



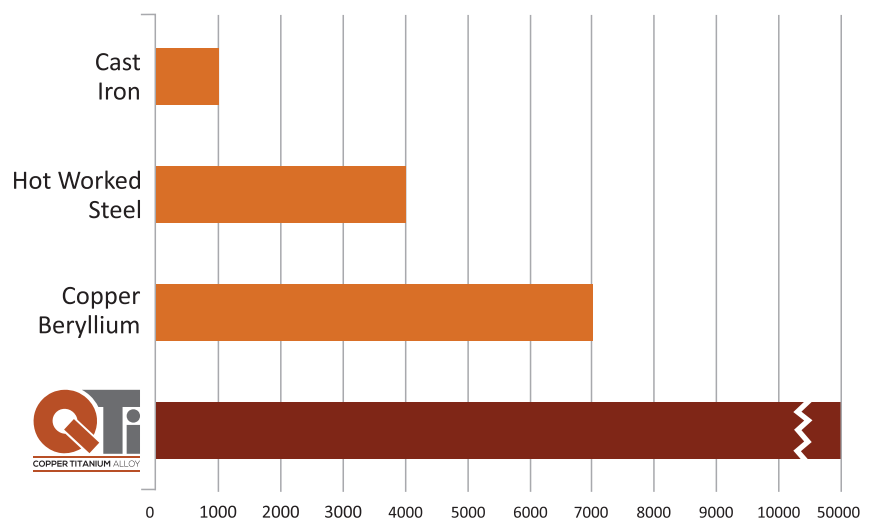
# PLUNGER TIPS

- Plunger Tips are critical part of high pressure aluminium/zinc die casting (HPDC) process.
- Plunger tips are used to push molten aluminium/zinc through a toolsteel sleeve into die cavities to form intricate parts.
- Beryllium Copper Plunger Tips have been the standard of the Die Casting Industry for the past 30 years.
- Cast Iron and ToolSteel plungers have been used to overcome the disadvantages of cost of CuBe Plungers.
- Cast Iron Plungers are relatively inexpensive but wear out more frequently and have to be replaced regularly (approx. after every 1000 to 2000 shots), thereby increasing downtime & lowering productivity.

## Performance of Copper Titanium (QTI) Plungers over other materials

- | QTI Plunger Tips generally give a life of more than 10 times shots which can go upto 50 times in some cases. (Compared to cast iron plungers)
- | QTI Plunger are manufactured from a unique Copper Titanium provides High Strength & Hardness and have very good thermal conductivity (compared to Cast Iron) characteristics which allows to cool the tip quickly for next shot, thereby reducing cycle times and increased life. This reduce wear of the plunger and also the shot sleeve.
- | QTI Alloy is beryllium free and is **more economical** than Copper Beryllium, increases productivity and reduces costs. There is a significant reduction in per part tooling cost.

Plunger Tips (#of Shots)



# WARNING!

INHALING BERYLLIUM DUST OR FUMES MAY CAUSE SERIOUS, CHRONIC LUNG DISEASE AMONG EXPOSED WORKERS. THIS LUNG DISEASE CAN BE FATAL.

## DISADVANTAGES : Copper Beryllium (CuBe)

- Needs precautions while machining and handling
- Creates an inhalation hazards known as Chronic Beryllium Disease (CBD)
- CBD may occur among people who are exposed to the dust or fumes from beryllium metal, metal oxides, alloys, ceramics or salts
- Latest research shows skin can be a route to CBD
- Expensive material
- High cost of compliance to safety standards



# COPPER TITANIUM

## TECHNOLOGY DEVELOPED BY DRDO



Beryllium Free



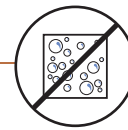
Non-Sparking



Non Magnetic



High Strength



Corrosion Resistant



Good Conductivity

## ABOUT US

Pahwa MetalTech Pvt. Ltd. was incorporated in 2014 by experienced techno-managerial entrepreneurs with over 40 years of experience in engineering with a vision to become a leader in manufacturing high strength copper alloys.

Pahwa MetalTech has obtained an exclusive licence from DRDO (Defence Research & Development Organization) of a technology to manufacture high strength Copper Titanium alloys.

## OTHER PRODUCTS



Non-Sparking Hand Tools



Resistance Welding Products



MIG Welding Contact Tips



Plunger Tips



Dies and Moulds



Valve Seats



Electrical Contacts



Special Applications



### Manufacturing Unit:

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### Connect with us:

