



CASPIAN ENERGY GROUP

Engineering Division



February 2009

Organization chart



Center of Marine Technology SHELF



**Design Bureau
CORALL JSC**

**Design Bureau
VYMPEL JSC**

**Design Bureau
ASTRAMARIN CJSC**

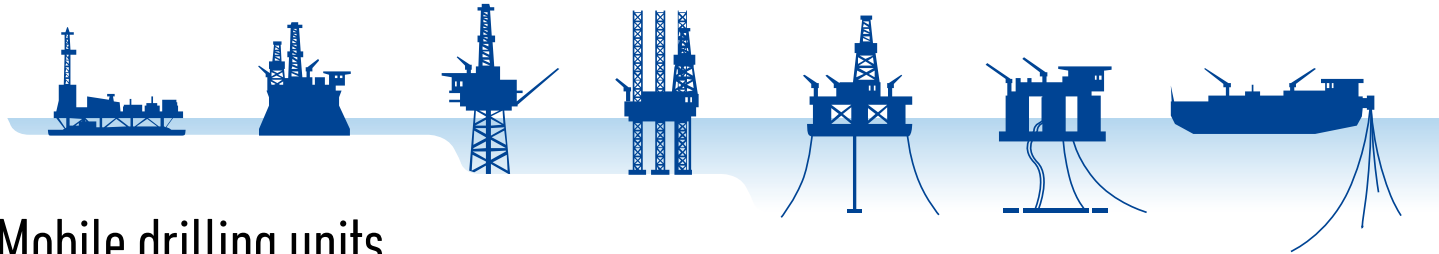
**Design Bureau
KASPIY JSC**

Center of Marine Technology SHELF



- Center Marine Technology SHELF joins resources of design companies:
 - Corall
 - Vympel
 - Astramarin
 - Kaspiy
- Specialized in design & engineering of offshore facilities, construction, merchant and offshore support fleet
- All design phases
- Payroll staff approx 1000 pers.

Engineering experience



- **Mobile drilling units**
Jack-up rigs, Semis, Drill barges
- **Fixed production platforms**
- **Construction vessels**
Floating cranes, pipelay , barges
- **Special purpose vessels**
Supply, AHTS, FiFi, tugboats
- **Merchant ships**
Crude and product tankers, dry cargo, passenger ships

Scope of service

- Engineering
 - Concept/Basic design
 - TEO / Detailed design
 - Workshop drawings, as built, operation manuals
- Consulting
 - Bid packages
 - Substantiation of investments , construction cost estimation
 - Procurement support
- On-site engineering support

Central Design Bureau

CORALL

- More that 40 years experience in offshore
- MODUs, Production Platforms (topsides and substructures), crane ships
- More that 450 engineers
- All engineering phases

Design Bureau

VYMPEL

- More that 75 years experience in ship design
- Crude oil and product tankers, dry cargo, passenger ships
- More that 400 engineers
- All engineering phases

Design Bureau

ASTRAMARIN

- More that 10 years experience in offshore and ship design
- Offshore platforms, ships
- More that 80 engineers
- Detailed design and workshop drawings

Design Bureau

KASPIY

- More that 40 years experience in ship design
- Dry cargo, fishing boats
- More that 20 engineers
- All engineering phases

Certificates and licenses

- Integrated Quality and Environmental System ISO 9001:2000 и ISO 14001:1996. Approved by BVQI
- HSE System in accordance to OHSAS 18001
- Social responsibility in accordance to SA 8000
- License of Gosstroy RF for design and engineering of oil&gaz facilities and shipbuilding
- Design in accordance to RMRS LR, DnV, BV, ABS и GL rules

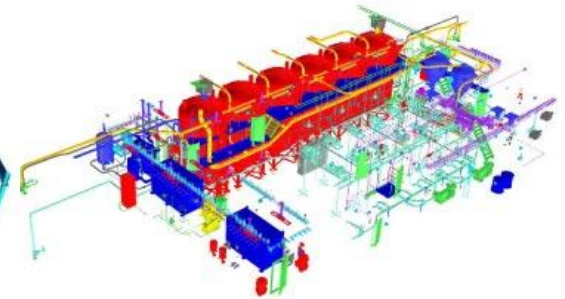
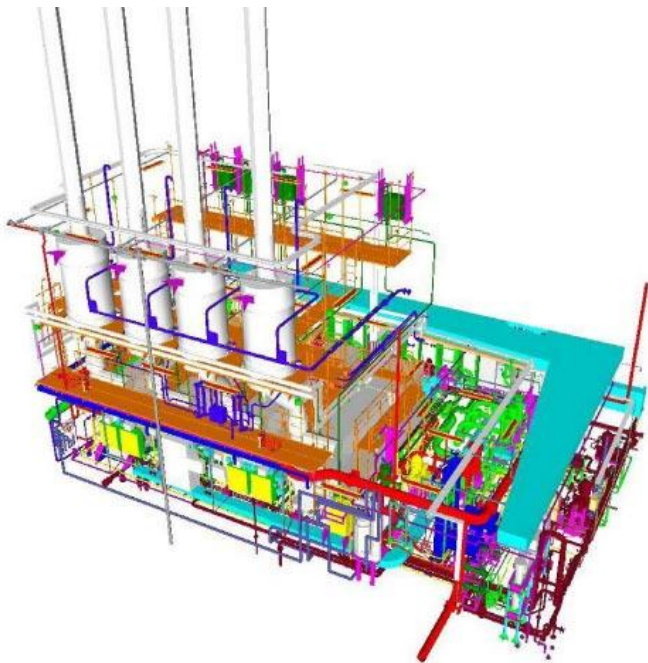


Staff profile

Disciplines	Number of persons			
	CDB Corall	Vympel	Shelf, Astramarin, Kaspiy	Total
Administration	4	3	8	15
Chief designers dept.	26	29	1	56
Naval architects dept	43	51	21	115
QA/QC, HSE	14	12	2	28
Structural dept	48	77	23	148
Cranes and lifting equipment dept	23	-	-	23
Special equipment dept	12	19	12	43
Finishing, insulation, noise calculation dept	21	In other dept	11	32
Drilling and process systems	45	-	-	45
Machinery and equipment dept	53	63	4	120
Electrical systems dept	53	34	7	94
Instruments, control system, navigation dept	38	14	4	56
Construction methods, cost estimation	29	In other dept	-	29
IT dept	22	15	2	39
Floating bridges dept	-	9	-	9
Financial dept	14	12	6	32
Service staff	36	43	5	84
Total number	481	381	106	968

Software

- 3D engineering
 - Aveva Tribon, PDS
- Strength calculations
 - COSMOS, LIRA, Ansys, Sesam
- Other software , including in-house
 - Project 1, Kachka, Ponton SP, Katran, Jackup, Kayakd,
 - Trosa, Ust, TK3-1,2,3 and others
- Drafting
 - AutoCAD



Engineering expertise: drilling

Semis SHELF (B, D, WSD)



JU Arctucheskaya (B, D, WSD)



DU Ispolin, conversion (B, D, WSD)



DU Suncar, assembling (WSD)



DU Obsky-1 (B, D, WSD)



JU Khazar (B, D, WSD)

Engineering expertise: production

D6 Kravtsovskoe (B, D, WSD)



IFP-1 and IFP-2 Korhcagina (B, D, WSD)



IFP Prorazlomnaya (B, D, WSD)



IFP Guneshly 8 & 13 (B, D, WSD)



Wellhead platform (B, D, WSD)



Substructure Lam A (WSD)



Substructures Sakhalin II (WSD)

Engineering expertise: ships and vessels



Engineering expertise: construction ships

Pipelay barge Castoro 12, assembling (WSD)



Shearleg Sadyk Ogly 2000mt (B, D, WSD)



Construction barge Ersai 1 (B, D, WSD)



Sevmorneftegaz 450mt (B, D, WSD)



Gazflot-1 40 mt (B, D, WSD)



Bogatyr 300mt (B, D, WSD)

CMT SHELF

- Joins resources of 4 design bureaus
- Valuable experience in design and engineering of offshore facilities
- Expertise in Russian Rules & Regulation and Arctic environment
- All design phases
- Skilled personnel –multidiscipline team
- Unified 3D modeling systems and engineering standards