

4

3

2

1

NOTES UNLESS OTHERWISE SPECIFIED

- PARENT MATERIAL: 316 STAINLESS STEEL, 16 GAUGE (0.060" THICK)
- FINISH: NO METAL FINISHING REQUIRED. THE FINAL FINISH SHALL BE THE RESULT OF THE PROCESSES USED TO FABRICATE THE SHAPE, RESULTING IN AN ESTIMATED SURFACE ROUGHNESS OF 80 Ra.
- ESTIMATED INTERNAL VOLUME: 0.22 GALLONS (50.05 INCH<sup>3</sup>)

REVISIONS

REV.	DESCRIPTION	DATE	APPROVED
00	INITIAL RELEASE FOR MANUFACTURING	14DEC2000	J.KNAPP
01	Changed Flat Diameter from 0.51" TO 0.50"	19JAN2010	L.FERNANDEZ
02	Chnged ID from 3.99" to 3.91"	24JUL2012	L.FERNANDEZ
A	Updated sheet format, corrected title block and revision block author information	08APR2016	R.DAVIS
B	Corrected ID from 3.91" to 3.91", corrected Flange Radius from 0.13" to 0.188", corrected Radius from 0.25" to 0.50", added 0.25" tolerance to Overall Height	17MAR2017	R.DAVIS

Top view of the hopper. It shows a central hole with a diameter of  $\phi .25$  THRU HOLE. The outer diameter of the flange is  $\phi 4.38$  Flange O.D. Section lines A-A are indicated.

Section A-A of the hopper. The overall height is  $6.00 \pm .25$ . The straight wall length is  $(2.69)$ . The internal diameter is  $\phi 3.90$  ID. The top edge has a thickness of  $(.060)$ . The inner radius of the top edge is R.19 INSIDE. The radius of the straight wall is  $(.045)$ . The radius of the tapered section is R.50 INSIDE. The tapered section has a thickness of  $(.030)$  and a taper angle of  $60.00^\circ$ . Section line B-B is indicated at the bottom of the tapered section.

DETAIL B  
SCALE 1 : 1

Detail B shows the flat bottom surface of the hopper with a diameter of  $\phi .50 \pm 0.10$  FLAT.

SECTION A-A

ISOMETRIC VIEW  
SCALE 1 : 4

UNLESS OTHERWISE SPECIFIED:

- DO NOT SCALE DRAWING
- DIMENSIONS ARE IN INCHES
- TOLERANCE:  
FRACTIONAL  $\pm .25$   
X.X  $\pm .1$   
X.XX  $\pm .03$   
X.XXX  $\pm .010$   
ANGULAR:  $\pm 2$  DEG.
- INTERPRET DRAWING PER ASME-Y14.5M-1994 STANDARDS
- THIRD ANGLE PROJECTION
- REMOVE BURRS & BREAK ALL SHARP EDGES WITH R0.03  $\pm .02$

	NAME	DATE
DRAWN	J.KNAPP	14DEC2000
CHECKED		
ENG APPR.		
MFG APPR.		
Q.A.		

**PROPRIETARY AND CONFIDENTIAL**

THE INFORMATION CONTAINED WITHIN THIS DRAWING IS THE SOLE PROPERTY OF TOLEDO METAL SPINNING COMPANY. ANY REPRODUCTION IN PART OR AS A WHOLE WITHOUT WRITTEN PERMISSION OF TOLEDO METAL SPINNING COMPANY IS PROHIBITED.

**TOLEDO METAL SPINNING COMPANY**  
EST. 1929

TITLE:  
4" HOPPER WITH 3" STRAIGHT WALL

SIZE	DRAWING NUMBER	REV
A	TMS4316-316SS	B
SCALE: 1:2		WEIGHT: 0.73
SHEET 1 OF 1		