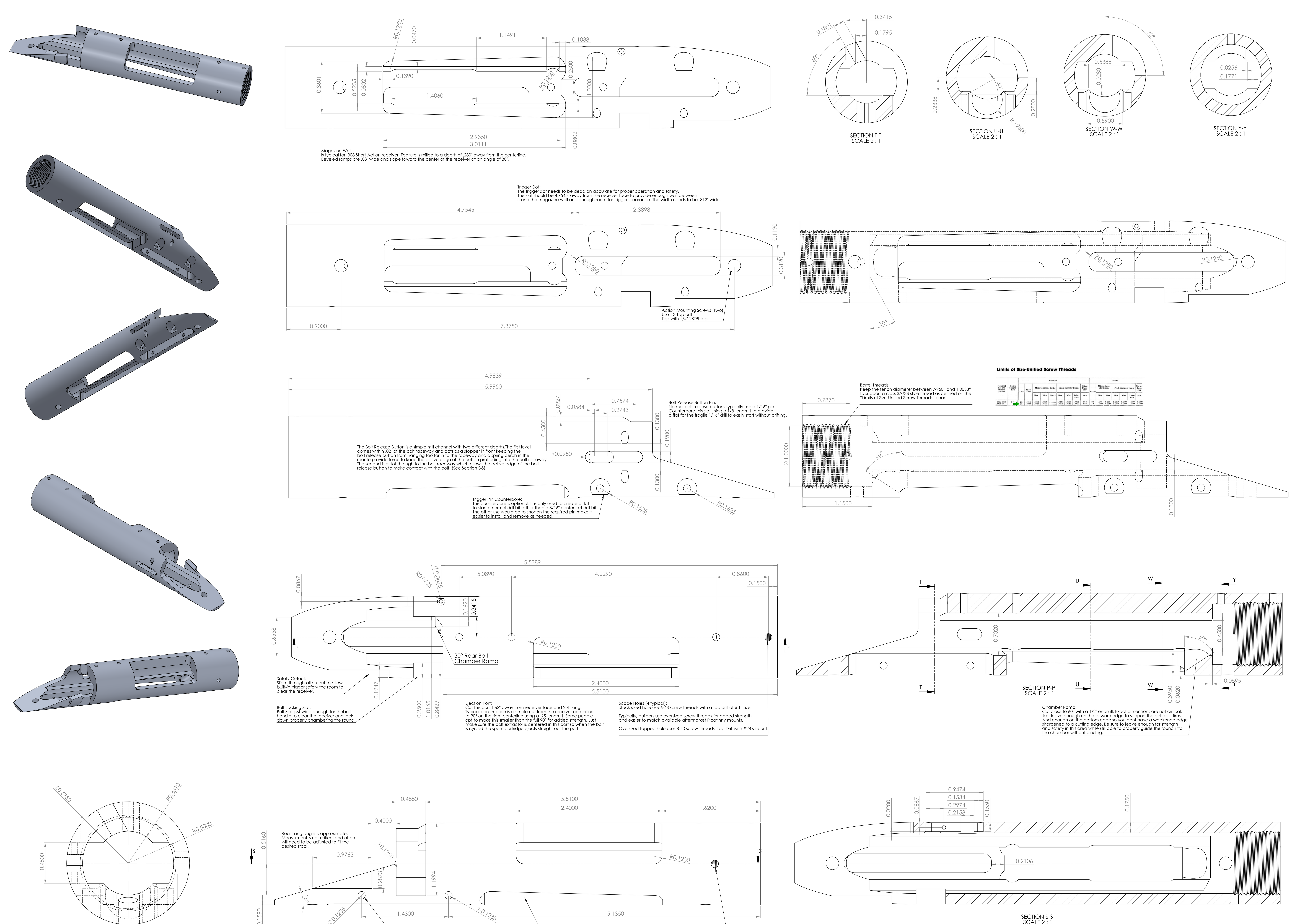
Magazine Well:
Is typical for .308 Short Action receiver. Feature is milled to a depth of .280" away from the centerline.
Beveled ramps are .08" wide and slope toward the center of the receiver at an angle of 30°.
SECTION T-T
SCALE 2 : 1
SECTION U-U
SCALE 2 : 1
SECTION W-W
SCALE 2 : 1
SECTION Y-Y
SCALE 2 : 1
Trigger Slot:
The trigger slot needs to be dead on accurate for proper operation and safety.
The slot should be 4.7545" away from the receiver face to provide enough wall between
it and the magazine well and enough room for trigger clearance. The width needs to be .312" wide.
Action Mounting Screws (Two)
Use #3 Tap drill
Tap with 1/4"-28TPI tap
The Bolt Release Button is a simple mill channel with two different depths.The first level comes within .02" of the bolt raceway and acts as a stopper in front keeping the bolt release button from hanging too far in to the raceway and a spring perch in the rear to provide force to keep the active edge of the button protruding into the bolt raceway. The second is a slot through to the bolt raceway which allows the active edge of the bolt release button to make contact with the bolt. (See Section S-S)
Bolt Release Button Pin:
Normal bolt release buttons typically use a 1/16" pin.
Counterbore this slot using a 1/8" endmill to provide
a flat for the fragile 1/16" drill to easily start without drifting.
Trigger Pin Counterbore:
This counterbore is optional. It is only used to create a flat to start a normal drill bit rather than a 3/16" center cut drill bit. The other use would be to shorten the required pin make it easier to install and remove as needed.
Barrel Threads
Keep the tenon diameter between .9950" and 1.0033" to support a class 3A/3B style thread as defined on the "Limits of Size-Unified Screw Threads" chart.
30° Rear Bolt Chamber Ramp
Safety Cutout:
Slight through-all cutout to allow built-in trigger safety the room to clear the receiver.
Bolt Locking Slot:
Bolt Slot just wide enough for thebolt handle to clear the receiver and lock down properly chambering the round.
Ejection Port:
Cut this port 1.62" away from receiver face and 2.4" long.
Typical construction is a simple cut from the receiver centerline to 90° on the right centerline using a .25" endmill. Some people opt to make this smaller than the full 90° for added strength. Just make sure the bolt extractor is centered in this port so when the bolt is cycled the spent cartridge ejects straight out the port.
Scope Holes (4 typical):
Stock sized hole use 6-48 screw threads with a tap drill of #31 size.
Typically, builders use oversized screw threads for added strength and easier to match available aftermarket Picatinny mounts.
Oversized tapped hole uses 8-40 screw threads. Tap Drill with #28 size drill.
SECTION P-P
SCALE 2 : 1
Chamber Ramp:
Cut close to 60° with a 1/2" endmill. Exact dimensions are not critical. Just leave enough on the forward edge to support the bolt as it fires. And enough on the bottom edge so you dont have a weakened edge sharpened to a cutting edge. Be sure to leave enough for strength and safety in this area while still able to properly guide the round into the chamber without binding.
(3:1 Size)
Rear Tang angle is approximate. Measurment is not critical and often will need to be adjusted to fit the desired stock.
Trigger Pin Location:
5.1350" back from the receiver face for the first hole and another 1.428" back from that for the second.
Top of the 1.35" Receiver to the Trigger Pins: 1.191"
Centerline of the Receiver to the Trigger Pins: .516"
Bottom of the 1.35" Receiver to the Trigger Pins: .159"
Trigger Pin Size:
Use a 3/16" center cut end mill long enough to reach through the entire depth and use it like a drill to cut the off-camber holes. Then ream to the perfect .125" dia.
The magazine well port looks complicated in this view, but it is only formed from the angles from the bottom cut which are wider in the rear which causes the ramp upwards toward the rear of the receiver as seen in this view.
Hatcher Hole or Overpressure Hole:
Drill a .125" Diameter hole.
The purpose of this hole is just a safety feature to save your face should yur rifle experience a catastrophic pressure change while firing. One is minimum, Some designs have on one each side of the receiver.
SECTION S-S
SCALE 2 : 1

Limits of Size-Unified Screw Threads

Nominal size and threads per inch	Series designation	External: Class	Allowance	Major diameter limits Max	Major diameter limits Min	Major diameter limits Min	Pitch diameter limits Max	Pitch diameter limits Min	Tolerance	Minor Diameter Min	Internal: Class	Minor diameter limits Min	Minor diameter limits Max	Pitch diameter limits Min	Pitch diameter limits Max	Tolerance	Major diameter Min
1 1/16-16 or 1.0625-16	UN	2A	.0015	1.0610	1.0516	....	1.0204	1.0154	.0050	.9748	2B	.995	1.009	1.0219	1.0284	.0065	1.0625
		3A	.0000	1.0625	1.0531	....	1.0219	1.0182	.0037	.9776	3B	.9950	1.0033	1.0219	1.0268	.0049	1.0625

Visit **www.jplongfellow.com** to find out how you can be part of this open source gun building initiative! Let's get America back on track and BUILD SOMETHING!

Please report any incorrect information to the creator.

APPLICATION

UNLESS OTHERWISE SPECIFIED:
DIMENSIONS ARE IN INCHES
TOLERANCES:
FRACTIONAL ±
ANGULAR: MACH ± BEND ±
TWO PLACE DECIMAL ±
THREE PLACE DECIMAL ±

INTERPRET GEOMETRIC TOLERANCING PER:

MATERIAL
4140 Steel or 416SS

FINISH
Sandblast & Parkerize

	NAME	DATE
DRAWN		
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		

COMMENTS:
3D Model designed and created by Scott Parus for the JPLongfellow Project all rights reserved www.jplongfellow.com

2:1 scale unless otherwise noted

TITLE:
JPL700 Custom
Short Action Remington 700 Clone
.308 Winchester / 7.62x51mm

SIZE E | DWG. NO. JPL700Custom1.5 | REV A

SCALE: 2:1 | WEIGHT: | SHEET 1 OF 1