
GREEN®
&COOL
Green Refrigeration Systems

Green & Cool

Micael Antonsson

GREEN®
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Carbon dioxide, CO_2, is now established as a refrigerant in store applications.

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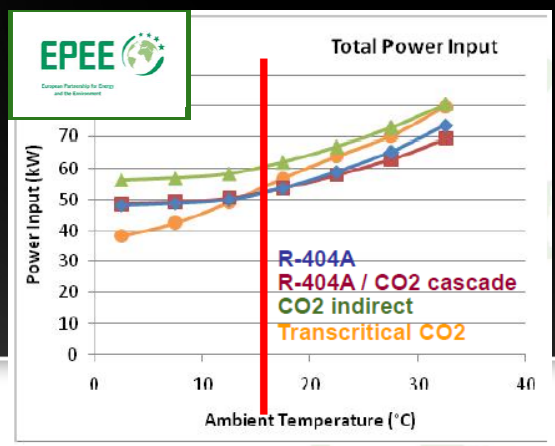
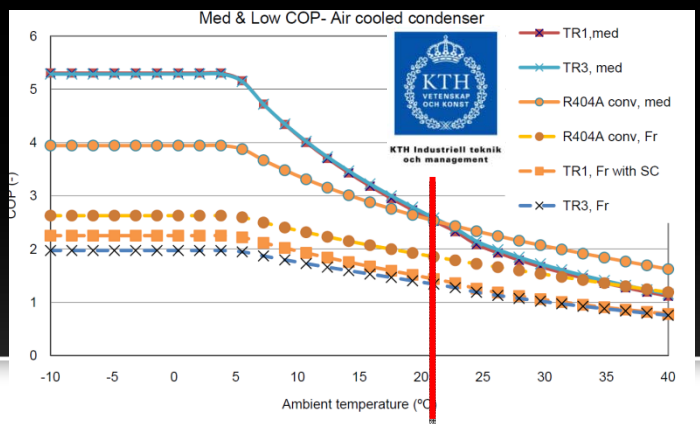
With efficiencies better or equivalent to R404A.

Results reported by EPEE, Royal Institute of Technology Stockholm and many more ...





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Beyond this, environmental benefits and unique features for heat recovery will make this refrigerant even more attractive.

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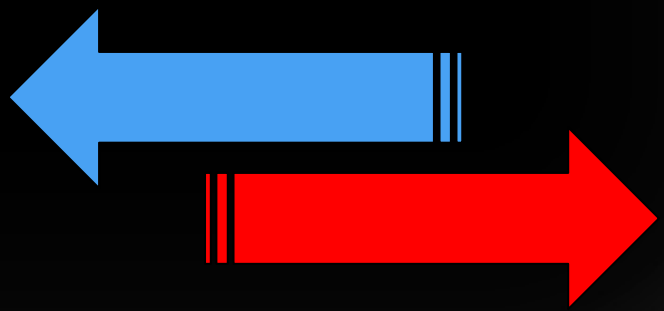
Heat reclaim Solution



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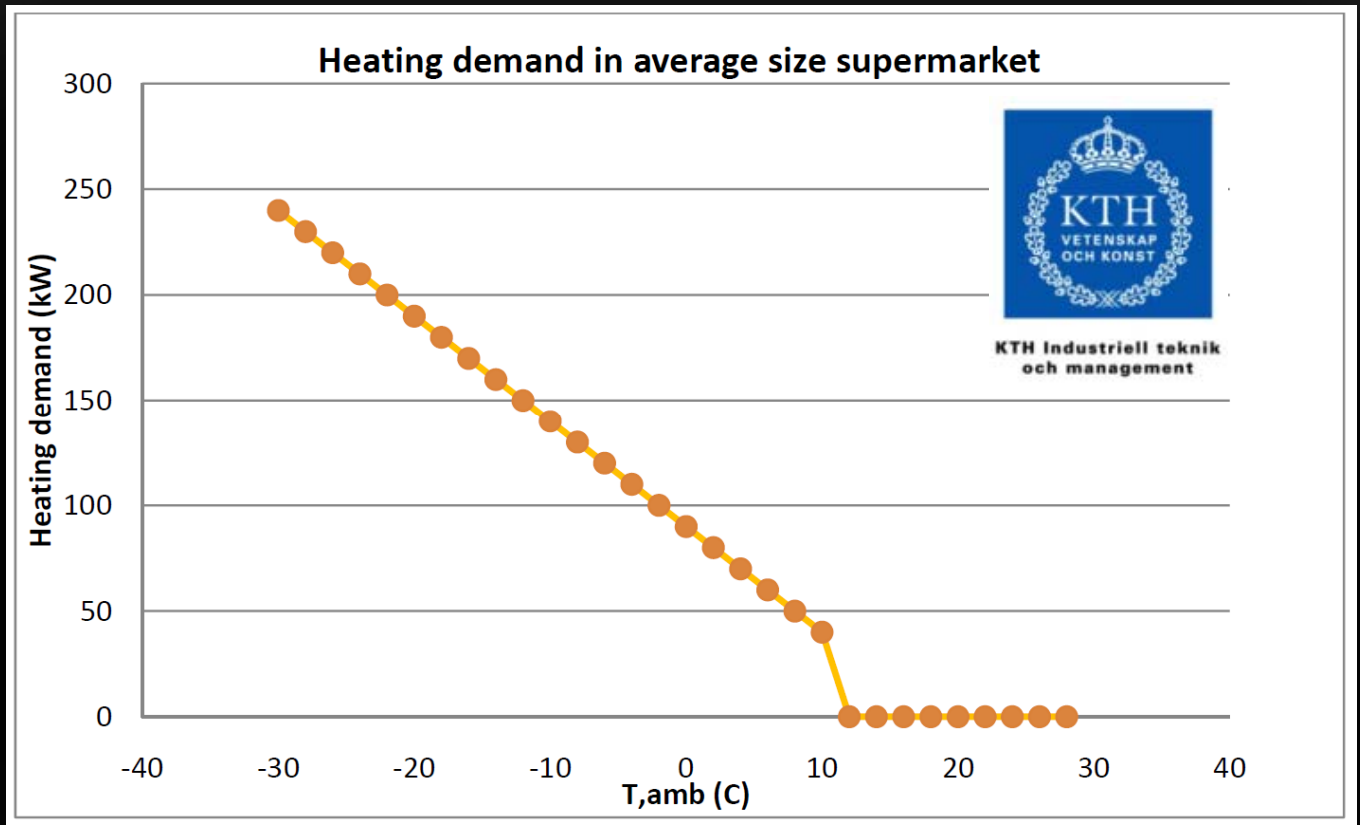

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Hot gas de-superheat heat reclaim a cost effective solution

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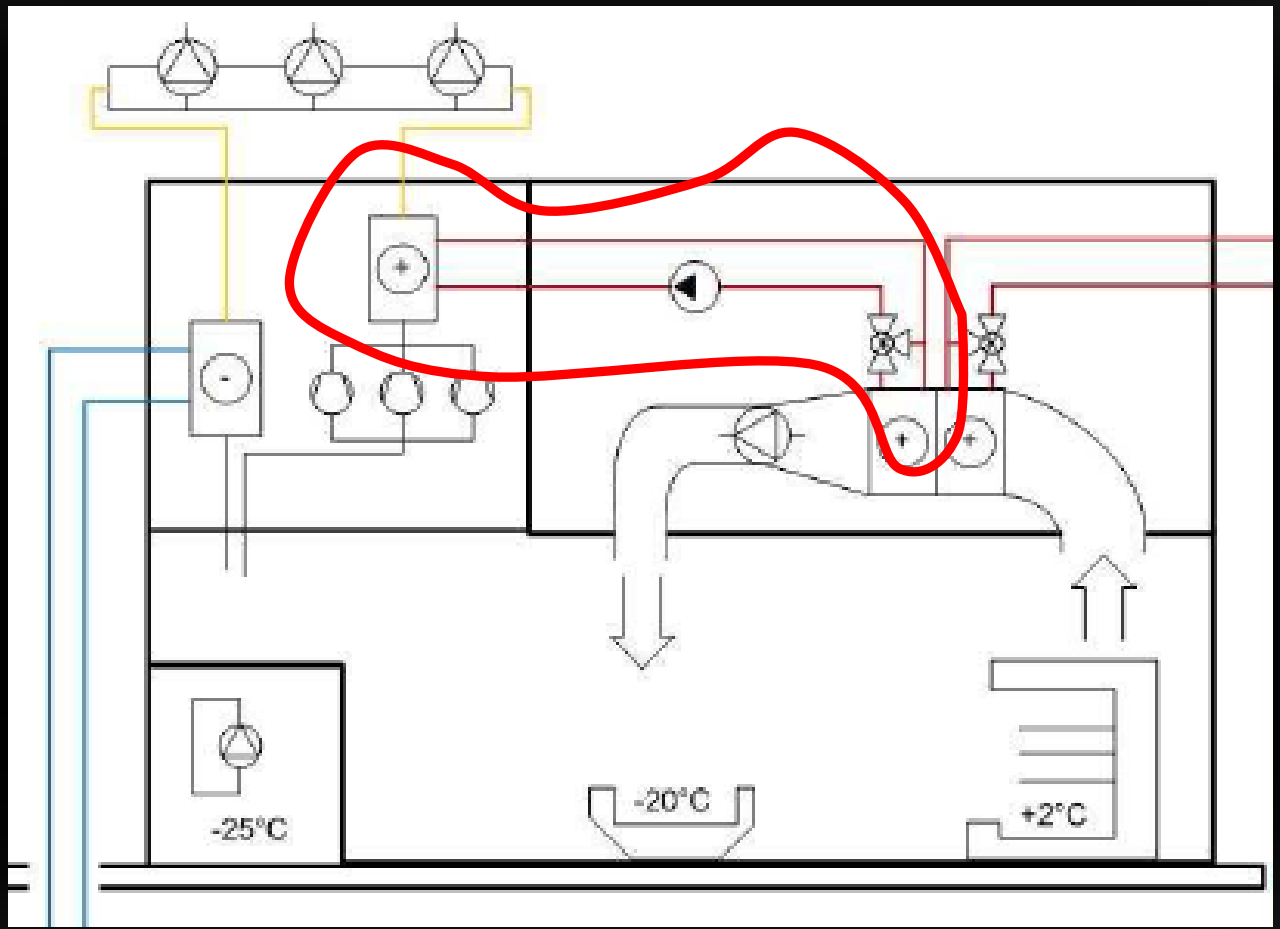
Energy can be used in several types of heating systems

- Under floor heating, low return temp.
- Air heating, high outlet temp.
- Radiators, high outlet temp.
- Air curtains, high outlet temp.
- Snow melting, low return temp.



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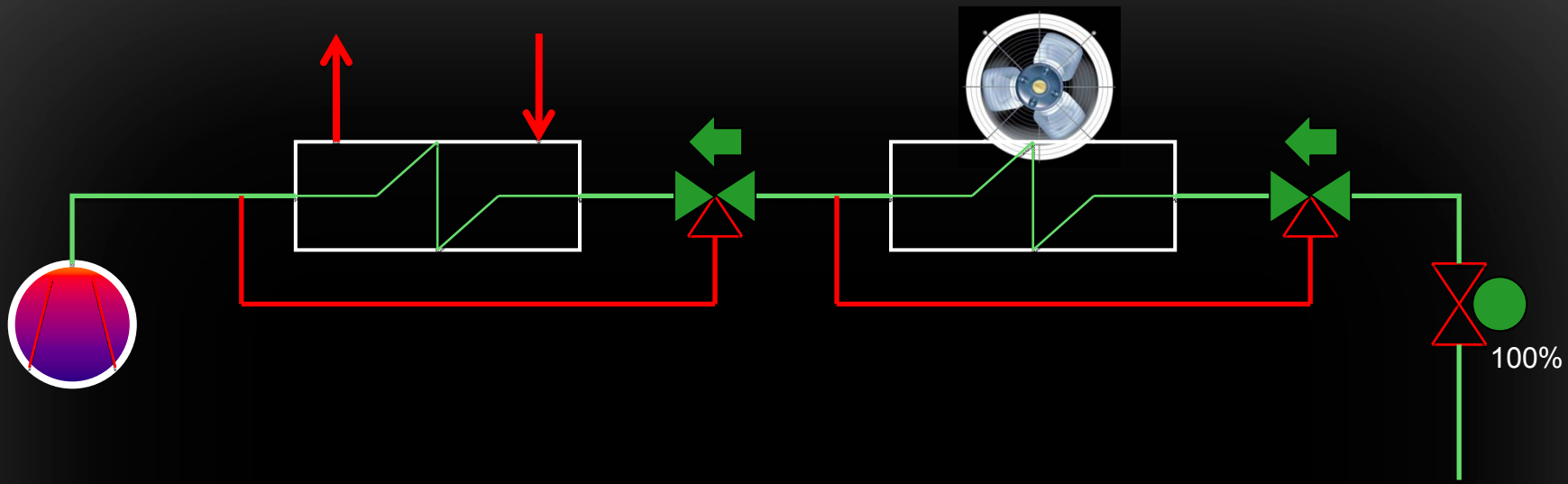

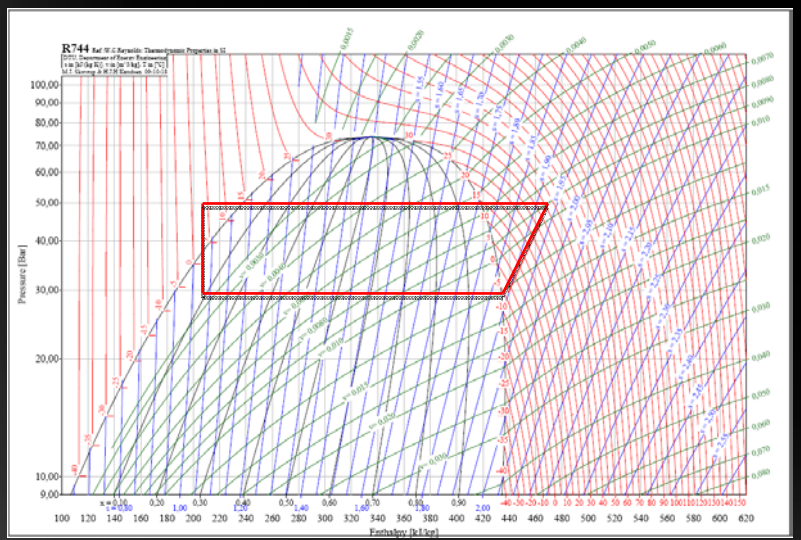

Winter operation
No heat reclaim

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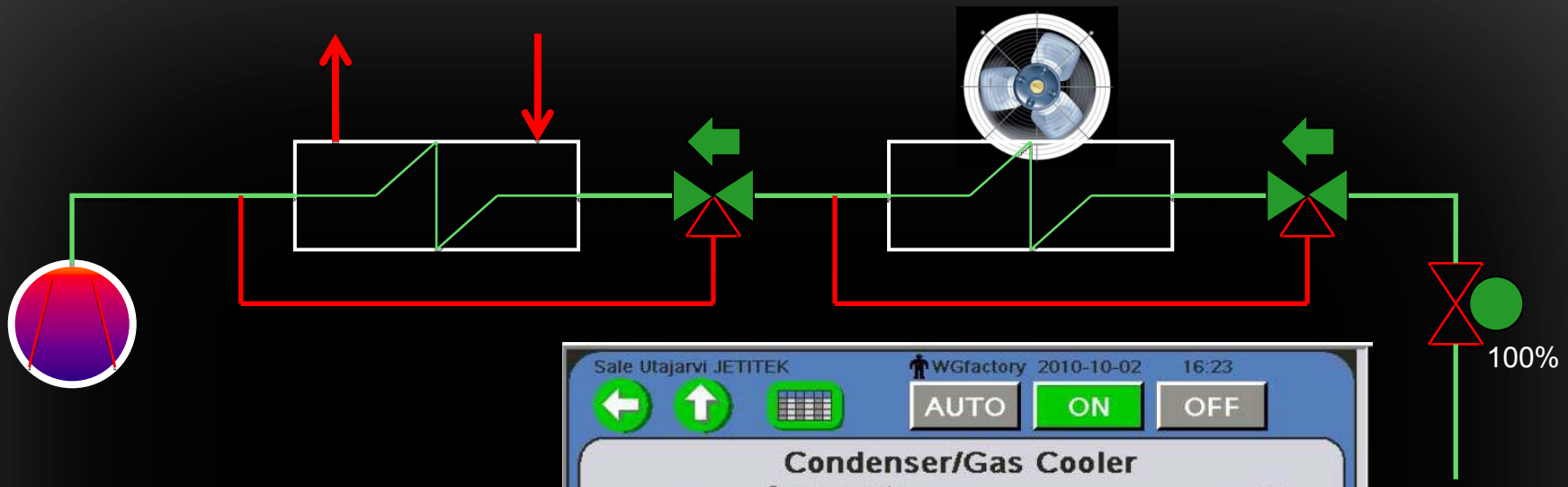

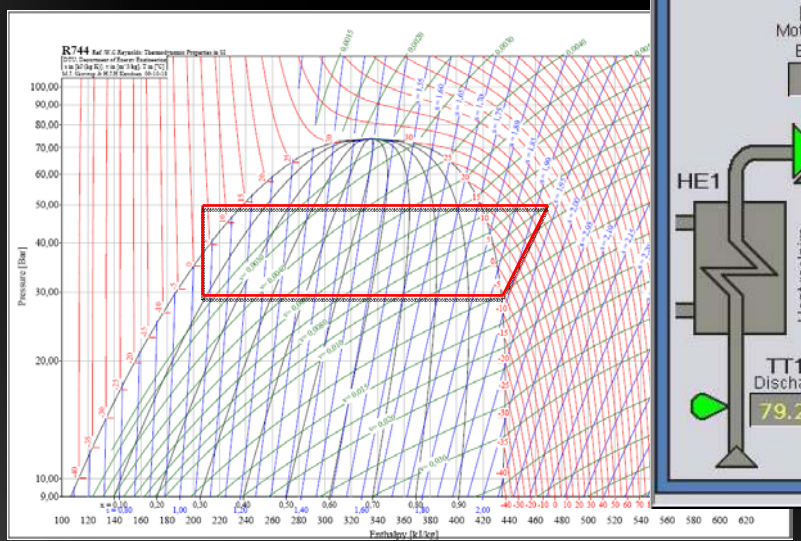

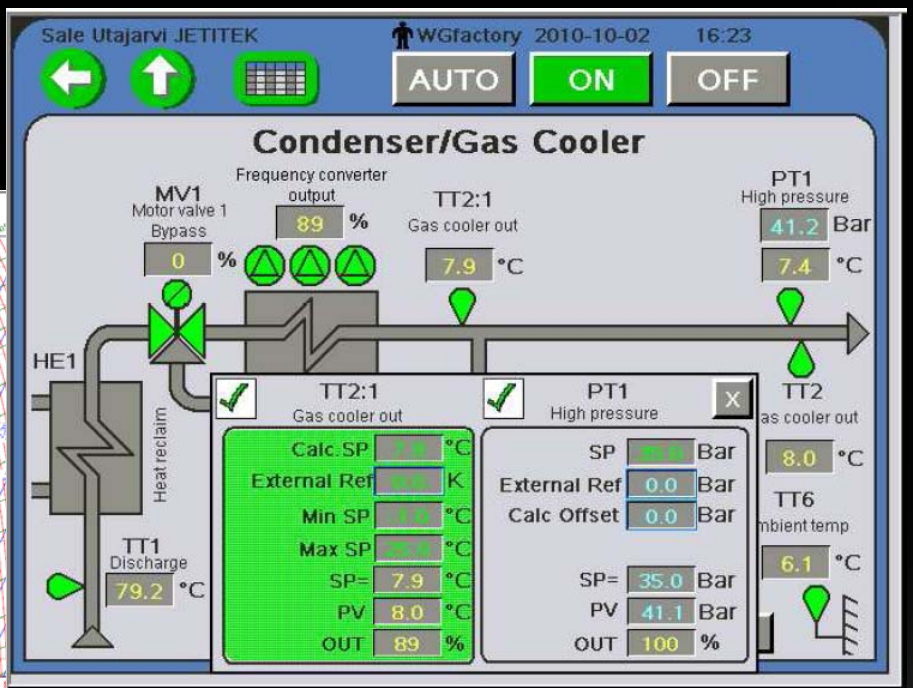

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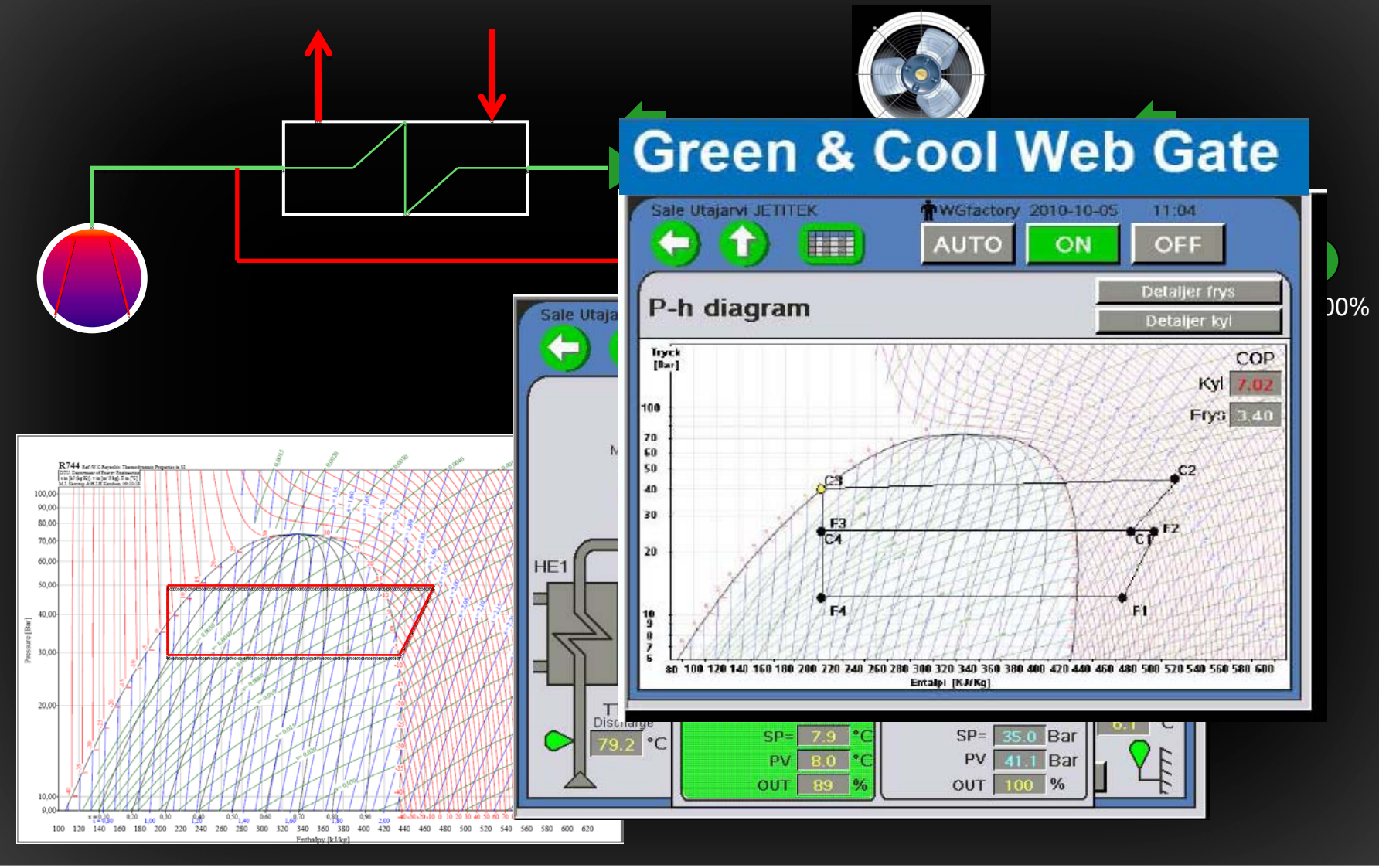

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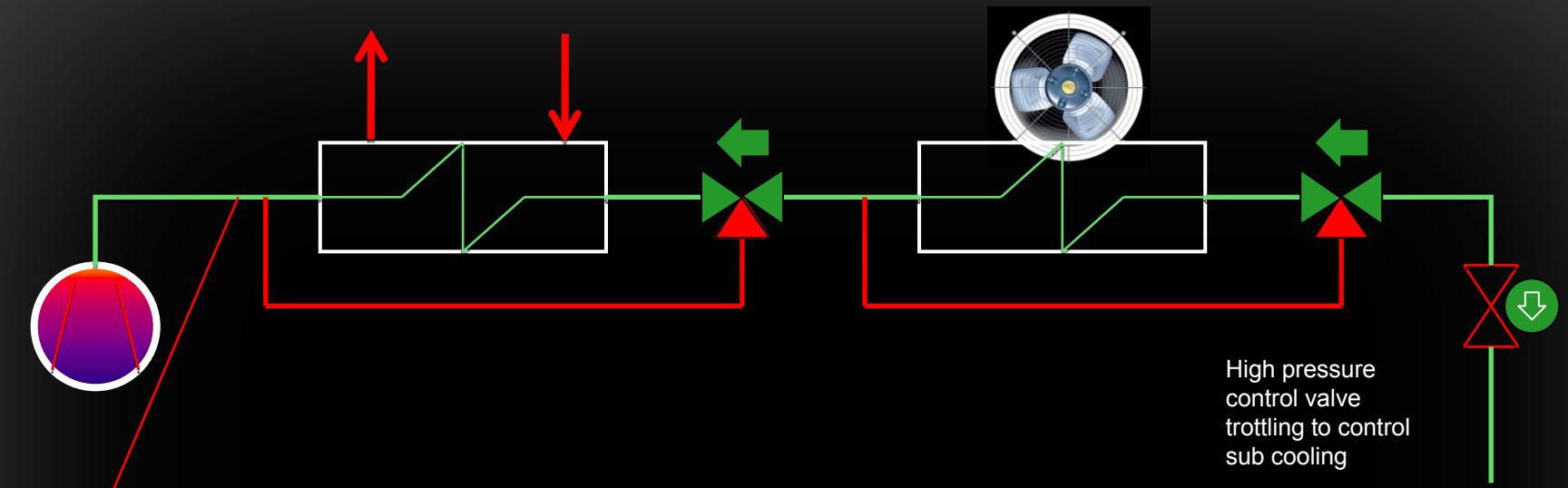
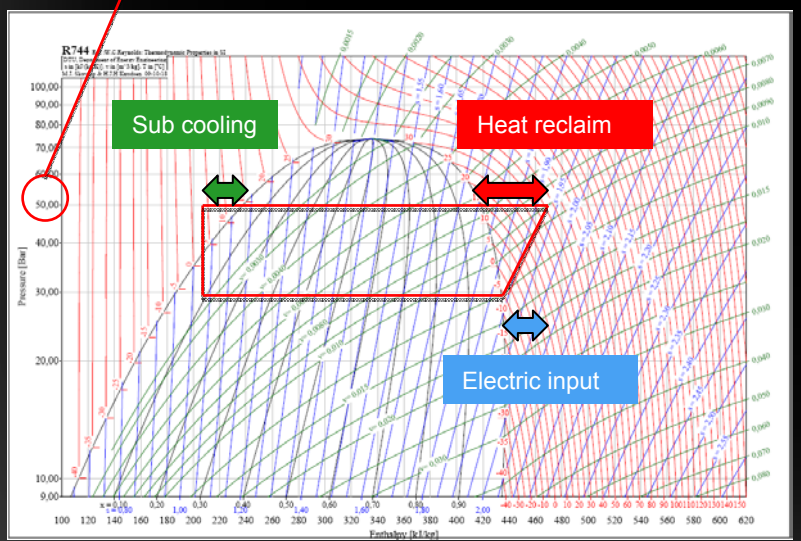


High pressure
control valve
trottling to control
sub cooling



Winter operation
Part heat reclaim
Sub cooling

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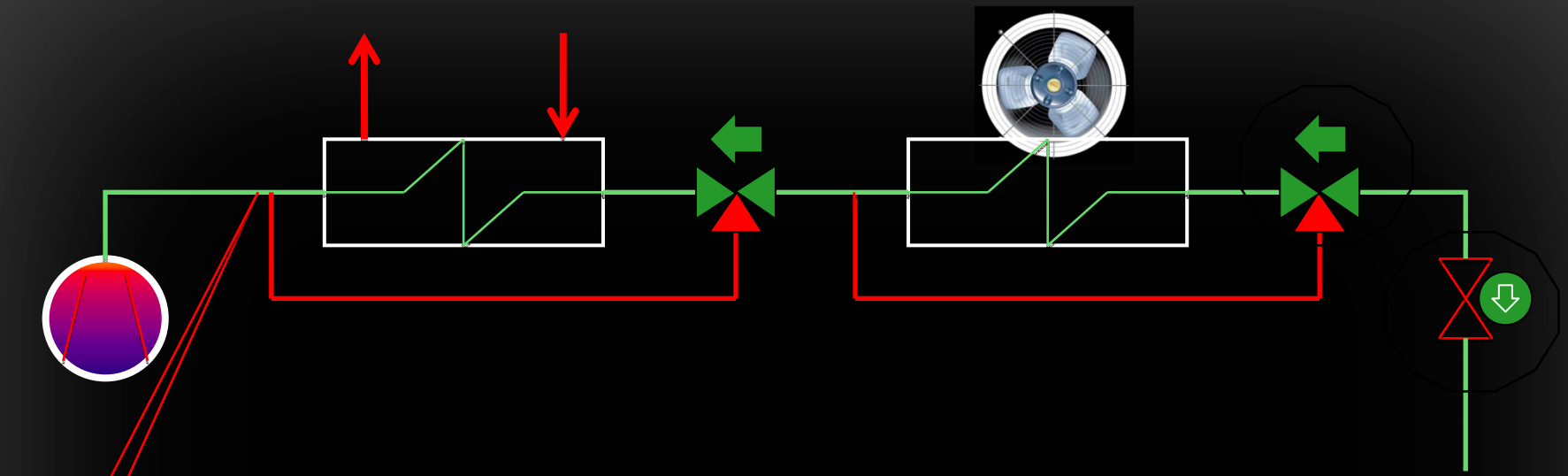

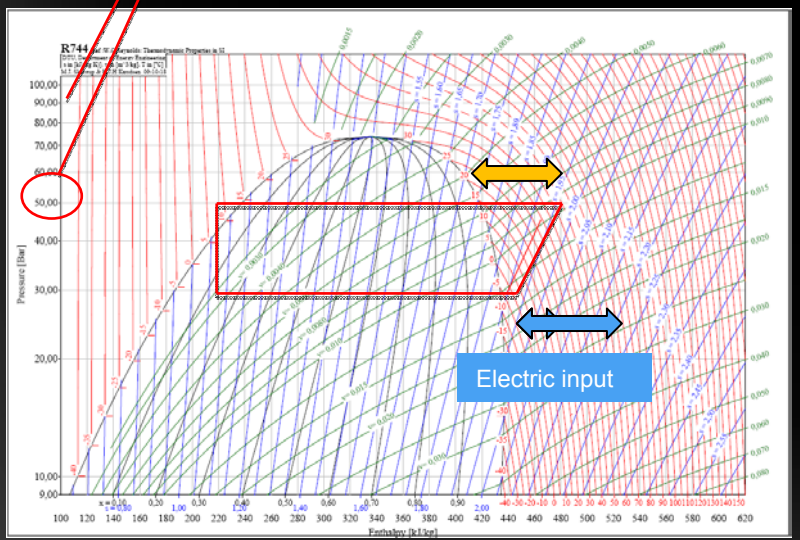

Winter operation
Heat reclaim activated

Signal from HVAC 10V

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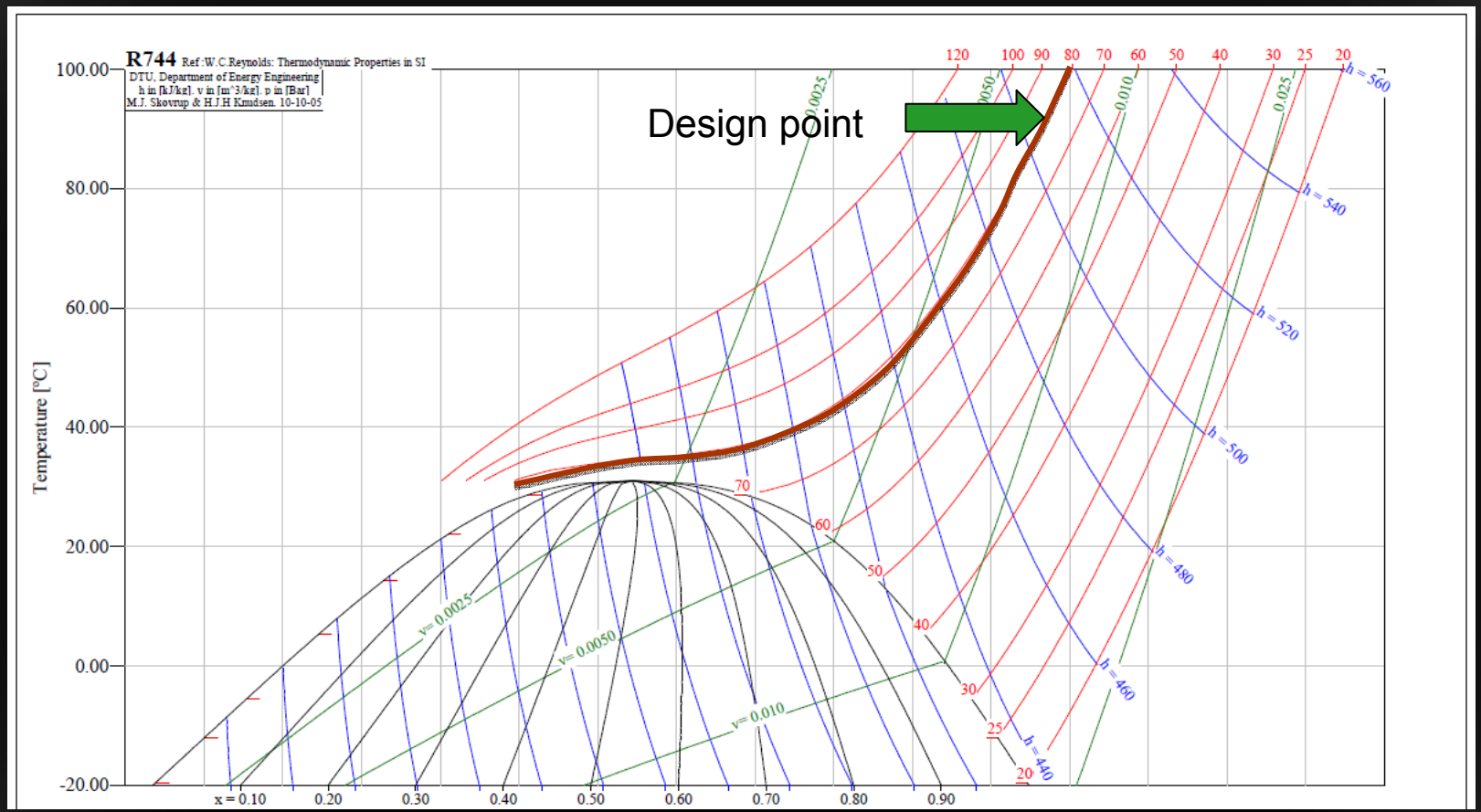

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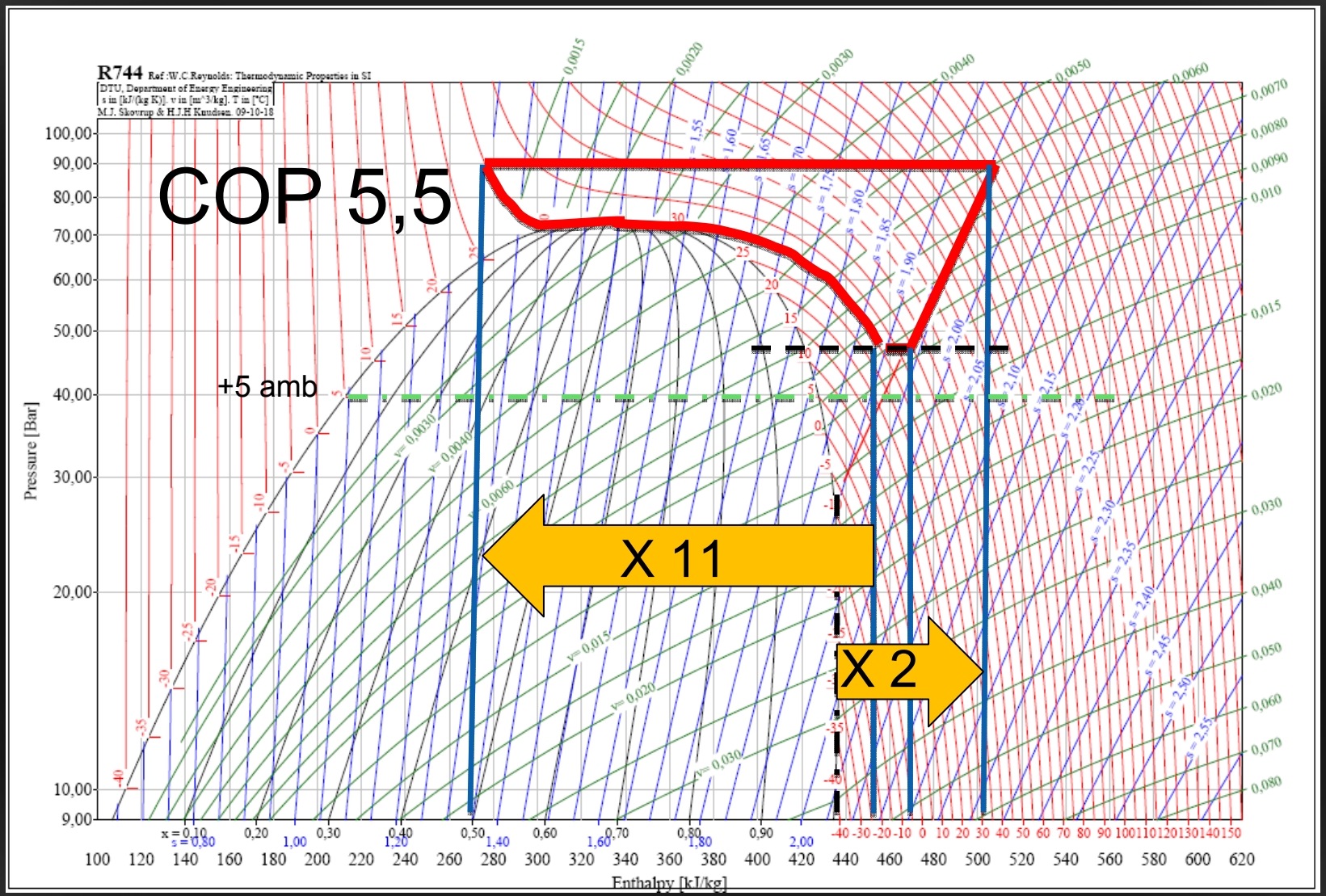

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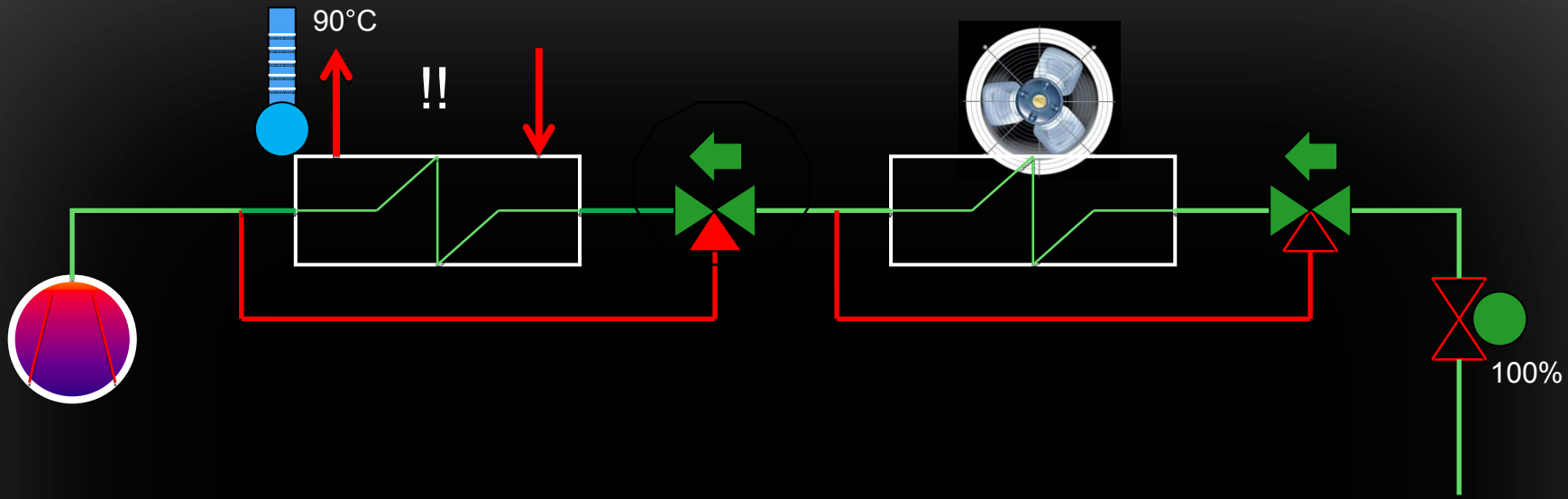

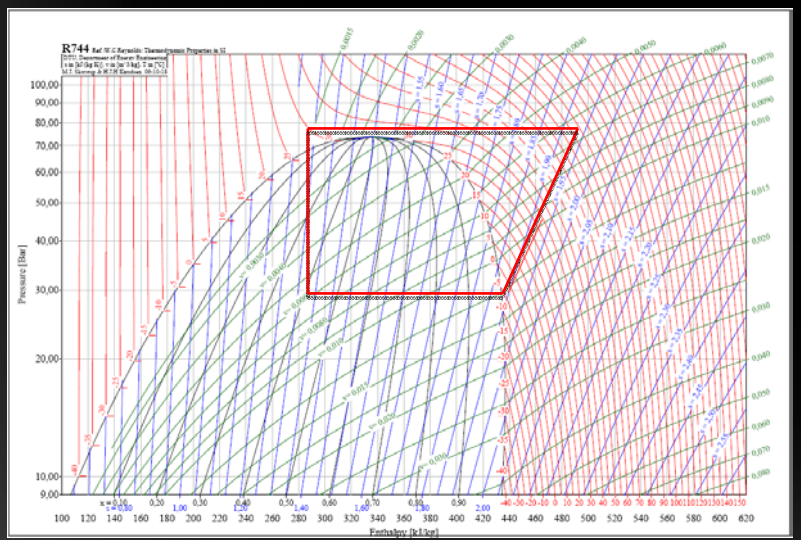

Summer operation
No heat reclaim
“Boil Protection” activated
Water outlet > +90*C

GREEN & COOL
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CO2 has unique properties, with a “intelligent” control system and heat exchangers with proper design high energy savings can be achieved.

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Thank you!

Located in northern Europe
– with a global market

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Nuremberg 14 October 2010