

## Machines & Tools



## IMPRINT

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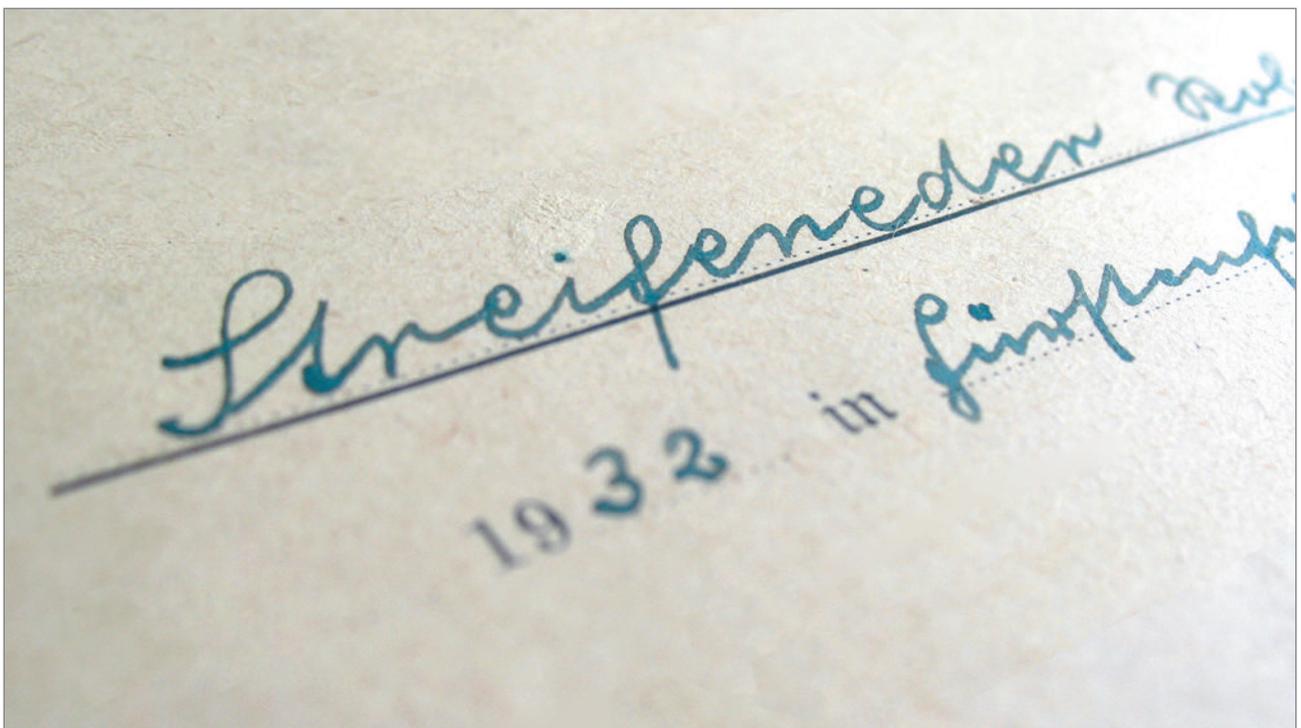
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# History

- 1928 The Streifeneder firm is set up by Lilli and Friedrich Georg Streifeneder in Mannheim.
- 1929 The first patent is applied for.
- 1931 The property in Schöngesinger Straße in Fürstenfeldbruck is purchased.
- 1932 The first orthopaedic workshop is fitted out in Fürstenfeldbruck near Munich.
- 1945 Further orthopaedic workshops are set up to cater for war invalids.
- 1949 The orthopaedic workshop starts up at the Bad Tölz Hospital.
- 1953 The Munich site is opened. The wholesale business is expanded.
- 1968 The plastics, Streifylen and Streifylast, are launched along with the requisite heat sources.
- 1992 A production site is set up in Hungary to manufacture plastic products in small series.
- 1993 The production and distribution division expands further. Move to the new company premises in Emmering, just outside Munich.
- 1995 Export activities are stepped up.
- 1997 Takeover of Maschinen-Schmid, the world market leader in socket router machinery.
- 1998 The product range is extended by the prosthetics product division.
- 1999 Traditional in-house production is extended and the product spectrum expanded by modular components. "Everything from a single source" – with our very own department for workshop planning we can now help to realize our clients' wishes even better.
- 2001 The new site in Emmering is extended by further storage space to 6,000 qm.
- 2004 Establishment of distribution structure in China.
- 2007 Streifeneder ortho.production GmbH is set up as an independent subsidiary.
- 2009 Streifeneder ortho.production GmbH exports to more than 100 countries.  
Streifeneder ortho.production GmbH wins the "red dot design award" for the knee joint KINEGEN.stream.

- 2010 A new building is purchased for Streifeneder ortho.production GmbH in Emmering.
- 2011 Opening of the branch Streifeneder India, located in Gurgaon/Haryana.  
Establishment of distribution structures in Latin America.  
Relocation of Streifeneder ortho.production to the new building with modern training and education-, logistics- and administration centre.  
Foundation of Streifeneder Training Centre in Emmering.
- 2012 Grand opening of Streifeneder Training Centre, with focus on national and international markets.  
Streifeneder ortho.production GmbH wins the "red dot design award" for the therapeutic shoe Pluto.
- 2013 The US-American distribution partner Euro International, located in Tampa/Florida, is integrated in the company as Streifeneder USA.
- 2014 Streifeneder group receives a new corporate design with new company logo.
- 2017 New partner and distributor BroadBay launches distribuion in United States and Canada.
- 2018 Development of prosthetic feet GO.smart and GO.free.  
Florian Streifeneder joins the management as Member of the Executive Board.



# Quality is our Claim

We are convinced that only constant technical innovation and development is the key to a steady improvement of products and optimal patient care. We apply high standards to be able to offer each of our clients exactly those high-quality products he requires. Each of our products is subject to a continuous quality planning, quality control, quality monitoring and quality improvement. In order to be able to satisfy even most individual customer requirements and also in order to close product-related gaps in the market, it is essential to have our own production series with large lot sizes, but to also offer products with very individual unit numbers.

Despite the rapid development of the export business within the last years and the opening up of new markets such as Brazil, we still value Germany as our location to do business. We are proud of the quality standard "Made in Germany" and even in times of a continuously increasing cost pressure and growing competition due to globalization, we still produce predominantly in Germany.



## Quality management

More than ninety years of experience, as well as the certified quality management system we introduced in 1998 according to EN ISO 13485 to ensure highest quality level. This quality management system is applied to all business divisions. Especially our product development division makes sure that the high level of quality is not only maintained but steadily increased. Thus, we ensure that we always meet the raising demands of our clients in terms of product development, manufacturing and safety.



Increasing globalisation and changing international security and safety conditions have motivated the World Customs Organisation (WCO) to draft a „Framework of Standards to Secure and Facilitate Global Trade“ (SAFE) to establish a global framework for modern and effective risk management of

customs compliances. The aim is to guarantee the security and safety of a continual international supply chain from the product manufacturer to the end consumer. The concept of European Authorised Economic Operator is an EU Customs security programme that started in 2007 and recognises companies as reliable trade partners as they met the following common criteria: customs compliance, appropriate record-keeping, financial solvency and, where relevant, appropriate security and safety standards.

Streifeneder ortho.production GmbH, as a globally operating company, has met the challenge and is proud to announce that it has been granted Authorised Economic Operator (AEO-F) certification by German customs in January, 2013, which officially regards the company as a reliable trade partner. The certificate number is DE AEO-F 115235.

Because of this we can do even better at achieving our goal that you receive our products as quickly as possible. An important part of our delivery time concept and a valuable time saver. Part of our comprehensive safety concept is that our company is protected against entry by unauthorized persons and keep our shipments to you received the highest security and packaging standards. With this we contribute our share in building a secure supply chain.

## Contacting us

Communication is a must in a working relationship. Your personal contact to our staff members in the internal sales department as well as our field service is the base of our successful collaboration.

It is our goal to react swiftly and efficiently to all of your wishes, to answer all of your questions and to keep all of the promises we make for our products. Please contact us!



Via our general office switchboard at +49 8141 6106-0 your call will be directed to the staff member in charge. Of course, you can also send your request by email to [service@streifeneder.de](mailto:service@streifeneder.de).

# Development & Production

Experience technology, create technology, utilize technology - keep track of development and concentrate synergies. It is a vital part of our company's philosophy to continually optimize our operational procedures and production processes. This is why we define the economic growth of our company by our perpetual increase in production efficiency. The creativity, the commitment and the special professional skills of each of our members of staff, as well as our state-of-the-art production facilities are our guarantor for satisfied customers.

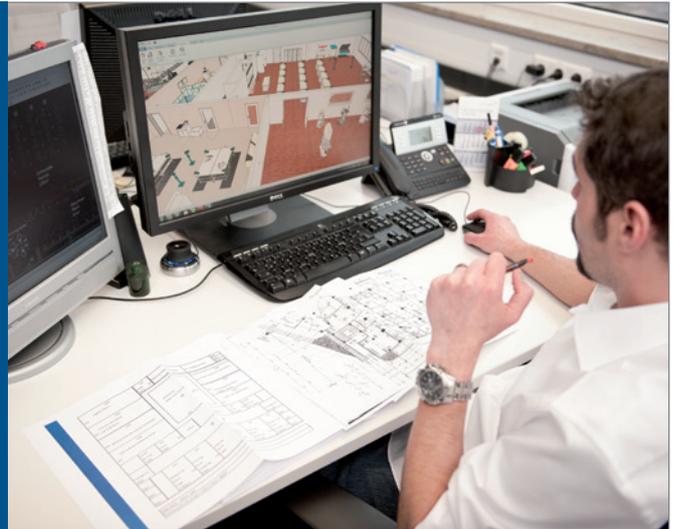
Our equipment in terms of up-to-date drawing programs (3D-CAD), simulation software (FEM-calculation) to the point of multi-axial machining centers helps our engineers and orthopaedic technicians to assure and further expand our market position.



We subject ourselves and our products to highest quality standards. Therefore our products undergo constant internal quality testing in our own test stands and gait analysis systems.

Therefore our customers receive exactly what they can expect from us - best quality and long-lasting products.

See the quality of our products and the comprehensive service that we have to offer for yourself!



# Training Centre Streifeneder ortho.training

In order to stay competitive and in order to meet the growing requirements of the patients, it is no longer enough to just use high quality orthopaedic products. Profound practical skills on the basis of current scientific research and findings creates optimal conditions to always react competently and confidently in daily practice. In order to convey valuable expertise as well as detailed knowledge to specialists in orthopaedic and orthopaedic shoe technology as well as physiotherapy and podiatry, we have originated the Training Centre Streifeneder ortho.training in Emmering.

A spacious auditorium (AudiMax) with 160 seats and a fully equipped workshop with 15 work stations, a machine room as well as a patient fitting room and a plaster room on approx. 1.000 sqm offer more than optimal conditions for a qualified advanced and continuous education on the highest level. Modern tools such as multimedia equipment, a fully equipped gait analysis laboratory, course materials and teaching aids that meet the demands of our clients are also part of our standards.





Our meticulously elaborated seminar program comprehends more than 50 events per year centered around topics such as silicone processing, pre-preg processing, synthetic materials or gait analysis. With a flexible program planning on our part, we are also able to react to individual customer's wishes and to offer seminars about special subjects upon request. In order to guarantee an array of seminars that is as broad as possible we regularly invite high-carat external guest lecturers to our training centre Streifeneder ortho.training.

You can download our current seminar calendar with further information about all of our seminars from our website at [www.streifeneder.com/training](http://www.streifeneder.com/training).

Of course, we will also gladly send it to you by post or email. Please feel free to contact us at: [training@streifeneder.de](mailto:training@streifeneder.de) or by telephone +49 8141 6106-200.

We are looking forward to hearing from you!



# Workshop Planning

The basics of modern business and workshop premises follow the same principles as an inviting home.

The object respective the building should appear bright and quiet, in order to give the customer an impression of "you are in good hands with us".

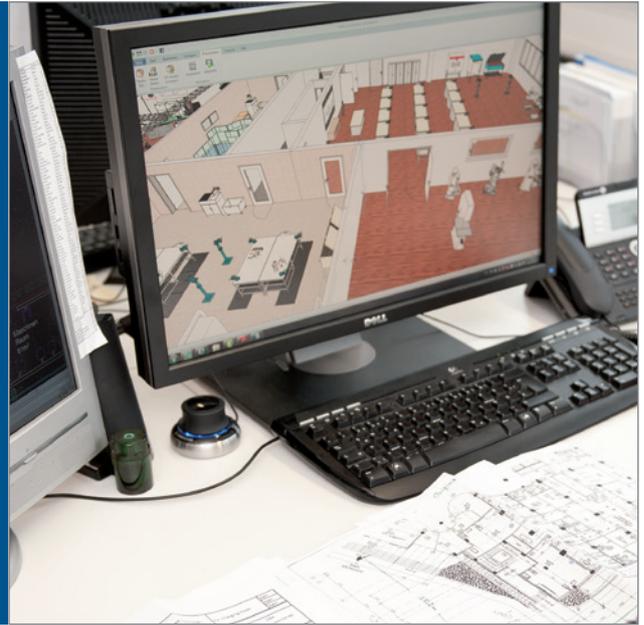
As it is not enough anymore to be known just for excellent workmanship, today's focus is on offering allround service to the customer. This starts for example with easy access to the facility by public transportation and sufficient parking space to help avoid long and time-consuming journeys. Another important criterion for many customers is a barrier-free access.

A friendly and clean ambience will give the customer a sense of professionalism and routine in all business rooms such as the sales area and fitting area. The customer should feel comfortable and be happy to come back again. The central part of the premises – the workshop area – should be also integrated into the overall concept and be considered as extension of the sales- and fitting area.

We will be happy to assist you to plan your administration- and staff rooms as well. These constitute a basis for satisfied employees which in consequence are fundamental for excellent customer service.



As an international comprehensive supplier, we know what is needed and therefore are able to offer you competent service from one source. We will be pleased to assist you to consider all requirements and to find a customised solution for your company. From preparation and execution of the planning task (supported by modern software such as AutoCAD for optimal visualisation) up to supply and installation of our machines and equipment – we are looking forward to your inquiry!



 Following up, we have worked out a short check-list in order to help you at the beginning of your plans to create your first own concept. Just call +49 (0) 8141 6106-0 or write an email to [office@streifeneder.de](mailto:office@streifeneder.de) to receive the complete checklist.



# Workshop Planning – Checklist

## 1. Floor Space Utilisation and Allocation

As a first step, a plan for optimal floor space allocation must be developed. However, following considerations usually apply for all orthopaedic technology companies

- Local building regulations
- Legal workplace regulations with directives for dust removal, air supply and ventilation, noise pollution and lighting
- Legal regulations for fire protection, environment protection and health protection
- Construction adapted to the needs of disabled persons

## 2. Finding a Building

When you are looking for a proper building, you should bear following in mind

- Stairs and elevators
- Existing installations for electricity, gas, heating, water and waste water
- Load capacity of each floor
- Parking space
- Barrier-free restrooms as well as accessibility
- Adjoining rooms and storage space

## 3. Corporate Structure

The business structures must be considered under the aspect of the special facts applying to orthopaedic technology, as these influence the plans considerably and should be taken into account due to the longevity of the object

- Number of employees relating to room size; machinery- and workshop equipment
- Proportional division of business fields such as the challenging range of prosthetics and orthotics; small or thopaedic tasks such as shoe inserts; or clinical orthopaedics etc.
- Division into orthopaedic technology, orthopaedic shoe technology, health products shop and rehabilitation aids
- Patient structure and expected changes
- Cooperation with hospitals resp. medical specialists

## 4. Planning the Rooms

The individual room plans must fulfil today's ergonomic requirements. The floor plan details are determined by the working procedures within the shop and the functional areas as well as orthopaedic technology specialities, for example

- Determination of required and existing electric voltages
- Placement of equipment, machines, work benches and their specific connections
- Installations of electricity, compressed air, water, waste water, telephone system, illumination etc.
- Floor construction and floor coverings for the different rooms according to intended use
- Casting room: grid plate in the tiled area, plaster separator, plaster sink
- Short walking distance to the fitting area
- Short walking distance to the machinery area
- Separation of the noise- resp. dirt zone from the patient area
- Separation of the dust suction device

## Patient & Care Area



# Patient & Care Area

The patient area is the business card of your company. This is where you have the chance to create a generally positive mood for your patients by means of a comfortable atmosphere. At the same time, functional furnishing will increase the workflow efficiency and meet the requirements of organisational and practical constraints. We will help you to join patient-suitable functionality with visually attractive design in your company colours in order to optimally present your company.

Our diversified standard program is the basis to meet your personal wishes and requirements. Of course, individualised custom-made versions are part of our offer in the range of examination couches and chairs.

On the following pages, we would like to introduce to you a wide range of our products. We are looking forward to change your patient area to a room with distinctive feel-at-home flair.





## Examination Couch

- with white imitation leather
- frame made of square tube
- upholstery, D = 50 mm
- head section adjustable +40°
- with paper roll holder

### Technical data

- dimensions W x D x H: 1950 x 650 x 680 mm
- max. body weight: 225 kg
- weight: 34 kg net

Item-No.
140M5



## Paper Roll Holder

- for Item No. 140M5
- for paper rolls up to 50 cm width

Bestell-Nr.
140M5/E1



## Cover Paper for roll holder, white, 2 layers

- 590 mm width, 50 m length
- PU = 9 rolls

Characteristics	Item-No.
100 % pulp paper, 2 layers white	570P4/59

picture similar



## Cover Paper for roll holder

- for item 140M5, 500 mm width, 45 m length
- PU = 9 rolls
- Characteristics: 100 % pulp paper, 2 layers white

Item-No.
570P4/50



Delivery without accessories

## Examination Chair

- examination chair, platform step and holding bar mountable on left or right side
- padded seat and backrest with synthetic cover
- frame coating in selectable RAL colour
- washable cover, selectable colour
- laminated platform top, selectable colour

### Technical data

- height of foot platform: 460 mm
- total height incl. backrest: 1250 mm
- total width incl. step: 800 mm
- width without step: 600 mm
- total depth: 1000 mm

### Colours

- frame: opal green RAL 6026, ocean blue RAL 5020, grey brown RAL 8019, light green RAL 6027, white aluminum RAL 9006, black RAL 9005
- seat cover imitation leather: bengal red, dark green, grey, white, ocean blue, black
- plastic coated platform tops: white, light grey, textured, beige

Features	Weight	Item-No.
without drawers	37 kg	140M8
with drawer	40 kg	140M8/1

 When placing your order, please indicate the desired colours and the side where the steps and the handrails should be placed.



## Leg Rest

- for examination chair 140M8, stand-alone, upholstered, height adjustable and lockable
- chrome-plated frame and star base, imitation leather support pad

### Technical data

- height: 400 – 550 mm adjustable
- width: 350 mm
- weight: approx. 3 kg

### Colours

- cover imitation leather: bengal red, dark green, grey, white, ocean blue, black

Item-No.
140M8/2



picture similar

## Measuring Chair with leg rest

- electromechanical, continuously adjustable height adjustment with 300 mm lifting height
- rotatable and lockable seat with integrated adjustable leg rests
- platform height 400 mm, with drawer and storage compartment
- upon request with one or two lateral holding bars 140M9/1
- frame coating in selectable RAL colour
- washable cover, selectable colour
- laminated platform top, selectable colour

### Technical data

- work and platform height: 400 mm
- total height incl. back rest: 1270 mm
- total width: 750 mm
- total depth: 1300 mm
- max. weight load: 150 kg
- power requirements: 230 V / 50 Hz / 1 Ph / 0.5 kW
- weight: 165 kg net

### Colours

- frame: opal green RAL 6026, ocean blue RAL 5020, grey brown RAL 8019, light green RAL 6027, white aluminium RAL 9006, black RAL 9005
- seat cover imitation leather: bengal red, dark green, grey, white, ocean blue, black
- plastic coated platform tops: white, light grey, textured, beige

Item-No.
140M9



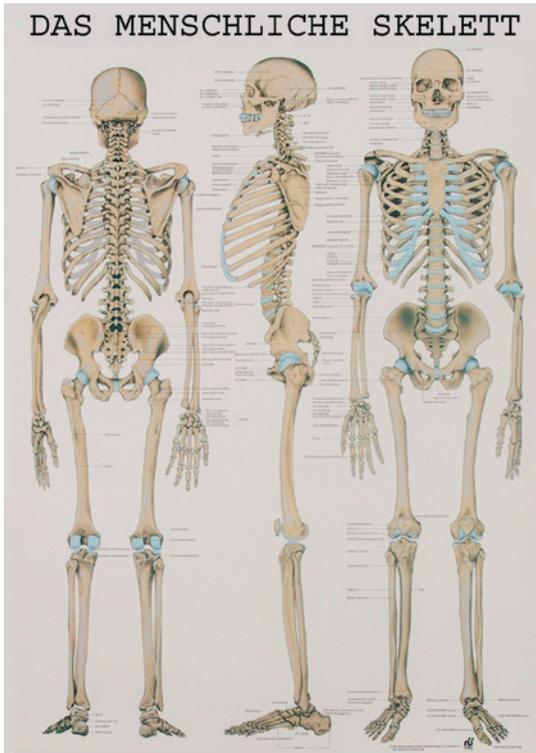
When placing your order, please indicate the desired colours.

without picture

## Lateral Support

- for examination chair 140M9

Item-No.
140M9/1



## Anatomical Chart

- 4-colour print, metal bar at top and bottom hanger
- length: 1000 mm, width: 700 mm

Anatomical Chart	Language	Item-No.
Human skeleton	German	10P1/D
Human skeleton	English	10P1/E
Upper limb	German	10P2/D
Upper limb	English	10P2/E
Lower limb	German	10P3/D
Lower limb	English	10P3/E
Muscle system	German	10P4/D
Muscle system	English	10P4/E
The spine	German	10P5/D
The spine	English	10P5/E
Nervous system	German	10P6/D
Nervous system	English	10P6/E
Vascular system	German	10P7/D
Vascular system	English	10P7/E
Healthy & sick feet	German	10P8/D
Healthy & sick feet	English	10P8/E
Ligaments & Joints	German	10P9/D
Ligaments & Joints	English	10P9/E

## Mockup Model

- detailed models of human skeletons, joints and extremities



Mockup Model	Item-No.
Human skeleton	10P20
Miniature human skeleton	10P25
Spine with pelvis	10P30
Foot skeleton	10P40
Hip joint	10P45
Knee joint	10P50
Normal foot	10P60
Flatfoot	10P61
High arch	10P62

## Parallel Bars



- steel construction
- height adjustable 640 – 1040 mm, with hole raster system
- walking trail width adjustable by shifting axis 0 – 590 mm
- with angled floor panels
- foldable for easy storage, when not in use
- max. patient weight: max. 135 kg

Length	Weight	Item-No.
4000 mm	49 kg	145M3
2000 mm	28 kg	145M3/S

picture similar

 Deviating lengths and versions as well as versions with ground anchorage available upon request!

# Patient & Care Area

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## Swivel Stool

- stool white imitation leather
- cover aluminum star base
- height adjustable 450 – 590 mm
- with step rollers

Weight	Item-No.
9 kg	140M6



## Sit Stand

- black coated, stepless height adjustment, GS-certified

Weight	Item-No.
7 kg	140M1

Workshop Equipment



# Workshop Equipment

The workshop is the centre piece of every orthopaedic technology company. The workshop equipment must cover all economic, functional and technical requirements. Short distances and process optimisation are the most important issues. Furthermore, a modern ergonomic working environment must meet the various demands for work safety and accident prevention.

Of course, standard solutions are not always applicable! The main focus must be on each company with their individual business field, employees and specific spatial requirements and to find an optimal concept for it.



For equipping a workshop, the aspects of quality and longevity are the primary goals for us. Therefore we cooperate with a large number of reputable suppliers. A wide range of over 50 available RAL-colours enables us to supply the workshop equipment in your company colours. We would be very pleased to find with you the unique solution for your workshop. You are welcome to contact us anytime!





## Work Bench



### Features

- bench top: 40 mm beech ply wood
- frame made of section steel and quality sheet metal
- drawer made of quality sheet metal
- aluminum ledge with label strip
- 1 drawer
- 1/2 shelf level

### Technical data

- dimensions W x D x H: 750 x 750 x 850 mm
- drawers' height: 120 mm
- drawers' inside dimensions W x D: 500 x 500 mm
- colour: RAL 7035 light grey
- weight: 48 kg net

Item-No.

94M3

## Work Bench



### Features

- bench top: 40 mm beech ply wood
- frame made of section steel and quality sheet metal
- drawer made of quality sheet metal
- aluminum ledge with label strip
- 1 drawer
- 1/2 shelf level

### Technical data

- dimensions W x D x H: 1500 x 750 x 850 mm
- drawers' height: 120 mm
- drawers' inside dimensions W x D: 500 x 500 mm
- colour: RAL 7035 light grey
- weight: 72 kg net

Item-No.

94M2

## Work Bench



### Features

- bench top: 40 mm beech ply wood
- frame made of section steel and quality sheet metal
- drawer and wing door made of quality sheet metal
- aluminum ledge with label strip
- 1/2 shelf level

### Technical data

- dimensions W x D x H: 1500 x 750 x 850 mm
- swing door height (right): 360 mm
- drawers' height (right): 120 mm
- colour: RAL 7035 light grey
- weight: 86 kg net

Item-No.

93M4

# Workshop Equipment

## Work Bench



### Features

- bench top: 40 mm beech ply wood
- frame made of section steel and quality sheet metal
- drawer made of quality sheet metal
- aluminum ledge with label strip

### Technical data

- dimensions W x D x H: 2000 x 750 x 850 mm
- drawers' inside dimensions W x D: 500 x 500 mm
- drawers' height of left cabinet: 160, 160, 160 mm
- drawers' height of center cabinet: 120, 120, 120, 120 mm
- drawers' height of right cabinet: 80, 80, 80, 80, 80, 80 mm
- colour: RAL 7035 light grey
- weight: 191 kg net

Item-No.
93M3



Other models and colours available upon request!

## Work Table



### Features

- bench top: 40 mm beech ply wood
- frame made of section steel and quality sheet metal
- drawer made of quality sheet metal
- aluminum ledge with label strip

### Technical data

- dimensions W x D x H: 1500 x 750 x 850 mm
- drawers' inside dimensions W x D: 500 x 500 mm
- drawers' height: 80, 80, 120, 120, 160, 160 mm
- colour: RAL 7035 light grey
- weight: 107 kg net

Item-No.
93M7



Other models and colours available upon request!

## Work Table



### Features

- bench top: 40 mm beech ply wood
- frame made of section steel and quality sheet metal
- aluminum ledge with label strip

### Technical data

- dimensions W x D x H: 1500 x 750 x 850 mm
- drawers' inside dimensions W x D: 500 x 500 mm
- drawers' height: 160, 160, 160 mm
- colour: RAL 7035 light grey
- weight: 90 kg net

	Item-No.
	93M6

picture similar



Other models and colours available upon request!

## Cutting Table



94M1/1

### Features

- bench top: 40 mm beech ply wood
- frame made of section steel and quality sheet metal
- drawers made of quality sheet metal
- aluminium ledge with label strip
- 2 drawers (1 x left side and 1 x right side)

### Technical data

- drawers' inside dimensions W x D: 500 x 500 mm
- drawers' height: 120 mm
- compartment base (full depth) of zinc-coated sheet metal
- colour: RAL 7035 light grey



94M1/2

W x D x H	Weight	Item-No.
2000 x 750 x 850 mm	105 kg	94M1/1
2000 x 1000 x 850 mm	130 kg	94M1/2

# Workshop Equipment



## Work Bench

### Features

- square steel tube legs 40 x 40 x 2 mm
- bench top: joggled and bonded, solid common beech wood
- drawers made of common beech wood
- 1 drawer on left side, 150 mm height
- 2 lockable drawers on right side, 55 mm height
- back shifted shelf

### Technical data

- bench top size thickness x depth: 50 x 700 mm
- work height: 850 mm
- colour: RAL 7035 light grey

Sheet length	Weight	Item-No.
1500 mm	85 kg	92M10/150
2000 mm	100 kg	92M10/200



## Work Bench

### Features

- square steel tube legs 40 x 40 x 2 mm
- bench top: joggled and bonded, solid common beech wood
- drawers made of common beech wood
- left side with 4 lockable drawers 100 mm high, and back shifted shelf

### Technical data

- bench top size thickness x depth: 50 x 700 mm
- work height: 850 mm
- colour: RAL 7035 light grey

Sheet length	Weight	Item-No.
1500 mm	90 kg	92M11/150
2000 mm	105 kg	92M11/200



## Work Bench

### Features

- square steel tube legs 40 x 40 x 2 mm
- bench top: joggled and bonded, solid common beech wood
- drawers made of common beech wood
- left side with 3 lockable drawers 150 mm high, and 1 swing door right side

### Technical data

- bench top size thickness x depth: 50 x 700 mm
- work height: 850 mm
- colour: RAL 7035 light grey

Sheet length	Weight	Item-No.
1500 mm	95 kg	92M12/150
2000 mm	110 kg	92M12/200

## Work Bench



### Features

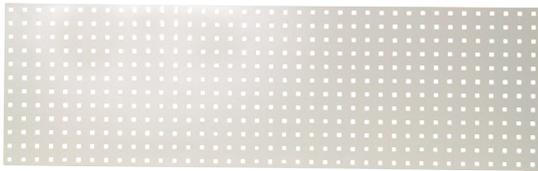
- square steel tube legs 40 x 40 x 2 mm
- bench top: joggled and bonded, solid common beech wood
- drawers made of common beech wood
- left side with 1 drawer 150 mm high and 1 cabinet 350 mm with swing door and 2 lockable drawers on right side, 55 mm high

### Technical data

- bench top size thickness x depth: 50 x 700 mm
- work height: 850 mm
- colour: RAL 7035 light grey

Sheet length	Weight	Item-No.
1500 mm	90 kg	92M13/150
2000 mm	105 kg	92M13/200

## Tool Board



- perforated panel, reinforced reverse side, to mount on a work bench, comes without tool pegs

### Technical data

- height: 457 mm
- holes: 9,2 x 9,2 mm
- hole pitch: 38 mm
- colour: RAL 7035 light grey

Length	Item-No.
1486 mm	93M11/1500
1981 mm	93M11/2000

## Tool Clamp



- for tool board 93M11/1500 and 93M11/2000, with narrow base plate, turnable pegs
- PU = 5 pieces

Diameter	Item-No.
10 mm	93M15/10
16 mm	93M15/16
25 mm	93M15/25
32 mm	93M15/32

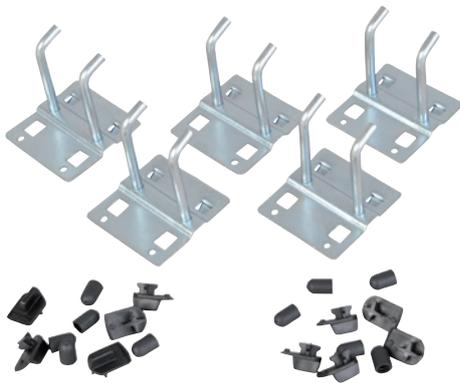
# Workshop Equipment



## Hook

- for tool board 93M11/1500 and 93M11/2000, with narrow base plate, slope end, Ø 6 mm
- PU = 5 pieces

W x D x H	Item-No.
20 x 50 x 60 mm	93M12/50
20 x 75 x 60 mm	93M12/75



## Double Hook

- for tool board 93M11/1500 and 93M11/2000, with narrow base plate, slope end, hook pitch 28 mm, Ø 6 mm
- PU = 5 pieces

W x D x H	Item-No.
60 x 50 x 60 mm	93M13/50
60 x 75 x 60 mm	93M13/75



## Plier Bracket

- for tool board 93M11/1500 and 93M11/2000, with broad base plate
- PU = 5 pieces

D x H	Width	Item-No.
20 x 4 mm	55 mm	93M14/2



## Storage Box

- for tool board 93M11/1500 and 93M11/2000
- made of plastic, RAL 7016, colour: light grey

W x D x H	Item-No.
130 x 100 x 65 mm	93M18/1
130 x 198 x 90 mm	93M18/2
130 x 298 x 165 mm	93M18/3



## Bracket

- for storage box 93M16, for tool board 93M11/1500 and 93M11/2000

W x H	Item-No.
100 x 75 mm	93M17/1
450 x 75 mm	93M17/2



## Bench Vise

- forged steel with hardened jaws and adjustable guide rail, receiver for protective jaws, colour: blue

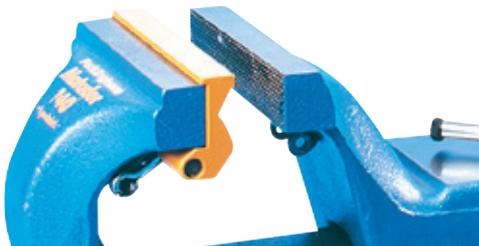
Jaw width	Weight	Item-No.
120 mm	10 kg	76M1/120
140 mm	18 kg	76M1/140
160 mm	25 kg	76M1/160



## Rotating Mount

- for item 76M1, rotation range 360°

Bench Vise	Weight	Item-No.
76M1/120	0.5 kg	76M2/1
76M1/140	0.5 kg	76M2/2
76M1/160	0.5 kg	76M2/2



## Pipe Clamp Jaw

- for item 76M1, slewable
- PU = 1 piece

Jaw width	Item-No.
120 mm	76M4/120
140 mm	76M4/140
160 mm	76M4/160

scope of supply does not include bench vise



## Magnetic Felt Jaws

- with magnetic adhesive strip
- PU = 1 pair

Width	Item-No.
125 mm	165P23



## Synthetic Fibre Jaws

- for item 76M1, slewable
- PU = 1 pair

Jaw width	Item-No.
120 mm	76M3/120
140 mm	76M3/140
160 mm	76M3/160



## Adjustment Core Clamping Jaws

- safe clamping of prostheses components with pyramid adapter into the clamping table
- magnets facilitate the use of the clamping jaws
- hard-wearing tool made of nickel-plated steel
- suitable for all clamping tables

Attention: Persons and patients with heart pacemakers or other implanted electronic systems must obey the warnings of their supplier about handling magnetic material.

Weight	Item-No.
820 g	76M10

**I** In case of socket adapters that have been laminated in (e.g. 10A1/S) the rotational adjustment with the pyramid adapter may be sluggish. This can be remedied by using the pyramid adapter clamping jaws. Fixate the pyramid adapter in the clamping table using the clamping jaws and turn the socket.



## Tube Carrier for Clamping Table

- safe clamping of prostheses components with tube clamping into the clamping table
- hard-wearing tool made of nickel-plated steel
- suitable for all clamping tables

Tube diameter	Weight	Item-No.
30 mm	930 g	76M11/30
34 mm	870 g	76M11/34



## Replacement Tube for Tube Carrier 76M11

- replacement tube for tube carrier 76M11

Material	Diameter	Item-No.
Steel	30 mm	76M11/30E2
Steel	34 mm	76M11/34E2

## Bench Vise



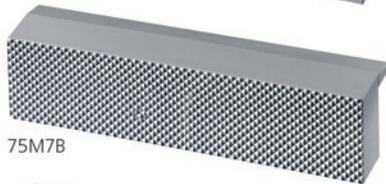
- forged steel with hardened jaws and adjustable guide rail, colour: blue

Jaw width	Span	Pipe clamping range	Weight	Item-No.
120 mm	150 mm	16 – 55 mm	9 kg	75M1/120
140 mm	200 mm	27 – 70 mm	16 kg	75M1/140
160 mm	225 mm	27 – 100 mm	27 kg	75M1/160
180 mm	225 mm	27 – 100 mm	29 kg	75M1/180

## Jaws

- for item 75M1/120, 75M1/140, 75M1/160 and 75M1/180

PU = 1 pair



Jaw width	Description	Item-No.
120 mm	PU with prisms	75M7A/120
140 mm	PU with prisms	75M7A/140
160 mm	PU with prisms	75M7A/160
120 mm	PU with ribbing	75M7B/120
140 mm	PU with ribbing	75M7B/140
160 mm	PU with ribbing	75M7B/160
120 mm	Aluminium with prisms	75M7C/120
140 mm	Aluminium with prisms	75M7C/140
160 mm	Aluminium with prisms	75M7C/160
180 mm	Aluminium with prisms	75M7C/180
120 mm	Clamping surfaces made of special rubber	75M7D/120
140 mm	Clamping surfaces made of special rubber	75M7D/140
160 mm	Clamping surfaces made of special rubber	75M7D/160
180 mm	Clamping surfaces made of special rubber	75M7D/180

## Rotating Mount

- rotation range 360°



Bench Vise	Weight	Item-No.
75M1/120	2.5 kg	75M2/120
75M1/140	4.5 kg	75M2/140



## Flap Lift

- rotation range 360°, adjustment range 175 mm

Bench Vice	Weight	Item-No.
75M1/120	13.5 kg	75M3/120
75M1/140	13.5 kg	75M3/140



## Folding device

- ideal addition to bench vise 75M1
- bench vise can be folded away underneath the work bench using the folding device and thereby procures a free work space

Swivel radius	Folding depth	Weight	Item-No.
390 mm	410 mm	5.5 kg	75M4/120
430 mm	455 mm	5.5 kg	75M4/140

 Upgrade to item 75M1/120 and 75M1/140.

scope of supply does not include bench vise



## Standing-Lift

- for item 75M1
- with floor column and base plate
- dimensions: 320 x 320 mm, with pneumatic spring
- adjustable height from 860 to 1060 mm
- 360° rotatable
- colour: blue, other colours available upon request

Bench Vice	Permissible load	Weight	Item-No.
75M1/120	4 – 10 kg	21 kg	75M5/120
75M1/140	10 – 16 kg	21 kg	75M5/140
75M1/160 and 75M1/180	16 – 29 kg	21 kg	75M5/160

 The standing-lift is also suitable for third-party products, please indicate the size and the manufacturer of your clamping table when placing your order.



## Lift

- for item 75M1
- suitable for mounting on work benches, with pneumatic spring
- height adjustable around 200 mm
- 360° rotatable
- colour: blue, other colours available upon request

Bench Vice	Permissible load	Weight	Item-No.
75M1/120	4 – 10 kg	11 kg	75M6/120
75M1/140	10 – 16 kg	11 kg	75M6/140
75M1/160	16 – 29 kg	11 kg	75M6/160
75M1/180	16 – 29 kg	11 kg	75M6/160

 The lift is also suitable for third-party products, please indicate the size and the manufacturer of your clamping table when placing your order.



## Mobile Rack

- for sheet materials, comes with 5 sections and guide rollers

### Technical data

- dimensions W x D x H: 800 x 420 x 610 mm
- weight: 20 kg net

Item-No.
95M30



## Tool Cabinet

### Features

- made of quality sheet metal
- single door with cylinder lock
- 1 plastic drawer inside
- 2 zinc-plated built-in shelves

### Technical data

- dimensions W x D x H: 500 x 500 x 1000 mm
- colour: RAL 7035 light grey
- weight: approx. 30 kg net

Item-No.
93M11

# Workshop Equipment



## Cabinet with Drawers

### Features

- made of sheet metal
- with 6 drawers on ball-bearings
- aluminum ledge with label strip

### Technical data

- dimensions W x D x H: 625 x 600 x 810 mm
- colour: cabinet and drawers RAL 7035 light grey
- weight: approx. 72,3 kg net

Number of drawers	Drawers x height	Item-No.
6	3 x 80 mm, 2 x 120 mm, 1 x 240 mm	93M21



## Cabinet with Drawers

- also suitable for item 168P500

### Features

- 4 drawers on ball-bearings with drawe slide lock, max. load per drawer 60 kg
- aluminum ledge with label strip
- central locking

### Technical data

- dimensions W x D x H: 640 x 645 x 820 mm
- colour: RAL 7035 light grey
- weight: 82 kg

Number of drawers	Drawers x height	Item-No.
4	1 x 60 mm, 1 x 120 mm, 2 x 180 mm	93M10/7



## Material Cabinet

### Features

- made of sheet metal
- swing doors
- recessed handle with 3-bar lock and 2 keys
- 4 galvanised sheet steel shelves, adjustable in 15 mm-steps

### Technical data

- max. load per shelf: 70 kg
- colour: RAL 7035 light grey

W x D x H	Weight	Item-No.
930 x 400 x 1950 mm	58 kg	93M9/40
930 x 500 x 1950 mm	85 kg	93M9/50

picture similar



## Storage Cabinet

### Features

- made of sheet metal
- with 15 built-in metal shelves and 2 swing doors
- incl. 28 PE plastic storage boxes W x D x H: 150 x 234 x 122 mm
- incl. 54 PE plastic storage boxes W x D x H: 103 x 168 x 76 mm

### Technical data

- Dimensions: W x D x H: 700 x 1980 x 300 mm
- colour: RAL 7035 light grey
- load capacity shelf: 20 kg
- total load capacity: 320 kg
- Weight: approx. 92.1 kg

	Item-No.
	93M10/1



## Storage Box

- made of PE plastic

W x D x H (outside)	Item-No.
103 x 160 x 75 mm	97M10/1
150 x 230 x 125 mm	97M10/2
210 x 350 x 145 mm	97M10/3
210 x 350 x 200 mm	97M10/4
315 x 500 x 200 mm	97M10/5
230 x 500 x 115 mm	97M10/6



Colours: blue, red, yellow, green

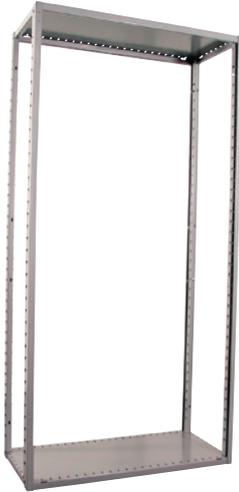


## Cross Connection

- for shelving systems up to 2000 mm height
- Colour: zinc
- for shelf stabilisation, necessary for each first and third shelf

Shelf height	Item-No.
2171 mm	97M12

scope of supply does not include the shelf system



## Shelving System

- suitable for multi-functional and easily changeable shelf settings, simple mounting with plug in-connectors

### Features

- 2 T-profile frames
- 1 base panel
- 1 top panel
- 3 shelf panels

### Technical data

- Dimensions W x D x H: 1000 x 500 x 2000 mm
- shelf load: 150 kg
- colour: RAL 7035 light grey

Item-No.
97M7



## Extension Shelf Rack

- for item 97M7

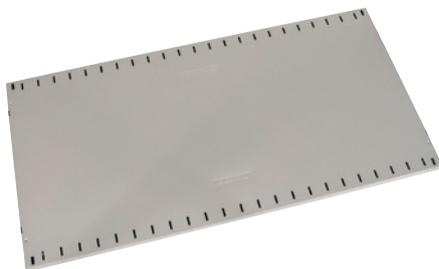
### Features

- 1 T-profile frame
- 1 base panel
- 1 top panel
- 3 shelf panels

### Technical data

- dimensions W x D x H: 1000 x 500 x 2000 mm
- shelf load: 150 kg
- colour: RAL 7035 light grey

Item-No.
97M7/A



## Shelf Panel

- for shelving systems of 500 mm shelf depth, sheet metal

### Technical data

- shelf load: 250 kg
- colour: RAL 7001 silver grey

Item-No.
97M8



scope of supply does not include content

## Panel Rack

- made of steel, plastic coated

### Features

- 4 x shelf panels
- 2 x bearer frames

### Technical data

- dimensions W x D x H: 2200 x 1100 x 2500 mm
- shelf panel size: 2000 x 1000 mm
- shelf depth: 1100 mm
- max. load per shelf level: 550 kg net
- bay load: 2200 kg
- colour: RAL 5010 blue
- weight: 177 kg net

Item-No.
97M1



## Shelf Panel

- for item 97M1, made of zinc-plated steel, incl. 2 plastic coated cross beams

### Technical data

- dimensions: W x D: 2200 x 1100 mm
- colour: RAL 5010 blue
- weight: 37 kg net

Item-No.
97M2



picture similar

## Storage Rack

- made of steel, plastic coated

### Features

- 2 x side bearers
- 2 x cross beams
- 1 x cross beam with 5 tubular dividers

### Technical data

- dimensions W x D x H: 1115 x 500 x 1980 mm
- colour: RAL 5010 blue
- weight: 50 kg net

Item-No.
97M3



## Waste Container

- with zinc-plated insert, extractable to the front

### Technical data

- dimensions: W x D x H: 450 x 450 x 870 mm
- colour: RAL 7001 silver grey
- weight: approx. 23,5 kg net

	Item-No.
	140M12



## Swivel Chair

- Swivel Chair with PU-foam seat, black
- gas lift height adjustment: 430 – 560 mm
- plastic five-star base: Ø 630 mm
- casters optionally hard (for soft floors, 140M10/H) or soft (for hard floors, 140M10/W)

	Item-No.
	140M10/H
	140M10/W

# Plaster Casting & Plaster Modelling



# Plaster Casting & Plaster Modelling

The increasing price pressure makes efficient, i. e. time- and cost reducing processes more important for a company than anytime in the past. In the plaster and modelling room, optimisation of the workflow is of special importance. The time consuming tasks can be reduced to a minimum by an efficient floor plan with properly placed equipment. Equipping the plaster- and modelling room demands special considerations concerning the project plan, as special constructions must be planned such as for example the integration of angled frames into the concrete floor. Of course we can offer especially coordinated equipment for the water supply and -drain.

In order to construct prostheses and orthopaedic aids, proper devices and tools are of enormous importance! With our construction- and casting devices, you are laying the corner stone for excellent functional properties and for optimal customer care.

The following pages represent a choice of our standard products. Of course, we also can offer special custom-made equipment for the plaster area.

We are looking forward to assist you with guidance and resources in order to realise your special demands to make the most out of your floor plan!



# Plaster Casting & Plaster Modelling



## Casting Apparatus with Baseplate

- for plaster casting under body load incl. base plate 145M21 and one casting ring set 145M22/S
- mobile use with transport castors and -handle
- space saving due to built-in folding mechanism
- quick-adjustment lever provides even easier height settings of the casting apparatus in seconds
- high quality, sturdy choice of material
- exact adjustment options by means of crank handle

### Technical data

- space required: 2000 x 2000 mm
- dimensions W x D x H: 900 x 600 x 1120 mm

	Item-No.
	145M20

 The firmly mounted transport castors and -handle allow mobile use of the device by simply pulling or pushing it effortlessly to the requested location. Due to the integrated folding mechanism, the device can be stowed away or transported in a vehicle easily.



## Baseplate

- for plaster casting apparatus 145M20

	Item-No.
	145M21



## Attachment Plate

- for plaster casting apparatus 145M20, incl. 2 pressure wedges 145M24

	Item-No.
	145M23



## Pressure Wedge

- for attachment plate 145M23 of plaster casting apparatus 145M20

	Item-No.
	145M24

# Plaster Casting & Plaster Modelling



scope of supply does not include AK casting ring

## Supporting Device for AK-plaster casting

- enables with 145M20 the processing of thigh plaster negative casts with AK casting rings under body load

	Item-No.
	145M30



## Plaster Casting Apparatus with Baseplate and Supporting Device for AK-Plaster Casting

Complete set

- complete set with items 145M20 and 145M30
- enables the manufacture of thigh plaster negative casts with ischial containment thigh form rings under body load
- very well suited for patients with limited standing abilities
- mobile use with transport castors and -handle
- space saving due to built-in folding mechanism
- quick-adjustment lever provides even easier height settings of the casting apparatus in seconds
- high quality, sturdy choice of material
- exact adjustment options by means of crank handle

### Technical data

- work space requirements: 2000 mm x 2000 mm
- dimensions W x D x H: 900 mm x 600 mm x 1120 mm

	Item-No.
	145M40

**S** The firmly mounted transport castors and -handle allow mobile use of the device by simply pulling or pushing it effortlessly to the requested location. Due to the integrated folding mechanism, the device can be stowed away or transported in a vehicle easily.

# Plaster Casting & Plaster Modelling



## AK Casting Ring Set

- version „ischial containment“, with receiving hole for an AK-trial-measuring-system

Side	Circumference	Item-No.
left	36 cm	165P20/L36
right	36 cm	165P20/R36
left	37 cm	165P20/L37
right	37 cm	165P20/R37
left	38 cm	165P20/L38
right	38 cm	165P20/R38
left	39 cm	165P20/L39
right	39 cm	165P20/R39
left	40 cm	165P20/L40
right	40 cm	165P20/R40
left	41 cm	165P20/L41
right	41 cm	165P20/R41
left	42 cm	165P20/L42
right	42 cm	165P20/R42
left	43 cm	165P20/L43
right	43 cm	165P20/R43
left	44 cm	165P20/L44
right	44 cm	165P20/R44
left	45 cm	165P20/L45
right	45 cm	165P20/R45
left	46 cm	165P20/L46
right	46 cm	165P20/R46
left	47 cm	165P20/L47
right	47 cm	165P20/R47
left	48 cm	165P20/L48
right	48 cm	165P20/R48
left	49 cm	165P20/L49
right	49 cm	165P20/R49
left	50 cm	165P20/L50
right	50 cm	165P20/R50
left	52 cm	165P20/L52
right	52 cm	165P20/R52
left	54 cm	165P20/L54
right	54 cm	165P20/R54
left	56 cm	165P20/L56
right	56 cm	165P20/R56
left	58 cm	165P20/L58
right	58 cm	165P20/R58

Continues on next page

# Plaster Casting & Plaster Modelling

## AK Casting Ring Set (continuation)



Side	Circumference	Item-No.
left	60 cm	165P20/L60
right	60 cm	165P20/R60
left	62 cm	165P20/L62
right	62 cm	165P20/R62
left	64 cm	165P20/L64
right	64 cm	165P20/R64
Set left + right	44-pcs. all sizes	165P20/S

 This technique guarantees a secure fixation of form rings for casting or for measuring the stump.

## Multifunction Transfer Apparatus



- fixing of round and angular one- and two-way suction tubes and of diverse plaster model rods possible up to 35 mm
- fixing of the prosthetic socket can be done either with the tube adapter or with the SACH-foot adapter
- horizontal shifting of the upper and lower fixing by 50 mm each is possible in order to transfer extreme socket positions
- firmly integrated, easily readable height scale (900 mm)
- high quality, durable materials
- steplessly rotatable by 360° degrees via wing screw

### Technical data

- dimensions W x D x H: 240 x 330 x 1000 mm

### Scope of supply

- multifunction transfer apparatus
- tube adapter
- SACH-foot adapter
- two way vacuum pipe

Designation	Item-No.
Multifunction Transfer Apparatus	145M50
Tube Adapter	15A5/S100
S.A.C.H.-Foot-Adapter	16A9/M10
Two Way Vacuum Pipe	168P78

scope of supply does not include bench vise and lift

 The multifunction transfer apparatus is steplessly rotatable by 360°!

# Plaster Casting & Plaster Modelling



## Cross Line Laser

- self-levelling for horizontal and vertical application, for prosthetic alignment or as plumb-line for casting
- beyond self-levelling range, the device turns off automatically
- integrated pendular blocking unit prevents damages during transport
- the cross laser is a line laser, generating a horizontal and vertical laser line

### Technical data

- Weight: 0.3 kg
- measuring accuracy:  $\pm 2$  mm / 10 m
- levelling range:  $\pm 3^\circ$  ( $\pm 5\%$ )
- batteries: 3 x AA 1.5
- laser category: 2 (635 nm)
- auto shut-off

### Accessories

- protective bag
- wall mount
- target board
- batteries

Item-No.
145M27

 The cross line laser is quickly and easily to calibrate and the beam is well visible even in day light. Fields of application are prosthetics, orthotics and diagnosis.



## Aluminum Tripod

- with crank handle, light weight, for item 145M27
- double adjustability of the stands, integrated level

### Technical data

- height: 670 – 1880 mm
- rank lift: 300 mm
- weight: 1,5 kg net

Item-No.
145M26



## Stainless Steel Basin

- for watering of plaster bandages

W x D x H	Content	Item-No.
530 x 325 x 150 mm	21.0 litres	166P25/1
530 x 162 x 150 mm	9.0 litres	166P25/2

# Plaster Casting & Plaster Modelling



## Plaster Silo

### Features

- sturdy design made of square steel tube
- container made of 1,5 mm sheet metal steel
- plaster discharge in front with slide
- fine allotable plaster quantity with conveyer screw
- cover lid easy to open with safe retention via 2 gas springs
- removable grate with opening device for plaster bags
- lid with dust seal

### Technical data

- dimensions W x D x H: 750 x 750 x 1320 mm
- capacity: 340 litre / 320 kg
- conveyer screw: Ø 95 mm
- pipe: Ø 100 mm
- colour: RAL 7035 light grey

Features	Weight	Item-No.
without wheels	82 kg	151M3
with wheels	88 kg	151M3/F



## Plaster Work Table

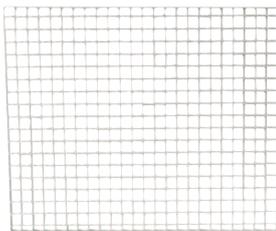
### Features

- table top with stainless steel sheet metal cover, canted sides provide full protection of table top
- frame made of square steel tube, stainless steel
- left side with 2 galvanized depositing grates
- right side with 1 galvanized depositing grate

### Technical data

- dimensions W x D x H: 1800 x 900 x 850 mm
- weight: 115 kg net

Item-No.
151M5



## Grate

- zinc-plated, mesh size 34 x 38 mm

W x D x H	Item-No.
700 x 830 x 30 mm	151M9

 Different sizes of grate-frames are custom-made upon customer's request!

# Plaster Casting & Plaster Modelling



## Plaster-Grinding Basin

- ceramic, temperature resistant up to 65 °C

### Technical data

- outside dimensions W x D x H: 700 x 500 x 200 mm
- colour: white
- weight: 36 kg net

	<b>Item-No.</b>
	151M8



## Sink Base Cabinet

- for item 151M8, made of steel sheet with side panels and two height adjustable front legs, two rear mount links and two swing doors with handle

### Technical data

- dimensions W x D x H: 685 x 480 x 650 mm
- colour: RAL 9016 white
- weight: 20 kg net

	<b>Item-No.</b>
	151M8/U



## Holder for Wall-Mounting

- for item 151M8, square steel tube, 30 x 30 mm with height adjustable base and mounting set

D x H	Weight	Item-No.
480 x 650 mm	4 kg	151M8/H



## Plaster Separation Sink

- plastic, consists of 2 sinks with drain valves
- 3-chamber-system

### Technical data

- dimensions W x D x H: 430 x 310 x 320 mm
- space requirements W x D x H: 450 x 400 x 320 mm
- weight: 3.2 kg net

	<b>Item-No.</b>
	151M4

# Plaster Casting & Plaster Modelling



scope of supply does not include inlet-/outlet hose

## Plaster Separator

- with closed 4-chamber separation system made from sturdy polypropylene
- easy and quick cleaning by means of insert foils
- absolutely tight lid prevents odours
- transparent material for visual control

### Technical data

- total height: 320 mm
- drain height: 245 mm
- outer / inner Ø: 340 / 295 mm
- volume capacity: 14 litres
- inlet connection: 1 1/2"
- outer / inner Ø: 47 mm / 39 mm
- outlet connection: outer Ø 50 mm
- weight: 2,1 kg

	<b>Item-No.</b>
	151M14



Scope of supply includes 1 x replacement sheet.



## Insert Foils

- for plaster separator 151M14
- PU = 25 pieces

	<b>Item-No.</b>
	151M14/1



## Water Draining Pump

- for plaster separator 151M14
- for quick removal of the residual water from the plaster separator

### Technical data

- total length: 480 mm
- stroke length: 135 mm
- flow volume: 100 ml / stroke
- material: aluminium

	<b>Item-No.</b>
	151M14/2

# Plaster Casting & Plaster Modelling



## Drainage hose

- for plaster separator 151M14
- Connection sleeve Ø 50 mm
- Drain socket Ø 40/50 mm
- Length 750 mm

Bestell-Nr.
151M14/3



## Supply hose, flexible and straight

- for plaster separator 151M14
- Connection 1.5"
- Hose diameter 28 mm

Item-No.
151M14/4



## DENTABS

- plaster sink-sedimentation aid
- hinders the development of odours caused by mostly plaster
- incl. dosage basket

Sales unit	Item-No.
Pack with 12 pcs	116P18/12
Pack with 25 pcs	116P18/25



## Plaster Bandage Trolley

- mobile steel cabinet with 2 drawers, 2 swing doors and 1 adjustable built-in shelf, push handle, 4 guide rollers Ø 125 mm, 4 rubber wall bumpers and seamless table top with 3-sided gallery

W x D x H	Weight	Item-No.
630 x 580 x 930 mm	62 kg	151M6/63
930 x 580 x 1080 mm	74 kg	151M6/93

picture similar

# Plaster Casting & Plaster Modelling



## Plaster Waste Bin

- made of plastic

### Technical data

- dimensions W x D: 830 x 570 mm
- capacity: 106 l

Features	Weight	Hight	Item-No.
with base frame, 2 swivel and 2 fixed wheels	10 kg	550 mm	151M1
without base frame	6 kg	400 mm	151M2
Base frame, 2 swivel and 2 fixed wheels	4 kg		151M1/U



## Waste Bin

- made of plastic, round
- capacity: approx. 80 l

Features	Weight	Dimensions Ø x H	Item-No.
without base frame	3.5 kg	650 x 390 mm	151M10
with base frame, 1 swivel and 2 fixed wheels	7 kg	650 x 540 mm	151M11



without extension shelf

## Basic Shelf Rack for Plaster Cast Models

- shelving system, simple mounting with plug in-connectors

### Features

- 2 T-profile frames
- 1 base panel
- 1 top panel
- 3 shelf panels (shelf load: 250 kg)
- 2 grid shelves (shelf load: 150 kg)

### Technical data

- dimensions W x D x H: 1000 x 500 x 2000 mm
- Colour: RAL 7035 light grey

Item-No.
97M5

# Plaster Casting & Plaster Modelling



picture similar

## Extension Shelf Rack for plaster cast models

- extension shelf rack for 97M5

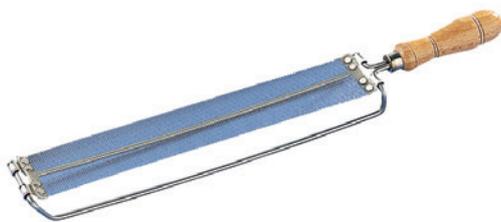
### Features

- 1 T-profile frame
- 1 base panel
- 1 top panel
- 3 shelf panels (shelf load: 250 kg)
- 2 grid shelves (shelf load: 150 kg)

### Technical data

- W x D x H: 1000 x 500 x 2000 mm
- Colour: RAL 7035 light grey

	Item-No.
	97M5/A



## Wire Mesh File

Length	Form	Item-No.
280 mm	flat	158P5/F
300 mm	round	158P5/R



## Spare Wire Mesh

Length	Form	Item-No.
280 mm	flat	158P6/F
300 mm	round	158P6/R



## Plaster Bucket

- made of plastic with spout and graduation

Litres	Item-No.
10.5	164P1

# Plaster Casting & Plaster Modelling



## Mixing Bowl

- made of rubber

Litres	Item-No.
0.5	164P7



## Plaster Moulding Spatula

- one side oval pointed, one side rectangular, plastic coated handle

Width	Item-No.
12 mm	166P17/12
16 mm	166P17
20 mm	166P17/20



## Modelling Spatula made of Plastic Material

- to gently remove HTV-silicone residue from mechanical and electronical silicone rollers / calenders
- perfectly suitable for modelling plaster, wax, plasticine and silicone
- PU = 1 piece

Colour	Length	Item-No.
blue	approx. 200 mm	166P24



## Plaster Trowel

- stainless steel, with wooden handle

Width	Item-No.
40 mm	166P19/40
50 mm	166P19/50
60 mm	166P19/60



## Plaster Scoop

- stainless steel, Ø 100 mm, capacity 850 ml

Length	Item-No.
280 mm	166P18

# Plaster Casting & Plaster Modelling



## Plaster Stirrer

- stainless steel, max. Ø approx. 85 mm

Length	Item-No.
500 mm	166P23



## Plaster Mixer

- for airbubble-free mixing of plaster and liquid silicones
- for wall- or table mount
- vacuum device with maintenance-free injector pump
- sturdy and powerful motor
- easy installation
- automatic- and manual switch
- installed vibrator
- incl. mixing bowl 500 ml
- incl. table stand

### Technical data

- dimensions W x D x H: 240 x 220 x 400 mm
- revolutions per minute: 425
- power requirements: 230 V / 50 Hz / 1 Ph / 0.25 kW
- weight: 15 kg
- colour: white

Item-No.
90E20

scope of supply does not include tripod.

 for all maintenance work at the plaster mixer, we recommend to use the special oil for plaster mixer, item-no. 90E20/E1 (volume 500 ml).

## Mixing Bowl for Plaster Mixer 90E20

- mixing bowl with agitator
- for mixing liquid plaster and RTV-silicones



90E20/500

Filling volume	Material	Item-No.
300 ml	Plastic	90E20/300
500 ml	Plastic	90E20/500
875 ml	Plastic	90E20/875
1200 ml	Steel	90E20/1200



# Orthopaedic Shoe Technology

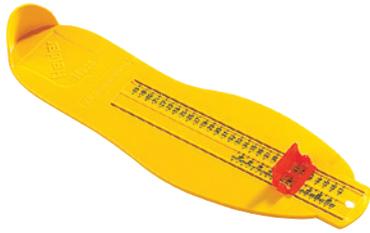


# Orthopaedic Shoe Technology

The orthopaedic shoe technology aims on production and repair of shoe inserts and orthopaedic bespoke shoes. For manufacturing and finishing of for example customised shoe inserts, you will need special grinding- and finishing machines, for which we also are able to offer matching tools and accessories.



# Orthopaedic Shoe Technology



## Foot Measuring Device „Heider“

- material: impact-proof polystyrene
- scale: from 18 to 47 and from 2 to 12

Length	Item-No.
335 mm	163P5



## Podotrack

### Material

- patented imprinting measurement chart for quick foot pressure analysis

### Application

- imprinting measurement chart for early detection of foot pressure problems, such as for example flat-, splay-, hollow- or club feet, usable for diabetic or rheumatic foot syndrome
- for diagnostic documentation by professionals in orthopaedics, podiatry or sports science

### Characteristics

- simple and hygienic use, transportable and usable anywhere; for static and dynamic foot pressure analyses

PU = 100 pieces

Dimensions L x W	Item-No.
390 x 160 mm	98P8

 Please follow the instruction manual!



## Foot Imprint Device

- ink roller, ink, contour scriber, rubber raster plate, pad with 100 blank foot imprint charts and 10 pieces protective foil for foot hygiene

Item-No.
98P4

# Orthopaedic Shoe Technology

without picture

## Rubber Grid Plate

- for item 98P4

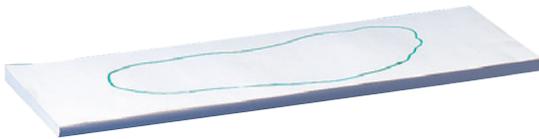
Dimensions	Item-No.
420 x 235 x 2 mm	98P4/E



## Paint Roller

- for item 98P4

Item-No.
98P4/R



## Foot Imprint Chart Pad

- for item 98P4
- PU = 100 Sheets

Dimensions	Item-No.
380 x 165 mm	98P5/G
400 x 140 mm	98P5



## Ink

- without oil

Content	Colour	Item-No.
27 ml	blue	210V41



## Shoemaker's Anvil

- cast iron, galvanized

Weight	Item-No.
2 kg	164P15

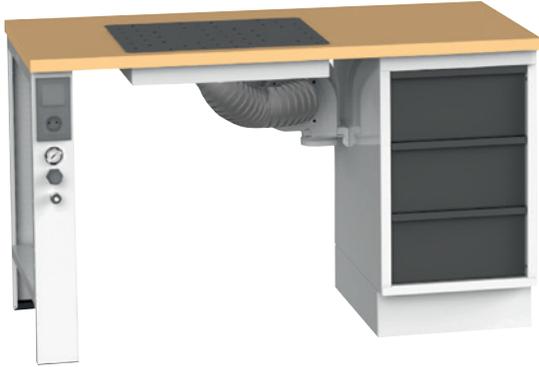
## Cobbler's Stand

- 7 inserts, height adjustable up to max. 930 mm
- for working seated or standing



picture similar

Weight	Item-No.
24 kg	164P13



## Adhesive Work Station

with integrated exhaustor

### Features

- cabinet with 3 drawers 180 mm on the right side
- left table leg with grounded socket, switch, compressed air quick-coupling, manometer, compressed air control
- bench top with integrated grid for applying adhesive
- exhaustor size 1, suction nozzle Ø 100 mm
- 3 m exhaust hose
- 3 m power cord with grounded plug

### Technical data

- dimensions W x D x H: 1260 x 630 x 760 mm
- suction capacity: 150 m<sup>3</sup>/h
- colour: RAL 7035 light grey / 7037 medium grey
- power requirements: 230 V / 50 Hz / 1 Ph / 0,018 kW

Item-No.
90M10



**Caution!** The adhesive work station is destined only for the extraction of fumes during the processing of solvent-based adhesives! See chapter lamination station and deep drawing technology for suitable suction arms.



## Adhesive Work Station

with integrated exhaustor

### Features

- cabinet with 3 drawers 180 mm on the right side
- left table leg with grounded socket, switch, compressed air quick-coupling, manometer, compressed air control
- extendable grid for applying adhesive
- exhaustor size 1, suction nozzle Ø 100 mm
- 3 m exhaust hose
- 3 m power cord with grounded plug

### Technical data

- dimensions W x D x H: 1260 x 630 x 760 mm
- suction capacity: 150 m<sup>3</sup>/h
- colour: RAL 7035 light grey / 7037 medium grey
- power requirements: 230 V / 50 Hz / 1 Ph / 0,018 kW

Item-No.
90M11



**Caution!** The adhesive work station is destined only for the extraction of fumes during the processing of solvent-based adhesives! See chapter lamination station and deep drawing technology for suitable suction arms.

# Orthopaedic Shoe Technology



picture similar

## Adhesive Work Station

with integrated exhaustor and active carbon filter

### Features

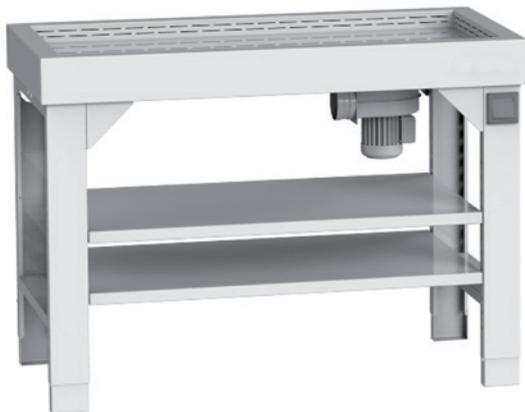
- cabinet with 3 drawers 180 mm on the right side
- left table leg with grounded socket, switch, compressed air quick-coupling, manometer, compressed air control
- bench top with integrated grid for applying adhesive
- exhaustor size 1, suction nozzle Ø 100 mm
- active carbon filter including mounting device
- 3 m power cord with grounded plug

### Technical data

- dimensions W x D x H: 1260 x 630 x 760 mm
- suction capacity: 150 m<sup>3</sup>/h
- colour: RAL 7035 light grey / 7037 medium-grey
- power requirements: 230 V / 50 Hz / 1 Ph / 0,018 kW

	Item-No.
	90M12

**S** Replacement activated carbon filter is available under item-no. 90M18. Caution! The adhesive work station is destined only for the extraction of fumes during the processing of solvent-based adhesives! See chapter lamination station and deep drawing technology for suitable suction arms.



## Adhesive Suction Table

### Features

- lowered application surface, surrounded with suction slots
- integrated exhaustor
- adjustable working height
- two adjustable shelves
- exhaust connector: Ø 100 mm, incl. 3 m suction hose

### Technical data

- dimensions W x D x H: 1260 x 630 x 850-1040 mm
- power requirements: 230 V / 50 Hz / 1 Ph
- colour: RAL 7035 light grey

Suction capacity	Capacity	Weight	Item-No.
150 m <sup>3</sup> /h	0.018 kW	58 kg	90M15/1523
350 m <sup>3</sup> /h	0.09 kW	59 kg	90M16/1523

**S** Caution: The adhesive suction table is approved only to exhaust vapors occurring during working with adhesives containing solvents. The adhesive suction table is optionally available with activated carbon filter incl. mounting (item-no 90M17).



## Shoemaker's Stool

- beech tree wood, 4 legs with cross beam

Seat height	Weight	Item-No.
approx. 470 mm	4 kg	140M2



## Eyelet Punch Press

- manual arbor press for insertion of eyelets, hooks and snap fasteners, as well as for hole punching
- comes with thread M6 for upper die

Outreach	Item-No.
150 mm	168P1



## Die for Eyelet

- for item 168P1
- PU = 1 piece

Dimensions	Item-No.
7 x 4 x 4.5 mm	W60P4
8 x 4 x 5 mm	W60P5
9 x 4 x 5 mm	W60P6
10 x 5 x 5.5 mm	W60P8
12 x 6 x 6 mm	W60P10
15 x 8 x 6 mm	W60P12

 Please refer to our materials catalogue for matching eyelets!



## Die for Lacing Hook

- for item 168P1
- PU = 1 piece

Head dimension	Item-No.
6.5 x 8 mm	W62P1
9 x 10 mm	W62P5

 Please refer to our materials catalogue for lacing hooks!

# Orthopaedic Shoe Technology



## Die for Snap Fastener

- for item 168P1
- PU = 1 piece

Head diameter	Item-No.
13 mm	W64P12
15 mm	W64P13

 Please refer to our materials catalogue for matching snap fasteners!



## Revolving Eyelet Punch Press

- turret manual arbor press, consists of 10 different dies resp. inserts
- for eyelets, hooks and snap fasteners, also for hole punching

Outreach	Item-No.
105 mm	168P20

## Replacement Parts

- for item 168P20, dies always consist of one upper and one lower die



Replacement Parts	Size in mm	Item-No.
Upper die kit, small	1	168P20/1
Upper die kit, medium	2	168P20/2
Upper die kit, large	3	168P20/3
Hole Punch Tube	3.0	168P20/3,0
Hole Punch Tube	4.5	168P20/4,5
Hole Punch Tube	6.0	168P20/6,0
Snap fastener die	4	168P20/4
Snap fastener die	5	168P20/5
Hook die	6	168P20/6
Hook die	7	168P20/7
Brass support	8	168P20/8



## Hole Punch and Brass Support

- for Eyelet Punch Press 168P1 or Revolver Eyelet Punch Press 168P20

Hole diameter	Item-No.
2 mm	162P3/2
3 mm	162P3/3
4 mm	162P3/4
5 mm	162P3/5



## Manual Rolling Mill

- for splitting and levelling of leather, rubber or plastic, exact parallel guide via rollers and gear wheel transmission

### Technical data

- dimensions W x D x H: 470 x 250 x 440 mm
- base area: 240 x 300 mm
- working width: 140 mm
- splitting and equalizing range: 2 – 8 mm
- weight: 25 kg net

Item-No.
70M2



## Cutting-, Levelling-, Sharpening-, Splitting- and Pressure Machine

- to proces all types of leather, rubber and other materials - except for hard materials and metals
- with long steel arm and welt pressing device

### Technical data

- dimensions W x D x H: 560 x 200 x 550 mm
- footprint: 130 x 190 mm
- cutting: to 190 mm width, material thickness: 0,5 – 6 mm
- sharpening and splitting: to 30 mm, material thickness: 2 – 8 mm
- weight: 20 kg net

Item-No.
70M4



## Cutting wheel

- spare part for item 70M4

Item-No.
70M4/R



## Shoe Stretcher „Eupedus“

- „double boot unit“, incl. 2 sets of shoe lasts and rests

Weight	Item-No.
30 kg	70M1/DST



## Shoe Stretcher „Eupedus“

- „single boot unit“, incl. 1 set of shoe lasts and rest

Weight	Item-No.
20 kg	70M1/ST



## Vacupress 850 Deep Drawing Device

- for orthopaedic technology

### Features

- vacuum pump with circulating oil lubrication
- vacuum flow: 25 m<sup>3</sup>/h
- vacuum vessel: 25 l
- adjustable vacuum control: -0,45 bar to -0,95 bar
- vacuum max.: -0,95 bar / 5 mbar absolute
- additional vacuum connection for external vacuum consumers
- water separation
- 3 m power cord with CEE plug 5 x 16 A

### Technical data

- dimensions W x D x H: 960 x 1050 x 1070 mm
- frame size: 850 x 685 mm
- power requirements: 400 V / 50/60 Hz / 3 Ph / 0,75 kW at 50 Hz 0,9 kW at 60 Hz
- weight: approx. 145 kg

Item-No.
168P505

 Can be used for central vacuum unit in the workshop!

# Orthopaedic Shoe Technology

## Vacupress, Deep-Drawing Unit

Tabletop device for connection to an external vacuum pump

### Features

- equipped with a soft flexing mat
- manual vacuum adjustment
- vacuum and ventilation separately adjustable
- connection with 3 m vacuum hose  $\varnothing$  13 mm (inner  $\varnothing$ )
- with integrated small-filter and non-return valve

### Technical data

- frame dimensions W x D (outer dimensions): 350 x 570 mm
- outer dimensions W x D x H: 360 x 660 x 180 mm
- weight: 18 kg



open



closed

	Item-No.
	168P530

## Vacupress DUAL, Deep-Drawing Unit

with a frame that is double as broad

- tabletop device for connection to an external vacuum pump

### Features

- equipped with a soft flexing mat
- manual vacuum adjustment
- vacuum and ventilation separately adjustable
- connection with 3 m vacuum hose  $\varnothing$  13 mm (inner  $\varnothing$ )
- with integrated small-filter and non-return valve

### Technical data

- frame dimensions W x D (outer dimensions): 570 x 570 mm
- outer dimensions W x D x H: 610 x 660 x 140 mm
- weight: 22 kg

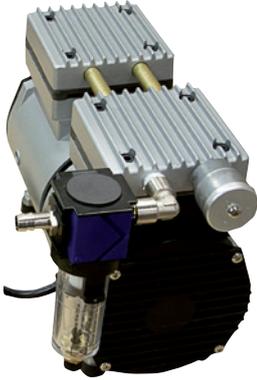


open



closed

	Item-No.
	168P530/D



## Vacuum Pump

- for item 168P530 and 168P530/D
- also suitable for mobile use

### Features

- oil- and maintenance free
- filter / water separator 1/4"
- manual ON / OFF switch integrated in electric cord
- connection with 3 m vacuum hose  $\varnothing$  13 mm (inner  $\varnothing$ )

### Technical data

- quoted suction volume: 6m<sup>3</sup>/h = 6000 l/h
- final pressure: 60 mbar
- power requirements: 230 V / 50 – 60 Hz / 1 Ph / 0,27 kW
- dimensions incl. accessory W x D x H: 280 x 200 x 265 mm
- weight: 9,5 kg

Item-No.
168P533



We recommend the filter/water trap 1/4" Item-No. 168P532!

without picture

## Filter / Water Trap 1/4"

- accessory for item 168P533

### Technical data

- connection: 1/4"
- for vacuum hose:  $\varnothing$  13 mm (inner  $\varnothing$ )

Item-No.
168P532

# Orthopaedic Shoe Technology

## Vacupress 620 SIII



- table-top deep-drawing device

### Features

- vacuum- and electronically time-controlled autom. heating
- heating grid, sidewise extractable
- metallised crystal panel heating
- heating period adjustable with digital timer
- LED display
- 3 heating units which can be activated separately, each unit includes 3 heating pipes
- „Unilock“ single lever quick-action clamp for sheet material or milling maths 0,1 – 7,0 mm
- without adjustment, horizontally mobile
- work place lighting
- oil- and maintenance free
- 3 m power cord with CEE plug 5 x 16 A

### Technical data

- dimensions W x D x H: 750 x 590 x 1050 mm
- frame size: 450 x 600 mm
- vacuum aggregate: 0,45 kW / 12 m<sup>3</sup>/h
- heating: 5400 W, infrared, 9-lines
- power requirements: 400 V / 50 – 60 Hz / 3 Ph / 5,9 kW
- colour: RAL 7035/5017 light grey/medium blue
- weight: 147 kg net

Item-No.

168P500

## Cabinet with Drawers



- also suitable for item 168P500

### Features

- 4 drawers on ball-bearings with drawe slide lock, max. load per drawer 60 kg
- aluminum ledge with label strip
- central locking

### Technical data

- dimensions W x D x H: 640 x 645 x 820 mm
- colour: RAL 7035 light grey
- weight: 82 kg

Number of drawers	Drawers x height	Item-No.
4	1 x 60 mm, 1 x 120 mm, 2 x 180 mm	93M10/7

without picture

## Heat Monitoring Switch

- for 168P500, 3-step, for individual monitoring of the 3 heating elements

Item-No.

168P501

 Recommended for regular activating works.

# Orthopaedic Shoe Technology



without vacupress and oven

## Base Cabinet

- for item 168P500
- with 2 shelves, including castor swivels, lockable

### Technical data

- dimensions W x D x H: 575 x 630 x 780 mm
- colour: RAL 7035 light grey
- weight: 36 kg

	Item-No.
	168P502

 The convection oven size 1 (item-no. 168P503) can be integrated without problems.



## Rubber Board

- for item 168P500

W x D x H	for Item-No.	Item-No.
600 x 450 x 1.2 mm	168P500	168P510



## Rubber Mat

- for item 168P500, 168P505, 168P530 and 168P530/D, soft, very elastic

W x D x H	for Item-No.	Item-No.
600 x 450 x 2.0 mm	168P500	168P516
850 x 680 x 2.0 mm	168P505	168P517
700 x 510 x 2.0 mm	168P530	168P519
700 x 700 x 2.0 mm	168P530/D	168P518



## Convection Oven Size 1

consistent with base frame 168P502

- for item 168P502

### Features

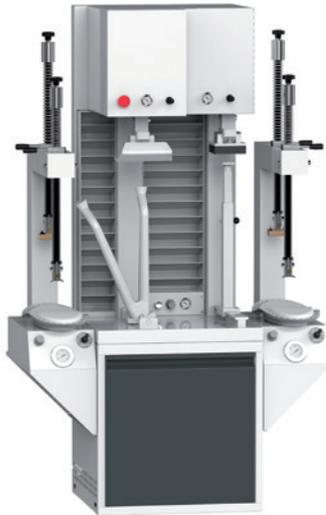
- casing inside and outside made of stainless steel
- door with big window, opening to the front
- both sides of the door are suspended on springs
- 1 grate / 1 tray as a standard feature
- heating control light
- thermostat steplessly adjustable from 50 °C – 250 °C
- timer steplessly adjustable 0 – 120 min
- ON/OFF control light

### Technical data

- 1 fan motor
- heating: 1 x 2400 W
- power requirements: 230 V / 50 – 60 Hz / 1 Ph / 2,5 kW
- outer dimensions W x D x H: 527 x 450 x 316 mm
- inner dimensions W x D x H: 404 x 308 x 254 mm
- weight: 20 kg

Item-No.
168P503

# Orthopaedic Shoe Technology



## Orthopaedic High-speed Press

with separate heel press and integrated compressor unit

### Features

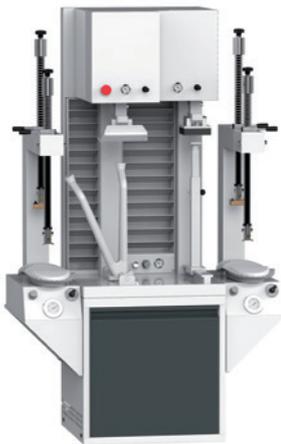
- 3/4 sole cushions with constant cushion filling
- separate heel press
- long V-type pressure arm
- 12 pairs internal pressure plates
- orthopaedic presses attached to right and left side, clearance 450 mm
- both pressure arms with full cushions
- bottom construction with door and compressor unit
- approx. 1 m power cord with grounded plug

### Technical data

- dimensions W x D x H: 1130 x 615 x 2000 mm
- power requirements: 230 V / 50 Hz / 1 Ph / 1.1kW
- colour: RAL 7035 light grey
- weight: 390 kg

Item-No.

168P92/1523



## Orthopaedic High-speed Press

with separate heel press for connection to existing compressed air unit

### Features

- 3/4 sole cushions with constant cushion filling
- separate heel press
- long V-type pressure arm
- 12 pairs internal pressure plates
- orthopaedic presses attached to right and left side, clearance 450 mm
- both pressure arms with full cushions
- bottom construction with door

### Technical data

- dimensions W x D x H: 1130 x 615 x 1900 mm
- colour: RAL 7035 light grey
- weight: 320 kg

Item-No.

168P93



## Orthopaedic Press

with built-in compressor unit

### Features

- two pressure arms, clearance 450 mm
- one full cushion
- one semi-high cushion
- bottom construction with door and compressor unit
- 2 m power cord with CEE plug 5 x 16 A

### Technical data

- dimensions W x D x H: 630 x 615 x 1900 mm
- power requirements: 400 V / 50 Hz / 3 Ph / 0,55 kW
- colour: RAL 7035 light grey
- weight: 167 kg

Item-No.

168P94/3540

# Orthopaedic Shoe Technology



## Orthopaedic Press

for connection to existing compressed air unit

### Features

- two pressure arms, clearance 450 mm
- one full cushion
- one semi-high cushion
- bottom construction with door

### Technical data

- dimensions W x D x H: 560 x 615 x 1900 mm
- colour: RAL 7035 light grey
- weight: 146 kg

	<b>Item-No.</b>
	168P95



## Internal Pressure Plate Set

- for items 168P550, 168P92, 168P93
- PU = 24 pairs

	<b>Item-No.</b>
	168P555



## Pressure Cushion

- for items 168P550, 168P552, 168P92, 168P93, 168P94, 168P95
- medium-high for rapid press, exchangeable with plug-in fitting

	<b>Item-No.</b>
	168P556



## Three-Quarter Cushion

- for items 168P550, 168P552, 168P92, 168P93, 168P94, 168P95
- for rapid press, exchangeable with plug-in fitting

	<b>Item-No.</b>
	168P558



## Full Cushion

- for items 168P550, 168P552, 168P92, 168P93, 168P94, 168P95
- for rapid press, exchangeable with plug-in fitting

Item-No.

168P559



## Zig-zag Double Lockstitch Sewing Machine

### Features

- with bottom feed
- electric motor
- infinitely adjustable zig-zag extended stitch width
- for processing of thin and thick materials
- needle system 134R
- AC starter motor
- integrated knee lever
- finger-, belt- and thread lever protection
- zipper foot, open on right side
- table with treadle and drawer
- LED spot lamp
- 2 m power cord with grounded plug

### Technical data

- dimensions W x D x H: 1050 x 500 x 1500 mm
- stitches: max. 5000/min
- stitch width: max. 6 mm
- stitch length: max. 5 mm
- clearance below foot presser: max. 7 mm
- power requirements: 230 V / 50 – 60 Hz / 1 Ph / 0,25 kW
- weight: approx. 55 kg net

Item-No.

40M5



Other models and used equipment available upon request!



## Spare Bobbin for Zig-Zag Double Lockstitch Sewing Machine 40M5

- for item 40M5

Item-No.

40M5/E1



## Sewing Machine Needle

- for item 40M4 and 40M5
- needle system 134R
- PU = 10 pieces

Thickness	Item-No.
0.7 mm	157P20/70
0.8 mm	157P20/80
0.9 mm	157P20/90
1.0 mm	157P20/100
1.1 mm	157P20/110



## Adler Long-Arm Sewing Machine 30/10

- for light upper leather

### Features

- feeder rotatable in all directions
- adjustable thread lever
- Adler foot operation stand with drawer (only 40M1/F)
- 2 m power cord with grounded plug (only 40M1/E)

### Technical data

- dimensions W x D x H: 850 x 500 x 1140 mm
- arm length: 470 mm
- stitches: max. 350/min
- stitch length: max. 5 mm
- presser foot travel: max. 8 mm
- weight: approx. 90 kg net

Features	Item-No.
with foot operation	40M1/F
with electric motor (230 V / 50 – 60 Hz / 1 Ph / 0.37 kW)	40M1/E



Used equipment available upon request!

# Orthopaedic Shoe Technology



## Adler Long-arm Sewing Machine 30/70

- for heavy and strong leather

### Features

- feeder rotatable in all directions
- adjustable thread lever
- alternating current starter motor with primary reduction gear, Adler-foot and motor operation stand, 2 m power cord with grounded plug (only 40M2/E)

### Technical data

- dimensions W x D x H: 850 x 500 x 1140 mm
- arm length: 470 mm
- stitches: max. 300/min
- stitch length: max. 5 mm
- presser foot travel: max. 12 mm
- weight: approx. 90 kg net

Features	Item-No.
with foot operation	40M2/F
with electric motor (230 V / 50 – 60 Hz / 1 Ph / 0.37 kW)	40M2/E



Used equipment available upon request!



## Sewing Machine Needle

- for item 40M1 und 40M2
- PU = 10 pieces

for Item-No.	Thickness	Item-No.
40M1	1.0 mm	157P40/100
40M1	1.1 mm	157P40/110
40M1	1.2 mm	157P40/120
40M1	1.3 mm	157P40/130
40M1	1.4 mm	157P40/140
40M1	1.6 mm	157P40/160
40M2	1.0 mm	157P30/100
40M2	1.1 mm	157P30/110
40M2	1.3 mm	157P30/130
40M2	1.4 mm	157P30/140

# Orthopaedic Shoe Technology



picture similar

## Single Needle Double Stitch Post Bed Sewing Machine

- for light to medium weight materials
- suitable for ornamental and attachment seams as well as edged hems for shoe shafts and shaft parts

### Features

- latest easy to use technology
- including resopal table, fully assembled
- needle up and down position
- controlled sewing speed
- needle system 134

### Technical data

- stitches per minute: max. 3000
- stitch length: max. 4,5 mm
- top roller Ø: 35 mm
- power requirements: 230 V / 50 – 60 Hz / 1 ph / 0,37 kW
- weight: 85 kg

Item-No.
40M4

## Lockstitch Sewing Machine

- universally applicable for strongest materials

### Features

- feed via upper presser foot
- pressure infinitely adjustable
- 2,5 m power cord with CEE plug 5 x 16 A

### Technical data

- dimensions W x D x H: 620 x 550 x 1640 mm
- stitches: max. 160 per minute
- stitch length: 3 – 14 mm
- sewing capacity: max. 27 mm
- power requirements: 400 V / 50 Hz / 3 Ph / 0,75 kW
- colour: RAL 7035/7037 light grey/dust grey
- weight (in wooden box): 195 (240) kg

Item-No.
40M7



## Sewing Machine Needle

- for item 40M7



Thickness	Item-No.
4 mm	157P45/4
6 mm	157P45/6

# Orthopaedic Shoe Technology



## Heavy Duty Thread

- for item 40M7

Colour	Weight	Item-No.
off-white	350 g	99T5



## Skiving Machine

- only suitable for machining of upper leather

### Features

- incl. table
- transport motor
- integrated dust suction ventilator
- 2 m power cord with grounded plug

### Technical data

- dimensions W x D x H: 1050 x 550 x 1150 mm
- power requirements: 230 V / 50 Hz / 1 Ph / 0,75 kW
- weight: 87 kg net / 150 kg gross

Item-No.
40M9

 Other models available upon request!



## Table Sander

### Features

- tool holder M16 or 5/8"
- integrated extraction
- foldaway and removable hood for dust reduction, incl. dust bag
- 2 m power cord with grounded plug
- without tool heads

### Technical data

- speed 2820 RPM
- dimensions W x D x H: 430 x 360 x 400 mm
- power requirements: 230 V / 50 Hz / 1 Ph / 0,55 kW
- colour: RAL 7035 light grey
- weight: 16 kg

Thread	Item-No.
M16	10M20/16
5/8"	10M20/58

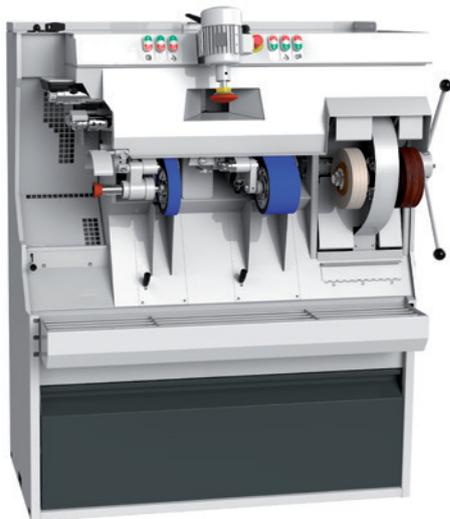
picture similar

without picture

## Filter Bag

- accessory to 10M20

Item-No.
10M20/F



## Combined Finishing Machine

### Features

- integrated suction unit
- additional motor with naumkeag sander
- twin cutter: heel cutter on top, sole cutter on bottom
- front taper Ø 80 mm with bayonet closure (MK3)
- 2 sanding belts
- revolving polishing tools with 3 reversible shafts and 6 polishing tools, switching between tools by means of handwheel
- 3 m electric cord with CEE plug 5 x 16 A

### Technical data

- dimensions W x D x H: 1300 x 815 x 1615 mm
- sanding belt width: 1 x 40 mm, 1 x 100 mm
- sanding belt length: 1650 mm, contact wheel: Ø 170 mm
- power requirements: 400 V / 50 Hz / 3 Ph / 4,31 kW
- colour: RAL 7035 light grey
- weight: 415 kg

Item-No.
96M20/3540

 Other models available upon request!



## Horsehair Wheel Brush

- for item 96M20, 96M6

Dimensions	Colour	Item-No.
240 x 60 mm	brown	161P15/B



## Buffing Wheel

- for item 96M20, 96M6

Dimensions	Item-No.
200 x 60 mm	161P16

## Trimming and Sanding Machine



### Features

- integrated suction unit
- additional motor with naumkeag sander
- twin cutter: heel cutter on top, sole cutter on bottom
- front taper Ø 80 mm with bayonet closure (MK3)
- 2 sanding belts
- 3 m power cord with CEE plug 5 x 16 A

### Technical data

- dimensions W x D x H: 1200 x 815 x 1615 mm
- 1 x sanding belt: 40 x 1650 mm, contact wheel: Ø 170 mm
- 1 x sanding belt: 100 x 1480 mm, contact wheel: Ø 110 mm
- power requirements: 400 V / 50 Hz / 3 Ph / 3,76 kW
- colour: RAL 7035 light grey
- weight: 370 kg

	Item-No.
	96M21/3540

 Other models available upon request!

## Sanding Drum

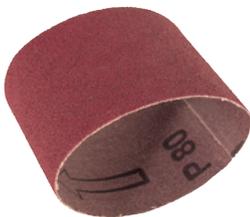


- for item 96M21, on bayonet, for main shaft, left

Dimensions	Item-No.
50 x 60 mm	161P17

 For item 96M7 available upon request.

## Sanding Sleeve



- for item 161P17
- PU = 10 pieces

Dimensions	Grain size	Item-No.
190 x 48 mm	K 24	161P18/24
190 x 48 mm	K 80	161P18/80
190 x 48 mm	K 120	161P18/120

## Guide



- for sanding drum 161P17

	Item-No.
	161P18



## Belt Sanding Machine

### Features

- integrated suction unit
- additional motor with naumkeag sander
- front taper Ø 80 mm with bayonet closure (MK3)
- 2 sanding belts
- 3 m power cord with CEE plug 5 x 16 A

### Technical data

- dimensions W x D x H: 750 x 815 x 1615 mm
- 1 x sanding belt: 40 x 1650 mm, contact wheel: Ø 170 mm
- 1 x sanding belt: 100 x 1480 mm, contact wheel: Ø 110 mm
- power requirements: 400 V / 50 Hz / 3 Ph / 2,1 kW
- colour: RAL 7035 light grey
- weight: 235 kg

	Item-No.
	96M22/3540

 Other models available upon request!



## Trimmer, complete

- for items 96M20, 96M21 and 96M22
- left-hand cutting, on bayonet, for cutter without shoulder in dura quality

Trimming width	Item-No.
2.5 mm	161P9/25
3.0 mm	161P9/30
4.0 mm	161P9/40
5.0 mm	161P9/50
6.0 mm	161P9/60
8.0 mm	161P9/80
10.0 mm	161P9/100

 For items 96M6, 96M7 and 96M8 available upon request.



## Replacement Cutter

- for item 161P9, left-hand cutting

Trimming width	Item-No.
2.5 mm	161P9/25E
3.0 mm	161P9/30E
4.0 mm	161P9/40E
5.0 mm	161P9/50E
6.0 mm	161P9/60E
8.0 mm	161P9/80E
10.0 mm	161P9/100E



## Heel Cutter Head

- for item 96M21
- left-hand cutting, with 18 mm cutter, adjustable width via protective cap

Width	Item-No.
18 mm	161P10

 For item 96M7 available upon request.



## Replacement Cutter

- for item 161P10

Width	Item-No.
18 mm	161P10/E



## Egg Shape Rasp Head

- for items 96M20, 96M21 and 96M22
- left-hand cutting on bayonet

Ø Head x length	Item-No.
25 x 35 mm	161P11

 For items 96M6, 96M7 and 96M8 available upon request.



## Finger Shape Rasp Head

- for items 96M20, 96M21 and 96M22
- left-hand cutting on bayonet

Ø Head x length	Item-No.
25 x 50 mm	161P12

 For items 96M6, 96M7 and 96M8 available upon request.



## Sole Trimmer

- for items 96M20, 96M21 and 96M22
- arched on bayonet

Width	Item-No.
20 mm	161P14



For items 96M6, 96M7 and 96M8 available upon request.



## Sanding Sleeves

- for item 96M20, 96M21, 96M22, 96M6, 96M7 and 96M8
- left fold, arched, Ø 90 mm
- PU = 10 pieces

Grain size	Item-No.
K 60	161P55/60
K 80	161P55/80
K 100	161P55/100
K 120	161P55/120



## Tapered Sleeves

- for item 96M20, 96M21, 96M22, 96M6, 96M7 and 96M8
- for heel breaster
- PU = 1 piece

Grain size	Item-No.
K 40	161P13



## Sanding Belt

- endless, for shoemakers' machines
- EM = External Make

L x W / grain size	for Machine	Item-No.
1480 x 40 mm / K 24	FF	107P51/24
1480 x 40 mm / K 40	FF	107P51/40
1480 x 40 mm / K 60	FF	107P51/60
1480 x 40 mm / K 80	FF	107P51/80
1480 x 40 mm / K 120	FF	107P51/120
1480 x 100 mm / K 24	96M7, M, M21, M22	107P52/24
1480 x 100 mm / K 40	96M7, M, M21, M22	107P52/40
1480 x 100 mm / K 80	96M7, M8, M21, M22	107P52/80
1650 x 40 mm / K 24	96M6, 96M7, M8, M20, M21, M22	107P53/24
1650 x 40 mm / K 40	96M6, 96M7, M8, M20, M21, M22	107P53/40
1650 x 40 mm / K 80	96M6, 96M7, M8, M20, M21, M22	107P53/80
1650 x 40 mm / K 12	96M6, 96M7, M8, M20, M21, M22	107P53/120
1650 x 100 mm / K 24	96M20	107P54/24
1650 x 100 mm / K 40	96M20	107P54/40
1650 x 100 mm / K 80	96M20	107P54/80
1650 x 100 mm / K 120	96M20	107P54/120
1390 x 100 mm / K 24	FF	107P55/24
1390 x 100 mm / K 40	FF	107P55/40
1390 x 100 mm / K 80	FF	107P55/80



## Halogen-Infralux Processor

- for processing of solvent-free adhesives

### Features

- switchable lamp (halogen-quartz light)
- handle
- ventilator to avoid heat congestion

### Technical data

- space requirements W x D x H: 330 x 430 x 630 mm
- power requirements: 230 V / 50 Hz / 1 Ph

Item-No.
96M4



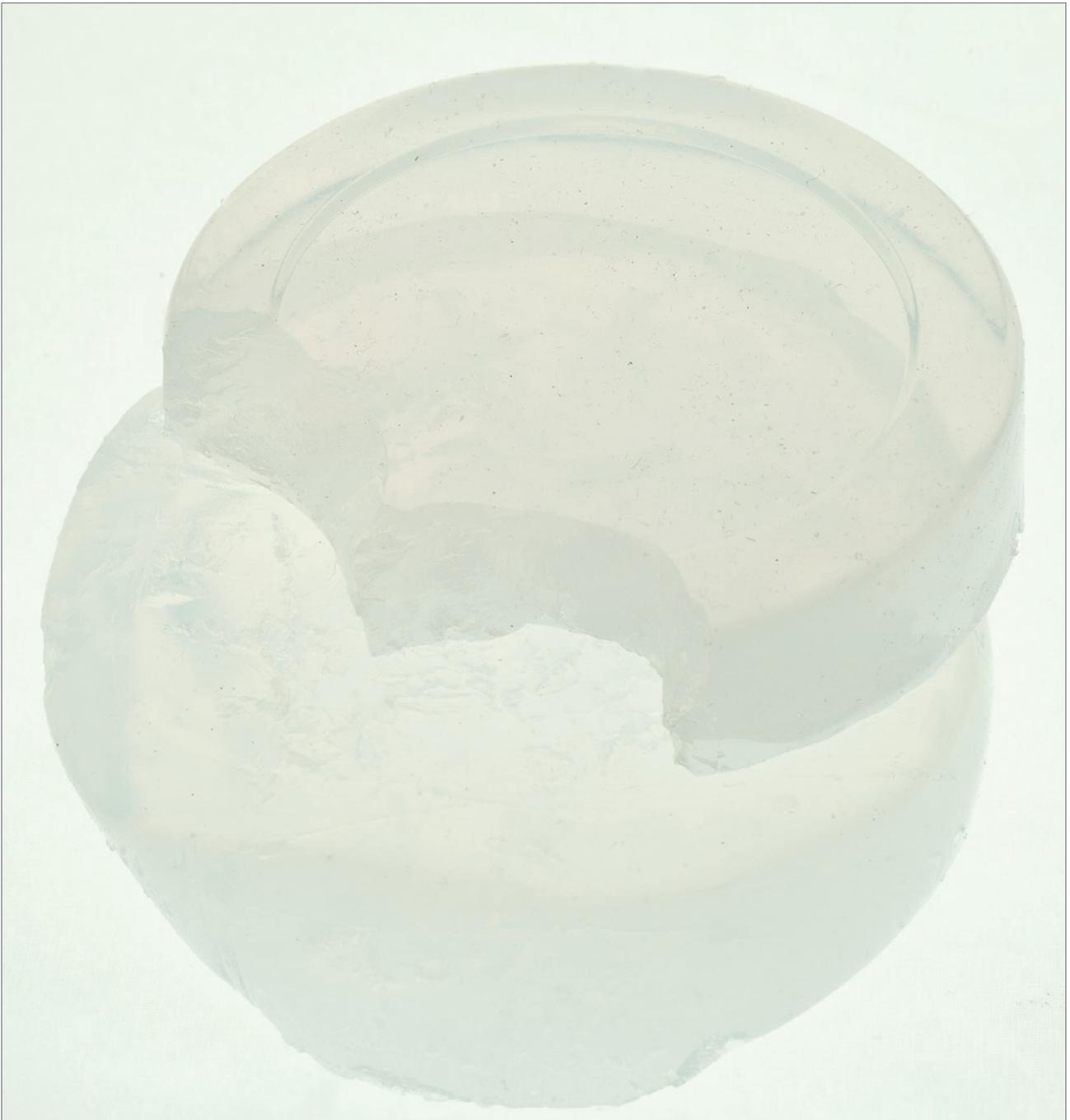
# Silicone Processing



# Silicone Processing

Silicone processing requires special machines and tools. For example, when silicone is mixed and rolled out into sheets, continuously adjustable rollers are necessary to produce the required material thickness. Especially the electrically driven rollers must meet high safety standards.

On the following pages, you will find a selection of our machinery and tool assortment, which has been coordinated to meet these high demands.





## Mixing Board

### Material

- waxed special paper

### Application

- for mixing of Episil und Abdosil

### Characteristics

- with anti-slip coating to avoid displacement

PU = 1 board with 50 sheets

Dimensions L x W	Item-No.
240 x 150 mm	75E1



## Scissors

- small, bent, with micro-teeth on lower blade, specially recommend for cutting silicone
- PU = 1 piece

Length	Item-No.
130 mm	50E7



## Scissors

- small, bent, vertical tip, specially recommend for cutting silicone
- PU = 1 piece

Length	Item-No.
145 mm	50E17



## Silicone Spatula

- flexible
- wide, for mixing of liquid silicones
- PU = 1 piece

Length	Total length	Item-No.
105 mm	205 mm	50E5

# Silicone Processing



## Silicone Spatula

- small, for modelling of moldable silicones and acrylics
- PU = 1 piece

	<b>Item-No.</b>
	50E6



## Alginate Spatula

- for mixing and applying of Alginate item-no. 1E2
- PU = 1 piece

	<b>Item-No.</b>
	50E4



## Modelling Spatula made of Plastic Material

- to gently remove HTV-silicone residue from mechanical and electrical silicone rollers / calenders
- perfectly suitable for modelling plaster, wax, plasticine and silicone
- PU = 1 piece

Colour	Length	Item-No.
blue	approx. 200 mm	166P24



## Processing Roller

- conical
- for processing of moldable silicones
- PU = 1 piece

	<b>Item-No.</b>
	50E3



## Processing Roller

- cylindrical
- for processing of moldable silicones
- PU = 1 piece

Length	Diameter	Item-No.
150 mm	8.0 mm	50E15



## Processing Roller

- cylindrical
- for processing of moldable silicones
- PU = 1 piece

Length	Diameter	Item-No.
120 mm	5.0 mm	50E16



## Double-Sided Spatula, Small

- for modelling of wax and silicones
- PU = 1 piece

Item-No.
50E21



## Modelling Instrument

- for modelling of wax and silicones
- PU = 1 piece

Item-No.
50E2



## Tweezers

- with angled, toothed point
- PU = 1 piece

Item-No.
50E8



## Wax Knife

- for modelling of wax and silicones
- PU = 1 piece

Length	Item-No.
170 mm	50E9

# Silicone Processing



## Scalpel

- sterile
- with plastic handle
- PU = 10 pieces

	<b>Item-No.</b>
	160P100



## Scalpel handle „Standard, fig. 4“

- solid flat handlesuitable for blades fig. 18-36length = 140 mmPU = 1 piece

	<b>Item-No.</b>
	50E26



## Scalpel Blade

- sterile
- small blade for detailed works
- for scalpel handle item-no. 50E26
- PU = 100 pieces

<b>Size</b>	<b>Item-No.</b>
Fig. 24	50E27



## Measuring Cup

- polypropylene
- transparent
- with calibration
- PU = 1 piece

Filling volume	Hight	Diameter	Item-No.
3000 ccm	242 mm	170 mm	90E29/3000
5000 ccm	270 mm	210 mm	90E29/5000

## Plaster Mixer



- for airbubble-free mixing of plaster and liquid silicones
- for wall- or table mount
- vacuum device with maintenance-free injector pump
- sturdy and powerful motor
- easy installation
- automatic- and manual switch
- installed vibrator
- incl. mixing bowl 500 ml
- incl. table stand

### Technical data

- dimensions W x D x H: 240 x 220 x 400 mm
- revolutions per minute: 425
- power requirements: 230 V / 50 Hz / 1 Ph / 0.25 kW
- weight: 15 kg
- colour: white

	Item-No.
	90E20

scope of supply does not include tripod.

 for all maintenance work at the plaster mixer, we recommend to use the special oil for plaster mixer, item-no. 90E20/E1 (volume 500 ml).

## Mixing Bowl for Plaster Mixer 90E20

- mixing bowl with agitator
- for mixing liquid plaster and RTV-silicones



90E20/500

Filling volume	Material	Item-No.
300 ml	Plastic	90E20/300
500 ml	Plastic	90E20/500
875 ml	Plastic	90E20/875
1200 ml	Steel	90E20/1200



## Hand Grinder with Knee-Control Unit

- for fine grinding- and milling tasks

### Handpiece

- high performance grinder with comfortable handling
- low weight
- low noise and vibrations
- smooth running

### Accessories handpiece

- collet Ø 2,35 mm
- connection cord between handpiece and control unit
- handpiece rest
- protective disk with support
- magnifier
- armrest

### Technical data handpiece

- speed range: clockwise rotation 1000 – 50000 RPM, counter-clockwise rotation limited to 5000 RPM
- dimensions: L x Ø: 165 x 29 mm
- max. torque: 7 Ncm
- weight: 355 g

### Knee-control unit

- 4 storable programs
- constant rotation speed by automatic adjustment
- 4-colour display for easy recognition of the stored programs
- quick access to preset rotation speeds and torques

### Accessories knee-control unit

- 2,5 m power cord with grounded plug

### Technical data knee-control unit

- dimensions W x D x H: 95 x 280 x 235 mm
- power requirements: 100 – 240 V / 50 – 60 Hz / 1 Ph / 0,22 kW
- weight: 3 kg

Item-No.
90E14



## Carbide Cutting Bit

- u-conical shape with flat point, tothing, for sharp-edged milling works in plastic and metal
- PU = 1 piece

	<b>Item-No.</b>
	60E1



## Cutting Bit, Drum

- carbide cutting bit with spiral bevel tothing for silicone, cone shape with round point, for soft plastics and silicone, long tool life
- PU = 1 piece

	<b>Item-No.</b>
	60E2



## Carbide Cutting Bit

- drum shape with flat point, spiral bevel tothing, for area-measured milling works in plastic and metal
- PU = 1 piece

	<b>Item-No.</b>
	60E10



## Carbide Cutting Bit

- drum shape with round point, fine spiral bevel tothing, for fine milling works in plastic and metal
- PU = 1 piece

	<b>Item-No.</b>
	60E9



## Cutting Bit for Silicone, Cone

- carbide cutting bit with special tothing for silicone, conical shape with round point, for soft plastics and silicone, long tool life
- PU = 1 piece

	<b>Item-No.</b>
	60E11



## Cutting Bit for Silicone

- carbide cutting bit with special tothing for silicone, bulb shape with round point, for soft plastics and silicone, long tool life
- PU = 1 piece

	<b>Item-No.</b>
	60E12



## Cutting Bit for Silicone

- carbide cutting bit with special tothing for silicone, slim cone shape with round point, for soft plastics and silicone, long tool life
- PU = 1 piece

	<b>Item-No.</b>
	60E13



## Spindle Holder

- for clamping of polishing wheels, wire wheels and cutting wheels
- PU = 1 piece

	<b>Item-No.</b>
	60E14



## Carbon Polishing Wheel

- for clamping on spindle holder item 60E14, for cutting of metal
- Sales unit = 10 pieces

	Item-No.
	60E15



## Fleece Polishing Wheel

- for clamping on spindle holder item 60E14
- for fine machining of RTV silicone plasticine and PVC
- PU = 10 pieces

Diameter	Item-No.
28 mm	60E16



## Polishing Wheel

- for clamping on spindle holder item 60E14
- for fine machining of RTV silicone plasticine, PVC and metal
- max. revolution: 10.000 RPM
- PU = 10 pieces

	Item-No.
	60E17



## Wire Wheel

- for clamping on spindle holder item 60E14, for machining of foam and for roughening of silicone
- PU = 6 pieces

Diameter	Item-No.
21 mm	60E18



## Sanding Cylinder

- with rubber coating, for clamping of sanding sleeves item 60E20
- PU = 1 piece

Diameter	Item-No.
9 mm	60E19



## Sanding Sleeves

- for clamping on sanding cylinder item 60E19, for sanding of plastic, plaster and silicone
- PU = 100 pieces

Diameter	Item-No.
9.5 mm	60E20



## Plaster Cutter, Ball

- cone shape with point, rough tothing, for sanding works on plastic, metal and plaster
- PU = 1 piece

Item-No.
60E6



## Plaster Cutter, Cone

- cone shape with round point, rough tothing, for rough sanding works on plastic, metal and plaster
- PU = 1 piece

Item-No.
60E7



## Plaster Cutter, Pointed

- carbide cutting bit, slim conical shape with point, fine cross toothing, for fine sanding works on plastic, metal and plaster
- PU = 1 piece

Item-No.
60E8



## Silicone Polisher

- for finishing silicone surfaces
- max. revolution: 15.000 RPM
- PU = 5 pieces

Item-No.
60E4



## Polishing Brush

- in connection with polishing paste item 60E21, for polishing of acrylics
- PU = 1 piece

Item-No.
60E5



## Polishing Paste

- for use with polishing brush item 60E5, for polishing of acrylic nails
- PU = 1 piece

Content	Item-No.
200 g	60E21



## Sand Paper Holder

- for clamping of sand paper
- PU = 1 piece

	<b>Item-No.</b>
	60E3



## Sand Paper

### Material

- sand paper grit 240

### Application

- for sand paper holder item-no. 60E3
- for fine sanding of surfaces made of plastic, metal and plaster

PU = 10 m

	<b>Item-No.</b>
	60E22

## Silicone Work Station



### Features

- dust suction unit
- 3 drawers
- 4 sockets
- connections for gas, electro and compressed air
- front table for suction mouth
- flexible work lamp
- adjustable working height

### Technical data

- dimensions W x D x H: 1240 x 620 x 820 – 950 mm
- scope of adjustment: 6 adjustments à 25 mm
- power requirements: 230 V / 50 – 60 Hz / 1 Ph / max. 1 kW
- weight: approx. 130 kg
- colour: gentian blue

Item-No.

90E50

The total consumption of the connected electrical devices must not exceed 12 A.

picture similar

## Electric Silicone Roller



- for mixing of large quantities of silicone
- for rolling out big silicone sheets from 0,1 to 20 mm thickness

### Features

- integrated soft-touch-control-panel in the casing
- foot pedal with emergency-off function
- electric adjustable roller distance
- manual hand crank for emergencies
- safety devices

### Technical data

- digital display of roller distance: 0 – approx. 20 mm
- max. roller sheet dimension: 650 x 720 mm
- dimensions of rollers: Ø 200 mm x 740 mm
- machine dimensions W x D x H: 1140 x 650 x 1300 mm
- digital display: 0,1 mm accuracy
- motor speed: 1480 RPM
- output power: 510 Nm
- power requirements: 230 V / 50 Hz / 1 Ph / 1,5 kW
- nominal current: 9 A
- control voltage: 24 V DC
- weight: 340 kg net
- colour: RAL 7035 light grey

Item-No.

90E30



Manufactured according to valid VDE standards and CE guidelines.



## Electric Silicone Roller

desktop unit

- for mixing and rolling of silicone of 0,1 mm to 15 mm material thickness

### Features

- integrated soft-touch control panel in the casing
- emergency-off switch at the casing
- foot pedal
- manually adjustable roller distance by hand lever
- digital indication of roller distance
- safety device in front of rollers
- automatic opening of the rollers by emergency-off bar
- backlight behind rollers

### Technical data

- digital display of roller distance from 0 – approx. 15 mm
- roller dimensions: Ø 100 x 400 mm
- machine dimensions W x D x H: 780 x 530 x 580 mm
- digital display: accuracy 0,1 mm
- roller speed: step 1 – 10)
- power requirements: 230V / 50-60 Hz / 1 Ph / 0,37 kW
- weight: 170 kg
- colour: RAL 7035 lightgrey

Item-No.
90E33



picture similar

## Mechanical Silicone Roller

- for mixing of small quantities of silicone (up to 100 g) and for rolling out silicone sheets

### Features

- 2 manually operated chromed rollers, rotating in opposite direction
- manually adjustable roller gap

### Technical data

- dimensions: W x D x H: 600 x 350 x 310 mm
- diameter of rollers: 100 mm
- length of rollers: 350 mm
- roller gap: 0,1 – 3 mm, manually adjustable in 15 different steps
- max. sheet size: 300 x 300 mm
- colour of metal parts: RAL 7035 light grey
- weight: approx. 64 kg net

Item-No.
90E35



For cleaning use Heptan item-no. 83E4.



## Acrylic-Lacquer



**Material**  
• acrylic lacquer aerosol

**Application**  
• for insulating of plaster cast moulds

**Characteristics**  
• clear  
• shiny  
• quick-drying

PU = 1 tin

Content	Item-No.
500 ml	117P8



If used with HTV-silicones, remove the model while still warm.



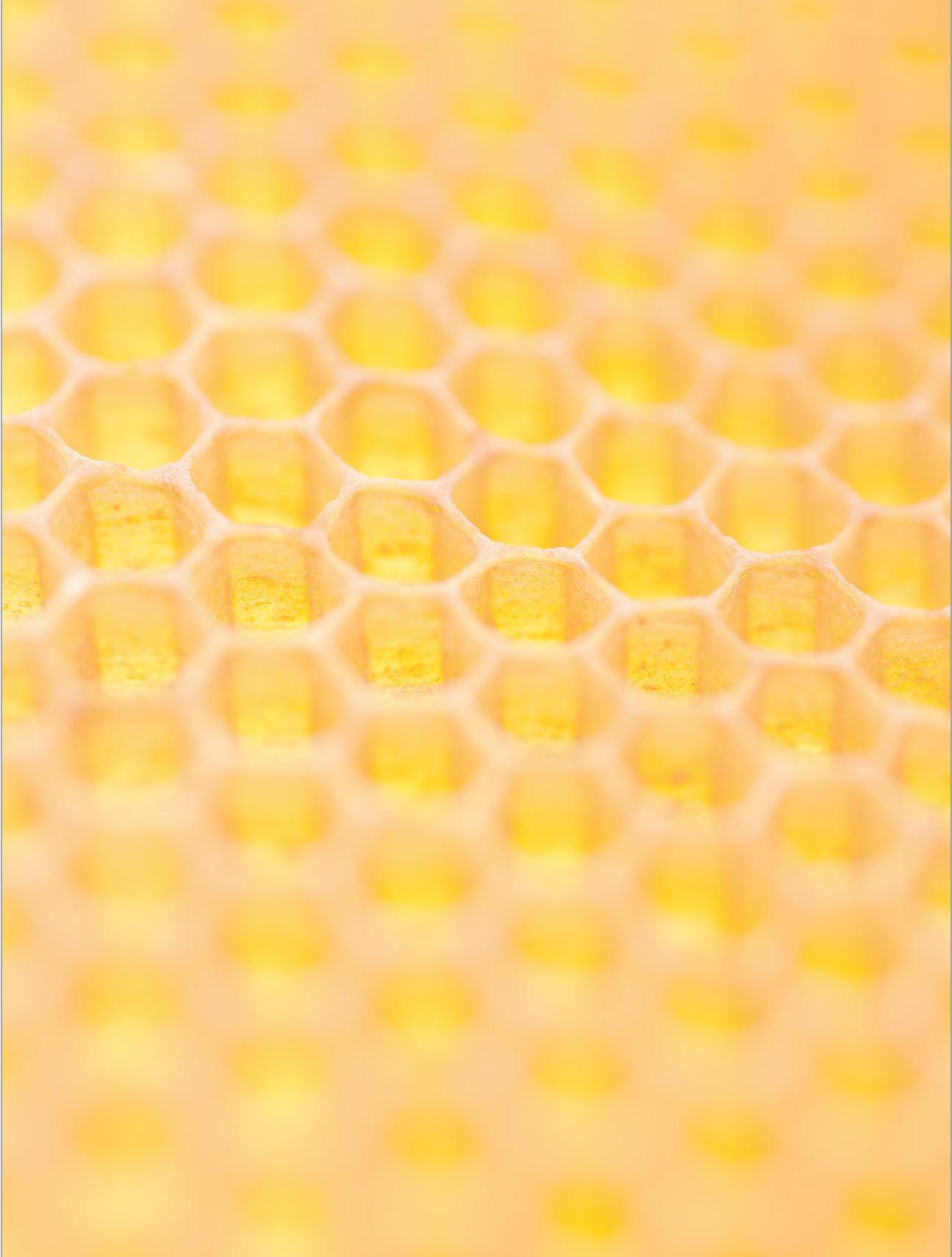
## Autoclave

- high pressure device for polymerisation of acrylics (e. g. fingernails)
- incl. 1 m charging hose
- material: coated aluminum
- capacity: 4,0 liter
- outer dimensions: H 22 cm x Ø 24,5 cm
- inner dimensions: H 13,5 cm x Ø 20,5 cm
- operating temperature: 45 °C
- weight: 3,11 kg

Item-No.
70E2



# Lamination Station & Deep Drawing Technology



# Lamination Station & Deep Drawing Technology

When working at lamination work stations, various hazardous materials are used. Therefore, numerous facts such as room volume, extraction capacity and clean air return, as well as industrial health, safety and emissions must be considered when planning a perfect lamination room concept. These factors are not only subject to the regional or national accident prevention regulations, but also to the local emission directives.





All our lamination stations have been constructed and manufactured in compliance with the strictest possible legal guidelines. It is our goal to find an optimal overall solution for your company environment, i. e. your main activities and your room concept.

In deep drawing technology, plastic materials are thermoplastic-formed and therefore must be heated to a designated temperature as simple as possible. For this process, we supply various circulating-air-heating cabinets, infrared-ovens, heating plates and deep drawing tools.



# Lamination Station & Deep Drawing Technology



## Adhesive / Resin Work Station

for connection to a central exhaustor

### Features

- drawer block on the right side with 3 lockable drawers 150 mm and section for laminating device
- left table leg with 1 each socket, switch, quick-coupling, manometer, air pressure control
- beech wood top, d = 50 mm, glued wood
- integrated, closeable application grid 500 x 340 mm with drip tub
- suction channel with 3 closeable push-grids
- connection for suction tube Ø 150 mm
- swivelling, closeable aluminium suction hood
- 3 m power cord with grounded plug

### Technical data

- dimensions W x D x H: 1600 x 780 x 1000 mm (height without aluminium suction hood)
- working height: 850 mm
- power requirements: 230 V / 50 Hz / 1 Ph
- colour: RAL 7035 light grey

Item-No.
90M6/1523



Electric socket must be connected to the power supply system.



## Adhesive / Resin Work Station

with explosion-protected exhaustor

### Features

- drawer block on the right side with 3 lockable drawers 150 mm and section for laminating device
- left table leg with 1 each socket, switch, quick-coupling, manometer, air pressure control
- beech wood top, d = 50 mm, glued wood
- integrated, closeable application grid 500 x 340 mm with drip tub
- suction channel with 3 closeable push-grids
- connection for suction tube Ø 150 mm
- swivelling, closeable aluminium suction hood
- explosion-protected exhaustor
- 3 m power cord with CEE plug 5 x 16 A

### Technical data

- volume flow: 1100 m<sup>3</sup>/h
- dimensions W x D x H: 1600 x 780 x 1000 mm (height without aluminium suction hood)
- working height: 850 mm
- power requirements: 400 V / 50 Hz / 3 Ph / 0,55 kW
- colour: RAL 7035 light grey

Item-No.
90M7/3540

# Lamination Station & Deep Drawing Technology

## Resin Casting Work Station



scope of supply does not include bench vise  
picture similar

- suction flow of 1100 cbm/h provides strong suction to area of rollers table and floor
- additionally installed suction arm is used for punctual suction
- complete technical device is located inside the riser which also provides storage space for materials, tools and equipment

### Features

- explosion-proof axial fan, filter device
- 2 receivers for reinforcement- or sheeting material
- motor switch ON/OFF
- top part with 3 m power cord, CEE plug 5 x 16 A
- base part with electric supply 230 V (grounded plug) with quick action connector for the compressor unit

### Technical data

- work bench W x D x H: 1600 x 750 x 900 mm
- top cabinet W x D x H: 1600 x 440 x 1400 mm
- exhaust nozzle: Ø 315 mm
- sound level: 62 dBA
- power requirements axial fan: 400 V / 50 Hz / 3 Ph / 0,25 kW
- power requirements work bench: 230 V / 50 Hz / 1 Ph
- colour: RAL 7035 light grey

Item-No.
90M1

 Special coatings are available upon request! Replacement air filter (PU = 5 pieces) available (item-no. 90M1/F).

## Resin Casting Work Station



scope of supply does not include bench vise  
picture similar

- like item 90M1, for work areas low-ceilinged rooms

### Technical data

- work bench W x D x H: 1600 x 750 x 900 mm
- top cabinet W x D x H: 1600 x 440 x 1100 mm
- exhaust nozzle: Ø 315 mm
- sound level: 62 dBA
- power requirements axial fan: 400 V / 50 Hz / 3 Ph / 0,25 kW
- power requirements work bench: 230 V / 50 Hz / 1 Ph
- colour: RAL 7035 light grey

Item-No.
90M4

 Special coatings are available upon request! Replacement air filter (PU = 5 pieces) available (item-no. 90M1/F).

# Lamination Station & Deep Drawing Technology

## Suction Arm



90M25

- suitable for mounting near resin casting stations or adhesive work stations
- energy saving due to low pressure loss

### Features

- adjustable friction joints made of white polypropylene (PP)
- tubes made of thin walled, anodised aluminium
- round suction hood NW 250 mm, powder coated white aluminium
- support spring and threaded rod made of stainless steel
- with tightly closing shut-off valve

### Technical data

- suction arm: Ø 75 mm
- suction hood: Ø 250 mm
- recommended air flow: 150 m<sup>3</sup>/h (40 l/s)

Suction arm for table mount, incl. mounting plate

Range	Weight	Item-No.
max. 1250 mm	3.05 kg	90M24/1250
max. 850 mm	2.55 kg	90M24/850

Suction arm for wall mount, incl. wall support

Range	Weight	Item-No.
max. 1500 mm	5.7 kg	90M25/1500
max. 800 mm	4.7 kg	90M25/800

Suction arm for ceiling mount

Range	Weight	Item-No.
max. 1500 mm	5.7 kg	90M26/1500
max. 900 mm	4.7 kg	90M26/900



90M26

**90M26:** Scope of supply does not include ceiling bracket. Various sizes available upon request.

## Spring Balancer

for vertical fixation of the filling funnel during lamination tasks



load capacity	Item-No.
0.5 – 1.5 kg	140M14

# Lamination Station & Deep Drawing Technology



## Safety Storage Cabinet

- in accordance with EN 14470-1 (type 90), for storing and keeping flammable liquids and solids at the work place (TRGS 510)

### Features

- outer body made of powder-coated steel sheet; inner body coated with chemical-resistant laminate and PP-edges
- high quality fire protection seals in the entire joint area
- easy moving drawer stops in any desired position; integrated thermo release closes drawer automatically in case of fire
- GS-approved
- liquid-proof pull-out tray with approx. 50 kg load capacity, incl. perforated stainless steel sheet insert
- castors with base panel (height = 30 mm) for simple moving of the cabinet, safe positioning of the cabinet by integrated castor locks

### Technical data

- outer dimensions W x D x H: 1102 x 574 x 630 mm (incl. castors)
- inner dimensions W x H x D: 980 x 450 x 500 mm
- exhaust connection: Ø 50 mm
- colour: RAL 7035 light grey
- weight: approx. 165 kg

### Note

The safety base cabinet can also be operated without connection to a technical exhaust system (suction ventilator) under conditions of TRGS 510 Attachment 3 and BGR 104 (collection of examples 2.2.8).

	Item-No.
	92M2

 We recommend the explosion-proof extractor fan 92M4 and air-circulation filter add-on unit 92M8.

# Lamination Station & Deep Drawing Technology

## Safety Storage Cabinet with Folding Door



scope of supply does not include content

- in accordance with EN 14470-1 (type 90), for storing and keeping flammable liquids and solids at the work place (TRGS 510)

### Features

- space saving folding door provides maximum work space in front of the cabinet while door is open
- door mechanism buffered by air spring with locking unit for easy storing and removing
- integrated thermo release closes door automatically in case of fire
- 3 shelf panels (load capacity per shelf panel 75 kg, if load is evenly distributed)
- bottom tray (capacity 33 litres) with perforated sheet insert

### Technical data

- outer dimensions W x D x H: 1196 x 616 x 1968 mm
- inner dimensions W x D x H: 1050 x 524 x 1742 mm
- exhaust connection: Ø 75 mm
- colour: RAL 7035 light grey
- weight: approx. 420 kg

### Note

The safety base cabinet can also be operated without connection to a technical exhaust system (suction ventilator) under conditions of TRGS 510 Attachment 3 and BGR 104 (collection of examples 2.2.8).

Item-No.
92M1

 We recommend the explosion-proof extractor fan 92M4 and air-circulation filter add-on unit 92M7.

## Safety Storage Cabinet with Folding Door



- in accordance with EN 14470-1 (type 90), for storing and keeping flammable liquids and solids at the work place (TRGS 510)

### Features

- space saving folding door provides maximum work space in front of the cabinet while door is open
- door mechanism buffered by air spring with locking unit for easy storing and removing
- integrated thermo release closes door automatically in case of fire
- 3 shelf panels (load capacity per shelf panel 75 kg, if load is evenly distributed)
- bottom tray (capacity 22 litres) with perforated sheet insert

### Technical data

- outer dimensions W x D x H: 596 x 616 x 1968 mm
- inner dimensions W x D x H: 450 x 524 x 1742 mm
- exhaust connection: Ø 75 mm
- colour: RAL 7035 light grey
- weight: approx. 260 kg

### Note

The safety base cabinet can also be operated without connection to a technical exhaust system (suction ventilator) under conditions of TRGS 510 Attachment 3 and BGR 104 (collection of examples 2.2.8).

Item-No.
92M3

 We recommend the explosion-proof extractor fan 92M4 and air-circulation filter add-on unit 92M7.

# Lamination Station & Deep Drawing Technology



scope of supply does not include content

## Safety Cabinet with Wing Doors

- in accordance with EN 14470-1 (type 90), for storing and keeping flammable liquids and solids at the work place (TRGS 510)

### Features

- wing doors will lock in any position for easy storing and removing
- integrated thermo release causes the doors to close automatically in case of fire
- with 4 fully retractable drawers for optimal use of storage capacities when using small and medium material containers
- integrated transport base with cover for easy moving through the facility

### Technical data

- outer dimensions W x D x H: 1193 x 615 x 1953 mm
- inner dimensions: W x D x H: 1050 x 522 x 1647 mm
- shelf load per drawer (4 drawers): 60 kg
- catching capacity per drawer: 29 litres
- dimensions of the drawers: W x D x H: 844 x 488 x 90 mm
- space between the drawers: 390 / 360 / 360 / 375 mm
- exhaust connection: Ø 75 mm
- colour: body RAL 7016 anthracite / doors RAL 7035 light grey
- weight: approx. 424 kg

### Note

The safety base cabinet can also be operated without connection to a technical exhaust system (suction ventilator) under conditions of TRGS 510 Attachment 3 and BGR 104 (collection of examples 2.2.8).

	Item-No.
	92M6

 We recommend the explosion-proof extractor fan 92M4 and air-circulation filter add-on unit 92M7. More accessories available upon request.



## Recirculating Air Filter System for Safety Cabinets 92M1, 92M3 and 92M6

- Recirculating air filter attachment for extracting solvent vapours (hydrocarbons) for direct mounting on safety cabinets
- maximum flexibility in the choice of installation site
- high level of personal protection due to safer capture of hazardous vapours with retention in the filter system
- complete with multi-level filter system, connection cable and power cord
- incl. VDE-approved electronic extraction and filter monitoring
- optical and acoustical alarm incl. potential-free alarm contact
- ATEX-conformity: CE Ex II 3/-G Ex ic nA IIB T4 Gc
- housing made of powder-coated sheet-steel

### Technical data

- dimensions W x D x H: 305 x 555 x 210 mm
- noise level: approx. 39 dB(A)
- Power requirements: 230 V / 50 Hz / 1 Ph / 30 W
- revolutions: 2450 Rpm
- Weight: 16.2 kg (incl. filter)

	Item-No.
	92M7

 Replacement active carbon filter available (item-no. 92M9). The active carbon filter should be exchanged once a year.

# Lamination Station & Deep Drawing Technology



scope of supply does not include housing and cabinet

## Recirculating Air Filter System for Safety Cabinets 92M2

- air filter system for extracting solvent vapours (hydrocarbons) for mounting at safety cabinet
- maximum flexibility in choosing the installation location
- active personal protection through safe capture of harmful vapours with retention in the filter system
- complete with multi-level filter system, connection cable and power cord
- incl. VDE-approved electronic extraction and filter monitoring
- optical and acoustical alarm incl. potential-free alarm contact
- ATEX-conformity: CE Ex II 3/-G Ex ic nA IIB T4 Gc
- housing made of powder-coated sheet-steel

### Technical data

- dimensions W x D x H: 305 x 555 x 210 mm
- noise level: approx. 39 dB(A)
- power requirements: 230 V / 50 Hz / 1 Ph / 10,8 W
- revolutions: 2450 Rpm
- weight: 4,2 kg

	Item-No.
	92M8

 New active carbon filter available with item-no. 92M9. The active carbon filter should be exchanged once a year. The air-circulation filter add-on unit can be optionally mounted on a console (92M8/1) or in a comfortable casing unit (92M8/2).

## Explosion-Proof Extractor Fan



- for safety cabinets 92M1, 92M2, 92M3 and 92M6, with steel base-mount
- self-cooling three-phase AC motor according VDMA standards

### Technical data

- dimensions W x D x H: 310 x 230 x 300 mm
- exhaust connection: Ø 75 mm
- air flow: 60 – 250 m<sup>3</sup>/h
- air pressure: 240 – 175 Pa
- revolutions: 2800 RPM
- power requirements: 400 V / 50 Hz / 3 Ph / 0,09 kW
- sound level: 45 dB(A)
- protection: IP 55
- ATEX: CE Ex II 2G c IIB T4 PTB07 ATEX D105
- weight: 11 kg net

	Item-No.
	92M4

## Protective Switch



- for item 92M4, to protect the fan motor from overheating
- current range: 0,63 – 1 A

	Item-No.
	92M5

# Lamination Station & Deep Drawing Technology



picture without windows

picture similar

## Heating Cabinet

- heating cabinet for heating of plastic sheet materials
- suitable for drying of plaster cast models and for sintering technology

### Features

- 1 door with window
- interior made of stainless steel
- convection fan
- electronic controlled preheating technology APT.line
- microprocessor PID switch with LED display and integrated timer 0 bis 99h
- timer function - delayed OFF
- ramp function
- temperature limit controller class 2 (DIN 12880) with optical temperature display
- electro-mechanical adjustment of the ventilation flap with position indicator display
- 2 chrome-plated insert trays
- 1,8 m power cord with grounded plug

### Technical data

- outer dimensions W x D x H: 560 x 640 x 625 mm
- inner dimensions W x D x H: 400 x 345 x 440 mm
- inside volume: 60 Liter
- window dimensions W x H: 240 x 240 mm
- temperature range: 10 °C above room temperature up to 300 °C
- power requirements: 230 V / 50-60 Hz / 1 Ph / 1,1 kW
- colour: RAL 7035 light grey, powder coated
- weight (empty): 39 kg net

Item-No.
50M51/1523

# Lamination Station & Deep Drawing Technology



## Heating Cabinet

- heating cabinet for heating of plastic sheet materials
- suitable for deep-drawing technology with deep-drawing frames as well as for drying of plaster cast models and for sintering technology

### Features

- 1 door with window
- interior made of stainless steel
- convection fan
- electronic controlled preheating technology APT.line
- microprocessor PID switch and LED display and integrated timer 0 – 99 h
- timer with delayed off function
- ramp function
- USB interface for simple data transfer
- temperature limit controller class 2 (DIN 12880) with optical temperature alarm
- electromechanic adjustment of air flap with position indicator in display
- 2 chrome-plated insert trays
- 1,8 m power cord with grounded plug

### Technical data

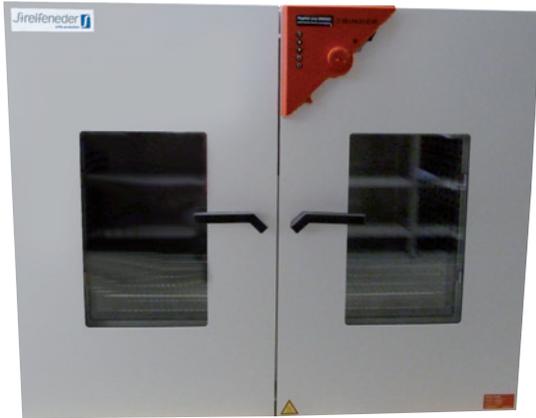
- outer dimensions W x D x H: 815 x 817 x 965 mm
- inner dimensions W x D x H: 650 x 510 x 780 mm
- inside volume W x H: 258 litres
- window dimensions: 370 x 370 mm
- temperature range: 8 °C above room temperature up to 300 °C
- power requirements: 230 V / 50 – 60 Hz / 1 Ph / 2,3 kW
- colour: RAL 7035 light grey, powder coated
- weight (net) empty: 86 kg

	Item-No.
	50M52/1523



Other models resp. versions are available upon request!

# Lamination Station & Deep Drawing Technology



## Heating Cabinet

- heating cabinet for heating of plastic sheet materials
- suitable for deep-drawing technology with deep-drawing frames as well as for drying of plaster cast models and for sintering technology

### Features

- 2 doors with windows
- interior made of stainless steel
- convection fan with adjustable ventilator speed
- electronic controlled preheating technology APT.line
- microprocessor PID switch and LED display
- MS-controller with various time functions
- Time functions of the controller: 0 – 99,59 h delayed OFF, 0 – 99 h delayed ON, 0 – 99,59 h temperature dependent delayed OFF
- digital temperature control, within 1 degree of accuracy
- ramp function
- temperature limit controller class 2 (DIN 12880) with optical temperature alarm
- adjustable air ventilation by air flap in the front and air duct Ø 50 mm in the back
- interface RS 422 for communication software APT Com Data Control System
- 2 chrome-plated insert trays
- 1,8 m power cord with CEE plug 5 x 16 A

### Technical Data:

- outer dimensions W x D x H: 1234 x 870 x 1022 mm
- inner dimensions W x D x H: 1000 x 500 x 800 mm
- inside volume: 400 litres
- window dimensions W x H: 290 x 470 mm
- temperature range: 5 °C above room temperature up to 300 °C
- power requirements: 400 V / 50 – 60 Hz / 3 Ph / 3,4 kW
- colour: RAL 7035 light grey, powder coated
- weight (empty): 145 kg net

	Item-No.
	50M3



Other models resp. versions are available upon request!



## Base Frame

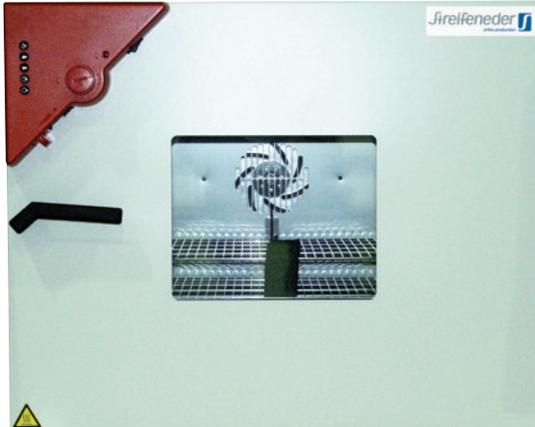
- for item 50M3 and 50M52

### Technical data

- dimensions W x D x H: 1500 x 750 x 850 mm
- load capacity 300 kg
- colour: RAL 7035 light grey

	Item-No.
	50M52/U

# Lamination Station & Deep Drawing Technology



## Heating Cabinet

- heating cabinet for heating of plastic sheet materials
- suitable for drying of plaster cast models and for sintering technology

### Features

- 1 door with window
- interior made of stainless steel
- convection fan
- electronic controlled preheating technology APT.line
- microprocessor PID switch and LED display
- DS-controller with integrated timer 0 – 99 h
- digital temperature control, within 1 degree of accuracy
- ramp function
- temperature limit controller class 2 (DIN 12880) with optical temperature alarm
- adjustable air ventilation by air flap in the front and air duct Ø 50 mm in the back
- 2 chrome-plated insert trays
- 1,8 m power cord with grounded plug

### Technical data

- outer dimensions W x D x H: 835 x 760 x 700 mm
- inner dimensions W x D x H: 600 x 400 x 480 mm
- inside volume: 115 litres
- window dimensions W x H: 240 x 350 mm
- temperature range: 5 °C above room temperature up to 300 °C
- power requirements: 230 V / 50 – 60 Hz / 1 Ph / 1,6 kW
- colour: RAL 7035 light grey, powder coated
- weight (net): empty 64 kg

	Item-No.
	50M5



Other models resp. versions are available upon request!

# Lamination Station & Deep Drawing Technology



## Heating Cabinet

- UL approval
- heating cabinet for heating of plastic sheet materials
- suitable for deep-drawing technology with deep-drawing frames as well as for drying of plaster cast models and for sintering technology

### Features

- 2 doors with windows
- interior made of stainless steel
- convection fan with adjustable ventilator speed
- electronic controlled preheating technology APT.line
- microprocessor PID switch and LED display
- timer functions: delayed OFF / delayed ON / temperature dependent delayed OFF
- USB interface for simple data transfer
- temperature limit controller class 2 (DIN 12880) with optical temperature alarm
- ethernet port
- electromechanical adjustment of air flap with position indicator in display
- 2 chrome-plated insert trays
- 1.80 m connection cable

### Technical Data:

- outside dimensions L x W x H: 1165 x 870 x 1590 mm
- inner dimensions W x D x H: 1000 x 1300 x 570 mm
- inside volume: 741 litres
- temperature range: 12 °C above room temperature up to 300 °C
- Power requirements: 208 / 3 Ph / 60 – 4.5 Hz
- plug L21-20P
- colour: RAL 7035 light grey, powder coated
- weight (empty): 166 kg net

### Special voltages

- Special voltages: 208 V / 3 Ph / 60 Hz / 4.5 kW (50M54/3620)

	Item-No.
	50M54/3540
	50M54/3620



Other models resp. versions are available upon request!

# Lamination Station & Deep Drawing Technology



## Convection Oven for Processing of Prepreg Materials

- mobile, with 4 stop rollers, including vacuum connections (4-way with couplings and water separator), including intermediate rack to operate the internal space in 3 varieties

### Features

- interior stainless steel
- 2-way wing door with viewing window
- heating element 3 x 3300 W, 3 x ventilator motor with reverseable direction of rotation
- model / material sensor for oven control and heating process via material temperature
- microprocessor controlled temperature operated by touch screen, PID-control function
- continuously adjustable temperature from 30 °C to 250 °C / 86 °F - 480 °F
- timer and soft start function individually programmable, graphic flow display
- power cord with CEE-plug, 5-pole, 16 A

### Technical data

- interior lighting: 2 x 25 watts
- outer dimensions W x D x H: 1230 x 920 x 1570 mm
- inner dimensions W x D x H: 1000 x 620 x 1200 mm
- power requirements: 400 V / 50 Hz / 3 Ph / 10,2 kW
- colour: RAL 7035 light grey / RAL 7011 anthracite
- weight: 283 kg

### Special Voltages

- 230 V / 50 Hz / 3 Ph+PE / 10,2 kW (50M6/3523)

Item-No.
50M6/3540



## Prepreg Oven

- circulating air cabinet for processing Prepreg materials, mobile with 4 stop rollers, incl. vacuum connections (4-fold with couplings and water separator), incl. intermediate shelf for dividing the interior into three zones

### Features

- interior: stainless steel
- colour: RAL 7035 light grey / RAL 7016 anthracite grey
- 2-fold folding door with window
- heating 3 x 3300 w, 3 x fan motors with reversal of rotation
- model/material sensor for controlling the furnace and the heating process via the material temperature
- temperature controller, controlled by a microprocessor, operation via touch screen, PID controller function
- temperature continuously adjustable from 30 °C to 250 °C, temperature unit switchable °C / °F
- timer and ramp function individually programmable, graphic progress display
- exhaust air connection DN=100 mm in the right side of the housing
- connection cable with CEE plug, 5-pin, 16 A

Item-No.
50M7/3540

# Lamination Station & Deep Drawing Technology



## Convection Oven for Prepreg materials

- Convection Oven for processing Prepreg materials, mobile with 4 stop rollers, incl. vacuum connections (4-fold with couplings and water separator), incl. intermediate shelf for dividing the interior into three zones.

### Features

- interior stainless steel
- colour: RAL 7035 / RAL 7016 anthracite grey
- 2-fold hinged door with viewing window
- heating element 3 x 3300W, 3 x ventilator motor with reversible direction of rotation
- model / material sensor for controlling the oven and the heating process via the material temperature
- temperature controller microprocessor-controlled, operation via touch screen, PID controller function
- temperature continuously adjustable from 30 °C to 250 °C, temperature unit switchable °C / °F
- timer and ramp function individually programmable, graphic progress display
- exhaust air spigot DN=100 mm on the right-hand side of the enclosure
- without connection cable

### Technical data

- interior lighting: 2 x 25 watts
- outer dimensions W x D x H: 1350 x 920 x 1950 mm
- inner dimensions: W x D x H: 1000 x 620 x 1790 mm
- Power requirements: 230 V / 50 – 60 Hz / 1 Ph / 10.2 kW
- weight: 395 kg

Item-No.
50M7/1520

# Lamination Station & Deep Drawing Technology

## Infrared-Oven



- for quick heating of plastic materials
- also suitable for deep-drawing technology with deep-drawing frame

### Features

- stainless steel interior
- panel heating with 8 infrared quartz-tubes
- temperature measurement of the material surface by means of opto-electronic IR-measuring unit
- touch screen operation
- multiple-language screen (GER, EN, FR, IT, NL, ES)
- °C / °F shift
- timer function
- Heating ramp function (e.g. for Pre-preg)
- graphic display of heating processes progression
- Memory for user-defined heating processes
- double swing door with two double pane viewing windows
- 1 PTFE coated tray (exchangeable)
- Access to online user manuals via QR code scan
- power cord with CEE-plug, 5-pole, 16 A



### Technical Data:

- interior lighting: 2 x 25 watts
- inner dimensions W x D x H: 810 x 580 x 540 mm
- outer dimensions W x D x H: 900 x 700 x 920 mm
- number of quartz-infrared tubes: 8 pcs. 390 mm / 460 watts (tubes are exchangeable)
- continuously adjustable temperature range by means of PID-controller: 30 °C – 250 °C (86 °F – 482 °F)
- power requirements: 380 – 400 V / 50 – 60 Hz / 3 Ph / 3,7 kW
- available in following colours: RAL 5017 (traffic blue) / RAL 7035 (light grey) or RAL 7035 (light grey) / RAL 7037 (dust grey)
- weight net / gross: 133 kg / 185 kg

### Special voltages

- 200 – 230 V / 50 – 60 Hz / 3 Ph (51M10/3523) (without plug)
- 200 – 230 V / 50 – 60 Hz / 1 Ph (51M10/1523) (without plug), note: connection must be protected by a 20 A fuse

	Item-No.
	51M10/3540

**J** The average lifetime of the infrared-tubes is 5 years. As natural wear proceeds, the infrared-tubes become darker and the heating performance becomes weaker. Optionally available with stainless steel- feed through for vacuum hose in the front area of the left side, item-no. 51M16.

# Lamination Station & Deep Drawing Technology

## Infrared-Oven



- incl. moveable roll-about tray
- for quick heating of large plastic materials and for production of Prepreg orthoses
- also suitable for deep-drawing technology with deep-drawing frame

### Features

- panel heating with 12 infrared quartz-tubes
- temperature measurement of the material surface by means of opto-electronic IR-measuring unit
- touch screen operation
- multiple-language screen (GER, EN, FR, IT, NL, ES)
- °C / °F shift
- timer function
- Heating ramp function (e.g. for Pre-preg)
- graphic display of heating processes progression
- Memory for user-defined heating processes
- double pane viewing window, gas spring assisted, vertical opening mechanism
- exchangeable PTFE coated roll-about tray with 4 locking casters, height continuously adjustable by gas spring (min. 820 mm, max. 1050 mm)
- Roll-about tray with fully integrated holder for the deep-drawing frame
- Access to online user manuals via QR code scan
- power cord with CEE-plug, 5-pole, 16 A



### Technical Data:

- interior lighting: 2 x 25 watts
- inner dimensions W x D x H: 1000 x 800 x 500 mm
- outer dimensions W x D x H: 1320 x 970 x 1420 mm
- total height with opened door: 1850 mm
- number of quartz-infrared tubes: 10 pcs. 490 mm / 600 watts, 2 pcs. 490 mm / 825 watts (tubes are exchangeable)
- continuously adjustable temperature range by means of PID-controller: 30 °C – 250 °C (86 °F – 482 °F)
- power requirements: 380 – 400 V / 50 – 60 Hz / 3 Ph / 7,7 kW
- available in following colours: RAL 5017 (traffic blue) / RAL 7035 (light grey) or RAL 7035 (light grey) / RAL 7037 (dust grey)
- weight net / gross: 230 / 295 kg

### Special voltages

- 200 – 230 V / 50 – 60 Hz / 3 Ph (51M12/3523) (without plug)
- 200 – 230 V / 50 – 60 Hz / 1 Ph (51M12/1523) (without plug), note: connection must be protected by 50 A fuse

Item-No.
51M12/3540

**J** The average lifetime of the infrared-tubes is 5 years. As natural wear proceeds, the infrared-tubes become darker and the heating performance becomes weaker. Optionally available with stainless steel- feed through for vacuum hose in the front area of the left side, item-no. 51M16.

# Lamination Station & Deep Drawing Technology

## Infrared-Oven



- incl. moveable roll-about tray
- for quick heating of large plastic materials and for production of Prepreg orthoses
- also suitable for deep-drawing technology with deep-drawing frame

### Features

- panel heating with 24 infrared quartz-tubes, dual zone switching (6/24)
- temperature measurement of the material surface by means of opto-electronic IR-measuring unit
- touch screen operation
- multiple-language screen (GER, EN, FR, IT, NL, ES)
- °C / °F shift
- timer function
- Heating ramp function (e.g. for Pre-preg)
- graphic display of heating processes progression
- Memory for user-defined heating processes
- double pane viewing window, gas spring assisted, vertical opening mechanism
- exchangeable PTFE coated roll-about tray with 4 locking casters, height continuously adjustable by gas spring (min. 820 mm, max. 1050 mm)
- Roll-about tray with fully integrated holder for the deep-drawing frame
- Access to online user manuals via QR code scan
- power cord with CEE-plug, 5-pole, 32 A

### Technical Data:

- interior lighting: 4 x 25 watts
- inner dimensions W x D x H: 1300 x 1590 x 500 mm
- outer dimensions W x D x H: 1595 x 1770 x 1400 mm
- total height with opened door: 1850 mm
- number of quartz-infrared tubes: 8 pcs. 490 mm / 460 watts;  
16 pcs. 390 mm / 460 watts (tubes are exchangeable)
- continuously adjustable temperature range by means of PID-controller:  
30 °C – 250 °C (86 °F – 482 °F)
- power requirements: 380 – 400 V / 50 – 60 Hz / 3 Ph / 11,1 kW
- available in following colours: RAL 5017 (traffic blue) / RAL 7035 (light grey)  
or RAL 7035 (light grey) / RAL 7037 (dust grey)
- weight net / gross: 360 / 466 kg

### Special voltages

- 200 – 230 V / 50 – 60 Hz / 3 Ph (51M13/3523) (without plug)
- 200 – 230 V / 50 – 60 Hz / 1 Ph (51M13/1523) (without plug), note:  
connection must be protected by 64 A fuse



Item-No.
51M13/3540

**S** The average lifetime of the infrared-tubes is 5 years. As natural wear proceeds, the infrared-tubes become darker and the heating performance becomes weaker. Optionally available with stainless steel- feed through for vacuum hose in the front area of the left side, item-no. 51M16.

# Lamination Station & Deep Drawing Technology



## Infrared-Oven

- dual infrared oven incl. moveable roll-about tray, with two independent thermostat control units
- suitable for heating the entire heating surface or 2 separate smaller heating surfaces
- for quick heating of large plastic materials and for production of Prepreg orthoses
- also suitable for deep-drawing technology with deep-drawing frame

### Features

- panel heating with 28 infrared quartz-tubes, dual zone switching with partition wall (14/28 infrared-tubes)
  - temperature measurement of the material surface by means of two opto-electronic IR-measuring units
  - touch screen operation
  - multiple-language screen (GER, EN, FR, IT, NL, ES)
  - °C / °F shift
  - timer function
  - Heating ramp function (e.g. for Pre-preg)
  - graphic display of heating processes progression
  - Memory for user-defined heating processes
  - double pane viewing window, gas spring assisted, vertical opening mechanism
  - exchangeable PTFE coated roll-about tray with 4 locking casters, height continuously adjustable by gas spring (min. 710 mm, max. 940 mm)
  - Roll-about tray with fully integrated holder for the deep-drawing frame
  - Access to online user manuals via QR code scan
- power cord with CEE-plug, 5-pole, 32 A



### Technical Data:

- interior lighting: 4 x 25 watts
  - inner dimensions W x D x H: 2200 x 1090 x 500 mm
  - outer dimensions W x D x H: 2500 x 1240 x 1300 mm
  - total height with opened door: 1750 mm
  - number of quartz-infrared tubes: 28 pcs. 490 mm / 460 watts (tubes are exchangeable)
  - continuously adjustable temperature range by means of two PID-controllers: 30 °C – 250 °C (86 °F – 482 °F)
  - power requirements: 380 – 400 V / 50 – 60 Hz / 3 Ph / 12,9 kW
  - available in following colours: RAL 5017 (traffic blue) / RAL 7035 (light grey) or RAL 7035 (light grey) / RAL 7037 (dust grey)
- weight: net / gross: 448 kg / 631 kg

### Special voltages

- 200 – 230 V / 50 – 60 Hz / 3 Ph (51M14/3523) (without plug)
- 200 – 230 V / 50 – 60 Hz / 1 Ph (51M14/1523) (without plug), note: connection must be protected by 64 A fuse

Item-No.
51M14/3540

**J** The average lifetime of the infrared-tubes is 5 years. As natural wear proceeds, the infrared-tubes become darker and the heating performance becomes weaker. Optionally available with stainless steel- feed through for vacuum hose in the front area of the left side, item-no. 51M16.

# Lamination Station & Deep Drawing Technology

## Infrared-Oven



- incl. moveable roll-about tray
- for quick heating of large plastic materials and for production of Prepreg orthoses
- also suitable for deep-drawing technology with deep-drawing frame

### Features

- Panel heating with 18 infrared quartz-tubes, dual zone switching (6/18)
- temperature measurement of the material surface by means of opto-electronic IR-measuring unit
- touch screen operation
- multiple-language screen (GER, EN, FR, IT, NL, ES)
- °C / °F shift
- timer function
- Heating ramp function (e.g. for Pre-preg)
- graphic display of heating processes progression
- Memory for user-defined heating processes
- double pane viewing window, gas spring assisted, vertical opening mechanism
- exchangeable PTFE coated roll-about tray with 4 locking casters, height continuously adjustable by gas spring (min. 820 mm, max. 1050 mm)
- Roll-about tray with fully integrated holder for the deep-drawing frame
- Access to online user manuals via QR code scan
- Stainless steel hose bushing (inside Ø = 15 mm) incl. stainless steel cover cap
- power cord with CEE-plug, 5-pole, 16 A



### Technical Data:

- interior lighting: 2 x 25 watts
- Inner dimensions W x D x H: 1300 x 1090 x 500 mm
- Outer dimensions W x D x H: 1595 x 1270 x 1400 mm
- total height with opened door: 1850 mm
- Number of quartz-infrared tubes: 6 pcs. 490 mm / 460 watts;  
12 pcs. 390 mm / 460 watts (tubes are exchangeable)
- continuously adjustable temperature range by means of PID-controller:  
30 °C – 250 °C (86 °F – 482 °F)
- Power requirements: 380 – 400 V / 50 – 60 Hz / 3 Ph / 8.5 kW
- available in following colours: RAL 5017 (traffic blue) / RAL 7035 (light grey)  
or RAL 7035 (light grey) / RAL 7037 (dust grey)
- Weight net: 290 kg

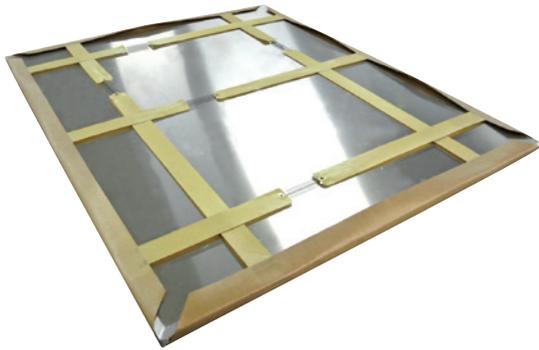
### Special voltages

- 200 – 230 V / 50 – 60 Hz / 3 Ph (51M15/3523) (without plug)
- 200 – 230 V / 50 – 60 Hz / 1 Ph (51M15/1523) (without plug), note:  
connection must be protected by 50 A fuse

Item-No.
51M15/3540

 The average lifetime of the infrared-tubes is 5 years. As natural wear proceeds, the infrared-tubes become darker and the heating performance becomes weaker.

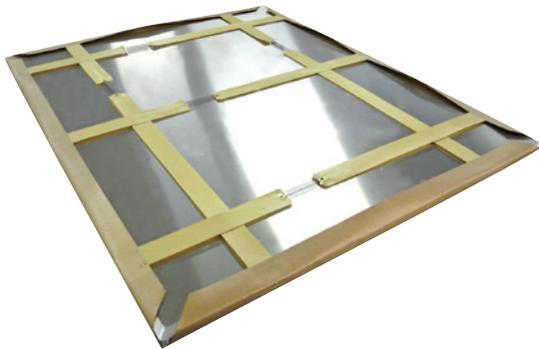
# Lamination Station & Deep Drawing Technology



## PTFE-Foil, porous

- suitable for infrared ovens 51M12, 51M13, 51M14, 51M15, 51M17
- thickness: 0,2 mm
- complete with fastening straps and springs

for Item-No.	Item-No.
51M12	50M12/E1
51M13	50M13/E1
51M14	50M14/E1
51M15, 51M17	50M15/E1



## PTFE-Foil, airtight

- suitable for items 51M12, 51M13, 51M14, 51M15, 51 M17
- thickness: 0,15 mm
- complete with fastening straps and springs

for Item-No.	Item-No.
51M12	51M12/E1
51M13	51M13/E1
51M14	51M14/E1
51M15, 51M17	51M15/E1



## Infrared Emitter

- with spring mounted reflector and connection strand

Length	Capacity	for Item-No.	Item-No.
390 mm	460 Watt	50M10, 50M11, 50M13, 50M15, 51M10, 51M13, 51M15	50M17/3946
490 mm	460 Watt	50M13, 50M14, 50M15, 51M13, 51M14, 51M15	50M17/4946
490 mm	600 Watt	50M12, 51M12	50M17/4960
490 mm	825 Watt	50M12, 51M12	50M17/4982

# Lamination Station & Deep Drawing Technology



51M9/4

## Clamping Device for Prepreg

### 51M9/1: Single-Clamping Device for Prepreg

- horizontal holding device for 1 Prepreg model
- suitable for use in infrared-oven
- dimensions L x W x H: 360 x 760 x 290 mm

### 51M9/4: Quadruple-Clamping Device for Prepreg

- horizontal holding device for up to 4 Prepreg models
- suitable for use in infrared-oven
- dimensions L x W x H: 910 x 760 x 290 mm

Features	Item-No.
1-fold Clamping Device	51M9/1
4-fold Clamping Device	51M9/4



50M18/6

## Clamping Device for Prepreg Materials

without deep drawing equipment

### 50M18/4

- 4-way clamping device for Prepreg materials without deep drawing equipment, suitable for all infrared ovens (please indicate size of roll-about tray in your order)

#### Features

- 1 x Prepreg basic frame including reflector sheet
- 4 x bracket with adjustable angle for suction tube support
- suction tube support 3 x 1/2", 1 x 3/4"
- suction tubes with square end 3 x 1/2", 1 x 3/4"
- 1 vertical clamping device ea. for 1/2" and 3/4" for bench vise
- 1 x 4-way distributor with locking valves
- 1 x hose set for distributor (length 2 x 90 cm, 2 x 120 cm)
- 1 x connection set for distributor, length 180 cm

### 50M18/6

- 6-way clamping device for Prepreg materials without deep drawing equipment, suitable for all infrared ovens (please indicate size of roll-about tray in your order)

#### Features

- 1 x Prepreg basic frame including reflector sheet
- 6 x bracket with adjustable angle for suction tube support
- suction tube support 5 x 1/2", 1 x 3/4"
- suction tubes with square end 5 x 1/2", 1 x 3/4"
- 1 vertical clamping device ea. for 1/2" and 3/4" for bench vise
- 1 x 6-way distributor with locking valves
- 1 x hose set for distributor (length 2 x 60 cm, 2 x 90 cm, 2 x 120 cm)
- 1 x connection set for distributor, length 180 cm

Features	Item-No.
4-fold Clamping Device	50M18/4
6-fold Clamping Device	50M18/6

Not suitable for 50M11 and 51M10.

# Lamination Station & Deep Drawing Technology



## PTFE Film

### Material

- fibreglass webbing coated with PTFE

### Application

- for flat bed oven

PU = 10 cm

Width x Thickness	Features	Item-No.
1100 x 0.13 mm	non-air-permeable	119P11
1150 x 0.2 mm	air-permeable	119P23



For sandwich-ovens, use the air-permeable PTFE-Film item-no. 119P23.



## PTFE Film

### Material

- fibreglass webbing coated with PTFE
- colour: beige

### Application

- ideally suitable for infrared oven

PU = 10 cm

Width x Thickness	Features	Item-No.
1525 x 0.35 mm	non-air-permeable	119P18



picture similar

## Electronic Scale with Digital Display

- battery operated
- taring of the entire weighing range
- auto-off function in battery mode (off after 2 minutes)
- weighing platform and housing made of stainless steel
- digit increment: 1 gram

### Power source

- 9 V block battery (not included)
- mains power supply unit available upon request

### Technical data

- weighing range: 0 – 5000 g
- outer dimensions W x D x H: 150 x 170 x 32 mm
- weighing platform W x D: 120 x 150 mm
- weight: 0,69 kg

Item-No.
168P10

# Lamination Station & Deep Drawing Technology



## Mixing Cup

- made of polypropylene with measuring scale
- PU = 20 pcs and 100 pcs

Litres	Item-No.
0.200	164P6/180
0.400	164P6/500



## Funnel made of HD-PE

- acid and oil resistant funnel made of HD-PE for pouring laminating resins
- colour: natural
- pour-in-diameter on top: 50 mm
- pour-out-diameter on the bottom: 21 mm

Item-No.
164P32



## Clamping Device

- for two-way suction
- to be clamped into the bench vise
- suction is effected by means of two suction channels being separated from one another
- top and bottom foil may be tied and suctioned separately

### Features

- clamping device
- suction tube with connecting nipple for hose, inner Ø 6 mm
- suction plate with connecting nipple for hose, inner Ø 6 mm

Item-No.
168P70

picture similar

 The clamping device without fixing block can be ordered by item-no. 168P72.

# Lamination Station & Deep Drawing Technology



## Clamping Device

- for two-way suction
- without holding block to be clamped into the bench vice
- for two-way suction
- Suction is effected by means of two suction channels being separated from one another
- top and bottom foil may be tied and suctioned separately

### Features

- suction tube with connecting nipple for hose, inner Ø 6 mm
- suction plate with connecting nipple for hose, inner Ø 6 mm

	<b>Bestell-Nr.</b>
	168P72

 You can order the clamping device with holding block under Item No. 168P70.



## Holder

- for clamping device 168P70

	<b>Item-No.</b>
	168P71



## One Way Suction Pipe

- zinc-plated, straight with sealing-sleeve and hose

Diameter	Length	Item-No.
34 mm	365 mm	168P59



## Two Way Suction Pipe

- zinc-plated, straight with sealing-sleeve
- Ø 25 und 33 mm with hose-piece for tying the PVA-foil
- Ø 48 mm without hose

Diameter	Length	Item-No.
25 mm	400 mm	168P60
33 mm	400 mm	168P61
48 mm	540 mm	168P62

picture similar

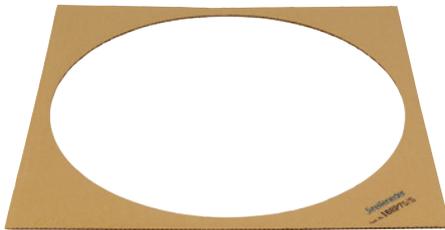
# Lamination Station & Deep Drawing Technology



## Two Way Suction Pipe

- zinc-plated, angled with sealing-sleeve and hose

Angulation / version	Item-No.
90° / bent	168P63
90° / angled	168P65
90° / suitable for bathing/swimming prostheses	168P66
135° / angled	168P64

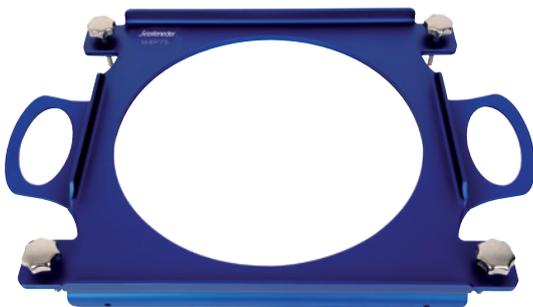


## Non-stick Paperboard Frame

- for deep-drawing / clamping frame 168P75
- non-stick function between heated plastics and frame
- PU = 20 pieces

Dimensions	Item-No.
40 x 40 cm	168P75/S

 Facilitated fabrication of an even socket wall thickness through improved deep drawing!

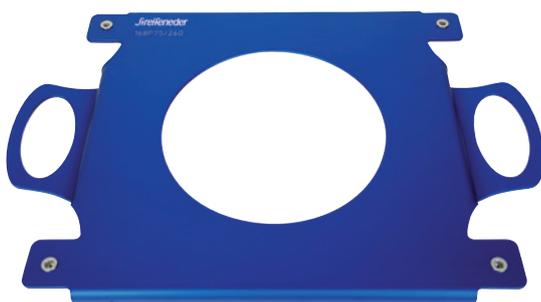


## Deep-Drawing / Clamping Frame

- aluminum, Ø 360 mm
- for material thickness up to 20 mm

Item-No.
168P75

 This item includes one deep-drawing frame (bottom part) and deep-drawing frame (upper part) incl. star screws.



## Deep-Drawing Frame, Bottom Part

- deep-drawing bottom part, Ø 260 mm
- integral part for deep-drawing / clamping frame 168P75
- frame plate made of aluminium

Item-No.
168P75/260

 Suitable for deep drawing of small models!

# Lamination Station & Deep Drawing Technology



## Rack, height adjustable

- for deep-drawing / clamping frame 168P75
- galvanised steel
- adjustable in 3 different heights
- total height: 3rd level 387 mm, 2nd level 307 mm, 1st level 227 mm
- suitable for heating cabinets and infrared ovens
- material: steel

W x D x H	Item-No.
430 x 300 x 227-387 mm	168P76/H

 The rack is height adjustable and suitable for inner dimensions from min. 230 mm up to max. 387 mm height.



## Suction Pipe with Disc

- with 6 mm hose connection

Inner Ø clamping frame	Ø Vacuum Sealing Disc	Item-No.
260 mm	230 mm	168P77/260
360 mm	330 mm	168P77/360



## Vacuum Sealing Disc

- for item 168P77/260 and 168P77/360

Description	Item-No.
Ø 230 mm for clamping frame Ø 260 mm	168P77/D26
Ø 330 mm for clamping frame Ø 360 mm	168P77/D36



## Cantilever Arm with Angle Clamp

- for items 168P77/260 and 168P77/360

Item-No.
168P79

# Lamination Station & Deep Drawing Technology



## Two Way Vacuum Pipe

- model support with three threaded pins, M8x20, galvanised
- pipe Ø 35 mm
- with Ø 8 mm hose connection

Item-No.

168P78



## Deep-Drawing Tool Set

consisting of

- 168P75: deep-drawing frame, inner Ø 360 mm
- 168P75/S: non-stick jig (PU = 20 pieces)
- 168P76/H: base for deep-drawing frame
- 168P77: suction pipe with disc, Ø 360 mm
- 168P78: two way suction pipe
- 168P79: holder with angled clamp piece

Item-No.

168P7

picture similar



## Vacuum Deep-Drawing Device

- expandable for line production, with exchangeable rubber mat and 2 ball valves

Technical data

- dimensions W x D x H: 350 x 450 x 60 mm
- weight: approx. 12,5 kg net

Item-No.

168P57



## Rubber Mat

- for item 168P57, for simple mount, perforated

Technical data

- dimensions W x D x H: 630 x 540 x 2 mm

Item-No.

168P58

picture similar

# Lamination Station & Deep Drawing Technology



## Water/Steam Basin

- for warming of thermoplastics (low temperature PE = Streifytherm, Turbocast)
- good insulation of the unit guarantees quick warming of the water

### Features

- with lid
- low energy consumption
- exact temperature adjustment
- nominal capacity: 45 litres
- removeable grid made of stainless steel
- water drain with ball valve
- material: stainless steel

### Technical data

- outer dimensions W x D x H: 770 x 430 x 370 mm
- inner dimensions W x D x H: 685 x 360 x 185 mm
- temperature range/digital display: 30 – 95 °C
- accuracy: +/-1° C
- power requirements: 230 V / 50 – 60 Hz / 1 Ph / 1,5 kW
- weight: 19,5 kg net

Item-No.

35M1/1



## Hot Water Quench

- for warming of thermoplastics (low temperature PE = Streifytherm, Turbocast)
- good insulation of the unit guarantees quick warming of the water

### Features

- with lid
- low energy consumption
- exact temperature adjustment
- capacity: 20 litres
- removeable grid made of stainless steel
- water drain with ball valve
- material: stainless steel

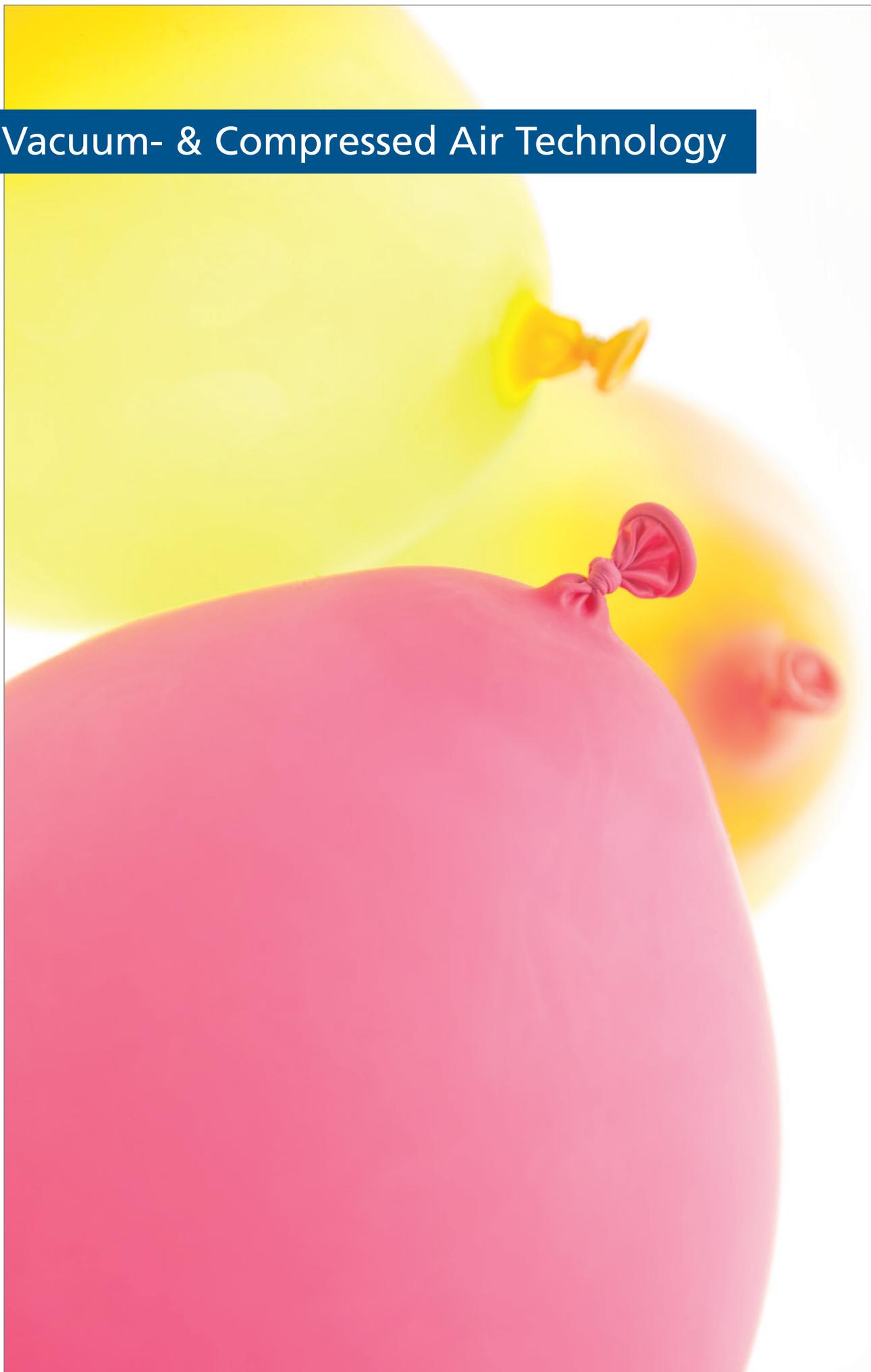
### Technical data

- outer dimensions W x D x H: 570 x 420 x 280 mm
- inner dimensions W x D x H: 485 x 350 x 130 mm
- temperature range/digital display: 30 – 95 °C
- accuracy: +/-1° C
- power requirements: 230 V / 50 – 60 Hz / 1 Ph / 0,9 kW
- weight: 17 kg net

Item-No.

35M2/2

# Vacuum- & Compressed Air Technology

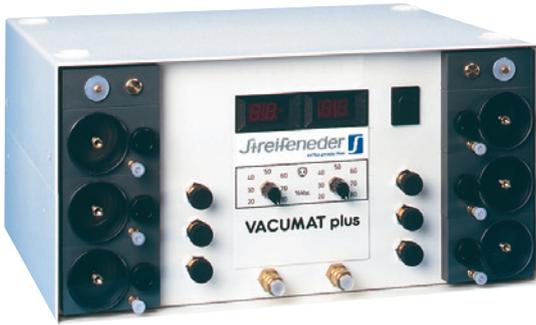


# Vacuum- & Compressed Air Technology

In orthopaedic workshops, vacuum- and compressed air technology is used for numerous techniques and many processing steps. It is an important part for manufacturing thin-walled casting resin laminates as well as for thermoplastic forming of plastic materials.

As in the meantime many machines and hand tools are driven by compressed air, we can offer all components necessary, starting with a simple compressed air connection, or the compressed air-plaster saw up to the complete compressor system. In this chapter, you will find everything needed for vacuum- and compressed air technology.





## Vacumat Plus Type 262

- vacuum unit for the manufacturing of thin-walled cast resin laminates and thermoplastic deep-drawing works

### Features

- 2 separate, electronically infinitely adjustable vacuum units with digital display
- 6 connections for resin lamination
- 2 connections for deep drawing
- 2 connections for external units
- 1,5 m power cord with grounded plug
- hose connection, inside Ø 6 mm

### Technical Data:

- dimensions W x D x H: 425 x 385 x 220 mm
- suction capacity: 25 l/min, approx. 80 % vacuum
- Power requirements: 220 – 230 V / 50 Hz / 1 Ph / 0.14 kW
- Special voltages upon request.

Weight	Item-No.
18.4 kg	168P50

 Replacement filter 168P50/E1 also separately available.



## Vacumat Type 340

- vacuum unit for the manufacturing of thin-walled cast resin laminates and thermoplastic deep-drawing works

### Features

- 2 separate, electronically infinitely adjustable vacuum units with pressure gauge
- 4 connections for resin lamination
- 2 connections for deep drawing
- 2 connections for external units
- hose connection, inside Ø 6 mm
- 1,5 m power cord with grounded plug

### Technical Data:

- dimensions W x D x H: 425 x 385 x 220 mm
- suction capacity: 25 l/min, approx. 80 % vacuum
- Power requirements: 220 – 230 V / 50 Hz / 1 Ph / 0.14 kW
- Special voltages upon request.
- Weight: 18 kg

Item-No.
168P51

 Replacement filter 168P51/F and y-piece with filter 168P52/E3 also separately available.



## Water Separator

- for item 168P50 and 168P51
- bottle with rubber plug and two hose connectors Ø 8 mm

Item-No.
168P52/WA



## Vacuum Tank

- for item 168P50 and 168P51

Volume	Weight	Item-No.
20 l	6 kg	168P55/20
50 l	23 kg	168P55/50



## Pump Membrane

- for item 168P50 and 168P51
- PU = 1 piece

Item-No.
168P52/PM



## Non-Return Valve

- for item 168P50 and 168P51
- PU = 4 pieces

Item-No.
168P52/R



## Vacumat Type 4-2R

vacuum unit for the manufacture of thin-walled cast resin laminates and for moulding of thermoplastic deep-drawing materials

### Features

- 2 separately controlled vacuum cycles
- 4 connections 6 mm incl. air filters
- vacuum automatic
- vacuum tank 1,8 l with direct connection (quick coupling NW 7,2)

### Technical Data

- dimensions W x T x H: 435 x 400 x 235 mm
- suction capacity: 133 l/min
- power requirements: 127 V / 60 Hz / 1 Ph / 0,37 kW
- weight: 20 kg

Item-No.

168P56/127



## Vacuum Unit

- for central vacuum supply for deep drawing tasks

### Features

- vacuum storage container
- suitable for wall mounting
- incl. water separator with filter volume 500 cm<sup>3</sup>
- vacuum display with vacuum control
- motor protection switch
- 2 m power cord with grounded plug

### Technical data

- dimensions W x D x H: 800 x 360 x 780 mm
- vacuum capacity: 200 l/min
- final vacuum: -850 mbar
- vacuum container: 10 litres
- vacuum connection: IG 3/8"
- noise level: 70 db(A)
- protection: IP20
- surrounding temperature: -10 °C to +40 °C (14 °F to 104 °F)
- power consumption: 1,4 A
- power requirements: 230 V / 50 Hz / 1 Ph / 0,52 kW
- colour: RAL 9011 graphite-black
- weight: 52 kg

Item-No.

168P90



## Filter for Water Separator

- for item 168P90

Item-No.

168P90/F



## Vacuum Control Unit

- for connection to a central vacuum unit like item 168P81, 168P82 or 168P90
- with the 2 separate control valves, you can adjust 2 different vacuum circuits

### Technical data

- dimensions W x D x H: 230 x 230 x 180 mm
- adjustment range: 0 – 80 %
- hose connection outlet: 6 mm
- ball valve with hose connection, inner Ø: 6 mm
- colour: RAL 7035 light grey
- weight: 2 kg net

	Item-No.
	168P91



## Connection Hose

- PVC, transparent

Inner Ø / Outer Ø / Wall thickness	Item-No.
5 mm / 8 mm / 1.5 mm	168P52/5x8
6 mm / 10 mm / 2 mm	168P52



## T-piece for Vacuum Hose

### Material

- POM
- colour: white

### Characteristics

- operation pressure: 0 – 10 bar

PU = 5 pieces

for Vacuum Hose with inner diameter	Item-No.
6 mm	168P53/6
9 mm	168P53/9

# Vacuum- & Compressed Air Technology



## Vacuum Pump

- very powerful mobile unit, for precise vacuum-forming of thermoplastic sheet materials

### Features

- vacuum Pump air-cooled
- water separator
- circulating oil lubrication
- non-return valve
- oil mist trap
- ball valve G 3/4"
- manometer gauge
- motor protection switch
- Vacuum Pump air-cooled
- CSA + UL approval (optionally possible)
- 4 m power cord with CEE plug 5 x 16 A

### Technical data

- W x D x H: 930 x 440 x 620 mm
- nominal suction capacity: 40 m<sup>3</sup>/h = 40,000 l/h
- ultimate pressure: 0.1 mbar (abs.)
- hose connection: G 3/4" DN 20
- power requirements: 400 V / 50 Hz / 3 Ph / 1.1kW
- weight: approx. 55 kg net

Item-No.

168P82/3540



## Vacuum Pump

- especially powerful, suitable for precise deep drawing of thermoplastic material

### Features

- vacuum pump with circulating oil lubrication
- 25-litre-vacuum vessel
- adjustable negative pressure control
- fully integrated control
- large dimensioned filter/water separator
- vacuum connection 1" ball valve
- connection cable with CEE plug 5-pin, 16 A

### Technical data

- dimensions W x D x H: 500 x 650 x 750 mm
- vacuum connection 1" ball valve
- suction power: 40 m<sup>3</sup>/h
- ultimate pressure: 5 mbar
- power requirements: 400 V / 50 – 60 Hz / 3 Ph / 1,35 kW
- weight: 71 kg

Item-No.

168P83/3540



## Vacuum Pump Oil for Vacuum Pump

- for items 168P81 and 168P82



1 litre bottle

Description	Content	Item-No.
VE 101 – ISO VG 100, synthetic	1 litre	117P25/1
VE 101 – ISO VG 100, synthetic	5 litres	117P25/5

## Mobile Compressor



### Features

- single cylinder piston compressor
- full automatic operation by pressure switch with unloaded start and motor circuit breaker
- ON / OFF-switch
- suction filter with silencer
- manometer gauge
- quick hose coupling with male connector Ø 6 mm
- safety- and non-return valve
- perspiration water drain
- wheels
- push handle bracket
- carrying handle bracket
- 3 m power cord with grounded plug

### Technical data

- dimensions W x D x H: 900 x 420 x 760 mm
- suction volume: 350 l/min
- delivery volume at 6 bar pressure: 230 l/min
- tank volume: 40 litres
- operation pressure: max. 10 bar
- power requirements: 230 V / 50 Hz / 1 Ph / 1,9 kW
- weight: 63 kg net

Item-No.
169P60



This compressor has been approved by German TÜV Standards.



## Stationary Compressor

### Features

- double cylinder piston compressor
- full automatic operation
- air-cooled compressor block with ring-lubrication
- suction filter with silencer
- vibration insulation of compressor, motor and tank
- unloaded start for direct start
- motor protection switch
- pressure tank officially approved with certificate
- manometer gauge
- control flange
- perspiration water drain
- quick hose coupling with male connector Ø 6 mm
- safety- and non-return valve
- 2 m power cord with CEE plug 5 x 16 A

### Technical data

- dimensions W x D x H: 1100 x 480 x 780 mm
- suction volume: 440 l/min
- delivery volume at 6 bar pressure: 300 l/min
- tank volume: 90 litres
- operation pressure: max. 10 bar
- sound level: 77 dB (A)
- power requirements: 400 V / 50 Hz / 3 Ph / 2,4 kW
- weight: 90 kg net

Item-No.

169P61

 This compressor has been approved by German TÜV Standards.  
Other compressors available upon request!



## Vacuum-Kit incl. Quadruple Vacuum

for later mounting in infrared-ovens

- distribution panel with 4 heat resistant (200 °C) vacuum couplers, V2A incl. mounting angle
- approx. 0,5 m supply hose with connector for quick coupling
- incl. 4 connectors for vacuum-coupling with 4 ea. separate hose nozzles D = 4 mm and 6 mm
- water separator 1/2" with mounting angle incl. quick coupling (entry) and ball valve with hose nozzle D = 12 mm (exit)

Item-No.

168P54/5

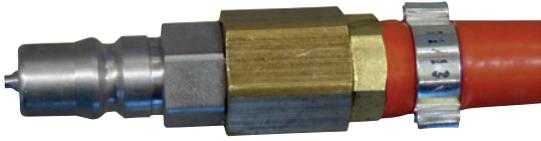


## Quick-Lock Coupling with Hose Nozzle

- stainless steel coupling 1/8" IG
- incl. 1 ea. hose nozzle D = 4 mm and 6 mm
- heat resistant up to 200 °C / 392 °F

Item-No.

168P54/1



## Connector for Quick-Lock Coupling

- stainless steel 1/8" IG
- incl. 1 ea. hose nozzle D = 6 mm
- heat resistant up to 200 °C / 392 °F

	Item-No.
	168P54/2



## Hose Clamp for Vacuum Hose

- PU = 1 piece

for Vacuum Hose	for Item-No.	Item-No.
DI = 4 mm / DA = 9 mm	168P54/4	168P54/3
DI = 6 mm / DA = 12 mm	168P54/6	168P54/7
DI = 10 mm / DA = 18 mm	168P54/8	168P54/9



## Silicone-Vacuum Hose

- heat resistant up to 200 °C
- PU = m

Dimensions	Item-No.
DI = 4 mm / DA = 9 mm	168P54/4
DI = 6 mm / DA = 12 mm	168P54/6
DI = 10 mm / DA = 18 mm	168P54/8



## Quick Coupling with exterior thread

- brass, single shut-off
- max. work pressure 35 bar, oil-resistant seal
- temperature-resistant from -20 °C up to +100 °C

Thread	Item-No.
1/2"	169P75/GA
1/4"	169P75/KA
3/8"	169P75/MA



## Quick Coupling with inner thread

- brass, single shut-off
- max. work pressure 35 bar, oil-resistant seal
- temperature-resistant from -20 °C up to +100 °C

Thread	Item-No.
1/2"	169P75/GI
1/4"	169P75/KI
3/8"	169P75/MI



## Quick Hose Coupling

- for hose connection
- max. work pressure 35 bar, oil-resistant seal
- temperature-resistant from -20 °C up to +100 °C

Inner hose diameter	Item-No.
6 mm	169P76/6
9 mm	169P76/9



## Y-Shape Coupling

- G 3/8"i, brass
- with 2 or 3 quick couplings incl. 2 male connectors 3/8"e x 3/8"e

Thread	Branchings	Item-No.
3/8" exterior	2	169P77/2
3/8" exterior	3	169P77/3



## Hose Nozzle

- brass, for direct hose connection

Inner hose diameter	Item-No.
6 mm	169P78/6
9 mm	169P78/9



## Hose Nozzle

- brass, for direct hose connection, hose Ø 6 mm

Spanner size	Thread	Item-No.
17 mm	R 1/4"	169P79/6A
19 mm	R 3/8"	169P79/6B
24 mm	R 1/2"	169P79/6C
14 mm	R 1/8"	169P79/6D



## Hose Nozzle

- brass, for direct hose connection, hose  $\varnothing$  9 mm

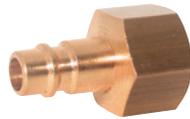
Spanner size	Thread	Item-No.
17 mm	R 1/4"	169P79/9A
19 mm	R 3/8"	169P79/9B
24 mm	R 1/2"	169P79/9C



## Plug Nipple

- brass, for threaded connection

Thread	Item-No.
R 1/2"e	169P80/GA
R 1/4"e	169P80/KA
R 3/8"e	169P80/MA



## Hose Nipple

- brass, for threaded connection

Thread	Item-No.
R 1/2"i	169P80/GI
R 1/4"i	169P80/KI
R 3/8"i	169P80/MI



## Sleeve

- brass

Thread	Item-No.
R 1"i	169P81/1
R 3/8"i	169P81/2



## Reducing Piece

- brass

Thread	Item-No.
R 3/8"e auf 1/8"i	169P82/1
R 1/2"e auf 1/8"i	169P82/2
R 1/2"e auf 1/4"i	169P82/3
R 1/2"e auf 3/8"i	169P82/4
R 1"e to 1/2"i	169P82/5

# Vacuum- & Compressed Air Technology



## Sealing Tape

- PTFE, for sealing of metal connections

W x D x L	Item-No.
12 x 0.1 x 12 mm	169P83



## Air Pressure Regulator

- with air filtration and water drain

### Features

- connection thread
- manometer gauge
- semi-automatic water drain
- pressure range 0 – 12 bar

Connection thread	Item-No.
G 1/4"i	169P84/1
G 3/8"i	169P84/2
G 1/2"i	169P84/3



Supplied without plug-in nipple

## Twin Service Unit

### Features

- air pressure regulator
- air line lubricator
- semi-automatic water drain
- pressure range 0 – 12 bar
- manometer gauge
- filter element

Connection thread	Item-No.
G 1/4"i	169P85/1
G 3/8"i	169P85/2
G 1/2"i	169P85/3



## Air Pressure Hose

- fibre-reinforced, for work pressure up to 15 bar, wall thickness 3 mm

Inner diameter	Item-No.
6 mm	169P71
9 mm	169P72



## Hose Clamp

- zinc-plated with cross head screw
- PU = 1 piece

for hose	Width	Item-No.
168P71, 6 x 3	11 – 16 mm	169P73
168P72, 9 x 3	12 – 20 mm	169P74



## Spiral Air Pressure Hose

- polyurethane, with connection fittings on both ends and anti-kink protection
- outer diameter: 10 mm, inner diameter 6,5 mm

### Technical data

- pressure max. 10 bar
- length: (stretched): 5 m (169P87/5) resp. 10 m (169P87/10)
- working range: 4 m (169P87/5) resp. 8 m (169P87/10)

Item-No.
169P87/10
169P87/5



## Pneumatic Drilling Machine

### Features

- easy right-/left rotation changeover
- keyless drill chuck
- dust extraction through integrated silencer in the handle

### Technical data

- rotation speed: 2000 rpm
- torque: max. 10 Nm
- drill chuck clamping range: 1 – 10 mm
- air consumption: 480 l/min
- operating pressure: 6,3 bar
- capacity: 0,4 kW
- max. sound pressure level: 88,7 dB(A)
- weight: 1,0 kg

Item-No.
80M13



use only with twin service unit 169P85.



## Pneumatic Chipping Hammer

- complete with 5 different chisels and carry case
- pointed chisel: 185 mm
- flat chisel: 175 mm
- chisel for separating sheet metal: 175 mm
- chisel for cutting sheet metal: 180 mm
- chisel for removing bolts: 175 mm

### Technical data

- frequency: 3000 RPM
- travel of chisel: 65 mm
- chisel holder: hexagonal, 10 mm
- hose connection: brass nipple
- air consumption: 150 – 240 l/min
- work pressure: 4 – 6 bar, max. 7 bar
- weight: 1,7 kg net

Item-No.
169P65

 Use only with twin service unit 169P85.



## Chisel for Pneumatic Chipping Hammer

- for item 169P65

Width	Length	Item-No.
20 mm	250 mm	169P65/250

 Suitable for chisel hammers with a 10 mm arbor.



## Pneumatic Stapler

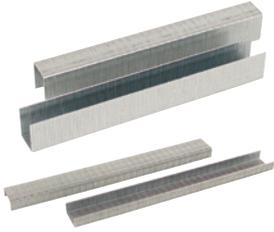
- for upholstery, tacking, etc., for staple size 6 – 16 mm length, with plug nipple for connection to quick hose coupling

### Technical data

- air consumption: 0,5 litres per beat
- cartridge capacity: 155 staples
- work pressure: 3 – 6 bar
- weight: 0,900 kg net

Item-No.
169P66

 Use only with twin service unit 169P85.



## Staple

- for pneumatic stapler 169P66, spine width 12.8 mm

Length	Sales unit/Pcs	Item-No.
6 mm	3000	37P9/6
8 mm	3000	37P9/8
10 mm	3000	37P9/10
12 mm	3000	37P9/12
14 mm	3000	37P9/14
16 mm	3000	37P9/16



## Spray Gun

### Features

- paint container, plastic, 0,6 litres
- screw-on lid
- adjustable round and flat spray patterns
- plug nipple for quick hose coupling

### Technical data

- air requirement: 130 – 200 l/min
- work pressure: 2 – 4 bar
- weight: 0,77 kg net

Item-No.
169P64



## Air Gun

- aluminum

### Features

- plug nipple for quick hose coupling

### Technical data

- clear width of the hose: 6 mm
- weight: 0,260 kg net

Item-No.
169P86

# Vacuum- & Compressed Air Technology



## Tire Pressure Gauge

- aluminum

### Features

- pressure gauge with rubber protection
- adapter nipple for car valve
- adapter nipple for wheelchairs, bicycles and needle valves
- plug nipple for quick hose coupling

### Technical data

- weight: 1,0 kg net

Item-No.
169P67



## Pneumatic Drilling Machine

### Features

- right/left hand drill action
- keyless chuck 3/8"
- powerful double drive for a quiet run and long-life cycle
- plug nipple for quick hose coupling

### Technical data

- speed: 1800 RPM
- drill chuck clamping range: up to 10 mm
- air consumption: 460 l/min
- weight: 0,9 kg net
- operating pressure: 2 – 6,3 bar, max. 6,3 bar

Item-No.
169P68



Use only with twin service unit 169P85!



## Paint Beater

- for pneumatic drilling machine 169P68
- for agitation of coating compounds and plaster

Diameter	Length	Item-No.
60 mm	380 mm	169P68/F



## Compressed Air Plaster Cast Saw

- oscillating saw

### Features

- 1 saw blade 169P69/60
- 2 fork wrenches
- plug nipple for quick hose coupling
- flexible exhaust hose, item 169P69/A only

### Technical data

- operation pressure: 6 bar, max. 6,2 bar
- rotation speed: 14000 rpm
- air consumption: 560 l/min
- max. cutting depth: 14,29 mm
- max. cutting width: 1,19 mm
- weight: 1 kg

Version	Item-No.
Compressed air plaster cast saw standard version	169P69
Compressed air plaster cast saw with exhaust air hose	169P69/A

 Use only with twin service unit 169P85!



## Circular Saw Blade

- for item 169P69

Diameter	Item-No.
60 mm	169P69/60

# Plastics- & Metal Processing Machines



# Plastics- & Metal Processing Machines

Modern, high quality and complex handcrafted supplies in orthopaedic technology require machines which are working as professionally as you are. All machines produced and supplied by us have been manufactured according to the latest German respectively EU- accident-prevention standards. Whereas, the socket router is the fundamental machine of any artisanal activity in orthopaedic technology.

Our strong and efficient socket routers of the trademark "Maschinen Schmid" stand for precision and longevity and for decades, have been the flagships in orthopaedic technology. "Maschinen Schmid", founded in the thirties of the past century, grew within shortest time into "the" machine supplier for orthopaedic technology. Besides socket routers, planing machines, turning-lathes, band saws and belt grinding machines which were called "Kombina/Optima" at that time, were manufactured as well. Back then and now, the focus has been and still is on excellent price-quality ratio, room-saving construction and simple operation. In the meantime, company "Maschinen Schmid GmbH" has been 100 % integrated into Streifeneder ortho.production GmbH. Longlasting and outstandingly sturdy motors describe the most important advantage compared to many machines of our competitors. The entire production of "Maschinen Schmid" socket routers in Germany guarantees sturdy and reliable quality and ensures that the machines will operate up to 70 years without facing any mechanical problems.



Nowadays, the growing number of materials to be processed requires a large number of various milling- and grinding tools. Therefore, you will find in our product range more than 150 different tool bits, optimally adapted to the numerous materials.



On the following pages, you will find an adequate selection of the latest machines developed for orthopaedic technology. We are pleased to offer our best possible support to help you with your concept plans in accordance with the new foundation of your workshop or remodelling an existing one.

A comfortable, healthy working environment with modern machines and clean air are the main issues to correspond with the legal guidelines. You will find the respective dust extraction devices in the next chapter.

We are able to refer to numerous reference addresses world wide. Trust us!



# Plastics- & Metal Processing Machines



## Features

- Router motor with continuously adjustable electronic speed control, incl. motor brake
- for connection to a central dust extractor with minimum air speed of 20 m/s and vacuum of 780 Pa
- infinitely variable angle adjustment of the motor shaft
- manual height adjustment by means of crank handle

## Features

- multiple adjustable extractor hopper
- removable axis protection
- fork spanner 24 mm and 27 mm
- threaded bolt 5/8" or M16

## Electrical equipment

- EMERGENCY-OFF foot switch
- ON / OFF switch for router motor
- with motor protection switch
- approx. 2 m power cord with CEE plug 5 x 16 A

## Technical Data:

- Total height: 1600 mm
- Foot dimensions / space requirement W x D: 570 x 450 mm
- Work place requirement W x D: approx. 1000 mm x 1400 mm
- Variable working height: 560 – 1400 mm
- router axis length: 430 mm
- Suction nozzle: Ø 125 mm with a reduction to Ø 100 mm
- Continuously adjustable speed: 750 – 3000 rpm
- noise level: approx. 68 dB(A)
- Power requirements: 400 V / 50 – 60 Hz / 3 Ph / 2.2kW
- Colour: RAL 7011 anthracite, powder-coated
- Weight: 140 kg

## Special voltages

- 230 V / 50 – 60 Hz / 1 Ph / 2.2kW (2M10/1523)

	Item-No.
	2M10

**U** For use of machines with frequency converters: For continuous speed adjustment, we recommend to replace the FI-switch (leakage current switch) in the switch box by an all-current sensitive FI.



## Magnetic Lamp

- with 24 V transformer for protective low voltage, rubber lamp and safety glass resistant to temperature alternations, rubber plug and on/off switch

### Technical data

- transformer: 230 V / 24 V / 25 VA
- power cord: 5 m
- lamp diameter: 9 cm
- length: 69 cm
- weight: 2,6 kg net

	Item-No.
	168P2

 The lamp comes complete, ready for use with transformer!



picture similar

## Threaded Stud

- It = Interior thread machine, Et = Exterior thread

IG	Et	Item-No.
5/8"	M16	1M23/16
5/8"	5/8"	1M23/58
M16	M16	1M24/16
M16	5/8"	1M24/58



165P21/16

## Threaded Manifold

- It = Interior thread, Et = Exterior thread

IG	Et	Item-No.
5/8"	1/2"	165P21/12
M16	5/8"	165P21/16
5/8"	M16	165P21/58



## Insulation Mat

- anti-vibration mat to dampen acoustic noise and vibration of machines
- oil and grease resistant, to a limited extent resistant to fuel, acid and alkalis
- temperature resistant from -10 °C to +70 °C
- colour: black
- thickness: 10 mm

	Item-No.
	160M2

 The mats will be cut to fit the dimensions of the machine floor column. Please indicate those dimensions when placing your order. Upon request, we gladly offer you the screw material for surface mounting!



## Screw Insulation

- screw insulation made of natural rubber
- for decoupling screw connections for surface mounting of machines
- buffer – opposing buffer mounting
- metall parts galvanized steel
- inner diameter: 10 mm
- outer diameter: 25 mm
- height: 8 mm

	Item-No.
	160M3/10

 Upon request, we will gladly offer you the screw material for surface mounting!



## Jaw Wrench

Spanner size	Item-No.
27 mm	173P9/27
50 mm	173P9/50



## Emergency Floor Push Stop

	Item-No.
	3M51

# Plastics- & Metal Processing Machines

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## CEE Plug

- current load: 16 A
- voltage: 400 V, 3P+N+PE
- safety class: IP 44

	<b>Item-No.</b>
	10M10



## CEE Electrical Outlet

- protection: 16 A
- voltage: 400 V, 3P+N+PE
- safety class: IP 44

	<b>Item-No.</b>
	10M11



## Braking Unit

Electronic DC brake

### Features

- DC braking with one-way rectification
- suitable for all asynchronous motors
- easy mounting, also for retrofitting into existing plants

### Technical data

- dimensions W x D x H: 100 x 120 x 73 mm
- power requirements: 220 – 240 V / 50 – 60 Hz / 10 A / 1,1 kW
- integrated braking contactor, for devices up to 20 A

	<b>Item-No.</b>
	1M26



## Filter Cartridge

- for machine type 1M3 (titan socket router)
- filter surface 6,7 m<sup>2</sup>, very good filtration efficiency by using fleece fabrics
- easy cleaning with the integrated filter cleaner
- incl. clamping- and sealing ring, simple mount, without tools
- weight: 11 kg net

<b>Diameter</b>	<b>Hight</b>	<b>Item-No.</b>
450 mm	670 mm	150M6

# Plastics- & Metal Processing Machines



## Disposable Chip Bag

- for titan socket router 1M3

Item-No.
150M3



## Filter Cartridge

- for machine type Optima
- filter surface 4 m<sup>2</sup>
- very good filtration efficiency by using fleece fabrics
- easy cleaning with the integrated filter cleaner
- incl. clamping- and sealing ring, simple mount, without tools
- weight: 11 kg net

Diameter	Hight	Item-No.
390 mm	650 mm	150M8

without picture

## Filter Basket Cleaner

- mechanical, completely installed

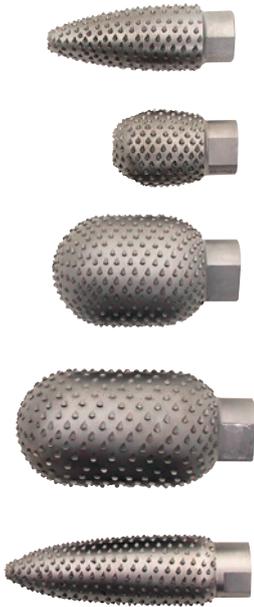
Item-No.
150M7



## Ball Cutter

- for wood- and hard foam works, with replaceable cutter

Ø x L	Thread	Item-No.
38 x 90 mm	M16	161P90/38
38 x 90 mm	5/8"	161P90A/38
50 x 100 mm	5/8"	161P90A/50



## Rasp Head

- for wood, hard foam and soft foam works, medium cut

Ø x L	Thread	Item-No.
30 x 85 mm	M16	161P5/3
30 x 85 mm	5/8"	161P5A/3
35 x 55 mm	M16	161P5/4
35 x 55 mm	5/8"	161P5A/4
50 x 80 mm	M16	161P5/2
50 x 80 mm	5/8"	161P5A/2
50 x 100 mm	M16	161P5/1
50 x 100 mm	5/8"	161P5A/1
30 x 105 mm	M16	161P5/6
30 x 105 mm	5/8"	161P5A/6



## Rasp Head

- for wood, hard foam and soft foam works, fine cut

Ø x Length	Thread	Item-No.
30 x 85 mm	M16	161P4/3
30 x 85 mm	5/8"	161P4A/3
35 x 55 mm	M16	161P4/4
35 x 55 mm	5/8"	161P4A/4
50 x 100 mm	M16	161P4/1
50 x 100 mm	5/8"	161P4A/1



## Rasp Head with Shank

- for plastic works
- Ø 22 mm, length 130 mm

Cut	Thread	Item-No.
fine	M16	161P5/5
fine	5/8"	161P5A/5
medium	M16	161P4/2
medium	5/8"	161P4A/2



## Rasp Head without Shank

- for plastic works
- Ø 22 mm, length 58 mm

Cut	Thread	Item-No.
fine	M10	161P50/5
medium	M10	161P40/2



## Fir Cone Cutter, HSS

- spiral fluted, for aluminum and plastic
- Ø 22 mm

Length	Thread	Item-No.
130 mm	M16	161P57
130 mm	5/8"	161P57/A
110 mm	M16	161P58
110 mm	5/8"	161P58/A



## Fir Cone Cutter, HSS

- spiral fluted, for aluminum and plastic
- Ø 22 mm

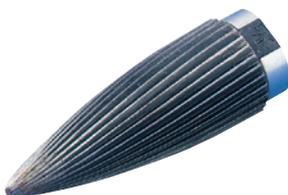
Length	Thread	Item-No.
58 mm	M10	161P57/O
36 mm	M10	161P58/O



## Shank

- for rasp head 161P50, 161P40 and conical cutter 161P57, 161P58
- length 70 mm, thread M10

Thread	Item-No.
M16	165P22/16
5/8"	165P22/58



## Conical Cutter, HSS

- spiral fluted, for aluminum and plastic
- Ø 27 mm, length 76 mm

Thread	Item-No.
M16	161P56
5/8"	161P56/A



## Drum Cutter

- spiral fluted, for aluminum and plastic
- Ø 50 mm, length 50 mm

Thread	Item-No.
M16	161P59
5/8"	161P59/A



## Groove Cutter, HSS

- with holder, mills channels for wooden tongues 6P13
- Ø 80 x 4 mm

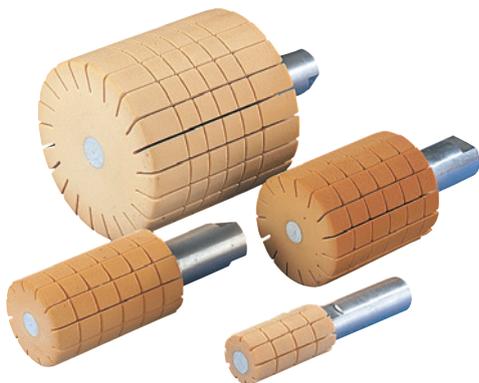
Thread	Item-No.
5/8"	156P1/58



## Groove Cutter, HSS

- for item 156P1/16
- without holder

Diameter	Hole	Item-No.
80 x 4 mm	16 mm	156P1



## Sanding Roll

Ø x Length	Thread	Item-No.
25 x 50 mm	M16	161P45
25 x 50 mm	5/8"	161P45/A
45 x 75 mm	M16	161P52
45 x 75 mm	5/8"	161P52/A
60 x 75 mm	M16	161P47
60 x 75 mm	5/8"	161P47/A
100 x 100 mm	M16	161P51
100 x 100 mm	5/8"	161P51/A

## Sanding sleeve



- ceramic sanding sleeve suitable for item 161P51
- extremely high sanding performance at up to 300% compared to conventional sanding sleeves
- low sanding temperature due to special coating
- excellent sanding results with less wear

Diameter x Length	Grain size	Item-No.
100 x 100 mm	40	161P96/40

 When grinding plastics, the sanding sleeve does not stick so quickly as the temperature is dissipated more effectively by the ceramic grain.

## Sanding sleeve



- ceramic sanding sleeve suitable for item 161P47
- extremely high sanding performance at up to 300% compared to conventional sanding sleeves
- low sanding temperature due to special coating
- excellent sanding results with little wear

Diameter x Length	Grain size	Item-No.
60 x 75 mm	40	161P93/40

 When grinding plastics, the sanding sleeve does not stick so quickly as the temperature is dissipated more effectively by the ceramic grain.

## Sanding Sleeves



- for item 161P45, 161P47, 161P51 and 161P52
- PU = 10 pieces

Ø x Length / for Item-No.	Grain size	Item-No.
25 x 50 mm / 161P45	K 40	161P46/40
25 x 50 mm / 161P45	K 80	161P46/80
25 x 50 mm / 161P45	K 120	161P46/120
45 x 75 mm / 161P52	K 24	161P48/24
45 x 75 mm / 161P52	K 40	161P48/40
45 x 75 mm / 161P52	K 60	161P48/60
45 x 75 mm / 161P52	K 80	161P48/80
45 x 75 mm / 161P52	K 100	161P48/100
45 x 75 mm / 161P52	K 120	161P48/120
60 x 75 mm / 161P47	K 24	161P49/24
60 x 75 mm / 161P47	K 40	161P49/40
60 x 75 mm / 161P47	K 60	161P49/60
60 x 75 mm / 161P47	K 80	161P49/80
60 x 75 mm / 161P47	K 100	161P49/100
60 x 75 mm / 161P47	K 120	161P49/120
100 x 100 mm / 161P51	K 24	161P50/24
100 x 100 mm / 161P51	K 40	161P50/40
100 x 100 mm / 161P51	K 80	161P50/80
100 x 100 mm / 161P51	K 120	161P50/120

## Sanding Roll, small



- length 75 mm

Diameter	Thread	Item-No.
45 mm	M16	161P72
45 mm	5/8"	161P72/A
60 mm	M16	161P73
60 mm	5/8"	161P73/A

## Sanding Sleeves



- for item 161P72 and 161P73, length 75 mm
- PU = 10 pieces

Ø / for Item-No.	Grain size	Item-No.
45 mm / 161P72	K 24	161P72/24
45 mm / 161P72	K 40	161P72/40
45 mm / 161P72	K 80	161P72/80
45 mm / 161P72	K 120	161P72/120
45 mm / 161P72	K 240	161P72/240
60 mm / 161P73	K 24	161P73/24
60 mm / 161P73	K 40	161P73/40
60 mm / 161P73	K 80	161P73/80
60 mm / 161P73	K 120	161P73/120
60 mm / 161P73	K 180	161P73/180
60 mm / 161P73	K 240	161P73/240

## Rubber for Polishing Arbor



- for item 161P72 and 161P73, length 75 mm

Diameter	for Item-No.	Item-No.
45 mm	161P72	161P72/E
60 mm	161P73	161P73/E

## Adjustable Twin Pin Key



- for item 161P72 and 161P73

Item-No.
161P74

## Tool Key for Habermann Sanding Drum



- for Habermann Sanding Drum (161P60)
- adjustable

Item-No.
161P62

## Sanding Sleeves



- suitable for item 161P60
- PU = 10 pieces

Ø x Length	Grain size	Item-No.
45 x 50 mm	K 60	161P63/1
45 x 50 mm	K 100	161P63/2
45 x 50 mm	K 150	161P63/3
60 x 50 mm	K 60	161P64/1
60 x 50 mm	K 100	161P64/2
60 x 50 mm	K 150	161P64/3
60 x 100 mm	K 60	161P65/1
60 x 100 mm	K 100	161P65/2
60 x 100 mm	K 150	161P65/3
85 x 50 mm	K 60	161P66/1
85 x 50 mm	K 100	161P66/2
85 x 50 mm	K 150	161P66/3

## Rubber Covering



- for item 161P60

Diameter	Length	Item-No.
45 mm	58 mm	161P61/1
60 mm	58 mm	161P61/2
60 mm	100 mm	161P61/3
85 mm	58 mm	161P61/4

## Sanding Drum



- length 60 mm

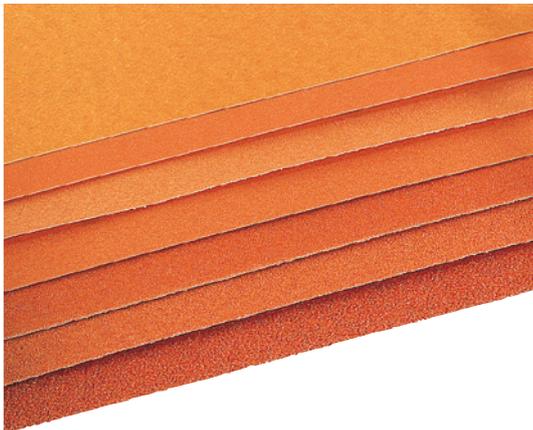
Diameter	Thread	Item-No.
55 mm	M16	161P6/55



## Sanding Strip Roll

- suitable for item 161P6, width 60 mm
- PU = 50 m per roll

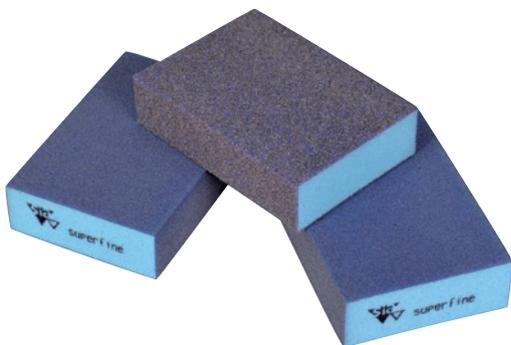
Grain size	Item-No.
K 40	107P28/4
K 50	107P28/5
K 60	107P28/6
K 80	107P28/8
K 100	107P28/10
K 120	107P28/12
K 150	107P28/15
K 180	107P28/18



## Sand Paper

- sand paper
- PU = 1 piece

Size	Grain size	Item-No.
280 x 230 mm	K 40	107P21/4
280 x 230 mm	K 60	107P21/6
280 x 230 mm	K 80	107P21/8
280 x 230 mm	K 100	107P21/10
280 x 230 mm	K 120	107P21/12
280 x 230 mm	K 180	107P21/18
280 x 230 mm	K 220	107P21/22



## Sanding-Genius

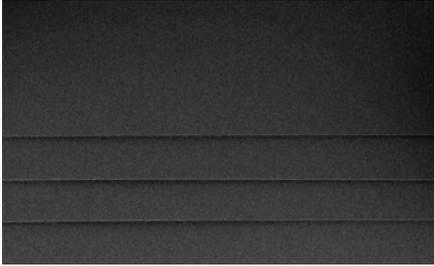
- sanding sponge set
- for all surfaces like immersions and roundings
- set consisting of: 2 sanding sponges fine (grit 180) and 1 sanding sponge coarse (grit 60)
- PU = 1 set

### Technical data

- dimensions W x D x H: 97 x 68 x 27 mm

Item-No.
107P8

## Sandpaper for Wet Sanding



Size	Grain size	Item-No.
280 x 230 mm	K 180	107P22/18
280 x 230 mm	K 240	107P22/24
280 x 230 mm	K 400	107P22/40

## Sanding Strip Roll



- PU = 50 m per roll

Width	Grain size	Item-No.
60 mm	K 400	107P5/400

## Sanding Net



- based on silicon, suitable for wet grinding in order to get glazed surfaces
- PU = 5 sheets

Dimensions W x L	Grain size	Item-No.
230 x 280 mm	K 100	107P31/100
230 x 280 mm	K 220	107P31/220

## Sanding Sheets



- for item 161P100 and 161P102
- PU = 10 pieces

L x W	Grain size	for Item-No.	Item-No.
240 x 100 mm	K 40	161P100	161P101/4
240 x 100 mm	K 80	161P100	161P101/8
350 x 100 mm	K 40	161P102	161P103/4
350 x 100 mm	K 120	161P102	161P103/12



## Sanding Strip Roll

- full resin bond
- width: 100 mm
- PU = 50 m per roll

Grain size	Item-No.
K 40	107P29/40
K 80	107P29/80
K 120	107P29/120



## Sanding Roll

- to pull onto the router machine shaft, comes with one sanding sleeve
- tapered hole  $\varnothing$  72,5 mm, length 200 mm

Application	Item-No.
	161P85/200
for Trautmann Router Machine	161P85/T



## Sanding Sleeves

- for item 161P85,  $\varnothing$  72,5 mm, length 200 mm
- PU = 10 pieces

Grain size	Item-No.
K 40	161P86/40
K 50	161P86/50
K 80	161P86/80
K 100	161P86/100

## Sanding sleeve



- ceramic sanding sleeve suitable for item 161P68
- extremely high sanding performance at up to 300% compared to conventional sanding sleeves
- low sanding temperature due to special coating
- excellent sanding results with little wear

Diameter x Length	Grain size	Item-No.
74 x 190 mm	40	161P94/40
74 x 190 mm	80	161P94/80

 When grinding plastics, the sanding sleeve does not stick so quickly as the temperature is dissipated more effectively by the ceramic grain.

## Abrasive Flap Wheel



- Ø 58 mm, length 58 mm

Thread	Item-No.
M16	161P7

## Sand Paper Set



- for item 161P7, 5-parts, length 55 mm, width 70 mm
- PU = 1 set

Grain size	Item-No.
K 40	161P7/K40
K 50	161P7/K50
K 60	161P7/K60
K 80	161P7/K80
K 120	161P7/K120
K 180	161P7/K180



## Sanding Sleeves

- for item 161P83
- Ø 79,9 mm, length 130 mm
- PU = 10 pieces

Grain size	Item-No.
K 40	161P84/40
K 60	161P84/60
K 80	161P84/80
K 120	161P84/120



## Sanding Sleeves

- for item 161P81
- circumference 450 mm, length 130 mm
- PU = 10 pieces

Grain size	Item-No.
K 24	161P82/24
K 40	161P82/40
K 60	161P82/60
K 80	161P82/80
K 120	161P82/120



## Sanding Sleeves

- for item 161P81, tight version
- circumference 448 mm, length 130 mm
- PU = 10 pieces

Grain size	Item-No.
K 24	161P82/24E
K 40	161P82/40E
K 120	161P82/12E



## Grinding Fleece Sleeve

- for item 161P81 and 161P83
- for cosmetic soft foam works

for Item-No.	Circumference x Length	Item-No.
161P81	440 x 130 mm	161P82/V
161P83	253 x 120 mm	161P84/V



## Polishing Arbor

- length 100 mm

Diameter	Thread	Item-No.
20 mm	5/8"	161P79/A
25 mm	5/8"	161P75/A
20 mm	M 16	161P79



## Sanding Sleeves

- for item 161P75 and 161P79
- length 50 mm
- PU = 10 pieces

Diameter	Grain size	Item-No.
20 mm	K 40	161P79/40
20 mm	K 150	161P79/150
25 mm	K 40	161P76/40
25 mm	K 150	161P76/150



## Rubber Core Replacement

- for item 161P75 and 161P79

for Item-No.	Item-No.
161P75	161P75/E
161P79	161P79/E



## Sanding Drum, conical

- length 60 mm, Ø 22/36 mm

Thread	Item-No.
M16	161P80
5/8"	161P80/A



## Sanding sleeve

- ceramic sleeve suitable for item 161P80
- extremely high sanding performance at up to 300% compared to conventional sanding sleeves
- low sanding temperature due to special coating
- excellent sanding results with little wear

table 1

diameter x length	grain size	Item-No.
60 x 36 x 22 mm	60	161P95/60
60 x 36 x 22 mm	80	161P95/80

**J** When grinding plastics, the sanding sleeve does not stick so quickly as the temperature is dissipated more effectively by the ceramic grain.



## Sanding Sleeves

- for item 161P80
- length 60 mm, Ø 22/36 mm
- PU = 10 pieces

Grain size	Item-No.
K 50	107P1/50
K 80	107P1/80
K 150	107P1/150



## Sanding Drum

- with shank, thread M6

Diameter	Length	Item-No.
11 mm	25 mm	161P0/1125
16 mm	25 mm	161P0/1626
21 mm	40 mm	161P0/2140

## Sanding Sleeve



- for item 161P0
- PU = 10 pieces

Grain size / Ø x L	for Item-No.	Item-No.
K 60 / 11 x 25 mm	161P0/1125	161P01/60
K 150 / 11 x 25 mm	161P0/1125	161P01/150
K 60 / 16 x 25 mm	161P0/1626	161P02/60
K 150 / 16 x 25 mm	161P0/1626	161P02/150
K 60 / 21 x 40 mm	161P0/2140	161P03/60
K 150 / 21 x 40 mm	161P0/2140	161P03/150

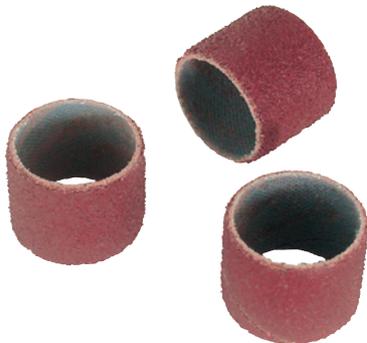
## Sanding Drum



- with rubber core, shank thread M6

Diameter	Length	Item-No.
22 mm	20 mm	161P0/2220
30 mm	20 mm	161P0/3020

## Sanding Sleeves



- for item 161P0
- PU = 10 pieces

Grain size / Ø x L	for Item-No.	Item-No.
K 40 / 22 x 20 mm	161P0/2220	161P04/40
K 120 / 22 x 20 mm	161P0/2220	161P04/120
K 40 / 30 x 20 mm	161P0/3020	161P05/40
K 120 / 30 x 20 mm	161P0/3020	161P05/120

## Lamella Fleece Sanding Drum



- with threaded pin M6

Diameter	Width	Item-No.
60 mm	50 mm	161P78



## Fleece Fan Sanding Drum

- with threaded pin M6

Diameter	Width	Item-No.
60 mm	50 mm	161P77



## Grinding Fleece Sleeve

- suitable for item 161P51
- for individual use
- particularly suitable for grinding cushioning materials and soft plastics in the edge area
- no surface changes due to abrasive grains, open structure facilitates absorption of dirt particles
- good absorption of polishing agents

Diameter x Length	Item-No.
100 x 100 mm	161P97



## Tool Holder

- for item 161P0, 161P77 and 161P78
- interior thread M6 for sanding attachment
- Mt = Machine thread

Mt x interior thread	Item-No.
M16 x M6	161P44/16
5/8" x M6	161P44/58



## Sanding Drum

Ø x L	Thread	Item-No.
45 x 70 mm	M16	161P40/45
45 x 70 mm	5/8"	161P40A/45
65 x 90 mm	M16	161P40/60
65 x 90 mm	5/8"	161P40A/60



## Sanding Cap

- for item 161P40
- PU = 6 pieces per box

Ø x Length	Grain size	Item-No.
45 x 70 mm	K 40	161P41/40
45 x 70 mm	K 80	161P41/80
65 x 90 mm	K 40	161P42/40
65 x 90 mm	K 80	161P42/80



## Rubber Sanding Cone

- for plastic processing
- Ø 60 mm, length 80 mm
- max. speed 3000 rpm

Thread	Item-No.
M16	161P3
5/8"	161P3A



## Polishing Drum

- for plastic works
- Ø 60 mm, length 40 mm

Thread	Item-No.
M16	161P23
5/8"	161P23A



## Replacement Rubber

- for item 161P23

Diameter	Length	Item-No.
60 mm	40 mm	161P23/E



## Polishing Cone

- Ø 60 mm, length 80 mm

Thread	Item-No.
5/8"	161P22A



## Corundum Sanding Cone

- for metal works

Ø x L	Thread	Item-No.
50 x 70 mm	M 16	161P24/2
50 x 70 mm	5/8"	161P24A/2
60 x 80 mm	M16	161P24/3



## Felt Cone

- with brass insert, for plastic works

Ø x Length	Thread	Item-No.
45 x 60 mm	M16	161P21
45 x 60 mm	5/8"	161P21A
60 x 80 mm	M16	161P20
60 x 80 mm	5/8"	161P20A



## Felt Cone

- with threaded metal bushing, without flint glueing

Ø x L	Thread	Item-No.
45 x 60 mm	M16	161P25/1
45 x 60 mm	5/8"	161P25A/1
55 x 80 mm	M16	161P25/2
55 x 80 mm	5/8"	161P25A/2
65 x 90 mm	M16	161P25/3
65 x 90 mm	5/8"	161P25A/3

without picture

## Abrasive grain glue

- for applying flint (emery) to sanding discs, belts and felt sanding cones

Content	Item-No.
1.0 litre	118P5

# Plastics- & Metal Processing Machines

## Grinding Cone made of Silicone



scope of supply does not include stand

- perfectly suitable for grinding the edges of soft and permanently flexible plastic materials (e.g. EVA-based materials such as Streifyflex or Streifytec soft, LDPEs with low density, e.g. Streifylast)
- not suitable for hard materials and foams

Thread	Colour	Item-No.
M16	anthracite	161P26/1
5/8"	anthracite	161P26A/1
M16	anthracite	161P26/2
5/8"	anthracite	161P26A/2
M16	anthracite	161P26/3
5/8"	anthracite	161P26A/3
M16	anthracite	161P26/4
5/8"	anthracite	161P26A/4
M16	anthracite	161P26/5
5/8"	anthracite	161P26A/5

Order reference: The desired type can be determined by means of the product picture, e.g. 1: item-no. 161P26/1 resp. 161P26A/1.

 Exchange service of silicone bodies available upon request.

## Stand for 5 grinding cones made of silicone



scope of supply does not include grinding cones

- stand for 5 grinding cones made of silicone
- M16/5/8"
- material: plastic

Item-No.
161P26

## Polishing Wheel



- suitable for item 161P33
- made of cotton, for polishing works

Ø x Width	Hole	Item-No.
120 x 20 mm	16 mm	161P32/1
200 x 30 mm	16 mm	161P32/2
200 x 30 mm	20 mm	161P32/3
250 x 30 mm	16 mm	161P32/4

 Different dimensions upon request!

## Polishing Wheel / Wave Folding



- suitable for item 161P33
- for plastic works, Ø 180 mm

Width	Hole	Item-No.
20 mm	16 mm	161P32/W

## Lamella Fleece Wheel



- suitable for item 161P33
- for metal- and plastic works
- width 50 mm

Diameter	Thread	Item-No.
80 mm	5/8"	159P5/80
100 mm	5/8"	159P5/100

159P5/80



159P5/100



## Lamella Fleece Wheel

- suitable for item 161P33
- without thread, for metal- and plastic works
- width 50 mm

Diameter	Hole	Item-No.
200 mm	16 mm	159P5/200



## Lamella Wheel

- for plastic works

Diameter	Grain size	Item-No.
165 mm	K 320	161P31

 Attention: Use only with tension disc!



## Tension Disc

- suitable for item 161P33 and item 161P31
- PU = 1 pair

Hole	Item-No.
16 mm	161P34



## Holder

- for all polishing- and lamella wheels

Thread	Item-No.
M16	161P33/16
5/8"	161P33/58



## Wide Belt Sander

### Features

- 2-speed motor
- space saving, robust construction
- designated for connection to an external dust suction unit
- with closed belt protection
- quick action fastener for easy change of sanding belt

### Basic equipment

- 1 sanding belt 200 x 1500 mm (107P60/40)
- support table with adjustable tilt angle from -10° to +45°

### Electrical equipment

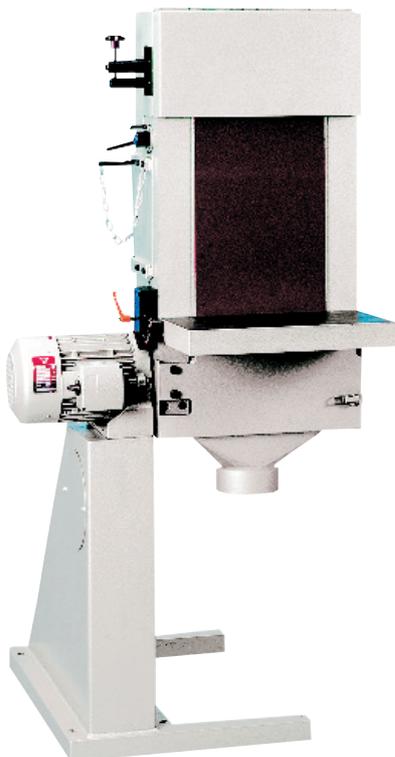
- motor protection switch
- 3 m power cord with CEE plug 5 x 16 A

### Technical data

- dimensions W x D x H: 620 x 430 x 1470 mm
- rotation speed: 1450 / 2900 rpm
- extractor connection Ø 100 mm
- sanding belt speed: 10/20 m/sec.
- sanding width: max. 200 mm
- belt length: 1.500 mm
- power requirements: 400 V / 50 Hz / 3 Ph / 1,8 kW / 2,2 kW
- colour: RAL 7035 light grey
- weight: 120 kg net

Item-No.

110M4



## Wide Belt Sander

### Features

- as 110M4 but with 300 mm belt width
- one-speed motor

### Features

- 1 sanding belt 300 x 2000 mm (107P50/40)
- support table with adjustable tilt angle from -10° to +45°

### Electrical equipment

- motor protection switch
- 3 m power cord with CEE plug 5 x 16 A

### Technical data

- dimensions W x D x H: 770 x 730 x 1630 mm
- rotation speed: 1450 rpm
- extractor connection Ø 150 mm
- sanding belt speed: 15 m/sec
- sanding width: max. 300 mm
- sanding belt length: 2000 mm
- Power requirements: 400 V / 50 Hz / 3 Ph / 3.0kW
- colour: RAL 7035 light grey
- Total weight: approx. 190 kg

### Special voltages

- 208 V / 60 Hz / 3 Ph / 3.0 kW (110M5/3620)

Item-No.

110M5



## Sanding Belt

- for wood and plastic, MA=Machine, EM=External Make

L x W / grain size	for MA	Item-No.
1500 x 200 mm / K 40	110M4	107P60/40
2000 x 300 mm / K 24	110M5	107P50/24
2000 x 300 mm / K 40	110M5	107P50/40
2000 x 300 mm / K 80	110M5	107P50/80
1800 x 300 mm / K 40	FF	107P62/40



## Sanding Belt

- MA = Machine Type, EM = External Make

L x W / grain size	for MA	Item-No.
2250 x 50 mm / K 40	FF	107P56/40
2250 x 50 mm / K 60	FF	107P56/60
2250 x 50 mm / K 80	FF	107P56/80
2250 x 50 mm / K 120	FF	107P56/120
2250 x 50 mm / K 180	FF	107P56/180
2250 x 50 mm / K 240	FF	107P56/240
2000 x 50 mm / K 40	FF	107P61/40
2000 x 50 mm / K 80	FF	107P61/80
2000 x 50 mm / K 120	FF	107P61/120
3500 x 50 mm / K 40	Optima	107P58/40
3500 x 50 mm / K 80	Optima	107P58/80
3500 x 50 mm / K 120	Optima	107P58/120



## Belt Sander

### Features

- floor stand
- 2-speed motor
- for connection to central exhaust unit with minimum air speed 20 m/sec

### Basic equipment

- continuously adjustable tilting angle of the working surface by 90°
- speed control

### Electrical equipment

- motor protection switch
- 1,3 m power cord with CEE plug 5 x 16 A

### Technical data

- dimensions W x D x H: 800 x 850 x 1520 mm
- space requirements W x D: approx. 1800 x 1400 mm
- extractor connection: Ø 100 mm
- sanding belt width: 250 mm
- sanding belt length: 2000 mm
- rotation speed: 1400/2800 rpm
- sanding belt speed: 15/30 m/sec
- power requirements: 400 V / 50 Hz / 3 ph / 2,3 kW / 3,0 kW
- colour: RAL 7035 light grey
- weight: 152 kg

Item-No.
10M37/3540



## Sanding Belt

- for wood and plastic, for item 10M35 and 10M37

Dimensions	Grain size	Item-No.
2000 x 250 mm	K 40	107P59/40



## Combination Sander

### Features

- floor stand
- 2-speed motor
- for connection to central exhaust unit with minimum air speed 20 m/s

### Basic equipment

- left side face plate Ø 350 mm with support table
- right side contact wheel and belt tensioning arm
- speed control

### Electrical equipment

- motor protection switch
- 1,3 m power cord with CEE plug 5 x 16 A

### Technical data

- dimensions W x D x H: 800 x 800 x 1900 mm
- space requirements W x D: approx. 1700 x 1400 mm
- 1 x extractor connection each, Ø 100 mm
- sanding belt width: 50 mm
- sanding belt length: 2500 mm
- face plate: Ø 350 mm
- rotation speed: 1400/2800 rpm
- sanding belt speed: 18/36 m/sec
- power requirements: 400 V / 50 Hz / 3 Ph / 1,3 kW / 1,8 kW
- colour: RAL 7035 light grey
- weight: 102 kg

	Item-No.
	10M38/3540



## Grinding Belt

- for item 10M36 and 10M38

Dimensions	Grain size	Item-No.
2500 x 50 mm	K 60	107P63/60
2500 x 50 mm	K 120	107P63/120
2500 x 50 mm	K 180	107P63/180



## Sanding Disc

- for face plates

Diameter	Grain size	Item-No.
320 mm	K 24	107P32/320
300 mm	K 36	107P30/300
350 mm	K 36	107P30/350
400 mm	K 36	107P30/400



## Sanding Line

- infinitely, corundum and sinter ceramic-coated abrasive, resin-bonded

Dimensions	Grain size	Item-No.
2000 x 300 mm	K 40	107P70/40
2000 x 300 mm	K 60	107P70/60
2000 x 300 mm	K 80	107P70/80



## Double Grinder 175 mm

Bench version

### Features

- grinding wheel regular corundum coarse K36
- grinding wheel regular corundum fine K80
- spark guard
- viewing window made of break-proof material
- adjustable tool support
- rubber feet for vibration control
- approx. 1,4 m electric cord with Schuko plug

### Technical data

- dimensions L x D x H: 389 x 233 x 279 mm
- grinding wheel Ø: 175 mm
- grinding wheel width: 25 mm
- speed: 2850 rpm
- power requirements: 230 V / 50 Hz / 1 Ph / 0,45 kW
- weight 14 kg

	Item-No.
	10M2/1523

## Double Grinder

Pillar version



### Features

- machine base
- cooling water container
- grinding wheel regular corundum coarse K36
- grinding wheel regular corundum fine K80
- spark guard
- viewing window made of break-proof material
- adjustable tool support
- rubber feet for vibration control
- approx. 1,4 m electric cord with Schuko plug

### Technical data

- dimensions L x D x H: 389 x 270 x 1104 mm
- grinding wheel Ø: 175 mm
- grinding wheel width: 25 mm
- speed: 2850 rpm
- power requirements: 230 V / 50 Hz / 1 Ph / 0,45 kW
- weight: 28,5 kg



Item-No.
10M3/1523



## Double Grinder 200 mm

Bench version

### Features

- grinding wheel regular corundum coarse K36
- grinding wheel regular corundum fine K80
- spark guard
- viewing window made of break-proof material
- adjustable tool support
- rubber feet for vibration control
- approx. 1,4 m electric cord with Schuko plug

### Technical Data

- dimensions L x D x H: 495 x 261 x 331 mm
- grinding wheel Ø: 200 mm
- grinding wheel width: 30 mm
- speed: 2850 rpm
- power requirements: 230 V / 50 Hz / 1 Ph / 0,6 kW
- weight: 18,5 kg

Item-No.
10M4/1523

## Double Grinder 200 mm

Pillar version



### Features

- machine base
- cooling water container
- grinding wheel regular corundum coarse K36
- grinding wheel regular corundum fine K80
- spark guard
- viewing window made of break-proof material
- adjustable tool support
- rubber feet for vibration control
- approx. 1,4 m electric cord with Schuko plug

### Technical data

- dimensions L x D x H: 495 x 270 x 1156 mm
- grinding wheel Ø: 200 mm
- grinding wheel width: 30 mm
- speed: 2850 rpm
- power requirements: 230 V / 50 Hz / 1 Ph / 0,6 kW
- weight: 33 kg



Item-No.
10M5/1523



## Double Grinder 300 mm

Bench version

### Features

- grinding wheel regular corundum coarse K36
- grinding wheel regular corundum fine K80
- spark guard
- viewing window made of break-proof material
- adjustable tool support
- rubber feet for vibration control
- approx. 1,4 m electric cord with CEE plug 5 x 16A

### Technical data

- dimensions L x D x H: 736 x 365 x 407 mm
- grinding wheel Ø: 300 mm
- grinding wheel width: 50 mm
- speed: 1450 rpm
- power requirements: 400 V / 50 Hz / 3 Ph / 2,2 kW
- weight: 84 kg

Item-No.
10M6/3540

# Plastics- & Metal Processing Machines

## Double Grinder 300 mm

Pillar version



### Features

- machine base with door and shelf
- cooling water container
- grinding wheel regular corundum coarse K36
- grinding wheel regular corundum fine K80
- spark guard
- viewing window made of break-proof material
- adjustable tool support
- rubber feet for vibration control
- approx. 1,4 m electric cord with CEE-plug, 5 x 16A

### Technical data

- dimensions L x D x H: 736 x 505 x 1197 mm
- grinding wheel Ø: 300 mm
- grinding wheel width: 50 mm
- speed: 1450 rpm
- power requirements: 400 V / 50 Hz / 3 Ph / 22 kW
- weight: 107 kg



Item-No.
10M7/3540

## Spark Guard

- 2 units per machine, transparent shield with mounting fixture



for machine	Diameter	Item-No.
10M2, M3, M4, M5	190 mm	10M8/F
10M6, M7	230 mm	10M9/F



## Grinding Wheel

- ordinary corundum, for machine 10M2 and 10M3
- Ø 175 mm, width 25 mm, hole Ø 50,8 mm

Grain size	Item-No.
coarse K 36	10M2/G
fine K 60	10M2/F



## Grinding Wheel

- ordinary corundum, for machine 10M4 and 10M5
- Ø 200 mm, width 32 mm, hole Ø 50,8 mm

Grain size	Item-No.
coarse K 36	10M4/G
fine K 60	10M4/F



## Grinding Wheel

- ordinary corundum, for machine 10M6 and 10M7
- Ø 300 mm, width 40 mm, bore Ø 76,2 mm

Grain size	Item-No.
coarse K 36	10M6/G
fine K 60	10M6/F



picture similar

## Combined Belt Sander / Grinder

### Features

- left side with grinding wheel Ø 300 mm, protective hood and tool support
- right side with rubber contact wheel Ø 450 mm
- sanding belt tensioning arm with closed protective hood
- 1 x corundum grinding wheel grit 36 (item 107P30/300)
- 1 x sanding belt grit 120 (item 107P57/120)
- 2,5 m power cord with CEE plug 5 x 16 A

### Technical data

- dimensions W x D x H: 890 x 750 x 2200 mm
- extractor connection with outer Ø 126 mm
- sanding belt width: 50 mm
- sanding belt length: 3000 mm
- sanding belt speed: 35 m/sec
- speed: 1500 RPM
- power requirements: 400 V / 50 Hz / 3 Ph / 1,5 kW
- colour: RAL 7035 light grey
- weight net/gross: 170 / 285 kg

Item-No.
10M30

without picture

## Double Belt Grinding Machine

### Features

- 2 grinding belt tensioning arms with closed protective hoods
- 2 rubber contact wheels Ø 250 mm
- 2 grinding belts, grit 120 (item 107P63/120)
- 2,5 m power cord with CEE plug 5 x 16 A

### Technical data

- dimensions W x D x H: 890 x 450 x 2005 mm
- extractor connection Ø 88 mm
- grinding belt width: 50 mm
- grinding belt length: 2500 mm
- speed: 3000 RPM
- power requirements: 400 V / 50 Hz / 3 Ph / 2,5 kW
- colour: RAL 7035 light grey
- weight net/gross: 192 / 307 kg

Item-No.
10M32

## Combined Sanding / Polishing Machine



### Features

- left side with polishing wheel Ø 300 mm
- protective hood
- right side with rubber contact wheel Ø 250 mm
- sanding belt tensioning arm with closed protective hood
- 1 x polishing wheel
- 1 x sanding belt grit 120 (107P63/120)
- 2,5 m power cord with CEE plug 5 x 16 A

### Technical data

- dimensions W x D x H: 890 x 750 x 2200 mm
- left side extractor connection Ø 127 mm
- right side extractor connection Ø 88 mm
- sanding belt width: 50 mm
- sanding belt length: 2500 mm
- speed: 3000 RPM
- power requirements: 400 V / 50 Hz / 3 Ph / 2,5 kW
- colour: RAL 7035 light grey
- weight net/gross: 170 / 285 kg

Item-No.
10M31

 Service parts available upon request!

## Sanding Belt



- MA = machine

L x W / grain size	for MA	Item-No.
2500 x 50 mm / K 60	10M31, 32	107P63/60
2500 x 50 mm / K 120	10M31, 32	107P63/120
2500 x 50 mm / K 180	10M31, 32	107P63/180
3000 x 50 mm / K 40	10M30	107P57/40
3000 x 50 mm / K 60	10M30	107P57/60
3000 x 50 mm / K 80	10M30	107P57/80
3000 x 50 mm / K 120	10M30	107P57/120
3000 x 50 mm / K 180	10M30	107P57/180



## Table Band Saw

### Features

- high precision and cutting performance
- smooth running by balanced band wheel with rubber coating
- blade speeds for various applications and materials
- easy conversion to belt sander
- door opens without tool, protection with safety end switch
- GS dust-proof
- with stand for optimum work height

### Basic equipment

- quick saw blade replacement
- saw band tension indicator with scale
- precision three-roller guide with HSS-wheels
- parallel fence with long profile, clamped in the front and in the back
- 1 pc. universal saw blade

### Electrical equipment

- 2 m power cord with grounded plug

### Technical data

- dimensions W x D x H: 665 x 795 x 1600 mm
- cutting height: 165 mm
- cutting width: 305 mm
- table size: 548 x 400 mm
- table adjustment: -2° – 45°
- saw blade width: 6 – 20 mm
- saw blade length: 2240 mm
- saw blade speed: 370 / 800 m/min
- extractor connection: Ø 100 mm
- power requirements: 230 V / 50 Hz / 1 ph / 0,9 kW
- colour: grey/green
- weight: 70,5 kg net

Item-No.
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130M5
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## Band Saw model 600

- for cutting of wood, plastics and NE-metals

### Features

- saw band tension indicator
- aluminium parallel stop with round bar guide
- 3-roll precision saw band guide
- cutting height adjustable by toothed rack
- grey cast iron saw table, tiltable from 0° to +20°
- doors protected by end switch
- self-braking motor
- emergency-off switch
- exhaust connection: 1 x Ø 120 mm
- 1 saw band for wood
- 1 saw band for synthetic materials and light metal
- approx. 2,3 m power cord with CEE plug 5 x 32A

### Technical data

- dimensions W x D x H: 1000 x 790 x 2000 mm
- dimensions work table W x D: 875 x 600 mm
- saw table height: 860 mm
- cutting speed: 1600 rpm
- max. cutting height: 370 mm
- max. cutting width: 580 mm
- saw band length: 4520 – 4600 mm
- saw band thickness: 0,5 – 0,6 mm
- power requirements: 400 V / 50 Hz / 3 Ph / 2,2 kW
- weight: 280 kg

Item-No.
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130M3/3540
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## Band Saw

- for processing of wood, plastics and metal

### Features

- two cutting speeds
- very quiet run
- high performance
- heavy duty, closed steel construction
- saw blade is lead by three wheels and is protected except for the cutting area, 2 doors allow easy access to the blade
- table can be turned up to 45° at the right side
- limit stop insertable to the left and right table side

### Basic equipment

- 1 saw blade for wood
- 1 saw blade for plastic
- upper and lower special bearing wheels
- blade guide

### Electrical equipment

- main- and motor protection switch as emergency switch
- 2 m power cord

### Technical data

- dimensions W x D x H: 1060 x 635 x 2060 mm
- table size: approx. 580 x 800 mm
- cutting height: approx. 345 mm
- cutting width: approx. 585 mm
- saw blade length: 4400 mm
- saw blade width: max. 35 mm
- extractor connection: Ø 100 mm
- 2-speed motor: 675 / 1350 RPM
- power requirements: 380 V / 50 Hz / 3 Ph / 2,2 kW
- colour: anthracite / RAL 7035 light grey
- weight: 270 kg

### Special voltages

- 208 V / 60 Hz / 3 Ph+PE / 2,2 kW (130M7/3620)

Item-No.
130M7

# Plastics- & Metal Processing Machines



picture similar

## Precision Band Saw

- for wood, plastics and NE-metals

### Features

- door opens without tool, protection with safety end switch
- viewing window for blade tension display
- two speeds, selection by means of V-belt adjustment
- quiet and precise operation due to warp-resistant machine body
- saw-table made of grey cast iron in one piece, with precisely ground and polished surface
- comfortable laser device for marking the cutting line
- quick-action saw band, tension adjustment by means of eccentric lever
- precise 3-roll saw band guide on top and bottom
- quick height adjustment by means of turning knob and toothed rod with millimeter scale
- aluminium parallel stop with eccentric quick clamp and magnifier
- mitre square stop, adjustable by 60° on both sides

### Basic equipment

- 3 saw blades for soft and hard wood, plastics and NE-metals

### Electrical equipment

- motor protection switch
- electronic motor brake
- 2 m power cord with CEE plug 5 x 16 A

### Technical data

- work table dimensions W x D: 680 x 530 mm
- cutting speeds: 850 / 430 m/min.
- max. cutting height: 270 mm
- max. cutting width with stop: 474 mm
- max. cutting width without stop: 514 mm
- saw band length: 3865 mm
- saw table inclination: -10° to +45°
- motor power: 400 V / 50 Hz / 3 Ph / 2,25 kW
- dimensions W x D x H: 1024 x 800 x 2048 mm
- extractor connection: 2 x 100 mm
- weight: 163 kg

Item-No.
----------

130M9/3540
------------

## Saw Band



- for item 130M9
- band saw blade, for wood, plastics and NE-metals, tooth pitch 4 T", ready welded
- length: 3865 mm

Width	Item-No.
-------	----------

10 mm	108P12/10
-------	-----------

16 mm	108P12/16
-------	-----------

20 mm	108P12/20
-------	-----------

25 mm	108P12/25
-------	-----------

## Saw Band



- for band saw 130M6
- length 3140 mm
- ready welded

Width	Thickness	Teeth/inch	Suitable for following materials	Item-No.
13 mm	0.65 mm	6/10	Plastics and light metals	108P1/314
16 mm	0.5 mm	4	Wood	108P4/314
13 mm	0.65 mm	10/14'	V2A and other steel types	108P2/314

## Saw Band



- for band saw 130M3
- length 3140 mm
- ready welded

Width	Thickness	Teeth/inch	Suitable for following materials	Item-No.
25 mm	0.6 mm	3	Wood	108P4/458
27 mm	0.9 mm	4/6	Plastics and light metals	108P1/458



## Saw Band

- for wood
- original Sweden Steel
- 0,65 mm (108P3) / 0,8 mm (108P4) thickness
- tooth pitch 4 T/”, teeth set, sharpened and ready welded
- MA = machine, EM = external make

L x W	for MA	Item-No.
2240 x 16 mm	130M5	108P3/224
3300 x 16 mm	130M4	108P3/330
3380 x 16 mm	130M2	108P3/338
3550 x 16 mm	130M6	108P3/355
4080 x 16 mm	FF	108P3/408
4400 x 16 mm	130M7	108P3/440
4500 x 16 mm	130M3	108P3/450
4960 x 16 mm	FF	108P3/496
3300 x 20 mm	130M4	108P4/330
3550 x 20 mm	130M6	108P4/355
4500 x 20 mm	130M3	108P4/450
4760 x 20 mm	FF	108P4/476



## Saw Band

- for wood, supplied in coils, 4Z/”
- PU = 30 m roll

Width	Item-No.
16 mm x 0.65 mm	108P3/E
20 mm x 0.80 mm	108P4/E

# Plastics- & Metal Processing Machines



## Saw Band

- for stainless steel and other steel types, original Sweden Steel
- 0,65 mm thickness, tooth pitch 24 T<sup>1</sup>/<sub>1</sub>", ready welded
- MA = machine, EM = external make

L x W	for MA	Item-No.
2240 x 6 mm	130M5	108P2/224
3300 x 6 mm	130M4	108P2/330
3380 x 6 mm	130M2	108P2/338
3550 x 6 mm	130M6	108P2/355
3800 x 6 mm	FF	108P2/380
4080 x 6 mm	FF	108P2/408
4400 x 6 mm	130M7	108P2/440
4500 x 6 mm	130M3	108P2/450
4760 x 6 mm	FF	108P2/476



## Saw Band

- for stainless steel and other steel types, supplied in coils
- PU = 30,50 m roll

Width	Item-No.
6 mm x 0.65 mm	108P2/E



## Saw Band

- for plastics and light metals, original Sweden Steel
- 0,65 mm thickness, tooth pitch 10 T<sup>1</sup>/<sub>1</sub>", ready welded
- MA = machine, EM = external make

L x W	for MA	Item-No.
2240 x 8 mm	130M5	108P1/224
3150 x 6 mm	FF	108P1/315
3300 x 8 mm	130M4	108P1/330
3380 x 8 mm	130M2	108P1/338
3550 x 8 mm	130M6	108P1/355
4080 x 8 mm	FF	108P1/408
4400 x 8 mm	130M7	108P1/440
4500 x 8 mm	130M3	108P1/450
4760 x 8 mm	FF	108P1/476
4960 x 8 mm	FF	108P1/496



## Saw Band

- for plastics and light metals, supplied in coils
- PU = 30 m roll

Width	Item-No.
8 mm x 0.65 mm	108P1/E

 Ready welded saw blades or saw blades in coils, are also available in other sizes and tooth pitches, upon request!



## Bench Drill Press

### Ausführung

- infinitely variable speed control
- usable table space 300 x 250 mm
- height adjustment of drill head via adjustable gas spring
- easy adjustable depth gauge
- speed- and drill depth indication: digital scale
- Thread cutting capacity max. M10
- on/off switch with low voltage release
- emergency switch
- quick Action Drill Chuck B16, 1 - 13 mm
- LED lit control panel
- 1,2 m electric cord with safety plug

### Technical Data

- Dimensions W x D x H: 390 x 450 x 860 mm
- Spindle: B16 DIN 238
- Continuous-/normal drilling capacity: 13/15 mm
- Working radius: 225 mm
- Drilling depth: 60 mm
- Column: Ø 60 mm
- Distance spindle to table: 0 - 300 mm (top), 0 - 360 mm (base)
- Spindle speed: 40 - 4000 1/min stufenlos
- Power requirements: 230 V / 50 Hz / 0,54 kW
- Colour: top RAL 7005 grey, base RAL 9005
- Weight: 80 kg

Item-No.
100M9
100M9



## Bench Drill Press

### Features

- power transmission by aluminium pulley
- speed continuously adjustable
- digital speed display
- emergency-off switch
- keyless drill chuck 1 – 13 mm
- height adjustable table with toothed rack
- drill table rotation: 360°
- usable table space W x D: 290 x 290 mm
- EMV filter class C2
- approx. 1,6 m power cord with Schuko plug

### Technical data

- dimensions W x D x H: 425 x 475 x 900 mm
- spindle fixture: MK 2
- continuous-/normal drilling capacity steel: Ø 12 / Ø 15 mm
- working radius: 230 mm
- drilling depth: 60 mm
- distance spindle to table: max. 375 mm
- distance drill chuck – machine foot: max. 355 mm
- spindle speed: 100 – 3000 rpm
- power requirements: 230 V / 50 Hz / 1 Ph / 0,85 kW
- weight: 66 kg net

Item-No.

100M2/1523



## Bench Drill Press

### Features

- power transmission by aluminium pulley
- speed adjustable in 12 steps
- digital drilling depth and speed display
- emergency switch
- Staples' length: 1 – 16 mm
- Morse Taper M 2 / B16
- drill depth stop
- V-belt cover with safety switch
- Right / left rotation
- height adjustable table with cograil
- Knee flexion angle: approx. 360°
- drill table incline: 45°
- usable drilling table area W x D: 280 x 245 mm
- approx. 1.6 m connection cable with CEE plug, 5-pin, 16A

### Technical data

- Dimensions W x D x H: 330 x 615 x 1015 mm
- spindle fixture: MK 2
- continuous / normal drilling capacity steel: Ø 20 / Ø 25 mm
- overhang: 180 mm
- drilling depth: 80 mm
- distance drill chuck - drill table: max. 425 mm
- distance drill chuck - drill table: max. 618 mm
- Range: 200 – 2440 RPM
- Number of steps: 12 steps
- power requirements: 400 V / 50 Hz / 3 Ph / 0.75kW
- weight: 63.5kg

Item-No.

100M3/3540

## Pillar Drill Press



### Features

- infinitely variable speed adjustment
- height adjustable table with cograil
- quickly adjustable drill depth stop
- speed- and drill depth indication: digital scale
- Thread cutting device
- EMERGENCY OFF palm button
- top unit with LED light
- without drill chuck
- without morse taper
- Motor protection switch with undervoltage release
- 1.5 m power cord with CEE plug 5 x 16 A

### Technical data

- dimensions W x D x H: 355 x 705 x 1825 mm
- spindle: MK II
- usable drilling table area W x D: 340 x 280 mm
- continuous/normal drilling capacity: 18/20 mm
- thread cutting capacity max. M10
- overhang: 240 mm
- drilling depth: 100 mm
- column: Ø 82 mm
- distance spindle/table: 160 - 880 mm
- Spindle speed: 30 – 3000 1/min stepless
- power requirements: 230 V / 50 Hz / 1 Ph / 0.75kW
- Colour: RAL 7005 light grey
- Weight: 151 kg

Item-No.
100M4/1523

## Pillar Drill Press



### Features

- speed control infinitely variable
- usable table space W x L 340 x 280 mm
- height adjustable with cograil
- adjustable drill depth stop with limiting ring
- drill depth indication with scale
- reversing switch for right/left-hand drill action
- motor protection switch with undervoltage release
- emergency switch
- without drill chuck
- without morse taper
- 1,5 m power cord with CEE plug 5 x 16 A

### Technical data

- dimensions W x D x H: 300 x 745 x 1850 mm
- spindle: MK II
- continuous-/normal drilling capacity: 18/23 mm
- working radius: 240 mm
- drilling depth: 100 mm
- column: Ø 82 mm
- distance spindle to table: 160 – 880 mm
- spindle speed infinitely variable: 250 – 4000 RPM
- power requirements: 400 V / 50 Hz / 3 Ph / 0,45 kW / 0,80 kW
- colour: RAL 7036 platinum-grey
- weight: 205 kg net

### Special voltages

- 208 V / 60 Hz / 3 Ph+PE / 0,45 kW / 0,80 kW (100M6/3620)

Item-No.
100M6

## Pillar Drill Press



### Features

- 2 infinitely variable speed ranges, manually adjustable
- digital speed display
- emergency-off switch
- keyless drill chuck 1 – 16 mm
- mandrel: MK 3 / B16
- V-belt cover with safety switch
- right/left-hand drill action
- machine light integrated in drill head
- drill table height adjustable by toothed rack
- drill table rotation: 360°
- usable drill table surface L x W: 340 x 360 mm
- approx. 1,6 m power cord with CEE plug, 5 x 16A

### Technical data

- dimensions W x D x H: 550 x 755 x 1745 mm
- spindle fixture: MK 3
- continuous-/ normal drilling capacity steel: Ø 24 / Ø 28 mm
- working radius: 200 mm
- drilling depth: 105 mm
- distance spindle to table: max. 860 mm
- distance spindle to machine foot: max. 1285 mm
- spindle speed: 300 – 4000 rpm
- control settings: 2 steps
- power requirements: 400 V / 50 Hz / 3 Ph / 0,85 kW
- weight: 152 kg

Item-No.

100M7/3540

## Pillar Drill Press



### Features

- transmission by means of aluminium pulley
- speed adjustable in 12 steps
- digital drill depth and speed display
- emergency-off switch
- keyless drill chuck 1 – 16 mm
- mandrel: MK 3 / B16
- drill depth stop
- V-belt cover with safety switch
- right/left-hand drill action
- drill table height adjustable by toothed rack
- drill table rotation: 360°
- drill table tilt: 45°
- usable drill table surface L x W: 330 x 290 mm
- approx. 1,6 m power cord with CEE plug, 5 x 16A

### Technical data

- dimensions W x D x H: 355 x 670 x 1640 mm
- spindle fixture: MK 3
- continuous-/ normal drilling capacity steel: Ø 20 / Ø 25 mm
- working radius: 210 mm
- drill depth: 85 mm
- distance spindle to table: max. 720 mm
- distance spindle to machine foot: max. 1230 mm
- spindle speed: 200 – 2440 rpm
- control settings: 12 steps
- Elektroanschluss: 400 V / 50 Hz / 3 Ph / 0,75 kW
- weight: 85 kg

Item-No.

100M10/3540

## Pillar Drill Press



### Features

- speed control infinitely variable
- height adjustable table with cograil
- quickly adjustable drill depth stop
- digital speed and drill depth display
- taper
- EMERGENCY OFF palm button
- top unit with LED light
- without drill chuck
- without morse taper
- motor protection switch with low voltage release
- 1,5 m power cord with grounded plug

### Technical data

- dimensions W x D x H: 550 x 750 x 1800 mm
- Spindel: MK II
- usable table space W x D: 420 x 340 mm
- continuous / normal drilling capacity: 23/25 mm
- thread cutting capacity: max. M16
- working radius: 260 mm
- drilling depth: 100 mm
- column: Ø 110 mm
- distance spindle to table: 230 – 850 mm
- spindle speed infinitely variable: 20 – 2000 1/min
- power requirements: 400 V / 50 Hz / 3 Ph / 1,5 kW
- colour: RAL 7036 platin grey
- weight: 275 kg
- special voltage 208 V / 60 Hz / 3 Ph+PE / 1,5 kW (100M8/3620)

Item-No.

100M8/3540

## Quick Action Drill Chuck



- without morse taper
- suitable for item 100M2, 100M3, 100M4, 100M6, 100M8, 100M9

### Technical data

- span range: 1 – 13 mm
- receiver: B16

Item-No.

101M1/113

## Quick Action Drill Chuck



- without morse taper, suitable for item 100M7

### Technical data

- span range: 3 – 16 mm
- receiver: B18

Item-No.

101M1/316

# Plastics- & Metal Processing Machines



## Morse Taper

- suitable for item 100M2, 100M4, 100M6, 100M8

### Technical data

- spindle: MK II
- receiver: B16

	<b>Item-No.</b>
	101M3



## Morse Taper

- suitable for item 100M7

### Technical data

- spindle: MK III
- receiver: B18

	<b>Item-No.</b>
	101M4



## Drilling Arm

- suitable for all drill presses

### Technical data

- length: 400 mm
- weight: 2 kg net

	<b>Item-No.</b>
	101M5



## Machine Jaw Vise

- suitable for bench and floor type drill presses with prismatic jaws
- dimensions = jaw width x span width

Dimensions	Weight	Item-No.
100 x 110 mm	3.3 kg	101P14/100
150 x 110 mm	4.75 kg	101P14/120



## Electric Welding Machine

### Features

- 3,5 m welding cable (25 mm<sup>2</sup>) with electrode holder
- 2,5 m earth cable with pole clamp
- 25 welding rods: 2,5 x 350 mm
- 25 welding rods: 3,5 x 350 mm
- chipping hammer
- 2-line wire brush
- welding gloves
- welding shield incl. glasses
- power cord with grounded plug

### Technical data

- dimensions W x D x H: 140 x 330 x 230 mm
- main fuse: 16 A
- welding current range: 160 A
- capacity: 3,6 kW
- electrode size: 1,5 – 3,5 mm
- power requirements: 230 V / 50 – 60 Hz / 1 Ph
- weight: 5,8 kg net

Item-No.

83M5



The machine is equipped with a rectifier welding set, protection according to IP23.



## Welding and Cutting Torch Set

- for oxy-acetylene welding

### Features

- metal carry case
- torch handle
- 5 welding nozzels
- nozzle cleaning needle
- spring lever torch with heating- and cutting nozzles
- torch spanner

### Technical data

- welding range: 0,5 – 9 mm
- cutting range: 3 – 100 mm
- weight: 1,9 kg net

Item-No.

83M7

## Mobile Gas and Brazing Welding Unit



### Features

- 1 oxygen steel bottle 10 liters
- 1 acetylene steel bottle 10 liters
- 1 bottle trolley
- each bottle with 2 manometer gauges with 1 pressure regulator
- 1 thermic flashback valve for oxygen
- 1 thermic flashback valve for acetylene
- 7 m hose, assembled
- 1 set protective glasses
- 1 handle 17 mm
- 5 welding nozzles in different sizes
- 1 spring lever torch, Ø 17 mm
- 1 heating nozzle 3 – 100 mm
- 2 cutting nozzles 3 – 25 mm
- 1 gas lighter
- 1 torch spanner
- 1 set of nozzle cleaning needles

### Technical data

- weight: 44 kg net

Item-No.

83M6

## Pressure Regulator



- bottle fitting set

### Features

- pressure regulator for acetylene bottle with connection bracket
- pressure regulator for oxygen bottle with 3/4" connection
- 2 thermic flash back valves
- 5 m autogenous twin-hose with brass hose fittings, left side ready mounted according to DIN 8541

### Technical data

- weight: 5 kg net

Item-No.

83M8



## Silver Solder

- for soldering of stainless steel, cadium-free, 45 % silver
- melting temperature approx. 450 °C



Diameter

Length

Item-No.

1.5 mm

500 mm

83M13



## Welding Electrode

- for welding of stainless steel

Diameter	Length	Item-No.
2 mm	300 mm	83M16

 Other sizes are available upon request.



## Flux

- for silver solder
- effective temperature range: 500 – 800 °C

Weight	Item-No.
100 g	83M14/1
500 g	83M14/5



## Welding Rod

- for autogenous welding, length 1000 mm

Diameter	Item-No.
2 mm	83M15/2
3 mm	83M15/3
4 mm	83M15/4



## Welding Table

- angle-iron frame with 1 slag receiver tray
- grate one half made of fireclay brick, other half made of round steel bars, with burner support and welding rod quiver

### Technical data

- dimensions W x D x H: 1010 x 755 x 800 mm
- weight: 76 kg net

Item-No.
83M9

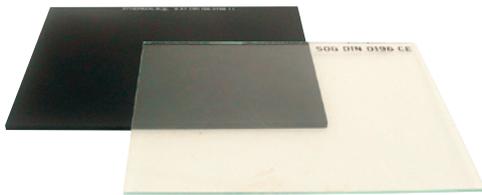
# Plastics- & Metal Processing Machines



## Welding Shield

- incl. exchangeable glasses, with handle (protection class DIN 9 A)

	Item-No.
	12P55



## Replacement Glass

- for welding shield 12P55

Features	Item-No.
Supplementary glass clear	12P56
DIN 9A Athermal glass	12P57



## Welding Apron

- chrome leather, adjustable belt
- PU = 1 piece

Size	Colour	Item-No.
800 x 1000 mm	grey-white	12P50



## Chipping Hammer

- with handle, to remove welding slag

Weight	Item-No.
350 g	170P9

# Plastics- & Metal Processing Machines



## Anvil

- made of hardened quality steel (85M100) resp. drop-forged (85M1/20 and 85M1/30)
- dimensions = total length x width x table length

Dimensions	Weight	Height	Item-No.
350 x 60 x 230 mm	20 kg	172 mm	85M1/20
430 x 72 x 280 mm	30 kg	200 mm	85M1/30
680 x 125 x 460 mm	100 kg	290 mm	85M1/100



## Anvil

- drop-forged with two anvil beaks
- dimensions = total length x width x table length

Dimensions	Weight	Height	Item-No.
390 x 80 x 170 mm	20 kg	155 mm	85M2/20
475 x 95 x 205 mm	35 kg	200 mm	85M2/35
635 x 125 x 265 mm	75 kg	265 mm	85M2/75
720 x 130 x 300 mm	125 kg	310 mm	85M2/125



## Anvil Base

- suitable for all sizes
- dimensions W x D x H: 460 x 380 x 550 mm

Weight	Item-No.
46 kg	85M5



## Suction Ventilator

- for aspiration of welding fumes, simple mount, also suitable for outdoor application

### Technical data

- suction capacity: 2000 m<sup>3</sup>/h
- connection- and exhaust fitting: Ø 150 mm
- vacuum: max. 1950 Pa
- power requirements: 400 V / 50 Hz / 3 Ph / 0,75 kW
- weight: 14 kg net

Item-No.
83M20



## Ball Joint Suction Arm

- for welding fumes, for combined use with 83M20 or separate use on work benches or machines

### Features

- work range 2,5 m
- ceiling- or wall-mount is possible
- locking-flange Ø 150 mm
- suction hood and hose

### Technical data

- weight: 12 kg net

	Item-No.
	83M23



## Hand Lever Shear

- with one sheet metal and one steel rod shear knife
- dimensions = knife length x shear capacity (sheet metal) x shear capacity (steel rod)

Dimensions	Lever length	Item-No.
120 x 4 x 10 mm	850 mm	75M10/4
150 x 5 x 11 mm / 12.5	1000 mm	75M10/5
180 x 6 x 13 mm / 24.5	1150 mm	75M10/6



## Shear Knife

- for item 75M10, upper- and lower knife

Size	Item-No.
4	75M12/4
5	75M12/5
6	75M12/6

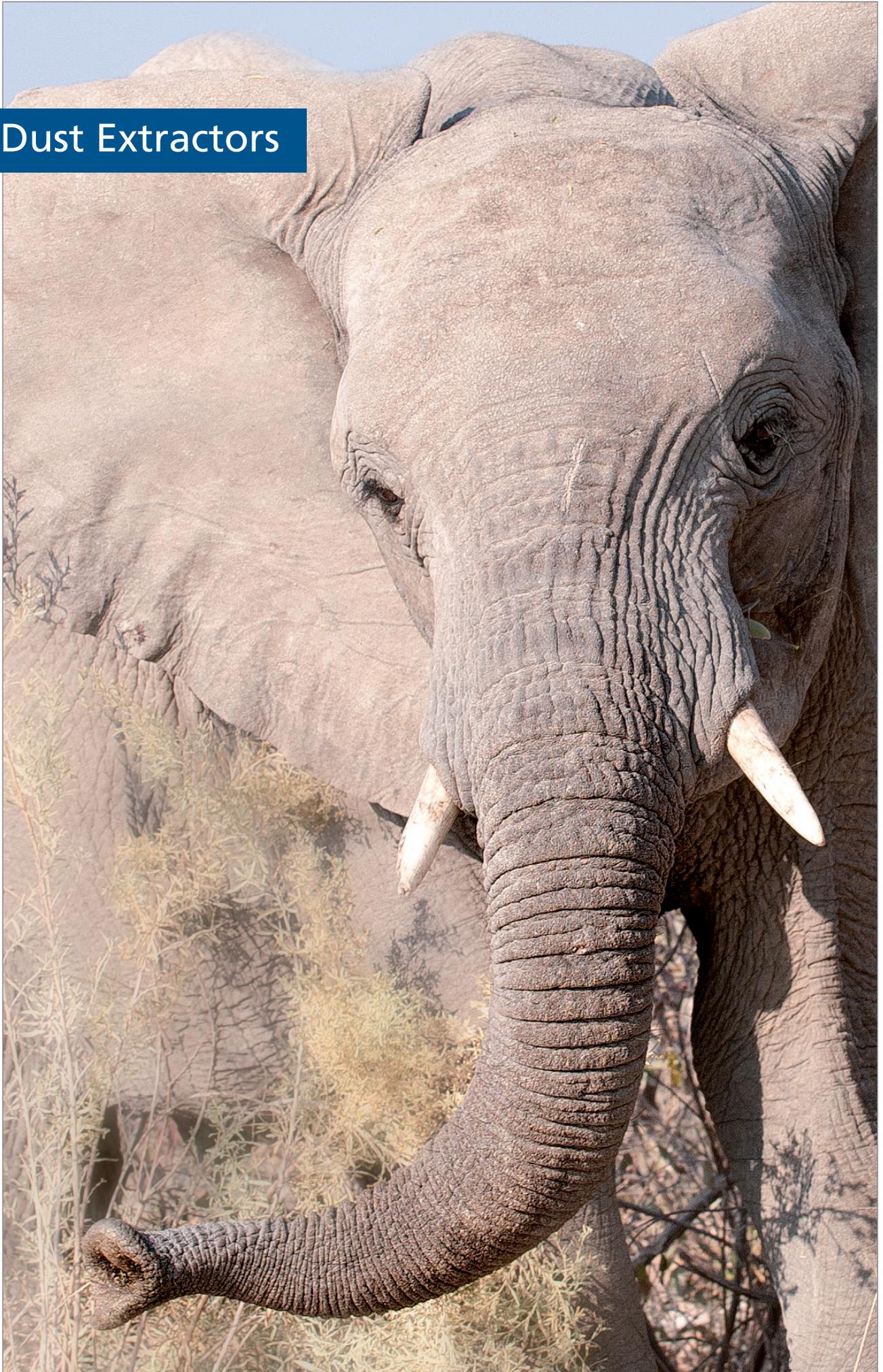


## Mobile Stand

- for item 75M10

Hight	Weight	Item-No.
670 mm	45 kg	75M11

## Dust Extractors

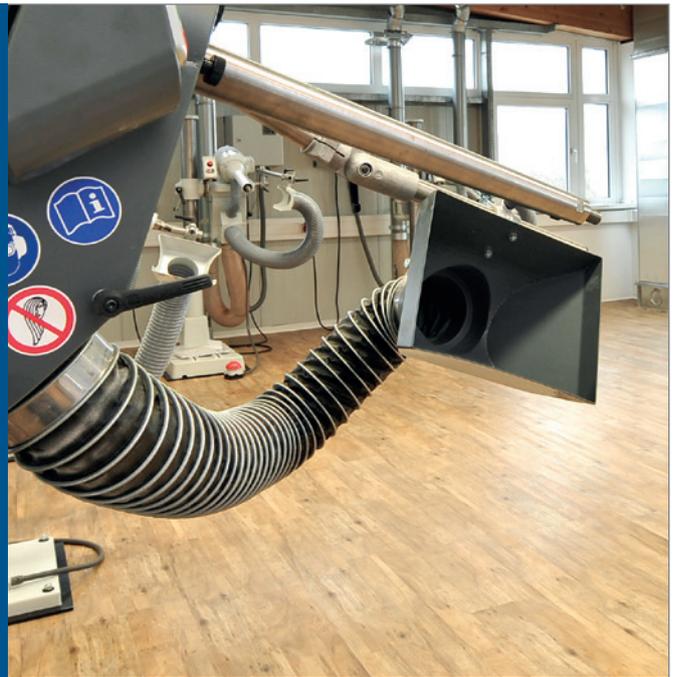


# Dust Extractors

According to legal directives, chippings and particulate pollution carry health risks and must be extracted from the room air. For this process, dust extraction devices are necessary, which must be defined according to your needs and purposes. In our catalogue, you will find numerous powerful dust extraction devices as well as matching accessories. Whether you operate one, five or even more machines at the same time – there is a solution for each of your demands. We would like to mention that even our strongest suction devices (type series 250 or 300) work at a low noise level of max. 76 dB(A) and therefore considerably contribute to a healthy working environment.



Our low-noise dust extractors are equipped with latest filter technology, in order to not only maintain but to clearly stay below the national health insurer's reference values of maximum allowable dust content of 0,2 milligrams per cubic metre of air. Our long-term experience in planning and mounting room-air dependent and independent central suction devices for all workshop sizes makes us a reliable partner for your project. We will be pleased to support you to find the dust extraction system best suitable for your purposes.







## Clean Air Dust Extractor POWER UNIT 100

manual filter cleaning

### Characteristics

- compact, mobile clean-air dust extractor for extracting wood- and plastic chips
- depending on load (utilisation factor), the residues of several machines can be extracted
- long filter service life
- optimal pre-filtration in the intake area
- powerful, efficient extraction
- simple operation, low maintenance
- BG inspected
- residual dust content: H3 (< 0,1 mg/m<sup>3</sup>)

### Equipment

- ON / OFF switch for clean-air dust extractor
- hand lever for filter cleaning
- high performance bag filter
- differential pressure gauge
- 1 chip collector incl. chip collection bag
- 5 m power cord with grounded plug

### Technical data

- dimensions W x D x H: 1178 x 650 x 1973 mm
- extraction connector: Ø 100 mm
- nominal air flow capacity at connector at 20 m/s: 565 m<sup>3</sup>/h
- max. volume air flow: 790 m<sup>3</sup>/h
- negative pressure at connector: 2033 Pa
- max. sound pressure level: approx. 75 dB(A)
- filter surface: 4,1 m<sup>2</sup>
- filter material: dust class M, electrical conductive, washable
- chip collection volume: 135 litres
- power requirements: 230 V / 50 Hz / 1 Ph / 1,1 kW
- weight: 114 kg

### Optional accessories

- chip collection bags for POWER UNIT 100/120 item-no. 20M550/1
- automatic starter item-no. 20M540
- extraction hose item-no. 150M1/100

	Item-No.
	20M100/230



Special voltages upon request.



## Clean Air Dust Extractor POWER UNIT 100

manual filter cleaning

### Characteristics

- compact, mobile clean-air dust extractor for extracting wood- and plastic chips
- depending on load (utilisation factor), the residues of several machines can be extracted
- long filter service life
- optimal pre-filtration in the intake area
- powerful, efficient extraction
- simple operation, low maintenance
- BG inspected
- residual dust content: H3 (< 0,1 mg/m<sup>3</sup>)

### Equipment

- ON / OFF switch for clean-air dust extractor
- hand lever for filter cleaning
- high performance bag filter
- differential pressure gauge
- 1 chip collector incl. chip collection bag
- 5 m power cord with CEE plug
- 5-pin plug, 16 A with phase changer

### Technical data

- dimensions W x D x H: 1178 x 650 x 1973 mm
- extraction connector: Ø 100 mm
- nominal air flow capacity at connector at 20 m/s: 565 m<sup>3</sup>/h
- max. volume air flow: 790 m<sup>3</sup>/h
- negative pressure at connector: 2122 Pa
- max. sound pressure level: approx. 75 dB(A)
- filter surface: 4,1 m<sup>2</sup>
- filter material: dust class M, electrical conductive, washable
- chip collection volume: 135 litres
- power requirements: 400 V / 50 Hz / 3 Ph / 1,5 kW
- weight: 114 kg

### Optional accessories

- chip collection bags for POWER UNIT 100/120 item-no. 20M550/1
- automatic starter item-no. 20M540
- extraction hose item-no. 150M1/100

Item-No.
20M100/400



## Clean Air Dust Extractor POWER UNIT 120

manual filter cleaning

### Characteristics

- compact, mobile clean-air dust extractor for extracting wood- and plastic chips
- depending on load (utilisation factor), the residues of several machines can be extracted
- long filter service life
- optimal pre-filtration in the intake area
- powerful, efficient extraction
- simple operation, low maintenance
- BG inspected
- residual dust content: H3 (< 0,1 mg/m<sup>3</sup>)

### Equipment

- ON / OFF switch for clean-air dust extractor
- hand lever for filter cleaning
- high performance bag filter
- differential pressure gauge
- 1 chip collector incl. chip collection bag
- 5 m power cord with CEE plug
- 5-pin plug, 16 A with phase changer

### Technical data

- dimensions W x D x H: 1178 x 650 x 1973 mm
- extraction connector: Ø 120 mm
- nominal air flow capacity at connector at 20 m/s: 814 m<sup>3</sup>/h
- max. volume air flow: 1140 m<sup>3</sup>/h
- negative pressure at connector: 2180 Pa
- max. sound pressure level: approx. 75 dB(A)
- filter surface: 5,1 m<sup>2</sup>
- filter material: dust class M, electrical conductive, washable
- chip collection volume: 135 litres
- power requirements: 400 V / 50 Hz / 3 Ph / 1,5 kW
- weight: 117 kg

### Optional accessories

- chip collection bags for POWER UNIT 100/120 item-no. 20M550/1
- automatic starter item-no. 20M540
- extraction hose item-no. 150M1/120

Item-No.
20M120/H

 Special voltages upon request.



## Clean Air Dust Extractor POWER UNIT 120

with automatic filter cleaning system and machine recognition

### Characteristics

- compact, mobile clean-air dust extractor for extracting wood- and plastic chips
- depending on load (utilisation factor), the residues of several machines can be extracted
- long filter service life
- optimal pre-filtration in the intake area
- powerful, efficient extraction
- simple operation, low maintenance
- BG inspected
- residual dust content: H3 (< 0,1 mg/m<sup>3</sup>)

### Equipment

- ON / OFF switch for clean-air dust extractor
- switch for manual filter cleaning
- high performance bag filter
- volume flow monitoring with signal lamp
- 1 chip collector incl. chip collection bag
- 5 m power cord with CEE plug
- 5-pin plug, 16 A with phase changer

### Technical data

- dimensions W x D x H: 1178 x 650 x 1973 mm
- extraction connector: Ø 120 mm
- nominal air flow capacity at connector at 20 m/s: 814 m<sup>3</sup>/h
- max. volume air flow: 1140 m<sup>3</sup>/h
- negative pressure at connector: 2180 Pa
- max. sound pressure level: approx. 75 dB(A)
- filter surface: 5,1 m<sup>2</sup>
- filter material: dust class M, electrical conductive, washable
- chip collection volume: 135 litres
- power requirements: 400 V / 50 Hz / 3 Ph / 1,5 kW
- weight: 121 kg

### Optional accessories

- chip collection bags for POWER UNIT 100/120 item-no. 20M550/1
- automatic starter item-no. 20M540
- extraction hose item-no. 150M1/120

Item-No.
20M120/M



## Clean Air Dust Extractor POWER UNIT 140

with automatic compressed air filter cleaning system

### Characteristics

- compact, mobile clean-air dust extractor for extracting wood- and plastic chips
- depending on load (utilisation factor), the residues of several machines can be extracted
- optional machine recognition and automatic start of up to 16 processing machines
- optimal extraction by surface filtration and integrated pre-filtration
- fully automatic compressed air filter cleaning with patented OPTIJET technology
- powerful, efficient extraction
- simple operation, low maintenance
- BG inspected
- residual dust content: H3 (< 0,1 mg/m<sup>3</sup>)

### Equipment

- ON / OFF switch for clean-air dust extractor
- inner hose filters
- control unit optionally upgradeable
- ventilator located at clean-air side
- volume flow monitoring with signal lamp
- switch for manual filter cleaning
- 1 chip collector incl. chip collection bag
- 5 m power cord with CEE plug
- 5-pin plug, 16 A with phase changer

### Technical data

- dimensions W x D x H: 1684 x 830 x 2050 mm
- extraction connector: Ø 140 mm
- nominal air flow capacity at connector at 20 m/s: 1108 m<sup>3</sup>/h
- max. volume air flow: 1600 m<sup>3</sup>/h
- negative pressure at connector: 2591 Pa
- max. sound pressure level: approx. 71,6 dB(A)
- filter surface: 6,3 m<sup>2</sup>
- filter material: dust class M, electrical conductive, washable
- chip collection volume: 241 litres
- compressed air connection: 1/2" standard plug
- power requirements: 400 V / 50 Hz / 3 Ph / 2,2 kW
- weight: 330 kg

### Optional accessories

- chip collection bags for POWER UNIT 140/160/200 item-no. 20M550/2
- debris level indicator for POWER UNIT item-no. 20M530
- machine recognition with push control 24 V item-no. 20M500
- frequency converter for demand control item-no. 20M520/1
- extraction hose item-no. 150M1/140

	Item-No.
	20M140/P

 Special voltages upon request.

# Dust Extractors



## Clean Air Dust Extractor POWER UNIT 140

manual filter cleaning

### Characteristics

- compact, mobile clean-air dust extractor for extracting wood- and plastic chips
- depending on load (utilisation factor), the residues of several machines can be extracted
- optional machine recognition and automatic start of up to 16 processing machines
- optimal extraction by surface filtration and integrated pre-filtration
- powerful, efficient extraction
- simple operation, low maintenance
- BG inspected
- residual dust content: H3 (< 0,1 mg/m<sup>3</sup>)

### Equipment

- ON / OFF switch for clean-air dust extractor
- inner hose filters
- control unit optionally upgradeable
- ventilator located at clean-air side
- handle for filter cleaning
- volume flow monitoring with signal lamp
- 1 chip collector incl. chip collection bag
- 5 m power cord with CEE plug
- 5-pin plug, 16 A with phase changer

### Technical data

- dimensions W x D x H: 1684 x 830 x 2050 mm
- extraction connector: Ø 140 mm
- nominal air flow capacity at connector at 20 m/s: 1108 m<sup>3</sup>/h
- max. volume air flow: 1600 m<sup>3</sup>/h
- negative pressure at connector: 2591 Pa
- max. sound pressure level: approx. 71,6 dB(A)
- filter surface: 6,3 m<sup>2</sup>
- filter material: dust class M, electrical conductive, washable
- chip collection volume: 241 litres
- power requirements: 400 V / 50 Hz / 3 Ph / 2,2 kW
- weight: 320 kg

### Optional accessories

- chip collection bags for POWER UNIT 140/160/200 item-no. 20M550/2
- debris level indicator for POWER UNIT item-no. 20M530
- machine recognition with push control 24 V item-no. 20M500
- frequency converter for demand control item-no. 20M520/1
- extraction hose item-no. 150M1/140

	Item-No.
	20M140/H

 Special voltages upon request.



## Clean Air Dust Extractor POWER UNIT 160

with automatic compressed air filter cleaning system

### Characteristics

- compact, mobile clean-air dust extractor for extracting wood- and plastic chips
- depending on load (utilisation factor), the residues of several machines can be extracted
- optional machine recognition and automatic start of up to 16 processing machines
- optimal extraction by surface filtration and integrated pre-filtration
- fully automatic compressed air filter cleaning with patented OPTIJET technology
- powerful, efficient extraction
- simple operation, low maintenance
- BG inspected
- residual dust content: H3 (< 0,1 mg/m<sup>3</sup>)

### Equipment

- ON / OFF switch for clean-air dust extractor
- inner hose filters
- control unit optionally upgradeable
- ventilator located at clean-air side
- volume flow monitoring with signal lamp
- switch for manual filter cleaning
- 1 chip collector incl. chip collection bag
- 5 m power cord with CEE plug
- 5-pin plug, 16 A with phase changer

### Technical data

- dimensions W x D x H: 1684 x 830 x 2050 mm
- extraction connector: Ø 160 mm
- nominal air flow capacity at connector at 20m/s: 1448 m<sup>3</sup>/h
- max. volume air flow: 2000 m<sup>3</sup>/h
- negative pressure at connector: 2503 Pa
- max. sound pressure level: approx. 70,8 dB(A)
- filter surface: 9,1 m<sup>2</sup>
- filter material: dust class M, electrical conductive, washable
- chip collection volume: 241 litres
- compressed air connection: 1/2" standard plug
- power requirements: 400 V / 50 Hz / 3 Ph / 2,2 kW
- weight: 340 kg

### Optional accessories

- chip collection bags for POWER UNIT 140/160/200 item-no. 20M550/2
- debris level indicator for POWER UNIT item-no. 20M530
- machine recognition with push control 24 V item-no. 20M500
- frequency converter for demand control item-no. 20M520/1
- extraction hose item-no. 150M1/160

	Item-No.
	20M160/P

 Special voltages upon request.

# Dust Extractors



## Clean Air Dust Extractor POWER UNIT 160

with automatic compressed air filter cleaning system, with integrated compressor

### Characteristics

- compact, mobile clean-air dust extractor for extracting wood- and plastic chips
- depending on load (utilisation factor), the residues of several machines can be extracted
- optional machine recognition and automatic start of up to 16 processing machines
- optimal extraction by surface filtration and integrated pre-filtration
- fully automatic compressed air filter cleaning with patented OPTIJET technology
- integrated compressor
- powerful, efficient extraction
- simple operation, low maintenance
- BG inspected
- residual dust content: H3 (< 0,1 mg/m<sup>3</sup>)

### Equipment

- ON / OFF switch for clean-air dust extractor
- inner hose filters
- control unit optionally upgradeable
- ventilator located at clean-air side
- volume flow monitoring with signal lamp
- switch for manual filter cleaning
- 1 chip collector incl. chip collection bag
- integrated compressor 230V / 50 Hz / 1,1 kW / 7 A
- 5 m power cord with CEE plug
- 5-pin plug, 16 A with phase changer

### Technical data

- dimensions W x D x H: 1684 x 830 x 2050 mm
- extraction connector: Ø 160 mm
- nominal air flow capacity at connector at 20m/s: 1448 m<sup>3</sup>/h
- max. volume air flow: 2000 m<sup>3</sup>/h
- negative pressure at connector: 2503 Pa
- max. sound pressure level: approx. 70,8 dB(A)
- filter surface: 9,1 m<sup>2</sup>
- filter material: dust class M, electrical conductive, washable
- chip collection volume: 241 litres
- power requirements: 400 V / 50 Hz / 3 Ph / 2,2 kW
- weight: 350 kg

### Optional accessories

- chip collection bags for POWER UNIT 140/160/200 item-no. 20M550/2
- debris level indicator for POWER UNIT item-no. 20M530
- machine recognition with push control 24 V item-no. 20M500
- frequency converter for demand control item-no. 20M520/1
- extraction hose item-no. 150M1/160

	<b>Item-No.</b>
	20M160/K



## Clean Air Dust Extractor POWER UNIT 160

manual filter cleaning

### Characteristics

- compact, mobile clean-air dust extractor for extracting wood- and plastic chips
- depending on load (utilisation factor), the residues of several machines can be extracted
- optional machine recognition and automatic start of up to 16 processing machines
- optimal extraction by surface filtration and integrated pre-filtration
- powerful, efficient extraction
- simple operation, low maintenance
- BG inspected
- residual dust content: H3 (< 0,1 mg/m<sup>3</sup>)

### Equipment

- ON / OFF switch for clean-air dust extractor
- inner hose filters
- control unit optionally upgradeable
- ventilator located at clean-air side
- handle for filter cleaning
- volume flow monitoring with signal lamp
- 1 chip collector incl. chip collection bag
- 5 m power cord with CEE plug
- 5-pin plug, 16 A with phase changer

### Technical data

- dimensions W x D x H: 1684 x 830 x 2050 mm
- extraction connector: Ø 160 mm
- nominal air flow capacity at connector at 20m/s: 1448 m<sup>3</sup>/h
- max. volume air flow: 2000 m<sup>3</sup>/h
- negative pressure at connector: 2503 Pa
- max. sound pressure level: approx. 70,8 dB(A)
- filter surface: 9,1 m<sup>2</sup>
- filter material: dust class M, electrical conductive, washable
- chip collection volume: 241 litres
- power requirements: 400 V / 50 Hz / 3 Ph / 2,2 kW
- weight: 330 kg

### Optional accessories

- chip collection bags for POWER UNIT 140/160/200 item-no. 20M550/2
- debris level indicator for POWER UNIT item-no. 20M530
- machine recognition with push control 24 V item-no. 20M500
- frequency converter for demand control item-no. 20M520/1
- extraction hose item-no. 150M1/160

	Item-No.
	20M160/H

 Special voltages upon request.



## Clean Air Dust Extractor POWER UNIT 200

with automatic compressed air filter cleaning system

### Characteristics

- compact, mobile clean-air dust extractor for extracting wood- and plastic chips
- depending on load (utilisation factor), the residues of several machines can be extracted
- optional machine recognition and automatic start of up to 16 processing machines
- optimal extraction by surface filtration and integrated pre-filtration
- fully automatic compressed air filter cleaning with patented OPTIJET technology
- powerful, efficient extraction
- simple operation, low maintenance
- BG inspected
- residual dust content: H3 (< 0,1 mg/m<sup>3</sup>)

### Equipment

- ON / OFF switch for clean-air dust extractor
- inner hose filters
- control unit optionally upgradeable
- ventilator located at clean-air side
- volume flow monitoring with signal lamp
- switch for manual filter cleaning
- 2 chip collectors incl. chip collection bags
- 5 m power cord with CEE plug
- 5-pin plug, 16 A with phase changer

### Technical data

- dimensions W x D x H: 2268 x 830 x 2050 mm
- extraction connector: Ø 200 mm
- nominal air flow capacity at connector at 20 m/s: 2262 m<sup>3</sup>/h
- max. volume air flow: 3010 m<sup>3</sup>/h
- negative pressure at connector: 2174 Pa
- max. sound pressure level: approx. 71,1 dB(A)
- filter surface: 13,8 m<sup>2</sup>
- filter material: dust class M, electrical conductive, washable
- chip collection volume: 2 x 241 litres
- compressed air connection: 1/2" standard plug
- power requirements: 400 V / 50 Hz / 3 Ph / 2,9 kW
- weight: 460 kg

### Optional accessories

- chip collection bags for POWER UNIT 140/160/200 item-no. 20M550/2
- debris level indicator for POWER UNIT item-no. 20M530
- machine recognition with push control 24 V item-no. 20M500
- frequency converter for demand control item-no. 20M520/2
- extraction hose item-no. 150M1/200

	Item-No.
	20M200

 Special voltages upon request.



## Clean Air Dust Extractor POWER UNIT 250

with automatic compressed air filter cleaning system

### Features

- compact, mobile clean-air dust extractor for extracting wood- and plastic chips
- depending on load (utilisation factor), the residues of several machines can be extracted
- optional machine recognition and automatic start of up to 16 processing machines
- optimal extraction by surface filtration and integrated pre-filtration
- fully automatic compressed air filter cleaning with patented OPTIJET technology
- powerful, efficient extraction
- simple operation, low maintenance
- approved by employer's liability insurance association
- residual dust content: H3 (< 0,1 mg/m<sup>3</sup>)

### Equipment

- ON / OFF switch for clean-air dust extractor
- inner hose filters
- control unit optionally upgradeable
- ventilator located at clean-air side
- volume flow monitoring with signal lamp
- switch for manual filter cleaning
- 2 chip collectors incl. chip collection bags
- 5 m power cord with CEE plug
- 5-pin plug, 32 A with phase changer

### Technical data

- dimensions W x D x H: 2305 x 1058 x 2351 mm
- extraction connector: Ø 250 mm
- nominal air flow capacity at connector at 20 m/s: 3534 m<sup>3</sup>/h
- max. volume air flow: 4900 m<sup>3</sup>/h
- negative pressure at connector: 2451 Pa
- max. sound pressure level: 71,9 dB(A)
- filter surface: 22,4 m<sup>2</sup>
- filter material: dust class M, electrical conductive, washable
- chip collection volume: 2 x 250 litres
- compressed air connection: 1/2" standard plug
- power requirements: 400 V / 50 Hz / 3 Ph / 6,5 kW
- weight: 758 kg

### Optional accessories

- chip collection bags for POWER UNIT 250/300 item-no. 20M550/3
- debris level indicator for POWER UNIT item-no. 20M530
- machine recognition with push control 24 V item-no. 20M500
- frequency converter for demand control item-no. 20M520/3
- extraction hose item-no. 150M1/250

### Special voltages

- 220 V / 60 Hz / 3 Ph+PE / 6,5 kW (20M250/3622)

Item-No.
20M250

 Special voltages upon request.



## Clean Air Dust Extractor POWER UNIT 300

with automatic compressed air filter cleaning system

### Characteristics

- compact, mobile clean-air dust extractor for extracting wood- and plastic chips
- depending on load (utilisation factor), the residues of several machines can be extracted
- optional machine recognition and automatic start of up to 16 processing machines
- optimal extraction by surface filtration and integrated pre-filtration
- fully automatic compressed air filter cleaning with patented OPTIJET technology
- powerful, efficient extraction
- simple operation, low maintenance
- BG inspected
- residual dust content: H3 (0.1 mg/m<sup>3</sup>)

### Features

- ON / OFF switch for clean-air dust extractor
- inner hose filters
- control unit optionally upgradeable
- ventilator located at clean-air side
- volume flow monitoring with signal lamp
- switch for manual filter cleaning
- 2 chip collectors incl. chip collection bags
- 5 m power cord with CEE plug
- 5-pin plug, 32A A with phase changer

### Technical data

- dimensions W x D x H: 2963 x 994 x 2346 mm
- extraction nozzle: Ø 300 mm
- nominal air flow capacity at connector at 20 m/s: 5089 m<sup>3</sup>/h
- max. volume air flow: 6000 m<sup>3</sup>/h
- negative pressure at connector: 2045 Pa
- max. sound pressure level: approx. 72,5 dB(A)
- filter surface: 30 m<sup>2</sup>
- filter material: dust class M, electrical conductive, washable
- chip collection volume: 3 x 250 litres
- compressed air connection: 1/2" standard plug
- power requirements: 400 V / 50 Hz / 3 Ph / 7.5kW
- weight: 952 kg

### optional accessories

- Chip collection bags for POWER UNIT 250/300 item-no. 20M550/3
- Debris level indicator for POWER UNIT item-no. 20M530
- Machine recognition with push control 24 V item-no. 20M500
- Frequency converter for demand control item-no. 20M520/3
- Extraction hose item-no. 150M1/300
- Special voltage 220 V / 60 Hz / 3 Ph + PE (20M300/3623), without plug

	Item-No.
	20M300

 Special voltages upon request.



## Top Sound absorber for POWER UNIT 250

- for mounting on clean air dust extractor POWER UNIT 250
- reduces the dB-level by 4 dB(A)
- height 300 mm

Item-No.
20M250/S



## Top Sound absorber for POWER UNIT 300

- for mounting on clean air dust extractor POWER UNIT 300
- reduces the dB-level by 4 dB(A)
- height 300 mm

Item-No.
20M300/S



## Chippings Bags for POWER UNIT

- PU = 20 pieces

for POWER UNIT	Dimensions	Item-No.
100 – 120	Ø 520 x 1300 mm	20M550/1
140 / 160 / 200	705 x 640 x 1200 mm	20M550/2
250 / 300	895 x 570 x 1200 mm	20M550/3

# Dust Extractors



## Machine Recognition

- for all POWER UNITS
- via transformer coils and automatic slide valve gear
- for up to 4 / 8 / 12 / 16 electro-pneumatic or electric slide valves
- control voltage 24 V DC
- external connection box for independent wall mounting

Number of machines	Dimensions W x T x H	Item-No.
up to 4	254 x 94 x 180 mm	20M500/4A
up to 8	254 x 94 x 180 mm	20M500/8A
up to 12	360 x 111 x 254 mm	20M500/12A
up to 16	360 x 111 x 254 mm	20M500/16A



## Frequency Converter

- control with frequency converter for all POWER UNITS, incl. control panel, plain text display and integrated control circuit with pressure transmitter for demand-led control of the dust extractor.

for POWER UNIT	Item-No.
140 / 160	20M520/1
200	20M520/2
250 / 300	20M520/3



## Transformer Coil

- for recognition of one wood working machine

Item-No.
20M510



picture similar

## Automatic Start / Stop Module

for connection of up to 2 workshop machines (1 x 3~400 V and / or 1 x 1~230 V) in combination with up to 2 external suction devices (1 x 3~400 V and / or 1 x 1~230 V)

### Function

- when switching the workshop machine on, the suction device is also switched on automatically 2 – 3 seconds later
- after switching the machine off, the suction device will still run for approx. 3 – 4 seconds
- this provides exhausting the remaining dust from the machine, according to hazardous substances regulations

### Technical data

- connected load min. 100 W, max. 400 V / 16 A / 11000 W
- power inlet: CEE 3 P+N+E / 16 A / 6 h with phase reverse
- outlets workshop machine: 1 x socket CEE 3 P+N+E / 16 A / 6 h, 1 x socket 2 P+E
- outlets suction device: 1 x socket CEE 3 P+N+E / 16 A / 6 h, 1 x socket 2 P+E
- safety class: IP 44
- dimensions W x D x H: approx. 245 x 123 x 153 mm
- weight: approx. 1,25 kg

	Item-No.
	20M540

**!** Connected load of all devices must never exceed the total of 16 A! The automatic start / stop module does not limit the starting current of a machine or device.



## Raw Air Dust Extractor MOBILE 100

### Characteristics

- universal use
- extra sturdy construction
- significantly reduced dust concentration
- filter bag category G
- great cost/performance ratio
- high suction performance
- short mounting time by modular construction

### Technical data

- dimensions W x D x H: 896 x 581 x 1699 mm
- extraction connector: Ø 100 mm
- nominal volume flow: 865 m<sup>3</sup>/h
- interface vacuum: 1780 Pa
- filter surface: 1,08 m<sup>2</sup>
- chip collector volume: 90 litres
- weight: 25 kg
- delivery with: 1 chippings bag

### Accessories

- filter cartridge for MOBILE 100: item-no. 25M100/F
- chippings bags for MOBILE 100: item-no. 25M100/S, PU = 5 pieces

Power requirements	Item-No.
110 V / 60 Hz / 1 Ph / 0.75 kW	25M100/110
230 V / 50 Hz / 1 Ph / 0.75 kW	25M100/230

**!** These raw air dust extractors are not approved for industrial use in Germany!

## Raw Air Dust Extractor MOBILE 125



### Characteristics

- identical to item 25M100

### Technical data

- dimensions W x D x H: 1090 x 580 x 2098 mm
- extraction nozzle: Ø 125 mm
- nominal volume flow: 1350 m<sup>3</sup>/h
- interface vacuum: 1600 Pa
- filter surface: 2,2 m<sup>2</sup>
- chip collector volume: 175 litres
- weight: 40 kg
- delivery with: 1 chippings bag

### Accessories

- filter cartridge for MOBILE 125/140/160/200: item-no. 25M200/F
- chippings bags for MOBILE 125/140/160/200: item-no. 25M200/S, PU = 20 pieces

Power requirements	Item-No.
110 V / 60 Hz / 1 Ph / 0.75 kW	25M125/110
230 V / 50 Hz / 3 Ph / 0.75 kW	25M125/230
400 V / 50 Hz / 3 Ph / 0.75 kW	25M125/400



These raw air dust extractors are not approved for industrial use in Germany!

## Raw Air Dust Extractor MOBILE 140



### Characteristics

- identical to item 25M100

### Technical data

- dimensions W x D x H: 1090 x 580 x 2098 mm
- extraction connector: Ø 140 mm
- nominal volume flow: 1650 m<sup>3</sup>/h
- interface vacuum: 1750 Pa
- filter surface: 2,2 m<sup>2</sup>
- chip collector volume: 175 litres
- weight: 40 kg
- delivery with: 1 chippings bag

### Accessories

- filter cartridge for MOBILE 125/140/160/200: item-no. 25M200/F
- chippings bags for MOBILE 125/140/160/200: item-no. 25M200/S, PU = 20 pieces

Power requirements	Item-No.
110 V / 50 Hz / 1 Ph / 1.1 kW	25M140/110
230 V / 50 Hz / 1 Ph / 1.1 kW	25M140/230
400 V / 50 Hz / 3 Ph / 0.75 kW	25M140/400



These raw air dust extractors are not approved for industrial use in Germany!

## Raw Air Dust Extractor MOBILE 160



### Characteristics

- identical to item 25M100

### Technical data

- dimensions W x D x H: 1090 x 580 x 2298 mm
- extraction connector: Ø 160 mm
- nominal volume flow: 2200 m<sup>3</sup>/h
- interface vacuum: 2500 Pa
- filter surface: 2,2 m<sup>2</sup>
- chip collector volume: 175 litres
- weight: 40 kg
- delivery with: 1 chippings bag

### Accessories

- filter cartridge for MOBILE 125/140/160/200: item-no. 25M200/F
- chippings bags for MOBILE 125/140/160/200: item-no. 25M200/S, PU = 20 pieces

Power requirements	Item-No.
110 V / 60 Hz / 1 Ph / 1.5 kW	25M160/110
400 V / 50 Hz / 3 Ph / 1.5 kW	25M160/400

 These raw air dust extractors are not approved for industrial use in Germany!

## Raw Air Dust Extractor MOBIL 200



### Characteristics

- identical to item 25M100

### Technical data

- dimensions W x D x H: 1090 x 580 x 2298 mm
- extraction connector: Ø 200 mm
- nominal volume flow: 2500 m<sup>3</sup>/h
- interface vacuum: 2700 Pa
- filter surface: 3,0 m<sup>2</sup>
- chip collector volume: 175 litres
- weight: 43 kg
- delivery with: 1 chippings bag

### Accessories

- filter cartridge for MOBILE 125/140/160/200: item-no. 25M200/F
- chippings bags for MOBILE 125/140/160/200: item-no. 25M200/S, PU = 20 pieces

Power requirements	Item-No.
110 V / 60 Hz / 1 Ph / 2.2 kW	25M200/110
400 V / 50 Hz / 3 Ph / 2.2 kW	25M200/400

 These raw air dust extractors are not approved for industrial use in Germany!

# Dust Extractors



## Filter Cartridge for MOBILE 100

- for Raw Air Dust Extractor MOBILE 100

Ø	Hight	Item-No.
330 mm	860 mm	25M100/F



## Filter Cartridge for MOBILE 125 / 140 / 160 / 200

- for Raw Air Dust Extractor MOBILE 125 – 200

Ø	Hight	Item-No.
500 mm	1025 mm	25M200/F



## Chippings Bags for MOBILE 100

- for Raw Air Dust Extractor MOBILE 100
- PU = 5 pieces

Ø	Length	Item-No.
400 mm	900 mm	25M100/S



## Chippings Bags for MOBILE 125 / 140 / 160 / 200

- for Raw Air Dust Extractor MOBILE 125 – 200
- PU = 20 pieces

Ø	Length	Item-No.
520 mm	1300 mm	25M200/S

## Industrial Vacuum Cleaner JET STREAM M



### Characteristics

- all-purpose wet- and dry-vacuum cleaner
- low noise level
- dust class M
- antistatic equipment
- ON/OFF switch and automatic off-delay
- fully automatic filter cleansing
- low-dust disposal by filter bags
- incl. 3 m suction hose

### Technical data

- dimensions W x D x H: 505 x 370 x 640 mm
- extraction nozzle: Ø 35 mm
- volume flow: max. 3180 l/m
- interface vacuum: max. 210 mbr
- filter surface: 0,55 m<sup>2</sup>
- chip collector volume: 41 litres
- power requirements: 220 – 240 V / 50 – 60 Hz
- weight: 11 kg

Item-No.
28M1

## Craftsmen and Industrial Set for JET STREAM M



- 8 parts

Item-No.
28M10

## Suction Hose for JET STREAM M

- length = 3 m



Item-No.
28M13

# Dust Extractors



## Connection Adapter for Suction Hose for JET STREAM M

Item-No.
28M14



## Paper Dust Bags for JET STREAM M

- PU = 5 pieces

Item-No.
28M11



## Filter Element for JET STREAM M

Item-No.
28M12



## Pipe

- zinc-plated, flanges on both sides, length = 1000 mm

Diameter	Item-No.
80 mm	155M1/80
100 mm	155M1/100
120 mm	155M1/120
140 mm	155M1/140
160 mm	155M1/160
180 mm	155M1/180
200 mm	155M1/200



## Elbow Pipe

- zinc-plated, flanges on both sides,  $R = 1,5 \times D$

Diameter	Branching	Item-No.
80 mm	90 °	155M3/80
80 mm	45 °	155M4/80
100 mm	90 °	155M3/100
100 mm	45 °	155M4/100
120 mm	90 °	155M3/120
120 mm	45 °	155M4/120
140 mm	90 °	155M3/140
140 mm	45 °	155M4/140
160 mm	90 °	155M3/160
160 mm	45 °	155M4/160
180 mm	90 °	155M3/180
180 mm	45 °	155M4/180
200 mm	90 °	155M3/200
200 mm	45 °	155M4/200



## Branching

- zinc-plated, flanges on both sides
- length = 500 mm, branching 45°

Ø Entrance x Way x Exit	Item-No.
100 x 100 x 80 mm	155M10/1
100 x 100 x 100 mm	155M10/2
120 x 100 x 100 mm	155M11/1
120 x 120 x 100 mm	155M11/2
120 x 120 x 120 mm	155M11/3
140 x 120 x 100 mm	155M12/1
140 x 120 x 120 mm	155M12/2
140 x 140 x 100 mm	155M12/3
140 x 140 x 120 mm	155M12/4
160 x 140 x 100 mm	155M13/1
160 x 140 x 120 mm	155M13/2
180 x 160 x 120 mm	155M14/1
180 x 160 x 100 mm	155M14/2

# Dust Extractors



## Wall Sweeping Hole with flap

- Floor vacuum box for extracting chips and dust material directly from the floor
- Flap with hinges

Version	Item-No.
Wall Sweeping Hole with flap DN 100	155M15/100
Wall Sweeping Hole with flap DN 120	155M15/120
Wall Sweeping Hole with flap DN 140	155M15/140
Wall Sweeping Hole with flap DN 160	155M15/160

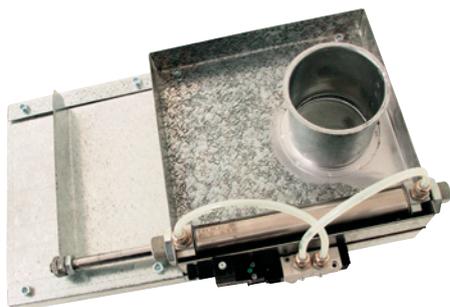
 The automatic dust pans can be integrated into a new or existing chip extracting system.



## Slider

- made of zinc-plated sheet metal, flanges on both sides, for locking of a suction connection

Diameter	Item-No.
80 mm	155M6/80
100 mm	155M6/100
120 mm	155M6/120
140 mm	155M6/140
160 mm	155M6/160



## Pneumatic Close Off Slider

- made of zinc-plated sheet metal, flanges on both sides, to close off a suction connection
- control voltage 24 V DC in new units
- possibly control voltage 230 V in older unit

Diameter	Item-No.
80 mm	155M7/80
100 mm	155M7/100
120 mm	155M7/120
140 mm	155M7/140
160 mm	155M7/160

 Accessories for the alignment of the pneumatic gate valve available upon request! Control voltage 230 V AC or 24 V DC. Other voltages upon request.

## Hose Sleeve / Flanged Collar



- zinc-plated, with 6 mm flare and bead, length 60 mm
- manifold from metal pipe to plastic hose
- incl. hose clamps

Nominal width	Outer diameter	Item-No.
80	78 mm	155M16/80
100	98 mm	155M16/100
120	118 mm	155M16/120
140	138 mm	155M16/140
160	158 mm	155M16/160
180	178 mm	155M16/180

## Pipe Clamp



- zinc-plated, for pipe connection

Diameter	Item-No.
80 mm	155M2/80
100 mm	155M2/100
120 mm	155M2/120
140 mm	155M2/140
160 mm	155M2/160
180 mm	155M2/180
200 mm	155M2/200

## Suction Hose



- for connection of the machine to a central dust and chip pipeline

Diameter	Item-No.
60 mm	150M1/60
80 mm	150M1/80
90 mm	150M1/90
100 mm	150M1/100
120 mm	150M1/120
125 mm	150M1/125
140 mm	150M1/140
160 mm	150M1/160
180 mm	150M1/180

## Hose Clamp



Diameter	Item-No.
60 – 80 mm	150M2/60
70 – 90 mm	150M2/70
80 – 100 mm	150M2/80
90 – 110 mm	150M2/90
110 – 130 mm	150M2/110
130 – 150 mm	150M2/130
150 – 170 mm	150M2/150
160 – 180 mm	150M2/170

 Other pipeline components (different sizes, etc.) are available upon request!

Electric Tools



# Electric Tools

Best quality and longevity are the basic requirements for taking an electric tool into our product range. All electric tools of our assortment are designated and suitable for the daily operation in an artisanal business or industrial business. However, if a problem should occur with any of the tools supplied by us, our customer service of course includes repair service. Furthermore, we also offer many accessory parts for our electric hand tools, designed according to the special demands of an orthopaedic workshop.





## Hot Air Blower „Electron“

### Features

- hot air flow up to 650 °C, infinitely adjustable
- air flow max. 320 l/min
- 3 m power cord with grounded plug
- carrying case

Power requirements	Item-No.
120 V / 50-60 Hz / 1 Ph / 2.4 kW	168P41/1512
230 V / 50-60 Hz / 1 Ph / 3.4 kW	168P41/1523



## Hot Air Blower „Triac ST“

### Features

- hot air flow 40 – 700 °C, continuously adjustable
- air flow max. 240 l/min
- standard nozzle with active cooled protection tube
- tool case
- 3 m power cord with grounded plug
- weight: 990 g

Power requirements	Item-No.
230 V / 50 – 60 Hz / 1 Ph / 1.6 kW	168P40/1523
120 V / 50 – 60 Hz / 1 Ph / 1.6kW	168P40/1512

 The entire nozzle assortment of the previous model „Triac S“ is compatible with model „Triac ST“.



## Receiver Station

- for item 168P40 and 168P41

Item-No.
168P44



## Welding Nozzle

- for hot air blower „Triac“ 168P40

Diameter	Item-No.
3 mm	168P410/3
4 mm	168P410/4
5 mm	168P410/5



## Hot Air Gun „Ghibli“

### Features

- hot air flow from 50° up to 650 °C, infinitely adjustable
- air flow max. 300 l/min (20°)
- tube nozzle Ø5 mm included
- power cord with grounded plug

### Technical data

power requirements: 230 V / 50 – 60 Hz / 1 Ph / 2.3 kW

Power requirements	Item-No.
230 V / 50-60 Hz / 1 Ph / 2.0 kW	168P42
120 V / 50-60 Hz / 1 Ph / 1.5 kW	168P42/120



## Wide Slit Nozzle

Dimensions	Item-No.
20 x 2 mm for Item-No. 168P40	168P46
40 x 2 mm for Item-No 168P40	168P47
20 x 2 mm for Item-No. 168P42	168P48
70 x 10 mm for Item-No 168P41	168P49



## Hot Air Gun

- ergonomic shape with optimal center of gravity
- slip-proof standing surface and hanging device

### Features

- heat accumulation warning and residual heat display
- LOC - function, to lock settings
- ceramic heater
- 2300 W brush motor
- LCD-display for temperature and air supply
- temperature range 80 – 650 °C / 176 – 1202 °F, setting in 10 °C / 50 °F steps
- air volume 150 – 500l/min., 2 steps
- 4 pre-set applications
- 3 m power cord with safety plug

### Technical data

- power requirements: 230 V / 50 – 60 Hz / 2,3 kW
- weight 1,0 kg

Item-No.
168P27/1523

## Accessories Hot Air Gun



- for item 168P27/1523
  - 12 pcs.
- consisting of
- surface nozzle 75 mm
  - window nozzle 75 mm
  - reduction nozzle 14 mm
  - reduction nozzle 9 mm
  - wide-slot nozzle
  - welding nozzle
  - reflector nozzle
  - scraper
  - scraper handle
  - 3 pcs. spare blades

Item-No.
168P27/E1

## Hot Sealing Iron



- for sealing of PVC- and PVA sheeting

### Features

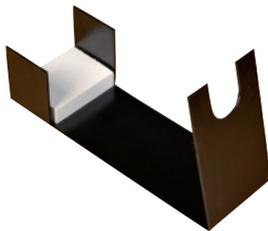
- PTFE sheeting covered surface
- retainer clip
- range 100 – 180 °C
- 1,50 m power cord with grounded plug

### Technical data

- power requirements: 230 V / 50 Hz / 1 Ph / 0,2 kW

Heating area	Item-No.
40 x 110 mm	168P5

## Stand Hand Sealing Iron



- for item 168P5

Item-No.
168P5/S

## PTFE Sheeting



- for item 168P5
- PU = 2 m

Width	Item-No.
100 mm	119P22



## Thermic Shear

### Equipment

- without cutting wire
- 2 m power cord with grounded plug

### Technical data

- power requirements: 230 V / 50 Hz / 1 Ph / 0,12 kW

	Item-No.
	168P30



## Cutting Wire

- for item 168P30

Length	Item-No.
50 mm	168P31/50
100 mm	168P31/100



## Circular Cutter

- cuts textiles, sheeting materials and soft leather

### Features

- max. cutting height 8 mm
- built-in sharpening device incl. 2 circular cutting blades (6-flanged)
- 2,8 m power cord with grounded plug

### Technical data

- power requirements: 230 V / 50 Hz / 1 Ph / 0,056 kW

	Item-No.
	168P26



Service parts are available upon request!



## Circular Cutting Blade

- 6-flanged circular cutting blade for item 168P26

	Item-No.
	168P26/E



## EC-Cutter-Set

### Features

- with toothed blade
- hand grip with short blade for curves
- blade with guidance for straight cuts
- mains cable with plug and electric charger

### Technical data

- tool holder: approx 0,25 kg net
- length: approx. 220 mm
- power requirements: 230 V / 50 Hz (80C10), 110 V (80C10/110)

Features	Item-No.
230 V / 50 Hz	80C10



## Circular Saw Blade

- replacement for item 168P23
- specially hardened also suitable for plastics

Diameter	Item-No.
50 mm	159P4/50
65 mm	159P4/65



## Segmented Saw Blade

- replacement blade for item 168P23
- specially hardened also suitable for plastics

Diameter	Item-No.
65 mm	159P8



## Oscillating Tool „Multimaster“

- multi purpose hand tool with various accessories for sawing, sanding and scraping

### Features

- 1 x grinding plate
- 5 sanding sheets each, perforated grit 60, 80, 120, 180
- 1 x solid scraper
- 1 E-Cut Long Life saw blade 10mm
- 1 E-Cut Carbide Pro saw blade 32mm
- 2 E-Cut Long Life saw blade 35mm
- 2 E-Cut Long Life saw blade 65mm
- 1 H M Saw Blade Ø 75mm
- 1 H M rasp (triangular shape)
- 1 Suction device
- 1 x HSS segment saw blade
- Standard HSS saw blade Ø 80 mm
- plastic tool case

### Technical data

- power requirements: 230 V / 50 Hz / 1 Ph / 0.35
- oscillating frequency: 10000 – 19500 1/min
- 5 m power cord with grounded plug
- weight: 1.4kg

	Item-No.
	168P29/1523

## Saw Blades

- replacement for item 168P29
- PU = 2 pieces (168P29/E80)
- PU = 1 piece (168P29/80S)

168P29/E80



168P29/80S



Diameter	Item-No.
80 mm, round	168P29/E80
80 mm, segment saw blade, half-round	168P29/80S



## Cast Cutter „Oscimed 2000“

- complete with support for dust suction nozzle

### Features

- 2 circular saw blades: 1 x Ø 50 mm and 1 x Ø 65 mm
- 1 m power cord with grounded plug
- carry case

Power requirements	Item-No.
230 V / 50-60 Hz / 1 Ph / 0.1 kW	168P32
110 V / 50-60 Hz / 1 Ph / 0.1 kW	168P32/110

 You may order a spare shutter button for the saw blade under Item-No. 168P32/11.



## Oscillating Saw OSCIMED Ergo

- ergonomic, modern and compact design
- noise reducing saw-blades which can be changed easily without any tools
- device powered by a safe low voltage of 24 volts

### Features

- cooling fan for intensive use
- receiver for vacuum pipe
- double electrical insulation
- length of power supply cable: 1.1m with grounded plug
- length of cable 24 VDC: 3.0m
- 1 hardened steel saw blade for synthetic casts Ø 50 mm
- 1 stainless steel saw blade for plaster casts Ø 65 mm
- carry case

### Technical data

- motor speed: 14500 RPM
- sound level: 67 db (A)
- length: 230 mm

Power requirements	Item-No.
230 V / 50 Hz / 1 Ph / 0.18 kW	168P33/1523
120 V / 60 Hz / 1 Ph / 0.18 kW	168P33/1612



## Circular Saw Blade

for items 168P32 and 168P33 Ø 50 mm

Application	Item-No.
synthetic bandages	168P32/50
synthetic bandages, segmented blade	168P32/50S
synthetic bandages, saw blade with titan	168P34/50
plaster bandages	168P33/50
plaster bandages, segmented blade	168P33/50S

 You may order a spare shutter button for the saw blade under Item-No. 168P32/11.



## Circular Saw Blade

- replacement for item 168P32, Ø65 mm

Application	Item-No.
synthetic bandages	168P34/65
synthetic bandages, saw blade with titan	168P31/65
plaster bandages	168P32/65
plaster bandages, segmented blade	168P33/65



## Oscillating Saw

- continuously adjustable oscillation frequency from 12.000 – 21.000 rpm
- motor overload protection

### Features:

- 1 ea. circular saw blade, Ø50 und Ø65 mm
- 2 fork wrenches
- 4,5 m connection cord with 2-pin plug (USA)

### Technical data:

- power supply: 100-120 V / 50-60 Hz / 1 Ph / 0,25 kW (168P21/1511)
- european power supply: 220-240 V / 50-60 Hz / 1 Ph / 0,25 kW (168P21/1523)
- weight: 1,7 kg

Item-No.
168P21/1523



## Oscillating Saw with rechargeable battery

- vibration frequency infinitely variable from 11.000 - 18.000 rpm
- motor overload protection

### Features

- speed battery charger
- 1 x 5,0 Ah battery
- 1 ea. circular saw blade, Ø50 mm and Ø 65 mm
- 2 fork wrenches

### Technical data

- battery voltage: 14,4 VDC
- voltage battery charger: 220-240 V / 50-60 Hz / 1Ph
- voltage battery charger: 100-120 V / 50-60 Hz / 1Ph (168P22/1511)
- weight: 1,8 kg

	Item-No.
	168P22/1523

without picture

## Circular Saw Blade

- spare saw blade for item 168P22/1523 and 168P22/1511
- HSS, specially hardened

Diameter	Item-No.
50 mm	168P22/E2
65 mm	168P22/E3



## Electric Stapler

- for staple type: 53
- staple length: 8 – 20 mm
- for nail type: 8
- nail length: 15 – 20 mm

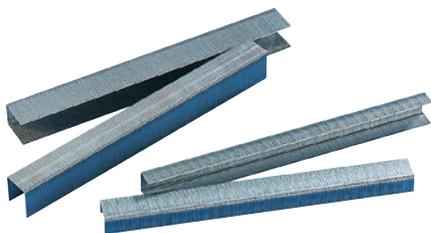
### Features

- electronically infinitely adjustable
- max. release frequency / minute: 20 shots
- 3,5 m power cord with grounded plug

### Technical data

- dimensions W x D x H: 234 x 80 x 323 mm
- power requirements: 220 – 240 V / 1 Ph / 50 – 60 Hz
- weight: 3,65 kg

	Item-No.
	168P9



## Staple

- for item 168P9
- PU = 5000 pieces

Length	Item-No.
8 mm	37P8/8
14 mm	37P8/14



## Vacuum Cleaner

- for 168P32 and 168P33, 2 speed levels

### Features

- reception for saw and vacuum hose
- electrical connection for saw
- 2,5 m vacuum hose

### Technical data

- power: 300 – 1000 W, adjustable
- sound level: 60 – 70 dB
- throughput: 40 l/sec
- capacity: 20 litres
- weight: 12 kg net

Power requirements	Item-No.
230 V / 50 Hz / 1 Ph	168P45/1523
120 V / 60 Hz / 1 Ph	168P45/1612

scope of supply does not include oscillating saw



## Hepa Filtre

- for 168P45

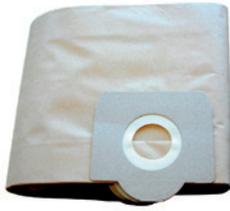
Item-No.
168P45/1



## Polyester Filtre

- for 168P45

Item-No.
168P45/2



## Paper Bag

- for 168P45
- PU = 10 pieces

Item-No.

168P45/3



## Drill Stand

- accessory for 80M4
- for impact drilling machine

### Technical data

- receiver clamp:  $\varnothing$  43 mm
- overhang: 127 mm
- column:  $\varnothing$  30 mm
- working stroke: 60 mm
- height: 500 mm
- base plate: 185 x 270 mm
- column: 360° tilting
- weight: 4,7 kg net

Item-No.

80M10



## Flexible Shaft

- for power tools with drill chuck

### Features

- connector with cylindric pin
- $\varnothing$  6 x 30 mm
- both sides with ball bearings

### Technical data

- chucking capacity: 0,5 – 8 mm
- speed: max. 10000 RPM
- length: 1250 mm
- torque: max. 0,6 Nm
- flexion radius: min. 100 mm
- tool holder connection: M8 x 0,75
- weight: 0,8 kg net

Item-No.

5M1



## HSS Milling Bit Set

- in plastic case, shank Ø 6 mm
- for power tools with drill chuck
- ten-parts

Weight	Item-No.
0.5 kg	107P10



## Grinding Bit Set

- shank Ø 6 mm, hardness grade M, rough grain
- for power tools with drill chuck
- 10-piece

Weight	Item-No.
0.4 kg	107P11

## Cordless Drill



### Features

- quick charger
- 2 x 5,0 Ah Li-ion battery / cool pack technology
- 13 mm auto-lock drill chuck
- right-/left rotation
- 2 speed
- LED-light for illumination of work area
- 1 belt clip
- carry case

### Technical data

- drill chuck range: min. 1,5 mm – max. 13 mm
- battery voltage: 18 V
- battery capacity: 5,0 Ah
- torque levels: 20+1
- torque range, max. soft / hard: 28 / 63 Nm
- idle range (1. gear / 2. gear): 0 – 500 / 0 – 1900 min-1
- drilling capacity Ø steel / wood: 13 / 38 mm
- screwing capacity: Ø max. 8 mm
- weight: 1,7 kg incl. battery

Item-No.
80M12

battery



case





## Angle Grinder

### Features

- additional handle, applicable to the left or right side
- new rotation secured wheel guard
- strong, durable high-performance motor from Champion
- optimised engine cooling system
- protective hood

### Technical data

- no-load speed: 11000 RPM
- spindle thread: Ø 125 mm
- power entry: 1100 W
- power release: 630 W
- power requirements: 230 V / 50 Hz / 1 Ph / 1,1 kW
- weight: 2,1 kg net

Item-No.
80M7



## Grinding Disc

- for steel, for item 80M7

Diameter	Item-No.
125 x 6 mm	80M7/1



## Cutting Disc

- for steel, for item 80M7

Diameter	Item-No.
125 x 2.5 mm	80M7/2



## Electronic Jig Saw „Professional“

### Features

- adjustable four-level oscillation
- toolless saw blade clamping system
- suction set with suction nozzle
- 1 saw blade (softwood)
- swivel mounted guide shoe +/- 45°
- chipping protection screen
- adjustable speed-control
- carry case
- 4 m power cord with grounded plug

### Technical data

- cutting depth in wood: 150 mm
- cutting depth in aluminium: 20 mm
- cutting depth in unalloyed steel: 10 mm
- lifting height: 26 mm
- power requirements: 230 V / 50 Hz / 1 Ph / 0,78 kW
- weight: 2,6 kg

	Item-No.
	80M8



## Jig Saw Blade

- for item 80M8
- PU = 5 pieces

Range of application	Length	Item-No.
Hard + soft wood, plastic	100 mm	80M1/1
Hard foam, cork, soft rubber	100 mm	80M1/2
Soft steel, Aluminium	92 mm	80M1/3

Tools



# Tools

Optimal working results can be achieved only with durable quality tools. That's why quality is our top demand. As supplier, we accept only manufacturers of proven professional tools and avoid short-lived DIY-quality. The tools supplied by us are made by professionals for professionals. This is the only way to satisfy high-level demands reliably and permanently.



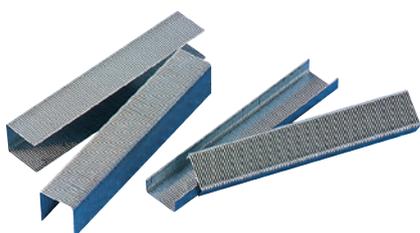
By a broad selection of special tools, our product range fulfils the requirements of the various working techniques of orthopaedic technology. Of course our service does not end with the purchase, as our competent employees will assist you anytime beyond that. We are pleased to offer a wide range of service features such as calibrating measuring tools or repairs.



## Staple Gun

- manual operation for nailing, stapling, covering, etc.
- feeder unit for 100 staples
- for staples type: 58
- back width: 13 mm
- staples' length: 4 – 14 mm

	Item-No.
	168P12



## Staples

- for item 168P12

Dimensions	Sales unit	Item-No.
6 x 13 mm	5000 pcs	37P6/6
10 x 13 mm	5000 pcs	37P6/10
12 x 13 mm	5000 pcs	37P6/12
14 x 13mm	5000 pcs	37P6/14



## Staple Remover

- to remove staples

	Item-No.
	168P13



## Steel Hammer

- with handle

Weight	Item-No.
100 g	170P1/100
200 g	170P1/200
300 g	170P1/300
500 g	170P1/500
800 g	170P1/800
1000 g	170P1/1000



## Ball Peen Hammer

- with handle, short head, one flat camber and one round camber

Weight	Item-No.
250 g	170P2/250
375 g	170P2/375
500 g	170P2/500



## Ball Peen Hammer

- with handle, long head, round camber both sides

Weight	Item-No.
250 g	170P3/250
375 g	170P3/375
500 g	170P3/500



## Peen Hammer

- with handle, two different peen arches

Weight	Item-No.
250 g	170P4/250
375 g	170P4/375
500 g	170P4/500



## Soft Face Hammer

- cast iron housing, wooden handle with replaceable plastic faces:
- 1 x TPE soft face (blue): 65 Shore A +/-5
- 1 x rubber face: 90 Shore A +/-5

Ø Head	Weight	Item-No.
30 mm	340 g	170P7/30
40 mm	630 g	170P7/40
50 mm	1170 g	170P7/50

 Other inserts upon request.



## Rubber Mallet

- with handle

Ø Head	Item-No.
65 mm	170P5



## Combination Pliers

- special tool steel, plastic coated handles

Length	Item-No.
160 mm	171P1/160
180 mm	171P1/180



## Flat Nose Pliers

- special tool steel, plastic coated handles

Length	Item-No.
160 mm	171P2/160



## Flat Nose Pliers „Langbeck“

- special tool steel, plastic coated handles

Length	Item-No.
160 mm	171P4/160



## Angled Snipe Nose Pliers

- CV-steel, plastic coated handles, 45° angle

Length	Item-No.
200 mm	171P5/200



## Round Nose Pliers

- CV-steel, plastic coated handles

Length	Item-No.
140 mm	171P3/140
160 mm	171P3/160



## Side Cutter

- CV-steel, plastic coated handles

Length	Item-No.
160 mm	171P6/160
180 mm	171P6/180



## End Cutting Nippers

- CV-steel, plastic coated handles

Length	Item-No.
160 mm	171P7/160



## Carpenter's Pincers

- CV-steel, plastic coated handles

Length	Item-No.
180 mm	171P8/180
210 mm	171P8/210



## Plastic Side Cutter

- Vandin electrical steel, forged, oil-hardened, plastic coated handles

Length	Item-No.
160 mm	171P16/160



## Shoemaker's Pincers

- plastic coated handles

Length	Item-No.
190 mm	171P11



## Eyelet Squeeze-Out Pliers

- plastic coated handles

Length	Item-No.
190 mm	171P13



## Lace Tip Pliers

- with insert for metal lace tip item-no. 67P2/10x8

Features	Item-No.
with insert	171P14



## Metal Lace Tip

### Material

- steel sheet
- nickel-plated

### Application

- for securing lace ends

PU = 500 or 1000 pieces

Dimensions L x W	Item-No.
10 x 4 mm	67P2/10x8



Please use the matching lace tip pliers item-no. 171P14 for the metal lace tips.  
For laces, see our catalogue "Materials and Equipment", chapter "Textiles".



## Toggle Joint Wire Nippers

- for hard wire

Length	Item-No.
180 mm	171P9/180
210 mm	171P9/210



## Waterpump Pliers

- CV-steel, plastic coated handles

Length	Item-No.
250 mm	171P15/250



## Grip Pliers

- nickel-plated

Length	Item-No.
250 mm	171P10



### Tower Pincers

- CV-steel, plastic coated handles

Length	Item-No.
220 mm	171P10/220



### Chisel/Punch Set 6-part

- CV-steel, coated, in metal case

#### Components

- 1 flat chisel, L = 150 mm, B = 12 mm
- 1 flat chisel, L = 125 mm, B = 12 mm
- 1 center punch, Ø 4 mm, L = 120 mm
- 1 pin punch Ø 3 mm, L = 120 mm
- 1 pin punch Ø 4 mm, L = 120 mm
- 1 cape chisel, L = 125 mm, B = 4 mm

Item-No.
172P2



### Pin Punch Set

- 6 pcs., chrome-vanadium-steel, coated, in metal case

#### Components

- Pin punches: 3, 4, 5, 6, 8 and 10 mm

Item-No.
172P3



### Rivet Setter

- CV-steel, coated

Rivet ø	Item-No.
3 mm	172P4/3
4 mm	172P4/4
5 mm	172P4/5



## Pin Punch

- CV-steel, coated

Diameter	Item-No.
2 mm	172P6/2
3 mm	172P6/3
4 mm	172P6/4



## Flat Chisel

- CV-steel, coated

Width	Length	Item-No.
18 mm	150 mm	172P7/18
21 mm	175 mm	172P7/21



## Center Punch

- CV-steel, coated

Length	Item-No.
120 mm	172P5



## Automatic Center Punch

Length	Item-No.
130 mm	172P1/130

without picture

## Spare Pin

- for item 172P1/130

Item-No.
172P1/E



## Rivet Header

- CV-steel, coated

Rivet ø	Item-No.
3 mm	162P5/3
4 mm	162P5/4
5 mm	162P5/5
6 mm	162P5/6



## Number Die Set

- 0 – 9 in plastic case

Figure height	Item-No.
4 mm	162P35/4
5 mm	162P35/5
6 mm	162P35/6



## Steel Letter Set

- A – Z in plastic case

Figure height	Item-No.
4 mm	162P36/4
5 mm	162P36/5
6 mm	162P36/6



## Screw Driver

- CV-steel, with shock-resistant PP plastic handle

Blade width	Item-No.
2.5 mm	173P4/2
3.5 mm	173P4/3
4.0 mm	173P4/4
5.5 mm	173P4/5
6.5 mm	173P4/6
8.0 mm	173P4/8
10.0 mm	173P4/10



## Screw Driver Set

- 6-part, CV-steel, comes in wooden stand

Blade width	Item-No.
3.5 - 4.0 - 5.5 - 6.5 - 8.0 - 10.0 mm	173P4/S



## Philips Head Screw Driver

- CV-steel, with shock-resistant PP plastic handle

Size	Item-No.
0	173P5/0
1	173P5/1
2	173P5/2
3	173P5/3



## Philips Head Screw Driver Set

- 4-part, CV-steel, comes in wooden stand

Sizes	Item-No.
0, 1, 2, 3	173P5



## T-Handle Hex Wrench

- CV-steel with plastic handle

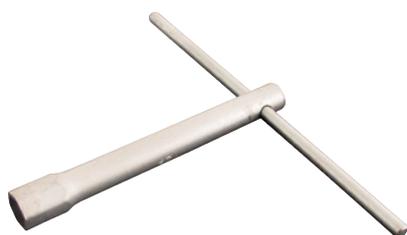
Spanner size	Item-No.
2 mm	173P3/2
3 mm	173P3/3
4 mm	173P3/4
5 mm	173P3/5
6 mm	173P3/6
8 mm	173P3/8
10 mm	173P3/10



## Hex Socket Wrench

- CV-steel with plastic T- handle, length 150 mm

Spanner size	Item-No.
6 mm	173P8/6
7 mm	173P8/7
8 mm	173P8/8
9 mm	173P8/9
10 mm	173P8/10
11 mm	173P8/11
12 mm	173P8/12
13 mm	173P8/13
14 mm	173P8/14
17 mm	173P8/17



## Hex Socket Wrench

- with turning bar, zinc-plated

Spanner size	Length	Item-No.
11 mm	120 mm	173P15/11
16 mm	240 mm	173P15/16
17 mm	200 mm	173P15/17

173P15/11, 173P15/17



173P15/16

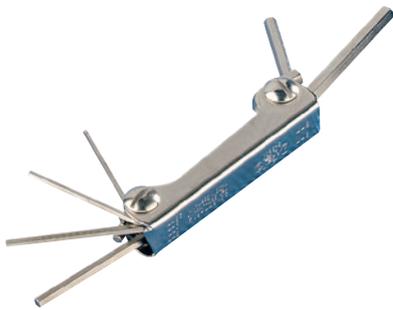


## Allen Key Set

- 9 parts, CV-steel, with case
- width across: 1,5 - 2,0 - 2,5 - 3,0 - 4,0, 5,0 - 6,0 - 8,0 - 10,0 mm

Item-No.

173P7



## Allen Key Set

- 7-part, CV-steel
- width across: 2,5 - 3 - 4 - 5 - 6 - 8 - 10 mm

Item-No.

173P2



## Cranked Socket Key CV-set Torx

- 8 pc.
- TX9 - TX10 - TX15 - TX20 - TX25 - TX27 - TX30 - TX40 - TX45
- chrome vanadium steel, hardened and powder-coated
- with ball head on one side
- with colour codes
- for screws with female Torx profile

Item-No.

173P27



## Torque Wrench

- range 2 – 10 Nm, 1/4" square head
- torque value set on handle end and visible on torque scale
- including calibration certificate

Total key length	Item-No.
185 mm	173P10

 The torque wrench has to be recalibrated every year according to the ISO certification. We willingly offer you this service.

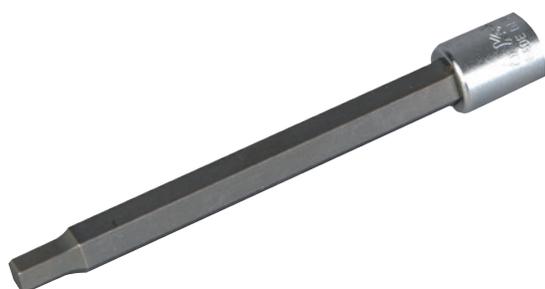


## Torque Wrench

- Total key length: 265 mm
- measuring range 6 - 30 Nm, 1/4", square
- Pull-out values adjustable at the end of the handle and readable on scale
- inserts for hexagon socket screws width across flats 3, 4, 5, 6, 8 and 10
- sheet metal box with corresponding insert
- calibration certificate

Total key length	Item-No.
265 mm	173P11

 The torque wrench has to be recalibrated every year according to the ISO certification. We willingly offer you this service.



## Insert

- for torque wrench 173P10 and 173P11, SL = Shank Length

Spanner size	SL	Item-No.
3 mm	30 mm	173P12/3
4 mm	45 mm	173P12/4
5 mm	45 mm	173P12/5
6 mm	45 mm	173P12/6
8 mm	45 mm	173P12/8
10 mm	45 mm	173P12/10



## Screwdriver Bit Socket, Torx 1/4"

- Screwdriver bit socket Torx with pressed-in pin vanadium special steel, manganese-phosphated
- female square drive, as per DIN 3120 - C6, 3, ISO 1174 with ball retaining groove
- Hand-operated, non-slip, knurled grip, chrome-plated

Size	Length	Item-No.
TX20	30.5 mm	173P26/20
TX20	30.5 mm	173P26/25



## Hole Punch

- stove-enamelled

Hole Ø	Item-No.
1 mm	162P1/1
2 mm	162P1/2
3 mm	162P1/3
4 mm	162P1/4
5 mm	162P1/5
6 mm	162P1/6
7 mm	162P1/7
8 mm	162P1/8
9 mm	162P1/9
10 mm	162P1/10
11 mm	162P1/11
12 mm	162P1/12
13 mm	162P1/13
14 mm	162P1/14
15 mm	162P1/15
16 mm	162P1/16
17 mm	162P1/17
18 mm	162P1/18
19 mm	162P1/19
20 mm	162P1/20
21 mm	162P1/21
22 mm	162P1/22
23 mm	162P1/23
24 mm	162P1/24
25 mm	162P1/25
30 mm	162P1/30
35 mm	162P1/35
40 mm	162P1/40
50 mm	162P1/50



## Hole Punch Set

- conical head, Ø 2 – 20 mm, 19-part, in wooden stand, enamelled

	Item-No.
	162P1



## Hole Punch

- stove-enamelled

Hole Ø	Item-No.
1 mm	162P6/1
2 mm	162P6/2
3 mm	162P6/3
4 mm	162P6/4
5 mm	162P6/5
6 mm	162P6/6
7 mm	162P6/7
8 mm	162P6/8
9 mm	162P6/9
10 mm	162P6/10
11 mm	162P6/11
12 mm	162P6/12
13 mm	162P6/13
14 mm	162P6/14
15 mm	162P6/15
16 mm	162P6/16
17 mm	162P6/17
18 mm	162P6/18
19 mm	162P6/19
20 mm	162P6/20
22 mm	162P6/22
25 mm	162P6/25



## Hole Punch Set

- Ø 1 – 20 mm. 20-part, in wooden stand, stove-enamelled

	Item-No.
	162P6

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## Button Hole Punch



- coated

Hole Ø	Slot length	Item-No.
2 mm	10 mm	162P2/210
3 mm	10 mm	162P2/310
3 mm	12 mm	162P2/312
4 mm	12 mm	162P2/412

---

## Slot Hole Punch



- coated

W x L	Item-No.
3 x 12 mm	162P4/312
4 x 17 mm	162P4/417
4 x 25 mm	162P4/425

## Twist Drill, HSS (DIN 338)

- straight shank, right-hand cut



Diameter	Item-No.
1.0 mm	152P2/010
2.0 mm	152P2/020
2.5 mm	152P2/025
2.6 mm	152P2/026
2.7 mm	152P2/027
2.8 mm	152P2/028
3.0 mm	152P2/030
3.1 mm	152P2/031
3.2 mm	152P2/032
3.3 mm	152P2/033
3.5 mm	152P2/035
3.6 mm	152P2/036
3.8 mm	152P2/038
4.0 mm	152P2/040
4.1 mm	152P2/041
4.2 mm	152P2/042
4.4 mm	152P2/044
4.5 mm	152P2/045
4.6 mm	152P2/046
5.0 mm	152P2/050
5.5 mm	152P2/055
6.0 mm	152P2/060
6.5 mm	152P2/065
7.0 mm	152P2/070
7.5 mm	152P2/075
7.8 mm	152P2/078
8.0 mm	152P2/080
8.5 mm	152P2/085
9.0 mm	152P2/090
9.5 mm	152P2/095
10.0 mm	152P2/100
10.5 mm	152P2/105
11.0 mm	152P2/110
12.0 mm	152P2/120
12.5 mm	152P2/125



## Twist Drill Set, HSS (DIN 338)

- 19-part, in metal case
- straight shank, right-hand cut, 1 – 10 mm, 0,5 mm ascending

	Item-No.
	152P2



## Twist Drill Set, HSS (DIN 338)

- 25-part, in metal case
- straight shank, right-hand cut, 1 – 13 mm, 0,5 mm ascending

	Item-No.
	152P4



## Twist Drill Set, HSS (DIN 338)

- 50-part, in metal case
- straight shank, right-hand cut, 1 – 5,9 mm; 0,1 mm ascending

	Item-No.
	152P3



## Center Drill Bit, HSS (DIN 333)

- straight shank  $\varnothing$  8 mm, countersink angle 60°, right-hand cut

Diameter	Item-No.
3.15 mm	152P9



### Countersink Drill, HSS (DIN 335 C)

- straight shank  $\varnothing$  8 mm, countersink angle 90°

$\varnothing$ outside	Item-No.
12.4 mm	152P10



### Countersink Drill Set, HSS (DIN 335 C)

- 6-part, with straight shank
- countersink angle 90°
- 3 blades, for counterboring and burring
- sizes: 6,3 / 8,3 / 10,4 / 12,4 / 16,5 / 20,5 mm

	Item-No.
	152P11



### Twist Drill, HSS-Co (DIN 338)

- straight shank, right-hand cut, for hard metals, like V2A-steel and titanium

Diameter	Item-No.
2.5 mm	152P6/2,5
3.2 mm	152P6/3,2
3.6 mm	152P6/3,6
4.2 mm	152P6/4,2
5.5 mm	152P6/5,5
6.2 mm	152P6/6,2
7.5 mm	152P6/7,5



### Milling Bit, HSS

- with center guide, straight shank

Diameter	Item-No.
16 mm	151P2/16
20 mm	151P2/20
27 mm	151P2/27



## Forstner Drill

- straight shank, extra long

Diameter	Item-No.
10 mm	150P2/10
12 mm	150P2/12
14 mm	150P2/14
16 mm	150P2/16
18 mm	150P2/18
20 mm	150P2/20
22 mm	150P2/22
24 mm	150P2/24
25 mm	150P2/25
26 mm	150P2/26
28 mm	150P2/28
30 mm	150P2/30
32 mm	150P2/32
35 mm	150P2/35
40 mm	150P2/40



## Forstner Drill Set

- 15-part, in wooden stand, right-hand cut, for wood works
- Ø 10, 12, 14, 16, 18, 20, 22, 24, 25, 26, 28, 30, 32, 35, 40 mm

	Item-No.
	150P2/S



## Valve Hole Cutter

- straight shank Ø 10 mm, inner Ø 27 mm

Ø outside	Item-No.
40 mm	150P3



## Peeling Drill, Tapered, HSS

Diameter	Item-No.
3 – 14 mm	151P5/314
4 – 20 mm	151P5/820
16 – 30 mm	151P5/1630



## Peeling Drill Set, Tapered, HSS

- 3-part, in plastic case, with peeling paste
- diameter: 3 – 14 mm, 4 – 20 mm, 16 – 30,5 mm

	Item-No.
	151P5



## Special Countersink Tool

- for all popular lock systems

Diameter	Item-No.
22 mm	150P1



## Hand Reamer, HSS

- straight shank with square end, spiral fluted

Diameter	Item-No.
5.0 mm	152P7/050
5.5 mm	152P7/055
6.0 mm	152P7/060
6.5 mm	152P7/065
7.0 mm	152P7/070
7.5 mm	152P7/075
8.0 mm	152P7/080
8.5 mm	152P7/085
9.0 mm	152P7/090
9.5 mm	152P7/095
10.0 mm	152P7/100
10.5 mm	152P7/105
11.0 mm	152P7/110
16.0 mm	152P7/160



## Hand Reamer, HSS

- adjustable, straight shank with square end

Adjustment range	Item-No.
13.5 – 15.5 mm	152P5/K
15.5 – 17.5 mm	152P5/M



## Hand Tap Set, HSS

- 3-part, pre-, middle- and finishing tap, in plastic case
- for metric ISO-threads

Thread	Item-No.
M3	153P11/3
M3.5	153P11/3,5
M4	153P11/4
M5	153P11/5
M6	153P11/6
M8	153P11/8
M10	153P11/10

## Single Cut Tap, HSS



- DIN 355, finishing tap
- for metric ISO-threads

Thread	Item-No.
M3	153P12/3
M4	153P12/4
M5	153P12/5
M6	153P12/6
M8	153P12/8
M13	153P12/13

## Die, HSS



- DIN 223, for metric ISO-threads

Thread	Item-No.
M3	154P11/3
M4	154P11/4
M5	154P11/5
M6	154P11/6
M7	154P11/7
M8	154P11/8
M10	154P11/10

## Die Holder, HSS



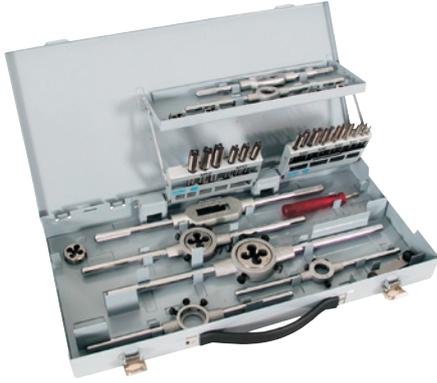
Thread	Ø x H	Item-No.
M3 - M4	20 x 5 mm	155P1/5
M5 - M6	20 x 7 mm	155P1/7
M7 - M9	25 x 9 mm	155P1/9
M10 - M11	30 x 11 mm	155P1/11
M16 - M20	45 x 18 mm	155P1/18

## Tap Holder



- adjustable

Thread	Size	Item-No.
M1 - M10	1	155P2/1
M5 - M20	3	155P2/3



## Tap and Die Set, HSS (DIN)

- 44-piece, in metal case

### Components

- hand taps and dies, size M3, M4, M5, M6, M8, M10 and M12
- die holder, size 20x5, 20x7, 25x9, 30x11, 38x14 mm
- tap holder No. 1+2
- thread gauge
- screw driver
- hollow core drill

	<b>Item-No.</b>
	154P11/S



## Precision Spirit Level Light Metal

- length: 400 mm
- profile anodized yellow
- distortion-free and weather-proof

	<b>Item-No.</b>
	165P17



## Folding Ruler, wood

- 1 mm calibration, 2000 mm length

<b>Material</b>	<b>Item-No.</b>
Wood	163P1
Light metal	163P52



## Steel Tape Measure

- with wrist strap
- automatic tape rewind with stop button
- yellow tape
- black/red millimeter-scale
- dimensions L x W: 2000 x 13 mm

	<b>Item-No.</b>
	163P21



### Tailor's Measuring Tape

Length	Item-No.
2000 mm	163P2



### Shoemaker's Measuring Tape

- calibration both sides: cm / stitch length / engl. sizes

Length	Width	Item-No.
600 mm	12 mm	163P18



### Flexible Steel Ruler

Length	Item-No.
300 mm	163P8



### Steel Ruler

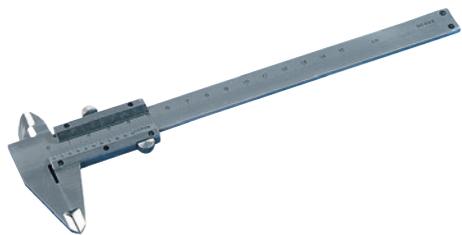
- with bevel and scale, zinc plated, mm-scale

Length	Item-No.
500 mm	163P7/500
1000 mm	163P7/1000



### Steel Square

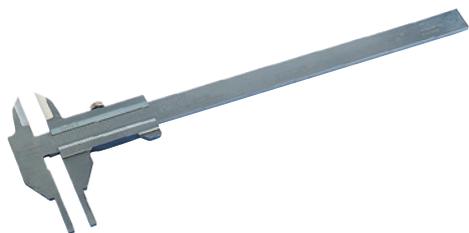
Length	Item-No.
150 x 100 mm	163P9
150 x 100 mm with stop	163P9/A



## Vernier Caliper

- plastic pouch, vernier scale 1/20 mm

Measuring range	Item-No.
150 mm	163P12



## Vernier Caliper

- vernier scale 1/20 mm, extra long jaws

Measuring range	Item-No.
200 mm	163P19



## Body Caliper „Streifeneder“

- for measuring of body segments

Measuring range	Item-No.
400 mm	165P18/400
600 mm	165P18/600



## Micrometer

- in plastic case

Measuring range	Item-No.
0 – 25 mm	163P13



## Thickness Bow Gauge

Measuring range	Item-No.
0 – 15 mm	163P11



## Bow Compass

Length	Item-No.
150 mm	163P3/150
200 mm	163P3/200



## Steel Scriber

Length	Item-No.
250 mm	163P14



## Plumb Bob

- pear-shaped

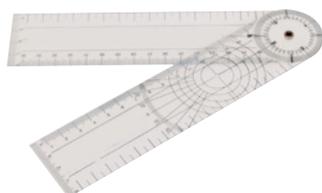
Length	Weight	Item-No.
75 mm	250 g	163P55



## Hip Compass

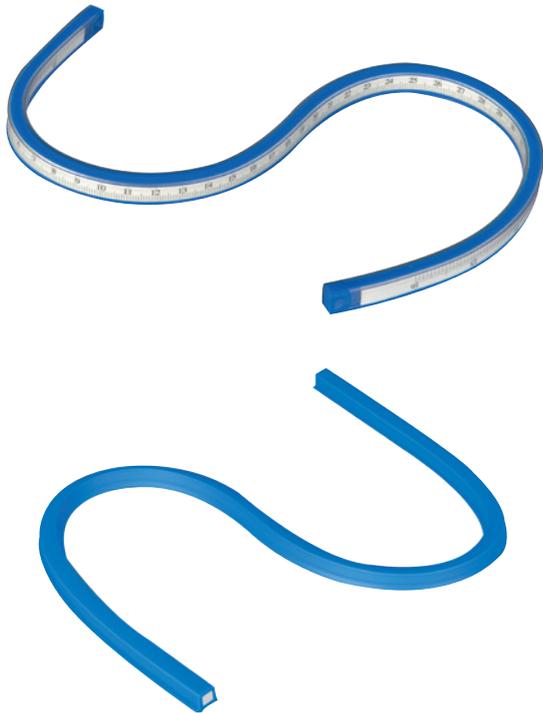
- „mm“ and „inch“ calibration

Measuring range	Item-No.
500 mm / 20 inches	163P16



## Goniometer

Measuring range	Item-No.
0 – 360 °	163P15



## Flexible Ruler

- for measuring of body contours
- without cm-indication

Length	Item-No.
400 mm	163P70/40
600 mm	163P70/60



## Bow Caliper

Measuring range	Item-No.
120 mm	163P17



## Outside Caliper

Length	Item-No.
150 mm	163P4



## Spacer Set

- spacer set, for leg length compensation, 6-part: 5, 10, 15, 20, 25 and 30 mm

Dimensions	Item-No.
320 x 150 mm	165P19



## Parallel Scriber

- with round steel base, no calibration
- scriber rotates and pivots

Scribing height	Item-No.
up to 500 mm	163P51



## Height Gauge

- made of wood, cm-calibration

Scribing height	Weight	Item-No.
max. 1000 mm	0.650 kg	163P53



## Pelvic Level

- for determination of the hip tilt

Length	Item-No.
330 mm	165P13



## Measuring Gauge

- for inside circumfer. of AK and BK sockets

Measuring range	Item-No.
12 – 37 cm	165P14/US
22 – 66 cm	165P14/OS



## M.A.S. Tool Kit

- for simple measuring of the muscular and bony structure for manufacturing of anatomical AK (above knee)-sockets

in aluminum case, contains:

- 163P31 Tuber-M-L-Gauge
- 163P32 Diagonometer
- 163P33 Ramus Angle Gauge
- 163P34 Plurimeter-V
- 163P35 M.A.S. Compressive Measuring Tape
- 163P36 Digital Camera

Item-No.
163P30



## M.A.S. Tool Kit

- like item 163P30 but without digital camera

Item-No.
163P29



## Tuber-M-L-Gauge

- scale in two measurement ranges
- measurement range 1: determination of distances in BK and AK areas (A-P and M-L)
- measurement range 2: determination of stump lengths

Item-No.
163P31



## Diagonometer

- concave and flat contact face
- diagonal measuring
- measurement range 70-125 mm

Item-No.
163P32



## Ramus Angle Gauge

- measurement range +/- 60°
- for measuring the ramus angle
- for measuring extension and flexion as well as ab- and adduction in BK and AK ranges

Item-No.

163P33



## Plurimeter-V

- for measuring of the flexion position of the residual leg
- automatic raster for each quarter rotation
- easy finding of the 0-preliminary setting

Item-No.

163P34



## M.A.S. Compressive Measuring Tape

- tension control via springs
- adjustable tension on 2 kg and 4 kg
- this allows a uniform reproducible way of measuring

Item-No.

163P35



## Digital Camera

- brand name camera (depending on offer)

Item-No.

163P36

picture similar



### Shoe Stretcher

- coated

Length	Item-No.
400 mm	165P32



### Shoe Stretcher

- with locking mechanism, coated

Length	Item-No.
400 mm	165P33



### Toe Cap Lifting Tool

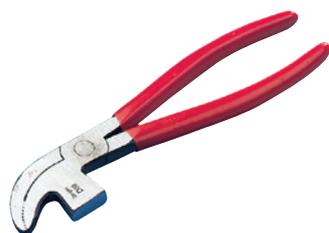
Length	Item-No.
420 mm	165P31



### Welt Pincers

- for leather
- steel-forged, plastic coated handles

Length	Item-No.
200 mm	165P4



### Hammer Stretching Pliers

- for leather
- steel-forged, plastic coated handles

Length	Item-No.
200 mm	165P7



## Holding Forceps

- stainless

Length	Item-No.
250 mm	165P45



## Revolving Hole Punch

- forged steel, plastic coated handles, with mini brass anvil
- replaceable hole punches: Ø 1,5 - 2 - 2,5 - 3 - 3,5 - 4 mm

Length	Item-No.
245 mm	165P3



## Replacement Spring

- for item 165P3

Item-No.
165P3/F



## Hole Punch Tube

- for item 165P3

Ø Hole	Item-No.
1.5 mm	165P3/1,5
2.0 mm	165P3/2,0
2.5 mm	165P3/2,5
3.0 mm	165P3/3,0
3.5 mm	165P3/3,5
4.0 mm	165P3/4,0
4.5 mm	165P3/4,5
5.0 mm	165P3/5,0



### Hole Punch Tube Set

- for item 165P3
- hole punch tube with  $\varnothing$  1,5 - 2 - 2,5 - 3 - 3,5 - 4 mm

	Item-No.
	165P3/S



### Brass Anvil

- for item 165P3

	Item-No.
	165P3/A



### Revolving Hole Punch

- plastic coated handles
- mini brass anvil and hole punches:  $\varnothing$  2 - 2,5 - 3 - 3,5 - 4 - 5 mm

Length	Item-No.
240 mm	165P1



### Spring Clamp

- zinc-plated with plastic insert

Length	Item-No.
110 mm	164P16/110
155 mm	164P16/155



### Pricker

- CV-steel, shock-resistant with plastic handle

Length	Item-No.
140 mm	173P6

## Engineers' File – Flat



- without handle

Dimensions	Cut	Item-No.
150 x 16 x 4 mm	1 - fine	177P6/150F
150 x 16 x 4 mm	2 - medium	177P6/150M
150 x 16 x 4 mm	3 - coarse	177P6/150G
200 x 20 x 5 mm	1 - fine	177P6/200F
200 x 20 x 5 mm	2 - medium	177P6/200M
200 x 20 x 5 mm	3 - coarse	177P6/200G
250 x 25 x 6.3 mm	1 - fine	177P6/250F
250 x 25 x 6.3 mm	2 - medium	177P6/250M
250 x 25 x 6.3 mm	3 - coarse	177P6/250G
300 x 30 x 7 mm	1 - fine	177P6/300F
300 x 30 x 7 mm	2 - medium	177P6/300M
300 x 30 x 7 mm	3 - coarse	177P6/300G

## Engineers' File – Half Round



- without handle

Dimensions	Cut	Item-No.
150 x 16 x 5 mm	1 - fine	177P7/150F
150 x 16 x 5 mm	2 - medium	177P7/150M
150 x 16 x 5 mm	3 - coarse	177P7/150G
200 x 21 x 6 mm	1 - fine	177P7/200F
200 x 21 x 6 mm	2 - medium	177P7/200M
200 x 21 x 6 mm	3 - coarse	177P7/200G
250 x 25 x 7 mm	1 - fine	177P7/250F
250 x 25 x 7 mm	2 - medium	177P7/250M
250 x 25 x 7 mm	3 - coarse	177P7/250G
300 x 30 x 9 mm	1 - fine	177P7/300F
300 x 30 x 9 mm	2 - medium	177P7/300M
300 x 30 x 9 mm	3 - coarse	177P7/300G

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## Engineers' File – Round



- without handle

L x Ø	Cut	Item-No.
150 x 6.3 mm	1 - fine	177P8/150F
150 x 6.3 mm	2 - medium	177P8/150M
150 x 6.3 mm	3 - coarse	177P8/150G
200 x 8 mm	1 - fine	177P8/200F
200 x 8 mm	2 - medium	177P8/200M
200 x 8 mm	3 - coarse	177P8/200G
250 x 10 mm	1 - fine	177P8/250F
250 x 10 mm	2 - medium	177P8/250M
250 x 10 mm	3 - coarse	177P8/250G
300 x 12.5 mm	1 - fine	177P8/300F
300 x 12.5 mm	2 - medium	177P8/300M
300 x 12.5 mm	3 - coarse	177P8/300G

---

## Engineers' File – Triangular



- without handle

L x Ø	Cut	Item-No.
150 x 11 mm	1 - fine	177P9/150F
150 x 11 mm	2 - medium	177P9/150M
150 x 11 mm	3 - coarse	177P9/150G
200 x 14 mm	1 - fine	177P9/200F
200 x 14 mm	2 - medium	177P9/200M
200 x 14 mm	3 - coarse	177P9/200G
250 x 17 mm	1 - fine	177P9/250F
250 x 17 mm	2 - medium	177P9/250M
250 x 17 mm	3 - coarse	177P9/250G



## Engineers' File – Square

- without handle

L x Ø	Cut	Item-No.
150 x 6.3 mm	1 - fine	177P4/150F
150 x 6.3 mm	2 - medium	177P4/150M
150 x 6.3 mm	3 - coarse	177P4/150G
200 x 8 mm	1 - fine	177P4/200F
200 x 8 mm	2 - medium	177P4/200M
200 x 8 mm	3 - coarse	177P4/200G
250 x 10 mm	1 - fine	177P4/250F
250 x 10 mm	2 - medium	177P4/250M
250 x 10 mm	3 - coarse	177P4/250G
300 x 12.5 mm	1 - fine	177P4/300F
300 x 12.5 mm	2 - medium	177P4/300M
300 x 12.5 mm	3 - coarse	177P4/300G



## Cabinet File – Coarse

- without handle

Dimensions	Item-No.
250 x 31.5 x 5.3 mm	177P10/250
300 x 35.5 x 6 mm	177P10/300



## Shoemaker's Rasp

- granular, sharp and deep cut

Length	Item-No.
225 mm	177P1/225

### Cabinet Rasp – Smooth



- without handle

Dimensions	Cut	Item-No.
200 x 21 x 7.5 mm	1 - fine	176P4/200F
250 x 25 x 8.5 mm	1 - fine	176P4/250F
300 x 34 x 8 mm	1 - fine	176P4/300F
200 x 24 x 5 mm	2 - medium	176P4/200M
250 x 29 x 6 mm	2 - medium	176P4/250M
300 x 29 x 8 mm	2 - medium	176P4/300M

### Wood Rasp – Flat



- without handle, cut 2 - medium

Dimensions	Item-No.
200 x 20 x 5 mm	176P1/200M
250 x 25 x 6.3 mm	176P1/250M
300 x 30 x 6.3 mm	176P1/300M

### Wood Rasp – Half-Round



- without handle

Dimensions	Cut	Item-No.
200 x 20 x 5 mm	2 - medium	176P2/200M
200 x 20 x 5 mm	3 - coarse	176P2/200G
250 x 25 x 7 mm	2 - medium	176P2/250M
250 x 25 x 7 mm	3 - coarse	176P2/250G
300 x 30 x 6.3 mm	2 - medium	176P2/300M
300 x 30 x 6.3 mm	3 - coarse	176P2/300G

### Wood Rasp – Round



- without handle, cut 2 - medium

Diameter	Length	Item-No.
8 mm	200 mm	176P3/200M
10 mm	250 mm	176P3/250M



## File Handle

- beech wood

For file length	Length	Item-No.
up to 100 mm	80 mm	177P3/80
100 – 175 mm	100 mm	177P3/100
150 – 250 mm	110 mm	177P3/110
150 – 300 mm	120 mm	177P3/120
200 – 300 mm	130 mm	177P3/130
250 – 350 mm	140 mm	177P3/140



## File Handle

- blue plastic

For file length	Item-No.
100 – 150 mm	176P5/1
150 – 250 mm	176P5/2
250 – 300 mm	176P5/3



## File Brush

Width	Length	Item-No.
40 mm	250 mm	178P20



## Firmer Gouge

- white beech wood handle, Wolfram-Vanadium-Steel

Width	Item-No.
6 mm	159P10/6
8 mm	159P10/8
10 mm	159P10/10
12 mm	159P10/12
16 mm	159P10/16
20 mm	159P10/20



## Bevelled Edge Chisel

- white beech wood handle, Wolfram-Vanadium-Steel

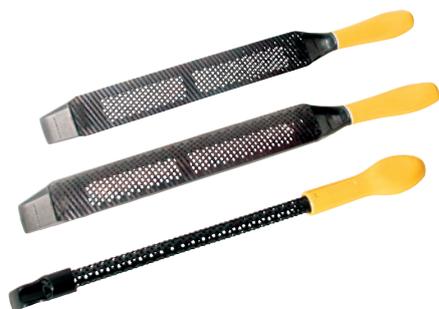
Width	Item-No.
6 mm	159P12/6
8 mm	159P12/8
10 mm	159P12/10
12 mm	159P12/12
16 mm	159P12/16
20 mm	159P12/20



## Warding File Set

- in plastic case

Length	Item-No.
100 mm	177P5



## Surform File

Length	Form	Item-No.
440 mm	flat	158P2/F
440 mm	flat/fine	158P20/F
440 mm	half round	158P2/HR
400 mm	round	158P2/R



## Replacement Blade

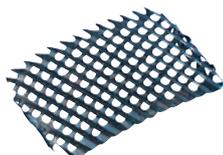
- for surform file 158P20 and 158P2, length 250 mm

Form	Item-No.
flat	158P3/F
flat/fine	158P21/F
half round	158P3/HR
round	158P3/R



## Surform Scraper

Length	Form	Item-No.
180 mm	flat	158P1



## Replacement Blade

- for surform scraper

L x W	Form	Item-No.
60 x 45 mm	flat	158P1/E



## Leather Knife

- cambered blade

Length	Item-No.
260 mm	160P2



## Leather Knife

- tapered blade

Length	Item-No.
250 mm	160P3



## Leather Knife

- skew blade

Length	Item-No.
260 mm	160P4

---

### Quarter Moon Knife



Length	Item-No.
210 mm	160P5

---

### Half Moon Knife



Length	Item-No.
190 mm	160P6

---

### Leather Knife



- narrow, blade adjustable inside wood handle

Length	Item-No.
200 – 290 mm	160P7

---

### Leather Knife



- broad, blade adjustable inside wood handle

Length	Item-No.
200 – 290 mm	160P8



A spare blade for this item is available under Item-No. 160P8/E.



## Neopolene Knife

- with plastic handle

Length	Item-No.
315 mm	160P11



## Felt Knife

- with wooden handle

Length	Item-No.
240 mm	160P18



## Rotary Cutter

- compact
- for cutting silicone and gel liners
- 45 mm blade diameter

	Bestell-Nr.
	166P56



## Replacement Blade

- for Item No. 166P56

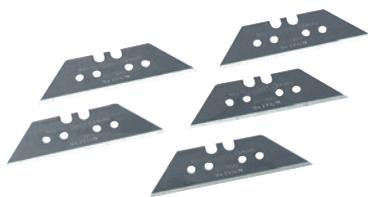
Cut of blade	Diameter	Item-No.
straight	45 mm	166P55/1



## Universal Knife

- incl. 3 spare blades
- metal handle

Length	Item-No.
150 mm	160P13



## Trapezium Blades

- replacement blades for item 160P13
- PU = 5 pieces

Item-No.
160P14



## Scalpel

- sterile
- with plastic handle
- PU = 10 pieces

Item-No.
160P100



## Scalpel handle „Standard, fig. 4“

- solid flat handlesuitable for blades fig. 18-36length = 140 mmPU = 1 piece

Item-No.
50E26



## Scalpel Blade

- sterile
- small blade for detailed works
- for scalpel handle item-no. 50E26
- PU = 100 pieces

Size	Item-No.
Fig. 24	50E27



## Trimming Knife

- plastic coated handle, blade replaceable, with protective cap

Length	Item-No.
160 mm	160P50



## Replacement Blade

- for item 160P50
- PU = 10 pieces

	Item-No.
	160P51



## Draw Knife

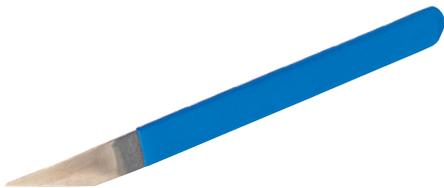
Length	Item-No.
250 mm	160P10



## Plaster Knife „Esmarch“

- stainless steel

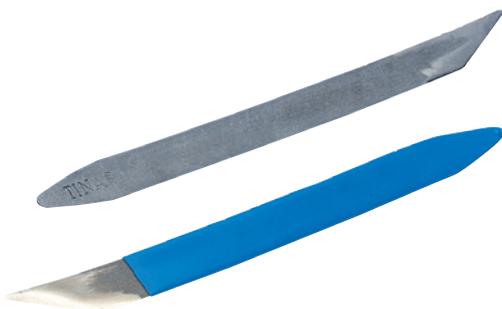
Length	Item-No.
180 mm	160P12



## Cobbler's Knife „Tina“

- plastic coated, straight blade

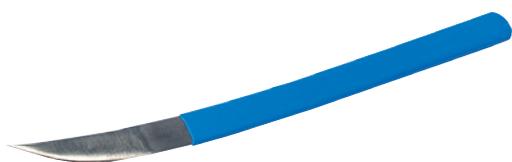
L x W	Item-No.
230 x 12 mm	160P19
240 x 23 mm	160P1



## Shoemaker's Knife „Tina“

- plastic coated, slightly bent blade

L x W	Item-No.
270 x 23 mm	160P16
270 x 23 mm (for left-handers)	160P16/L



### Skiving Knife

- plastic coated, bent blade

L x W	Item-No.
230 x 18 mm	160P17



### Insole Knife

- with handle, length 160 mm

Features	Item-No.
	157P11
for left-handers	157P11/L



### Welt Cutter

- with handle, length 160 mm

Features	Item-No.
	157P10
for left-handers	157P10/L



### Sharpening Steel

- Sharpening steel with wooden handle
- length blade 300 mm
- length wooden handle 105 mm

Length	Item-No.
315 mm	160P20



### Grind Stone, rough/smooth

- bottom: standard corundum grit 100
- top: special fused alumina grit 280/320

W x D x H	Item-No.
150 x 50 x 25 mm	160P22



## Grind Stone

Item-No.
160P23



## Wire Brush

- 3 rows, made of steel wire

Length	Item-No.
300 mm	178P25



## Deburring Knife

- adjustable with one blade
- blade holder, handle-Ø 3,2 mm

Length	Item-No.
150 mm	160P24



## Deburring Blades

- for deburring knife 160P24
- handle-Ø 3,2 mm
- PU = 10 pieces

Item-No.
160P24/E



## Replacement Blades

- for deburring knife 160P25
- handle-Ø 2,6 mm
- PU = 10 pieces

Item-No.
160P25/E



## Deburring Knife

- durable deburring knife with plastic shaft and straight ceramic blade
- particularly suitable for deburring plastics and soft metals

in the back of the shaft is a blade magazine for spare blades

- Range of Application
- deburring edges
- smoothing surfaces

Item-No.
160P55

 Advantage compared to metal blades: Metal blades are mostly too sharp for soft plastics. This leads to unwanted damage of the material.



## Spare Blade for Deburring Knife

Item-No.
160P55/E



## Manual Countersink Set

- with handle, ratchet holder, HSS
- including 2 x countersink (Ø 12 mm and Ø 20 mm), 90°

Item-No.
160P27



## Replacement Countersink

- for item 160P27

Diameter	Item-No.
12 mm	160P27/E12
20 mm	160P27/E20



## Scissors

- nickel-plated

Length	Item-No.
170 mm	166P5/170



## Scissors

- stainless steel, with plastic handles

Length	Item-No.
200 mm	166P7/200
250 mm	166P7/250



## Tailor's Scissors

- coated handles

Length	Item-No.
200 mm	166P4/200
200 mm (for left-handers)	166P4/L200
230 mm	166P4/230
250 mm	166P4/250
250 mm (for left-handers)	166P4/L250
280 mm	166P4/280
300 mm	166P4/300



## Shoe Makers Scissors

- bent

Length	Item-No.
180 mm	166P3/180
160 mm	166P3/160



## Trimming Scissors

- lower blade with fine teeth

Length	Item-No.
210 mm	166P40



## Trimming Scissors

- micro-teeth for Carbon-Kevlar fibres

Length	Item-No.
265 mm	166P8



## Proton® cutting scissors

- proton-coated curved scissors
- for cutting technical textiles (e.g. Kevlar, Dynema, Prepreg)
- forged carbon steel, very hard surface, smooth running and non-slip, cuts precisely without pushing

	Item-No.
	166P57



## Proton® mould making scissors

- proton-coated scissors for cutting technical textiles (e.g. Kevlar, Dynema, Prepreg)
- forged carbon steel, very hard surface, smooth running and non-slip, cuty precisely without pushing

	<b>Item-No.</b>
	166P58



## Sewing Scissors

- pointed, straight

<b>Length</b>	<b>Item-No.</b>
115 mm	166P16



## Pinking Shear

- plastic handles

<b>Length</b>	<b>Item-No.</b>
220 mm	166P6/220



### Leather Shear

- with straight blades, coated handles

Length	Item-No.
240 mm	166P1/240



### Leather Shear

- straight, coated handles

Length	Item-No.
250 mm	166P2/250



### Upper Leather Shear

- straight, forged steel, with smooth blade

Length	Item-No.
180 mm	166P21/180



### Casting Room Scissors

- plastic handles

Length	Item-No.
180 mm	166P10



### Bandage Scissors

- bent

Length	Item-No.
145 mm	166P12
145 mm (for left-handers)	166P12/L



## Plaster Scissors, model „Bruns“

- stainless steel, length 240 mm
- stainless

Blade	Item-No.
with fine teeth	166P13
plain	166P14



## Bandage Scissors „Bergmann“

- smooth, stainless steel

Length	Item-No.
230 mm	160P30



## Bandage Scissors „Lister“

- stainless

Length	Item-No.
140 mm	166P9/140
200 mm	166P9



## Bandage Scissors „Lister“

- stainless, for left-handed persons

Length	Item-No.
140 mm	166P9/L



### Plaster Scissors

- stainless

Length	Item-No.
200 mm	166P11



### Plaster Scissors „Stille“

- stainless

Length	Item-No.
260 mm	166P15



### Junior Hacksaw

- with blade

Length	Item-No.
290 mm	159P1



### Replacement Blade

- for item 159P1

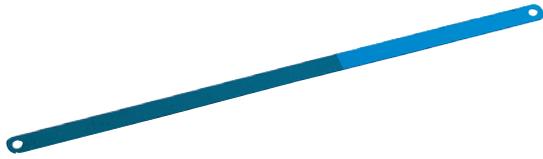
Length	Item-No.
150 mm	159P1/E



### Hacksaw Frame

- with solid steel bow
- synthetic handle
- bi-metal saw blade

Length	Total length	Item-No.
300 mm	520 mm	159P13



## Replacement Blade

- for items 159P3 and 159P13
- length: 300 mm, 24 teeth /"

Features	Item-No.
Tungsten-alloyed tool steel, double-sided	159P13/E
Spring steel, set of teeth HSS, completely hardened through, one-sided	159P3/D
Bimetal, set of teeth HSS, hardened, one-sided	159P3/E



## Back Saw

- straight

Length	Item-No.
250 mm	159P2



## Back Saw

- cranked

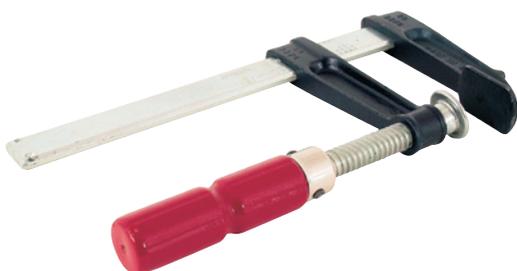
Length	Item-No.
250 mm	159P40



## Back Hand Saw

- with handle made of wood
- universal teeth

Length	Item-No.
400 mm	159P6



## Screw Clamp

- cast iron clamp arm, wooden handle, steel slide rail

Span x Outreach	Item-No.
160 x 80 mm	164P21/160
200 x 100 mm	164P21/200
250 x 120 mm	164P21/250
300 x 140 mm	164P21/300
400 x 175 mm	164P21/400
500 x 120 mm	164P21/500



## Pin Wrench

- adjustable with handle

Length	Item-No.
235 mm	165P5



## Socket Wrench

- coated, square 12 mm

Length	Item-No.
100 mm	165P6



## Knee Axis Key

- zinc-plated steel
- with handle

Item-No.
165P8



## Contouring Iron

- CV-steel, square edge

Mouth width	Length	Item-No.
4 + 6 mm	250 mm	165P60
6 + 8 mm	250 mm	165P61
7 + 9 mm	250 mm	165P62



## Contouring Iron

- CV-steel, round edge

Mouth width	Length	Item-No.
4 + 6	265 mm	165P65
6 + 8	265 mm	165P66
7 + 9	265 mm	165P67



## Flat Contouring Iron

- zinc-plated

Length	Item-No.
500 mm	165P69



## Double Open End Spanner Set

- CV-steel, chrome-plated, 8-part, 6 – 22 mm
- 6/7 - 8/9 - 10/11 - 12/13 - 14/15 - 16/17 - 18/19 - 20/22 mm

Item-No.
165P70



## Double Ring Spanner Set

- CV-steel, chrome-plated, 8-part, 6 – 22 mm
- 6/7 - 8/9 - 10/11 - 12/13 - 14/15 - 16/17 - 18/19 - 20/22 mm

Item-No.
165P71



## Ring/Open End Spanner Set

- CV-steel, chrome-plated, 9-part, 6 – 19 mm
- 6/6, 7/7, 8/8, 10/10, 11/11, 13/13, 14/14, 17/17, 19/19 mm

Item-No.
165P72



## Sheet Metal Shear

- stainless steel, plastic coated handles

Length	Item-No.
300 mm	165P50

picture similar



## Metal Shear

- for hard metals up to 1,2 mm thickness, plastic coated handles

Length	Item-No.
260 mm	165P51



## Pipe Cutter

- for pipes  $\varnothing$  3 – 35 mm

Item-No.
158P10

without picture

## Replacement Blade

- for item 158P10

Item-No.
158P10/E



## Pipe Deburrer

- for inner and outer deburring works
- for pipes with  $\varnothing$  3 – 42 mm

Item-No.
158P11



## Glue Container

- made of plastic, incl. brush for glue and paint

Litres	Item-No.
0.45	164P11/045
0.9	164P11/090
1.5	164P11/150

**S** The glue saver bowl serves as a safeguarding for standard-adhesives which are generally used in orthopaedic technology. This article therefore is regarded as an article of daily use, which due to the frequency and the nature of its use is delivered without any warranty.



## Replacement Brush

- for item 164P11

for Item-No.	Features	Item-No.
164P11/045	small	164P12/K
164P11/090	large	164P12/G
164P11/150	large	164P12/G



## Talcum Powder Container

- made of plastic, content: approx. 300 ml

Item-No.
164P33



## Oil Can

- made of plastic
- with built-in brass pump
- content 300 ml

Item-No.
164P30



## Bevelling Tool

- for leather, blade reversible

Width	Item-No.
1 + 3 mm	157P8/13
2 + 4 mm	157P8/24



## Folding Stick

- made out of bones
- pointed

Length	Item-No.
160 mm	163P10/K
180 mm	163P10/L



## Creasing Wood

- with bone guides

Length	Item-No.
200 mm	163P22



## Tracing Wheel

- with plastic handle and hardened steel spikes

Length	Item-No.
160 mm	163P25



## Tailor's Chalk

Colour	Item-No.
white	163P26



## Hand Vice

- drop-forged

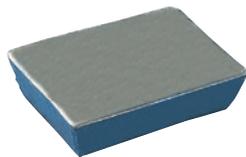
Jaw width	Item-No.
40 mm	164P19/40
42 mm	164P19/42



## Hand Vice

- steel-forged

Jaw width	Jaw length	Item-No.
25 mm	125 mm	164P20/25
35 mm	150 mm	164P20/35



## Lead Block

Weight	Item-No.
approx. 5 kg	164P14



## Riveting Bar

- with rivet-hole, forged metal, 680 mm length

Features	Item-No.
without rivet hole	164P17
without rivet hole	164P18



## Awl Handle

- screw-type locking

Length	Item-No.
110 mm	157P4



## Awl Handle

- flat, with push pin

Length	Item-No.
80 mm	157P5/80



## Bradawl

- sword shape
- PU = 10 pieces

Length	Item-No.
50 mm	157P6/50
60 mm	157P6/60
70 mm	157P6/70



## Round Awl

- PU = 10 pieces

Length	Item-No.
50 mm	157P7/50
60 mm	157P7/60
70 mm	157P7/70



## Saddler's Needle

- round
- PU = 25 pieces

Length	Item-No.
60 mm	157P1/1
70 mm	157P1/2/0



## Furrier's Needle

- triangular
- PU = 25 pieces

Length	Item-No.
40 mm	157P2/5
45 mm	157P2/3
50 mm	157P2/1



## Working Safety Gear



# Working Safety Gear

Every orthopaedic workshop uses materials which are classified hazardous according to the hazardous materials directives. In order to be protected optimally against these health risks, we offer a wide range of protection gear and first-aid products in the next chapter. As healthy employees and safety protection of your eyes, ears, hands and respiratory tract are the assets of every orthopaedic business! Please contact us for further information, we will be happy to assist you!



## Company First Aid Box, filled



- company first aid box according to DIN 13157

Dimensions	Item-No.
260 x 160 x 80 mm	13P20

## Refill for Company First Aid Box



- for item 13P20
- complete refill for company first aid box according to DIN 13157

Item-No.
13P20/E1

## Replacement Set for Company First Aid Box



- for item 13P20
- contains only sterile dressing material and band-aids (=expendable items)

Item-No.
13P20/E2

## Eye Wash Station



- eye wash station with special mount for 2 bottles of eye wash 13P26

### Technical data

- material: steel sheet
- colour: RAL 9016 white
- dimensions W x D x H: 265 x 105 x 355 mm

Item-No.
13P25

Eye wash station does not include eye wash bottles, if necessary, please order separately under item-no. 13P26.



## Eye Wash Bottle Set

- for eye wash station 13P25
- gentle rinse from 6 jet nozzles
- ergonomically shaped, well visible eye support ring for controlled eye rinse
- continuous rinsing period of more than 3 minutes (per 1000 ml-bottle)
- maintenance-free and approx. 3 years shelf life
- according to DIN EN 15 154-4

### Scope of supply

- two bottles of 1.000 ml each
- saline solution 0,9 %, sterile

Item-No.
13P26



## Fire Blanket made of Glass-Fiber Fabric

- with sewn-on pocket grips
- size: 1800 x 1600 mm

Item-No.
13P30



## Wall Mounting for Fire Blanket, empty

- for item 13P30
- red varnish
- size: 300 x 300 x 125 mm

Item-No.
13P31



## Disposable Latex Gloves IC

### Material

- natural rubber

### Application

- examination glove

### Characteristics

- non-sterile
- eudermic
- powder-free
- with synthetic internal coating

Size	Sales unit	Item-No.
S = 6 - 7	100 pcs	12P18/S
M = 7 - 8	100 pcs	12P18/M
L = 8 - 9	100 pcs	12P18/L
X = 9 - 10	90 pcs	12P18/XL



## Chemical Protective Gloves made of Butyl

### Material

- made of Butyl rubber, with rolled seam, roughened, powdered

### Application

- very good protection against harmful liquids
- temperature flexibility

### Characteristics

- very good wearing comfort
- highly resistant to ozone and UV-rays, good mechanical resistance

PU = 1 pair

Size	Item-No.
8	12P8/8
9	12P8/9
10	12P8/10



## Chemical Protective Gloves, Nitril

### Material

- made of nitril, with cotton velour finishing

### Application

- chemical protective gloves

### Characteristics

- good resistance against abrasion, puncturing and cuts
- good sense of touch through precise fit
- silicone free, velour finishing

PU = 1 pair

Size	Item-No.
8	12P9/8
9	12P9/9
10	12P9/10



## Chemical Protection Gloves

### Material

- HPPE-laminate film
- according EN 374 standard; protection category 6

### Application

- chemical-resistant foilglove, suitable for processing silicone

### Characteristics

- 5-layer
- anatomical shape

PU = 1 pair

Size	Length	Item-No.
7	380 mm	12P22/7
8	380 mm	12P22/8
9	380 mm	12P22/9
10	410 mm	12P22/10



## Protective Gloves

- leather with fabric
- sturdy version
- PU = 1 pair

Item-No.
12P11



## Welding Gloves

- for welding works
- made of leather with sleeves
- length: approx. 35 cm
- PU = 1 pair

Item-No.
12P14



## Heat Protective Gloves

- made of „Molton“ fibre
- PU = 1 pair

Item-No.
12P16



## Protective Gloves

- without fingers, chrome leather
- PU = 1 pair

Item-No.
12P15



## Cut Protection Gloves

- cut protection gloves made of HPPE-fiber/glass/polyamide with PU-coating
- PU = 1 pair

Size	Item-No.
7	12P6/7
8	12P6/8
9	12P6/9
10	12P6/10

 To be used in metal processing or assembly activities with high risk of cuts (e.g. working with scalpels or knives).



## Mechanical Protective Gloves

- made of cotton jersey with Nitril-coating
- high flexibility, warmth-cold-flexibility, highly breathable, robust fabrication
- PU = 1 pair

Size	Item-No.
8	12P7/8
9	12P7/9
10	12P7/10
11	12P7/11

 These protection gloves may be used as an alternative to leather gloves!



## Heat Protective Gloves

- made of jersey
- PU = 1 pair

Item-No.
12P12



## Heat Protective Gloves

- 5-finger knit gloves of 100% cotton bouclé
- ribbed hem cuff
- contact temperature up to 225°C / 480°F
- length 27 cm, 1 size fits all
- PU = 1 pair

Item-No.
12P13



## Protective Goggles

- mist-free, with hard-coated glasses and adjustable, flexible head gear
- PU = 1 piece

Weight	Item-No.
32 g	13P10



without content

## Storage Box for Protective Goggles

- storage box for dust proof storage of protective goggles
- fast access and good visibility from outside
- either permanently mountable to the wall or removable with wall holder

Outer dimensions	Inner dimensions	Colour	Item-No.
200 x 185 x 90 mm	165 x 110 x 70 mm	blue/transparent	13P17

## Double Filter - Half Mask



- mask body made of silicone
- incl. 2 combination filters, filter category A2P3
- size M

Item-No.
13P14

Other filter categories available upon request.

 Replacement combination filters are available under item-no. 13P14/F1.

## Double filter half mask without combination filter



- mask body made of silicone
- without combination filter
- size M

Bestell-Nr.
13P14/M

Other filter categories available upon request.

## Respirator Mask



- particle filter class FFP1
- PU = 20 pieces

Item-No.
13P12

# Working Safety Gear



## Respiratory Mask

- with exhalation valve, particle filter class FFP 2
- PU = 10 pieces

	<b>Item-No.</b>
	13P11



## Ear Protector ABS

- with head gear, light and comfortable, excellent sound protection
- soft cushioning pads

	<b>Item-No.</b>
	13P15



## Clamp Ear Protection

- clamp ear protection with low contact pressure for highest comfort
- ideal for changing levels of noise pollution
- extremely elastic clamps

	<b>Item-No.</b>
	13P16

 Spare plugs available in bags with 10 pairs (item-no. 13P16/E).



## Face Shield

- with polycarbon glass shield, comfortable wear, size adjustment with turn-lock nut

	<b>Item-No.</b>
	13P7



## Replacement Shield

- for item 13P7, polycarbon glass

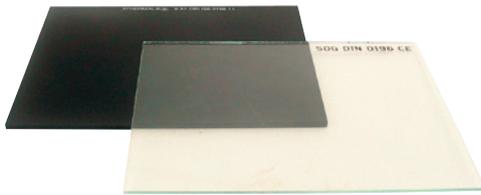
<b>Size</b>	<b>Item-No.</b>
540 x 195 mm	13P8



## Welding Shield

- incl. exchangeable glasses, with handle (protection class DIN 9 A)

	Item-No.
	12P55



## Replacement Glass

- for welding shield 12P55

Features	Item-No.
Supplementary glass clear	12P56
DIN 9A Athermal glass	12P57



## Welding Apron

- chrome leather, adjustable belt
- PU = 1 piece

Size	Colour	Item-No.
800 x 1000 mm	grey-white	12P50



## Plaster Apron

- fibre reinforced
- PU = 1 piece

Size	Colour	Item-No.
85 x 100 cm	white	12P20

# Little ABC's of Orthopaedics

- A** **Abdomen** – area of the body between chest and pelvis  
**Abdominal** – relating to the abdomen  
**Abduction** – movement of a body part away from the midline of the body  
**Acetabulum** – concave pelvic component of the hip joint receiving the femoral head  
**Adduction** – movement of a body part towards the midline of the body  
**Alternating** – exchanging, altering  
**Amelia** – complete absence of one or several extremities  
**Anatomy** – science of structure of organisms  
**Anesthesia** – loss of feeling or sensation/narcosis  
**Anterior** – front  
**Anteversion** – forward tilt of a body part  
**Antivarus** – against varus malalignment  
**Aponeurosis** – a fibrous sheet of tissue by which certain muscles are attached to bones  
**Articulation, articulating** – a joint, concerning a joint  
**Atrophy, to atrophy** – shrinkage, wastage of biological tissue (e. g. muscle atrophy)  
**Axilla, axillary** – the armpit, relating to the armpit
- B** **Bandage, to bandage** – wrapping, dressing; sense of: elastic support, applying bandages, taping  
**Biceps** – two headed (e. g. biceps muscle)  
**Bow-leg** – varus malalignment of the longitudinal axis of the leg
- C** **Calcaneus** – heel bone  
**Capsular** – retaining to an articular capsule  
**Catalyser** – chemical agent causing a chemical reaction (e. g. hardening powder, -paste)  
**Caudal** – towards the tail, below, backside  
**Cerebrum, cerebral** – the major part of the brain, occupying the upper part of the cranium, pertaining to the cerebrum  
**Cervical (cervical-region)** – pertaining to the neck area  
**Chronic** – long term (disease; opposite of acute)  
**Condyle, condylar** – joint head, pertaining to the joint head  
**Congruence, congruent** – match, matching, identical  
**Concave** – hollow, curved inwards  
**Conservative** – conciliatory, maintaining, in the sense of non-surgical  
**Constitution** – physical shape  
**Contraction, to contract** – tightening, shortening of soft tissue with joint malposition  
**Contralateral** – reciprocal, located on the other side of the body  
**Contusion** – bruise  
**Convex** – curved to the front or outside

# Little ABC's of Orthopaedics

- C** Claw foot – flexion contraction of the toes
  - Cranial – head, above
  - Cyst – abnormal, closed sac-like structure within a tissue that contains a liquid, gaseous, or semisolid substance (e. g. Baker's-cyst in the back of the knee)
  
- D** Decubitus, decubital – pressure damage, pressure sore
  - Derotation – correctional rotation
  - Detorsion – back rotation, correctional rotation (e. g. detorsion insole)
  - Dexter – right
  - Diagnosis, to diagnose – searching and finding a cause and details of disease
  - Digital – pertaining to finger or toe
  - Digitus – finger or toe
  - Dislocation, dislocate – shift, to shift
  - Distal – away, away from body
  - Distorsion – sprained, twisted (e. g. joints)
  - Dorsal – back side
  - Duroplast – synthetic material, which is, once it has hardened, not mouldable anymore by heat
  
- E** Endogenous – caused by inner reasons
  - Et – and
  - Exogenous – caused by outer reasons
  - Extension – stretching, extension of a body part
  - Extra – beyond
  - Extremities – limbs
  
- F** Fascia – covering around muscles and tendons
  - Femur – bone that extends from the pelvis to the knee
  - Fixation, fixed – position that cannot be altered passively
  - Flexion – bending a joint (opposite of extension)
  - Fracture – break in a bone
  - Frontal – to the front (front surface)
  
- G** Gibbus – curve in the spine causing a bump or hump on the back, strong kyphotic spine deformation
  - Gluteus, gluteal – buttocks muscle, pertaining to buttocks
  - Gocht manoeuvre – special technique to mold the plaster-cast for the ischium bar
  - Gonarthrosis, gonitis – inflammation of the knee joint

# Little ABC's of Orthopaedics

**H** Haematoma – bruise

Hallux – big toe

Hammer toe – flexed contraction position of a toe in the middle or end joint during dorsal tilting of the metacarpophalangeal joint

Heidelberg angle – AFO (ankle foot orthosis to lift the forefoot)

Hemi – half

Heterogenous – mixed combination, disparate

Hinge joint (*Articulatio ginglymus*) – single-axle joint (e. g. finger joint)

Hyper lordosis – lumbar lordosis, hollow back

Homogenous – uniform, congeneric

Hyper – prefix: more than the norm

Hypo – prefix: less than the norm

**I** Idiopathic – spontaneous, independent, starting without known reason (e. g. idiopathic scoliosis)

Immobilization, to immobilize – to prevent motion of a joint or segment

Incongruity, incongruent – mismatch, mismatched

Incontinence – inability to control urination or defecation

Indication, to indicate – advice, necessity, to advise, make something necessary

Infra – under or below

Initial – beginning

Insert – orthopaedic foot support, foot cushion for customized shoes

Instability, instable – missing stability, loose

Insufficiency, insufficient – functional weakness, inadequate

Interim treatment – temporary, tentative treatment before the final treatment

Irreversible – final, permanently

Ischium, ischial – seat bone, pertaining to the seat bone

Ischium bar – support point of the seat bone in prostheses or orthoses

**K** KBM (abbreviation) – Kondylen Bettung Münster

Knee cap – molded knee brace made of textile rubberlike fabric

Kyphosis – rather flat backward bent scoliosis

**L** Lesion – injury

Level Pelvis – aligned pelvis

Lateral – away from the center

Ligament, ligamentary – band of fibrous tissue connecting bones, concerning the ligaments

Longuette – oblong reinforcing material, usually several layers (e. g. plaster bandage)

Luxation, to luxate – sprain, to sprain

# Little ABC's of Orthopaedics

- M** Medial – inside, center, toward the mid-line  
Metatarsal – long bones between the tarsal bones and the toes  
Modular system – orthopaedic aid or prosthesis construction with various finished components (modular concept)  
Morbus – disease, ailment
- N** Naviculare – short term for os naviculare = navicular bone of foot (or hand – scaphoid bone)  
Necrosis – necrotic – dead tissue, mortified  
Neuropathy, neuropathic – nervous disorder, nervous affection
- O** Oedema, oedematic – swelling, swollen  
Orthosis – splint, brace device, corset, support  
Orthopaedics – science of recognition and treatment of inherent or acquired defects of the musculoskeletal system (orthos = straight, right and paedia = childhood)  
Orthoprosthesis – construction of a proximal orthotic element and a distal prosthetic element  
Ossification, osseous – bone formation, bony  
Osteomyelitis – infection of bone and bone marrow  
Osteosynthesis – connection of two or more bones by means of metal plates, screws, nails or wires
- P** Pad – upholstering device in an orthosis or shoe  
Palma, palmar – inner hand surface, pertaining to the inner hand surface  
Palpation, to palpate – examination by touching with the hand  
Paralysis, paralytic – loss of motor function, lame (only in the sense of limpness)  
Paresis, paretic – loss of motor function (limp or spastic)  
Patella – kneecap  
Pathological – unnatural, abnormal, morbid  
Pelvic obliquity – misaligned pelvis, asymmetrical pelvis height (e. g. caused by unequal leg length)  
Periphery, peripheral – outer region, outside (e. g. peripheral arterial disease = PAD)  
Peroneus, peroneal – retaining to the calf-bone (e. g. nervus peroneus communis)  
Peroneus-spring – ankle-foot orthosis to lift and guide the foot in case of limpness/loss of control  
Pes – foot  
Pes adductus – forefoot inverted, adducted, medially misaligned forefoot-position  
Pes calcaneus – walking on the heel (steep slope position of the forefoot)  
Pes cavus – contracted foot (excessive longitudinal arch of the foot)  
Pes equinus – pointed foot (excessive plantar flexion of the whole foot)  
Pes equinus varus adductus – club foot (combined malposition of the foot)  
Pes planus – flat foot (collapsed medial arch)  
Pes planus valgus – knock-flat foot (collapsed medial arch with kinked lower ankle joint)

# Little ABC's of Orthopaedics

- P** **Plantar** – pertaining to the foot sole
- Poliomyelitis** – paralysis caused by the polio virus infecting the anterior horn cells of the spinal cord
- Pollex** – thumb
- Poly** – prefix: multi, several
- Post** – prefix: after, behind
- Posterior** – behind, toward the back of...
- Postoperative post op** – after surgery
- Pre** – prefix: before, prior to
- Pressure lesion** – surface damage of skin and tissue due to extensive pressure exposure
- Prevention** – precaution
- Prognosis, prognostic** – preview, expected
- Progredience, progredient** – progression (of disease), advancing
- progressive** – advancing
- Prominence, prominent** – protrusion, protruding
- Pronation** – rotation of hand or foot in long axis facing outwards or dorsally
- Prophylaxis, prophylactic** – prevention, preventive
- Prosthesis** – externally applied device used to replace wholly, or in part, an absent or deficient limb segment
- Proximal** – nearest to the trunk; towards the trunk
- Pseudo arthrosis** – non-union of a fractured bone
- PTB – (abbreviation)** – patella tendon bearing = patella tendon – load principle
- PTS – (abbreviation)** – PTB–supracondylar prosthesis = lower leg prosthesis, reaching over femurcondyles

- Q** **Quadriceps** – short for Musculus quadriceps = four headed muscle in the anterior thigh
- Quengel Hinged Brace** – joint bending or stretching brace with hinges

- R** **Radius** – spoke bone, one of the forearm bones
- Recidivism, recidiving** – relapse, recurrence (of a disease), relapsing
- Reclination, to reclinate** – backward tilt, to tilt backwards
- Redression, to redress** – to force or bend back
- Rehabilitation, to rehabilitate** – enabling persons with disabilities to reach and maintain their optimal sensory, intellectual, psychiatric and/or social functional levels
- Retroversion** – backward turn
- Reversible** – convertible
- Rotation, to rotate** – turn, turning

# Little ABC's of Orthopaedics

- S** **Sagittal** – following the arrow, straight direction
- Saddle joint (articulatio sellaris)** – double-axis joint (e. g. thumb saddle joint Carpometacarpal-I-joint)
- Shore-hardness** – measuring unit for the degree of hardness of elastic materials
- Sinister** – left
- Scoliosis, scoliotic** – lateral deviation of the spine and rotation of the vertebrae around the long axis of the spine
- Spasticity, spastic** – cramping, cramped
- Spina, spinal** – referring to the spine (vertebral column)
- Spondyle** – retaining to the spine (e. g. spondyle arthrosis = arthrosis of the vertebral joints)
- Subductus** – laying underneath (e. g. digitus subductus = toe, laying crossed underneath)
- Subluxation** – partial dislocation of a joint
- Superductus** – laying over (e. g. digitus sperductus = toe, laying over dorsally)
- Supination** – rotation of hand or foot around long axis with palm forward or foot inward
- Supination wedge** – medial or inner elevation of an orthopaedic insole
- Supra** – prefix: upper, above
- Swiss cam lock / Swiss lock system** – detention of a splint joint (e. g. of an orthotic brace)
- Symphysis** – pubic symphysis, midline cartilaginous pubic bone connection (synchondrosis)
- Symptom, symptomatic** – sign, Indication of a disease, indicating a disease
- Syndesmosis** – slightly movable articulation where the contiguous bony surfaces are united by an interosseous ligament
- Syndrome** – disease pattern
- Synostosis** – bony fusion between two bones

- T** **Talus** – bone that articulates with the tibia and fibula to form the ankle joint
- Tarsus, tarsal** – heel part of the foot, pertaining to the heel part of the foot
- Thermoplast** – plastic material re-shapeable under heat application
- Three-point-correction principle** – correctional therapy by leverage effect with surface pressure-application at three contact points
- Thomas splint** – a long leg relief splint that extends from a ring at the hip to beyond the foot, e. g. for aseptic hip joint necrosis
- Tonus** – tension condition of muscles
- Torsion** – twisting
- Trochanter** – muscle insertion point, bony protrusion lateral-proximally at the femur
- Tuber** – hunch, knob (e. g. tuber ischiadicum)
- Tuberosity** – bony protrusion, muscle insertion/fixation point

- U** **Ulna** – inner and longer of the two bones of the forearm

# Little ABC's of Orthopaedics

- V** **Valgus** – X-shaped joint alignment
- Varicosis** – disease of the veins, varication
- Varices** – distended veins
- Varus** – O-shaped joint alignment
- Ventral** – relating to or situated on or close to the abdomen; abdominal, front
- Vertex** – centre of a curve, maximum of a curve
- Volar** – relating to the palm of the hand
- V2A-steel** – stainless steel

- W** **Walking** – milling, softening, staking e. g. orthopaedic leather

Source: "Children's orthopaedic techniques by R. Bernbeck, J. Pramschiefer, H. D. Stolle", published by Thieme, Stuttgart



# Explanation of Symbols

## Danger Symbols



Flame



Corrosion



Environment



Health hazard



Exclamation mark

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