



7th International Abilympics

Vocational Skills Contest

V18 Furniture Making (Basic Course)

1. Task

Fabricate a wooden box shown in the drawing for the assigned task in accordance with the following instructions.

2. Allocated time

Standard time 5 hours, maximum 6 hours

3. Instructions

- (a) Equipment, tools, etc., to be used shall be limited to those specified in Sections 6 and 7 below.
- (b) The dimension and quantity of materials to be provided are specified in “5. Materials to be provided on site” below.
- (c) If any one of the materials provided on site is deemed to have a defect, a replacement will be provided. If a contestant, who is considered to be unable to finish the assigned task unless any one of the materials is replaced due to the contestant’s failure, requests the relevant replacement, the material will be re-provided. However, the replacement shall be subject to deduction of marks.
- (d) Contestants are not allowed to lend or borrow tools, etc., during the contest.
- (e) Clothing, etc., to be worn during the contest should be that suitable for the work.
- (f) Contestants shall notify the judge when they finish the task.

4. Specifications

- (a) Templates for marking, templates, such as a ruler for positioning, jigs, etc., cannot be used.
- (b) The main body shall be made of box joints of three boards with nails to be driven and dowels to be inserted. Drilling the dowel holes must be done by each contestant using the bench-top drill press.
- (c) After the bottom plate is rabbetted by the judge using the table saw, each contestant shall clean out the nooks.
- (d) Light-chamfering shall be used for chamfering except for those designated in the drawing.
- (e) An adhesive agent shall be used for the assembly of the lid frame, assembly of the box joint of the three boards, and when inserting the dowels.
- (f) The opening between the side plate of the main body and the lid shall be 0.5mm each for both the right and left sides.
- (g) The stay shall be mounted as illustrated in the drawing and the opening angle of the lid shall be around 100 degrees.

5. Materials to be provided

No	Items	Dimension (mm)			Qty	Remarks
		Length	Width	Thickness		
1	Lid frame	350	25.5	14.3	2	Magnolia (with cut grooves)
2	"	270	25.5	14.3	2	Same as above
3	Side plate	350.5	75.5	12.3	2	Magnolia (including one spot-faced)
4	"	250.5	87.5	12.3	2	Magnolia
5	Wainscot lid	286	210	5.5	1	Linden plywood (Double-side finished)
6	Bottom	339	239	4	1	Linden plywood

	plate				
7	Iron nail	25		12	Flat-head (for reinforcing the box joint)
8	"	15		16	Flat-head (for driving the bottom plate)
9	Dowel	100	φ 6	2	Magnolia
10	Normal hinge	25	Dimension when the wings are opened	2	Shaft thickness: 4mm
11	Flat-head wood screw	2.4 x 10mm		4	For mounting normal hinge
12	Stay	Folding type L106mm (J104-S-24)		1	For installation on the right side
13	Flat-head wood screw	2.4 x 13mm		4	For mounting the stay
14	Adhesive	In a 180g tube			Polyvinyl acetate emulsion

6. Equipment, tools, etc., to be prepared on site

No.	Items	Dimension or Standard (mm)	Remarks
1	Working table (Stand style)	1800 x 900 x 700 or similar	One per contestant
2	Working table (Sit down style)	1200 x 300 x 100 or similar	One per contestant
3	Table for marking	1000 x 100 x 30 or similar	One per contestant
4	L-shape clamp	150mm (A set of two) 210mm (A set of two)	Two sets (for drill press) One per contestant
5	Jig for chamfering	450mm or similar	One per contestant
6	Bench-top drill press	Attached with 5.8mm woodworking spindle	Two (Chuck diameter: 13mm)
7	Brush for applying adhesive	Bamboo handle (medium, small)	One per contestant
8	Table saw	Cutter: 210mm or similar, 6 mm wide	One on site
9	Tape	15 x 2500	One per contestant
10	Pail	5 liter (For washing adhesive when assembling)	One per contestant
11	Cotton shop rag or cotton towel	For wiping off water and adhesive	One per contestant
12	Movable dust collector	With a flexible hose	One for all on site
13	Writing utensils		For marking

7. Items to be brought by each contestant

No.	Items	Dimension or Standard (mm)	Qty	Remarks
1	Double toothed saw	240 ~ 270	1	Blade replacement type also allowed
2	Backsaw	210 ~ 240	1	Same as above
3	Tenon saw	210 ~ 240	1	Comparable product also allowed
4	Hand plane	Medium/for finish	1 each	
5	Cur surface plane		1	
6	Rabbeting chisel	9 ~ 36	As	

	(large)		appropriate	
7	Thrush chisel	9 ~ 24	1	
8	Ruler	600 or similar	1	Carpenter's square, scale (Steel measure, convex scale) also allowed.
9	Square ruler (Speed square)	200 or similar	1	Wooden square (including large type) also allowed
10	Miter square	150 ~ 200	1	
11	Ruler for sawing	For straight backsawing, for mitering	1	
12	Blade for marking		1	
13	Line-marking gauge		1	
14	Square shooting board	300 x 300 or similar	1	
15	Miter shooting board	300 x 300 or similar	1	Box type also allowed
16	Hammer	Small, medium size	1 each	
17	Nail driver		1	
18	Nail puller	Bar (About 150mm long)	1	
19	Protective wood	Can also be used for protection for clamps	As appropriate	
20	Sash clamp	450 (A set of two)	2	
21	Gimlet	Square drill	1	For positioning nail driving
22	Starch spatula		1	Brush also allowed
23	Screwdriver	For cross recessed head screws	1	No.1

Note 1: Contestants who wish to bring their own tools are asked to prepare a list of such tools and present it to the organizer for approval in advance. The organizer reserves the right to reject the use of any tools that are considered to give the contestant an unfair advantage.

Note 2: Contestants need not bring tools, etc., that they consider unnecessary among those listed in 7. above.

8. Evaluation criteria

The items to be evaluated and marks allotted shall be as defined below.

Items to be evaluated	Maximum marks allotted
Working time	6 marks
Working procedure	4 marks
Processing accuracy	40 marks
Quality of work	50 marks
Total	100 marks