



# INTZA

LUBRICATION SYSTEMS



General Catalogue



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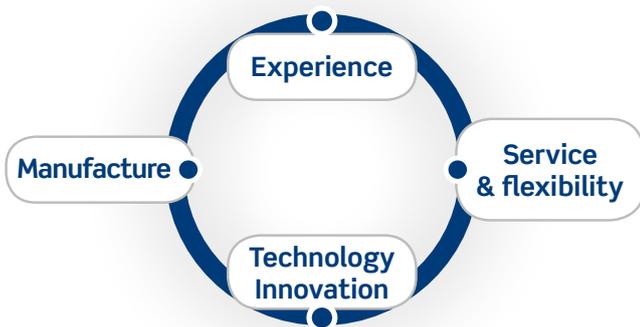
## Accessories

26-29



## More than 40 years of experience in lubrication

Our track record as professionals in the sector began in the early 70s in premises occupying little more than 100m<sup>2</sup> in Azkoitia's San Martín neighborhood, where we produced lubrication assemblies as simple as they were robust.

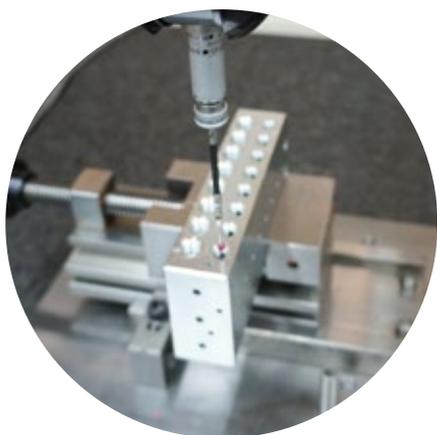


In the 80s the company took a major leap forward in the quality of its technology with the introduction of electronic components for process automation: greater speed, higher production, a larger workforce and the acquisition of machinery. The introduction of these new features prompted **INTZA** to move into one of the first industry parks in the Basque Country.

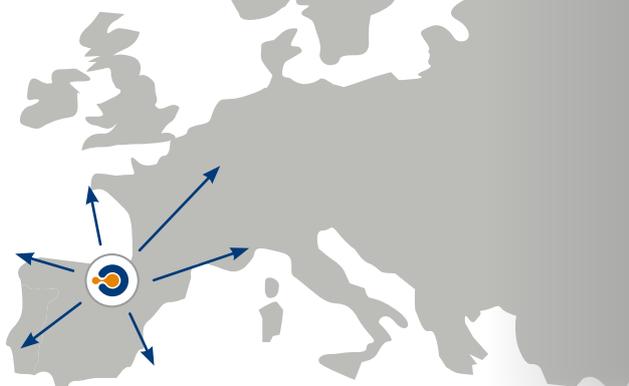
## History

- 1970 Creation of **INTZA**
- 1980 Expansion of installations to 2,000m<sup>2</sup>
- 1985 Agreement with **INTZA-WOERNER** to commercialize **WOERNER** products and systems
- 1986 ISO 9001 Quality Standard obtained
- 2000 Expansion of production installations to 3.000m<sup>2</sup>
- 2002 Strategic agreement with **ANITZ** to assemble and install lubrication systems
- 2015 Articles drawn up for the creation of **GRUPO INTZA**

**INTZA** has always placed particular importance on research and the application of technology to its products, employing a policy of constant innovation and the continuous training of its workforce. This philosophy combined with its work methods keeps the company a step ahead of its clients' requirements and future demands.



## Global presence



## Quality

We know that lubrication systems must be faultlessly reliable, and all of the articles manufactured and assembled at **INTZA** are therefore put through rigorous final tests. Furthermore, the machining processes of each and every component can be perfectly traced to their source.

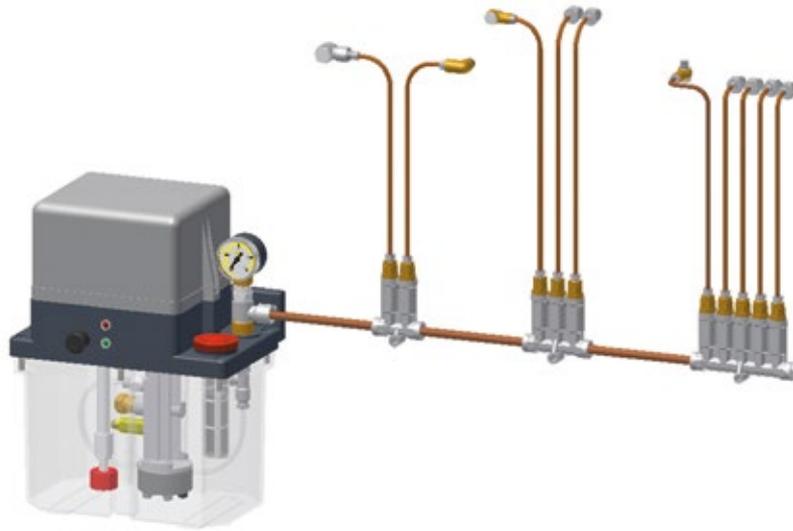


## Potential sectors

INTZA products are mainly intended for all sectors of industrial activity.



# Single-line lubrication system



The **INTZA** single-line systems are **optimized for use with OIL and FLUID GREASE in small and medium-sized machinery**, combining robustness with an unbeatable quality-price ratio for the machine tool, packaging, printing and textile industries and, in general, any others related to machinery construction.

In every cycle, volumes of lubricant ranging from 0.01 cm<sup>3</sup> to 1.5 cm<sup>3</sup> are simultaneously delivered to all of the lubrication points.

The management of this lubrication cycle with volumetric distributors guarantees supply of precisely the right amount of lubricant, independently of changes in viscosity or back-pressure.

The modular distribution of the system allows simple, reliable configurations which can be increased to suit the demands of the end client.



## How the system functions



1



The quantity of lubricant is stored in the inner chamber of the distributor.

2



When the pump is activated, the inner piston shifts, pushing the lubricant towards the lubrication point at the same pressure as in the main line at that particular moment.

3



When the main line pressure drops, the distributor piston returns, allowing the pre-defined quantity of lubricant to enter the inner chamber once again and restarting the process.



**+ GE Series**

Lubrication packages for oil and fluid grease, with and without monitoring and control devices, in different voltages and reservoir capacities



**+ PE Series**

Manual, pneumatic and hydraulic piston pumps for oil and fluid grease



**+ GE33 Series**

Group with double relief valve



**+ DE / VE Series**

Piston distributors for oil and fluid grease



Monitoring elements



Special groups with components to order (UL, etc...)

**+ DE 03 Series**

Volumetric dosers, directly assembled on the lubrication point for oil and fluid grease



Built-in dosers

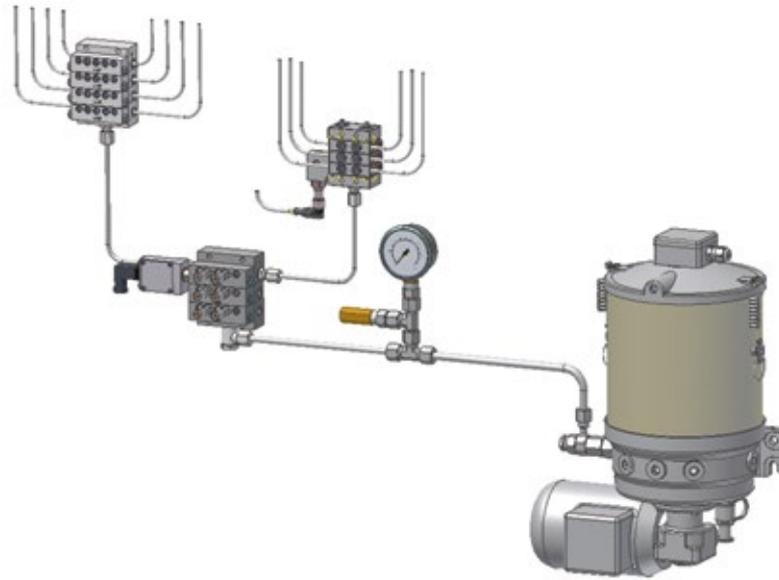


**+ VE 14 Series**

Indirect action volumetric distributors



# Progressive lubrication system



## + Designed for oil and grease (up to NLGI-2)

INTZA progressive systems are optimized for use in small and medium-sized machinery, combining robustness with an unbeatable quality-price ratio for the construction industry, industrial presses, recycling, printing, wind turbines and applications with food fats.

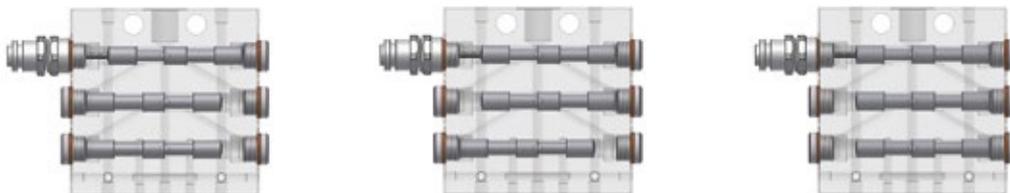
A pump supplies the lubricant to the distributors, which divide the flow precisely and progressively (one by one, in series), between their different outlets.

Each distributor outlet can directly feed a lubrication point or a second sub-distributor, once again proportionally dividing the flow received between the operational outlets.

To ensure that the system is working properly, visual or electronic systems are used to control the movement of any of the pistons inside the distributor.

The INTZA progressive systems combine the highest technology in the field (in pumps and the complete range of progressive distributors, whether in block, segment or modular format).

## ⚙️ How the system works



The system takes its name from the fact that the lubricant is distributed progressively to the lubrication points. The lubricant input causes a first piston to shift, which in turn forces the following pistons into movement, pushing the flow through the outlets and keeping it in progressive and continuous movement for as long as the lubricant input continues.

This means that, in the event that one of the pistons blocks, the distributor will be paralyzed (blocked).

**+ GMA-GMG-GMF Series (Woerner)**  
Electric piston pumps



**+ GF33 Series**



**+ PF01 Series**



**+ PN11 Series**  
Pneumatic piston pumps



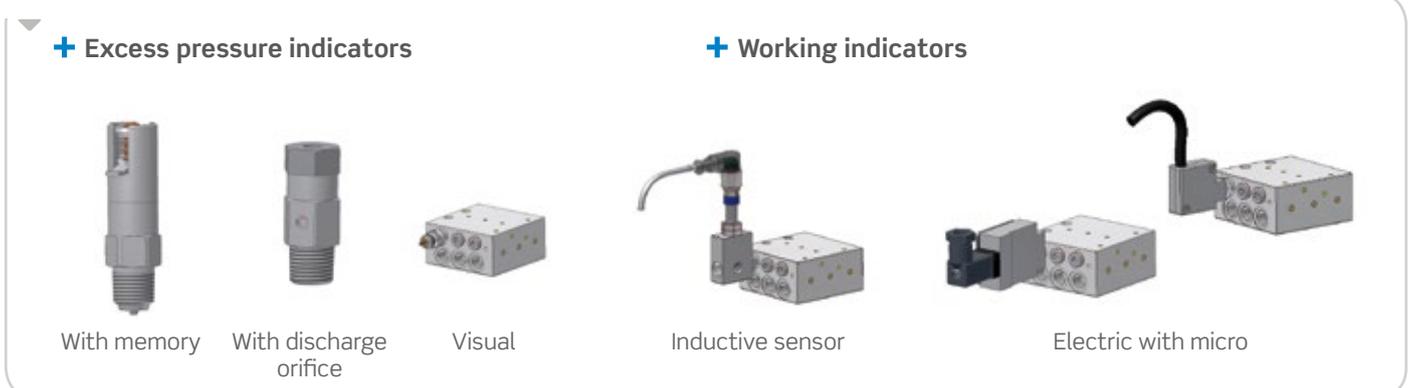
Electric gear pumps



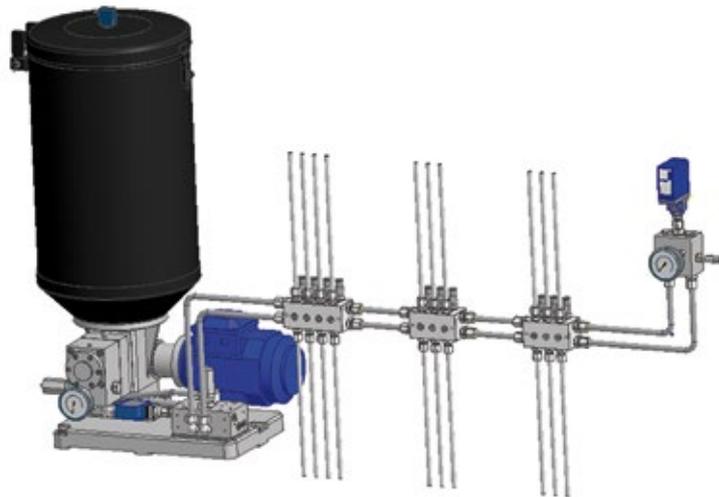
Progressive distributors



Control elements



# Double-line lubrication system



## + 2 main lines for oil and grease (up to NLGI-2)

INTZA double-line systems are designed for large-sized machinery and installations with several lubrication points, large distances between them, long lines and adverse working conditions (temperature, contamination, corrosion and presence of water).

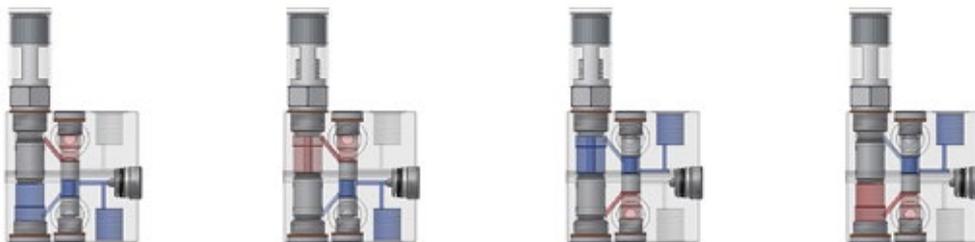
Among their more regular applications, double-line systems are used in mining, iron & steel plants, the paper industry, the cement industry, power plants, bridge cranes and port stevedoring.

The pump alternately drives lubricant by means of change-over valve through the two main lines to the distributors, which dose it out to the lubrication points.

### Advantages of a double-line installation:

- Fully hydraulic operation; has no springs likely to acquire fatigue over time.
- Point by point dose regulation.
- Almost unlimited number of lubrication points and installations easy to expand.

## + How the system works



The pressure formed in the pump is transmitted alternately, through the change-over valve, towards the distributor by means of the two main inlet ports.

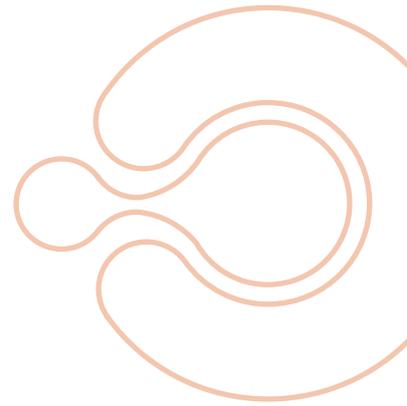
The arrival of lubricant by the lower or higher inlet port creates pressure, shifting the change-over valve and doser pistons to fill the chamber left free with lubricant.

By means of the inversion, the arrival of lubricant through the other inlet port once again shifts the change-over valve and doser pistons, filling the chamber and pushing out the lubricant accumulated in the chamber in the previous movement.

**+ GF33 Series**  
Electric pump



**+ PZ01 Series**  
Manual pump



**+ VZ01 Series**



Adjustable flow distributor

**+ VZ04 Series**



Fixed flow distributor

**+ VZ03 Series**



Distributor for application in high temperature environments

**+ VZ11 Series**



Modular distributors

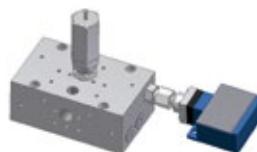
**Change-over valves**

**+ HZ02 Series**



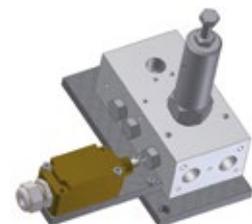
3 l/hr.

**+ HZ03 Series**



12 l/hr.

**+ HZ01 Series**



14 l/hr.

**Control and monitoring mechanisms**

**+ VZ02 Series**



Electric monitoring System

**+ HZ10 Series**



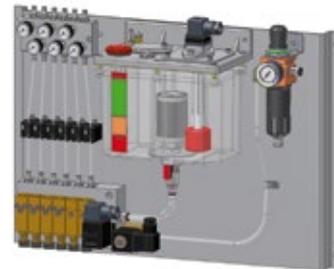
End-of-line control

**+ HZ15 Series**



Differential end-of-line control

# Air-oil lubrication system



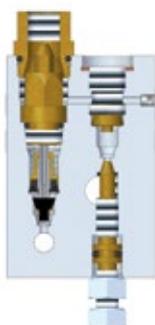
INTZA air-oil systems are essentially designed for application in the **machine tool industry**, (high-speed spindle heads, precision bearings and lubrication of closed gear boxes). They can also be used to provide small and frequent amounts of lubrication to high speed production or machining processes where external lubrication is impossible.

Depending on the installation characteristics, lubrication frequency and flows at desired points, volumetric dosers can be chosen which are fed by a pump (electric, pneumatic, etc) that works with pressure/decompression guidelines.

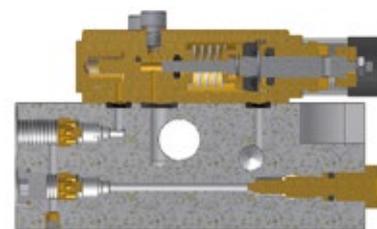
For high frequency/low flow operations (from 4 to 30mm<sup>3</sup>/stroke), pneumatic micro-pumps are more suitable.



## How the system works



The volumetric dosers work on the basis of single-line installation principles, with the particularity of an additional air inlet. Depending on the doser model, the air inlet flow may be adjustable.



Pneumatic micro-pumps allows high operating frequency (3Hz) for guaranteed super lean oil-air lubrication.

**+ PN05/C Series**

Panel with pneumatic dosers



**+ GOE71 Series**

Panel with volumetric dosers and electric or pneumatic pumps



**+ PN05/B Series**

Package grupos with pneumatic dosers



**Dosers**

**+ VOE20/2 Series**



Common lubricant inlet with air regulation at the output port

**+ VOE20/3 Series**



Individual lubricant inlet with air regulation at the output port

**+ VOE10 Series**



Distributors without air flow regulation

**+ PN05/A Series**



Pneumatic micro-pumps

**Control and monitoring mechanisms**

**+ AF02 Series**



Electro-optical sensor for tube mounting



Block for visual control of secondary lines pressure

**Other components and accessories**

**+ PY01 Series**

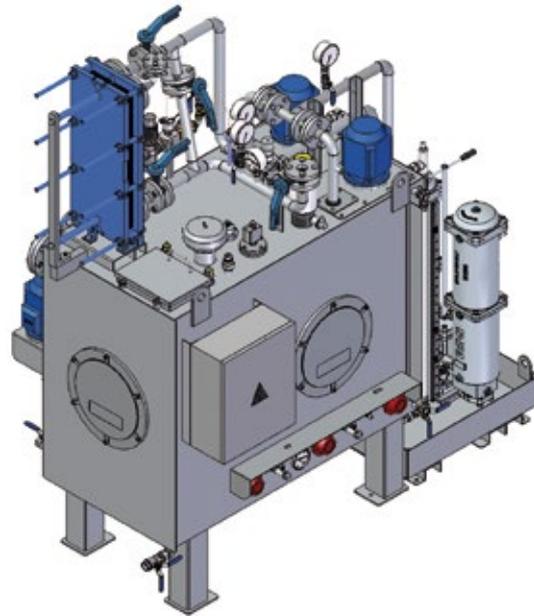


Air and oil vacuum and filtering unit



Coil tube for lubricant reservoir

## Oil circulation lubrication system



INTZA oil circulation systems are intended not only **to lubricate but also to cool the elements** that are subjected to extreme loads, pollution and ambient or operating temperatures.

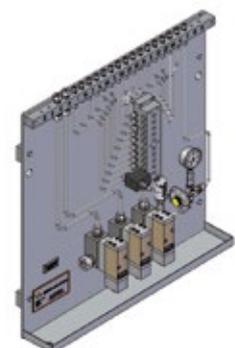
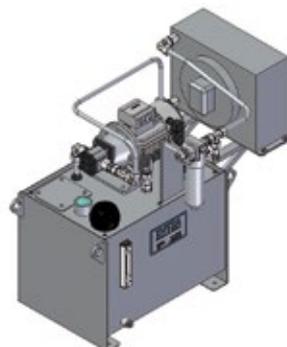
In this type of systems, it is important to control the temperature, eliminate the dirt, air or water particles.

The systems consist in a pump that send lubricant (always oil) to flow regulation elements (manual flow regulators, progressive distributors, flow meters and automatic flow regulators).

**Visual or electric monitoring devices are usually applied to these regulators to ensure that the system functions correctly.**

INTZA oil circulation lubrication systems are available in versions ranging from small 3 liter reservoirs and pumps with a flow of 0.06 l/min to customized 6.1 liter stainless steel reservoirs with flows of up to 200 l/min.

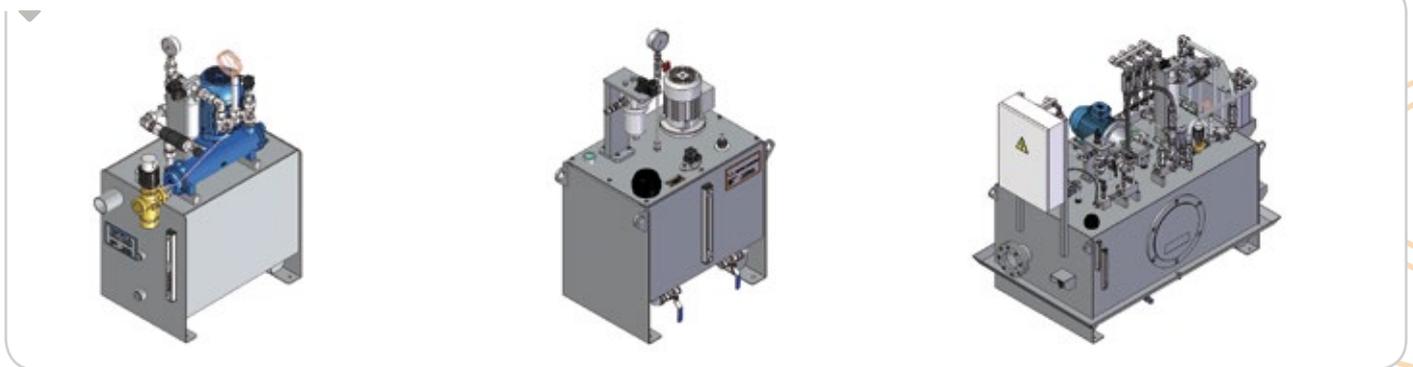
In all cases, the modular design and simplicity when it comes to combining elements means that this system can be almost totally adapted to the requirements of each client and application.



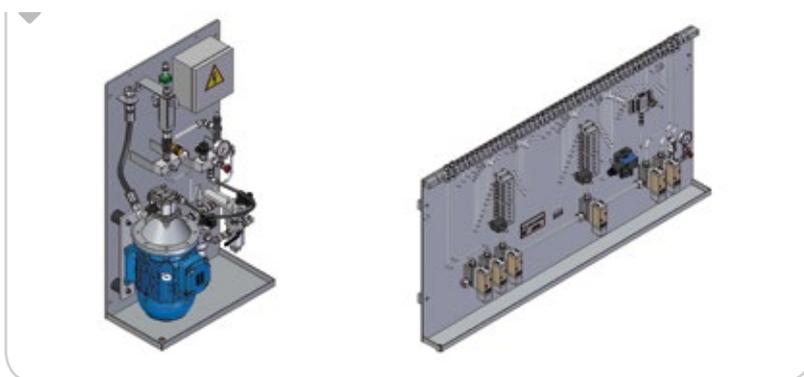
Motor pump with and without reservoirs, in different kinds of construction, flows and pressures



Customized assemblies to the client's technical specifications or requirements



Panels with complete systems or for application with progressive distributors



**+ VU27 Series**  
Adjustable flow distributors



Vacuum and pressure filters



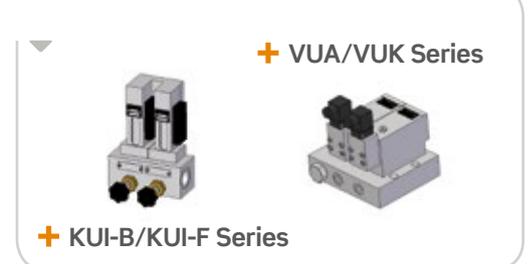
Pressure switches



WOERNER flow meters



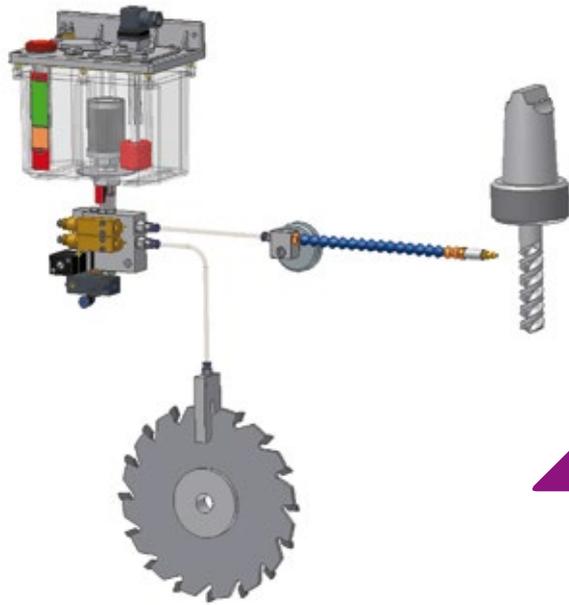
WOERNER volumetric flow regulators



Temperature control: thermostats, heating elements, exchangers...



## Minimum quantity lubrication (MQL) in machining processes



The tool lubrication/cooling systems conventionally used in metalworking and machining processes tend to use great amounts of cutting fluids for the majority of operations, mostly emulsified (cutting fluids) and containing highly contaminant mineral oils.

Using these fluids, in addition to having a negative effect on the environment, represents a health risk to machine operators and can cause another series of problems such cost of purchase, storage and maintenance, not to mention the increasingly higher cost of eliminating its waste.

By means of precise aerosol application, the **INTZA** MQL systems wet the cutting area with the amount of strictly necessary fluid, **thereby drastically reducing (up to 95%) the amount of cutting fluid consumed** and guaranteeing perfectly adequate lubrication and cooling.



### How the system works



INTZA manufactures two basic models of the system in different sizes, voltages, flows, etc. In both systems transport is by means of coaxial piping (lubricant through the inner conduit, air through the outer), with the mixture taking place in the aerosol nozzle.

In the pneumatic micro-pump system, the spray is intermittent, depending on the doser strokes (up to 2 per second).

In systems with a pressurized reservoir, the mixture is constantly sprayed onto the friction point.



Furthermore, **INTZA** has an exclusivity agreement for Spain with Lubrix GmbH, the leading manufacturer of MQL technology for machining processes.



**+ PN02/A Series**  
Electric micro-pump systems



**+ PY10 Series**  
Systems with pressurized reservoirs for continuous spraying



LUBRIX systems for internal tool lubrication



Compact or panel-mounted micro-pump systems

**+ PN02/B Series**



**+ PN02/B Series**



**+ PN02/C Series**

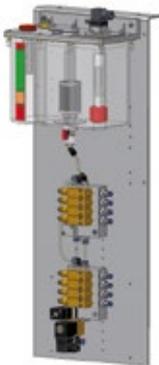


**+ PN02/D Series**



Multi-outlet systems with common or independent control

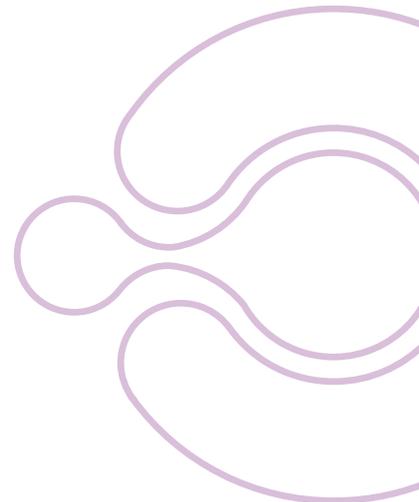
**+ PN02/F Series**



**+ PN02/G Series**



**+ PN02/H Series**



Nozzle and u-shape projectors

**+ SB02/B Series**



**+ SB02/C Series**



**+ SB02/D Series**



**+ SB02/E Series**



# Chain lubrication systems

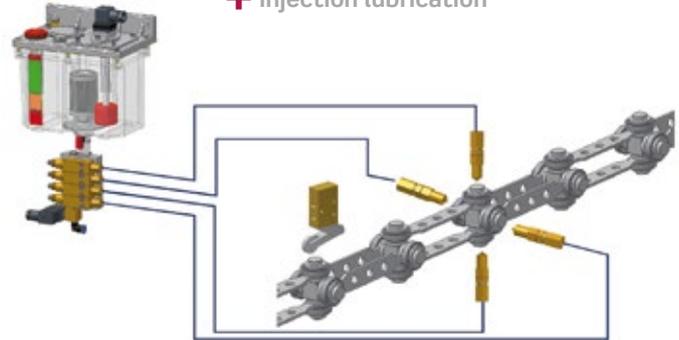


To appropriately lubricate a transmission chain, at **INTZA** we have several possibilities, ranging from a system of impregnation with brushes (pneumatic or electric) to injection spray systems.

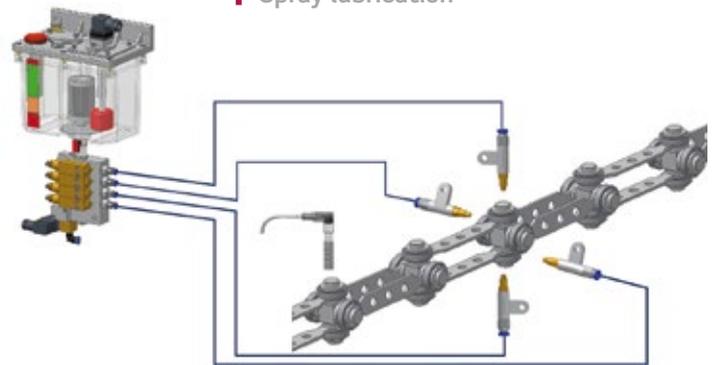
The system always consists of a pump with a variable number of dosers depending on the lubrication points required by each chain, the transport conduit (piping), and the final accessory, which can be an impregnating brush, an injection nozzle or a spray nozzle.

Optionally, in pneumatic systems, the process can be automated by means of a PLC which will detect the signal from a photocell as it detects the link on passing to achieve more precise, efficient, sustainable and low-cost lubrication.

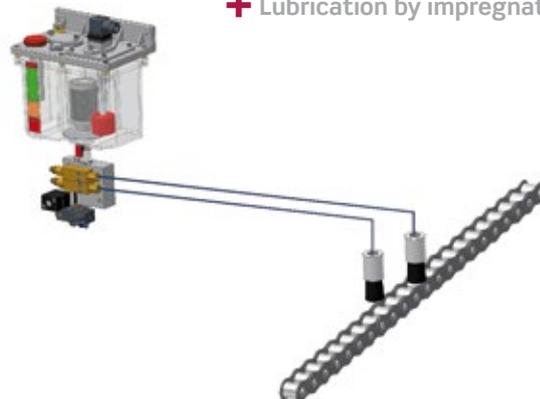
+ Injection lubrication



+ Spray lubrication



+ Lubrication by impregnation



### Projection system

Projected injection (without spray)

#### + SA01 Series



Projecting nozzles

#### + PN03/A Series



Pneumatic dosers

#### + PN03/B Series



Pump systems with reservoir

#### + PN03/C and D Series



Complete panels

### Spraying system

Micro-pumps with coaxial piping transport to the spray nozzle with aerosol generation

#### + SB02 Series



Projecting nozzles

#### + PN02/B Series



Pump systems with reservoir

#### + PN02/C-D-F-G-H Series



Complete panels

### Brush impregnation system

Brushes fed by pneumatic micro-pumps or lubrication centers combined with volumetric dosers

#### + PN03/B Series



Brushes in different threads and dimensions

#### + GE Series



Lubrication centers

#### + VE Series



Volumetric dosers

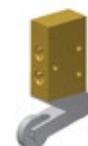
### Detection devices and control boxes



Automatic control boxes



Proximity sensor

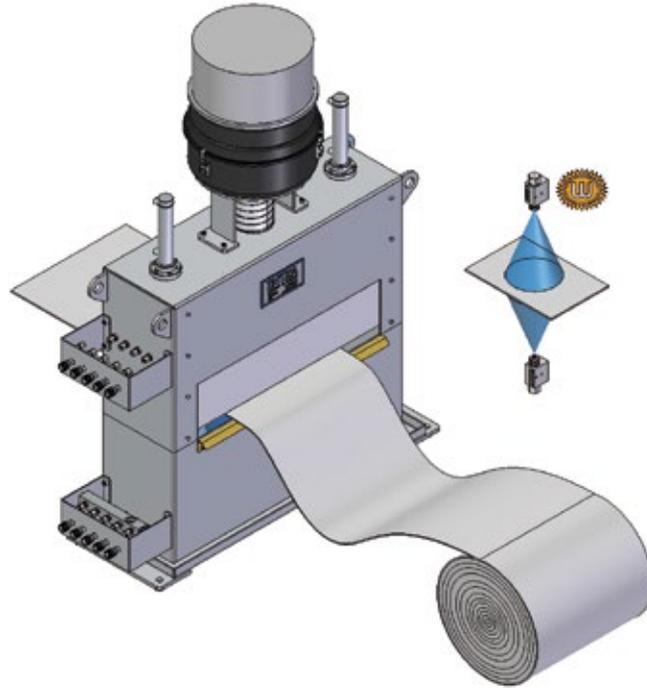


Mechanical activation detector



Photocell

## Lubrication for metal stamping & forging processes, deep drawing, die cutting, die lubrication...



Metalworking sometimes requires a great deal of pressure to achieve the required deformations, and lubrication is one of the variables that affect the materials during the stamping process.

Using a good lubricant, in the correct amount and dosage, **can translate into a significant reduction in waste and improved stamping quality**, preventing product rejects and only using the precise amount of oil, with no massive generation of waste.

At **INTZA** we design and manufacture all kinds of systems to facilitate the automated lubrication of this kind of processes, ranging from specially designed nozzles for a perfect oil spray, to pressurized systems with several outlet ports and complete cabins that even permit extraction of the mist generated in the procedure.

### Characteristics of the INTZA stamping systems:

- Increased performance of the stamping process, preventing product rejects and non-programmed machine stops.
- Improved surface finish thanks to constantly maintained friction temperature.
- Savings in the amount of lubricant used, reducing the process costs.
- Lubricant evaporation during the machining process, meaning no generation of waste in the piece worked or in the swarf. No additional processes to clean and dry the pieces are therefore required; if necessary, vapor and mist extracting systems can be incorporated.
- Substantial increase in health and safety at work and improved global environment.
- Does not generate mist or splashing and prevents bacteriological growth of any kind.
- Working without water or waste does away with the need for additional systems to filter and manage waste requiring special treatment.
- Automation of the system to work in time with the machine.

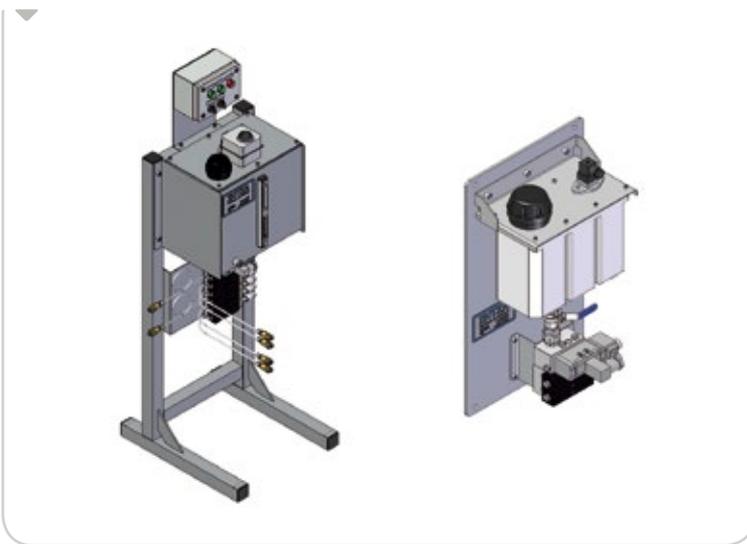




**System with AIRLESS pressurized spray nozzles**

- ▼
  - Small and medium-sized systems:
  - Modular, installations easily expandable.
  - Possibility of mobile systems (carriage-mounted).
  - Very simple to use.
  - Operates at medium and high pressure.
  - Oil flow regulation from the doser.

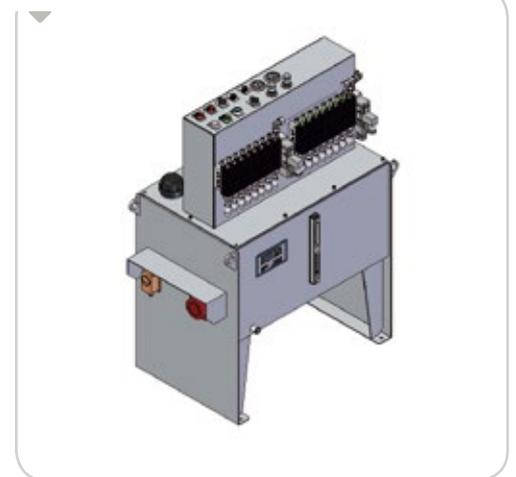
**Pumping systems**



**Cabin**



**Pumping systems**



**System with piloted nozzles and AIR and LUBRICANT inlet ports**

- ▼
  - All kinds of systems (large, medium, small).
  - Spray angle regulation.
  - Spray air flow regulation.
  - Spray oil flow regulation.

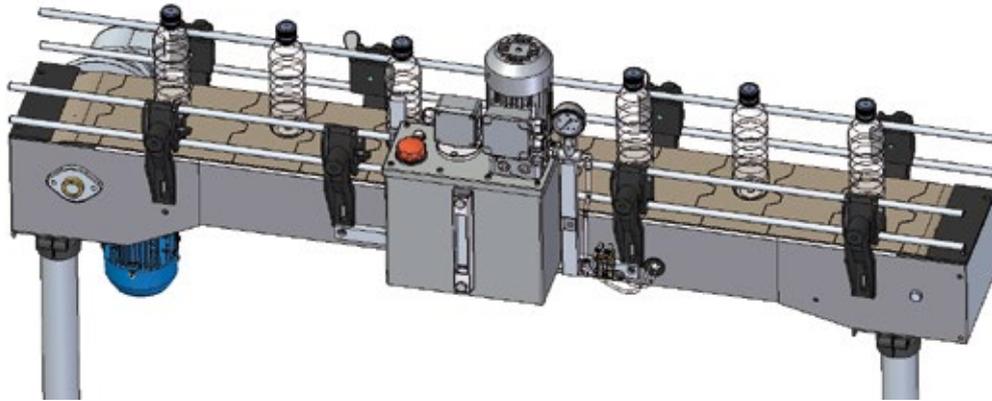
**Cabin**



**Cabin**



## “Dry” lubrication for conveyor belts in the food industry



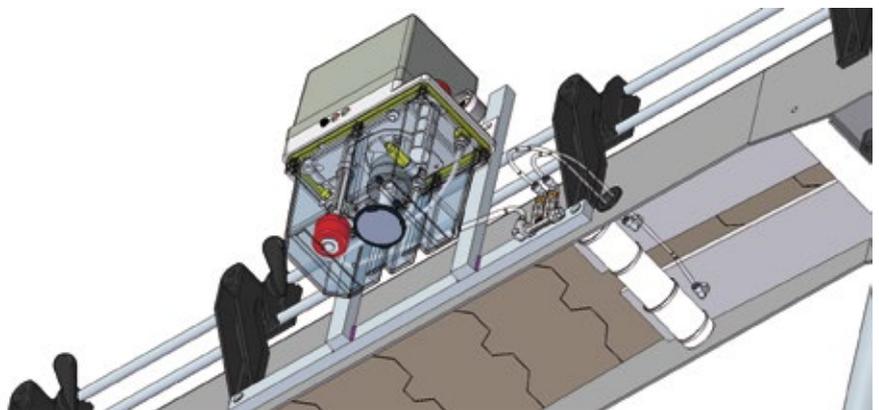
**INTZA** dry lubrication systems substitute the use of water soluble lubricants (water & soapy solutions) for a series of lubricants specifically developed to lubricate conveyor belts and the guides they run on. Said lubricants are applied volumetrically on both elements for immediate adherence, reducing the friction, but without drips or dampness of any kind.

The system works in a similar way to single-line lubrication systems (see page 4). A pumping unit pushes a flow of oil into the main line; this oil then distributed to the lubrication point according to the volume established in each outlet port of the volumetric distributors. The oil is directly applied to the guides in a precise dosage, while in the case of the chains, plastic strips are installed for homogenous dosage.



### Most common sectors of application

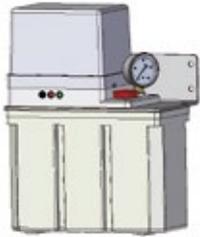
- Dairy product manufacturing.
- Soup, juice, sauce production.
- Bottled water.
- Beverages.
- Pharmaceutical laboratories.
- Canning factories.



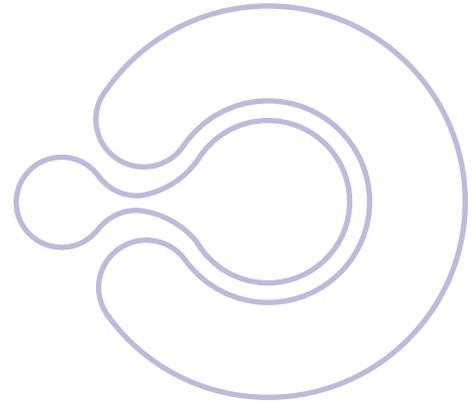
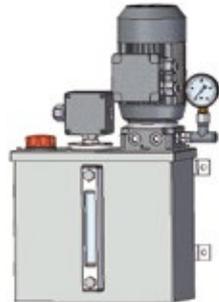


Lubrication packages for oil, with and without control and monitoring device, in different voltages and reservoir capacities

**+ GE01 Series**



**+ GE28 Series**



Volumetric distributors with zinc-treated or completely stainless body, with quick connect fittings

**+ VE28 Series**



**+ VE36 Series**



Connectors (FDA-1935/2004/CE)



Screws for guide lubrication



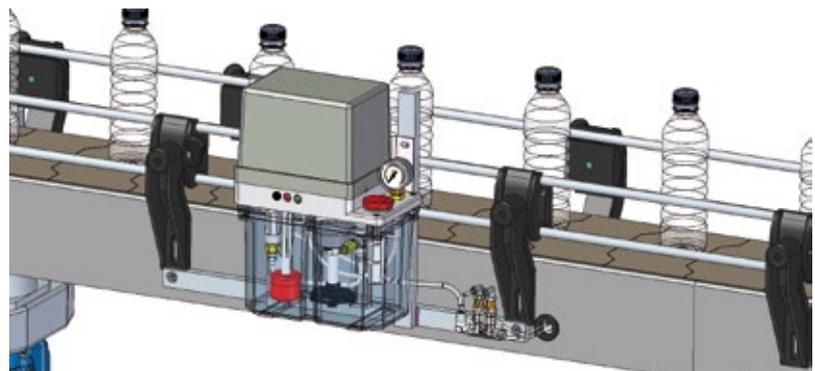
Polyethylene strips for lubricating hinge strap surfaces



Blocks of valves for segmenting and controlling different lubrication lines



Assemblies for monitoring line pressure

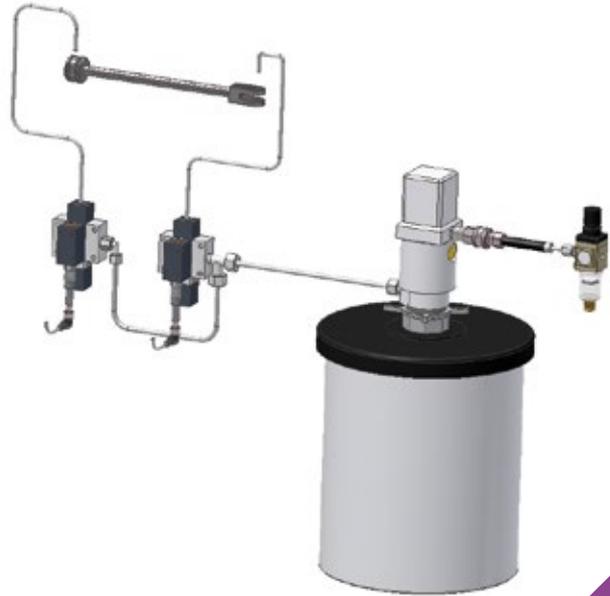


## Grease & oil dosing for assembly lines and stations



INTZA grease and oil dosing systems are used to mount lubricant dosing installations on the assembly lines of household appliances, special machines, production lines, shock absorber and brake assembly lines, the automotive industry...

The purpose of a dosing installation is to deliver an exact dose of lubricant to a particular part of the mechanism at a specific time and rhythm.



### Products

Double-effect dosers, DN10 and DN11 series, generally fed by pneumatic container pumps with dosing ranges of between 20 and 3500 mm<sup>3</sup>/stroke



Single-effect dosers, PN03 series and fed from a reservoir with dosing ranges of between 3 and 60 mm<sup>3</sup>/stroke



# Railway lubrication



In recent years **INTZA** has developed specific lubrication systems for application in the railway industry, both to improve the useful life of wheelsets (flange lubrication) and, by means of systems to lubricate the rails from the vehicle, to prevent noise, particularly in overground intercity transport.

The objective of the lubrication system is to;

- Reduce noise and wear on wheels and rails.
- Reduce lubricant and compressed air consumption to the minimum.
- Supply an economical system with low installation and maintenance costs once up and running.
- Define a system applicable to trains, trams, suburban underground systems and any other vehicle running on rails.

Depending on the application, we can supply systems to spray oil or grease (up to NLGI 2).

+ Control box



+ Pumping assembly with reservoir and control box



+ Flow divider



+ Spray nozzles



+ Application with oil



+ Application with grease



The application with oil has a pumping unit with reservoir and pneumatic doser, combined with a flow divider and two spray nozzles (one per flange).

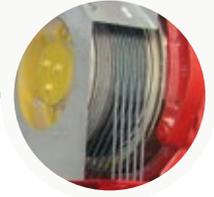
Optionally, a box can be installed with monitoring and control devices: electro valves, regulators, PLC, tiltmeter, GPS signal...

In grease spray mode the system operates by means of a reservoir with pressurized drive that feeds 2 pneumatic pumps; these in turn dose the lubricant to the nozzles.

Both systems can be activated in different ways:

- By time.
- By curve, depending on the tilt angle.
- By distance covered between a signal from a train control system to another additional GPS transmitter.
- Directly from the vehicle automaton.

## Metal cable lubrication



The **INTZA** metal cable lubricating mechanism is used in systems requiring cable lubrication without stopping the machinery: shipping, ports, mining, construction, funicular railways, cable cars, cranes and lifts.

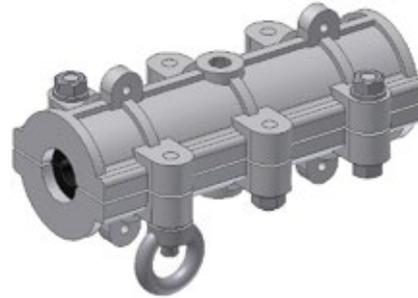
Thanks to its design, the mechanism can be assembled in any position, although the most recommendable is as close as possible to the cable winding drum. It is mounted directly on the cable and will continue to lubricate while the installation remains in operation.

The mechanism consists of a split body (two halves), mounted on the cable to be lubricated and closed with the rod and bolt system on the mechanism itself. Both sides have two handles serving, with karabiners and chains, to hold the device in place and withstand the force of the moving cable.

A pump injects lubricant into the chamber of the mechanism. The cable is lubricated as it moves through the chamber.

The rubber bushing at the cable entry point removes the old grease.

The bushing located at the outlet port homogeneously distributes the new lubricant applied (each bushing set must be adapted to the cable diameter).



- **Lubricant:** Oil or grease.
- **Body material:** Aluminum.
- **Cable Ø:** Ø16 to Ø38.
- **Lubricant input thread:** 1/4" BSP.
- **Oil or grease mounting position:** Any.

## Other fields of application



INTZA products are directed at all sectors of industrial activity.

### + Robots



### + Cranes



### + Quarries and cement factories

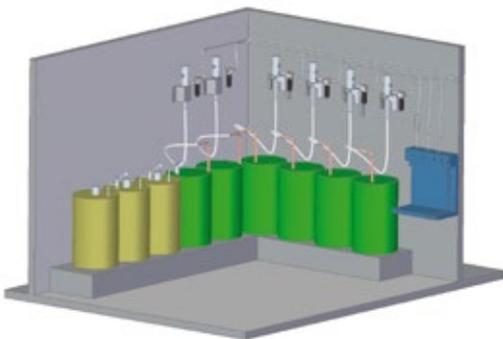


### + Energy



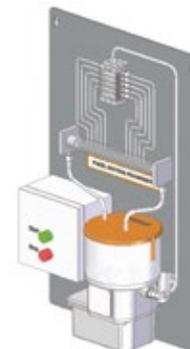
### + Chemical industry

- Lubricant logistics



### + Didactics

- Professional schools
- Maintenance team training





# Accessories



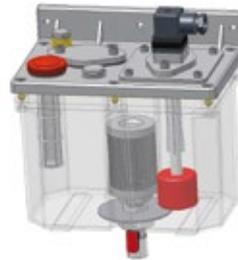
## + Tanks designed for oil and grease (up to NLGI-2)

In different standard capacities:  
0.25-0.5-1.5-2-3-4.5-6-10-16 liters or custom made.  
In plastic, aluminum, metal.

Suitable for use as collection reservoirs or to feed pumps and other systems.

Available with different accessories:

- Level switches.
- Feed filters.
- Decanting and filtering systems.



### Oil pressure filter

#### + HF01/F Series



3-10-25-40-125 microns

### Grease pressure filter

#### + HF01/G Series



25-60-300 microns

### Suction filters

#### + HF01/B-C-D-E Series



With metal mesh and male or female threads

Pressure switches with simple (NO-NC) or change-over switch contact in different pressure ranges



Drop mechanisms, in different capacities, from 10ml to 300ml



Reservoir level control switches



Nylon float and brass rod



AISI316 Float and rod



Nylon float and rod

KF30 level switches for controlling 3 contacts



Non-magnetic KF40 float switches for application with fluids with suspended metal particles.



Different mounting options: flanges, threads ...



Threaded connectors M12



Capacitive sensors for application in all kinds of fluids





## Accessories



Units combining different lubrication systems (e.g. single-line & MQL)



Lubricating gear wheels



Shut-off valve units for the independent cut-off and lubrication of different installations



Spray devices in different materials (steel, AISI)



Magnetic plugs or candle shapes for mounting on reservoirs



Purges for removing air from reservoirs, pans, etc.



Overflow valves for removing excess grease from bearing housings, etc.



Fittings



[www.intza.com](http://www.intza.com)



**FACTORY AND HEAD OFFICES**

Polígono Ugarte 15  
20720 Azkoitia · Gipuzkoa · Spain

Tel.: +34 943 852 600

Fax: +34 943 851 643

[intza@intza.com](mailto:intza@intza.com)

**BARCELONA DELEGATION**

Avenida 310, 1B - Local 8  
08860 Castelldefels · Barcelona · Spain

Tel.: +34 936 381 061

Fax: +34 936 383 446

[intza@intza.com](mailto:intza@intza.com)

