ENGINEERED TO BE YOUR BEST LIFETIME VALUE
GEARING

Advancing quality

Falk, the world’s leading manufacturer of ring gears, designs quality in from the start. Our commitment to consistently employ state-of-the-art techniques for design, materials and manufacturing processes enables Falk to continually enhance performance, reliability and overall lifetime value for customers around the world.

Falk is the only gear manufacturer in the world to offer the total package... from the gear casting, in-house heat treating and carburizing to sophisticated gear cutting and precision grinding... all under one roof. Plus, Falk’s comprehensive product line and project management expertise allow us to engineer complete power transmission solutions, which help minimize total cost of ownership.

Falk utilizes finite element analysis to eliminate costly trial and error. At Falk, new design concepts are thoroughly analyzed for structural integrity prior to production. In addition, our proprietary gear blank “casting” technology contributes to quality and therefore predictability and reliability. Also, Falk’s extensive experience with steel, both cast and fabricated, and Spheroidal Graphite Iron (SGI) helps you get the

Case carburizing increases surface hardness, and will significantly improve durability ratings, while extending component life. Our in-house case carburizing facility – 1.7 m diameter x 5.5 m deep (5.6 ft x 18 ft) – coupled with ladle-treated, vacuum-degassed forged steels allows you to uprate power densities, significantly increasing the life of your new or replacement components. Whether it’s a genuine Falk component, or not, all parts receive the same thorough technical review and are processed to exacting engineering specifications.

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MAAG gear cutting capabilities up to 14 meters (43.5 ft) assure that gear teeth are precisely machined to exacting AGMA tolerances and surface finishes which extend the life of gearing.

Unmatched collection of inspection equipment – including dimensional, metallurgical, physical, non-destructive and gear tooth inspection – ensures that every component meets the world’s most exacting quality criteria... our own. Here, a fixed centers contact check confirms proper contact on the tooth flanks of both the girth gear.

Complete lifecycle support and after-sale technical services help optimize component life and value. Gear set audits help you assess the current performance and condition of existing gears. GearPro™ Seminars provide practical installation and maintenance tips, which help minimize downtime and assure peak performance. Plus, Falk GMax™ 9000 lubricants are specially formulated to provide the best wear prevention in the industry... to maximize ring gear and pinion life. It’s all part of Falk’s commitment to deliver superior value over the life of a power transmission solution.
When it comes to assuring value, there’s no substitute for experience. Falk combines an unrivaled range of application expertise and engineering experience to offer customers a truly one-of-a-kind resource. Our unique knowledge base enables Falk to routinely offer innovative solutions that minimize initial cost while maximizing overall lifetime value.

**Concurrent engineering techniques can significantly reduce total component production time.** For example, computer-aided solidification simulation models enable Falk to evaluate everything from cooling times to problem areas before molten metal ever hits the mold. This technique helps assure a quality result in a time- and cost-efficient manner. Plus, our extensive metallurgical expertise – including custom-engineered chrome-nickel-moly cast steels – allows you to take advantage of higher through-hardnesses and improved machineability.
Process advancements set new standards for heavy-section steel casting quality.
Falk uses bottom-pour ladles to minimize oxidation, thus ensuring unparalleled casting integrity. Castings can be poured at the rate of up to a ton per second achieving unit weight capacities of up to 45,359 kg (100,000 lbs). Plus, unique risering techniques enhance the integrity of the finished product. In the case of this drag line center pintle casting, Falk was able to produce a cast solution with quality and reliability characteristics that exceeded a forged-fabricated component... in less time and at a significantly lower price.

Falk’s overall application engineering innovations help customers around the world minimize their total cost of ownership. Our split riding ring is a classic example of Falk ingenuity in action. This unique design reduces installation time from six days or more to approximately three shifts. It also minimizes shipping and crane rental costs. It’s just one of the many ways Falk works with customers to develop new and better ways to deliver the best lifetime value.
From full-service, state-of-the-art manufacturing processes – all under one roof – to complete project management capabilities and comprehensive support before, during and after the sale, Falk can help you meet challenging deadlines without compromising quality. Whether it’s a single process you need or a turnkey job, Falk delivers exceptional value... where and when you need it.

Reverse engineering capabilities mean you can benefit from Falk’s commitment to improving lifetime value... no matter who originally manufactured the component. Our vast array of inspection equipment provides the accurate measurements that ensure that the new component meets or exceeds your design, performance

Precise time and temperature control is achieved by Falk’s programmable heat treat furnaces – the largest of which measures 9.8 m x 13 m x 5 m (30’ x 40’ x 15’) – to assure that finished products precisely measure up to the engineered ideal.
Falk’s commitment to leading-edge large-capacity machining technology allows us to handle jobs that are too big for many other manufacturers. What’s more, the precision of this equipment helps us deliver that legendary Falk quality... no matter what the size of the finished product.

Distinctive engineering and manufacturing techniques enable Falk to take on highly specialized manufacturing challenges, such as this segment gearing. This type of gearing is used to precisely move large machines or structures, such as locks, dams, bridges and radio telescope antennae, when their gearing requirements exceed the production capabilities of one-piece gears.

Falk’s unmatched engineering expertise and turnkey contract machining combine to offer customers an invaluable manufacturing resource. In the case of this propeller shaft coupling, Falk developed new finishing techniques to meet the United States Navy Department’s stringent
Today’s increasingly competitive global marketplace has changed the rules… for everybody.

Until recently, power transmission buying decisions often focused on a single factor. It could have been anything from quality, performance, or reliability — to low initial price, lowest total cost, turnaround time, or after sales service. But now, more than ever, you need the total package to get the best, most profitable solution — from a flexible, reliable partner.

Falk delivers like nobody else and wants to be your preferred global provider of superior power transmission solutions.

We provide the best overall customer experience through our legendary reliability, innovative products and services, exceptional people, and speed in everything we do. Plus, the industry’s first standard 3-Year Heavy-Duty Warranty provides unmatched peace of mind.

Take a closer look at what separates Falk from the rest. The more you know, the more you’ll be convinced.

The Falk Corporation
Tel: 414.342.3131
Toll-free USA/Canada: 1.800.545.5215
Fax: 414.937.4359
E-mail: falkinfo@falkcorp.com
Web: www.falkcorp.com

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