

## Worksheet for Circular Pipe - 1

### Project Description

Friction Method	Manning Formula	2.00
Solve For	Normal Depth	2.00

### Input Data

Roughness Coefficient	0.012
Channel Slope	0.80000 %
Diameter	60.00 in
Discharge	85.00 ft <sup>3</sup> /s

### Results

Normal Depth	2.00 ft
Flow Area	7.33 ft <sup>2</sup>
Wetted Perimeter	6.85 ft
Top Width	4.90 ft
Critical Depth	2.61 ft
Percent Full	40.0 %
Critical Slope	0.00312 ft/ft
Velocity	11.59 ft/s
Velocity Head	2.09 ft
Specific Energy	4.09 ft
Froude Number	1.67
Maximum Discharge	271.45 ft <sup>3</sup> /s
Discharge Full	252.35 ft <sup>3</sup> /s
Slope Full	0.00091 ft/ft
Flow Type	SuperCritical

### GVF Input Data

Downstream Depth	0.00 ft
Length	0.00 ft
Number Of Steps	0

### GVF Output Data

Upstream Depth	0.00 ft
Profile Description	
Profile Headloss	0.00 ft
Average End Depth Over Rise	0.00 %
Normal Depth Over Rise	39.99 %
Downstream Velocity	Infinity ft/s
Upstream Velocity	Infinity ft/s