

# Technical Specification

Product: Bone Degreasing Unit „BDU 1370-50“  
Cat.-No.: MA-1370-50

## Bone Degreasing Unit, Typ.„BDU 1370-50“

For use in anatomy and preparation for chemical-thermal degreasing of bone specimens by use of methylene-chloride (dichlormethane) in a closed low-temperature vapor-degreasing system at 41 °C.  
Applications: anatomy and museum taxidermy

Type: 1370

### Concept and Standard Features

Compact unit for odorless bone degreasing (closed system) with integrated extraction of hazardous fumes via a filter-system into the atmosphere.

Compact unit in following configuration:

- Durable stainless steel frame construction complete with integrated st. st. safety tray for collection of fluids and step-on grate.
- Hermetical tight vessel with ca. 200 litre volume and drain-stud, extraction system, specimen basket, grease collection plate and special closing mechanism with 2 viton seal rings. Double-wall lid-system with cooling system with hydr. dampers for easy opening / closing.
- Container with alu-oxyde filter pellets and duct-stud for leading cleaned fumes into the atmosphere.
- Integrated fan system for removal of gases
- Autom. control system for functions: Degreasing, Distillation, Drying (located in integrated control box)
- Digital temperature display (set /actual)
- Electr. heater 3,0 Kw

### Design and Components:

- a) Bone degreasing chamber (stainless steel)  
Inner dimensions: 500 (Dia.) x 750(H) mm  
Double bottom construction for indirect heating by means of heating medium (water or glycerine).  
Heater 3,0 KW total heating capacity.  
Double wall lid with special viton seal-rings (2) for totally hermetical sealing during degreasing process



BDU-1370-50 Bone Degreasing Unit with DCM-recycling and bone drying modules.  
Degreasing chamber size: 500mm AD x 900mm



BDU 1370-50 with process chamber with patented screen-shower (left), DCM recycling system (middle) and dryer (below right).

# Technical Specification

The lid is supplied with a weight neutralisation system and a gas-pressure shock absorber, so that the opening / closing procedure is done easily by any person. The lid is never hot as it is cooled and the operating temperature does not exceed the value of 55°C. The lid has a double wall with connectors for the water-cooling system (tap water or closed cooling circuit). The volume is appr. 15 Liter / min. The bottom of the lid is supplied with a so called „drop shower“, which allows the condensed degreasing medium to run over the bone specimens. The bone-specimens are either placed in the st. st. basket or hung onto a special cross-bar into the vapor of the degreasing fluid.

The inside of the degreasing vessel is pickled and brushed. The lid carries a safety switch which allows the heating of the system only if the lid is fully closed!

Degreasing vessels in other sizes are available on request!

- b) Bone grease collection plate  
Located below or inside the degreasing chamber.  
Material: Stainless steel EN-DIN 1.4301
- c) Water separation unit
- d) Integrated fan-system via alu-oxide-filter (pellets)  
Drying temperature: room-temperature
- f) Refrigeration unit (Option).  
Cooling capacity: 1,8 kW, heating capacity: 2,7 kW

## Paneling and fittings

Degreasing vessel totally insulated with 40mm thermo-material.  
Outer insulation made of stainless steel - brushed (K320).  
Spillwater protected design. Adjustable feet for accurate and plane leveling and installation (option).  
Direct access to all fittings, heaters and further components.

## Electric components

- Thermo-fuse (55°C). Overheating protection.
- Electronical thermo-sensor, type PT 100
- Thermometer for controll of heating-temperature
- Niveau-display for heating-medium (water)



Dichlormethane (DCM) – Recycling Unit with condenser and storage tank of reusable DCM.



Process basket with bone specimens (separated and identified in jute bags)



Process basket with rods for specimen hooks.

# Technical Specification

## Fittings

- 3 automatic electr. operated ball-valves
- 2 automatic solenoid valves
- Filling stud for the heater-medium
- Manual drain valves
- Filling valves / drain valves / overflow valves

Control box made of stainless steel for the control of the bone degreasing unit. Dustfree- and splashwater protected design with door seal.

Inclusive:

Electronical temperature controller with digital display.  
Control lamps for all functions as well as thermo-fuses, protectors and other safety components.

## Functions

Digital display of: temp. of heating medium, temp. of cooling circuit, temp. of process chamber.

Control of: Overtemperature of heater-medium.

Function knobs: On / Off-Switch. Degreasing. Distillation. (for clean separation of bone grease, degreasing medium and process-water).  
Drying (drying of bones at room-temperature by integrated drying system).  
Process interruption lamp for all of the listed functions.

## Technical data

Voltage: 3Ph / N / PE / 400V / 50Hz  
Power: 6 KW  
Current: max. 20A  
Operating temperature: adjustable from +41 °C until + 55 °C  
Material of all parts: Stainless steel EN/DIN 1.4571 (AISI 316) for all parts in contact with the degreasing fluid.

Degreasing medium: Methylene chloride „Osteo XZ 96-605“



Heated outlet for bone grease sideways for easy access and effectivity.

# Technical Specification

## Dimensions:

Outer dimensions: 1600(B) x 1100(T) x 1980(H)mm  
Vessel dimensions: 500(Dia.) x 1200(H)mm  
Square vessels also available!

Weight: appr. 390kg

The following conditions must be available at user's site:

- Electric power 3 x 400 V / 50 Hz / 25 A
- Output: ca. 3 kW
- Connector cold water: 1/2"
- Drain cold water: 1/2"
- Drain water stud: OD 25mm
- Extraction stud: OD 65mm
- Elektrical-Mains Connection (3x400V)

## Optional Accessories

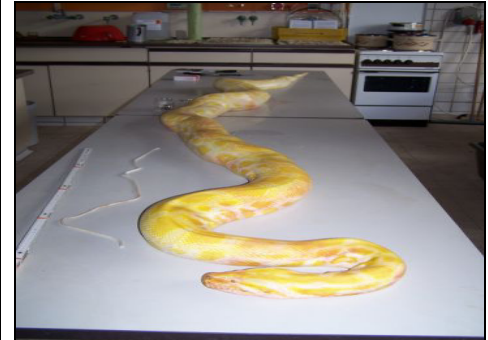
Fridge unit (2 kW) for closed cool-water circuit instead of tap-water supply (integrated in bone degreasing unit).

Several accessories like inserts, deviders, specimen-organisers, strainers, bone mounting rods etc. on request!

## Country of Origin

Manufactured in Germany acc. to EN norm and the health & safety regulations of Germany.

Results from the Musuem of Natural History in Stuttgart / Germany processed in the BDU 1370-50:



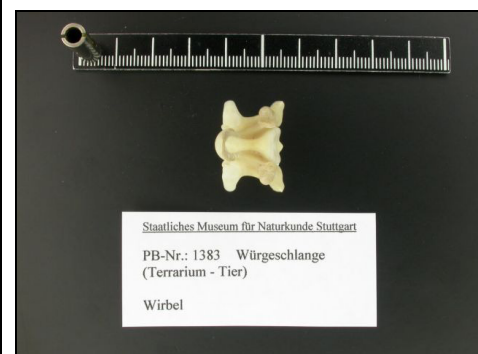
Pyton constrictor snake (albino terrarium animal)



Rib

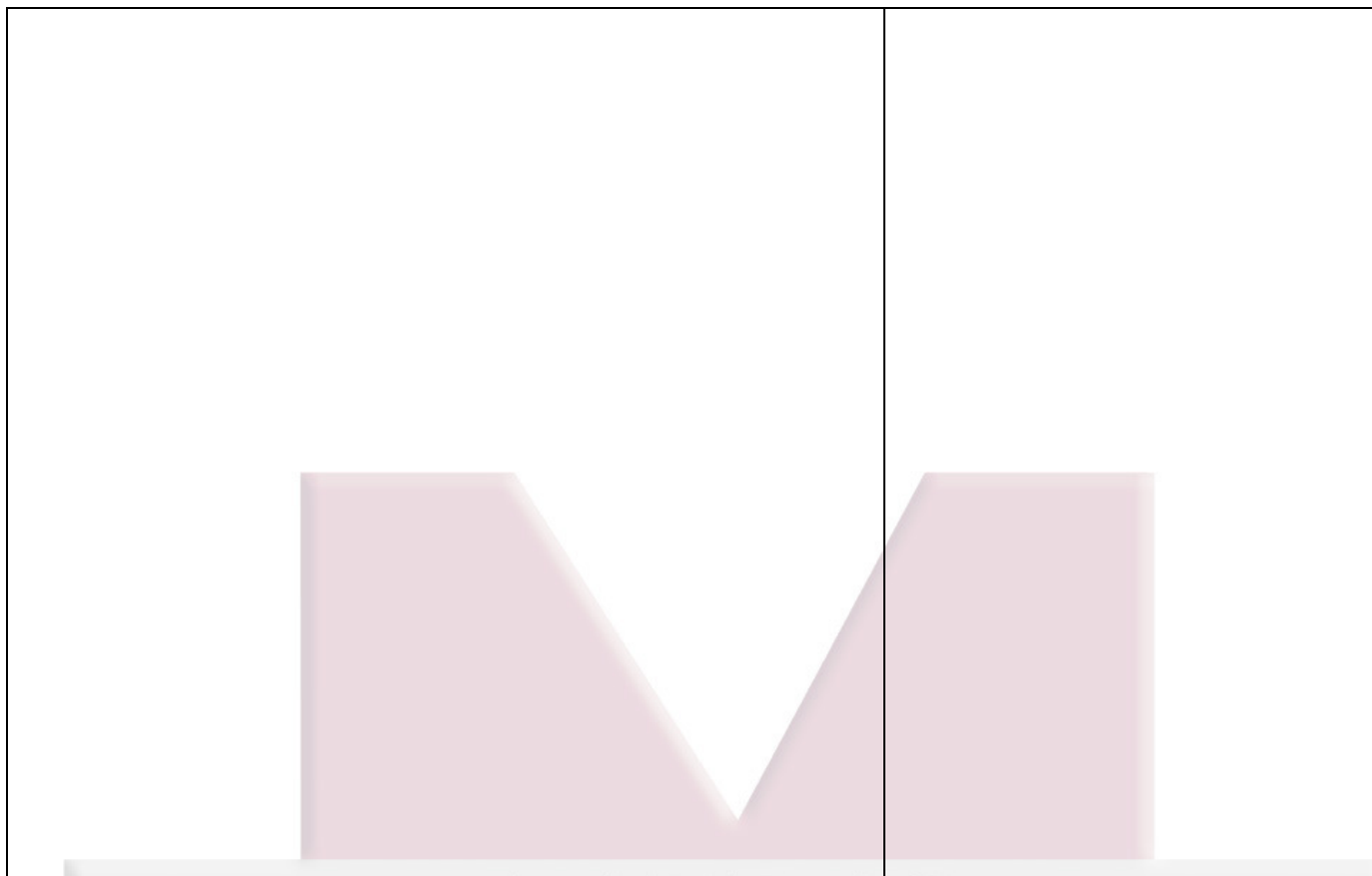


Head



Vertebra

# Technical Specification



MEDIS  
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