

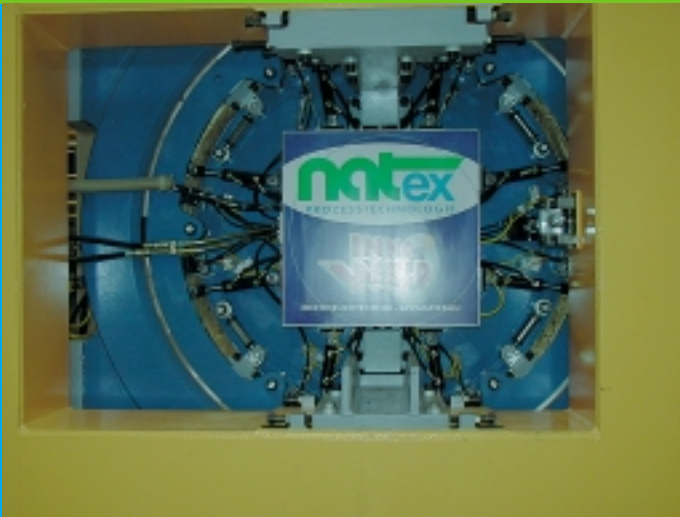
High Pressure Quick Acting Closure System for Wood Impregnation



Innovative Design for New Applications

*GO FOR NATURE . . .
GO WITH*

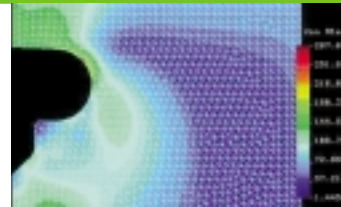
matex
PROZESSTECHNOLOGIE



Closure system for horizontal high pressure vessels

It has always been a challenge to handle bulky materials in a high pressure environment involving supercritical fluids. In some cases horizontal pressure vessels are required which need an appropriate quick acting closure system with a large diameter.

NATEX developed a solution based on its patent for quick acting closures with segment rings by introducing some modifications.



First industrial application – impregnation of wood

- 3 quick acting closures for wood impregnation in Denmark
- 1,5 minutes opening/closing time
- weight of the closure system 15 t
- simple loading/unloading of the vessel with wood packages
- easy cleaning

Special construction features ensure a homogeneous distribution of CO₂ within the vessel.



Highlights of the new closure system

- Diameter up to 2 m
- Opening / closure times less than 2 minutes
- Design adjustable to different pressures
- Fully automatic manipulation



Supercritical wood impregnation process

The process was developed by FLS miljø in Denmark and replaces conventional wood impregnation methods based on heavy metals and/or organic solvents. It uses organic fungicides dissolved in supercritical CO₂. Impregnation time is short and the whole cross-section of spruce or pinewood is impregnated against rot, fungi and mould. The wood can be machined after impregnation without exposing untreated material. The impregnating agent is colourless and the moisture content of the wood remains unchanged.

For further information please contact:

NATEX
Prozesstechnologie GesmbH
 Hauptstrasse 2
 A-2630 Ternitz, Austria
 Tel.: (43)-2630-32120
 Fax: (43)-2630-38163
 E-mail: office@natex.at
 Internet: www.natex.at