



OPERATOR'S MANUAL

BV-6HV

6" HITCH/BENCH MOUNT VISE WITH PIPE JAWS

INTRODUCTION

The quality and reliability of the components assembled on a Baileigh Industrial machine guarantee near perfect functioning, free from problems, even under the most demanding working conditions. However, if a situation arises, refer to the manual first. If a solution cannot be found, contact the distributor where you purchased our product. Make sure you have the serial number and production year of the machine (stamped on the nameplate). For replacement parts refer to the assembly numbers on the parts list drawings.

Our technical staff will do their best to help you get your machine back in working order.

In this manual you will find: (when applicable)

- Safety procedures
- Correct installation guidelines
- Description of the functional parts of the machine
- Capacity charts
- Set-up and start-up instructions
- Machine operation
- Scheduled maintenance
- Parts lists

GENERAL NOTES

After receiving your equipment remove the protective container. Do a complete visual inspection, and if damage is noted, **photograph it for insurance claims** and contact your carrier at once, requesting inspection. Also contact Baileigh Industrial and inform them of the unexpected occurrence. Temporarily suspend installation.

Take necessary precautions while loading / unloading or moving the machine to avoid any injuries.

Your machine is designed and manufactured to work smoothly and efficiently. Following proper maintenance instructions will help ensure this. Try and use original spare parts, whenever possible, and most importantly; **DO NOT** overload the machine or make any modifications.

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THANK YOU & WARRANTY

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 a 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 a 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 a 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 a 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's 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 attorneys' 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 issued RGA number PRIOR to returning any materials.
- Returned materials must be received at Baileigh 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.

TECHNICAL SUPPORT

Our technical support department can be reached at 920.684.4990, and asking for the support desk for purchased machines. Tech Support handles questions on machine setup, schematics, warranty issues, and individual parts needs: (other than die sets and blades).

For specific application needs or future machine purchases contact the Sales Department at: sales@baileigh.com, Phone: 920.684.4990, or Fax: 920.684.3944.



Note: *The photos and illustrations used in this manual are representative only and may not depict the actual color, labeling or accessories and may be intended to illustrate technique only.*



Note: *The specifications and dimensions presented here are subject to change without prior notice due to improvements of our products.*



SAVE THESE INSTRUCTIONS.
Refer to them often and use them to instruct others.



Crush Hazard



Wear Eye Protection



Read Manual

SAFETY PRECAUTIONS



Metal working can be dangerous if safe and proper operating procedures are not followed. As with all machinery, there are certain hazards involved with the operation of the product. Using the machine with respect and caution will considerably lessen the possibility of personal injury. However, if normal safety precautions are overlooked or ignored, personal injury to the operator may result.

Safety equipment such as guards, hold-downs, safety glasses, dust masks and hearing protection can reduce your potential for injury. But even the best guard won't make up for poor judgment, carelessness or inattention. **Always use common sense** and exercise **caution** in the workshop. If a procedure feels dangerous, don't try it.

REMEMBER: Your personal safety is your responsibility.



WARNING: FAILURE TO FOLLOW THESE RULES MAY RESULT IN SERIOUS PERSONAL INJURY

Dear Valued Customer:

- All Baileigh machines should be used only for their intended use.
- Baileigh does not recommend or endorse making any modifications or alterations to a Baileigh machine. Modifications or alterations to a machine may pose a substantial risk of injury to the operator or others and may do substantial damage to the machine.
- Any modifications or alterations to a Baileigh machine will invalidate the machine's warranty.

PLEASE ENJOY YOUR BAILEIGH MACHINE!PLEASE ENJOY IT SAFELY!

1. **FOR YOUR OWN SAFETY**, Read, understand and follow all instructions in this manual. Misuse of vise can cause serious injury to the operator.
2. **Only trained and qualified personnel can operate this machine.**
3. **Keep work area clean.** Cluttered areas invite injuries.
4. **Overloading machine.** By overloading the machine, you may cause injury from flying parts. **DO NOT** exceed the specified machine capacities.
5. **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.
6. **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.



7. **Use eye and ear protection.** Always wear ISO approved impact safety goggles. Wear a full-face shield if you are producing metal filings.
8. Always wear ANSI-approved safety glasses or face shield when using striking or power tools with this vise. (Everyday eyeglasses only have impact resistant lenses; they are not safety glasses.) Wear hearing protection when needed.
9. **Do not overreach.** Maintain proper footing and balance at all times. **DO NOT** reach over or across the vise.
10. **Stay alert.** Watch what you are doing and use common sense. **DO NOT** operate any tool or machine when you are tired.
11. **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.
12. Keep visitors a safe distance from the work area.
13. **Keep children away.** Children must never be allowed in the work area. **DO NOT** let them handle machines, tools, or extension cords.
14. **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.
15. **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.
16. Be sure workpiece is clamped securely between jaws.
17. Do not over tighten—vise can develop a large clamping force. Use only force which is needed.
18. Do not try to hold workpieces which exceed the jaw capacity of vise.
19. Do not use vise as a press to assemble or disassemble objects.
20. Keep hands clear of jaws.
21. Make sure vise is properly secured to hitch receiver. If using bench mount, bolt to work surface at all mounting locations using mounting flanges provided on base (customer supplied).
22. Do not use the vise as a step. It will cause an individual to slip and fall.
23. Keep ground or floor around the vise uncluttered and free of scrap material, oil and grease. Wear non-slip footwear.
24. Do not place combustible materials or pressurized containers in vise.
25. Do not force the tool. Do not use a hammer against the handle or use additional leverage such as cheater bars or pipe extensions, to tighten the screw handle. For heavier jobs, use a larger vise.
26. Vehicle safety brake must be engaged before operating vise.
27. **DO NOT DRIVE** vehicle with material in the vise.
28. **IT IS NOT INTENDED FOR THE VEHICLE TO BE DRIVEN WHILE THE VISE IS INSTALLED OR MATERIAL CLAMP.** Use caution repositioning the vehicle in any direction with the vise installed.
29. Make sure the hitch pin is properly engaged and secured with the hair pin before repositioning the vehicle.
30. Read and understand all warnings posted on the vise and in this manual. Failure to comply with all of these warnings may cause serious injury.





31. Do not use this vise for other than its intended use.
32. Replace warning labels if they become obscured or removed.
33. Always inspect vise before use. Check for misalignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect the tool's operation. If damage is found, repair the vise immediately or replace it.
34. Have tool serviced only by qualified personnel, using authorized replacement parts.
35. Provide for adequate space surrounding work area and sufficient lighting.
36. Do not use this tool while tired or under the influence of drugs, alcohol or medication.
37. Give your work undivided attention. Looking around, carrying on a conversation and "horse-play" are careless acts that can result in serious injury.
38. Maintain a balanced stance at all times. Do not overreach while performing the work.

⚠ WARNING: Always wear eye and face protection when striking vise-held objects or when using power tools with the vise.

Read carefully and follow all safety rules and operating instructions before first use of this product.

SPECIFICATIONS

Required Hitch Receiver	2" Square
Jaw Width	5.9" (150mm)
Maximum Jaw Opening	5.5" (140mm)
Throat Depth	5" (127mm)
Pipe Jaw Capacity	.5" to 3.5" (12.7 to 88.9mm)
Jaw Travel Per One Rotation of Handle	0.157" (4mm)
Clamping Force	5620lbf/7868lbf (25/35KN)
Jaw Insert Hardness	45-56 HRC
Weight, Net	27.55lbs (12.5kgs)
Carton Dimensions	20.87" x 8.27" x 10.24" (530 x 210 x 260mm)
Primary Materials	Steel and Ductile Iron
Paint Finish	Powder Coat Enamel

DESCRIPTION


- 6" Hitch / Bench Vise with Pipe Jaws has a cast iron body and replaceable hardened steel jaws.
- The vise features parallel jaws and pipe jaws.
- Vise will mount into a 2" receiver or mount to a work bench.
- Anvil on the body of vise provides a convenient wide work surface.
- Adjustment screws allow the mounting shaft to be fit snug into the receiver.



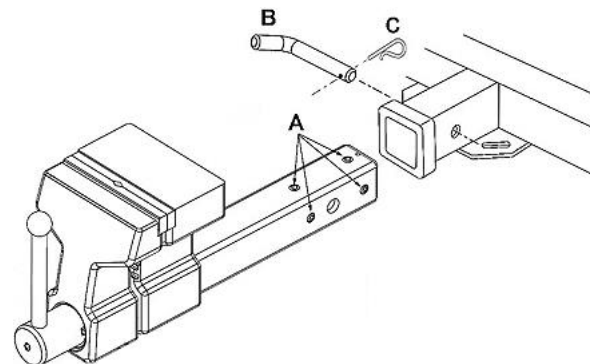
MAINTENANCE


- Keep machined surfaces and all moving parts clean and free of dirt, chips and foreign materials. Particles of metal or wood can damage machined surfaces, causing difficult or inaccurate operation.
- Keep machined surfaces lubricated with medium weight machine oil.
- Before use, inspect vise for misalignment, binding or cracked/damaged parts, or any other condition that may affect safe operation. Repair or replace a damaged vise.
- After use, wipe external surfaces of the vise with a clean rag. Apply a light coat of machine oil to entire vise.
- The leadscrew is permanently lubricated and enclosed and should not require attention. Lubricate other moving parts of the vise with machine oil.
- Jaw insert replacement: Use a 5mm hex key to remove two screws on the jaw insert. Securely tighten the new jaw insert to the vise using the same screws. NOTE: When replacing jaw inserts, replace both as a set.

HITCH MOUNTING

 WARNING: This vise is NOT rated by Class. It is intended to fit into a 2" receiver. DO NOT EXCEED THE TW (TONGUE WEIGHT) FOR THE CLASS RECEIVER THIS VISE IS MOUNTED INTO.

- The HV is designed to be inserted into a 2-inch square hitch receiver.
- Slide vise tube into receiver. If the vise tube has too much movement, "play" within the receiver; adjust the screws (A). Use a 5/16" hex key to make the adjustments.
 - Remove the vise and evenly adjust the top two screws to remove play up and down.
 - Adjust the two side screws to remove play side to side.
- Install and test for fit, making additional adjustments as needed. The vise should slide into the receiver with minimal resistance.
- Align hole in vise tube with hole in hitch receiver.
- Insert hitch pin (B) completely through receiver and vise tube.
- Install hair pin (C) through hole in hitch pin.



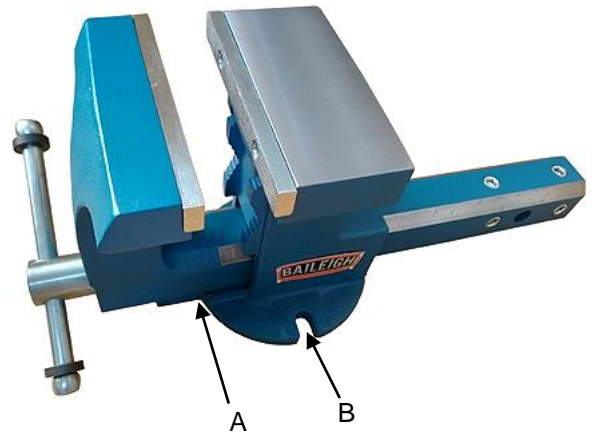
 WARNING: The Hitch pin and the Hair pin must be properly secured in the receiver and the hitch pin before operating vise or moving vehicle to which vise is mounted.



BENCH MOUNTING

If you intend to mount the Baileigh vise on a workbench be aware of the following:

- Overall weight of the machine and the weight of material being processed.
- Make sure the workbench is properly reinforced to support the total 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.
- It is recommended to position the vise as close to a support such as the leg of the bench, without causing interference.
- Position the vise on the work surface with the front edge (A) of the mounting base flush with the edge of the work surface. Verify that the handle has room to swing with the jaws fully closed to fully open.
- Use the base as a template and mark the location of the mounting holes (B).
- Drill holes through the work surface and secure both mounting flanges on base using 3/8" diameter bolts, 2 inches longer than the bench top thickness. Use flat washers top and bottom and secure with nuts (customer supplied).
- Do not weld vise to any metal object. Make sure the bench top to which the vise is mounted is properly secured.



ADJUSTMENTS AND OPERATION

- Before use, inspect the vise for cracks, misalignment, binding, or any other problems that may compromise its safe use. Repair or replace immediately.
- The vise is shipped with a protective coating. This coating should be removed before operation. Use penetrating oil to remove protective coating.
- Do not use a pipe extension or cheater bar. This may cause handles to bend and overstress locking bolt threads.

To operate the hitch vise:

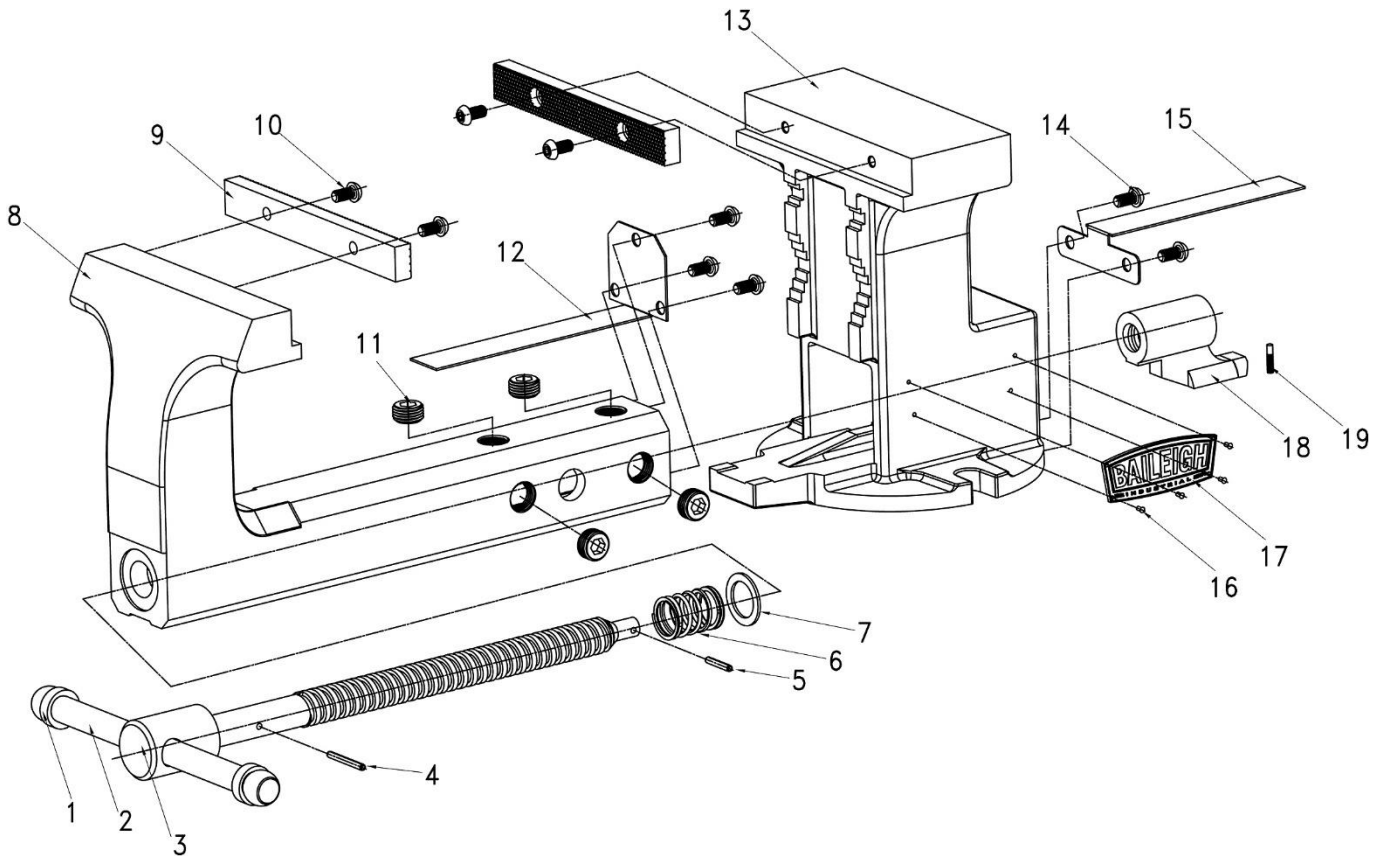
- Turn screw handle counterclockwise to open jaws. Do not try to force jaws apart farther than the rated capacity/jaw opening.
- Choose the straight jaws or pipe jaws. Insert workpiece and turn handle clockwise to close jaws.
- Tighten enough that workpiece can no longer be shifted within the jaws. Do not overtighten, as this may damage workpiece and/or jaws.
- Be sure workpiece is held securely in vise. Never use hammer, pipe extension or cheater bar on leadscrew handle of vise.



REPLACEMENT PARTS

Item	Part No.	Description	Qty.	Item	Part No.	Description	Qty.
1	BV6HV-1	Rubber Rings	2	11	BV6HV-11	Adjustment Screws	4
2	BV6HV-2	Handle	1	12	BV6HV-12	Static Sliding Plate	1
3	BV6HV-3	Spindle	1	13		Stationary Body	
4	BV6HV-4	Elastic Cylinder Pin 3x20mm	1	14	BV6HV-14	Sliding Plate Screws M6x8	5
5	BV6HV-5	Elastic Cylinder Pin 3x20mm	1	15	BV6HV-15	Active Sliding Plate	1
6	BV6HV-6	Spindle Spring	1	16	BV6HV-16	Plate Rivets	4
7	BV6HV-7	Spindle Washer	1	17	BV6HV-17	BAILEIGH Logo Plate	1
8		Floating Jaw Body		18	BV6HV-18	Spindle Nut	1
9	BV6HV-9	Jaw Insert (set of 2)	2	19	BV6HV-19	Knurled Cylindrical Pin 3x15	1
10	BV6HV-10	Jaw Inserts Screws M6x12	4				

* Standard hardware item available locally.





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