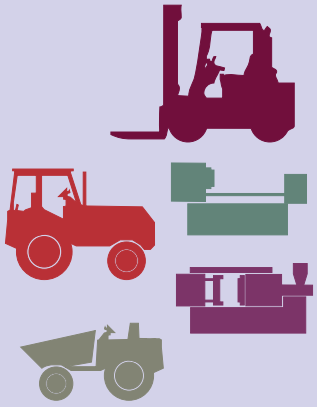
Operating conditions

Cylinder Specification	Light Duty	Medium Duty	Heavy Duty
Pressure Max. **Normal** **Working**	350 bar 5000 psi 160 bar 2300 psi No Pressure Peaks	500 bar 7500 psi 250 bar 3600 psi Intermittent Pressure Peaks	700 bar 10000 psi 400 bar 6000 psi Regular Pressure Peaks
Design	Lower operating stresses. Rigid well aligned mounting, minimal side loading.	Steady operating stresses with intermittent high stress, some side loading.	Highly stressed for majority of its working life. Side loading common.
Condition of Fluid	Good system filtration no cylinder contamination likely.	Good system filtration but some cylinder contamination likely.	Contamination unavoidable from internal and external sources.
Working Environment	Clean, and inside a building. Operating temperature variations limited.	Mixture of indoor & outdoors but some protection from the weather.	Outdoors all the time or a dirty indoor area. Wide variations in temperature, both ambient & working. Difficult service conditions.
Usage	Irregular with short section of stroke at working pressures. Regular usage but at low pressure .	Regular usage with most of the stroke at working pressure.	Large amount of usage at high pressure with peaks throughout the stroke.
Typical Applications	Machine tools, lifting equipment, mechanical handling, injection moulding machines, control and robot equipment, agricultural machinery, packaging equipment, aircraft equipment & light duty tippers. 	Heavy duty lifting equipment, agricultural equipment, light duty off road vehicles, cranes & lifting platforms, heavy duty machine tool & injection moulding machines, some auxiliary mining machinery, aircraft equipment, presses, heavy duty tippers (telescopic), heavy duty mechanical handling. 	Foundry & metal fabrication plant, mining machinery, roof supports, heavy duty earth moving machinery, heavy duty off-road vehicles, heavy duty presses. 

Pressure, Speed, Temperature Range

From many years of application experience with sealing hydraulic equipment, supported by the results from an extensive test programme, we know that it is necessary to link the three main operating features of speed, pressure, and temperature to achieve a satisfactory seal performance. After carefully considering each product we are able to specify the maximum speed and pressure with a temperature range within which the seal will operate safely.
If your operating conditions do not comply with those recommended please send your details to your local Hallite sales office.