Improving the Quality of Castings Using Thermovision

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The paper gives practical using of thermovision for quality casts assessment, which are casting to permanent moulds. Thermovision allows monitoring temperature of moulds and their cooling process by refrigerant medium in foundry engineering. It helps when the problems with elimination internal defects exist. Tests in experiment were implemented by DAS scan and local surface modification of water cores of cylinder heads. Cylinder heads are produced by ROTACAST foundry technology. Results of experiment showed that in location of defects is no directionally solidified. It is necessary to modify tools to defect eliminate. Tests consist of four parts. Each test has its contribution to improve the situation. The last test, when were implemented the heating cartridges was most effective and the problem was eliminated.

Keywords: Thermovizion, Cast, Quality, DAS Scan, Defect

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