INSOLES
INFORMATION AND MILLING SYSTEMS
The pedcad company was born out of the daily demands placed on orthopedic craftsmanship. One of the techniques for producing insoles at the Orthopedie Walter company provided the starting point for product development.

In 1989, master orthopedic shoemaker Dietmar Walter began to realize his dream of producing insoles efficiently by applied computer technology.

The pedcad solution combines high standards of craftsmanship with precision measurement and production technology.

Since 1991, our engineers and technicians have been working to realize the pedcad vision of satisfying the demands of medicine, science and craftsmanship to the same degree.

“To honor craftsmanship and to serve progress” is the unwavering motto of the pedcad vision.
From measurement to insole.
pedcad offers all-inclusive packages for all aspects of insole production. All the products in our program are tuned to one another and tested in our own orthopedic plant. Thanks to close cooperation with institutes and clinics, our products reflect the current state of scientific and medical research.

In this way, our years of experience work to your advantage.

A pedcad insole –
the best possible treatment for all areas and requirements
Check out our “Mill-to-order” service (Page 19). The wide variety of services in our novel and flexible approach to making insoles can help you tune your operation to your demand.

New at pedcad:
Sandals custom made to individual foot dimensions. An ideal companion on the job, at home, in leisure activities.

The use of pedcad products for made-to-measure shoes.
Our “laserped” accesses all the potential available from 3D measurement. For instance, you can use measurements to select or design perfect fitting lasts... 

PRODUCTION PHASES – pedcad system

MATERIAL / FINISHED PRODUCTS
Sheet material
- tuned to the milling machine and milling templates.
Stamping blanks
- Various hardnestes, colors and materials combinations.
Cover materials
- offering a wide range of colors and versions.

SERVICES AND MILLED-TO-ORDER
INSOLES
Sports
Leisure
Children
Professional
Problem feet

SANDALS / MULES
Professional (e.g., hospital)
Housework
Leisure time

PRODUCTION
Milling individually created insoles

LASTS AND MADE-TO-MEASURE SHOES
Selecting a last from the archive
Ready-made shoes
Made-to-measure shoes
Orthopedic shoes made-to-measure
Measuring with “Laserped”

TRAINING
We regularly provide training courses to keep you informed about our progress and assist you with your work on pedcad systems.

SERVICE
Service contracts
Online Service
Consultation Infrastructure

We offer a regular maintenance package for your pedcad system.
Via “Netview” we can solve your problems inexpensively and in short order.
We help you optimize the work sequence in your operation.

USER SEMINARS
Our regularly scheduled user seminars are designed to intensify the exchange of information to make the pedcad system even more efficient to use and to enhance its benefits.

We welcome your ideas and suggestions for improving our products and services.
Scanped assists you in your daily work with customers and opens up a new market for you. Custom insoles are designed individually in the customer’s presence, user-friendly and in a few seconds. Scanped is measuring and designing, all in one.

Based on a scanned footprint, you define the customer’s foot and determine his treatment with a shoe insole. This definition is sent electronically to the pedcad milling center or pedcad insole designer where an insole is designed precisely according to your data and subsequently produced.

Scanped lets you increase your presence and capability with customers while giving you a clear time advantage in production.

This easy-to-use software enables fast diagnostics with a few mouse clicks. The scan results serve both to diagnose and document treatment sequences and to plan therapeutic measures by orthopedic craftsmen.
pressureped assists you in your daily work with patients and opens up new prospects by diagnosing foot and walking pressure dynamically.

From a detailed evaluation of dynamically measured foot pressure data, you gain deeper insight into the physiological sequences during step roll-off. Simultaneously, you are provided with data that conventional methods just cannot deliver, decisive impulses for patient therapy. Moreover, you obtain quantifiable and documentable information on the patient’s dynamic step roll-off that simplifies documentation of therapy and healing, often impossible any other way.

Foot measurement data can be exchanged with and evaluated at institutes specialized to such care, thus putting your therapy on a broad basis.

The treatment of problem feet can be aided by pressureped. Foot data can be sent away for further processing at the push of a button. Later, after consultation, an insole can be produced making use of the dynamic foot measurement data. Pressureped aims to enhance your foot treatment competency and provide the customer with a highly useful functional aid.

pressureped – functional and effective to your patient’s advantage
The pedcad Company is world leader in the field of digital insole production and has incorporated a variety of measuring devices and methods in its system.

This 3D footsole measuring device is new and revolutionary. Simultaneously as it precisely measures the entire shape of a foot, it models the ideal shape of that same foot.

We can all remember how we, as children, pressed our noses against a window pane and were amused by the way it flattened our noses – well, that is precisely the same effect that conventional measuring devices have when they measure feet 3-dimensionally in a loaded or unloaded state.

The consequence is either an insole that doesn’t fit, or a very high expenditure of time when designing the insole on a computer and/or for the manual reworking of an insole that proves unacceptable.

These drawbacks are eliminated by the pedcad 3D-footmodeler. With the 3D-footmodeler, it is child’s play to do a reproducible measurement that satisfies both medical and orthopedic-technical requirements.

Technology helps treat patients better, it enhances communication between medicine and artisanship, while improving efficiency.

The mobile 3D-footmodeler – applicable in combination with your laptop
**STRIPE PROJECTOR**

A high-precision measuring device for 3D-detection of footsole shapes, footprint foams, lasts and plaster models; developed in cooperation with specialists in medicine, handcraft and technology.

This device makes it possible within seconds to detect the entire shape of a foot sole accurate to the millimeter. The measured data can be processed and modeled trouble-free in pedcad CAD before milling a perfect fitting and functioning insole according to your wishes.

Moreover, it is quite simple to measure your existing lasts, footprint foams or even insole blanks and process them further in the manner described.

Our stripe projector is not limited in its use to the detection of every type of foot data, but can also be used in the production of made-to-measure shoes.

One application might consist of measuring the made-to-measure shoe from below, subsequent to lasting and prior to bottom filling, and then using these data in the pedcad milling machine to produce an insole in one working sequence. Even the sole roll-off can be processed this way by the milling technology.

That is why many of our customers use their stripe projector not only in the measuring room, but also build it into the worktable in their shop.

Exploit our experience and know-how in the use of modern measurement and production methods.
“Laserped” offers you the advantage of saving measured objects, e.g. foot lasts, in a databank, and updating them to current foot measurements as needed.

Ideal for making shoes to measure.

Example for the use of laserped:

Your own, already produced lasts, or those of various manufacturers, have been entered and saved in the databank. Now a customer’s foot is measured and automatically compared with all models saved in the databank. Subsequently, one or more suitable lasts are suggested and selected from the last-archive or ordered from the manufacturer. This makes it possible to have lasts on hand and thus to work more efficiently.

The next immediate step is to order a shoe made-to-measure with the aid of these measurements. Then when needed, and after an interim trying-on, it can be produced immediately.
pedcad INSOLE-DESIGNER

a design program introducing you to new dimensions in the coordination of measurement data and design for insoles and footbeds.

Using our pedcad insole designer you can apply any and all foot measurement data as the basis for producing your insoles effectively, efficiently and effortlessly.

We make it possible for you to produce insoles in a fraction of the time required by conventional methods and with unheard-of precision. And it doesn’t matter which measuring device you use. Whether you use blueprints, footprint foam, plaster impression or electronic pressure measurement data – the foot data from all these techniques can be processed further.

Once foot data are gathered, and after a short training time, you will find it easy to design insoles according to your wishes.

You will soon come to appreciate the advantages of the pedcad databank. It makes it easy to reproduce perfect fitting insoles or to include minor modifications and produce them immediately.

A further advantage of the pedcad databank is its ability to manage any number of different types of insole in combination with individual, typical clinical pictures and/or foot deformities. This type of data management ensures efficient and cost-cutting operation.

Our pedcad insole designer can help you raise productivity while cutting production costs.
Our KF-PCO top-end model has modular design to ensure maximum ease of maintenance and long life. This machine also has an integrated modem for remote diagnostics.

All of our machines deliver the same top quality in the products they mill, as well as machine dependability.

Take advantage from our experience in building machines specifically for the orthopedic craft.

pedcad has its own facilities for designing and producing milling machines. For 16 years we have been building milling machines specifically for orthopedic craftsmen. We are familiar with our customers’ requirements and have designed our machines to meet them.

No matter how you imagine your milling machine should be, pedcad will configure it to suit you and your operation.

The various versions of our milling machines differ mainly as to their processing times that range from 1 minute to 15 minutes maximum per insole. Uniform high insole quality is obtained with all of our machines and in your preferred manner of milling (in pairs or singly). Special machine versions can also be supplied, as well as custom painting to your specifications.
Model KF-PCO
- Processing time: 1-2 min per piece – single milling only
- Weight: approx. 800 kg
- Size: approx. 100 cm x 100 cm x 200 cm

Model DF-PCO
- Processing time: 2-4 min per pair – milled in pairs
- Weight: approx. 940 kg
- Size: approx. 120 cm x 140 cm x 200 cm

Model BI-PCO
- Processing time: 20-25 min per pair – single milling only
- Weight: approx. 100 kg
- Size: 150 cm x 80 cm x 170 cm with table

Model BDI-PCO – Pulse motors
- Processing time: 20-25 min per pair – milled in pairs
- Weight: approx. 120 kg
- Size: approx. 100 cm x 100 cm x 100 cm

Model BSI-PCO – Servo motors
- Processing time: 5-10 min per pair – milled in pairs
- Weight: approx. 120 kg
- Size: approx. 100 cm x 100 cm x 100 cm
Insole function stands firmly in the foreground of insole design, that is, the ability to precisely predict the desired effect. A detailed diagnosis, including an x-ray image, case history as well as sufficiently precise measurement data, where necessary, is the basic design prerequisite. In this way, an overall picture of the existing condition can be determined.

Measurement data are gathered statically or dynamically in the form of analog or digital foot pressure measurement data. They can be supplemented with 3-dimensional and/or digital data of the foot shape. The sum of all information is processed in the easy-to-operate pedcad system and provides the basis for corrective measures.

Once the treatment goal has been defined and all measurements have been completed, the area of use and the demands on the insole are differentiated. Only by taking all essential additional aspects into consideration can it be ensured that a treatment strategy will provide the desired benefits. All such information is put to use in the pedcad system.

Using pedcad technology enables design and production in the 1/10 mm range.

Optimized production simplicity is the result, thanks to an enormous variety of materials and virtually limitless variations of insole shapes.

Management and availability of all data is “a piece of cake” for the pedcad system. Designing and processing are always done with a maximum of information and ease of operation.

A pedcad insole produced in pedcad technology always has a positive effect.

for CHILDREN

insoles from pedcad correct existing deformities actively.

for SPORTSMEN

with insoles from pedcad, running or jogging is really fun.

for PROFESSIONALS

insoles from pedcad take the pressure off daily work.

for PROBLEM FEET

insoles from pedcad improve the quality of life for people with problem feet.
The pedcad company can point to many years of practical experience in the processing of insole materials, especially in the area of CNC-milling.

Thanks to our close cooperation with university clinics and to the day-to-day demands in supplying patients with functional and properly fitting shoe insoles, we are thoroughly familiar with all treatment versions and their practical realization.

This knowledge derived from experience and medical requirements is provided to our pedcad customers through specially adjusted and combined materials.

Working further to your advantage is the fact that we offer all milling programs (e.g., bottom surface milling) and matrices.

For any questions you may have concerning treatment problems, we will be more than happy to assist you with suggestions and material combinations especially suited for the particular case.

So that you can guarantee your patients an insole quality appropriate to the costs, we offer insole milling materials in a wide range of quality and price.

Take advantage of our experience at combining insole milling materials tailored to specific medical requirements.

Now all materials can be ordered directly via internet at: www.pedcad.de
# STAMPING BLANKS
individually combinable

## INSOLE MATERIAL – EXAMPLES

<table>
<thead>
<tr>
<th>Multi-layer</th>
<th>Standard</th>
<th>Cork versions</th>
<th>Inlay</th>
</tr>
</thead>
<tbody>
<tr>
<td>pedsoft 2 / elastic green</td>
<td>pedsoft 2 red</td>
<td>Biocork 25 mm</td>
<td>Jogging</td>
</tr>
<tr>
<td>pedcom 3 green</td>
<td>pedhard</td>
<td>Biocork 8 mm</td>
<td>Nordic walking</td>
</tr>
<tr>
<td>pedelast / elastic green</td>
<td>pedmedium</td>
<td>Biocork on leather base</td>
<td>Golf sport</td>
</tr>
<tr>
<td>pedcom 3 red</td>
<td>pedsoft 2 black</td>
<td>Mousse cork 30 mm</td>
<td>Tennis</td>
</tr>
<tr>
<td>pedelast / pedsorb / pedhard</td>
<td>pedsoft 2 skin-color</td>
<td>Thermocork 30 mm</td>
<td>Functional insoles – forefoot</td>
</tr>
<tr>
<td>pedmedium elastic green</td>
<td>pedsoft 2 – 5 mm</td>
<td>Leather base 1.5 mm for cork insole</td>
<td>Inline skates</td>
</tr>
</tbody>
</table>

---

Leather base 1.5 mm for cork insole

---

Jogging

---

Nordic walking

---

Golf sport

---

Tennis

---

Functional insoles – forefoot

---

Inline skates

---

STAMPING BLANKS
individually combinable
Just as with all other materials supplied by us, our cover materials are well-tested products that you can use for even the most difficult treatments. All our cover materials have been tested and proven in practical use. Moreover, we have the right solution for every use purpose, be it for problem or endangered feet, for competitive or leisure sports, or simply to enjoy an everyday pleasant foot climate. We definitely have the right product.

As a reference for all our materials — here is an excerpt from the description of our “pedup” cover material:

- Smooth, perforated surface, underside covered with breathable nonweave, antibacterially treated.  
**Properties:** pleasant foot climate, since its surface on the foot-facing side always stays dry and moisture is absorbed by the nonweave underneath. The smooth surface enables the foot to slip smoothly into the shoe. This is especially important for patients for whom any resistance to slipping could lead to toe distortion and/or cause a bandage to be displaced.

Moreover, this surface is very easy to clean, even wet, and dries within seconds.

For patients whose feet tend to swell, a relatively cool climate ensures that the foot is not subject to additional thermal stress. The soft, elastic property of the cover remains intact for as long as it is worn, even with strongly sweating feet, and after several washings.

**Area of use**
universally applicable for all types of insoles and material combinations; especially recommended for:
- sweating feet  
- sore feet  
- for use with salves  
- children’s and work shoes  
- sensitive feet

Materials research and development, coupled with experience, make for trust.
Thanks to our long years of experience in the orthopedic crafts, we are familiar with all the problems and requirements occurring in the course of daily management tasks. That is why we have developed a special software for it. It helps you deal with growing demands on documentation, organization and management. Our software includes interfaces for common billing programs, such as paedus.

The following tasks can be handled:

- **Customer and order management**
  - Scheduling and assigning of jobs to be performed. For example, all jobs to be finished by a certain date/time are displayed (important for dates with doctors and clinics).
  - Production organization. All orders are given an order number and supervised. All orders are displayed according to production steps and, if desired, equipped with a barcode reader device and documented. This enables product costing analysis and optimum assignment of personnel.
  - Printing of customer labels for attaching to order forms, packaging, finished products.
  - Deviation reports. When complaints are received, these are attached to an order and given a title; this makes weak points easy to recognize and eliminate. The costs in terms of time required and materials used for processing the complaint are recorded — an important tool for the development of your operation.
  - Statistics regarding customer satisfaction in general and with specific products in particular.
  - Shipping. Automatic generation of order bills for specific orders and printing of shipping labels.

All in all, the points required for certification are automatically performed and the creation of a QM-system becomes child’s play.
We are happy to pass along to you the proficiency we have gained over the years in using the pedcad system. Since we have been orthopedic craftsmen for over 20 years and have been using our pedcad system now for 16 years, our knowledge in the treatment of foot problems is well founded. This know-how, which includes our experience in day-to-day cooperation with university clinics and research institutes, provides the basis for our training courses. Regular participation in research projects keeps us up to date; we are also happy to pass this knowledge on.

We pride ourselves in familiarizing all pedcad system users with all its methods and techniques, so as to ensure trouble-free and profitable operation.

You will find that, with our help, you quickly “get the hang of it” and a rapid pay-off on your investment, as well.

Our training subjects include topics ranging from biomechanics to system operation, from the interpretation of measurement data to insole design. The courses are available to groups or individuals at scheduled or individually arranged dates.

Our training staff is made up of technicians, programmers, business consultants and orthopedic craftsmen. We provide suitable instructors for all training subjects and topics.

Our involvement is your advantage, our experience your capital.
Our regularly scheduled user seminars intend to intensify an exchange of experience in order to make the utilization and benefit of the pedcad systems even more efficient.

We welcome your ideas and suggestions for improving our products and services at these meetings.

**Pedcad offers its customers a wide range of services:**

- **Service contracts:** for regular machine maintenance. If you wish, we can expand the contract to include software updates.
- **Online service:** With Netview Software we can log directly into our customer’s computer and provide assistance.
- **Consultation:** This generally involves consultation on site as to how to network and utilize our products to best advantage.
- **Technical service on site:**
  In problem cases we can be there within 24 hours at the latest.
- **Remote diagnosis:** By using a special analytical software integrated into our milling machines, we can detect defects and, in extreme cases, remotely guide our technicians on site so that the defect can be quickly overcome. Thus, even though abroad, you can count on and trust our service.
A great advantage of our order-milling service lies in its compatibility with virtually all available measuring devices. This makes it possible to access our order-milling service with the aid of our special measurement and diagnostics software and without any significant additional investment.

Without complicated computer work, you can enter an order for insoles in a few seconds and soon receive the finished insoles at prices that will convince you.

All requirements and necessities for creating the insoles are realized by our design staff on their PC’s and finished in our computer-assisted production facility.

As a special service, you can store your own correction and insole shapes in your system. This ensures that the unmistakable “signature” on the insoles you supply to your customers is maintained and continues to distinguish you from your competitors. Rest assured that all data are treated confidentially and available only to you.

Materials research and development, coupled with experience, make for trust.

Examples of pedcad’s referees:

- the Kriwáit Company
- Orthopädie-Schuhtechnik Ahrens
- Orthopädie-Schuhtechnik Werne
- Orthopädie-Schuhtechnik Dierolf
- Orthopädie-Schuhtechnik Schmidt
- Schuhgarten Bloß
- Sanitätshaus Trapp
- Orthopädie u. Podologie Malgaroli & Werne
- Sportorthopädie Kryenbühl
- Technische Fußorthopädie Jatz
- Bständeig Paul, Orthopädie-Schuhtechnik
- Sporthaus Strolz

- Kiel, Germany
- Brake, Germany
- Walddörfl-Tiengen, Germany
- Obersontheim, Germany
- Saarbrücken, Germany
- Göppingen, Germany
- Friedrichshafen, Germany
- Baden, Switzerland
- Unterberg, Switzerland
- Winterthur, Switzerland
- Vienna, Austria
- Bregenz, Austria

- Everson Podiatry
- Fit for Feet by Verasau
- Ortocare Nordland
- Orthopädie-Schuhtechnik F. Van de Laar
- The Print for Footcare Center
- Centro off Ort. Giuliani SRL
- Fine Step CNC
- HIGH-RISE ENTERPRISES LTD.
- Top Running, M. Coninx
- University of Dundee
- Foot Create
- REHABITECH
- Ltd Terdi, Orthopädie
- SANGWOO Scientific Corp.
- Maroochydore, Australia
- Bangkok, Thailand
- Bodøe, Norway
- Riyadh, Saudi Arabia
- Veneda, Italy
- Thessalonica, Greece
- Nicosia, Cyprus
- Wunstwezel, Belgium
- Dundee, Scotland
- Kyoto-shi, Japan
- Kyot, Japan
- Tbilisi, Georgia
- Puchon-City, Korea
pedcad Orthopädieprodukte GmbH
Heidenheimer Straße 110
73447 Oberkochen, Germany
Phone  +49(0)73 64 / 9 60 63
Fax  +49(0)73 64 / 57 00
e-mail: info@pedcad.de
www.pedcad.de

All rights to figures are reserved by the pedcad Co.