

This data sheet interacts with	
DualVee Catalogue	14
DualVee Tech Guide	5-7
PRT2 Catalogue	55-56

HepcoMotion®

ALR Aluminium Rings

HepcoMotion ALR aluminium rings run with Bishop-Wisecarver DualVee polymer guide wheels. The system provides a cost-effective rotary movement for medium precision, lightly loaded applications.

The rings are made from anodised aluminium and the wheels are made with a polymer outer form moulded onto a stainless steel bearing and stud. The system is therefore suitable for use in applications requiring corrosion resistance.



ALR Rings are available in 4 standard sizes from 148 to 300mm in diameter, and these are compatible with the size 2 DualVee wheels. For smaller, lighter applications, size 1 and size 0 DualVee wheels also fit.

A large range of stronger, precision rings in hardened steel and stainless steel is included in the HepcoMotion PRT range. Please visit www.HepcoMotion.com/PRT2datauk to view the current catalogue.

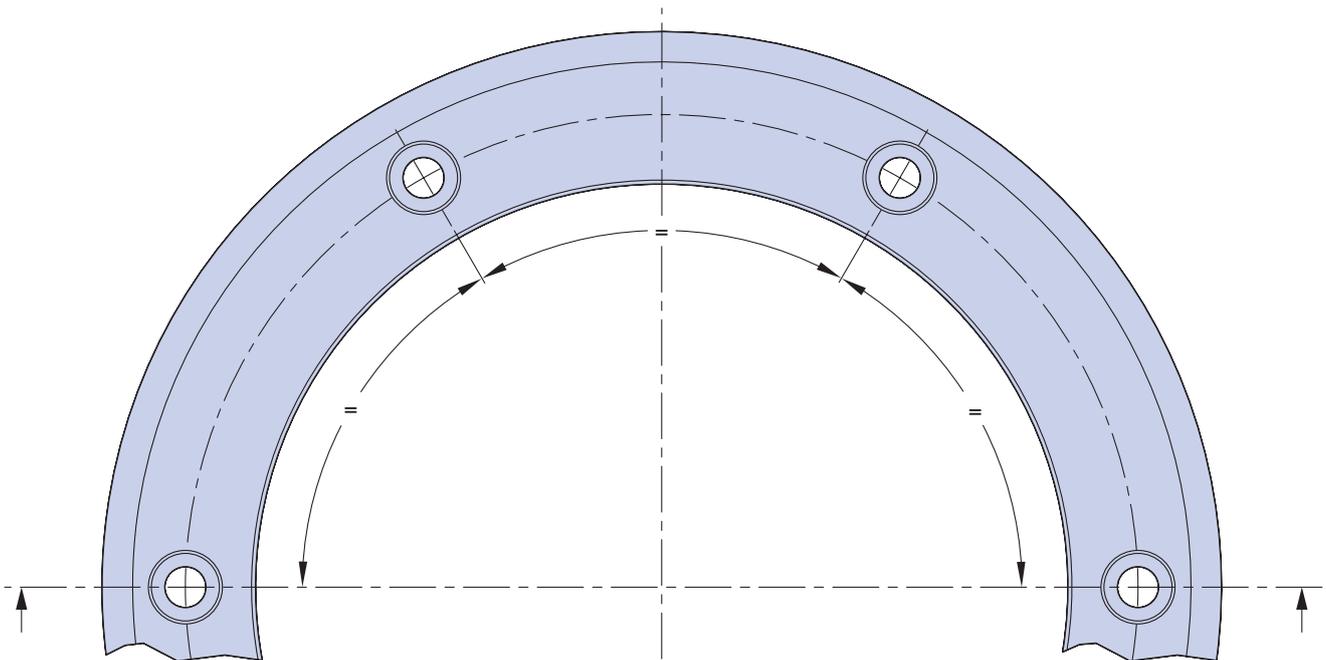
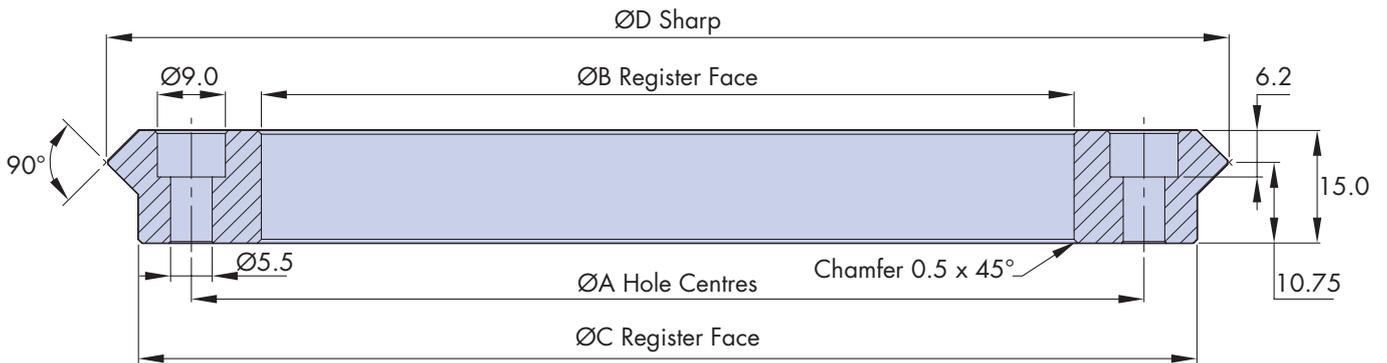


Ring Data & Dimensions

HepcoMotion ALR Rings are machined from high strength aluminium alloy and are anodised to a specification which gives an excellent combination of durability and corrosion resistance, and has an attractive finish.

This surface is optimised to run with Bishop-Wisecarver DualVee polymer guide wheels. Stronger DualVee steel wheels will also fit, but their use is not generally recommended due to ring wear. Please contact Hepco for details.

The four sizes of ring shown below are standard items. Other configurations and sizes are also possible - see page 4.



Part Number	ØA	ØB ± 0.1	ØC ± 0.1	ØD ± 0.1	Number of holes	Weight (g)
ALR148	126	107.5	140	148.5	6	270
ALR199	175	157.5	191	199.5	8	390
ALR250	228	210	242	250.5	12	480
ALR300	278	260	292	300.5	12	590

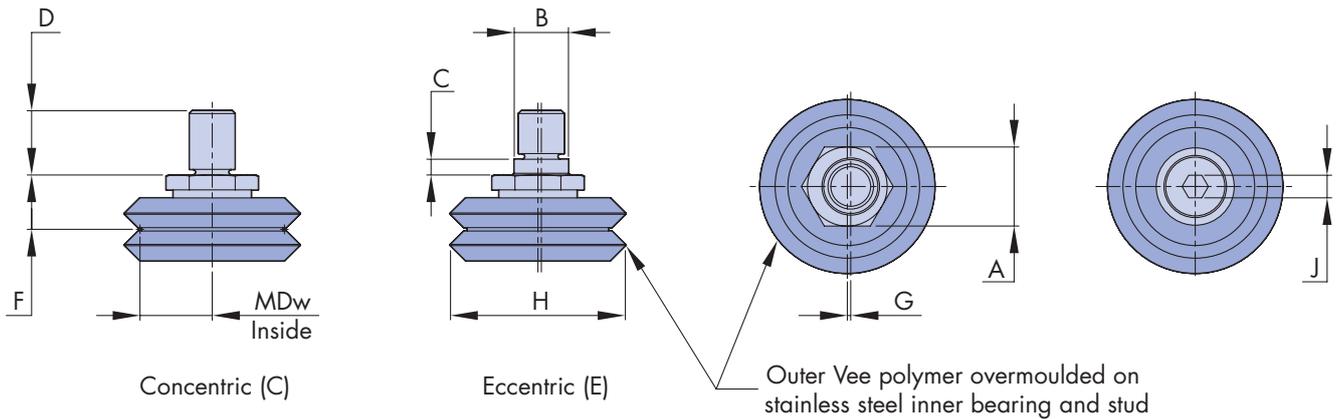
DualVee Polymer Overmoulded Wheels

Bishop-Wisecarver polymer overmoulded wheels with integral studs are perfectly matched for use with HepcoMotion ALR Rings.

The outer portion of the wheels are precisely moulded in a high performance engineering plastic which runs smoothly and with little friction or wear on the ring Vees. All metal parts of the wheels are stainless steel.

The bearings in the wheels are shielded, and are lubricated for life internally.

The size 2 wheels (SWIC2P & SWIE2P) are the usual choice for use with all the ALR rings in the standard range shown on page 2, but the smaller size 1 and size 0 wheels will also fit.



Wheel Part Number		A	ØB <small>+0.05 -0</small>	C <small>±0.13</small>	D <small>±0.1</small>	E	F <small>±0.05</small>	G	MDw Inside
Concentric	Eccentric								
SWIC2P	SWIE2P	14	9.53	2.79	11.38	26.57	9.63	0.93	12.70
SWIC1P	SWIE1P	12	6.35	2.16	8.10	19.34	7.30	0.83	7.95
SWIC0P	SWIE0P	11	5.56	2.16	7.62	16.94	6.15	0.81	5.94

Wheel Part Number		Concentric Stud Thread	Eccentric Stud Thread	ØH	J	Weight /g	Load Capacity /N	
Concentric	Eccentric						Radial	Axial
SWIC2P	SWIE2P	M10 × 1.5	M8 × 1.25	30.73	4	26	70	42
SWIC1P	SWIE1P	M8 × 1.25	M6 × 1.0	19.58	-	11	55	27.5
SWIC0P	SWIE0P	M6 × 1.0	M5 × 0.8	14.83	-	6	28	12

For best load capacity and life, it is recommended that the contact points between wheels and ring are lubricated. This can be effected using DualVee Lubricator Assemblies (see page 14 of the DualVee catalogue available from www.Hepcomotion.com/dualveedatauk).

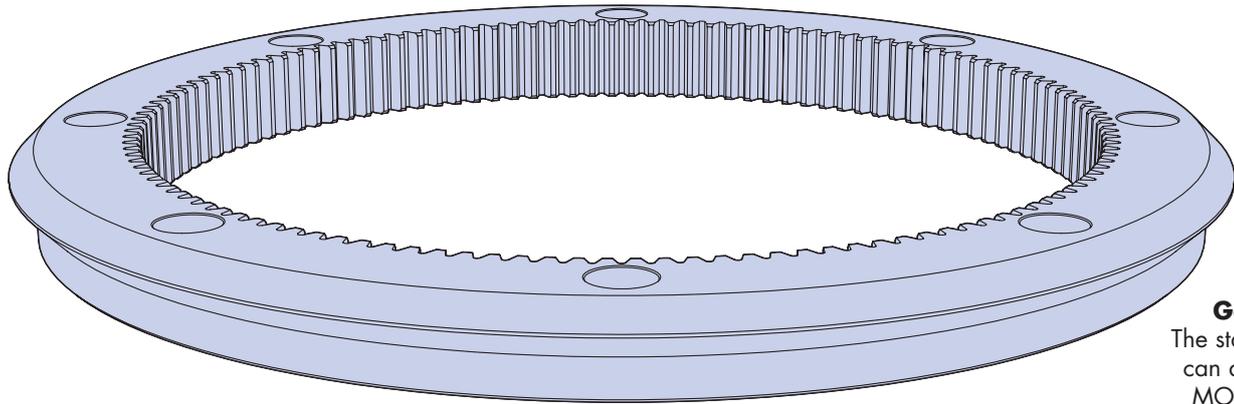
The nominal lives of each wheel at the load capacities stated in the table are 87km, 55km and 41km for the size 2, 1 & 0 wheels respectively.

The system life is determined by the most heavily loaded wheel, and this can be calculated using the methods detailed in pages 5-7 of the DualVee Technical Guide at the web address above.

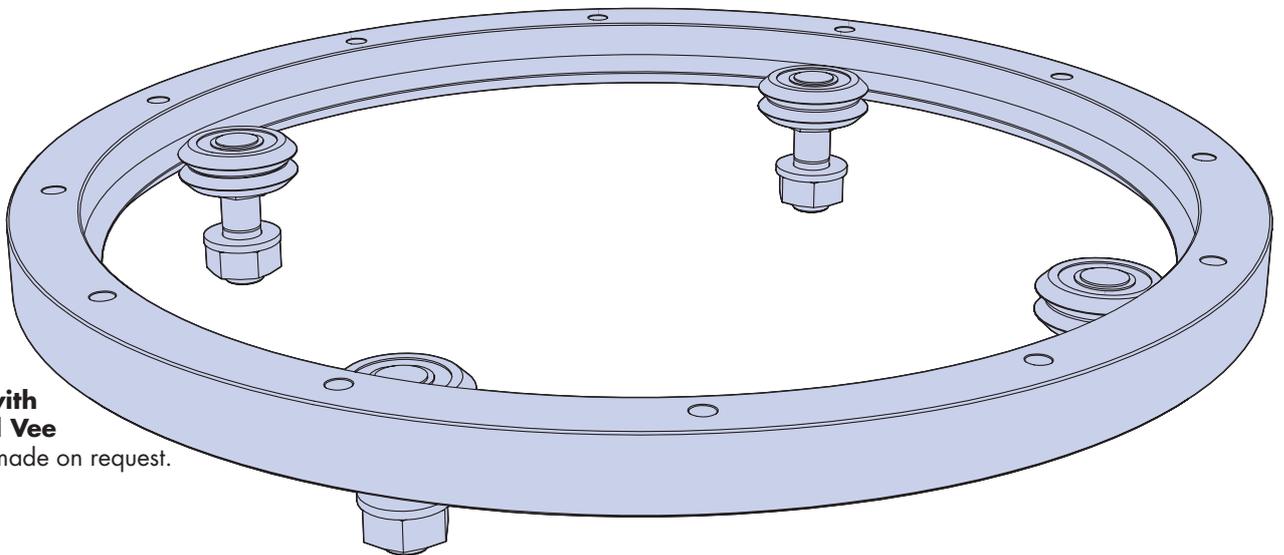
The Hepco PRT2 catalogue (available from www.Hepcomotion.com/prt2datauk) pages 55 to 56 includes calculations which will be helpful in determining the loads on the wheels in an ALR ring based system.

Special Rings

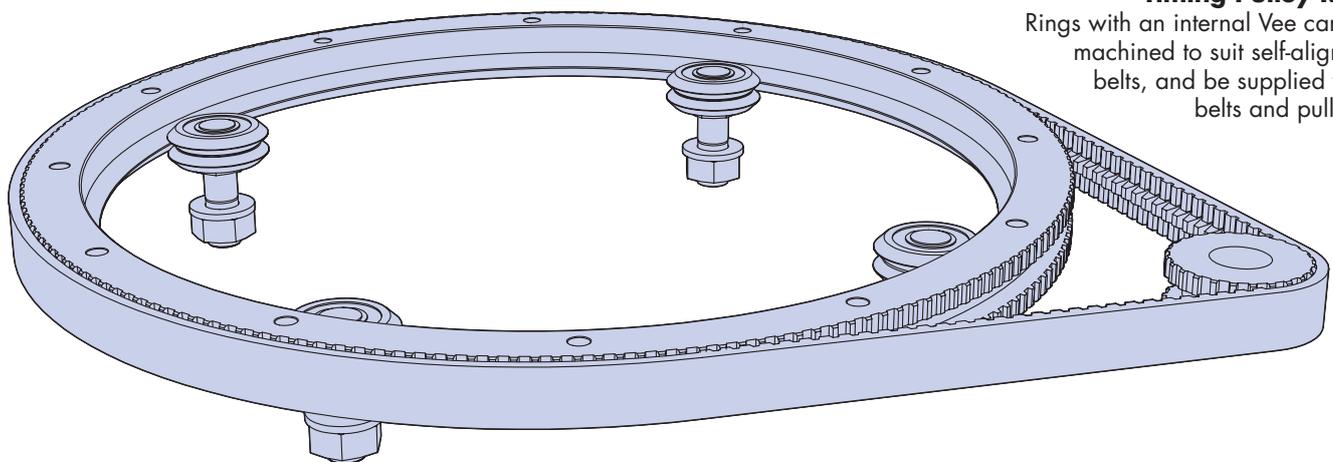
For batches of components, other forms of aluminium ring can be supplied. These include other diameters and thicknesses, rings with internal Vees, gearcut rings, and rings machined in the form of self-aligning timing belt pulleys (see below). Please contact Hepco for full details of capability.



Gearcut Ring
The standard range can accommodate MOD1.25 gears.



Rings with internal Vee
Can be made on request.



Timing Pulley Ring
Rings with an internal Vee can be machined to suit self-aligning belts, and be supplied with belts and pulleys.

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