Complete systems of coal stockyards for heat and power generating technology include basic coal handling processes, i.e. stacking and reclaiming, in further steps technological processing incl. Crushing, screening, milling etc., and technological transport as well.

In case of large volumes of material (hundred thousand tons) the stockyards are usually built on open-air areas. Besides of making only material reserves, stockyard equipment can be used for homogenization in case of different quality of material.

Example of coal homogenization stockyard up to 150 000 tons with one combined stacker/reclaimer

Coal stockyard with two stackers/reclaimers in power plant

ALTA, a.s., Štefánikova 41, 602 00 Brno, Česká republika, tel.:+420 541 550 111, fax:+420 541 550 555, e-mail: mining@alta.cz
Bulk Material Stockyards without Homogenization

In case of ordinary handling of bulk material on open-air stockyards more simple equipment can be used e.g. stackers, reclaimers, bucket wheel bridge loaders, scraper reclaimers etc.

Example of raw phosphate stockyard with one stacker and two reclaimers

Stacker on coal stockyard situated between the mining area and the power plant
Internal Storing of Bulk Materials

Raw material stores protected against climate influence are built as industrial halls of square or circle ground plan, as concrete underground or high-rise construction bunkers etc. Feeding of these stores is made by reversible conveyors, belt loaders or combined machines, reclaiming is made by scraper loaders, common scraper conveyors, or paddle feeders.

Examples of technological equipment of internal stores of bulk materials

Underground bunker is fed by reversible belt conveyor evenly over the entire length of the bunker. Material is reclaimed in necessary volume by paddle feeder, which travels on rails along the axis of the bunker and remove material from the bottom slot of the bunker and loads it on discharging conveyor.

Cross section of concrete underground bunker and position of paddle feeders in detail

Paddle feeder in operational and service position, the bunker execution as a steel made height construction
Internal Storing of Bulk Materials

Another method of material reclaiming is application of scraper reclaimers in portal or semi-portal execution. The machine travels on rails along the axis of the store and grabs material on discharging conveyor. Likewise, discharging of material from the storehouse with a circular ground plan is solved.

Cross section of storage hall for gypsum with scraper reclaimer

Application of semi-portal scraper reclaimer and slewing scraper in storage of fertilizers

ALTA, a.s., Štefánikova 41, 602 00 Brno, Česká republika, tel.: +420 541 550 111, fax: +420 541 550 555, e-mail: mining@alta.cz