



## CHARACTERISTICS

- **Modular stackable reservoirs**& Minimum level as standard
- **VOLTAGES:**  
12V AC/DC  
24V AC/DC  
110V/230V 50/60 Hz, as standard.
- **FLOW RATE:**  
2,8cm<sup>3</sup>/min  
0,4 ÷ 2,8 cm<sup>3</sup>/min  
5,2cm<sup>3</sup>/min
- **RESERVOIRS:**  
2, 5, 8 litres
- **INTEGRATED FIXTURE:** for SMP and SMPM distributors
- **MULTI LUBE CYCLE:** multiple sensor counts and selectable pre-lube function
- **DUAL ACCESS PORTS:** for convenient refilling and grease return line
- **MULTI CONNECTOR SYSTEM:** allow many electrical connector types to be applied to the standard product to suit varied OEM and end user requirements
- **MINIMUM LEVEL** as standard
- **2.8cm<sup>3</sup>/min PUMPING UNIT AS STANDARD**

## APPLICATIONS

- **MOBILE PLANT AND VEHICLE LUBRICATION**
- **MACHINE TOOLS:** like glass working machines or wood-working machines.
- **HEAVY VEHICLES:** like earth moving machines, harvesters and other uses for special machines or vehicles.
- **HEAVY INDUSTRIES:** like mining or construction.
- **CHAIN & GEAR LUBRICATION.**

## THE SMALL PUMP PACKAGE WITH BIG FEATURES THE HEAVY DUTY PUMP FOR INDUSTRY AND VEHICLES

### DESIGN AND ADVANCED SOLUTIONS

The **BRAVO** electric pump is a piston pump predisposed to operate with a maximum of three pumping units, with or without internal by-pass. Designed to work with progressive systems, it can feed several independent lines and, combining the outlets of two/three pumping units, the flow can be doubled or tripled.

The pump is available in two versions:

**MANUAL:** can be managed by an external PLC. Since it does not come with an internal control unit, this is the most economic solution for lubricating your systems.

**AUTOMATIC:** with electronic board built-in and local manual start-up. Thanks to the remote button, you can manually start the lubrication cycle on request. Low level sensor and one pumping are included as standard equipment.



- *Sturdy and heavy duty design*
- *Designed for industrial lubrication systems, heavy equipment and farm equipment;*
- *For progressive systems with many lubrication points;*
- *Alternative to manual lubrication*
- *Multiple pumping units*
- *VARIO-DRIVE control, the pump motor management system that protects and electronically adjusts the pumping system (automatic version).*
- *Multi-connector system: allows application of many types of standard connectors for the electrical connection. An OEM connection can also be created on request.*

### TECHNICAL INFORMATION

TECHNICAL CHARACTERISTICS	
Number of outlets / pumping elements	1 (3 max.)
Outlet thread	1/4" BSP
Nominal output per pump element (20 RMP) *	2,8 cm <sup>3</sup> /min (0.17 in <sup>3</sup> /min) 5,2 cm <sup>3</sup> /min (0.31 in <sup>3</sup> /min) 0,4 ÷ 2,8 cm <sup>3</sup> /min (0.02 ÷ 0.17 in <sup>3</sup> /min) - Adjustable
Working pressure	280 bar (4061 psi)
Integrated By-pass pressure (if present)	320 bar ±30 bar (4641 psi ±435 psi)
Reservoir Capacity	2 – 5 – 8 litres (0.53 – 1.32 – 2.11 gallons)
Max Grease capability	Grease NLGI 2
Operating temperature	-25°C ÷ +80°C
Storage temperature	-30°C ÷ +90°C
Protection grade	IP65 (IP 69K with special equipment)