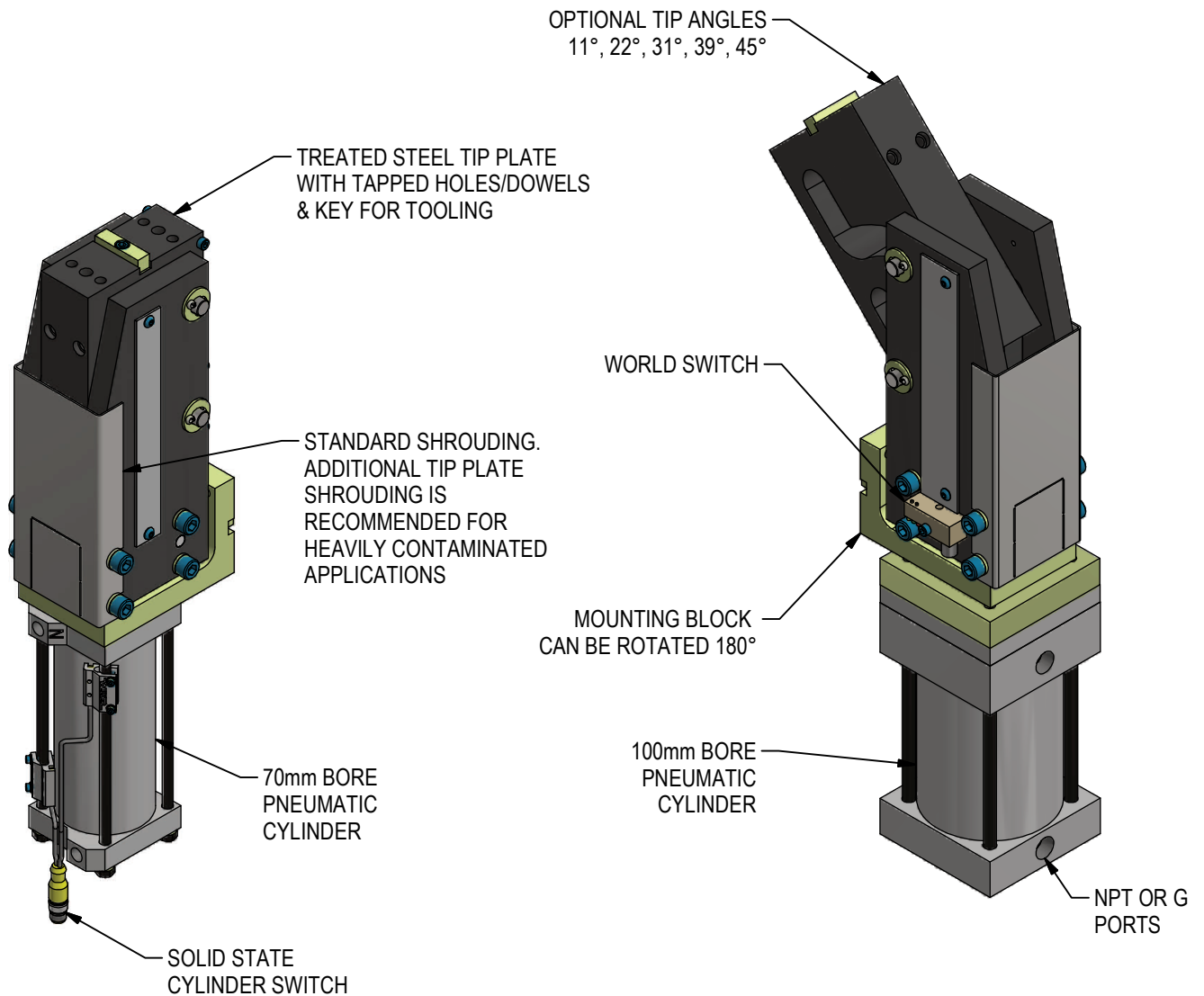


UPE/SPE SERIES PART EJECTOR

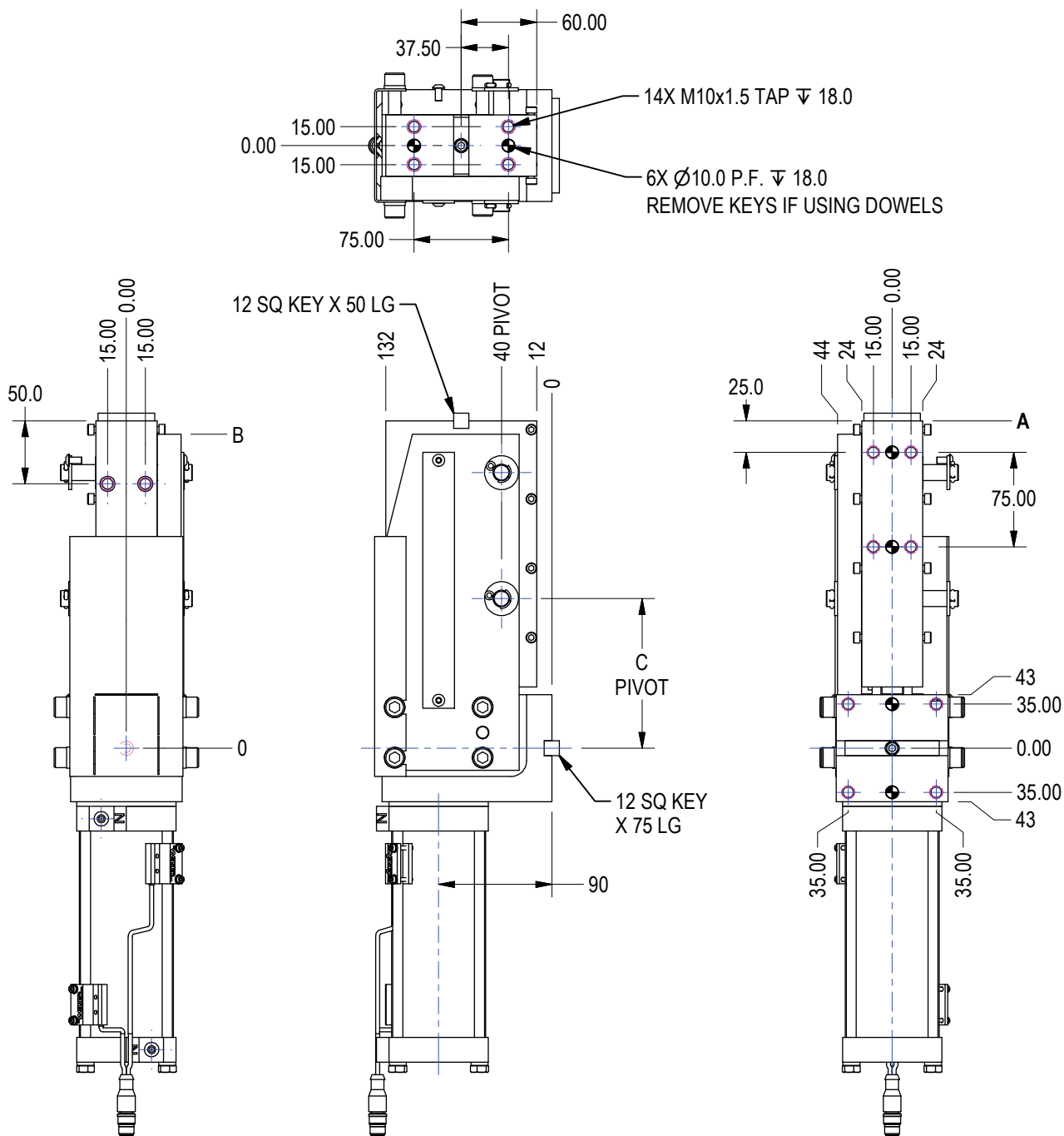
ONE ACTUATOR TO LIFT AND TIP TO EJECT



RELEASED 5/20/20

MINIMUM 2-SECOND CYCLE TIME FOR ONE DIRECTION

DIMENSIONS



SERIES	DIM. A	DIM. B	DIM. C: PIVOT
UPE	260	250	118.7
SPE	206	186	98.7

MINIMUM 2-SECOND CYCLE TIME FOR ONE DIRECTION

NOTE: DIMENSIONS SHOWN FOR REFERENCE ONLY.



WELKER PART EJECTORS
WEB PAGE

(DO NOT SCALE DRAWING)

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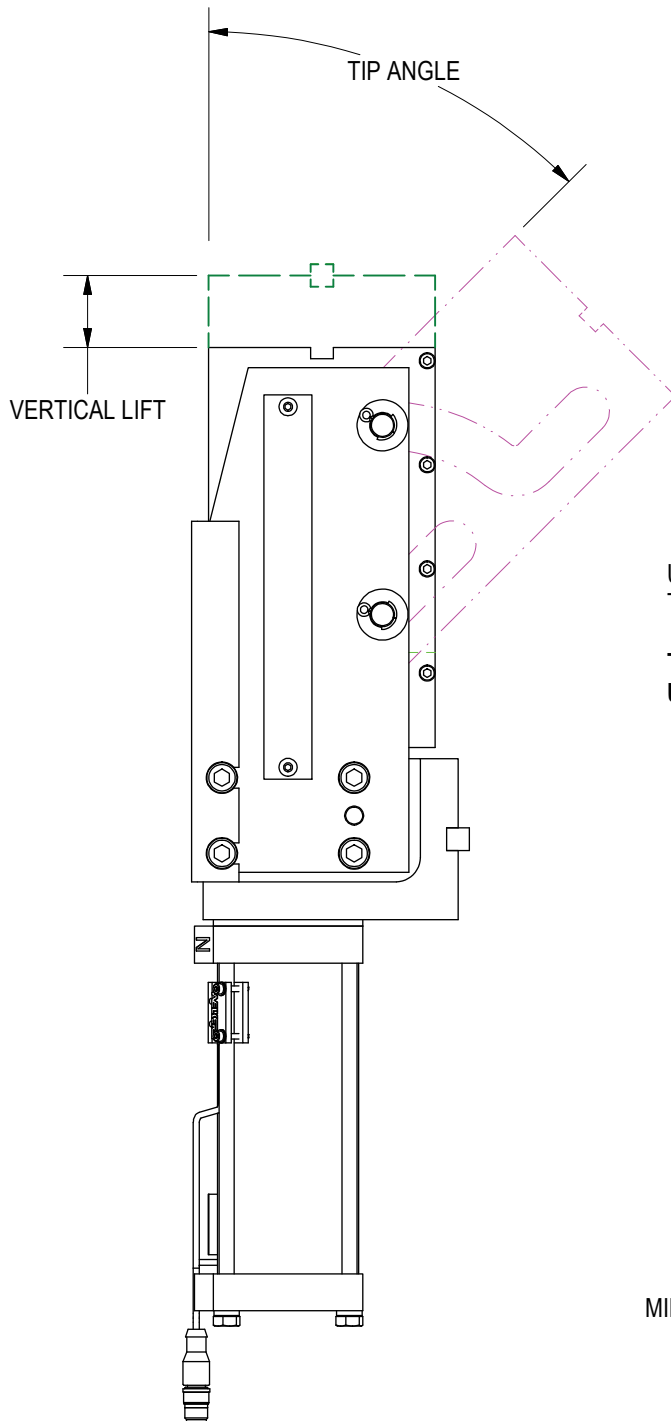
TIP ANGLE INFORMATION

U
P
E
0
4
5
A
0
1
0
A
L
3
1
A
0
0
0

Angle

UPE 11, 22, 31, 39 & 45

SPE 30



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

TIP PLATE CONTINUES TO TRAVERSE UNTIL CYLINDER STROKE IS COMPLETE.

SERIES	VERTICAL LIFT
UPE	38
SPE	24

MINIMUM 2-SECOND CYCLE TIME FOR ONE DIRECTION

(DO NOT SCALE DRAWING)



ENGINEERED PRODUCTS

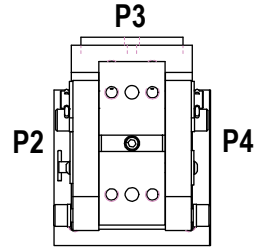
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ACTUATOR INFORMATION

U
P
E
0
4
5
A
0
1
0
A
L
3
1
A
0
0
0

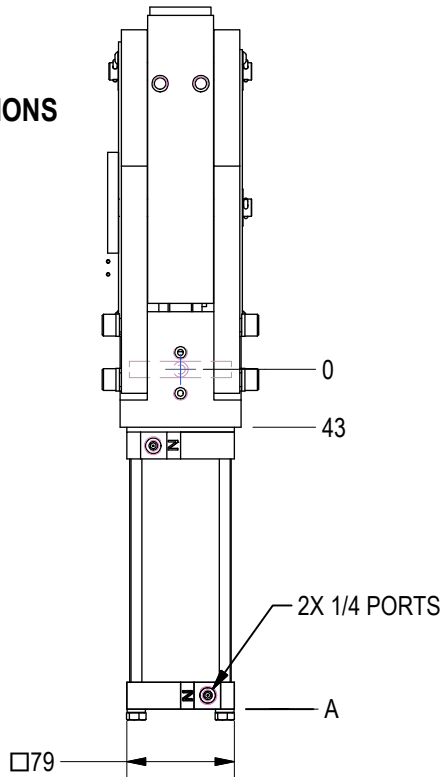
- Actuator**
- 01 Welker 70mm Bore w/ NPT Ports
 - 02 Welker 70mm Bore w/ G Ports
 - 05 Welker 100mm Bore w/ NPT Ports
 - 06 Welker 100mm Bore w/ G Ports

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

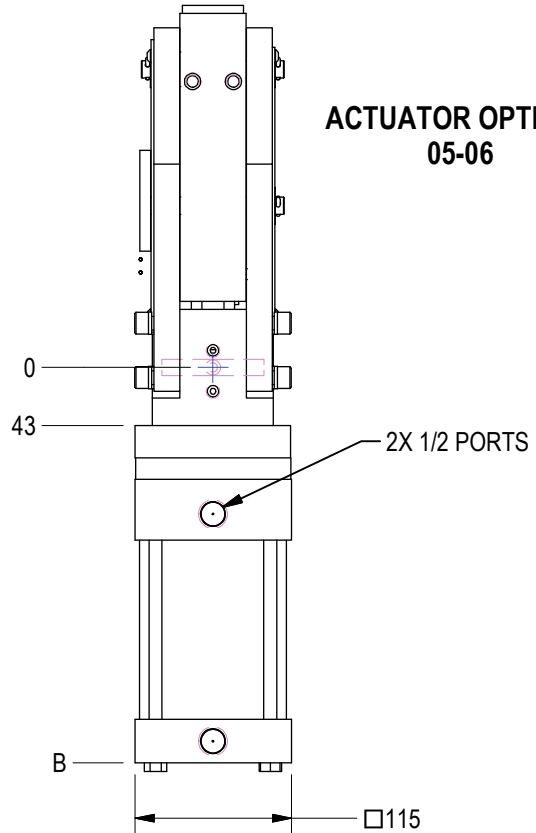


P1
PORTS SHOWN @ "A" POS P1

ACTUATOR OPTIONS
01-02



ACTUATOR OPTIONS
05-06



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

NOTE: DIMENSIONS SHOWN ARE mm

MINIMUM 2-SECOND CYCLE TIME FOR ONE DIRECTION

(DO NOT SCALE DRAWING)

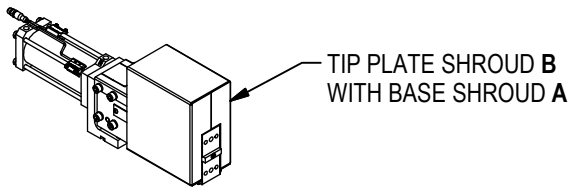
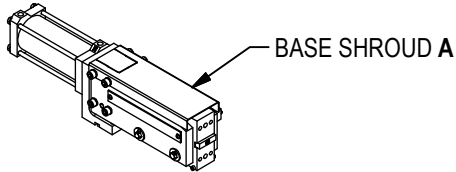
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SHROUD INFORMATION

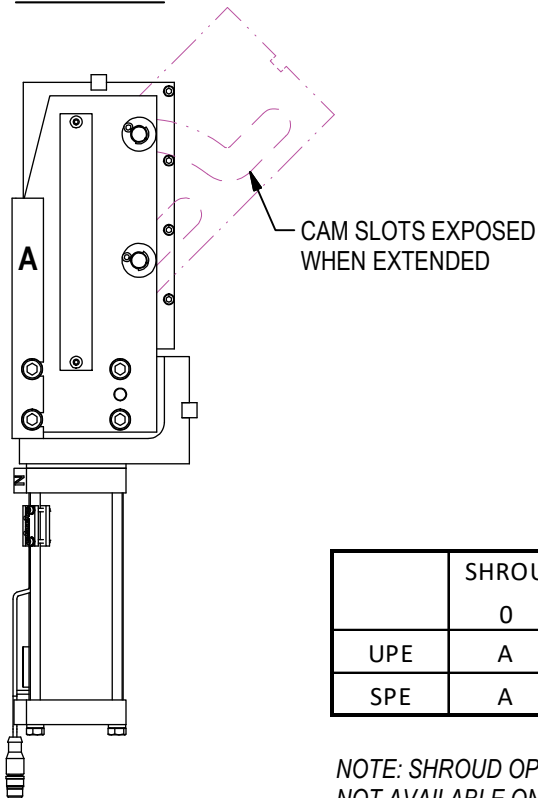
U P E 0 4 5 A 0 1 0 A L 3 1 A 0 0 0

Shroud

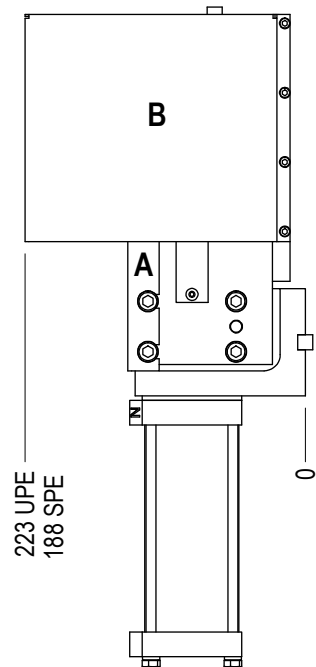
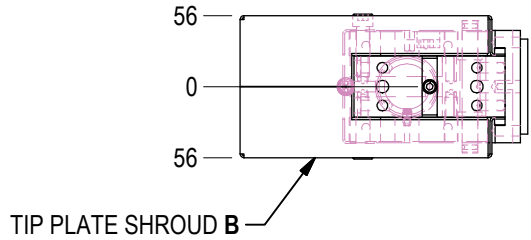
- 0 Base Shroud A
- 1 Tip Plate Shrouds A, B
(Recommended for heavily contaminated environments such as MIG and arc welding)



BASE SHROUD OPTION "0"



TIP PLATE SHROUDS OPTION "1"



	SHROUD OPTION	
	0	1
UPE	A	A, B
SPE	A	A, B

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

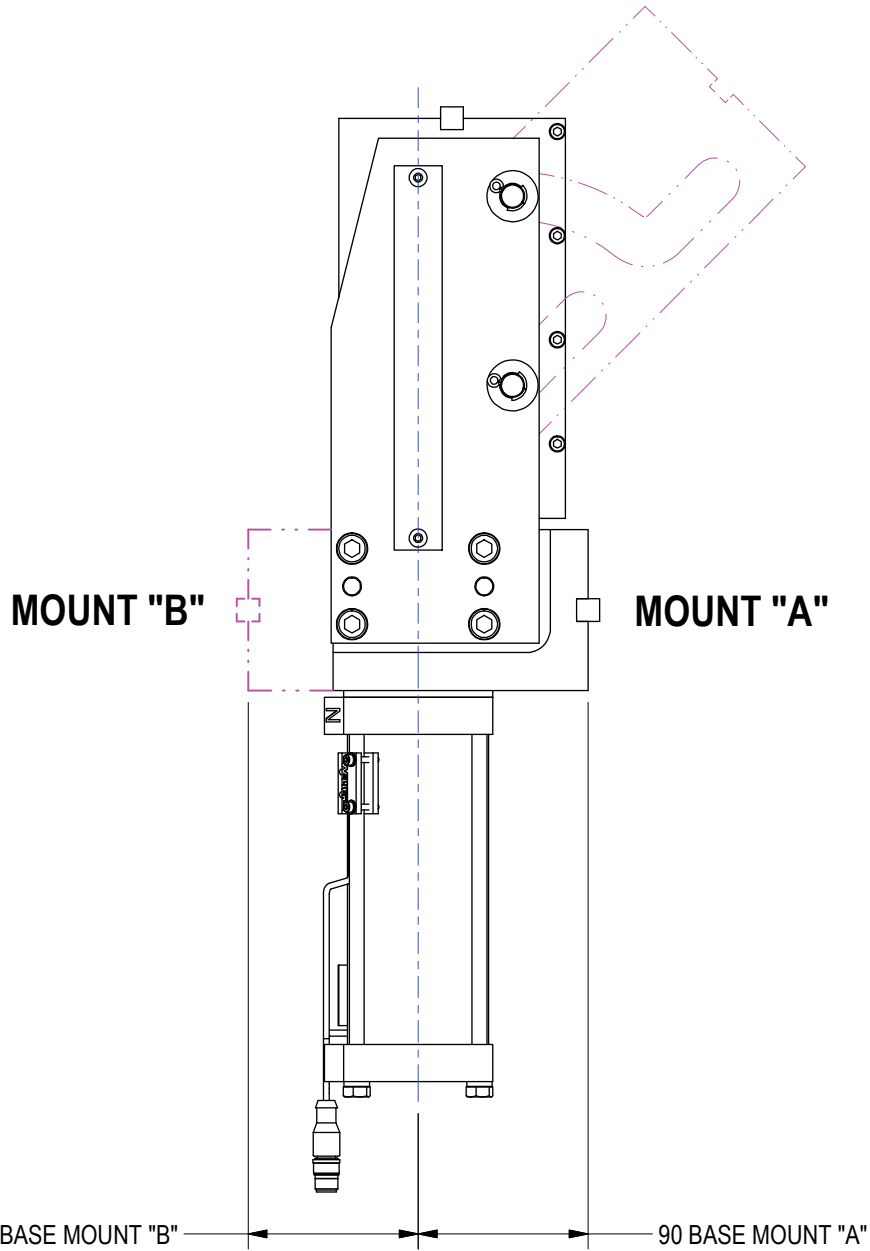
MINIMUM 2-SECOND CYCLE TIME FOR ONE DIRECTION

MOUNT INFORMATION

U P E 0 4 5 A 0 1 0 A L 3 1 A 0 0 0

Mount

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



MINIMUM 2-SECOND CYCLE TIME FOR ONE DIRECTION

(DO NOT SCALE DRAWING)

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WORLD SWITCH INFORMATION

U
P
E
0
4
5
A
0
1
0
A
Z
E
2
A
0
0
0

Switch Options

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

Switch Position

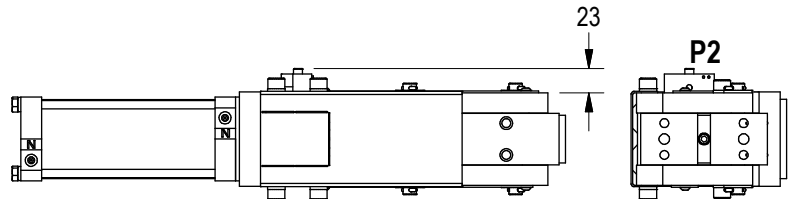
- 2** Switch @ Position 2: **UPE & SPE**
- 4** Switch @ Position 4: **SPE ONLY**

Order Number SO1 EXTEND / SO1 RETRACT		Part Number	Manufacturer	Description All switches Quick Disconnect
UPE World	SE / SR	Ni2-Q6.5-AP6-0.16-FS 4.4X3/S304	Turck	4-Wire, 4-Pin, DC M12 X 1 (PNP)
	TE / TR	Ni2-Q6.5-ADZ32-0.16-FSB 5.4X4/S304	Turck	4-Wire, 5-Pin, AC/DC 1/2-20 (N.O.)
	UE / UR	Ni2-Q6.5-AN6-0.16-FS 4.4X3/S304	Turck	3-Wire, 4-Pin, DC M12 X 1 (NPN)
	VE / VR	NBN2-F581-160S6-E8-V1	Pepperl & Fuchs	4-Wire, 4-Pin, DC M12 X 1 (PNP)
	WE / WR	BES-Z02KR2-PSC20F-P165-S04-V	Balluff	3-Wire, 4-Pin, DC M12 X 1 (PNP)
	YE / YR	IN5375	Efector	3-Wire, 4-Pin, DC M12 X 1 (PNP)
	ZE / ZR	WWS001A	Welker	4-Wire, 4-Pin, DC M12 X 1 (PNP)
SPE World Switches	AE / AR	Ni2-Q6.5-AP6-0.1-FS 4.4X3/S304	Turck	4-Wire, 4-Pin, DC M12 X 1 (PNP)
	BE / BR	Ni2-Q6.5-ADZ32-0.1-FSB 5.4X4/S304	Turck	4-Wire, 5-Pin, AC/DC 1/2-20 (N.O.)
	CE / CR	Ni2-Q6.5-AN6-0.1-FS 4.4X3/S304	Turck	4-Wire, 4-Pin, DC M12 X 1 (NPN)
	DE / DR	NBN2-F581-100S6-E8-V1	Pepperl & Fuchs	4-Wire, 4-Pin, DC M12 X 1 (PNP)
	EE / ER	BES-Z02KR2-PSC20F-P100-S04-V	Balluff	3-Wire, 4-Pin, DC M12 X 1 (PNP)
	HE / HR	Ni2-Q6.5-0.1-BDS-2AP6X3-H1141/S34	Turck	4-Wire, 4-Pin, DC M12 X 1 (PNP)
	JE / JR	IN5374	Efector	3-Wire, 4-Pin, DC M12 X 1 (PNP)
		ZE / ZR	WWS001A	Welker

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

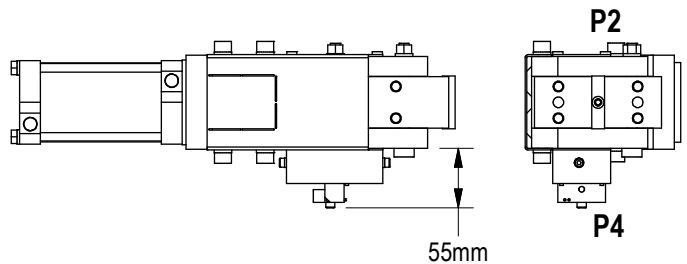
UPE

VIEW SHOWN WITH WORLD SWITCH
WORLD SWITCHES ARE AVAILABLE
ONLY WITH SWITCH POSITION 2



SPE

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



(DO NOT SCALE DRAWING)

MINIMUM 2-SECOND CYCLE TIME FOR ONE DIRECTION

CYLINDER SWITCH INFORMATION

U
P
E
0
4
5
A
0
1
0
A
L
3
1
A
0
0
0

Switch Options

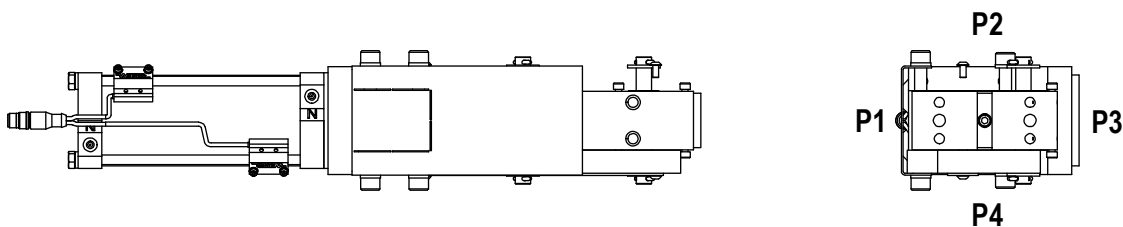
- L3** Solid State Cylinder Switch (see chart below)
- AE** World Switch (see sheet 8)

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 Efector	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

MINIMUM 2-SECOND CYCLE TIME FOR ONE DIRECTION

(DO NOT SCALE DRAWING)

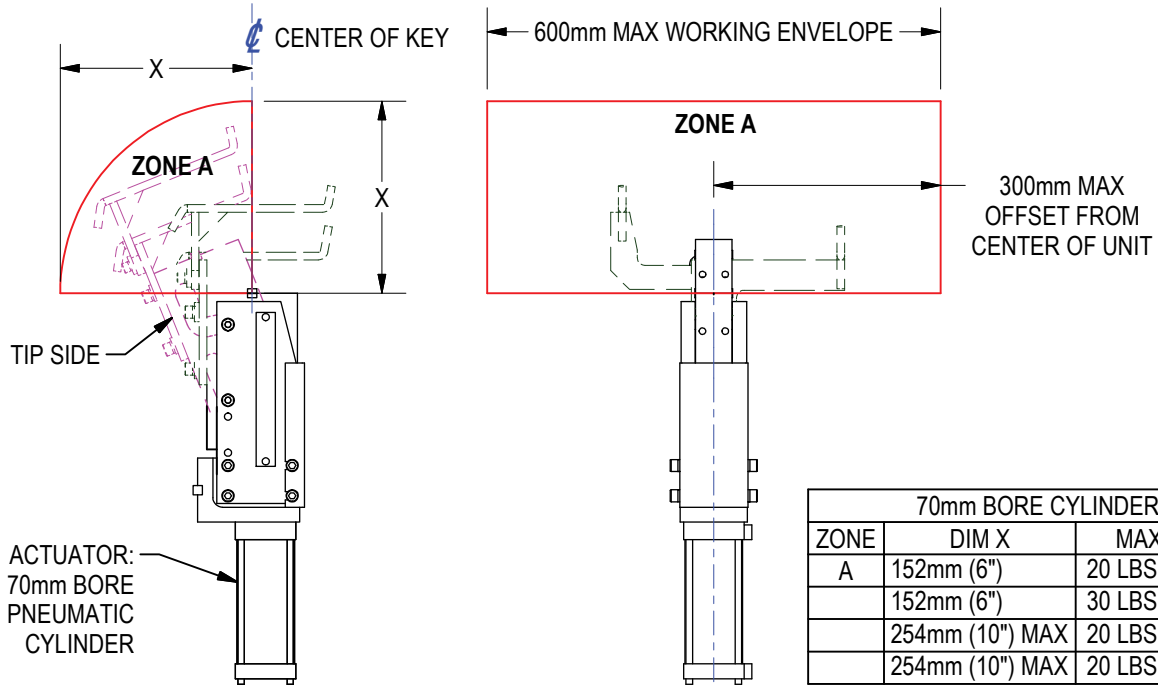
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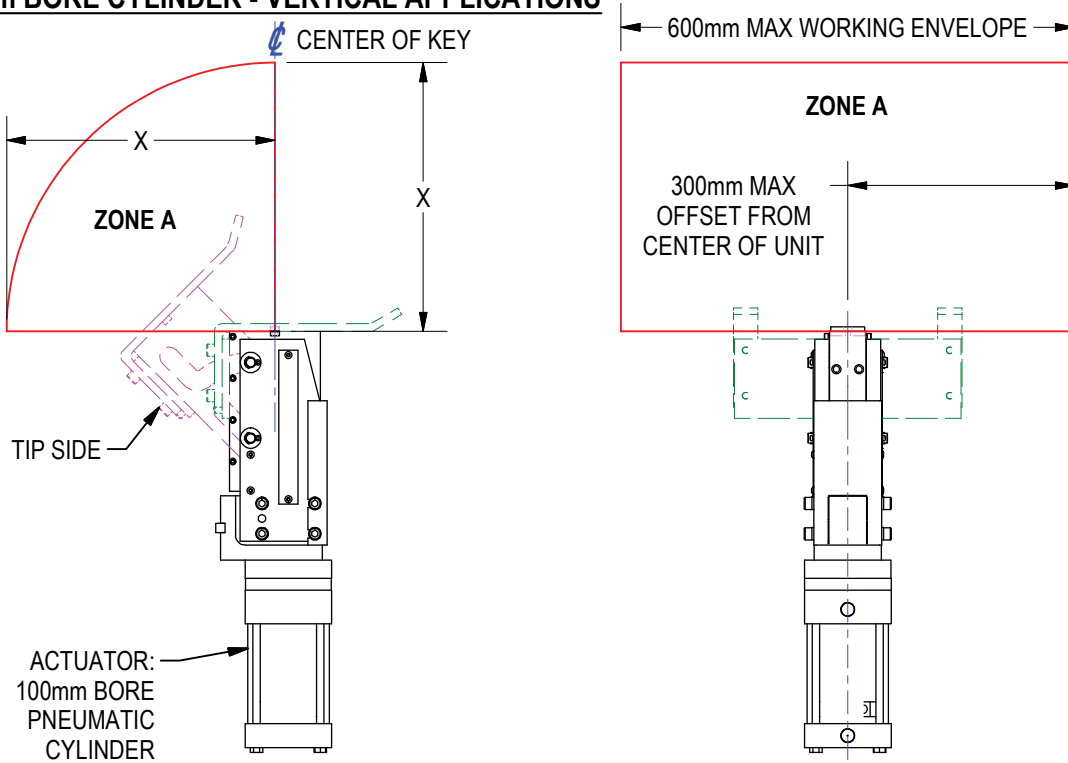
UPE/SPE PART EJECTOR APPLICATION DATA

70mm BORE CYLINDER - VERTICAL APPLICATIONS

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



100mm BORE CYLINDER - VERTICAL APPLICATIONS



100mm BORE CYLINDER		
ZONE	DIM X	MAX LOAD
A	355mm (14") MAX	30 LBS @ 60 PSI
	355mm (14") MAX	40 LBS @ 80 PSI

MINIMUM 2-SECOND CYCLE
TIME FOR ONE DIRECTION

SHEET 10

(DO NOT SCALE DRAWING)

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PART EJECTOR APPLICATION DATA: HORIZONTAL MOUNT, HORIZONTAL MOVEMENT

U P E 0 4 5 A 0 1 0 A L 3 1 A 0 **B** 0

NOT AVAILABLE WITH SPE EJECTOR

Part Ejectors for horizontal mount, horizontal movement applications must be ordered with Side Load Bearing Plates

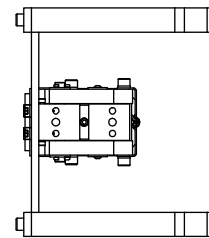
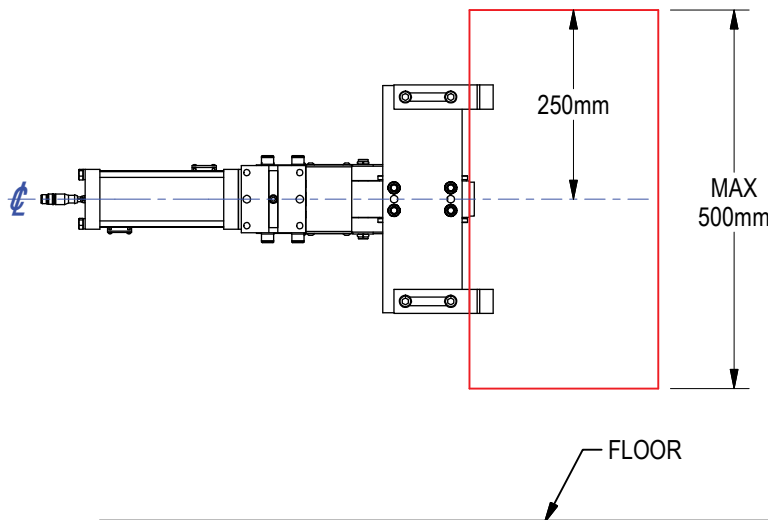
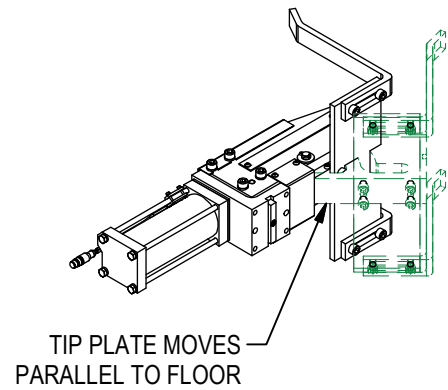
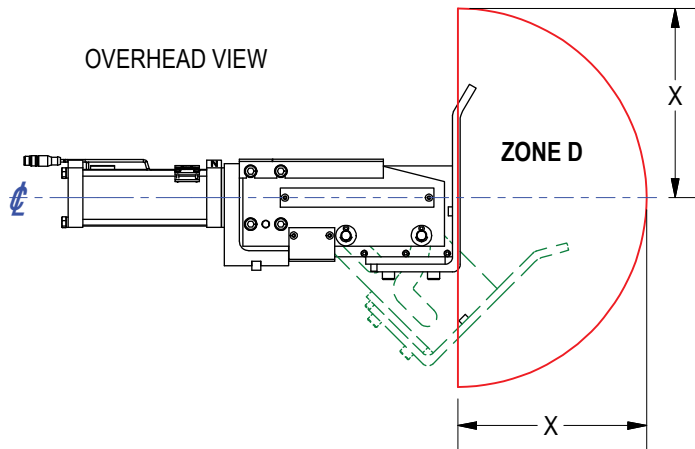
Side Load Bearings

- 0 None
- B Side Load Bearing Plates

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

70mm BORE CYLINDER		
ZONE	DIM X	MAX LOAD
UPE ZONE D	254mm (10")	20 lbs @ 60 PSI

100mm BORE CYLINDER		
ZONE	DIM X	MAX LOAD
UPE ZONE D	355mm (14")	30 lbs @ 60 PSI



MINIMUM 2-SECOND CYCLE TIME FOR ONE DIRECTION

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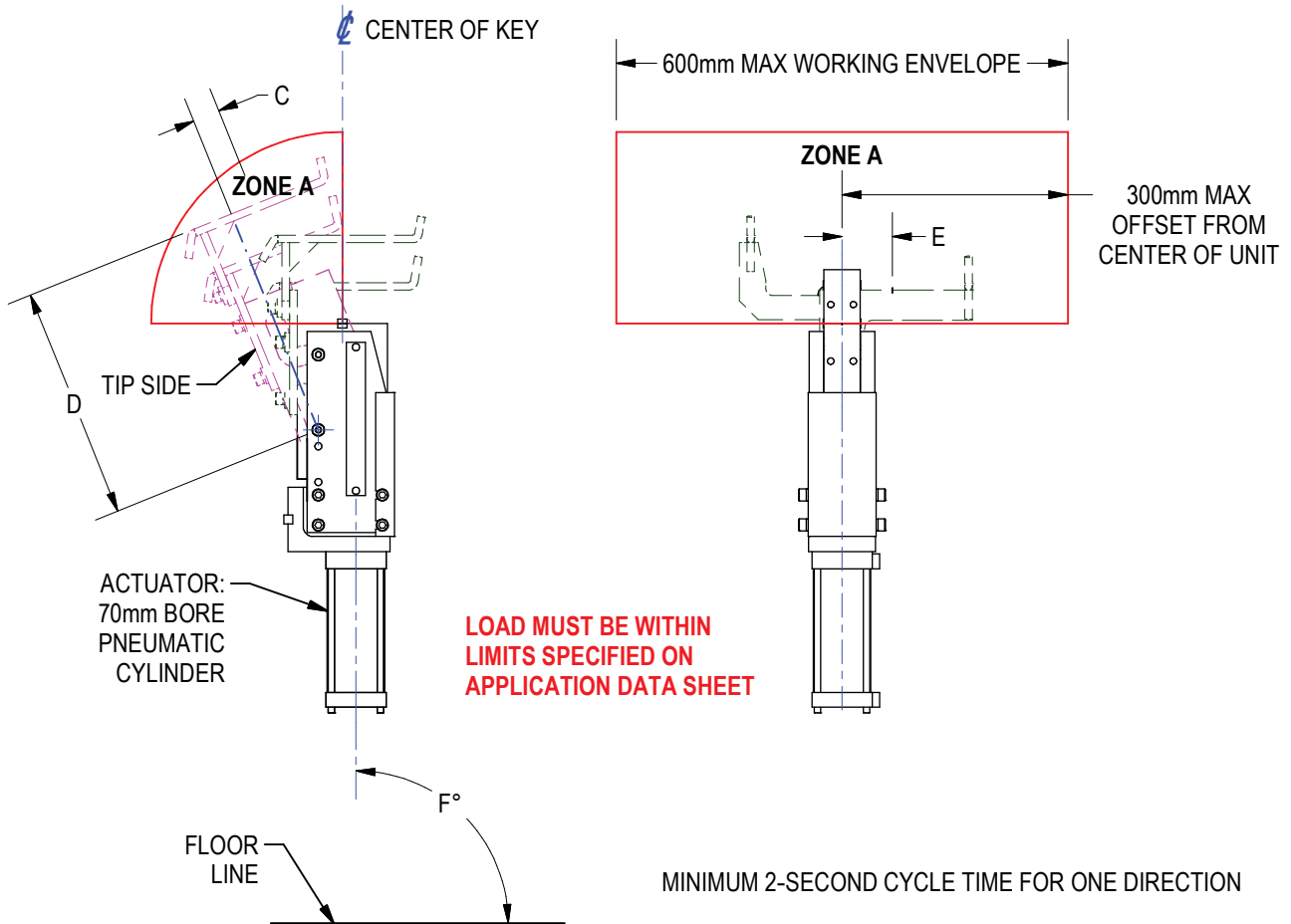
UPE/SPE PART EJECTOR: REQUIRED CRITERIA FOR APPLICATION APPROVAL

APPLICATION DATA MUST BE SUBMITTED FOR WELKER APPROVAL WITH THE FOLLOWING CRITERIA FOR ALL PART EJECTOR 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	
E	DISTANCE FROM CENTER OF UNIT 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

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