

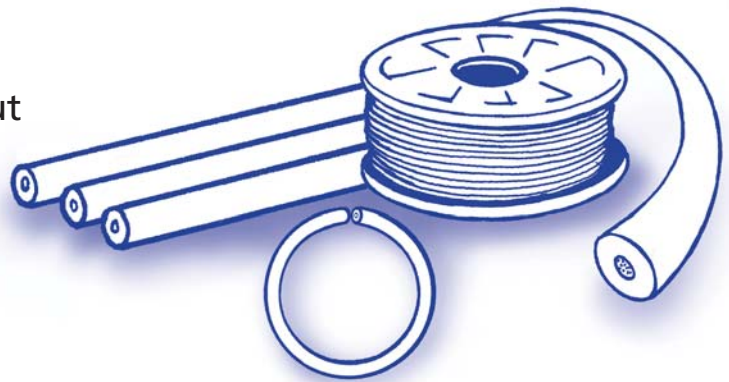


# tubular brazing wires

# tubular brazing wires by FSH WELDING GROUP



Seamless tubular wire for manual as well as automatic brazing without additional use of flux. Made according to a new technology.

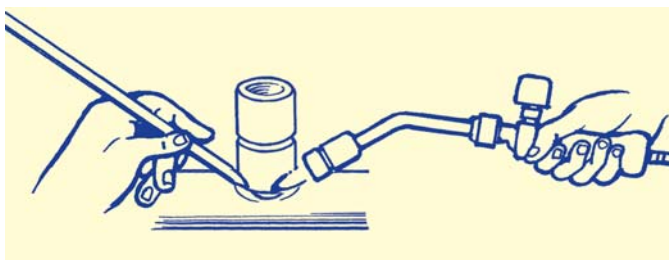


## advantages

### 7 strong points

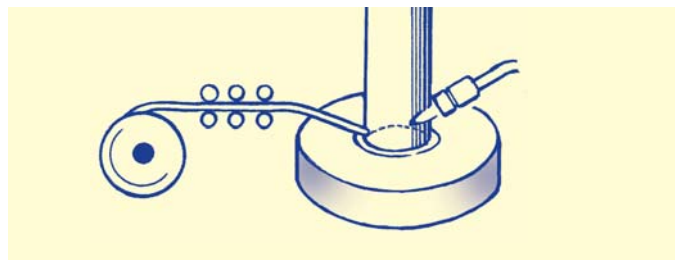
- 1 Made from seamless tubular wire**  
This ensures consistent flux to wire ratio and is especially important in the fabrication of pre-forms. Competitors' products are made from folded sheets and flux may be lost during fabrication or during transport. Our flux cored tubular brazing wires are made from seamless tubes, hence no loss of flux.
- 2 Less flux required**  
There is no loss of flux or unnecessary used flux as the needed quantity is adapted to the filler metal consumption.
- 3 Less labour required**  
Traditional applications require that the flux has to be applied first and then the wire or rod. By combining flux and filler metal only one process step is required, saving both time and effort.
- 4 Improved quality of work**  
The constant flux to wire ratio of our tubular brazing wires reduces wastage of both materials in the production process and assures a better quality of the joints. Our clients have reported better efficiency and a better quality output.
- 5 No post-braze cleaning required**  
Our tubular brazing wires contain non-corrosive flux. As a result there is no cleaning required after brazing.
- 6 Less water treatment cost**  
Without post-braze cleaning, there is also less water contamination which decreases your company's water treatment costs.
- 7 Increased savings = more profit**  
With our tubular brazing wires, you save time, labour, material and treatment costs. These savings contribute to increased profit.

## Manual applications



- The manual operator does not come in direct contact with the flux.
- No coating fragility.
- Combined advantages of soft and rigid coating.
- Flux activation prior to metal fusion.
- More active flux.
- Tubular technology ensures a longer shelf life.
- More efficient use of metal.
- Less heat required in comparison to solid wire (less mass).
- Absence of binder.
- Strong reduction in fume emissions during application.
- Strong reduction in post-braze cleaning.

## Automatic applications



- Tubular technology ensures a constant wire diameter which allows a regular wire feed.
- No brittleness related to tightening of the transport rollers.
- No need for a separate flux feeding equipment.
- Flux activation prior to metal fusion.
- No limits for the conception of pre-forms.
- Less heat required in comparison to solid wire (less mass).
- Available from diameter 1.6 mm to 3.0 mm.
- Flux metal ratio adaptable to the applications.
- Rings and other pre-forms are also available in a perforated (punched) design. The advantage of the punched products is an immediate and homogeneous flux effect.

# products available

## aluminium tubular brazing wire

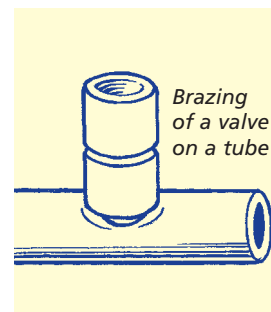
PRODUCTS	% of Al	% of Si	FLUX	Melting range
TBW HARASIL NC 12	88	12	Non-corrosive	580°C

### Description

Used for joining aluminium and aluminium alloys. The wire consist of an aluminium alloy with silicon. It is ductile, malleable and conducts both heat and electricity well. A non-corrosive flux made from aluminium and potassium fluorides is used.

### Applications

- Heat exchangers, cooling equipments
- Automobile manufacturers
- Air-condition unit manufacturers
- Refrigerator manufacturers
- Radiator and heater unit manufacturers
- Furniture manufacturers



## zinc tubular brazing wires

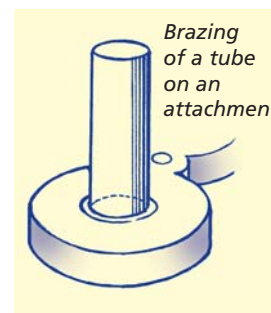
PRODUCT	% of Zn	% of Al	FLUX	Melting range
TBW ZINAL 4	98	2	ALUNOX NCS	440 - 460°C
TBW ZINAL 30 NCS	85	15	ALUNOX NCS	420 - 450°C

### Description

Used for soldering aluminium, stainless steels and other alloys. Made from seamless tubes of zinc-aluminium alloy filled with non-corrosive flux, a product from the FP Soudage range, called ALUNOX NCS, made from aluminium and caesium fluorides.

### Applications

- Heat exchangers, cooling equipments
- Automobile manufacturers
- Air-conditioning unit manufacturers
- Refrigerator manufacturers
- Radiator and heater unit manufacturers



## silver tubular brazing wires

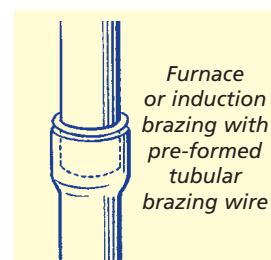
PRODUCTS	% of Ag	others	FLUX	Melting range
<b>Quaternary range with Cadmium</b>				
TBW 2040	40	Cu19-Zn21-Cd20	FH10	595 - 630°C
<b>Ternary range without Cadmium</b>				
TBW 5034	34	Cu36-Zn27-Sn3	FH10	630 - 730°C
TBW 5038	38	Cu31-Zn28,8-Sn2,2	FH10	660 - 700°C
TBW 5040	40	Cu30-Zn28-Sn2	FH10	650 - 710°C
TBW 5045	45	Cu27-Zn25-Sn3	FH10	640 - 680°C
TBW 5056	56	Cu22,5-Zn16,5-Sn5	FH10	620 - 655°C

### Description

Used for manual & automatic silver-brazing and silver braze-welding. It is used most frequently for steel and copper piping in combustible gas installations, and reparation or maintenance work. Ratio metal/flux: 93/7.

### Application

- Automobile industry
- Aeronautical industry
- Electrical household equipments
- Steel and copper piping
- Reparation and maintenance on treated steels
- Optical industry (frames...)
- Jewellery
- Precision brazing works

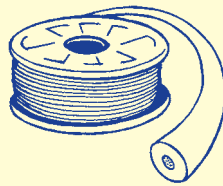


# general packaging

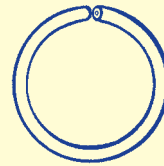
All products are available in the following presentation:



**RODS (5 kg/packet)**  
Ø 1.6 - 5.0 mm wire diameter.  
Rods are sold in 500 mm lengths.



**SPOOLS (0,5 - 7 kg/spool)**  
Ø 1.6 - 3.0 mm wire diameter.



**RINGS (1000 rings per packet)**  
Ø 1.6 - 3.0 mm wire diameter.  
Ø 5.0 - 20.0 mm interior ring diameter.  
**OTHER PRE-FORM SHAPES**  
Oval, clip...

**Other special lengths, diameters, spools and shapes available on request.**



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