

Johkasou - Installation



OUTLINE

- Legal frame work of Johkasou installation
- Johkasou installation works

The following items are listed in the Johkasou Act with regard to installation

Notification

Submit a notification of Johkasou installation to the competent authorities prior to construction

Installation

- Construction can only be performed by a business office registered in the prefecture that has jurisdiction over the area where the installation work is to be performed
- Installation or supervision by a national qualified Johkasou installer

1	Prior On-Site Survey	Check installation location and delivery route
2	Application for installation	Submit notification of Johkasou installation
3	Temporay work	Site preparation
4	Excavation	Excavate to required depth
5	Foundation	Make a reinforced concrete slab
6	Installation	Install Johkasou on the base slab
7	Filling water	Fill the Johkasou with water
8	Backfilling	Backfill around Johkasou with sand
9	Piping work	Connect each piping
10	Electrical work	Install blower, pump, control panel and so on
11	Upper concrete work	Make a RC slab on Johkasou
12	Trial operation	Check Johkasou and equipment function
13	Cleaning & Handover	Explain Johkasou to users

Purpose

To check the site conditions prior to Johkasou installation and ensure smooth installation

Check Point

- Sufficient area to install a Johkasou
- Location and depth of inlet pipe
- Treated water discharge point
- Existing pipe and cable location
- Ground water level
- Special installation or not
- Johkasou delivery route
- Electricity and tap water availability
- Blower and control panel location
- Maintenance workability



Johkasou Installation – Application for Installation 6

Purpose

Ensure that Johkasou is properly installed
Ensure Johkasou model, capacity, install date and builder

Documents

Notification of installation of a Johkasou
Notification of change of Johkasou
Johkasou card
Johkasou use start-up report
Johkasou owner change report
Notification of discontinued use of Johkasou
Notification of Johkasou out of use
Notification of Johkasou re-use start-up
Technical operator change report

別記様式第一号(第三条関係)

浄化槽設置届出書		年 月 日
東京都知事 殿		
設置者の住所 氏名(法人にあつては、名称及び代表者の氏名) 電話番号 ()		
浄化槽を設置したいので、浄化槽法第5条第1項の規定により次のとおり届け出ます。		
1. 設置場所の地名地番		
2. 種 類	①浄化槽法に基づく型式認定浄化槽 (名称 認定番号) ②その他	
3. 処理の対象	①し尿のみ ②し尿及び雑排水	
4. 当該浄化槽において処理するし尿等を排出する建築物の用途及び延べ面積	㎡	
5. 処理対象人員及び算定根拠	人	
6. 処 理 能 力	イ、日平均汚水量	㎡/日
	ロ、生物化学的酸素要求量の除去率	%
	ハ、放流水の生物化学的酸素要求量	mg/l
7. 放流先又は放流方法	①側溝 ②河川 ③湖沼 ④海域 ⑤地下浸透 ⑥その他 ()	
8. 工事を行う予定の浄化槽工事業者の氏名又は名称及び登録番号	氏名又は名称 登録番号	
9. 着工予定年月日	年 月 日	10. 使用開始予定年月日 年 月 日
11. 付近の見取		
12. その他特記すべき事項		
行政庁記入欄		
(注意) 1. 「都道府県知事(保健所を設置する市又は特別区にあつては、市長又は区長)特定行政庁」については、不要のものを消すこと。 2. 2欄、3欄及び7欄は、該当する事項を○で囲むこと。 3. 11欄は、設置位置、放流経路、放流先、方位、道路及び目標となる地物を明示すること。 4. 12欄は、処理対象人員と使用予定人員が当面異なる場合にその使用人員を記入すること。		

備考 用紙の大きさは、日本産業規格A列4番とする。

Purpose

Prepare site for excavation can be done without problems
Measure and determine the area to be excavated

Description

Clearing the ground before installation
Decide where to install Johkasou
External inspection of the Johkasou



Purpose

For underground installation, excavate as per the drawing
Underground installation allows for effective use of space

Description

Excavate to the depth required in drawing
Use retaining walls if necessary
Use submersible pump if groundwater spring

Point

Excavate about 5 cm larger than the size of
the bottom slab to make it easier to work on



Purpose Use rubble stones to harden the foundation

Description

Make sure it has the necessary square footage

Place rubble stones of unequal size

Fill in the gaps with sand

Stamp them sufficiently with a rammer

Point

Thickness shall be in accordance to drawing

Usually 100 mm or 150 mm (T-0)



Purpose

To install Johkasou horizontally
Prevent Johkasou from being raised by groundwater

Description

Place concrete 50mm thick on the rubble stone according to the drawing

Make a temporary framework with the specific dimensions

Rebar arrangement according to the drawings

Install anchors according to the drawing

Cast concrete with surface tolerance of $\pm 2.5\text{mm}/1\text{m}$



Purpose Install Johkasou on base slab

Description

Visual inspection of Johkasou
Clean base slab (small stones, etc.)
Lift Johkasou according to the manual
Place Johkasou in the center of base slab
Check Johkasou is installed horizontally
Install wire to prevent raising by groundwater



Purpose

To protect Johkasou from soil pressure
To prevent the Johkasou from shifting during backfilling

Description

Check Johkasou is secured with wires
Fill Johkasou with tap water
Make sure Johkasou is not leaking water



Purpose

Protects Johkasou from UV light
Fill in gaps for easier maintenance

Description

Ensure Johkasou is filled with water

Ensure backfill sand is free of stones and gravel

Cover Johkasou to prevent sand from getting in

Backfill and water tightening in three steps



Purpose

Connect inflow pipe, effluent pipe
Connect blower and Johkasou

Description

Connect the inflow pipe and Johkasou
Connect the effluent pipe and Johkasou
Connect the blower and Johkasou with piping
Air pipes shall be 10m in length and within 5 bends
Install an exhaust pipe for surrounding area
Install pipe supports if necessary

Point

Be careful not to allow sand to enter the piping
Check drawings for piping sizes and install



Purpose Install blower, pump, control panels...

Description

Install a blower in a well-ventilated place
Avoid direct sunlight on the blower
Blower should be installed on flat concrete
Provide grounding works as required



Point

Air piping should be kept as sand-free as possible
The platform for the blower should be about 200mm higher than the GL.
Use header pipes if there is more than one blower

Purpose

To prevent rainwater from entering the tank
For easier maintenance works

Description

Cast upper slab in same procedure as base slab

Note that the reinforcement is different from the base slab



Purpose Check for proper operation through a trial operation

Description

Check piping joint condition

Check for air leakage

Check if moving bed medias are moving well

Check there is no difference in water level

Check if the circulation volume can be set



Purpose

Clean around Johkasou and
Hand over the Johkasou to its user

Description

Clean up sand and trash

Report to the user that the construction has been completed

Inform users about proper use of Johkasou and precautions to be taken



Underground installation



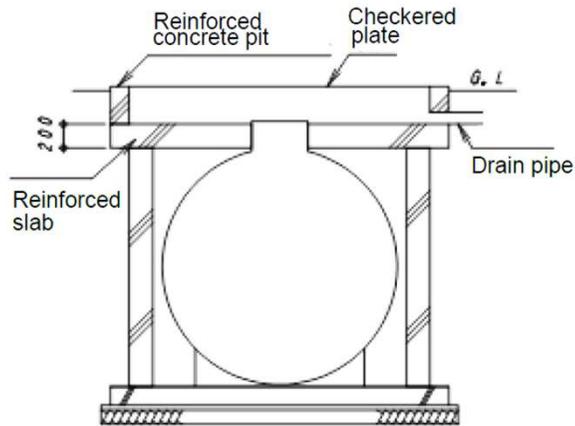
Above ground installation



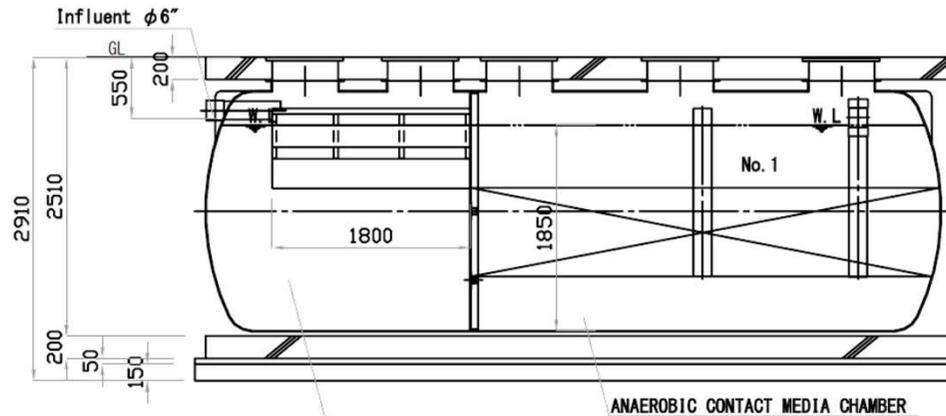
Half underground installation



Under ground installation

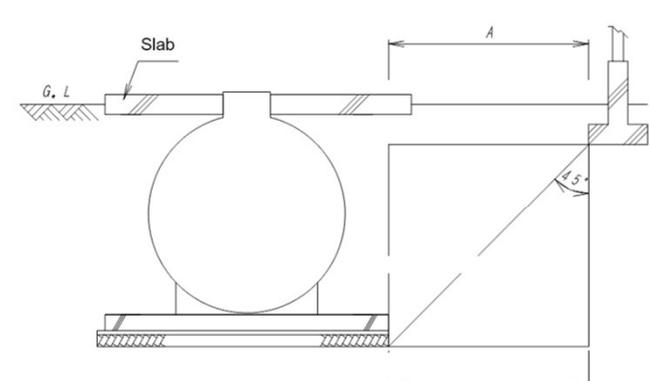
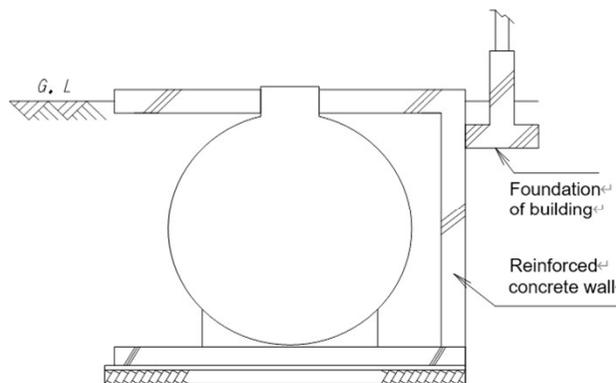
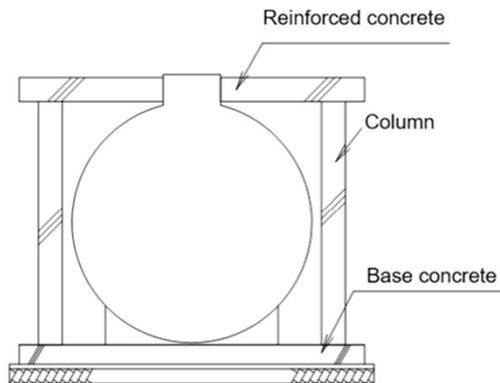


Inlet pipe position is lower



Special installation

Load carrying capacity



Do not install in this range

Above ground	Under ground
Short construction period	Easy maintenance
Save the cost of construction	Utilization of space
Possible to relocate in the future	Ultraviolet no effect

We can chose some installation due to the site condition.