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Notes for using Tube Closing Dies

1. Prior to use:

Please check hole size and OD. Diamond coating must not have any damages and inner surface must be clean without any impurities or debris. If necessary, a thin layer of machine oil can be applied to the inner surface.

2. When welding copper tubes:

Please ensure that the tube closing die is in line with the die before and after so all dies have the same centre. This will ensure stable welds.

3. When welding aluminium tubes:

3.1 When feeding the aluminium tube through the closing die initially, use slow speed with care to prevent possible gulling.

3.2 Take care to adjust the width of aluminium overlay. Too much overlay tends to cause gully and too little overlay tends to cause unstable welds.

3.3 If gully occurs or scratches on the surface of the aluminium sheet occur, the closing die inner surface should be polished. To do this, place the die in a lathe machine, use fine emery sanding paper and/or diamond powder to polish off the gully.

4. When welding the next sheet:

Turn the closing die a few degrees and this will prolong the die life.

Notes for Tube drawing die (after the tube closing die)

1. Prior to use: Please check hole size and OD. Diamond coating must not have any damages and inner surface must be clean without any impurities or debris.

2. Coat the die inner surface with grase(can be butter or venserlin)

3. Feed the tube into the die and start to draw and immediately use water or 10% of soap solution as lubricant to lubricate the die while drawing.

4. If the first 3 steps were not followed, the gulling might occur or aluminium table surface might have been scratched. To remove gulling:

4.1 Place the die in a lathe machine.

4.2 Use fine emery sanding paper and/or diamond powder to polish off the gully.

4.3 Repeat steps 1-3

Notes for using Compacting Dies

1. Please check hole size and OD. Diamond coating must not have any damages and inner surface must be clean without any impurities or debris.
2. Place the die into its holder and feed conductors into the hole.

3 . Special attention :

3.1 Please do not use hard object to hammer or hit the die when install and remove it from the machine as sudden impact may damage the coating hence reduce the die life.

3.2 Single wire should be sufficiently annealed to avoid surface spark. Welding points should be smoothed and rounded to prolong the die life.

4. For aluminium compacting:

4.1 CR should be appropriate to avoid gulling.

4.2 If the die is order for both copper and aluminium, please use it on copper first to achieve better conditioning for aluminium.

4.3 If gulling may occur due to high environmental temperature or due to the aluminium material itself, during the first 10km operation, industrial alcohol or transformer oil can be dropped into the die to reduce the temperature.

4.4 If gulling occurred, die inner surface should be polished. To do this, place the die in a lathe machine, use fine emery sanding paper and/or diamond powder to polish off the gulling.

5. If the coating falls off, this is the end of this die and it should be changed immediately.

Notes for Drawing Stainless Steel Wire

1. Prior to use:

1.1 Check die diameter and incoming wire size to be correct.

1.2 Diamond coating must not have any damages and inner surface must be clean without any impurities or debris.

2. Please do not use hard object to hammer or hit the die when install and remove it from the machine as sudden impact may damage the coating hence reduce the die life.

3. Must have reliable cooling system.

4. If the coating falls off, this is the end of this die and it should be changed immediately.\

Notes for drawing copper tubes

1. 1. Prior to use:

1.1 Check die diameter and incoming wire size to be correct.

1.2 Diamond coating must not have any damages and inner surface must be clean without any impurities or debris.

2. Please do not use hard object to hammer or hit the die when install and remove it from the machine as sudden impact may damage the coating hence reduce the die life.

3. Lubricant must be clean and no impurities.

4. If the coating falls off, this is the end of this die and it should be changed immediately.

Notes for drawing low carbon steel

1. Prior to use:
 - 1.1 Check die diameter and incoming wire size to be correct.
 - 1.2 Diamond coating must not have any damages and inner surface must be clean without any impurities or debris.
2. Please do not use hard object to hammer or hit the die when install and remove it from the machine as sudden impact may damage the coating hence reduce the die life.
3. Lubricant must be clean and no impurities.
4. If the coating falls off, this is the end of this die and it should be changed immediately.