



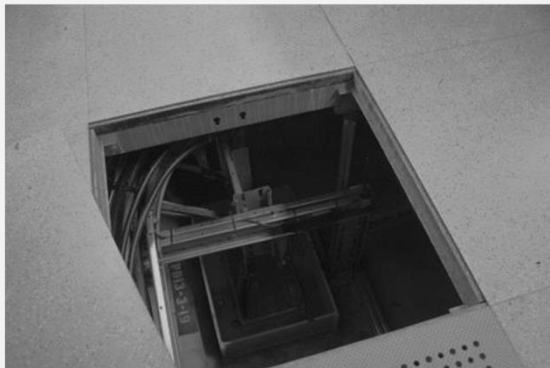
## RAISED ACCESS FLOOR



**KAPP ALUMINIUM  
TRETUM OFFSHORE**

Tretum Special Offshore Raised Access Floor is a Norwegian product supplied from Kapp Aluminium Tretum Offshore AS. The floor system is designed to meet Offshore Specification Requirements such as:

- "LOAD PERFORMANCE 15 KN/M2
- "MAX DEFLECTION 1/360 OF SPAN
- "LOW WEIGHT, 23-26 KG/M2
- "SPACE SAVING
- "FLEXIBLE SUPPORT SYSTEM
- "CORROSION RESISTANCE
- "NO COMBUSTIBLE
- "SEMI-CONDUCTIVE OR NON-CONDUCTIVE
- "THROUGH BOLTED – NO WELDING
- "ULTIMATE STRENGTH LOAD FACTOR OF 1,3
- "MATERIAL FACTOR 1,15



The floor system is a result of several years experience in deliveries to the offshore industry. Our company is registered in the Achilles database. Our quality system is based on ISO-9001.



**FLOOR PANELS:**

The AL-SC Panel is an advanced light weight aluminium panel (4,1 kg) with high performance. The panels are 600 x 600 x 28 mm, with equal strength in all directions.

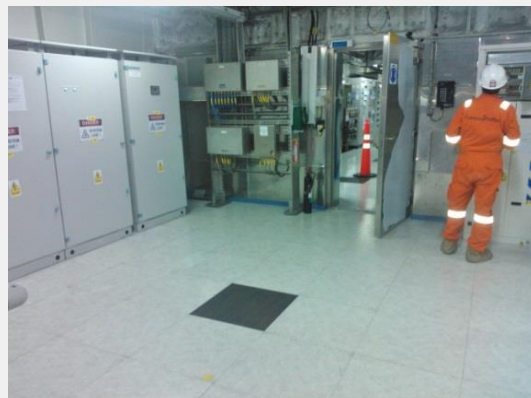
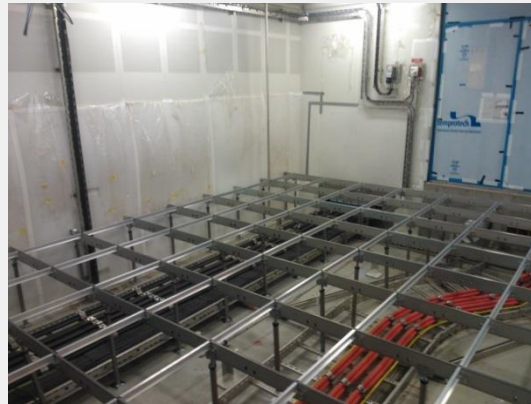
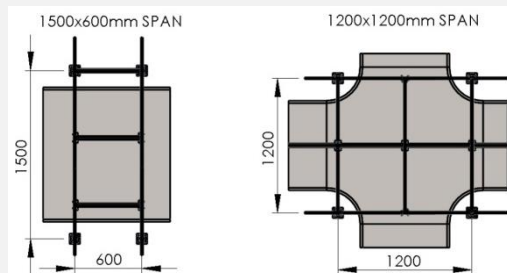
They are delivered with Floor Finish Type and colour as specified by the customer with an easily removable protective covering on top.  
Load Performance: Max deflection 1/360 of Span carrying 1.000 kg on an area of 100 x 100 mm. 15% perforated Air Flow Panels, alternatively with balancing dampers.

**SUPPORT SYSTEM:**

The load carrying main steel stringers are installed with C/C distance of 600 mm, with basic Span 1.500 mm, supported on steel supports, supplied according to the floor height,  
Min 300 / max 1.500 mm.  
Locally 1.200 x 1.200 mm Span where required.  
Along equipment supports or walls, the stringer are fixed to a L-profile, or separately braced to make the support system totally rigid, even with all floor panels removed.  
Supports with  $\pm 50$  mm adjustments, are designed to withstand a load of 2.265 kg actually with no permanent distortion.

The support system allows flexible engineering of Cable Ladder and / or HVAC installations below the Raised Access Floor.  
The main load-carrying Stringer System allows 90 degrees change of direction.  
The supports can support the load-carrying Stringer at any point.

Details of floor installation wide cable ladders.:





**ACCESSORIES:**

Aluminium stairs may be installed anywhere along the Perimeter Floor.

Aluminium stair handrails integrated with aluminium horizontal handrail system.

Aluminium skirting panels, to cover openings between floor and deck at Perimeter Floor.

Rubber skirting profiles with colours matching Floor Finish to close gap between wall and RAF.

Typical horizontal handrail, stair with closed riser and floor finish, stair handrails and skirting panel system



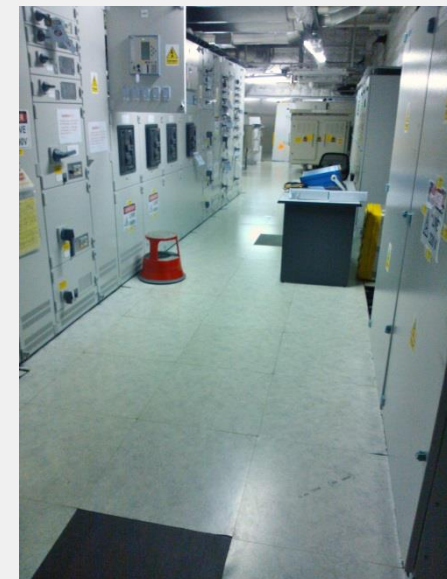
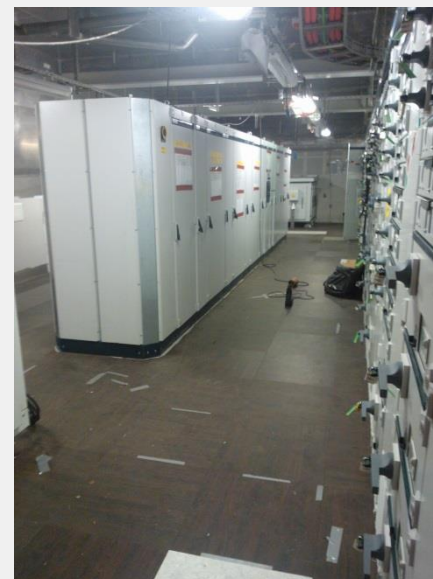
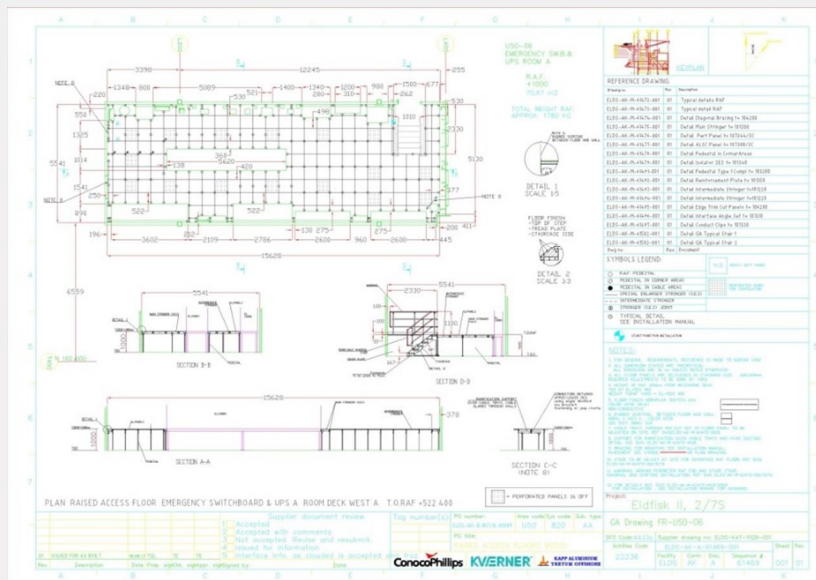
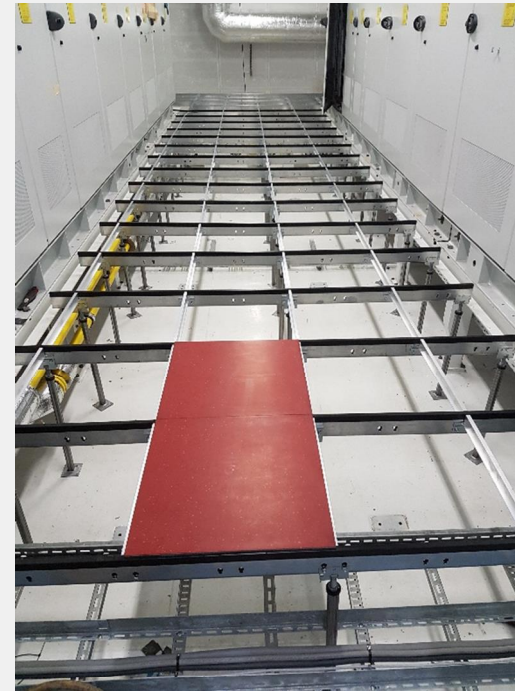
### PLANNING OF INSTALLATION:

Client approved General Arrangement Drawing for Installation is supplied by Kapp Aluminium Tretum Offshore AS, together with a complete material list for each room.

### DELIVERY:

Material for each room are packed separately, clearly marked, and delivered with packing list, GA-plan and instructions for installation.

Typical GA-plan:





## References:

No	Project	Client/Owner	Year	Location
1	"GULLFAKS"	Statoil	1986	North Sea
2	"OSEBERG A"	Norsk Hydro	1986/87	North Sea
3	"OSEBERG B"	Norsk Hydro	1986	North Sea
4	"GULLFAKS C"	Statoil	1987/88	North Sea
5	"EDDA 2/7 C"	Phillips	1988	North Sea
6	"GYDA"	BP	1988	North Sea
7	"OSEBERG 2"	Norsk Hydro	1989/90	North Sea
8	"SLEIPNER A"	Statoil	1990/91	North Sea
9	"BRAGE"	Norsk Hydro	1991/92	North Sea
10	"EMBLA"	Phillips	1992	North Sea
11	"HEIDRUN"	Conoco	1993/94	North Sea
12	"STATFJORD SATELITE MOD."	Statoil	1993	North Sea
13	"EUROPIPE DEVELOPMENT PROJ."	Statoil	1993	North Sea
14	"HIBERNIA DEVELOPMENT PROJ."	Hibernia Cons.	1993/94	Canada
15	"SLEIPNER VEST"	Statoil	1994/95	North Sea
16	"EKOFISK 2/4 X"	Phillips	1996	North Sea
17	"ÅSGARD A"	Statoil	1997	North Sea
18	"OSEBERG EAST"	Norsk Hydro	1998	North Sea
19	"JOTUN"	Esso Norway	1998	North Sea
20	"OSEBERG D-GAS"	Norsk Hydro	1998	North Sea
21	"OSEBERG SOUTH"	Nymo/ Norsk Hydro	1999	North Sea
22	"SNORRE B"	Kværner Oil & Gas	2000	North Sea
23	"KVITEBJØRN"	Statoil	2001	North Sea
24	"GRANE DRILLING"	Norsk Hydro	2002	North Sea
25	"CEIBA Field Project"	Atc/Framo	2003	North Sea



No	Project	Client/Owner	Year	Location
26	"KRISTIN"	Emtunga/Statoil	2003	North Sea
27	"KRISTIN"	RM Industries/ Statoil	2003/04	North Sea
28	"STATFJORD A"	Statoil	2004	North Sea
29	"SCHIEHALLION"	Atc/Vecto Gray	2005	North Sea (U.K)
30	"PRIRAZLOMOYE"	Atc/Siemens	2005	Russia
31	"7760 COLUMBA E"	Atc/ Framo	2005	USA
32	"BRENDA F.D"	Atc/Framo	2006	North Sea
33	"VOLVE"	Vetco Aibel Thailand	2006	North Sea
34	"SNORRE A LQE"	Leirvik MT/Statoil	2006	North Sea
35	"SLEIPNER A"	Vetco Aibel/Statoil	2007	North Sea
36	"VINCENT"	Atc/Framo	2007	Australia
37	"AKER SPITSBERGEN"	Leirvik MT/Aker Stord	2007	North Sea
38	"AKER BARENTS"	Leirvik MT/Aker Stord	2007	North Sea
39	"VINCENT"	Aibel Thailand	2007	Australia
40	"SEVAN 3 Voageur"	Atc/Framo	2007	North Sea (U.K)
41	"AZURITE MPP"	Atc/Framo/Murphy W.A	2008	Africa/Kongo
42	"PEREGRINO FPSO"	APL Asia/BW Offshore/Maersk FPSO	2009	Brasil
43	"PAZFLO Project"	Atc/FMC Tech./Total	2009	Angola
44	"OSELVAR"	BIS	2010	North Sea
45	"SNORRE B"	Kaefer Construction	2010	North Sea
46	"MONGSTAD"	Atc/ABB	2010	Norway
47	"SHELLY NEW"	Atc	2010	
48	"MARLIN"	Atc	2010	
49	"OSBERG B"	Aker Solutions	2011	North Sea
50	"EKO FISK 2/4L"	SMOE LTD	2012	North Sea





No	Project	Client/Owner	Year	Location
51	"ELDA"	BIS / Aker Solutions	2012	North Sea
52	"CLOV"	ATC	2012	North Sea
53	"GUDRUN"	BIS Industrier	2012	North Sea
54	"OSEBERG A"	Beerensberg Copr. AS	2012	North Sea
55	"OSEBERG B"	ATC / SEC AS	2012	North Sea
56	"EKOZ"	Aker Solutions	2012	North Sea
57	"KVITEBJØRN"	BIS Industrier	2012	North Sea
58	"ELDFISK II 2/7S"	Kværner Stord	2012-13	North Sea
59	"Satun & Funan"	Marine Depot/Ceveron	2013	Thailand
60	"Sanco Swift"	Kleven Verft	2013	Norway
61	"Ekofisk 2/4 X"	ConocoPhillips	2013	North Sea
62	"Sanco Sword"	Kleven Verft	2013	Norway
63	"Aasta Hansteen"	Hyundai Heavy Ind.	2014/15	North Sea
64	"Johan Sverdrup Drilling Platform"	Aibel Thailand	2016	North Sea
65	"Stones PCM"	Radøygruppen, Shell	2017	Gulf of Mexico
66	"Oseberg A"	Statoil Petroleum	2018	North Sea
67	"Dvalin"	Bilfinger/Aibel	2019	North Sea



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