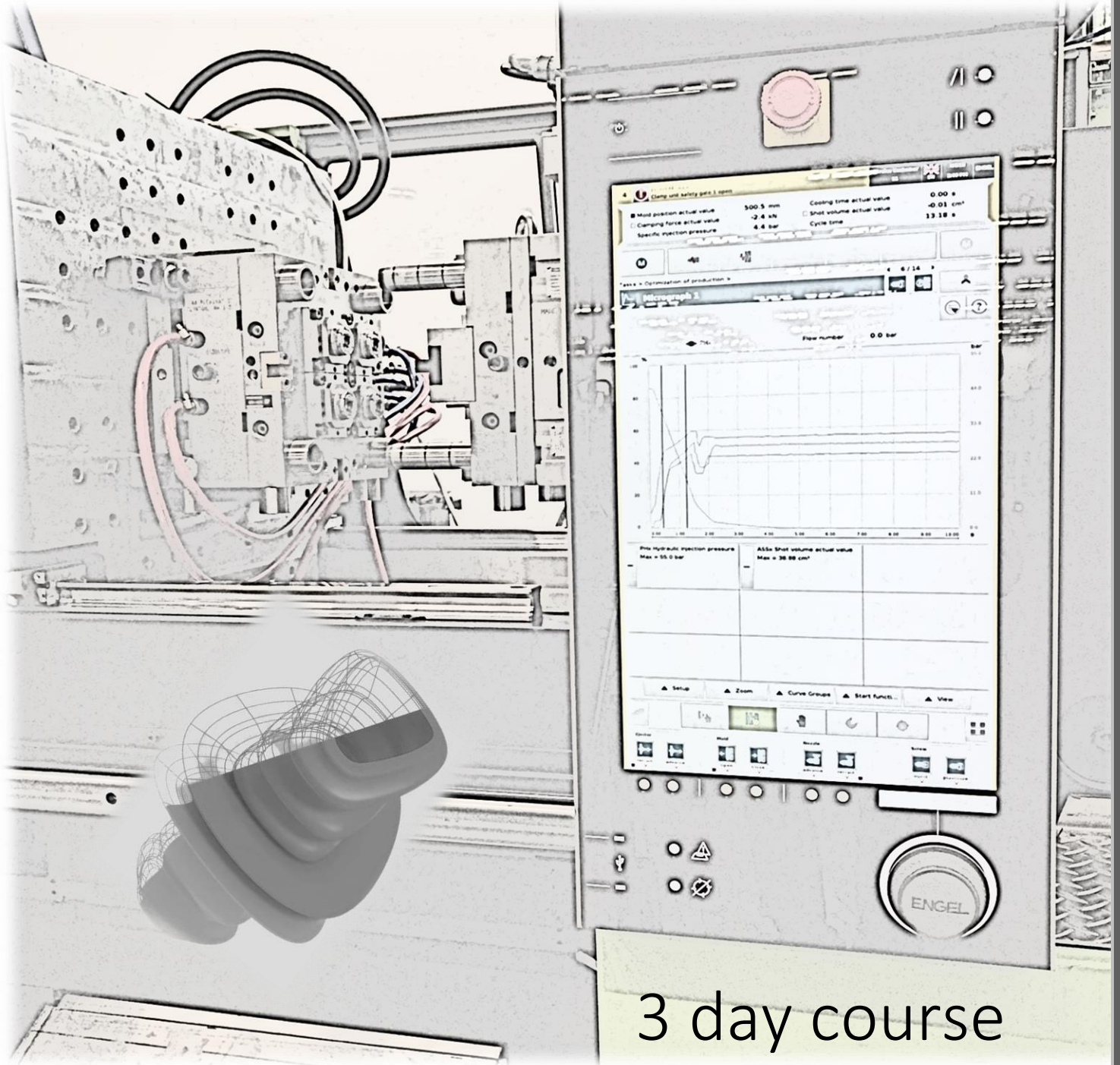


Injection Moulding

2023

Processing and Design



3 day course

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POLYBRIDGE Training Ltd

Injection Moulding Design & Procurement is Cogent approved Training Course

Injection Moulding; Processing & Design

3 Day Course

Who is it for?

Anyone who is involved in the design, procurement, validation, production and sale of injection moulded products or moulds.

- Product Designers
- Device Engineers
- Product Designers.
- Concept Designers
- Industrial Designers
- Tooling Procurement Engineers,
- Project & Process Engineers
- Quality Assurance personnel
- Sales Marketing executives

Course Objectives

- To fully understand the whole manufacturing process.
- Appreciate the decision-making processes involved.
- Identify designs for efficient production
- Understand how design affects mould & production costs
- Evaluate existing designs for flaws & improvements
- Identify the root cause of moulding problems
- Mould types; choosing: how & why
- Understand how plastic behaviour dictates design: Gate Location!
- Polymer types, how to choose the right type
- Identify cost reduction areas.
- Improve your COMMUNICATION skills

Day 1

Process Theory

- The injection Moulding Process
- The moulding Cycle
- Introduction to plastic flow effects
- Practical set-up of a Moulding machine
- "Hands-On "set-up of a production machine from scratch
- Systematic set-up of the Injection moulding machine

Day 2

Plastics Materials

- Material types and selection
- How polymers affect moulding quality
- Processing, effects of different polymers
- Polymer problems during processing and in service
- Product problems when in service
- Plastic Flow and its impact on product performance
- Problems caused by shrinkage in design & function
- Reinforced plastic: effects on the product
- Reinforcing fibres and additives: their use and effects
- Cooling Time Calculation

Injection Moulds

- Mould costs analysis
- Mould construction materials & methods
- Mould terminology
- Gate Location & its importance to function & Quality
- Explanation of Mould Types & reasons for their choice
- Hot Runner moulds; advantages & disadvantages
- Mould Cooling: its fundamental effect on Quality & productivity.
- Cores & side actions.
- Overview of flow analysis programs (Moldflow® Moldex3D® Sigmasoft®)
- Prototyping methods (including rapid prototyping methods STL; SLS etc)
- Moulds for Low Volume manufacture: Aluminium, Composites.
- E-manufacture of Mould sections (Conformal cooling)
- Standard Mould Bases
- Standard component suppliers

Day 3

Injection Moulding Troubleshooting

- Moulding Faults: Cause & cures.
- Fundamental problems in Moulding
- Faults caused by inappropriate machine selection
- Faults caused by poor mould & product design
- Systematic Troubleshooting Techniques

Innovative Techniques

- Overview of new developments in Moulding
- Presentation of the advantages of these methods

Cost calculation & analysis

- Polybridge Calculator Exercises
- Component costing
- Validation Statutes driving this approach
 - Tools used in Validation
 - Over-view of DoE techniques

Location& Times 2022 Courses:

Apollo Way, Leamington Spa Warwickshire CV34 6EW

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

Course Fee: £895.00 + VAT per person:
Fee includes course materials, lunch and refreshments.

Registration Form

Injection Moulding Processing & Design

Note: on-line booking is available

Email info@polybridgetraining.co.uk

Select your Course Date: 2023

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

☐ Jan 24th 25th 26th

☐ Mar 7th 8th 9th

☐ Jul 6th 7th 8th

☐ Sept 20th 21st & 22nd

☐ Nov 22nd 23rd & 24th

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

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.

Cancellation up to 14 days before the course start date 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, prior to the course start date can be accommodated without charge.

Transfer within the 14-day period prior to course start date will be 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 penalty

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 effectively meet your company's individual needs.

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



POLYBRIDGE Training Ltd

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