HOBART
FILLER METALS

MEGAFIL® Seamless Flux- and Metal-cored Welding Wires

Hobart Filler Metals — Your Route to Full Performance in Welding

At Hobart we are passionate about welding and this is reflected by our unique offering to the market. When you use Hobart's best in class welding consumables or Miller's welding equipment, you will enjoy the most advanced and productive products.

Hobart is a recognized leader in the development of filler metal technologies and has the expertise to address the toughest welding challenges. Under this brand, we have been bringing together a wealth of welding expertise and consumables with unequalled welding performance since 1917.

Special wires have been developed to meet specific requirements of demanding industries, such as offshore, oil & gas and pipe mills. Hobart welding consumables are manufactured using state-of-the-art production technology. They carry the name MEGAFIL for the advanced range of low-hydrogen cored wires.

Hobart MEGAFIL® seamless flux- and metal-cored products are brought to the market supported by a dedicated team of specialists, capable of providing integrated welding solutions. Partnering with ITW Welding, you will have the deep knowledge and experience of our engineers at your side, along with a fully equipped laboratories for sound application research.

Hobart Welding is a total solution provider for welding processes, including welding heads, torches, tractors, orbital welding equipment, column & booms, ceramic backings, flux drying, handling equipment and preheating equipment. The offer includes engineering and automation and turnkey solutions, making us the ideal partner for one-stop shopping.

Contact us and discover ways to optimize your existing processes to their full potential.

MEGAFIL® – A PRODUCT OF HOBART FILLER METALS – **WELCOMES YOUR CHALLENGES**

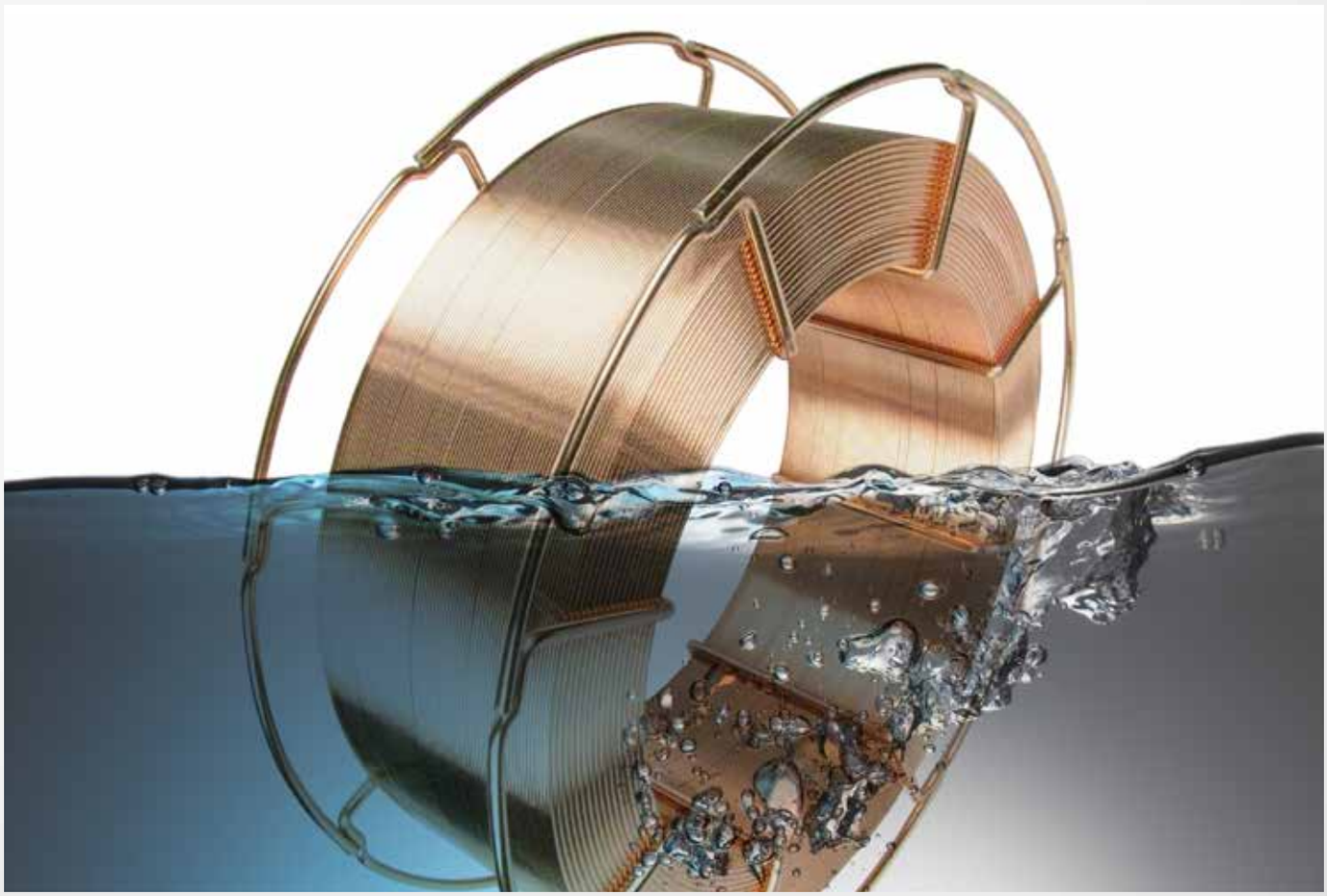
MEGAFIL® Characteristics and Advantages

Guaranteed no moisture pick-up

Hobart MEGAFIL seamless flux- and metal-cored wires are hermetically sealed and totally insensitive to moisture absorption, even under extreme climatic conditions with tropical temperatures and very high relative humidity. The filling remains dry throughout the entire process of storage and use in welded fabrication, preventing hydrogen induced cracking caused by moisture in the consumable. MEGAFIL cored wires require no special storage conditions. Re-drying prior to use is never recommended.

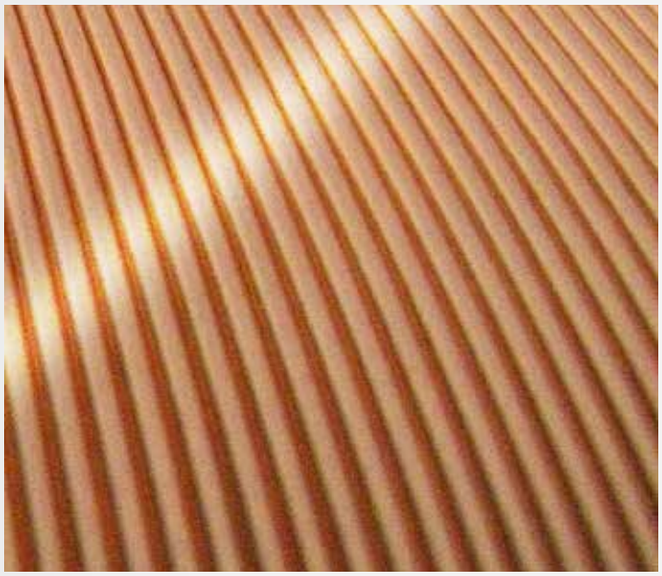
The special MEGAFIL® manufacturing technology enables production of cored wires with these and other unique advantages for end users.

- **Prevention of hydrogen-induced cracking. Weld metal hydrogen content tested according to EN and AWS is below 4 ml/100 g weld metal. Typical values below H3.**
- **No special storage conditions required. Can be stored like solid wires for an extended period, with a minimized risk of moisture absorption.**
- **Resistance to moisture pick-up when mounted on wire feeder, out of packaging.**
- **No discontinuities in the filling. Dependable weld metal properties.**
- **Copper coating for optimal current transfer from contact tip to wire and for reduced contact tip wear.**
- **Carefully controlled cast, helix and diameter gives good wire feeding and straight delivery at contact tip. Ideal for robotic welding.**



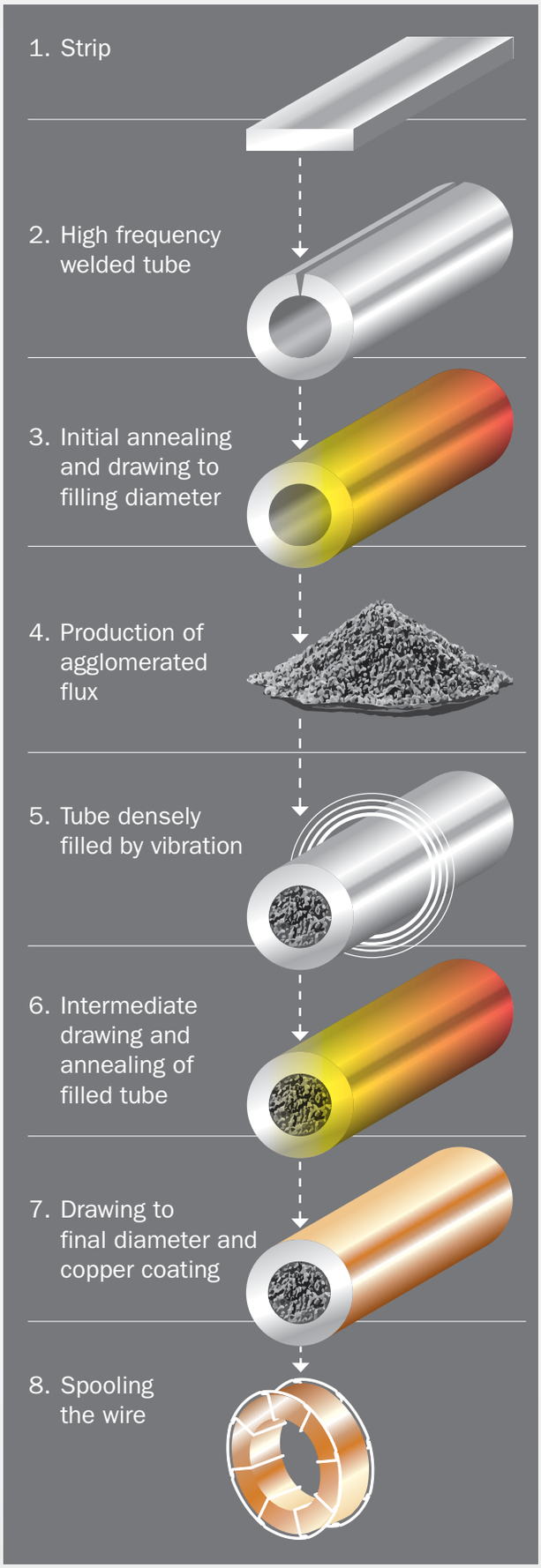
MEGAFIL® Production Technology

The unique production technology ITW Welding utilizes to manufacture MEGAFIL® seamless flux- and metal-cored wires results in valuable product benefits for end users. Strips are folded round, closed by high frequency welding and drawn to filling diameter.



In the next step, the tube is filled with agglomerated flux by means of a vibration system. In several steps the wire is annealed, drawn to final diameter and finally copper-coated.

Subsequently, the wire is precision layer-wound onto various spool sizes. The result is a completely sealed cored wire with extreme resistance to moisture absorption during storage and use.



Product Description

MEGAFIL 710 M
AWS E70C-6M H4

Metal-cored wire for carbon steel application. Excellent impact toughness properties down to -40°F. Suitable for robot applications. Ideal for use in short and spray arc. For mixed gas 75-95% Argon (Ar)/Balance Carbon Dioxide (CO_2).

Applications
- Automatic and mechanized welding
- Heavy equipment
- Process piping
- General fabrication
- Root pass welding on pipe

DIAMETERS AND PACKAGES*		
Diameter	11lb (5kg) Spool	35lb (16kg) Spool
0.045" (1.2mm)	71006	71009

MEGAFIL 240 M
AWS E80C-Ni1 H4

Low alloyed metal-cored wire with 1.0 %Ni. Excellent impact toughness properties down to -50°F. Suitable for robot applications. Ideal for use in short arc and spray arc. For mixed gas 75-95% Argon (Ar)/Balance Carbon Dioxide (CO_2).

Applications
- Automatic and mechanized welding
- Root pass welding on pipe
- Steel structures
- Offshore

DIAMETERS AND PACKAGES*		
Diameter	11lb (5kg) Spool	35lb (16kg) Spool
0.045" (1.2mm)	24006	24009

MEGAFIL 940 M
AWS E80C-Ni2 H4

Low alloy metal-cored wire with 2.0% Ni for applications such as low service temperatures, offshore, and shipbuilding. Low temperature toughness properties down to -80°F. For mixed gas 75-95% Argon (Ar)/Balance Carbon Dioxide (CO_2).

Applications
- Offshore
- Shipbuilding
- Low service temperatures

DIAMETERS AND PACKAGES*		
Diameter	11lb (5kg) Spool	35lb (16kg) Spool
0.045" (1.2mm)		94009

MEGAFIL 1100 M
AWS E120C-K4 H4

Low alloy metal-cored wire for high strength steel with tensile requirements greater than 120ksi. A higher deposition rate wire suitable for robot applications, and ideal for use in short and spray arc. Excellent impact toughness properties down to -40°F. For mixed gas 75-95% Argon (Ar)/Balance Carbon Dioxide (CO_2).

Applications
- High strength steel
- Heavy equipment
- Vessels

DIAMETERS AND PACKAGES*		
Diameter	11lb (5kg) Spool	35lb (16kg) Spool
0.045" (1.2mm)		11009

MEGAFIL 713 R
AWS E71T-1M/-1C/-9M J/-9C/-12M/-12C H4

A rutile flux-cored wire for carbon steel applications. Fast freezing slag for higher deposition rate in all position welding. For mixed gas 75-95% Argon (Ar)/Balance Carbon Dioxide (CO_2) and 100% Carbon Dioxide (CO_2).

Applications
- Automatic and mechanized welding
- Steel structures
- Offshore
- General fabrication

DIAMETERS AND PACKAGES*		
Diameter	11lb (5kg) Spool	35lb (16kg) Spool
0.045" (1.2mm)	71306	71309

Product Description

MEGAFIL 821 R
AWS E81T1-Ni1M J H4

Low alloyed flux-cored wire with 1.0% Ni for high strength low alloy steel. Rapidly solidifying slag for higher deposition rate in all position welding. For mixed gas 75-95% Argon (Ar)/Balance Carbon Dioxide (CO_2). Excellent impact toughness properties down to -40°F with mixed gas.

Applications
- Automatic and mechanized welding
- Offshore
- Pipeline
- Structural steel
- Mixed gas applications

DIAMETERS AND PACKAGES*		
Diameter	11lb (5kg) Spool	35lb (16kg) Spool
0.045" (1.2mm)		82109
1/16" (1.6mm)		82133

MEGAFIL 822 R
AWS E81T1-Ni1C H4

Low alloyed flux-cored wire with 1.0% Ni for high strength low alloy steel. Rapidly solidifying slag for higher deposition rate in all position welding. For 100% Carbon Dioxide (CO_2).

Applications
- Automatic and mechanized welding
- Offshore
- Pipeline
- Structural steel
- CO_2 applications

DIAMETERS AND PACKAGES*		
Diameter	11lb (5kg) Spool	35lb (16kg) Spool
0.045" (1.2mm)		82209
1/16" (1.6mm)		82233

MEGAFIL 550 R
AWS E91T1-K2M-J H4

Low alloyed flux-cored wire with an Mn-Ni-Mo weld deposit for high strength steel requiring greater than 90ksi tensile strength. Fast freezing slag for higher deposition rate in all position welding. For mixed gas 75-95% Argon (Ar)/ Balance Carbon Dioxide (CO_2). Excellent impact toughness properties down to -40°F.

Applications
- High strength low alloy steels
- Offshore
- Automatic and mechanized welding
- Shipbuilding

DIAMETERS AND PACKAGES*		
Diameter	11lb (5kg) Spool	35lb (16kg) Spool
0.045" (1.2mm)		55009

Storage

Hobart MEGAFIL seamless flux- and metal-cored wires are hermetically sealed and resistant to moisture absorption. They can be stored for an extended period of time, like solid wire. However, they are copper-coated and direct contact with any liquid – particularly water – must be avoided to prevent the formation of rust on the wire surface. Rust is a potential source of weld metal hydrogen, but it can also cause poor wire feeding.

It is therefore recommended to store MEGAFIL wires in a dry area – away from weather influences – and in their original packaging. Any sudden drop in temperature should be avoided to prevent the formation of condensation. Partly used wire spools must be re-packed in their original plastic bag, carefully sealed, and stored in their original cardboard boxes.

Summarized MEGAFIL storage and handling recommendations are:

- **Store wires under dry conditions in the original sealed packaging.**
- **Avoid contact between wire and substances such as water or any other kind of liquid, vapor, oil, grease or corrosion.**
- **Do not touch the wire surface with bare hands.**
- **Avoid exposure of the wire below dew point. Do not leave unprotected wire spools in workshops overnight.**

Packaging Information

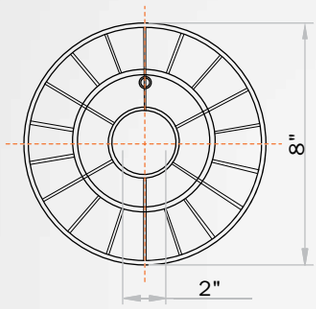
Flux-Cored Wires	AWS Class	Part # KD200 0.045" (1.2mm)	Part # K3000 0.045" (1.2mm)	Part # K3000 1/16" (1.6mm)
MEGAFIL 713 R	E71T-1M /-1C /-9M J /-9C /-12M/-12C H4	71306	71309	
MEGAFIL 821 R	E81T1-Ni1M J H4		82109	82133
MEGAFIL 822 R	E81T1-Ni1C J H4		82209	82233
MEGAFIL 550 R	E91T1-K2M-J H4		55009	

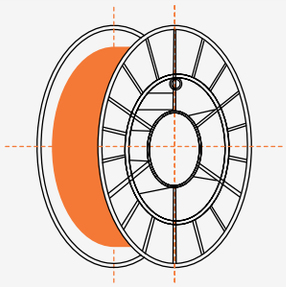
Metal-Cored Wires	AWS Class	Part # KD200 0.045" (1.2mm)	Part # K3000 0.045" (1.2mm)	Part # K3000 1/16" (1.6mm)
MEGAFIL 710 M	E70C-6M H4	71006	71009	
MEGAFIL 240 M	E80C-Ni1 H4	24006	24009	
MEGAFIL 940 M	E80C-Ni2 H4		94009	
MEGAFIL 1100 M	E120C-K4 H4		11009	

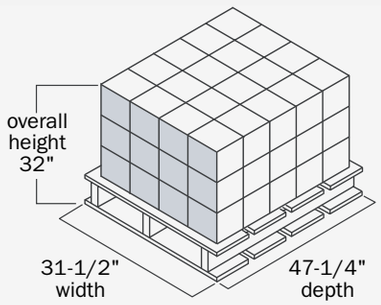
KD200 = 11lb (5kg) spools/4 spools to 1 box
K3000 = 35lb (16kg) spools

Pallet & Packaging Information

11 LB. (5 KG) SPOOLS







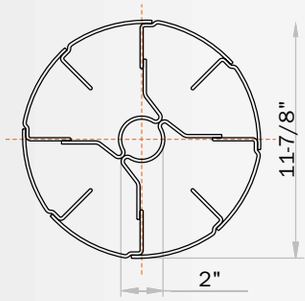
Plastic spool KD 200
Diameter: 8" (200 mm)
Width: 2-1/8" (55 mm)
Suitable for a 2" (50mm) hub

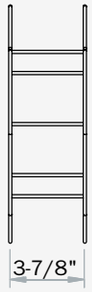
Weight: 11lb. spools, 4 to a box=2,640 lbs (1198 kg)

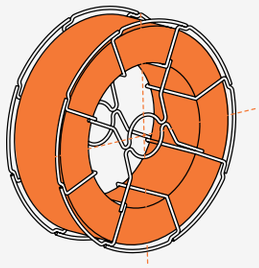
Stacking sequence: 4 wide, 5 deep, 3 high

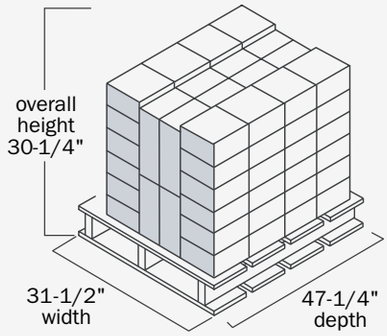
Boxes per pallet: 60

35 LB. (16 KG) SPOOLS







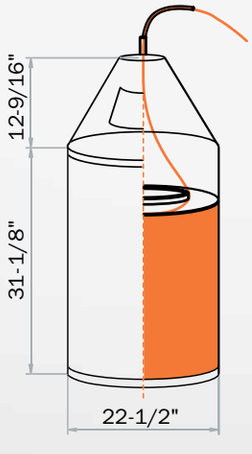


Basket rim K3000
Diameter: 11-7/8" (300 mm)
Width: 3-7/8" (98 mm)
Suitable for a 2" (50mm) hub

Weight: 2,240 lbs. (1016 kg)

Spools per pallet: 64

660 LB. (300 kg) DRUM



Diameter: 22-1/2"
(570 mm)
Overall height:
43-11/16" (1110 mm)

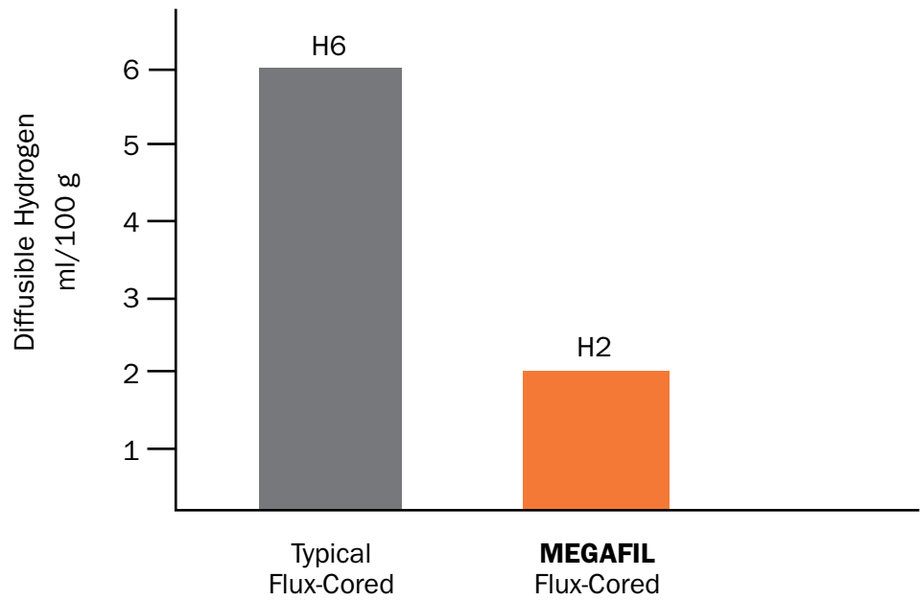
*Other types on request

The Low Hydrogen Answer

FLUX-CORED WIRES	AWS CLASS	AS RECEIVED (ml/100 g)
MEGAFIL 713 R	E71T-1M /-1C /-9M J /-9C /-12M/-12C H4	1.55
MEGAFIL 821 R	E81T1-Ni1M J H4	1.59
MEGAFIL 822 R	E81T1-Ni1C H4	2.07
MEGAFIL 550 R	E91T1-K2M-J H4	2.89

METAL-CORED WIRES	AWS CLASS	AS RECEIVED (ml/100 g)
MEGAFIL 710 M	E70C-6M H4	3.05
MEGAFIL 240 M	E80C-Ni1 H4	1.48
MEGAFIL 940 M	E80C-Ni2 H4	1.33
MEGAFIL 1100 M	E120C-K4 H4	

Standard flux-cored hydrogen values vs. MEGAFIL



Notes

MEGAFIL® Seamless Flux- and Metal-cored Welding Wires

HobartBrothers.com/Megafil

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