



DISCHARGE OF PIPES
MANNING'S FORMULA

$$Q = \frac{1.486}{n} A R^{2/3} S^{1/2}$$

- Q - DISCHARGE IN C.F.S.
- n - COEFFICIENT OF ROUGHNESS (0.013)
- A - AREA OF PIPE IN SQ. FT.
- R - HYDRAULIC RADIUS

MANNING'S
PIPE FLOW CHART