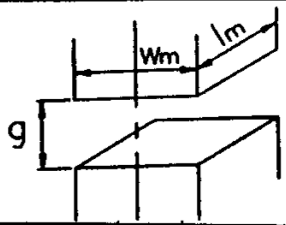
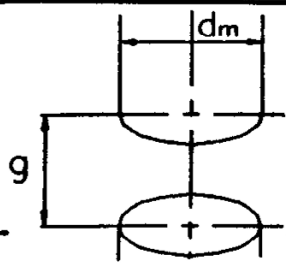
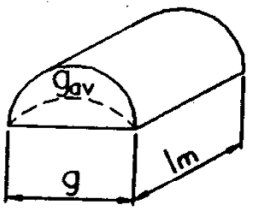
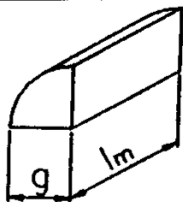
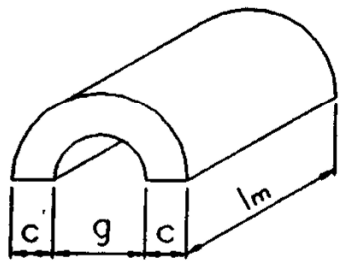
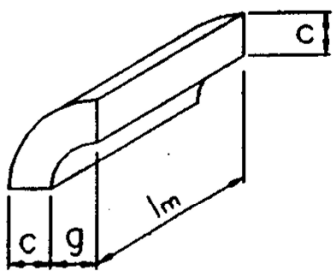


Permanent Magnet Materials and Circuits

Table 2.2: Equations for calculating the permeances of simple solids.

System	Auxiliary sketch (configuration)	Permeance
1		Rectangular prism $G = \mu_o \frac{w_M l_M}{g}$
2		Cylinder $G = \mu_o \frac{\pi d_M^2}{4g}$
3		Halfcylinder $G = 0.26\mu_o l_M$ $g_{av} = 1.22g, A_{av} = 0.322gl_M$
4		One quarter of a cylinder $G = 0.52\mu_o l_M$
5		Half-ring $G = \mu_o \frac{2l_M}{\pi(g/c+1)}$ For $g < 3c$ $G = \mu_o \frac{l_M}{\pi} \ln \left(1 + \frac{2c}{g} \right)$
6		One quarter of a ring $G = \mu_o \frac{2l_M}{\pi(g/c+0.5)}$ For $g < 3c$ $G = \mu_o \frac{2l_M}{\pi} \ln \left(1 + \frac{c}{g} \right)$