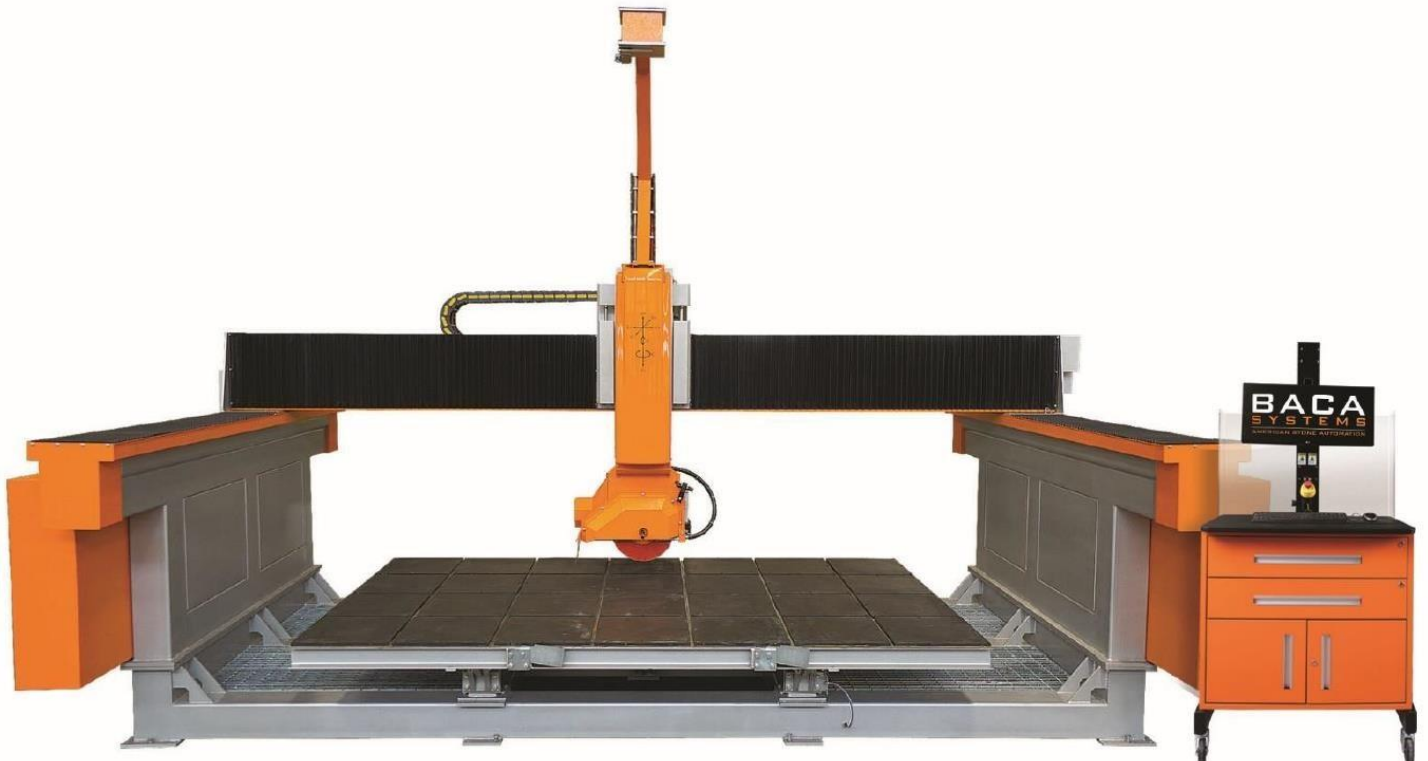




BACA BOSS SAW

5 Axis Bridge Saw

Pre-Install Document



Pre-Install Package

Overview of Installation Requirements		
Topic	Overview	Detailed Information Page
ELECTRICAL REQUIRMENTS	220V, 100 AMPS, 3 PHASE, 60HZ. This is a dedicated drop to the panel. Consult with a licensed electrician. Customer supplied.	4
INTERNET CONNECTION	High speed internet connection with access for remote administration using TeamViewer. Customer supplied.	4
FILTERED CUTTING WATER INLET	One (1) 1" supply line. Minimum 10 GPM @ 35 PSI each. Water must be filtered to 50 microns. Piping/fittings must be PVC, stainless steel or copper. No black pipe or galvanized pipe/fittings allowed. Customer supplied.	4
AIR REQUIREMENTS	10 CFM at 100 psi. <u>All air supplied must be dry.</u> Customer supplied.	5
FOUNDATION	The machine needs to be placed on a flat floor. The slope cannot exceed 1" difference from one end of the machine to the other. The machine must be mounted on, at a minimum, 4" thick concrete with available space measuring 134" x 240" . The surface must be flat, and quality of the concrete should meet the requirements of the C20/25 standard (approximately 3,000 – 3,500 PSI). There cannot be any steel reinforcement bars or other obstructions in the material that would prevent drilling into the foundation when using a standard concrete drill bit.	5
OVERHEAD CLEARANCE	13' above the entire work envelope. 11' without camera stand.	6
TEMPERATURE	The system is designed to operate within a temperature range of 50° F - 113° F	7
LUBRICATION OIL PUMP	Use Mobile EP00 (may be purchased from BACA)	7
AVAILABLE FOR PURCHASE	Front splash curtain Rear splash curtain	7

***The above summary is an overview of the installation requirements. Please see detailed information in remainder of this document. ***

Customer Responsibility Schedule

Day	Work Performed	Customer Supplied Resources Required
1	Unload and Place Machine	<ul style="list-style-type: none"> • Minimum 25K forklift with 8ft forks. This must be done BEFORE the install crew arrives. Customer is responsible for getting system off the truck and into place in the building. • Area where system will be located should be clear, clean and flat. • Trenching should be completed before install. • If there are any light fixtures directly above the machine, they should be moved. Sky lights should be covered.
2-3	Connect electrical Connect air	<ol style="list-style-type: none"> 1. Electrical <ol style="list-style-type: none"> a. NO ELECTRICAL SHOULD BE MOUNTED DIRECTLY BEHIND THE MACHINE!! b. Should be ran to the right rear side of the machine. c. 100amp MAIN Disconnect to be mounted near the machine. (Fused or non-Fused is fine) d. Electrical can be connected to the power switch inside of the machine. e. <u>DO NOT POWER ON THE MACHINE</u> <ol style="list-style-type: none"> i. The voltage must be verified by a BACA technician before the machine is powered. 2. Air <ol style="list-style-type: none"> a. Requires a minimum of 100 PSI. b. Must have a dryer between compressor and machine. c. Should be ran to the left rear side of the machine.
4-5	Connect Water Run Internet cable	<ol style="list-style-type: none"> 3. Water <ol style="list-style-type: none"> a. Must be filtered to 50 microns. b. A minimum of 10 GPM @ 35 PSI. c. Should be ran to the right rear side of the machine. d. <u>Do not use black pipe!!</u> e. Should have a shutoff near the machine. f. 1" supply line to connect to machine. 4. Internet <ol style="list-style-type: none"> a. Must have a wired connection. b. Cat6 or better cable. c. Should be ran to the right rear side of the machine. d. Female ethernet connection end should be mounted inside the machine by the electrician..

1. ELECTRICAL REQUIREMENTS

The BACA BOSS Saw requires a power circuit and an internet connection near the right rear side of the machine. It is the customer's responsibility to contract a qualified licensed electrician to run AND connect the electrical power to the machine. BACA Systems installers are prohibited from performing any electrical work from the facility to the machinery.

Consult with a licensed electrician.

Electrical services available must be routed to the area near the machine location before scheduled installation date. Below are the details on the internet connection and the type of power the customer is to provide the following services and connections:

A. System power

220 VAC, 3 phase, protected by a circuit breaker or fused disconnect for 100 amps. If customer facility has a lower voltage, the customer is responsible for a step-up transformer to supply 220VAC. **Must Be Copper.** (Terminal lugs are not large enough to handle aluminum.)

B. Internet Connection

A high-speed internet connection is needed. The Cat 6 cable will be connected to the machines control panel. **Must be a WIRED connection, no WIFI!!!** Access through customer's firewall shall allow for remote administration using TeamViewer. (TeamViewer is supplied by BACA).

C. Ground Rod

Must be installed by a licensed electrician.

2. WATER REQUIREMENTS

The BACA BOSS Saw requires one (1) water utility. It is the customer's responsibility to provide this water source and connect them to the machine as required. Below are the water requirements:

A. Saw Blade Cutting Water Inlet

This water is used to cool the saw blade. It can be clean tap water or recycled process water (commonly referred to as "gray water") and must be filtered to 50 microns. Filtration may be required. The cutting water supplied should always be a minimum of 35 PSI at 10 GPM. **Failure to satisfy this requirement will lead to multiple processing interruptions.**

The customer supplied connection of cooling water IN is at the right rear side of the machine, and should be a 1" line. **Piping/fittings must be PVC, stainless steel or copper.** No black pipe, garden hoses, or galvanized pipe/fittings allowed.

3. AIR REQUIREMENTS

BACA BOSS Saw requires a single air connection. Main system requires **10 CFM @ 100 PSI.** This customer supplied connection is made at the left rear side of the machine. It uses a standard air quick disconnect fitting.

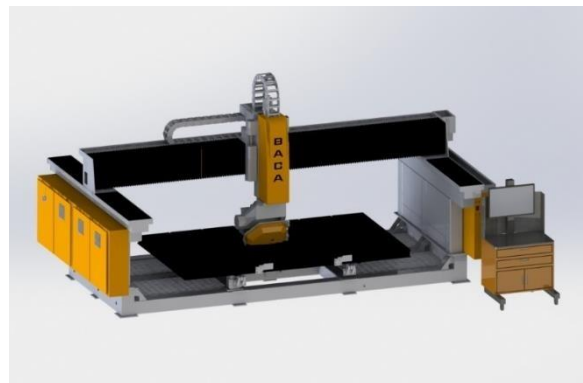
4. FOUNDATION REQUIREMENTS

The BACA BOSS Saw shall be placed on a **FLAT** concrete floor. Below are the minimum recommended foundation details:

- A. Minimum required concrete floor:
134" x 240" and 4" thick

- B. The quality of the concrete should meet the requirements of the C20/25 standard (approximately 3,000 – 3,500 PSI). There cannot be any steel reinforcement bars or other obstructions in the material that would prevent drilling into the foundation when using a standard concrete drill bit.

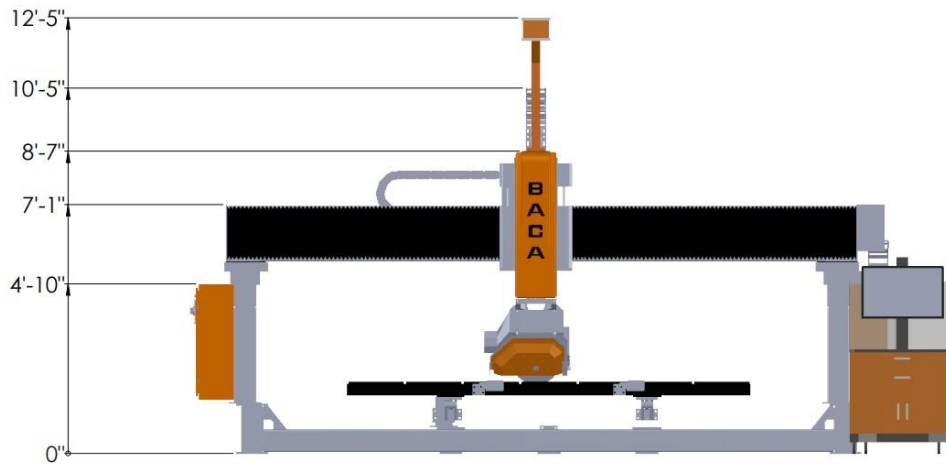
The floor does not have to be level, but it does need to be flat. The BACA BOSS Saw has the ability to compensate for a slightly sloped floor and anything in **excess** of a 1" slope across the machine footprint should be discussed with BACA Systems. The customer must verify and confirm that there are no utilities (power, water, air, heat, etc.) running under where the machine is to be placed.



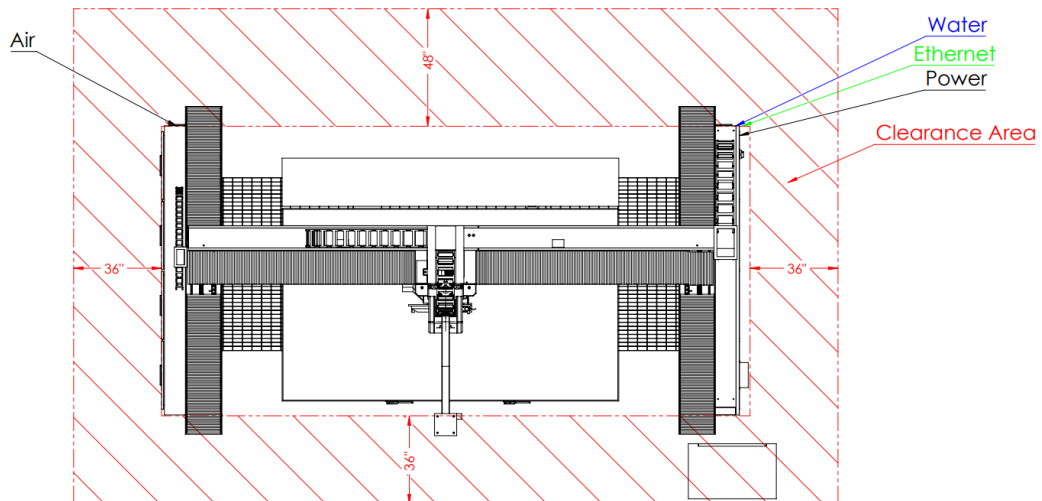
The BACA BOSS Saw is a wet process machine and depending on the work being done, there is always a possibility for water to spill over the sides of the machine. Adequate drainage should be provided for accommodating this spillage.

5. SPACE REQUIREMENTS AND EQUIPMENT MOUNTING

BACA BOSS Saw requires a minimum of 13' of overhead clearance across the entire footprint of the machine. This means that all stationary girders, lights, crane rails, etc. must be above 13' from the ground. Without the camera stand, 11' of overhead clearance is required.



Customer must have a door at least 10' 6" wide and 11' tall to allow room for the BACA BOSS Saw to pass through. (Some parts of the BACA BOSS Saw are assembled at the site). When the machine is being placed in the building, there must be 24" minimum from the back edge of the machine (without extensions) to any wall. The sides of the machine require 36" minimum clearance.



6. ENVIRONMENTAL REQUIREMENTS

The BACA BOSS Saw is designed to operate in an environment with a temperature range between 50° F and 113° F. For facilities that have conditions that fall outside of this temperature range, additional climate control equipment may be required.

7. LUBRICATION OIL PUMP

The BACA BOSS Saw is designed to be lubricated with Mobile EP00 oil. The system is automatically lubricated with an automated lubrication oil pump.

The oil reservoir will need to be refilled periodically. It is the customer's responsibility to refill the oil reservoir. The Mobile EP00 oil may be purchased from BACA Systems.

A 35lb bucket of EP00 will arrive with the BOSS Saw, as well as a hand pump and dolly to facilitate filling the oil reservoir.

8. AVAILABLE FOR PURCHASE

A front splash curtain and/or rear splash curtain are available for purchase. Contact BACA Systems for more information.

9. ADDITIONAL CUSTOMER RESPONSIBILITIES

As described above, **the customer shall provide all power, water, drain, and air utilities.** All utilities **MUST** be roughed-in near where the BACA BOSS Saw will be placed, **PRIOR** the arrival of the BACA Systems installer.

Customer shall determine where the system will be installed before the arrival of the installers. System layout drawings are provided. **Customer is responsible for placing the machine as provided in the drawing.**

Any customer delay in providing and connecting utilities could impact the overall length of time to conclude install. Any delay in install completion could result in another trip by BACA Systems and the additional travel and labor expenses will be the responsibility of the customer. **All utilities shall be ready for the BACA BOSS Saw and the installers on the first day of the installation.**

Customer shall be prepared for the system to arrive on a 53' wide load truck/trailer. Customer shall be prepared to unload from both sides of the truck.

Customer supplied forklift shall be **25,000** lbs. payload minimum. The forklift's forks must be a minimum of 8.0' long.

8' table

8' ladder

Step ladder

Chair

An extension cord long enough to reach the center of the machine

WIFI and password

Garden hose

Nonadjustable spray handle for garden hose.

An Air hose with blow gun attachment

¼ slab or larger scrap stone pieces for calibration and training

2"x4" 6' long

I HAVE READ AND CONFIRM THAT ALL PRE-INSTALL REQUIREMENTS ABOVE AND LISTED IN THE BACA SYSTEMS PRE-INSTALL DOCUMENT HAVE BEEN COMPLETED AND THE FACILITY IS READY FOR THE INSTALLAION OF THE **BOSS Saw SYSTEM**. IF ALL PRE-INSTALL REQUIREMENTS ARE NOT COMPLETED BY THE TIME OF INSTALLATION DATE CUSTOMER WILL INCUR ANY ADDITIONAL COSTS ASSOCIATED WITH ANY DELAYS, TRAVEL ARRANGEMENTS OR RESCHEDULING OF INSTALLATION & TRAINING.

Signature

Date