

# NERO BOSTON

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## Boffer Weapon Safety

*Handout 1: Materials Tools and Where to Find Them.*

### ***Cores***

#### **PVC**

3/4" PVC is an excellent basic weapon core for one-handed weapons and spears.

Generally costs about \$3 for a single length

Can be found at most hardware stores in 6 to 10 foot lengths

#### **Graphite**

Good weapon core for light weapons, slightly more expensive than PVC

More brittle than PVC

Can be found in various forms for about \$6 to \$10 per sword length

#### **Aluminum**

1" or 7/8" Aluminum tubing is a good core for long weapons, particularly polearms (make sure it is an acceptable core for the game you are attending before building a weapon with an aluminum core)

Can be cut to size with a hacksaw

Costs about \$10 for a 6 foot length and can be found at some hardware stores

-most Home Depots do not carry aluminum tubing

### ***Tape***

#### **Duct Tape**

Duct tape comes in a variety of colors and sizes

-Gray, black and white are most common

-blue, red, green, brown, teal, purple, silver, camouflage, and other colors are available

-red duct tape signifies claws, try not to use it for your weapon

One average roll will cover several weapons

Gray duct tape can be found in almost all hardware and department stores

One average roll of duct tape costs \$4, a large roll is \$7 or \$8

#### **Kite Tape**

Comes in variety of colors, black is the most common

One roll will make at least one long sword

Less durable but lighter than duct tape

Costs about \$8/roll and can be found in some hardware stores and hobby shops

## ***Foam***

### **Open Cell**

Pillow cushioning

Can be found for about \$5 per scrap chunk, or buy seat cushions and cut to the size you need

Can be found at fabric and craft stores

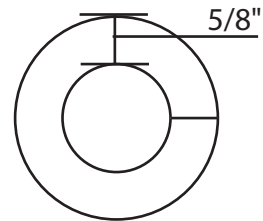
### **Pipe Insulation**

5/8<sup>th</sup> inch tube diameter (see picture)

Make sure it fits snugly the core, but not so tight that it doesn't fit

Can be found for about \$5 for 4 3' lengths at hardware stores

-most Home Depots do not carry 5/8" foam



## ***Tools***

### **Hacksaw**

Use a hacksaw or the proper specialized saw for cutting cores to the correct length.

Can be found at hardware and department stores for \$5 to \$15

### **Scissors**

An old sharp pair will serve well, since they may get "gummy" with tape glue.

Clean scissors after each use with rubbing alcohol to keep them from sticking

Can be found for about \$7 at hardware, craft, and department stores

### **Knife**

A sharp unserrated knife works well for cutting foam and tape

Clean and sharpen your knife after each use

Can be found at hardware, department, outdoor and kitchen stores

### **Exacto Knife**

A triangular pointed blade will work well for cutting and poking holes in tips

You may need to replace the blade after making a few weapons.

Clean the blades with rubbing alcohol after each use to keep it from sticking in the weapon tip

Can be found for about \$3 at hardware, craft, and department stores

### **Weather Stripping and Double Sided Tape**

Double sided tape or weather stripping will make the pipe foam fit more securely on the core

Can be found for about \$3 at hardware and department stores

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## Boffer Weapon Safety

*Handout 2: Where to find what you need*

### *Thrift Stores*

Thrift and second-hand stores are a great place to find costuming. Even though a thrift store is not a reliable source of costuming, you can find leather belts, odd boots, shirts that will pass as medieval and all sorts of other things at a great price.

### *Hardware Stores*

This is where you can find weapon-making materials. Make sure that you buy the right types of what you need. Exacto knives can be found at hardware stores as well.

### *Craft and Fabric Stores*

Your best bet for open cell foam. You can also get Exacto knives at a craft store.

### *Magic and Costuming Shops*

A local store that has supplies for magic tricks and costumes will often have the make up that you may need to play a race that requires makeup or prosthetics. Party City and other chain stores may have some things during the Halloween season, but a local store is more likely to have pancake makeup, elf ears and many other items a LARPer can use.

### *Department Stores*

Department stores such as Walmart and Kmart are likely to have plain sweat shirts and sweat pants that you won't mind getting dirty. Tights and Spandex pants can also be found for a reasonable price. A variety of notebooks, pens, and other items can be found at many of them as well.

### *www.larpware.com and other websites*

There are a number of LARP related web sites that can help you find everything from weapons to make-up. With a little research you can find finished weapons that fit your personal needs and even get them delivered to your door step. You can order armor to your specifications and find all of the trappings you might want for any character.

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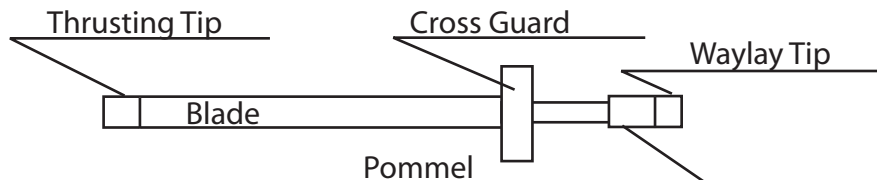
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## Boffer Weapon Safety

### Handout 3: Weapon and Shield Specifications.

#### Weapon Guidelines

All weapons have a minimum and maximum length, grip, and blade length requirements. Certain weapons including Polearms, Axes, and Maces, requires an additional part called the head. The head is a open cell foam part of the weapon that represents a striking surface. All weapons must be created with 5/8 inch wall closed cell foam. Each weapon must have both a thrusting and waylay tip. The thrusting and waylay tips are used to cap the ends of the weapons. Tips are constructed using open cell foam, approximately 2" in depth. All surfaces of the weapon must be covered with duct or kite tape. The tape should be in vertical strips running the length of the blade to avoid compacting the closed cell foam. The parts of a sword are labeled on the diagram below.



Below is a list of Minimum and Maximum sizing for many types commonly used of weapons.

Weapon	Blade/Head		Overall Length		Recommended Pipe Diameter	Max Grip	Min Tip
	Min	Max	Min	Max			
Dagger	8"	17"	12"	26"	1/2" CPVC	6"	2"
Long Axe	12"	18"	34"	46"	3/4" CPVC	14"	2"
Long Mace	12"	18"	34"	46"	3/4" CPVC	14"	2"
Long Sword	25"	36"	34"	46"	3/4" CPVC	14"	2"
Polearm	18"	24"	60"	72"	1" PVC or Conduit	36"	3"
Sap	8"	17"	12"	26"	1/2" CPVC	6"	2"
Short Axe	12"	18"	26"	34"	1/2 or 3/4" CPVC	14"	2"
Short Mace	12"	*	26"	34"	1/2 or 3/4" CPVC	14"	2"
Short Sword	25"	36"	26"	34"	1/2 or 3/4" CPVC	14"	2"
Spear	25"	36"	48"	58"	3/4" PVC	30"	2 1/2"
Staff			60"	72"	3/4" PVC or Conduit	2x9"	2"
Two Handed Blunt	18"	*	48"	62"	3/4" PVC	36	2"
Two Handed Sword	40"	48"	50"	62"	3/4" PVC	22	2 1/2"

\* Maximum Volume of a blunt weapon must be less than two cubic feet

#### Shield Specifications

Shields can be constructed out of almost any strong and light material. Thin sheets of corrugated plastic, metal or wood work well. The total shield size cannot be greater than 531 square inches, and the longest dimension cannot exceed 36". Any voids gaps, holes or recesses, will be included in the overall shield area. The shield must have 5/8 " thick foam surrounding the edge. No bolts or other protuberances are allowed

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## Boffer Weapon Safety

### *Handout 4: Test Your New Weapon*

You can test your weapons by checking for the following:

1. Check the tips for sharp edges, uncovered foam and general softness
2. Check the base of the tip by squeezing firmly to make sure that you cannot feel the core of the weapon
3. Make sure the length of the weapon is soft and not squished or dented
4. The thrusting tip of the weapon should be approximately 2" deep, and should be as wide as the rest of the weapon.
5. The waylay tip should be at least 1" deep and should be the same width as the rest of the weapon.
6. The closed cell foam should be firmly attached to the core of the weapon and should not slide or twist when pulled.
7. The closed cell foam should not be visible anywhere on the weapon.
8. Nowhere on the weapon should the weapon core be visible.
9. The weapon must be taped in a lengthwise manner. This reduces the weight of the weapon.
10. The waylay and thrusting tips should be firmly attached to the closed cell foam. They should not come off when pulled or twisted firmly.
11. The open cell foam should not rattle when the weapon is shaken. If it does, the foam is not fitted properly on the core.
12. No foreign objects should be put into or attached to the weapon core to balance the weapon.
13. A weapon cannot be designed to "trap" other weapons.
14. All parts of a hilt of any weapon should be made from open or closed cell foam, and should not be sharp or hard to the touch.
15. The overall weapon length should not be more than the maximum allowed. Allow for weapon tips when you measure and cut your weapon core.
16. A weapon should not bend even when swung strongly. In particular, check longer weapons for this problem.

### Maintenance

A well-made weapon should last several events without much maintenance, but you will want to check it carefully before and after each event. Store your weapons in a dry cool place, since direct sunlight can wrinkle or peel the tape. DO NOT lean your weapons on the tips when you store them, and NEVER lean on the tips.

Your weapon tips will probably have to be replaced more often than the cell foam.