BROCHURE

Photo of our headquarters in Pianico

Our Company operates in the field of oil hydraulic, hydraulic and pneumatic machines, being distinguished by:

- Design, construction and testing.
- Start-up, installation and machine start-up support.
- Rationalization of obsolete machines.
- Design and construction of special and compliant cylinders.

Declaration by Conformity of our machines in compliance with:
Machine Directive 2006/42/CE and Compliance Directive PED 2014/68/UE

We offer a "Turnkey" formula for our machines. With a full and absolute after-sale support.

PRODUCTION

SERVICES

PRODUCT CATALOG

WORKS AND REFERENCES

Oleodinamica Sebina S.r.l.
Via Broli, 27/29 - 24060 PIANICO (Bergamo) - Tel. +39 035 988271 - Fax +39 035 988365
Web: *www.oleosebina.it* - E-mail: *oleosebina@oleosebina.it*

BIRTG AND DEVELOPEMENT

Constituted in 1989, **OLEODINAMICA SEBINA s.r.l**. is now a high-ranked Italian company in the field of oil hydraulic and pneumatic machines. Certified since 2001 for compliance with ISO 9001:2001 standard and since 2010 found compliant with the new ISO 9001:2008 standard.

ZERTIFIKAT ◆ CERTIFICATE ◆ СЕРТИФИКАТ ◆ CERTIFICADO ◆ CERTIFICAT

CERTIFICATO

Nr 50 100 10739

Si attesta che / This is to certify that

IL SISTEMA QUALITÀ DI
THE QUALITY SYSTEM OF

OLEODINAMICA SEBINA s.r.l.

SEDE LEGALE E OPERATIVA:
VIA BROLI 27/29
I-24060 PIANICO (BG)

È CONFORME AI REQUISITI DELLA NORMA
HAS BEEN FOUND TO COMPLY WITH THE REQUIREMENTS OF

UNI EN ISO 9001:2008

Questo certificato è valido per il seguente campo di applicazione
This certificate is valid for the following product or service range

Progettazione e fabbricazione di impianti oleodinamici e meccanici
(EA 18)

Design and manufacturing of Hydraulic and mechanical systems
(EA 18)

ACCREDIA

Per l'Organismo di Certificazione
For the Certification Body
TÜV Italia S.r.l.

Andrea Vivi

Data di emissione / Issue date
2011-11-14

Data di scadenza / Expiry date
2014-11-13

"La validità del presente certificato è subordinata a sorveglianza periodica a 12 mesi e al riesame completo del sistema di gestione aziendale con periodicità triennale"

"The validity of the present certificate depends on the annual surveillance every 12 months and on the complete review of company's management system after three years"

TÜV

Our company operates on a 2,400 square meters area, which houses a recently built construction dedicated to manufacturing oil hydraulic and mechanical machines.

We also use extensive spaces for technical and management offices.

OLEODINAMICA SEBINA s.r.l. external view

TECHNICAL AREA

Reception

meeting room

Technical reunions room

Corridor going to the technical and management offices

Technical office

General archive

OPERATIONAL AREA

Carpentry and mechanical construction area

Assembly and testing area

Technical/Operational office

Technical/Operational office

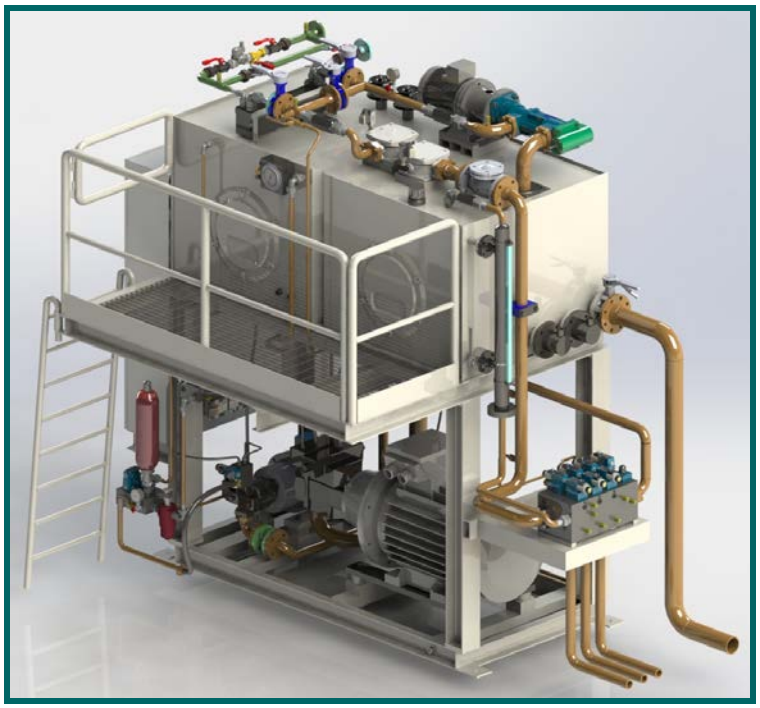
Storage facility for first-quality valves

DESIGN

Every work order is handled with care and properly prepared:
Used programs Autocad and Solidwork

- the design (calculations, sketches, etc.) performed in a preliminary phase is re-examined during a possible offer
- it is sent for approval to the end customer
- a Manufacturing and Construction Plan is prepared, which includes every single stage of processing, from construction to delivery

By this, Oleodinamica Sebina ensures a continuous monitoring of products, from their birth in the technical office, to their construction, finishing and delivery.



Rendering

Rendering

PRODUCTION

OLEODINAMICA SEBINA s.r.l. is a complete and versatile organization, structured so that it can perform the following activities:
- Machine design, construction, testing, start-up and installation, as well as start-up support.
- Declaration by Conformity of our machines in compliance with: Machine Directive 2006/42/CE and Compliance Directive PED 2014/68/UE.
- Rationalization of obsolete machines.
- Design and construction of special and compliant cylinders.

We offer the "Turnkey" formula for our machines, also including after-sales service. Implementing the company quality system and the certification thereto, we intend further strive towards a continuous improvement of our Company's performance and efficiency.

OLEODINAMICA SEBINA s.r.l. also offers installation of its machines, with site management and supervision; each installed machine is **filled with running oil and the related CONTAMINATION ANALYSIS is performed with certified equipment**.

OLEODINAMICA SEBINA s.r.l. can also supply certified and radiographically-inspected welds, performed by its welders holding an authorization according to the PED Directive.

All construction works are done in our workshop (carpentry, oil hydraulic blocks, machine tools processing, assemblies, tests and everything else needed for a complete supply).
Some extremely exceptional processing works are performed by our several partner companies.

Each product is delivered complete with a Technical File, prepared in compliance with the legislation in force.

CARPENTRY

Tank

The tank shall perform the following functions:
Containment of the hydraulic fluid for pump suction, in an amount sufficient to cope with possible losses.
Performing an important function of fluid conditioning while allowing it when returning from the system to decant and to remove air before being sucked from the pumps.
The tank is also equipped with all the necessary accessories for a quick and efficient servicing such as inspection doors; oil drain cock and filling cap.

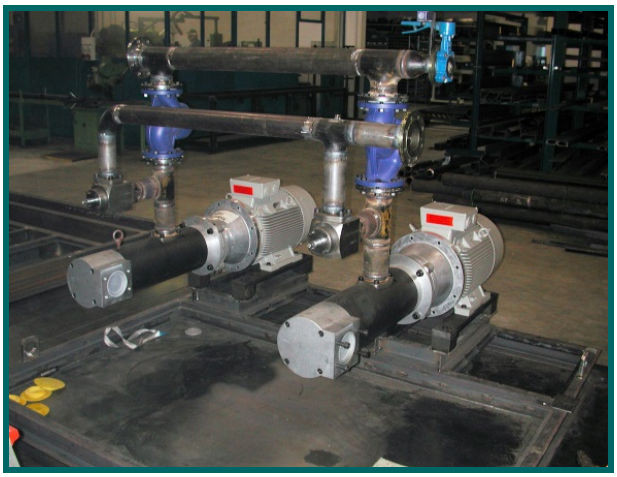
Tank construction

Main motor pump unit
The motor pump unit draws oil from the tank to send it through pipe to
the network and performs the function of providing the same fluid under pressure.

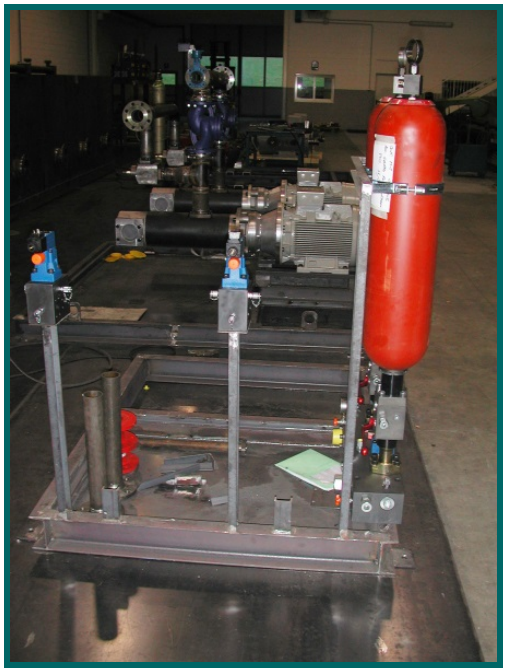
Conditioning unit
Mainly composed of motor pumps for low pressure, filters and heat exchangers, performs the function of oil conditioner within the tank by filtration and retention of constant temperature.

Return filter group
Performs the function of filtering all the oil returning from the valve benches, valve blocks and then of all of the actuators of the users.


Construction of power units


Stands for conditioning pumps


Basamenti motopompe


Accumulator assembly

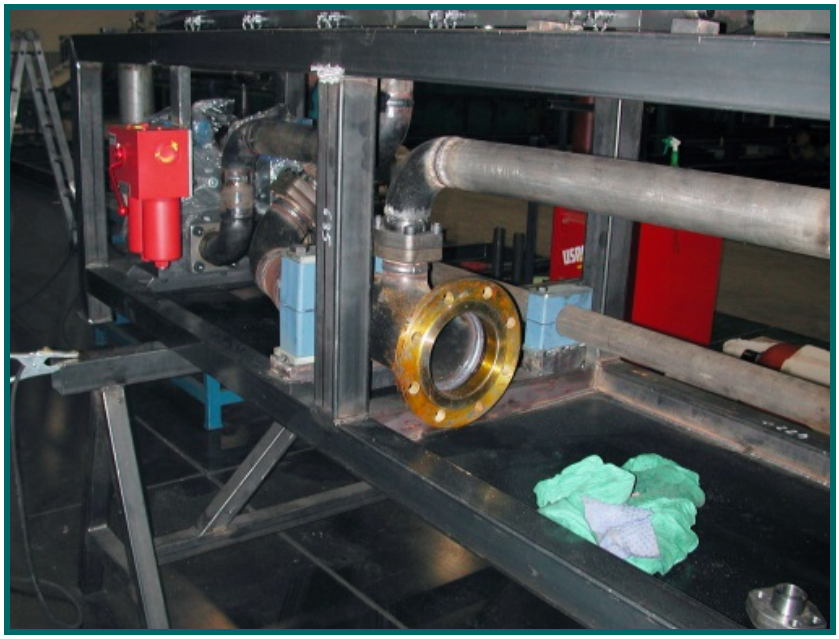
Valve Bank

The valve bank through solenoid valves and directional valves installed on the bench performs the following tasks:

- conveys the oil under pressure coming from the fluid power unit to the actuators with the function of handling all the mechanical parts (cylinders, fluid power motors, by means of appropriate directional distributors).
- conveys the return oil from the actuators (with almost no pressure) between the valve bank and the power unit.

Construction of valve bench

Construction of valve bench



Construction of valve bench

WELDING (Welding area)

Oleodinamica Sebina is able to perform any welding (wire, arc, TIG) with our skilled personnel, holding the legal authorizations.
Each weld is properly "prepared" with chamfers according to regulations (as illustrated by the photos below) and, on demand, it can be subjected to a radiography test. During welding (especially for stainless steel welding), we also perform the necessary "gassing" with gases (Argon, Nitrogen) to make sure that pipes are as free as possible from any impurities.

SCH.160 pipe section welded according to internal WPS

Manifolds with chamfers properly prepared for radiography welding

Stainless steel manifolds

PAINTING (Paint booth)

The painting phase is preceded by the cleaning phase, performed in a particular and specific way, for carpentry or pipes:

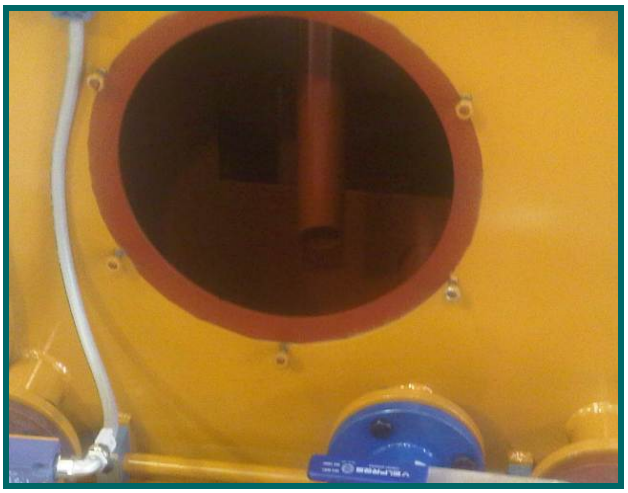
For carpentry:

- Thinner
- Sandblasting grade Sa 2 1/2 (Especially in the case of tanks, on request for each type of carpentry)
- Pickling substance (for AISI 304L - 316L stainless steel materials, ecc.)

For pipes:

- Blowing with compressed air
- Flushing with sliding compressed air balls
- Flushing with oil
- Pickling substance for stainless steel pipes (only for outdoor, since no paint coating is applied), while for indoor areas the above specifications are used

Entrance of valve bench in the booth



2 examples above of oil-resistant paint coatings, ALWAYS and rigorously applied inside the tank

ASSEMBLY (Finishing / installation area)

Utmost care and cleanliness are used when assembling machines. Oleodinamica Sebina ensures the correct torque for all screws using torque wrenches.

Oil hydraulic power unit for assembly

Group of filters for assembly

Valve block positioned for assembly

Small block of valves that underwent the phosphate treatment, to be assembled with SAE flanges

TESTING (Testing area)

Each test is performed by trained personnel, which in most cases is also present during the start-up phase at the customer's premises. The product is subjected to a leakage test (for tanks) and a pressure test.
On demand, Oleodinamica Sebina can also provide non-destructive testing (penetrating liquids, etc.).

At the end of the test phase, a report is drawn up with the relevant calibration values set up on the product. This documentation prepared during testing phase will be followed by the remaining Technical File to be issued to the Customer.

Testing area (Photo 1)

Testing area (Photo 2)

Valve block ready for testing

Valve bench connected for testing purposes

END RESULT

Below, naturally, we can show only a limited range of products that Oleodinamica Sebina has built over the years for the national and international market.

Valve block completed
and positioned on the bench in carpentry area

Valve benches COMPLETED
and ready for delivery

Oil hydraulic power unit COMPLETED and ready for delivery

SERVIZI

The production of HYDRAULIC SEBINA s.r.l., is mostly in the construction of the hydraulics units and blocks / bench valves counters, ready for the functioning of the rolling mills, presses and any other machine that requires oil for the movement.

In fact the hydraulic can be present in any sector including:
Steel and metallurgy;
Navale (Ex .: rudder operation, trees sails, winches, etc.).
Wind (Ex .: operation of hydraulic motors acts to movement of the blades);
Agricultural.

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The careful choice of the materials used by Oleosebina, the controls in various stages of processing and final testing ensure the quality of our products.
HYDRAULIC SEBINA SRL, uses always for its units and its hydraulic blocks/valve benches material of prime quality as pumps and valves (BOSCH REXROTH, EATON, ATOS, etc.).
The pipes and fittings, stainless steel as CARBON STEEL used, come from certified producers, allowing at all times traceability of the pipe itself.

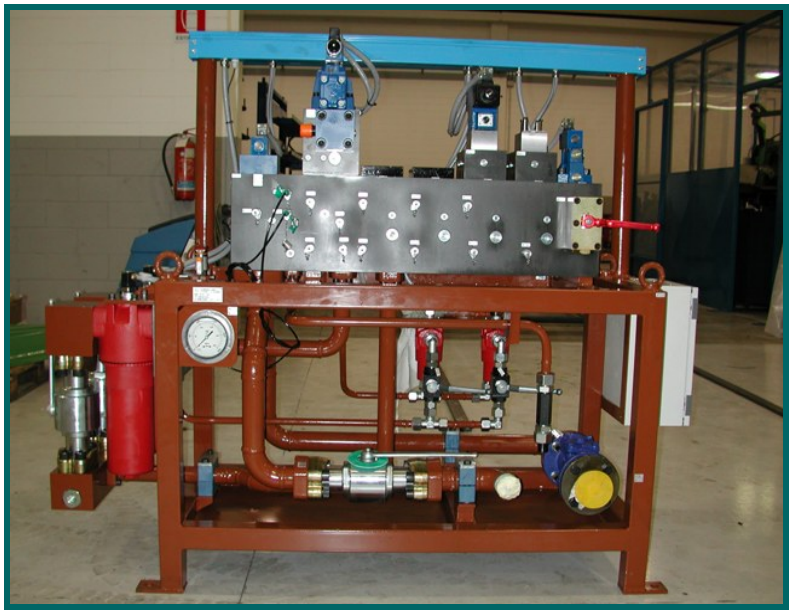
TANKS

Rounded Tank

Tank

BENCH VALVES

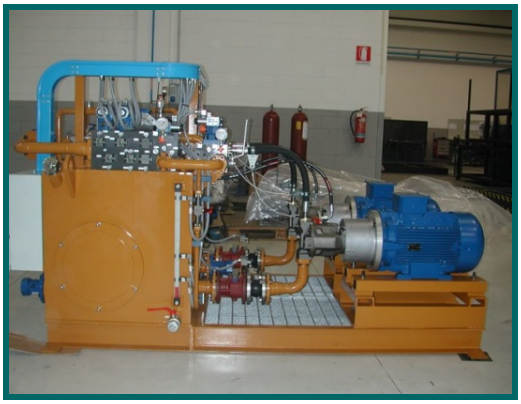
Bench Valves 1



Bench Valves 2

Bench Valve type "Cupboard"

HIDRAULIC UNITS

hydraulic power units for all needs (and all measures)


hydraulic power units for all needs (and all measures)

Unit for oil filling Round-Up

Unit TEST BENCH for testing valves and solenoids

HYDRAULIC UNITS CUPBOARD

Hydraulic Unit “CUPBOARD”

HYDRAULIC UNITS FOR PRESSES

Hydraulic Unit for Vertical Press

Hydraulic Unit for Horizontal Press

Hydraulic Unit for Press

PUMP GROUPS

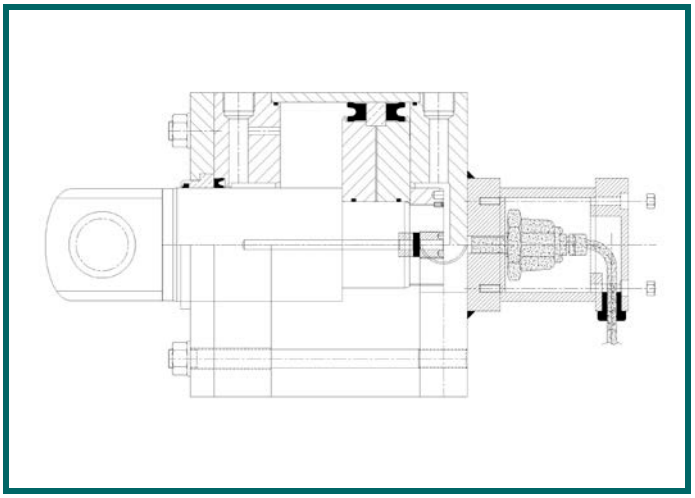
motor pump unit complete with grilled
Under the same grid is placed a pan

Motor Pump Unit complete with pressure relief valve block
and a cartridge holder (solution for single-motor pump unit)

HYDRAULIC CYLINDERS

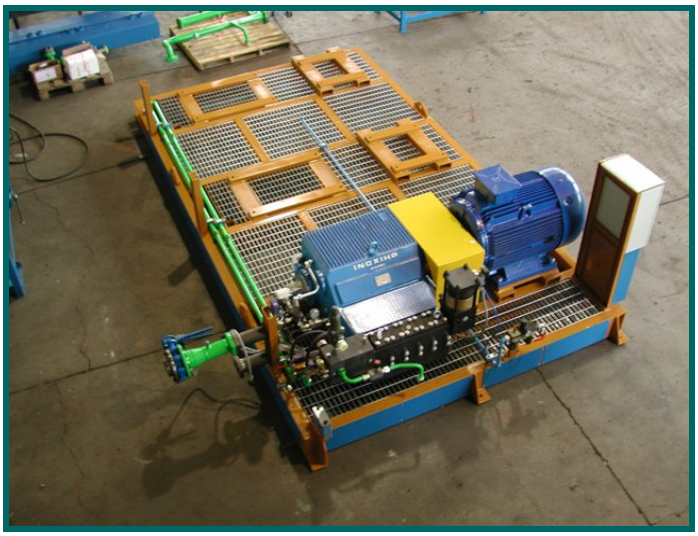
Hydraulic Cylinder

Hydraulic Cylinder with “TempSonic”



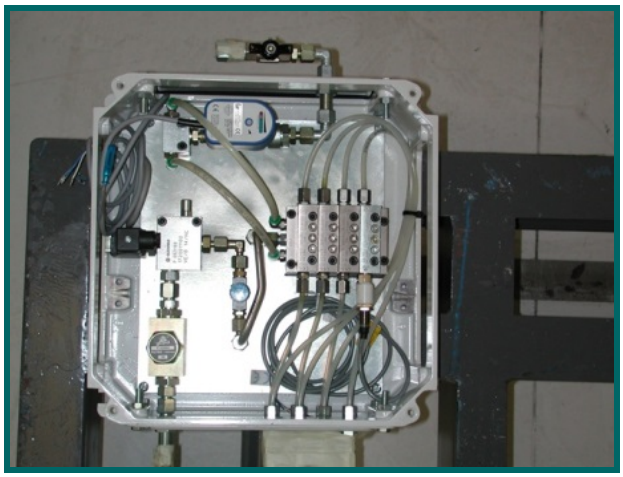
Design Pneumatic Cylinder with “TempSonic”

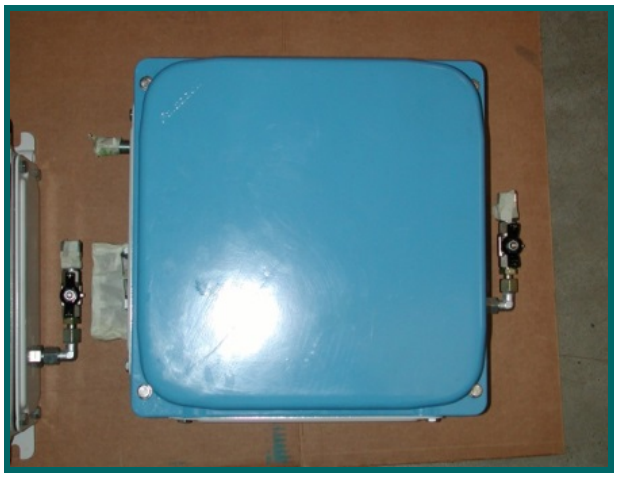
LUBRIFICATION PLANT AND DESCALING



Descaling Group
(with water pump HIGH PRESSURE)

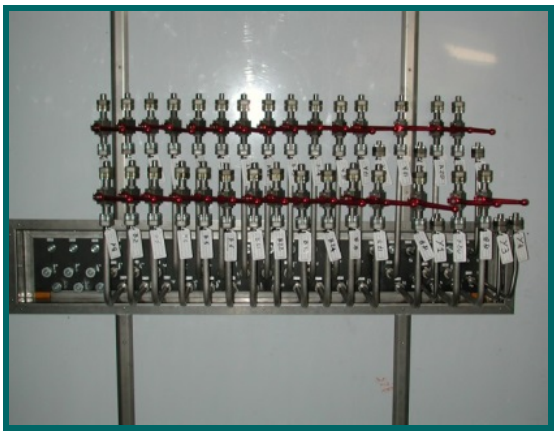
Pump for GREASY PLANT



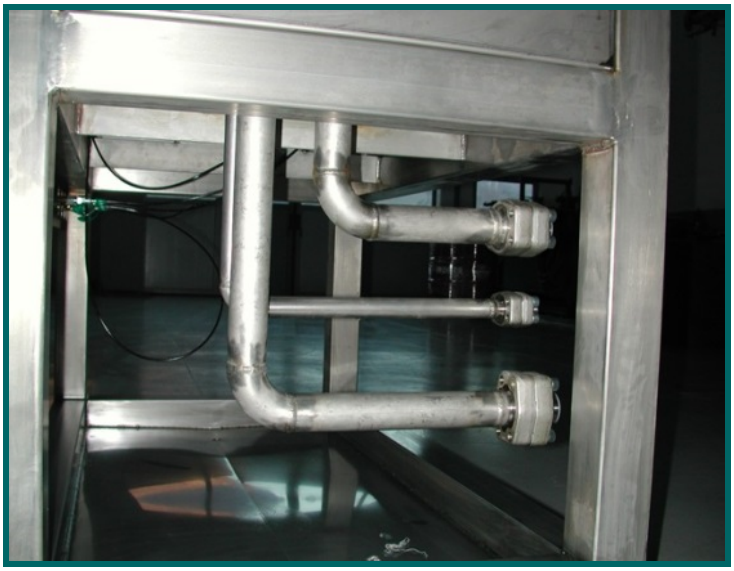


AIR-OIL LUBRICATION SAFETY BOX

HYDRAULIC UNITS



BENCH VALVES



COMMISSIONING MANUAL

Safety instructions

These instructions are general in nature, they may not take into consideration all the safety issues that may arise on the system and the particular conditions of danger that can arise in the system.

Hydraulic systems are quite complex, their maintenance must be done by qualified personnel with knowledge of the safety issues related to the automatic pressurization systems

Basic management of a fluid power system

A correctly installed fluid power system ensures a long life without issues and does not need any special maintenance.

The basic principle for proper management, is the absolute need to continually monitor the quality and condition of the fluid that transmits power and the absence of impurities in the circuit, which ensures the reliability of any fluid power machine.

The main causes of out-of-services (equipment stop as a result of seizures or breakage) are wear and ageing of the fluid that transmits power with consequent loss of its chemical and physical properties.

It is now an established fact that the main cause of all these issues is the presence of particles and micro-particles that circulate continuously in the fluid, and are a cause of wear.
These micro particles, if they are allowed to circulate in the system, act as abrasive mixture scratching the surfaces and dragging in the cycle further contaminant.

It is therefore extremely important that the operations of verification are programmed and reported on machine and system cards, which must accompany every power unit and every part of the system.

On these cards the maintenance workers can report the works performed and any disruption that can be found, thereby obtaining a history of the life of the system.

Major interventions on the fluid power system

Fluid power unit

- Before you work on the fluid power unit, make sure that the system is put into safety and that no motorized pump can come into operation without authorisation of the maintenance operator.
- Close all the cocks upstream of the groups where the work is performed.
- Connection to the discharge of the manifold and the sections of pipe or valve blocks involved in the intervention

N.B.: **In the case of lack of unloading cocks, use miniflexs to be screwed on pressure taps (minimess).**

Valve Bank

Notes: Before performing works of general maintenance you need to make sure that the network pressure is zero.

Pressure relief;
Closing of shut off cock at the entrance of the VALVE BANK;
Opening the cock to drain the line under pressure.

N.B.: **In the case of lack of unloading cocks, use miniflexs to be screwed on pressure taps (minimess)** positioned on the stretch between the valve block and the user, for the discharge of the pressure.

Attention! Direct the other end of the miniflexs to an oil recovery container or to the oil collection tray of the valve bank so as not to incur safety issues because the oil in addition to being pressurised is also very hot.

Risks that may arise in the start-up phase and necessary precautions

a) Unforeseen movements of the machines.
This danger occurs when you restart the hydraulic system after a shutdown.
Do not start the system without first making sure that there are no people in dangerous positions in the area served by the system.
b) The system is stopped with mechanical drives in unstable position (suspended loads)
Do not rely on the hydraulic devices to keep loads suspended, always use buffers or mechanical stops.
c) Safety valves

Periodically check the calibration of the valves.

First commissioning

Check of preliminary arrangements

Check that all equipment is installed correctly and that the piping is tied securely with an appropriate number of supports and that the mounting is not an obstacle to the accessibility of the equipment.

Make sure that the staff which has carried out the assembly of the system has performed all the foreseen operations including piping flushing, required to obtain a system clean and free of any impurities.

Make sure that all the electrical connections of the control and power equipment have been executed in perfect efficiency and that the power grid provides the voltages and the type of current required for the various control organs.

System startup operations

N.B.: Before you open the oil cock in order to pressurise the valve bank, MAKE SURE that on the system there is only the personnel in charge, who must take particular care in this first stage.

Tests with load

a. Perform several movements of the actuators with load and adjust the speed according to the design data.

b. Adjust the limit switches

c. Check all the functions of the system:

d. Compare the measured values with the design data (pressure, speed, calibration of the various control equipment) and update them reporting them on the diagram.

General Tests:

During the first movements you should check for leaks in both the valve bank and the piping installed in the field.
It is also advisable to check the temperature of both fluid and bearings (of the pumps).

After the first 50 hours of operation it is advisable to analyse the oil, checking for water and alterations due to wear and oxidation.

After a few hours of operation under load, you should recheck the setting of the valves since the design settings are usually higher than the values necessary for operation.

INSTRUCTIONS FOR MAINTENANCE AND INSPECTION

Oil in the tank

In general, the oil must be replaced after 2000 hours from the first start and after 5000 hours for the next operation of the system.

Notes: However, it is very important to make frequent analyses to establish the actual need for replacement: in general never exceed the contamination equivalent to NAS 1638 class 7

Summary table for the planning of interventions

FLUID POWER UNIT / VALVE BENCH									
OPERATION	FREQUENCY	DATE OF THE INTERVENTIONS							
External cleaning of the different groups	Every four months								
Fluid topping up	When the level is at minimum								
Temperature check	Daily/weekly								
Fluid replacement and internal cleaning	Every 5000 hours of work								
Filter cartridge replacement	**On each notice (max quarterly)**								
Suction filter cleaning	Monthly								
Air filter cartridge replacement	Quarterly								
Accumulator precharge check	**Every six months**								
Water filter cleaning	Every four months								
Heat exchanger cleaning	Yearly								
Pump transmission joint check	Semi-annual/annual								
Pumps leakage check	Every six months								
Distribution valves leakage check	**Yearly**								

WORK AND REFERENCES

Over the years **OLEODINAMICA SEBINA SRL** took a prominent place in the field of fluid system. It has worked with different companies and groups in the country and worldwide with which it carried out work
These include groups such as:

AIC - Automazioni Industriali Capitanio s.r.l.
AFV ACCIAIERIE BELTRAME S.p.A
BM GROUP S.p.A
C.M.V Costruzioni Meccaniche S.p.A.
CEA GROUP s.r.l
DELTASTEEL di Zanotti
FORNI INDUSTRIALI BENDOTTI S.p.A
GF ELTI s.r.l
GRUPPO TENARIS S.p.A
GRUPPO RIVA ACCIAIO S.p.A
LUCCHINI RS S.p.A
PRIMETAL Technologies Italy S.r.l
REMAZEL S.p.A
SISE S.p.A
SILCOTUB GRUPPO TENARIS
SILVIO FOSSA S.p.A
SIGMA PRESSE s.r.l
TENOVA IMPIANTI S.p.A
TPP TRAVI E PROFILATO DI PALLANZENO S.p.A.

OLEODINAMICA
SEBINA s.r.l.

OLEODINAMICA SEBINA s.r.l.

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24060 PIANICO (Bergamo) – Tel. 035 988271 – Fax 035 988365
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C.C.I.A.A. Bergamo N.2455 – Tribunale di Bergamo N. 35106