

Energy from Wastewater with UHRIG THERM-LINER

Project example: Stuttgart, Neckarpark, Germany

1. Framework data

Client	City of Stuttgart
Place	Germany, Stuttgart, Baden-Württemberg, 635,000 inhabitants
Building project	Neighbourhood development with residential and commercial use
Residential units	600+
Year	Installed in 2018
More information	Quartier am Neckarpark (stadtwerke-stuttgart.de)

2. Wastewater heat recovery

UHRIG Therm-Liner	Type A
Plant length	985 ft
Sewer dimension	Box profile 2,400
Wastewater temperature (min)	51 °F
Dry weather flow	170 l/s
Thermal output	2,109 kW heating
Multivalent system	Wastewater heat as base load cover
Electricity for heat pump	Proportionally via PV in the quarter
Operated by	Stadtwerke Stuttgart (Energy Service Company)

3. System design

	Gravity Sewer	Box
Sewer profile		
Profile width / height	2,400	mm
Minimum wastewater flow	170	l/s
Minimum wastewater temperature	51	°F
Thermal power Therm-Liner	2,109	kW
Total heating power (including heat pump)	2,970	kW
Inlet temperature Therm-Liner	32	°F
Outlet temperature Therm-Liner	39.2	°F
Coefficient of performance heat pump	3.45	COP
Medium primary circuit: Water-Glycol. Glycol share:	25	%
Total length Therm-Liner	985	ft
Maximum wastewater temperature drop	3.03	K

4. Pictures

Intallation phase



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