

# Core production technologies

SUZHU provides core machines, including sand preparation, gas generation and utilisation, working with different technologies:

- **Cold box Amin process** since 1991
- **Cold box Amin Vacuum core process** since 2008
- **Water glass Vacuum core process** since 2008
- **Hot box process** since the 1970's
- **Shell core process** since the 1970's

Until now, SUZHU has supplied thousands of different kinds of core making machines, produced at SUZHU plant.

Model	Shooting head volume / max. core weight	Technology
Z843	3 kg	<b>Cold Box Amin process</b>
Z8415	15 kg	
Z8425 / Z8440 Z8465 / Z8480 Z84160	25 L to 160 L	
Z84200	200 L	<b>Cold Box Amin Vacuum or Water Glass Vacuum</b> cores up to 2700 mm core length, Railway bolster and frame
Z84800	800 L	<b>Cold Box Amin process</b> , optional with Vacuum process core package moulding or extremely large cores
Z8612 / Z8625 Z8640 / Z8660	12.5 to 60 kg	<b>Hot Box or Shell cores</b>
Z95	30 kg	<b>Shell cores</b>

## Vacuum core process - special technology for large cores

On request of Chinese and American waggon, casting producers SUZHU developed the special Vacuum core process technology for mass production of monolith central cores for bolster and frame casting, which is also used for production of other large cores.

Advantages of the Vacuum core process are decrease of content of binder up to 50% and decrease of Amin or CO<sub>2</sub> consumption. In practice, the process works with Amin-Technology as well as with Water glass-Technology, which is mostly favoured by steel foundries.

## Core package moulds

Suzhu developed its new machine Z84800 with shooting head volume of 800 litres. The first machine started work in summer 2015. The technology is based on Cold Box Amin process, optional with Vacuum.