Manual pre-machining of parts means inconsistent quality, more scrap, tough working conditions which make it difficult to recruit workers. So, for forward thinking foundries, the days of manual machining and pre-machining are over. Robots can handle the job, doing it quicker and with more consistently. To make pre-machining processes even easier, ABB has developed the new IRB 6660, the first robot on the market that is dedicated to pre-machining, machining and other post-casting applications for the foundry industry.

The new IRB 6660 robot is perfect for pre-machining and is designed for high-performance applications where robot stability is a key factor for success. The superior stiffness and robustness of the IRB 6660 allow for high productivity in challenging applications in tough environments. With the IRB 6660, it’s possible to achieve a higher removal rate than before, which gives a shorter cycle time and higher productivity. The greater accuracy of the IRB 6660 also makes for consistent and better part quality, even process forces are high and/or fluctuating. In addition, the relatively heavy robot structure reduces both high and low frequency vibrations.

For machining applications, the best combination is a heavy robot with a light spindle. The high productivity and accuracy of the IRB 6660 increases the application scope of robotized machining, which will save investment costs for the customer, since investments in robots are normally less than in expensive dedicated machines.

RobotWare Machining Force Control, Foundry Plus and Absolute Accuracy are available as selected options for even better performance of the IRB 6660. The IRB 6660 is a combination of ABB’s well proven technology and design and along with some new features making it the stiffest articulated robot to date in its class.

This unique combination makes the IRB 6660 very reliable, accurate, cost-efficient and easy to install and maintain, as well as ideal of a wide variety of pre-machining applications.

Sturdy but flexible

With the IRB 6660, pre-machining is even more efficient than ever.

> FACTS

The IRB 6660 at a glance
- 6-axis robot
- Payload: 205 kg
- Reach: 1.93 m
- Protection such as Foundry Plus option and including chip protection - mechanical protection reduces chips entering axis 2
- Complete Robot IP67
- Floor mounted
- Based on selected high-performance components from ABB Power Robots

Ideal for...
The IRB 6660 robot is ideal for any part – of aluminum, iron and magnesium alloys, as well as other materials – that needs post-processing after a casting operation. Applications include:
- Deflashing
- Degating
- Grinding
- Sawing
- Cutting
- Pre-machining
- Machining

To make pre-machining and machining of parts even easier, ABB introduces the IRB 6660 robot, designed specifically for post-casting foundry processes.