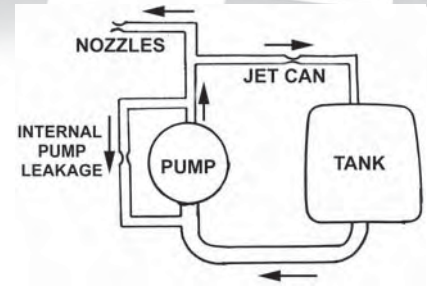
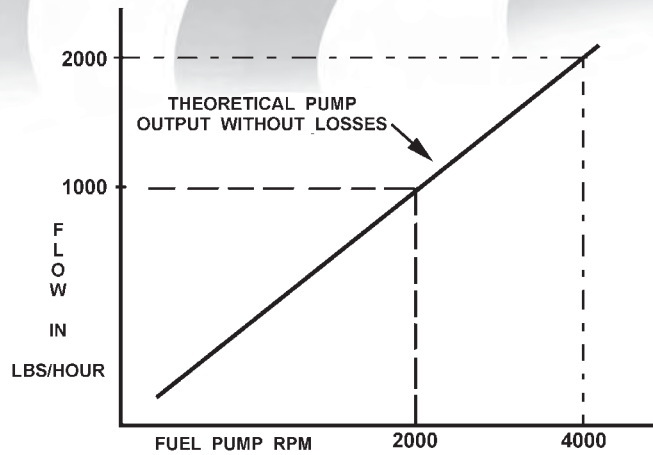


MECHANICAL FUEL PUMP

PUMP OUTPUT

In theory, a mechanical pump's output is linear to the RPM at which it is driven. Rotate the pump shaft twice as fast and the flow will double. However, even a good pump is affected by the physical clearances of the gears and the pressure load against the outlet. Typically the flows at very low RPM and very high RPM will be below the linear graph of the pump's output due to internal leakage, pumping friction losses, and clearance in the components.



Running clearance is a must for the pump gears. This clearance causes some internal leakage back past the gears and has the same effect as a bypass from the pump outlet back to the inlet.

GENERAL SIZING AND SERVICE

Engine displacement, volumetric efficiency, and the fuel being used will dictate the required pump displacement size. If you have a doubt about the size of your pump, note the number stamped on it and give us a call. Several pumps are assembled using the same size housing, so the casting number located on the housing does not indicate the exact pump displacement. Most pumps are identified by the serial number stamped on it.

Most pumps experience wear over a period of time. To maintain engine performance on a fuel system where the pump is losing flow output, the main jet has to be continually richened. If the main jet is not richened, the top end performance will drop off. If a problem is not found after thoroughly checking other engine components (especially valve springs, cam lobes, and ignition), the pump should be sent in for testing.

We can test and rebuild many types of pumps. To have a pump tested, send it in with all of the fittings still in it. Include a day and evening time telephone number with the area code..... a technician will call if there is a problem.

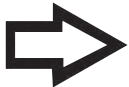
PUMP RPM	PSI	PUMP SIZE												
		KW-200	-00	KW-300	-0	KW-400	KW-450	KW-500	0-1/2	-1	KW-700	KW-1300	-2	-4
2000	0	335	380	505	685	670	770	835	960	1190	1170	2160	2325	2930
2000	50	305	295	475	590	655	760	815	865	1095	1130	2125	2140	2765
3500	50	570	570	845	1070	1150	1330	1450	1515	1950	2000	3670	3710	4760

Flows in this chart are in pounds per hour (lbs/hr) of .720 specific gravity test fluid at 60°F.

TYPICAL APPLICATIONS VERSUS PUMP SIZE

These recommendations are based on the pump running at 1/2 crank speed. Variations will occur with RPM of engine and pump drive speed.

KW	Hilborn	Typical Use
N/A	BL-234	Very small displacement engines fueled by gasoline and/or alcohol (typically one to four cylinders)
200	-00	Small displacement four cylinder engine (typically) fueled by gasoline and/or alcohol
300	N/A	Large displacement four cylinder engine (typically) fueled by gasoline and/or alcohol
400	-0	Gasoline and alcohol (typically 6-cylinder and under 400 cubic inch V8)
450	N/A	Alcohol (over 400 cubic inch V8)
500	-1/2	Gasoline and alcohol (typically unblown under 430 cubic inch V8)
700	-1	Unblown and blown gasoline; unblown alcohol up to 700 cubic inch displacement; small displacement blown alcohol low boost or low % nitro
1300	-2	Small displacement unblown high % nitro ; average blown alcohol
LB750	-4	Large displacement unblown high % nitro; large displacement high boost blown alcohol; small displacement low boost blown nitro
LB1500	-5	Very large displacement high boost blown alcohol; large displacement high boost high % nitro



ALL FLOWS, SIZES, AND RECOMMENDATIONS FOR FUEL PUMPS ARE FOR GENERAL REFERENCE. CONSULT A KINSLER TECHNICIAN FOR YOUR SPECIFIC APPLICATION !!!

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