

Abetong AB - Division Civil Engineering

Case study biofuel silo in Mölndal, Sweden



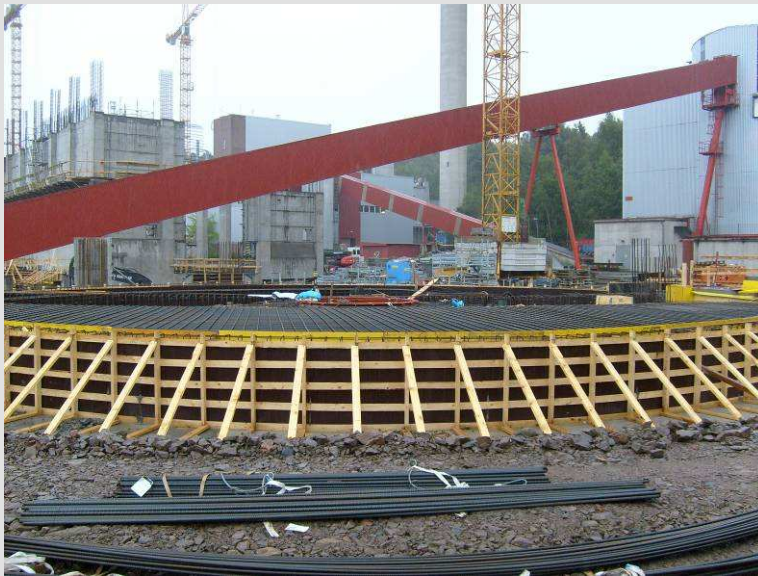
Background

- MÖLNDAL ENERGI invested in a new biofuel based heat and powerplant.
- New effect of 70MW district heat and 23MW electricity.
- Additional original effects are 40MW CFP-incineration and 50MW oil-incineration.



Abetong AB's project

- BMH Technology was awarded a contract for the external fuel handling system.
- Abetong was sub-contracted by BMH for delivery of concrete silo walls. The sub-contract included design, production and installation of precast walls with a total volume capacity of 5000m³. Also including 1 service-opening of 4x4m.



■ Technical specification - Abetong Tank C14™

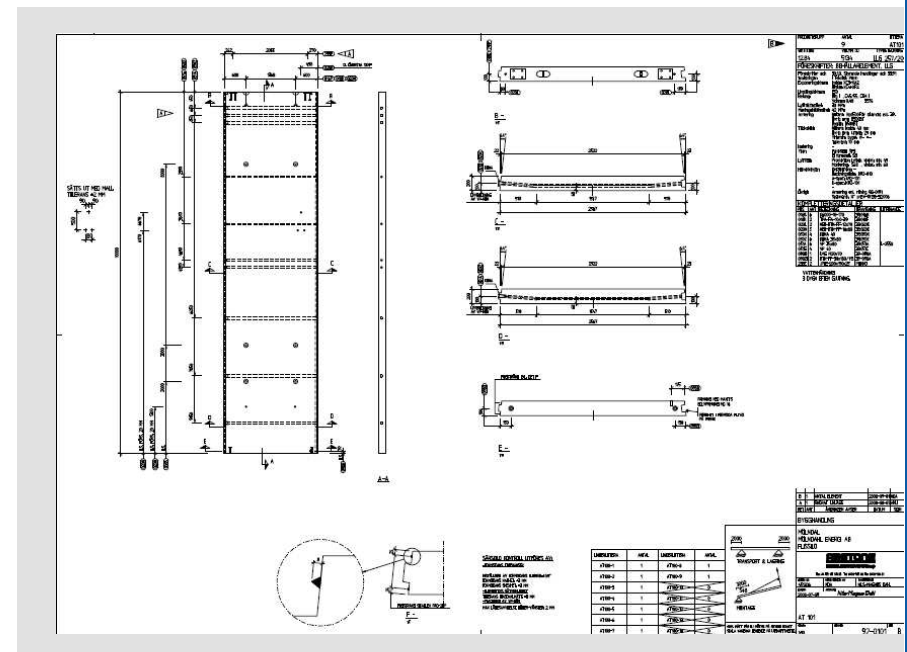
- **Number: 1 silo**
- **Volume:**
 - Total with top-cone, appr 5000m³
- **Wall:**
 - Height: 10000mm
 - Thickness: 200mm
- **Diameter:**
 - 22,4m



Technical specification - Abetong Tank C14™

■ Väggar:

- 28pcs of customized Abetong Tank C14-200
- Exposure class inside XC3+XA2
- Exposure class outside XC4+XF2
- CEM 1 Anläggningcement
- W / C ratio max 0,40
- Strength C45/55



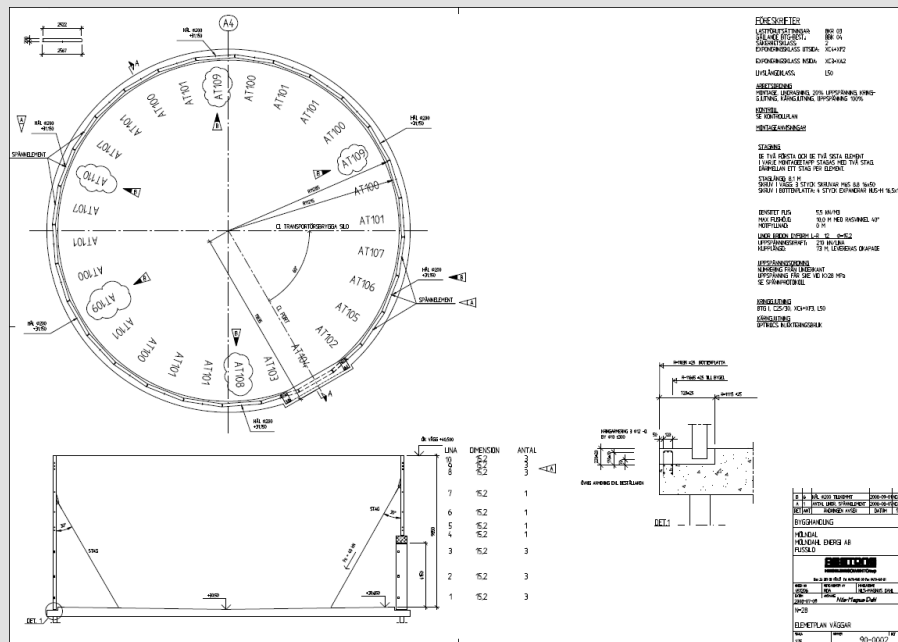
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Vertically pre-stressed:

- ½” bonded steel strands tensioned to 130kN

Horizontally post tensioned:

- 0,6” unbonded steel strands post tension force 210kN
- Wall structure in compression
- Cementious grouted, PE-sheathed tendons



Sid 6 - 13.10.2010
 Projektbeskrivning

Möln dal, November 2010.

■ How does the biofuelsilo work for You?

- During 1 year of service and planned inspections coordinated with plant service stops has worked fine, says Leif Viklund, biofuel coordinator, Möln dals Energi.
- We handle up to 500m³ biofuel per hour so the fuel-logistics is an important part of the operation. Also with regards to increased fire and explosion risks due to stucked or dry material.

