

The e-HIT Method

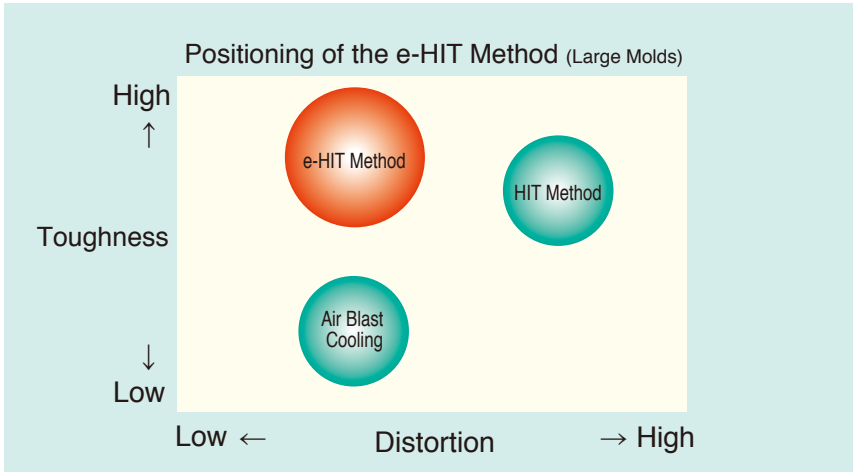
A more advanced version of the HIT method (a high toughness heat treatment process) of specialized heat treatment for large dies that increases toughness while minimizing distortion.

Features of the e-HIT Method

Specialized control of the heat treatment reduces distortion and increases toughness.

Low distortion Distortion is reduced to less than half compared to the HIT method

High toughness Toughness is equal to or greater than the HIT method

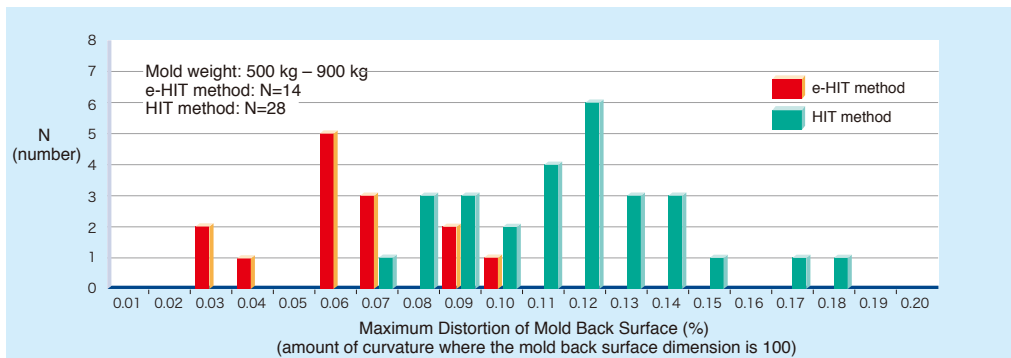


Suitable Materials

Mold type	Steel type	Mass	Dimensions & shape
Die casting molds Hot extrusion molds Hot forging molds	DHA1 (SKD61) DHA1-A (improved version of DHA1) DH21 DH31-S and other hot work tool steels	4 tons or less	Please consult in advance

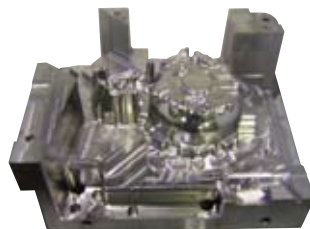
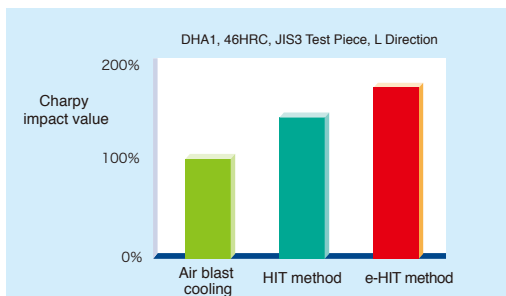
Heat Treatment Distortion

The e-HIT method reduces heat treatment distortion to less than half compared to the HIT method. As a result, the time necessary for die finishing after heat treatment can be reduced.



Toughness

The e-HIT method achieves toughness equal to or greater than the HIT method.



Reference: Example of a Treated Mold

Examples of Heat Treatment Results

Application	Mass	Steel type	Approximate dimensions	Mold back surface distortion
Aluminum die casting mold	570kg	DH31-S	610×570×260	0.07%
	660kg	DHA1	900×670×220	0.06%
	830kg	DHA1	840×650×280	0.10%
	920kg	DH31-S	850×690×330	0.07%

Heat Checking Resistance

Heat checking resistance equal to or better than the HIT method is achieved.