

# ⚠ WARNING

PLEASE READ THE ENTIRE CONTENTS OF THIS MANUAL PRIOR TO INSTALLATION AND OPERATION. BY PROCEEDING YOU AGREE THAT YOU FULLY UNDERSTAND AND COMPREHEND THE FULL CONTENTS OF THIS MANUAL. FORWARD THIS MANUAL TO ALL OPERATORS. FAILURE TO OPERATE THIS EQUIPMENT AS DIRECTED MAY CAUSE INJURY OR DEATH.

MAN REV C 09-21-10

pn#5900121

## INSTALLATION AND OPERATION MANUAL

### MODELS

RS-500

RS-750

Rev B



Keep this operation manual near the machine at all times. Make sure that ALL USERS read this manual .

#### SHIPPING DAMAGE CLAIMS

When this equipment is shipped, title passes to the purchaser upon receipt from the carrier. Consequently, claims for the material damaged in shipment must be made by the purchaser against the transportation company at the time shipment is received.

#### BE SAFE

Ranger™ spray wash cabinets are designed and built with safety in mind. However, proper training and thoughtful operation on the part of the operator can increase your overall safety. DO NOT operate or repair this equipment without reading this manual and the important safety instructions shown inside.



1645 Lemonwood Dr.  
Santa Paula, CA. 93060, USA  
Toll Free: 1-800-253-2363  
Tel: 1-805-933-9970  
Fax: 1-805-933-9160  
[www.rangerproducts.com](http://www.rangerproducts.com)

## WARRANTY POLICY

Ranger Products™ are backed by over 35 years of manufacturing experience. Every spray wash cabinet bearing the Ranger™ name is sold with the following warranty.

- ◆ Each Ranger Product™ is warranted to be free from defects in workmanship and material for a period of one year from the date of shipment provided that a written claim for such defect is made within that time.
- ◆ This warranty does not cover damage or defects caused by carelessness of the operator, misuse, abuse or abnormal use which in any way impairs the proper functioning of the equipment or by the use or addition of parts not manufactured by Ranger Products™ or its suppliers.

THIS WARRANTY IS EXPRESSLY MADE IN LIEU OF ANY AND ALL OTHER WARRANTIES EXPRESSED OR IMPLIED INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

If your Ranger Products™ machine is not functioning properly, call your Ranger Products™ dealer immediately. On some occasions, an independent contractor may be hired to do the repairs. Within the warranty period, a customer should not hire his own contractor unless it is authorized in writing by Ranger Products™.

If it is necessary to return equipment for repairs, your dealer will so advise you. When returning equipment for repairs, empty and thoroughly clean out the tank, see that machines are properly crated and protected, and prepay transportation.

Defective parts replaced at no charge must be returned to your dealer or Ranger Products™ within 60 days of the date that the replacement parts are shipped; otherwise, you must pay for the replacement parts at the current selling price.

## PRECAUTIONS / DANGERS

Read this entire manual before attempting to install your Ranger Products™ parts washer.



### **DANGER!**

**Your machine uses HIGH VOLTAGE electricity. Obtain the services of a qualified electrician for all electrical work.**



### **DANGER!**

**Do not use any petroleum base chemical or solvent, or any flammable products in your parts washer.**

- ◆ The heating element(s) and pump/motor can be damaged if the water level drops too low. Check the water level daily. The proper water level is when there is 1' of water visible in the filter basket. There should always be water in the removable filter basket, but it should be below the oil skimmer slot. Clean the filter basket regularly so the water can return to the holding tank.
- ◆ Cleaning will be poor and the heating element(s) and pump / motor may get damaged if the machine is not cleaned according to instructions.
- ◆ Your parts washer is made with mild steel and will rust unless you use the correct detergent and follow the correct start-up procedure. Make sure the brand you are using is safe on mild steel and has an adequate concentration of rust inhibitors. When installing the unit, don't fill the tank unless you have the time needed to heat the water to 140-160F, add the detergent, and run the wash cycle for at least one (1) hour to coat the steel with rust inhibitor. Again, read this entire manual before starting the installation so that you know what is involved. (See "Chemical Selection")
- ◆ Since laws and regulations are forever changing, and since they often vary region to region, the remarks in this section should only be construed as a general guideline. It is your responsibility to research, understand and follow the exact environmental regulations of your region.

## ENVIRONMENTAL ISSUES

Protect your environment and protect your business from fines by handling your dirt cleaning solution according to federal, state, and local codes. According to federal regulations, which states have to adopt as minimum standards, the dirty cleaning solution in a spray washer is generally not “hazardous waste”. To be considered a hazardous waste by the U.S. Government, the solution has to have one more of the following four (4) characteristics:

### IGNITABILITY

A solid waste is a hazardous waste if it is a liquid and a representative sample has a flash point less than 140F.

### CORROSIVITY

A solid waste is a hazardous waste if it is an aqueous solution and a representative sample have a pH less than or equal to 2 or greater than or equal to 12.5.

### REACTIVITY

A solid waste is a hazardous waste if a representative sample reacts violently with water exposed to low pH solutions.

### EP TOXICITY

A solid waste is a hazardous waste if a representative sample leaches heavy metals in concentration greater than 100 times primary drinking standard concentrations. The two characteristics that you have to be most concerned about are **CORROSIVITY** and **EP TOXICITY**. Ask your detergent supplier if the pH of your solution is greater than 12.5 and if so, how it can be neutralized with acid. To check for EP Toxicity, you would need to have a sample tested by a laboratory.

Assuming that your solution is not hazardous, or that with minor treatment (e.g., adding acid) the solution can be made non-hazardous, the EPA does not require special storage, documentation, transportation, and processing. Since your solution will have oils, however, you will probably not be able to dump the solution in the sewage line (call your sewage treatment facility) and you certainly can't dump the solution on the ground or in a storm drain. As you will read in the Maintenance Section of this manual, you can separate the oil and solid contaminants from the solution so that the cleaning solution can last for an indefinite period.



### DANGER!

**Do not use the unit if the door safety switch does not stop the spray pump when the door is open. Call for service.**

## SHIPPING DAMAGE



### CAUTION!

**Handling of the machine / components must be performed only with an appropriate lifting device such as a forklift or shop crane. Only personnel who are experienced and qualified on material handling procedures should handle any transportation or moving of machine components.**

**If any damage is found, notify your carrier immediately and save all crating materials for the carrier's inspector to examine.**

**Failure to promptly report damage could result in denial of your claim.**

A trucking company's procedure for handling damage is as follows:

- 1). Immediately send out an inspector. An inspection report is filled out on the spot, a copy of which is given to the customer.
- 2). The **customer** has to call the carrier to request a claim form.
- 3). The customer mails in the claim form.
- 4) The claim usually takes two (2) months to process.

### NOTE:

**If a unit is seriously damaged, your Ranger Products dealer may be able to intervene, requesting that the damaged unit be returned and a new unit delivered.**

If no damage is found, remove the bolts or steel bands which fasten the machine to the skid. The machine may be fastened on two or all four corners. Remove the machine from the skid being careful not to damage the casters on the underside.

**UNPACKING:** Open the door and unpack small parts and soap.

## CONTROLS / OPERATION

Your parts washer is designed to clean parts (removing contaminants such as oil, grease, dirt, etc...) with a recirculated detergent and water solution. The washer cleans with a combination of mechanical force (140-160F), and the chemical action of the detergent.

In the automatic mode, you simply place your parts on the inside rack, shut the door and turn the 0-60 minute "Wash" timer to initiate the cycle. (**ALWAYS MAKE SURE THE DOOR IS LATCHED BEFORE STARTING THE WASH CYCLE**). During the automatic cycle, the parts are sprayed from the top and bottom with the hot solution. The solution is continuously filtered through the removable filter basket and recirculated. Generally, anything that can come off will come off within a 15-minute cycle.

The electric heating element(s) is/are controlled with an adjustable thermostat. Set the thermostat between 140-160F. The adjustment knob is inside the back cover. Turn the heat breaker to the "on" position to keep the machine hot. Allow 1 to 1 ½ hours for the solution temperature to reach 140-160F. During the course of the day, the heaters will automatically come on when the thermostat senses a temperature significantly below its set point. (NOTE: If the heat-up time is inconvenient, install an automatic 7 day / 24 hour timer next to the breaker switch on your wall.)

## PARTS WASHER CONTROLS

- ♦ **0-60 MINUTE WASH TIMER:** After latching the door, set this timer for the length of the automatic wash cycle. Do not open the door until the timer reaches "0".
- ♦ **THERMOSTAT:** Set for 140-160F.
- ♦ **DOOR SAFETY SWITCH:** Prevents the spray pump (used in the automatic cycle) from coming on when the door is open. This is a safety switch that is not to be used for purposely stopping the wash cycle.

The ideal water depth is 8". Make sure there is always water visible inside the filter basket. Check daily.

Do not use the washer until the solution has reached 160F. Otherwise, foaming may occur.

## INSTALLATION



### DANGER!

This machine utilizes high voltage. Have a certified electrician do all electrical work. Always disconnect power when opening an electric box.



### CAUTION!

- ♦ The vibration in route could have loosened one or more wire connections. Before connecting power, the electrician should check all screw connections in the control and junction boxes.
- ♦ The electrician must check rotation of all motors.
- ♦ Don't turn on the heaters until the tank is full. However, to avoid rust; don't fill the tank until you are ready for "start-up".

**LOCATION:** Consider the factors below when choosing a location:

- ♦ The unit will generate some steam. Make sure this steam will have no adverse affects in the surrounding area.
- ♦ The process of removing wet parts from the machine will inevitably result in some water or solution spilling onto the floor. Consider traction mats around the machine and avoid placing the machine next to a walkway.
- ♦ Allow room for your utility connections and for service.
- ♦ Make sure the site is level.

**ELECTRICAL HOOK-UP:** The voltage, phase, and amperage draw of the machine are listed on the serial # plate. The wiring diagram is either with this manual or inside the control box (make sure the amperage draw listed on the wiring diagram and serial number plate coincide). After the electrician connects power, he should check rotation for all motors. Hopefully, the electrician can be present for "start-up" in case a problem arises. The machine has its own power cord packed inside the unit. Make sure your electrician installs a suitable breaker/disconnect box.

**DRAIN CONNECTIONS:** The unit has a 2" drain on the back wall. The drain is an inch off the tank bottom.

**WATER AVAILABILITY:** You will be adding water to the tank daily. Make sure you have access to a water hose.

## CHEMICAL SELECTION



### CAUTION!

Ranger Products detergents are characterized as “generally safe” on all metals. This is not an absolute guarantee. If the parts are critical, it is the customer’s responsibility to perform any and all metallurgical tests.

Ranger Products does not warranty their product against rust. Rust will occur if the wrong detergent is used, if the start-up procedure is not followed, or if the machine is not used on a regular basis (should oil build up on the inside). Rust can occur if you use D.I. water for rinsing.

Using the correct detergent is critical to the performance and longevity of your parts washer. The detergent must be formulated for a mild steel parts washer, meeting the following criteria:

- ♦ The detergent must have rust inhibiting agents to protect the mild steel machine and your steel parts. Once rusting starts, it can be hard to stop.
- ♦ The detergent should be strong enough to remove the contaminants, but not so strong that it attacks the metal substrate.
- ♦ The detergent should only leave an acceptable amount of residue on the parts. For new parts in particular, you may need a detergent that is “free rinsing”.
- ♦ To be used in a parts washer, the detergent needs to be “low foaming”.

To insure the satisfaction of our customers, Ranger Products has developed its own line of detergents and additives.

The products we offer are:

### RANGER PRODUCTS SOAP

This product gives you the maximum amount of cleaning power without being “caustic”. It is generally safe on all metals but may tarnish brass and copper. It removes oils, greases, and even light carbon deposits. Will generally prevent rust on steel parts for 2-5 days.

## START-UP PROCEDURE



### CAUTION!

- ♦ Do not start this procedure until you have read this manual in its entirety.
- ♦ Do not fill the tank or start this procedure unless you can spend the 1-2 hours necessary to heat the water, add detergent, and run the wash cycle for at least 1 hour. Otherwise, rust may occur.
- ♦ Before turning on the electric power, make sure the heat and wash timers are off. If the heating elements go on when the tank is empty, they will promptly burn out.

When using your parts washer for the first time, follow the steps below:

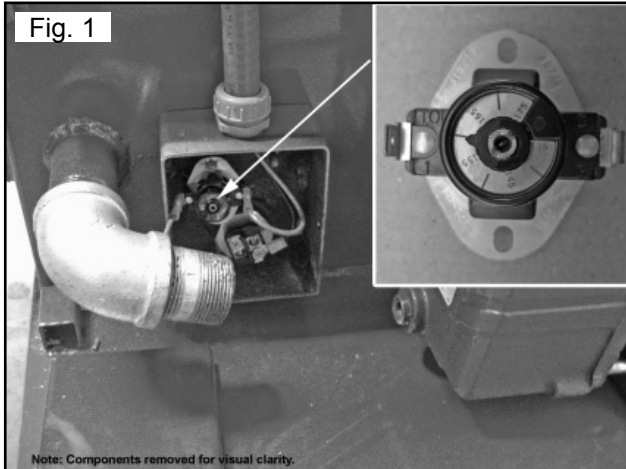


### DANGER!

**Disconnect tag and lock out power source before attempting to install, service, relocate or perform any maintenance.**

1. Make sure the electrical power to the machine is off.
2. Verify that your electrician checked the rotation of all motors.
3. Make sure the heat and wash timers are off.
4. Fill the tank so the water level just appears inside the removable filter basket.

5. Turn on electrical power to the machine.
6. Make sure the door switch prevents the spray pump from coming on when the door is open. Open the door, stand back, and turn on the spray pump. If it comes on, do not use the machine. Call your dealer.
7. Set the thermostat between 140-160F. Located in the lower electrical box. (See Fig 1.)



8. Turn on the heating element. You should hear the electrical box engage the contact switch sending power to the heating element(s).
9. When the water temperature has reached at least 160F, add detergent following the detergent manufacturer's directions.
10. Pour the detergent directly into the filter basket.
11. In the future, you may want to increase or decrease the detergent concentration depending on the cleaning results.
12. Close and latch the door and run a fifteen-minute wash cycle to mix the detergent in solution. During the wash cycle, walk around the machine checking for any leaks. When the wash cycle is over, open the door.

At this point, you have checked every aspect of your machine. Run at least 1 hour worth of wash cycles to thoroughly coat the inside of your machine with the rust inhibiting agents in the detergent. The more wash time you run, the more the cabinet gets coated with rust inhibitors.

IF YOU ENCOUNTERED ANY PROBLEMS DURING START-UP, CALL YOUR RANGER PRODUCTS™ DEALER.

For additional copies  
or further information, contact:

BendPak, Inc. / Ranger Products  
1645 Lemonwood Dr.,  
Santa Paula, CA. 93060  
1-805-933-9970  
[www.bendpak.com](http://www.bendpak.com)  
[www.rangerproducts.com](http://www.rangerproducts.com)

## MAINTENANCE

Assign the responsibility for your parts washer to one person to avoid abuse and neglect.

### Daily:

- ◆ Check the water level, which should be inside the filter basket. Never allow the water level to get below the filter basket.
- ◆ Clean any spray nozzles that are clogged.
- ◆ If any solution spilled onto the painted surfaces, wipe it off with fresh water.
- ◆ Clean out the removable filter basket.
- ◆ Adjust the detergent concentration as needed.
- ◆ By removing the oil and sludge contamination regularly, you can greatly prolong the life of your cleaning solution.
- ◆ When the floating oil is between ¼" – ½" deep, or when this oil starts to impede cleaning, skim it out of the tank.
- ◆ Do not allow the sludge accumulation in the tank to exceed a 1" depth. Otherwise, the sludge build-up could damage the heating element(s) and pump. Depending on the application, some businesses have to clean out the sludge weekly, while others can go months before cleaning out the tank. Since you can't see the sludge, clean out the tank within the first week of operation and develop an appropriate clean out schedule.

### Monthly:

- ◆ Check all external hoses for leaks or weaknesses and replace if necessary. Check hoses during a wash cycle to see if a bubble forms in the hose lining.
- ◆ Check all components making sure they are in good operating condition.
- ◆ **DO NOT USE** if any component is found damaged or defective.
- ◆ Visually inspect all wiring electrical components.
- ◆ Remove sludge from the tank following the procedures as outlined.

## REMOVING SLUDGE FROM THE TANK



### **DANGER!**

**Disconnect tag and lock out power source before attempting to install, service, relocate or perform any maintenance.**

- ◆ Disconnect power to the machine or make sure the pump and heat timers are off.
- ◆ Remove the work rack and filter basket.
- ◆ Using the drain on the side, remove the water above the sludge line and save it for reuse.
- ◆ Scrape out the sludge through the filter basket opening being careful not to hit the heating element. Open the drain if this helps you remove any of the sludge. Put the sludge in a drum and store it as hazardous waste.
- ◆ Replace the water content, correct the water level, and replace all components.
- ◆ If you have a problem with clogged nozzles you may need to flush the spray pipes. Remove any pipe caps and bottom spray nozzles and run a brief 30-60 second wash cycle to flush out the sediment.



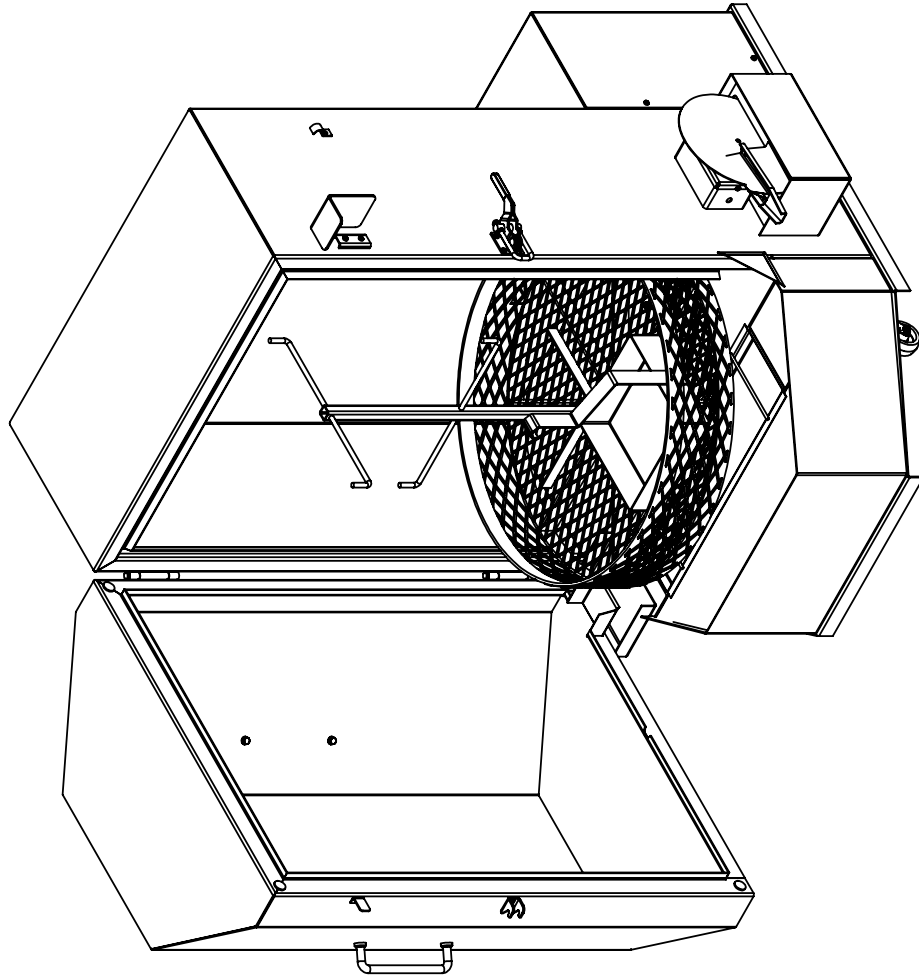
### **CAUTION!**

**Running a longer wash cycle with spray nozzles removed could damage the pump motor.**

## TROUBLE SHOOTING GUIDE

SYMPTOM	PROBLEM / REMEDY
Nothing works-heat or pump	<ul style="list-style-type: none"> <li>◆ Breaker is off, no power to machine Check all control fuses</li> </ul>
Cleaning is poor	<ul style="list-style-type: none"> <li>◆ Wrong detergent, low detergent concentration or hard water</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Clogged nozzles</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Solution is too dirty</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Solution is not hot (see below)</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Low output from pump (see below)</li> </ul>
Solution won't get hot	<ul style="list-style-type: none"> <li>◆ One or more heating elements are bad</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Bad contactor or bad wire connections</li> </ul>
	<ul style="list-style-type: none"> <li>◆ One of the switches is bad (timer or thermostat).</li> </ul>
Pump motor comes on but is not pumping or has little pressure	<ul style="list-style-type: none"> <li>◆ Water level is too low</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Pump is rotating backwards</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Pump is broken</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Solution is foaming</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Spray manifolds or filters clogged</li> </ul>
Pump motor won't go on	<ul style="list-style-type: none"> <li>◆ Pump motor has internal problems. Consult factory</li> </ul>
	<ul style="list-style-type: none"> <li>◆ If overload stops motor, consult factory.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Defective motor starter</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Defective wash timer</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Defective door limit switch</li> </ul>
Nozzles clogging frequently	<ul style="list-style-type: none"> <li>◆ Filter basket, tank, and/or spray manifolds need to be cleaned more often</li> </ul>
Solution is foaming	<ul style="list-style-type: none"> <li>◆ Wrong detergent. Not designed for a parts washer.</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Started wash cycle when solution was cold</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Concentration is too low. Add more detergent</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Water level is too low</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Add de-foamer</li> </ul>
Getting rust inside cabinet	<ul style="list-style-type: none"> <li>◆ Wrong detergent. Remove rust and use detergent with rust inhibitors</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Did not use machine enough in the first couple of days. Remove rust, and change solution to two times the normal detergent level. Run the pump continuously for 1-2 days</li> </ul>
	<ul style="list-style-type: none"> <li>◆ Machine is used too infrequently</li> </ul>





ITEM NO.	PART NUMBER	DESCRIPTION	QTY	REV
1	5335145	RS-500 CABINET CHASSIS WELDMENT	1	B
2	5335150	RS-SERIES BASKET MOTOR COVER WELDMENT	1	A
3	5335100	RS-500 DOOR ASSEMBLY	2	A
4	5335765	RS-SERIES HINGE PIN	2	A
5	5335740	RS-SERIES BASKET MOTOR HINGE PIN	1	A
6	5335450	RS-SERIES LATCH HANDLE ASSEMBLY	1	A
7	5335155	RS-SERIES BACK COVER WELDMENT	1	A
8	5335430	RS-SERIES FLANGE BLOCK BEARING	1	A
9	5335751	RS-SERIES BASKET WELDMENT	1	A
10	5335752	RS-500 TOP BASKET WELDMENT	1	A
11	5335485	RS-500 P-20 RIVET	1	A
12	5335470	RS-SERIES STRAINER BASKET	1	A
13	5335115	RS-500 LONG SPRAY PIPE ASSEMBLY	1	A
14	5701176	RS-SERIES HORIZONTAL SPRAYER ASSEMBLY	2	A
15	5335795	RS-SERIES SKIMMER MOTOR BOX COVER	1	A
16	5335755	RS-SERIES SIDE SPRAYER CLAMP	1	A
17	5335125	RS-SERIES TOP SPRAYER CLAMP	1	A
18	5335475	RS-SERIES DOOR CHAIN	1	A
19	5335555	RS-SERIES STRAINER BASKET	1	A
20	5335725	RS-SERIES BASKET MOTOR SPRING	2	A
21	5335720	RS-SERIES WIRE WHEEL BOX COVER	1	A
22	5335525	RS-SERIES SKIMMER WHEEL WIPER WELDMENT	1	A
23	5335632	RS-SERIES HEATER BOX COVER	1	A
24	5335630	FIG. 16-20 NPT F x 20 NPT F x 20 NPT F	2	---
25	5335002	FIG. 16-20 NPT F x 20 NPT F x 20 NPT F	2	---
26	5335003	FIG. 16-20 NPT F x 20 NPT F x 20 NPT F	2	---
27	5335034	FIG. CAP - 20 NPT F	2	---
28	5336003	RIVET Ø8mm	1	---
29	5335112	NUT M6 x 10	4	---
30	5335605	FIG. CAP - 24 NPT F	1	---
31	5330780	HHB M5 x 0.8 x 20	3	---
32	5330045	BHPS M5 x 0.8 x 10	14	---
33	5345200	WASHER M10 x Ø18.SI	4	---
34	5330738	HHB M10 x 1.5 x 25	4	---
35	5335978	NUT M10 x 1.5	4	---

DO NOT SCALE DRAWING

DRAWN AC 06/25/2010

CHECKED TM 09/02/2010

THIRD ANGLE PROJECTION

DATE 06/25/2010

TM 09/02/2010

NAME

DATE

SCALE: 1:15

REV B

SIZE DWG. NO. 5260460

TITLE: RS-500 RECEIVED SPRAY WASH CABINET

1645 LEMONWOOD DR. SANTA PAULA, CA 93060

PROPRIETARY AND CONFIDENTIAL

THE INFORMATION CONTAINED IN THIS DRAWING IS THE PROPERTY OF BENDPAK INC. AND IS NOT TO BE REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS PROHIBITED.

SHEET 1 OF 3

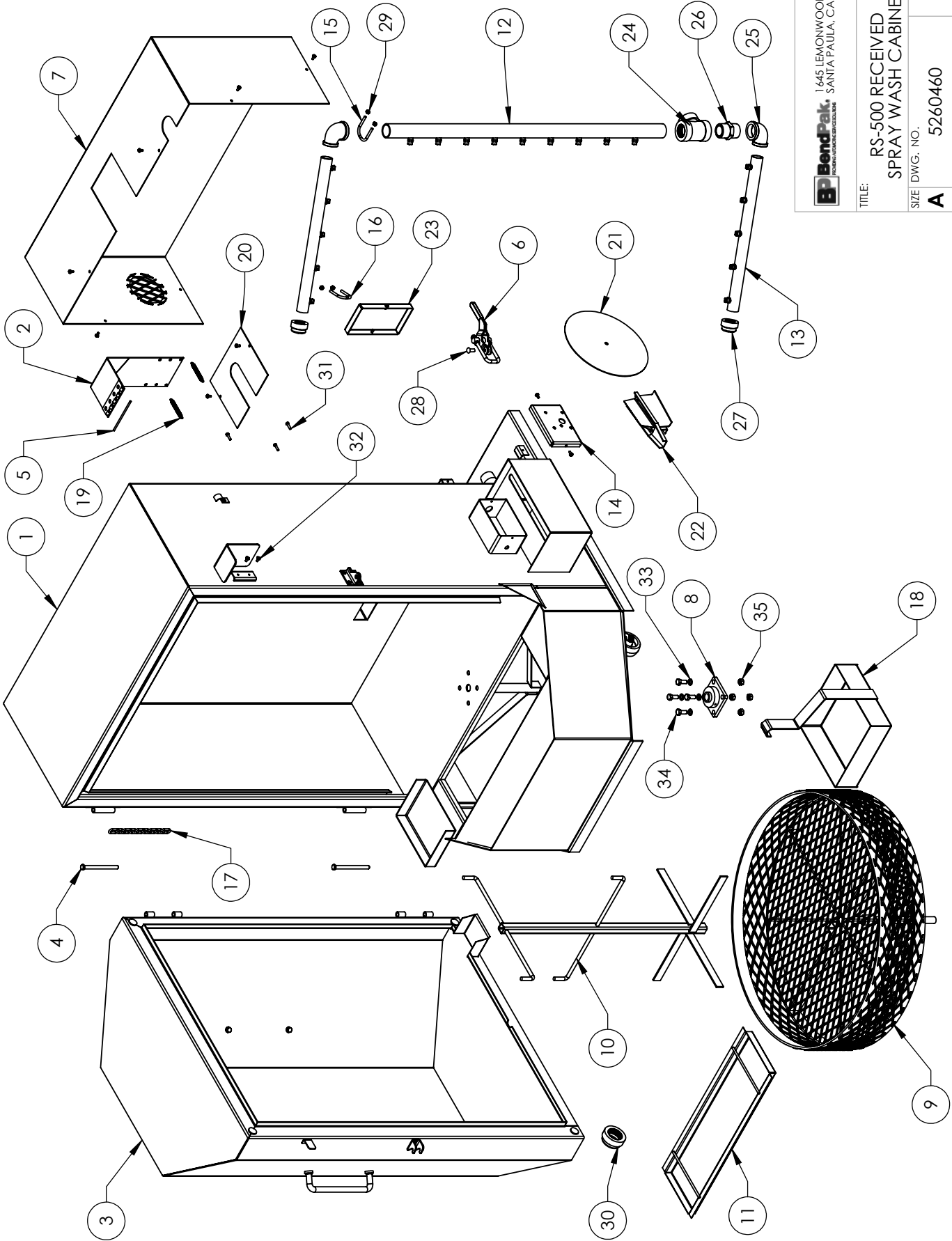
**NOTE: UNLESS OTHERWISE SPECIFIED.**

- SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING
- ASSEMBLE ITEMS AS SHOWN

**BendPak** 1645 LEMONWOOD DR.  
SANTA PAULA, CA 93060

TITLE: RS-500 RECEIVED  
SPRAY WASH CABINET  
SIZE DWG. NO. 5260460  
REV B

SCALE: 1:15 SHEET 2 OF 3

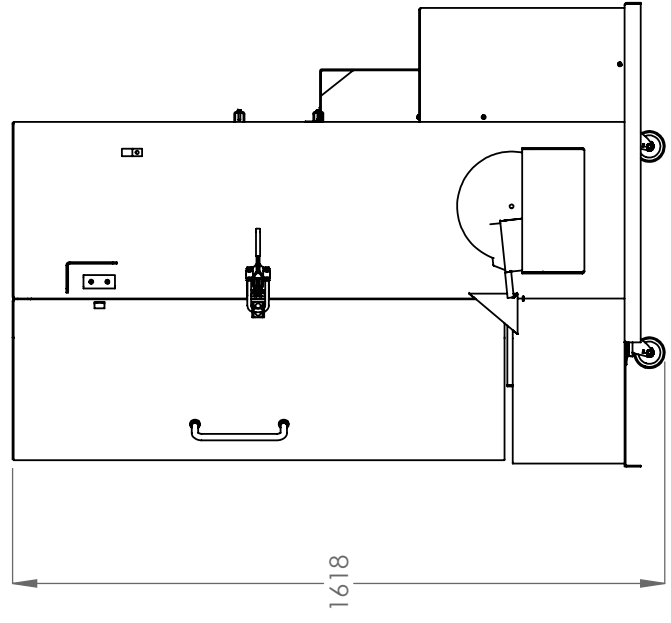
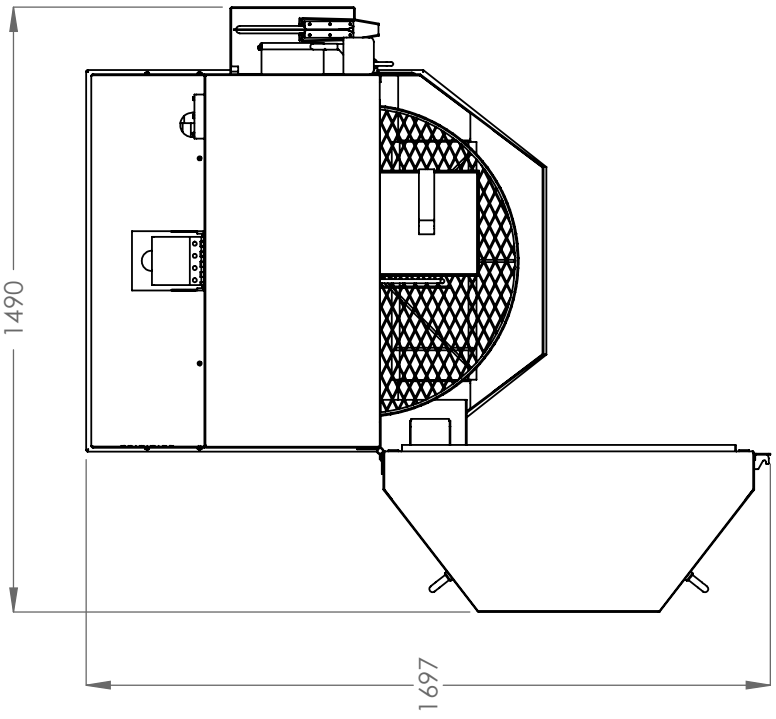
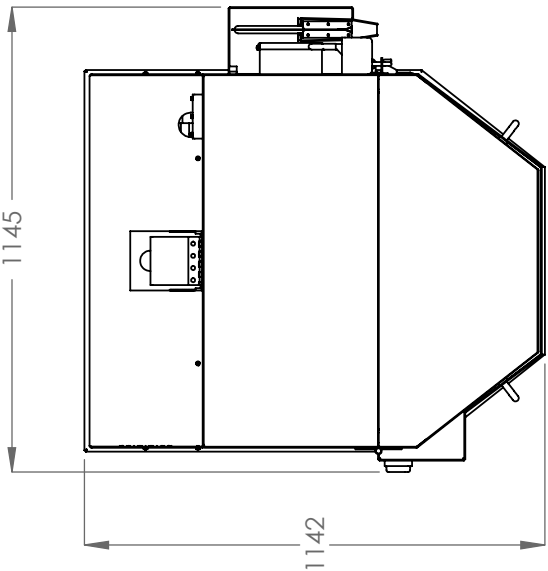


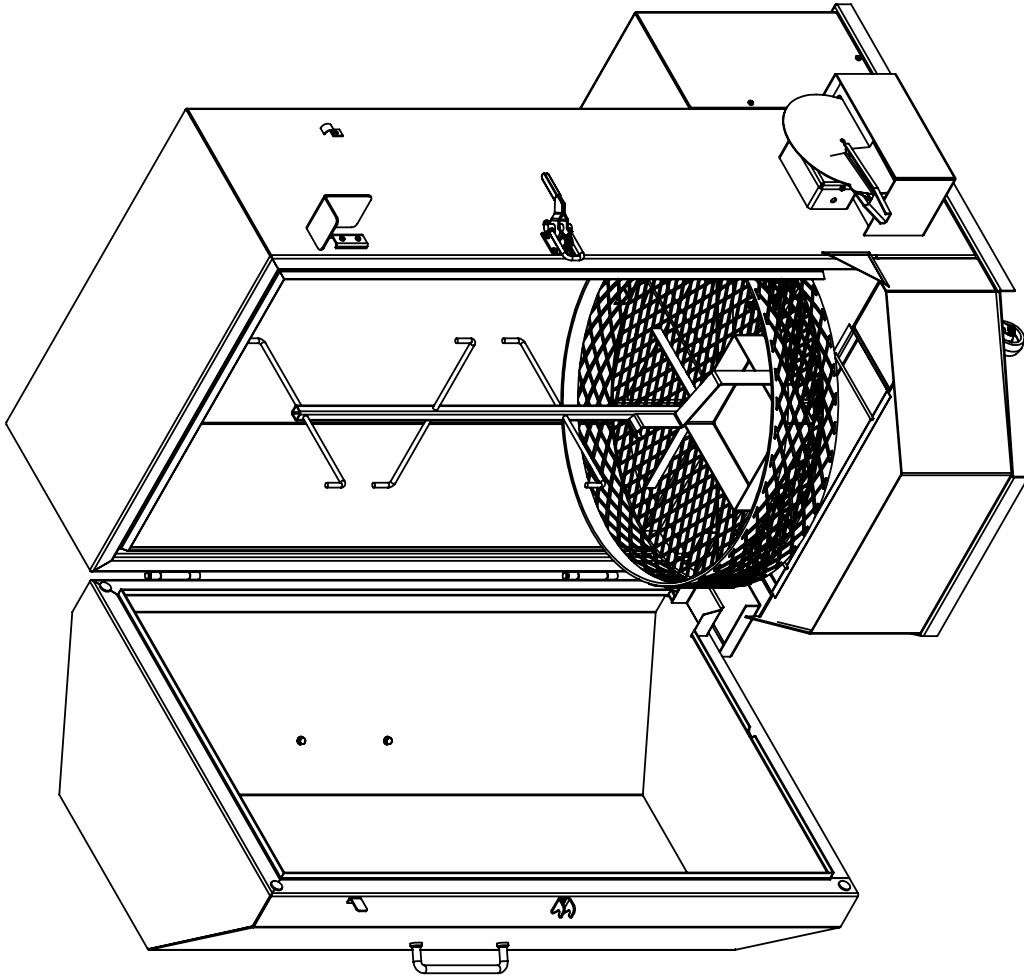
**BendPak** 1645 LEMONWOOD DR.  
SANTA PAULA, CA 93060

TITLE: **RS-500 RECEIVED  
SPRAY WASH CABINET**

SIZE DWG. NO. **A** 5260460 REV **B**

SCALE: 1:18 SHEET 3 OF 3





ITEM NO.	PART NUMBER	DESCRIPTION	QTY	REV
1	5335130	RS-750 CABINET CHASSIS WELDMENT	1	B
2	5335150	RS-SERIES BASKET MOTOR COVER WELDMENT	1	A
3	5335105	RS-750 DOOR ASSEMBLY	1	A
4	5335765	RS-SERIES HINGE PIN	2	A
5	5335740	RS-SERIES BASKET MOTOR HINGE PIN	1	A
6	5335450	RS-SERIES LATCH HANDLE ASSEMBLY	1	A
7	5335155	RS-SERIES BACK COVER WELDMENT	1	A
8	5335490	RS-SERIES FLANGE BLOCK BEARING	1	A
9	5335175	RS-SERIES BASKET WELDMENT	1	A
10	5335170	RS-750 PARTS HANGER ASSEMBLY	1	A
11	5335170	RS-SERIES STRAINER ASSEMBLY	1	A
12	5335170	RS-SERIES STRAINER ASSEMBLY	1	A
13	5335115	RS-750 LONG STRAINER ASSEMBLY	1	A
14	5701176	RS-SERIES HORIZONTAL SPRAYER ASSEMBLY	2	A
15	5335795	RS-SERIES SKIMMER MOTOR BOX COVER	1	A
16	5335755	RS-SERIES SIDE SPRAYER CLAMP	1	A
17	5335125	RS-SERIES TOP SPRAYER CLAMP	1	A
18	5335475	RS-SERIES DOOR CHAIN	1	A
19	5335555	RS-SERIES STRAINER BASKET	1	A
20	5335555	RS-SERIES BASKET MOTOR SPRING	2	A
21	5335720	RS-SERIES WIRE WHEEL BOX COVER	1	A
22	5335725	RS-SERIES SKIMMER WHEEL	1	A
23	5335725	RS-SERIES SKIMMER WHEEL WIPER WELDMENT	1	A
24	5335700	RS-SERIES HEATER BOX COVER	1	A
25	2987003	RIVET Ø8mm	1	---
26	2987003	RIVET Ø8mm	1	---
27	5330302	FIG. H18 RED - 20 NPT F X 1.6 NPT F	2	---
28	5330302	FIG. N11 - 20 NPT X 20 NPT	1	---
29	5330304	FIG. CAP - 20 NPT	2	---
30	5335112	NUT M6 X 1.0	4	---
31	5335605	FIG. CAP - 24 NPT	1	---
32	5330045	BHPS M5 X 0.8 X 10	14	---
33	5330780	HHB M5 X 0.8 X 20	3	---
34	5345200	WASHER M10 X Ø18 SL	4	---
35	5330738	HHB M10 X 1.5 X 25	4	---
36	5335978	NUT M10 X 1.5	4	---

DO NOT SCALE DRAWING

DIMENSIONS ARE IN MM

DRAWN AC 06/25/2010

CHECKED TM 09/02/2010

THIRD ANGLE PROJECTION

NAME DATE

FIG. H18 RED - 20 NPT F X 1.6 NPT F

FIG. N11 - 20 NPT X 20 NPT

FIG. CAP - 20 NPT

NUT M6 X 1.0

FIG. CAP - 24 NPT

BHPS M5 X 0.8 X 10

HHB M5 X 0.8 X 20

WASHER M10 X Ø18 SL

HHB M10 X 1.5 X 25

NUT M10 X 1.5

1645 LEMONWOOD DR.  
SANTA PAULA, CA 93060

**BendPak**  
INDUSTRIAL WASH EQUIPMENT

TITLE: RS-750 RECEIVED  
SPRAY WASH CABINET

SIZE DWG. NO. 5260461

REV B

SCALE: 1:15

SHEET 1 OF 3

PROPRIETARY AND CONFIDENTIAL  
THE INFORMATION CONTAINED IN THIS DRAWING IS  
THE SOLE PROPERTY OF BENDPAK INC. ANY  
REPRODUCTION OR TRANSMISSION IN ANY FORM OR BY ANY  
MEANS WITHOUT THE WRITTEN PERMISSION OF BENDPAK INC. IS  
PROHIBITED.

MATERIAL: ---

SIZE: ---

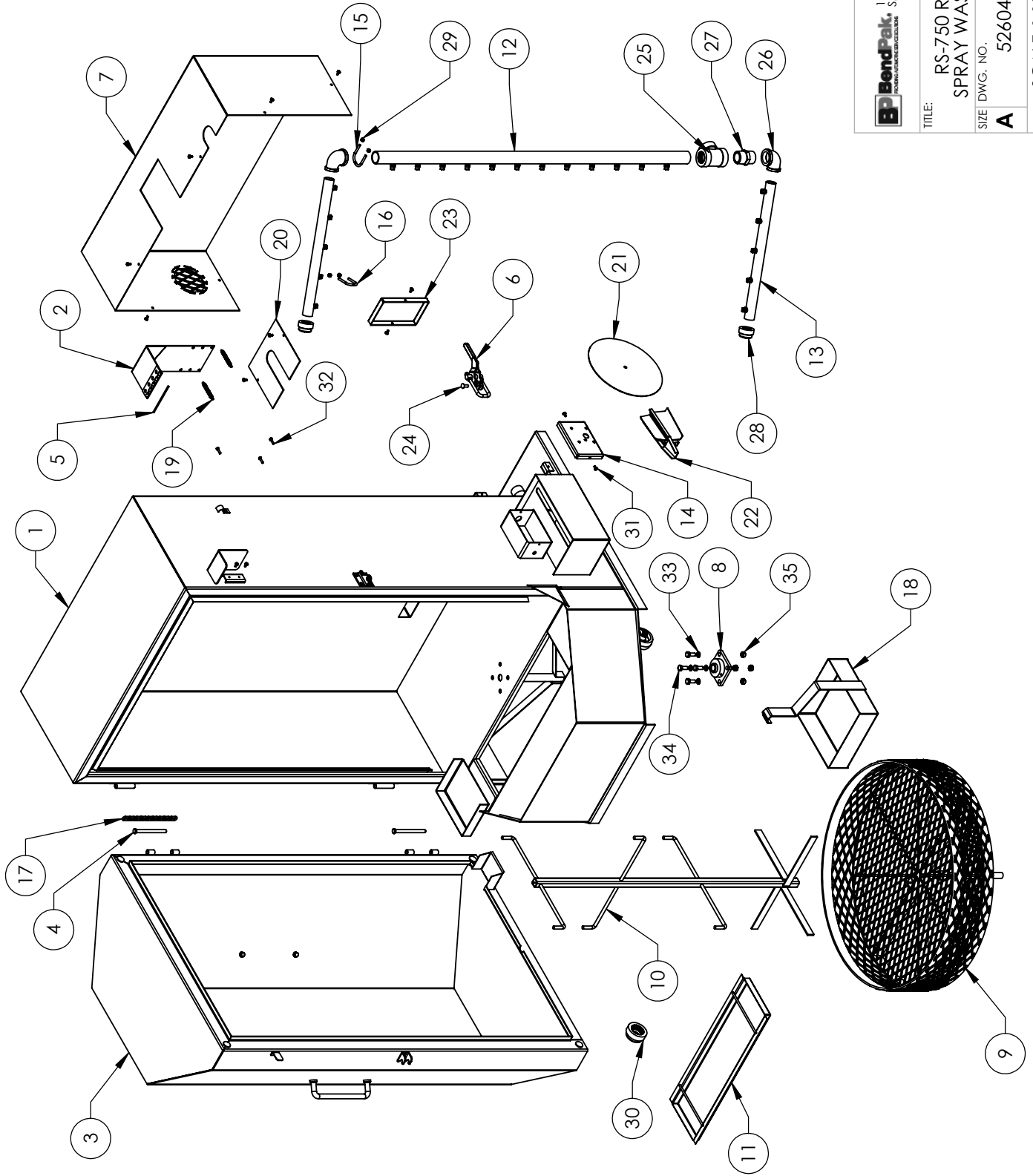
**NOTE: UNLESS OTHERWISE SPECIFIED.**

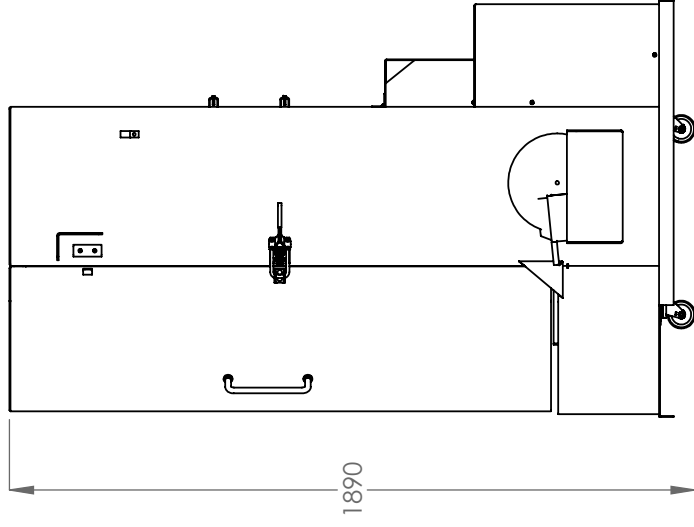
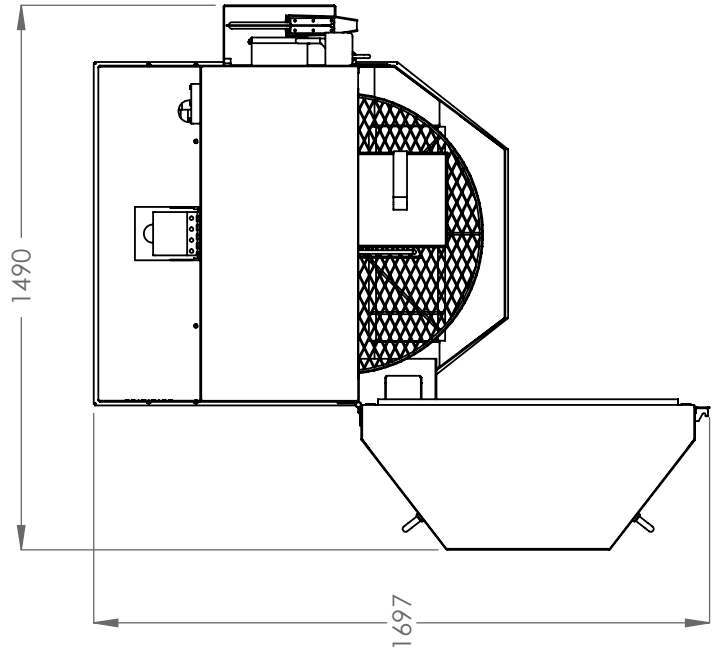
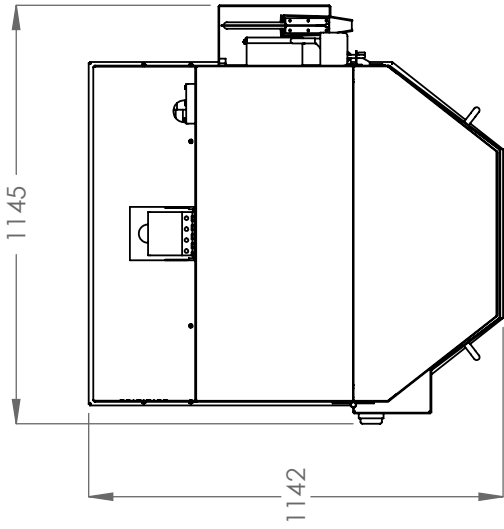
- SEE SHIPPING INSTRUCTIONS FOR FINAL PACKAGING
- ASSEMBLE ITEMS AS SHOWN

**BendPak** 1645 LEMONWOOD DR.  
SANTA PAULA, CA 93060

TITLE: **RS-750 RECEIVED  
SPRAY WASH CABINET**  
REV B  
SIZE DWG. NO. **A** 5260461

SCALE: 1:18 SHEET 2 OF 3





**BendPak** 1645 LEMONWOOD DR.  
SANTA PAULA, CA 93060

TITLE:	RS-750 RECEIVED SPRAY WASH CABINET	
SIZE DWG. NO.	A	5260461
REV	B	
SCALE:	1:20	SHEET 3 OF 3

# Ranger TM ALUMA-KLEAN Spray-Wash Detergent

## DESCRIPTION:

Ranger TM ALUMA-KLEAN Spray-Wash Detergent is a non-foaming, low P.H., mild-alkali, water soluble; powered detergent especially formulated for high pressure cabinet type cleaners. Powerful cleaning action removes grease, oil, baked on stains, carbon, protein and some paints. Should be used by experienced operators only. Test wash all parts before using this product. Excessive contact, heat, or cleaning time may cause pitting or blackening of some metals.

## DIRECTIONS:

To prevent clogging of spray nozzles, pre-mix this product before adding to the washer. Add 2-4 ounces of Spay Wash Detergent to one gallon of water. Add small amounts of pre-mixed detergent between batches to maintain concentration. Rinse parts with clean water.

## WARNING!

Keep out of reach of children. Store in cool dry place with package sealed tightly. Avoid unnecessary contact and exposure. Contact may irritate, dry, or injure eyes, nose throat, or skin. For prolonged use, wear protective goggles and gloves. In event of contact, flush immediately with water. If swallowed DO NOT INDUCE VOMITING. Give large quantities of water. If available, use milk. If vomiting occurs spontaneously, keep airway clear. Seek medical attention immediately.

## VENTILATION:

Ventilation is recommended. Use ventilation or exhaust to maintain exposure below OSHA Threshold Limit Value where applicable.

<u>Part No.</u>	<u>Description</u>	<u>Container Size</u>	<u>Makes</u>
5155096	Ranger TM Aluma-Klean Spray Wash Detergent	25 lb Bucket	145 Gal
5155095	Ranger TM Aluma-Klean Spray Wash Detergent	50 lb Bucket	290 Gal
5155090	Ranger TM Aluma-Klean Spray Wash Detergent	125 lb Bucket	780 Gal
5155085	Ranger TM Aluma-Klean Spray Wash Detergent	300 lb Bucket	1750 Gal
5155080	Ranger TM Aluma-Klean	500 lb Bucket	2900 Gal

Contact your Ranger Products Distributor for pricing.



*The best automotive service equipment on the planet.*

**For Parts Or Service  
Contact:**

**BendPak Inc. / Ranger Products  
1645 Lemonwood Dr.  
Santa Paula, CA. 93060**

**Tel: 1-805-933-9970  
Toll Free: 1-800-253-2363  
Fax: 1-805-933-9160**

**[www.bendpak.com](http://www.bendpak.com)  
[www.rangerproducts.com](http://www.rangerproducts.com)**

pn#5900121

