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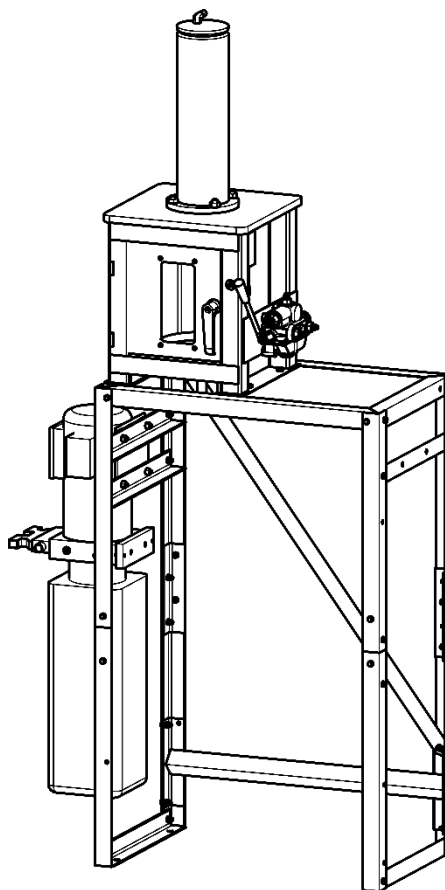
15-Ton Oil-Filter Crusher

Installation and Operation Manual

Manual P/N 5900097 — Manual Revision B2 — May 2022

Model:

- RP-30FCH



Designed and engineered by BendPak Inc. in Southern California, USA. Made in China.

DANGER

IMPORTANT SAFETY INSTRUCTIONS, SAVE THESE INSTRUCTIONS!

Read this manual thoroughly before installing, operating, servicing or maintaining. Failure to follow the instructions and safety precautions in this manual can result in serious injury or death. Verify all operators read this manual. Keep the manual near the product for future reference. *By proceeding with installation and operation, you agree that you fully understand the contents of this manual and assume full responsibility for product use.*

Manual. RP-30FCH 15-Ton Oil-Filter Crusher, *Installation and Operation Manual*, Manual P/N 5900097, Manual Revision B2, released May 2022.

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Limitations. Every effort has been made to have complete and accurate instructions in this manual. However, product updates, revisions, and/or changes may have occurred since this manual was published. BendPak Ranger reserves the right to change any information in this manual without incurring any obligation for equipment previously or subsequently sold. BendPak Ranger is not responsible for typographical errors in this manual. You can always find the latest version of the [manual for your product on the Ranger website](#).

Warranty. The BendPak Ranger warranty is more than a commitment to you: it is also a commitment to the value of your new product. For full warranty details, contact your nearest BendPak Ranger dealer or visit bendpak.com/support/warranty. Go to bendpak.com/support/register-your-product/ and fill out the online form to register your product (be sure to click Submit).

Safety. Your new product was designed and manufactured with safety in mind. Your safety also depends on proper training and thoughtful operation. Do not set up, operate, maintain, or repair the unit without reading and understanding this manual and the labels on it; ***do not use this product unless you can do so safely!***

Owner Responsibility. In order to maintain your product properly and to ensure operator safety, it is the responsibility of the product owner to ***read and follow these instructions:***

- Follow all setup, operation, and maintenance instructions.
- Make sure product setup conforms to all applicable local, state, and federal codes, rules, and regulations, such as state and federal OSHA regulations and electrical codes.
- Read and follow all safety instructions. Keep them readily available for operators.
- Make sure all operators are trained, know how to safely operate the unit, and are properly supervised.
- Do not operate the product until you are certain that all parts are in place and operating correctly.
- Carefully inspect the product on a regular basis and perform all maintenance as required.
- Service and maintain the unit only with approved replacement parts.
- Keep the manual with the product and make sure all labels are clean and visible.
- ***Only use this product if it can be used safely!***

Unit Information. Enter the Model Number, Serial Number, and the Date of Manufacture from the label on your unit. This information is required for part or warranty issues.

Model: _____

Serial: _____

Date of Manufacture: _____

R Ranger		Santa Paula, CA USA www.rangerproducts.com	
MODEL NUMBER			
DESCRIPTION			
VOLTAGE			
DATE OF MFG.		SERIAL NUMBER	
DANGER! Disconnect Power Before Servicing		UPC	
CE EAC			
WARRANTY VOID IF DATA PLATE IS REMOVED PN 5905279			

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Introduction

This manual describes the RP-30FCH Oil-Filter Crusher from BendPak Ranger, which applies up to 15 tons of pressing power to flatten used Oil Filters to approximately 20 percent of their size while removing up to 95 percent of the leftover oil.

More information about the full line of BendPak Ranger products is available at bendpak.com.

This manual is mandatory reading for all users of the RP-30FCH, including anyone who sets up, operates, maintains, or repairs it.

 **DANGER** Be very careful when setting up, operating, maintaining, or repairing this equipment; failure to do so could result in property damage, product damage, injury, or (in very rare cases) death. Make sure only authorized personnel operate this equipment. All repairs must be performed by an authorized technician. Do not make modifications to the unit; this voids the warranty and increases the chances of injury or property damage. Make sure to read and follow the instructions on the labels on the unit.

Keep this manual on or near the equipment so that anyone who uses or services it can read it.

Technical support and service for your Oil-Filter Crusher is available directly from your distributor or by calling the **Ranger Products Hotline at (805) 933-9970**. You may also contact the Hotline for consultation on parts replacement (please have the serial number and model number of your unit available).

Shipping Information

Your equipment was carefully checked before shipping. Nevertheless, you should thoroughly inspect the shipment **before** you sign to acknowledge that you received it.

When you sign the bill of lading, it tells the carrier that the items on the invoice were received in good condition. **Do not sign the bill of lading until after you have inspected the shipment.** If any of the items listed on the bill of lading are missing or damaged, do not accept the shipment until the carrier makes a notation on the bill of lading that lists the missing or damaged goods.

If you discover missing or damaged goods **after** you receive the shipment and have signed the bill of lading, notify the carrier at once and request the carrier to make an inspection. If the carrier will not make an inspection, prepare a signed statement to the effect that you have notified the carrier (on a specific date) and that the carrier has failed to comply with your request.

It is difficult to collect for loss or damage after you have given the carrier a signed bill of lading. If this happens to you, file a claim with the carrier promptly. Support your claim with copies of the bill of lading, freight bill, invoice, and photographs, if available. Our willingness to assist in helping you process your claim does not make us responsible for collection of claims or replacement of lost or damaged materials.

Safety Considerations

Read this manual carefully before using your new product. Do not set up or operate the product until you are familiar with all operating instructions and warnings. Do not allow anyone else to operate the product until they are also familiar with all operating instructions and warnings.

 **WARNING** **California Proposition 65 Warning.** This product can expose you to chemicals including styrene and vinyl chloride which are on the list of over 900 chemicals identified by the State of California to cause cancer, birth defects or reproductive harm. **ALWAYS** use this product in accordance with BendPak's instructions. For more information go to www.P65Warnings.ca.gov.

Safety Information

Please note the following:

- The product is an Oil-Filter Crusher. **Use it only for its intended purpose.**
- The product should only be operated by authorized, supervised personnel. Keep children and untrained personnel at least 30 feet away from the unit.
- Do **not** crush aerosol cans, compressed gas, fuel filters, or flammable liquids or solvents.
- Do **not** open the Door while the unit is operating; always wait for the end of the cycle.
- You **must** wear OSHA-approved (Publication 3151) Personal Protective Equipment at all times when installing, using, maintaining, or repairing the Balancer. Leather gloves, steel-toed work boots, ANSI-approved eye protection, back belts, and hearing protection **are mandatory.**
- When the product is in use, keep all body parts away from it.

- Do not use the product while tired or under the influence of drugs, alcohol, or medication.
- Do not use the product in the presence of cigarette smoke, dust, or flammable liquids or gases. Use the product indoors in a well-ventilated area.
- Do not make any modifications to the product.
- Do not modify or defeat any safety features on this device.
- Do not use the product if it is sitting in water. You could short circuit the electronic components in the Power Unit and you could electrocute yourself or others nearby.
- Secure the unit to a dry, clean, flat concrete surface; do not install it on asphalt or wood.
- Make sure all operators read and understand the *Installation and Operation Manual*. Keep the manual near the device at all times.
- Avoid using an extension cord; they can overheat. If you must use an extension cord, make sure it is of adequate wire size and ampere rating.
- Make a visual inspection of the product before using it. Do not use the product if you find any missing or damaged parts. Instead, take the unit out of service, then contact an authorized repair facility, your distributor, or the Ranger Products Hotline at **(805) 933-9970**.
- BendPak Ranger recommends making a **thorough** inspection of the product at least once a year. Replace any damaged or severely worn parts, decals, or warning labels.

Symbols

Following are the symbols used in this manual:



DANGER Calls attention to a hazard that **will** result in death or injury.



WARNING Calls attention to a hazard or unsafe practice that **could** result in death or injury.



CAUTION Calls attention to a hazard or unsafe practice that could result in personal injury, product damage, or property damage.



NOTICE Calls attention to a situation that, if not avoided, could result in product or property damage.



Tip Calls attention to information that can help you use your unit better.

Liability Information

BendPak Ranger assumes **no** liability for damages resulting from:

- Use of the equipment for purposes other than those described in this manual.
- Modifications to the equipment without prior, written permission from BendPak Ranger.
- Injury or death caused by modifying, disabling, overriding, or removing safety features.
- Damage to the equipment from external influences.
- Incorrect operation of the equipment.

Frequently Asked Questions

Question: What does the RP-30FCH Oil-Filter Crusher do?

Answer: It crushes used Oil Filters into much smaller flat discs (approximately 20% of original size), at the same time removing up to 95% of the remaining oil.

Q: Why do I care about that?

A: Several reasons. Crushing Oil Filters changes them from “hazardous waste” (which requires special handling) to “scrap metal” (which does **not** require special handling and can be recycled). The used oil retrieved from the crushed Oil Filters is collected and can be reprocessed or recycled, which is good for the environment and your bottom line. Having smaller-sized discs means more crushed Oil Filters can fit into your collection bin, which means fewer trips to the scrap collector.

Q: Who pays attention to things like this?

A: Both the state you live in and the U.S. government (EPA and DTSC). If you do not comply with applicable laws, you leave yourself open to fines and penalties, up to \$10,000 per day per violation.

Q: How many Oil Filters can I crush at one time?

A: One. Even if you can fit more than one, do not do it! The Oil-Filter Crusher is not designed to crush more than one. You could end up jamming the unit or even damaging it.

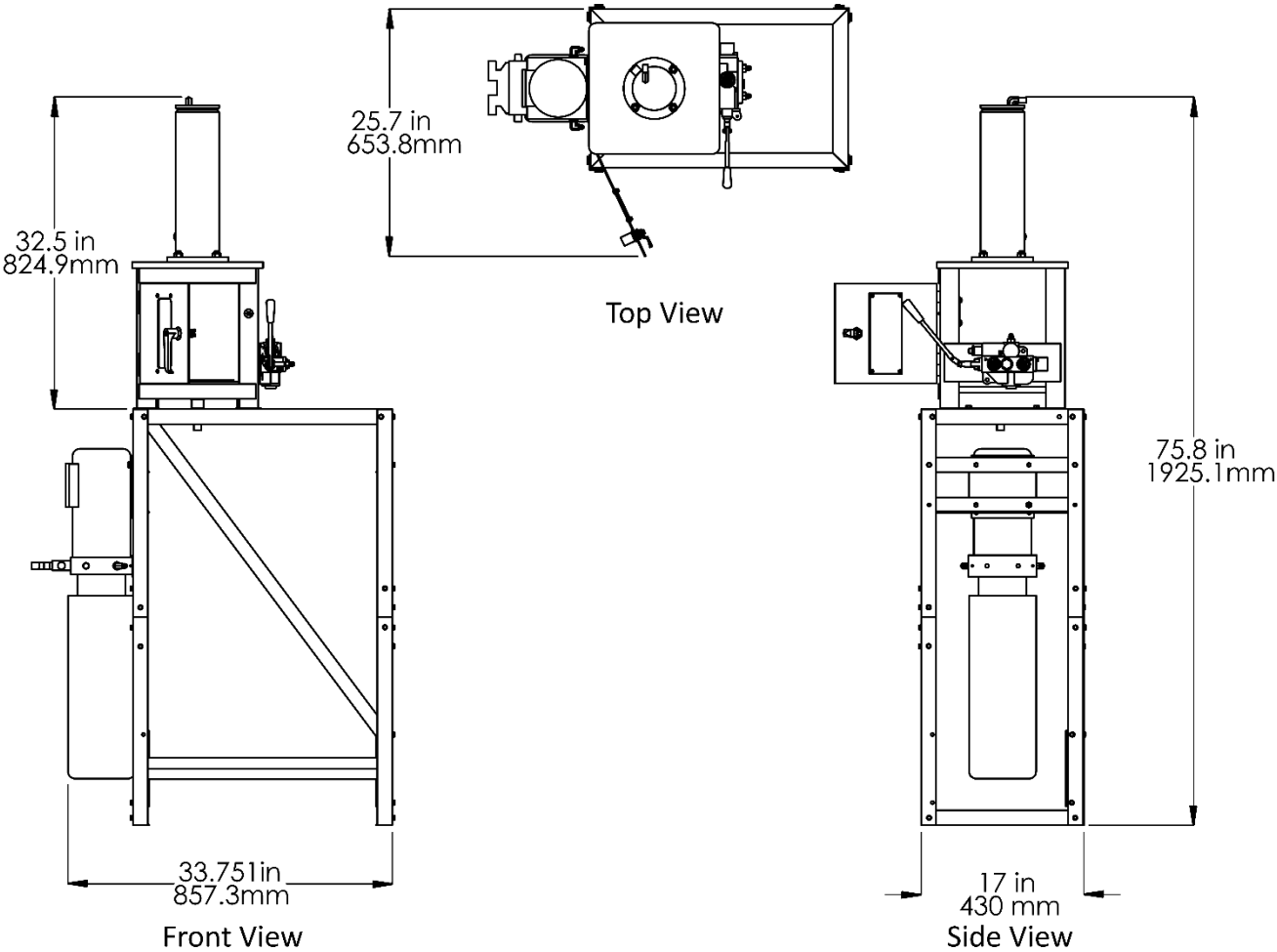
Q: Can I crush other things in the RP-30FCH?

A: No. The RP-30FCH is designed for crushing Oil Filters only.

Specifications

Height	75.8" / 1,925 mm
Width (including Power Unit)	33.75" / 947 mm
Depth	17" / 432 mm
Enclosure height, inside	10.75" / 273 mm
Enclosure width, inside	8.5" / 216 mm
Enclosure depth, inside	10.5" / 267 mm
Average cycle time	8 to 15 seconds
Power	208–240 VAC, 50/60 Hz, 1 Ph

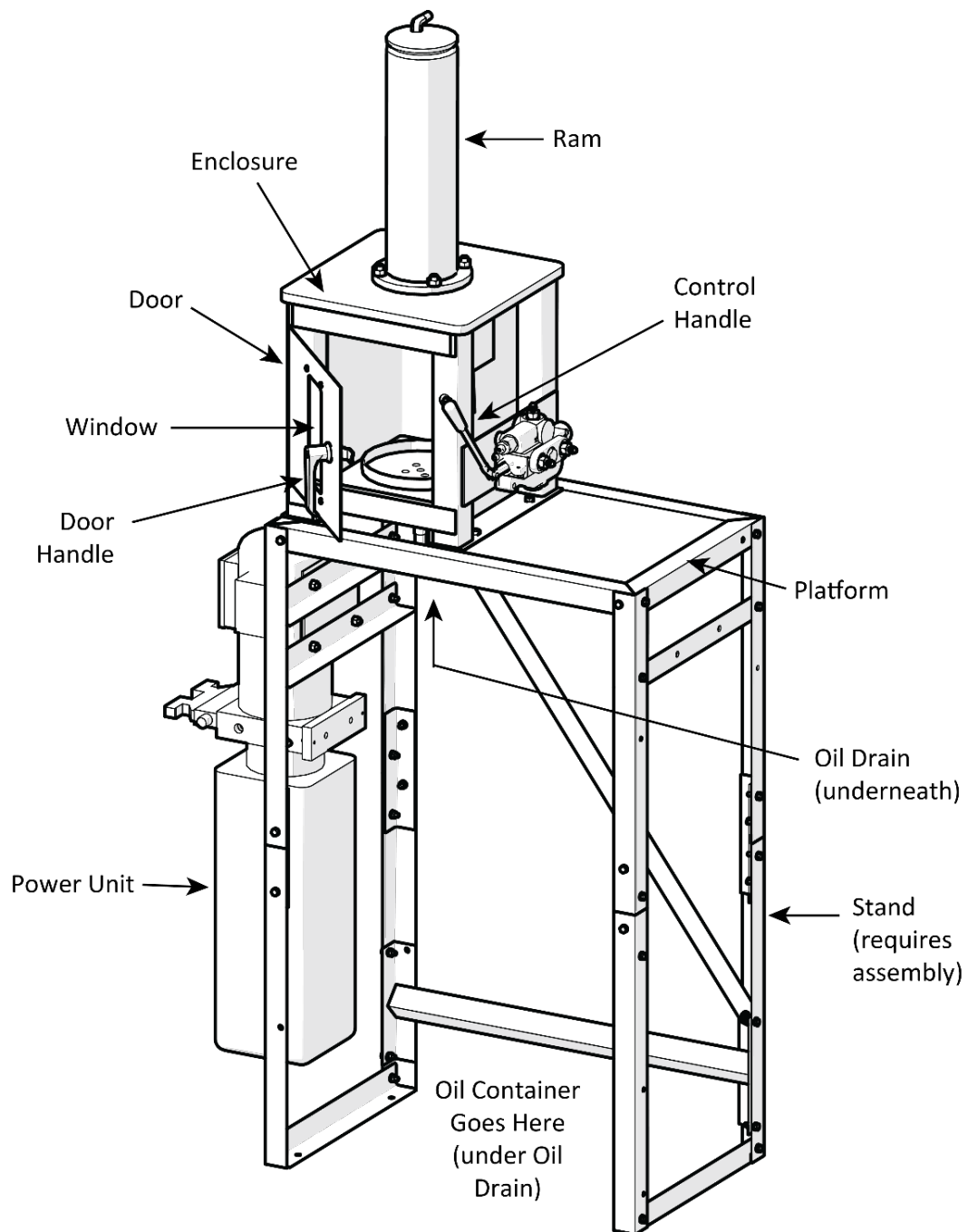
All dimensions are approximate, for reference only. Allow room for Hydraulic Hose bend radius.



Specifications subject to change without notice.

Components

The following drawing shows the major components of the RP-30FCH.



The main components of the RP-30FCH are:

- **Enclosure.** Includes the crushing chamber, the Door, the Window, the Press Ram, and the Control Handle. Gets bolted to the top of the Platform.
- **Door.** Opens so that you can put in cans to be crushed. Door must be locked shut before you can crush what is inside.
- **Ram.** Comes down to crush cans inside the unit with 30,000 pounds (15 tons) of crushing force.
- **Door Handle.** Press the button and turn up and to the Left to open the Door, press the button and turn to the Right and down to close the Door. You **must** hold the button to open or close the Door.
- **Door Safety Switch.** Must be pressed in (by having the Door fully closed) or operation is suspended.
- **Control Handle.** Move to the Left to bring down the Ram and crush the can in the unit, move to the Right to raise the Ram.
- **Power Unit.** Connects to an electric power source and provides hydraulic force to power the Ram.
- **Platform.** Holds the Can Crusher on the Stand Platform.
- **Stand.** Raises the Can Crusher up high enough and wide enough to support a 55 gallon oil container for collection of used oil.
- **Hydraulic Hoses.** *Not shown.* Connect the Power Unit to the Control Handle and the Ram.
- **Oil Drain.** Where all of the used oil from the crushing process ends up. You definitely want an Oil Container in place to catch the oil that comes from the Oil Drain.
- **Oil Container.** *Not supplied.* The container you use to catch the oil from the crushing process.
- **Anchor Bolts.** *Not supplied.* Can be used to bolt the Oil Filter Crusher to the ground.

Installation Checklist

Following are the steps needed to install the Crusher. Perform them in the order shown.

- ☐ 1. Review the installation Safety Rules.
- ☐ 2. Plan for Electrical Work.
- ☐ 3. Make sure you have the necessary Tools.
- ☐ 4. Select the Installation Site.
- ☐ 5. Unpack the Components
- ☐ 6. Verify there is adequate Clearance on all Sides.
- ☐ 7. Assemble the Stand.
- ☐ 8. Bolt the Enclosure to the Stand.
- ☐ 9. Attach the Power Unit to the Stand.
- ☐ 10. About Thread Sealants.
- ☐ 11. Connect the Hydraulic Hoses.
- ☐ 12. Wire the Door Safety Switch.
- ☐ 13. Connect to a Power Source. ***Requires a licensed, certified Electrician.***

Installation

This section describes how to prepare your Oil-Filter Crusher for normal operation. Perform the tasks in the order listed.

Installation Safety Rules

Pay attention at all times during installation. Use appropriate tools and equipment. Stay clear of moving parts. Keep hands and fingers away from pinch points. ***Safety is a top priority.***

Use caution when unpacking the Oil-Filter Crusher and setting it up. The unit is heavy and the weight is not evenly distributed; dropping or knocking over the unit may cause equipment damage and personal injury.

 **WARNING** You ***must*** wear OSHA-approved (publication 3151) Personal Protective Equipment at all times when installing, using, maintaining, or repairing the Balancer. Leather gloves, steel-toed work boots, ANSI-approved eye protection, back belts, and hearing protection ***are mandatory.***

Only allow experienced, trained technicians to install the Oil-Filter Crusher. In particular, all electrical work ***must*** be done by a licensed, certified Electrician.

 **CAUTION** Certain parts of installing the Oil-Filter Crusher are difficult for just one person. BendPak Ranger strongly recommends having two or more persons work together to install the unit.

If you have to use an extension cord, make sure its current rating is equal to or greater than that of the equipment being used. Make sure the extension cord cannot be stepped on, run over, or pulled out. Extension cords are also a tripping hazard, so they must be secured.

Prepare for Electrical Work

You will need to have a licensed, certified Electrician available at some point during the installation.

 **DANGER** All wiring ***must*** be performed by a licensed, certified Electrician.

Verify all electrical work conforms to applicable local, state, and federal codes, rules, and regulations, such as state and federal OSHA regulations and electrical codes.

The Electrician needs to:

- **Connect to power.** The Power Unit comes with a Pigtail for wiring to a power source. Have your Electrician open the Electrical Box on the Power Unit, remove the Pigtail, wire a Power Cord with appropriate Plug to the Electrical Box (for connection to a power outlet) or wire the Electrical Box directly into the electrical system at the facility.
- **Connect the Door Safety Switch to the Power Unit.** The Door Safety Switch has to be wired to the Power Unit. The necessary wiring is included with the unit.

Use the Right Tools

You need to provide the following:

- Wrenches and screwdrivers
- Forklift or Shop Crane to raise the Oil-Filter Crusher, if desired
- A hammer drill and concrete drill bit to mount the unit to the floor, if desired

Finding a Location

Keep the following in mind when deciding on a location:

- **Power source.** The Oil-Filter Crusher needs to have access to an appropriate 220 VAC power source, either within distance of the Power Cord and Plug or wired into the facility's power system.
- **Floor.** The unit is best used on a flat, concrete floor. ***Do not*** install on asphalt or wood surfaces.
- **Anchoring.** Although not required, BendPak Ranger recommends anchoring your Oil-Filter Crusher to the Concrete floor. This provides strong stability for the unit.
- **Accessibility.** You need a little space around the unit to move the Oil Filters in and then to remove them.
- **Danger.** When the unit is crushing an Oil Filter, only the Technician should be near it. Everyone else must be kept at least 30 feet away from the unit.

Do not set up the Oil-Filter Crusher in a well-travelled area.

- **No water.** The Oil-Filter Crusher's Power Unit has electronic components. If the unit gets wet while turned on, those electronic components will most likely short circuit and have to be replaced. ***Do not allow the Oil-Filter Crusher's Power Unit to get wet.***

 **DANGER** You ***must not*** use the Oil-Filter Crusher if it is sitting in water. You will almost certainly short circuit the electronic components in the Power Unit and you could electrocute yourself or others nearby.

Unpack the Components

Use caution when unpacking the components. You do not want to damage or misplace anything.



Tip

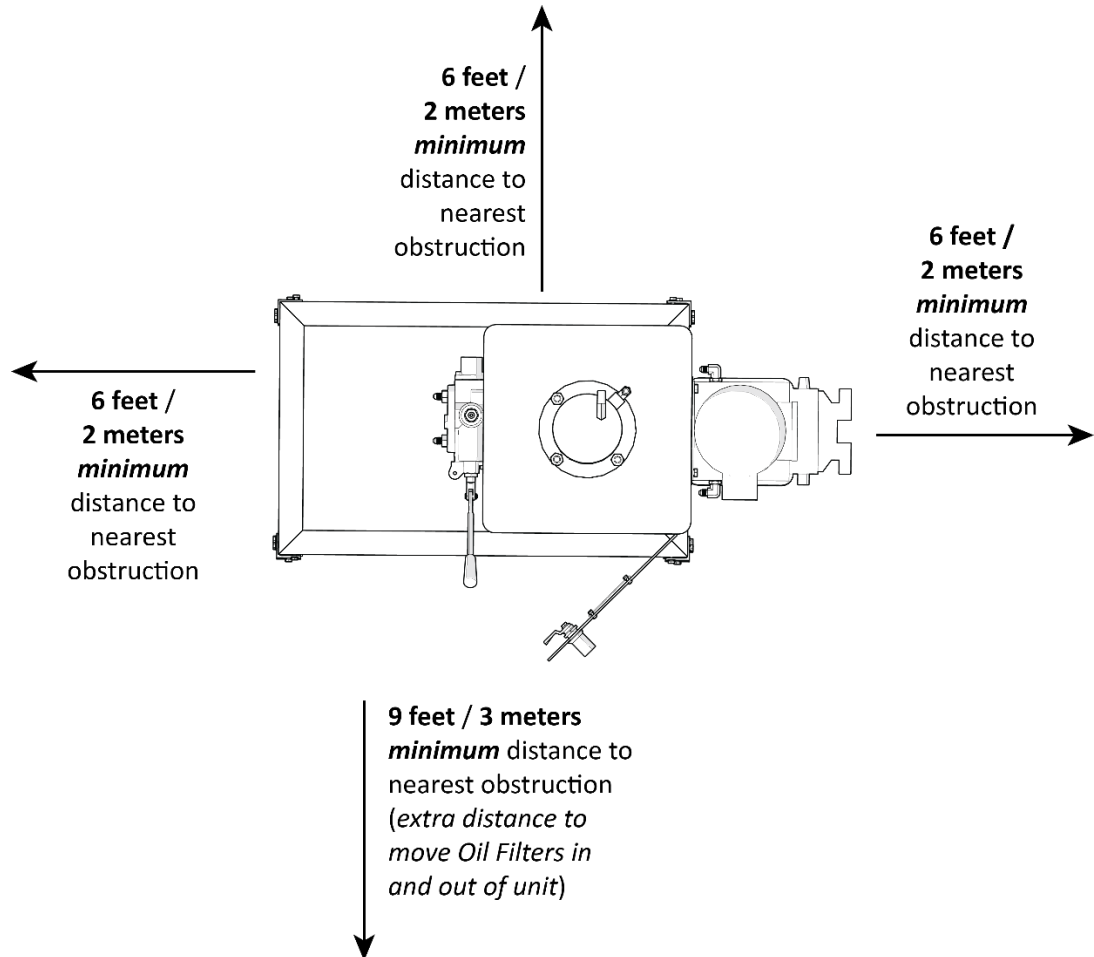
Consider unpacking the components in the area where you are going to assemble the unit. The fewer times you have to move the components, the fewer opportunities there are for them to get lost, get damaged, or damage the surface they are on.

Clearances

To allow enough room to crush your Oil Filters, a certain amount of space around the unit is **required**.

BendPak Ranger recommends leaving an additional **12 inches / 305 mm** of space **above** the top of the Oil Can Crusher.

⚠ WARNING The Clearance values shown below are to allow the Technician enough space to operate the Oil-Filter Crusher. **For safety purposes, only the Technician should be within 30 feet of the Oil-Filter Crusher during use.**

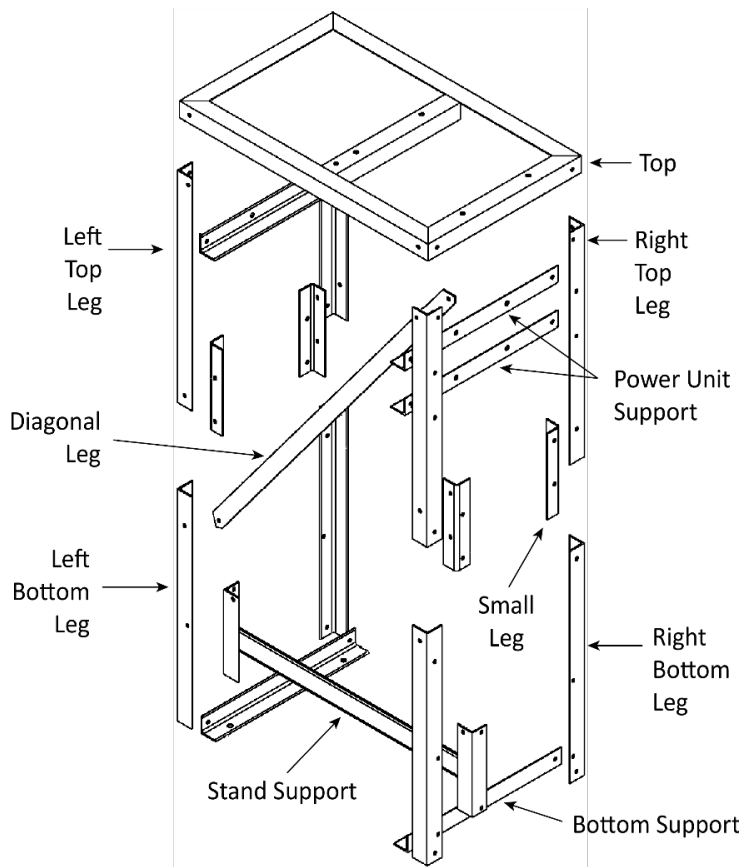


Not to scale. Some components removed for clarity.

Assemble the Stand

The Stand comes disassembled (to protect the components during shipping).

The following graphic shows the components of the Stand.



To assemble the Stand:

1. Arrange all of the Stand components near where you are going to assemble it.
2. Lay the Top flat on the ground, with the inside facing up.
3. Attach the Left Top Legs (2) and Right Top Legs (2) to the Top using the included M6 Hex Bolts, M6 Flat Washers, Split Lock Washers and M6 Nuts.

Important: The Legs look similar but they are **not** interchangeable. The Tops are different from the Bottoms and the Left Legs are different from the Rights Legs. We recommend laying them out to make sure you have the right sections in the right place **before** connecting them.

4. Connect a Small Leg (4) to each Leg that you just installed, and then connect the Left Bottom Legs (2) and Right Bottom Legs (2) to the corresponding Legs.
5. Attach the Top Supports (2) and Bottom Supports (2) to the Stand.
6. Attach the Diagonal Leg to the top of the Stand, put the Stand Support in place near the bottom of the Stand, then secure the bottom end of the Diagonal Leg and Power Unit Support in place using the same hardware.
7. Move the Stand to the upright position.

Bolt the Enclosure to the Stand

Once the Stand is assembled and anchored in place (if desired), bolt the Enclosure over the Open Area of the Platform.

The Ram (on the top) and the Control Handle mechanism (on the right side) come installed on the Enclosure from the factory.

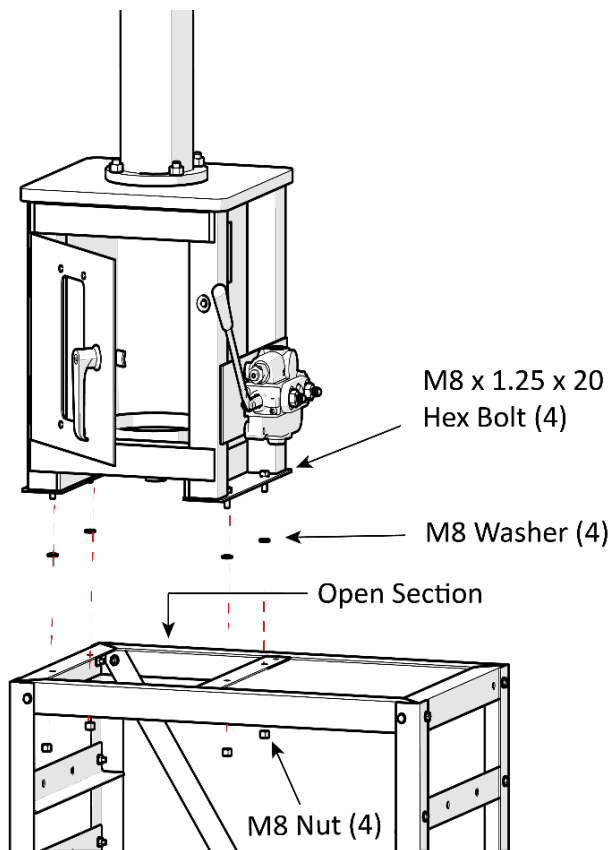
The Hydraulic Hoses and Fittings do **not** come installed from the factory. Connecting them is described later.

To bolt the Enclosure to the Stand:

1. Lift the Enclosure and place it on top of the Platform.

⚠ CAUTION The Enclosure is heavy and the weight is not evenly distributed; we strongly recommend having two people lift the Enclosure into place.

2. Move the Enclosure until it is directly over the open section of the Platform.
3. Secure the Enclosure to the Platform using four Hex Head Bolts, Flat Washers, and Nuts.

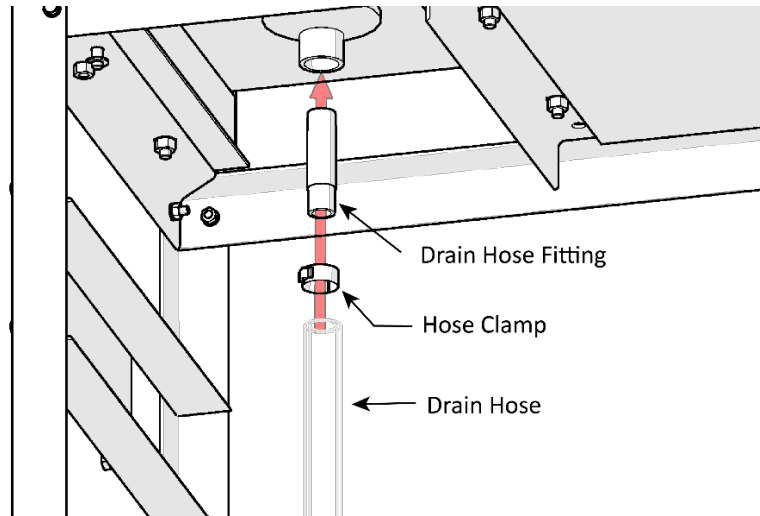


Front view. Not all components shown.

4. Connect the Drain Hose Fitting to the bottom of the Enclosure.

Refer to the graphic on the following page.

5. Attach the Hose Clamp and Drain Hose to the Drain Hose Fitting.



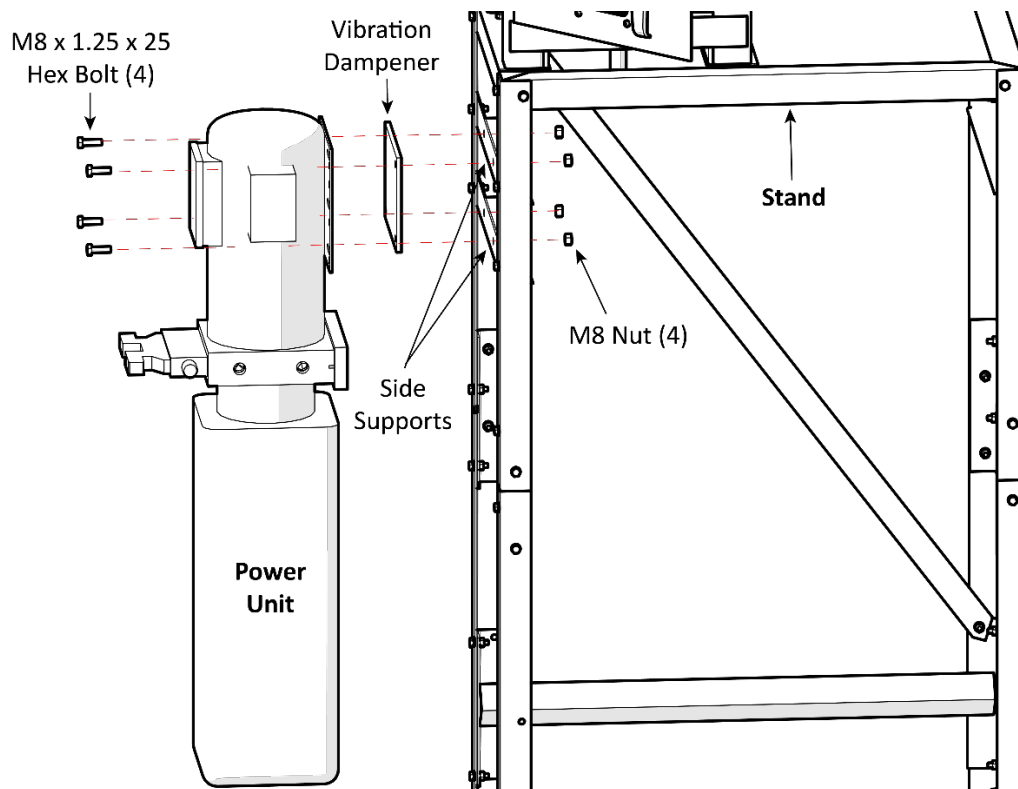
Not all components are shown. Sample Power Unit shown.

Attach the Power Unit to the Stand

Attach the Power Unit and Vibration Dampener to the Stand using Four Hex Bolts and Nuts.

⚠ CAUTION The Power Unit is heavy; we recommend having one person hold the Power Unit, while a second person bolts it in place.

The following graphic shows how to attach the Power Unit to the Stand.





IMPORTANT! PLEASE READ NOW



Hydraulic Fluid Contamination

Hydraulic Fluid Contamination poses a **serious** issue for your equipment; contaminants such as water, dirt, or other debris can get into the Hydraulic Hoses and Fittings, making your new Crusher inoperable.

The Rp-30FCH is shipped with clean components; however, BendPak strongly recommends that you take secondary precaution and clean all Hydraulic Hoses and Fittings prior to making connections. It is better and less costly to take these extra steps now so that you do not need to take the equipment out of service later to fix issues that could have been prevented at the time of installation.

There are several ways to clean Hydraulic Hoses and Fittings:

- **Compressed Air.** Use an air compressor to blow out contaminants from each Hydraulic Hose and Fitting prior to installation. Clean, dry air is preferred. Wear eye protection (safety glasses, goggles, or face shield) when using compressed air for cleaning. Never point an air hose nozzle at any part of your body or any other person.
- **Fluid Flushing.** As long as the Hydraulic Fluid is clean and compatible with the system fluid, you can flush Hoses and Fittings to create turbulent flow and remove particulates. Always ensure that the fluid itself is contaminant-free.

Some additional steps that will help keep the Hydraulic Fluid clean:

- **Remove old thread seal tape.** Some ports on the Hydraulic Cylinders are shipped with temporary plugs secured with thread seal tape, so make sure to thoroughly remove any leftover thread seal tape that may inadvertently enter the Hydraulic System.
- **Use a liquid thread sealant only.** Teflon paste-type thread sealant or Loctite™ 5452 thread sealant is recommended for all NPT Fittings. Do not over tighten NPT Fittings or they may crack. Never use thread seal tape on JIC Fittings or ORB O-Ring Fittings. DO place a drop of Hydraulic Oil on the O-Rings of ORP fittings prior to assembly.
- **Always use clean equipment.** If you use a dirty bucket or funnel to transfer the Hydraulic Fluid into the Hydraulic Fluid Reservoir, the contaminants will likely be introduced into the Fluid. When using cleaning rags, use a lint-free rag.
- **Proper storage.** Keep the Hydraulic Fluid sealed in its container until ready for use; store the Fluid in a clean, dry, and cool area.
- **Cover the Hoses and Fittings.** Before installation, do not leave the ends of the Fittings exposed; the same applies for the Hydraulic Hoses. As a general rule, keep the Hydraulic Hoses and Fittings capped and kept clean in a clean area until ready for use.

-
- **Filter the new Hydraulic Fluid.** Just because it is new does not necessarily mean it is *clean*. Use an offline filtration cart or kidney loop system to make sure the Hydraulic Fluid is clean before being transferred into the Hydraulic Fluid Reservoir (even using a heavy duty nylon mesh screen is better than trusting what is left at the bottom of the barrel).
 - **Avoid mixing different types of Hydraulic Fluid.** If Hydraulic Fluid needs to be replaced, make sure to flush the Hydraulic System of the old Hydraulic Fluid before you add the replacement Fluid; do not mix the two together.

About Thread Sealants

We recommend using a Liquid Thread Sealant to seal the Hydraulic components on your unit.

Liquid Thread Sealant lubricates and fills the gaps between the Fitting threads, and leaves no residue that could contaminate the Hydraulic Fluid. Other types of Thread Sealants (like Teflon Tape) can shred during installation or removal and eventually enter the Hydraulic System.

Thread Sealant can be used with most Hydraulic Fittings, although you probably only need to use with NPT connectors.

To apply Thread Sealant:

1. Make sure the Fittings and connectors you are going to use are clean and dry.
If you are adding Thread Sealant to a Fitting or connector that has already been used with a different sealant, use a wire brush to thoroughly remove the old sealant before adding more.
2. Apply a small amount of Thread Sealant to the first four threads of the Fitting.

 **WARNING** Always wear the proper protective equipment when handling Thread Sealant.

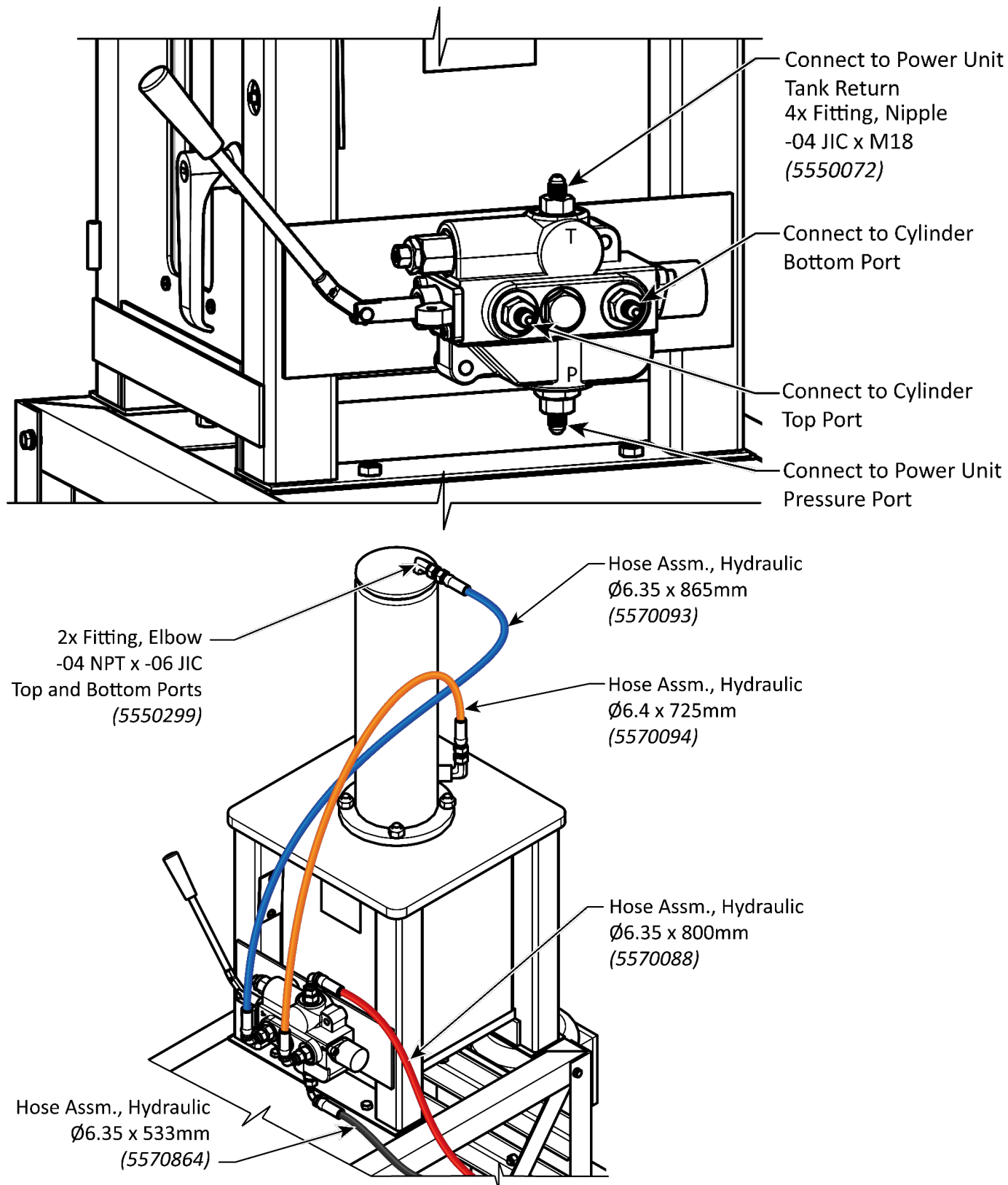
You only need a small amount because the sealant spreads to the other threads as it is tightened into place.

If you put too much, the excess liquid will be pushed out when the Fitting is tightened; use a rag to wipe the excess.

3. Tighten the Fitting into the connector; do **not** over tighten the Fitting.
4. Allow the manufacturer-recommended curing time before pressurizing the system.

Connect the Hydraulic Hoses

The figure below details the Hydraulic Hose connections on the Unit's directional valve and an overview of the connections to the Cylinder.



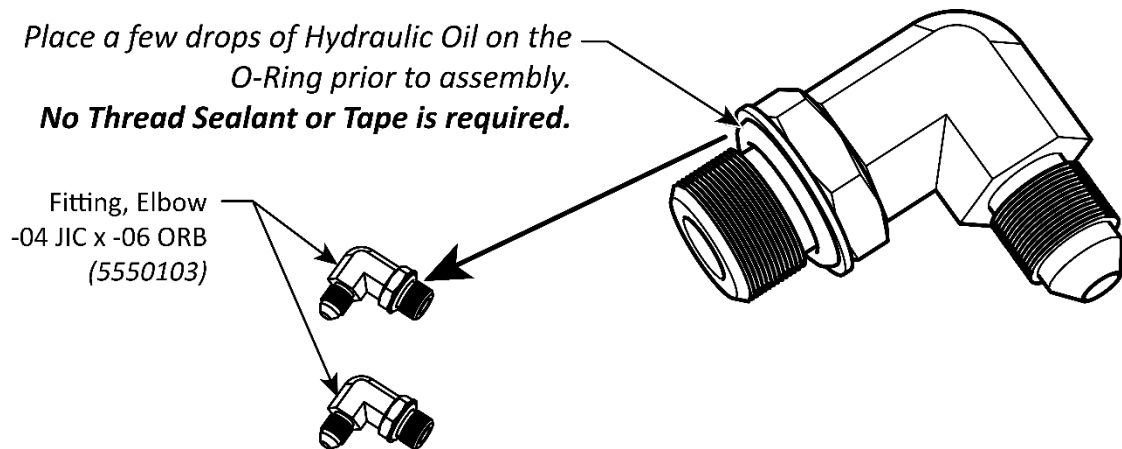
To install the Hydraulic Hoses:

1. Connect the four Hydraulic Hoses as shown in the previous figure; securely tighten all connections.

You may use liquid thread sealant on the NPT Connectors to help prevent leaks. **Do not use thread seal tape.**

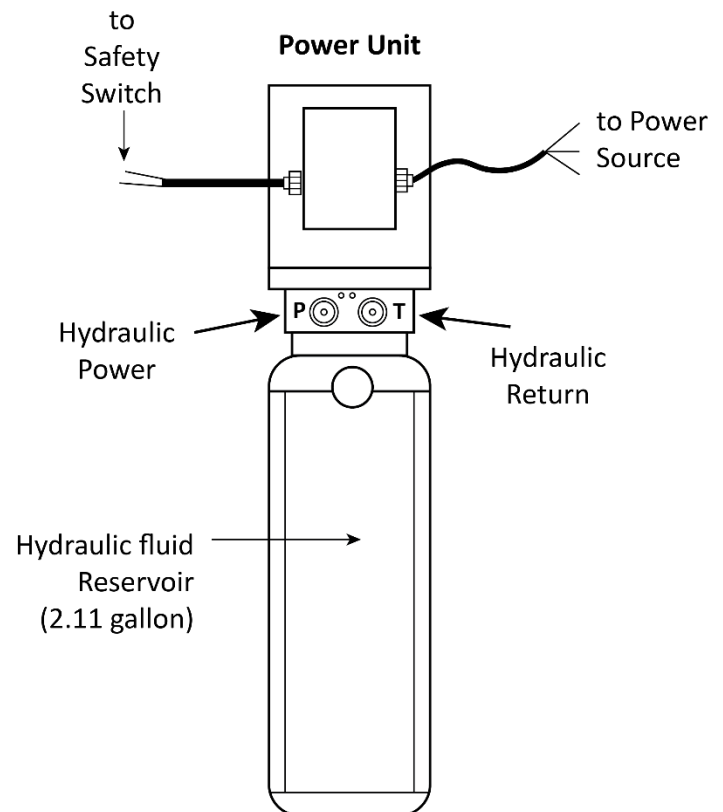
2. **On the Power Unit**, install a Hydraulic Elbow Fitting -04 JIC x -06 ORB (5550103) to the Hydraulic Power Out and another Elbow Fitting to the Hydraulic Return.

Note The Hydraulic Power Out is labeled **P** on the Power Unit; the Hydraulic Return is commonly labeled **T**.



3. Connect the 800 mm long Hydraulic Hose (5570088) to the Hydraulic Return labelled **T** on the Power Unit.
4. Connect the 533 mm Hydraulic Hose (5570864) to the Hydraulic Power Out on the Power Unit labelled **P**.

The following drawing shows the connections to make to the Power Unit.



Not drawn to scale. Not all components shown.

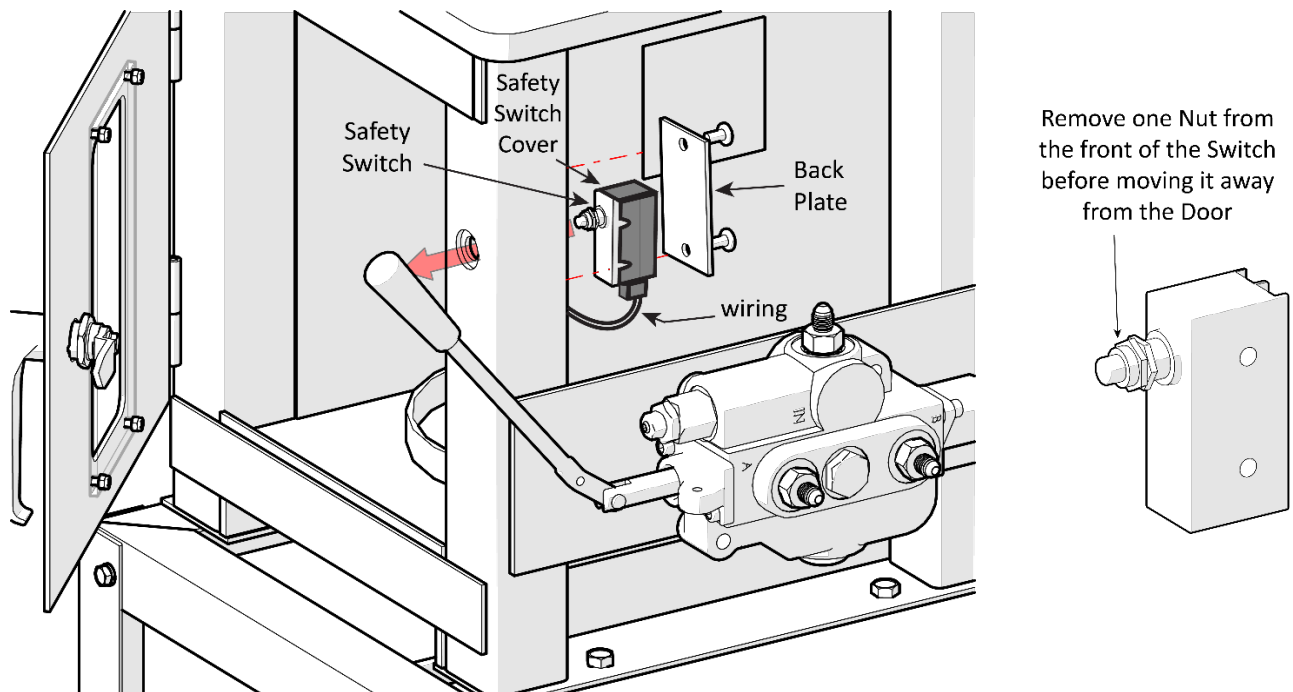
Wire the Door Safety Switch

The Door Safety Switch is a safety feature that cuts power to the unit if the Door is opened during operation.

⚠ WARNING You must make sure the Door Safety Switch is operating as intended before putting the unit into normal operation. ***Do not disable the Door Safety Switch for any reason.***

⚠ WARNING All electrical work ***must be done by a licensed, certified Electrician.***

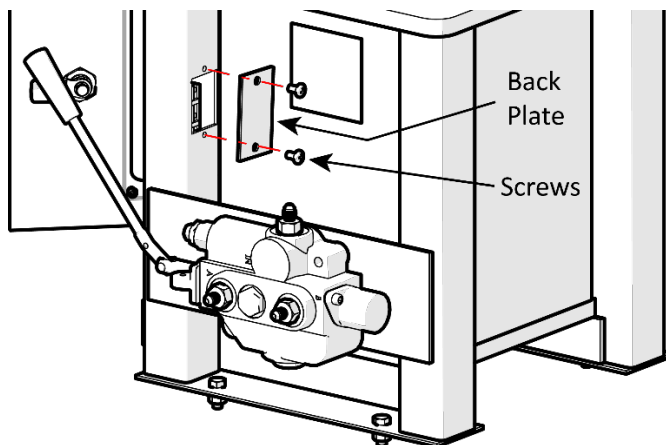
The following graphic shows the Safety Switch (with Safety Switch Cover) being put in place.



Not all components shown.

To wire the Door Safety Switch:

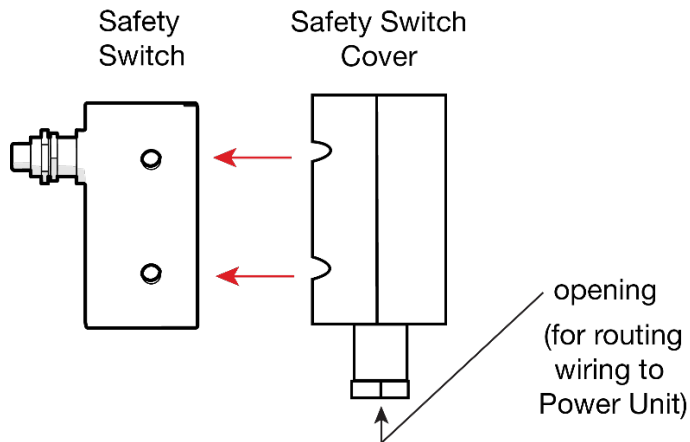
1. Remove the Back Plate and two Screws from behind the Handle on the Door.



2. Temporarily remove the Safety Switch from behind the door, then attach the wiring cord to the Safety Switch.

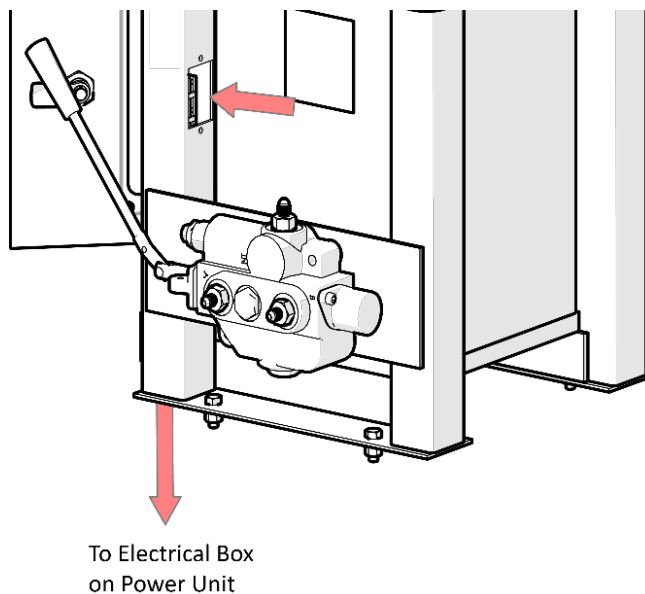
See [Wiring Diagrams](#) for more wiring information.

3. Place the Safety Switch Cover over the Safety Switch, making sure to route the wiring through the Cover opening.

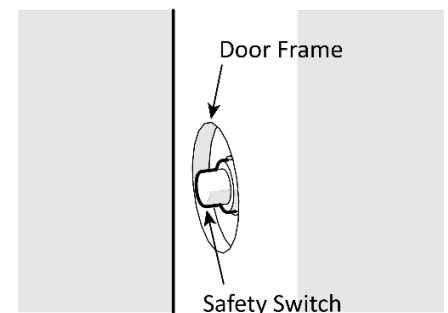


⚠ DANGER You **must** attach the Safety Switch Cover to the Safety Switch; without the Safety Switch Cover in place, you could short circuit the electrical components and you could damage the unit or be electrocuted, resulting in serious injury or even death.

4. Put the Safety Switch in place in the door (and replace the Nut that was removed earlier), then route the wiring cord through the opening in the Stand to where the Power Unit is.



Switch must be **below or flush** with door frame in order for door to close properly



Drawing shows the Switch in place behind Door Frame. Not all components shown.

5. Connect the other end of the wiring to the Electrical Box.

See [Wiring Diagrams](#) for more wiring information.

⚠ WARNING All electrical work **must be accomplished by a licensed, certified Electrician**.

6. Replace the Back Plate and two Screws behind the Door.

Connect the Power Unit to a Power Source

The RP-30FCH Oil-Filter Crusher needs to be connected to a 208-230 VAC power source.

The unit comes with a Pigtail. Have your Electrician remove the Pigtail inside the Electrical Box, then wire the Electrical Box to the facility's electrical system or attach an appropriate Power Cord and Plug for connection to a power outlet.

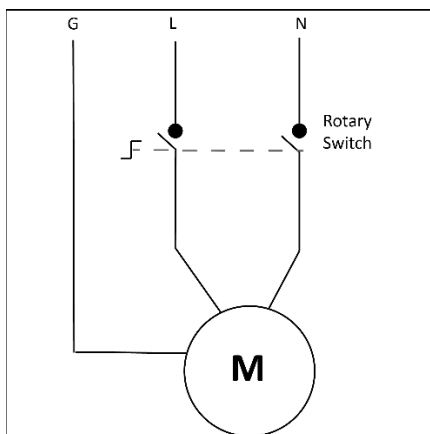
⚠ WARNING All electrical work ***must be accomplished by a licensed, certified Electrician.***

⚠ WARNING Overheating, short circuits and fire will result from inadequate wiring. All wiring must be installed in accordance with local, state and national electrical codes (NEC) and standards covering electrical apparatus and wiring.

Additional electrical information:

- Operation with no Ground can damage electronics and could create a shock hazard. ***You must ground the unit.***
- Damage caused by improper electrical installation (not grounding the unit, for example) voids the warranty.
- The Oil-Filter Crusher uses hydraulic and electrical energy; if your organization has Lockout/Tagout policies, make sure to implement them after connecting the unit to the power source.
- Make sure adequate wire sizes are used, service is of adequate amp rating, the supply line has the same electrical characteristics (voltage, cycles, and phase) as the motor, and that no other equipment is operated from the same line.
- Electrical codes may require “hard-wiring” when the machine is anchored to the floor. Consult a licensed Electrician regarding the applicable codes for your location.

⚠ WARNING ***Disconnect power before performing any maintenance.*** Make sure the unit **cannot** be reenergized until you are done with maintenance. If your organization has Lockout/Tagout policies, make sure to implement them. This equipment has internal arcing or sparking parts that should not be exposed to flammable vapors. The unit must not be located in a recessed area or below floor level.



See [Wiring Diagram](#) for additional wiring information.

Operation

This section describes how to use the Oil Filter Crusher safely during normal operation.

Safety Rules

Important: Your safety is dependent on reading, understanding, and implementing these Safety Rules. ***Do not skip over them; read them carefully and follow them!***

To use your Oil-Filter Crusher safely:

- Before crushing an Oil Filter, inspect the unit. Check for Hydraulic Fluid leaks, worn or missing parts, disconnected wiring, or any other abnormalities. If you see anything wrong, take the Oil Filter Crusher out of service, remove disconnect it from power, and then contact an authorized repair facility, your distributor, or the Ranger Products Hotline at **(805) 933-9970**.
- Only allow trained, supervised personnel to operate the Oil-Filter Crusher.
- Do not smoke while using the Oil-Filter Crusher.
- Do not try to open the Door while an Oil Filter is being crushed.
- All electrical work, including Maintenance and Troubleshooting, must only be done by licensed, certified Electricians.
- Other than the Technician operating the Oil-Filter Crusher, keep all other people a minimum of 30 feet away from the unit while it is being used.
- Only put one Oil Filter in the Crusher at a time.
- Never override the operation of the Door Safety Switch.

 **WARNING** You must wear appropriate protective clothing at all times while operating the Oil-Filter Crusher: leather gloves, non-skid steel-toed work boots, ANSI-approved eye protection, and an industrial back belt. Accidents can cause significant injuries.

- Avoid off-center loads. If the Press Ram seems to be having difficulty crushing an Oil Filter, stop operation immediately, retract the Press Ram to its starting position, fix the issue, then try again.
- Do not try to remove an Oil Filter that has become stuck in the Press Ram until you have disconnected power from the Power Unit and made sure it cannot be accidentally re-energized until you have removed the stuck Oil Filter.
- Do not leave the Oil Filter Crusher with the Press Ram down; always complete the crushing cycle.
- ***Pay attention at all times while using the Oil Filter Crusher. Safety is your top priority at all times.***

Normal Operation

The RP-30FCH Oil Filter Crusher is controlled by the Control Handle on the right side of the unit.

⚠ WARNING Avoid off-center loads. If the Press Ram seems to be laboring more than usual or the Oil Filter is unusually hard to press, stop operation.

To operate your Oil Filter Crusher:

1. Place an approved waste oil container under the Oil Drain (on the underside of the unit).
2. Open the Door and place a used Oil Filter in the center of the chamber, **open end down**.

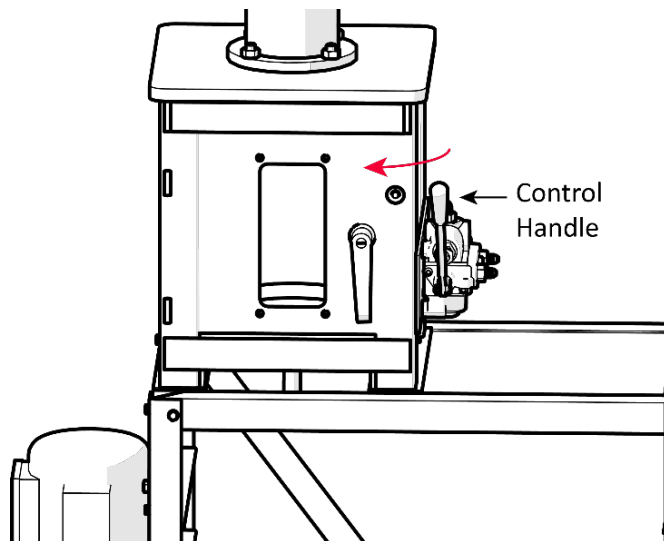
⚠ WARNING Do not operate the Oil Filter Crusher with the Door open.

3. Close and lock the Door.

⚠ CAUTION You cannot crush an item until the Door is closed and locked.

4. Move the Control Handle to the left and hold it there.

The Press Ram will move downwards, crush the item, return to the original starting position, and then shut off.



5. Move the Control Handle to the right to raise the Press Ram.
6. To remove the crushed filter, open the Door and carefully pull out the crushed item.

Do not get distracted when removing a crushed Oil Filter. Be very careful not to scratch, cut, or puncture your skin on the sharp edges of the crushed filter. Watch for leaking oil.

7. Store the crushed Oil Filter until it can be removed for recycling.

Maintenance

 **WARNING** Disconnect the unit from its power source ***before performing any maintenance!***

 **WARNING** Wear gloves and watch for sharp edges and burrs on crushed filters!

To maintain your Oil-Filter Crusher:

- If you need work done on your Power Unit, ***you must use a qualified Electrician.***
- Make sure to keep the entire unit clean and free of debris and dirt. These can cause failure in the Hydraulic System.
- All exposed machine surfaces of the press should be brushed clean and wiped with a lubricant, such as WD-40® for example, on a regular basis.
- Regularly clean the inside of the chamber to remove any accumulated sludge, metal particles, or other debris that could impact operation.
- Keep the Oil Drain (on the underside of the unit) free of accumulation of debris; remove any materials that may be clogging the Oil Drain.
- Inspect for leaks and drain the approved waste oil container in accordance with all local, state, and federal regulations.
- Change or replace the Hydraulic Fluid with SAE-10W or 20W non-foaming hydraulic oil every 5000 cycles (or about once each year), depending on the degree of usage and the cleanliness of the work environment. Make sure the Press Ram is completely retracted during oil change service.

Troubleshooting

Issue	Action to Take
Press Ram does not move when Control Handle is moved.	Verify the unit is supplied power. Make sure the Hydraulic Hoses are connected correctly and are not leaking. Make sure the Door is locked. If the Door is not locked, the safety switch does not activate, which prevents the Press Ram from moving.
Press Ram moves sluggishly.	Check to see if air is in the Hydraulic System. If there is air, loosen the hose fittings at the Press Ram and run the pump until you see a steady flow of oil that is free of air bubbles escaping from the loosened fittings. Retighten the hose fittings.

Wiring Information

This section includes wiring information for both the Power Unit and the Microswitch.

Power Unit

The standard Power Unit for the RP-30FCH is 208-240 VAC, 50/60 Hz, single phase.

The RP-30FCH comes with a Pigtail. Have your Electrician remove the Pigtail inside the Electrical Box, then wire the Electrical Box to the facility's electrical grid or attach an appropriate Power Cord and Plug for connection to a power outlet.

⚠ WARNING All electrical work ***must be done by a licensed, certified Electrician*** in accordance with all applicable local electrical codes. Damage caused by improper electrical installation may void your warranty.

Important: To connect the three exposed wires to an appropriate Power Cord and Plug or to hard-wire them to the facility's electrical grid, have your Electrician follow the electrical codes for the country in which you are using the unit and any local electrical codes.

For example, if you are using the unit in the United States, the color codes on the wiring that comes with the RP-30FCH correspond to:

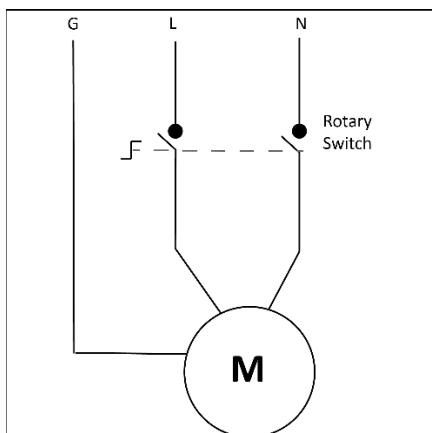
- **Brown:** Live
- **Blue:** Live
- **Green/Yellow:** Ground

If you were using the unit in a European country, the color codes on the wiring that comes with the RP-30FCH correspond to:

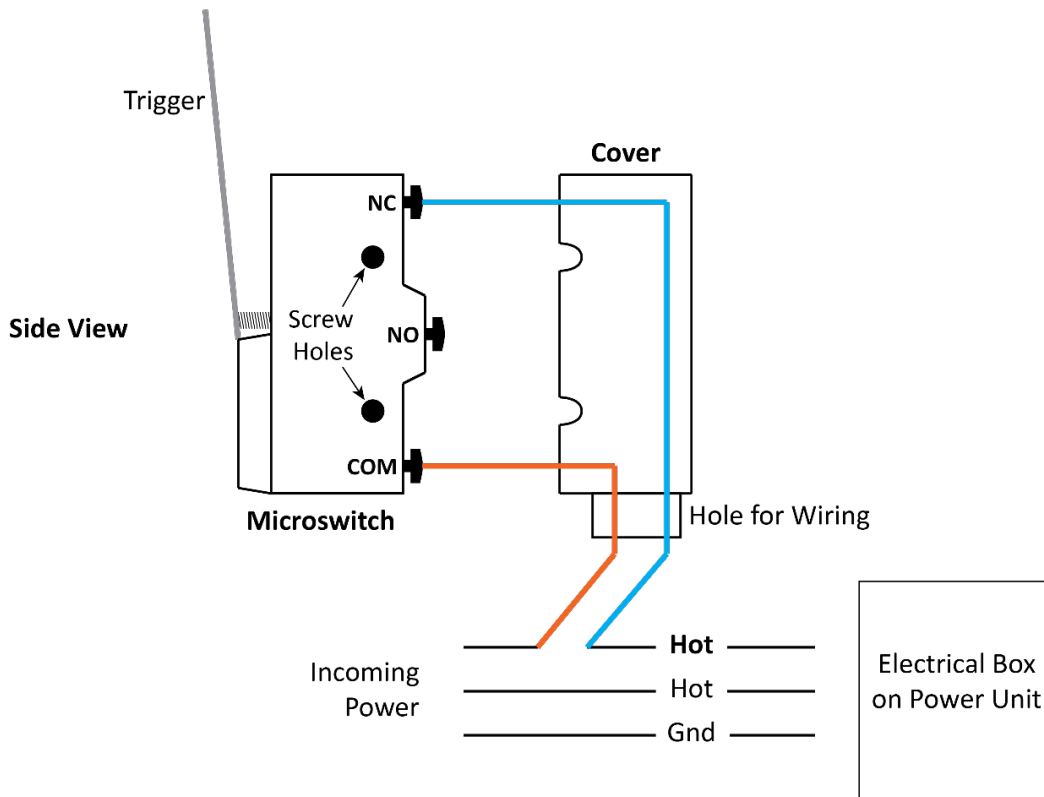
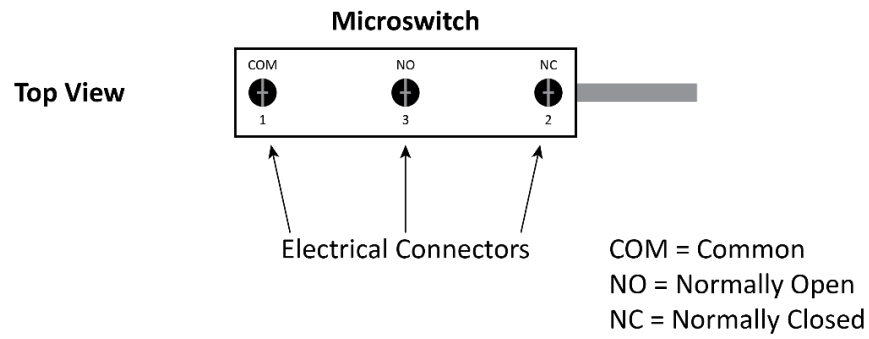
- **Brown:** Live
- **Blue:** Neutral
- **Green/Yellow:** Ground

Information about color code conventions in other regions and countries is available online.

208-240 VAC



Microswitch



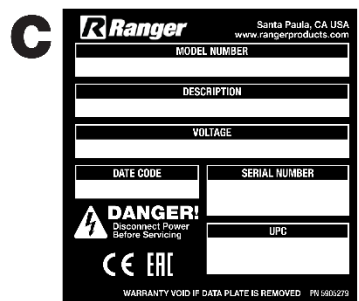
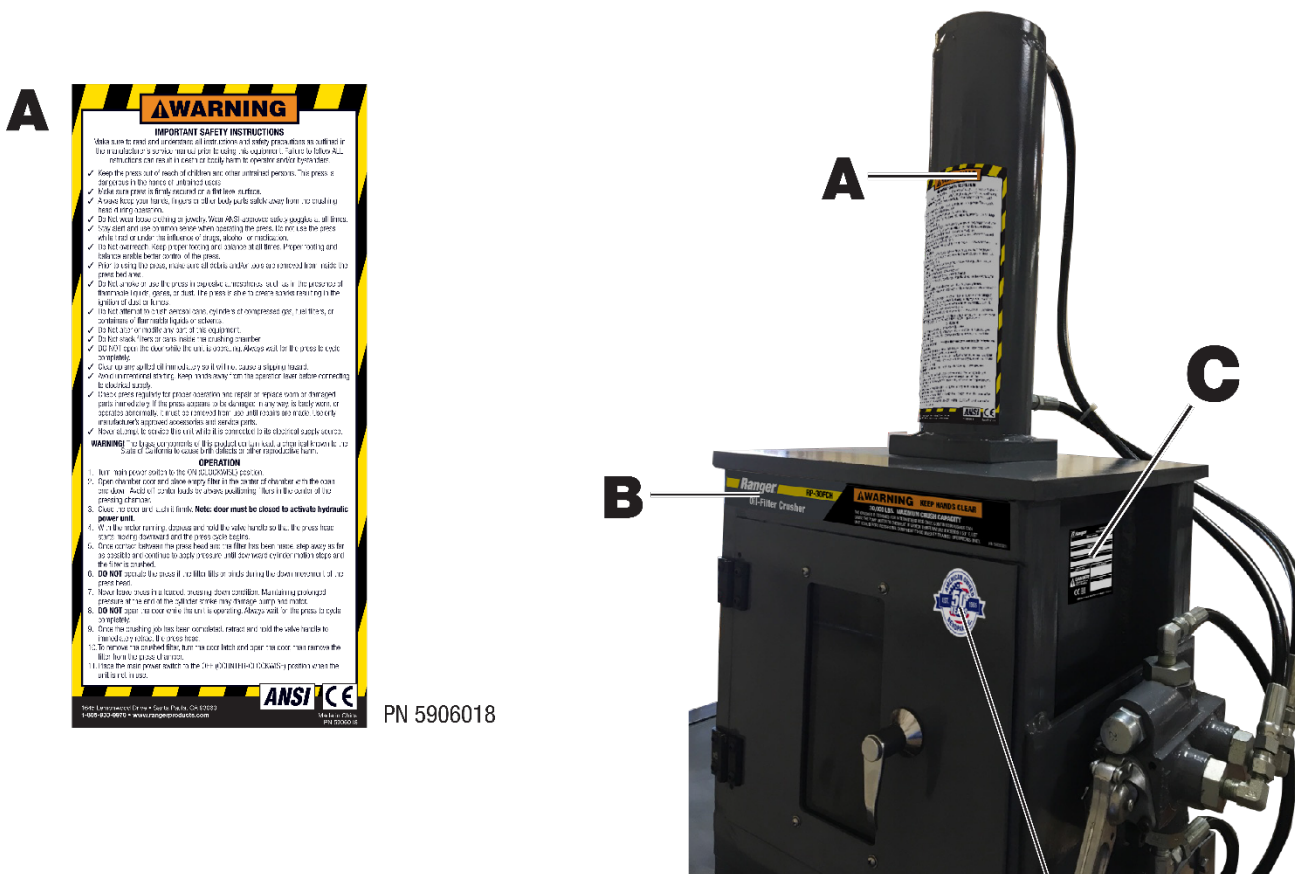
Maintenance Log

Maintenance Log

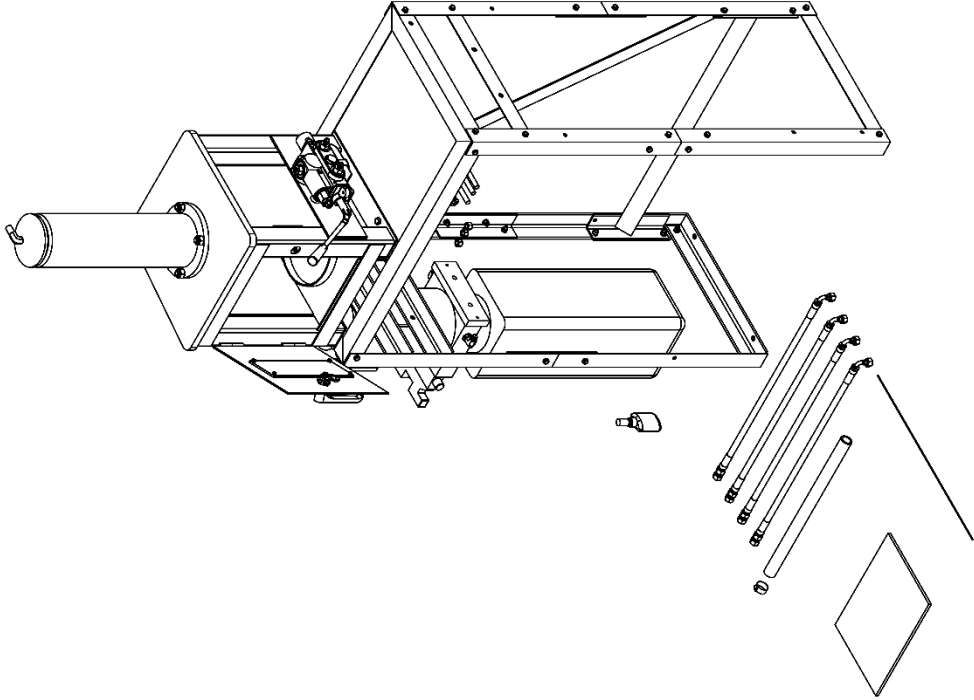
Maintenance Log

Maintenance Log

Labels



Parts Diagrams



ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5323988	RP-30FCH BODY	1	D
2	5323962	RP-30FCH PARTS BOX	1	G
3	5323982	RP-30FCH PUSHER PLATE WELDMENT	1	B
4	5502527	CYLINDER ASSEMBLY Ø4.0 x 10	1	B
5	5323977	RP-20FC/30FCH STAND	1	E
6	5323984	RP-30FCH PLATE	1	B
7	5530792	HHB M12 x 1.75 x 45 CL10.9	4	-
8	5535012	NUT M12 x 1.75 NL	4	-
9	5530304	HHB M8 x 1.25 x 20mm	4	-
10	5545012	WASHER, M8x16x1.6mm FLAT	4	-
11	5535001	NUT M8 x 1.25 NL	4	-
12	5530079	BPHS M6 x1.0x10	2	-
13	5525132	PUSH BUTTON SW/ SINGLE POLE	1	-
14	5520586	WIRE, AWG 16-2, SOOW	1	-
15	5525112	MICRO SWITCH COVER-SPA2	1	-
16	5325939	FILTER CRUSHER DOOR WINDOW	1	B
17	5580009	L SHAPE HANDLE CAM LOCK	1	-
18	5530020	PHPS M4 x 0.7 x 12	4	-
19	5535010	NUT M4 X 0.7 NL	4	-
23	5900097	RP-30FCH INSTALLATION MANUAL	1	-

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THIRD ANGLE PROJECTION



DIMENSIONS ARE IN MM



BP BendPak.
1445 LEMMONWOOD DR.
SANTA PAULA, CA 93060

TITLE: RP-30FCH ASSEMBLY

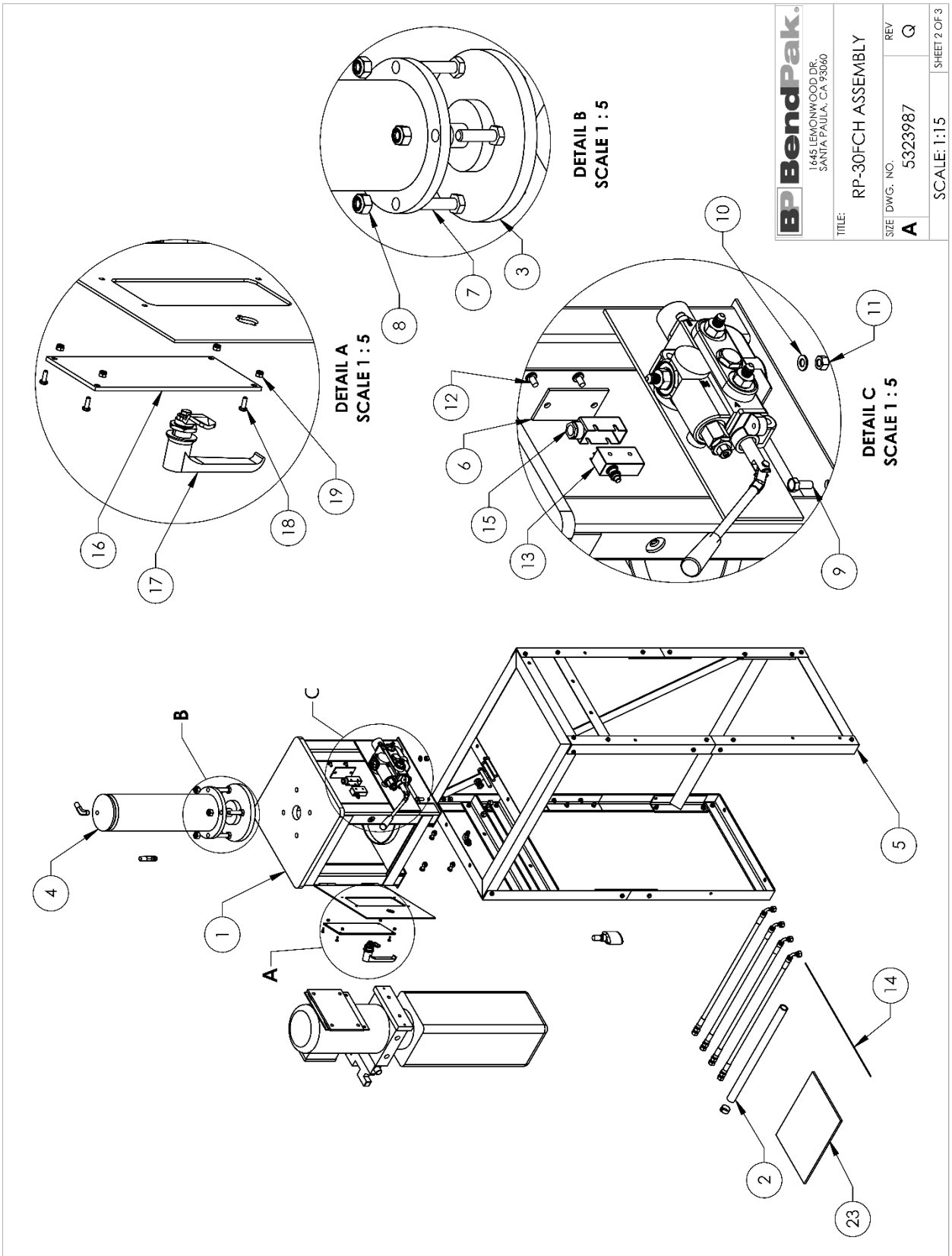
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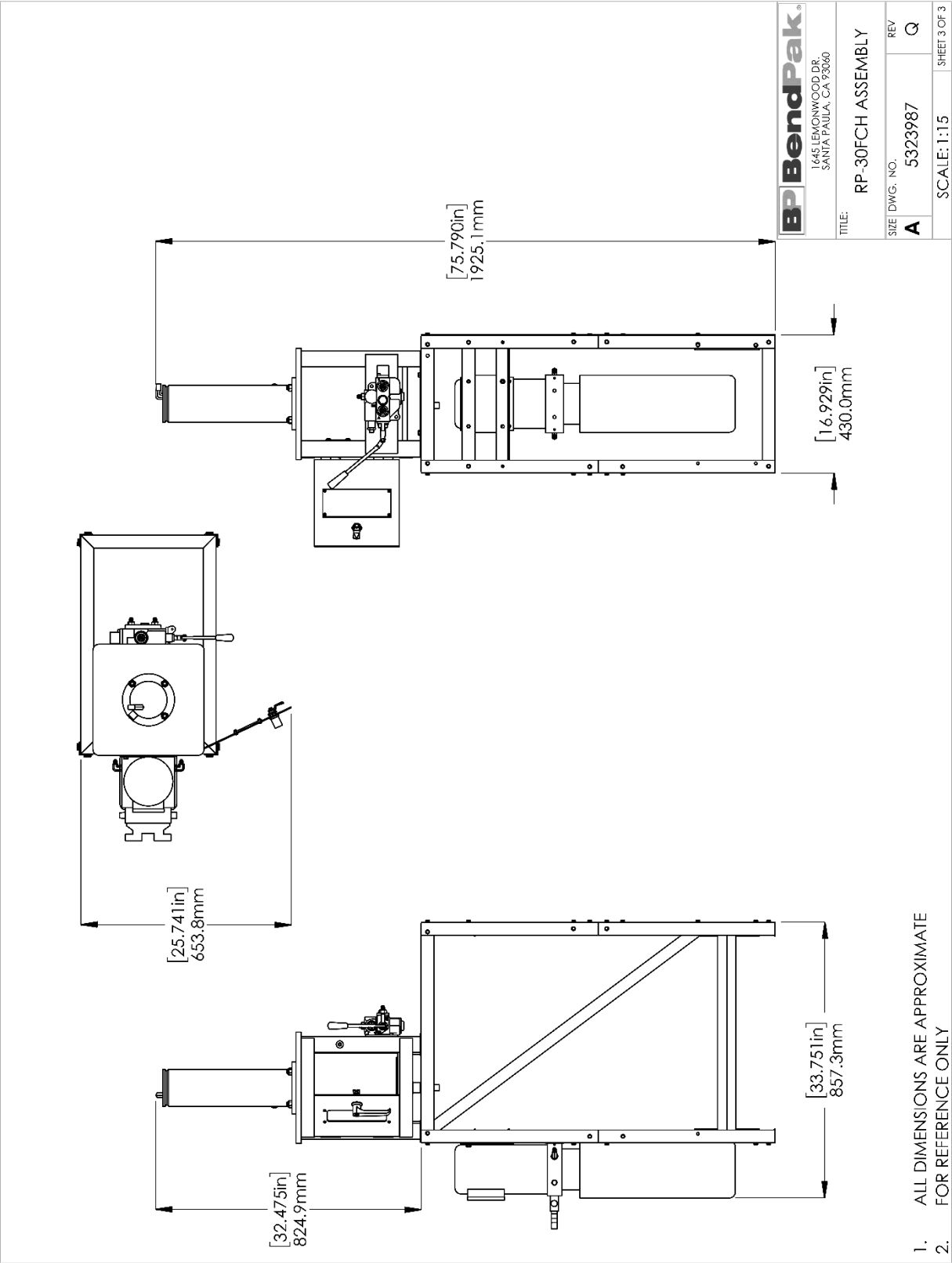
REV Q

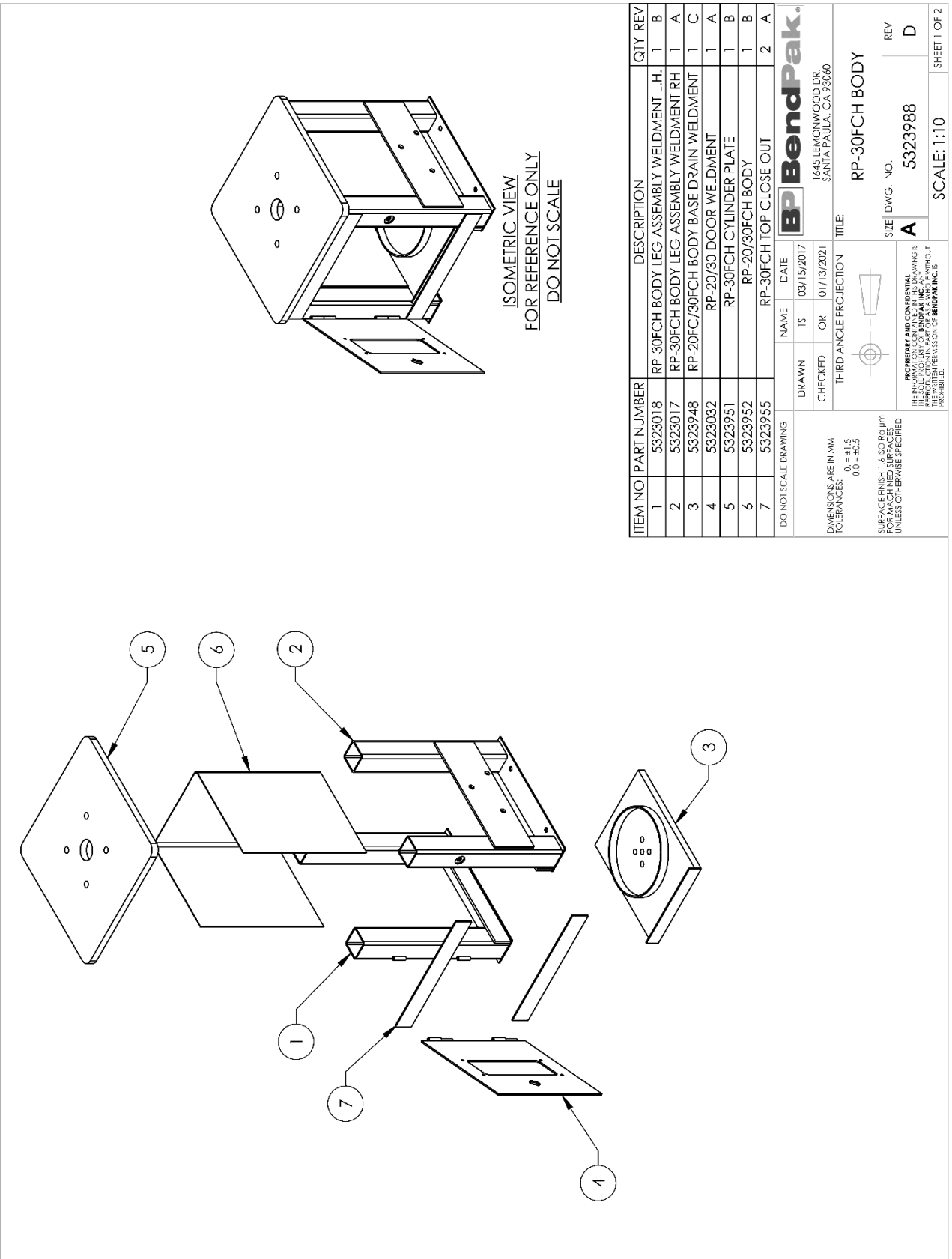
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SHEET 1 OF 3





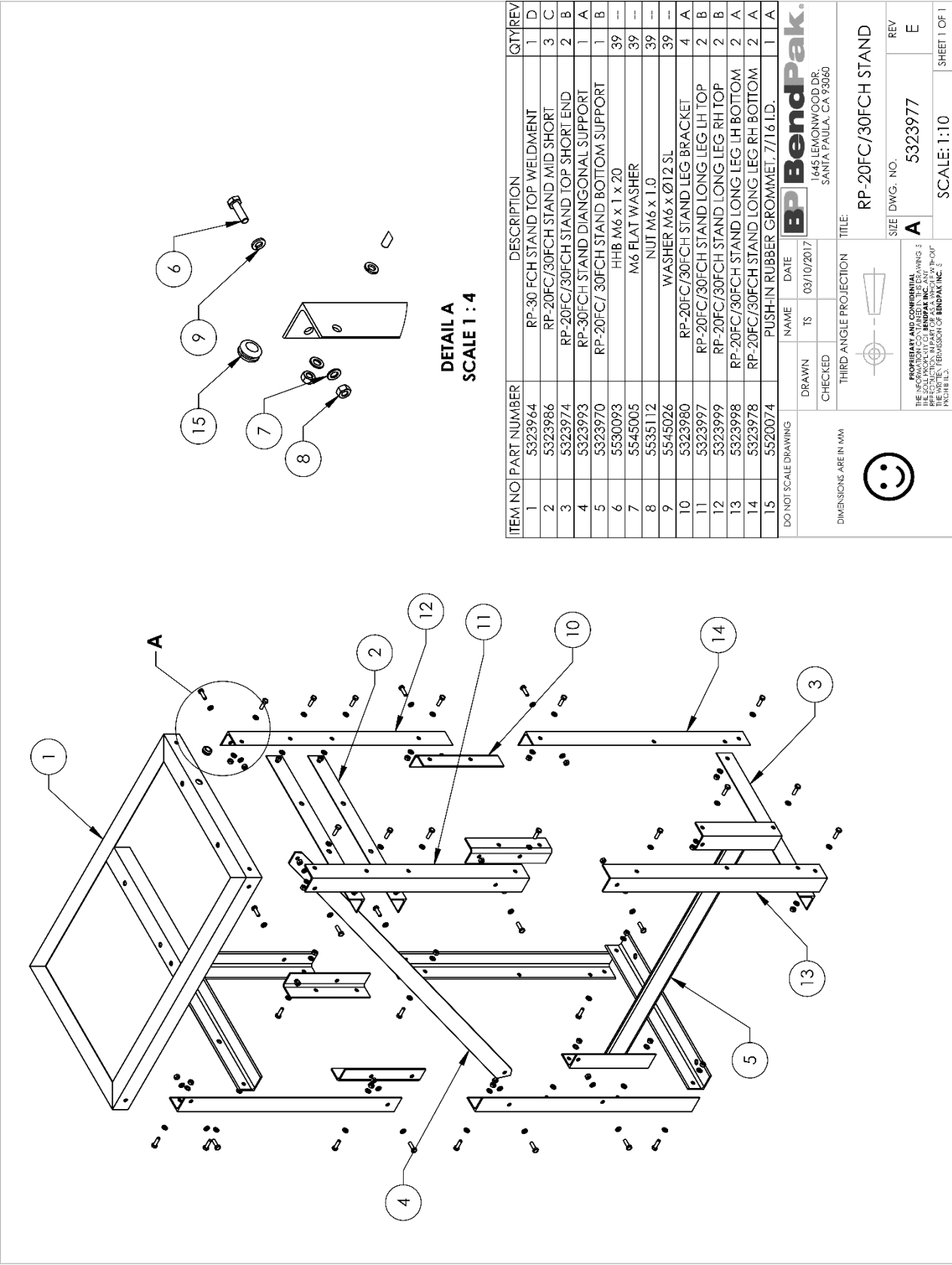


ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5323018	RP-30FCH BODY LEG ASSEMBLY WELDMENT L.H.	1	B
2	5323017	RP-30FCH BODY LEG ASSEMBLY WELDMENT R.H.	1	A
3	5323948	RP-20FC/30FCH BODY BASE DRAIN WELDMENT	1	C
4	5323032	RP-20/30 DOOR WELDMENT	1	A
5	5323951	RP-30FCH CYLINDER PLATE	1	B
6	5323952	RP-20/30FCH BODY	1	B
7	5323955	RP-30FCH TOP CLOSE OUT	2	A

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		0.0 = ±0.5			
SURFACE FINISH 1.6 SQ µm		FOR MACHINED SURFACES			
UNLESS OTHERWISE SPECIFIED					

BP BendPak®		1445 LEMONWOOD DR.		SANTA PAULA, CA 93060	
TITLE:		RP-30FCH BODY			
SIZE		DWG. NO.		REV	
A		5323988		D	
SCALE:		1:10		SHEET 1 OF 2	

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ITEM NO	PART NUMBER	DESCRIPTION	QTY	REV
1	5323964	RP-30 FCH STAND TOP WELDMENT	1	D
2	5323986	RP-20FC/30FCH STAND MID SHORT	3	C
3	5323974	RP-20FC/30FCH STAND TOP SHORT END	2	B
4	5323993	RP-30FCH STAND DIAGONAL SUPPORT	1	A
5	5323970	RP-20FC/30FCH STAND BOTTOM SUPPORT	1	B
6	5530093	HHB M6 x 1 x 20	39	---
7	5545005	M6 FLAT WASHER	39	---
8	5535112	NUT M6 x 1.0	39	---
9	5545026	WASHER M6 x Ø12 SL	39	---
10	5323980	RP-20FC/30FCH STAND LEG BRACKET	4	A
11	5323997	RP-20FC/30FCH STAND LONG LEG LH TOP	2	B
12	5323999	RP-20FC/30FCH STAND LONG LEG RH TOP	2	B
13	5323998	RP-20FC/30FCH STAND LONG LEG LH BOTTOM	2	A
14	5323978	RP-20FC/30FCH STAND LONG LEG RH BOTTOM	2	A
15	5520074	PUSH-IN RUBBER GROMMET, 7/16 I.D.	1	A

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SANTA PAULA, CA 93060

NAME

DATE

THIRD ANGLE PROJECTION

TITLE: RP-20FC/30FCH STAND

SIZE

DWG. NO.

REV

A

5323977

E

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SHEET 1 OF 1

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