

## Start of Production of Metallic Fiber (Amorphous Wire)

### –Builds Integrated Production System from Raw Materials to Sensors, Providing a Stable Supply of Material–

Aichi Steel Corporation (Headquarters: Tokai, Japan; CEO: Takahiro Fujioka) announces the May 26 start of amorphous wire<sup>(\*)1</sup> production at its Higashiura Plant in Higashiura-cho, Aichi Prefecture, with a ceremony being held on-site on the day to mark the completion of construction. Aichi Steel acquired the metallic fiber (amorphous wire) business from Unitika Ltd. last year, and has now completed the transfer and installation of the production equipment with the aim of building an integrated production system from material to sensor to improve its competitiveness in the sensor market.

Of the equipment transferred from Unitika, the amorphous wire production equipment in particular employs a unique in-rotating liquid spinning method<sup>(\*)2</sup> that is unparalleled globally. During the transfer process, we improved and reinforced the equipment and conducted technical training on its operation. At the same time, we improved safety and productivity with an efficient plant layout that is easy to work in, based on our 4S Re-Engineering concept of Simple, Slim, Short and Straight.

With this new operation, we have built an integrated production system from raw material to sensor. This will provide us with a stable supply of material, enabling us to produce our own amorphous wire, a key material in the manufacture of the ultra-compact, high-performance magnetic MI sensors<sup>(\*)3</sup> that we develop, manufacture and sell. By further improving the performance of our MI sensors, increasing our cost competitiveness, and promptly developing new products, Aichi Steel will meet the needs of society and customers in a timely manner.

Going forward, Aichi Steel will manufacture and promote the sale of production items transferred from Unitika, including related products. We will also leverage our materials technologies, electromagnetic technologies, and synergies with Unitika to open up new markets through the development of new materials and new products.

- <sup>(\*)1</sup> Amorphous Wire : Fine amorphous metal wire (no systemic atomic structure) with diameter of between 20 and 100 micrometers
- <sup>(\*)2</sup> In-rotating liquid spinning method : Liquid layers are formed on the inside of a rotating drum using centrifugal force, and metal that has been heated and melted is blown onto the liquid layers. Before the molten metal can crystallize, the fluid layer causes rapid cooling and solidification to create the amorphous wire.
- <sup>(\*)3</sup> MI sensor : An ultra-compact, ultra-sensitive, ultra-low power consumption, ultra-high response magnet sensor using magneto impedance

[Plant and Product Overview]

1. Location	1-12, Nanei-cho, Fujie, Higashiura-cho, Chita-gun, Aichi prefecture			
2. Plant area	1600 m <sup>2</sup>			
3. Production items	Amorphous wire and related products			
4. Amorphous wire features and applications	Product name	Features	Related products	Main applications
	Bolfur	Reinforcing material with excellent strength, corrosion resistance and bending resistance	Stranded wire products	Reinforcing material, static discharge brushes, pinning wire, etc.
	SENCY <sup>®</sup>	Magnetic material with excellent soft magnetism	Torque sensor elements, anti-theft tags	Magnetic core material, magnetic sensors, torque sensors, etc.
5. Production capability	40,000 km/yr			

1. Amorphous wire

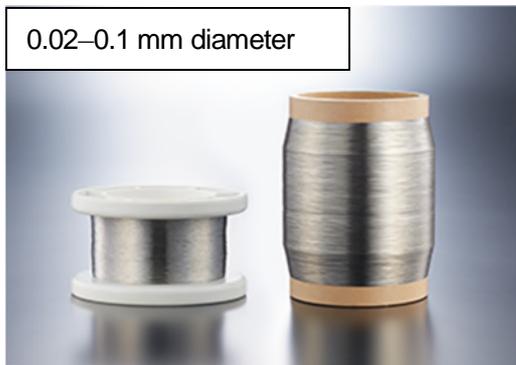


Photo 1. Amorphous wire products (SENCY<sup>®</sup>, Bolfur)

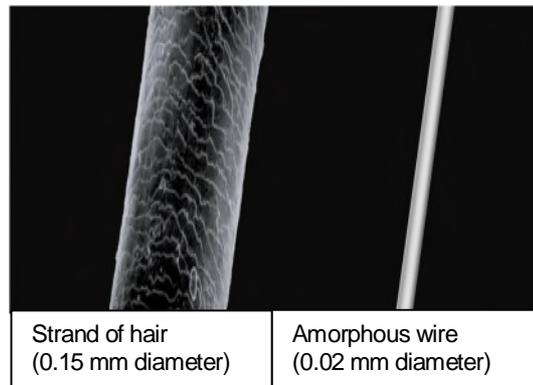


Photo 2. Amorphous wire (enlarged)

2. Related products

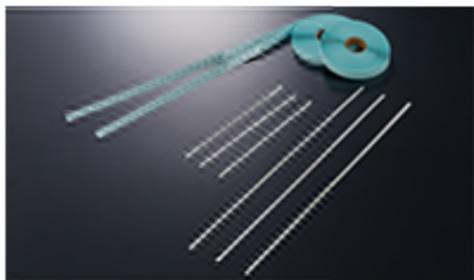


Photo 3. Anti-theft tags



Photo 4. Torque sensor elements