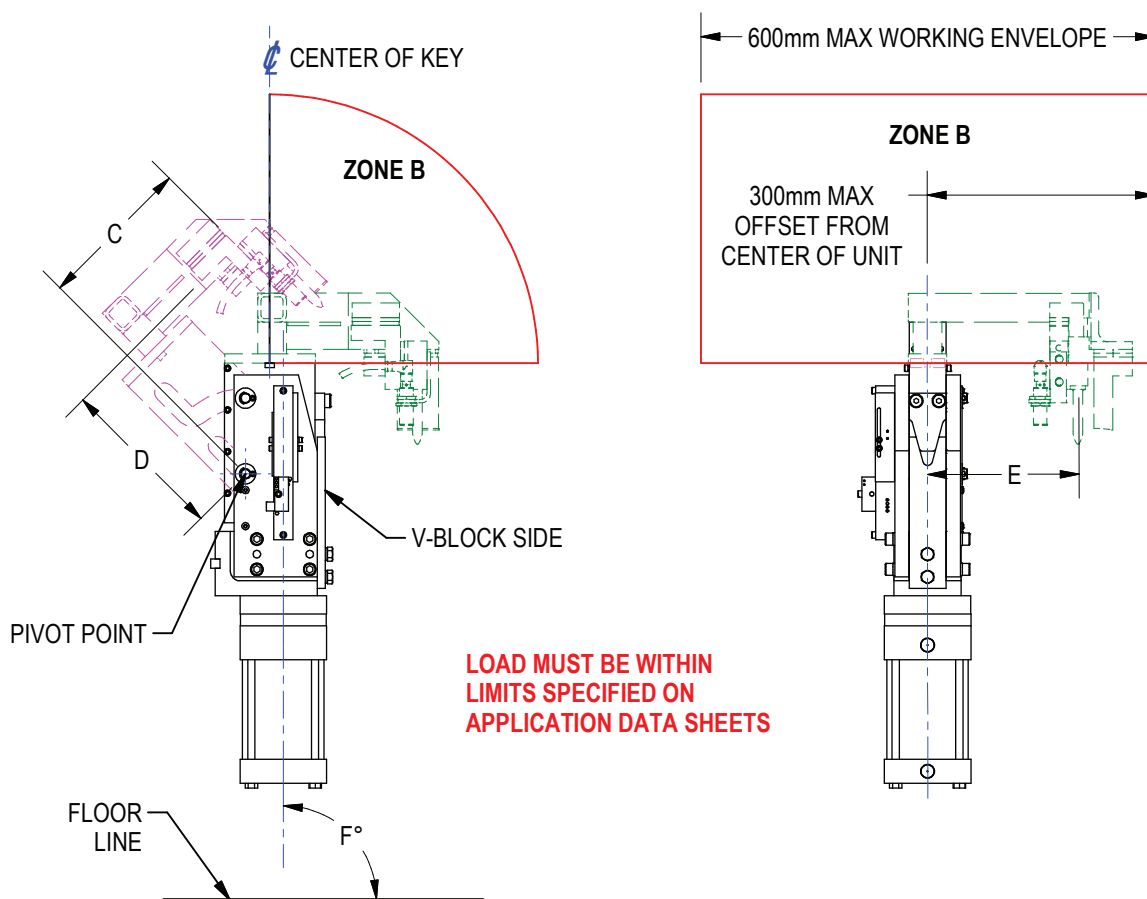
LST/SST PART POSITIONER: REQUIRED CRITERIA FOR APPLICATION APPROVAL

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



WELKER APPROVAL			
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)

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