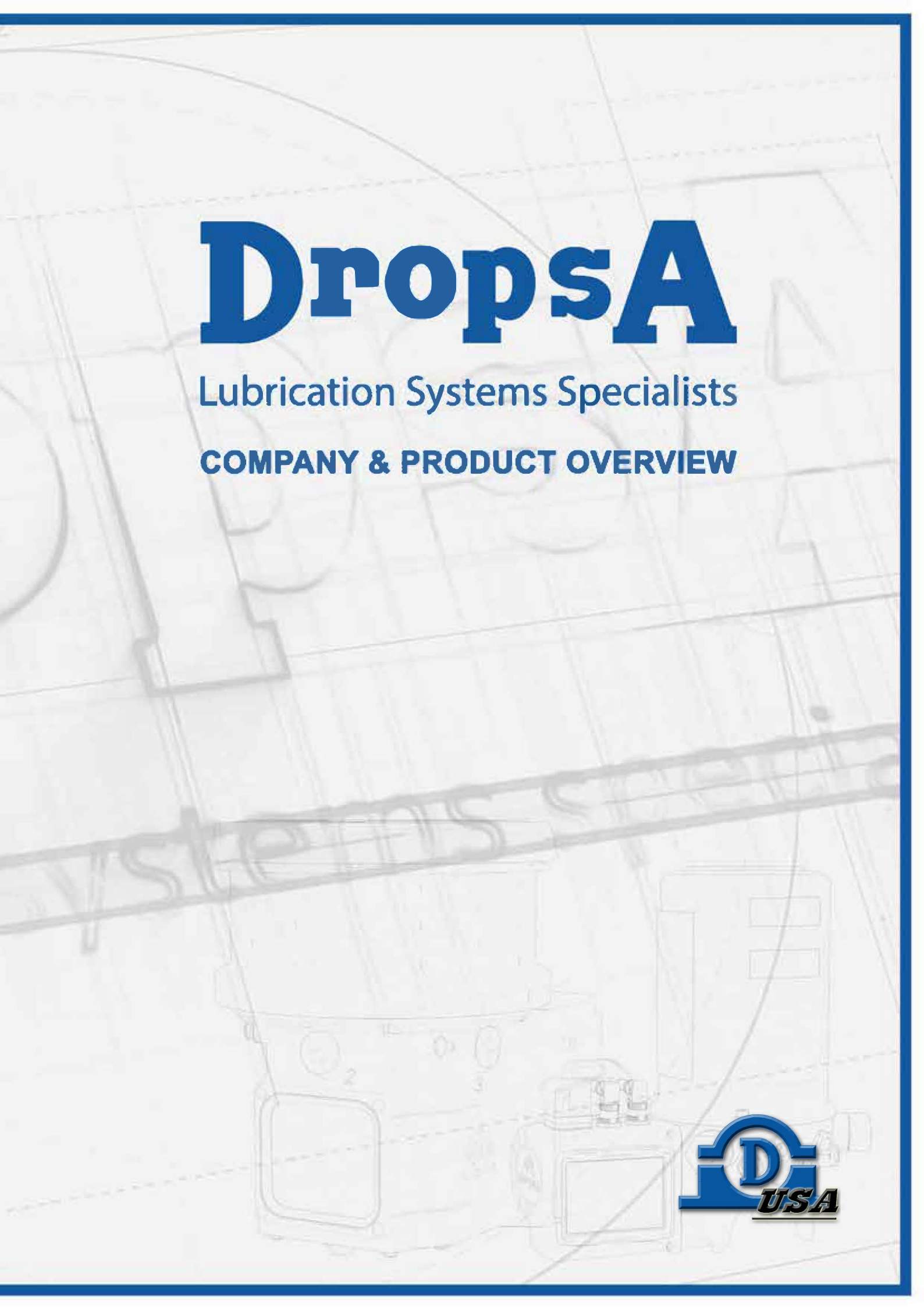
DropsA

Lubrication Systems Specialists

COMPANY & PRODUCT OVERVIEW



ABOUT DROPSA

Company Profile

Since 1946, DropsA has been producing centralized lubrication systems and components, developing many ideas and products which have shaped our industry. Today, our innovation is ever present, showcasing new products and technology to the global market

DropsA USA, established in 1992, provides the expertise, values, and quality put forth by DropsA S.p.a. to the North American market. With a distribution network throughout the United States, Canada and Mexico, DropsA USA is poised to provide the products and service to exceed our customer's needs and expectations.

Mission & Values

Develop high performance,simple-to-use products that address customer applications in a cost effective manner.

Maximize customer profitability and productivity by offering cutting edge technology in systems, components, and operation. Provide quick response times, installation, and support to customers operating both at a local and global level. Maintain excellent standards to all customer locations worldwide with our network of DropsA companies and specialized distribution channels.

Establish a global presence with exceptional support.

Quality

DropsA was the first lubrication company in Italy accredited with ISO9001, in 1995.

Our quality standards is the basis for the management and governance of all processes inside and outside our organization.

Continuous investments have been made in all aspects of product design and manufacturing to continually increase the reliability of our products with rigorous environmental testing. Design and process controls, FMEA, capability studies,and environmental testing are all contributing factors in developing a robust, high quality product.

In 2012, DropsA implemented real time monitoring capabilities of all production machinery, assembly,and testing stations, allowing data and results to be collected and analyzed for quality advancement and fully traceability of parts.

Research & Development

Our dedicated product R&D facility includes all the latest tools for developing products:

- Advanced 3D solid modeling, CAD/CAM,
- Rapid prototyping and 3D Printing capabilities,
- Finite Element Modeling (FEM) and Computational Fluid Dynamics (CFD).
- Environmental reliability, testing facilities,and product life cycle testing equipment allow our engineers to develop and test new products and technology.
- DropsA products conform to worldwide machine safety and emissions standards. We hold numerous world-wide patents. Additionally, we have specialized resources to develop hazardous area compatible products to ATEX or API standards.

- Strategic Innovative development of IoT and protocol standards on embedded lubrication control systems

IoT touch 4.0

Global Lubrication Solutions Provider

- Direct presence in the major global industrial markets
- Extensive and highly trained network of resellers and partners all over the world

Production

All our production and assembly facilities operate under extensive quality monitoring and product tracking to ensure both the highly efficient machining and assembly of products to exact specifications. Our machining and automated assembly production facility based in Milan, Italy, is equipped with some of the most advanced manufacturing systems in the industry, operating around-the-clock with real time updating and monitoring.

Advance Manufacturing Technology

DropsA's own Minimal Quantity Lubrication (MQL), near dry machining technology has been applied across our machining facilities allowing for substantial progressing productivity and elimination of water based coolant from metal cutting operations. The result is an energy efficient and environmentally friendly production facility. The entire production facility is Internet-enabled, which allows our manufacturing engineers to monitor production machines and assembly lines in real time from any location. Continuous investments in automated assembly lines have allowed production components to be produced at globally competitive costs whilst maintaining outstanding quality and first class performance standards.

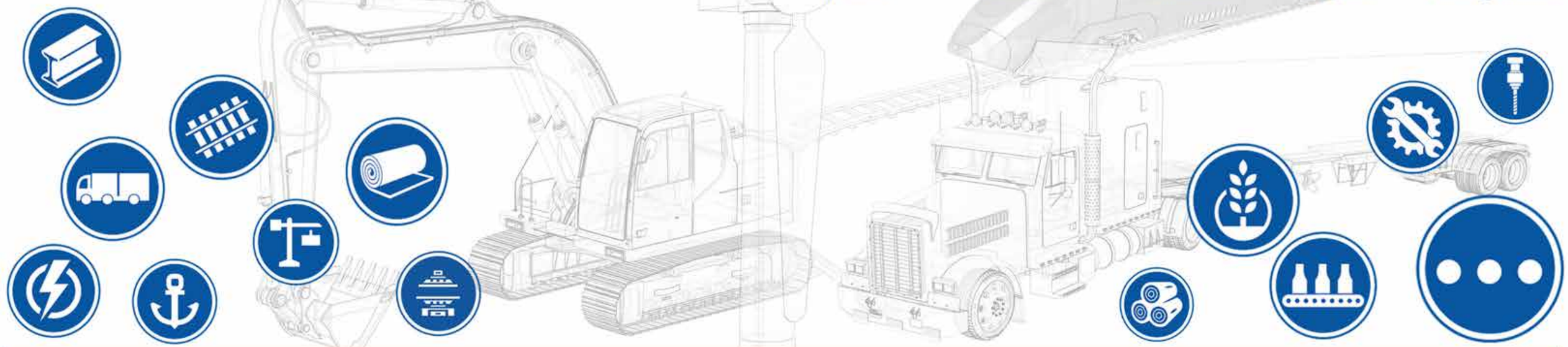
Environmental sustainability

DropsA has adopted a policy based on Eco-sustainability and utilizes renewable energy sources to feed all production processes while minimizing consumption and environmental impact.

DropsA Lubrication Solutions

Products & Applications

DropsA applications cover an extensive range of solutions for a variety of industries. Experience and attention to new technologies, materials, and processes has allowed us to focus on demands coming from specific industry segments which, in turn, enables us to offer efficient customized solutions to customers with the use of our modular core technology concept.



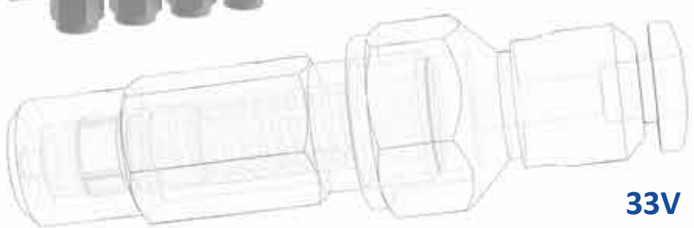
DropsA

33V and DL Single line Injectors

Utilized in many applications, total loss oil and fluid grease lubrication involves creating a thin oil film between moving parts which is renewed at regular intervals by an automated lubrication system. A key user of such technology is the machine-tool industry.

Dropsa offers a variety of solutions depending on machine type, budget, number of points, types, and viscosity of the oils.
Single line injectors and DL32 or DL33 injectors are the right products for precise machine lubrication, minimizing costs and consumption.

DL32-DL33



33V

Oil lubrication systems

DropsA offers customized, advanced technological designs and management systems for total loss lubrication. DropsA engineering and development designs oil stations, with capacities from a few liters up to few thousand liters, equipped with a controls solution that is integrated with machine and operation logic.

Station with in-line pumps

PUMPS PACKAGES

DropsA has developed a wide range of standard electric, pneumatic, and hydraulic pump packages, all suitable for total loss oil systems. A custom design service is available to tailor pump packages to specific customer requirements.

Smart3

DragonX

Series 340

Smile

Piccola

GREASE LUBRICATION

Grease lubrication can be utilized in a wide field of applications ranging from small machines, such as woodworking machinery, to large heavy industries, such as steel plants or paper mills. DropsA's large selection of pump packages, with many custom design options, allow any grease lubrication system to be developed reliably and cost-effectively. The most popular systems used for grease lubrication are Dual Line and Progressive Dividers.

Range of pumps

LocoPump s3

Bravo

AUTOMATIC OMEGA PUMP

Polipump

Series 234700 and 400300

989V2

Sumo2

MiniSumo2

Dual Line System

The modular design pioneered by DropsA allows easy configuration and expansion of a system. Additional components can be substituted during maintenance, without the need to disrupt interconnecting pipe-work.

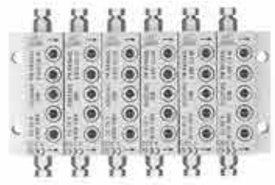
DM-DMM-DMG-DMF

Progressive System

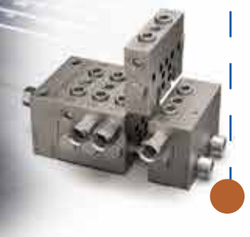
The Progressive Divider distributes the flow of a pump throughout separate 'progressive outlets' by the use of a progressive spool arrangement. Positive lubrication feedback for all of the points can be achieved by monitoring one outlet with a cycle sensor.

SMP

DL1



SMX



nPr+ -Nano Progressive

Modular lubrication stations

An innovative concept adaptable to all lubrication systems. DropsA's modular stations are customizable, starting with the pump; electric applications (SUMO II, Mini-SUMO II, BRAVO, etc.), or pneumatic and/or barrel (with removable or fixed base) applications, an air filtration unit (in the case of a pneumatic pump, electrical control panel, and system monitoring capabilities. Even complex systems can be manufactured to meet the needs and requirements of the end user.

The key to a good oil recirculating lubrication system is the precise regulation and monitoring of the lubricant supply to each lubrication point. DropsA has developed patented world leading technology to achieve this with remote diagnostics to ensure that the oil recirculation system is always operating at peak efficiency.

Concept of Oil-Recirculation

Oil recirculation involves a continuous oil flow to the lubrication points. The oil is controlled by quantity and temperature, collected through a drain network and returned to the supply tank, starting the process over again. The oil is therefore "recirculated" back to the point of lubrication. When the oil flows through the lubrication point, it does not only act as a lubrication agent but also removes a significant amount of heat from the bearing or lubricated area in the process. Oil recirculation is utilized extensively in the Power Generation and Pulp and Paper Industries allowing increased operating speeds and performance through rapid change over of lubricant that removes heat and provides full oil immersion lubrication.

Engineering & Project Management

Oil recirculation systems are often customized solutions specifically engineered for each individual application. Therefore, having a partner that can assist in each phase of the project is imperative. DropsA is dedicated to assist our customers during all the phases of development; from site surveys, pump station design, product manufacturing, installation, and turn-key implementation of custom oil recirculation solutions.

Flowmaster System

The new patented Flowmaster device developed by DropsA has an ingenious flow adjustment system that allows precise regulation at both low as well as high flow rates. Contributed to a specifically developed regulating spindle allowing for a single regulating process rather than a “coarse” and “fine” system as on previous versions. The volumetric nature of the rotating satellite verifies the exact volume of lubricant being circulated. This volumetric reading can also be combined with a servo motor system that allows the flowmaster to maintain exact flow parameters even if there is variation of the pressure of viscosity (due to temperature changes). Therefore, manual intervention is removed and the user can remotely set and monitor the device. Finally, a new feature of this device is the ability to by-pass flow from the measuring module allowing the unit to be removed and maintained without the need to shutdown the system.

Fact - Flow Automatic Control Technology

The new Touch-screen FACT controller allows the simultaneous monitoring of a large number of FLOW-MASTERS. It also allows users to monitor historical trends in flow and provides remote diagnostic to ensure that the oil-recirculation system is always operating at peak efficiency.

Air/Oil Lubrication consists of a source of filtered air, that normally operates continuously, used to cool an end point and is utilized as a transportation medium to carry small quantities of oil directly to the lubrication point. The oil injected into the air stream, at regular intervals, coats the surface with lubricant and reduces friction and wear.

VIP4 AIR /CHAIN/
CONTINUOUS AIR

VIP4 TOOLS/OIL/
TOOLS COAXIAL

VIP4 TOOLS PRO

VIP4TOOLS
DOUBLE EFFECT

DropsA Vip4: Series of products

These small, all enclosed devices are ideal for use on small systems and offer fully integrated control and monitoring in a single, compact package. Typical applications: High Speed Bearings, Spindle Lubrication in machine tools, Micro-Spray Coating applications, Gear Lubrication, and Chain Lubrication and Cleaning.
The Vip4 Air System offers one of the most compact and feature rich air/oil systems available for spindles and is able to achieve a significantly reduced amount of lubricant dispensing and monitoring via a unique differential magnetic field monitoring process.
Positive feedback is a must for such systems!
A variant of the Vip4 Air, the Vip4Chain is specifically aimed at Chain or Conveyor applications that can be used in any application where the lubrication cycle is impulse driven.
On a typical chain application, a sensor connected to the Vip4Chain monitors the number of links passing across the nozzle and disperses a micro amount of oil onto the lubrication point thus increasing chain or conveyor life without lubricant waste or potential contamination to the industrial process.

OIL IN AIR SENSOR

OIL IN AIR SENSOR is an optical sensor that detects the oil inside an air stream that is mainly used for MINIMAL lubrication air-oil applications. This sensor is equipped with twin sensing heads positioned at 90° angles, which provides superior detection, in any orientation, in-comparison to other sensors commercially available on the market. OIL IN AIR SENSOR is connected directly to the air-oil outlet lines, checking the correct presence of lubricant in the air and effectively providing electronic feedback of correct operation of minimal lubrication systems.

DropsA Air/Oil satellite system for steel industry

DropsA has adopted a modular approach to designing large air-oil systems used primarily in the steel Industry. A centralized oil feed-line is used to develop pressure at the satellite stations that periodically injects oil into a continuous air stream. Each satellite station monitors the oil and air outbound to the lubrication point and contains visual indicators that allow the user to visually inspect the status of the unit. The satellite stations are linked back to the centralized touch screen control system with a signal network cable eliminating the requirement for expensive cable runs. Each control instrument can be viewed and adjusted from the central touch screen. Downstream of the satellite panel, a Splitter tube lubrication system can be implemented to divide the air-oil mixture into appropriate quantities for the bearing and seals being lubricated.

SPLITTER BLOCK

SPLITTER TUBE

SATELLITE PANEL

LUBRICATION
STATION

Minimum Quantity Lubrication

The aim of near dry machining is to replace traditional coolant and pure oil flood systems in a machining environment with an accurately controlled, compressed air stream which carries minimal quantities of oil lubrication in an "aerosol" format to the cutting surface.
Besides the positive environmental impacts of eliminating water based coolant, MQL guarantees continuous lubrication and high performance in the machining process by reducing tool wear, increasing machining speeds, improving surface finishes, and providing rust prevention.

Minimum Quantity Lubrication (MQL) & Near Dry Machining

Lubricating Aerosol is transported to the cutting surface by way of two methods:
- External Lubrication: Oil is transported via an external nozzle to the cutting surface placed in the vicinity of the tool and workpiece.
- Internal or “Through-the-tool” Lubrication: Oil is transported through internal lubrication ports in the cutting tool.
DropsA has developed revolutionary technology for both of these processes. The MiQueL and MaXtreme are the latest developments along with earlier products such as the Grip or Vip4Tool family.

Benefits of Near-Dry Machining Technology

Cleaner / safer working environment

- Cleaner/safer working environment
- No haze in the air
- No coolant on the floor
- No coolant handling
- No coolant disposal costs
- No need to separate coolant from chips
- No need for coolant filtration systems

Improved system processes

- Reduces downtime
- Increases production
- You can see the parts under construction

Longer tool life

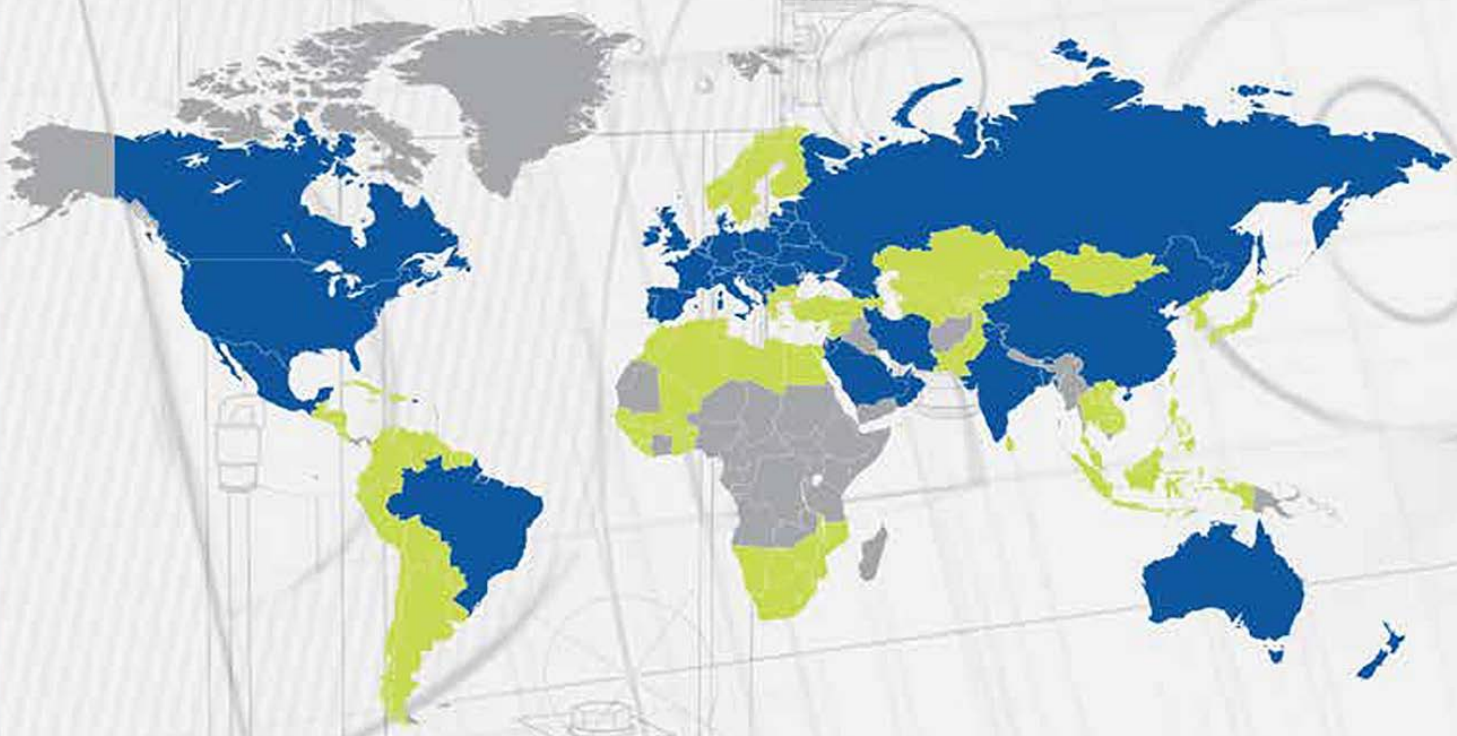
Improved Finished product / Quality

Drilling **Milling** **Turning** **Gun Drill** **Milling Cut** **Many Others Applications**

MiQueL is designed for near dry machine lubrication for machine tools, sheet metal fabrication and the steel industry. It can be utilized on all systems that require a calibrated lubrication solution and function control. It is possible to insert up to eight interconnected elements that, at any time, can be activated by zone through an integrated electrovalve.
The MiQueL EXT (External Pump source version), are centralized minimal lubrication modules engineered with a separate pressurized reservoir or external lubricant pump. All the MiQueL technology can be easily deployed around your applications.
MaXtreme is designed in particular for internal lubrication processes. This exclusive unit can generate a thin film of aerosol mixture which is delivered directly to the tool cutting edge by using the existing fluid distribution channels found on most machines.

DropsA

LUBRICATION SOLUTIONS PROVIDERS



@DropsA #LubricationSystems #Solutions #Innovation #Technology

DropsA USA

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