



If you have any doubts or difficulties  
in understanding this manual, please contact XINDA.

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救援三脚架使用说明书

RESCUE TRIPOD MANUAL

## Safety precautions

This manual explains how to use the equipment and only appropriate techniques and uses are described. Warning signs tell the potential risks but they don't cover everything. Please read every warning carefully and use your equipment properly. Any misuse might lead to danger. If you are in doubt, please contact XINDA.

	Risk of severe injury or death
	Risk of accident or harm
<b>OK!</b>	Appropriate way of use
	Incorrect way of use

## RESPONSIBILITY WARNING

**Activities involving the use of this equipment are inherently dangerous. You are responsible for your own actions, decisions and safety.**

Before using this equipment, you must:

- Read and understand all Instructions for Use.
- Get specific training in its proper use.
- Become acquainted with its capabilities and limitations.
- Understand and accept the risks involved.

**Failure to heed any of these warnings may result in severe injury or death.**

This product must only be used by competent and responsible persons, or those placed under the direct and visual control of a competent and responsible person.

You are responsible for your actions, your decisions and your safety and you assume the consequences of same. If you are not able, or not in a position to assume this responsibility, or if you do not fully understand the instructions for Use, do not use this equipment.

## 部件名称

### **SPECIFICATIONS:**

HORIZONTAL CLEARANCE: 8ft9 in (2.6 m) at foot level in 9 ft height configuration

MAX HEIGHT WITH ADDITIONAL LEGS: 12 ft (3.7 m)

SYSTEM WEIGHT: 72 lb (33 kg) with both sets of feet

PIN STRENGTH: 18,000 lbf (80 kN) for the 3/8-inch leg pins

32,000 lbf (142 kN) for the 1/2-inch head pins

### **HARDWARE:**

A-Frame Head\*1

Gin Pole Head\*1

Inner Legs\*3

Outer Legs\*7

Raptor Feet\*3

Flat Feet\*3

Headset Pulley Wheel\*1

Leg Pins\*17

Headset Pins\*4

### **SOFT GOODS:**

Head Set Bag\*1

Leg Bags\*4

Foot Bag\*1

Pin Bag\*1

User Manual\*1



## VORTEX HARDWARE

Most of the Vortex hardware components are machined from solid aluminum and incorporate design features that reduce weight and increase strength.

### **B** INNER LEG X3

Attaches to A-Frame, Gin Pole Head and feet. Fits within Outer Leg to adjust height or join two Outer Legs.

### **A** OUTER LEG X7

Attaches to feet. Can be reversed to fit into A-Frame & Gin Pole Heads.

### **C** GIN POLE HEAD X1

Connects to the A-Frame Head to construct tripod & variants.

### **D** A-FRAME HEAD X1

Attaches to Legs and Gin Pole Head to create tripod and other custom configurations.

### **E** RAPTOR FEET X3

Uses replaceable carbide tip for optimal grip on appropriate surfaces. Rotates to adjust orientation

### **F** FLAT FEET X3

Features rubber sole for optimal grip on flat surfaces. Ball joint easily adjusts to necessary angle.

### **G** PULLEY WHEEL X2

1.5" Pulley Wheel attaches to A-Frame Head using Head Pin. Uses high-efficiency bearing.

### **H** LEG & FOOT PINS X17

### **I** HEAD PINS X4

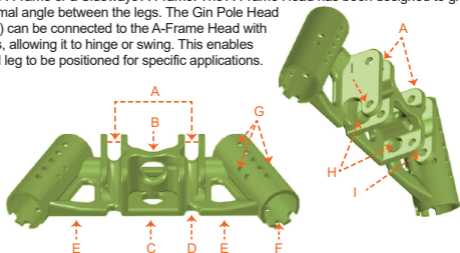


ISO9001 Standards Complied



## A-FRAME HEAD

The A-Frame Head can be used individually to construct bipod configurations such as a Classic A-Frame or a Sideways A-Frame. The A-Frame Head has been designed to give the optimal angle between the legs. The Gin Pole Head (orange) can be connected to the A-Frame Head with two pins, allowing it to hinge or swing. This enables the third leg to be positioned for specific applications.

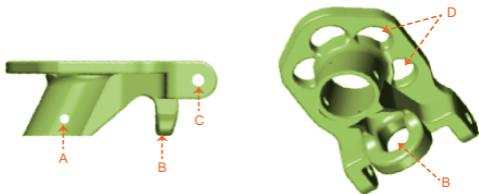


- A. 1/2" connection points for Gin Pole Head
- B. Horizontal center connection point
- C. Vertical center connection point
- D. Recessed path for rope passage
- E. Left and right anchor points

- F. Multiple OUTER Leg pin alignment slots
- G. Multiple leg pin adjustment holes
- H. Left and right side facing rigging points
- I. Left and right 1/2" pin connection points

## GIN POLE HEAD

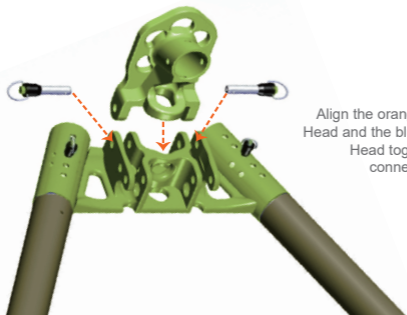
The Gin Pole Head can be used for Monopod configurations or it can be coupled to the A-Frame Head to construct Tripod configurations.



- A. 3/8" Leg Pin attachment hole
- C. 1/2" Head A-Frame connection point

- B. Center Gin Pole yoke
- D. Radial anchor points

## HEAD ASSEMBLY



**A**

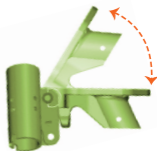
Align the orange Gin Pole Head and the blue A-Frame Head together at the connection points.

**B** Pin the heads together, ensuring the pins lock properly



**C**

1/2" Head Pins with ball-lock fully extended.



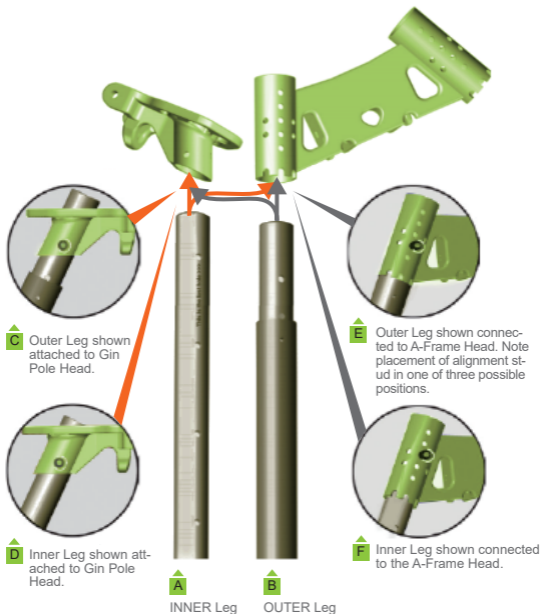
**D**

Once connected, the Gin Pole Head can rotate to change the angle of the Easel-Leg relative to the A-Frame Legs.

## LEGS TO HEADS

The Vortex utilizes two types of legs: Inner Legs and Outer Legs.

Both the Inner and Outer Leg types can be connected to the A-Frame and Gin Pole Head sections. The A-Frame Head section has multiple options for the connecting ball-lock pin. This enables minor adjustments to leg length and rotational orientation.



## BASIC CONFIGURATIONS

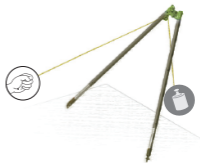
CONFIGURATION: Tripod

MODE OF USE: Anchor Frame



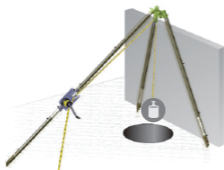
CONFIGURATION: A-Frame

MODE OF USE: Directional Frame



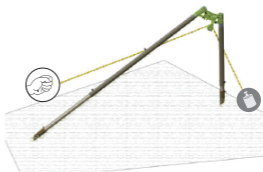
CONFIGURATION: Easel-Leg Tripod  
(w/leg-mounted winch)

MODE OF USE: Anchor Frame



CONFIGURATION: Sideways A-Frame

MODE OF USE: Directional Frame



CONFIGURATION: Easel-Leg Tripod  
(w/directional pulley)

MODE OF USE: Directional Frame



CONFIGURATION: Gin Pole

MODE OF USE: Directional Frame



## STRENGTH RATINGS TABLE

MBS	WLL	Assembly	Equal Sided Tripod	A-Frame	Gin Pole
22kN	5.5kN	Number of Outer Legs	3	3	1
		Exposed holes along Inner Leg	5	3	4
		Height to Connection Point	126° (320cm)	126° (320cm)	73° (185cm)
36kN	9kN	Number of Outer Legs	2	2	-
		Exposed holes along Inner Leg	5	5	-
		Height to Connection Point	95° (241cm)	95° (241cm)	-

\*As tested internally by manufacturer

Note: the working load limit (WLL) is the maximum allowed Applied Force acting on the Vortex. Be aware the Applied Force is often significantly greater than the mass of the payload.

The table above details the assembly requirements to achieve the listed Minimum Breaking Strength (MBS). The data contained in this table is based on tests conducted within a controlled environment using specific test conditions. The listed MBS represents the force, above which, the system yielded and no longer supported the load.

The listed Working Load Limit (WLL) has been calculated from the MBS using a design factor of 4:1. The WLL refers to the applied force (magnitude of force applied to the frame) and not necessarily the mass of the load. Be aware that in some cases the applied force may be greater than the mass of the load. Refer to Page 15 for further information on identifying the Applied Force.

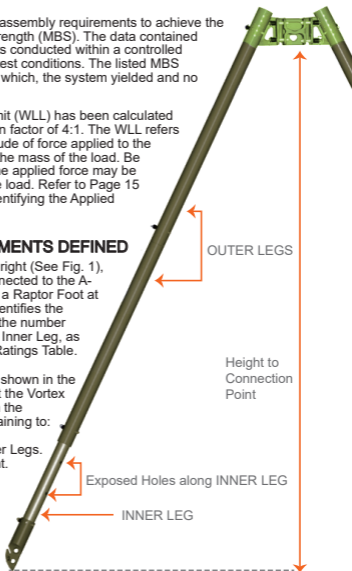
### ASSEMBLY REQUIREMENTS DEFINED

The example graphic to the right (See Fig. 1), shows a section of legs connected to the A-Frame Head at the top, and a Raptor Foot at the bottom. This example identifies the Outer Legs, Inner Leg, and the number of Exposed Holes along the Inner Leg, as referenced in the Strength Ratings Table.

To achieve the MBS & WLL shown in the left column above, construct the Vortex configuration as identified in the Strength Ratings Table pertaining to:

- Number of Outer Legs.
- Exposed Holes along Inner Legs.
- Height to Connection Point.

\*Table represents user information based on manufacturer's internal tests only



## INSPECTION

### Before and After Each Use

Perform a visual, tactile and functional inspection of all parts. Check components for:

Check components for:

- Sharp edges
- Nicks, gouges, dings, wear, scratches or indentations deeper than 1mm
- Permanent deformation
- Misalignment of joining parts
- Legs that do not easily fit together and adjust smoothly
- Bent, twisted, distorted, stretched, elongated, cracked, or broken components
- Unauthorized replacement components
- Legibility of the product markings
- Evidence of:
  - (a). Being dropped
  - (b). Excessive loading
  - (c). Corrosion
  - (d). Exposure to heat, including weld spatter, arc strikes, or discoloration of the surface
  - (e). Unauthorized modification or repair

### VORTEX PINS

- Operation of locking pin not smooth and positive
- Locking balls not fully seated

### HEADSET PULLEY

- Misalignment or wobble in the bearing
- Excessive sheave wear
- Grooves or other deformation in the tread of the sheave
- Sharp edges on the sheave
- Rotation of the bearing not smooth and effortless

### Detailed Periodic Inspection

Any component fails inspection

It has been used to arrest a fall or has been significantly loaded

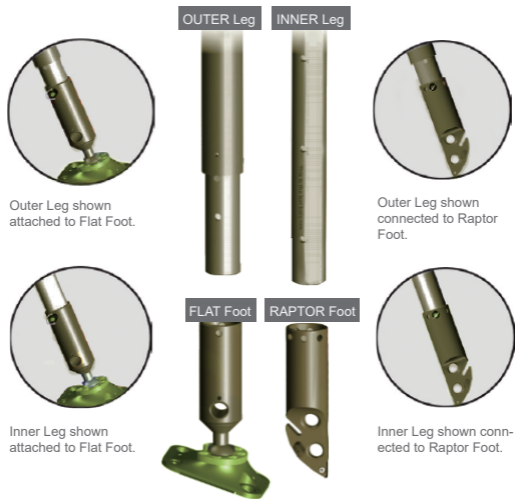
If there is any doubt about its condition.

Inspections should be performed by a competent person whose training meets the applicable standards and/or laws for the inspection of life safety equipment. An inspection log including the date, inspectors name, and result of the inspection should be kept as a permanent record. It is best to issue new equipment to each user so they know its entire history.

Repairs or modifications to the equipment are only allowed by the manufacturer or those authorized in writing by the manufacturer.

## LEGS TO FEET

Both the Raptor Foot and Flat Foot will connect with the Inner Leg and Outer Leg.



### Correct Position of FLAT Foot

The ball joint of the Flat Foot should not be set at its limit of articulation without ensuring that further movement will not occur.

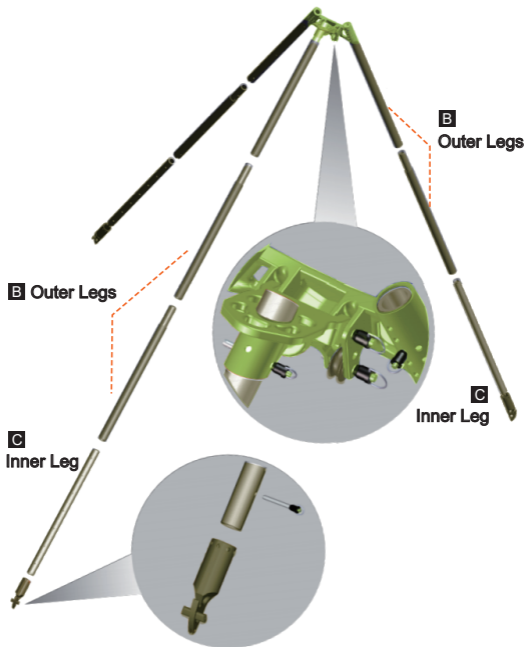


### Correct Position of RAPTOR Foot

The Raptor Foot should be positioned to ensure greatest grip onto the surface.

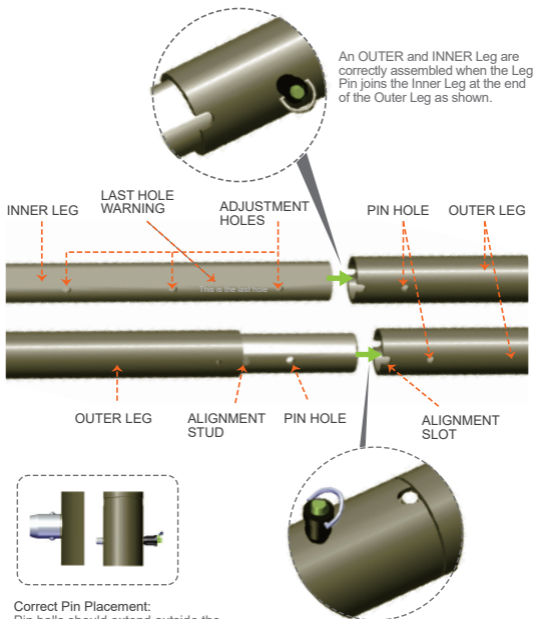
## VORTEX ASSEMBLY


- A** The A-Frame Head and Gin Pole Head pin together to construct a tripod.



## VORTEX LEGS

The Inner and Outer Legs are both CNC milled to obtain precise inner and outer dimensions. The result is legs and couplers that fit with the proper tolerance, every time.





## 3-year guarantee

If your product has a defect due to workmanship or materials please contact us for warranty service. This warranty does not cover damages caused by improper care, improper use, alterations and modifications, accidental damage or the natural breakdown of material over extended use and time.