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News Release Press Tending Robot from APEX Automation and Robotics The manual handling of metal parts in a Press operation is very inefficient and presents major risk hazards to the operators. Automating this process can be challenging as in the majority of applications space is confined and the system needs to handle a wide range of products.In a recent project for a leading building products company, Apex Automation and Robotics was faced with the challenge of developing a flexible automation solution to stack and palletise half a dozen products of various sizes and shapes at the exit of a Press.

The automation solution, that was installed and commissioned last month, includes a 6-axis industrial robot with a custom-built gripper that can handle 6 different products without mechanical adjustments.

The robot controller has an interface with the Press. When the Press completes its cycle, the robot reaches in, picks up the part and stacks it. Some parts are stacked in bins and other are simply palletised on timber pallets.

The stacking and palletising positions for different products are pre-programmed, and once the product is selected, the robot follows a recipe.

The system is fully guarded with perimeter fencing, interlocked doors and light curtains. The safety circuit includes redundancy and safety monitoring devices in accordance to the relevant Australian standards, in particular AS 4024.3301-2009 Robots for industrial environment – safety requirements.

A user-friendly coloured Touch Screen allows the operator to change product, run and troubleshoot the system.

Since this robotic system was put in production, the customer was able to increase the line throughput by up to 25% due to the time wasted in the manual operation to reset the safety circuit every time the operator reaches in the Press.

This Press Tending Robot is the latest addition to the family of robotic solutions that Apex Automation and Robotics have delivered to the manufacturing sector resulting in increased production, reduced labour cost and improved OH&S.