



## Lynch Success Story Custom Product: Umbilical Arm System

| Lynch's customer found an organization that could provide a total solution from engineering services, manufacturing, assembly, testing for their requirements. |   |
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| "Lynch really has its act together." - Program Manager   |   |
| Problem and Requirements   | <ul> <li>This Aerospace organization was looking to:</li> <li>Migrate from legacy to hydraulic, motion control technologies.</li> <li>Augment the knowledge/experience in their Engineering department</li> <li>Use Engineering Services to validate, design and analyze</li> <li>Manufacture the subassemblies</li> <li>Assemble the subassemblies</li> <li>Test and validate the subassemblies</li> <li>Document, certify and authenticate the solution</li> <li>Package and ship solution</li> </ul> |
| Solution   | With a Lynch partnership, the organization was able to a obtain a Total Solution from one company. Subassemblies using valves, manifolds, plugs, electronics, cabling   |
| Product Application(s)   | Using hydraulic, motion control to move and manipulate multiple arms within seconds.  |
| Manufacturing Equipment  | Matsuura 100H, Cutter Machines, Milling Machines, Test Tools, Post processing including washing, sanding, deburring, CMM  |
| Tolerance  | 15 seconds to move Umbilical Arm System from on to off position   |
| Product Dimensions   | 23" x 40" x 16"   |
| Product Weight   | 300lbs – 1200lbs  |
| Color  | Black   |
| Material Type  | Aluminum & Stainless Steel  |
| Material Finish  | Black anodizing   |
| Secondary Operations   | Helicoils, First Article Inspection (FAI)   |
| Industry   | AeroSpace   |
| Production Set   | 1 x Speed Control and 1 x Pressure Reduction Manifold Assembly for each umbilical arm   |
| Delivery Time  | 8 months from Purchase Order  |
| Packaging/shipping   | Custom packaging and crating with point to point delivery   |
| Standard Met   | Data Package (Paperwork) 2 x 3" Binders per Manifold Assembly   |
| Drawing Software   | Inventor – 3D Models/Schematics   |
| Services: PMO  | Project/Program Management  |
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**Engineering Services** 

**Testing Services** 

Hydrostatic, Acoustic, Functional, Dynamic

Design Validation, 3D Model, Schematics, FEA, CFD