

CIP-15

15T Miniature Cold Isostatic Pressing Machine

Operation Manual



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CIP-15 is the smallest cold isostatic presser (CIP) in the world. It has a 22mm ID x90mm hydraulic chamber made by ultra strength alloy , which can provide isostatic hydraulic pressure up to 300MPa via a 15T presser. It is excellent CIP for material research lab to prepare high density compound sample at easy. .CIP-22 has small footprint and can be placed in glove-box to prepare air-sensitive materials.

1. Technical Specification:

Pressure Chamber Size	22mm dia. x 90mm Height
Ma. Hydraulic Pressure in Chamber	300 MPa (43500 PSI)
Hydraulic Machine	15 T
Operation Temperature	10 - 40°C
Overall Dimension (including 15T Presser)	260 L x 210W x 500H, mm
Net Weight	90 Lbs

2. Operation Procedure:

- 1、Take out the top pressing head from the isostatic pressing die.
- 2、Put the powders packed by rubber, plastics or aluminum foil into the die.
- 3、Put the isostatic pressing oil into the die (recommended), or other liquid not corrosive up to around 30 mm to top.
- 4、Put the top pressing head into the die. The sealing O-ring should be into the die. Tight the top pressing screw until it could not be turned by the special tool.
- 5、Put the die into the pressing machine with right position.
- 6、Put the protective cover in the right position for the user' s safety.
- 7、Tight the oil release valve of the pressing machine. Swing the rocker to increase the press until the press reaches to 20 MPa.

Stop. The press is 300 MPa inside the die.

- 8、 If the press inside is down, swing the rocker to increase the press to keep the press consistent in the time the user desires to.
- 9、 When the set up time is done, gradually decrease the press by releasing the oil release valve slowly. **But do not open the isostatic pressing die immediately.** Keep isostatic pressing die in the pressing machine for 5 minutes and then loose the top pressing screw by the special tool. **The operation must be done inside the pressing machine and do not look it form up-front by your eyes for your safety.**
- 10、 Take the isostatic pressing die from the pressing machine after the press on the top pressing head is released completely.

Safety Note:

- 1. Never use the isostatic pressing die over 15 T or move it to other pressing machine over 15 T for safety.**
- 2. Never take out the isostatic pressing die with press inside from the protective cover of the pressing machine for safety.**

3. Packing List:

- 1、 One set of 15 T pressing machine.
- 2、 One set of 22 mm die isostatic pressing die.
- 3、 One set of special tool to tight die.
- 4、 Operation manual.
- 5 One bottle of isostatic pressing oil.

Photos:



Isstatic pressing die



Special tool



Top Pressing Head



Die Base



Oil for pressing machine



Isostatic pressing oil

4. MTI Support:

1. MTI Corporation provides one year limited warranty from date that we shipped the goods. If you find any defective part caused by manufacturer please feel free to contact us. We will replace defective part and instruct you how to change the part by yourselves during warranty period. However, MTI Corp is not responsible for any damage or consequence damage caused by misuse. After warranty, MTI will continue to provide technical support and spare parts at a reasonable cost.
2. If you have any question, please contact us at info@mtixtl.com or call us at 1-888-5253070. MTI Engineers will instruct you how to use and maintain the machine.