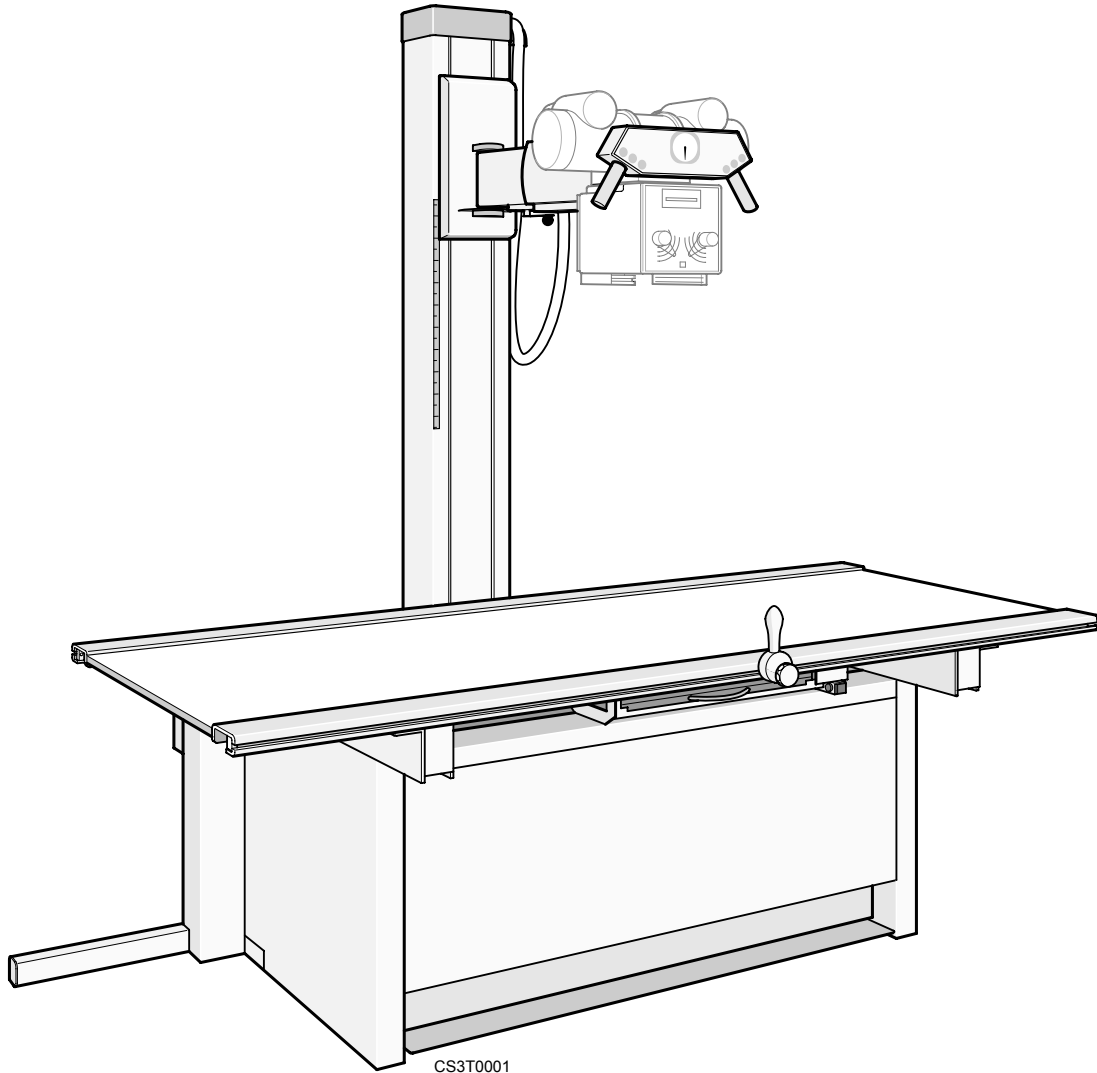


Mounting Instructions

CS 3000



CE 1275

CS 3000

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CS 3000

1 General Safety notes

1.1 Warning Statements and Symbols

The following safety precautions in this Operating Instruction call attention to potentially dangerous conditions. These symbols for especially important tasks are used:



NOTE!

Specific information concerning the economical use of the Elevator-2.



Attention! Particular statements regarding commandment or interdiction for damage protection.

Danger!

Specific information concerning commandment or interdiction to avoid bodily injury or substantial property damage.



Danger!

Radiation.



Danger!

This unit is not intended for operation in areas where there is a risk of explosion.

Only such skin-cleaning agents whose gas-air mixture is not flammable may be used.



Danger!

If you use disinfectants, which form explosive mixtures of gases, these must first evaporate before switching on the x-ray equipment.



Attention!

When connecting Bucky or Detector please follow the installation instruction of the manufacturer.



ESD – Electrostatic Discharge of Components.

PC-Boards, pins and plugs which are marked with this label should not be touched with bare hands that means there should be no connection between these plugs without appropriate ESD-protection.



Degree of protection Type B. This application unit is special isolated. Thereby a high degree of protection against electrical shock is accomplished.

1.2 Abbreviation

SID source image distance = FFA

CS 3000

1.3 General Safety instructions

1.3.1 Ground wire connection

All work must be carried out according to the technical work instructions.

During work procedures or prior to starting up the unit make sure that all protective ground wires provided by the manufacturer are connected properly.

This applies; for example, to all metallic trim covers, which may cause in a fault, condition a dangerous contact voltage. They must always be connected to the protective ground wire terminal. To ensure this, the connection between these covers and the protective ground wire must be made with screws and lock washers, or via protective ground wires provided.



This symbol means ground wire connecting point.

The protective ground wires must be connected between the system components and the power supply as shown in the schematics.

Make a protective ground wire test before turning on the unit and after any service and maintenance inspections.

1.3.2 Personal safety measures (Work protection)

The regulations governing occupational safety and accident prevention must be observed, primarily in the interest of the person who is performing the work. The advice below must be regarded primarily as additional information.

1.3.3 Working with electrical power

No work may be performed on parts carrying a voltage higher than 50 VDC or. 120 VAC. Always turn off power by using the emergency off switch.

This restriction does not apply for measurements and adjustment procedures. Special care is required. Only such tools and measuring instruments may be used which are suitable for the intended use.

Measuring- and adjustment points must be reached without getting in a dangerous situation of the worker. If this is not possible, turn off power.

If it is necessary to switch on power during a procedure for example to make movements of the system, the power must be disconnected immediately after completion of the procedure.

1.3.4 Body protection aids

It is mandatory to use the appropriate body protection aid. Care for the applicable safety instructions.

1.3.2 X-ray protection

Ionizing radiation can lead to radiate irreparable damages at inappropriate exposure. When applying radiation in any case the required protection measures must be followed.

1.3.3 Obligation of notification

The supervisor in charge must be notified at once if there has been accident or if there are any hazards, which may cost an accident.

C.f. check for proper instructions.

CS 3000

1.3.4 Screw connections

Torques for screw connection.

All existing screw connections must be tighten properly but they never must be over tighten
The indicated torques must be used in any case!



Screw connections

Torques for screw connection

All existing screw connections must be tighten properly but they never must be over tighten .The indicated torques must be used in any case!

Tightening torque according DIN EN 150 4014 for screw strength 8.8 Nm.

| | | |
|---------------|---------------|----------------|
| M4 = 2,4 Nm | M6 = 8,0 Nm | M8 = 16,0 Nm |
| M10 = 40,0 Nm | M12 = 69,0 Nm | M16 = 170,0 Nm |

1.3.8 Locking lacquer

All components witch are secured with locking lacquer should only be opened and adjusted by the service personnel.

1.3.5 EMC measurements for electrical components

The used integrated circuits and pc boards which are stuffed with electrical components care for EMC protection during handling and adjustments.

The required EMC protection must be used.

1.3.6 Handling of heavy loads

Not only to wear the needed protection cloth e. g. Safety shoes and gloves you also should take care while lifting or moving heavy loads, to avoid health damage e.g. spine injury.

The special notes to be observed.

Heavy or unhandy loads are to be handled and moved with technical aids or by using several people.

1.3.7 Room installation

In the Federal Republic of Germany, electrical installation of rooms used for medical purpose must conform to the VDE Regulation 0107. In all other countries, the specific national regulation primarily must be observed. These can be found in the project plan.



Attention:

All safety instructions must be followed during work procedures and testing. Additionally the local applicable regulations must be followed (e. g. work protection - and accidental safety measures).

CS 3000

1.3.8 Installation with other Units



Attention!

The CS 3000 should not be installed or operated in the direct nearness of other electronic units.

Should it be however necessary make sure that the CS 3000 is functioning properly.

1.4 General Regulation for safety acc. EN 60601-1-2-2002

| Guidance and Manufacturer's Declaration - Electromagnetic Emissions | | |
|---|------------|--|
| The CS 3000 is intended for use in the electromagnetic environment specified below. The customer or the user of the CS 3000 should assure that it is used in such an environment. | | |
| Emissions test | Compliance | Electromagnetic environment – guidance |
| RF-emissions Acc. CISPR 11 | Classe B | The CS 3000 is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes. |
| Harmonic emissions Acc. IEC 61000-3-2 | Classe A | |
| Voltage fluctuations/ Flicker emissions Acc. IEC 61000-3-3 | complies | |

Table 201

CS 3000

| Guidance and Manufacturer's Declaration - Electromagnetic Emissions | | | |
|---|---|---|---|
| The CS 3000 is intended for use in the electromagnetic environment specified below. The customer or the user of the CS 3000 should assure that it is used in such an environment. | | | |
| Immunity est | IEC 60601 Test level | Compliance level | Electromagnetic environment – guidance |
| Electrostatic Discharge (ESD) acc. IEC 61000-4-2 | ± 6 kV Contact ± 8 kV Air | ± 6 kV Contact ± 8 kV Air | Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30%. |
| Electrical fast transient/bursts aac. IEC 61000-4-4 | ± 2 kV for Power supply lines ± 1 kV for I/O lines (input/output) | ± 2 kV for Power supply lines ± 1 kV for I/O lines | Mains power quality should be that of a typical commercial or hospital environment. |
| Surges aac. IEC 61000-4-5 | ± 1 kV differential mode ± 2 kV common mode | ± 1 kV differential mode ± 2 kV common mode | Mains power quality should be that of a typical commercial or hospital environment. |
| Voltage dips, short interruptions and voltage variations on power supply input lines acc. IEC 61000-4-11 | < 5 % U_T (> 95 % dip in U_T) for 0,5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles < 5 % U_T (> 95 % dip in U_T) for 5 s | < 5 % U_T (> 95 % dip in U_T) for 0,5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles < 5 % U_T (> 95 % dip in U_T) for 5 s | Mains power quality should be that of a typical commercial or hospital environment. If the user of the CS 3000 requires continued operation during power mains interruption, it is recommended that the CS 3000 be powered from an interruptible power supply or a battery. |
| Power frequency (50/60 Hz) Magnetic field acc. IEC 61000-4-8 | 3 A/m | Not applicable | Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment |
| NOTE U_T is the a.c. mains voltage prior to application of the test level. | | | |

Table 202

CS 3000


| Guidance and Manufacturer's Declaration - Electromagnetic Emissions | | | |
|---|--|--------------------|---|
| The CS 3000 is intended for use in the electromagnetic environment specified below. The customer or the user of the CS 3000 should assure that it is used in such an environment. | | | |
| Immunity test | IEC 60601 Test level | Compliance level | Electromagnetic environment – guidance |
| | | | Portable and mobile RF communications equipment should be used no closer to any part of the CS 3000, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter. Recommended separation distance |
| Conducted RF acc. IEC 61000-4-6 | 3 V _{eff} 150 kHz 80 MHz | 3 V _{eff} | $d = 1,2\sqrt{P}$ |
| Radiated RF acc. IEC 61000-4-3 | 3 V/m 80 MHz to 2,5 GHz | 3 V/m | $d = 1,2\sqrt{P}$ 80 MHz to 800 MHz |
| | | | $d = 2,3\sqrt{P}$ 800 MHz to 2,5 GHz |
| | | | Where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in meters (m). Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey ^a should be less than the compliance level in each frequency range ^b . Interference may occur in the vicinity of equipment marked with the following symbol:  |
| NOTE 1 | At 80 MHz and 800 MHz, the higher frequency range applies. | | |
| NPTE 2 | These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people. | | |
| a | Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To access the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the CS 3000 is used exceeds the applicable RF compliance level above, the CS 3000 should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as reorienting or relocation the CS 3000. | | |
| b | Over the frequency range 150 kHz to 80 MHz, field strengths should be less than [V ₁] V/m. | | |

Table 203

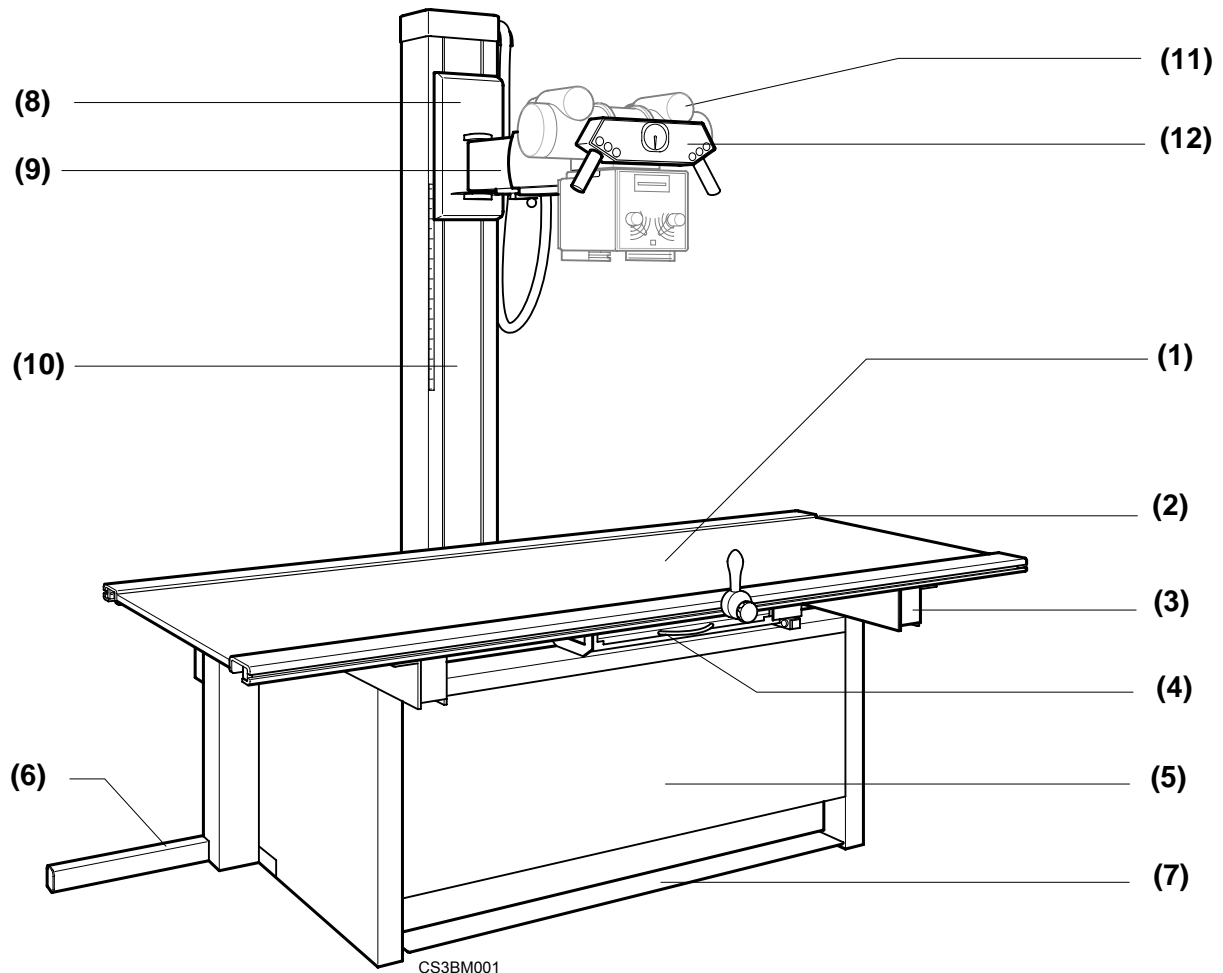
CS 3000

| Recommended separation distance between Portable and mobile RF communications equipment and the CS 3000 | | | |
|---|--|--|---|
| The CS 3000 is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or user of the CS 3000 can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitter) and the CS 3000 as recommended below, according to the maximum output power of the communication equipment. | | | |
| Rated maximum output power of transmitter W | Separation distance according to frequency of transmitter m | | |
| | 150 kHz to 80 MHz $d = 1,2\sqrt{P}$ | 80 MHz to 800 MHz $d = 1,2\sqrt{P}$ | 800 MHz to 2,5 GHz $d = 2,3\sqrt{P}$ |
| 0,01 | 0,12 | 0,12 | 0,23 |
| 0,1 | 0,38 | 0,38 | 0,73 |
| 1 | 1,2 | 1,2 | 2,3 |
| 10 | 3,8 | 3,8 | 7,3 |
| 100 | 12 | 12 | 23 |
| For transmitters rated at a maximum output power not listed above, the recommended separation distance d in meters (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer. | | | |
| NOTE 1 To calculate the recommended separation distance of transmitters in the frequency range at 80 MHz to 2,5 GHz an additional factor of 10/3 was used, to limit the possibility for the patient area that unintentional brought in mobile or portable communication equipment can cause any disturbance. | | | |
| NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people. | | | |

Table 204

CS 3000

2 Component designation left hand version (Standard version)



III. 1

- (1) Table top floating, moved manually, scratch-resistant
- (2) Profile rail, covered, smooth, for attachment of accessories
- (3) Table upper frame
- (4) Bucky moveable
- (5) Table base
- (6) Rail assembly for column stand left hand version (Standard version)
- (7) Foot switch
- (8) Vertical carriage
- (9) Tube support arm
- (10) Column
- (11) X-ray tube
- (12) Control handle with protractor

CS 3000

3 Technical Data

3.1 Electrical Data

| | |
|--------------------------|---------------------|
| Rated Voltage, Frequency | 115/230 V, 60/50 Hz |
| Rated current | 2/1 A |

3.1.1 Weights

| | |
|---|--------|
| Table | 187 kg |
| Column | 120 kg |
| Tube support arm fixed | 20 kg |
| Tube support arm pivoting | 25 kg |
| Tube support arm pivoting and telescopic function | 25 kg |
| Total weight of tube and collimator | 40 kg |

3.1.2 Environmental Conditions

| | Operation | Shipping | Storage |
|----------------------------|---------------------|---------------------|---------------------|
| Ambient temperature range: | +10°C to +40°C | -20°C to +60°C | -20°C to +60°C |
| Relative humidity: | 20 % to 70 % | 10 % to 90 % | 10 % to 90 % |
| Atmospheric pressure: | 700 hPa to 1060 hPa | 500 hPa to 1060 hPa | 500 hPa to 1060 hPa |

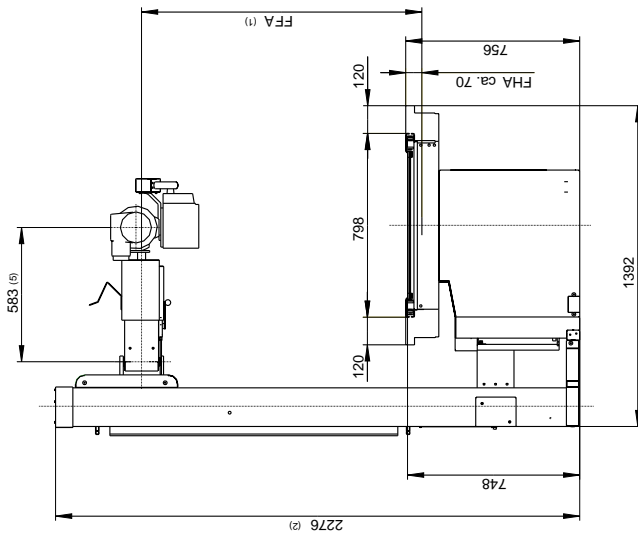
3.1.3 Packing and Transport lanes

| | | | |
|--------------------------|---------------|--------------|---------------|
| Palette Table | Length 1,60 m | Width 0,75 m | Weight 217 kg |
| Card box table top short | Length 2,10 m | Width 0,91 m | |
| Card box table top long | Length 2,30 m | Width 0,91 m | |
| Palette Column | Length 2,41 m | width 0,76 m | Weight 163 kg |
| Heaviest single part | 187 kg | | |
| Min. door width | 0,90 m | | |

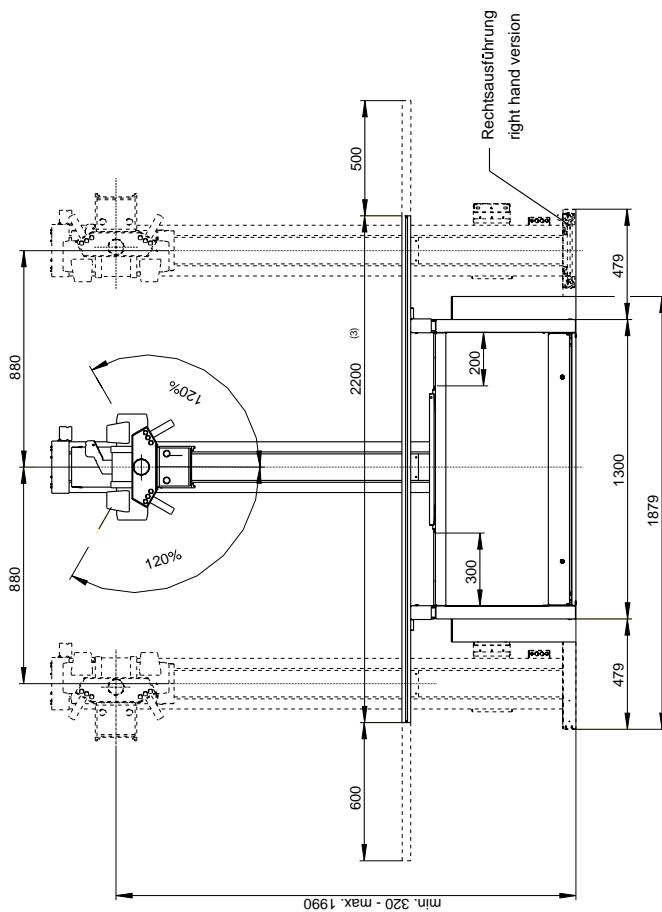
CS 3000

4 Room planning

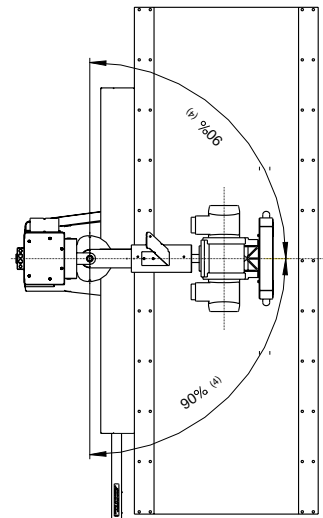
4.1 Dimensional drawing



- (1) FFA = 1300max. / SID = 1300max.
- (2) erforderliche Raumhöhe 2,45m (für Montage)
required room height 2,45m (for mounting)
- (3) auch 2000 möglich
also 2000 possible
- (4) nur bei Ausf. schwenkbar und transversal
only in version pivoting and telescopic
- (5) ± 72 nur bei Ausf. transversal
± 72 only in version telescopic

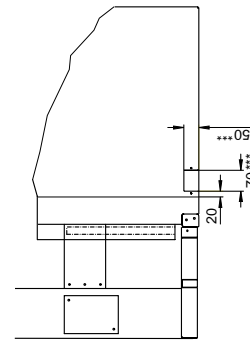
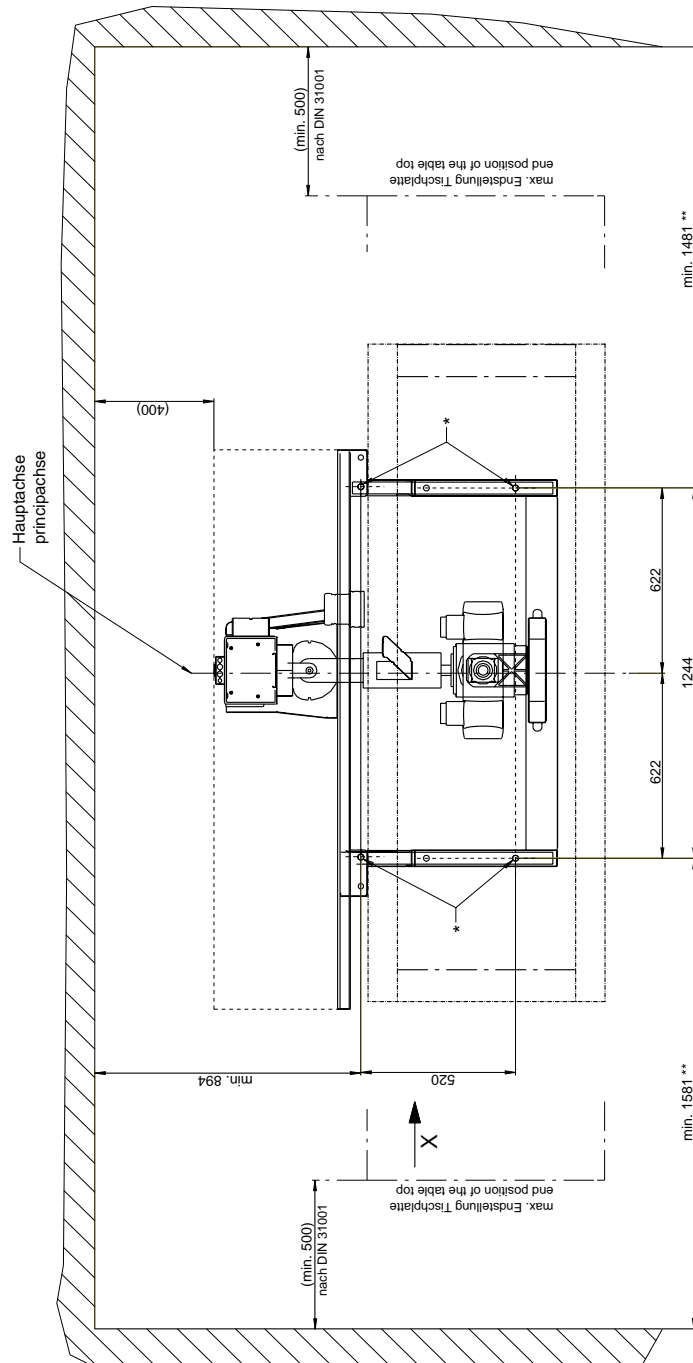


III. 2



CS 3000

4.2 Dimensional drawing floor mounting holes (Left hand version)



* 4 Befestigungsbohrungen Ø20
4 floor mounting holes Ø20

** ohne Wandstativ

bei Rechtsausführung um Hauptachse gespiegelt

without Wallstand

only for right hand version mirror view around the principal axis

*** Öffnung für Kabelaustritt

bei Linksausführung auf der rechten Seite des Gerätes zulässig

bei Rechtsausführung auf der linken Seite des Gerätes zulässig

opening for cable exit

for left hand version permissible on the right side of the unit

for right hand version permissible on the left side of the unit

CS 3000

4.3 Constructional preparations

The electrical connections must comply with the equipment supply voltage.

For the CS 3000 only a supply voltage of 115/230 V and a suitable ground connection is required.

The fastening points of the CS 3000 must support a tensile stress of 2500 N at each mounting point. E.G. Liebig safety dowels S12/65 for B 150 DIN 1045 when using supplied fastening material.

Prepare the floor mounting holes with an \varnothing 12 mm/472 in. drill according dimensional drawing on page 14.

The power cable for the CS 3000, the cable for the Bucky/Detector and ion chamber must be routed depending of the version used to the interface plate in the table or all the way to the Bucky/Detector.

The optional sealing or wall connection box can be mounted either to the wall or sealing as needed.

4.4 Measuring tools required

- Machinist water level

4.5 Special tools required

- Rotary hammer
- Masonry drill \varnothing 12 mm
- Socket cup wrench | 6 mm and 4 mm shortened are supplied.

4.5.1 Mains connection data

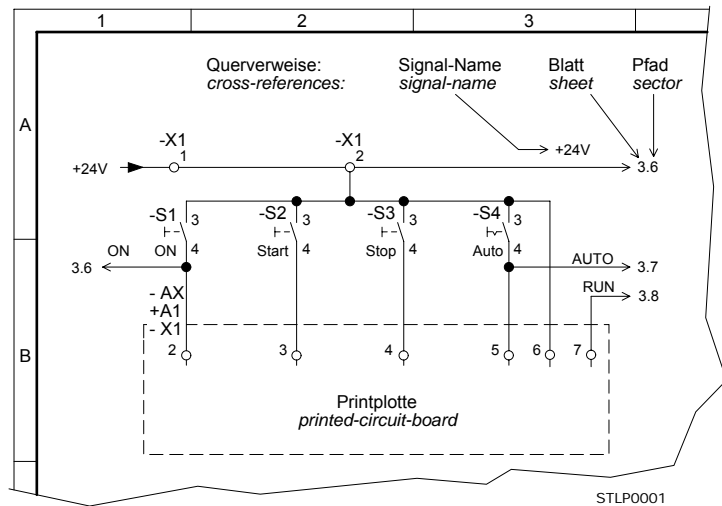
| | |
|---------------------|-------------|
| Line power: | 115 / 230 V |
| Frequency: | 50 / 60 Hz |
| Nominal fu | 2 / 1 A |
| Nominal line power: | 230 VA |

CS 3000

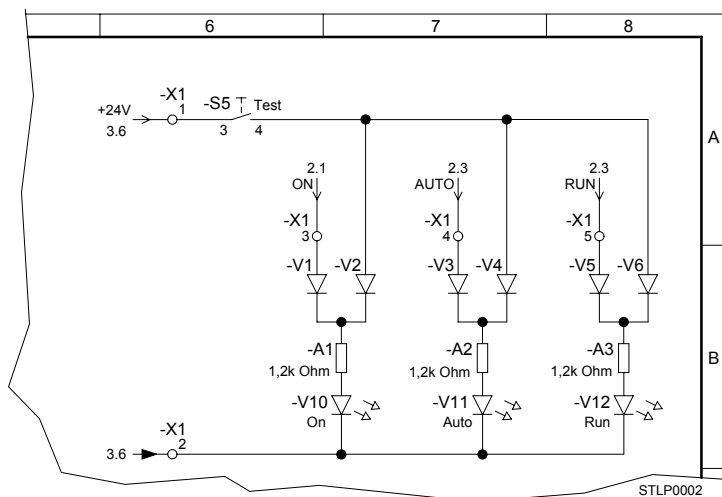
5 Schematics

5.1 Description for schematics

..... Schematics sheet 2
=AX Control panel
=Unit, Designation



..... Schematics sheet 3
=AX +A2 Control panel
=Unit, +Place, indication

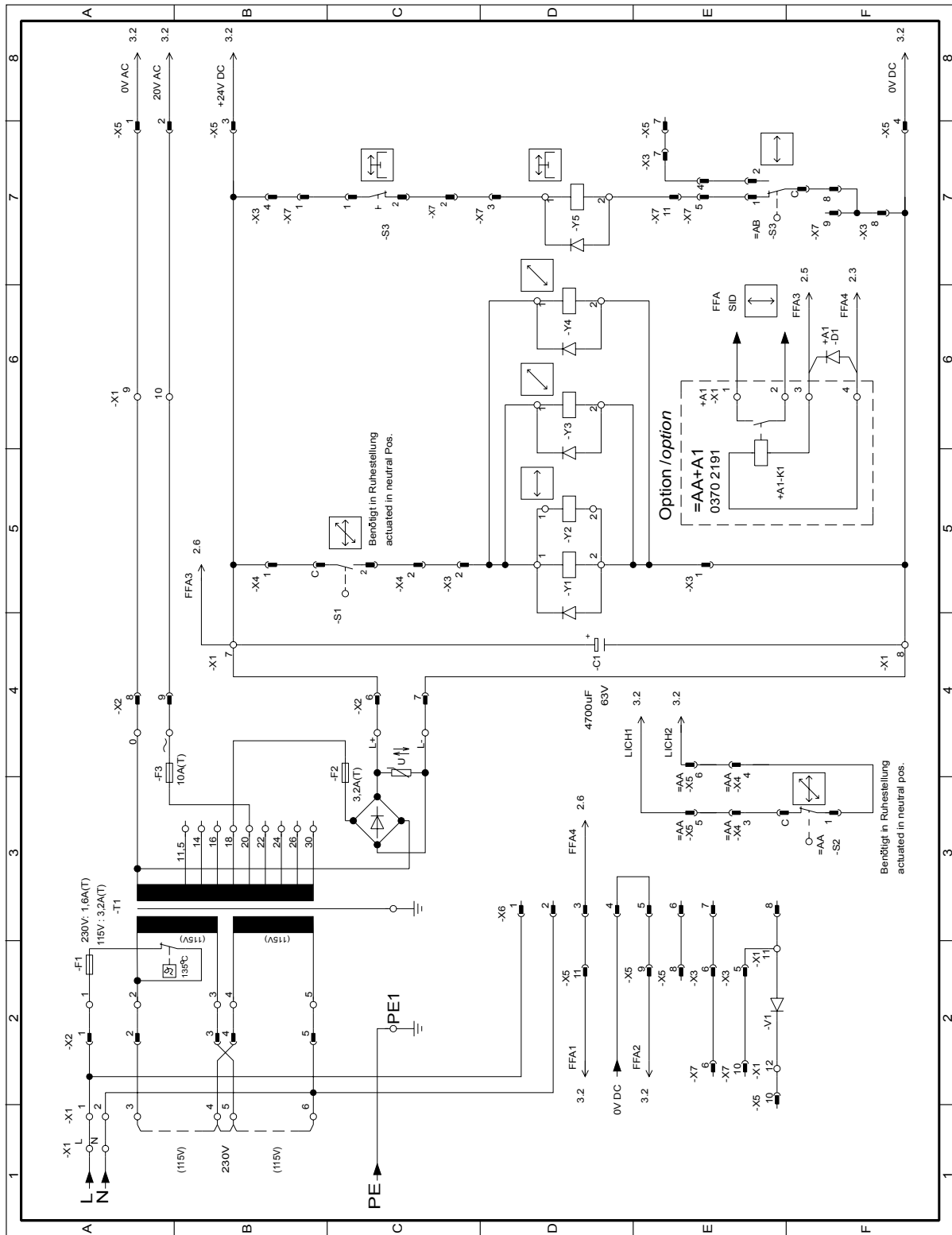


5.2 Table of contents at schematics

Sheet 1 Schematic table base =AF
Sheet 3 Schematics column =AF
Sheet 4 Wiring diagram =AF

CS 3000

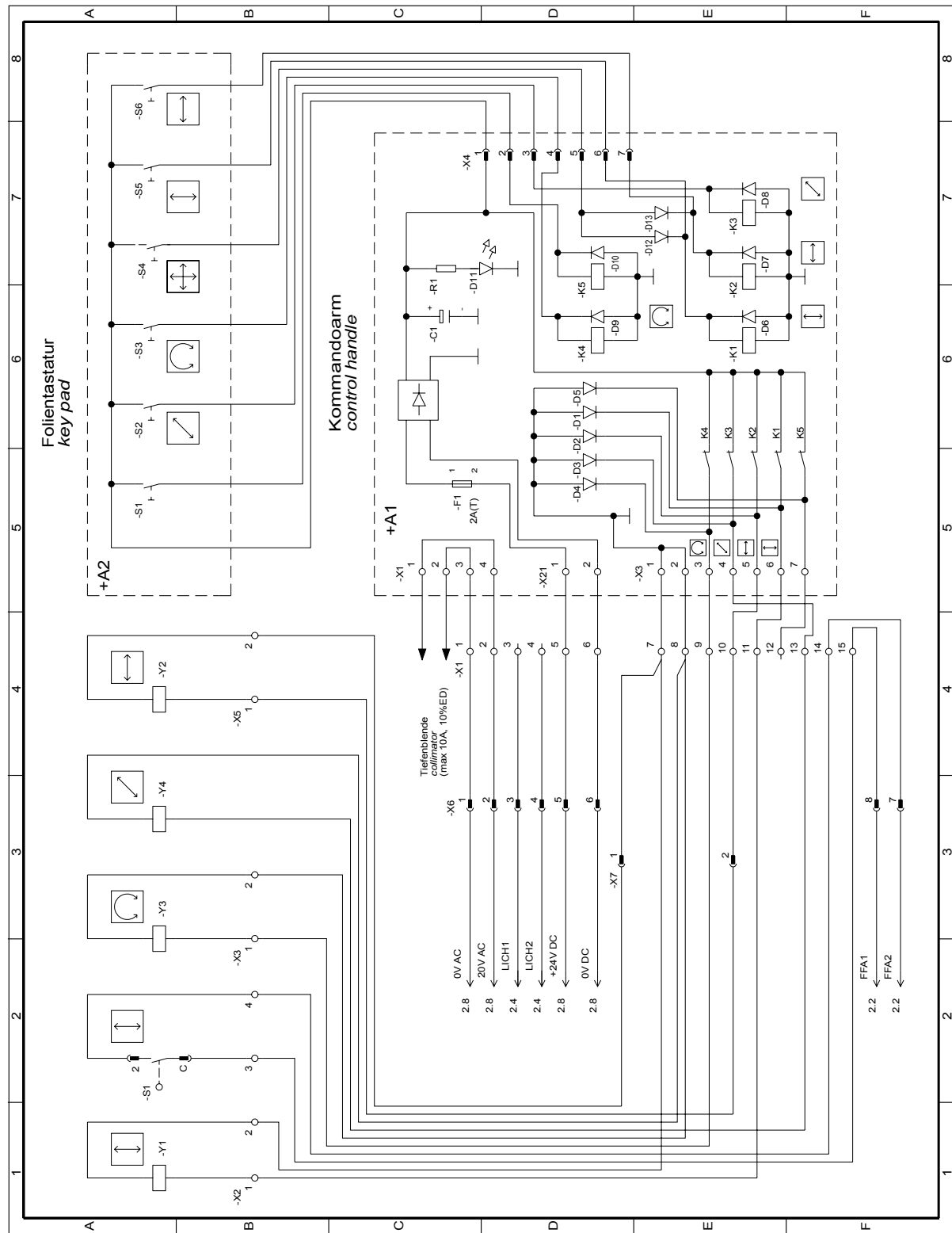
5.3 Schematics table base sheet 1



III. 4

CS 3000

5.4 Schematics column sheet 2



III. 5

CS 3000

5.5 Component Numbers and Designation

| Bauteil-Nr.: <i>Part-no.</i> | Funktion <i>function</i> |
|---------------------------------|---|
| = AA | Fester Bucky-Tisch <i>fixed buck-table</i> |
| | |
| =AA-C1 | Siebelko <i>capacitor</i> |
| | |
| = AA-F1 | Sicherung Trafo primär <i>fuse primary of transformer</i> |
| = AA-F2 | Sicherung 24V DC <i>fuse 24V DC</i> |
| = AA-F3 | Sicherung 20V AC <i>fuse 20V AC</i> |
| | |
| =AA-PE1 | Haupterdungsbolzen Tisch <i>main ground-stud table</i> |
| | |
| = AA-S1 | Fußpedal Tischplattenbremse lösen <i>footpedal to release tabletop break</i> |
| = AA-S2 | Fußpedal für Licht – Tiefenblende <i>footpedal for collimator – light</i> |
| = AA-S3 | Taster Rasterladenbremse lösen <i>switch to release bucky - break</i> |
| | |
| = AA-T1 | Netztransformator <i>main-transformer</i> |
| | |
| = AA-X1 | Klemmleiste <i>terminal block</i> |
| = AA-X2 | Steckverbindung –T1 <i>connector – T1</i> |
| = AA-X3 | Steckverbindung Tischmagnete <i>connector table – top brake</i> |
| = AA-X4 | Steckverbindung Fußpedal <i>connector foot – pedal</i> |
| = AA-X5 | Steckverbindung Stativ <i>connector column</i> |
| = AA-X6 | Steckverbindung <i>connector</i> |
| = AA-X7 | Steckverbindung Rasterlade – Bremse <i>connector bucky-brake</i> |
| | |

CS 3000

| Bauteil-Nr.: <i>part</i> | Funktion <i>function</i> |
|-----------------------------|--|
| = AA-Y1 | Bremsmagnet Tischplatte längs <i>brake table-top longitudinal</i> |
| = AA-Y2 | Bremsmagnet Tischplatte längs <i>brake table-top longitudinal</i> |
| = AA-Y3 | Bremsmagnet Tischplatte quer <i>brake table – top transversal</i> |
| =AA-Y4 | Bremsmagnet Tischplatte quer <i>brake table-top transversal</i> |
| =AA-Y5 | Bremsmagnet Rasterlade <i>brake bucky</i> |
| | |
| =AA+A1 | Platine FFA <i>board SID</i> |
| =AA+A1-X1 | Klemmleiste <i>terminal-block</i> |
| =AB | Stativ <i>column</i> |
| | |
| =AB+A1 | Kommandoarm <i>control-handle</i> |
| =AB+A1-X1 | Klemmenleiste Tiefenblende <i>terminal-block collimator</i> |
| =AB+A1-X2 | Klemmenleiste Spannungsversorgung <i>terminal-block power supply</i> |
| =AB+A1-X3 | Klemmenleiste Bremsen <i>terminal-block brakes</i> |
| =AB+A1-X4 | Steckverbindung Folientastatur <i>connector key pad</i> |
| | |
| =AB+A2 | Folientastatur <i>key pad</i> |
| =AB+A2-S1 | nicht gebraucht <i>not used</i> |
| =AB+A2-S2 | Taster Bremse transversal <i>switch brake transversal</i> |
| =AB+A2-S3 | Taster Rotationsbremse lösen <i>switch release tube-rotation brake</i> |
| =AB+A2-S4 | Taster alle Bremsen lösen <i>switch release all brakes</i> |
| =AB+A2-S5 | Taster Vertikalbremse lösen <i>switch release vertical brake</i> |
| =AB+A2-S6 | Taster Horizontalbremse lösen <i>switch release horizontal brake</i> |
| | |
| =AB-S1 | Schalter FFA vertikal <i>SID switch vertical</i> |
| | |
| =AB-S3 | Schalter Rasterlade gekuppelt <i>switch bucky coupled</i> <i>brake transversal</i> |

CS 3000

| Bauteil-Nr.: <i>part</i> | Funktion <i>function</i> |
|-----------------------------|---|
| | |
| =AB-X1 | Klemmleiste Kommandoarm <i>terminal block control handle</i> |
| =AB-X2 | Klemmleiste Bremse vertical <i>terminal block brake vertical</i> |
| =AB-X3 | Klemmleiste Rotationsbremse <i>terminal block tube rotation</i> |
| | |
| =AB-X5 | Klemmleiste Bremse horizontal <i>terminal block horizontal brake</i> |
| =AB-X6 | Steckverbindung Säule-Tisch <i>connector column-table</i> |
| =AB-X7 | Steckverbindung Bremse horizontal <i>connector brake horizontal</i> |
| | |
| =AB-Y1 | Bremse vertical <i>brake vertical</i> |
| =AB-Y2 | Bremse horizontal <i>brake horizontal</i> |
| =AB-Y3 | Bremse Rotation <i>brake rotation</i> |
| =AB-Y4 | Bremse transversal |

CS 3000

6 Mounting

6.1 General

Basically there are two versions of the x-ray unit CS 3000:

1. The left hand version (Standard version)
2. The right hand version (Special version)

The unit shown in Ill. 1 is the left hand version (Standard version) of the CS 3000, easy to notice on the on the guide rail on the back of the table on the left hand floor side for the column

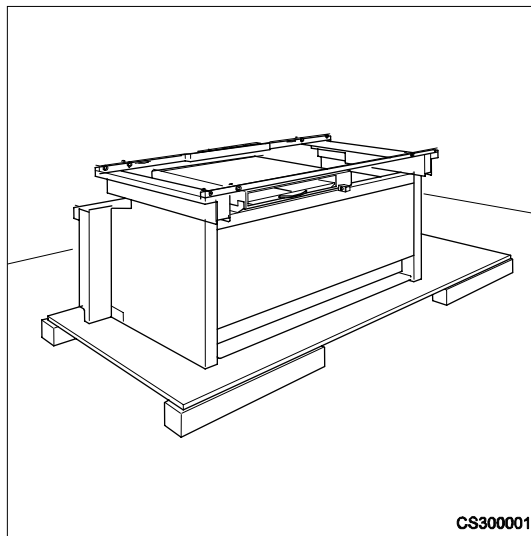
The following mounting instructions will mainly refer to the standard version (left hand version) but also can be used for mounting a right hand version. The difference in the assembly steps are marked accordingly and are illustrated if necessary.

6.2 Unpacking the unit

For installing the CS 3000 we recommend the following procedure:

Remove the packing material from the table base, column and table top and check for conformity with the packing list or order.

Prior to start with the assembling check the entire shipment for damage.



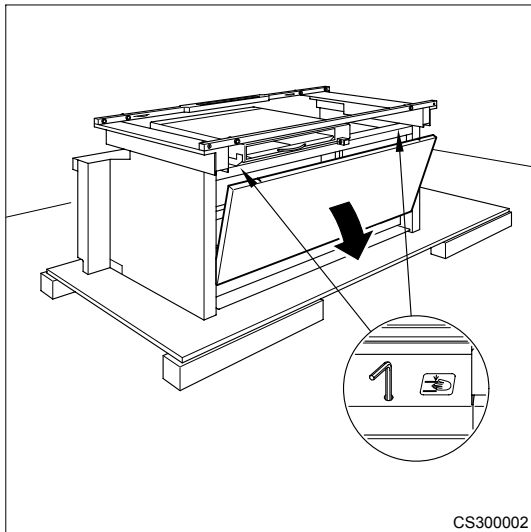
Ill. 6

Table base

Remove packing material and dispose it workmanlike.

CS 3000

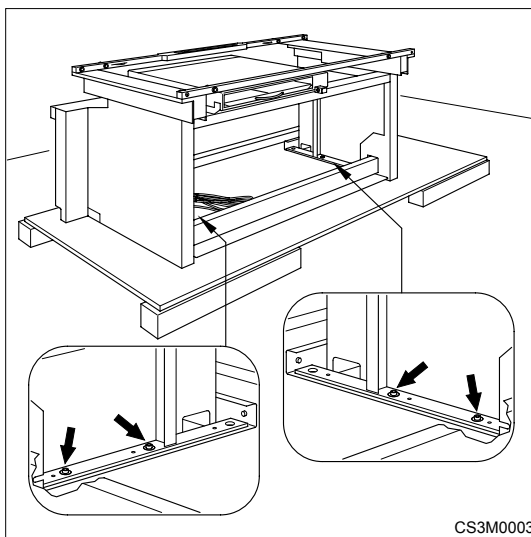
6.3 Mounting of table



III. 7

Loosen both fastening screws of the front cover (do not remove them)

Push the front cover on the top from the inside to the outside and remove the cover by lifting up.

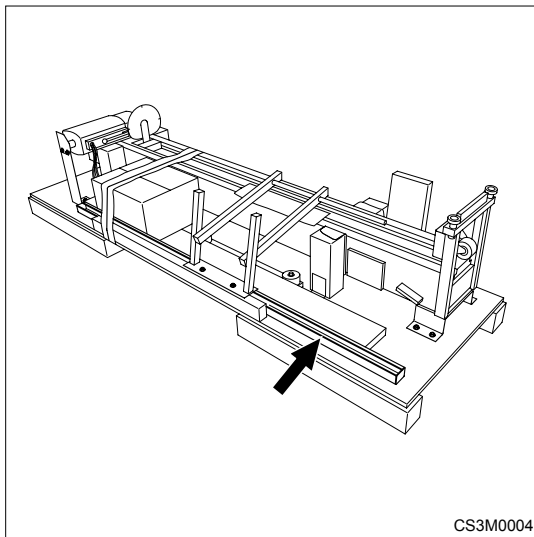


III. 8

Loosen all four shipping screws in the table base and push the screws downward to the floor (use a hammer or similar).

CS 3000

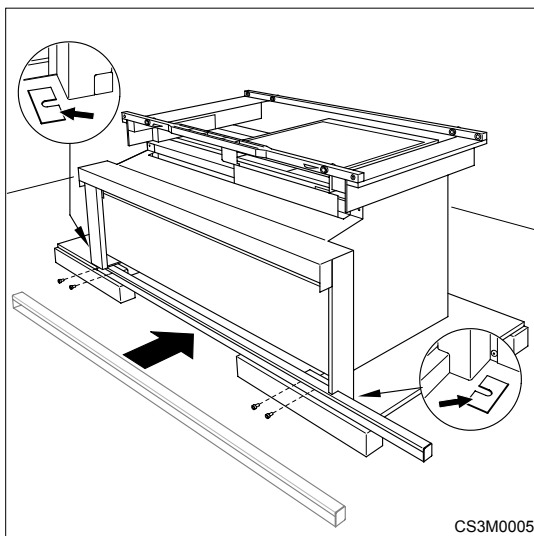
6.3.1 Mounting the guide rail



III. 9

The guide rail is attached together with the column to the pallet.
Remove packing material from the column pallet.
Remove all shipping brackets and the card box with hard ware.

Remove the guide rail from the table base.
Leave the column on the pallet until later.



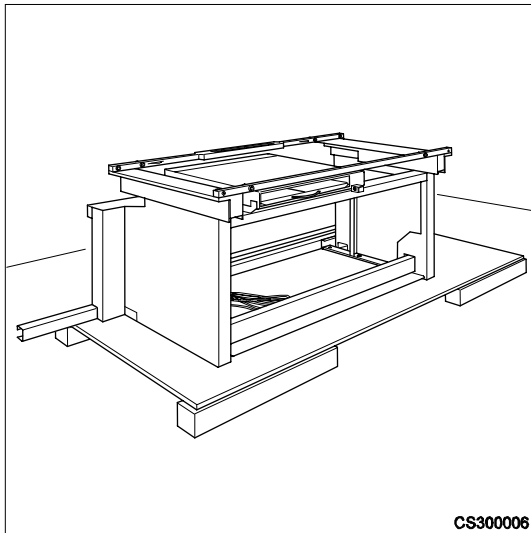
III. 10

Mount the guide rail to the back side of the table frame.
To make the assembly easy put shims between the table and the pallet (the shims are in the card box with the hardware) lift on the table in the back a little bit (see detail).

Mount the guide rail for the standard version as shown. Make sure that the angulated side of the rail is on top.

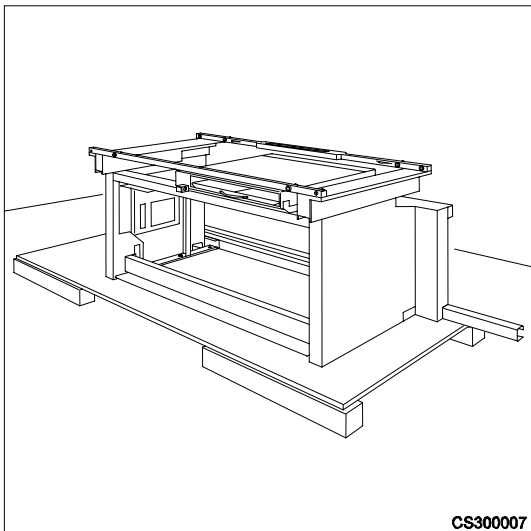
Now mount the guide rail with two nut bars to the table base using four screws.

CS 3000



III. 11

For the left hand version (Standard version) the guide rail is flush with the right hand side of the table base and the rest of the rail is overhanging the table base to the left.

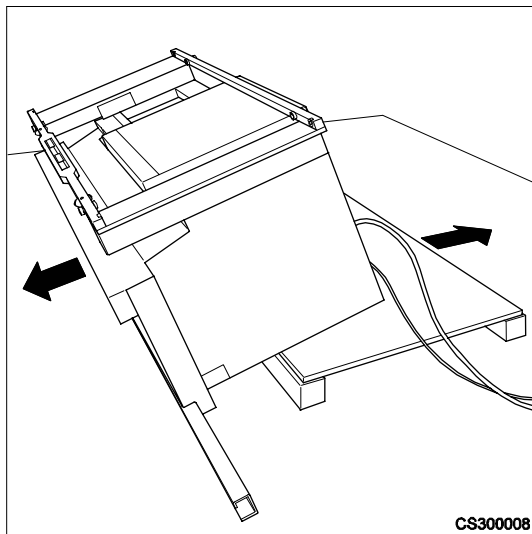


III. 12

For the right hand version the guide rail is flush with the left hand side of the table base and the rest of the guide rail is overhanging the right hand side of the table base.

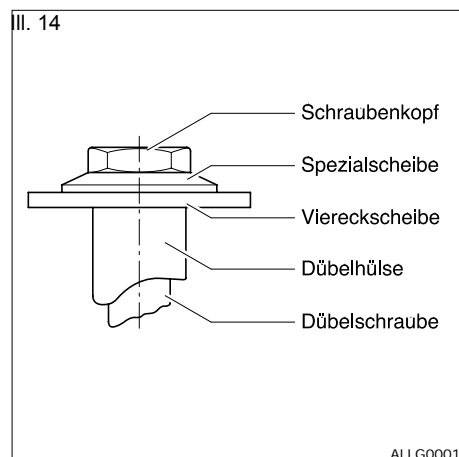
CS 3000

6.3.2 Setting up the table base



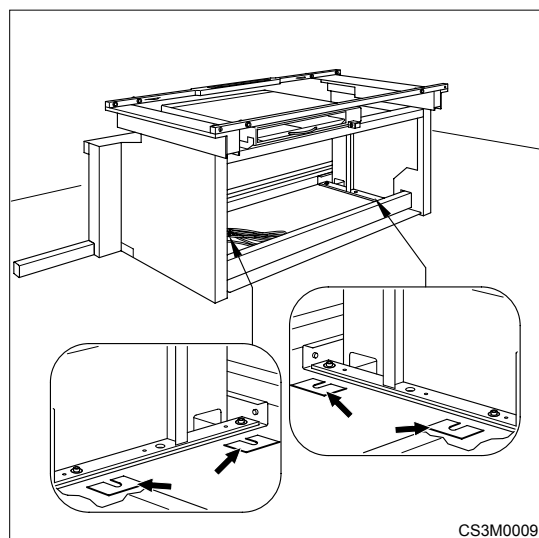
III. 13

Move the table base to the back and over the pallet and tilt the table base to the floor. Lift up the table base a little bit and take out the pallet and set the table to the floor.



III. 14

Now set up the table base at its final location over the floor mounting holes (refer to chapter 4.2 Dimensional drawing floor mounting holes) respectively align the unit at location. Prepare anchor bolts acc. III. 14 and stick them in the floor mounting holes.



III. 15

Check table base in longitudinal and lateral direction with water level.

Insert shims as needed at the fastening points to compensate unevenness (included with the installations material).

Tighten all floor mounting bolts with a torque of (50 Nm).

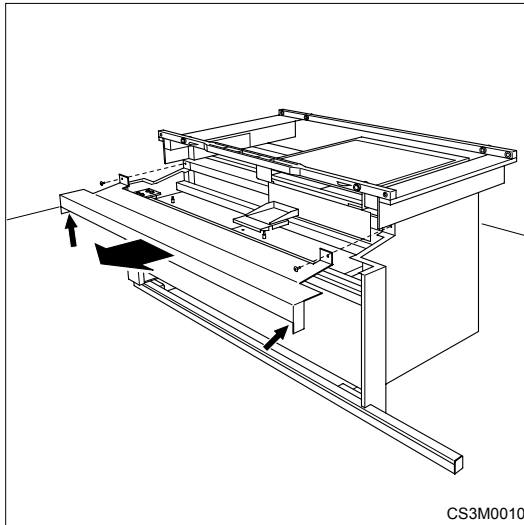


Attention!

Be careful not to distort the table base in any direction.

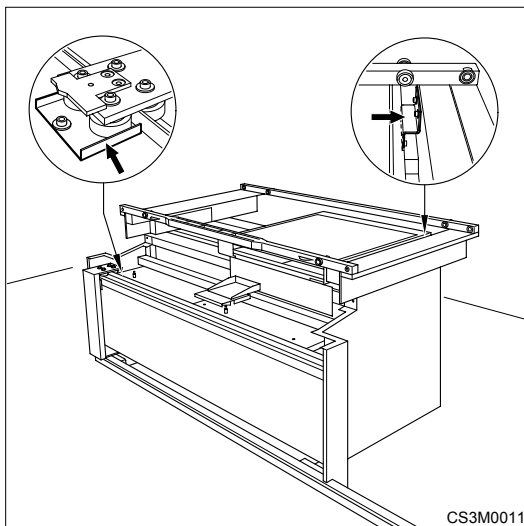
CS 3000

6.3.3 Removing of shipping brackets



III. 16

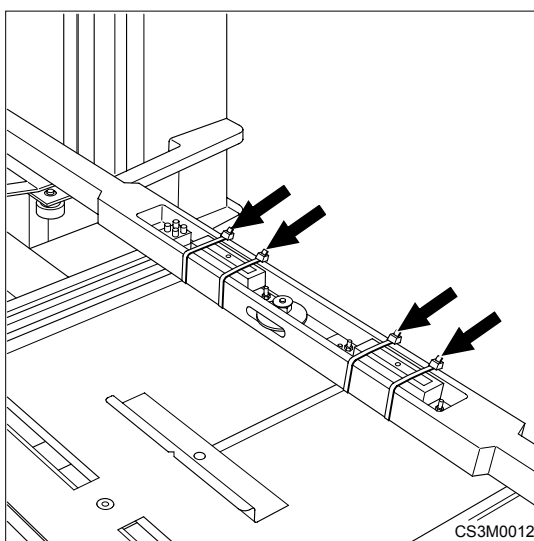
Loosen four mounting screws and remove the trim cover from the back.



III. 17

Loosen mounting screws of the shipping bracket for the Bucky and the sled and remove the shipping brackets.

Remove the shipping brackets from the upper frame.



III. 18

Remove the cable ties of the solenoids in the upper frame.

CS 3000

6.3.4 Main connection

Hook up the power cord to the terminal Strip in the table base according to schematics.



Attention!

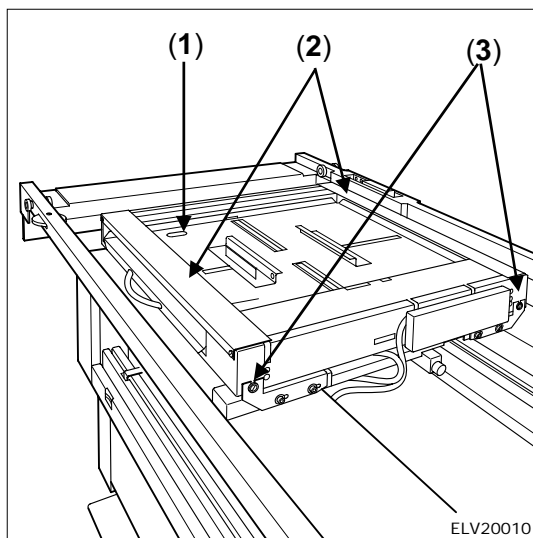
The unit can be operated with different voltages! Set the jumpers according to the schematics.

6.4 Bucky installation



NOTE!

Buckys of all leading manufacturer can be installed. The unit has been prepared according to the order. The installation material needed is included with the shipment.



Place the Bucky with the cassette tray pointing to the front onto the carriage (1).

Connect the Bucky cable and the Ion chamber cable according to the instructions of the manufacturer.

III. 19

6.4.1 Bucky unit P

Fasten with two screws each III. 19 (3) at the left and right hand side. Mont the larger bracket, III. 19 (2) to operator's side and the smaller bracket to the rear as shown by using tree screws and washers.

6.4.2 Philips

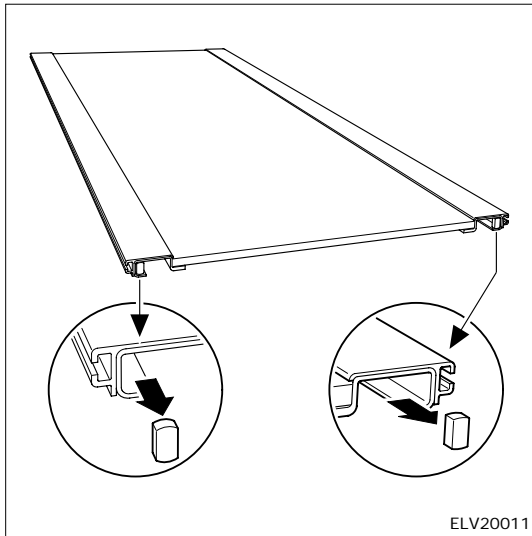
Fasten with two screws each III. 19 (3) at the left and right hand side. Mont the larger bracket, III. 19 (2) to operator's side and the smaller bracket to the rear as shown by using tree screws and washers.

6.4.3 Siemens

Fasten with two screws each, III. 19 (3) at the left and right hand side.

CS 3000

6.5 Mounting the table top

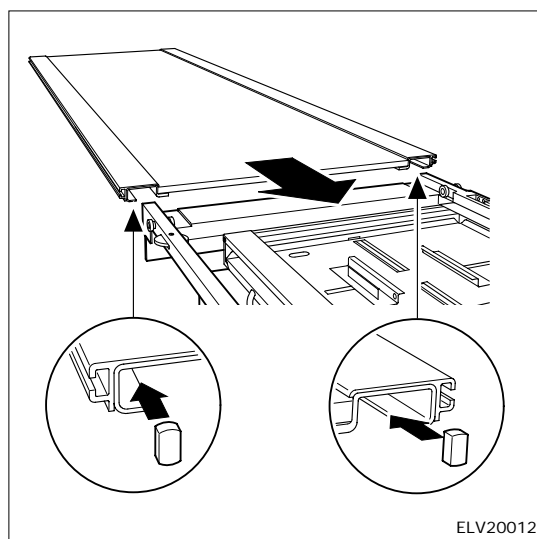


Unpack table top.
Unscrew bumper stops from either the right or left hand side of the table top. Slide table top onto table frame

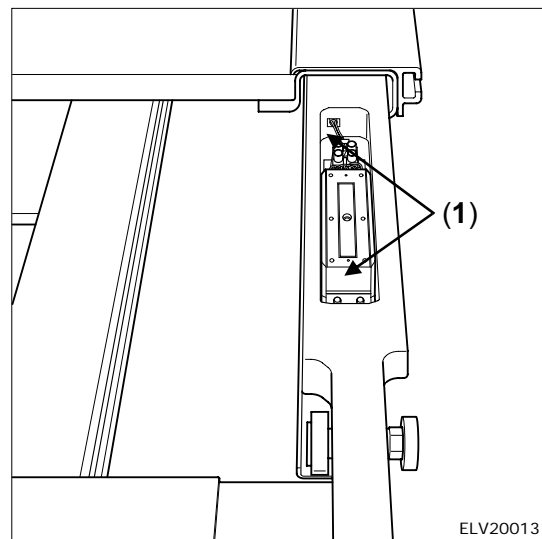


Attention!

Hold down the brake solenoids III. 22 (1) while sliding on the table top.



III. 21



III. 22

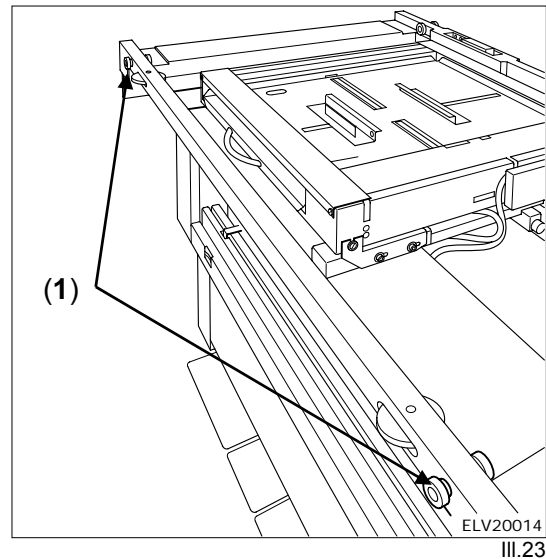
Remount bumper stops.

To protect table top surface during ongoing installation, place the packing material (cardboard) on the table top.

CS 3000

6.5.1 Mounting of the table top in small rooms

Unscrew bumper stops III. 19 (1) from both ends of table top.
Remove the two bearings III.23 (1) from the table frame.

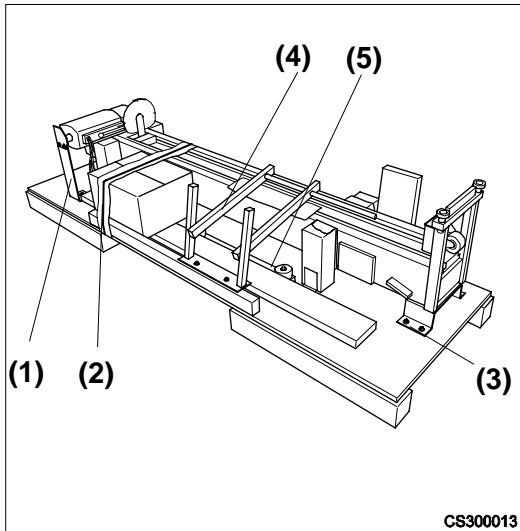


Place table top on table frame. Lift table top on operators side to an angle of about 45 ° and hook profile rail on wall side around the two plastic rollers. Then lower table top on operators side carefully. Slide the table top sideways in order to remount the bearings. Readjust bearings (eccentrics) for optimal table top movement. Refasten bumper stops III. 19 (1) to table top ends.

To protect table top surface during ongoing installation, place the packing material (cardboard) on the table top.

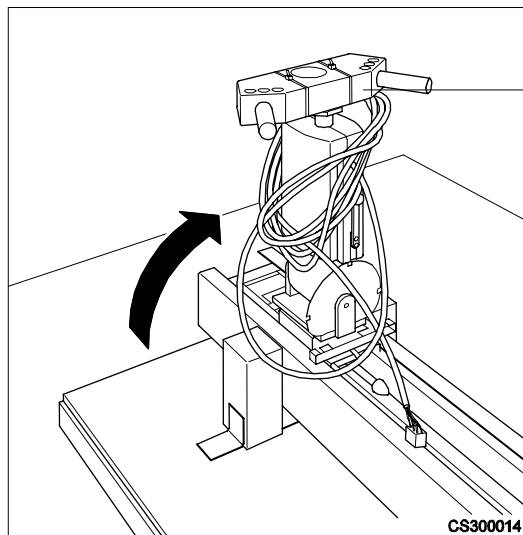
CS 3000

6.6 Mounting the column



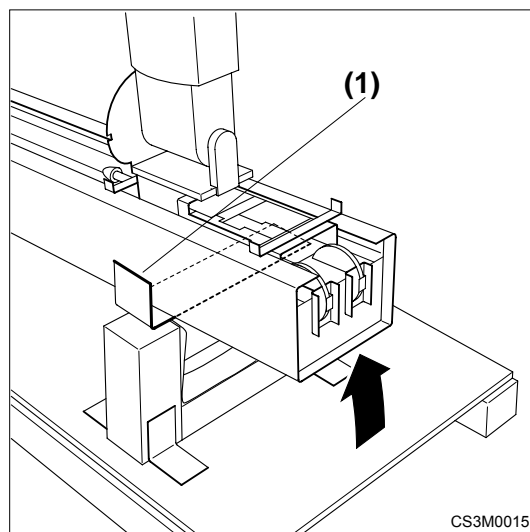
III. 24

Remove shipping bracket (1), (2), (3), and the setting up aid (4), (5) from the pallet.



III. 25

Put the tube support arm in upright position (only at a pivoting tube support arm).
Fasten control panel with cable ties to tube holder.

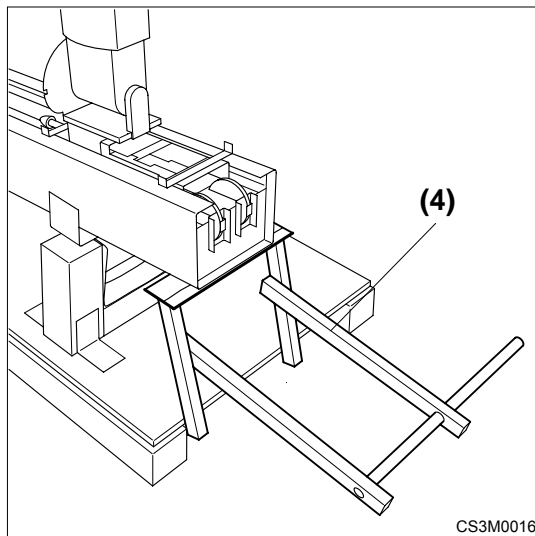


III. 26

Place shipping bracket (1) on the upright wooden beam on the pallet. In order not to scratch the column place a rag or some felt as a protection aid on the shipping bracket.

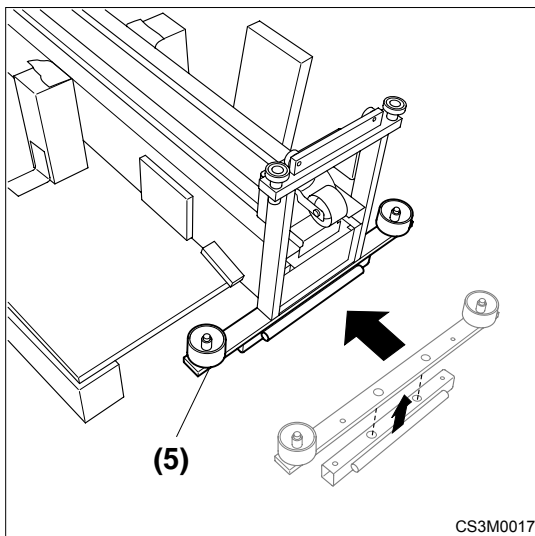
Lift up the column and place it on the shipping bracket.

CS 3000



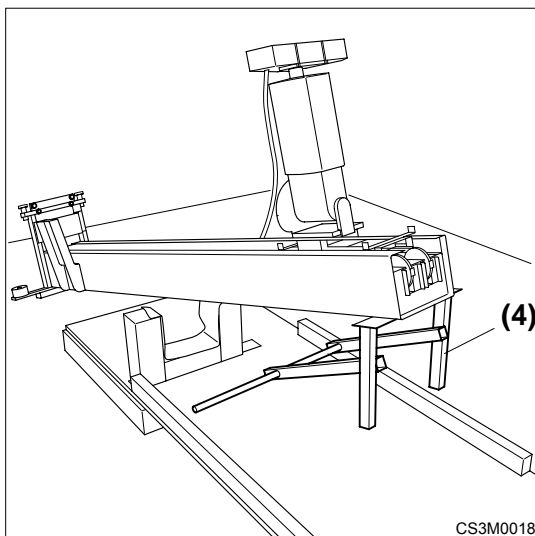
III. 27

Move the column as much to the top so the setting up aid (4) can be mounted to the back side of the column.



III. 28

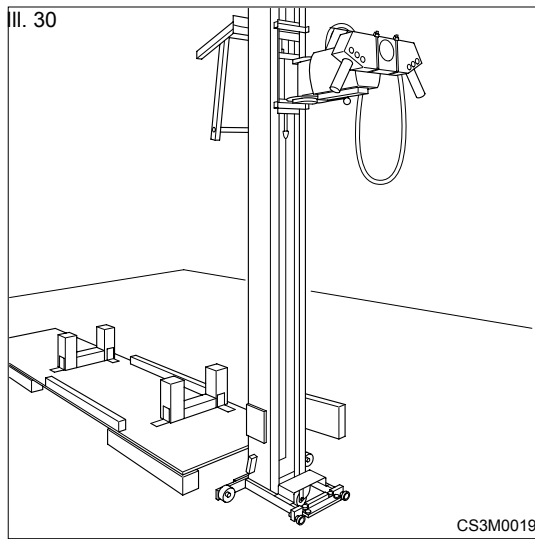
Mount the second set up aid (5) with rollers to the bottom of the column.



III. 29

Put on the column to the pedestal and re-mount set up aid (4), around 180°.

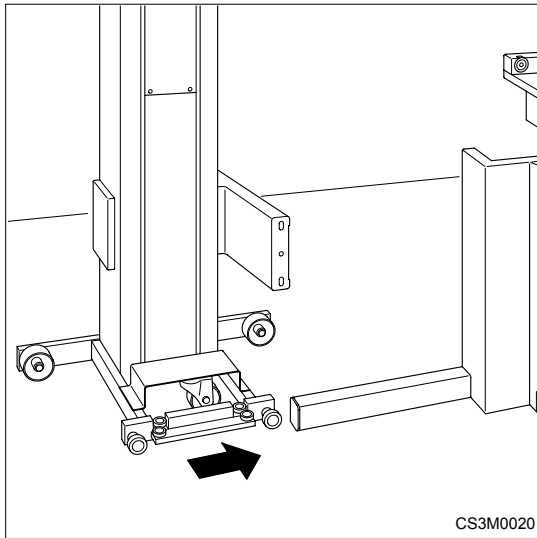
CS 3000



Handle the column with the set up aid (4) so she can be erected and is standing on the three rollers uniformly.

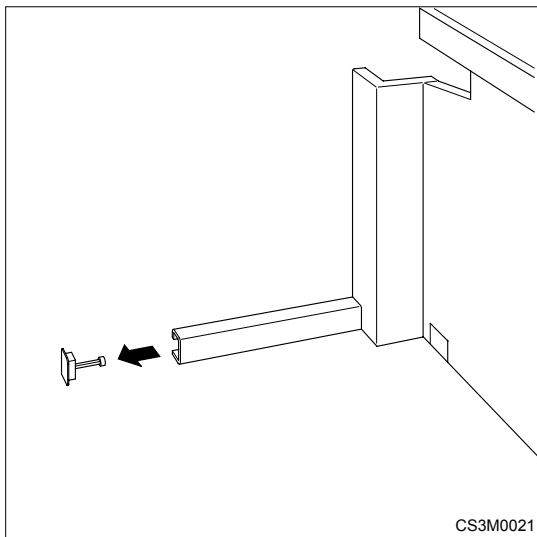
CS 3000

6.7 Mounting the column to the table base



III. 31

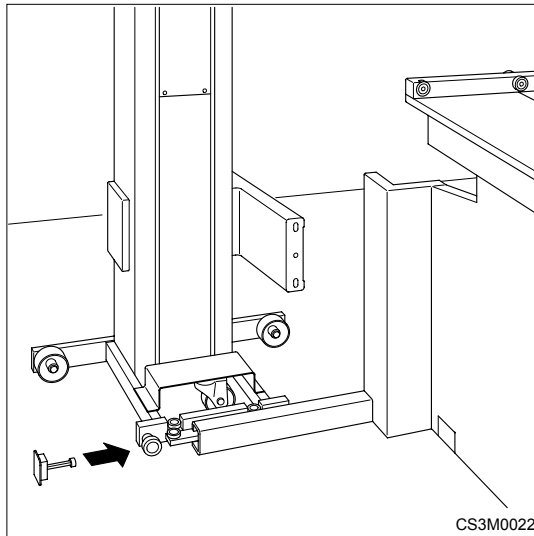
Bring the column in position to the table.



III. 32

Remove the end stops from the guide rail.

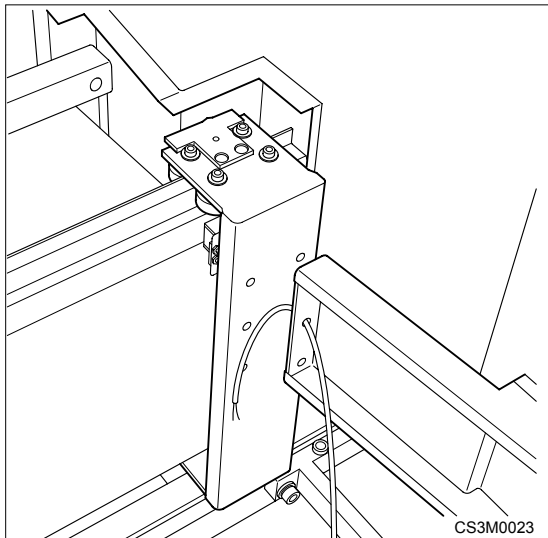
CS 3000



III. 33

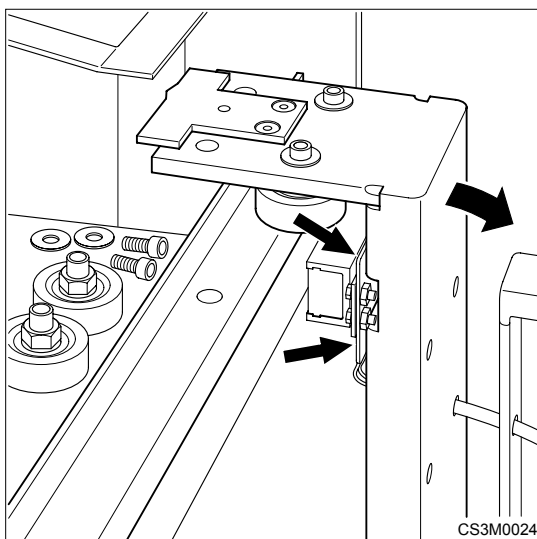
Carefully slide in the column into the guide rail of the table.

,Reinstall the Stop.



III. 34

Drive the sled all the way to the right and align it with the column.

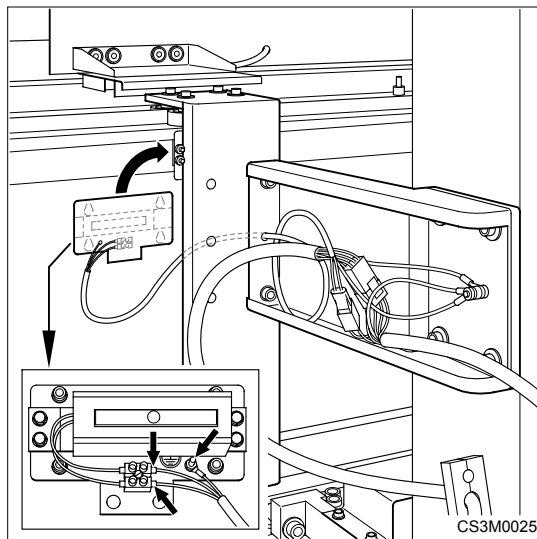


III. 35

Remove both guide rails from the inside of the sled.

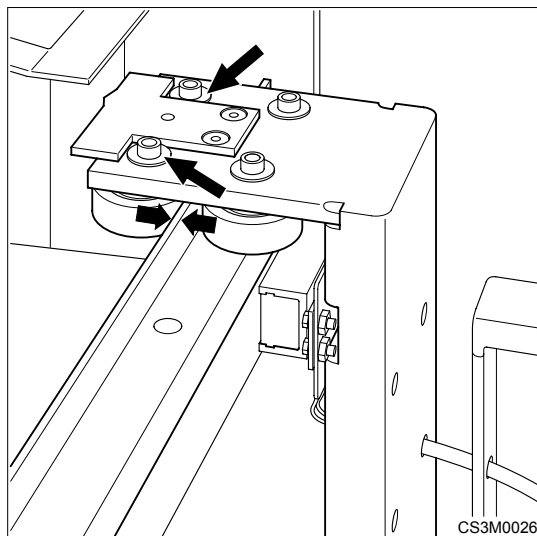
Loosen (do not take out) the four mounting screws of the brake holder. Tilt the sled to the outside, lift up the brake holder with the brake and remove it over the screw heads.

CS 3000



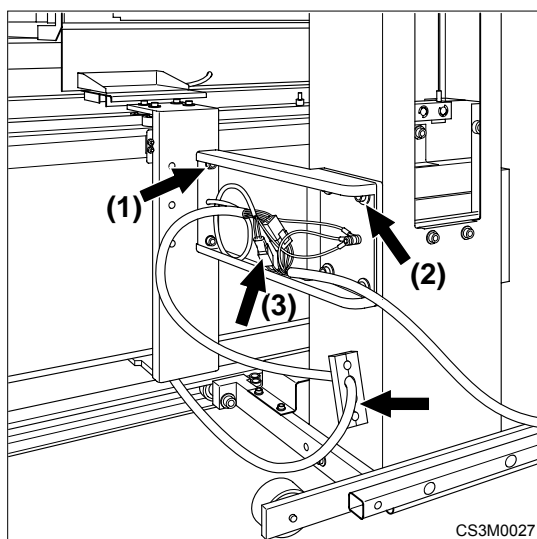
III. 36

Rout the cable from the fixing arm of the column thru the hole in the sled. Connect the cable to the terminal strip of the brake and reinstall the brake to the sled.



III. 37

Reinstall both guide rollers and adjust the sled with the eccentric rollers free of clearance.



III. 38

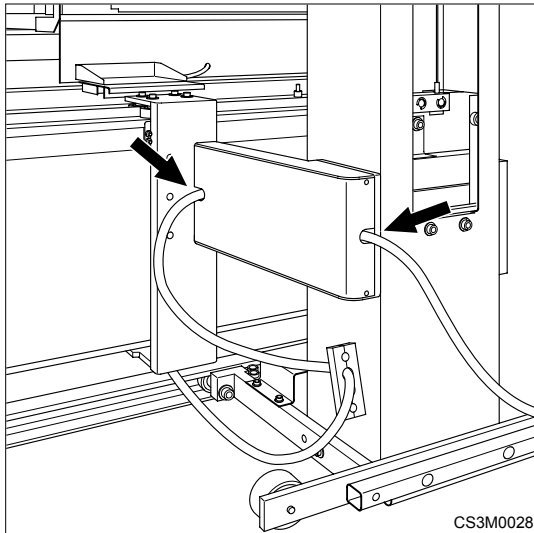
Check the column with water level in both upright directions and mount the fixing arm with the column to the sled.(1)

If necessary to adjust the upright position loosen the four mounting screws (2) and re-tighten again.

Rout connecting cable (3) from the table to the column and plug it in.

Install cable holder and clamp in the cable without tension.

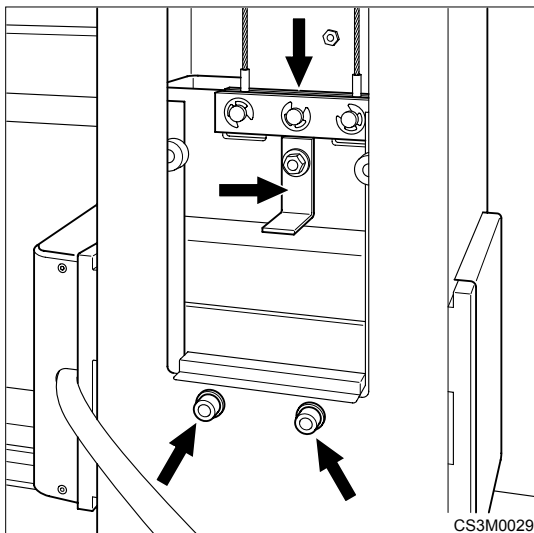
CS 3000



III. 39

Install the covers of the fixing arm and guide out the cable accordingly.

Remove the three assembly aids (three rollers and the handle).



III. 40

Remove both shipping brackets from the front (visible) and the back.

Remove both shipping screws.



Note!

Both screws are for securing the tube support arm. They must be removed prior of mounting the tube and collimator.

CS 3000

6.8 Mounting of x-ray tube and collimator

6.8.1 Mounting control handle, x-ray tube and collimator



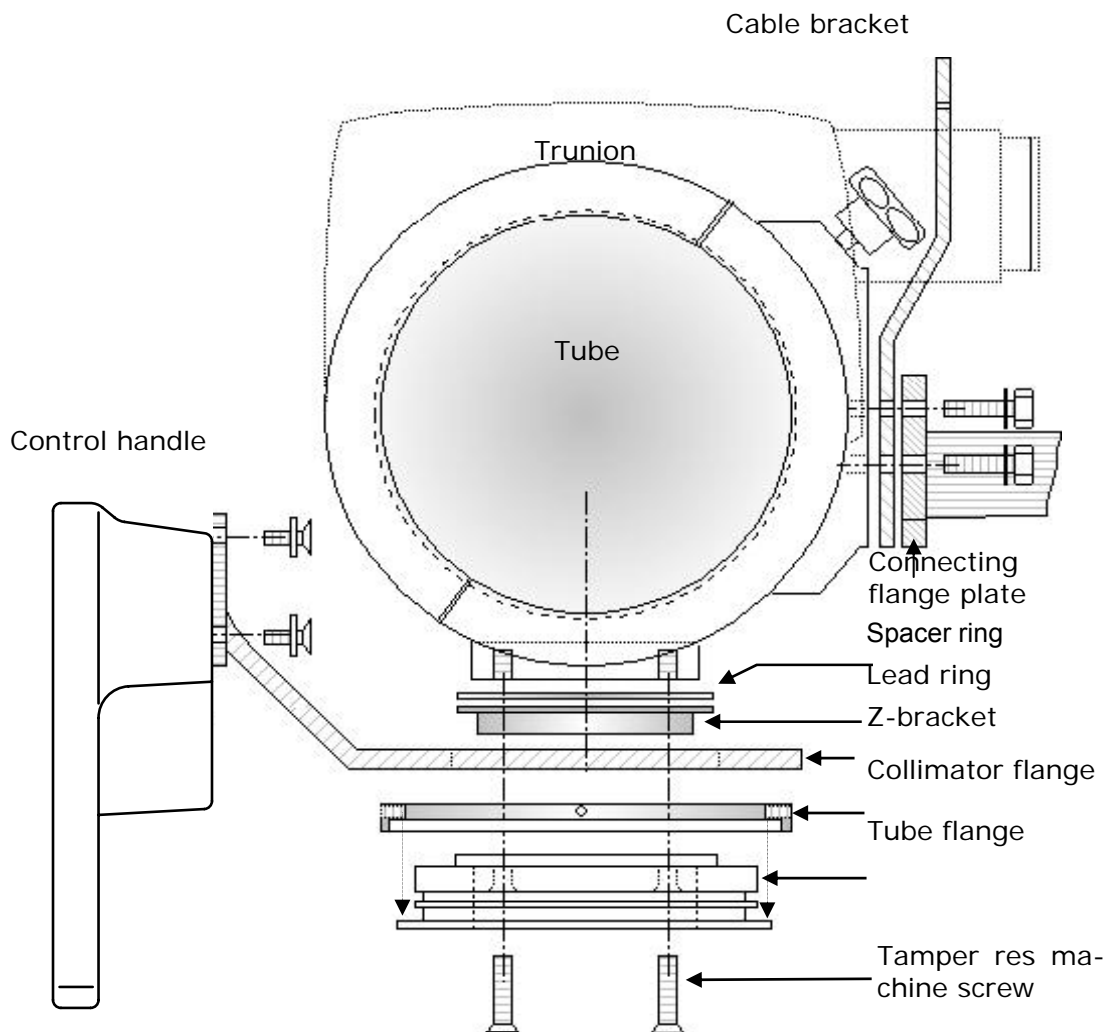
Note!

Weights: Max: 40 kg for x-ray tube and collimator.

6.8.2 Dunlee- and Collimat- collimator

Step-by-Step installation:

1. Pre assemble tube flange (5) in Ill. 42 on page 39, to collimator flange (1) in Ill. 42 Line up with 4 set screws to center.
2. Place tube flange with the collimator flange in the opening of the „Z“ bracket and insert lead ring and spacer ring from tube side direction.
3. Mount tube flange with „Z“ bracket to the tube by using 4 screws M6x 25.
4. Place tube into the half of trunions and fasten with the other half.
5. Mount control handle with 4 screws M5x13 to „Z“ bracket.
The cables of the control handle must be routed underneath the tube.



III. 41

CS 3000

6. Mount collimator centered to tube on the collimator flange (2). The brackets (3) must fit exactly into the slot (4) of the tube flange (1).



Attention!

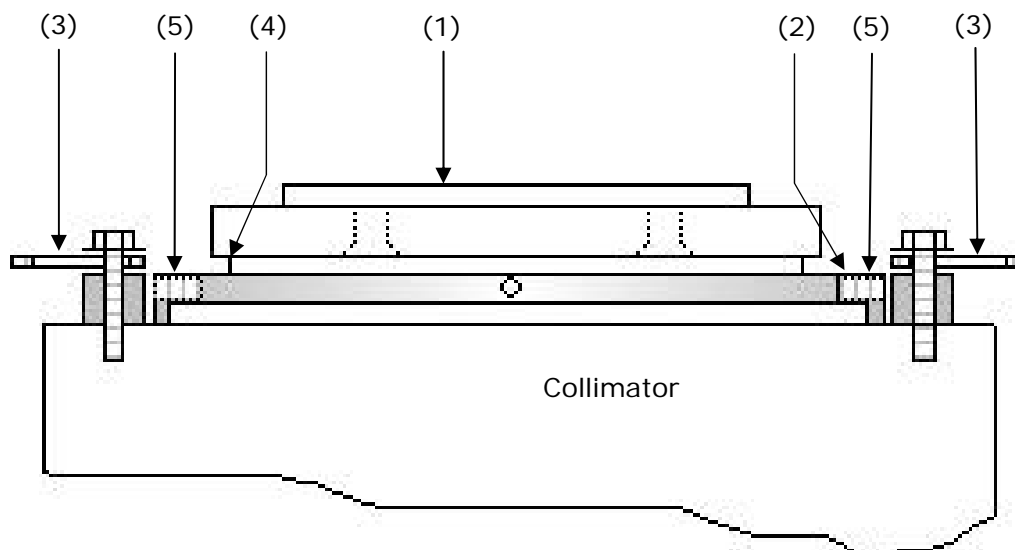
When mounting the collimator watch for the focal segments. For fastening the tube use only screws with a 4- times safety margin.



NOTE!

The user takes the risk for the proper installation of tube support arm and the collimator.

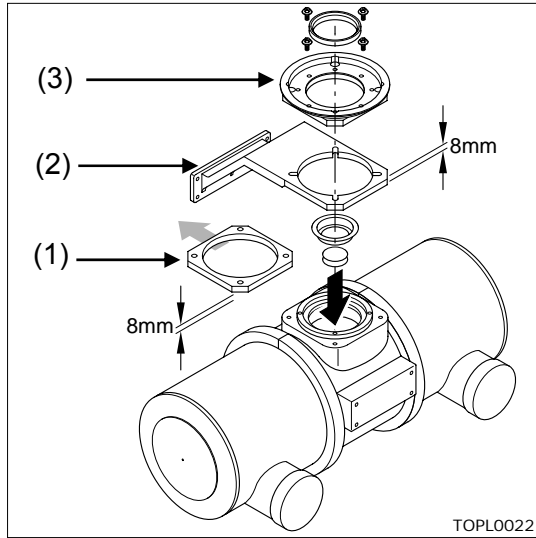
7. Connect collimator cable to collimator.
8. Connect HV cables to tube.
9. Connect CS 3000 with the plug to the mains outlet (230V) or (115V).
10. Press the button 2 at the control handle to unlock the bracket for the vertical motion and move the tube support arm so far down that you have a suitable position to install the tube, collimator and control handle.
11. Mount tube bracket with tube and collimator to the connecting plate with 4 screws M 6x25. The cable bracket must be in place between the tube bracket and connecting plate (Ill. 41– Page 38).



III. 42

CS 3000

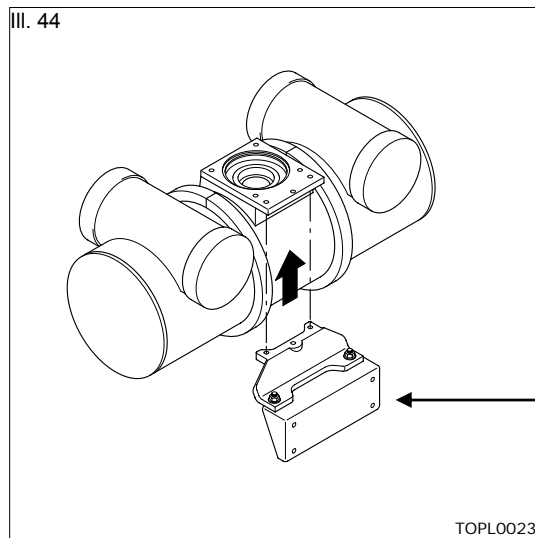
6.8.2.1 Siemens



III. 43

1. Dismount the intermediate ring (1).
2. Mount access flange (2) between factory installed flange (3) and tube flange.

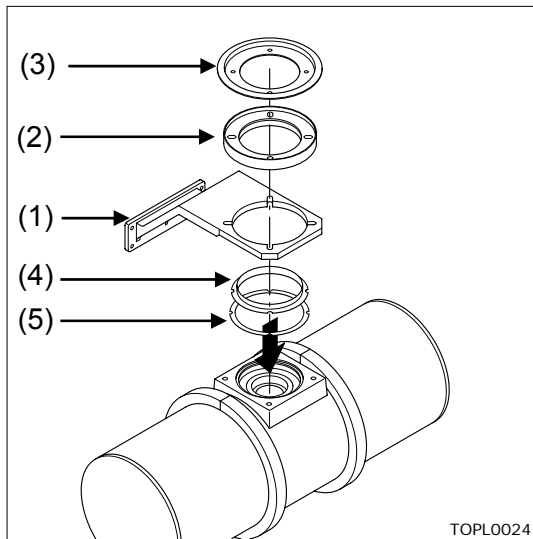
6.8.2.2 Philips



Mount Z-bracket to tube flange

CS 3000

6.8.2.3 Other manufacturer

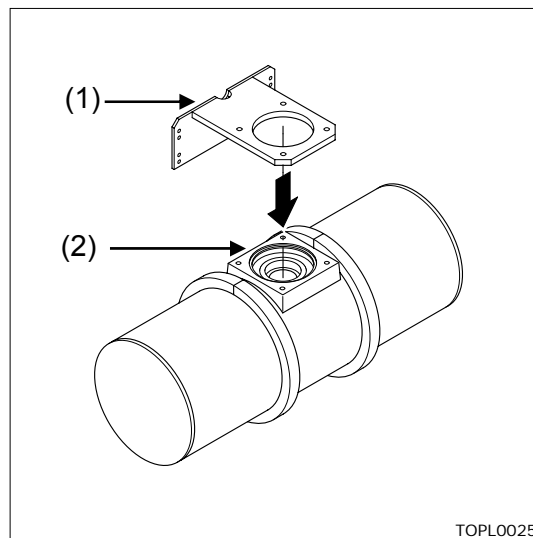


III. 45

TOPL0024

1. Mount access flange (1) with x-ray protecting ring (lead ring) (4) intermediate ring (5) and tube flange (2) to the x-ray tube housing.
2. Fasten flange plate (3) to tube flange (2).
3. Mount collimator to flange plate (3).

6.8.2.4 USA-Version



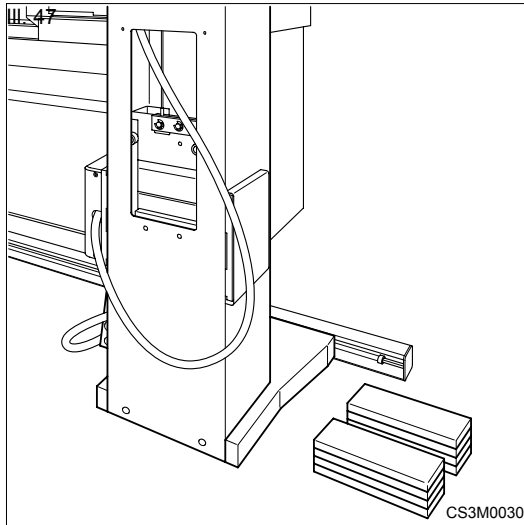
III. 46

TOPL0025

- Mount support bracket (1) between tube housing (2) and collimator.

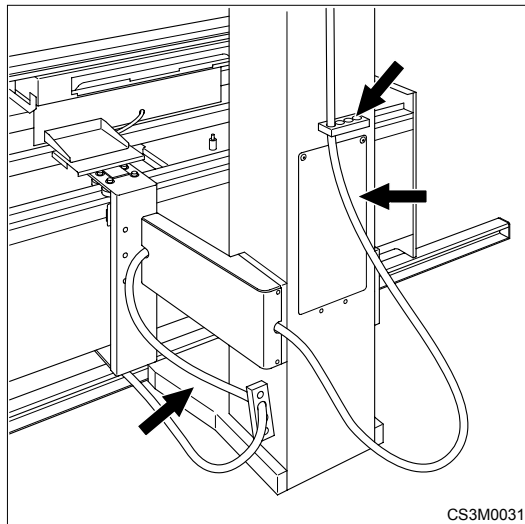
CS 3000

6.8.3 Weight compensation of the tube support arm



Insert supplied weight plates evenly in the front and back of the counterweight carriage.

The weight compensation is accomplished whenever the force to move the tube support arm up or down is equal.



Mount the upper cable holder and clamp thin the cables without tension.

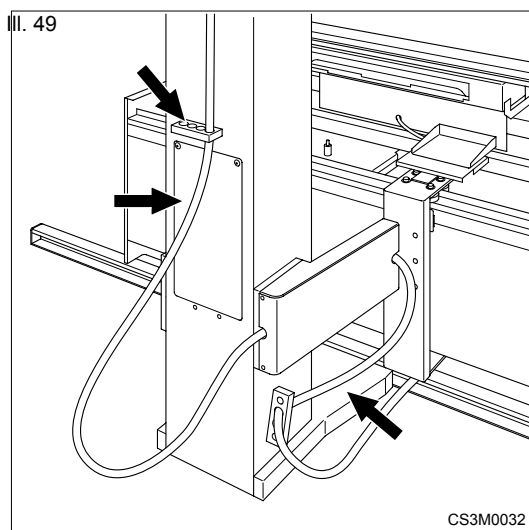


Note!

The three holes are needed to route the HV cables.

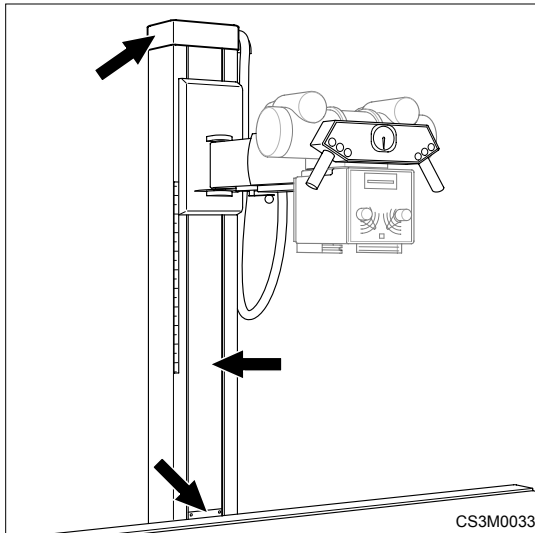
Install all lower trim covers of the column.

III. 48



View for right hand version.

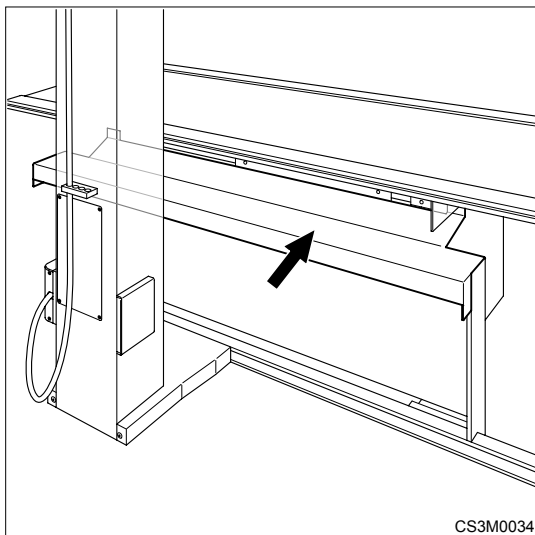
CS 3000



III. 50

Install all upper trim covers to the column.

1. Mount the shorter cover to the bottom of column.
2. Mount longer cover to the upper part of column.
3. Install head piece.



III. 51

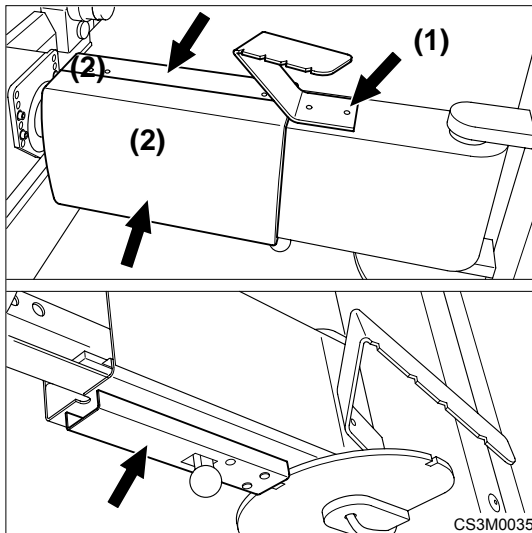
Install the rear trim cover to the table base.

CS 3000

7 Adjustments

7.1 Adjusting the angularity of the tube support arm

The rectangular alignment of the tube support arm was made during factory set up. If the alignment is not o.k. after mounting of the x-ray tube the following corrections can be made.



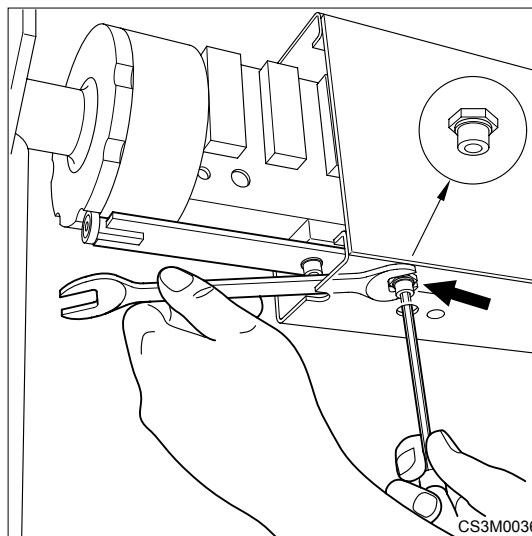
III. 52

Remove the table top (see III. 55).
Take out the grid and ion chamber if present.

Remove the screws (1) for the cable bracket
and remove cable bracket.

Take out the fastening screws of the arm trim
covers (2) and remove the covers.

Remove the bottom cover with the latching
lever.



III. 53

Loosen the fastening screws to adjust the
rectangular alignment with an open wrench.

Set proper SID distance.

Turn the eccentric screw with the open
wrench slowly and align the field light to the
center off the cassette tray.

Tighten fastening screw for the eccentric and
reinstall all previous removed covers in re-
verse order.

Install ion chamber, grid and table top (see III.
61).

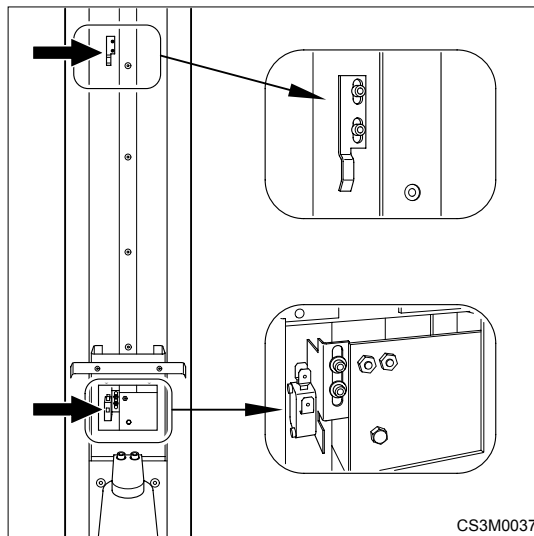
CS 3000

7.2 Adjustment of the vertical SID switch (option)

For better finding and detection of the SID distance an optional build in micro switch is used or can be upgraded.

If the micro switch during movement of the tube support arm is hitting the trip cam for the switch the light in the collimator will go on. This means that the proper SID distance is reached. If the light in the collimator goes out that means you have left the SID position.

To upgrade:



III. 54

Remove covers of the column (head piece and long and short cover) and covers of the tube support arm.

Install switch cam and micro switch.

Connect the contacts of the micro switch with pre converted plug to the tube support arm.

To adjust for proper SID the switch cam and the micro switch can be adjusted in the elongated holes.

After testing the SID install all removed covers.

CS 3000

8 Technical maintenance

8.1 Mechanical and electrical checks

The maintenance schedule described below is to be accomplished at 12-month intervals. If functional tests require power, turn off power immediately afterwards. Defective parts must be replaced with genuine spare parts according to the spare part list. Use only non-acid grease for maintenance. Do not grease or oil ball bearings with sealed washers.

Preparation:

- Check unit of damage and missing parts.
- Check all cables upon damage especially on the connectors and strain relief points. If necessary replace or repair as far as possible after consultation with the customer.
- Check cable loops of sufficient length.
- Check all covers and trim covers. If necessary replace damaged parts or make arrangement for exchange.
- Check traveling range of equipment for obstacles. Inform the user.

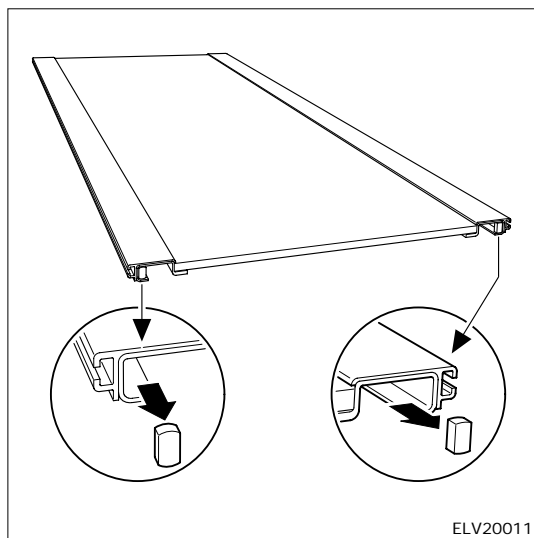
Tools and other aids:

Normal service tool kit, torque wrench, water level, spring scale (100 N and 300 N), feeler gauge, cleansing agent, grease.

Wooden slat approx. 2" x 3" x 14"

Preparation:

- Switch off equipment



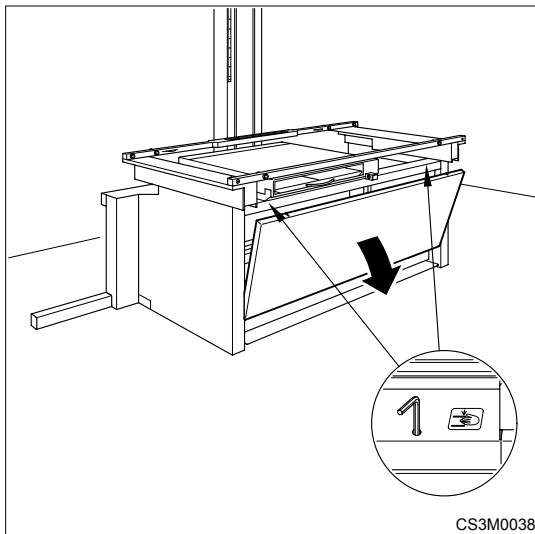
III. 55

Dismount bumper and stop at either end of the table top.

Take out the table top and lay aside securely.

CS 3000

8.1.1 Table



III. 56

Loosen (do not remove) both screws for the front cover.

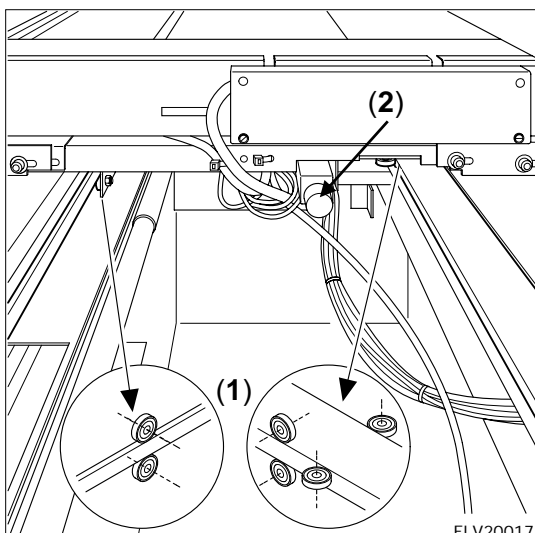
Swivel the front cover on the top from the inside to the outside and lift off by pulling upward.

8.1.1.1 Floor mounting

Check firmness of anchor bolts. Tighten if loose at a torque of 50 Nm (5mkp).

8.1.1.2 Bucky carriage

Check easy performance of Bucky carriage over entire travel range.
Running noise? Determine defective bearing and replace if necessary.
Clean guide rail and the bearings and grease lightly.



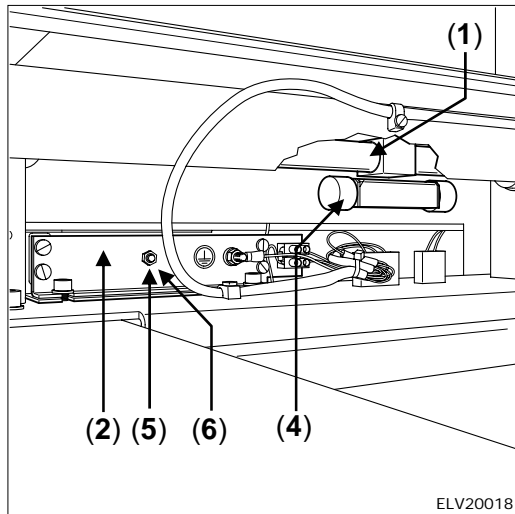
III. 57

Check the play of the bearings if necessary adjust eccentrics (1).
Proper adjustment: the bearings can still be rotated by hand.
Check bumpers (2) on firmness and damage.

Switch on equipment. Check function of brake and adjust if necessary.

CS 3000

8.1.1.3 Table frame



III. 58

Remove the covers on the left and right hand side.

Clean left and right guide rail (1) and re-grease lightly.

Switch on equipment.

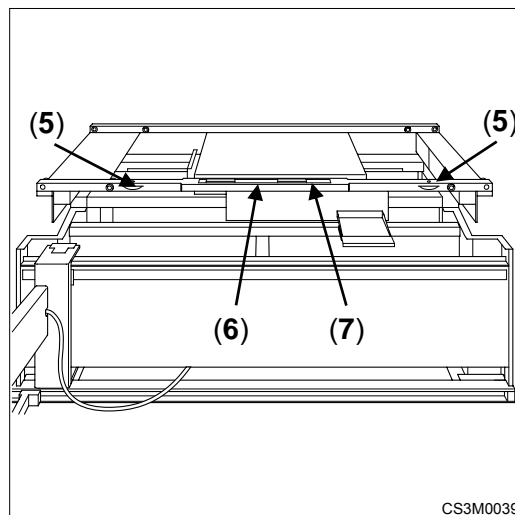
Check performance of lateral brakes (min. 250N lock holding force). Adjust if necessary.

Therefore loosen counter nut (5) and adjust the lock holding force by turning the set screw (6). Retighten counter nut.

Check bumper stops on both sides (4) on firmness and damage.

Remount the covers on the left and right hand side.

8.1.1.4 Table top



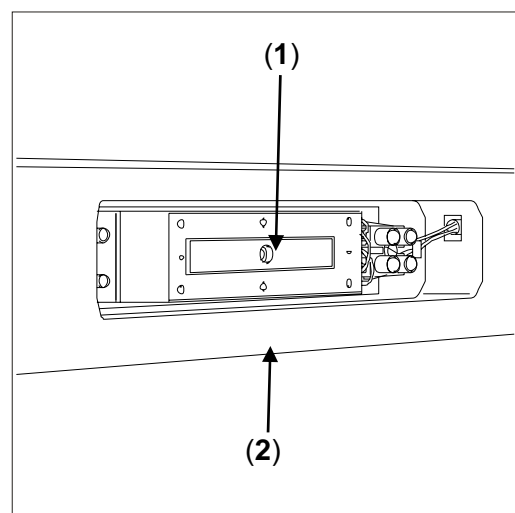
III. 59

Check plastic rollers (5) for traces of wear. Replace if necessary.

Clean and check all ball bearings for the table top movement on smooth running and damage. Replace if necessary regrease the running surface for the bearings.

Clean the profile rails of the table top. Reinstall table top.

Switch on equipment. Check performance of longitudinal brake (7) Replace brake solenoid if necessary.



III. 60

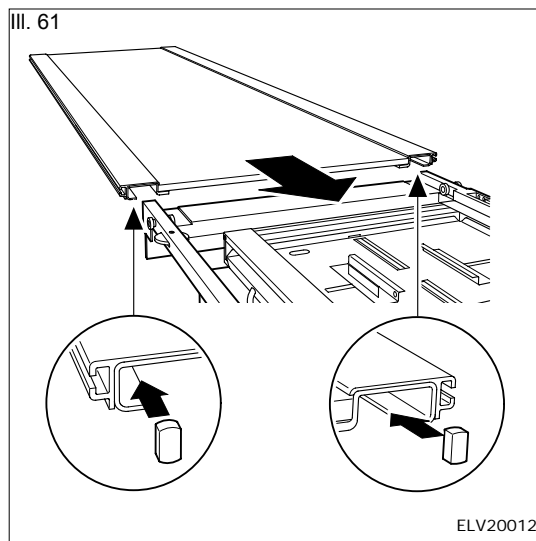
Therefore pull back the table top until you can see one of the brake solenoids.

Loosen set screw (1). Adjust the brake with the hex screw (2) behind the solenoid thru the bore hole in the table frame underneath.

Counter with the set screw (1).

Adjust the second brake solenoid in the same way.

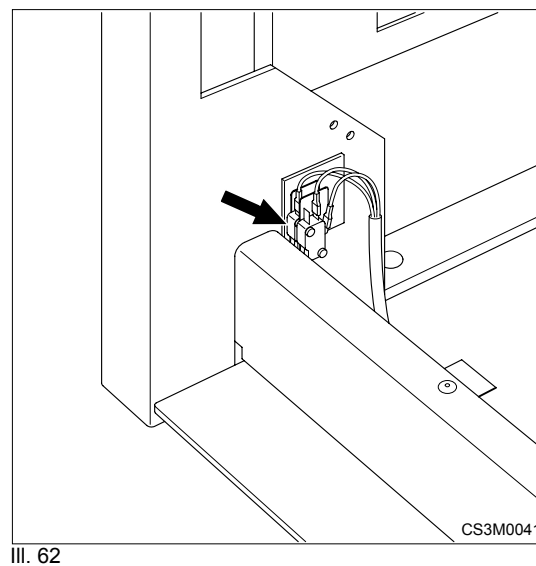
CS 3000



Move the table top over entire travel range.
Check for running noise and easy movement.
Adjust eccentric bearing (6) if necessary.

Slide in the table top and while holding down
the solenoids. Reinstall bumpers and end
Stop's (III. 55).

8.1.1.5 Foot switch



Check mobility and switching point. Adjust the
switch if necessary.
Check the cable and connection for the switch.

CS 3000

8.1.2 Column

8.1.2.1 Vertical carriage

Remove all covers of the column and vertical carriage.

Clean the running surface of the column and the bearings of the vertical carriage. Check upon damage and grease lightly.

Check for easy movement over entire travel range. Running noise? Determine defective bearing and replace if necessary.

8.1.2.2 Checking the wire ropes

- The wire ropes should be checked at least once a year by service personnel.
- Therefore move the vertical carriage all the way down and remove both trim covers in the middle of the column.
- Clean both wire ropes (do not use fat solvents) and check upon damage. To detect broken strands run a cotton ball or soft cloth along the wire rope over the entire length. In this way a defective wire rope can easily be detected because you can see if debris of the cloth or cotton ball will stick to the rope.

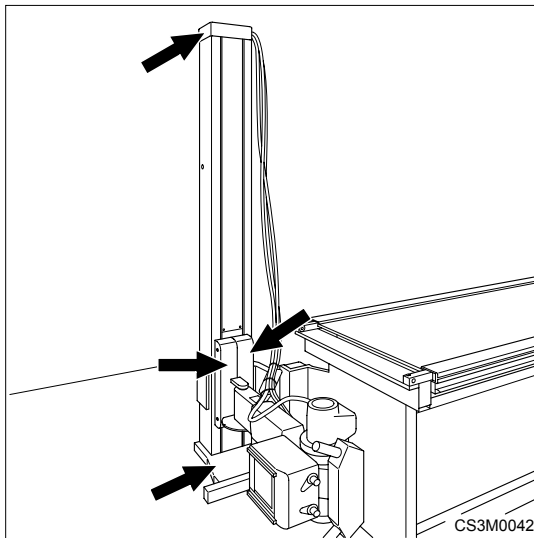
The wire ropes must be changed:

- Every three years of operation,
- If 12 or more loose strands or wires of the rope can be found in a section of 100 mm length.,
- If 3 or more loose or broken strands of the wire rope can be found in a section of 10 mm length.

Even if only one single strand of the wire rope is broken the user must be informed about this that further operation of the unit may endanger the safety of the patient and user. The column should not be used as long as the defective wire rope has been exchanged.

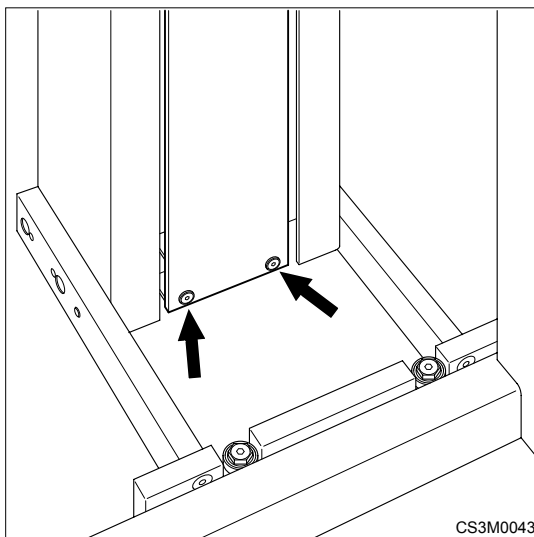
CS 3000

8.1.2.3 Exchanging the wire ropes



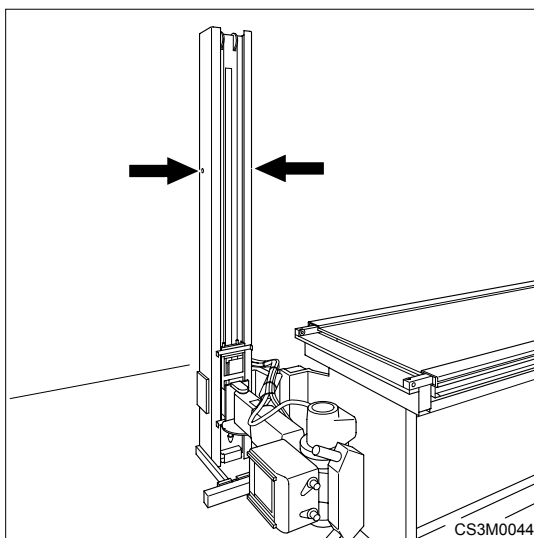
III. 63

1. Drive column all the way to the left end stop of the guide rails (to the right if you have a right hand version).
2. Rotate tube to 90° (to pass the table) and move the tube all the way to the floor.
3. Remove fastening screws of the head piece and the head piece also eventually loosen the cables from the head piece.
4. Remove the left and right cover of the tube support arm.
5. Remove the foot trim cover.



III. 64

6. Loosen the mounting screws of the center trim cover at the bottom of the column and remove the trim cover.

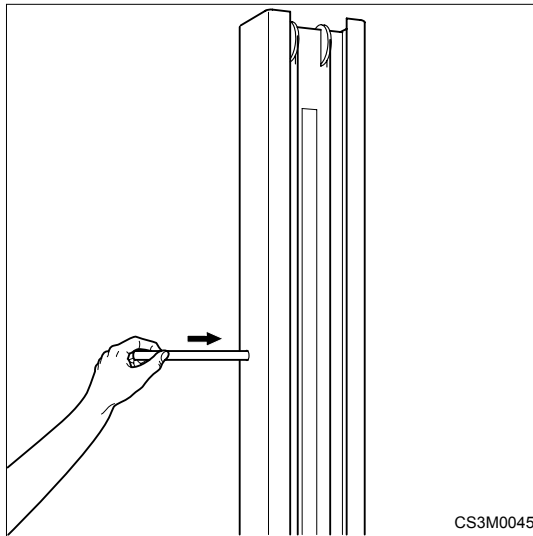


III. 65

The illustration shows the column with the cover removed.

7. Remove the cover caps from the right and left hand side of the column.

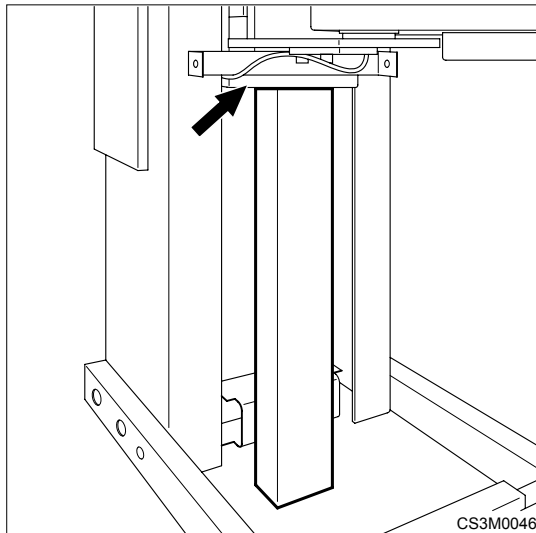
CS 3000



III. 66

CS3M0045

8. Stick the rod thru the holes of the column.
9. Move tube support arm upwards so the counterweight can rest on the steel rod.



III. 67

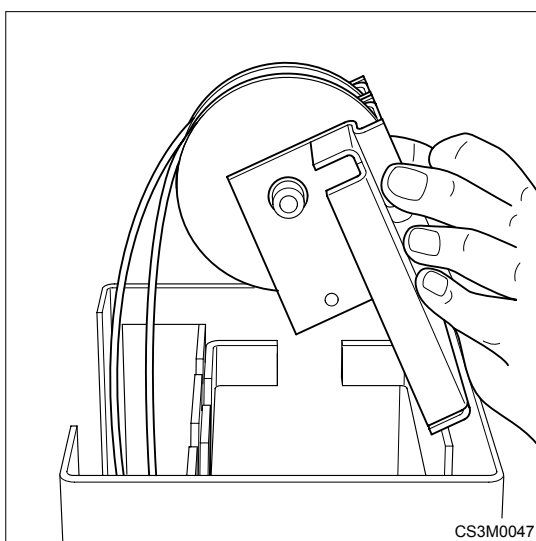
CS3M0046

10. Lift on the tube support arm and place the wooden slat 2" x 3" x 14" underneath the vertical carriage so that the wire ropes will be unloaded.



Note!

Please make sure that the wooden slat is placed directly underneath the vertical carriage and not under the cover holder.

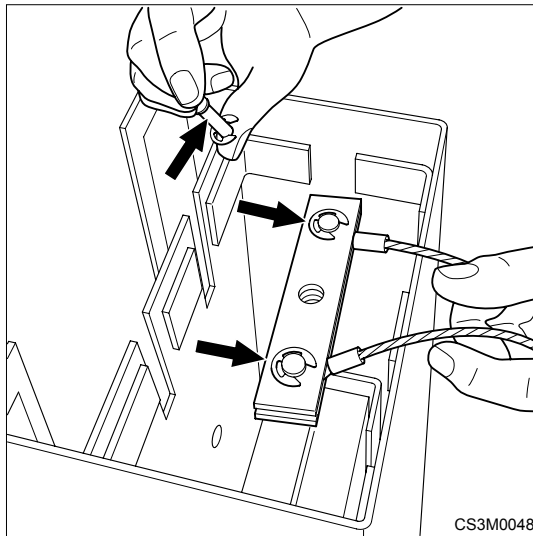


III. 68

CS3M0047

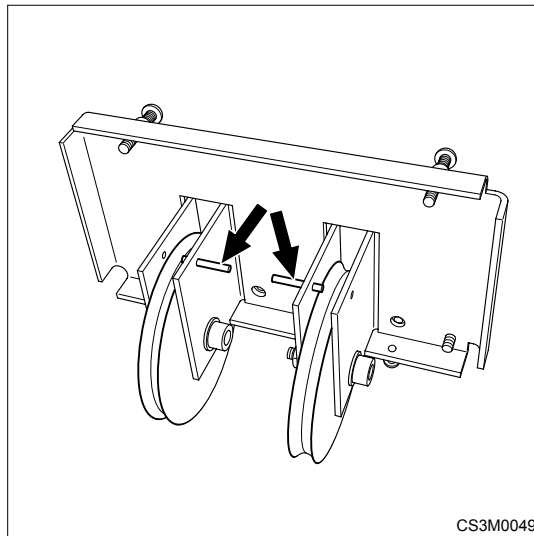
11. Remove the head piece.
12. Knock out the expansion pin and remove the upper wire rope mounting link.

CS 3000



III. 69

13. Remove retaining ring from the retaining pin and draw off the wire rope from the retaining pin.
14. Exchange the wire rope and assemble in reversed order.



III. 70

15. Make sure when installing the expansion pins that the slot of the pins is facing the out side so that the wire ropes can not be damaged.

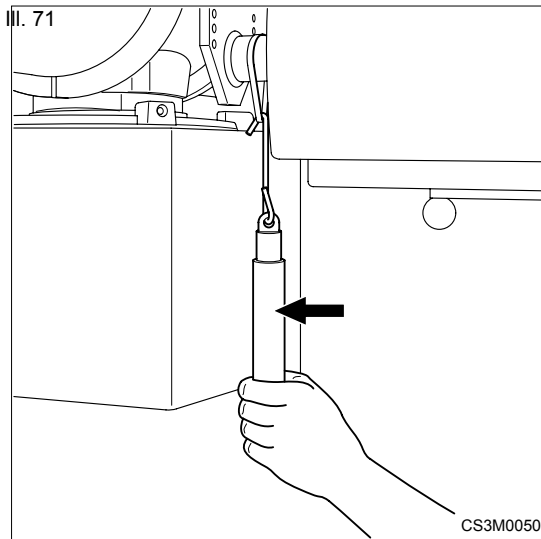


Attention!

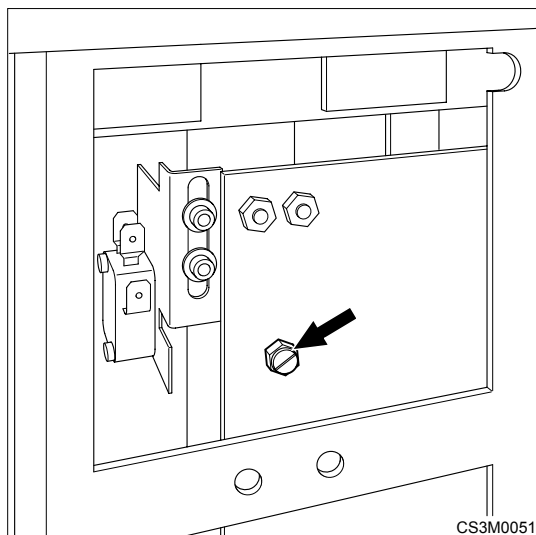
Before mounting the head piece double check that the wire ropes are correctly installed and fastened. (Expansion pins and upper mounting link and retaining ring).

CS 3000

8.1.2.4 Vertical brake



Check the performance of the vertical brake with a spring scale over the entire travel range. The lock holding force should be min. 150 N.

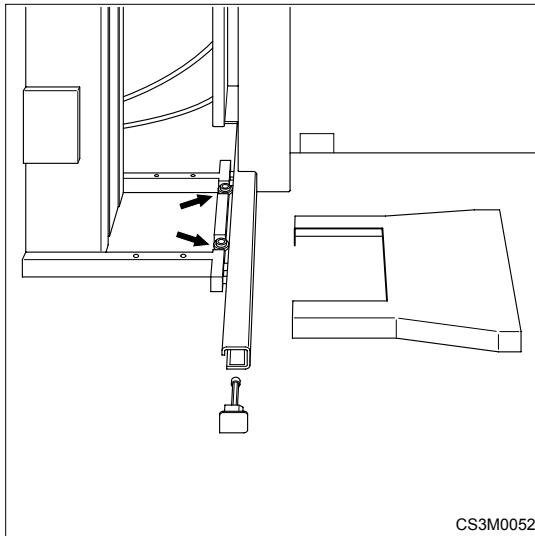


Wipe off the abrasion from the brake solenoid. Adjust lock holding force if necessary therefore loosen counter nut and turn set screw accordingly. Check lock holding force again if o.k. Tighten counter nut.

III. 72

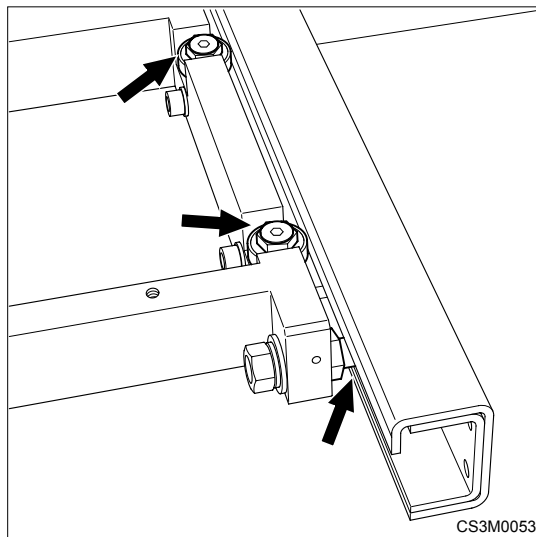
CS 3000

8.1.2.5 Vertical carriage




III. 73

Clean all rollers of the vertical carriage and check for intactness. Check for smooth running over the entire travel range. Any running noises? Determine defective bearing and replace if necessary.



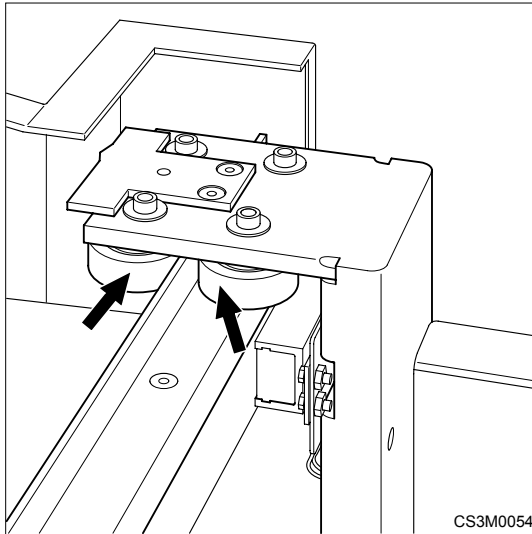
III. 74

Check the bearing play of the rollers if necessary adjust on the eccentrics.

Note!
 You should be able to turn the counter bearing by hand over the entire travel range.

CS 3000

8.1.3 Sled on the table



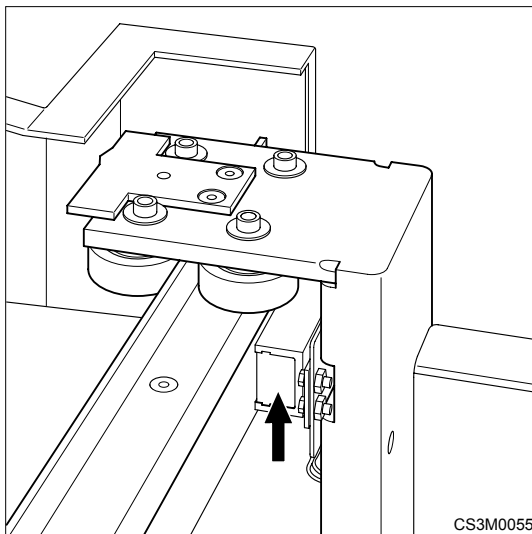
Check the bearing play of the upper and lower rollers, if necessary adjust on the eccentrics of the studs (see III. 37).



Note!

You should be able to turn the counter bearing by hand over the entire travel range.

8.1.3.1 Horizontal brake



Switch on unit. Check the brake for proper functioning adjust if necessary.



Note!

Dismount brake (see also III. 36) and adjust with the set screw accordingly. Install the brake and check function again.

CS 3000

8.1.4 Guide rails

Clean guide rails and check for intactness, regrease lightly. Check the end stops for intactness and firm seat.

With the applied water level on the column check the perpendicularity over the entire travel range. Adjust deviation according Ill. 38 .

8.1.4.1 Cleaning

Remove dirt from places during maintenance work where normally the cleaning personnel have no access.

Soak radiopaque material with water and remove it.

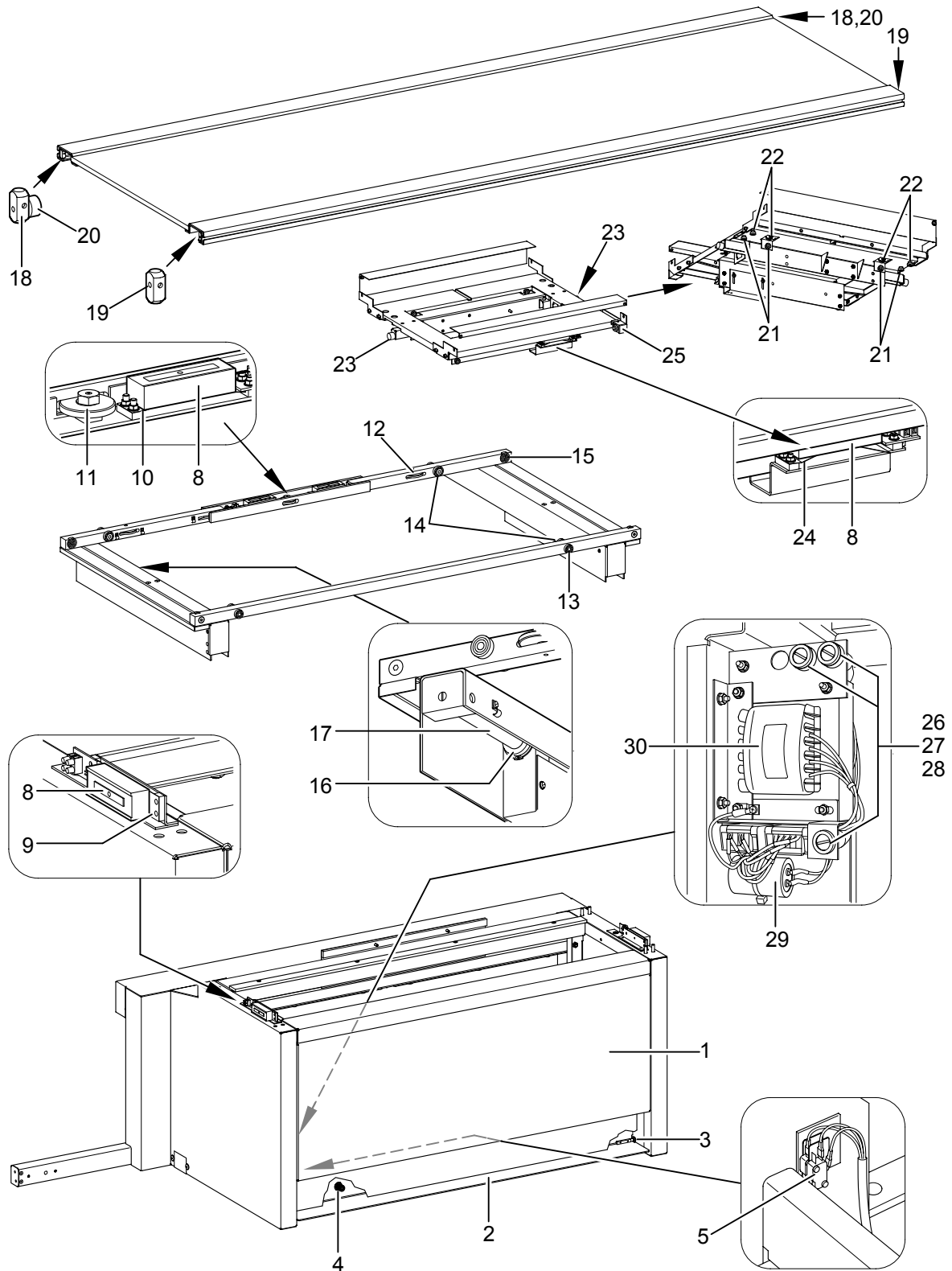
8.1.4.2 Finishing maintenance

After finishing maintenance reinstall all covers and check if all locks and movements are working properly.

CS 3000

9 Spare parts

Table with railstand

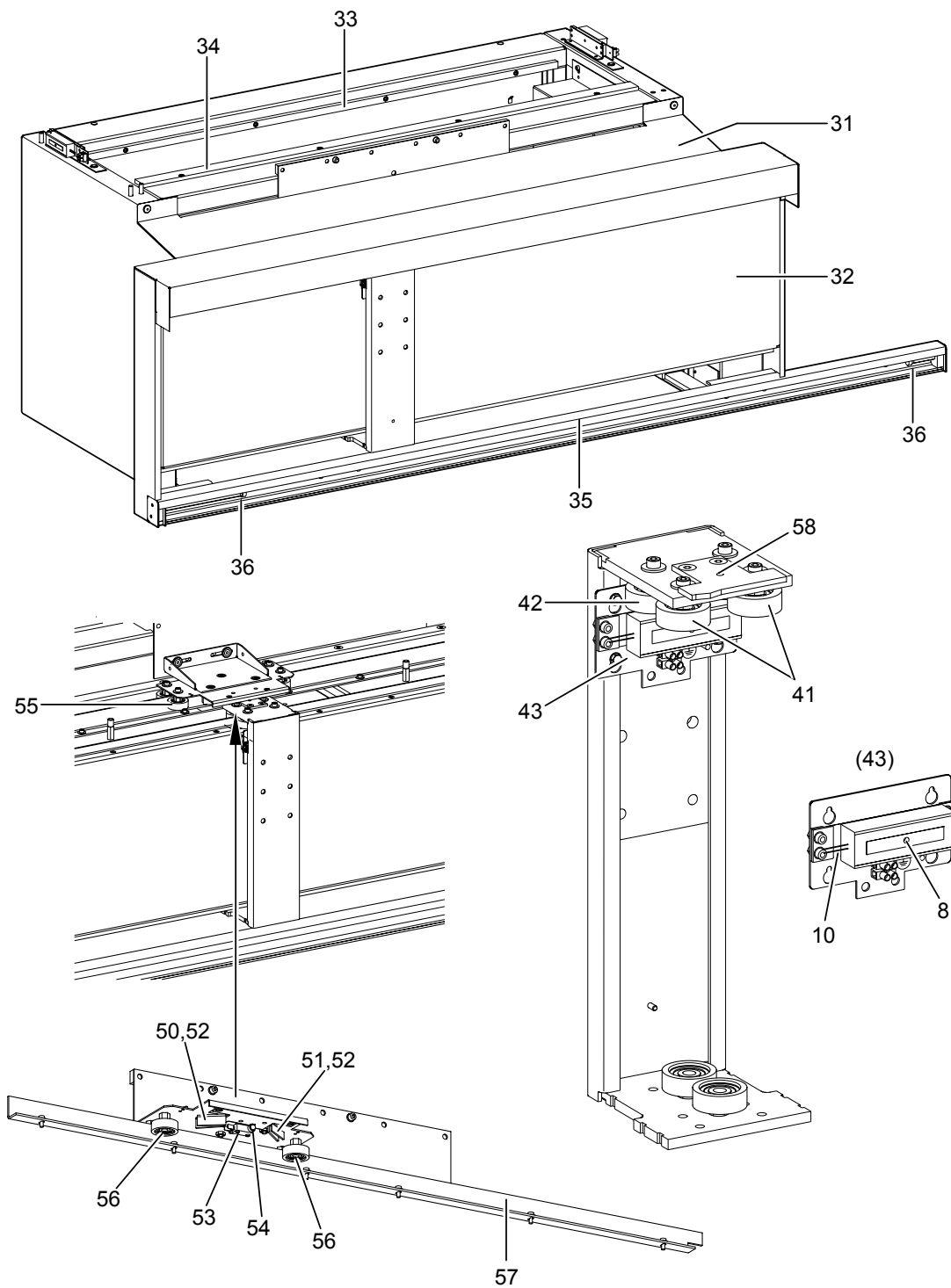


CS 3000

| No.: | Designation | Ass./Part | Ordering-No.: |
|------|-----------------------------|-----------|---------------|
| | Table with railstand | | |
| 1 | Front cover | | L01280181 |
| 2 | Foot pedal | | L01280156 |
| 3 | Pedal holder | | L01252539 |
| 4 | Pressure spring | | 00050042r |
| 5 | Micro switch | | 00060184 |
| | | | |
| 8 | Solenoid | | 00060603 |
| 9 | Laminated spring | | 01050153 |
| 10 | Laminated spring | | 06220531 |
| 11 | Guide roller small | | 06320420 |
| 12 | Guide roller big | | 06320422 |
| 13 | Eccentric axis complete | | 06320424 |
| 14 | Bearing with bushinh | | 06220556 |
| 15 | Bearing with bushing | | 06220557 |
| 16 | Linar bearing | | 00050191a |
| 17 | Guide shaft | | 06220528 |
| 18 | Stop painted | | L01280436b |
| 19 | Stop painted. | | L01280436a |
| 20 | Rubber metal bumper | | 00050164g |
| 21 | Eccentric complete | | 06320659 |
| 22 | Bearing axis complete | | 06320657 |
| 23 | Rubber metal bumper | | 00050108 |
| 24 | Laminated spring | | 06320418 |
| 25 | Push button | | 00060084b |
| 26 | Fuse 1,6A(T) | | 00060308b |
| 27 | Fuse 3,2 A(T) | | 00060308g |
| 28 | Fuse 10 A(T) | | 00060308k |
| 29 | Capacitor in aluminium cup | | 31100028 |
| 30 | Transformer | | 00060449 |

CS 3000

Table with railstand

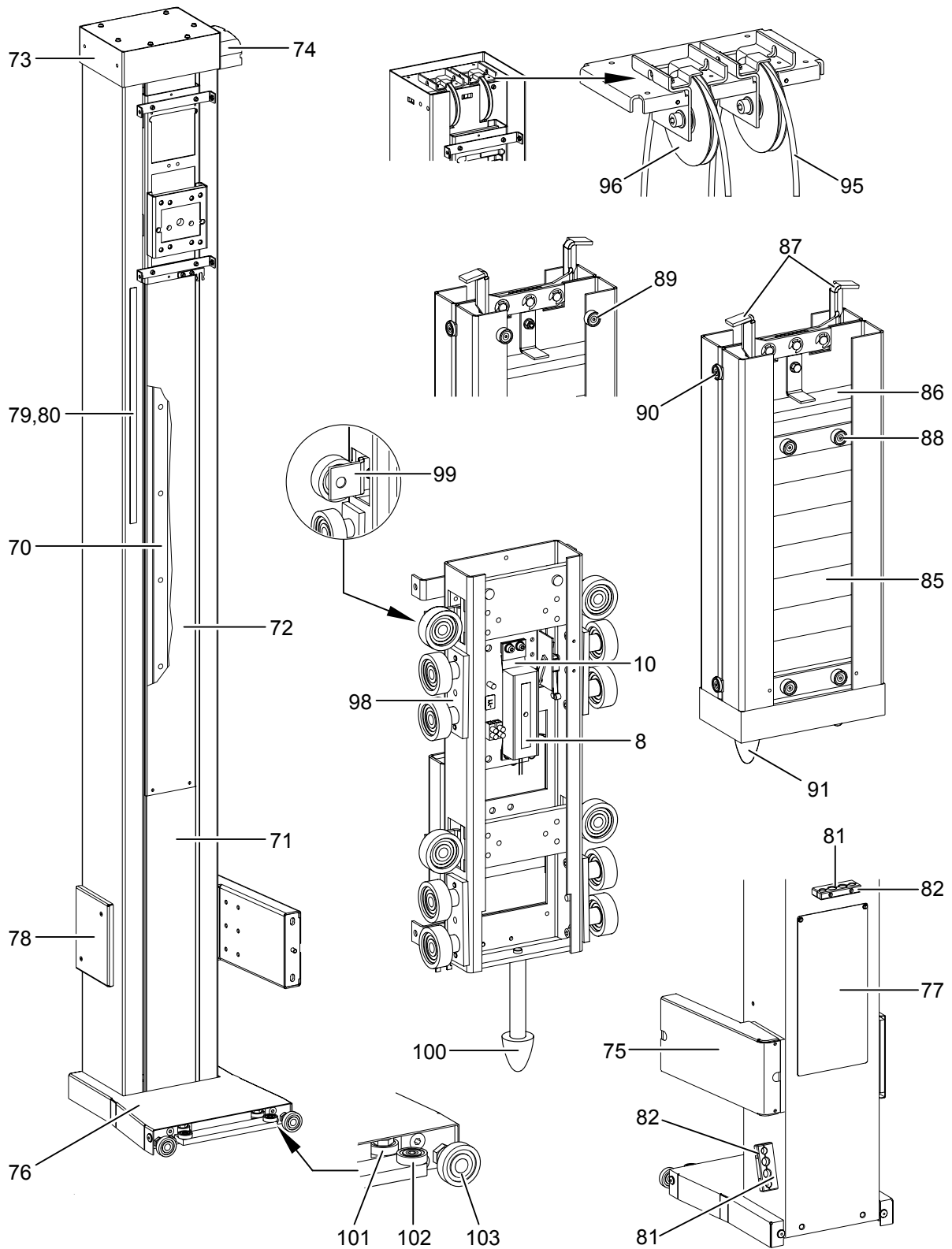


CS 3000

| No.: | Designation | Ass./Part | Ordering-No.: |
|------|-----------------------------|-----------|---------------|
| | Table with railstand | | |
| 8 | Solenoid | | 00060603 |
| 10 | Laminated spring | | 06220531 |
| | | | |
| 31 | Cover rear | | L01280182 |
| 32 | Back wall | | L01280180 |
| 33 | Guide rail front | | 06320172 |
| 34 | Guide rear | | 06320174 |
| 35 | Guide rail welded. | | L01280205 |
| 36 | Rubber metal bumper | | 00050146g |
| | | | |
| 41 | Roller assembly | | 01280243 |
| 42 | Roller assembly | | 01280245 |
| 43 | Solenoid support | | 01280247 |
| | | | |
| 50 | Stop lever | | 0322670a |
| 51 | Stop lever | | 03220670b |
| 52 | Spring | | 03220638 |
| 53 | Micro switch | | 00060079a |
| 54 | Additional actuator | | 00060487 |
| 55 | Roller complet | | 01280498 |
| 56 | Eccentric roller complete | | 01280497 |
| 57 | Guide rail | | 01280496 |
| 58 | Pusher | | 01280249 |

CS 3000

Column complete

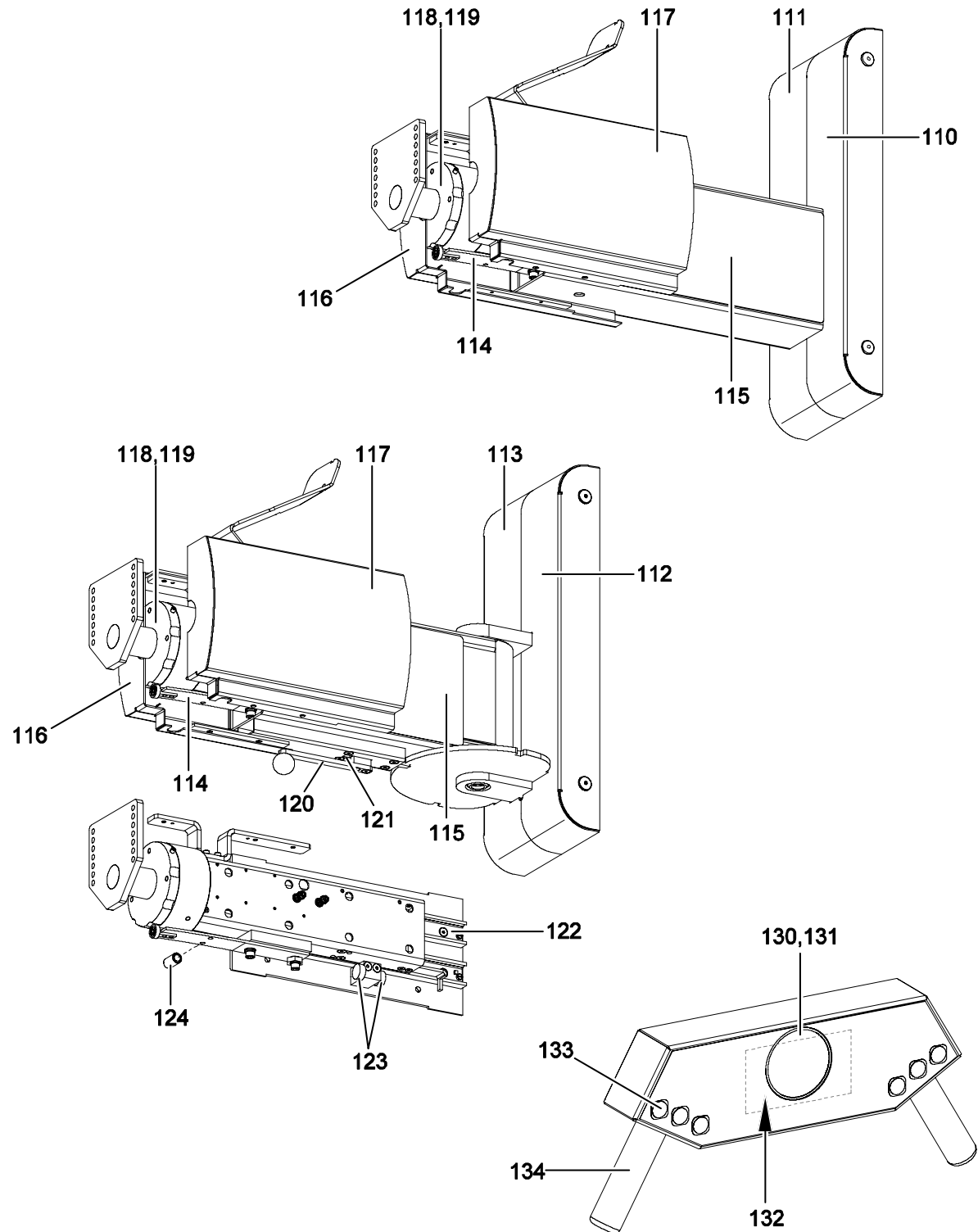


CS 3000

| No.: | Designation | Ass./Part | Ordering-No.: |
|------|------------------------------------|-----------|---------------|
| | Column complete | | |
| 8 | Solenoid | | 00060603 |
| 10 | Laminated spring | | 06220531 |
| | | | |
| 70 | Solenoid rail | | 01280539 |
| 71 | Mean cover , lower | | L01280583 |
| 72 | Mean cover, top | | L01280590 |
| 73 | Head cap painted | | L01280600 |
| 74 | Cable arch welded painted | | L01280610 |
| 75 | Cover welded painted . | | L01280637 |
| 76 | Column bottom cover welded painted | | L01280670 |
| 77 | Weight stack cover welded painted | | L01280537 |
| 78 | Cover | | L01280535 |
| 79 | Scale cm | | 00080106 |
| 80 | Scale inch | | 00080107 |
| 81 | Cable clamp lower painted | | L01280573 |
| 82 | Cable clamp top painted | | L01280574 |
| | | | |
| 85 | Main counter weight | | 01280764 |
| 86 | Trim weight | | 01280763 |
| 87 | Grind rocker | | 01280769 |
| 88 | Slide button | | 01280778c |
| 89 | Slide button | | 01280778b |
| 90 | Slide button | | 01280778a |
| 91 | Rubber bumper | | 00050103c |
| | | | |
| 95 | Wire rope | | 01280566 |
| 96 | Wire rope pulley complete | | 03700191 |
| | | | |
| 98 | Roller pair | | 03700315 |
| 99 | Roller support | | 03700324 |
| 100 | Rubber bumper | | 00050103b |
| 101 | Eccentric with bearing | | 01280660 |
| 102 | Bolt with bearing | | 01280656 |
| 103 | Guide bolt | | 01280652 |

CS 3000

Tube support arm (fixed, pivoting, transversal), Control panel



CS 3000

| No.: | Designation | Ass./Part | Ordering-No.: |
|------|--|-----------|---------------|
| | Tube support arm (fixed, pivoting / transversal) | | |
| 110 | Vertical carriage cover fixed | | 01281030 |
| 111 | Vertical carriage cover fixed | | 01281031 |
| 112 | Trim cover, welded, right (pivoting, transversal) | | 01280746 |
| 113 | Trim cover, welded , left (pivoting, transversal) | | 01280747 |
| | | | |
| 114 | Lock piece | | 01281190 |
| 115 | Cover welded | | L01281085 |
| 116 | Support arm cover left, welded, painted | | L01281200 |
| 117 | Support arm cover right, welded, painted | | L01281212 |
| 118 | Solenoid complete painted | | L03250144 |
| 119 | Spring disc complete | | 03250248 |
| 120 | Lock | | 01281220 |
| 121 | Spring | | 00050136g |
| 122 | Telescopic rail | | 00050485a |
| 123 | Rubber metal bumper | | 00050164a |
| 124 | Spring plunger | | 00050244g |
| | | | |
| | | | |
| | Control panel | | |
| 130 | Pendulum weight complete | | 01281835 |
| 131 | Disc | | 03250348 |
| 132 | PC board control panel | | 01282060 |
| 133 | Key pad | | 01281840 |
| 134 | Hand grip painted | | L01281828 |

CS 3000

10 Name plate location

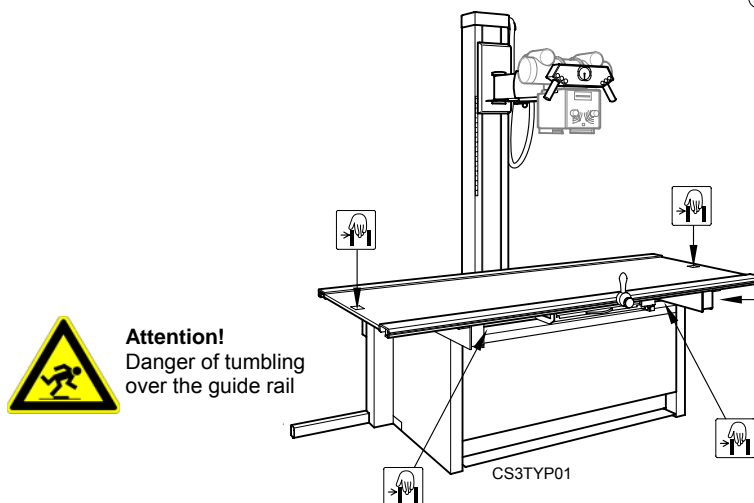
Labeling:

| | |
|--|---|
| PAUSCH technologies | |
| Graf-Zeppelin-Str. 1 D-91065 Erlangen | |
| Type | <input type="text" value="0128 0001"/> |
| Fabr. Nr. | <input type="text"/> |
| Datum | <input type="text"/> |
| Spanng. | <input type="text" value="115 / 230V"/> Volt DC |
| Frequenz | <input type="text" value="60 / 50 Hz"/> Hertz |
| Strom | <input type="text" value="2 / 1 A"/> Ampère |
| Made in Germany | |

CS3TYP02



TYPD0002



Attention!
Danger of tumbling
over the guide rail

CS3TYP01

2. CE-Label



TYPD0002

3. UL-Label



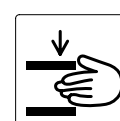
TYPE0002

5. Typ B



TYPD0003

6. Attention! Pinch points



TYPD0004

Specifications are subject to change without notice.