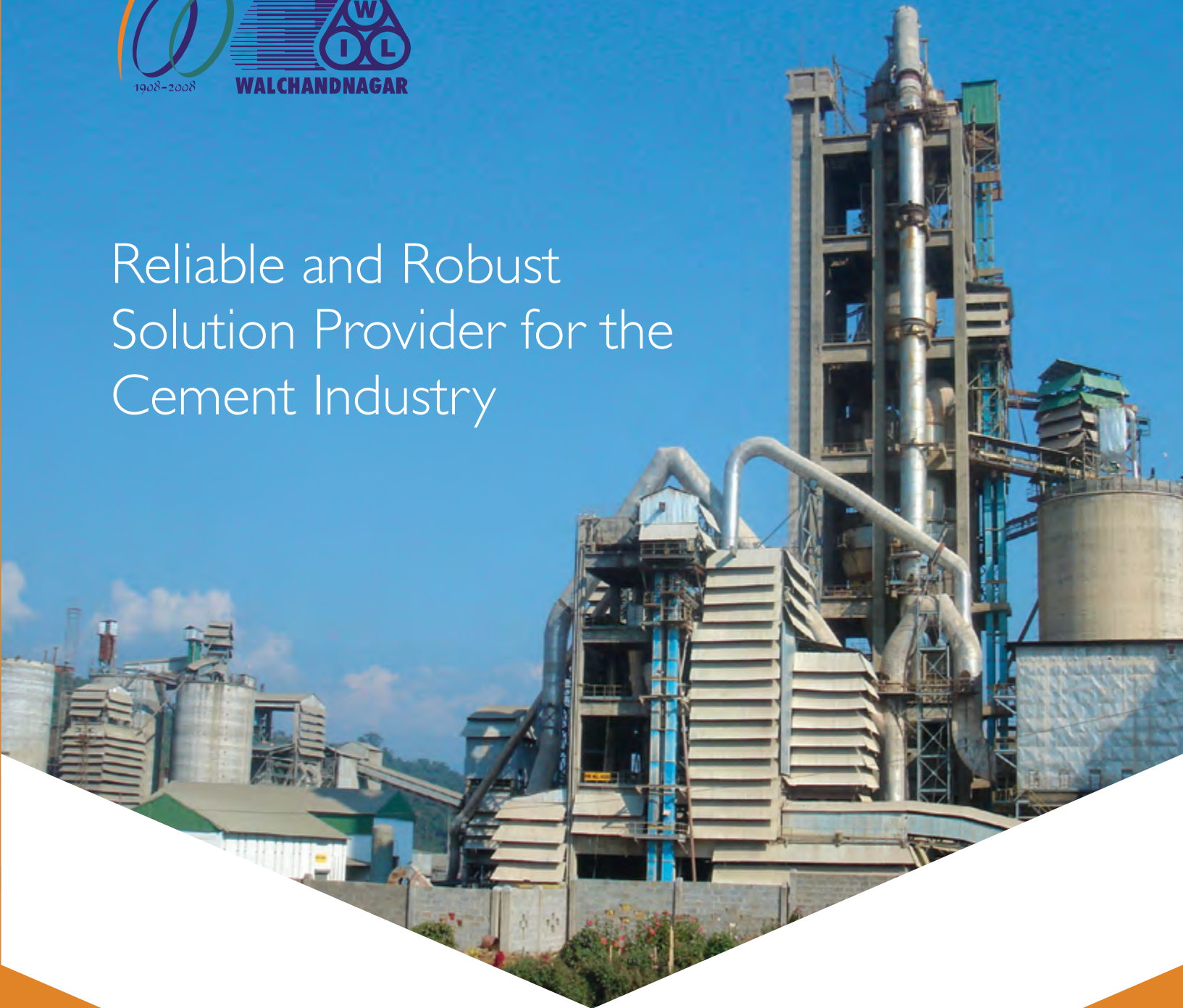




Reliable and Robust Solution Provider for the Cement Industry



COMPLETE CEMENT PLANTS • GRINDING UNITS (CLINKER/SLAG) • VRM (UBE) & BALL MILLS
COMPLETE PYRO SECTION • SEPARATORS • BLENDING SILOS AND BULK TERMINALS

WALCHANDNAGAR INDUSTRIES LIMITED

Commissioned 48 complete
cement plants including
11 export projects

Complete Cement Plants

2 MTPA capacities

1200 TPD Cement Plant in Andhra Pradesh

The Cement Division of Walchandnagar Industries Limited (WIL) started its journey in 1963 and, since then, has been providing reliable and robust solutions for the cement industry in India and abroad on EP as well as turnkey EPC basis.

Our Expertise

- ◆ Cement plant machinery – 600 TPD to 6000 TPD
- ◆ End-to-end execution of complete cement plants
- ◆ Modernization/retrofitting of existing plants

Domestic Clients *(select list)*

- ◆ Anjani Portland Cement Ltd, Parasakti Cement Industries Ltd, Penna Cement Industries Ltd – Andhra Pradesh
- ◆ Cement Manufacturing Company Ltd, Meghalaya
- ◆ Ultratech Cement Ltd, Rajasthan

International Clients *(select list)*

- ◆ Ethio Cement PLC, Ethiopia
- ◆ Maweni Limestone Limited, Tanga, Tanzania
- ◆ Niger Cement, Niger
- ◆ Shayona Cement Corporation, Malawi
- ◆ Volta Impex Pvt Ltd, Congo
- ◆ Zambezi Portland Cement Ltd, Zambia

Why Choose WIL

- ◆ Over 50 years of rich experience
- ◆ State-of-the-art in-house manufacturing facility
- ◆ Collaboration with UBE, Japan to manufacture VRMs in India
- ◆ Custom-made solutions for brownfield expansions

Partners / Collaborators

Past

- ◆ Polysius, Germany for know-how related to design, engineering, manufacturing and commissioning of the entire Core Plant & Machinery – 1969 to 1979
- ◆ Onoda Engineering, Japan for know-how related to design, engineering, manufacturing and commissioning of the entire Core Plant & Machinery – 1980 to 2003

Present

- ◆ UBE Machinery Corporation (UMC), Japan for Vertical Roller Mills – Ongoing since 1996

Grinding Units

WIL is engaged in the manufacture and supply of a wide gamut of grinding units encompassing

- ◆ Ball Mills
- ◆ Vertical Roller Mills (in collaboration with UBE, Japan)
- ◆ Roller Press (in association with our partners in Europe and China)

- ◆ Split location grinding units
- ◆ Expansion or modernization/retrofitting

Acknowledged for their rugged construction and superior performance, WIL grinding units are designed to cater to clinker / slag grinding applications.

WIL has successfully supplied 37 grinding units globally

Select Customer List

Domestic

- ◆ ACC Ltd (Holcim), Himachal Pradesh
- ◆ Birla Corporation Ltd, Uttar Pradesh & Madhya Pradesh
- ◆ Eco Cements Ltd, Bihar
- ◆ Italcementi Group, Tamil Nadu
- ◆ Meghalaya Cement Ltd, Meghalaya
- ◆ Reliance Infrastructure Ltd, Maharashtra
- ◆ Votorantim (formally Shri Digvijay Cement), Gujarat

International

- ◆ Diamond Cement Ltd, Mali
- ◆ Kuwait Cement Company, Kuwait
- ◆ Maweni Limestone Ltd, Tanzania
- ◆ Shayona Cement Company Ltd, Malawi
- ◆ West African Cement Company, Togo



60 TPH Cement Grinding Unit in Nagpur

Vertical Roller Mills

Under license from UBE, WIL has successfully engineered, supplied and commissioned 6 VRMs for raw material, coal/petcoke, slag and clinker grinding applications. UMC's own installation list includes more than 520 VRMs all over the world.

WIL makes smaller VRMs upto 3.4 m table diameter fully in-house. For larger VRMs also, WIL makes a large number of parts in-house.

Total installation of 6 VRMs in India and abroad in association with UBE Machinery Corporation (UMC), Japan

What we offer – VRM of UM series

- ◆ Spring type with 2 rollers
- ◆ Hydraulic type with 3 / 4 / 6 rollers
- ◆ With the current trend to adopt large capacity ranging from 500-10000 TPD, UBE has developed new 6 roller mills suitably designed to achieve higher capacity; increase efficiency and lower costs as compared to conventional VRMs

Applications

- ◆ Raw material grinding
- ◆ Coal/petcoke grinding
- ◆ Clinker grinding (Cement Mill)
- ◆ Slag grinding (UM-SN & UM-SR series)
- ◆ Pre-grinder applications

Ball Mills

With over 150 Ball Mills supplied worldwide, WIL is the largest supplier of Ball Mills in India.

Dia 3.8 m Slide Shoe Mill

Backed by a strong engineering base and in-house manufacturing capability, WIL has strived hard to remain at the forefront of technology through continuous upgradation of technology from its collaborations.

WIL can supply ball mills for dry grinding of

- ◆ Raw Material for cement production – (limestone, iron ore, clay, sand, etc)
- ◆ Clinkers, gypsum and other additives
- ◆ Slag
- ◆ Coal / petcoke / lignite, etc

Key Features of Ball Mills

- ◆ Indigenous central drive with planetary gear box
- ◆ WIL design flow control diaphragm
- ◆ Slide shoe bearing
- ◆ Boltless lining plates

>> WIL can also provide roller press with ball mill solutions (system design to commissioning) to meet customer requirements for grinding applications.

Separators

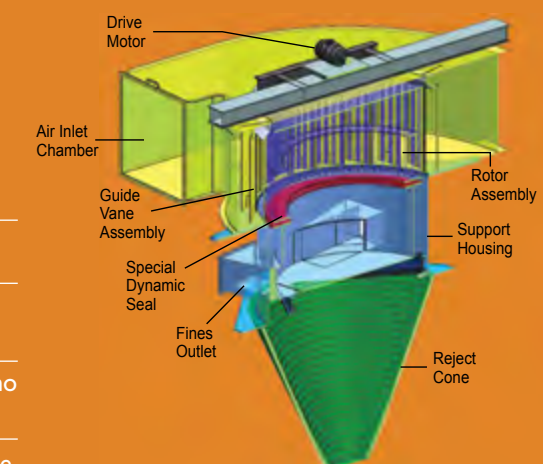
WIL offers the proven 3rd generation dynamic separator equipped with the latest features. WIL high efficiency separators can be retrofitted into existing ball mill or installed in new mills. **Having supplied more than 60 separators worldwide**, WIL separators boast of a compact design and low maintenance costs.

Key Features of Separators

- ◆ Side draft design with single volute entry and state-of-the-art dynamic seal
- ◆ Suspended rotor design with all bearings within the gearbox
- ◆ Proven drive shaft

Advantages

- ◆ Lower power consumption and lower pressure drop
- ◆ Low maintenance of bearings and no wear on drive shaft
- ◆ Easy access and overall maintenance



WIL has also developed a separator specifically for separation of fine fly ash from coarse fly ash received from power plants to facilitate its mixing directly with OPC.

Pyro Section

Preheater with WIL Combustion Chamber

The preheater and precalciner offered by WIL is based on the world renowned Reinforced Suspension Preheater (RSP) precalcination technology absorbed during its technical collaboration with Onoda Engineering.

As a result, WIL offers energy efficient and cost effective solutions with performance guarantees for low heat consumption and specific power consumption.

Key Features of WCC

- ◆ Firing of coal in oxygen-rich air from cooler
- ◆ Easy adaptability for using alternative fuels
- ◆ Lower NO_x/SO_x emissions
- ◆ Low pressure cyclones
- ◆ High collection efficiency of top stage cyclones
- ◆ Complete combustion in the calciner
- ◆ High degree of precalcination at the kiln inlet



>> WIL has successfully engineered, supplied and commissioned 48 such installations of various capacities and gained ample experience in engineering and execution of pyro section with capacities up to 6000 TPD.



Rotary Kilns

The largest size supplied by WIL is of 5.0 m dia x 80 m long. Equipped with superior technical expertise, WIL can design and manufacture rotary kilns upto 6 m dia.

Key Features of Rotary Kilns

- ◆ Efficient pneumatic inlet seal
- ◆ Modern graphite block or Lamella type outlet seal
- ◆ Hydraulic thrusters for automated kiln movement
- ◆ Modern multi channel coal burner for efficient combustion of coal
- ◆ Interchangeable system of kiln tyres and support rollers

>> Total installations of Rotary Kilns by WIL are 48 in India and abroad.

Reciprocating Grate Cooler

WIL has developed its own static inclined grate Walchand Clinker Distribution System (WCDS) technology for improving heat recuperation efficiency of the cooler. The grate cooler is also equipped with improved low spillage grate plates to minimize the leakage of false air and wear of the grate plates.

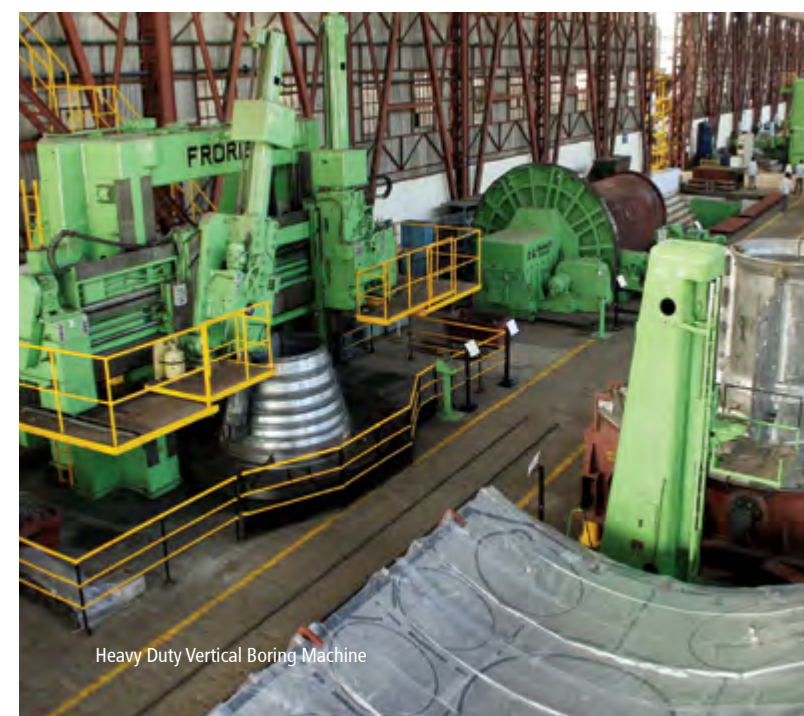
Total installations of Grate Coolers by WIL are 45 in India and abroad.



Machining for girth gear flange on Bertram VTL for 1500 TPD Clinker / 2000 TPD Cement plant



Series of Horizontal Boring Machines



Heavy Duty Vertical Boring Machine

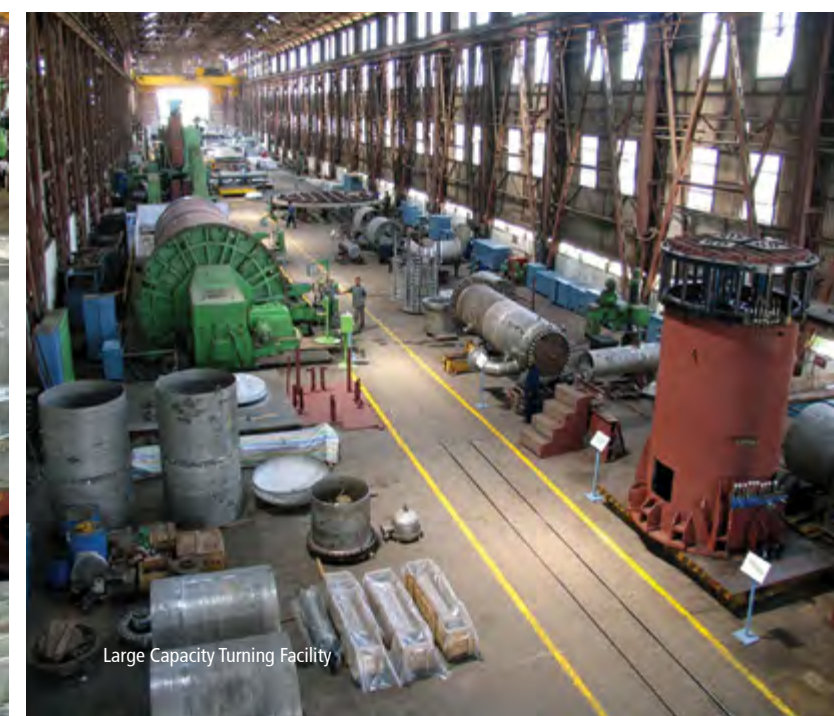
Manufacturing Facilities

Highlights

- ◆ Area under the crane: 56000 sq mtr
- ◆ Single piece lifting capacity of 150 T
- ◆ Plate bending capability up to 200 mm
- ◆ Large lathe for machining diameters up to 6.5 m
- ◆ Sophisticated automatic welding systems capable of precision welding of exotic materials
- ◆ Complete in house set up to carry out NDT such as X-RAY, UT and destructive testing on test bars

Quality Assurance & Control

At WIL, elaborate quality systems are laid down and practiced from design to commissioning of jobs to ensure that they are manufactured to meet the requirements of National & International Standards such as ISO, ISI, ASME, IBR, ASTM, API, ANSI, DIN, BS, AGMA, TEMA, etc. Periodic quality audits are conducted to ensure effectiveness of the quality systems.



Large Capacity Turning Facility



1000 TPD Cement plant in Andhra Pradesh

About WIL

Walchandnagar Industries Limited (WIL) is an ISO 9001: 2008 certified heavy engineering conglomerate specializing in turnkey project execution and hi tech manufacturing, catering to customers across the globe.

WIL offers an entire spectrum of services from Design, Engineering, Manufacturing to Erection and Commissioning of plants and machinery for the Cement, Sugar, Boiler, and Mining industry; Hi-tech manufacturing of critical and complex components for Nuclear, Defence, Aerospace and Missile sectors and Engineering products like heavy duty gearboxes for marine and industrial applications, castings and precision instruments.

Why WIL

- ◆ Quality culture
- ◆ State-of-the-art manufacturing set up
- ◆ Assurance of quality of raw material
- ◆ Superior project management expertise
- ◆ Strong technical and engineering support
- ◆ Established track record and experience
- ◆ Compliance to codes and specifications
- ◆ Superior after sales service
- ◆ Supply of genuine spare parts
- ◆ Quick availability of spare parts

Our Global Presence

Congo • Dubai • Ethiopia • Ghana • Guinea • Indonesia •
Kuwait • Malawi • Mali • Nepal • Niger • Tanzania • Togo • Zambia

Other Business Areas

Aerospace • Boiler • Coal Handling & Washery • Defence • Foundry • Gear Boxes • Mining & Metals
Missile • Nuclear • Precision Instruments • Process Equipment • Steel Plant Equipment • Sugar



Marketing & Projects Office

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