

# **Prohibition collection**

in air conditioning and plumbing facility  
for Beginner Engineers

NPO (Nonprofit Organization)  
Society for the Study of Mechanical Service System

## Prohibition collection Contents

ページ

1	Piping (common)	Piping line order	9
2	Piping (common)	Vertical piping distance	10
3	Piping (common)	Common base for parallel piping	11
4	Piping (common)	Prohibition of T shaped piping	12
5	Piping (common)	How to use eccentric reducer	13
6	Piping (common)	Prohibition of round shaped nipple	14
7	Piping (common)	Avoiding up and down piping	15
8	Piping (common)	Shrine gate shaped piping	16
9	Piping (common)	How to make branch piping (1)	17
10	Piping (common)	How to make branch piping (2)	18
11	Piping (common)	Installation of safety valve discharging outlet	19
12	Piping (common)	Steam supply piping around control valve	20
13	Piping (common)	Fixing point for expansion and shrinkage piping	21
14	Piping (common)	Piping lining block needed for wall mounted fixture	22
15	Piping (common)	Prohibition of in-beam piping	23
16	Piping (common)	Keeping margin around branch piping	24
17	Piping (common)	Piping arrangement around equipment	25
18	Piping (common)	Attention for drain-up piping	26
19	Piping (common)	Making drain piping downward near equipment	27
20	Piping (common)	Connection of drain pipe for air handling unit and others	28
21	Piping (common)	Limitation for piping passing through receiving tank room	29
22	Piping (common)	Piping passing through building expansion part	30
23	Piping (common)	Counter measure of ground subsidence for piping passing through building entering part	31
24	Piping (common)	Horizontal piping for lifted water	32
25	Piping (common)	Drain valve for fire department connection pipe	33
26	Drainage piping	Inclination for drainage pipe	34
27	Drainage piping	Drainage pipe in lowest floor	35
28	Drainage piping	How to connect drainage horizontal pipe	36

29	Drainage piping	How to connect with drainage horizontal pipe	37
30	Drainage piping	Pipe diameter of horizontal piping	38
31	Drainage piping	Connection between vertical piping and horizontal piping	39
32	Drainage piping	Installation location for cleanout	40
33	Drainage piping	Displacement for drainage cleanout	41
34	Drainage piping	Installation of flexible joint (socket fitting) - vertical pipe -	42
35	Drainage piping	Installation of flexible joint (socket fitting) - horizontal pipe -	43
36	Drainage piping	Prohibition of double trap	44
37	Drainage piping	Step for outdoor drain pit (concrete made)	45
38	Drainage piping	Drain pit size	46
39	Drainage piping	Combined flow for outdoor rainwater drain	47
40	Drainage piping	Drainage in lower place than surrounding ground	48
41	Drainage piping	How to install drain valve	49
42	Drainage piping	Air break for indirect drain	50
43	Drainage piping	Making lead pipe length 1m or less	51
44	Drainage piping	Using cast iron pipe as standard length pipe	52
45	Drainage piping	Inflow pipe to soil water tank	53
46	Vent piping	Underfloor vent piping	54
47	Vent piping	How to branch vent pipe	55
48	Vent piping	Connection with vent vertical pipe	56
49	Vent piping	Prohibition of up and down vent piping	57
50	Vent piping	Vent pipe for soil water tank	58
51	Vent piping	Opening location for vent pipe	59
52	Vent piping	How to make vent pipe for oil tank upward	60
53	Piping accessories	Installing valves in easy-to-operate place	61
54	Piping accessories	Installing valves in easy-to-maintain place	62
55	Piping accessories	Sluice valve direction	63
56	Piping accessories	Attention for butterfly valve installation	64
57	Piping accessories	Installing butterfly valve	65
58	Piping accessories	Check valve for lifted water pump	66

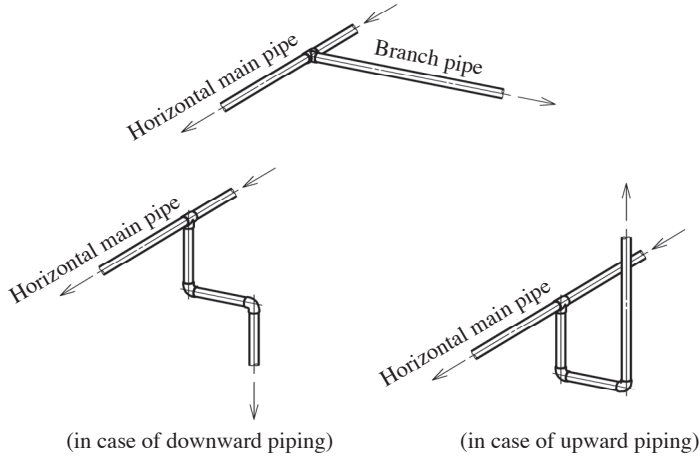
59	Piping accessories	Installation order for valves	67
60	Piping accessories	Valve for hot water piping	68
61	Piping accessories	Place needing flexible joint	69
62	Piping accessories	Place needing vibration isolation joint	70
63	Piping accessories	How to use flexible joint	71
64	Piping accessories	Flexible joint and support base around tank	72
65	Piping accessories	Installation for piping accessory	73
66	Piping accessories	Space needed for Y shaped strainer bottom	74
67	Piping accessories	How to install pressure gauge	75
68	Duct	Elbow inner diameter	76
69	Duct	Branch after elbow	77
70	Duct	Location and direction for damper before branch	78
71	Duct	Installation direction for damper in fan delivery side	79
72	Duct	Installation for damper around fan	80
73	Duct	Delivery side duct for fan	81
74	Duct	Duct bending in fan delivery side (1)	82
75	Duct	Duct bending in fan delivery side (2)	83
76	Duct	Suction side duct for fan	84
77	Duct	Installation location for air volume control unit	85
78	Duct	Installation for air volume test port	86
79	Duct	Duct bending around coil and filter	87
80	Duct	Hopper spreading and narrowing	88
81	Duct	Installation direction for exhaust smoke outlet	89
82	Duct	Displacement for sound absorption elbow and damper	90
83	Duct	Connection with mixing air chamber	91
84	Duct	Duct connection with louver chamber and vent cap	92
85	Duct	Duct connection with common exhaust air louver	93
86	Duct	Location for outdoor inlet and exhaust air louver	94
87	Duct	Air inlet installation for down offset ceiling	95
88	Duct	Air outlet installation near floor surface	96

89	Duct	Ceiling air inlet	97
90	Duct	Attention for deciding duct route	98
91	Duct	Connection for ventilation duct in car parking	99
92	Equipment	Avoiding dead water for receiving tank	100
93	Equipment	Insect protection net and bird protection net	101
94	Equipment	Piping around receiving tank	102
95	Equipment	Water supply by direct connection pressurization pump	103
96	Equipment	Drain and air purge around equipment	104
97	Equipment	Maintenance valve around equipment	105
98	Equipment	Connection pipe diameter for equipment	106
99	Equipment	Connection pipe diameter for pump	107
100	Equipment	Suction side connection diameter for pump (1)	108
101	Equipment	Suction side connection diameter for pump (2)	109
102	Equipment	Installation location for lined pump	110
103	Equipment	Lined pump support - floor mounted -	111
104	Equipment	Lined pump support - ceiling mounted -	112
105	Equipment	How to make piping around header	113
106	Equipment	Installation for 2 or more cooling tower	114
107	Equipment	Distance between cooling tower and opening	115
108	Equipment	Displacement of outdoor unit for packaged air conditioner	116
109	Equipment	Location of air inlet and air outlet for total heat exchanger	117
110	Equipment	How to select fan	118
111	Others	Installation of suction pit for fire extinguishing tank	119
112	Others	Installation location for laundry machine pan	120
Building facility system terminology			121

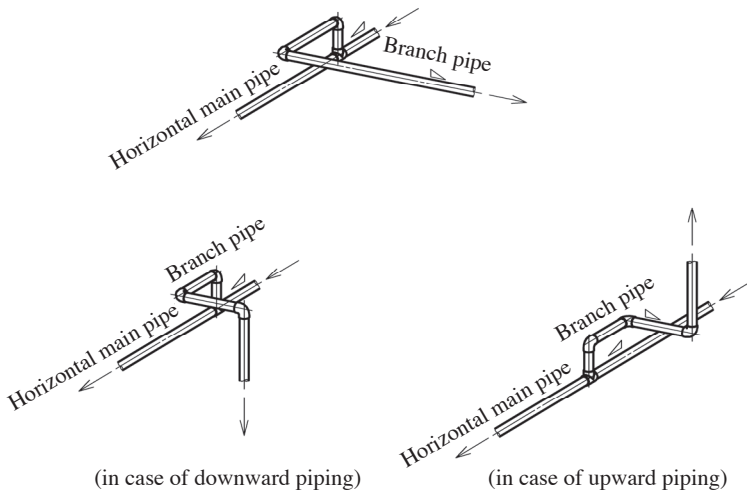
## 10 How to make branch piping (2)

In case of the branch from horizontal steam piping, the branch should be upward. And, the steam piping should have forward (steam flow direction) down inclination in order to drain the condensed water.

### × Bad case



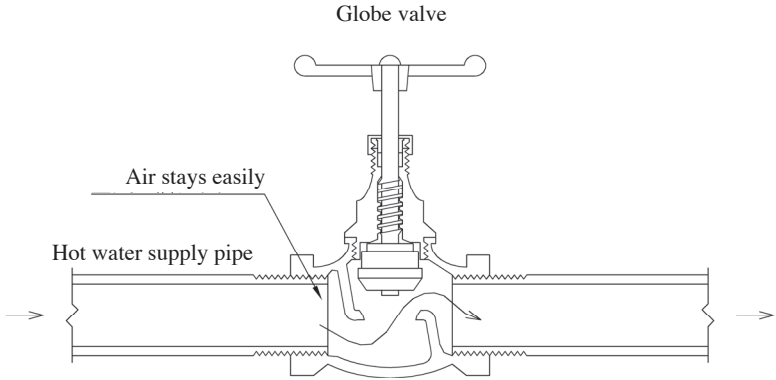
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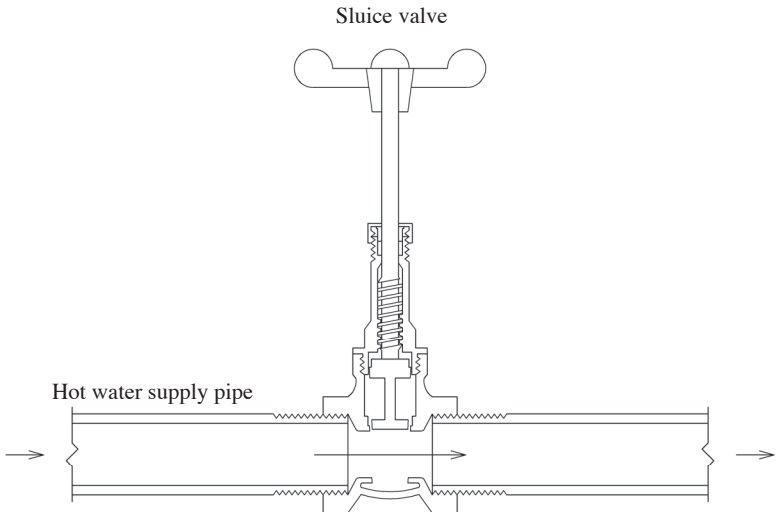
## 60 Valve for hot water piping

Do not use the stop valve (globe valve) for hot water supply. Install the gate valve (sluice valve) in which the air pocket occurs hardly. (The hot water has a lot of dissolved oxygen. And the dissolved oxygen separates into water easily. As result, the air pocket is generated in the pipe.)

### × Bad case



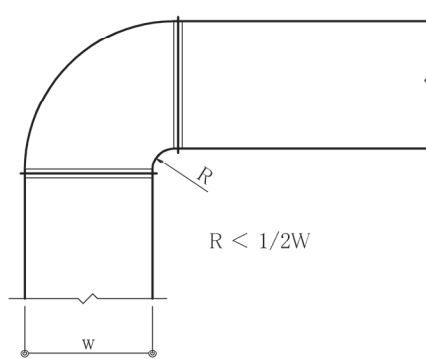
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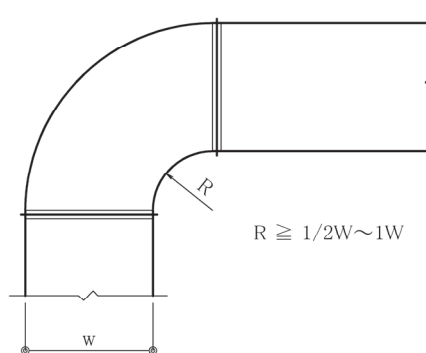
## 68 Elbow inner diameter

The Elbow inner radius should be  $1/2$  or more duct width  $W$ . In case of not keeping  $1/2$  or more  $W$ , the guide vane and other airflow smoothing device should be installed. (Depending on the specification, the standard may be  $1 W$ .)

### × Bad case



### ○ Good case

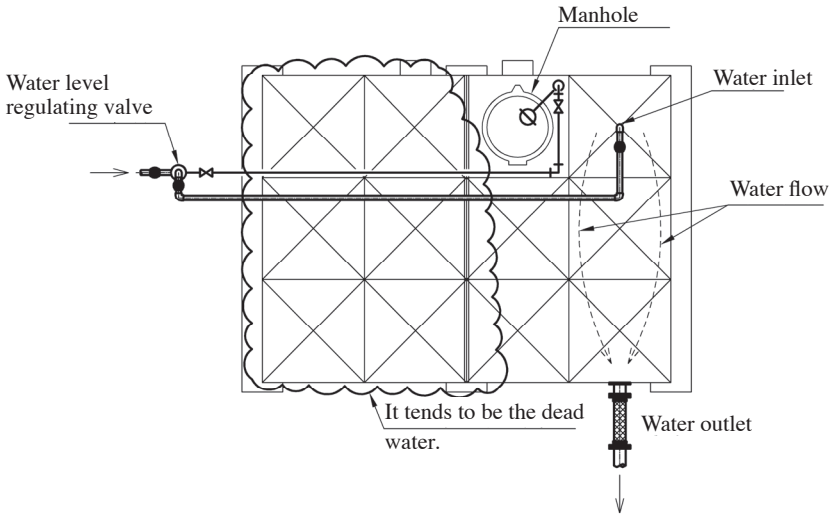




## 92 Avoiding dead water for receiving tank

In case the water inlet and outlet of the receiving tank are located near, all water does not always flow, and it tends to be the dead water. Therefore, the water inlet and outlet should be located as opposite as possible.

### × Bad case



### ○ Good case

