

About T5



- The challenge
- Heathrow Today
- Heathrow Tomorrow
- Scale



T5 Challenge



- To increase Heathrows operational capacity
- To maintain operations of the airport seamlessly
- To the opening of the new terminal complex in Spring 08



Heathrow Today



- **90 Airlines**
- **1,200 flights a day**
- **170 destinations in 85 countries**
- **1.2 million tonnes of cargo**
- **65 million passengers**
- **68,000 people directly employed**
- **125k passengers per day**



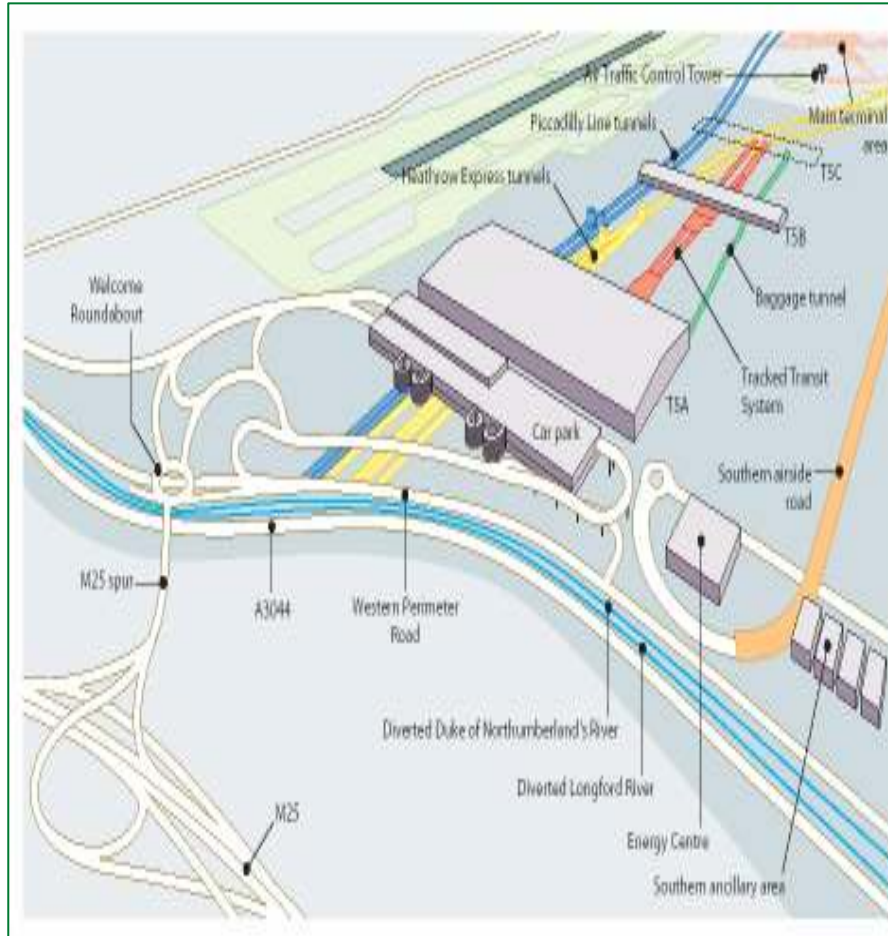
Heathrow Tomorrow – What T5 adds



- Demand for air travel in the South East is forecast to double in the next 20 years
- Terminal 5 will provide additional capacity of up to 35 million passengers per annum
- Terminal 5, at an estimated cost of £4.2 billion, is by far the largest project ever undertaken at any U.K airport



T5 Scale



- **250 Hectares**
- **Main Terminal 204,200 sq m**
- **Satellite : 67,000 sq m**
- **Hotel: 600 bed**
- **Retail: 42,000 sq m**
- **Control tower: 87 m high**
- **Car parking: 4,000 spaces**
- **M25 spurr**
- **1 new rail stations**
- **1 coach station**





Requirements

- Trust
- Commitment
- Integrated team
- Best practice
- Good people
- Openness
- Challenging



Scope - T5A Main Terminal



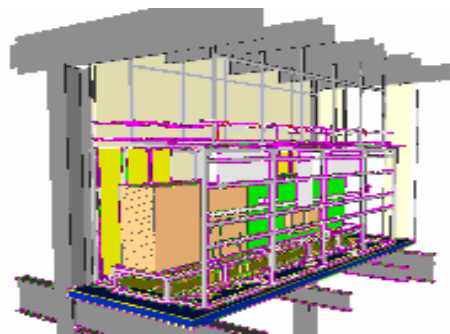
Key Statistics:

- **Main Airport Terminal Building**
- **385 metres long x 165 metres wide x 45 metres high (8 primary floors)**
- **270,000 M² floor space**
- **18 jetty served stands**
- **6 platform rail station**
- **M&E Scope:**
 - **Mechanical Services**
 - **Electrical Systems**
 - **Public Health**
 - **Commissioning**
 - **M&E Services Shell & Core Fit-out**
- **Public opening March 2008**

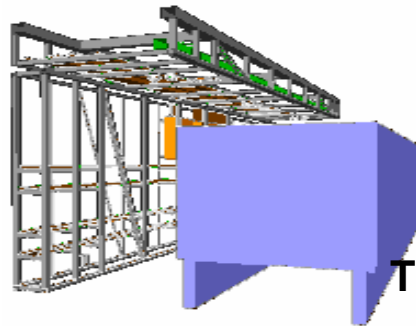
Scope - Control Tower



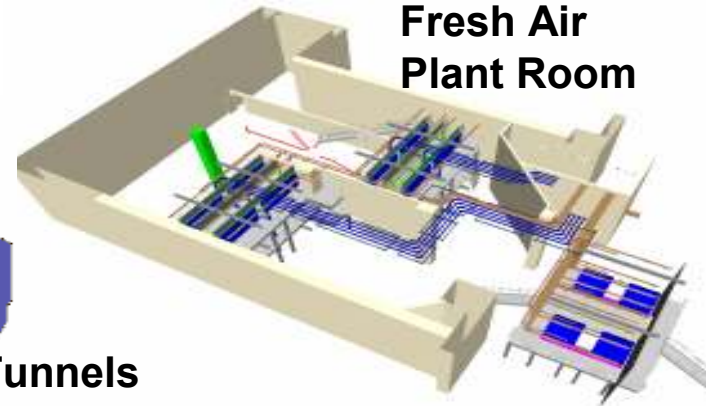
Modularised Products



IT ROOMS



Tunnels



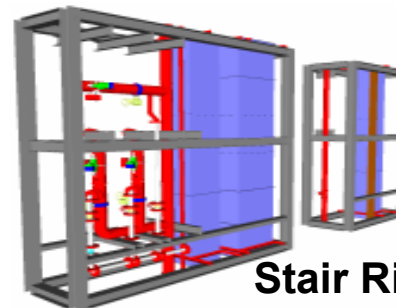
**Fresh Air
Plant Room**



CHIMNEYS



Skid Mounted Plant



Stair Riser

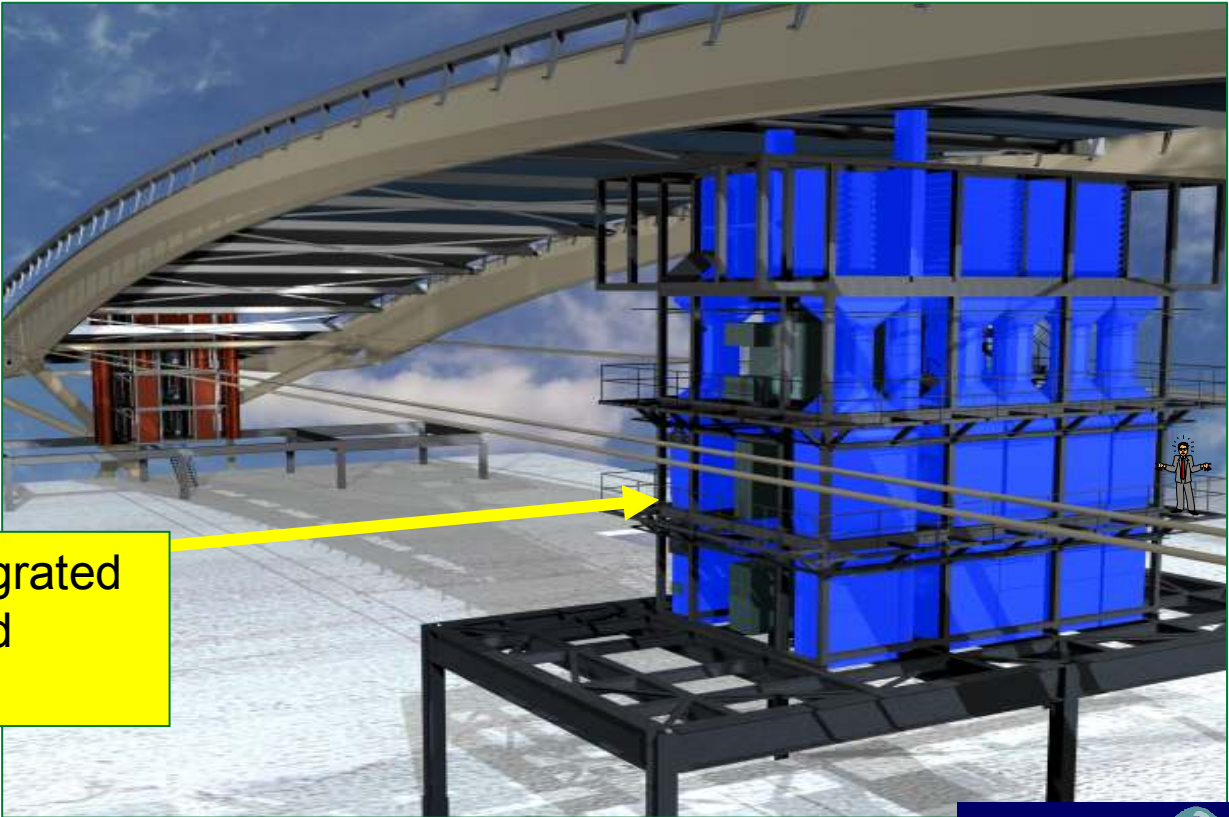
Oct 05	No
T5A	3500
T5B	1250
Tower	60
Utility Tunnels	350
Energy Center	150
TOTAL	5310



Integrated Design



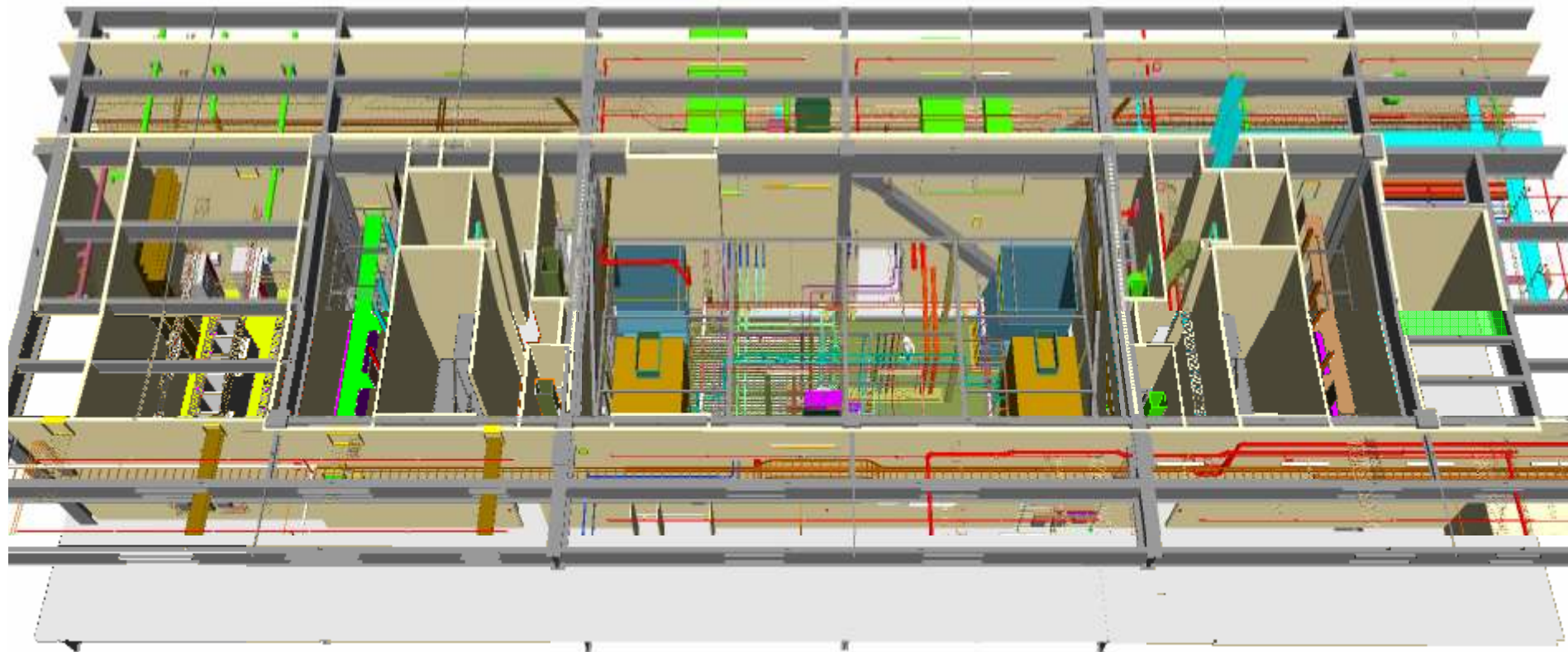
- Engineering Teams from all parties under taking the task.
- Task Teams investigate issues / solutions sharing the results of their efforts
- Early involvement of Key suppliers & commissioning expertise



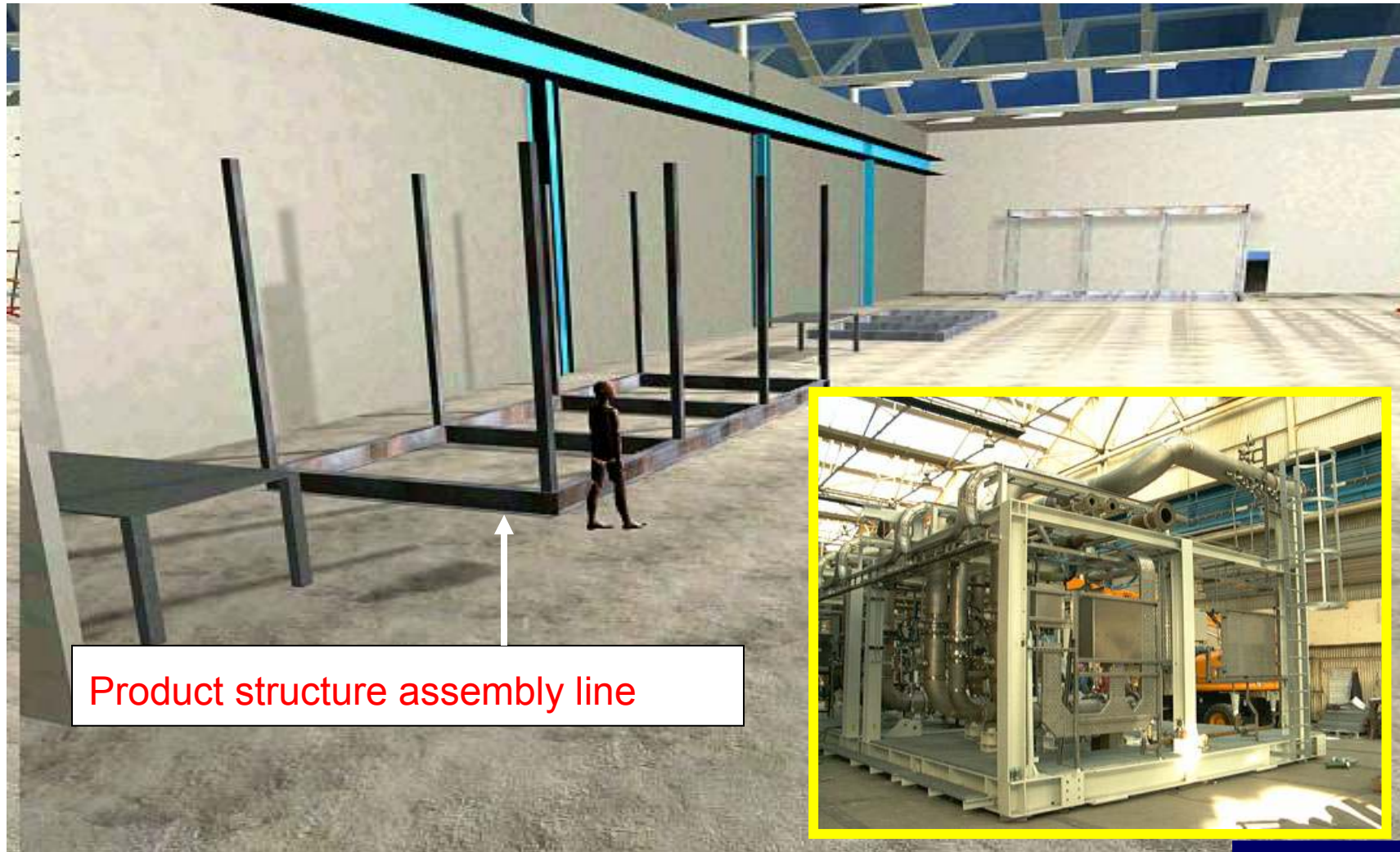
Totally Integrated
Modularised
Solutions



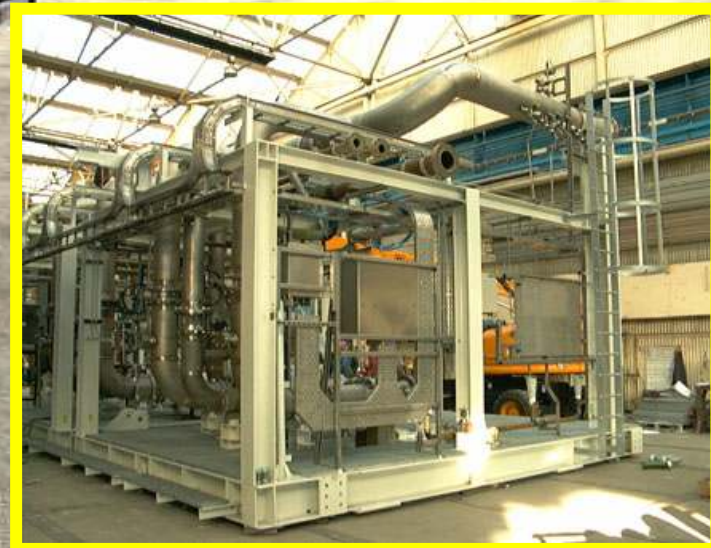
TYPICAL MODULARISED CORE ASSEMBLY ARRANGEMENT



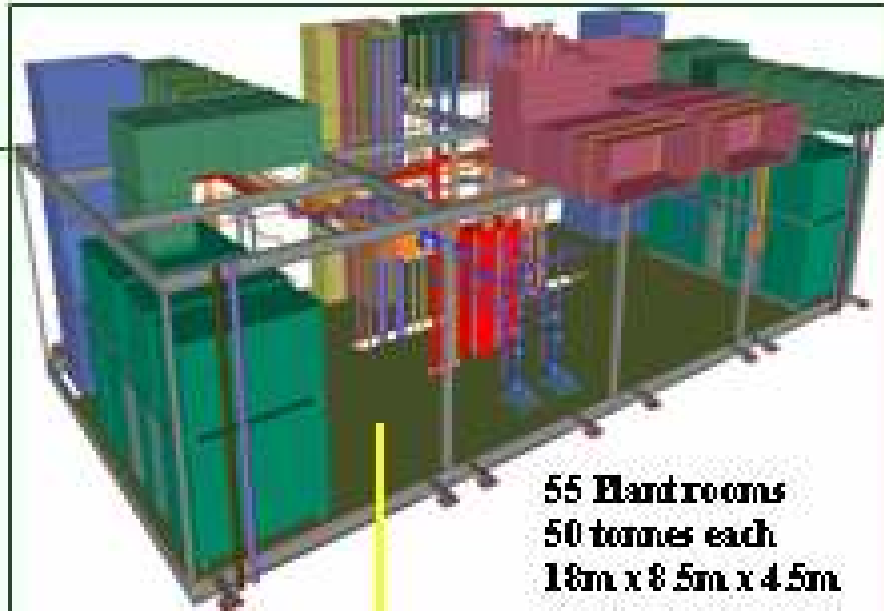
Virtual Product Assembly Process



Product structure assembly line



TERMINAL 5 BENEFITING FROM BEST UK M& E ENGINEERING



55 Handrooms
50 tonnes each
18m x 8.5m x 4.5m

Benefits

- PROGRAMME 6 MONTHS CRITICAL
- SAVES 3600 m STRUCTURAL STEELWORK
- CONTRIBUTED TO REDUCING CORES 15 TO 11
- SAVES 10900 m² CONCRETE SLABS
- BUILT IN WALKWAYS & STAIRS TO ROOF
- BUILT IN ENERGY CONSERVATION



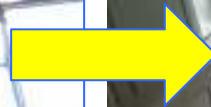
T5a Single Air handling Plant room Modules - strand-jacking

Central Chimney Module Products.

Virtual Reality View of Manufacturing Assembly Process



Services Team Achieve First Airside Chimney



Pre-Assembled In The Factory

Assembly on Site in 1½ days only



Manufacturing Train 1 – Energy Centre

Single site lift 90 ton / 34 m



Benefits - Results

