

M/s NSL SUGARS LTD, UNIT III, (Formerly Jay Mahesh Sugars Ltd)

Location	Pawarwadi – Village, Majalgaon – Tk, Beed – Dist, Maharashtra.
Nearest Railway station	Manwat Road : 30 KM; Parbhani : 75 km
Nearest Airport	Aurangabad : 170 KM
Nearby towns	Majalgaon : 12 kms, Beed : 70 kms, Nanded : 175 kms
Salient features of the plant	<ul style="list-style-type: none"> ❖ The plant is located at just 3 Km interior from the NH-222 (Kalyan- Nanded highway). ❖ M/s Jai Mahesh Sugar Industries Limited has been established in 2001 with a capacity of 800 TCD. Subsequently it had been sold to M/s Spray Engineering Devices Ltd, Chandigarh in 2006 due to some financial problems. The Sugar plant was being operated with a capacity of 4500 TCD till last crushing season (2011-12) from 2009. At this juncture, due to financial constraints, the Management was forced to sell the unit. ❖ NSL Sugars Ltd had taken over the Company in June 2011 and the sugar plant capacity has been expended to 7000 TCD. ❖ The plant is installed with state of art equipments for sugar to achieve 7000 TCD with modern energy efficient equipments and 30 MW bagasse based power plant. ❖ A modern integrated distillery is under erection & would be added to the complex shortly. ❖ The plant is located amid cane fields which are fed by Majalgaon dam and river Godavari. There are 2 dams & 2 check dams covering the cane field which yields around 10 lacs tons cane per annum. ❖ The plant is located at just 3 Km interior from the NH-222 (Kalyan- Nanded highway).
Land Area in acres	185 acres
(i) SUGAR PLANT	
Capacity	7000 TCD,
Year of Establishment	2001
Supplier Name	<ul style="list-style-type: none"> a. Mill – ISGEC and Baba Vishwakarma b. Boiling house – SEDL

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	c. Centrifugals – Walchand Nagar
Specification of Sugar Plant	a. 7000 TCD, 5 Mill tandem of 42”X84” size of mill, with swing hammer fibrizer.
	b. Juice Clarifier 555 of 720 cu mtr, Falling film evaporators.
	c. B & C vertical continuous pan, circulators for all pans. Cigar vessel for flash recovery system.
	d. SEDL condensing system with spray pond.
	e. Batch centrifugal machine 5 no’s 1750 kg/ch each.
	f. 35 t/hr FBD each 02 nos. Grader 25 t/hr- 03 nos each.
	g. Molasses storage tank 2 Nos. (4000 MT & 10000 MT).
Innovative Technology Adopted	a. Cane preparation: 6 Cane unloaders with 6 feeder tables to ensure capacity crushing and pushers followed by Leveller and Swing hammer Fibrizer to ensure 90+ PI always.
	b. Mill size 42” x 84” with under feed roller and Donnelly chute. Drive: Individual roller drive with planetary gear boxes to ensure maximum extraction. All motors are fitted with VFD drive to ensure maximum extraction with less power consumption.
	c. Clarification: The process is double sulphitation. The house is equipped with all Direct Contact heaters for Raw juice and Sulphited juice heated by low temperature vapors to ensure steam economy and prevent heat injury to juice.
	d. Evaporation station: An ultra modern Falling film evaporator for all bodies comprising of Quadruple effect. The last body vapor is used as heat vapors to B and C vertical continuous pans and vapor outlets of B and C pans attached to common condenser through RJH. Extensive vapor bleeding at third body to ‘A’ batch pan and 4 th vapor to SCP. NCG and 4 th vapor to DCH make the system very comfortable to achieve very low steam % cane, one of the best in the Industry.
	e. The Pan Station has batch pan for ‘A’ and vertical continuous pan for B and C. All the pans including batch pans are equipped with circulators to ensure efficient circulation to ensure uniform grain growth, Low steam consumption, low recirculation of un size sugar etc.
	f. The Sugar house is equipped with ultra modern centrifugals of high capacity to handle the crushing rate and drying in modern FBD and grading in ultra modern Sizer to ensure customer

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	satisfaction.
Steam economy measures adopted.	a. All juice heaters are of DCH, Raw juice heaters fed by waste heat vapors. Sulphited juice heating primary and secondary done by 4 th and 3rd vapors. Sulphited juice final heating by 2 nd vapors.
	b. A – Pans is boiled with 3 rd vapor.
	c. B and C pans boiled with 4 th vapor.
	d. Molasses conditioner heating with 2 nd vapor.
	e. PHE is used for SHWW system with water to water to water.
(ii) COGEN PLANT	
Capacity	30 MW
Year of Establishment	April, 2012.
Supplier Name	a. Boiler M/s Fives Cail Ltd. Egmore-Chennai. b. Turbo Generator : M/s Siemens Ltd.
Specification of Boiler & STG	a. Boiler- Rated Capacity- 135 TPH
	b. Turbine- Make- Siemens. Back Pressure Type
	c. Alternator- Make- Siemens
	d. System has 3 H.P heaters
(iii) DISTILLERY PLANT	
Capacity	100 KLPD
Year of Establishment	Under erection
Supplier Name	KBK, PUNE / DISTICHEM
Name of the products	RS / ENA / ETHANOL
Specification of Distillery	Cascade continuous fermentation and 8 columns multi pressure vacuum distillation for Rs / ENA production and Molecule sieves dehydration for an-hydrous alcohol production.

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Effluent Treatment scheme proposed	Concentration followed by Incineration.
Production details from first season	Production not yet started.
Energy conservation measures adopted	a. Mills are driven by individual roller drive to ensure power consumption exactly to the requirement.
	b. All motors are of VFD drives to get low power consumption.
	c. Mostly belt conveyors are used to reduce power consumption.
	d. Planetary gear boxes used to achieve greater efficiency.
	e. Screw pumps are used in place of low efficiency disc and gear pumps.
	f. Mill automation ensures low power consumption and FFE & SCP automation ensures low steam consumption.
Water conservation measures adopted.	a. All the body condensates are flashed in a vessel and the hot water needs at desired temperature are drawn at required level.
	b. Excess hot water is taken to storage tanks, cooled and re used for spray replacement as cold water substitute.
	c. Vent and drain losses are controlled and ensured to have 8 – 10% make up the boiler during capacity crush.
	d. To practice dry cleaning wherever possible instead of wet cleaning.
	e. WTP Regeneration water being used for spray pond.
	f. 1500 KLD capacity of Sugar Condensate Recycling plant is under erection.
Environment Management	a. High efficiency ESP is installed in the Boiler for better air pollution control.
	b. The DG sets are provided with acoustic enclosures to mitigate the noise pollution.
	c. The sugar trade effluent is being treated in the existing 1400 KLD capacity of Sugar ETP which consists of Bar Screen Chamber, Oil & Grease, Equalization cum Neutralization tanks, Buffer tank, UASB, Diffused Aeration tank, Clarifier, Sludge Drying Beds. The treated effluent is utilized for onland for irrigation.

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	<p>d. The Green belt development is developed as per CPCB guidelines in consultation with the local DFO to mitigate the fugitive emission effects.</p> <p>e. In order to conserve the raw water consumption, 1500 KLD capacity of Sugar Condensate Polishing unit is under erection.</p>
Facilities available at site	School, School bus, Residential Colony, Dormitory with Canteen, Dispensary with Medical officer, Male nurse, Ambulance etc
Key Customers	Sugar : Metro Cash and carry, Reliance retail, Walmart, Other traders.
Future plan	Sugar will be expanded to 10000 TCD.