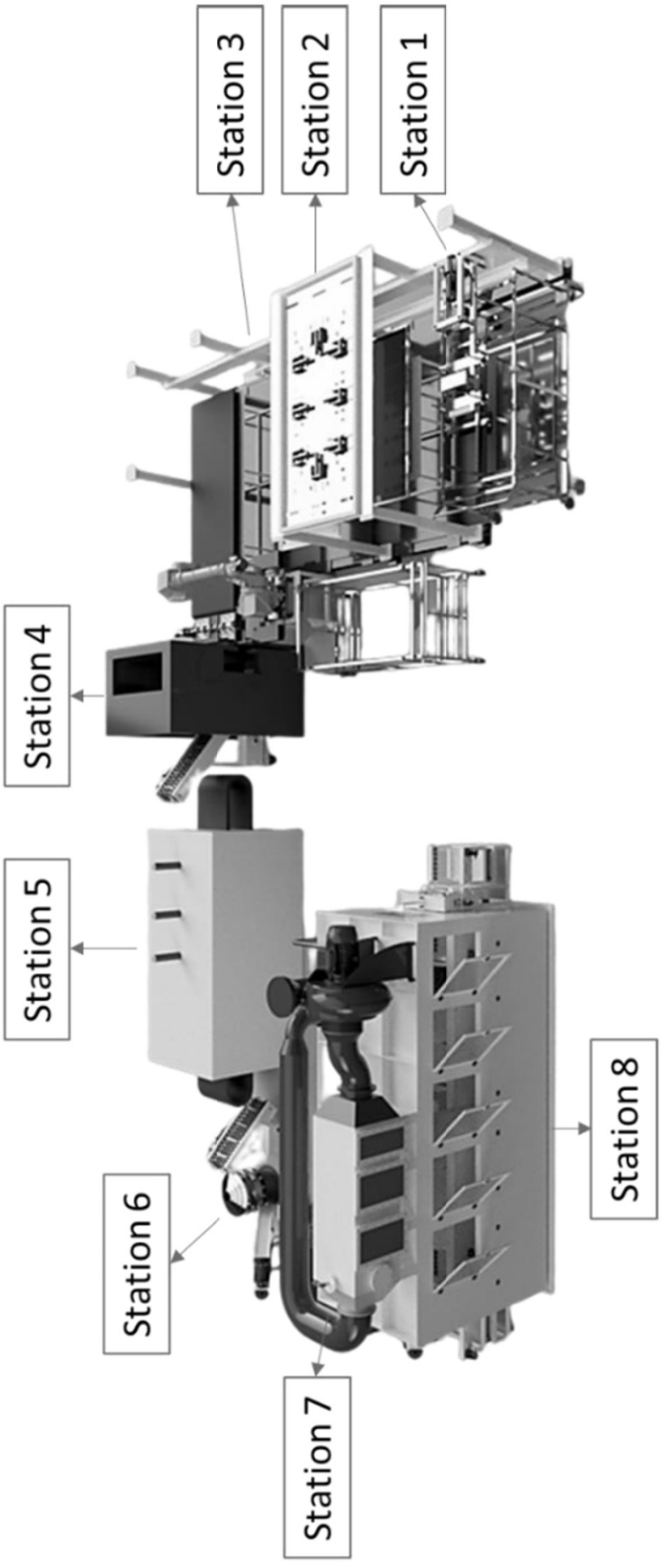

Station 3
Station 2
Station 1
Station 4
Station 5
Station 6
Station 7
Station 8

Figure 1

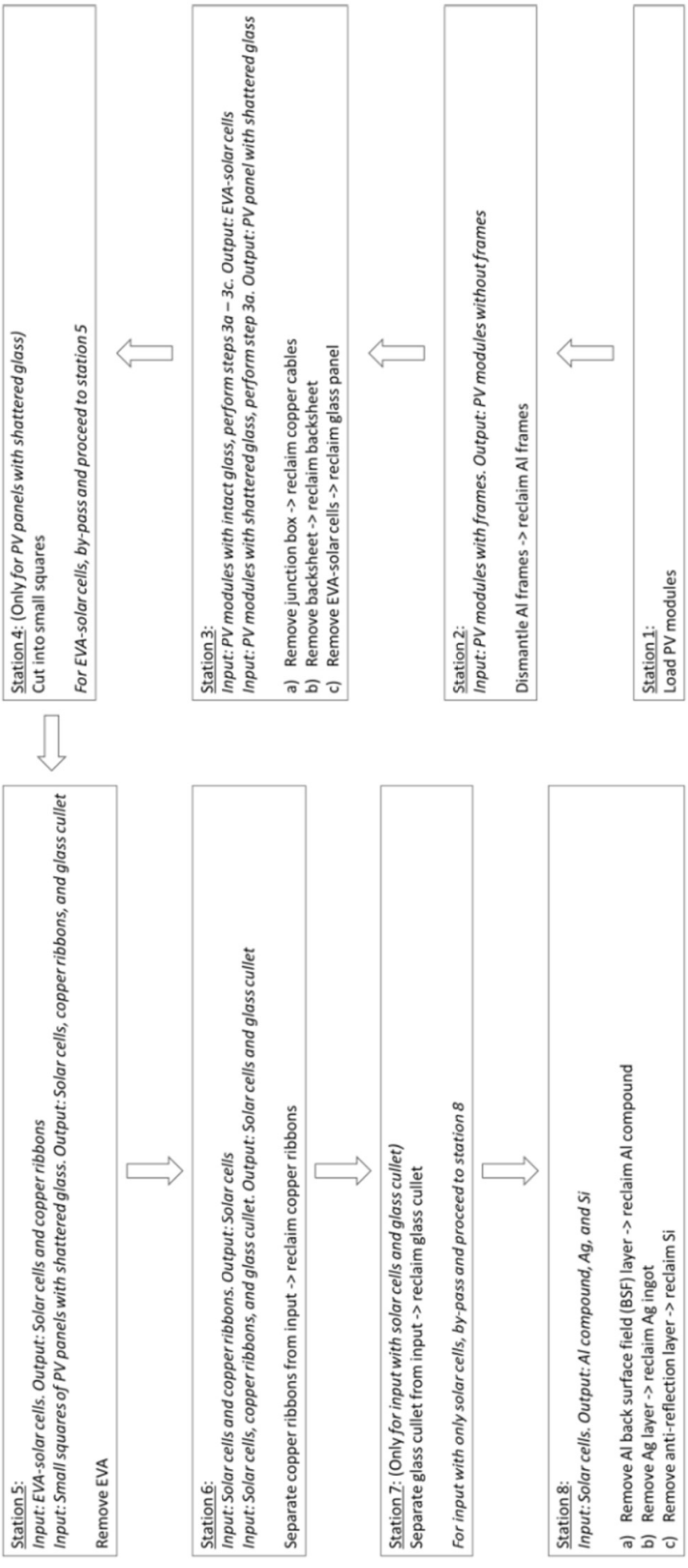

Station 5:
Input: EVA-solar cells. Output: Solar cells and copper ribbons
Input: Small squares of PV panels with shattered glass. Output: Solar cells, copper ribbons, and glass cullet
Remove EVA
Station 6:
Input: Solar cells and copper ribbons. Output: Solar cells
Input: Solar cells, copper ribbons, and glass cullet. Output: Solar cells and glass cullet
Separate copper ribbons from input -> reclaim copper ribbons
Station 7: (Only for input with solar cells and glass cullet)
Separate glass cullet from input -> reclaim glass cullet
For input with only solar cells, by-pass and proceed to station 8
Station 8:
Input: Solar cells. Output: Al compound, Ag, and Si
a) Remove Al back surface field (BSF) layer -> reclaim Al compound
b) Remove Ag layer -> reclaim Ag ingot
c) Remove anti-reflection layer -> reclaim Si
Station 4: (Only for PV panels with shattered glass)
Cut into small squares
For EVA-solar cells, by-pass and proceed to station 5
Station 3:
Input: PV modules with intact glass, perform steps 3a – 3c. Output: EVA-solar cells
Input: PV modules with shattered glass, perform step 3a. Output: PV panel with shattered glass
a) Remove junction box -> reclaim copper cables
b) Remove backsheet -> reclaim backsheet
c) Remove EVA-solar cells -> reclaim glass panel
Station 2:
Input: PV modules with frames. Output: PV modules without frames
Dismantle Al frames -> reclaim Al frames
Station 1:
Load PV modules

**Figure 2**

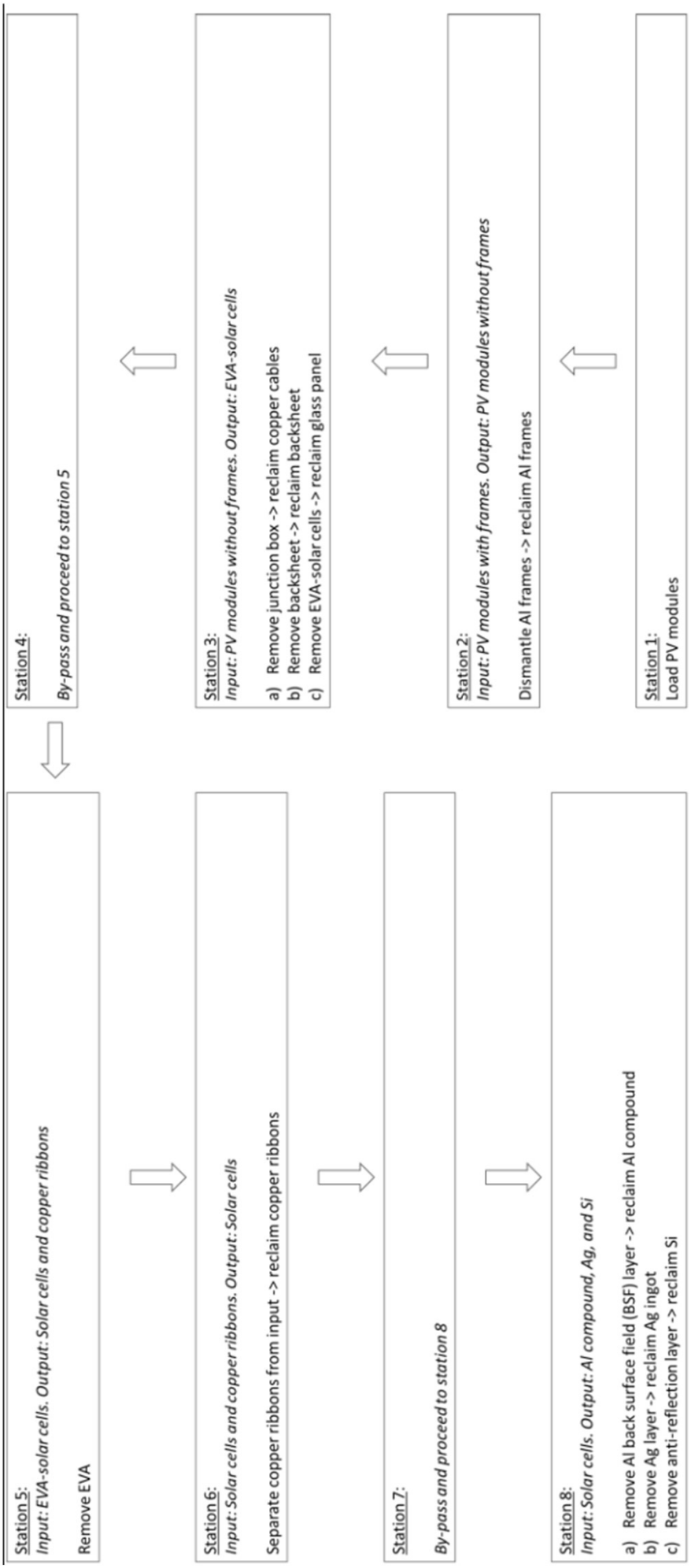

Station 1:
Load PV modules
Station 2:
Input: PV modules with frames. Output: PV modules without frames
Dismantle Al frames -> reclaim Al frames
Station 3:
Input: PV modules without frames. Output: EVA-solar cells
a) Remove junction box -> reclaim copper cables
b) Remove backsheet -> reclaim backsheet
c) Remove EVA-solar cells -> reclaim glass panel
Station 4:
By-pass and proceed to station 5
Station 5:
Input: EVA-solar cells. Output: Solar cells and copper ribbons
Remove EVA
Station 6:
Input: Solar cells and copper ribbons. Output: Solar cells
Separate copper ribbons from input -> reclaim copper ribbons
Station 7:
By-pass and proceed to station 8
Station 8:
Input: Solar cells. Output: Al compound, Ag, and Si
a) Remove Al back surface field (BSF) layer -> reclaim Al compound
b) Remove Ag layer -> reclaim Ag ingot
c) Remove anti-reflection layer -> reclaim Si

**Figure 3**

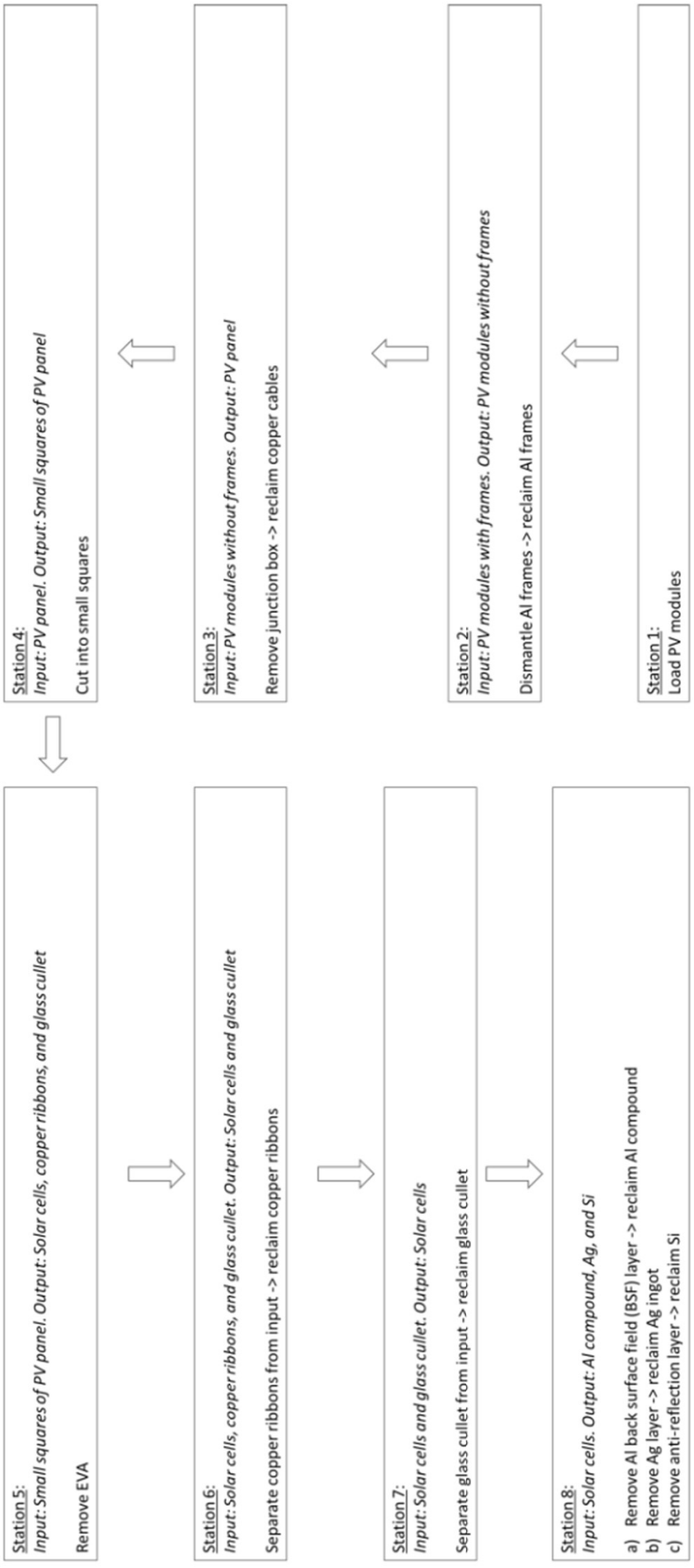

Station 1:
Load PV modules
Station 2:
Input: PV modules with frames. Output: PV modules without frames
Dismantle Al frames -> reclaim Al frames
Station 3:
Input: PV modules without frames. Output: PV panel
Remove junction box -> reclaim copper cables
Station 4:
Input: PV panel. Output: Small squares of PV panel
Cut into small squares
Station 5:
Input: Small squares of PV panel. Output: Solar cells, copper ribbons, and glass cullet
Remove EVA
Station 6:
Input: Solar cells, copper ribbons, and glass cullet. Output: Solar cells and glass cullet
Separate copper ribbons from input -> reclaim copper ribbons
Station 7:
Input: Solar cells and glass cullet. Output: Solar cells
Separate glass cullet from input -> reclaim glass cullet
Station 8:
Input: Solar cells. Output: Al compound, Ag, and Si
a) Remove Al back surface field (BSF) layer -> reclaim Al compound
b) Remove Ag layer -> reclaim Ag ingot
c) Remove anti-reflection layer -> reclaim Si

**Figure 4**

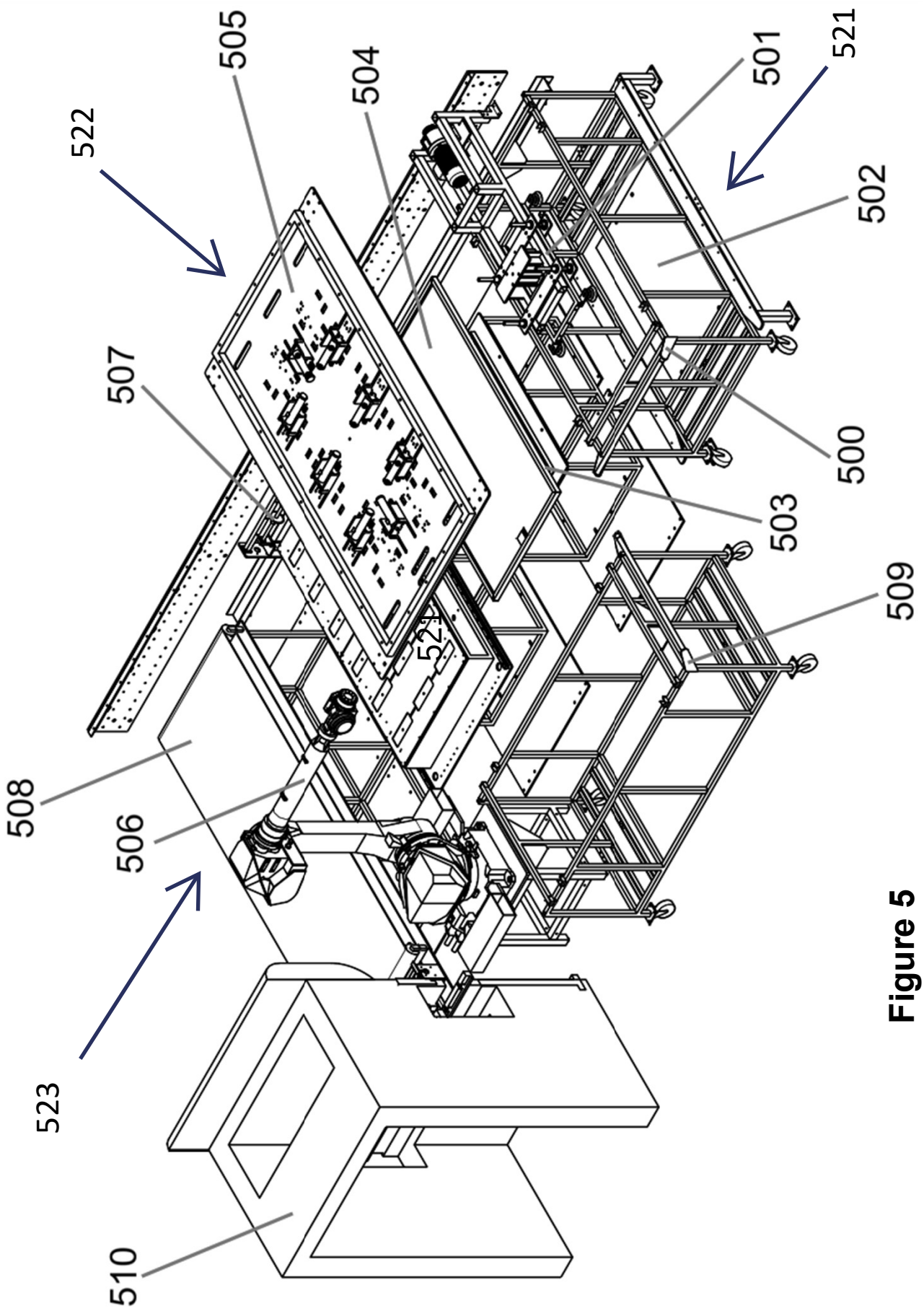



Figure 5

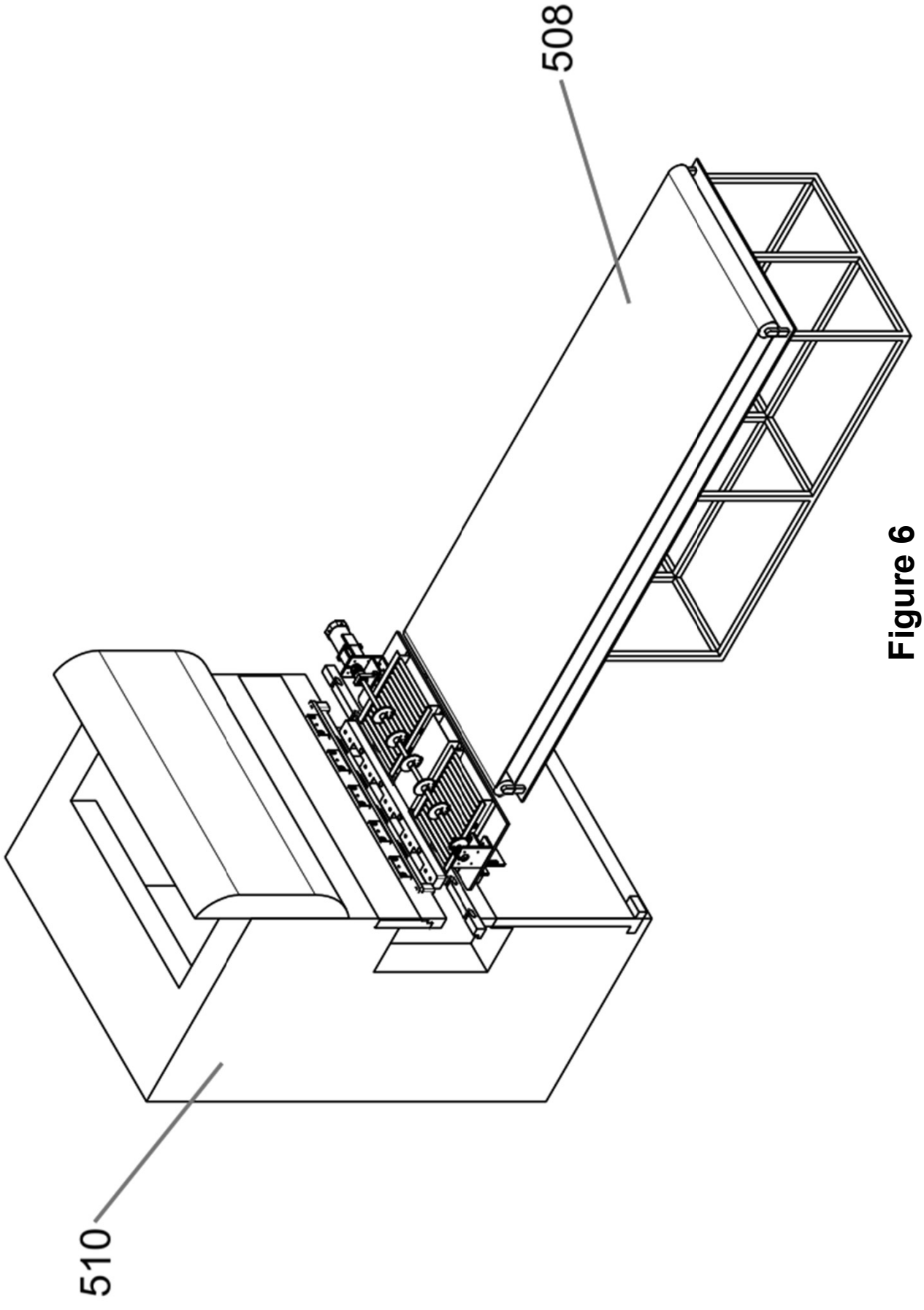



Figure 6

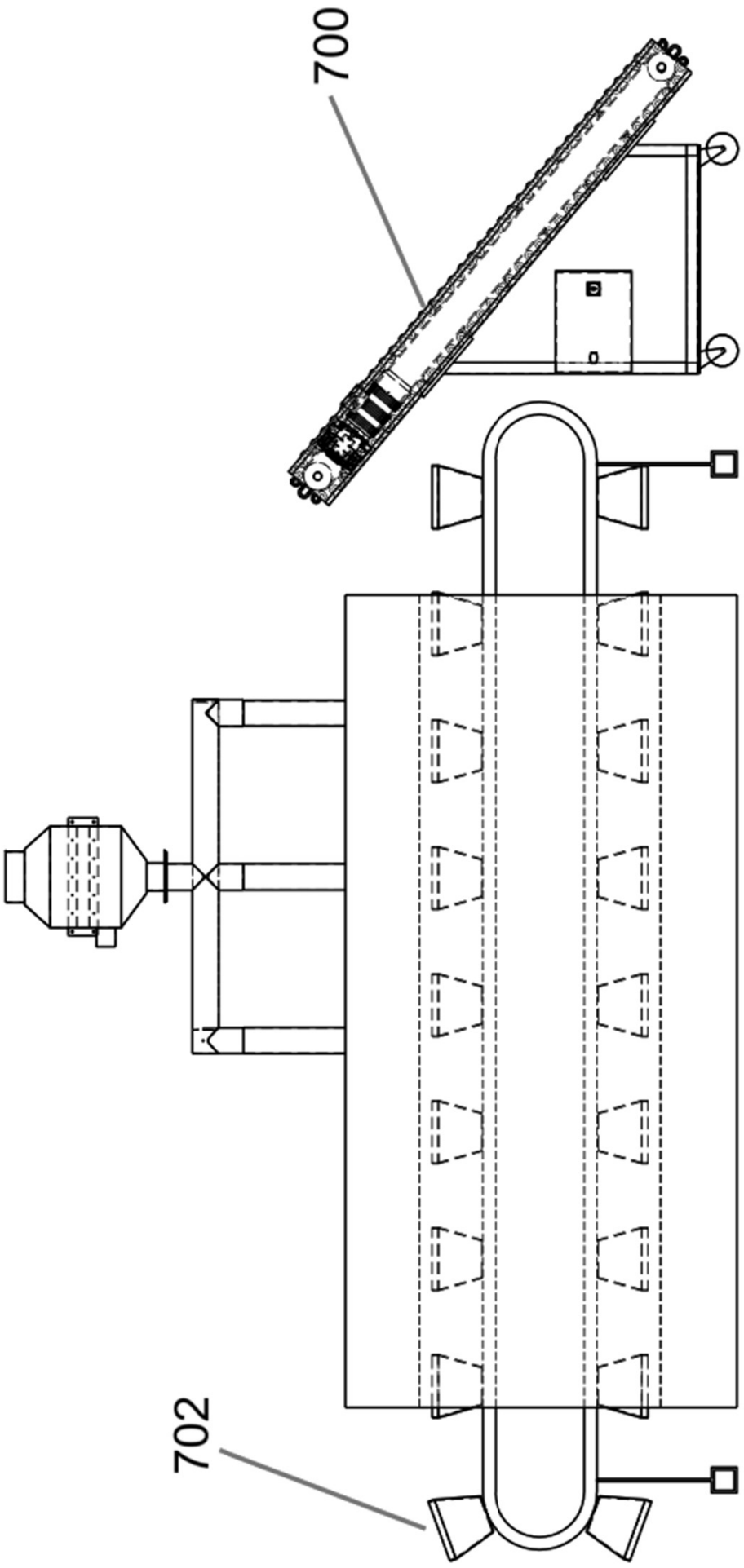



Figure 7A

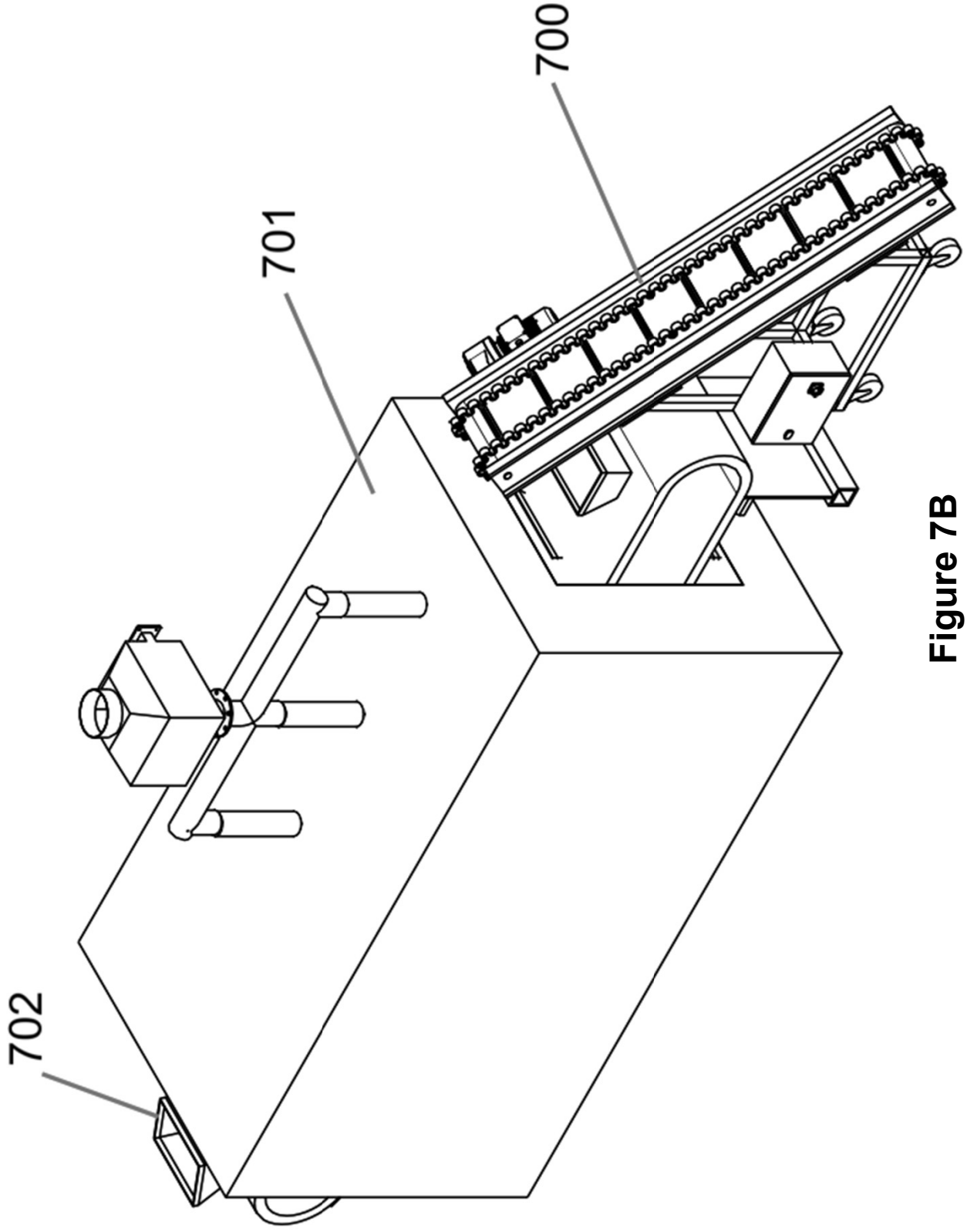



Figure 7B

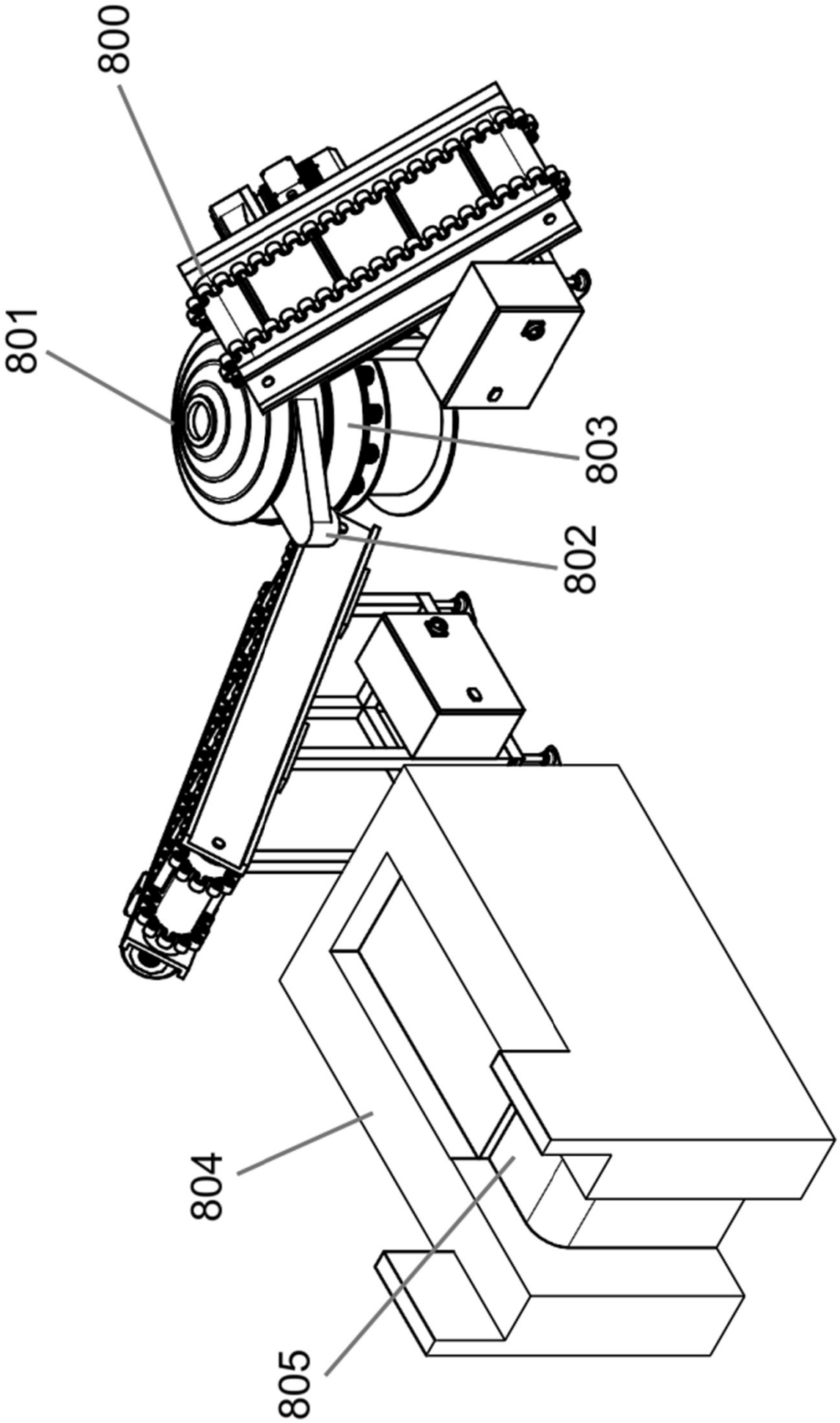



Figure 8

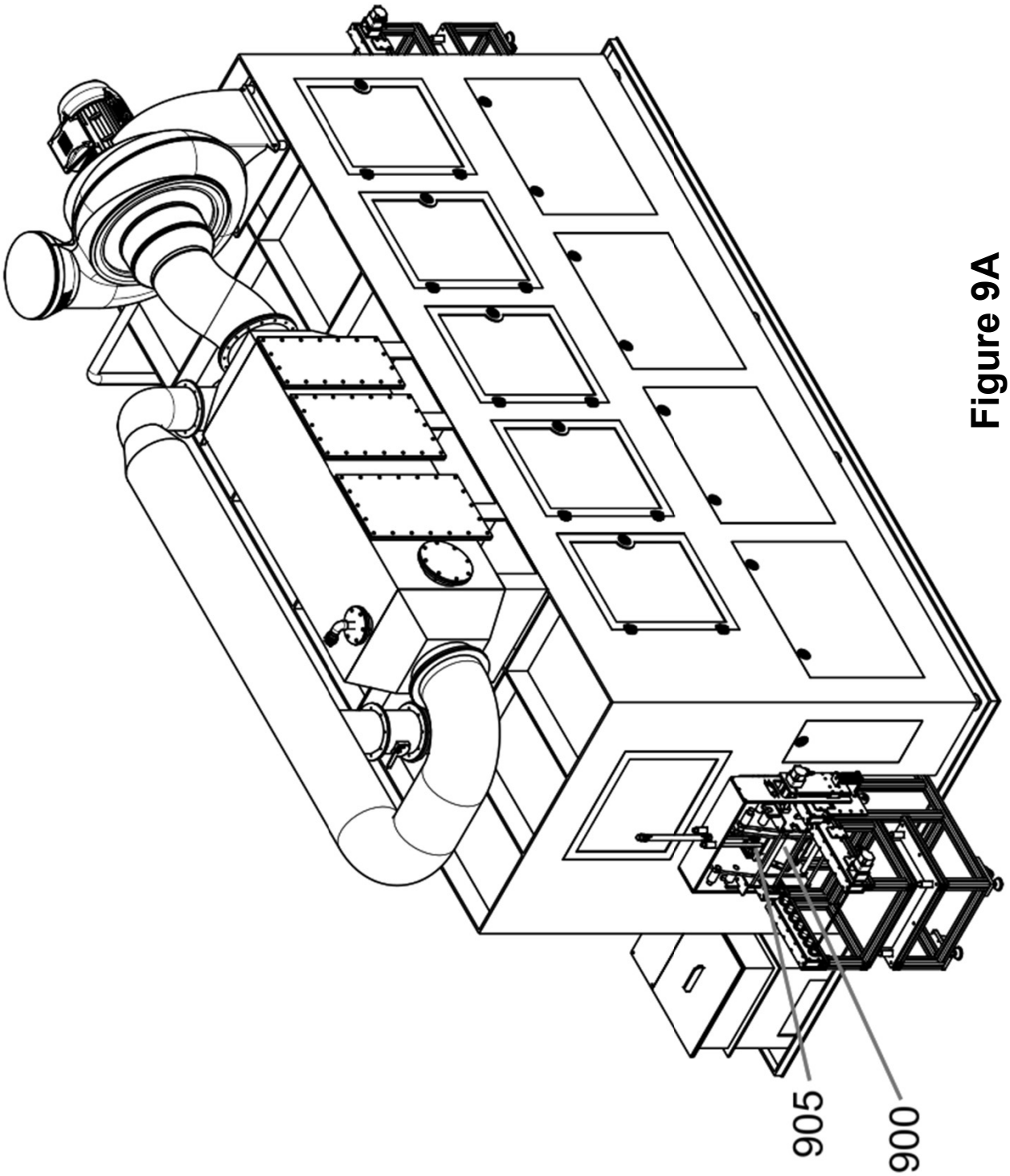



Figure 9A

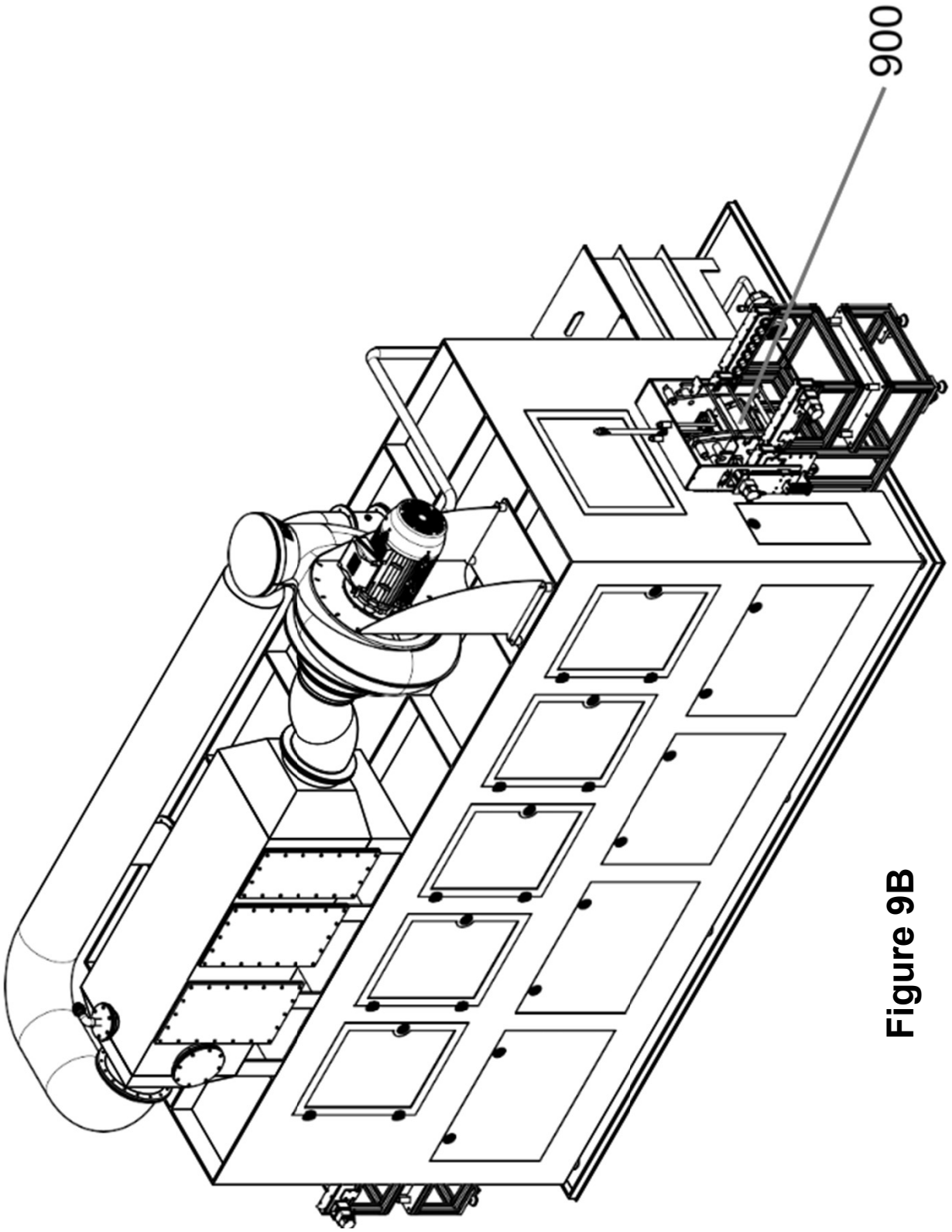



Figure 9B

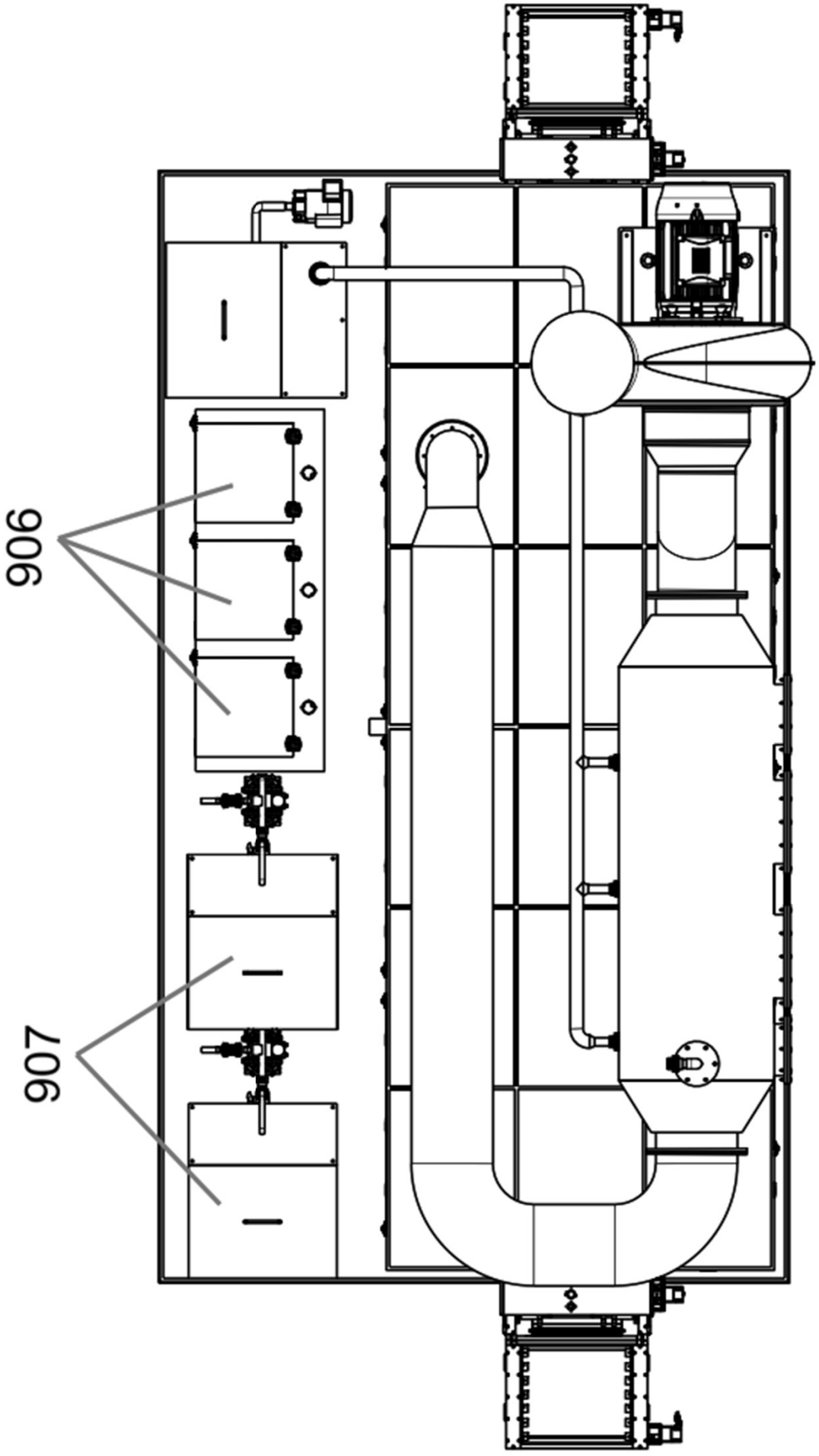



Figure 9C

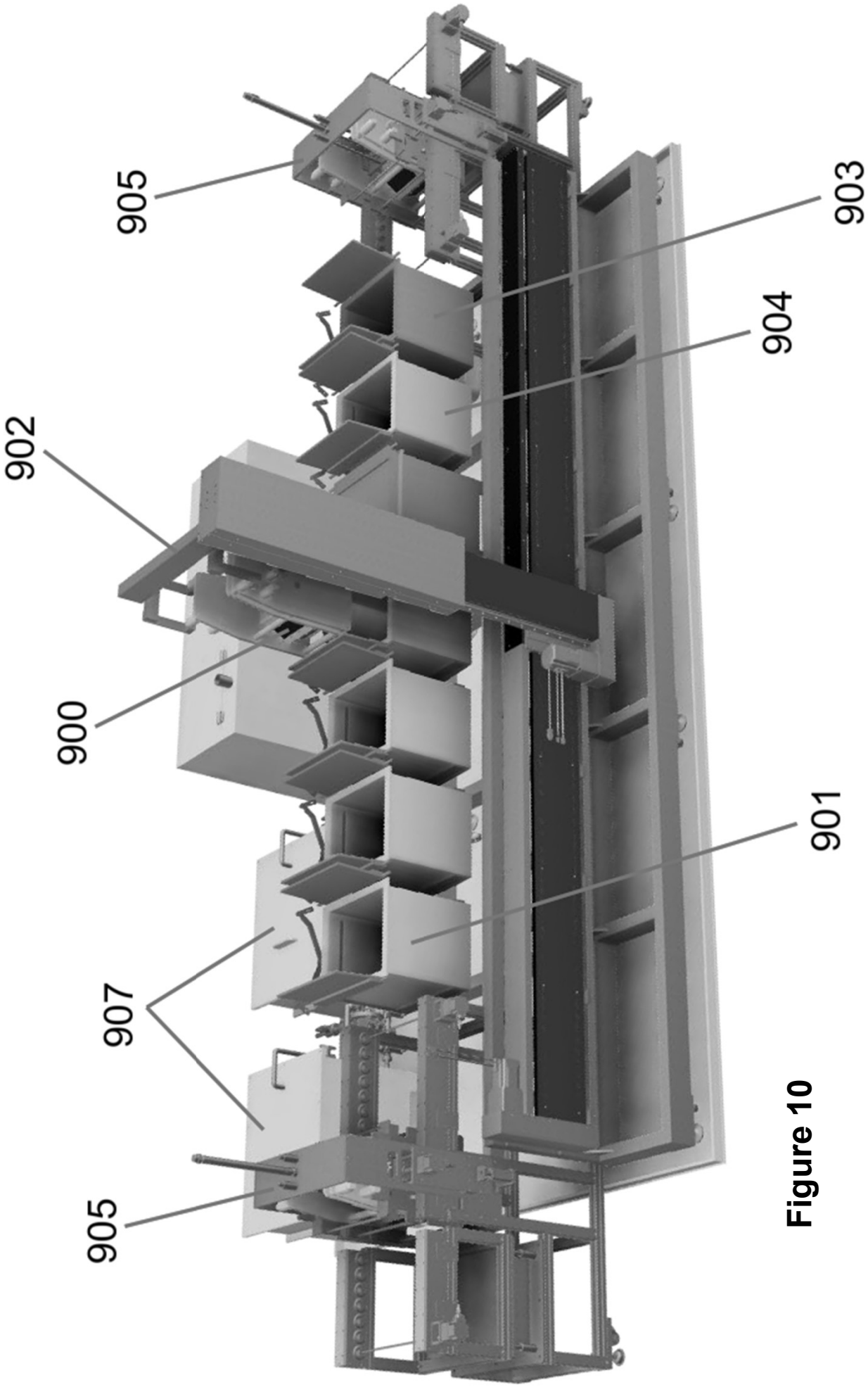



Figure 10

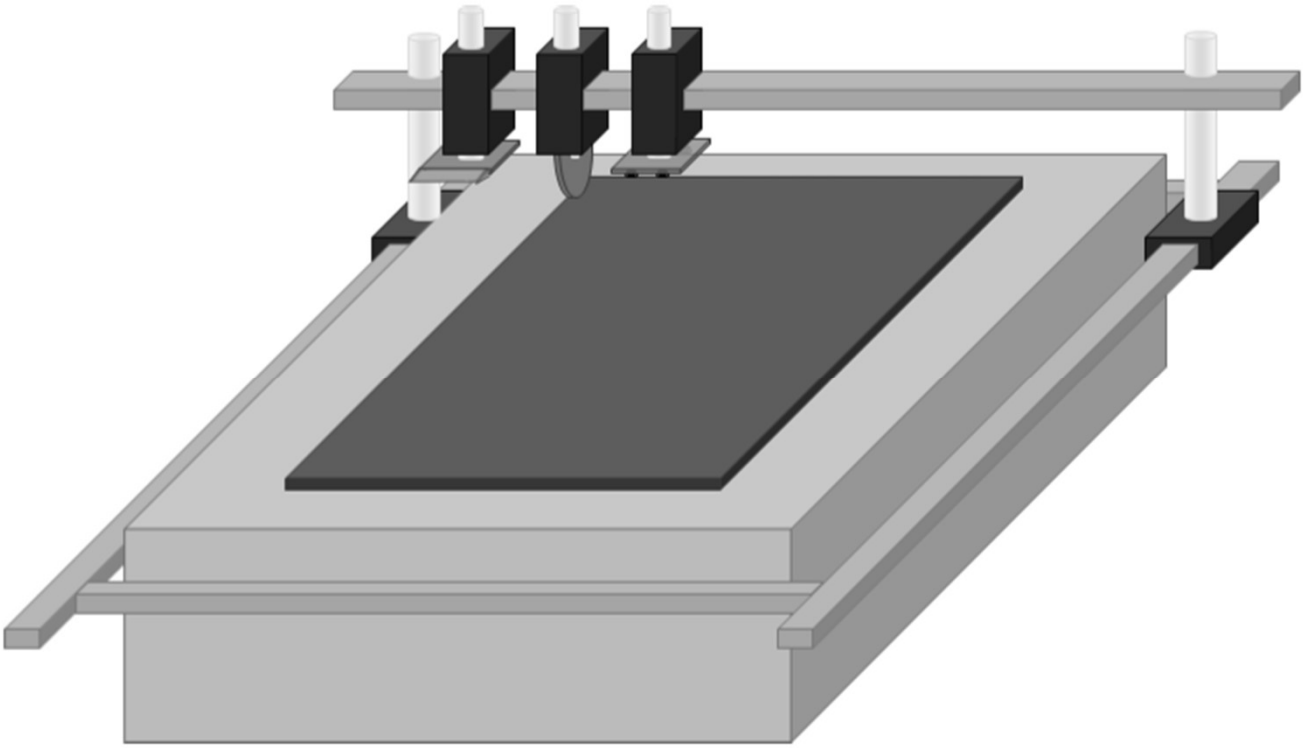


**Figure 11**

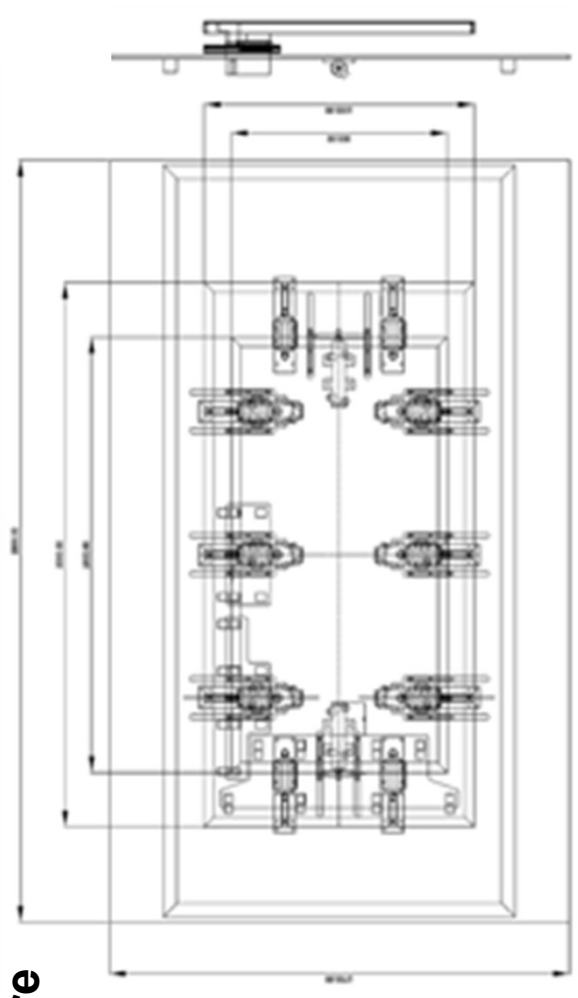


Figure 12

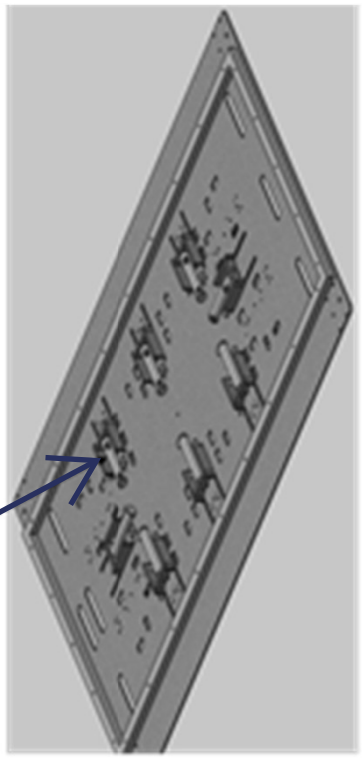



Figure 13

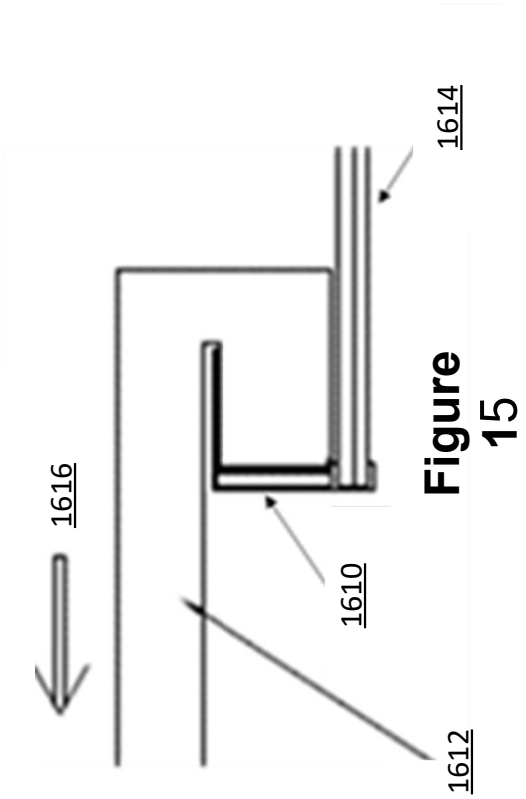



Figure 15

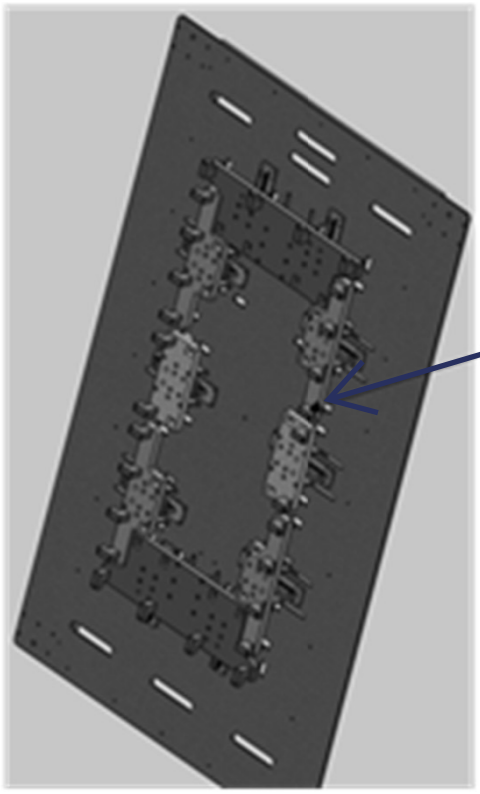



Figure 14