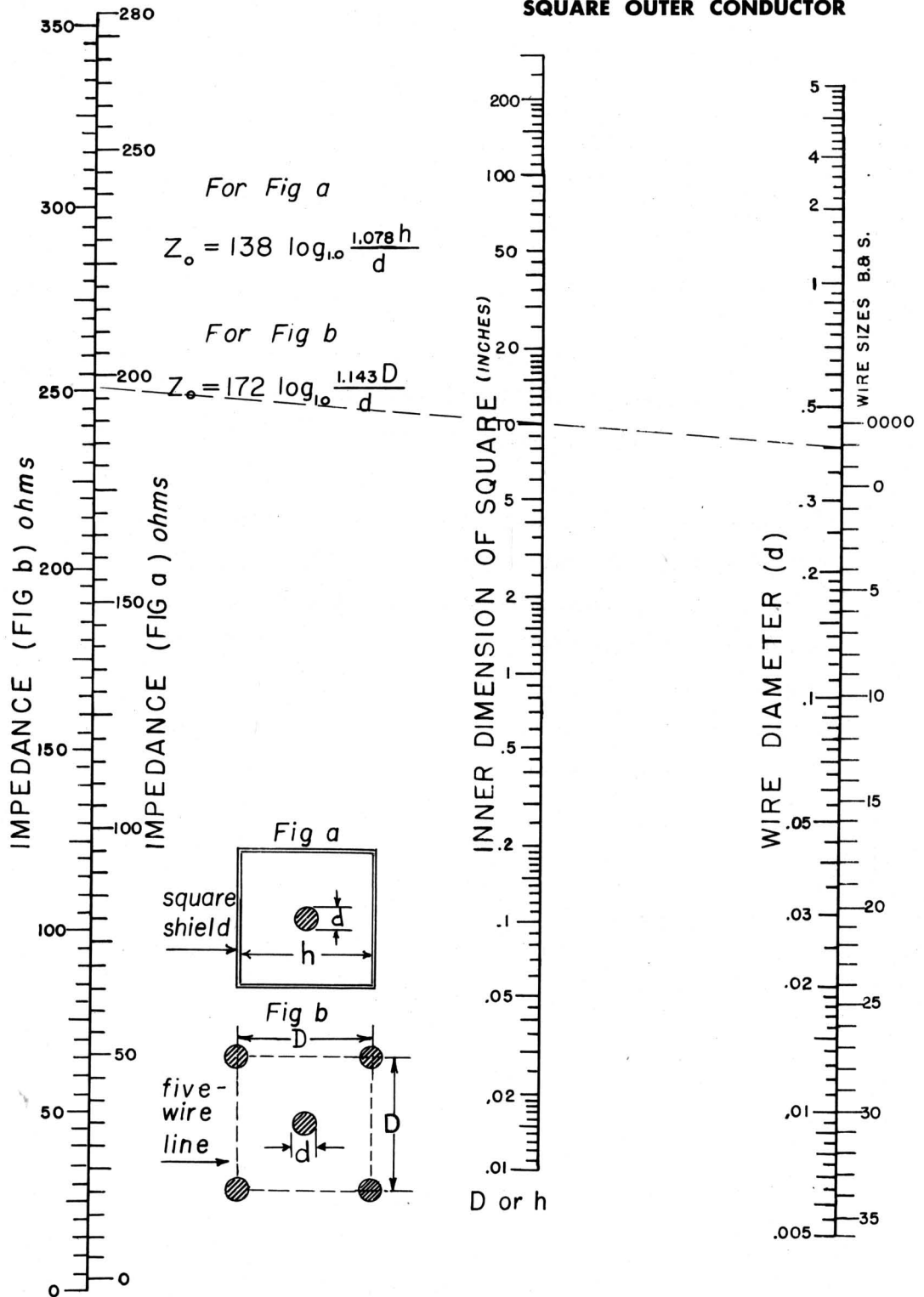




CHARACTERISTIC IMPEDANCE OF LINES

SQUARE OUTER CONDUCTOR



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A line from d scale through D scale indicates characteristic impedance Z_0 . Any units may be used, unless B&S wire size is used when D must be in inches. Engineering accuracy found when $h/d > 2$ for Fig. a, and $D/d > 3$ in Fig. b. Perfect conductors are assumed, and air, vacuum or gas dielectric (lossless). For solid dielectrics multiply Z_0 by $1/\sqrt{\epsilon}$ where ϵ is dielectric constant.