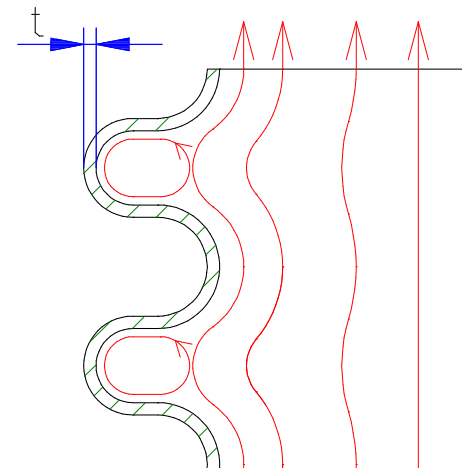
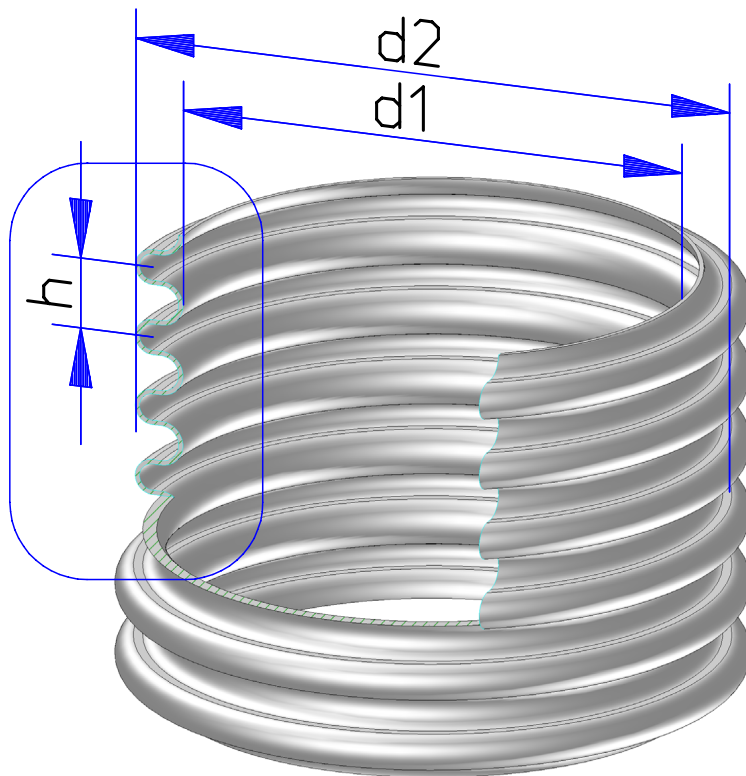


Haase energy tank: Performance characteristics of internal stainless steel heat exchangers

Advantages of corrugated pipe in contrast to smooth tubes

- more than 50% larger surface area, with similar length and diameter - this improves the heat transfer
- the corrugated pipe induces a turbulent flow of water even at low flow rates (see right illustration), this prevents or impedes a calcification of the wall (self-cleaning effect)
- the turbulent flow in corrugated pipe causes a better heat transfer than the laminar flow in smoothbore tubes
- the better heat transfer from the larger surface and turbulent flow allows the use of smaller heat exchangers (with the same performance) and thus a higher volume of storage medium
- the flexibility of the corrugated pipe reduces the load of the heat exchanger, which is generated by thermal expansion



Size of heat exchangers

Surface	Volume
36.6 sq.ft.	5 gal.
48.4 sq.ft.	6.6 gal.
73.2 sq.ft.	10 gal.
96.8 sq.ft.	13.2 gal.

Specifications of corrugated pipe 1 1/2" (according to DIN 17441)

Connections: 1 1/2" inside thread (maximum operating pressure 6 bar)

Inside diameter d1	1.36"	Wall thickness t	0.01"
Outside diameter d2	1.62"	Shaft distance h	0.19"
Surface	0.72 sq.ft. per ft.	Density δ	496.3 lb per ft ³
Weight	0.35 lb. per ft.		