

MCPT - METAL CERAMIC PROTECTION TUBES

#1	SERIES	
5G	Metal Ceramic Protection Tube 5/8" ID x 7/8" OD, 3/4" NPT Conduit Connector	
	#2	LENGTH (L)
	1	9"
	2	12"
	3	18" (Standard)
	4	30" (Standard)
	5	36"
	6	48" (Standard)
	X	Other, specify

Note: Length measured from bottom of threads to closed end.

5G	3	
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The MCPT consists of a hard abrasion-resistant chromium and alumina oxide material. It has good strength at temperatures where many high-temperature metals melt. It is more susceptible to thermal shock than a metal protection tube, however, more resistant to shock than a ceramic protection tube.

The MCPT exhibits good wear resistance and abrasion resistance. It has a hardness of Rockwell C37, which indicates the crushing strength of the material rather than the true hardness of the entire body.

This protection tube serves as an excellent option in the following applications:

RECOMMENDED APPLICATIONS

1. Molten copper and brass to 2100°F intermittent and continuous immersions.
2. Corrosive SO₂ and SO₃ gas (to 2200°F) and SO₃ and HF gas (to 2000°F).
3. Open hearth furnace checker chambers to 2200°F.
4. Steel mill soaking pits to 2200°F.
5. Pelletizing chamber of Taconite refining operation to 2100°F.
6. Molten zinc to 1600°F.
7. Molten lead to 650°F.
8. Basic steels and slags to 300°F (intermittent and 2200°F (continuous in open hearth and general foundry practices).
9. Calcining kilns to 2200°F.
10. Barium titanate (barium oxide service to 2200°F).
11. Magnesium oxide calcining kilns.
12. Fluid bed cement process with severe corrosion and temperature to 2200°F (fluid method of producing builder's cement).
13. Gas and ethylene cracking atmosphere.
14. Atmosphere directly upon burning sodium (1800-2200°F).
15. Oil fired furnace chambers.
16. Atmosphere directly above molten glass in an open hearth glass furnace.
17. Molten silver solder.
18. Molten tin.
19. Borax flux.
20. Copper matte.
21. Boiling sulphuric acid-97%.
22. Blast furnace stove dome and bustle pipes.

NON-RECOMMENDED APPLICATIONS

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| 1. Molten aluminum. | 7. Boiling sulphuric acid-10%. |
| 2. Cryolite. | 8. Carburizing atmospheres. |
| 3. Tin (stannous) chloride (750°F). | 9. Nitriding atmospheres. |
| 4. Acid slag. | 10. Barium chloride salt bath. |
| 5. Carbide slag. | 11. Sodium Nitrate-nitrate salt bath. |
| 6. Molten glass. | |

This protection tube is most commonly used in molten metal applications. It is less common than ceramic and metal protection tubes in industrial application.

—5/8" I.D. x 7.8" O.D., 3/4" conduit connector.

—Any length.

—Accepts 8 gauge wire or smaller

—Superior oxidation resistance up to 2200°F.

—Above 2800°F, softening begins.

—Suggested pre-heating of tube to 900°F if application involves immersion in molten metal 2000°F or higher.

—Impermeable except under high vacuum.

—Maximum recommended continuous operating temperature is 2500°F.

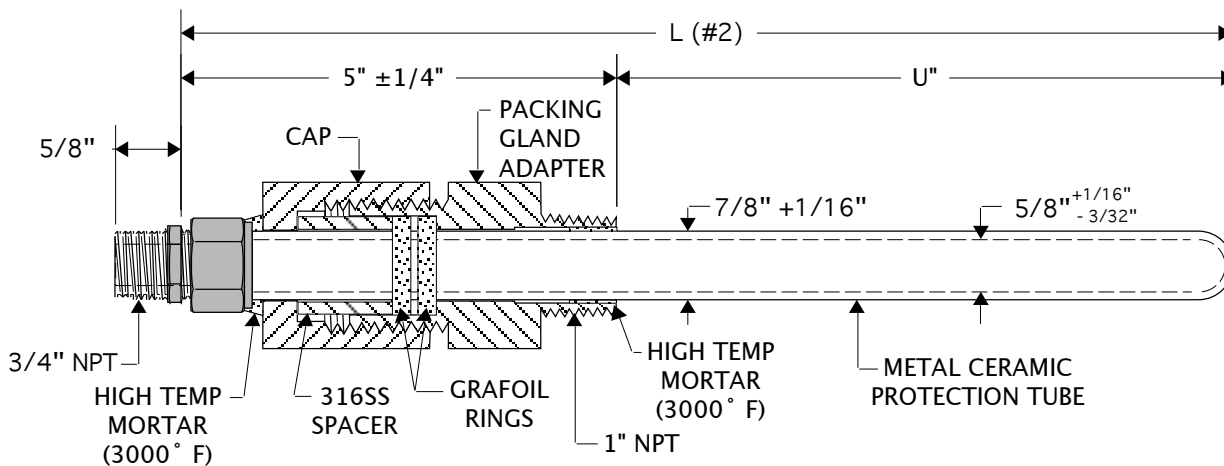
Note: A special fitting is available that is recommended for extreme conditions. See page 5-14 for additional information.

*UCAR® LT-1 Metal Ceramic is a product of Union Carbide Corp.

MCPT WITH OPTIONAL FITTING

JMS Southeast, Inc. offers the special optional fitting pictured below for mounting the metal ceramic protection tube in high temperature sealed environments.

The minimum "U" length available is 2.35".



SECTION 5

#1	SERIES		
5J	Metal Ceramic Protection Tube With Optional Fitting		
	#2	LENGTH (L)	
	1	9"	
	2	12"	
	3	18" (Standard)	
	4	30" (Standard)	
	5	36"	
	6	48" (Standard)	
	X	Other, specify	

5J	3	
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