

COIL LENGTH-WEIGHT ESTIMATE

Project

Estimate the amount of wire required to wind a 200-turn coil

Turns 200
 Core diameter 1.25 inches
 Coil width 0.375 inches
 Material #26 Copper Magnet Wire

#26 Copper Magnet Wire Characteristics

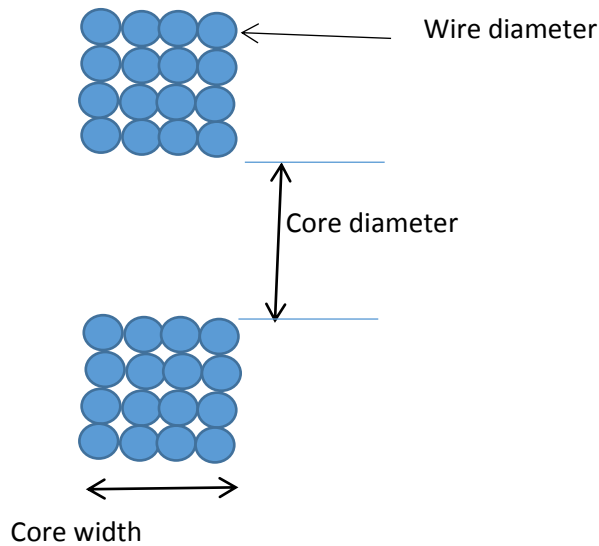
DIAMETER (IN)			OHM RESISTANCE/1000 FT			FT/LB
MIN	NOM	MAX	MIN	NOM	MAX	
0.0157	0.0159	0.0161	40.01	41.02	42.07	1310

Calculate

Total Length of wire		feet
Coil weight		lbs
Coil weight		gms
Coil resistance		ohms

Coil Model

Coil Cross Section



Hint:

- . Create a spreadsheet
- . How many turns fit in the coil width?
- . How does the wire circumference change with each layer of wire?