



VACUUM TANK DEGASSER – VD-OB/VOD

VACUUM PLANTS FOR MAXIMUM METALLURGICAL FLEXIBILITY

With 40 years of experience and dozens of references all around the globe, Primetals Technologies is your reliable partner for vacuum degassing plants.

Besides the advantages of the vacuum tank degasser (removal of gaseous elements and slag treatment), an additional oxygen supply can be used for the production of low carbon alloy and high alloy grades or for chemical heating of the melt in conjunction with aluminum/silicon additions (VD-OB process).

DESIGN FEATURES

Highly flexible layouts: fixed and moveable vessel car, travelling cover, single or twin plant. As experienced supplier Primetals Technologies can offer tailor-made solutions for adding a vacuum degasser to existing melt shop and increase as an add-on the steel portfolio and quality of produced steel.

For the production of stainless steel, an almost complete recovery of chrome and valuable elements solved in the slag during oxygen addition is possible.

Off gas analyses is a key part for the process control and to minimize the production cost



Guaranteed short process cycles and easy to maintain



Efficient and reliable solutions for VOD and VD-OB plants

VACUUM PUMP AND EQUIPMENT

The vacuum pump is designed accordingly, having a higher capacity in order to cope with the increased offgas volume. As per in-house design, from concept to commissioning and normal operation, tailor made solution are offered for each customer to fit the requirements.

The off-gas line is designed in order to lower the high off-gas thermal load created during oxygen blowing phase. An upgrade to an existing VD process is possible adapting the the existing layout and conditions.

High productivity rate can be reached with the combination of multi vacuum pump system using separate vacuum pump system for oxygen blowing phase and other stages.

LIFECYCLE SERVICES

Primetals Technologies provides competitive performance for plants at every phase of their lifecycle. Reliable technical support, efficient maintenance solutions, and permanent plant improvements are the basics to operate safe and cost-efficient.

To guarantee a long lifespan of metallurgical plants, we offer a wide selection of spare parts in OEM quality.

SELECTED REFERENCES

- Lisco, Guangzhou, China
- Wuyang ISCO, Wuyang, China
- Gerdau Acos Finos Piratini, Porto Alegre, Brazil
- Acc. Venete S.P.A., Camin, Italy

MAIN BENEFITS

- Production of ULC grades (VD-OB process)
- Production of extra-low carbon stainless steel grades (VOD process)
- Operation possible with varying initial carbon contents
- Flexibility to use lower-cost HC alloying materials
- Low chromium oxidation losses in stainless steel
- Production resulting from low partial pressure
- High rate of chromium recovery by slag metallurgy
- Chemical heating
- Low final content of dissolved gas
- Improved steel cleanliness (nonmetallic inclusions)
- Achievement of exact compositional values

- Azovstal, Mariupol, Ukraine
- AMK, Alchevsk, Ukraine
- Tangshan Stainless Steel, Tangshan, China
- Dalian Special Steel, Dalian, China
- Tisco, Taiyuan, China
- voestalpine Gießerei Linz, Linz, Austria