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## Machinery Design and Drafting from Guards to Gears

It is getting more difficult and critical to develop and sustain design teams with enough experience and diverse design knowledge to get the best results during the design cycle for new equipment. The designers at **ERG** can help you to design and document your components and equipment, offering a wide range of experience from a number of different industries. We have experience designing, prototyping and manufacturing a wide range of equipment and components, from simple fabrications to hydraulic components to complex automated drilling equipment. Our designers have hands-on experience in manufacturing and fabrications so our solutions are practical. We keep arrangements simple and cost effective, and ask the right questions to ensure that equipment is reliable and meets the customer's needs. Let us apply our knowledge and experience to help you create new designs.

Our lead designer was project lead on several large machinery design projects working closely with design engineers. With over 30 years of design experience and 15+ years building oilfield equipment, a background in Welding Engineering Technology, field experience and manual machining experience, we can communicate effectively with your manufacturing personnel and vendors, and contribute to the quality and suitability of the design and drawings for machined components and weldments. We can provide engineering assistance with structural analysis, FEA, gear design and vibration analysis when required.

## Training in Machine Design and Drafting

**ERC** has developed over 30 hours of comprehensive, practical, experience-based training presentations, and we continue to add to the presentations. Our seminars are designed to share our experience with junior and intermediate personnel, and provide insights that will improve design suitability. Training materials include real-life examples, exercises and checklists to ensure that the information presented can be applied to your design efforts.

We teach practical methods to improve readability of drawings. We show designers how to properly apply weld symbols and geometric tolerances. Our content is manufacturing process related so designers can learn to avoid most machining, fabrication and assembly problems and how they can improve part interchangeability without increasing costs. We stress learning from experience, understanding machinery and optimizing for your manufacturing methods.

We can customize presentations to suit customer needs, and reflect your priorities and experience.

## Product Life Cycle Planning and Design Strategies

We have been involved in the design development and support of a wide range of products. We can help you to create products that will remain competitive in the market longer, by planning for incremental upgrades during the product life. We can help you to formalize your design scopes and design philosophy to reflect your company's and customers' current and future needs and priorities.

**ERG** Consulting Inc. will be happy to help you to provide better, safer, more cost effective designs with less risk, in less time and at a lower cost.

Please call us to discuss how we can use our experience to help you at: (403) 293-0562 or email us at <u>bcarr.erg@shaw.ca.</u>