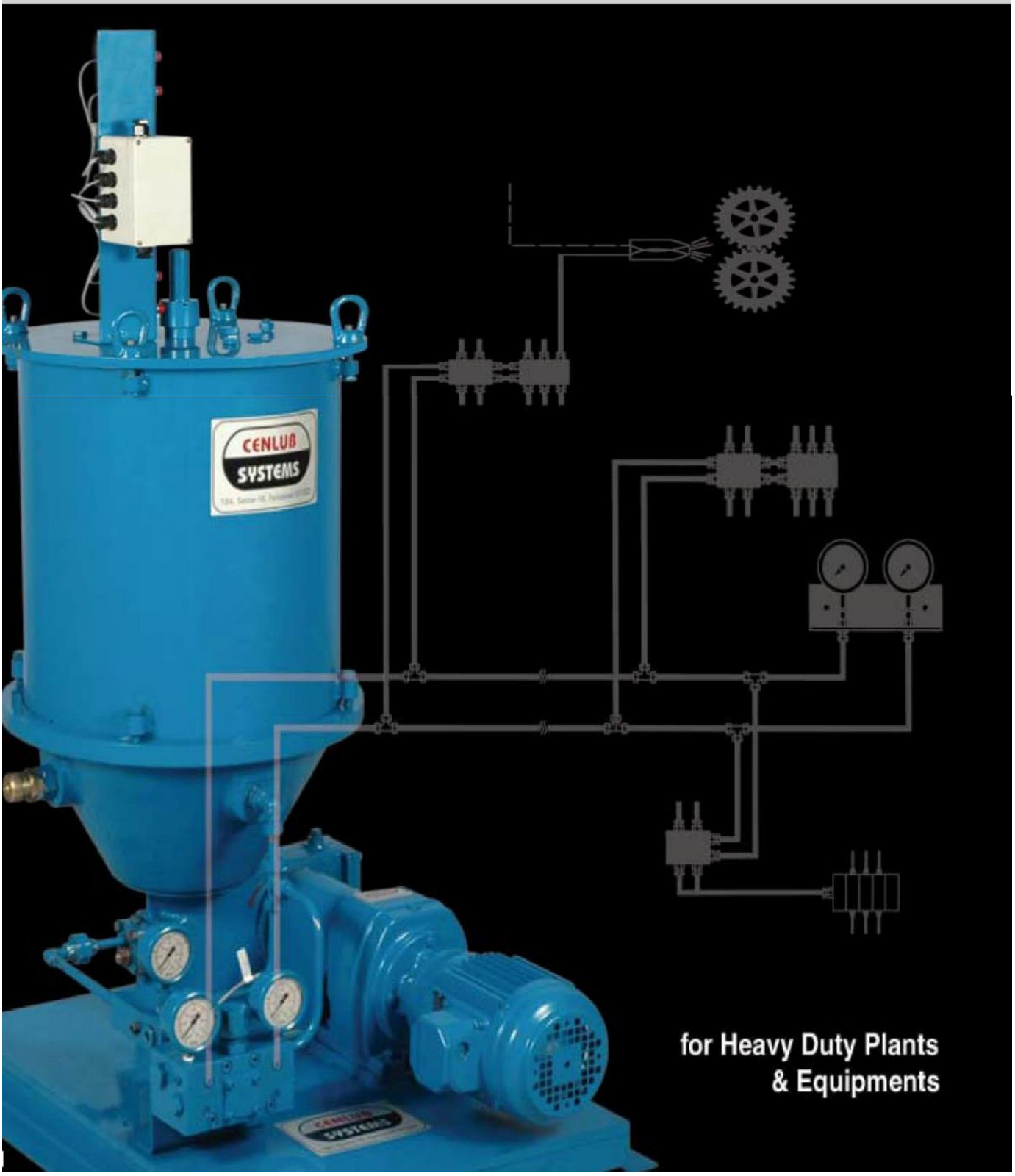
CENLUB SYSTEMS

(ISO 9001 : 2000 Certified)

DUAL LINE LUBRICATION SYSTEM

keep running...Smoothly



DUAL LINE

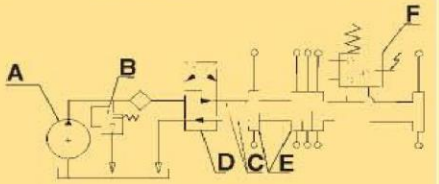
CENLUB SYSTEMS Dual Line Lubrication System provides reliable lubrication to large and extended installations, at heavy duty plants and equipments, like steel, sugar, cement, mining etc, even in adverse conditions.

Dual line lubrication system adds to the advantages of using an automatic lubrication system from both usage and investment perspectives as given below -

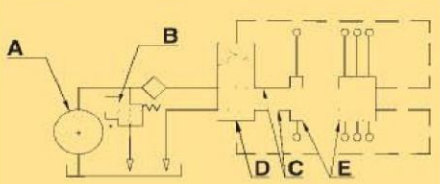
- Ensures lubrication of all points
- Prolongs machine life
- Reduces operating cost
- Reduces repairs and downtime
- Saves lubrication time
- Promotes continuous high-speed machine operation
- Increases production output
- Eliminates lubricant contamination
- Prevents over and under lubrication
- Prevents personal injury hazards

CENLUB SYSTEMS DUAL LINE SYSTEM consists of two main supply lines connected to a pump unit. Each line is pressurized and relieved in turn using a reversing valve. Connected across the supply lines are piston type metering device (dose feeders) actuated by the difference of pressure in the two lines. The supply lines along with metering device can be extended as and when required accommodating increased system length.

The dual line system is suitable for both oil and grease (high consistency up to NLGI 3, with or



Dual Line End of Line System



Dual Line Loop Type System

CENLUB SYSTEMS provide following two types of design based on line reversing system –

1. **END OF LINE TYPE** – A pressure relay is located at the farthest point from the pump which trips the pump motor and changes the position of the reversing valve as soon as a pre-set pressure is achieved in the line being pressurized.
2. **LOOP TYPE** – A hydraulically operated reversing valve effects reversal of the valve on achieving a set pressure at the farthest end of main line either by laying system in loop form or by drawing a small pipeline from the end of the main line to the reversing valve.

ELEMENTS OF CENLUB SYSTEMS DUAL LINE SYSTEM

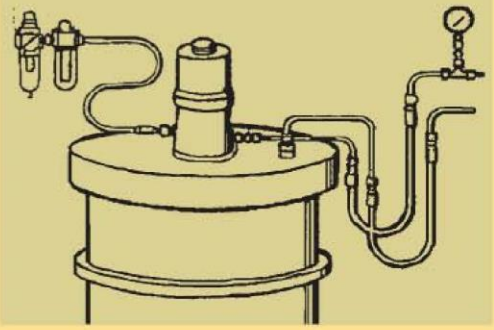
(refer the circuit diagrams given above)

A. PUMP which is the heart of the system is positive displacement type and is available in following options :

1. **Electrical-operated pumps** are available in multiple options based on pressure range, flow rate and reservoir size.

2. **Manual Pumps** are recommended at applications where lubrication requirement is only after extended intervals. Other suitable application can be as a stand-by pump for medium size systems.

3. **Pneumatically operated barrel pumps** are fitted directly on a standard 200 litres barrel. It prevents lubricant contamination and avoids frequent replenishing of lubricant. The empty barrel is replaced by a full one for grease replenishment.



B. PRESSURE RELIEF VALVE protects the pump from over pressure in the supply lines due to any blockage or back pressure.

C. TWO MAIN FEED LINES are high-pressure high quality steel tubes, forming the two main arteries to provide lubricant to the entire system. Each line is pressurized and relieved alternatively maintaining continuous flow of lubricant.

D. REVERSING VALVE achieves the functionality of pressurizing and relieving feed lines alternatively based on end of line pressure. Following types of reversing valves are available :

1. Hydraulically operated - It is most robust and reliable in operation with its simple hydraulic design. Options for both 'end of line' systems and 'loop type' system are available.
2. Solenoid Operated.
3. Electric Motor Operated.

E. DOSE FEEDERS are connected to the main feed lines and delivers exact quantities of lubricant in the lube point, irrespective of back pressure. Cenlub Systems 3075 series of dose feeder consists of a base plate and modular metering elements. Following options are available in the dose feeders :

1. Fixed Quantity Type.
2. Adjustable Quantity Type.

Each can be attached with monitoring devices for visual indication (Indicator pin) and electrical signal (Proximity switch).

Special Features of 3075 series of dose feeders

- Each pumping element gives two outlets.
- Individual pumping element is replaceable. Replacement done without opening the existing piping.
- Output of two or more elements can be joined together for higher dosage.
- Longer life of dose feeder as Indicator pin is not under load.

Note: Other type dose feeders are also available.

F. MONITORING DEVICES are used to measure pressure at the end of line. Depending upon type of system, following two types are available :

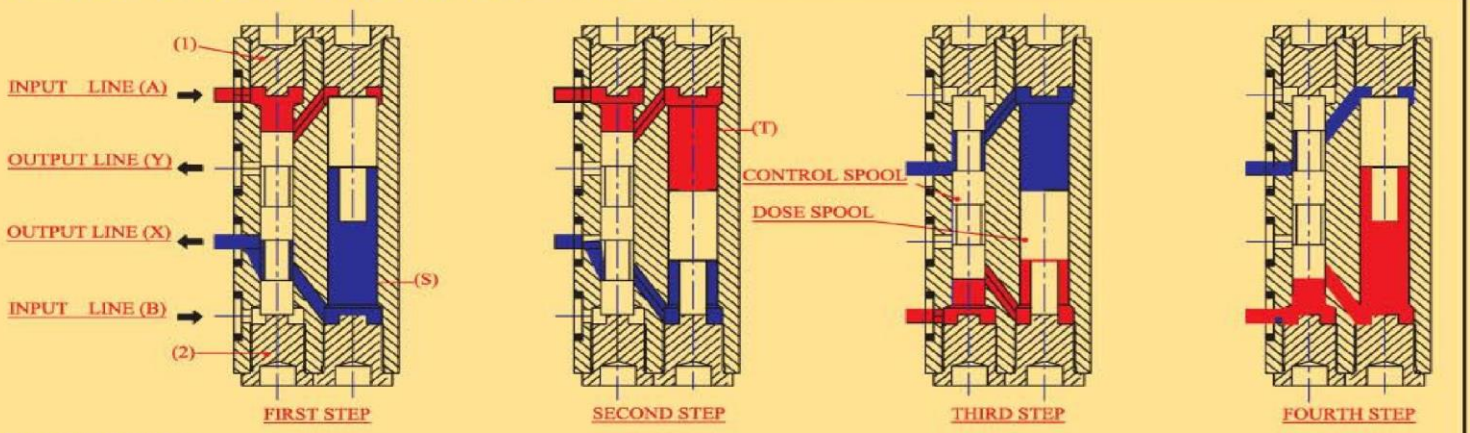
- End of Line pressure gauge unit
- End pressure relay

G. CONTROL PANELS are available for remote indication and remote controlling of system information like **:**

- Intermittent operation at regular or irregular intervals
- Dose feeder fault indication
- Low lubricant level indication
- Low system pressure indication
- Faulty lines indication etc.

SYSTEMS

Function of 3075 series of Dose Feeders



FIRST STEP :
The lubricant entering through the main line connection (A) moves the control spool downwards, towards the stop screw (2)

SECOND STEP :
Dose spool is pressurized by Line (A) & the lubricant volume of space 'S' (infront of the dose spool) will be delivered to the lubrication points through the outlet 'X'. This completes first half cycle.

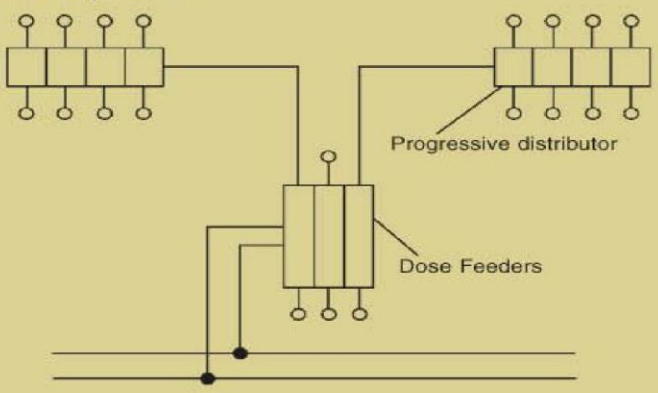
THIRD STEP :
Main line 'B' is pressurized (line pressure from A to B will be changed by reversing valve) & lubricant entering through port 'B' moves this control spool upwards, towards the stop screw '1'.

FOURTH STEP :
Dose spool is pressurized by line 'B' & the lubricant volume of space 'T' (infront of dose spool) will be delivered to the lubrication points through the outlet 'Y'. This completes second half cycle.
The above cycle of four steps repeats itself in continuous operation.

To expand horizons of Dual Line System, read on...

PROGRESSIVE DISTRIBUTION

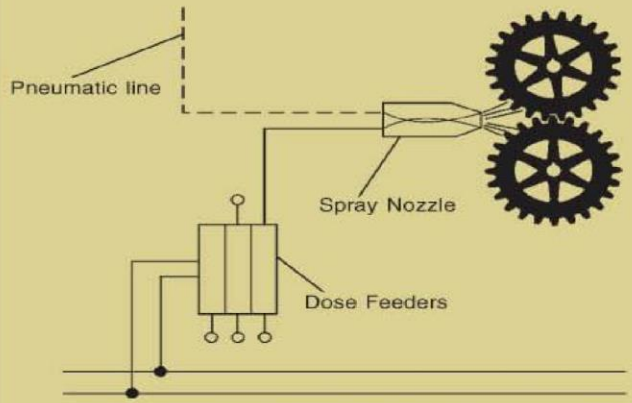
Dual line system can be appended with progressive distributors to further distribute the lubricant output from a dose feeder in a preset ratio to a number of lubrication points. Each outlet of dose feeder can further lubricate upto 20 points by using progressive distributors. Operation of progressive distributor can be monitored by using proximity switch ensuring lubricant delivery to all points.



Use of Progressive Distributor in Dual Line Lubrication System

GREASE SPRAYING

Grease spray valve can be added to a dual line system for lubrication of gearwheels, conveyors, chains, etc. Dose feeder delivers metered quantity of grease to the spray points. Whenever grease pressure builds up, the compressed air port automatically opens and grease is sprayed over the required area uniformly.



Use of Grease Spray Valve in Dual Line Lubrication System

CENLUB SYSTEMS

keep running...Smoothly

(ISO 9001 : 2000 Certified)

APPLICATIONS

APPLICATION AREAS

- Iron & Steel Industry
- Cement Plants
- Sugar Plants
- Mining Machines
- Mills and Crushers
- Hydroelectric Power Plants
- Dams, Sluice Gates, Movable Bridges
- Construction Machines
- Cableways, Ropeways, Elevators
- Casting & Diecasting Machines
- Chemical Industry Machines
- Coal & Mineral Industry
- Coke Plants
- Cranes and Bridge Cranes
- Excavating - Earthmoving Machines
- Food Industry Machines
- Furnaces
- Glass Industry Machines
- Marble Working Machines
- Mechanical Deformation Machines
- Metal cutting Machine Tools
- Paper Industry Machines
- Plastic Injection Moulding Machines
- Rubber Industry Machines
- Sweet Processing Machines
- Textile Machines
- Thermal Power Plants

Benefits of CENLUB SYSTEMS Dual Line Lubrication System

- **METERING based on individual lubrication point requirement**
- **Metered quantity is INDEPENDENT of backpressure**
- **FLEXIBILITY of extended or reducing the systems anytime**
- **MONITORING of critical lubrication points for each pair of Dose Feeders outlets**
- **FULLY AUTOMATIC operation of the system with variable intervals**
- **LUBRICATION over large distances depending on the type of pump and lubricant**
- **LOOP SYSTEM to reverse the supply line using hydraulic reversing valve and end of line overpressure**

Our services include custom designing, manufacturing, installation and commissioning of the complete Dual Line System on a turn-key basis.

CENLUB SYSTEMS

(ISO 9001 : 2000 Certified)

keep running...Smoothly

COMPANY PROFILE

CENLUB SYSTEMS has become a hallmark in the field of lubrication. Establishing itself as "the solution provider" in the industry, **CENLUB SYSTEMS** has grown 15times in 15 years. Strong commitment to quality and product excellence has made **CENLUB SYSTEMS** the trusted partner in the industry. Centralised Lubrication and Fluid Management Solutions offered by **CENLUB SYSTEMS** include turnkey projects, customized design solutions, lubrication equipments, commissioning, after sales support and spares. The strong associate network is determined to provide services at remotest locations.

Product range of **CENLUB SYSTEMS**, the designers and manufacturer of lubrication systems, spans across the following –

1. Oil Lubrication – Progressive, Dual Line, Multiline, Spray, Mist, Single Shot, etc.
2. Grease Lubrication – Progressive, Dual Line, Multiline, Spray, etc.
3. Rotary Gear Pump
4. Progressive Blocks, Distributions Blocks and Dose Feeders
5. Electronic Timer and Controllers
6. Hydraulic Tubes, Fittings and Spares
7. Accessories like – Level Switches, Pressure Switches, Flow Switches, etc.

CENLUB SYSTEMS is instrumental in smooth running of Iron & Steel Industry, Mining Industry, Defense Factories, PSU Units, Railways Units, Sugar Industry, Cement Industry, Conveyors, Material Handling Equipments, Paper Mills, Printing Machines, Packaging Machines, Automobiles Industry, Textile Industry, Tyre Industry, Batch Mixing Industry, Food Processing Industry, etc.

001DL0306

CENLUB SYSTEMS is also associates with global players like FLOWMON (UK) and GRACO (USA) for promotion and supply of high quality products. FLOWMON specializes in flow instruments and GRACO specializes in Industrial Lubrication Equipment for Mining Industry and Earth Moving Equipments and Fluid Maintenance for all type of fluids like oil, grease, paints etc.

CENLUB SYSTEMS, an ISO 9001 : 2000 certified establishment, has high end manufacturing setup with precision machines like CNC Lathe, CNC Milling, Grinding, Lapping, & Honing to provide closer tolerances.

K G CORPORATION

306, Sarita, Jain-Temple- St. Xavier's College Road,
off. C.G. Road, Navrangpura, Ahmedabad – 380009.
Cell No: +91 9824250640, +91 9714050640
E-mail: kgccorporation@yahoo.co.in
kgccorporation@gmail.com
bhadreshnagori@gmail.com
Website: www.kgcorporationindia.com
www.kgcorporation.co.in