Salter weigh-tronix

Business



Salter weigh-tronix – Paper Example

Company: AutodeskCustomer: Salter Weigh-TronixSubmitted by: The WhiteOaks ConsultancyWe all know what the two oldest professions in the world are, but what's the third? The art of weighing and measuring might have a claim and among the oldest surviving weighing machine companies, still producing today, is Salter Weigh-Tronix. Based close to the original site in West Bromwich, Salter Weigh-Tronix runs one of the most modern manufacturing facilities in the West Midlands. State of the art design and manufacturing methodology keep the company competing in a truly global market. Salter Weigh-Tronix products are used in fields as far apart as explosion safe weighing in oil refineries in West Africa and tea picking in Bangladesh – and the use of weighing is growing.

From a simple and reliable means of ensuring fair trade, weighing has expanded into all areas of life, none more so than provision of weighing based equipment to guarantee quality and reliability in production. Weighing, using new digital load measurement techniques with extraordinary accuracy and speed of response, is a critical and an integrated part of large scale production processes. From programmable weight indicators communicating with and instructing flow control equipment to fine component counting using bar code technology in warehouse operations Salter Weigh-Tronix weighing equipment is at the leading edge. Martin Tummelty, Engineering Director of the European operation, stresses the emphasis on accuracy and reliability. " Industrial weighing is a critical production process as far removed from household weighing as a model aircraft from the latest European Airbus. We are committed to state of the art technology in all our processes and constantly strive to be the benchmark standard of excellence in our industry.

u

Six Years of Autodesk

To ensure this accuracy, over the last six years Salter Weigh-Tronix has used Autodesk design software. The company started with AutoCAD Release 11, upgrading to DOS-based Release 12 and then progressing recently to Mechanical Desktop. Before deciding upon Mechanical Desktop, Salter Weigh-Tronix investigated many other systems, including Xcad, Parametric Technology's Pro-Engineer and Solid Works. The criteria for choosing the new system was budget, the ability to read DWG files and the ability to validate the design using Finite Element Analysis. After 12 months of CAD systems evaluation, when the company's existing system was reaching full capacity, a decision was made. Pro-Engineer priced itself out of the market because of high cost-of-ownership.

Solid Works lost out to Mechanical Desktop, because it was not able to adequately handle existing drawings. The company's chosen system comprised three seats of Mechanical Desktop, Mechsoft Profi for Mechanical Desktop, seven seats of AutoCAD Release 14 and an upgrade to the existing Enhancement 1 drawing management system. To support this the company acquired six new Pentium 2 PCs as well as 2 new file servers, all running underMicrosoft' s Windows NT operating system. The system was fully implemented by Alta Systems, who are also responsible for the ongoing support.

The Leading Design Software

Autodesk, is the world's leading design software company, and it's solutions, like those of Salter Weigh-Tronix, are used in virtually every discipline in virtually every industry.

Applications range from architecture and mechanical design, to plant design and facilities management in Manufacturing Industry, Civil Government, the Defence sector, and the Build Environment. Mechanical Desktop is a full 3D parametric feature-based solid modelling solution for mechanical design that, in Release 3 includes modelling enhancements such as face drafting, parting line and part splitting, functions that are particularly important for the plastics industry. The 3D helical sweep feature allows users to create " threads" and other parametric helical shapes such as springs, grooves, coils and spirals. The new lofting capability lets users significantly reduce their design cycle time by letter them easily create and edit complex, free form solids through multiple profiles. Introduced in May 1997, AutoCAD Release 14 provides a rich set of design tools, embedded Internet technology and innovative ObjectARX, its object-based development environment.

It also integrates Microsoft Visual Basic for Applications, and includes the AutoLISP and Visual LISP customisation tools that helps developers and customers tailor the software to their specific requirements." We are extremely impressed with the speed of the new system and drawings can now be processed in seconds rather than a day, greatly improving productivity," explains Tummelty. " Using Windows based applications is a vast development after becoming accustomed to the old DOS software – very user friendly".

https://assignbuster.com/salter-weigh-tronix/

Planning for the Future

Salter Weigh-Tronix has already begun to make use of Mechanical Desktop design visualisations to train the sales and marketing teams in forthcoming products. In the future, these visualisations will be shown to customers at an early stage in negotiations."" The visualisations will make life much easier for the customer," continues Tummelty.

" They will be able to tell us of any changes they would like made before the design goes to production, substantially reducing the amount of rework required." The Finite Element Analysis software will also play an important role in the future. It will be used to test the 3D computer model of scales to see if they are going to deflect to a greater extent that anticipated, thereby causing a non-linearity. This will prevent over and under-engineering and will indicate stress points, so that design changes can be made before the products go into production, preventing costly in field failures and modifications. Salter Weigh-Tronix is also looking to use Autodesk's internet technology so that it can quickly and easily transfer design files to and from its sister company in the USA.

The openness and ease of use if this technology also means that Salters can save time and money in its communications with its suppliers." Mechanical Desktop and AutoCAD Release 13 have opened up new doors for our company" says Tummelty. " Not only do we have the capability to produce extremely accurate designs for our scales at a greater level of productivity, but we are now starting to investigate future applications that have only become available to us through the introduction of the software from Autodesk."

https://assignbuster.com/salter-weigh-tronix/