

DropsA

Lubrication systems specialists

AGRICULTURAL MACHINERY





OIL LUBRICATION

The oil lubrication of the agricultural machines is focused on chain and gear lubrication, where a constant and homogeneous oil film is required. Different systems can be proposed among which the most frequently used are:

- System composed by a 2 or 3lt reservoir with suction filter, piston pump, manifolds and meter valves whose quantity depends on the number of point to be lubricated, brushes or nozzles installed on the chains or the gears
- System similar to the previous one but with camshaft controlled pump installed on a roller or a shaft with an eccentric cam
- System based on a 2 or 3lt reservoir with suction filter, multi-outlet PRM pump connected to a rotating shaft

GREASE LUBRICATION

Grease lubrication of agricultural machinery is essentially used for gears, bearings, joints or coupling.

These systems, commonly automatic, can be realized with electrical single-outlet pumps and progressive primary and secondary dividers, or using a multi-outlet pump from which the final points can be directly reached without the installation of dividers.

MANIFOLDS WITH DOSING VALVES

The DropsA's dosing valves are ideal for machines and high speed rotating mechanisms where is important to maintain a continuous film of oil. Chain lubrication is granted using these meter units together with brushes directly installed on the surfaces to be lubricated in order to have a perfect and constant distribution of the oil film. The meter units are installed on manifolds that are proposed with outlets from 3 to 11 depending on system design and quantity of points to be lubricated.



NP DIVIDER

DropsA's nano-Progressive (nP) dividers, thanks to their compact and solid design are the ideal solution for oil and grease lubrication applications that require a minimum but precise dose of lubricant in reduced spaces. Through the progressive movement of paired pistons with micrometric play inside the sliding hole, they are able to distribute the incoming flow rate in very precise quantities on the various available outlets. Thanks to a new press-fit mechanism between the elements, RigidLock, nano-Progressive (nP) has the rigidity of a single-block divider but the flexibility of a modular single unit.

PISTON PUMP

The piston pump is a simple spring pump that uses the movement of a stem to create a depression inside a chamber in order to suck oil and push it toward manifolds and dosing valves the moment the piston is released. The stem usually is pushed by the cover door of the machinery that is opened every time a bale of hay is finished and must be sent to the ground.



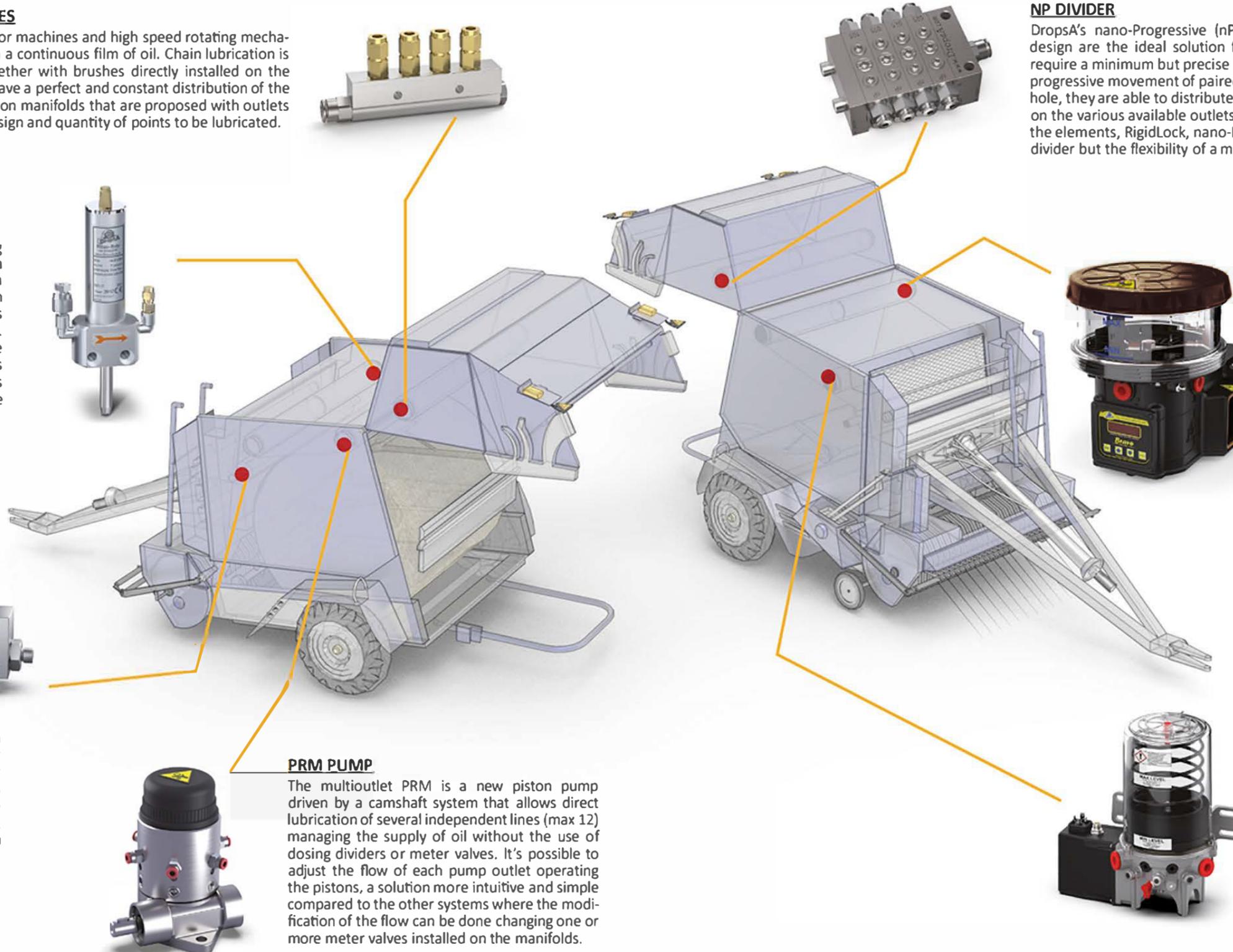
CAMSHAFT CONTROLLED PUMP

The camshaft controlled pump-piston is a good option to the piston pump for oil system lubrication for chains or machine mechanisms. The pump is installed on roller or shaft with eccentric cam that allow pump functioning by creating vacuum in the suction chamber.



PRM PUMP

The multioutlet PRM is a new piston pump driven by a camshaft system that allows direct lubrication of several independent lines (max 12) managing the supply of oil without the use of dosing dividers or meter valves. It's possible to adjust the flow of each pump outlet operating the pistons, a solution more intuitive and simple compared to the other systems where the modification of the flow can be done changing one or more meter valves installed on the manifolds.



BRAVO PUMP

The small grease pump with high performance. This small pump has many innovative and high-end characteristics that DropsA is able to offer in order to provide new possibilities in lubrication systems engineering. The new generation control system is fundamental for the development of new solutions for the user. It allows the lubrication system to be activated and controlled in no less than five different ways



OMEGA PUMP

This represents a versatile solution for medium small systems that can be used to feed systems with different lubrication systems: with divider (pair of pumping elements), direct to the point (8 mini pumping elements) or with the release valve kit for injection systems.





GREASE LUBRICATION

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SMP DIVIDER

The SMP is a single block progressive divider valve that is ideal for applications where space is limited. It is available in 6, 8, 10, 12 and 18 outlet versions, each with an output of 0.2 cm³ / 0.012 cu. inch per cycle. An outlet can also be merged with the sequential outlet on the block by removing the special outlet fitting and installing a plug. Visual or electronic monitoring can be achieved simply by removing a plug and installing a visual or electronic add-on device as shown below.



nPR+ DIVIDER

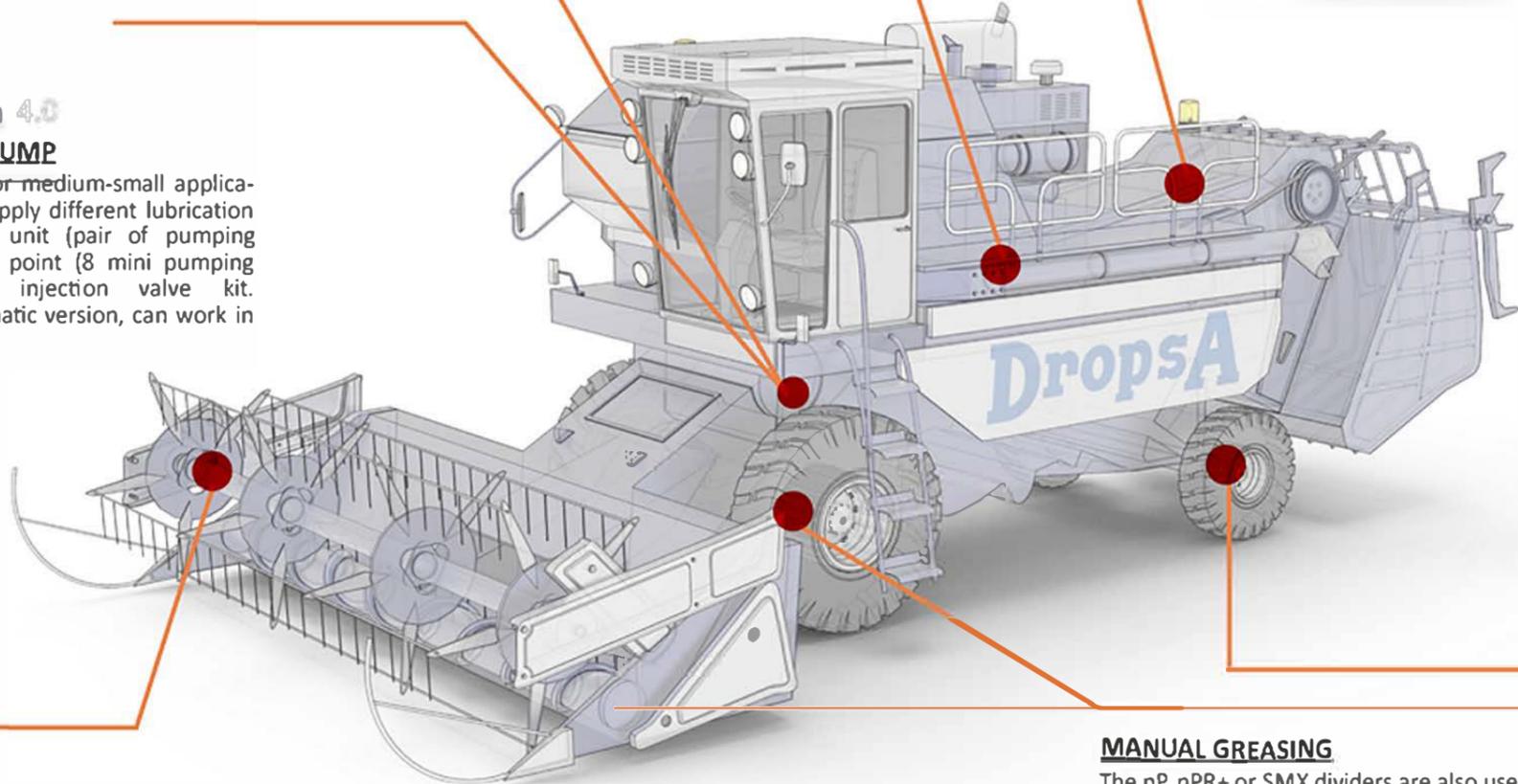
The nano-Progressive Replaceable dividers are the ideal solution for oil and grease lubrication in applications that require small and precise quantities of lubricant in a compact and solid design. The NPR+ uses the innovative "rail & lock" concept that allows the element to be replaced or moved without the need to completely dismantle the assembly. This innovation allows a single element of an assembled divider to be modified or replaced. The compact size makes them particularly suitable for use in reduced spaces.



BRAVO PUMP

Electric pump designed to work with up to three pumping units, with or without internal by-pass. Designed to work with progressive dividers it can feed several independent lines. By combining the pumping outputs it's possible to double or triple the flow. This pump is available in two versions: manual (manageable by external PLC) and automatic with dedicated control board.

AUTOMATIC OMEGA PUMP
 It's a versatile solution for medium-small applications, can be used to supply different lubrication systems: with metering unit (pair of pumping elements), direct to the point (8 mini pumping units) or with the injection valve kit. The pump, in the automatic version, can work in stand-alone mode.



POLIPUMP

Small size for large grease applications. This multi-outlet pump allows the users to transform a lubrication system from manual to an automatic system in just a few steps. It can feed up to 35 points and work with direct power and with auxiliary battery. It is easy to use and does not require specific technical knowledge. It is ideal for both particular on-off systems and for low cost and high yield complex applications.



MANUAL GREASING

The nP, nPR+ or SMX dividers are also used for manual lubrication systems. There are multiple configurations but all imply the installation of a grease nipple on the inlet of the master divider (if a system with master and secondary dividers is designed) on which a manual pump is connected using a flexible tube. As an alternative, the use of manifolds with straight or 90° nipples on one side and push-in fittings with nylon tubes till the final points on the other side, can be used and allow manual lubrication point by point.

Automatic lubrication: optimisation of costs and work times



The use of lubrication systems is even more indispensable for the correct operation of machines when they operate in difficult environmental conditions such as those in the agricultural sector. The installation of an automatic lubrication system allows machine down times to be reduced and allows consumption of the lubricant to be controlled and the life of the bearings, chains and gears to be increased.

Thanks to their many years of experience and a capillary network of branches and resellers all over the world, DropsA provides specific solutions for every need and follows the customer from the definition of the project to the installation to post sales support. The solutions proposed for the agricultural sector are applicable on all the various types of machinery:



Systems Solutions



DropsA

Since 1946, DropsA has been producing systems and components for centralised lubrication, continuously developing new products and patents that have contributed to making the lubrication sector all over the world more innovative and competitive.

DropsA offers a vast range of products capable of maximising the profitability and productivity of your machinery, providing the latest technologies in terms of systems, functionality and components. Thanks to the branches and the specialised distribution channels, DropsA provides prompt responses, support and assistance to customers on a local or global level, guaranteeing the same high quality standards all over the world.



DropsA Production

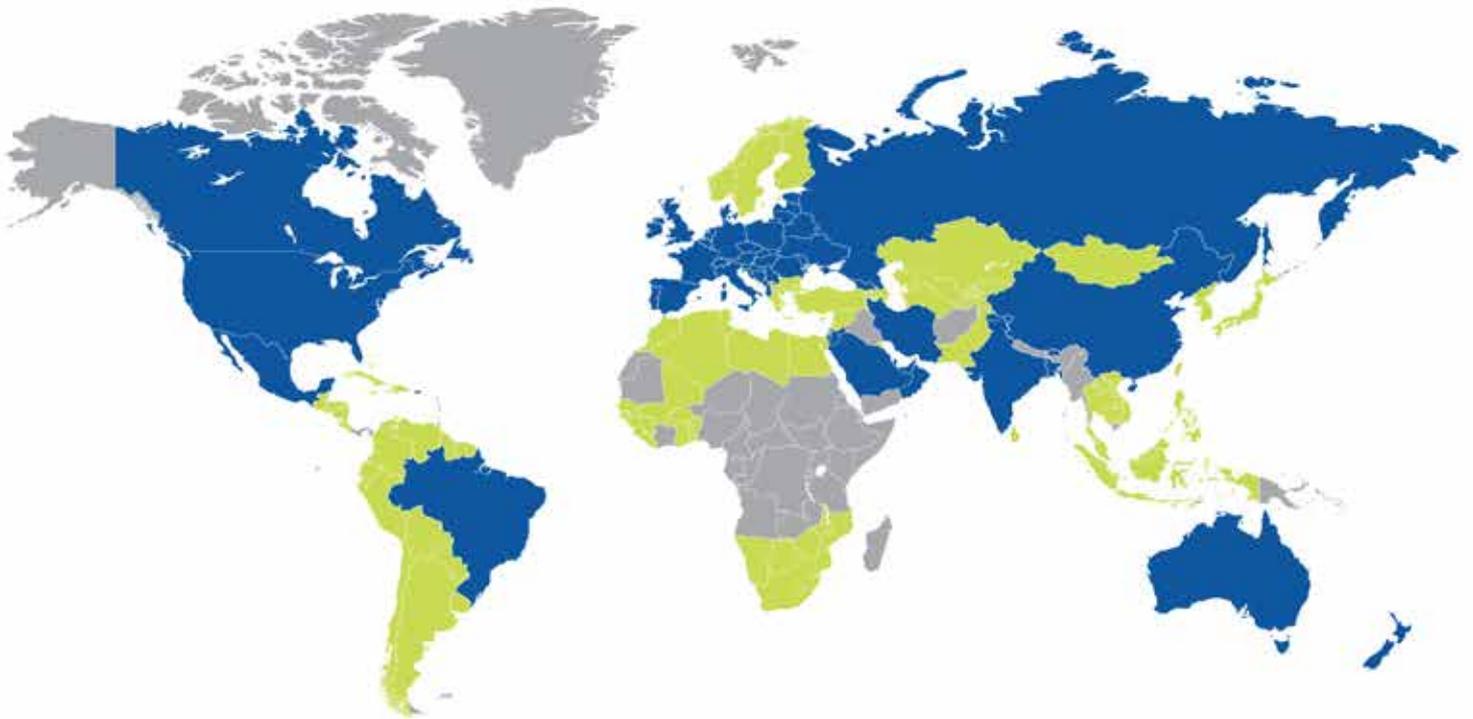
The production, processing and automated assembly systems that are in the central plant near Milan are equipped with an advanced quality monitoring and product traceability system in order to guarantee both highly efficient processing and product assembly that accurately reflects the technical specifications.

Continuous investments in all of the areas of design, engineering and production of the products ensure a constant increase in the reliability of the products themselves.



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