



Gear-Spray Lubrication Systems



**Spray Applications Provide Effective
Lubrication for Modern Heavy Duty
Industrial Gearing.**

DESCRIPTION

Trabon provides the answer for combating wear on gear surfaces with the introduction of Gear-Spray Lubricating Systems. Hand swabbing and dip pan methods of lubricant application are now becoming obsolete. The resultant lubricant feast or famine these application methods provide, are also becoming obsolete. Modern industrial companies are finding that spray application of lubricants to heavy duty gearing can and is eliminating over-lubrication and under-lubrication.

Since Trabon has one of the finer centralized lubrication systems offered today, the inclusion of Trabon's Series Type "MS" and "MX" Divider Valves have made the Gear-Spray System a natural solution to gear spraying problems.

The types of spray systems offered by Trabon are designed to provide proper coverage of gears with measured amounts of lubricant at regular intervals. Systems are totally enclosed with no external moving parts.

The benefits derived from Gear-Spray lubrication are visible in neatness of installation and simplicity of design. Good housekeeping, reduction of safety hazards, extended gear life are all a reality as well as allowing lubricant dollars to be stretched as much as 75%. Gear Spray Systems are designed for manual or automatic operation to meet the need of any application.

The Gear-Spray Valve, which requires only 15 to 20 pounds of air pressure for optimum results, automatically shuts off air when lubricant feed shuts off. The combination of low air pressure and quick automatic shut-off results in substantial savings in air and lubricant

Gear-Spray Valve



The Gear-Spray Valve can be used with centralized systems that are specifically planned for gear lubrication only, or it can be added to existing systems where a switch to "All Purpose" Lubricant permits both gears and bearings to be served by the same pump. In the latter case another valve or divider valve is added to the existing system to supply lubricant to the Gear-Spray Valve. The output of this added divider valve or valve is connected to the lube inlet of the spray valve and plant air, regulated to 15 to 25 PSI, is connected to the air inlet. Spray nozzles of the flat pattern or full-cone pattern are available.

When used with a Trabon Centralized System, the Spray Valve design provides another unique feature. It automatically gives warning at the pump due to air failure or nozzle blockage.

Lubricant, oil or grease, can be supplied directly from the pump, as in the case of a single isolated spray, or it can be supplied from a metering manifold or divider valve (Trabon Type MS or MX) which feeds several Gear-Spray Valves. In some cases where multi-purpose lubricant is used, bearing taps and gear sprays may be served by the same pump and manifold system. Air-lube nozzles providing normal and wide cone spray patterns are of the non-clogging external mix type. Minimum air pressure required is 20 psi, maximum is 150 psi.

Installation is simple. No restriction is made as to size of air or lube supply line or length of line. 1/4" or 3/8" tubing is usually used for either line.

LUBRICANT RECOMMENDATIONS

- Use Number 1 grease at any temperature.
- Use Number 2 grease at 32°F. or above.
- Grease must be pumpable at the encountered temperature.
- Grease should not be abrasive.
- Grease should resist separation.
- Any oil may be used down to 100 SUS mineral oil @ 100°F.

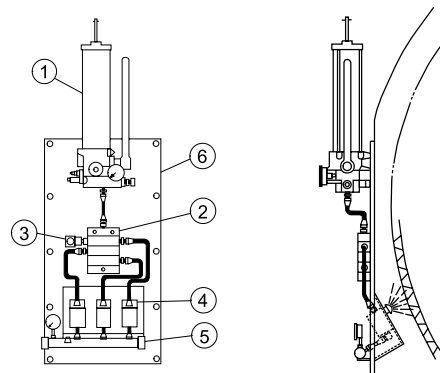
PANEL SELECTION METHOD

N = Number of nozzles to the nearest whole number.

G = Face width of gear.

$$N = \frac{G}{4.6}$$

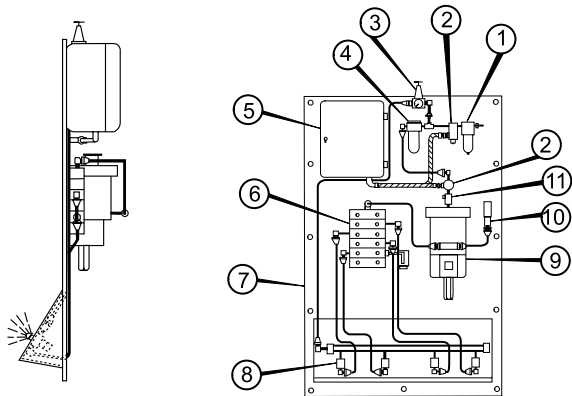
TYPICAL MANUAL SPRAY SYSTEM



REFERENCE	DESCRIPTION
1	PH Manual Pump
2	MX Divider Valve
3	Cycle Counter
4	Spray Valves
5	Air Manifold and Gauge
6	Fabricated Panel

The system illustrated is a typical basic arrangement for a manual spray system suitable for application on gears, slides, chains, etc., that require intermittent lubrication protection. The “MS” or “MX” Divider Valve is used to divide the pump output into equal or proportionate quantities depending on spray requirements. The only operation necessary is to actuate the pump handle and after counting a predetermined number of cycle indications by visual inspection, the spray lubrication cycle is complete and operator stops pumping. **Optional Equipment:** Totalizing counter which will keep a running total of lubrication cycles.

TYPICAL AUTOMATIC SPRAY PANEL



REFERENCE	DESCRIPTION
1	Air Filter
2	Air Solenoid Valve
3	Air Regulator
4	Air Lubricator
5	Electrical Timer (waterproof case)
6	MX Divider Valve
7	Fabricated Steel Panel
8	Spray Nozzles
9	MSA-100 Pump
10	High Pressure Switch
11	Speed Control Valve

OPERATION

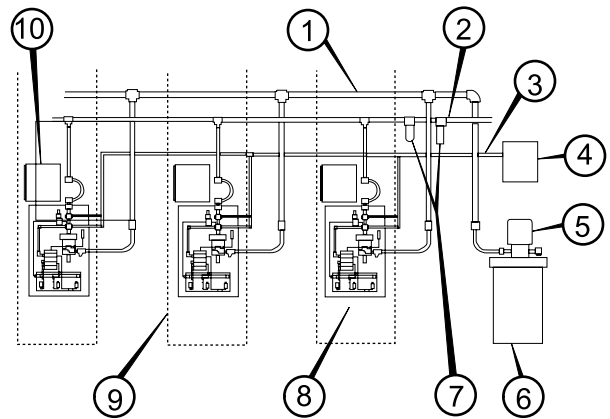
Lubricant reservoir applies a constant, nominal pressure to air pump inlet. Lubricant from 400 lb. drum enters air actuated pump. Timer actuates solenoid valves admitting air to the pump and simultaneously air is passing through the regulator to the air inlet side of the nozzles. Pump will make stroke and discharge lubricant into MX distributor which will accurately meter predetermined quantities of grease or oil to the lube inlet side of the nozzles. The air will atomize the lubricant into the desired spray pattern.

The timer will de-energize the solenoid valves and allow the air circuit to exhaust. This permits the pump to return to the prime position which readies it for the next stroke.

The cycle switch is actuated by the MX divider valve; this in turn is tied into the monitor panel. The monitor panel will give indication through some alarm, of a broken main line, pump failure, control failure, blockage of any tube line or nozzle, or empty reservoir.

Note:

- Monitor Panel is optional equipment.
- Cycle Switch is optional equipment.
- Cycle Switch may be used to actuate blinking lights.
- This would indicate the system is working.



REFERENCE	DESCRIPTION
1	Lubricant Feed Line
2	Air
3	Electrical Conduit
4	Timer
5	Air Operated Supply Pump
6	Drum
7	Air Filter and Lubricator Combo
8	Air Panel
9	Bull Gear Cover
10	Optional Monitor Panel

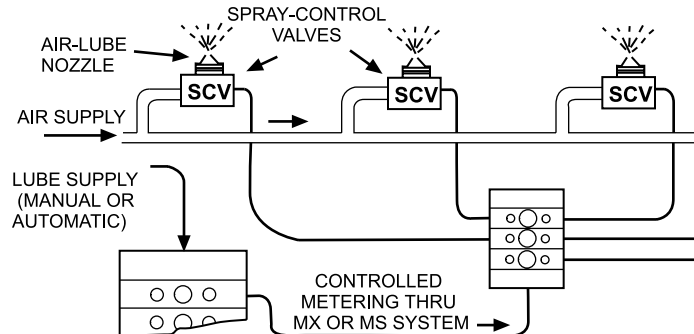
TYPICAL MULTIPLE INSTALLATION

Remember...

Trabon Spray Lubrication Can Extend Gear-Life Three Ways

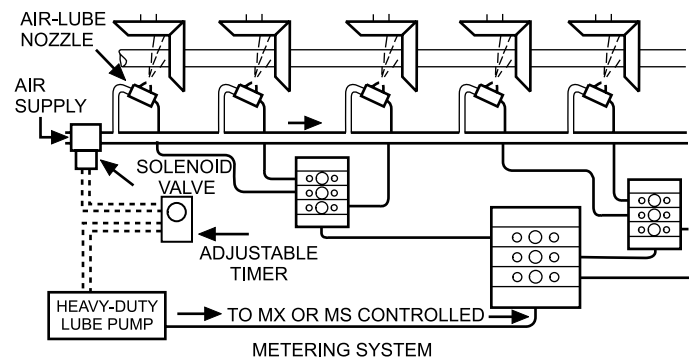
1 SPRAY-CONTROL VALVE PROVIDES MOST FLEXIBILITY —

When supplied with lubricant under pressure the Spray-Control Valve automatically allows pressurized air to enter the mixing nozzle creating the spray pattern. This device will handle oil or grease and can be added to existing bearing lubrication systems where multi-purpose lubricants are used, or used for gear lubrication only. When lubricant metering ceases, Valve shuts off air automatically.



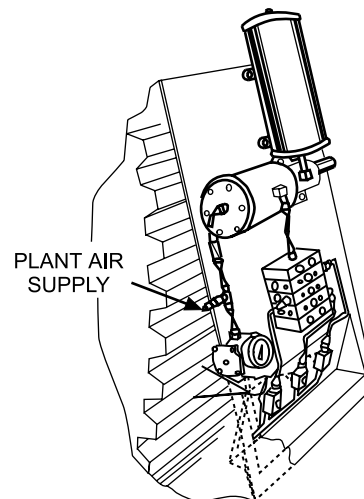
2 SPRAY NOZZLE TECHNIQUE IDEAL FOR “TIMED” HEAVY-DUTY LUBRICATION OF MILL ROLL NECKS, TABLE GEARS —

Eliminating Spray-Control Valves this method employs central control of nozzle air by means of a timer-controlled air solenoid valve. The same timer can be used to energize the gear-lube pump. (If MSA or ALS Air Pump is used, pump actuation can be controlled by the same valve that supplies air to nozzles.)



3 COMPACT, “PACKAGED” SPRAY PANELS FOR BULL GEARS INCLUDE MSA AIR PUMP, LUBE RESERVOIR, NOZZLES AND METERING DISTRIBUTOR —

Custom-fabricated to fit your bull gear, Trabon spray panels may be manually or timer-controlled. (Manual or solenoid air valve.) Panel for 1 to 6 air-lube spray nozzle is designed to fit into cut-out section of gear guard. In addition to nozzles, “MS” or “MX” metering assembly, MSA Pump and Reservoir panel may also be equipped with Recorder and Air Solenoid Valve.



Typical Spray Panel package may include Recorder, in addition to basic MSA Air Pump, Reservoir, Metering Assembly, Spray Nozzles and Air Pressure Regulator.

All written and visual data contained in this document are based on the latest product information available at the time of publication. Graco reserves the right to make changes at any time without notice.

Contact us today!

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call 800-533-9655 or visit us online at www.graco.com.

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