

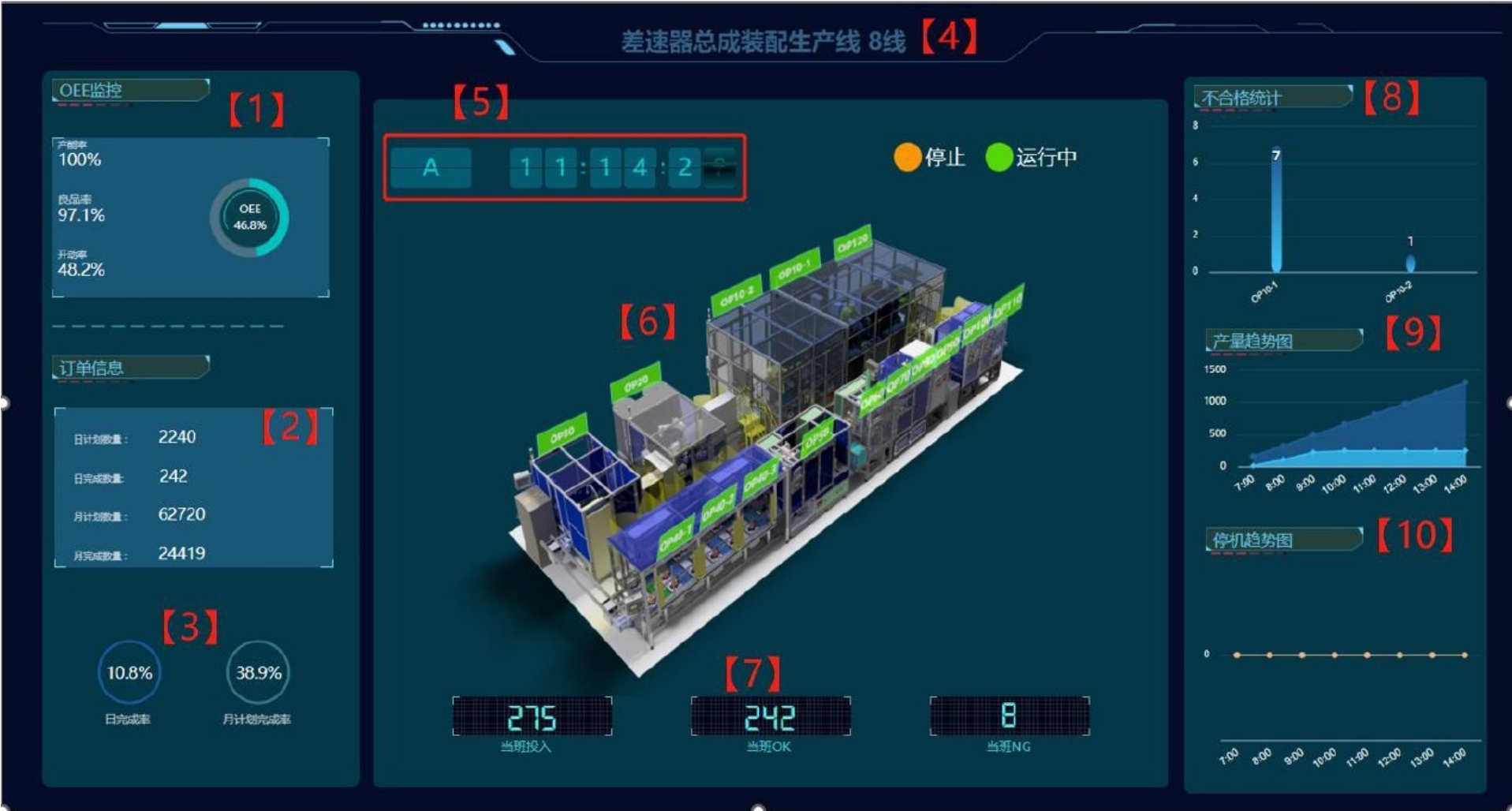


E-Kanban Standard



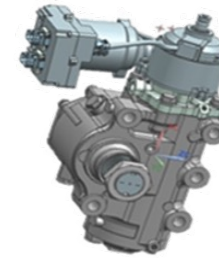
21th Jun, 2023

Information layout



Information layout

- 【1】更改为订单信息，将现在编号为【2】 【3】的版块信息直接上移至左上角
- 现在编号为[1]的版块信息下移
- 【6】除了产线的三维立体图，再增加产品的三维图
- 【7】取消当前的信息，改为产线的人员配置信息：
标准配置 4人（可编辑） 当前配置 2人（可编辑）
- 状态信息当前有绿 运行和黄 停止两种，再增加一个，红 故障
- 【4】产线名称为AHPS电液转向机生产线（可编辑）
- 界面上突出显示的各板块以KB logo的配色为准



OEE的计算公式需遵循KB的计算方法

OEE Calculation at Knorr-Bremse

ABSOLUTE TIME			
Planned working time (from start to end of shift)		Scheduled inactivities: PD - Holiday - safety training - All hands meeting - not scheduled to run (Attention lunch and break time are not part of this section)	
Running time		Examples of losses of Equipment Availability (EA): - planned downtime (set-up time, planned maintenance, tool change...) - unplanned downtime	
Theoretical time	Examples of losses of Performance Efficiency (PE): - short stops - organizational losses - break/ lunch - Logistical losses - Material losses	Calculation EA: EA = running time / planned working time * 100 % Definition see KPI sheet Y127548	
Net productive time	Examples of losses of Rate of Quality (RQ): - reworks, scraps - double tests, defect units - Calculation RQ at automatic bottleneck station: RQ = # of OK Parts / # of NOK+OK parts * 100 % Definition see KPI sheet Y127582	Calculation PE: PE = theoretical time / running time * 100 % Definition see KPI sheet Y127581	

OEE: Overall Equipment Effectiveness = net productive time / planned working time * 100%

OEE 计算示例

<div>Manual Station 1 te=1,45</div> <div>Auto Station 2 tg=1,2</div> <div>Manual Station 3 te=1,45</div> <div>Manual Station 4 te=1,55</div> <div>Auto Station 5 tg=0,96</div> <div>Manual Station 6 te=1,41</div> <div>Auto Station 7 tg=1,48</div> <div>Manual Station 8 te=1,73</div> <div>Auto Station 9 tg=0,65</div> <div>Manual Station 10 te=1,17</div> <div>bottle neck "Equipment"</div>									
Correct way (with automatic bottle neck station: tg=1,48)					Incorrect way (with manual bottle neck station: te=1,73)				
planned working time: 24h = 1440 min number of good pcs per day = 850 pcs					planned working time: 24h = 1440 min number of good pcs per day = 850 pcs				
$OEE = \frac{850 \text{ pcs} \times 1,48 \text{ min/pcs}}{1440 \text{ min}} \times 100\% = 87\%$					$OEE = \frac{850 \text{ pcs} \times 1,73 \text{ min/pcs}}{1440 \text{ min}} \times 100\% = 102\%$				
• OEE = Overall Equipment Effectiveness i.e. the tg (cycle time) of the bottle neck automatic station of the assembly line has to be used ⇒ OEE ≤ 100%					• te (time per unit) comprised tv (allowance time) → 8 20% • te is employee-depending and comprise tv up to 20% ⇒ OEE > 100% would be possible				

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- **【8】处的信息统计方式**
 - 以ST50的测试结果作为Kanban展示的数据来源，不需要展示不同工位的不合格统计
 - 合格率也以ST50的合格数量和总下线数量来计算
 - 合格率结果需要展示在**【8】**版块

- Backup