

SaeboMAS

(Patent Pending)

Product Manual

*Maximizing Function
While Improving Proximal Strength*



 **Saebo**

No Plateau In Sight[®]

Introduction

Saebomas dynamic mobile arm support system is a zero gravity upper extremity device specifically designed to facilitate, as well as challenge, the weakened shoulder and elbow during functional tasks and exercise drills.

Patients suffering from neurological and orthopedic conditions that exhibit proximal weakness can benefit from the support and facilitation that the **Saebomas** offers. Performing exercise drills with minimal compensation, as well as ADL tasks such as eating or drinking, are just a few of the activities patients will be able to achieve with the **Saebomas**. Additionally, patients with proximal weakness can now participate in proven treatment techniques consisting of highly repetitive task-oriented activities that would have otherwise been difficult or impossible.

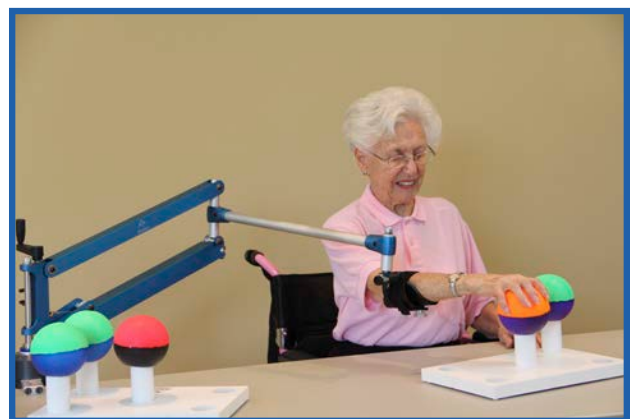
Benefits

- Increase motor control, strength and range of motion
- Improve ADL performance
- Reduce “hand over hand” assistance by allowing the patient to take on more of an active role versus passive
- Minimize over use injuries and unwanted movement
- Provide the clinician with an “extra pair of hands” to offer more effective facilitation when needed
- Provide an opportunity for the patient to perform highly repetitive tasks without fear of proximal overuse injuries or pain
- Safe and effective way to treat shoulder subluxation



Contraindications

The **Saebomas** should not be used with individuals who exhibit severe shoulder/elbow pain or have acute shoulder/elbow fractures.



Precautions

To decrease risk of bodily injury, make sure the Tension Scale is set to "1" prior to opening or closing the *Saebomas* (clipping or unclipping).

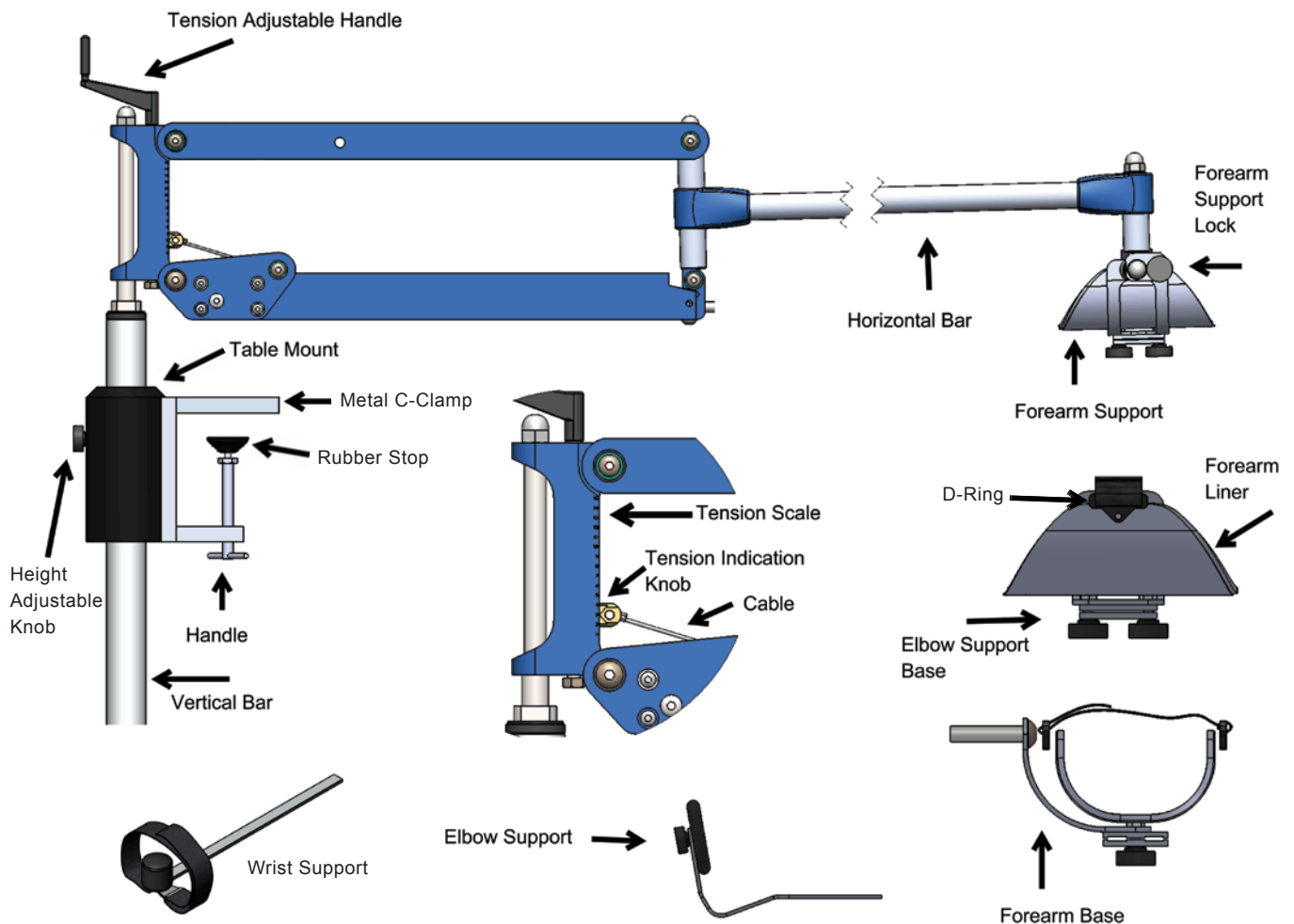
The *Saebomas* must be mounted to a sturdy table. The device should not be mounted to unstable surfaces or tables on wheels. Do not mount to plastic tables.

Do not perform hand-to-mouth activities without the Elbow Support. The Elbow Support must be attached. Without the Elbow Support attached, the Forearm Support may migrate distally (i.e., slip downwards) towards the wrist. In some cases, the forearm support may slip completely off the arm.

For some patients, the Forearm Support may migrate distally (i.e., slip downwards) toward the wrist during use. Add non-slip material, such as waffled shelf liner to minimize migration.

If the *Saebomas* is mounted to a motorized height adjustable table, be sure to note the distance between the bottom of the Vertical Pole and the floor when lowering the table or *Saebomas*. Avoid making contact between the Vertical Pole and the floor.

Parts List



SaeboMAS Installation

During installation, please keep the **SaeboMAS** in a closed position (i.e., horizontal bar secured/clipped to the frame) until the setup is complete (**see Figure 1**). Once you are finished installing the device, open the **SaeboMAS** (i.e., unclip the horizontal bar from the frame) to begin treatment. When you are not using the device, reset the Tension Scale to "1" and return to a closed position.

Important: To decrease the risk of bodily injury, make sure the tension is set to "1" before opening or closing the **SaeboMAS** (**see Figure 2**).

NOTE: If your **SaeboMAS** included a **Table Mount**, please follow the instructions in **Sections A & B**.

A. Attach the Table Mount

1. Secure the **SaeboMAS** to the table on the involved side. The Table Mount should be positioned approximately 2 feet away from the user.
2. The Table Mount should be secured to a sturdy heavy surface. Ideally, the mounting surface should be 2-3 inches (5-7.5 cm) thick. If you are applying the Table Mount to a counter top, be sure to have a sufficient surface area to properly secure the mount to the counter.
3. Place the Table Mount in the correct position (**see Figure 3**).
4. To protect the table and minimize migration, insert non-slip material between the top of the surface and the Table Mount (**see Figure 4**).
5. Tightly rotate the Handle until the mount is secured (**see Figure 5**).

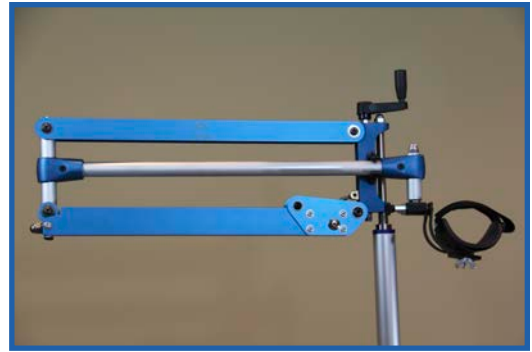


Figure 1

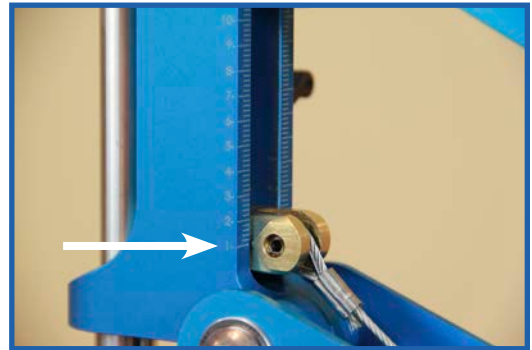


Figure 2



Figure 3



Figure 4



Figure 5

B. Attach Saebomas to the Table Mount

1. Now that the Table Mount is secured to the surface, insert the Saebomas Vertical Pole into the opening of the Mount (*see Figure 6*).
2. Once the appropriate height is determined, secure the vertical pole by rotating the Height Adjustable Knob on the Table Mount in a clockwise direction.
3. Be sure to keep the device in a closed position (*see Figure 1*).



Figure 6

NOTE: If your Saebomas included a **Base Frame**, please follow the instructions in **Section C**.

C. Attach Saebomas to the Base Frame

If your Saebomas includes a **Base Frame**, please follow the assembly instructions below. The height adjustable **Base Frame** has 4 locking casters and can be conveniently transported throughout the clinic.

Instructions:

The unassembled Base Frame parts include the Base Frame with locking casters and the Vertical Pole. Also included is an Allen wrench along with 2 screws. (*see Figure 7*).

1. Position the Vertical Pole into the Base Frame. Insert the screws into the designated holes and tighten securely with the Allen wrench. (*see Figure 8*).

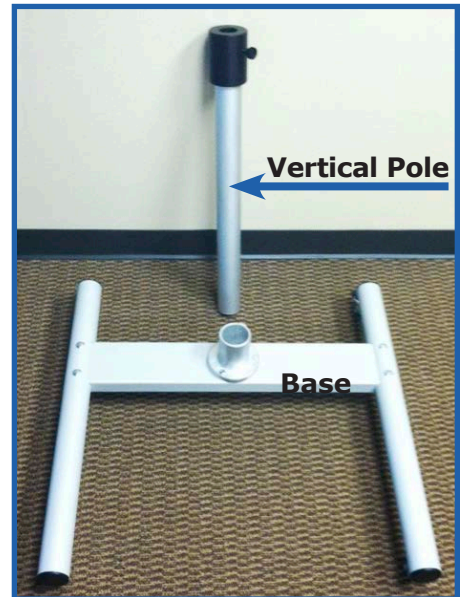


Figure 7



Figure 8

2. Once the Vertical Pole is properly secured to the Base Frame, insert the Saebomas into the opening of the Vertical Pole. Tighten the height adjustable knob to secure. (*see Figure 9*).



Figure 9

D. Height Adjustment

1. To increase or decrease the height of the device, rotate the Height Adjustable Knob in a counter-clockwise direction (to loosen) and gently pull up or push down on the Vertical Pole to the appropriate height. Once the appropriate height is determined, secure the vertical pole by rotating the Height Adjustable Knob in a clockwise direction (**see Figure 10**).

Important: What height should the Saebomas be positioned?

The Tension Adjustment Handle of the Saebomas should be positioned at shoulder height of the user (**see Figure 11**).



Figure 10

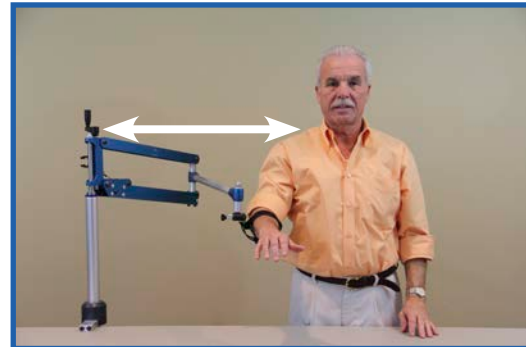


Figure 11

E. Apply Forearm Support

1. The Saebomas includes 2 Forearm Supports (1 Small, 1 Medium/Large). The Medium/Large Forearm Support is attached to the device when shipped.
2. To replace the Forearm Supports, loosen the Knobs under the Forearm Support Base and remove. Replace with the Small Forearm Support and re-secure.

Important: The Forearm Supports are malleable and can be shaped for an intimate fit.

F. Apply Elbow Support

Important: What is the Elbow Support and when should I use it?

1. It is highly recommended that the Elbow Support be used for any activities involving elbow flexion. For example, all activities that incorporate hand to mouth movements (i.e., feeding, grooming) will need the Elbow Support. This will prevent the Forearm Support from migrating distally (slip downwards) towards the wrist.
2. To attach the Elbow Support, loosen the Forearm Support Base Knobs. Thread the Elbow Support into the opening. Re-tighten the Knobs to secure the Elbow Support to the Forearm Support Base (**See Figure 12**).

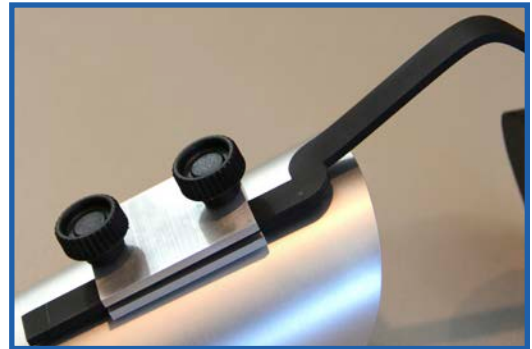


Figure 12

3. Be aware that elbow extension will be limited while using the Elbow Support. **DO NOT USE THE ELBOW SUPPORT FOR TASKS THAT REQUIRE ELBOW EXTENSION.**

G. Apply Wrist Support

The Wrist Support is ideal for patients that exhibit “wrist drop”. To attach the Wrist Support, loosen the Forearm Support Base Knobs and thread the Wrist Support into the opening. Re-tighten the Knobs to secure the Wrist Support to the Forearm Support.



Figure 13



Figure 14

H. Forearm Support Lock

1. One of the unique features of the **SaeboMAS** is the ability to lock and unlock the Forearm Support as needed. For example, patients that exhibit poor strength at the elbow and forearm may require the Forearm Support to be in a locked position for increased stability and control (i.e., Forearm Support unable to swivel up and down). Conversely, patients that have fair or good strength at the elbow and forearm may be able to tolerate the Forearm Support in an unlocked position (i.e., Forearm Support able to swivel up and down).
2. To lock the Forearm Support, rotate the Knob in a clockwise direction until it threads the hole on the Forearm Support (**See Figure 15**). To unlock, rotate the Knob in a counter-clockwise direction.

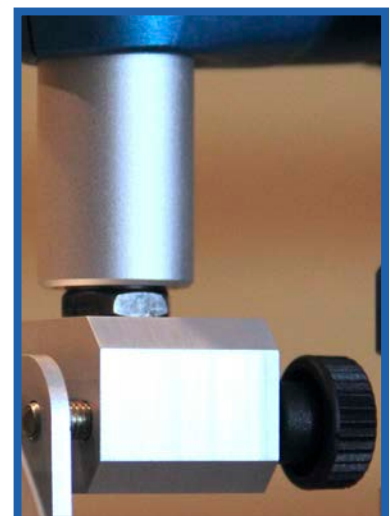


Figure 15

I. Tension Scale

The *SaebMAS* includes a Tension Scale to identify and track the amount of support needed for the affected arm (**see Figure 16**). The scale ranges from 1-15 (1=least amount of tension/support; 15=greatest amount of tension/support).

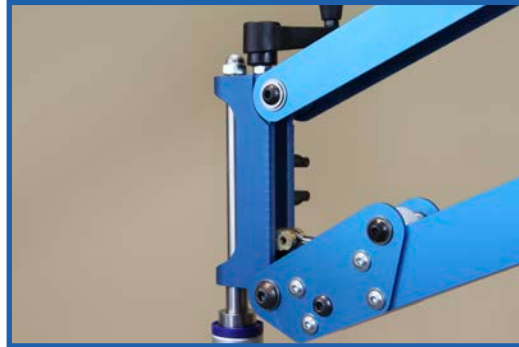


Figure 16

1. Tension Adjustments

- a. Increase Tension/Support: Rotate the Tension Adjustment Handle in a clockwise direction.
- b. Decrease Tension/Support: Rotate the Tension Adjustment Handle in a counter-clockwise direction.
- c. To avoid damage, once the desired tension is reached, be sure to move the Tension Adjustment Handle away from the frame.

2. Progressing the Program

- a. Document and track the desired tension needed for specific tasks on a routine basis.
- b. As improvements are made, consider decreasing the amount of tension provided to further challenge the affected arm.

***Important:* How much support should be provided?**

Each patient will require a customized program based on his or her motor impairments. There should be enough support provided to successfully complete the functional task. At the same time, the support should be limited to challenge the patient. Finding a balance between too much support and too little will be important.

J. Correct Position

The **Saebomas** can be used in standing or a seated position.

1. The user should be positioned side-by-side (approximately 2 feet or 60cm away) from the **Saebomas**. Note the position of the parallelogram (posterior direction) when in use (**see Figure 17**).

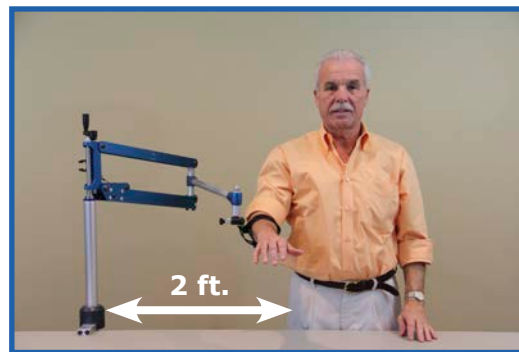


Figure 17

2. Alternate position: Instead of positioning the **Saebomas** side-by-side, an alternate position is to place the **Saebomas** posterior-lateral to the user. In this position, the device (Vertical Pole) should be positioned 1 foot (30cm) behind the user and 1.5 feet (45cm) to the side (**see Figure 18a and 18b**).



Figure 18a



Figure 18b

K. Swivel Stop

Apply the Swivel Stop to eliminate rotation or turning of the frame when the **Saebomas** is not in use. Be sure to unlock prior to next use.

Instructions:

1. Slide the Swivel Stop up the vertical pole (**See Figure 19**).
2. Align the cut-out groove of the Swivel Stop with the metal hardware (**See Figure 20**).
3. Once the groove completely covers the metal, tighten the tension knob to secure and lock in place (**See Figure 21**).



Figure 19



Figure 20



Figure 21

Incorporating the *SaeboFlex*[®] while using the *SaeboMAS*

The *SaeboMAS* can easily be combined with other modalities such as the *SaeboFlex*. There are several ways to stabilize the *SaeboFlex* to the Forearm Support on the *SaeboMAS*. You will need to select the best approach based on the size and length of the user's forearm.

Option #1:

Position the *SaeboFlex* Forearm Shell just distal (i.e., below) to the *SaeboMAS* Forearm Support. Secure the *SaeboMAS* Forearm Support Strap to the arm just proximal (i.e., above) to the *SaeboFlex* (strap is not touching the *SaeboFlex* Forearm Shell) (See *Figure 22*).



Figure 22

Option #2:

Position the *SaeboFlex* Forearm Shell on top of the *SaeboMAS* Forearm Support. Make sure the *SaeboFlex* Thumb Mount is not making contact with the *SaeboMAS* Forearm Support. Secure the *SaeboMAS* Forearm Support Strap around the proximal portion of the *SaeboFlex* (See *Figure 23*).



Figure 23

Option #3:

Same as Option 2, however, consider threading the strap under the beadlines for the fingers and thumb (see *Figure 24*).



Figure 24



Combining *SaeboMAS* with *SaeboFLEX*[®]

Replacement Liners –

The *Saebomas* includes:

- a. (5) Medium/Large Forearm Support Liners
- b. (5) Small Forearm Support Liners
- c. (5) Elbow Support Liners

Please contact your supplier (point of purchase) to inquire about ordering additional liners.

Trouble Shooting Tips

1. If your patient exhibits decreased wrist extension strength (i.e., wrist drop), consider applying a wrist brace for added support.
2. As you increase the tension on the device, it may be necessary to assist in bringing the arm down to grasp the object on the table. This will depend on the extent of proximal weakness.
3. If your patient exhibits increased tone at the elbow flexors, it may be difficult to perform movements requiring elbow extension. To maximize the extension at the elbow, consider the following strategies:
 - a. Electrical stimulation on the triceps
 - b. Elbow air splint
 - c. Manual facilitation
 - d. EMG/biofeedback
4. During elbow flexion activities, the elbow may shift/migrate while using the Elbow Stop. For these instances, consider securing the elbow to the Elbow Support by using a Velcro strap.

Care and Cleaning

- Forearm liners are removable and can be replaced by ordering directly from Saebomas.
- To increase the longevity of the liners, consider applying a stockinette over the client's arm prior to using the *Saebomas*.
- The foam liners on the forearm and elbow supports can be cleaned by applying "Dispatch" to a cloth and wiped down.



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