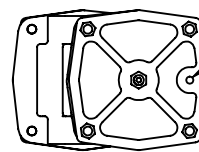
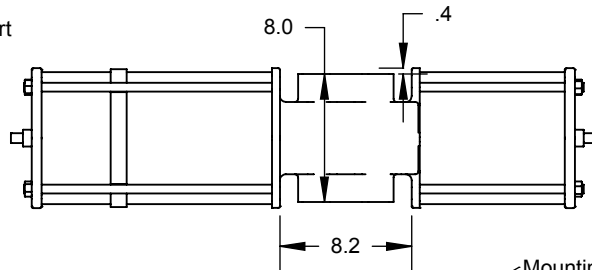


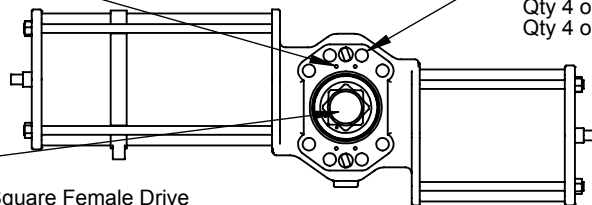
Pressure port



Pressure port

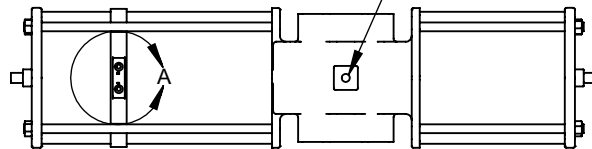
Accessory Mounting - both sides  
 NAMUR #3  
 Qty 4 M5-0.8 x 10mm Dp  
 Threaded Holes  
 on 30mm x 180 mm pattern.  
 A supplied Top Hat adapter  
 converts female drive to 30mm  
 tall NAMUR 4mm slotted drive.

Mounting pattern both sides.  
 Qty 8, M20-2.5 threaded holes x 25mm Dp  
 Qty 4 on ISO F16 BCD (6.5")  
 Qty 4 on 6.5" x 2.0" rectangular pattern



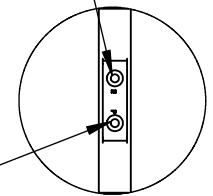
ISO5211 Size F25 Double Square Female Drive  
 with flat sides aligned to actuator's vertical and horizontal planes.  
 Dim across flats = 2.165"  
 Corner diameter = 2.87  
 Depth = 3.25"  
 Both ends of shaft.  
 Center through hole diameter = 2.0"

Breather port



Piping: There are 3 pressure ports and 2 breather ports. Apply source pressure to all pressure ports to push pistons inward and to compress the inward located springs. This will cause counter-clockwise rotation to the shaft as seen in the "Top View". Exhausting the pressure will permit the springs to cause clockwise rotation.

Breather port



Pressure port

All port sizes are 1/4 NPT

DETAIL A  
 SCALE 1 : 6

Rev B - Corrected ISO BCD to F16

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DIMENSIONS ARE IN INCHES  
 TOLERANCES except as shown  
 FRACTIONAL: ±  
 ANGULAR: ±  
 2 PLACE DECIMAL: ±  
 3 PLACE DECIMAL: ±

MATERIAL

PROCESS

DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	EH	4/29/09
	Rev B	EH 12/10/09
	Rev C	
	Rev D	
	Rev E	

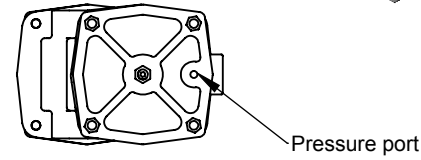
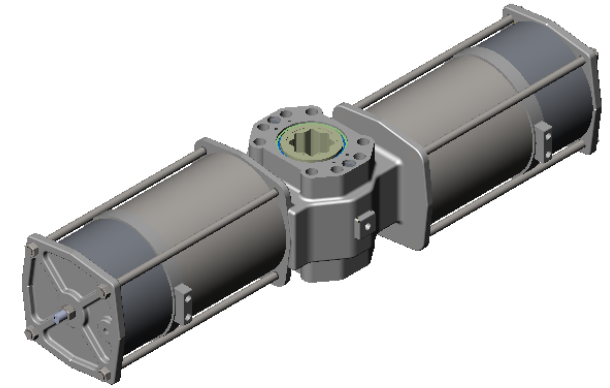
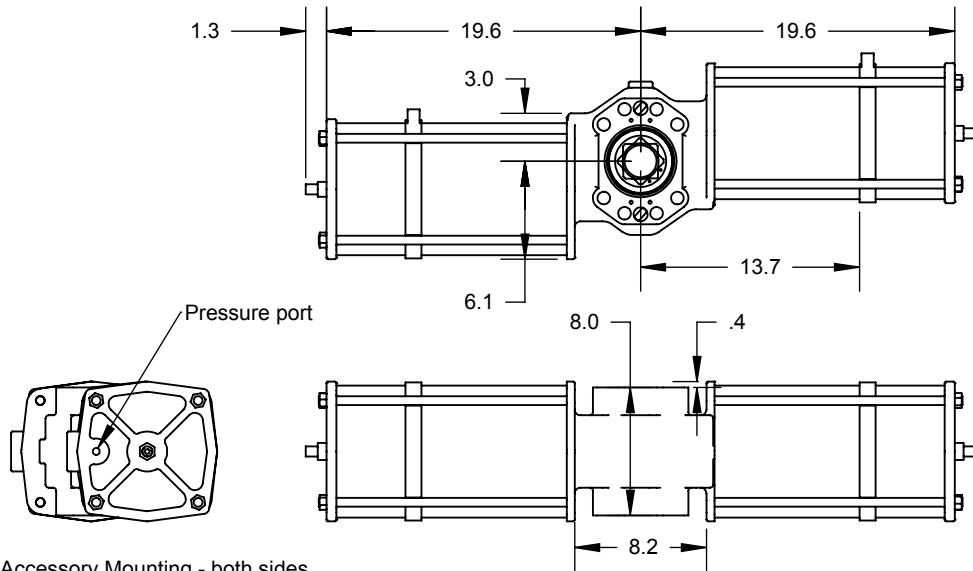
**QTRCO, Inc.**

**QD and QS14SE-C1  
 Rack & Gear Actuator  
 with One Tandem Piston**

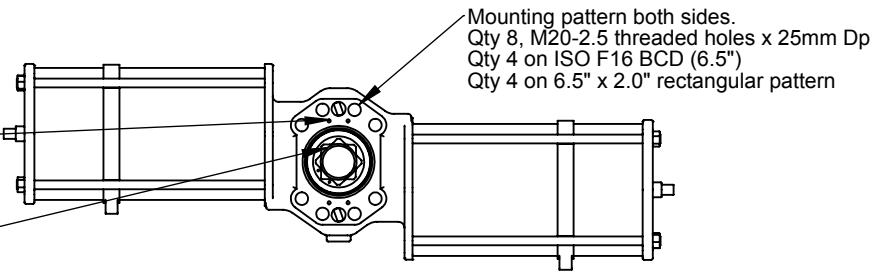
SIZE **A** DWG. NO. **QS14SE-C1-DIM-001B**

WEIGHT (Pounds): 202

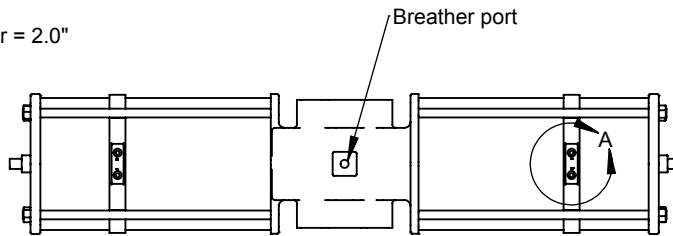
SHEET \_\_\_\_ OF \_\_\_\_  
 1 of 1 if not shown



Accessory Mounting - both sides  
 NAMUR #3  
 Qty 4 M5-0.8 x 10mm Dp  
 Threaded Holes  
 on 30mm x 180 mm pattern.  
 A supplied Top Hat adapter  
 converts female drive to 30mm  
 tall NAMUR 4mm slotted drive.

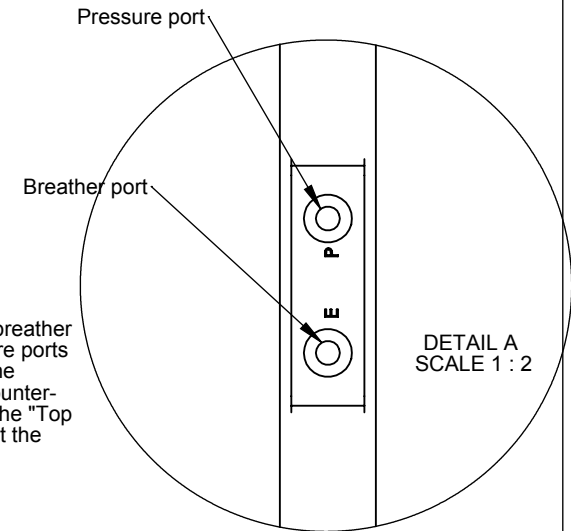


ISO5211 Size F25 Double Square Female Drive  
 with flat sides aligned to actuator's vertical and horizontal planes.  
 Dim across flats = 2.165"  
 Corner diameter = 2.87  
 Depth = 3.25"  
 Both ends of shaft.  
 Center through hole diameter = 2.0"



Piping: There are 4 pressure ports and 3 breather ports. Apply source pressure to all pressure ports to push pistons inward and to compress the inward located springs. This will cause counter-clockwise rotation for the shaft as seen in the "Top View". Exhausting the pressure will permit the springs to cause clockwise rotation.

All ports sizes are 1/4 NPT



Rev B - Corrected ISO BCD to F16

**PROPRIETARY AND CONFIDENTIAL**

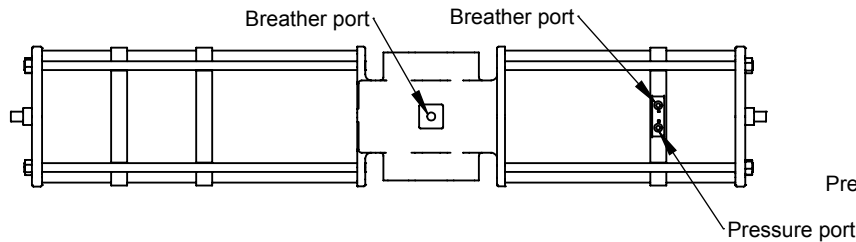
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DIMENSIONS ARE IN INCHES  
 TOLERANCES except as shown  
 FRACTIONAL: ±  
 ANGULAR: ±  
 2 PLACE DECIMAL: ±  
 3 PLACE DECIMAL: ±

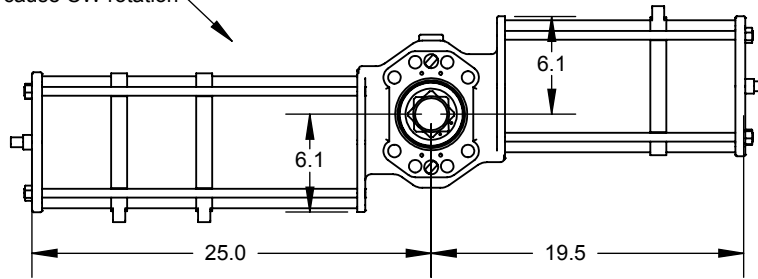
MATERIAL  
 PROCESS  
 DO NOT SCALE DRAWING

	NAME	DATE
DRAWN	EH	4/29/09
Rev B	EH	12/10/09
Rev C		
Rev D		
Rev E		

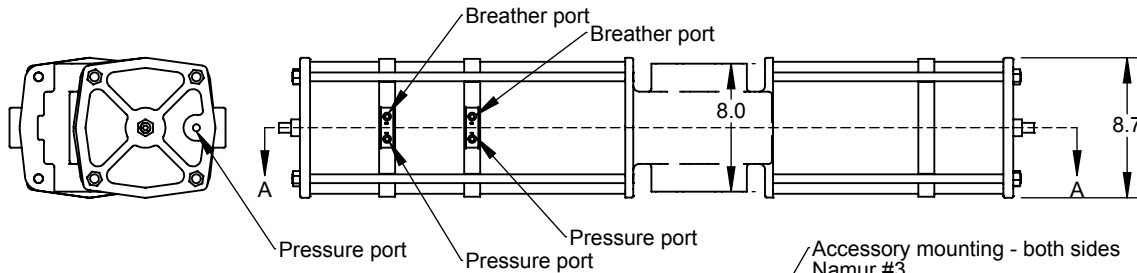
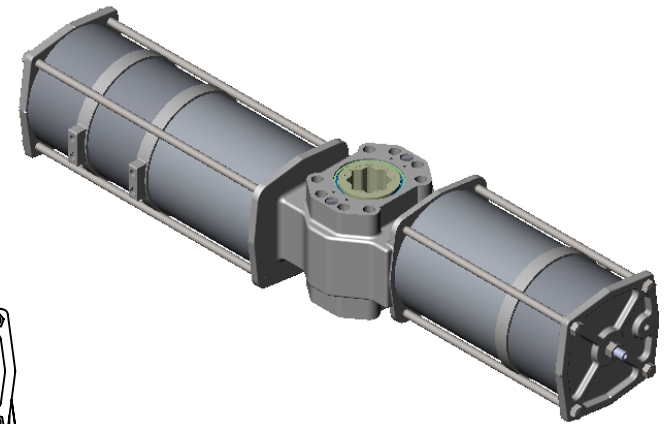
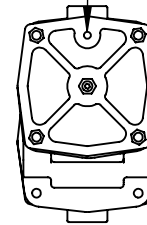
<b>QTRCO, Inc.</b>	
<b>QD and QS14SE-C2 Rack &amp; Gear Actuator with Two Tandem Pistons</b>	
SIZE <b>A</b>	DWG. NO. <b>QS14SE-C2-DIM-001B</b>
WEIGHT (Pounds): <b>240</b>	SHEET ____ OF ____ 1 of 1 if not shown



In this view, pressure applied to ports causes CCW shaft rotation  
When exhausted, springs cause CW rotation



Pressure port



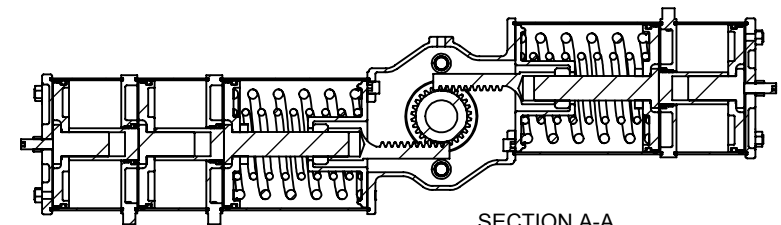
Breather port  
Breather port  
Pressure port  
Pressure port

Accessory mounting - both sides  
Namur #3  
Qty 4 M5-0.8 x 10mm Dp  
on 30mm x 130mm pattern  
Supplied TopHat converts female  
drive to 30mm tall 4mm Namur  
drive slot

Mounting pattern - both sides  
Qty 8, M20-2.5 threaded holes x 25mm Dp  
Qty 4 on ISO F16 BCD (6.5")  
Qty 4 on 6.5" x 2.0" rectangular pattern

ISO5211 F25 Double sq female drive - both ends  
Flats aligned to vartical and horizontal planes  
Dim across flats = 2.165"  
Corner diameter = 2.87"  
Depth = 3.25"  
Center through hole = 2" Dia

Rev B - Corrected ISO BCD to F16



SECTION A-A

- Multiple pistons increase total piston area for use on low source pressure
- If specified, alternate pressure port orientation is available
- Pressure and breather ports are 1/4 NPT

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TOLERANCES except as shown

FRACTIONAL:	±
ANGULAR:	±
2 PLACE DECIMAL:	±
3 PLACE DECIMAL:	±
MATERIAL:	
PROCESS:	
DO NOT SCALE DRAWING	

	NAME	DATE
DRAWN	EH	10/24/09
Rev B	EH	12/10/09
Rev C		
Rev D		
Rev E		

<b>QTRCO, Inc.</b>	
Dimensions QS and QD14SE-C3	
SIZE <b>A</b>	DWG. NO. QD14SE-C3-DIM-001B
WEIGHT (Pounds): <b>255</b>	SHEET ____ OF ____ 1 of 1 if not shown