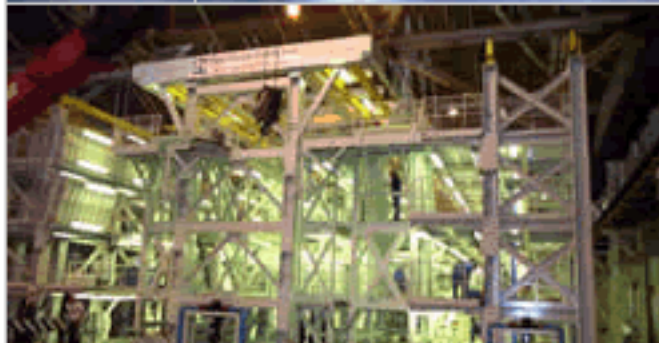




Hyde Group

[www.hydegroupp.com](http://www.hydegroupp.com)

The Tooling Division of Hyde Group owns and Program Manages its in house resources which include 'Tool Design', 'Automation & Systems Integration', 'Tool Manufacture', 'Qualification' & 'Installation Engineers'. On average Hyde produce 30,000 direct tool design and manufacturing productive hours each week.

Hyde's 1st 'Turnkey' tooling package, in 1981 was for the total design and supply of over 3,000 tools for the detail manufacture, assembly and qualification of the F100 Wing.

Today, Hyde operates globally with sophisticated data management systems, approved by the worlds prime airframe manufacturers, for whom tools are typically digitally built and qualified.

The worlds largest **tool design and manufacturing resource**



Hyde Group

[www.hydegroupp.com](http://www.hydegroupp.com)

## Capacity & People



- ▶ 180 Design and Engineering personnel
- ▶ 430 Toolmakers
- ▶ 35 Qualification / Laser Tracker operators
- ▶ 325 Production personnel
- ▶ 330 Management and indirect employees
- ▶ 810,000 sq ft (76,000 sq mtrs) Group floor space
- ▶ 30,000 Productive toolmaking hours a week

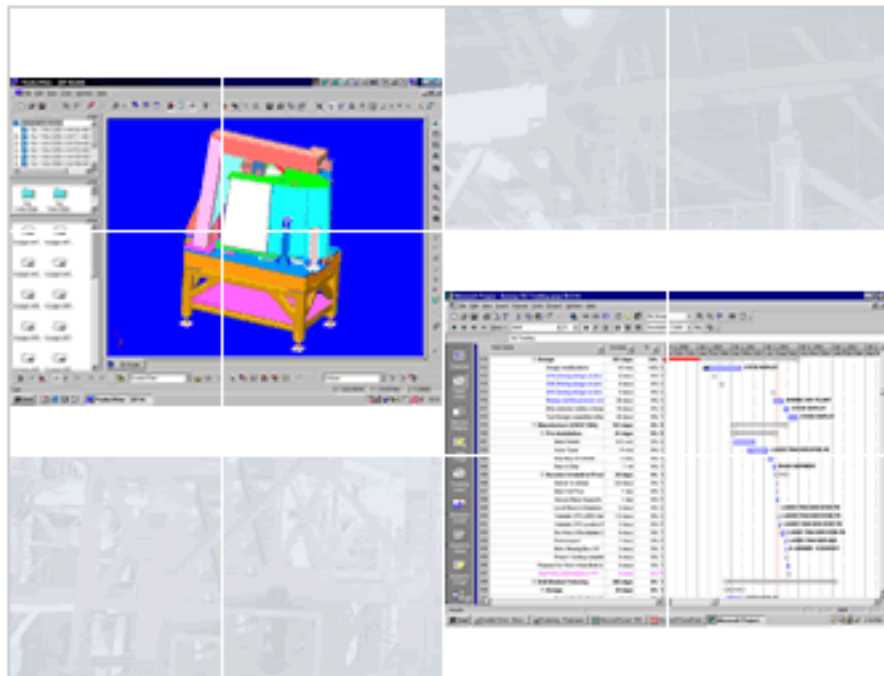
The worlds largest **tool design** and **manufacturing resource**



Hyde Group

[www.hydegroupp.com](http://www.hydegroupp.com)

Project management



- ▶ Tooling system intergration
- ▶ Microsoft project scheduling
- ▶ Risk analysis
- ▶ Micro scheduling of critical path
- ▶ Quality plans
- ▶ E.V.A
- ▶ Web based design monitoring

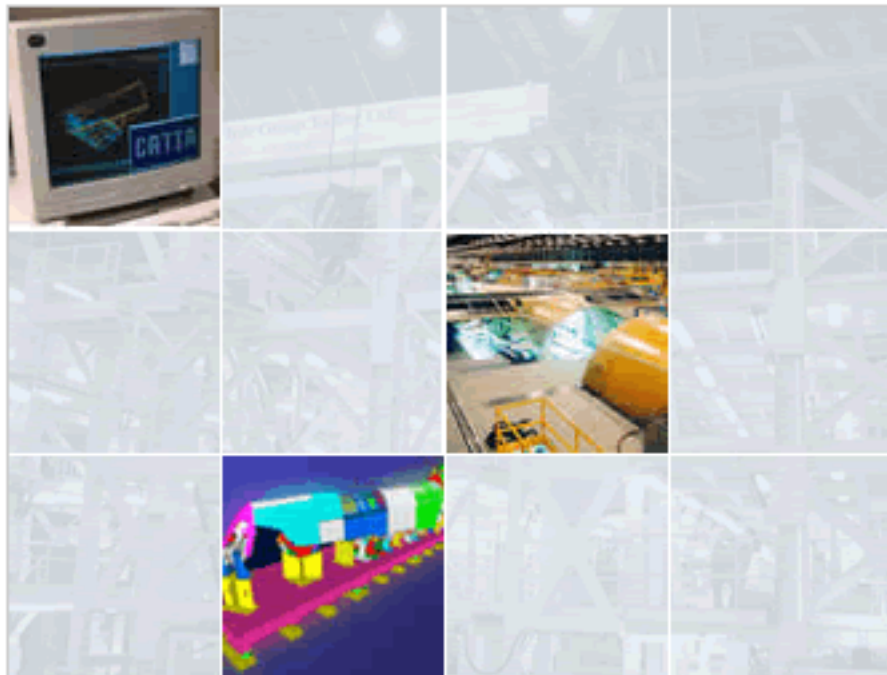
The worlds largest **tool design** and **manufacturing resource**



Hyde Group

[www.hydegroupp.com](http://www.hydegroupp.com)

Design



- ▶ Tool Design
- ▶ Aircraft Structures Design
- ▶ Aircraft Electrical Design
- ▶ NC Programming
- ▶ Stress Analysis
- ▶ Factory Simulation
- ▶ Product View (on line Engineering review tool - Internet based)
- ▶ DV Mock up - Digital Pre Assembly software capability
- ▶ CATIA\CADDS5\AutoCAD 160 seats

The worlds largest **tool design** and **manufacturing resource**



The following projects demonstrate fully integrated tooling solutions including tooling systems, design & stress analysis, manufacturing, civil engineering and installation and commissioning

- ▶ Airbus 380 Wingbox, leading and trailing edge assembly systems
- ▶ Airbus Espania A330 / 340 H.T.P assembly tooling
- ▶ Boeing 767 / 777Wing leading edge assembly tooling and digital qualification systems
- ▶ Airbus A320-330 / 340 wing turnover rigs
- ▶ Lockheed-Boeing F22 engine inlet / vertical stabilisers / final assembly and mate

## The worlds largest tool design and manufacturing resource

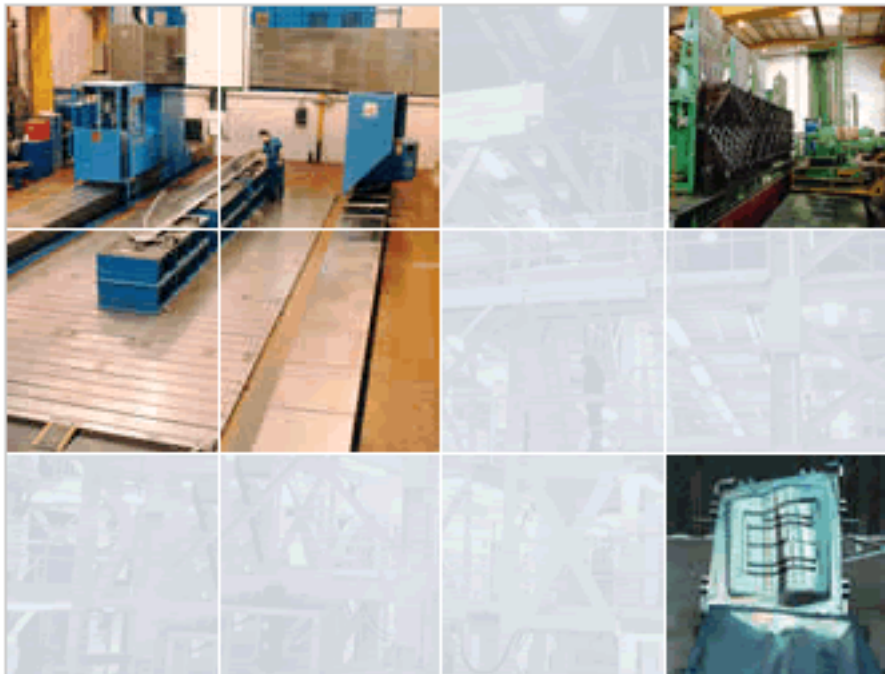




Hyde Group

[www.hydegroup.com](http://www.hydegroup.com)

## Form & Lay up tooling



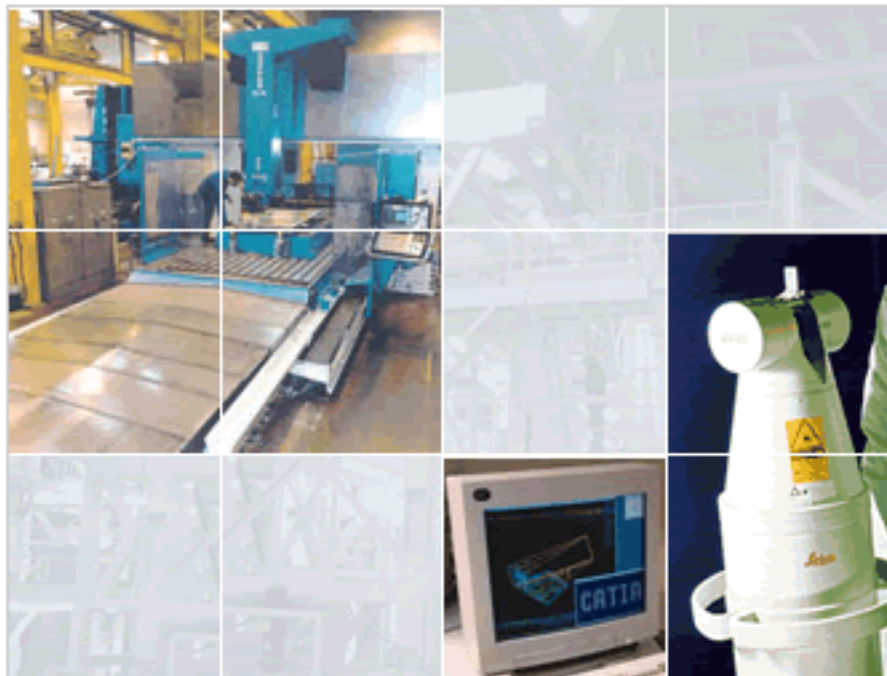
- ▶ RTM
- ▶ SPF
- ▶ Invar & mild steel lay up tools
- ▶ Aluminium master tools for composite tool layup
- ▶ Aluminium bonding tools
- ▶ Full pattern making & non metallic tool making facilities
- ▶ Composite tools using 'in house' autoclaves up to 6.5 mtrs x 2.5 mtrs

The worlds largest **tool design** and **manufacturing resource**



[www.hydegroup.com](http://www.hydegroup.com)

## Facilities & Equipment



### 3 Axis

### 5 Axis

#### Machines

54

8

Capacity X	7.0 mtrs / 23ft	9.12 mtrs / 39ft
Capacity Y	2.5 mtrs / 8ft	4.00 mtrs / 13ft
Capacity Z	2.5 mtrs / 8ft	1.50 mtrs / 4ft 11in

- ▶ 160 CATIA & CADD5 Seats
- ▶ Digital pre-assembly systems
- ▶ 8 Leica LTD500 Laser Trackers (5 more on order)
- ▶ 12 CMM's > CATIA interface by 'PCDMIS'

The worlds largest tool design and manufacturing resource