



Technical Details

Metric

Inch

Operating conditions		
Maximum speed	0.5 m/sec	1.5 ft/sec
Temperature range	-30°C + 90°C	-22°F + 212°F
Maximum pressure	400 Bar	6000 p.s.i

Chamfers & Radii

Groove section $\leq S$ in	0.187	0.250	0.312	0.375	0.437	0.500
Min chamfer C in	0.093	0.125	0.156	0.187	0.250	0.250
Max fillet rad r_1 in	0.020	0.031	0.031	0.031	0.031	0.031

Maximum extrusion gap

Pressure bar	100	150	240	400
Maximum gap mm	1500	2250	3500	6000
Pressure p.s.i	0.018	0.015	0.010	0.007

Tolerances

	$\varnothing d_1$	$\varnothing D_1$
Rod	h10	H10
Piston	H10	h10

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

DESIGN

VP14 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.