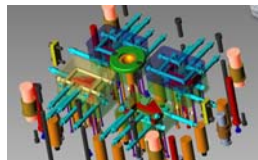
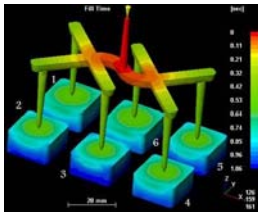
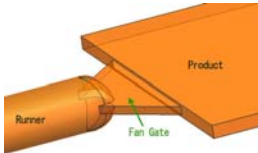
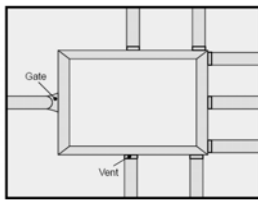
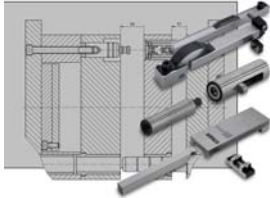


Session Code: **IJM04**

Manufacturing
Improvement
Training Program

2-day Technical Training Course

Program: **MANUFACTURING INSIGHTS SKILLS (MIS)**
Session Topic: Engineering Mould Design for Quality Moulding
By: **William Lee**
SBL TRAINING PROGRAM



Course Objective

The objective of this patented MIS program is to raise technical competency of technical employees from local manufacturing industry for product quality & productivity improvement through understanding of vital manufacturing variables. At the end of the MIS training, participants will realize the importance of technical details study & the introduction of science & engineering procedures to their existing practices for a profitable manufacturing operation.

Session Overview

This 2-day module provides technical staff in the thermoplastics injection moulding industry a fundamental understanding of tooling technology and the underlying engineering principles in the areas of melt flow, cooling, part ejection and mould structure. Course participants will learn the role of mould in the injection moulding process, and how it should be designed and built. Methods and equipment used to make moulds, mould components and some of the more popular mould designs will be discussed. The program also explains a few of the important design criteria that are required for both mould and product design.

Benefits

1. Learn a systematic, practical approach for injection mould design.
2. Understand the function of moulds and interaction between mould, machine, materials and process.
3. Design a tool that will operate consistently with minimum maintenance and produce quality moulded products at acceptable rates.
4. Learn about types of runners, gates and apply gate location guidelines.
5. Examine mould components including mould bases, cavity and core sets, injection & ejection systems, venting, mould accessories etc.

Course Contents

1. Mould Base Technology:

Cavity & core plate; Stripper plate; Ejector plate; Ejector retainer plate; Support plate; Slide core; Slanting pins; 2-plate mould; 3-plate mould; Shuttle mould; Stack mould; Unit Dies.

2. Feed System:

Sprue type; Sprue pullers; Sprue dimensions; Nozzle sizing; Cold slug well; Runner geometry & sizing; Multi-cavity design; Runner layout; Runnerless system; Gate type & dimensions; No. of gate & location; gating & moulding defects.

3. Thermal Design:

Mould heating & cooling; Cooling time; Heat balance; Waterline design; Cooling circuits; Cooling devices; Flow rate; Temperature measuring & control.

4. Venting & Ejection:

Vents placement & dimensions; Ejection systems; Ejector pins & sleeves; Blade ejectors; Air poppet; Ejector plates; Unscrewing devices; Accelerated ejectors; Lifter, core pull & slide systems.

Course Instructor



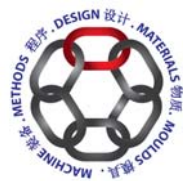
William Lee - Malaysian, Materials Engineer with an honorable Bachelor Degree awarded by The Engineering Council of London (EC, UK). He has over 25 years working & teaching experience in manufacturing industry. William possesses strong fundamentals knowledge in technical science & has special talent to communicate and explain to others the principles involved in various engineering fields. His ability to present and link the various engineering disciplines with real industrial use has made many of his course participants to appreciate the significant of technical details study for manufacturing improvement. Over the years, he has developed a series of patented Manufacturing Insights Skills (MIS) Training programs for various manufacturing industries. He is now a full time contract speaker for a few training organizers as well as professional associations in ASEAN & Australia. William will bring a wealth of teaching experience to this program along with his strong industrial background as a former engineering practitioner in tooling, materials, heat treatment, moulding & metal forming divisions. In addition, William is a versatile trilingual instructor who can instruct technical courses in English, Bahasa Malaysia or Mandarin (or a combination of the languages) to ensure full understanding of his presentation by his trainees from all levels.

Target Participants

All those concerned with improving their knowledge of plastic injection moulding technology and the processing terminology needed to succeed in the business of plastics should plan to participate. A variety of people will benefit by attending this course including mold designers, mold makers, product designers, process engineers, purchasing agents, project engineers, manufacturing engineers, materials engineers, CAD designers, and sales and marketing people in the plastic industry.

Administrative Details

1. Should public training not be scheduled for this program we will consider opening an ad hoc public training class if you've minimum guaranteed participants to attend this program.
2. We can bring this program to your premises as in-house training event for your in-house employees only. Interested participating company may contact us for an in-house training proposal.
3. In-house training can be conducted on weekdays or weekends (including public holidays) to meet the scheduling needs of your targeted staff.
4. For in-house training, a list of participants complete with their full name & designation must be presented to training provider one week prior commencement of each program. The total no. of training manual is supplied to the actual no. of turned out attendees only.
5. Substitute is allowed to replace the earlier registered person if he / she is unable to attend the training program (both public and in-house training). Participating company must inform us the details of replacement person.
6. All programs are of SBL (Skim Bantuan Latihan) type. Eligible company (Human Resources Development Fund contributor) must apply through themselves for the rebate of any eligible expenses (including training fees) from Human Resources Development Council. Training provider bears no responsibility for the approval of training grants or any form of rebates between participating company and HRDC.



Organized by:

METALLOY CONSULTANT SERVICES PLT

(Registered Training Provider under Ministry of Finance: 357-02128315)

(Registered Training Provider under PSMB: LLP0003449-LGN)

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