

Yield in a Steel Foundry

The importance of Management involvement

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Introduction

In numerous foundries, the significance of yield for both existing and new castings is often underestimated.

Molding

Medium impact

- Parts may use smaller riser sleeves, less cost.
- Less space on the pattern, thus saving sand and resin.

Melting

Higher impact

- Using less KW per part
- Maybe pour more molds / parts with the same number of heats.
- Savings on alloys and charge material.
- Savings on refractories, both furnace and ladle.

Cleaning

Very high impact

- Reduce the time, labor and materials, to take off the gating and risering system.
- Reduce the time, labor and materials, to grind off all the contact pads on the casting. Smaller contacts, easier and faster.

Example with 60% Yield Casting

Yield %	Total Weight/ kg	Casting Weight/ kg	Sale \$/ kg	Sale \$/ Mold
60%	100.00	60.00	\$ 8.00	\$ 480.00

Difference in Yields

Yield %	Total Weight/ kg	Casting Weight/ kg	Sale \$/ kg	Sale \$/ Mold
60%	100.00	60.00	\$ 8.00	\$ 480.00
55%	100.00	55.00	\$ 8.00	\$ 440.00
50%	100.00	50.00	\$ 8.00	\$ 400.00
45%	100.00	45.00	\$ 8.00	\$ 360.00
40%	100.00	40.00	\$ 8.00	\$ 320.00
35%	100.00	35.00	\$ 8.00	\$ 280.00

Price Adjustments Depending on Yields

Yield %	Total Weight/ kg	Casting Weight/ kg	Sale \$/ kg	Sale \$/ Mold	% Increase to make the same amount of sales in \$	New \$ / kg
60%	100.00	60.00	\$ 8.00	\$ 480.00		\$ 8.00
55%	100.00	55.00	\$ 8.00	\$ 440.00	9%	\$ 8.73
50%	100.00	50.00	\$ 8.00	\$ 400.00	20%	\$ 9.60
45%	100.00	45.00	\$ 8.00	\$ 360.00	33%	\$ 10.67
40%	100.00	40.00	\$ 8.00	\$ 320.00	50%	\$ 12.00
35%	100.00	35.00	\$ 8.00	\$ 280.00	71%	\$ 13.71

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THANK YOU