Diffusion Bonding Technology

A solid-state joining technique for making mould insert with conformal cooling channel under a vacuum condition.

Benefits

• Enhance the cooling performance of mould
• Enhance dimensional accuracy and quality of plastic injection parts
• Shorten the overall injection moulding cycle
• Reduce the overall investment in duplicating plastic injection moulds
• Produce a part with conformal cooling channel that could not be manufactured by traditional machining method

Our Scope of Services

• Technical evaluation on mould design for identifying the application areas of diffusion bonding
• Technical design input for mould insert with conformal cooling channel
• CAE analysis for conformal cooling channel design in mould insert
• Diffusion bonding service for fabrication of mould insert with conformal cooling channel
• Technical support for plastic injection moulding process parameter setting
• Optimisation for the fabricated mould insert with conformal cooling channel
• Join solid blocks of metal or ceramic for fabrication of part for different industrial applications

Our Competency

• State-of-the-art diffusion bonding facility with skillful CAE analysis professionals
• Extensive technical knowledge of identifying and evaluating the application areas of diffusion bonding
• Hands on experience in mold insert design and fabrication with complicated conformal cooling channel
• Substantive support in plastic injection moulding process parameter setting and optimisation

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