

Global Leader in NDT



2015 Catalog

NDT MATERIALS, EQUIPMENT,
AND ACCESSORIES

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PENETRANT TESTING MATERIALS



LPI Fluorescent
Materials



LPI Non-Fluorescent
(Visible) Materials



"We trust in MAGNAFLUX Zyglo® fluorescent and Spotcheck® visible brand penetrant testing materials to deliver the level of quality performance that inspires customers to do business with us."

inspire



Magnaflux® certified fluorescent and visible dye penetrant inspection materials deliver unmatched performance in the detection of small defects and discontinuities in almost any non-porous material.

Delivering Quality

ZYGLO® FLUORESCENT PENETRANTS

POST EMULSIFIABLE FLUORESCENT PENETRANTS

Zyglo® ZL-2C Post Emulsifiable Fluorescent Penetrant

Zyglo® ZL-2C is designed to be impervious to water to protect it from over-washing and to allow more penetrant to remain in discontinuities for improved detection of small defects. It and other post emulsifiable penetrants require the application of a lipophilic or hydrophilic emulsifier to render them washable with water.

Zyglo® ZL-2C fluoresces bright greenish-yellow under an ultraviolet light source with a peak wavelength of 365 nm. It possesses a high flash point and meets OSHA requirements for Class III B liquids allowing it to be used in open dip tanks.

Specification Compliance: AMS-2644, AECL, ASME B & PV Code Sec. V, ASTM E1417, MIL-STD-2132, ASTM E165, MIL-STD-271.

Applications: Zyglo® ZL-2C is typically used on castings, forgings, extrusions and rough machined surfaces to find cracks, seams, laps, laminations and porosity.

Classification: Type 1, Method B Penetrant when using ZE-4E emulsifier. Type 1, Method D Penetrant when using ZR-10B (20%) remover.

Penetrant Sensitivity Level: Level 2 - Normal Sensitivity.

Part Number & Container Size:

01-3123-40 5 Gal. Pail
01-3123-30 20 Gal. Drum
01-3123-45 55 Gal. Drum



PENETRANT TESTING MATERIALS

Magnaflux Zyglo® fluorescent and Spotcheck® visible liquid penetrant testing materials are the industry's most preferred and widely used NDT products employed in the detection of cracks and fine surface discontinuities in ferrous and non-ferrous test materials. Formulated from superior quality dyes and solvents they produce vivid indications in virtually all non-porous materials, and are supported by an expansive line-up of certified penetrants, cleaners, developers, emulsifiers, accessories and equipment.

Zyglo® ZL-27A Post Emulsifiable Fluorescent Penetrant

Zyglo® ZL-27A is designed to be impervious to water to protect it from over-washing and to allow more penetrant to remain in discontinuities for improved detection of small defects. It and other post emulsifiable penetrants require the application of a lipophilic or hydrophilic emulsifier to render them washable with water.

Zyglo® ZL-27A fluoresces bright greenish-yellow under an ultraviolet light source with a peak wavelength of 365 nm. It possesses a high flash point and meets OSHA requirements for Class III B liquids allowing it to be used in open dip tanks.

Specification Compliance: AMS 2644, AECL, ASME B & PV Code Sec. V, ASTM E1417, MIL-STD-2132, ASTM E165, MIL-STD-271, Boeing BAC 5423 PSD 6-46 or 8-4, AECL, Boeing PS 21202.

Applications: Zyglo® ZL-27A is typically used on castings, forgings, extrusions and rough machined surfaces to find cracks, seams, laps, laminations and porosity.

Classification: Type 1, Method B Penetrant when using ZE-4E emulsifier.
Type 1, Method D Penetrant when using ZR-10B (20%) remover.

Penetrant Sensitivity Level: Level 3 - High Sensitivity.

Part Number & Container Size:

01-3187-40 5 Gal. Pail
01-3187-30 20 Gal. Drum
01-3187-45 55 Gal. Drum
01-3187-78 Case of (12) Aerosol Cans



Zyglo® ZL-37 Post Emulsifiable Fluorescent Penetrant

Zyglo® ZL-37 is designed to be impervious to water to protect it from over-washing and to allow more penetrant to remain in discontinuities for improved detection of small defects. It and other post emulsifiable penetrants require the application of a lipophilic or hydrophilic emulsifier to render them washable with water.

Zyglo® ZL-37 fluoresces bright greenish-yellow under an ultraviolet light source with a peak wavelength of 365 nm. It possesses a high flash point and meets OSHA requirements for Class III B liquids allowing it to be used in open dip tanks.

Specification Compliance: AMS 2644, AECL, ASME B & PV Code Sec. V, ASTM E1417, MIL-STD-2132, ASTM E165, MIL-STD-271, Boeing BAC 5423 PSD 6-46 or 8-4, AECL, Boeing PS 21202.

Applications: Zyglo® ZL-37 is ideal for titanium turbine components, investment castings, and other high stress critical components where detection of fine, tight discontinuities is required.

Classification: Type 1, Method B Penetrant when using ZE-4E emulsifier.
Type 1, Method D Penetrant when using ZR-10B (20%) remover.

Penetrant Sensitivity Level: Level 4 - Ultra High Sensitivity.

Part Number & Container Size:

01-3188-40 5 Gal. Pail
01-3188-30 20 Gal. Drum
01-3188-45 55 Gal. Drum
01-3188-78 Case of (12) Aerosol Cans





WATER WASHABLE FLUORESCENT PENETRANTS

Zyglo® ZL-15B Water Washable Fluorescent Penetrant

Zyglo® ZL-15B is a water washable fluorescent penetrant that is safe for use on most engineering and aerospace alloys including aluminum, steel, nickel and titanium.

Zyglo® ZL-15B fluoresces bright greenish-yellow under an ultraviolet light source with a peak wavelength of 365 nm. It possesses a high flash point and meets OSHA requirements for Class III B liquids allowing it to be used in open dip tanks.

Specification Compliance: AMS 2644, AECL, ASME B & PV Code Sec. V, ASTM E1417, MIL-STD-2132, ASTM E165, MIL-STD-271, Boeing BAC 5423 PSD 6-46 or 8-4, AECL, Boeing PS 21202.

Applications: Zyglo® ZL-15B exhibits excellent rough surface washability and is typically used on castings, forgings, extrusions and rough machined surfaces to find cracks, seams, laps, cold shuts, laminations and porosity.

Classification: Type 1, Method A, Water Washable (Non Water Based) Penetrant.

Penetrant Sensitivity Level: Level 1/2 - Very Low Sensitivity.

Part Number & Container Size:

01-3159-40 5 Gal. Pail
01-3159-30 20 Gal. Drum
01-3159-45 55 Gal. Drum



Zyglo® ZL-19 Water Washable Fluorescent Penetrant

Zyglo® ZL-19 is a water washable fluorescent penetrant that is safe for use on most engineering and aerospace alloys including aluminum, steel, nickel and titanium.

Zyglo® ZL-19 fluoresces bright greenish-yellow under an ultraviolet light source with a peak wavelength of 365 nm. It possesses a high flash point and meets OSHA requirements for Class III B liquids allowing it to be used in open dip tanks.

Specification Compliance: AMS 2644, AECL, ASME B & PV Code Sec. V, ASTM E1417, MIL-STD-2132, ASTM E165, MIL-STD-271, Boeing BAC 5423 PSD 6-46 or 8-4, AECL, Boeing PS 21202.

Applications: Zyglo® ZL-19 exhibits excellent rough surface washability and is typically used on castings, forgings, extrusions and rough machined surfaces to find cracks, seams, laps, cold shuts, laminations and porosity.

Classification: Type 1, Method A, Water Washable (Non Water Based) Penetrant.

Penetrant Sensitivity Level: Level 1 - Low Sensitivity.

Part Number & Container Size:

01-3263-40 5 Gal. Pail
01-3263-30 20 Gal. Drum
01-3263-45 55 Gal. Drum



Zyglo® ZL-60D Water Washable Fluorescent Penetrant

Zyglo® ZL-60D is a water washable fluorescent penetrant that is safe for use on most engineering and aerospace alloys including aluminum, steel, nickel and titanium.

Zyglo® ZL-60D fluoresces bright greenish-yellow under an ultraviolet light source with a peak wavelength of 365 nm. It possesses a high flash point and meets OSHA requirements for Class III B liquids allowing it to be used in open dip tanks.

Specification Compliance: AMS 2644, AECL, ASME B & PV Code Sec. V, ASTM E1417, MIL-STD-2132, ASTM E165, MIL-STD-271, Boeing BAC 5423 PSD 6-46 or 8-4, AECL, Boeing PS 21202.

Applications: Zyglo® ZL-60D exhibits excellent rough surface washability and is typically used on castings, forgings, extrusions and rough machined surfaces to find cracks, seams, laps, cold shuts, laminations and porosity.

Classification: Type 1, Method A, Water Washable (Non Water Based) Penetrant.

Penetrant Sensitivity Level: Level 2 - Medium Sensitivity.

Part Number & Container Size:

01-3272-40 5 Gal. Pail
01-3272-30 20 Gal. Drum
01-3272-45 55 Gal. Drum
01-3272-78 Case of (12) Aerosol Cans



Zyglo® ZL-67 Water Washable Fluorescent Penetrant

Zyglo® ZL-67 is a water washable fluorescent penetrant that is safe for use on most engineering and aerospace alloys including aluminum, steel, nickel and titanium.

Zyglo® ZL-67 fluoresces bright greenish-yellow under an ultraviolet light source with a peak wavelength of 365 nm. It possesses a high flash point and meets OSHA requirements for Class III B liquids allowing it to be used in open dip tanks.

Specification Compliance: AMS 2644, AECL, ASME B & PV Code Sec. V, ASTM E1417, MIL-STD-2132, ASTM E165, MIL-STD-271, Boeing BAC 5423 PSD 6-46 or 8-4, AECL, Boeing PS 21202.

Applications: Zyglo® ZL-67 is typically used on critical applications including investment castings, jet engine components, and highly machined surfaces to find cracks, seams and porosity.

Classification: Type 1, Method A, Water Washable (Non Water Based) Penetrant.

Penetrant Sensitivity Level: Level 3 - High Sensitivity.

Part Number & Container Size:

01-3274-40 5 Gal. Pail
01-3274-30 20 Gal. Drum
01-3274-45 55 Gal. Drum





Zyglo® ZL-56 Water Washable Fluorescent Penetrant

Zyglo® ZL-56 is a water washable fluorescent penetrant that is safe for use on most engineering and aerospace alloys including aluminum, steel, nickel and titanium.

Zyglo® ZL-56 fluoresces bright greenish-yellow under an ultraviolet light source with a peak wavelength of 365 nm. It possesses a high flash point and meets OSHA requirements for Class III B liquids allowing it to be used in open dip tanks.

Specification Compliance: AMS 2644, AECL, ASME B & PV Code Sec. V, ASTM E1417, MIL-STD-2132, ASTM E165, MIL-STD-271, Boeing BAC 5423 PSD 6-46 or 8-4, AECL, Boeing PS 21202.

Applications: Zyglo® ZL-56 is typically used on smooth, nonporous, highly machined surfaces to find cracks, seams and scratches on critical parts.

Classification: Type 1, Method A, Water Washable (Non Water Based) Penetrant.

Penetrant Sensitivity Level: Level 4 - Ultra High Sensitivity.

Part Number & Container Size:

01-3267-40 5 Gal. Pail
01-3267-30 20 Gal. Drum
01-3267-45 55 Gal. Drum



WATER BASED FLUORESCENT PENETRANTS

Zyglo® ZL-4C Water Based Penetrant

Zyglo® ZL-4C is a water based penetrant that contains no petroleum based solvents. It fluoresces bright greenish-yellow under an ultraviolet light source with a peak wavelength of 365 nm.

The use of aqueous developers is not recommended with Zyglo® ZL-4C as they tend to wash the penetrant out of discontinuities. Dry powder developer (ZP-4B Dry Powder Developer) is applied after the test surface has been dried.

Specification Compliance: ASME B & PV Code Sec. V, ASTM E165.

Applications: Zyglo® ZL-4C is typically used on plastics and ceramics to find cracks. Zyglo® ZL-4C is also used as a leaker penetrant to detect through leaks. (Use with plastic parts should be tested to confirm Zyglo® ZL-4C compatibility.)

Part Number & Container Size:

01-3137-40 5 Gal. Pail
01-3137-45 55 Gal. Drum



EMULSIFIERS

Zyglo® ZE-4E Lipophilic Emulsifier

Zyglo® ZE-4E is a lipophilic emulsifier. It is non-corrosive and can be used in open tank operations due to its low volatility and high flash point.

Specification Compliance: AMS 2644, MIL-STD-271, ASME B & PV Code Sec. V, ASTM E165, Boeing BAC 5423 PSD 6-46 or 8-4, MIL-STD-2132, ASTM E1417, Boeing PS 21202, AECL.

Applications: Zyglo® ZE-4E is used as a Method B lipophilic emulsifier for Magnaflux post emulsifiable penetrants.

Classification: Method B - Lipophilic Emulsifier.

Part Number & Container Size:

01-3550-40 5 Gal. Pail
01-3550-30 20 Gal. Drum
01-3550-45 55 Gal. Drum



Zyglo® ZR-10B Hydrophilic Emulsifier

Zyglo® ZR-10B is a hydrophilic emulsifier. It offers the advantages of minimization of fluorescent background on rough surfaces, minimization of bleed-out from hollow parts, and reduced consumption of expendable materials.

Specification Compliance: AMS 2644, MIL-STD-271, ASME B & PV Code Sec. V, ASTM E165, Boeing BAC 5423 PSD 6-46 or 8-4, MIL-STD-2132, ASTM E1417, Boeing PS 21202, AECL, Honeywell EMS 52309, AMS 2647, General Electric P3TF2, Pratt & Whitney.

Applications: Zyglo® ZR-10B is used as a Method D hydrophilic emulsifier for Magnaflux® post emulsifiable penetrants.

Classification: Method D - Hydrophilic Emulsifier.

Part Number & Container Size:

01-3620-40 5 Gal. Pail
01-3620-30 20 Gal. Drum
01-3620-45 55 Gal. Drum



DEVELOPERS

Zyglo® ZP-4B Dry Powder Developer

Zyglo® ZP-4B is a free flowing, white fluffy powder used as a highly sensitive dry powder developer for Zyglo® Penetrants. When applied, ZP-4B forms a thin film on parts, enhancing indications of ultrafine discontinuities. Its high purity allows it to be used in applications where purity is essential to the testing process.

Specification Compliance: AMS 2644, MIL-STD-271, ASME B & PV Code Sec. V, ASTM E165, Boeing BAC 5423 PSD 6-46 or 8-4, MIL-STD-2132, ASTM E1417, Boeing PS 21202, AECL, Honeywell EMS 52309, AMS 2647, General Electric P3TF2, Pratt & Whitney.





Zyglo® ZP-4B Dry Powdered Developer Continued.

Applications: Zyglo® ZP-4B is typically used on automobile parts, off-road equipment, farm equipment, welds, castings, forgings, leak testing, pressure vessels, aircraft, marine, construction, maintenance, petroleum pipelines, power plant inspections and general metalwork.

Classification: Form a - Dry Powder Developer.

Part Number & Container Size:

01-3328-69 10 lb. Pail

01-3328-75 20 lb. Container

Zyglo® ZP-5B Water Suspensible Developer

Zyglo® ZP-5B Water Suspensible Developer disperses quickly in water to form an opaque white suspension. At higher concentrations, Zyglo® ZP-5B forms an opaque white coating which provides contrasting background for Spotcheck® penetrant indications.

Specification Compliance: AMS 2644, MIL-STD-271, ASME B & PV Code Sec. V, ASTM E165, Boeing BAC 5423 PSD 6-46 or 8-4, MIL-STD-2132, ASTM E1417, Boeing PS 21202, AECL, AMS 2647, General Electric P3TF2.

Applications: Zyglo® ZP-5B is typically used on automobile parts, off-road equipment, farm equipment, welds, castings, forgings, leak testing, pressure vessels, aircraft, marine, construction, maintenance, petroleum pipelines, power plant inspections and general metalwork.

Classification: Form c - Water Suspensible Developer.

Part Number & Container Size:

01-3341-81 25 lb. Pail



Zyglo® ZP-9F Developer

Zyglo® ZP-9F is a dispersion of organic particles in isopropyl alcohol and acetone that produces an opaque white coating which provides an excellent contrasting background for Spotcheck® or Zyglo® penetrant indications.

Specification Compliance: AMS 2644, MIL-STD-271, ASME B & PV Code Sec. V, ASTM E165, ASTM E1417, Boeing PS 21202, AECL, AMS 2647, NAVSEA 250-1500-1.

Applications: Zyglo® ZP-9F is typically used on automobile parts, off-road equipment, farm equipment, welds, castings, forgings, leak testing, pressure vessels, aircraft, marine, construction, maintenance, petroleum pipelines, power plant inspections and general metalwork.

Classification: Form d - Non-Aqueous Type 1 Fluorescent (solvent based).
Form e - Non-Aqueous Type 2 Visible Dye (solvent based).

Part Number & Container Size:

01-3354-40 5 Gal. Pail

01-3354-78 Case of (12) Aerosol Cans



Zyglo® ZP-14A Aqueous Soluble Developer

Zyglo® ZP-14A is used as a water soluble developer for enhancing indications formed by Zyglo® penetrants. It produces a uniform white coating when dry which is easily removed in post inspection cleaning by water spray. Once the developer bath has been prepared, no in use agitation is required to maintain developer uniformity.

Specification Compliance: AMS 2644, MIL-STD-271, ASME B & PV Code Sec. V, ASTM E165, ASTM E1417, Boeing BAC-5423 PSD 6-46 or 8-4, AMS 2647, General Electric P3TF2, AECL.

Applications: Zyglo® ZP-14A is recommended for use with Zyglo® ZL-2C, ZL-27A, and ZL-37 penetrants.

Classification: Form b - Water Soluble Developer.

Part Number & Container Size:

01-3381-75 20 lb. Pail

01-3381-89 50 lb. Container



Zyglo® ZA-70 Portable Fluorescent Penetrant Inspection Kit

The Zyglo® ZA-70 Portable (aerosol) Fluorescent Inspection Kit offers improved sensitivity over our Spotcheck® visible red dye inspection kit.

Each kit contains:

- ZB-100F Ultraviolet Black Light
- 1 Can ZL-27A PE Fluorescent Penetrant
- 1 Can ZP-9F Developer
- 2 Cans SKC-S Cleaner
- Paint Marker
- SCRUBS® Hand Towels
- Plastic Carrying Case
- Instruction Booklet

Applications: The Zyglo® ZA-70 Portable Fluorescent Inspection Kit is typically used on machined surfaces to find cracks, seams, laps, laminations and porosity.

Part Number:

600047 Kit with 115V ZB-100F UV Black Light





SPOTCHECK® VISIBLE PENETRANTS

SOLVENT REMOVABLE VISIBLE PENETRANT

Spotcheck® SKL-SP2 Solvent Removable Penetrant

Spotcheck® SKL-SP2 is a solvent removable, post emulsifiable, red color contrast penetrant with outstanding penetrating characteristics. It offers maximum reliability in locating surface-open flaws and discontinuities and has been successfully used on non-porous ceramics and other similar materials.

Specification Compliance: AMS 2644, AECL, ASME B & PV Code Sec. V, ASTM E1417, MIL-STD-2132, ASTM E165, MIL-STD-271.

Applications: Spotcheck® SKL-SP2 is typically used on welds, forgings, pressure vessels, castings, general metal work, leak testing, power plants and construction.

Classification: Type 2, Method B, C or D.

Part Number & Container Size:

01-5155-35	1 Gal. (Case of 4)
01-5155-40	5 Gal. Pail
01-5155-45	55 Gal. Drum
01-5155-78	Case of (12) Aerosol Cans



WATER WASHABLE VISIBLE PENETRANT

Spotcheck® SKL-WP2 Water Washable Penetrant

Spotcheck® SKL-WP2 is a water washable, red color contrast penetrant with outstanding penetrating characteristics and discontinuity identification. Water wash removable, it eliminates the need for solvent removers or emulsifiers in the elimination of excess surface penetrant.

Specification Compliance: AMS 2644, ASME B & PV Code Sec. V, ASTM E1417, MIL-STD-2132, ASTM E165, MIL-STD-271, Boeing PS 21202, AECL, NAVSEA 250-1500-1, AECL, Boeing BAC 5423 PSD 6-46 or 8-4.

Applications: Spotcheck® SKL-WP2 is typically used on welds, forgings, pressure vessels, castings and general metal work.

Classification: Type 2, Method A.

Part Number & Container Size:

01-5190-35	1 Gal. (Case of 4)
01-5190-40	5 Gal. Pail
01-5190-45	55 Gal. Drum
01-5190-78	Case of (12) Aerosol Cans



WATER BASED VISIBLE PENETRANT

Spotcheck® SKL-4C Water Based Penetrant

Spotcheck® SKL-4C is a water based, water washable, red dye penetrant used for leak testing and in the inspection of ceramic and chemically sensitive plastic parts. (Use with plastic parts should be tested to confirm Spotcheck® SKL-4C compatibility.)

Spotcheck® SKL-4C indications appear dark purplish-red under visible light and fluorescent orange under UV Black Light to provide dual range inspection flexibility. It can be diluted infinitely with water, but a dilution of 1:1 is generally recommended.

Specification Compliance: ASME B & PV Code Sec. V, ASTM E165.

Applications: Spotcheck® SKL-4C is typically used for leak testing, and ceramic and plastic part inspection.

Part Number & Container Size:

01-5125-40 5 Gal. Pail
01-5125-45 55 Gal. Drum



CLEANER / REMOVER

Spotcheck® SKC-S Cleaner/Remover

Spotcheck® SKC-S is a non-halogenated material used in the liquid penetrant inspection process. It is used on a moist cloth to remove surface penetrant from the inspection area prior to applying developer.

Specification Compliance: AMS 2644, ASME B & PV Code Sec. V, ASTM E1417, MIL-STD-2132, ASTM E165, MIL-STD-271, Boeing PS 21202, NAVSEA 250-1500-1, AECL, Boeing BAC 5423 PSD 6-46 or 8-4.

Applications: Spotcheck® SKC-S is typically used to remove excess surface penetrant from the inspection area prior to applying developer.

Classifications: Class 2.

Part Number & Container Size:

01-5750-35 1 Gal. (Case of 4)
01-5750-40 5 Gal. Pail
01-5750-45 55 Gal. Drum
01-5750-78 Case of (12) Aerosol Cans





DEVELOPER

Spotcheck® SKD-S2 Non-Halogenated Solvent Developer

Spotcheck® SKD-S2 is a non-halogenated solvent developer that meets major requirements for special alloy and nuclear applications. It is a ready to use suspension of white developing particles in a fast drying solvent. It produces an opaque white coating which provides an excellent contrasting background for penetrant indications.

Specification Compliance: AMS 2644, ASME B & PV Code Sec. V, ASTM E1417, MIL-STD-2132, ASTM E165, MIL-STD-271, Boeing PS 21202, NAVSEA 250-1500-1, AECL, Boeing BAC 5423 PSD 6-46 or 8-4.

Applications: Spotcheck® SKD-S2 is used as a developer for the liquid penetrant inspection process.

Classification: Form d - Non-Aqueous Type 1 Fluorescent (solvent based).
Form e - Non-Aqueous Type 2 Visible Dye (solvent based).

Part Number & Container Size:

- 01-5352-35 1 Gal. (Case of 4)
- 01-5352-40 5 Gal. Pail
- 01-5352-45 55 Gal. Drum
- 01-5352-78 Case of (12) Aerosol Cans



VISIBLE PENETRANT INSPECTION KITS

Spotcheck® SK-416 AND SK-816 Penetrant Inspection Kits

Spotcheck® SK-416 and SK-816 penetrant inspection kits contain everything needed to perform visible red dye liquid penetrant inspections. No UV Black Light is required for inspection.

Specification Compliance: AMS 2644, AECL, ASME B & PV Code Sec. V, ASTM E1417, MIL-STD 2132, ASTM E165, MIL-STD 271.

Applications: Spotcheck® SK-416 and SK-816 penetrant inspection kits are used in the inspection of automobile parts, off-road equipment, farm equipment, welds, castings, forgings, leak testing, pressure vessels, aircraft, marine, construction, maintenance, petroleum pipelines, power plants and general metalwork.

Part Number:

01-5970-48 - Spotcheck® SK-416: Each kit contains:

- 1 Can SKL-SP2 Penetrant
- 1 Can SKD-S2 Developer
- 2 Cans SKC-S Remover
- Paint Marker
- SCRUBS® Hand Towels
- Plastic Carrying Case

01-5920-48 - Spotcheck® SK-816: Each kit contains:

- 2 Cans SKL-SP2 Penetrant
- 2 Can SKD-S2 Developer
- 4 Cans SKC-S Remover
- Paint Marker
- SCRUBS® Hand Towels
- Plastic Carrying Case



01-5970-48



01-5920-48

SPECIFICATIONS

ZYGLO® PENETRANTS

	Water Washable					Post Emulsifiable		
SPECIFICATIONS	ZL-15B	ZL-19	ZL-60D	ZL-67	ZL-56	ZL-2C	ZL-27A	ZL-37
NAVSEA T9074-AS-GIB-010/271	X	X	X	X	X	X	X	X
MIL-STD-2132	X	X	X	X	X	X	X	X
AECL	X	X	X	X	X	X	X	X
AMS-2644	X	X	X	X	X	X	X	X
AMS-2647			X	X	X	X	X	X
ASME B & PV Code, Sec. V	X	X	X	X	X	X	X	X
ASTM E165	X	X	X	X	X	X	X	X
ASTM E1417	X	X	X	X	X	X	X	X
Boeing BAC 5423 PSD 6-46 or 8-4	X	X	X	X	X	X	X	X
Honeywell EMS 52309	X	X	X	X	X	X	X	X
General Electric P3TF2			X	X	X	X	X	X
Boeing PS 21202	X	X	X	X	X	X	X	X
Pratt & Whitney FPM		X	X	X		X	X	X

ZYGLO® EMULSIFIERS, REMOVERS and DEVELOPERS

	Emulsifiers & Removers			Developers			
SPECIFICATIONS	ZE-4E	ZR-10B	SKC-S	ZP-4B	ZP-14A	ZP-5B	ZP-9F
NAVSEA T9074-AS-GIB-010/271	X	X	X	X	X	X	X
MIL-STD-2132	X	X	X	X	X	X	X
AECL	X	X	X	X	X	X	X
AMS-2644	X	X	X	X	X	X	X
AMS-2647	X	X	X	X	X	X	X
ASME B & PV Code, Sec. V	X	X	X	X	X	X	X
ASTM E165	X	X	X	X	X	X	X
ASTM E1417	X	X	X	X	X	X	X
Boeing BAC 5423 PSD 6-46 or 8-4	X	X	X	X	X	X	X
Honeywell EMS 52309	X	X	X	X	X	X	X
General Electric P3TF2	X	X	X	X	X	X	X
Boeing PS 21202	X	X	X	X	X	X	X
Pratt & Whitney FPM		X		X			X



SPOTCHECK® PENETRANTS, CLEANERS and DEVELOPERS

	Penetrants			Cleaners	Developers	
SPECIFICATIONS	SKL-SP2	SKL-WP2	SKL-4C	SKC-S	SKD-S2	ZP-5B
NAVSEA T9074-AS-GIB-010/271	X	X		X	X	X
NAVSEA 250-1500-1	X			X	X	
MIL-STD-2132	X	X		X	X	X
AECL	X	X		X	X	X
AMS-2644	X	X		X	X	X
ASME B & PV Code, Sec. V	X	X	X	X	X	X
ASTM E165	X	X	X	X	X	X
ASTM E1417	X	X		X	X	X
Boeing BAC 5423 PSD 6-46 or 8-4	X	X		X	X	X
Boeing PS 21202	X			X	X	X



"MAGNAFLUX® penetrant testing accessories helped to increase the speed and effectiveness of our NDT process and literally paid for themselves in time and labor savings within the first year."

expand



Magnaflux® Penetrant Testing Accessories have been designed to simplify and enhance the penetrant testing process and to make sure that the highest process control standards are maintained throughout the entire NDT test sequence.

Expanding Capabilities

HAND SPRAYERS

Portable Pressure Sprayer

Lightweight pressure sprayer for spot application of penetrants, developers, magnetic particles, and cleaners.

- 1 quart capacity
- Easy disassembly for cleaning
- Maximum pressure of 200 psi

Part Number:

625774 Portable Pressure Sprayer

Specifications Compliance: ASTM E709-08, ASTM E1417, AMS 2647D, BPVC.



625774

Water Spray Gun

For pre and post rinsing of parts using either the water-wash or post-emulsifiable processes.

- Provides optimal coarse spray to help prevent part over-washing

Part Number:

520090 Water Spray Gun

Specifications Compliance: ASTM E1417, AMS 2647D, BPVC.



520090

PENETRANT TESTING ACCESSORIES

Manufacturers and quality experts count on Magnaflux® penetrants to maintain their customer's rigid quality standards and to make sure that their parts, components and processes meet major industry certification requirements. The Accessories Group manufactures and maintains a broad inventory of products and support equipment designed to expand and enhance the penetrant inspection process for NDT professionals. From test panels and rinse sprayers to refractometers, Magnaflux® accessories help keep penetrant process control operations performing at peak productivity and quality levels.

TEST PANELS

NiCr Penetrant Test Panels

Magnaflux® NiCr test panels are ideal penetrant sensitivity comparators. They come in pairs, with panel set crack depths available in 10, 20, 30 and 50 microns. NiCr test panels allow "in use" Zyglo® penetrants to be compared against "new, unused" product to determine if the penetrant is performing properly.

Dimensions: Length 100mm + 2mm X Width 35mm + 2mm X Thickness 2mm + 0.2mm

Part Number:

506252 1 pair of 20 micron panels 506254 1 pair of 50 micron panels

Specifications Compliance: ASTM E1417, AMS 2647D.



506252

ASTM E1417-13 REQUIRED TESTS and FREQUENCY

TESTS	FREQUENCY	PARAGRAPH
Penetrant Contamination ¹	Daily	7.8.2.1
Penetrant Brightness	Quarterly	7.8.2.2
Water Content: Water Based Penetrant (Method A)	Weekly	7.8.2.3
Water Content: Non-Water Based Penetrant (Method A)	Monthly	7.8.2.4
Lipophilic Emulsifier Water Content ²	Monthly	7.8.2.5
Hydrophilic Emulsifier Concentration ²	Weekly	7.8.2.6
Dry Developer Condition ²	Daily	7.8.2.7
Aqueous Developer Contamination: Soluble and Suspendible	Daily	7.8.2.8
Aqueous Developer Concentration: Soluble and Suspendible	Weekly	7.8.2.9
Penetrant System Performance ³	Daily	7.8.3
Water-Washable Penetrant Removability	As Required Per 7.8.3	7.8.3.2
Emulsifier Removability	As Required Per 7.8.3	7.8.3.3
Comparative Penetrant Sensitivity	As Required Per 7.8.3	7.8.3.4
Black Light Intensity ²	Daily	7.8.4.1
Black Light Integrity	Weekly	7.8.4.1
Special UV Lighting	Daily	7.8.4.2
Battery Powered UV-A Lights	Prior to and After Use	7.8.4.2.1
Visible Light Intensity	Weekly	7.8.4.3
Light Meter Calibration ²	Semi-Annually	7.8.4.4
Inspection Area Cleanliness ¹	Daily	7.8.4.5
Inspection Area Ambient Light Intensity	Quarterly	7.8.4.5
Water Wash Pressure Check ¹	Start of Each Shift	7.8.4.6
Water Pressure Gauge Calibration ²	Semi-Annually	7.8.4.6
Water Wash Temperature Check ¹	Start of Each Shift	7.8.4.6
Water Temperature Gauge Calibration ²	Semi-Annually	7.8.4.6
Drying Oven Calibration ²	Quarterly	7.8.4.7
Air Pressure Gauge Check	Start of Each Shift	7.8.4.9
Air Pressure Gauge Calibration	Semi-Annually	7.8.4.9

¹ Need not be recorded.

² The maximum time between verifications or checks may be extended when substantiated by technical data and approved by the Cognizant Engineering Organization.

³ Not required for Method C Examinations.

PENETRANT INSPECTION EQUIPMENT



LPI Equipment

"MAGNAFLUX® penetrant testing equipment has significantly advanced the productivity of our NDT operations. We couldn't be more satisfied."

improve



Magnaflux® Penetrant Inspection Equipment is designed to enhance the quality inspection of critical parts and is widely used within the automotive, aerospace and energy markets to increase NDT productivity.

Boosting Productivity

LIQUID PENETRANT INSPECTION EQUIPMENT

Magnaflux Liquid Penetrant Inspection (LPI) Systems are designed for testing everything from small, high volume automotive parts and tolerance critical surgical implants, to large turbine blades. Offered in a variety of configurations and supported with materials and accessories to meet the most demanding applications, they are among the most flexible and accurate NDT equipment available today.

Our ZA-1227 Series LPI system offers sequenced processing capabilities and versatility in the inspection of high volume, extremely small parts and low to moderate volume, small to mid-size parts. With all stations welded into a single uni-frame body, its compact design helps to minimize floor space for easy production line integration. The ZA-1633 Series system comes with a larger penetrant tank to accommodate a greater volume and variety of parts, drain racks for increased productivity, and a standalone inspection booth.

Both series offer three models designed to accommodate different inspection methods; Water Wash, Post Emulsified Lipophilic and Post Emulsified Hydrophilic. The Water Wash method is the simplest unit as water can be used directly to wash excess penetrant from parts without additional steps. The Lipophilic method can locate extremely shallow flaws but requires an extra processing step, applying an emulsifier to make the penetrant washable. The Hydrophilic method delivers the highest inspection sensitivity but also requires the application of an emulsifier, and an additional processing station for pre-rinsing parts.

Should you have a special need not met by any of our standard units detailed in the following pages, our engineering group will happily design a custom LPI system to meet your exact requirements and application. Simply contact a Magnaflux Customer Service Representative at (847) 657-5300 to discuss your system needs.

PENETRANT INSPECTION EQUIPMENT

Magnaflux® Liquid Penetrant Inspection (LPI) Systems are engineered for critical part testing in industries with high inspection tolerances that require easy-to-operate equipment built tough enough to stand up to years of use. Offering outstanding design flexibility and proven performance advantages over less technologically advanced systems, Magnaflux® LPI equipment remains the leading choice among global automotive, aerospace and energy parts manufacturers who trust in their outstanding repeatability to uphold their rigid quality standards.

ZA-1227 SERIES LIQUID PENETRANT INSPECTION EQUIPMENT



ZA-1227 Water Wash System shown with optional lid for penetrant tank and developer upgrade kit.

Zyglo® ZA-1227 Method A, Water Wash Fluorescent Penetrant Inspection System

The Zyglo® ZA-1227 Water Wash Penetrant Inspection System is a compact, standalone 5-station system designed for batch and low volume fluorescent inspection of small to medium size parts.

Dimensions: 56"L x 28"W x 36"H (142.2cm x 71.1cm x 91.4cm)

Core Features:

- Compact size
- 304 stainless steel tanks (16 gauge)
- Durable welded steel frame
- Adaptable to multiple applications
- 3 year warranty
- Global authorized service centers

General Specifications:

- Elec. Requirements - 115V, 60Hz, single phase
- Tank Size - 12.9"L x 27.65"W x 16"D (32.8cm x 70.1cm x 40.6cm)
- Tank Capacity - 10 gallons (37.9L)
- Dryer - Thermostatically controlled
- Black Light - EV6000 hand held LED black light
- Stations:
 - 1) Penetrant
 - 2) Rinse
 - 3) Dryer
 - 4) Developer
 - 5) Inspection



ZA-1227 Lipophilic System shown.

Zyglo® ZA-1227 Method B, Post Emulsified Lipophilic Fluorescent Penetrant Inspection System

The Zyglo® ZA-1227 Post Emulsified Lipophilic Penetrant Inspection System is a compact, standalone 6-station system designed for batch and low volume fluorescent inspection of small to medium size parts.

Dimensions: 70"L x 28"W x 36"H (177.8cm x 71.1cm x 91.4cm)

Core Features:

- Compact size
- 304 stainless steel tanks (16 gauge)
- Durable welded steel frame
- Adaptable to multiple applications
- 3 year warranty
- Global authorized service centers

General Specifications:

- Elec. Requirements - 115V, 60Hz, single phase
- Tank Size - 12.9"L x 27.6"W x 16"D (32.8cm x 70.1cm x 40.6cm)
- Tank Capacity - 10 gallons (37.9L)
- Dryer - Thermostatically controlled
- Black Light -EV6000 hand held LED black light
- Stations:
 - 1) Penetrant
 - 2) Emulsifier
 - 3) Rinse
 - 4) Dryer
 - 5) Developer
 - 6) Inspection



ZA-1227 Hydrophilic System shown with optional lid for penetrant tank and developer upgrade kit.

Zyglo® ZA-1227 Method D, Post Emulsified Hydrophilic Fluorescent Penetrant Inspection System

The Zyglo® ZA-1227 Post Emulsified Hydrophilic Penetrant Inspection System is a compact, standalone 7-station system designed for batch and low volume fluorescent inspection of small to medium size parts.

Dimensions: 83"L x 28"W x 36"H (210.8cm x 71.1cm x 91.4cm)

Core Features:

- Compact size
- 304 stainless steel tanks (16 gauge)
- Durable welded steel frame
- Adaptable to multiple applications
- 3 year warranty
- Global authorized service centers

General Specifications:

- Elec. Requirements - 115V, 60Hz, single phase
- Tank Size - 12.9"L x 27.6"W x 16"D (32.8cm x 70.1cm x 40.6cm)
- Tank Capacity - 10 gallons (37.9L)
- Dryer - Thermostatically controlled
- Black Light - EV6000 hand held LED black light
- Stations:
 - 1) Penetrant
 - 2) Pre-Rinse
 - 3) Remover
 - 4) Final Rinse
 - 5) Dryer
 - 6) Developer
 - 7) Inspection



ZA-1663 Water Wash System shown with stand alone inspection booth.

Zyglo® ZA-1633 Method A, Water Wash Fluorescent Penetrant Inspection System

The Zyglo® ZA-1633 Water Wash Penetrant Inspection System is a standalone 6-station system designed for batch and low volume fluorescent inspection of small to medium size parts. The system comes with a standalone inspection booth with black light, white light, ventilating fan, and digitally calibrated dryer control.

Dimensions: 132"L x 34"W x 36"H (335.3 cm X 86.4 cm X 91.4 cm)

Core Features:

- Stand alone inspection booth
- 304 stainless steel tanks (16 gauge)
- Adaptable to multiple applications
- Durable welded steel frame
- 3 year warranty

- Global authorized service centers

General Specifications:

- Elec. Requirements - 230V or 460V, 60Hz, single phase
- Tank Size - 15.8"L x 33"W x 14.8"D (40.1 cm x 83.8 cm x 37.6 cm)
- Tank Capacity - 27 gallons (102.2L)
- Dryer - Digitally calibrated temperature control
- Black Light - EV6000 hand held LED black light
- Stations:
 - 1) Penetrant
 - 2) Drain
 - 3) Rinse
 - 4) Dryer
 - 5) Developer



ZA-1663 Hydrophilic System shown with optional lid for penetrant tank and developer upgrade kit. Stand alone inspection booth not shown.

Zyglo® ZA-1633 Method B, Post Emulsified Lipophilic Fluorescent Penetrant Inspection System

The Zyglo® ZA-1633 Post Emulsified Lipophilic Penetrant Inspection System is a standalone 8-station system designed for batch and low volume fluorescent inspection of small to medium size parts. The system comes with a standalone inspection booth with black light, white light, ventilating fan, and digitally calibrated dryer control.

Dimensions: 165"L x 34"W x 36"H (419.1 cm X 86.4 cm X 91.4 cm)

Core Features:

- Stand alone inspection booth
- 304 stainless steel tanks (16 gauge)
- Adaptable to multiple applications
- Durable welded steel frame
- 3 year warranty
- Global authorized service centers

General Specifications:

- Elec. Requirements - 230V, 60Hz, single phase
- Tank Size - 15.8"L x 33"W x 14.8"D (40.1 cm x 83.8 cm x 37.6 cm)
- Tank Capacity - 27 gallons (102.2L)
- Dryer - Digitally calibrated temperature control
- Black Light - EV6000 hand held LED black light
- Stations:
 - 1) Penetrant
 - 2) Drain #1
 - 3) Emulsifier
 - 4) Rinse
 - 5) Drain #2
 - 6) Dryer
 - 7) Developer
 - 8) Inspection



ZA-1663 Hydrophilic System shown with optional lid for penetrant tank and developer upgrade kit. Stand alone inspection booth not shown.

Zyglo® ZA-1633 Method D, Post Emulsified Hydrophilic Fluorescent Penetrant Inspection System

The Zyglo® ZA-1633 Post Emulsified Hydrophilic Penetrant Inspection System is a standalone 9-station system designed for batch and low volume fluorescent inspection of small to medium size parts. The system comes with a standalone inspection booth with black light, white light, ventilating fan, and digitally calibrated dryer control.

Dimensions: 182"L x 34"W x 36"H (462.3 cm X 86.4 cm X 91.4 cm)

Core Features:

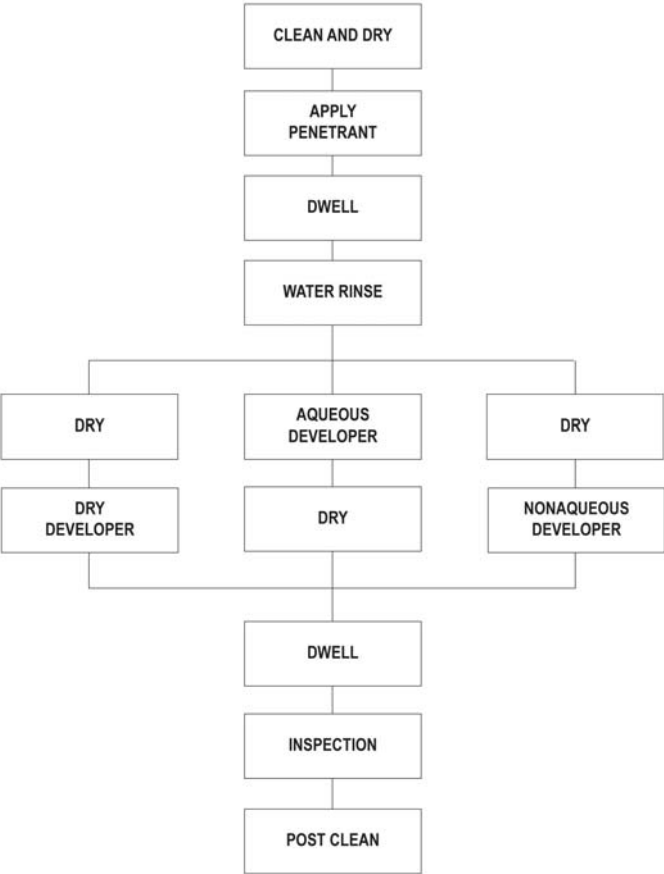
- Stand alone inspection booth
- 304 stainless steel tanks (16 gauge)
- Adaptable to multiple applications
- Durable welded steel frame
- 3 year warranty
- Global authorized service centers

General Specifications:

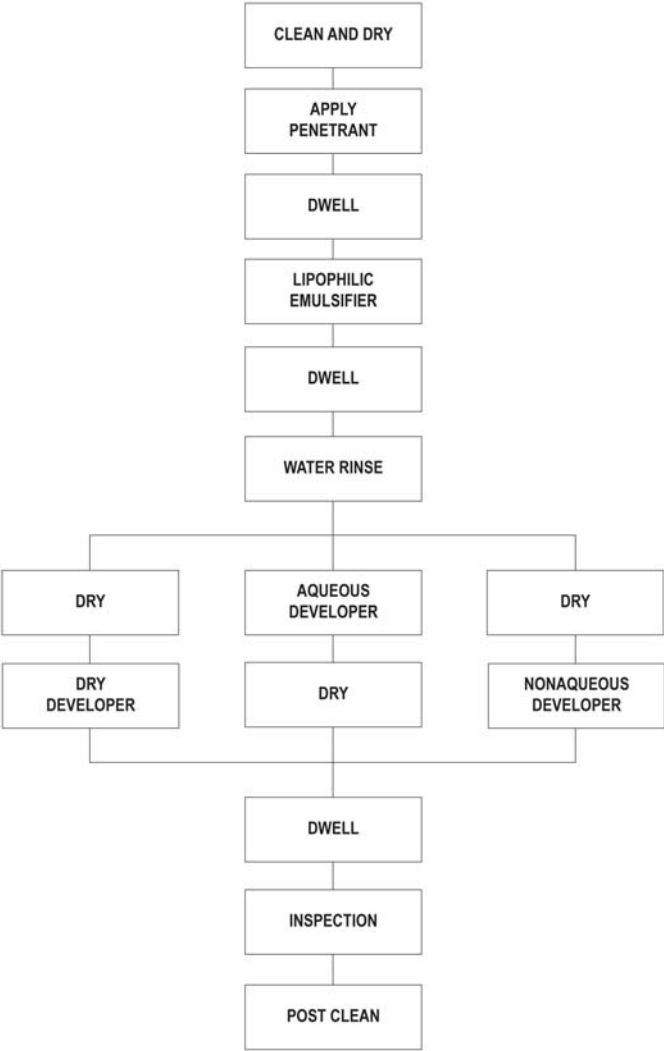
- Elec. Requirements - 230V or 460V, 60Hz, single phase
- Tank Size - 15.8"L x 33"W x 14.8"H (40.1 cm x 83.8 cm x 37.6 cm)
- Tank Capacity - 27 gallons (102.2L)
- Dryer - Digitally calibrated temperature control
- Black Light - EV6000 hand held LED black light
- Stations:
 - 1) Penetrant
 - 2) Drain #1
 - 3) Pre-Rinse
 - 4) Drain #2
 - 5) Remover
 - 6) Final Rinse
 - 7) Dryer
 - 8) Developer
 - 9) Inspection

PROCESS FLOW FOR PENETRANT INSPECTION METHODS

METHOD A, WATER-WASHABLE



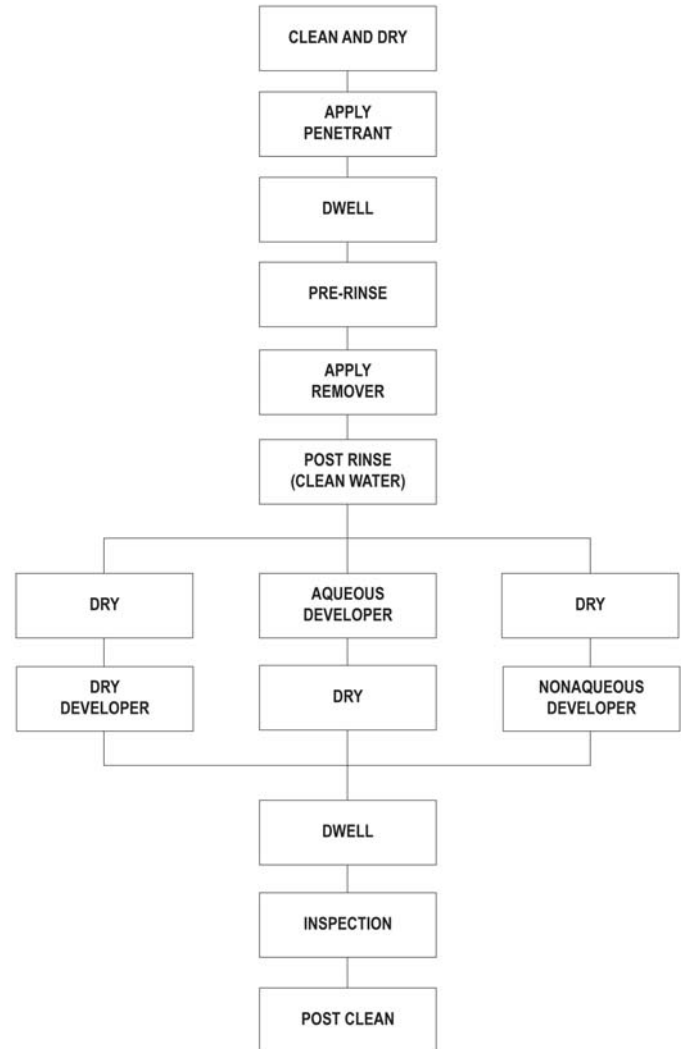
METHOD B, LIPOPHILIC



METHOD C, SOLVENT REMOVABLE



METHOD D, HYDROPHILIC





"MAGNAFLUX Daraclean® brand cleaners and corrosion inhibiting additives are multi-metal safe and packed with soil rejecting properties that promote self-cleaning and prolong bath life."

effective



Magnaflux Daraclean® brand aerospace approved cleaners and corrosion inhibiting additives have been formulated to deliver superior performance effectiveness across a broad range of soils and surfaces.

Superior Formulations

NEUTRAL CLEANERS

Daraclean® 212 Aerospace Cleaner

Daraclean® 212 Aerospace Cleaner is an aerospace approved foaming, all-purpose neutral cleaning solution. Formulated with a blend of surfactants, emulsifiers, and corrosion inhibitors, it is an excellent cleaner for use on a broad spectrum of soils.

Applications: Designed for ultrasonic applications, Daraclean® 212 is safe for use with most metals and is non-aggressive towards aluminum and titanium alloys. It possesses excellent soil-rejecting qualities, suspending soils in the cleaner for a short period of time after lifting from a part's surface. Over time, solids will settle out, and oil and grease droplets will coalesce and float on the surface of the solution. Removal of soils can easily be accomplished using filters or skimmers as necessary. This action extends the useful life of Daraclean® 212 far beyond that of emulsion-type cleaning solutions.

Specification Compliance: Daraclean® 212 has been tested and certified to meet and exceed most Aerospace industry specifications for aqueous and alkaline cleaners. OEM certifications include Boeing and Douglas. Independent laboratory tests confirm that Daraclean® 212 complies with AMS 1526 (except dichromated magnesium), ARP 1755, and ASTM F-331, F-483, F-484, F-485, F-502, F-519, F-945, F-1110, and F-1111.

Part Number & Container Size:

01-6030-40 5 Gal. Pail

01-6030-45 55 Gal. Drum



AQUEOUS CLEANERS & ADDITIVES

Daraclean® aerospace cleaners make up one of the industry's broadest and most trusted lines of aqueous cleaners with formulas designed to meet or exceed almost every specification and need. Multi-metal safe and packed with soil-rejection technologies that promote self-cleaning and extend bath life, Daraclean® cleaners can improve the effectiveness of your NDT application process and help keep labor and material costs in check.

Daraclean® 235 Aerospace Cleaner

Daraclean® 235 Aerospace Cleaner is an aerospace approved low foaming, all-purpose neutral cleaning solution. Formulated with a blend of surfactants, emulsifiers and corrosion inhibitors, it is an excellent cleaner for use on a broad spectrum of soils.

Applications: Designed for immersion, ultrasonic and light spray applications, Daraclean® 235 is safe for use with most metals and is non-aggressive towards aluminum, brass, copper, titanium and zinc alloys. It possesses excellent soil-rejecting qualities, suspending soils in the cleaner for a short period of time after lifting from a part's surface. Over time, solids will settle out, and oil and grease droplets will coalesce and float on the surface of the solution. Removal of soils can easily be accomplished using filters or skimmers as necessary. This action extends the useful life of Daraclean® 235 far beyond that of emulsion-type cleaning solutions.

Specification Compliance: Daraclean® 235 has been tested and certified to meet and exceed Aerospace industry specifications for aqueous and alkaline cleaners. OEM certifications include Boeing and Douglas. Independent laboratory tests confirm that Daraclean® 235 complies with AMS 1526 (except dichromated magnesium), ARP 1755, and ASTM F-331, F-483, F-484, F-485, F-502, F-519, F-945, F-1110, and F-1111.

Part Number & Container Size:

01-6050-40 5 Gal. Pail

01-6050-45 55 Gal. Drum



Daraclean® 236 Aerospace Cleaner

Daraclean® 236 Aerospace Cleaner is an aerospace approved low foaming, all-purpose neutral cleaning solution. Formulated with a blend of surfactants, emulsifiers, and corrosion inhibitors, it is an excellent cleaner for use on a broad spectrum of soils.

Applications: Designed for immersion, ultrasonic and spray applications, Daraclean® 236 is safe for use with most metals and is non-aggressive towards aluminum, brass and copper alloys. It possesses excellent soil-rejecting qualities, suspending soils in the cleaner for a short period of time after lifting from a part's surface. Over time, solids will settle out, and oil and grease droplets will coalesce and float on the surface of the solution. Removal of soils can easily be accomplished using filters or skimmers as necessary. This action extends the useful life of Daraclean® 236 far beyond that of emulsion-type cleaning solutions.

Specification Compliance: Daraclean® 236 has been tested and certified to meet and exceed Aerospace industry specifications for aqueous and alkaline cleaners. OEM certifications include Boeing and Douglas. Independent laboratory tests confirm that Daraclean® 236 complies with AMS 1526 (except dichromated magnesium), ARP 1755, and ASTM F-331, F-483, F-484, F-485, F-502, F-519, F-945, F-1110, and F-1111.

Part Number & Container Size:

01-6040-45 55 Gal. Drum





ALKALINE CLEANERS

Daraclean® 232 Aerospace Cleaner

Daraclean® 232 Aerospace Cleaner is an aerospace approved moderately foaming, all-purpose alkaline cleaning solution. Formulated with a blend of surfactants and corrosion inhibitors, it is an excellent cleaner for use on a broad spectrum of soils.

Applications: Designed for immersion, ultrasonic and light spray applications, Daraclean® 232 is safe for use with most metals and is non-aggressive towards aluminum, magnesium and titanium alloys. It possesses excellent soil-rejecting qualities, suspending soils in the cleaner for a short period of time after lifting from a part's surface. Over time, solids will settle out, and oil and grease droplets will coalesce and float on the surface of the solution. Removal of soils can easily be accomplished using filters or skimmers as necessary. This action extends the useful life of Daraclean® 232 far beyond that of emulsion-type cleaning solutions.

Specification Compliance: Daraclean® 232 has been tested and certified to meet and exceed Aerospace industry specifications for aqueous and alkaline cleaners. OEM certification includes Pratt & Whitney requirements. Independent laboratory tests confirmed that Daraclean® 232 complies with ARP 1755 and ASTM F-945.

Part Number & Container Size:

01-6070-45 55 Gal. Drum



Daraclean® 257 Aerospace Cleaner

Daraclean® 257 Aerospace Cleaner is an aerospace approved low foaming, heavy duty alkaline cleaning solution. Formulated with a blend of surfactants, corrosion inhibitors and phosphates, it is an excellent cleaner for use on a broad spectrum of tough soils.

Applications: Designed for immersion, ultrasonic and spray applications, Daraclean® 257 is safe for use with hard metals and is non-aggressive towards aluminum, magnesium and titanium alloys. It possesses excellent soil-rejecting qualities, suspending soils in the cleaner for a short period of time after lifting from a part's surface. Over time, solids will settle out, and oil and grease droplets will coalesce and float on the surface of the solution. Removal of soils can easily be accomplished using filters or skimmers as necessary. This action extends the useful life of Daraclean® 257 far beyond that of emulsion-type cleaning solutions.

Specification Compliance: Daraclean® 257 has been tested and certified to meet and exceed most Aerospace industry specifications for aqueous and alkaline cleaners. OEM certifications include Boeing, Douglas, GE, Canadair, and Pratt & Whitney. Independent laboratory tests confirm that Daraclean® 257 complies with AMS 1526, ARP 1755, and ASTM F-483, F-484, F-485, F-502, F-519, F-945, F-1110, and F-1111. Daraclean® 257 is also SCAQMD Clean Air Certified.

Part Number & Container Size:

01-6090-45 55 Gal. Drum



Daraclean® 282 Aerospace Cleaner

Daraclean® 282 is an aerospace approved low foaming, all-purpose alkaline cleaning solution. Formulated with a blend of surfactants, emulsifiers and corrosion inhibitors, it is an excellent cleaner for use on a broad spectrum of soils.

Applications: Designed for immersion, ultrasonic and spray applications, Daraclean® 282 is safe for use with hard metals and is non-aggressive towards aluminum, magnesium and titanium alloys. It possesses excellent soil-rejecting qualities, suspending soils in the cleaner for a short period of time after lifting from a part's surface. Over time, solids will settle out, and oil and grease droplets will coalesce and float on the surface of the solution. Removal of soils can easily be accomplished using filters or skimmers as necessary. This action extends the useful life of Daraclean® 282 far beyond that of emulsion-type cleaning solutions.

Specification Compliance: Daraclean® 282 has been tested and certified to meet and exceed most Aerospace industry specifications for aqueous and alkaline cleaners. OEM certifications include Boeing, Douglas, GE, Honeywell, Lockheed, Pratt & Whitney, Raytheon, Rolls Royce and Sunstrand. Independent laboratory tests confirm that Daraclean® 282 complies with AMS 1526, AMS 1537, ARP 1755, and ASTM F-483, F-484, F-485, F-502, F-519, F-945, F-1110, and F-1111.

Part Number & Container Size:

01-6000-40 5 Gal. Pail

01-6000-45 55 Gal. Drum



Daraclean® 282GF Aerospace Cleaner

Daraclean® 282GF (Glycol-Free) is an aerospace approved low foaming, all-purpose alkaline cleaning solution. Formulated with a blend of surfactants and corrosion inhibitors, it is an excellent cleaner for use on a broad spectrum of soils.

Applications: Designed for immersion, ultrasonic and spray applications, Daraclean® 282GF is safe for use with most metals and is non-aggressive towards aluminum, magnesium and titanium alloys. It possesses excellent soil-rejecting qualities, suspending soils in the cleaner for a short period of time after lifting from a part's surface. Over time, solids will settle out, and oil and grease droplets will coalesce and float on the surface of the solution. Removal of soils can easily be accomplished using filters or skimmers as necessary. This action extends the useful life of Daraclean® 282GF far beyond that of emulsion-type cleaning solutions.

Specification Compliance: Daraclean® 282GF has been tested and certified to meet and exceed most Aerospace industry specifications for aqueous and alkaline cleaners. OEM certifications include Boeing, Douglas, GE, Pratt & Whitney, and Rolls Royce. Independent laboratory tests confirm that Daraclean® 282GF complies with AMS 1526, ARP 1755, and ASTM F-483, F-484, F-485, F-502, F-519, F-945, F-1110 and F-1111. Daraclean® 282GF is SCAQMD Clean Air Certified and is approved to MIL-C-29602.

Part Number & Container Size:

01-6010-40 5 Gal. Pail

01-6010-45 55 Gal. Drum





HEAVY DUTY CLEANERS

Daraclean® 200 Industrial Cleaner

Daraclean® 200 is a low foaming, all-purpose alkaline cleaning solution. Formulated with a blend of surfactants, emulsifiers, and corrosion inhibitors, it is an excellent cleaner for use on a broad spectrum of soils.

Applications: Designed for immersion, ultrasonic and spray applications, Daraclean® 200 is safe for use with most metals and is non-aggressive towards brass, copper, and titanium alloys. It has been proven effective at removing machine oils, lube oils, cutting fluids, buffing compounds, and even tough, carbonized soils. Using aggressive alkaline chemistry, heavy petroleum-based oils and carbonized soils are broken down and pulled free from part surfaces.

Specification Compliance: Daraclean® 200 is easy to use and maintain and is Clean Air Certified to SCAQMD requirements.

Part Number & Container Size:

01-6020-40 5 Gal. Pail

01-6020-45 55 Gal. Drum



Daraclean® 238 Aerospace Cleaner

Daraclean® 238 is an aerospace approved foaming, heavy duty alkaline cleaning solution. Formulated with a blend of surfactants, corrosion inhibitors, and phosphates, it is an excellent cleaner for use on a broad spectrum of tough soils.

Applications: Designed for immersion and ultrasonic applications, Daraclean® 238 is safe for use with hard metals and is non-aggressive towards aluminum, magnesium, and titanium alloys. It possesses excellent soil-rejecting qualities, suspending soils in the cleaner for a short period of time after lifting from a part's surface. Over time, solids will settle out, and oil and grease droplets will coalesce and float on the surface of the solution. Removal of soils can easily be accomplished using filters or skimmers as necessary. This action extends the useful life of Daraclean® 238 far beyond that of emulsion-type cleaning solutions.

Specification Compliance: Daraclean® 238 has been tested and certified to meet and exceed Aerospace industry specifications for aqueous and alkaline cleaners. OEM certifications include Boeing, Douglas, Lockheed, and Pratt & Whitney. Independent laboratory tests confirm that Daraclean® 238 complies with AMS 1526, ARP 1755, and ASTM F-483, F-484, F-485, F-502, F-519, F-945, F-1110, and F-1111. Daraclean® 238 is also SCAQMD Clean Air Certified.

Part Number & Container Size:

01-6080-45 55 Gal. Drum



Daraclean® 259 Optic Cleaner

Daraclean® 259 Optic Cleaner is a low foaming, all-purpose alkaline cleaning solution formulated with a blend of surfactants, corrosion inhibitors, and phosphates. It is an excellent cleaner for use on a broad spectrum of soils and is safe to use with glass, ceramics, plastics, and metal.

Applications: Designed for immersion, spray, and ultrasonic applications, Daraclean® 259 has been proven effective at removing machine oils, lube oils, cutting fluids, buffing compounds, and even tough, carbonized soils. Using aggressive alkaline chemistry, heavy petroleum- based oils and carbonized soils are broken down and pulled free from part surfaces.

Part Number & Container Size:

01-6160-45 55 Gal. Drum



Daraclean® 283 Aerospace Cleaner

Daraclean® 283 is an aerospace approved low foaming, heavy duty alkaline cleaning solution. Formulated with a blend of surfactants, emulsifiers and corrosion inhibitors, it is an excellent cleaner for use on a broad spectrum of soils.

Applications: Designed for immersion, ultrasonic and spray applications, Daraclean® 283 is safe for use with most metals and is non-aggressive towards titanium alloys. It possesses excellent soil-rejecting qualities, suspending soils in the cleaner for a short period of time after lifting from a part's surface. Over time, solids will settle out, and oil and grease droplets will coalesce and float on the surface of the solution. Removal of soils can easily be accomplished using filters or skimmers as necessary. This action extends the useful life of Daraclean® 283 far beyond that of emulsion-type cleaning solutions.

Specification Compliance: Daraclean® 283 has been tested and certified to meet and exceed Aerospace industry specifications for aqueous and alkaline cleaners. OEM Certifications include Boeing, Canadair, and Pratt & Whitney. Independent laboratory tests confirm that Daraclean® 283 complies with AMS 1526†, ARP 1755, and ASTM F-483, F-484, F-485†, F-502, F-519, F-945, F-1110†, and F-1111.

†Except dichromated magnesium, anodized aluminum, and zinc.

Part Number & Container Size:

01-6060-40 5 Gal. Pail

01-6060-45 55 Gal. Drum





MAGNAVU® CLEANERS

MagnaVu® Dip & Spray Cleaners

MagnaVu® formula cleaners are comprised of alkaline builders, surfactants, a corrosion inhibitor, pH adjuster and coupler, and come in both dip and spray formulas to meet all application needs. MagnaVu® cleaners have been tested in pre-cleaning and post-cleaning phases of NDT and determined to have no effect on processing if the part is thoroughly rinsed after cleaning.

Part Number & Container Size:

- 01-5731-40 MagnaVu® Dip Cleaner - 5 Gal. Pail
- 01-5731-45 MagnaVu® Dip Cleaner - 55 Gal. Drum
- 01-5733-45 MagnaVu® Spray Cleaner - 55 Gal. Drum



ADDITIVES

Daraclean® 615 Inhibitor

Daraclean® 615 is a non-foaming additive that prevents rust and corrosion. Formulated with a blend of inhibitors and emulsifiers, it is hard water tolerant, free-rinsing, and will not leave mineral films on part surfaces. Daraclean® 615 provides excellent broad-spectrum corrosion resistance to critical part surfaces, without depositing any mineral scale or insoluble films. It forms a monomolecular layer over clean metal surfaces, providing a barrier between the metal and environmental oxidizers and humidity. The monomolecular film rinses away cleanly with solvent, coating prep, or aqueous cleaning.

Applications: Daraclean® 615 is designed to be used with immersion and spray rinses and is safe for use with most metals, and non-aggressive towards aluminum, brass, copper, and titanium alloys.

Part Number & Container Size:

- 01-6120-40 5 Gal. Pail
- 01-6120-45 55 Gal. Drum

SPECIFICATIONS

DARACLEAN® and MAGNAVU® CLEANERS

Daraclean® and MagnaVu® Cleaners													
SPECIFICATIONS	200	212	232	235	236	238	257	259	282	282GF	283	MVD	MVS
AMS 1526 - Aircraft Exterior Surfaces		X ¹		X ¹	X ¹	X	X		X	X	X ²	X	
AMS 1537 - Alkaline Hot Tank Cleaner									X				
ARP 1511 - Low Embrittling Cadmium Plate		X		X		X	X		X	X	X	X	
ARP 1512 - Sandwich Corrosion		X		X	X	X	X		X	X	X ²	X	
ARP 1755 - Stock Loss Testing		X	X	X	X	X	X		X	X	X	X	X
ASTM F-331 - Nonvolatile Residue		X		X									
ASTM F-483 - Immersion Corrosion		X ¹		X ¹	X ¹	X	X		X	X	X ²	X	
ASTM F-484 - Stress Cracking of Acrylic Plastic		X		X	X	X	X		X	X	X	X	
ASTM F-485 - Unpainted Aircraft Surfaces		X		X	X	X	X		X	X	X ²	X	
ASTMF-502 - Painted Aircraft Surfaces		X		X	X	X	X		X	X	X	X	
ASTM F-519 - Hydrogen Embrittlement		X		X		X	X		X	X	X	X	X
ASTM F-945 - Titanium Stress Cracking		X	X	X	X	X	X		X	X	X	X	X
ASTM F-1110 - Sandwich Corrosion		X		X	X	X	X		X	X	X ²	X	
ASTM F-1111 - Low Embrittling Cadmium Plate		X		X		X	X		X	X	X	X	
PWA 36604 - Hot Corrosion Testing					X	X	X		X	X	X		X
Boeing BAC 5749 - Alkaline Cleaning											X	X	
Boeing BAC 5763 - Emulsion Aqueous Cleaning		X		X		X			X				
Boeing D6-17487												X	
Boeing D6-48809 Sandwich Corrosion		X		X	X	X	X		X	X	X ²		
Bombardier/Canadair MPS 180-40											X		
California DOH Title 22					X								
Canadair BW-92/333									X				
Douglas CSD#1 - General Purpose Cleaner		X		X		X	X		X	X		X	
Douglas Helicopter HMS20-1267/2125							X						
Douglas Helicopter HMS20-1267/2127							X						
Douglas MD PS 1204						X	X						
GEAE CT-882 - Hot Corrosion							X						
GEAE Method 22 70-21-22									X	X			X
Honeywell EMS 53170									X			X	
Lockheed ADC - G32001						X			X				
Lockheed STM32-301						X							
Mil-C-29602 - Cleaning Compounds										X			
Mil-C-87937 TO 4W-1-61										X			
Pratt & Whitney PMC					1438				1429		1421		1439
Pratt & Whitney SPMC										237			
Raytheon MP-921									X				
Rolls Royce CSS 204 Type A									X	X			
SCAQMD Certification	X					X	X			X			
Sundstrand Data #037-0228-000									X				

X¹ Except dichromated magnesium. X² Except dichromated magnesium, anodized aluminum and zinc.

MAGNETIC PARTICLE TESTING MATERIALS



MPI Fluorescent
Materials



MPI Non-Fluorescent
(Visible) Materials



"MAGNAFLUX Magnaglo® fluorescent and Magnavis® visible magnetic particle testing materials provide vivid, superior indications under black light and daylight inspection conditions."

brilliant



Magnaflux® certified fluorescent and visible magnetic particle inspection materials offer NDT professionals superior detection capabilities in the identification of surface and slightly subsurface discontinuities in ferrous materials under daylight and black light conditions.

Vivid Performance

MAGNAGLO® FLUORESCENT PARTICLE INSPECTION MATERIALS

FLUORESCENT WET METHOD PARTICLES

14A Fluorescent Magnetic Powder

14A is intended for use in high sensitivity, wet method magnetic particle inspection and may be suspended in either a petroleum-based vehicle (oil) such as Carrier II or water.

Specification Compliance: ASTM E 1444, ASME B&PV Code, Sec. V, NAVSEA 250-1500-1, ASTM E-709 (E-138), MIL-STD-271, AMS-3044, Cummins IS-16048-13, MIL-STD-2132, Boeing PS 21201, British Std. B.S. 4069.

Applications: 14A is used to locate fine surface and slightly subsurface discontinuities such as inclusions, seams, shrink cracks, tears, laps, flakes, welding defects, grinding cracks, quenching cracks, and fatigue cracks.

Part Number & Container Size:

01-0130-71 Case of (6) 1 lb. Jars
01-3130-75 20 lb. Plastic Pail



14AM Prepared Oil Bath

14AM is a fluorescent prepared bath of 14A powder mixed with Carrier II (a high flash point petroleum vehicle). It comes ready to use without measuring and mixing.

Specification Compliance: ASTM E 1444, ASTM E 709 (E-138), Cummins IS-16048-13, MIL-STD-2132, Boeing PS 21201, British Std. B.S. 4069, DOD-F-87935, AMS-3045, AMS-3046 (aerosol package only).

Applications: 14AM is used to locate fine surface and slightly subsurface discontinuities such as inclusions, seams, shrink cracks, tears, laps, flakes, welding defects, grinding cracks, quenching cracks and fatigue cracks.

Part Number & Container Size:

01-0145-40 5 Gal. Pail
01-0145-78 Case of (12) Aerosol Cans



MAGNETIC PARTICLE TESTING MATERIALS

Magnaflux Magnaglo® fluorescent and Magnavis® visible magnetic particle testing materials are two of the industry's most widely used and trusted NDT product lines. Their superior, finely controlled particles deliver maximum sensitivity to produce vivid indications that are unmatched in their detection of surface and slightly subsurface discontinuities across a range of ferrous materials. Backed by more than 80 years of magnetic particle experience and an expansive line-up of accessories and equipment, Magnaglo® and Magnavis® products are designed to support your NDT inspection process both in the field and in the shop with the level of performance that only Magnaflux® can provide.

14A Redi-Bath™

14A Redi-Bath is a prepared liquid concentrate of 14A Fluorescent Powder, wetting agents, anti-foaming agents, and long lasting rust inhibitors.

Specification Compliance: ASTM E 1444, ASTM E 709, NAVSEA 250-1500-1, MIL-STD-271, MIL-STD-2132, ASME B & PV Code, Sec. V.

Applications: 14A Redi-Bath is used to locate fine surface and slightly subsurface discontinuities such as inclusions, seams, shrink cracks, tears, laps, flakes, welding defects, grinding cracks, quenching cracks and fatigue cracks.

Part Number & Container Size:

01-9130-35 Case of (4) 1 Gal. Jugs

01-9130-41 Case of (6) 27 oz. Containers



14A Aqua-Glo

14A Aqua-Glo is a prepared liquid solution of 14A Fluorescent Powder, water, conditioning agents, corrosion inhibitors and carbon dioxide propellant. It is designed to offer the benefits of a water bath in a convenient ready to use aerosol form. 14A Aqua-Glo is ideally suited for applications where portability is required, and flammability is a concern.

Specification Compliance: ASTM E 1444, ASTM E 709, NAVSEA 250-1500-1, ASME.

Applications: 14A Aqua-Glo is used to locate fine surface and slightly subsurface discontinuities such as inclusions, seams, shrink cracks, tears, laps, flakes, welding defects, grinding cracks, quenching cracks and fatigue cracks.

Part Number & Container Size:

01-1725-38 Case of (12) Aerosol Cans



20B

20B is a dry mix formula of 14A Fluorescent Powder and WA-2B water conditioner containing wetting agents and corrosion inhibitors designed to be added to a water bath.

Specification Compliance: ASTM E 1444, ASTM E 709 (E-138), NAVSEA 250-1500-1, MIL-STD-271, MIL-STD-2132, ASME B & PV Code, Sec. V.

Applications: 20B is used to locate fine surface and slightly subsurface discontinuities such as inclusions, seams, shrink cracks, tears, laps, flakes, welding defects, grinding cracks, quenching cracks and fatigue cracks.

Part Number & Container Size:

01-0179-71 Case of (6) 1 lb. Jars

01-0179-70 15 lb. Pail

01-0179-84 30 lb. Pail





MG-410 Wet Method Fluorescent Magnetic Powder

MG-410 Wet Method Fluorescent Magnetic Powder is a dry, free flowing magnetic powder that fluoresces bright yellow-green under black light (wavelength of 365 nm). Its fluorescent yellow-green color provides a vivid contrast against metal parts when viewed under black light in a darkened area but does not require total darkness for viewing.

MG-410 is closely controlled to assure optimum batch to batch consistency and inspection reliability and can be used with either water or oil vehicles.

Specification Compliance: ASME B & PV Code, Sec. V, NAVSEA 250-1500-1, MIL-STD-2132, ASTM E 709, NAVSEA T9074-AS-GIB-010/271.

Applications: MG-410 is used for general purpose wet method magnetic particle inspection of inclusions, seams, cracks, tears, laps, flakes and welding defects.

Part Number & Container Size:

01-0191-73 Case of (6) 2 lb. Jars



OIL VEHICLE

Carrier II Oil

Carrier II Oil is used to suspend wet (oil) method magnetic particles when water is not used as a suspension vehicle. It has virtually no odor or fluorescence and possesses a flash point in excess of 200°F allowing it to meet OSHA requirements for a Class III B liquid.

Specification Compliance: ASTM E 1444, ASTM E 709, Pratt & Whitney PMC 1887, A-A-59230, ASME B & PV Code, Sec. V, AMS-2641.

Part Number & Container Size:

01-2122-40 5 Gal. Pail

01-2122-30 20 Gal. Drum

01-2122-45 55 Gal. Drum



WATER BATH ADDITIVES

AX-52 Corrosion Inhibitor

AX-52 is a pale yellow to amber colored liquid corrosion inhibitor that mixes in and quickly dissolves in the water bath. It is an outstanding corrosion inhibitor for wet method magnetic particle inspection.

Part Number & Container Size:

01-2190-40 5 Gal. Jug



WA-2B Water Conditioner

WA-2B is a white granular powder water conditioner used in wet method magnetic particle testing when water is used as the bath vehicle. It is an excellent general-purpose water conditioner that gives a water bath good surface wetting and magnetic particle dispersion capabilities, along with a blend of wetting agents, corrosion inhibitors and anti foaming agents.

Part Number & Container Size:

01-2148-63 5 lb. Pail



WC-1 Water Conditioner

WC-1 is used in wet method magnetic particle testing when water is used as the bath vehicle. It is more rapidly dispersed than powdered conditioners and its unique blend of wetting agents, corrosion inhibitors and anti foaming agents eliminates the need for additional water conditioners. WC-1 provides good surface wetting and magnetic particle dispersion capabilities.

Part Number & Container Size:

01-2173-40 5 Gal. Pail



ZAF-2 Non-Silicone Anti-Foam

ZAF-2 Non-Silicone Anti-Foam is a clear, colorless liquid used to eliminate foaming in aqueous developer baths, water based magnetic particle baths and hydrophilic remover baths. A few drops of ZAF-2 sprinkled around on the surface of a bath is all that is required to eliminate most foaming.

Part Number & Container Size:

01-9410-20 1 Gal. Plastic Bottle



PORTABLE FLUORESCENT INSPECTION KIT

Magnaglo Portable Fluorescent Inspection Kit

The Magnaglo Portable Fluorescent Inspection Kit comes with a ZB-100F Ultraviolet Black Light and materials used to perform magnetic particle inspection. (No magnetic yoke is included with kit.)

Part Number:

600088 - Magnaglo Kit with 115V - 60 Hz ZB-100F Black Light

Each kit contains:*

- (1) ZB-100F Fan-Cooled Ultraviolet Black Light
- (2) Cans of 14AM Aerosol
- (2) Cans of SKC-S Aerosol
- Paint Marker
- SCRUBS® Hand Towels
- Plastic Carrying Case and Instructions

**Note: No magnetizing device is supplied with this kit.*





VISIBLE PARTICLE INSPECTION MATERIALS

VISIBLE WET METHOD PARTICLES

7C Black Visible Wet Method Dry Powder Concentrate

7C Black Visible Wet Method Dry Powder Concentrate is ideally suited for use on light colored surfaces where optimum color contrast is needed. 7C is composed of compounded magnetic powder and may be suspended in either Carrier II Oil Vehicle or in water.

Specification Compliance: ASME B & PV Code, Sec. V, ASTM E 709 (E-138), ASTM E 1444, AMS 3042, MIL-STD-271, MIL-STD-2132, NAVSEA 250-1500-1.

Applications: 7C Black Visible Wet Method Dry Powder Concentrate is used to locate inclusions, seams, shrink cracks, tears, laps, flakes, welding defects, grinding cracks, quenching cracks and fatigue cracks.

Part Number & Container Size:

01-1116-66 8 lb. Pail



7HF Black Visible Magnetic Particle Wet Method Prepared Bath

7HF Black Visible Magnetic Particle Wet Method Prepared Bath is designed for spot inspections of parts that, because of their size or location, must be inspected in the field.

7HF is composed of 7C Black magnetic powder suspended in a low volatility mineral oil. It offers significant advantages in situations where bulk processing is found to be impractical and is often used in combination with WCP-2 White Contrast Paint.

Specification Compliance: ASME B & PV Code, Sec. V, ASTM E 709, ASTM E 1444, AMS 3041, AMS 3043, Boeing PS-21201, MIL-STD-2132.

Applications: 7HF is ideal for remote inspection of tubes, piping, and other large structures.

Part Number & Container Size:

01-1580-78 Case of (12) Aerosol Cans



WHITE CONTRAST PAINT

WCP-2 Contrast Paint

WCP-2 Contrast Paint provides a white background that enhances magnetic particle indications. It is composed of acetone and inorganic pigments and utilizes a carbon dioxide aerosol propellant for ease of application.

Specification Compliance: BS 5044.

Applications: WCP-2 is designed for use in applications where the contrast in color between the part being tested and the magnetic particles being used is insufficient for reliable identification of flaws. WCP-2 can be used with both dry and wet-method magnetic particles.

Part Number & Container Size:

01-2250-78 Case of (12) Aerosol Cans



VISIBLE DRY METHOD PRODUCTS

Dry Method Non-Fluorescent Magnetic Powders

Dry Method Non-Fluorescent Magnetic Powders produce clear, sharp indications across a variety of surfaces and background colors. Available in 1 Gray, 2 Yellow, 3A Black and 8A Red, magnetic powders are ready to use, free flowing, general purpose powders designed to produce, superior indications of surface and slightly subsurface discontinuities in ferrous materials.

Specification Compliance: ASME B & PV Code, Sec. V, ASTM E 709, NAVSEA 250-1500-1, NAVSEA T9074-AS-GIB-010/271, MIL-STD-2132, AMS-3040.

Applications: Dry Method Non-Fluorescent Magnetic Powders are used to identify indications in welds, large forgings and castings.

Part Number & Container Size:

01-1716-69	1 Gray Magnetic Powder - 10 lb. Pail
01-1716-87	1 Gray Magnetic Powder - 45 lb. Pail
01-1732-69	2 Yellow Magnetic Powder - 10 lb. Pail
01-1732-87	2 Yellow Magnetic Powder - 45 lb. Pail
01-1748-87	3A Black Magnetic Powder - 45 lb. Pail
01-1780-69	8A Red Magnetic Powder - 10 lb. Pail
01-1780-87	8A Red Magnetic Powder - 45 lb. Pail





SPECIFICATIONS

MAGNAGLO MAGNETIC PARTICLES

Magnaglo Fluorescent Wet Method Magnetic Particles									
SPECIFICATIONS	14A	14AM	14 Aqua-Glo	14A Redi-Bath	20B	MG-410	7C Black	7HF	Carrier II
NAVSEA T9074-AS-GIB-010/271	X		X	X	X	X	X	X	X
MIL-STD-2132	X	X	X	X	X	X	X	X	X
AMS 2641									X
AMD 3041								X	
AMS 3042							X		
AMS 3043								X	
AMS 3044	X		X	X	X				
AMS 305		X							
AMS 3046		X							
ASME B & PV Code, Sec. V	X	X	X	X	X	X	X	X	X
ASTM E 709	X	X	X	X	X	X	X	X	X
ASTM E 1444	X	X	X	X	X		X	X	X
A-A-59230		X							X
Boeing PS-21201	X	X	X	X	X		X	X	X
NAVSEA 250-1500-1	X		X	X	X	X	X		
Pratt & Whitney PMC 1887									X

MAGNAVIS MAGNETIC PARTICLES

Magnavis Visible Dry Method Magnetic Particles				
SPECIFICATIONS	1 Gray	2 Yellow	8A Red	3A Black
NAVSEA T9074-AS-GIB-010/271	X	X	X	X
MIL-STD-2132	X	X	X	X
NAVESEA 250 -1500-1	X	X	X	X
AMS 3040	X	X	X	X
ASME B & PV Code, Sec. V	X	X	X	X
ASTM E 709	X	X	X	X
ASTM E 1444	X	X	X	X

MAGNETIC PARTICLE TESTING ACCESSORIES



"MAGNAFLUX® Magnetic Particle Testing Accessories have allowed us to streamline and simplify our NDT process, while simultaneously boosting inspection speed and reducing cost."

simplify



Magnaflux® Magnetic Particle Testing Accessories are designed to help improve the speed, detection capabilities, and cost effectiveness of your MPI system.

Simplifying Inspection

CABLES, CONNECTORS & REMOTE DEVICES

Cables

Rubber covered flexible cables are available in standard lengths of 15 ft. (4.57m) and 20 ft. (6.09m) with a choice of either-end or lug connectors. Custom cables and replacement connectors are also available.

Part Number:

626350 - 180	15 ft. (4.57m) lugs at both ends
626351 - 180	15 ft. (4.57m) lug and either-end
626352 - 180	15 ft. (4.57m) either-ends at both ends
626352 - 240	20 ft. (6.09m) either-ends at both ends

Specifications Compliance: ASTM E709-08, ASTM E1444, BPVC.

Connectors

Connectors for attaching 4/0 cables to Magnaflux® magnetizing equipment, including wet benches, powerpacks and mobile units.

Part Number:

1238	Either-end connector (allows quick cable disconnect for maximum flexibility)
1574	Either-end lug adapter (changes lug terminal to either-end terminal)
626342	4/0 Terminal lug for permanent attachment to magnetizing equipment



Remote Control Cable

15' (4.57m) cable allows for remote energizing of portable power packs. Comes standard with 3 PTL plug.

Part Number:

157657	Remote Control Cable
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Specifications Compliance: ASTM E709-08.



MAGNETIC PARTICLE TESTING ACCESSORIES

Quality experts the world over count on Magnaflux® Magnetic Particle Testing Accessories to maintain their manufacturing standards and to help simplify, expand and improve their magnetic particle inspection processes. If you are looking to add to, or replace outdated MPI test components, you will find that Magnaflux offers an impressive line-up of accessories designed to meet your exact needs. From coils and prod sets, to field indicators, monitoring devices and spray applicators, Magnaflux® brand MPI accessories will help keep your process control operations performing at peak productivity and quality levels.

Remote Palm Button

Remote palm button that mounts on side of Mag Kit for energizing current from power pack. Comes standard with 3 PTL plug.

Part Number:

169621 Mag Kit Remote Palm Button

Specifications Compliance: ASTM E709-08.



169621

CENTRIFUGE TUBES & STANDS

Magnaflux® centrifuge tubes are individually calibrated to monitor the precise concentrations of Magnaglo® and Magnavis® particles in baths, as well as the contamination levels of their solutions.

Part Number: 8493 - Centrifuge Tube for Magnaglo® 14A, 14AM and 20B Fluorescent Particles. (0-1.0ml in 0.05 graduations).

Part Number: 2461 - Centrifuge Tube for Magnavis® 7C and 9C Visible Particles. (0-1.5ml in 0.10 graduations).

Part Number: 507923 - Centrifuge Tube for Magnaglo® MG-410 Fluorescent Particles. (0-0.2ml in 0.01 graduations).

Part Number: 1837A - Aluminum Centrifuge Stand. Safely holds centrifuge tubes when checking bath concentrations.

Specifications Compliance: ASTM E709-08, ASTM E1444, BPVC.



8493

1837A

507923

2461

COILS

Coils for Bench Units

Five-turn coils in sizes from 12" to 25" that conform to most parts and produce optimal magnetic field applications.

Part Number:

28501 12" (30 cm) Coil

28511 16" (41 cm) Coil

28531 20" (51 cm) Coil

28541 25" (64 cm) Coil

Specifications Compliance: ASTM E709-08, ASTM E1444, BPVC.



28501

28511

28531

28541

Flat Magnetic Coil

For non-contact magnetic particle inspection of small parts such as fasteners and ring-like parts. Can be used with any magnetic particle unit or power pack to allow for the quick, easy processing of multiple parts at one time.

Part Number:

611700 Flat Magnetic Coil

Specifications Compliance: ASTM E709-08, ASTM E1444, BPVC.



611700



L-10 Coil

Portable AC coil for use in the detection of surface cracks.

Part Number:

50651 Coil size 10" (25 cm) I.D. / 15" (38 cm) O.D. Comes with durable carrying case, flexible 10' (3 m) power cord. 115v, 60hz, 1-phase power source required to operate. 2,800 amp. turns.

620983 Coil size 10" (25 cm) I.D. / 15" (38 cm) O.D. Comes with durable carrying case, flexible 10' (3 m) power cord. 230V, 50/60hz, 1-phase power source required to operate. 2,800 amp. turns.

Specifications Compliance: ASTM E709-08, ASTM E1444, BPVC.

Clam Shell Coil Assembly

Three-turn split coil that allows for examination of large parts.

Part Number:

623031 19.7" (50 cm) Clam Shell Coil Assembly

CONDUCTORS & ADAPTERS

Central Conductors

Solid copper rods in diameters of .50" to 1.00" that provide circular magnetization of hollow parts.

Part Number:

622639 Central Conductor Kit. Includes one each .50", .75" and 1.00"

Specifications Compliance: ASTM E709-08, BPVC.

Small Parts Adapters

Magnaflux® small part adapters allow standard wet horizontal MPI test units to be used for inspecting small parts such as bolts, screws and pins. *Not for use with 12 x 12 contacts.*

Part Number: 28470 - Headstock Adapter. Made of solid copper and mounts directly to headstock.

Part Number: 28471 - Tailstock Adapter. Made of solid copper and mounts directly to tailstock.

Specifications Compliance: ASTM E709-08, BPVC.

CONTACT CLAMPS

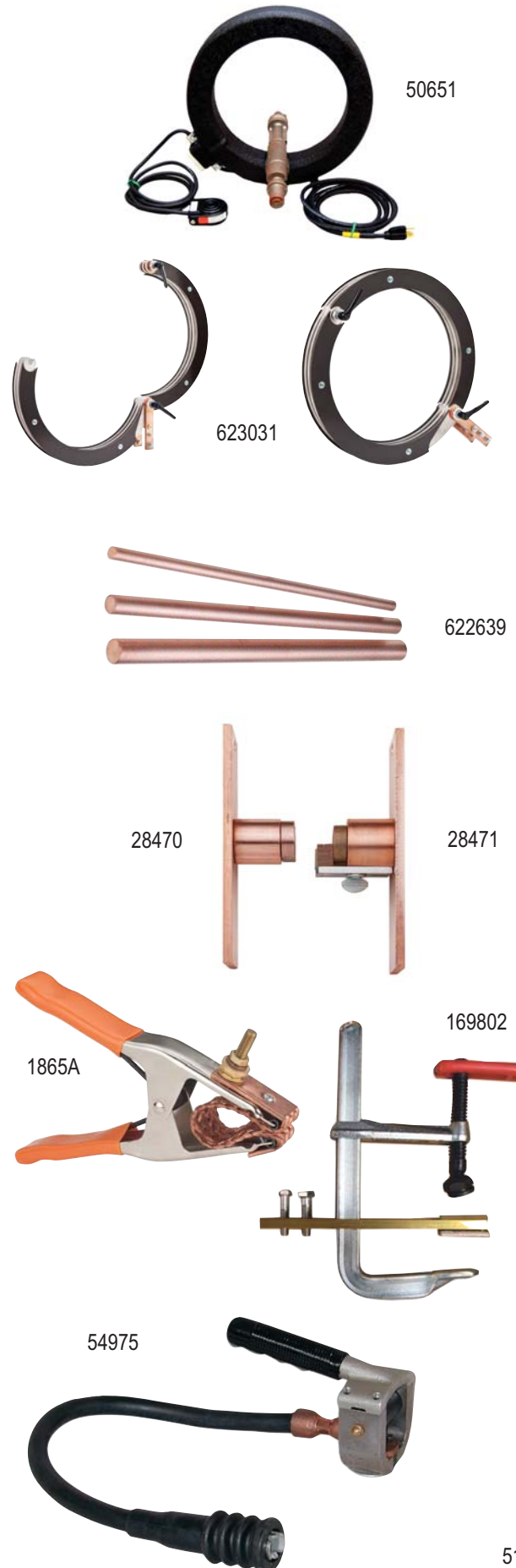
Magnaflux® spring-loaded and heavy-duty contact clamps facilitate the easier, more accurate inspection of tubing, bars, and tubular assemblies such as aircraft engine mounts, fuselage sections and large welded structures.

Part Number: 1865A - Spring-Loaded Contact Clamp. For 1.25" to 2.50" diameter parts. Replacement copper braid (Part Number: 14710) also available.

Part Number: 169802 - Heavy-Duty Contact Clamp. For parts up to 7.00" diameter.

Part Number: 54975 - Magnetic Leech. Permanent magnet with 4/0 either end connector for attaching to parts.

Specifications Compliance: ASTM E709-08, ASTM E1444, BPVC.



CONTACT PADS & PLATES

Magnaflux® long lasting copper braided contact pads and lead contact plates prevent arc burn by helping to maintain proper electrical contact between test parts and contact heads. Available in a variety of sizes to fit most MPI units.

Part Number: 1848 - Replacement Copper pad for 18948 and 18949.

4.75" x 7.50" (121 x 191 mm)

Part Number: 18948 - Double-Braided Pad with V-Block. Heavy copper braid provides contact over a larger surface area. Built with neoprene, the V-Block base centers and supports test parts. Can be reversed to provide two wear faces. Fits all units except A-915.

Part Number: 18949 - Double-Braided Pad with Clip. Offers the same performance features as the 18948 but clips over the headstocks of A-915 and H-Series units.

Part Number: 14818 - Large Copper Braid Contact Pad.

4.75" x 10.50" (121 x 267 mm)

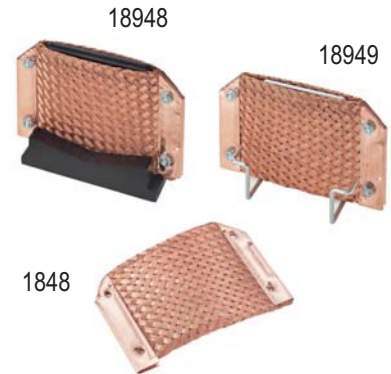
Part Number: 605647 - Lead Contact Plate. Soft lead plate provides excellent contact with test parts and duplicates original headstock/tailstock contact plates. Fits all units except the A-915 and H-Series units.

6.75" x 6.60" (171 x 168 x 6 mm)

Part Number: 605657 - Heavy Duty Lead Contact Plate. Copper impregnated lead contact plate that lasts 10 times longer than standard lead contact plates. Fits all units except A-915 and H-Series units.

Part Number: 114184 - Heavy Duty Braided Lead Pad.

10.5" x 12.0" (267 x 305 mm)



FIELD INDICATORS

Field Indicators

Magnaflux® rugged, pocket-size 10 and 20 gauss field indicators are used to measure residual magnetism remaining in parts after de-magnetization.

Part Number: 2480 - Field Indicator. Inexpensive and disposable non certified 10 gauss field indicator.

Part Number: 505056 - 10 Gauss Calibrated Field Indicator. 10 gauss certified field indicator accurate to ± 0.5 gauss (5%) with a scale range of 10-0-10. Certification is provided with meter.

Part Number: 105645 - 20 Gauss Calibrated Field Indicator. 20 gauss certified field indicator accurate to ± 1.0 gauss (5%) with a scale range of 20-0-20. Certification is provided with meter.

Specifications Compliance: ASTM E709-08, ASTM E1444, BPVC.

Digital Hall Effect Meter Probe Gaussmeter

Magnaflux® digital hall effect meter measures AC and DC field strength. Includes meter, traverse probe, zero gauss chamber, batteries, manual, and case.

Part Number:

622604 Hall Effect Meter

Specifications Compliance: ASTM E709-08, ASTM E1444, BPVC.





Pie Field Indicator

The Magnaflux® magnetic particle pie gauge is used as an aid in determining the direction of magnetic fields used in the detection of discontinuities in ferrous metal parts.

Part Number:

169799 Pie Field Indicator

Specifications Compliance: ASTM E709-08, ASTM E1444.



PORTABLE HAND SPRAYERS

Magnetic Particle Spray System

30 Gallon portable MPI spray system with 15 ft. recirculation hose and fan-pattern spray gun for inspection of large parts. May be used with water or oil based solutions. Continuous agitation for even particle suspension and fully portable with casters for easy mobility.

Part Number:

621778 Magnetic Particle Spray System

Specifications Compliance: ASTM E709-08, BPVC.



MONITORING DEVICES

Quick Break Tester (QB-1)

The Magnaflux Quick Break Tester (QB-1) quickly and accurately confirms function status of "quick break" circuitry in the three phase FWDC magnetic particle units.

Part Number:

148335 Quick Break Tester (QB-1)

Specifications Compliance: ASTM E709-08, ASTM E1444.



Quick Break Tester (QB-2) + Shot Timer

The Magnaflux® Quick Break Tester (QB-2) and Shot Timer displays peak quick break voltage in a quantitative way to facilitate detection of possible degradation of quick break.

Part Number:

622646 Quick Break Tester (QB-2) + Shot Timer

Specifications Compliance: ASTM E709-08, ASTM E1444.



Digital Amperage Meter Kit

The Magnaflux® Digital Amperage Meter Kit is designed for NDT applications and will certify the amperage on all MPI equipment manufactured by Magnaflux® up to 10,000 amps. Checks AC, HWDC, 1 Phase FWDC, and 3 Phase FWDC.

Part Number:

622350 Digital Amperage Meter Kit

Specifications Compliance: ASTM E709-08, ASTM E1444, BPVC.



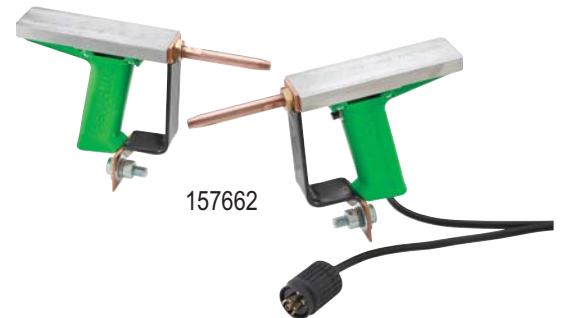
PROD SETS

Magnaflux® prod sets are convenient handheld electrodes used for conducting sectional inspections of welds, casting, forgings and other large and complex part shapes. Comfortable, pistol style grips and out-of-the-way cable hookups make it easy for testing parts that are not wet-bench friendly.

Standard Prod Sets

Part Number: 622088 - For use with M-Series units

Part Number: 157662 - For use with P-70 and P-1500 units



Dual Horizontal Prod Assemblies

Part Number: 622499 - For use with M-Series units

Part Number: 157781 - For use with P-70 and P-1500 units

Specifications Compliance: ASTM E709-08, ASTM E1444, BPVC.





STEADYRESTS & CONTACT BLOCKS

Steadyrests

Used to support and stabilize long or heavy parts during the inspection process.

Part Number: 1857 - Rail Mounted Roller Type Steadyrest. Mounts and moves on rails with adjustable height to accommodate various part lengths. Fits all units except A-915 and small Mag Series units. Weight capacity up to 1,500 lbs.

Part Number: 605750 - Headstock Mounted Roller Type Steadyrest. Mounts on headstock to support one end of part (use rail-mounted Part Number 1857 to support other end). Speeds up part loading as coil may be retracted past the headstock. Fits all units except A-915, small Mag Series units and units with oversized contact plates.

Part Number: 621658 - Tailstock Steadyrest. Designed for mounting on the tailstock and will work with either headstock or rail mounted steadyrests.



1857

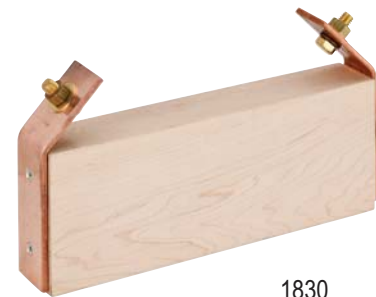
Contact Block

Permits remote testing of parts that are too heavy for processing on a unit. When clamped between head and tailstock, the block supplies magnetizing current to remote prods or clamps through flexible cables (cables not included, see cables & connectors).

Part Number:

1830 Contact Block

Specifications Compliance: ASTM E709-08, BPVC.



1830

TEST PIECES

Magnetic Particle Test Bar

The Magnaflux® Magnetic Particle Test Bar contains coarse and fine surface and subsurface defects in both directions. It meets or exceeds most industry and military standards for artificial test specimens.

Part Number:

189838 Magnetic Particle Test Bar

Specifications Compliance: ASTM E709-08, ASTM E1444.



189838

Quantitative Quality Indicator Test Pieces

Quantitative Quality Indicators (QQI) are magnetic particle test pieces with artificial defects that are used to verify field direction and relative strength. They are also used to balance multi-directional fields and to increase productivity by minimizing magnetizing shots.

Part Number: 625551 - Shim Type #CX-230 (Set of 5). Basic circular and cross bar flaw configuration suitable for longitudinal and circular fields. Flaw depth of 30% of shim thickness, .002" thick.

Part Number: 625552 - Shim Type #CX4-230 (Set of 5). Similar to CX-230 except miniature design for small areas on test part. The 4 circles may be cut apart for individual use. Flaw depth of 30% of shim thickness, .002" thick.

Part Number: 625553 - Shim Type #CX-430 (Set of 5). Basic circular and cross bar flaw configuration suitable for longitudinal and circular fields. Flaw depth of 30% of shim thickness, .004" thick.

Part Number: 625554 - Shim Type #3C2-234 (Set of 5). Used for more quantitative work, the 3C2-234 contains 3 concentric circular flaws of varying depths. Flaw depths of 20%, 30% and 40% of shim thickness, .002" thick.

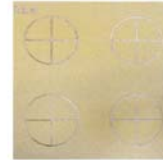
Part Number: 625555 - Shim Type #3C4-234 (Set of 5). Used for more quantitative work, the 3C4-234 contains 3 concentric circular flaws of differing depth. Flaw depths of 20%, 30% and 40% of shim thickness, .004" thick.

Specifications Compliance: ASTM E709-08, ASTM E1444, BPVC.

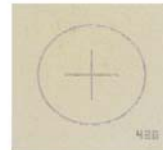
625551



625552



625553



625554



625555



Tool Steel Test Ring

The Magnaflux® AS 5282 Tool Steel Test Ring is a magnetic particle test piece with pre-drilled holes to simulate subsurface discontinuities. It provides a reliable method of verifying magnetic particle system performance when actual test parts with discontinuities are not available. Meets AS 5282.

Part Number:

159999 Tool Steel Test Ring

Specifications Compliance: ASTM E709-08, ASTM E1444, BPVC.

159999



Magnetic Flux Indicators

Magnaflux® Type G (General use) magnetic flux indicators come in a packet of 5 and are used to detect appropriate levels of magnetic field strength. These flexible indicators also assist in determining directional orientation of the magnetic field.

Part Number:

008M004 Magnetic Flux Indicators (set of 5)

Specifications Compliance: ASTM E709-08, ASTM E1444.

008M004



MAGNETIC YOKES



Magnetic Yokes

"MAGNAFLUX® Yokes are among the most dependable, powerful and comfortable yokes you will ever use."

rugged



Magnaflux® Magnetic Yokes are built rugged to withstand years of shop and field inspection abuse, yet are among the most ergonomically and technically advanced yokes on the market today.

Technology Driven

MAGNETIC YOKES

Y-1 AC Magnetic Yoke

The Magnaflux® Y-1 AC Magnetic Yoke is a new generation of lightweight, ergonomic yoke designed to improve job performance and productivity by reducing operator arm and wrist fatigue when testing for prolonged periods or in tight, confined spaces. The Y-1 is easier and more comfortable to operate than standard yokes and comes with a rugged chemical and impact resistant outer shell that will stand up to years of inspection abuse. Each unit is individually serial numbered and certified for performance prior to shipment.

- 25% increase in lift strength
- Improved cord strength
- Wider legs for better contact
- Shields for better leg protection
- Sealed core to resist corrosion
- Durable, rugged construction

General Specifications:

- Elec. Requirements - 115V/50-60hz/1ph or 230V/50-60hz/1ph
- Max. Line Current Draw: 115V, 50hz, 6.5 amps
115V, 60hz, 3.7 amps
230V, 50/60hz, 1.6 amps
- Weight - 4.56 lb. (2.07kg)
- Leg Span - Up to 11in. (28cm)
- Cord Length - 10 ft. (3.05m)
- Warranty - 1 year

Part Number:

- 623502 Y-1 115V Yoke
623503 Y-1 230V Yoke
625050 Y-1 Heavy-Duty Yoke, 115V (For use with dry powders only)

Y-1 AC Magnetic Yoke Kit

The Magnaflux® Y-1 AC Magnetic Yoke Kit contains all key elements necessary to perform visible magnetic particle inspections:

- Y-1 Magnetic Yoke 115V/50-60hz/1ph or 230V/50-60hz/1ph
- 1 lb. #1 Gray Magnetic Powder
- 1 lb. #8A Red Magnetic Powder
- Paint Marker
- SCRUBS™ Hand Cleaner
- Portable Carrying Case and Instructions

Part Number:

- 623529 Y-1 115V Yoke Kit



MAGNETIC YOKES

Magnaflux Magnavis® brand magnetic yokes lead the industry in design innovation and magnetic particle inspection performance. From the lightweight ergonomic design and increased lifting power of our recently enhanced Y-1 AC Yoke to the 100% field portability of the battery powered Y-8, you will find every yoke we manufacture to be built as tough as you work.

Y-7 AC/DC Magnetic Yoke

The Magnaflux® Y-7 AC/DC Magnetic Yoke is designed for portable testing of ferrous parts and is ideal for the inspection of welds and other remote testing applications.

- Can be used to find both surface and near-surface discontinuities
- Solid state controls located in the interior of yoke housing for maximum safety and reliability
- Articulating, double-jointed legs assure good part contact

General Specifications:

- Elec. Requirements - 115V/50-60hz or 230V/50-60hz
- Max. Line Current Draw - 6.0 amps 115VAC or 2.7 amps 230VAC
- Weight - 7.4 lb. (3.36 kg) 115V or 7.2 lb. (3.27kg) 230V
- Leg Span - 0" - 12" (0 - 30cm)
- Cord Length - 12 ft. (3.66 m)
- Warranty - 1 year

Part Number:

43550 Y-7 AC/DC Magnetic Yoke 115V/50-60hz

43560 Y-7 AC/DC Magnetic Yoke 230V/50-60hz



Y-7 AC/DC Magnetic Yoke Kit

The Magnaflux® Y-7 AC/DC Magnetic Yoke Kit contains all key elements necessary to perform visible magnetic particle inspections:

- Y-7 AC/DC Magnetic Yoke 115V/50-60hz or 230V/50-60hz
- 1 lb. 1 Gray Magnetic Powder
- 1 lb. 8A Red Magnetic Powder
- Paint Marker
- SCRUBS™ Hand Cleaner
- Portable Carrying Case and Instructions

Part Number:

43509 Y-7 AC/DC Magnetic Yoke Kit 115V/50-60hz

620741 Y-7 AC/DC Magnetic Yoke Kit 230V/50-60hz





Y-8 Battery Operated Magnetic Yoke Kit

The Magnaflux® Y-8 Battery Operated Magnetic Yoke Kit is ideal for remote testing applications. The kit allows for 100% portability in field inspections of ferrous parts with the use of the battery operated Y-8 Yoke.

- 100% portable for field inspections
- Battery pack comes with convenient shoulder strap
- Solid state controls located in the interior of yoke housing for maximum safety and reliability
- Articulating, double-jointed legs assure good part contact

General Specifications:

- Yoke Current Draw - 4 amps @ 6 Volts
- Weight - 7.75 lb. (3.52kg)
- Leg Span - 0" - 12" (0 - 30cm)
- Cord Length - 12 ft. (3.66m)
- Warranty - 1 year
- Battery:
 - 6V, 12 amp hr.
 - 5.25 lb. (2.38kg)
 - 4.25" x 2.75" x 5.5" (10.8cm x 7cm x 14cm)
 - Battery Operating Temp. Range -40°C to 60°C (-40°F to 140°F)
- Battery Charger Current Draw - 0.2 amp @ 115V or 230V

Kit Part Number:

611710 Y-8 Magnetic Yoke Kit 115V

611710-01 Y-8 Magnetic Yoke Kit 230V

611710



YOKE ACCESSORIES

Yoke Light Kits

The Magnaflux® Yoke Light Kits provide enhanced visible method detection of flaws and discontinuities under low and no light conditions.

Part Number: 623745 - Light Kit for Y-1 AC Yoke

Part Number: 621785 - Light Kit for Y-6/Y-7 Yokes



623745

10 lb. Test Weight for Y-1 Yoke

The Magnaflux® 10 lb. Test Weight is designed specifically for use with the Y-1 Yoke. It provides balanced weight distribution and comes with a built-in leg positioning guide to assure accurate test results every time. Each weight measures 9" x 2" x 2", is individually serialized, and comes with a certificate stating that it meets ASTM E1444.

Part Number:

624115 10 lb. Y-1 Yoke Test Weight



624115

MAGNETIC PARTICLE INSPECTION EQUIPMENT



"MAGNAFLUX® Magnetic Particle Testing Equipment was completely scalable to our needs, allowing us to start small and add more capabilities as our business grew."

scalable



Magnaflux® Magnetic Particle Testing Equipment has been value engineered to meet or exceed government and industry inspection standards while remaining sensitive to the operating cost, speed and volume requirements of NDT customers.

Modular Capabilities

P-SERIES

The Magnaflux® P-Series is an extremely compact, lightweight portable magnetizing unit designed for use in a wide range of magnetic particle inspection applications that require only moderate power to perform.

Perfect for in-service inspections demanding maximum portability, the P-Series is built tough to take job-site abuse and offers many of the features and convenience of our larger units.

The current control potentiometer of P-Series P-70 and P-1500 units provides infinitely variable magnetizing and demagnetizing current control. A power transformer, supported by fan cooled silicon diodes, transforms the high voltage, low amperage line input to low voltage, high amperage half-wave D.C. for magnetizing. Low voltage, high amperage A.C. is also provided for magnetizing and demagnetizing.

P Series Features:

- Locate surface discontinuities using AC current. Switch cable connections to halfwave DC (HWDC) to locate near surface defects
- Locate discontinuities in any direction using prods, central conductor or coil wrap
- Infinitely variable current control
- Demagnetize parts in AC mode by slowly turning current dial to zero
- Built-in automatic-reset circuit breaker

P Series Benefits:

- Either-end terminals for quick changeover
- Unit comes with control cable with activation button

General Specifications:

	MODEL P-70	MODEL P-1500
Dimensions	17.5"L x 9"W x 8"H 44.5 x 22.9 x 20.3 cm	22"L x 9.5"W x 9.5"H 55.9 x 24.1 x 24.1 cm
Weight	35 lbs (15.9 kg)	93 lbs (42.2 kg)
Max Output ¹	750 Amps AC or HWDC	1500 Amps AC or HWDC
Current Input ² (single phase)	115 VAC 50/60 hz 230 VAC 50/60 hz	230 VAC 50/60 hz 460 VAC 50/60 hz
Line Current	26 Amps @ 115 VAC 13 Amps @ 230 VAC	42 Amps @ 230 VAC 21 Amps @ 460 VAC
Max Duty Cycle	2 Minutes ON 2 Minutes OFF	2 Minutes ON 2 Minutes OFF

¹Current ratings based on use of two 15-foot lengths of 4/0 cable.
²Other voltages available.



MAGNETIC PARTICLE INSPECTION EQUIPMENT

NDT professionals rely on Magnaflux to provide the best solution in Magnetic Particle Inspection Equipment for the detection of surface and near surface discontinuities in manufactured parts of all shapes and sizes. Built to stand up to tough industrial environments, Magnaflux equipment is prized for its ease of operation, rugged dependability and economical performance.

MAG KIT

Magnaflux Mag Kit

The Magnaflux® Mag Kit is a modular mag particle inspection system that allows lower volume NDT users to tailor a fully operational bench unit to their personal application needs by adding only the components that they currently require.

Using a portable power pack as a power supply, the Mag Kit is an economical, easy to operate alternative to more expensive, higher volume bench units when volume processing is not required. It provides the same level of inspection dependability in a lower volume, lower cost equipment package.

Dimensions: 50.5" L x 20.5" W x 50.25" H (Table Height 36")
128cm L x 52.1cm W x 127.6cm H (Table Height 91.4 cm)

Flexibility Features:

- Purchase just the base unit (bench, headstock, tailstock and coil) if you already have a portable power pack
- Purchase the base unit with portable power pack
- Specify recirculating pump spray system with original purchase or add it later (not needed if aerosols are used)
- Conveniently switch magnetizing current from head/tail to coil by changing 2 plug-in cable connections
- Conduct remote inspections of large, heavy parts with the same portable power pack by using cables and prods

General Specifications:

- Coil Diameter - 11" I.D. (28.0cm)
- Max Part Weight - 350 lb. (159 kg)
- Max Part Length - 39" (99.1cm)
- Mag Kit Weight - 300 lb. (136 kg)

Part Number:

69360-11 Mag Kit
623830 Mag Kit Hood Assembly with
ZB-100F Black Light

Shown with optional power pack, pump and ZB-100F UV Black Light.





Mag Kit Pump

The Magnaflux® Mag Kit Pump has been developed for use with Magnaflux Mag Kit units to provide continuous spray and recapture of the Magnaglo® bath. The pump includes hose, nozzle, fittings and 5-gallon pail.

Part Number:

69390 Mag Kit Pump 115V

69395 Mag Kit Pump 230V



69390

DEMAG EQUIPMENT

S-66 Demagnetizing Coil

The Magnaflux® S-66 Demagnetization Coil is a compact tabletop unit designed to be conveniently integrated into existing mag particle inspection systems. Oil and waterproof by virtue of its plastic-impregnated glass coating, the S-66 can be flush mounted to the work surface with supplied angle supports to facilitate easy part insertion by the operator.

Dimensions: 15.5" L x 9.4" W x 14.4" H (39.4 cm L x 23.9 cm W x 36.6 cm H)

General Specifications:

- Elec. Requirements - 115V - 12 amp
230V - 6 amp
460V - 3 amp
- Opening Size - 6" x 6" (15.2 cm x 15.2 cm)
- Shipping Weight - 85 lb. (38.6 kg)



S-1212 Demagnetizing Coil

The Magnaflux® S-1212 Demagnetization Coil is a compact tabletop unit designed to be conveniently integrated into existing mag particle inspection systems. Oil and waterproof by virtue of its plastic-impregnated glass coating, the S-1212 can be flush mounted to the work surface with supplied angle supports to facilitate easy part insertion by the operator.

Dimensions: 24" L x 11.8" W x 24" H (61 cm L x 30 cm W x 61 cm H)

General Specifications:

- Elec. Requirements - 230V - 30 amp
460V - 14 amp
- Opening Size - 12" x 12" (30.5 cm x 30.5 cm)
- Shipping Weight - 285 lb. (129.3 kg)



UV BLACK LIGHTS & ACCESSORIES



UV Black Light
Equipment



UV Black Light
Accessories

"MAGNAFLUX® UV Black Lights and Accessories helped us stay on budget by improving the detection capabilities of our magnetic particle and liquid penetrant inspection process."

better



Magnaflux® UV Black Lights and Accessories are built to help maximize the detection capabilities of your magnetic particle and liquid penetrant inspection processes by providing UV equipment that performs better, lasts longer and costs less to operate than more conventional UV lights.

Built-in Efficiency

UV BLACK LIGHTS

Vibrance® EV5000 UV LED Black Light

The Vibrance® EV5000 UV LED Black Light may not only be the best UV LED black light you ever buy, but the last as well. Individually tested and certified to a wavelength between 365 - 370 nm, the Vibrance® EV5000 Black Light offers an average LED life of up to 50,000 hours, a radical new lightweight ergonomic design that is 30% lighter and 90% more energy efficient than traditional mercury vapor UV lights.

- Lightweight ergonomic design reduces muscle fatigue and stress
- Average LED life of up to 50,000 hours
- Individually serial numbered and certified to wavelength between 365-370 nm
- Electronically stabilized and certified UV intensity with <10 Lux or 1 ft-candle visible emission
- Rugged aluminum housing assures years of NDT inspection performance

General Specifications:

- Weight - Approximately 2lbs. (1kg)
- Dimensions - 9.5" x 6.5" x 4" (24 x 16.5 x 10 cm)
- UV Source - 4x high performance UV-LED cluster
- UVA Intensity:
 - EV5000 5000 $\mu\text{W}/\text{cm}^2$ at 15 in. (38 cm)
 - EV5000G 7000 $\mu\text{W}/\text{cm}^2$ at 15 in. (38 cm)
- UV LED Life - Approximately 50,000 hrs.
- Wavelength - Certified 365 - 370 nm
- No UVB or UVC radiation generated
- Operating Voltage - 24V DC
- Power Supply - 110-240V AC/50-60Hz/1 Phase
- Power Consumption <15W
- Duty Cycle - Relative duty cycle: 100%

Part Number:

- 624673 Vibrance® EV5000 UV LED Black Light
625916 Vibrance® EV5000G UV LED Black Light



UV BLACK LIGHTS & ACCESSORIES

Magnaflux® brand UV Black Lights and Accessories provide improved detection and design features not offered by other UV manufacturers, while simultaneously delivering one of the industry's lowest operating cost and longest LED life. Our new Vibrance® EV5000 UV LED Black Light weighs in a full 30% lighter than conventional mercury vapor UV lights, costs considerably less to operate, has a projected LED life of up to 50,000 hrs.

ZB-100F® Fan-Cooled UV Black Light

The Magnaflux ZB-100F® Portable Black Light System produces ultraviolet light at 365nm. A built-in, quiet operating fan located at the rear of the ZB-100F® lamp housing dramatically reduces operating temperatures to under 85°F, for improved operator safety and comfort, while simultaneously expanding bulb life.

- Cool running for increased safety and comfort
- Extended bulb life for greater operating efficiency
- Polycarbonate bezel shields operator hands from lens
- Recessed lens for improved bulb protection
- Rugged aluminum housing assures years of NDT inspection performance

General Specifications:

- Weight - Hand lamp 3 lbs. (1.36 kg), hand lamp with transformer 12.5 lbs. (5.67 kg)
- Typical Output - 5000µW/cm²
- Current Draw - 1.9 amps
- Typical Visible Light - 10 Lux or 1 ft. candle @ 15" (38cm)
- Bulb- 100 Watt
- Running Temperature - 85°F (30°C)
- Cord Length - 10ft. (3.05m) lamp to transformer
- Main Cable Supply - 12ft. (3.66m)

Specification Compliance: Industry and Military Standards @ 15" (38cm).

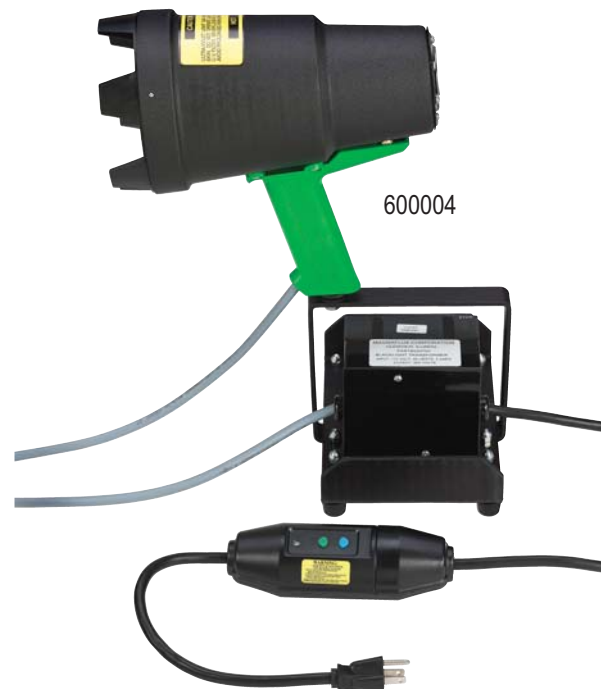
Part Number:

600005	ZB-100F® 100 Watt, 115V/60Hz/1Phase
621254	ZB-100F® 100 Watt, 220V/50Hz/1Phase
600004	ZB-100F® 100 Watt, 115V/60Hz/1Phase with Portable Cart
621311	ZB-100F® 100 Watt, 220V/50Hz/1Phase with Portable Cart
621312	ZB-100F® 100 Watt, 230V/60Hz/1Phase with Portable Cart

ZB-100F-MB® Remote Mag Shot UV Black Light

The Magnaflux ZB-100F-MB® Remote Mag Shot UV Black Light adds the benefit of being able to energize power packs and wet bench units remotely from your black light, when checking for discontinuities in extra long parts. The ZB-100F-MB® has a remote button integrated into the handle of the black light to eliminate the need for continuously returning to the MPI unit to initiate a mag shot.

- Offers the ability to operate MPI unit remotely
- Cool running for increased safety and comfort
- Extended bulb life for greater operating efficiency
- Polycarbonate bezel shields operator hands from lens
- Recessed lens for improved bulb protection
- Rugged aluminum housing assures years of NDT inspection performance





ZB-100F-MB® Remote Mag Shot UV Black Light Continued.

General Specifications:

- Weight - Hand lamp 3lbs. (1.36 kg), hand lamp with transformer - 12.5lbs. (5.67kg).
- Typical Output - 5000 μ W/cm²
- Current Draw - 1.9 amps
- Typical Visible Light - 10 Lux or 1 ft. candle @ 15" (38cm)
- Bulb- 100 Watt
- Running Temperature - 85°F (30°C)
- Cord Length - 10ft. (3.05m) lamp to transformer
- Main Cable Supply - 12ft. (3.66m)

Specification Compliance: Industry and Military Standards @ 15" (38cm).

Part Number:

600086 ZB-100F-MB® 100 Watt, 115V/60Hz/1Phase

UV BLACK LIGHT ACCESSORIES

Replacement Bulbs for Standard UV Black Lights

Magnaflux maintains a full inventory of high quality replacement bulbs for all of its standard black light equipment.

Part Number: 507320 - 100 Watt Medium Base Black Light Bulb. Replacement bulb for ZB-100F® and ZB-100F-MB® UV Black Lights. (Single bulb sold only to USA, Canada and Mexico.)

Part Number: 625550 - Case of 12 100 Watt Medium Base Black Light Bulbs. Replacement bulb for ZB-100F® and ZB-100F-MB® UV Black Lights. (International customers must order case quantity.)



UV Black Light Filter

Magnaflux offers a smooth output filter designed to improve the operating range and performance of its UV black lights.

Part Number: 519227 - Smooth Filter Glass. Used with ZB-100F®, ZB-100F-MB®, and ZB-150F-SB® UV Black Lights.



UV Black Light Ceiling Mount Assembly

The Magnaflux Ceiling Mount Assembly® comes with hardware to permanently attach hand-held black lights, such as the ZB-100F®, ZB-100F-MB® and ZB-150F-SB®, to the solid roof of an inspection area.

When it is important to bring a black light closer to the inspection area, you may purchase one of the extensions shown below.

Part Number: 623367 - Black Light Ceiling Mount Assembly

Part Number: 622596 - Modular Black Light 5.5 Extension

Part Number: 622597 - Modular Black Light 7.5 Extension



UV Black Light Wet Bench Mounting System

The Magnaflux Wet Bench Mounting System® provides an adjustable mounting system for affixing hand-held black lights, such as the ZB-100F®, ZB-100F-MB® and ZB-150F-SB®, to Magnaflux wet bench units.

Part Number: 623365 - Black Light Wet Bench Mounting System Part

Number: 622596 - Modular Black Light 5.5 Extension

Part Number: 622597 - Modular Black Light 7.5 Extension



EV5000 UV LED Black Light Mounting Assembly Adaptor

This mounting assembly adaptor allows the EV5000 to be used with all Magnaflux® black light mounting assemblies.

Part Number:

625667 EV5000 Mounting Assembly Adaptor





UV-A Light Meter

The Magnaflux® UV-A Digital Light Meter is a compact, rugged, easy to operate, multi-function UV meter proven to be highly effective for measuring and calibrating UV-A light sources used in fluorescent magnetic particle and liquid penetrant NDT inspections. It comes with a detachable remote sensor, high-contrast digital LCD display, 9V battery and carrying case.

Part Number:

625024 UV-A Light Meter



625024

White Light Meter

The Magnaflux® White Light Meter accurately measures visible light by foot candles and Lux, and includes white light meter, permanently affixed white light sensor with UV filter, battery and carrying case.

Part Number:

622338 White Light Meter



622338

UV Absorbing Safety Glasses

Magnaflux® UV Absorbing Safety Glasses are designed to protect black light users from repeated, day-long exposure to ultraviolet light sources.

Part Number:

506249 UV Absorbing Safety Glasses



506249



"Sonotech® ultrasonic couplants helped us to redefine our expectations in terms of the level of results achievable in our NDT inspection process."

redefine



The Sonotech® line of ultrasonic NDT couplants offers outstanding couplants with precisely formulated properties to maximize inspection results.

Enhancing Results

GENERAL PURPOSE COUPLANTS

Ultragel® II (Silicone Free)

Ultragel® II has been recognized as the industry's most specified and used ultrasonic couplant for more than 35 years. It possesses outstanding acoustic performance, chemical characteristics and corrosion inhibition and is ideal for flaw detection, thickness gauging, flow metering and acoustic emission testing across a broad temperature boundary (-10° to 210° F). Ferrous corrosion inhibition rating of 90.

Specification Compliance: ASTM F519, F945, 5968, 5980, Pratt & Whitney PWA 286, 275, 1484, 36604, 36700, MCL E-205 Type II (ASTM F945), AMS 5544, 5536, 6359, 4037, 5608 (Haynes 188), 5508, 4375.

Part Number & Container Size:

25-901	1 Gal.	25-904	4 oz. Bottle (12-pack)
25-905	5 Gal.	25-912	12 oz. Bottle (12-pack)
25-955	55 Gal.		



Sonotrace® (Glycerine Free)

Sonotrace® is a glycerine and silicone-free, water-based couplant formulated for flaw detection and thickness gauging applications where halogens, sulfur and low melting point metals must be kept to a minimum. It comes in two viscosities, low viscosity fluid and very high viscosity gel, and has an operational temperature range of 25° - 175° F. Ferrous corrosion inhibition rating of 80.

Part Number & Container Size:

Grade 30

42-901	1 Gal.	42-955	55 Gal.
42-905	5 Gal.		

Grade 40

43-901	1 Gal.	43-955	55 Gal.
43-905	5 Gal.		



NDT ULTRASONIC COUPLANTS

Whether your requirements include meeting halogen, sulfur and low melting point specifications for the nuclear power industry, or high level environmental and acoustical standards, you will find all your needs well met by an industry leading Sonotech® couplant. Available in four categories; General Purpose, Environmentally Benign, High Temperature and Speciality Application, along with pack sizes to meet every testing need, Sonotech® brand couplants and support staff are dedicated to bringing ease, consistency and unparalleled results to your NDT inspection process.

Echogel® (Glycerine Free)

Echogel® is a glycerine and silicone-free couplant formulated for use in inspections where salt cake or metal corrosion salts are present. It resists viscosity breakdown on salt-caked boiler surfaces and other corroded materials and contains a ferrous corrosion inhibitor with a relative effectiveness rating of 65. Operating temperature range: 27° to 140° F.

Specification Compliance: ASTM F 519, NAVSHIPS MIL-STD-767 and 2041.

Part Number & Container Size:

Grade 14

47-901	1 Gal.	47-955	55 Gal.
47-905	5 Gal.		

Grade 20

48-901	1 Gal.	48-955	55 Gal.
48-905	5 Gal.		



Soundsafe®

Soundsafe® is a silicone-free, environmentally benign high-performance couplant formulated for use in overhead vertical and horizontal applications where concern for the environment is a primary consideration. It possesses high humectant levels to slow drying, increase acoustic impedance and provide transducer lubrication. Soundsafe® contains ferrous corrosion inhibitors with a relative effectiveness rating of 75.

Soundsafe® has an operating temperature range of 0° - 200° F and is compatible with most composites and metals, except magnesium and magnesium alloys which should be pretreated before use.

Specification Compliance: ASTM F 945, 5968, 5980, Pratt & Whitney PWA 286, 275, 1484, 36604, 36700, MCL E-205 Type II (ASTM F945), AMS 5544, 5536, 6359, 4037, 5608 (Haynes 188), 5508, 4375.

Part Number & Container Size:

20-901	1 Gal.	20-904	4 oz. Bottle (12-pack)
20-905	5 Gal.	20-912	12 oz. Bottle (12-pack)
20-955	55 Gal.		



Sonoglide® FE (Silicone Free)

Sonoglide® FE is an environmentally benign, silicone-free couplant specially formulated for ferrous metals where short-term corrosion is a concern. It contains a ferrous corrosion inhibitor with a relative effectiveness rating of 75, is slow drying and will remain stable on corroded or salt covered surfaces. Operating temperature range: -60° to 250° F.

Part Number & Container Size:

Grade 20

82-901	1 Gal.		
82-955	55 Gal.		





Sonoglide® UP (Ultra-Pure)

Sonoglide® UP is an ultra-pure, environmentally benign, silicone-free couplant that is compatible with titanium, aluminum, copper, stainless steel, plastics, many magnesium alloys, and many composites. It is the perfect choice for applications where halogens and sulfur must be at a minimum and broad material compatibility, slow drying and water wash removability are desired. Operating temperature range: -60° to 250° F.

Specification Compliance: Pratt & Whitney PWA 286, 275, 1484, 36604, 36700, MCL E-205 Type II (ASTM F 945), AMS 5544, 5536, 6359, 4037, 5608 (Haynes 188), 5508, 4375, ASTM F 945.

Part Number & Container Size:

Grade 7

84-901	1 Gal.	84-955	55 Gal.
84-905	5 Gal.		

Grade 40

87-901	1 Gal.
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Soundclear®

Soundclear® is an excellent price to performance ratio environmentally benign couplant for flaw detection and thickness gauging. It contains humectants to slow drying and increase acoustic impedance and has an operating temperature range of 20° to 200° F. Soundclear® contains a corrosion inhibitor for steel with a relative effectiveness rating of 45 and is compatible with aluminum, titanium and plastics. *It is not recommended for use with magnesium.*

Part Number & Container Size:

Grade 60

31-901	1 Gal.	31-955	55 Gal.
31-905	5 Gal.		



UT-X POWDER

UT-X Powder is a couplant concentrate useful for flaw detection and thickness gauging applications where ferrous corrosion inhibition is not a concern. It retains viscosity on salt caked boiler tubes, corroded pipe, structural steel, steel billets, plates and welds. Operating temperature range: 32° to 120° F.

Part Number & Container Size:

62-110	UT-X 1-Gal. Packet (10-pack)
62-510	UT-X 5-Gal. Packet (10-pack)



HIGH TEMPERATURE COUPLANTS

SONO

The Sonotech® family of Sono couplants comes in a wide range of temperature formulas. The biodegradable formulas have made them the leading choice for use in flaw detection, thickness gauging and acoustic emission testing in the petrochemical, power generation, food processing machinery and pharmaceutical manufacturing and storage equipment markets.

Part Number & Container Size:

Sono 600: 0 to 700°F (-18 to 371°C)

45-901 1 Gal.

45-T04 4 oz. Tube

Sono 900: 600 to 680°F (316 to 360°C)

40-901 1 Gal.

40-T04 4 oz. Tube

Sono 950: 600 to 760°F (316 to 404°C)

29-901 1 Gal.

29-T04 4 oz. Tube

Sono 1100: 700 to 775°F (371 to 413°C)

30-901 1 Gal.

30-T04 4 oz. Tube



Pyrogel®

Pyrogel® couplant offers the broadest temperature range (-50° to 800°F) for thickness gauging, flow metering, acoustic emissions testing and flaw detection. It is radiation proof, contains no polymers and resists drying, making it an excellent choice for long term flow metering applications. Ferrous corrosion inhibition rating of 100.

Part Number & Container Size:

Grade 7: -50 to 730°F (-45 to -388°C)

21-901 1 Gal. (Minimum order of 2)

Grade 100: -50 to 805°F (-45 to 429°C)

24-901 1 Gal. (Minimum order of 2)

24-T04 4 oz. Tube





SPECIALTY APPLICATION COUPLANTS

HIGH Z

High Z provides the highest acoustic impedance of all Sonotech® couplants to reduce surface noise and improve coupling performance on curved, rough, pitted and corroded surfaces. Its environmentally benign formula can be removed with water and it will often facilitate flaw inspection and thickness gauging when no other couplant will function. High Z is available in two viscosities (low viscosity and high viscosity) with an operating temperature range of 0° to 200° F. Ferrous corrosion inhibition rating of 70.

Part Number & Container Size:

High Z HV (High Viscosity)

59-T04 4 oz. Tube

High Z LV (Low Viscosity)

58-T04 4 oz. Tube



SHEAR GEL

Shear Gel is specially formulated to provide coupling for shear wave generated by normal incidence (zero degrees) shear wave transducers. It has an extremely high viscosity and an operation temperature range of 40° to 90°F. Ferrous corrosion inhibition rating of 85.

Part Number & Container Size:

54-T04 4 oz. Tube





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