

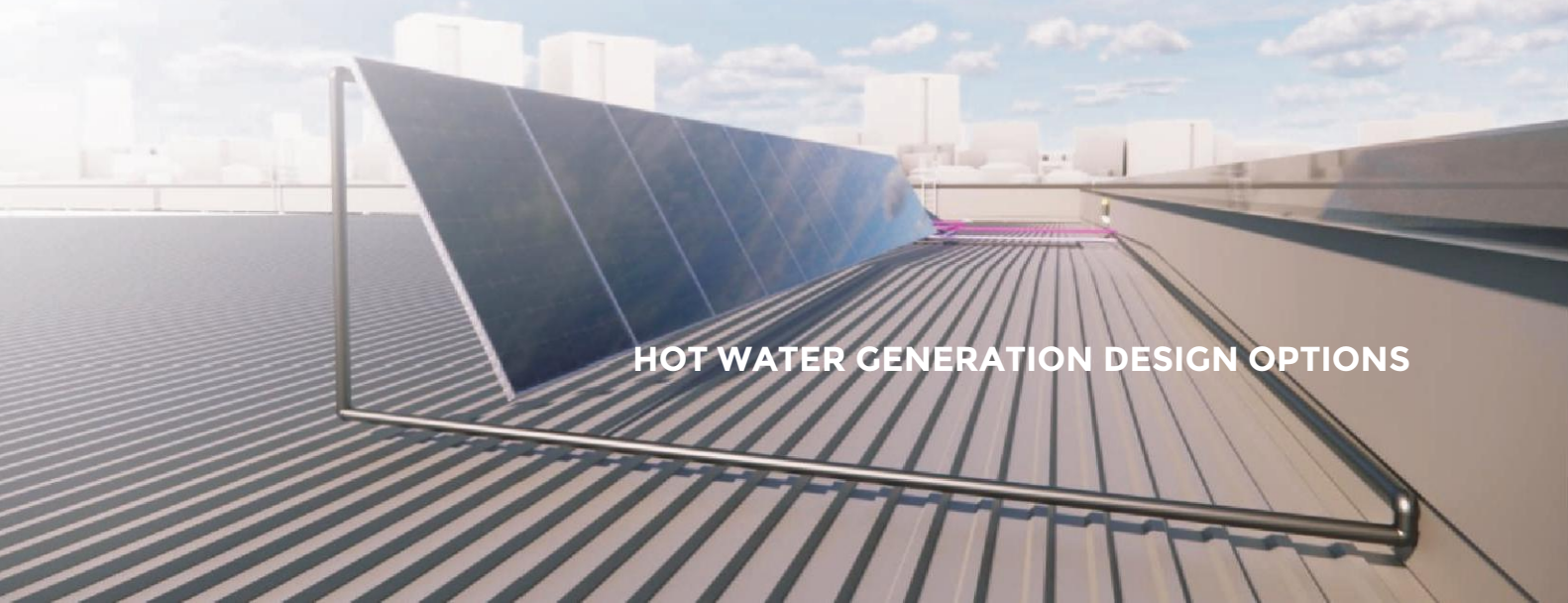


# HOT WATER GENERATION SYSTEM SOLUTION

Hot Water Supply for Human Consumption

# HOT WATER GENERATION SYSTEMS

Our hot water sustainability innovation engineering solutions speaks to the design consideration that aligns with SANS 10400-XA, South African National Standards and British Standard. Hot Water Generation plants that produce hot water at 55-60°C utilised other mains than that of electrical element, thus reducing the electrical consumption by approximately 50%. This is achieved by the introduction of solar energy and heat pump.



## HOT WATER STORAGE AND SOLAR COLLECTOR ARRAYS

Evacuated tube solar water heater system, tube collector array complete with hot water storage vessels with back-up electrical supply.

Hot water generation and supply plant to serve all sanitary fittings where so required, within the building with hot water (storage temperature at 55-60°C).

Hot Water Return system comprising of circulating pump arrangement (duty and standby) connected to a hot water return pipe network will be provided.

Circulating pump arrangement will be located in the same area of the hot water generation plant.

Insulation to be provided to all exposed hot water and hot water return pipe reticulation to be installed.



# HOT WATER GENERATION DESIGN OPTIONS:

## Hot Water Storage and Heat pump (Combination Heat pump and Cylinder)

Hot water generation and supply plant to serve all sanitary fittings where so required, within the building with hot water (storage temperature at 55-60°C)

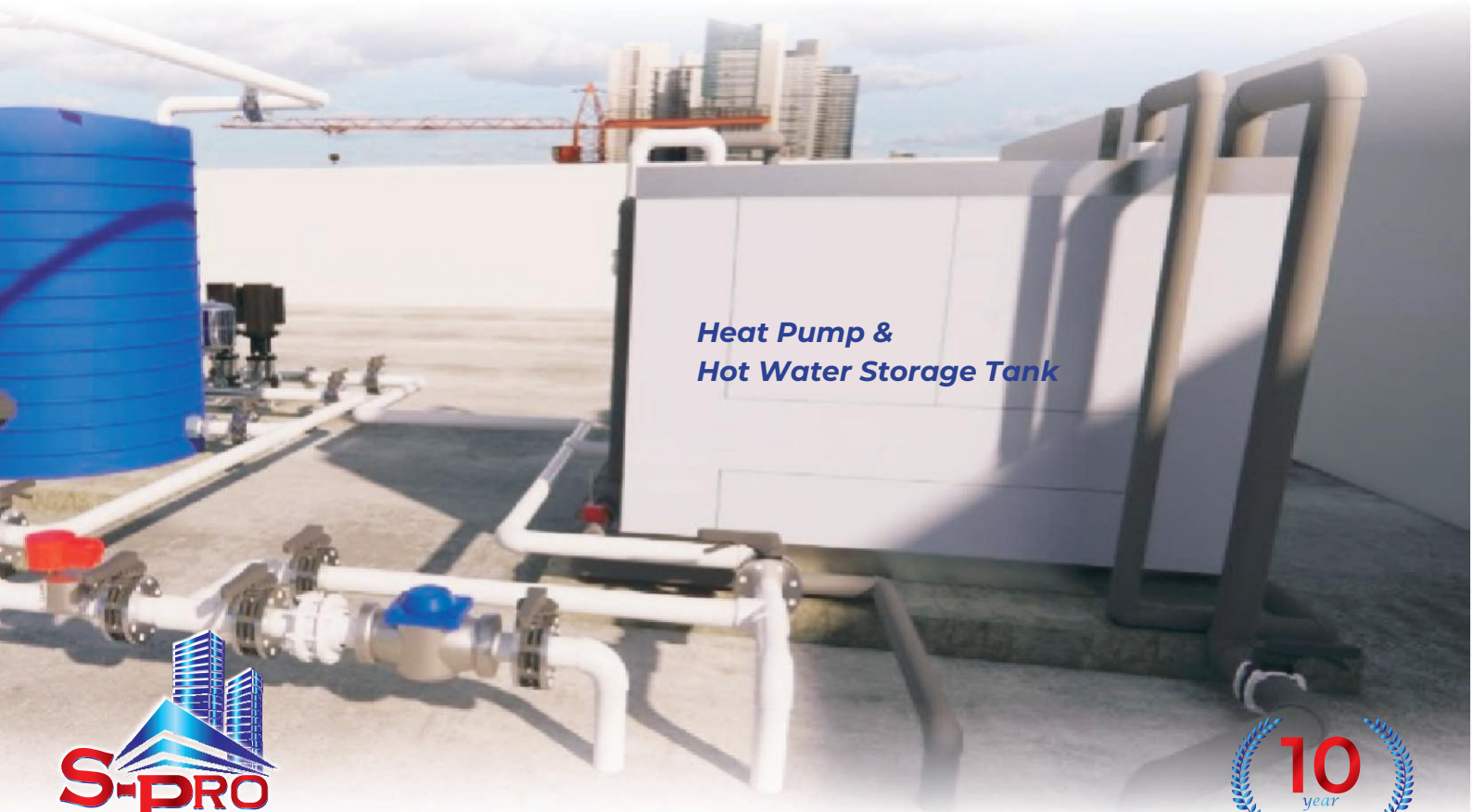
### COMBINATION HEAT PUMP & CYLINDER

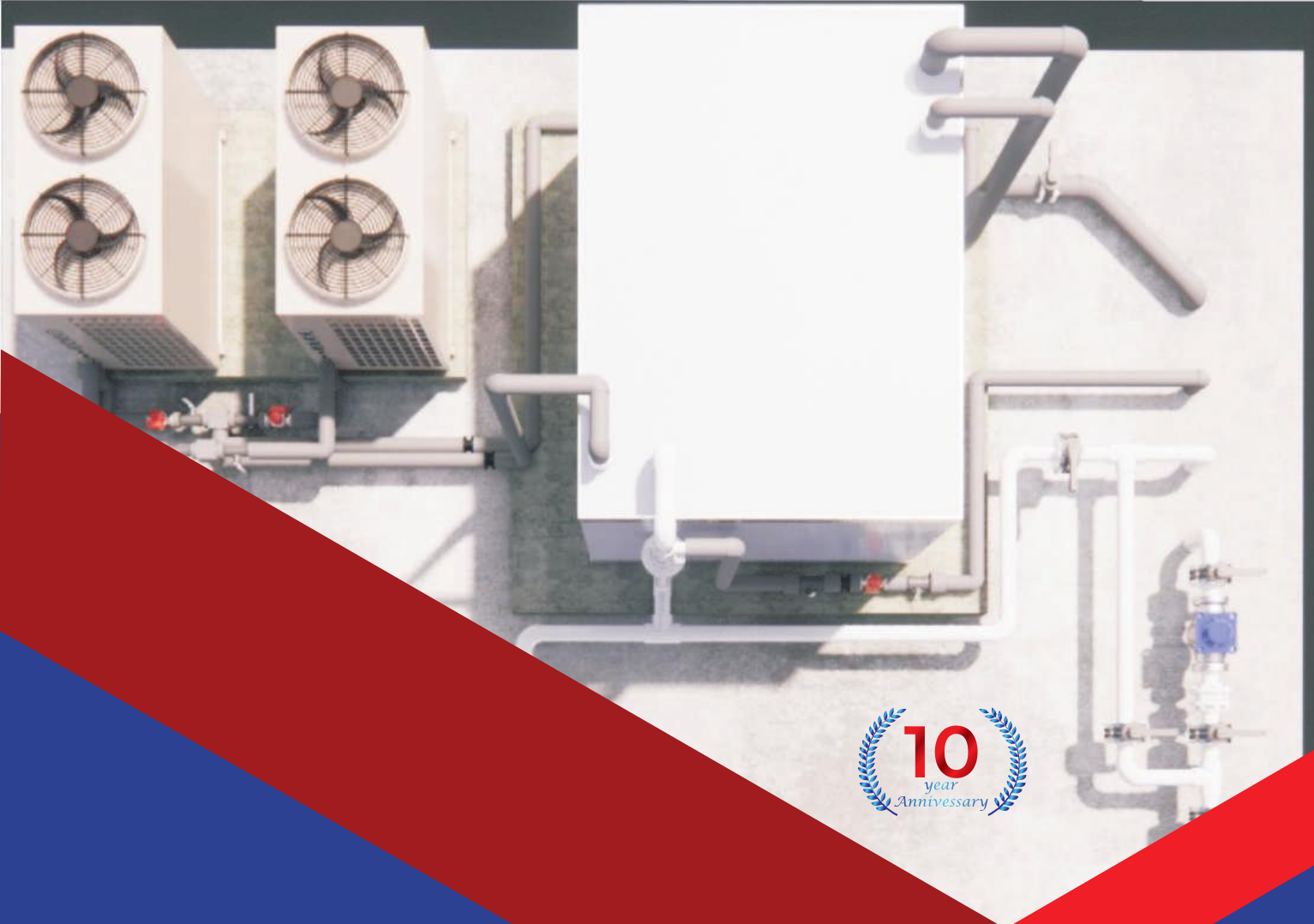


The hot water generation storage tanks complete with pipes, tank infill pipe, heat pump inlets and outlets, main supply inlet and outlet, expansion vessel, fittings, overflow, tank drain points and associating accessories for a complete and fully functional system. The use heat pumps are to provide a total heating capacity of 57kW with a duty and standby (for added redundancy).

Hot water generation plant will be fitted with a duty and standby hot water circulating pump and valve arrangement. Hot water flow control valve to be of thermostatic valve control type, waxed based control ball with built in back flow prevention. Flow control valve to open 45°C and be closed at 55°C as the water temperature drops.

The hot water systems offered provide constant 60°C hot water so the new water entering the distribution system is always free of Legionnaire.





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