# OPTION FOR COMPACT HYDRAULIC WIRE SAW DSM SERIES DRY WIRE SAWING SYSTEM

# INSTRUCTION MANUAL

#### **A** WARNING

- © Read and understand this Instruction Manual carefully and completely for your own safety.
- © Save this Manual for future reference.



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## 1. WARNINGS AND CAUTIONS

- O "Dry Wire Sawing System" is used to be combined with "Compact Hydraulic Wire Saw".
  Read Instruction Manual of Compact Hydraulic Wire Saw carefully and completely for your own safety.
- © Before a use, read and understand this WARNINGS AND CAUTIONS carefully and completely, and follow all the safety instructions for your own safety.
- © Save the Manual for future reference.

#### **▲** WARNING

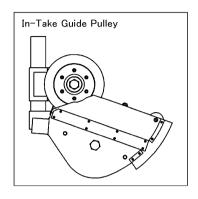
- 1. Always use each Cover and Wire Guard.
  - © To prevent the split of Diamond Wire or the flying of Diamond Wire due to the separation of sleeve, always use each Cover and Wire Guard.
- 2. Do not touch Diamond Wire just after the cutting operation.
  - © Diamond Wire just after the cutting operation becomes very hot. Please be careful.
- 3. Always install safety fences.
  - © According to the conditions of cutting site, install safety fences so that an operator is

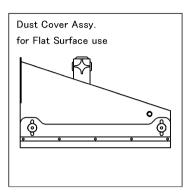
#### **A** CAUTION

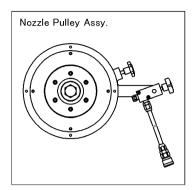
- 1. Regarding Dry Diamond Wire, use CONSEC specified Dry Diamond Wire.
- 2. Prevent Water Supply Tank T-38 from being empty.
  - ◎ If Water in Water Supply Tank T-38 becomes empty, the temperature of Dry Diamond Wire rises. This could cause the split of Diamond Wire and so on. Always watch the remaining amount of water in Water Supply Tank T-38 before the operation.
- 3. Prevent the nozzle of Nozzle Pulley Assy, from being clogged up.
  - © Please make sure that the mist is coming out of the nozzle before the operation. If the nozzle is clogged up, remove the dust or debris by blowing an air into the nozzle.
- 4. Attach Guide Bar 2 1600L on Compact Hydraulic Wire Saw.
  - © Compact Hydraulic Wire Saw DSM-10A is used for Dry Wire Sawing System, use Guide Bar 2 1600L instead of the original Guide Bar (1000L). If the original Guide Bar (1000L) is used, Auxiliary Cover left and Auxiliary Cover right can not be mounted.

# 2. EACH OPTION TO BE USED AND IT'S FUNCTION

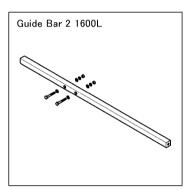
#### [1] Options for COMPACT HYDRAULIC WIRE SAW





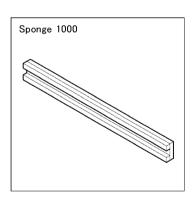


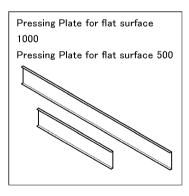


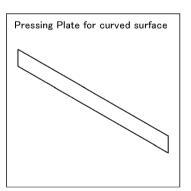


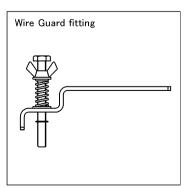
#### [2] Wire Guard

© Wire Guard is the complete dust-proof system consists of the following parts.

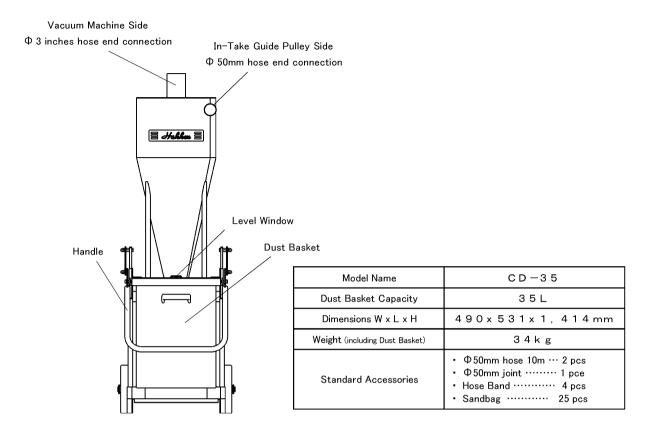




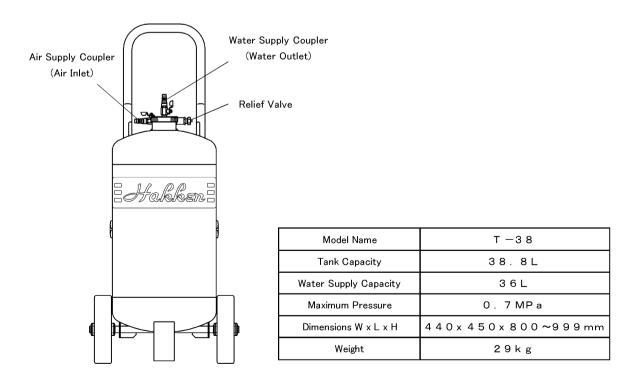




#### [3] Cyclone Dust Collector CD-35

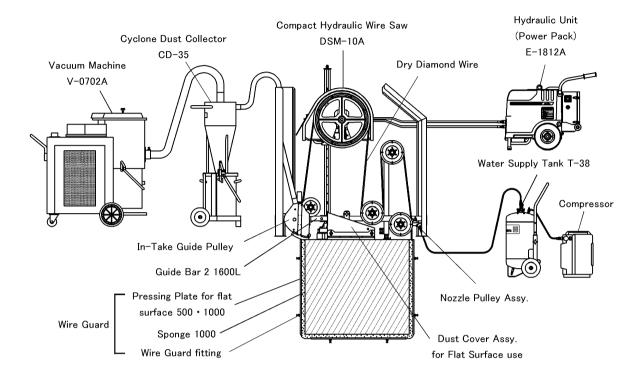


#### [4] Water Supply Tank T-38

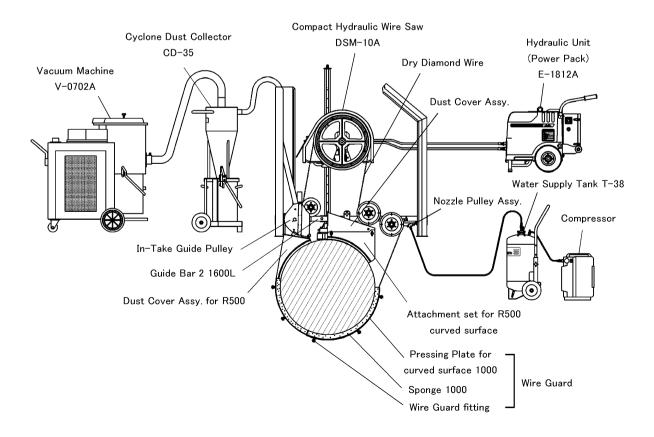


## 3. GENERAL DRAWING IN USE

#### 1. Cutting square column



#### 2 . Cutting cylindrical coluimn



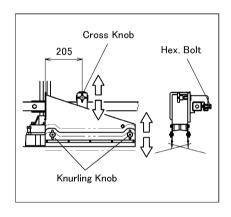
### 7. OPERATIONAL INSTRUCTIONS

#### **▲** WARNING :

- 1.This Dry Wire Sawing System is used to be combined with Compact Hydraulic Wire Saw. Read this Manual and Instruction Manual of Compact Hydraulic Wire Saw carefully and completely, and follow all the safety instructions of WARNINGS AND CAUTIONS carefully and completely for your own safety.
- 2.Take safety measures against the cutting object during the cutting operation. If the cutting concrete object suddenly falls down during operation, it is extremely dangerous. Take safety measures against the concrete object to be separated from the main building by lifting by crane etc.

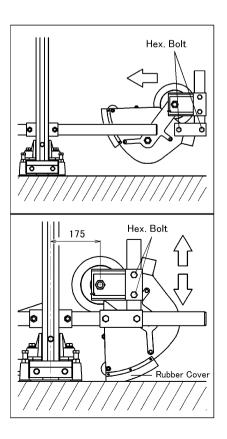
#### [1] Guide Bar 2 1600L and Dust Cover Assy. for Flat Surface use

- 1) Install Guide Bar 2 1600L on Compact Hydraulic Wire Saw.
- 2) Attach Dust Cover Assy. at the specified position of Guide Bar 2 1600L as shown and fix it by fastening Hex. Bolt by Ratchet Wrench. According to the height of the surface, at where Pole Base is fixed, adjust the height of Dust Cover Assy. Fix it by fastening Cross Knob. According to the inclination of the surface, at where Pole Base is fixed, adjust the height of Flat Surface Covers at the front and back. Fix them by fastening Knurling Knobs.

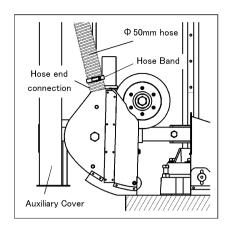


#### [2] In-Take Guide Pulley

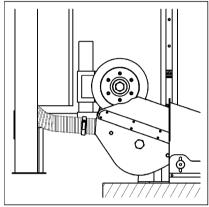
1) Attach In-Take Guide Pulley at the specified position of Guide Bar 2 1600L as shown in the drawing and fix it by fastening Hex. Bolts by Ratchet Wrench. Adjust the height so that Rubber Cover slightly touches the surface at where Pole Base is fixed. Fix it by fastening Hex. Bolts by Ratchet Wrench.



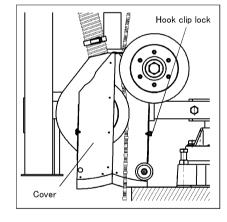
2) Insert  $\Phi$  50mm hose 10m of Cyclone Dust Collector CD-35 in an end connection and fix it by fastening Hose Band. Attach Auxiliary Cover left. Place  $\Phi$  50mm hose along inside Auxiliary Cover.



3) Make sure that In-Take Guide Pulley goes inside Dust Cover Assy. because of spring tension.

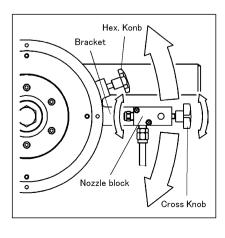


4) When winding a dry diamond wire, first open the cover of In-Take Guide Pulley. After winding a dry diamond wire properly, close the cover and fix it with hook clip lock.



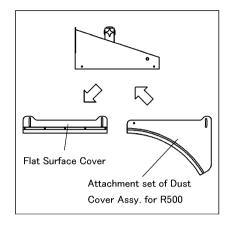
#### [3] Nozzle Pulley Assy.

- 1) Attach Nozzle Pulley Assy. to the Guide Bar 2 1600L as shown and fix it by fastening Hex. Bolt by Ratchet Wrench.
- 2) Adjust the inclination of Bracket / Nozzle block so that the mist is directed to the Dry Diamond Wire. Fix them by fastening Cross Knob / Hex. Konb. Connect the hose with Water Supply Tank.

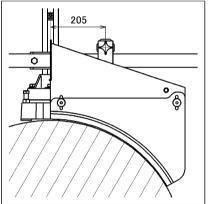


#### [4] Dust Cover Assy. for R500 and Attachment set

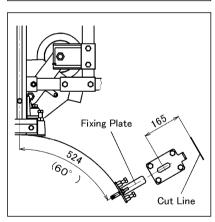
- $\odot$  "Dust Cover Assy. for R500 and Attachment set" is applicable to the cylindrical column with the radius 500  $\pm$  50mm.
- 1) Replace Flat Surface Covers of Dust Cover Assy. by Attachment set of Dust Cover Assy. for R500.



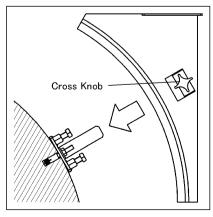
2) Attach Dust Cover Assy. with R500 Attachment set mounted to the Guide Bar 2 1600L as shown and fix it by fastening Hex. Bolt by Ratchet Wrench.



3) Mark the anchoring position of Dust Cover Assy. for R500. Open an anchor hole at the marked position using a hammer drill and drive the anchor W3/8". Secure the fixing plate.



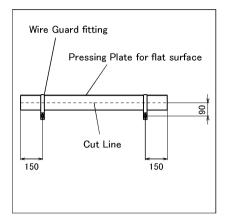
4) Attach Dust Cover Assy. for R500 to the fixing plate. Adjust the height of Dust Cover Assy. for R500 and fix it by fastening Cross Knob.



#### [5] Wire Guard

#### 1. For flat surface

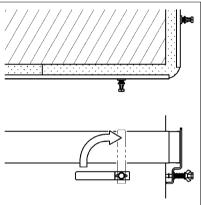
1) Mark the anchoring position of Wire Guard. Open an anchor hole at the marked position using a hammer drill and drive the anchor W3/8". Secure the Wire Guard fitting.



2) When placing Sponge and Pressing Plate for flat surface, make sure that the joint of Sponge and the joint of Pressing Plate do not match. After setting both Sponge and Pressing Plate, fix them by fastening Wire Guard fittings.

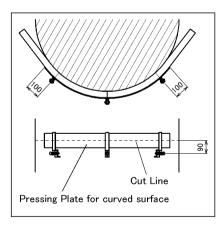


Please make sure that the joint of Sponge do not come to the corner.

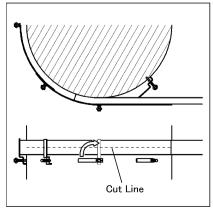


#### 2.For curved surface

 Mark the anchoring position of Wire Guard. Open an anchor hole at the marked position using a hammer drill and drive the anchor W3/8". Secure the Wire Guard fitting.



 Press Sponge 1000 by Pressing Plate for curved surface 1000 and fix them by fastening Wire Guard fittings.



#### [6] Cyclone Dust Collector CD-35

#### 1. Connecting each hose

- 1) Connect the suction side with In-Take Guide Pulley using  $\Phi$  50mm hose.
- 2) Connect the blowing side with Vacuum Machine using  $\Phi$  3 inches ( $\Phi$  76mm) hose.

▲ CAUTION: If other Vacuum Machine than V-0702A is used, please choose the Vacuum Machine with the capacity of more than vacuum pressure 2600mmAq, air capacity 500m³/h.

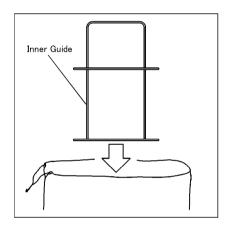
#### 2 .Installing Sandbag and its replacement

- 1) Lift the Handle of Cyclone Dust Collector CD-35 and pull out the Dust Basket.
- 2) Pull out the Inner Guide from Dust Basket.
- 3) Prepare the Sandbag and insert the Inner Guide in it.

  Make sure the holding part comes upside.

#### **A** CAUTION

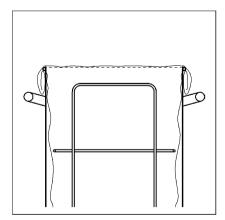
- When preparing the Sandbag, please use the Sandbag with the size of 60 x 90 cm.
- When not using the Sandbag, Inner Guide is not used.



- 4) After inserting Inner Guide in the Sandbag, put back it in the Dust Basket by making sure the Sandbag is tightly fit inside.
- 5) The portion of the Sandbag is still out of Dust Basket. Fold down this portion to the outside of Dust Basket.

#### **A** CAUTION

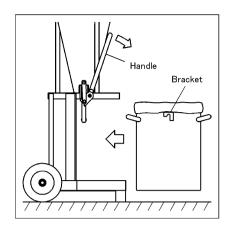
Make sure that the folded down portion of the Sandbag does not cover the Bracket on both sides and the knob.

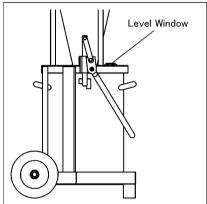


- 6) Put back the Dust Basket to Cyclone Dust Collector CD-35 and set it.
  - O Dust Basket has its own direction to set it. The side where "Hakken" sticker is placed should be set backward.
- 7) Push the Dust Basket till the Bracket on both sides touch and lower the Handle.
- 8) Watch Level Window of Cyclone Dust Collector CD-35 and if the Dust Basket is filled up, replace the Sandbag with new one.
  - O Cyclone Dust Collector CD-35 will be filled up after cutting roughly 1.2m<sup>2</sup>.

#### **A** CAUTION

When replacing the Sandbag, please make sure Vacuum Machine is turned off.





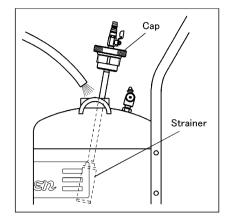
- 9) Remove the Dust Basket from Cyclone Dust Collector CD-35 and remove the Inner Guide from the filled up Sandbag.
- 10) Treat the filled up Sandbag.

#### [7] Water Supply Tank T-38

1) After making sure that the pressure is not applied, remove the Cap at the top of Water Supply Tank T-38 and fill up the Water Supply Tank.

#### **A** CAUTION

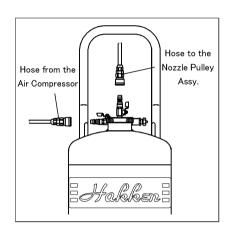
Use a water as clean as possible. Do not use muddy water etc.



- 2) Put back the Cap and tighten it securely.
- 3) Connect the hose from the Air Compressor with Air Supply Coupler of Water Supply Tank T-38. Set the air pressure of Air Compressor at 0.64MPa(6.5kgf/cm<sup>2</sup>).
  - As for the Air Compressor, the capacity of more than Maximum Pressure 2.94MPa(30kgf/cm²) and Air Discharge 120L/min is recommended.

#### **A** CAUTION

Regarding Water Supply Tank T-38, if the pressure of more than  $0.69 MPa(7kgf/cm^2)$  is applied, the Safety Valve works. Therefore set the air pressure at less than  $0.69 MPa(7kgf/cm^2)$ .



- 4) Connect the hose from Nozzle Pulley Assy. with Water Supply Coupler of Water Supply Tank T-38.
  - The amount of water coming out of Nozzle Pulley Assy. is about 10L per hour. If Water Supply Tank T-38 is filled up before the operation starts, roughly 3.5 hours of continuous operation is possible.

## 5. MAINTENANCE AND SERVICING

#### [1] Checking before operation

- 1) Inspect  $\phi$  250 Resin pulley of In-Take Guide Pulley and Nozzle Pulley Assy. and check if  $\phi$  250 Resin pulley is abnormally worn out.
- 2) Inspect the moving parts of In-Take Guide Pulley and check if they move properly.
- 3) Inspect the mist coming out of Nozzle Pulley Assy. and check if it is misty or not.

#### [2] Maintenance

- O Clean and Maintain after the operation.
- 1) Clean up the nozzle of Nozzle Pulley Assy. so that the nozzle will not be clogged up.
- 2) Remove the steel powder accumulated at the moving parts. If the steel powder has rusted, this could cause malfunction of the moving parts.
- 3) Drain the Water Supply Tank T-38 through the Drain Cock at the bottom of Water Supply Tank.

#### [3] Regular Inspection

- 1) Check for loose screws on all components, and tighten as necessary.
- 2) Clean up the inside of Water Supply Tank T-38 and its strainer.

#### [4] Repairs

© For servicing your Machine, contact Consec's Authorized representative.

## 10. MAINTENANCE INSTRUCTIONS

Storing the Products and Accessories

When the products and accessories are not in use, ensure that they are stored safely in a dry location, and under the following conditions.

- ♦ Store the products out of reach of children.
- ♦ Store away from rain and humidity.
- $\diamondsuit$  Do not store in locations subject to rapid changes in temperature.
- ♦ Store the products out of direct sunlight.
- $\diamondsuit$  Do not store in locations where inflammable, explosive substances are present.

Specifications of the product described in this manual are subject to change without prior notice.

# MEMO



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