GREASE BOMB 120

120CC SINGLE POINT LUBRICATOR

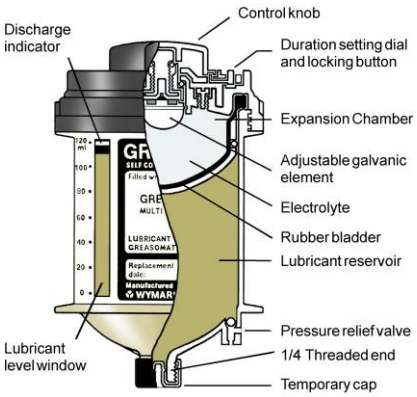
TECHNICAL & INSTALLATION INSTRUCTIONS

GENERAL

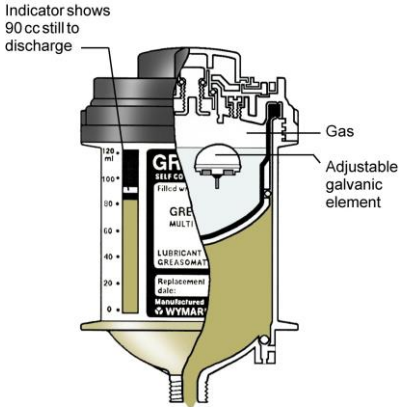
The GREASE BOMB 120 is a programmable electrochemical automatic lubricator which expels it's 120cc's of lubricant in a controlled continuous flow for a preselected period from one month to twelve months. A patented adjustable galvanic element combined with a liquid electrolyte generates hydrogen gas which expands in a hermetically sealed chamber, forcing a piston to eject lubricant into the bearing. The translucent windows on the body of the unit allow the lubricant level to be monitored. It is recommended to monitor the lubricant level regularly to determine if the discharge setting is correct.

WHAT MAKES IT WORK?

The GREASE BOMB 120 contains a mildly acidic organic liquid electrolyte contained in a hermetically sealed flexible rubber expansion chamber. A patented adjustable zinc/molybdenum galvanic element is integrated with the control knob on the top of the unit, which when introduced into the electrolyte will produce gas. Rotating the control knob on the top of the unit adjusts the protrusion of a rod shaped electrode in the galvanic element. The amount of area the rod is exposed will determine the rate of discharge of the GREASE BOMB 120. Pressing the red button releases the galvanic element from the control knob and turning the knob 10 to 12 times causes the element to drop into the electrolyte.



An inactive Grease Bomb 120



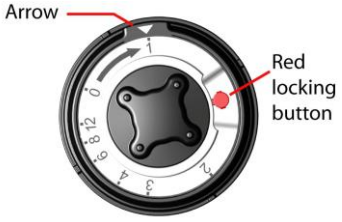
A working Grease Bomb 120

ACTIVATING THE GREASE BOMB 120

The GREASE BOMB 120® utilises a control knob on the top of the unit to choose the discharge rate of the lubricant. Settings of 1, 2, 3, 4, 6, 8 or 12 months ejection periods are available (these periods apply at an ambient temperature of about +20°C and will be affected by abnormally high or low temperatures (see Average Ambient Temperature Chart). If immediate output pressure is needed, activate the GREASE BOMB 120 in advance, approximately 24 hours per month setting.

To Activate:

1. Turn the control knob clockwise so the arrow is pointing to the desired monthly setting. If you turn the control knob to far and pass your de-sired setting, you can turn the knob counter clockwise back to zero and start again.



2. Press the red button until it is flush with the top surface. Once the red button is pressed the discharge rate cannot be changed.

3. Rotate the black control knob clockwise 10 to 12 turns. This releases the galvanic element into the liquid electrolyte, thus activating the GREASE BOMB 120.

DAILY OUTPUT

The normal discharge durations of 1, 2, 3, 4, 6, 8 or 12 months apply at an ambient temperature of +20°C. Output and discharge durations will vary if the GREASE BOMB 120 operates at a higher or lower temperature. The table below illustrates the output and discharge durations at varied temperatures.

	Ambient Temperature			
Dial Setting	**+10°C**	**+20°C**	**+30°C**	**+40°C**
1	2 cc daily for 2 months	4 cc daily for 1 month	8 cc daily for 0.5 months	*Not recommended*
2	1 cc daily for 4 months	2 cc daily for 2 months	4 cc daily for 1 month	6 cc daily for 0.7 months
3	0.7 cc daily for 6 months	1.3 cc daily for 3 months	2.7 cc daily for 1.5 months	4 cc daily for 1 month
4	0.5 cc daily for 8 months	1 cc daily for 4 months	2 cc daily for 2 months	3 cc daily for 1.3 months
6	0.3 cc daily for 12 months	0.7 cc daily for 6 months	1.3 cc daily for 3 months	2 cc daily for 2 months
8	0.25 cc daily for 16 months	0.5 cc daily for 8 months	1 cc daily for 4 months	1.5 cc daily for 2.7 months
12	0.2 cc daily for 24 months	0.3 cc daily for 12 months	0.7 cc daily for 6 months	1 cc daily for 4 months

INSTALLING THE GREASE BOMB 120

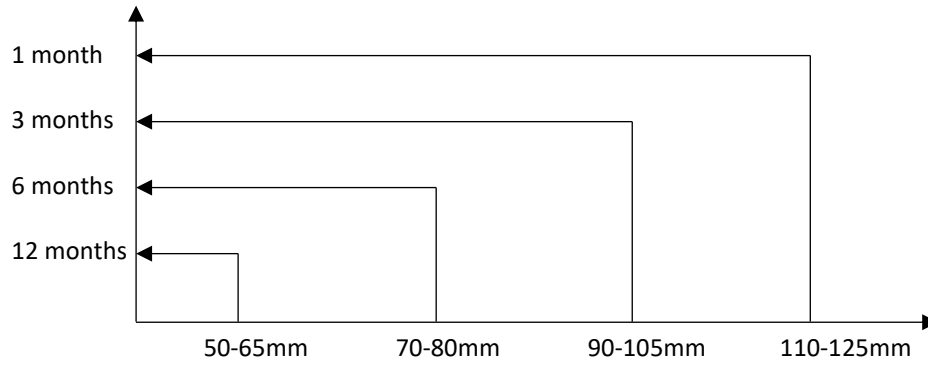
On first installation, use a hand grease gun and the same type of lubricant to pre-charge all fittings, lines and the bearing. The thread of the GREASE BOMB 120 is 1/4BSP and can be adapted for other thread sizes using standard adapters. The GREASE BOMB 120 can be mounted direct or remotely up to 2 meters from the bearing when filled with a NLGI 1 or 2 grease. Longer remote lines (up to 5 meters) can be achieved when filled with a NLGI 0 grease or oil. When remote installation is required we recommend at least 6mm ID tubing. GREASE BOMB 120 lubricators filled with grease work in any position, and can be used indoors, outdoors, and under water.

A GREASE BOMB 120 filled with oil.

There are two methods used for installing a GREASE BOMB 120® filled with oil:

1. Install the unit with the outlet in the up position and using a remote line to the bearing.
2. Install a throttle on the outlet of the GREASE BOMB 120® to prevent the oil from running out.

SETTING GUIDE FOR BALL AND ROLLER BEARINGS



Please note *the grease consumption of bearings depend on many factors such as bearing type, bearing speed, sealing arrangement, operating temperature, load, vibration and the type of lubricant.*

This table is a guide only.
The user must select and if necessary adjust output to suit their requirements.

BUILT-IN PRESSURE RELIEF VALVE

Normally a GREASE BOMB 120 operates at a pressure of 15 psi (1 bar) with a max working pressure of 72psi (5 bar). In the event of a blockage in the bearing, the GREASE BOMB 120® will build up to an internal pressure of about 87 psi (6 bar) at which time the pressure relief valve will open and release lubricant from the base of the unit. This condition indicates there is a blockage and the bearing is not being lubricated. Clear the blockage in the bearing and install a new GREASE BOMB 120 to the lube point.

TECHNICAL SPECIFICATIONS

Housing Design	Plastic Body and Thread
Dimensions	2.9" x 4.7" (74mm x 120mm)
Capacity	120cc (4 oz)
Drive	Electrochemical
Electrolyte Liquid	Mildly Acidic Organic Acid
Temperature Range	32°F to 140°F (0°C to 60°C)
Max Pressure Build-Up	73 psi (5 bar)
Installation Thread	1/4 BSPT (Adapters Available)
Discharge Period	1, 2, 3, 4, 6, 8, or 12 months
Compatible Lubricants	Oil and Greases (to NLGI #2)