DATA SHEET

HSK 400 P+ Combination Thermal Store

HSK 400 P+

HSK 400 P+ with insulation

Main Features	
Application	Accumulation of thermal energy for space and DHW heating.
Description	Combination thermal store with DHW heating in an integrated stainless-steel heat exchanger, fitted with a tight separating metal plate that increases Seasonal coefficient of performance (SCOP) of a heat pump. Thermal stores are supplied uninsulated. Thermal insulation is available as a separate item, see the codes below.
Working fluid	Water (DHW heat exchanger); water, water/glycol mixture (max. 1:1) or water/glycerine mixture (max. 2:1) (thermal store).

Code	
Thermal Store	**19607**
Insulation	**19609**

Energy Efficiency Data (as per EC Regulation No. 812/2013)	
	HSK 400 P+ with insulation
Energy efficiency class	C
Standing loss	81 W
Storage volume	408 l

Technical Data	
Total tank volume	408 l
Total fluid volume in tank	387 l
Fluid volume above the separating plate	220 l
Fluid volume below the separating plate	167 l
Surface area of DHW heat exchanger above the separating plate	21 l
Surface area of DHW heat exchanger above the separating plate	6 m^2
Max. working temperature in tank	95 °C
Max. working temperature in DHW HE	95 °C
Max. working pressure in tank	4 bar
Max. working pressure in DHW HE	10 bar

Tank Materials	
Tank material	S235JR
DHW heat exchanger material	AISI 316 L

Insulation Materials	
Tank perimeter insulation	fleece
Tank perimeter insulation outer surface	hard polystyrene
Top and bottom tank insulation	fleece

Dimensions, Tipping height, Insulation thickness, Weight	
Tank diameter	550 mm
Tank diameter with insulation	750 mm
Tank overall height	1905 mm
Tipping height without insulation	1940 mm
Tank perimeter insulation thickness	100 mm
Bottom insulation thickness	50 mm
Top insulation thickness	100 mm
Empty weight without insulation	91 kg

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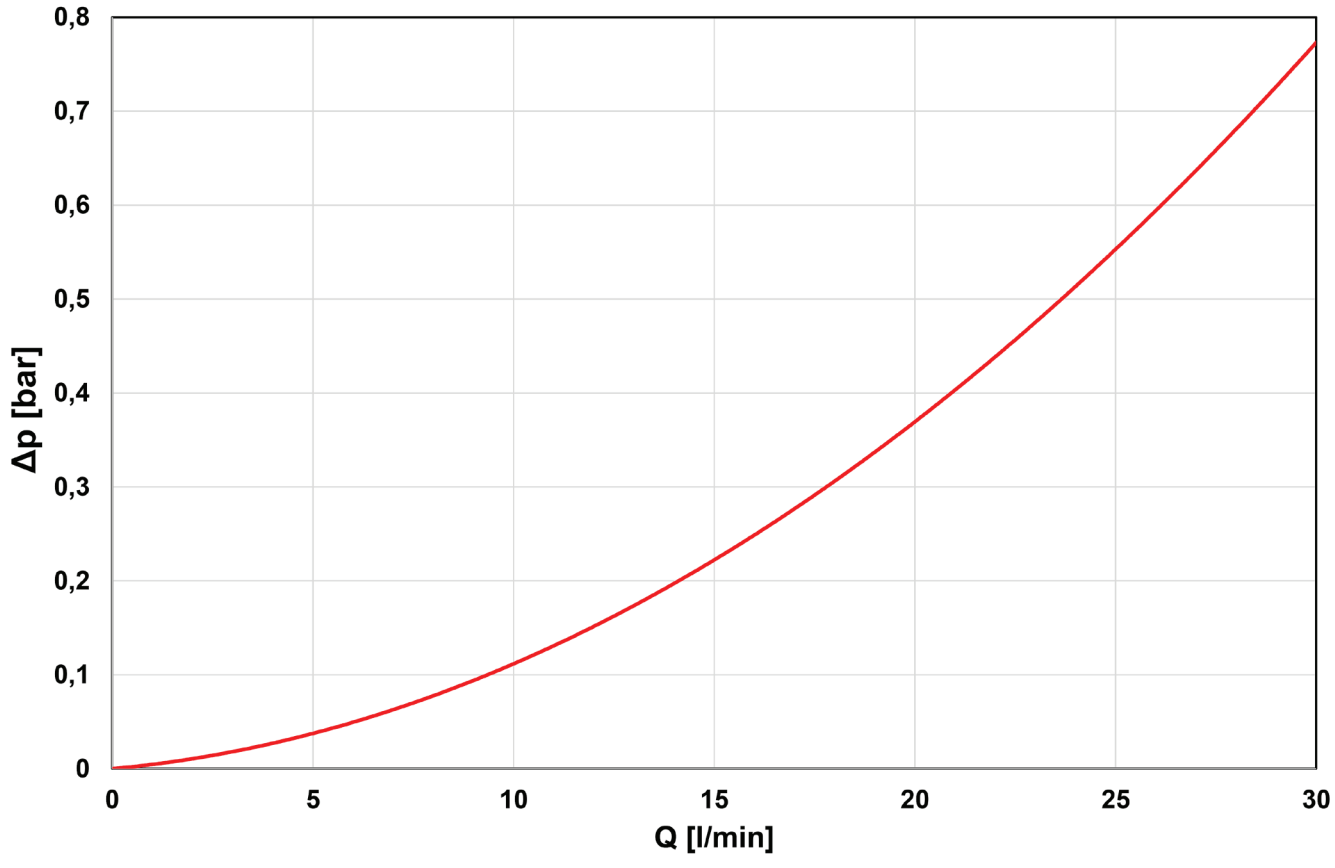
Accessories	
El. heating element (models)	ETT-A, C, D, F, M, P
Heating elem. max. length	3x 555 mm

Volume of supplied DHW (heated from 10 °C to 40 °C)

Heated volume	entire			entire			above metal sheet			entire			entire			above metal sheet			entire		
Backup heater	50 °C			50 °C			50 °C			60 °C			60 °C			60 °C			80 °C		
Flow rate [l/min]	10 kW			none			10 kW			10 kW			none			10 kW			none		
Temperature in tank	8	12	20	8	12	20	8	12	20	8	12	20	8	12	20	8	12	20	8	12	20
Hot water volume [l]	**363**	**237**	**120**	**222**	**187**	**101**	**195**	**132**	**106**	**534**	**359**	**268**	**321**	**290**	**266**	**253**	**235**	**208**	**567**	**528**	**516**

DHW heat exchanger pressure drop graph



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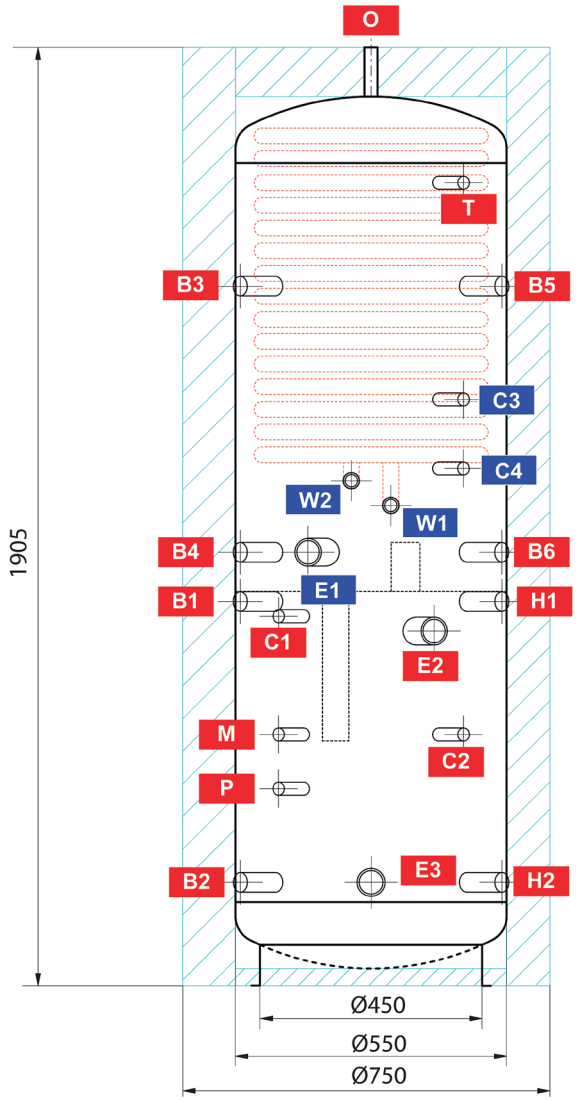
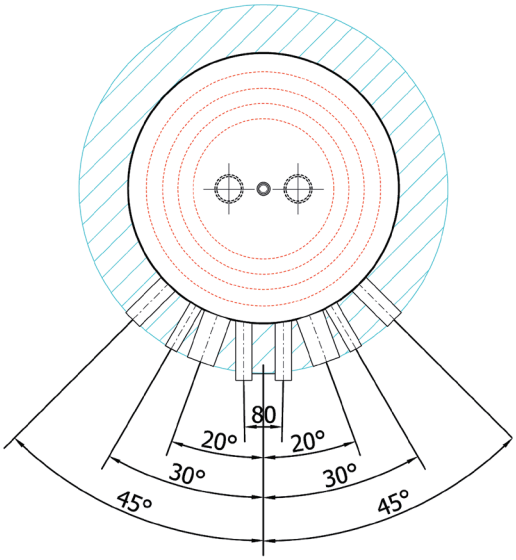
Dimensions

Tipping height without insulation 1940 mm





TAPPINGS

pos.	description	connection	height [mm]
Heat sources			
B1	Incoming from heat source	G 1" F	780
B2	Return to heat source	G 1" F	210
B3	Incoming from heat source	G 1" F	1420
B4	Return to heat source	G 1" F	880
B5	Incoming from heat source	G 1" F	1420
B6	Return to heat source	G 1" F	880
Heating system			
H1	Flow to heating system	G 1" F	780
H2	Return from heating system	G 1" F	210
El. heating elements			
E1	Electric heating element for DHW heating	G 6/4" F	880
E2	Electric heating element for space heating	G 6/4" F	720
E3	Electric heating element for PV system	G 6/4" F	210
DHW heating			
W1	Cold water	G 1" M	975
W2	Hot water	G 1" M	1025
Control and safety			
C1	Temperature sensor	G 1/2" F	750
C2	Temperature sensor	G 1/2" F	510
C3	Temperature sensor	G 1/2" F	1190
C4	Temperature sensor	G 1/2" F	1050
T	Thermometer	G 1/2" F	1630
M	Pressure gauge	G 1/2" F	510
P	Safety valve	G 1/2" F	400
Air release			
O	Air vent valve	G 1/2" F	1905