



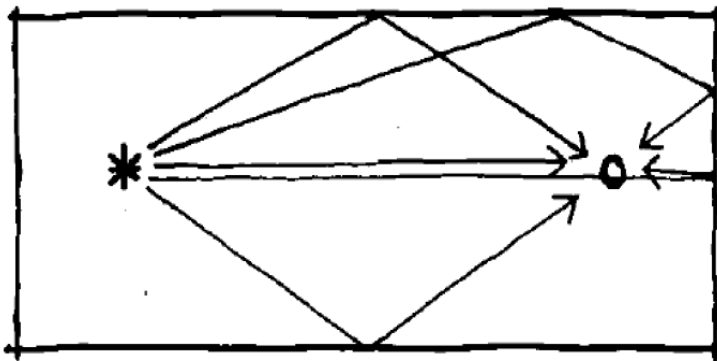
The New Generation in Sound Absorption

DeAmp AS

Bjørn A. Fløtre – Technical manager
DeAmp introduction document

DeAmp deals with reducing noise in the form of long reverberation time

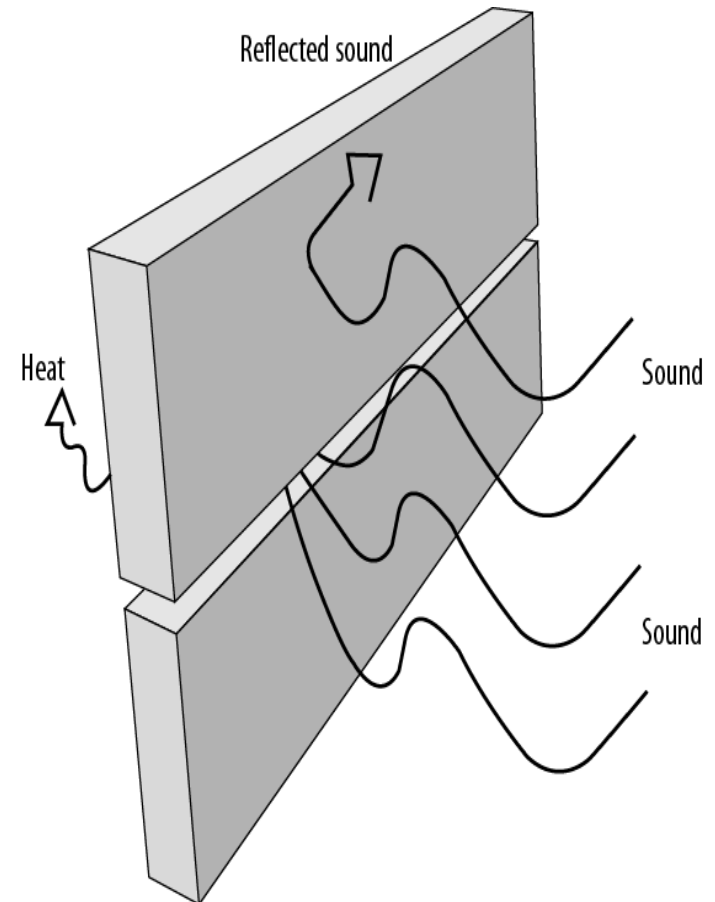
- Noise is seriously affecting the wellbeing of people present in a working environment
- Fibrous materials are a health hazard
- Aesthetics and acoustics have traditionally seldom been going hand in hand



Figur 4: Diffust felt (Kilde: Støyhåndboka, 2005)

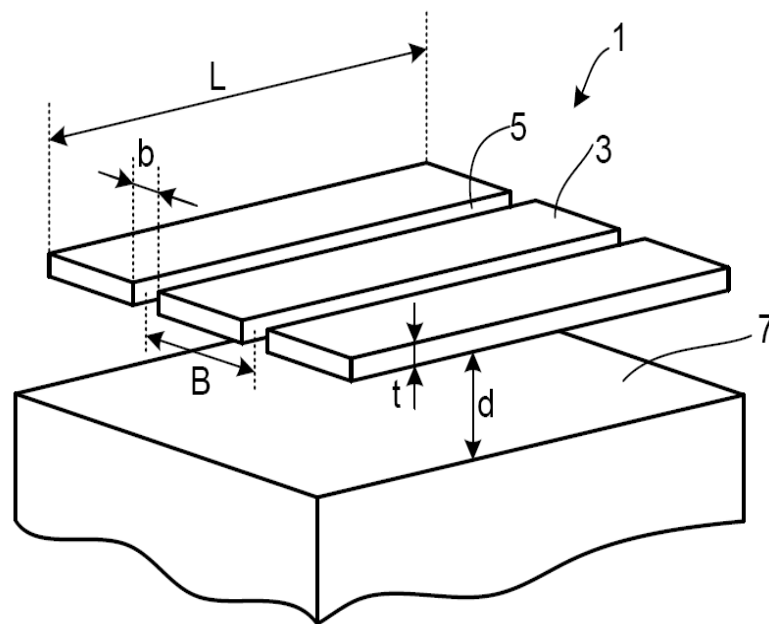
DeAmp product properties

- No hazardous fibres
- Developed by the NTNU-university and the Sintef research organisation
- Transparent products possible
- Hygienic products for food industry, laboratories or kitchens
- Class A non-combustible 100% aluminium or steel products
- Enables aesthetically pleasing solutions



■ DeAmp IP-rights

- Acquired Norwegian patent in 2006
- Granted US patent march 2010
- Patent pending:
EPO (EU), South-Korea, India, UAE, Canada



■ Product segments

- Pure acoustic solutions— standard products:
 - Metal and plastic
 - Available in most standard sizes
- Branding and decoration
 - Logos, images for companies internal or external campaigns
- Custom made solutions
 - One of a kind products (see cruise ship reference)
 - Energy saving metal ceilings (Thermal mass storage)
 - Custom sizes



References standard panels



Left: Trondheim County office area, standard ceilings 2006.



Right: HSD transport company translucent panels with custom images 2005.

- Innovasjons senteret Trondheim (Trondheim Innovation Centre) & Moland filmstudio (metal ceilings and clouds, open office areas - 2006)



- Wall panels – Discrete solutions in a preserved 1900th century office building 2009.



Decor Skanska canteen & “911 dispatch” Haukeland regional hospital



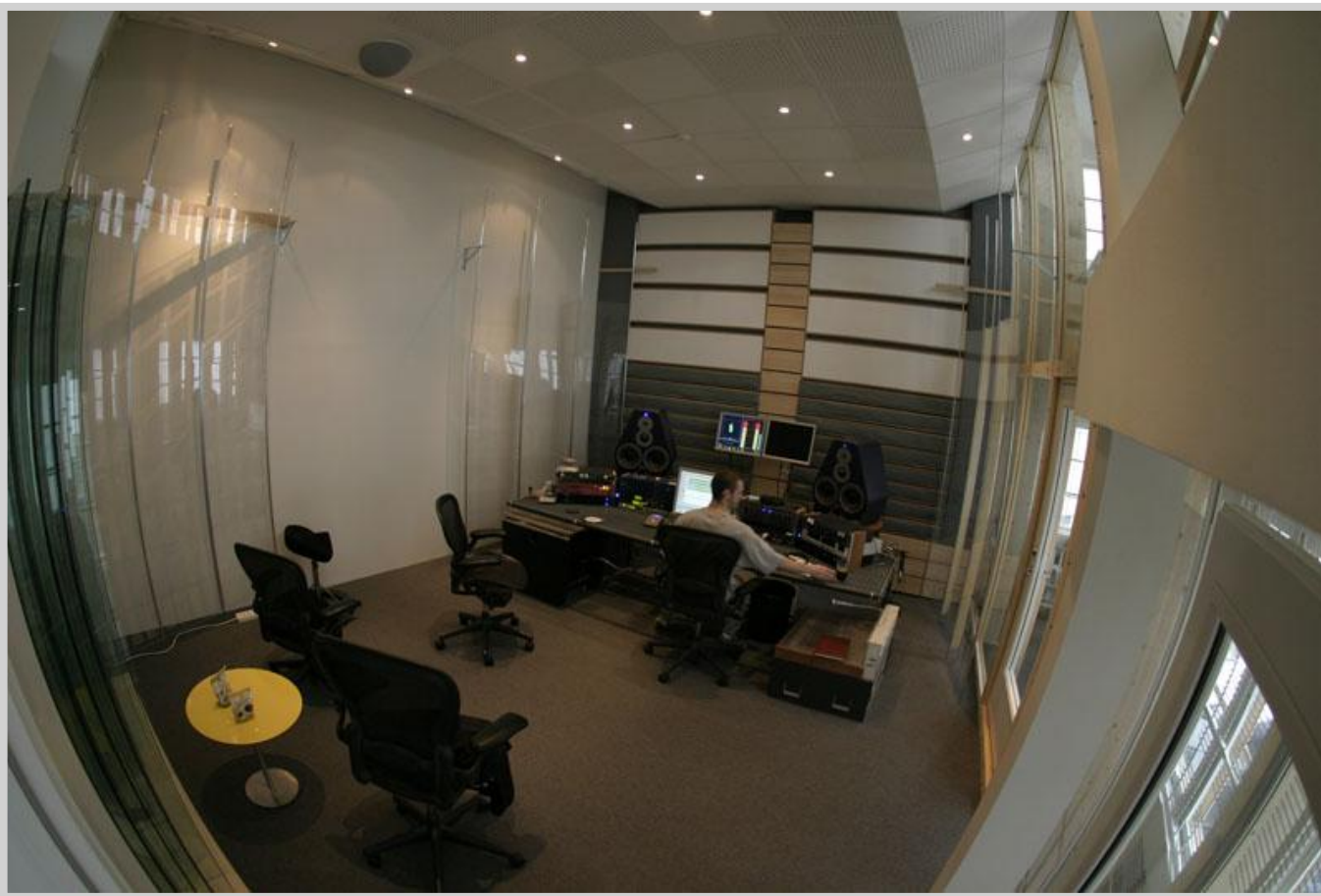
■ TeeKay Petrojarl shipping offices 2008, wire systems and modular walls



■ Transparent window solutions Auditorium Norway & Modern Museum Stockholm 2010.



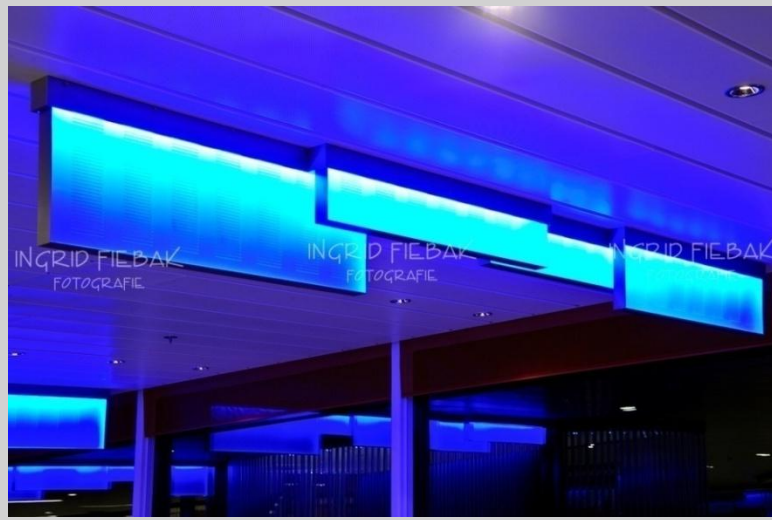
■ Transparent wall and window solutions Strype Audio Mastering studio 2008



■ *"DeAmp performs beyond expectations in our mastering studio. The DeAmp products absorb unwanted resonating sound in the critical intermediate frequency area but keep the crisp and detailed reflections in the upper frequency. In addition they are nice to look at and completely dust free.."*

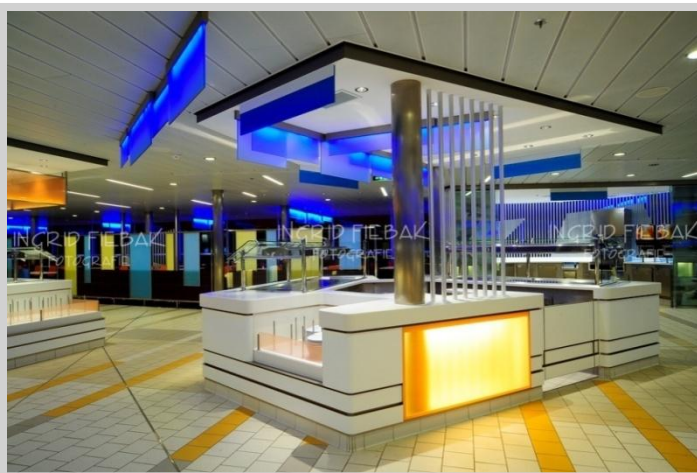
— Audun Strype, Strype audio

Custom project: RCCL/Celebrity cruise lines

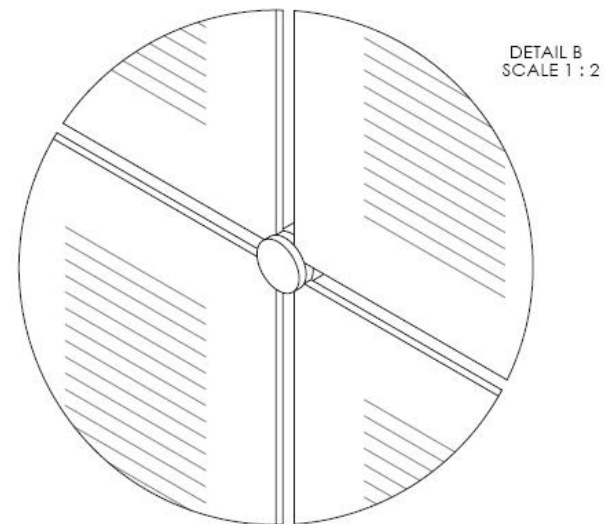
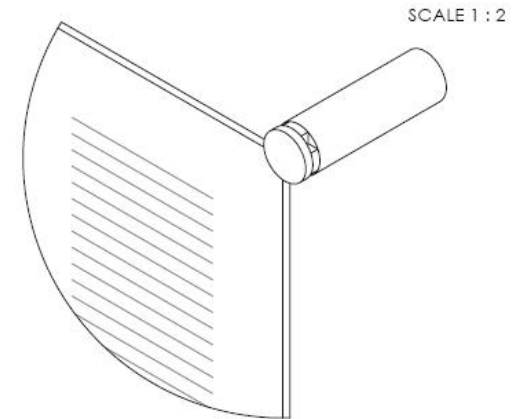


- Customer: Meyer Werft
- Delivery partner: Messner Gmbh
- DeAmp services: Solution design, acoustic consulting and custom panel sizes
- 5 deliveries 2008, 2009, 2010 , 2011 & 2012

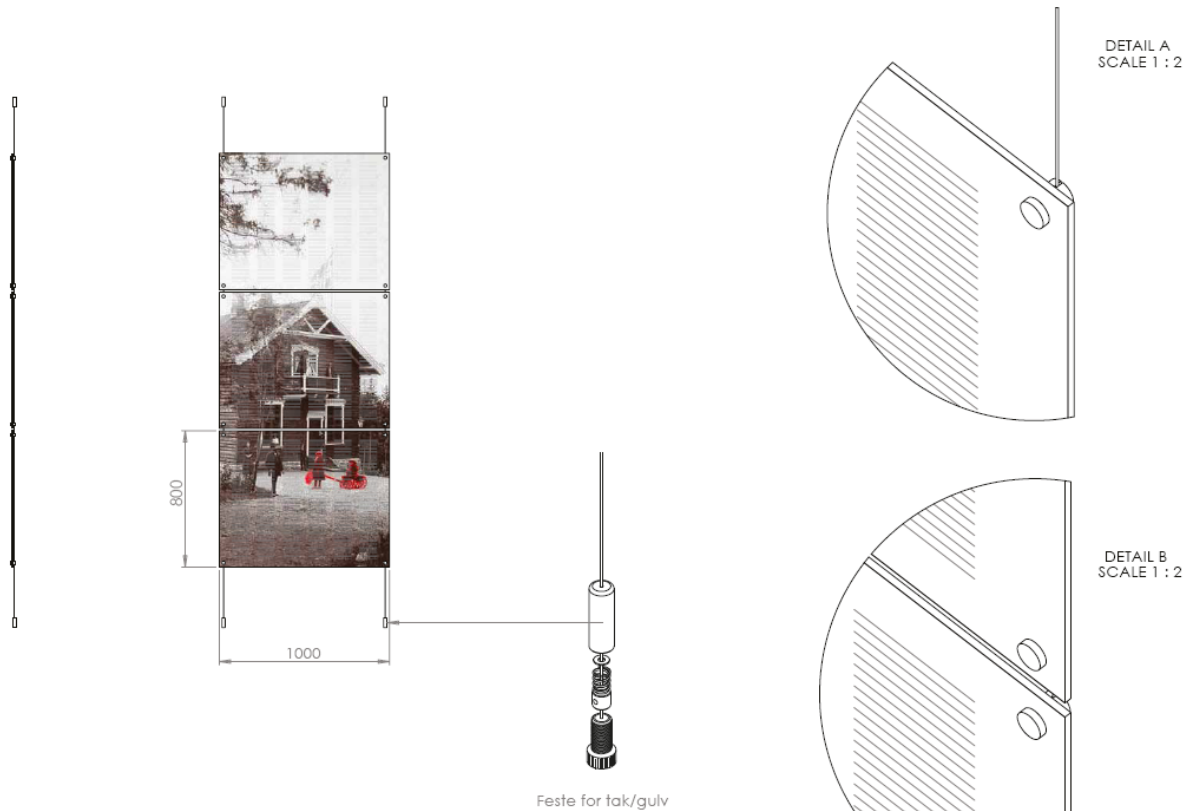
■ Why DeAmp: The Italian designers Tihany Design needed to integrate lighting and sound absorbing structures in the ceiling. Vertically hung baffles with both diffusing and absorbing properties were preferred due to the acoustical benefits of such a product. The DeAmp translucent panels fit the customer's need and have been selected for 3 cruise ships. The DeAmp products are often shown in cruise ship review magazines and web pages.



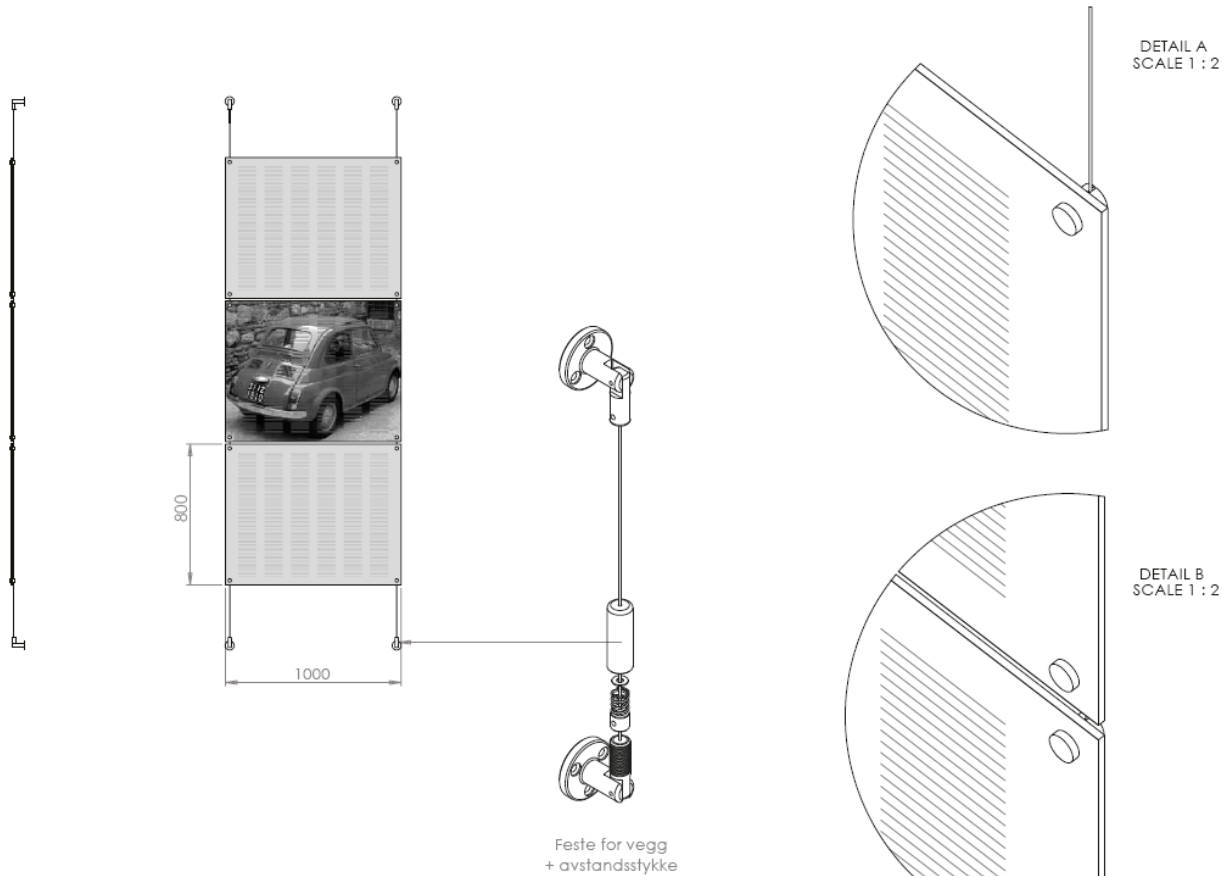
Signex co-operation - Wall stand-off system



Wire mounted panels, ceiling to floor wire



Wall mounted wire



Projects through Signex



- USBL – lobby area, soundabsorbing pictures to damp long reverberation time due to extensive use of concrete walls

■ Latest projects through Signex



- Left: Showroom installation Oslo
- Right: Nordea Bank Brokers department acoustic and decorative panels, 2011

■ Restaurant project 2011



- Customer: Credo
- Mathematical Art: Paul Brand, artist and mathematical professor
- DeAmp-services: Panel installation solution, wire system.
- Product: 4mm 600x600 panles
- Customer challenge: Reduction of reverberation time in VIP lounge at a gourmet restaurant. All walls and ceiling was concrete and hard tiled floor. Prior to the installation music could not be played.



■ Projects 2011-2013



- Customer: Trondheim Cinemas
- Architect: Agraff
- DeAmp-servives: Problems solving, modular wall mounting system and sound absorbing panels.
- 5 installations in seperate halles
- Installer: Installed by customer, needs a drill and screw. Panels installed by hand with plastic rivets.

■ Projects 2011-2013



- Customer: Torp Real Estate
- Deamp-services: Solution design and installation equipment
- Product: Standard panels
- Customers challenge: Reduction of noisy reverberance in old preserved dairy production area now refurbished to an open office area.

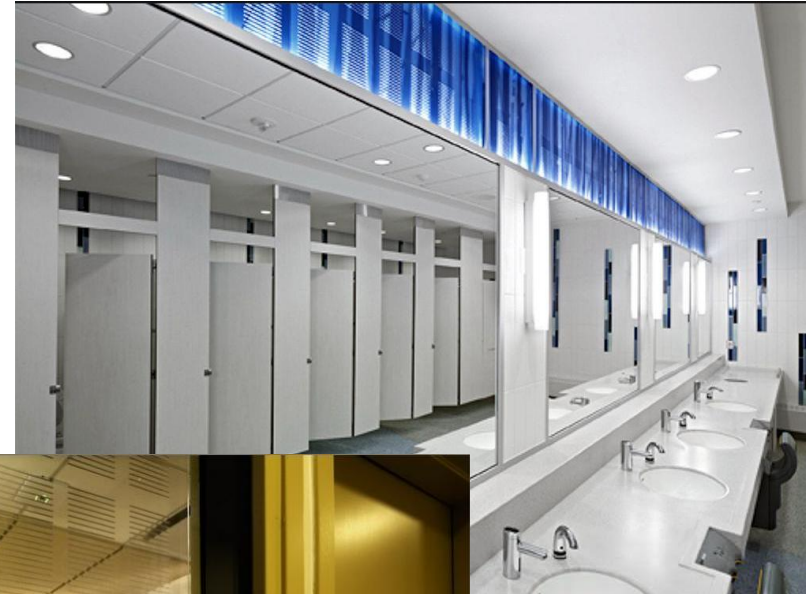
Abroad 2012



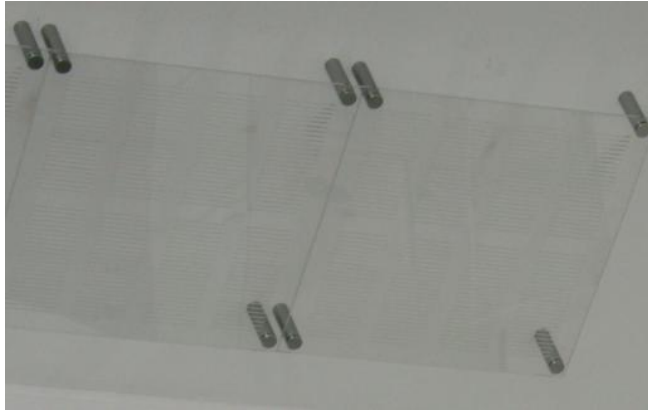
■ Cruise ship: 5th and final delivery to Celebrity cruises.

■ Upper right: Toilet illuminated prints (blue) in Edmonton Airport Canada.

■ Lower mid: Food Network TV in New York.



Other Deamp Deliveries



- Nordea Bank (signex)
- DnB Bank (signex)
- Statkraft Lobby (Deamp)
- Presentation Data (Signex)
- Credo restaurant (Deamp)
- Haukeland Hospital (Signex)
- Cisco Systems (Deamp)
- NRK TV station (Signex)
- Sintef IKT (research org) (Deamp)
- Statoil (Gjøa Off Shore) (Deamp)
- Reading University Lab (RPG UK)
- St. Olavs Hospital Lobby (Signex)

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