





1
Bamboo Scaffold



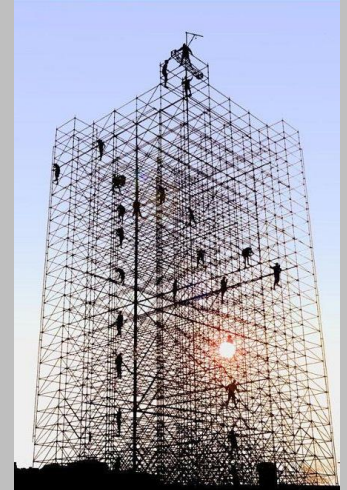
2
Tubes & Fittings



4
Steel System Scaffold



5
The New Generation
System Aluminium
Scaffolding System



6
Alustar Scaffolders
Concept



1
Bamboo Scaffold



2
Tubes & Fittings

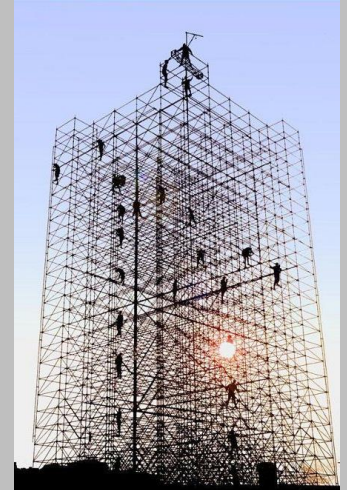


4
Steel System Scaffold



5
The New Generation
System Aluminium
Scaffolding System

- HALF THE WEIGHT
COMPARED TO
STEEL
- LESS INJURIES
- SCAFFOLDERS
STAYS ON
LONGER
- INCREASED
EFFICIENCY



6
Alustar Scaffolders
Concept



ConocoPhillips
Norge

THE PPCON CHALLENGE

1 AS STRONG AS STEEL

2 A FLEXIBLE SYSTEM SCAFFOLD

3 COMPETE WITH STEEL ON PRICE



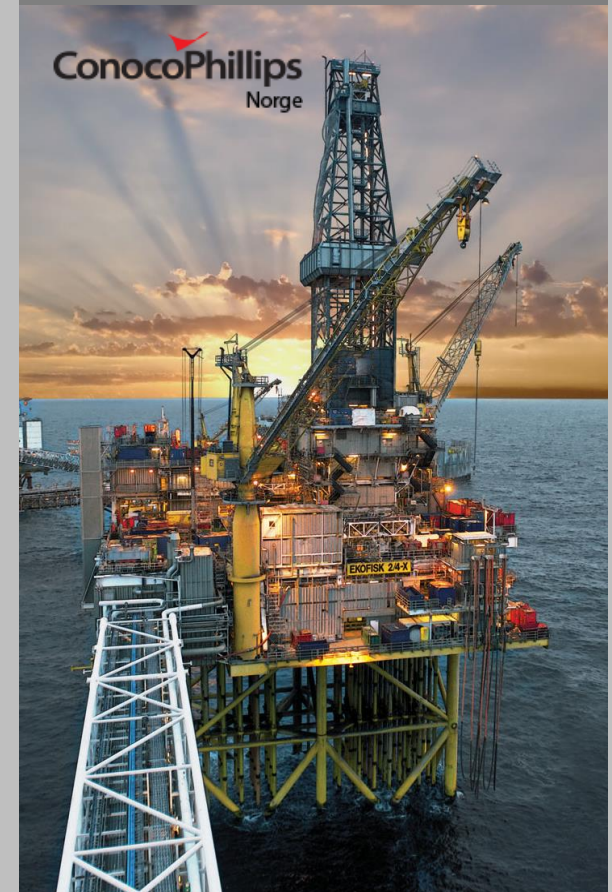
THE SCAFFOLDER INDUSTRY



THE ALUMINIUM INDUSTRY



THE OIL & GAS INDUSTRY





STRENGTH

- ALUMINUM PROFILE
- NO WELDS
- TYPE OF ALUMINIUM



FLEXIBILITY

- A SYSTEM SCAFFOLD
- METRIC INTERCONNECTED
SYSTEM
- SPECIAL COMPONENTS



COST

- HSE COST
- MORE THAN 20 YEARS OF LIFE
- ERECTION/DISMANTLING TIME
 - LOGISTIC AND WEIGHT
- INCREASED PRODUCTIVITY



ALUSTAR PROVEN RESULTS

- AS STRONG AS STEEL AND
IN SOME CASES STRONGER
- A FLEXIBLE SYSTEM
SCAFFOLD
- COMPETITIVE COST, EVEN IN
LOW COST COUNTRIES



THE COMPANY ALUSTAR

- IN OPERATION SINCE 1994
- PRODUCTS & AND PRODUCTION
PATENTED
- 94% STILL IN USE AFTER
20 YEARS IN OPERATION
- SOLD ON EVERY CONTINENT
EXCEPT OCEANIA
- DESIGN AND ENGINEERING
 - TRAINING
- APPROVAL FOR WORK IN AUS
and NZ



JOHANNESBURG SCAFFOLDING (PTY) LTD
CONTRACTS, DESIGN & SALE OF STEEL/ALUMINIUM SYSTEMS





PROJECT REFERENCES: EKOFISK USER SURVEY



- OBJECTIVE:
- What was the effect after 2 years use of Aluminum system vs. steel system on
 - Health and working environment
 - Efficiency
 - Work Safety

- 10 Questions:

1. Motivation to work with Alustar?
2. Change in self development?
3. More or less physical strain?
4. More or less injuries?
5. Strength of Alustar, stronger than steel?
6. Ease in using Alustar vs. steel?
7. The robustness of Alustar vs. steel?
8. Alustar efficiency vs. steel system?
9. Feeling after a day with Alustar vs Steel?
10. Alustar impact on safety vs. steel system?

Result

81% more positive
67% positive, 33% no change
100% reported less physical ailments
90% reported less.
62% felt this was of significance.
90% reported that Alustar was easier
52% more robust, 38% equal, 10% less
71% more efficient, 29% equal
76% better, 19% equal, 5% worse
33% safer, 67% equally safe

PROJECT REFERENCES:



Characteristics given of the Alustar aluminium scaffolding system from client.

- **Manual handling:** *Reduced weight of more than 50% gives a significant reduction of man-hours vs steel system scaffold. (**Against tube and fittings much higher gains**).*
- **Productivity:** *significant productivity gains due to reduced erection/dismantling time. 50% erection ,80% dismantling.*
- **Uniformity:** *This scaffold system is neat and free of any protruding tubes etc.*
- **Strength:** *Due to the profile of the Alustar load-bearing members it is capable of supporting even higher loads than tube and fittings.*
- **Corrosion:** *Because of aluminium alloy corrosion is of no concern.*
- **Ladder access:** *Is internal with a hatch cover at the access point, which can be closed to provide a fully boarded scaffold. Ladders connect into the transom and therefore do not require to be lashed.*

Harry Brown, OTL BP Harding platform



PROJECT REFERENCES:

BP Schiehallion field trials:

“Estimated 420 man-hours saved in the four months the trial package has been in use. Could possibly have been more if we had all of the components”

“Being Aluminium in construction, Alustar is inherently light and easy to handle. The system is simplicity in itself using basic materials”

“In the opinion of the HSEA’s onboard Schiehallion the reduction in manual handling stress is significant enough to advocate increasing the amount of stock and continuing the use of Alustar”

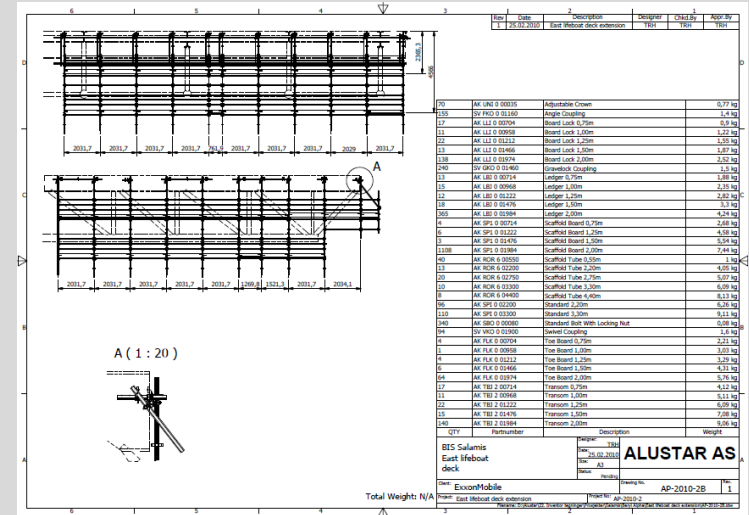




PROJECT REFERENCES:

Beryl Alpha Under Lifeboat deck.

Benchmark: Alustar vs. Tube & Fittings
Under deck 19mx17m 2 floors



	Alustar	Tube & Fittings
Weight Ton	15	45*
Days	8	45*

*Estimates from project planning



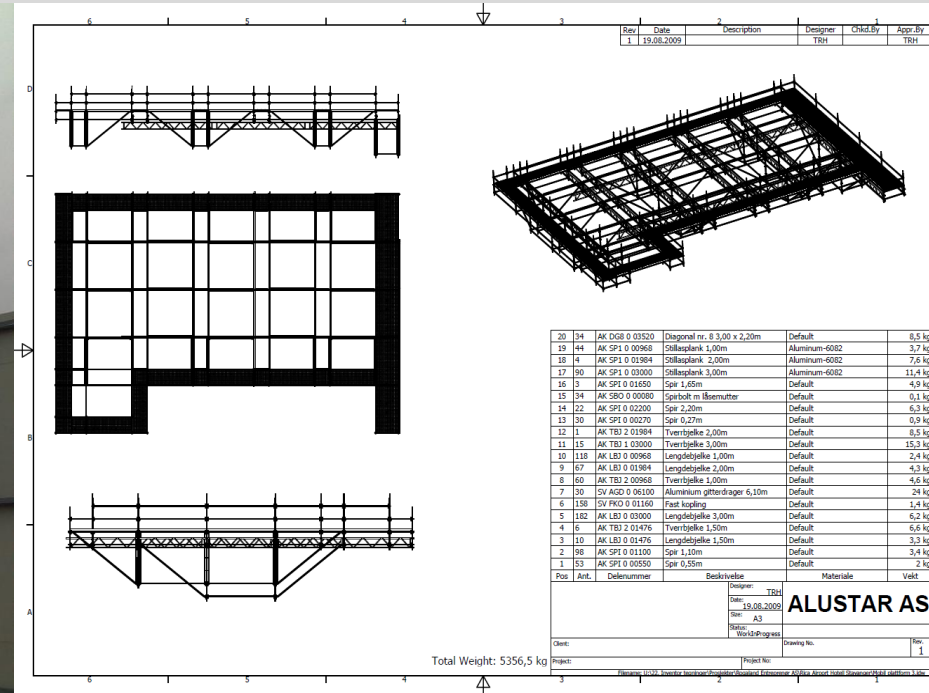
PROJECT REFERENCES: SUPPORT SYSTEM





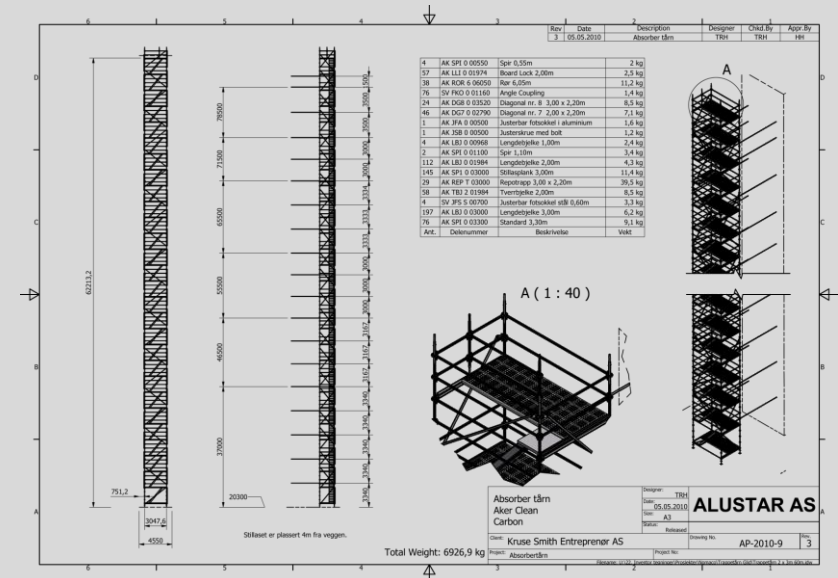
PROJECT REFERENCES:

Fixed construction and support system





PROJECT REFERENCES: CO2 Tower Mongstad Refinery





PROJECT REFERENCES: ORMEN LANGE GAS TERMINAL





PROJECT REFERENCES: SEA LAUNCH BOING AKER





NEW MARKETS PROJECT REFERENCES:

KUSILE ENERGY PLANT SOUTH AFRICA:

Separator Replacement Project 1. Project Overview



- Unit 213 (East Plant), Sasol Secunda
- 12 Carbon Steel Separators to be replaced by 12 new Duplex Separators
- 2 Plant Phases, 6 Separators each (01A/B, 04, 09, 06 A/B)



FLUOR

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MAERSK OIL QATAR:

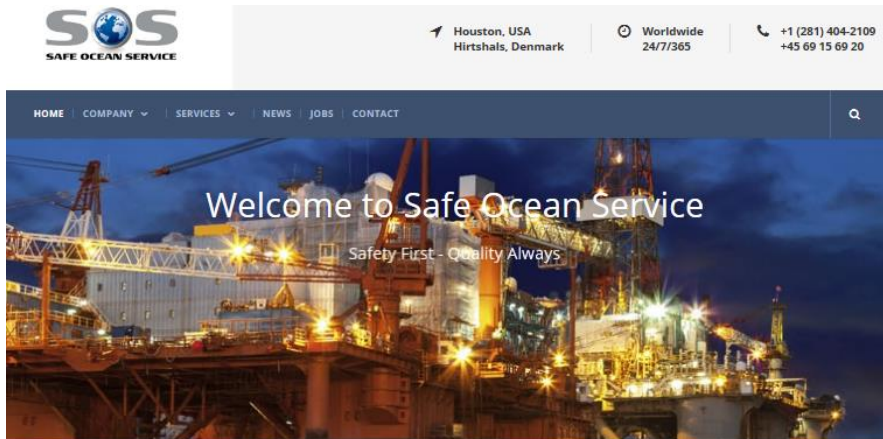


Al Shaheen Field Development Plans





STATEMENT FROM NEW CUSTOMER: SAFE OCEAN SERVICES



«During the past months, Safe Ocean Service has added the use and integration of ALUSTAR scaffolding systems to our portfolio.

Because of the light, unique and simple design features of ALUSTAR's systems, it was an easy decision for our skilled service engineers to make the decision to continue using ALUSTAR's scaffolding systems after the ending of the test period.

Safe Ocean Service provides you with full project management, design, calculation, and execution of any offshore scaffolding project.

We have the proper knowhow and the right engineers, and with ALUSTAR, we also have the option of selling or renting you high quality equipment.»





BUSINESS CASE What caused the change on Norwegian and Danish sector	
HS Documented by oil companies	Ease of work, due to less weight, height, grooved profiles, flexibility. Result : Less injuries and sick leaves and scaffolder stays more years.
Weight	Coverage factor gains vs. steel >50%
Logistics	Transport, storage, bedding, flights gains >50%
Productivity	Erection and dismantling speed. Proven life cycle more than 20 years
Environmental	Aluminum, repair and recycling process
Image and social responsibility	Worker, family, company, society
<i>Cost benefit for Service Provider</i>	<i>Short term vs. long term</i>
<i>Cost benefit End Customer, The Operator, and The Owner</i>	<i>Proven positive!</i>



ALUSTAR® SCAFFOLDING CONCEPT
– BRINGING PEOPLE, CONSTRUCTION AND
BUILDING PROJECTS FURTHER!



CONCLUSION DO IT THE ALUSTAR ALUMINIUM WAY



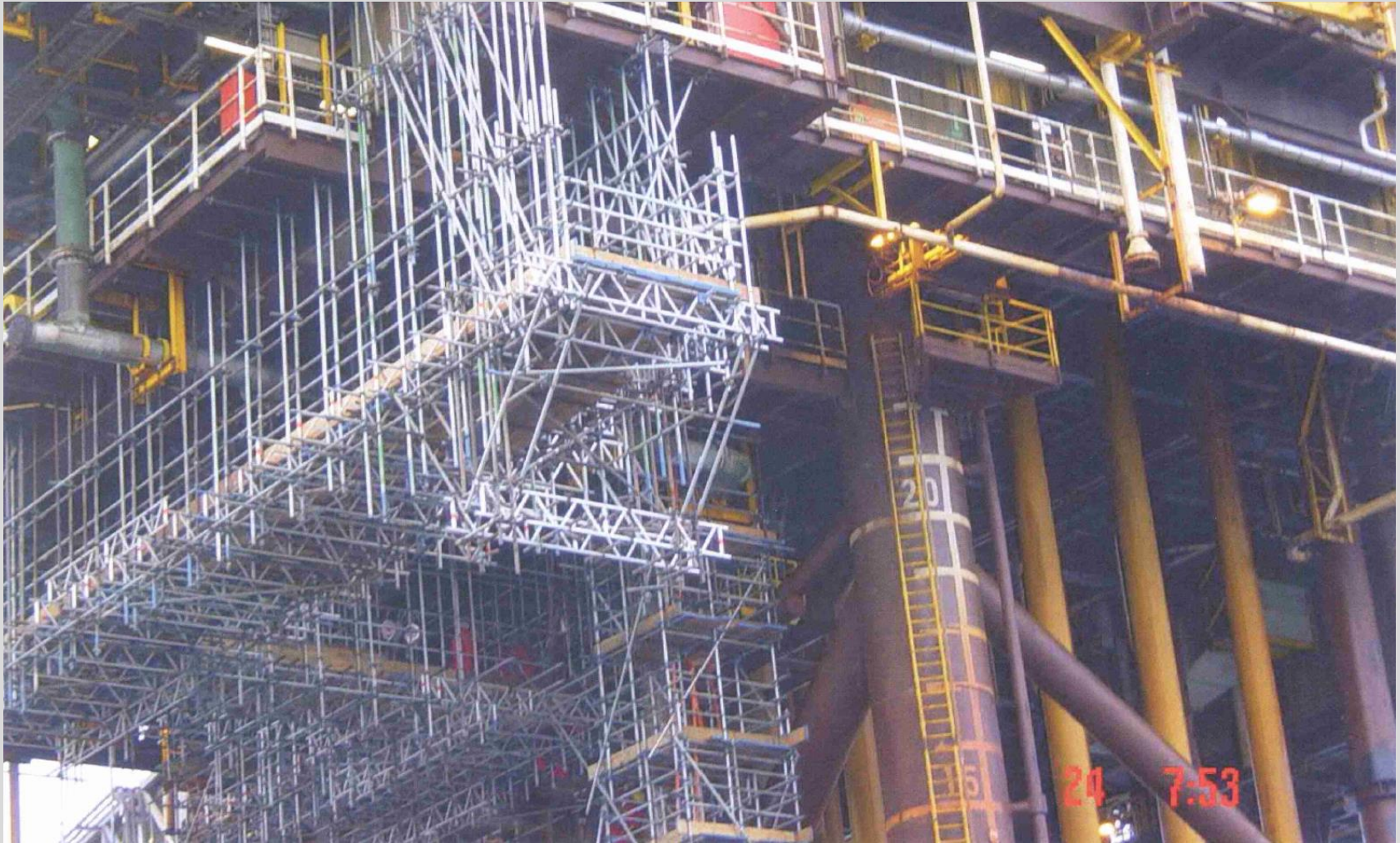


CONCLUSION DO IT THE ALUSTAR ALUMINIUM WAY





CONCLUSION: STEEL TUBE AND FITTINGS IS THE PAST





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CONCLUSION DO IT THE ALUSTAR ALUMINIUM WAY

