

WestMARC Knee Guide for Prosthetic Multidisciplinary Team

Mechanical Knees: free single axis

NAME	Weight activated						Alignment	Hydraulic yield				Fluidic
	Balance Control Knee	3R15 /3R49	3R90	3R92	NOP4	ESK	3R95	3R80	Sensor	Mauch	KX06 *poly-centric	VGK
	Ossur	Ottobock	Ottobock	Ottobock	Ossur	Blatchford	Ottobock	Ottobock	Ortho Europe	Ossur	Blatchford	Ortho mobility

General	Activity level (see Appendix 2 in full guide)	L	1-2	1-2	2-3	M-H	2-3	3-4	3-4	3-4	H-E	3-4	2-4
	Weight of unit (gms)	590	355	745	895	680	1130	360	1240	1141	1140	1230	1500
	MAX KNEE FLEXION ANGLE	140	150	135	135	145	140	135	150	120	115	160	160
	Max weight of Pt (kgs)	125	100	125	125	100	125	150	150	125	136	145-150	125
	FULL HIP EXTENSION or flexion accommodated	Yes	Yes	Yes	Yes	Yes	Yes	Yes, crucial	Yes	Yes	Yes	Yes	Yes
	GOOD RESIDUAL LIMB STRENGTH REQUIRED	No	No	No	No	No	No	Yes, crucial	Yes	Yes	Yes	Yes	Yes

Prosthetic Stance Control	Weight activated lock	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No	No
	Geometric lock	No	No	No	No	No	No	No	No	No	No	No	No
	Optional Manual Lock	Yes	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
	Mechanical stance flexion at initial contact	No	No	No	No	No	No	No	No	No	No	No	No
	Load activated hydraulic yield	No	No	No	No	No	No	No	Yes	Yes	No	No	No
	Position dependent hydraulic yield	No	No	No	No	No	No	No	No	No	Yes	Yes	Yes
	Alignment only	No	No	No	No	No	No	Yes	No	No	No	No	No

Prosthetic Swing Control	Optional Manual Lock	Yes	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes
	Constant Friction	No	Yes	Yes	No	No	No	No	No	No	No	No	No
	Extension assist	Yes	Yes	Yes	No	No	No	No	No	No	No	No	No
	Pneumatic	No	No	No	Yes	Yes	Yes +/- electronic control (SMART IP)	No	No	No	No	No	No
	Hydraulic	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes

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Implications for gait training	<i>For Loading Response</i>													
	Actively extend hip & prosthetic knee	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Crucial	No	No	caution!	caution!	caution!
	Allow hip & prosth knee to flex under load	No	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
	<i>At pre-swing:</i>													
	Unload toe and hip hitch	Yes	Yes	No	No	No	No	No	No	No	No	No	No	No
	Normal weight transference along foot	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Load toe	No	No	No	No	No	No	No	No	No	No	No	No	No	

Sitting down	As normal with no support from knee	No	No	No	No	No	No	Yes	No	No	No	No	No
	As normal with hydraulic flexion resistance sitting assist	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes
	Weight on toe (foot behind)	No	No	Yes	Yes	Yes	Yes	No	No	No	No	No	No
	Unload foot	Yes	Yes	No	No	No	No	No	No	No	No	No	No

Stairs	Step together	Yes	Yes	Yes	Yes	Yes	Yes	Yes	No	No	No	No	No
	Foot over foot yield- Foot half off step	No	No	No	No	No	No	No	Yes	Yes	Yes	Yes	Yes

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