



DeeEss Engineers India Projects Pvt Ltd.

COMPANY PROFILE

Meeting the Industrial Community

End to End solution provider - Material handling, Industrial packaging, Storage, warehouse Systems and EPC



- DeeEss Engineers was founded in 2004 in Ambattur, Chennai.
- Since then it has grown from a small steel fabrication business to an established and specialized End To End solution provider of
 - Material Handling & Storage System (MHS)
 - Industrial packaging(Metal, Plastic, Vaccum Forming & Honeycomb)
 - Warehouse systems
 - Engineering service (Mechanical, Civil, Electrical, I&C)
 - EPC (Engineering, Procurement & Construction)

2004

Company established in Ambattur offering small scale steel fabrication and engineering services.

2009

Company restructured to increase manufacturing capability and capacity. Management strengthened by the appointment of key perszonnell.

2016

Company creates new brand identity and changes name from DeeEss Engineers to **DeeEss Engineers India Projects Private Limited.**

2017

Established PAN India presence

DeeEss Infrastructure

Business Trade Name

DeeEss Engineers India Projects Pvt Ltd

Corporate office

No237/1, Rohini flats, 100Ft Road, Anna nagar west Extn, Chennai - 600 101, Tamilnadu, INDIA

HO & Works

No26B/5, 5th street, SIDCO Industrial Estate, Ambattur, Chennai - 600 098, Tamilnadu, INDIA

Nature of Business

Manufacturer & Service provider

Factory & Business Area

Total Space : 24500 Sq.Ft , Closed space: 12,800 Sq. ft, open space:5500 Sq.Ft,
Office: 4500 Sq.Ft + Engineering office (1500 Sq.ft)

Regional Offices

Chennai, Bengaluru, Pune, Ahmedabad, Hyderabad, New Delhi and Mumbai

Date Established

2004

Kind of Ownership

Private Limited

Contact Numbers

+91 44 49589333, +91 44 65555898, +91 7810942412, +91 9500087351

Email

sales@deeessengineers.com

Website

www.deeessengineers.com

Social Network



ISO Certified

Yes (ISO 9001:2015)



Material Handling, Industrial packaging / Storage and Warehouse Systems

- Complete Warehouse & Storage Systems
- All types of Packaging Material
 - Metal •Plastic •Cloth •Vaccum Forming •Honeycomb
- Plastic Packing Material
 - Stretch Films •Bubble Pouches •LDPE bags •HDPE bags
- Returnable / Reusable / Secondary / Contract Packaging Solutions
- ESR - Expendable steel racks / One Time Steel Packaging
- Standard & Customized Bins & crates with partition
- Design Optimization
- Heavy storage system / High racks, Fifo racks.
- Mezzanine / platforms & Handrails.
- Trolleys, Pallets & Stillages Containers
- ESD racks, trolleys.
- Cold storage systems.
- All types of Conveyor systems
- Customized Requirements
- Dock leveler, scissor lifts / goods lifts
- All types of Lifting Systems
- Annual Maintenance Contract (AMC)

Engineering service

(Mechanical, Civil, Electrical, I&C)

- DBR (Design Basis Report) / Concept design / Basic Design
- Design Analysis, Cost optimization.
- Detailed Engineering
- Layout, P&IDs
- Preparation of RFQ(Request for Quote) / Bidder list
- Complete support for Tech Bid evaluation
- Commercial negotiation
- Contract / PO Preparation & Placement
- Expediting
- As-Built documentation.
- Preparing of O&M manual
- Preparation of Bid evaluation
- Vendor document review
- Project management service
- Support during Construction / Commissioning
- Site service

DeeEss Customers (Partial)

				
				
				
		 Motherson Sumi Systems Limited		
				
	 Kwangjin India Autosystems Pvt Limited			
				

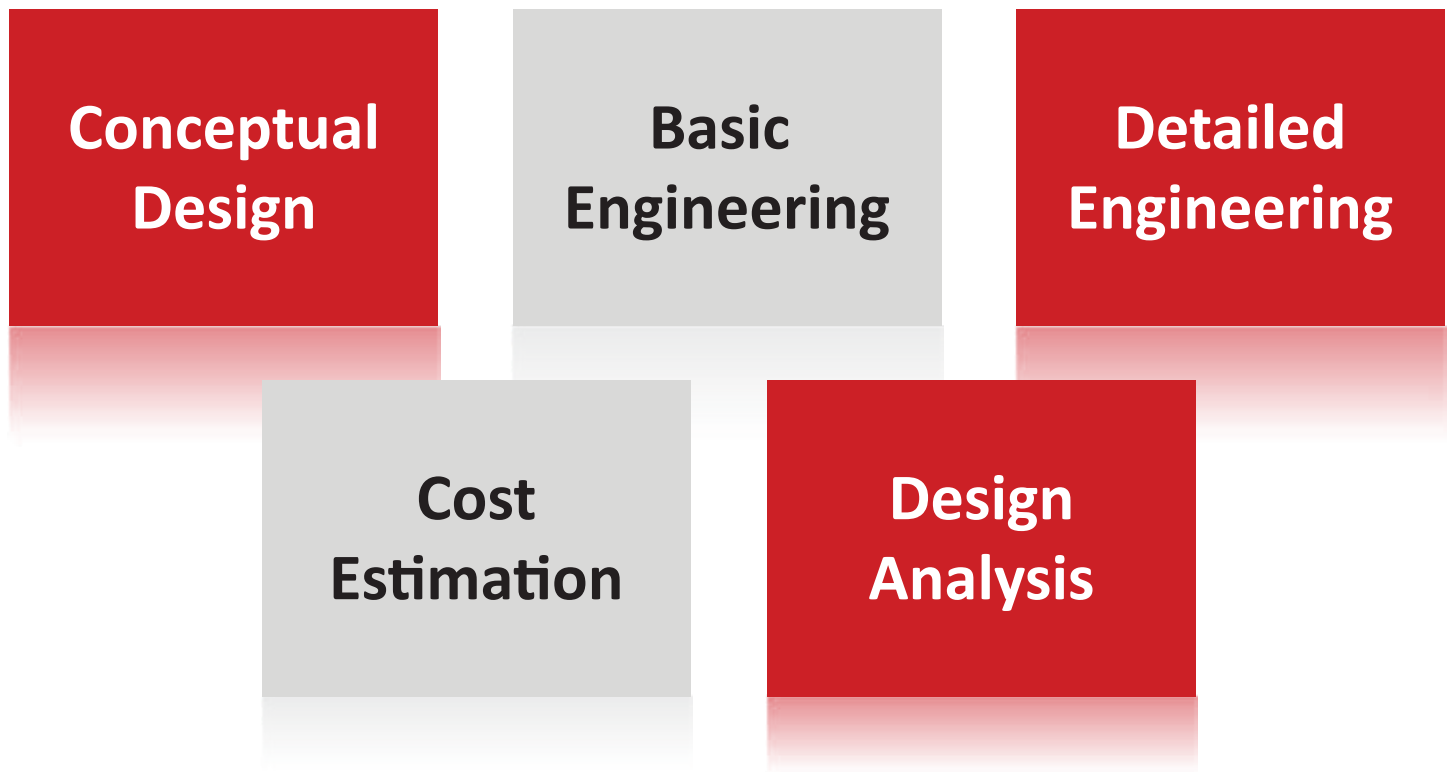
DeeEss Customers (Partial)

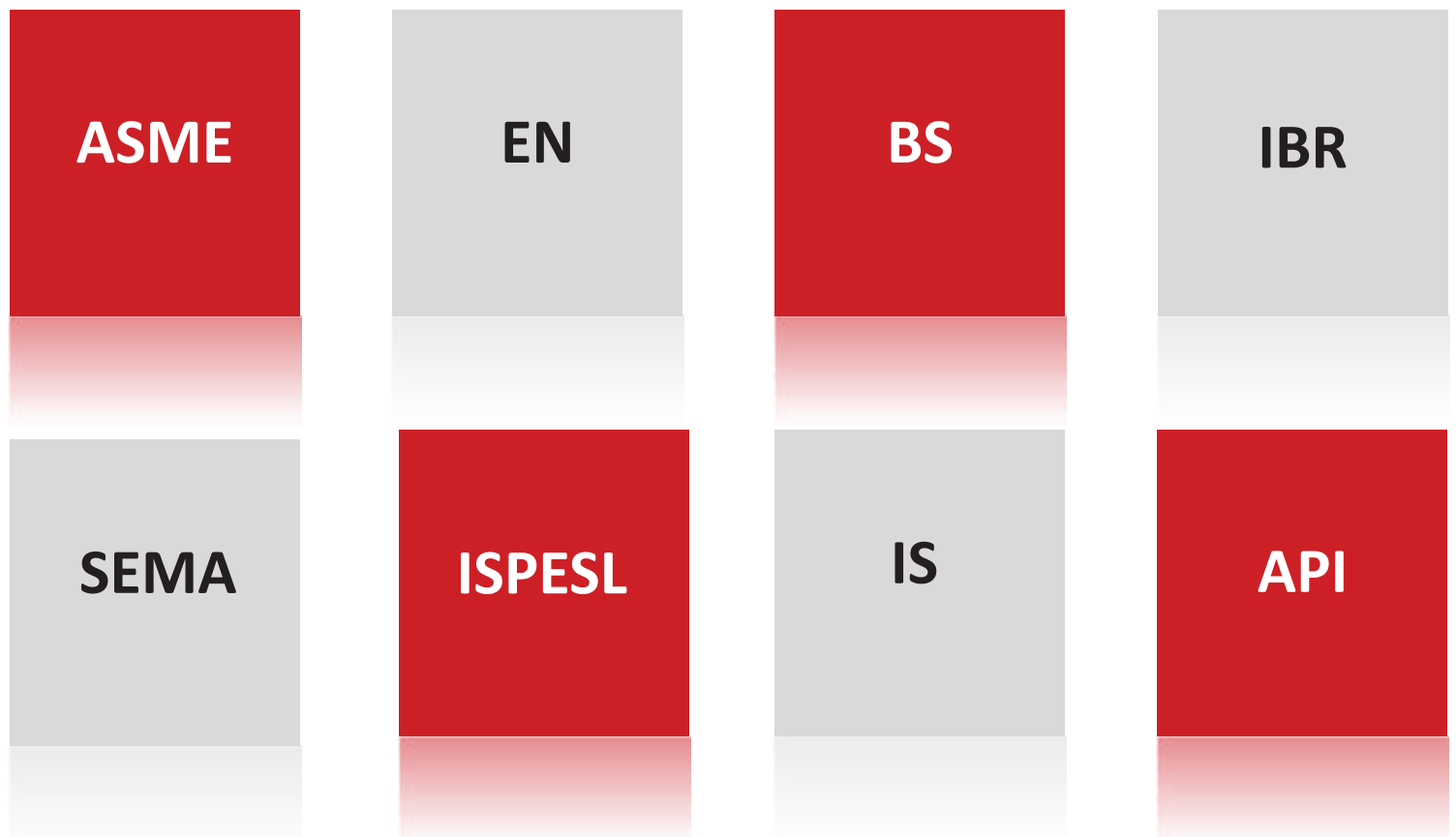


Design Expertise

Design

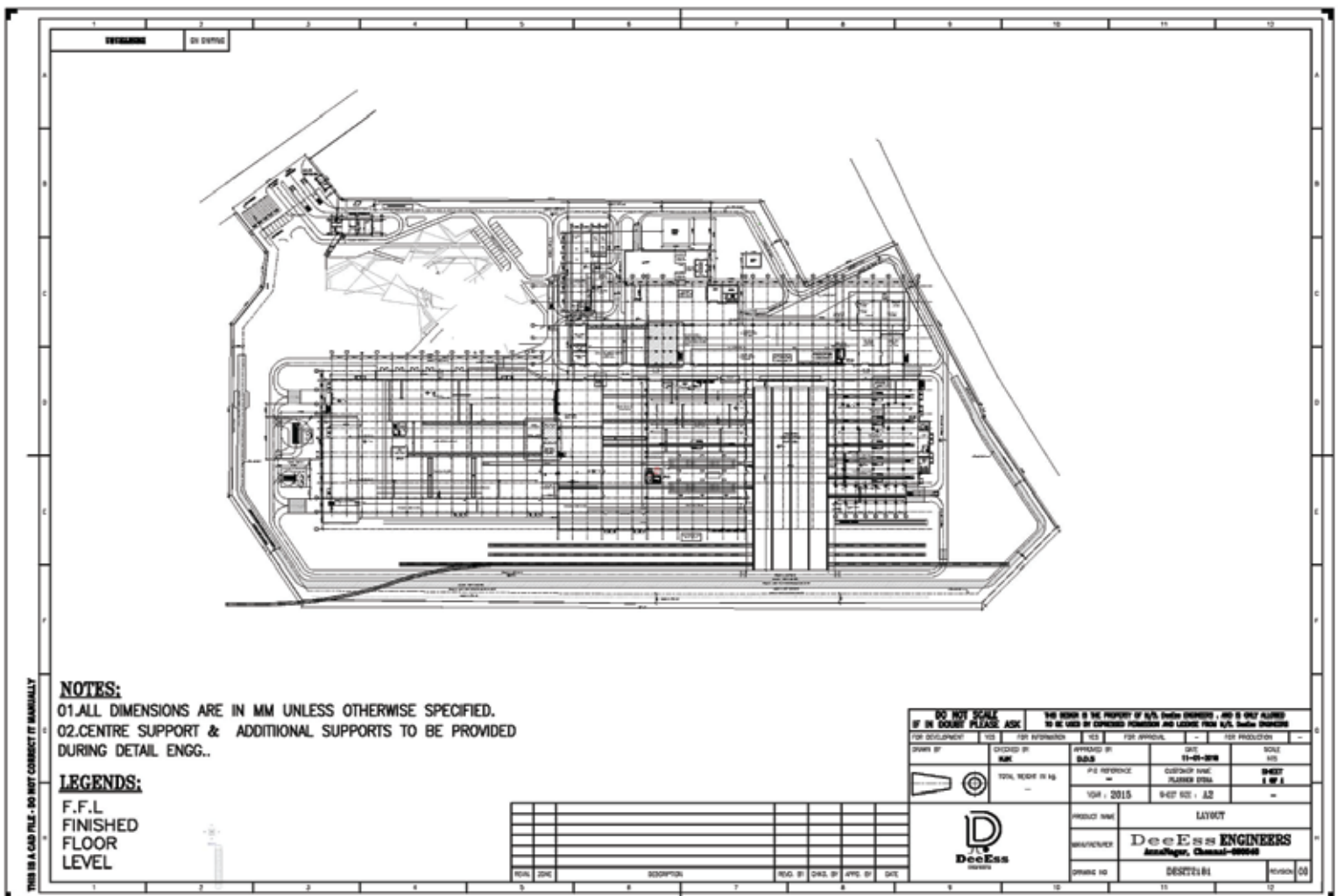
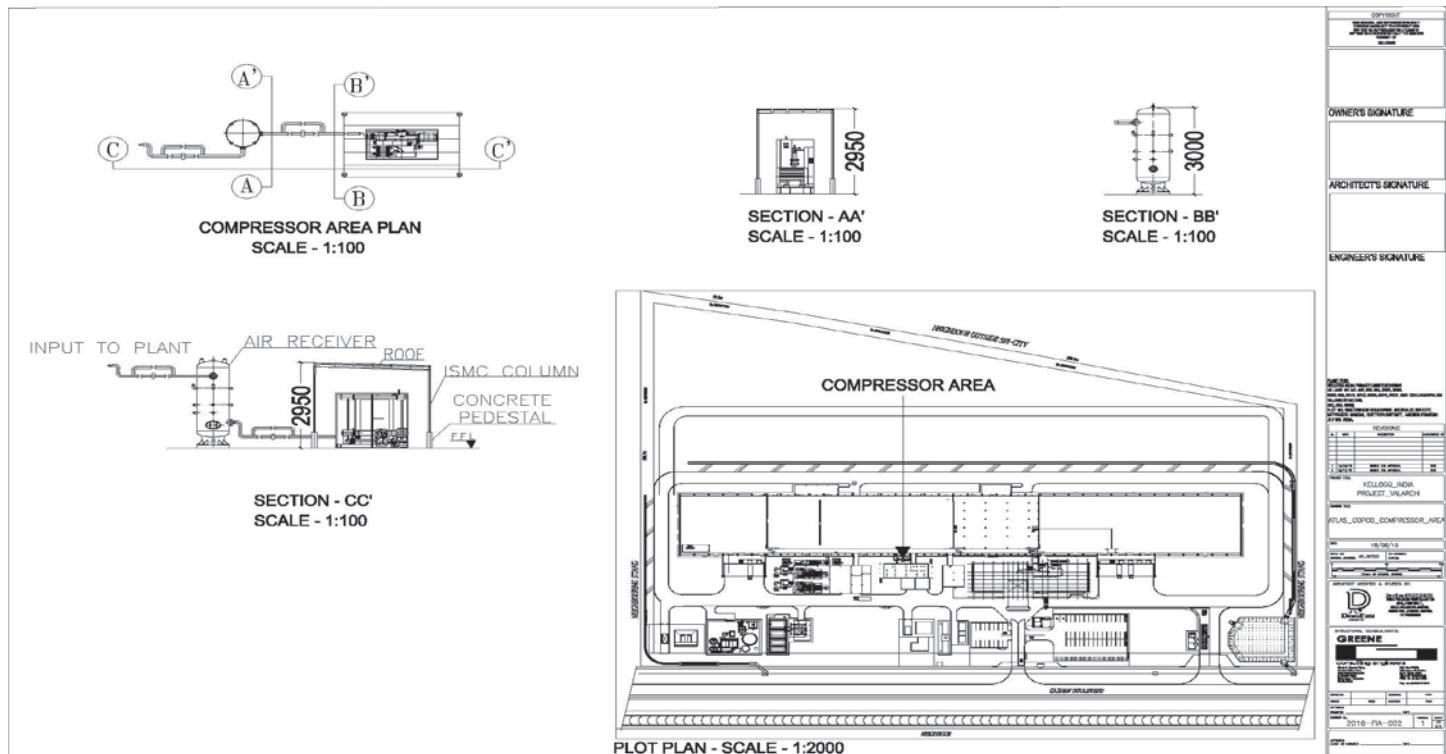


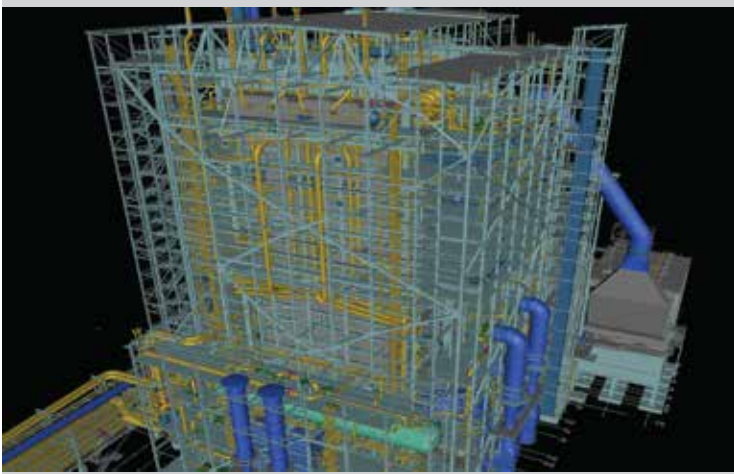
Design Standards



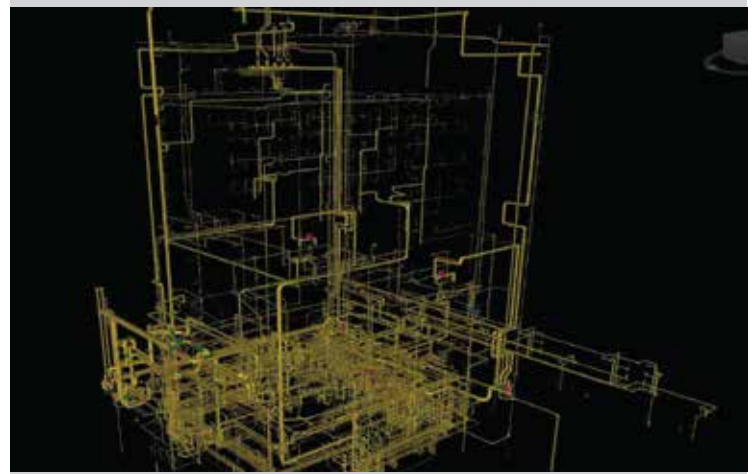


Site plan

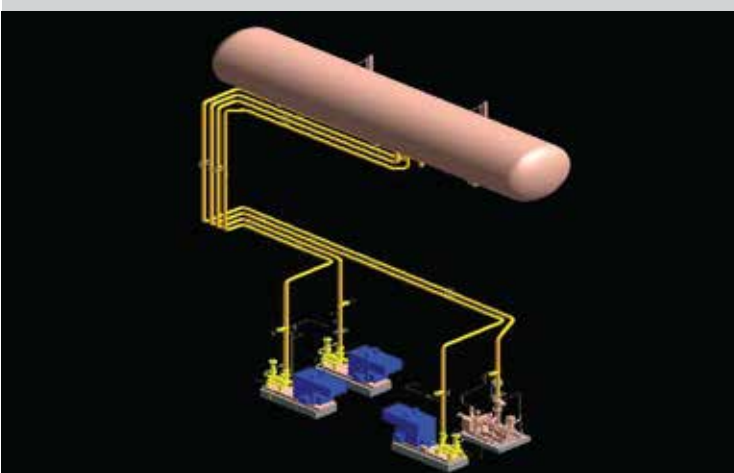




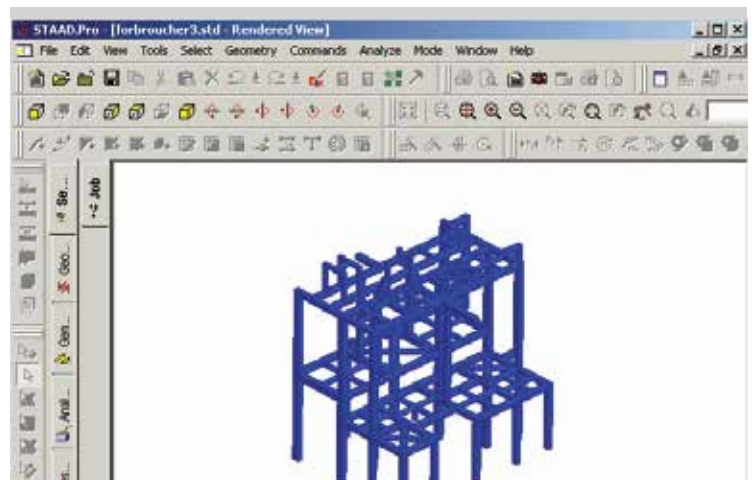
Structural Design



Piping Design



Piping Routing

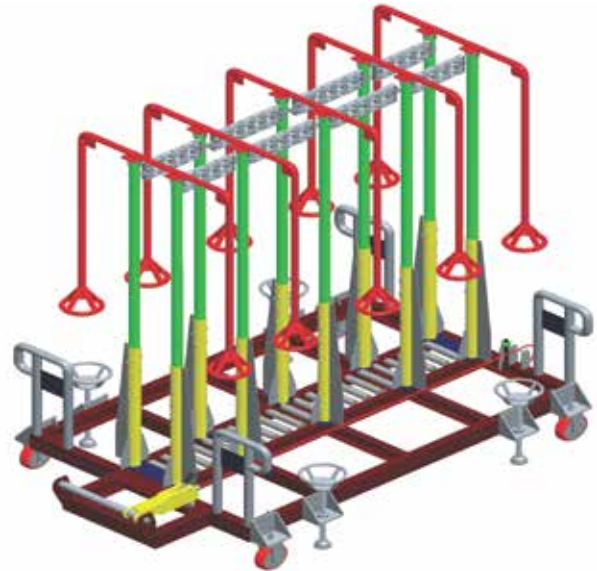
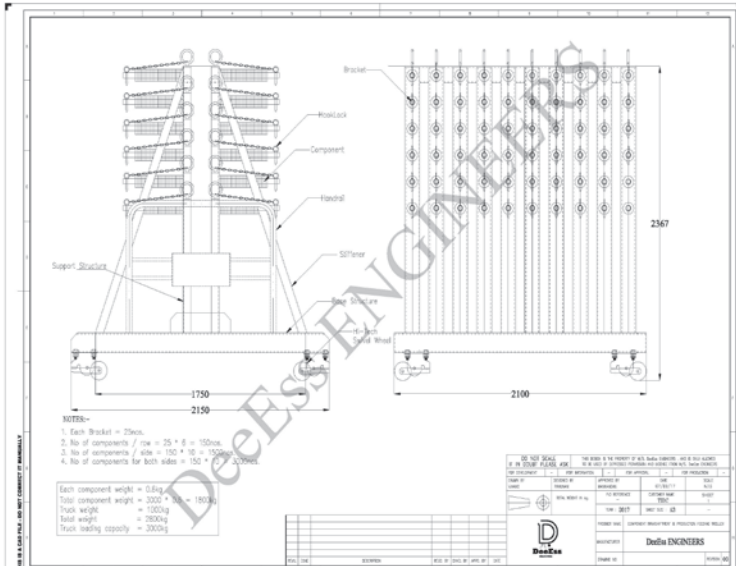


Structure Analysis

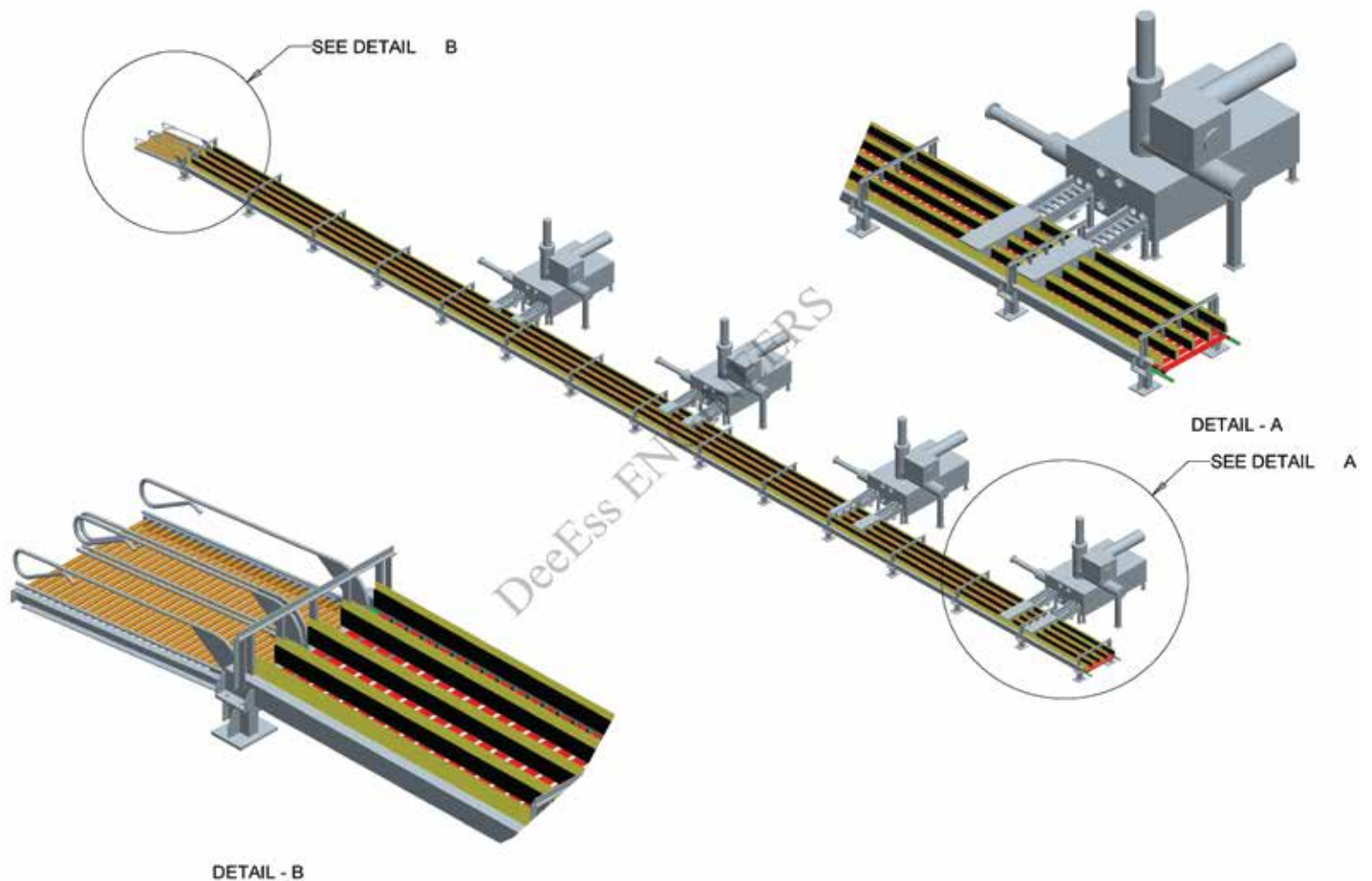
THICKNESS OF SHELL UNDER INTERNAL PRESSURE			
INPUTS			
Outside Diameter (D)	1500 mm		
Nominal thickness (t _{nom})	20 mm		
Joint efficiency for long stress (E _L)	0.85		
Joint efficiency for cir. stress (E _C)	0.7		
Design Temperature (T)	100 °C		
Internal Design Pressure (P)	2 N/mm ²		
Length of the Shell (L)	1000 mm		
Max Allowable Stress (σ)	158 N/mm ²		
Fluid height (H)	10 mm		
Fluid density (ρ)	800 kg/m ³		
MT Under Tolerance (MT)	0.8 mm		
Calculation			
Design Pressure (P)	2 N/mm ²		
Effective Thickness (t _e) = t _{nom} - Cor. MT	19.2 mm		
Inner Radius (R)	733.3 mm		
Required thickness			
Assumed thickness (t ₁)	P* R / (E * σ _L)	(2*733.3) / (1*0.85*158)	14.7952 mm
Assumed thickness (t ₂)	P* R _o / (E * σ _C)	(2*733.3) / (1*0.7*158)	15.7952 mm
Required thickness (t _{req})	Max(t ₁ , t ₂)	Max(14.7952, 15.7952)	15.7952 mm
Result:			
Here t _{req} is taken considering the corrosion allowance.			
As the t _{req} (15.7952) is lesser than t _{nom} (20) Our Design is Safe. Acceptable.			
Max Pressure			
Longitudinal	(σ _L * E * t ₁) / (R * 2)	(158 * 0.85 * 19.2) / (733.3 * 2)	2.02 N/mm ²
Circumferential	(σ _C * E * t ₂) / (R _o * 2)	(158 * 0.7 * 15.7952) / (733.3 * 2)	3.8287 N/mm ²
P _{max}	Min(P ₁ , P ₂)	Min(2.02, 3.8287)	2.02 N/mm ²
Result:			
Checking for pressure			
As the P _{max} (2.02) is greater than P(2) Our Design is Safe. Acceptable.			

Thickness of shell under internal pressure

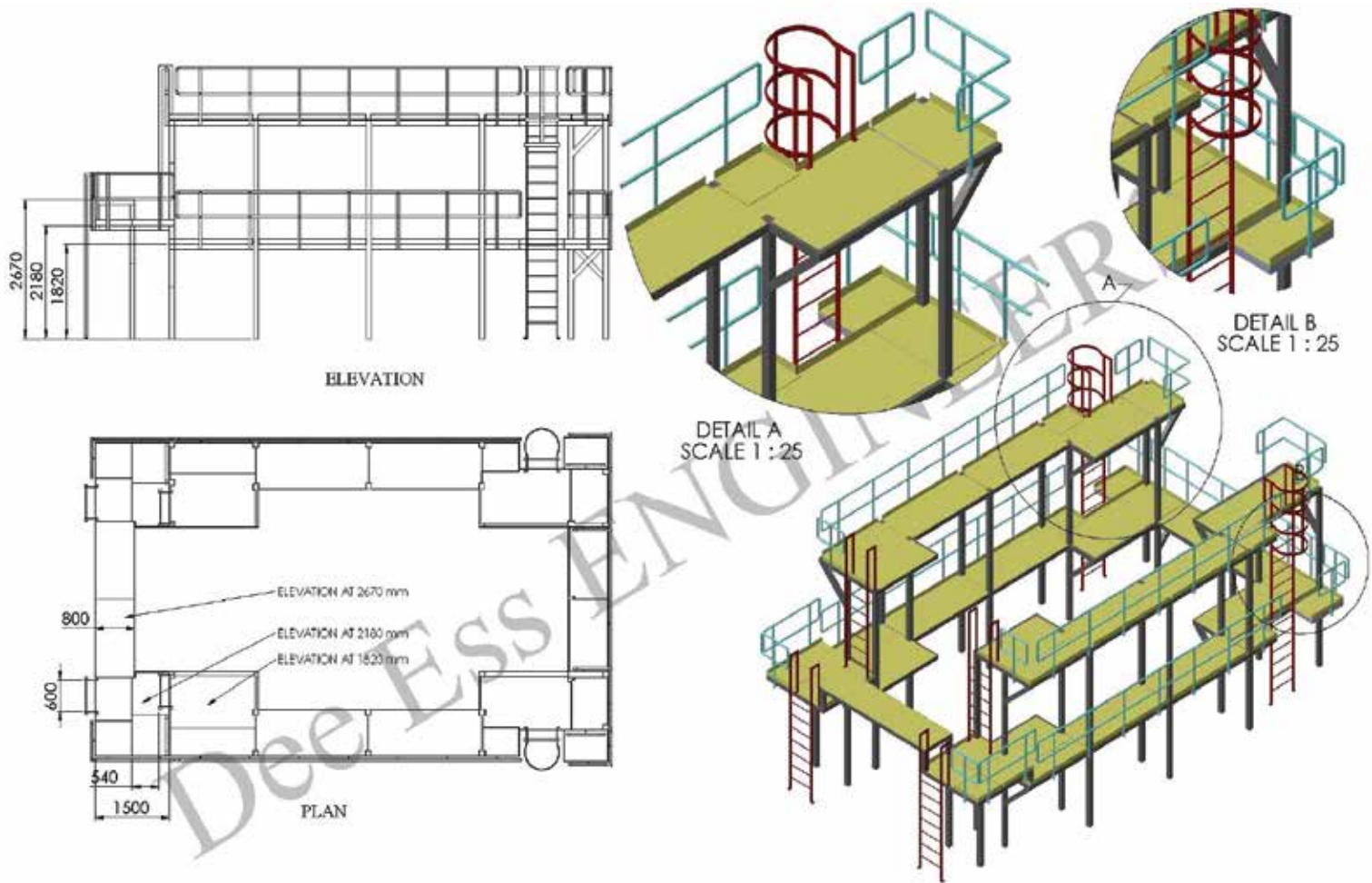
Material Handling Equipment Design



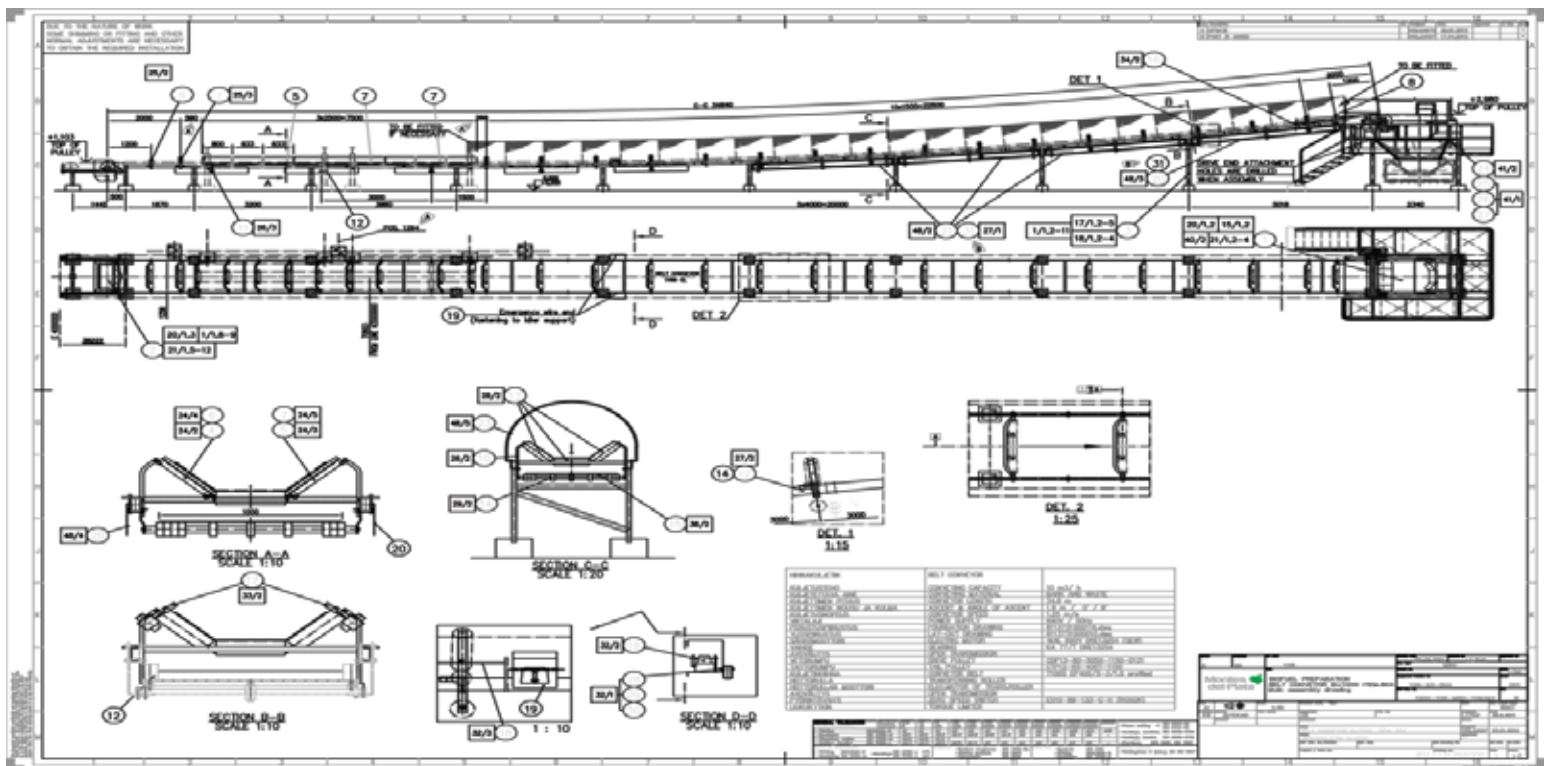
Conveyor Design




Platform - Design



Conveyor Design





Conveyor system
High rack
Annual maintenance
Returnable packaging
Stillage
Skeletons
Platforms
Pallets

Material Handling & Storage Systems

Mezzanine floor
Contract
Expendable steel racks
Trolleys
Cloth racks
Bins
Cold storage solutions
Crates
Design optimization
Container
Cost optimization
Rack
Hand rails

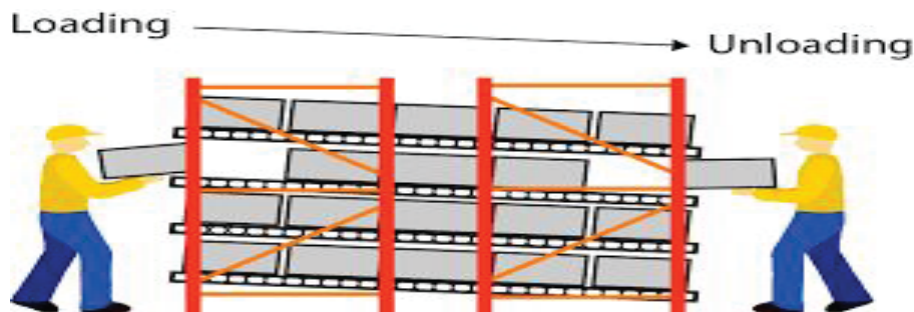
DeeEss: Our Extensive Range Of Solution

OFFICE



WAY TO MATERIAL MOVEMENT

RAW MATERIALS STORAGE AREA



- WAREHOUSE DESIGN & CONSTRUCTION
- HIGH RACK
- MEZZAININE FLOOR
- CAGE BINS
- TROLLEYS, PLASTIC CRATES
- FIFO RACK
- WORK TABLE & INSPECTION TABLE
- TOOL RACK

PRODUCTION AREA



- CONVEYOR SYSTEMS
- JIGS AND FIXTURES
- DIE STORAGE RACK
- CANTEEN REQUIREMENTS
- PIPING & PIPELINE

WAY TO MATERIAL MOVEMENT

ASSEMBLY LINE - 1

PRODUCTION AREA



CANTEEN



ASSEMBLY LINE - 2

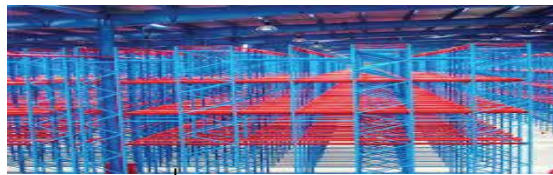
WAY TO MATERIAL MOVEMENT

EXPORT DISPATCH AREA



WAY TO MATERIAL MOVEMENT

DOMESTIC DISPATCH AREA



- RETURNABLE PACKAGING SOLUTION
- FOLDABLE METAL CONTAINERS
- FOLDABLE PLASTIC CONTAINERS
- CUSTOMIZED TROLLEYS
- FENCING

SPECIAL SERVICES :

- DESIGN OPTIMIZATION
- ENGINEERING SOLUTION
- EPC



DOCK - 1

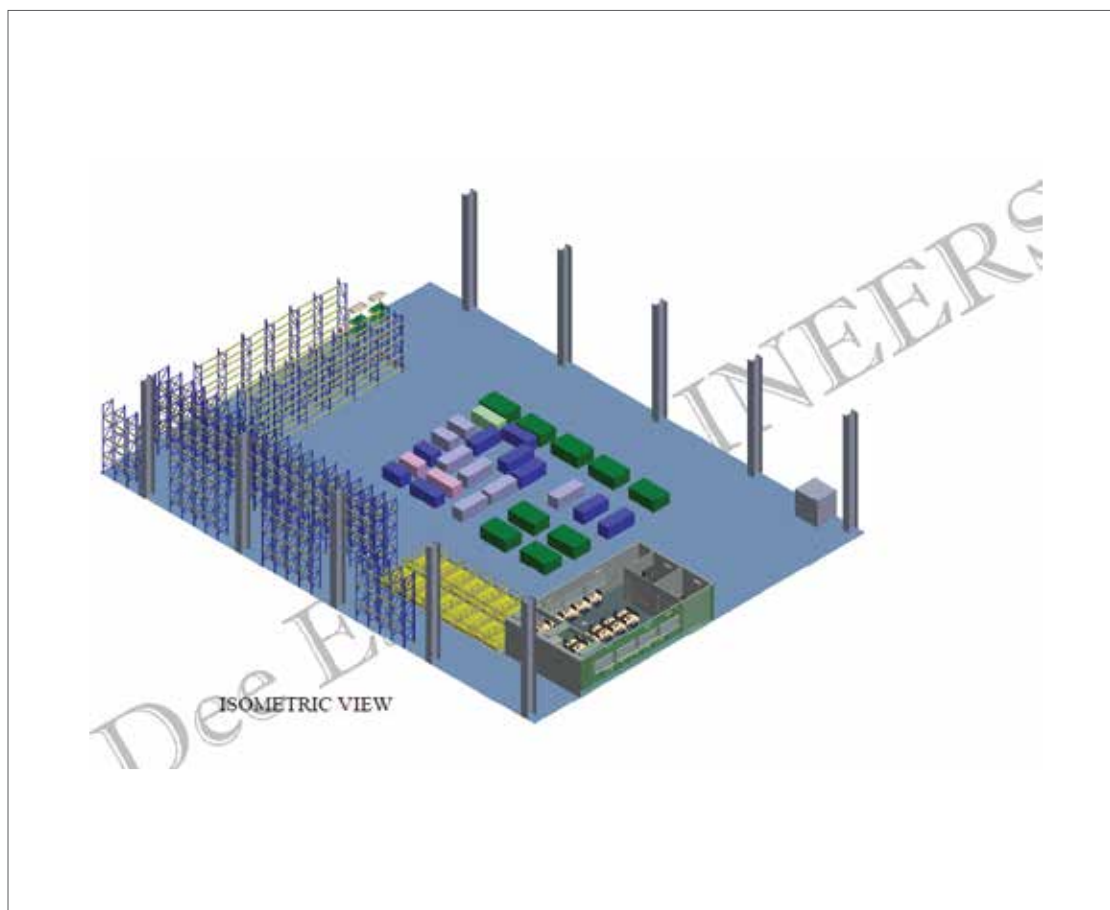
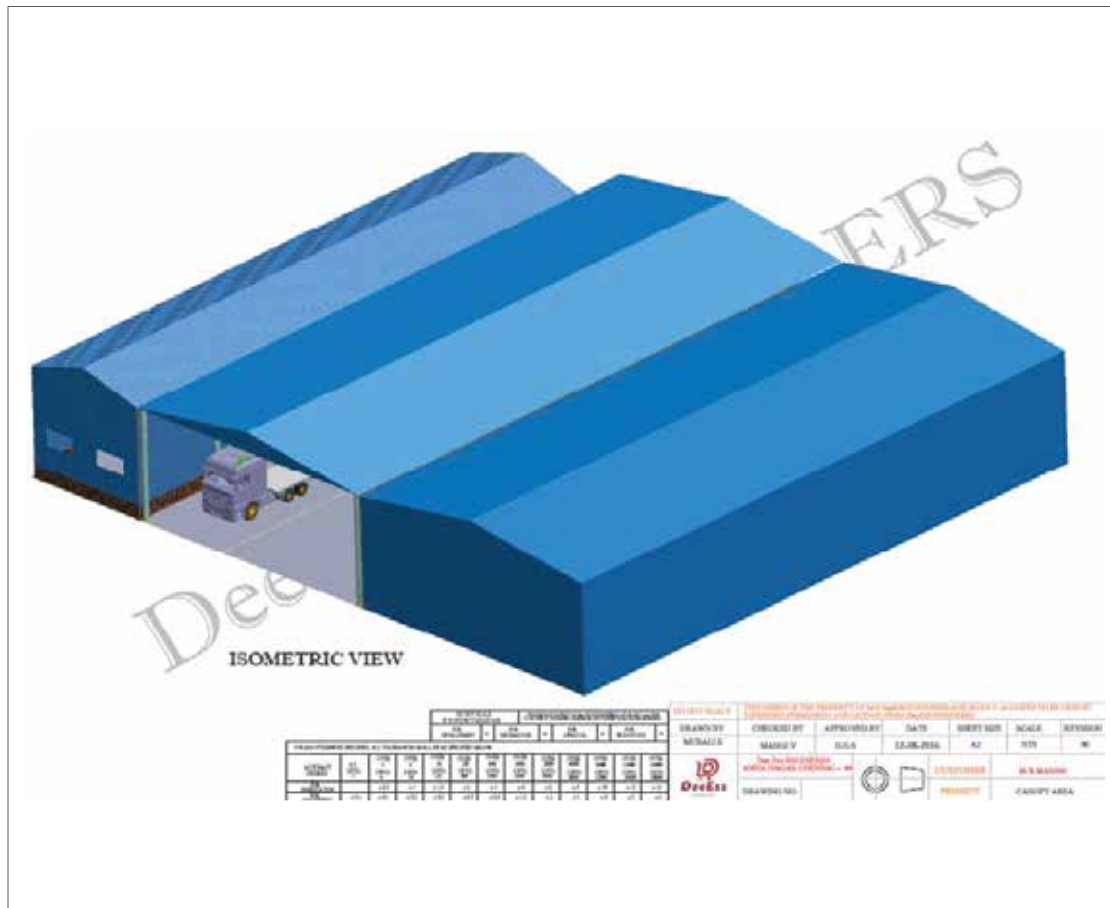
- SAFETY BARRICADE
- SAFETY CHAIN
- SAFETY FENCING



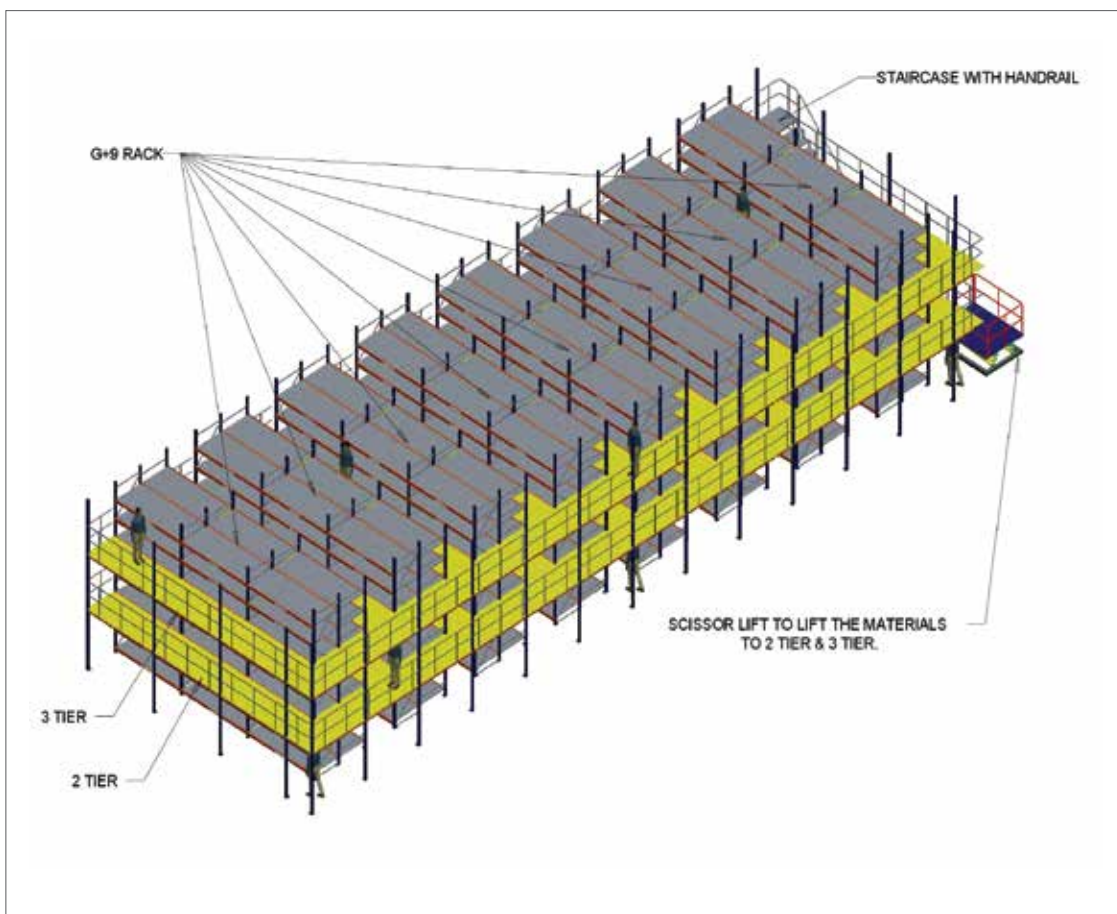
DOCK - 2

- DOCK LEVELLOR

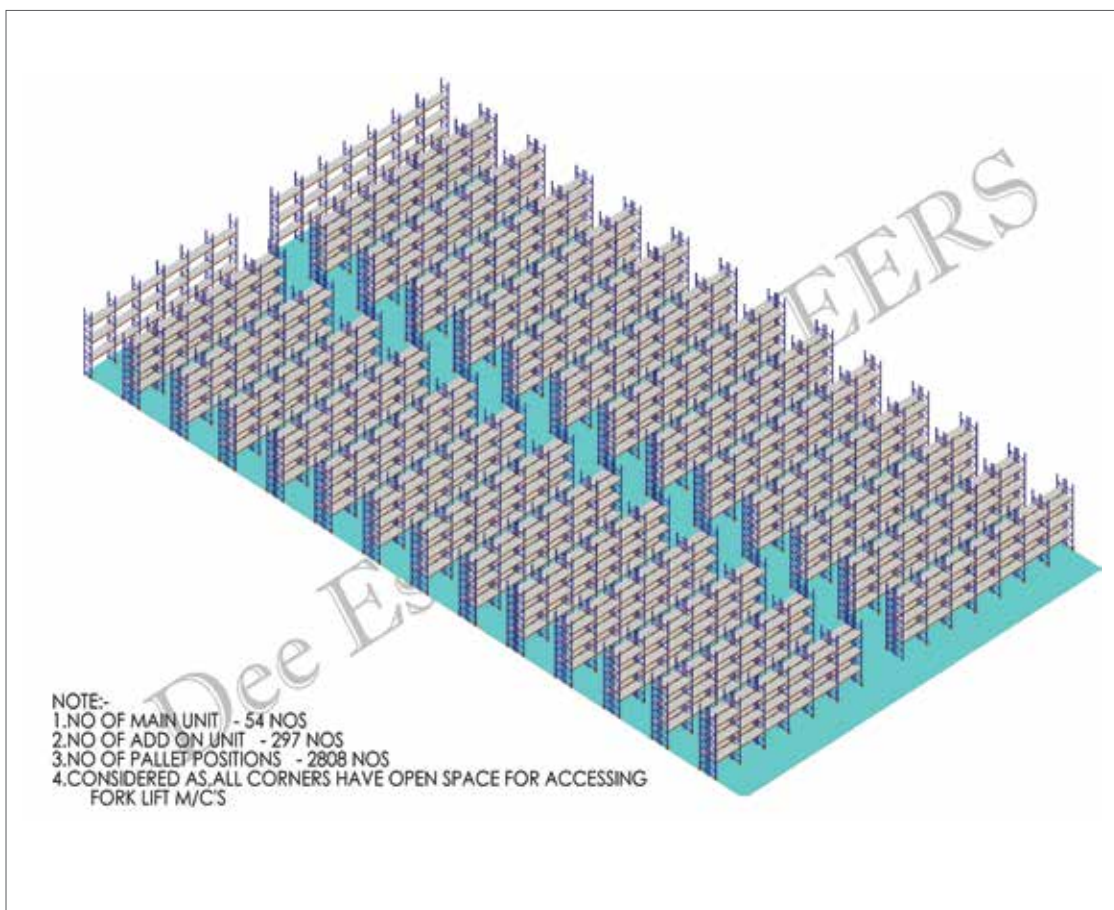
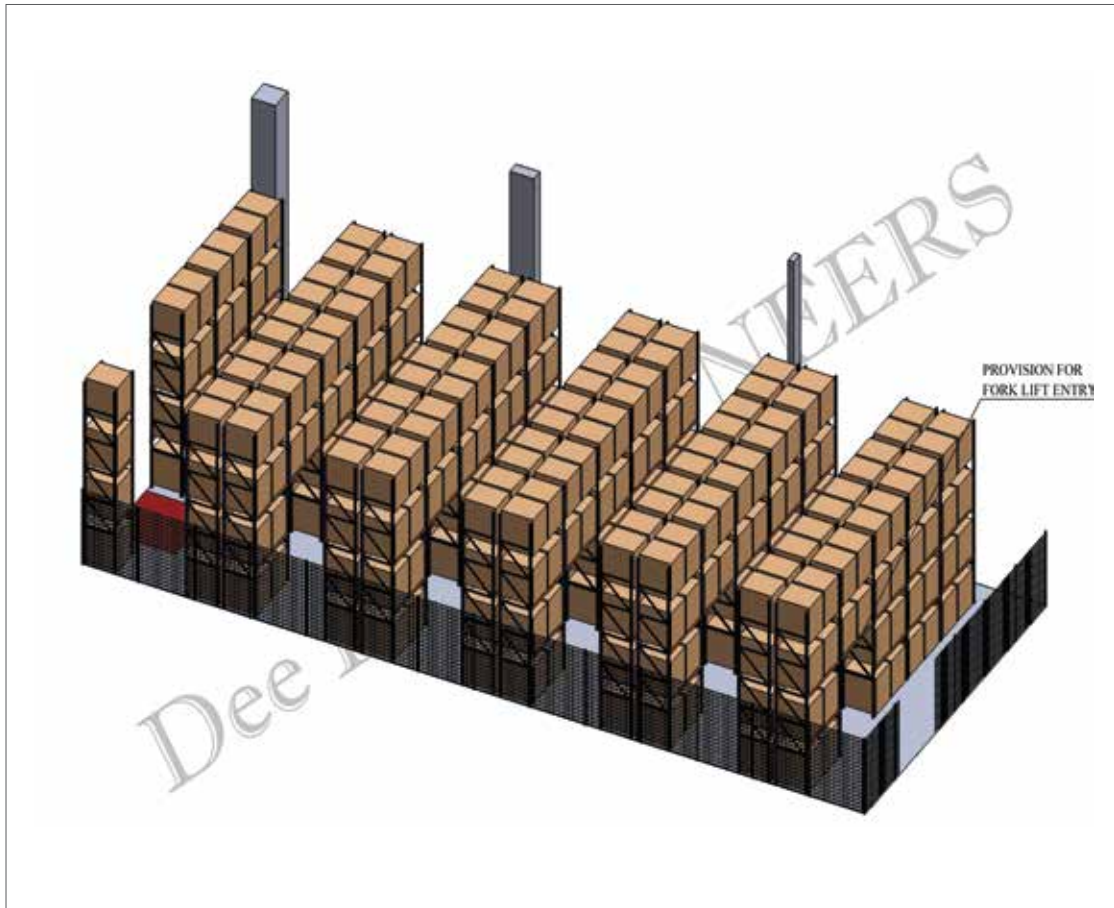
DeeEss – Material Handling & Storage Systems

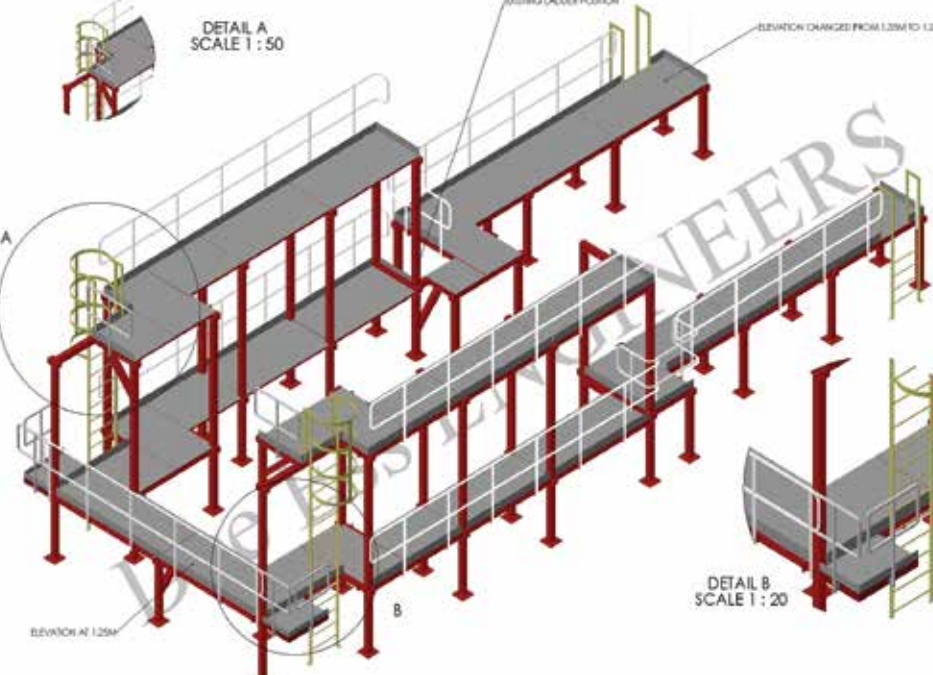
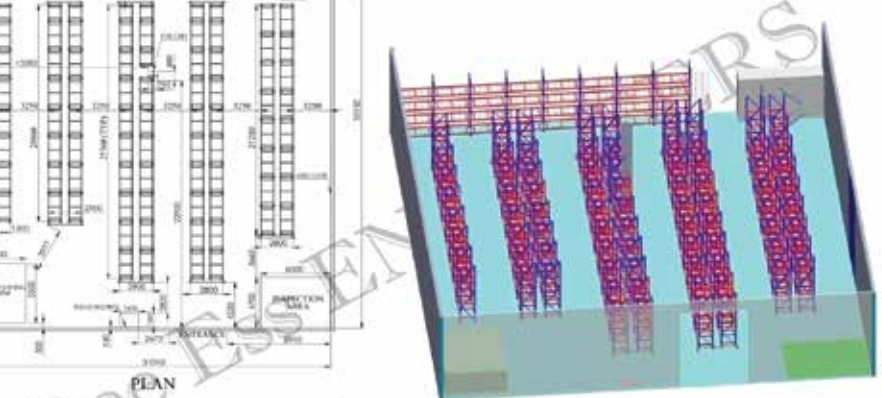


DeeEss – Material Handling & Storage Systems

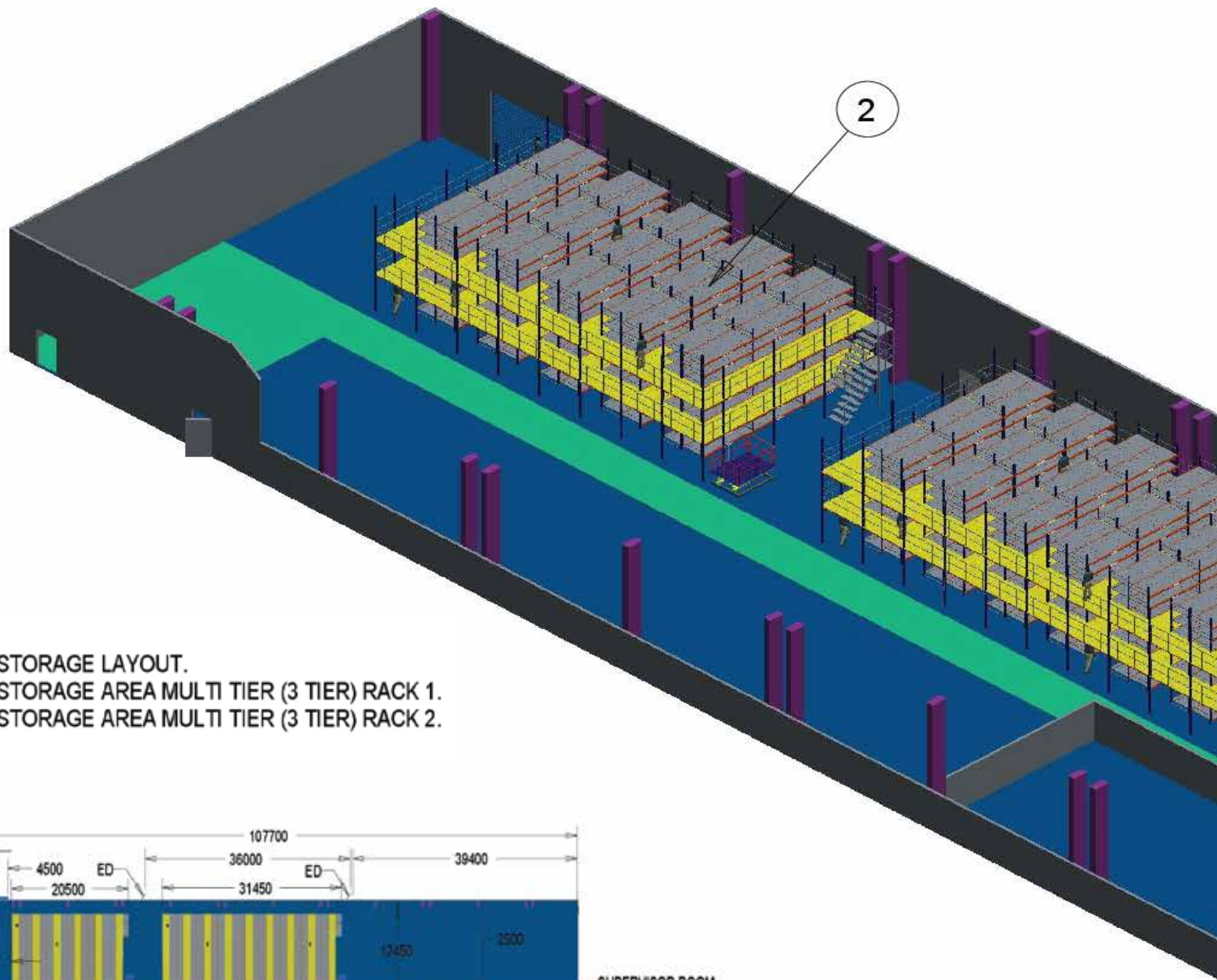


DeeEss – Material Handling & Storage Systems



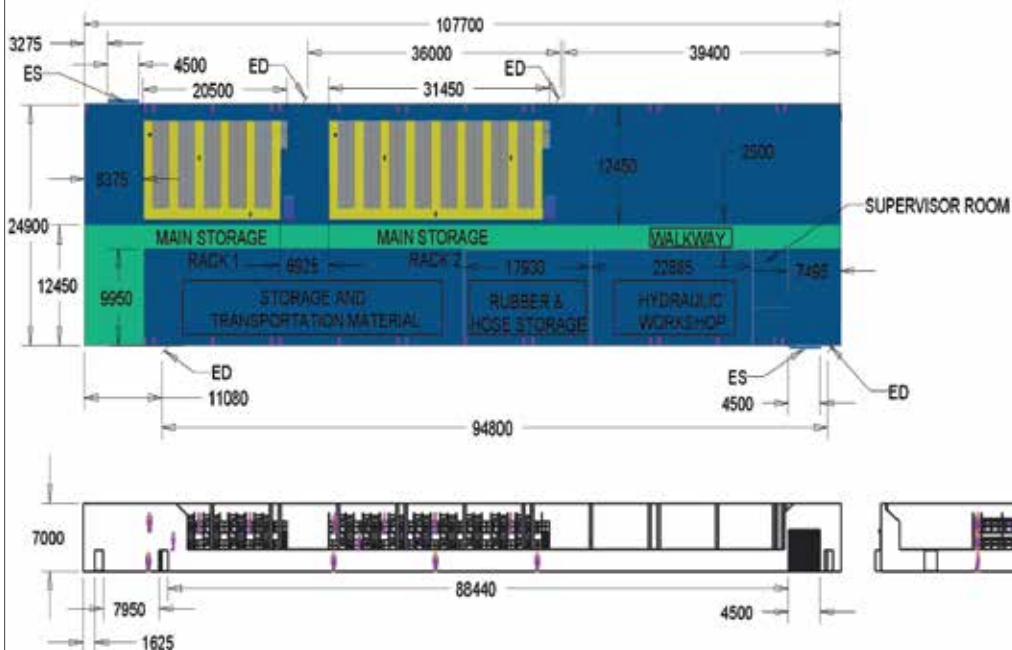


DeeEss – Material Handling & Storage Systems



NOTES:

1. MAIN STORAGE LAYOUT.
2. MAIN STORAGE AREA MULTI TIER (3 TIER) RACK 1.
3. MAIN STORAGE AREA MULTI TIER (3 TIER) RACK 2.

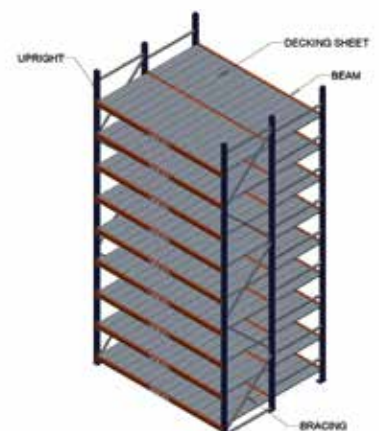


NOTES:

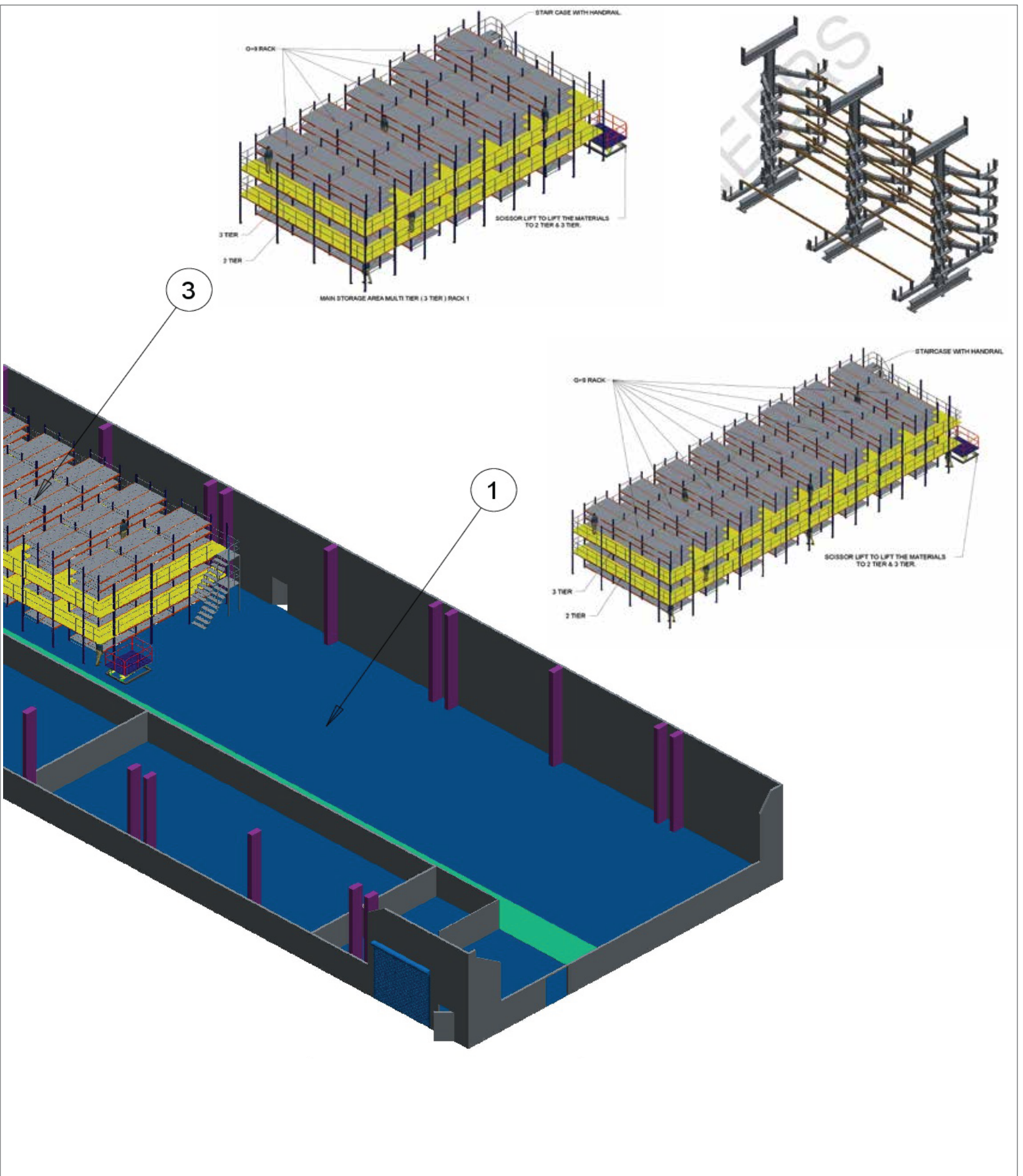
1. ALL DIMENSIONS ARE IN MM UNLESS OTHERWISE SPECIFIED.
2. LAYOUT AREA DETAILS TAKEN FROM CAD DATA SHARED BY PI.
3. DWG REFERENCE NO : NPI - A 18 - 01 REV 02.
4. MAIN STORAGE AREA GRID LOCATION FROM DWG NPI - A 18-01 REV 02 = C24 - D36.

LEGENDS:

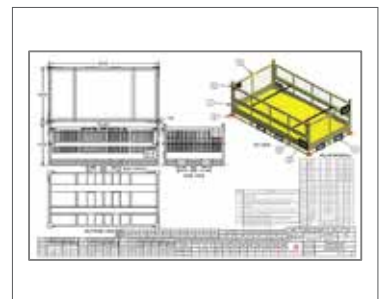
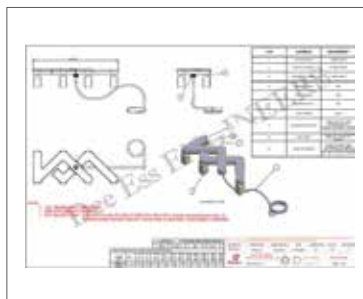
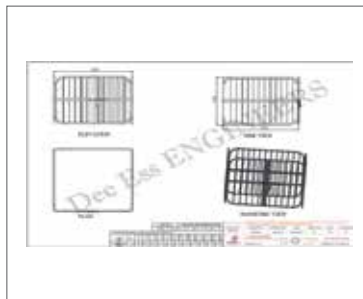
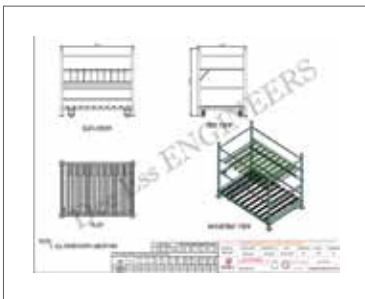
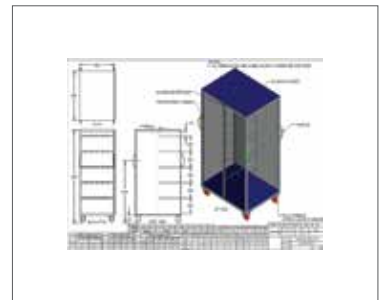
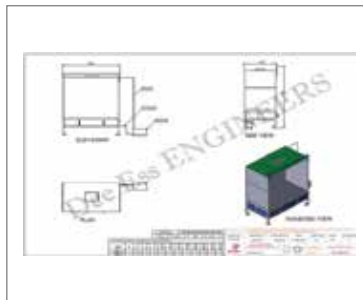
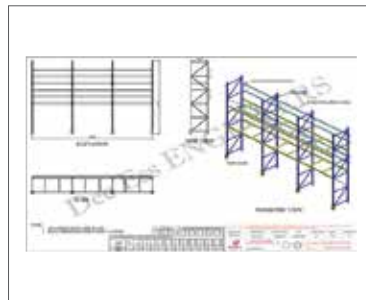
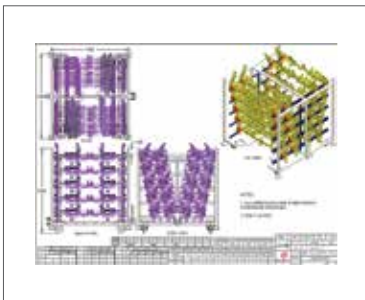
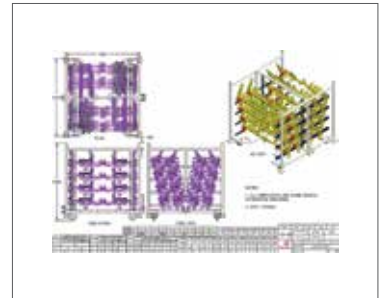
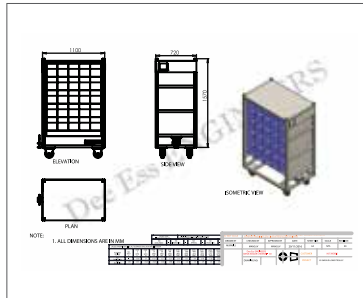
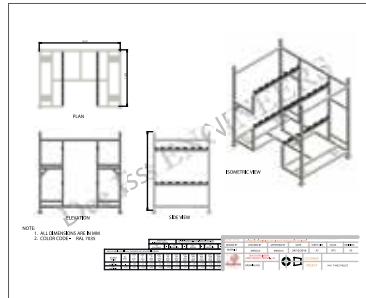
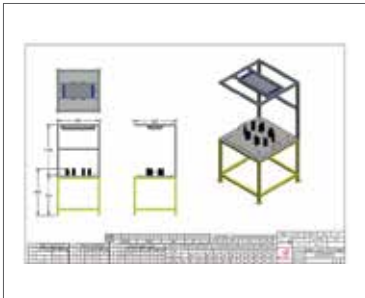
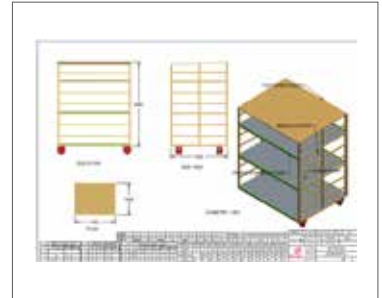
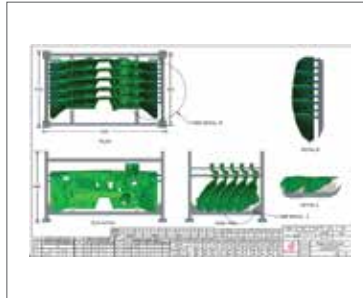
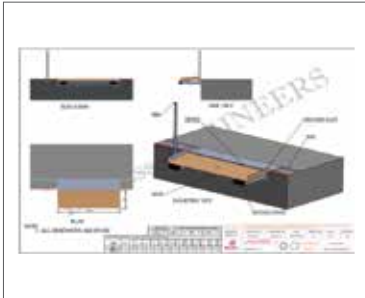
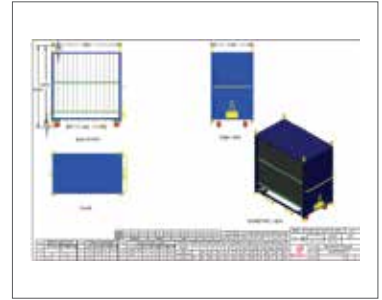
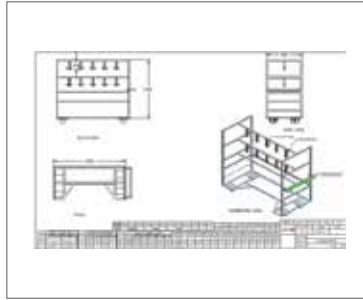
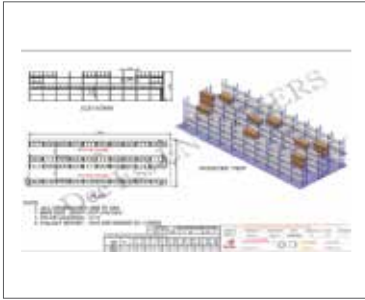
1. ED - EXISTING DOOR.
2. ES - EXISTING SHUTTER.



DeeEss – Material Handling & Storage Systems



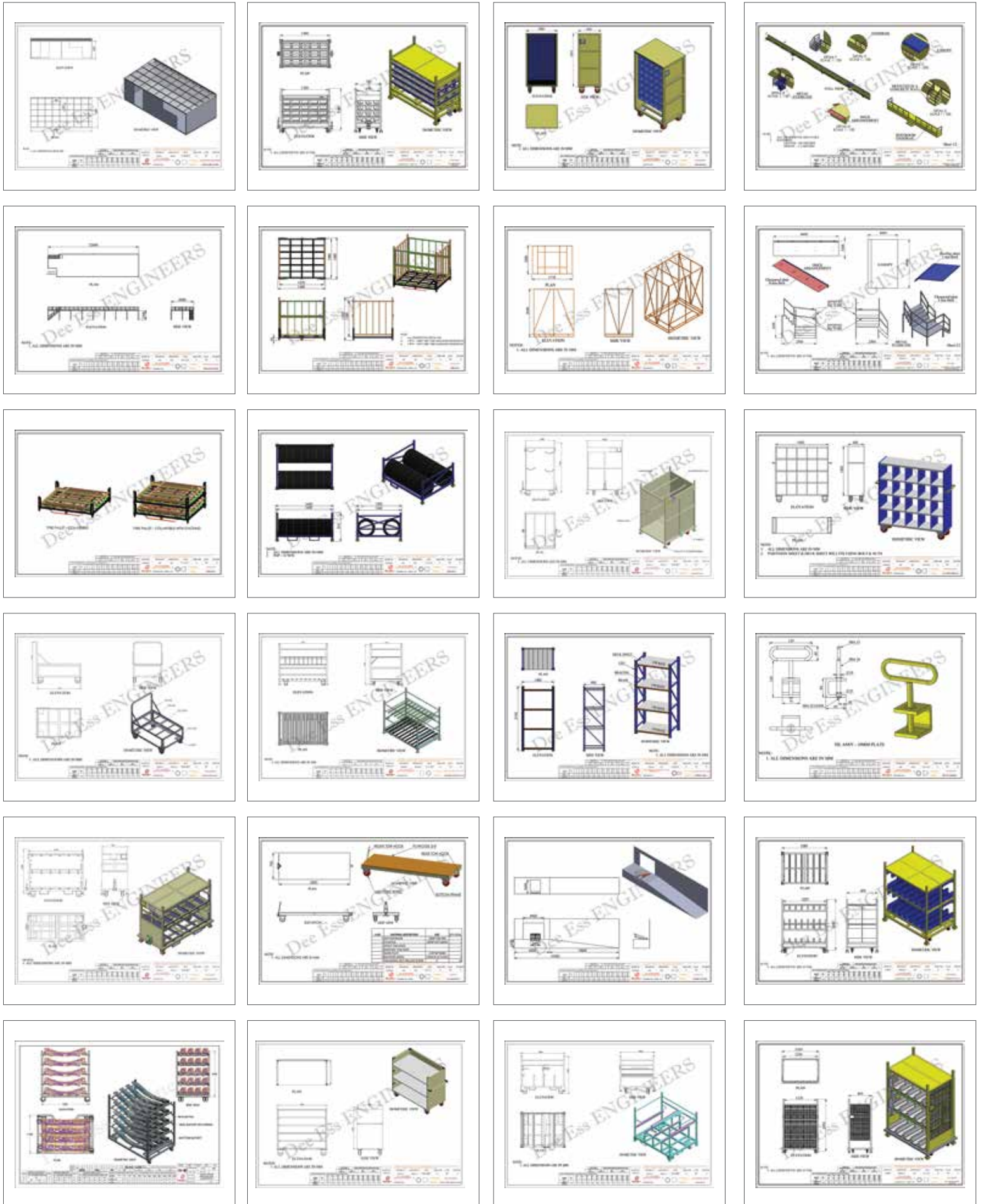
DeeEss – Material Handling & Storage Systems



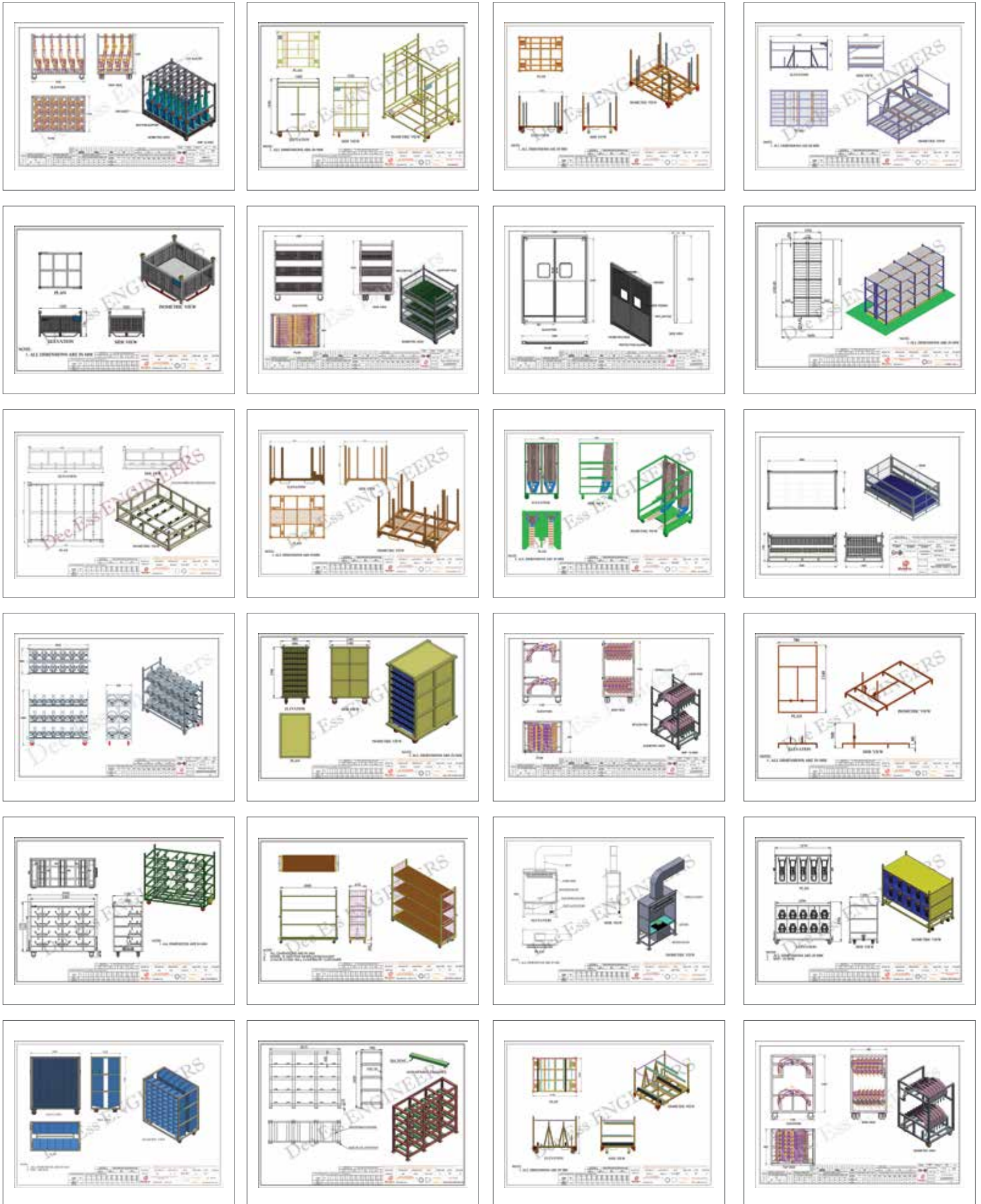
DeeEss – Material Handling & Storage Systems



DeeEss – Material Handling & Storage Systems



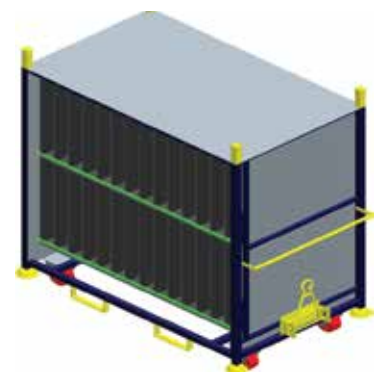
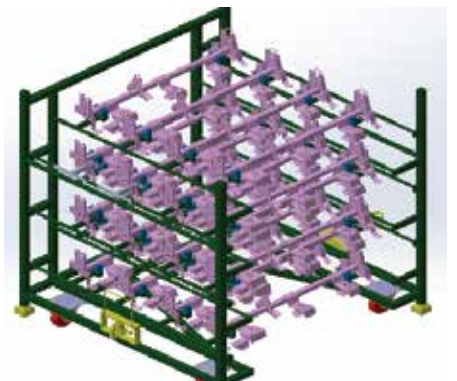
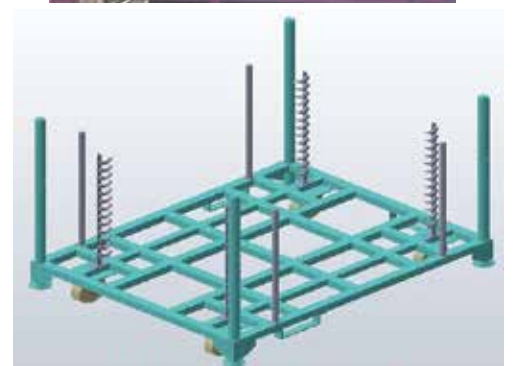
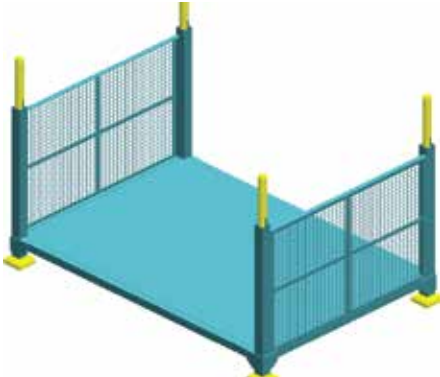
DeeEss – Material Handling & Storage Systems



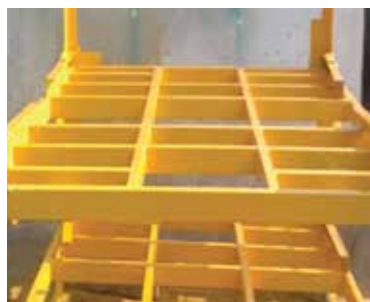
DeeEss – Material Handling & Packaging Systems



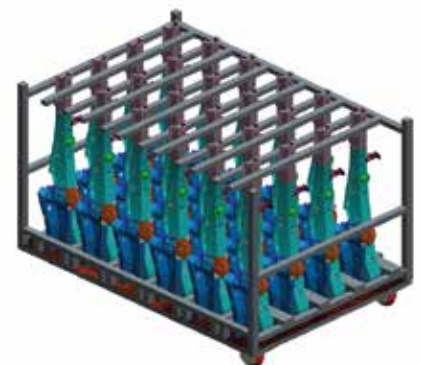
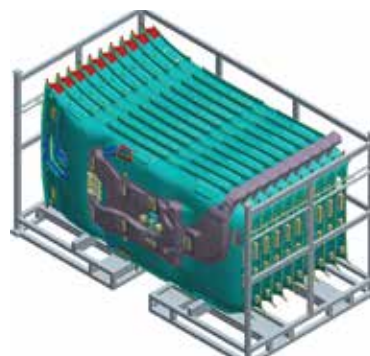
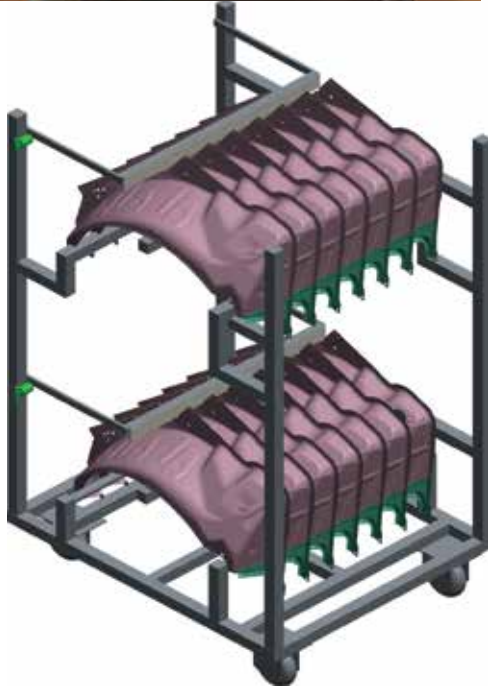
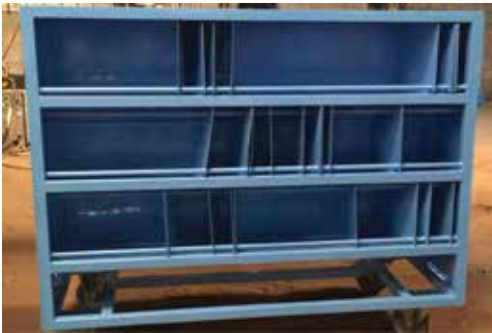
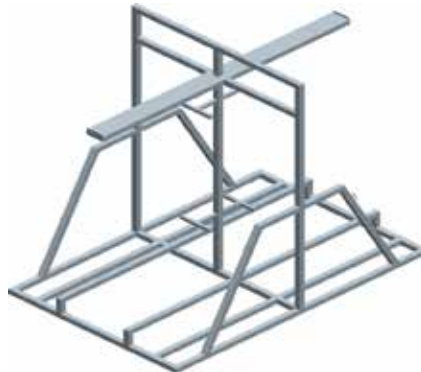
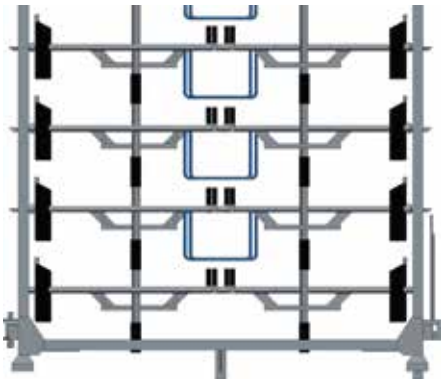
DeeEss – Material Handling & Packaging Systems



DeeEss – Material Handling & Packaging Systems



DeeEss – Material Handling & Packaging Systems



DeeEss – Material Handling & Packaging Systems



DeeEss – Material Handling & Packaging Systems



DeeEss – Storage Systems



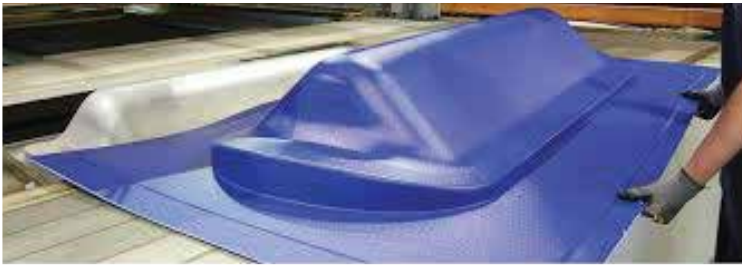
DeeEss – Storage Systems



DeeEss – Cold Storage Systems

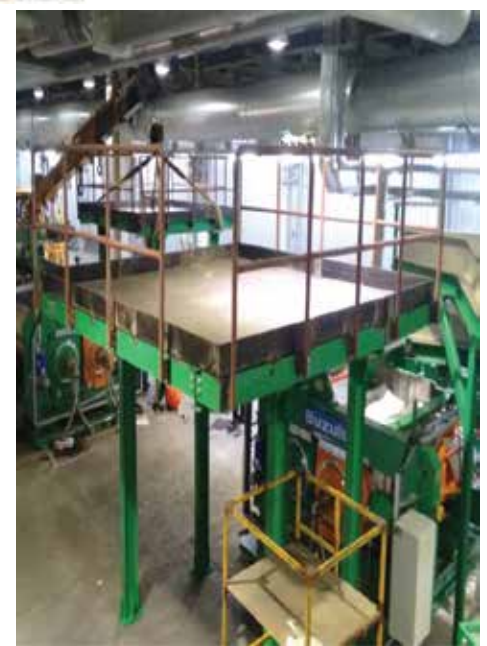


DeeEss – Material Handling & Packaging Systems



End to End solution provider - Material handling, Industrial packaging, Storage, warehouse Systems and EPC

DeeEss – Warehouse Systems





Returnable / Reusable Packaging Solution

Returnable packaging concept





Returnable / Reusable Packaging Solution Case Study

Returnable packaging - case study

Proposed design

DESIGN

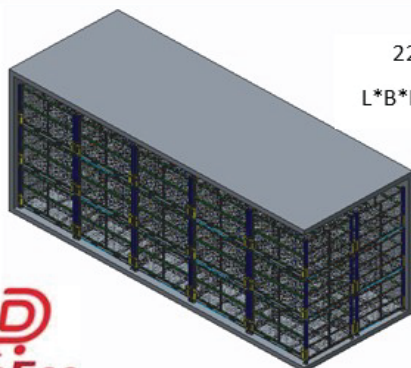
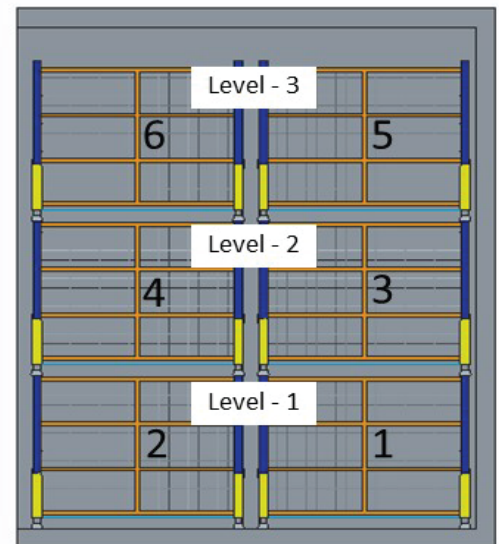
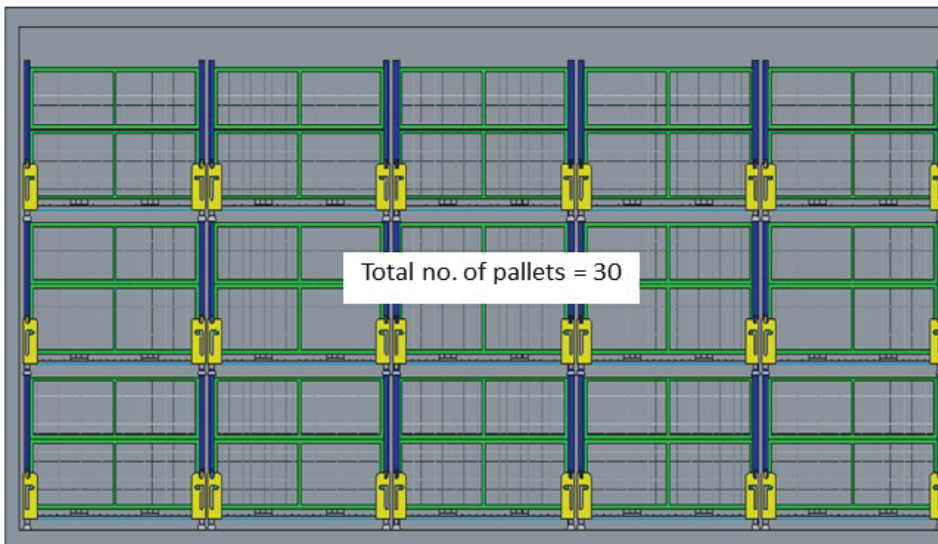
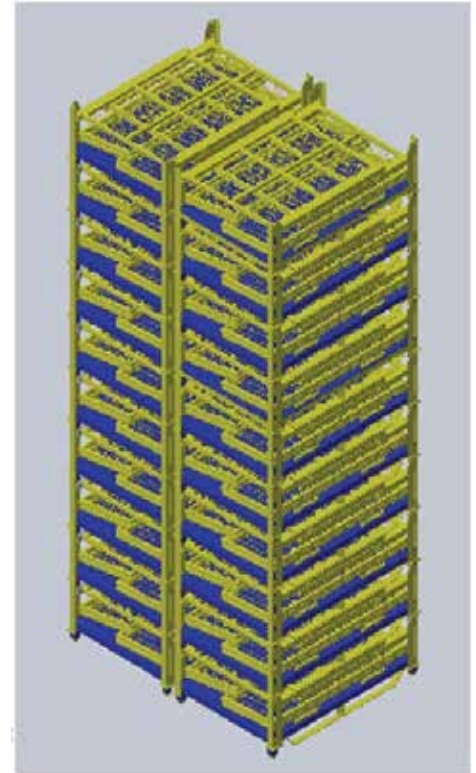
Pallet Dimension (IN MM)	1280*1085*860
Parts per Bin level	Based on no of parts in a Bin
No.of. Bin Levels per trolley	Min 2 - Max 6
Load capacity / pallet	1000 kg
Stackability option	YES
Stackability level (Loaded Condition)	G + 2 (Total 30 no of pallets)*
Stackability level (Empty condition)	10 (Total 100 no of pallets)*
* - 22' High Cube End Open container	

TRUCK OPTIMIZATION

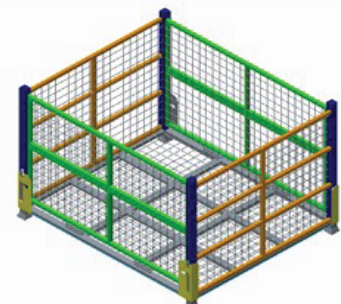
Truck to be used to shipment	22' High Cube Container
No.of. Trolleys to be loaded in Truck	30 nos
Total parts per truck	Depends on inventory
Truck Optimization	Increased in 1.5 Times
Reduction in Logistics cost	Approximatly 35%

STORAGE SPACE OPTIMIZATION

No.of. Trolleys per shipment	10 nos
Storage space require to store loaded Trolleys	95 sq.ft (G+1 condition)
Space Optimization	31%
Storage space require to store Empty Trolleys	64 sq.ft (G+2 condition)
Space Optimization	54%



22' High Cube End Open Container
L*B*H (Inner in mm) = 6500*2330*2700



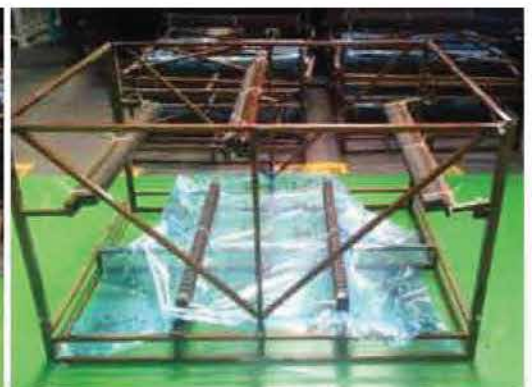
Proposed pallet for 22' High Cube End Open Container

L*B*H (mm) = 1280*1085*860



Expendable Steel Racks (ESR)

Expendable Steel Racks (ESR)_____

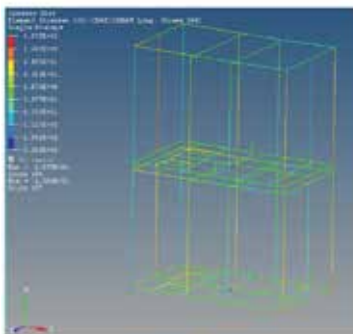
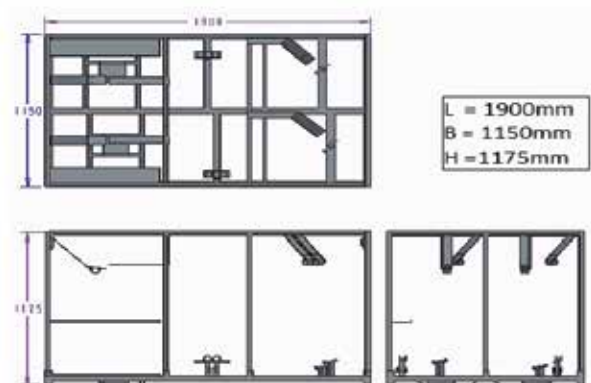
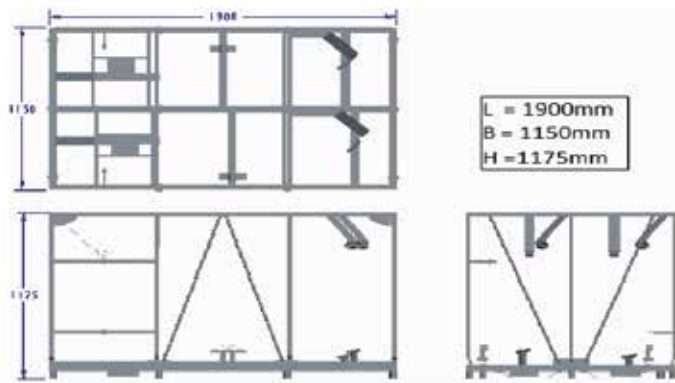




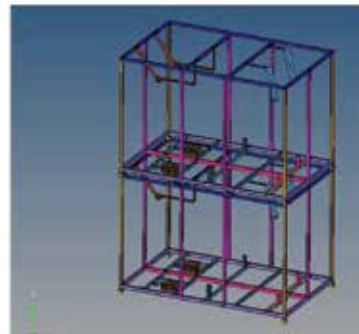
Expendable Steel Racks (ESR) Case Study

Expendable Steel Racks (ESR) - Case study

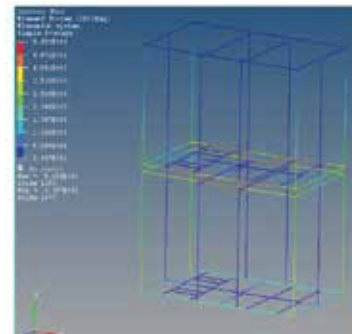
Existing



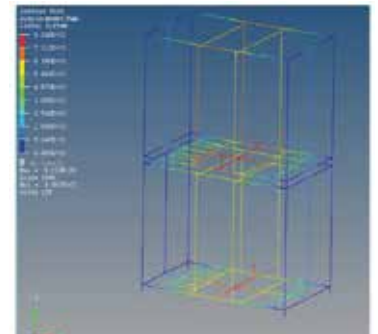
Stresses (N/mm²)



FE - Model



Member Force (N)



Deformation (mm)

Existing model

S.No	Material	Qty	Weight
1	40 sq * 1.6T	7.8m	14.78
2	25 sq * 1.6T	21.5m	18.92
3	Dia 20 * 1.6T	13m	7.28
4	1900*30*3t	2nos	1.7898
5	200*30*3t	8nos	0.7536
6	200*60*3t	8nos	1.5072
7	300*200*3t	2nos	1.884
8	600*100*3t	2nos	1.884
9	800*80*3t	2nos	2.0096
10	700*80*3t	2nos	1.7584
11	95*515*3t	4nos	3.07249
12	5*40*400	2nos	1.256
13	200*55*3t	2nos	0.3454
14	100*200*3t	2nos	0.628
15	200*50*3t	6nos	0.942
16	120*60*3t	4nos	0.45216
17	180*75*3t	4nos	0.8478
18	4*40*200	4nos	1.0048
19	Dia 50 * 2t * 50	12nos	1.44
20	Dia 38 * 2t * 40	12nos	0.85
21	Dia 75 * 4t * 4t	12nos	1.66
			65.06525

(+ fasteners)

Proposed Design

S.No	Material	Qty	Weight
1	30sq * 2T	8.98m	15.266
2	25*25*25*2t	4.7m	5.55
3	5*40	0.8m	1.256
4	25sq * 0.8T	6.6m	3.96
5	25 sq * 1.6T	7.14	8.1396
6	20*45*20*3t	1.1m	2.201925
7	270*2t	0.3m	1.2717
8	25*25*25*4t	0.06m	0.14
9	50*25*50*4t	0.06m	0.24
10	110*30*2t	2nos	0.10362
11	110*50*2t	2nos	0.34697
12	200*40*2t	2nos	0.2512
13	45*45*25*3t	4nos	0.5
14	50*450*2t	4nos	1.413
15	50*300*2t	2nos	0.471
16	20*120*20*2t	1.2m	3
17	20sq * 1t	6m	3.48
			47.591015

(+ fasteners)



Engineering, Procurement, Construction

Plant general maintenance
Canteen requirements

Structural works

Jig & Fixtures
Piping & Pipeline

conveyors

Critical machining

Insulations

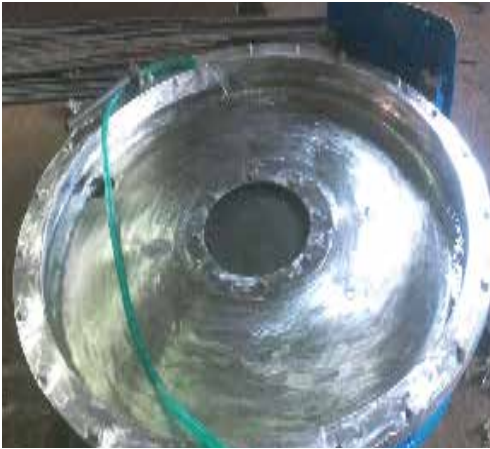
Structural Analysis

Bunkers
Foils
Tanks

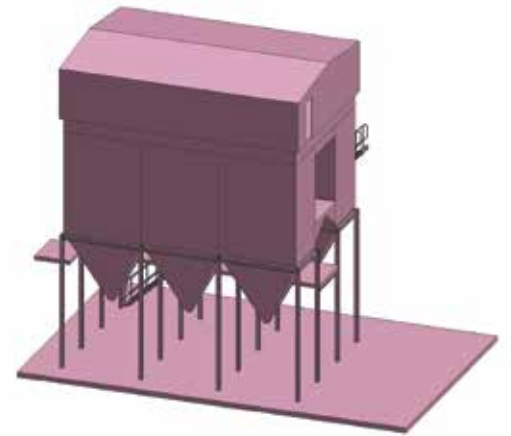
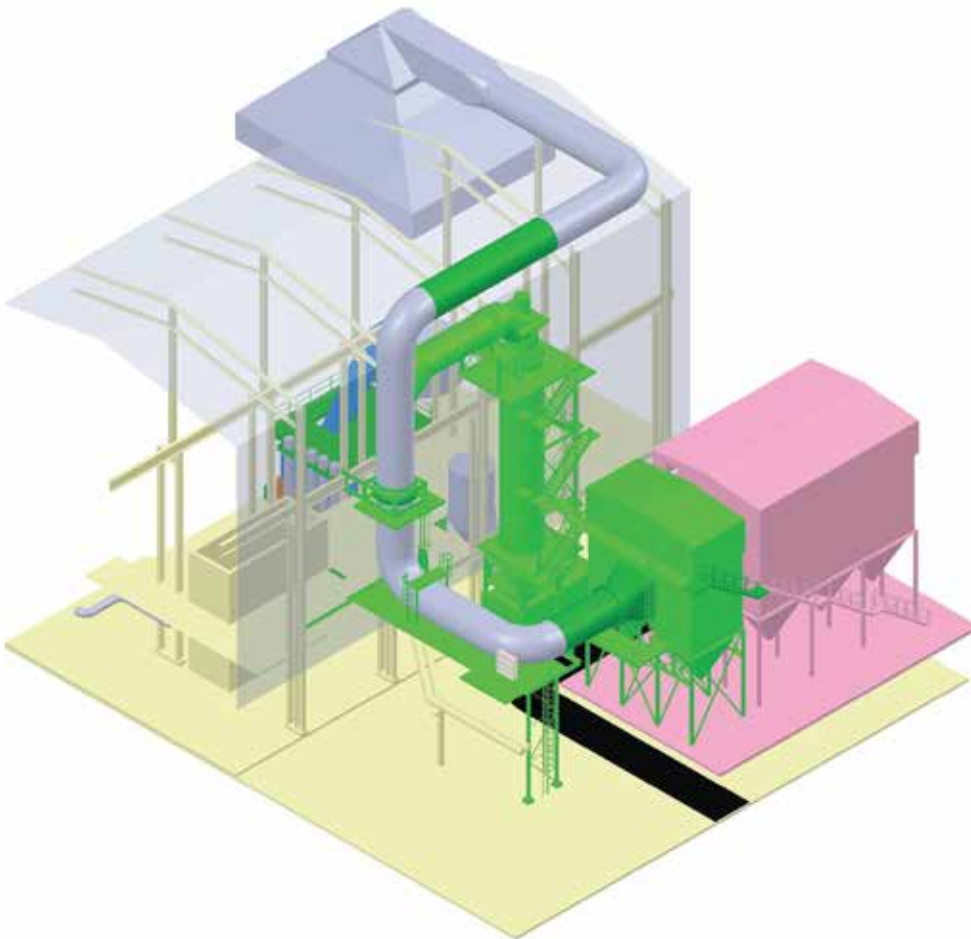
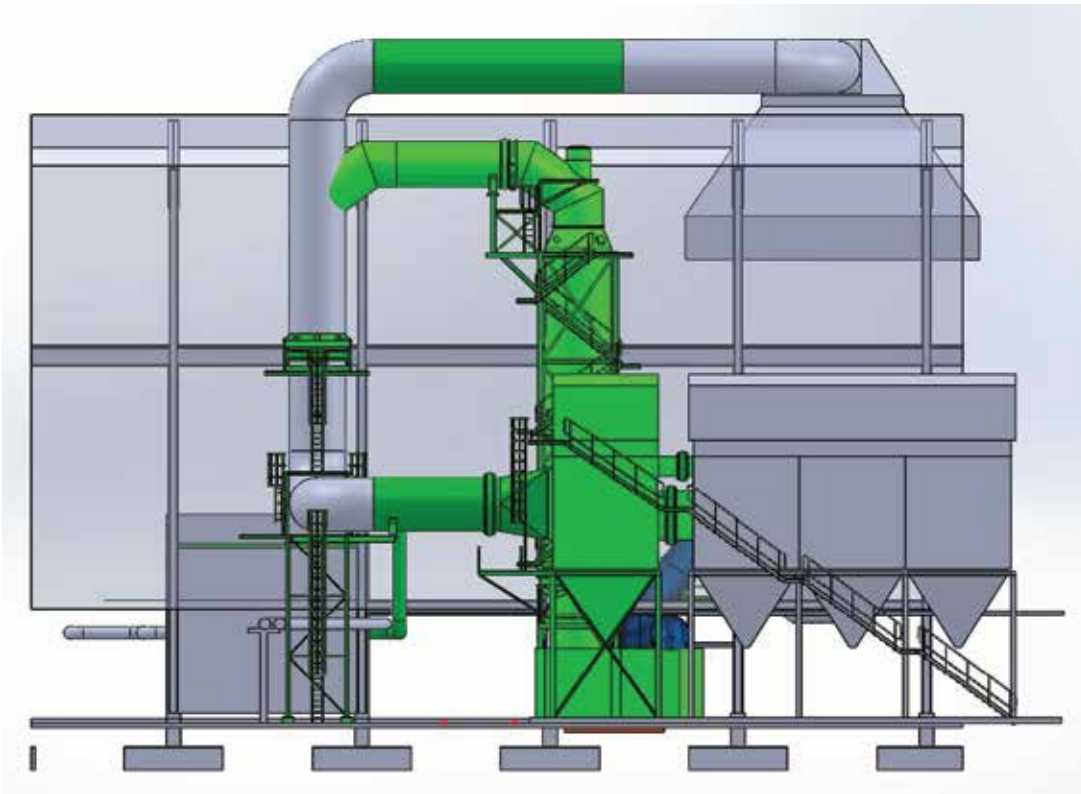
Engineering, Procurement & Construction (EPC)



Engineering, Procurement & Construction (EPC) ---



Engineering, Procurement & Construction (EPC) —————



DeeEss Execution Engineering - Capabilities



Press break



Pipe pending



Plano milling



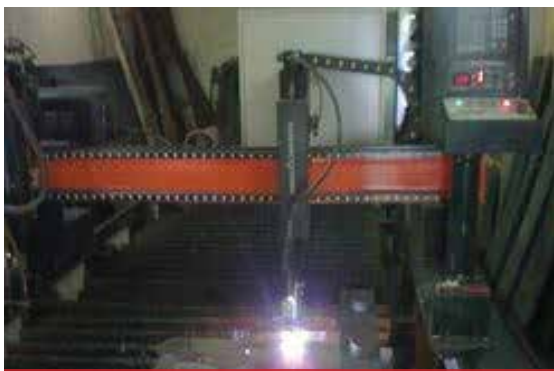
Shearing



Horizontal boring



VMC(8000/2000



Plasma cutting



Pipe metal rolling



Laser cutting



Vertical leg



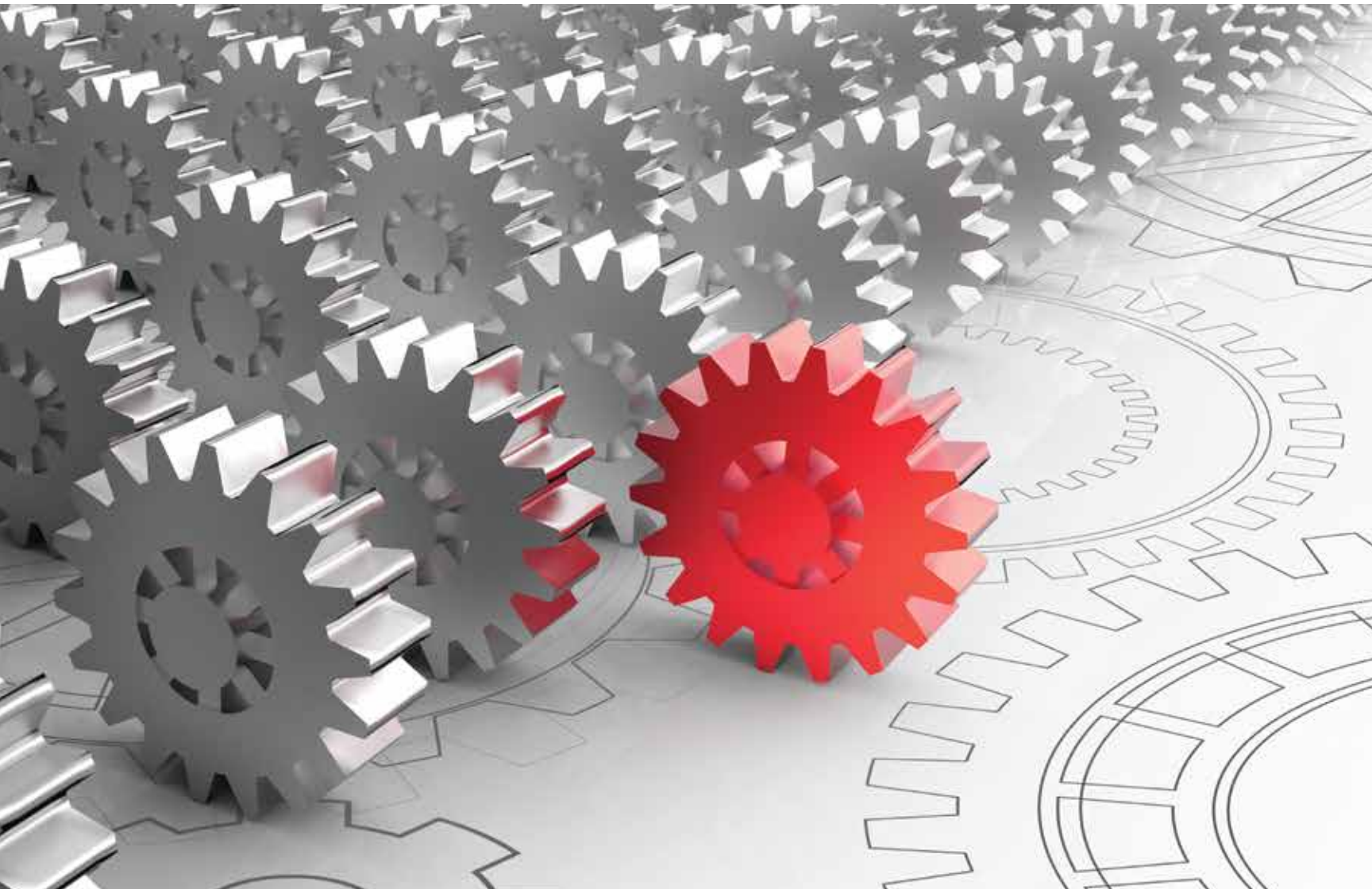
Vertical cutting



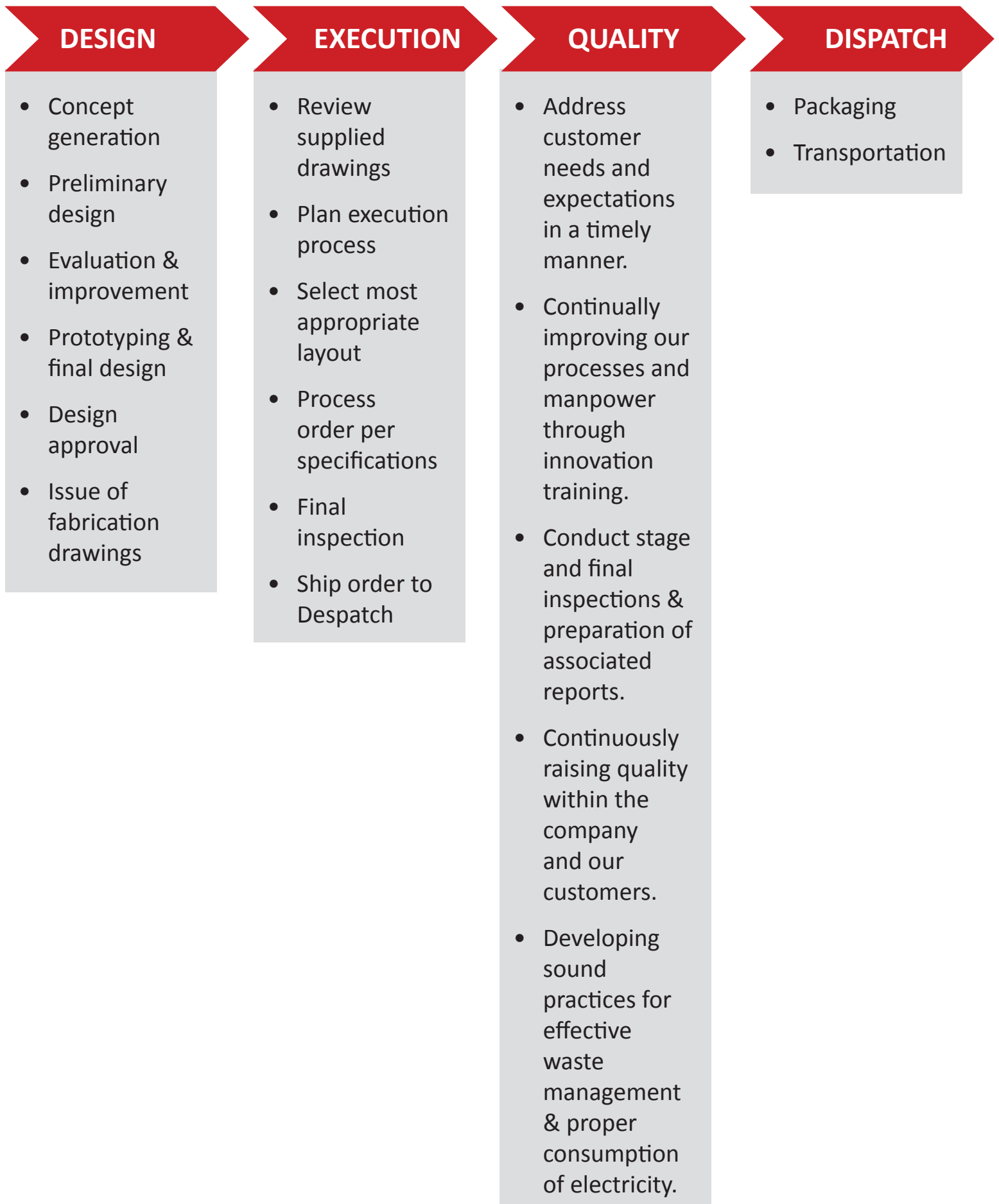
Rolling

Execution Management Responsibilities

- Materials & Product flow
- Process planning
- Manufacturing
- Inventory warehousing
- Assembly planning
- Worker training
- Workforce scheduling



DeeEss Process





DeeEss Principles

Product Development Principles

- Technological Superiority: Achieving market leadership through innovation.
- Fit-of-purpose: Matching products to customer's precise needs.
- Responsibility: Complying and exceeding with current legislation and regulations.
- Total reliability in quality levels, product performance and production methods.
- Consistent product performance guaranteed across all customer locations.
- Continuous assessment to further improve production processes.
- Wide knowledge in customize Designs



DeeEss Quality Assurance

Quality Assurance Responsibilities

- Product Quality (In coming, In process & Final Inspection).
- Vendor Quality (Stage inspection at various level).
- Preparation of documentation and quality related procedures.
- Conducts Quality Audit / Review meeting regularly.
- Review and analyse customer complaints and other re-occurring problems in the process.
- Define process and continuous process improvement.

DeeEss Quality Control

Quality Control responsibilities

- Client and customer co ordination and handling.
- Material inspection during receiving and before issuance to fabrication.
- Welding control and monitoring of repair rates.
- Marking & layout inspection.
- Fit up & weld visual inspection.
- Non Destructive Testing (NDT)
- Final product review, witness & clearance.
- Surface preparation & painting inspection.
- Packing & shipment inspection.





DeeEss Purchasing

Purchase Management Responsibilities

- Vendor qualification, selection, evaluation
- Out-sourcing parts or subassemblies
- Raw materials
- Materials planning
- Vendor expedite (Raw materials, Sourced parts)

DeeEss Strategies

Category	Potential Risk	Contingency Plan	Preventative Measures
MATERIAL	Material shortage due to: 1.Delivery delay 2.Uncontrollable reason	1. Maintain stock level finish goods. 2. One week buffer stock.	1. Give 3 months forecast to suppliers 2. Regular visit to local suppliers 3. Monitor suppliers performance on a monthly basis.
MACHINE	Machine breakdown	1. Conduct trial for alternative machine. 2. Keep back up sub contractors in case alternative machine is not available.	1. Strictly follow machine preventive maintenance problem. 2. Maintain stock of commonly used spare parts of machines.
MAN	Line stoppage due to labour problem.		1. Strengthen labour management council activities. 2. Regular LMC meetings (every week) to discuss LMC concerns and to address labour issue.
POWER OUTAGE	Electrical supply breakdown	Standby generator is available in case of power outage.	1. Continue conducting substation preventive maintenance. 2. Quarterly check up of electrical circuit breakers to check for any abnormality.
FIRE	Occurrence of fire	Implement emergency response procedure	1. Continue to implement monthly 5's & safety patrol to verify that all safety measures are implemented. 2. Strictly follow external audit advise & improvement suggestions.



Why DeeEss?

- Assured cost saving in existing method through engineering analysis.
- Experts in providing simple solutions.
- Experience in the field with high technological knowledge.
- We work closely with our customers, providing innovative, value added solutions in all market sectors we serve.
- We deliver unprecedented and sustained business results for our clients.
- Suggesting multiple solutions for single proposals.
- Ensuring on time delivery through effective project management
- By understanding the industry's constantly changing demands, we are able to develop performance-enhancing fabrications solutions.
- We have the people, the products and the processes to make your business more competitive.
- Ensuring a positive contribution to society.

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No Reasons Only Result.