

VELOX Residential / Building Construction



fast | simple | massive | with lasting value

History

This is how it started more than half a century ago. The Carinthian family-run company VELOX was founded in 1956 by the brothers Franz & Peter Steiner. The starting point of the company foundation was deliberations as to how wood chips from the sawmill that existed at that time could be economically processed. Hence, building and insulation boards made of cement bonded wood chip have been manufactured since then in a compression moulding process that they developed.

Building Material

90% of the building material is natural wood, which is regenerative. It is mixed with cement and water.

The special production technology and decades of know-how make VELOX building and insulating boards unique and unmistakeable.

“Excellent”: The Seibersdorf research institute tested the VELOX production methods and products and issued a very good lifecycle assessment.



The cement-bonded board made of wood chips:

- ▶ can be used universally
- ▶ can be processed like wood
- ▶ is fire resistant
- ▶ is sound insulating
- ▶ is heat insulating
- ▶ is a good plaster base
- ▶ is weatherproof
- ▶ can be used without anchoring

Shuttering system

The VELOX shuttering system is used for construction of multi-storey residential and commercial buildings and also for construction of family homes.

For the trend towards fast construction VELOX has a solution: prefabricated wall modules. Thanks to huge time savings on site, the user can reduce prices and receive better quality without additional costs.

The system is casing, thermal and sound insulation in one and is extremely earthquake-proof.



VELOX SHUTTERING SYSTEM



The VELOX haunching concrete system with haunching concrete boards is mainly characterised by.

- ▶ the narrowness of the walls
- ▶ very good sound insulation values
- ▶ high carrying capacity,
- ▶ a high degree of safety against earthquakes

VELOX haunching concrete system boards are simultaneously formwork, plaster base, and installation layer in one. In summary, the benefits of haunching concrete system walls with VELOX haunching concrete boards are found in the narrow construction with a simultaneously high permissible pressure and thrust load.



Wall Systems

For construction of multi-storey residential and commercial buildings or also for construction of family houses there are different wall systems available – according to static, thermal or technical requirements. Different board thicknesses can be combined individually with the necessary concrete core thickness and hence result in the optimum wall thickness

System Description:

At the construction site, the shuttering system boards are quickly and safely assembled with brackets into a formwork body and filled with core concrete. Thermal insulation sound-proofing, statically bearing structure are created in one work step.



VELOX SHUTTERING SYSTEM

The shuttering system boards are the formwork and thermal insulation in one and increase the living comfort.

The concrete core fulfils the static requirements and the sound-proofing requirements. The shuttering system has been tried and proven for half a century.

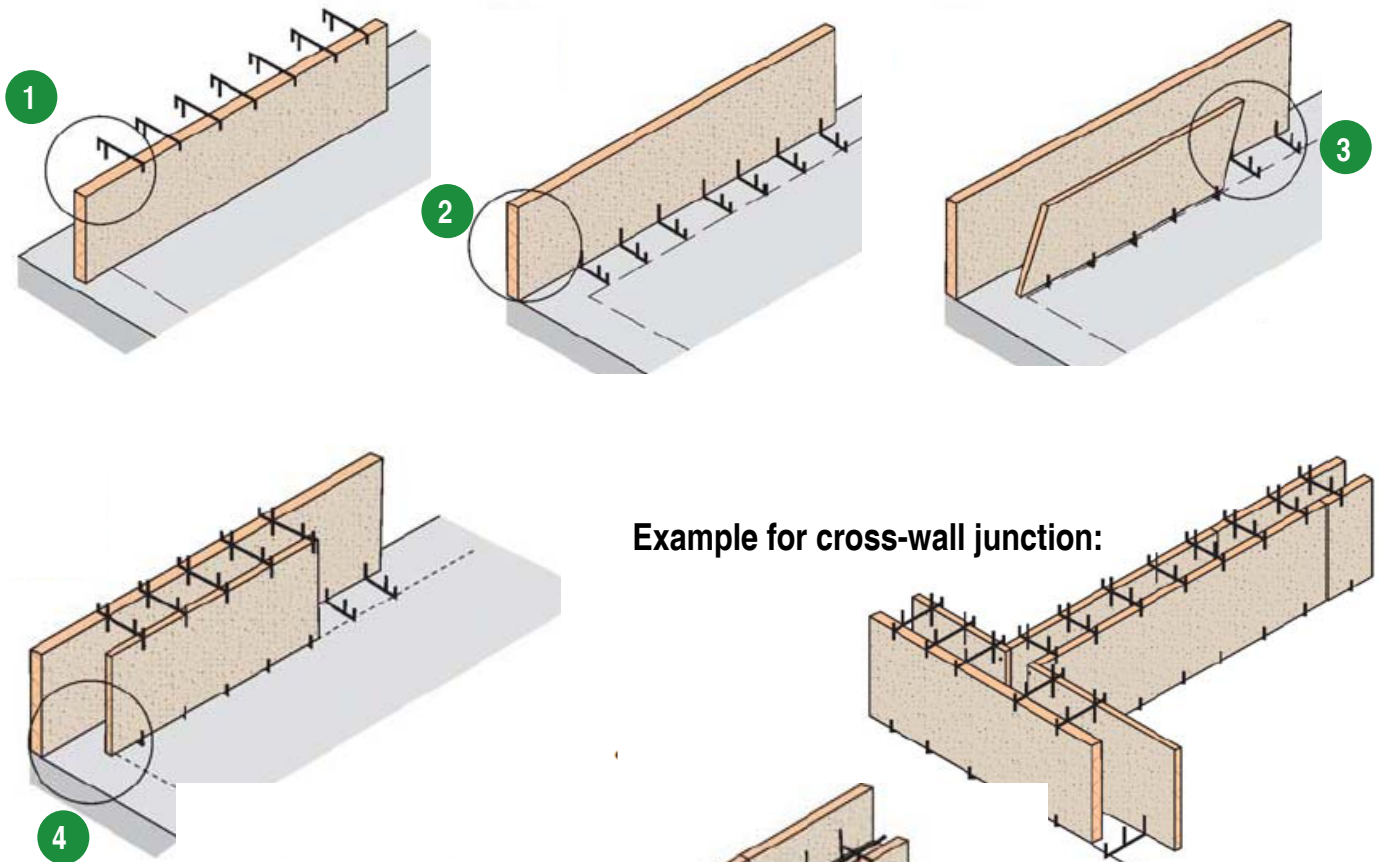
Shuttering System Products

VELOX shuttering system products are approved as a formwork system for shuttering system formwork according to OENORM 6022. Through the conformity certificate from 16.12.2005, the VELOX shuttering system products also comply with EN 13158. VELOX shuttering system boards are simultaneously formwork, thermal insulation and sound-proofing. Through the special production method (pressed under high pressure and therefore vibration proof), the core concrete locks onto the shuttering system board and forms a compact unit with it. For heat insulating composite systems with expanding

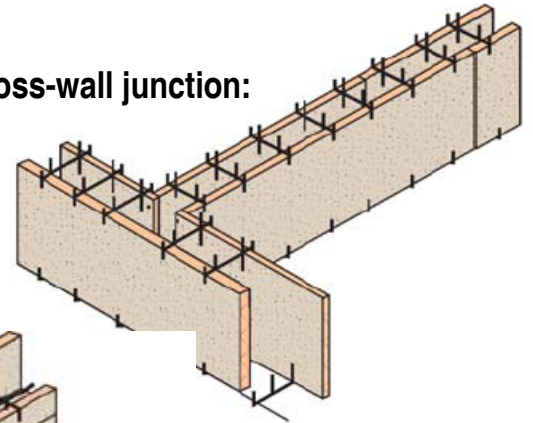


CONSTRUCTION WITH VELOX

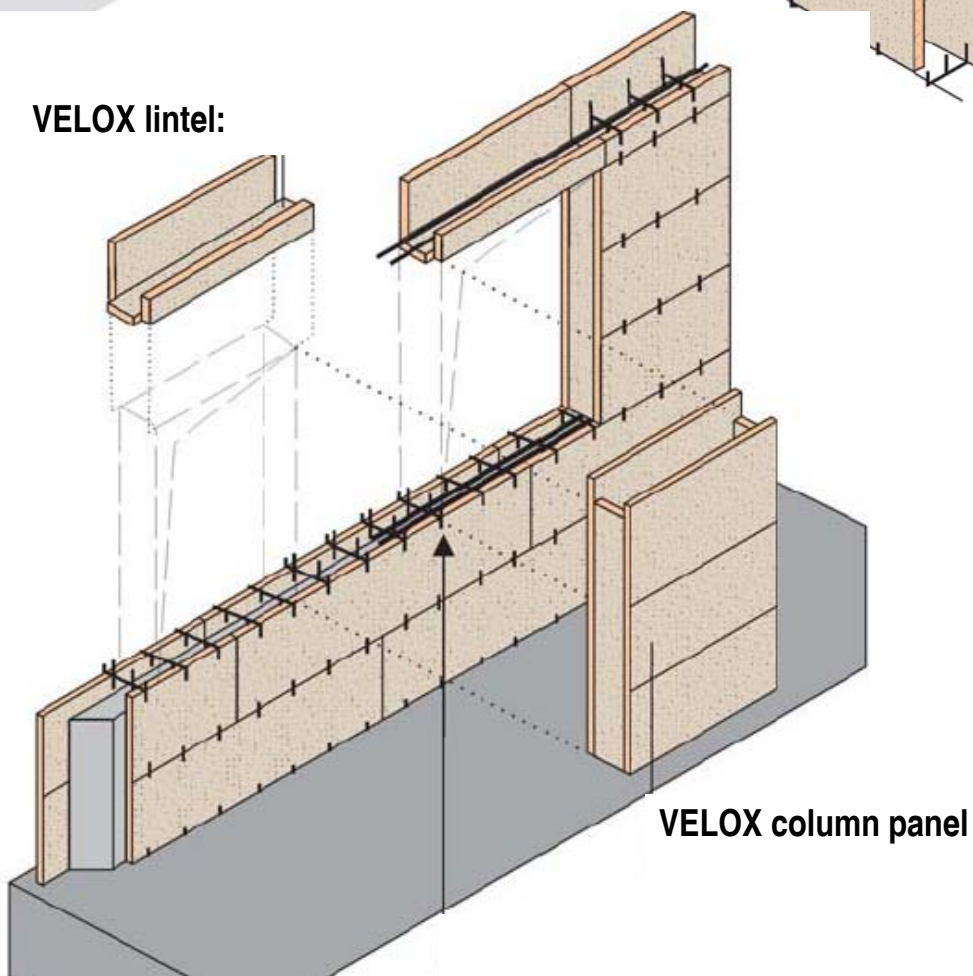
First Steps:



Example for cross-wall junction:



VELOX lintel:



VELOX column panel

EARTHQUAKE RESISTANCE



Construction matrix for VELOX Shuttering System (zone 1-5)

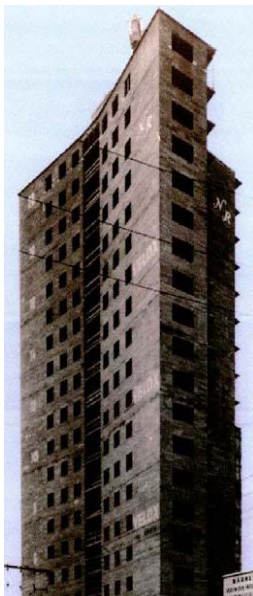
without reinforcement

with reinforcement

VELOX	Zone 0	Zone 1	Zone 2	Zone 3	Zone 4	(Zone 5)
ε	0,035	0,05	0,075	0,10	0,15	(0,30)
E-1			1) Kernbetondicke außen 12, innen 14	3)		
E-2			2)			
E-3						
E-4						
E-6						
E-8						
E-10						

VELOX	Zone 0	Zone 1	Zone 2	Zone 3	Zone 4	(Zone 5)
ε	0,035	0,05	0,075	0,10	0,15	(0,30)
E-1						
E-2			1) Kernbetondicke außen 12, innen 14	3)		
E-3			2)			
E-4						
E-6						
E-8						
E-10						

1) core concrete thickness 2) external 3) internal 4) tilts



Highest Residential
Building with
VELOX:
20 storeys!

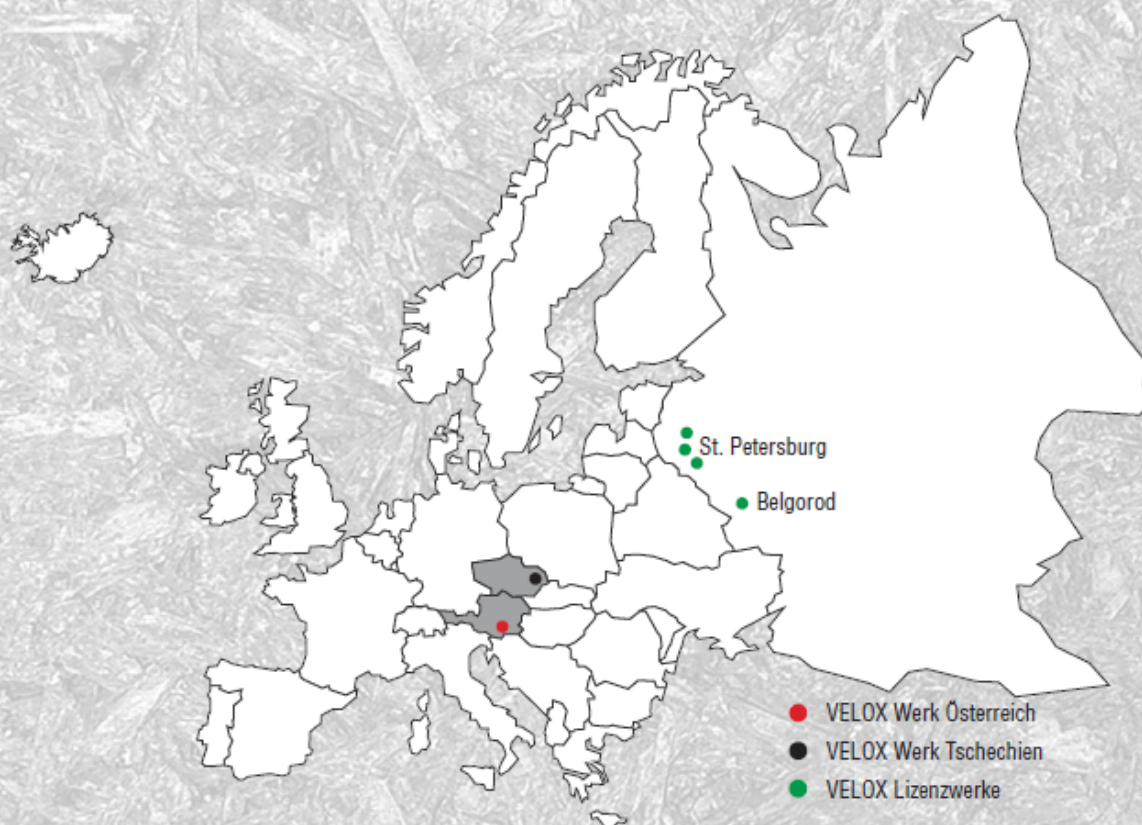
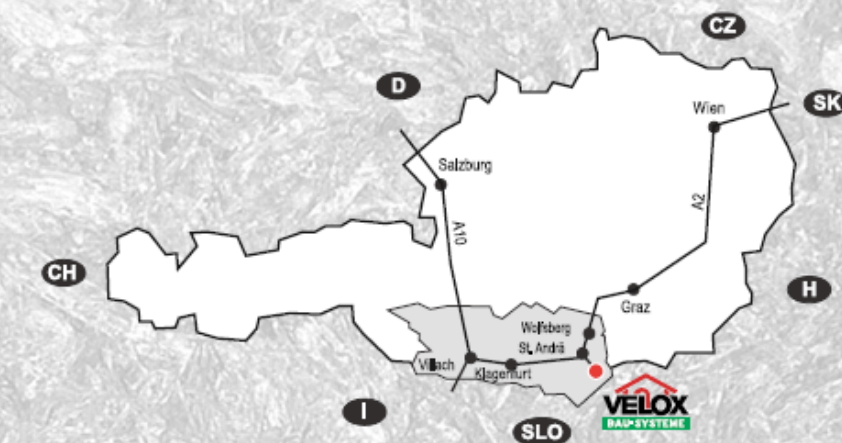
Building shell: 1960...

...and today



SOME REFERENCES





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