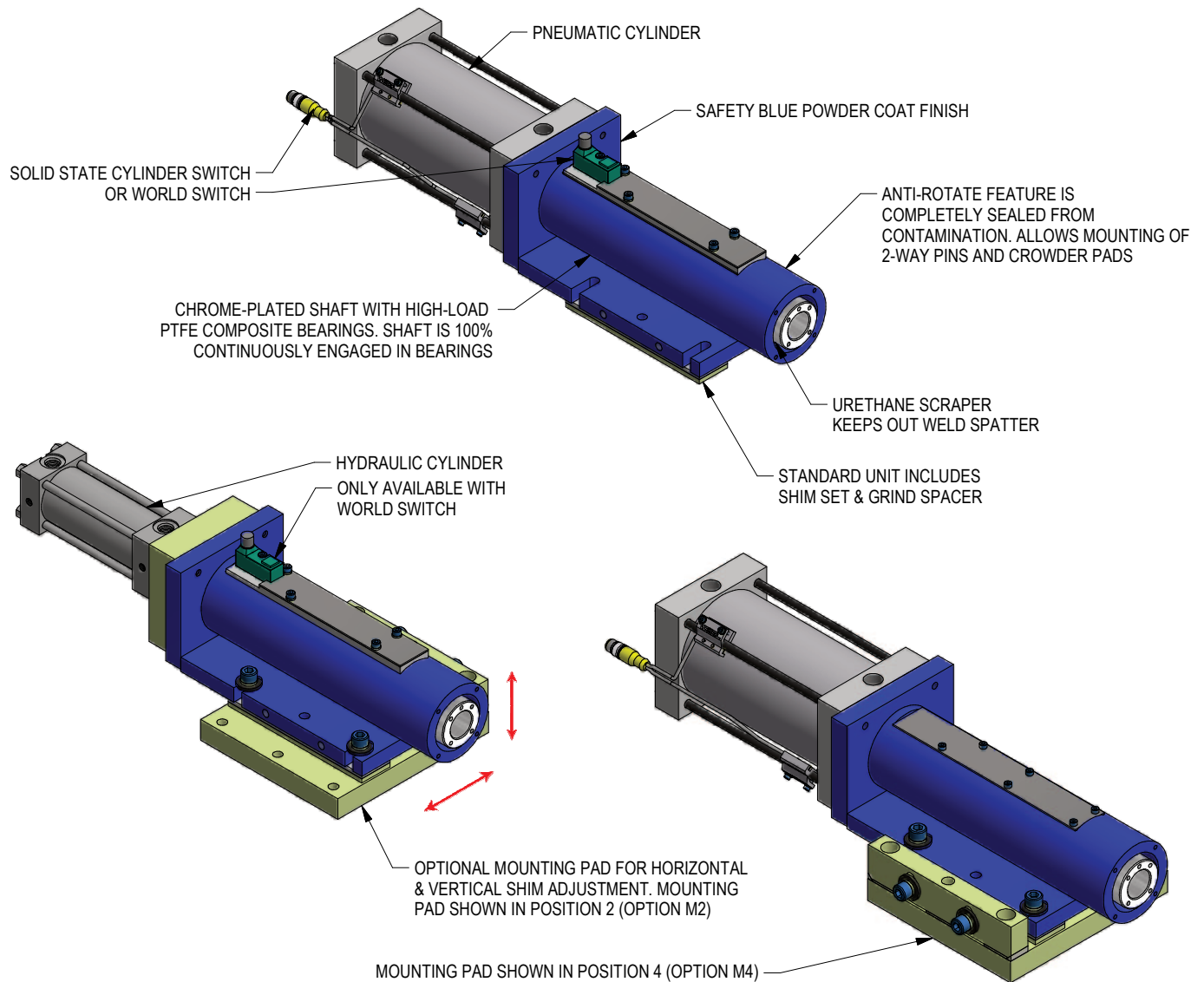


HP5 BULL PIN

FOR FRAME LINE APPLICATIONS

754 LBF RETRACT FORCE @ 60 PSI

RETRACTING LOCATING PIN WITH A 2KG SLIDE HAMMER PISTON. RAP ACTION* PROVIDES CONCENTRATED PULLING POWER. A GREATER THAN FOUR TIMES SHAFT DIAMETER TO BEARING LENGTH RATIO IS ALWAYS FULLY ENGAGED, OFFERING LONG PRECISION LIFE. NO MAINTENANCE OR GREASING REQUIRED.
(*RAP ACTION ON PNEUMATIC UNIT ONLY)



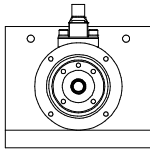
RELEASED 2/2/17

APPLICATION GUIDE

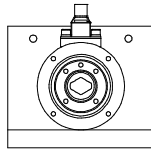
HP5 Bull Pins are made for inline balanced loads. There is an anti-rotate feature but it is for orientation only - not for offset loads.

GOOD APPLICATIONS

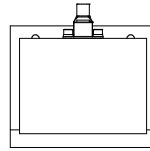
(VIEWS ARE FROM PIN END, HP5 SHOWN)



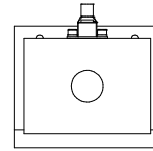
INLINE
ROUND PIN



INLINE
DIAMOND PIN



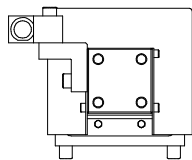
INLINE
PUSHER BLOCK



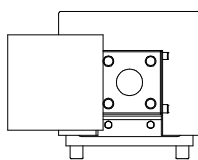
INLINE
PIN/PUSHER BLOCK COMBO

BAD APPLICATIONS FOR HP5, GOOD APPLICATIONS FOR WP6 SHOT PINS

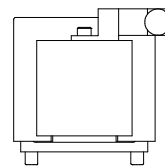
(VIEWS ARE FROM PIN END, WP6 SHOWN)



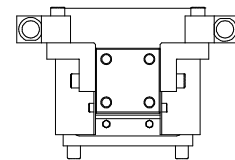
OFFSET PIN



INLINE PIN WITH
OFFSET
PUSHER BLOCK



INLINE PUSHER BLOCK
WITH OFFSET PIN



DOUBLE PIN

(DO NOT SCALE DRAWING)

WELKER

ENGINEERED PRODUCTS

(800) 229-0890 www.welkerproducts.com

ORDERING INFORMATION

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

H P 5 -

0
0
0

Cylinder _____
P Pneumatic
H Hydraulic

Port Position _____
1 Port @ Position 1
2 Port @ Position 2
3 Port @ Position 3
4 Port @ Position 4

Mounting Assembly _____
00 None
M2 Mounting Position 2
M4 Mounting Position 4

Switch Option _____
00 None
VE World Switch
L3 Cylinder Switch (Pneumatic Option only)

Welker Cylinder Switch Chart		
Option	Switch Part #	Mfr
L3	SWITCH L3	Welker

L3 switch is weld field immune, comparable to World Switches.
 Switch is 4-wire, 4-pin, DC M12 x 1 (PNP) Quick Disconnect

World Switch

Order Number
 SO1 EXTEND (E) or
 SO1 RETRACT (R)

	Part Number	Manufacturer	Description
00	NONE		
VE or VR	NBN2-F581-160S6-E8-V1	Pepperl & Fuchs	3-Wire, 4-Pin, DC M12 X 1 (PNP) Quick Disconnect

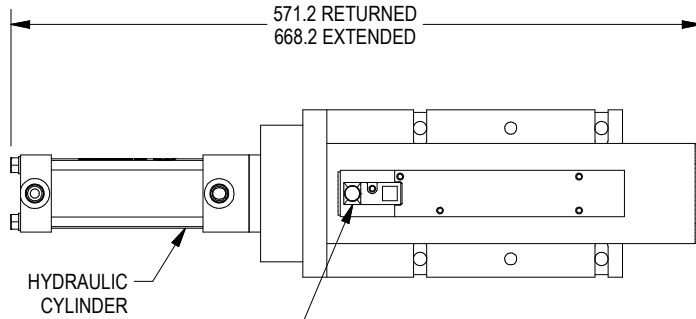
(DO NOT SCALE DRAWING)



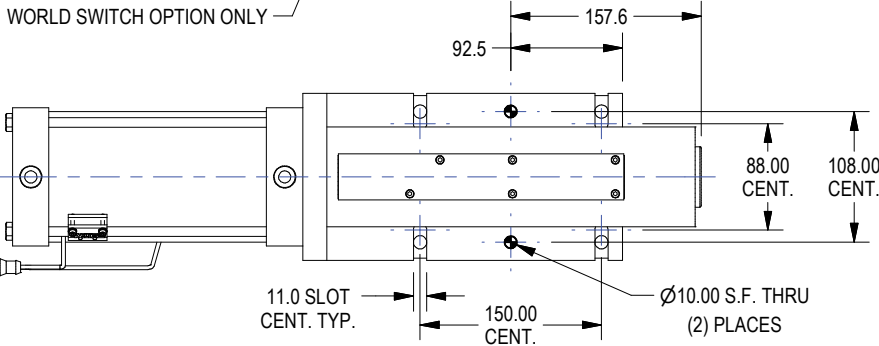
ENGINEERED PRODUCTS

(800) 229-0890 www.welkerproducts.com

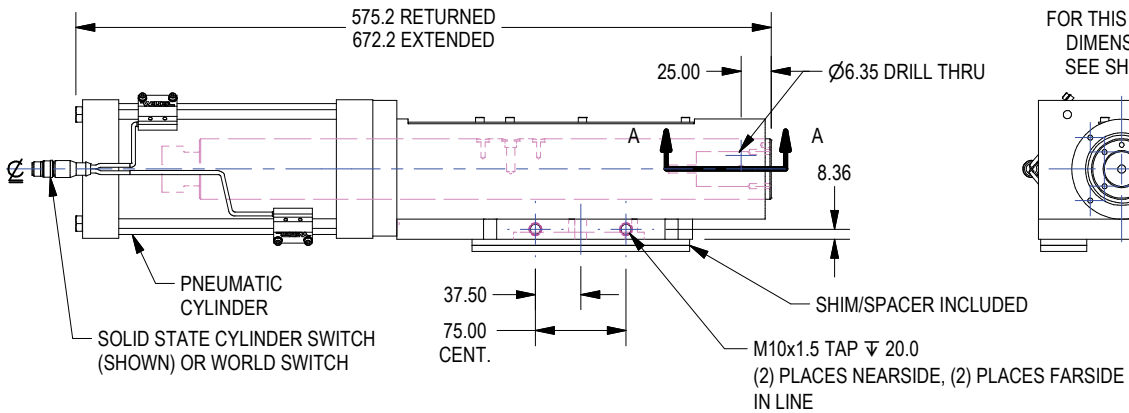
GENERAL DIMENSIONS



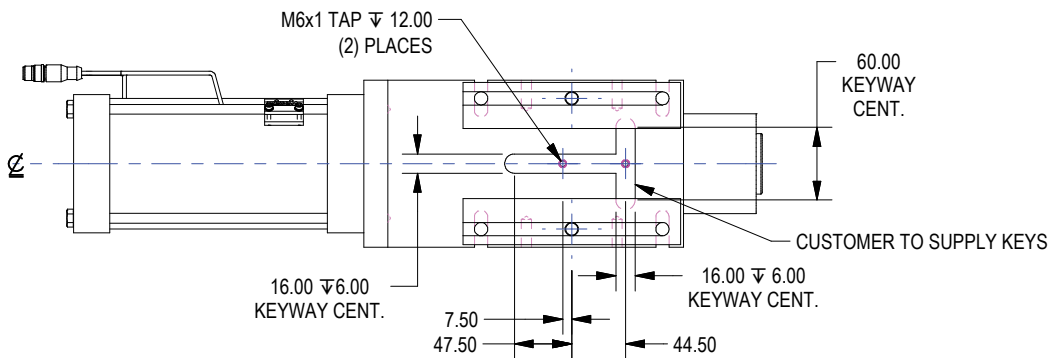
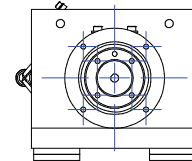
HYDRAULIC CYLINDER:
2" BORE X 97mm [3.818] STROKE, 1400 PSI MAX
CUSHIONS BOTH ENDS
#6 SAE PORTS
FLUOROCARBON SEALS FOR PISTON AND ROD
HIGH LOAD PISTON



PNEUMATIC CYLINDER:
4" BORE X 100mm STROKE
LESS 3.0mm FOR RAP
97.0mm ACTUAL STROKE
1/2" NPT PORTS



FOR THIS VIEW'S DIMENSIONS SEE SHEET 5



SECTION A-A

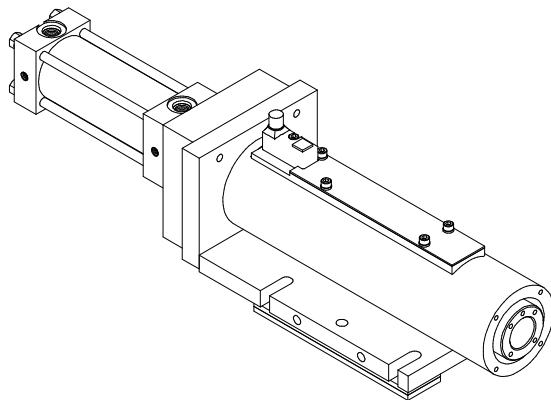
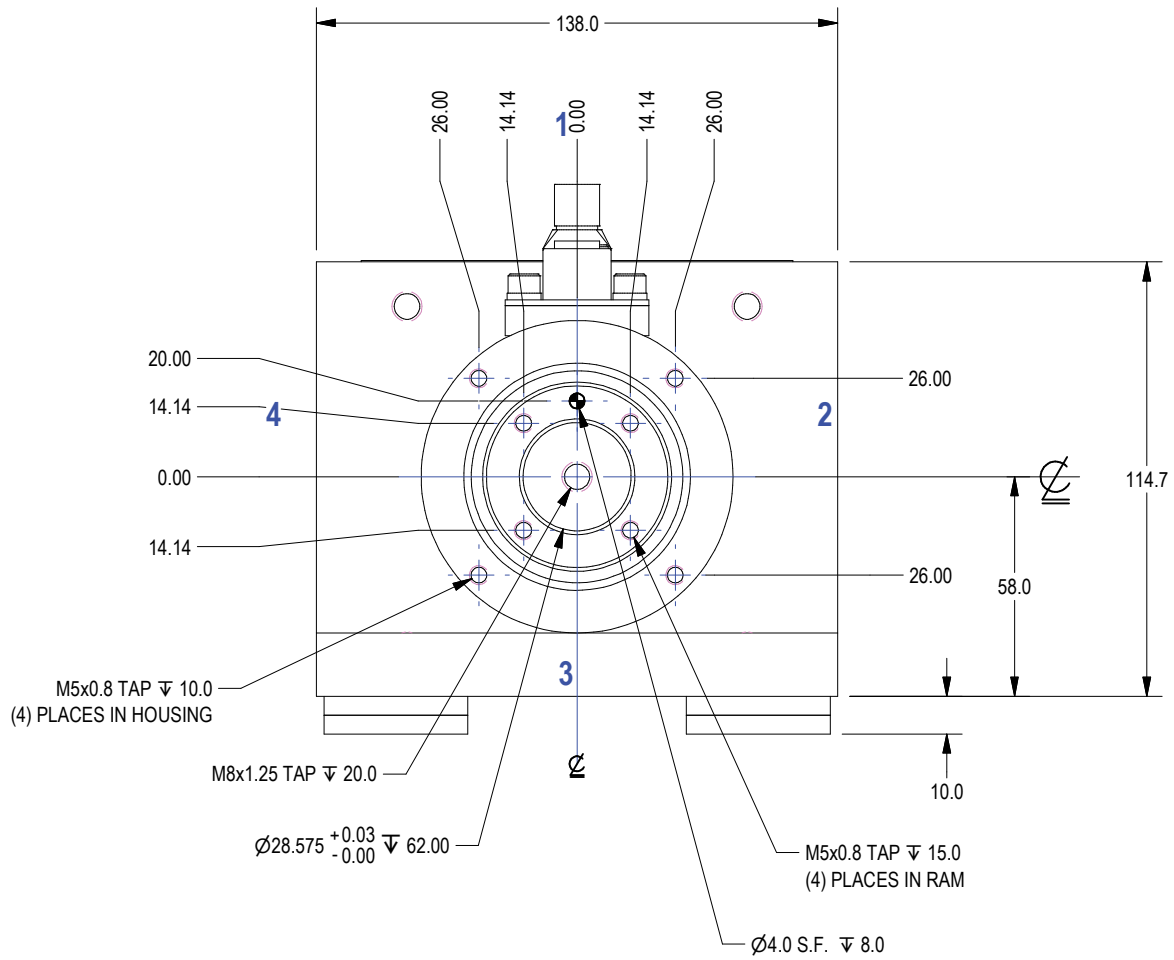
(DO NOT SCALE DRAWING)

WELKER

ENGINEERED PRODUCTS

(800) 229-0890 www.welkerproducts.com

GENERAL DIMENSIONS: HP5 NOSE END VIEW



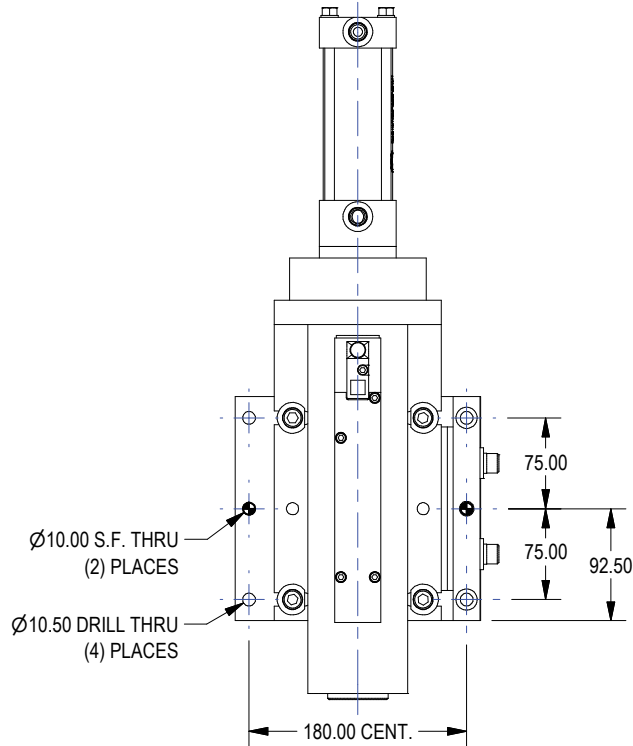
(DO NOT SCALE DRAWING)



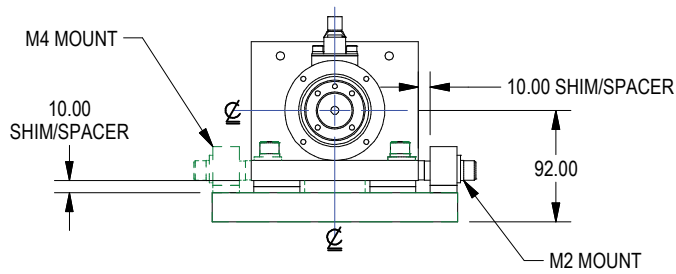
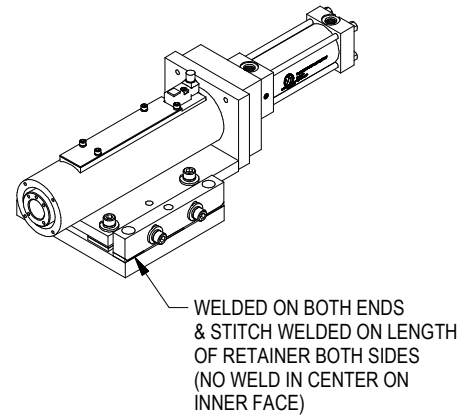
ENGINEERED PRODUCTS

(800) 229-0890 www.welkerproducts.com

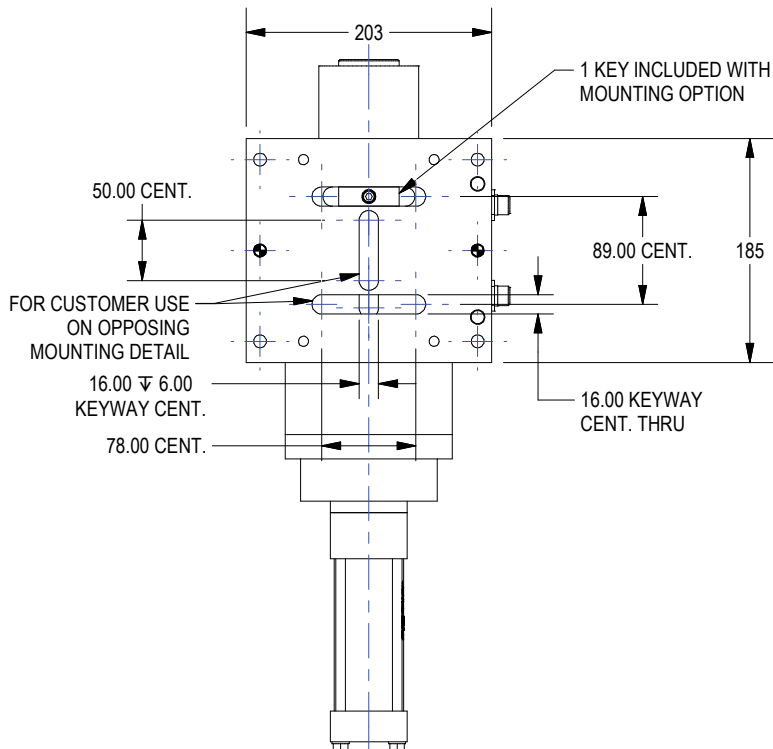
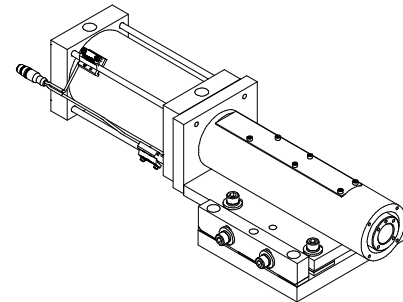
MOUNTING OPTION DIMENSIONS



**HP5 WITH MOUNTING
ASSEMBLY OPTION M2:**
SHOWN WITH HYDRAULIC CYLINDER



**HP5 WITH MOUNTING
ASSEMBLY OPTION M4:**
SHOWN WITH PNEUMATIC CYLINDER



(DO NOT SCALE DRAWING)

WELKER

ENGINEERED PRODUCTS

(800) 229-0890 www.welkerproducts.com