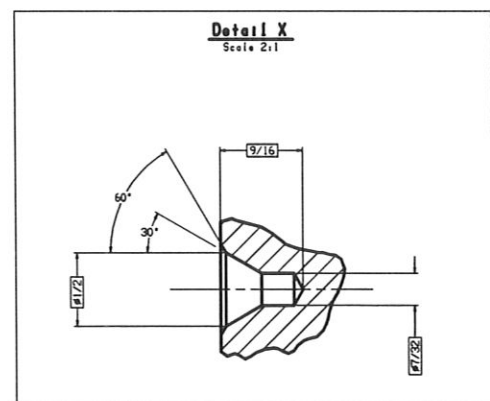
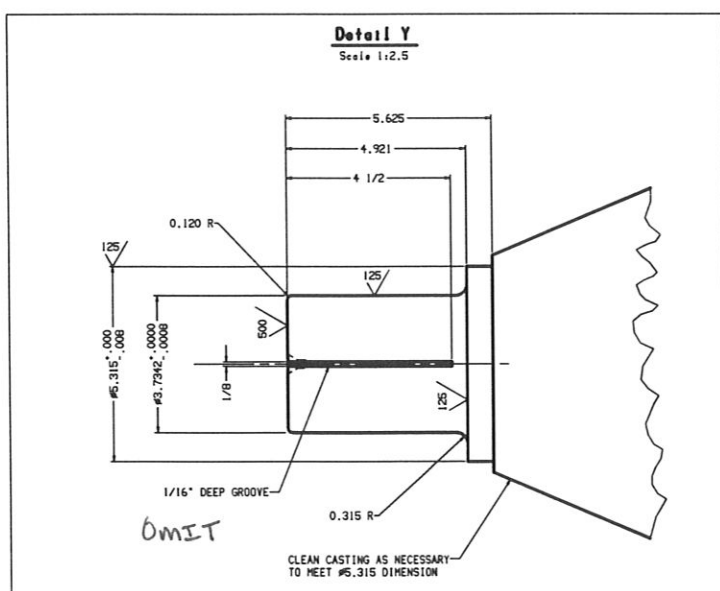
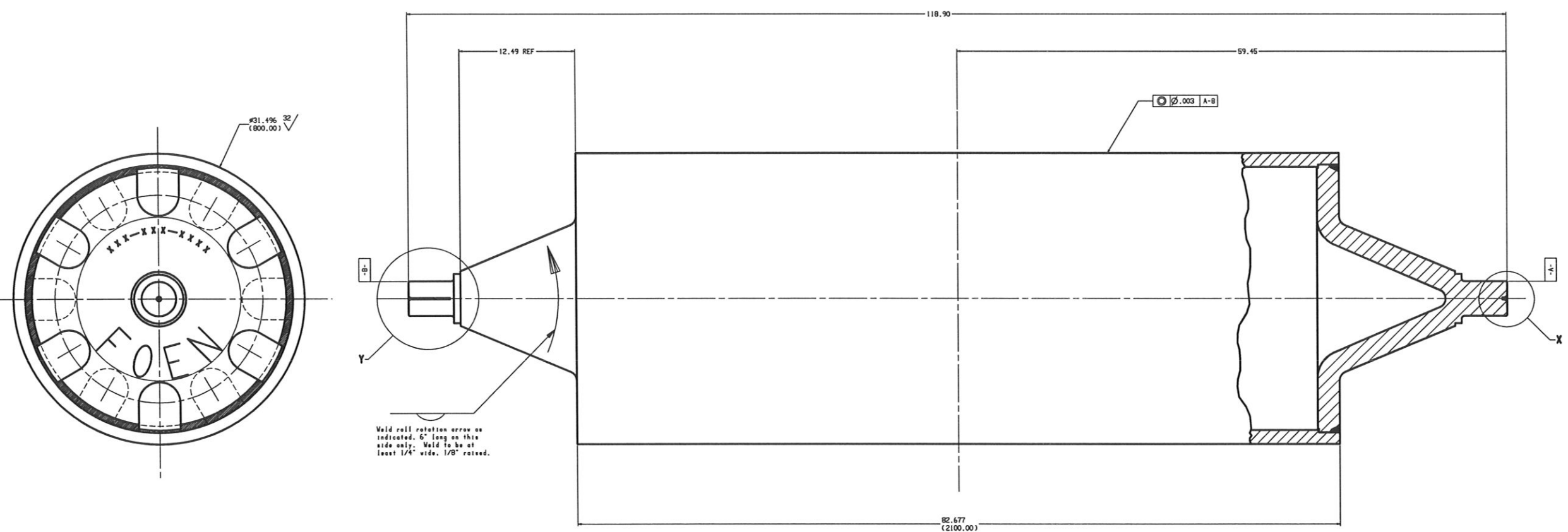




Sink Roll Groove Patterns	
Type 1	Dwg. 006-035-0036
Type 2	Dwg. 006-035-0022

- Notes (Unless otherwise specified):
1. Drill With Standard ANSI Ball Type Combined Drill & Counter-sin - #17 (View X).
  2. Machine Ends (View Y) & Barrel As Indicated.
  3. Grind Roll Face & Groove As Indicated On Sink Roll Groove Pattern Drawing.
  4. Remove All Burrs And Sharp Edges.
  5. Dynamic Balance Tolerance 100g-200g (0.22lb-0.44lb).
  6. Machine Sink Roll Groove According To Chart Above And Roll Finish Specified On This Drawing.

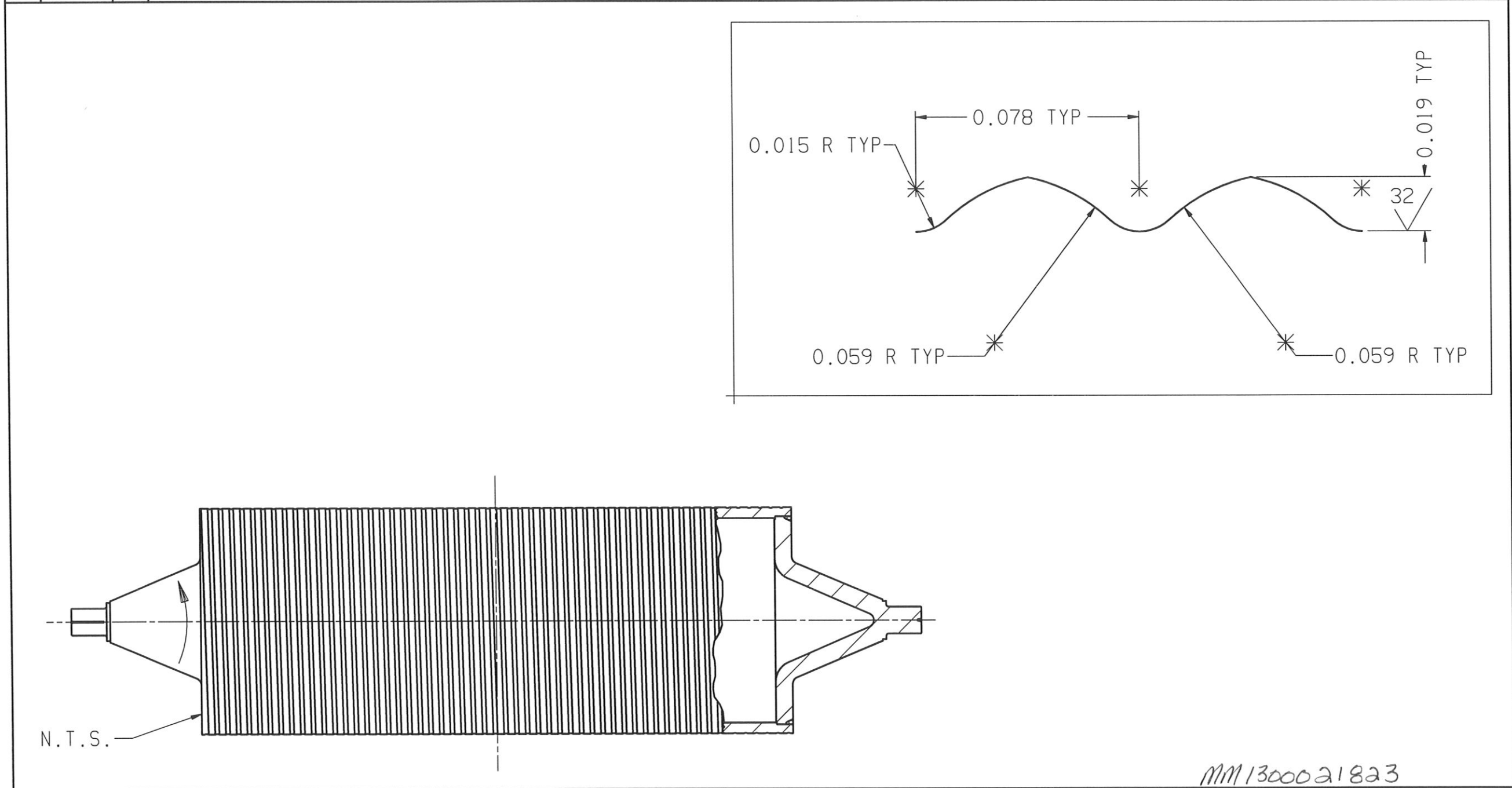
REVISION LEVEL						BILL of MATERIAL				Bt No
Rev	Date	By	By	Zone	Description	Draw	Qty or Part	Qty	Description	Approximate Weight
A	09-09-01	mm	mm	ALL	Revised groove from front view of roll.	1	006-024-0007	1	Valdoust - Barrel/Hub	5475 Lbs
						2	Per Chart Below	1	Detail - S&B Rail Groove Pattern	Lbs
									Approximate Total Weight (After Marking)	4573 Lbs

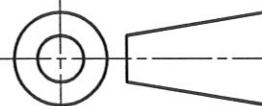



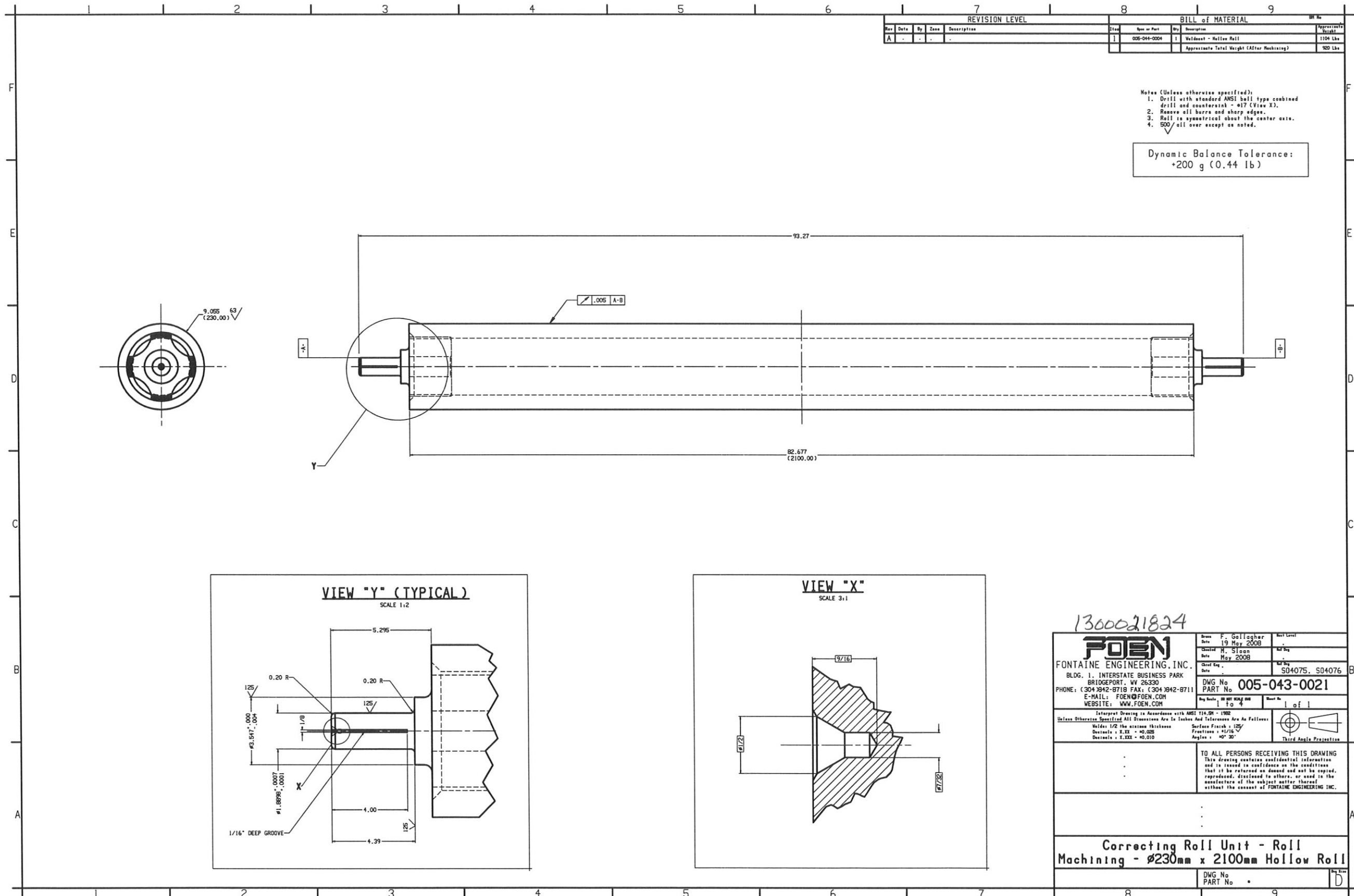
MM1300021823	
<div style="text-align: center;">  </div>	
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Drawn Date	F. Gallagher 09 May 2008
Checked Date	M. Sloan May 2008
Chief Eng. Date	_____ _____
DWG No PART No	800-033-0022 A
Buy Description Part No	800-033-0022 A 1 of 1
Interpretation Drawing in Accordance with ANSI Y14.1M - 1992 Unless Otherwise Specified All Dimensions Are In Inches And Tolerances Are As Follows: Holes: 1/2 the minimum thickness Decimals: ±.XX ±.00.005 Decimals: ±.XXX ±.00.010	
Surface Finish: 125 Fraction: 1/32" ✓ Angle: ± 30°	 Third Angle Projection
ALL TO PERSONS RECEIVING THIS DRAWING This drawing contains confidential information and is issued in confidence on the condition that it be returned on demand and not be copied, reproduced, disclosed to others, or used in the manufacture of the subject matter thereof without the consent of FONTAINE ENGINEERING, INC.	
<div style="text-align: center;"> <h2>Sink Roll Unit - Sink Roll</h2> <h3>Machining - Ø800mm x 2100mm Roll</h3> </div>	
DWG No PART No	_____ _____

LINE 1 + 2

REVISION LEVELS				BILL of MATERIAL				
Rev	Date	By	Description	Item	Spec or Part	Qty	Description	Approximate Weight
A	3/15/2011	FWG	Modified front view to show spiral groove from end to end.	1	.	.	.	.
							Approximate Total Weight	.



<p>Interpret Drawing in Accordance with ANSI Y14.5M - 1982 Unless Otherwise Specified All Dimensions Are in Inches And Tolerances Are As Follows Decimals X.XX ±.025 Fractions 1/16 Decimals X.XXX ±.010 Angles ±0° 30' Welds: 1/2 The Min. Thickness 125</p>			<p>Third Angle Projection</p>		FONTAINE ENGINEERING, INC.	INTERSTATE BUSINESS PARK, BLDG. 1 BRIDGEPORT, WV 26330 PHONE: (304)842-8718 FAX: (304)842-8711 E-MAIL: FOEN@FOEN.COM WEBSITE: WWW.FOEN.COM	PROJECT / REVISION / TYPE	REPLACES THESE PROJECTS	Next Level .	Drawn F. Gallagher Date 30 Jan 2008
TO ALL PERSONS RECEIVING THIS DRAWING This drawing contains confidential information and is issued in confidence on the conditions that it be returned on demand and not be copied, reproduced, disclosed to others, or used in the manufacture of the subject matter thereof without the consent of FONTAINE ENGINEERING INC.				Sink Roll Unit - Rolls Detail - Micro Groove	Ref Dwg .	Checked M. Sloan Date Feb 2008				
					Ref No. .	Chief . Date .				
DWG No 006-035-0036 A PART No						Dwg Scale DO NOT SCALE DWG NTS	Sheet No 1 of 1	Dwg Size A		

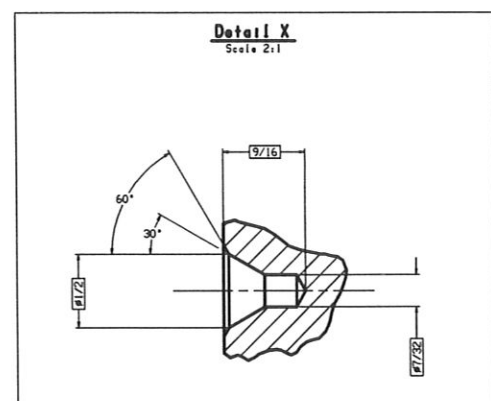
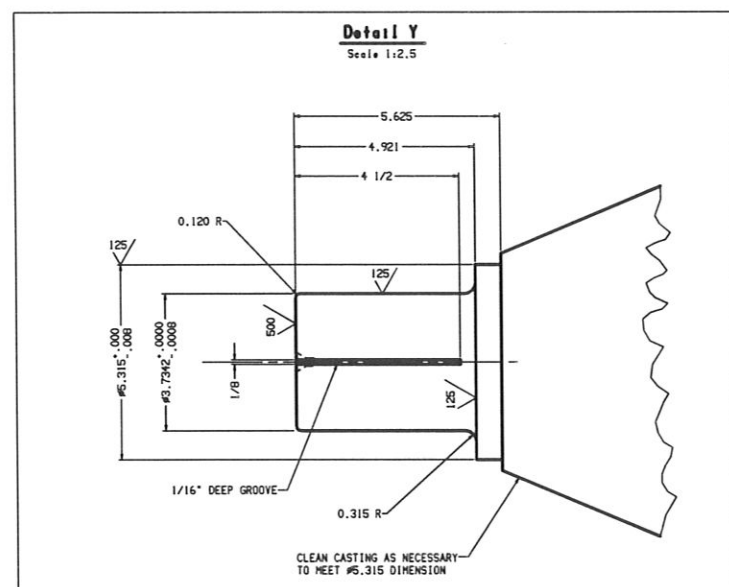
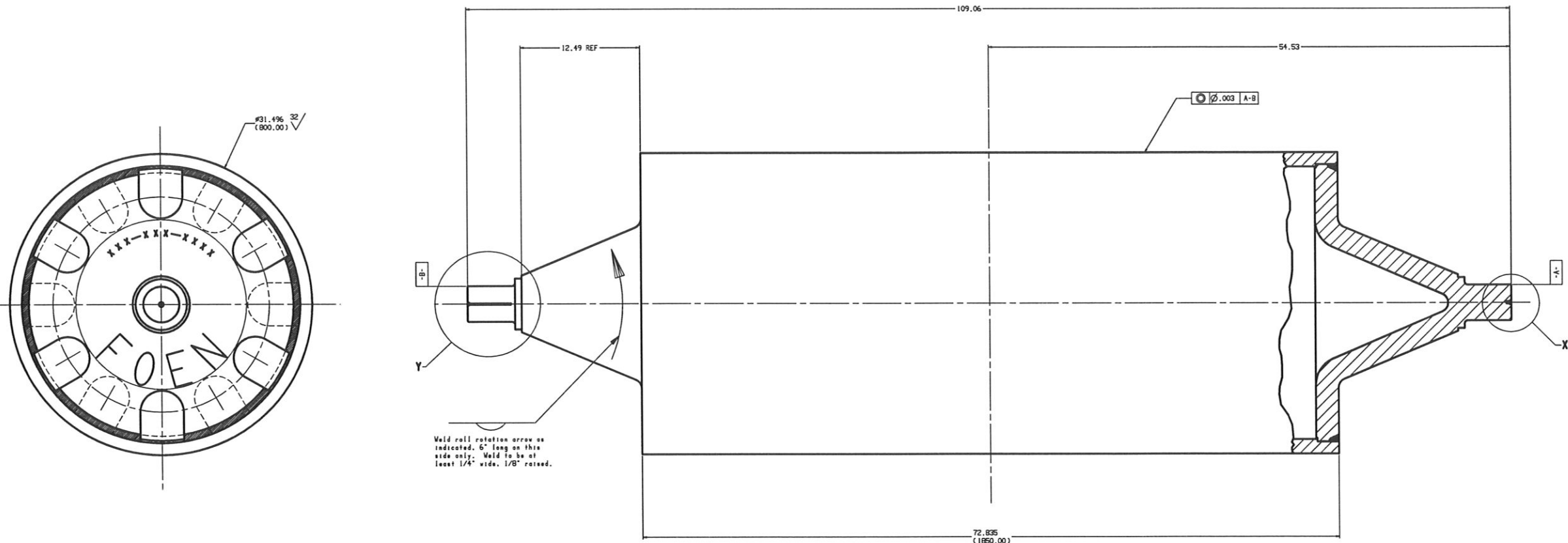


LINE 1+2 160 mm#

Sink Roll Groove Patterns	
Type 1	Dwg. 006-035-0036
Type 2	Dwg. 006-035-0022

- Notes (Unless otherwise specified):
1. Drill With Standard ANSI Ball Type Combined Drill & Counterbore - #17 (View X).
  2. Machine Ends (View Y) & Barrel As Indicated.
  3. Grooved Roll Face & Groove As Indicated On Sink Roll Groove Pattern Drawing.
  4. Remove All Burrs And Sharp Edges.
  5. Dynamic Balance Tolerance (00g-200g (0.22lb-0.44lb)).
  6. Machine Sink Roll Groove According To Chart Above And Roll Finish Specified On This Drawing.

REVISION LEVEL					BILL of MATERIAL			DR No.
Rev	Date	By	Zone	Description	Item	Qty or Part	Description	Approximate Weight
A	14 May 2008	MS	ALL	Revised groove from front view of roll.	1	006-034-0008	Weldment - Barrel/Hub	4671 Lbs
					2	Per Chart Below	Detail - Sink Roll Groove Pattern	Lbs
					Approximate Total Weight (After Machining)			4172 Lbs



MM 1300021826 (FFDEL)

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 E-MAIL: FOEN@FOEN.COM  
 WEBSITE: WWW.FOEN.COM

Drawn: F. Gallagher  
 Date: 14 May 2008  
 Checked: H. Sloan  
 Date: May 2008  
 DWG No: 006-033-0023 A  
 PART No: S04077, S04078

Scale: 1:5  
 Sheet: 1 of 1

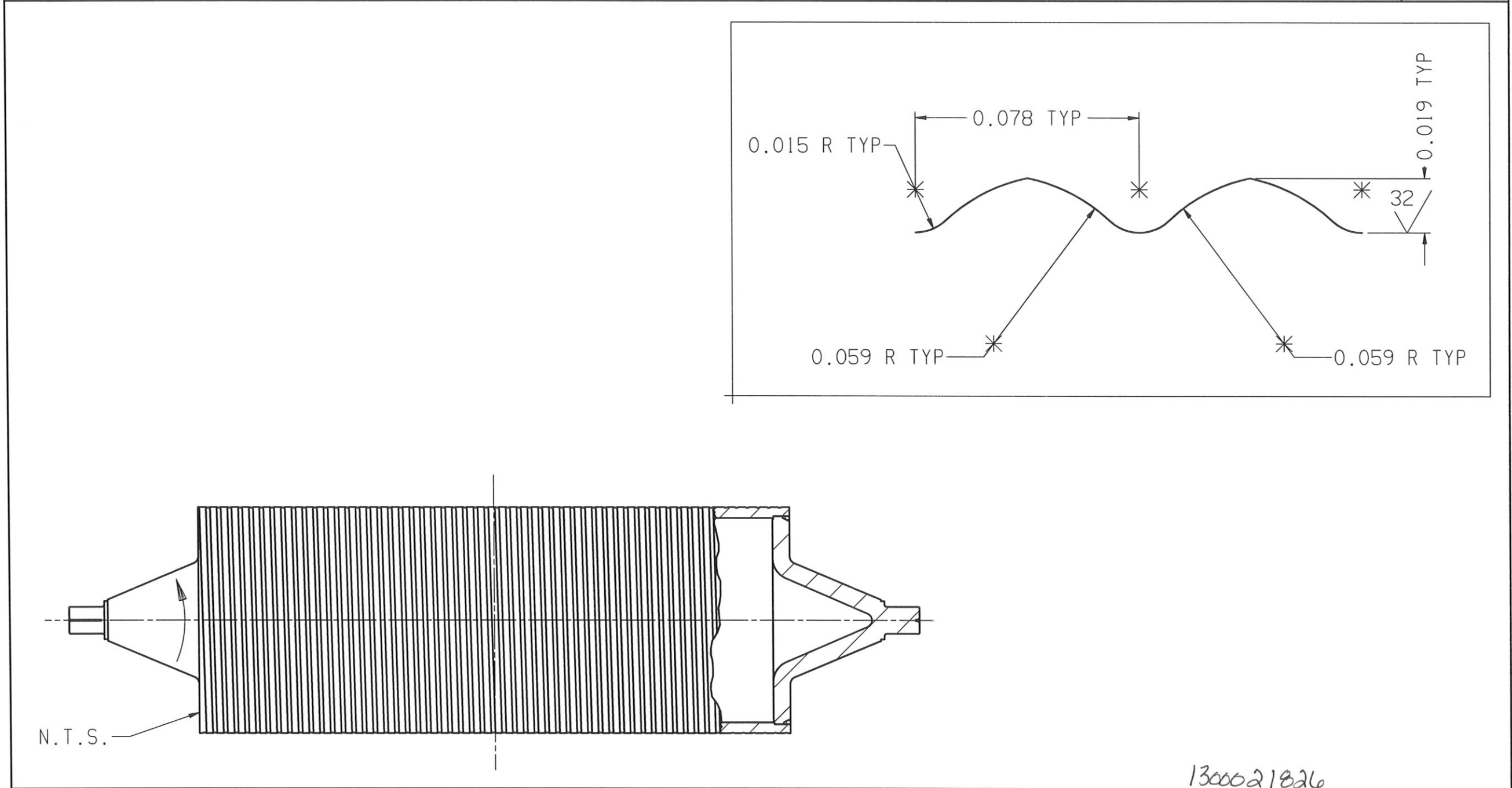
Interpret Drawing in Accordance with ANSI Y14.1M - 1982  
 Unless Otherwise Specified All Dimensions Are In Inches And Tolerances Are As Follows:  
 Welds: 1/2 the minimum thickness  
 Decimals: ± .01  
 Fractions: ± 1/16  
 Angles: ± 1°

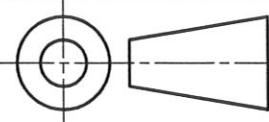

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**Sink Roll Unit - Sink Roll**  
**Machining - 800mm x 1850mm Roll ZN**

DWG No: 006-033-0023 A  
 PART No: S04077, S04078

REVISION LEVELS				BILL of MATERIAL				
Rev	Date	By	Description	Item	Spec or Part	Qty	Description	Approximate Weight
A	3/15/2011	FWG	Modified front view to show spiral groove from end to end.	1	.	.	.	.
							Approximate Total Weight	.



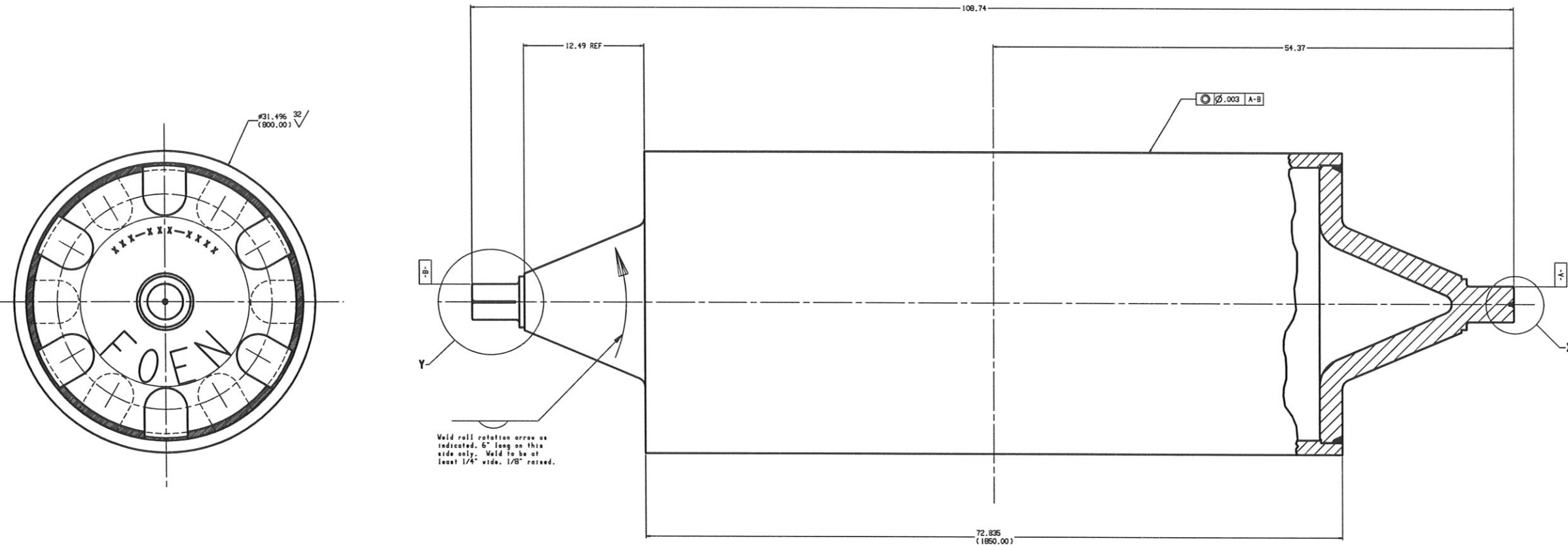
<p>Interpret Drawing in Accordance with ANSI Y14.5M - 1982 Unless Otherwise Specified All Dimensions Are In Inches And Tolerances Are As Follows Decimals X.XX ±.025 Fractions ±1/16 Decimals X.XXX ±.010 Angles ±0° 30' Welds: 1/2 The Min. Thickness 125</p>			<p>Third Angle Projection</p>			PROJECT / REVISION / TYPE		REPLACES THESE PROJECTS	<p>Next Level .</p>	<p>Drawn F. Gallagher Date 30 Jan 2008</p>	
<p>TO ALL PERSONS RECEIVING THIS DRAWING This drawing contains confidential information and is issued in confidence on the conditions that it be returned on demand and not be copied, reproduced, disclosed to others, or used in the manufacture of the subject matter thereof without the consent of FONTAINE ENGINEERING INC.</p>				<p>INTERSTATE BUSINESS PARK, BLDG. 1 BRIDGEPORT, WV 26330 PHONE: (304)842-8718 FAX: (304)842-8711 E-MAIL: FOEN@FOEN.COM WEBSITE: WWW.FOEN.COM</p>					<p>Ref Dwg .</p>	<p>Checked M. Sloan Date Feb 2008</p>	
									<p>Ref No. .</p>	<p>Chief Date</p>	
<p>Sink Roll Unit - Rolls Detail - Micro Groove</p>									<p>DWG No 006-035-0036 A PART No</p>		
									<p>Dwg Scale DO NOT SCALE DWG NTS</p>	<p>Sheet No 1 of 1</p>	<p>Dwg Size A</p>





- Notes (Unless otherwise specified):
1. Drill With Standard ANSI Drill Type Combined Drill & Counterbore - #17 (View X).
  2. Machine Ends (View Y) & Barrel As Indicated.
  3. Grind Roll Face Flat. No Grooves.
  4. Remove All Burrs And Sharp Edges.
  5. Dynamic Balance Tolerance 100g-200g (0.22lb-0.44lb).

REVISION LEVEL					BILL of MATERIAL			Part No.
Rev	Date	By	Zone	Description	Item	Qty	Part	Description
A	-	-	-	-	1	006-034-0008	1	Weldment - Barrel/Flank
Approximate Total Weight (After Machining)								4172 Lbs

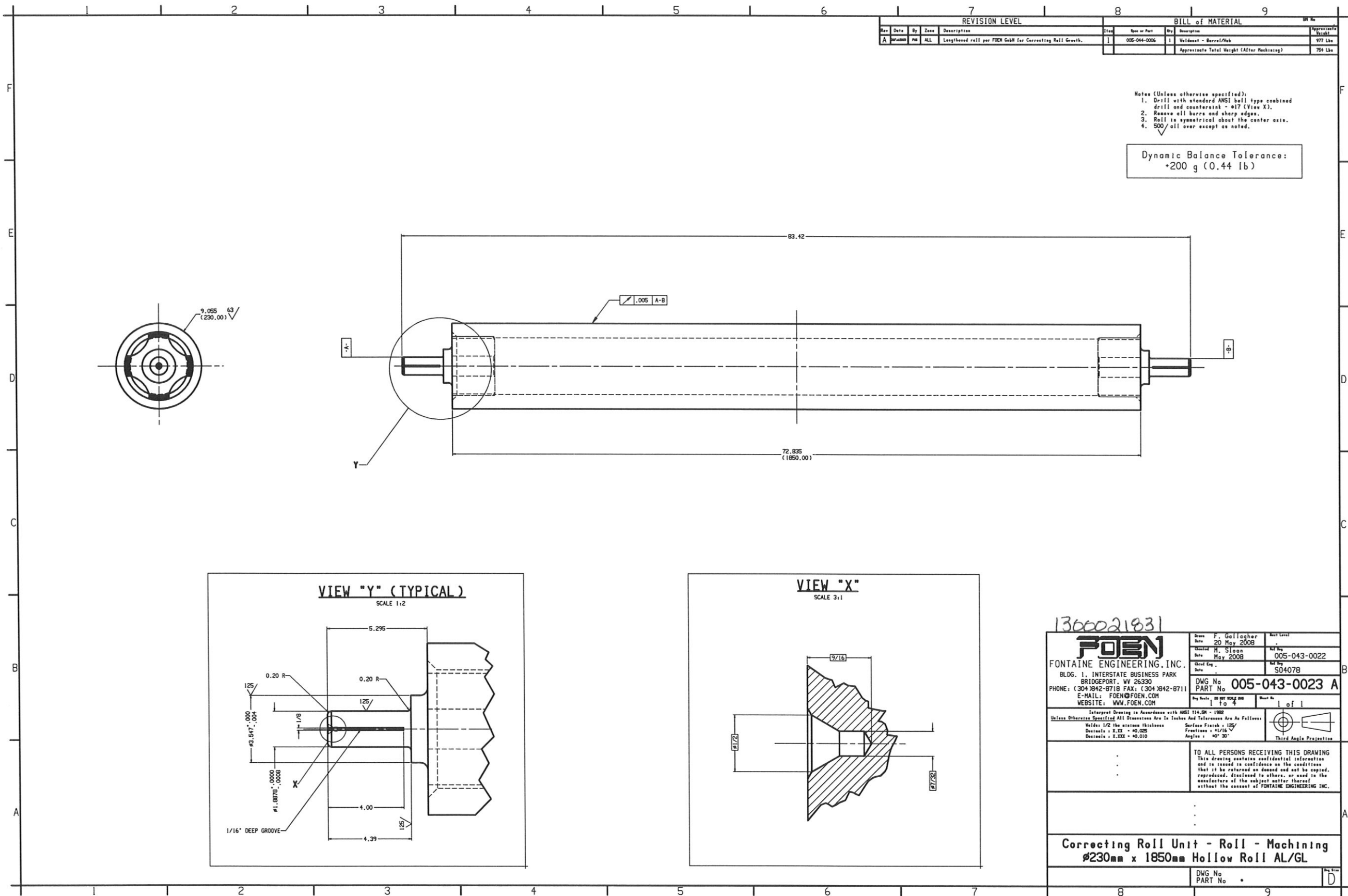


**Detail Y**  
Scale 1:2.5

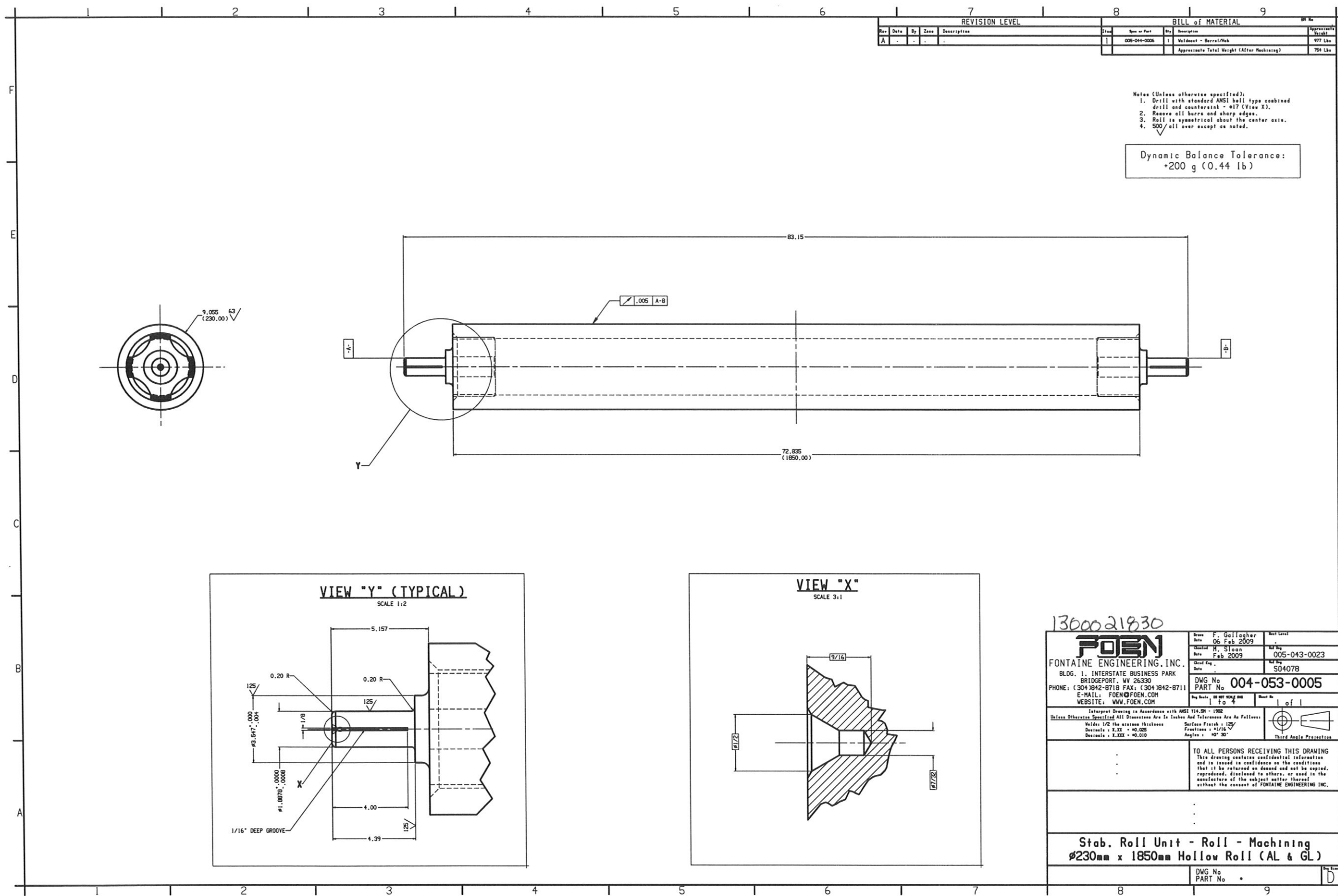
**Detail X**  
Scale 2:1

1300021829

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DWG No 006-033-0024 PART No		Rev Scale 1:5	Sheet No. 1 of 1	Third Angle Projection	
Interpret Drawing in Accordance with ANSI Y14.5M - 1992 Unless Otherwise Specified All Dimensions Are in Inches And Tolerances Are As Follows: Welds: 1/2 the minimum thickness Surfaces: Finish - 125 Decimals: 2, XX - +0.025 Fractions: 1/16 Angles: 40° 30'					
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Sink Roll Unit - Sink Roll Machining - #800mm x 1850mm Roll AL/GL					
DWG No		PART No		D	



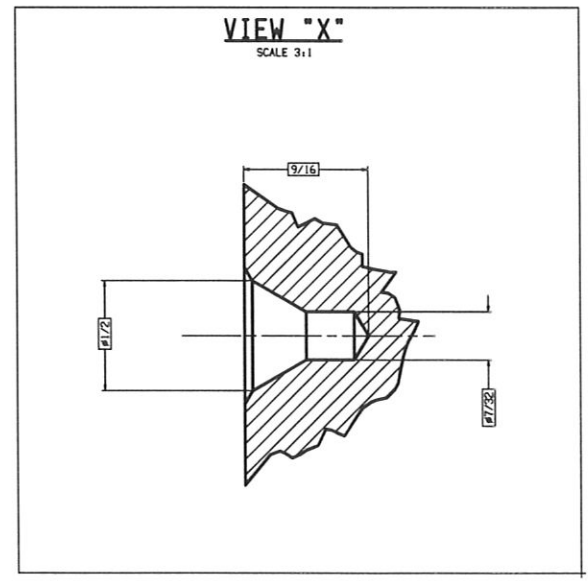
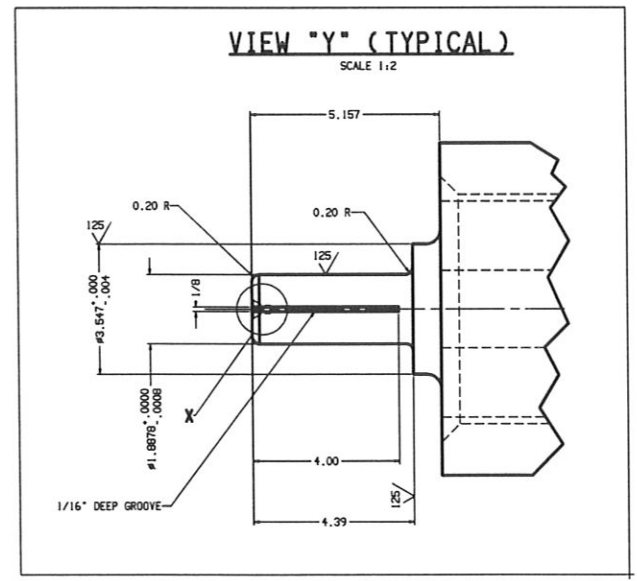




REVISION LEVEL					BILL of MATERIAL			DR No
Rev	Date	By	Zone	Description	Item	Qty	Part No	Approximate Weight
A	-	-	-	-	1	005-044-0005	1	977 Lbs
Approximate Total Weight (After Machining)								754 Lbs

Notes (Unless otherwise specified):  
1. Drill with standard ANSI ball type combined drill and counterbore - ø17 (View X).  
2. Remove all burrs and sharp edges.  
3. Roll is symmetrical about the center axis.  
4. 500/ all over except as noted.

Dynamic Balance Tolerance:  
+200 g (0.44 lb)



1300021830

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WEBSITE: WWW.FOEN.COM

Drawn Date F. Gallagher 06 Feb 2009	Rev Level 005-043-0023
Checked Date M. Sisson Feb 2009	Rev Level S04078
Client Eng. Date	DWG No PART No 004-053-0005
Eng Scale: 1:1 1 to 4	Sheet No 1 of 1

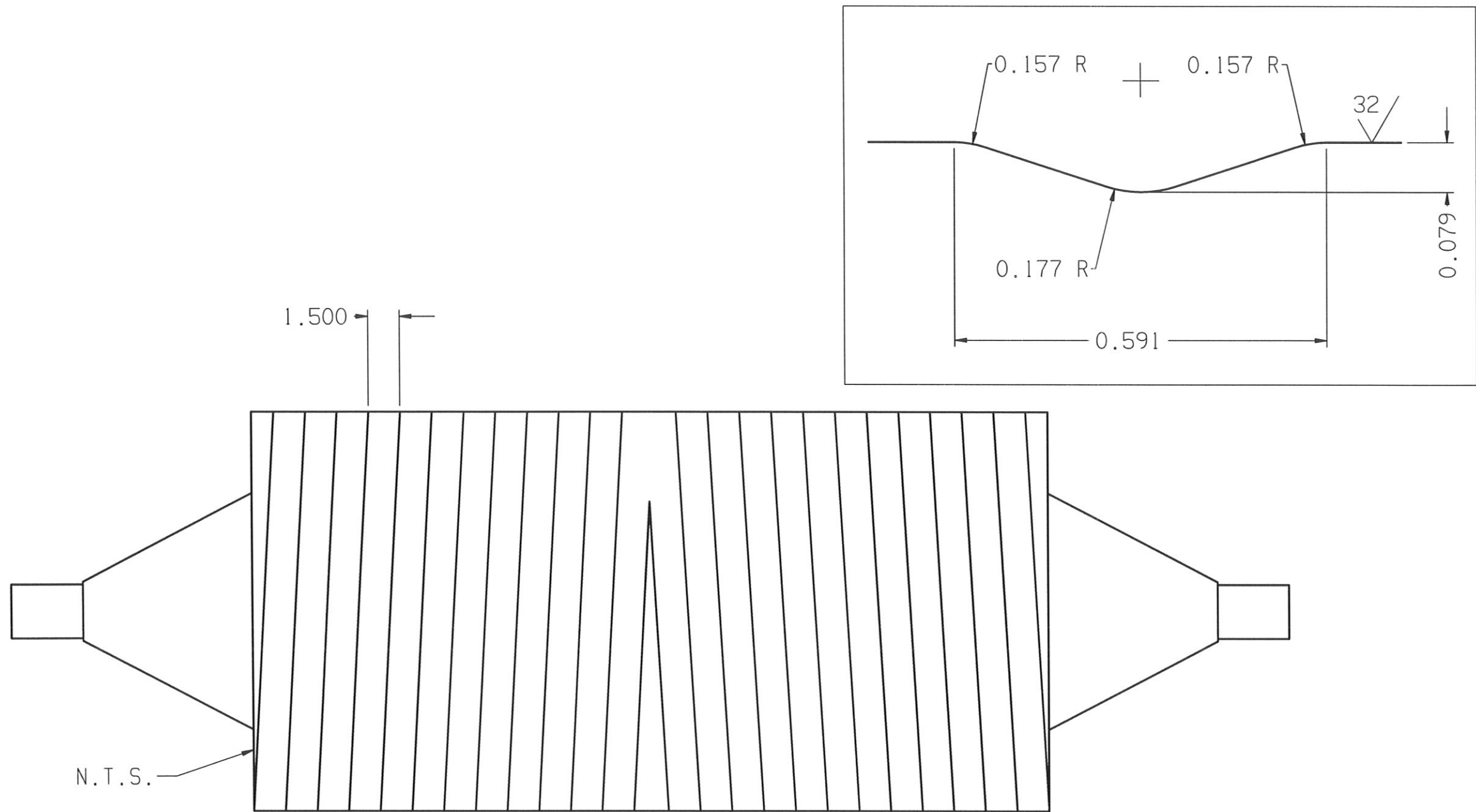
Interpret Drawing in Accordance with ANSI Y14.5M - 1982  
Unless Otherwise Specified All Dimensions Are in Inches and Tolerances Are As Follows:  
Welds: 1/2 the extreme thickness  
Decimals: ± 0.01  
Fractions: ± 1/16  
Angles: ± 30°  
Surface Finish: 125/16  
Angles: 40°/30°  
Third Angle Projection

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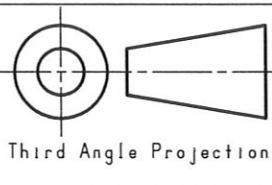
**Stab. Roll Unit - Roll - Machining**  
ø230mm x 1850mm Hollow Roll (AL & GL)

DWG No  
PART No  
D

REVISION LEVELS					BILL of MATERIAL				
Rev	Date	DCA	By	Description	Item	Spec or Part	Qty	Description	Approximate Weight
A	11/97	.	MWR	Changed Tolerance On The 1.5" Dim To 1.500"	1	.	.	.	.
								Approximate Total Weight	.



Interpret Drawing in Accordance  
with ANSI Y14.5M - 1982  
Unless Otherwise Specified All  
Dimensions Are In Inches  
And Tolerances Are As Follows  
Decimals X.XX ±.025 Fractions ±1/16  
Decimals X.XXX ±.010 Angles ±0° 30'  
Welds: 1/2 The Min. Thickness 125/



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Sink Roll Unit - Rolls  
Detail - Sink Roll Groove

Next Level	Drawn J. Bell
.	Date 9 May 1997
Ref Dwg	Checked .
.	Date .
Ref Dwg	Chief .
S01381 (LIB)	Date .

DWG No	006-035-0017A		
PART No			
Dwg Scale DO NOT SCALE DWG	Sheet No	Dwg Size	
NTS	1 of 1	A	