

PURCHASE CONTRACT

On Supply of Equipment for Plastination

*Executed in the sense of § 2079 et seq. of Act no 89/2012 Coll., the Civil Code, as amended
(hereinafter the "Civil Code" only)*

I

Contracting Parties

- 1.1. Purchaser: Czech University of Agriculture in Prague**
Registered seat: Kamýcká 129, 165 00 Prague – Suchbát
Acting through: Ing. Jana Vohralíková, Bursar
Bankers: Česká spořitelna, a. s.
Account no: 500022222/0800
Business ID: 60460709
VAT ID: CZ60460709

(Hereinafter "Buyer") on the one side

and

- 1.2. Seller: BIODUR Products GmbH**
Registered seat: Heidelberg
Acting through: Dr. Angelina Whalley
Bankers: Commerzbank AG Heidelberg
Account no: IBAN DE95 6724 0039 0194 192 100
Business ID: 32019/22435
VAT ID: UID DE278 279 509
Company entered in the Commercial Register maintained by the district court
in Mannheim, section B, file no: HRB 711577.

(Hereinafter "**Seller**") on the other side

(The Buyer and the Seller hereinafter collectively also "Contracting Parties")

On the below day, month and year, on the basis of tender result, pursuant to Act no 134/2016 Coll., on Public Procurement, as amended, hereby execute for the subject of the public procurement project implementation, "Plastination", the following purchase contract for supply of equipment for the Plastination (hereinafter this "**Contract**")

II

Subject of Contract

- 2.1.** The subject hereof is the commitment of the Seller to supply to the Buyer equipment for Plastination (new, unused, original) including all parts, accessories and documents needed for proper use of the equipment (hereinafter together just "Goods") and to provide the Buyer with the related services, including but not limited to transport to the supply destination pursuant to Art. III below herein and environment-friendly liquidation of the packaging and other waste of the Goods supply in the scope and under the terms and

conditions laid down hereby. The subject hereof further includes the commitment of the Seller to transfer onto the Buyer ownership right to the duly delivered and Buyer taken over Goods. The subject hereof also includes the commitment of the Buyer to take the Goods over from the Seller and pay the purchase price of the Goods to the Seller in the manner and within the deadline laid down herein.

- 2.2. Accurate specification of the Goods is attached as annex hereto forming an integral part hereof.
- 2.3. Part of the commitment of the Seller pursuant to Art. 2.1 above herein is also provision of related services, including but not limited to the Goods transport to the Buyer, their installation, commissioning, operator training on the Buyer's premises and cleaning of the supply location, whereas:
 - a. Goods transport means their delivery to the supply destination, including transport upstairs to the room where the Goods will be installed, according to the Buyer's instruction;
 - b. Goods installation means their seating, assembly and connections to sources in the supply destination (including but not limited to connection to electricity, power, weak-current, data and optical wiring) for the Goods to be commissionable;
 - c. Goods commissioning means Goods adjustment and function test as well as other actions needed for the goods to be suitable for use for the usual purpose;
 - d. Operator training means explanation of the Goods construction and all functions, demonstration of the functions (including auxiliary systems) together with practical training of the operators in the Goods operation and maintenance. The training will be provided in the minimum scope of once 8 hours for an unlimited number of trainees in the supply destination, unless otherwise specified by the Buyer, no later than in 1 month from the Goods takeover. The exact dates and contents of the training will be subject of mutual agreement between the Seller and the Buyer.
 - e. Cleaning of the installation site means removal and disposal of all packaging materials and other materials used for this contract implementation in compliance with Act no 185/2001 Coll., on waste, amending certain other acts, as amended, and proper cleaning of all areas affected by the Goods installation.
- 2.4. The Goods supply will include supply of the related documentation, including but not limited to the warranty certificate, the conformity statement, the technical data sheet of the manufacturer, the safety and operation regulations in Czech and in English and other documents needed for proper use of the equipment, in printed as well as electronic format (on a CD-ROM or a similar data carrier and in the .docx, .pdf or .odt format).
- 2.5. Unless agreed otherwise, the Seller shall be entitled to perform the related services any workday between 8.00 am and 4.00 pm. In the case of any change of operation conditions of the Buyer the Buyer shall be entitled to limit this time by a written instruction to the Seller.
- 2.6. The Contracting Parties have agreed that if due fulfilment of the subject hereof (especially the Goods takeover and commissioning) requires further supplies and works not mentioned herein and in the annexes hereto, which the Seller should have been aware of in relation to the subject of the supply, the Seller shall be liable to provide these supplies and works at its cost without any right to the purchase price increase above the amount specified in Art. 4.2 below herein.

III

Time, Place and Method of Supply

- 3.1. The Seller hereby agrees to hand the ordered Goods over the Buyer **in 8 weeks at the latest** from receipt of a request from the Buyer which may not be sent before the effectiveness date hereof. The request for Goods delivery shall be sent by the Buyer to the Seller via the e-mail address of the contact person appointed by the Seller for this purpose in Article V section 5.7 hereof.
- 3.2. The Goods shall be delivered by the Seller and taken over by the Buyer on the basis of a bilaterally signed takeover protocol executed pursuant to the contractual conditions defined herein.
- 3.3. The compulsory content of the Goods takeover protocol shall include:
- a. Seller and Buyer data;
 - b. Taken over Goods description;
 - c. Information about the Goods condition and faultlessness, or in the case of a defect the deadline for its remedy;
 - d. Data on related services pursuant to Art. 2.3 letters a), b), c), e) and Art. 2.4 hereof;
 - e. Date of the takeover protocol execution (this date shall be the date of taxable supply in the sense of Act no 235/2004 Coll., on value added tax, as amended).
- 3.4. The place of supply will be the building of the High-tech technology teaching pavilion of the Faculty of Forestry and Wood Processing on the premises of the registered seat of the Buyer: Kamýcká 129, 165 00 Prague – Suchbát, contact person Ing. Miloš Ježek, Ph.D., e-mail: jezek@fld.czu.cz.

IV

Price and Payment Terms

- 4.1. The purchase price of the Goods supplied in compliance herewith and annex hereto is specified by agreement between the parties.
- The Buyer hereby agrees to pay the agreed purchase price for the Goods to the Seller pursuant to Art. II above herein in the amount of CZK 1.596.865,48 V.A.T. exclusive.
- 4.2. The purchase price has been agreed as maximum and cannot be exceeded. The Seller hereby confirms that the purchase price includes all fees and other costs connected with the subject hereof and its implementation, including but not limited to the costs of transport to the destination place pursuant to Art. III hereof, removal and environment-friendly disposal of all packaging materials and other waste of the delivery, costs of the Goods assembly and commissioning, demonstration of the full functionality of the Goods, operator training, costs of potential defect remedy, warranty service etc.
- 4.3. The Seller hereby further claims that the purchase price includes potential administrative costs, taxes, customs duties, costs of approval proceedings, compulsory testing, conformity statement issue, certificates and attests, ownership transfer, insurance, handling fee etc.
- 4.4. The purchase price shall be paid by the Buyer in Czech currency on the basis of a tax invoice by wire transfer to the bank account of the Seller. The Seller shall issue the invoice in 15 days from due and timely delivery and takeover of the Goods by the Buyer pursuant hereto on the basis of a takeover protocol.

- 4.5.** The tax invoice shall include all appurtenances of a correct tax invoice and accounting document in the sense of the relevant legislation, especially Act no 235/2004 Coll., on value added tax, as amended. The invoice must also include project name and the title of the operation programme from which the supply is co-financed: "High-tech technology-teaching pavilion of the Faculty of Forestry and Wood Processing", reg. no. CZ.02.2.67/0.0/0.0/16_016/0002471", co-financed from the Operation Programme Research, Development and Education. The Buyer may return an incorrect invoice to the Seller for correction before its payment deadline without being in delay with its payment. A new payment deadline shall be calculated from the date of delivery of a corrected invoice to the Buyer.
- 4.6.** The invoice payment deadline shall be min. 30 days from the date of its issue. The invoice shall be delivered by the Seller in 3 business days from its issue to the address of the Czech University of Agriculture in Prague, Economic Department, Kamýcká 129, post code 165 00, Prague – Suchbát. In the case of a later delivery the Client may ask for an adequate payment deadline extension. No other delivery method shall be deemed due delivery and the Client shall not be liable to pay the invoice not duly delivered.
- 4.7.** The payment date shall be the date when the invoiced amount is debited from the bank account of the Buyer in favour of the bank account of the Seller.
- 4.8.** The purchase price or its instalments shall be transferred to the bank account of the Seller published by the tax administrator pursuant to § 98 of Act no 235/2004 Coll., on value added tax, as amended, even if another bank account is written in the invoice. If the Seller has no bank account published pursuant to § 98 of Act no 235/2004 Coll., on value added tax, as amended, the Buyer shall transfer the purchase price to the bank account after its publication by the tax administrator without being in delay with the invoice payment. The Seller shall inform the Buyer about the bank account publication by the tax administrator without delay. This provision shall not apply where the Seller shall not be liable to publish its bank account details pursuant to Act no 235/2004 Coll., on value added tax, as amended.
- 4.9.** If at the time of taxable supply the competent tax administrator publishes information about the Seller's unreliability as VAT payer, the Buyer as the VAT payment guarantor hereby reserves the right to reduce the purchase price paid to the Seller by the amount of VAT specified in Art. 4.2 above herein, with prior information of the Seller about this act. This procedure shall reduce the receivable of the Seller towards the Buyer by the corresponding VAT amount and the Seller shall not be entitled to enforce payment of this amount against the Buyer. This provision shall not apply where the Seller shall not be liable to publish its bank account details pursuant to Act no 235/2004 Coll., on value added tax, as amended.
- 4.10.** If the Seller becomes unreliable VAT payer after the purchase price payment by the Buyer the Buyer shall be entitled to withdraw from this Contract. In such case the parties shall return all mutual supplies implemented so far to each other.
- 4.11.** The Buyer shall not provide any advance payments to the Seller in connection with implementation of the subject hereof.

V

Rights and Liabilities of Contracting Parties

- 5.1. The Seller shall supply the Goods in the agreed amount, quality and variant. All Goods supplied by the Seller to the Buyer pursuant hereto must meet the quality requirements laid down herein and in the annex hereto.
- 5.2. The Seller shall be liable to supply faultless Goods to the Buyer in compliance herewith, due delivery being represented by the Goods acceptance by the Buyer on the basis of confirmation of this fact by execution of the takeover protocol. The takeover protocol may first be signed after completion of the physical delivery of the Goods by the Seller, including all related acts and services agreed herein, except for warranty service (see also Art. 5.3 hereof) and operator training (see also Art. 2.3 letter d) hereof), which will follow after the Goods acceptance by the Buyer.
- 5.3. Before the Goods acceptance the Seller shall be liable to arrange for removal (and environment-friendly disposal) of the packaging materials, assembly and commissioning of the Goods, trial operation of the Goods, demonstration of all functions of the Goods to the Buyer and submission of all documents needed for the Goods takeover and use (including technical documentation, instruction for use and warranty certificates, all in the Czech language and compliant with the applicable Czech legislation).
- 5.4. The Buyer shall acquire ownership right to the Goods on the day of the Goods takeover from the Seller on the basis of the takeover protocol. At the same time the risk of the Goods damage shall also be passed onto the Buyer.
- 5.5. The Seller shall be responsible towards the Buyer for damage or other loss caused by its violation hereof or of applicable generally binding legislation.
- 5.6. The contracting parties have agreed on and the Seller has appointed the following person authorised to act in the name of the Seller in all matters concerning this contract and its implementation:

Name and surname: Margit Balles
e-mail: m.balles@biodur.de
Phone: +49 6221 331111

- 5.7. The contracting parties have agreed on and the Buyer has appointed the following person authorised to act in the name of the Buyer in all matters concerning this contract and its implementation:

Name and surname: Ing. Martin Prajer, Ph.D.
e-mail: prajer@fld.czu.cz
Phone: +420 603 421 914
or
Name and surname: Ing. Radek Rinn
e-mail: rinn@fld.czu.cz
Phone: +420 602 298 240

- 5.8. All correspondence, instruments, notifications, applications, records and other documents generated pursuant hereto or in connection herewith between the parties shall be made in writing in the Czech language and delivered in person or by registered mail, fax or e-mail to the addresses and attention of the authorised representatives of the parties pursuant hereto.

VI Warranty

- 6.1. The Seller provides a 24-month warranty for the Goods. The warranty shall start on the date of the Goods delivery to the Buyer, or execution of the Goods takeover protocol by the Buyer.
- 6.2. The Buyer shall report warranty defects to the Seller without delay and in writing to the Seller's e-mail address: m.balles@biodur.de. Warranty repairs shall be performed by the Seller free of charge in max. 15 business days from their reporting, unless the Seller and the Buyer agree on another deadline for the defect remedy. In the case of incompliance with this deadline the Buyer shall be entitled to having the defect repaired by a third party at the cost of the Seller, without prior notification of the Seller about this fact.
- 6.3. In the case of warranty repair the warranty period shall be extended by the period from the defect notification by the Buyer to the Seller until the defect remedy by the Seller, or a third party at the cost of the Seller in the sense of the last sentence of Art. 6.2 above herein.
- 6.4. A complaint can be filed on or before the last day of the warranty period and even the warranty claim applied on the last day of the warranty shall be deemed timely filed.
- 6.5. The warranty shall not apply to defects caused by unprofessional handling or mechanical damage to the Goods, unless caused by the Seller itself.
- 6.6. The Buyer hereby reserves the right to request, instead of a warranty repair, replacement of the defective Goods with faultless Goods within the deadline pursuant to Art. VI section 6.2 hereof.
- 6.7. In the case of a defect that cannot be repaired, if at the same time the Seller does not have Goods of comparable type and quality available for replacement, the Buyer shall be entitled to partly withdraw from this Contract within the scope of the defective supply and request refund of part of the paid purchase price corresponding to the value of the defective supply.
- 6.8. The contracting parties have explicitly agreed that in the case of supply of replacement Goods for defective Goods in compliance herewith the warranty period pursuant to Art. 6.1 shall be extended by 12 (in words: twelve) months and the Buyer shall retain all right related to defective supply pursuant hereto and pursuant to the Civil Code.

VII Penalty Clause

- 7.1. If the Seller fails to supply the goods within the deadline pursuant hereto the Buyer may charge and the Seller must pay a contractual penalty in the amount of 0.5 % of the purchase price for each commenced day of the delay.

- 7.2. The Seller shall further be liable to pay to the Buyer a contractual penalty in the amount of 0.05 % of the purchase price for each commenced day of a delay in remedy of warranty defects within the deadline pursuant to Art. VI section 6.2 above herein.
- 7.3. In the case of the Buyer's delay in payment of the invoice the Seller may apply a delay interest towards the Buyer in the amount of 0.05 % of the amount due for each commenced day of the delay in the invoice payment.
- 7.4. Circumstances excluding responsibility shall not affect the liability to pay any charged contractual penalty.
- 7.5. The Buyer shall be entitled to unilaterally offset any contractual penalty against any receivable of the Seller towards the Buyer (including the Seller's claim for the purchase price payment).
- 7.6. If the Seller fails to remedy any defect or backlog specified in the Goods takeover protocol within the deadline specified therein (or if no deadline is specified in the takeover protocol then in 5 calendar days from the Goods takeover), then the Seller hereby agrees with payment of a contractual penalty in the amount of CZK 2,000 for each defect or backlog and each commenced day of a delay in their remedy.
- 7.7. The liable party hereby agrees to pay the charged contractual penalty (penalties) in 14 days from receipt of the charge. The same deadline applies to delay interest payment.
- 7.8. Contractual penalty payment is without prejudice to the rights of the buyer for full damage or loss compensation.

VIII

Damage or Loss Compensation

- 8.1 Loss compensation is governed by § 2894 et seq. of the Civil Code. The contracting parties hereby explicitly agree on the liability to compensate the other party or immaterial damage (such as injury to the reputation of the party) if the affected party may claim any.
- 8.2 The right to damage compensation is constituted together with and in addition to the right to contractual penalty pursuant hereto and other duties constituted hereby.
- 8.3 Damage compensation does not absolve the liable party of its obligation to provide the supply pursuant hereto.

IX

Force and Effect

- 9.1 This contract shall come to force on the date of its execution by authorised representatives of both parties and effect on the date of its publication in the contract register pursuant to Act no 340/2015 Coll., on special conditions of effectiveness of certain contracts and publication of these contract in the contract register (the Contract Register Act), as amended.
- 9.2 This contract may be terminated:
- a) By written agreement between its parties;
 - b) By written notice of the Buyer;
 - c) By withdrawal.

- 9.3** The Buyer may terminate this Contract by notice without giving the reason. The notice period shall be 1 month starting from day 1 of the month following after the month of the notice delivery to the other party.
- 9.4** Withdrawal is only possible for reasons laid down herein or in the applicable legislation. This contract may be unilaterally withdrawn from by the party affected by liability violation by the other party for substantial breach hereof, including (but not limited to):
- a) Non-payment of the purchase price by the Buyer pursuant hereto extending over 30 calendar days from the respective invoice maturity;
 - b) Substantial breach hereof by the Buyer (non-provision of the required assistance to the Seller, not even within an alternative deadline specified by the Seller);
 - c) Non-delivery, due and timely, of the subject hereof by the Seller without remedy in 5 business days from written notification by the Buyer for non-fulfilment hereof;
 - d) Breach by the Seller of the provisions hereof, instructions of the authorised representative of the Buyer or the applicable legislation;
 - e) Failure of the Seller to deliver new, unused and original Goods in compliance herewith;
 - f) Bankruptcy proposal filed by the Seller for itself pursuant to Act no 182/2006 Coll., on bankruptcy and methods of its settlement (Bankruptcy Act), or entry by the Seller in an insolvency proceeding against its property on the basis of a proposal to that effect filed by a creditor of the Seller, with a bankruptcy decision issue, or rejection of the proposal for the reason of lack of property of the bankrupt Seller for payment of the costs of the bankruptcy proceeding, or appointment of a receiver for the property of the Seller pursuant to special legislation;
 - g) Unsubstantial breach hereof by the Seller not remedied within a provided alternative deadline;
 - h) Transfer of the commitments, rights or liabilities following from this contract by the Seller onto a third party without prior consent of the Buyer.
- 9.5** The withdrawal becomes effective at the moment of the notice delivery to the other party's address specified in the header hereof.
- 9.6** The Buyer shall be entitled to withdraw if the Seller, pursuant to the VAT payer register, becomes an unreliable VAT payer.
- 9.7** Termination hereof terminates all commitments of the contracting parties following to them from this contract, except that termination of the contract effect or its cancellation shall be survived by the claims for damage compensation or contractual penalty payments for the reason of contract violation constituted before its termination, and by the contractual provisions whose nature justifies their survival or whose survival is required by law.
- 9.8** The Seller takes up the risk of change of circumstances pursuant to the Civil Code.

X

Conflict of Interests

- 10.1** The Seller hereby agrees that no remuneration, commissions or other benefits not explicitly specified herein shall be received by it in relation to implementation of the public procurement project pursuant to Art. I above herein.

- 10.2** The Seller hereby agrees not to get involved in any activity that might conflict interests of the Buyer given by or related to the subject hereof. The Seller is liable to bind in the same way its subcontractors used for implementation hereof.

XI Force Majeure

- 11.1** The contracting parties shall be absolved of their liability for partial or complete non-fulfilment of their commitments given hereby in the case (and in the scope) of the non-fulfilment caused by a force majeure event or circumstance. The liability for non-fulfilment of a contractual commitment shall not be excluded by an obstacle originating at the time when the contracting party already was in delay with the same liability fulfilment, or from the defaulting contracting party's economic situation.
- 11.2** For the purpose hereof a force majeure event means such extraordinary and irreversible event that the affected party claiming it could not control, or foresee at the moment of this contract execution, and which prevented the party from fulfilment of its contractual liabilities. Such events include (but may not be limited to): war, natural disaster etc. Force majeure does not include error or negligence on the part of the Seller, local or corporate strikes, production outages, power cuts etc. Nor does force majeure include failure of a subcontractor for other than the above mentioned reasons.
- 11.3** In the case of a claimed force majeure event the affected party must immediately inform the other party about the condition, its cause and the assumed end of the condition or its effect. The contracting parties agree to try to find alternative solutions in such case to facilitate implementation of the subject hereof and to provide each other the necessary assistance to that end.
- 11.4** In the case of a force majeure event or effect lasting for more than 3 months and failure of the parties to find an alternative solution either party shall be entitled to withdraw from the contract. In such case the Buyer may decide whether to (i) keep the so far received supply for part of the purchase price corresponding to the scope and quality of the so far received supply, on (ii) return the received supply to the Seller against refund of the price paid for it.

XII Final Provisions

- 12.1** The relationship between the contracting parties is governed by the law of the Czech Republic. Legal relationships constituted hereby or in connection herewith and not explicitly laid down herein shall be governed by the relevant provisions of the Civil Code and other applicable generally binding Czech legislation.
- 12.2** All amendments hereto must be based on written agreement between the parties. The agreement must be in the form of dated and numbered addenda hereto signed by both parties.
- 12.3** If a reason for invalidity only applies to a certain provision hereof then only that provision shall be invalid, unless its nature, content or circumstances of its agreement makes it non-severable from the rest of the contract.

- 12.4** The contracting parties shall always attempt at amicable settlement of disputes resulting from this contract. If no amicable settlement is reached in 30 business days from the first notification of the controversy to the other part either party shall be entitled to address the competent court with its claim.
- 12.5** This contract is made in 4 (four) identical original counterparts, 2 (two) for each party.
- 12.6** The Seller prepared attached Technical Specification of the Subject of Supply forms an integral part hereof.
- 12.7** The Seller unconditionally agrees with publication of the full wording hereof for this contract to be subject of provided information in the sense of Act no 106/1999 Coll., on free access to information, as amended. The Seller also agrees with publication of the full wording hereof pursuant to § 219 of Act no 134/2016 Coll., on public procurement, as amended, and Act no 340/2015 Coll., on special conditions of effectiveness of certain contracts, publication of these contract and on the contract register (the Contract Register Act).
- 12.8** The Seller hereby agrees to be the liable party in the sense of § 2 (e) of Act no 320/2001 Coll., on financial control, as amended. The Seller is liable to fulfil the duties following to it as the liable part from this Act.
- 12.9** The contracting parties hereby claim to have carefully read the contract before its execution and to agree with its content without reservations. They deem the contract to be an expression of their genuine, actual, free and serious will, in witness whereof they cause this contract to be provided by autograph signatures of their authorised representatives.

In Prague, on

in Heidelberg, on August 26, 2019

For the Buyer:
Czech University of Agriculture in Prague

For the Seller:
BIODUR Products GmbH in Heidelberg

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Ing. Jana Vohralíková, Bursar

.....
Dr. Angelina Whalley, Managing Director

Public contract number: P19V00000007
Under the Act: no. 134/2016 Coll.

2. Purchase Contract and Technical Description

b) Annex 2 – Detailed technical specification of the equipment

Our products cover equipment and polymers for all established techniques of plastination, namely for the silicone standard technique, the epoxy technique, and the polyester technique. This assortment is complemented by specialised resins for vessel injection.

Whenever possible, we strive to meet requests for custom-made products, e.g. by manufacturing dehydration or vacuum containers with specific dimensions (as for you).

According to our quotation AN18300105 dated August 27, 2018 we are pleased to present the following products showing detailed descriptions including specifications of all devices.

Item no.	Device Name	Pcs
1	Plastination deep freezer	2
2	Stainless Steel Dehydration Container	2
3	Acetonometer 0 - 100%	1
4	Acetonometer 90 - 100%	1
5	Vacuum Chamber	1
6	Vacuum Pump	1
7	Vacuum Adjustment Unit	1
8	Separator for Oil and Solvents	1
9	Digital Manometer	1
10	Gas Curing Unit	1
11	Conveyor Pump	1
12	Mixing Rod	1
13	Rubber Gloves	1
14	Vacuum Lifting Pads	2
15	Installation	1

1) HK06A1.0 Plastination Deep-Freezer 800 l, 230 V / 50 Hz

Description: With glass sliding lid, for stationary installation, suitable for freeze-substitution with acetone and for forced impregnation. Outer paneling: brushed stainless steel; interior paneling: stainless steel. The freezer will have four holes drilled into the short side facing the wall, so that vacuum tubing can be inserted. BIODUR® freezers are adapted to the special needs of plastination: The bottom has been reinforced by a metal plate, and the refrigeration unit has been removed and placed together with the temperature control unit in a separate case.

Freezer and refrigeration unit are connected by two refrigerant pipes and the cable for the temperature sensor. Thus, the wall between freezer and refrigeration unit has to be equipped with suitable openings for these pipes and cable. All connections (pipes and cable) are manufactured in 2 m length; variations are possible upon request. In case of doubt, contact us for more details on setting up the freezers.

For protection from explosion, the freezer and the compressor housing should be set up in neighbouring rooms. Thus, potential ignition sources are kept away from the actual working area in which flammable solvents will be used. Please note: The operator is responsible for complying with all national, state, local, and institutional safety regulations!

TECHNICAL



Specifications:

Outer dimensions chest:	approx. 2100 x 800 x 830 mm (L x D x H)
Inner dimensions chest:	approx. 1960 x 655 x 640 mm (L x D x H)
Inner and outer lining:	Stainless steel
Dimensions of cooling unit (L x W x H):	approx. 500 x 325 x 270 mm (without valves) approx. 500 x 375 x 270 mm (with valves)
Capacity:	800 l
Weight approx.:	280 kg freezer chest 29,5 kg cooling unit
Noise level:	< 70 db(A), typical: 52 db(A)
Voltage / Frequency:	230 V / 50 Hz
Nom. Current:	3,9 A
Starting current:	Up to 35 A
Fuse:	16 A
Power consumption:	approx. 12 kWh/24 h
Protection:	IP23
Refrigerant / Amount:	R 404A / 760 g
Connecting tubings:	Standard: 2 m
Range of adjustment from ... to:	-23 °C ... -18 °C
Allowable ambient temperature	+16 °C ... +25 °C

2) SOB19 Stainless Steel Dehydration Container, large, custom made

Description: Large Dehydration Container well suited for the dehydration of large specimens (e.g., medium sized animals) by freeze-substitution. Made of stainless steel, with lid. Fits our Plastination Deep Freezer HK06A1.0 (lid with two handles). The outer faces are brushed.



Dimensions, custom made:	970 x 640 x 635 mm (outer dimensions)
Capacity:	approx. 360 l
Weight:	approx. 75 kg

3)+ 4) HD01A1.0 / HD02A1.0 Acetonometer 0 - 100% / 90 – 100%

Acetonometer comes with a graduated plastic cylinder of suitable size. Scaled glass areometer for the determination of the acetone concentration in acetone-water mixtures on

- a) a coarse (0% to 100%) scale, calibrated at +20°C, length approx. 290 mm, and
- b) a fine (90% to 100%) scale, calibrated at +20°C, length approx. 390 mm.

Measurements are taken with the included graduated cylinder. The percentage volume of acetone is read directly from the immersion level.



5) SOB19 Vacuum Chamber, custom made size

Description: Freezer insert made from stainless steel for forced impregnation. One side has straight, small flange fittings for vacuum tubing for connecting a manometer, a vacuum adjustment device, and a vacuum pump. The lid is made from 10-mm-thick safety glass, so that the impregnation process can be monitored and controlled. The glass lid is supported by a stainless steel insert.

This Vacuum Chamber is suitable for specimens such as medium sized animals. Fits Freezer HK06A1.0 and includes 3 m of Vacuum Tubing HI07A1.0.

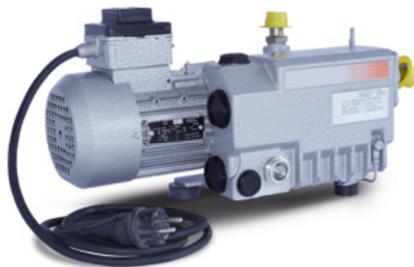


Specifications:

Dimensions:	1200 x 570 x 620 mm (outer dimensions)
Capacity:	approx. 290 l
Weight:	Ca. 150 kg
Glass lid:	Toughened safety glass
Gasket:	Silicone
Connectors:	2 x Hose nozzle DN10 2 x ISO Small flange DN16

6) HI20A1.0 Vacuum Pump 10 m³/h, 230 V

Rotary vane vacuum pumps, for crude and fine vacuum generation in plastination. One filling of pump oil is included. For impregnation baths of up to approx. 120 l, recommended for the above mentioned Vacuum Chamber (see 4)).



Specifications:

Nominal displacement:	10 m ³ /h (50 Hz) 12 m ³ /h (60 Hz)
Ultimate pressure:	2 mbar
Nominal motor rating:	0,37 kW
Nominal motor speed:	3000 min ⁻¹ (50 Hz) 3600 min ⁻¹ (60 Hz)
Noise level (DIN 45635):	59 dB (A) (50 Hz) 63 dB (A) (60 Hz)
Operating temperature:	73°C (50 Hz) 85°C (60 Hz)
Weight (approx.):	16 g

7) HI11A1.0 Vacuum Adjustment Unit

For adjustment of the vacuum. Consists of a Y-shaped vacuum tubing system with two Vacuum Adjustment Valves HI10A1.0. The adjustment unit allows for finer adjustment than a single valve.



8) HI09A1.0 Separator for Oil and Solvents, large

Condensation and collecting vessels for extracted solvent vapour and oil aerosol generated during forced impregnation. Consists of a plastic barrel with removable lid. Lid has connectors for vacuum tubing (included 2 x 2 m).

Vacuum tubing is used to connect the separator with the vacuum pump on the one side and with waste air exhaust on the other side.

Volume :	approx. 30 l
Collecting Capacity:	approx. 25 l
Empty weight:	approx. 3.6 kg
Connectors:	ISO-small flange DN16
Materials:	
Container:	HD-PE
Lid gasket:	EPDM Sponge Rubber
Connectors:	Stainless steel
Centering Ring:	Stainless Steel/FPM
Hose Nipple:	Aluminium
Clamping Ring:	Aluminium
Dimensions:	Outer diameter of container (incl. handles) approx. 340 mm
	overall height (without hose nipples) approx. 540 mm



9) HI14A1.0 Digital Manometer

Description: Allows digital measurement of the vacuum. Manometer comes with a 9 V battery.



Specifications:

Measuring Range:	0...1300 mbar abs.
Overload:	max. 2 bar abs.
Resolution:	1 mbar
Accuracy (device):	1 mbar +/- 1 digit
Drift (device):	0.01% / K
Nominal temperature:	25°C
Power Supply:	9 V battery (included)
Power Consumption:	approx. 5 mA
Casing:	ABS plastic, black
Weight:	340 g
Dimensions:	150 x 86 x 30 mm

10) HH09A1.0 Gas Curing Unit, large, 230 V / 50 Hz

Description: Gas Curing Units are used for curing of silicone-impregnated specimens with special silicone hardener BIODUR® S 6 (crosslinker). Its modular structure (unit consists of a supply unit and at least one gas curing box) meets requirements for explosion protection yet allows for operation of several different boxes with one supply unit (see diagram page 45 BIODUR® catalogue), making refitting with small or medium gas curing boxes possible. In addition, the units allow for optimal monitoring of the curing process. HH09A1.0 consists of a Large Gas Curing Box Unit HH13A1.0 and Supply Unit HH10A1.0.



HH10A1.0 Supply Unit for Gas Curing Boxes

The supply unit provides both a 12-V power supply for the fan and air flow for vapourising the gas hardener. Suitable for connection of up to three small Gas Curing Boxes or one large or medium box. Power cord: approx. 3 m. Mains connection: 230 V / 50 Hz.

Specifications:

<i>Dimensions (approx.):</i>	425 x 315 x 250 mm (w x d x h)
<i>Materials (Body):</i>	Polypropylene/Aluminium
<i>Connections for Air Tubes:</i>	3 x for a tube ID 4
<i>Electrical Outlet for Gas Curing Box:</i>	12 V DC; 1 x XLR-panel connector for 3 pins
<i>Length of Power Cord:</i>	approx. 5 m
<i>Power Supply:</i>	230 V AC, 50 Hz
<i>Fuse:</i>	3 A
<i>Rated Power:</i>	160 W max.
<i>Noise Level:</i>	< 70 db(A), typical: 48 db(A)
<i>Weight:</i>	7.7 kg



Front of supply unit HH10A1.0.

1 = Indicator light: Power switch turned on

2 = Power switch

3 = Indicator lights: Operation of pumps and supply voltage for the fan.

4 = Switches for pumps and supply voltage for fans

5 = Power cord receptacles for connecting the power cord to the fans

6 = Bulkhead connectors for attaching the air tubes.

HH13A1.0 Gas Curing Box, large

For curing of large silicone-impregnated specimens. The package includes the box with fan, three stainless steel draining grids, three stainless steel metal trays, three glass jars, air tubing, and power cord.

Specifications:

Inner dimensions (w x d x h:)	approx. 1650 x 750 x 670 mm
Material box:	Polypropylene / Aluminum
Material lid:	Acrylate / Aluminum
Connections, Air Supply:	3 x for a tube ID 4
Connections, Exhaust Air:	1 x for a tube ID 8
Length of power cord:	approx. 6 m
Length of air supply tubes:	approx. 6 m
Fan labeling:	II 3 G EEx nC IIC T4
Fan speed:	approx. 8,200 min-1
Electrical connector:	1 x XLR male connector, 3 pins
Voltage:	12 V DC
Rated power:	9.8 W
Rated current:	820 mA
Weight:	27 kg

11) HD16A1.0 Conveyor Pump (pneumatic) 230 V

Description: Explosion-proof stainless steel pump for safe transfer of larger amounts of acetone.

Specifications:

Length of suction pipe:	1 m
Standard length of connecting hose:	2 m (different lengths are available upon request)
Capacity:	approx. 160 l/min, depend. on conveying conditions
Power Supply:	230 V / 50 Hz
Voltage:	470 W
Max. operating pressure:	6 bars



(electrically driven pump type is shown)

12) HD17A1.0 Mixing Rod, large

For mixing of impregnation resins and hardeners. The mixing rods can be clamped into a standard drilling machine. Approx. 59 cm long.



13) HA12A1.0 Rubber Gloves , 1 pair

Strong and elastic material, for high mechanical stress. The gloves protect reliably up to above the forearm against liquids, e.g., silicone resins, and offer very good low temperature flexibility. Length of 1 pair: 60 cm, color: beige.



14) HI28A1.0 Vacuum Lifting Pads

Facilitates lifting of glass plates from plastination kettles or vacuum chambers. Maximum load: 150 kg.



15) Installation

Installation of all the equipment in agreement with the customer.