



Hydracision®

Multi-Point Lubrication

By Oil-Rite Corporation



Hydracision® distributes lubricant to many separate points – as few as 12 and as many as hundreds. It combines efficient hydraulic movement of fluid with the precision of positive displacement injection. The technology is patented by Oil-Rite Corporation, a leader in the design and manufacture of lubrication equipment since 1933. Hydracision® supplies the user with options, but doesn't overwhelm with calculations, complex components, or pages of schematics. It's simple to configure and use.

Single Line Delivery

Fluid is routed to each lube point through one main outlet tube. Injectors connect directly to the main line or can be installed at remote locations with a tee connection and additional tubing. Fluid travels efficiently over large distances.

Programmable Cycle

Injectors deliver lubricant when the pressure peaks. The injectors reset as the pressure is relieved during a timed cycle. The user can schedule the interval at which lubricant is dispensed using the on-board electronic control.

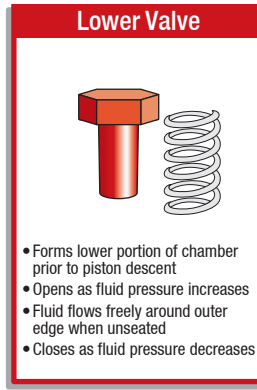
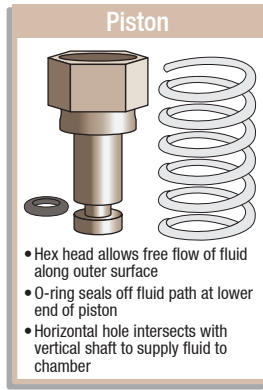
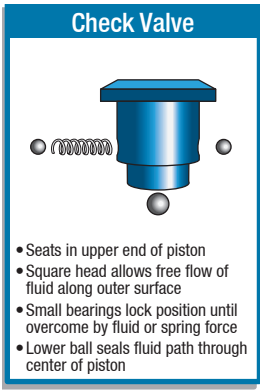
Industrial Lubrication

Hydracision® is a reliable, efficient lubrication method for printing presses, injection molding, packaging machinery, punching presses, assembly systems, canning operations, conveyors, manufacturing processes, and machine tools.



Hydracision® is American workmanship protected under Patent Nos. 7,600,984 and 7,118,352

www.oilrite.com



Patented Injector Technology

Hydracision® supplies oil to many points using hydraulic power. An electric gear pump generates pressure. The injectors remain inactive until the pressure peaks at near 300 psi. The piston within each injector is driven down, ejecting the contents of the fluid chamber. The gear pump then deactivates and the pressure is relieved. Spring force within the injector resets the piston for the next dispensing cycle. The entire process can occur in as little as 5 seconds or be set to occur at larger intervals of hours or days.

The fluid chamber within the injector is the area directly below the piston, which is exactly the same size at the beginning of each cycle. This is important because the fluid dispensed with each cycle is from this chamber. The principal behind this technology is positive displacement.

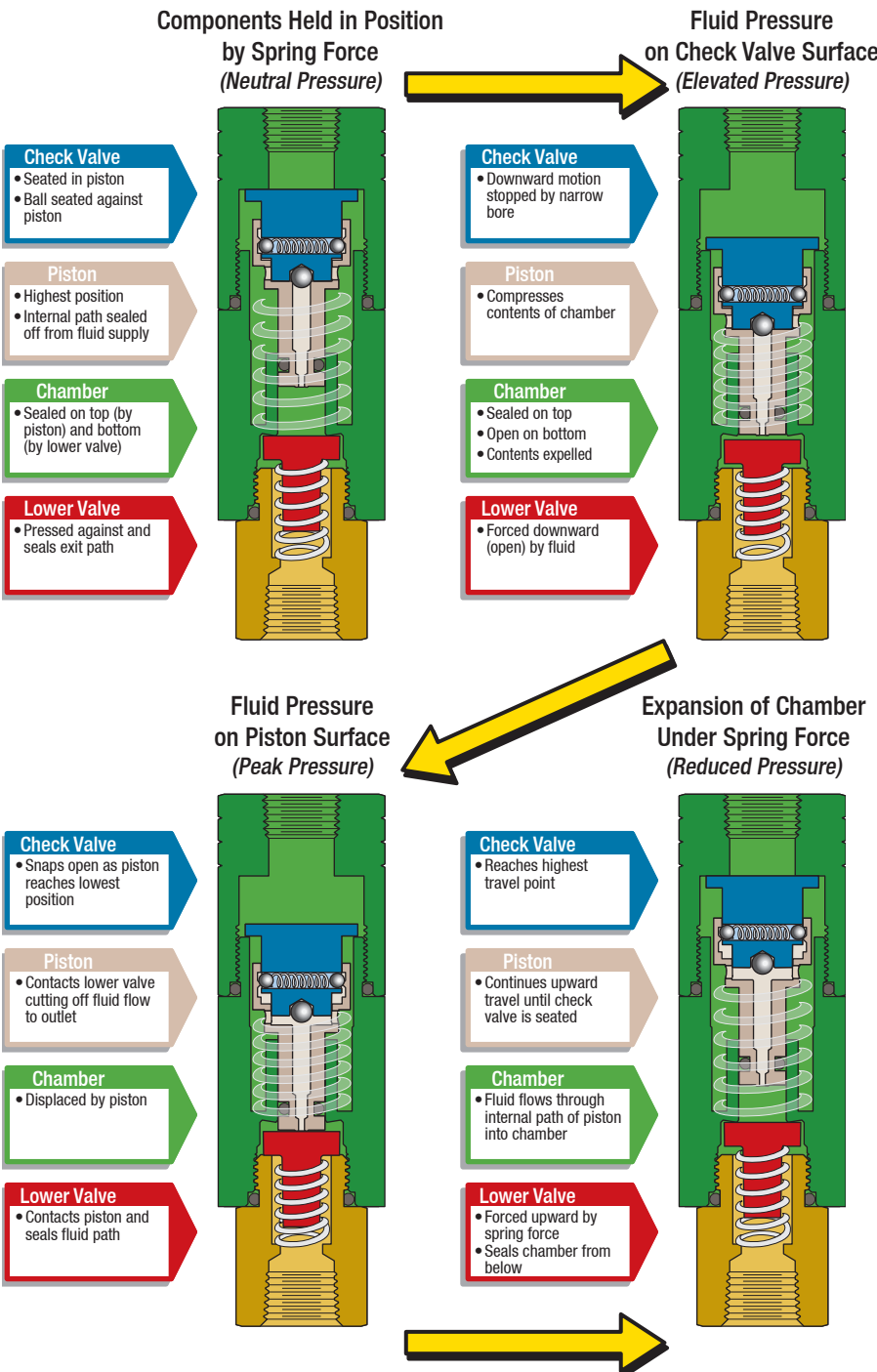
The patented mechanics expel fluid and any inherent air. Each cycle begins with a “clean slate” to achieve maximum accuracy. Priming is automated and efficient, even with many injectors over large distances.

Hydracision® does not rely on a balance between the orifice at the outlet and system pressure to determine the amount of output. Positive displacement produces consistent output with every cycle.

Injectors operate under pressure generated by the central housing, yet each injector functions independently of the others. Disrupted output at any one lubrication point has no affect on the other injectors.

Compared to dual line systems, Hydracision® is easy to install and operate. Unlike progressive lubrication systems, Hydracision® does not completely shut down if a single lube point fails. And the positive displacement created by Hydracision® injectors eliminates touchy controls like those typical to restricted orifice valves.

Hydracision® dispensing is consistent and reliable. Over 10 million cycles were achieved in laboratory testing without significant wear or maintenance.



Central Control . . . Hundreds of Lube Points

The fluid reservoir comes in a standard 2 liter size and is clear polycarbonate. It is also available in steel construction for larger capacities of 4, 12, and 20 liters. The reservoir housing contains the gear pump, motor, low level switch, and programming panel. A pressure gauge at the outlet provides visual confirmation of the hydraulic cycle. A swing-away filler cap houses a removable 30 mesh strainer.

The injector has a standard dispensing volume of .20 ml. It can also be specified with smaller dispensing volumes of .14 ml and .08 ml. If volume adjustments are necessary after installation, the cap at the inlet side of the injector can be replaced to change the dispensing amount. The amounts do not have to be the same for each injector. Connections for the inlet and outlet are 1/8" NPT.

Operating instructions are engraved on the front of the unit. Light indicators advise the user when the unit is functioning and warn of a low fluid level condition. Longer or shorter dispensing intervals can be programmed on the PLC.

Accessories

Hydracision® can be configured and operated without the need for specialized knowledge or training. Semi-flexible tubing and push-to-connect fittings minimize installation time.

Injectors connect to the central reservoir with 1/4" OD nylon tubing. A single outlet supplies fluid to all the injectors. The central line can be tapped into as many times as is necessary with push-to-connect fittings. Straight, 90° degree, and tee fittings are available.

The injector can be direct mounted to a lube point or plumbed to the point. A polypropylene bracket is available that can be secured with a single center screw or with screws in two flange locations. The injector snaps into the bracket.

1 Wall Mounting
Built-in brackets allow for mounting to a vertical surface

2 Electrical Inlet
7/8" diameter opening for power supply

3 Display Panel
Backlit panel shows cycle countdown and menu options

4 Run Cycle Button
One touch on/off button

5 Prime Button
Rapidly fills supply lines to injectors

6 Program Access
On-board logic allows quick changes to dispensing interval



9 Pressure Gauge
Displays outlet pressure

10 Fill Cap
Cap swivels open while remaining attached

11 Strainer
Traps debris during oil filling

12 Gear Pump
Pressurizes the outlet for uniform fluid distribution

7 Pump Status
Flashes when pump is priming and lights when pump is cycling

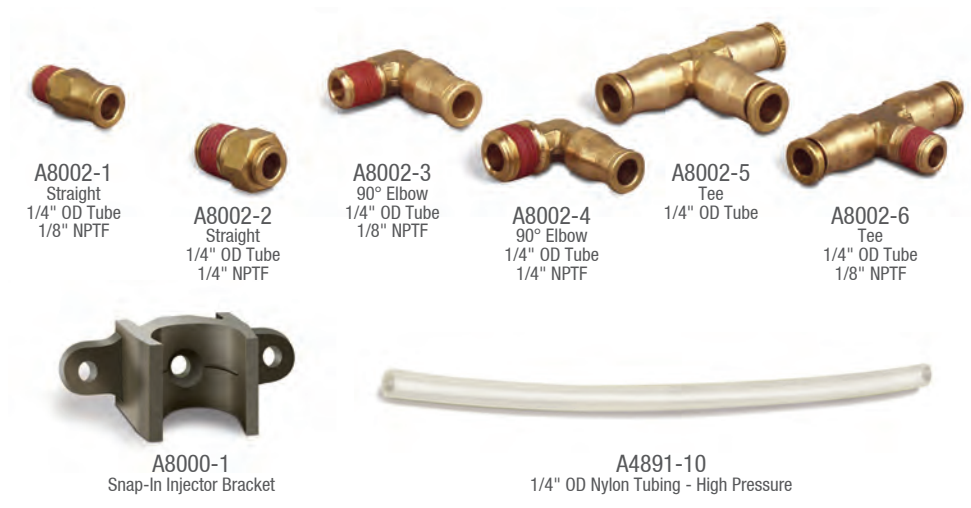
13 Low Level Switch
Prevents operation when the oil is depleted

8 Oil Level Status
Flashes when oil level is low and lights when low oil level shuts down system

14 Reservoir
Transparent 2 liter polycarbonate reservoir

Sample Part Number **B4560-02B1206072000000**

Hydracision Packaged System
Reservoir Capacity (02, 04, 12, 20 liters)
Seal Material (B = Buna, V = Viton)
Voltage/Frequency (1206 = 120V/60Hz, 2305 = 230V/50Hz, 024D = 24VDC)
Number of High Volume (.20 ml) Injectors
Number of Medium Volume (.14 ml) Injectors
Number of Low Volume (.08 ml) Injectors



Reservoir Selection

The standard Hydracision® 2 liter reservoir can supply 36 lube points with oil every 30 minutes for 5 days without requiring a refill. Four reservoir sizes are available. The 2 liter polycarbonate reservoir can rest on its base or be mounted to a vertical surface. The 4, 12, and 20 liter reservoirs are steel and include a drain, low level switch, and liquid level gage for monitoring fluid level. The chart to the left estimates the number of 8 hour shifts that can be serviced by each size reservoir.

No. of Injectors		Cycle Frequency		2 LITER			4 LITER			12 LITER			20 LITER		
				Injector Volume Options			Injector Volume Options			Injector Volume Options			Injector Volume Options		
				HIGH	MED	LOW	HIGH	MED	LOW	HIGH	MED	LOW	HIGH	MED	LOW
12	Once an Hour	104	148	260	208	297	520	625	892	1562	1041	1488	2604		
	Every 30 Mins.	52	74	130	104	148	260	312	446	781	520	744	1302		
	Every 3 Mins.	5	7	13	10	14	26	31	44	78	52	74	130		
	Once a Min.	1	2	4	3	5	8	10	14	26	17	24	43		
36	Once an Hour	34	49	86	69	99	173	208	297	520	347	496	868		
	Every 30 Mins.	17	24	43	34	49	86	104	148	260	173	248	434		
	Every 3 Mins.	1	2	4	3	5	8	10	14	26	17	24	43		
	Once a Min.	-	-	1	1	1	2	3	5	8	5	8	14		
72	Once an Hour	17	24	43	34	49	86	104	148	260	173	248	434		
	Every 30 Mins.	8	12	21	17	24	43	52	74	130	86	124	217		
	Every 3 Mins.	-	1	2	1	2	4	5	7	13	8	12	21		
	Once a Min.	-	-	-	-	-	1	1	2	4	2	4	7		



2 Liter



4 Liter



12 Liter



20 Liter

1 PurgeX Pumps

Accurate and reliable grease dispensing using positive displacement

2 Grease Reservoir

Pressurized reservoir ensures constant grease supply to pumps

3 Cycle Timer

Programmable lubrication interval from .6 seconds to 24 hours (also available with a PLC)



B3538-124

4 3-Way Solenoid

Regulates flow of air that powers PurgeX pumps

5 Mounting Plate

Fits standard enclosures

PurgeX® Multi-Point Grease Lubrication

Hydracision® is for use with 10 to 80 wt. oil and with many lubrication points — typically 12 or more. PurgeX® pumps are a cost-effective alternative for fewer lubrication points or where grease is required. PurgeX® is powered by compressed air of 40 - 120 psi (shop air), a 3-way solenoid, and timer. PurgeX® dispenses up to .20 ml of fluid or grease with the same level of accuracy as Hydracision®. Both PurgeX® and Hydracision® avoid the complexities and safety concerns inherent to other lubrication systems that require operating pressures of 1,000 psi and more.