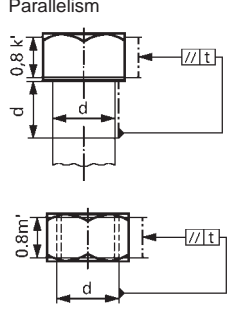
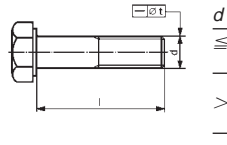
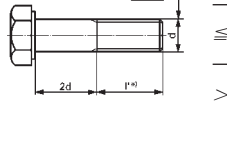
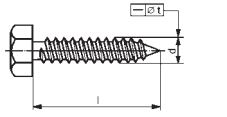


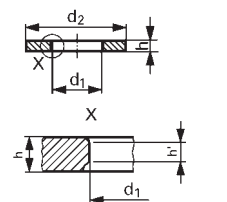
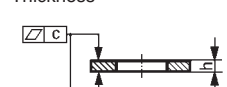
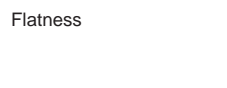
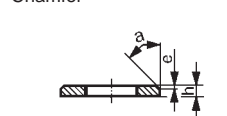
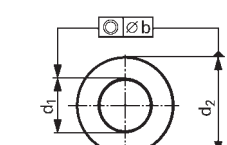
# MARYLAND METRICS

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## TECHNICAL INFORMATION and DATA

Feature	Tolerance <i>t</i> for product grades			Notes
	A	B	C	
<b>Parallelism</b> 	$0,017 \times k'$  $0,017 \times m'$	$0,035 \times k'$  $0,035 \times m'$		for <i>k'</i> and <i>m'</i> see product standards
<b>Straightness</b> 	$d$ $\leq 8$ $t = 0,002 l + 0,05$ $> 8$ $t = 0,002 l + 0,05$			
			$t = 2$ $(0,002 l' + 0,05)$ $t = 2$ $(0,0025 l' + 0,05)$	*) Straightness tolerance is applicable only for <i>l'</i> .
		$t = 0,003 l + 0,05$		for $l \leq 20 d$

Feature		Tolerances					
		Product grades					
		F		A		C	
<b>Clearance hole (punched)</b> <b>Outside diameter (punched)</b> 	$h$ $\leq 4$ $>$	$d_1$ H12 H13	$d_2$ h13 h14	$d_1$ H13 H14	$d_2$ h14 h15	$d_1$ H14 H15	$d_2$ h16 h16
	$h$ $\leq 4$ $> 4$	$h'$ $\frac{1}{2}$ min.		$h'$ $\frac{1}{2}$ min.		$h'$ $\frac{2}{3}$ min.	
				$0,5 h$ $0,3 h$	$0,5 h$ $0,3 h$	no requirements	
<b>Thickness</b> 	$h$	$h$ tolerance	$c^1$	$h$ tolerance	$c^1$	$h$ tolerance	$c^1$
<b>Flatness</b> 	$> 0,5$ $> 0,5 \leq 1$ $> 1 \leq 2,5$ $> 2,5 \leq 4$ $> 4 \leq 6$ $> 6 \leq 10$ $> 10 \leq 20$	$\pm 0,04$ $\pm 0,06$ $\pm 0,12$ $\pm 0,16$ $\pm 0,2$ $\pm 0,24$ $\pm 0,28$	$0,07$ $0,1$ $0,2$ $0,3$ $0,4$ $0,6$ $1$	$\pm 0,05$ $\pm 0,1$ $\pm 0,2$ $\pm 0,3$ $\pm 0,6$ $\pm 1$ $\pm 1,2$	$0,1$ $0,15$ $0,2$ $0,3$ $0,4$ $0,6$ $1$	$-$ $\pm 0,2$ $\pm 0,3$ $\pm 0,6$ $\pm 1$ $\pm 1,2$ $\pm 1,6$	no requirements
$c^1$ : for stainless washers tolerance is $2 \times c$							
<b>Chamfer</b> 		$\alpha = 30^\circ$ to $45^\circ$ $e_{min} = 0,25 h$ $e_{max} = 0,5 h$				no requirements	
<b>Coaxiality</b> 	$d_2$ $\leq 50$ $> 50$	$b$ 2 IT11 2 IT12		$b$ 2 IT12 2 IT13		$b$ 2 IT15 2 IT16	