

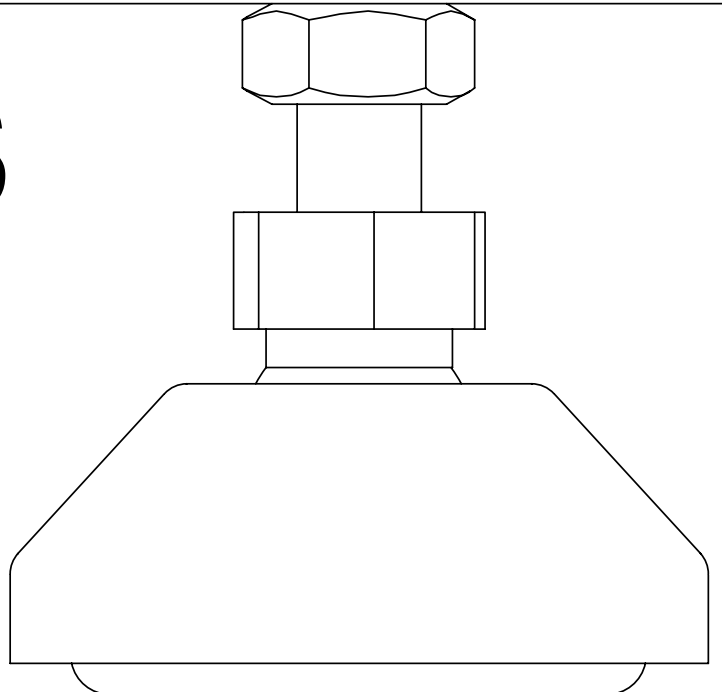


meevo



MX Event +SEAS with Extension Tables

THROUGHPUT TIME



MX Event +SEAS with Extension Tables Throughput Time

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1. Summary

This document indicates the results obtained from measuring the sewing time of flat keder in the MX Event +SEAS, with the support of two Extension Tables. Tests were carried out on panels of five different dimensions, in continuous and single modes.

This document describes the main characteristics of the environment in which the production test of the MX Event +SEAS with Extension Tables was carried out, in order to define its global performance, capabilities and quality standards.

Eventually, during the execution of the project, some adjustments can be made, but never compromise performance, capacity or quality standards.

2. Prerequisites

The results calculated in topic 3 were obtained according to the following production conditions:

- a. The textile panels were hung on an easel at a distance of 1 meter from the MX Event +SEAS. The textile panels were folded and ready to be placed on the sewing table.
- b. The recipes for sewing flat keder were previously configured in MX Event +SEAS.
- c. The operation started with a new flat keder reel and did not include a stop to change a new reel.
- d. The operation started with sufficient threads for production.
- e. The operation was always performed with 4 clamps, where the position was previously defined in the recipe. There may be a need to make slight adjustments to the clamps in some panel measurements.
- f. In single panel mode, the operator uses one recipe per panel side.
- g. In continuous mode, the operator uses one recipe per panel side.
- h. The production of the 0,75x1,50m and 1,00x1,80m panels began with the sewing of the longer sides of the panels, followed by the sewing of the smaller sides. In the 1,50x5,00m, 3,20x6,10m, 3,20x11,40m panels, the production started with sewing the smaller sides, since this is the easiest method to prepare the textile for faster manipulation of the panel.
- i. The operator sews all the panels used during production on one side, dropping them onto a wheeled cart. After completing the sewing of the panels, collect them from the wheeled cart from the front of the Extension Table to the side of the MX Event +SEAS sewing table.
- j. The operation includes time for placing labels on the textile panels.
- k. The operation does not include downtime for error correction. In case of error, the operation has to be restarted.
- l. The workplace was well-illuminated and had enough free space for the operator to move around without obstacles.
- m. The duration of the production did not exceed a duration that would require the operator to stop to rest.
- n. Time counting started when the operator picked up the 1st panel from the place where it was initially located (easel) and ended when the machine stopped moving after sewing the last panel.
- o. Conveyor speed: 16 m/min | 52 ft/min
- p. During the production test, the number of operators varied depending on the dimensions of the panels:

Panel dimensions		Operators
Meters	Feet	
0,75x1,50	2,46x4,92	1
1,00x1,80	3,28x5,91	1
1,50x5,00	4,92x16,40	1
3,20x6,10	10,50x20,00	2
3,20x11,40	10,50x37,39	2

3. Measured results

A. **Decotex 7048GFS, 220gr/m²**

Continuous mode test

0,75x1,50m

2,46x4,92 ft

10 panels = 14min 13sec

B. **Blockout 7255KMFLW, 310gr/m²**

Continuous mode test

1,00x1,80m

3,28x5,91 ft

10 panels = 19min 51sec

C. **Softimage Creaseless Premium, 220gr/m²**

Single mode test

1,50x5,00m

4,92x16,40 ft

1 panel = 5min 27sec

D. **Blockout Softimage Contrast, 210gr/m²**

Single mode test

3,20x6,10m

10,50x20,00 ft

1 panel = 6min 14sec

E. **Blockout 7255KMFLW, 310gr/m²**

Single mode test

3,20x11,40m

10,50x37,39 ft

1 panel = 11min 27sec

4. Calculated results

A. Decotex 7048GFS, 220gr/m²

Continuous mode test

Panel size: 0,75x1,50 m

Panel size: 2,46x4,92 ft

1,42 minutes per panel

42 panels per hour

189,92 meters per hour

622,93 feet per hour

B. Blockout 7255KMFLW, 310gr/m²

Continuous mode test

Panel size: 1,00x1,80 m

Panel size: 3,28x5,91 ft

1,98 minutes per panel

30 panels per hour

169,27 meters per hour

555,20 feet per hour

C. Softimage Creaseless Premium, 220gr/m²

Single mode test

Panel size: 1,50x5,00 m

Panel size: 4,92x16,40 ft

5,45 minutes per panel

11 panels per hour

143,12 meters per hour

469,43 feet per hour

D. Blockout Softimage Contrast, 210gr/m²

Single mode test

Panel size: 3,20x6,10 m

Panel size: 10,50x20,00 ft

6,23 minutes per panel

9 panels per hour

179,04 meters per hour

587,24 feet per hour

E. Blockout 7255KMFLW, 310gr/m²

Single mode test

Panel size: 3,20x11,40 m

Panel size: 10,50x37,39 ft

11,45 minutes per panel

5 panels per hour

153,01 meters per hour

501,88 feet per hour

4.1. Efficiency analysis table (in meters)

Panel size		Production data				Mode	Operators
m	m ²	min/panel	panel/h	m/h	m ² /h		
0,75x1,50	1,125	1,422	42	189,92	47,47	Continuous	1
1,00x1,80	1,800	1,985	30	169,27	54,41	Continuous	1
1,50x5,00	7,500	5,450	11	143,12	82,57	Single	1
3,20x6,10	19,520	6,230	10	179,04	162,22	Single	2
3,20x11,40	36,480	11,450	5	153,01	191,16	Single	2

4.2. Efficiency analysis table (in feet)

Panel size		Production data				Mode	Operators
feet	Sq feet	min/panel	panel/h	feet/h	Sq feet/h		
2,46x4,92	12,103	1,422	42	622,93	510,68	Continuous	1
3,28x5,91	19,385	1,985	30	555,20	585,94	Continuous	1
4,92x16,40	80,688	5,450	11	469,43	888,31	Single	1
10,50x20,00	203,175	6,230	10	587,24	2022,47	Single	2
10,50x37,39	392,595	11,450	5	501,88	2057,27	Single	2

5. Recommendations to optimize production time.

Equipment	Recommended maximum dimension		Number of operators
MX Event +SEAS	< 2x2m	< 6x6 ft	1
MX Event +SEAS 1 Extension Table	> 5m 10m ²	> 16 ft 107 ft ²	2
MX Event +SEAS 2 Extension Tables	> 10m 25m ²	> 32 ft 270 ft ²	2

It is possible to use the base model of MX Event +SEAS, without Extension Tables, for the production of any size of panels, however, production times can be longer.

