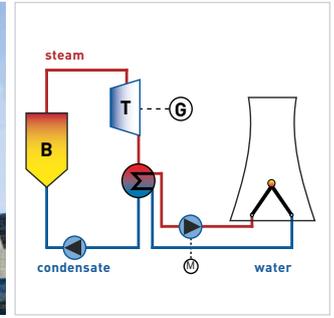


# SPG DRY COOLING



## PRODUCT

# INDIRECT DRY COOLING TOWER



IDCT Plant cycle

## INDIRECT DRY COOLING SYSTEMS

Indirect Dry Condensing systems, which connect a dry cooling tower with a steam condenser, are available for any large capacity condensing unit. This is how the system works: steam flowing from the turbine is condensed by cold water in either a surface condenser or a jet condenser. The heated water is then pumped to heat exchangers which are arranged vertically around the concrete tower. Airflow across the heat exchangers is created by the natural draft cooling tower.

Indirect Dry Cooling Tower (IDCT) systems have been in use for over 50 years for various applications in the power industry. SPG Dry Cooling has supplied the largest indirect system currently in operation in the world.

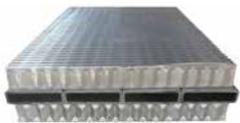
## INDIRECT DRY COOLING FEATURES

The finned tube bundles are arranged vertically in delta cooling elements around the perimeter of the tower – (see below). The delta cooling elements incorporate louvers on the front and finned tube heat exchangers on the back. This controls airflow and prevents freezing during cold weather.

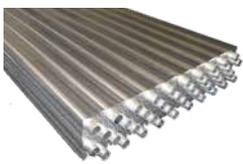
The finned tube is the key component. The indirect dry cooling tower is equipped with either MCT, multi-channel aluminium clad carbon steel on the tube with brazed aluminium fins providing excellent reliability and performance, or RAFT, round aluminium tubes with aluminium fins.

There is always enough space inside the tower to install an FGD unit. Due to the natural draft created by the large concrete shell, only a short chimney is needed to lift the flue gas.

The typical scope for an IDCT installation includes heat exchangers, louvers, a supporting structure, and water piping and tanks as well as auxiliaries like circulation pumps, a cleaning system, and instrumentation.

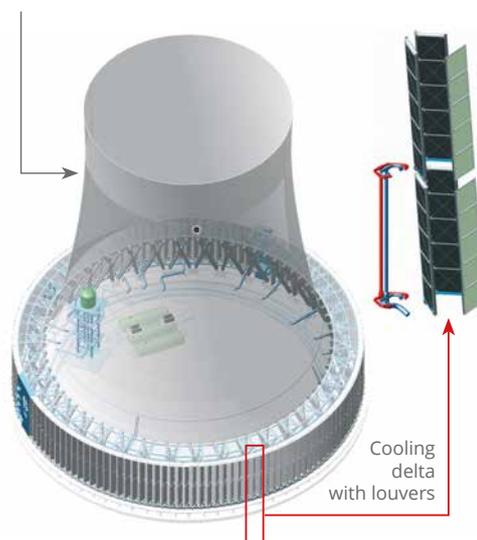


MCT: Multi channel tubes



RAFT: Round aluminum finned tubes

Natural draft tower



IDCT overview



Cooling delta with louvers

# THE INDIRECT BENEFITS OF DRY COOLING



Reduced auxiliary power	More stable steam turbine back pressure	Quiet operation
Few rotating parts, which means low maintenance	Hot air recirculation avoided by the tall concrete shell	The option to install a Flue Gas Desulfurisation (FGD) unit inside the tower

More information about our patents:  
<https://spgdrycooling.com/ip-legal/patents/>

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