



# Water



We aim to use water judiciously across our operations and have made a conscious choice to rely on recycled or harvested water for all our manufacturing operations. Our water action plan aims to achieve zero liquid discharge and strives to implement rainwater harvesting at all our plants.

## Key highlights

**10,02,964 KL**  
Total water withdrawn

**1,23,330 KL**  
Total water recycled/  
reused

**172 L/t**  
cementitious material  
specific fresh water  
consumption

**3X**  
Water positive

## Water management

Water is essential for us and for the communities around our plants. We have developed water harvesting structures and converted mined out pits into reservoirs. Water meters are installed across our plants and specific water consumption reports are generated. We have adopted the concept of Reduce, Recycle/Reuse and Recharge.

Water conservation is a key priority for us as we strive to address the pressing challenges of depleting groundwater levels, frequent droughts and erratic rainfall patterns. The spray nozzles in the Vertical Roller Mill have been modified to use less water. Installed air-cooled systems instead of water cooled systems.

At Mattampally, we are also using the reject water from CPP as process water for our cement plant and achieved absolute zero water discharge. The blowdown water from CPP Boiler is being used as makeup water for Auxiliary Cooling Tower. We only use recycled and treated water through drip and sprinklers for gardening/plantations. STP recycled water is also being used in the grinding process.

At our Gudipadu plant, we have constructed rainwater harvesting pits at the workshop and the mines office area. We have replaced the membrane in the R.O. (Reverse Osmosis) plant to reduce water rejects by 64.8%.

At the Dachehalli plant, we have constructed a Wetland STP at the plant and reduced fresh water consumption by 10 KLD. At our Jeerabad plant, we recycle WHR wastewater for use in green belt development and road dust suppression and it has resulted in 15 KLD freshwater savings. Crusher tunnel seepage water is used for plantation along with utilisation of RO reject water for cleaning of industrial canteen utensils and green belt development. This has led to approximately 12 KLD water savings. Treated rejected water from A 200 KLD STP Sewage Treatment Plant is also being used for gardening and plantation. We also constructed rainwater harvesting pits and 12 recharge borewells for rainwater harvesting at Jeerabad.

Rainwater harvesting structures have also been constructed at Jajpur and Mattampally.



 Limestone Mining at Gudipadu Mines, Andhra Pradesh



## WATER

### Total water withdrawal

Parameters	Units	FY 2025	FY 2024	FY 2023
Ground Water	kilolitres	343,840	243,714	285,105
Surface Water	kilolitres	655,048	630,198	499,775
Water from Municipality	kilolitres	4,076	2,520	1,149
Total water withdrawal	kilolitres	1,002,964	876,432	786,029
Water recycled and reused	kilolitres	123,330	116,515	80,653

### Rainwater harvesting

Rainwater harvesting structures are crucial for replenishing groundwater reserves and ensuring sustainable water supply for both plant operations and local communities. Currently, Bayyavaram has 3 existing RWHPs, while Dachepalli operates 11, Jajpur has 1 RWHP, and Mattampally has 3 RWHPs along with 52 recharge pits. Jeerabad maintains 14 RWHPs and Gudipadu has 19 existing pits. Through these efforts, we continue to prioritise water security and environmental responsibility across all our locations.



Dachepalli Plant, Andhra Pradesh

### CASE STUDY



## Drip irrigation system for green belt development at Jeerabad

At Jeerabad, where arid conditions and limited water resources pose constant challenges, we implemented a drip irrigation system around the limestone crusher plant to promote sustainable green belt development. This initiative aims to improve vegetation cover, enhance dust control and set a benchmark for efficient water management. Manual watering proved to be inconsistent and inefficient.

The team designed a sustainable drip irrigation network with pipes, emitters and automated timers. This system has reduced water consumption by approximately 40%, and manual labour requirements have been cut by more than half. It has also strengthened the plants' drought resilience, enabling them to withstand harsh climatic conditions.

**40%**  
Reduction in irrigation water consumption at Jeerabad

### CASE STUDY



## Blue Drop STP at Dachepalli

At our Dachepalli Plant a Blue Drop STP is installed which is an Integrated Constructed Wetland also known as Phytoremediation System. These engineered systems use the natural filter media and organisms

to purify the wastewater streams. Traditional STPs use chemicals and fossil energy for recycling of water. In order to limit the use of chemicals and find a sustainable solution, we have implemented a 'Blue Drop STP' at our Dachepalli Unit.