



Infrastructure name	MULTICHANNEL SEISMIC SYSTEM
Code	SIS
Owner/Institution	CSIC
Manager	Jose Luis ALONSO jalonso@utm.csic.es
Equipment type	SEISMIC
System description	Multichannel full operation seismic system
WEB LINK	http://www.utm.csic.es
WEB LINK TECH SPECS	
Vessels normally used	Sarmiento de Gamboa
Ship requirements	Huge main deck to install containerized equipment and stern crane/A-frame deployment
Technical requirements	Hydraulic power and up to 600 ACV power
Power	
Frequency	50hz/60 hz
Voltage	220 VAC - 400 VAC - 600 VAC
Other power requirements	Workshop 3 Phase Supply - 220 VAC and 400VAC 32A. LMF compressors 600 VAC.
Hydraulic	
Pressure	210 BAR
Flow rate	TBC
Compressed air requirements	N/A
High air compressor	2 x LMF® 25/138-207E
Input pressure	1,013 bar - 14,65 psi
Output pressure	140 bar - 2000 psi up to 207 - 3000 psi
Air volume	25 m³/min - 1100 cfm
R.P.M.	Controlled by frequency variator
Cooling sea water	87 m³/h – by compressor.
Vessel GPS Feed or other requirements	GPS (GGA and ZDA messages)+ Gyro + Nadir Depth desired input data from vessel equipment 20 squared meters laboratory to install acquisition room
Source definition	
Source structure	40 feet container opened frame structure. Designed and performed by UTM.
Airguns Types	BOLT 1500LL & 1900LL - ION Sleeve Guns - SERCEL GGUN-II
Bolt chamber volumes	
Sleeve chamber volumes	
GGUN-II chamber volumes	
Streamer	
Multichannel streamer	Sentinel Sercel® up to 480 channels, 6 kilometers active sections length. Solid state streamer.
Streamer winch	Ibercisa® Hydraulic winch

Fairlead	ODIM 700/53 -550-64
Acquisition System	
Data acquisition	SEAL 408XL up to 2000 channels
Positioning system	Navipac by EIVA
Birds/Levellers	SERCEL Nautilus Acoustic Birds
Compass & Retrievers	OYO SRD-500S Retrievers Compass
Tailbuoy	SEAMAP RGPS Tailbuoy & Buoylink
Number of containers/Items, Footprint Area required	
LMF compressors	2 x 20' extrawidth and highcube containers mechanical parts + 2 x 10' extrawidth container electronic devices
Source structure	40' container opened frame structure. Designed and performed by UTM.
Streamer Winches	2 x 20' footprint NO standard Containers
Acquisition Lab	10' Standard container
Workshop	20' Standard container
Deck securing arrangements	
Deck requirements	Containers twist locked into standard iso 20', stern hydraulic Aframe with snatch center system to control fairlead height
Transportation requirements (total weight and number of loads)	
LMF compressors	20' extrawidth and highcube containers = 25 tones each. 10' extrawidth container electronic devices = 9 Tones each.
Source structure	40' container full equipped opened frame structure = 20 tones.
Streamer Winches	20' footprint with up to 3000 active streamer sections = 28 Tones each
ACquisition Lab	10' Standard container = 3 Tones.
Workshop	20' Standard container = 6 Tones
Mobilisation Details	
Typical Mobilisation duration	5 days mobilisation and configuration
Typical Mobilisation cost	
Typical Demobilisation duration	3 days
Typical Demobilisation cost	
Insurance arrangements	
Own use	None commercial insurance policy.
Barter	None commercial insurance policy.
Charter	None commercial insurance policy.
Co-operation	None commercial insurance policy.
Transportation insurance	Standard commercial insurance policy.
Technicians	
Number and type of technicians required to operate system in various scenarios	24 hour operations: minimum 5 technicians comprising: 4 Seismic Observers, 1 chief mechanic engineer, 3 mechanic engineers