



MSP, part of the Interlube group of companies are the UK's premier manufacture of centralised lubrication products.

All products are manufactured on our own premises to the highest standards and are produced in line with our quality management system, ISO9001:2000. All Interlube lubrication products have a two year warranty.

Our centralised lubrication systems will provide regular and precise lubrication to all connected points. The regular application of oil or grease to a bearing, when in operation, is by far the most effective method of lubrication. It has been proved that fitting an automated centralised lubrication system will help protect equipment by reducing bearing wear, and significantly reduces the likelihood of equipment failure, with all the cost and inconvenience that this causes. The removal of the need to manually grease equipment will provide the operator with a cost saving due to the reduction in man hours spent on maintenance, removes the risk of hidden or difficult to access points being missed, eliminates any health and safety issues that can arise from greasing by hand, and help overcome operational issues that the need for regular manual greasing can impose.

MSP are constantly developing new products and solutions to a wide variety of customers. Our experience and expertise in the market place means we are able to work with our clients to provide a solution that meets their requirements.

As well as providing a complete range of systems for vehicles and plant, Interlube also manufacture a wide range of products for industrial applications, and the 'Tecreel' range of reels for fluid power transfer.

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Lubrication Systems for Vehicles & Plant



Interlube Systems Ltd - providers of the ultimate in lubrication solutions...

MULTI-LINE SYSTEMS

The multi-line system is a straightforward and highly effective system for centralised lubrication. Each bearing point is supplied directly from the pumping unit via an individual feed line. Inside the pump a cam rotates and operates the pumping units sequentially as it turns, and also operates the paddle blade which draws grease into the pumping chamber.

The feed lines are run as a loom along the vehicle and lines branch off to each separate point. It is a simple system that is straightforward to install and requires no distribution or manifold blocks. Individual bearing lubrication means that should a line break, only that point is affected, not the complete system.

The system is capable of handling lubricants from SAE80/90 oil upto and including NLGI grade 2 grease. The system generally runs at low pressure, typically 3-4 bar. The feed lines are 4mm OD semi rigid black nylon tube, UV stabilised, rated 140 Bar (14 N/m). Fittings used at bearing point are generally the pushfit type, although compression fittings are also available. System monitoring is possible by means of a cam rotation switch.



AC 1

PUMPING UNITS

Positive displacement pumping units are available in six different stroke outputs to cater for varying output requirements, and are colour coded for easy identification. They are supplied complete with outlet fittings suitable for 4mm tubing, max pressure rated to 120 bar 12n/M.

Colour	Stroke output cc	Part No
Red	0.010	78033
Green	0.015	78034
Yellow	0.025	78035
Blue	0.040	78036
Grey	0.060	78037
Black	0.100	78038
Blanking plug for unused outlets		34237-402



The operating parameters for Multiline pumps with standard greases are shown below:

LUBRICANT	
NLGI Grade 2	Down to 10°F / -12°C
NLGI Grade 1	Down to 0°F / -18°C
NLGI Grade 0	Down to -10°F / -23°C
NLGI Grade 00	Down to -20°F / -29°C
NLGI Grade 000	Down to -30°F / -35°C
Do not use heavy, tackified greases or Bentone (clay based) high temperature grease.	

A full list of fittings and spares for multi-line systems can be found in the 'Accessories and Spares' brochure. For information regarding Installation of multi-line systems, a separate booklet is available.

Systems can be supplied as complete kits to suit specific applications

Typical applications include tippers, refuse vehicles, sweepers, trailers, and cranes.



ALSO AVAILABLE FROM



RS AUTOMATIC OIL REPLENISHMENT SYSTEM



SLH MACHINE MOUNTED HYDRAULIC HAMMER LUBRICATION

GREASE AVAILABLE IN A RANGE OF SIZES



BYPASS FILTRATION SYSTEMS



Separate literature available on all the above products or see our website: www.interlubesystems.com

PROGRESSIVE SYSTEM - HDI RANGE

The Heavy Duty Industrial pump is a heavy duty greasing system designed to be used in the most demanding of applications. It is suitable for many applications from road vehicles to static and fixed plant. Used in conjunction with progressive divider valves, the system will accurately and consistently deliver grease to bearings and pins in specific amounts.



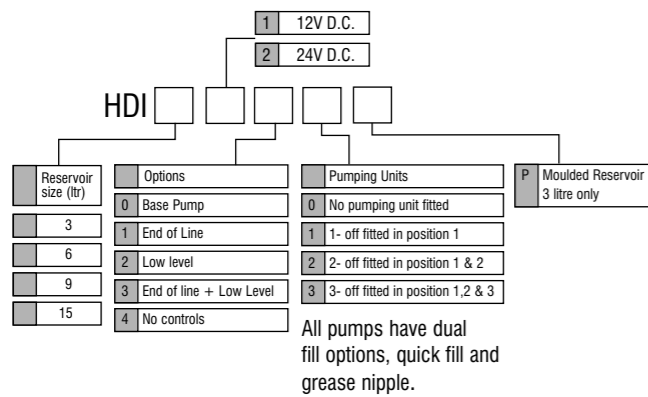
HDI Pump 3 Litre Moulded Reservoir

- Electrically operated controller 12/24V with integral controller
- Dual LED display for simple programming
- Wide range of pump run and delay time settings
- End of line monitoring option means pump can be set to switch off after a set number of system cycles, and alarm in case of system fault.
- Low level sensor option
- Suitable for use with oil SAE 80 upto and including grade II grease
- Available with 3, 6, 9 or 15 litre reservoir
- Comes with upto 3 pumping units



HDI Pump 6 Litre Reservoir

Pump Selection guide



Specification

Pump motor speed	30rpm
Pumping unit output	4.2cc/min
Pump output per revolution	0.14cc
Pump run time	from 1 to 99 mins or 10 to 300 revs
Delay time	from 1 minute to 99 hours
Operating range	-30°C to +40°C
Max operating pressure	250 bar

The progressive distribution system allows precise regulation of lubricant output to specific points, so a system can deliver varying outputs to different points as required. The HDI pump will work with wafer built blocks or modular divider valves. The pump can also feed the bearing point direct if required. Grease is dispensed from the pumping unit, to the divider valves via 8mm HP hose. Depending on the system layout, the pump feeds the initial or 'primary' block, which then feed the secondary blocks, which in turn feed the bearing points usually via 6mm tube. Where necessary special heavy duty pipes or fittings are available. Interlube can supply the complete range of items necessary to install a system and complete kits for specific machines.

LSV Progressive Divider Valve



Modular Progressive Divider Valve



For further information on the HDI system a service and maintenance booklet is available

MULTI-LINE SYSTEM - AC RANGE

The AC range of pumps are compact electrically operated multi-line pumps which come in two versions with three reservoir sizes. They are a simple but highly effective pump that will provide reliable and virtually maintenance free operation in a wide variety of applications

- Electrically operated 12/24V
- Suitable for use with oil and grease upto NLGI grade II
- Serves upto a maximum of 60 points
- Six colour coded pumping units available with different outputs
- Multi position timer with memory
- Manual override

AC1 & AC2

Maximum 36 Lubrication Points



AC 2

AC3 (3 Litre Reservoir)

Maximum 60 Lubrication Points



AC 3

Ordering Method AC1 XXX (1.25 Litre reservoir) AC2 XXX (2 Litre reservoir)

Cycle Time	1 12V. D.C.	1 12 Points
1 2.5 Mins*	2 24V. D.C.	2 24 Points
2 9 Mins		3 36 Points**
3 12 Mins		
4 15 Mins		

** Suitable for oil and fluid grease up to 000 grade only

- 1 Continuous operation – 0.4rpm
 - 2 3 4 Cycle time includes run time of 2.5mins & delay period
- *A faster motor with a speed of 0.75rpm is available giving a continuous cycle time of 1.33rpm

Ordering Method AC3 XXX / X

Delay Period	1 12V.	1 12 Points
0 Continuous double speed	2 24V.	2 24 Points
1 Continuous standard speed*		3 36 Points
2 3 Minute delay		4 48 Points
3 7 Minute delay		5 60 Points
4 11 Minute delay		
5 15 Minute delay		
6 19 Minute delay		
7 24 Minute delay		
8 30 Minute delay		
9 36 Minute delay		

*Standard motor speed 0.9rpm

The pumps are connected directly to the ignition feed or PTO of a vehicle, and operate whenever the ignition is switched on. The pumps can be set to run with a variable time delay, or to run constantly whenever they are live. This is particularly useful where the power feed is intermittent and can be used for applications such as cranes or trailers.. A memory built into the pumps PCB means that the pump will continue at the same stage of the cycle whenever power is switched off and back on. All pumps have a manual override facility. The AC1 & AC2 with 1.25 and 2 litre reservoirs respectively, and have a lid which houses the motor and PCB. They can be filled via a filler cap in the lid or using the adaptor on the base of the pump. The AC3 has a 3 litre reservoir and has the motor and PCB mounted at the bottom of the pump. It also has the option of a low level sensor.

Typical fill intervals

AC2 12 points pumping unit blue (0.04) 12 min cycle time – 833 hours / 21 weeks
 AC2 20 points pumping unit blue (0.04) 15 min cycle time – 625 hours / 16 weeks
 AC3 36 points pumping unit blue (0.04) 15 min cycle time – 520 hours / 13 weeks *Based on 40 hour week*

For further technical information a service and maintenance manual is available for the AC Range.

MULTI-LINE SYSTEM - XGS

The Interlube XGS is an electrically and pneumatically operated multi line pump. It is virtually maintenance free, and is fully adjustable, delivering precise lubrication whenever the vehicle is operating. It is particularly suitable for systems with a larger number of points.

- Electrically operated controller 12/24V
- Suitable for use with oil and grease upto NLGI grade II
- Serves upto a maximum of 84 points
- Six colour coded pumping units with different outputs
- 3 litre reservoir
- Manual override on controller
- Trailer version available that operates without controller

OPERATION

The XGS system operates from existing vehicle services, its electrical supply being taken from the ignition circuit and air pressure from the auxiliary supply. This ensures automatic lubrication whenever the vehicle is in motion, each pump cycle being governed by the controller and unaffected by ignition interruptions. Each pulse of air pressure applied to the pump air motor causes the cams to partially rotate, completing one lubricating cycle every 15 pulses. As the cams advance, each pumping unit in contact with the cam lobe discharges a predetermined volume of lubricant into its bearing, automatically recharging as the cycle proceeds.



Controller

The pump is operated via the controller which provides a range of settings for cycle time. The controller is connected to the vehicle ignition and the auxiliary air supply. The controller works by sending a pulse of air to the pump which moves the clutch mechanism and drives the pump.

Timer settings: (12 possible) minimum pulse interval 18 seconds - cycle time: 4.5 mins
maximum pulse interval 144 seconds - cycle time: 36 mins

Specification

Input operating pressure 4.6 to 10.5 bar
Air consumption 0.002cm³

For further information on the XGS a service and maintenance manual is available.



Part No's		
Pump	XGS 4012	12 outlets
	XGS 4024	24 outlets
	XGS 4036	36 outlets
	XGS 4048	48 outlets
	XGS 4060	60 outlets
	XGS 4072	72 outlets
	XGS 4084	84 outlets
Controller	AF17472/12V	12V
	AF17472/24V	24V

SINGLE-LINE SYSTEM - AX150

The AX150 is a single line system with a pneumatically operated pump that is operated via an adjustable controller. With an extremely durable pump, the system requires minimal maintenance and can be easily extended or adapted to a wide variety of applications. The high pressures generated by the air operated piston means that a large number of points can be supplied over long distances.

- Serves upto a maximum of 150 points
- Delivery lines of upto 50M
- Variable electronic cycle time settings via controller
- Six injector outputs available
- Manual override facility
- Single line feed means that system is suitable for use with lorry /trailer combinations or 'road trains'.
- Operates with grade 00 grease or lighter
- Reservoir sizes 3 litre as standard. 6, 9 and 15 litre available as options

3 Litre Standard



6 Litre Option



The controller / timer is connected to the vehicle ignition system and auxiliary air supply, and will give a pulse of air regularly to the pump, which discharges a quantity of grease that is distributed from the pump via a single line and through manifolds and grease meters to the bearings. Main grease feed lines are 8mm HP hose. The manifolds are aluminium, and grease injectors are brass with push-fit connectors. Feed lines from injectors to grease points are 5mm semi rigid nylon tubing. The injectors can be changed easily if required, for example to alter meter output size.



Specification

Pump part No G14/20500
Controller/Timer 14-20613
Controller settings (delay time) 20mins, 45mins, 90mins, 3 hours, 4 hours, 6 hours, 12 hours
Run time of pump 1 minute
Electrically operated controller 12/24v
Required air inlet pressure 6-10bar
Delivery pressure upto 120 bar / 1750 psi max
Grease meter outputs: 0.008cc, 0.016cc, 0.05cc, 0.08cc, 0.16cc, 0.33cc
Pump output 25 cc per stroke

Note When planning a system ensure that grease delivery per stroke is sufficient to cover the outputs of all grease meters in the system

A full range of fittings and spares are available, details available separately.