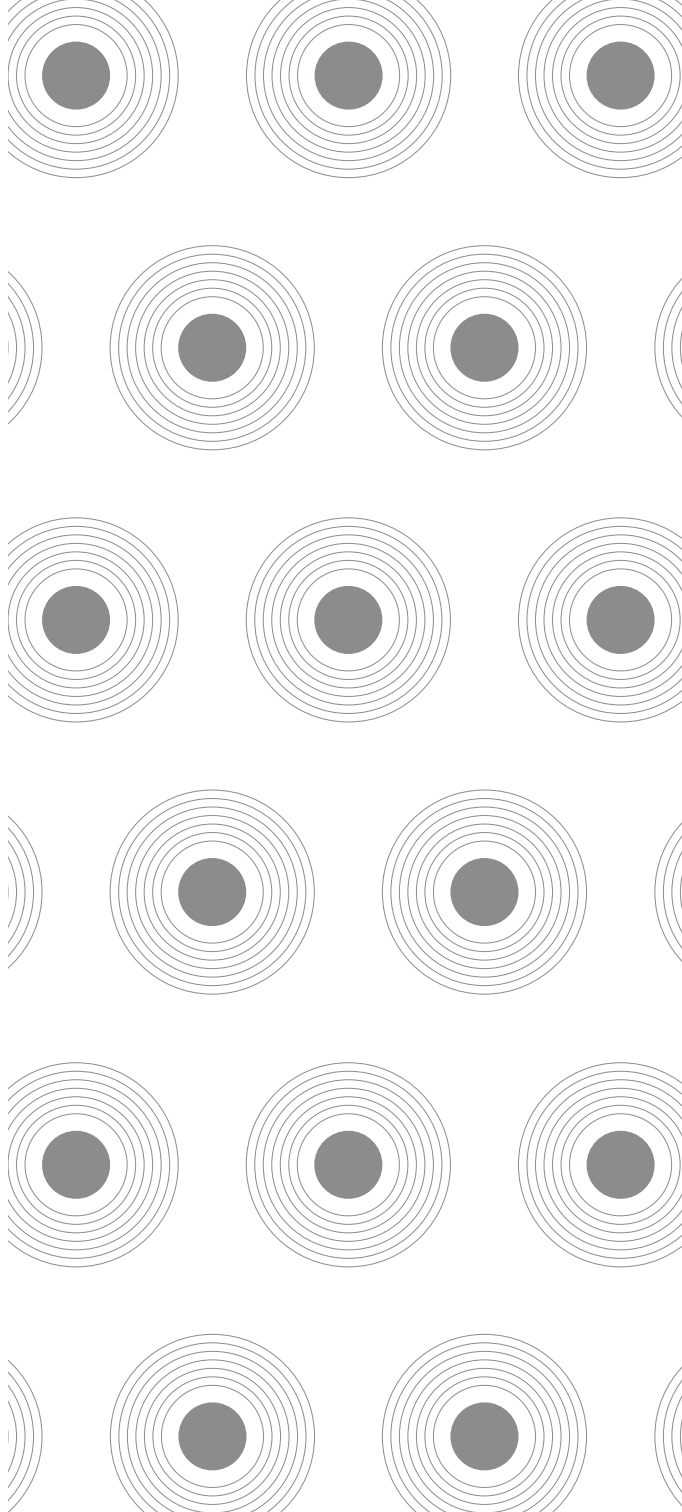
SeAH

SeAH FS

Established	1979
Location	(Domestic) Seoul, Pyeongtaek, Gwangju, Gimhae, Seotan, Incheon, Gunsan
	(Overseas) China, Thailand, India, Indonesia, Mexico
Main Product	Fluid carring system for automobile and refrigerator,
	Steel tubes
Contact Point	yongil.kwon@seah.co.kr

www.seahfs.com

SeAH FS



SeAH FS

SeAH FS is an enterprise specialized in providing solutions for fluid carrying systems. It produces steel tubes that are used for everyday home appliances such as refrigerators and air conditioners as well as for brakes and fuel tubes used in vehicles. All their products have high corrosion-resistance, precision, and adequate process ability. SeAH FS holds various product portfolios as it simultaneously produces the materials and supplies processed goods. With such unrivaled technology, SeAH FS is expanding its business not just in Korea but also in Thailand, China, India, Indonesia, and Mexico by actively building more international business sites.

History

1979 Established Pusan Bundy
1986 Selected as materials for localization (fluoride resin coated double-walled steel tubes)
1988 Changed company name to Korea Bundy
1989 Acquired KS mark for double-walled steel tubes for automobiles
1994 Got approval of domestic production for double-walled steel tubes for automobiles
1995 Got approval of domestic production for single-walled steel tubes for automobiles
1999 Received the Grand Prize of New Management Innovation (Manufacturing)
2000 Designated as company of technological competitiveness
2001 Received the Bronze Tower Medal for development of Excellent Capital Goods
2002 Awarded as outstanding company of labor management relations
2003 Awarded best management productivity in Korea
2010 Received the Steel Tower Order of Industrial Service Merit Award
2011 Awarded trophy for reaching 70 million dollars in exports
2014 Changed company name to SeAH FS

Global Networks

Operating 19 production and sales networks in 6 countries

Korea	Seoul, Pyeongtaek, Gwangju, Gimhae, Seotan, Incheon, Gunsan
China	Qingdao, Suzhou, Hefei, Chongqing, Foshan, Changsha, Chuzhou
Thailand	Chonburi
India	Noida, Chennai
Indonesia	Bekasi
Mexico	Queretaro

Seoul Office

Pyeongtaek plant


Gwangju plant


Gimhae plant


Seotan plant


Incheon plant


Gunsan plant


Qingdao plant


Suzhou plant


Foshan plant


Thailand plant


India plant


Indonesia plant


Mexico plant

Fluid carrying system for automobile

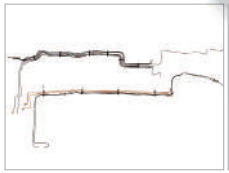
Steel tubes for automobiles produced by SeAH FS are capable of extending the lifespan of automobiles and satisfy environmental regulations. They have been developed with high corrosion-resistance and are environmentally friendly. Products manufactured with the latest technologies developed over 35 years are being mainly used in the pipelines of brakes and fuel systems. Outstanding in pressure resistance and mechanical properties, these tubes provide excellent rust-proofing together with high thermal transmission and low inner fluid resistance.

Power Train Systems

- Power Steering (Feed, Return, Pressure, Suction)
- Transmission Oil Cooling
- Engine Oil Cooling
- Air Conditioning

Engine

- MPI
- GDI
- Common Rail System
- CNG
- EGR Cooler System



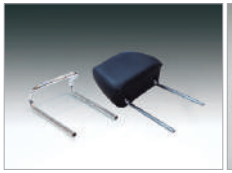
Brake & Fuel Tube Ass'y

Power Steering Feed Tube

Power Steering Cooler Tube

Brake & Fuel Bundle Systems

- High Pressure Line (Brake & Clutch Tubes)
- Brake & Fuel Bundles
- ABS Bundles (Antilock Brake Systems)
- ESP Systems (Electronic Stability Program)



Head Rest Tube

Sun Roof Tube

Fuel Systems

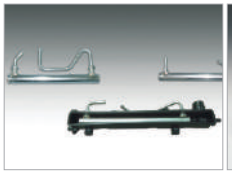
- Oil Filler Neck Tubes
- Fuel Storage & Delivery Systems
- Fuel Jumper Tubes
- Fuel Pump Plate Ass'y Tubes

Fuel Pump Tube

Seat Track Lever Pipe

Others

- Seat Track Lever
- Side Airbag
- Head Rest
- Sun Roof
- Wiper Linkage



Oil Cooler Pipe

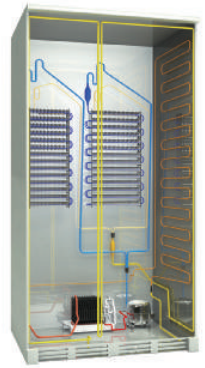
EGR

Fluid carrying system for refrigerator

The products of SeAH FS are used in a wide variety of applications, such as condensers, compressors, hot tubes, suction tubes, dryers and capillaries, and the core cycle parts of refrigerators. Product specifications and surfaces treatment are completed according to the consumer's request. Products manufactured with the highest quality are provided through SeAH FS's outstanding technological power and stringent quality control system. In particular, due to our new refrigerant, consumer demand for contamination control as well as moisture and oil content control inside the tube is met through our high-tech facilities and strict quality inspection. The high-quality SG, GSG and NSG tubes independently developed for the first time in the world by SeAH FS satisfies the RoHS directive. Therefore, it has achieved great popularity as copper tubes begin to substitute the cooling cycle component of refrigerators.

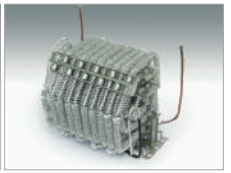
Refrigerating Cycle

Compressor → Condenser (Turn Fin, WOT) → Skin Condenser (Cluster) → Door Warmer → Filter Dryer → Capillary → Evaporator → Accumulator → Suction Pipe → Compressor



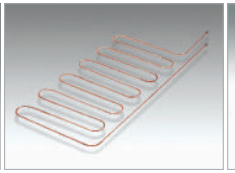
Turn Fin Condenser

Wire Condenser

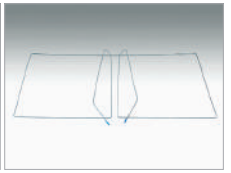


AL Fin Condenser

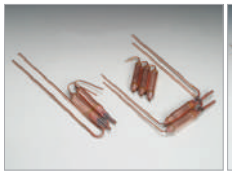
Compressor Tube



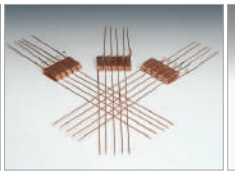
Skin Condenser (Cluster)



Door Warmer



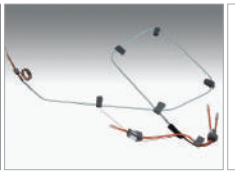
Filter Dryer



Capillary

AL Evaporator

Accumulator



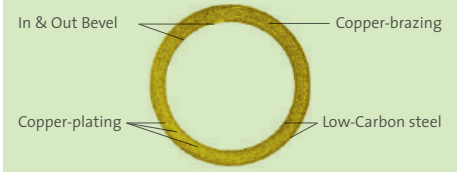
AL Suction Pipe

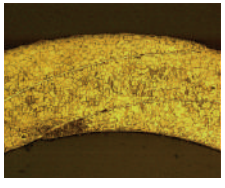
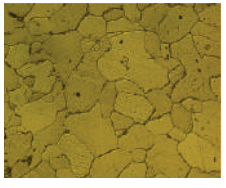
BAg-KB (Silver Brazing Alloys)

Double-wall steel tube

After rolling the double-sided cold strip to the width of industry standards, copper plating is applied to both sides of the sheet. After it passes through a strip in the shape of a slitting coil via a vertical and horizontal roll, it forms into its original shape with double walls. If it passes through close to 1,200°C in an electric furnace, copper plated on the surface becomes completely adhered to the inner and outer walls, making a tube that withstands high pressure. In the forming process, the tube is produced using an advanced system that has real time monitoring. The final product raises the level of trust in its quality while passing a complete non-destructive inspection through Eddy Current Testing.

Cross-section of double-wall steel tube



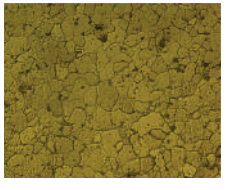
Features

- Copper plating of inner and outer walls, maintaining cleanliness
- No beading and discoloring in welded part
- Enduring a maximum pressure of 1,500kg/cm^2
- Enduring air-tightness, vibration, and impact
- Various types of bending and end finish processing available

Single-wall steel tube

After rolling the double-sided cold strip to the width of industry standards, copper, nickel or no-plating is applied according to the customers' request. The material is cut into a form of slitting coil with high frequency electric resistance welding. After introducing the world's first automatic heat input, the quality of the welding is secure, and the quality guarantee is raised because of its durability. The product is well-known for its superb quality and durability with copper plating and hot dip galvanizing.

Cross-section of single-wall steel tube

Features

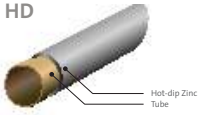
- Economical
- Smooth outer surface
- Maintaining inner cleanliness to the maximum level (0.1948g/m^2)
- Enduring air-tightness, vibration and impact
- Various manufacturing processes available

Coated Tubes

Hot-dip coated steel tubes

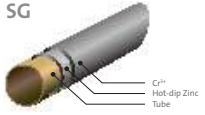
* Th: Thickness

HD



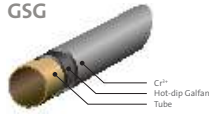
Hot-dip Zinc
Th: Min. 5㎛
SST: Min. 72hr

SG



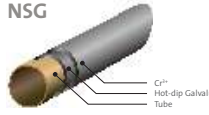
Hot-dip Zinc+Cr3+
Th: Min. 3㎛
SST: Min. 240hr

GSG



Hot-dip Galfan+Cr3+
Th: Min. 5㎛
SST: Min. 360hr

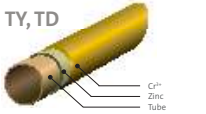
NSG



Hot-dip Galvalume+Cr3+
Th: Min. 5㎛
SST: Min. 720hr

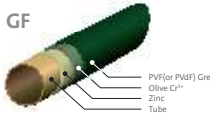
Electro. zinc plating and fluoro resin coated steel tubes

TY, TD



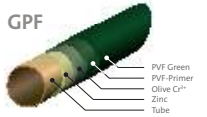
Zinc+Cr3+
Th: Zinc Min. 8, 13, 25㎛
SST: Min. 192, 288, 480hr

GF



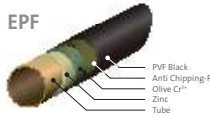
Zinc+Olive Cr3++PVF(or PVdF) Green
Th: Zinc Min. 13 or 25㎛, PVF (or PVdF) Min. 10㎛, Avg. 20㎛
SST: Min. 3,000hr

GPF



Zinc+Olive Cr3++PVF-Primer+PVF Green
Th: Zinc 13 or 25㎛, PVF Min. 15㎛, Avg. 25㎛
SST: Min. 6,000hr

EPF



Zinc+Olive Cr3++Anti Chipping-Primer+PVF Black
Th: Zinc 13 or 25㎛, PVF Min. 15㎛, Avg. 25㎛
SST: Min. 12,000hr

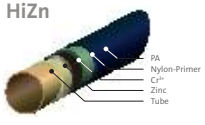
Al-rich epoxy paint tube

ALMECO

Hot-dip Galfan+Cr3++Al-Rich Epoxy Paint
Th: Galfan Min. 5㎛
Al-Rich Epoxy Paint 3㎛
SST: Min. 2,000hr

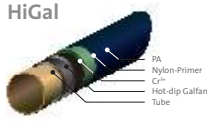
PA coated steel tubes

HiZn



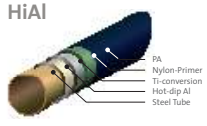
Zinc+Cr3++Nylon Primer+PA
Th: Zinc. Min. 13 or 25㎛
PA Min. 150㎛, Avg. 170㎛
SST: Min. 12,000hr

HiGal



Hot-dip Galfan+Cr3++ Nylon Primer+PA
Th: Galfan Min. 5㎛
PA Min. 150㎛, Avg. 170㎛
SST: Min. 12,000hr

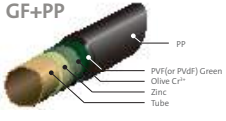
HiAl



Hot-dip Al+Ti-conversion+Nylon Primer+PA
Th: Hot-dip Al Min. 100㎛
PA Min. 120㎛
SST: Min. 12,000hr

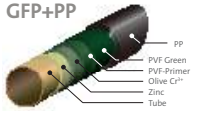
PP jacket tubes

GF+PP



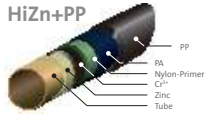
Zinc+Olive Cr3++PVF(or PVdF) Green+PP
Th: Zinc Min. 13 or 25㎛
PVF(or PVdF) Min. 10㎛, Avg. 20㎛ PP Avg. 1,000㎛

GFP+PP



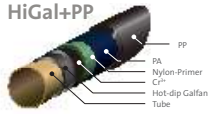
Zinc+Olive Cr3++PVF-Primer+PVF Green+PP
Th: Zinc 13 or 25㎛
PVF Min. 15㎛, Avg. 25㎛
PP Avg. 1,000㎛

HiZn+PP



Zinc+Cr3++Nylon Primer+PA+PP
Th: Zinc. Min. 13 or 25㎛
PA Min. 150㎛, Avg. 170㎛
PP Avg. 1,000㎛

HiGal+PP



Hot-dip Galfan+ Cr3++ Nylon Primer+PA+PP
Th: Galfan Min. 5㎛,
PA Min. 150㎛, Avg. 170㎛
PP Avg. 1,000㎛