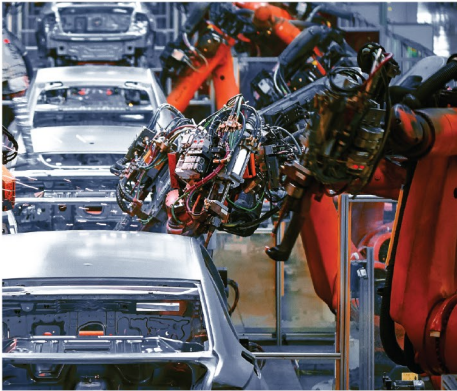




QPL LISTED
AMS-2644

ZChek



NDT
MPI | LPI PRODUCTS



ZChek is the world renowned brand of ZChem Specialities Private Limited.

ZChek offers complete range of NDT products in Magnetic Particle Inspection & Liquid Penetrant Inspection Techniques. Backed by unique technology, ZChek products are manufactured using "Green" raw material in state - of the- art manufacturing facility. With vital combination of vision to grow, commitment to offer value to the customer and over 50 years of management competence, we are the unique choice for our customers.

ZChem has a strong professional team capable of developing and offering customized products and solutions for various applications. All ZChek products are designed to meet the most stringent requirements of the industry norms across the globe.



1. PRECLEAN



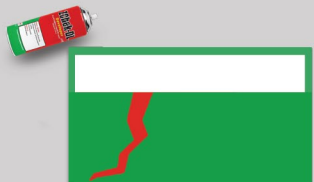
2. APPLY PENETRANT



3. REMOVE EXCESS PENETRANT



4. DRY & APPLY DEVELOPER



5. INSPECTION



ZChek Visible Liquid Penetrant Inspection Consumables confirm to the Specifications of

- ASME Boiler & Pressure Vessel . Section V
- ASTM E1417
- ENISO 3452-2
- AMS 2644
- IS 3658
- NPCIL

ZChek - Visible Red Dye Penetrant Inspection Materials

ZChek - PT

Solvent Removable Visible Red Dye Penetrant - Formulated to provide excellent penetrating property.

- Brilliant color contrast red : Excellent visibility
- Perfect capillary action - Excellent Penetration
- High wetting ability - Excellent coverage
- Non-Halogenated - Safe on all metals
- High flash point - Safe to use



ZChek - PTW

Water Washable Visible Red Dye Penetrant – Formulated to provide excellent Penetrating property

- Brilliant color contrast – Red : Excellent visibility
- Perfect capillary action – Excellent penetration
- High wetting ability – Excellent coverage
- Non-Halogenated – Safe on all metals
- High flash point - Safe to use



ZChek - CL

Is a High-performance Solvent Cleaner

- No residue – Good for penetrant performance
- Odorless – User-friendly
- Controlled evaporation – Excellent cleaning & less consumption
- Non-toxic - Environmentally acceptable



ZChek - CR

Is a non-Aqueous Cleaner/Remover designed to offer Quick Cleaning Action

- No residue - Good for penetrant performance
- Low odor - User friendly
- Controlled Evaporation - Excellent
- Cleaning & Less consumption



ZChek - DL

Is a High Performance Non-Aqueous Developer

- Brilliant White – Excellent Contrast
- Non-Halogenated – Safe on all metals
- High Area Coverage – Cost effective
- Controlled Evaporation – Enhances complete Bleed out



ZChek Dye Penetrant consumables are offered in 1Ltr bulk and 520mL aerosol cans.

ZChek - High Temperature Penetrant Materials

Up to 200° C

200 C° | Save time



ZChek - PH

- Vivid Red- Offers high contrast
- High temperature Penetrant (Upto 200° C)
Speeds up the inspection process time by eliminating the cooling time
- High sensitivity - Detects fine cracks
- High flash point - Safe to use

ZChek - CH

High Temperature Cleaner

- No residue - Better Penetrant action
- No odor - User friendly
- Fast action - Lower process time

ZChek - DH

High Temperature Developer

- Brilliant white - High contrast. High sensitivity
- Non-halogenated - Safe on all metals.
- High-temperature developer – speed up the inspection process time by eliminating the cooling time.

ZChek High temperature Penetrant Inspection Consumables confirm to the Specifications of

- ASME Boiler & Pressure Vessel . Section V
- ENISO 3452-2
- ENISO 3452-5



ZChek - FLUORESCENT PENETRANT INSPECTION MATERIALS

Fluorescent Penetrant Inspection Materials - Type1

✓ **APPROVED** -AMS2644

Method A

Water Washable

Method B

Lipophilic

Method C

Solvent Removable

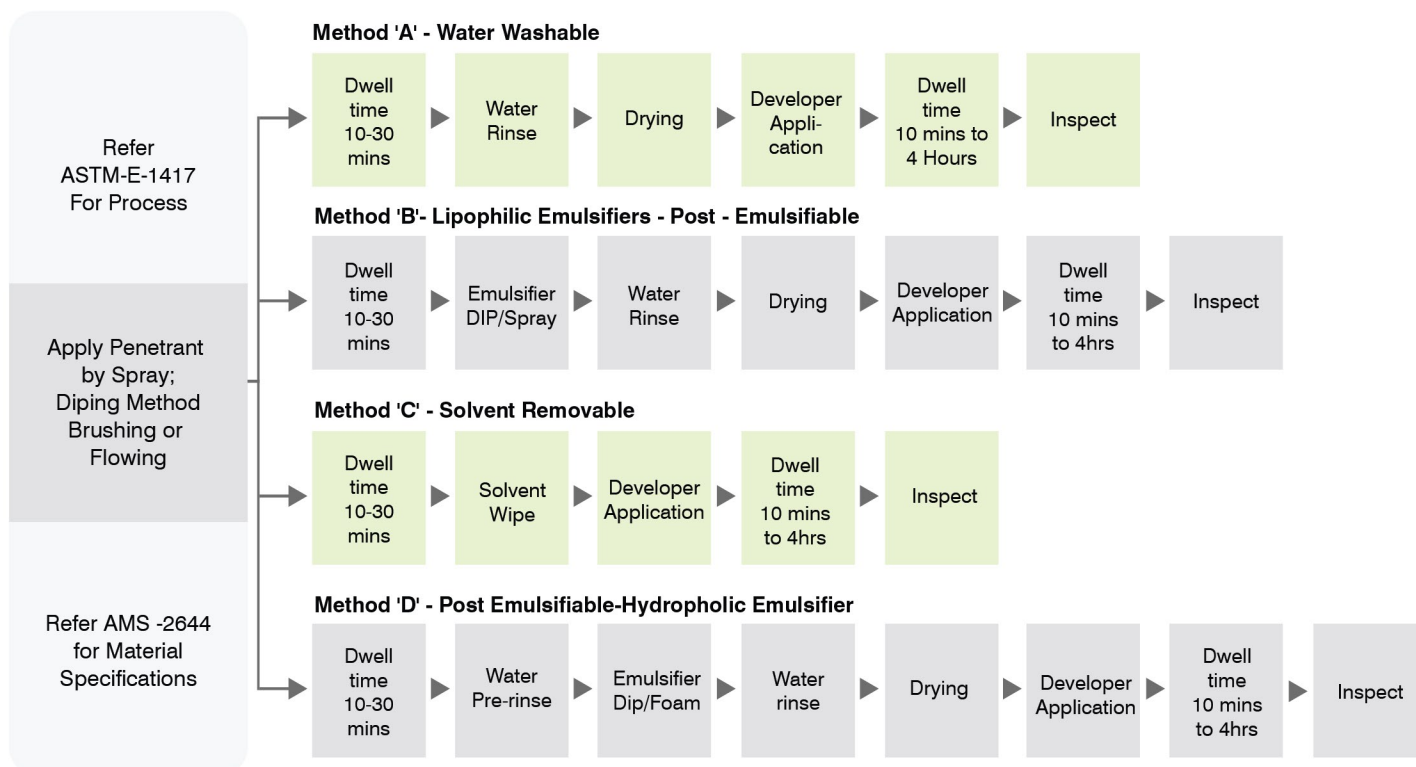
Method D

Hydrophilic

Penetrants	Penetrants	Penetrants	Penetrants
ZChek-FP1 - Sensitivity Level 1 ZChek-FP2 - Sensitivity Level 2 ZChek-FP3 - Sensitivity Level 3 ZChek-FP4 - Sensitivity Level 4	ZChek-FP11 - Sensitivity Level 2 ZChek-FP12 - Sensitivity Level 3 ZChek-FP22 - Sensitivity Level 4	ZChek-FP11 - Sensitivity Level 2 ZChek-FP12 - Sensitivity Level 3 ZChek-FP22 - Sensitivity Level 4	ZChek-FP11 - Sensitivity Level 2 ZChek-FP12 - Sensitivity Level 3 ZChek-FP22 - Sensitivity Level 4
Emulsifiers/Removers	Emulsifiers/Removers	Emulsifiers/Removers	Emulsifiers/Removers
NA	ZChek-EF81	ZChek-CR ZChek-CL	ZChek-EF9
Developers	Developers	Developers	Developers
ZChek-DD9 Form "a" Dry powder developer	ZChek-DD9 Form "a" Dry powder developer	ZChek-DL Non- Aqueous developer	ZChek-DD9 Form "a" Dry powder developer

*QPL listing is in progress for some of the above products.

ZChek - FLUORESCENT PENETRANT PROCESS AS PER ASTM-E1417



- Penetrant Pack Size- 205ltr/55 gallon/ 20 ltr/ 5 gallon.
- Aerosol can -420ml, case of 12
- ZChek -DD9 Pack size - 1kg/2.20 Pound





Dry Method

ZChek - 9D Red

General purpose magnetic powder formulated to form excellent indications of discontinuities at the surface or near surface of the test part.



Wet Method - Non Fluorescent

ZChek - 9E Black

A black coloured magnetic powder concentrate designed for usage in non fluorescent wet method and on light colored part surface.



ZChek - WP White Contrast paint

This is a blend of solvent and fine inorganic pigments. When sprayed, it provides white background for magnetic powders, enhancing visibility of indications.



ZChek - NF Red

A red magnetic powder concentrate designed for usage in non fluorescent wet method preferred for good contrast on gray, black or dark surfaces.

ZChek - 9 Black

Non Fluorescent Powder for Wet method MPI

- High sensitivity
- High contrast

Wet Method - Fluorescent

ZChek - F9

Fluorescent magnetic particles specially designed for forging and auto component application.

- Fluoresces bright green - Brilliant indication
- Low background - Enhances visibility
- Encapsulation technology - No loose pigment

ZChek - F9W

Is the blend of fluorescent powder F9 and wetting agent WA9. F9W is readily usable with water.

The anti corrosion agents in WA9 prevent flash rusting of the components.

ZChek - F18

Is high sensitive fluorescent magnetic particles designed to detect ultra fine defects. F18, thanks to its very low particles size offers high inspection reliability.

- Fluoresces yellow green - Optimum indication
- Very low background - Enhances inspection reliability

ZChek - F18W

Is the blend of fluorescent powder F18 and wetting agent WA9. F18 is readily usable with water.

The anti corrosion agents in WA9 prevent flash rusting of the components.

ZChek - F18B

F18B - Aquamix is a ready bath liquid concentrate of fluorescent powder, wetting agents and corrosion inhibitors - to be used with water.

ZChek - FB

Is a fine blend of fluorescent magnetic powders suspended in ZChek 801 cart oil at proper concentration and packed in the aerosol can



ZChek - F9B

F9B - Aquamix is a ready bath liquid concentrate of fluorescent powder, wetting agents and corrosion inhibitors - to be used with water.

Water Conditioners & Additives

ZChek-WA9

WA9 - General-purpose water-conditioning powder to enhance surface wetting and magnetic particle dispersion stability in water-based magnetic particle suspensions

Carrier Oil/ Cart Oil

ZChek - 801

Cart oil is specially formulated carrier fluid for magnetic particle

- High flash point - Safe
- Low odor - Operator friendly
- No background fluorescence - More inspection reliability

ZChek Magnetic particle inspection materials confirm to specifications of

- ASTM E3024/E3024M	AMS 2641	AMS 3044
- ASTM E-1444	AMS 3040	AMS 3045
- ENISO 9934-2, ASTM E709	AMS 3042	AMS 3046
- ASME Boiler & Pressure Vessel .	AMS 3043	
Section V, Art 7		

Equipment- Magnetic Particle Inspection

ZChem offers the complete range of MPI equipment from Power source, power packs, Bench units and custom designed systems & Multi directional equipment with Unique features providing specific advantages to the users.



ZC Series

Standard & Multidirectional
MPI Bench Equipment
ZC-230
ZC-450
ZC-450MD
ZC-600D



Custom Built MPI

For proposal on
custom built



ZM Series

Mobile MPI Power Source for
Prod & CableWrap Method
4000 Amps to 20,000 Amps



MD Series

3 Phase FWDC
multi-directional MPI
machine.



ZP Series

Portable MPI Power Source for
Prod & CableWrap Method
1,500 Amps to 3,000 Amps



DC Magnetising Coils

DC Magnetising coils **Ranging from
min 6" Diameter to 20" Diameter**
and also custom designed coils as per
specification

Equipment- Fluorescent Penetrant Inspection

ZChem offer standard FPI Systems & custom designed FPI system for aerospace /Aviation applications, medical implants & Automotive/ Engineering applications.



ZC 900B FPI Booth System

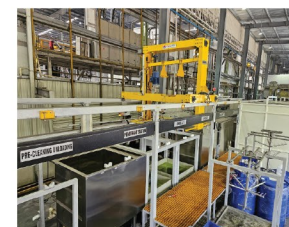
FPI Booth system includes penetrant booth, Hot air drier station, dry developer chamber and monorail system with I beam for movement of fixtures from one station to another.



ZC 900 FPI Dip Tank System

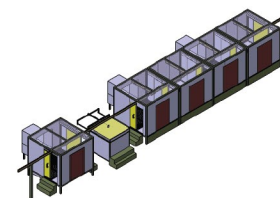
Fluorescent Penetrant Inspection equipment designed to use water washable or post emulsified penetrant to detect surface discontinuities. Very useful in high volume inspection of medium to small sized parts in Aviation, Aerospace, Engineering or medical implants applications.

FPI system can be custom designed to suit the specific requirements with definite tank sizes with job holding fixtures.



ZC 900T FPI Booth System

Automated transporter system will be integrated with pre-clean and FPI line which can automate the preclean line and FPI system enhancing the output from the system and lines are generally custom designed to suit a requirement.



Pre cleaning & Post cleaning system



FPI Dip Tank System



FPI Booth System Electrostatic Spray Type



Custom built FPI system

Accessories

Zchem



**Aluminium
Test Block**



NI-CR Panel



Tampanel



**ASTM Test
Bar for Yoke**



Lifting Block



Puffer Bulb



BHEL Test Block



Pie Gauge



QQI Shims



Spray Gun



**Magnetic Flux
Indicator**



Centrifuge Tube



Probe Gauss Meter



**UV/ White Light
Intensity Meter**



MTU Test Block



AS5282 Ring



**Residual Field
Indicator**



**Mag Cables
120 Sq.MM**

To download Batch certificates and MSDS visit our website www.zchem.in



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Society for
Nondestructive
Testing

**ZChem ATC is now ASNT's
authorised training centre
for level I and level II in
MT and PT**

Doc.No.ZSPL/SOP-01/WI04