

# Needle and Thread Guide

by Tippmann Industrial Products

## About Tippmann Needles and Thread

# GROZ-BECKERT®

Groz-Beckert German made needles offer the highest standard in the industry. Tippmann stocks over 5000 needles, so you can be assured that they are in stock and ready to ship.

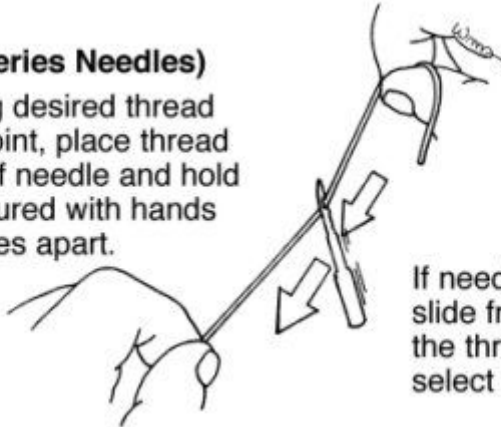


American Efrid has over 115 years of textile experience and is the industry leader in thread. Tippmann has replaced Rice Thread (they shut down operations in 2005) with American Efrid Thread. After testing several different manufacturers, the best choice by far was A & E. Tippmann is proud to distribute A & E thread and would be happy to send you a free thread sample kit.

## Selecting the Correct Needle (Rule of Thumb)

**(Recommend  
7 X 3 & 794s Series Needles)**

After selecting desired thread and needle point, place thread through eye of needle and hold thread as pictured with hands about 10 inches apart.



If needle does not slide freely down the thread — select larger needle.

## Common Thread Uses

### **415 Thread with a Size 250 Needle**

Commonly used in rated products like logging, mining, and military nylon webbing and strapping.

### **346 Thread with a Size 230/250 Needle**

Commonly used for mule and other heavy duty tack. Also used in boot and shoe applications.

### **277 Thread with a Size 200 Needle**

Is the most commonly used thread size in leather crafting from saddle and tack, boot and shoe, gun and knife, and all other kinds of craft and industrial applications.

### **207 Thread with a Size 180/200 Needle**

A favorite size thread for saddle bags, purses, and other thin material crafting.

### **138 Thread with a 160 Needle**

Used mostly in belts, billfolds, purses and other thin material crafting.

### **99 Thread with a 130 Needle and 69 Thread with a 110 Needle**

Is seldom used in leather applications unless the stitch is not to be a major part of the final design. This combination is more commonly used in fabric, vinyl, and other thin material applications.

**Note:** Your bobbin thread tension will require readjustment when using smaller thread diameters, such as 69 or 99, in the bobbin.

## Round Point vs. Chisel Point

**There are two different styles of needles used in the Tippmann Boss.**

The Round Point needles are "universal" needles, and work well in just about any material, including rubber, vinyl, cloth, leather, etc.

The Chisel Point needles are used specifically for leather. Instead of punching a hole in the material like a round point, it "slices" through the leather. This can prevent bottom side "blowout" on dry and hard leathers. Chisel point needles are not recommended for woven fabrics such as nylon halters because it slices the strands of nylon. If your style of sewing requires a short stitch length (10 per inch or more), you should not use a chisel point needle because the material can tear from hole to hole. The Round Point is better for this application.

When ordering needles from Tippmann, a 7x3 is a Round Point, and a 794 is a chisel point needle.

**Note:** Change your needle to a round point needle when stitching fabrics other than leather.

## Thread and Needle Combinations

Thread Size		Cord Equivalent		7 x 3 Needle	794 Leather Needle	Average Linear Density	Diameter
Old Size	TEX Size					Yards/lb	Inches
Z69	T70	F	-	7x3110	--	6450	.0090
Z99	T90		-	7x3130	--	4375	.0110
Z138	T135	U-150	-	7x3160	794160	3230	.0135
Z207	T210	U-25	3	7x3180	794200	2234	.0180
Z277	T270	U-300	4	7x3200	794200	1615	.0240
Z346	T350	U-350	5	7x3230	794250	1220	.0260
Z415	T400	U-450	6	7x3250	794250	1060	.0290

## Needle Identification

If you do not have your needle package, or if the kit provided with the Boss is open or has spilled, you may not know what type and size of needle you have. In order to identify your needle, you will need a magnifying glass or microscope. You will find a small inscription on the side (shaft) of the needle (e.g. 230 / 26), as shown in the illustration below. The first three numbers represent the size you need when ordering and the last two numbers represent the size in metric.



Needle Inscription	Needle Size	Link to Purchase	
110 / 16	7x3 110	<a href="#">7x3110</a>	
130 / 21	7x3 130	<a href="#">7X3130</a>	
160 / 23	7x3 160 or 794 160	<a href="#">7X3160</a>	<a href="#">794160</a>
180 / 24	7x3 180 or 794 200	<a href="#">7X3180</a>	<a href="#">794200</a>
200 / 25	7x3 200 or 794 200	<a href="#">7X3200</a>	<a href="#">794200</a>
230 / 26	7x3 230 or 794 250	<a href="#">7X3230</a>	<a href="#">794250</a>
250 / 27	7x3 250 or 794 250	<a href="#">7X3250</a>	<a href="#">794250</a>

Now that you know the size, you need to determine whether it is a round point needle or a chisel point. A Round Point needle has a sharp point and the cross section of the needle is round. A chisel point needle does not have a sharp point and the cross section of the needle is not round, but arched.



Round Point Needle (7x3)



Chisel Point Needle (794)