# OPUS® Columns 45 - 80 cm internal diameter (ID)

**Unpackaging Instructions** 



# **OPUS® Columns 45 - 80 cm Unpackaging Instructions**

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### 1. Read Prior to removing the Column from the Box

 This OPUS® Column has been securely packaged and shipped in a custom-designed wooden crate to ensure product quality. The custom packaging is designed such that the OPUS® Column does not touch the bottom of the crate.

Components

1. Top lid
2. Rectangular foam guard (optional)
3. Top cross-supports (x2)
4. Upper foam disc
5. Upper foam guard
6. Left, right upper column supports

7. Bottom foam guard8. Fold down ramp

Figure 1. OPUS® Column packaging, 45 - 80 cm ID

### 2. Required tools

Drill or electric screwdriver with Philips driver/tip.

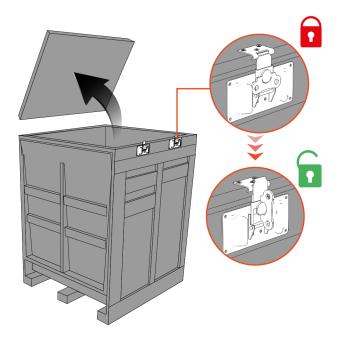
### 3. Inspect crate and locate important documentation

Upon receipt of the OPUS® Column shipment:

- Inspect the outside of the wooden crate for any unusual signs of damage.
  - Contact Repligen immediately if significant damage has occurred (see page 4).
- Locate the shipping delivery documents attached to the outside of the box and save in associated location for logistics or quality purposes.
- For GMP Run Ready OPUS® Columns, locate the QC resin sample, typically shipped in a separate box, and store as specified by the resin manufacturer.
- Excess resin may have been shipped to Repligen and not used during column packing.
   A container this excess resin may be in the wooden crate.
- A resin retain sample (~100 mL) typically in included in the crate for quality purposes.



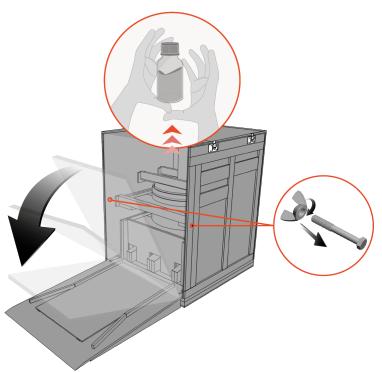
Figure 2. Latch opening



- Open six latches to disengage the cam mechanism.
- Lift top lid and set aside.

Step 2

Figure 3. Ramp door opening

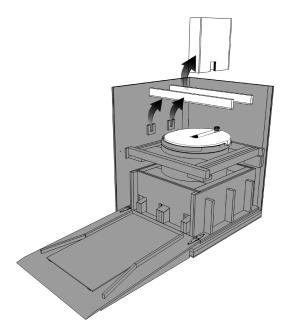




- Keep one hand on the ramp at all times while removing both carriage bolts so the ramp doesn't fall.
- Remove carriage bolts and wing nuts.
- Carefully lower the front ramp.
- Remove the 100 mL resin sample if present .



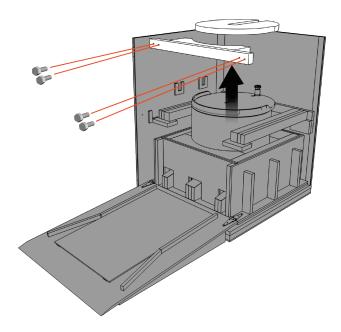
Figure 4. Removing pieces



- If tubing set is attached to OPUS® Column, remove rectangular foam guard. The rectangular foam guard protects the H tube configuration while in transit.
- Do not pull or push on tube ports of tubing set if so equipped.
  - Carefully maneuver and lift off foam so as not to damage the tube set.
  - Remove the 4 Phillips head screws (black) from each side of the crate.
  - Lift top cross-supports from the crate

Step 4

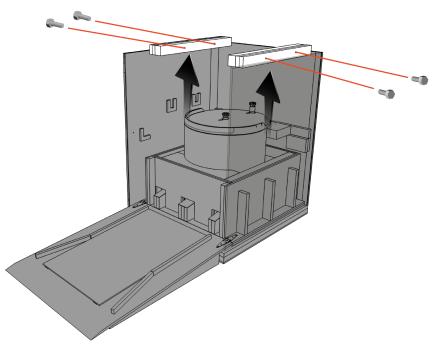
Figure 5. Removing pieces and screws



- Lift foam disk from top of column.
- Remove the 4 Phillips head screws (black) securing the upper foam guard from each side
  of the crate.
- Carefully lift the upper foam guard up and out of the crate.



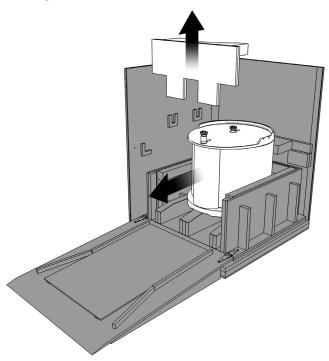
Figure 6. Removing supports and screws



- Remove 4 Phillips head screws (black) from each side of the crate.
- Carefully lift the left and right upper column supports up and out of the crate.

Step 6

Figure 7. Roll column OPUS® 45 – 60 cm ID out of crate



Carefully lift the bottom foam guard up and out of the crate.

## **OPUS® 45 - 60 cm ID**

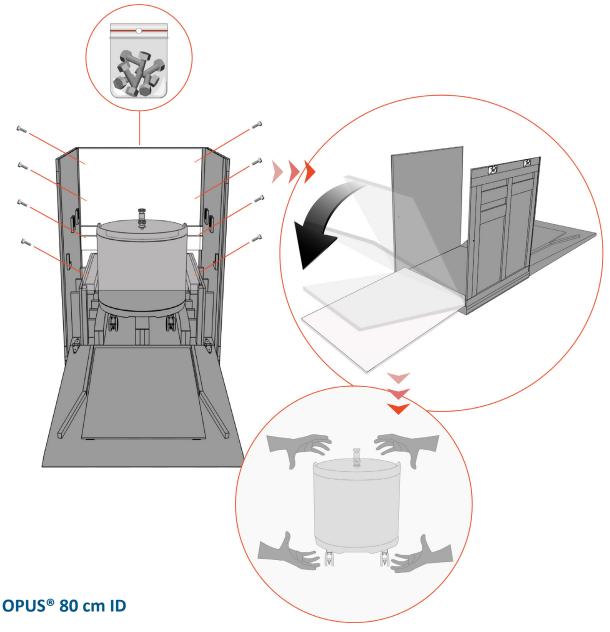
- Roll column out of crate using ramp.
- Do not pull on tube sets or tube ports when removing column from crate.
- Stand in front of OPUS® Column and pull OPUS® Column forward by grasping the top cap

(black).

6



Figure 8. Roll column OPUS® 80 cm ID out of crate



- Two people required for this step.
- Do not pull on tube sets or tube ports when removing column from crate.
- Remove 8 Phillips head screws (black) screws from back panel
- Remove rear panel of crate.
- If desired, remove right and left panel of the crate by first removing 8 Phillips head screws (black)
- Operator 1: stand in front of OPUS® Column and pull OPUS® Column forward by grasping the top cap (black).
- Operator 2: stand behind OPUS® Column and push OPUS® Column forward by pressing on column body (white).

Store the OPUS® Column according to the recommendations of the resin manufacturer.

If you are unable to utilize the casters to mobilize the OPUS® Column, the top and bottom caps feature a channel that can be used to secure a strap. Contact Repligen for more information.

