

precise splice measuring
for tire building machines.



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TireTech Group

hf-tiretechgroup.com

HFQ Guard sets new benchmarks in precise splice measuring, quality control, and traceability in the tire production process. Ensure tires are built to the highest quality and safety standards with **HFQ Guard**—the solution that is also upgradeable on many TBMs in the market.



Technical specifications

Feature	Q Guard 1000	Q Guard 400
Task	Measuring splices, documenting surfaces	
Technology	2D, 3D, frame-analysis, surface-scan, one shot	
Working distance	1,420 mm ±40 mm	
Lighting technology	LED	
Inspection width	1,000 mm	400 mm
Drum diameter	300 bis 1,000 mm	
Measuring accuracy	0.2 mm	
Measuring resolution	< 0.1 mm	
Splice measurement distance	Every 25 mm	
Performance	Q Guard 1000	Q Guard 400
Surface/measuring speed	Up to 1,500 mm/s	
Splice species	Overlapping splice, butt splice, open splice	
Components	Innerliner, ply, sidewall, breaker, tread	
Skive material angle	35°–95° IL, ply, sidewall, tread; 20°–45° breaker	
Bias material angle	75°–90° IL, ply, breaker; 18°–30° sidewall, tread	
Electromechanics	Q Guard 1000	Q Guard 400
Connections	M12, 12-pin connector male, A-coded (Powersupply and I/O) M12, 8-Pin Connector Female, X-coded (Gigabit Ethernet) M12, 8-Pin Connector Female, A-coded	
Income nominal voltage	24 V DC, ± 20%	
Protection	IP 65	
Photobiological safety	Class 1: No protective required	
Housing	Aluminum, black anodized	
Weight Sensor	51 kg	36 kg
Dimensions Sensor (L × B × H)	2,400 mm × 220 mm × 120 mm	1,800 × 220 mm × 120 mm
Interfaces	Q Guard 1000	Q Guard 400
Configuration software	SOPAS ET, Webinterface	
Communication interfaces	10 Gigabit Ethernet (TCP/IP), OPC-UA, OPC-DA with additional hardware Rest API (Representational State Transfer) API (Application Programming Interface) interface for communication between client and server in networks	

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