

TDC

Cold-Welding Equipment

Model : TDC-1

Transient Discharged Cold-Welding (Standard Type)



- ◎ **On-site repairing, no need to disassemble the workpiece**
- ◎ **Various choices for hardness & welding material**
- ◎ **High combination, not easy to peel off**
- ◎ **Labor safety, no water contamination & exhaust problem**
- ◎ **Partial maintenance, on-site repair**
- ◎ **Lower thermal, small hot zone**
- ◎ **Easy to learn & operate**
- ◎ **High return on investment & swift retrieve**

Magnificent repair equipment --- TDC-1 cold-welding

TDC-1 Transient Discharged Cold-Welding

FUNCTION

Welding can be done in millisecond by TDC (Transient Discharged Cold- Welding) – total alloy match with high combination without problems of deformation and discoloration.



Figure 1.

Cold welding repair nitriding screw nitride layer welding made one less hole of angry way.

EQUIPMENT CHARACTERS

1. Various kinds of metal are repairable incl. copper, aluminum & titanium, except for which with low melting point such as zinc, tin and hard alloy.
2. Simple arrangement, easy to learn & operate.
3. Partial maintenance, suitable for on-line job, on-site repairing.
4. To form a solid layer with high combination.
5. Lower thermal, no heating/deforming/discoloring to be happened on workpiece
6. Multiple choices of welding material depending on workpiece.
7. Double layers are workable, easy to make successive repair.



Figure 2.

The cold welding repair aluminum wheels recessed hole, cold welding can be effective for aluminum, copper substrate low into the hot patching.



Figure 3.

Low-calorie formula into the repair conductive copper roller bearing bits wear it, not too much cause axial deformation of the main demands.

SUITABLE MATERIALS

FC、FCD、SUS420、PDS1/3/5、NAK55/80、HPM、GM190/241/246、SKD11/61、45C、55C、STAVAX、RIGOR、Ni Alloy、Aluminum alloy, copper alloy, nickel electroforming mold and other (except zinc, tin and other low melting point metal and alloy outer)

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EQUIPMENT FUNCTION

TDC combined with Argon protection is able to procure the sophisticated crystalline layer and to make sure the high quality repair of workpiece.

EQUIPMENT ADVANTAGES

1. Simple operation
2. Ease to use
3. Partial management
4. High combination
5. On-site repair
6. On-line job
7. Low thermal
8. High return on investment



Figure 4.

SKD11 steel plant heat roller crack chipping cold welding repair, can not overheat, combined with high strength, hardness after welding HRc57~60°



Figure 5.

The large automotive bumper die (P-3 material) after cold welding mold bite spent surface treatment, cold welding make up the best results!



Figure 6.

Die chipping STELLITE12 fierce cold welding.

SPECIFICATION OF POWER SUPPLY :

Transient Discharged Cold-welding	
Type of equipment	TDC-1 (Standard Type)
Input supply	Single-phase AC220±10% Switch 50/60Hz
Power consumption	50~1000W
Transient power	≤40KW
Output of spot welding	fixed solder wire, welding stick ϕ 0.2~1.0mm
Frequency	4 phases (1 、 2 、 3 、 5Hz)
Main function	Lower thermal welding
Dimension	310(Height) × 190(Width) × 450(depth) mm ³
Machine weight	13.5 kg

MAIN EQUIPMENT :

1. TDC main unit ----- one unit
2. Welding torch (Transmission line 2.4M)----- one set
3. Cathode output (1.8M)----- one piece
4. Power line (1.5M)----- one piece
5. Spot welding wire (1.8M)----- one piece
6. Auto Darkening Mask ----- one set
7. footswitch ----- one piece
8. Controller for Argon ----- one set
9. Flexible pipe for Argon ----- one piece
10. ϕ 1.6mm tungsten rod ----- five pieces
11. Fuse – 8A -----2 pieces
12. Tool box ----- one box
13. Moveable trailer ----- one unit
14. Operation manual (incl. guarantee)----- 1 one set

OPTIONALS :

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|-----------------------------------|-----------------------------|-------------------------------|
| 1. 1.5M ³ Argon bottle | 2. Cast iron Wind is moving | 3. All kinds of welding wires |
| 4. Argon bottle fixer | 5. Mighty magnet | 6. Needle-nose pliers |

