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## ADVANCED SETTING INJECTION MOULDING TRAINING WORKSHOP

29, 30, 31 May, 5, 6 & 7 June 2019

This Training Workshop is intended for all people who need to be able to set or advise on setting the injection moulders to achieve and maintain a consistent quality, output at the correct speed and cost.

Candidate prerequisites: an understanding of the basics of injection moulding; an appreciation that plastics have varying behaviours; should be engaged directly in plastics manufacturing and preferably setting related.

We are accredited to run this Training Workshop which is based on MerSETA registered skills programs and is designed to give individuals confidence in attaining practical experience, which can normally only be achieved in the long term on the actual equipment in the production environment.

It therefore contributes directly towards the business bottom line and the candidate's career path.

### COURSE CONTENTS

The "Advanced Setting Injection Moulding" Training Workshop involves improving individual and team proficiency in the following areas:

- Plastics Manufacturing Business
- Time Management
- Quality
- Problem Solving
- Raw Material basics
- Injection Moulding Theory
- Material Characteristics and behaviours
- Start-ups and Shut-downs
- Mould Designs and operation
- Mould removals & installations
- Trials and Set-up Sheets
- Settings and Effects
- Process setting practical exercises
- Process trouble shooting & problem solving
- Safety and housekeeping
- Examination

## PRICE & DISCOUNTS

**Standard Price: R 17 200.00 per delegate (excl VAT)**

**Full payment by 8 May 2019 will be entitled to a R 2 000.00 Discount, Price R 15 200.00**, std price thereafter

**Multiple learner discount:** Bookings of 5 - 9 learners on the same course qualifies for an additional discount of 5% - 10%!

### DURATION:

29, 30, 31 May, 5, 6 & 7 June 2019 - 7.30am to 4.30/5 pm

### VENUE:

Work Central, Northlands Corner, 1<sup>st</sup> floor in Block A, Cnr Witkoppen and New Market Roads, North Riding

### PEOPLE WHO SHOULD ATTEND:

Typical attendees are setters, operator/ setters, supervisors, process Eng./Tech's, toolmakers, product and mould designers, etc. Consideration should also be given to trainees that have completed relevant NQF 2/3 qualifications and/or are doing setting.

### OUTCOMES

- ✓ Understand Quality and Metrics
- ✓ Know and apply Problem Solving Techniques
- ✓ Understand the injection moulding equipment and safety requirements
- ✓ Understand Injection Moulds and safety requirements
- ✓ Mould Installation, removal and care
- ✓ Product change overs and purging techniques
- ✓ Understand plastic raw material behaviours in depth
- ✓ Understand and perform setting the injection moulding equipment and mould
- ✓ Full appreciation of settings and its effect on the plastic material
- ✓ Understand the needs and use of set-up sheets and records
- ✓ Understanding the needs for consistent quality production
- ✓ Understanding the need for computerisation and new technology
- ✓ Understanding material, production and time loss implications
- ✓ Appreciation of trials and maintenance requirements

Contact Jorge Silva for further details on 082 459 0946 or 011 462 2192 or 010 035 1271

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ADVANCED SETTING INJECTION MOULDING COURSE CONTENTS
Manufacturing model
Customer / supplier
Four absolutes of quality
Problem solving model
Problem solving notes
Quality principles
Types of defects
Time management
Manufacturing ground rules
Plastics Setting Model
Injection Moulding Principles
Introduction to Injection Moulding
Safety and Housekeeping
Plastics as a raw material
Plastic raw material concepts
Plastics raw material
Understanding Injection Moulds
Mould design variations
Installing an injection mould
Understanding the injection unit and controls
Manual operation of the injection unit and setting limit switches
Understanding the clamping unit and controls
Manual operation of the clamping unit and setting limit switches
Auxiliary equipment and general services
Setting the Injection Moulding machine
PICAT software
Process and product control
VPT point in product formation
Injection Moulding machine adjustment effects
Problem solving reminders
Problem solving product faults
Understanding the formation of defects
Understanding the drive systems and process control
Running the Injection Moulding machine
Start-ups
Purging
Shut-downs
Injection moulding records
Set-up sheet
Equipment care and maintenance
Technical problem solving
Fault identification and rectification
Importance of trials
Typical tasks of the setter

Unit Standards Addressed:

Advanced Setting Injection Moulding Skills Set SP0091/07-17 (NQF Level 3) SP0092/07-17 (NQF Level 4) SP0093/07-17 (NQF Level 5)				
SKILLS PROGRAMME	UNIT STANDARDS COVERED	UNIT STANDARD DESCRIPTION	CREDIT VALUE	TYPE
SP0091/07-17 NQF Level 3	119169	Work with and look after materials in the plastics manufacturing production process	12	Core
	119162	Perform routine operations on plastics manufacturing equipment	10	Core
	9530	Manage work time effectively	3	Core
	119182	Control materials and consumables for plastics manufacturing processes	4	Elective
SP 0092/07-17 NQF Level 4	119186	Prepare and process plastics materials for manufacturing	12	Core
	119155	Set and adjust plastics manufacturing machine conditions to produce quality finished product	16	Core
	119187	Monitor maintenance of plastics manufacturing equipment, tooling and services	4	Core
	13224	Monitor the application of safety, health and environmental protection procedures	4	Core
	119140	Changeover and set up tooling for plastics manufacturing processes	10	Core
	8969	Interpret and use information from texts	5	Fundamental
	119188	Set up ancillary process equipment for plastics manufacturing operations	4	Elective
SP 0093/07-17 NQF Level 5	119159	Maintain plastics manufacturing efficiencies	12	Core
	119166	Optimise plastics manufacturing processes	24	Core