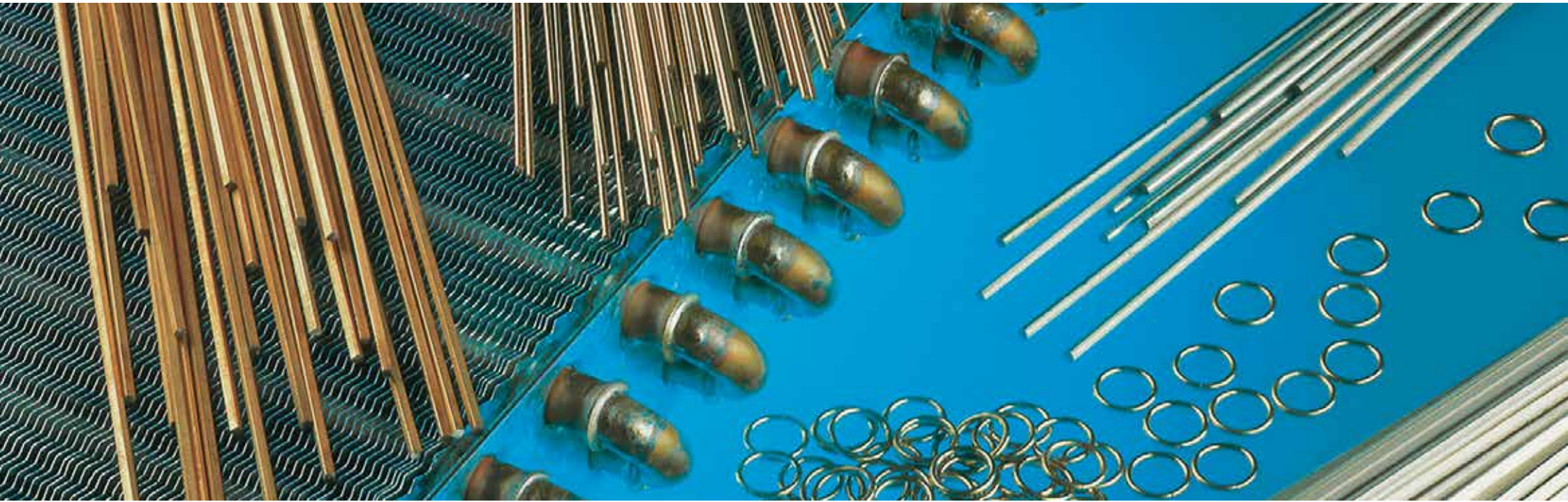




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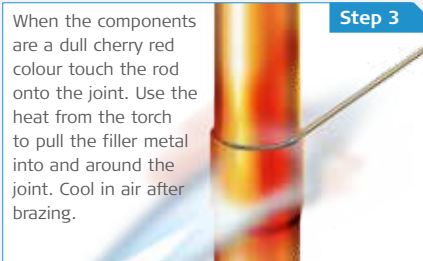
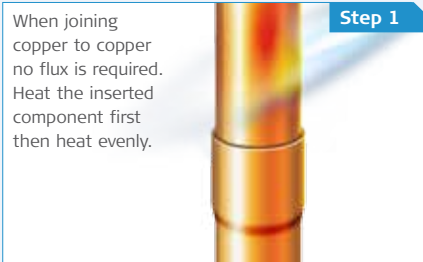


BRAZING SOLUTIONS FOR
REFRIGERATION
AIR-CONDITIONING
HEAT EXCHANGERS

BRAZING SOLUTIONS FOR REFRIGERATION, AIR-CONDITIONING & HEAT EXCHANGERS

Copper Phosphorus Brazing Rods

Copper phos rods such as Sil-fos™ 5 or Copper-flo™ No.3 are suitable for flux free brazing of copper pipes and tubes. Follow the technique shown below:-



Silver-flo™ 40 – Silver Brazing Filler Metal

Silver-flo™ 40 is a cadmium-free general-purpose filler metal with medium flow and melting properties. Use either as a bare rod with Easy-flo™ Flux Powder or as a flux coated rod. Will join common engineering metals- steel, brass, bronze, copper etc. Silver-flo™ 55, 38 and 302 can also be used for this purpose.

Melting Range	650-710°C
EN1044:1999	AG 105
ISO 17672:2010	Ag 140

Easy-flo™ Flux Powder – Silver Brazing Flux

Easy-flo™ Flux Powder is the industry standard silver brazing flux suitable for use with Silver-flo™ 40 and other low temperature silver brazing filler metals.

Working Range	550-800°C
EN1045:1997	FH10

Sil-fos™ 5 and Copper-flo™ No.3 – Copper Phosphorus Brazing Filler Metals

Sil-fos™ 5 is the filler metal of choice for flux-less brazing of copper pipes, tubes and fittings in refrigeration, air-conditioning and heat-exchanger applications. It provides reasonable filler metal flow and joint ductility.

Melting Range	714-810°C
EN1044:1999	CP104
ISO 17672:2010	CuP 281

Copper-flo™ No 3 is a popular, economical, medium-flowing filler metal. It has a higher melting range and is less ductile than Sil-fos™ 5. It is suitable for use on copper joints that will see little or no mechanical stress.

Melting Range	714-890°C
EN1044:1999	CP203
ISO 17672:2010	CuP 179

NB: Sil-fos™ 5 and Copper-flo™ No.3 should not be used on iron (steel) or nickel based materials

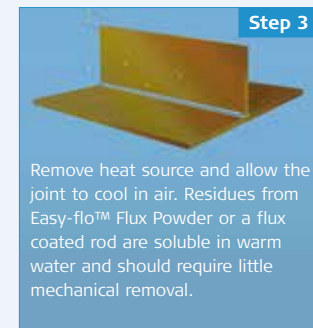
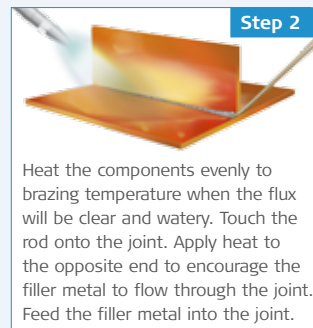
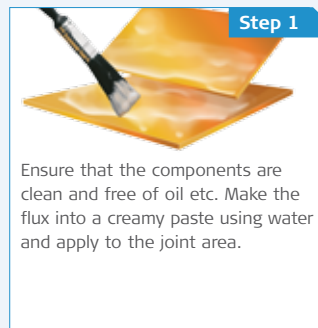
Product Selector Guide

	Copper to Copper	Copper to Brass	Copper to Steel*	Steel* to Brass	Steel to Steel*
Recommended Product	Sil-fos™ 5 or Copper-flo™ No.3	Silver-flo™ 40 or Sil-fos™ 5 or Copper-flo™ No.3	Silver-flo™ 40	Silver-flo™ 40	Silver-flo™ 40
Flux Required	X	✓	✓	✓	✓

* Stainless steel brazed joints that will subsequently be exposed to water or a wet environment in service can suffer interfacial corrosion. Consult JM for advice on alloy selection

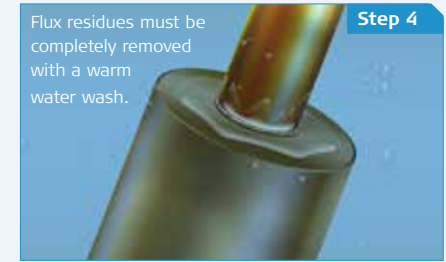
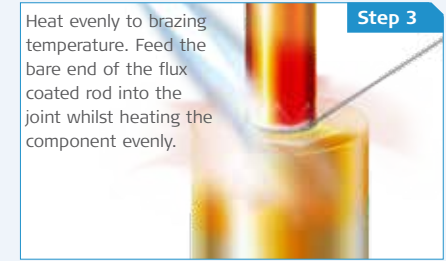
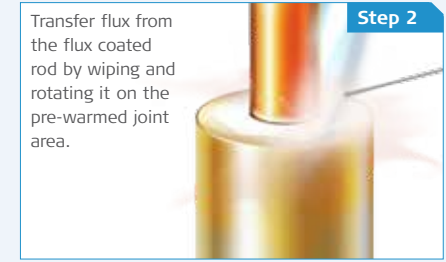
Silver Brazing Filler Metal with a Separate Flux

Silver brazing with a separate brazing flux is widely used for joining components of dissimilar size, shape and metal composition. Follow the technique shown below:-



Flux Coated Silver Brazing Rods

Flux coated rods are convenient for working onsite and for use on refrigeration systems where water should not be introduced into the pipework. Follow the technique shown below:-





Johnson Matthey
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