

Fire testing at RISE Fire Research on Thursday 7 March 2019

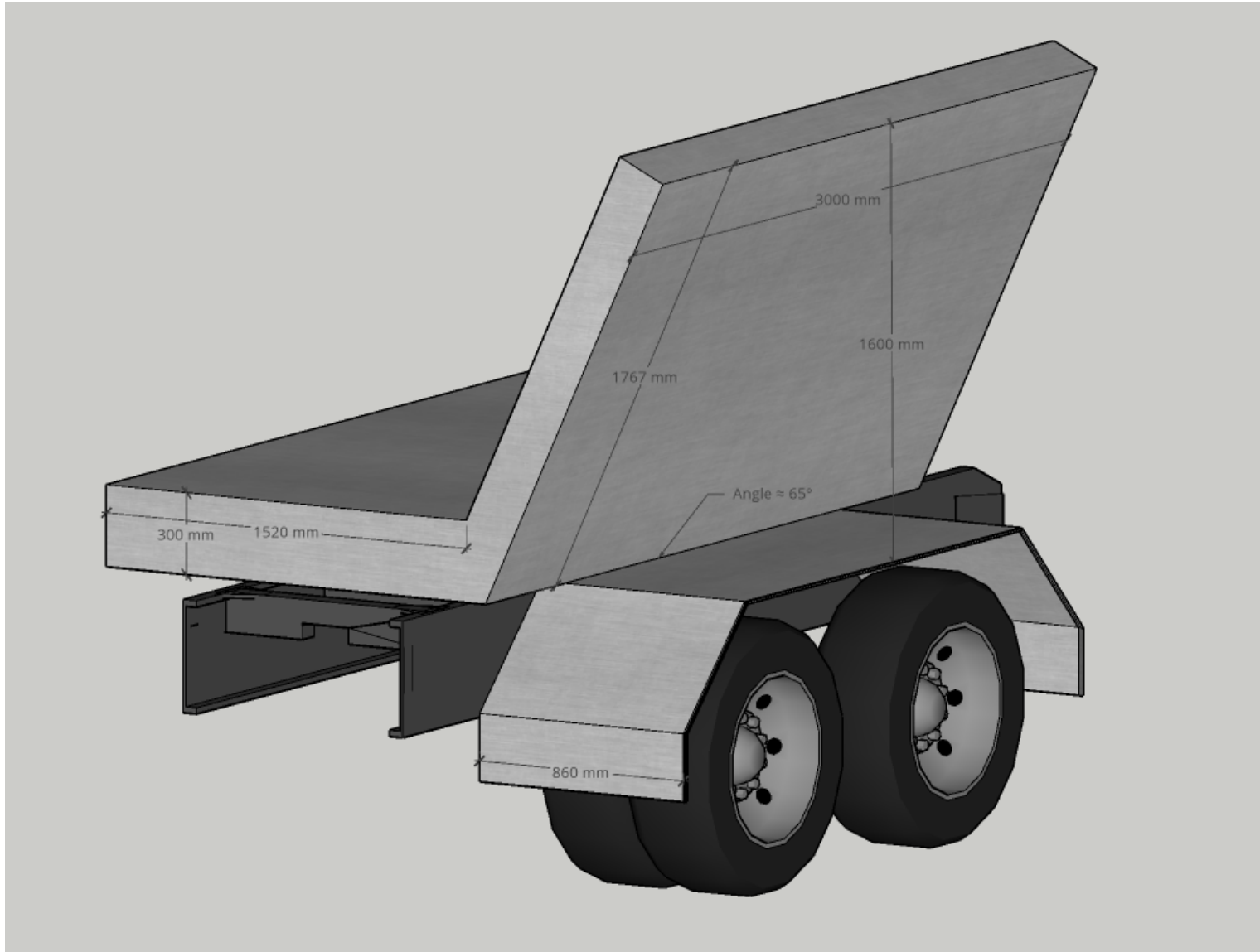
Tor Erik Kristensen

Kjeller, Kunnskapsbyen Konferansesenter
21 March 2019

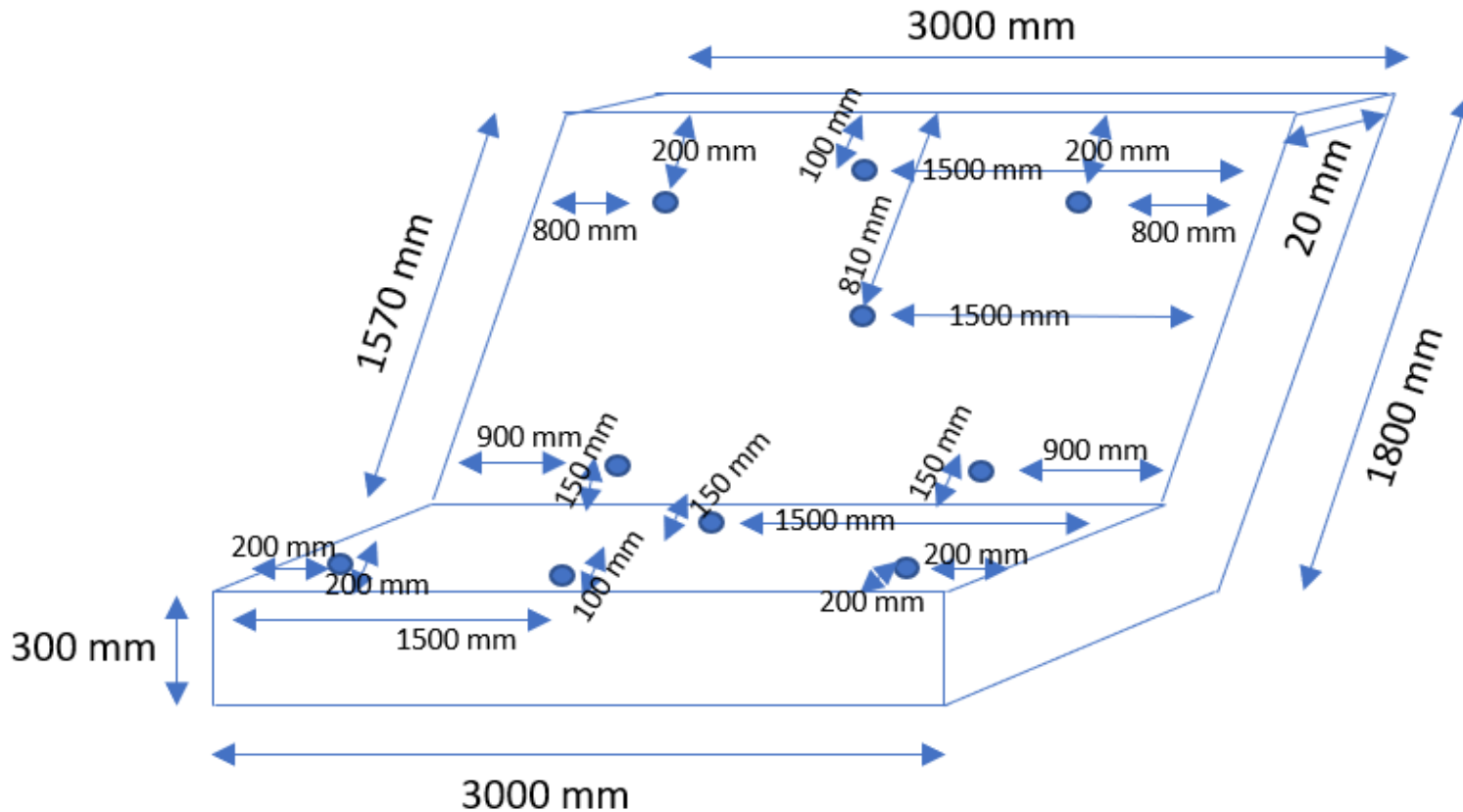
Presentation overview

- ① Experimental set-up overview
- ② Fire test #1 (without Trelleborg fire protection)
- ③ Fire test #2 (with Trelleborg fire protection)
- ④ Comparison of temperature data from fire tests

Experimental set-up: Overview



Experimental set-up: The water tank design



Tank made from 3 mm steel sheeting
Tank holding about 1770 liter of water

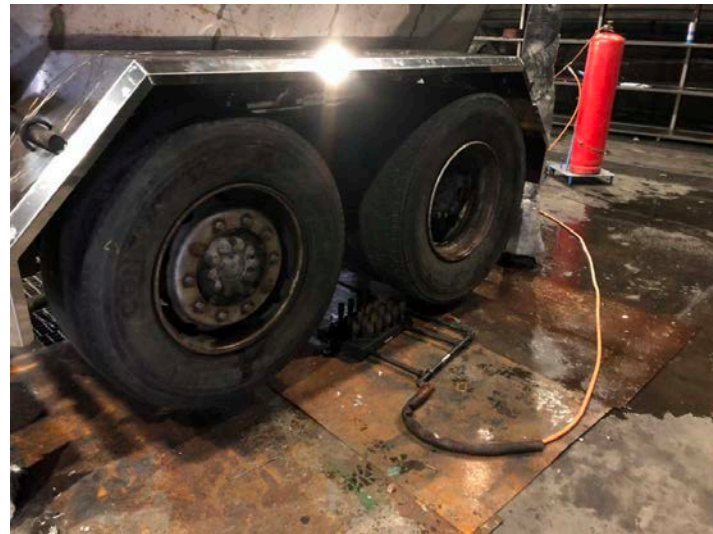
Complete experimental set-up before test #1



Complete experimental set-up before test #1



Complete experimental set-up before test #1



Fire test #1 (without Trelleborg fire protection)



Fire after removal of propane burner (2 min)



Double wheel at full fire – single wheel starting

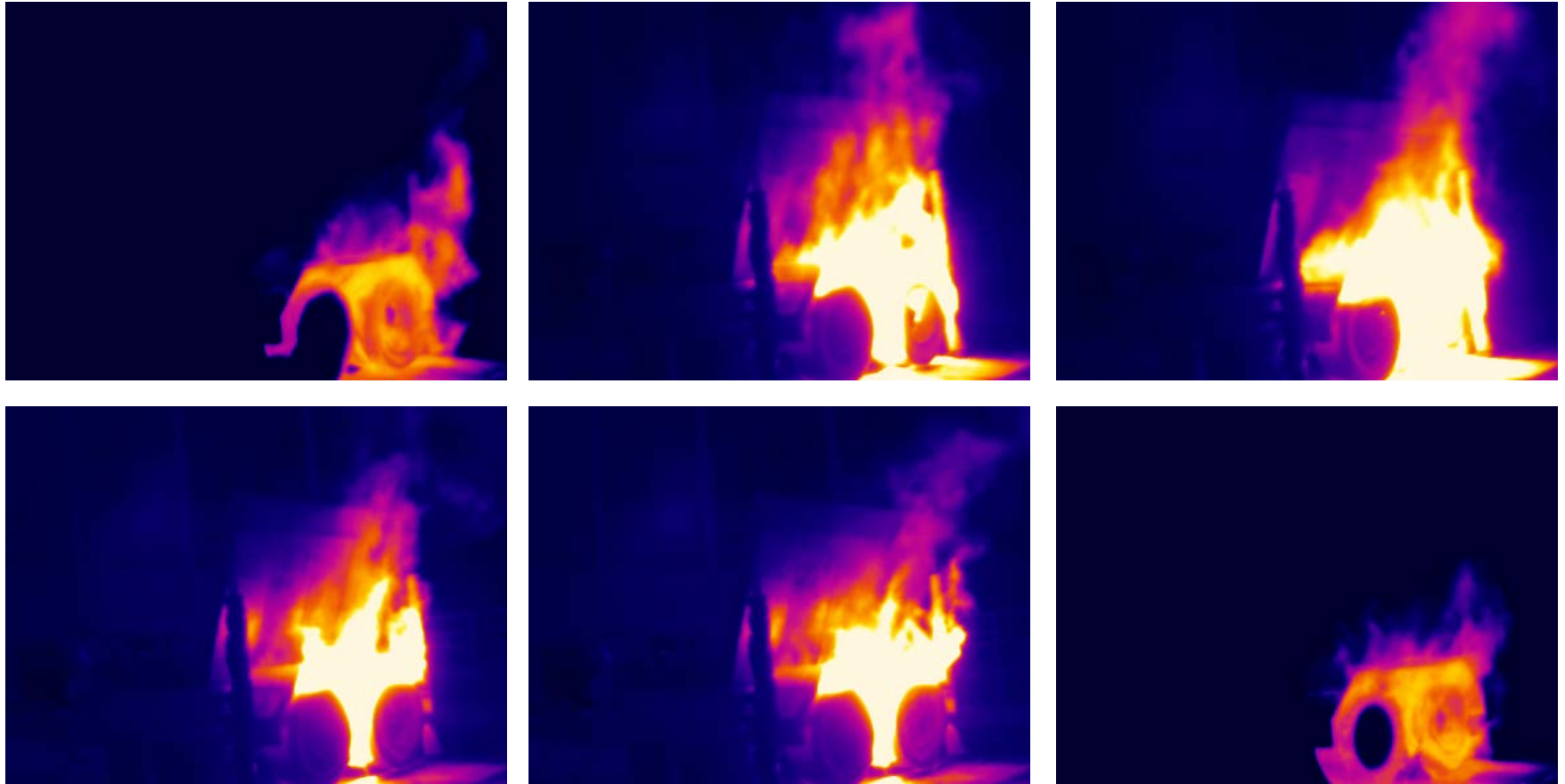


Double wheel nearly exhausted –
single wheel at full fire

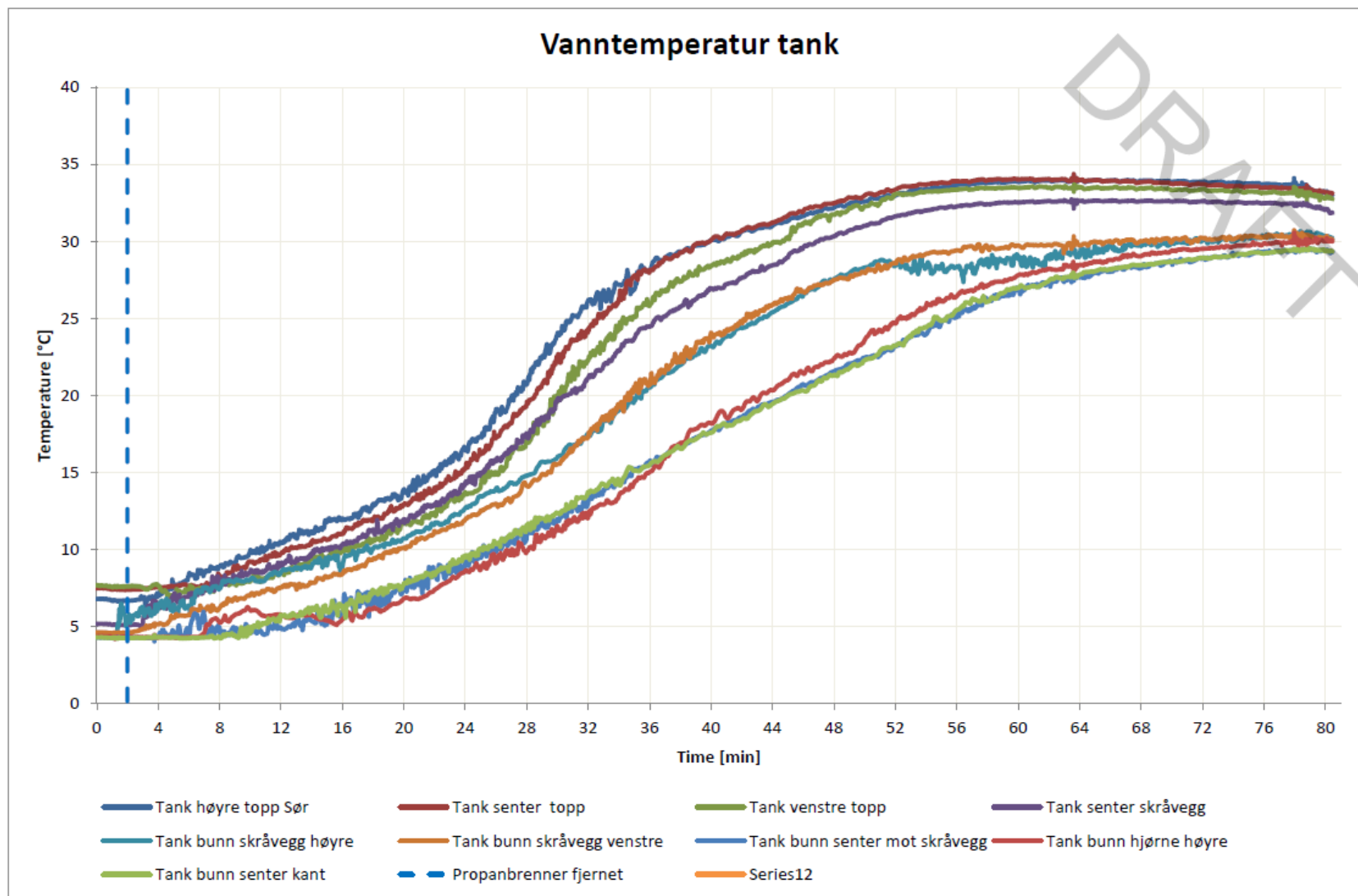
**Fire continued for 1 h 15 min
before being extinguished**

Fire test #1 (without Trelleborg fire protection)

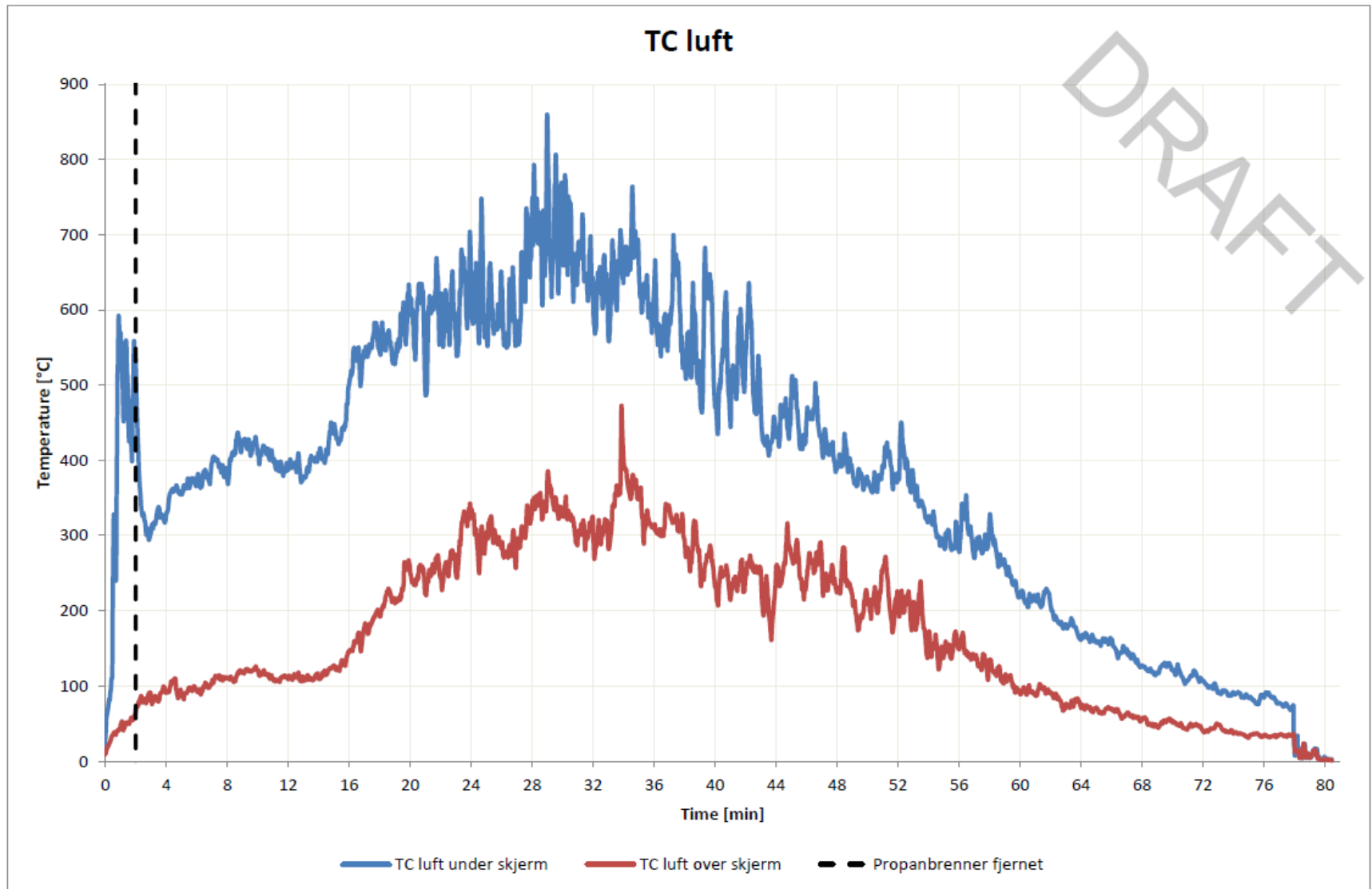
Some freeze-frame pictures from IR camera



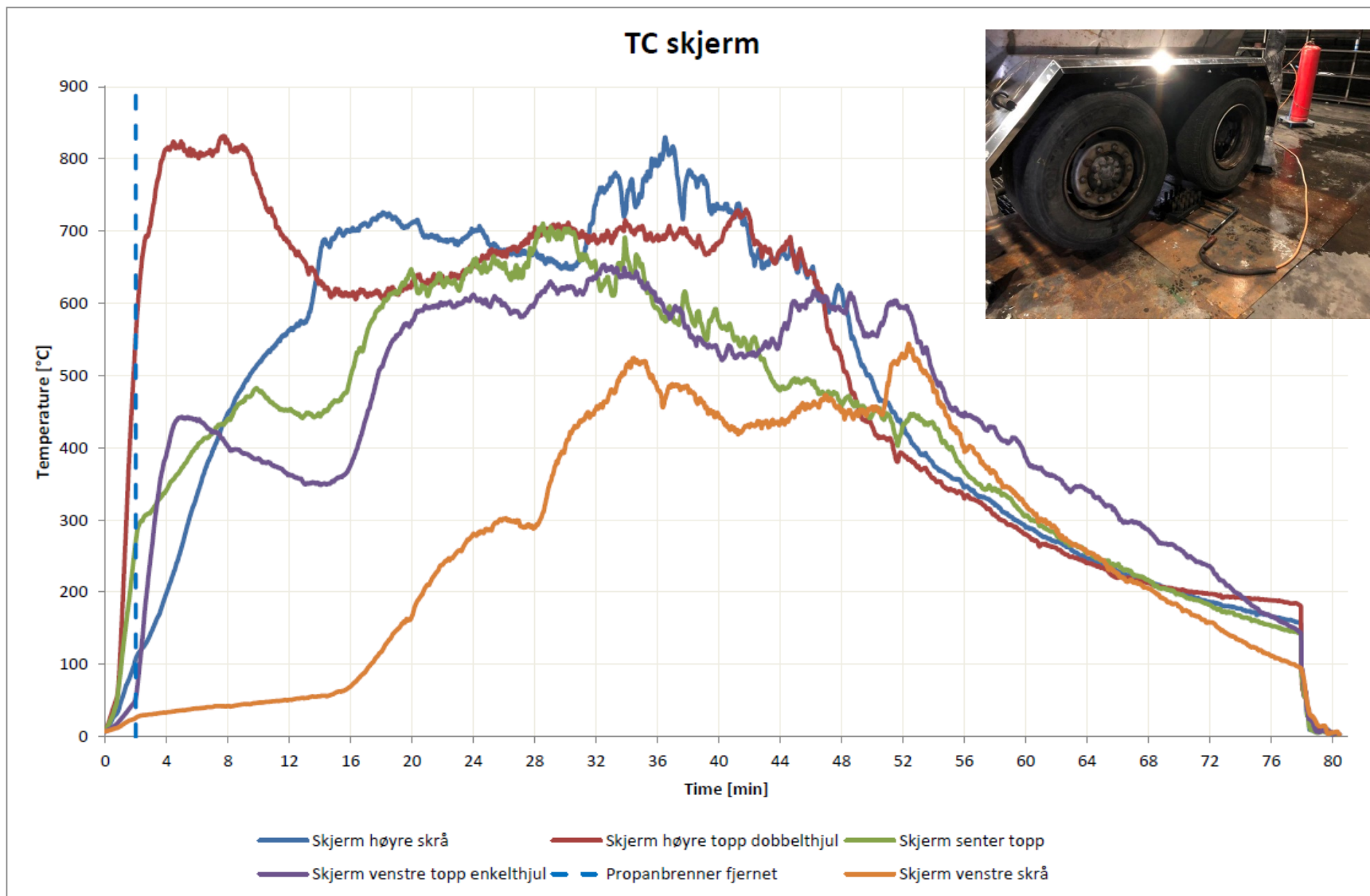
Fire test #1 (without Trelleborg fire protection)



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Fire test #2 (with Trelleborg fire protection)



Fire test #2 (with Trelleborg fire protection)



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Fire test #2 (with Trelleborg fire protection)



Fire test #2 (with Trelleborg fire protection)



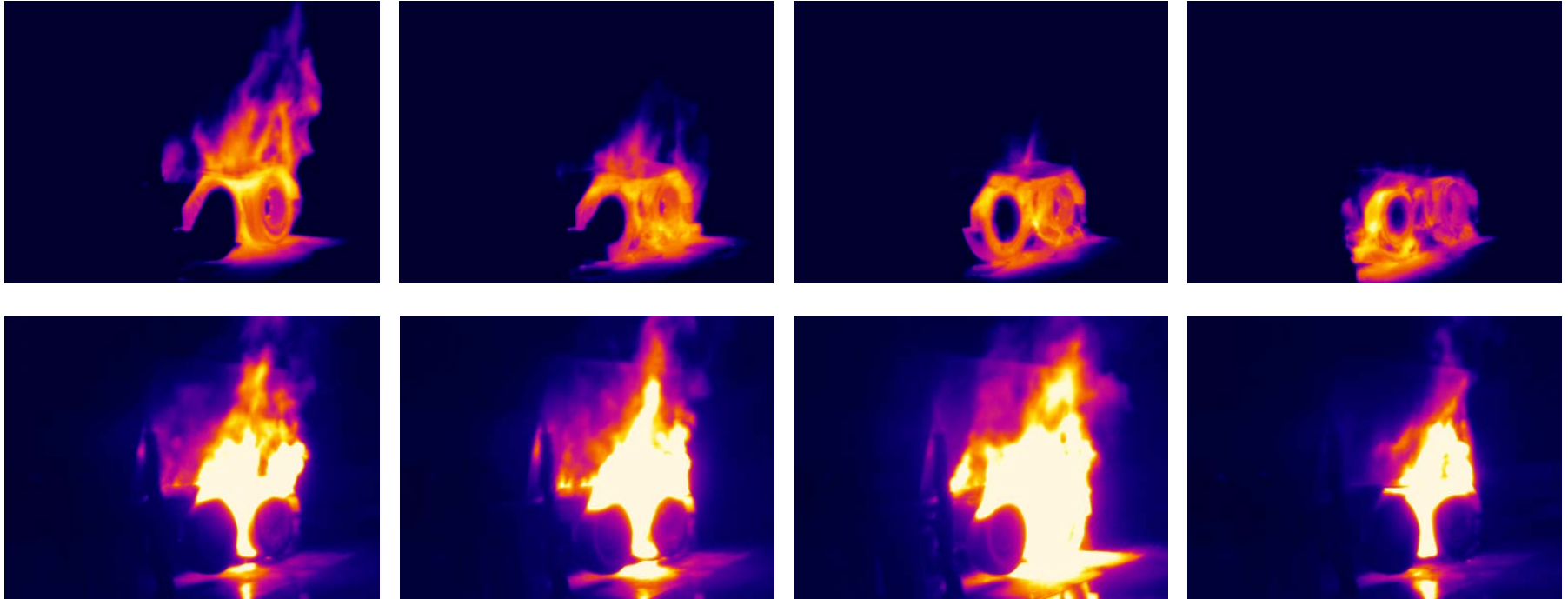
**Firestop™
rubber
(10 mm)**

Fire test #2 (with Trelleborg fire protection)

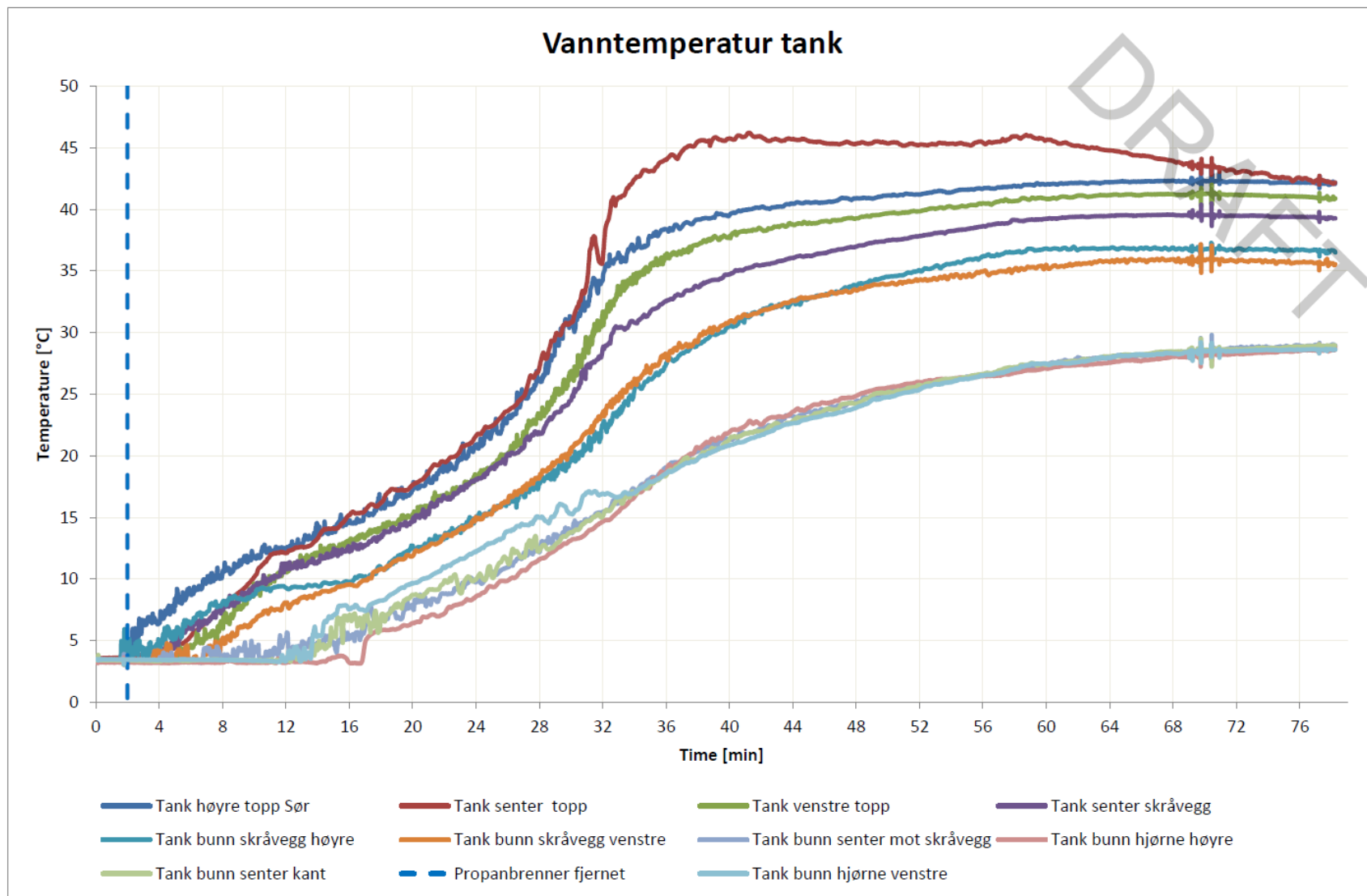


Fire test #2 (with Trelleborg fire protection)

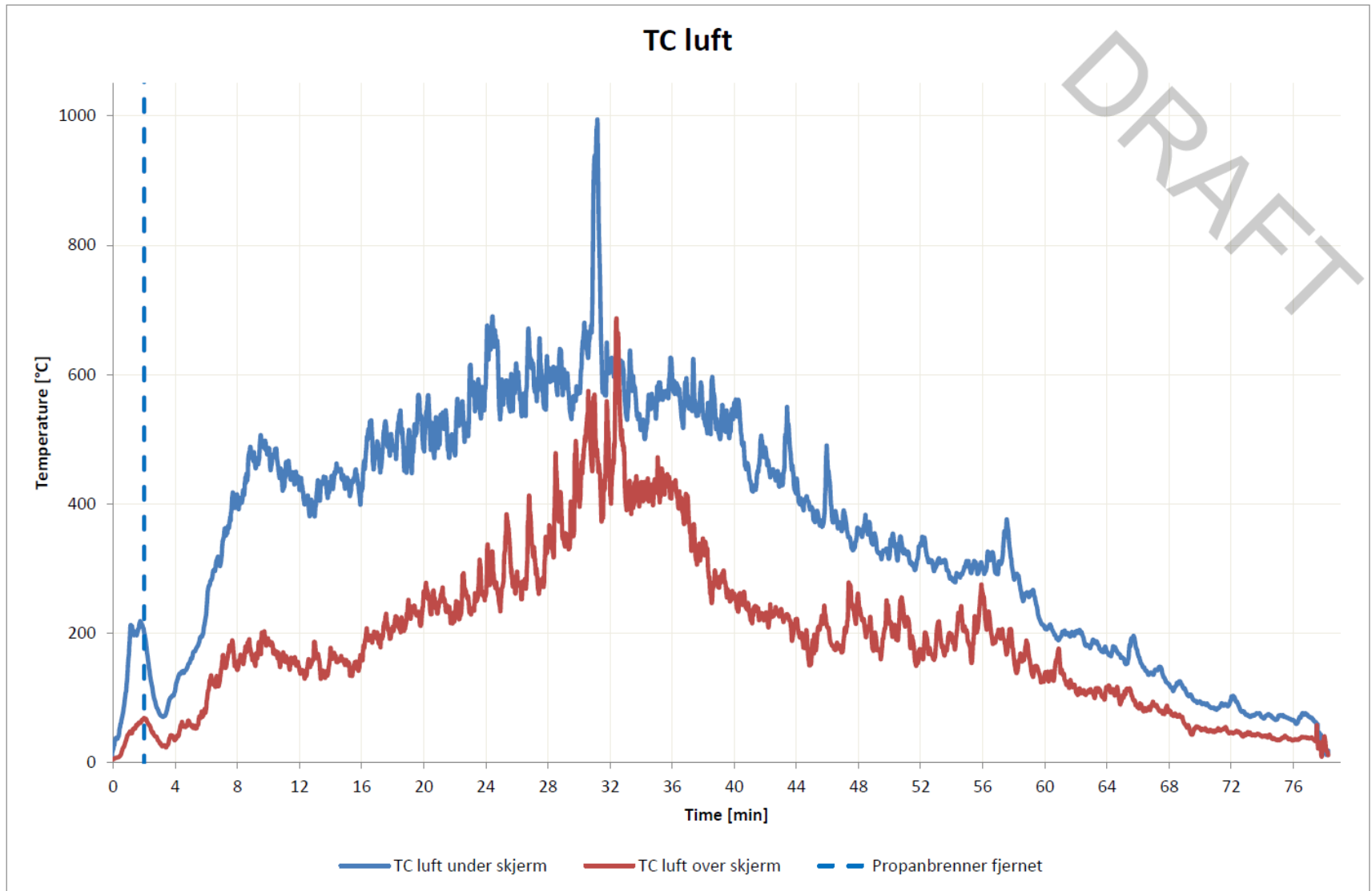
Some freeze-frame pictures from IR camera



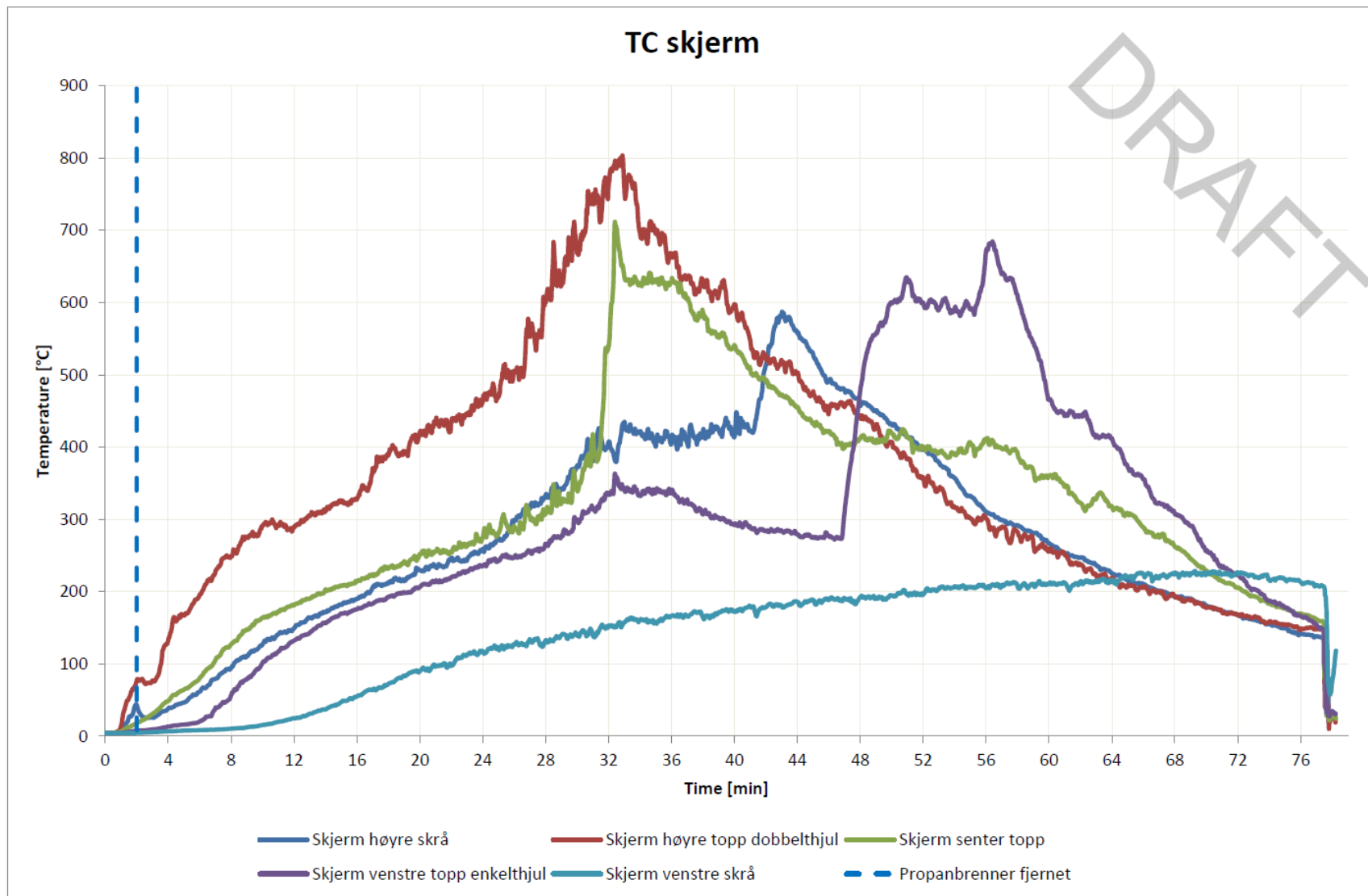
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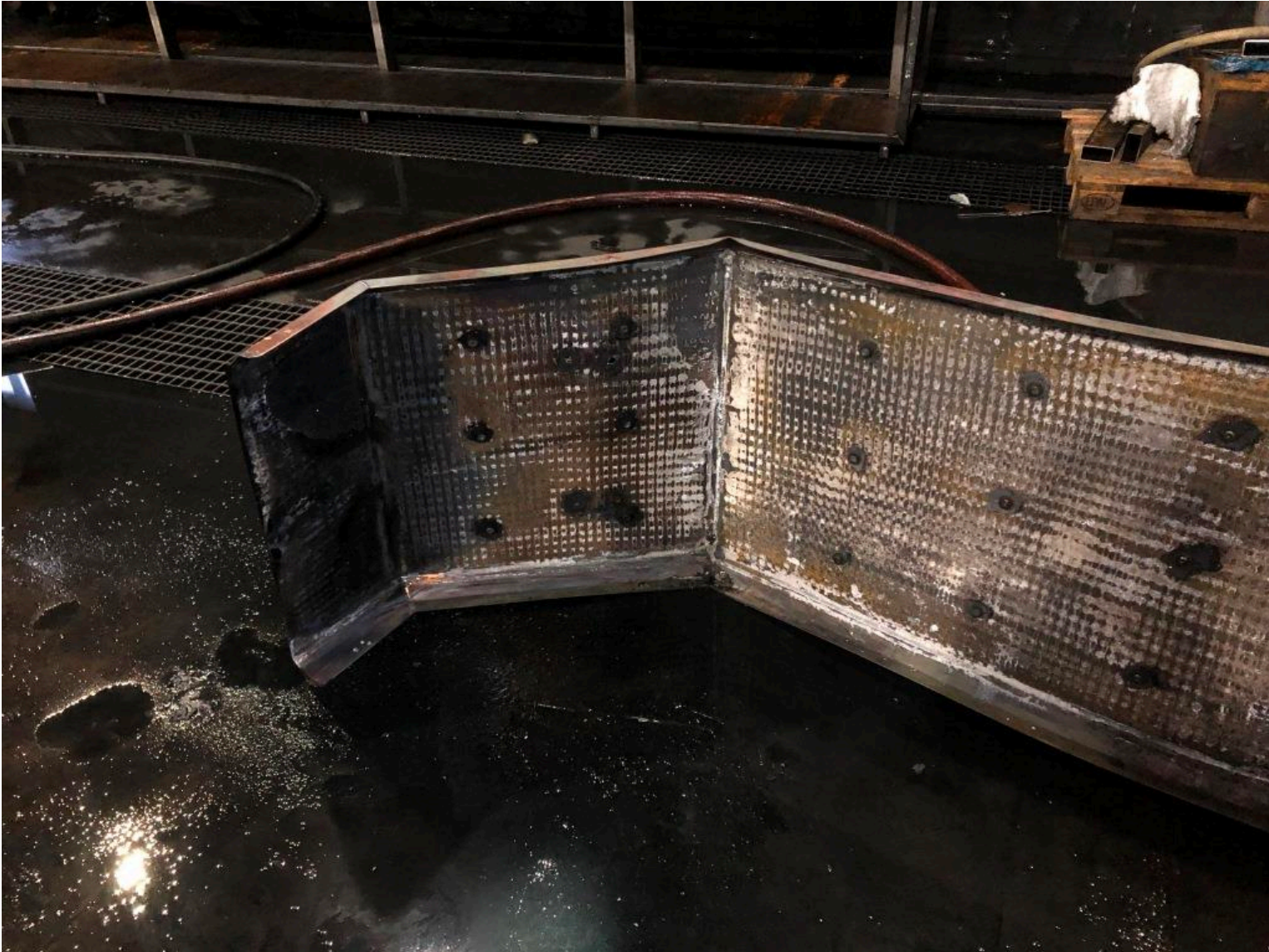
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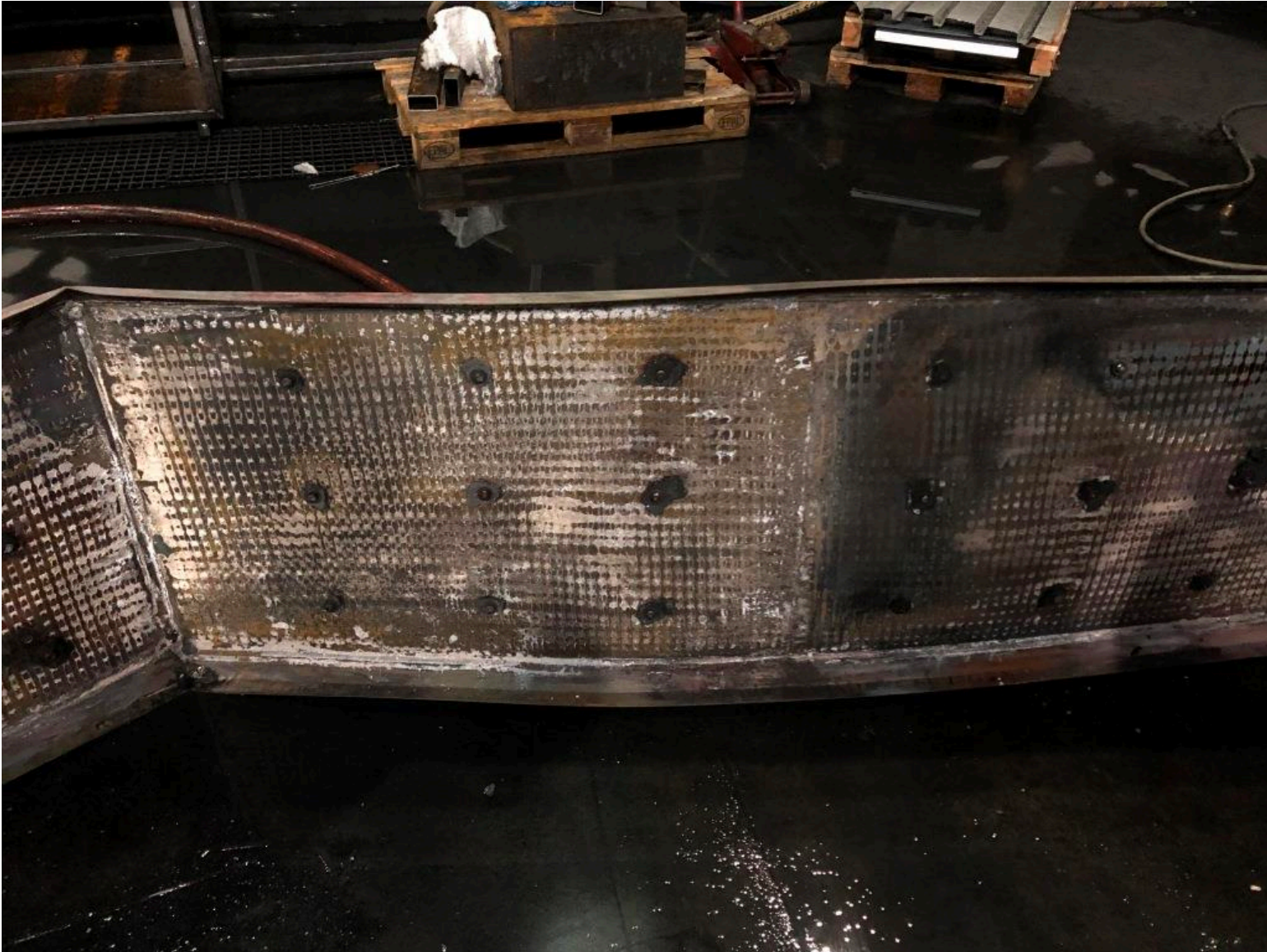
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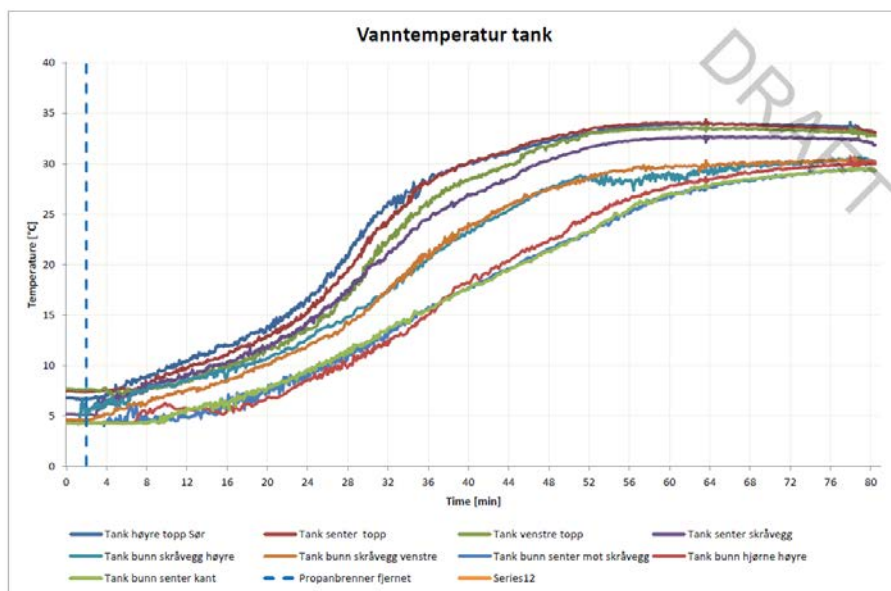


Fire test #2 (with Trelleborg fire protection)

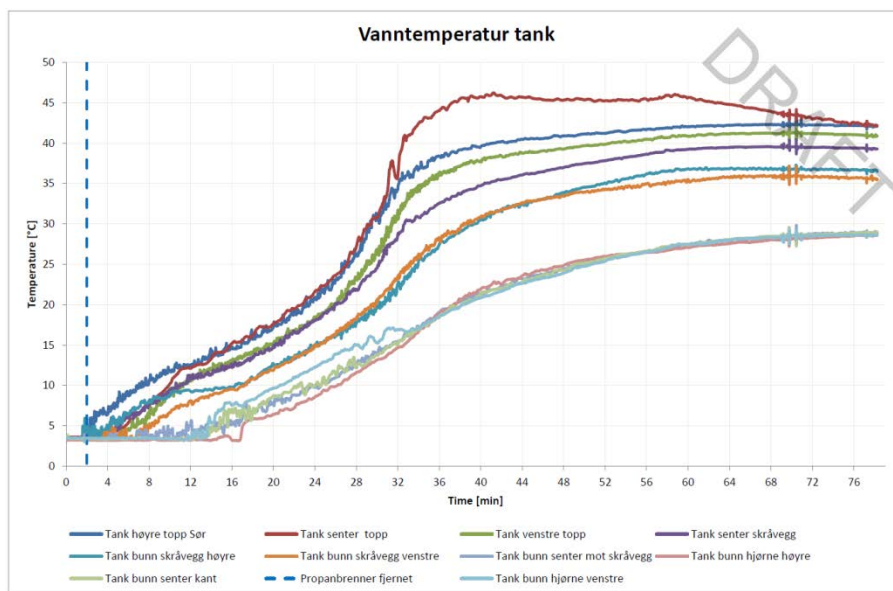


Comparison of temperature data from fire tests

Fire test #1 (without Trelleborg fire protection)

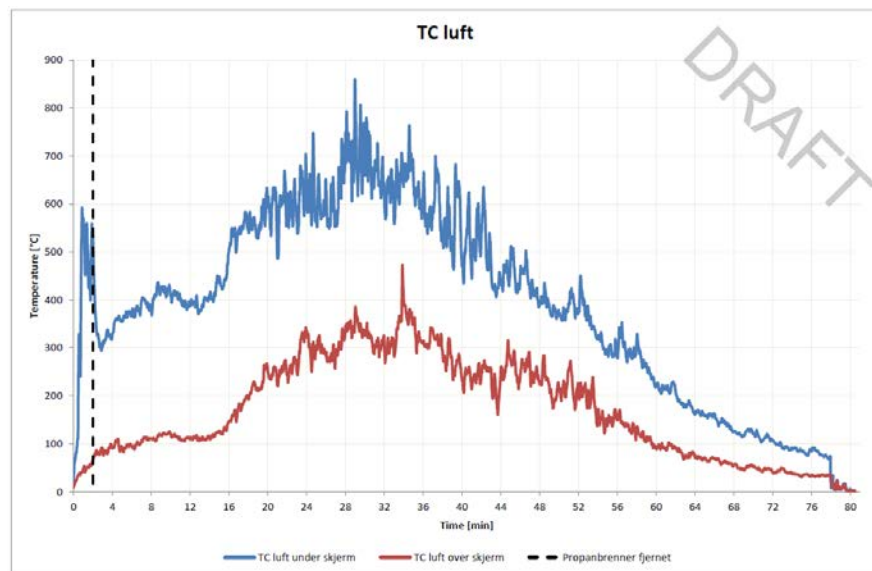


Fire test #2 (with Trelleborg fire protection)

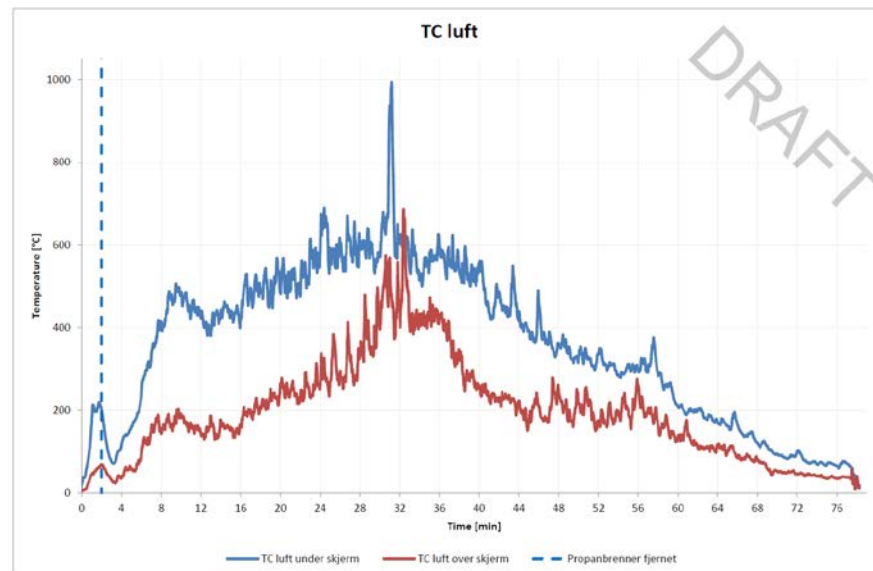


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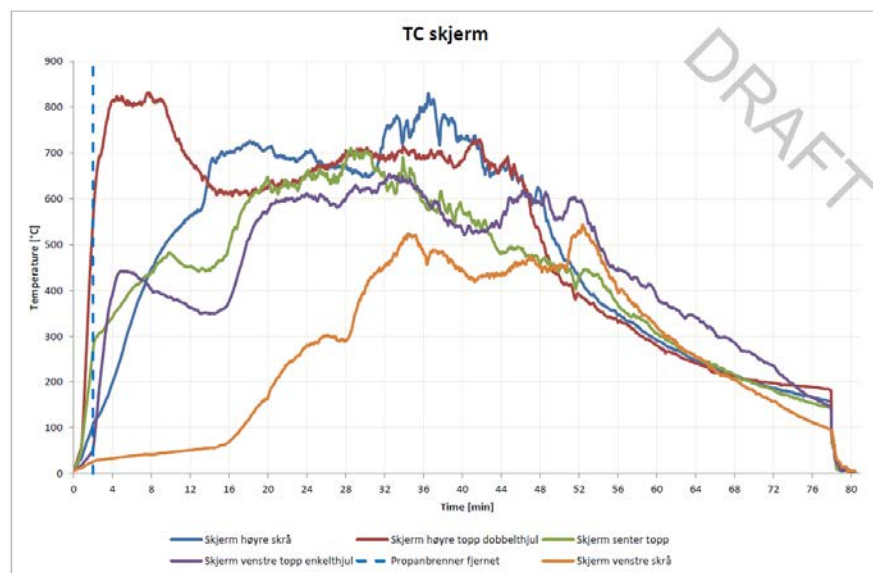


Fire test #2 (with Trelleborg fire protection)



Comparison of temperature data from fire tests

Fire test #1 (without Trelleborg fire protection)



Fire test #2 (with Trelleborg fire protection)

