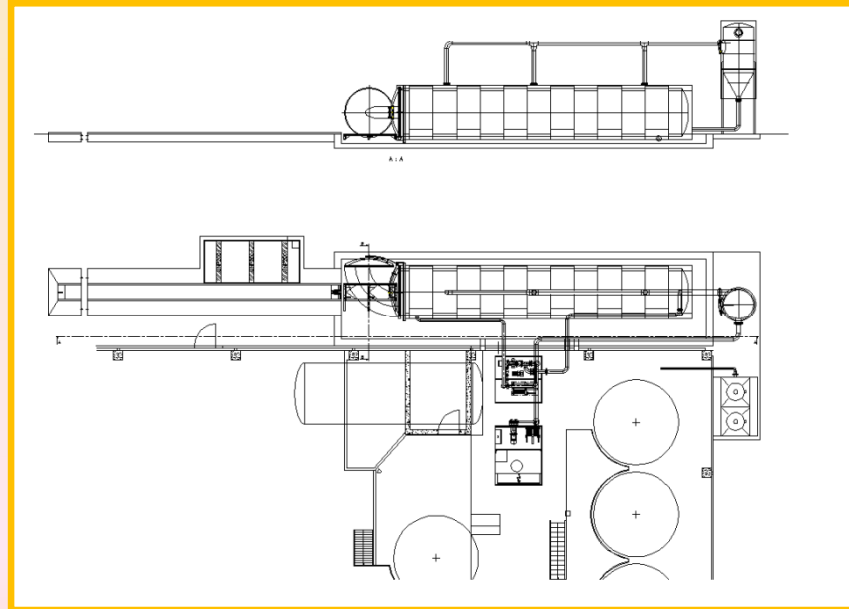


WTT A/S Hot-Oil Plants



Wood Treatment Technology





The WTT Hot-Oil plant

The WTT/Osmose process combines an oil treatment on the basis of linseed oil with a subsequent drying of the impregnated wood.

Subsequent to high-pressure impregnation of the wood (separate process), the wood charge is submerged with hot linseed oil in the vacuum filled hot-oil autoclave in stainless steel. The wood is dried and the circulating oil sucked into the wood. The uptake (up to 1 litre per m²) is thus controlled by means of the vacuum. The hot-oil seals the surface of the wood and this results in considerably improved dimensionally stability of the wood due to its reduced ability to absorb moisture from the surroundings. The traditional tendency of the wood to crack is also significantly reduced in this process. A final vacuum is applied after the oil treatment to dry the wood. After this, the wood is ready for sale!

The linseed oil is available in different colours and can also be delivered with various, additional properties such as UV protection and anti-mould agent.

Application areas are numerous: Wooden houses, play ground equipment, terrace panelling, outdoor cladding, noise and view barriers, balcony cladding, window and door elements and carports. The hot-oil treatment is also extremely well-suited for final treatment of thermo-treated wood.



1: Pump section and piping between the storage tanks.

2: Heated and insulated storage tank with agitation equipment.



3-4: The insulated piping between the storage tanks and the pump section.





1: Automatic mixing system with piping and filtering.

2: Cleaning system to be used during shifts between the different hot-oil colours



3-5: Compact equipment platform for the complete pump and valve unit, incl. of the electrical cabinet





1: Plant with cyclone tank/oil separation tank (A), for the separation of hot-oil and steam. Plate heat exchanger (B) for circulation in the autoclave and the storage tanks. Plate condenser (C) for condensation of the steam evaporating from the wood.

2: Close-up of the condenser



3-4: Rail section with drip tray and automatic extraction of the trolleys.
Hydraulic turning of the wood packets for optimization of the impregnation quality and the colour dispersion.



1

1-3: Finish-treated wood ready for sale!

Standard colours red, brown, and yellow
With UV protection.
Colour-less without UV protection.



3



2



4-9: Examples of application areas



4



5



6



7



8



9

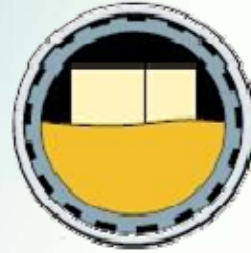
The proces steps:



The wood packets are wheeled into the plant.



An initial vacuum removes the air from the autoclave and the wood.



The plant is filled with hot linseed oil.



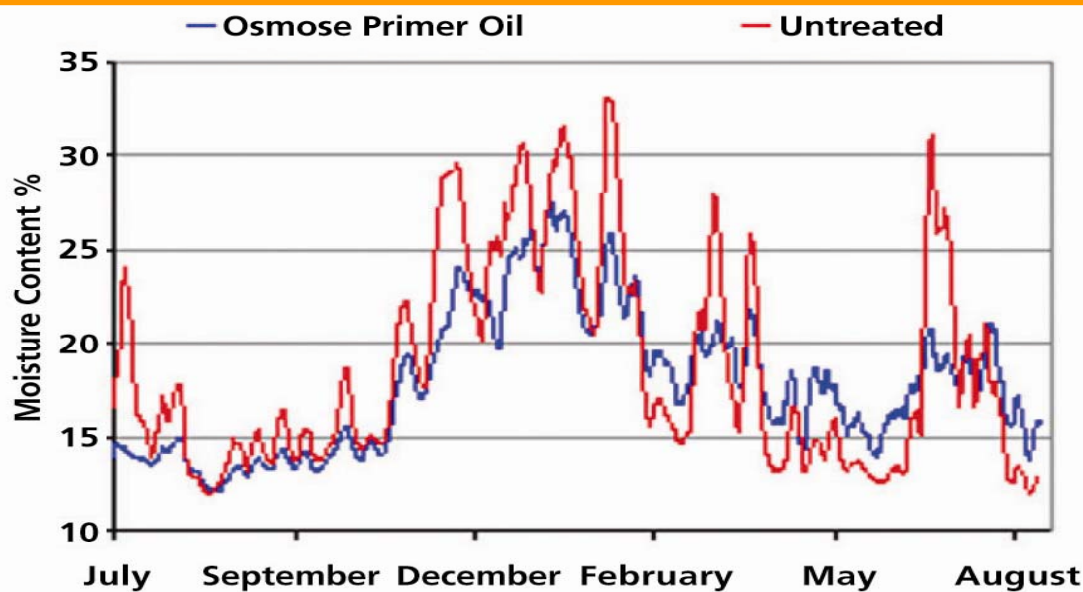
Simultaneously the wood is dried, moisture (from the preceding impregnation) is removed and the wood impregnated with linseed oil.



Superfluous oil is removed by means of the final vacuum.



The wood is now treated with hot-oil.



The above graphics shows the moisture contents in Primer Oil treated cladding wood in comparison with untreated wood in outdoor conditions. The changes in moisture content caused by varying weather conditions are significantly reduced in Primer Oil treated wood. This leads to a pronounced reduction in the traditional fluctuations in the wood and to less cracks.

References WTT Hot-Oil plants

Company	Country	Internet	Size	Contact
Alvdal Skurlag A/L	N	www.alvdalskurlag.no	Ø 2.000 x 6.000 mm	Roar Voll
Alvdal Skurlag A/L	N	www.alvdalskurlag.no	Ø 2.000 x 6.000 mm	Roar Voll
Alvdal Skurlag A/L	N	www.alvdalskurlag.no	Ø 2.000 x 12.000 m	Roar Voll
Møre Tre AS	N	www.moreroyal.no	Ø 2.000 x 12.000 mm	Roar Nordvik
Møre Tre AS	N	www.moreroyal.no	Ø 2.000 x 12.000 mm	Roar Nordvik
Møre Tre AS	N	www.moreroyal.no	Ø 2.000 x 12.000 mm	Roar Nordvik
Canjaere SA	F	www.canjaere.fr	Ø 2.000 x 6.000 mm	Jérôme Moussu
Bitus AB	S	www.bergstimmer.se	Ø 2.000 x 12.000 mm	Henrik Egnell
Marnar Bruk A/S	N	www.marnarbruk.no/	Ø 2.000 x 12.000 mm	Per Birkeland
Marnar Bruk A/S	N	www.marnarbruk.no/	Ø 2.000 x 12.000 mm	Per Birkeland
Marnar Bruk A/S	N	www.marnarbruk.no/	Ø 2.000 x 12.000 mm	Per Birkeland



Open the
door for
Hot-Oil- (Royal-)
treated wood!