Upcoming Tenders at CERN

Big Science Morning • Breakfast meeting for member companies

Jérôme Pierlot

Head of Procurement for Accelerator and Technology

3 November 2020

Same information in all slides

MS- Reference Title

Contact: Technical.Officer@cern.ch

Procurement Code: 8-digit code

Cost Range : A, B, C, D

Planning: MS : Sent- in Prep / IT: Q4 2021

Description and Specific Condition :

Service vs Supply

Splitting ? Blanket vs Regular?

Technical details

A *< 750 k CHF*

750 kCHF < ***B*** *< 5 MCHF*

5MCHF < ***C*** *< 10 MCHF*

D *> 10 MCHF*

MS-4552/EN
Supply and Installation of Cooling Systems on the CERN Sites and Specific Cooling Systems for the HL-LHC Project

Procurement Code: 01.03.03.00

Contact: Michele.Battistin@cern.ch

Cost Range : B

Planning: MS : Sent / IT: Q4 2020, Q1-Q2-Q3 2021

Description and Specific Condition :

HL-LHC : 2 Contracts for Cooling systems LHC1 & LHC5

2 Blanket Contracts for CERN sites

MS-4563/EN
Supply and Installation of Ventilation Systems on the CERN Sites and Specific Ventilation Systems for the HL-LHC Project

Procurement Code: 01.03.02.01

Contact: Michele.Battistin@cern.ch

Cost Range : B

Planning: MS : Sent / IT: Q4 2020, Q2-Q3-Q4 2021

Description and Specific Condition :

HL-LHC : 2 Contracts for Ventilation systems LHC1 & LHC5

2 Blanket Contracts for CERN sites

Electrical Substation LHC P5 (CMS)

Procurement Code: 02.01.00.00; 02.02.00.00; 02.70.00.00

Cost Range : A, C

Planning: 2021 - 2022

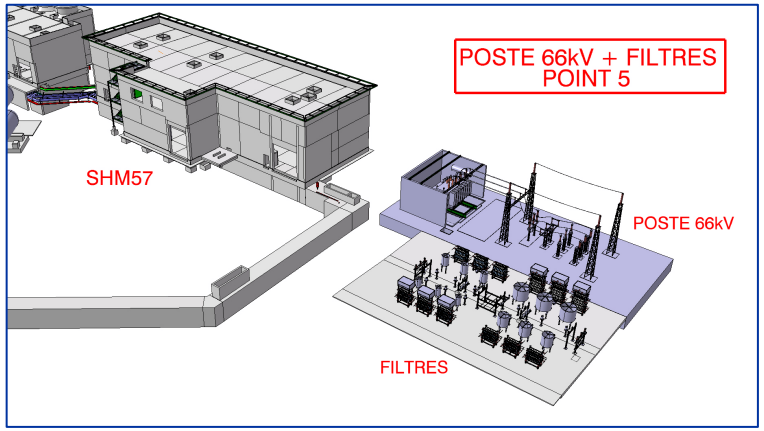
Description and Specific Condition :

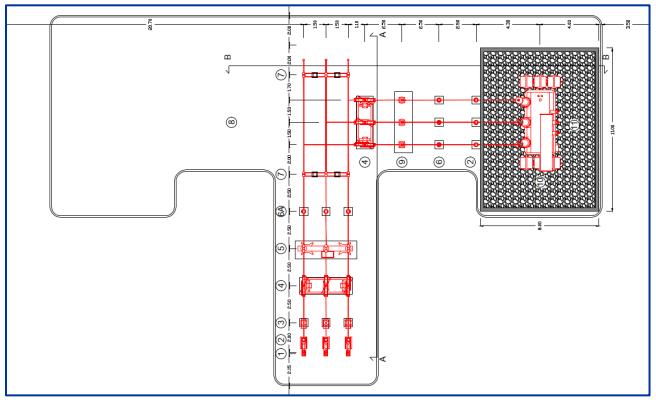
66/18 kV substation - 38 MVA transformer

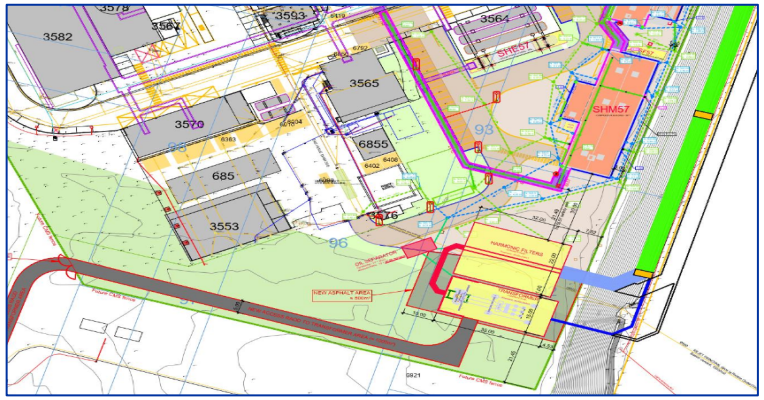
Modification of LHC P6 electrical

DO : Design + Components specification + Worksite supervision

MS + IT : Turnkey contract for the supply, installation, testing and commissioning of the new electrical substation located on the French part of the CERN site.







Supply of 5 Helium Vessels for the new Cold Diode Modules of the Inner Triplet Magnets

Procurement Code: 09.01.05.00

Cost Range : A

Planning: MS: Q1 2021 / IT : Q2 2021

Description and Specific Condition :

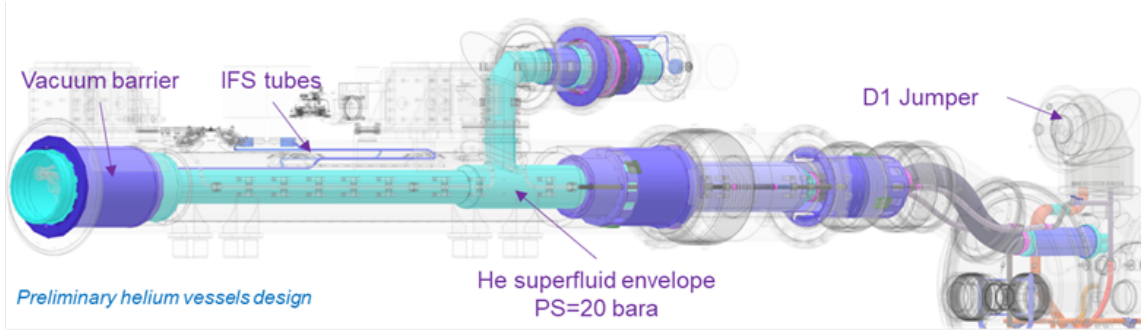
5 Vacuum Vessels with a diameter of 0.3 m

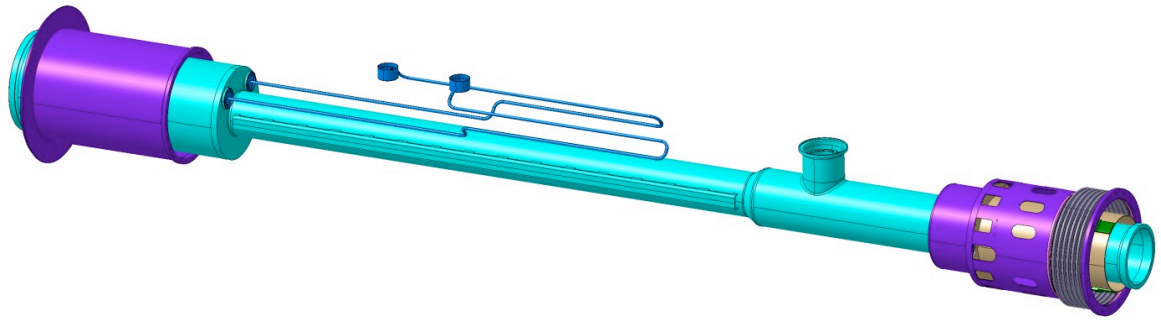
Metal sheet work and welding

PED requirements (Pressure Equipment Directive)

Final assembly performed at CERN

Contact: Yann.Leclercq@cern.ch





Supply of 5 Vacuum Vessels for the new Cold Diode Modules of the Inner Triplet Magnets

Procurement Code: 06.02.02.03

Cost Range : A

Planning: MS: Q1 2021 / IT : Q2 2021

Description and Specific Condition :

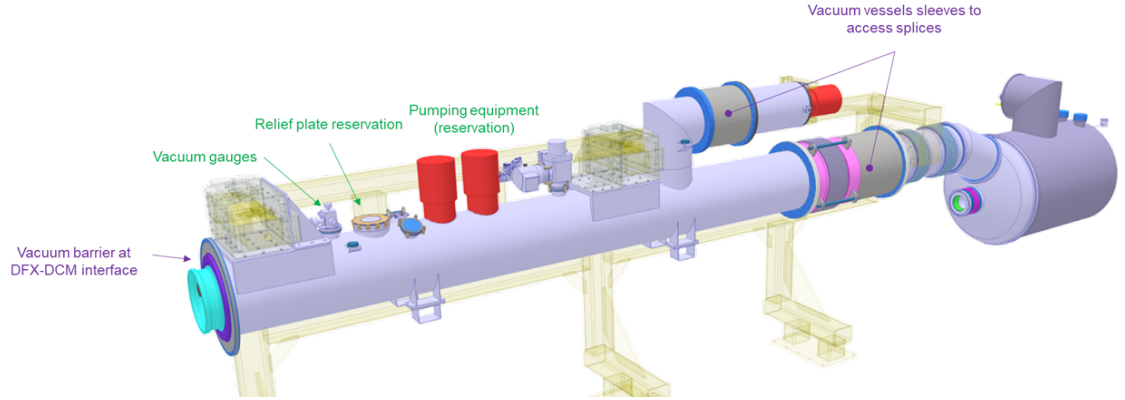
5 Vacuum Vessels with a diameter of 0.5 m

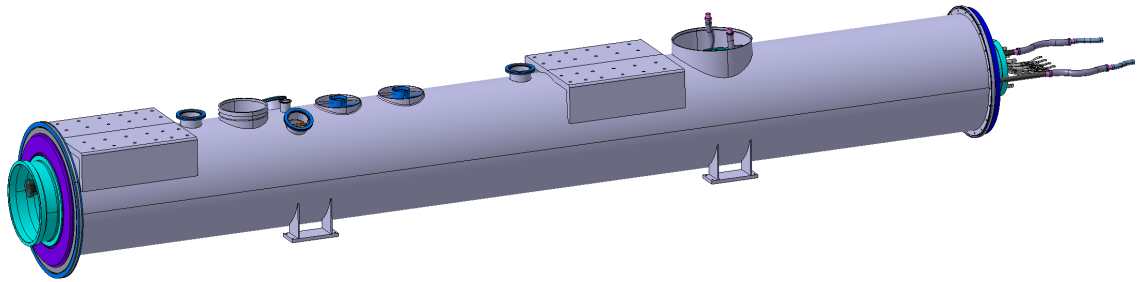
Metal sheet work and welding

Vacuum as thermal insulation

Final assembly performed at CERN

Contact: Yann.Leclercq@cern.ch





Supply of Power Converters for HL-LHC Project

Procurement Code: 02.10.00.00

Contact: Michele.Martino@cern.ch

Cost Range : A, B

Planning: MS: Q4 2021 / IT: Q3 2022

Description and Specific Condition :

Low Voltage Power : 657 Power Converters

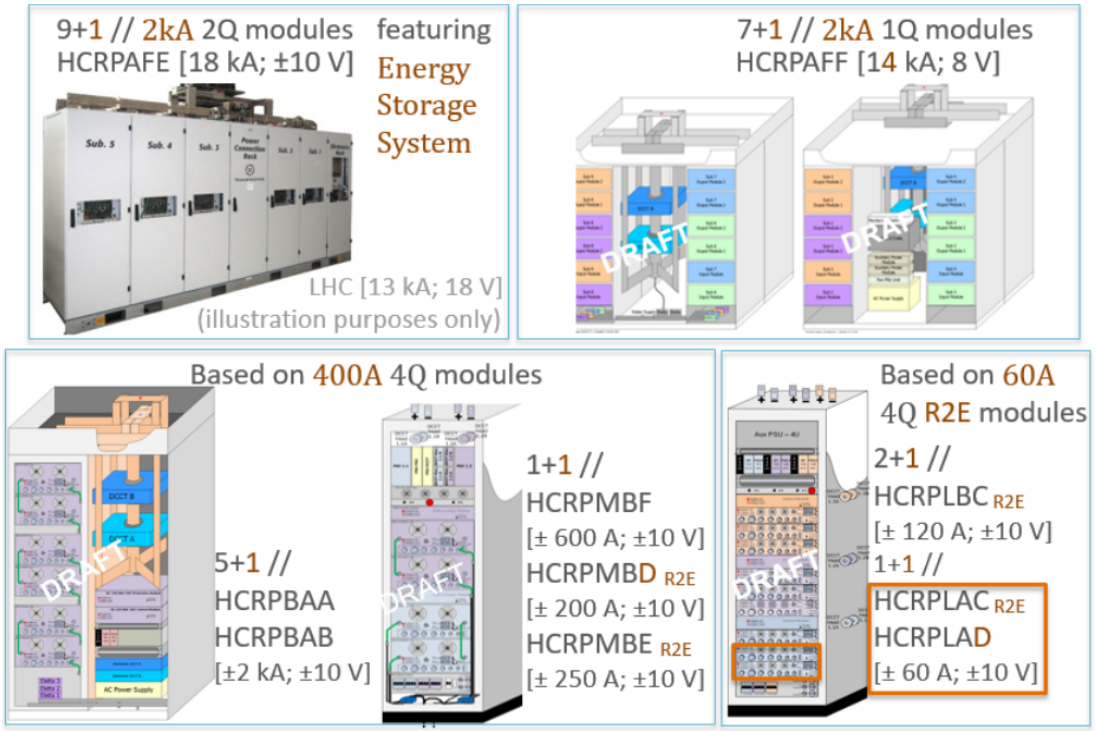
Designed by CERN => Built to print

Very high current: HL-LHC18kA-10V : 6 units + HL-LHC14kA-08V : 10 units

High current: HL-LHC2kA-10V : 37 units

Medium current: HL-LHC600A-10V : 26 units

Low current: R2E-HL-LHC120A-10V : 136 units + R2E-HL-LHC60A-10V : 442 units



Supply of Circuit Disconnector Boxes

Contact: Samer.Yammine@cern.ch

Procurement Code: 02.10.05.00; 02.10.07.00

Cost Range : A

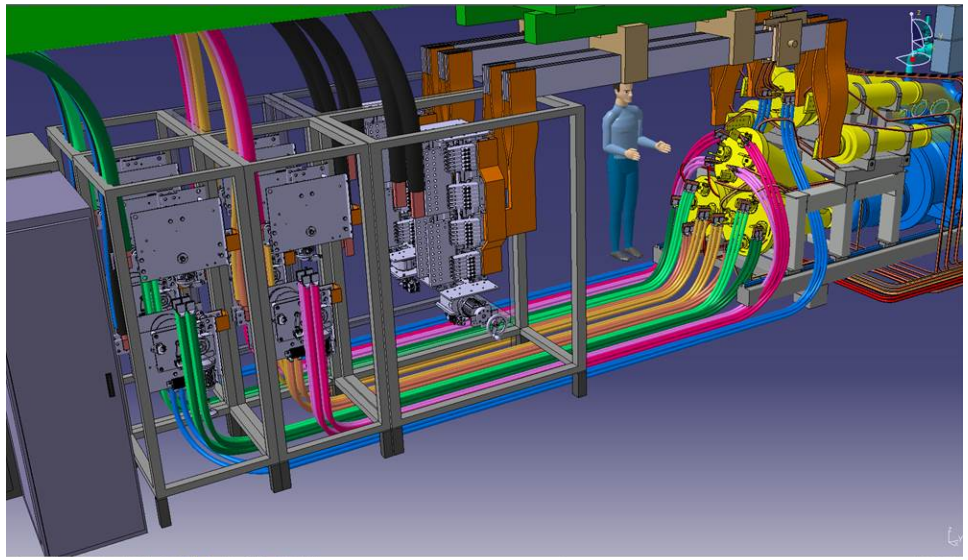
Planning: First DO: Q4 2020 / MS: Q4 2020/ IT: Q12021

Description and Specific Condition :

3 DO :
- 13 CDB for 18 kA and 12 kA Power Converters
- 34 CDB for 2 kA Power Converters
- 26 CBD for 600 A , 100 A and 60 A Power Converters

MS/ IT for 146 earthing System

MS/IT for system integration (B2Print)



MS-4569/TE/HL-LHC

Supply of 32 Coupling-Loss Induced Quench (CLIQ) units

Procurement Code: 02.02.06.00

Contact: David.Carrillo@cern.ch

Cost Range : B

Planning: MS: Sent / IT: Q4 2020

Description and Specific Condition :

32 units Protection of superconducting magnets after a quench

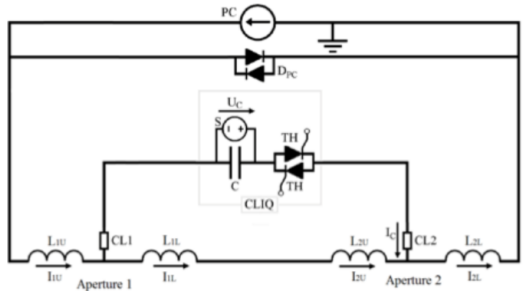
Assembly of racks with electrical & electronics components

Material to be acquired by the manufacturer (long lead time)

Integration and testing of critical electronics & electrical equipment (1000 VDC, 40 mF, 10 kA)

Handling metallized film capacitors in the parameter range of this application

Storage energy systems discharge into loads (resistive & inductive)



Supply of 600 A & 2 kA A Energy Extraction Switches for the String

Contact: Bozhidar.Panev@cern.ch

Procurement Code: 02.03.05.00

Cost Range : A

Planning: MS: Q4 2020 / IT: Q2 2022

Description and Specific Condition :

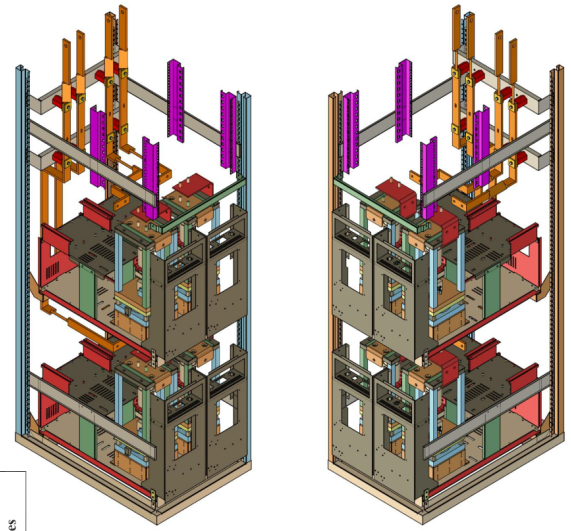
7 units in total : Design, manufacturing and testing of 2 kA and 600 A switches

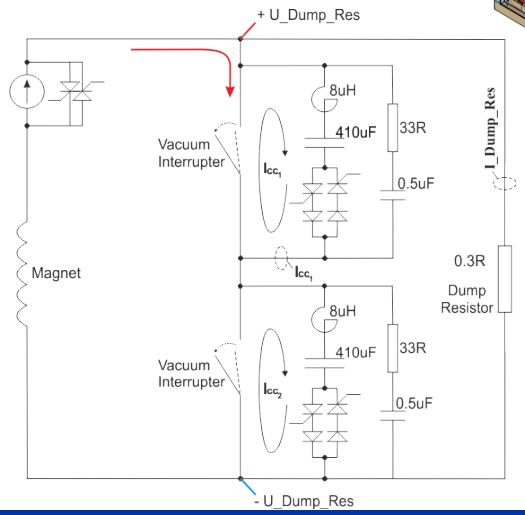
In-vacuum switches

Energy absorption (150 & 250 kJ)

2 ms whole commutation time

Integrated control system





MS-4589/TE/HL-LHC

Supply of 64 carbon fiber half-shells for the structure of a magnetic measurement shaft

Contact: Lucio.Fiscarelli@cern.ch

Procurement Code: 05.04.05.02

Cost Range : A

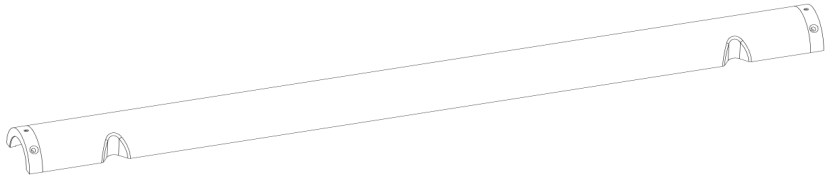
Planning: MS: Sent / IT : S2 2020

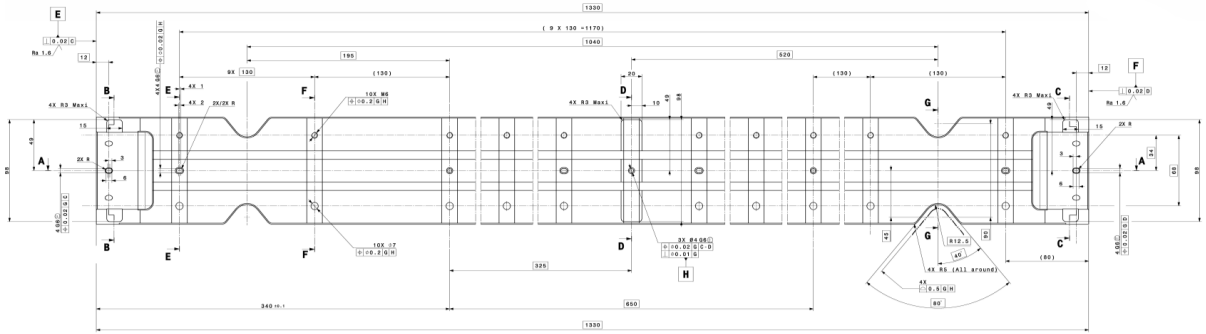
Description and Specific Condition :

The half-shells have a D-shape cross-section, a length of about 1.3 m and a diameter of about 100 mm.

Tight tolerances are required for the concentricity (<0.05 mm), the parallelism (<0.05 mm) and the position of some holes (<0.05 mm). Magnetic or conductive materials are not allowed.

Interested firms shall have a proven experience and competence in the design and manufacturing of composite materials with tight tolerances.





Supply of Cryogenic Cables for Beam Position Monitors

Contact: Michal.Krupa@cern.ch

Procurement Code: 02.05.05.00

Cost Range : A

Planning: MS: Q4 2020 / IT: Q2 2021

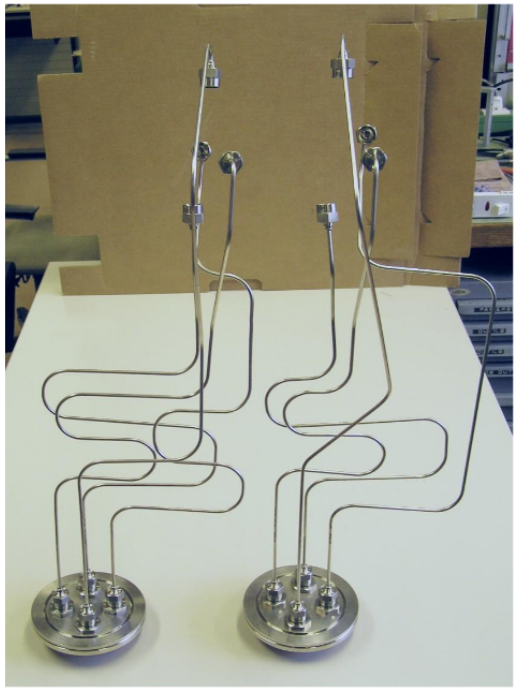
Description and Specific Condition :

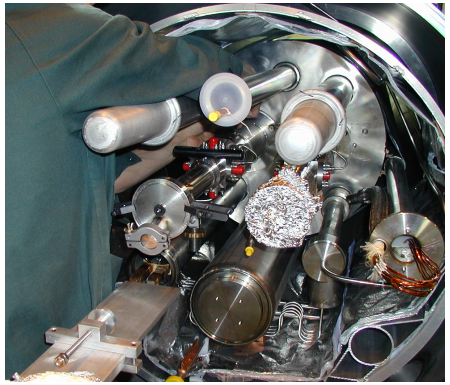
300 cables needed (proto, series, spares)

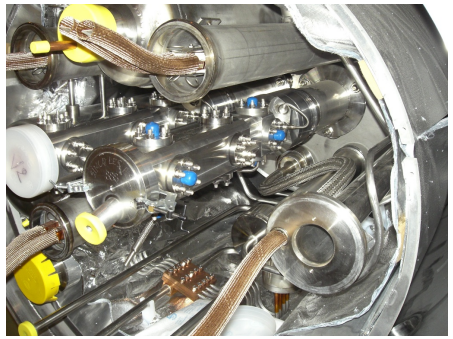
Cables to withstand cryogenic temperatures (~ 5K)

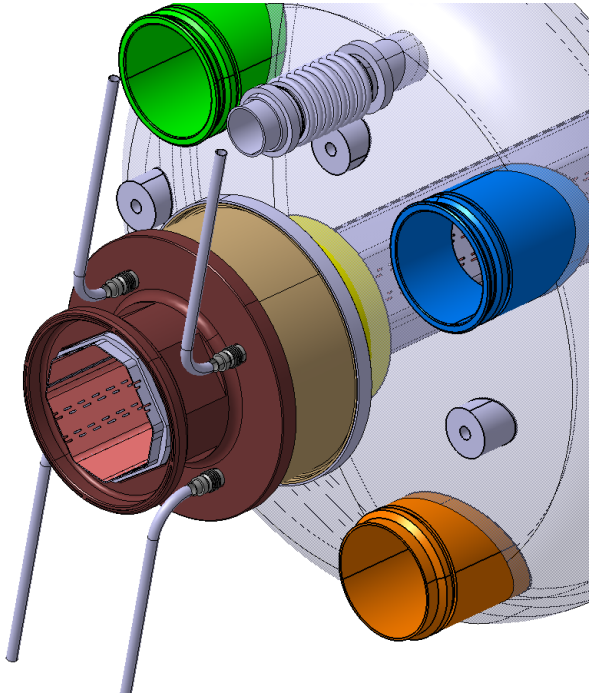
SiO2 Coaxial RF Cables

Laser Welding Cable-Connector challenging. Micro-cracks can’t be present









MS-4579/EN

Supply of two sets of Custom-Built transport and handling vehicles

Contact: Diego.Zambelli@cern.ch

Procurement Code: 11 04 06 00

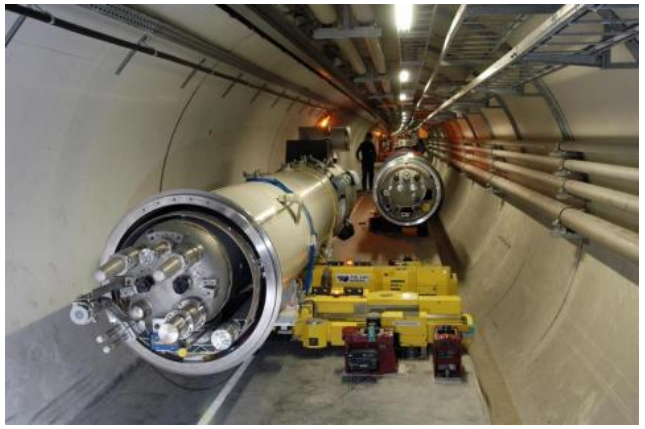
Cost Range : B

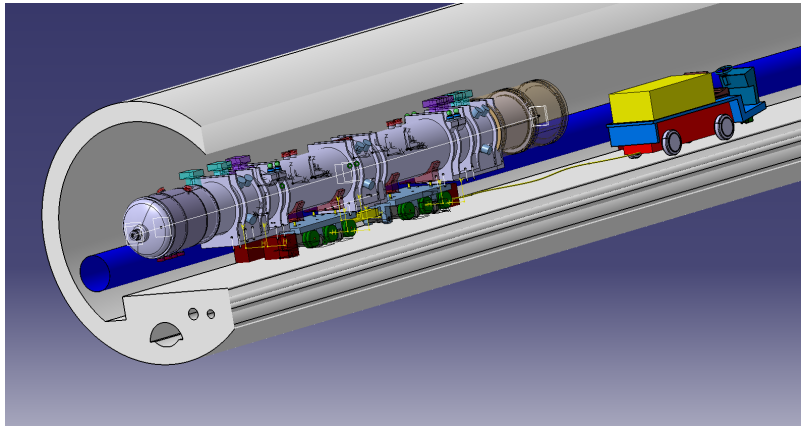
Planning: MS: Sent / IT: Q1 2021

Description and Specific Condition :

Supply of two custom-built transport and handling vehicles, each composed of two special self-propelled bogies and an auxiliary vehicle to be used for the underground installation of magnets up to 35 t and 15.5 m length requiring careful handling. These vehicles shall have compact overall dimensions to permit the installation of magnets in the restricted space available in the LHC tunnel.

Interested firms shall have a proven competence and relevant experience in designing custom built vehicles.





MS-4643/EN

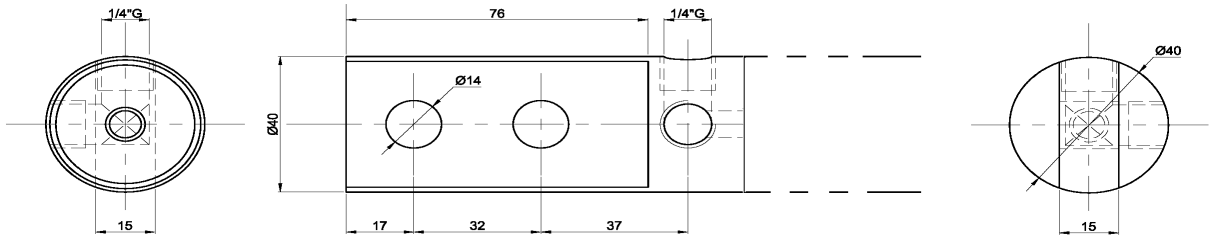
Supply of water cooled cables

Contact: davide.de.luca@cern.ch

Procurement Code: 02.05.05.00

Cost Range : B

Planning: MS : Q4 2020 / IT: Q1 2021



500 mm2 Lug – water entrance ¼'' gas

Description and Specific Condition :

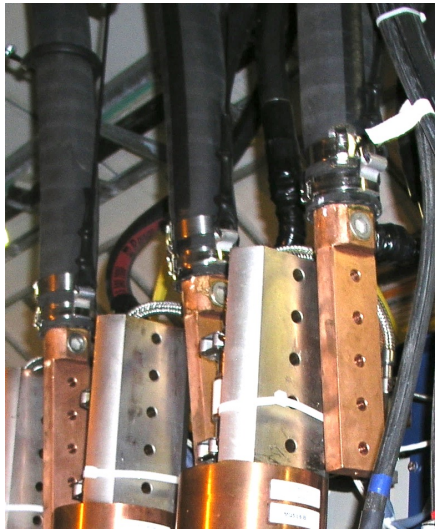
Flexible water cooled cables of section 500, 800, 1000, 1300 and 2000mm2, with rad hard hoses according to IS23

Required for current and future CERN projects : FRESCA 2, SM18 Cluster F and IT STRING TEST, HL-LHC

Terminals included in the supply shall be mounted

Complete link shall be tested under water pressure by the supplier.

Interested firms shall have a proven experience and competence in the design and manufacturing of supply of cables with special rad hard hoses.



MS-4628/EN

Supply of CERN standard pre-fabricated concrete blocks and beams

Contact: Michael.Lazzaroni@cern.ch

Procurement Code: 01.01.03.03

Cost Range : A

Planning: MS : Sent / IT: Q4 2020

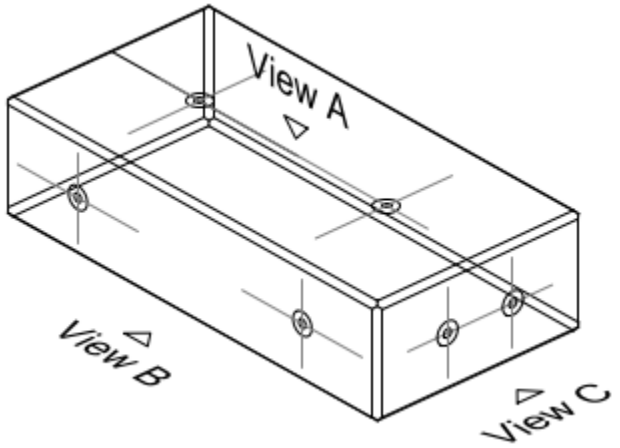
Description and Specific Condition :

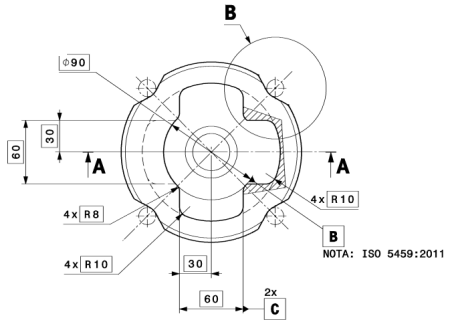
Five-year blanket purchase contract for shielding blocks.

Ten types of blocks with cylinder shape : 20kg; 160 kg; 325 kg; 630 kg; 1250 kg; 1250 kg; 2500 kg; 7200 kg; 7500 kg)

Eight type of blocks with parallelepiped shape: 2500 kg; 3150 kg; 3750 kg; 5000 kg; 6300 kg; 7500 kg

Interested firms shall have a proven experience and competence in the field of pre-fabricated concrete blocks





MS-4509/BE

Supply of SUSI (SIte SUpervision) : Access control and video surveillance systems

Contact: Rui.Nunes@cern.ch

Procurement Code: 04.09.03.00

Cost Range : B

Planning: MS : Q1 2021 / IT : Q2 2021

Description and Specific Condition :

B Contract renewal (Existing B1371)

Supply and installation of Site Surveillance physical access control and video surveillance systems, and their associated computing infrastructure and cabling

The supplier must have a previous experience, and have appropriate certification in supplying, installing and servicing access control and in video surveillance systems.

MS-4619/EN
Supply of a 2D laser cutting machine

Procurement Code: 05 03 02 00

Cost Range : A

Planning: MS: Sent / IT : Q4 2020

Description and Specific Condition :

Supply, installation and commissioning of a high precision 2D laser cutting machine with a useful cutting surface of 1250 mm × 1250 mm. The machine will be used for cutting parts for the fabrication of particle accelerator components, with thicknesses ranging from 0.05 up to few millimetres in a wide range of materials (stainless steel, aluminium, copper, titanium, etc.). It shall have a high positioning accuracy with high repeatability.

Interested firms shall be specialized in laser cutting machine manufacturing.

Contact: manuel.redondas.monteserin@cern.ch

MS-4644/EN

Supply of numerical protection relays

Procurement Code: 02 50 01 00

Cost Range : B

Planning: MS: Q4 2020 / IT : Q2 2021

Description and Specific Condition :

CERN intends to place a contract for the supply of approx. 200 numerical protection relays for protection, measurement, control and supervision of high voltage equipment on the CERN 18 kV and 3.3 kV networks to ensure protection, control, measurement and supervision functions for Power lines, Transformers, Motors, Generators and Busbars.

Interested firms shall have produced at least 2000 numerical protection relays in the last three years and have a proven competence and experience of at least ten years in the field of manufacturing and testing of numerical protection relays.

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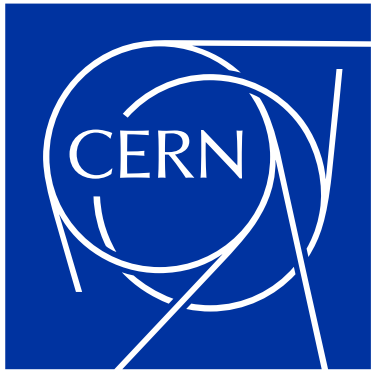
Contact: emanuele.freddi@cern.ch

Thank you



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