



Operating Instructions and Parts Manual

Manual Slip Roll

Model SR-2420M



Baileigh Industrial
P.O. Box 531
Manitowoc, WI 54221-0531
Ph.: 920-684-4990
Fax: 920-684-3944
Baileigh-Sales@jpwindustries.com

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2.0 Safety Instructions

⚠ WARNING

Failure to follow these rules may result in serious personal injury

1. Only trained and qualified personnel can operate this machine.
2. Make sure guards are in place and in proper working order before operating machinery.
3. Remove any adjusting tools. Before operating the machine, make sure any adjusting tools have been removed.
4. Keep work area clean. Cluttered areas invite injuries.
5. Overloading machine. By overloading the machine, you may cause injury from flying parts. DO NOT exceed the specified machine capacities.
6. Dressing material edges. Before bending sheet metal, always chamfer and deburr all sharp edges.
7. Do not force tool. Your machine will do a better and safer job if used as intended. DO NOT use inappropriate attachments in an attempt to exceed the machines rated capacity.
8. Use the right tool for the job. DO NOT attempt to force a small tool or attachment to do the work of a large industrial tool. DO NOT use a tool for a purpose for which it was not intended.
9. Dress appropriate. DO NOT wear loose fitting clothing or jewelry as they can be caught in moving machine parts. Protective clothing and steel toe shoes are recommended when using machinery. Wear a restrictive hair covering to contain long hair.
10. Use eye and ear protection. Always wear ISO approved impact safety goggles. Wear a full-face shield if you are producing metal filings.
11. Do not overreach. Maintain proper footing and balance at all times. DO NOT reach over or across a running machine.
12. Stay alert. Watch what you are doing and use common sense. DO NOT operate any tool or machine when you are tired.
13. Check for damaged parts. Before using any tool or machine, carefully check any part that appears damaged. Check for alignment and binding of moving parts that may affect proper machine operation.
14. Observe work area conditions. DO NOT use machines or power tools in damp or wet locations. Do not expose to rain. Keep work area well lighted. DO NOT use electrically powered tools in the presence of flammable gases or liquids.
15. Blade adjustments and maintenance. Always keep blades sharp and properly adjusted for optimum performance.
16. Keep children away. Children must never be allowed in the work area. DO NOT let them handle machines, tools, or extension cords.
17. Store idle equipment. When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep them out of reach of children.
18. DO NOT operate machine if under the influence of alcohol or drugs. Read warning labels on prescriptions. If there is any doubt, DO NOT operate the machine.

Familiarize yourself with the following safety notices used in this manual:

⚠ CAUTION

This means that if precautions are not heeded, it may result in minor injury and/or machine damage.

⚠ WARNING

This means that if precautions are not heeded, it may result in serious injury or death.

⚠ DANGER

This means that if precautions are not heeded, it will result in serious or fatal, injury.

Save the Instructions

3.0 About This Manual

This manual is provided by Baileigh Industrial, covering the safe operation and maintenance procedures for a Baileigh Model SR-2420M Manual Slip Roll. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions and parts breakdown. Your machine has been designed and constructed to provide consistent, long-term operation if used in accordance with the instructions as set forth in this document.

Technical Support handles questions on setup, operation, schematics, warranty issues, and individual parts needed. Our Technical Support department can be reached at 920-684-4990.

If there are questions or comments, please contact your local supplier or Baileigh Industrial. We can also be reached at our web site: www.baileigh.com.

Retain this manual for future reference. If the machine transfers ownership, the manual should accompany it.

WARNING

Read and understand the entire contents of this manual before attempting assembly or operation! Failure to comply may cause serious injury!

Register your product online -

<https://baileigh.com/product-registration>



4.0 Specifications

Table 4-1

Model number	SR-2420M
Stock number	BA9-1007297
Power	
Power	Manual
General Specifications	
Upper Roll Diameter	2" (50.8mm)
Minimum Forming Diameter	3" (76.2mm)
Wire Grooves	Yes – 3
Capacity (Mild Steel)	20ga. (0.9mm)
Forming Width	24" (610mm)
Weights and Dimensions	
Shipping Weight	220 lbs.(100kg)
Shipping Dimensions	44" x 15" x 21" (1118 x 381 x 534mm)

⚠️ WARNING

Read and understand the entire contents of this manual before attempting assembly or operation. Failure to comply may cause serious injury.

5.0 Setup and Assembly

5.1 Unpacking and Checking Contents

The Baileigh Model SR-2420M manual slip roll requires minimal assembly. After opening the crate, remove the slip roll machine and place on a bench or table capable of supporting the machines weight. Now remove the protective plastic sheeting from each roll.

Note: If using a razor blade or knife be careful not to scratch the rolls.

Remove the crank handle from the lower roll shaft, turn around, and replace on the shaft so the roll pin engages the crank handle hub.

IMPORTANT: Before securing the machine to a table or bench, make sure the handle is free to rotate completely around, without pinching your hand or fingers.

5.2 Cleaning

Your machine may be shipped with a rustproof waxy oil coating and grease on the exposed unpainted metal surfaces. To remove this protective coating, use a degreaser or solvent cleaner. For a more thorough cleaning, some parts will occasionally have to be removed. **DO NOT USE** acetone or brake cleaner as they may damage painted surfaces.

Follow manufacturer's label instructions when using any type of cleaning product. After cleaning, wipe unpainted metal surfaces with a light coating of quality oil or grease for protection.

⚠️ WARNING

DO NOT USE gasoline or other petroleum products to clean the machine. They have low flash points and can explode or cause fire.

⚠️ CAUTION

When using cleaning solvents work in a well-ventilated area. Many cleaning solvents are toxic if inhaled.

5.3 Installation

IMPORTANT:

Consider the following when looking for a suitable location to place the machine:

⚠️ WARNING

Before operating the Baileigh Slip Roller, make sure it is firmly bolted to a table, bench, or the floor. If it tips over on you, it could cause severe injury or death.

- Overall weight of the machine.
 - Weight of material being processed.
 - Sizes of material to be processed through the machine.
 - Space needed for auxiliary stands, work tables, or other machinery.
 - Clearance from walls and other obstacles.
 - Maintain an adequate working area around the machine for safety.
 - Have the work area well illuminated with proper lighting.
 - Keep the floor free of oil and make sure it is not slippery.
 - If long lengths of material are to be fed into the machine, make sure that they will not extend into any aisles.
 - Make sure the workbench is properly reinforced to support the weight.
 - The strongest mounting option is where the holes are drilled all the way through the workbench and the machine is secured with bolts, washers, and nuts.
1. Locate the Baileigh SR-2420M on your work surface.
 2. Using the base as a template, mark the holes on the mounting surface.
 3. Drill thru and bolt down the base. Customer to provide necessary hardware.



Figure 5-1

6.0 Operation

⚠ CAUTION

Always wear proper eye protection with side shields, safety footwear, and leather gloves to protect from burrs and sharp edges.

⚠ CAUTION

When handling large heavy sheets make sure they are properly supported.

Before using the Baileigh 2420M Slip Roll, check the mounting and adjustment of the machine. Rotate the handle and check whether the two gears have good, firm contact with each other. All three shafts should be clean and free of any metal debris.

DO NOT exceed the rated capacity on this slip roll. It has been tested at the factory to roll 20ga. (0.9mm) x 24" (610mm) wide mild steel.

The SR-2420M slip roller has three 2.00" (50.8mm) diameter rolls. (fig. 6-3) The two front rolls, one placed vertically above the other are clamping rolls. The top roll is fixed and the bottom roll is adjustable with two knobs (A). The rear idler roll controls the diameter of the finished piece part and is adjusted with two bolts (B). Always make sure the gap along the full length of the rolls is consistent. (fig. 6-1) If the rolls are not adjusted exactly parallel, the material will spiral during the rolling process. Because material springback varies with the kind of material being formed, only by test forming several pieces can the correct adjustments be made.

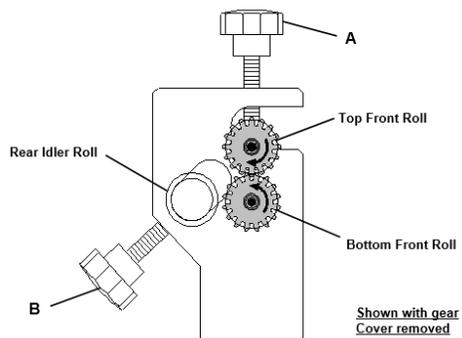


Figure 6-1

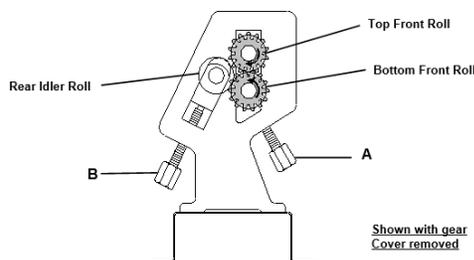


Figure 6-2

Always make sure the gap along the full length of the rolls is consistent. (fig. 6-3).

If the rolls are not adjusted exactly parallel, the material will spiral during the rolling process.

Because material springback varies with the kind of material being formed, only by test forming several pieces can the correct adjustments be made.

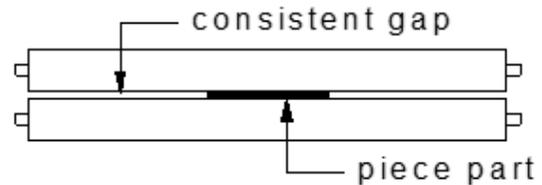


Figure 6-3

7.0 Plate Rolling Procedure

7.1 Determining Length of Material

LENGTH OF MATERIAL necessary to form the desired size circle is the first consideration in circle forming. To determine the approximate length of material needed use the formula: $C = I \times D$, Where C is the circumference, I is the value of π or 3.1416, and D is the diameter. For example, to find the length of material (C or Circumference) to form a 12" (304.8mm) diameter circle, multiply 3.1416 x 12 (3.1416 x 304.8mm), the result is 37.70" (957.55mm) or the approximate length of material needed. Cut a few pieces of material to this length for test forming. Material may have to be lengthened or shortened depending upon results of the test forming run.

7.2 Pre-Bending and Finish Rolling

PRE-BENDING is the operation where the ends of the material are bent to the same radius as that of the finished piece. This principle is used to get the best results in full circle bending.

Before bending, do the following:

- Clean any dust or grease from the material.
 - Make sure the edges of the material are free of chips and burrs.
 - Check that the material is flat.
 - Have a template of the finished diameter to compare with.
 - Always work in the center of the rolls.
1. Load the material forward to a point as in view "A".
 2. Turn the two adjusting knobs (B) clockwise (cw) until you have an approximate radius to your finished piece. See view "B"
 3. Back the piece out, turn the piece part, and repeat the above sequence for the other end. See view "C"

- Now that you have a pre-bend on both ends, it's time to roll the final diameter.
- Back down the rear roller and start rolling the piece forward and reverse as shown in view "D".
- Start raising the rear roll gradually and continue rolling the piece forward and reverse until you have reached the finished diameter.

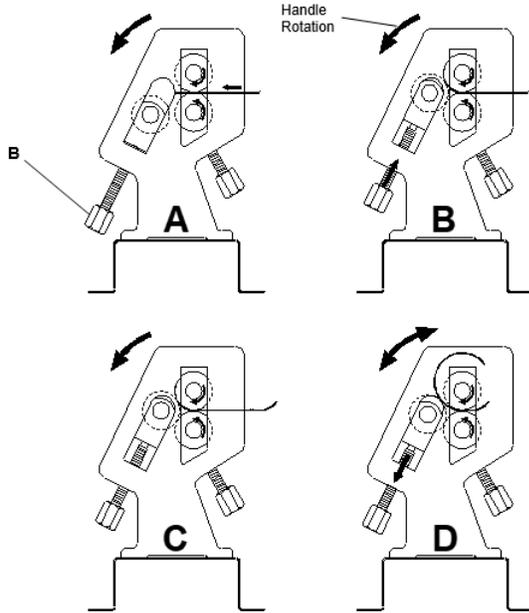


Figure 7-1

7.3 Removing Rolled Piece Part

- Grasp the handle on the locking plate and pivot clockwise (cw) to release from the lock bolt (C) (fig. 7-2).



Figure 7-2

- Lay back the cover to expose the roller shaft.
- Grasp the pull handle as in (fig. 7-3) and pull to the right, which pivots the top roll up.



Figure 7-3

- You can now remove the finished piece part.
- Once removed, slide the pull handle to the left to lower the roll.
- Rotate the cover back onto the roller shaft and secure the locking plate.
- You are now ready to roll another piece.

8.0 Bending Allowance

To bend sheet metal accurately, you will need to consider the total length of each bend. This is referred to as bend allowance. Subtract the bend allowance from the sum of the outside dimensions of the piece part to obtain the actual overall length or width of the piece. Because of differences in sheet metal hardness, and whether the bend is made with the grain or against it, exact allowances must sometimes be made by trial and error. However, bend allowances for general use can be obtained from metal working books or from the Internet.

9.0 Understanding Springback

Springback, also known as elastic recovery, is the result of the metal wanting to return to its original shape after undergoing compression and stretch. After the bending leaf is removed from the metal and the load is released, the piece part relaxes, forcing the bent portion of the metal to return slightly to its original shape. The key to obtaining the correct bend angle is to over bend the metal a little and allow it to spring back to the desired angle. All metals exhibit a certain amount of spring back.

10.0 Material Selection

⚠ CAUTION

It must be determined by the customer that materials being processed through the machine are NOT potentially hazardous to operator or personnel working nearby.

When selecting materials keep these instructions in mind:

- Material must be clean and dry. (without oil)
- Material should have a smooth surface so it processes easily.
- Dimensional properties of material must be consistent and not exceed the machine capacity values.
- Chemical structure of material must be consistent.
- Buy certificated steel from the same vendor when possible.

Note: Thorough cleaning of the rolls is necessary to avoid possible sliding of the material through the rolls.

11.0 Maintenance

⚠ WARNING

Maintenance should be performed on a regular basis by qualified personnel.

⚠ WARNING

Always follow proper safety precautions when working on or around any machinery.

- Check daily for any unsafe conditions and fix immediately.
- Check that all nuts and bolts are properly tightened.
- On a weekly basis clean the machine and the area around it.
- Lubricate threaded components and sliding devices.

- Apply rust inhibitive lubricant to all non-painted surfaces.

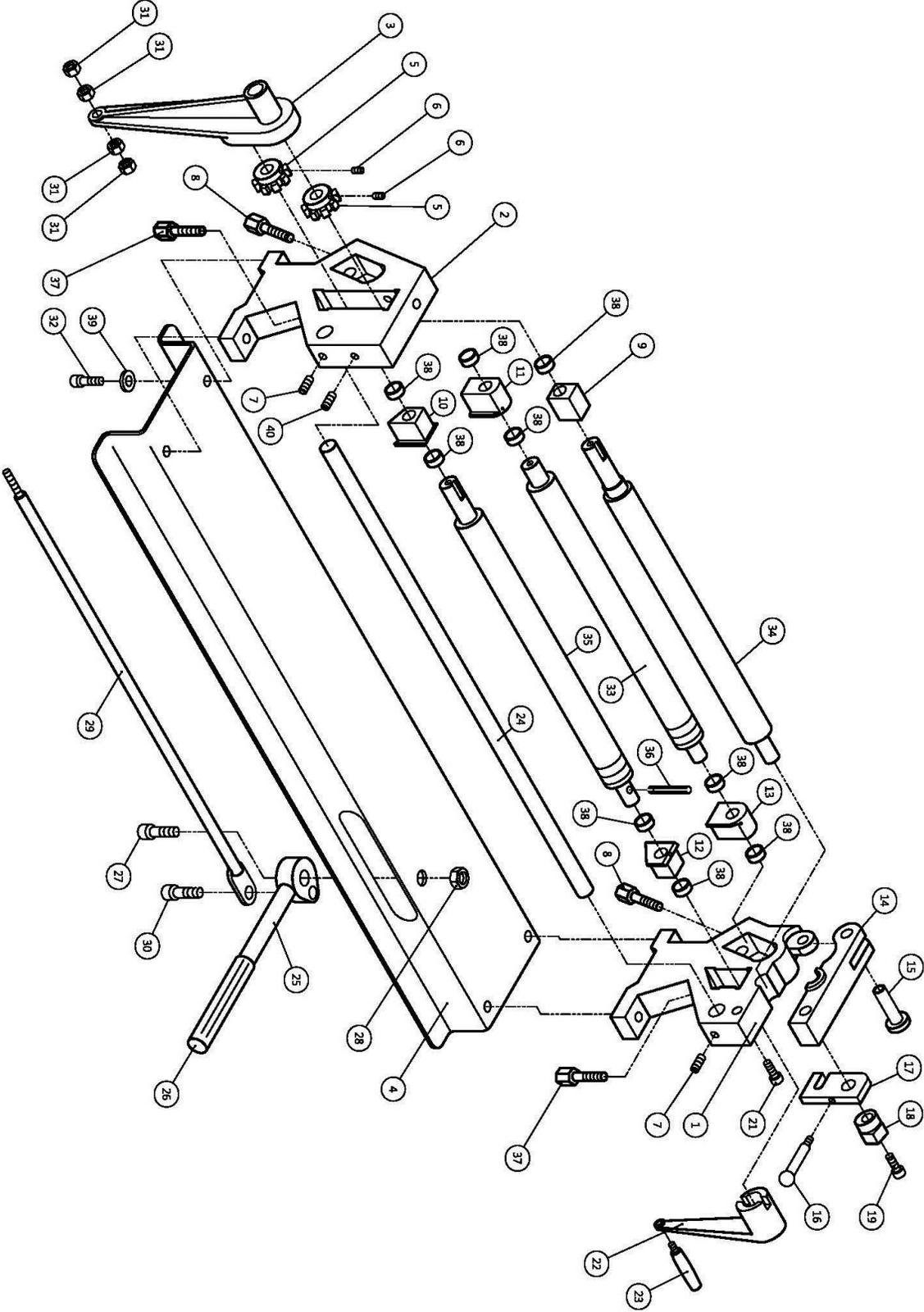
Note: Proper maintenance can increase the life expectancy of your machine.



Figure 11-1

12.0 Replacement Parts

12.1.1 Manual Slip Roll Assembly – Exploded View



12.1.2 Manual Slip Roll Assembly – Parts List

Index No	Part No	Description	Size	Qty
1	**	Side Frame R		1
2	**	Side Frame L		1
3	**	Gear Guard		1
4	**	Fixed Base		1
5	BA9-1227793	Gear	.875" Bore	2
6	BA1-10888	Set Screw		2
7	**	Set Screw	5/16-18 x .31" Lg.	2
8	BA9-1227300	Adj. Screw, Rear		2
9	**	Upper Block, L		1
10	**	Lower Block, L		1
11	**	Rear Block, L		1
12	**	Lower Block, R		1
13	**	Rear Block, R		1
14	**	Cover		1
15	**	Rivet		1
16	**	Handle		1
17	BA9-1010676	Locking Plate		1
18	**	Cam		1
19	**	Screw	3/8-16 x 1.00" Lg.	1
21	**	Spring Pin	3/8-16 x .50" Lg.	1
22	**	Crank Handle		1
23	**	Handle Holder		1
24	**	Locking Link		1
25	**	Pull Handle		1
26	**	Hand Grip		1
27	**	Screw	M8 x 1.25 x 25mm	2
28	**	Nut	M8 x 1.25	1
29	**	Pull Rod Assy.	24 inch	1
29	**	Pull Rod Assy.	36 inch	1
30	**	Screw		1
31	**	Nut	3/8-16	4
32	**	Screw	3/8-16 x 1.00" Lg.	4
33	**	Rear Roll		1
34	BA9-1013233	Upper Roll		1
35	**	Lower Roll		1
36	**	Spring Pin	.31" Dia.	1
37	**	Adj. Screw, Lower		2
	BA9-1010674	Side Frame (R.H) with cover & rivet		1
38	**	DU		9
39	**	Washer		1
40	**	Set Screw		1

** These parts are shown for reference only and are not available for order individually. Non-proprietary parts, such as fasteners, can usually be found at local hardware stores.

13.0 Warranty and Service

Thank you for your purchase of a machine from Baileigh Industrial. We hope that you find it productive and useful to you for a long time to come.

Inspection & Acceptance. Buyer shall inspect all Goods within ten (10) days after receipt thereof. Buyer's payment shall constitute final acceptance of the Goods and shall act as a waiver of the Buyer's rights to inspect or reject the Goods unless otherwise agreed. If Buyer rejects any merchandise, Buyer must first obtain a Returned Goods Authorization ("RGA") number before returning any Goods to Seller. Goods returned without an RGA will be refused. Seller will not be responsible for any freight costs, damages to Goods, or any other costs or liabilities pertaining to Goods returned without an RGA. Seller shall have the right to substitute a conforming tender. Buyer will be responsible for all freight costs to and from Buyer and repackaging costs, if any, if Buyer refuses to accept shipment. If Goods are returned in unsalable condition, Buyer shall be responsible for full value of the Goods. Buyer may not return any special-order Goods. Any Goods returned hereunder shall be subject to a restocking fee equal to 30% of the invoice price.

Specifications. Seller may, at its option, make changes in the designs, **specifications**, or components of the Goods to improve the safety of such Goods, or if in Seller's judgment, such changes will be beneficial to their operation or use. Buyer may not make any changes in the specifications for the Goods unless Seller approves of such changes in writing, in which event Seller may impose additional charges to implement such changes.

Limited Warranty. Seller warrants to the original end-user that the Goods manufactured or provided by Seller under this Agreement shall be free of defects in material or workmanship for a period of twelve (12) months from the date of purchase, provided that the Goods are installed, used, and maintained in accordance with any instruction manual or technical guidelines provided by the Seller or supplied with the Goods, if applicable. The original end-user must give written notice to Seller of any suspected defect in the Goods prior to the expiration of the warranty period. The original end-user must also obtain an RGA from Seller prior to returning any Goods to Seller for warranty service under this paragraph. Seller will not accept any responsibility for Goods returned without an RGA. The original end-user shall be responsible for all costs and expenses associated with returning the Goods to Seller for warranty service. In the event of a defect, Seller, at its sole option, shall repair or replace the defective Goods or refund to the original end-user the purchase price for such defective Goods. Goods are not eligible for replacement or return after a period of 10 days from date of receipt. The foregoing warranty is Seller's sole obligation, and the original end-user's exclusive remedy, with regard to any defective Goods. This limited warranty does not apply to: (a) die sets, tooling, and saw blades; (b) periodic or routine maintenance and setup, (c) repair or replacement of the Goods due to normal wear and tear, (d) defects or damage to the Goods resulting from misuse, abuse, neglect, or accidents, (f) defects or damage to the Goods resulting from improper or unauthorized alterations, modifications, or changes; and (f) any Goods that has not been installed and/or maintained in accordance with the instruction manual or technical guidelines provided by Seller.

EXCLUSION OF OTHER WARRANTIES. THE FOREGOING LIMITED WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. ANY AND ALL OTHER EXPRESS, STATUTORY, OR IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO, ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE ARE EXPRESSLY DISCLAIMED. NO WARRANTY IS MADE WHICH EXTENDS BEYOND THAT WHICH IS EXPRESSLY CONTAINED HEREIN.

Limitation of Liability. IN NO EVENT SHALL SELLER BE LIABLE TO BUYER OR ANY OTHER PARTY FOR ANY INCIDENTAL, CONSEQUENTIAL OR SPECIAL DAMAGES (INCLUDING, WITHOUT LIMITATION, LOST PROFITS OR DOWN TIME) ARISING FROM OR IN MANNER CONNECTED WITH THE GOODS, ANY BREACH BY SELLER OR ITS AGENTS OF THIS AGREEMENT, OR ANY OTHER CAUSE WHATSOEVER, WHETHER BASED ON CONTRACT, TORT OR ANY OTHER THEORY OF LIABILITY. BUYER'S REMEDY WITH RESPECT TO ANY CLAIM ARISING UNDER THIS AGREEMENT IS STRICTLY LIMITED TO NO MORE THAN THE AMOUNT PAID BY THE BUYER FOR THE GOODS.

Force Majeure. Seller shall not be responsible for any delay in the delivery of, or failure to deliver, Goods due to causes beyond Seller's reasonable control including, without limitation, acts of God, acts of war or terrorism, enemy actions, hostilities, strikes, labor difficulties, embargoes, non-delivery or late delivery of materials, parts and equipment or transportation delays not caused by the fault of Seller, delays caused by civil authorities, governmental regulations or orders, fire, lightning, natural disasters or any other cause beyond Seller's reasonable control. In the event of any such delay, performance will be postponed by such length of time as may be reasonably necessary to compensate for the delay.

Installation. If Buyer purchases any Goods that require installation, Buyer shall, at its expense, make all arrangements and connections necessary to install and operate the Goods. Buyer shall install the Goods in accordance with any Seller instructions and shall indemnify Seller against any and all damages, demands, suits, causes of action, claims and expenses (including actual attorneys' fees and costs) arising directly or indirectly out of Buyer's failure to properly install the Goods.

Work By Others; Safety Devices. Unless agreed to in writing by Seller, Seller has no responsibility for labor or work performed by Buyer or others, of any nature, relating to design, manufacture, fabrication, use, installation, or provision of Goods. Buyer is solely responsible for furnishing and requiring its employees and customers to use all safety devices, guards and safe operating procedures required by law and/or as set forth in manuals and instruction sheets furnished by Seller. Buyer is responsible for consulting all operator manuals, ANSI or comparable safety standards, OSHA regulations and other sources of safety standards and regulations applicable to the use and operation of the Goods.

Remedies. Each of the rights and remedies of Seller under this Agreement is cumulative and in addition to any other or further remedies provided under this Agreement or at law or equity.

Attorney's Fees. In the event legal action is necessary to recover monies due from Buyer or to enforce any provision of this Agreement, Buyer shall be liable to Seller for all costs and expenses associated therewith, including Seller's actual attorney fees and costs.

Governing Law/Venue. This Agreement shall be construed and governed under the laws of the State of Wisconsin, without application of conflict of law principles. Each party agrees that all actions or proceedings arising out of or in connection with this Agreement shall be commenced, tried, and litigated only in the state courts sitting in Manitowoc County, Wisconsin or the U.S. Federal Court for the Eastern District of Wisconsin. Each party waives any right it may have to assert the doctrine of "forum non conveniens" or to object to venue to the extent that any proceeding is brought in accordance with this section. Each party consents to and waives any objection to the exercise of personal jurisdiction over it by courts described in this section. Each party waives to the fullest extent permitted by applicable law the right to a trial by jury.

Summary of Return Policy:

- 10 Day acceptance period from date of delivery. Damage claims and order discrepancies will not be accepted after this time.
- You must obtain a Baileigh Industrial issued RGA number PRIOR to returning any materials.
- Returned materials must be received at Baileigh Industrial in new condition and in original packaging.
- Altered items are not eligible for return.
- Buyer is responsible for all shipping charges.
- A 30% re-stocking fee applies to all returns.

Baileigh Industrial makes every effort to ensure that our posted specifications, images, pricing, and product availability are as correct and timely as possible. We apologize for any discrepancies that may occur. Baileigh Industrial reserves the right to make any and all changes deemed necessary in the course of business including but not limited to pricing, product specifications, quantities, and product availability.

For Customer Service & Technical Support:

Please contact one of our knowledgeable Sales and Service team members at:
(920) 684-4990 or e-mail us at Baileigh-Service@jpwindustries.com



BAILEIGH INDUSTRIAL

1625 DUFEK DRIVE MANITOWOC, WI 54220

PHONE: 920.684.4990 FAX: 920.684.3944

www.baileigh.com