

## Precision Gear Capabilities



***PIC Keeps You On Target***

**From optical targeting systems, to surgical robots, to spectroscopy equipment, PIC Design provides premium quality gearing solutions that you can count on for your mission critical applications.**



PIC Design provides precision fine pitch gearing solutions for mission critical applications in industries including medical and dental equipment, military and defense, laboratory equipment, and precision industrial controls. Our unparalleled product quality, responsiveness, and technical support provide our customers solutions to their toughest precision gearing challenges.

PIC Design has been a leader in precision industrial components for over 60 years. Based in Middlebury, CT PIC Design is a division of RBC Bearings, Inc. (NASDAQ: ROLL). PIC Design's gear manufacturing and applications engineering experience combined with RBC Bearings' global technical resources provide you unsurpassed capability to address your application requirements.



## Product Design, Testing and Support:

### Technical Support

- ✓ Applications Engineering
- ✓ Design Engineering
- ✓ 3D CAD Models
- ✓ Metallurgical Analysis

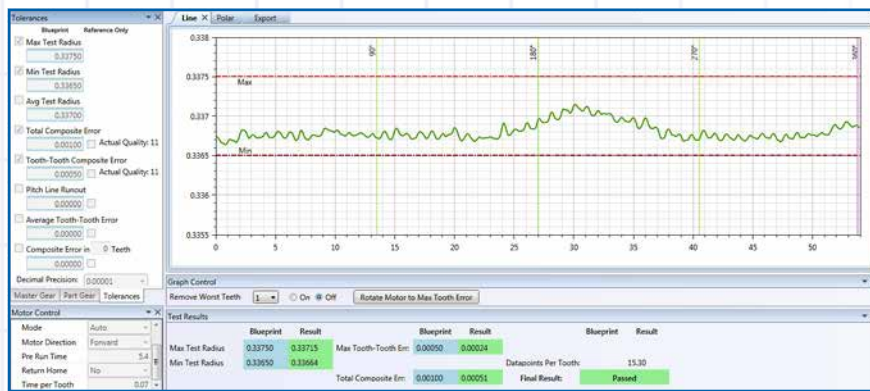
### Verified Quality

- ✓ Coordinate Measuring Machine
- ✓ Dual Flank Composite Analyzer
- ✓ Material Certification
- ✓ Process Certification



Coordinate Measuring Machine (CMM)

## Gear Analysis:

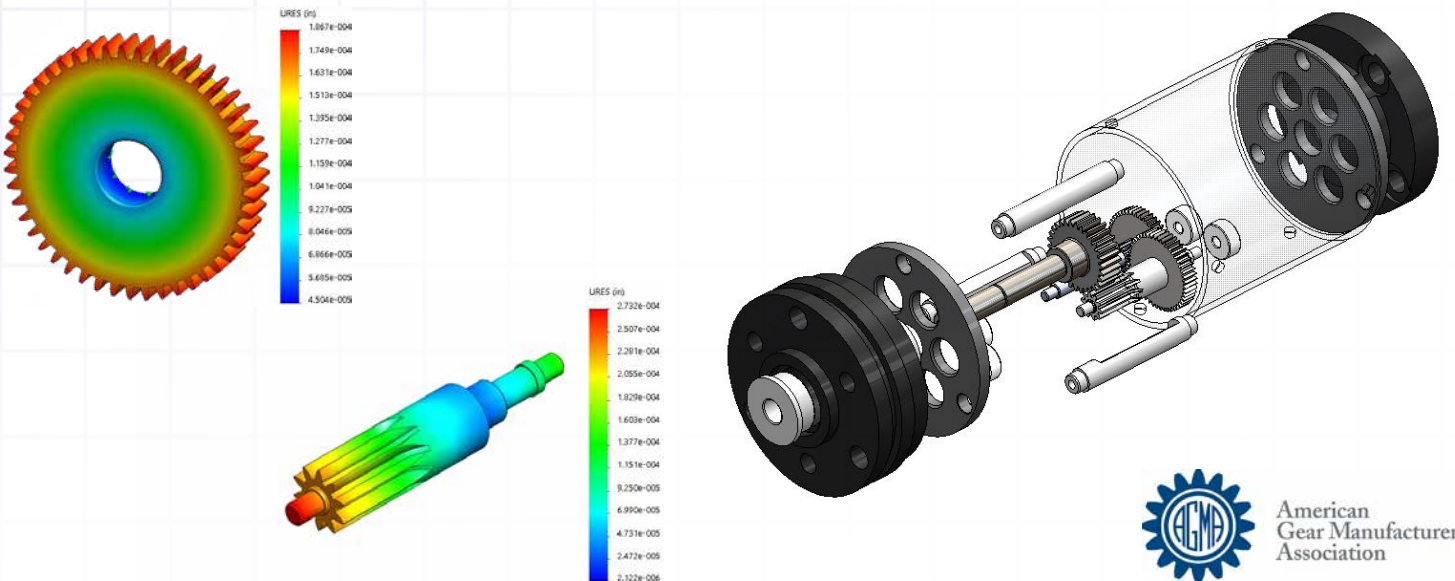


Radial Composite Deviation Diagram (Gear Tape)



Dual Flank Composite Analyzer

## Thermal Analysis:



## PIC Design offers solutions for applications including:



### Medical & Dental

- ✓ X-ray/Imaging Equipment
- ✓ Medical Devices
- ✓ Surgical Robots
- ✓ Dental CAD/CAM
- ✓ Optometry Diagnostics



### Laboratory Equipment

- ✓ Auto-Samplers
- ✓ Spectrometers
- ✓ Centrifuges
- ✓ Chromatographs
- ✓ Microscopes



### Military & Defense

- ✓ Targeting Systems
- ✓ Drone Control Systems
- ✓ Night Vision Systems
- ✓ Guidance Systems
- ✓ Antennas
- ✓ Periscopes



### Precision Optical Systems

- ✓ Positioning/  
Stabilization Systems
- ✓ Gimbals
- ✓ Pan/Tilt Systems
- ✓ Focus/Zoom Systems

### *PIC Design is...*

- ✓ ISO 9001:2015 Registered
- ✓ DFARS Compliant
- ✓ DDTC Registered/ITAR Compliant
- ✓ RoHS Compliant
- ✓ R.E.A.C.H. Compliant



### Industrial Controls

- ✓ Valve Positioners
- ✓ Slip Rings
- ✓ Marking/Printing Systems

## Standard Gear Types:



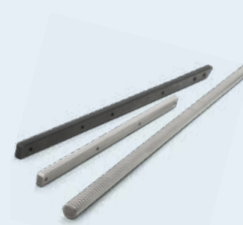
Spur Gears



Worms & Worm Wheels



Bevel Gears



Racks



Helical Gears

## Specialty Gear Types:



Anti-Backlash Gears



Segment Gears



Cluster Gears



Ring Gears

## Gear Assemblies:



Speed Reducers, Gear Heads, Worm & Worm Wheel Assemblies, Miter/Bevel Gear Boxes

### Pitch & Size Capability:

#### Inch

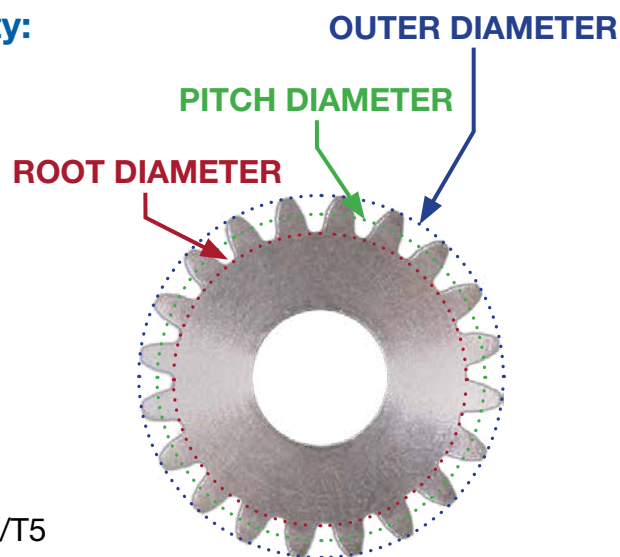
Pitch: 16-120  
Pitch Diameter:  
0.375" – 15.500"

#### Metric

Pitch: 1.00-0.25 "Module"  
Pitch Diameter:  
10mm – 400mm

### Precision Class:

AGMA Q10, Q12, Q14  
ISO/DIN C7/T7, C6/T6, C5/T5



### Materials:

- ✓ Aluminum
- ✓ Stainless
- ✓ Brass/Bronze
- ✓ Engineered Plastics

### Special Coatings and Finishes:

- ✓ Dicronite®\*\*
- ✓ Dry Film Lubricants
- ✓ Electroless Nickel
- ✓ Hard Coat Anodizing
- ✓ Passivation

\*\*Dicronite® is a registered trademark of Lubrication Sciences International.

PIC Design has been supplying customers with precision fine pitch gears for over sixty years. In addition to standard and special build-to-print gears and gear assemblies, PIC Design offers a complete selection of premium quality precision mechanical components, including:



**Dowel Pins**

Slip Fit, Press Fit, Hardened and Ground



**Shoulder Screws**

Slotted Head, Socket Head, Philips Head



**Shafting**

Hardened, Ground, Ultra Precision, Extensions, Pre-Drilled, Support Rails



**Set Screws**

"No-Mar," "Silver-Grip," Cup Point, Brass Tip



**Lead Screws & Nuts**

Rolled Lead Screws – Acme, Stub Acme, modified thread.  
Variety of Nuts – Power, Anti-Backlash, Adjustable Compliant, Flanged



**Precision Hardware**

Captive Screws, Cranks/Knobs, Knurled Thumb Screws & Nuts, Motor Mount Cleats, Retaining Rings, Spacers, Standoffs, Springs, Swivel Studs & Nuts, Washers, Woodruff Keys



**Clutches, Couplings & Brakes**

Power On/Power Off Brakes, Slip & Roller Clutches, Bellow Couplings, Spider Couplings, Universal Lateral Couplings, Wafer Spring Couplings, Precision Universal Joints



**Belts & Pulleys, Chains & Sprockets**

No-Slip™ Positioning Belts (Positive Tooth Engagement), No-Slide™ Timing Belts (Self Tracking), Traditional Timing Belts, Round Belts, .1425" & .250" Pitch Stainless Steel Chain, Machined Pulleys & Sprockets



**Linear Motion**

Complete Linear Systems & Components, Ball Slides, Crossed Roller Slides, Linear Stages, Positioners, Linear Rails, Slide Guides



**Bearings**

Instrument Ball Bearings, Bronze Sleeve Bearings, Thrust Bearings, Linear Bearings, Plastic Bearings, Rod Ends, Spherical Plain Bearings