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Coil report

Conductor acceptance

- Conductor cleanliness(oxydation,burrs stripes..)
- Conductor geometry
- Mechanical properties
- Supraconducting properties
- Consolidation

follower

follower

Conductor insulation with fiber glass on taping machines

- Visual inspection(insulation cleanliness)
- Insulation quality(without wrinkle, tear)
- Insulation quality(start and stop)
- repeatability

follower

follower

Check dimension insulated conductor with fiber glass

follower

Operation SHMS n° 4

Reserve Spool manufacturing

- · Check the length during manufacturing
- · Storage on the spool

Operation SHMS n° 5

Dimensional and raw materials control of the spacers

Operation SHMS n° 6

Winding the first double pancake

Check the resitance during the winding

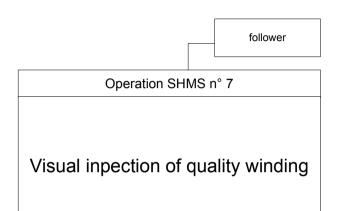


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Coil report

Operation SHMS n° 8

Control

Resistance measure (to detect short circuit)

Operation SHMS n° 9

Dimensional and raw materials control of the spacers

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Operation SHMS n° 10

Winding the second double pancake

- Dielectric test between the first double pancake and the beginning of the second
- Check the resitance during the winding

Operation SHMS n° 11

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Visual inpection of quality winding

Operation SHMS n° 12

Control

- Resistance measure
- Dielectric test between the first and the second double pancake.



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Dimensional and raw materials control of the spacers

Follower

Operation SHMS n° 14

Winding the third double pancake

- Dielectric test between the first double pancake and the beginning of the second
- Check the resitance during the winding

Follower

Visual inpection of quality winding

Operation SHMS n° 15

Follower

Operation SHMS n° 16

Control

- Resistance measure
- Dielectric test between the three double pancake.

Follower

Operation SHMS n° 17

Dimensional and raw materials control of the spacers

Follower

Winding the fourth double pancake

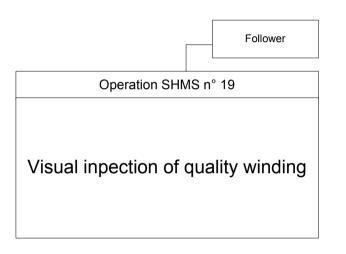
Operation SHMS n° 18

- Dielectric test between the third double pancake and the beginning of the fourth
- Check the resitance during the winding



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Operation SHMS n° 20

Control

Resistance measure

Dielectric test between the four double pancake.

Operation SHMS n° 21

Qualification of the soldering process

Samples tested at 4k
Radiographic control?(other)
Process monitoring of the soldering (send samples all the « x » soldering
Soldering length

Operation SHMS n° 22

Clean double pancakes junctions

Operation SHMS n° 23

Soldering double pancakes junctions

Operation SHMS n° 24

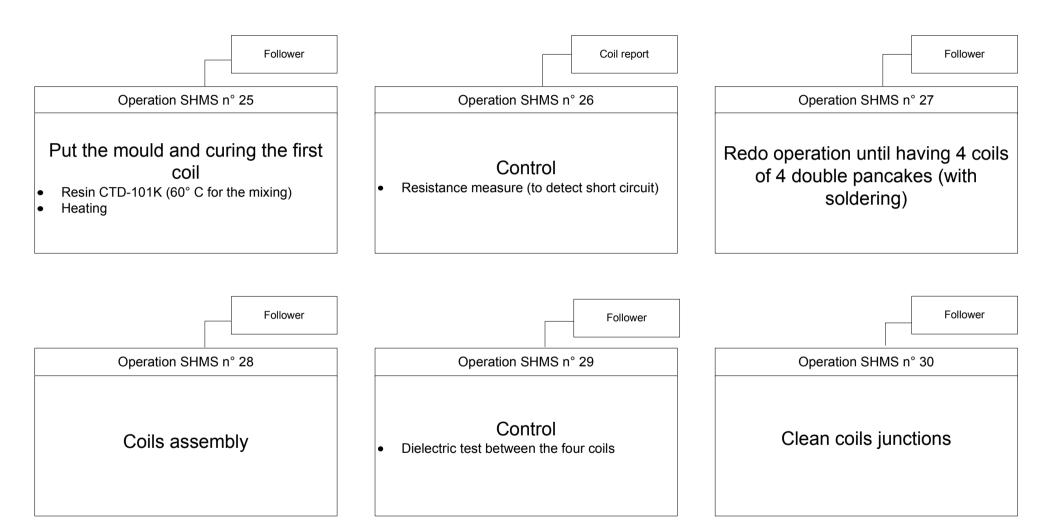
Insulating double pancake junctions

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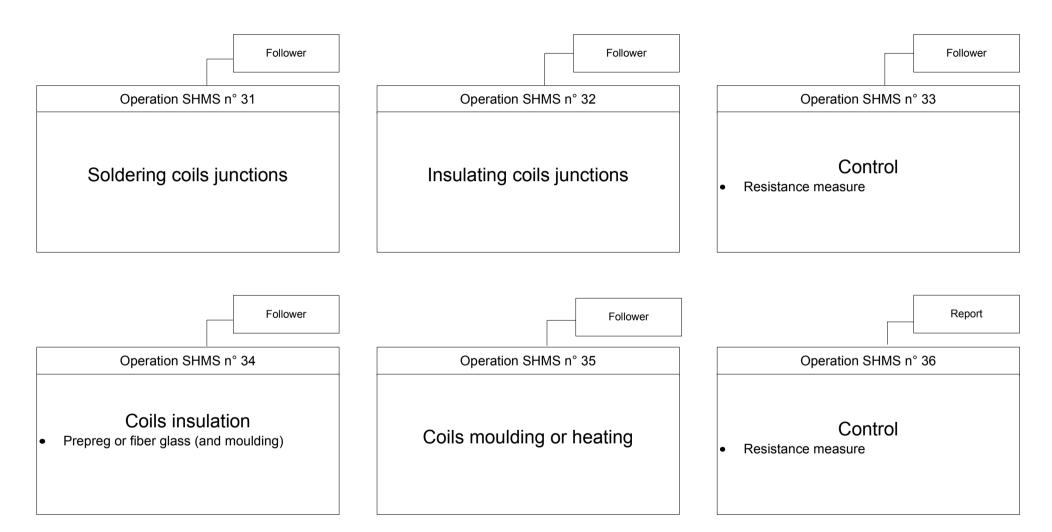
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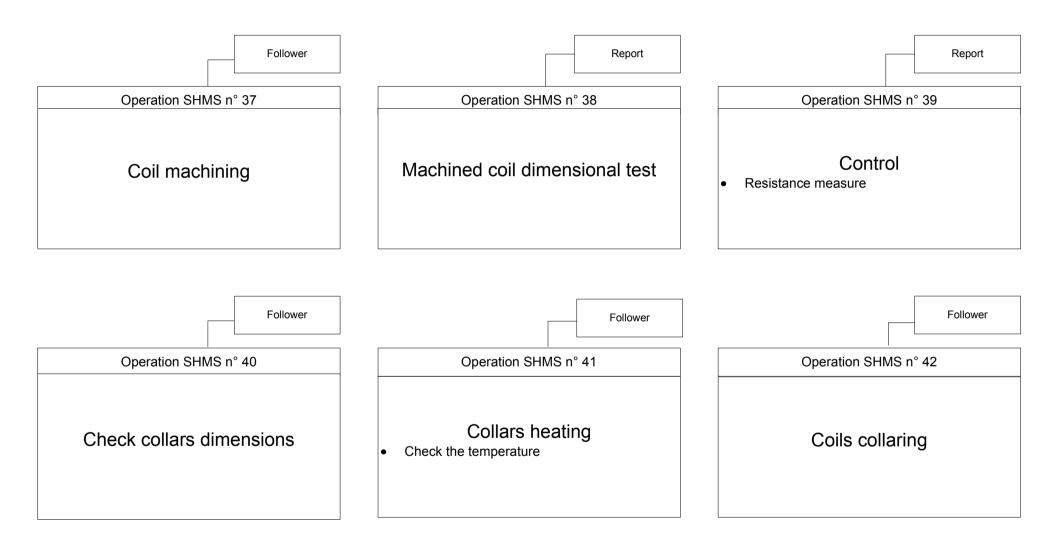
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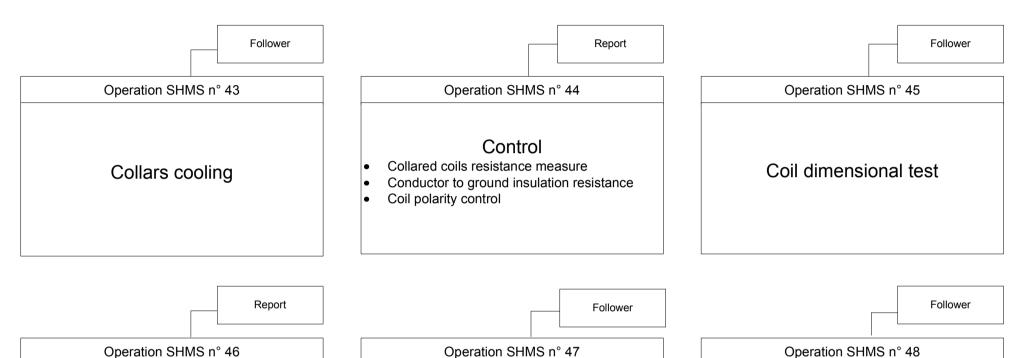
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Dimensional control of each vessel chamber parts

Validate certificate raw materials before machining

Operation SHMS n° 47

Weld and welder qualifications according to ASME

Operation SHMS n° 48

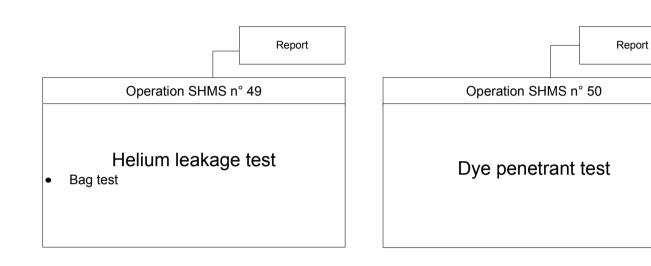
Piping and plate vessel chamber welding

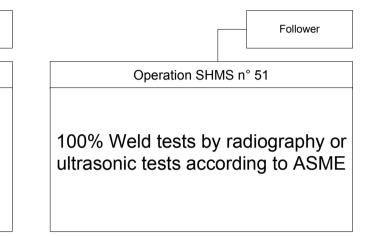
Validate certificate raw materials before machining

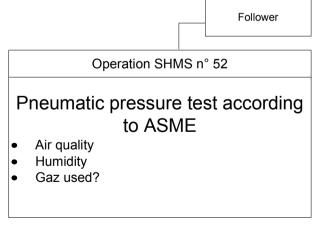


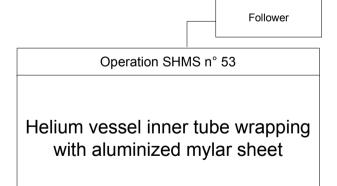
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Weld and welder qualifications according to ASME

Operation SHMS n° 54

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Operation SHMS n° 56

N2 vessel piping and plate welding

Operation SHMS n° 57

Helium leakage test

Operation SHMS n° 60

Operation SHMS n° 58

N2 vessels dye penetrant test

Operation SHMS n° 59

Pneumatic pressure test according to ASME

• Air quality
• Humidity
• Gaz used?

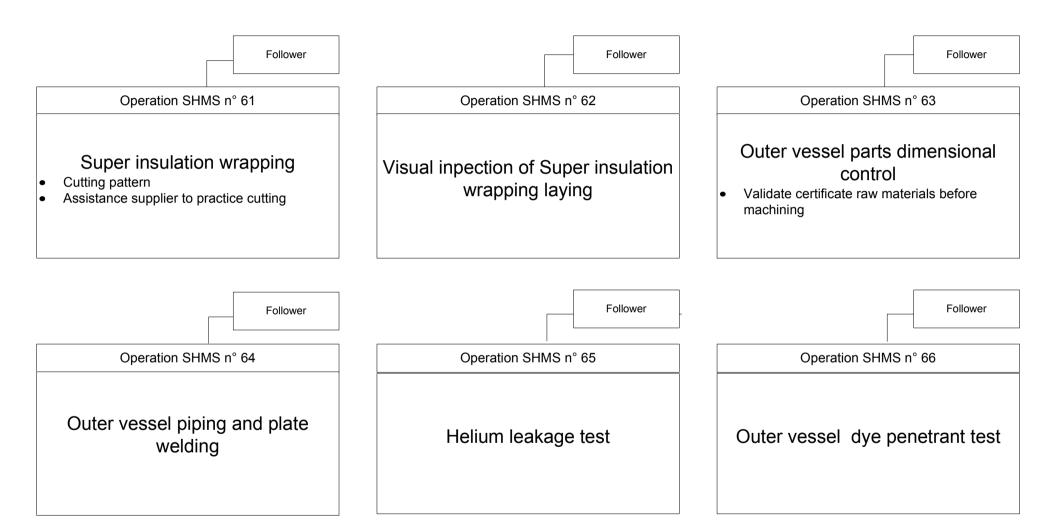
Process Control
Instrumentation wires (temperature, Voltage, deformation gauges..)

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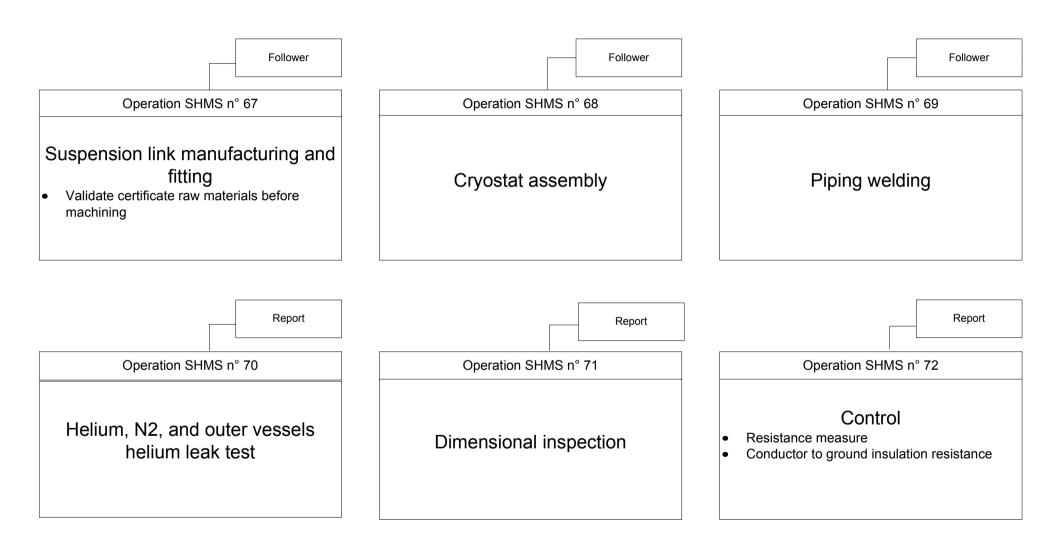
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