



EXPANDING OUR CAPACITY AND CAPABILITY

Our manufacturing excellence is underpinned by our integrated value chain and our world-class operational set-up. These factors help us minimise resource use and enables us to continuously enrich our portfolio through innovative, value-added products and services. By expanding our manufacturing footprint, sweating our assets, innovating and adapting to requirements, we are being able to capture the advantages of scale.

57.50%

Cement capacity utilisation

9.61 MT

Cement/ GGBS production

With a total 4.57 MTPA clinker and 16.6 MTPA grinding capacity, one integrated unit, two clinkerisation unit and six grinding units, we are constantly raising the bar on our performance.

FY 2022-23 HIGHLIGHTS

Optimising resource consumption and maximising production

Key inputs

- 1 Integrated unit
- 2 Clinkerisation unit (including JV)
- 6 Grinding units
- 16.6 MTPA cumulative capacity

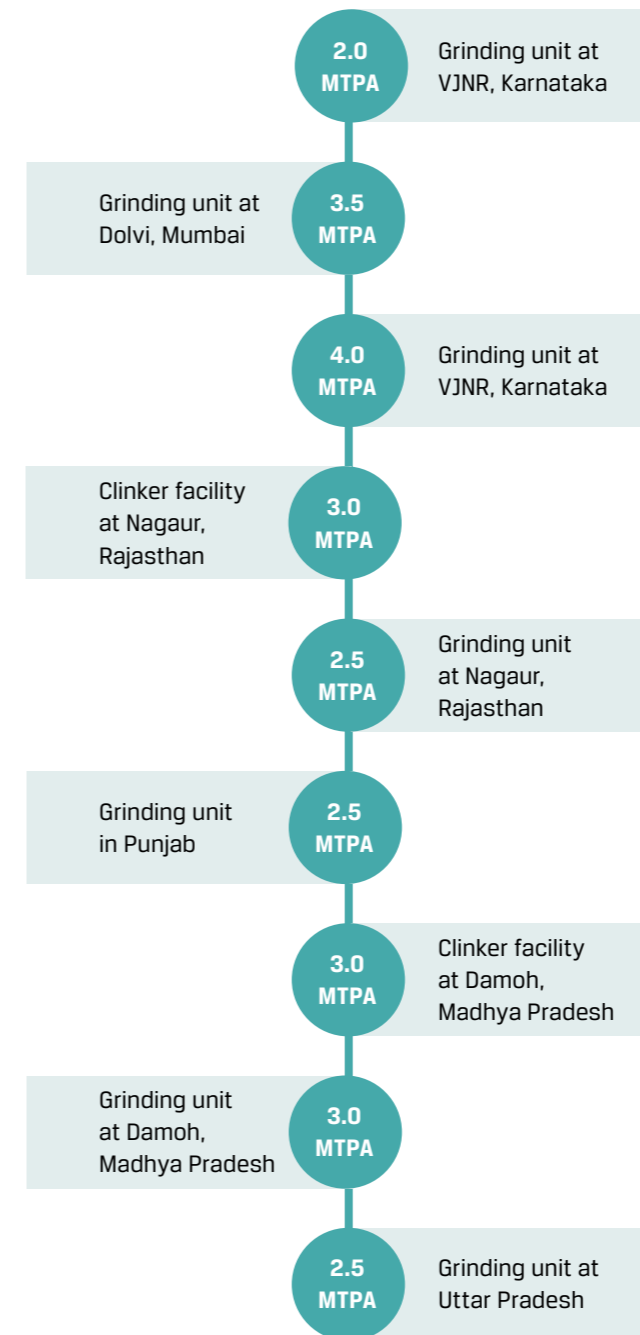
Key outcomes

Capacity utilisation	57.5%
Thermal Substitution Rate	8.14%
Specific power consumption (Grinding)	32.57 units
Specific power consumption (Clinker)	54.64 units
Specific heat consumption (Grinding)	64.80 Kcal
Specific heat consumption (Clinker)	738 Kcal

Adding to our capacity

To diversify our market presence and capitalise on the market opportunities with our sustainable products, we have been consistently investing to scale up our production capacity. We are committed to increasing our capacity to 26 MTPA by FY 2025-26.

Planned capacity additions



Scaling up to improve efficiency

At Nandyal

8,500 TPD

Kiln capacity up from 6,500 TPD

10 MW

Tie-up with JSW Energy for solar power

12.2 MW

Investment in WHRS

At Vijayanagar

+2 MTPA

Increasing plant capacity by Nov 2023

8 MW

Tie-up with JSW Energy for solar power by Sept 2023

Other additions

+2 MTPA

Increase in capacity at Dolvi in July 2023

+1.36 MTPA Clinker capacity and 14.7 MW WHRS

JSW Cement FZC (JV) by FY 2023-24

4,000 TPD Clinker capacity and 8.9 MW WHRS

Shiva Cement goal by June 2023

MANUFACTURED CAPITAL

Increasing alternative material use

To increase our reliance on alternative raw materials to conserve natural resources, we have started the addition of alumina-rich steel-making slag as a replacement for expensive aluminium laterite at Nandyal for clinker making. We are also utilising AOD slag in cement grinding. We also utilise waste hot gases from the clinker plant for slag drying in Nandyal plant, thus minimising the use of coal or diesel. In Salem, utilising hot air from the JSW Steel Sinter Plant for slag drying.

31,424 tonnes

Waste co-processed in environment-friendly manner

Maintaining product quality

We maintain best-in-class testing norms and confirm to IS 269 (OPC), IS 455 (PSC), IS 16415 (Composite) in cement and IS 16714 for GGBS. We are in the process of getting NABL accreditation for four concrete labs in Salboni, Dolvi, Hyderabad and Kolkata.

For raw material testing, to further strengthen our capability, we have installed microscope and glass content testing equipment for GGBS. As part of our endeavour to increase the usage of alternate fuel, we have put up a dedicated alternate fuel testing facility at Nandyal. This includes equipment such as Auto Titor, Flashpoint tester and Chloride testing facility.

Achieving consistent volume growth

Despite a slowdown in the Indian cement industry during FY 2022-23, we persevered with an aggressive strategy that helped us put up a strong performance.

Surging production and sales

Cement Sales Volume (MMT)

FY	Sales Volume (MMT)
FY23	5.76
FY22	5.67
FY21	5.55

GGBS Sales Volumes (MMT)

FY	Sales Volume (MMT)
FY23	3.85
FY22	3.13
FY21	2.46

Total Cement and GGBS (MT)

FY	Total Volume (MT)
FY23	9.61
FY22	8.80
FY21	8.01

Economising fuel usage

All our plants continued to optimise energy consumption in FY 2022-23 by optimising processes and increased use of technology.

Fuel consumption

FY 2022-23	SHC (Kcal/kg)	
	Grinding	Kiln
Vijayanagar	69.66	-
Nandyal*	21.07	737
Dolvi	59.30	-
Salboni	57.54	-
Jajpur	56.05	-
Shiva	-	908
Fujairah	-	721

* At Nandyal, no fuel is used for OPC grinding and hot air from kiln is partially being used for GGBS Grinding.

Fuel replacement

Nandyal TSR (%)	
FY 2021-22	7.03
FY 2022-23	8.14
Increase	15.78

Power consumption

FY 2022-23	SPC(kWh/T)	
	Grinding	Kiln
Vijaynagar	29.23	-
Nandyal	34.63	57.47
Dolvi	34.52	-
Salboni	33.42	-
Jajpur	30.52	-
Salem	34.65	53.03
Fujairah	-	-

FY 2022-23 developments

- At Jajpur, we reduced specific power consumption by 7.30%; power consumed in FY 2022-23 was 30.52 kWh/T of cement against 32.91 kWh/T of cement in FY 2021-2022
- At Salboni, we reduced specific power consumption by 2.0%; power consumed in FY 2022-23 was 33.52 kWh/T of cement against 34.11 kWh/T of cement in FY 2021-2022

Increased dispatches during FY 2022-23

- Overall dispatches of cement + GGBS increased by 9.2% to 9.63 MMT in FY 2022-23 compared to 8.82 MMT in FY 2021-22
- Overall GGBS dispatches increased by 23.6% to 3.85 MMT in FY 2022-23, compared to 3.12 MMT in FY 2021-22
- Vijayanagar dispatches of cement + GGBS increased by 11% to 3.6 MMT in FY 2022-23 against 3.24 MMT in FY 2021-22
- Dolvi dispatches of cement + GGBS increased by 6.3% to 1.95 MMT in FY 2021-22 compared to 1.83 MMT in FY 2021-22

Stepping up production of green products

Our green cement products offer among the lowest clinker ratios in the world, aligning with our commitment to preserving natural resources and energy. As a result of our planned product mix, our specific net CO₂ emissions stood at an industry-leading 219.7 kg per tonne of cementitious material in FY 2022-23. We have ventured into the construction chemicals category, that is expected to grow exponentially in the next few years. With advances in green product technologies, this sector will see a dynamic shift from conventional construction mix ratios to extracted byproduct engineered compositions.

