

# HRT – HEAT RESISTANT TECHNOLOGY XTRA LONG LIFE CONTACT TIP



## FEATURES

- Superior hardness and wear resistance.
- High electrical conductivity for improved arc starting.
- High performance, unaffected by higher operating temperatures.
- Outperforms Other Tip Materials
  - 5X the life over C12200 copper
  - 3X the life over CRZR and CUCRZR
- Mandrel Drawn for superior bore tolerance and finish.
- Substantially increases scheduled cycle time tip change-outs
- Lower operating costs and reduce downtime from arc failures and unscheduled tip changes.
- Manufactured in Sharon Center, Ohio

**NEW Advanced Contact Tip  
Technology for High Wear  
Resistance and Superior Electrical  
Conductivity.**

**AMERICAN WELDQUIP** introduces the **HRT – HEAT RESISTANT TECHNOLOGY** Xtra Long Life contact tips that are proven to outlast standard C12200 Copper and Copper Chrome Zirconium Contact Tips.

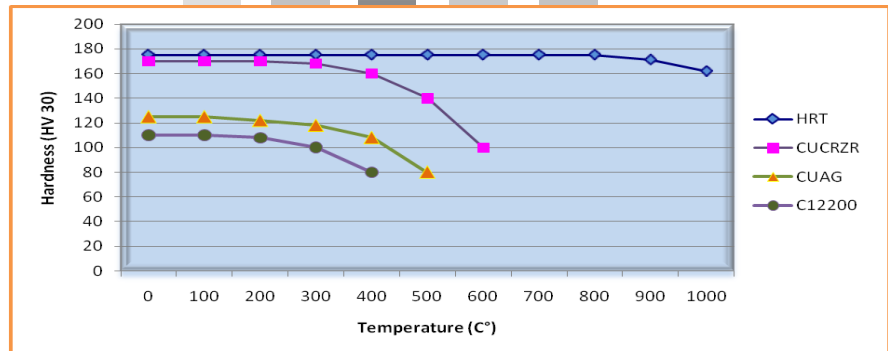


The **AMERICAN WELDQUIP** HRT contact tips provide the ideal combination of hardness, conductivity and high temperature stability. The HRT tip special material formulation maintains its hardness at elevated temperatures thus offering superior wear characteristics and electrical conductivity.

## What is HRT – Heat Resistant Technology

Heat generated from the welding process is a major influence affecting your contact tip life. This heat tends to anneal and soften the copper tip material thus increasing the weld wire abrasion, micro arcing, and decreased conductivity on the ID bore causing premature tip failure. The higher the operating temperature the worse the performance. Different tip material formulations, such as Copper Chrome Zirconium, have been used over the years to increase hardness and help improve tip life.

Hardness at Operating Temperatures



While the introduction of different tip materials may improve wear resistance in certain applications, the harder material with a higher annealing temperature sacrifices electrical conductivity which can lead to poor arc starting characteristics.

The NEW **AMERICAN WELDQUIP HRT** contact tips are engineered to provide unsurpassed resistance to annealing at high operating temperatures while maintaining excellent electrical conductivity.

The outer shell of the tip is made from highly conductive copper for superior electrical conductivity. The inside diameter is comprised of mechanically alloyed copper based compounds. These special copper based composite materials provide a stable microstructure at elevated operating temperatures guaranteeing the high hardness, wear resistance and high electrical conductivity.

The tip material is then produced by cold pressing the outer highly conductive copper and the inside diameter composite material. The final finished copper rod is then mandrel extruded to insure a finished tip with excellent ID surface finish and concentricity.

### HOW TO ORDER

PART NUMBER	WIRE SIZE	NOMINAL ID	NOMINAL OD	TIP LENGTH	THREAD	FRONT CONFIGURATION
20030400	.030"(8mm)	.037"(.94mm)	.315"(8mm)	.908"	M8	3mm Radius
20035400	.035"(.9mm)	.041"(1.05mm)	.315"(8mm)	.908"	M8	3mm Radius
20040400	.040"(1.0mm)	.050"(1.28mm)	.315"(8mm)	.908"	M8	3mm Radius
20045400	.045"(1.2mm)	.054"(1.36mm)	.315"(8mm)	.908"	M8	3mm Radius
20035500	.035"(.9mm)	.041"(1.05mm)	.393"(10mm)	.775"	M8	3mm Radius
20035500T	.035"(.9mm)	.041"(1.05mm)	.393"(10mm)	.775"	M8	Tapered
20040500	.040"(1.0mm)	.050"(1.28mm)	.393"(10mm)	.775"	M8	3mm Radius
20040500T	.040"(1.0mm)	.050"(1.28mm)	.393"(10mm)	.775"	M8	Tapered
20045500	.045"(1.2mm)	.054"(1.36mm)	.393"(10mm)	.775"	M8	3mm Radius
20045500T	.045"(1.2mm)	.054"(1.36mm)	.393"(10mm)	.775"	M8	Tapered
20052500	.052"(1.3mm)	.061"(1.55mm)	.393"(10mm)	.775"	M8	3mm Radius
20052500T	.052"(1.3mm)	.061"(1.55mm)	.393"(10mm)	.775"	M8	Tapered
20062500	1/16"(1.6mm)	.069"(1.75mm)	.393"(10mm)	.775"	M8	3mm Radius
20062600	1/16"(1.6mm)	.069"(1.75mm)	.472"(12mm)	.910"	M10	Tapered