



Rule of Layout Drawing

KES M – A401

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Additional Rule



1. Purpose

This rule is to make design work efficiently by symbolizing the system names when plant-layouting.

2. Scope of Application

It shall be applied for system layouting.

3. Instruction sheet

	Instruction drawing	Installation items	Remarks
1	Instruction sheet related to energy	Air	Location, diameter hose diameter
		Cooling water	''
		Gas	''
		Sealer	
		Power supply for system	
		Consent	
		Lighting for work	
		Lighting for check	
2	Instruction sheet for broadcasting system	Broadcasting system	
		Telephone	
		Clock	
3	Fundamental installation location drawing	Overall location of fundamental installation	
4	Basic drawing	Detail drawing of fundamental installation	
5	Electric power supplier location drawing	Electric power supplier location drawing	
6	Ceiling load distribution drawing	Ceiling split point load	
7	Welding board location drawing	Welding board	
		Plat form	Option (Height, Width, Length) location
		Part ventilation	

	Instruction drawing	Installation items	Remarks
8	Rail location drawing	I-beam location drawing	
		Hanger roller location drawing	
		Conveyer rail location drawing	
9	Monitor system location drawing	Center monitor controlling board	
		Count indicator	
		Operating rate indicator	
		Part call indicating board	
10	Part call controlling board location drawing	Part call controlling board	
11	Safety system machine location drawing		
12	Sanitation system machine location drawing		
13	Dangerous installation location drawing		

4. Layout drawing

	System items	Statements	Remarks
1	Tool	Tool No.	
2	Robot	Tool No. scale, Type	
3	Automation system	Tool No.	
4	Conveyer	Tool No.	
5	Welding gun	Type	
6	Transformer	Type	
7	Kickless cable	Length	
8	Fixed I-beam	Height, Location, Width, Length	
9	Mono rail	''	
10	Pallet	Type, Part name, Received number for A/S	

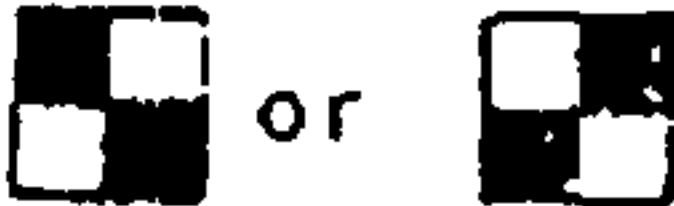
	System items	Statements	Remarks
11	Inspection keeping site		
12	Work table		
13	Inspection flat form		
14	Safety net		
15	Safety guard		
16	Procedure symbol		
17	Line side rest drawing		
18	Dry in plant		
19	Washing room		
20	Water cooler		
21	Operation board		
22	Controlling board		
23	Car type store board		
24	Broadcast print		
25	Electric distribution board		
26	Work procedure name		
27	Fan	Size	
28	Number of workers		
29	Consent	Capacity	
30	Air	Diameter	For tool, Tool, Welding
31	Cooling water	Diameter	Line and toolmain
32	Telephone jack		
33	Gas	Diameter, Type	
34	Mat switch	Standard, Capacity	

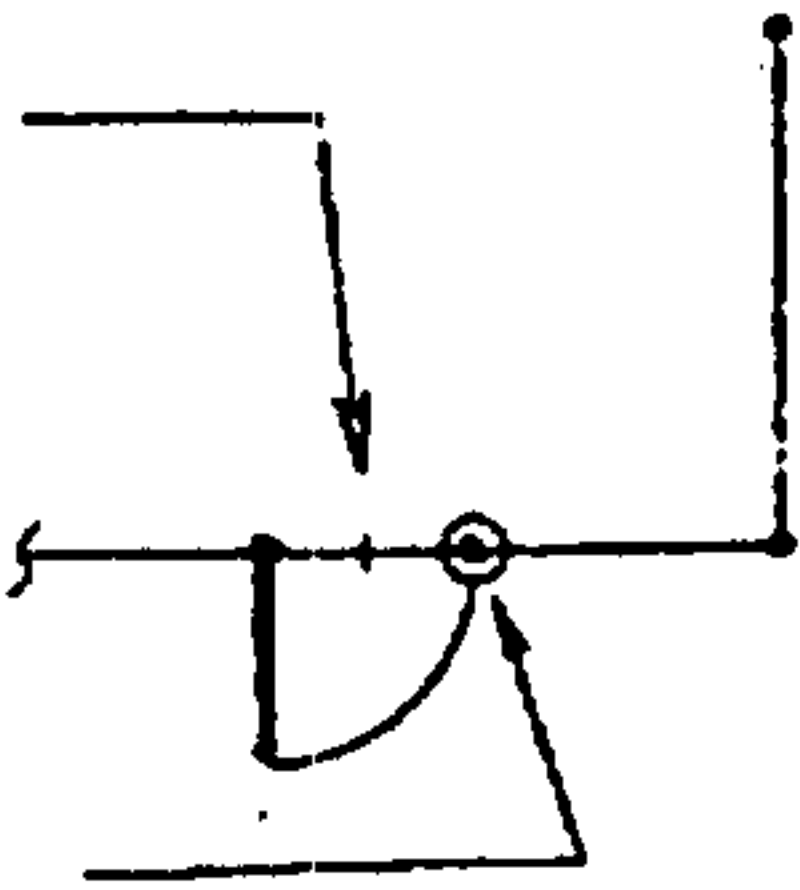
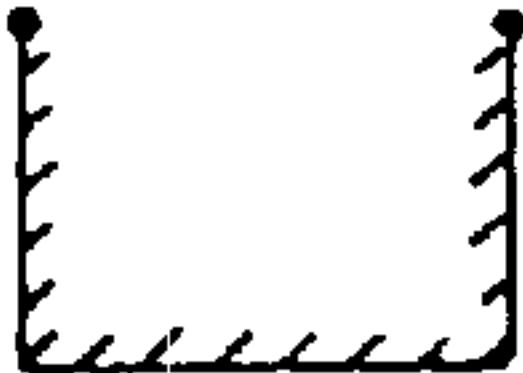
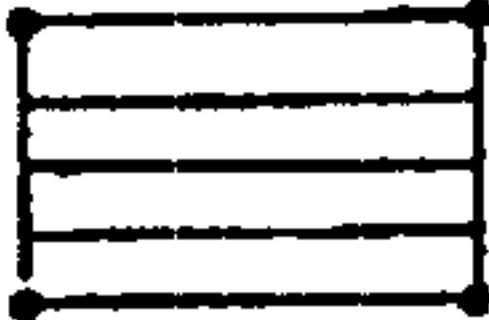
5. Symbol of Lay Out and Mark

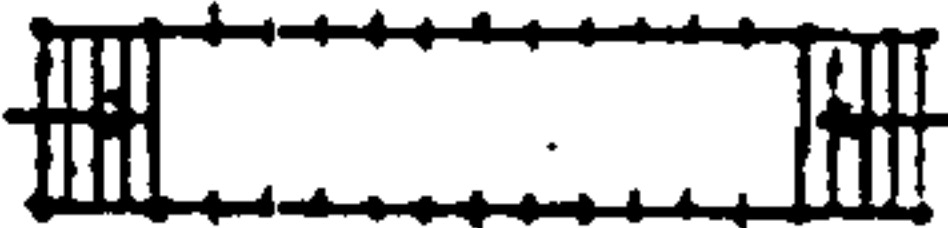
(1) General items

(Contraction scale : 1/50 standard)

No	System name	Symbol		Size	Remarks
1	Operating board	 Power P.V.KW (VA)		Contraction scale	Door open/close direction shall be indicated.
2	Controlling board			Contraction scale	Operating direction shall be indicated with...
3	Sub controlling board (Stand type push button box)			Contraction scale	Operating direction shall be indicated with...
4	Emergency stop push button			7 mm	
5	Start push button			7 mm	
6	Operation indicating light (3 point indicating light)			6 x 12	Blue, Yellow, Red from the left Blue, Yellow, Red from the top
7	Warning equipment-rotating siren			φ 8	Use color in between...
8	Warning equipment-speaker	Install on the wall	Install in space	φ 6	
					

No	System name	Symbol	Size	Remarks
9	Warning equipment – buzzer		φ 8	
10	Warning equipment – bell		φ 8	
11	Warning equipment – electronic siren		φ 8	
12	Warning equipment – electronic horn		φ 8	
13	Mat switch		Contraction scale	
14	Mat switch stand type push button box		□ 5	
15	Safety guard		Contraction scale	

No	System name	Symbol	Size	Remarks
16	Safety door of safety guard		Contraction scale	
17	Safety door – safety pug		Contraction scale	
18	Safety shutter		Contraction scale	
19	Safety cover		Contraction scale	
20	Safety bar		Contraction scale	
21	Handrail		Contraction scale	
22	Fall safety net		Contraction scale	
23	Safety net		Contraction scale	

No	System name	Symbol	Size	Remarks
24	Ladder		5 x 2	
25	Stair		Contraction scale	
26	Check step		Contraction scale	
27	Cross overbridge		Contraction scale	
28	Work flatform		Contraction scale	
29	Mirror		10 mm	