

GREMCO 



PERFECT SOLUTIONS FOR THE

AEROSPACE INDUSTRY

PRODUCT OVERVIEW

HIGH-TECH TUBING SOLUTIONS

for the aerospace industry



Your contact

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YOUR PARTNER FOR COMPLETE SOLUTIONS.

We are supplying both complete system solutions as well as custom-made products. With all our products we follow a clear strategy: highest development standards and state-of-the-art economical manufacturing methods to comply with current aviation standards. This guarantees the high quality and reliability for which GREMCO is known. Well-known international aircraft manufacturers have been our regular and satisfied customers for many years.

THE SPECIALIST FOR THE AVIATION INDUSTRY.

In addition to wire harnessing, we are also experts in media-carrying systems. Our braided tubes feature extremely high thermal and meet the flame-retardant requirements of the aviation industry. In addition, heat resistance, media resistance, abrasion protection and -resistance are just a few of the outstanding properties of our products, which we manufacture in close cooperation with our international partners.

INTERNATIONAL KNOW-HOW FOR A GLOBAL WORLD.

We combine our competence with the expertise of our long-term cooperation partners in Europe, the USA and Mexico to achieve the highest levels of innovation and quality. Modern production facilities in Europe, the USA, Central America and Asia also guarantee reliable and first-rate quality. Our highly qualified staff is looking forward to assisting you with any technical issues or design challenges you may have.

RESPONSIBILITY FOR PEOPLE AND THE ENVIRONMENT.

We are committed to complying with and where possible exceeding environmental protection laws. We do this not just because we have to but because it is, in our view, the right thing to do. Reducing our environmental impact is an ongoing goal. We are happy to work with customers or suppliers on projects to further this goal. Please get in touch!

GREMCO will always act in accordance with health and safety laws.

For further information regarding GREMCO's product range and potential aerospace industry applications please do not hesitate to contact us.

We look forward to hearing from you.

Your GREMCO Team

FITCOTUBE® – thin wall

	Description	Typical Application	Temp. range	Shrink ratio	Shrink Temperature
FT100 UL	Especially high-quality, flexible, flame-retardant tubing conforming to MIL23053, available in various colors.	Insulation, mechanical relief, and protection from environmental impact. Marking of cables, hoses, and lines.	-55°C ... +135°C	2:1	+90°C
FT300 UL	Especially high-quality, flexible, flame-retardant, and highly shrinkable tubing conforming to MIL23053, available in various colors.	Protection and insulation of parts of greatly varying diameters. Marking of cables, hoses, and lines.	-55°C ... +135°C	3:1	+90°C
FT400	Especially high-quality polyolefin shrink tubing conforming to MIL23053 (flexible and flame-retardant), highly shrinkable.	Ideal for repairing, protecting, and insulating prefabricated lines and parts of greatly varying diameters.	-55°C ... +135°C	4:1	+90°C
FT500	Flexible, flame-retardant, all-purpose tubing, available in a variety of colors.	Sheathing, insulation, and marking of lines and cables used in ground equipment.	-55°C ... +125°C	2:1	+90°C

FITCOTUBE® – thin wall

	Description	Typical Application	Temp. range	Shrink ratio	Shrink Temperature
FT175 UL	Semirigid, highly abrasion-resistant, noncombustible Kynar® tubing conforming to MIL23053.	Protection from high temperatures and corrosive chemicals, e.g. in fuel tanks.	-55°C ... +175°C	2:1	+170°C
FT275 UL	Flexible, highly abrasion-resistant, noncombustible shrink tubing conforming to MIL23053. Excellent chemical resistance.	Meets the same requirements as Kynar® FT175 tubing but provides greater flexibility and transparency.	-55°C ... +175°C	2:1	+150°C
FT230	Highly flexible, solvent-resistant shrink tubing conforming to MIL26053 in black or transparent.	For applications requiring high thermal or chemical resistance at low shrinking temperatures.	-55°C ... +230°C	2:1	+130°C
TF/TF-R	High-temperature and chemically resistant shrink tubing conforming to MIL23053 made from modified PTFE.	For use in very high ambient temperatures and for protecting lines and cables from corrosive chemicals.	-67°C ... +250°C	1.5 ... 3.5:1	+327°C

ELASTOMER HEAT-SHRINK TUBING

FITCOTUBE® – thin wall

	Description	Typical Application	Temp. range	Shrink ratio	Shrink Temperature
FT200	Flexible, highly abrasion-resistant tubing conforming to VG95343 and MIL23053 with excellent oil and fuel resistance.	Used for reliable insulation as well as for mechanical and electrical protection of lines and cables (running gear wiring), particularly in aviation, army, and naval applications.	-75°C ... +150°C	2:1	+130°C ... +250°C
FT-R25	Fuel-resistant elastomer shrink tubing conforming to VG95343 and MIL23053 with excellent protective and anti-abrasion characteristics.	Used for reliable insulation as well as for mechanical and electrical protection of lines and cables (running gear wiring), particularly in aviation, army, and naval applications.	-75°C ... +150°C	2:1	+170°C
FTV	Very rugged Viton® shrink tubing, resistant to high temperatures and conforming to MIL23053.	Cable sheathing and protection of measuring probes in corrosive environmental conditions and high-stress areas (aircraft engines, fuel supply, hydraulics).	-40°C ... +200°C	2:1	+150°C
FT-VD	Viton® shrink tubing conforming to VG95343 and MIL23053 with an increased temperature range for cable sheathing in aircraft and ground vehicle construction involving extreme mechanical, chemical, and thermal stress.	Cable sheathing, protection of measuring probes in corrosive environmental conditions and high-stress areas (aircraft engines, fuel supply, hydraulics).	-55°C ... +220°C	2:1	+175°C ... +220°C

FITCOTUBE® – dual-wall

	Description	Typical Application	Temp. range	Shrink ratio	Shrink Temperature
FT800 UL	Radiation-crosslinked polyolefin shrink tubing conforming to MIL23053, adhesive-coated, highly shrinkable.	Very suitable for the moisture- and water-proof encapsulation of lines, cables, crimp and plug connectors, and other electrical and mechanical components.	-55°C ... +125°C	3:1 and 4:1	+110°C
FT888	Radiation-crosslinked commercial shrink tubing made from flexible, adhesive-coated, and highly shrinkable material.	Very suitable for the moisture- and water-proof encapsulation of lines, cables, crimp and plug connectors, and other electrical and mechanical components.	-55°C ... +110°C	3:1 and 4:1	+110°C
TF/FP (A-Z)	Dual-wall fluoropolymer shrink tubing made from PTFE, resistant to high temperatures and conforming to MIL23053, with a melting FEP inner lining.	For sealing and encapsulating components with very high requirements for thermal and/or chemical resistance to highly corrosive substances.	-200°C ... +190°C	1.5:1	+346°C ... +354°C

	Description	Typical Application	Temp. range	Shrink ratio	Shrink Temperature
FTLV-NT	Low-temperature solder connector for single-operation soldering, insulating, sealing, and mechanical relief.	Reliable shielded connections with consistent, repeatable connection quality and connections between temperature-sensitive lines and contact strips or plug connectors.	-55°C ... +105°C	0.9 mm ... 6 mm	
FTLV-HT	High-temperature solder connector for single-operation soldering, insulating, sealing, and mechanical relief.	Reliable shielded connections with consistent, repeatable connection quality and connections between temperature-sensitive lines and contact strips or plug connectors.	-55°C ... +150°C	0.9 mm ... 6 mm	
FTLV H-M	High-temperature solder connector conforming to MIL83519 for single-operation soldering, insulating, sealing, and mechanical relief. Versions with integrated drain wire or braided shield available.	Reliable shielded connections with consistent, repeatable connection quality and connections between thermally resistant lines and contact strips or plug connectors.	-55°C ... +150°C	0.2 mm ... 6 mm	+183°C
FITCO® Seal D436	Crimp connector with high-temperature resistance for applications in aviation and military engineering conforming to MIL81824.	Splicing of lines in electrical systems and avionics.	-65°C ... +150°C	AWG 20-12	+180°C

	Description	Typical Application	Temp. range	Shrink ratio
FITCOFLEX® I-PET15	Halogen-free, self-extinguishing protective fabric sleeve conforming to RoHS and REACH made from PET monofilaments 0.25 mm thick.	Bundling and protection of wiring, test cable sets, and fluid lines. Offers good resistance against abrasion, oil, and chemicals.	-70°C ... +150°C	3.0 mm ... 45 mm
FITCOFLEX® I-PET35	Halogen-free, expanding fabric sleeve made from PET and polyamide 6.6. Excellent abrasion resistance.	Mechanical protection of pipes, hoses, and wiring harnesses as well as bundling purposes. Chemically resistant. Facilitates drainage and prevents condensation.	-40°C ... +150°C	3.0 mm ... 48 mm
FITCOFLEX® I-PA15	Halogen-free mechanical-protection sleeve made from polyamide 6.6 with a very high expansion ratio.	Bundling and protection of wiring, test cable sets, and fluid lines. Offers good resistance to abrasion, oil, and chemicals.	-40°C ... +125°C	25 mm ... 32 mm
FITCOFLEX® I-PA35	Fabric sleeve made from polyamide 6.6 and PET monofilaments with high flexibility and simultaneously high abrasion resistance.	Abrasion protection for wiring harnesses, pipes, hoses, or installation sensors in demanding environments. Good resistance to oils, fluids, and various chemicals.	-40°C ... +125°C	3.0 mm ... 60 mm
FITCOFLEX® I-PA35H	Mechanical, self-extinguishing fabric sleeve made from heat-stabilized polyamide 6.6 with high surface coverage.	Effective protection from mechanical impact, high resistance in applications with high physical and chemical requirements. Also suitable for elevated ambient temperatures.	-55°C ... +180°C, (+205°C for short periods of time)	2.0 mm ... 52 mm
FITCOFLEX® I-WRAP	Mechanical, halogen-free, and densely woven ribbon made from PET monofilament and multifilament fibers allowing for retrofit and repair thanks to its open-pipe design.	Bundling and mechanical protection of prefabricated cable, duct, and fluid systems. The open structure allows for retrofits.	-55°C ... +150°C	3.0 mm ... 50 mm

HEAT PROTECTION

	Description	Typical Application	Temp. range	Shrink ratio
FITCO® Flect	Reflective, flexible, aluminum-coated fiberglass hose for thermal protection.	FITCO®Flect is designed to provide perfect protection for components from radiant heat at high temperatures. Custom solutions for complex assemblies possible.	-40°C ... +250°C	6.3 mm ... 101.6 mm
FITCO® Therm-V-FS	Briefly flame-retardant fiberglass hose with silicone rubber coating for thermal protection.	Thermal protection for wiring, lines, hoses, and wiring harnesses from welding sparks, open fire, drops of molten metal, etc. Maintenance of functional integrity of electrical and hydraulic systems in case of fire.	-54°C ... +260°C, (1100°C for short periods of time)	,

FITCO® INSULATING TUBE

	Description	Typical Application	Temp. range	Shrink ratio
PTFE	Low-tolerance PTFE extrusions, partially with additives, with high temperature resistance, extreme chemical resistance and excellent surface slip characteristics.	A variety of applications with high requirements for thermal and surface slip characteristics such as Bowden cables and transporting corrosive or hot substances.	-67°C ... +260°C	0.3 mm ... 39.37 mm
FEP	Low-tolerance FEP extrusions with high surface quality and a broad thermal range of application.	Highly flexible hoses for transporting corrosive fluids and gases.	-55°C ... +200°C	0.3 mm ... 22.91 mm
PFA	Tubing similar to PTFE but manufactured by melt extrusion, with excellent transparency, flexibility, and good surface slip characteristics.	Versatile and suitable for all solid, liquid, and gaseous media. Also, the tubing is translucent, allowing for the monitoring of fluids.	-67°C ... +260°C	0.3 mm ... 16.33 mm
Corrugated pipe	Corrugated hose made from high-quality materials.	Flexible cable protection made from PP, PA6, PA12, Arnitel, and PFA.	-80°C ... +260°C	NPS 3 ... NPS 70
Bare pipe	Extruded pipes and hoses made from high-quality materials (PA, PFA, PTFE, FEP, ETFE).	Protection of wiring, rubber hoses, and metal pipes from abrasion, rockfall, and other environmental impacts, inner lining for Bowden cables, and foam variants for sound insulation.	-75°C ... +260°C	2.0 mm ... 50 mm

WIRES AND CABLES

	Description	Typical Application	Temp. range	Shrink ratio
Wires and cables	Aviation-approved, temperature-resistant, and extremely flexible electrical lines and cables with fluoro-polymer insulation (PTFE, PFA, ETFE, FEP), among other materials. Despite their thin insulation layer, these materials have high mechanical strength as well as excellent chemical resistance and noncombustibility. Conforming to MIL and other manufacturer specifications (Boeing, Airbus, etc.).	Space- and weight-saving wiring in commercial and military aviation (electrics and avionics).	-75°C ... +260°C (depending on the material)	0.14 mm ... 70 mm
Coaxial cables	Coaxial cables and micro coaxial cables conforming to MIL-C-17 and popular RG specifications.	Aerial wiring for high-frequency applications such as navigation and communication systems as well as in-flight entertainment systems.	-75°C ... +200°C (depending on the material)	

PROCESSING EQUIPMENT

	Description	Typical Application	Temp. range	Alt. name
HG2520E HG2620E (2300 W) hot-air blower	Electronically controlled hot-air blower with a brushless motor and digital temperature adjustment by joystick. Air volume control from 150–500 l/min. Including LCD display and residual-heat indicator. (Operational life of approx. 10,000 h.)	Processing of shrink tubing and soldering sockets, shrink-wrapping of electronic components. Suitable for on-site use.	+50°C ... 700°C	Hot-air gun, Hot-air rod
Mecalbi STCS production shrinking equipment	Mecalbi is specializing in the development and manufacture of custom hot-air and infrared shrinking systems. All devices are equipped with a control module for setting process parameters such as temperature and shrinking duration.	Depending on the type of machine, one or more shrink tubes can be processed simultaneously. This makes it optimal for applications with highly specific requirements.		Heat-shrink oven, Heat-shrink system
SQUIX 4M 300 Thermal transfer printer	Can use a resolution of 300 or 600 dpi for very high-quality printing of barcodes, serial numbers, labels, or logos on shrink tubing.	Designed for printing on shrink tubing in industrial applications and requiring no printhead adjustment due to its centered material feed.		Printer for heat-shrink tubing

**COMPONENTS
FOR HIGH-TECH SOLUTIONS.**

INNOVATIVE PRODUCTS. PROVEN QUALITY.

We have been providing our customers with outstanding advanced high-tech solutions in all areas of high-quality applications. Since 1990, we have been supplying high-tech components to our customers in all areas of high-quality applications – as one of the most important contacts for the civil and military aviation industry. GREMCO stands for state-of-the-art manufacturing methods, best quality management and fast service. In cooperation with leading component manufacturers, we supply a large range of components in accordance with current Airbus, Boeing and MIL standards.

**HEAT-SHRINK TUBING.
BRAIDED SLEEVES.
HEAT PROTECTION TUBES.
INSULATING TUBES.
SOLDER AND CRIMP CONNECTORS.
WIRES / CABLES.
PROCESSING EQUIPMENT.**

“Selected materials, maximum resistance and internationally recognized standards are a part of our everyday philosophy.”

SIMON HENGST, MANAGEMENT



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OUR COMPANY AT A GLANCE

- International corporation
- Production facilities in Europe, North America and Asia
- High environmental standards
- FITCO® trademark
- Quality management according to ISO 9001:2015
- High material competence
- Complete system solutions
- Custom-made / Bespoke products

OUR COMPETENCIES

AVIATION INDUSTRY
AUTOMOTIVE INDUSTRY
INDUSTRIAL AND
ENVIRONMENTAL TECHNOLOGY
MEDICAL TECHNOLOGY

DO YOU HAVE ANY QUESTIONS?

Please give us a call on:

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