Plantvare

EN1031 Installation ater

The full Title of EN10312 is "Welded stainless steel tubes for the conveyance of aqueous liquids including water for human consumption"; welded water tubing. The EN10312 has specified sizes and dimension. Therefore, basic Pipe Design according to EN13480 is not necessary.

What are the advantages:

- Cheaper for piping in sizes above approximately DN50 compared to the predominate Press assembly Water Piping.
- Enables Prefabrication of pipe spools (Pipes assembled with Press connections are not suitable for transporting and hoisting).

P-Engineering offers engineering of water installations based on EN10312, where all main headers, shafts and main distribution are welded. Fabrication documentation based on piping isometrics.

Prefabricated Water Piping reduces the onsite need for QC for e.g., tracking tube materials and Press-connections quality with for example X-Ray.

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Examples from prefabrication of Water Piping

<u>Legionella</u>

Welded Water Piping also gives the opportunity to apply pharma-inspired "dead leag" design reducing the possibilities for bacterial growth and reducing risk of legionella bacteria.

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System Guarantee (Denmark) Especially for Denmark there is a request from Client side for a "System Guarantee" for Water Installations. This is based on the Main Manufacturer like

- Broen
- <u>Mapress</u>
- <u>Viega</u>

themselves has Specified the Operation Limits for their own Products. These companies therefore issue a Guarantee based on the contractor follows these companies training course, uses specific tools etc. The Guarantee normally also includes site inspections.

When the piping installation are welded there is no risk of Joint disintegration and System Guarantee in above Context is not relevant.

P-Engineering uses e.g.

- <u>AVEVA PDMS</u> Software for 3D design
- DXT EN13480 Software for Detail Calculations
- <u>PIPE-FLO®</u> Software for Flow Calculation, Pump Sizing etc.

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Examples from prefabrication of Water Piping:

Above: Welded Manifold Below: Water Booster Unit from Grundfos (which has been supplied with welded piping before EN10312 was issued first time) with welded internal piping.