

John Cobb (Security clearance previously held until 2020)

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PROFILE

An experienced Mechanical Design Engineer with diverse expertise of Design, 3D modelling and development of special purpose machinery and process plant for various sectors including: Defence, Aerospace, Nuclear, Food/Beverage, Electronic/Mechanical Manufacturing, Petro-Chemical, Automotive.

KEY ACHIEVEMENTS

- 1 Responsible for critical design and development of high value complex special purpose machinery, which increased film production by 600% through innovative approach, achieved a concurrent cycle time reduction and capacity increase
- 2 Successfully 'designed in' manufacturing efficiencies in the form of 4 special purpose machines to achieve aggressive build plan producing a much-improved assembly time
- 3 Ensured build of project critical assembly roofing system, for prestigious Welsh National Assembly building through 3D modelling of assembly parts
- 4 Intensively trained in use of Inventor and Mechanical Desktop by Autodesk Authorised Consultant
- 5 Practical design experience of utilising Inventor, Mechanical Desktop, AutoCAD, RoboCAD, etc
- 6 Licence holder for Inventor (current release) & AutoCAD with suitably specified workstations

Please see my web site: www.inventor-3d-design.co.uk

EMPLOYMENT HISTORY - Modelling specialist

2018 to Current **PMI**

Design Draughtsman

Design of process pipework and frameworks using Inventor, specifically: 'Tube & Pipe' & 'Frame Generator'
Design Package: Inventor 2019

2017 to 2018 **Atlas Copco**

Design Draughtsman [Contract – 11 months]

Design of new diesel and electric motor driven air compressor systems
Design Package: Inventor 2017 with Vault

2015 to 2017 **Pall Corporation**

Design Draughtsman [Contract – 2 years]

Design work on new 2000L, 500L, 200L, 50L and existing 1000L Bioreactors to GA/detail drawing level for manufacture
Design Package: Inventor 2015 with Vault

2015 **Tetronics Ltd**

Design Engineer [Contract – 1 month]

Design work on a new production line to extract precious metals from catalytic convertors, using plasma technology
Design Package: Inventor 2015 using Vault (own licence on site)

2013 to 2014 Dounreay Site Restoration Ltd**Design Engineer/Draughtsman [Contract – 1 yr 6 months]**

Model & detail work including: extract ducting, piping and special purpose processing equipment as part of the decommissioning of the nuclear power station

Design Package: Inventor *Professional 2014 using Vault*

2011 - 2013 A N Technology**Design Engineer [Contract – 1 yr 7 months]**

Model & detail of existing equipment & design work on new products for the nuclear industry

Design Package: Inventor 2012 (own licence on site)

2011, 2013 & 2014/15 MAC Aircraft Interior Specialists**Inventor Specialist [3x Contracts – 3, 4 & 5 months]**

Model & detail of: - Boeing 747, 767 & 777 + Airbus A319 Galley Modifications (original & 'as built')

Boeing 767 & Airbus A330 Lavatory Refurbishments

Design Packages: Inventor 2011 (own licence on site) & Inventor Professional 2014

2010 - 2011 Wallop Defence Systems (Esterline)**Inventor Specialist 'Security cleared' [Contract – 9 months]**

Model & detail of existing equipment inc. Rockets, Flares, Marine Sound Signal etc. - Inventor 2011

2009 - 2010 & 2015 Stop-Choc Ltd**Design Draughtsman [2x Contracts – 1 yr & 1 month]**

Design & detail of illuminated aircraft cockpit flight panels inc Tornado G4 & Hawk trainer

Contract extension offered 3 times

Design Package: Inventor

2008 - 2009 Cerulean Ltd**Design Engineer [Contract – 1 yr]**

Projects included: an arrangement allowing individual analysis of the smoke from 16 cigarettes

Redesign of a cigarette hopper to include a new agitation system. Contract extended 4 times

Design Package: Inventor 2009/10 (own licence from my office & client's licence on site)

2008 Dickinson Legg Ltd**Design Draughtsman [Contract – 6 months]**

Design & detail of heavy-duty process equipment for the primary tobacco industry - Inventor 2010

2007 - 2008 +(2009) M.S. Precision Ltd**Design Draughtsman [2x Contracts – 6 months]**

Design & detail of high-speed staple packing machine & machine to assemble colostomy bags

Design Package: Inventor 2008 (own licence from my office & client's licence on site)

2007 KIDDE Ltd**Design Draughtsman [Contract – 3 months]**

Design & detail of fire extinguishing skids – process pipe work

Design Package: Inventor 2008

2006 - 2007 CME Ltd**Design Draughtsman [Contract – 1 yr 5 months]**

Design & detail of high-speed machinery for the tobacco industry

Design Package: Inventor 2008/11 (own licence on site)

2005 - 2006 Molins Ltd**Inventor Specialist [Contract – 1 yr 3 months]**

Reverse engineering of a high-speed cigarette manufacturing machine (100/sec)

Design Package: Inventor 10/9 Professional

2004 - 2005 Dage Ltd**Mechanical Design Engineer [Contract – 3 months]**

Development of scissor lift trolleys and associated materials handling for high value X Ray inspection machines (\$100k per machine), manufactured in UK and exported to US

Design of a test bed to 'trail run' XYZ axis movement assemblies and to allow sliding of said assemblies into shielded enclosures (560mm vertical and 1350mm horizontal travel required)

Design and development of assemblies to man handle lead lined enclosure doors (83kg & 40kg) to afford horizontal/vertical movements and 90-degree rotation

Training of 2 other Engineers in the use of Inventor 3D Cad

Design Package: Inventor 8/9 (own licence on site)

2004 + 2005 + 2017 Lakesmere Ltd**Mechanical Designer - 3D Modelling [3x Contracts – 1 yr 6 months]**

Railway station upgrades on the Crossrail project

Design of custom domed roof construction for prestigious National Assembly of Wales Building/wave form roof construction for Liverpool South Parkway station/refurbishment of Whitechapel/Liverpool Street railway stations

3D modelling and detailing of tapered and compound curved standing seam roof and cladding

Modelling of 170m spinnaker tower at Portsmouth as double check on glazing specifications

Training of other engineers in the use of Inventor 3D Cad

Produced standard parts library and drawing border sheets

Design Package: Inventor 8/9 (own licence from my office & on site) & Inventor 2016 with Vault Pro 2016

2003 – 2004 Exitech Ltd**Mechanical Design Engineer [Contract – 2.5 months]**

Designed and detailed enclosure (4.5m x 3.6 x 2.3m)

Designed and detailed loading bay with frameworks of aluminium extrusions and sheet metal infill panel's (doors, windows, removable panels, interlock switches etc)

Design of test rig and fixtures - Design Package: Inventor 6

2002 – 2003 Technicolor**Mechanical Design Engineer [Permanent]**

Conceptual design of high-speed film elevator design

Development design of positive developing machine

Site survey and production of engineering drawings from conceptual 3D modelling

Design package: Inventor 7

2001 – 2002 KP Aerofill**Design Draughtsman [Contract – 5 months]**

Production of assembly and detailed design drawings – P&IDs for new high speed (1 can/sec) aerosol can filling lines

Design Package: AutoCAD 2002 & R14

2001 How Fire Ltd**Design Draughtsman [Contract – 2 months]**

Design of layout for sprinkler pipe work system and spray head locations – 6 floors of the Marks & Spencer flagship store, Fenchurch Street, London - Design Package: AutoCAD 2000i

1999–2001 + 1992-93 Design Facilities Ltd**Design Draughtsman [Contract – 2 yrs. 1 month]**

Created design and detail layout for 'Raw Caramel make up module' for Mars miniatures

Design of associated pressure vessels, heat exchangers, pump mountings, valves, process pipe work, flow plates etc

Design of Support Platform (9m x 11m x 2.4m) and associated foundations, stairways, handrails, Dairy silo air filter, steam and sprinkler pipe work

Integration and upgrading of modules with support platforms and in line with Mars directive

Design Package: AutoCAD 2000

- 1995 – 1999 Technicolor**
Mechanical Design Engineer [Permanent]
 Responsible for the Drawing office and contract draughtsman
 Design of novel high-speed panel printing machine
 Redesign of industrial film developing equipment and conversion from gear drive to toothed belt drive for film printing machine. Created detailed design drawings of novel 65mm wide film format printing machine
 Design of complex mechanisms and fabrications in steel, stainless or aluminium alloys
 Design Package: AutoCAD R14, Mechanical Desktop
- 1994 – 95 Lucas**
Design Draughtsman [Contract – 1 yr]
 Design of automatic drum brake assembly and cylinder head valve insertion machinery
 Design of associated fixtures
 Design Package: AutoCAD R12
- 1993 – 94 Crauford Engineering**
Design Draughtsman [Contract – 1 yr 3 months]
 Design and detailing of Glycol Chiller Plant for the 'Bounty Line' at Mars Confectionery
 Design of Process plant structure and layout – Pressure vessels, SP machinery, screw conveyors, jigs etc
 Design Package: AutoCAD R12
- 1993 Celltech Ltd**
Design Draughtsman [Contract – 6 months]
 Design of new 2000litre fermentation suite plant
 Design of process plant and layout P&ID's – pressure vessels, flow plates, trolleys etc
 Design Package: AutoCAD R12
- 1992 Ferranti Sub Sea Ltd**
Design Draughtsman & Checker [Contract – 4 months]
- 1992 Harkess-Ord**
Project Engineer [Contract – 3 months]
- 1991 – 92 Thorn EMI Ltd**
Electro/Mech. Design Engineer [Contract – 11 months]
- 1990 – 91 Berkeley Design Ltd**
Draughtsman [Contract – 7 months]
- 1989 – 90 Automation Techniques Ltd**
Project Engineer [Permanent – 1 year]
- 1989 Tudor Technology Ltd**
 CAD Systems Engineer [Permanent – 8 months]
- 1981 – 89 Goring Kerr PLC**
Design Draughtsman [Permanent – 7 years]
 Design of conveyor systems incorporating metal detectors
- 1977 – 81 John Crane Ltd**
Draughtsman [Permanent – 4 years]
- 1971 – 77 Admiralty Compass Observatory**
Skilled Craftsman & Apprentice [6 years]

EDUCATION & TRAINING

HND Mechanical Engineering (with various distinctions)
 Subsequently offered place on MSc Design of Machine Systems in 1981
 Extensive Inventor tuition, City & Guilds AutoCAD 3D Wireframe
 Date of Birth: 18/07/55