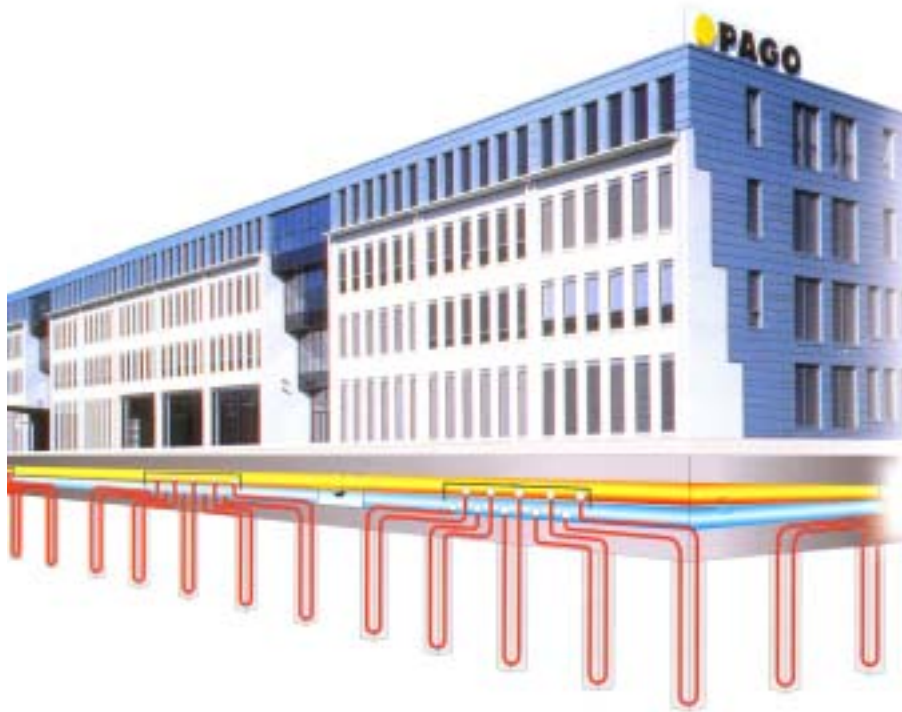


PAGO

100.000 m³ ground mass - heart of the energy system for the office and factory complex



PAGO
Labelling Factory,
Grabs, Switzerland

enercret- installation

95,000 meters of HDPE piping with an outside diameter 20 mm are incorporated in the 570 precast driven piles in reinforced concrete. Together with the ground mass of some 100,000 m³ this concrete forms an active storage facility for the energy employed for heating and cooling purposes. It is this storage method which lies at the very heart of the PAGO energy system.

Direct cooling with an absorber pile system and outside air.

On warm summer days the lower ground temperature can be utilized to cool the printing machines, production areas and the office wing without the need for the refrigerator plant, thus saving energy. In order to avoid excessive increases in the ground temperature, the outside air is used for cooling purposes wherever possible. In the case of very high summer temperatures where free ground and air cooling is no longer sufficient, the ice storage refrigerator plant is activated.

Environmentally friendly heating:

When it comes to heating the building, waste heat is first recovered from the air compressors, then from the printing machine's cooling system. On cold days, when the amounts of waste heat are not sufficient, additional thermal energy is extracted from the ground via the absorber piles by means of a heat pump. The oil heater is only used to cover peak requirements in the case of exceptionally low outside temperatures.

570 Naegele energy piles made of precast steel-reinforced concrete with a 400 mm square pile section are activating the storage capacity of the ground, thus reducing fossil energy consumption operating costs and air pollution.

Capacity of enercret-installation

„Direct Cooling“	520 kW
Heating capacity	520 kW