

KES

Equipment Specification

KES G – J876

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Contents

1. Scope of Application
2. Purpose
3. Definition of Terminology
4. Equipment Type
5. Standard for Equipment
6. Standard of Work and Side Table



1. Scope of application

This standard shall be applied to large equipment used at processing on making a mold at mold manufacturing department.

2. Purpose

The purpose of this standard shall be to derive input of appropriate equipment and to apply it on designing a mold on processing a mold by specifying the spec of large equipment for processing a mold.

3. Definition of terminology

(1) ATC (Automatic tool change)

The equipment with automatic changing tool.

(2) CNC (Computer numerical control)

The equipment to control the value of working machine by a computer.

4. Equipment type

Equipment group	Equipment name	Equipment form	Use
Milling machine for copy	CNC copy milling M/C	HF-3NC-PKO	Processing of mold copy
	CNC copy milling M/C	HF-5NC-PKO	
Vertical CNC milling machine	CNC plano borer	HF-3NC-ATC	For processing base plane, seating plane, CAM processing and outline
	CNC plano borer	HF-4NC-ATC	
	Multi-center	HF-4M	
	5 Faces M/C	MVR 32/34	
High-speed shape milling machine	High-speed vertical-precision (1)	M-KR27A	Mold high-speed shape processing
	High-speed vertical-precision (2)	M-KR27A	
	High-speed milling M/C (1)	DC-4ASM	
	High-speed milling M/C (2)	DC-4ASM	

5. Standard for equipment

5.1 Copy milling machine

Table 1

Equipment name Standard		Unit	3PKO	5PKO	Remark
Distance between column		mm	2300	3000	2A + D
Distance from a table to spindle end		mm	1400Max	2000Max	B+Z shaft S+
Main work table	Size	mm	36201700	43002500	C × D
	Working range	mm	30001700	40002500	E × D
	Allowable load	kg	10000	20000	
Table for a model	Size	mm	36201700	42002000	F × G
	Allowable load	kg	1000	5000	
Stroke	X axis	mm	3250	4000	H
	Y axis	mm	1950	2750	I
	Z axis	mm	450	450	J
	W axis	mm	1250	1650	L
Copy scope	X axis	mm	3250	4000	K
	Y axis	mm	1600	2000	G
	Z axis	mm	1250	1650	J
Manual adjusting distance of tracer head	X axial direction	mm / min	100	100	
	Y axial direction	mm / min	400	400	
Transfer	Rapid transfer (X, Y)	mm / min	7200	7200	
	Rapid transfer (Z, W)	mm / min	2400	3000	
	N.C mode	mm / min	1-2400	1-3000	
	Copy mode	mm / min	10-1000	10-1000	
Diameter of a spindle		mm	120	140	
Diameter of a quill		mm	200	250	
Speed of a spindle		rpm	40-2000	40-2000	
N.C system (Controller)			FANUC9M-A	FANUC9M-A	