COMPASS
INTERNATIONAL INC.

2025 PIPELINES & OFFSHORE COST DATA

Compressor Rotary Screw - Belt Driven n/e 100 PSIG

HP	TRANSPORTATION WEIGHT, POUNDS	$ COST PER UNIT	MAN-HOURS TO INSTALL	$ COST PER HP
5				
10				
15				
20				
25				
50				
75				
100				
150				

Compressor Rotary Screw - Gear Driven n/e 100 PSIG

HP	TRANSPORTATION WEIGHT, POUNDS	$ COST PER UNIT	MAN-HOURS TO INSTALL	$ COST PER HP
25				
50				
75				
100				
150				
200				
250				

Compressor Breathable - Oil free n/e 100 PSIG

HP	$ COST PER UNIT	MAN-HOURS TO INSTALL	$ COST PER HP
5.0			
7.5			
10.0			
15.0			
25.0			
50.0			

Compressor Centrifugal

HP	TRANSPORTATION WEIGHT, POUNDS	$ COST PER UNIT	MAN-HOURS TO INSTALL	MAN-HOURS PER HP	$ COST PER HP
250					
500					

Offshore Equipment

Rental Rates / Labor Rates

2025 BASIS

#	Description	$ Minimum Cost Per Day	$ Maximum Cost Per Day	Remarks
1	300' barge c/w 2,500 HP tug			
2	1,000 Ton Barge			
3	2,500 Ton Barge			
4	5,000 Ton Barge			
5	5,0000 pound Piling / Drop / Air Hammer			
6	100' x 80' x 8' deep barge			
7	1,000 HP Tug c/w crew			
8	2,500 HP Tug c/w crew			
9	5,000 HP Tug c/w crew			
10	7,500 HP Tug c/w crew			
11	250 HP Tender c/w crew			
12	15 HP Crew boat c/w operator			
13	50 Ton Barge / Crane			
14	Derrick barge 750 Ton lifting weight c/w crew			
15	Heavy lift crane / ship 1,000 ton lifting weight			
16	Heavy lift crane / ship 1,500 ton lifting weight			
17	1,500 HP Support vessel			
18	3,500 HP Support vessel			
19	Ballasting Vessel			
20	Diving spread (24 man team)			
21	Diving Support Vessel			
22	Ballast material			
23	Supply Vessel			
24	Pipe laying barge			
25	Helicopter Bell 206			
26	Decompression Chamber set up c/w (3) operators			
27	ROV Vehicle / Vessel c/w with monitoring station			
28	Project Manager			
29	General Superintendent			
30	Tug Captain			
31	Second Officer			
32	Foreman			

13.11 Offshore Petroleum & Gas Fabrication Benchmarks

Offshore Petroleum & Gas Fabrication Conceptual Cost Benchmarks:

Costs of construction / fabrication of platforms and steel jackets specific to Offshore Petroleum & Gas fluctuate significantly based on where the work is performed, i.e. costs per Tonne of work completed in Northern Europe (Norway, Finland and Germany) and the USA and Canada, are significantly higher than costs of work performed in the Middle East, India, China, South Korea and other Asian fabrication locations. Of course, project complexity and schedule also influence the final cost. The following are 2024 Fabrication Conceptual Cost Benchmarks applicable to three typical types of offshore structures.

As a rule of thumb, intricate / complex structures, i.e. Modules, FPSO's, Tension-Leg and Topsides Structure Facilities and the like, typically cost three to seven times more than unsophisticated steel jacket / pile type structures.

The major factors that that influence the above cost differentials are:

- Wage rates i.e. wage rate in Northern Europe are in the $105 to $125 per hour for a skilled worker while a similar wage rate in S.E. Asia would be in the $30 to $40 range.
- Productivity issues
- Weather issues
- Health and safety issues
- Employment and social taxes

Offshore Petroleum & Gas Fabrication Conceptual Cost Benchmarks:

FABRICATION LOCATION	COST RANGE PER TONNE FOR UNSOPHISTICATED STEEL PILE STRUCTURES	COST RANGE PER TONNE FOR NORMAL TO COMPLICATED STEEL JACKET STRUCTURES	COST RANGE PER TONNE FOR INTRICATE / COMPLEX STRUCTURES)INCLUDES MODULES, FPSO'S TENSION LEG & TOPSIDE FACILITIES
Middle East			
India			
China			
Malaysia / Indonesia			
South Korea			
Japan			
Norway / Finland / Germany / UK / France / Italy			
USA / Canada			
Brazil			
Mexico			

Cost Model "F"

ONSHORE & OFFSHORE DRILLING / WELLHEAD CONSTRUCTION COST DATA:

Crude Oil & Natural Gas Drilling Onshore
Offshore & Sub-Sea Cost Data
Sub Sea Production Module 2025 Cost basis
Gulf of America
2,500-foot water depth
30,000 B/D Production Rate
Tied-back to Existing Offshore Production Jacket

#	Description	Qty	Unit Of Measure	$ Low Cost	$ High Cost
1	Module Frames / Pre-Assemblies				
2	Christmas Tree assemblies				
3	Manifold assemblies				
4	Piling				
5	Risers / Jumpers				
6	Flow Lines				
7	Christmas Tree control package				
8	Control on Jacket				
9	Umbilical's / tie in				
10	Misc. piping / equipment				
11	FAT / Testing				
12	Detailed Design / Project Management				
13	Site Management / Consultants - Oversight				
14	Insurance / bonds / permits				
15	Freight				
16	**S/T**				
17	**Installation**				
18	Sea Bed clearance / preparation				
19	Piling				
20	Pipe Laying Spread / Barge				
21	Install Christmas tree / manifolds / Jumpers				
22	ROV / vessel & crew				
23	Final Check out / integration - hook up				
24	Transport to Offshore locations / barge & heavy lift crane				
25	Weather downtime allowance				
26	Owner Oversight - Other costs				
27	**S/T**				
28	**Total before Contingency**				
29	**Contingency 20%**				
30	**TOTAL CAPEX COST (FID submission)**				
31	**Cost per Barrel**				

2025 North American Gas Transmission Pipelines:

Cost in US $'s per Mile / Km

Benchmark EPC Data

For Interstate Pipelines exceeding 50 miles in length:

Base Case is US Midwest Location

Description	Low $ Cost Per Mile	High $ Cost Per Mile	Average $ Cost Per Mile	Average $ Cost Per Km
18" diameter				
24" diameter				
30" diameter				
36" diameter				

Regional Adjustment Calibration Multipliers

Region	Adjustment Multiplyer
US Mid-West	
US North East	
US South East	
US West Coast	
US South West	
Alaska	
North Dakota	
Canada	
Offshore USGC	

Percentage Breakdown

Description	% Range
Right of Way (ROW)	
Materials	
Labor	
Construction Equipment / Field In-Directs	
Design / PM / Home Office Support	
Overhead & Profit	

USA Module Benchmarks 2025 Cost Basis:

20 Ton and 40-ton Generic Pricing

20 Ton Module Cost Model

Delivered to Site Contractors crane hook, Site Contractor will set in place with their own heavy lift crane.

Description	Material	Labor	Engineering / Other	$ Total
Purchase Steel Materials				
Fabrication of Steel Frame & Grating				
Purchase of Major Equipment Purchase cost is included, would be free issued to module fabricator to install in module by owner or EPC				
Install Major Equipment into module				
Piping Material (Pipe, fittings & valves)				
Pipe Fabrication				
Heat treat & NDT of pipe systems				
Paint for steel material				
Labor to paint steel material				
Paint for pipe material				
Labor to paint pipe material				
Insulation material				
Insulation labor				
Electrical & Instr materials				
Electrical & Instr labor				
S/T				
Module Shop Detailed Design, PM & Purchasing and Site Visits				
Lift module onto truck				
Transport to jobsite assume 250 mile one way trip				
S/T				
Total cost of Material, Free-Issued Major Equipment, Fabrication & Detailed Design				
Module Fabricators G&A ,O-H & Profit 14%				
Total cost of 20 Ton Module				
Cost per Ton				

NOTES:

- Labor Rate $43.18 = 2,332 Shop hours (open shop)
- Engineering Rate $114.68 = 210 hours
- EPC basic / detailed engineering is excluded from above costs