All hot water piping SEAMLESS CARBON STEEL PIPE SCHED 40 STD as per ASTM A106, API 5L & ASTM A53.

All chilled water and other piping in copper according to DIN EN 1057 or AS 1432 - Type B.

All hot water valves and fittings rated to 1400 kPa and 195 degC.

Maximum hot water system pressure 1400 kPa.

All hot water visual temperature gauges range [0-200 degC].

All hot water absolute pressure sensors range [0-1400 kPa].

All temperature sensors PT100 as per IEC 60751 in Thermowell, range [0-200 degC].

All hot water flow meters vortex type [0-10 m3/hr].

Demountable joints shall be either compression fittings or flanges.

Permanent joints shall be silver brazed slip joints.

Flow rates are draft design only and may change subject to final design of collector field.

Pipe dimensions are draft design only and may change subject to final design of collector field.

All pipe insulation mineral wool or foamed glass with metal sheathing, kmin=0.028 W/mK.

Pipe insulation as follows:

Pipe, general

Connected to BMS

Legend of Symbols

Isolation valve

Safety relief valve

Ball valve full bore

Needle valve

Check valve

End cap

Ball valve (protected)

Flow meter to BMS/DDC

Automatic air vent

Automatic or vent

Flow meter

Spray drain

Diatomaceous earth filter

Pump

Diaflow prevention valve

Flexible pipe connection

Pyranometer

Diff. pressure sensor to BMS/DDC

Automatic pressure relief

Temperature sensor to BMS/DDC

Temperature gauge

Pressure sensor to BMS/DDC

Pressure gauge

Variable speed drive

Check valve

Shut-off valve (protected)

Energy meter

Reducer

Control function

All dimensions in millimeters.