

PLS-100 Lubrication System

Volumetric compressors
lubrication system
engineered for accurate
lube oil distribution



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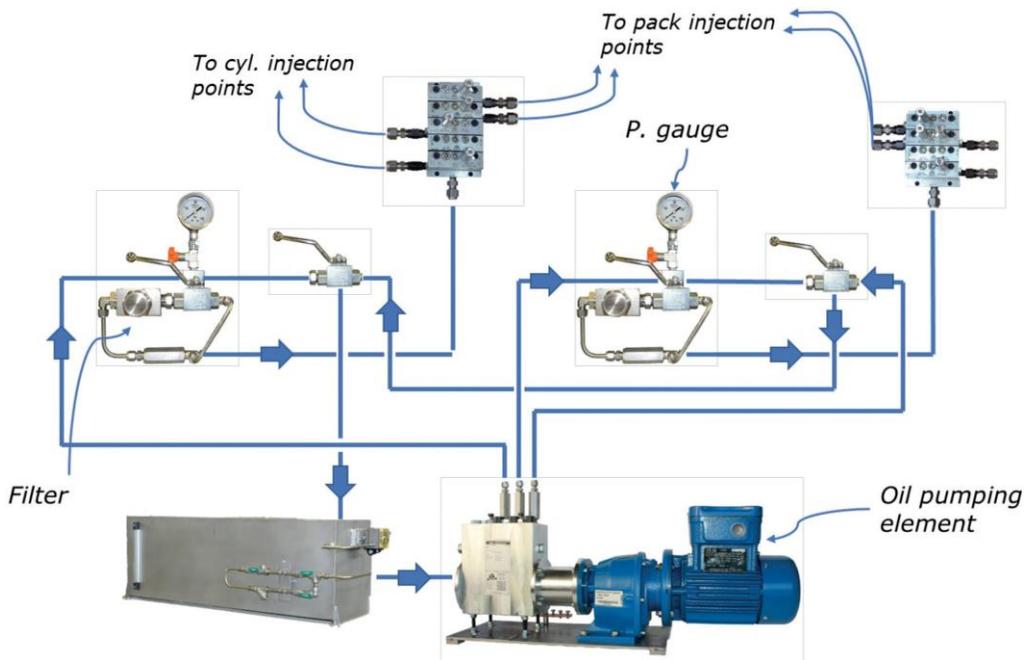


Functional description

The lubrication case includes a number of pumping units; these are much less than the number of lubrication points, unlike in a traditional point-to-point system. Downstream of each pumping unit, a divider block injects oil into points on the cylinders at similar pressures, eliminating the need for the balancing valves required in traditional divider block systems. The divider blocks ensure precision distribution and controlled oil flow, that can be adjusted easily at any time by acting on the related pumping unit.

The pumping units work in stable conditions, and the quantity of oil can be monitored by flow meters installed on each divider block. In the event of a pumping element failure, a standby pumping element automatically takes over and the faulty element is bypassed by a 3-way valve without tripping the compressor.

The variety of possible combinations of each divider block, together with the possible arrangements of the few and simple elements of the system, allow a wide range of applications.



The new Precision Lubrication System (PLS)

- Handy**
Few pumping elements combined with the precision of divider block technology.
- Simple**
Very low number of devices to be installed, increasing system availability.
- Flexible**
Many applications in any environment.
- Money saver**
Significantly reduced oil consumption compared to traditional PTP systems.
- Precise**
High-accuracy oil flow rate at each lube point.
- Rapid ROI**
One year expected ROI for a 4 cylinders unit.

The scope of supply can include

Certification of conformity to European Directive ATEX2014/34/EU

Assistance for commissioning and start-up

Personnel training

Accessories suitable for services up to 350 bars

On-field measurement and troubleshooting

Local data acquisition system to link the sensors with the PC in the control room

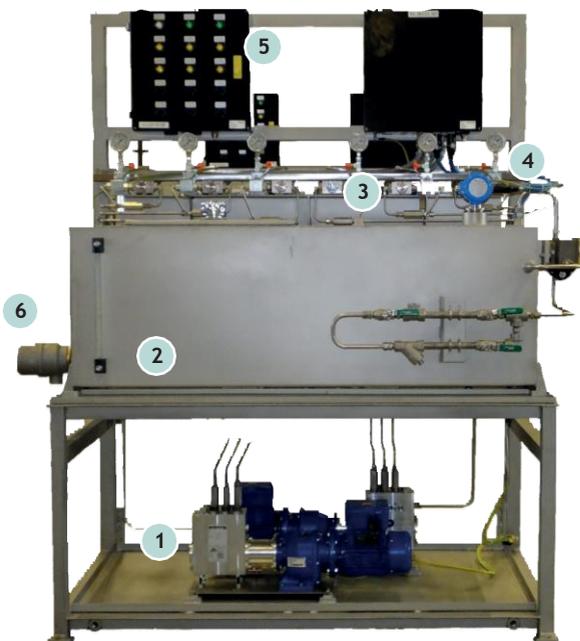
Reservoir with up to 3 weeks refilling time interval

Eex-I or Eex-d Proximity switch, both available with integrated display



PLS components

1. A lubrication case, with few pumping elements, and an electric motor driver, if required, to be installed on the machine or in the vicinity.
2. Oil reservoir, refilling intervals up to 3 weeks.
3. Safety valve, filter, pressure gauge and check valve downstream of each pumping element, increasing system reliability.
4. Few divider valves - as many as the pumping elements or cylinders – installable either on the panel or on the machine.
5. Online monitor and local control panel to constantly verify the lube oil flow rate of each block.
6. Level switch, electric heater and temperature transmitter in order to guarantee the correct oil viscosity.



PLS advantages



Reduced oil consumption and downstream contamination



Lower compressor operating and maintenance costs



Increased safety due to constant monitoring



Nosticking phenomena on the cylinder valves



Extended pumping element life due to performance control



Norisk of compressor shut-down due to lack of lube oil



Simple connection to compressor PLC or DCS by voltage free contacts

C.S.T is a high technology design and maintenance engineering company, established
By a group of experienced engineers to support OEMs, Packagers, Main Contractors
And End Users in designing, assembling and servicing compression equipment.



Compression Service Technology

50127 FIRENZE – ITALY – Via Panciatichi, 40
Tel. +39 055 431062
Fax. +39 055 4476278
E-mail: cst@cstfirenze.com
www.cstfirenze.com

For more information please contact:

Cosimo Carcasi

Consultative Service Leader

E-mail: cosimo.Carcasi@cstfirenze.com

C.S.T Proprietary information

The images contained in this document are only intended to illustrate the service:

The actual supply is defined in the proposal, which will be customized for each application.