# **BUCKINGHAM MFG.**

## INSTRUCTIONS / WARNINGS Temporary Rigging Anchorage Sling

Warning: Do not use this product if you cannot understand and follow the instructions and warnings that come with it and complete all necessary functions.

Buckingham manufactures various Rigging Slings such as the two styles shown below. Note: product lengths, colors or hardware may vary from that shown.





PN 3903S-series

PN 39002EB-series

The photos below show only a few rigging examples using the BuckLink Sling (PN 3903S-6).



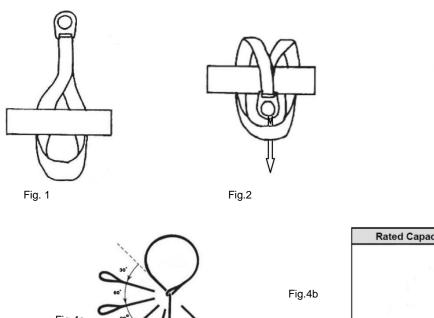


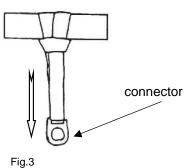
#### **Installation Instructions**

- Manufacturer's instructions shall be provided to the user of this product. If additional copy is needed, contact Buckingham Mfg. Co.
- Completely read, understand, and follow all instructions, warnings, and guidelines pertaining to this and all associated equipment before use. Failure to do so could result in your serious injury or death.
- Choose a suitable structural member for attachment of the Temporary Rigging Anchorage Sling that is capable of safely supporting your intended load.
- Follow all applicable OSHA regulations, standards, guidance pertaining to rigging, anchorages and sling use when using this product.

### **Choker Configuration:**

- Size the Temporary Anchorage Sling length to the structural member you will attach it to. When properly attached to the anchorage, the Sling must protrude completely through the loop so that the connector hangs freely (Fig.3).
- ◆ Wrap the Temporary Anchorage Sling around the structural member as shown in Fig. 1.
- Ensure the webbing lies flat, has no twists and is in continuous contact with the structural member and does not wrap back onto itself. Pull the sling end back through the loop at the opposite end to create a hitch (Fig. 2).
- Adjust the webbing so that the sling is positioned under the center of the structural member. Pull down on the connector to remove slack and secure the hitch (Fig. 3).
- When a choke is drawn down tight against a load or a side pull is exerted resulting in an angle of less than 120 degrees, an adjustment must be made for further reduction of the sling rated capacity (Fig 4a & 4b).





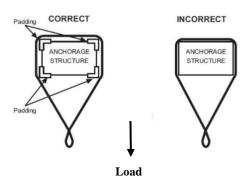
Rated Capacity Adjustment for Choker Hitches		
4	Angle of Choke in Degrees	Percent of Sling Rated Capacity Applicable
	120-180	100%
	90-119	87%
	60-89	74%
	30-59	62%
	0-29	49%

When a choke is drawn down tight against a load or a side pull is exerted resulting in an angle of less than 120 degree, an adjustment must be made for further reduction of the sling rated capacity.

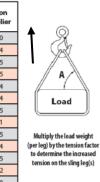
## Basket Hitch Configuration:

- ♦ Size the Temporary Anchorage Slings length to the structural member you will attach it to.
- Wrap the Temporary Anchorage Slings around the structural member as shown in Fig. 5.
- Ensure the webbing lies flat, has no twists and is in continuous contact with the structural member.
- When properly attached to the anchorage the slings should hang freely with equal length legs. (Fig.5).
- Adjust the webbing so that the slings eyes are positioned under the center of the structural member. Pull down on the legs to remove slack, align eyes and secure the hitch with an appropriate connector (Fig. 5).
- If the structural member has sharp edges or corners, it may be necessary to pad the corners in order to maintain the integrity of the Temporary Anchorage Sling. (Fig. 5).
- ♦ It is important to consider the Temporary Anchorage Sling load angle (the angle formed between a horizontal line and the sling leg or body) This angle is very important and can have a dramatic effect on the rated capacity of the sling. When the sling-to-load angle decreases, the load on each leg increases. This principle applies in a number of conditions, including when one sling is used to lift at an angle and when a basket hitch or multi-legged bridle sling is used. Table 5 provides information about increased tension as a function of sling-to-load angle (assuming equally-loaded sling legs). Sling angles of less than 30 degrees are not recommended. (Fig. 6).

Fig. 5



Angle "A" in degrees from horizontal	Tension Multiplier
90	1.000
85	1.004
80	1.015
75	1.035
70	1.064
65	1.104
60	1.155
55	1.221
50	1.305
45	1.414
40	1.555
35	1.742
30	2.000



## <u>Warnings</u>

- This equipment is intended for use by properly trained professionals only.
- Please consult with your physician prior to using this product. Do not use this product under the influence of drugs and alcohol.
- This product is designed as a suitable temporary rigging anchor point with rated capacities as they are labeled when in new condition and properly attached. Many factors must be taken into account when attaching, such as but not limited to: age and condition of sling, shape, size and diameter of wrapped structural member, type of hitch / attachment method, angle of loading, etc.

Fig. 6

- ◆ Do not use Temporary Rigging Anchorage Slings with loads in excess of the rated Working Load Limit (WLL) listed on the product label. Ensure that Temporary Rigging Anchorage Slings have suitable characteristics for the type of load, hitch, and environment in which they will be used and that they are not used with Working Load Limits (WLL) in excess of the rated load capacities.
- Be certain this equipment is suitable for the intended use and work environment. It should only be used for rigging and should never be used as personal protection equipment (PPE). If suitability for intended use is in doubt, consult a safety engineer or contact Buckingham Mfg. before using.
- Rigging equipment should not be resold or provided to others for re-use after use by original user.
- Use this product only with approved connecting components supplied by Buckingham.
- Product must not be altered in any way.
- Only Buckingham Mfg. Co. or those people authorized in writing by Buckingham Mfg. Co. may make repairs / modifications to this equipment.
- Equipment subjected to shock / impact loading must be immediately removed from service, destroyed and discarded.
- Always rig directly under anchor point to avoid pendulum effect.
- Avoid contact of this equipment with structural members that have extremely small circumferences.
- Never use these products where contact of this equipment with sharp edges, corners or other sharp structural members, electrical hazards and moving machinery as well as chemicals, high temperature surfaces, welding or other heat sources which may damage the material. Sharp and abrasive surfaces may include but not be limited to (sheet metal, steel, concrete, block, stone, laminated materials etc.).
- Use rigging equipment only for the specific purpose for which it is designed and intended. Never use Rigging equipment for Personal Protective Equipment (PPE).
- Ensure that all portions of the human body are kept away from the areas between the Temporary Rigging Anchorage Sling and the load and between the Temporary Rigging Anchorage Sling and the hoist hook.
- Ensure that personnel never stand in line with or next to the legs of a Temporary Rigging Anchorage Sling that is under tension,
- Ensure that personnel do not stand or pass under a suspended load.
- Ensure that personnel do not ride a load supported by a Temporary Rigging Anchorage Sling unless the load is specifically designed and tested for carrying personnel.
- Do not use Temporary Rigging Anchorage Slings to support suspended personnel platforms.
- Ensure that, in a choker hitch, the choke point is only on the sling body, never on a splice or fitting.

- Ensure that, in a choker hitch, an angle of choke less than 120 degrees is not used without reducing the rated load.
- Ensure that Temporary Rigging Anchorage Slings are not constricted, bunched, or pinched by the load, hook, or any fitting,
- Avoid twisting and kinking the Temporary Rigging Anchorage Slings.
- ◆ Do not allow nylon and polyester Temporary Rigging Anchorage Slings to be used in contact with objects at temperatures in excess of 194 degrees F (90 degrees C), or below minus 40 degrees F (minus 40 degrees C).
- Do not store or rig the Temporary Rigging Anchorage Sling outside for extended periods in direct sunlight as long-term exposure to sunlight or ultraviolet radiation can affect the strength of the webbing.
- Temporary Rigging Anchorage Sling shall not be used where fumes, vapors, sprays, mists, or liquids of acids or phenolics are present.
- Always visually check that the carabiner freely engages the Temporary Anchorage Slings and the gate is completely closed with each use. Never rely solely on the feel or sound of the carabiner engaging.
- Ensure carabiners are positioned so that their gates are never load bearing.
- Inspect prior to each use. Inspection should include but not be limited to ensuring that unit is free of burns, cuts, abrasions, kinks, knots, broken strands, loose stitching, excessive swelling, evidence of overloading, discoloration, charring, chemical or physical exposures or excessive wear and connecting components (if any) are not distorted or cracked, gate is not bent, is free of burrs, clean and functioning properly. Remove from service, destroy and discard unit if it does not pass this inspection and replace immediately.
- Ensure Temporary Anchorage Sling is properly secured to anchorage before use.
- Never shorten by knotting or twisting a Temporary Anchorage Sling. Knots can significantly reduce the strength of the rope or webbing.
- Product covered under these instructions / warnings should not be resold / redistributed or re-used after use by original user.
- Employer instruct employee as to proper use and warnings before use of equipment.

NOTE: This bulletin does not provide you with all the information you need to know in order to be considered trained and knowledgeable about rigging and lifting loads, but it does provide important information about the use of web slings within a rigging system. If you need more information about web slings and rigging practices or your responsibilities according to regulations and standards, talk to your employer. You and your employer can consult a number of sources of information to help ensure that you are properly trained and knowledgeable when using web slings, including (but not limited to):

- WSTDA-WS-1 Recommended Standard Specification for Synthetic Web Slings
- ASME B30.9—Synthetic Webbing Slings: Selection, Use and Maintenance.
- OSHA 29 CFR 1910.184—Slings.
- Rigging handbooks.
- Guidance on Safe Sling Use: (http://www.osha.gov/dsg/guidance/slings/synth-web.html)
- Formal training provided by outside entities.
- Catalogs, manuals, websites, bulletins, etc.

#### Cleaning

- Proper maintenance and storage of your equipment will prolong its useful life and contribute toward its performance.
- ♦ Webbing should be cleaned with mild soap and water and be allowed to air dry thoroughly without using excessive heat. Do not use any type of corrosive substance or acid, which will gradually eat away the fabric.

**NOTE:** Ensure proper fit / size of product before use. This product <u>can not</u> be returned unless it is in new / unused condition.

#### **STATEMENT of OBSOLESCENCE:**

Precise "useful life expectancy" or "shelf life" for this product is not specified, as the degree of use, conditions of use, and the degree of care and storage determines useful life. All users maintain responsibility to select proper equipment for the job, be properly trained in its use, and ensure all personnel support equipment passes inspection before each use. Upon evidence of defects, damage or deterioration, all equipment shall be removed from service immediately and tagged or marked as unusable or destroyed. Additionally, all equipment shall be inspected on a regular basis not to exceed one year by a Competent Person, as defined by OSHA/ANSI, to verify that the equipment is safe for use. In the event of any question or concern regarding the condition of such equipment, users shall remove the equipment from service for further inspection. All users must comply with OSHA/ANSI/ASTM standards prior to and in using such equipment. For more information regarding safe and appropriate use of equipment, please contact Buckingham Manufacturing at 1-800-937-2825.

#### **INTERNATIONAL USERS:**

Notwithstanding the above, please know that certain international jurisdictions require manufacturers of equipment to provide customers with a maximum useful lifespan (sometimes referred to as a "Statement of Obsolescence"). To the extent required, Buckingham personal protective equipment manufactured from synthetic fiber materials including but not limited to items such as webbing and/or rope are subject to a maximum useful lifespan of ten (10) years from the date of manufacture. As stated above proper usage, storage, maintenance, and care impacts the useful lifespan of equipment. Extreme circumstances may require that product must be retired after only one use. This statement is made in conformance and compliance with BS EN 365:2004. International users must ensure that product inspections are completed by Competent Persons as defined by international standards including but not limited to British Standard ("BS"). If equipment fails any inspections, it must be immediately withdrawn from service and destroyed. For more information regarding safe and appropriate use of equipment, please contact Buckingham Manufacturing at 1-800-937-2825.

#### **OUR GUARANTEE:**

We guarantee the equipment we manufacture to be free from defects in material and workmanship. We will repair any equipment deemed to be defective which is returned to us by the original purchaser. However, this guarantee is void if any product is changed or altered in any way, or if the product is used in a manner other than for which it is intended. This express guarantee supersedes all other expressed or implied guarantees, obligations or liabilities. There are no implied warranties of merchantability or fitness for a particular purpose and as such, all implied warranties are specifically disclaimed.

#### **LIMITATION ON LIABILITY:**

In no event will Buckingham or buyer be liable to the other for lost revenues, lost profits or any other indirect, consequential, special or punitive losses or damages, however caused, whether in action for breach of contract, strict liability, tort, or otherwise, even if advised of the possibility of such losses or damages. In no event will Buckingham's liability exceed the total amount paid by the buyer to Buckingham for the product or equipment giving rise to such claim(s).

Please see other terms and conditions relating to this product at https://buckinghammfg.com/terms-conditions/

<u>REGISTRATION:</u> Before use of the product, ensure to register and confirm the product at <u>www.buckinghammfg.com/register</u>.

## **BUCKINGHAM MFG.**

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Information contained in these written instructions supersedes all other information (written, audio, video etc.) produced by Buckingham Mfg. prior to the revision date of this document.