

WALCHANDNAGAR INDUSTRIES LTD.

Sugar Plants and Machinery
End to End Turnkey Solutions...





Aerial view of Walchandnagar Plant

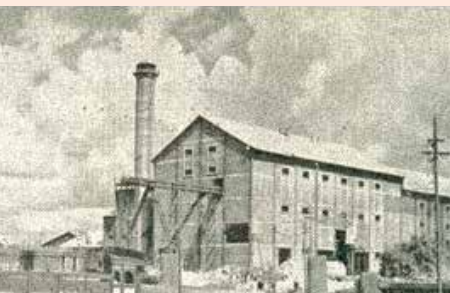
About WIL

Walchandnagar Industries Limited (WIL), India 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 sugar, boiler, cement and mining industry; Hi tech manufacturing of critical and complex components for nuclear, defense, aerospace and missile sectors and Engineering products like heavy duty gearboxes for marine and industrial applications, castings and precision instruments.

A perfect blend of superior technical expertise, sound project management capabilities as well as a relentless commitment to the highest standards of quality, ethics and efficiency is what makes WIL a preferred supplier and solution provider of choice.

WIL is a pioneer in India in the field of complete sugar projects on turnkey basis and has also absorbed the technology from SKODA, Czechoslovakia in 10 years of its partnership. WIL has patented certain technologies that gives WIL a premium supplier status.



Krishna SSK Karad, India as in 1961, First ever indigenous Sugar Plant



Kagera Sugar Ltd. Tanzania



2500 TCD Sugar Plant with 12 MW Cogen Power Plant
Indreshwar Sugar Mills, India



5000 TCD Sugar Plant,
Gem Sugar Ltd., India

Salient Features of Cane Crushing Mills

1. Less Top (Apex) Angle

- Less horse power consumption
- Less re absorption

3. High Eccentricity

- Ensures free floating of top roller
- Less power consumption

5. Hinged Side Covers

- The side cover can be used as a platform for bottom roller maintenance

7. Planetary Gearboxes For Mill Drive

WIL has successfully designed, manufactured and supplied Planetary Gear Boxes for sugar and cement industries and are in demand because of the flexibility in designing. These gearboxes increase the operational efficiency and are more apt than helical, spur and worm gearboxes.

For Sugar Mill applications Planetary Gear drives are found 10% more efficient as compared to conventional drives. WIL has designed and manufactured planetary Gear Boxes, as per customer's requirements for various applications up to 1500 HP for sugar mill drive and 3500 HP for other applications.

Advantage of using a Planetary Gearbox

- The gearbox drive increases the efficiency and provides extremely low speeds
- These gearboxes deliver high reduction ratios and transmit a higher torque
- These gearboxes are compact and lightweight, requiring little installation space
- Chances of catastrophic failure due to "NO LUB OIL" are low since gear box is partially self-lubricated by splash due to rotating elements being immersed in lube oil maintained to a level in the casing
- Foundation requirement is very less
- Installation is very easy and can be completed in a short period

2. Vertical Adjustment Of Rollers

- No effect on trash plate width with roller opening and wear
- Less limitation on roller adjustment due to trash plate width
- Relatively less change in apex angle over operating range

4. Trash Plate Fixed With Vertical Bolts

- Bolts can be tightened without disturbing main roller
- Reduced maintenance

6. Crown Pinion With Special Tooth Profile

- Accommodate large varying centers

8. Rope Coupling For Mill Drive

- Multi misalignment "rope" type coupling with specially designed polyester ropes for connecting the driving and driven halves through the compression plate



Our Success Stories

- **1st** company from India to export sugar plant and machinery (1500 TCD cap) to Africa in 1976
- **60+ years** of proven experience
- **80+** green field sugar projects commissioned
- **100+** major expansion projects
- **Up to 26000 TCD**
daily cane crushing capacity
- **650+** different sizes of mills supplied worldwide
- **3400+** centrifugal machines supplied in India and abroad

Our Product Range

- Centrifugals
 - Batch Type
 - Continuous
- Process House Equipments
- Milling Plants
- Heavy Duty Swing Hammer Cane Fibrizer
- Efficiency and Capacity Optimization Projects
- Refinery Machinery

Salient Features of Boiling House Equipment

- Effective Heat recovery by optimum design leading to savings in steam & power consumption
- High efficiency batch type centrifugal machine with latest drive system using VFDs

Energy Saving



Power Saving Devices

- VFDs
- Planetary Gear Boxes
- Antifriction Bearings
- Energy Efficient Motors
- Rope Couplings

Steam Saving Devices

- Direct Contact Heaters
- Condensate Flash Recovery
- Molasses Conditioning by waste heat of noxious gases
- Sugar melting by 4th Effect Vapors
- Super heated wash water of centrifugals from condensate flash vessel
- Eliminating use of live steam from Process House
- Use of Falling Film Evaporators for extensive bleeding



Continuous Centrifugal Machines



Batch Type Centrifugal Machines

WIL Manufacturing Facilities

Highlights

- Area under the crane : 56000 sq. Mtr.
- Single piece lifting capacity of 150 T
- Overhead crane with 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
- Modern measuring instruments for precision measurement of dimensions
- Well trained & experienced work force



Quality Assurance & Control

- Elaborate quality systems to meet the requirements of National & International Standards.
- WIL has approved by reputed Inspection Agencies and have successfully executed many projects to their satisfaction.



Complying With Various Codes

WIL Manufacturing conformity to codes: IBR, ASTM, ANSI, DIN, BS, AGMA, TIMA & ASME



Approved by Inspection agencies like: EIL, LLOYDS, PDIL, BUREAU VERITAS, UHDE, TOYO, NTPC, BARC, IBR, DAE, FCI etc.

Critical Materials Handled

Cladded steel (Stainless steel, Titanium cladding), Alloy steel (including varieties of Cr, Mo steels), Stainless steels (Austenitic, Martensitic & super duplex types), High strength Maraging steel, Vanadium steel, Inconel, Monel, Incoloy, Titanium alloys, Aluminum alloys, Cobalt alloys etc.



Inspection Facilities:

1. 3 D Co-ordinate Measuring Machine with working Range: 1.2 x 1 x 0.6M
2. Gear Testing Machines for Dia 1 M & Face Width 260 mm
3. Dynamic Balancing Machine for Job Dia 2.5 M & Length upto 2.5 M
4. Load 6 T, Sensitivity 0.8 Gms-Cms
5. Testing machines for hardness, impact, tensile & compression
6. Ultrasonic, Gamma Ray, X-Ray Testing
7. Magnetic Crack Detector, Noise & Vibration Tester
8. Helium Leak, Vacuum Testing
9. Optical Tooling
10. Metallographic Microscope, Universal Microscope
11. Electrolytic Analyser
12. Profile Projector





44MW Cogeneration Power Plant [With 2 x 115 TPH, 110 kg/cm2 (g)]

Other Business Areas

Boiler | Cement | Gear Boxes | Mining and Metals | Process Equipment | Defence and Missiles | Aerospace | Nuclear | Foundry | Precision Instruments |

Our Customers

International

- Miwani Sugar works, Kenya • West Kenya Sugars , Kenya • Kagera Sugar, Tanzania • Kinyara Sugar Works, Uganda
- Metahara Sugar Co. Ethiopia • Tendahao Sugar Factory, Ethiopia • The Nigerian Sugar Co. Ltd., (Bacita) Nigeria
- Bangladesh Sugar Corporation • Eastern Sugar Mills, Nepal • Gula N S, Malaysia • IngenioProvidencia, Colombia, South America
- Indu Shankar Chini Udyog Limited, Nepal • Mittal Steel Annaba, Algeria • Nagarjuna International (Vietnam) Limited
- Sri Ram Sugar Mills, Nepal and many more...

Domestic

- Bajaj Hindustan Ltd. • Balrampur Chini Mills – Kumbhi • Doodhganga, Chikodi • Empee Sugars • Food Fats & Fertilizers Ltd.
- HPCL Biofuels • IndBarath Energies • Indreshwar Sugars Ltd. • KM Sugar • Laxshmi Gayatri • Nandi S.S.K.N • Parle Bisuits Pvt. Ltd.
- Purna SSK Ltd. • Raghurama Renewable Energy Ltd. • Shri Balaji Biomass Power Ltd. • Tamil Nadu Electricity Board • Ugar Sugar
- Warana SSK Ltd. and many more...



Marketing & Projects Office:

Walchandnagar Industries Ltd.
Walchand House, 167A, 2/8 + 2/9, Karve Road, Kothrud, Pune 411 038, Maharashtra, INDIA
Ph: +91 (020) 30252400/700
Email: wil@walchand.com