Packing Instructions for ARES Instruments

**NOTE:** Before attempting to ship ARES instrument, please be sure all the front and back panels are well screwed in position. ARES Test Station is about **275 lbs.**, enough manpower and adequate tools are required.

These instructions DO NOT apply to ARES VERSIONS 1 to 5 & 15

**TOOLS REQUIRED:** Complete set of packing materials, Complete set of metric Allen Keys, Adjustable Wrench 10” (250mm), Complete set of standard Allen keys, Set of screwdrivers, Stretch Wrap, Strapping tool, Heavy duty lifting Jack and Cart.

Observe appropriate **safety precautions** when packing ARES Instrument.

1.) Clean air should be flowing through the Instrument with the appropriate PRESSURE as indicated on the Right Hand Side of the Instrument. (Figure 1)

2.) Get the Stage Lock Screw and 4mm Metric Hex Key ready.

3.) Slide the Oven to the extreme left.

4.) Switch ON the instrument and open Orchestrator Software on the Host Computer:
   Move the stage up OR down slowly to the position where the outer hole below the transducer corresponds with the inner hole. (Figure 2)
5.) Insert the Stage Lock Screw into the corresponding holes and tighten the screw carefully using 4mm Metric Hex key.

6.) Switch OFF the instrument.

7.) LOCK TRANSDUCER. If the transducer is FRT, slide the lock pin and confirm that transducer is locked. (Figure 5)

8.) Using 5/64” standard hex key, loosen the screw on a small disc – longer end of lock pin, slide the disc close to the transducer and tighten the screw. (Figure 5)

8.) Remove tools from transducer and Servo Motor tool holders. Tighten thumb screws securely.
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9.) LOCK the Servo Motor if it is LOW SHEAR Option (AIR BEARING MOTOR). If it is a Standard ARES Motor (BALL BEARING) go to step # 12. Remove one of motor cover screws using 3mm Hex key.

10.) Place Spindle Lock Bracket (300.02258) on the LS motor. Set 3 holes on the bracket to correspond with screw holes on the spindle. Using 2.5mm Hex key, tighten bracket to the spindle with 3 screws provided. (Figure 6)

11.) Turn the LS Motor spindle gently to match the hole at the end of the bracket with a motor cover screw hole. Use the loosened motor cover screw and tighten the bracket down using 3mm hex key. (Figure 6)

12.) Place foam disk (403131.001) on motor. The purpose is to sandwich the foam disk between the motor and oven. If the Instrument does not have oven option, go to step #14.

13.) Move the oven gently to extreme right and lock the oven door securely.
14.) Carefully turn back of ARES Instrument towards you at about a 30 degrees angle. Please, do not stretch cables and hoses.

15.) Remove power cable from 220 Volt supply socket.
16.) Remove any Air Hoses connected to air fittings.
17.) Remove communication cable from ‘HOST’ 9DB Connector.
18.) Remove LN2 Control cable from ‘N2 Heater’ and ‘N2’ 15 DB Connector if applicable.
19.) Using the appropriate equipment, Cart and Lifting tool, move the ARES INSTRUMENT from Laboratory workbench to shipping Department.
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20.) The Pallet caddy has seven (7) holes on it, the three (3) inner holes are for bolting down the instrument from under the pallet, using the 3 metric Socket-head Cap Screws–M10 shown in figure 9. The four (4) outer holes with embedded threaded nuts are for bolting down the instrument with four (4) Hold down Z-Brackets and standard short socket-head cap screw
   a.) There are 2 types of Hold down Z-Brackets.
       i.) Short Hold down Z-bracket 2.05 Inches - Part # (300.02446) for ARES Standard
       ii.) Long Hold down Z-Bracket 3.43 Inches - Part # (300.02446.1) for ARES LS
   b.) M 10 Socket-head Cap Screws are of 2 types;
       i.) Socket Cap Screw M10 x 1.5 x 75mm Long -Part # (603.02923.98) ARES Standard
       ii.) Socket Cap Screw M10 x 1.5 x 100mm Long. - Part # (603.02923.101) for ARES LS

21.) Carefully lower the Instrument on Pallet caddy as indicated in figure10.
    Place the instrument on pallet so that 2 of the inner holes are on your left hand side. (Figure 9).
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22.) Insert the M10 Socket cap screw with washer in the right hand side hole under the pallet as shown in figure 11. Set the hole to correspond with the threaded hole under the instrument and turn the bolt to ensure that it catches the threading. On the left hand side under the pallet there are 2 holes. Set the 2 holes under the pallet to correspond with the 2 threaded holes under the instrument, insert two M10 Socket cap screws with washers, and turn the bolts to ensure that they catch the threading. Once it is confirmed that all the 3 bolts are on the instrument, tighten the bolts slightly with 8mm metric hex key. Do not over tighten at this point.

23.) Insert the 4 Hold down Z-Brackets in the 4 slots on the sides on the instrument as shown in figure 10. Use the 4 short standard Socket-head screws with washers to secure the hold down Z-Brackets on the instrument and bolt them down carefully on the pallet with ¼” standard hex keys. Do not over-tighten the screws on the pallet so as not to damage the embedded threaded nuts in the pallet.

24.) At this point, tighten M 10 Socket-head cap screws under the pallet securely.
25) Wrap corrugated -foam shipping shelf (403130.001) on the Oven. (Figure 12) Pack all accessories, cables and hoses into corrugated carton (996204.028). Seal the box with heavy-duty tape.
26. Place the carton filled with accessories on top of wrapped oven (figure 12). Refer to figure 13 if instrument does not have an oven.

27. Stretch Wrap Instrument:
   Wrap the stretch plastic firmly around the Instrument several times from the base to top. Ensure that there is no loose object on the pallet. (Figures 14 & 15)
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28.) Open corrugated carton (613.06670) and cover the ARES Instrument on the Pallet as shown in figure 16. Use heavy-duty tape to seal the box.

29.) Strap the box tight and secure on the pallet with the appropriate strapping tool and materials as shown in figure 17.

30.) Write boldly on the box the RETURN AUTHORIZATION NUMBER previously assigned to the return of your instrument.

31.) DO NOT STACK anything on top of ARES. It is important that shippers follow this instruction. PLEASE CONTACT SERVICE DEPARTMENT IF FURTHER CLARIFICATION ON HOW TO PACKAGE SPECIFIC ACCESSORIES IS REQUIRED.