



ABACO MACHINES
OPERATION MANUAL
ABACO SCISSOR CLAMP
(SC150)



ABACO MACHINES (USA)

14508 S. Garfield Ave., Paramount, CA 90723, USA
Tel : 310-532-0366 Fax : 310-532-0499
Email : sales@abacomachines.com
Website : www.abacomachines.com

**APPLICABLE MODEL
of this SCISSOR CLAMP:**

SC150

INDEX

| Item | | Page |
|------|--|------|
| I | Equipment General Information..... | 1 |
| II | Technical Specifications..... | 1 |
| | 1. Dimensions..... | 1 |
| | 2. Spare part list..... | 2 |
| III | Safety Instructions..... | 4 |
| | 1. General Warnings, Cautions and Notes..... | 4 |
| | 2. Device usage..... | 5 |
| IV | Appendix..... | 9 |
| V | Technical problems and Solutions..... | 10 |
| VI | Inspection and Maintenance..... | 10 |
| VII | Warranty Policy..... | 11 |
| | Warranty Certificate..... | 12 |

General Safety Operation Manual Instructions Summary:

It is essential to review carefully and understand this Operation Manual before operating the equipment. Failing to read and understand this entire manual may cause injury or death to personnel, or damage to the equipment and the products that are being handled by this equipment if not properly followed.

This safety summary includes general safety precautions and instructions that must be understood and applied before, during, and after operations, as well as maintenance to ensure personnel safety and protection of this equipment. Prior to performing any task, the contents included in this manual should be reviewed and fully understood.

This manual explains some essential operating or maintenance procedures, practices, conditions, statements, etc. that if those are not strictly followed, it could result in injury, or death by chance in the worst case. And there might be some chances of damaging or destructing materials or machine component itself. In order to avoid or eradicate such worst coincidences and happenings, it is essential to read through this manual and follow accordingly. It is also important to comprehend the functions of this equipment thoroughly for your safe and efficient operations.

For any question, please contact your local dealer or distributor.

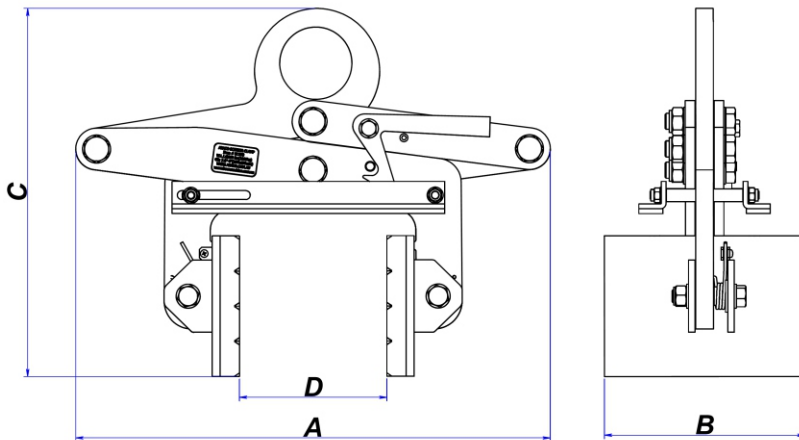
I. EQUIPMENT GENERAL INFORMATION:

- Scissor Clamp (SC150) is designed for clamping and moving the piece of stone slab with various thickness ranging from $1 \frac{3}{16}$ " (30mm) to $5 \frac{7}{8}$ " (150 mm). It is suitable for both natural and artificial stones.
- The stopper has a vulcanized plastic layer to protect stone slabs.
- The rubber pads covered the clamp plates are designed to prevent scratches or damages to the piece of stone slab being carried during operation.
- The equipment is designed with all the protection features to increase safety level for the operator and productivity.

II. TECHNICAL SPECIFICATIONS:

- SC150 is mainly made out of steel.
- SC150 shall be used with a hoist or with a forklift boom, to clamp, lift and transport a piece of stone slab.

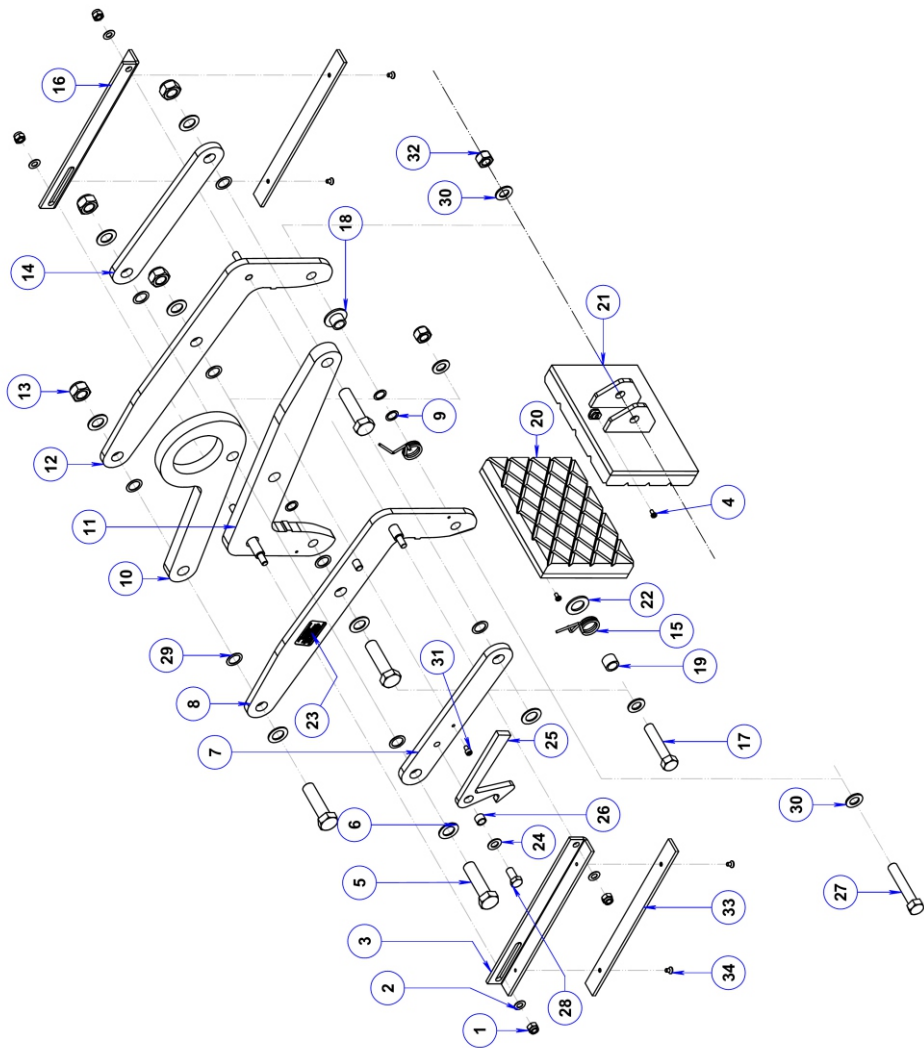
1. Dimensions:



| Length (A) inches (mm) | Width (B) inches (mm) | Height (C) inches (mm) | Grip Range (D) inches (mm) | W.L.L* lbs (kg) |
|---------------------------|--------------------------|---------------------------|--|--------------------|
| 23 $\frac{1}{4}$ (590) | 9 $\frac{13}{16}$ (250) | 18 $\frac{1}{16}$ (458) | 1 $\frac{3}{16}$ ~ 5 $\frac{7}{8}$ (30 ~ 150) | 3300 (1500) |

* W.L.L: Work Load Limit

2. Spare part list:



SPARE PART LIST

| DESCRIPTION | QTY. | PART NUMBER |
|---------------|------|-------------|
| Lock nut M10 | 4 | SC150-01 |
| Washer ø10 | 4 | SC150-02 |
| Stopper 1 | 1 | SC150-03 |
| Screw M5 x 10 | 2 | SC150-04 |

| DESCRIPTION | QTY. | PART NUMBER |
|---|-------------|--------------------|
| Bolt M20 x 75 | 4 | SC150-05 |
| Washer ø20 | 8 | SC150-06 |
| Clamp arm 1 | 1 | SC150-07 |
| Lever arm 1 | 1 | SC150-08 |
| Brass washer ø16 | 3 | SC150-09 |
| Lever | 1 | SC150-10 |
| Lever arm 3 | 1 | SC150-11 |
| Lever arm 2 | 1 | SC150-12 |
| Lock nut M20 | 4 | SC150-13 |
| Clamp arm 2 | 1 | SC150-14 |
| Spring | 2 | SC150-15 |
| Stopper 2 | 1 | SC150-16 |
| Bolt M16 x 80 | 1 | SC150-17 |
| Bushing 2 | 1 | SC150-18 |
| Bushing 1 | 1 | SC150-19 |
| Clamp plate, left | 1 | SC150-20 |
| Clamp plate, right | 1 | SC150-21 |
| Washer ø24 | 1 | SC150-22 |
| Label | 1 | SC150-23 |
| Washer ø12 | 1 | SC150-24 |
| Locking latch | 1 | SC150-25 |
| Bushing, latch | 1 | SC150-26 |
| Bolt M16 x 90 | 1 | SC150-27 |
| Bolt M12 x 25 | 1 | SC150-28 |
| Brass washer ø20 | 8 | SC150-29 |
| Washer ø16 | 4 | SC150-30 |
| Hexagon socket head cap screw M6 x 10 | 1 | SC150-31 |
| Lock nut M16 | 2 | SC150-32 |
| Plastic layer | 2 | SC150-33 |
| Hexagon socket countersunk head cap screw M6 x 10 | 4 | SC150-34 |

III. SAFETY INSTRUCTIONS:

1. General Warnings, Cautions and Notes:

WARNING: Before using the Scissor Clamp, confirm the surfaces of the stone slab to be lifted is flat, smooth, and free from dust, oil, or any kind of such harmful substances to prevent slipping the goods during operation.

a. For Scissor Clamp:

Caution:

- Carefully consider and follow all the safety regulations and applicable laws in your country for the operations.
- It is strongly recommended that only employees who are highly trained, experienced are allowed to operate this device. Safety rules and regulations must be strictly followed.
- Lifting the piece of stone slab up slowly and in a careful manners. If the piece of stone slab is not balanced, lower the clamp to make appropriate position adjustment before lift it up again.

Warnings:

- Inspect the Scissor Clamp carefully and thoroughly. If the rubber pads of clamp plates are worn-out or damaged, do not use.
- This equipment is designed with grip range from 1 $\frac{3}{16}$ " (30mm) to 5 $\frac{7}{8}$ " (150mm). Determine the weight of the stone slab to be lifted. Do not exceed the WLL (Work Load Limit) shown on the page 1.
- During operation, all workers in the work environment must be cautious and ensuring they are standing and moving safely around the work area to avoid unexpected accident injury.
- Check to ensure the rubber pads are free from damage, dirt, grease and other substances that may effect the effectiveness of it designed purposes. Clean it by water, and then wait till dry before use.
- Do not lift wet slabs. The grip depends on friction. Lifting wet slabs may cause the rubber pads to lose their grips.
- No more than one piece should be lifted at any time.
- The operators is responsible for the material is inserted to the full depth into the opening of the clamp.

b. General Safety Instructions:

Caution:

- In order to protect from any accident, it is important to follow safety rules and regulations.
- Read and comprehend this Operation Manual carefully before using.
 - Ensure that the Operation Manual is always available beside the place where the clamp is used.
- Give permissions to operate Scissor Clamp only to the persons who are well-trained and competent to work.
- Use appropriate PPE (Personal Protective Equipment) such as helmets, gloves, and safety boots, etc.
- To ensure the equipment functioning properly and safely, do a visual inspection and make sure there are no signs of damage.
- Inspections and Repairs should only be done by qualified personnel.
- If any parts are worn-out, repair or replace, or contact the manufacturer for solution consultation.

WARNINGS:

- Never leave your loaded SC150 unsupervised.
- Never allow yourself or anybody to go under a lifting material.
- Be sure to check the clamp and its accessories duly and periodically, there should be no damage or loosening of fasteners or any irregular unfunctional sound. Always revisit this safety operation manuals and be cautious with all the warnings throughout this manual before operate the equipment.
- Store the lifter in a well-ventilated place, avoid places with high heat or humidity.

2. Device usage:

Preliminary Safety Checks

Safety inspection must be conducted by a trained and well-qualified individual prior operating the equipment.

WARNINGS:

- SC150 should installed and attached appropriately and safely as sketched below to ensure safe operation.

Step 1: Hook the Clamp

Hook the Scissor Clamp to a forklift boom or to a crane hook (Figure 1.1)

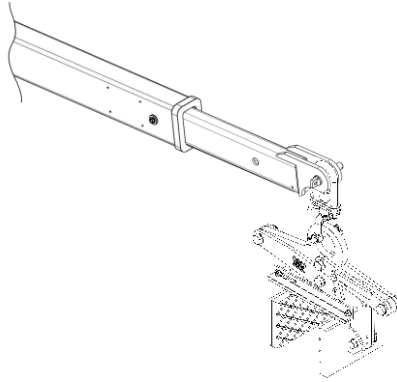


Figure 1.1

Step 2: Clamp the slab

Move the clamp close to the slab to be lifted (Figure 2.1).

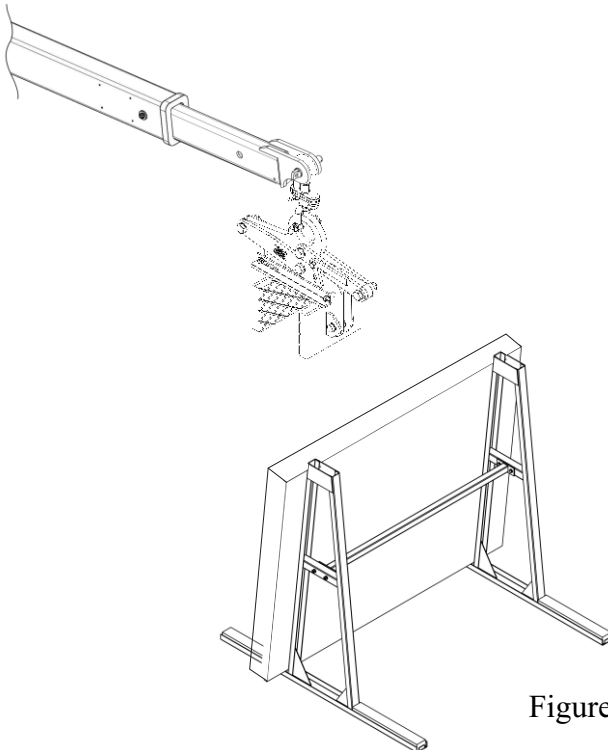


Figure 2.1

- Lowering the clamp to allow the slab fully inserted into the opening of the clamp (Figure 2.2), and the slab shall be in between two clamp plates and the top edge of the slab to touch the stopper (Figure 2.3).

Note: Position the clamp at the center of the slab so that the load is balanced.

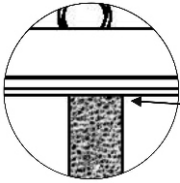


Figure 2.3

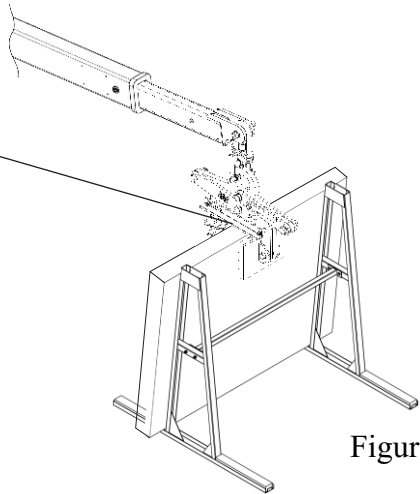


Figure 2.2

- Pull up the locking latch to disengage the clamping plates for lifting slabs up (Figure 2.4). Lift the scissor clamp by confirming the stone slab is gripped firmly (Figure 2.5).

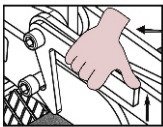


Figure 2.4

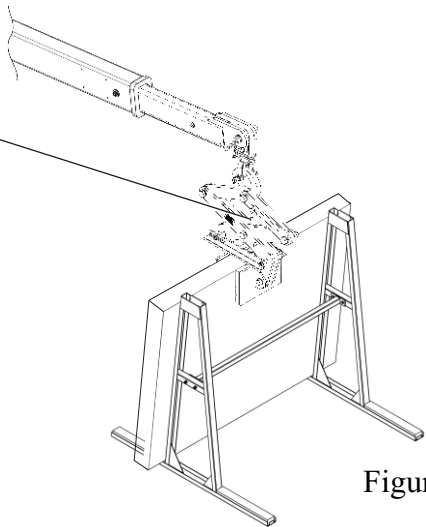


Figure 2.5

Step 3: Move the stone slab (Figure 3.1)

Warning: All the people who are not obligated must stand within safety area while slab is being lifted or moved. Do not allow yourself or anybody to go under the lifted slab.

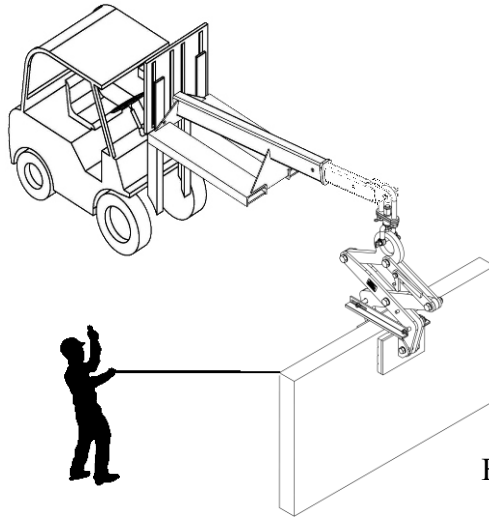


Figure 3.1

- Move the slab to the desired location, lower the clamp slowly until the locking latch locks to keep the clamping plates open, lift the clamp out of the stone slab (Figure 3.2).

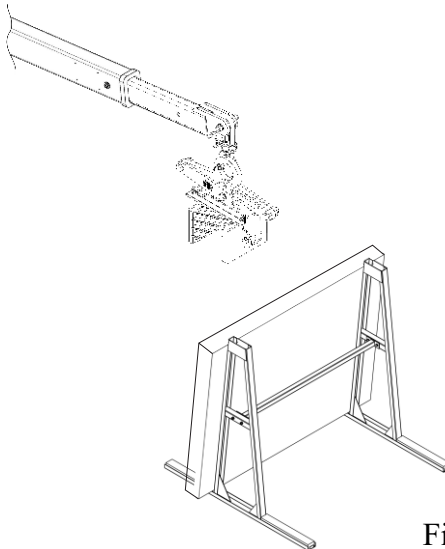
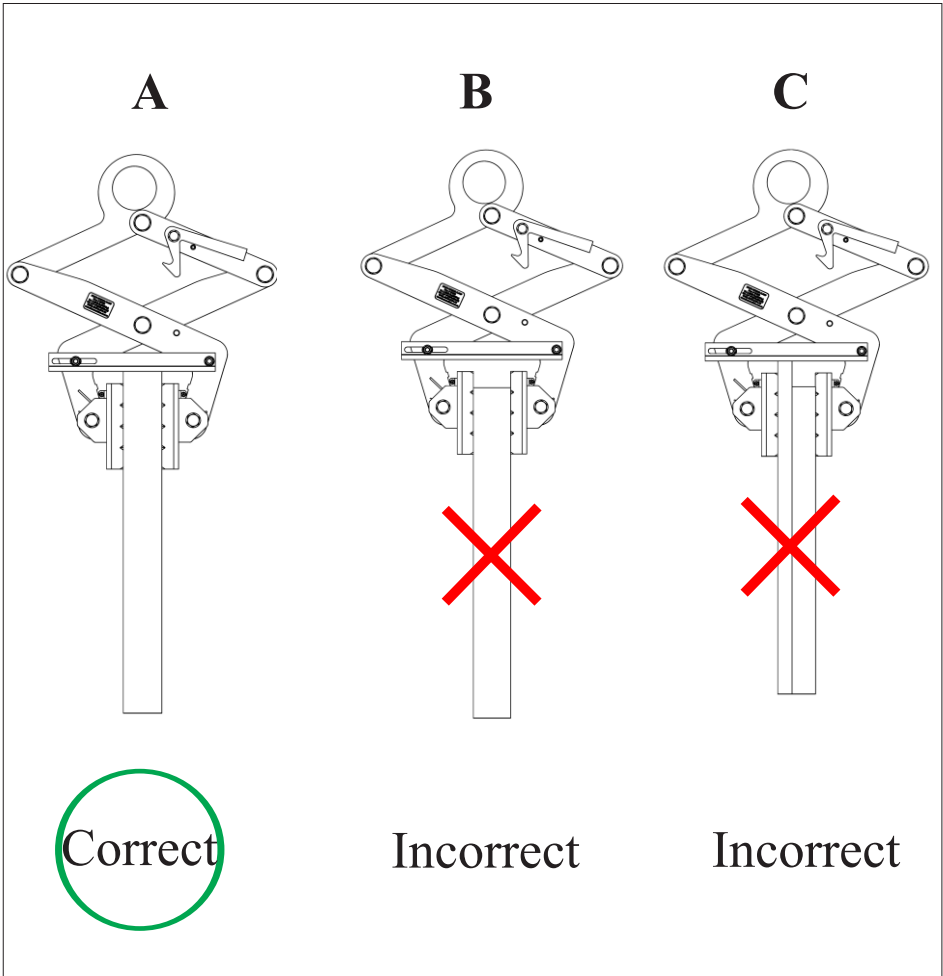


Figure 3.2

IV. APPENDIX:

1. Correct and incorrect methods of clamping slab:



V. TECHNICAL PROBLEMS AND SPECIFICATIONS:

| Technical problems | Causes | Solutions |
|--|--|---|
| The rubber pads of clamping plates are damaged | Rubber pads are worn out or deformed | Replace with a new clamp plate |
| It's hard to grip the stone slab | The swivel joints are rusted and/or dusted | Clean equipment, lubricate oil into the swivel joints |

VI. INSPECTION & MAINTENANCE:

- Operator is responsible to check the equipment regularly, not limited to checking bolts, locking latch, and rubber pads of clamping plates to ensure the equipment is in good operating condition.
- Periodically, the operator is responsible for scheduling equipment maintenance, especially for cleaning and lubricating rotary joints monthly.
- Always keep the clamp clean and away from grease or other substances as they may reduce the effectiveness of the rubber pads and cause them to lose their grip.
- Operator is recommended to always keep necessary spare parts on hand for immediate maintenance or repair purposes before operating.
- Store this equipment in a well-ventilated place (dry and cool); avoid places with high heat and/or humidity.

VII. WARRANTY POLICY:

At the time of delivery, it is necessary to inspect the **Scissor Clamp (SC150)** to make sure that it has not been damaged during shipment. The product at the time of dispatch is warranted to be free of defects in material or workmanship.

Claims for errors, shortages, defects, or nonconformities ascertainable upon inspection must be made in writing within eight business days from the date of product delivery. Claims not made as provided above and within the applicable time period will be barred and no other claims will be considered.

We provide a one (1) year warranty on the **Scissor Clamp (SC150)** from the date of purchase.

During warranty period, we will provide the replacement parts at no charge (Please note: shipping and handling fees may apply).

Warranty coverage is void if:

- The operator failed to comply with the instructions in the manual.
- The specifications are not followed.
- Damage is due to inadequate maintenance and inspections.
- Damage is due to improper storage and/or usage.
- Modification and repairs made to the equipment were performed by the user/operator without the manufacture's knowledge and agreement.
- Aftermarket or none genuine spare parts were used for repair installation.
- Modification and repair installations were conducted by uncertified individual.

WARRANTY CERTIFICATE

You are kindly requested to read the following carefully.

PERIOD

The warranty starts from the date of purchase (date on distributors invoice).

Warranty is valid for a period of twelve (12) months.

WARRANTY

This warranty is limited only to provide replacements of the parts recognized by the Company as defective (excluding worn-outs and consumables.)

The Company is not responsible for any misuse or abuse of the product after purchase and/or caused by negligence from the content of this manual.

In an event of equipment failure to operate the machine and/or requiring technical support, operator/user is requested to contact with our Customer Support Department. Our member will inform you (operator/user) of the appropriate procedures accordingly and how to file warranty claim and advise you to your nearest approved service center.

EXCLUSIONS

Warranty does not apply for damages or failures caused by:

Misuses, errors in transportation, incorrect handling or failing to maintain the equipment appropriately.

Use of non-genuine parts/accessories, or of incorrect specifications.

THIS MANUAL SHALL BE REVISED WITHOUT PRIOR
NOTICE FOR IMPROVEMENT PURPOSES
DO NOT COPY AND/OR QUOTE THE CONTENTS
WITHOUT PRIOR WRITTEN CONSENTS.

All Rights Reserved:
L22

