

# Ars Automation

## Application notes

### Case Study: feeding solution to handle heavy metal brackets for a press loading process in the metalworking industry

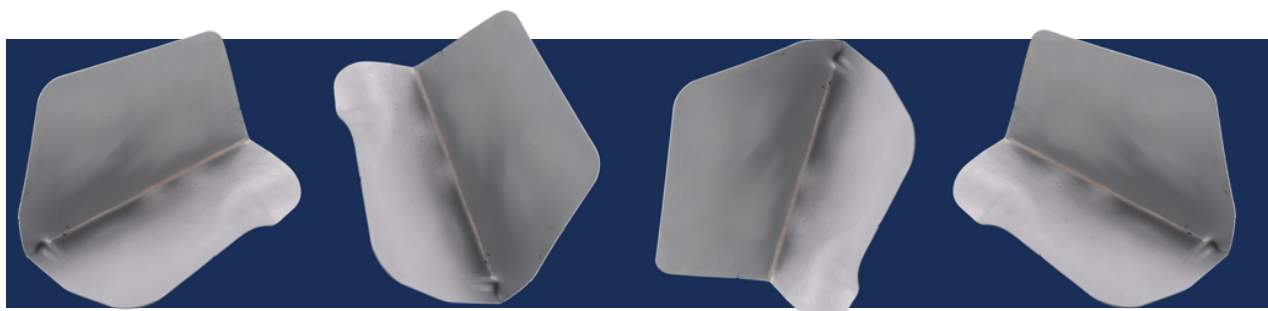


#### Industry insights

The metalworking sector continuously adapts to the ever-changing demands of a global marketplace. To stay competitive, companies tackle the challenge of managing high volumes of components while maintaining rigorous quality standards. This is particularly crucial for businesses supplying high-demand sectors such as automotive and aerospace. Finally, these production processes demand a workforce with exceptional skill sets.

#### Handled parts

A particularly challenging aspect of the metalworking industry is the handling of components. Metal sheets are often of varying sizes and weights, and they can be difficult to handle safely and efficiently. In addition, metal sheets can overlap, leading to errors and quality issues.



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### The configuration

Donati Srl is a leading Italian producer of metal components for industries including automotive, motorcycle, sports, and marine. The company was looking for a solution to enhance the safety and efficiency of their press loading process. In collaboration with Nexman, they implemented a system encompassing a Doosan cobot and a FlexiBowl 800 feeder. In this configuration, the FlexiBowl 800 is tasked with separating heavy metal sheets, ensuring the robot can efficiently carry out the pick-and-place task. The robot retrieves the component and transfers it to a re-gripping station for precise orientation. Subsequently, the part is placed into the press, where a laser safety system confirms the sheet's accurate positioning.



## FlexiBowl® 800

### Traditional Operating Mode

### Results

Thanks to the newly integrated system, Donati Srl has seen marked improvements in the quality and efficiency of their press loading operations. The system is designed to allow operators to work in a collaborative mode, in complete safety. This means that operators can use the press without the cobot in cases of emergency, thus avoiding potential production halts. The collaborative system at Donati Srl is a successful example of how automation can improve the efficiency and safety of manufacturing processes. Designed with adaptability in mind, the system stands ready to evolve alongside future business growth.

### Key points



Metalworking  
industry



Press  
Loading



FlexiBowl®  
800



Doosan  
Cobot



Heavy  
products