

ROXON HX270

ON-LINE BELT MONITORING TECHNOLOGIES COMPARED, A CASE EXAMPLE

Product	Technology	Belt damage type							Thickness monitoring	Applicable belt		Price factor
		Long belt rip	Short belt rip	Splice damage	Edge damage	Gouge, Hole	Tear, Cut	St. cord damage		Textile	Steel cord	
Roxon HX270	Optical 3D surface scanning	X	X	X	X	X	X	X	X	X	X	x1
Steel cord scanning	Magnetic imaging			X				X			X	x1.1
Rip detection with RFID	Belt integrated sensor loop detection	X									X	x0.8 + the sensor loops (**)
Rip detection with steel cord scanning	Belt integrated sensor loop detection + magnetic imaging	X		X				X			X	x1.6 + sensor loops (**)
X-ray for steel cord monitoring	X-ray imaging			X	X	X		X	X		X	x0.8 (*)

(*) = Can be installed only to the return belt line. Reacts half a belt loop too late to the loading point incidents, not for rip detection

(**) = The number of sensor loops need to be **vulcanized and maintained** inside the belt depends on the belt length. E.g. for 6000 m long belt it can be 600 loops with 100 m spacing and can equal to price factor **x2 - x10**.