



Bringing light into your customized, complex or extreme environment is our challenge!

April 2024



ATI

*founded by Louis
Malavieille*

⇒ R&D and
manufacturing

**Alliance Technique Industrielle*

1951



SEDI

*co-founded by
Patrice and
François-Louis
Malavieille*

⇒ marketing and sales

**Société Européenne de
Distribution Industrielle*

1972



SEDI-ATI Fibres
Optiques

*merger of the 2
entities*

⇒ ATI Optique and SEDI
Fibres Optiques have
merged their activities

2012



Acquisition

*by J-F Vinchant
Holding Strategy*

⇒ chaired by Jean-
François VINCHANT and
accompanied by IDF
Capital

2016



Major areas of
focus

- extreme environments
- decarbonation
- space
- export

2024

Since 1951, our mission is to design and build turn-key solutions to enable you to bring photons in any environment, whatever your constraints are!



Legacy

- a family business starting in 1951
- a second life with the acquisition by the *JFV Holding Strategy* in 2016



Enhancement

- highly skilled team
- multidisciplinary team
- regularly trained on new procedures



Philanthropy

- agile and focused company
- creating sustainable, long-term value
- addressing societal challenges

You need a custom-made product to fit in your special environment, for which there is currently no off-the-shelf solution available. SEDI-ATI helps you overcome your challenges!



Your CUSTOMIZED environment

- Your environment looks like no other
- You can not use a standard solution

SEDI-ATI can help by providing competitive, unique and personalized solutions.



Your COMPLEX environment

- Your environment is extremely complex
- There is no good solution on the market

SEDI-ATI has the expertise to provide the adequate solutions.



Your HARSH or EXTREME environment

- You deal with hostile variables
- You miss the expertise to solve your issues

SEDI-ATI provides turn-key solutions from our field-proven building blocks.



Extreme temperatures

Cryogenic temp. down to **-273°C**

High temperatures up to **+1000°C**

Extreme pressures

Ultra-high-vacuum down to **10^{-11} mbar**

Hyperbare up to **5000 bars**

Radiations

Radiations up to **100 Mgray**

UV solarization down to **200 nm**

High-voltage

Dielectric breakdown up to **1 kV/cm**

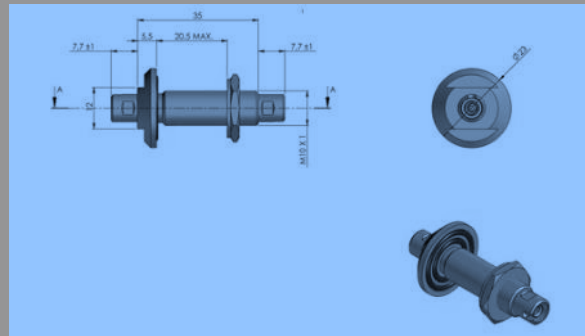
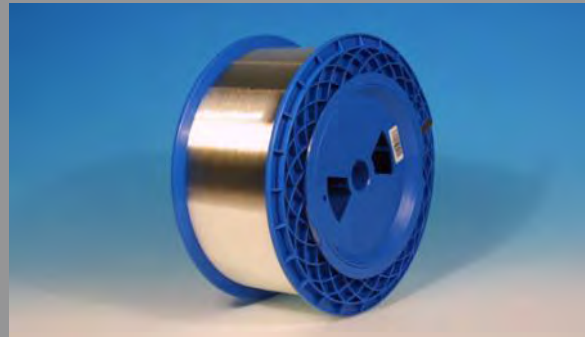
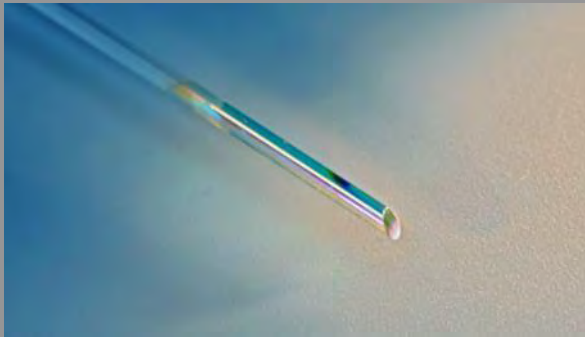
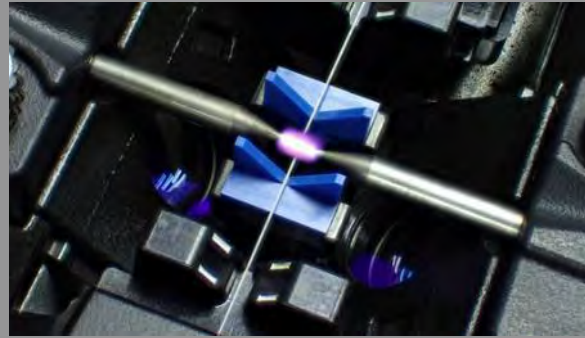
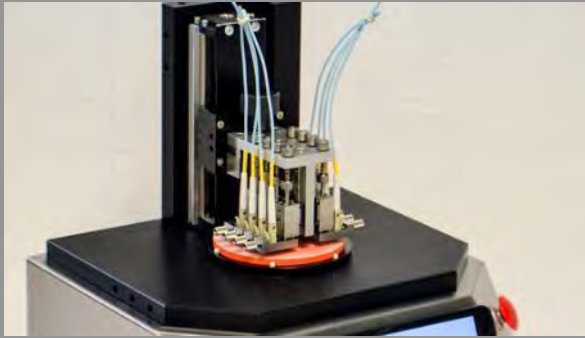
Hostile atmospheres

Corrosive or abrasive: SF6 gas,
Hydrogene, oil, chemicals, sand, mud,
rocks, moisture, sea salt, dust...

Electromagnetic fields

Extreme conditions

Mechanical stress: shocks, vibrations,
accelerations up to 20 G, stretching,
bending...



- **Polishing** of optical fibers (straight, spherical, conical, angled, chisel, lateral)
- **Shaping** of the optical fiber end face (polishing, fusion, glued parts)
- **Thin-film deposition** (metallization, anti-reflective coatings, dichroic filters)
- **Sealing** (epoxy, brasing, glass solder, ceramic bonding)
- **Spooling** (untwisted fibers, low tension coils)
- **Specific mechanical designs** for optical fibers (CAD workstations, prototyping)

- ISO 9001 and ISO 13485 certified since respectively 2012 and 2013

→ ISO 9001:2015 certification: quality management

→ ISO 13485:2016 certification: quality management for medical devices



- MDR (European Medical Device Regulation 2017/745)

→ Technical documentation built according to MDR requirements (European Medical Device Regulation 2017/745)

- 4 ISO class 7 clean rooms according to ISO 14644-1:2015 standard
- Engaged into a CSR process (Corporate Social Responsibility)



70+
years of
expertise



200+
faithful
customers



8 M€
turnover in
2023



35 %
export
sales



2000 m²
facilities



4
clean
rooms



60
employees



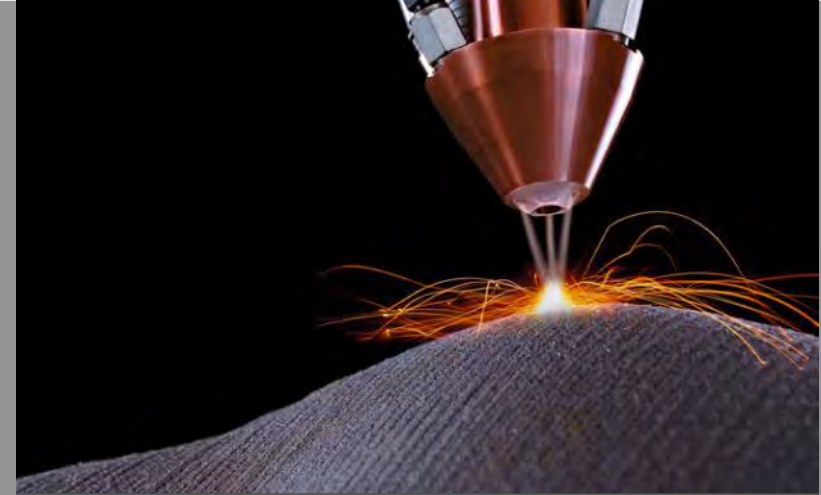
8
R&D
eng. + tech.



DEFENCE AND AEROSPACE



ENERGY



INDUSTRY



RESEARCH



DATACOM



MEDICAL

ARMY



Tethered land robots for clearance and demining operations



Opto-pyrotechnics to protect armored vehicles

NAVY



Mine action with underwater wire-guided robots

AERONAUTICS



Tip timing measurements using fiber optic sensors



Avionic embedded fiber optic links

SPACE



The space atomic clock PHARAO will test Einstein's predictions



Verifying the integrity of the optopyrolines in launchers & satellites

ELECTRIC POWER DISTRIBUTION



OIL & GAS



NUCLEAR ENERGY



WIND AND SOLAR ENERGIES



Monitoring of
insulated electrical
transformers



Hydrocarbon
reservoirs
discrimination



Optical detection of
the corrosion in gas
tanks



Fiber-optic probes at
the heart of the Jules
Horowitz Reactor



Optical measurement
of the water level in
nuclear reactor pools



Performance
monitoring of wind
turbines with fiber
optics

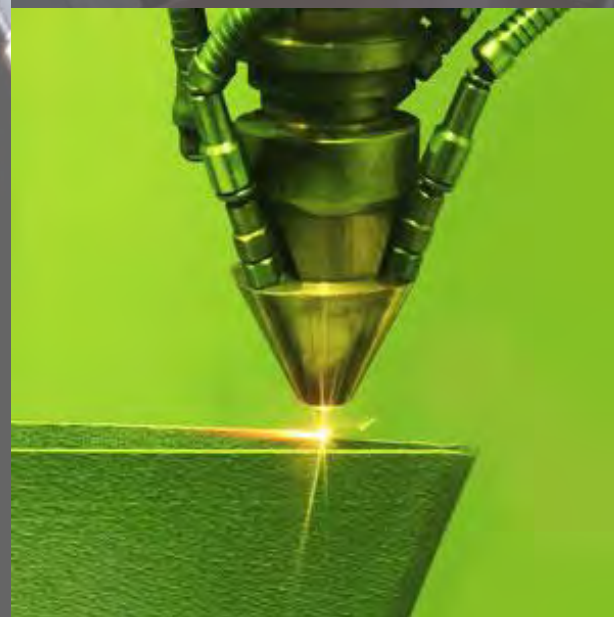
INDUSTRIAL OPTICAL SENSING



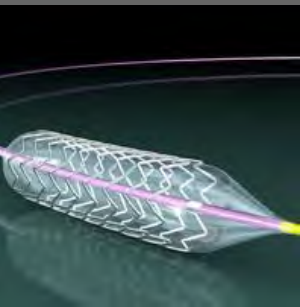
RAILWAY



POWER LASERS



ROBOTICS



Contactless layer
thickness and
topography
measurement



[SHM] Structural
Health Monitoring of
civil engineering



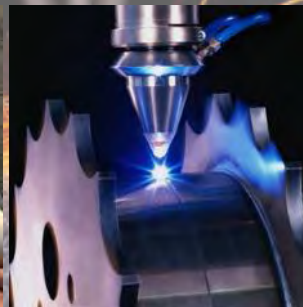
Telecom links
between wagons



Measurement of rail
deformation under
traffic



Laser stripping of
materials (stone,
wood, metal, ...)



Laser welding



Pipe inspection with
tethered robotic
crawlers

DOSIMETRIC MONITORING

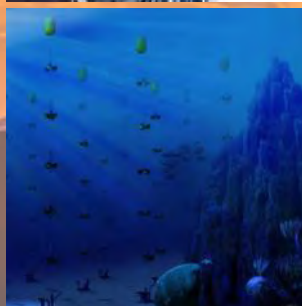


Dose control of
radioactive
substances during
radiotherapy



Control of X-ray doses
delivered to patients
during a CT scan

PARTICLE PHYSICS



ANTARES: a neutrino
telescope observing
the cosmos from the
abyss

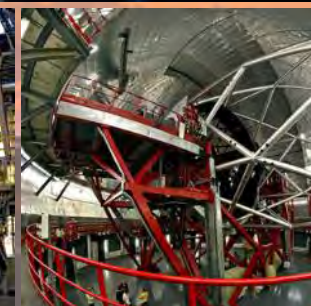


CMS: understanding
the origin of the
Universe

ASTRONOMY



MOONS: studying the
formation and
evolution of galaxies

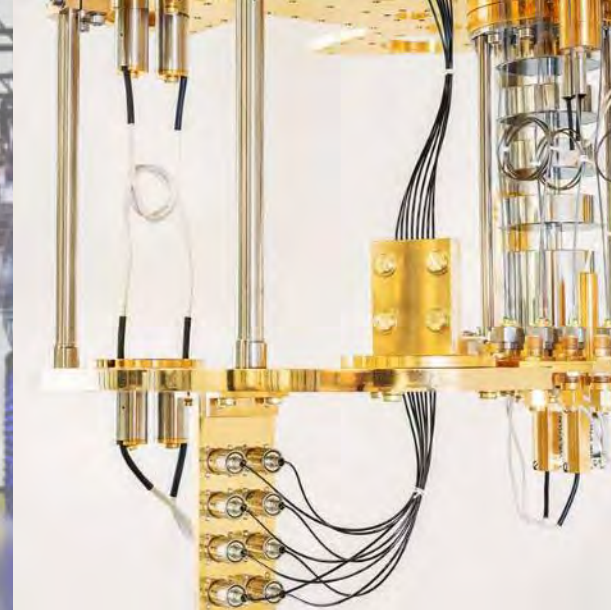


MEGARA: the new
eyes of the GTC to
study the planetary
nebulae

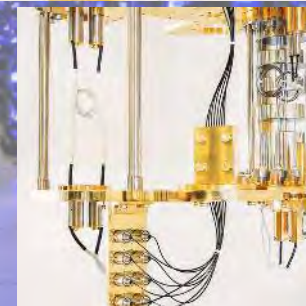
QUANTUM COMMUNICATION



QUANTUM METROLOGY



CYBER SECURITY: data
security through
optical encryption



SENSORS: optical
spectroscopy at
cryogenic
temperature

LASER THERAPY



Endovenous laser
treatment of varicose
veins



Vaginal rejuvenation
with fiber optic
probes

DIAGNOSIS & ANALYSIS



Blood analysis



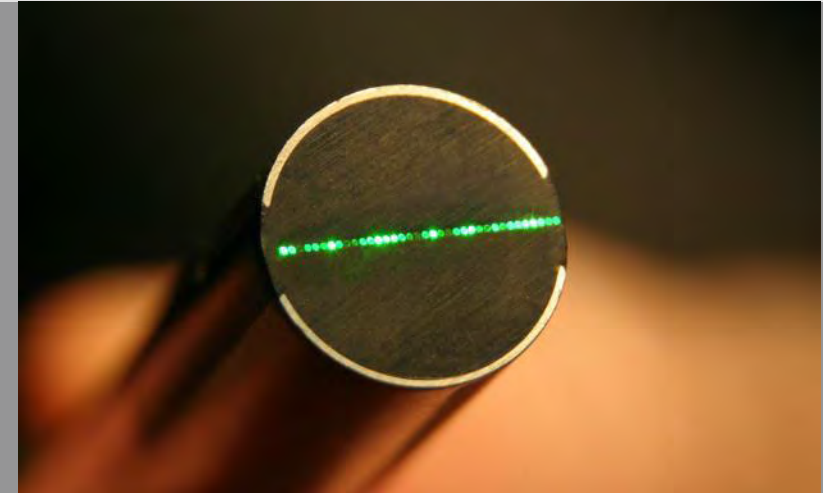
Detection of breast
cancer by
fluorescence using an
optical fiber needle



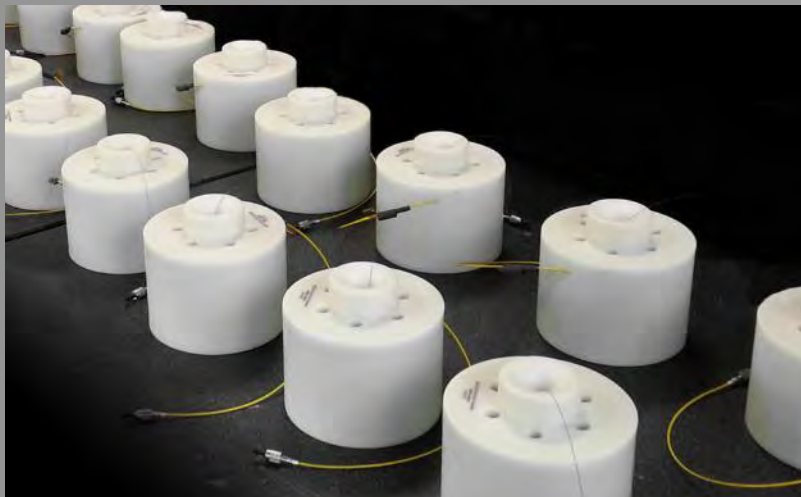
BROAD-BAND COUPLERS AND WAVELENGTH DIVISION
MULTIPLEXERS



PRESSURE AND VACUUM
FIBER OPTIC HERMETIC FEEDTHROUGHS



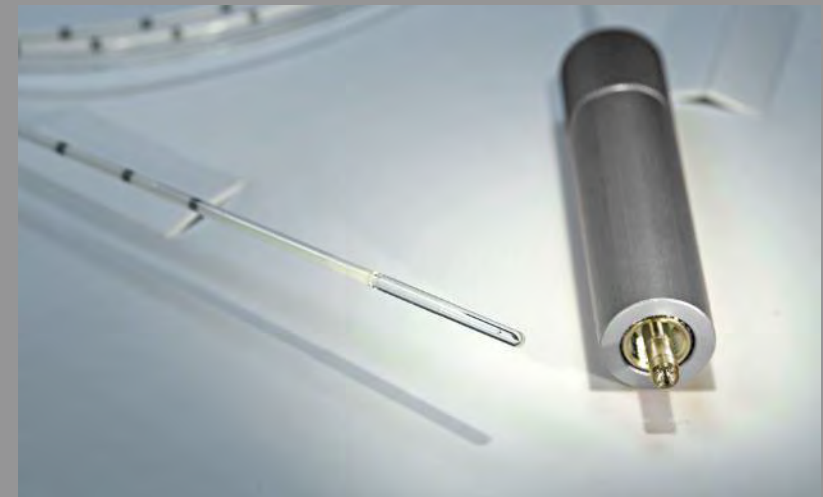
FIBER OPTIC BUNDLES, ARRAYS AND OCTOPUS



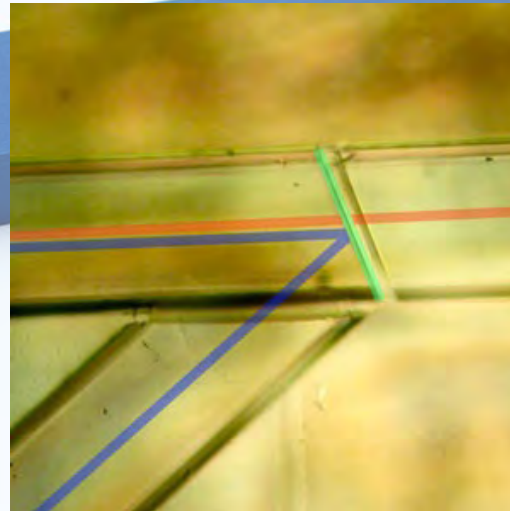
FIBER OPTIC SPOOLS FOR ROVS



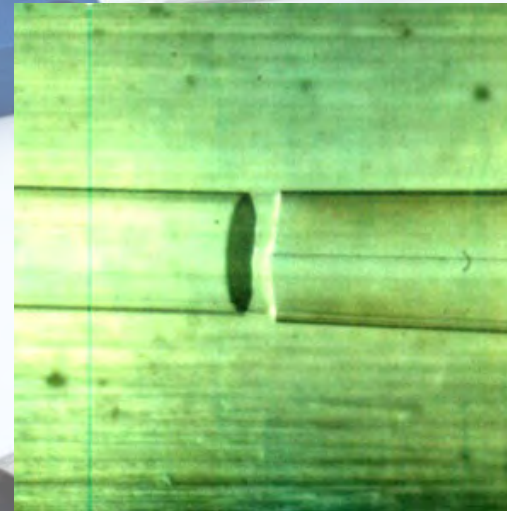
FIBER OPTIC PIGTAILS, CABLES AND CONNECTORS



MEDICAL FIBER OPTIC PROBES



MULTIMODE WAVELENGTH DIVISION
MULTIPLEXERS



1X2 MULTIMODE COUPLERS



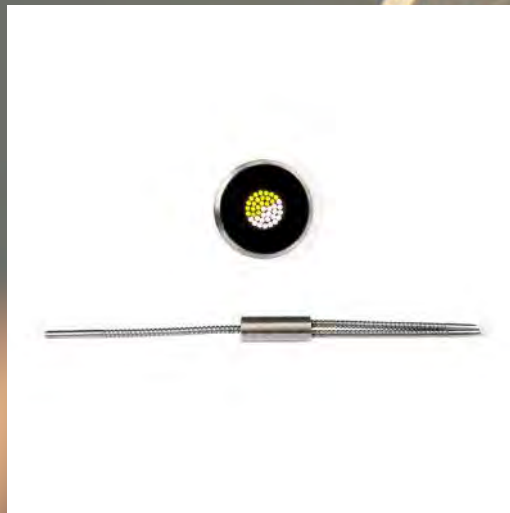
BULKHEAD STYLE



INLINE STYLE



CUSTOM DESIGN



BUNDLE / ARRAY



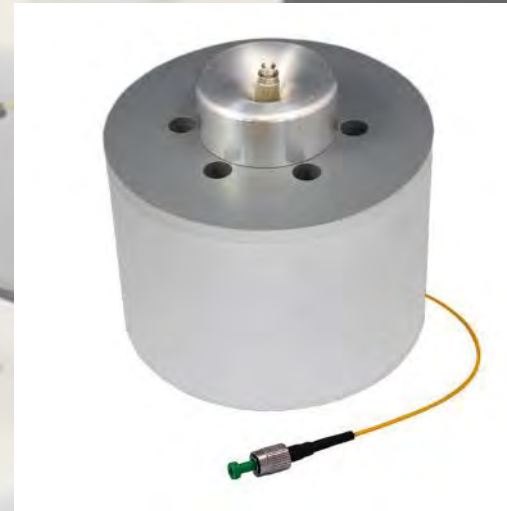
ARRAY / OCTOPUS



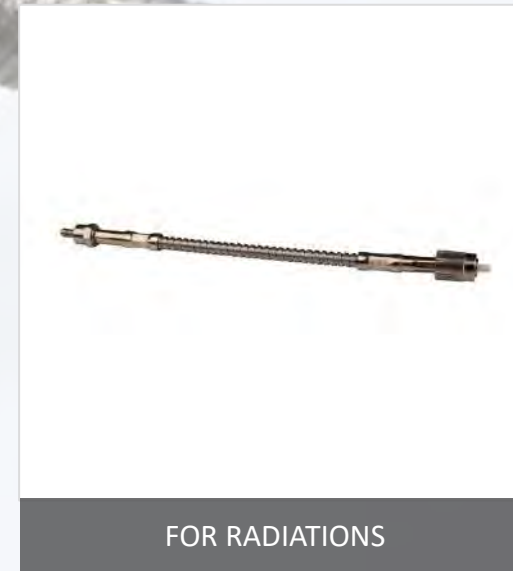
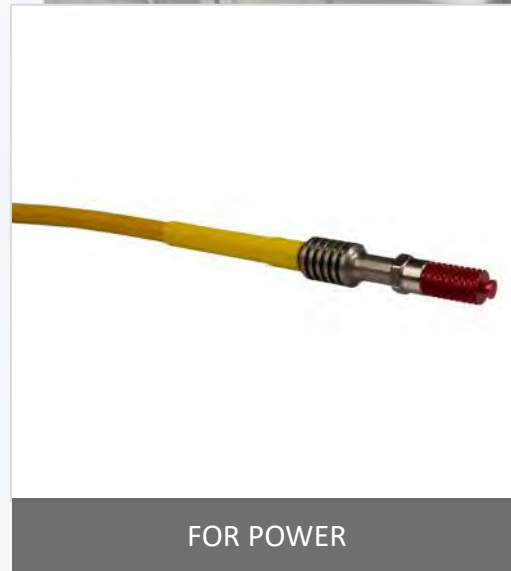
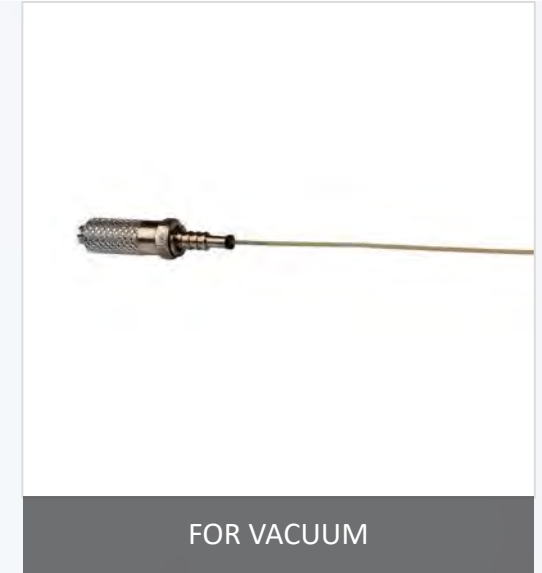
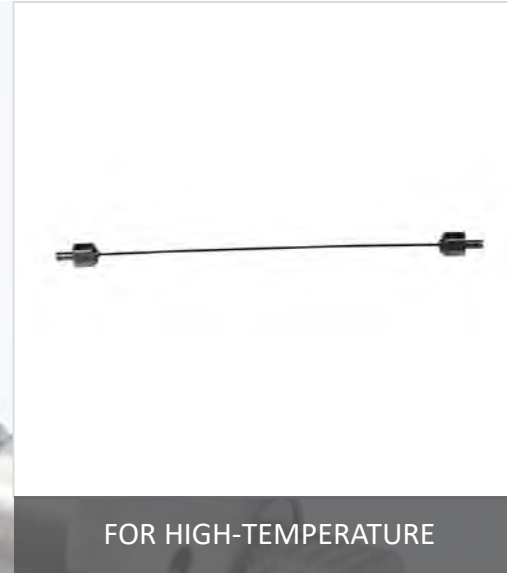
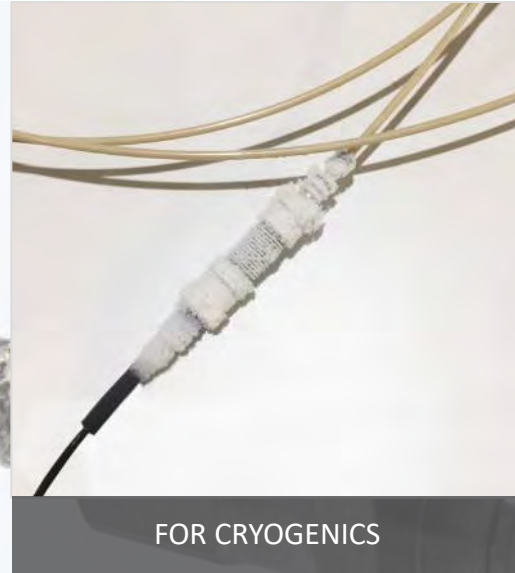
BUNDLE / OCTOPUS



SPOOLS FOR UGVs



SPOOLS FOR ROVs

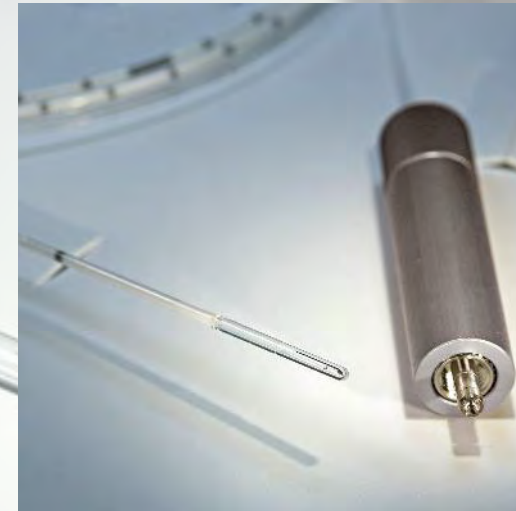




FIBER OPTIC NEEDLE PROBES



FRONTAL EMISSION PROBES



RADIAL EMISSION PROBES


SEDI•ATI

8 rue Jean Mermoz

ZA Saint-Guénault


91080 Evry-Courcouronnes

France

 +33 1 69 36 64 32

 contact@sedi-ati.com

 sedi-ati.com

 [LinkedIn](#)

 [YouTube](#)