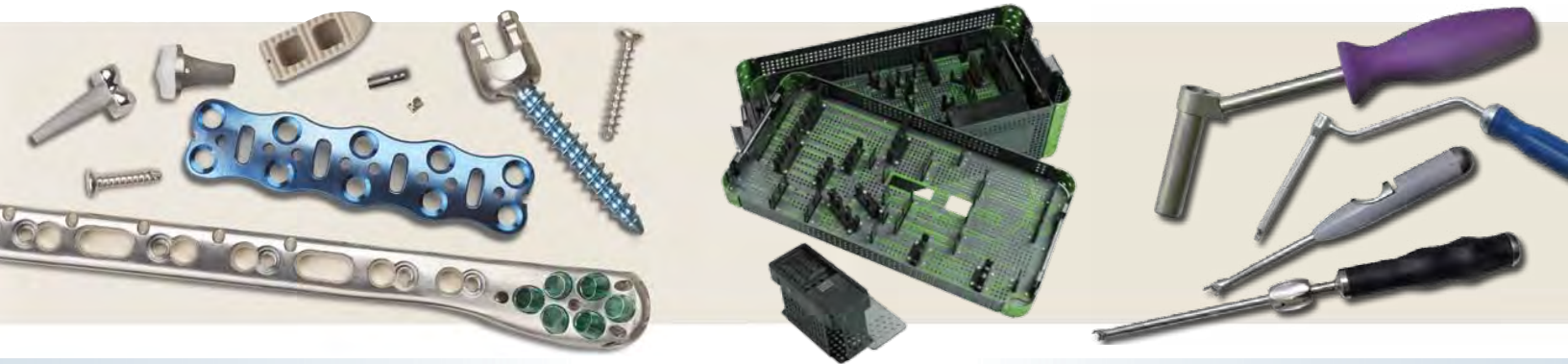


# rms Orthopaedic Solutions



## When you want world-renowned precision and performance, rms always delivers.

For over 45 years rms Company has been building a worldwide reputation for providing precision machined implants and other devices to the medical device industry. Combining strong engineering talent with state-of-the-art technology and systems, rms has become a certified supplier and manufacturing partner to most major medical device companies in the United States and Europe. Additionally, many medical device start-up companies with innovative product concepts rely on rms' proven capabilities to assist in bringing their products to market — on time and within budget.



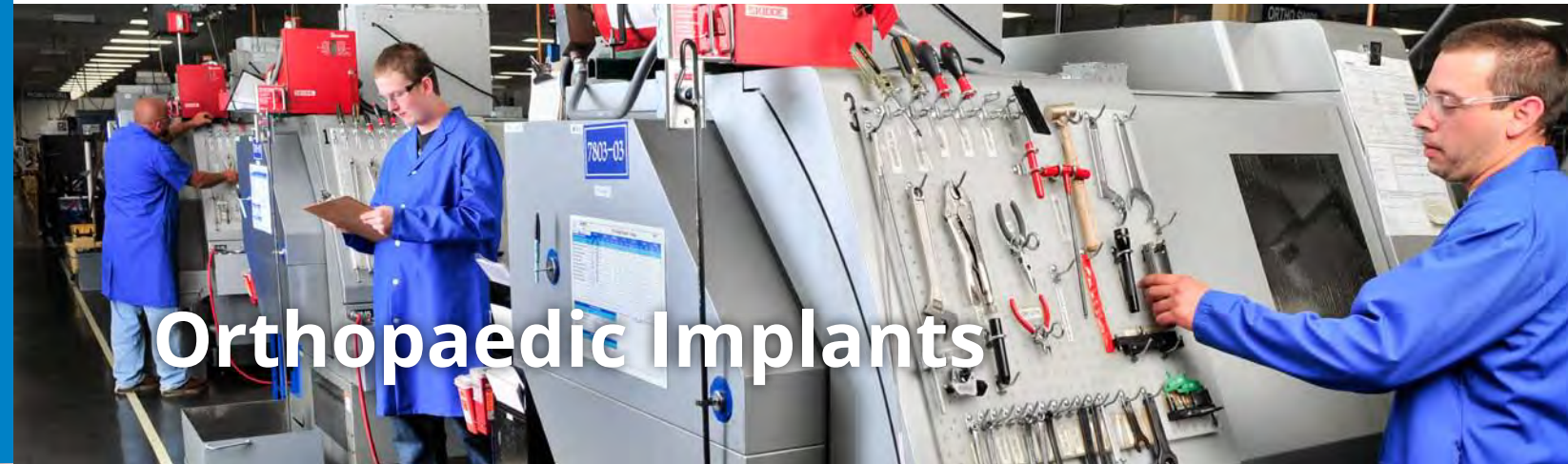
### We have facilities dedicated solely to the Orthopaedic market and designed to match every need — no matter how complex.

The demand for responsiveness, short lead times and complex product families have led Cretex Medical to establish focused factories to better serve the Orthopaedic market. rms continues its long-term focus on implantable devices while rms Surgical has been specifically created to provide surgical instrumentation and sterilization cases and trays. These capabilities serve numerous segments of the orthopaedic market including:

*Spinal*  
*Trauma*  
*Arthroplasty*  
*Extremity*  
*Sports medicine*

### Single Source Procurement and Project Management gives you unprecedented speed to market

*By working with rms and rms Surgical, you now have a single source manufacturer specifically created to provide the technical and manufacturing resources you need for on-time market introduction and continuing supply of implants, instruments and sterilization cases and trays.*



## Orthopaedic Implants

### rms - Implants

Located within the rms Company's 215,000 sq. ft. manufacturing facility, the Orthopaedic Team provides high tech machining, metrology and secondary operations to meet your needs, including:

#### Precision machining

- Milling (up to 5-axis)
- Swiss and conventional turning (up to 13-axis with live tooling)
- Wire and Ram EDM (up to 5-axis)
- Micro laser welding

#### Forming

#### Finishing

- Tumbling (including cryogenic)
- Chemical deburring
- Blasting (including cryogenic)
- Polishing

#### Cleaning

#### Passivation

#### Color anodizing

#### Assembly, labeling and packaging

#### Cleanroom sterile packaging

*rms provides you with added confidence based on years of experience with the following orthopaedic products and wide range of raw materials used in today's products:*

#### Product Experience

##### Spinal

- Artificial disc replacements
- Dynamic stabilization systems
- Spinal fixation and deformity rod systems
- Plate and screw systems
- Interbody devices

##### Trauma

- Internal fixation plates and screws
- Intermedullary rods

##### Reconstruction

- Artificial joints

##### Sports medicine

- Soft tissue reattachment devices

#### Materials experience

*Stainless steels*

*Titanium*

*Cobalt chrome*

*PEEK*

*UHMW polyethylene*

*Nitinol*

*Polysulfone and numerous other polymers*



# Instrumentation

## rms Surgical – Instrumentation

With dedicated instrumentation manufacturing facilities in Memphis, TN (31,000 sq. ft.), and Minneapolis, MN (110,000 sq. ft.), rms Surgical has the technology and talent to provide the responsiveness and quality demanded by today's Orthopaedic OEMs.



### Precision machining

- Milling (up to 5-axis)
- Swiss and conventional turning (up to 13-axis with live tooling)
- Wire and Ram EDM (up to 5-axis)
- Gun drilling
- Welding stations (including TIG)

### Secondary processes

- Laser marking and engraving
- Finishing
  - Tumbling
  - Blasting
  - Electropolishing
- Cleaning
  - Ultrasonics and vapor degreasing
- Passivation (nitric and citric)
- Epoxy painting
- Assembly
- Packaging and labeling



### Materials experience

- *Stainless steels*
  - 17-4 ph and 17-7 ph
  - 300 and 400 series
  - Custom 455 and 465
  - Gall Tough and Nitronic 60
- *Titanium*
- *Aluminum*
- *Brass*
- *PEEK*
- *UHMW polyethylene*
- *Polycarbonate*
- *Acetal copolymers and numerous other polymers*

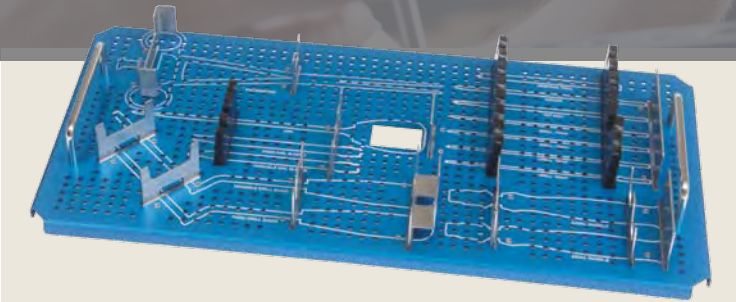
# Sterilization Cases & Trays

## rms Surgical – Sterilization Cases & Trays

Located within a 110,000 sq. ft. state-of-the-art manufacturing facility, rms Surgical applies more than 25 years of metal fabrication experience to the design and manufacturing of custom sterilization cases and trays. The engineering, project management, manufacturing capabilities and systems are designed to provide the responsiveness and flexibility required to ensure reduced leadtimes and on-time product launches — the critical success factor for today's orthopaedic companies.

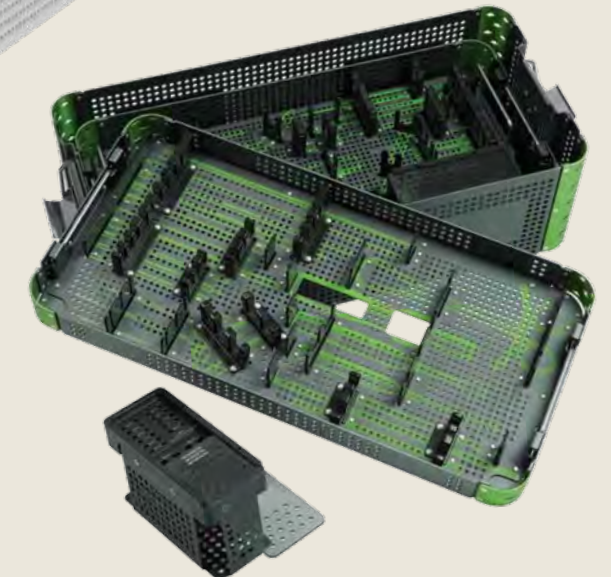
Using the following capabilities, rms Surgical can provide hybrid designs, single or multilevel stackable cases and trays, as well as caddies or nests.

- Case & Tray design capability (using actual instruments or CAD models)
- Prototyping
- Metal fabrication
  - Laser cutting
  - Stamping
  - Turret punching
  - Press brake forming
  - CNC machining
  - Wire forming
- Plastic machining
- Plastic injection molding
- Nylon coating
- Surface treatment
  - Passivation
  - Anodizing
- Marking
  - Laser marking
  - Silk screening
- Assembly and packaging



### Materials experience

- *Stainless steel*
- *Aluminum*
- *Radel®*
- *Propylux®*
- *Silicone*



## Customer Experience – The real success factor

Manufacturing equipment is only one component of success. What really matters — and what keeps customers returning to rms and rms Surgical — is the superior experience of working with a development and manufacturing team supported by advanced manufacturing and quality systems. These systems allow us to properly manage your project and provide accurate and timely schedules and status reports. Furthermore, our lean organization allows our customers direct access to the team members actually working on the project.

### Development assistance

- Design for Manufacturability support – detailed review of designs to ensure the product is manufacturable consistently at a reasonable cost.
- Complete Case & Tray design capability
- Prototyping capability for implants, instruments and cases & trays

### Quality Systems

- ISO 13485 Certified facilities
- FDA Registered facilities
- Quality Engineers and Statisticians on staff to assist with validations and qualifications

### Project Management

- A detailed Project Management process, from Order Review through Product Launch and Post Mortem, results in a realistic project plan with regular communication of project status.

### The Team Concept

- A cross functional team with open communications allows you to talk directly with the professionals and experts responsible for every aspect of your project.

## Cretex Medical

Cretex Medical is a family of companies that specializes in medical device contract manufacturing. Private ownership, a long-term perspective and a strong financial portfolio allow us to invest in the leading-edge technology and engineering know-how required to meet today's launch-critical timelines with confidence.

Whether you are a Fortune 500 medical technology stalwart or a promising start-up, you can depend on our single-source approach to provide new efficiencies at every turn. When speed-to-market, quality compliance and design for manufacturability expertise are paramount to your program, there is no company more capable or more responsive than Cretex Medical.



Contract manufacturing of medical devices and assemblies using state-of-the-art machining and molding technology.



Custom instrument manufacturing combined with design and fabrication of sterilization cases and trays. Focus on fast turnaround of prototype and production requirements.



Medical device design, contract manufacturing and assembly, specializing in micro-molding, insert molding and multi-shot injection molding technology.



Custom metal stamping, specializing in small and miniature metal-formed components and assemblies.



Contract laser micromachining and assembly of implantable devices and components for medical device manufacturers.



# rms Orthopaedic Solutions

Whether you are a major medical device manufacturer or a startup with a great new orthopaedic product, we can deliver what you need — from engineering through production, assembly and packaging. Contact us today to get an estimate for your next project, to arrange a tour of our facilities or just to learn more.

Call us at 763-576-6419.



8600 Evergreen Blvd.  
Minneapolis, MN 55433  
763-786-1520

[www.rmsmachining.com](http://www.rmsmachining.com)



1220 Lund Blvd. NW  
Minneapolis, MN 55303  
763-576-6497

1910 Nonconnah Blvd.  
Suite 132  
Memphis, TN 38132  
901-348-6868

[www.rmssurgical.com](http://www.rmssurgical.com)

rms and rms Surgical are part of the Cretex Medical Family of Companies.



Corporate Office  
311 Lowell Ave.  
Elk River, MN 55330  
[www.cretex.com](http://www.cretex.com)