

Technical data

Principle	Planetary gearing system with two switch positions: direct drive 1:1, low gear 2.5:1
Shifting	Direct shifting via push buttons or "easy-shift" - levers on both ends of the spindle. No cables, no rods.
Easy-shift levers	As an option, there are "easy-shift" - levers available, which make shifting very simple, even with click-in pedals or small shoes.
Gear housing	Corrosion resistant, completely encased and protected against dust and spray water.
Axle	Rides on (replaceable) cartridge bearings. Please expect a lifetime of more than 20'000 miles for the bearings and much more for the mountain-drive .
Axle length	Standard is 138mm for bottom bracket widths of 68 - 73mm. A 10mm longer axle is available for bottom bracket widths up to 84mm.
Bottom brackets	The mountain-drive unit is designed for an inner diameter of the bottom bracket of 33.6 - 34mm. The mountain-drive part, which is slid into the b.b., has no thread. Shims to equalize an eventual play are included in the shipment. Adapters for larger diameters are available (please specify diameter when ordering).
Chainline	Distance between centerline of frame and midline of chain: 43, 45 or 50mm for a 68mm wide bottom bracket shell. For 43mm, please ask for 2mm spacers, which can be set between spider and chainring. For the 50mm-chainline please use the steel spider, which is available as an option (recommended for higher loads such as on tandems, rickshaws, transportation bikes). Also recommended for two chainrings (one fitted to the left, one to the right side of the spider).
Compatibility	<p>Generally, you can combine any bicycle gearing system with mountain-drive.</p> <p>For heavy use such as for transportation bikes, rickshaws, tandems, please use hubs, which are designed for tandems. These are for example the 5-speed SRAM cargo hub. With 7-, 8-, 9- and 11-speed-hubs and all types of chain derailleur systems no problems have been reported in the past couple of years, when thousands of mountain-drive - systems have been combined with many different gearing systems.</p> <p>Please do not combine mountain-drive with the Rohloff 14-speed hub. The Rohloff hub has a strict limitation of the entry torque, and may only be combined with speed-drive.</p> <p>All mountain-drive - systems may be combined with coaster brakes.</p> <p>Starting with model year 2010, all gearing systems come with a symmetrically machined clutch, which allows to use them on fixed-gear bikes without any restrictions.</p>

Cranks	<p>Crankarms sit conventionally on square spindle sections. Standard type is 170mm with straight shape. Standard material: aluminum Available as an accessory are the following special types: 155mm (alu, straight shape), 170mm (alu, off-set shape) Other special lengths (all aluminum, offset-shape): 102, 114, 127, 140, 160, 165, 172.5 and 175mm Most of these cranks are available in silver or black finish. For the standard straight 170mm crank, "easy-shift" - levers are available, which are simply clamped between pedal and crankarm and can be retrofitted to any mountain-drive.</p>
Chainrings	<p>Standard chainrings are made of lightweight aluminum. Bolt circle diameter (BCD): 110, 130mm We offer the following sizes: - 27 tooth chainring, directly screwed on the mountain-drive housing - with BCD 110mm: 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 53 - with BCD 130mm: 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 60, 65, 70, 75 - other sizes and materials on request</p>
Trouser guards	<p>We offer good quality aluminum trouser guards for all chainring sizes up to 56t.</p>
Weight	<p>Including spindle, bearings and spider, excluding chainring and cranks: 900g (46 tooth chainring with chainring bolts: 105g, cranks 230g each). Please compare the total weight of mountain-drive with the total weight of a triple chainring set including shifter, cable, derailleur.</p>
Efficiency	<p>High quality planetary gearing systems have efficiencies of about 95 - 97%. By using only the best technology for gears, bearings and lubrication, we try to get to the highest possible level. The possibility to easily lubricate the mountain-drive gearing system guarantees to keep this high level for lifetime.</p>
Load	<p>mountain-drive can be used for tandems. Please use steel spiders for tandem and other heavy duty applications. mountain-drive is designed for a torque of 250Nm.</p>
Delivery	<p>The mountain-drive unit comes ready for installation, including chainring of your choice (extra charge for chainrings larger than 48 teeth), a pair of crankarms, and detailed installation instructions.</p>