



# technical information

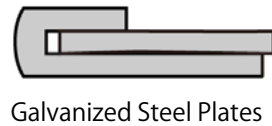
## 〈Prevention of hydrogen embrittlement of metals by SoundBonding technology〉



Until today, methods such as resistance welding, arc welding, gas welding, laser welding, etc. are used for bonding of metals such as Steel, etc. But all methods have a problem about "hydrogen embrittlement" and this problem hasn't been solved, yet.

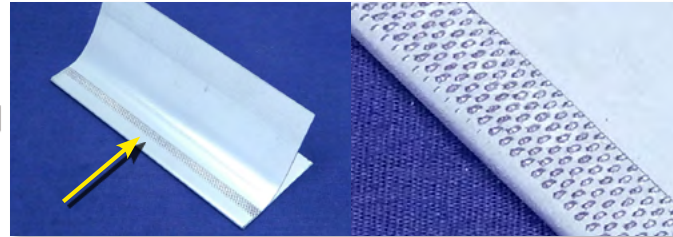
As a result of R&D of technology which uses sound energy, Ultext has established a method which can solve the problem about "hydrogen embrittlement" by using SoundBonding of SoundPower. At room temperature in atmosphere, beautiful bonding can be obtained by preventing heat generation, combustion, burning, melting, and explosion. (Patents pending)

**Stitch Rotation**



Galvanized Steel Plates

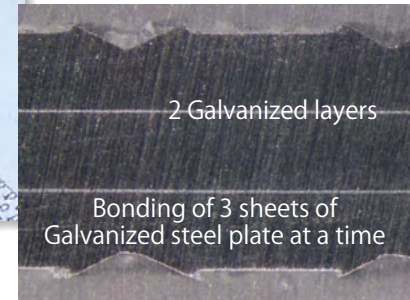
【Bonding samples of Galvanized Steel Plate】



[Strength check by bending after bonding]



[Enlarged view of bonding part]



2 Galvanized layers  
Bonding of 3 sheets of Galvanized steel plate at a time

[Microscope magnification]

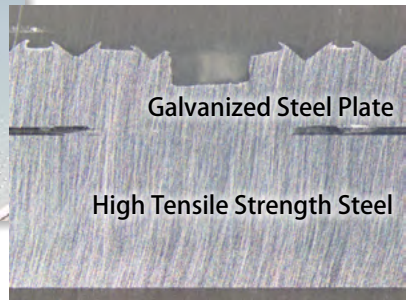
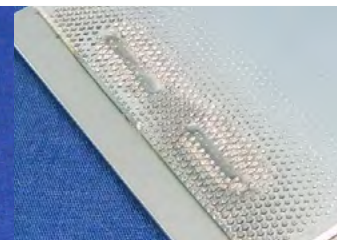
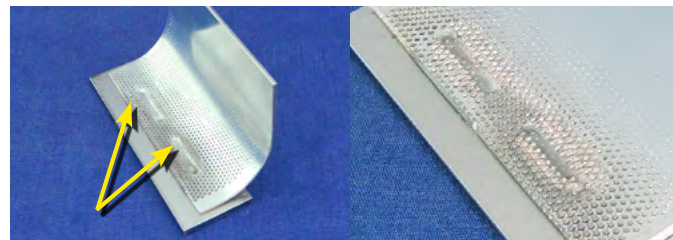
DSS+DPS



**WPower System**



Galvanized Steel Plate and HTSS



Galvanized Steel Plate  
High Tensile Strength Steel

By developing rotary type [Stitch Rotation] and batch type [DoublePower system], continuous bonding hermetic sealing became possible. And also, there is no residual stress at bonding part.

- ※ Stitch Rotation is patents pending.
- ※ DoublePower system is the patent.

**SoundPower<sup>®</sup>**  
Laboratory

**ULTEX<sup>®</sup>**