

技术制图
简化表示法
第2部分:尺寸注法

GB/T 16675.2—1996

Technical drawings
—Simplified representation
—Part 2: Dimensioning

1 范围

本标准规定了技术图样(机械、电气、建筑和土木工程等)中使用的简化注法。
本标准适用于由手工或计算机绘制的技术图样及有关技术文件。

2 引用标准

下列标准所包含的条文,通过在本标准中引用而构成为本标准的条文。本标准出版时,所示版本均为有效。所有标准都会被修订,使用本标准的各方应探讨使用下列标准最新版本的可能性。

GB 4458.1—84 机械制图 图样画法
GB 4458.4—84 机械制图 尺寸注法
GB 4728—85 电气图用图形符号
GB 5489—85 印制版制图
GB 11943—89 锅炉制图
GB/T 13361—92 技术制图 通用术语
GB/T 14691—93 技术制图 字体
GB/T 16675.1—1996 技术制图 简化表示法 第1部分:图样画法
GBJ 1—86 房屋建筑制图标准

3 术语

本标准所涉及的术语见 GB/T 13361 和 GB/T 16675.1。

4 总则

4.1 简化原则

- 4.1.1 简化必须保证不致引起误解和不会产生理解的多意性。在此前提下,应力求制图简便。
- 4.1.2 便于识读和绘制,注重简化的综合效果。
- 4.1.3 在考虑便于手工制图和计算机制图的同时,还要考虑缩微制图的要求。

4.2 基本要求

- 4.2.1 若图样中的尺寸和公差全部相同或某个尺寸和公差占多数时,可在图样空白处作总的说明,如“全部倒角 C1.6”、“其余圆角 R4”等。

4.2.2 对于尺寸相同的重复要素,可仅在一个要素上注出其尺寸和数量(图 1)。

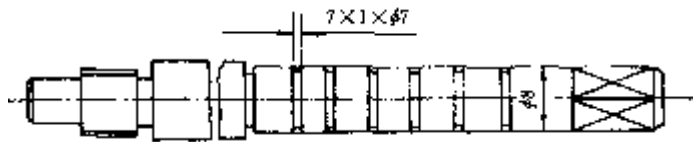


图 1

4.2.3 标注尺寸时,应尽可能使用符号和缩写词。常用的符号和缩写词见表 1。

表 1

名 称	符号或缩写词
直径	ϕ
半径	R
球直径	$S\phi$
球半径	SR
厚度	t
正方形	$\square$
45°倒角	C
深度	$\downarrow$
沉孔或铤平	$\perp$
埋头孔	∇
均布	EQS

5 简化注法

在技术图样中通用的简化注法参见表 2 和附录 A(标准的附录)。

表 2

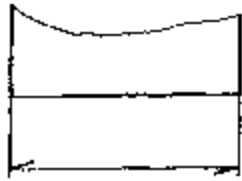
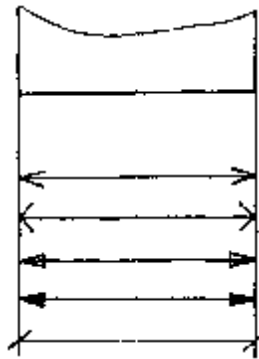
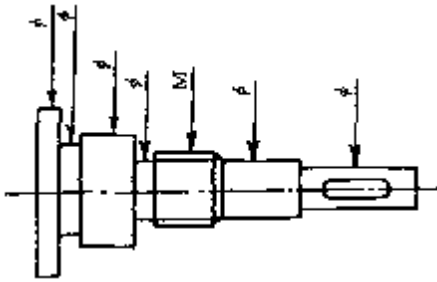
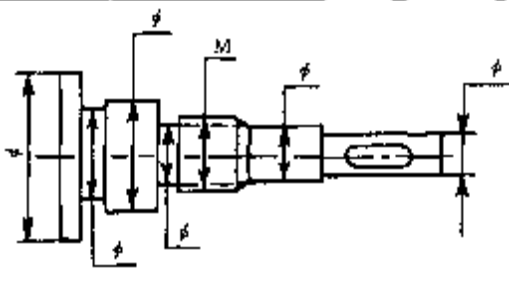
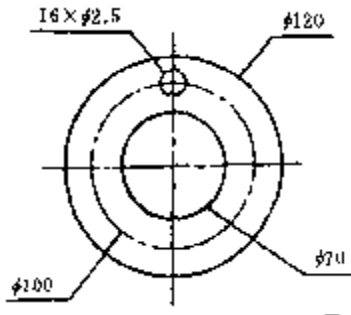
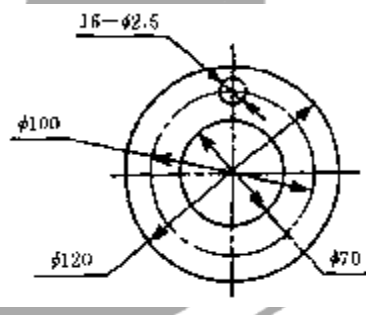
No	简 化 后	简 化 前
5.1		
5.2		
5.3		

表 2(续)

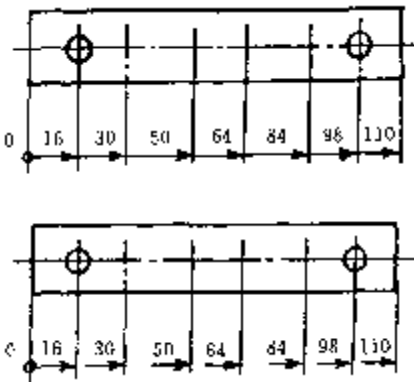
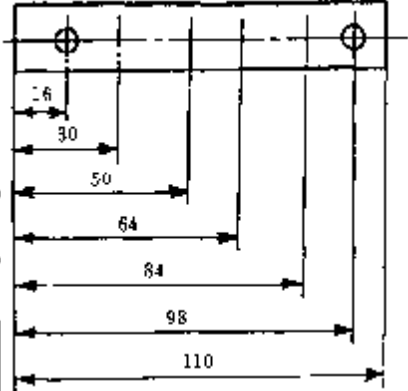
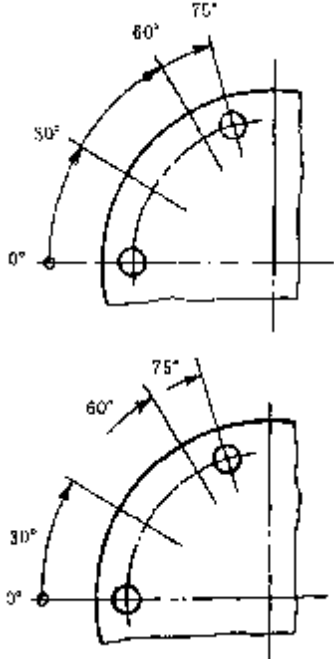
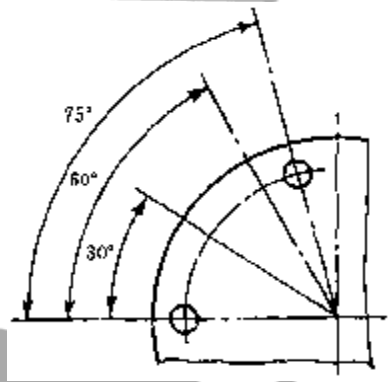
No	简 化 后	简 化 前
5.4		
		

表 2(续)

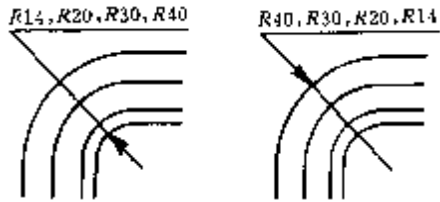
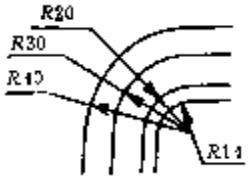
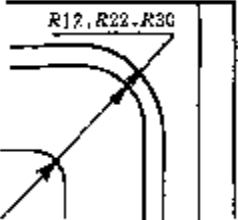
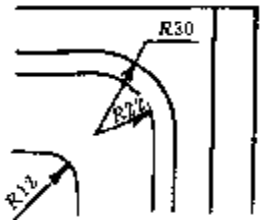
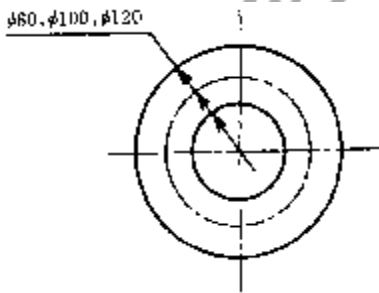
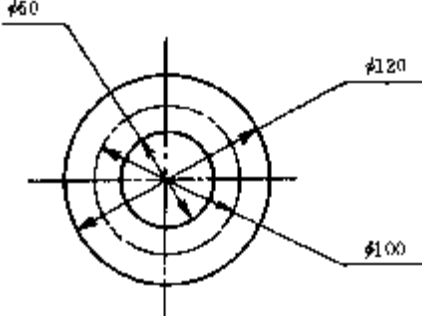
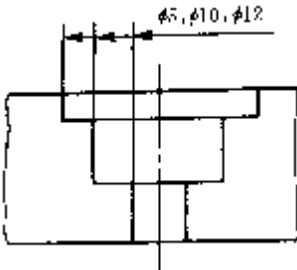
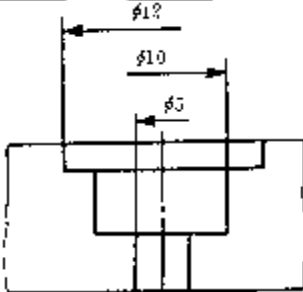
No	简 化 后	简 化 前
5.5		
		
5.6		
		

表 2(续)

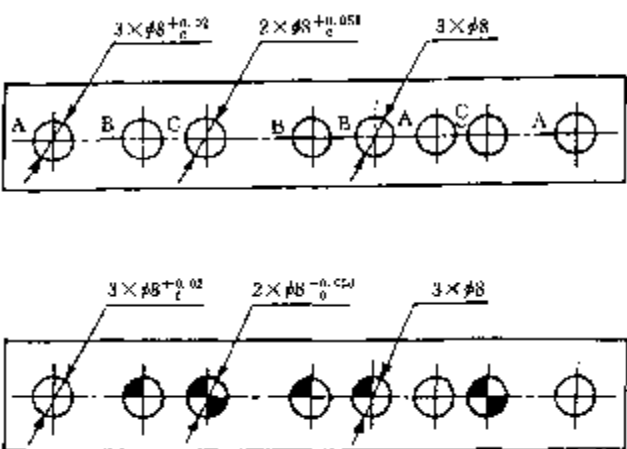
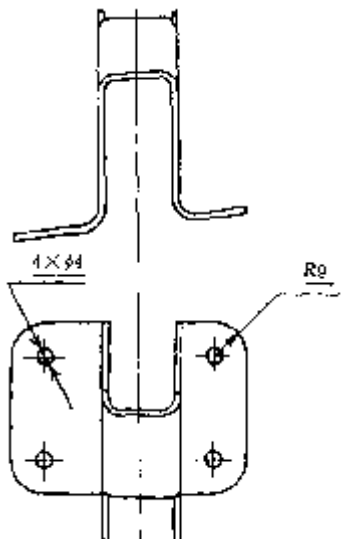
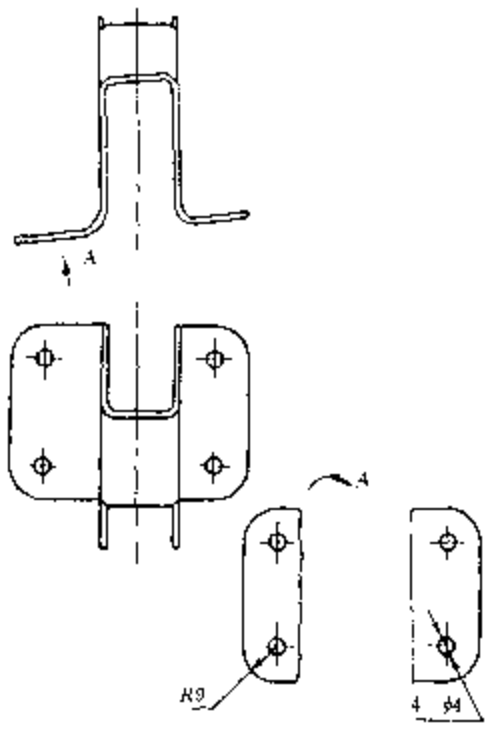
No	简 化 后	简 化 前
5.9		省略
5.10		

表 2(续)

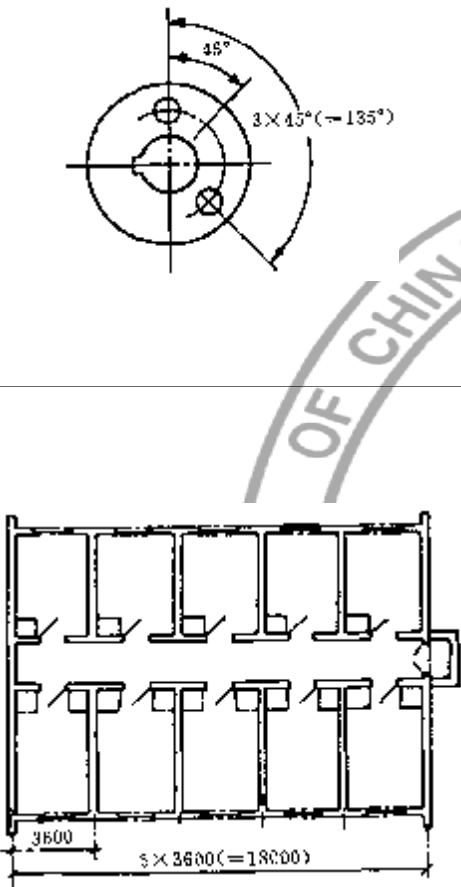
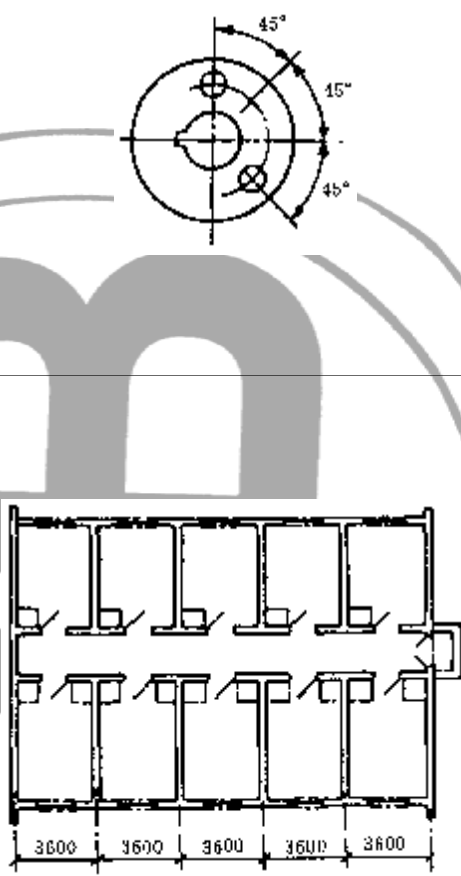
No	简 化 后	简 化 前
5.11		

表 2(续)

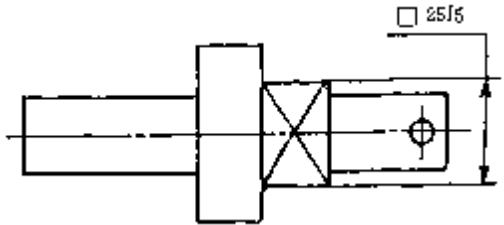
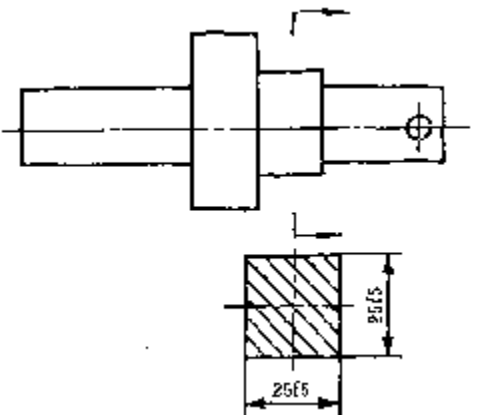
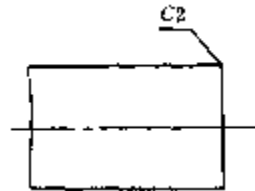
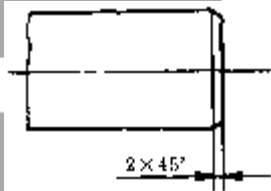
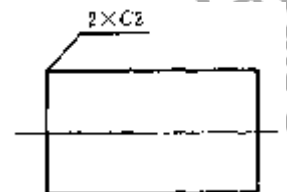
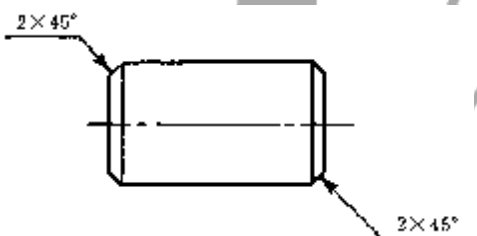
No	简 化 后	简 化 前
5. 12		
5. 13		
		

表 2(续)

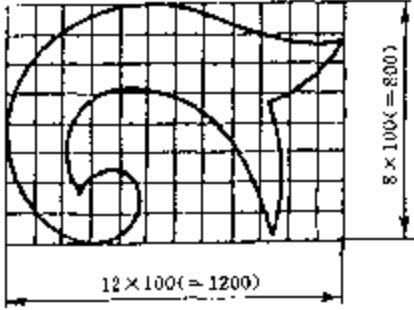
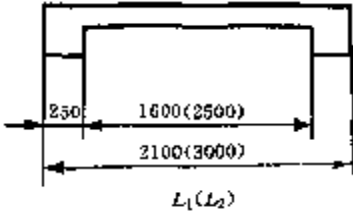
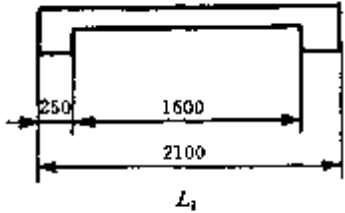
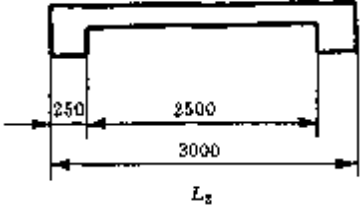
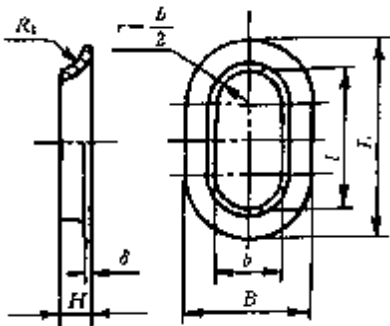
No	简 化 后	简 化 前
5. 14		省略
5. 15		 

表 2(续)

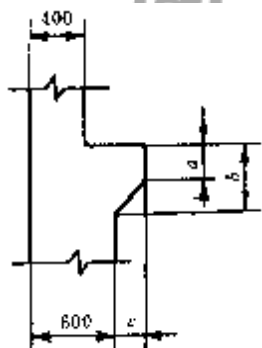
No

5.16

简化后



X4	40	80	60	1000.8	11		
X3	30	60	50	800.8	11		
X2	20	40	36	560.58.5			
X1	12	24	20	320.54.5			
图样代号	b	l	B	L	delta	H	数量



No	a	b	c
Z1	200	400	200
Z2	250	450	200
Z3	200	450	250

简化前

省略

省略

表 2(续)

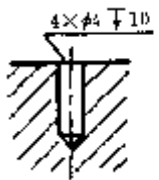
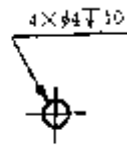
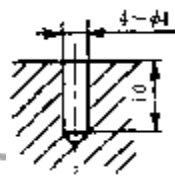
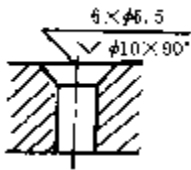
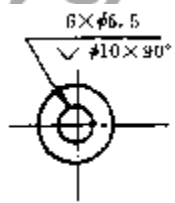
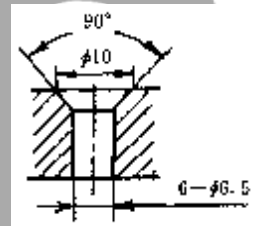
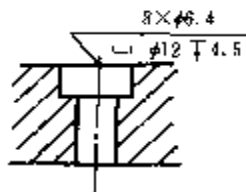
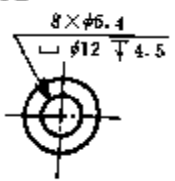
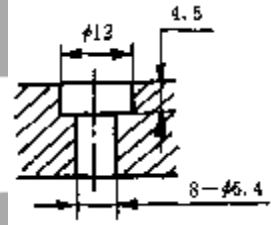
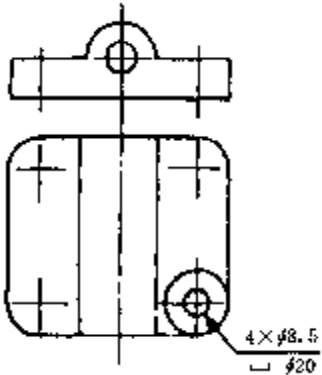
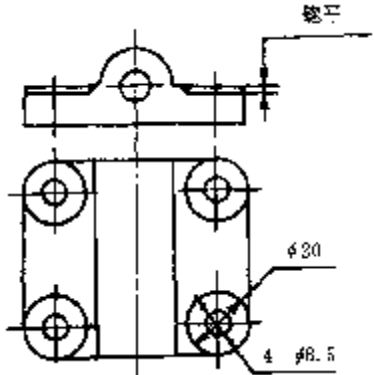
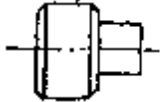
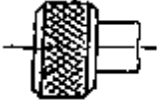
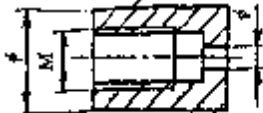
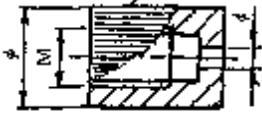
No	简 化 后	简 化 前
5. 17	 or 	
	 or 	
	 or 	

表 2(完)

No	简 化 后	简 化 前
5.18		
5.19	 网纹 m5 GB 6403.3 86	 网纹 m5 GB 6403.3 86
	 直纹 m5 GB 6403.3—86	 直纹 m5 GB 6403.3- 86

附 录 A
(标准的附录)
简化注法的补充

本附录将 GB 4458.4—84《机械制图 尺寸注法》中有关简化注法的部分内容以标准的附录形式列出。

A1 一般的退刀槽可按“槽宽×直径”(图 A1)或“槽宽×槽深”(图 A2)的形式标注。

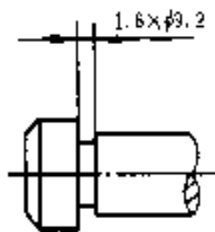


图 A1

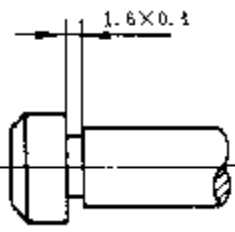
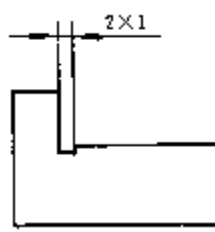


图 A2



A2 当成组要素的定位和分布情况在图形中已明确时,可不标注其角度,并省略缩写词“EQS”(图 A3)。

A3 对不连续的同一表面,可用细实线连接后标注一次尺寸(图 A4)。

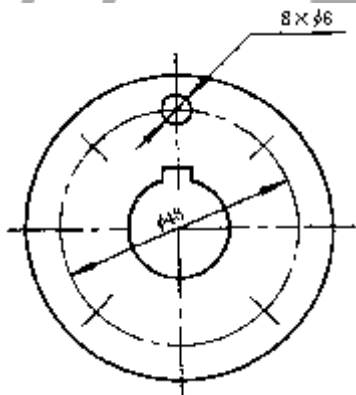


图 A3

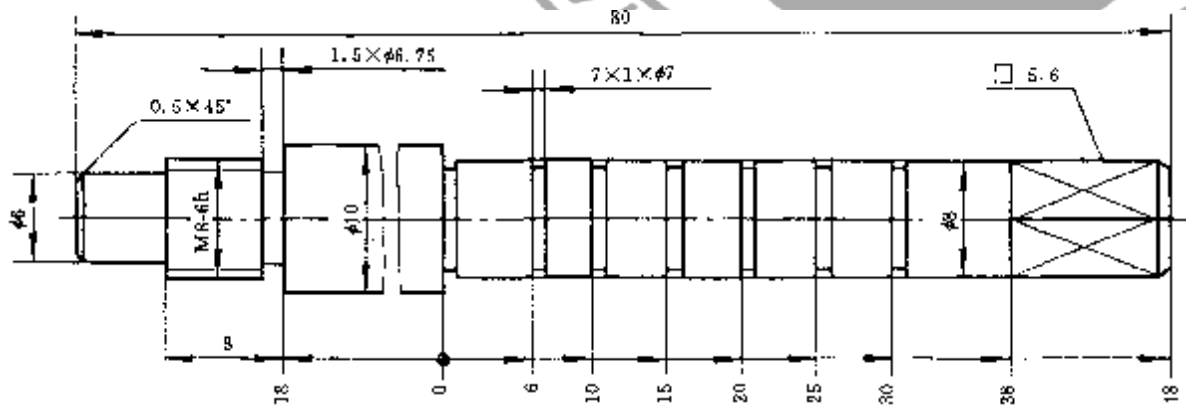


图 A4

A4 对于印制板类的零件,可直接采用坐标网格法表示尺寸(图 A5)。

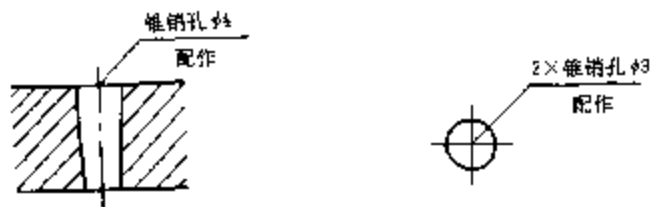


图 A7

A7 对于凸轮的曲面(或曲线)和处在曲线上的某些结构,其尺寸可标注在展开图上(图 A8、A9)。

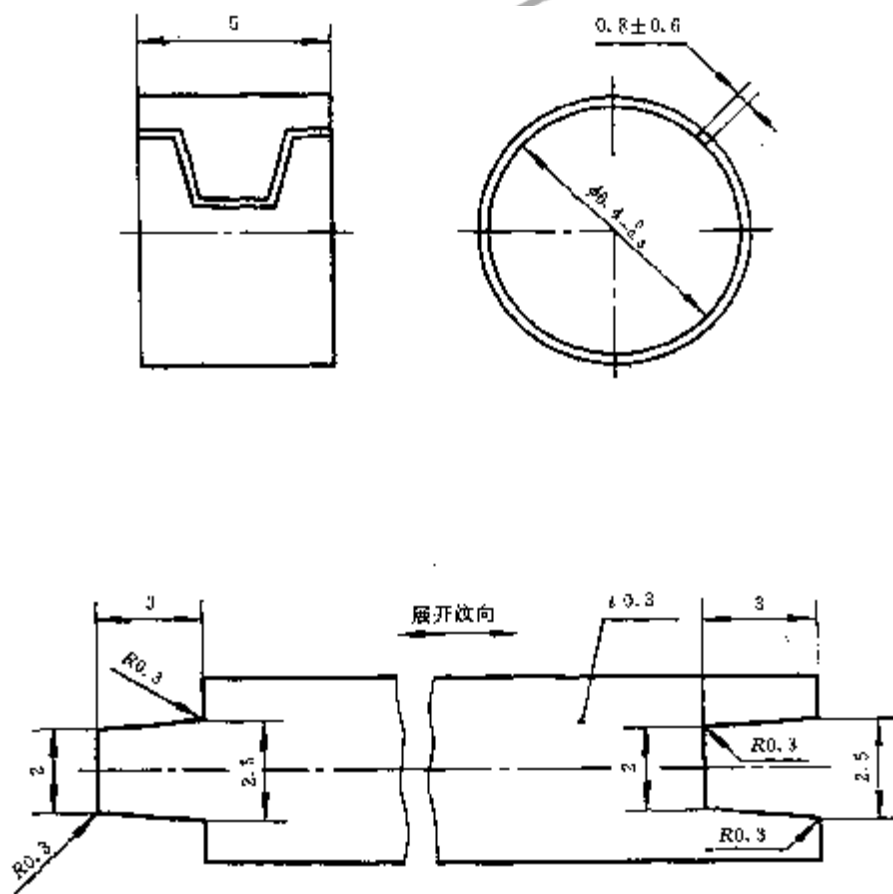


图 A8

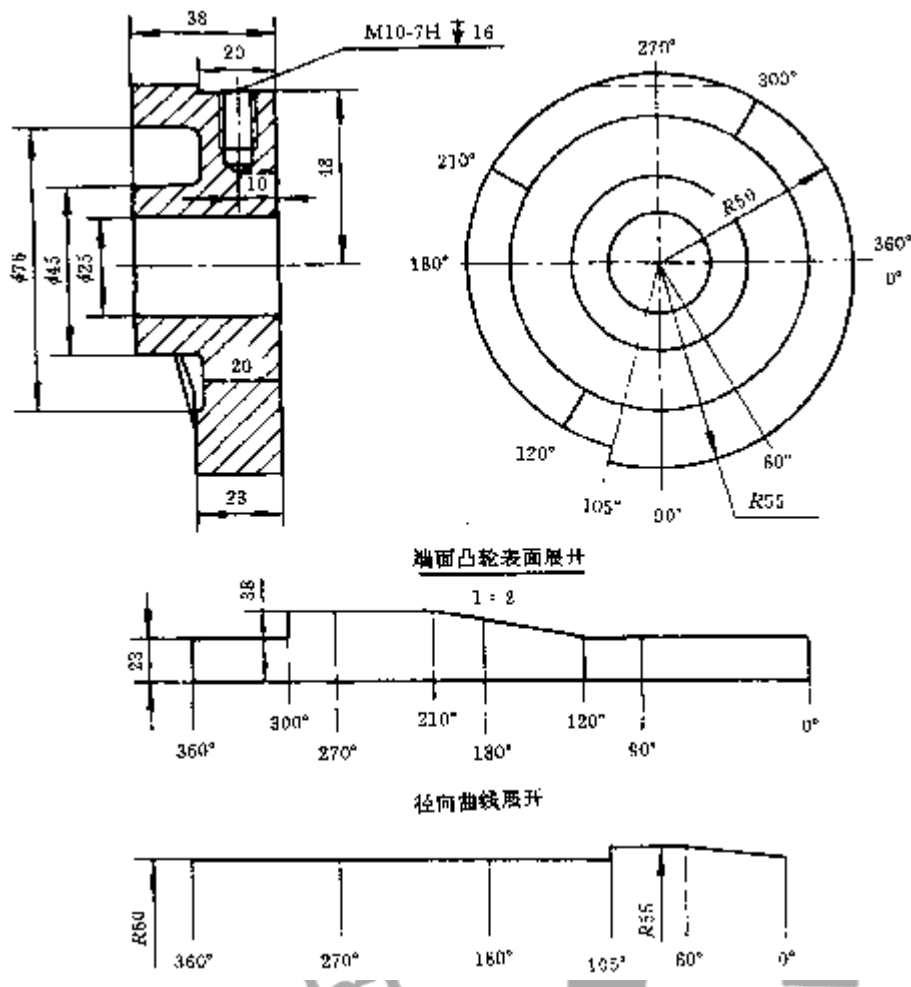


图 A9

A8 对于镀涂表面的尺寸,按以下规定标注。

图样中镀涂零件的尺寸应为镀涂后尺寸,即计入了镀涂层厚度,如为镀涂前尺寸,应在尺寸数字的右边加注“镀(涂)前”字样。

对于装饰性、防腐性的自由表面尺寸,可视为镀涂前尺寸,省略“镀(涂)前”字样。

对于配合尺寸,只有当镀涂层厚度不影响配合时,方可视为镀涂前的尺寸,并省略“镀(涂)前”字样。

必要时可同时标注镀涂前和镀涂后的尺寸,并注写“镀(涂)前”和“镀(涂)后”字样(图 A10)。

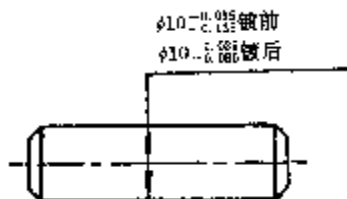


图 A10