

# APPS FOR GEAR MAKERS

**IndianaGear provides** a wide range of open gearing capabilities, from mining gearing to production runs of CBN-ground transmission gears. The company recently added a 33,000 sq. ft. precision grinding center with the capacity to grind external and internal gears with diameters up to 4,000 mm and face-width gears up to 1,750 mm. IndianaGear also has an in-house shot peening process that was initially developed to eliminate shipping costs to an outside job shop, but their shot peening services are now perceived as an attractive benefit by customers.

Not content to grow only in physical size, IndianaGear is meshing gear manufacturing with wireless technology. Joel Neidig, Engineer with ITAMCO, the parent company of IndianaGear, has developed Smartphone calculator and conversion apps for gear makers. According to Mr. Neidig, he developed the apps as another way for manufacturers to use technology to be more efficient.

The Smartphone apps are also a smart marketing tool for the company. Despite their development costs, ITAMCO makes the apps available at no charge. "We've had over 30,000 downloads of our Apps in 88 countries since their release dates throughout 2010 and 2011. That's an average of 100 downloads a day," said Mr. Neidig. "Reaching customers and suppliers on a global scale has been a significant benefit. The availability of the apps in iTunes and Android Market has enabled us to reach potential customers that we might not have reached otherwise."

The following is a brief description of the apps. Again, they are free and are available for download from iTunes and Android Market. Compatibility:

- iPhone, iPod touch, and iPad—requires iOS 3.0 or later
- Android 1.6 and up

## Hardness Converter

Hardness Converter is a simple app for converting between popular scales used to measure the hardness of non-austenitic steels. It is in conformance to ASTM E140-07. Converts between popular Rockwell, Vickers and Knoop hardness scales. Available scales:

- HRC (Rockwell C Hardness Number 150 kgf)
- HV (Vickers Hardness Number)
- HBS (10-mm Standard Ball, 3000-kgf)

- HBW (10-mm Carbide Ball, 3000-kgf)
- HK (Knoop Hardness, Number 500-gf and Over)
- HRA (A Scale, 60-kgf)
- HRD (D Scale, 100-kgf)
- HR 15-N (15-N Scale, 15-kgf)
- HR 30-N (30-N Scale, 30-kgf)
- HR 45-N (45-N Scale, 45-kgf)
- Scleroscope Hardness Number
- Brinell, Knoop, Vickers

## GearWare

GearWare converts gear pitch sizes.

It uses basic formulas to convert diametral, circular, and module pitches. It is intended for approximate calculations and should be used for reference only.

## Feed Rate Calculator

Feed Rate Calculator is a simple app for calculating feed rates and speeds for machinists. Intended for reference use only. Features:

- SFM (Surface Feet per Minute)
- RPM (Revolutions per Minute)
- IPM (Inches Per Minute)
- FPT (Feed Per Tooth)
- FPR or IPR (Feed Per Revolution or Inches Per Revolution)

*Coming soon for Android*

## MTConnect\*

This application is the first MTConnect client app for the iPhone, iPod Touch, iPad and Android. It lets users view machine tools and controls on handheld devices. It's great for machine operators, maintenance technicians, engineers, programmers, or plant managers. It provides quick and easy access to the MTConnect Agent over both mobile phone and WiFi networks. You can add, delete, and monitor as many machines and controls as desired with MTConnect. Just select

the desired device after entering the http://DNS or ip address and touch the "Current" button in the top right hand side of the screen and view in real time your machine or control. Host connection must be MTConnect compatible (requires MTConnect Agent and, if needed, MTConnect Adapter).

**Metal Weight Calculator**

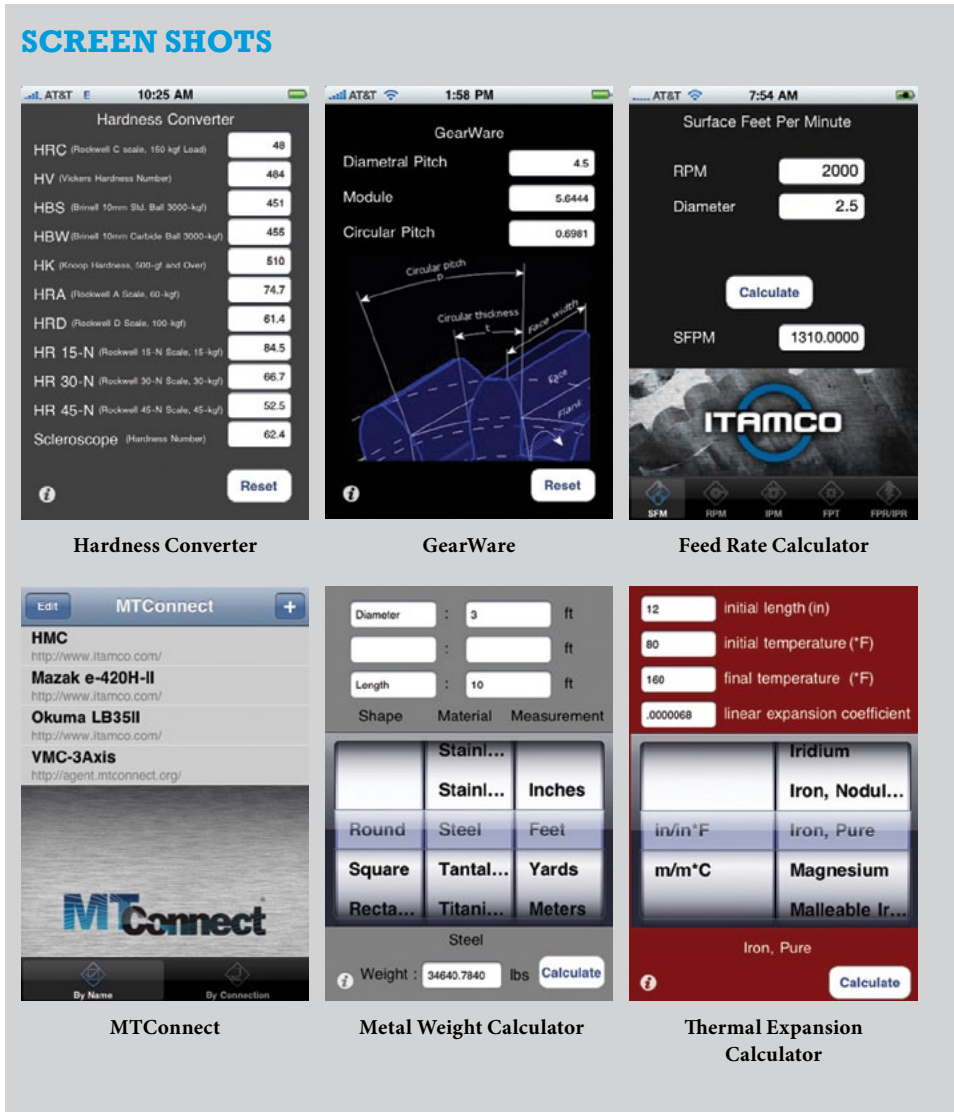
Metal Weight Calculator is a simple app for calculating weights of different types of metals in various shapes. Intended for reference use only. Materials featured: Steel, aluminum, cast iron, nickel, copper, and more. Shapes featured: Round, sheet, tube, rectangle, and more.

**Thermal Expansion Calculator**

Thermal Expansion Calculator is a simple app for calculating changes in dimensions or the thermal expansion coefficient of a substance related to its thermodynamic property when heated and expanding or contracting when cooled. Features over 100 different types of materials including iron, nickel, silver, gold, copper, and more.

*Coming soon for Android*

**\* What is MTConnect?**  
 MTConnect is a set of open, royalty-free standards intended to foster greater interoperability between controls, devices and software applications by publishing data over networks using the Internet Protocol.



Uh, not really.  
 While manufacturing apps, like those from ITAMCO, are quickly becoming trusted resources on the plant floor, *games* continue to be the most popular app category. And, according to Nielsen research, 93 percent of app downloaders — those who have downloaded an app within the past 30 days — are willing to pay for the games they play. In contrast, only 76 percent of downloaders are willing to pay for news apps.