



## HIGH IMPACT CASE STUDY: DFT FACTORY TRANSFORMATION

### INDUSTRIAL SCIENTIFIC CORPORATION

Industrial Scientific Corporation, founded in 1985, is the global leader in gas detection products and related services that keep workers safe in hazardous environments. With revenues in excess of \$150 million, Industrial Scientific is headquartered in Pittsburgh, USA, the base for its manufacturing, product service, and research and development operations. Industrial Scientific also operates a manufacturing facility in Shanghai, China, as well as localized service centers around the world to maintain their commitment of preserving human life and ending death on the job in this century. Supplying to key market places such as oil and gas, chemical production, mining, and fire services, Industrial Scientific has witnessed significant growth over the last 5 years through a wide product offering, highly respected technical expertise and the introduction of innovative product service solutions.

### CLIENT'S CHALLENGE

Industrial Scientific has successfully positioned itself as the market leader with a highly configurable product. The company had grown to the point that it was operating from four separate buildings that housed manufacturing, service, global distribution and sales/administration. The inherent inefficiencies of operating out of four facilities drove a decision to consolidate Pittsburgh operations into a newly constructed headquarters facility.

Manufacturing was spread out across 10 production cells some of which experienced low levels of utilization due to daily variations in product mix. The response time from these production cells ranged from 3 to 6 days contributing to a defined Customer Quoted Lead Time of 10 days for Make-to-Order products. In addition, significant pressure was being placed on the operations team as they had to contend with customer expedite requests for approximately 8% of all sales orders on a monthly basis.

The Service Department had grown over the years with each technician working on several gas detection instruments at a time. The traditional mindset of simply adding employees to increase output had to change as successful new innovative product offerings that now included system management, data analysis and proactive product maintenance were accelerating the workload demand on the service team.

The leadership team elected to leverage the move to the new facility as a catalyst to deploy a new approach to manufacturing and service operations which would support long range growth projections as well as dramatically increase responsiveness to customer demand.

## HIGH IMPACT'S SOLUTION

Industrial Scientific had already started a 2-year program to build a state-of-the-art facility that was going to house the entire US based organization under one single roof when they called upon High Impact Coaching & Strategies. Industrial Scientific needed to consolidate production, service and global distribution into one facility with effectively less space and to increase output. Over the duration of one year, a DFT Factory Transformation program was completed and this solution included:

- + Optimized mixed-model flow design in production consolidating previously stand-alone production cells in reduced space, with improved productivity and manufacturing response times thereby increasing capacity without increasing production resources.
- + Introduction of employee flexing within new DFT flow lines improving productivity providing flexibility to ramp capacity.
- + Introduction of single piece flow within Production and Service improving response times through the facility, while minimizing inventory.
- + Transition from product service completed at individual workstations to creation of optimized product flow with visual management techniques and product Kanban dramatically improving response time to leasing customers.
- + Introduction of DFT Material Replenishment systems to manage and reduce shop floor inventories in addition to improved material presentation techniques.
- + Creation of integrated Production and Service environment enabling a single culture as well as staff flexing and support between previously autonomous teams.
- + Utilization of the Flow module within High Impact's TheONE software platform, to determine optimized and balanced resource requirements enabling flow within Production and Service.

**“A new state of the art headquarters facility warrants a world class manufacturing and service operation. We weren't looking for incremental change, we needed step function level change. High Impact Coaching & Strategies offered extensive hands on experience and a history of results that met our needs...and they delivered.”**

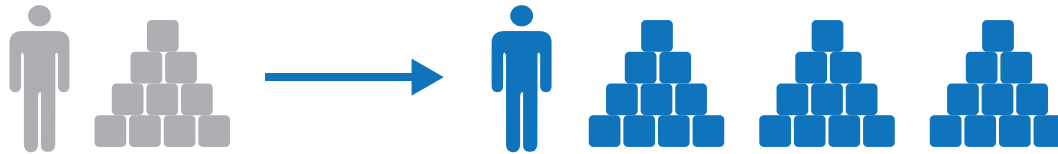
**- Jim Quasey  
VP, Global Operations**

# IMPACT TO CLIENT'S BUSINESS

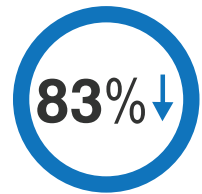
Customer Quoted Lead Times reduced from 10 to 5 days.



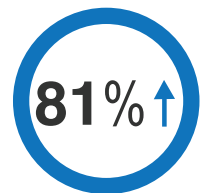
Manufacturing Capacity increased by 200% with no change to head-count



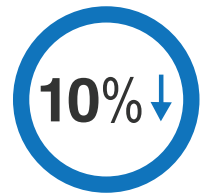
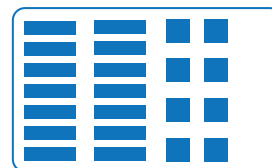
Manufacturing lead time reduced from 6 to 1 day



Service Capacity increased by 45% with 20% fewer resources, equating to a capacity increase of 81% based on resources.



Manufacturing and Service floor space reduced from 55,000 to 49,500 sqft



For over 15 years, High Impact Coaching & Strategies has made the “impossible” a reality for over 500 clients across 20 different countries. Our consulting group has over 75 years of combined experience in client transformations, and our thought leaders have held senior leadership and executive level positions within various Fortune 500 companies.

We are the industry experts and exclusive provider of DFT training. We practice the art of flow by training businesses on DFT, and our clients' track records of improvement are proof of the difference it can make to the bottom line delivering average improvements of 41% in working capital, 9% in customer service levels and 8% in Cost of Goods Sold (COGS).

Are you looking to drive significant bottom line growth for your business, improve customer service levels in addition to improving your working capital position? Yes? Well, we are ready to help you to become demand driven, contact us today and speak with one of our industry experts.