

Leseprobe

Christiani

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Operational training · Metal working

Manual material processing

Filing



Text book

Dr.-Ing. Paul Christiani GmbH & Co. KG
www.christiani.de

Table of contents

1. General information	2
2. Categorisation of filing	3
2.1 Manufacturing processes	3
2.2 Separation processes	3
2.3 Metal cutting	3
3. General principles	4
3.1 Parallel vice	4
3.2 The height of the vice	4
3.3 Jaw protectors	5
3.4 Tensioning the workpieces	6
3.5 General information about filing	7
3.6 Components of the file and how it works	7
3.7 Types of file	10
3.8 Replacing the file handle	11
3.9 Cleaning the file	12
4. Filing	13
4.1 General information about the work technique	13
4.2 Even filing, filing at an angle and filing in parallel	16
4.3 Filing lengthways, crossways and diagonally	17
4.4 Other work techniques	18
4.5 Filing machines	27
4.6 Markers identifying surface properties	29
4.7 General information about occupational safety	33
4.8 Protection of the environment	33
5. Recommended reading	34

1. General information

This booklet is part of the METINA (method-integrierte Ausbildung (English: method-integrated training)) training concept for IMBE developed by RUHRKOHLE AG. The concept includes the following written documentation for each stage of the occupational training plan at RUHRKOHLE AG:

1. **Theoretical information**
2. **Trainer manual**
3. **Documentation for practical exercises**
4. **Documentation for trainees**

The training concept is based on the premise that the qualifications required in the Training Ordinance are taught from systematically organised documents and/or in the form of learning processes that are similar to training courses in their nature.

Filing belongs to the "Manual material processing" part of the training programme. It is offered as a training course.

Other skills included in this part of the training programme:

- ▶ **Scribing, punching, marking**
- ▶ **Measuring and checking**
- ▶ **Sawing**
- ▶ **Chiselling**
- ▶ **Drilling, countersinking, reaming**
- ▶ **Thread production**

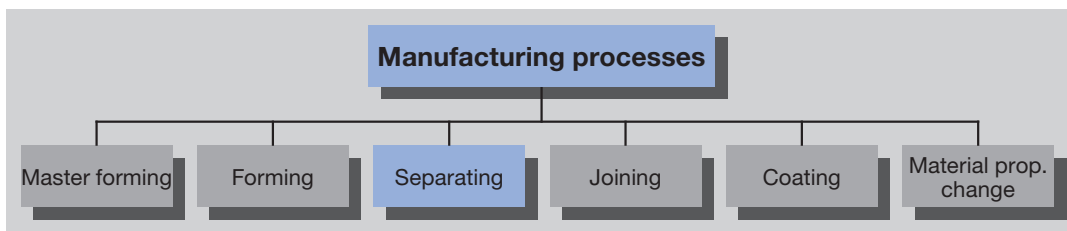
The training course is self-contained. It teaches skills and shares knowledge in a practical setting as part of an occupational training framework designed to meet the needs of industrial mechanics. In completing the exercises, trainees will learn basic skills and recognise and consolidate fundamental work techniques.

The theoretical information contained in this booklet is part of a comprehensive multimedia resource library and is readily available to both trainers and trainees in the training location.

2. Categorisation of filing

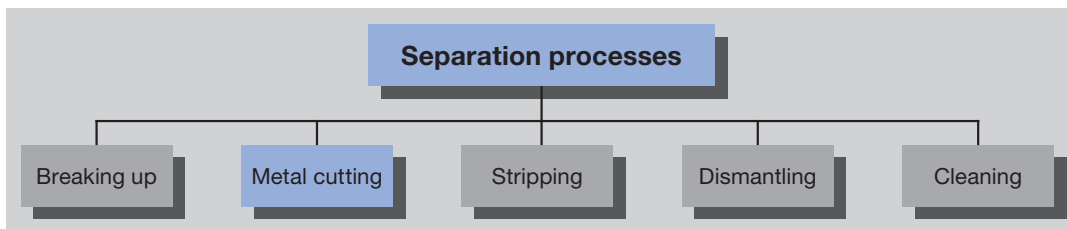
2.1 Manufacturing processes

The manufacturing processes have been divided into 6 main groups according to DIN 8580.



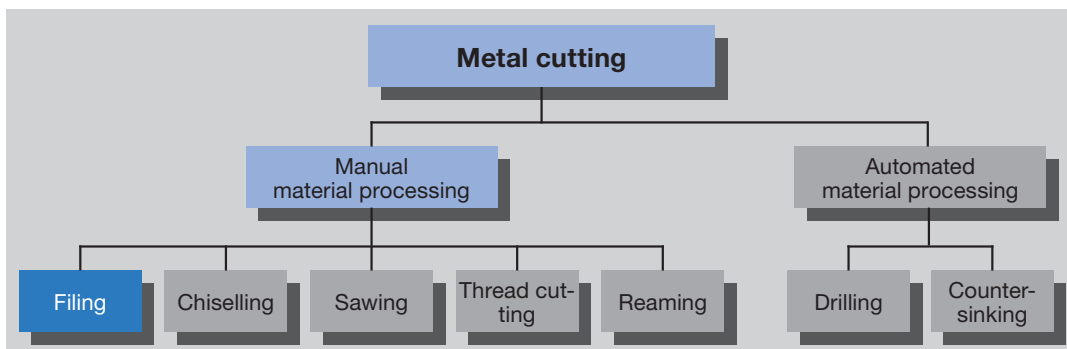
2.2 Separation processes

Separation processes are divided into 5 sub-groups according to DIN 8580.



2.3 Metal cutting

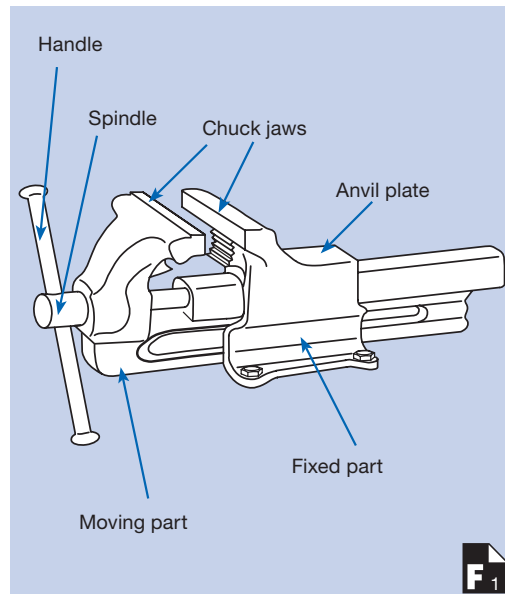
Metal cutting processes are divided into the following skills and include:



In the field of manual material processing, filing is a cutting process. According to DIN 8580, it is a separation process.

3. General principles

Parallel vice



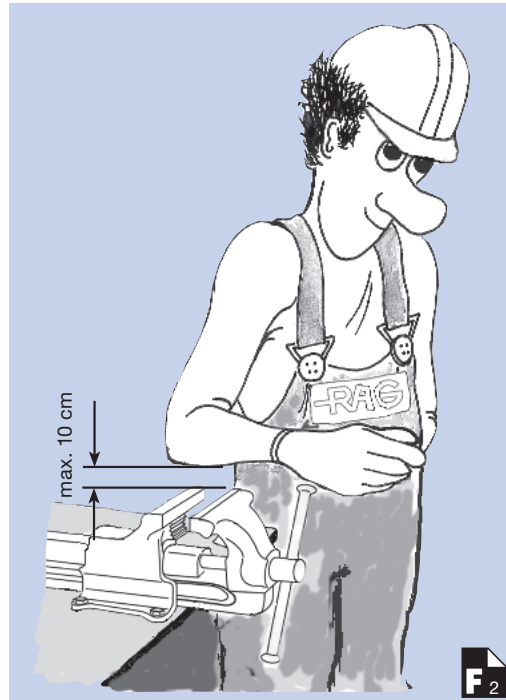
3.1 Parallel vice

Workpieces are clamped into a parallel vice for filing. The parallel vice is tightened solely by hand. The chuck jaws are arranged so that they are in parallel whatever their position.

A parallel vice consists of:

- ▶ Fixed part
- ▶ Moving part
- ▶ Spindle
- ▶ Handle
- ▶ Hardened chuck jaws
- ▶ Anvil plate

Vice height

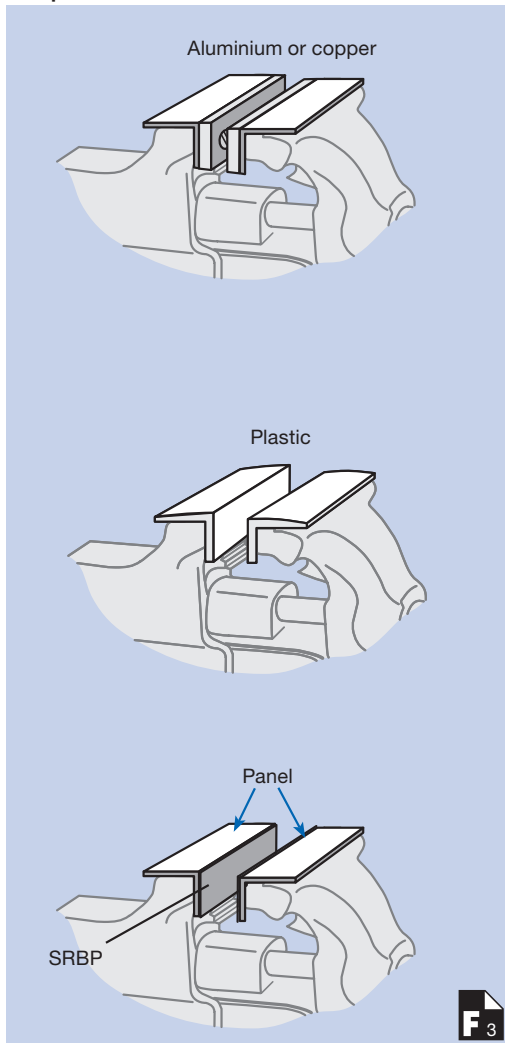


3.2 The height of the vice

The height of the vice is very important for correct physical posture.

The vice is at the ideal height when the distance from the elbow to the upper edge of the vice is no more than 10 cm.

Jaw protectors



3.3 Jaw protectors

Jaw protectors are used during clamping to protect the surface of a workpiece against damage.

The jaw protectors must always be softer than the workpiece to be clamped.

Jaw protectors can be made of the following materials, for example:

- ▶ Steel sheet
- ▶ Copper
- ▶ Aluminium
- ▶ Plastic
- ▶ SRBP
- ▶ Wood