

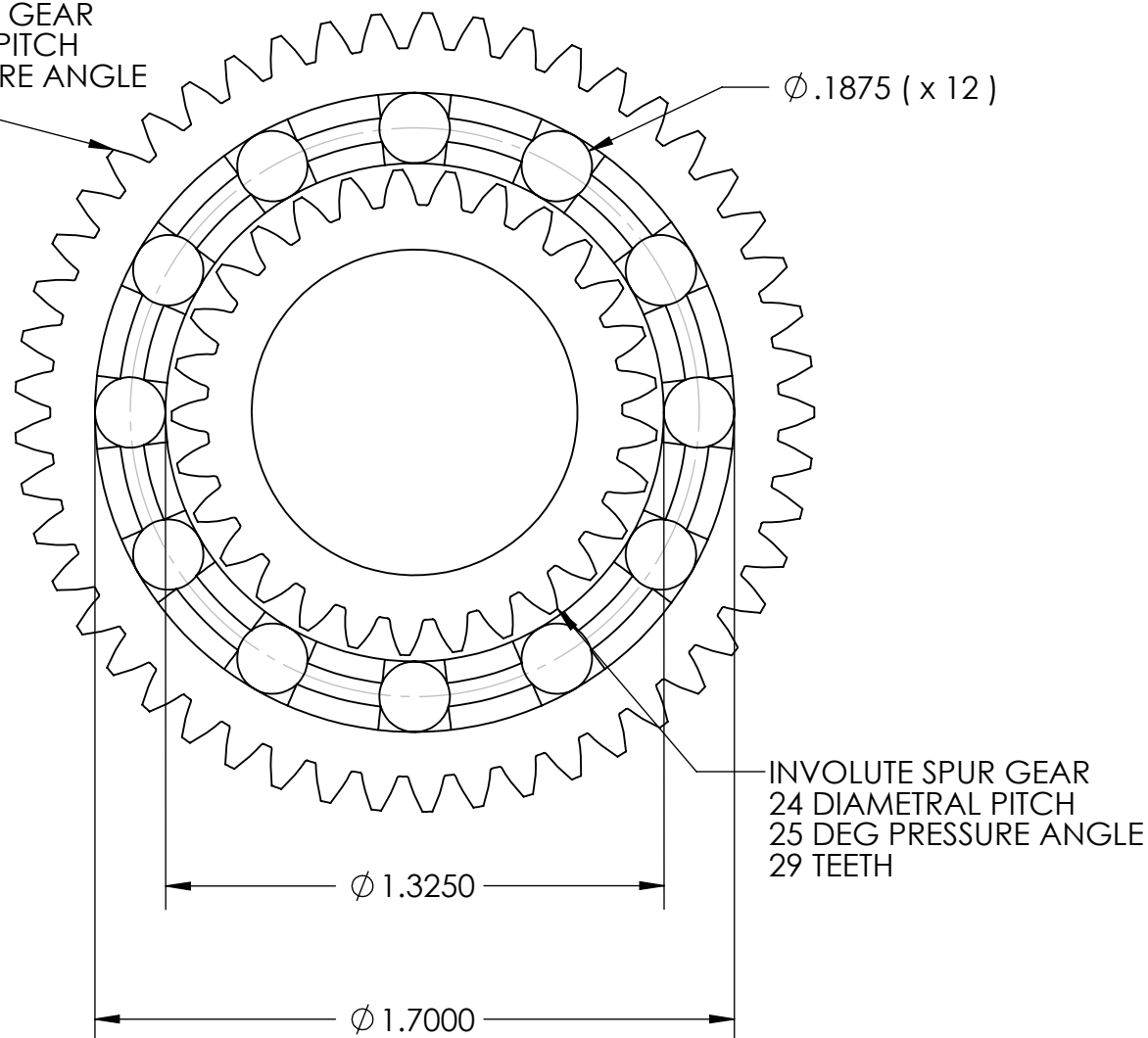
1. MATERIAL: 4140 28-32 ROCKWELL PRE-HARD
2. GAS NITRIDE SURFACE 50-55 ROCKWELL. DEPTH 0.010" - 0.015"  
(PLEASE DO NOT QUOTE GAS NITRIDE, COMPLETED AT THERMTECH)
3. POLISH TO MIRROR FINISH RA: 4-8

**ALL NEED TO BE CLOCKED  
TO THE SAME ANGLE**

INVOLUTE SPUR GEAR  
24 DIAMETRAL PITCH  
25 DEG PRESSURE ANGLE  
49 TEETH

MIN FOS BENDING		
	AGMA 10	AGMA 12
ROCKWELL 50	1.29	1.51
ROCKWELL 55	1.45	1.69

MIN FOS WEAR		
	AGMA 10	AGMA 12
ROCKWELL 50	0.95	1.05
ROCKWELL 55	1.08	1.19

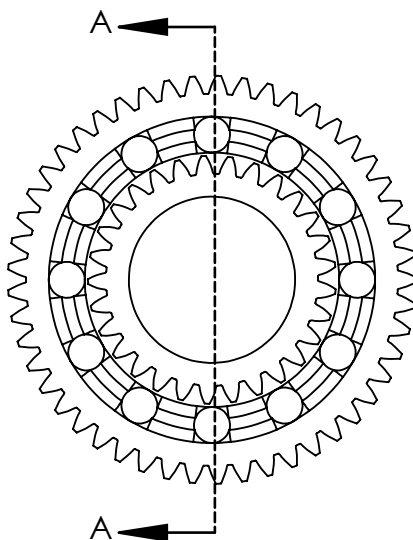


NOTES:  
FOR ANY QUESTIONS,  
PLEASE CONTACT TRISTAN HINOUL:  
PHONE: (908) 420 - 4258  
EMAIL: hinoul@go.uwracing.com

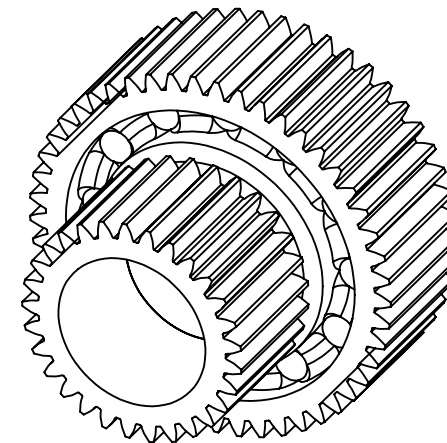
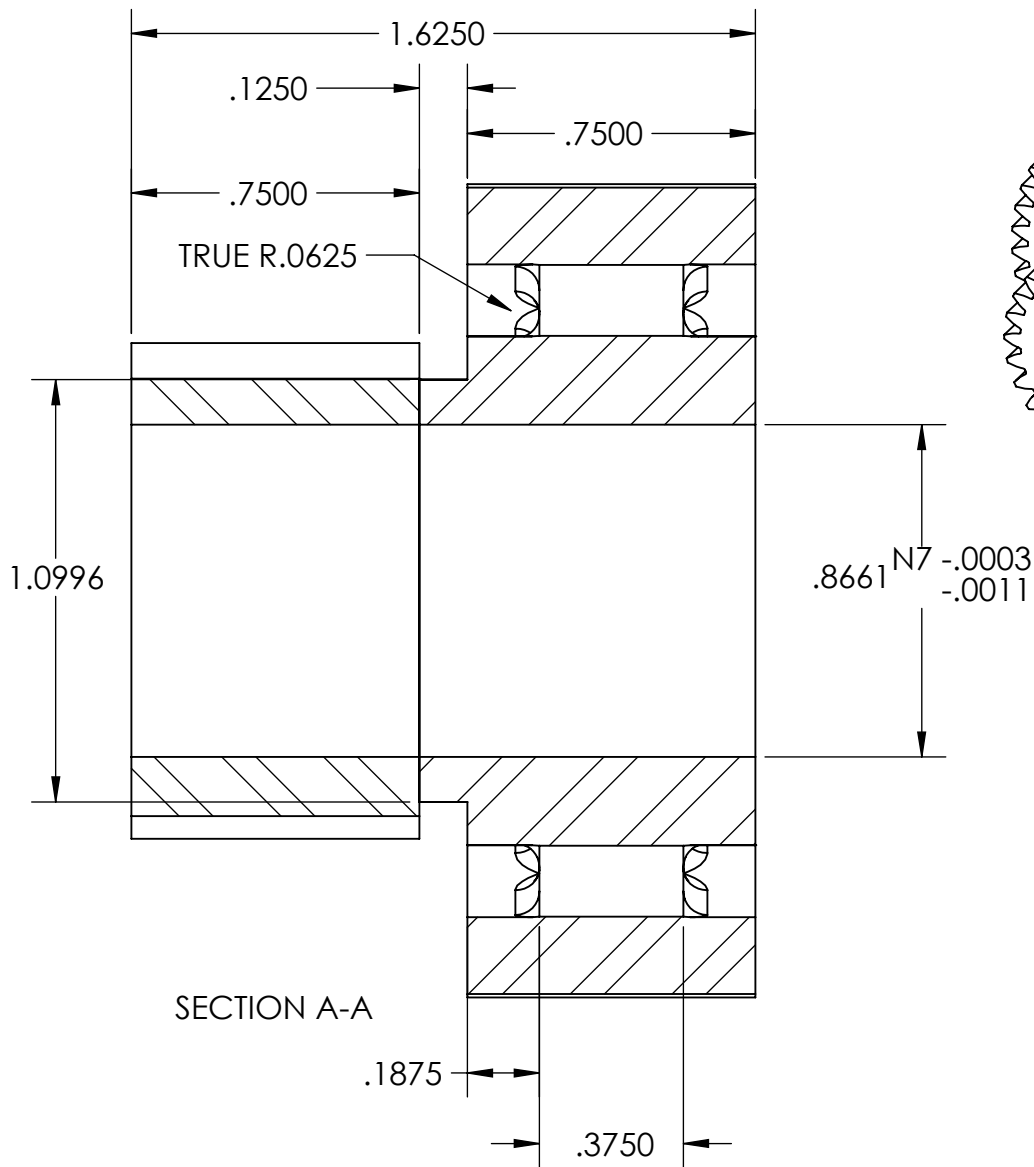
SCALE: 2:1  
MATERIAL  
4140 Prehard

TITLE:  
COMPOUND PLANET SPUR GEAR (INCH)  
SIZE **A** UW -MADISON PART NUMBER  
220e-320-03 QTY: 9  
WEIGHT: LBS SHEET 1 OF 3





SCALE (1:1)



TRIMETRIC (1:1)

#### NOTES:

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SCALE: 2:1

MATERIAL

4140 Prehard

#### TITLE:

COMPOUND PLANET SPUR GEAR (INCH)

SIZE

**A**

UW -MADISON PART NUMBER

220e-320-03

QTY: 9

WEIGHT: LBS

SHEET 2 OF 3



Small Planet Gear		
All Dimension in mm unless otherwise specified		
Normal Module	1.058333	
Normal Diametral Pitch	24.00 1/in'	
Normal Pressure Angle	25 deg	
Number of Teeth	29	
Pitch Diameter	30.692	
Base Diameter	27.816	
	min tolerance	max tolerance
Outside Diameter	32.510	32.610
Root Diameter	27.600	27.900
Tip Chamfer Diameter	32.510	32.560
Ball Diameter	2	
Diameter over/ between two balls	33.541	33.636
Transverse tooth thickness	1.562	1.612
Normal tooth thickness	1.562	1.612
Operating transverse backlash	0.100	0.200
Roll angle at SAP - tight mesh	13.023 deg	-
Roll angle at SAP	15.053 deg	-
Roll angle at tip chmfer	34.661 deg	34.860 deg

Big Planet Gear		
All Dimension in mm unless otherwise specified		
Normal Module	1.058333	
Normal Diametral Pitch	24.00 1/in'	
Normal Pressure Angle	25 deg	
Number of Teeth	49	
Pitch Diameter	51.858	
Base Diameter	46.999	
	min tolerance	max tolerance
Outside Diameter	53.925	54.025
Root Diameter	49.010	49.210
Tip Chamfer Diameter	53.925	54.025
Ball Diameter	2	
Diameter over/ between two balls	54.748	54.847
Transverse tooth thickness	1.562	1.612
Normal tooth thickness	1.562	1.612
Operating transverse backlash	0.102	0.202
Roll angle at SAP - tight mesh	20.520 deg	-
Roll angle at SAP	21.808 deg	-
Roll angle at tip chmfer	32.229 deg	32.477 deg