

Reliable and Energy Efficient Pumps For Sugar Industry

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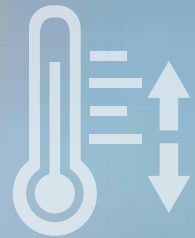


Who we are

Founded in 1872 as Kupfer- und Messingwarenfabrik in Dortmund, Wilo has evolved from being a local specialist to a global player. As the majority shareholder with a stake of approximately 90 percent, the Caspar Ludwig Opländer Founded ensures the company's continuity and independence. An uncompromising customer-driven mind-set, immediate market proximity and, in particular, our culture of innovation have made us who we are: one of the worldwide leading manufactures of high-tech pumps and pump systems.

What we are

Wilo is a premium supplier in the field of building services, water management and industry. This leading position drives us to maintain our superiority. For our customers, we make complex technologies user-friendly, simple to operate energy-efficient and powerful. The main focus of our activities is therefore on the people. We offer them outstanding products, system solutions and services. In this spirit, our brand promise "Pioneering for You" stands for maximum quality of life.



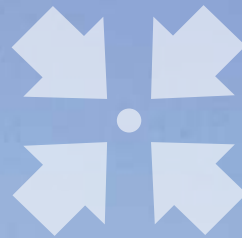
Building Services

In order to maximise the efficiency of buildings, it is becoming increasingly important to use innovative and energy-saving systems incorporating components that are optimally matched to one another. This applies to detached and semi-detached houses, public buildings, industrial buildings, office buildings, hospitals and hotels: Wilo offers energy-efficient solutions for heating technology, air-conditioning, water supply and wastewater disposal.



Water Management

All life is completely dependent on water – however, this valuable element is becoming increasingly scarce. The ability to ensure the purification and supply of water is rapidly developing into a global challenge. Wilo offers professional solutions designed to meet the complex requirements involved in the production of potable water, water purification, water pumping, water treatment and waste-water disposal. Wilo water management pumps and systems set benchmarks in the areas of technical performance, efficiency and sustainability.



Industry

Wilo manufactures pumps that guarantee the highest level of reliability, flexibility and efficiency. Our strengths lie in particular in applications for peripheral equipment for industrial processes. Our acknowledged expertise is the result of a sophisticated product portfolio, solutions that are precisely tailored to customer needs, pooled knowledge and an effective quality management system.



Chinchwad, Pune Plant

WILO Mather and Platt Pumps Pvt. Ltd.

Mather and Platt started its Indian operations in 1913 from Kolkata, and has been fulfilling the need of water supply for more than 100 years in India for segments like building services, water management and industries.

We started our operation at Chinchwad works in Pune, Maharashtra in year 1959.

Mather and Platt Pump Ltd became part of WILO SE in the year 2005

And in year 2014, WILO Mather and Platt Pumps Ltd. Become WILO Mather and Platt Pumps Pvt. Ltd.

In the year 2009 a new state of art manufacturing facility covering over approx. 6000 sq. meters has been built at Kolhapur around 260 km from Pune to manufacture the latest high efficiency products of Wilo India.

The Pune & Kolhapur plants have acquired ISO 9001, ISO 14001 and OSHAS 18001 and all products are CE certified.



Kolhapur Plant

Water is life.



Quality. This is what matters.

Deviations of 70 micrometres – a hair's breadth – are just visible to the naked eye. This is still too much tolerance for real quality and this is why our quality assurance system combines the latest measuring methods with extensive testing procedures. These include, for example, an endurance test in which our pumps run non-stop under full load. This test and the most demanding eagle-eyed technicians mean that even the smallest of flaws do not go undetected. Only products that pass our tests with flying colours are put to use in your company. Quality means that we question every aspect of our products and actions, so that you are left in peace.

Service. Wherever you need us.

Flexibility is one of the most important qualities in the business world of today. Not only for the product range or service, but also spatially. Our specialists for development, quality assurance and production work in close cooperation with you when integrating our pumps in your production process. That begins with individual consulting during the planning stage, and goes far beyond installation and connection. A well-trained and worldwide active service department is another essential feature of our partnership philosophy. We're only happy when your business runs as well as our pumps.

Wilo service worldwide:

- More than 1500 Wilo technicians
- Available in more than 60 countries
- Customer driven solutions
- Excellent supply performance
- Fast and in best quality

Wilo service in India:

- More than 200 Wilo technicians
- More than 100 Wilo service partners
- Available across the country
- Customer driven solutions
- Excellent supply performance
- Quick and reliable
- Each our regional office is having team of service persons
- At Pune, we have centralized service team
- We have appointed service dealers who are having trained service team from M+P
- We are doing energy audit of Industrial plant
- We carry out retro fitting jobs also

In India Sugar is manufactured from sugarcane. Over 510 sugar mills with different capacities are in operation as per Indian Sugar Mills Association (ISMA) producing up to 19.2 million tonnes (MT) of sugar.

Sugar industry which is concentrated in sugarcane growing areas has emerged as very active force in last few years & is dominated by co-operatives.

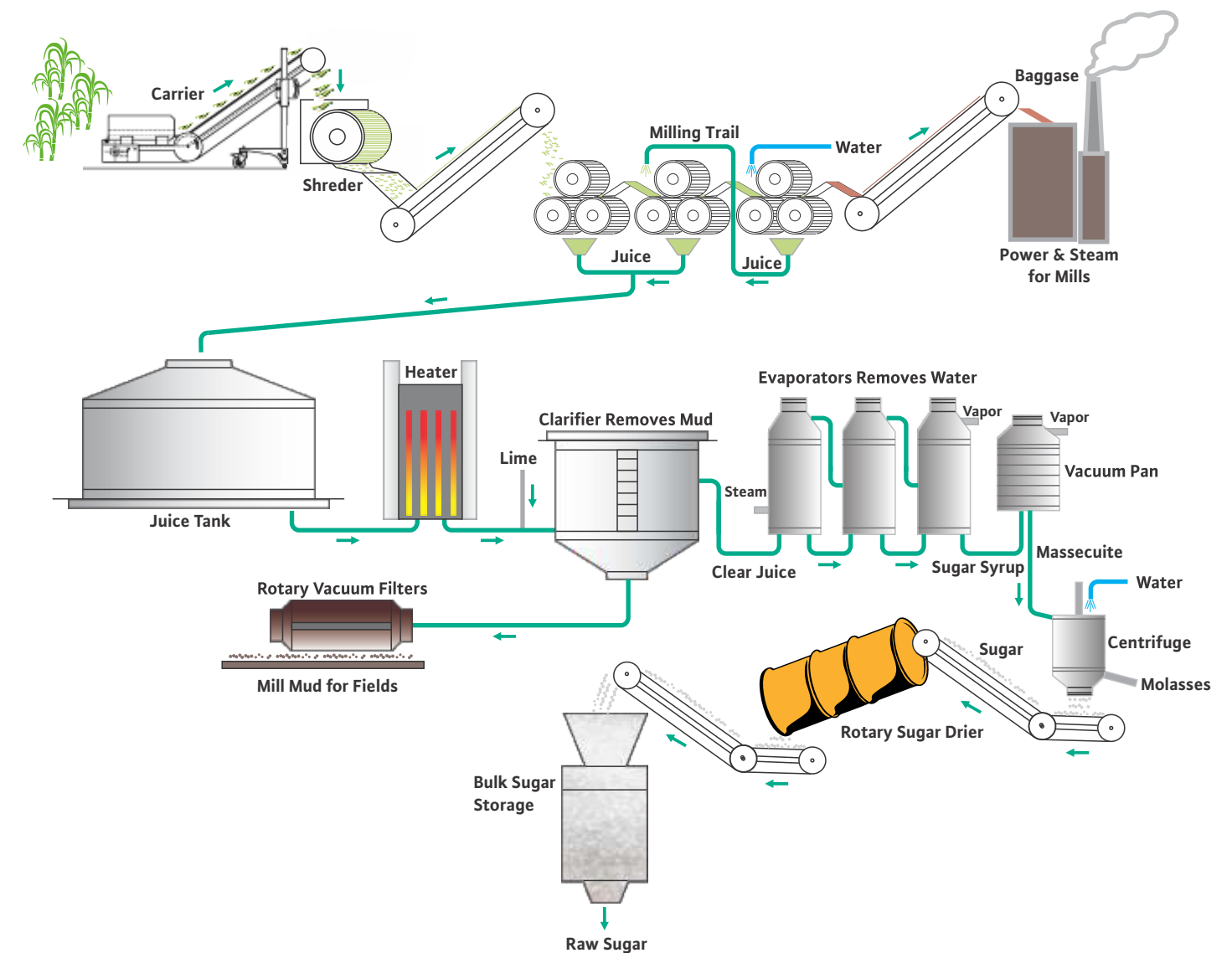
Industry depends upon availability of sugarcane. Crushing season starts from October/November & last up to April/May.

Typical Set Up:

For years together 2500 TCD (Tonnes crushed per day) was considered as an ideal plant size by sugar industry but now days it has expanded from 3500 TCD to 7500 TCD.

Now from 2018 some plants has capacity upto 10,000 TCD

Generic Process chart of a Sugar Industry



Mill Unit:

- Sugar cane is unloaded on feeder. Then it passes through cane carrier, leveller and enters into first mill then subsequently passes through chain of mills.
- Juice is extracted from these chain mills & to get maximum extraction of juice hot is sprinkled on bagasse & then once again it send to last mill.

Scope for pump application:

- For Raw juice & unscreened juice non-clog pumps are recommended.
- For imbibition water & screened juice end suction pumps are recommended.

**Boiling House /Process unit:**

- In this unit screened juice is heated by heaters to remove impurities and collected into in tower.
- From tower by gravity it goes to sulphitation tank where chemicals are added and this juice is again passes through heater & collected into settler tank.
- The clear juice is from settler tank (clarifier) is transferred for evaporation.

Scope for pumps application:

- End suction for pumps for heated juice.
- End suction pumps for Sulphated juice & milk of lime.

Clarifier /Mud Clarifier/Settler tank:

- Mud from settler tank/clarifier is collected in mud tank & remaining juice is extracted from this mud & transferred to weightment tank.

Scope for pumps application:

- End suction pump for recirculation juice.
- Non – Clog pump for mud transfer & raw juice.
- End suction pumps for cake wash.

**Evaporation:**

- In this process juice from clarifier is transferred to evaporators & is heated by evaporation method & gets converted into thick syrup.
- Then this syrup is superheated in vertical juice heaters.
- Then this syrup tower where it undergoes sulphitation process then sulphited syrup goes to pan section.
- The evaporator is heated with help of steam and gets condensed into hot water during process.

Scope for pumps application:

- End suction pumps for hot water recirculation, milk of lime, caustic soda & condensate pumps.
- Non – clog pumps for syrup transfer pump.
- End suction & split case pumps for injection water.

**Pan Section:**

- In this process syrup from evaporator is passes through series of heating chambers where syrup is again boiled and crystallization starts.
- In centrifuge action sugar is cleaned with injection of hot water.
- Then this sugar is passes through sugar dryer where is there is classification of sugar is done as per sugar crystal sizes.
- Then sugar is transferred to sugar storage shed.

Spray Pond /Cooling Tower:

- Hot water collected from pan section & evaporator is transferred to spray pond & cooling tower where this hot water is cooled and again is used for required process.

Scope for pumps application:

- End suction/split case pumps for cooling tower.
- End suction pumps for make water.

Captive power plant:

- In this power plant steam & power is generated.
- By using bagasse as fuel to heat the boiler, from water steam is generated is used for evaporators & power generation.

Scope for pumps application:

- Multistage pumps for boiler feed water.
- End suction pumps for recirculation/transfer of water.

	Plant Capacity Application	2500 TCD Pump Model	3500 TCD Pump Model	5000 TCD Pump Model	7500 TCD Pump Model
Mill House	Raw Juice	SK	SK	SK	SK
	Unscreened Juice	SK	SK	SK	SK
	SCREENED JUICE	PISO	PISO	PISO	PISO
	Imbibition Water	PISO	PISO	PISO	PISO
Clarifier	Mud Pump	SK	SK	SK	SK
	Raw Juice Pump	SK	SK	SK	SK
	Clear Juice	PISO	PISO	PISO	PISO
	Filtrate Pump	PISO	PISO	PISO	PISO
	Cake Wash	PISO	PISO	PISO	PISO
	Weighed Juice	PISO	PISO	PISO	PISO
Boiling House/ Process Unit/ Evaporation	Juice Heater	PISO	PISO	PISO	PISO
	Sulphated Juice	PISO	PISO	PISO	PISO
	Condensate For EVAP 1	PISO	PISO	PISO	PISO
	Condensate For EVAP 2	PISO	PISO	PISO	PISO
	Condensate For EVAP 3	PISO	PISO	PISO	PISO
	Condensate For EVAP 4	PISO	PISO	PISO	PISO
	Syrup Extraction	SK	SK	SK	SK
	Phosphate Slurry	PISO	PISO	PISO	PISO
	Milk of Lime Pump	PISO	PISO	PISO	PISO
	Caustic Soda	PISO	PISO	PISO	PISO
	Pan Condensate	PISO / MVI/HELIX	PISO / MVI/HELIX	PISO / MVI/HELIX	PISO / MVI/HELIX
	Injection Pump	PISO/SCP	PISO/SCP	PISO/SCP	PISO/SCP
	Hot & Cold Water	PISO	PISO	PISO	PISO
	Syrup Pump	SK	SK	SK	SK
	Sugar Melt	SK	SK	SK	SK
	Spray Water	PISO	PISO	PISO	PISO
Falling Film	Recirculation Juice	PISO	PISO	PISO	PISO
	Condensate Pump	PISO	PISO	PISO	PISO
	Hot Water	PISO	PISO	PISO	PISO
Fire Water Pumps	Main & Standby Pump	MISO/SCP	MISO/SCP	MISO/SCP	MISO/SCP
	Jockey Pump	MVI/HELIX	MVI/HELIX	MVI/HELIX	MVI/HELIX
Cooling Tower Pumps	Cooling Water	MISO/SCP/FD	MISO/SCP/FD	MISO/SCP/FD	MISO/SCP/FD
	Make Water pumps	MISO	MISO	MISO	MISO
Power Plant	Boiler Feed Pump	Multistage	Multistage	Multistage	Multistage
	Recirculation/Transfer Water	PISO	PISO	PISO	PISO

Note: The above selection of pumps is based on general guide lines however this may vary based on pump capacity and head.
Please contact our Dealer or Sales Department for product offering for Distillery, Co-generation & Utilities.



Horizontal Split Case Pump

Volume flow	upto 18000 m³/hr
Delivery head	upto 270 m
Temperature	upto 120°C

Features

- Ⓡ Mechanical seal/gland packing
- Ⓡ Centerline line mounting for high temp service
- Ⓡ Vertical execution direct drive/shaft extension unit
- Ⓡ Prime mover – Motor/Engine



End Suction Pump as per EN 733

Volume flow	upto 600 m³/hr
Delivery head	upto 150 m
Temperature	upto 120°C

Features

- Ⓡ End Suction top discharge
- Ⓡ Back pullout design
- Ⓡ Conforms to ISO 2858
- Ⓡ Mechanical seal/gland packing
- Ⓡ Grease/Oil Lubricated Bearing
- Ⓡ Prime mover– Motor/Engine

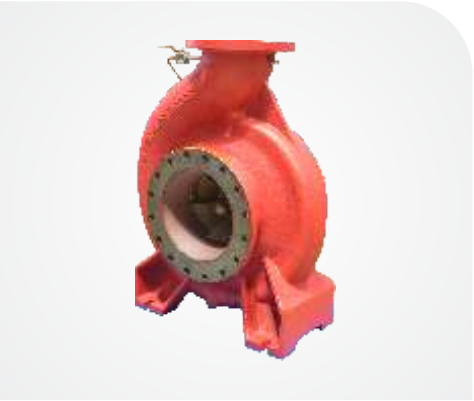


End Suction Pump as per ISO 2858

Volume flow	upto 750 m³/hr
Delivery head	upto 170 m
Temperature	upto 120°C

Features

- Ⓡ End Suction top discharge
- Ⓡ Back pullout design
- Ⓡ Mechanical seal/gland packing
- Ⓡ Grease/Oil Lubricated Bearing
- Ⓡ Prime mover– Motor/Engine



End Suction Pump FD Series

Volume flow	upto 600 m³/hr
Delivery head	upto 150 m
Temperature	upto 120°C

Features

- Ⓡ End Suction top discharge
- Ⓡ Back pullout design
- Ⓡ Mechanical seal
- Ⓡ Grease Lubricated Bearing
- Ⓡ Prime mover– Motor/Engine



Vertical Sump Pump

Volume flow	upto 750 LPM
Delivery head	upto 170 m
Power	upto 15 HP

Features

- ® End Suction top discharge
- ® Back pullout design
- ® Mechanical seal/gland packing
- ® Grease/Oil Lubricated Bearing
- ® Prime mover- Motor/Engine



Vertical Inline pump

Volume flow	upto 155 m³/hr
Delivery head	upto 235 m
Temperature	upto 100°C
Stages	2 to 24

Features

- ® Vertical inline mounting
- ® Antifriction bearing, mechanical seal with EPDM/viton elastomers
- ® Supplied with high efficiency VFD compatible motor
- ® Option of Flame proof motor



Multistage Ring Section Pump

Volume flow	upto 1000 m³/hr
Delivery head	upto 1800 m
Temperature	upto 160°C
Stages	3 to 15

Features

- ® Radial flow impeller with vane diffusers mechanical seal/gland packing
- ® Grease lubricated antifriction bearings
- ® Balance valve design for axial thrust bush bearing/roller bearing
- ® Vertical /centreline optional mounting arrangement



MNC

Volume flow	upto 4446 LPM
Delivery head	upto 3 m
Power	upto 26 HP
Voltage	220 V (Single phase) 415 V (Three phase)

Features

- Self priming and back pull out design for easy maintenance
- Non clog and semi open impeller enables to handle solids up to 40 mm
- Non asbestos PTFE gland packing along with stuffing box arrangement
- Motors are with high operating efficiency and suitable for wide voltage fluctuations
- Replaceable wearing parts and rewind able motor.
- Stator and rotors are coated with rust proof solution for better corrosion resistance.



MPM

Volume flow	upto 2300 LPM
Delivery head	upto 78 m
Power	upto 30 HP
Voltage	220 V (Single phase) 415 V (Three phase)

Features

- Dynamically balanced rotating parts to ensure min. vibration, noise free operation & long bearing life
- Designed for wide Voltage fluctuations



WBW Series Water Filled

- 75 mm - (3")
- 100 mm - (4")
- 125 mm - (5")
- 150 mm - (6")
- 175 mm - (7")
- 200 mm - (8")

Volume flow	upto 2200LPM
Delivery head	upto 348 m
Power	upto 25 HP

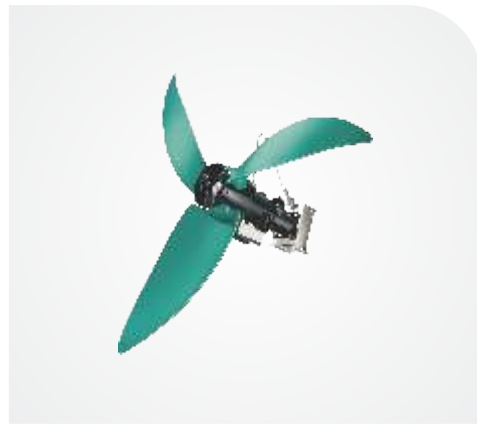


Submersible Sewage Pump

Volume flow	upto 8000 m³/hr
Delivery head	upto 100 m
Temperature	upto 60°C

Features

- ® Non clog free flow, single/multi channel impeller
- ® Free passage size upto 200 mm
- ® Oil barrier chamber with float switch winding, bearing temperature indicator, moisture sensor
- ® Stationary/portable installation, with/without macerator



Mixers

Volume flow	upto 4.25 m³/hr
Temperature	upto 40°C

Features

- ® Submerged operation mode:S1 protection class: IP 68
- ® Two stage planetary gear with exchangeable second planetary gear
- ® Permanently lubricated antifriction bearing
- ® Max submersion depth 12.5 m

Hydro Pneumatic Booster System

Volume flow	upto 800 m³/hr
Delivery head	upto 160 m
Temperature	upto 120°C

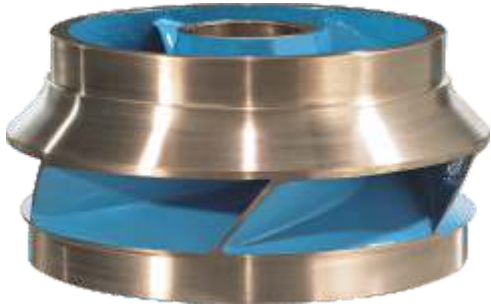
Control Panels

- For various applications like:
- Ⓡ Fire fighting
 - Ⓡ Pressure boosting & plumbing
 - Ⓡ HVAC
 - Ⓡ Drain & mixers

Ceram.
Lifelong corrosion protection.

With ceram, Wilo offers reliable protection against corrosive and abrasive fluids. This solvent-free, ceramic based coating guarantees the perfect corrosion protection of our products.

Ceram coatings are available in different versions (C0, C1, C2 and C3). For use in especially critical fluids, the individual versions can also be combined with each other. With ceram, a cost-effective alternative solution compared to special materials can also be offered.



Ceram quality	Layers	Thickness [mm]	Application
Ceram C0	1	0.4	Complete outer and inner coating
Ceram C1	1 – 3	1.5	Impeller and suction port coating
Ceram C2	1	1.5	Coating of the pump housing (inside)
Ceram C3	1	3	Coating of the pump housing (inside)

Efficient aeration with the Wilo-Sevio AIR.
Thanks to flow-optimised design.

The Wilo disc aerator design is based on considerations regarding flow and strength.

Wilo disc aerators are all factory-tested to ensure that they are within the specified pressure loss range.

The aeration systems are individually configured for every requirement and are characterized by their compact modular design. Depending on the aeration power required, an appropriate number of disc aerators are installed on pipes and supplied with compressed air. The system is delivered in the form of components that are pre-assembled at the factory – no need for gluing or welding. This allows for quick and easy installation on site.



Flow-optimised
Evenly distributed small-bubble oxygen entry over the entire membrane surface



The advantages to you

- Reduced energy costs
- Optimal process
- Increased oxygen entry
- Improved treatment performance
- Minimal installation and maintenance required increased overall efficiency
- Combination with Wilo submersible mixers
- Complete configuration to suit the requirements at hand
- A contract person for all project phases

Reference List:

Sr. No.	Customer name	Location
1	Vijaynagar Sugars Pvt Ltd	Karnataka
2	Eid Parry Sugars (Haliyal)	Karnataka
3	Eid Parry Sugars (Ramdurg)	Karnataka
4	Eid Parry Sugars (Sadashiv Sugars)	Karnataka
5	Indian Cane Power Ltd	Karnataka
6	Nirani Sugars Ltd	Karnataka
7	Mrn Sugars	Karnataka
8	Basaveshwar Sugars	Karnataka
9	Indian Sugar Company	Karnataka
10	Jamkhandi Sugars Ltd (Jamkhandi)	Karnataka
11	Jamkhandi Sugars Ltd (Indi)	Karnataka
12	Satish Sugars Ltd	Karnataka
13	Athani Sugars Ltd	Karnataka
14	Shree Renuka Sugars Ltd (Athani)	Karnataka
15	Shree Renuka Sugars Ltd (Havalga)	Karnataka
16	Shree Renuka Sugars Ltd (Raigag)	Karnataka
17	Doodhaganga Ssk	Karnataka
18	Shivshakti Sugars Ltd	Karnataka
19	Hira Sugars Ltd	Karnataka
20	Nsl Sugars Ltd	Karnataka
21	Gem Sugars Ltd	Karnataka
22	Daund Sugars Ltd	Maharashtra
23	Utopian Sugars Ltd	Maharashtra
24	Shree Siddheshwar Ssk Ltd	Maharashtra
25	Shree Someshwar Ssk Ltd	Maharashtra
26	Shree Tatyasaheb Kore Warna Ssk	Maharashtra
27	Jaywant Sugars Ltd.,	Maharashtra
28	Kranti Ssk Limited	Maharashtra
29	Karmayogi Shankarraoji Patil Ssk	Maharashtra
30	Jawahar Shetkari Sakhar Karkhana Ltd	Maharashtra

Sr. No.	Customer name	Location
31	Dwarkadhish Sakhar Karkhana Ltd	Maharashtra
32	Malegaon SSK	Maharashtra
33	Bajaj Hindustan Limited	Uttar Pradesh
34	Dhampur Sugar Mills Ltd	Uttar Pradesh
35	Dscl Sugar	Uttar Pradesh
36	K.M. Sugar Mills Ltd	Uttar Pradesh
37	Balarampur Chini Mills	Uttar Pradesh
38	Bhagwanpura Sugar Mills	Punjab
39	Faridkot Co Op Sugar	Punjab
40	Jagaraon Co Op Suagr	Punjab
41	Nahar Sugar	Punjab
42	Oswal Sugars Ltd	Punjab
43	Patial Co Op Suagr	Punjab
44	Piccadily Sugar	Punjab
45	The Budhalda Co Op Sugar	Punjab
46	K K Birla Sugar	Delhi
47	Rana Sugars Limited	Delhi
48	Sonipat Co Op Sugar	Delhi
49	Chadha Sugars & Industries Pvt.Ltd,	Delhi
50	Haryan Co Op Sugar	Harayana
51	Vellore Co-Op Sugar Mills Ltd	Tamil Nadu
52	Tiruttani Co-Op. Sugar Mills Ltd	Tamil Nadu
53	Perambalur Sugar Mills Ltd	Tamil Nadu
54	Rajshree Sugars & Chemicals Ltd.	Tamil Nadu
55	Sakthi Sugars Limited	Tamil Nadu
56	The Andhra Sugars Ltd (T)	Andhra Pradesh
57	Deccan Sugars	Andhra Pradesh
58	Thandava Coop. Sugars Ltd.	Andhra Pradesh
59	The Anakapalli Coop. Suigar Ltd.	Andhra Pradesh
60	Bannari Amman Sugars Limited	Andhra Pradesh

Service Network

