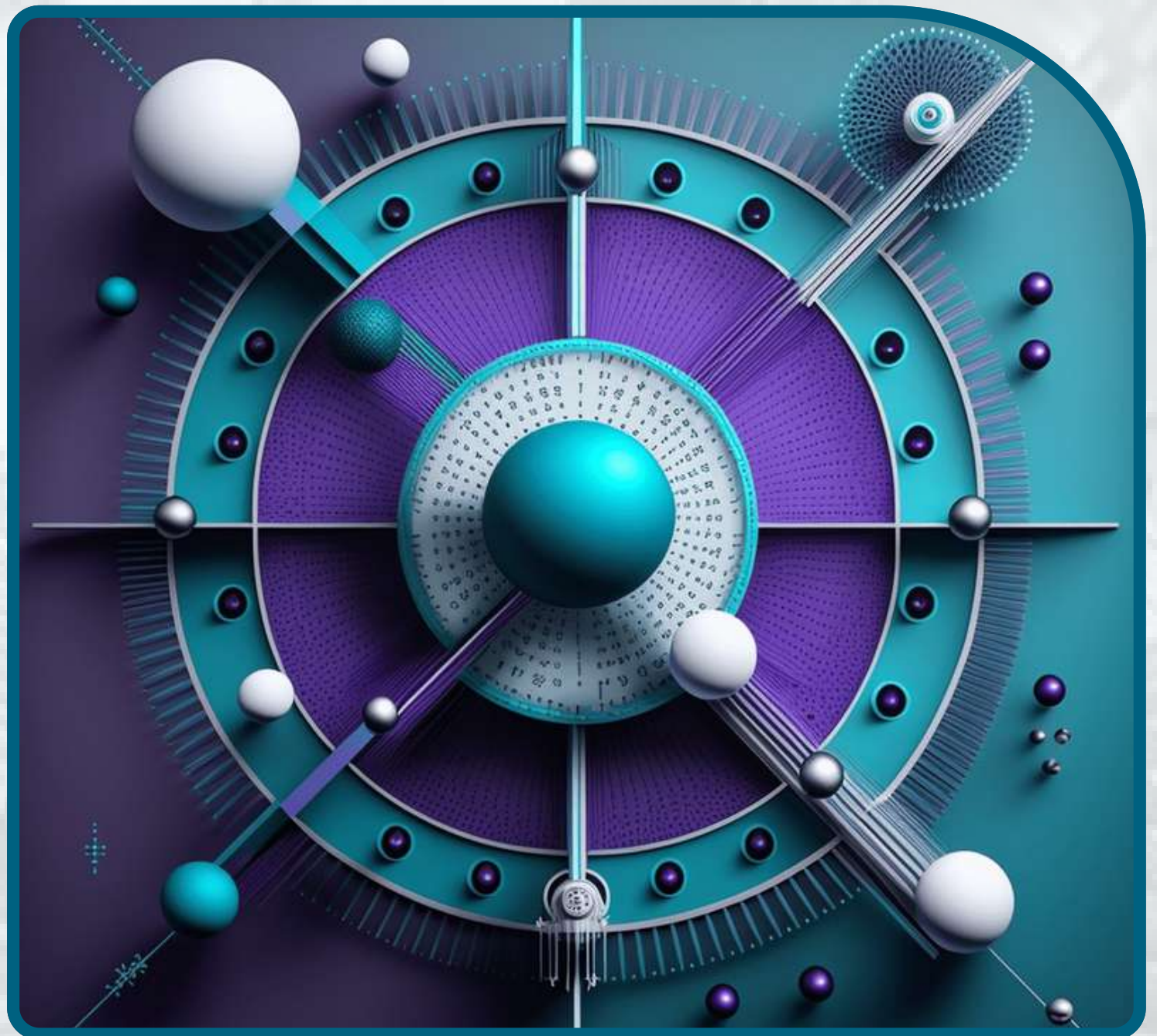


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GD&T

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1	GD&T Introduction
2	Part Features, Feature of Size, Non-size Features
3	14 GD&T Symbols
4	Virtual Condition Boundary
5	Form Tolerances
6	Datums
7	Orientation Tolerances
8	Location Tolerances
9	Case Studies & Review of “Your Company” drawings



Geometric Dimensioning & Tolerancing

1 GD&T Introduction

- What is GD&T? Why use GD&T?
- How does GD&T work?
- Comparison of GD&T with CD&T (Coordinate Dimensioning & Tolerancing)

2 Part Features, Feature of Size, Non-size Features

- What are Part Features?
- Features of Size
- Non-Size Features

3 14 GD&T Symbols

- Feature Control Frame(FCF) and its placement
- How to read FCFs?
- Modifier symbols: MMC, LMC, RFS
- When to use MMC, LMC and RFS modifier in design (correct applications)
- Bonus tolerance calculations
- Rule # 1 and Rule # 2
- Tolerances Zones

4 Virtual Condition Boundary

- Importance of Virtual condition in designs
- Virtual condition calculations on MMC basis
- Use virtual condition for mating parts as well to design fixed gauges
- 100% interchangeability guarantee in design phase itself by using virtual condition correctly
- Class room exercise for virtual condition



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- Flatness tolerance
- Straightness tolerance
- Circularity Tolerance
- Cylindricity Tolerance
- When to use Form Tolerance?
- Relationship between Rule # 1 & form tolerance controls
- Inspection methods to verify form tolerances
- Design recommendation on why to use form tolerances only when required to ensure successful design intent

- What is datum?
- Six Degrees of Freedom
- Datum Reference Frame (Cartesian coordinate system)
- Datum Feature Selection, Functional Hierarchy
- Datum feature identification / placements & interpretation
- Datum plane, datum axis, Datum center plane
- Physical datum feature simulators
- 3-2-1 principle
- Datum feature qualification
- Importance of Datum Precedence
- Select datum features according to the design intent



- How it works? How to apply it?
- Perpendicularity tolerance
- Parallelism tolerance
- Angularity tolerance
- Applied to a planar feature
- Applied to feature of size
- When do we use Orientation Tolerance?
- Datums for Orientation Control
- Inspection methods to verify orientation tolerances
- Difference between parallelism and Flatness
- Class room exercise for orientation tolerance

A) Position Tolerance

- How it works? How to apply it?
- Tolerance zone shapes
- Position tolerance for cylindrical features on MMC, LMC and RFS basis
- Detailed table calculations for position tolerance on MMC, LMC and RFS
- Position on Boundary basis for rectangular or oblong slots
- Zero tolerance at MMC basis
- Datums for Position Control
- Inspection methods to verify position tolerances
- Class room exercise for position

B) Runout Tolerances

- How it works? How to apply it?
- Circular Runout Tolerance
- Total Run out Tolerance
- Datums for Run out Controls
- Inspection methods to verify runout tolerances



C) Profile Tolerances

- How it works? How to apply it?
- Profile of a Line Tolerance
- Profile of a Surface Tolerance
- 4 types of Profile Tolerance Zone
 - 1) Bi-lateral
 - 2) Unilateral - IN (Un-equally Disposed)
 - 3) Unilateral - OUT(Un-equally Disposed)
 - 4) Bi-lateral Un-equal(Un-equally Disposed)
- Controlling extent of profile tolerance
- Datums for Profile Controls
- Inspection methods to verify Profile tolerances
- Class room exercise for profile

D) Concentricity & Symmetry Tolerances

- How it works? How to apply it?
- Concentricity Tolerance
- Symmetry Tolerance
- Tolerance zone shapes
- Datums for concentricity & symmetry controls
- Inspection methods to verify concentricity & symmetry tolerances
- Why to **avoid** using Concentricity and Symmetry for small and inexpensive part designs

- Case studies in general & specific to your company / products
- Review existing **Your Company** drawings
- Discussion on the correct & incorrect use of GD&T on your existing drawings
- GD&T best practices for inspection & manufacturing
- Understand the internal competition between 14 GD&T symbols & select the most appropriate & inexpensive GD&T symbol



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About Us

Why Choose Us

With vast domain experience, highly capable & equipped Engineering Team we are specialized in providing the most professional Engineering services with fast turn around time. We also help businesses meet their goals with our cutting edge Engineering & Training services.

Mission

Our mission is to deliver world-class engineering solutions with simplicity, precision, and speed, while empowering professionals through comprehensive training that meets global industry standards.

Vision

To create a future where our cutting-edge expertise in engineering solutions and professional training empowers both clients and the industry, making us an indispensable partner in their success.

Our Core Values

1) INNOVATION

We consistently challenge the status quo by exploring new ideas & technologies to deliver creative, cutting-edge solutions.

2) INTEGRITY

We operate with unwavering honesty & transparency, building lasting trust with every client and partner.

3) CUSTOMER FOCUS

We are committed to understanding our clients' unique challenges & providing tailored, value-driven solutions.

4) ETHICS

We collaborate & support one another, believing our collective strength drives the best results for our clients.



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Design Services

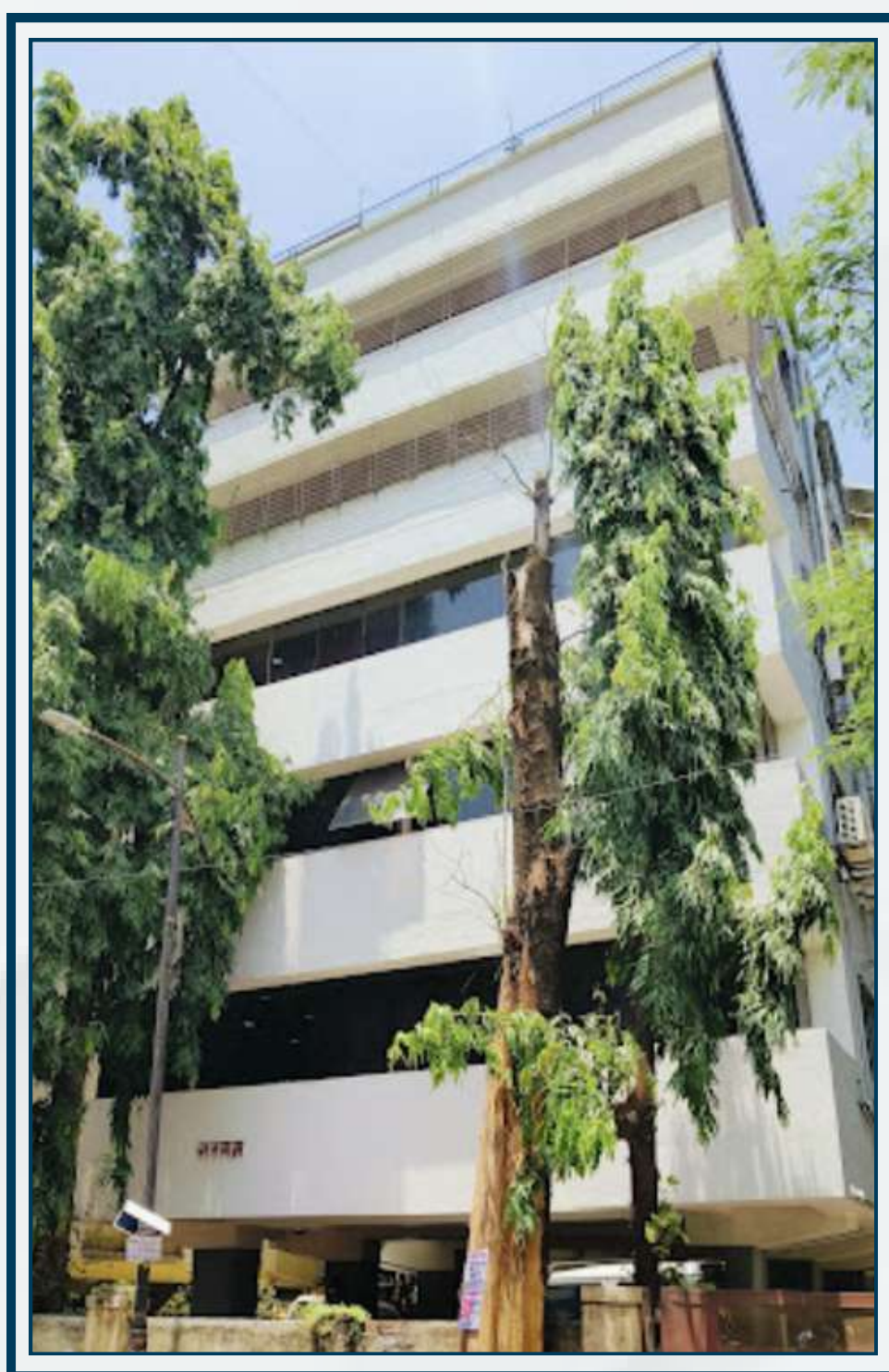


About Us

With vast experience in Static Equipment Engineering, we offer the best, cost-efficient solutions to our customers. Our Engineering team is capable to deliver Design of Pressure Vessel, Heat Exchanger, Condenser, Reactor, Column, Storage Tank, and other static equipment, as per various national and international codes and standards.

The team is well experienced and trained to deliver Design as per ASME Sec VIII Div-1, Div-2, PED, ADMerk Blatter, PD5500, AS1210, GOST, TEMA, API 660, API 650, API 620, IBR, EN13445, etc.

We have successfully completed many ASME U-stamp audits and worked on hundreds of U-stamp vessels closely with many certifying agencies.



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Training Services



About Us

Our training program offers a unique and professional platform for engineers to master their skills to meet the demanding requirements of industries. As an Authorized Training Provider for ASME, we stand firmly behind our mission: **“No one can decode the code like us.”** This expertise is rooted in our deep understanding of various national and international standards, delivered by **seasoned industry veterans** who are currently active in their fields to bridge the gap between theory and real-world application.

Drawing on extensive multi-disciplinary expertise, we provide **comprehensive** courses tailored to the rigorous demands of today's market. In a remarkably short time, our **commitment to excellence** has established us as the most trusted and preferred training partner for leading corporations and ambitious individuals globally.



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Corporate Training



Onsite Corporate Trainings

We have been instrumental in developing the workforce for organizations through our onsite training under our corporate training program. These training has helped the corporates to develop the skills and knowledge of their resources and as a result increase the output with better and optimized design of equipment.



Our Customers

Our Corporate Customers

We have been instrumental in developing the workforce for organizations through our onsite training under our corporate training program. These training has helped the corporates to develop the skills & knowledge of their resources & as a result increase the output with better & optimized design of equipment.



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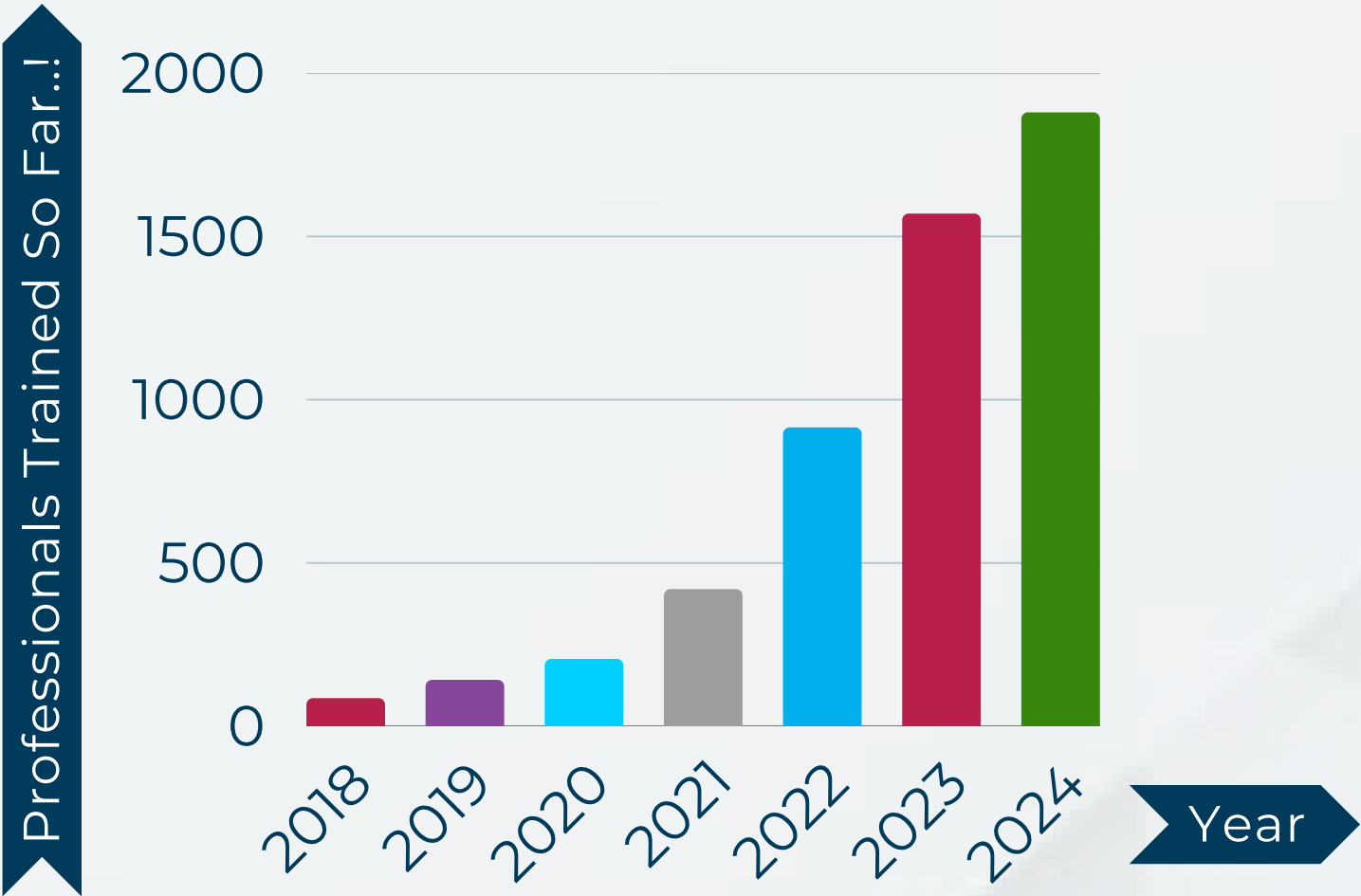
Our Track Record



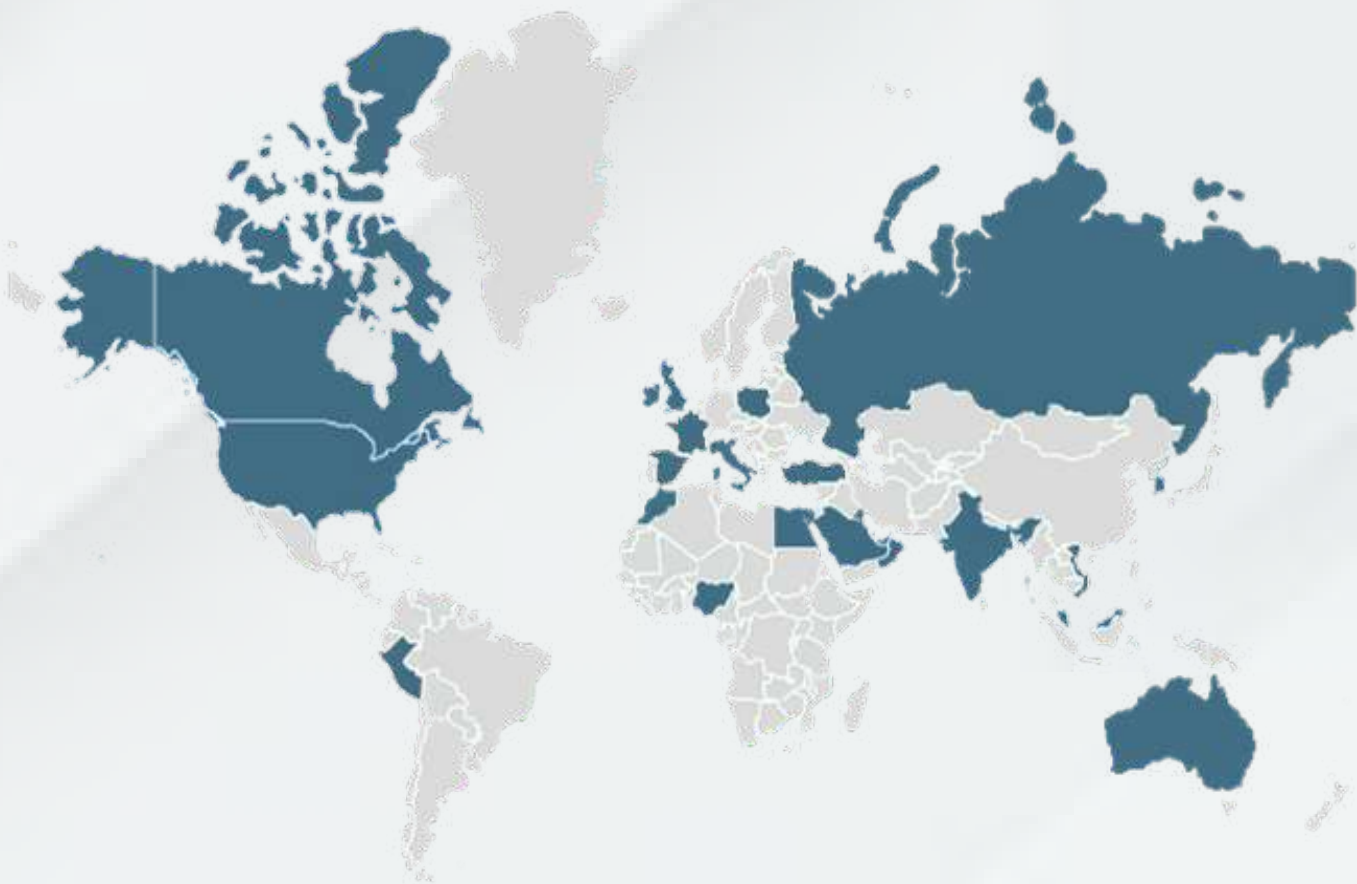
How We Have Been Doing..!



Over The Year...!



Beneficiaries Across The Globe



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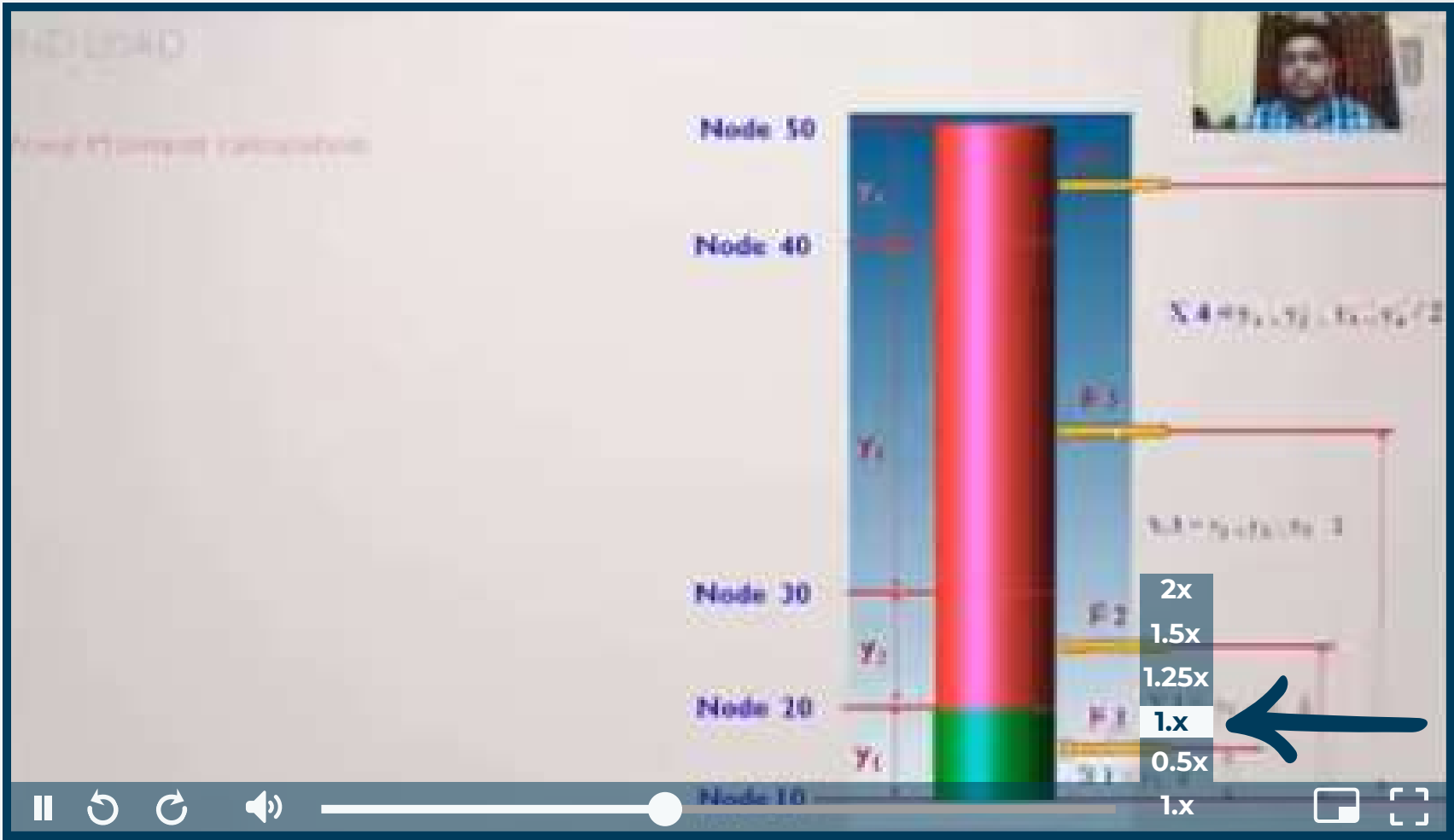
IOS APP
use organization code **yatgi**



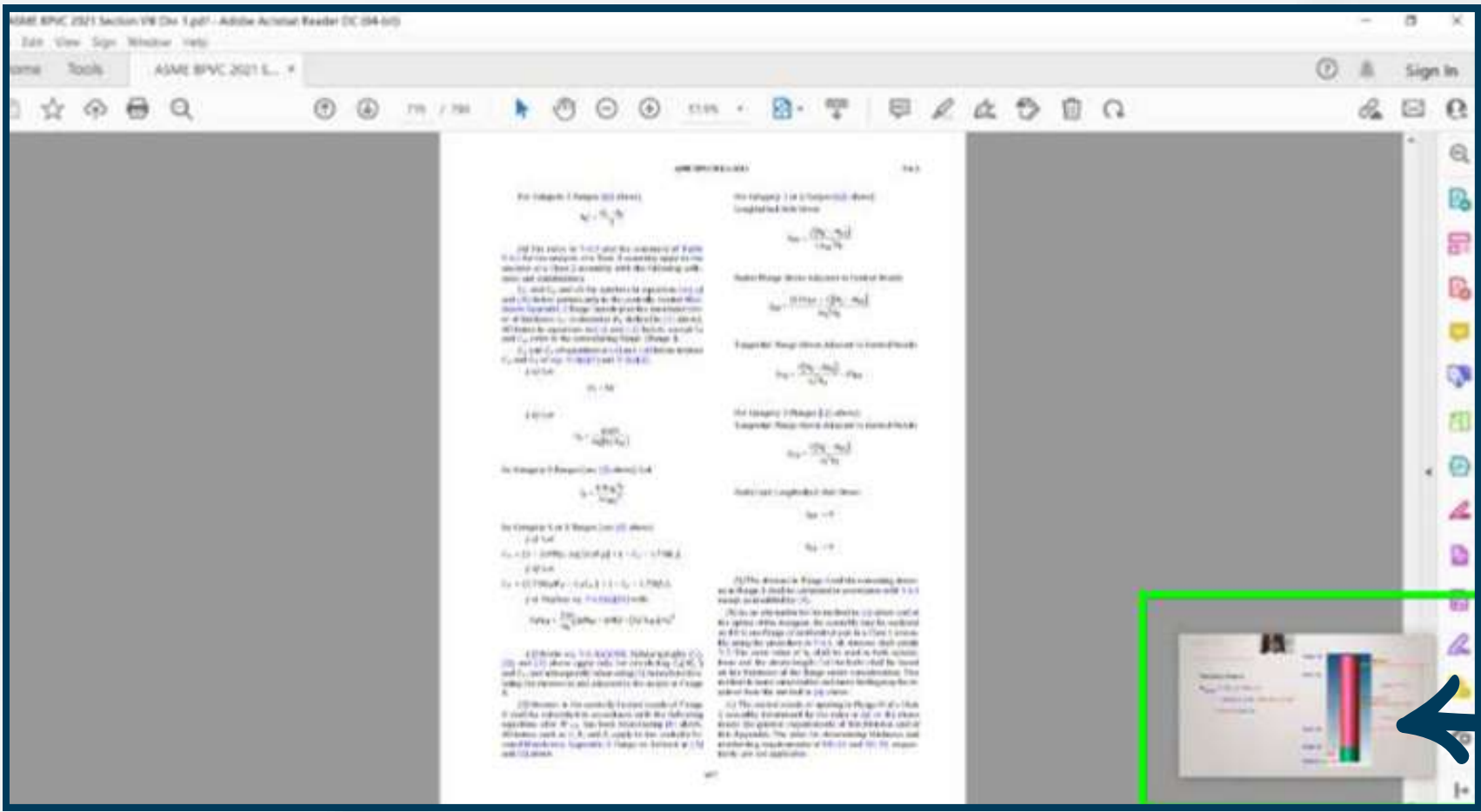
About Training Platform



It has never been so convenient to learn...! Check out some special features of our Training Platform. Adjust video speed from 0.5x to 2x to suit your requirement.



PIP mode enables you to work or practice simultaneously while watching the lectures.



Advantages Over Offline Courses

Benefits Of Online Training

Offline

Online

No more compromise on work or personal schedule

Getting late for the class. **Need to rush** or I'll miss the lecture.



I can **save travelling time** and **avoid stress** by watching lectures online **as per my convenience**.



Get answers on the go...!

I am stuck in the Project. But this topic is scheduled after 4 weeks in the live class. **How can I solve it now?**



I was stuck..! But I **just watched this topic online** and bingo..! **the problem is solved**. I simply love this platform.



Live Q&A session every week

The Classes are over. **Whom can I ask** the questions now?



My Course **validity is 18 months**. Also the **live Q&A session is twice a week**. I can get all the answers.



Advantages Over Offline Courses



Benefits Of Online Training

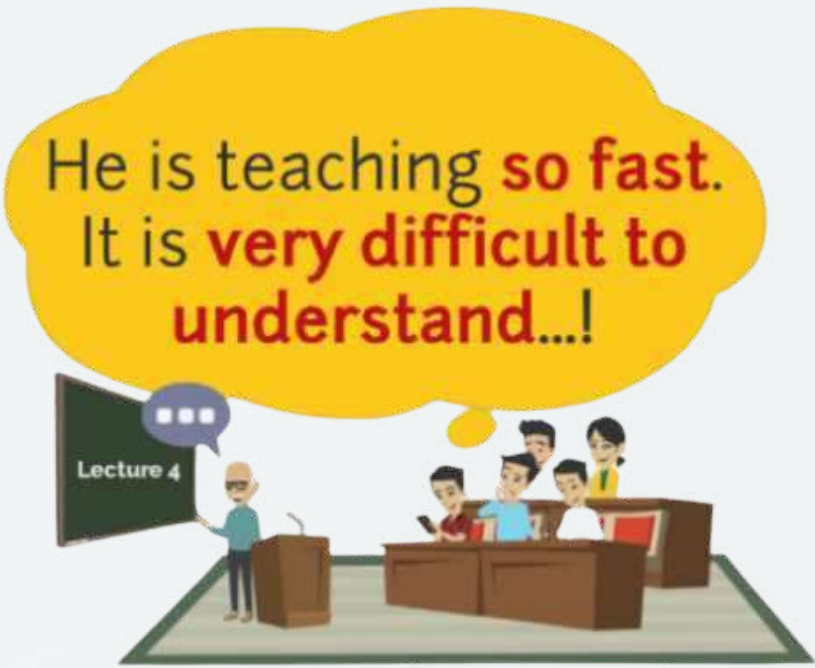
Offline

Online

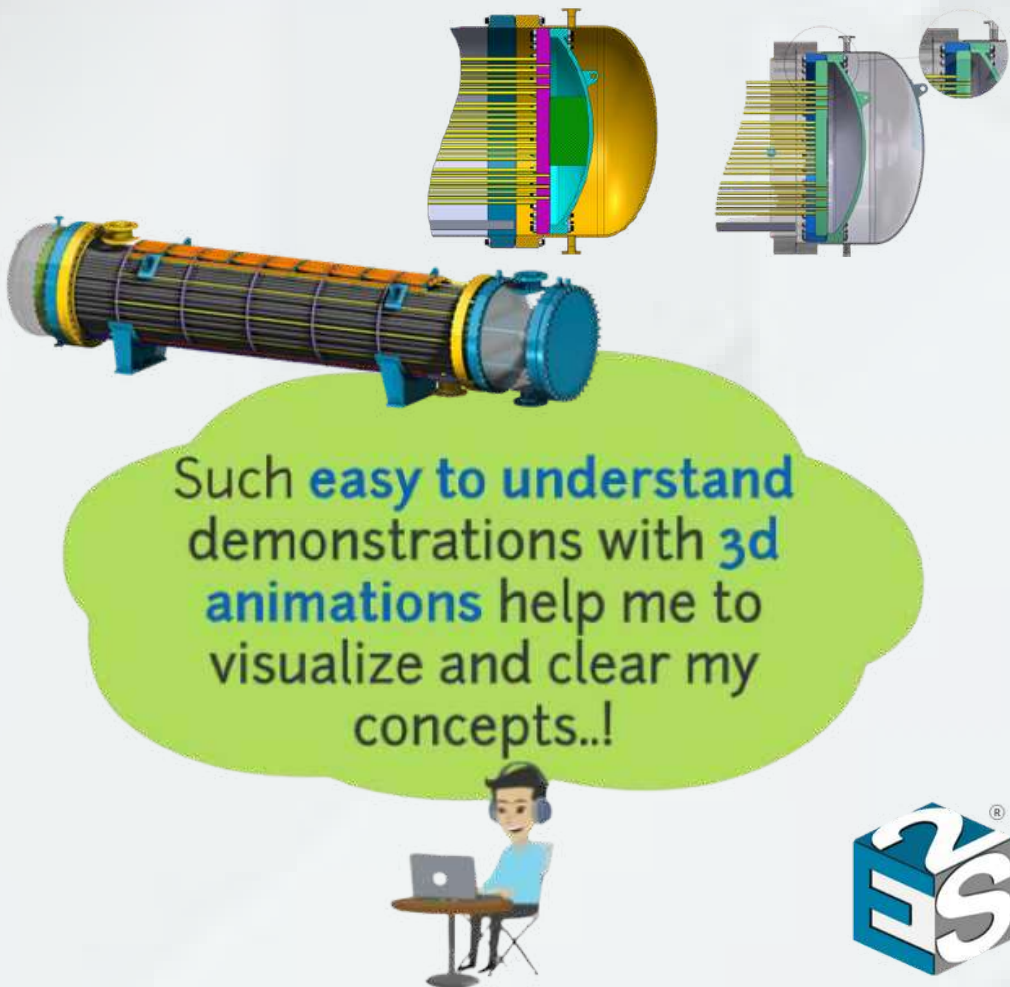
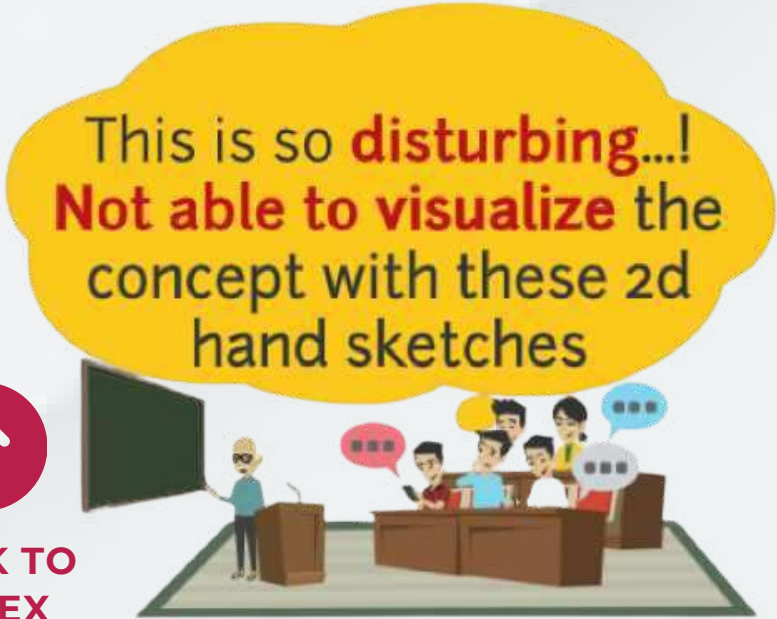
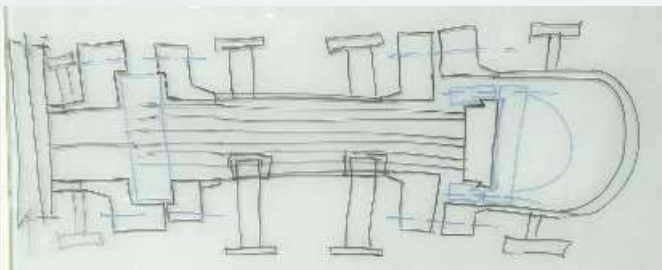
Never Miss Out On Any Lectures



Learn At Your Own Pace

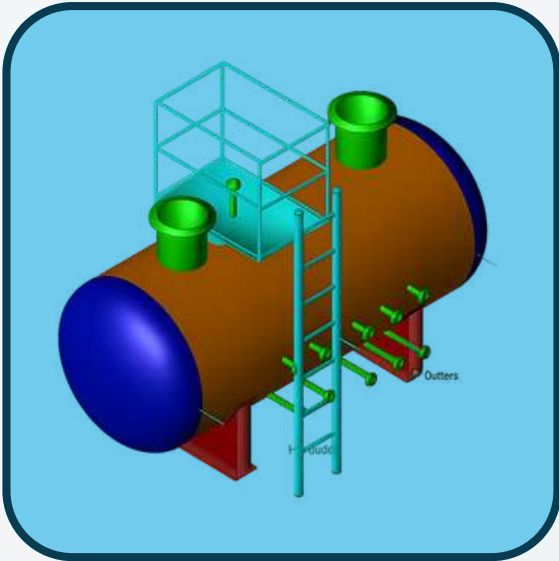


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Our Other Courses

Static Equipment Design



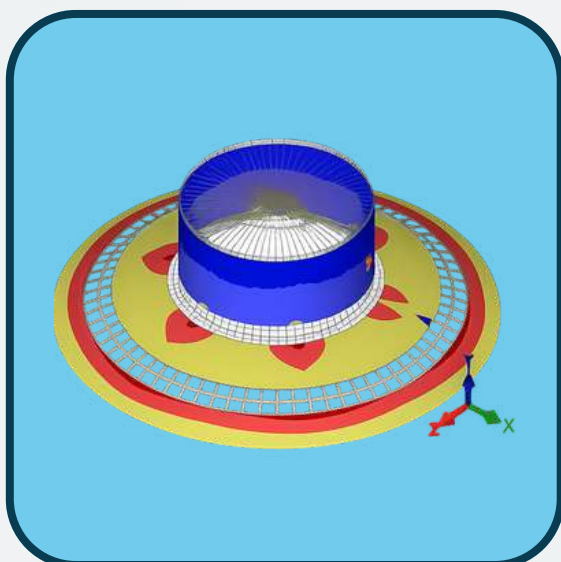
PRESSURE VESSEL
DESIGN (DIV 1)



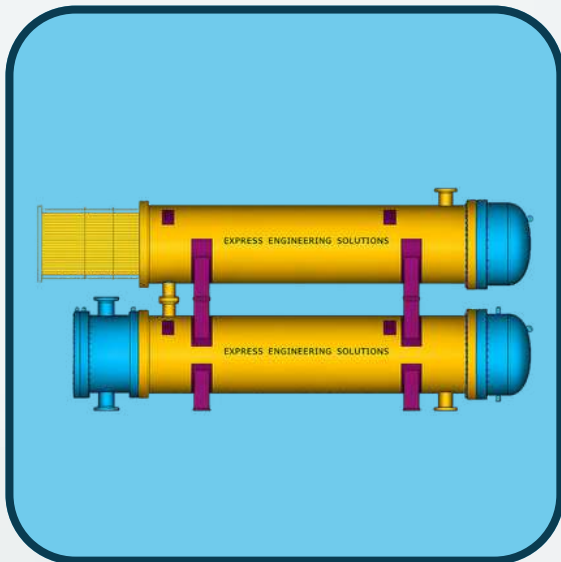
PRESSURE VESSEL
DESIGN (DIV 2)



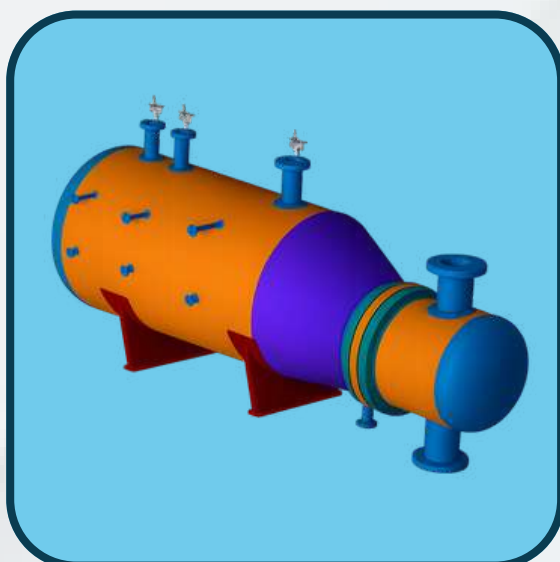
PREMIUM COMBO



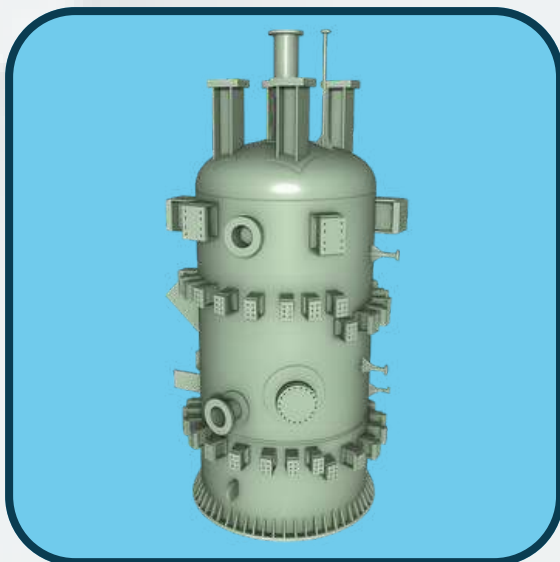
NOZZLE PRO FEA



HEAT EXCHANGER
DESIGN



PV ELITE
SOFTWARE



DIV 1 & DIV 2
COMBO



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ASME Authorized Course



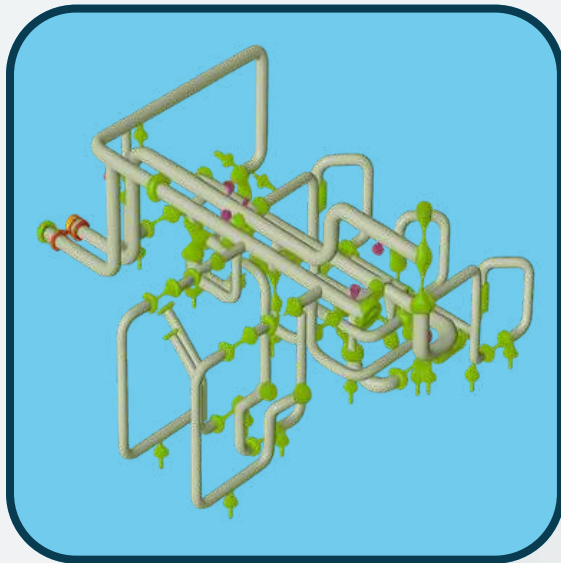
ASME PD442 



Pipe Stress Analysis



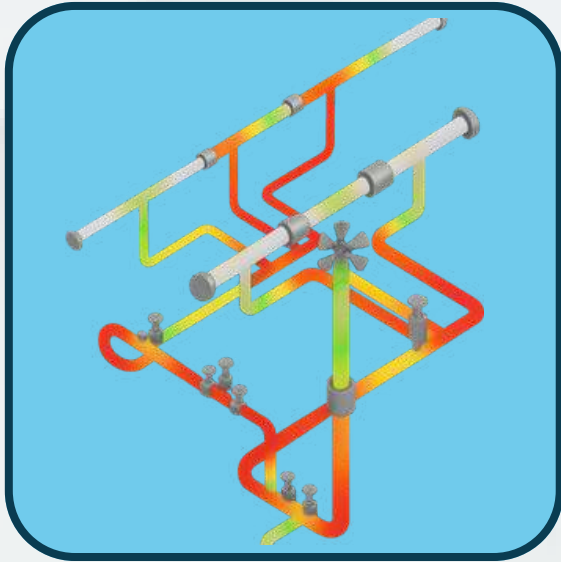
BASIC PIPE STRESS ANALYSIS 



ADVANCE PIPE STRESS ANALYSIS 



BURIED PIPELINE STRESS ANALYSIS 



COMBO PIPING & PIPELINE STRESS ANALYSIS 



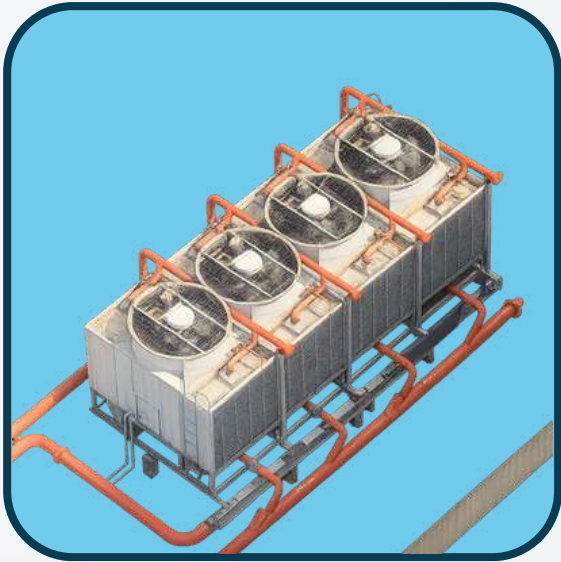
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(ACHE)** 



**SHELL & TUBE
HEAT EXCHANGER
(STHE)** 



**THERMAL DESIGN
COMBO
(STHE & ACHE)** 



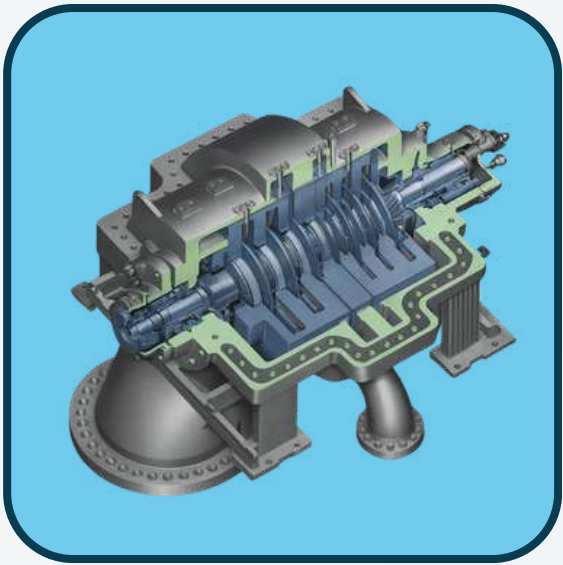
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