

Insulation Tips

1. Repair damaged insulation. *(A bare steam pipe of 150 mm diameter and 100 m length, carrying saturated steam at 8 kg/cm² would waste 25'000 litres furnace oil in a year)*
2. Insulate any hot or cold metal or insulation.
3. Replace wet insulation.
4. Use an infrared gun to check for cold wall areas during cold weather or hot wall areas during hot weather.
5. Ensure that all insulated surfaces are cladded with aluminum
6. Insulate all flanges, valves and couplings
7. Insulate open tanks *(70% heat losses can be reduced by floating a layer of 45 mm diameter polypropylene (plastic) balls on the surface of 90°C hot liquid/condensate)*

Waste heat recovery Tips

1. Recover heat from flue gas, engine cooling water, engine exhaust, low pressure waste steam, drying oven exhaust, boiler blowdown, etc.
2. Recover heat from incinerator off-gas.
3. Use waste heat for fuel oil heating, boiler feedwater heating, outside air heating, etc.
4. Use chiller waste heat to preheat hot water.
5. Use heat pumps.
6. Use absorption refrigeration.
7. Use thermal wheels, run-around systems, heat pipe systems, and air-to-air exchangers.