



TOWERDRAW TC-88 & TC-89

TOWERDRAW TC-88 and **TC-89** are a modified complex chemical soap, water soluble paste, formulated as a lubricant for metal forming. They provide a strong barrier film, high degree of lubricity, and extreme pressure protection for the tooling. **TOWERDRAW TC-88** and **TC-89** are primarily intended as a mandrel lubricant for tube and pipe bending and for end forming operations. They can be used on a wide variety of metals including; ferrous, stainless steel, aluminized, titanium, inconel, aluminum, and copper alloys. The only difference between the two products is the **TOWERDRAW TC-89** contains a solid film lubricant, PTFE, to reduce the Coefficient of Friction and improve the lubricant film strength. **TOWERDRAW TC-89** should be used on higher strength materials and on more difficult bends.

USAGE

TOWERDRAW TC-88 and **TC-89** are normally used as supplied, but may be diluted with water by *adding water to the paste with agitation*. It must be mixed in this order to form a stable emulsion. They can be applied by hand or brush or pumped through the mandrel for draw bending applications. **TOWERDRAW TC-88** and **TC-89** do not harden in the drum, mandrel, or on the tooling. Use equipment rated for pumping NLGI #1 grease for pumping. They are easy to clean with a mild alkaline cleaner such as **TOWERKLENE 42-A** or **246-A**.

TOWERDRAW TC-88 and **TC-89** are normally best if used within six months of the manufacture date. Keep containers sealed when not in use.

PHYSICAL CHARACTERISTICS

Appearance	Pale Yellow Paste
Odor	Mild
Density	0.94 g/ml 7.8 lbs/gal

BENEFITS

- Does Not Contain Chlorine or Sulfur
- Contains No Hazardous Ingredients
- Can be Pumped or Hand Applied
- Weld Through Without Cleaning
- Does Not Harden Like Pigmented Lubes
- High Performance Lubricant For Draw Bending
- Cleans in Aqueous Wash Systems
- Is Operator Friendly

TECHNICAL SUPPORT

TOWER wants to assist you in evaluation and selection of suitable products. We urge you to take advantage of this service. This information sheet and **TOWER's** assistance, however, are not a substitute for your own testing and evaluation. 12242