



**Job title: Workshop/Production Engineer**

**Department: FitzBionics**

**Reporting to: General Manager (FitzBionics)**

#### FURTHER PARTICULARS

##### **Role description:**

Fitzpatrick Referrals is a specialist referral practice dedicated to compassionate care and safe clinical decision-making. Fitzpatrick Referrals has a centre for orthopaedics and neurology based in Godalming, a centre for soft tissue surgery and oncology in Guildford and FitzBionics Ltd based at Hemel Hempstead. These facilities are state-of-the-art in diagnostics, production and treatment for a variety of small animals.

FitzBionics Ltd is a manufacturing unit specialising in design and production of customised patient specific skeletal implants. This manufacturing unit is composed of two production engineers specialising in engineering production, a bioengineer specialising in orthopaedic designs and a chief design engineer/head of FitzBionics specialising in human and veterinarian orthopaedics serving the clinical team within Fitzpatrick referrals.

A vacancy exists for a junior workshop/production engineer at Hemel Hempstead. Being a specialist service we will provide training in orthopaedic specific requirements and manufacturing practices to optimise routine production and new design development specific to FitzBionics. You will be required to perform manufacturing tasks and assist the team in controlling daily workload and perform other associated tasks as and when deemed necessary. You will be encouraged to get involved with all aspects of the production from material handling, production, finishing, cleaning and packaging and expected to look after equipment to maintain consistent and top quality product.

Your primary duty will be to manufacture component parts from engineering drawings and/or verbal instructions given by the design team using manual turning and milling machines as well as 3-Axis CNC machine equipped with post processing software for 3D complex geometry.

The successful candidate must have basic tool making and shop floor engineering understanding in modern manufacturing environment with strong emphasis on high precision and quality. Experience in orthopaedic production will be beneficial but not essential. In addition, the candidate will be care driven, and with excellent communication skills and a team player.

##### **Professional development objectives:**

The Workshop/Production Engineer will:

1. Be able to operate conventional and CNC machine tools in a small manufacturing unit.
2. Be able to take on new and complex manufacturing challenges by liaising with the design team establishing production protocol for further development and use.
3. Understand orthopaedic materials and manufacturing specifics for implantable devices and surgical instrumentation.
4. Understand optimum limits and fits for implant assemblies and be able to work with very tight tolerances.

## Responsibilities and tasks:

### Implant production

Working under the supervision of senior staff the Workshop/Production Engineer will be responsible for taking control of the manufacturing process when new production tasks are allocated by:

- Planning and executing efficient production of components in metal and plastic materials as specified by the design team.
- Manufacturing one-off parts and/or small batches by using production equipment as per daily schedules. This will include use of manual and CNC metal cutting turning/milling machines, grinding, polishing and cleaning. Be able to use NC machines as well as CAD post processing software is essential.
- In most cases working from engineering drawings, 3D CAD models and occasionally from verbal instructions.
- Establishing high level of accuracy required for interchangeability of parts and maintaining high level of surface finish and quality required for orthopaedic standards by practicing self-inspection and quality control.
- Understanding material selection and processes required for the provision of orthopaedic implants and its associated instrumentation.
- Determining sequence of operations and establishing material holding fixtures for complex design.
- Understanding the time constraints imposed by the clinical condition of the patients and delivering the implant in timely manner.
- Regularly reviewing priorities with the design team in this fast changing and demanding environment.
- Maintaining high level of self inspection and working to very high standards.

### Other duties

- Represent and promote the practice, its aims and values at all times.
- Observe and adhered to general factory health and safety procedures and working practices at all times.
- Maintain awareness and observation of Fire and Health & Safety Regulations.
- Maintain general cleanliness of work environment, machinery and other equipment and maintain regular servicing of equipment as appropriate.
- In addition to your main duties you will be required to carry out such other duties consistent with your position to meet the needs of the business and as the Company from time to time may require.
- Maintain good record of all specifications and be able to access the records by others is a key factor of good housekeeping.
- Attend training courses that are necessary to carry out the expected role and/or for personal development.
- Attend internal meetings as appropriate.

This job description reflects the present requirements of the post, and as duties and responsibilities change/develop, the job description will be reviewed and be subject to amendment in consultation with the post-holder.

**Employee signature:** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Employee name:**

**Line Manager/HR signature** \_\_\_\_\_ **Date:** \_\_\_\_\_

**Line manager/HR name:**

**PERSON SPECIFICATION**

The skills, abilities, experience and knowledge outlined below provide a summary of what is required to carry out this job effectively. They also form part of the selection criteria on which the decision on who to appoint will be made. Please ensure that you show how you meet the criteria outlined below in your application.

<b>Requirement</b>	<b>Essential</b>	<b>Desirable</b>
Qualifications and experience	<ul style="list-style-type: none"> <li>• Minimum BTEC Diploma or a minimum of 5 year practical experience in manufacturing / production engineering</li> </ul>	<ul style="list-style-type: none"> <li>• HNC/D qualifications would be beneficial</li> <li>• Have at least one year practical experience in veterinarian or human engineering production</li> </ul>
Knowledge	<ul style="list-style-type: none"> <li>• Familiar with engineering design concepts</li> <li>• Familiar with general manufacturing processes and material properties</li> <li>• Familiar with engineering drawings and specifications</li> <li>• Familiar with production processes</li> <li>• Familiar with manual and CNC machines</li> </ul>	<ul style="list-style-type: none"> <li>• CNC experience</li> <li>• Knowledge of CAD-CAM</li> <li>• Good interpersonal skills with both engineers and designers</li> </ul>
Personal and engineering skills	<ul style="list-style-type: none"> <li>• Able to communicate confidently in clear English with design team and colleagues</li> <li>• Good problem solving engineering skills</li> </ul>	
Personal Characteristics	<ul style="list-style-type: none"> <li>• Work under very tight timeframe</li> <li>• Works well in a team</li> <li>• Must show initiative and be self-motivated</li> <li>• Good problem solving ability</li> <li>• Good systematic approach to all tasks</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Good conflict resolution</li> <li>• Awareness of personal limitations and an enquiring attitude to patient treatment</li> <li>• Committed to patient care</li> </ul>
Other	<ul style="list-style-type: none"> <li>• Right to work in the United Kingdom</li> <li>• Have driving license and transport to commute to work</li> </ul>	
Values	<ul style="list-style-type: none"> <li>• Integrity: We endeavour always to do the right thing</li> <li>• Innovation: We challenge ourselves to develop new and better ways to solve problems</li> <li>• Care: We care passionately about what we do</li> <li>• Education: We are totally committed to learning and sharing knowledge and information</li> <li>• Community: We work best when we work as a team</li> </ul>	