ThistleBond

www.thistlebond.info

Creating Irregular Shims:

The Following ThistleBond section is concerned with the creation of irregular shims and should be read in conjunction with the Technical Data sheets of the following ThistleBond Products: Super Metal Rebuilding System, Extended Life Super Metal Rebuilding System, Abrasion Resistant Ceramic Carbide Fluid, Flexiblised Ceramic Carbide Compound

COMMON DEFECTS
Incorrect lead transition due to misalignment or distortion of mating faces. Damage caused by abrasion due to differential movement between mating faces.

PREPARATION
All work should be carried out in strict accordance with the relevant ThistleBond Technical Data Sheet. The product selection and application techniques should be based on the nature of the equipment, the environment and the time available to carry out the work. Specific consideration should be given to achieving correct leveling and alignment of the equipment.

SURFACE PREPARATION
All mating surfaces should be washed with ThistleBond Universal Cleaner in order to remove all dirt and grease, loose paint flakes and scale. The irregular shim maybe bonded to either face and therefore should be Grit Blasted using an angular abrasive to give a surface finish of **Swedish Std SA 2 1/2 ensuring a profile of 75 microns minimum.**
Any surfaces to which the material should not be bonded must be treated with ThistleBond Release Agent.
Alignment and leveling of the equipment should be achieved using either jacking bolts or shims. Wherever possible a minimum clearance between mating faces of 1/16” should be achieved.

APPLICATION TECHNIQUE
The edges of the mating faces should be sealed using a paste grade of the ThistleBond Material. Injection holes should be carefully positioned, together with the vent holes to prevent the formation of air traps. Ideally injection points should be spaced no more than 24” apart. The selected material should be loaded into disposable injection cartridges and injected using pneumatic equipment. The application should progress along until it is exuded from the next injection point. When the first hole should be sealed with a suitable bung and injection commenced at the next hole. Continue until all the voids have been

filled. The product should then be left undisturbed to fully cure before the equipment is returned to service.
Where equipment can be readily maneuvered and realigned, a paste grade ThistleBond material may be used. This should be applied to both mating surfaces ensuring that an excess of product is applied and that it is in a peak towards the centre, so that when the faces are brought together the product is exuded out, preventing any air entrapment. Check that the equipment is accurately located. Ant material exuded out should then be removed and the product allowed to cure before returning to service.

TECHNICAL SUMMARY

PRODUCT	COMPRESSIVE STRENGTH	WORKING LIFE (20C)	FULL CURE (20C)
SUPER METAL REBUILDING SYSTEM	15,500 PSI (ASTM D 965)	20 MINUTES	72 HOURS
ABRASION RESISTANT CERAMIC CARBIDE FLUID	13,000 PSI (ASTM D 965)	25 MINUTES	5 DAYS
EXTENDED LIFE SUPER METAL REBUILDING SYSTEM	10,000 PSI (ASTM D 965)	60 MINUTES	5 DAYS
FLEXIBLISED CERAMIC CARBIDE FLUID	2,800 PSI ELONGATION 35% (ASTM D412)	30 MINUTES	7 DAYS

RECOMMENDED EQUIPMENT

Mixing and application tools are included in each pack of ThistleBond Product. Prior to carrying out the repair however, it is important that all necessary tools and equipment are available on site. These could include the following – *Grit Blasting equipment, ThistleBond Universal Cleaners, ThistleBond Release Agent, Protective Clothing, Polyethylene Tenting.*