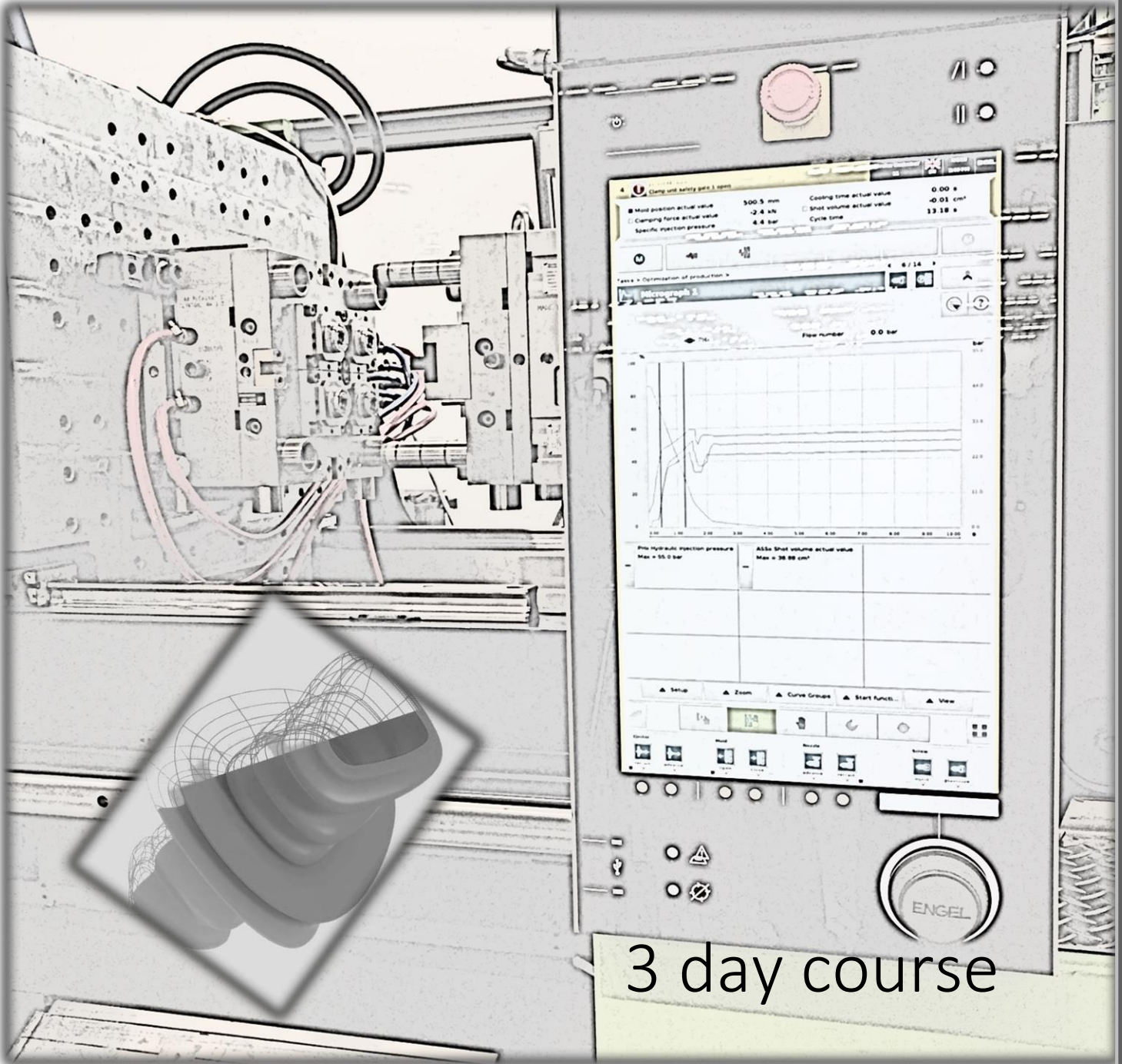


Injection Moulding Processing and Design



3 day course

info@polybridgetraining.co.uk
www.polybridgetraining.co.uk

M. +44 (0) 77 74 732 129



POLYBRIDGE Training Ltd

This course and its content have been approved & certified directly by the CPD Accreditation Service

Injection Moulding; Processing & Design

Three-Day Training Course

Objectives

- Fully Understand the Moulding Process
- Learn how Polymers dictate decisions.
- Understand Tooling choices.
- Enhance Communication
- Appreciate Design Decisions that affect costs.
- Evaluate designs for manufacturing.

Day 1

Section 1 Course Introduction

- Fundamental Facts shaping the industry.
- Statistics & History
- Advantages & Disadvantages.
- Cost breakdown
- Applications of Moulding
- Overview: Other Moulding Processes (option)
- Summary
- Environmental issues.

Section 2 The injection Moulding Process

- The moulding Machine, types, construction
- Introduction to plastic flow effects

Section 3 Polymers

- Material Categories
- How polymers affect the moulding quality
- Processing, effects on different polymers
- Polymer problems during processing
- Product problems after moulding: in-service.
- Plastic Flow during moulding
- Problems caused by shrinkage.
- Reinforced plastics and their effect
- Case studies

Day2

Section 4: Injection Moulds

- Mould cost analysis
- Mould construction materials & methods
- Mould terminology
- Gate Location & its importance
- Calculating Gate size V/s Injection speed.
- Explanation of Mould Types & their Benefits
- Hot Runner moulds; advantages & disadvantages
- Cores side actions, to form intricate products
- Overview of flow analysis programs
- Prototyping methods
- E-manufacture of Moulds (Conformal cooling)
- Standard Mould Bases

Section 5 Product Design

- Golden Design Rules
- Design from the "Polymer" viewpoint
- Designing to polymers' strengths
- Exploiting Polymer properties
- Anticipating problems

Section 6 Assembly

- Screws & Snap fits
- Adhesives & Welding

Section 7 Innovative techniques

- "Sandwich" Moulding
- Over-moulding
- Gas Injection
- Water Injection
- Injection Compression (Coining)
- Long Fibre Moulding
- Exatec® Large Area Moulding
- Micro moulding
- In-Mould Decoration & Assembly (IMD & IMA)
- Liquid Silicone Rubber (LSR)
- Metal Injection & Ceramic Moulding (MIM & CIM)
- Ultrasonic Moulding
- Industry 4

Section 8 Injection Moulding Troubleshooting

- Moulding Faults: Cause & cures.
- Problems During Moulding
- Problems from Machine Selection.
- Faults caused by poor mould product design.
- Faults caused by poor material choice.

Plenary Session & Course Close

Location & Times 2025 Courses:

ENGEL UK

Apollo Way, Leamington Spa CV34 6RW

- Day 1 09:15 to 16:30
- Day 2 09:00 to 16:30
- Day 3 09:00 to 15:30

Course Fee: £1150.00 + VAT per person:

Fee includes course materials, lunch and refreshments.

Registration Form or Book online

2025

Injection Moulding Processing & Design

Email info@polybridgetraining.co.uk

Select your Course Date: 2025

Please use a separate form for each delegate; photocopies are acceptable

☐ Jan 28th 29th 30th

☐ Mar 4th 5th 6th

☐ June 24th 25th 26th

☐ Sept 23rd 24th 25th

☐ Nov 18th 19th 20th

Surname: _____

Forename(s): _____

Position/ Job Title _____

Company: _____

Contact Details;

Company _____

Contact Name _____

Address: _____

Postcode: _____

Tel: _____

Email _____

Invoice Address (if different from Contact Details opposite)

Company _____

Contact _____

Address _____

Postcode _____

Tel _____

Email _____

Payment Information

NOTE:

Payment should be received prior to attending the course

☐ Bank Transfer, details below

☐ Paid on-line: PayPal/ Zettle

☐ Please Invoice my company:

Purchase Order No: _____

Bank Details

Bank: Barclays

Acc: Polybridge Training Ltd

Acc No: 70799750

Sort Code 20-53-22

IBAN: GB77BARC20532270799750

Swiftbic: BARCGB22

Please return to:

Training /Seminars,

Polybridge Training Limited

42 Linley View Drive,

Bridgnorth,

Shropshire.

WV16 4RT

United Kingdom.

[Info@polybridgetraining.co.uk](mailto:info@polybridgetraining.co.uk)

www.polybridgetraining.co.uk

BOOKING TERMS & CONDITIONS

Payment is accepted in £GB & is subject to VAT where applicable.

Conditions of Registration

Written confirmation is required: letter, email.

Payment should be received before attending the course.

Accommodation is NOT included in the fee.

Up to 14 days before the course start date, cancellations will be refunded minus a 20% administration charge. Cancellation after this date will be subject to the FULL fee with NO REFUND.

Transfer to a later course before the course starts can be accommodated without charge. Transfer within the 14-day period before the course start date will incur a 20% administration charge.

All transfer requests must be confirmed in writing by the delegate requesting transfer or their representative. The option to transfer can only be used once after which non-attendance will be treated as a cancellation subject to the terms above

Delegate substitutions can be made without incurring penalties.

Locations

The final course delivery location will be advised at the time of booking. Location choice is dependent on majority course candidates moulding discipline and travel logistics.

Tailor Made "In-House" Courses

This has for many years been our core business, providing companies with cost effective solutions to meet their own specific needs.

Please contact us if this route will be more effective to meet your company's individual needs.

Polybridge reserves the right to modify this course schedule without notification Jan to December 2020.



POLYBRIDGE Training Ltd

Registered Business Address 42 Linley View Drive, Bridgnorth, Shropshire, WV16 4RT, ENGLAND. UK.

Co Reg 4683206 VAT No:559 4441 15

Director; D.J. Jeavons. Tel:

+44 (0) 1746 761 875

Mob: +44 (0) 7774 732 129 info@polybridgetraining.co.uk

www.polybridgetraining.co.uk