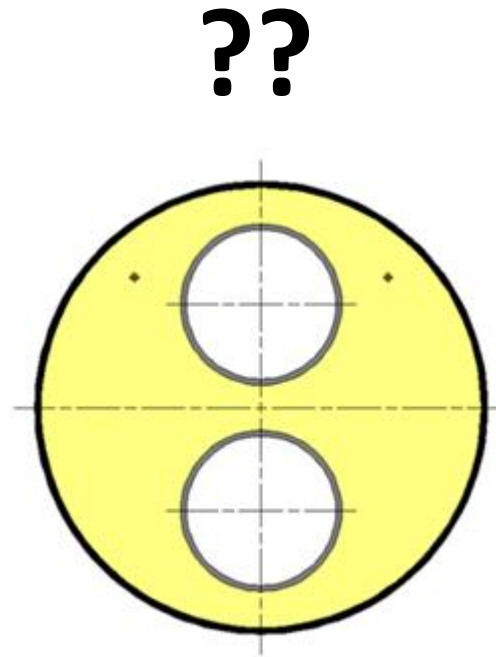

Information of double pipes

Twin pipes is a success in Sweden, Danmark and Norway.

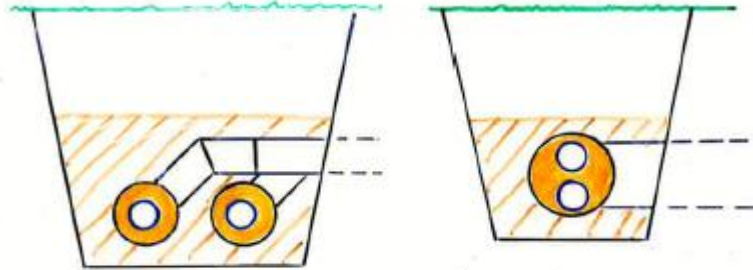
Why??



Advantages – Disadvantages

Advantages

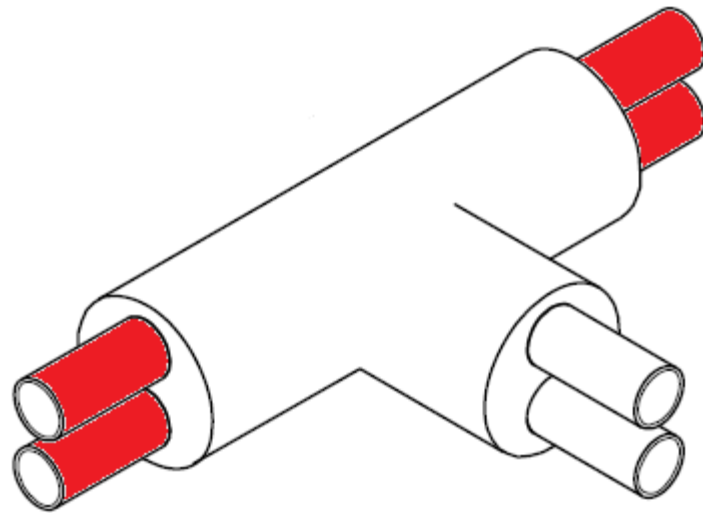
Duct work



DN	Reduction of duct volume	Reduction of sand for refilling
2*25	15%	25%
2*50	20%	25%
2*80	25%	35%
2*150	30%	40%

Advantages

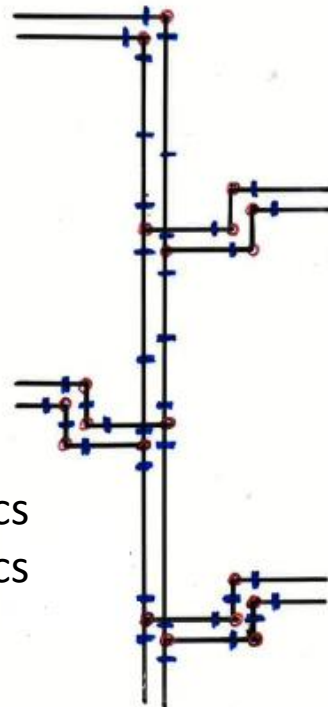
The main pipe is **reinforced** in such way that it can absorb all upcoming forces from the branch.



Advantages

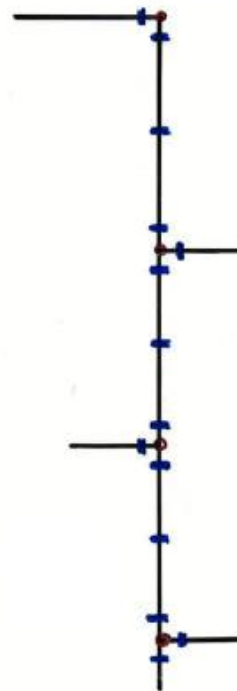
MATERIAL AND PIPEWORK

SINGLE PIPES



Fittings: 20pcs
Joints: 40pcs

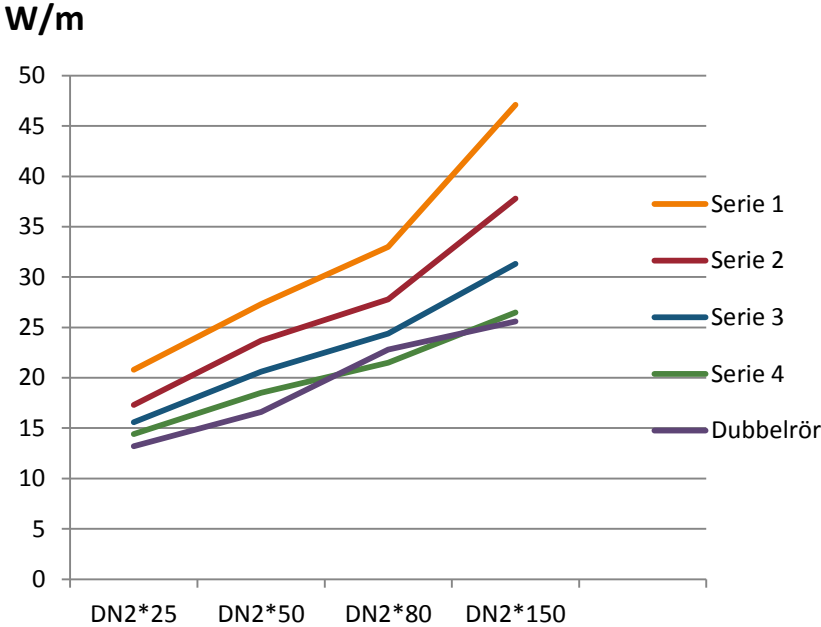
DOUBLE PIPES



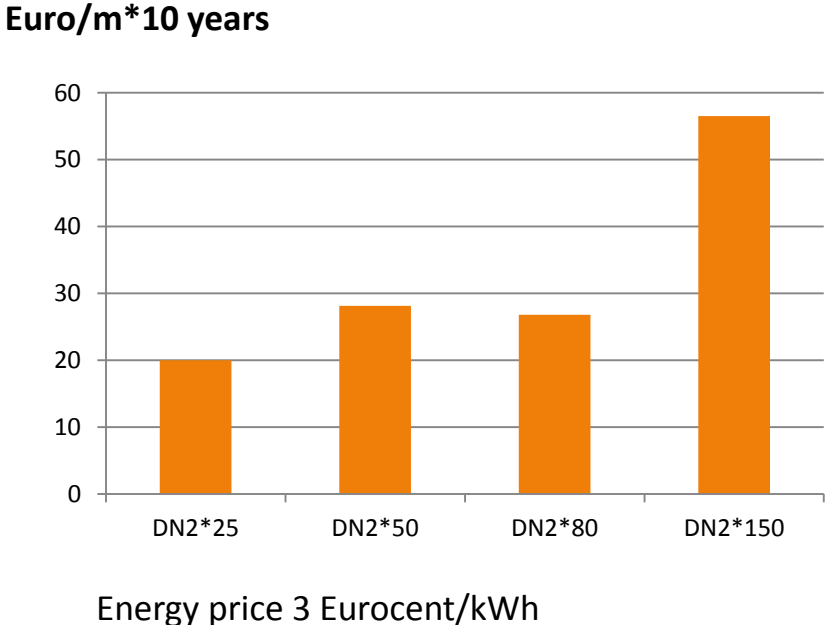
Fittings: 4pcs
Joints: 14pcs

Advantages

Energy losses for different pipe types.

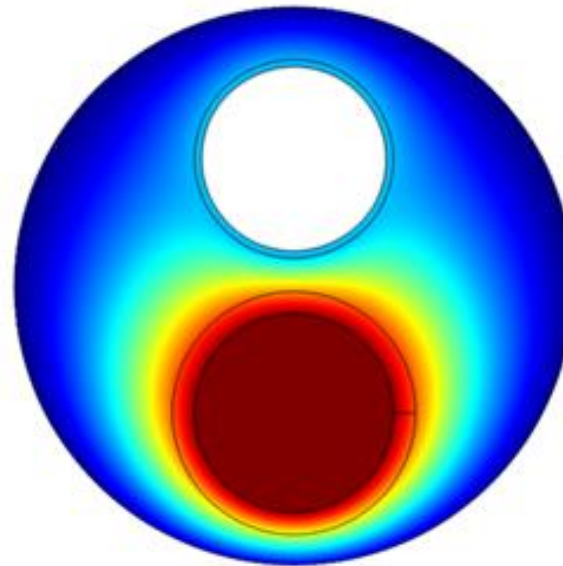


Savings comparing Series 1 to Double pipe



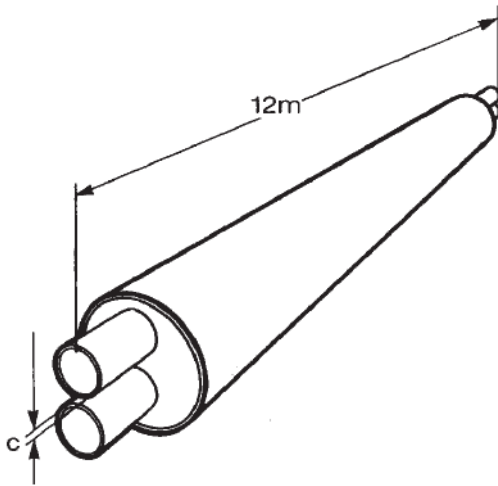
Advantages

The savings of 10 years in service are bigger than the price of the twin pipes.

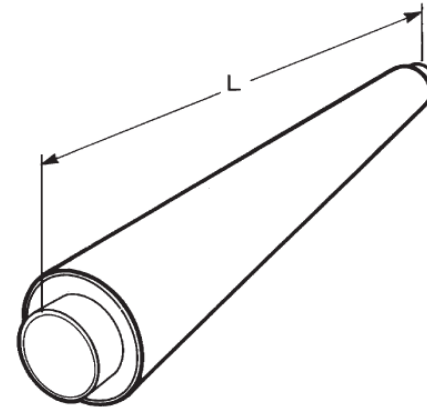


Advantages/Disadvantages

Product prices:



Cheaper for DN2*20- DN2*80



Cheaper for DN2*100-DN2*200

Construction



In all fittings; bends, T-pieces, valve units, transition units there are fix plates connecting flow and return pipe

Construction

If a twin pipe is preheated to 60°C and then the operating temperature is 110°C/50°C



Advantages

The construction means that:

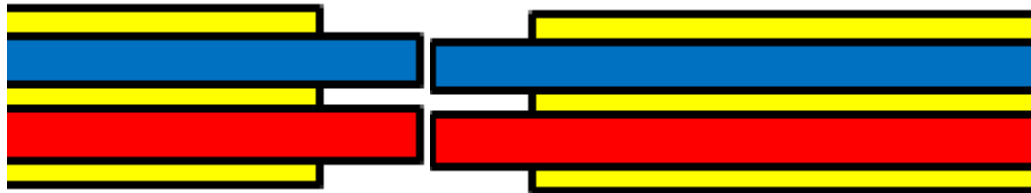
- The thermal expansion is less compared to single pipes
- The friction length is shorter compared to single pipes
- Easier design work

Disadvantages

The welding can be difficult for untrained workers.

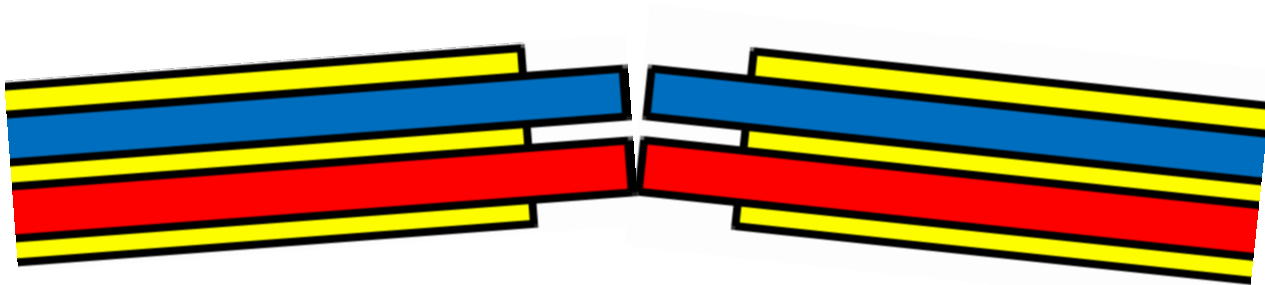
The welding process ask for good workmanship.

The gas welding method is preferred.

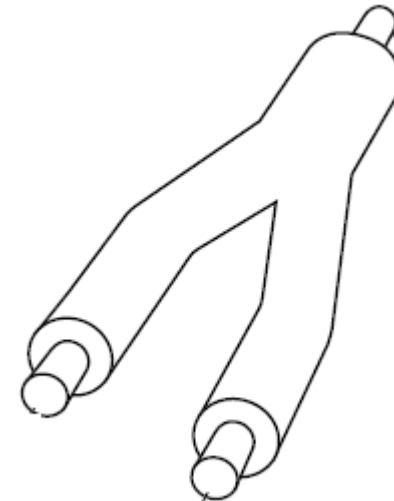
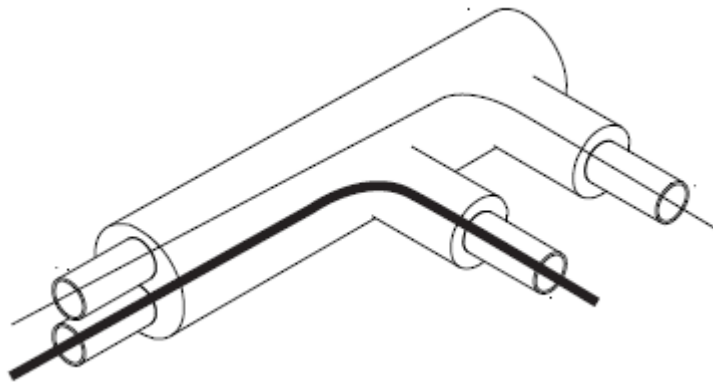


Disadvantages

To deal with angles between the pipes



Connecting **single** pipes to double pipe



There are transition pipes in two different models

Experience

- Powerpipe **started** to produce twin pipes **1987**
- At start it was opposition from the welding contractors
- Today **80-90% of pipes in Sweden** in smaller dimensions are twin pipes
- In **Denmark near 100%** of smaller pipes are twin pipes due to energy conservation
- In **Norway ~20%** of smaller pipes are twin pipes due to the topography