



Technical Details

Metric

Inch

Operating conditions		
Maximum speed	0.5 m/sec	1.5 ft/sec
Temperature range	-30°C + 100°C	-22°F + 212°F
Maximum pressure	400 Bar	6000 p.s.i

Maximum extrusion gap

Pressure bar	100	175	250	400
Maximum gap mm	0.45	0.4	0.3	0.2
Pressure p.s.i	1500	2250	3500	6000
Maximum gap in	0.018	0.015	0.010	0.007

Surface roughness

	µmRa	µmRt	µinCLA	µinRMS
Dynamic sealing surface Rod $\varnothing d_1$	0.1 - 0.4	4 max	4 - 16	5 - 18
Static sealing face Rod $\varnothing D_1$	1.6 max	10 max	63 max	70 max
Dynamic sealing surface Piston $\varnothing d_1$	0.1 - 0.4	4 max	4 - 16	5 - 18
Static sealing face Piston $\varnothing D_1$	1.6 max	10 max	63 max	70 max
Static housing faces L_1	3.2 max	16 max	125 max	140 max

Chamfers & Radii

Groove section S mm	5.0	7.5	10.0	12.5	15.0
Min chamfer C mm	3.0	5.0	6.5	7.0	7.5
Max fillet rad r_1 mm	0.5	0.8	0.8	0.8	0.8
Groove section S in	0.187	0.250	0.312	0.375	0.500
Min chamfer C in	0.093	0.125	0.156	0.187	0.250
Max fillet rad r_1 in	0.020	0.031	0.031	0.031	0.031

Tolerances

	$\varnothing d_1$	$\varnothing D_1$	L_1 mm	L_1 in
Rod	f9	Js11	+0.75 - 0.0	+0.030 - 0
Piston	js11	H9	+0.75 - 0.0	+0.030 - 0

DESIGN

VP110B is normally used in multiples of vee rings with a male and female adaptor. They are stacked and must be lubricated with operating fluid prior to assembly.

The male adaptor fits into the vee ring on the pressure side and when pre-loaded, exerts a hinging action on the vee packer, forcing the sealing lips apart and ensuring a low pressure seal.