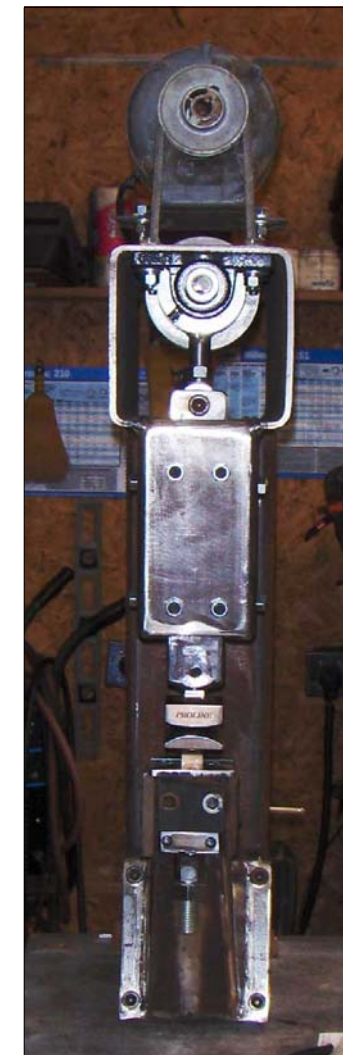
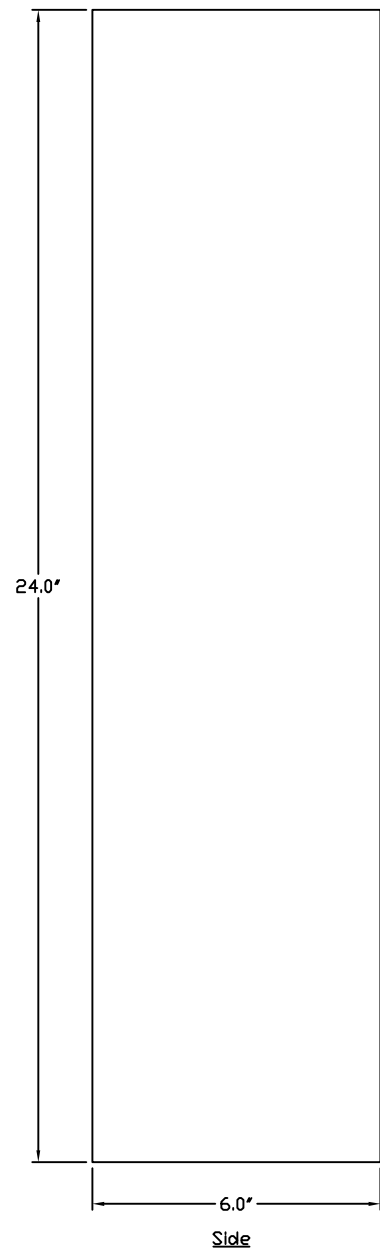
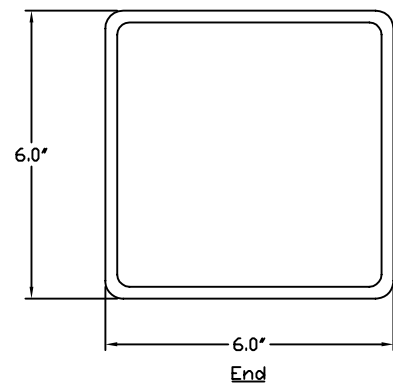


Reciprocating Shrinker Fabrication Drawings



Photos of Reciprocating Shrinking machine under construction during the AllMetalShaping.com group build.

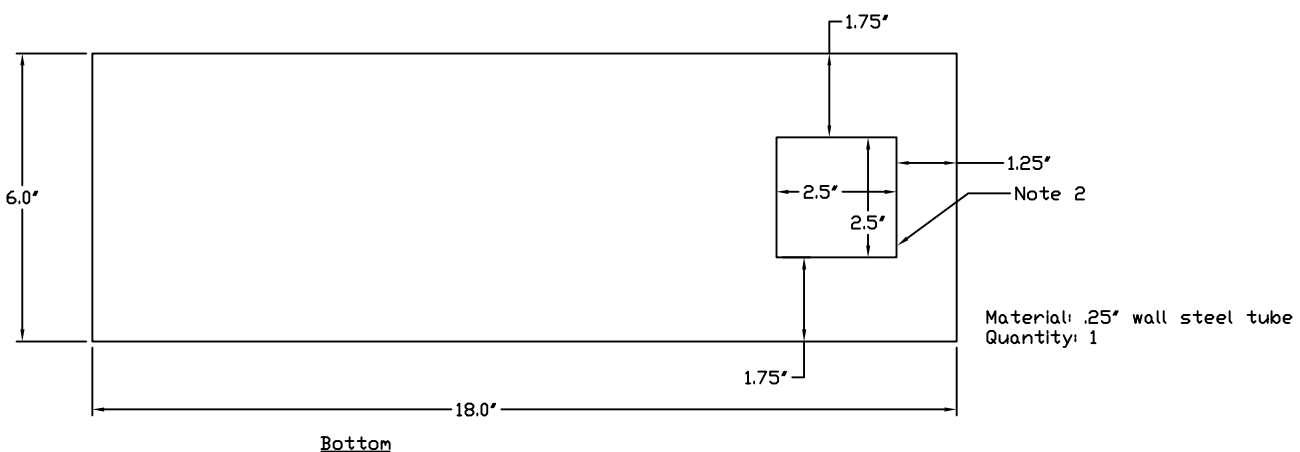
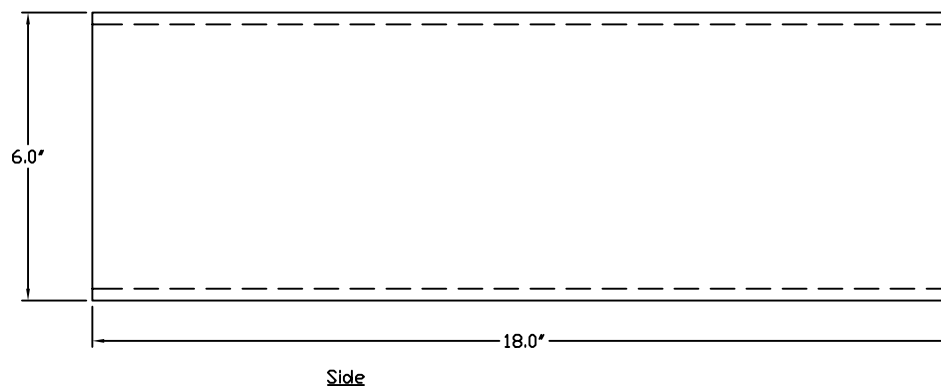
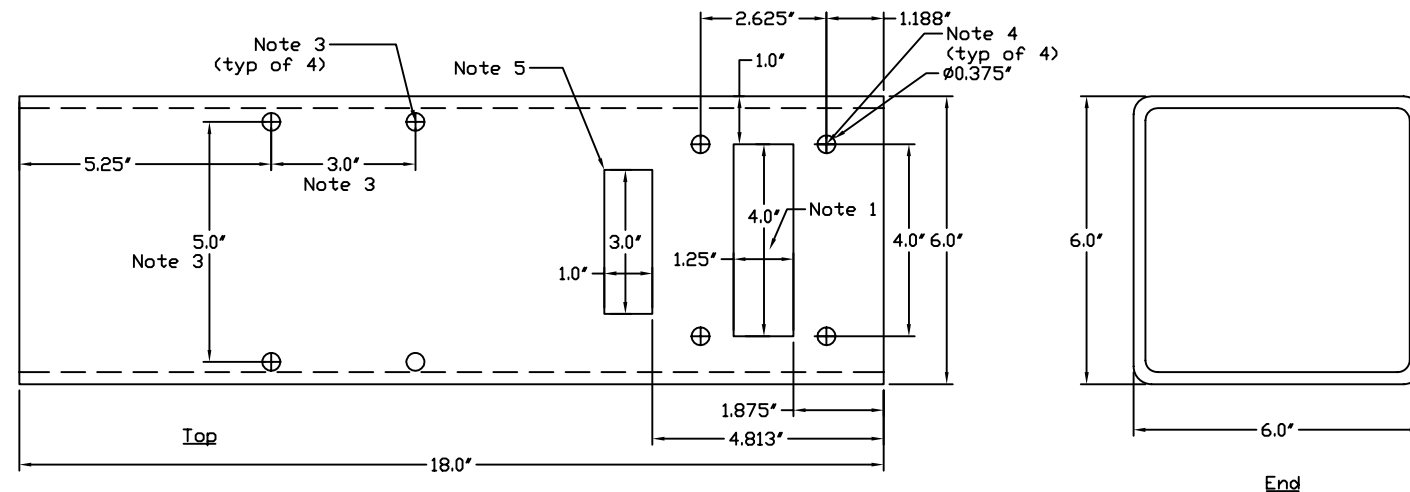
CAL Cobras
Danville, CA
Email: chuckcobra@aol.com
Website: www.chuckcobra.com



Material: .25' wall steel tube
Quantity: 1

F01 -
Frame -
Vertical tube

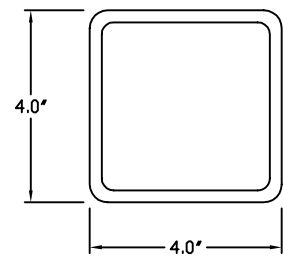
Issued: 9/22/2018



- Notes:
1. Top hole for access and installation of connecting rod. Coordinate exact size with parts used.
 2. Bottom hole for connecting rod to qull pass through and connection (shoulders provide gbk retention).
 3. Motor mount holes. Coordinate spacing with motor base plate used. Drill and tap for 3/8" studs (length as required) to provide vertical adjustment of motor above frame for drive belt tensioning. (Original machine utilized 3/8" bolts welded to the tube versus the drilled and tapped holes detailed.)
 4. Pillow block attachment holes. Coordinate spacing with pillow block parts used.
 5. Top hole for access and installation of driven pulley and drive belt. Coordinate exact size with parts used.

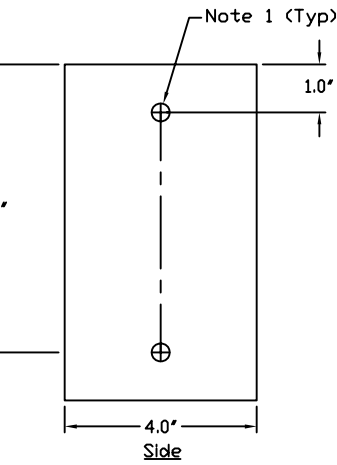
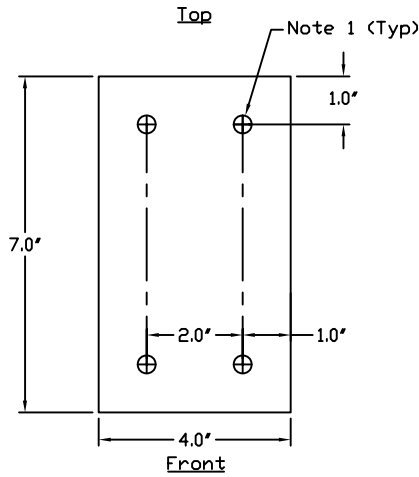
F02 -
Frame -
Top cross tube
Issued: 1/22/2019

Rev.	Description	Date	Recipricating Shrinker		Line is 1 inch	Scale	Title	Drawing Number
			Recipricating Shrinker		at full scale	1" = 2"	F01 & F02	RS02
			CAL COBRAS		(if not 1" scale			
			Danville, CA.		accordingly)			
			Drawings prepared by:					
			CAL COBRAS					
			Danville, CA.					
			These drawings are offered free of charge to all interested individuals					
			wanting to build a similar machine for personal use. These drawings					
			are not to be resold or used to manufacture a completed machine					
			offered for commercial sale without the express written consent of CAL					
			COBRAS DANVILLE, CA. (email: chuckcobra@aol.com)					
			Drawing registration No.: 02					
			Name: chuckcobra.com					
			Date: February 2019					

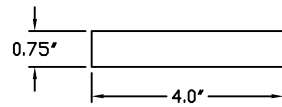


Notes:
1. Gullb adjusting bolt holes. Drill and tap for 3/8" NF set screws. 8 required (2 on left side, 2 on right side and 4 on front).

Material: .25" wall steel tube
Quantity: 1



F03 -
Frame -
Quill support tube
Issued: 11/15/2018

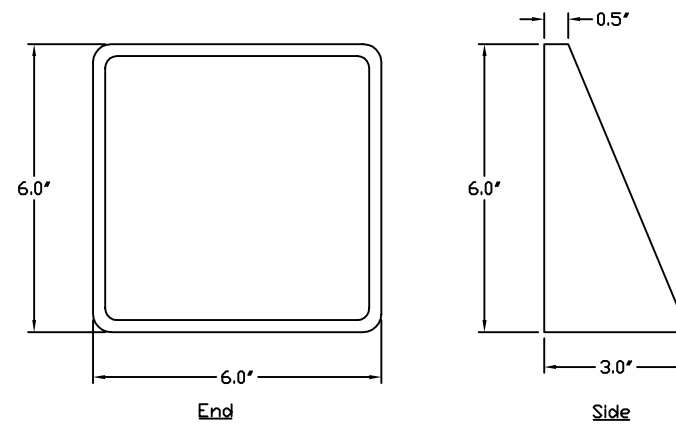


Notes:
1. Weld to F03 on bottom sides only. (Provides support for quill gullbs.)

Material: .125" thk steel plate
Quantity: 2

F04 -
Frame -
Quill support tube -
End caps

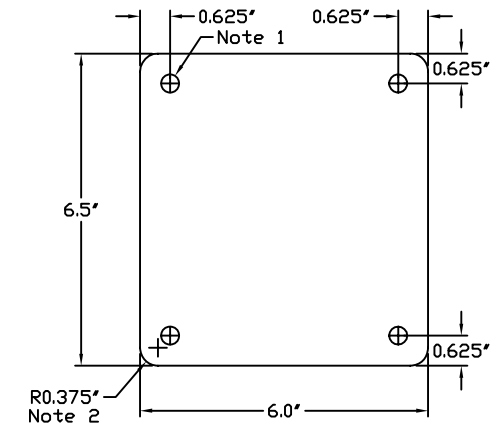
Issued: 9/22/2018



Material: .25" wall steel tube
Quantity: 1

F05 -
Frame -
Lower tool arm -
Mounting tube

Issued: 9/22/2018

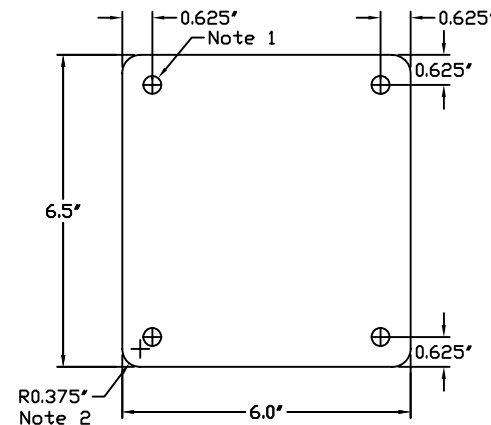


Material: .25" wall steel plate
Quantity: 1

Notes:
1. Drill and tapped for 3/8" NC bolts.

2. Match tube corner radius.
F06 -
Frame -
Lower tool arm -
Tube Mounting Plates

Issued: 10/4/2018

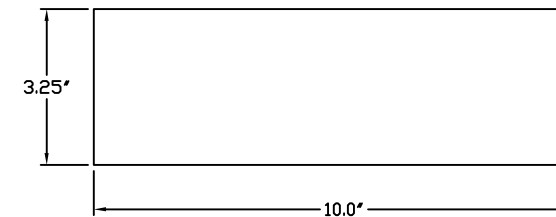


Material: .25" wall steel plate
Quantity: 1

Notes:
1. Drilled for 3/8" bolt clearance hole.
2. Match tube corner radius.

F07 -
Frame -
Lower tool arm -
Side Tube Mounting Plate

Issued: 11/21/2018

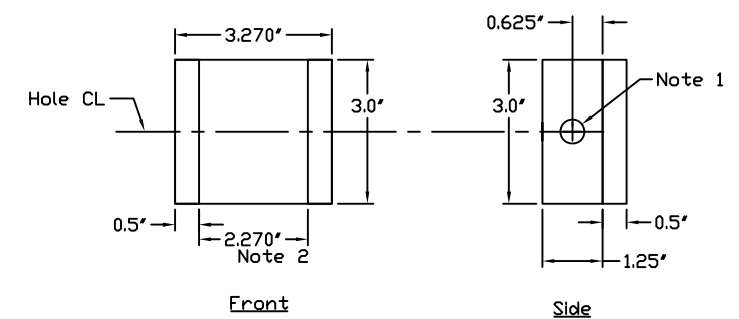
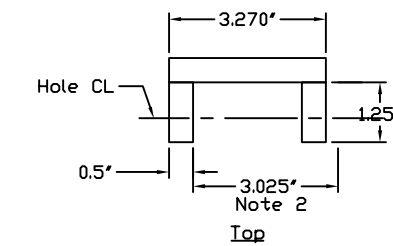


Material: .25" steel plate
Quantity: 1

Notes:
1. Size is only approximate. Make template to establish exact size.

F08 -
Frame -
Lower tool arm -
Bottom plate

Issued: 1/22/2019



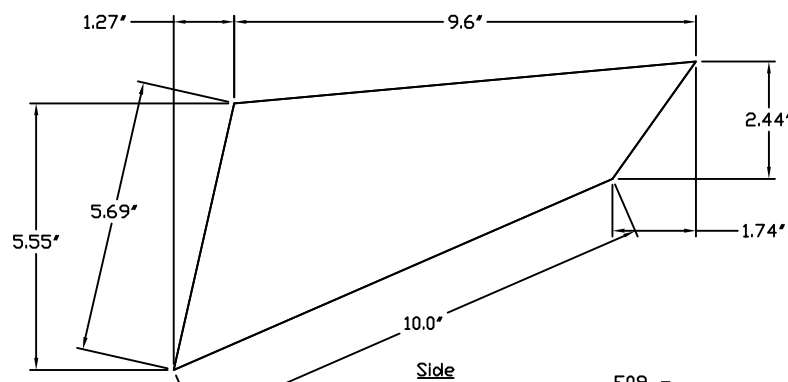
Material: .5" steel plate
Quantity: 1

Notes:
1. Mounting screw hole to retain LTH01. Drill and tap for 1/2" NF setscrew both sides.

2. Provide slip fit for LTH01 of approximately .020".

F11 -
Frame -
Lower Tool Holder -
Mount

Issued: 11/21/2018

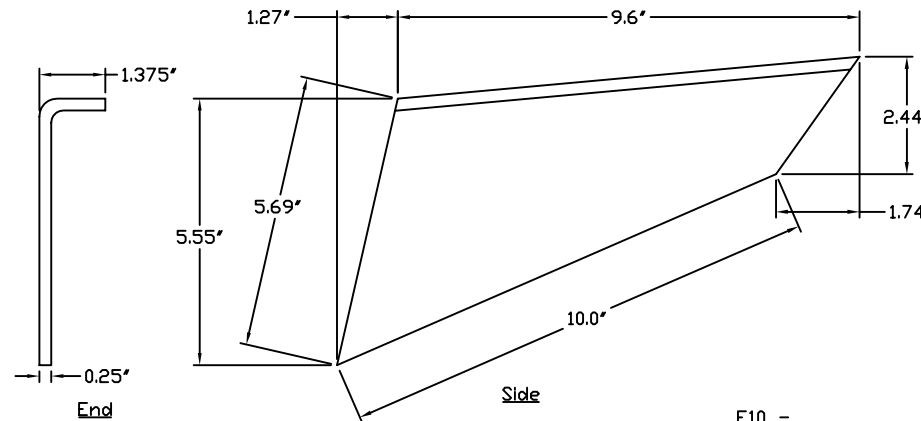


Material: .5" wall steel plate
Quantity: 1

Notes:
1. Size is only approximate. Make template to establish exact size.

F09 -
Frame -
Lower tool arm -
Reinforcement plate

Issued: 1/22/2019



Material: .25" wall steel tube
Quantity: 2 (1 as shown and 1 mirror image)

Notes:
1. Size is only approximate. Make template to establish exact size.

F10 -
Frame -
Lower tool arm -
Side tube

Issued: 1/22/2019

Rev.	Description	Date	Reciprocating Shrinker		Line is 1 inch	Scale	Title	Drawing Number
			Reciprocating Shrinker		at full scale	1" = 2"	F03, F04, F05, F06, F07, F08, F09 & F10	RS03
			CAL COBRAS Danville, CA.		(if not 1" scale accordingly)			
			Drawings prepared by: CAL COBRAS Danville, CA.					
			These drawings are offered free of charge to all interested individuals wanting to build a similar machine for personal use. These drawings are not to be resold or used to manufacture a completed machine offered for commercial sale without the express written consent of CAL COBRAS DANVILLE, CA. (email: chuckcobra@aol.com)					
			Name: chuckcobra.com Date: February 2019					



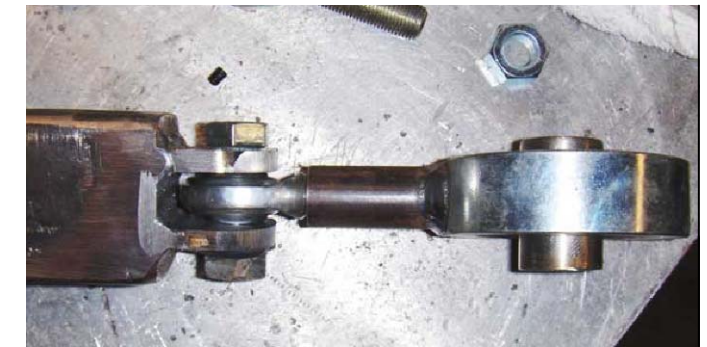
Frame



Upper tool holder



Pillow blocks, crankshaft and pulley assembly



Quill and crankshaft assembly



Lower tool arm and tool holder assembly



Lower tool arm



Nonmetallic thumbnail dies for aluminum shrinking
(See Drawing number RS01 for details.)

Notes:

- Miscellaneous photos of shrinker under construction for reference

Rev.	Description	Date	These drawings are offered free of charge to all interested individuals wanting to build a similar machine for personal use. These drawings are not to be resold or used to manufacture a completed machine offered for commercial sale without the express written consent of CAL COBRAS DANVILLE, CA. (email: chuckcobra@aol.com)		Drawings prepared by:	Line is 1 inch at full scale (if not 1" scale accordingly)	Scale	Title	Drawing Number
	Recipricating Shrinker				CAL COBRAS		NTS	Photos	RS07
	Drawing registration No.: 02				Danville, CA.				
	Name: chuckcobra.com								
	Date: February 2019								