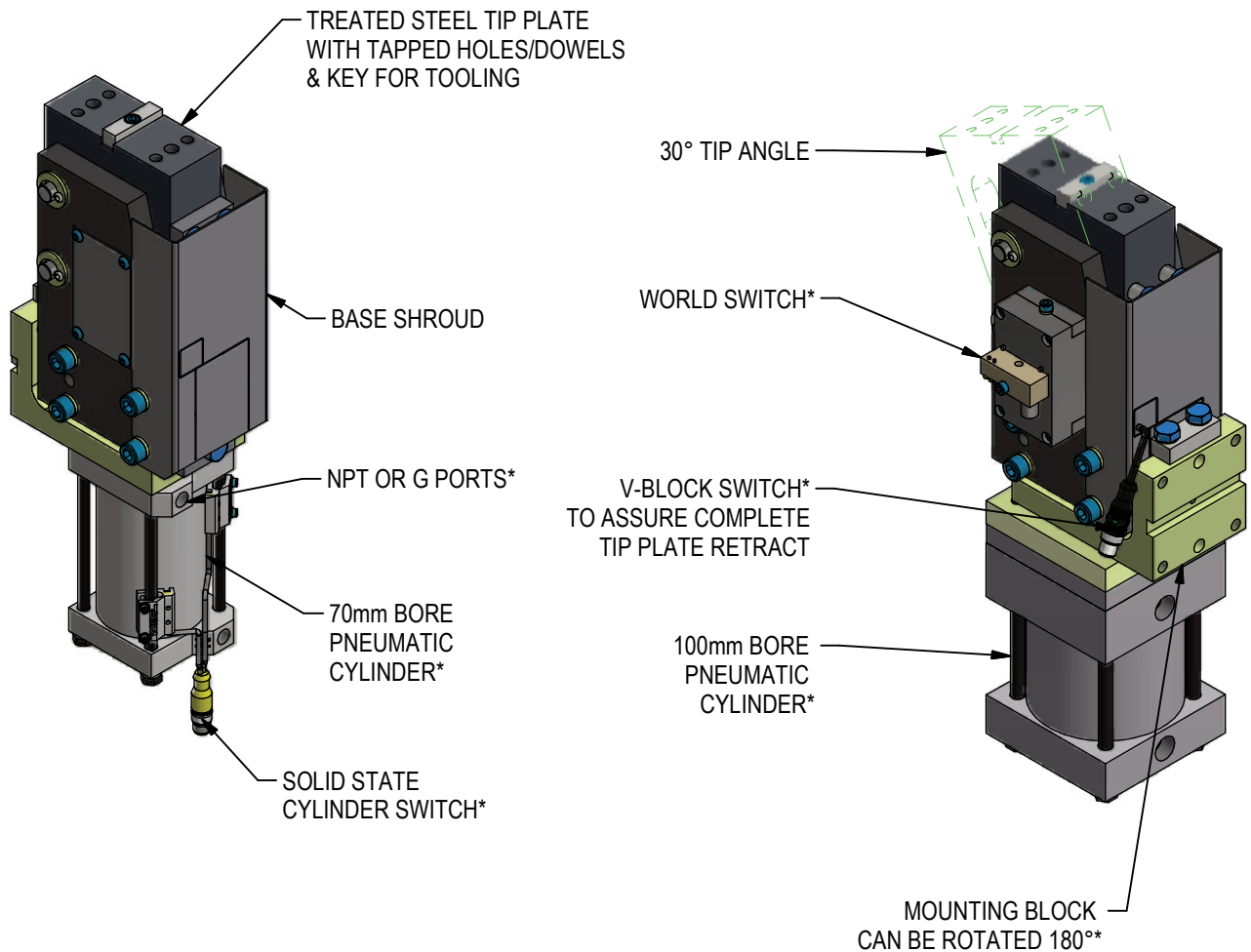


SST SERIES PART POSITIONER

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



*OPTIONAL

PART POSITIONER CONFORMS
TO INDUSTRY STANDARD
REPEATABILITY TOLERANCES
FOR GEOMETRY STATIONS

MINIMUM 2-SECOND CYCLE TIME FOR ONE DIRECTION

RELEASED 3/1/19

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.

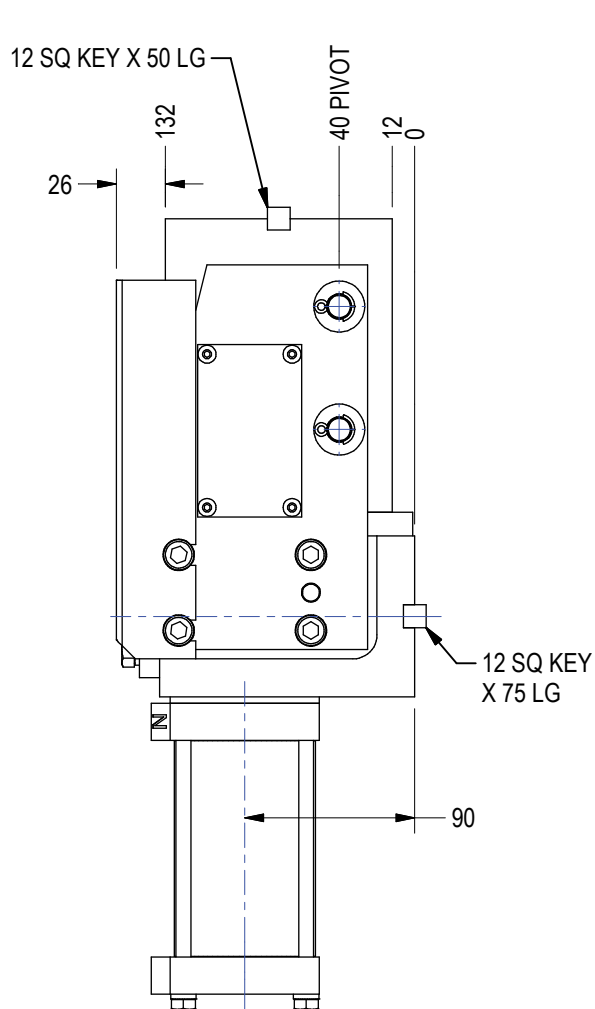
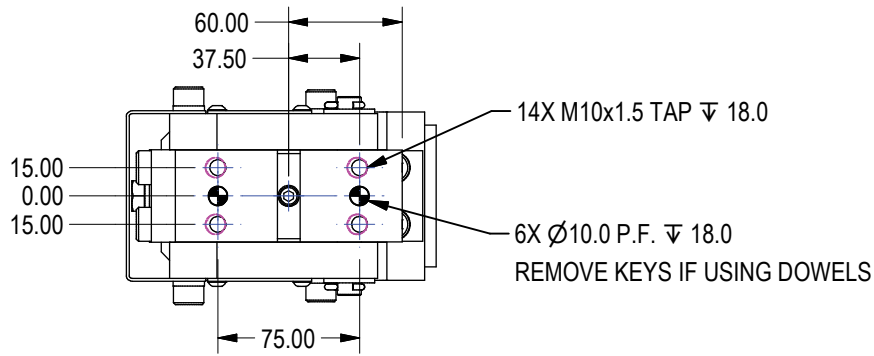
MINIMUM 2-SECOND CYCLE TIME FOR ONE DIRECTION

(DO NOT SCALE DRAWING)

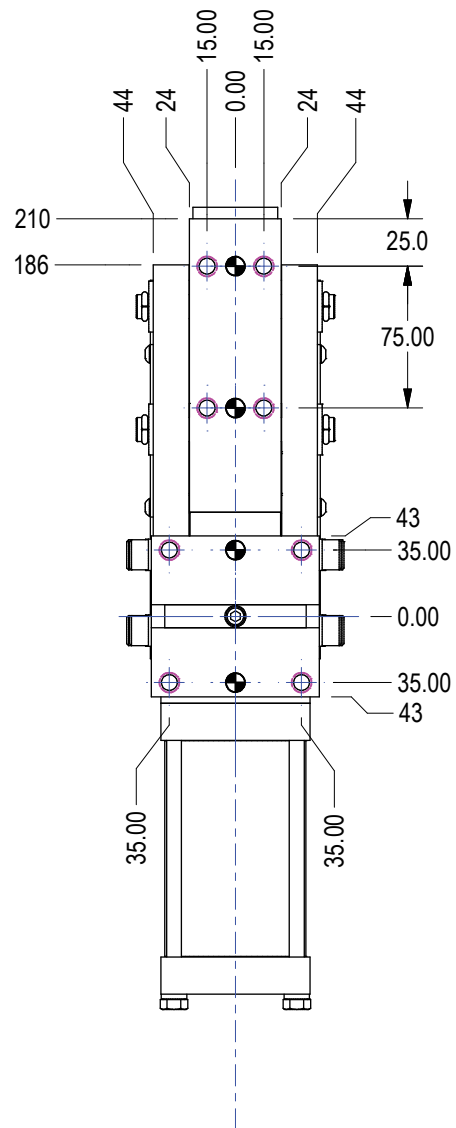
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DIMENSIONS



UNIT SHOWN RETRACTED



MINIMUM 2-SECOND CYCLE TIME FOR ONE DIRECTION



WELKER PART POSITIONER
WEB PAGE

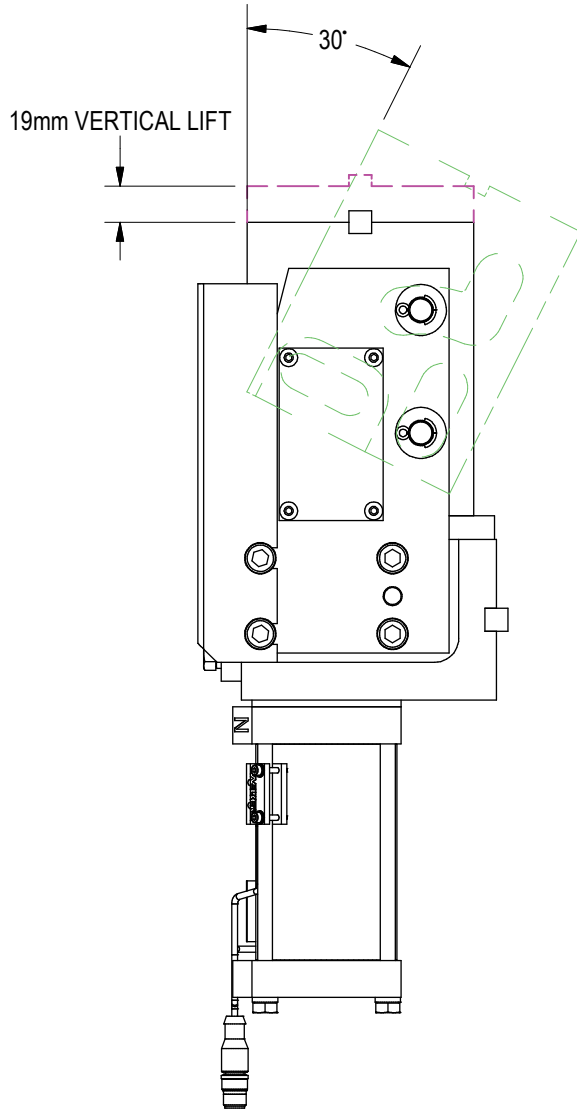
(DO NOT SCALE DRAWING)

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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°

MINIMUM 2-SECOND CYCLE TIME FOR ONE DIRECTION

(DO NOT SCALE DRAWING)

ACTUATOR INFORMATION

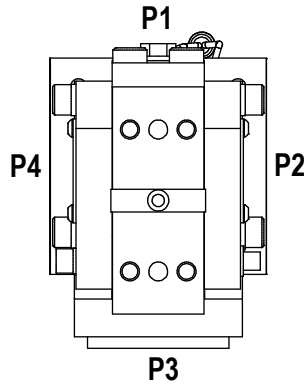
S
S
T
0
3
0
A
0
1
0
A
L
3
1
A
0
0
0

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

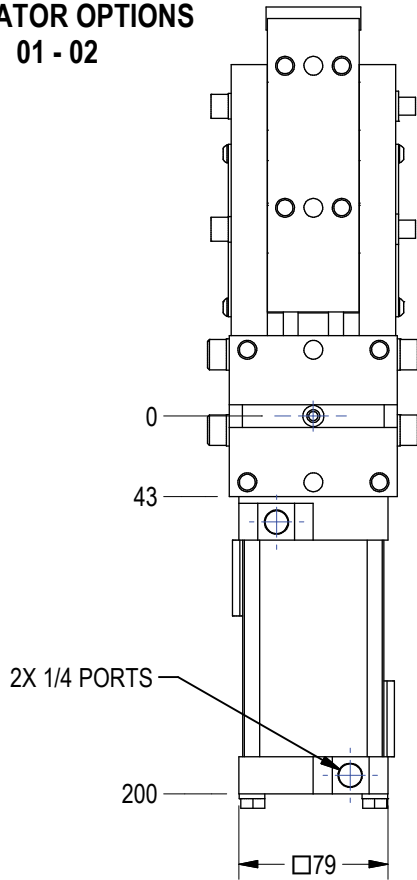
Port Position

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

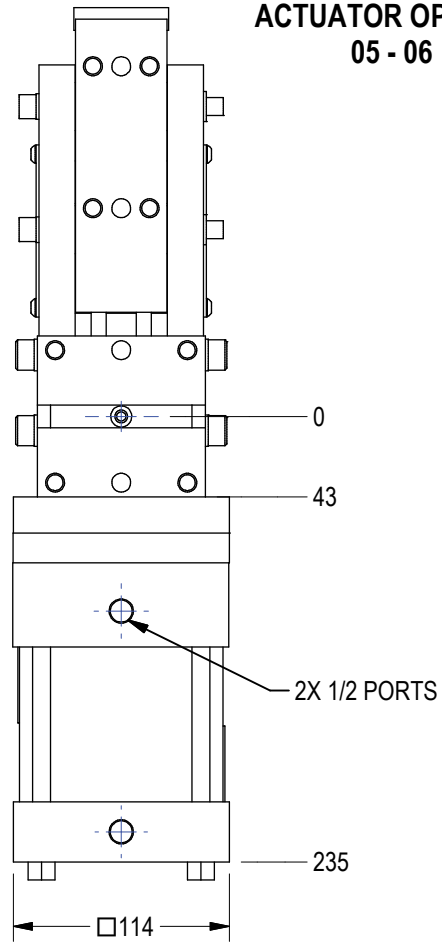


PORTS SHOWN AT
"C" POSITION P3

**ACTUATOR OPTIONS
01 - 02**



**ACTUATOR OPTIONS
05 - 06**



| TIP ANGLE | CYLINDER STROKE |
|-----------|-----------------|
| 30° | 50 |

NOTE: DIMENSIONS SHOWN ARE mm

MINIMUM 2-SECOND CYCLE
TIME FOR ONE DIRECTION

(DO NOT SCALE DRAWING)

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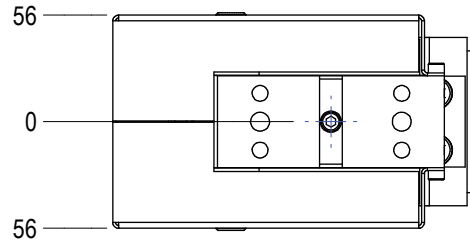
SHROUD INFORMATION

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

Shroud

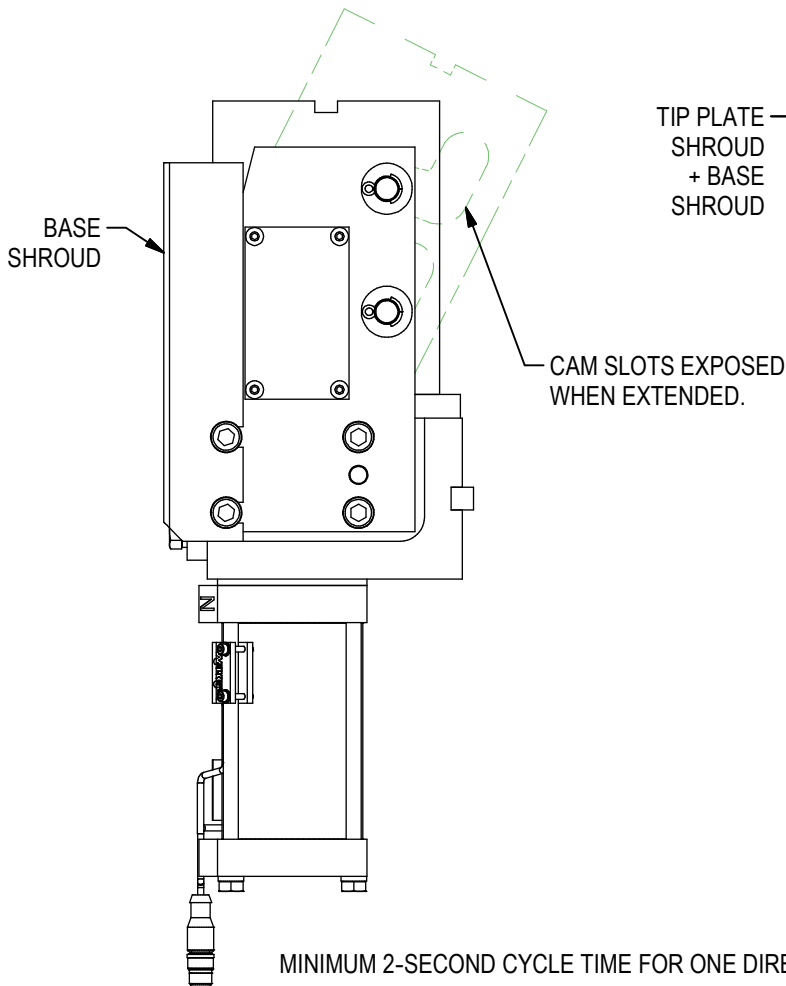
- 0 Base Shroud
- 1 Tip Plate Shrouds
(Recommended for heavily contaminated environments such as MIG and arc welding)

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

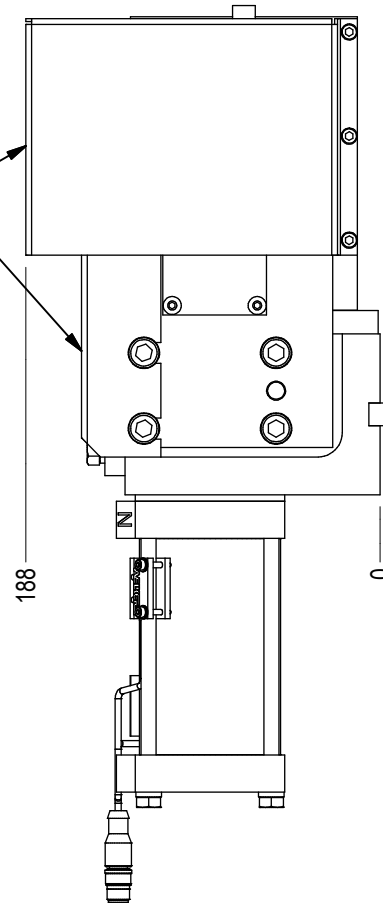


TIP PLATE SHROUDS OPTION "1"

BASE SHROUD OPTION "0"



TIP PLATE SHROUD + BASE SHROUD



(DO NOT SCALE DRAWING)



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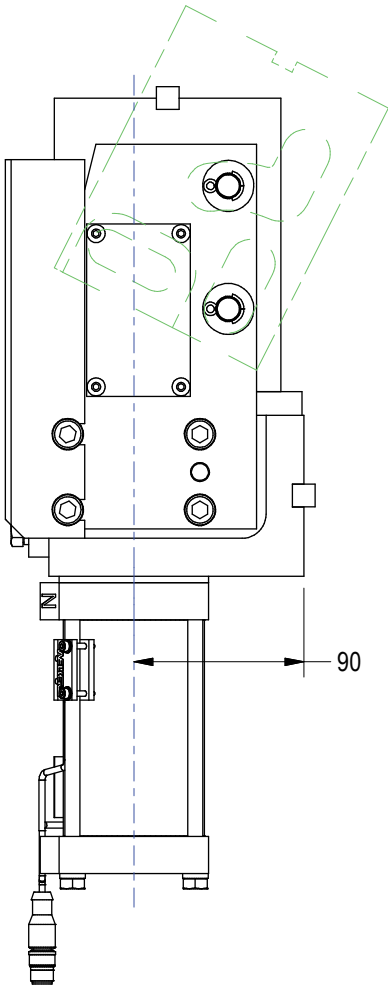
MINIMUM 2-SECOND CYCLE TIME FOR ONE DIRECTION

MOUNT INFORMATION

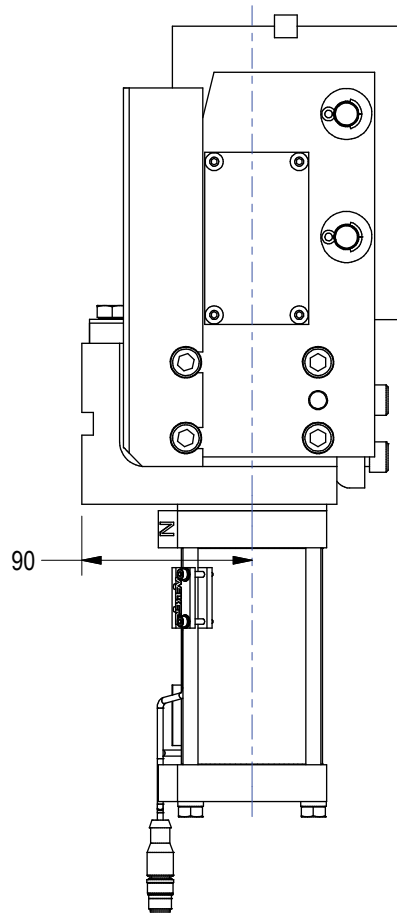
S S T 0 3 0 A 0 1 0 A L 3 1 A 0 0 0

Mount

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



MOUNT "A"



MOUNT "B"

MINIMUM 2-SECOND CYCLE TIME FOR ONE DIRECTION

(DO NOT SCALE DRAWING)

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WORLD SWITCH INFORMATION

S
S
T
0
3
0
A
0
1
0
A
L3
2
A
0
0
0

Switch Options _____

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

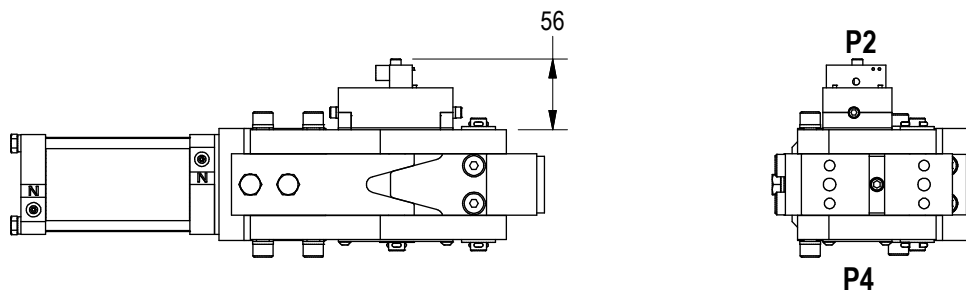
Switch Position _____

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

WORLD SWITCH CHART

| | Order Number SO1 EXTEND / SO1 RETRACT | Part Number | Manufacturer | Description All switches Quick Disconnect |
|-------------------------------------|---|-----------------------------------|-----------------|--|
| SST 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 | 3-Wire, 4-Pin, DC M12 X 1 (PNP) |
| | JE / JR | IN5374 | Efector | 3-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

MINIMUM 2-SECOND CYCLE TIME FOR ONE DIRECTION

(DO NOT SCALE DRAWING)

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CYLINDER SWITCH INFORMATION

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

Switch Options

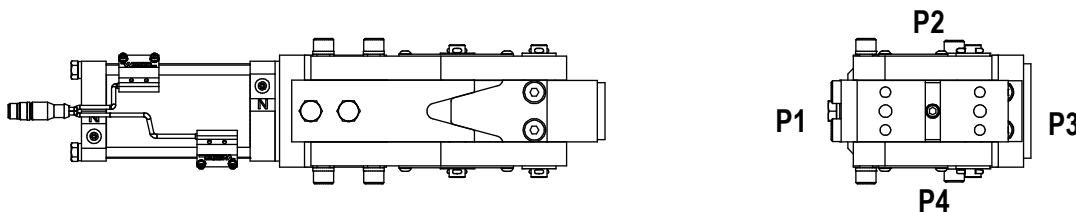
- L3** Solid State Cylinder Switch (see chart below)
- AE** World Switch (see sheet 8)

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 |
|--------------------------|-------------|--|--|
| Cylinder Switches | L3 | SWITCH L3 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 |
| | L5 | MK5113 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 m ay 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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V-BLOCK SWITCH INFORMATION

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

Mount

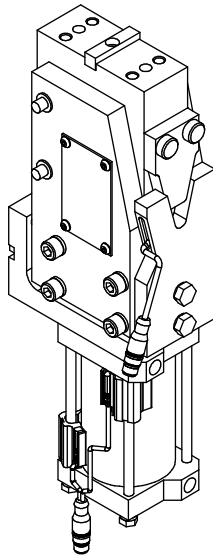
- A** Base Mount @ 0
- B** Base Mount @ 180

V-Block Switch Options

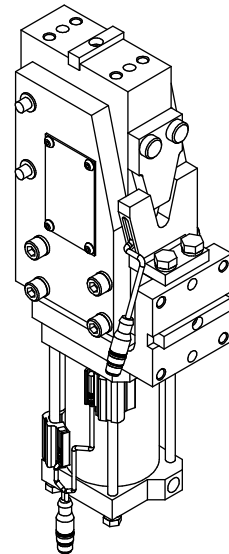
- 0** No V-Block Switch
- S** V-Block Switch

NOTE: BASE SHROUD NOT SHOWN FOR CLARITY

V-BLOCK SWITCH MOUNT "A"



V-BLOCK SWITCH MOUNT "B"



V-BLOCK SWITCH FEATURES:

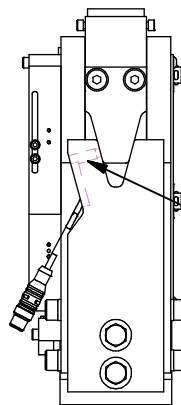
4 LEDs: (2) GREEN, POWER ON, (2) YELLOW, OUTPUT

ANTI-VIBRATION DETENT

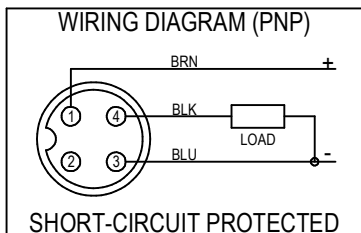
EUROFAST M12X1 MALE 4 PIN

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



MINIMUM 2-SECOND CYCLE TIME FOR ONE DIRECTION

SHEET 10

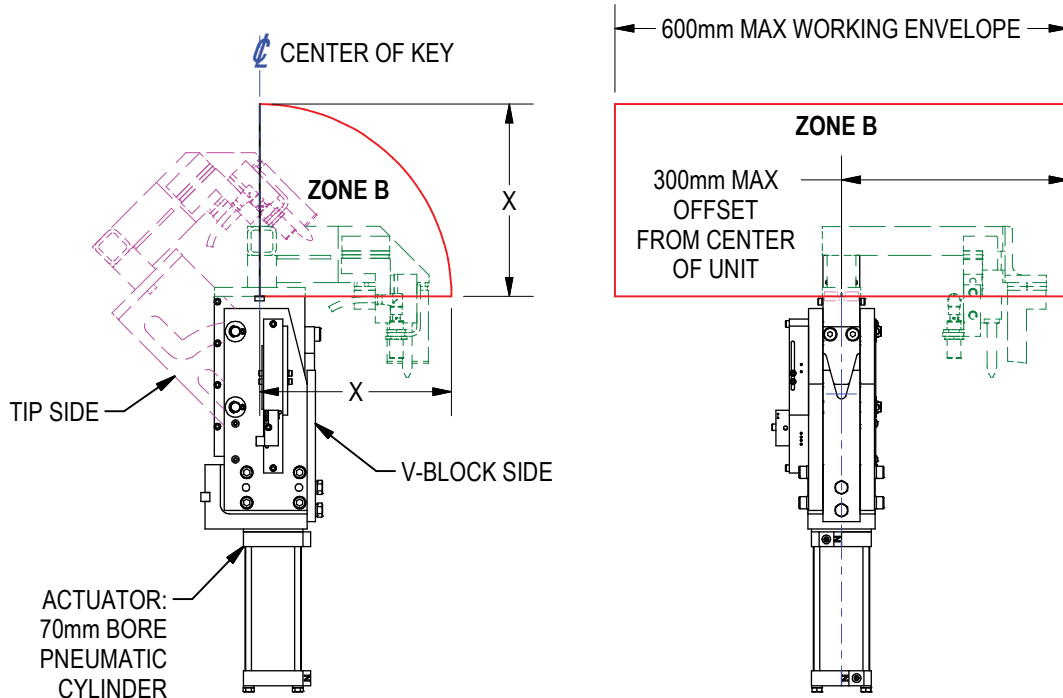
(DO NOT SCALE DRAWING)

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SST PART POSITIONER APPLICATION DATA: 70mm BORE CYLINDER

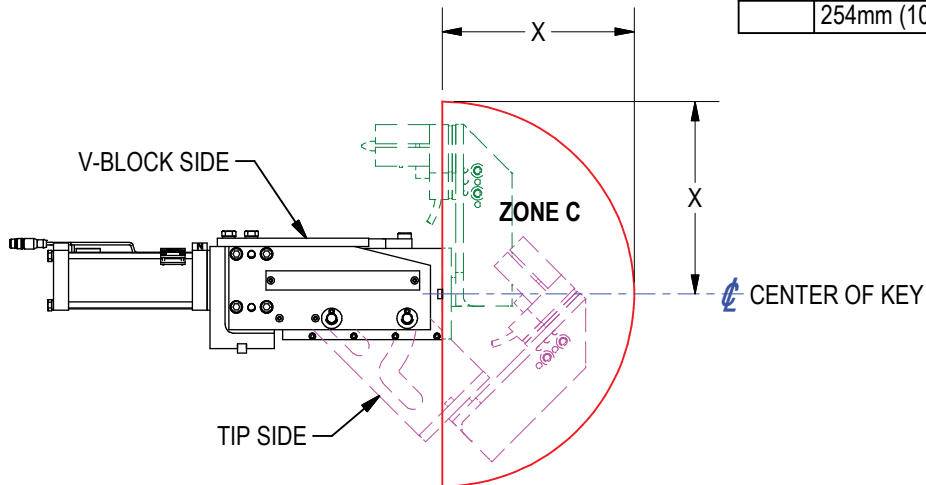
VERTICAL APPLICATIONS

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



| 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 |

HORIZONTAL APPLICATIONS



MINIMUM 2-SECOND CYCLE TIME FOR ONE DIRECTION

(DO NOT SCALE DRAWING)



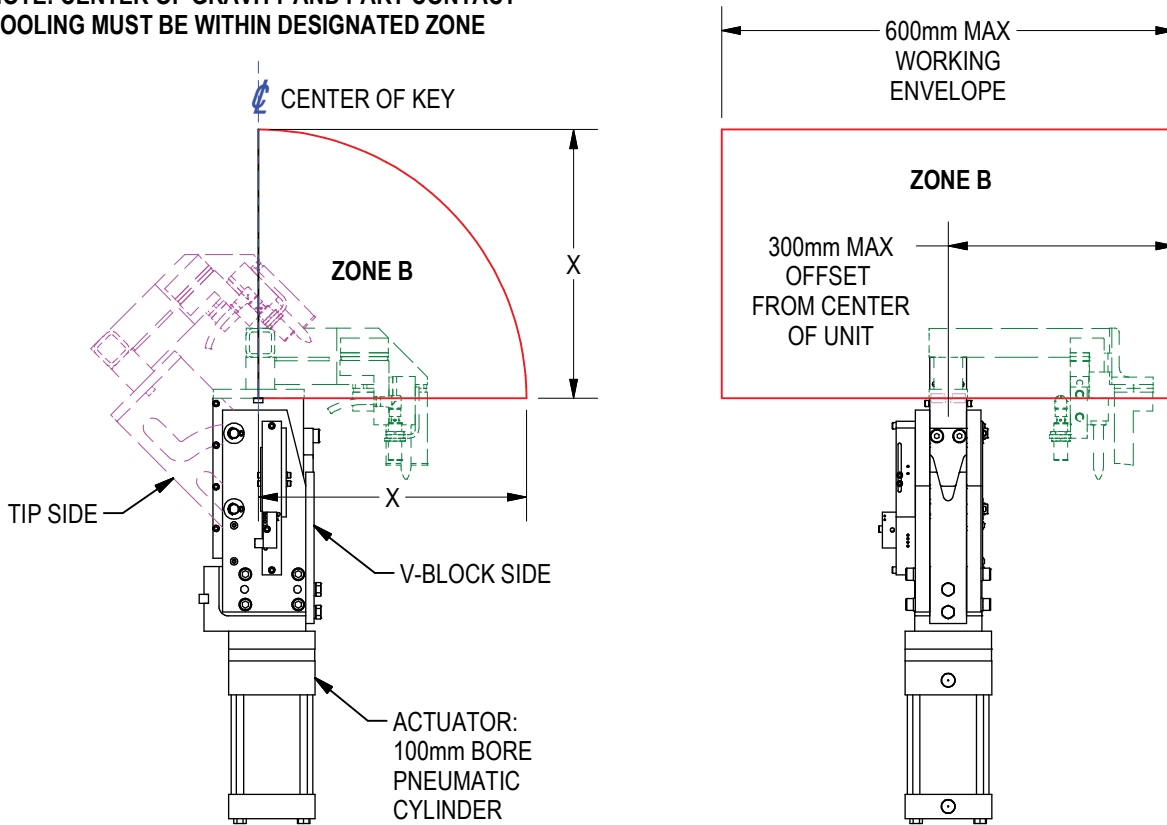
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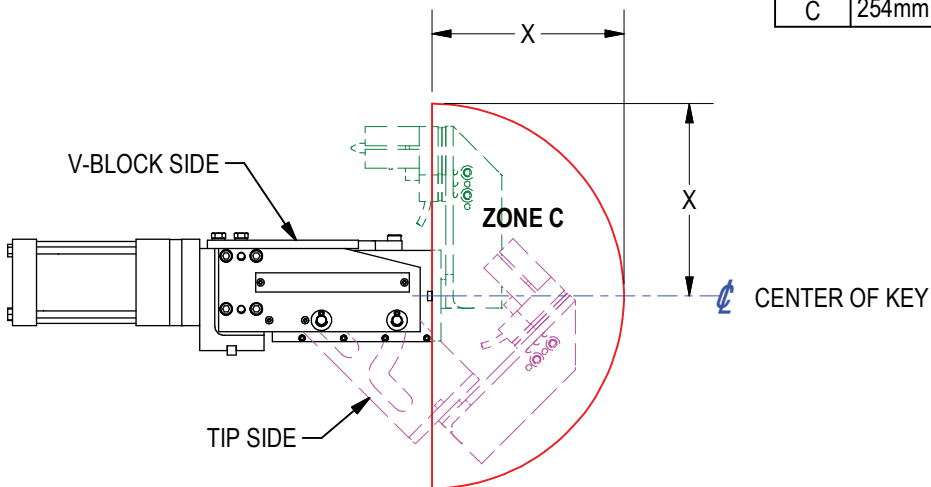
SST PART POSITIONER APPLICATION DATA: 100mm BORE CYLINDER

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 |

MINIMUM 2-SECOND CYCLE TIME FOR ONE DIRECTION

(DO NOT SCALE DRAWING)



ENGINEERED PRODUCTS

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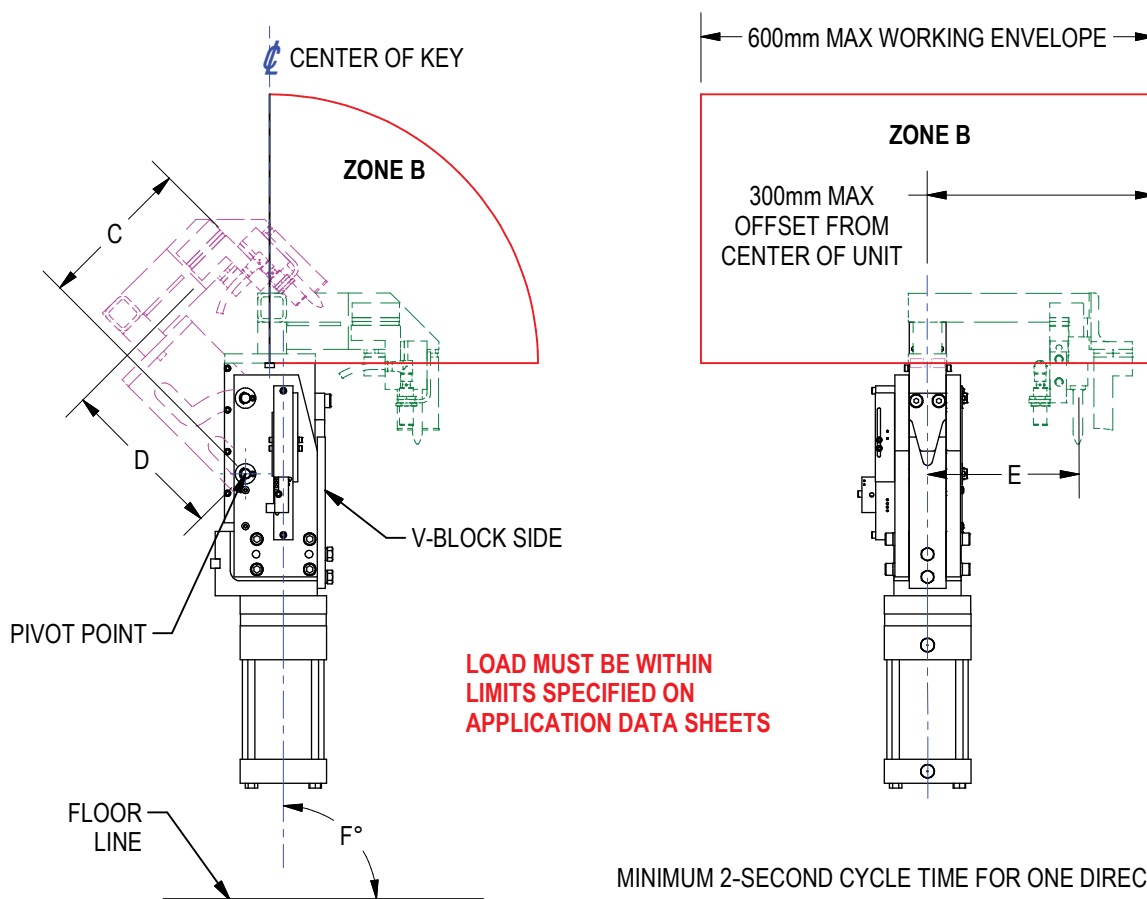
SST PART POSITIONER: REQUIRED CRITERIA FOR APPLICATION APPROVAL

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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