Market Survey Technical Note for Vacuum Vessel Transportation Frame Assembly

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Transportation Frame Assembly functions

The Transportation Frame Assembly (TFA) consists in:

- One **Lifting Frame (LF)** mainly for lifting and handling operations at Hyundai Heavy Industries, Consortium AMW and/or ITER Organization, and
- One **Transportation Frame (TF)** to rigidify the whole TFA during Vacuum Vessel (VV) sectors ocean & road transportation

**Nota**: the TFA manufacturing according to the delivered design is for the multimillions euros VV sectors Protection Important Component’ transportation/lifting from Italy to Cadarache & ITER Org lifting/handling
Total LF weight (including VV sector)

Masse | 72148,655kg
Nota: Hydraulic jacks will be procured by IO to be mounted on LF
Transportation frame (TF)

TF in Details
- 5 main structure
- 12.5 m x 9 m
- Beam 650 mm height
- 74 600 kg all included
- 29 Support block (green)
- 6 positioning and stability block
- 2 locking device
- Splice assemblies
- 16 lifting lugs

Nota: the TFA design was made by DAHER which will be also the transportation company
The possibility to use VV sector as support for the protection with loads taken by the VV

- COP mechanical protection can be removed
- Cocooning directly onto a structure directly supported by VV Sector

Impact on design:

- Cocooning membrane can not touch VV Sector: necessary metallic light skeleton adapted to VV Sector shape
- Skeleton structure to include:
  - Access door for access to monitoring devices
  - Resistance to external forces: wind, snow, etc...

Concept to be validated by transport insurance
End of Technical Note