



Manning's Nomogram for Circular Pipes Flowing Full

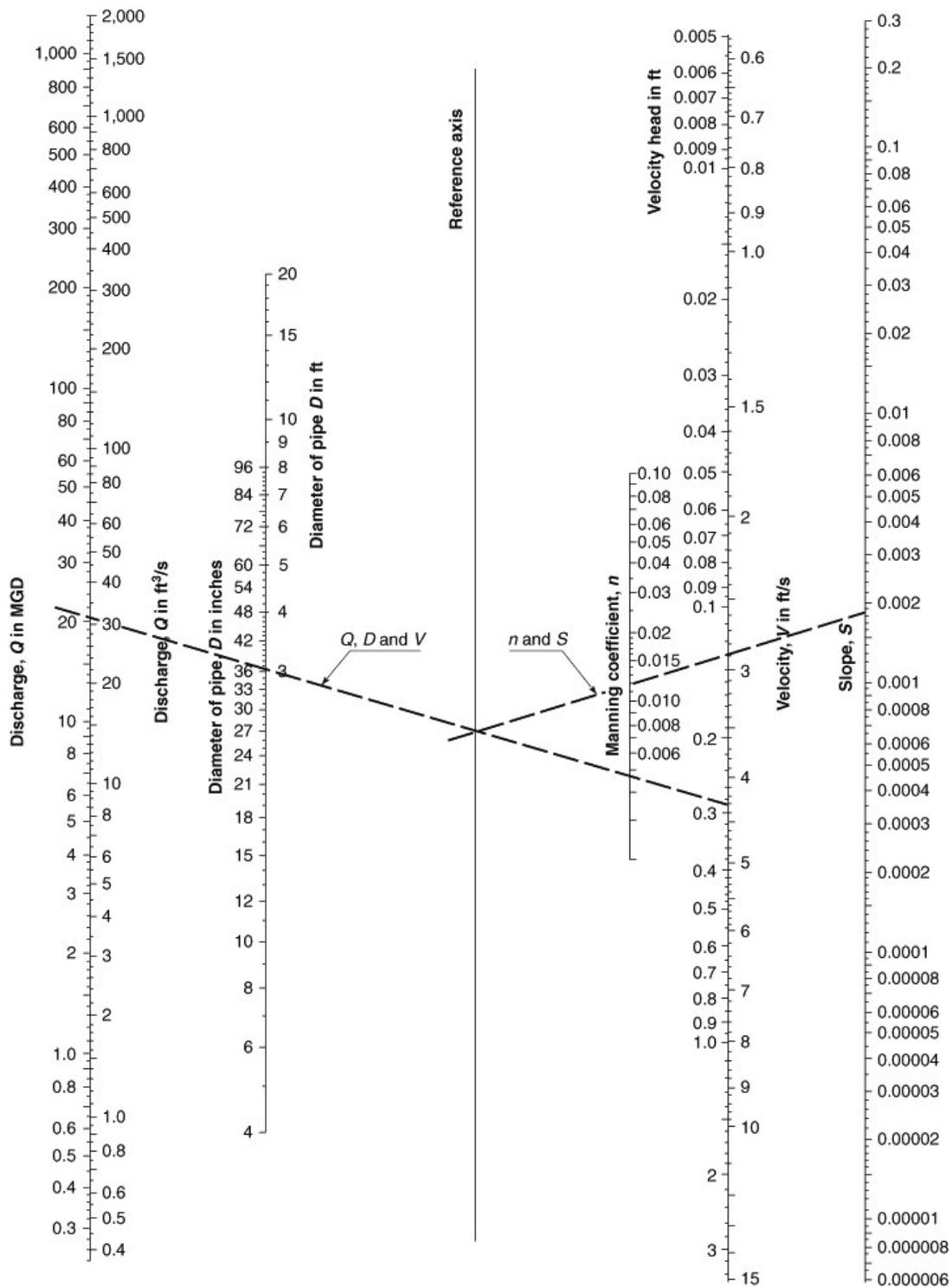
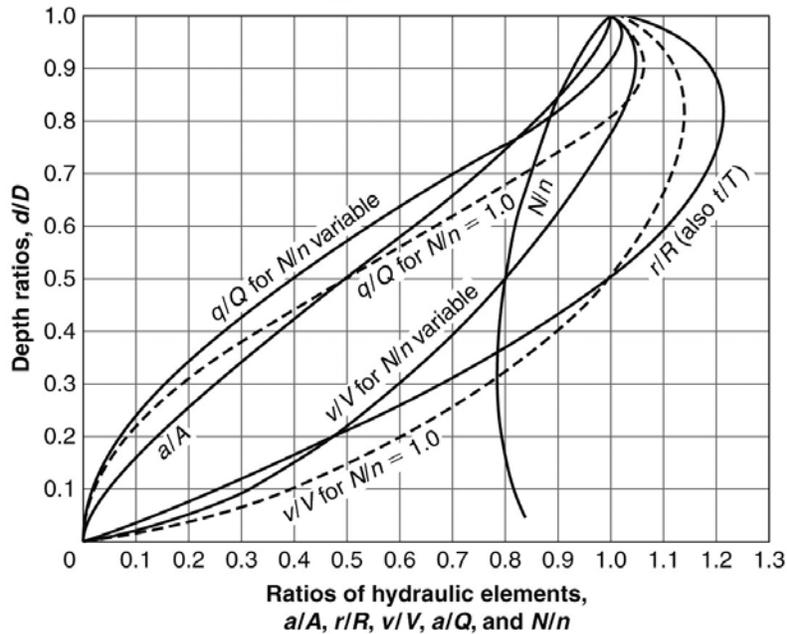


Figure 13.1a
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Basic Hydraulic Elements of Circular Conduits for All Values of Roughness and Slope



Appendix 10
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Standard Pipe Sizes

The table at right lists standard pipe sizes in US units of [in].

Data taken from Lindeburg, M.E. (2001), *Civil Engineering Reference Manual for the PE Exam*, 8th edition, Professional Publications, Inc., Belmont, CA.

pipe	PVC	concrete	cast iron
appendix	16.E	16.F	16.G
sizes [in]	4		4
	6		6
	8		8
	10		10
	12	12	12
			14
	15	15	
			16
	18	18	18
			20
	21	21	
	24	24	24
	27	27	
		30	30
		33	
		36	36
		42	42
		48	48
		54	54
		60	60
		66	
		72	72
		78	
		84	84
		90	
		96	
		108	