

# Somero® Enterprises Produces Higher Quality Documentation—50% Faster—Using Arbortext® IsoDraw®

**The Leaders in Leveling® now bring 3D CAD model graphics directly into technical publications—instead of drawing illustrations from scratch—saving time, effort and money**

## Somero Enterprises, Inc., Houghton, MI

Somero Enterprises is a leading manufacturer of advanced concrete placing equipment and associated machinery. Founded in 1985, the company has grown and prospered by consistently delivering highly innovative products of superior quality for an international market.

Somero's success was guaranteed with the introduction of its revolutionary Laser Screed® machines in 1985—the first in a long list of breakthrough innovations. This product received numerous awards, including *Concrete Construction* magazine voting it the “Best Innovation in Concrete in the Past 100 Years.” Because of Somero's commitment to quality, the company has been awarded ISO 9001-2000 and ISO 14001-2004 certification.

## The Challenge: Documentation Group Struggles to Keep Up with Growth

At Somero, product documentation is created centrally in the US, and then translated into dozens of languages for the worldwide market. Documentation includes user manuals, along with maintenance documentation and spare-parts catalogs. Somero's technical publication department—two employees—manages a rigorous workload that supports more than 15 products. The problem: each product line requires several types of manuals—some containing more than 100 pages. Because the company insists on adding high-quality technical illustrations to its documentation, keeping up with rapidly growing product lines was becoming nearly impossible for the documentation team. What the company needed was a tool that would allow authors to reuse their 3D CAD data from SolidWorks® for their documentation, thus eliminating hand-drawn illustrations.

## The Solution: Arbortext IsoDraw Automates Graphics Creation Process

After researching and evaluating its options, Somero purchased two licenses of Arbortext IsoDraw in 2007. Arbortext IsoDraw is the industry's only technical illustration software that enables companies to create both 2D and 3D technical illustrations and animations either from scratch or from existing rich CAD data. With Arbortext IsoDraw, content authors can use and manipulate engineers' 3D models for their parts books, while automating the entire graphics creation process. “This ability helped us save a lot of time and money,” says Rick Johnson of the Technical Publications group. “With our old system, the steadily increasing workload resulting from the expanding product line was no longer manageable.”



The Somero® Mini Screed™ is ideal for screeding residential and small commercial slabs on grade.

## The Results: 50% Time-Savings with Process Automation

Today, instead of drawing all parts from scratch, authors are importing 3D models directly from the company's CAD (computer-aided design) system into Arbortext IsoDraw. The result is a high-quality technical illustration that can be optimized quickly and easily using a host of illustration tools provided in Arbortext IsoDraw. Today, Somero is incorporating more drawings into its manuals, while eliminating as much text as possible. By using fewer words, Somero saves money in translation costs and improves the overall quality of the manuals by making documentation easier to understand for the end users, while reducing the risk of translation errors. Bottom line: the company is now producing higher quality manuals—50% faster than before!

“The thing we appreciate the most about Arbortext IsoDraw is the ability to explode 3D model parts assemblies provided by engineering.”

Rick Johnson, Technical Publications Group, Somero Enterprises

### Leveling the Competition with High-Quality Products and Highly Illustrated Manuals

At Somero Enterprises, product documentation—typically user, maintenance and parts manuals—is created at their US headquarters and translated into multiple languages for distribution to the worldwide market. Somero’s two-person technical publication department maintains an impressive workload, supporting 15-plus products that are packaged with several types of manuals. The doc group is responsible for writing the instructions, creating the graphics, and managing the translation for international customers. Once a new manual is completed, the next revision follows almost immediately, ensuring that the documentation is up-to-date and error-free.

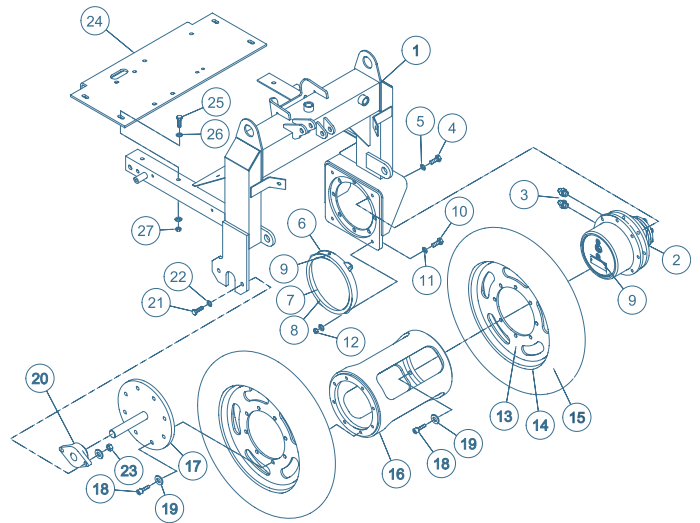
As Somero continues to grow at a rapid pace, keeping up with launch schedules is fast becoming impossible for authors, due to the volume and complexity of the documentation. For instance, Somero’s new Mini Screenshot™ (launched in January 2008) for leveling, requires more than 30 illustrations, documenting over 250 parts. (This is the smallest machine Somero has ever produced.) There are ‘only’ 30 parts pages with ‘only’ a few hundred parts. The manuals for Somero’s larger line machines consist of over a hundred parts pages containing a few thousand parts! Just imagine the workload for a two-person documentation department!

Despite the fact that workload demands are high and time is short, Somero has always delivered manuals with quality technical illustrations. The company has used SolidWorks for CAD design, but this software was not a direct source for their technical illustrations. With the increased workload of an ever-growing product range, however, the idea of reusing 3D CAD data to create 2D illustrations became more and more interesting as an option, since this process promised a major savings potential.

“So far, we had been using a common graphics application to draw the parts required for the manuals,” reports Rick Johnson from Technical Publications. “We had to draw each part individually from scratch, and this was the most significant time factor in creating our manuals.”

After conducting some market research in 2007, Somero purchased two licenses of Arbortext IsoDraw—a standalone dynamic publishing solution that works with any popular 3D CAD solution.

Arbortext IsoDraw enabled authors to use and manipulate the engineers’ 3D models for their parts books and automate the graphics creation process. “This ability helped us save a lot of time and money,” says Johnson. “With our old system, the steadily increasing workload—resulting from our expanding product line—was no longer manageable.”



Exploded-view drawing of the Somero® Mini Screenshot™ leveling machine..

### 50% Time Savings via Process Automation

Instead of drawing all the parts from scratch, authors can now import the 3D models from the CAD system into Arbortext IsoDraw directly, and reuse the fully drawn models as needed. One major benefit is that the illustrator doesn’t need any CAD knowledge to work on the illustration, since Arbortext IsoDraw has an interface that is intuitive and similar to the GUI’s of other graphics applications. The illustrator can easily manipulate the models as required for the technical illustration, i.e., put it into parallel perspective, rotate, explode, etc. Then, with a push of a button, the illustration is created. Hidden lines are removed automatically in the conversion process, and thick and thin lines are also applied automatically.

The result of this conversion is a high-quality technical illustration. Supplemented with the variety of additional illustration tools provided in Arbortext IsoDraw, the illustrator can now finish up his work by applying the stylistic elements he requires for the specific ‘message’ of the graphic. For example, the illustrator may want to add arrows or callouts to the illustration to prepare it for use in an assembly instruction. Also, the author can easily add hands, tools, threads and all those little things that are usually not included in the CAD model, quickly and easily. And, they can reuse graphics from past designs, as well as photos and scanned images within a single tool.

“The thing we appreciate the most about Arbortext IsoDraw is the ability to explode 3D model parts assemblies provided by engineering,” explains Johnson. “We also appreciate the fact that engineering can now provide us with one whole IGES file, rather than provide us with hundreds of separate parts drawings to be redrawn with our old system. Arbortext IsoDraw has sped up our manual creation time by at least 50%.”

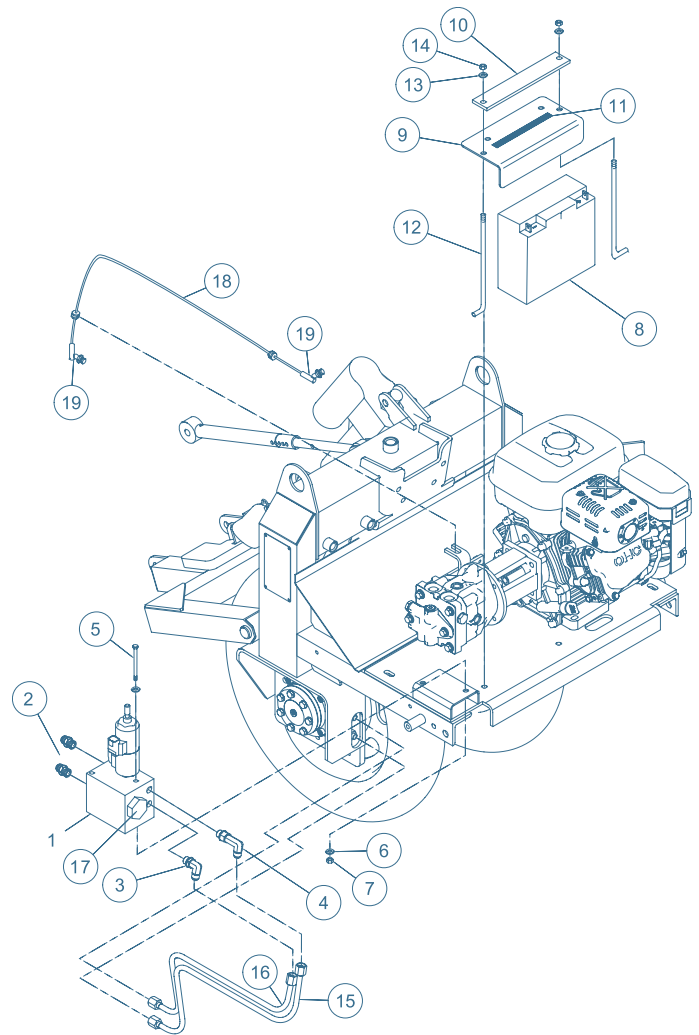
As a result of this process optimization and automation, Somero can incorporate more drawings into its manuals, while eliminating a considerable amount of text. This reduction of unnecessary words provides an additional savings for the company and improves the overall quality of the manuals by making them easier to understand, and reducing the risk of translation errors by end users.

### One Tool Serves All Tasks

In addition to helping authors reuse 3D data in their documentation, Arbortext IsoDraw makes authors’ lives easier by supporting a wide number of graphics formats that can be read by common desktop publishing applications used in the final production of a manual. The fact is, creating an illustration from 3D data is just one aspect of the documentation process. After it’s created, the illustration is placed in a Desktop Publishing application, which authors use in laying out the manual. From there, the manuals are either printed or delivered digitally to the customers. At Somero, the Tech Pubs department uses Adobe® InDesign for layout, for example.

### Adding Live Links to Online Manuals

Some illustrations are taken a step further by their Somero authors, who sometimes want to add interactive ‘hotspots’ to the illustration, for technically advanced, online spare parts catalogs. Thus, Arbortext IsoDraw allows authors to fulfill all tasks related to graphics creation—from bringing 3D CAD data into documents, to adding live links to an electronic spare parts catalog. With this consistent, automated documentation process established, Somero is now well prepared to bring updated graphics into their manuals whenever designers make last-minute changes to the product design. With a push of a button, the new graphic is added to the manual—saving time, effort and money.



Arbortext IsoDraw enables the Somero technical publication team to bring illustrations directly into parts and user manuals, and instantly update the graphics as the design changes.



To learn more about how Arbortext can help your company create and delivery high-quality product information, please visit our website at: <http://www.single-sourcing.com/>

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