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API 510

Pressure Vessel Inspector Course

Be the qualified API 510 Inspector 2026!

Sculpt Your Skills for the Inspection, Repair, Alteration, and Rerating of Pressure Vessel Systems!

29th June - 03rd July 2026 at Kuala Lumpur, Malaysia
16th - 20th November 2026 at Kuala Lumpur, Malaysia
14th - 18th December 2026 at Kuala Lumpur, Malaysia

RESERVE NOW



INSTRUCTOR

Chintamani M. Khade

International Certified Trainer

SUMMARY OF PROFESSIONAL ACHIEVEMENT

- API 570 - Authorised Process Piping Inspector - Certificate #38775
- API 571 - Specialist Materials & Damamge Mechanisms - Certificate #50420
- API 653 - Authorised Aboveground Storage Tank Inspector - Certificate #27295
- API 510 - Authorised Pressure Vessel Inspector - Certificate #36311
- API 580 - Specialist Risk Based Inspection - Certificate #50552
- API SIRE - Authorised Source Inspector Rotary Equipments - Certificate #63572
- NDE Level III (ASNT) (UT, MT, RT, PT, VT, LT, ET & IR) - Certificate #126348
- Level 3 (EN 473 /ISO 9712) (UT, MT, PT , RT & VT) - Cert. No 07-502-04964
- Welding Inspector (TWI) (CSWIP 3.1) - Certificate #58523

PARTIAL CLIENT LIST

- Oman LNG
- Shell
- ExxonMobil
- Total
- Chevron
- EQUATE
- GASCO
- RIL - Reliance Industries Limited
- GASCO
- Bangchak Petrochemicals
- ATB Caldereria sPa.,Italy
- Hindustan Lever Ltd.
- Qatar Fuel Additives
- L&T Hazira
- Ranoli
- JP Industries Ltd.,
- Premier Ltd.
- Oman Methanol Co.
- Thermax Ltd
- TUV SuD, Jubail
- KSA
- Many more.

ATTEND THIS INTENSIVE COURSE TO MASTER:

- Detailed explanations of all the information covered in the API 510 'Body of Knowledge' including ASME welding requirements for pressure vessels section IX and VIII
- ASME non-destructive testing principles and application of Section V Pressure vessel design review ASME Section VIII, weld sizes, vessel nozzle reinforcement, brittle fracture, weld efficiency factors, post weld heat treatment
- Pressure relieving devices, valves, bursting discs, setting, testing and inspection; API 510 inspection, repair and rerating of vessels, inspection intervals, inspection requirements, relationships to ASME codes. Corrosion, minimum thickness determination and remaining life calculations
- Inspection and degradation mechanisms of pressure vessels, corrosion and cracking mechanisms
- Erosion, common corrodents, hydrogen and H2S damage, alloy degradation.

Limited Attendees
The course has limited seats to ensure maximum learning and experience for all delegates.

Certificate of Attendance
You will receive a Certificate of Attendance bearing the signatures of the Trainer upon successful completion of the course. This certificate is proof of your continuing professional development.

Interactive Training
You will be attending training designed to share both the latest knowledge and practical experience through interactive sessions. This will provide you with a deeper and more long-term understanding of your current issues.

SUPPORTED BY

CONFERENCE locate.com | WorldOils | OilVoice | ECF 中国能源 EnergyChinaForum.com

PROGRAM OVERVIEW

"To improve management control of process unit inspection, repair, alteration and rerating; and to reduce the potential for inspection delays resulting from regulatory requirements."
-- API.org on API 570 Certification

American Petroleum Institute (API) Code 510 Inspection, Repair, Alteration, and Rerating of Pressure Vessel Systems is recognized and used with confidence worldwide. The Piping Inspector Certification Program (PICP) is developed for the continual high level of efficiency and safety through emphasizing professional credibility and process integrity.

Pressure Vessel system is one of the critical production assets in process industry. Organizations recognize the need to maintain authorized inspection agency and technically assess qualified pressure vessel engineers and inspectors to ensure facilities are at top performance. Therefore, API 510 certification is one of the most sought after professional competency that enables inspectors to be actively involved in the improvement of industry & environmental health and safety performance, reinforcement management control, compliance of inspection capabilities.

With Mr. Chintamani's extensive involvements in the facilities inspection, as well as his practical coaching and mentoring approaches, this course not only prepare the candidates to pass API 510 examination with confident, it will also advance the appreciation of pressure vessel facilities and thus to broaden the technical knowledge base in order to avoid unplanned shutdown and reduce expenses!

AUDIENCE

This course will specifically benefit Engineers, Supervisors, and Managers from the following disciplines:

- Mechanical Engineering
- Inspection
- Maintenance & Operations
- Technical & Engineering
- QAQC

and technical personnel with 2-3 years of experience in the management and planning of inspection and maintenance activities of pressure vessel system at upstream oil & gas facilities, refineries, process plants and petrochemical facilities.

Each attendee must bring a Laptop computer with Microsoft operating system and Scientific Calculator

WHY YOU SHOULD ATTEND

- To ensure that all objectives of the course matches yours, all PetroSync programs are developed after intensive and extensive research within the industry
- PetroSync programs focus on your immediate working issues to ensure that you are able to apply and deliver immediate results in real work situations
- Application and implementation of industry knowledge and experience are the drivers for our course design, not theoretical academic lectures
- PetroSync training focuses on practical interactive learning tools and techniques including case studies, group discussions, scenarios, simulations, practical exercises and knowledge assessments during the course. Invest a small amount of your time to prepare before attending the course to ensure maximum learning
- PetroSync follows a rigorous selection process to ensure that all expert trainers have first-hand, up-to-date and practical knowledge and are leaders of their respective industrial discipline

IN-HOUSE SOLUTIONS

SAVE COST • IMPROVE PERFORMANCE • REDUCE RISK

PetroSync understands that in current economic climate, getting an excellent return on your training investment is critical for all our clients. This excellent training can be conducted exclusively for your organization. The training can be tailored to meet your specific needs at your preferred location and time.

We will meet you anywhere around the globe. If you like to know more about this excellent program, please contact on +65 3159 0800 or email general@petrosync.com

PROGRAM SCHEDULE

08:00	Registration (Day1)
08:10 – 10:00	Session I
10:00 – 10:15	1st Tea Break
10:15 – 12:30	Session II
12:30 – 13:30	Lunch Break
13:30 – 15:00	Session III
15:00 – 15:15	2nd Tea Break
15:15 – 16:00	Session IV
16:00	End of Day

**Schedule may vary for each training*

AGENDA OULTINE

DAY-1

MODULE – 1

Welcome and Introduction

Overview of API 510 Course

MODULE – 2

JOINT EFFICIENCIES

a. Weld Joint Categories from UW-3;

b. Type of radiography (full, spot, or none , RT-1, RT-2, etc.);

c. Joint efficiency by reading Table UW-12;

d. Joint efficiency for seamless heads and vessels Sections per UW-12 (d); and

e. Joint efficiency for welded pipe and tubing per UW-12 (e).

MODULE - 3

THICKNESS CALCULATIONS

a) The required thickness of a cylindrical shell (UG-27(c)(1));

b) The vessel part MAWP for a cylindrical shell

c) The required thickness of a head-Hemispherical, Ellipsoidal, Torispherical

d) The vessel part MAWP for a head

MODULE - 4

STATIC HEAD

a) Calculate static head pressure on any vessel part;

b) Calculate total pressure (MAWP + static head) on any vessel part;

c) Calculate maximum vessel MAWP given vessel parts MAWP and elevations

MODULE -5

EXTERNAL PRESSURE

a) Calculate the maximum allowable external pressure;

b) Calculate whether a cylindrical shell meets Code design for external pressure.

IMPACT TESTING

a) Determine the minimum metal temperature of a material which is exempt from impact testing (UG-20 (f), UCS-66,UCS-68(c).)

DAY-2

MODULE - 1

PRESSURE TESTING

a) Calculate a test pressure compensating for temperature. (UG-99 & UG-100)

b) The precautions associated with hydrostatic and pneumatic testing,

c) Steps in a hydrotest Procedure (UG 99 and UG 100)

d) All steps in a pneumatic test procedure (UG 100 and UG 102)

MODULE - 2

WELD SIZE FOR ATTACHMENT WELDS AT OPENINGS

a) Conversion of a fillet weld throat dimension to leg dimension , conversion factor(0.707)

b) Determine the required size of welds at openings (UW-16).

MODULE – 3

NOZZLE REINFORCEMENT

Key concepts of reinforcement, such as replacement of strength and limits of reinforcement.

Credit for extra metal in shell and nozzle

Calculate the required areas for reinforcement

MODULE - 4

1 SCOPE OF API 510

1.1 General Application

1.2 Specific Applications

1.3 Recognized Technical Concepts

2 references

MODULE - 5

3 definitions

4 owner/user inspection organization

4.1 General

4.2 Owner/user Organization Responsibilities

DAY-3

MODULE - 1

5 inspection, examination and pressure testing practices

5.1 Inspection Plans

5.2 Risk-based Inspection

5.3 Preparation For Inspection

5.4 Inspection For Types Of Damage Modes Of Deterioration And Failure

MODULE – 2

5.5 General Types Of Inspection And Surveillance

5.6 Condition Monitoring Locations

5.7 Condition Monitoring Methods

MODULE - 3

5.8 Pressure Testing

5.9 Material Verification And Traceability

5.10 Inspection Of In-service Welds And Joints

5.11 Inspection Of Flanged Joints

MODULE - 4

6 interval/frequency and extent of inspection

6.1 General

6.2 Inspection During Installation And Service Changes
6.3 Risk-based Inspection
6.4 External Inspection
6.5 Internal And On-stream Inspection
6.6 Pressure-relieving Devices

MODULE - 5

7 inspection data evaluation, analysis, and recording
7.1 Corrosion Rate Determination
7.2 Remaining Life Calculations
7.3 Maximum Allowable Working Pressure Determination

MODULE - 6

7.4 Fitness For Service Analysis Of Corroded Regions
7.5 API RP 579 Fitness For Service Evaluations
7.6 Required Thickness Determination
7.7 Evaluation Of Existing Equipment With Minimal Documentation
7.8 Reports And Records

DAY-4

MODULE - 1

8 repairs, alterations, and rerating of pressure vessels .
8.1 Repairs And Alterations
Authorization
Approval
Materials Requirements
Welding Requirements

MODULE - 2

Heat Treating Requirements
Preheating
Post weld Heat Treating
Local Postweld Heat treatment
Repairs to Stainless Steel Weld Overlay and Cladding
Rerating

MODULE - 3

Introduction to ASME Sec. IX
Welding Procedure tests
Performance qualification tests
Acceptance criteria
Welding positions
P-No, F-No and A-No.
Review of:
a. Welding Procedure Specification (WPS); and
b. Procedure Qualification Record (PQR)
And determine:
a) Whether number and type of mechanical test listed on PQR are appropriate
b) Whether the results of the tests are acceptable
c) Whether all required essential and non-essential variables have been properly addressed.

DAY-5

MODULE - 1

API RP 576, Inspection of Pressure-Relieving Devices
1. Relief Devices
a) Description of Types -- (API RP-576, Section 2)
b) Causes of Improper Performance (API RP-576, Section 4)
c) Reasons for Inspection and Frequency Determination (API RP 576, Sections 3 & 5)
d) Inspection and Test Service Procedures (API RP-576, Sections 6 and 7)

MODULE - 2

A. Article 1, General Requirements:
B. Article 2, Radiographic Examination

MODULE - 3

C. Article 6, Liquid Penetrant Examination,
D. Article 7, Magnetic Particle Examination (Yoke and Prod techniques only):
E. Article 23, Ultrasonic Standards, Section SE–797

MODULE - 4

API RP 576, Inspection of Pressure-Relieving Devices
1. Relief Devices
a) Description of Types -- (API RP-576, Section 2)
b) Causes of Improper Performance (API RP-576, Section 4)
c) Reasons for Inspection and Frequency Determination (API RP 576, Sections 3 & 5)
d) Inspection and Test Service Procedures (API RP-576, Sections 6 and 7)

MODULE - 5 (1 hour + 1 hour discussion)

Practice Examination-Open Book
Practice Examination-Closed Book
Feed Back and Closing

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14th - 18th December 2026 at Kuala Lumpur, Malaysia



INSTRUCTOR

Chintamani M. Khade

International Certified Trainer

Chintamani M. Khade is a specialist on Materials & Damage Mechanisms. He has more than 19 years experience as Department Head of NDT, Welding Inspection, In Service Inspection in India, Middle East, Southeast Asia & Africa.
Currently, he is the technical director of Empirical Technocrats.

He conducted training for various API Certification Preparatory, NDE methods, ASNT & ISNT Level III, advanced NDT Methods, welding inspection, Construction codes, ASME Sections II, Section IX, Section V, ASME Sec. VIII div. 1, ASME B31.1, ASME B31.3, AWS D1.1, UT, MT, PT, VT, RT & Basic for ISO 9712 level 2 & level 3.

He has been a team leader of 100+ multidiscipline NDT technicians, metallurgists & Welding inspectors during various shutdown jobs in Qatar Petroleum, Massaid refinery, Qatar in March – June 2005, March - April 2009 & October November 2009. Executed in service inspection of nearly 800 pressure vessels, Static & rotary equipments, Plant process piping & storage tanks as shutdown coordinator.

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PARTIAL CLIENT /PROJECT LIST

- RIL - Reliance Industries Limited
- GASCO
- Bangchak Petrochemicals
- Bharat Oman Refinery Limited
- Standard Rolling Mills
- Dacon Inspection Services, Thailand
- Cryeng Australia
- ZADCO
- Qatar Petroleum, Massaid Refinery
- Ras Gas
- QAFCO
- Oman LNG
- Shell
- ExxonMobil
- Total
- Chevron
- EQUATE
- GASCO
- ATB Caldereria sPa.,Italy
- Hindustan Lever Ltd.
- Tororo Cement Industries Ltd., Tororo, Uganda
- Qatar Fuel Additives CO.
- ADGAS, DAS ISLAND, Abudhabi - UAE
- L&T Hazira
- Ranoli
- Tata projects Ltd.,
- JP Industries Ltd.,
- Premier Ltd.
- McNally Bharat Engg. Co. Ltd.,
- Ravi Industries
- Pune & Sprklet Engineering, Mumbai
- Pudmjee Paper mills, Ltd.,
- Thermax Ltd., Pune
- Walchandnagar Industries Ltd.,
- TEMA Exchangers India Ltd., Gujrat
- Century Enka Ltd., Pune
- Rajashri Polyfils Gujrat
- Garware Polyestrs Ltd, Aurangabad
- Larson & Toubro Ltd. Gujrat
- Essar Oil Ltd., Gujrat
- Many more.

INVESTMENT PACKAGES

Please checklist the package that you are attending!

	API 510 - Pressure Vessel Inspector Course SCHEDULES	LOCATION	PRICE
☐	29th June - 03rd July 2026	Kuala Lumpur, Malaysia	USD 3,450
☐	16th - 20th November 2026	Kuala Lumpur, Malaysia	USD 3,450
☐	14th - 18th December 2026	Kuala Lumpur, Malaysia	USD 3,450

** Price is net excluding Withholding Tax if any and will be quoted separately. Please send us the withholding tax payment receipt.*

** We can help to register API exam certification which incur USD 100 administration fee per application.*

** For API Exam late application, there will be additional USD 200 borne by the participant*

DELEGATE DETAILS

1st Delegate Name _____ Mr ☐ Mrs ☐ Ms ☐ Dr ☐ Others ☐

Direct Line Number: _____ Email: _____

Mobile Number: _____ Job Title: _____

Department: _____ Head of Department: _____

2nd Delegate Name _____ Mr ☐ Mrs ☐ Ms ☐ Dr ☐ Others ☐

Direct Line Number: _____ Email: _____

Mobile Number: _____ Job Title: _____

Department: _____ Head of Department: _____

3rd Delegate Name _____ Mr ☐ Mrs ☐ Ms ☐ Dr ☐ Others ☐

Direct Line Number: _____ Email: _____

Mobile Number: _____ Job Title: _____

Department: _____ Head of Department: _____

**Please fill all the details including mobile number. This help us to contact participant if they are late in class or if there is any urgent update (through whatsapp/call)*

INVOICE DETAILS

Attention Invoice to: _____

Direct Line Number: _____ Fax: _____

Company: _____ Industry : _____

Address: _____ Postcode: _____

Country: _____ Email: _____

Please note:
- Indicate if you have already registered by Phone ☐ Fax ☐ Email ☐ Web ☐
- If you have not received an acknowledgement before the training, please call us to confirm your booking.

PAYMENT METHODS

☐ **By Credit Card**

☐ **By Direct Transfer : Please quote invoice number(s) on remittance advice**

PetroSync Global Pte Ltd Bank details:
Account Name : PetroSync Global Pte Ltd
Bank Name : DBS Bank Ltd
Bank Code : 7171 • Bank Swift Code : DBSSSGSGXXX • Branch code : 288
Account No : 0288-002682-01-6 (USD)
Bank Address : 12 Marina Boulevard, Level 3. Marina Bay Financial Centre Tower 3. Singapore 018982

All bank charges to be borne by payer. Please ensure that PetroSync Global Pte Ltd receives the full invoiced amount.

PROGRAMME CONSULTANT

Contact : Cay Aagen
Email : registration@petrosync.com
Phone : +65 3159 0800

TERMS AND CONDITIONS

DISCLAIMER

Please note that trainers and topics were confirmed at the time of publishing; however, PetroSync may necessitate substitutions, alterations or cancellations of the trainers or topics or location (classroom / Virtual). As such, PetroSync reserves the right to change or cancel any part of its published programme due to unforeseen circumstances. Any substitutions or alterations will be updated on our web page as soon as possible

DATA PROTECTION

The information you provide will be safeguarded by PetroSync that may be used to keep you informed of relevant products and services. As an international group we may transfer your data on a global basis for the purpose indicated above. If you do not want us to share your information with other reputable companies, please tick this box ☐

CANCELLATION POLICY

Delegates who cancel after the training is officially confirmed run by email, are liable to pay the full course fee and no refunds will be granted. You may substitute delegates at any time as long as reasonable advance notice is given to Petrosync.

In the event that PetroSync cancels or postpones or change the trainer or change the training location (classroom / virtual) of an event for any reason and that the delegate is unable or unwilling to attend in on the rescheduled date, you will receive a credit voucher for 100% of the contract fee paid. You may use this credit voucher for another PetroSync to be mutually agreed with PetroSync, which must occur within a year from the date of postponement.

PetroSync is not responsible for any loss or damage as a result of the cancellation policy. PetroSync will assume no liability whatsoever in the event this event is cancelled, rescheduled or postponed due to any Act of God, fire, act of government or state, war, civil commotion, insurrection, embargo, industrial action, or any other reason beyond management control.

CERTIFICATE OF ATTENDANCE

80% attendance is required for PetroSync's Certificate of Attendance.

DETAILS

Please accept our apologies for mail or email that is incorrectly addressed.
Please email us at registration@petrosync.com and inform us of any incorrect details. We will amend them

Find us on Social Media:

PetroSync Global Pte Ltd
PetroSync
PetroSync

CHARGES & FEE(s)

- For Payment by Direct TelegraphicTransfer, client has to bear both local and oversea bank

- For credit card payment, there is additional 4% credit card processsing fee.

Confirmation

I agree to PetroSync's terms & conditions,payment terms and cancellation policy.

Authorized Signature : _____

Date : _____

PAYMENT TERMS : Payment is due in full at the time of registration. Full payment is mandatory for event attendance.