# **ZX5 Safety Standards And Compliance**

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## CE Safety Standards, Hazard Identification & Compliance

Consideration has been made to ensure that the ZX5 conforms to or exceeds all current international safety standards.

#### Moving Slides and Rotating Ballscrews

The ZX5 machining centre has CNC Driven axes including a rotary axis which could present possible trapping and crushing dangers. This has been addressed by isolating and disabling these axes via approved safety hinges or locking safety switches fitted to all access doors. These switches control an approved safety gate relay which disables the Servo drives via the "Safe Torque Off" approved input function.

#### **Revolving Spindles / Blades**

The ZX has revolving spindles in the Multihead and a rotating blade in the Saw.

Consideration of any danger to the operator has been addressed by the interlocked guarding mentioned above. Neither spindles or saw will run if any of the interlocked guarding is open.

Saw blades with inertial overrun are protected by an approved Zero Speed Detection system which interlocks the guards until the blade is stationary

# Harmonised Safety Standards Applied

<b>BS EN ISO</b>	Year	Title
13849-1	2015	Safety of machinery – Safety related parts of control systems Part1
13850	2015	Safety of machinery – Emergency stop function – Principles for design
13854	2019	Safety of machinery – Minimum gaps to avoid crushing of parts of the human body
13855	2010	Safety of machinery - Positioning of safeguards with respect to the approach speeds of parts of the human body
14118	2018	Safety of machinery – Prevention of unexpected start-up
14119	2013	Safety of machinery – Interlocking devices associated with guards – Principles for design and selection
14120	2015	${\sf Safety}\ of\ machinery-Guards-General\ requirements\ for\ the\ design\ and\ construction\ of\ fixed\ and\ movable\ guards$
4871	2009	Acoustics - Declaration and verification of noise emission values of machinery and equipment
60204-34	2016	Safety of machinery - Electrical equipment of machines - Part 34: Requirements for machine tools