



Company Profile

www.jerseyeng.com



Unlocking Engineering Possibilities



Helping the MEP industry, mechanical reps & design build contractors, by freeing them to be their best

We've combined US based engineering expertise and industry specific experience with our 200 plus professional team of engineers in India and Qatar who skillfully manage your engineering design related workload so that your organization can cherish the much needed freedom to explore a new world of possibilities.

05 +

LOCATIONS

Our services are distributed across 5 countries making us truly international.

08 +

EXPERIENCE

Leadership team with a solid five decade plus HVAC market experience & eight plus years in the service industry.

200 +

STRENGTH

Our team comprises of over 200+ skilled professionals from different engineering fields.

13,000 +

SERVICES

We have completed more than 13,000+ projects across the World.

Our Team

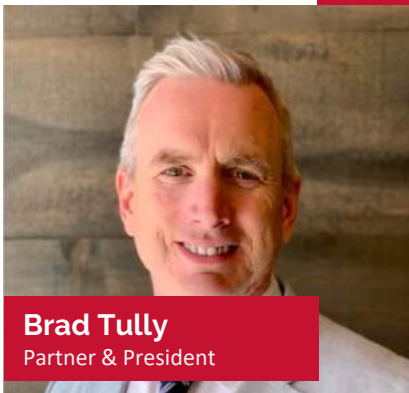


CEO MESSAGE

At Jersey Engineering Solutions, we elevate construction excellence worldwide through advanced engineering, fostering sustainability and delivering unparalleled building engineering solutions to our valued customers that redefine the future of building environments.

Bruce Dorey

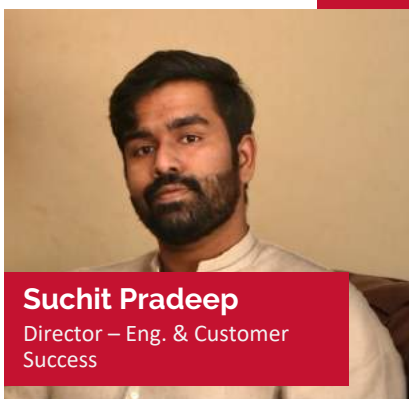
Partner & CEO, Jersey Engineering Solutions



Brad Tully
Partner & President



Pradeep Rajan
Senior Partner



Suchit Pradeep
Director – Eng. & Customer
Success



John Weyker
Director of Sales & Marketing



Building Modeling Services

www.jerseyeng.com

BIM MODELING



Building Information Modeling (BIM)

employs different levels of detail (LOD) to categorize the extent of development and detailing within a BIM model. These levels help define the granularity and sophistication of information contained in the model at various stages of the project.

LOD 200 - SCHEMATIC DESIGN

- LOD 200 involves more developed elements than LOD 100.
- It includes approximate sizes, shapes, and locations of building elements.
- Used in the schematic design phase to visualize the project and assess its feasibility.

LOD 400 - FABRICATION & ASSEMBLY

- LOD 400 is highly detailed and suitable for fabrication and assembly purposes.
- It includes precise geometry, specific product information, and assembly details.
- Used for manufacturing, fabrication, and assembly of building components.

LOD 100 - CONCEPTUAL DESIGN

- LOD 100 represents the most basic level of BIM modeling.
- It includes conceptual information, basic geometry, and overall project massing.
- Used in the early stages of design to communicate the project's basic form and concept.

LOD 300 - DETAILED DESIGN

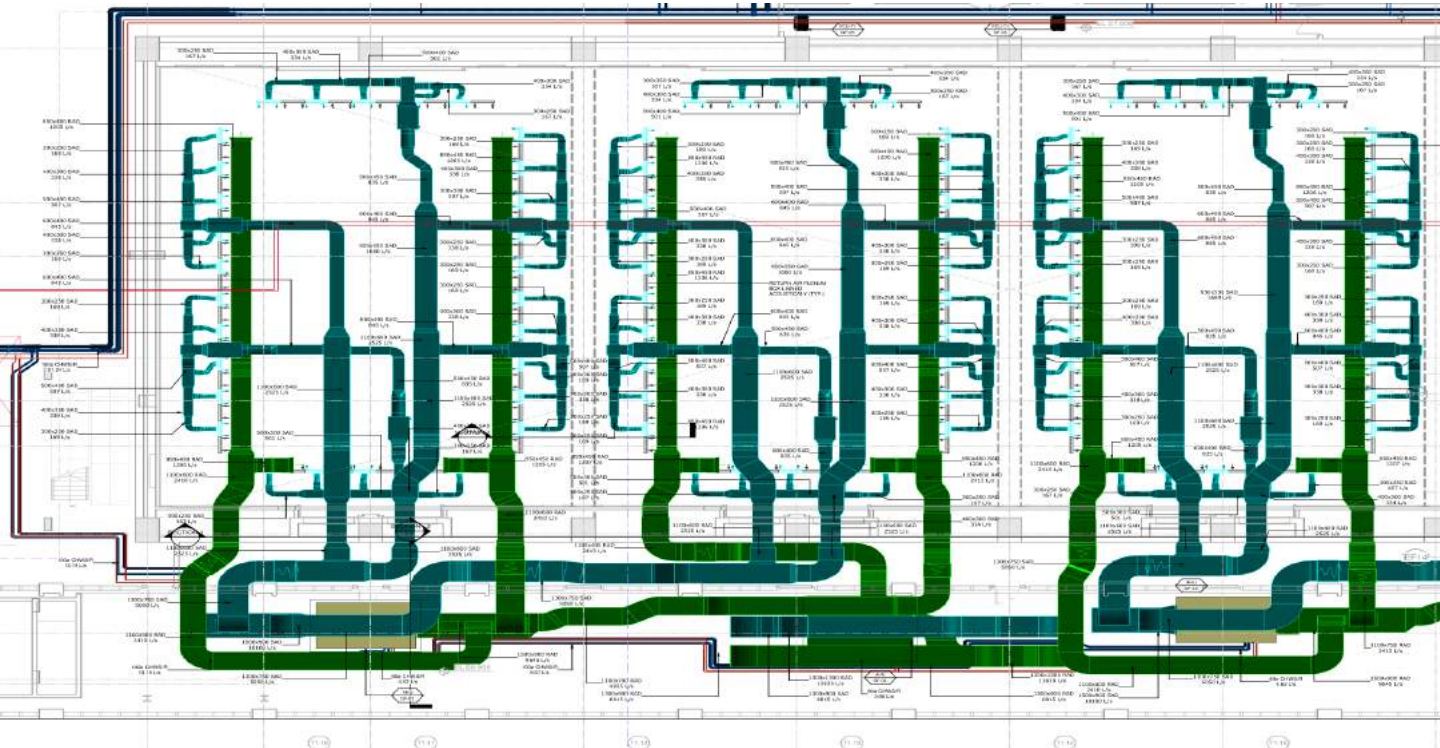
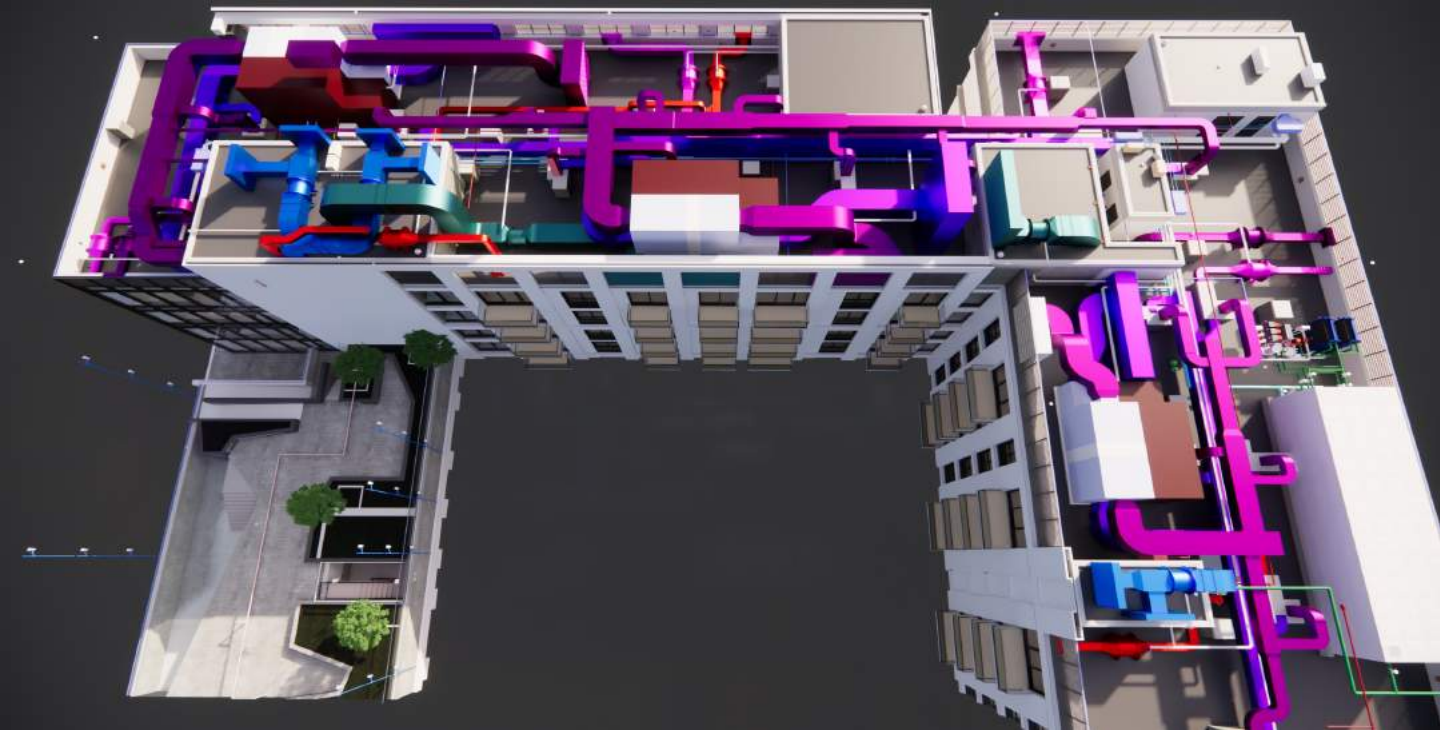
- LOD 300 provides a more detailed representation of building elements.
- It includes accurate geometry, sizes, shapes, quantities, and relationships between components.
- Used during the detailed design phase for coordination and construction documentation.

LOD 500 - AS-BUILT MODEL

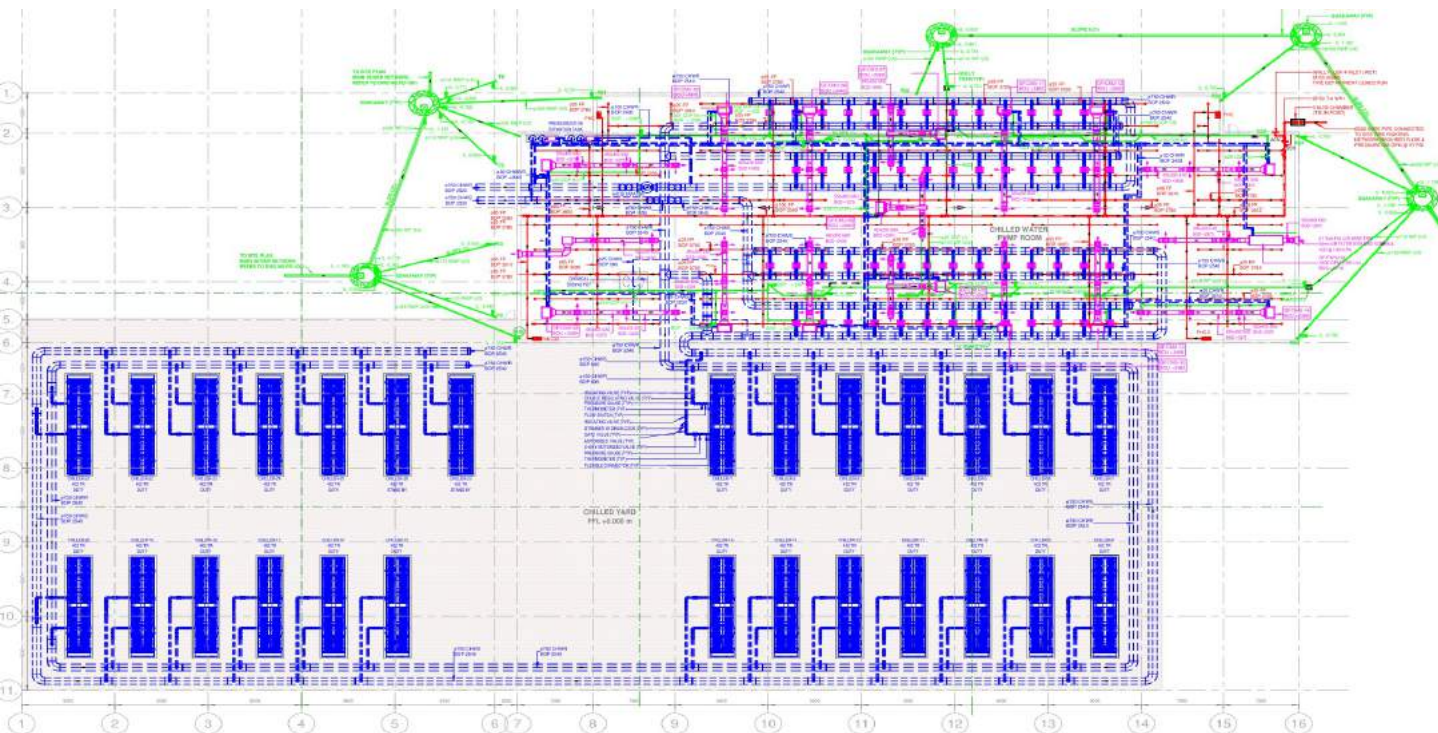
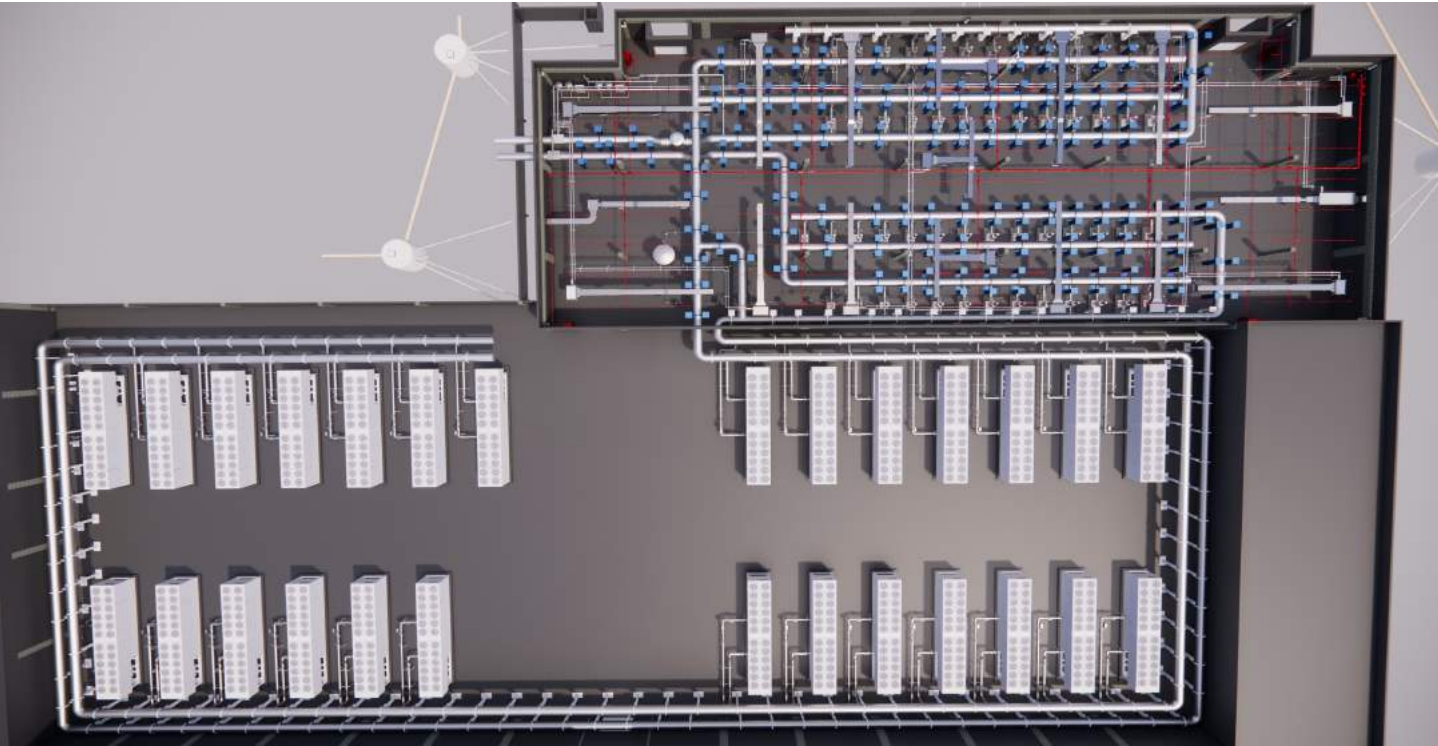
- LOD 500 represents the highest level of detail, capturing actual installed elements and accurate as-built conditions.
- It includes precise geometry, product data, and operational information.
- Used for facility management, maintenance, and renovation purposes post-construction.



LOD300 Detailed Design



LOD400 Fabrication & Assembly



LOD500 As-Built Model



LOD 500 - AS-BUILT MODEL

LOD 500 represents the highest level of detail, capturing actual installed elements and accurate as-built conditions.

It includes precise geometry, product data, and operational information used for facility management, maintenance, and renovation purposes post-construction.



JERSEY
ENGINEERING SOLUTIONS

MEP Drafting Services

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MEP DRAFTING SERVICES



We specialize in providing high-quality Mechanical, Electrical, and Plumbing (MEP) AutoCAD drafting services that cater to the diverse needs of the construction and engineering industry. With a dedicated focus on precision, innovation, and efficiency, we serve as your trusted partner in delivering impeccable MEP drafting solutions.

MEP AUTOCAD DRAFTING

Our team of experienced drafters utilizes the power of AutoCAD to create accurate and detailed MEP drawings. From HVAC layouts to electrical plans and plumbing schematics, we ensure precision in every aspect of MEP design.

2D DRAFTING AND DETAILING

We excel in converting conceptual ideas into comprehensive 2D drafts, providing detailed layouts that adhere to industry standards and project specifications.

3D MODELING INTEGRATION

Seamlessly integrating 3D MEP models into AutoCAD, we ensure a holistic view of MEP systems, facilitating better visualization and coordination among various project stakeholders.

AS-BUILT DOCUMENTATION

We assist in creating as-built documentation, capturing accurate representations of installed MEP components for renovation or maintenance purposes.



AR/VR Modeling

AR / VR MODELING



Elevate your engineering projects with our cutting-edge AR & VR Modeling services.

We specialize in immersive, interactive experiences, seamlessly integrating virtual and augmented reality into engineering processes. Enhance visualization, collaboration, and decision-making, ensuring a transformative and futuristic dimension to your projects within the engineering services industry and more.

OUR OFFERINGS

We provide state-of-the-art AR(Augmented Reality) & VR (Virtual Reality) 3D modeling at affordable prices that are custom-designed by professionally trained industry leading experts. These value-added services present you with cutting-edge solutions for immersive digital experiences.

They create interactive 3D models and environments that enhance value across various industries in the segment. AR & VR modeling enable users to engage with realistic, computer-generated simulations that augment the real world (AR) or create entirely virtual environments (VR) for an array of applications





JERSEY
ENGINEERING SOLUTIONS

Quantity Take Off



QUANTITY TAKE OFF



Our team of skilled engineers provide reliable take-off services for construction projects across all fields including civil, MEP systems, and general purpose buildings using advanced software like Bluebeam, Planswift, and Onscreen Takeoff to meticulously measure quantities from floor plans which are compiled into comprehensive, accurately organized reports as per your requirements.

SPECIALIZED QUANTITY SURVEYING SOFTWARE-AIDED QTO

Accurate measurement and estimation of quantities for construction projects in diverse fields like civil, MEP, etc.

Utilization of advanced software tools like Bluebeam, Planswift, or specialized QTO software for precise calculations and project evaluation.

CUSTOMIZED REPORTS & DOCUMENTATION

- Preparation of comprehensive reports outlining the measured quantities, including breakdowns.
- Customized documentation catering to the specific needs of clients or projects.

QUALITY ASSURANCE & COMPLIANCE

- Ensuring compliance with industry standards, regulations, and best practices during the quantity estimation process.
- Quality checks to maintain accuracy and reliability of the quantity take-off data.

DOMAIN-SPECIFIC QTO SERVICES

Tailoring QTO services to different industries like real estate, infrastructure, manufacturing, etc., based on their unique requirements and standards.

CONSULTANCY & PROJECT SUPPORT

Support throughout the project lifecycle, from initial estimation to final execution.



Thermal Load Calculation

THERMAL LOAD CALCULATIONS



We specialize in delivering comprehensive KPO services tailored specifically for accurate and detailed thermal load calculations. Our expertise lies in providing precise assessments crucial for efficient HVAC system design and optimization.

HEAT LOAD ANALYSIS

We conduct meticulous heat load analysis considering factors such as building materials, occupancy, equipment, and climate conditions to determine accurate thermal loads.

HVAC SYSTEM DESIGN SUPPORT


Our experts provide support in designing HVAC systems by delivering detailed calculations essential for selecting appropriately sized heating and cooling equipment.


ENERGY EFFICIENCY OPTIMIZATION

We optimize thermal load calculations to ensure the selection of HVAC equipment that meets required loads while minimizing energy consumption.

TROUBLESHOOTING & ASSESSMENT

In cases of inefficient heating or cooling, we offer troubleshooting services to assess and rectify thermal load-related issues.

 **Output Sample:**



Air System Sizing Summary for Air System

Project Name: Factory of Franklin Timeline Barboos 10/06/2022
Prepared by: Jeremy 30.00954

Air System Information		Number of Zones: 1	
Air System Name:	Air System	Floor Area:	15950.0 sq'
Equipment Class:	SPLIT A&U	Location:	Nashville, Tennessee
Air System Type:	VAV		

Sizing Calculation Information		Zone CFM Sizing: Peak zone sensible load	
Calculation Month:	Jun to Sep	Space CFM Sizing:	Individual peak space loads
Sizing Date:	Calculated		

Central Cooling Coil Sizing Data		Load occurs at: Jul 14/00	
Total coil load:	27.8 Tons	On DB / WB:	94.1 / 14.7 °F
Total coil load:	333.5 MBH	Entering DB / WB:	78.6 / 64.6 °F
Sensible coil load:	256.1 MBH	Leaving DB / WB:	52.5 / 51.3 °F
Coil CFM at Jul 13/00:	1503 CFM	Coil ACP:	49.7 °F
Max brook CFM at Jul 13/00:	1699 CFM	Register Factor:	0.150
Sum of peak zone CFM:	1699 CFM	Resulting RH:	44 %
Sensible heat ratio:	0.768	Design supply temp:	55.0 °F
BTU/hr-ft²:	173.0	Zone Total Check:	1 of 1 OK
BTU/hr-ft²:	20.3	Max zone temperature deviation:	0.0 °F
Water flow @ 10.3 °F rise:	N/A		

Preheat Coil Sizing Data

No heating coil loads occurred during this calculation.

Supply Fan Sizing Data		Fan motor BHP: 4.31 BHP	
Actual max CFM at Jul 13/00:	1699 CFM	Fan motor VFD:	4.21 VFD
Standard CFM:	1480 CFM	Fan static:	2.80 in wg
Actual max CFM@:	0.61 CFM/ft²		

Outdoor Ventilation Air Data		CFM/person: 11.36 CFM/person	
Design airflow CFM:	1707 CFM		
CFM/ft²:	0.11 CFM/ft²		



Ductwork E.S.P calculation

DUCTWORK E.S.P CALCULATIONS

We specialize in delivering comprehensive solutions for Air Conditioning (AC) ductwork, including accurate External Static Pressure (ESP) calculations. Understanding the significance of ESP in HVAC systems, we offer detailed services tailored to ensure optimal performance and efficiency.

DETAILED ANALYSIS

We conduct meticulous assessments to determine the external static pressure within your HVAC system.

DUCTWORK DESIGN OPTIMIZATION

Our experts optimize ductwork design to minimize pressure drops, ensuring efficient airflow and system performance.

EQUIPMENT SELECTION SUPPORT

We assist in selecting HVAC equipment compatible with the calculated ESP, ensuring optimal system functionality.

TROUBLESHOOTING & OPTIMIZATION

If your system faces performance issues, we provide troubleshooting services to identify and rectify ESP-related problems.

Output Sample:

EXTERNAL STATIC PRESSURE CALCULATION														
Project : Mercedes Flagship Building Commercial Complex														
NO.	UNIT NO.	QTY.	TYPE	AREA SERVED	EXTERNAL STATIC PRESSURE									
					SPECIFIED / CALCULATED	Pa								
1	EKF-01	1	AXIAL INLINE FAN	TOILET EXHAUST	SPECIFIED	125								
					CALCULATED	95								
2	EKF-02	1	AXIAL INLINE FAN	SHOWROOM	SPECIFIED	125								
					CALCULATED	115								
3	EKF-02	1	AXIAL INLINE FAN	SHOWROOM	SPECIFIED	125								
					CALCULATED	115								

R. No.	TYPE	QTY	UNIT NO.	DUCT RUN				FLOOR	VELOCITY	PRESSURE	FRICTION	LOSS	TOTAL	ESP
				FROM	TO	LENGTH	AREA							
1	AXIAL	1	101	101	102	100	1.0	101	101	101	101	101	101	101
2	AXIAL	1	102	102	103	100	1.0	102	102	102	102	102	102	102
3	AXIAL	1	103	103	104	100	1.0	103	103	103	103	103	103	103
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98	AXIAL	1	198	198	199	100	1.0	198	198	198	198	198	198	198
99	AXIAL	1	199	199	200	100								

Pump Head Calculation

PUMP HEAD CALCULATIONS



We specialize in providing Knowledge Process Outsourcing (KPO) services focused on precise and comprehensive pump head calculation solutions. Our expertise lies in offering accurate and tailored calculations crucial for efficient pump system design and operation.

HYDRAULIC ANALYSIS

We conduct in-depth hydraulic analysis to determine the required pump head for various systems, considering factors such as flow rate, pipe size, elevation changes, and friction losses.

EFFICIENCY OPTIMIZATION

Our experts optimize pump head calculations to ensure efficient pump selection, minimizing energy consumption and operational costs.

SYSTEM DESIGN SUPPORT

We offer support in designing pump systems by providing detailed calculations essential for choosing the right pumps and designing the piping layout.

TROUBLESHOOTING & ASSESSMENT

In cases of underperformance or system inefficiencies, we provide troubleshooting services to assess and rectify pump head-related issues.



Equipment Selection



EQUIPMENT SELECTION

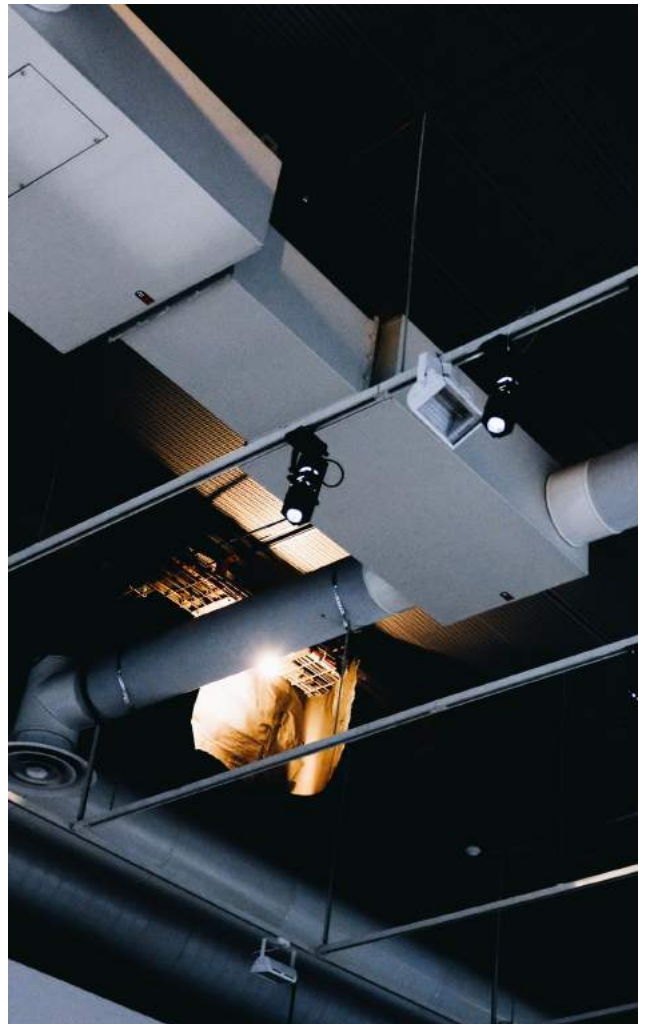


Jersey Engineering Solutions provides selection services for the air-side & chilled water refrigerant controls. We offer equipment selection such as **VRV & VRF, AHU, FCU, FANS, Chillier Water Pumps, Grilles & diffusers , VAV Boxes & Fan power boxes, Dampers & Louvers, Valves and more.**

OUR SERVICES

Jersey Engineering Solutions provides equipment selection services for the air-side and chilled water refrigerant controls. We support in choosing the most suitable and efficient mechanical and electrical equipment for your construction projects to meet local building codes and safety regulations ensuring project compliance.

Equipment selection services are therefore very useful for optimizing the performance, efficiency, and cost-effectiveness of MEP systems in construction projects while also promoting sustainability and compliance with industry standards.



Contract Manufacturing



CONTRACT MANUFACTURING



We have the resources & capabilities to provide manufacturing services, which include everything from design and production to quality control and packaging. The primary goal is to help businesses outsource their manufacturing needs thereby allowing them to focus on other aspects like marketing and distribution. We can propose cost-effective solutions, extend production expertise and possess flexibility in adapting to various industries and product types.

END-TO-END PRODUCT MANUFACTURING

- ❖ Responsible for manufacturing, marketing & Sales of products in defined territories / Countries.
- ❖ Product design, manufacturing and branding as per Client specifications
- ❖ Agreements for 5 to 10 years and renewable thereafter.

COMPONENT MANUFACTURING

- ❖ Parts requiring multiple processes
- ❖ Industrial components
- ❖ Aluminum components
- ❖ Sheet metal forming
- ❖ Agreements are typically for one year and renewable after the initial period

PRIVATE LABEL MANUFACTURING

- ❖ Parts requiring multiple processes
- ❖ Industrial components
- ❖ Aluminum components
- ❖ Sheet metal forming
- ❖ Agreements are typically for one year and renewable after the initial period

Our Projects



KIPP School
DC, United States



Shura Island
Kingdom of Saudi Arabia



Lusail Boulevard
Doha, Qatar



Al Bayt Stadium
Doha, Qatar



Al Maha Center
Doha, Qatar



SR Center Columbia
Canada

JERSEY ENGINEERING SOLUTIONS



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