



**MEGAFIL[®] Seamless
Flux-Cored 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, 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—especially the MEGAFIL range of seamless, 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. By partnering with Hobart, you will have the deep knowledge and experience of our engineers at your side, along with fully equipped laboratories for application research.

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

Minimal moisture pick-up guaranteed

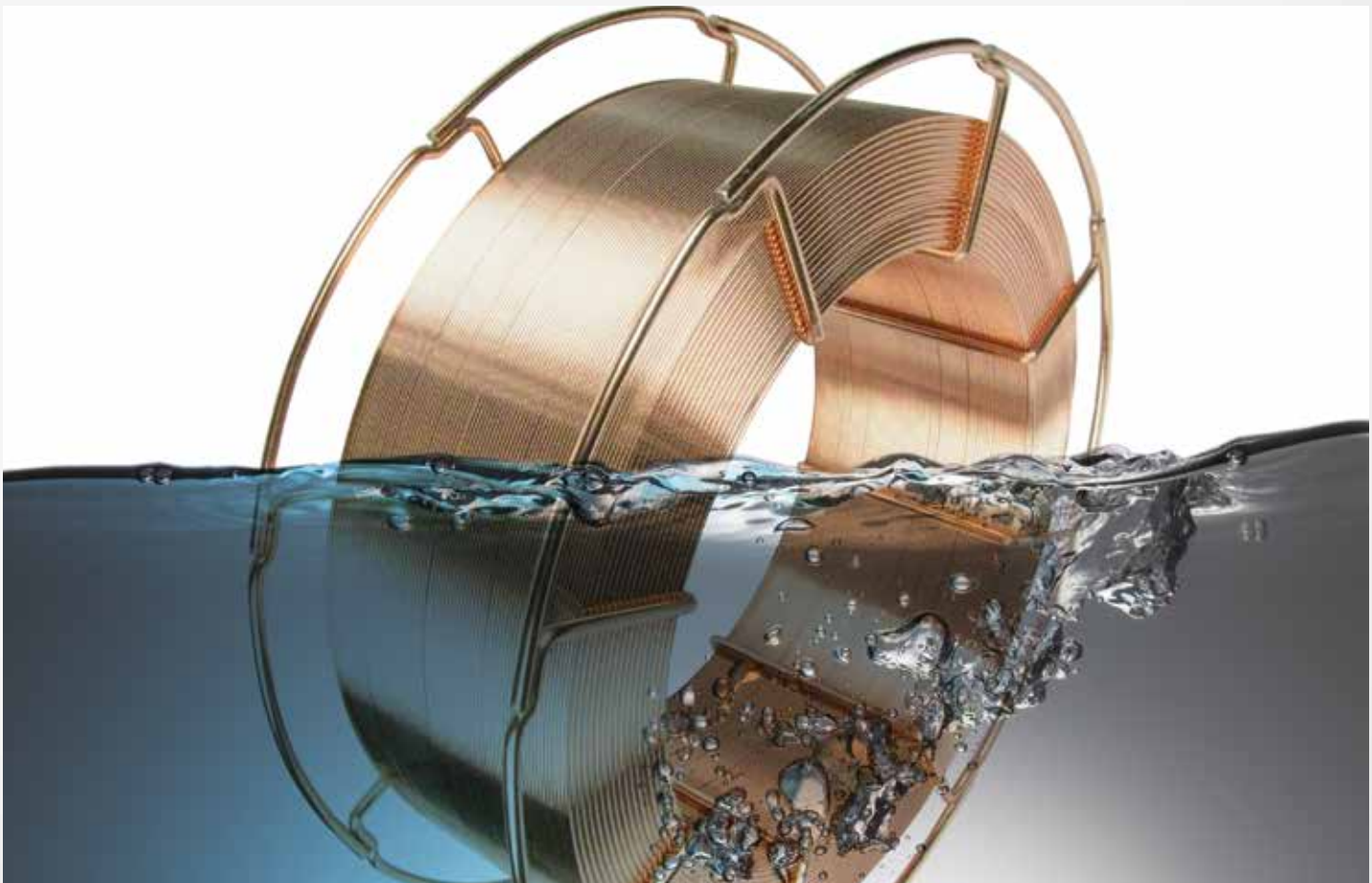
Hobart MEGAFIL seamless flux- and metal-cored wires are hermetically sealed and totally insensitive to moisture absorption, even under extreme climatic conditions such as tropical temperatures with very high relative humidity. The filling remains dry throughout the entire process of storage and use in welded fabrication, minimizing the risk of 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 specifications are below 4 ml/100 g**

weld metal (H4). Typical values are below 4 ml/100 g.

- **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, making it ideal for robotic welding.**



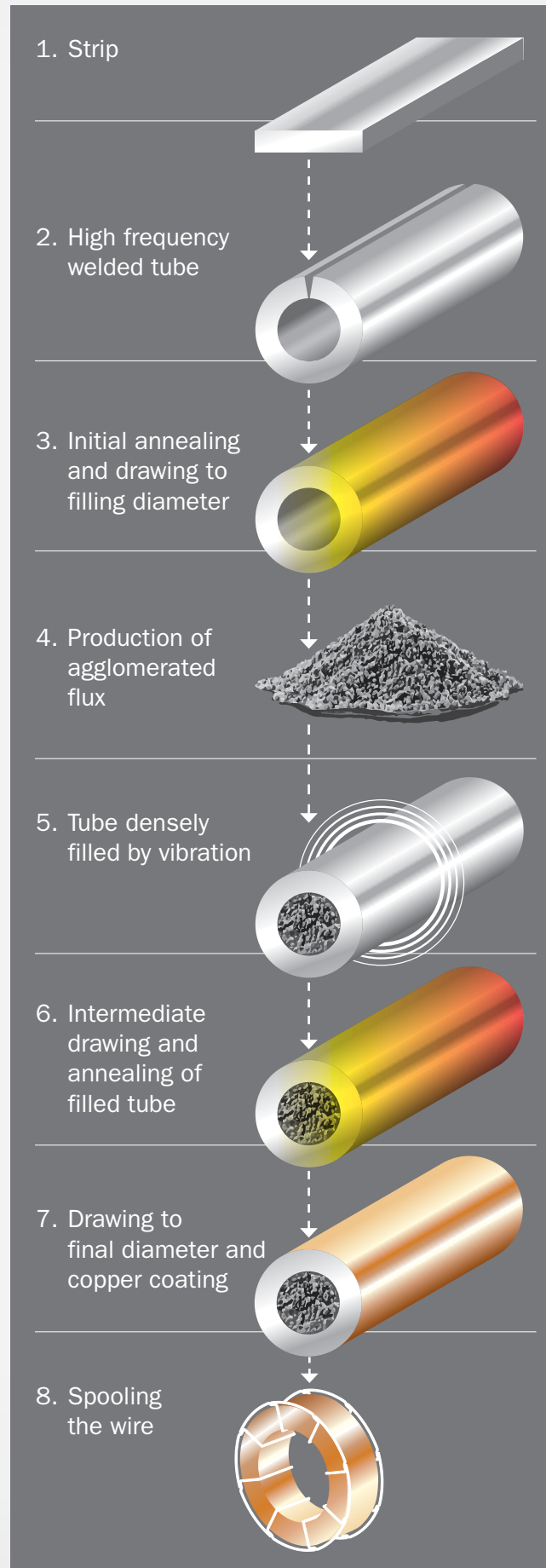
MEGAFIL® Production Technology

The unique production technology ITW Welding GmbH 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.

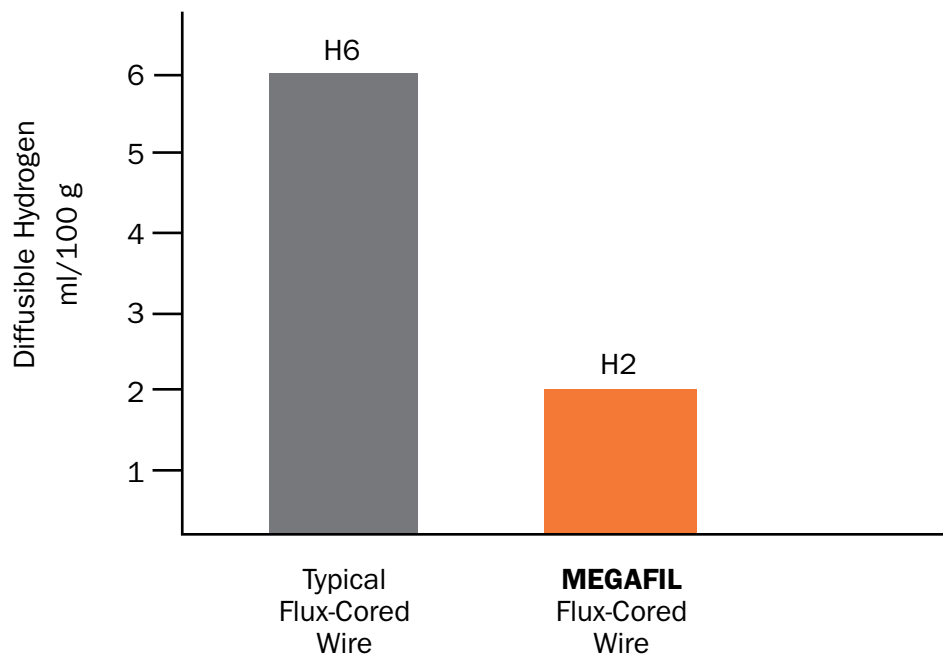


The Low Hydrogen Answer

FLUX-CORED WIRES	AWS CLASS	DIFFUSIBLE HYDROGEN AS RECEIVED (ml/100 g)
MEGAFIL® 713R	E71T-1M /-1C /-9M J /-9C /-12M/-12C H4	1.55
MEGAFIL® 819R	E81T1-Ni1M J H4 / -Ni1C H4	1.59
MEGAFIL® 550R	E91T1-K2M-J H4	2.89

METAL-CORED WIRES	AWS CLASS	DIFFUSIBLE HYDROGEN AS RECEIVED (ml/100 g)
MEGAFIL 710 M	E70C-6M H4	3.05
MEGAFIL 240 M	E80C-Ni1 H4	1.48
MEGAFIL 1100 M	E120C-K4 H4	2.52

Standard flux-cored hydrogen values vs. MEGAFIL



Product Description

MEGAFIL® 710M AWS E70C-6M H4

MEGAFIL 710M is a metal-cored wire for welding non-alloyed/carbon steels. It offers excellent as-welded and stress-relieved impact toughness properties down to -40°F. Like other metal cored wires, MEGAFIL 710M offers improved deposition rates compared to solid wires, making it a good choice for mechanized and robotic welding applications. MEGAFIL 710M can be used with 75-95% Argon (Ar)/Balance Carbon Dioxide (CO₂) shielding gas mixtures, and provides excellent performance when welding using either short-circuit or spray transfers.

Applications

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

DIAMETERS AND PACKAGES		
Diameter	35lb (16kg) Spool	660lb (300kg) Drum
0.045" (1.2mm)	71015B	71016B
1/16" (1.6mm)	71033B	71034B

MEGAFIL® 240M AWS E80C-Ni1 H4

MEGAFIL 240M is a low-alloy metal-cored wire with a nominal 1% nickel content. It is designed for welding ~80 ksi high-strength low-alloy steels, and offers excellent impact toughness properties at temperatures as low as -50F. It should be used with 75-95% argon/balance carbon dioxide shielding gas mixtures, and provides excellent performance when welding using either short-circuit or spray transfers. Like other metal-cored wires, MEGAFIL 240M offers improved deposition rates compared to solid wires, making it a good choice for mechanized and robotic welding applications.

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)	24012B	24015B

MEGAFIL® 1100M AWS E120C-K4 H4

MEGAFIL 1100M is a low-alloy metal-cored wire offering very high tensile strength. It is designed for welding 120+ ksi high-strength low-alloy steels, and offers excellent impact toughness properties at temperatures as low as -40F. It should be used with 75- 95% argon/ balance carbon dioxide shielding gas mixtures, and provides excellent performance when welding using either short-circuit or spray transfers. Like other metal- cored wires, MEGAFIL 1100M offers improved deposition rates compared to solid wires, making it a good choice for mechanized and robotic welding applications.

Applications

- High strength steel
- Heavy equipment
- Vessels

DIAMETERS AND PACKAGES		
Diameter	35lb (16kg) Spool	
0.045" (1.2mm)	11015B	

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

MEGAFIL 713R is a carbon-steel gas-shielded flux-cored wire. The fast freezing slag of MEGAFIL 713R helps to achieve high deposition rates when welding out-of-position. 100% carbon dioxide and 75-80% Argon/ balance carbon dioxide shielding gases can be used.

Applications

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

DIAMETERS AND PACKAGES		
Diameter	35lb (16kg) Spool	660lb (300kg) Drum
0.045" (1.2mm)	71315B	71316B
1/16" (1.6mm)	71333B	—

Product Descriptions

MEGAFIL® 819R

AWS E81T1-Ni1MJ H4 / E81T1-Ni1C H4

MEGAFIL 819R is a low-alloy gas-shielded flux-cored wire for joining ~80-ksi high-strength low-alloy steels. The fast freezing slag of MEGAFIL 819R helps to achieve high deposition rates when welding out-of-position. The weld deposit composition contains a nominal nickel content of 1% which—when used with 75-80% argon/balance carbon dioxide mixtures—provides excellent impact toughness properties at temperatures as low as -60F. MEGAFIL 819R can also be used with 100% carbon dioxide shielding gas in applications where low-temperature toughness (<20°F) is not required.

Applications

- Automatic and mechanized welding
- Offshore
- Pipeline
- Structural steel
- Use with Argon-CO₂ Shielding Gas Mixtures

DIAMETERS AND PACKAGES

Diameter	35lb (16kg) Spool
0.045" (1.2mm)	81915B
1/16" (1.6mm)	81933B

MEGAFIL® 550 R

AWS E91T1-K2MJ H4

MEGAFIL 550R is a low-alloy flux-cored wire. The manganese, nickel, and molybdenum content of this wire provide the strength to weld high-strength low-alloy (HSLA) steels having an ultimate tensile strength of approximately 90 ksi. MEGAFIL 550R also provides excellent impact toughness properties at temperatures as low as -40F. This wire is designed for use with 75-80% argon/balance carbon dioxide shielding gas mixtures.

Applications

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

DIAMETERS AND PACKAGES

Diameter	35lb (16kg) Spool
0.045" (1.2mm)	55015B

MEGAFIL® 731B

AWS E70T-5MJ H4

MEGAFIL 731B is a carbon steel, gas-shielded, flux-cored wire. The basic slag system of this wire is specially designed to offer excellent impact toughness at low temperatures, making it a good choice for equipment repair or other critical applications. MEGAFIL 731B can be used with 75-82% argon/balance carbon dioxide shielding gas mixtures.

Applications

- Heavy fabrication
- Heavy equipment
- Service/field repair

DIAMETERS AND PACKAGES

Diameter	35lb (16kg) Spool
0.045" (1.2mm)	73133B
1/16" (1.6mm)	73133B

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, direct contact with any liquid 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.

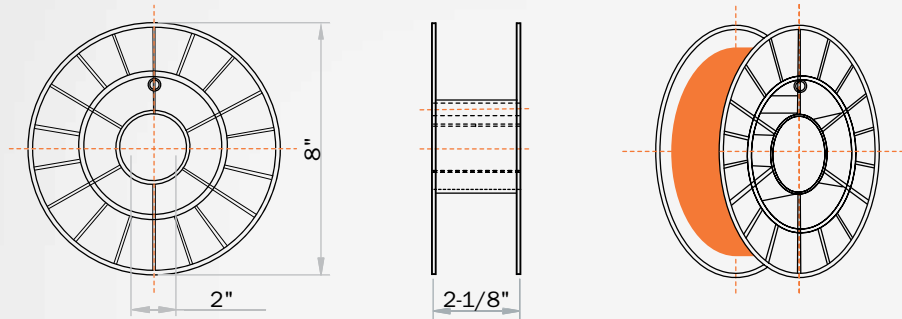
It is therefore recommended to store MEGAFIL wires in a dry area—away from weather influences — and in their original packaging. Any sudden drop in temperature should be avoided to prevent the formation of condensation. Partly used wire spools must be re-packed in their original plastic bag, carefully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

Summarized MEGAFIL storage and handling recommendations are:

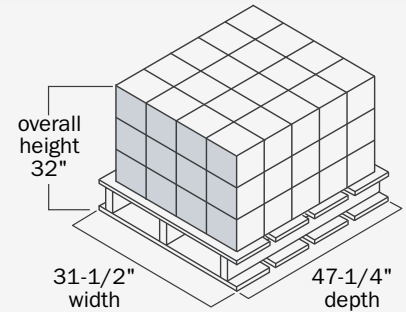
- **Store wires under dry conditions in the original sealed packaging.**
- **Avoid contact between wire and substances such as water or any other kind of liquid, vapor, oil, grease or corrosion.**
- **Do not touch the wire surface with bare hands.**
- **Avoid exposure of the wire below dew point. Do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

Pallet & Packaging Information

11 LB. (5 KG) SPOOLS

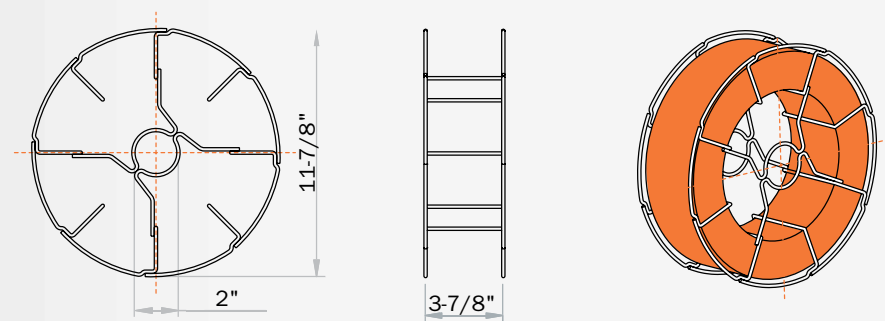


Plastic spool KD 200
 Diameter: 8" (200 mm)
 Width: 2-1/8" (55 mm)
 Suitable for a 2" (50mm) hub

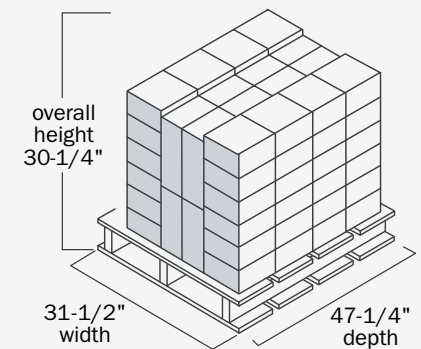


Weight: 2,640 lbs (1198 kg)
 Stacking sequence: 4 wide, 5 deep, 3 high
 Boxes per pallet: 60 (4 spools per box;
 240 spools per pallet)

35 LB. (16 KG) SPOOLS



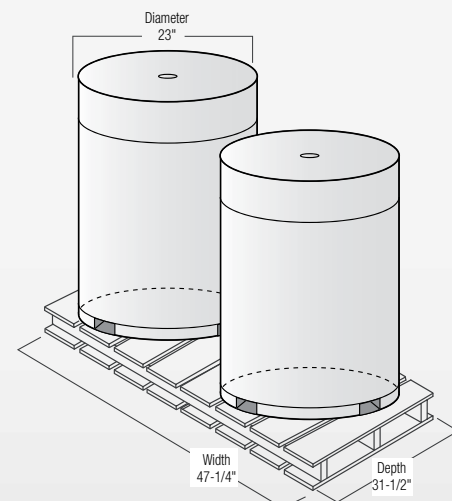
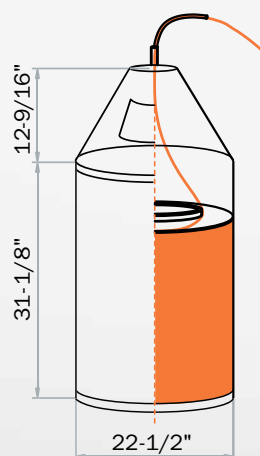
Basket rim K3000
 Diameter: 11-7/8" (300 mm)
 Width: 3-7/8" (98 mm)
 Suitable for a 2" (50mm) hub



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)



Weight: XX lbs. (xx kg)
 Drums per pallet: 2

*Other types on request

MEGAFIL® Seamless Flux-Cored and Metal-Cored Welding Wires



HobartBrothers.com/Megafil

©2019 Hobart Brothers Company LLC
Hobart and the Hobart logo are trademarks of Illinois Tool Works Inc.

Index: MEGAFIL
Rev: 08/19

