

Senger News & Focus

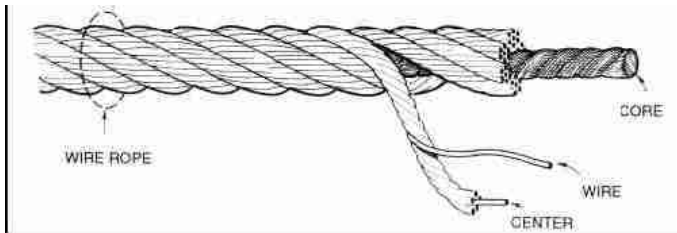
Senger and Associates, Inc.

www.senger-assoc.com

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Strand Products – Wrapping Wire into Rope

Strand Products Inc., of Santa Barbara CA, has been in the wire rope business since 1972. Strand services multiple industries from medical to aircraft, automotive and industrial.



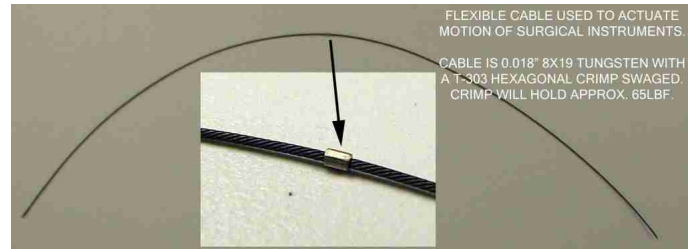
Wire rope is comprised of individual filaments or wires, bundled together to form strands. Strands are optimal for abrasion resistant applications. The strands are helically wound together with other strands to form cables.



We all know cables are used in brake or clutch assemblies, hoisting/lifting, and rigging, aerospace control cables, and push /pull cables to name a few. However, cables are also supplied to the unique needs of the medical device market.

Strand Ropes in the Medical Market

Many endoscopic devices require the smallest cable possible to minimize incision size, while meeting strength and flexibility requirements. Tungsten cable is utilized in many of these applications, due to its high strength to size ratios. For example, an 8x19 cable contains 19 separate cables of eight strands of .001 inch diameter tungsten, measuring .018 inches in diameter and has an ultimate strength of about 65 lbs force.



To better service its Medical customers, Strand installed a class 10,000 clean room dedicated to fabricating cable assemblies for the Medical Device Community. The clean room includes swaging machines, high powered optical inspection equipment, special cutting systems which fuse cable ends, along with packaging and labeling equipment.



The talented engineering staff at Strand brings expertise in design, cable swaging, and material sciences to include exotic materials which are unique to the Medical Device market. Strand is ISO 9001 certified and soon to be ISO 13485 certified.



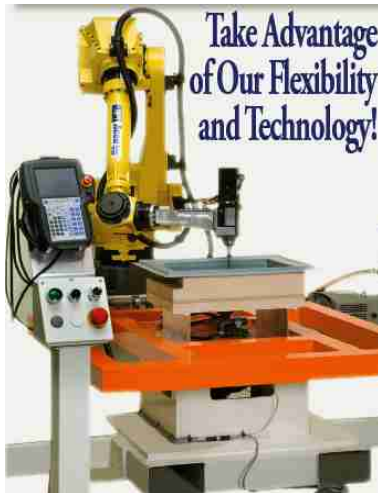
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Ray Products Adds Cutting Edge Technology

Ray Products located in Ontario, CA recently added several new pieces of equipment making it the most modern thermoforming operation in the United States. Here is what's new!

Robots at Ray

A six axis CNC robotic deflashing and trimming router. This router can reduce secondary operations and trim 30 to 40% faster than the current gantry style router.



Ultimate Inspection

Also new, Faro Arm Inspection equipment, reaching 12 feet. The Faro Arm inspects parts quicker, allows CAD-to-Part analysis of parts, fixtures and tooling. Ray Products will supply customers with informative inspection data quickly via e-mail.



Monster Thermoforming Machine, Largest in the Western US

Not to be out done! This new machine can form parts up to 10'x18'

Visit the Ray web sight for more information at www.rayplastics.com

Capabilities Expand at Contour Plastics

Growth continues as Contour Plastics adds equipment to their 46,000 sqft injection molding facility located in Baldwin, WI. New on the scene:

- 200 ton Two-Shot Rotary Platen Molding Press
- 198 ton Horizontal Molding Press
- 60 ton Two-Shot Rotary Molding Press
- 3-Axis pick and place robot
- RJG systems for process control & development
- Four table top pad printers
- High speed ink jet printer for part identification.

Contour continues to grow in the medical device market with 85% of their business medical related. Contour's engineers are experts in assisting with the design of your project, and are known in the industry for its continued experience in two-shot molding, softtouch overmolding and insert molding.

Is speed to market key for your project? Contour's tooling turn around for multiple part assembly projects is 4-6 weeks for production ready tools. Need a production ready part, not an SLA, to prove out your concepts before production? Contour prototypes with aluminum tooling in house to get your project started.

What's hot in the world of molding? Contour knows and is currently working on projects with:

- In-Mold Decorating (IMD) of appliques
- Overmolding in seals & buttons with 2-Shot
- Using elastomeric resins to overmold in shock resistance

Let Contour bring you new and exciting options that will out engineer your competition. Contour is your engineering partner bringing exciting and innovative products to market quickly.

Look for us at the MDM/Midpak show:

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| Contour Plastics | - Booth 820 |
| Exacto Spring | - Booth 819 |
| Lindar Corp. | - Booth 509 |