

*FP101-FP201*

*Global Flow Probe*

Computer Model: BC1200



Global Water Flow Probe

가 가

1) Probe

2)

Probe

(Downstream)

FP101

2

3" 6"

가

FP201

3

5" 15"

가

3)

=>

"AVGSPEED"가

" " , " "

=>

3

0

(AVGSPEED)

=>

"MAXSPEED"가

3

5

4)

,5

3

(Reset)

Probe

가

5)

( : 1 2 )

6)

Q=V( ) x A( )

7)

가

## 2 (Average Velocity)

~~Flow Probe~~

가

1)

2)

1 2 feet/sec가

~~Flow Probe~~

1)

Probe

Probe

Probe

20

40

( Probe

.)

Probe

&

. Probe가

가

10

, 10

10

. Probe

(Reset)

2)

2 3 feet

Probe

20 40

.( :

)

3) USGS(U.S. Geological Survey)

"0.6 method"

Probe

40

0.6

0.6

가

2

### 3 (Computer Operation)

English Metric  
 (Appendix A ).

3  
 2  
 가 3

: Feet  
 Meter

: MAXSPEED, : STPWATCH, CLOCK : AVGSPEED,  
 .

3 (ZERO ) . 5

Stop Watch: STPWATCH가 ,  
 . 3 0(Zero)

Clock:

### 4 (Maintenance)

Probe Handle :

Probe , Probe Handle 가

(Computer) (Head0  
 Short가 (Computer)가 가

24

:

(Computer) 가 가 45  
 CR2032, 3V Lithium

:

가 가

4

- A. 가 , 가 가
- B. 가 .
- C. 가 가
- D. 가 2
- E. 가

5 (Computer Set-Up)

(Model: BC1200) 2 가 .  
45

CAL I & CAL II  
: I CAL I, II CAL II

Note  
I = ft/sec, calibration # =0053  
II = m/sec, calibration # =0016

.5  
가 .

**TO RESET THE CALIBRATION:**

- CLOCK, TOTALODO가
- CAL I CAL II
- 5  
"set language"가
- 
- 
- "SET M" M KM
- 
- Factor

~~II~~ I = ft/sec, calibration # =0053  
II = m/sec, calibration # =0016

~~II~~

~~II~~

1

~~II~~

**TO RESET CLOCK:**

~~II~~

가

~~II~~

5

~~II~~

~~II~~

1

## Calculations for Flow in Partially Filled Pipes

| B     | C      | B    | C      |
|-------|--------|------|--------|
| 0.010 | 0.013  | 0.51 | 0.4027 |
| 0.02  | 0.0037 | 0.52 | 0.4127 |
| 0.03  | 0.0069 | 0.53 | 0.4227 |
| 0.04  | 0.0105 | 0.54 | 0.4327 |
| 0.05  | 0.0147 | 0.55 | 0.4426 |
| 0.06  | 0.0192 | 0.56 | 0.4526 |
| 0.07  | 0.0242 | 0.57 | 0.4625 |
| 0.08  | 0.0294 | 0.58 | 0.4723 |
| 0.09  | 0.0350 | 0.59 | 0.4822 |
| 0.10  | 0.0409 | 0.60 | 0.4920 |
| 0.11  | 0.0470 | 0.61 | 0.5018 |
| 0.12  | 0.0534 | 0.62 | 0.5115 |
| 0.13  | 0.0600 | 0.63 | 0.5212 |
| 0.14  | 0.0668 | 0.64 | 0.5308 |
| 0.15  | 0.0739 | 0.65 | 0.5404 |
| 0.16  | 0.0811 | 0.66 | 0.5499 |
| 0.17  | 0.0885 | 0.67 | 0.5594 |
| 0.18  | 0.0961 | 0.68 | 0.5687 |
| 0.19  | 0.1039 | 0.69 | 0.5780 |
| 0.20  | 0.1118 | 0.70 | 0.5872 |
| 0.21  | 0.1199 | 0.71 | 0.5964 |
| 0.22  | 0.1281 | 0.72 | 0.6054 |
| 0.23  | 0.1365 | 0.73 | 0.6143 |
| 0.24  | 0.1449 | 0.74 | 0.6231 |
| 0.25  | 0.1535 | 0.75 | 0.6318 |
| 0.26  | 0.1623 | 0.76 | 0.6404 |
| 0.27  | 0.1711 | 0.77 | 0.6489 |
| 0.28  | 0.1800 | 0.78 | 0.6573 |
| 0.29  | 0.1890 | 0.79 | 0.6655 |
| 0.30  | 0.1982 | 0.80 | 0.6736 |
| 0.31  | 0.2074 | 0.81 | 0.6815 |
| 0.32  | 0.2167 | 0.82 | 0.6893 |
| 0.33  | 0.2266 | 0.83 | 0.6969 |
| 0.34  | 0.2355 | 0.84 | 0.7043 |
| 0.35  | 0.2450 | 0.85 | 0.7115 |
| 0.36  | 0.2546 | 0.86 | 0.7186 |
| 0.37  | 0.2644 | 0.87 | 0.7254 |
| 0.38  | 0.2743 | 0.88 | 0.7320 |
| 0.39  | 0.2836 | 0.89 | 0.7384 |
| 0.40  | 0.2934 | 0.90 | 0.7445 |
| 0.41  | 0.3032 | 0.91 | 0.7504 |
| 0.42  | 0.3130 | 0.92 | 0.7560 |
| 0.43  | 0.3229 | 0.93 | 0.7612 |
| 0.44  | 0.3328 | 0.94 | 0.7662 |
| 0.45  | 0.3428 | 0.95 | 0.7707 |
| 0.46  | 0.3527 | 0.96 | 0.7749 |
| 0.47  | 0.3627 | 0.97 | 0.7785 |
| 0.48  | 0.3727 | 0.98 | 0.7816 |
| 0.49  | 0.3827 | 0.99 | 0.7841 |
| 0.50  | 0.3927 | 1.00 | 0.7854 |

H= Height of water; D= Diameter of pipe  
(in feet)

H/D = Column B

Read Column C adjacent to your pipe's B

$C \times D^2$  = Filled area, A (sq. ft.)

A x Average Velocity = Volumetric flow  
(CFS)

CFS x 448.83 = Gallons/minute (GPM)

GPM x 1440 = Gallons/day (GPD)

Round Pipe

