

# KONGSBERG ENTRO 20



## Site Preparation Guide

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# 1. PREFACE

## Site Preparation Guide

Kongsberg Entro 20

 **NOTE:** We remind you that only the Kongsberg Staff, or persons having received appropriate training, are allowed to handle, manipulate or do repairs on the system.

 **NOTE:** Original instructions are in English. Instructions in other languages are translations of original instructions.

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Document no: D3697

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## 2. CHANGE RECORD

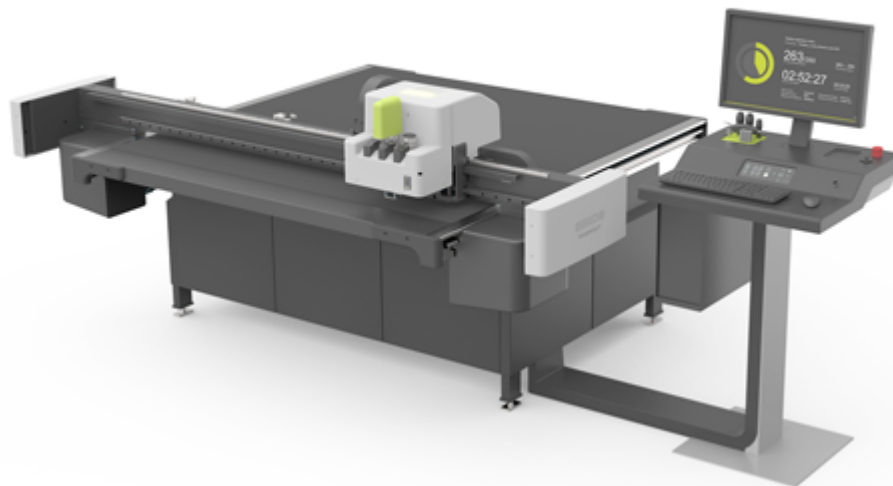
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## 3. INTRODUCTION

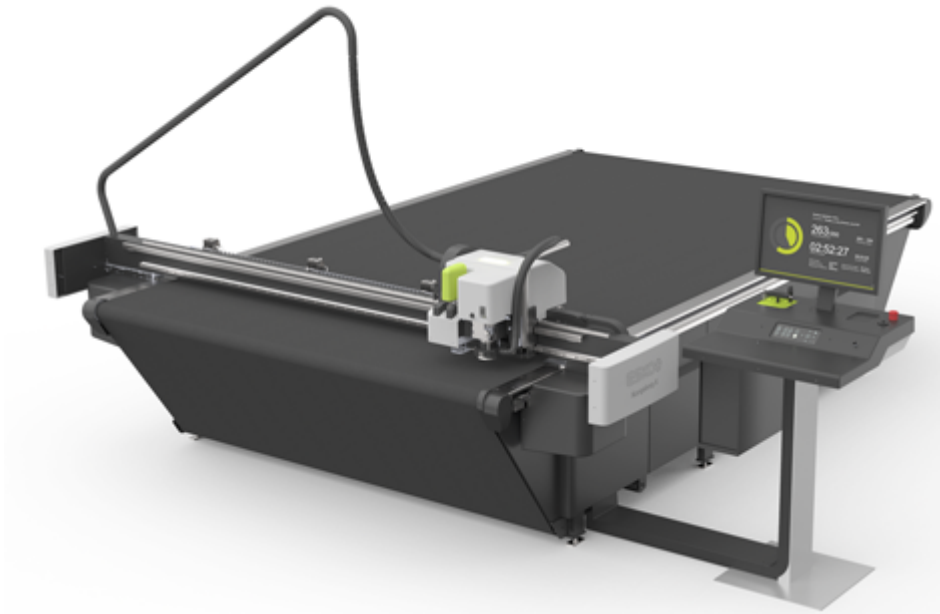
### 3.1. Welcome

Welcome to a long-lasting co-operation with Kongsberg Precision Cutting Systems.  
This **Site Preparation Guide** is intended to provide information about the equipment that you will receive and how to prepare the site for the installation.

Note: Some of the equipment described in this manual might not be available for Kongsberg Entro. The images shown here are for reference only, and contains various options.



E20 with FlexiHead



Machine with Conveyor Belt and MultiCUT

## 3.2. About Installation

Before the **Service Engineers** arrive on-site to install the system, the following items given in this handbook should be done:

- Prepare the destination room.
- Prepare all electrical supplies.
- Prepare compressed air supply. If an **Air compressor** is delivered from Kongsberg, a suitable place for the unit should be prepared.
- Prepare a suitable room for the **Vacuum pump**. Due to its acoustic noise, the **Vacuum pump** should be located in a room away from people. Remember electrical supply for the **Vacuum pump**. Proper ventilation of heat generated by the **Vacuum pump** is required.
- Bring the crates containing the equipment into the destination room, but do not open.

If properly done, this preparation permits the system to be commissioned as quickly as possible. The less time spent on the installation, the more time our engineer can spend with department designers and/or table operator(s) training them on system operation.

If the customer requires additional information, over and above that given here, the **Kongsberg Service Department** will be glad to provide it.

To ensure that no damage occurs to essential parts, Kongsberg Service Engineers must unpack all equipment.

**Under no circumstances must either crates or boxes be opened with crowbars or similar tools, this can cause damage to the contents.**

Immediately after an item is unpacked, it must be inspected carefully for signs of damage.



**NOTE:** We remind you that only the Kongsberg Staff, or persons having received appropriate training, are allowed to handle, manipulate or do repairs on the system.

## 4. RESPONSIBILITIES

### 4.1. Supplier responsibilities

	Description	Responsibilities includes...
1	Support you during the site preparation process	<ul style="list-style-type: none"> <li>• Providing you with guidelines and information on how to prepare your site.</li> </ul>
2	Install your Kongsberg table	<ul style="list-style-type: none"> <li>• Working safely and in accordance with local regulations/requirements.</li> <li>• Un-crating and unpacking the table with assistance from the customer.</li> <li>• Assembling and setting up the Kongsberg table in accordance with the Installation manual.</li> <li>• Testing and verifying correct operation of the Kongsberg table.</li> </ul>
3	Train your operators	<ul style="list-style-type: none"> <li>• Providing operator training in line with the training manual defined by Kongsberg PCS.</li> <li>• Ensuring that any materials benchmarked or demonstrated are cutting properly.</li> <li>• On satisfactory completion of installation and training, countersign the delivery, system acceptance and training documentation.</li> </ul>

### 4.2. Customer responsibilities

After your purchase of a Kongsberg table, it is your responsibility to prepare your site for the installation process.

This preparation permits the table to be commissioned as quickly as possible - and it also allows our Field Service Engineer to spend more time training your designers and/or table operator(s).

Step	Description	Your responsibilities include...
1	Prepare the room in which the table will be installed	<ul style="list-style-type: none"> <li>Preparing adequate electrical supply according to local regulations.</li> <li>Preparing compressed air supply according to local regulations.</li> <li>Preparing a suitable room for the vacuum pump, with the proper electrical supply according to local regulations.</li> </ul> <p><b>Note:</b> Lockable ON/OFF switches may be required by local regulations.</p>
2	Confirm to supplier that your site is ready	<ul style="list-style-type: none"> <li>Completing, signing and returning the <b>Site Readiness Confirmation Form</b> 10 days prior to installation.</li> </ul> <p>This form is available <a href="#">here</a>.</p>
3	Receive the crates	<ul style="list-style-type: none"> <li>Receiving and inspecting the crates on delivery.</li> <li>Moving the crates into the room in which the table will be installed, if possible.</li> </ul>
4	Assist during the installation	<ul style="list-style-type: none"> <li>Providing a safe working environment for the Field Service Engineer from supplier.</li> <li>Assisting the Field Service Engineer with heavy lifting on the first day of installation, 6 to 8 able people will be required to assist with lifting the table components. Note: Supplier will discuss the weight and lifting technique of the individual components with the customer during the planning of the site preparation.</li> <li>Disposing of the crates and packaging once the machine is unpacked, adhering to local guidelines and regulations.</li> <li>Providing adequate material for testing, setup and operator training.</li> </ul>
5	Free up operators to be trained	<ul style="list-style-type: none"> <li>Make operators available to follow the complete training course, as scheduled in agreement with supplier, and as outlined by Kongsberg PCS.</li> </ul>
6	Accept	<ul style="list-style-type: none"> <li>On satisfactory completion of installation and training, countersigning the delivery, system acceptance and training documentation.</li> </ul>

## 5. RECEIVING EQUIPMENT FROM KONGSBERG

### 5.1. Inspection of Equipment

In case of visual damage to one or more of the crates upon delivery, a note/remark should be made on the receipt of the forwarder and the forwarder should be notified.

Shipper shall be informed about the damage, and the signed receipt with remark should be sent to the shipper.

The signed receipt is very important as proof of damage in case there is damage to the contents of the shipment for the further processing of the case.

Photos should be made of the damage, preferably before the goods are unloaded from the truck.

The photos need to be sent to the shipper, or to Supplier.

The goods are not to be opened without the presence of qualified Kongsberg Service Engineer or partners.

If damage is found while unpacking the unit, the Service Engineer from supplier needs to make photos of this and sent it to shipper, or to Kongsberg PCS.

### 5.2. Temporary Storage

While in the crates, store the equipment in a storage room, protected from weather, including direct sunlight and extreme temperatures.

The storage temperature must be kept within -20° C to +40° C / -4° F to +104° F with humidity less than 95% RH non-condensing.

### 5.3. Table Transport

Due to its high weight, special attention should be paid to the methods used to bring the table tops into the destination room.

Typical weights (one table section):

Table	Kg	lbs
E20	230	506

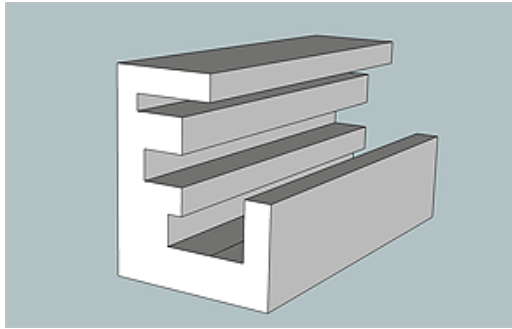


**NOTE:**

- Recommendations are valid for all mechanical parts.

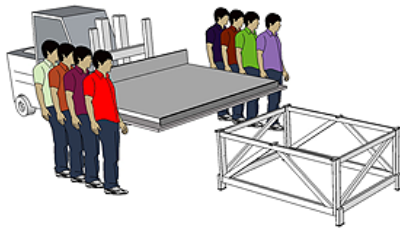
- Adhere to **Local Regulations** regarding lifting safety.
- Adhere to **Local Regulations** regarding protective equipments, such as protective shoes and gloves.

Please follow the recommended rules:



Foam block

- Keep the table top(s) in the wooden crate(s) as long as possible. While in the case, the top(s) are protected even if moved vertically.
- Use forklift for lifting.
- Be careful when the table is moved out of the wooden case.
- **Use foam blocks to protect the racks.** Minimum height 50 mm / 2 in.; blocks are included in the shipment (picture).



- When lifting, do not lift by the racks or guides. Use the front and back ends of the table for lifting as illustrated.
- Be extremely careful not to hit the racks or guides in any way.
- If the table is moved in vertical position, place foam blocks along the bottom side of the table.



**NOTE:** If installation according to **Local Regulations** is not possible, a firm of movers should be hired.

## 6. ROOM PREPARATION

### 6.1. About Room Preparation

The accuracy obtained from the system depends upon room standards.  
In order to maintain the high accuracy, the instructions given here must be adhered to.


### 6.2. Environmental Requirements

Description	Requirements
Temperature:	Operating: +10°C to +30°C / +50°F to +86°F
Relative Humidity:	Operating: 30% to 80%

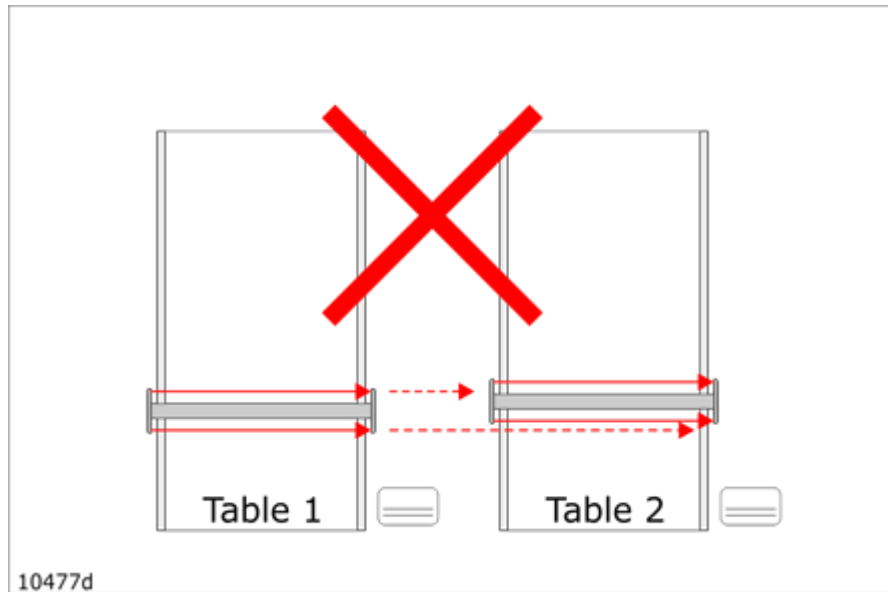
Note: The accuracy of the system is related to a temperature of +20° C / +68° F, and a relative humidity of 50%.

### 6.3. Workflow

To obtain maximum productivity, rational material handling is important. Please note the recommended material transport directions indicated in the System Layout chapters.

 **WARNING:** Handling heavy materials is a danger to personal health. Actions should be taken to avoid manual lifting of heavy materials.

### 6.4. Two tables in the same room



If possible, avoid two tables positioned as shown above.  
The two safety systems can interfere with each other.

There is a possible workaround, but the best is to find another layout.

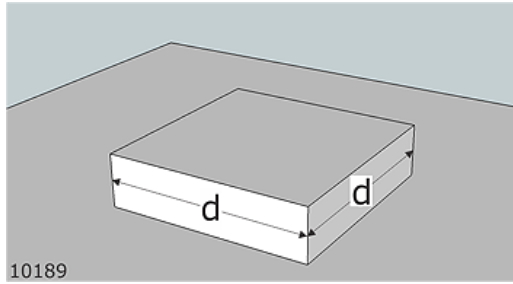
## 6.5. Material Storage

The conditions under which materials are stored is important where accuracy is concerned. Assuming that an air-conditioned room is provided for the Cutting System, we recommend that the material to be used is stored in a room with the same conditions as in the cutting room.

## 6.6. Floor Load and Level

- The floor must be level and capable of supporting an evenly distributed load of 500 kg/m<sup>2</sup> (0.7 lbs/in<sup>2</sup>).
- The flatness of the floor area prepared for the machine should be within +/- 5 mm (+/- 0.2 in.).
- The floor must be able to prevent the table from being subjected to vibrations.
  - Most shop/office floors meet these requirements.
  - Certain mezzanin or wooden floors might be insufficient.

## 6.7. Computer Floor



Provided there are solid bases for table legs (e.g. concrete foundation or steel beams), it is recommended that the floor is built in the style used for computer and electronic equipment installations.

This style provides removable false-floor sections with channels underneath for cables.

Illustration: concrete foundation, d is minimum 300 mm / 12 in.

## 6.8. Floor Covering

Floor-covering materials must be non-static.

## 6.9. Furniture

The furniture in the room (i.e. chairs, desks, cabinet's etc.), additional to the system equipment, should be made of low-shedding, low static-generating materials.

## 6.10. Noise Level

The system generates a noise that can be hazardous if people have to work nearby the machine over time.



### WARNING:

The noise level should be taken into account when the room and machine location is planned. For the operators, hearing protection should be available and used.

Description	A-weighted sound pressure level dB(A). (Material dependant).
Table running silent tooling, average	67
Running High Freq. knife tool, average	79

For **Vacuum pump**, see chapter 'Vacuum pump, introduction'.

## 6.11. Network Connection

A network connection with internet access should be available to the **Front-end PC**.

## 6.12. Direct Mains Connection, Guidelines

A lockable Mains Power disconnecting device shall be installed to avoid that the power supply accidentally is switched on while maintenance is carried out. The device shall be provided with a means to be locked in the OFF position. Alternatively a wall outlet for mains connection may be used, provided it is located in a position where it is visible from the equipment.

All electrical installations shall be according to local regulations.

The wall outlet shall meet the following requirements according to EN60204-1:

- Short circuit protection by fuses.
- Insulation failure protection by automatic disconnection or alarm signal.

It is the customer's responsibility to prepare the electrical installation according to local requirements.

The conductors from the mains to the units should be terminated in 10 to 20 A ground make-first/break-last type sockets.

Each conductor should have a cross section of  $1.5 \text{ mm}^2 / 0.023 \text{ inch}^2$ , and fuses (this applies for all line voltages) should protect live conductors.

The Ground requirements of the system also apply to these conditions.

Recommended line fuse sizes is found in section *Cables, Fuses and Tubing* (Site Preparation guide).

The cables shipped with the system do not have plugs, so that the customer can connect the type suitable for the power sockets.

## 6.13. Ground System

The **Ground System** serves both as a safety-ground and as the common potential reference point for the units of the system.

The ground-leads of all the units of the system should be connected to the common ground terminal in the mains distribution panel (cabinet) for the plant (site) wiring, and must be connected to true ground.

## 6.14. Power Consumption, Mains

Maximum average power consumption, nominal values.

All values in kW		50 Hz			60 Hz		
Component	Basic table	Add for MultiCUT / MultiCUT HP	Add for Vacuum pump 6kW	Add for Vacuum pump 7.5kW	Add for MultiCUT / MultiCUT HP	Add for Vacuum pump 6kW	Add for Vacuum pump 7.5kW
Table	1.2						
PC/Monitor	0.5						
MultiCUT		1			1		
Vacuum Cleaner*		1.6			2.1		
Vacuum pump 6kW*			5.5			6.3	
<b>SUM (MultiCUT; no chiller)</b>	<b>1.7</b>	<b>2.6</b>	<b>5.5</b>	<b>7.5</b>	<b>3.1</b>	<b>6.3</b>	<b>8.6</b>
<b>SUM (without milling tool)</b>	<b>1.7</b>	<b>-</b>	<b>5.5</b>	<b>7.5</b>	<b>-</b>	<b>6.3</b>	<b>8.6</b>

\* - Separate three-phase outlet.

## 6.15. Un-interruptible Power System

Depending upon the stability of the mains supply, an UPS-device (Un-interruptible Power Supply) is recommended.

If installed, both the IPC PC and the cutting table, should be connected to the UPS.

Other devices, as **Air compressor**, **Vacuum Cleaner** and controller for HPMU should connect directly to a wall outlet.

The capacity of a UPS – device should be  $\approx 2000$  W.

## 7. E20 ENTRO

### 7.1. Packaging specification

Entro machines

#### Metric

##### E20

Crates	Length, L (cm)	Width, W (cm)	Height, H (cm)	Weight (kg)	Net weight (kg)
1. Table	205	198	36	320	231
2. Traverse	282	52	100	175	115
3. Frame	198	132	92	430	350
5. Sound Insulating box (optional)	114	104	86	78	69
7. Air Compressor (optional)	120	80	92	87	67

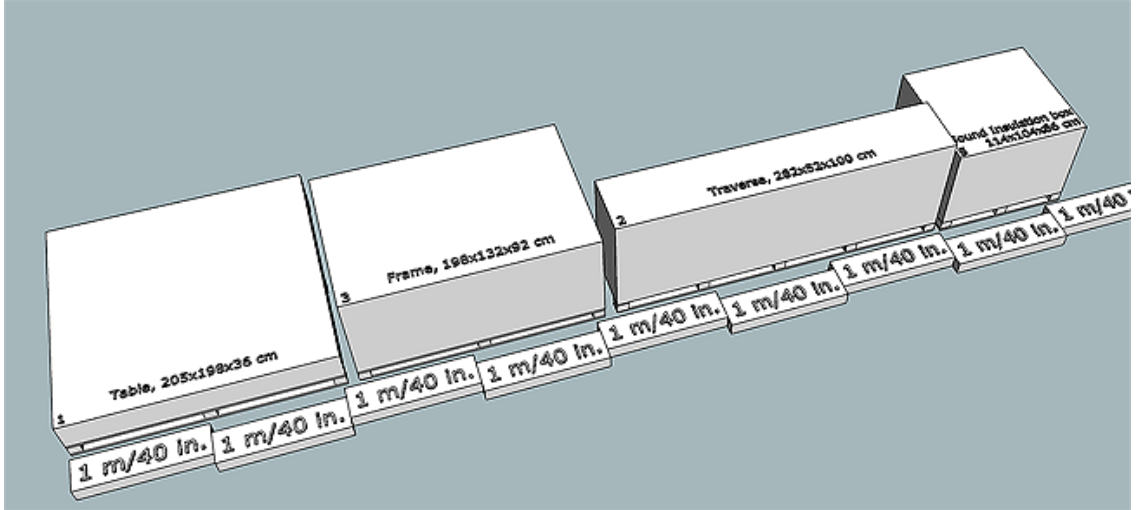
#### Imperial

##### E20

Crates	Length, L (in)	Width, W (in)	Height, H (in)	Weight (lbs)	Net weight (lbs)
1. Table	81.0	78.0	14.5	706	509
2. Traverse	111.5	20.5	39.5	386	254
3. Frame	78.0	52.0	36.5	948	772
5. Sound Insulating box (optional)	45.0	41.0	34.0	172	152
7. Air Compressor (optional)	47.5	31.5	36.5	192	148

#### Illustration

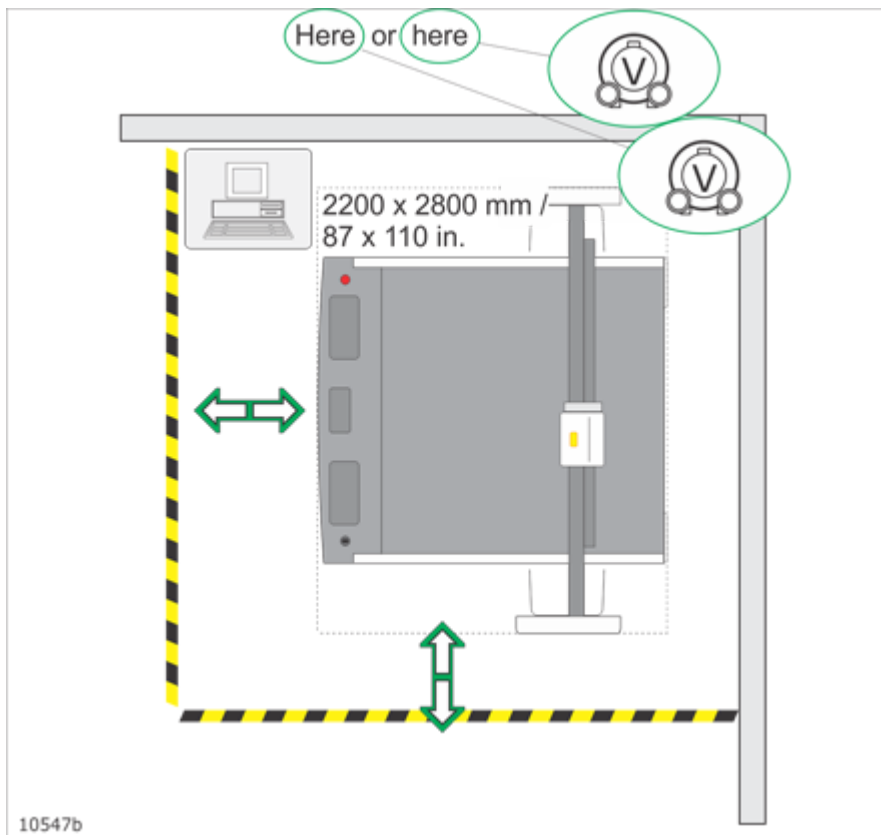
##### E20



This illustration is included just to visualize the total size of the packed shipment.




## 7.2. Room Layout Specification

E20



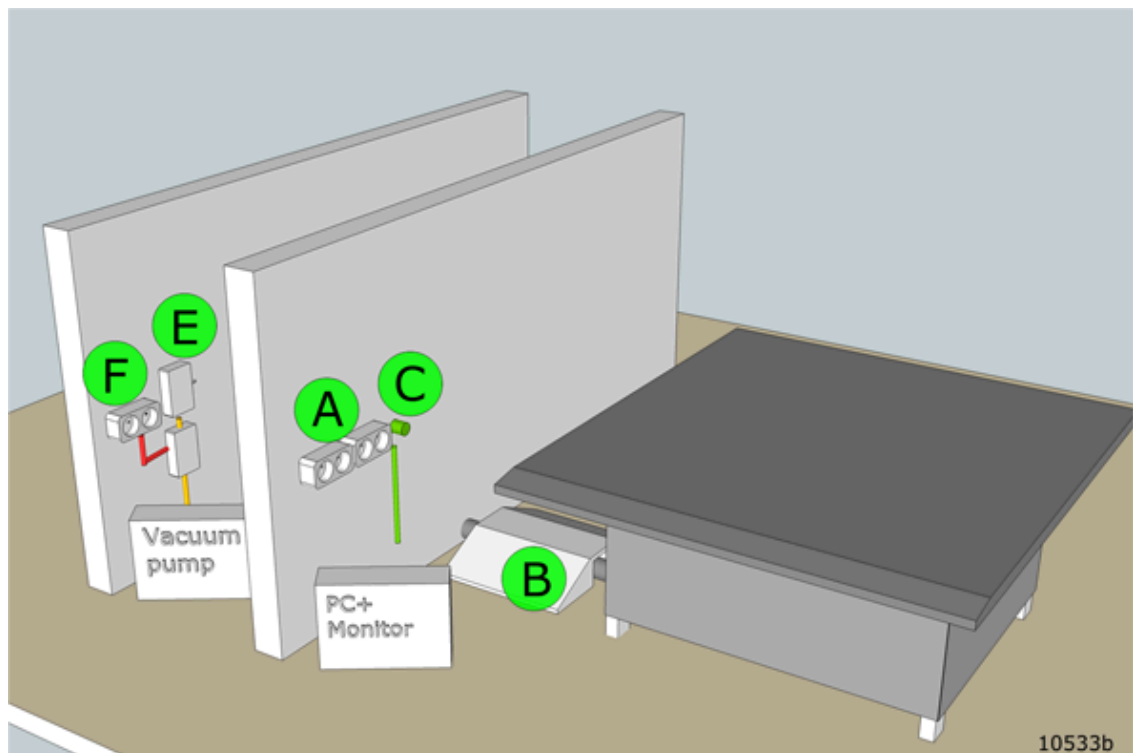
**Note:** Kongsberg Entro has a free-standing operator station, unlike what is shown in the illustration above.

Pay attention to **effective work flow** and **proper material handling**.

Symbol	Explanation
	<b>Vacuum Pump</b> Required floorspace: 700 x 700 mm/28 x 28 in.
	Material work flow indication
	<b>Attention area</b> <ul style="list-style-type: none"> <li>• Safety-area - for trained personnel only.</li> <li>• Maintenance area - this is the minimum free space around the table to allow for maintenance.</li> </ul>

## 7.3. System Layout, Entro

E20



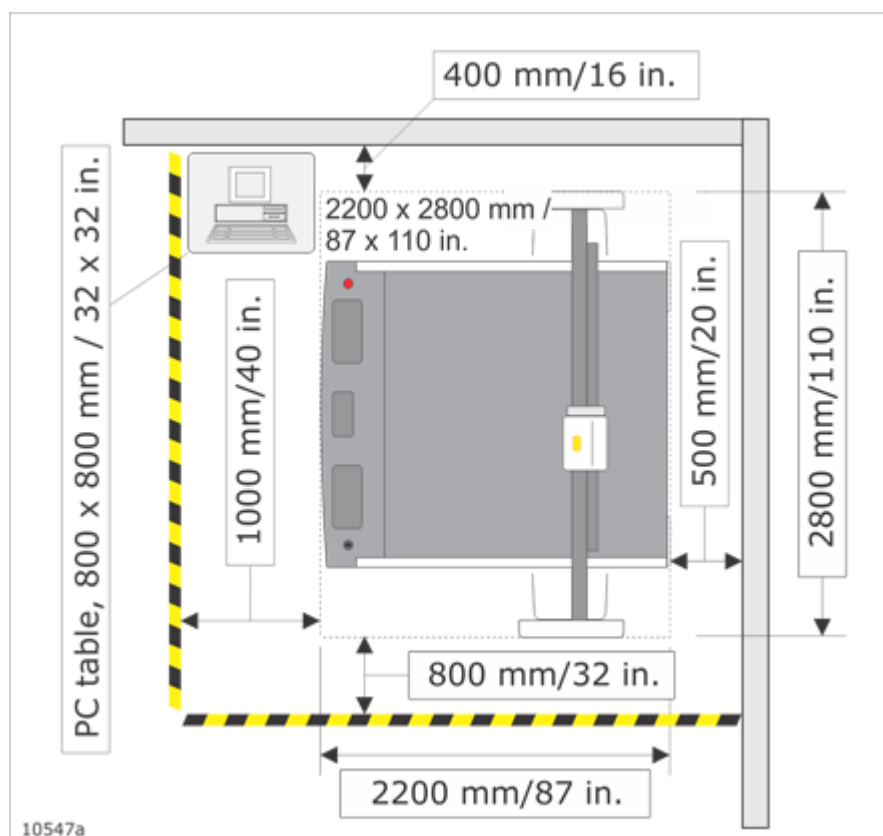
Typical installation

<b>A</b>	Single phase outlets for:	<ul style="list-style-type: none"> <li>• Table</li> <li>• PC</li> <li>• Monitor</li> </ul>
<b>B</b>	Cable protection. Avoid steps on cables and tubes.	
<b>C</b>	Pressurized air outlet.	
<b>E</b>	Three phase outlet for <b>Vacuum pump</b> .	
<b>F</b>	Single phase outlet for <b>Vacuum pump</b> control.	

## 7.4. Table specification

### Space requirements

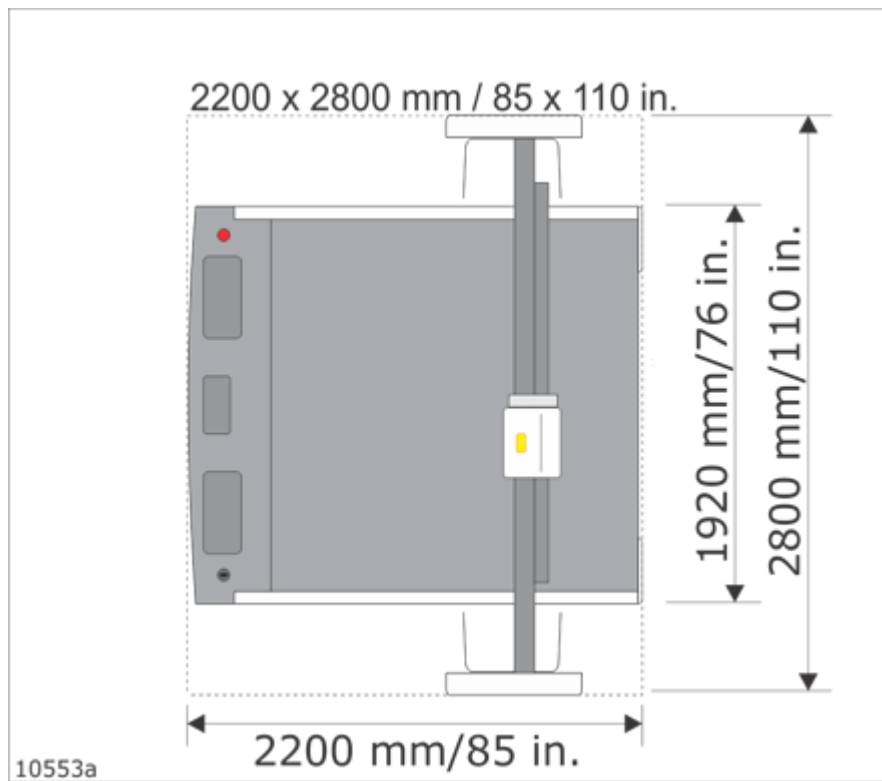
#### E20



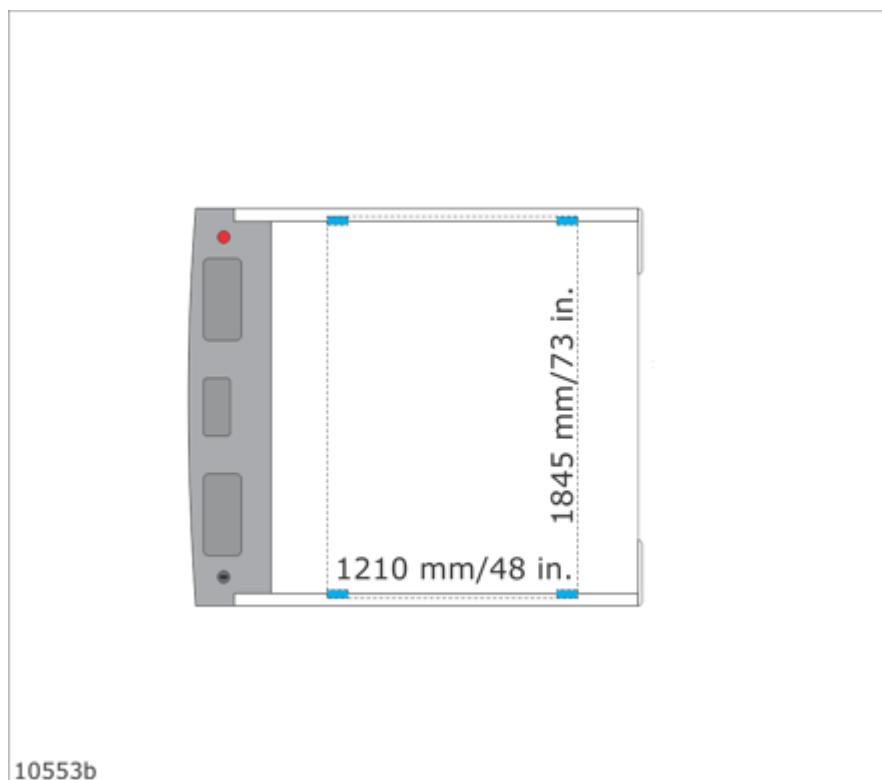
**Note:** Kongsberg Entro has a free-standing operator station, unlike what is shown in the illustration.

### Dimension / Foot print

#### E20



**Note:** Kongsberg Entro has a free-standing operator station, unlike what is shown in the illustration.



**Note:** Kongsberg Entro has a free-standing operator station, unlike what is shown in the illustration.

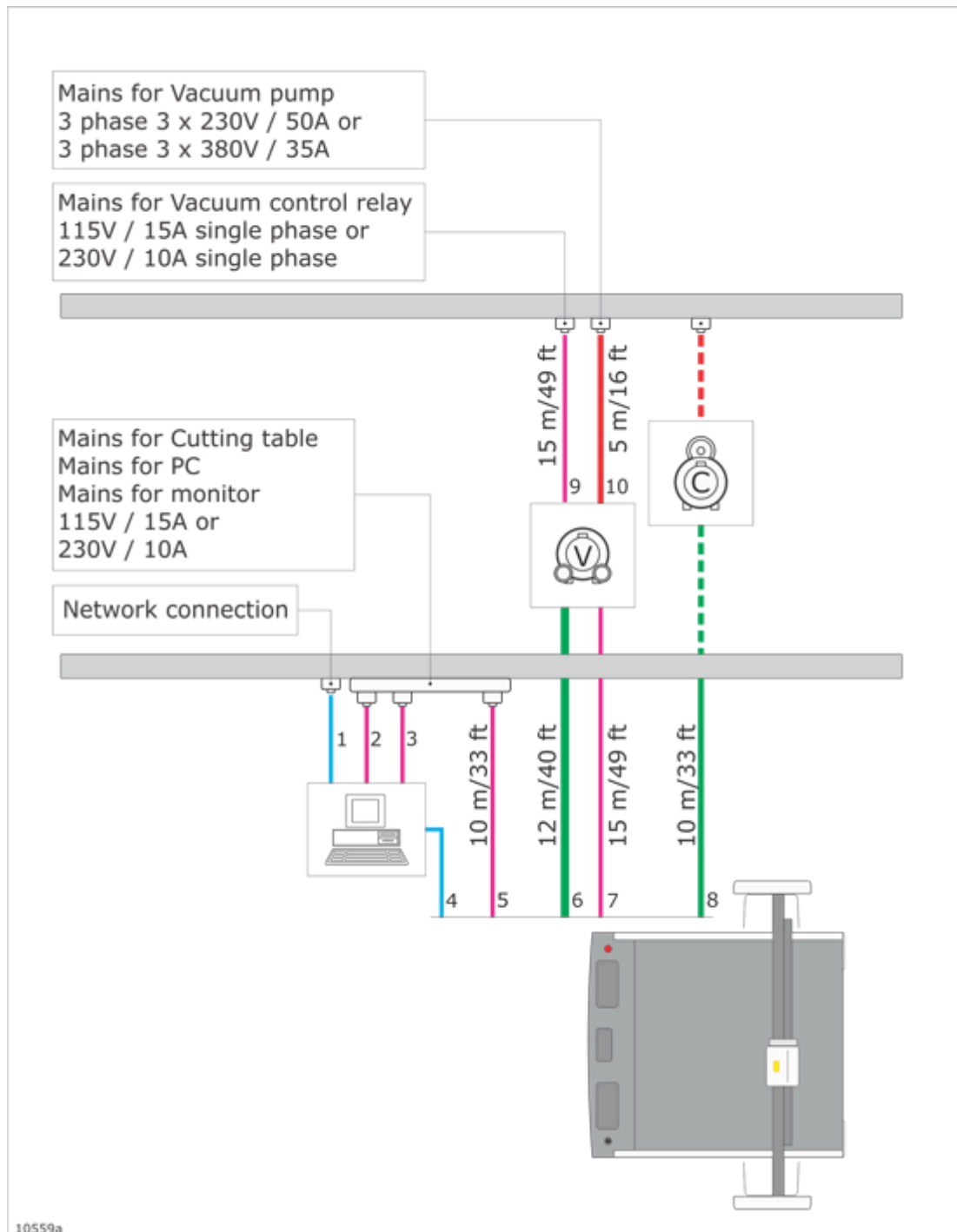
## 7.5. Table weight

### Height and weight

	Metric	Imperial
Height, table top	870 mm	34.3 in.
Height, top of Y carriage	1440 mm	56.7 in.
Weight E20, total	≈720 kg	≈1590 lbs
Weight E24, total	≈1085 kg	≈2395 lbs

## 7.6. Cables, fuses and tubing, Entro

### E20



**Note:** Kongsberg Entro has a free-standing operator station, unlike what is shown in the illustration. In the figure, you find alternatives for: Mains voltage / Fuse size.

Item No	Description	Plug to be supplied by customer	Circuit
1	Network Connection. Customer responsible	Yes	
2	Mains Power for PC	Yes	1
3	Mains Power for monitor	Yes	1
4	Communication PC - <b>Cutting table</b>	No	
5	Mains Power for <b>Cutting table</b>	Yes	1
6	Tube for vacuum $\varnothing 75$ mm	No	
7	<b>Vacuum Pump</b> control	No	
8	Air hose for <b>Pressurised Air</b> connector: 3/8 X 1/4 in.	No	
9	Mains for <b>Vacuum Pump</b> control relay	Yes	2
10	Mains for <b>Vacuum Pump</b>	Yes	3
11	Mains for <b>Air compressor</b>	Yes	4

### Mains Power Requirements

Description	Requirements
Voltage:	Specified value $\pm 10\%$ , 1-Phase
Frequency:	50/60 Hz $\pm 5\%$ .

## 7.7. Pressurized Air System

### 7.7.1. General

The **Compressed Air System** consists of:

- Air Source.
- Industry Pressurized Air or dedicated **Air Compressor**.
- Connection Hose.
- Air Regulator Valve.

The customer is required to provide the pressurized air source.

The customer is required to install the airline that leads from the air source to the table room and terminate the line with a quick connector (**Air Source Outlet**).

### 7.7.2. Air Source Outlet

An outlet for **Compressed Air** connection (3/8 x 1/4 in.) should be located in a position where it is visible from the equipment.

Alternatively, a lockable **Compressed Air** ON/OFF switch can be installed. This to avoid that **Compressed Air** accidentally being switched on while maintenance is carried out.

All installations should be according to **Local Regulations**.

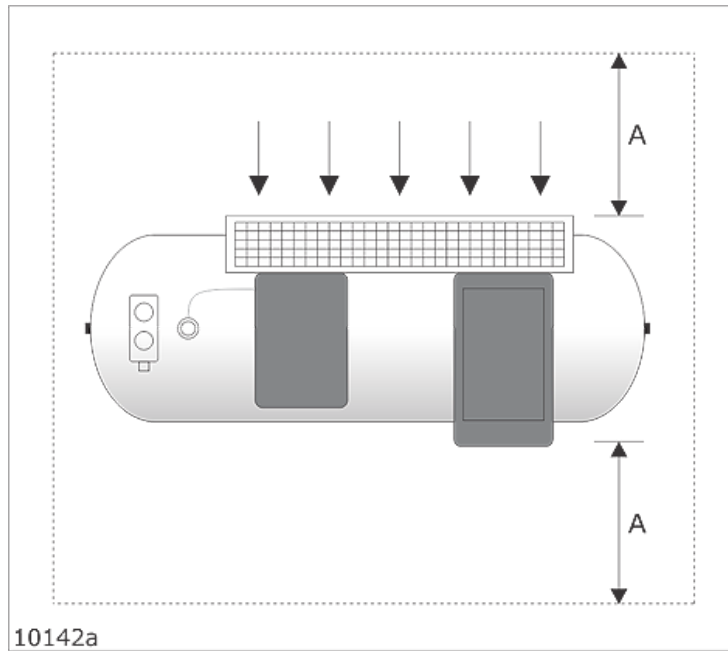
### 7.7.3. Air Source Specification

Capacity at 7 bar:

Description	Requirements
Running all tools	30 l/min / 1 cfm.
Pressure	8 – 10 bar ( 8-10 kg/cm <sup>2</sup> , 8-10*10 <sup>5</sup> Pa ). Constantly above 7 bar measured locally at the outlet for the table.
Moisture content	Dew. Point at least 15 °C / 27 °F below the ambient temperature. Example: If ambient temperature is 20 °C, the required Dew. point is 5 °C.
Purity	Particle content to be less than 5 µm in any dimension.

### 7.7.4. Purchase Compressor

Guidelines to the customer when purchasing / installing a compressor.



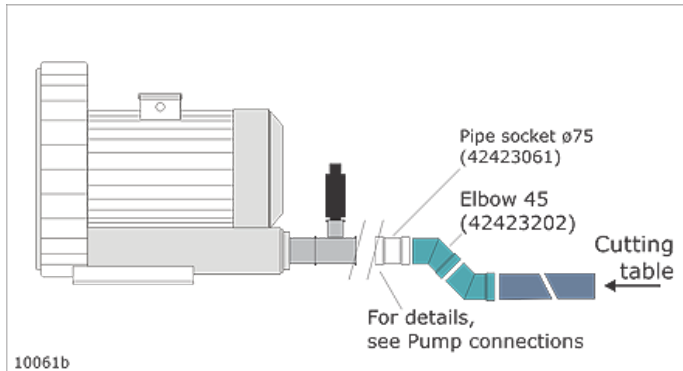
The surface of the compressor gets hot. Ensure there is enough free space around the compressor. The illustration shows a compressor top view,  $A \geq 1 \text{ m} / 40 \text{ in.}$

 **NOTE:**

- Air compressors make a bit of noise and should be located outside the room where the equipment is located. Typical noise level 84 db(A).
- The compressor should be installed according to local regulations.
- The recommended minimum air container volume is 50l.
- Operating temperature 0°C to +32°C / +32°F to +90°F

## 8. VACUUM SYSTEM

### 8.1. Introduction



The **Vacuum System** consists of:

- Vacuum pump(s).
- Vacuum control unit. Has to be mounted on the wall close to the Vacuum pump.
- Connection Tube(s), diameter 75 mm.
- For detailed specification, see specific pump model.

#### Pump location

Due to its noise, the pump should be located in a separate location outside the table area.

If a separate location is not available, using a **Sound Insulating Box** should be considered.

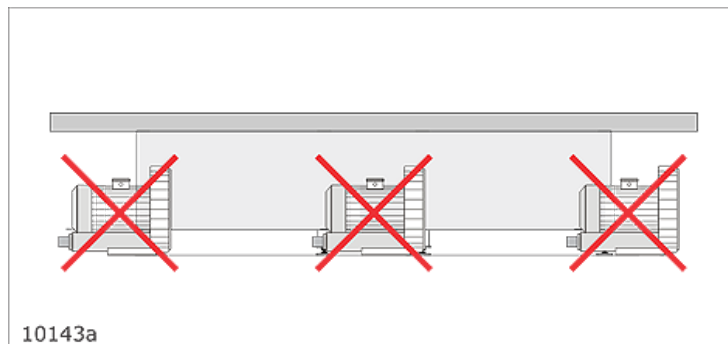
The pump can be located 12-15 m / 40 - 50 feet away from the machine.

Note: Extending the tube length beyond 15 m/49 ft will reduce the overall performance of the vacuum system.

#### Installation

- To achieve maximum vacuum hold-down effect, it is very important to avoid sharp corners on all tubes and connectors.
- Avoid 90° corners, use 30° bends.
- Pump cables are delivered without connectors for wall outlet.
- The **Service Engineer** will connect wires for vacuum control to the controller at the time of installation.

### No pump beneath Cutting table



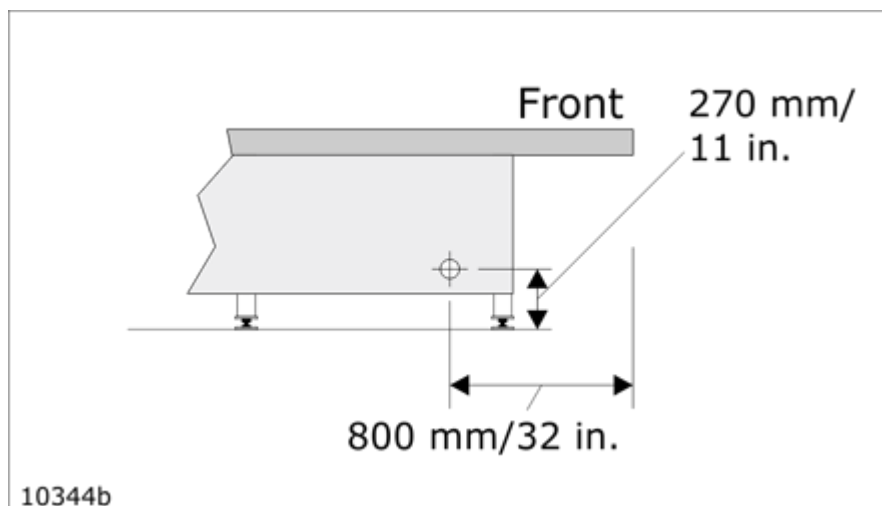
The heat generated by the pump could have impact on machine performance.

## 8.2. Table Models and Pump

Table model and Vacuum pump

Table model	Standard Vacuum pump size
E20	5.5 kW / 6.3 kW

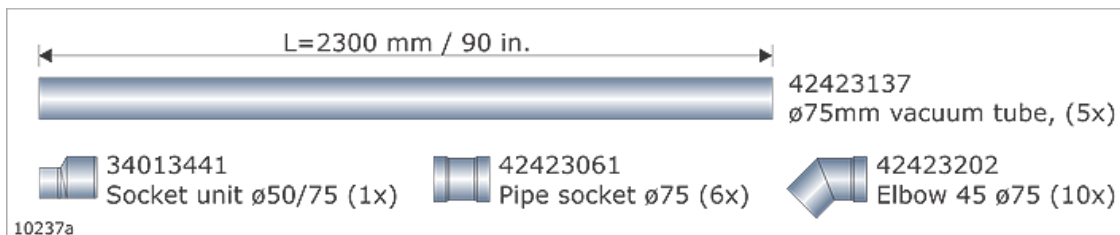
## 8.3. Connection to table



Vacuum tube to table connection, diameter  $\varnothing 75$  mm.

## 8.4. Tube assembly

A vacuum tube kit included in the shipment contains necessary parts for connection to the pump:



It is the customer's responsibility if extra pipes or wiring is required. Standard off the shelf 75 mm / 3 in. PVC plumbing pipe components comply. Alternatively, an extra *Vacuum extern kit* 34010900 can be added to the order.

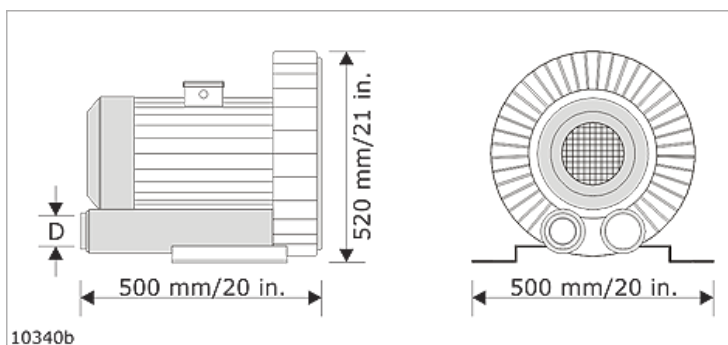
**Note:** Extending the tube length beyond 15 m / 49 ft will reduce the overall performance of the vacuum system. 90° bends reduce performance and should be avoided if possible.

## 8.5. Vacuum pump, 6 kW

### 8.5.1. Vacuum pump, 6 kW, introduction

SB 0530 D0

#### Vacuum pump foot print



Outlet dimension D: G 2.5

Weight: 114 kg / 251 lbs.

#### Environment

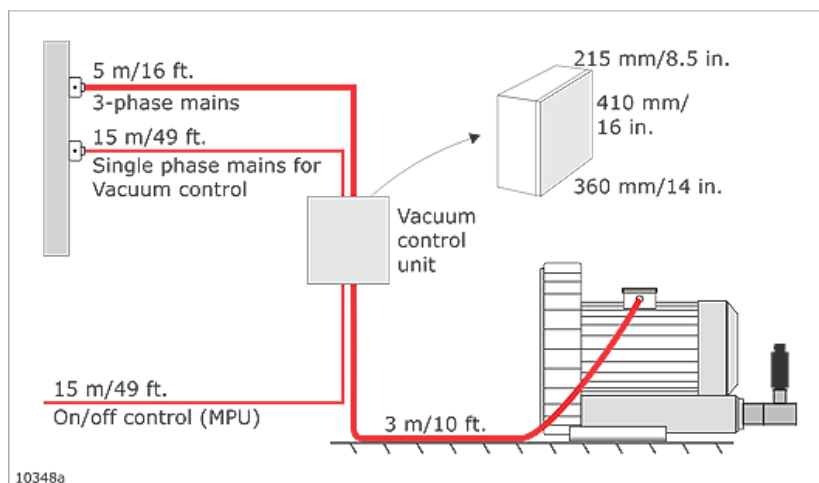
Temperature for operation:  $+0^{\circ}\text{C}$  to  $+30^{\circ}\text{C}$  /  $+32^{\circ}\text{F}$  to  $+90^{\circ}\text{F}$

Relative humidity for operation: 30% to 80%

Average noise level, exhaust connected to a pipeline:

- 50 Hz - 70 db(A)
- 60 Hz - 74 db(A)

## 8.5.2. Vacuum pump, 6 kW, electrical specification



### Electrical specification

Pump model	Mains	Voltage (V)	Hz	Power (kW)
SB0530	3-phase	230/400	50	5,5
SB0530	3-phase	230/400	60	6,3

### Recommended fuse size/cable dimensions

	Voltage (V)	Hz	A	Fuse (A)	Cable dimensions
SB0530	230	50/60	23,5	35	6.0 mm <sup>2</sup>
SB0530	400	50/60	13,6	32	6.0 mm <sup>2</sup>

## 9. SOFTWARE ISSUES

### 9.1. Introduction

Kongsberg PCS wants to give you an introduction to important workflow issues so that you can get the best out of the cutting table. You might like to see the machine run all day long, and produce high quality products, regardless who is operating the table.

The key to achieving this is consistency in the data sent to the table, and standardization based on materials being used.

i-cut Production Console is the software that runs the cutting tables, also called iPC. In iPC, the material used is the basis for the machine settings. By focusing on the material, we can standardize / optimize and apply settings that give the best result.

The method is called "Material is the key" and is based on three requirements. When these are met, the job is ready for production without operator intervention and consistent cutting quality is ensured.

1. The material is defined in the file sent to iPC, alternatively selected in iPC
2. The material is configured and mapped to tools with production settings in iPC
3. File is prepared with consistent naming of the technical lines that are mapped to layer types in iPC, then translated to correct cutting methods (cut, crease, etc). Consistent naming can be based on spot colors, line types, layer names etc. (file format dependent).

In addition to material, there are some other metadata, like number of copies that are useful to transfer to minimize table operator intervention.

To learn more about workflow, download *Get the best out of iPC* here: <http://www.kongsbergsystems.com/resources/documentation/ipc-manual>.

### 9.2. Supported file types

Some file formats readable by iPC can support the *Material is the key* concept better than others. To reach an optimal workflow, we recommend to use Kongsberg JDF output. JDF format will have all the metadata that is needed for running a job without any intervention from an operator. File format to be used will depend on application(s) used to generate data for iPC. An overview of file formats available from various application is found in next section.

File types supported by iPC:

1. JDF, actually a bundle file (a JDF and a CGF file zipped together). The CGF might be replaced by another readable format like MFG. The JDF file can contain all relevant metadata and are recommended for barcode production and automation. Supports automated production of printed jobs with four barcodes (1), one in each corner. May also include a print preview file (not yet supported in iPC).
2. i-script. Generated by several RIP vendors. May include material (depending on application supplying the data). Supports automated production of printed jobs with one barcode, two given certain limitations.

3. PDF. Generated by Adobe Illustrator and other applications in the printing industry. No metadata support that iPC can utilize. Barcodes can be used, but will normally require support from the operator to start cutting.
4. Native ArtiosCAD files (ARD / MFG). Includes some metadata. No barcode support.
5. ACM. Originally defined for Kongsberg cutting tables using X-Guide, predecessor of iPC. Can be generated by ArtiosCAD and some other CAD systems. Includes some metadata. No barcode support.
6. DXF. Typically used by CAD programs. No metadata included. No barcode support. Require customized mapping in iPC as no tool to standardize layer names exist.
7. CFF2 and DDES2. Packaging CAD formats for diemaking, but limited support in the industry. No metadata included. No barcode or other support for production of printed jobs. Require customized mapping in iPC, as no tool to standardize layer names exist.



**NOTE: (1)** Barcodes supported: QR, Data Matrix, Code39. Advantage of several barcodes is that the sheet can be loaded in any orientation onto the cutting table.

### 9.3. File type specifications and functionalities

The table shows which file types handle various types of metadata.

	.ZIP (JDF +CGF)	.CUT I- SCRIPT	.PDF	.ARD / . MFG	.ACM	.DXF	CFF2 / DDES2
Material	X	X	-	X	X	-	-
Cutting profile, mapping, tooling, optimization and production preset <b>(1)</b>	X	-	-	-	-	-	-
Sheet size	X	calculat ed	-	-	-	-	-
Flute direction	-	-	-	X	X	-	-
Barcode position on sheet	X	X <b>(1)</b>	-	-	-	-	-
Number of copies	X	-	-	X <b>(2)</b>	-	-	-
Job priority	X	-	-	-	-	-	-
Customer information	X	-	-	-	-	-	-

Please note that this table describes which metadata can be included in the file format. It is still depending on the application generating the file.



**NOTE:**

**(1)** In iPC a material is defined by a combination of these presets. With JDF, depending on application generating the JDF output, each of these presets can be defined directly for a job.

**(2)** Depending on how file is exported (from ArtiosCAD).

To learn more about third party software or workflows, please visit our partner page on <http://www.kongsbergsystems.com>. See also *Get the best out of iPC*, which you can download here: <http://www.kongsbergsystems.com/resources/documentation/ipc-manual>.

## 9.4. Service reports

The operating software iPC can be set up to automatically send emails with operating time information to the Kongsberg PCS support organization.

For Kongsberg Ultimate with service agreement, this is mandatory.

Further, the system can be set up to send support request emails directly from iPC to the support service in the customer's region.

**Note:** Kongsberg PCS does not provide an email service for these purposes.

To enable these services, the customer must use an SMTP email service by their choice, and configure this in iPC. The responsible IT party at the customer facility must be made aware of this service and enable this link through the local IT security. More information about how to set up these services can be found in the user manual for iPC.

## 10. SITE PREPARATION CHECKLIST (2 PAGES)

Use this checklist to help verify your site's readiness and as a starting point for discussions with supplier's personnel regarding your site preparations.

Company code: \_\_\_\_\_

#	Check to be performed	Yes	No
	<b>Site Access Checks</b>		
1	Can a semi/articulated lorry (17.5 ton) reach your site?	<input type="checkbox"/>	<input type="checkbox"/>
2	Is a forklift with 2 meter/6.5 ft. fork extensions and pallet truck available to unload the crates from the truck? Typical max. weight of a crate is 615 kg / 1356 lbs. Details are found in <i>Packaging Specification</i> .	<input type="checkbox"/>	<input type="checkbox"/>
3	Do you have adequate indoor space to store the crates until installation? Refer section <i>Packaging Specification</i> .	<input type="checkbox"/>	<input type="checkbox"/>
4	Is the size and spacing of the hallways and doorways on the route from unloading to the installation room adequate to bring all the crates through flat? Refer section <i>Packaging Specification</i> .	<input type="checkbox"/>	<input type="checkbox"/>
5	Can the route from unloading to installation room hold the weight of the heaviest crate (including forklift)? Refer section <i>Packaging Specification</i> .	<input type="checkbox"/>	<input type="checkbox"/>
6	Is the floor level throughout the route (e.g. no stairways, no steps, etc.)?	<input type="checkbox"/>	<input type="checkbox"/>
7	Is the route clear of any obstacles? (e.g. Does any equipment need to be moved?)	<input type="checkbox"/>	<input type="checkbox"/>
8	Will there be 6-8 able people available to assist lifting the table components to the final position on the first day of installation? Note: Field Service Engineer will discuss the weight and lifting technique of the individual components with the customer during the site preparation visit.	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Space for Kongsberg Table and Vacuum Pump</b>		
9	Is the room large enough for the Kongsberg table's required space, also taking into account material handling? See sections <i>Room Layout</i> and <i>Table Specification</i> .	<input type="checkbox"/>	<input type="checkbox"/>
10	Is the floor in the Kongsberg table room within specifications? See section <b>Floor Load and Level</b> on page 14 .	<input type="checkbox"/>	<input type="checkbox"/>
11	Does the room meet the environmental requirements? See section <b>Environmental Requirements</b> on page 13 . <b>Note:</b> For Feeder with <b>Underside Camera</b> , there are special requirements for the room light conditions to consider.	<input type="checkbox"/>	<input type="checkbox"/>

#	Check to be performed	Yes	No
12	Can the vacuum pump be placed within 15 meters of total pipe length to the table?	<input type="checkbox"/>	<input type="checkbox"/>
	<b>Customer Supplied Services</b>		
13	Are both three phase and single phase power available? See section <i>Cables, Fuses and Tubing</i> . Note that main cable and certain plugs must be supplied by the customer. Adhere to local regulations.	<input type="checkbox"/>	<input type="checkbox"/>
14	Can you connect the front-end PC to your network?	<input type="checkbox"/>	<input type="checkbox"/>
15	Is compressed air available, and within specifications? See section <b>Pressurized Air System on page 25</b> . Adhere to local regulations.	<input type="checkbox"/>	<input type="checkbox"/>
16	Is waste handling taken into account? The customer is responsible for waste handling of packaging materials.	<input type="checkbox"/>	<input type="checkbox"/>

#### Notes

## 11. SOFTWARE QUESTIONNAIRE

Use this questionnaire to verify the cut file workflow prior to table installation.

Company code: \_\_\_\_\_

#	Software questions to be answered - <b>page 1 of 3</b>		
1	Which software application(s) will be used to create the cut paths for the Kongsberg table? (check all that apply)		
	<input type="checkbox"/>	Adobe Illustrator	
	<input type="checkbox"/>	Arden Software Impact	
	<input type="checkbox"/>	EngView Systems Packaging Suite	
	<input type="checkbox"/>	Esko ArtiosCAD	
<input type="checkbox"/>	Other(s): _____		
2	Will you cut printed materials?		
	<input type="checkbox"/>	YES	<input type="checkbox"/> NO    If YES, please complete the remaining questions
3	Will you use a RIP application to generate nested and/or tiled cut files?		
	<input type="checkbox"/>	YES	<input type="checkbox"/> NO    If YES, which RIP(s) will you use? (check all that apply)
	<input type="checkbox"/>	Agfa	
	<input type="checkbox"/>	ColorGate	
	<input type="checkbox"/>	Ergosoft	
	<input type="checkbox"/>	Onyx	
	<input type="checkbox"/>	SAi	
	<input type="checkbox"/>	Caldera	
	<input type="checkbox"/>	Durst	
	<input type="checkbox"/>	Fiery XF	
	<input type="checkbox"/>	PrintFactory	
	<input type="checkbox"/>	Other(s): _____	

#	Software questions to be answered - <b>page 2 of 3</b>		
4	Will you use a separate nesting or automated workflow application to generate nested and/or Step and Repeat cut files?		
	<input type="checkbox"/>	YES	<input type="checkbox"/> NO    If YES, which applications(s) will you use? (check all that apply)
	<input type="checkbox"/>	Caldera Prime Center	
	<input type="checkbox"/>	Enfocus Switch	
	<input type="checkbox"/>	Esko i-cut Layout	
	<input type="checkbox"/>	Fiery Prep-it	
	<input type="checkbox"/>	OneVision	
	<input type="checkbox"/>	Ultimate Impostrip	
	<input type="checkbox"/>	Enfocus Griffin	
	<input type="checkbox"/>	Esko Automation Engine	
	<input type="checkbox"/>	Esko Phoenix	
	<input type="checkbox"/>	Hybrid CLOUDFLOW/PACKZ	
	<input type="checkbox"/>	Onyx TruFit	
	<input type="checkbox"/>	Other(s): _____	
	5	What method(s) of print-to-cut registration will be used? (check all that apply)	
<input type="checkbox"/>		None/Laser Pointer	
<input type="checkbox"/>		<b>Edge Recognition</b>	
<input type="checkbox"/>		Topside Camera Registration Marks	
<input type="checkbox"/>		Underside CameraRegistration Marks	

[illegible]

## 12. SITE READINESS CONFIRMATION FORM

As a final documentation prior to installation, we need your confirmation that your site is ready for installation. To confirm that your site is ready, please send the completed and signed **Site Readiness Confirmation form** below to your order handler no later than 10 days prior to the installation of your table.

Task	Been met
All the requirements in the <b>Site Access Checks</b> section have been met.	<input type="checkbox"/>
All the requirements in the <b>Space for Kongsberg Table and Vacuum Pump</b> section have been met.	<input type="checkbox"/>
Vacuum piping can be easily run between the pump and the table and if necessary a hole in the wall has been made.	<input type="checkbox"/>
All required power, air and network cable has been installed at the location of the table and the vacuum pump.	<input type="checkbox"/>
Internet connection is available (for activation of licenses, for support purposes).	<input type="checkbox"/>
Software is available to generate input files to the cutting table.	<input type="checkbox"/>
Materials are available for set up, testing & training.	<input type="checkbox"/>
Operators are available for the end of week operator training as agreed upon with the Field Service Engineer.	<input type="checkbox"/>
Pre-Press/Design team briefed on specific <b>Registration Mark</b> requirements (special consideration for <b>Underside Camera</b> ).	<input type="checkbox"/>
Pre-Press/Design team briefed on specific <b>Registration Mark</b> requirements related to the <b>Underside Camera</b> .	<input type="checkbox"/>
Customer briefed on specific requirements to materials, file preparation and machine setup to enable the system for a smooth production run.	<input type="checkbox"/>

Please sign off that all the <b>Site Readiness</b> checks have been completed.	
Company code:	Date:
Company name:	Name:
	Signature: