SPANJAARD

Data Sheet

FLAW & CRACK DETECTOR SYSTEM
PACK OF 3

Spanjaard Flaw & Crack Detector System consists of 3 products for the convenient non-destructive testing (NDT) of cracks and other surface flaws in metal components. The system is a fast, economical and reliable method of visual detection of all surface defects on metal parts during manufacture and also on operational components in-situ. The three pack system meets DTD 929/MIL-I-25135E Group I and II.

APPLICATIONS

Spanjaard Flaw & Crack Detector System is designed for use on all metals including Titanium, Nickel, Stainless Steel and Aluminium, which require product to be formulated with low halogen and sulphur content (meets NDT tests of Welding Institute).

The system is made up of:-

1. A solvent cleaner to remove surface contamination (Pack No. 1).

2. A red dye penetrant i.e. a dye solution in a low viscosity solvent mixture that will penetrate any crack or fault and will not dry too quickly (Pack No. 2).

3. A white developer, to coat the surface with a fine, absorbent white powder which will draw out any dye held in the cracks which are then revealed as coloured areas in a white background (Pack No. 3).

The **Spanjaard Flaw & Crack Detector System** will show up cracks as red lines and porous areas as red pin points on all types of metal.

Typical fields of application include weld inspection, routine maintenance inspection,

Inspection and checking of tools or incoming materials, etc.

The detector system can be used when an undetected defect in raw material or finished component can become a dangerous fracture.

Checking for potential fatigue cracks or flaws during maintenance where parts of vehicles, cranes and other equipment are subjected to heavy stress.

Inspection of welded areas that must be free of flaws e.g. industrial heating equipment oil tanks fabricated from mild steel.

Machined surfaces or parts of equipment used for pressing operations. Aluminium die-castings can be examined for minute flaws or cracks.

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APPLICATION INSTRUCTIONS

The **Spanjaard Flaw & Crack Detector System** is available as a three pack aerosol. The Three Pack System should be used as follows:

CLEANER (PACK 1)

Remove all surface contamination such as oil, grease and dust. Spray surface with cleaner (Pack 1) and clean thoroughly with absorbent cloth until no further contamination is evident on the cloth/tissue.

PENETRANT (PACK 2)

Parts must be at ambient temperature before spraying. Liberally spray the area with Penetrant (Pack 2) and allow 5 minutes contact time. Allow up to 20 minutes for very fine cracks.

CLEANER (PACK 1)

Spray Cleaner (Pack 1) onto an absorbent lint-free cloth and wipe off excess from surface until no further Penetrant (Pack 2) is evident on the cloth. This step is vital to ensure cracks and flaws are detected.

DEVELOPER (PACK 3)

Shake container before use. Spray on a thin, even film of Developer (Pack 3) and leave on for at least 10 minutes before inspecting for the fine flaws.

INSPECTION

Good daylight or artificial illumination will show up any flaws as continuous red lines for cracks or pin points for porous parts.

TYPICAL PROPERTIES

	PACK 1	PACK 2	PACK 3
Colour	Colourless	Red	White
Odour	Ether-like	Distinct	Solvent
Density, 25ºC,g/mℓ	0.79	0.79	0.85
Flammability	All 3 are highly flammable		
pH	7,0	7,0	7,0

HANDLING AND STORAGE

Extremely flammable aerosol. Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C. Keep away from heat / sparks / flames / hot surfaces. No Smoking. Do not pierce or burn, even when empty. Do not spray onto an open flame or any incandescent material. 100% by mass of the contents are flammable. Use only in well ventilated areas. Causes serious eye irritation. May cause drowsiness or dizziness. Keep out of reach of children. Store under cover.

PACKAGING

Pack 1	350ml Aerosol
Pack 2	300ml Aerosol
Pack 3	350ml Aerosol