

COMPRESSED NATURAL GAS

Engineered for Sustainable Future



Upstream



Midstream



Downstream



Distribution



Kirloskar Group

Kirloskar Group, a multi-billion US\$ entity, is one of the leading engineering conglomerate in India. It has more than 100 years of proven expertise in the specialist areas such as refrigeration, gas/air compression, transmission, water, power with a portfolio of world-class products and turnkey solutions. Kirloskar holds the reput in the industry for its good business values and excellent customer satisfaction. Plants of the group are accredited to ISO 9001, 2000, ISO 14001, OHSAS 18001.

Capabilities



Innovation & design



Manufacturing



Installation



Commissioning



After sales service & training

Kirloskar Pneumatic Company Limited

Founded in 1958 as a part of Kirloskar group, Kirloskar Pneumatic Company is one of the most accomplished names in the gas compression business. Due to its technological edge, Kirloskar Pneumatic has been enjoying customer preference for almost half the century serving products and customised solutions in diverse fields, such as industrial refrigeration, marine HVAC, gas compression, air compression and transmission. Over 50,000 compressors are operating round the clock is the testimony to this. Kirloskar Pneumatic is now leading amongst the leaders in the manufacture of reciprocating open type refrigeration compressors.

Kirloskar Pneumatic Company's widespread Sales & Service Network supports trouble free operation. Corporate Office & manufacturing facilities are located in Pune, Saswad and Nashik which houses the required infrastructure to support all its manufacturing processes. It has an in-house foundry, sophisticated testing labs, CNC machining centres, stress relieving furnaces and testing. Kirloskar Pneumatic is the most preferred gas compressor packager for the upstream, midstream, downstream and distribution applications of the Oil & Gas industry.

Infrastructure

Total Packaging Bay Area
5440 sqm

Lifting Capacity
**100T & 40T,
Two packaging
facilities**

Package Execution
**45 CNG package &
5 Gas Systems
package per month**

Package Testing Facility

- Performance test on full load for CNG packages up to 250 bar discharge pressure
- 15000 litres of natural gas storage capacity
- No load MRT of compressor package with electric motor drive up to 3000 kW @ 3.3 kV, 6.6 kV and 11 kV.
- Run test of compressors with job lube oil console and cooling console.
- No load MRT of gas engine driver compressor package up to 3500 kW.

**AERB Approved
Radiography Facility**

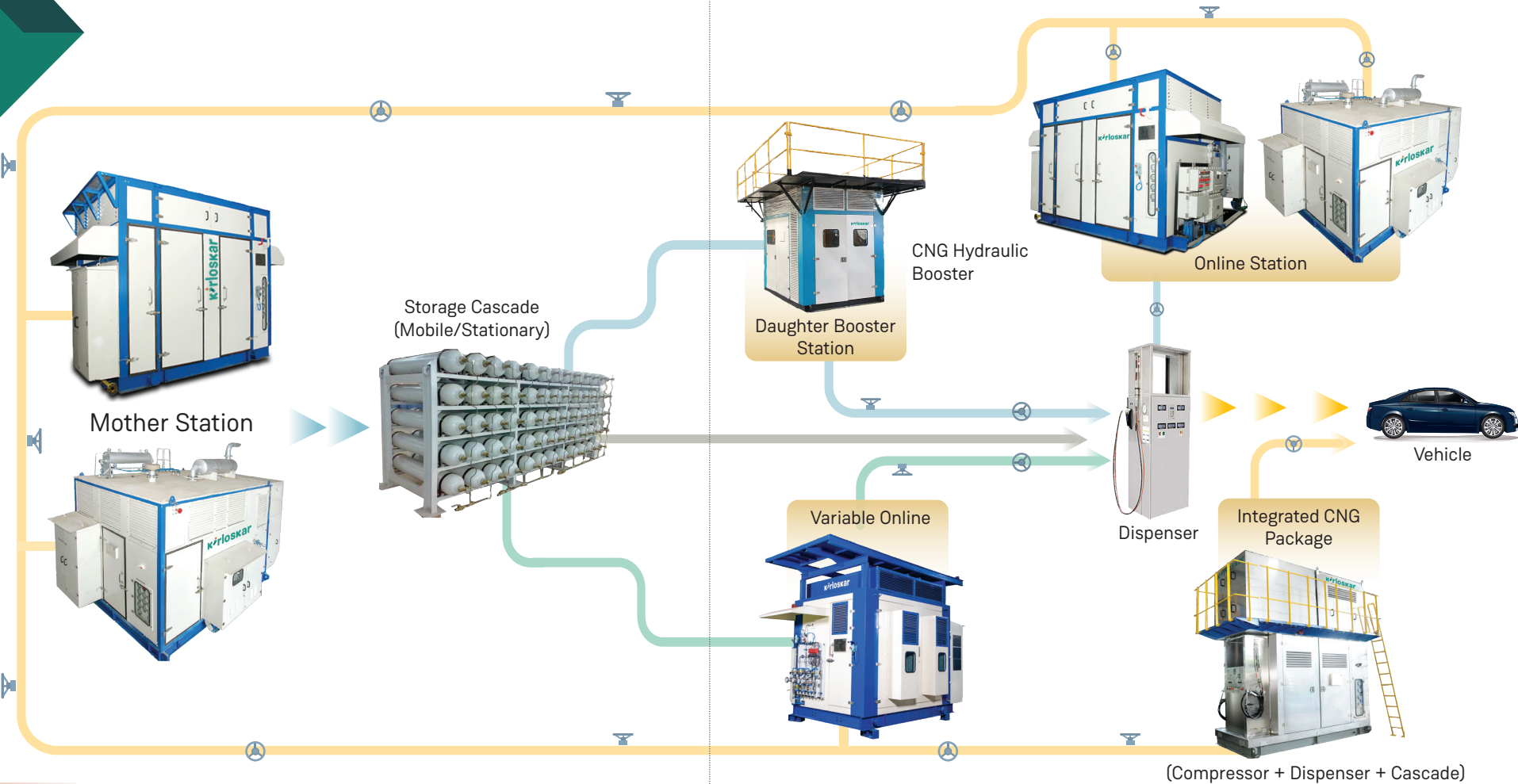
30000+
Refrigeration
compressor
packages

20000+
Air
compressors

1000+
Gas compressor
packages

50000+ Compressor Sold

City Gas Distribution Network



Compressed Natural Gas (CNG)

KPCL is one of the largest suppliers of CNG gas compressors for NGV filling station in India.

Packages are tailored made to work under wide pressure ranges ranging from 0.55 bar to 70 bar of suction pressure and capacity between 400 to 3500 SCMH.

With more than 1000 installations has led us to master the art of delivering performance, reliability, efficiency, custom engineered and cost-effective solutions each time.

Product Range



KCNG-OC Series
Our Engine & Motor Driven CNG Packages are Suitable for Online CNG station. Capacity ranging from 400 SCMH to 3500 SCMH and suction pressure ranging from 0.55 barG to 70 barG



KCNG-VS Series
Suitable for variable suction pressure



KCNG-IG Series
Compact design where cascades and dispensing units are integrated in the compressor unit. Suitable for the stations where space is the challenge



Calana
KCNG-HB Series
Suitable for daughter booster station for offloading gas from mobile cascades. Standard packages - 250 & 450 SCMH

CNG Standardized Packages

Model	KCNG400M	KCNG600E/M	KCNG750E/M	KCNG950M	KCNG1200E/M	KCNG1800E/M	KCNG2000E/M	KCNG2400E/M	KCNG3500E
Pressure Range	2-3 Bar G	14-19 Bar G	3-10 Bar G	9-16 Bar G	9-19 / 45-55 Bar G	30-40 Bar G	35-43 Bar G	50-55 Bar G	35-68 Bar G
Compression Stage	4 stage	3 stage	4 stage	3 stage	3/2 stage	2 stage	2 stage	2 stage	2 stage

IoT Enabled CNG Packages

Our IoT packages provides app based/web based real time monitoring of the CNG packages. Kirloskar CMS app helps the user to collect and analyse data in real time to get a clear picture of machines critical parameters which improves operational efficiency, reduces downtime, and drive profitability. Our IoT technology is easy to upgrade to the Non-IoT Kirloskar make CNG packages.

Salient Features



Modbus
RS485/Ethernet
TCP/IP
communication
protocol

Microsoft Azure
Cloud for server
space

Data Refresh
Rate - 5 sec

Historical
information and
data analysis of the
various performance
parameters

Internal
storage to store
backup data in case
of communication
failure between
package and
server

Industry 4.0
ready products

Benefits

- Increased uptime of the packages beyond 98%
- Data driven decision making
- Real time data monitoring and alerts
- Package control at fingertips

- Unmanned operation
- Predictive, preventive maintenance and accurate inventory using maintenance matrix
- Reduced overall operational cost

App based machine
monitoring - Kirloskar
CMS App/Web Portal

Easy to upgrade
from Non-IoT to IoT
packages

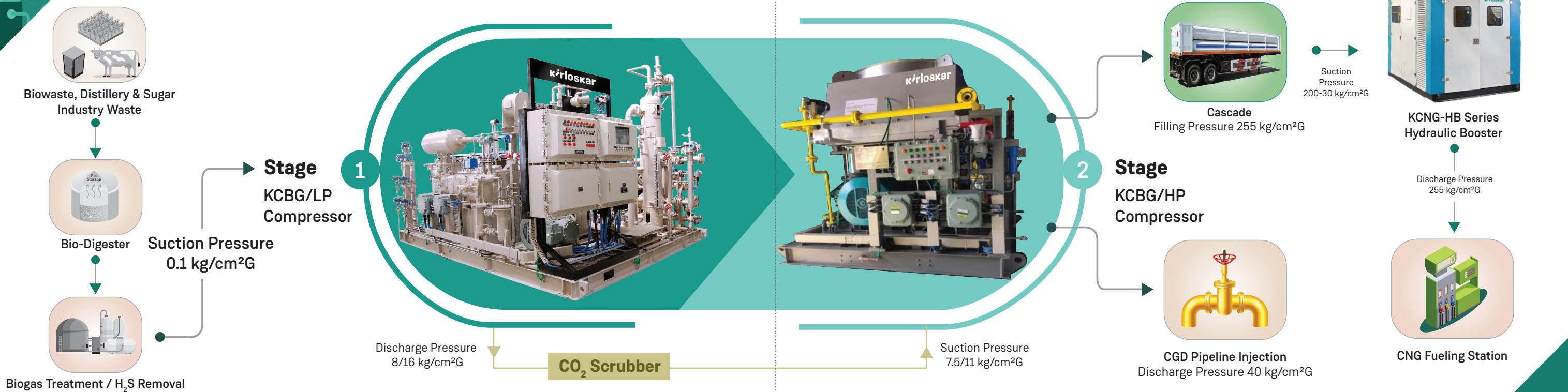
Higher machine uptime
- Machine health
monitoring based
on the past data, for
predictive and preventive
maintenance



Compressed Biogas

Our KCBG series is a tailor made solution catering to the needs of the Compressed Biogas segment for pipeline injection, cascade filling & gas stations. The KCBG series is designed as per the industry standards and are suitable for hazardous area operations. Low power consumption and high uptime makes KCBG series a reliable option.

Our Compressor Package Offerings



KCBG/LP Series

Low Pressure Compressor for Feeding Gas into CO₂ Scrubber

- Flow Rate - 500 to 2000 Nm³/hr
- Discharge Pressure - 8 / 16 kg/cm²G

Salient Features

- Reciprocating / Screw Type
- Designed to work for the suction pressure as low as 0.147 kg/cm²G
- V- belt drive arrangement
- Water-Cooled heat exchanger
- SS 304 for all Wetted Parts
- 0-100% capacity control for variable flow

KCBG/HP Series

High Pressure Compressor for Bio CNG Stations/Cascade Filling

- Flow Rate - 250 to 800 Nm³/hr
- Suction Pressure - 0.3 / 7.5 / 11 kg/cm²G
- Discharge Pressure - 40 / 255 kg/cm²G

Salient Features

- Direct coupled drive
- Air cooled heat exchanger
- 40-100% capacity control for variable flow

Standardised Packages

Plant Capacity	10 T/D		5 T/D	
	LP	HP	LP	HP
Description	LP	HP	LP	HP
Suction Pressure	0.147 kg/cm ² G	0.3 / 11 / 7.5 kg/cm ² G	0.147 kg/cm ² G	0.3 / 7.5 / 11 kg/cm ² G
Discharge Pressure	8 / 16 kg/cm ² G	40 / 255 kg/cm ² G	8 / 16 kg/cm ² G	40 / 255 kg/cm ² G
Flow (SCMH)	1015	629	508	315

Our Services

Engineering, design, and manufacturing.
Full load run test on natural gas at factory
Erection & commissioning
Operation & Maintenance Services on Comprehensive & Non-comprehensive basis.
Training session for operation and maintenance staff
Post commissioning annual maintenance with all spares and consumables.

Salient Features

Multistage reciprocating compressor
Refined Noise and Vibrations
Power efficient
Wide pressure and capacity range
RTU/SCADA/HMI philosophy for PLC design
Priority panel with 3, 5 and 9 lines
IoT enabled packages
Plug and play

Our Technical Highlights, Your Competitive Advantage



Durability:

Even in the harsh and rugged operating conditions our packages have delivered consistent performance. Addressing every detail while designing, material selection, fabrication, and testing of the package for the longer service life and safe operation.



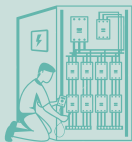
Engineering & Design

- Developing Project Concept
- Package Design as per ISO 13631 standards
- In-house design for
 - CAD Engineering - Plant 3D, Solidworks etc
 - System Sizing : UNISIM, HTRI, PV Lite etc



Material Selection

- As per industry standards



Fabrication

- Use of latest and sophisticated process for fabrication.
- Trained and experienced technicians
- Radiography/X-ray performed in-house for all welded joint
- Incorporated fixtures for lower turnaround time
- In house paint booth



Testing

- Dedicated CNG testing facility
- Full load mechanical run test for CNG & CNG Hydraulic Booster packages on Natural Gas upto 250 bar discharge pressure
- Field performance runs along with equipment performance test and associated electrical and instrumentation

Performance:

The design and fabrication are put together with utmost precision for longer service life of our packages.



Package up time up to 98%



IoT enabled CNG packages



Minimal maintenance



Refined Noise & Vibrations 75 dB for motor driven & engine driven CNG packages

After Market Support:

We are committed to deliver fast and reliable customer service to achieve highest level of customer satisfaction. The network of established O&M personal across the country work round the clock to keep the mean time to repair low. We provide aftermarket services on comprehensive and non-comprehensive basis.

Parts

- Availability of genuine parts for engine, compressor, motor, package electronics and other parts of the compressor package
- Team of trained and experienced technicians to perform the replacement of parts.

Running Maintenance

- Scheduled, regular and contract basis maintenance services.
- Regular maintenance to ensure the long life and low-down time of all the moving as well as static parts of the compressor package.
- Complete overhaul or replacement repair work in case of the breakdown.

Kirloskar Pneumatic Company Limited

A Kirloskar Group Company

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