

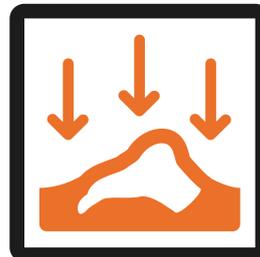


Witzel
Vacupress

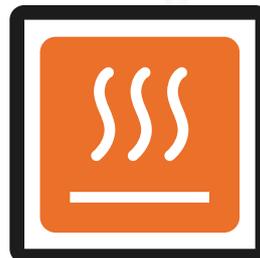


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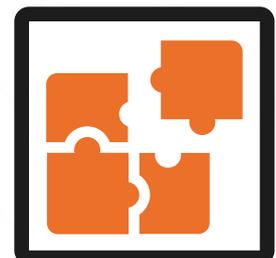
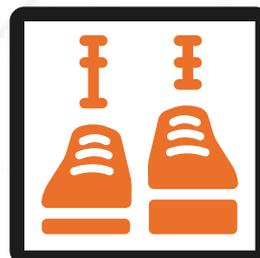
**Vacuum-Presses
Vacuum-Equipment
Laminating devices**



**Infrared Ovens
Pre-Preg Ovens
Convection Ovens**



**Workshop Equipment
Accessories
Customizing**





**your success is
our motivation ...**

How we started. . .

In the beginning there has been a custom made prototype of a vacuum-press for own purpose. It had to have a large working area, had to have an improved technology and of course it had to be available at a fair price. With building the prototype in 1970, which worked faultless for 8 years, this small story would have found its end - if my father, Peter Witzel, wouldn't have been asked to report his experiences in vacuum-technology at an O&P training course in 1977. He agreed to present his experiences, but thought about how useful it would be if there was no suitable machine to recommend for this technique. Suitable means nothing than a machine which has been large enough and not too expensive to start with the vacuum-technology. Thus the idea was born to provide vacuum-technology to a larger number of small and mid-sized workshops.

The company Peter WITZEL VACUPRESS Apparatebau has been founded in 1978. With this start up my father has been able to present two types of vacuum-presses at the „ORTHOPÄDIE und REHA-TECHNIK 1979“ trade show in Nürnberg. VACUPRESS 450 and VACUPRESS 850 showed up a completely new concept. The simultaneous availability of vacuum and compressed air, vacuum-automatic and timer controlled Infra-red-heating among others have been the features which founded the successful story of VACUPRESS from the beginning.

Today „Witzel VACUPRESS“ is worldwide represented and known in the O&P and orthopaedic shoe technique field as a name for innovative technologies - „from experience - to practice“. Many of the features described above can still be found in our units today. Other developments, like the patented UNILOCK material clamping system or the optical temperature measurement system have been added within the last 30 years and are established as „state of the art“ in the market.

Other product fields like the Infrare-ovens have been since the last ten years and we have been able to set new standards in technology and usability. Today WITZEL VACUPRESS provides the largest range of special VACUUM-EQUIPMENT and OVENS for the O&P and other fields.

... since more than 40 years



In the beginning there has been a concept. Out of this concept the company WITZEL VACUPRESS is accrued, today family owned in the second generation. Apparently my fathers concept has been right and is still our guideline, even in modern high-tech development and production times.

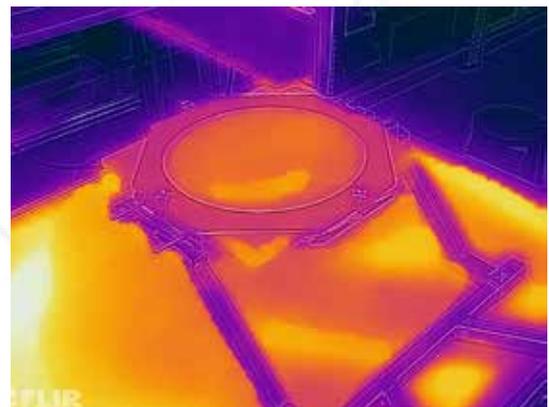
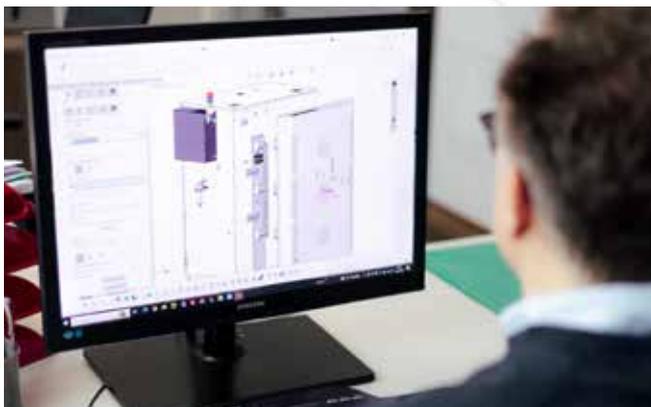
But all this success wouldn't have been possible without you, our worldwide customers, who trusted us for more than 40 years. We feel especially obliged and we will do everything to keep on being an observant partner on your side.

Yours

Hendrik Witzel



State of the art 3D CAD-CAM technology allows to validate and optimize new products at the point of development and engineering. Computer based motion simulation and load tests reduce development periods significant and helps us refine mechanical designs to enhance reliability - also and especially when realizing custom made solutions for our clients.





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Infrared-oven Series 03 ... Update for your workshop

The new series ..03 of our infrared ovens comes with new software and many practical improvements that help to optimise workshop processes. The updated user interface offers even easier operation. The proven material trolley has been equipped with a fully integrated holder for blister-forming thermoforming frames. And for trouble-free workshop operation, individual maintenance instructions and up-to-date access to online manuals via QR code scan have been integrated.

More info at page 44





DUO Height Gauges

DUO-Universal neo

(Article No. 05-010N)

Comparative measurements - at a fair price

- DUO UNIVERSAL Is oriented around the daily requirements of a modern orthopaedic-shoe technology company
- DUO UNIVERSAL Shows the real height difference between two shortening adjustments of any kind in seconds
- DUO UNIVERSAL When constructing in cork: measure the pair of lasts before starting to install the cork on the lasts. Now check the installation of the cork, taking the initial difference into account
- DUO UNIVERSAL Also monitors the shortening adjustments during base work up to completion
- DUO UNIVERSAL With its direct comparison measurements, it is indispensable during shoe finishing
- DUO UNIVERSAL Can obviously also be used as an individual measuring instrument for one shoe
- DUO UNIVERSAL Assists you to work smart and provides certainty in your highly responsible tasks



DUO Height Gauges



DUO-Digital neo

(Article No. 05-015N)

ELEKTRONIC comparative measurements

- at a fair price

- DUO DIGITAL Is oriented around the daily requirements of a modern orthopaedic-shoe technology company
- DUO DIGITAL Shows the real height difference between two shortening adjustments of any kind in seconds
- DUO DIGITAL Measures alternatively at the heel or the big toe joint by means of the forefoot sensor
- DUO DIGITAL Can be reset in any position (by cancelling the digital display), enabling flexible measurement, with or without the last.
- DUO DIGITAL Also monitors the shortening adjustments during base work up to completion
- DUO DIGITAL With its direct comparison measurements, it is indispensable during shoe finishing
- DUO DIGITAL Can obviously also be used as an individual measuring instrument only for one shoe
- DUO DIGITAL Assists you to work smart and provides certainty in your highly responsible tasks



Digital Gauge



The standard metatarsal sensor allows to measure either the heel or the metatarsal area.





VACUPRESS Vacuum-Presses

VACUPRESS 520 GK/LC

(Article No. 01-520LC)

VACUPRESS 520 GK/LC is a low budget unit for an easy entry in the vacuum-technology. With the same frame as the years approved models 520 GK/1 and 520 GK/2 (see next double page) this unit is a perfect solution for moulding insoles and foot-orthotics. The units of the LC series are simply connected to an external vacuum system like a small pump or central supply. No electrical power supply is needed. Thus even a larger numbers of these units can be connected to a central vacuum-supply.

Even with these low budget units the standards in quality and design are guaranteed. All 520 GK/LC units are equipped with a separate vacuum- and ventilation valve as well as a one-way valve and a dust filter. Large sized vacuum-hoses guarantee a optimized vacuum speed.



Technical Details

Type:	Vacuum-press , bench top version, for use with external vacuum-supply
Frame Dim. (LxW):	570 x 350 mm (equipped with Soft-bladder)
Vacuum-Control:	manually, Vacuum and Ventilation separately adjustable
Power supply:	none
Vacuum connector:	Vacuum hose 3m (ID=13mm)
Dimensions	W 360 x D 670 x H 180 mm
Weight:	18 kgs

VACUPRESS

Vacuum-Presses



VACUPRESS 520 GK/LC - DUAL

(Article No. 01-520LCD)

The DUAL version of VACUPRESS 520 GK/LC provides a double sized working frame. Thus it can also be used for larger moulds like AFO's etc..



Technical Details

Type:	Vacuum-press ,bench top version, for use with external vacuum-supply
Frame Dim. (LxW):	570 x 570 mm (equipped with Soft-bladder)
Vacuum-Control:	manually, Vacuum and Ventilation separately adjustable
Power supply:	none
Vacuum connector:	Vacuum hose 3m (ID=13mm)
Dimensions	W 580 x D 670 x H 180 mm
Weight:	22 kgs

Vacuum-Pump 520/LC

(Article No. 01-528LC)

The Vacuum-pump 528/LC is a small, but powerful unit to connect up to three 520 GK/LC /LCD vacuum-presses. It can also be used for mobile applications.

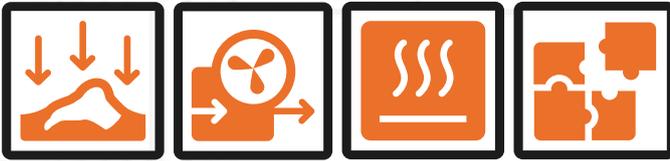
PLEASE NOTE ALSO OUR VACUUM-AGGREGATES AT PAGE 28 ff.



pic. shows vacuum-pump 528/LC with optional accessory: filter / water-separator Art. No. 01-522LC

Technical Details

Type:	Vacuum-Pump for vacuum-presses etc.. two stage piston pump, oil- and maintenance-free.
Vacuum capacity	Volume 6m ³ /h / Vacuum 60 mbar
Power supply:	230V / 50/60Hz - 0,25kW manual I/O inline switch
Vacuum connector:	D=13mm
Dimensions (LxWxH):	280 x 200 x265 mm (incl. Accessory, Filter)
Weight:	9,5 kgs
Recommended accessories:	Filter / water separator 1/4" (Art. No. 01-522LC)



VACUPRESS Vacuum-Presses

VACUPRESS 520 GK/I+GK/II

(Article No. 01-520 + 01-522)

With Vacupress 520 GK we provide a small vacuum-press suitable for a variety of application fields. This unit is available in two versions.

The 520 GK/1, without its own vacuum pump, as ancillary equipment for connection to a main unit like VA 620 S3, etc. or to a vacuum supply like TLV 10, etc.. Therefore the 520 GK/I is simply integrated into the central vacuum system. Thus the main unit's automatic system characteristics are not affected in any way. An electrical controlled magnetic valve ensures that the deep drawing frame can be loaded both in the main and the ancillary unit independently of each other, without disrupting the other unit's operation.

This provides the unrestricted possibilities of 2 or more deep drawing units with automatic pressure monitoring now available on all the connected equipment.

Up to 6 ancillary units can be installed.

(Example 1)

Furthermore, up to 10 units of this type can be operated using a special vacuum unit (e.g. TLV10, Art. No. 20-048 please note technical information). All installed units can then operate automatically, switching on automatically when the frame is closed and the pressure falls, switching off again when the nominal low pressure is attained.

(Example 2)

The 520 GK/2 is an autonomous master unit with integral vacuum pump (6m³/h). Automatic monitoring of the vacuum, is compulsory as with all our Vacupress deep drawing units .

(Example 3)

Up to 3 Type 520 GK/1 units can be connected to this unit

(Example 4)

Technical Details

	520 GK/I (01-520)	520 GK/II (01-522)
Type:	Vacuum-press , Bench-top version for use with external vacuum-supply	Vacuum-press , Bench-top version for use with external vacuum-supply
Frame Dim. (LxW)	570 x 350 mm gas-shock supported, frame tension adjustable (equipped with Soft-bladder)	570 x 350 mm gas-shock supported, frame tension adjustable (equipped with Soft-bladder)
Vacuum-Pump:	none	Rotary vane, oil- and maintenance-free, 6 m /h / 200mbar, vacuum-automatic controlled
Power supply:	230V / 50Hz	230V / 50Hz
	W 420 x D 650 x H 250 mm	W 420 x D 650 x H 250 mm
Weight	21 kgs	30 kgs

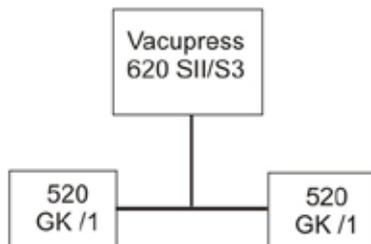
VACUPRESS

Vacuum-Presses

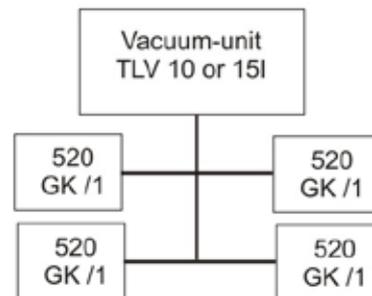


Filter with water-separator, vacuum automatic and a gas-shock supported working frame are standard with all 520 GK units

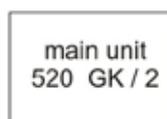
Example 1: 1 Vacupress 620 S II / S3
1-6 ancillary units 520 GK /1



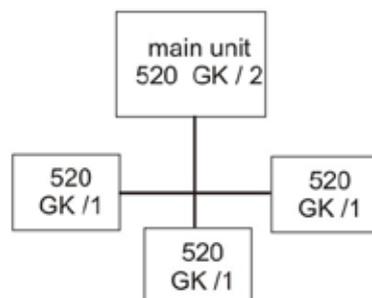
Example 2: 1 Vacuum-unit
4-10 ancillary units 520 GK /1



Example 3: 1 main unit 520 GK / 2
stand alone



Example 4: 1 main unit 520 GK / 2
1-3 ancillary units 520 GK /1





VACUPRESS Vacuum-Presses

VACUPRESS 520 GK/I+GK/II - DUAL

(Article No. 01-520D + 01-522D)

With Vacupress 520 GK we provide a small vacuum-press suitable for a variety of application fields. This unit is available in two versions. This new unit is available in two versions. The DUAL versions shown here, allow to work in pairs or with larger moulds like AFO's or the like.

The 520 GK/1, without its own vacuum pump, as ancillary equipment for connection to a main unit like VA 620 S3, etc. or to a vacuum supply like TLV 10, etc.. Therefore the 520 GK/I is simply integrated into the central vacuum system. Thus the main unit's automatic system characteristics are not affected in any way. An electrical controlled magnetic valve ensures that the deep drawing frame can be loaded both in the main and the ancillary unit independently of each other, without disrupting the other unit's operation.

This provides the unrestricted possibilities of 2 or more deep drawing units with automatic pressure monitoring now available on all the connected equipment.

Up to 6 ancillary units can be installed.

(Example 1)

Furthermore, up to 10 units of this type can be operated using a special vacuum unit (e.g. TLV10, Art. No. 20-048 please note technical information). All installed units can then operate automatically, switching on automatically when the frame is closed and the pressure falls, switching off again when the nominal low pressure is attained.

(Example 2)

The 520 GK/2 is an autonomous master unit with integral vacuum pump (6m³/h). Automatic monitoring of the vacuum, is compulsory as with all our Vacupress deep drawing units .

(Example 3)

Up to 3 Type 520 GK/1 units can be connected to this unit

(Example 4)

Technical Details

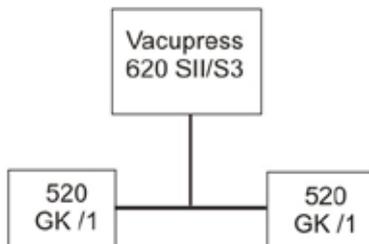
	520 GK/I DUAL (01-520D)	520 GK/II DUAL (01-522D)
Type:	Vacuum-press , Bench-top version for use with external vacuum-supply	Vacuum-press , Bench-top version for use with external vacuum-supply
Frame Dim. (LxW)	570 x 570 mm gas-shock supported, frame tension adjustable (equipped with Soft-bladder)	570 x 570 mm gas-shock supported, frame tension adjustable (equipped with Soft-bladder)
Vacuum-Pump:	none	Rotary vane, oil- and maintenance-free, 6 m ³ /h / 200mbar, vacuum-automatic controlled
Power supply:	230V / 50Hz	230V / 50Hz
Dimensions	W 590 x D 650 x H 250 mm	W 590 x D 650 x H 250 mm
Weight	26 kgs	35 kgs

VACUPRESS

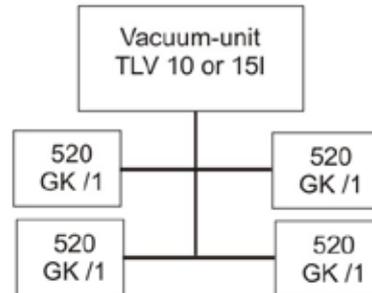
Vacuum-Presses



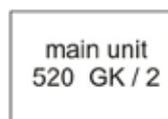
Example 1: 1 Vacupress 620 S II / S3
1-6 ancillary units 520 GK /1



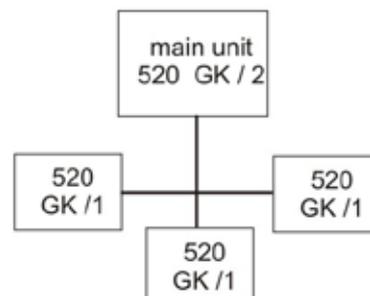
Example 2: 1 Vacuum-unit
4-10 ancillary units 520 GK /1



Example 3: 1 main unit 520 GK / 2
stand alone



Example 4: 1 main unit 520 GK / 2
1-3 ancillary units 520 GK /1





VACUPRESS Vacuum-Presses

VACUPRESS 620S3 - UNILOCK COOL-TEC

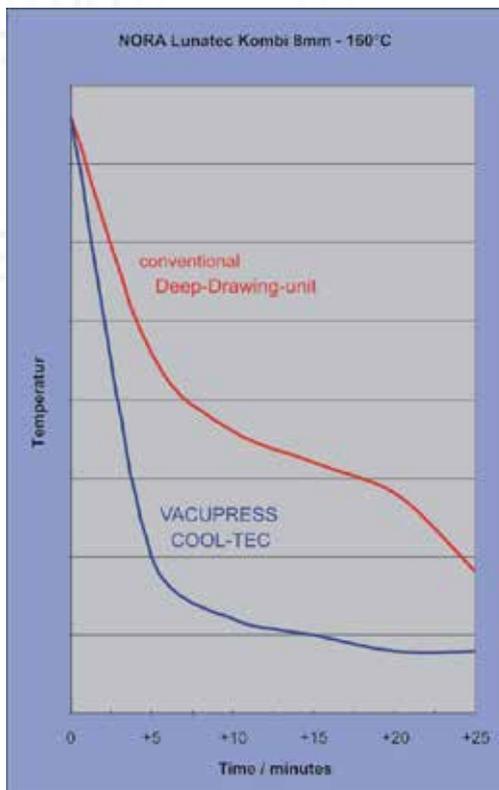
(Article No. 01-620-53)

With standard **COOL-TEC** cooling-system

The current version of the VACUPRESS 620 S3 deep-drawing-unit is equipped with the new developed COOL-TEC cooling-system. By use of adjustable special air jets materials can now be cooled automatically at the VACUPRESS unit. Thus cooling duration is reduced up to 75%. Increase the productivity of your workshop by shortening the turnaround times!

- **Revolutionary Cooling-System !**
- **Speeds up the cooling of moulded Thermoplastics up to 75% !**
- **Increases productivity !**
- **Special air jets ensure a minimum air consumption at a low pressure of just 1,5bar !**

* compressed air to be supplied by external system



pic. shows unit with optional accessories:
 1. Optical Temperature control 01-622
 2. Workbench / Stand 01-625
 with 4 casters
 3. Convection oven No.1 06-111



VACUPRESS 620S3 - UNILOCK COOL-TEC

UNILOCK - The Standard for practice-oriented material fixing

Since its introduction in 1990 the VACUPRESS UNILOCK-system has revolutionized the handling of vacuum-deep-drawing units. With the current stage of development - VACUPRESS 620 S3 - many details could be optimized again - improving the ergonomics has been the center of our considerations.



1 Tantering frame easy to open approx. 45° with the usual lift of the main handle

From experience - to practice

With further development of the UNILOCK-system, the working-area has been raised to the level of the clamped material. Hereby inserting the material becomes easier and the results of the deep-drawing-process are getting optimized by a better utilization of the material.



2 Easy insertion of material. The tantering frame stays at the machine and doesn't need to be removed.

- fast and uncomplicated handling
- opening and closing of the working frame with only one handle
- supported by gas-shock
- locking with articulate hinges



3 Easy closing of the tantering frame: Downwards with main handle - Interlock - Done.

- no adjustment to different material thickness
- no bothering levers and gear
- no sophisticated master lock devices

Vacupress 620 S3 UNILOCK moulds all thermoplastic materials. The integrated vacuum-control guarantees highest molding accuracy and efficient production. Its powerful vacuum-pump with high reserve capacity is lifetime maintenance-free and, due to permanent improvements, it is running smooth as never before - We assist you making you workplace as ergonomic as possible!



VACUPRESS Vacuum-Presses

VACUPRESS 620S3 - UNILOCK COOL-TEC

practice-oriented know-how and technology at the state of the art.

A full integrated working area illumination allows to control the complete deep-drawing-process optimal and guarantees perfect results. - We think about your problems and convert your enquiries to the practice!



With the optional heating selector switch, the infrared heating can be switched off individually in three segments. This saves up to 60% energy when heating small material pieces on the grid



Hot product - cool design!

Electronic timer controlled infrared tubes with high efficiency mirrors and a rigid ball bearing guided safety grill are the components of the automatic heater. The grill-tray can be moved to the side and additionally rotated to the top (180°)

Selection of a heating period 30-200 sec. is achieved by a code switch. The selected time starts running down to 0 by pushing the "START" button. The procedure can be interrupted at any time. An audio alarm indicates the end of the heating process.



VACUPRESS

Vacuum-Presses



Technical Details:

Type:	VACUPRESS 620 S3 UNILOCK - COOL-TEC - Vacuum-Press for the orthopaedic shoe technique / O&P field
Footprint:	approx. . 0,34 qm / Bench-top version
Dimensions:	H: 1050mm - W: 750mm - D: 590mm
Power supply:	400V / 50Hz / 3 Phase / other available
Capacity:	4,0 KW
Heating:	3840 W / 6x Infrared Quartz tubes with single reflector
Heating-time:	Adjustable from 30-199 sec., 2 LED Displays / Set-time + Remaining-time
Vacuum-pump	0,45 Kw 12 m ³ /h, two-stage - oil- and maintenance-free / motor-protection-switch
Airfilter:	cartridge-type, high capacity
Fram dimensions:	450mm x 600 mm / vertical lift, working area raised on material level
Frame guide:	16 ball bearing, running in steel rails
Vacuum cavity:	W: 140mm L: 190mm D: 190mm / integrated in working area, standard
Frame locking:	Main handle, located on the right hand side
UNILOCK mechanism:	patented one handle material clamping system, self-adjusting from 0,5 up to 8,0 mm material thickness.
Activation grill:	lateral moveable, ball bearing guided, additionally rotateable to the top (180°), vertical adjustable.
Illumination:	2 x 35W / 12V Halogen spotlight
Vacuum automatic:	Standard - vacuum pump starts automatically when working frame is closed, shuts off when vacuum is reached Vacuum pressure is controlled during moulding process.
Heating automatic:	Standard - The Infrared-Heating elements are controlled by an electronic timer and shut off automatically when pre-set heating time is reached.
COOL-TEC Cooling System:	Standard - Integrated cooling-system to decrease cooling period of vacuum-moulded materials by use of special air jets. External compressed air supply required. Pressure is internally reduced to 1,5 bar.
Colour:	structural effect paint, light grey RAL 7035



VACUPRESS Vacuum-Presses

VACUPRESS 620S3 - UNILOCK COOL-TEC

Option - Thermostat control with opto-electronic reading for VACUPRESS 620 S3 - UNILOCK

(Article No. 01-622)

You are looking for a vacuum-former with temperature -controlled Infrared Heating? We transferred the newest technology from our high-tech Infrared Ovens to make the best solution available for you! With VACUPRESS 620 S3 this technology is now available for the orthopaedic shoe technique and O&P field as the first unit world-wide!



pic. shows VACUPRESS 620S3 with optional accessories



The optical measuring-unit is integrated in the heating girder

Infrared-heat is radiant heat and thus that fast and efficient. Conventional sensors pass their intrinsic temperature to the PID-Controller and thus these sensors can not handle infrared-heating systems in a perfect way! Our optical sensor is "looking" onto the material which has to be heated and thus our system is the only one in the orthopaedic field which provides a real control of the material's surface temperature! If we do a temperature-control at all, let's do it properly - as you expect as a pro!



The electronic PID-Controller combined with the optical measuring-unit and the powerful Infrared-heating elements allows exact heating results

VACUPRESS Vacuum-Presses



Accessories VA 620

Heating selection switch for VA 620S3

This useful accessory gives your VACUPRESS 620 S3 the extra possibility of separate switching of the three heating elements. This is important especially when you increasingly heat small workpieces on the grating. By switching off unnecessary heating elements, the heat selection switch provides substantial energy savings.

Article No. 01-621



pic. shows work-bench with optional casters and Convection oven No.1 (separately available)

Work bench (stand)

Stand for VACUPRESS 620 S3, VACUPRESS 520 GK series or other units. The convection oven Article 06-111 can be integrated easily.

Outside dimensions: DxWxH 575x630x780 mm

Other dimensions possible on request.

Article 01-625

Work bench (stand) customizing

The VACUPRESS workbench can be customized according to customer requirements. For example, the integration of our convection oven No.2 or different table heights is possible.





VACUPRESS Vacuum-Presses

VACUPRESS 900 XR - UNILOCK

(Article No. 03-900XR)

With standard **COOL-TEC** cooling-system

VACUPRESS 900 XR, the newest development among the Witzel vacuum-presses combines the capabilities of the successful VACUPRESS 620 S3 and VACUPRESS 900. Leading technologies like the unique UNILOCK-System and the COOL-TEC feature have been added to the extended capabilities of a large vacuum frame of 870 x 660 mm.

The result is a vacuum-press which clears the way to new innovative technologies and covers conventional methods of the O&P field and shoe- technique at the same time. Thus insoles, foot orthotics or test-shoes can be handled as well as modern carbon fibre composites* by use of the latest processings with just one unit.

A special focus has been set on the backwards compatibility to existing materials and dimensions of this sector. So common test-shoe foils of the dimension 600x450mm can be easily processed by use of the optional reduction frame.



Pic. shows unit with options



* Learn more about the innovative EASYPREG carbon fibre composites at www.exact-plastics.de

With standard connection for optional **EASYPREG vacuum-frame!**

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VACUPRESS

Vacuum-Presses

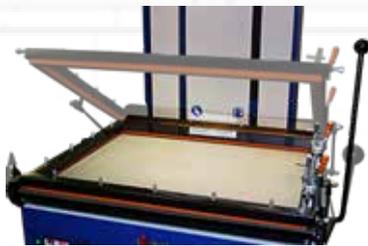


VACUPRESS 900 XR - UNILOCK

UNILOCK - The Standard for practice-orientated material fixing

Till today the adopted UNILOCK-system of the VACUPRESS 620 S3 is unique in handling and function. VACUPRESS 900 XR also offers the benefit of the ergonomics and reliability of this thousandfold proven technology.

From experience - to practice



- 1 Tantering frame easy to open approx. 45° with the usual lift of the main handle
- 2 Easy insertion of material. The tantering frame stays at the machine and doesn't need to be removed.
- 3 Easy closing of the tantering frame: Downwards with main handle - Interlock - Done.

With the further development of the UNILOCK-system, the working-area has been raised to the level of the clamped material. Hereby inserting the material becomes easier and the results of the deep-drawing-process are getting optimized by a better utilization of the material.

- fast and uncomplicated handling
- opening and closing of the working frame with just one handle
- supported by gas-shock
- locking with articulate hinges
- no adjustment to different material thickness
- no bothering levers and gear
- no sophisticated master lock devices



Hot product - cool design!

7+4 infrared tubes with high efficiency reflectors, controlled by an electronic timer ensure an optimized heating-process.

VACUPRESS 900 XR UNILOCK moulds all thermoplastic materials. The integrated vacuum-control guarantees highest molding accuracy and efficient production. Its two powerful vacuum-pumps with high reserve capacities are lifetime maintenance-free and - due to permanent improvements - smooth as never before. We take care of your thoughts - we convert your input into practice and assist you making your workplace as ergonomic as possible!



VACUPRESS Vacuum-Presses

VACUPRESS 900 XR - UNILOCK

Practice-orientated know-how and technology at the state of the art.

A full integrated working area illumination allows an optimal control of the complete deep-drawing-process and guarantees perfect results.



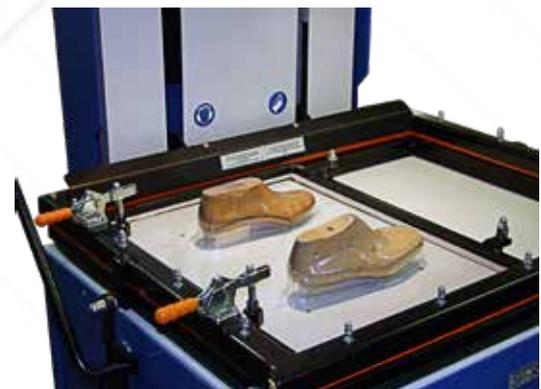
Selection of a heating period 30-199 sec. is achieved by a code switch. The selected time starts running down to 0 by pushing the "START" button. The procedure can be stopped at any time. An audio alarm indicates the end of the heating process.



Versatility has a name:

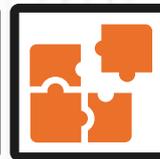
VACUPRESS 900 XR

The optional reduction frame allows to produce test shoes by use of common PVC-foils of the dimension 600x450 mm. The adjustment of the heating is realized by a standard Heating-selection switch.



VACUPRESS

Vacuum-Presses



Technical Details:

Type:	VACUPRESS 900 XR UNILOCK - COOL-TEC - Vacuum-Press for the orthopaedic hoe technique / O&P field
Footprint:	approx. 1,0 qm
Dimensions:	H: 1880mm - W: 1140mm - D: 860mm
Power supply:	400V / 50Hz / 3 Phase
Capacity:	8,3 KW
Heating:	5400 W Infrared Quartz, reflector, 9 elements
Heating-time:	Adjustable 30-199 sec., 2 LED Displays / Set-time + Remaining-time
Heating automatic:	Standard - The Infrared-Heating elements are controlled by an electronic timer and shut off automatically when pre-set heating time is reached.
Vacuum-pump	2 units 0,45 Kw 12 m ³ /h, two-stage - oil- and maintenance-free
Airfilter:	2 units, cartridge-type, high capacity
Frame dimensions:	870mm x 660 mm / vertical lift, working area raised on material level optional reduction frame for test shoe production
Frame guide:	16 ball bearing, running in steel rails
Frame locking:	Main handle, located on the right hand side
UNILOCK mechanism:	patented one handle material clamping system, self-adjusting from 0,5 up to 12,0 mm material thickness.
Illumination:	2 x 35W / 12V Halogen spotlight
Vacuum automatic:	Standard - vacuum pump starts automatically when working frame is closed, shuts off when vacuum is reached. Vacuum pressure is controlled during moulding process.
COOL-TEC Cooling System:	Standard - Integrated cooling-system to decrease cooling period of vacuum-moulded materials by use of special air jets. External compressed air supply required. Pressure is internally reduced to 1,5 bar.
Colour:	structural effect paint, light grey RAL 7035



VACUPRESS Vacuum-Presses

VACUPRESS 850

(Article No. 02-850)

Vacuum-Press for the O&P field. The low budget entry into the vacuum deep-drawing technique

The VACUPRESS 850 is a special vacuum-press for the O&P field. The working frame is fixed on hinges at the back so that it folds and the frame is guided by a gas shock on the right side. A vacuum tank accelerates the deep drawing process and acts as a buffer when using the equipment for larger external deep drawing processes.

A powerful vacuum pump ensures the quickest possible, and therefore the optimum moulding of the relevant thermoplastic materials. The maintenance-free vacuum system is working smooth and vacuum-controlled. The system switches off automatically on reaching the nominal vacuum and switches back on again when the permitted pressure difference is exceeded.

VACUPRESS 850 is equipped with a separate vacuum connection to connect external vacuum working areas like thin laminate resin work, pulling sockets, drape moulding, etc.. All the functions of the automatic vacuum system can also be used so the unit can also be remote controlled from these locations.

Technical Details

Type:	VACUPRESS 850 - Vacuum-press for the O&P field
Frame size:	W 850 x D 685 mm frame hinged at the backside
Vacuum-Pump:	25 m ³ /h/ Rotary vane / oil-lubricated / end-pressure 5mbar
Filter:	Cartridge filter / water separator
Vacuum automatic:	standard
Power supply:	400V / 50Hz / 3Ph. (others available on request)
Dimensions:	W 960 x D 1050 x H 1070 mm
Weight	145 kgs

VACUPRESS

Vacuum-Presses



VACUPRESS 850





VACUPRESS

Vacuum-Presses

VACUPRESS 1500

(Article No. 04-150)

Vacuum-Press for the O&P field. For orthotics, shaped seats, etc. - also for adult patients.

The VACUPRESS 1500 deep drawing unit is closely developed from the 850 model range. Unlike the previous closed construction, the VACUPRESS 1500 is now designed in open, table-like construction.

The advantages of this design are the significantly lower construction height and the ability to use the space under the work surface. The lower construction significantly facilitates the loading of large and heavy models.

The working frame is fastened at the nackside, assisted by two gas shocks. The maintenance-free vacuum system is working smooth and vacuum-controlled. The system switches off automatically on reaching the nominal vacuum and switches back on again when the permitted pressure difference is exceeded.

VACUPRESS 1500 is equipped with a separate vacuum connection to connect external vacuum working areas like thin laminate resin work, pulling sockets, drape moulding, etc.. All the functions of the automatic vacuum system can also be used so the unit can also be remote controlled from these locations.

Technical Details

Type:	VACUPRESS 1500 - Vacuum-press for the O&P field
Frame Dim.:	W 1100 x D 1500 mm
Vacuum-Pump:	40 m ³ /h / Rotary vane / oil- lubricated / end-pressure 5mbar
Filter:	Cartridge filter with Water-separator
Vacuum automatic:	standard
Power supply:	400V / 50Hz / 3Ph. (others available on request)
Dimensions:	W 1200 x D 1600 x H 750 mm
Weight	197 kgs

VACUPRESS Vacuum-Presses



VACUPRESS 1500





Vakuum-Aggregates

Vakuum-Aggregate TLV10

(Article No. 20-048)

Central Vacuum-Unit - suitable for mobile purposes as well

Suction speeds demanded by manufacturers of modern thermoplastics for optimum processing can be realized with this vacuum aggregate. It comprises a maintenance-free vacuum pump mounted along with the control electronics and a vacuum-gauge in a convenient and easy to transport housing. The device is set on standby when turned on and starts to run automatically when the vacuum is used at the workstation. The vacuum is constantly monitored by a vacuum-controller, so the device shuts off again when work is done and the nominal vacuum inside the system has been reached again. A dust filter is part of the standard equipment.

Due to the compact size and the smooth operating of the pump, the system is perfect for mobile use in hospitals etc.

We recommend the following accessories:

special vacuum hose D=13mm - tees for branching ring lines - vacuum distributor with 4 connections for workstations - vacuum tank in different sizes



Technical Details

Type:	Vakuum-Aggregate TLV10 - for the O&P field
Vacuum-Pump:	10 m ³ /h / two-stage - oil- and maintenance-free / motor-protection-switch
Filter:	Dust-filter with water-separator
Vacuum automatic:	standard
Vacuum connection:	DIN-coupling
Power supply:	230V / 50Hz
Dimensions:	W 210 x D 410 x H 390 mm
Weight	11 kgs

Vakuum- Aggregates



Vakuum-Aggregate TLV25HV-II + TLV40HV-II

(Article No. 20-053 / 20-054)

High-Vacuum Aggregate for central vacuum-systems including vacuum-tank and controller

This Vacuum-Aggregate fits the high requirements of precessing modern thermoplastic materials in the O&P field. The system consists of a powerful oil-lubricated vacuum-pump with a high capacity airflow of 40m³/h (=667 l/min.) and high end pressure of 5 mbar (99%). The units is movable on 4 casters and has a 25L vacuum-tank . The intake connection is realised by a 1" ball-valve.

The full integrated vacuum-controller monitors the vacuum of the connected workshop loop system and shuts the system automatically on and off. A large dimensioned filter with water-separator completes the system and makes it the perfect solution for central vacuum supply



Technical Details

Type:	Vacuum-Aggregate with twoavailable capacities TLV25HV-II and TLV40HV-II
Vacuum-Pump:	25 m ³ /h / 40 m ³ /h rotary vane pump, oil-lubricated end-pressere 5mbar / motor-protection-switch
Filter:	High capacity dust-filter with extra water-separator
Vacuum automatic:	standard
Vacuum connection:	1" ball valve / vacuum-hose connection
Power supply:	400V / 50Hz / 3 Ph. (others available on request)
Dimensions:	L 570 x W 450 x H 830 mm (650/500/880 mm /TLV40HV-II)
Weight	60 kgs (75 kgs TLV40HV-II)

Available Options / Accessories:

Special vacuum-hose D=6, 13 or 19mm - T-joint to set up a loop system -

Vacuum-distributor with 4 connectors for the workplaces - Water-separator for the workplaces

Find more details on Catalog page 68 ff



Laminating devices

Laminating device TLV6-II

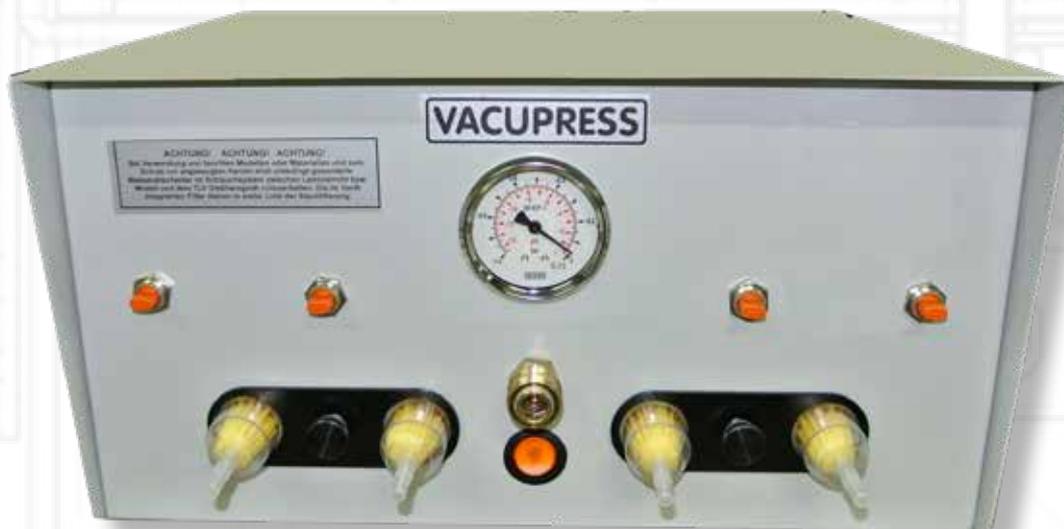
(Article No. 07-320)

Compact unit to provide vacuum for two Lamination work-places (4 separate inlets) + 1 direct-connection for vacuum supply

Powerful lamination device with 6 m³/h vacuum capacity. The device has four connections for two workstations and a direct connection for vacuum applications like drape moulding etc.. The vacuum automatic ensures efficient use of the device without continuous running of the pump and with constant monitoring of the vacuum.

The lamination device comprises a maintenance-free vacuum pump mounted along with the control electronics and a vacuum-gauge in a convenient housing. An included vacuum-tank allows a powerful pulling on drape moulding processes as well.

The device is set on standby when turned on and switches on automatically when the vacuum is used at the workstation. The vacuum is constantly monitored by a vacuum-controller so the device switches off again when work is done and the nominal vacuum in the system has been reached again.



Refer to Catalog page 68 ff for available options and accessories like vacuum-hose, water separator or cast resin vacuum pipe.

Technical Details

Type:	Laminating device TLV6-II
Vacuum-Pump:	6 m ³ /h / oil- and maintenance-free / end-vacuum 200mbar
Inlet / connections	4x 8mm, separately switchable 1x DIN coupling for vacuum supply etc.
Filter:	dust-filter, per inlet
Vacuum automatic:	standard
Power supply:	230V / 50Hz
Dimensions:	W 435 x D 390 x H 240 mm
Weight	22 kgs

Laminating devices

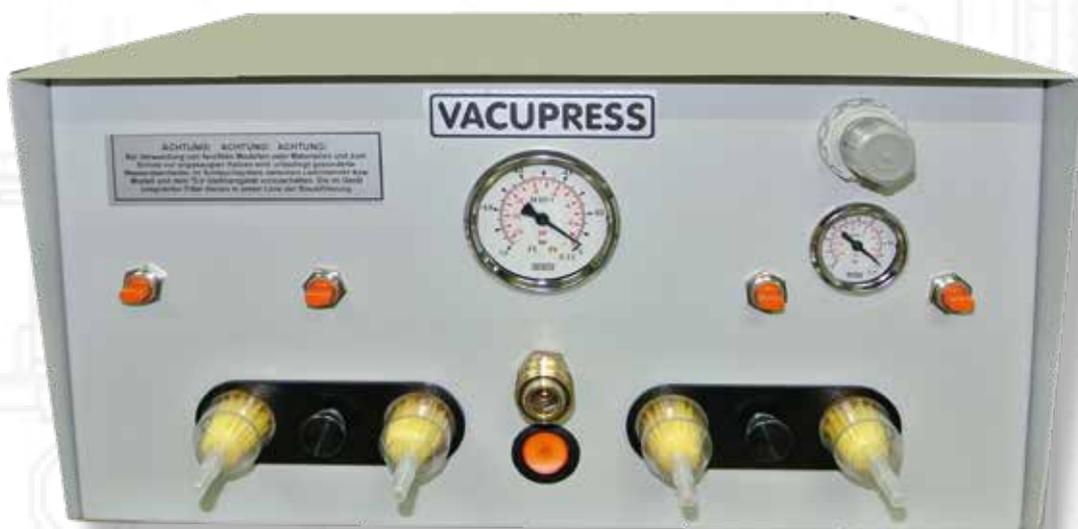


Laminating device TLV6-II PRO

(Article No. 07-330)

Based on TLV6-II the PRO version provides a separate vacuum-regulation at two of the four inlets.

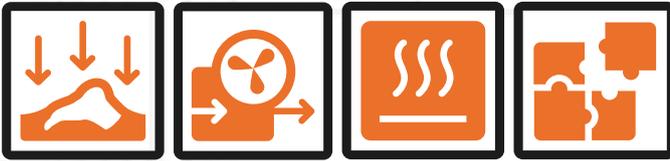
By use of the integrated vacuum regulator two of the four inlets can individually be adjusted. For example when a different vacuum-pressure is required for inner and outer foil during a laminating work.



Technical Details

Type:	Laminating device TLV6-II PRO
Vacuum-Pump:	6 m ³ /h / oil- and maintenance-free / end-vacuum 200mbar
Inlet / connections	4x 8mm, separately switchable, 2 of them with separate vacuum-pressure control 1x DIN coupling for vacuum supply etc.
Filter:	dust-filter, per inlet
Vacuum automatic:	standard
Power supply:	230V / 50Hz
Dimensions:	W 435 x D 390 x H 240 mm
Weight	22 kgs

Refer to Catalog page 68 ff for available options and accessories like vacuum-hose, water separator or cast resin vacuum pipe.



Convection Ovens

Convection Oven No.1

(Article No. 06-111)

This very compact convection oven is an optimal addition to your vacuum deep drawing equipment. Its compact dimensions enables it to be integrated, for instance, directly into the workbench of the VACUPRESS 620 S3. Further the unit offers unique inside dimensions for its class, which enables it to heat almost every material size which can be handled in a VACUPRESS 620 S3. The thermostat control of the temperature range is infinitely adjustable from 50°C to 250°C.



Technical Details

Type:	Convection Oven No.1
Heating:	1x 2400W, 1x fan motor heating active light
Thermostat:	infinitely up to 250°C
Timer:	infinitely 0 - 120 minutes, On/Off active light
Housing:	Stainless steel, inside and outside, door with large viewing window, opens down to the front, double side bouncy supports
Accessories:	1 grill, 1 tray, standard
Power supply:	230V / 50Hz / 2,5 kW
Dimensions:	outside: W 527 x D 450 x H 316 mm inside : W 404 x D 308 x H 254 mm
Weight	20 kgs

Convection Ovens



Convection Oven No.2

(Article No. 06-121H)

This mid-sized Heater has been improved again. Larger than the compact model 06-111 but still compact enough to be integrated in an VACUPRESS work-bench! In addition to the integrated Timer it can also be turned ON permanently.

Integration in our VACUPRESS work benches is possible on request!



Technical Details

Type:	Convection Oven No.2
Heating:	2400W, fan motor with reversing rotation direction Heating active light
Thermostat:	infinitely 60° to 270°C
Timer:	infinitely 0 - 60 minutes and permanent on On/Off active light
Housing:	Stainless steel, inside and outside, door with large double pane viewing window, opens down to the front, double side bouncy supports, 25W illumination
Accessories:	2 trays standard
Power supply:	230 V / 50/60Hz / 2,8 kW
Dimensions:	outside: W 575 x D 600 x H 575 mm inside : W 430 x D 360 x H 360 mm
Weight	35 kgs



Convection Ovens

Convection Oven No.4

(Article No. 06-124G)

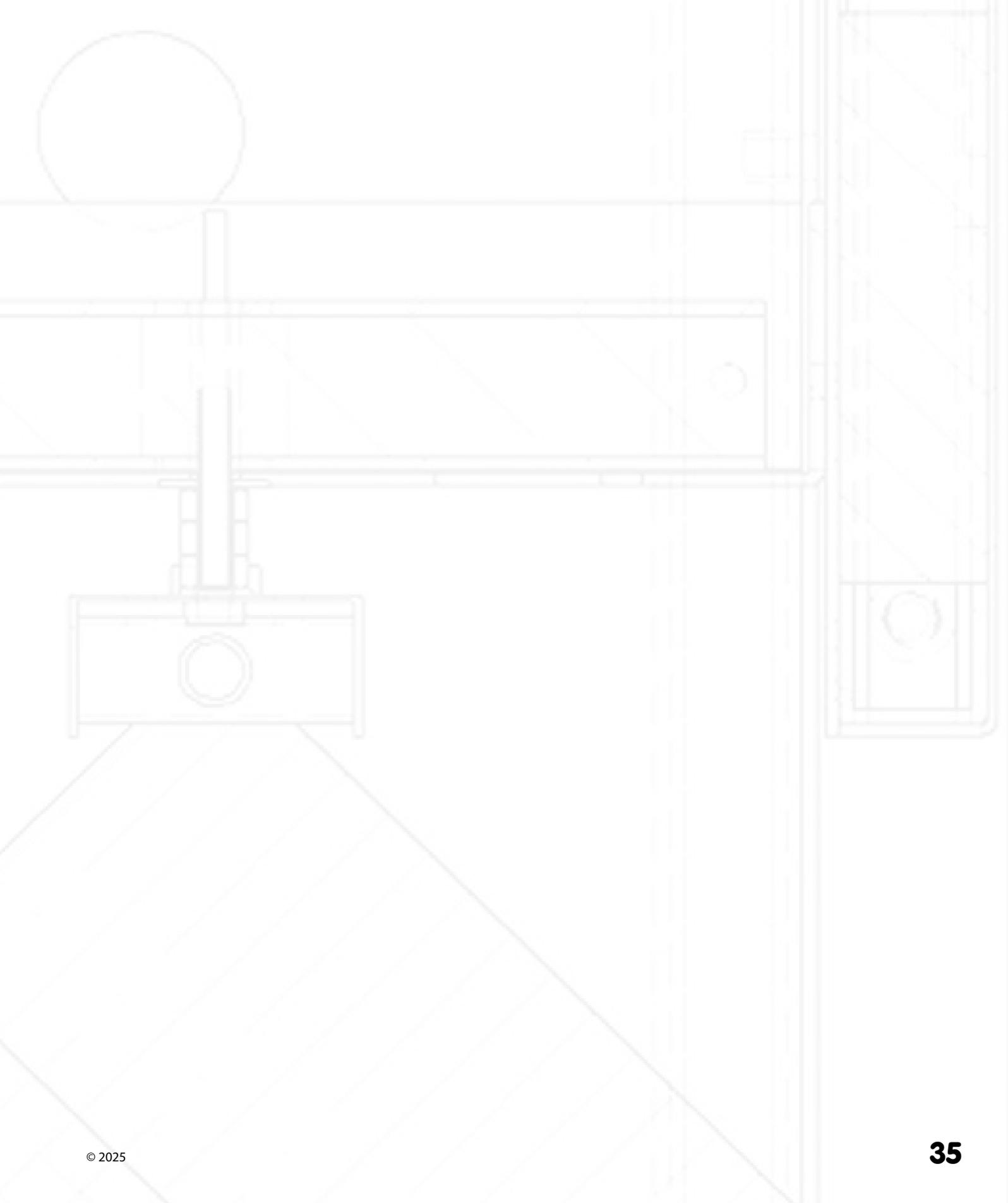
The latest member of our convection oven line provides a larger inside width as the models No.1 and No.2. The powerful combination of heating and fan allows a short preheating period and guarantees a perfect heat distribution. In addition to the timer control the oven can be turned on permanently.



Technical Details

Type:	Convection Oven No.4
Heating:	3000W, fan motor with reversing rotation direction Heating active light
Thermostat:	infinitely 60!° to 280°C
Timer:	infinitely 0 - 120 minutes and permanent on On/Off active light
Housing:	Stainless steel, inside and outside, door with large double pane viewing window, opens down to the front, double side bouncy supports, 25W illumination
Accessories:	2 trays standard
Power supply:	230 V / 50Hz / 3,2 kW
Dimensions:	outside: W 860 x D 820 x H 555 mm inside : W 600 x D 450 x H 290 mm
Weight	59 kgs

Notes





Convection Ovens Pre-Preg

Convection Oven - PO1200

Special unit for Pre-Preg processing

(Article No. 06-500)

- Control with Touch-Panel
- For Pre-Preg processing optimized program
- Material-temperature controlled heating process
- Timer- und Ramp feature
- Standard 4x vacuum connector



2x Double-pane viewing window

PLC control with touch-panel and separate mould-sensor for process control by material temperature

Standard 4x vacuum-connector with external water-separator

pic shows PO1200 with standard equipment

Convection Ovens Pre-Preg



Convection Oven - PO1200

Retain control! - The new PO1200 is the only unit in the O&P field which is able to operate the heating process by the material temperature

Feature overview

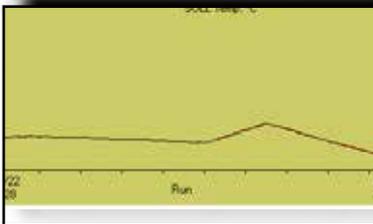


- Microprocessor based control with PID feature, optimized for Pre-Preg processing
- User friendly control interface with touch-panel
- Timer- and Ramp-feature for programming individual heating graphs
- Mould/Material-sensor to control the unit by material temperature
- Energie-saving 3-zone segmentation to reduce inside dimensions of the heating cabinet for small moulds
- Standard 4x vacuum-connector with external water-separator

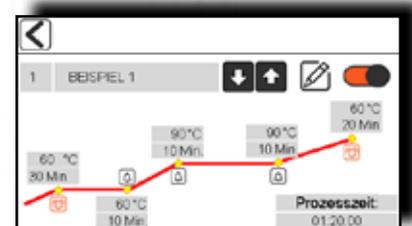
The PO1200 convection oven has been developed for the special needs of Pre-Preg processing in the O&P field. The large housing with double doors allows to place multiple hanging moulds inside the oven. A standard 4x vacuum connector is mounted inside the oven. An external water separator is placed at the right side of the housing.

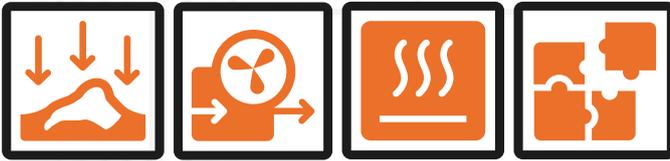
During development a special attention has been focused on the control which manages the heating process. „Heart“ of the system is the microprocessor based central control unit with its special inhouse engineered software and user interface. The integrated touch-panel and its interactive menu control allows an intuitive operation of the multiple functions. For a specific monitoring of the entire process it

can also be controlled by an external temperature sensor (standard scope of delivery). For that just a thin wire sensor is placed at the edge of the Pre-Preg material, between the layers and plugged into the front panel of the control unit. Thus the entire heating process is controlled by the exact core temperature of the material.



Further an integrated Timer- and Ramp-feature allows to program and store individual heating graphs. Withal the user can visualize the entire heating process by a graphic trend. Disturbances can be monitored by a screen entered from the main menu.





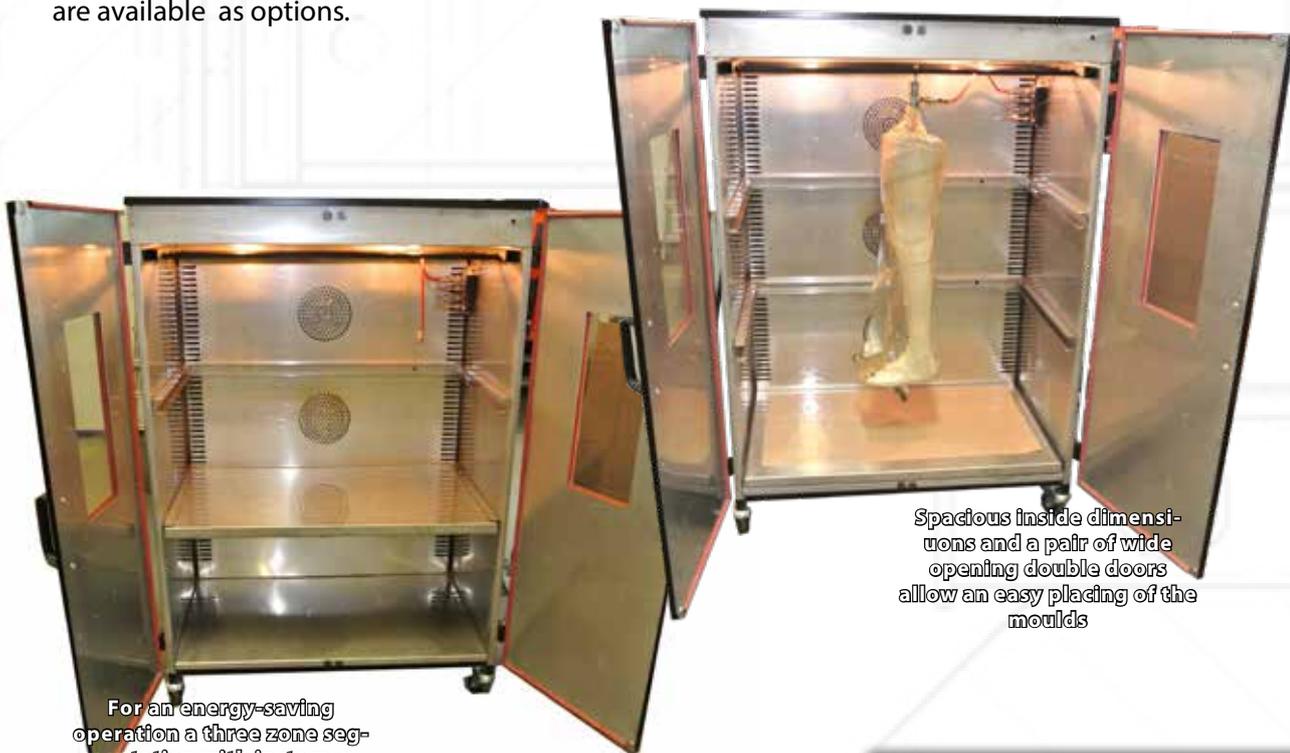
Convection Ovens Pre-Preg

Convection Oven - PO1200

- + Energy-saving by three zone segmentation
- + Processing of normal Thermoplastics possible as well.
- + Accessories for processing of Blister forming frames available as an option

Due to the three zone segmentation the user can adjust the inside dimension of the heating cabinet. Thus the energy consumption is reduced to a minimum when processing smaller moulds. The specific zones are automatically activated by placing the intermediate shelf.

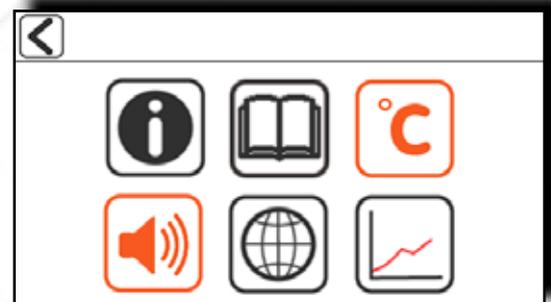
If required, the PO1200 Pre-Preg oven can also be used for processing normal Thermoplastics like PE or PP. Dedicated accessories like Blister-forming frames, cradles or teflon coated shelves are available as options.



Spacious inside dimensions and a pair of wide opening double doors allow an easy placing of the moulds

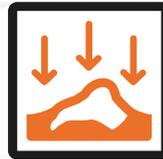
For an energy-saving operation a three zone segmentation with intermediate shelf allows to adjust the inside dimensions of the heating cabinet in three steps.

Extensive capabilities offer to adjust the oven setup to the specific demands of every user. Due to its multi-lingual user interface and the option to switch between °C and °F the unit is well prepared for global markets



Convection Ovens

Pre-Preg



Convection Oven - PO1200

Technical Details:

Type:	PO1200 - Convection Oven for the O&P field Special unit, optimized for Pre-Preg processing
Footprint:	~ 1,2 m ²
Dimensions:	Outside: W 1230mm - D 920mm - H 1570mm Inside: W 1000mm - D 620mm - H 1200mm
Housing:	Moveable on 4 casters with stop, double doors with double-pane viewing window Three zone heating cabinet segmentation by intermediate shelf
Electr. Connection:	400V / 50Hz / 3 Phase / (16 Amp. CEE) / total capacity 10,2 kW other voltages on request
Heating:	3x 3300W, 3x fan motor with reversing rotation direction
Temperature sensor:	either by oven or mould/material temperature
Temperature control:	Microprocessor controlled, User interface with touch-panel, PID-controller feature, Temperature infinitely adjustable 30°C to 250°C, Temperature unit adjustable °C/°F, Timer- and Ramp-feature individually programmable, graphic trend indicator, multi-lingual user interface (DE,EN,FR,IT)
Illumination:	2 x 25 watts
Colour:	Inside stainless steel, outside structural effect paint RAL 7035 light grey, other RAL colours available on request (surcharge)
Weight:	net: 283 kgs gross: 418 kgs (incl. crate)
Accessories:	<ul style="list-style-type: none">• Universal-crate for Blister-Forming frame (width adjustable) (Art. No. 07-131)• Blister-Forming frame D=360mm (Art. No. 07-132)• Baumeister Pre-Preg Set for PO ovens



Convection Ovens Pre-Preg

Convection Oven PO1800

Special unit for Pre-Preg processing

(Article No. 06-600)

- Same specs as PO1200 but with taller inside height of 1800mm



2x Double-pane viewing window

PLC control with touch-panel and separate mould-sensor for process control by material temperature

Standard 4x vacuum-connector with external water-separator

Pic. shows PO1800 with standard equipment

Convection Ovens Pre-Preg



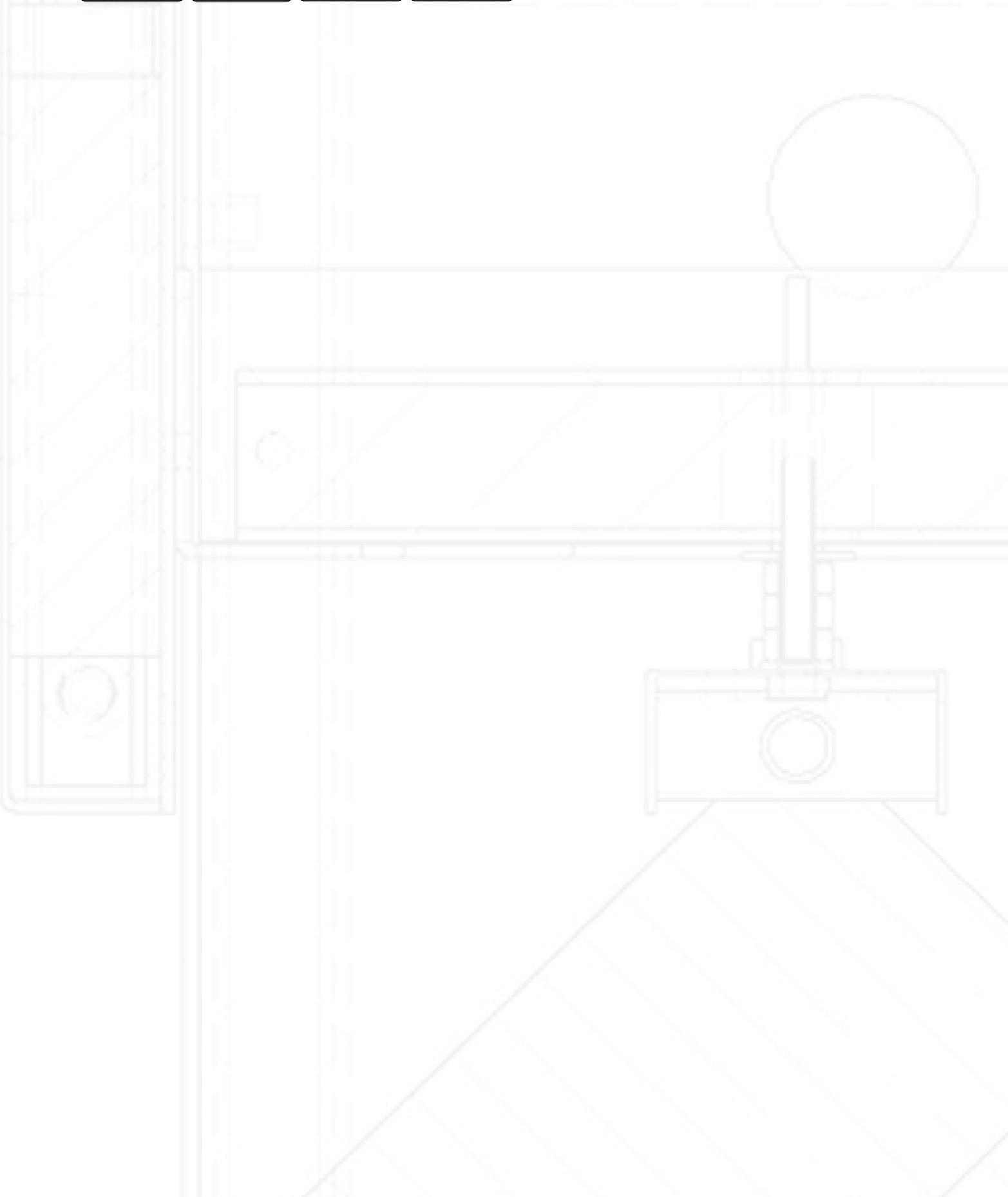
Convection Oven PO1800

Technical Details:

Type:	PO1800 - Convection Oven for the O&P field Special unit, optimized for Pre-Preg processing
Footprint:	~ 1,2 m ²
Dimensions:	Outside: W 1230mm - D 920mm - H 1950mm Inside: W 1000mm - D 620mm - H 1790mm
Housing:	Moveable on 4 casters with stop, double doors with double-pane viewing window Three zone heating cabinet segmentation by intermediate shelf
Electr. Connection:	400V / 50Hz / 3 Phase / (16 Amp. CEE) / total capacity 10,2 kW other voltages on request
Heating:	3x 3300W, 3x fan motor with reversing rotation direction
Temperature sensor:	either by oven or mould/material temperature
Temperature control:	Microprocessor controlled, User interface with touch-panel, PID-controller feature, Temperature infinitely adjustable 30°C to 250°C, Temperature unit adjustable °C/°F, Timer- and Ramp-feature individually programmable, graphic trend indicator, multi-lingual user interface (DE,EN,FR,IT)
Illumination:	2 x 25 watts
Colour:	Inside stainless steel, outside structural effect paint RAL 7035 light-grey, other RAL colours available on request (surcharge)
Weight:	net: 395 kgs gross: 550 kgs (incl. crate)
Accessories:	<ul style="list-style-type: none">• Universal-crate for Blister-Forming frame (width adjustable) (Art. No. 07-131)• Blister-Forming frame D=360mm (Art. No. 07-132)• Baumeister Pre-Preg Set for PO ovens



Notes



Glue Activation unit



Glue Activation unit AG33

(Article No. 06-101)

This redesigned Glue Activation unit allows to heat up materials on two trays from both sides (!) by 9 ultra fast Infrared tubes on three independently switchable levels. Beside the heating selection switch a 15 Minute timer allows to control the heating process. The materials are handled very comfortably on a removable tray in each of both levels. The housing of this unit is made from stainless steel and combines a pleasant design with the robust requirements of a workshop.



Technical Details

Type:	Glue Activation unit AG33
Heating:	3x 3 Infrared-Quartz-tubes 330W, switchable in three levels 1) top 2) center + bottom 3) top + center + bottom
Timer:	infinitely 0 - 15 minutes
Housing	Stainless steel, inside and outside
Accessories:	2 shelves standard
Power supply:	230 V / 50Hz / 3 kW
Dimensions:	outside: W 440 x D 260 x H 400 mm inside : W 360 x D 240 x H 2 x 55 mm
Weight	11 kgs



Infrared Ovens

Infrared Oven IR803

(Article No. 07-802)

2x double pane viewing window



2x 25W inside illumination

SPS controller with 8,5" touch panel showing SET and CURRENT temperature, Timer- and Heating-ramp features.



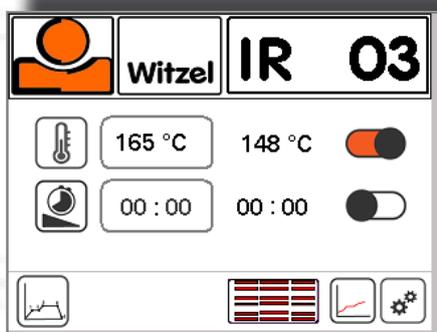
Setup as benchtop oven or with moveable stand which is available as an option.

Infrared Ovens



The IR803 has been engineered specifically for the O&P field for heating Blister-Forming trays and smaller pieces of flat plastics. Like all Witzel Infrared-ovens, the IR803 uses a combination of Quartz Infrared tubes and an optical temperature measuring system which measures material surface. The result is an "Instant On" unit that never overheats, heats evenly and uses less energy!

The updated software with a reduced and modern design offers new features and practice based improvements. Well known features like Timer or Heating-ramp options or the graphic trend of the heating process are even more intuitive to use. Equipped with an external USB interface for program updates the ovens are prepared for future extensions or improvements.



Suitable for either blister forming trays (tray not included) or heating flat plastics at the tray with teflon coating (1x included as a standard)



Technical Details

Type:	Infrared Oven IR803
Heating:	Infrared-Quarz-tubes with single reflector 8x 460W + Standby-switch
Thermostat:	Optical temperature control system with digital PID-Controller with Software build 3.x, infinitely adjustable from 30°C to 250°C (can be switched to °F) .SPS controller with 3,5" Touch panel, showing SET and CURRENT temperature, timer- and Heating-ramp feature, software based maintenance info, multi language user interface, software updates available via USB port
Housing:	Stainless steel inside, structural effect paint, RAL 7035 lightgrey outside, double-door with double pane viewing windows 2x 25W illumination
Accessories:	1 tray with teflon coating, standard
Power supply:	400 V / 50/60Hz / 3,5 kW
Dimensions:	outside: W 900 x D 700 x H 890 mm inside : W 810 x D 580 x H 510 mm
Weight	133 kgs net / 183 kgs gross (including crate)



Eight Infrared-tubes, each with single reflector guarantee a fast and even heating process of the thermoplastic materials.



Infrared Ovens

Infrared Oven IR1001 COMPACT

for the O&P field

(Article No. 07-101C)



pic. shows IR1001 COMPACT
with optional stand and
accessories

**„Instant on“ unit - less energy consumption!
Heat on demand - no preheating necessary!**

Infrared Ovens



Infrared Oven IR1001 COMPACT

The IR1001 COMPACT is designed to fit the needs for compact Infrared-Ovens at the small to mid-sized range. As a bench top oven or equipped with the optional stand the IR1001 COMPACT replaces also normal heating plates.

It is of course equipped with the innovative optical temperature sensor and a controller of the latest generation. Same as the larger Infrared-ovens the two-line PID-Controller keeps the user constantly updated of the preset and actual temperature values. The preselect feature allows the user to store four temperature settings which can be easily called up by use of a single button. A signal light informs the user when the set temperature is reached, even if he is not standing right in front of the control panel.



The components of the WITZEL IR control

- Digital PID-Controller with two-line display and signal-light for set point
- Optical Temperature-sensor, measures the exact surface temperature of the material
- Speed dial button for calling up 4 preset temperature values
- Automatic IR-tube shut-off when oven door is opened





Infrared Ovens

Infrared Oven IR1001 COMPACT

Never burn your plastics again!

Infrared-heat is radiation-heat which heats materials and not air. The ingenious optical temperature control system of our Witzel Infrared-ovens gives you the absolute control over the surface temperature of the material - and that's what is important!

Thus we have been able to combine the enormous heating-power and -speed of the infrared-tubes with a reliable temperature control. Due to the measuring of the material's surface temperature (and not the inside air temperature) the full performance of the IR-tubes can be used.

The result is an oven which is instant on, which needs no preheating time and does not overheat and burn materials. Caused by this "ON DEMAND" use the energy consumption is drastically reduced. Long lasting pre-heating times are definitely a thing of the past!



Infrared Ovens



Infrared Oven IR1001 COMPACT

Technical Details:

Type:	IR1001 COMPACT - Infrared Oven for the O&P field Bench-top design
Footprint:	approx. 1m ²
Dimensions:	Outside: W 1270 mm - D 920mm - H 455mm Inside: W 1000mm - D 800mm - H 140mm
Tray:	tray movable full size on ball bearing guides easy to remove without tools for fast teflon replacement effective heating area: W 950 x D 750 mm
Power supply:	400V / 50/60Hz / 3 Phase / (16 Amp. CEE) / total capacity 5,9 kW (other voltages available)
Heating:	12 Infrared-Quartz-tubes with reflector Stand-by switch
Temperature control:	opto-electronic IR-measuring unit Measuring of the material's surface temperature!
Temperature control:	PID-Controller, infinitely variable from 30°C to 250°C
Door mechanism:	Flap, opening to the top, gas shock supported (2x), Double-pane viewing window
Illumination:	2 x 25 watts
Colour:	Inside Stainless steel, Outside structural effect paint, blue/lightgrey RAL 7035.
Weight:	net: 150 kgs (Housing and Roll-about tray) gross: 200 kgs (including crate)
Available Options:	Stand, movable on 4 casters with stop



Infrared Ovens

Infrared Oven IR1003

for the O&P field

(Article No. 07-103-400-32)



**„Instant on“ unit - less energy consumption!
Heat on demand - no preheating necessary!**

Infrared Ovens



Infrared Oven IR1003

Never burn your plastics again!

Infrared-heat is radiation-heat which heats materials and not air. The ingenious optical temperature control system of our Witzel Infrared-ovens gives you the absolute control over the surface temperature of the material - and that's what is important!

The innovative Witzel Infrared-ovens are equipped with an optical temperature-sensor. Thus we have been able to combine the enormous heating-power and -speed of the infrared-tubes with a reliable temperature control. Due to the measuring of the material's surface temperature (and not the inside air temperature) the full performance of the IR-tubes can be used.

The result is an oven which is instant on, which needs no preheating time and does not overheat and burn materials. Caused by this "ON DEMAND" use the energy consumption is drastically reduced. Usual pre-heating times of up to one hour are definitely a thing of the past!

Double pane viewing window

Space-saving sliding door with ball-bearing guides and gas shocks (2x)

Teflon-coating (replaceable)

Retractable cradle for Blister forming frames (frame not included)



SPS controller with 8,5" touch panel showing SET and CURRENT temperature, Timer- and Heating-ramp features.

2x 25 Watt illumination

Removable legs allow an easy assembling at any place

The stepless height adjustable and movable Roll-about Tray is independent from the oven and thus the heated material can comfortably be moved to the work-place

The IR1003 is the follower of the successful IR1002 which has become state of the art in thousands of O&P shops worldwide. The updated software with a reduced and modern design offers new features and practice based improvements. Well known features like Timer or Heating-ramp options or the graphic trend of the heating process are even more intuitive to use. The new fully integrated cradle for Blister forming frame processing saves time and prevents handling errors. And it protects the teflon foil of the Roll-about tray from scratches.



Infrared Ovens

Infrared Oven IR1003

The latest Witzel Infrared-Ovens of the ..03 series with software improvements and practical new features

- ✓ Easy operation by central Touch panel with new, updated user interface
- ✓ Roll-about tray with fully integrated cradle for Blister forming frames
- ✓ Individual maintenance info with access to online manuals via QR-Code scan
- ✓ Space saving sliding door for all ovens with Roll-about tray
- ✓ Precise thermostat control by measuring the material temperature
- ✓ User-defined heating process memory
- ✓ Graphic trend visualization for heating process control

As well as the known and state of the art features like Direct SET temperature input, Timer feature, Ramp feature for slow heating processes (Pre-Preg processing),

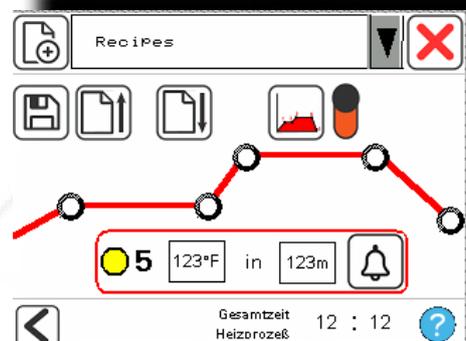


Customized heating processes with timer and heat-ramp feature

Today`s high end materials require individual solutions. The updated software of the microprocessor controller of the ..03 series provides a reduced and modern user interface as well as additional features.



12 Infrared-tubes with single reflector guarantee a fast and even heating process



Heating ramp feature with memory for customized process storage

- IR1003 - suitable for:**
- + Flat plastics
 - + Blister-Forming
 - + Pre-Preg

Infrared Ovens



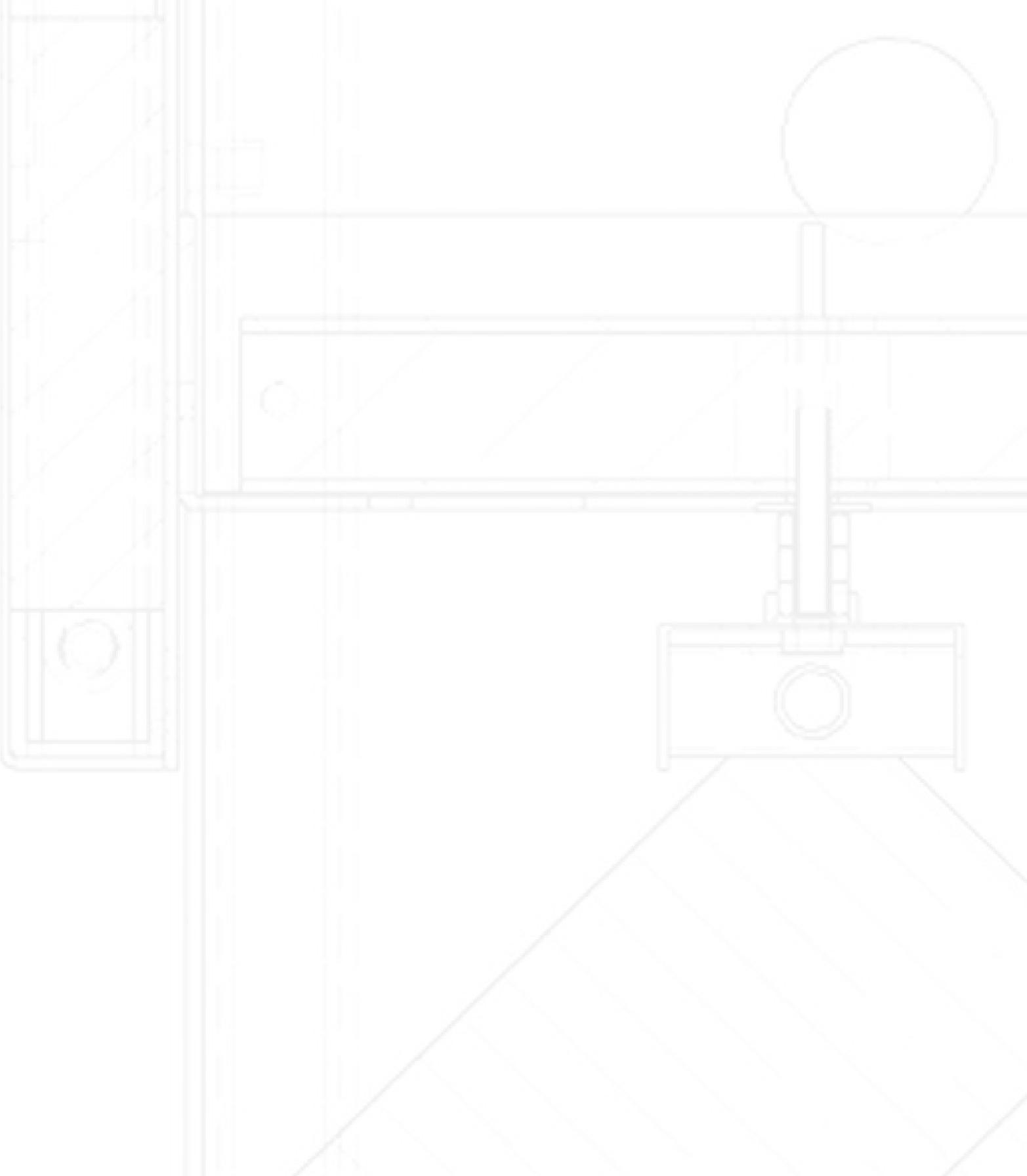
Infrared Oven IR1003

Technical Details:

Type:	IR1002 - Infrared Oven for the O&P field including movable Roll-about tray
Footprint:	approx. 1 m ² / oven housing movable on casters
Dimensions	Outside: W 1320mm - D 970mm - H 1420mm Total height with door opened: 1850mm Inside: W 1000mm - D 800mm - H 500mm
Roll-about tray:	Independent, 4 locking casters, Fully integrated and retractable cradle for blister forming frames (frame not included) effective heating area: W 920 x D 720 mm Lift range: 820mm - 1050mm
Power supply:	400V / 50/60Hz / 3 Phase / (16 Amp. CEE) / total capacity 5,9 kW (other voltages available)
Heating:	12 Infrared-Quartz-tubes with reflector
Temperature reading:	opto-elektronic IR-measuring unit Measuring of the material's surface temperature!
Temperature control:	Digital PID-Controller with Software build 3.x, infinitely adjustable from 30°C to 250°C (can be switched to °F) .SPS controller with 3,5" Touch panel, showing SET and CURRENT temperature, timer- and Heating-ramp feature, software based maintenance info, multi language user interface, software updates available via USB port
Door mechanism:	space saving vertical movement, gas shock (2x) assisted, ball bearing guided, Double-pane viewing window
Illumination:	2 x 25 watts
Colour:	Inside Stainless steel, Outside structural effect paint RAL 7035 lightgrey.
Weight:	net: 230 kgs gross: 275 kgs (including crate))
Available Options:	<ul style="list-style-type: none">• Pre-Preg Option (duct for Vacuum-hoses) (Art. No. 07-135)• Cradle for Pre-Preg mould processing (Art. No. 07-136)• Blister-Forming tray 360mm (Art. No. 07-132)



Notes



Infrared Ovens



Infrared Oven IR1303

for the O&P field

(Article No. 07-133)



**„Instant on“ unit - less energy consumption!
Heat on demand - no preheating necessary!**



Infrared Ovens

Infrared Oven IR1303

The latest Witzel Infrared-Ovens of the ..03 series with software improvements and practical new features

- ✓ Easy operation by central Touch panel with new, updated user interface
- ✓ Roll-about tray with fully integrated cradle for Blister forming frames
- ✓ Individual maintenance info with access to online manuals via QR-Code scan
- ✓ Space saving sliding door for all ovens with Roll-about tray
- ✓ Precise thermostat control by measuring the material temperature
- ✓ User-defined heating process memory
- ✓ Graphic trend visualization for heating process control

As well as the known and state of the art features like Direct SET temperature input, Timer feature, Ramp feature for slow heating processes (Pre-Preg processing),



Energy saving heating selection feature

The large IR1302 offers a standard heating selection feature which allows to activate a smaller or larger area of the 18 IR tubes. Thus the energy consumption can be reduced when heating smaller material pieces.



Individual maintenance info



The software based maintenance info reminds the user individually and automatically when maintenance is due. Maintenance instructions and operating manuals are available on site at any time via QR code (retrieval via Internet-capable smart phone or tablet PC, not included in the scope of delivery).

Infrared Ovens



Infrared Oven IR1303

Never burn your plastics again!

Infrared-heat is radiation-heat which heats materials and not air. The ingenious optical temperature control system of our Witzel Infrared-ovens gives you the absolute control over the surface temperature of the material - and that's what is important!

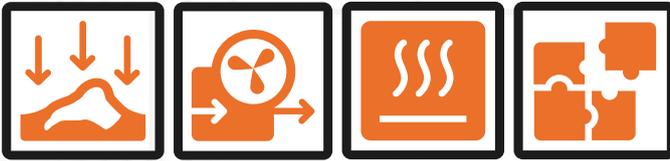
The innovative Witzel Infrared-ovens are equipped with an optical temperature-sensor. Thus we have been able to combine the enormous heating-power and -speed of the infrared-tubes with a reliable temperature control. Due to the measuring of the material's surface temperature (and not the inside air temperature) the full performance of the IR-tubes can be used.

The result is an oven which is instant on, which needs no preheating time and does not overheat and burn materials. Caused by this "ON DEMAND" use the energy consumption is drastically reduced. Usual pre-heating times of up to one hour are definitely a thing of the past!

IR1303 - suitable for:
+ Flat plastics
+ Blister-Forming
+ Pre-Preg



The IR1303 is the follower of the successful IR1302 which has become state of the art in thousands of O&P shops worldwide. The updated software with a reduced and modern design offers new features and practice based improvements. Well known features like Timer or Heating-ramp options or the graphic trend of the heating process are even more intuitive to use. The new fully integrated cradle for Blister forming frame processing saves time and prevents handling errors. And it protects the teflon foil of the Roll-about tray from scratches.

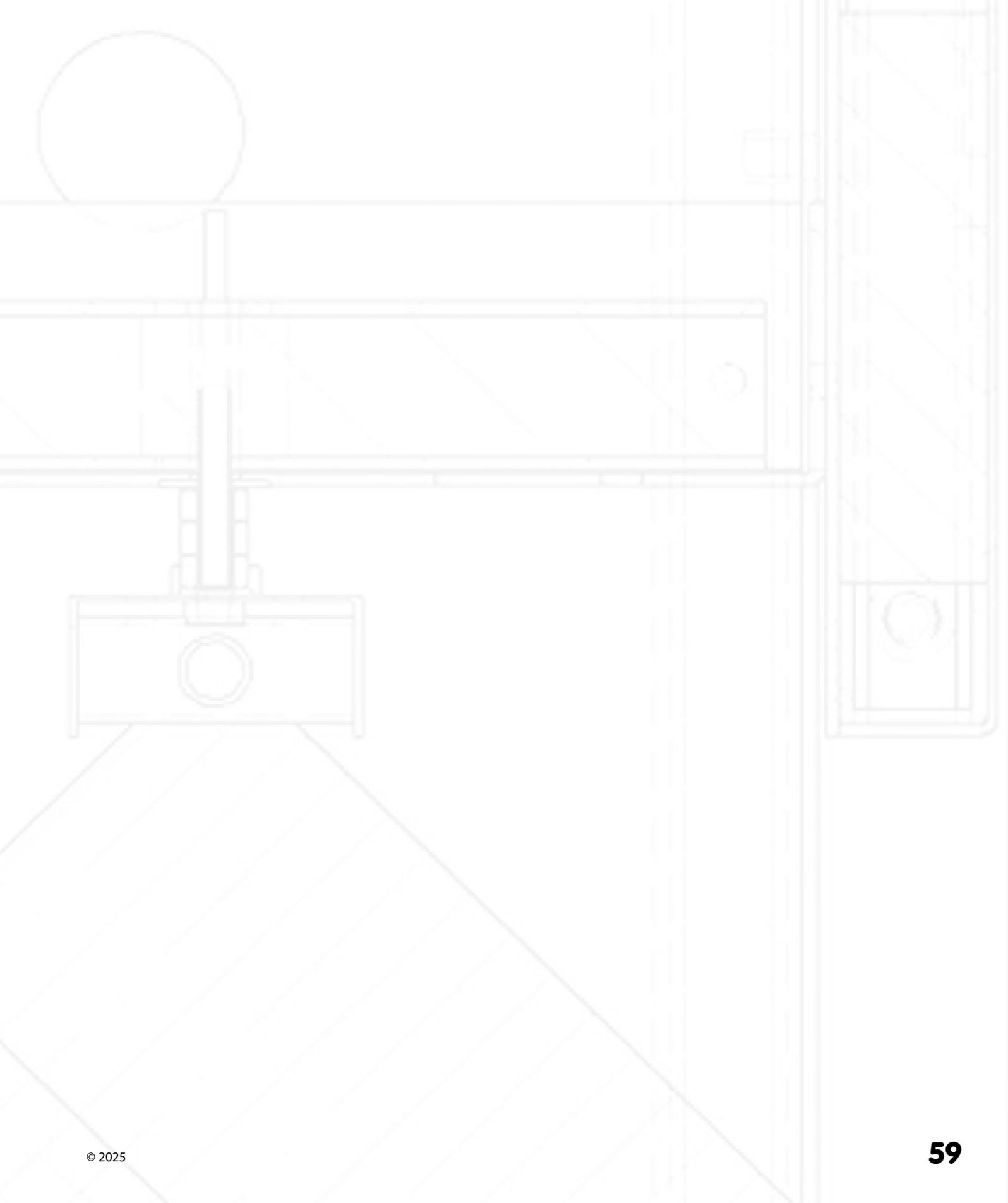


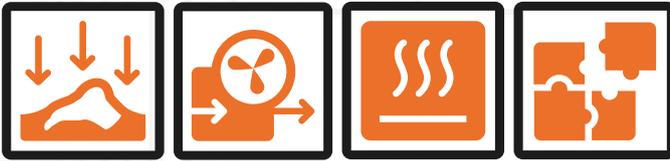
Infrared Oven IR1303

Technical Details:

Type:	IR1303 - Infrared Oven for the O&P field including movable Roll-about tray
Footprint:	approx. 1,5m ² / oven housing movable on casters
Dimensions:	Outside: W 1595mm - D 1270mm - H 1400mm Total height with door opened: 1850mm Inside: W 1300mm - D 1090mm - H 500mm
Roll-about tray:	Independent, 4 locking casters, Fully integrated and retractable cradle for blister forming frames (frame not included) locking gas shock lift adjustment - locks at any height, Single-hand operation effective heating area: W 1245 x D 1045 mm Lift range: 820mm - 1050mm
Power supply:	400V / 50/60Hz / 3 Phase / (16 Amp. CEE) / total capacity 8,5 kW (other voltages available)
Heating:	18 Infrared-Quartz-tubes with reflector Dual zone switching (6/18)
Temperature reading:	opto-elektronic IR-measuring unit Measuring of the material's surface temperature!
Temperature control:	Digital PID-Controller with Software build 3.x, infinitely adjustable from 30°C to 250°C (can be switched to °F) .SPS controller with 3,5" Touch panel, showing SET and CURRENT temperature, timer- and Heating-ramp feature, software based maintenance info, multi language user interface, software updates available via USB port
Door mechanism:	space saving vertical movement, gas shock (2x) assisted, ball bearing guided, Double-pane viewing window
Illumination:	2 x 25 watts
Colour:	Inside Stainless steel, Outside structural effect paint, lightgrey RAL 7035 with RAL7031 applications
Weight:	net: 290 kgs gross: 365 kgs (including crate)
Standard accessory:	Pre-Preg option (hose duct) included as a standard
Available Options:	<ul style="list-style-type: none">• Blister-Forming tray 360mm (Art. No. 07-132)• Cradle for Pre-Preg mould processing (Art. No. 07-136)

Notes





Infrared Ovens

Infrared Oven IR1303 XTR

for the O&P field

(Article No. 07-133XTR-400-3)



Space-saving sliding door with ball-bearing guides and gas shocks (2x)

Double-pane viewing window

SPS controller with 3,5" touch panel showing SET and CURRENT temperature, Timer- and Heating-ramp features.

Teflon-coating (replaceable)

4x 25 Watt illumination

The stepless height adjustable and movable Roll-about Tray is independent from the oven and thus the heated material can comfortably be moved to the work-place

Oven-housing movable on casters

Retractable cradle for Blister forming frames (frame not included)

Removable legs allow an easy assembling at any place

The IR1303 XTR is a version of the successful IR1303 (more details at page 55). The new IR1303 XTR offers the same features as the standard IR1303 plus an extended heating area of 50cm more depth. Thus the usable area has been increased to 124 x 154 cm and closes the gap between IR1303 and IR2103 DUAL. **Refer to the IR1303 product brochure to learn more about the innovative features of the Witzel Infrared-oven line.**

Infrared Ovens



Infrared Oven IR1303 XTR

Technical Details:

Type:	IR1303 XTR - Infrared Oven for the O&P field including movable Roll-about tray
Footprint:	approx. 2,4m ² / oven housing movable on casters
Dimensions:	Outside: W 1595mm - D 1770mm - H 1400mm Total height with door opened: 1850mm Inside: W 1300mm - D 1590mm - H 500mm
Roll-about tray:	Independent, 4 locking casters, Fully integrated and retractable cradle for blister forming frames (frame not included) locking gas shock lift adjustment - locks at any height, Single-hand operation effective heating area: W 1245 x D 1545 mm Lift range: 820mm - 1050mm
Power supply:	400V / 50/60Hz / 3 Phase / (32 Amp. CEE) / total capacity 11,1kW (other voltages available)
Heating:	24 Infrared-Quartz-tubes with reflector Dual zone switching (6/24)
Temperature reading:	opto-elektronik IR-measuring unit Measuring of the material's surface temperature!
Temperature control:	Digital PID-Controller with Software build 3.x, infinitely adjustable from 30°C to 250°C (can be switched to °F) .SPS controller with 3,5" Touch panel, showing SET and CURRENT temperature, timer- and Heating-ramp feature, software based maintenance info, multi language user interface, software updates available via USB port
Door mechanism:	space saving vertical movement, gas shock (2x) assisted, ball bearing guided, Double-pane viewing window
Illumination:	4 x 25 watts
Farbe:	Inside Stainless steel, Outside structural effect paint TAL 7035 lightgrey
Weight:	net: 360 kgs gross: 466 kgs (including crate)
Available Options:	<ul style="list-style-type: none">• Pre-Preg Option (2 ducts for Vacuum-hoses) (Art. No. 07-135)• Cradle for Pre-Preg mould processing (Art. No. 07-136)• Blister-Forming tray 360mm (Art. No. 07-132)



Infrared Ovens

Infrared-Oven IR2103 - DUAL

for the O&P field

(Article No. 07-213D-400-3)



IR2103 - DUAL suitable for:
+ Flat plastics
+ Blister-Forming
+ Pre-Preg

Infrared Ovens



Infrared-Oven IR2103 - DUAL

The IR2103 DUAL is the next step of the successful Witzel IR-oven line. It has been designed for the special needs of larger moulds in the O&P field. The IR2102 - DUAL combines two ovens in one.

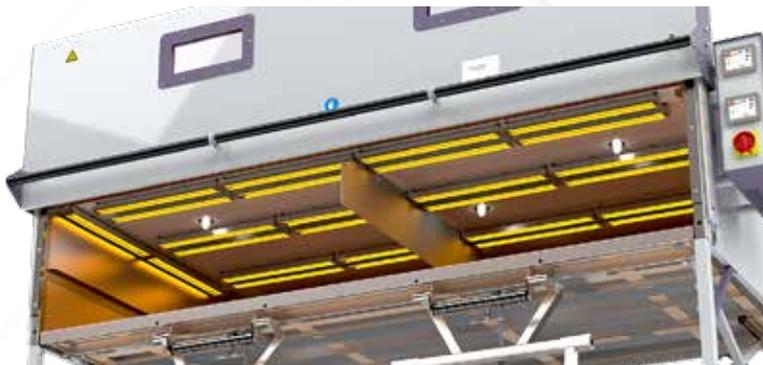
A heated area of 2140 x 1040 mm allows to heat larger material sheets even for custom made seats for wheel chairs etc. Additionally this DUAL version allows to use the oven for two totally independent heating tasks at the same time. So two sheets of 1x1 meter or two Blister-forming trays can be heated separately. The double thermostat controller allows to process materials with different temperature requirements at the same time.

The updated software of the Series ..03 ovens with a reduced and modern design offer new features and practice based improvements. Well known features like Timer or Heating-ramp options or the graphic trend of the heating process are even more intuitive to use. The new fully integrated cradle for Blister forming frame processing saves time and prevents handling errors. And it protects the teflon foil of the Roll-about tray from scratches.

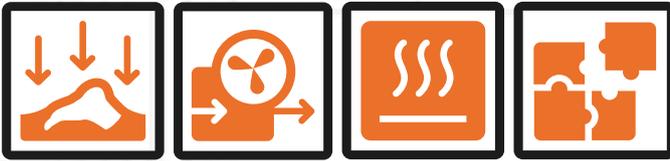
The latest Witzel Infrared-Ovens of the ..03 series with software improvements and practical new features

- ✓ Easy operation by central Touch panel with new, updated user interface
- ✓ Roll-about tray with fully integrated cradle for Blister forming frames
- ✓ Individual maintenance info with access to online manuals via QR-Code scan
- ✓ Space saving sliding door for all ovens with Roll-about tray
- ✓ Precise thermostat control by measuring the material temperature
- ✓ User-defined heating process memory
- ✓ Graphic trend visualization for heating process control

As well as the known and state of the art features like Direct SET temperature input, Timer feature, Ramp feature for slow heating processes (e.g. for Pre-Preg processing)



The removable divider allows to operate the IR2103 DUAL with two different temperatures. For example 130° C for EVA on the left side and 190° C for Polypropylen t the right side.



Infrared Ovens

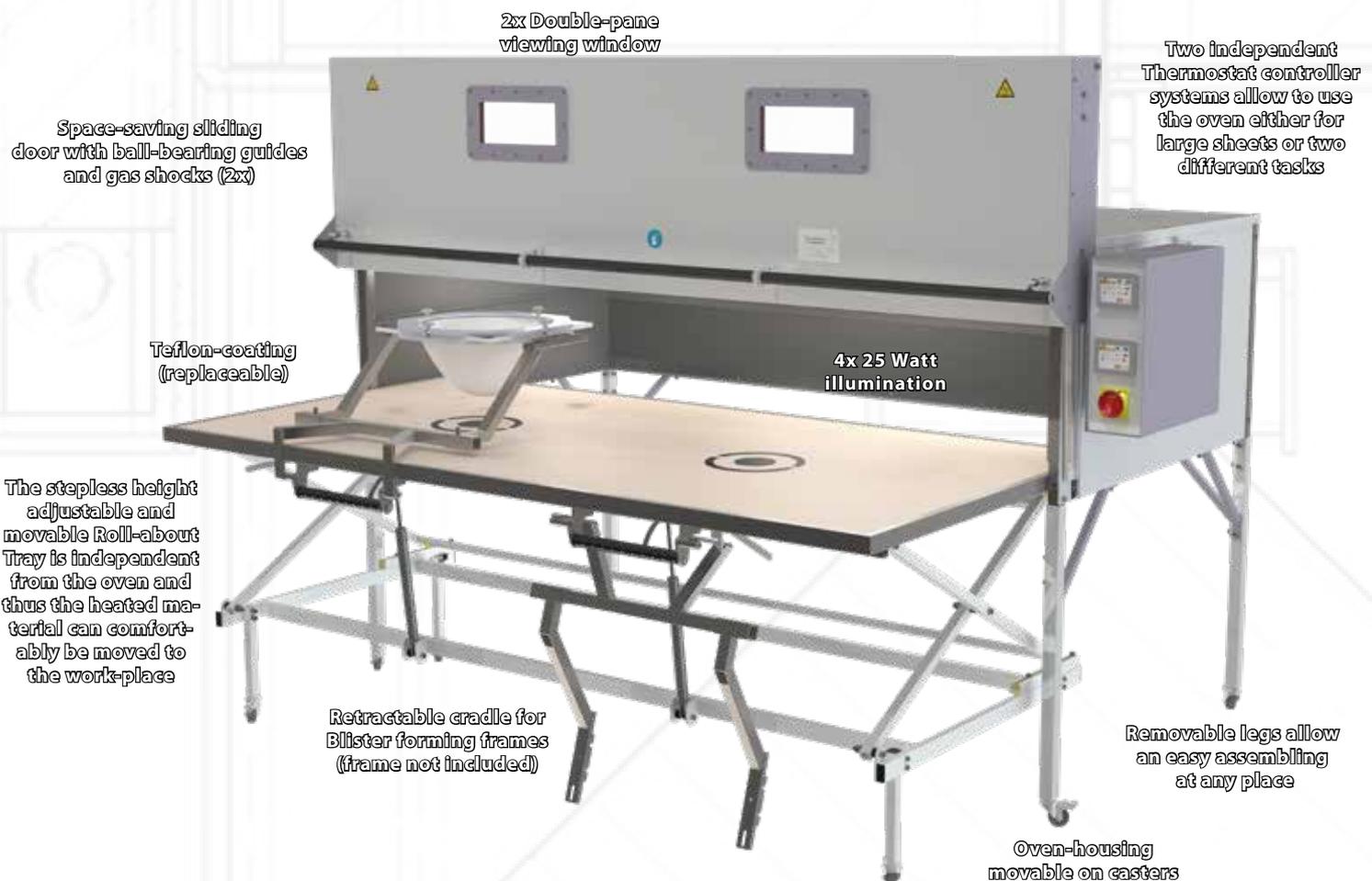
Infrared-Oven IR2103 - DUAL

Never burn your plastics again!

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Thus we have been able to combine the enormous heating-power and -speed of the infrared-tubes with a reliable temperature control. Due to the measuring of the material's surface temperature (and not the inside air temperature) the full performance of the IR-tubes can be used.

The result is an oven which is instant on, which needs no preheating time and does not overheat and burn materials. Caused by this "ON DEMAND" use the energy consumption is drastically reduced. Usual pre-heating times of up to one hour are definitely a thing of the past!



Infrared Ovens



Infrared-Oven IR2103 - DUAL

Technical Details:

Type:	IR2103- DUAL - Infrared Oven for the O&P field including movable Roll-about tray Unit with DUAL temperature control and removable dash panel. Suitable either for heating 2m x 1m or independent 2x 1m x 1m.
Footprint:	approx. 3,1m ² / oven housing movable on casters
Dimensions:	Outside: W 2400 mm - D 1240mm - H 1300mm Total height with door opened: 1750mm Inside: W 2100mm - D 1090mm - H 500mm
Roll-about tray:	Independent, 4 locking casters, Fully integrated and retractable cradle for blister forming frames (frame not included) locking gas shock lift adjustment - locks at any height, Single-hand operation effective heating area: W 2040 x D 1040 mm Lift range: 710 mm - 940 mm
Power supply:	400V / 50/60Hz / 3 Phase / (32 Amp. CEE) / total capacity 12,9 kW (other voltages available)
Heating:	28 Infrared-Quartz-tubes with reflector Dual zone switching (2x 14)
Temperature reading:	opto-elektronik IR-measuring unit Measuring of the material's surface temperature!
Temperature control:	DUAL Digital PID-Controller with Software build 3.x, infinitely adjustable from 30°C to 250°C (can be switched to °F) .SPS controller with 3,5" Touch panel, showing SET and CURRENT temperature, timer- and Heating-ramp feature, software based maintenance info, multi language user interface, software updates available via USB port
Door mechanism:	space saving vertical movement, gas shock (2x) assisted, ball bearing guided, Double-pane viewing window
Illumination:	4 x 25 watts
Colour:	Inside Stainless steel, Outside structural effect paint, blue/lightgrey RAL 5017/7035.
Weight:	net: 448 kgs (Housing and Roll-about tray) gross: 631 kgs (including crate)
Available Options:	<ul style="list-style-type: none">• Pre-Preg Option (2 ducts for Vacuum-hoses) (Art. No. 07-135)• Cradle for Pre-Preg mould processing (Art. No. 07-136)• Blister-Forming tray 360mm (Art. No. 07-132)



VACUPRESS Accessories

Work-bench / Stand

with integrated Drawer-block

This VACUPRESS work-bench is equipped with a space saving drawer block. The steel-drawers are guided by ball-bearing rails. The drawers can be pulled out 80% of its depth and can be loaded with 60 kg each. A pull-out stop provides from pulling out several drawers at the same time and avoids it from tipping by this.

Outside dimensions of the stand: WxDxH 640x645x820 mm

Other versions and accessories available on request!

Art. No. 01-690
1 Drawer 60 mm
1 Drawer 100 mm
1 Drawer 180 mm
1 Drawer 180 mm



VACUPRESS Accessories



Mould-positioning unit

(Article No. 01-626)

Your daily work is made easier with this practical aid. From low shoe to boot, stores practically every model securely and comfortably. The multiple fast adjustment enables quick "switching" from low to high models and vice versa. Thanks to the narrow support area, this bearing application assistance enables deep drawing results which are practically complete all the way around.

Dimensions: Base 80x90 mm,
Height adjustable from min. 120mm to max. 230 mm



Heat Protection Gloves

(Thin version, one size fits all)

(Article No. 20-008)

Light cotton heat protection gloves for working with soft foam thermoplastics or other thermoplastics and for short-term thermal loads.



Heat Protection Gloves

(Thick version, one size fits all)

(Article No. 20-009)

Thick cotton heat protection gloves (terrycloth) for heavy and long-term thermal loads. With long cuff to protect the forearm.





VACUPRESS Accessories

Vacuum-Distributor

(Article No. 09-160)

This vacuum distributor acts as the terminal for your central vacuum supply. Subsequently, at any workstation you have vacuum connections available which are independently adjustable (volume flow) at four ball valves. The distributor is designed for wall mounting (fixing material not included).

We provide several accessories for connecting the distributor and installing your vacuum line. Ask us about it. We will like to give you our advice.



Vacuum-Distributor IRV-PRO

(Article No. 09-165)

Due to its features this adjustable Vacuum-Distributor provides extended capabilities. The vacuum of both connections can be individually and separately regulated from 0 -100%. A separate vacuum gauge allows perfect control over your working process.

We provide several accessories for connecting the distributor and installing your vacuum line. Ask us about it. We will like to give you our advice.



Laminating jig

(Article No. 07-350)

The laminating jig is used for fixing the mold during resin lamination work. Due to two vacuum-lines the lower and upper vacuum bag can be evacuated separately. Bracket for vise assembly is standard. Standard version with 130mm plate, alternative version with 100mm is also available. All components can be ordered separately as well.





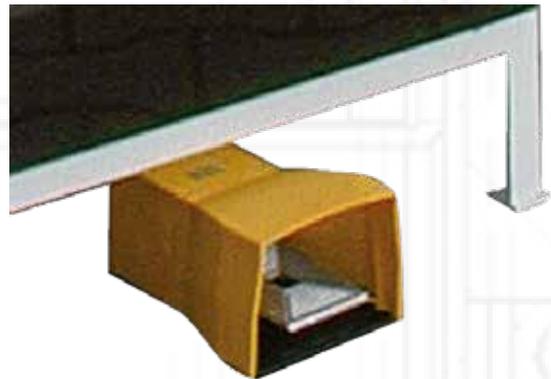
Foot-operated vacuum valve

(Article No. 01-624)

The foot-operated vacuum valve can be used for thermoplastic drape molding or blister forming. The valve can be configured either as normally open or normally closed. A lockable version is also available.

With the help of this valve as a “third hand” and due to the vacuum automatic of all VACUPRESS deep drawing devices you have both hands free during the complete deep drawing procedure and can control the suction speed comfortably with your foot. A practically indispensable accessory, especially for the production of test shoes and bath shoes in particular!

Connection is possible to all VACUPRESS as well as most other vacuum-presses.





INFRARED-OVEN Accessories

Blister Forming Tray (Type A)

(Artikel No. 07-132)

Blister-forming tray for prosthetic sockets. Item with lateral bars for use in ovens with rails or with cradle Art.No. 07-134.

Dimensions LxW: 450 x 450 mm
inner diameter: D=360 mm



Cradle for Blister Forming Tray

(Artikel No. 07-134)

This width adjustable cradle allows to use Blister-forming trays without legs (e.g. Art.No. 07-132) with Infrared-Ovens IR1001, 1302, IR1302 XTR or IR2102 DUAL.

Dimensions LxWxH: 400 x 300 x 250 mm / Width adjustable 350-515 mm



INFRARED-OVEN Accessories



Blister Forming Tray Type B (Set)

(Artikel No. 07-132BS)

Blister-forming Set for BK and AK prosthetic socket production. The set includes a Blister-forming tray with two plates (D=320mm and D=265mm) and a vacuum-table with fitting silicone-rings and assembly material.

All components can be purchased separately as well.



Blister Forming Tray Type B

Blister-forming tray (solo), incl. two plates (D=320mm and D=265mm).





INFRARED-OVEN Accessories

Teflon-coating

Teflon-coating, glass fibre-reinforced, for oven purpose etc.

Available as running meter in dimensions below:

Article No. 13-150

Surface porous, colour: beige
thickness: 0,20mm
running meter / 1500mm wide

Article No. 13-151

Surface even, colour: beige
thickness: 0,25mm
running meter / 1500mm wide



Replacement Teflon-coating sets for Infrared Ovens

Article No. 07-100-009/P

Teflon Replacement Kit for IR1000/1001/1002, consists of
-Teflon coating porous, thickness 0,20mm, all 4 sides sewn weft

Article No. 07-130-009/P

Teflon Replacement Kit for IR1300/1301/1302, consists of
-Teflon coating porous, thickness 0,20mm, all 4 sides sewn weft

Article No. 07-210-009/P

Teflon Replacement Kit for IR2101/2102 DUAL, consists of
-Teflon coating porous, thickness 0,20mm, all 4 sides sewn weft

Aramid-Felt

Article No. 13-200

Aramid-felt 2,3mm thick, per running meter on a roll, width 1600mm,
heat resistant up to 250°C, color yellow

Suitable for covering and protecting teflon sheets when using Blister forming frames or Pre-Preg cradles etc..

INFRARED-OVEN Accessories



Pre-Preg hose duct (option)

(Article No. 07-135)

This option is available for all Infrared-ovens. It consists of a stainless steel ducts (at the left side of the housing) which allows to put a vacuum-hose through to provide vacuum inside the oven. When not in use, the duct can be covered by an outside cap.

Inside diameter ~ 17mm



Cradle for Pre-Preg mould positioning

(Artikel No. 07-136)

This cradle allows the horizontal positioning of orthotic moulds inside Infrared-ovens when processing Pre-Preg or EASYPREG materials. The moulds are placed in the socket of the cradle by use of special vacuum-tubes. The moulds can be rotated by 360°.

Dimensions LxWxH: 560 x 210 x 190 mm
Inside diameter of socket fits vacuum-hoses
up to D=37mm

(suitable with Infrared-Ovens
IR1002, 1302, 1302 XTR, 2102 DUAL)





OVEN Accessories

Pre-Preg Vacuum-Tubes

Vacuum-tube sets for Pre-Preg processing. The sets include:

- 1x 1/2" Vacuum-tube with ball-valve and coupling
- 1x crosbar to hang the mold inside an oven
- 1x Heat-resistant silicone-hose (1m) with 2x plug for coupling

Ball-valve and couplings are heat-resistant up to 120°C



Article 18-500-308/S

1-way vacuum-tube



Article 18-500-310/S

2-way vacuum-tube

Pre-Preg Accessories

Below are assorted samples of accessory parts to connect the Pre-Preg vacuum-hose with a central vacuum-system or a vacuum-pump.



Special-Vacuum-hose, heatresistant up to 200°C (per meter)

- Article 18-100 inner diameter = 4mm
- Article 18-100/6 inner diameter = 6mm
- Article 18-100/10 inner diameter = 10mm



Special-Vacuum-hose (per meter)

- Article 18-101 inner diameter = 5mm
- Article 18-102 inner diameter = 6mm
- Article 18-103 inner diameter = 12mm
- Article 18-104 inner diameter = 20mm

OVEN Accessories



Water-trap 1/2"
Article 02-881 incl. 6mm / 12mm hose connection

Pre-Preg Vacuum-Kit for PO / IR ovens, consisting of
-Vacuum-distributor 4-way incl. 10mm hose connector
-4x Vacuum-plug with hose connector 6mm
-Water trap 1/2" with 10 / 12mm hose connector
-Connecting hose, heat resistant, ~30 cm

Article 02-882

T-joint for Vacuum-hose
Article 18-200 inner diameter = 12mm
Article 18-201 inner diameter = 20mm
Article 18-202 inner diameter = 2x 20mm / 1x 12mm

Ball valve with hose connection
Article 18-230 1/4" incl. 12mm connection
Article 18-231 3/4" incl. 20mm connection

Coupling NW7,2
Article 18-302 incl. 12mm hose connection

Plug NW7,2
Article 18-304 incl. 12mm hose connection

Coupling 1/8"
Article 18-320 heatresistant up to 200°C

Plug 1/8"
Article 18-321 heatresistant up to 200°C

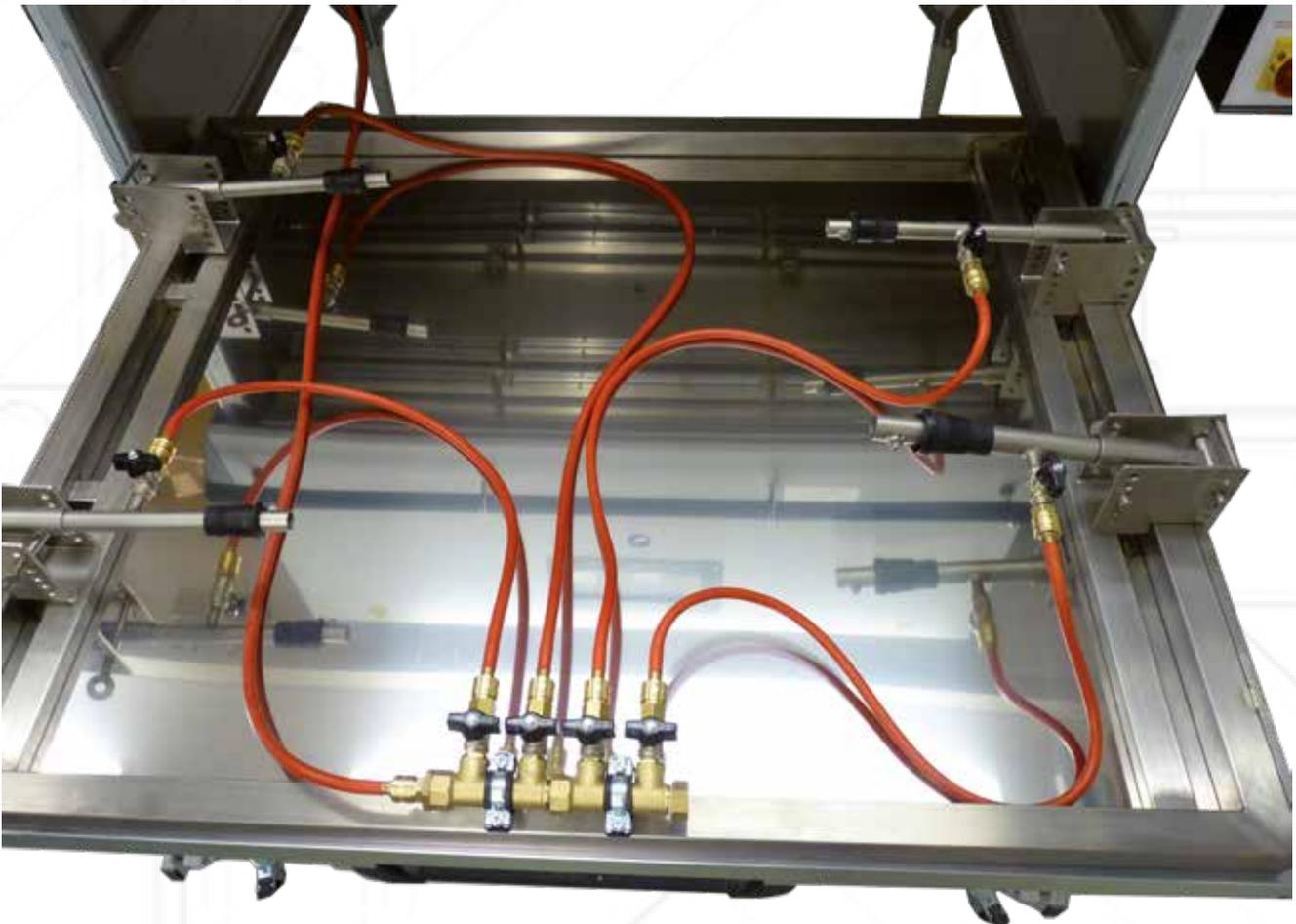


INFRARED-OVEN Accessories

„Baumeister“ Pre-Preg (BMP) set

The „Baumeister“ Pre-Preg accessory line arised from professional O&P practice and has been developed to maturity phase now. This high-end stainless steel tool-box has been especially designed for processing Pre-Preg materials in Infrared-ovens. It is compatible with Infrared-ovens IR1302, IR1302 XTR und IR2102 DUAL.

The BMP accessory kit is available as four standard versions. As 4x or 6x version and with or without thermoforming option. All items can be purchased separately to extend the kits. Beside the basic frame with adapters and sockets for the included vacuum-tubes, the kits include handy clamping devices for wear-out free fixing of the vacuum-tubes during processing.



Pic. shows „Baumeister“ Pre-Preg Set 4x
(Art. 18-500-445) placed in an IR1302 Infrared-Oven

INFRARED-OVEN Accessories



„Baumeister“ Pre-Preg (BMP) set



Easy assembly of the adapter at the basic frame. Infinitely adjustable and multiple change of vacuum-tube inclination

Tool-free placement of the moulds by vacuum-tubes with square fence





INFRARED-OVEN Accessories

„Baumeister“ Pre-Preg (BMP) set

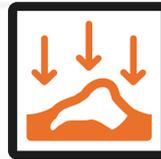
Article 18-500-446 „Baumeister“ Pre-Preg kit 6x with thermoforming option
 1x Pre-Preg basic frame
 1x reflector stainless steel blank
 6x adapter/holder, inclination adjustable for vacuum-tube sockets
 5x vacuum-tube socket 1/2"
 1x vacuum-tube socket 3/4"
 5x vacuum-tube 1/2" with square socket
 1x vise clamping device 3-form vertikal for 1/2"
 1x vacuum-tube 3/4" with square socket
 1x vise clamping device 3-form vertikal for 3/4"
 1x vacuum-distributor 6x with valves
 1x hose-kit for vacuum-distributor 6x (2x 60cm, 2x 90cm, 2x 120cm)
 1x vacuum-hose inside oven to vacuum-distributor 180cm
 1x vacuum-tube 1/2" for thermoforming
 1x vise clamping device 7-form horizontal for 1/2"
 1x vacuum-tube 3/4" for thermoforming
 1x vise clamping device 7-form horizontal for 3/4"

Article 18-500-444 „Baumeister“ Pre-Preg kit 4x with thermoforming option
 Article 18-500-445 „Baumeister“ Pre-Preg kit 4x
 Article 18-500-447 „Baumeister“ Pre-Preg kit 6x



Pic. shows 18-500-446

INFRARED-OVEN Accessories



„Baumeister“ Pre-Preg (BMP) set

Article 18-500-400 BMP Pre-Preg basic frame 1250 x 1080 mm
incl. reflector blank D3, t=1mm



Article 18-500-401 BMP adapter/holder
for vacuum-tube sockets

Article 18-500-402 BMP vacuum-tube socket 1/2"
Article 18-500-403 BMP vacuum-tube socket 3/4"



Pic. shows 18-500-401 + -402

Article 18-500-404 BMP vacuum-tube with
square socket 1/2"
Article 18-500-405 BMP vacuum-tube with
square socket 3/4"

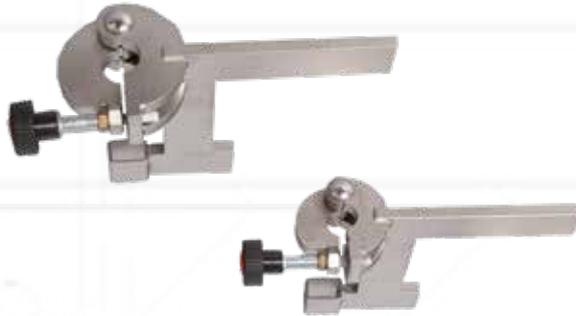




INFRARED-OVEN Accessories

„Baumeister“ Pre-Preg (BMP) set

- Article 18-500-406 BMP clamping device 3-form vertical with square socket 1/2"
Article 18-500-407 BMP clamping device 3-form vertical with square socket 3/4"



- Article 18-500-411 BMP 4x vacuum-distributor with ball-valves, coupling, assembly clamps
Article 18-500-412 BMP 6x vacuum-distributor with ball-valves, coupling, assembly clamps



Pic. shows 18-500-412

- Article 18-500-413 hose-kit for 4x vacuum-distributor, 2 hoses each: 80, 120 cm
Article 18-500-414 hose-kit for 4x vacuum-distributor, 2 hoses each: 60, 90, 120 cm
Article 18-500-419 vacuum-hose inside oven to vacuum distributor, 1x 180 cm, coupling



Pic. shows sample

INFRARED-OVEN Accessories



„Baumeister“ Pre-Preg (BMP) set

- Article 18-500-415 1/2" thermoforming vacuum-tube with ball valve and coupling
- Article 18-500-416 3/4" thermoforming vacuum-tube with ball valve and coupling
- Article 18-500-417 1 1/2" thermoforming vacuum-tube with ball valve and coupling

Pic. shows 18-500-415 + -416



- Article 18-500-420 BMP wall holder for Pre-Preg basic frame adapter



- Article 18-500-408 clamping device 7-form, horizontal for 1/2" thermoforming vacuum-tube
- Article 18-500-409 clamping device 7-form, horizontal for 3/4" thermoforming vacuum-tube



- Article 18-500-418 vise unit „Das Ding“ with several hose diameter for holding plaster cast rods

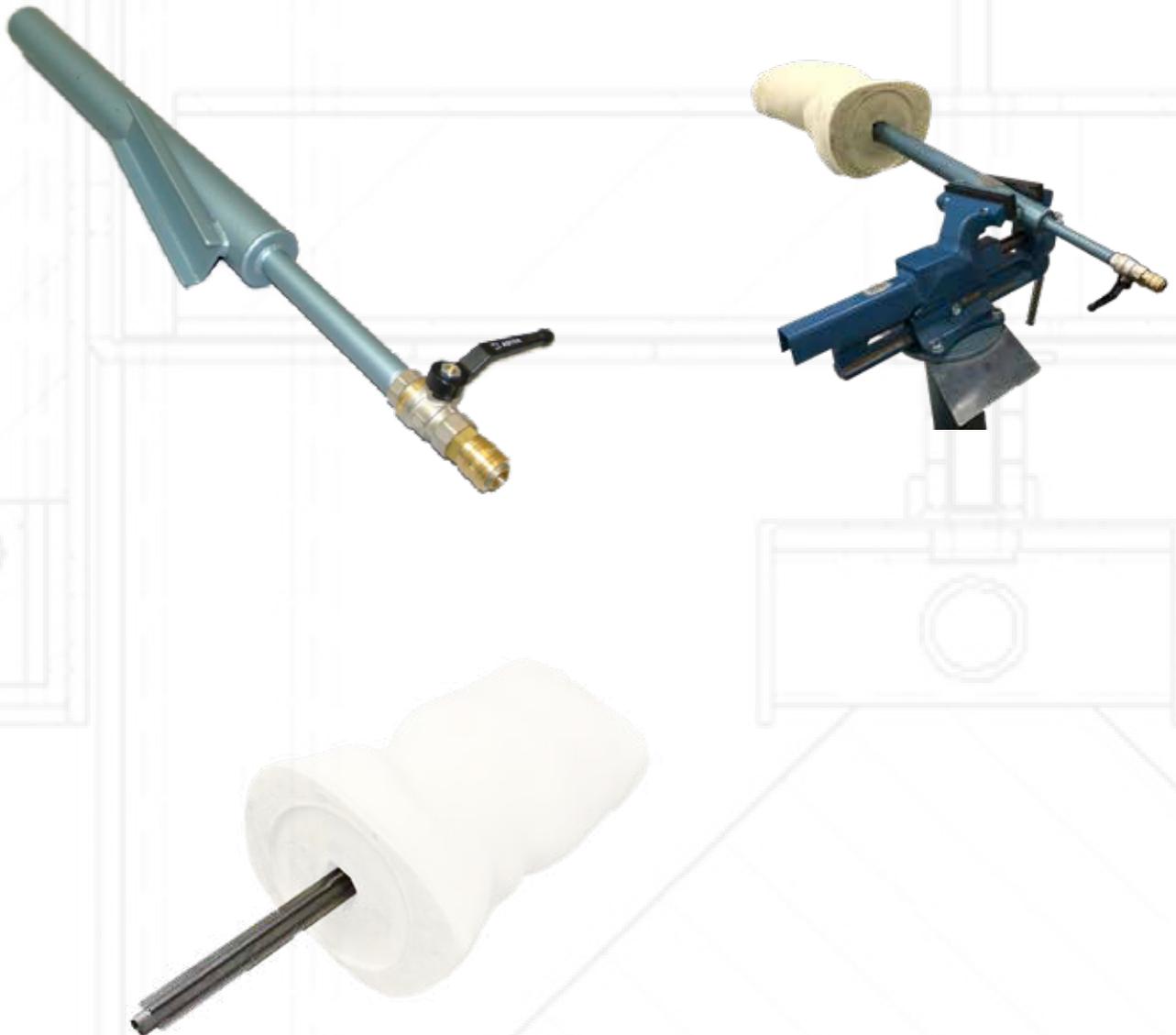




INFRARED-OVEN Accessories

Vacuum-tube 1-1/2" for large moulds

„BMP“ 1-way vacuum-tube 1-1/2" with ball-valve, DIN coupling and bracket for a quick and safe assembly at the vise. Suitable for use with 1" tubes (like body-jackets) (Article 18-500-441)



„BMP“ adaptation for 1-way vacuum-tube 1 1/2" for an easy and rotation prevented assembly of milled foam moulds. The integrated slot allows to turn the mould in 90° steps. (Article 18-500-320/A)

INFRARED-OVEN Accessories



Clamping device for vacuum-tubes

BMP clamping device with bracket and quick release for powerful and damage-free fixing of standard vacuum-tubes. Available for different tube diameter: 28mm / 30mm / 35mm (Article 18-500-600-xx)



pic. shows 18-500-600-35
(vise and vacuum-tube not included)





OVEN Accessories

„Baumeister“ Pre-Preg (BMP PO) Set for PO1200 + PO1800

This Pre-Preg oven accessory set has been developed on basis of the „Baumeister“ accessories for Infrared-Ovens. The components are designed from daily practice in a German O&P workshop. The vacuum-tubes and brackets are compatible to the Infrared-oven BMP sets. The high-class stainless steel accessories program has been developed especially for the PO1200 and PO1800 Pre-Preg ovens.

The set can be upgraded in different configurations and provides the opportunity to place up to 12 molds inside the oven at the same time. Beside a unit to hang the molds, a stand up unit can be placed at the bottom the oven.



Pic. shows BMP PO Set at an PO1200 with hanging and stand-up unit, Prepreg-vacuum tube and 12x vacuum-distributor

OVEN Accessories



„Baumeister“ Pre-Preg (BMP PO) Set for PO1200 + PO1800



Due to the available hanging and stand-up units it is possible to place molds at the top and the bottom. (Pic. shows BMP PO set at an PO1800)



The crossbars with quick release allow to prepare the molds easily with the vise clamping unit which is available as an option (see page 81). The hanging unit provides up to 88 different positions to hang the vacuum-tubes / crossbars.



„Baumeister“ Pre-Preg (BMP PO) Set for PO1200 + PO1800

- Article 18-500-300 „Baumeister“ BMP PO Hanging unit set for PO1200/1800:
 1 Hanging unit (frame) for installation inside the oven (top)
 6 crossbars with square socket for Baumeister Prepreg-
 vacuum-tubes 1/2" and 3/4"
 6 secure plug bolts for fixing the square sockets
- Article 18-500-301 Hanging unit installation set for 6x or 12x vacuum-distributor:
 2 crossbars with square sockets
 2 square bolts with holes
 2 secure plug bolts for fixing the square sockets
 2 thread bolts
 2 mounting clamps
- Article 18-500-302 6x vacuum-distributor for PO 1200/1800
- Article 18-500-303 6x hose set for vacuum-distributor:
 6 heatresistant silicone hoses with hose connectors on both ends
 1 heatresistant silicone hose with hose connector and coupling
- Article 18-500-304 12x vacuum-distributor for PO 1200/1800
- Article 18-500-305 12x hose set for vacuum-distributor:
 12 heatresistant silicone hoses with hose connectors on both ends
 1 heatresistant silicone hose with hose connector and coupling
- Article 18-500-306 silicone hose for PO1200/1800 inside connection to
 distributor with hose clamp, hose connector, coupling and
 1/2" nippel.
- Article 18-500-307 „Baumeister“ BMP PO stand-up unit for PO1200/1800:
 1 stand-up unit with 46 options for 3x telescope tube inserts,
 16 of them fixed and 8 loose ones as an option to optimize mold
 positioning.
- Article 18-500-308 Prepreg-vacuum-tube 1/2" with ball-valve and coupling NW 7,2
 with thread and bolt for fixing the mold at the tube, square socket with
 hole for crossbar assembly.
- Article 18-500-309 Prepreg-vacuum-tube 3/4"(items delivered like 18-500-308)
- Article 18-500-310 2-way Prepreg-vacuum-tube 1/2" (items delivered like 18-500-308)
- Article 18-500-311 3-way Prepreg-vacuum-tube 1/2" (items delivered like 18-500-308)

OVEN Accessories



„Baumeister“ Pre-Preg (BMP PO) Set for PO1200 + PO1800



A 3-way vacuum-tube for special applications is also available.



EASYPREG Accessories

EASYPREG Vacuum-Frame

Special Vacuum-frame for processing the EASYPREG materials with VACUPRESS or other vacuum-presses.

EASYPREG Vacuum-Frame suitable for VA 620 SII/S3 incl. connection hose + inline valve and fitting frame insulation (Please ask for compatibility with third-party products).

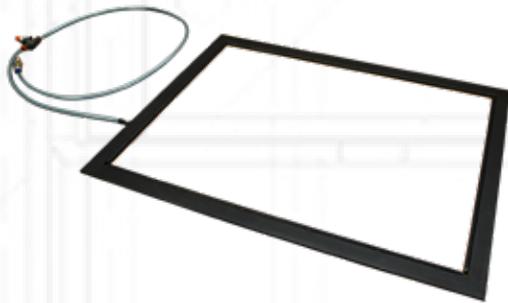
Dimensions: 595 x 435 x 5 mm

Art.No. 01-623/S

EASYPREG Vacuum-Frame suitable for VA 900 XR incl. connection hose + inline valve and fitting frame insulation.

Dimensions: 870 x 660 x 5 mm

Art.No. 03-930



Infrared hand-held Thermometer

Infrared hand-held Thermometer for processing EASYPREG materials.

With precision optic and laser sighting for accurate noncontact temperature measurement, visible and audible alarm, HOLD feature, MAX und MIN feature, -32° ... 420°C / optics 20:1 / resolution 0,2°C, incl. 9V Batterie, Manual

Art.No. 20-110

Nylon bag for hand-held thermometer

Art.No. 20-111



VACUPRESS Materials



Bladder

Standard-Bladder with very good endurance and high elasticity

Colour: black

Surface: micro-patterned

Available dimensions:

Article size

10-450 450x400x1,2 mm

10-620 600x450x1,2 mm



Soft-Bladder

Special-Bladder with excellent characteristics for thermoplastic materials. Does not stick on the most materials used in the O&P and shoe-technique field without using talcum. Extremely extensible and softly molding.

Colour: lightgrey

Surface: even

Available dimensions:

Article No. size

10-621 450x400x2,0 mm

10-622 600x450x2,0 mm

10-452 620x500x2,0 mm

10-521 700x510x2,0 mm

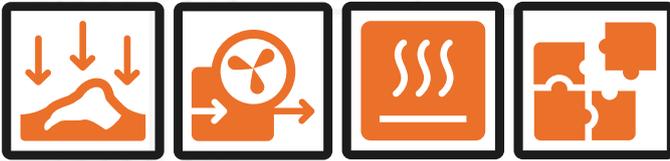
10-522 700x700x2,0 mm

10-851 850x680x2,0 mm

10-922 900x750x2,0 mm

10-151 1500x1100x2,0 mm

10-951 running meter x 2,0 mm / 1300 mm wide



Silicone-Bladder

100% Silicone-Bladder! Unbeatable stretchable and heat-resistant. This material meets even the highest demands!

Colour: white/transparent

Surface: even

Available dimensions:

Article No.	size
12-450	450x400x2,0 mm
12-620	600x450x2,0 mm
12-451	620x500x2,0 mm
12-520	700x510x2,0 mm
12-522	700x700x2,0 mm
12-850	850x680x2,0 mm
12-900	900x750x2,0 mm
12-150	1500x1100x2,0 mm
12-950	running meter x 2,0 mm, 1200 mm wide

Test-shoe PVC-sheets

PVC-foil available in different thicknesses for test-shoes and last/model copies. The 2,0 mm foil is also suitable for the O&P field.

Colour: transparent, clear

Surface: even

Available dimensions:

Article No.	size
11-450	450x400x0,4 mm
11-620	600x450x0,5 mm
11-622	600x450x1,0 mm

ASSISTANT- System

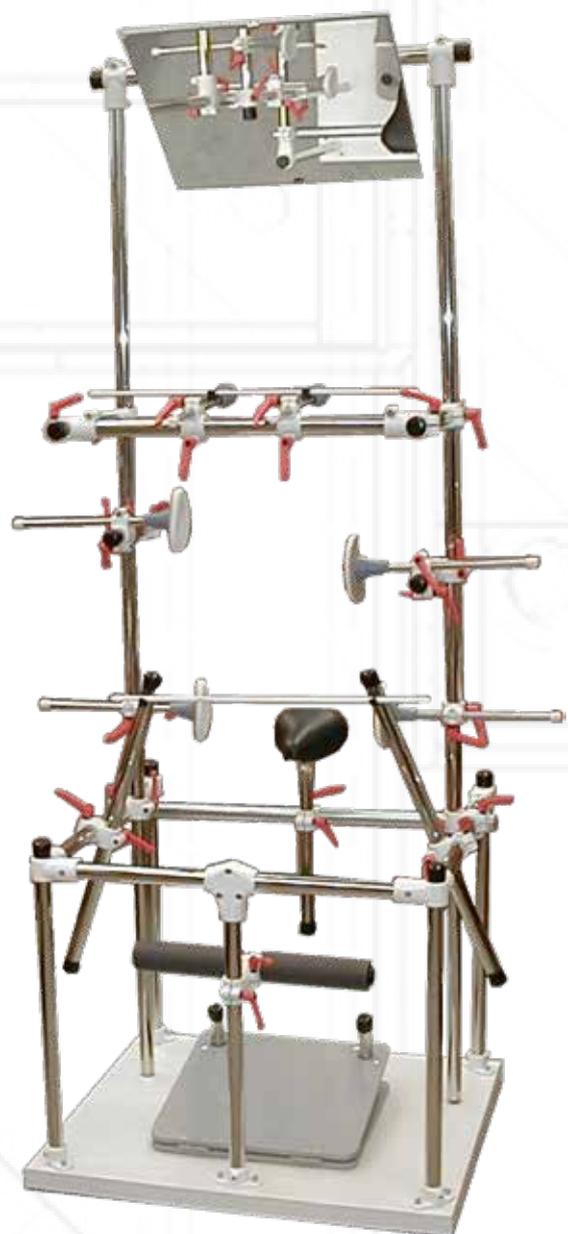
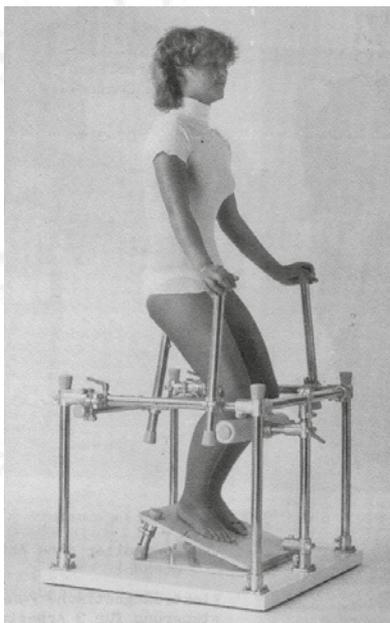


ASSISTANT - Plaster shape support

**The flexible system for all purpose
adjustable – expandable - fair-priced**

The basic-unit with individually inclinable foot plate, knee rests with adjustable elevation, as well as arm rests adjustable in 3 tiers. The patient will be able to tolerate the plaster cast procedure even over longer duration without modification of the position. The work becomes more secure and more comfortable for both sides.

ASSISTANT is a plaster aid with many faces. Altered with few manipulations making the work more precise to the plaster cast technique and helps in almost ranges. It gives the patient and the specialist safety through the different supporting and fixing elements. The Ba-



sic-Unit (shown on pic. above) with inclinable treadle, Knee-Support with adjustable elevation, upholstered and furnished, with armrests adjustable in 3 layers, finds its use in the case of all plaster works at the torso. in particular at Scoliosis casts. By use of the additional elements, variations and combinations many helpful configurations are available. From the extension and fixation and an adjustable seat-shape-unit up to support-units for knee- and hip-exarticulations.



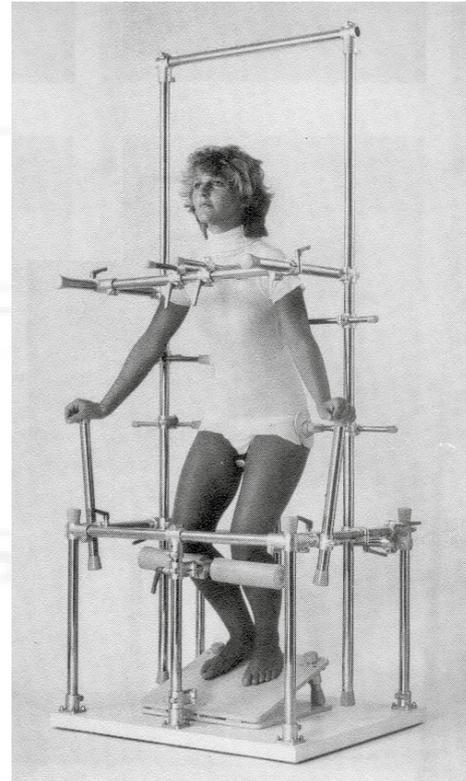
ASSISTANT-System

ASSISTANT - Plaster shape support

-the useful completion for your plaster cast technique

The picture on the right shows upgrade options for the „classical extension“ with simultaneous stabilization of the patient by use of adjustable hand-rests.

This Scoliosis-unit allows to put and hold the patient in a correct casting position. 9 fixation- and correction-elements guarantee perfect results. The „de-Torsion-setting“ is visualized by use of the mirror-unit. .



Available Options:

Article No.	Description
08-100	Basic-unit Assistant-System
08-110	Knee-rest Assistant-System
08-115	Foot-plate Assistant-System
08-120	Extensions-frame (with fixing parts)
08-121	Scoliosis-unit Assistant-System
08-122	Mirror-unit Assistant-System
08-125	Head strap with frame Assistant-System
08-130	Block and tackle Assistant-System
08-135	Seat- / stand-support (with fixing parts)
08-140	Knee-exarticulation load-unit Assistant-System
08-145	Hip-exarticulation load-unit Assistant-System

Custom made units



You did not find what you are looking for?

As a manufacturer we have all capabilities to realize your special requests and modify our machines to fit your individual needs. The use of up-to-date 3D CAD-CAM technologies gives us the capability of short-term feasibility analysis and a fast realization of customizations. We can provide computer based 3D simulations and motion analysis already at the time of quotation, so all involved parties, including the user can imagine how the customized product will work.

On these pages you can find some samples of special units and individual adjustments we made for our customers. Do you have any special requirements? - Don't hesitate to contact us. We would like to know your needs and try to find a solution for you.



CUSTOMIZED VACUUM-PRESS:
VACUPRESS 620S3 with special heating
und thermostat control for the photovol-
taics filed



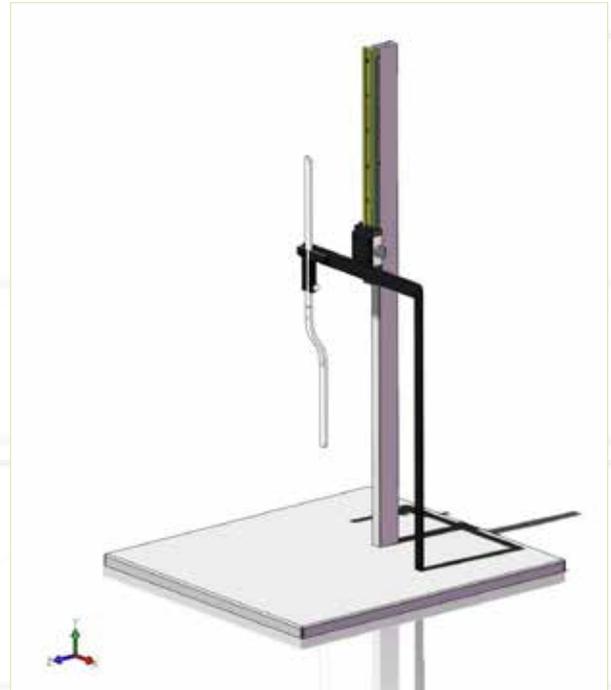
CUSTOMIZED VACUUM-PRESS:
VACUPRESS 520 GK as a tandem
unit with specialized vacuum-cav-
ity 250x250x500 mm. Integrated
vacuum-Pump 10m³/h. The unit
is movable on casters.



Custom made units



CUSTOMIZED VACUUM-PRESS:
VACUPRESS 620 S3 without Infrared-heating and UNI-LOCK material clamping-system for foot-orthotic production etc.

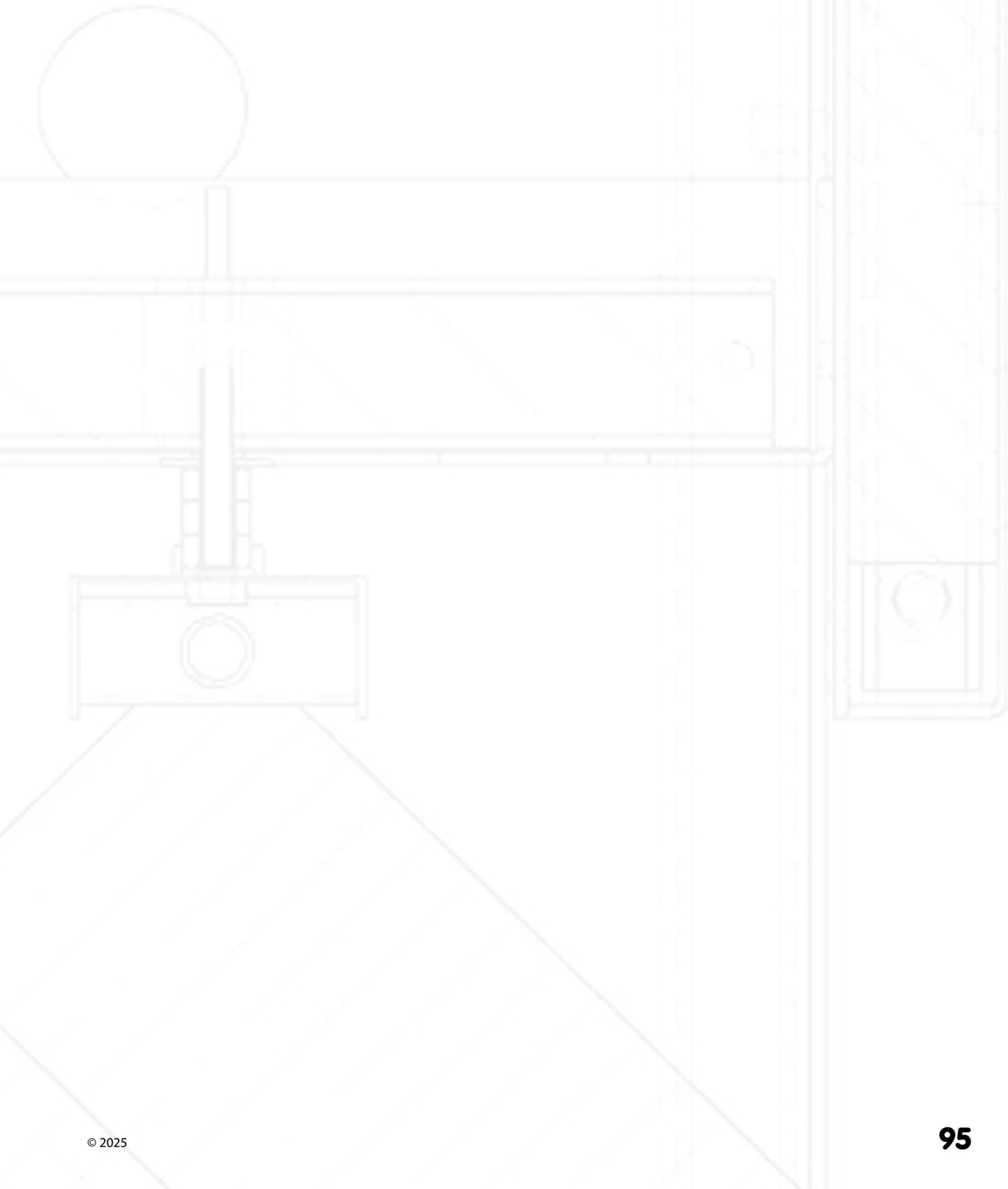
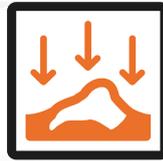


CUSTOMIZED HEIGHT GAUGE:
DUO-Universal Height Gauge with extended caliper for skiboot measuring (3D Animation)



CUSTOMIZED VACUUM-PRESS:
VACUPRESS 850 with large vacuum cavity

Notes





General Terms of Business

General terms of business

Witzel VACUPRESS e.K., Inh. Hendrik Witzel (updated 01.01.2021)

The following General Terms and Conditions of Business (Conditions of Sale and Delivery) shall apply to all present agreements, offers and orders vis-à-vis companies as defined in § 310 clause 1 BGB [German Civil Code] (hereinafter: customers). Deviating, conflicting or supplementary General Terms and Conditions of Business of the customer shall not become parts of the contract, even if we not expressly object to them, unless we expressly approve of their validity. Apart from this, our Terms and Conditions of Sale and Delivery shall exclusively apply.

1. Offers, orders, order acceptance and formation of contracts

- (1) Unless expressly otherwise agreed upon, our offers are non-binding and subject to confirmation (this means that they are revocable until acceptance).
- (2) We reserve the right to make technical changes as well as changes in shape, colour and/or weight within reasonable limits. Excess or short deliveries of up to 10% are admissible. In addition, excess or short deliveries of our suppliers which are admissible according to their General Terms and Conditions of Business authorise us to make excess or short deliveries to the same extent. The order will be executed within the technically required material and process-related tolerances. Deviations of the material quality according to our suppliers' terms of delivery shall be reserved.
- (3) By ordering goods from one of our catalogues in text form (e.g. by letter, fax, e-mail) or online, the customer declares his binding intent to purchase the ordered goods. The contract with us is concluded as soon as we accept the offer to enter into the contract in the order by order confirmation. We shall be entitled to submit this declaration of acceptance within two weeks after receipt of the order. The acceptance may be declared either in writing or by delivering the goods to the customer.
- (4) Our individual offers expire 20 working days after the date of the offer. By placing an order on the basis of this offer and within this period, the customer declares the binding acceptance of our offer.
- (5) The contract is concluded with the provision of correct and timely supply by our contract partners, subcontractors and suppliers. The customer will immediately, should certain supplies not be available. If we are not responsible for the non-delivery, in particular when effecting congruent hedging transactions with our suppliers, we shall be released from our performance obligation to the extent that such performance is hindered or delayed.
- (6) We shall not be bound by any details in offers and/or order confirmations which are obviously based on mistakes, i.e. a typing errors or miscalculation. Instead of this, the obviously intended declaration shall apply.
- (7) Offer documents, drawings, descriptions, samples and cost estimates may not be forwarded, published, reproduced or disclosed to third parties in any way whatsoever. Upon request, the documents shall be returned without keeping any copies of them.

2. Delivery and delivery period

- (1) The agreed delivery periods are approximate periods. The arrangement of fixed delivery dates shall only be effective if expressly confirmed by us in written form.
- (2) The agreed delivery periods commence on the date of the order confirmation at the earliest; however, the delivery period commences not before we have been provided with all documents required to execute the order. Our delivery obligation is suspended as long as the customer is in default of a (advance) performance obligation. In the event that we culpably fail to meet an agreed delivery period, the default in delivery shall only be deemed to have occurred following the expiration of an adequate grace period.
- (3) Cases of force majeure - these are understood to be circumstances and incidents that cannot be prevented with the due diligence of prudent business management - shall result in the contractual obligations of the contract parties being suspended for the duration of the hindrance and to the extent of its effects. In case the resulting delay exceeds a period of ten weeks, both contract parties shall be entitled to withdraw from the contract with regards to the respective scope of performance. Any other claims shall be excluded.

3. Prices, terms of payment

- (1) All prices are fixed prices excluding statutory value-added tax. In the absence of another agreement, our delivery is made excluding packaging, transport insurance, freight and assembly. Our prices are based on the labour and material costs/production costs as well as the value-added tax applicable at the time the contract is concluded. In the event that changes in the bases of calculation occur after the contract has been concluded as a result of higher labour and material costs/production costs, value-added tax or other circumstances, in particular technical changes in calculation, we shall be entitled to change the price in adequate relation to the change of the basis of calculation occurred. Alternatively, we shall be entitled to withdraw from the contract. This also applies to blanket or call-off orders, unless expressly otherwise agreed upon conclusion of the contract.
- (2) The agreed prices are binding. They shall be payable within 30 days after receipt of the goods or services (we grant a discount of 2% upon full payment within 10 calendar days); however, we reserve the right to demand advance payment from the customer.
- (3) The customer falls in arrears after the 30-day period stipulated in § 3 clause 2 has expired. After this period, the customer shall pay interests amounting to 8% above the base interest rate on the amount owed. We reserve the right to prove evidence of and enforce higher damages caused by default.
- (4) In the event of default in payment and justified doubts in the customer's solvency or creditworthiness, we shall be entitled - without prejudice to our other rights - to demand securities or advance payments for outstanding deliveries, to ship the goods COD, even if another payment method has been arranged, and accelerate the maturity of all rights arising from the business relationship. Only undisputed or legally determined claims entitle the customer to set off or retain payments. The customer may only exercise his right of retention if his counterclaim is based on the same contractual relationship.

4. Place of performance, shipping, bearing of risk, transfer of risk

- (1) The place of performance is our place of business.
- (2) If the goods are shipped to a place other than the place of performance upon request of the customer, he shall bear the packaging and transport costs. The risk of accidental loss or deterioration of the goods is transferred to the customer upon handover, or in case of destination purchase upon delivery of the goods, to the forwarder, the carrier or any other person or institution commissioned with the shipping, even if such persons are our own employees. The handover of the goods shall be deemed to have been effected even if the customer is in default of acceptance.

5. Customer specifications, further processing, instructions, assumption of liability, permissions

- (1) If we are to manufacture systems, products or other works and structures on the basis of the customer's specifications, the latter shall provide faultless, proper and complete specifications in due time. If it becomes evident that - from our point of view - modifications are necessary, we reserve the right to withdraw from an already concluded contract.
- (2) If we are to further process components, structures or materials, the customer shall be obliged to check them for faultlessness from the very beginning of our activity. This above all applies to partial works in an overall project so that damage or defectiveness of the end product is prevented.
- (3) If the cooperation of the customer is required within the scope of such contracts, he shall strictly observe our instructions and appropriately inform and instruct the respective operating staff.
- (4) In the event that a damage occurs resulting from the infringement of an obligation as stipulated in 5. clause 1 and/or clause 2, the customer shall be fully liable to the aggrieved party. In the event that third parties assert claims against us due to such damage, the customer shall indemnify us from the liability to full extent.
- (5) All permissions required to implement the contract shall be obtained by the customer.

continued on page 2 ...

General Terms of Business



... page 2

6. Warranty

- (1) We provide warranty for defects at our discretion either by rectification or substitute delivery. In case the subsequent performance fails, the customer may demand the reduction of the purchase price (reduction) or withdraw from the contract (withdrawal). The customer shall, however, not be entitled to withdraw from the contract in case of only minor lack of conformity with the contract, in particular minor defects or nonconformities.
- (2) The customer shall indicate patent defects in written form within a period of two weeks after receipt of the goods; otherwise, the enforcement of warranty claims shall be excluded. The full burden of proof regarding all prerequisites of claims, in particular relating to the defect itself, the time of the detection of the defect and the timeliness of the notice of defect, lies with the customer.
- (3) In the event that the customer prefers to withdraw from the contract due to a defective title or material defect after the subsequent performance has failed, he shall not be entitled to assert further claims for damages based on the defect. In the event that the customer prefers to assert claims for damages after the subsequent performance has failed, the goods shall, where reasonable, remain in the possession of the customer. Claims for damages shall be limited to the difference between the purchase price and the value of the defective goods, unless the breach of contract has been caused fraudulently.
- (4) The warranty period is 24 months from the delivery of the goods. As a matter of principle, only the details indicated by us as well as in the manufacturer's product description shall be considered as the agreed physical characteristics. Public statements, promotions or advertisements by the manufacturer shall not be deemed to constitute additional contractual physical characteristics of the goods. We disclaim all legal warranties to the customer. The procurement risk shall be excluded.
- (5) Insofar as legally admissible, our obligation to provide compensation, no matter for what legal reason, shall be limited to the invoice value of those goods which are directly involved in the event causing the damage. In case of slight negligence of non-essential contractual obligations, any claims for compensation shall be excluded.
- (6) Insignificant, reasonable deviations in size and design - in particular in case of repeat orders - shall not justify any complaints, unless absolute adherence has been expressly agreed upon. Technical improvements as well as necessary technical modifications shall also be regarded as in accordance with the contract, unless they impair the usability of the goods.
- (7) If the operating and maintenance instructions are not observed, the products are modified, components are exchanged or consumption parts are used, the warranty shall expire, unless the ordering party is able to refute the appropriately substantiated assertion that the defect has been caused by one of these factors.
- (8) The liability for normal wear and tear shall be excluded. Wear out parts are also excluded from liability.

7. Reservation of title

- (1) We reserve the title to the goods until all claims (including ancillary claims and claims for damages) arising from the ongoing business relationship with the customer have been fully paid for. Payment by cheque shall not terminate the reservation of title before its irrevocable value date.
- (2) The customer undertakes to immediately inform us of any seizure of the goods, e.g. in case of pledging, as well as possible damage or destruction of the goods. The customer shall immediately notify us of any changes of ownership of the goods as well as the change of his own place of residence. The customer shall immediately inform us of pledging as well as seizure of the goods by third parties. We shall be immediately notified in written form and provided with all information we need to bring action against enforcement in accordance with § 771 ZPO [German Code of Civil Procedure]. The customer shall be liable if we suffer loss due to a third party's inability to reimburse us the judicial and extra-judicial costs of an action in accordance with § 771 ZPO. The customer may neither pledge nor transfer the contract item by way of security without our prior consent.
- (3) In the event of breach of contract on part of the customer, in particular default of payment or infringement of an obligation as defined in 7. clause 2 and/or clause 4, we shall be entitled to withdraw from the contract and reclaim the goods.
- (4) The customer shall be entitled to resell the goods in the course of ordinary business transactions; however, he hereby assigns to us all claims accrued against his purchasers or third parties from the resale of the goods equal in value to the outstanding invoice amount (including value-added tax), irrespective of whether the goods have been sold unprocessed or after the processing. This advance assignment also applies to possible substitute claims of the outstanding purchase price from the resale (such as e.g. claims for compensation for the simple reservation of title, alternative preferential rights, rights of separation for substitutes, etc.). The customer is hereby authorised to collect such claims against the purchasers or third parties. Our authority to collect the claims ourselves shall remain untouched; however, we undertake not to collect the claims as long as the customer properly fulfils his payment obligation and is not in default of payment. If this is the case, however, we may demand that the customer disclose the claims assigned to us and the name of the debtors, provide us with all details required to collect the claims, hand over the associated documents and inform the purchasers of the assignment. Furthermore, the direct debit authorisation of the customer shall expire in this case.
- (5) Any processing or transformation of the goods by the customer shall be done solely in our name and on our behalf. In case the goods are processed or transformed together with other items that do not belong to us, we shall acquire the shared ownership of the new product in proportion of the value of the goods to the other processed items at the time of the processing or transformation. Apart from this, the same applies to the product created by processing or transformation as to the goods subject to reservation of title (concerning the legal consequences of the simple, extended as well as prolonged reservation of title). The same applies in case the goods are combined as stipulated in § 947 BGB and mixed as stipulated in § 948 BGB with movables. The legal consequences stipulated in §§ 947 clause 2 BGB, 948 in connection with 947 clause 2 BGB as well as § 950 clause 1 sentence 1 BGB are settled by these processing clauses.
- (6) The customer shall adequately insure the goods subject to reservation of title, in particular against fire and theft.

8. Applicable law, place of jurisdiction, written form clause, severability clauses

- (1) The law of the Federal Republic of Germany shall exclusively apply to these General Terms and Conditions of Business and all legal relationships between us and the customer, irrespective of the customer's place of business. This contract is subject to the non-unified German law, namely BGB/HGB [German Civil Code/German Commercial Code]. The provisions of CISG (United Nations Convention on Contracts for the International Sale of Goods) shall not be applicable.
- (2) The place of jurisdiction is Essen. We shall, however, be entitled to take legal action against the customer at his place of residence or business.
- (3) Modifications and supplements of a concluded contract must be made in written form/alternatively: text form (e.g. by letter, fax, e-mail). This also applies to the written form agreement itself. Oral side agreements shall be ineffective.
- (4) In the event of individual provisions of these General Terms and Conditions of Sale and Delivery being or becoming ineffective or impracticable in whole or in part, the legal effectiveness of the remaining contractual provisions shall not be affected. The ineffective or impracticable provisions shall be replaced by an effective regulation that is as close as possible to the economic purpose of the ineffective provision. In case of doubts or disputes, the statutory regulations shall apply, if no supplementary interpretation in the aforementioned sense is possible or offered to fill the loophole.

The same applies in the event of contractual gaps.

Essen, 01.01.2021



Witzel
Vacupress