

M/s NSL KRISHNAVENI SUGARS LTD

Location	Ramakrishnapur Village, Kothakota Mandal, Mahaboobnagar Dist, Telangana State.
Nearest Railway station	Wanaparthy : 17 Km ; Gadwal : 45 km
Nearest Air port	Hyderabad : 120 Km
Nearby towns	Kothakotta : 11 Kms, Mahabubnagar : 50km; Kurnool : 70 kms
Salient features of the plant	a. The plant is located at just 3 Km interior from the NH-44 (Hyderabad - Bangalore highway).
	b. M/s NSL Krishnaveni sugars ltd is a green field sugar plant established in 2011 with a capacity of 3500 TCD along with 28 MW cogen plant. Both Sugar & Cogen Plant operations are commenced in Feb'2011.
	c. 60 KLPD Capacity of Distillery plant is installed in May 2012.
	d. The plant is installed with modern energy efficient.
	e. The plant is located amid cane fields which are fed by Jurala dam and rivers Krishna & Tungabhadra.
Land Area in acres	245 Acres
(i) SUGAR PLANT	
Capacity	3500 TCD
Year of Establishment	1 st Feb'2011
Supplier Name	Fc-Kcp , Chennai, SEDL, Chandigarh.
Specification of Sugar Plant	a. 36"x78" Size Mill Max four mill tandem with AC drive,
	b. 1820HL SRT Clarifier,
	c. One set of quintuple effect evaporator of HS 6900M ² ,
	d. CVP for A,B&C massecuite Boiling,
	e. SEDL condensing system with spray pond, 1550 cont centrifugals for B&C and 1750Kg/charge 'A' centrifugals,
	f. 30T/hr FBD & 30T/hr -2Nos Mogensen sizers,
	g. 6000 cum Molasses storage tanks – 2 Nos ,
	h. Sugar ETP of 1000 cum/day & 1000 KLD CPU

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Innovative Technology Adopted	2 Roller Mill Max mills with In-Line shredder.
Steam economic measures adopted in the Unit	a. Installation of E-Melter for sulphur burner to stop the consumption of 9 ata steam.
	b. Usage of 3 ata steam to super heated wash water system instead of 9 ata steam.
	c. Usage of waste heat condensate recovery system to heat raw juice.
	d. Usage of Vapour line juice heater to heat raw juice.
	e. Usage DCH for Clear juice heating to save steam.
	f. Usage of III body vapour for B & C Continuous pan boiling and II Vapour for A-Continuous pan and Batch pan boiling
(ii) COGEN PLANT	
Capacity	28 MW
Year of Establishment	Feb'2011
Supplier Name	a. Boiler : Fc-KCP
	b. Turbo Generator : BHEL
	c. DCS : Yokogawa
	d. Fuel & Ash Handling System : M/s Methods (India) Pvt Limited
	e. Cooling Tower : M/s. Hamon Shriram Cottrell Pvt. Ltd
	f. Water Treatment Plant : Ion Exchange
	g. Piping and appurtenances & fire Fighting: Samay Projects
	h. M/s Sathiapal Engineers (India) Limited
Specification of Boiler & STG	a. Boiler – 110 Ata, 540 ° C, 110 TPH ;
	b. STG - 28 MW BHEL make double extraction cum condensing Turbine, Speed- 5650 RPM, Type – EHNK-40/60 - 3
(ii) DISTILLERY PLANT	
Capacity	60 KLPD
Year of Establishment	May'2012

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Supplier Name	KBK
Name of the products	ENA / IS / RS / ETHANOL
Specification of Distillery	<ul style="list-style-type: none"> a. Grain Based with 20T/hr Grain handling system, 30m³/hr Liquification system. b. Molasses based with 20m³ tank & weighing system. c. Fermentation of 249m³ Fermentors – 6 Nos and buffer tank & transferring pumps to distillation, d. Distillation columns – 8Nos with 10m³ molecular sieve drum for ethanol production, e. Falling film forced circulation evaporators -6Nos. f. Decanters -15m³/hr for wet cake separation g. 4MT capacity steam tube bundle drier for wet cake drying along with cooling. h. Bagging system for grain mode is arranged.
Effluent Treatment scheme adopted	<ul style="list-style-type: none"> a. Multi effect evaporation system for concentrating the molasses spent wash of upto 60°Bx and for grain syrup upto 40°Bx. b. Incineration Boiler is installed to burn the concentrated spent wash generated during Molasses feed stock and steam is being utilized at 3MW TG Set for generating power. c. Boiler is established with ESP to control the SPM. d. DDGS Dryer is installed for drying the Wet cake and syrup generated from distillery during grain operation. The DDGS is sold as cattle feed. e. MEE condensate is being treated with the 1000 KLPD condensate polishing system
Energy conservation measures adopted	<p>Sugar Plant:</p> <ul style="list-style-type: none"> a. The mill drives, cane carrier, Juice pumps are provided with variable frequency drives which reduces the power consumption / ton of cane crushing. b. The 'A'C/F machines are provided with DC drives which gives higher output with low power consumption. c. Automation of process with PLC system for optimizing the process and achieving the energy conservation. <p>Cogen Plant:</p>

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	a. All the electrical motors are provided with variable frequency drives which reduce the auxiliary power consumption to 7.0 % during off season mode and 8.5% during season mode.
Water conservation measures adopted	a. Rejects of Ultra filtration, Reverse Osmosis & Back wash waters of Multi-grade filters are utilized in the sugar unit to reduce the consumption of fresh water.
	b. The excess condensate is treated in the CPU and utilized for cooling tower make up and in sugar plant process to minimize the consumption of fresh water.
	c. No fresh water usage for the sugar factory thus by reducing the additional waste water generation as well as fresh water consumption.
	d. Boiler blow down water is utilized for cooling tower make up.
Environment Management	a. High efficiency ESP with 3 fields is connected with 83 mtrs height of RCC Chimney in Cogen 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 1000 KLD capacity of Sugar ETP which consists of Bar Screen Chamber, Oil & Grease, Equalization & Neutralization tanks, Buffer tank, UASB, Diffused Aeration tank, Clarifier, Sludge Drying Beds. The treated effluent is utilized for on-land for irrigation.
	d. The Green belt development is developed as per CPCB guidelines in consultation with the local DFO to mitigate the fugitive emission effects.
	e. In order to conserve the raw water consumption, 1000 KLD capacity of Sugar Condensate Polishing unit is installed.
Value Added Products	DDGS, DWGS, CO ₂ , Filter Cake & Bio-compost, Bio Fertilizer etc
Facilities available at site	School bus, Residential Colony, Dormitory with Canteen, Ambulance, First Air Male Nurse etc
Key customers	Sugar : Coke , Pepsi , Metro Cash and carry, Reliance retail, Pearl Beverages , Walmart, Parle Agro, Heritage, Britannia, SDU beverages, SMV beverages etc.
	Alcohol : IOCL, BPCL, HPCL, USL, ABD, RADICO KHAITAN, JOHN, AMRUT, JAGATJIT, PREMIER, EMPEE, KAYCEE, SNJ, MYLAN, PIRAMAL, Dr Reddys, AUROBINDO, Neuland, TKM, Virchow, Gland Pharma, Vivimed Labs, Suven Life sciences, SMS pharma, MSN pharma, Divi's, Astrix, Eytan Labs, Discovery Pharma,



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	Hetro Drugs, Techbond, Lee pharma
Future Plans	Sugar will be expanded from 3500 to 5000 TCD and the Distillery plant will be expanded from 60 KLPD to 120 KLPD