STEELCOAT 100™ SYSTEM

INSTRUCTIONS FOR USE

FOR THE PROTECTION OF COUPLINGS OR FLANGES ON ABOVE GROUND PIPEWORK

SYSTEM COMPONENTS

MAIN:

- DENSO™ HI-TACK PRIMER
- DENSO™ PROFILING MASTIC
- DENSO™ HI-TACK TAPE

OPTIONAL:

- DENSO D10™ SCRIM
- DENSO ACRYLIC™ TOPCOAT
  (The above two components will ensure a tough weatherproof outer layer with a maintenance free service life of 30 years.Denso Urethane Topcoat can be substituted in low temperature/damp conditions.)

BASIC EQUIPMENT LIST

Fresh water supply connection / scrubbing brushes / power wire brushes / chipping hammers / scrapers / paint brushes / brush cleaning solvent / utility knife / overalls / gloves / cleaning cloth / hand cleaner / barrier cream / medium sand paper.

NOTE: *The selected Steelcoat System for pipe lengths is applied before the Steelcoat 100 System is applied to the coupling or flange.The pipe protection system is terminated approximately 50mm short on both sides of the coupling or flange fitting.*

SURFACE PREPARATION

Surfaces must first be thoroughly washed down with fresh water by hand scrubbing or preferably high pressure jet washing to remove all loose dirt and salt/chloride deposits.Heavy rust is removed by means of chipping hammers and scrapers.

Power wire brush to remove all scale, rust and old flaking coatings to achieve a finish of St2 according to ISO 8501-1 or Swedish Standard SIS 0055900.

1. PRIMING

Brush apply one coat of Denso Hi-Tack Primer over the entire area to be wrapped extending 50mm onto the pipe, each side of the fitting.

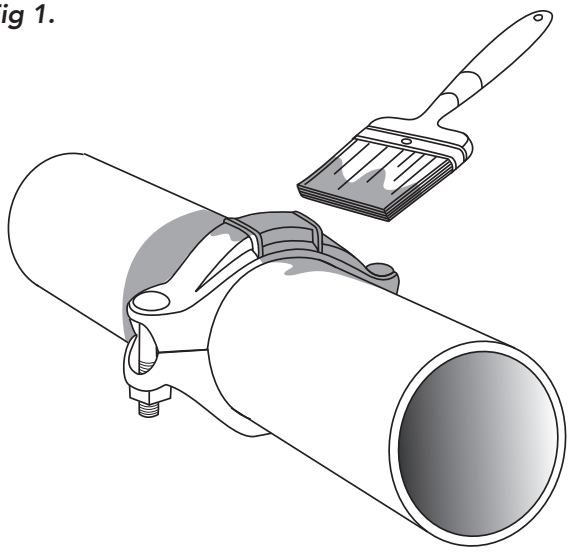
Allow to dry until tacky to the touch.

Coverage: 5m²/l average

Drying time: Approx 30 minutes

Fig 1. *Apply Denso Hi-Tack Primer to entire area of the fitting and extend 50mm wide each side.*

Fig 1.



2. PROFILING THE COUPLING OR FLANGE

Profile the coupling with Denso Profiling Mastic, applying sufficient mastic to ensure the tape can be applied afterwards to all contours without forming voids or air gaps (see Fig 2 and 3).

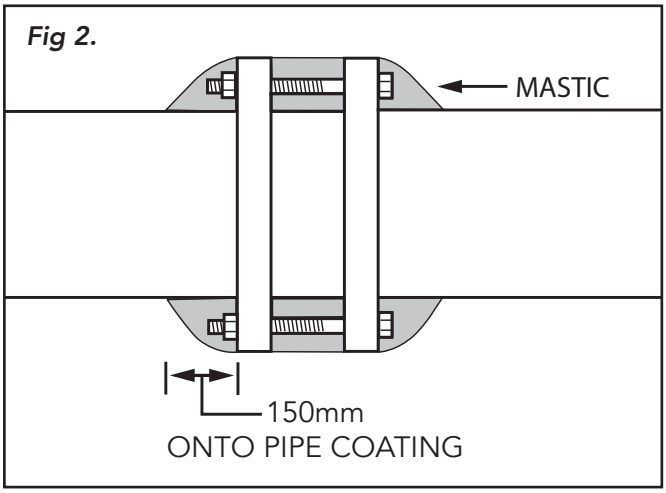


Fig 2. *Use Denso Profiling Mastic to build up and smooth the contours of the coupling or flange prior to wrapping with tape.*

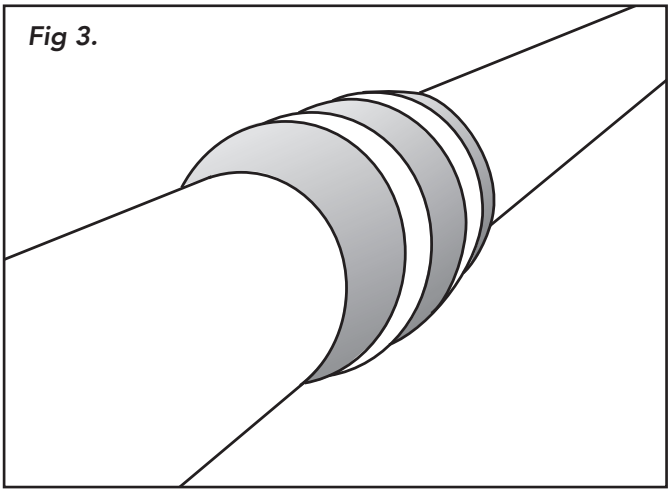


Fig 3. *The profiled coupling or flange ready for the application of Denso Hi-Tack Tape.*

3. TAPE WRAPPING THE COUPLING OR FLANGE

1. Spirally wrap the coupling with 75mm Denso Hi-Tack Tape, overlapping each previous turn by 25mm.The tape is applied and terminated 50mm past the mastic on each side of the coupling or flange.Smooth down thoroughly by hand (see Fig 4).

2. Cut strips of 150mm wide Denso D10 Scrim. Each strip shall be approximately 500mm wider than the coupling or flange i.e. to allow a 50mm overlap over each side of the Hi-Tack Tape.

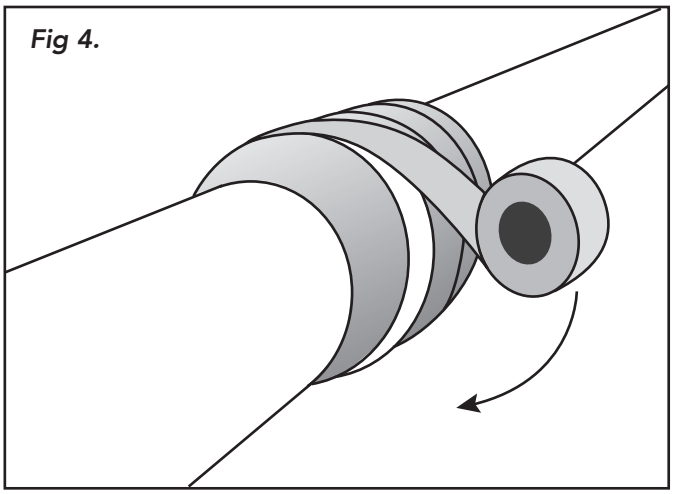


Fig 4. *Spirally wrap the coupling or flange with Denso Hi-Tack Tape.*

3. Fully saturate the cut strips of Denso D10 Scrim with Denso Acrylic Topcoat in a suitable trough or paint tray (see Fig 5).The scrim absorbs approximately a litre of topcoat per square metre

4. Before applying the saturated scrim, first coat the applied Denso Hi-Tack Tape with a thick coat of Denso Acrylic Topcoat at the rate of $3m^2/l$.The saturated cut strips can be immediately applied onto the coated Hi-Tack Tape

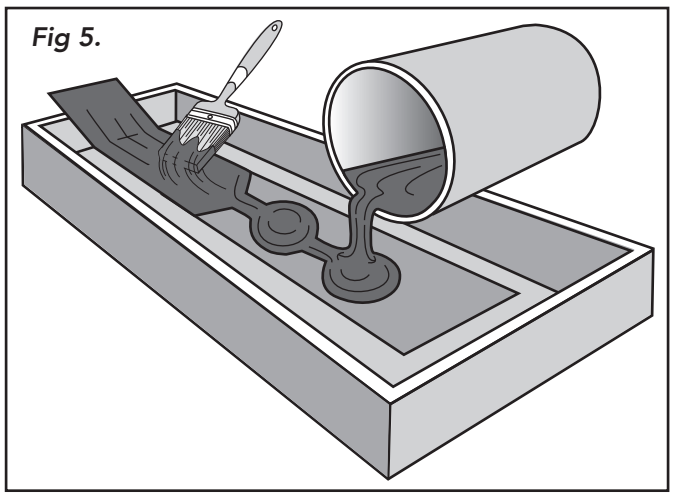


Fig 5. *Saturate the Denso D10 Scrim strips with Denso Acrylic Topcoat in a suitable tray.*

3. TAPE WRAPPING THE COUPLING OR FLANGE - *CONTINUED*

5. Apply the strips in a longitudinal weatherboard fashion, one side at a time, starting at the bottom and working towards the crown.

Commence 250mm on one side of the coupling or flange and terminate approximately 250mm past the coupling or flange on the other side.

Ensure each strip overlaps the adjacent strip by approximately 25mm (see Fig 6).

Overwork with gloved hand to ensure full contact is made with the inner Denso Hi-Tack Tape

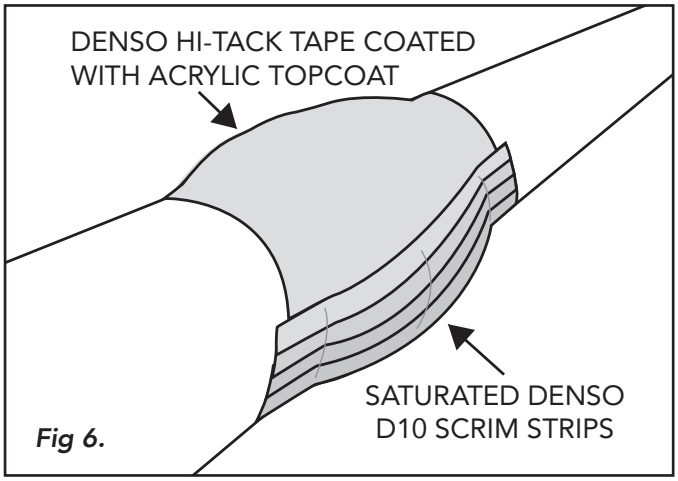


Fig 6. *Applying the saturated Denso D10 Scrim strips.*

6. Tie in the edges of the strips on each side of the coupling or flange by applying circumferentially one 150mm wide Denso D10 Scrim strip saturated with Denso Acrylic Topcoat overlapped onto itself by 50mm.

The saturated scrim is centred over the edge of the strip ends to ensure a 75mm overlap onto the pipe coating and a 75mm overlap back onto the longditudinally applied strips (see Fig 7 and 8).

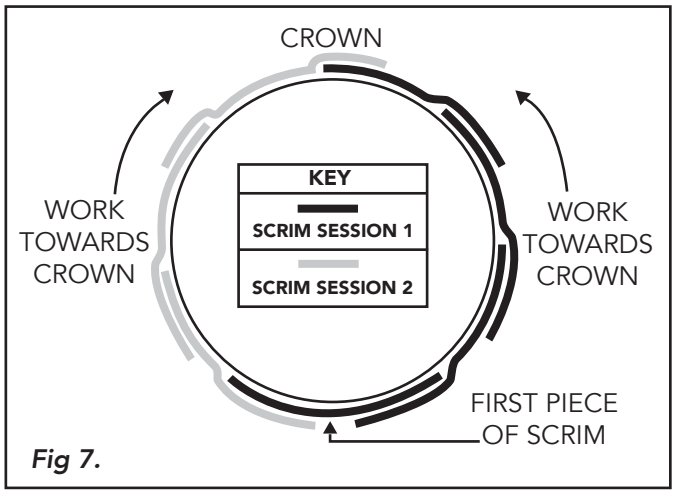


Fig 7. *End view of sequence of overlapping the saturated Denso D10 Scrim strips.*

7. Allow the Acrylic Topcoat to cure for a minimum of 12 hours.

8. Lightly sand off any rough areas.

Apply a final thick coat of Denso Acrylic Topcoat at the spread rate of $3m^2/l$.

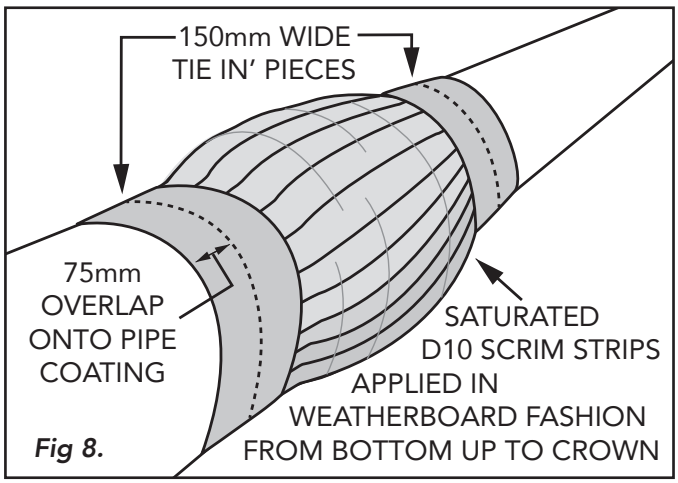


Fig 8. *Final position of D10 scrim strips and tie-in pieces.*

BASIC SAFETY DATA:

Storage: Store correct way up in original packaging
Store away from heat and open flames.

Transport: No special precautions necessary.

Handling: The use of barrier cream is recommended. Avoid contact of the compound with face, arms, etc. Wash thoroughly after use and before work breaks to remove compound from the skin. Careful attention should be given to personal hygiene. Change and clean soiled clothing.

Action in case of fire: Extinguish with dry powder, carbon dioxide or chemical foam.

See manufacturers Health & Safety Data Sheets for full health and safety information.

DENSO STEELCOAT SELECTION GUIDE

Denso Steelcoat Systems are divided into 4 categories which involve different surface preparation i.e.categories A, B, C and D.

A: Abrasive water-jetting or ultra high pressure water-jetting to Sa2 Standard (also suitable for dry abrasive blasting to Sa2) surface profile: 50 - 75 microns flash rusting application: suitable over visibly patchy flash rust.

B: Fresh water wash down followed by thorough hand / power tool cleaning Standard: St2

C: Fresh water wash down, heavy chipping hammers to remove heavy rust, thorough hand wire brushing to remove all loose scale and old coatings (conditions where St2 mechanical cleaning is not fully achievable due to condensation, deep pitting etc).

D: No cleaning required - i.e. new cables

Note: Detailed surface preparation data must always be referred to.

SURFACE PREPARATION	PROTECTING	STEELCOAT SYSTEM	EXPECTED SERVICE LIFE (years)	AVERAGE THICKNESS (microns)	1st MAINTENANCE COAT (years)
CATEGORY A water jetting or abrasive blasting	steel structures, rigs, new jetty piles, decking, walkways, ramps, loading installations, very hot pipes, plant, tanks, pipelines, cranes, bridges, steelwork	1000 1000 900 700	20 - 30 15 - 25 12 - 15 12 - 15	1500 1000 4-500 4-500	- - - -
CATEGORY B power tool cleaning	process plant, pipe bridges, structural steel, pipework, fittings, pipelines, tie bars, storage tank bases, metal roof purlins, hot pipework	700 500 400 / D5 400 300 200	7 - 9 30 30 30 15 15	4-500 1600 1600 1400 1250 2300 (55% overlap)	- - - 20 - -
CATEGORY C hand wire brushing	cold/damp pipes, badly rusted/pitted pipes and structural steelwork, fittings, pitted pipelines, old metal roof sheets	100 / S105 100 / HT PRIMER 500 / 100 (combined) 400 / 100 (combined)	15 15 30 30	1400 1400 3000 2800	- - - 20
CATEGORY D no cleaning	pre-stressing and post tensioning bridge cables and anchorages	50	50 plus	sleeve / anchorage completely filled	-

Note: Preparation of galvanised steel and aluminium surfaces: Degrease and roughen surface by mechanical abrasion or abrasive sweep-blasting.

DISPOSAL

Please minimise or avoid waste wherever possible. Please do not discard waste material, including packaging, in the surrounding environment. Follow all relevant legislation for disposal.

IMPORTANT:

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