

ISO hub specifications and wheel building information

Hub Type	Axle Type	Axle Width (mm)	Flange Diameter Drive Side & non-Drive Side (mm)	Center to Flange Drive Side (mm)	Center to Flange non-Drive Side (mm)	Frame Attachment Options	Available Spoke Hole Drilling	Upgrade & Conversion Options	Weight* (grams)
ISO front	two piece	100	57.4	31.3	22.2	QR	28, 32, 36	4	166
ISO 15mm SD front	one piece	100	57.4	31.3	22.2	15mm TA	32, 36	4	164
ISO 15mm LD front	one piece	100	57.4	31.6	23.3	15mm TA	32, 36	5	197
ISO 20mm front	one piece	110	57.4	31.6	23.3	20mm TA	32, 36	5	207
ISO 24mm front	one piece	110	57.4	26.5	27.8	24mm TA	32, 36	5	240
ISO 135 rear	one piece	135	57.4	20.1	33.9	QR/FB	28, 32, 36	1, 3	336
ISO 135 x 10/12mm rear	one piece	135	57.4	20.1	33.9	10/12mm TA	28, 32, 36	1, 3	320**
ISO 150 x 10/12mm rear	one piece	150	57.4	25.0	38.5	10/12mm TA	32, 36	3	336**
ISO Single Speed rear	one piece	135	57.4	32.3	31.0	QR/FB	28, 32, 36	-	411***
Universal Disc front	two piece	100	53.0	31.5	23.0	QR	32, 36	-	150
Universal Disc rear	one piece	135	53.0	21.0	34.0	QR/FB	32, 36	1, 3	282
Universal Disc Single Speed rear	one piece	135	53.0	32.0	34.2	QR/FB	32, 36	-	427***
Universal Disc rear tandem	two piece	140	53.0	23.5	31.5	QR	32, 36	2, 3	284
Universal Disc rear tandem	one piece	145	53.0	26.0	29.0	QR/FB	32, 36	3	366
Universal Disc rear tandem	one piece	160	53.0	33.7	33.7	QR/FB	32, 36	3	388
Frame Attachment Options QR: Quick release only TA: Thru-axle only QR/FB: Quick release or FunBolts (FunBolts only compatible with rear one piece axle)						Upgrade & Conversion Options 1: Convertible to 135mm QR/FB axle, 135 x 10mm TA, 135 x 12mm TA, and 135mm two piece QR axle 2: Convertible to 130mm, 135mm, and 140mm axle widths when using a two piece axle 3: Convertible to stainless steel driveshell 4: Convertible to QR and 15mm thru axle 5: Convertible to 15mm and 20mm thru axle, and 24mm axle			
Wheel Building Specifications Spoke Gauge: 13, 14, or 15 gauge Spoke Lacing Pattern: 3-or-more cross Spoke Hole Diameter: 2.5mm						Small Parts Weights * Add 48g if hub features a stainless steel driveshell ** Add 5g if using 10mm thru axle *** Weight includes 18t stainless steel cog (37g), single speed cog spacers (6g) single speed cog lock ring (4g) and FunBolts (42g)			