NEED

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

Notes (Unless otherwise specified):

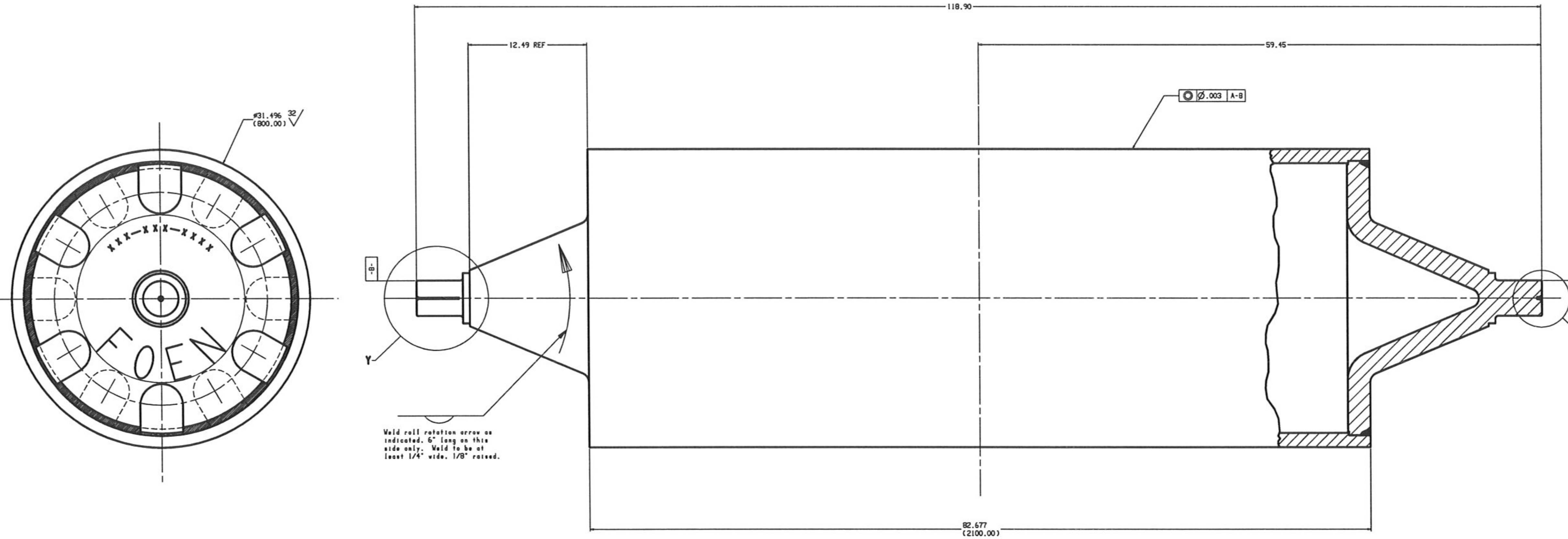
1. Drill With Standard ANSI Bell Type Combined Drill & Countersink - #17 (View X).
2. Machine Ends (View Y) & Barrel As Indicated.
3. Grind Roll Face & Groove As Indicated On Sink Roll Groove Pattern Drawing.
4. Remove All Burrs And Sharp Edges.
5. Dynamic Balance Tolerance 100g-200g (0.22lb-0.44lb).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

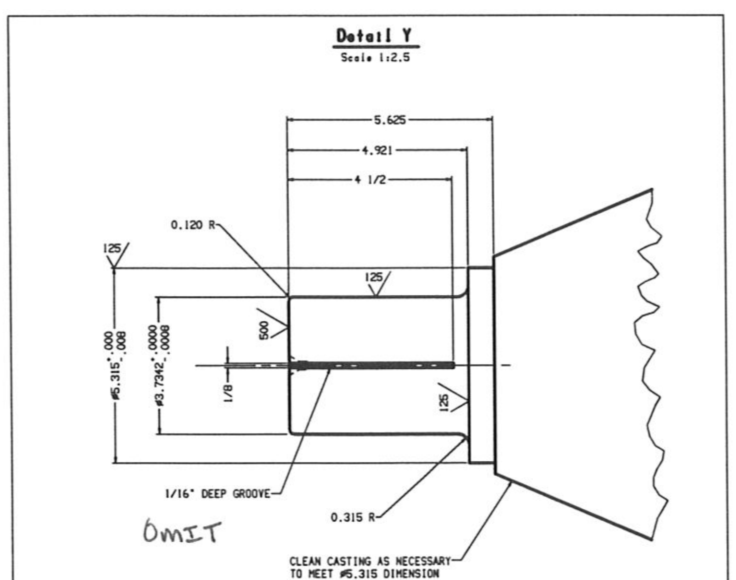
REVISION LEVEL

Rev	Date	✓By	By	Zone	Description
A	[illegible]	[illegible]	[illegible]	ALL	Removed groove from front view of roll.

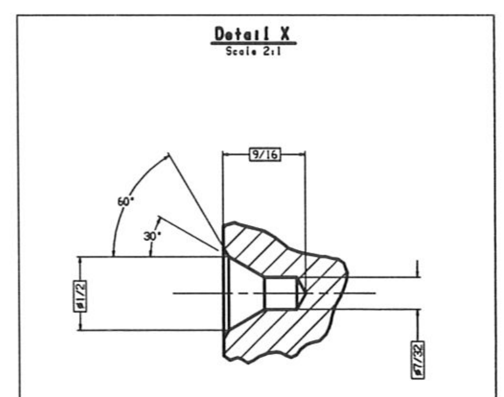
BILL of MATERIAL

Item	Spec or Part	Qty	Description	Approximate Weight
1	006-034-0007	1	Weldment - Barrel/Hub	5475 Lbs
2	Per Chart Below	1	Detail - Sink Roll Groove Pattern	Lbs
			Approximate Total Weight (After Machining)	4573 Lbs





OMIT



MM1300021823

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Drawn	F. Gallagher	Next Level	.
Date	09 May 2008	Ref Dwg	006-033-0021
Checked	M. Sloan	Ref Dwg	S04075, S04076
Date	May 2008		
Chief Eng	.		
Date	.		

DWG No / PART No 006-033-0022 A

Dwg Scale (DO NOT SCALE DWG): 1:5 — 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 minimum thickness — Surface Finish: 125
Decimals: X.XX ±0.025 — Fractions: ±1/16
Decimals: X.XXX ±0.010 — Angles: ±0° 30'

Third Angle Projection

PROJECT / REVISION / TYPE — REPLACES THESE PROJECTS

Sink Roll Unit - Sink Roll Machining - ø800mm x 2100mm Roll

DWG No / PART No • — Dwg Size D

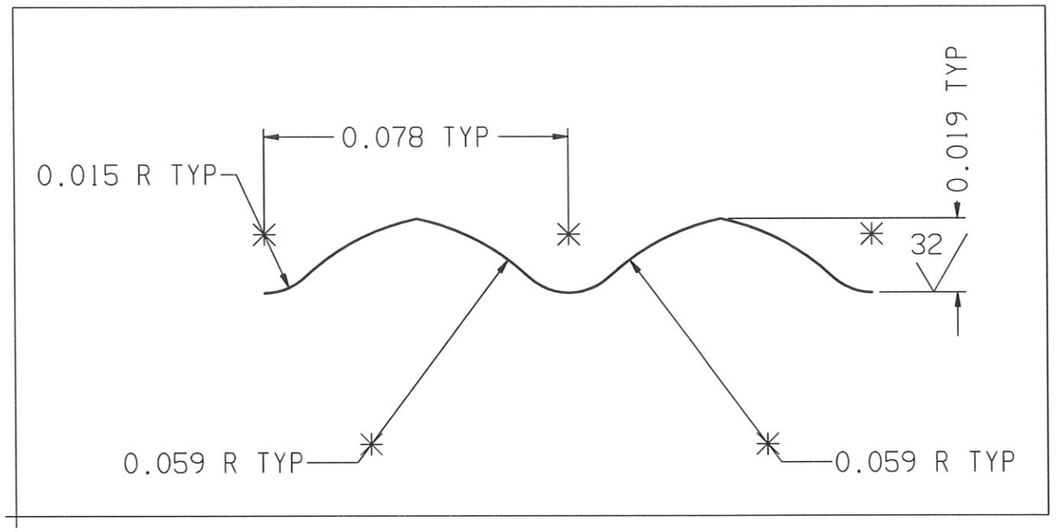
LINE 1 + 2

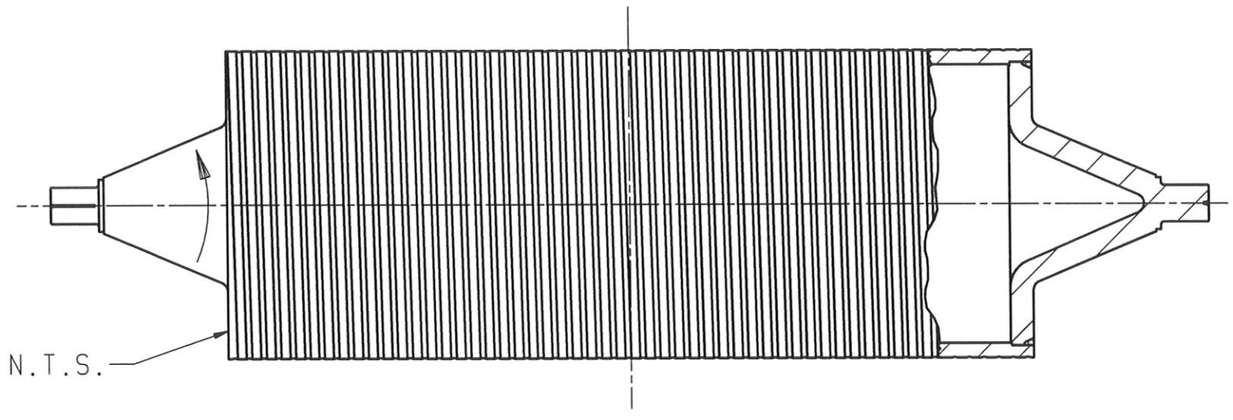
REVISION LEVELS

Rev	Date	By	Description
A	3/15/2011	FWG	Modified front view to show spiral groove from end to end.

BILL of MATERIAL

Item	Spec or Part	Qty	Description	Approximate Weight
1	.	.	.	.
			Approximate Total Weight	.





MM1300021823

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

Third Angle Projection

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PROJECT / REVISION / TYPE .

REPLACES THESE PROJECTS .

Sink Roll Unit - Rolls
Detail - Micro Groove

Next Level .	Drawn F. Gallagher
	Date 30 Jan 2008
Ref Dwg .	Checked M. Sloan
	Date Feb 2008
Ref No. .	Chief .
	Date .

DWG No / PART No 006-035-0036 A

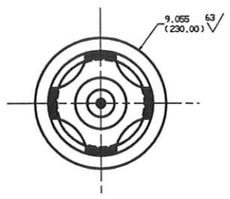
Dwg Scale DO NOT SCALE DWG	Sheet No	Dwg Size
NTS	1 of 1	A

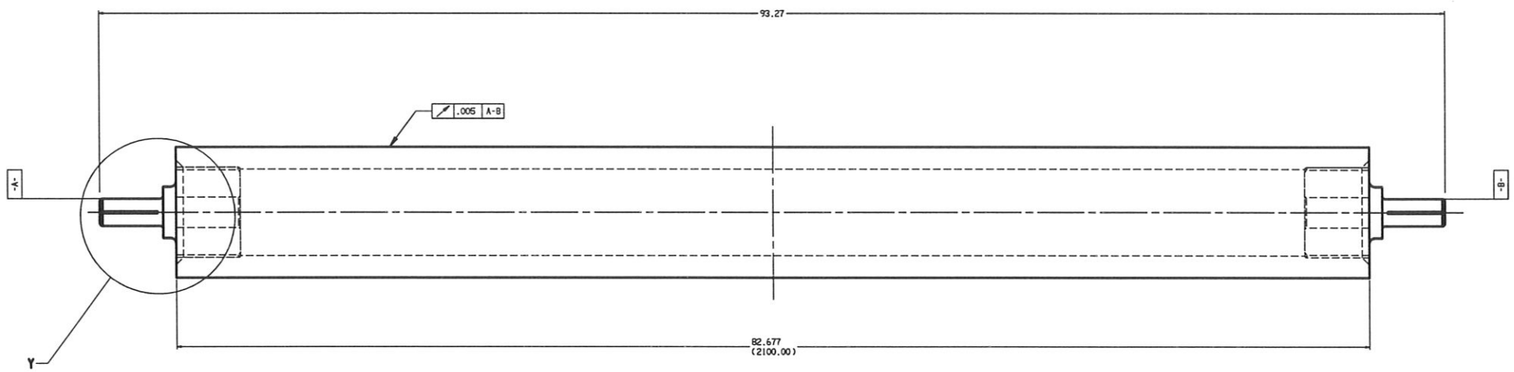
REVISION LEVEL				
Rev	Date	By	Zone	Description
A	-	-	-	-

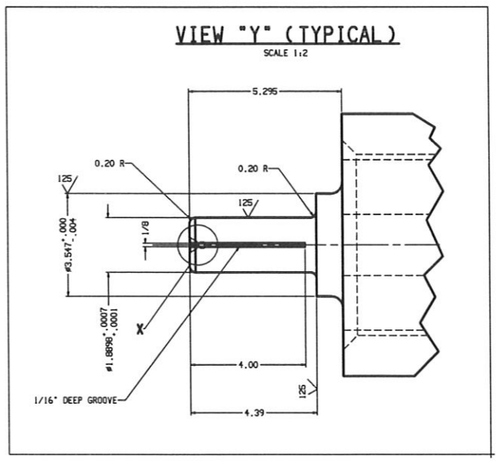
BILL of MATERIAL				
Item	Spec or Part	Qty	Description	Approximate Weight
1	005-044-0004	1	Weldment - Hollow Roll	1104 Lbs
			Approximate Total Weight (After Machining)	920 Lbs

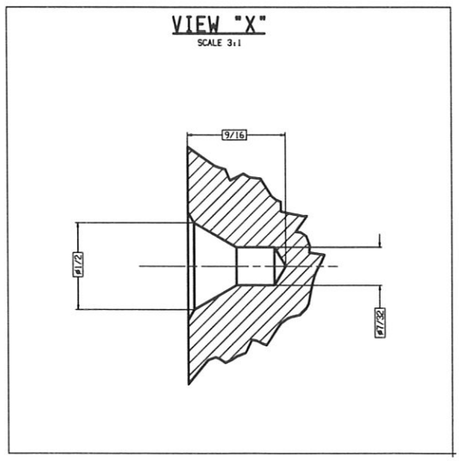
Notes (Unless otherwise specified):
1. Drill with standard ANSI bell type combined drill and countersink - 617 (View X).
2. Remove all burrs and sharp edges.
3. Roll to symmetrical about the center axis.
4. 500 √ all over except as noted.

Dynamic Balance Tolerance:
+200 g (0.44 lb)









1300021824

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WEBSITE: WWW.FOEN.COM

Drawn: F. Gallagher, Date: 19 May 2008
Checked: M. Sloan, Date: May 2008
Chief Eng., Date:
Next Level: -
Ref Dwg: -
Ref Dwg: S04075, S04076
DWG No PART No 005-043-0021
Dwg Scale: DO NOT SCALE DWG: 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 minimum thickness
Decimals: X.XX ± .025
Decimals: X.XXX ± .010
Surface Finish: 125√
Fractions: ±1/16
Angles: ± 30'
Third Angle Projection

Correcting Roll Unit - Roll
Machining - ø230mm x 2100mm Hollow Roll

DWG No
PART No -
Dwg Size: D

LINE 1+2 No MM#

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

Notes (Unless otherwise specified):

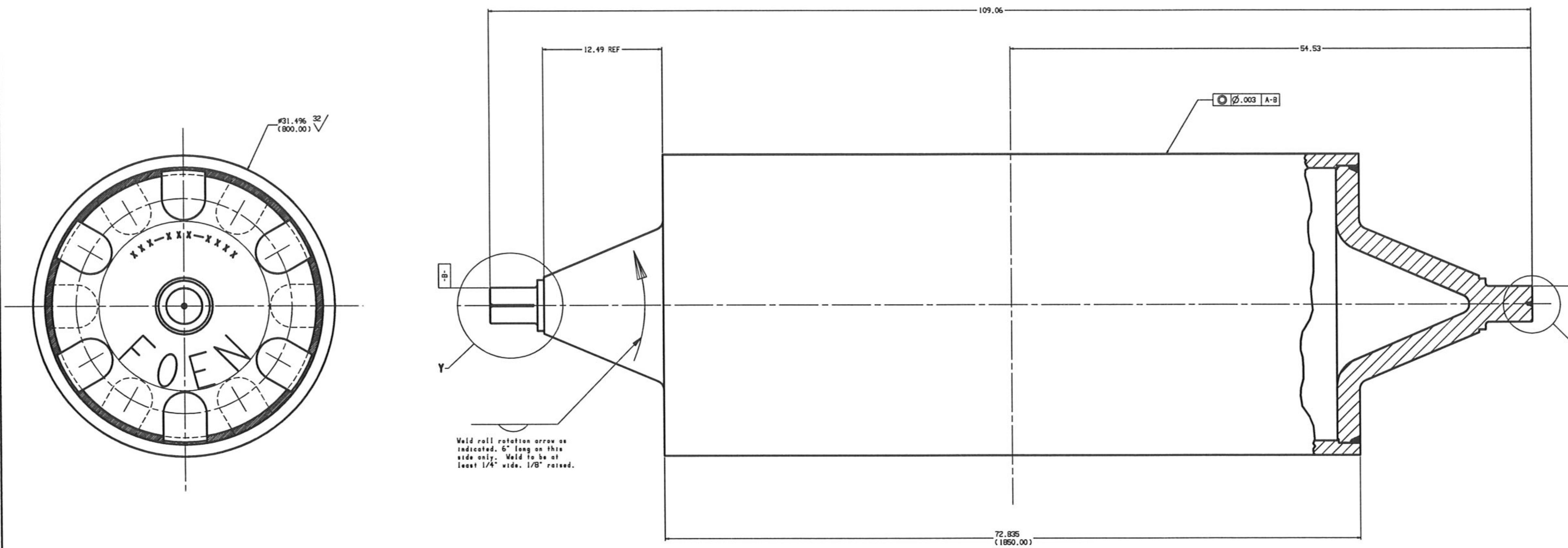
1. Drill With Standard ANSI Bell Type Combined Drill & Countersink - #17 (View X).
2. Machine Ends (View Y) & Barrel As Indicated.
3. Grind Roll Face & Groove As Indicated On Sink Roll Groove Pattern Drawing.
4. Remove All Burrs And Sharp Edges.
5. Dynamic Balance Tolerance 100g-200g (0.22lb-0.44lb).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

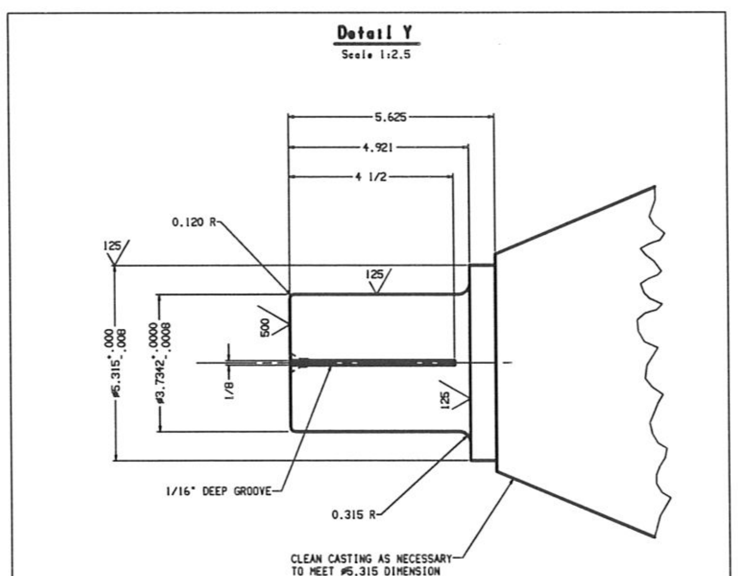
REVISION LEVEL

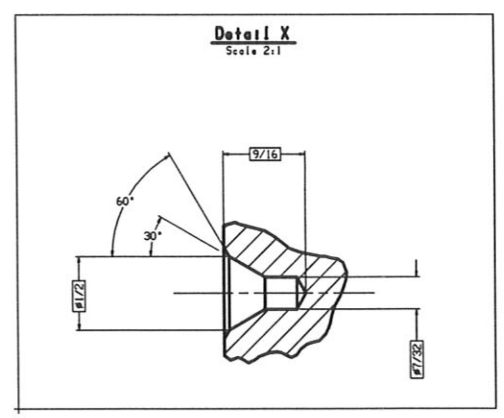
Rev	Date	✓By	By	Zone	Description
A	[illegible]	[illegible]	[illegible]	ALL	Removed groove from front view of roll.

BILL of MATERIAL

Item	Spec or Part	Qty	Description	Approximate Weight
1	006-034-0008	1	Weldment - Barrel/Hub	4671 Lbs
2	Per Chart Below	1	Detail - Sink Roll Groove Pattern	Lbs
			Approximate Total Weight (After Machining)	4172 Lbs







MM 1300021826 (FFDEL)

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Drawn / Date	F. Gallagher / 14 May 2008	Next Level	.
Checked / Date	M. Sloan / May 2008	Ref Dwg	006-033-0022
Chief Eng / Date	. / .	Ref Dwg	S04077, S04078

DWG No / PART No 006-033-0023 A

Dwg Scale DO NOT SCALE DWG 1:5 — 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 minimum thickness
Decimals : X.XX = ±0.025
Decimals : X.XXX = ±0.010
Surface Finish : 125
Fractions : ±1/16
Angles : ±0° 30'

Third Angle Projection

PROJECT / REVISION / TYPE .

REPLACES THESE PROJECTS .

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

DWG No / PART No .

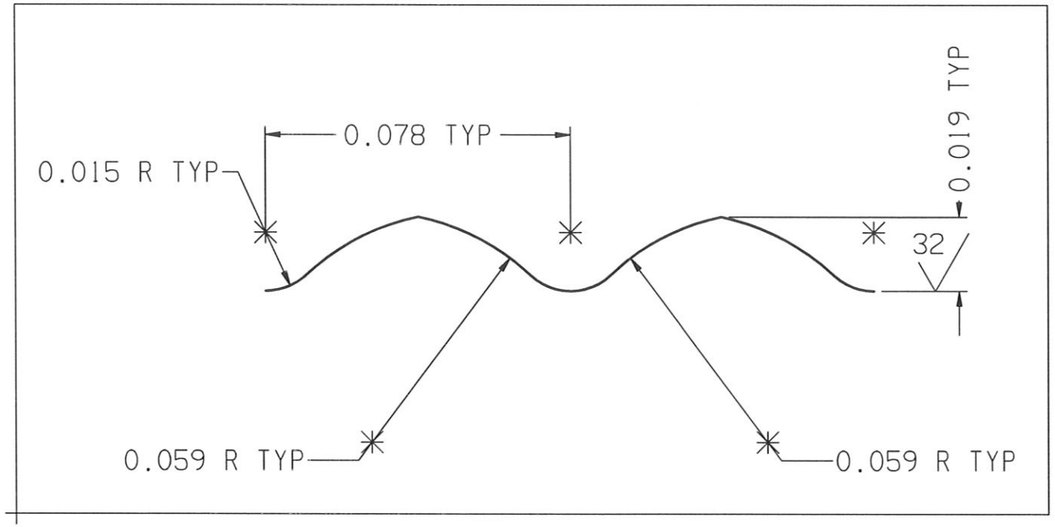
Dwg Size D

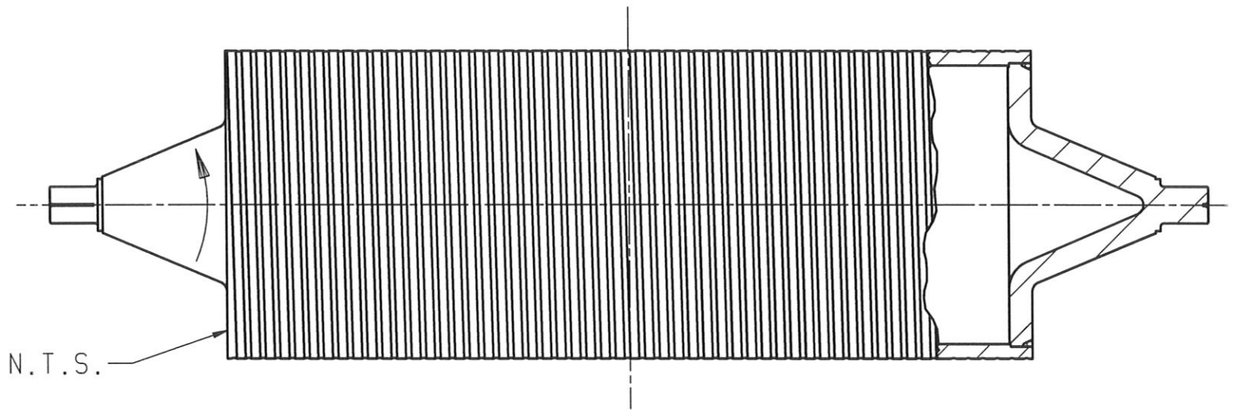
REVISION LEVELS

Rev	Date	By	Description
A	3/15/2011	FWG	Modified front view to show spiral groove from end to end.

BILL of MATERIAL

Item	Spec or Part	Qty	Description	Approximate Weight
1	.	.	.	.
			Approximate Total Weight	.





13000218Z6

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

Third Angle Projection

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WEBSITE: WWW.FOEN.COM

PROJECT / REVISION / TYPE .

REPLACES THESE PROJECTS .

Sink Roll Unit - Rolls
Detail - Micro Groove

Next Level .	Drawn F. Gallagher
	Date 30 Jan 2008
Ref Dwg .	Checked M. Sloan
	Date Feb 2008
Ref No. .	Chief .
	Date .

DWG No 006-035-0036 A
PART No

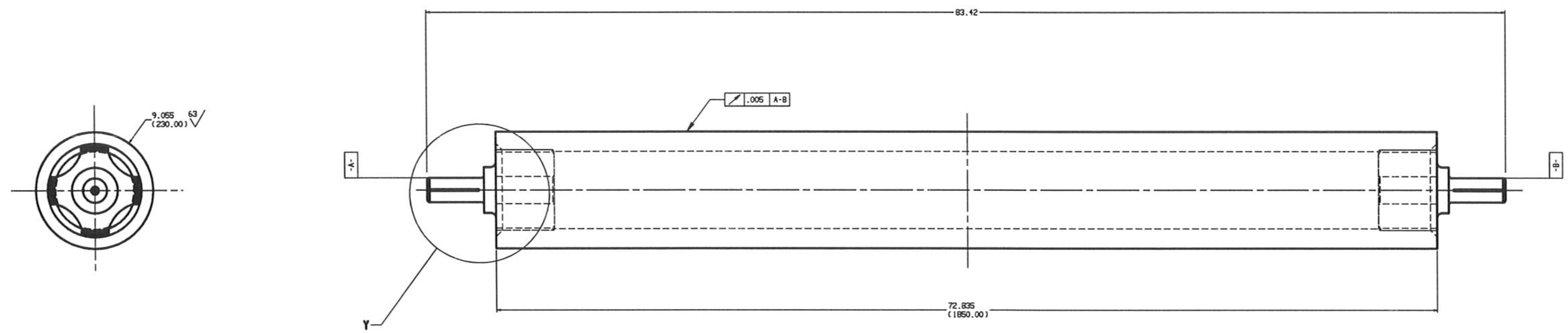
Dwg Scale DO NOT SCALE DWG	Sheet No	Dwg Size
NTS	1 of 1	A

REVISION LEVEL				
Rev	Date	By	Zone	Description
A	.	.	.	.

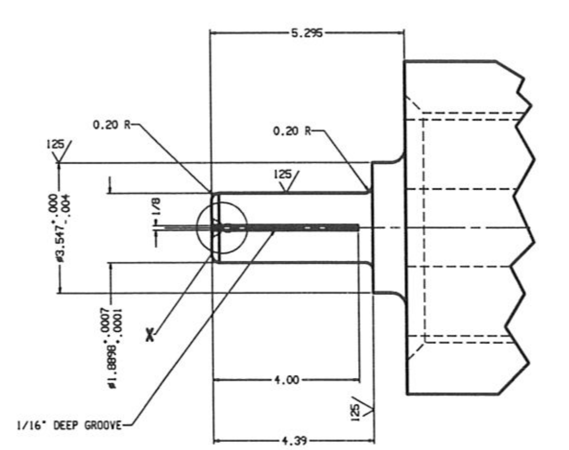
BILL of MATERIAL				
Item	Spec or Part	Qty	Description	Approximate Weight
1	005-044-0006	1	Weldment - Barrel/Hub	977 Lbs
			Approximate Total Weight (After Machining)	754 Lbs

Notes (Unless otherwise specified):
1. Drill with standard ANSI bell type combined drill and countersink - #17 (View X).
2. Remove all burrs and sharp edges.
3. Roll is symmetrical about the center axis.
4. 500√ all over except as noted.

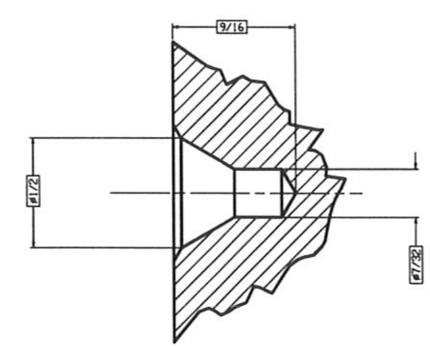
Dynamic Balance Tolerance:
+200 g (0.44 lb)



VIEW "Y" (TYPICAL)
SCALE 1:2



VIEW "X"
SCALE 3:1



1300021828

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Drawn	F. Gallagher	Next Level	.
Date	20 May 2008		
Checked	M. Sloan	Ref Dwg	005-043-0021
Date	May 2008		
Chief Eng	.	Ref Dwg	S04077, S04078
Date	.		

DWG No / PART No 005-043-0022

Dwg Scale (DO NOT SCALE DWG): 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 minimum thickness — Surface Finish : 125√
Decimals : X.XX = ±0.025 — Fractions : ±1/16
Decimals : X.XXX = ±0.010 — Angles : ±0° 30'

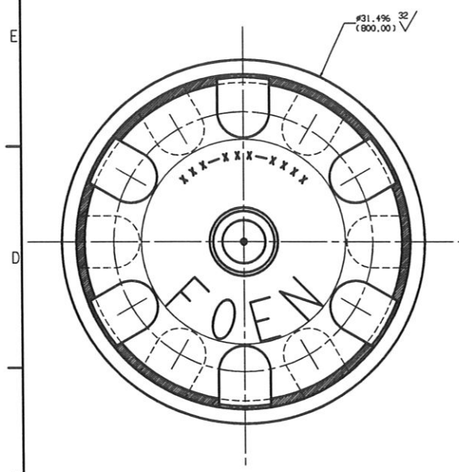
Third Angle Projection

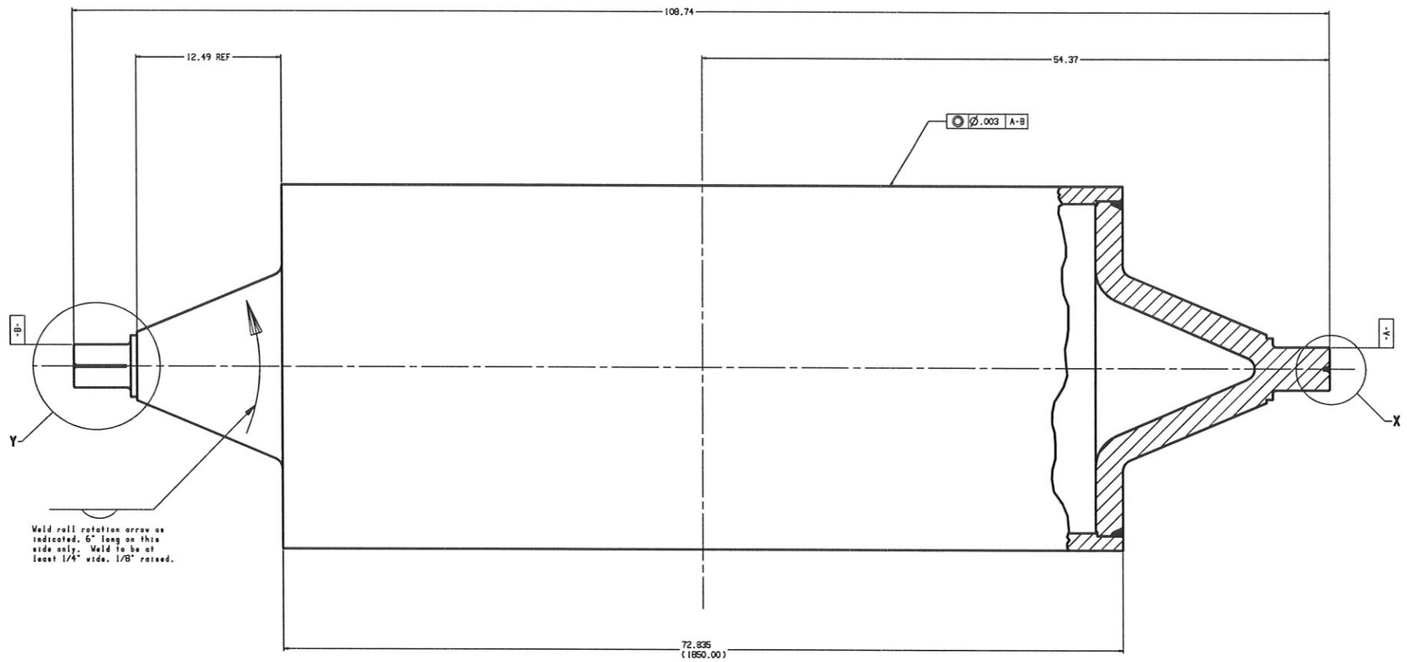
Correcting Roll Unit - Roll
Machining - Ø230mm x 1850mm Hollow Roll ZN

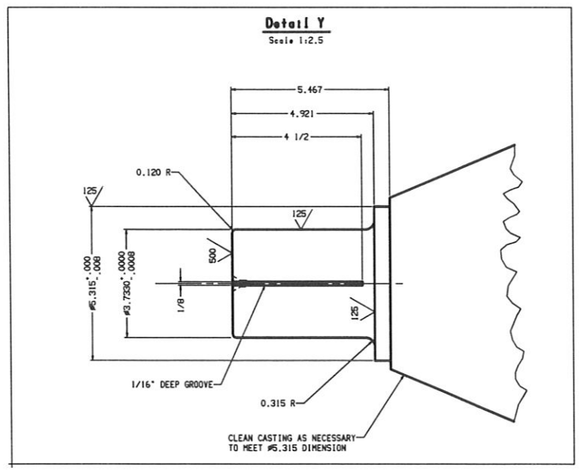
DWG No / PART No .   Dwg Size D

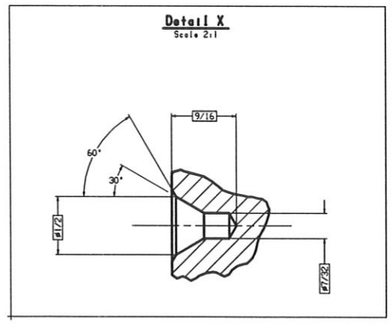
Notes (Unless otherwise specified):
1. Drill With Standard ANSI Bolt Type Combined Drill & Counterbore - #17 (View X).
2. Machine Ends (View Y) & Barrel As Indicated.
3. Grind Roll Face Flat, No Grooves.
4. Remove All Burrs And Sharp Edges.
5. Dynamic Balance Tolerance 100g-200g (0.22lb-0.44lb).

REVISION LEVEL						BILL of MATERIAL				
Rev	Date	∨By	By	Zone	Description	Item	Spec or Part	Qty	Description	Approximate Weight
A	-	-	-	-	-	1	006-034-0008	1	Weldment - Barrel/Hub	4671 Lbs
									Approximate Total Weight (After Machining)	4172 Lbs









1300021829

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Drawn F. Gallagher 14 May 2008
Checked M. Sloan May 2008
Chief Eng. - -
Sheet Level -
Ref Dwg 006-033-0023
Ref Dwg S04078
DWG No PART No 006-033-0024
Dwg Scale DO NOT SCALE DWG 1:5
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:
Weldor 1/2 the minimum thickness
Decimals : X.XX ± ±0.025
Decimals : X.XXX ± ±0.010
Surface Finish : 125
Fractions : 1/16
Angles : ±0° 30'

Third Angle Projection

PROJECT / REVISION / ITEM: -

REPLACES THESE PROJECTS: -

Sink Roll Unit - Sink Roll
Machining - ø800mm x 1850mm Roll AL/GL

DWG No
PART No -

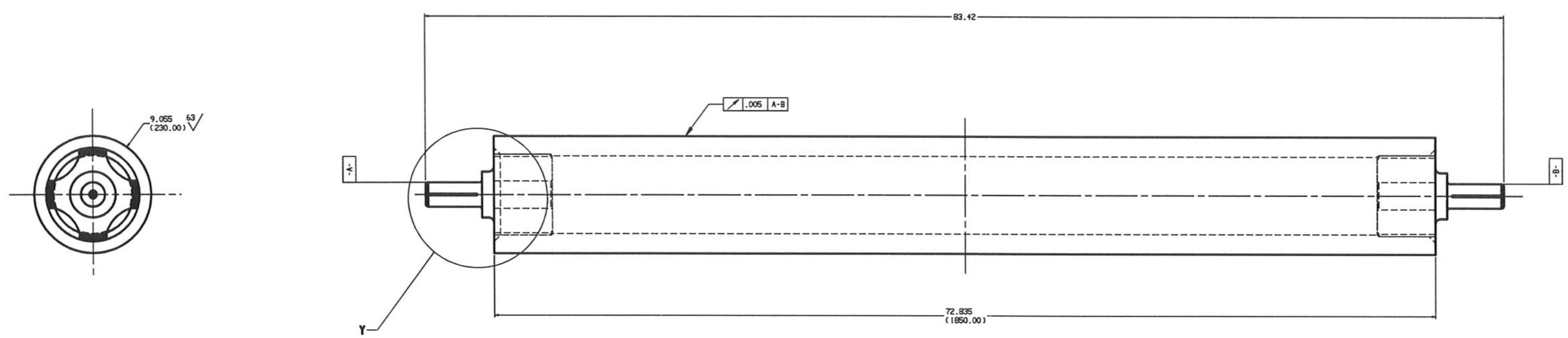
Dwg Size D

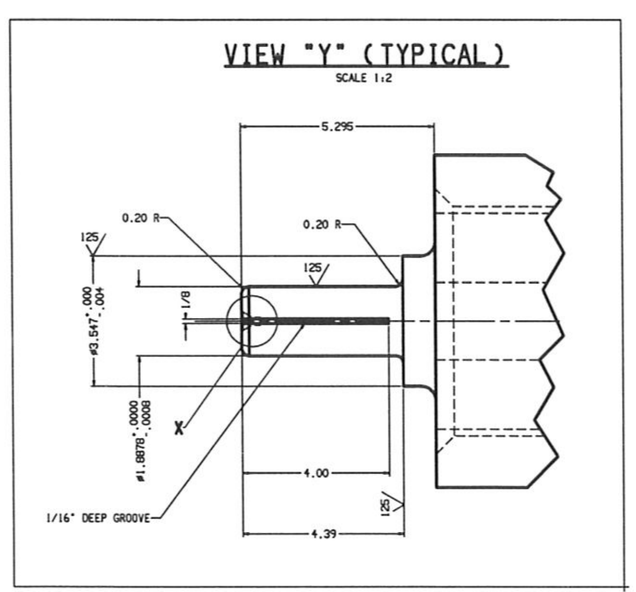
REVISION LEVEL				
Rev	Date	By	Zone	Description
A	[illegible]	[illegible]	ALL	Lengthened roll per FOEN GmbH for Correcting Roll Growth.

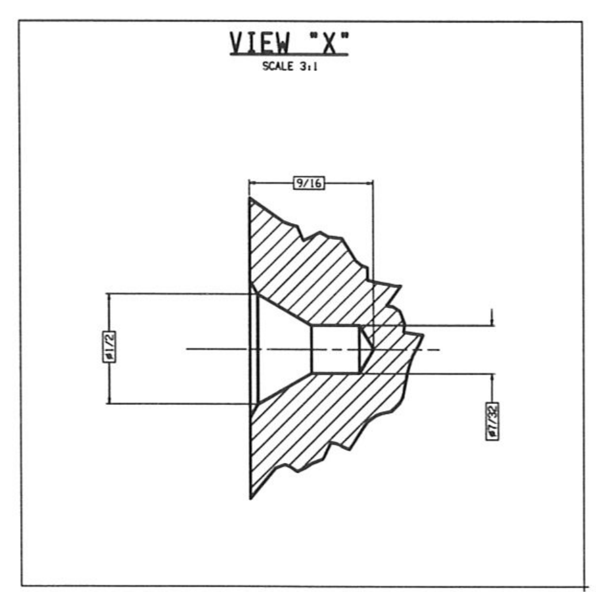
BILL of MATERIAL				
Item	Spec or Part	Qty	Description	Approximate Weight
1	005-044-0006	1	Weldment - Barrel/Hub	977 Lbs
			Approximate Total Weight (After Machining)	754 Lbs

Notes (Unless otherwise specified):
1. Drill with standard ANSI bell type combined drill and countersink - ⌀17 (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)







1366021831

FOEN FONTAINE ENGINEERING, INC. BLDG. 1, INTERSTATE BUSINESS PARK BRIDGEPORT, WV 26330 PHONE: (304)842-8718 FAX: (304)842-8711 E-MAIL: FOEN@FOEN.COM WEBSITE: WWW.FOEN.COM	Drawn F. Gallagher Date 20 May 2008	Next Level .
	Checked M. Sloan Date May 2008	Ref Dwg 005-043-0022
	Chief Eng . Date .	Ref Dwg S04078
	DWG No / PART No 005-043-0023 A	
	Dwg Scale DO NOT SCALE DWG 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 minimum thickness
Decimals : X.XX = ±0.025
Decimals : X.XXX = ±0.010
Surface Finish : 125√
Fractions : ±1/16
Angles : ±0° 30'

Third Angle Projection

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Correcting Roll Unit - Roll - Machining
⌀230mm x 1850mm Hollow Roll AL/GL

DWG No
PART No .
D

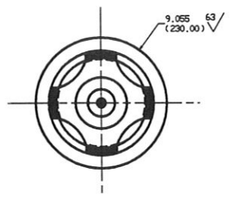
REVISION LEVEL				
Rev	Date	By	Zone	Description
A	.	.	.	.

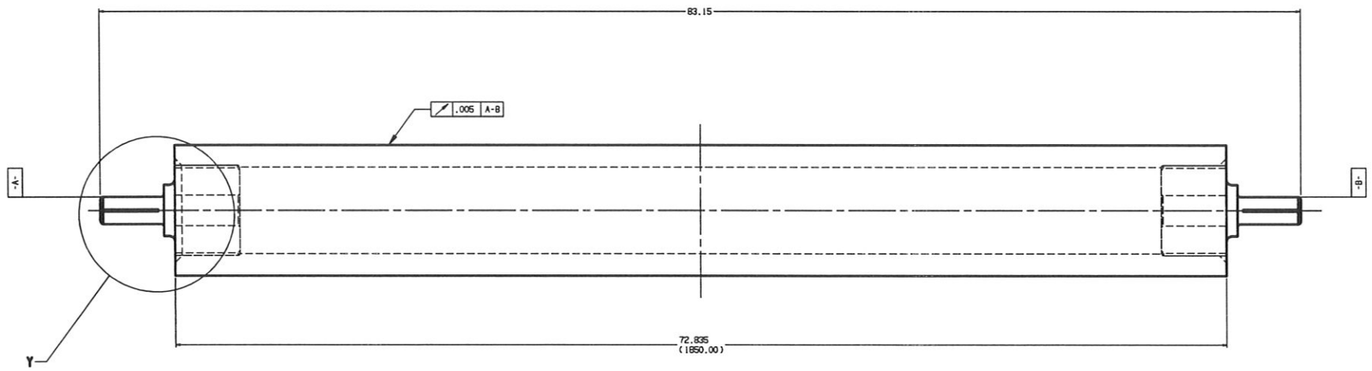
BILL of MATERIAL — BM No

Item	Spec or Part	Qty.	Description	Approximate Weight
1	005-044-0006	1	Weldment - Barrel/Hub	977 Lbs
			Approximate Total Weight (After Machining)	754 Lbs

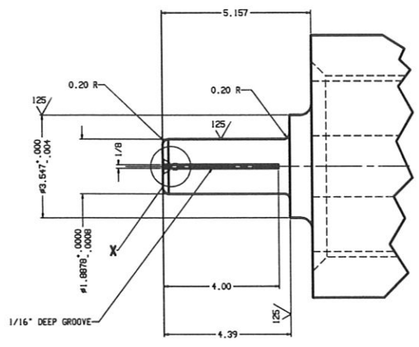
Notes (Unless otherwise specified):
1. Drill with standard ANSI bolt type combined drill and counterbore - #17 (View X).
2. Remove all burrs and sharp edges.
3. Roll is symmetrical about the center axis.
4. 500 √ all over except as noted.

Dynamic Balance Tolerance:
+200 g (0.44 lb)

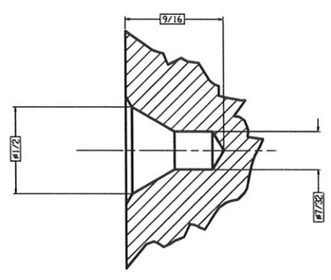




VIEW "Y" (TYPICAL)
SCALE 1:2



VIEW "X"
SCALE 3:1



13600021830

FONTAINE ENGINEERING, INC.
BLDG. 1. INTERSTATE BUSINESS PARK
BRIDGEPORT. WV 26330
PHONE: (304)842-8718 FAX: (304)842-8711
E-MAIL: FOEN@FOEN.COM
WEBSITE: WWW.FOEN.COM

Drawn F. Gallagher 06 Feb 2009
Checked M. Sloan Feb 2009
Chief Eng. .
Next Level
Ref Dwg 005-043-0023
Ref Dwg S04078
DWG No 004-053-0005
PART No
Dwg Scale 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 nominal thickness
Decimals: X.XX ± ±0.025
Decimals: X.XXX ± ±0.010
Surface Finish: 125
Fractions: ±1/16
Angles: ±0° 30'
Third Angle Projection

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.

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

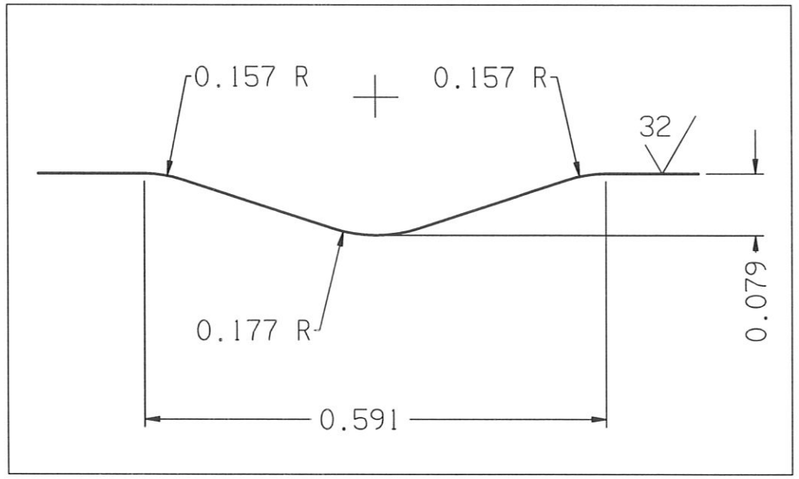
DWG No
PART No .
Dwg Size D

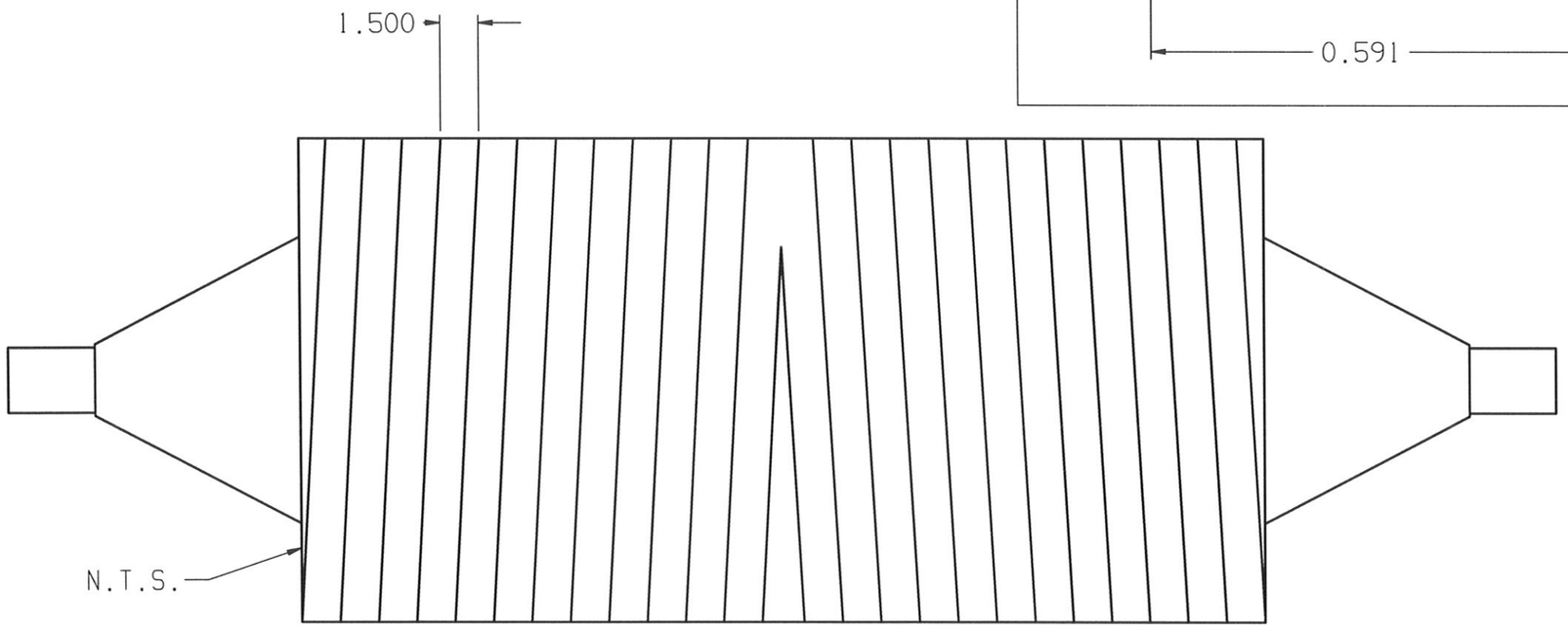
REVISION LEVELS

Rev	Date	DCA	By	Description
A	11/97	.	MWR	Changed Tolerance On The 1.5" Dim To 1.500"

BILL of MATERIAL

Item	Spec or Part	Qty	Description	Approximate Weight
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

Third Angle Projection

FOEN™

FONTAINE ENGINEERING, INC.
415 BENEDUM DRIVE, P.O. BOX 1350
BRIDGEPORT, WV 26330
PHONE (304)842 8718 FAX (304)842 8711

Sink Roll Unit - Rolls
Detail - Sink Roll Groove

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

DWG No PART No 006-035-0017A

Dwg Scale DO NOT SCALE DWG	Sheet No	Dwg Size
NTS	1 of 1	A