Typical Drawing for Installation of Sluice Valve

SLUICE VALVE INSTALLATION
(HFL = 500 – 1200 mm)

SLUICE VALVE INSTALLATION
(HFL = 250 – 4500 mm)

NOTE
1. ALL SLUICE VALVES LESS THAN 500 mm WILL HAVE NO CHAMBERS AND WILL BE INSTALLED DIRECTLY TO WASH OUT VALVES.
2. ALL DIMENSIONS ARE IN mm.
Typical Drawing for Installation of Air Valve and Washout

**SINGLE ORIFICE AIR VALVE CHAMBER**

**MAIN PIPE (D500) (DIP)**

**CAST IRON MANHOLE COVER (D500, No. 3, Type)**

**WASHOUT**

**CRITERIA FOR AIR VALVE AND WASH OUT**

<table>
<thead>
<tr>
<th>PIPE DIA</th>
<th>MAIN PIPE MATERIAL</th>
<th>BRANCH PIPE DIA</th>
<th>BRANCH PIPE WASH OUT</th>
</tr>
</thead>
<tbody>
<tr>
<td>50</td>
<td>10 mm</td>
<td>10 mm</td>
<td>50 mm</td>
</tr>
<tr>
<td>75</td>
<td>10 mm</td>
<td>10 mm</td>
<td>75 mm</td>
</tr>
<tr>
<td>100</td>
<td>10 mm</td>
<td>10 mm</td>
<td>100 mm</td>
</tr>
<tr>
<td>200</td>
<td>10 mm</td>
<td>10 mm</td>
<td>200 mm</td>
</tr>
<tr>
<td>300</td>
<td>10 mm</td>
<td>10 mm</td>
<td>300 mm</td>
</tr>
<tr>
<td>500</td>
<td>10 mm</td>
<td>10 mm</td>
<td>500 mm</td>
</tr>
</tbody>
</table>

**NOTE**

1. The thickness of the building layer specified on the drawing is for normal soil types, however, if the structure is founded on very soft soil, such as peat.
2. The top of the air valve chamber should be at the same level as the road top level.
3. The value sizes for washout may be on the bank of the road.
4. All dimensions are in mm.
Typical Drawing for Branch of Service Pipe

Branch of Service Pipe (DN×HDPE ø 50)
Saddle Clamp

Type-1
(Start or End Point)

Type-2
(Middle Point)

Type-1
(Start or End Point)

A-A Section

Material | Description
--- | ---
1 | HDPE Saddle Clamp for ∅50
2 | HDPE Female connector for coupling
3 | HDPE Double Socket Pipe ø 50 x 500 (max)
4 | HDPE Male Male Pipe
5 | HDPE Elbow 90ø 50
6 | HDPE Elbow 90ø 50
7 | HDPE Female Male Valve 90ø 50 x 500 (max) 3-way
8 | HDPE Tee 90ø 50 x 50

Note: Length (dia shall be 50/5024 P/H,)

PROJECT:
THE PREPARATORY SURVEY ON THE PROJECT ON ADDITIONAL NEW WATER TREATMENT PLANTS FOR KAMPONG SAM AND BATTAMBANG WATERWORKS

Prepared By:
SHIROM BUDIO CONSULTANTS CO., LTD.
WATER AND SEWER BUREAU, CITY OF KITAKYUSHU
CTI ENGINEERING INTERNATIONAL CO., LTD.

APPD. by: P.T. DATE: 1/1/2023
CONFIRMED By: K. DK 4
Typical Drawing for Connection of New Pipe and Existing Pipe (1)

<table>
<thead>
<tr>
<th>No.</th>
<th>Material</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HDPE x Existing</td>
<td>100% HDPE</td>
</tr>
<tr>
<td>2</td>
<td>HDPE x PVC</td>
<td>100% HDPE</td>
</tr>
<tr>
<td>3</td>
<td>HDPE x HDPE</td>
<td>100% HDPE</td>
</tr>
<tr>
<td>4</td>
<td>HDPE x PVC</td>
<td>100% HDPE</td>
</tr>
<tr>
<td>5</td>
<td>HDPE x HDPE</td>
<td>100% HDPE</td>
</tr>
<tr>
<td>6</td>
<td>HDPE x HDPE</td>
<td>100% HDPE</td>
</tr>
<tr>
<td>7</td>
<td>HDPE x HDPE</td>
<td>100% HDPE</td>
</tr>
</tbody>
</table>

Note:
- HDPE: High Density Polyethylene
- PVC: Polyvinyl Chloride
- New pipe is to be installed at new pipe.
- In the case of PVC pipe, use of HDPE instead of HDPE.
- Fittings shall be HDPE fittings.

PROJECT: The preparatory survey on the project on additional new water treatment plants for Kampong Cham and Battambang Waterworks

DEPICTED: Typical Drawing for Connection of New Pipe and Existing Pipe (1)

APPEND IC: K-D36
HDPE(new) x DI(existing) tee connection

HDPE(new, > φ 50) x DI(existing) starate connection

HDPE(new, ≤ φ 50) x DI(existing, ≤ φ 250) saddle clamp

Note:
- dN3:
  - The pipe is to be installed at new pipe, when the diameter of new pipe and existing pipe differ.
  - In the case of PVC pipes, use "D3" as "T3" instead of HDPE.
  - Flange parts shall be SUS304 PN10.

<table>
<thead>
<tr>
<th>No.</th>
<th>Model</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>HDPE DP Flange</td>
<td>PN10</td>
</tr>
<tr>
<td>2</td>
<td>HDPE Range Adapter</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>PVC D.N. Valve</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>GI Double Screw Tap with Flanged Bush</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>GI Double Screw Tap</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>GI Flange Tap</td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>GI Flanged Bolt</td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>GI Flanged Screw</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>GI Double Flange Tap</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>PVC Tapered Thread for G1</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>CAC Weld Socket of HDPE for Motor</td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>HDPE Double Screw Tap</td>
<td>3-φ≤1000mm (VIII Pipe)</td>
</tr>
</tbody>
</table>
DOUBLE MOUTHS TYPE FIRE HYDRANT

<table>
<thead>
<tr>
<th>Pn (mm)</th>
<th>TYPE I</th>
<th>TYPE II</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>300</td>
<td>500</td>
</tr>
<tr>
<td>350</td>
<td>350</td>
<td>550</td>
</tr>
<tr>
<td>400</td>
<td>350</td>
<td>550</td>
</tr>
</tbody>
</table>

① Adobe Ground Double Mouths Type Fire Hydrant
φ 150 x (φ 65 x 2mm), Two-Ways Side-Two-Full type
② Flanged Extension Pipe
③ Auxiliary Valve
④ Double Flanged 90° Bend with Duck Foot
⑤ Guard Peat Type A Equipped with Reduced Memorial Plate

TYPE - I H=1.2m
TYPE - II H=0.8m

PROJECT
THE PREPARATORY SURVEY ON THE PROJECT ON ADDITIONAL NEW WATER TREATMENT PLANTS FOR KAMPONG CHAM AND BATTAMBANG WATERWORKS

DESIGNER
Double Mouths Type Fire Hydrant

APPROVE. BY
DATE
SIGNATURE
Standard Drawing for Bridge Attached Pipes
THE PREPARATORY SURVEY ON THE PROJECT ON ADDITIONAL NEW WATER TREATMENT PLANTS FOR KAMPONG CHAM AND BATTAMBANG WATERWORKS

NIHON SUIDO CONSULTANTS CO., LTD
WATER AND SEWER BUREAU, CITY OF KITAKYUSHU
CEITECH ENGINEERING INTERNATIONAL CO., LTD

WTP: Water Treatment Plant

General Layout of Battambang

Existing WTP

New WTP

Intake Facility

SCALE
DRAWING No.
B-G1

DATE
PREPARED BY

APPROVE BY
PLAN
BATTAMBANG INTAKE FACILITY
SECTION
BATTAMBANG INTAKE FACILITY
Front View of Battambang Intake Facility