

## Knovel Customer Spotlight: Ingersoll Rand

Outlining Partnership Synergies and Benefits



Ingersoll Rand is a \$13 billion company with people and businesses in the global climate control, air conditioning, industrial and security markets. Through such brands as Trane air conditioning systems, Thermo King transportation temperature control systems, Schlage locks, Hussman refrigeration equipment and vehicle manufacturer Club Car, IR's more than 60,000 employees provide products, systems and solutions to both developed and developing economies. Serving homes as well as commercial and industrial operations, Ingersoll Rand improves the safety, security, health and comfort of people around the world.



**Growing Pains** As Ingersoll Rand transformed itself into this multi-brand commercial products manufacturer, the company moved away from the capital-intensive, heavy machinery profile of its past. To achieve this transformation, engineers and engineering managers at Ingersoll Rand needed up-to-date technical and engineering reference information across a wide range of topics. Not only did engineers need reliable references for data analysis related to product support, New Product Development and best-practice information on Six Sigma and lean manufacturing methodologies, they needed access around the clock from all corners of the globe.

**A Knovel Solution** In response to this global need for 24x7 access to reliable technical information, Ingersoll Rand's engineering global services team turned to Knovel. During the trial period users were encouraged to provide feedback on content, performance and usability. This feedback was then utilized by Knovel to ensure that the system was configured in the way most beneficial to IR users.

Following an extremely positive response during the evaluation period ("A dream come true," were the words of IR's company librarian Sharon Shiner), the engineering services team recommended to management a company-wide Knovel subscription. Knovel worked closely with the Ingersoll Rand team and the user community to determine the best content subscription and to combine pre-existing Trane and Thermoking accounts into one corporate program.

When asked Why Knovel?, the corporate librarian and engineering services team emphasized the ability to integrate technical information with analytic and search tools and the resulting quick return on investment in the form of reduced research times, cost savings, global project collaboration, and the most up to date technical resources available.



Choosing to purchase a corporate wide subscription proved to be a very cost effective way to supply all the company's engineers with the research and reference information they need to succeed in a timeframe that minimized expense.

**Spreading the Word** To continue improving the user experience, Knovel has maintained this open flow of communication using survey and customer collaboration methods to understand IR users' specific needs.

**Implementation was just the first step** As new markets emerge for Ingersoll Rand and established markets evolve, Knovel's ongoing communication and collaboration with IR users ensure that the company's engineers have the information they need when they need it. With employees worldwide, it is important for IR to find the best way to let the engineering and technical community know about the Knovel solution and its availability.

Initially the engineering services team used the company's global newsletter to inform engineers at the various business units about this useful resource. Going forward the team not only provided access to Knovel directly through the engineering group's intranet portal and company's internal website, it also utilized these resources to keep users apprised of updates and additions to the service. This direct flow of information keeps global staff up-to-date and helps engineers worldwide know exactly what information Knovel has to offer and where they go to access it.



IR's Engineering Service Manager commented **"Knovel is one of a few service providers that came through with great support, by providing the trial and the feedback environment that allowed our team to show the value of the online tool."**

**End-User Benefits** Ingersoll Rand's engineering and technical staff have found Knovel to be an invaluable tool to support both innovation for new product development and integration of mature product brands. Its ease of use, interactive access to vital content and real-time availability are all key factors in forming engineering solutions.

For example, Donna Bossman, an Engineering/Materials Science Leader at Trane saved hours of research time using Knovel to gather information on the formulation of byproducts in insulation. As a result, when she and her team developed their final products, they substantially improved their specification documentation for controlling indoor air quality.

Ingersoll Rand also benefits from its use of Knovel as a collaborative tool and a shared service among its many diverse business units. Tim Cooper, a Principal Engineer in New Jersey finds Knovel to be very useful for his workgroup. Because Knovel enables multiple users to work with the same online documentation simultaneously and to discuss issues with colleagues at different sites, it allows Cooper and his team to reduce development and lead times and solve problems faster. Another result of reduced development and lead times? Reduced costs.

**Business Benefits** With its workgroups saving time on research, development and innovation, Ingersoll Rand has seen the benefits of Knovel firsthand. Knovel helps locate relevant data quickly. The ability to easily drill deeper into the details of data increases productivity, reduces research time, enables more efficient new product development and brings products to market sooner. One estimate shows engineers at IR are saving 6-15 hours per month accessing the technical information needed to support their work projects. Information gathered with Knovel also fuels discussions and provides IR's managers and decision makers with the data they need, both quantitative and qualitative, to move projects forward.

The current regulatory climate and its increased emphasis on corporate compliance and responsibility presents another area where Knovel can help IR. Access to Knovel's up to the minute information on environmental, health and safety regulations can help IR keep in step with the latest federal, state, local and international requirements.

A key to the success of the Ingersoll Rand-Knovel relationship is the understanding that relevant information and its access are only effective when they're in the hands of the users. In any fast-moving corporation, the constant struggle to make the most of an information service requires that communication be put in place to ensure that tools do not go unused and features unexplored.

Another best practice to encourage usage is a consistent effort to understand the changing needs of users. The support team at IR, works closely with Knovel to determine ways to fully integrate Knovel's capabilities into the workflow. These ongoing efforts for improvement create a path toward continued success for Ingersoll Rand's engineers and business units in the future.