





#### DRYICE BLASTING CLEANER OPERATION & MAINTENANCE HANDBOOK

This product – Dry Ice Blasting Cleaner, manufactured by FOSECO company, has been through rigorous quality examination before shipment, the buyer (user) to use this product, should indeed read to the "Operation Manual" and this handbook, in order to ensure the product quality and maintain the use of the normal life of the product.

# ♦ FOR YOUR SAFETY MUST FOLLOW ◆

Please read the "OPERATION MANUAL" provided by the Company before using this product and operate correctly.

If the label information is ignored, the level of the harm and damage occurs when use is shown as following explanation:

The content of this field is marked "assumes the possibility of death or injury."
The content of this field is marked "the possibility of injury and only damage on articles."

IGURES		$\bigcirc$	0
	Content of "Warning or	"Prohibited Items" NOT	MUST follow the
	Caution".	allowed.	"Instructions".

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Due to we are not able to control the way and the environment of user's operation, we cannot guarantee the life of this product; only able to require the user to operate this product in accordance with the following recommendations.

$\diamond$	<ul> <li>NO remodel. Do not let the disqualified person to operate or service the machine.</li> <li>Electric Shock or Injury.</li> <li>Contact agent for repair.</li> </ul>	$\Diamond$	Do NOT make the wire damaged or broken, processing, excessive bending, pulling, twisting, or place heavy objects on it. •The damaged wire will lead to fire, or electric shock.	
	When maintenance, be sure to plug the wire uprooted, moreover, do NOT pull the plug with wet hands. •Electric Shock or Injury.	$\Diamond$	Do NOT use the unspecified voltage. •Electric Shock, fire or Injury.	
$\Diamond$	While wire or plug socket is in damage, do NOT use it. •Electric shock or short will lead to injury or fire.	•	The dust on power plug should be clean periodically • •Dust accumulation on plug will cause a fire by poor insulation due to moisture	
$\Diamond$	<ul> <li>Do NOT use this machine for unspecified use.</li> <li>Please follow the SOP, shall not use for other purposes, in order to avoid mechanical damage or danger.</li> </ul>	$\Diamond$	<ul> <li>Do NOT install the machine in a unstable place.</li> <li>Easily to fall and cause a danger of injury and damage the product by earthquake or outside force.</li> </ul>	

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# ♦ CAUTIONS & CLEANING TIPS ♦

Note the appearance of accessories. • Check the air and blasting hoses if	<b>Do NOT plug in or out with wet hands.</b> • To avoid danger from electric shock.	
<ul><li>damaged, bended, or broken.</li><li>Check the power wire if damaged.</li></ul>		
Do not use the stacked dry ice. (for	Do NOT put foreign objects on the top	
MDS-100 series, and MDS-520 use)	cover or dry ice chamber of this	
<ul> <li>Use the whole dry ice block in size of</li> </ul>	machine.	
12x12x25cm or 25x25x25cm.	<ul> <li>The main causes of injuries or machine</li> </ul>	
• To cause the cutters blocked by stacked dry ice.	shot down.	
Do NOT try to touch the inner parts of	Do NOT forget while turn off this blasting	
dry ice blasting machine in operations.	cleaner:	
<ul> <li>To avoid a danger of injury.</li> </ul>	<ul> <li>Take out the remaining dry ice.</li> </ul>	
	<ul> <li>Pull off the power wire from socket to avoid</li> </ul>	
	a fire.	

# **CLEANING TIPS**

1. Check the air pressure and adjust to the best appropriate blasting pressure.

2. Timely adjust the blasting flow to avoid the unnecessary consumption of dry ice.

3. Aim the blasting gun at the object to be cleaned. The proper distance from nozzle to the object is 4~10cm.

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## How to Troubleshoot

CONDITIONS	CHECK ITEMS	TROUBLESHOOTING
Completely unable to operate Abnormal/error in dry ice blasting flow	<ul> <li>Check the power wire is well plugged in, the power indicator is light on.</li> <li>Make sure the power switch is turn "ON".</li> <li>The power source is operated.</li> <li>Check if the dry ice chamber door is closed. If not, the Error Indicator light is on.</li> <li>Check if the power fuse or switch at workshop is operated.</li> <li>Check if the dry ice remaining in the hopper.</li> <li>Check if the dry ice pellets are</li> </ul>	<ul> <li>Well connect the power wire.</li> <li>Press the power switch "ON".</li> <li>Make sure the dry ice chamber door is certainly closed.</li> <li>Re-start the operation by steps after the power source at worksite is repaired.</li> <li>Replace new dry ice pellets when dry ice is used off or frozen.</li> </ul>
	<ul> <li>frozen.</li> <li>Check if the blasting hose (blue) is connected well on two ends between cleaner and nozzle.</li> <li>Check if the air hose (black) is well connected on two ends between the cleaner and air compressor.</li> <li>Make sure the air pressure is keeping greater than 4kg/cm<sup>2</sup>.</li> <li>Check if the air hose and blasting hose are damaged, broken or bended.</li> <li>Check if the great gear is still well running.</li> </ul>	<ul> <li>Well connected both blasting hose and air hose.</li> <li>Make sure the air compressor at workshop is running well.</li> <li>Replace a new blasting hose or air hose while they are broken or damaged.</li> </ul>
Others	Check the dry ice crimped inside the cleaner.	Take out the remaining dry ice, and spray air on the crimped area by air compressor until the dry ice is gasified.



## ♦ OTHER RECOMMENDATION ♦

#### WORKSHOP ENVIRONMENT LIMIT

1. The operation (cleaning) area must be provided with sufficient lighting, with a minimum illumination above 300LUX, for carrying out the cleanliness check in much easier way.

2. If the noise over to 80dB (A) during cleaning process, please wear ear protectors.

3. The machine must be operated in well-ventilated circumstances.

#### MACHINE SCRAP and WASTE

This machine do not need special disposal for manufacturing materials, for the treatment of scrap and waste to this machine, please be treated in accordance with the requirements of local government.

# ♦IF THE MALFUNCTION IS STILL EXISTED, PLEASE CONTACT US.

#### PLEASE SEE "OPERATION MANUAL" FOR PART NAME & OPERATION DETAILS.



#### **RECOMMEND MAINTENANCE PERIOD**

Daily			
No.	Check Item	Visual	Operate
1.	The machine wheels are running well. Check the dusts or contaminations on wheels.	۲	۲
2.	Check the blasting hose; no damaged or bended.	۲	
3.	Check the air hose; no damaged or bended.	۲	
4.	Check the power wire; no damaged.	۲	

Weekly			
No.	Check Item	Visual	Operate
1.	Check the automatic drainage system on filter of air compressor.		۲
2.	Lubricate the Cylinder and the FRL system.		۲
3.	Airing the ball valve near cutter plate		۲

Monthly			
No.	Check Item	Visual	Operate
1.	Lubricate the driving chain of motor		۲
2.	Sharpen the dry ice cutters		۲

# MDS-300 CONTENTS

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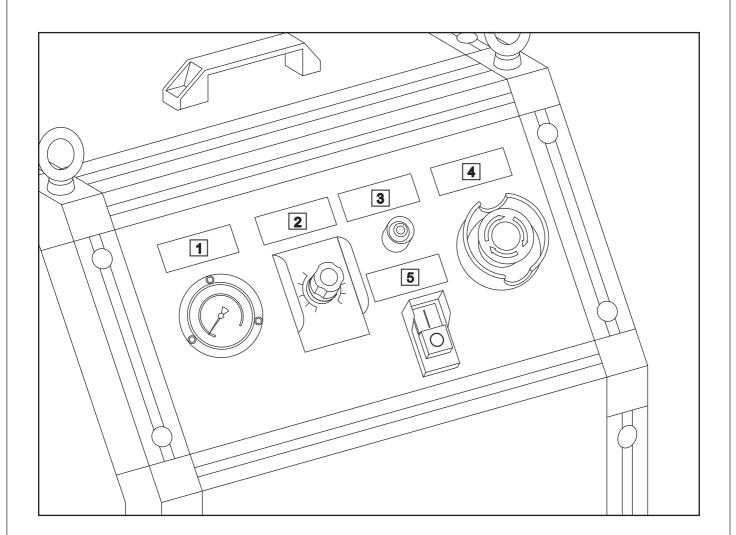
Specification	MDS-300
Dryice Storage	30 kg
Pressure	4~10 kg/cm <sup>2</sup> ; 120 scfm
Consumption rate	30 kg ~ 150 kg/hr
Machine Dimension	800 x 480 x 1000 mm
Power	220V 50hz
Air Inlet	3/4"
Dryice Dimension	3-5 mm
Horse Power	1/2 HP
Machine Weight	80 kg

MDS-300	SAFETY FIGURES
1     ▲ WARNING     2       DO NOT OPERATE       Authorized people only       ▲ 警告       嚴禁操作       非指定者禁止操作	
3 ▲ WARNING 4 ELECTRIC SHOCK Keep ground with connected ▲ 整告 觸電注意 確實執行接地線	AC 220V 1 §       Marning         AC 220V 1 §       Marning
DUR 操作時請配戴護目鏡 DUR	PROTECTORS ING OPERATION     DRY ICE LOADING GLOVES NECESSARY       年時請佩戴耳塞     拿取乾冰時 務必配戴防凍手套

MDS-300	MACHINE OUTLINE
(1) TOP COVER	(9) AIR INLET: CONNECTING TO THE
(2) CONTROL PANEL: SEE P.04 IN DETAILS	AIR HOSE
(3) FRONT PLATE	(10) CONTROL CABLE CONNECTOR
(4) MACHINE HANDLE	(11) POWER CONNETOR: 220V
(5) ELECTRIC CABINET	(12) HANGER
(6) AIR SUPPLY GAUGE: SHOWING THE AIR SUPPLY PRESSURE.	(13) DRY ICE OUTLET: CONNECTING TO
(7) EARTH WIRE (PE)	THE BLASTING HOSE
(8) AIR PRESSURE ADJUSTOR: ADJUSTING THE SUPPLY AIR;	
THE INDICATOR IS SET ON THE CONTROL PANEL.	

# MDS-300 1. AIR SUPPLY ADJUSTOR: INDICATE THE AIR PRESSURE, MUST BE GREATER THAN 4kg/cm². 2. DRY ICE ADJUSTOR: ADJUSTING THE AMOUNT OF DRY ICE FLOW. 3. POWER INDICATOR: CHECK POWER ON/OFF. 4. EMERGENCY STOP: TO STOP THE MACHINE IN EMERGENCY.

5. POWER SWITCH: TURN "ON" OR "OFF" TO START/STOP OPERATION.



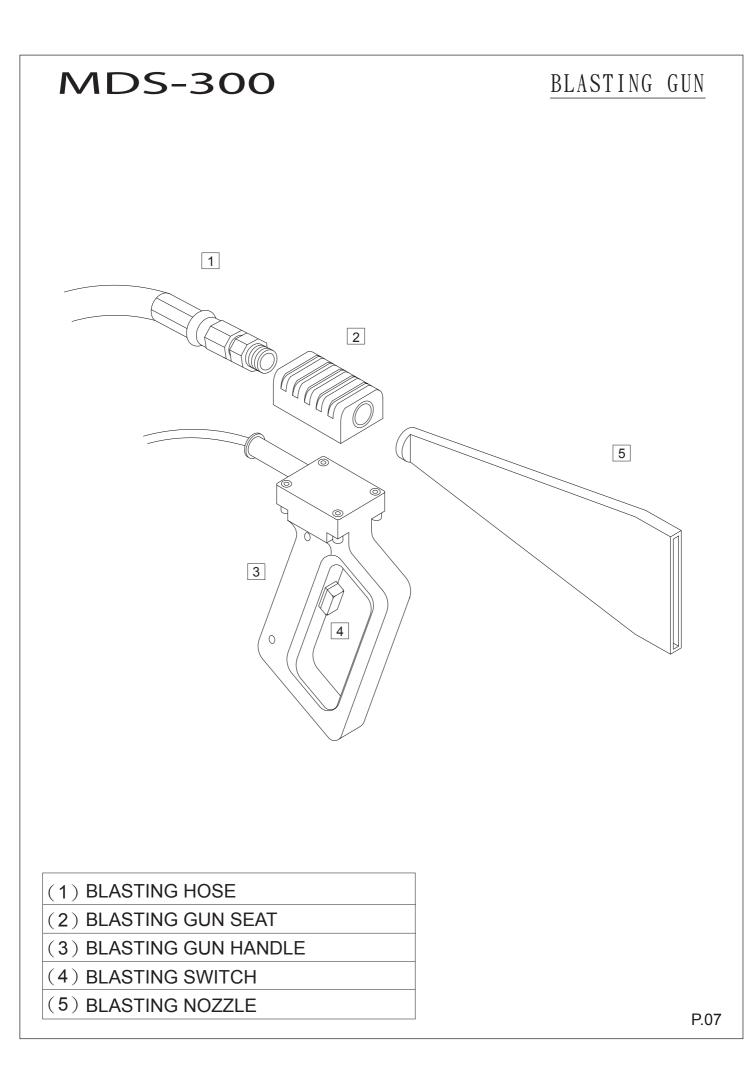
# **MDS-300** INSTRUCTION 4 Q PE AIR SUPPLY ADJUSTOR 0 3 PFOSECO CORP. 1 2 5 \* The best distance to the object is 3-30cm while in operation of blasting.

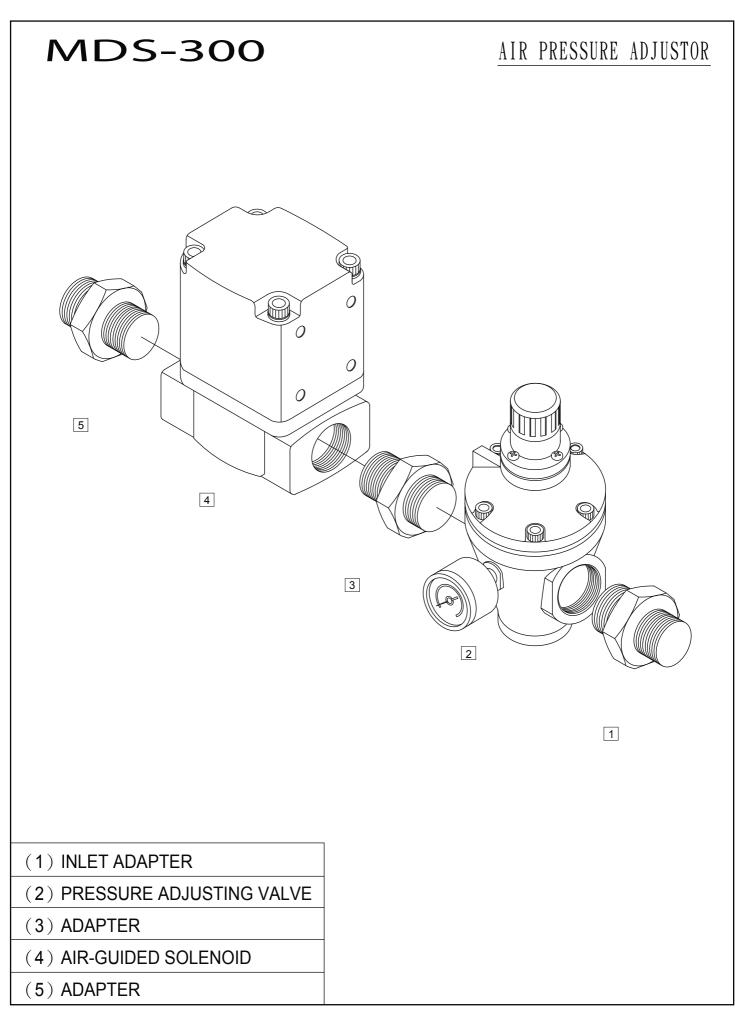
- 1. PLUG IN THE WIRE TO THE RECEPTACLE SOK, MAKE SURE THE PE (POWER EARTHING) CONNECTED.
- 2. CONNECT THE AIR HOSE BETWEEN THIS MACHINE AND AIR COMPRESSOR, AND CHECK THE AIR SUPPLY GAUGE MUST SHOW AT BETWEEN 4~10 kg/cm<sup>2</sup>.
- 3. CONNECT THE WIRE TO THE MACHINE (5 PINS), AS WELL AS THE BLUE BLASTING HOSE (BLUE).
- 4. OPEN THE TOP COVER AND LOAD THE DRY ICE PELLETS INTO THE HOPPER, TURN ON THE POWER.
- 5. PRESS THE BLASTING SWITCH TO START CLEANING; IF TO STOP, PRESS AGAIN. IN CASE OF EMERGENCY, PRESS THE EMS TO STOP OPERATION.

#### NOTE:

Pour appropriate amount of dry ice into the hopper only. If there is dry ice left after blast cleaning, it is necessary to take out the surplus dry ice. Should keep the hopper clean and dry in case the dry ice freezes and turns to block structure. Be careful not to make the feeding rollers damaged if use a sharp tool to remove the block dry ice.

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(1) SPACER (5) DRY ICE BLAST BASE (9) LOADING BASE		
(2) DRY ICE GATHER GASKET (UPPER) (6) DRY ICE GATHER GASKET (LOWER) (10) SPEED REDUCE	R	
(3) DRY ICE GENERATOR (7) FEEDING SEAT	(7) FEEDING SEAT	
(4) BEARING (8) DRY ICE OUTLET		





#### **MDS-300** CIRCUIT DIAGRAM R Т **R1** T1 $\bigcirc$ þ 2 Μ M1 3 4 1 (TR1 ┥┝ ┥┝ TR1 R2 **R1** 5 6 $\square$ $\dashv$ \_\_\_\_\_\_ MOTOR 0 PU-01N **AIR SOLENOID R1** TR2 7 \_\_\_\_ (M1) ∦ 0 0 TR3 18 VIBRATION 8 TR3 R1 9 (M2) +M1 11 R2 R2 10 ||TR2 ┥┝ +**R1** R1 $\dashv$ M2 13 ⊣⊢ 0 100 PU-01N START $\pm$ TR1 AC DRIVER 101 GND AVI 2 3 +10V VR

# Product Warranty Certificate

Thank you for purchasing FOSECO'S DRYICE BLASTING CLEANER. We hereby guarantee that if the machine is proved defective or malfunction due to faulty materials or workmanship, we will provide instant after-sales services to you according to the warranty clauses below:

MODEL NO :	M D S - 300	
SERIAL NO :		
PURCHASE DATE:		
CUSTOMER NAME:		
CUSTOMER TEL:		
CUSTOMER ADD.:		
貿紳有限公司 FOSECO CORP.		QC PASSED
NO.118-10, YONG HO RD., DA YA, TAICHUNG, TAIWAN 428-77 TEL: +886-4-2568-5609 FAX: +886-4-2568-5480 E-MAIL: dryice@dryice.com.tw		

### Warranty Clauses:

FOSECO CORP. hereby guarantees that the machine is warranted against defects in workmanship and material for a period of one (1) year from the delivery date. As per the clauses below, FOSECO will either repair or replace any part of the machine that is proved to be defective due to faulty materials or workmanship.

- 1. The warranty will be effective only under the following situations:
- (1) The machine is operated and maintained in accordance with FOSECO's "OPERATION MANUAL".
- (2) The warranty is contingent upon proper use of the machine only. The warranty does not cover any defects arising from improper installation, misuse, unauthorized repair, user's neglect, accident, natural disaster, or any unauthorized modification and disassembly.
- 2. FOSECO CORP has no liability for any indirect damages or losses caused by this machine. In case we think it is necessary, the maximum compensation amount is limited to the equivalence of the machine value.
- 3. This warranty certificate should be kept properly. If necessary, present this warranty certificate to protect your interests.