

LAMPIRAN A

SPEKIFIKASI AKSESORIS DAN PELENGKAP PENGOLAHAN

1) Pipa



KELAS AW

Diameter		Tebal Dinding (mm)	Panjang (m)	Sistem Penyambungan
inch	mm			
½	22	1,50	4	SC
¾	26	1,80	4	SC
1	32	2,00	4	SC
1¼	42	2,30	4	SC
1½	48	2,30	4	SC
2	60	2,30	4	SC
2½	76	2,60	4	SC
3	89	3,10	4	SC
4	114	4,10	4	SC
5	140	5,40	4	SC
6	165	6,40	4	SC
8	216	8,30	4	SC
10	267	10,30	4	SC
12	318	12,20	4	SC

SC : Solvent Cement (Penyambungan dengan Lem)

2) Aksesoris pipa

- Tee



- Elbow 90°



- Increaser



3) Aerator Nozzle



BETE

BETE Fog Nozzle, Inc.
50 Greenfield St
Greenfield MA 01301 USA
www.bete.com | 413-772-0846 | 800-235-0049

SPRAY NOZZLE DATA SHEET - 1 1/2TF64FCN-B@4

MECHANICAL DATA

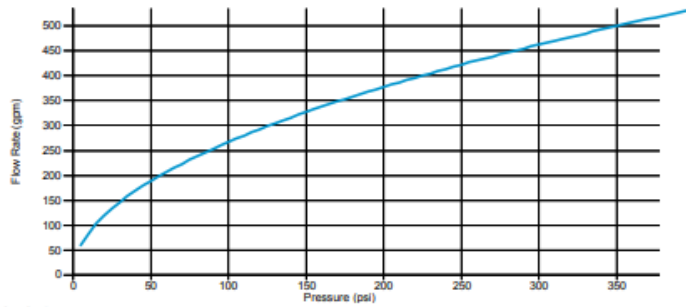
Connection Size	1 1/2 Pipe
Connection Type	M BSP
Nozzle Series	TF
Rating	64
Spray Angle	90°
Spray Pattern	Full Cone
Nozzle Style	Spiral
Material	Brass
BETE Material Code	4
Weight	22.0 oz.
Orifice Diameter	1.00 in
Free Passage	.310 in



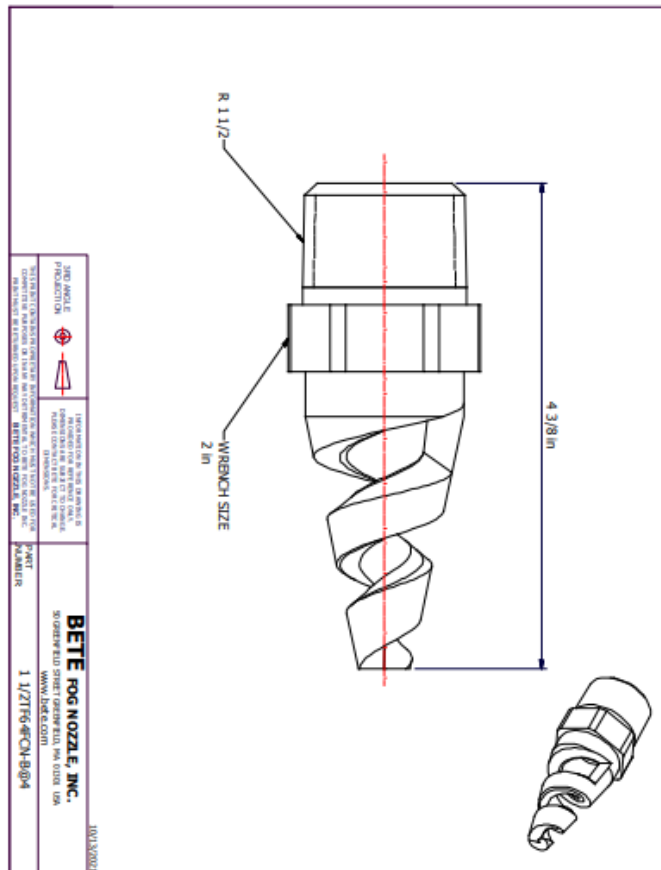
This image is representative of this nozzle series. The specific part described on this datasheet may have a different appearance.

The stated material corresponds to the product description listed above. This nozzle is available in a wide range of materials; contact BETE for other available materials.

PROJECTED PERFORMANCE DATA



NOTES: [Series Webpage](#)



4) Pengaduk



Standard specification

Model	Frame number	Motor			Impeller				Shaft length (mm)
		Power (kW)	Number of poles (P)	Phase and voltage (V)	Frequency (Hz)	Revolution (min ⁻¹)	Diameter (mm)	Stage	
A720-0.065A	1	0.065	4	Single-phase 100	50	300	150	1	600
60					360				
A720-0.1A		0.1	4	Single-phase 100	50	300	220	1	
60	360								
A720-0.1B	0.1	4	Three-phase 200	50	300	220	1	800	
60				360					
A720-0.2A	2	0.2	4	Single-phase 100	50	300	270		1
60					360				
A720-0.2B		0.2	4	Three-phase 200	50	300	270	1	
60	360								
A720-0.4B	3	0.4	4	Three-phase 200	50	300	310	1	1250
A725-0.4B	4	0.4	6	Three-phase 200	50	200			
					60	240			
A720-0.75B	4	0.75	4	Three-phase 200	50	300	350	1	1500
60					360				
A725-0.75B	5	0.75	6	Three-phase 200	50	200	400	1	
60					240				
A720-1.5B		1.5	4	Three-phase 200	50	300	400	1	
60	360								


* The standard materials for the shaft and the impeller are SUS304 or SUS316.
 * The A720 and A725 are the replacement for the A520.

5) Tangki Pengaduk

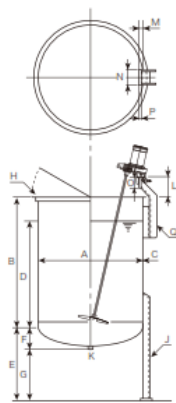
SATAKE PORTABLE MIXER

MIXER TANKS ZT Series

9 types of tanks ranging from 20 liters to 200 liters, all buffed and polished, are available with special lids as standard.



Specification of optional tanks



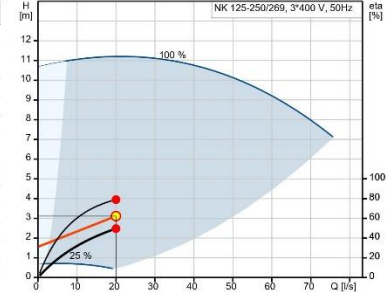
Model	Available capacity		Tank dimension (mm)													Weight (kg)	
	ℓ	ℓ	A	B	C	D	E	F	G	H(SUS)	J(S)	K		Tank	Ltd*		
ZTF-100	100	130	500	600	3	450	450	134	316	L25×25×3	3-L50×50×6	1/2 B Socket		43	3		
ZTF-150	150	182	550	700	3	562	450	144	306	L30×30×3	3-L50×50×6	1/2 B Socket		51	4		
ZTF-200	200	260	650	700	3	520	450	163	287	L30×30×3	3-L50×50×6	1/2 B Socket		60	5.5		
ZTF-300	300	361	700	850	3	692	500	173	327	L40×40×3	4-L50×50×6	1/2 B Socket		77	6.5		
ZTF-400	400	478	800	850	3	695	500	192	308	L40×40×3	4-L50×50×6	1/2 B Socket		88	8		
ZTF-500	500	600	850	950	3	770	500	202	298	L40×40×3	4-L65×65×6	1/2 B Socket		106	9		
ZTF-800	800	963	1000	1100	3	900	550	240	310	L40×40×5	4-100×50×5	1B Socket		155	12		
ZTF-1000	1000	1177	1100	1100	3	910	550	260	290	L40×40×5	4-100×50×5	1B Socket		170	19		
ZTF-1500	1500	1721	1250	1245	4	1065	600	290	310	L40×40×5	4-100×50×5	1B Socket		260	24		
ZTF-2000	2000	2275	1300	1550	4	1345	600	298	302	L50×50×6	4-125×65×6	1B Socket		335	26		
ZTF-2000S	2000	2273	1400	1300	4	1125	600	318	282	L50×50×6	4-125×65×6	1B Socket		325	30		
ZTF-2500	2500	3073	1500	1550	4	1230	700	370	330	L50×50×6	4-125×65×6	1B JIS 10KF		400	34		
ZTF-3000	3000	3603	1500	1850	4	1510	700	370	330	L50×50×6	4-125×65×6	1B JIS 10KF		448	34		
ZTF-3000S	3000	3521	1600	1550	4	1290	750	400	350	L50×50×6	4-125×65×6	1B JIS 10KF		422	38		
ZTF-3500	3500	4125	1600	1850	4	1540	700	400	300	L50×50×6	4-150×75×9	1B JIS 10KF		524	38		
ZTF-3500S	3500	4004	1700	1550	4	1330	800	430	370	L50×50×6	4-150×75×9	1B JIS 10KF		514	43		
ZTF-4000	4000	4685	1700	1850	4	1550	800	430	370	L65×65×6	4-150×75×9	1 1/2 B JIS 10KF		575	45		
ZTF-4000S	4000	4520	1800	1500	4	1345	800	450	350	L65×65×6	4-150×75×9	1 1/2 B JIS 10KF		550	50		
ZTF-4500	4500	5285	1800	1850	5	1542	800	450	350	L65×65×6	4-200×90×8	1 1/2 B JIS 10KF		750	50		
ZTF-5000	5000	5824	1900	1850	5	1530	900	500	400	L65×65×6	4-200×90×8	2B JIS 10KF		800	56		

*The lids have a thickness of 1.5t for A dimension up to 1000, and 2.0t for A dimension above that.
*Jacket type is also available.

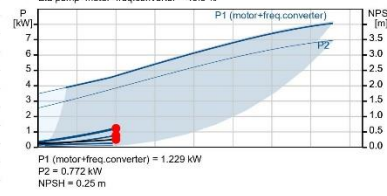
6) Pompa air bersih



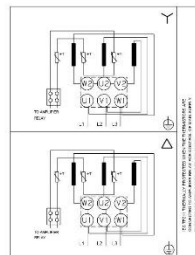
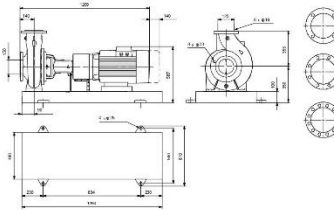
Description	Value
General information:	
Product name:	NK 125-250/269 AA1F2AESBAQEMW5
Product No:	On request
EAN number:	On request
Technical:	
Pump speed on which pump data are based:	985 rpm
Actual calculated flow:	20 l/s
Pump with motor (Yes/No):	Y
Resulting head of the pump:	3.112 m
Actual impeller diameter:	269 mm
Nominal impeller diameter:	250
Shaft diameter:	32 mm
Code for shaft seal:	BAQE
Mechanical seal type:	Single
Curve tolerance:	ISO9906:2012 3B2
Pump version:	A1
Bearing design:	Standard
Materials:	
Pump housing:	Cast iron
Pump housing:	EN-GJL-250
Pump housing:	ASTM class 35
Wear ring:	Brass
Impeller:	Cast iron
Impeller:	EN-GJL-200
Impeller:	ASTM class 30
Internal pump house coating:	CED
Material code:	A
Code for rubber:	E
Shaft:	Stainless steel
Shaft:	EN 1.4301
Shaft:	ANSI 304
Installation:	
Max. ambient temperature:	55 °C
Maximum operating pressure:	16 bar
Pipe connection standard:	EN 1092-2
Type of inlet connection:	DIN
Type of outlet connection:	DIN
Size of inlet connection:	DN 150
Size of outlet connection:	DN 125
Pressure rating for connection:	PN 16
Coupling type:	Flexible w/o spacer
Base frame design:	EN/ISO
Code for base frame:	7B ST
Grouting (Yes/No):	N
Connect code:	F
Liquid:	
Pumped liquid:	Water
Liquid temperature range:	0 .. 120 °C
Selected liquid temperature:	20 °C
Density:	998.2 kg/m ³
Kinematic viscosity:	1 mm ² /s
Electrical data:	
Motor type:	SIEMENS
IE Efficiency class:	IE3
Rated power - P2:	7.5 kW
Mains frequency:	50 Hz
Rated voltage:	3 x 380-420D/660-725Y V



Q = 20 l/s H = 3.112 m
 n = 54 % (26.6Hz) Pumped liquid = Water
 Density = 998.2 kg/m³ Eta pump = 79 %
 Liquid temperature during operation = 20 °C
 Eta pump+motor+freq.converter = 49.6 %



P1 (motor+freq.converter) = 1.229 kW
 P2 = 0.772 kW
 NPSH = 0.25 m

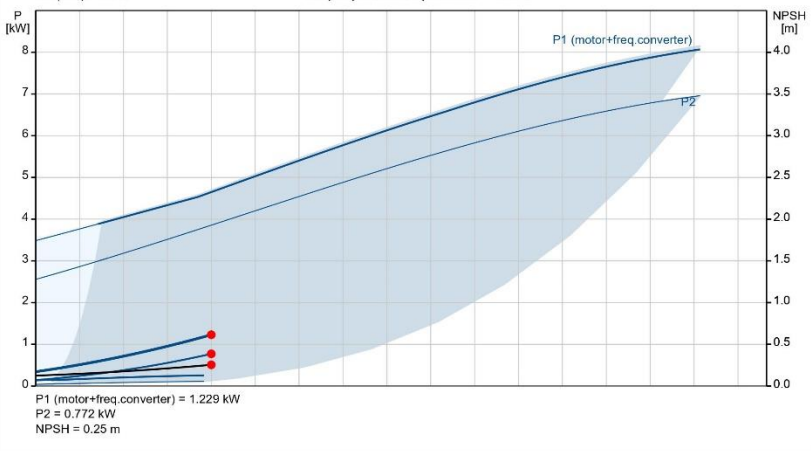
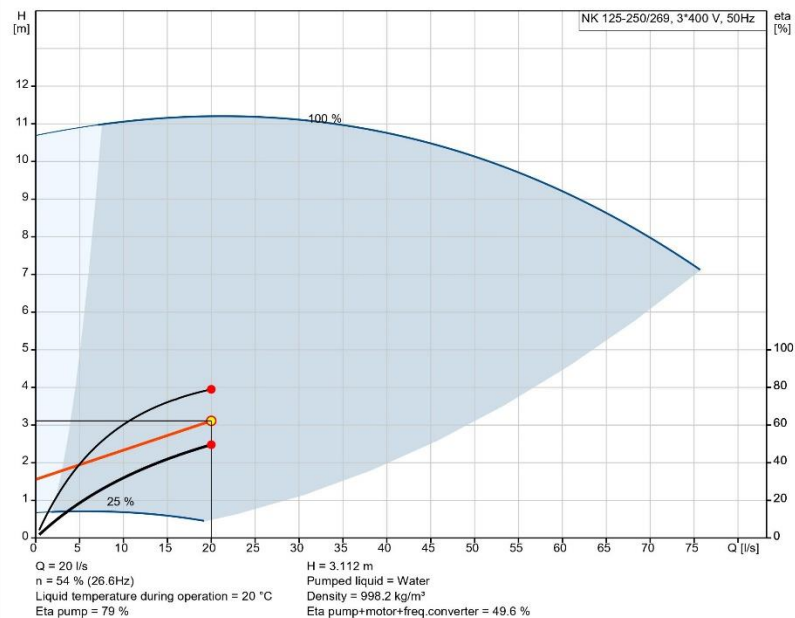




Company name:
Created by:
Phone:

Date: 13/12/2022

On request NK 125-250/269 AA1F2AESBAQEMW5 50 Hz



7) Pompa lumpur



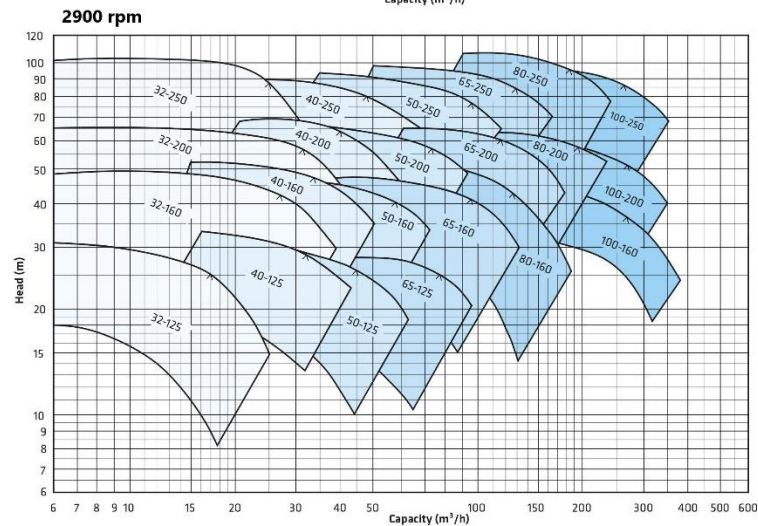
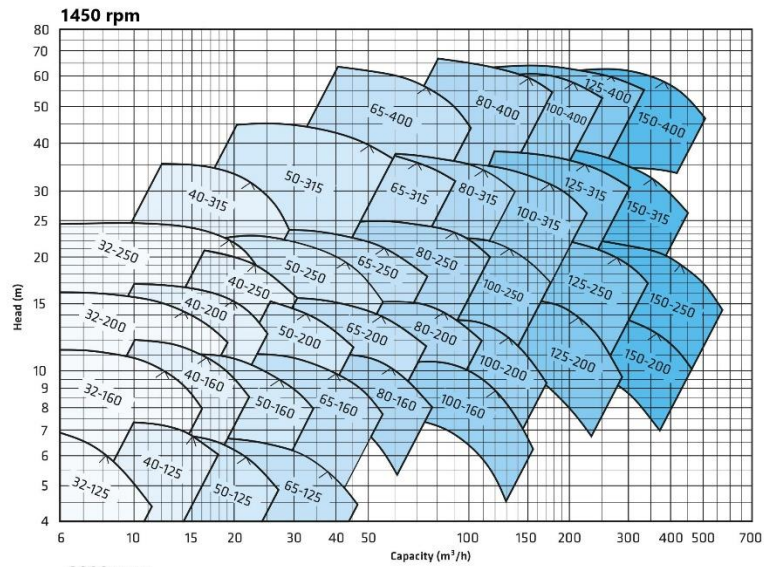
Product Specification Sheet



NORTH RIDGE PUMPS
ENGINEERED BEYOND YOUR NEEDS

Performance Graph

SNM / SNM-V



X Cel House, Chrysalis Way, Langley Bridge, Eastwood, Nottinghamshire NG16 3RY

Tel: +44 (0) 1773 302 660 | Email: sales@northridgepumps.com | Website: www.northridgepumps.com

Product Link: https://www.northridgepumps.com/p_1258_north-ridge-snm-snm-v-close-coupled-centrifugal-pump

LAMPIRAN B

GAMBAR BANGUNAN PENGOLAHAN AIR MINUM



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19034010014

RIZAL BAHTIAR MUQIM

19034010047

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DENAH RIVER INTAKE DAN
SUMUR PENGUMPUL

SKALA

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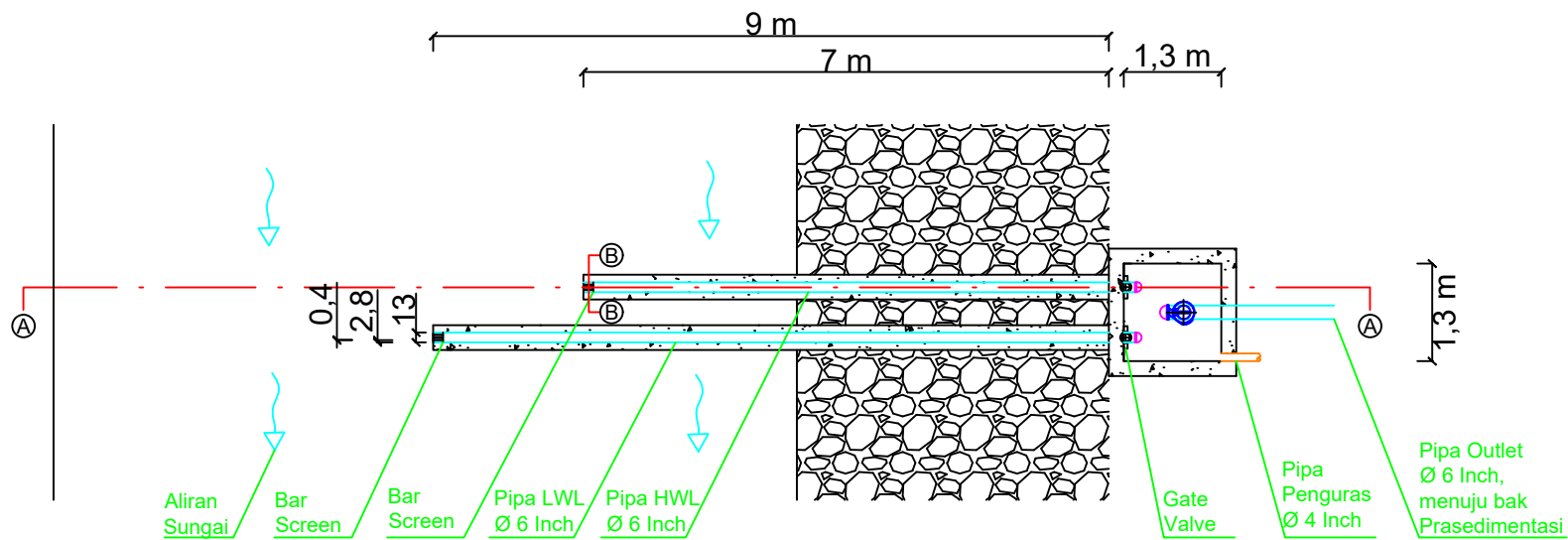
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TANGGAL ACC

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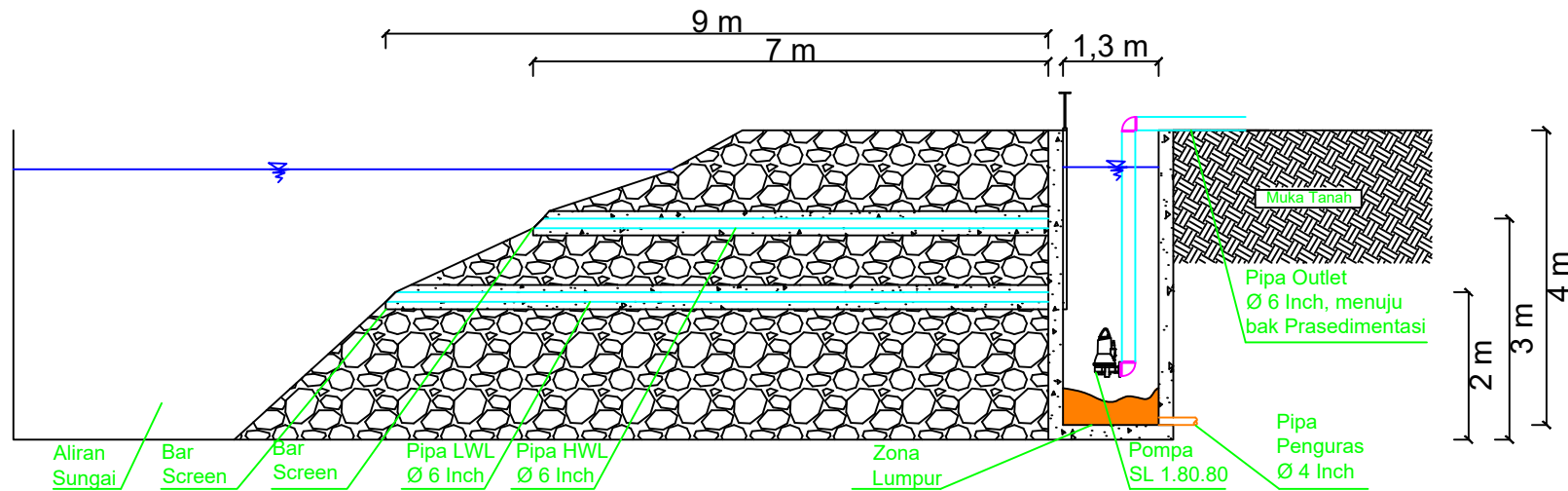
DENAH RIVER INTAKE DAN SUMUR PENGUMPUL

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DENAH RIVER INTAKE DAN SUMUR PENGUMPUL POTONGAN A-A

1:100

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DENAH RIVER INTAKE DAN
SUMUR PENGUMPUL
POTONGAN A-A

SKALA

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LEMBAR KE

JUMLAH

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2

23



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DENAH RIVER INTAKE DAN
SUMUR PENGUMPUL
POTONGAN B-B

SKALA

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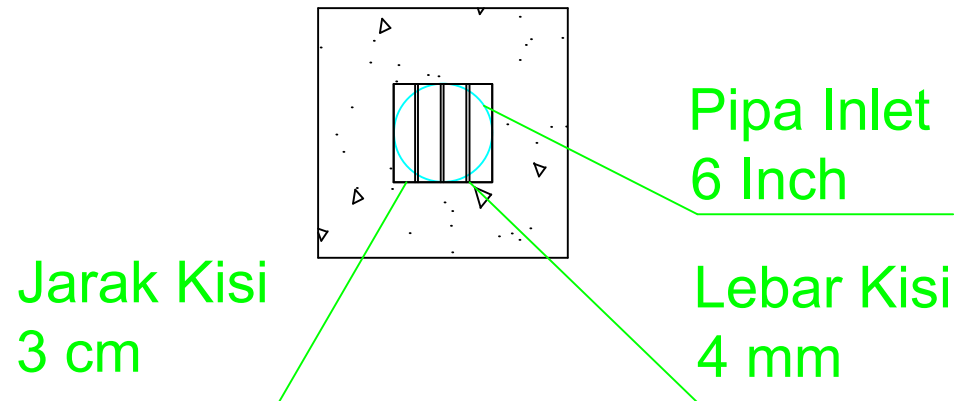
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3

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DENAH RIVER INTAKE DAN SUMUR PENGUMPUL
POTONGAN B-B

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DENAH
BAK PRASEDIMENTASI

SKALA

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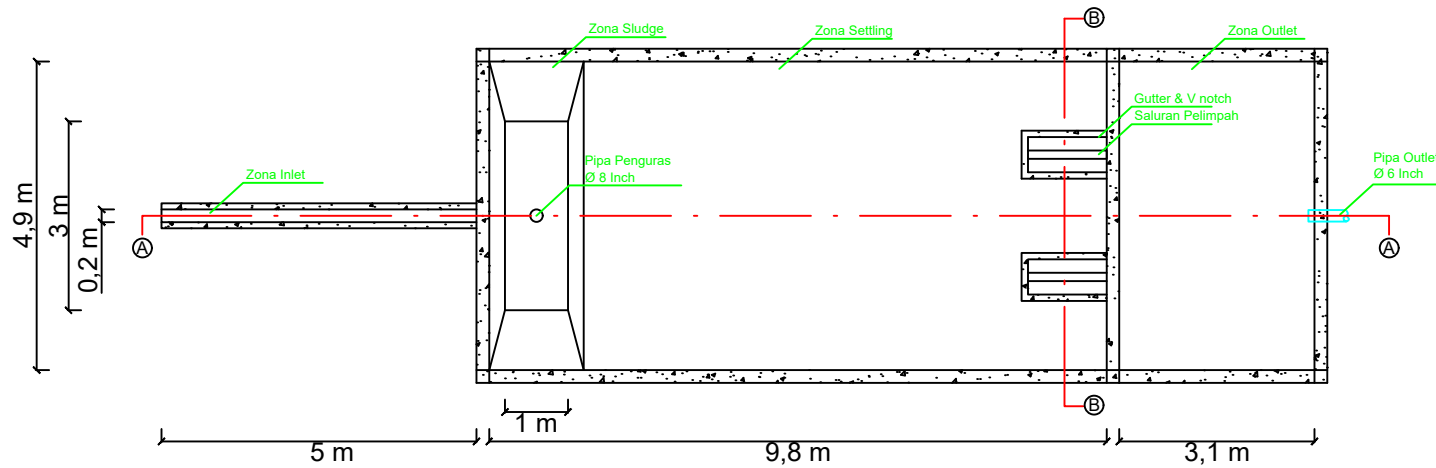
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4

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DENAH BAK PRASEDIMENTASI

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DENAH
BAK PRASEDIMENTASI
POTONGAN A-A

SKALA

1:120

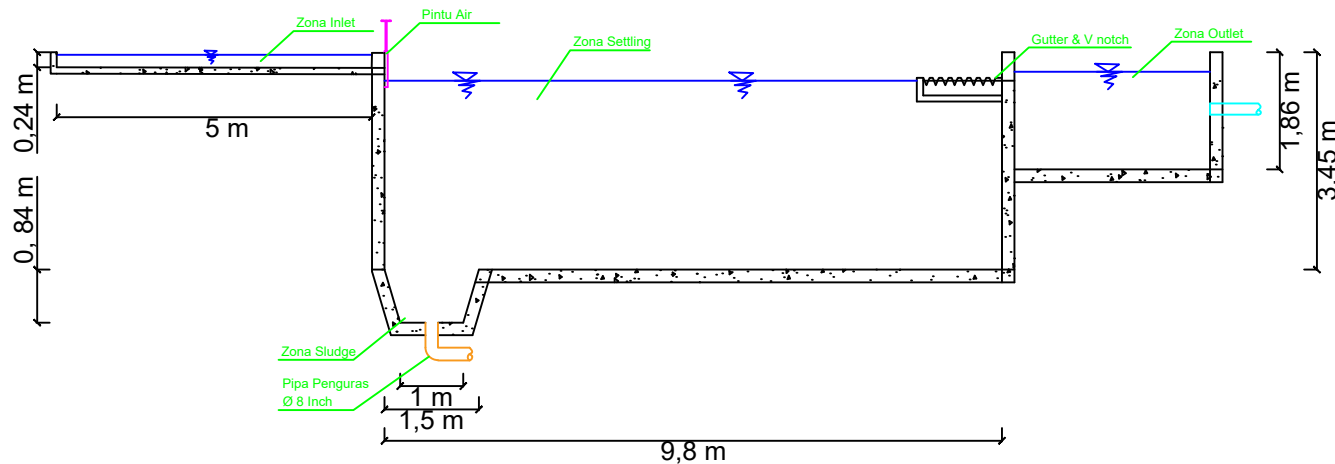
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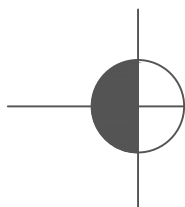
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DENAH BAK PRASEDIMENTASI
POTONGAN A-A

1:120





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1:80

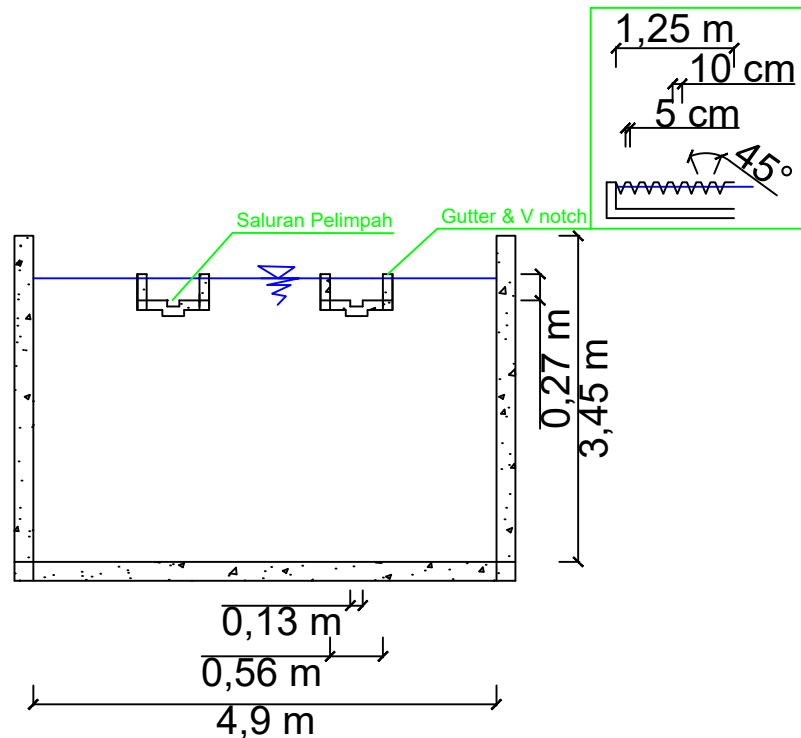
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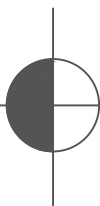
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DENAH BAK PRASEDIMENTASI
POTONGAN B-B

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1:120

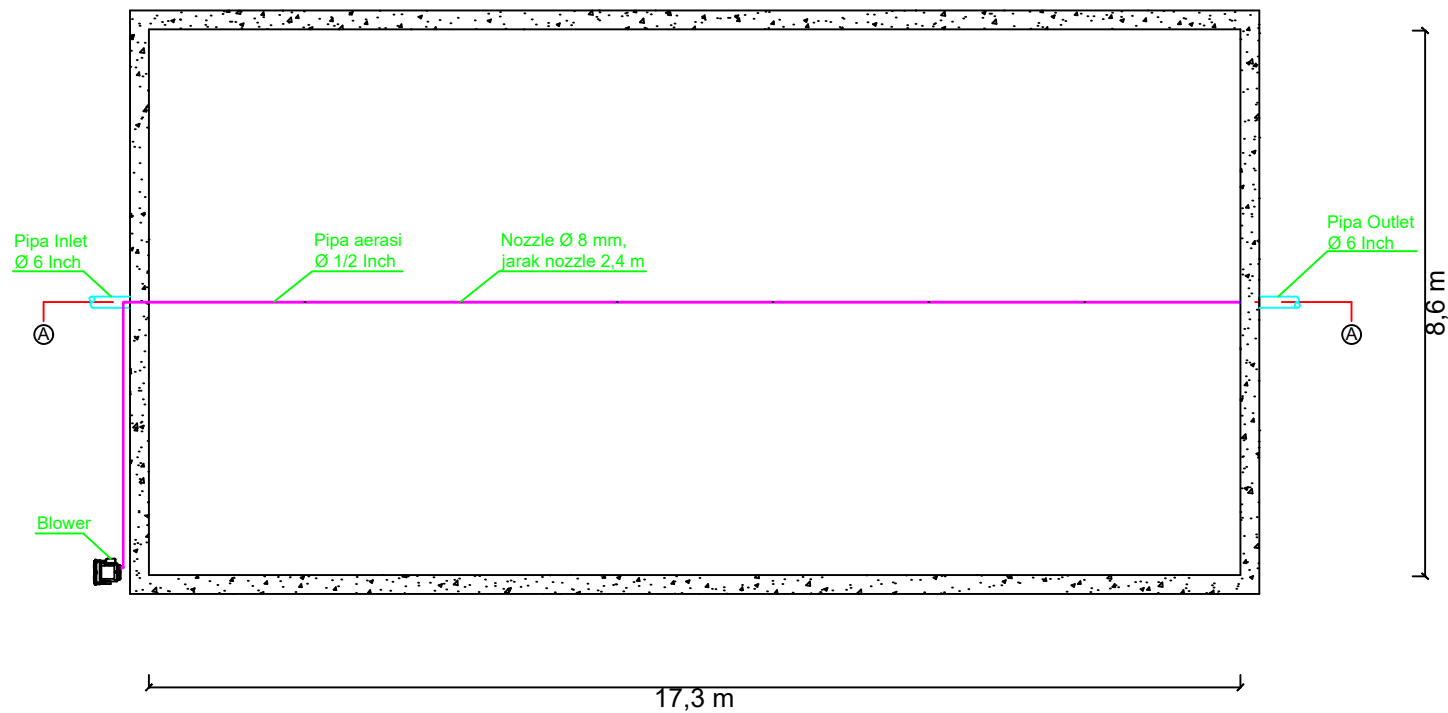
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DENAH BAK AERASI

1:120



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DENAH
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POTONGAN A-A

SKALA

1:120

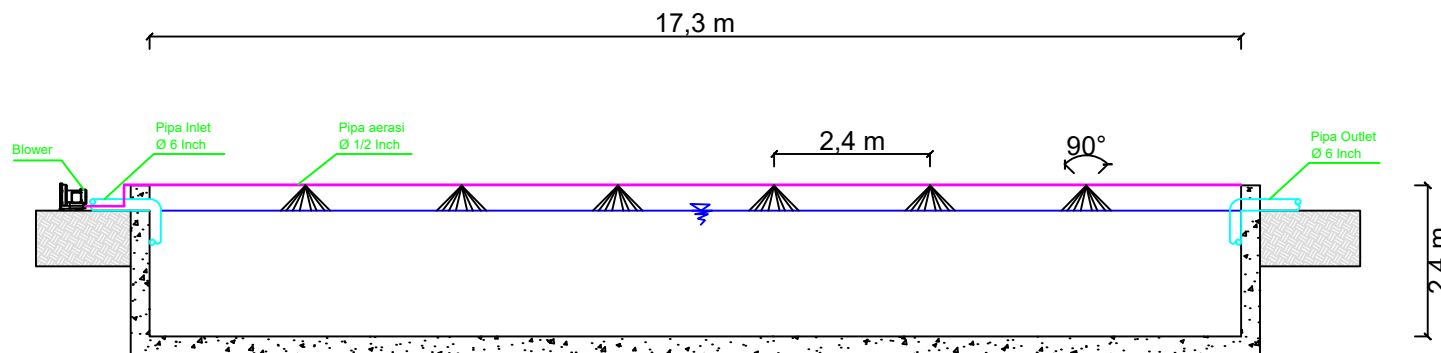
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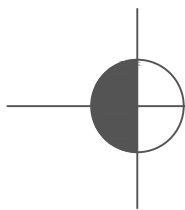
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DENAH BAK AERASI
POTONGAN A-A

1:120





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DENAH
BAK KOAGULASI

SKALA

1:50

LEMBAR KE

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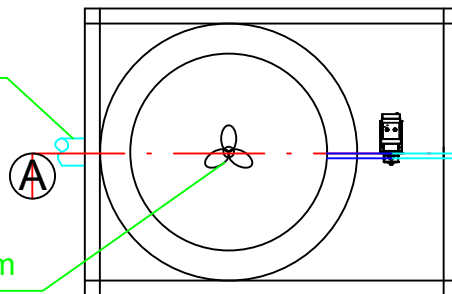
TANGGAL ACC

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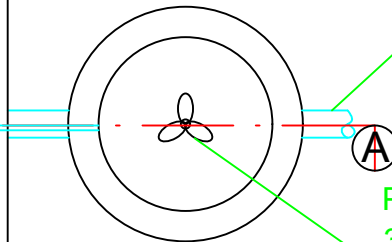
Pipa Inlet
Ø 6 Inch

Propeller Pitch 1
3 Blades Ø 35 cm



Pipa Outlet
Ø 6 Inch

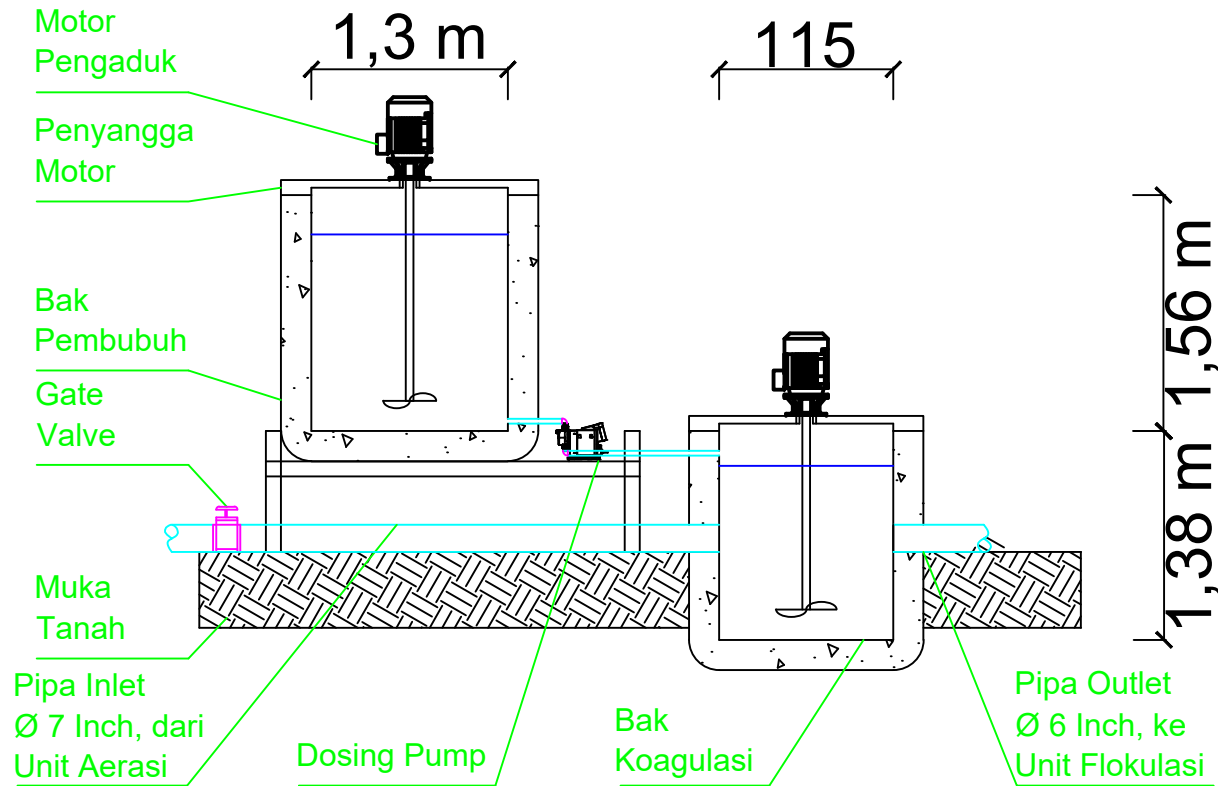
Propeller Pitch 1
3 Blades Ø 40 cm



DENAH BAK KOAGULASI

1:50





DENAH BAK KOAGULASI POTONGAN A-A

1:50



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DENAH
BAK KOAGULASI
POTONGAN A-A

SKALA

1:50

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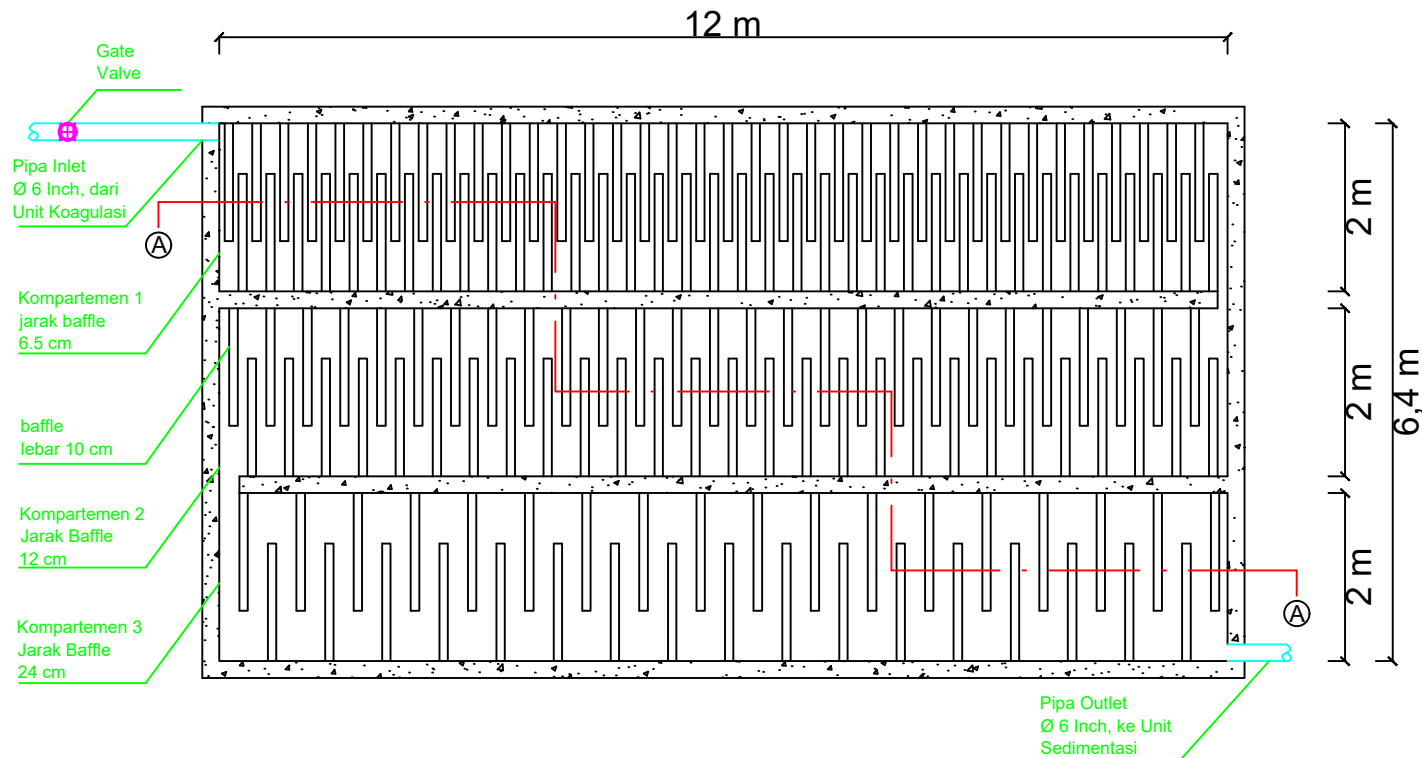
TANGGAL ACC

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GAMBAR

DENAH
BAK FLOKULASI

SKALA

1:90

LEMBAR KE

JUMLAH

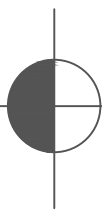
TANGGAL ACC

11

23

DENAH BAK FLOKULASI

1:90





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Ir. NANIEK RATNI JAR., Mkes

MAHASISWA

NPM

NOVIRA PUTRI AMINI

19034010014

RIZAL BAHTIAR MUQIM

19034010047

GAMBAR

DENAH
BAK FLOKULASI
POTONGAN A-A

SKALA

1:90

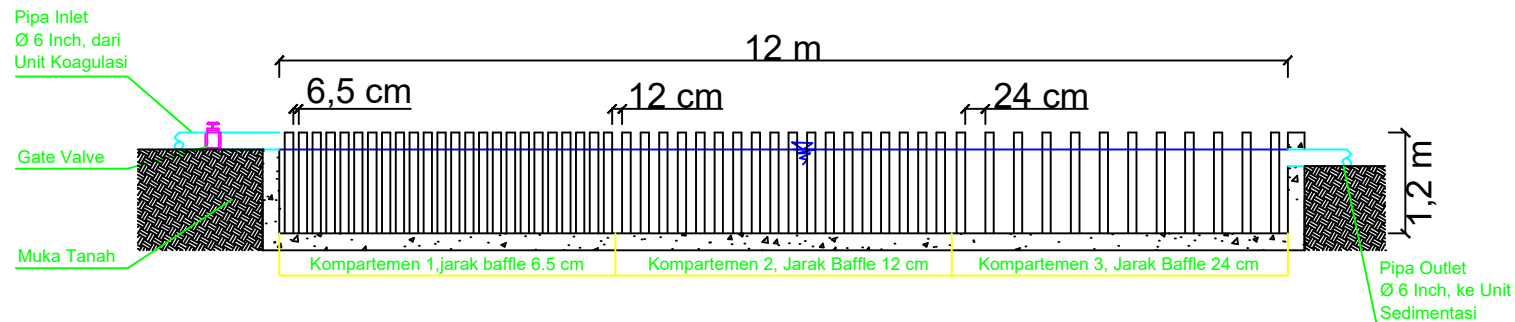
LEMBAR KE

JUMLAH

TANGGAL ACC

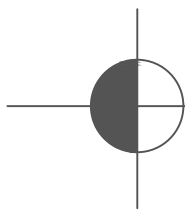
12

23



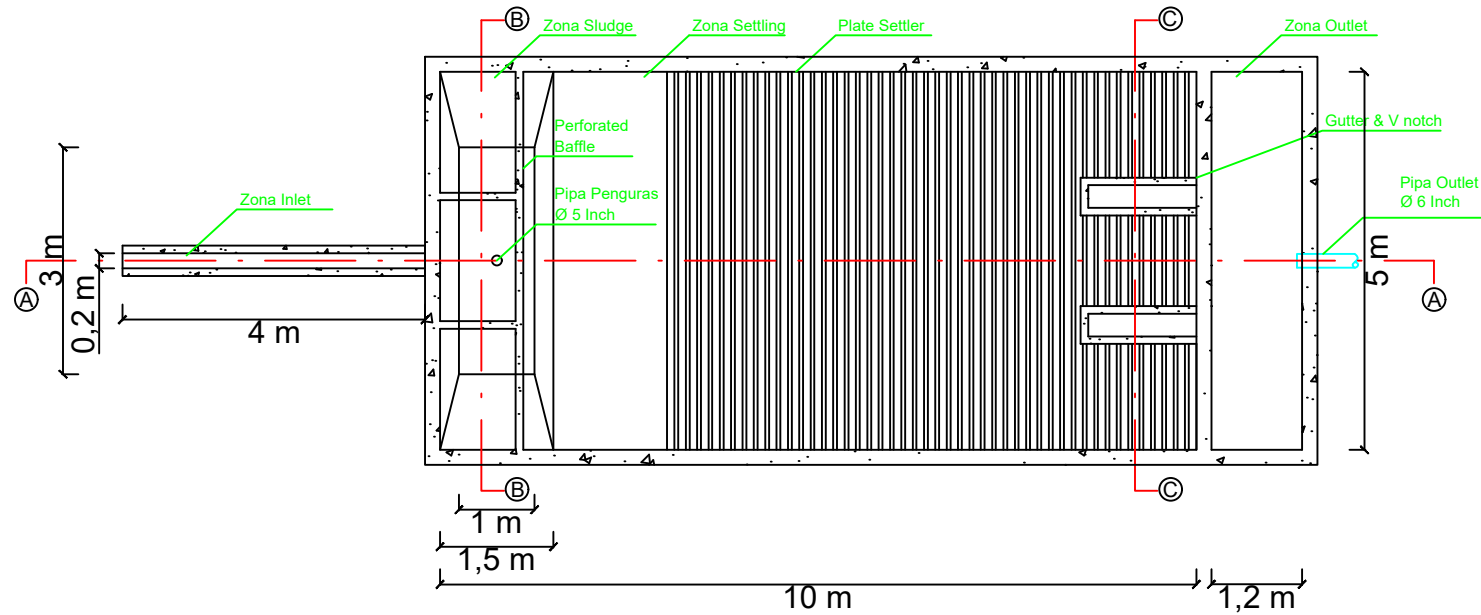
DENAH BAK FLOKULASI
POTONGAN A-A

1:90





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DENAH BAK SEDIMENTASI

1:100

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DENAH
BAK SEDIMENTASI

SKALA

1:100

LEMBAR KE

JUMLAH

TANGGAL ACC

13

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DENAH
BAK SEDIMENTASI
POTONGAN A-A

SKALA

1:100

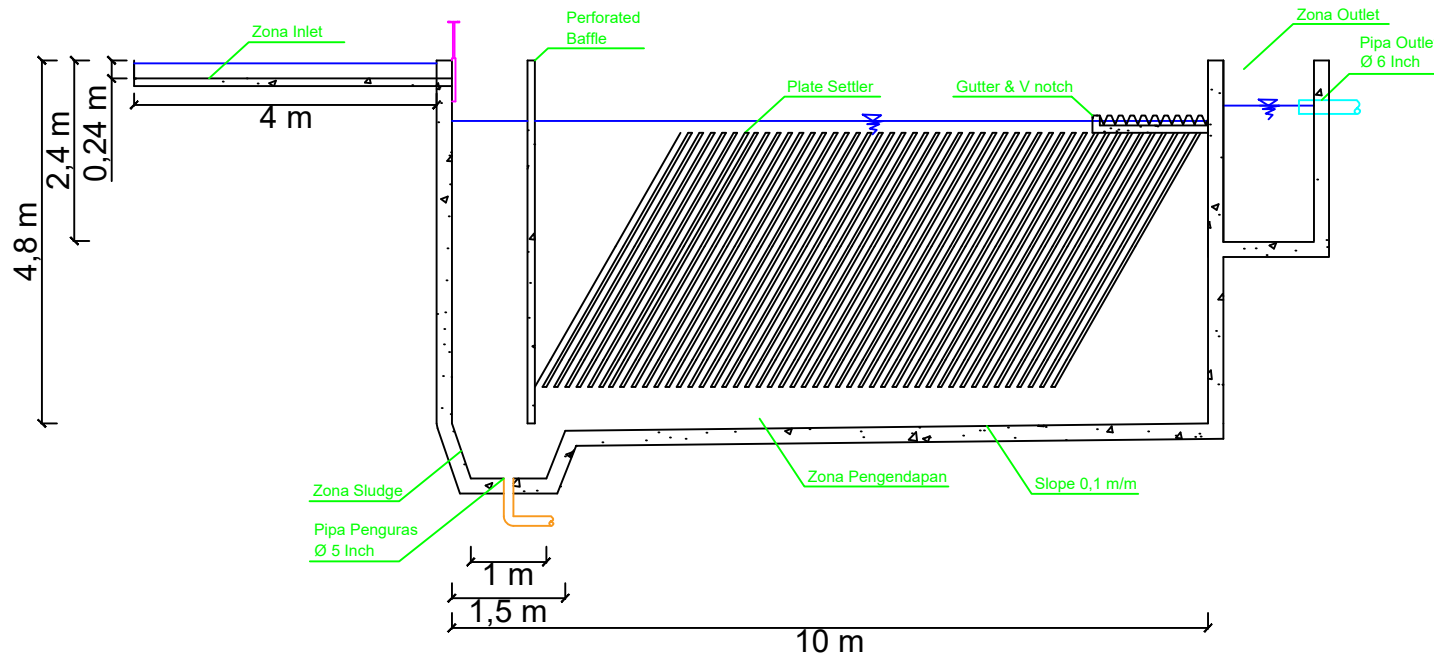
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JUMLAH

TANGGAL ACC

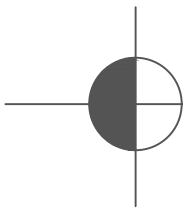
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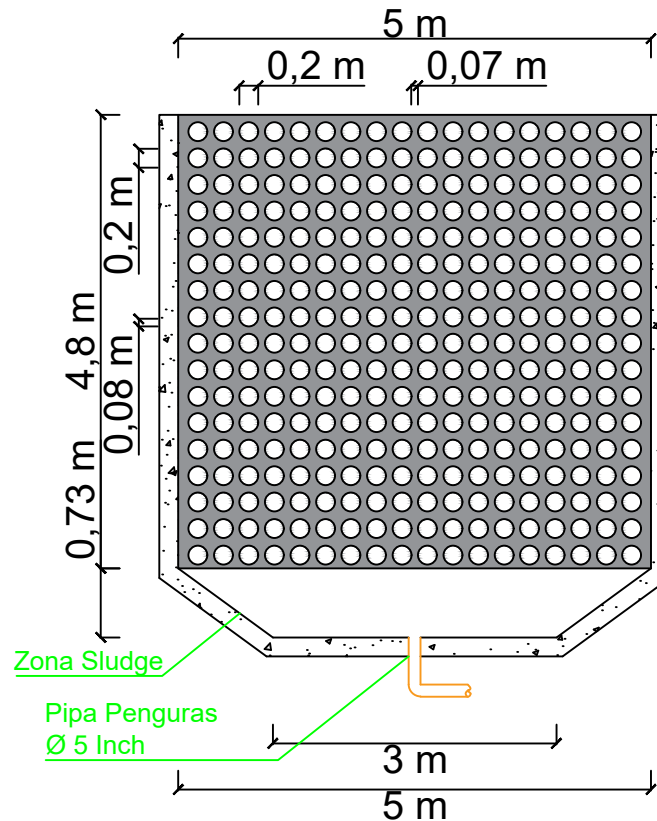
23



DENAH BAK SEDIMENTASI POTONGAN A-A

1:100





DENAH BAK SEDIMENTASI POTONGAN B-B

1:80



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DENAH
BAK SEDIMENTASI
POTONGAN B-B

SKALA

1:80

LEMBAR KE

JUMLAH

TANGGAL ACC

15

23



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DENAH
BAK SEDIMENTASI
POTONGAN C-C

SKALA

1:80

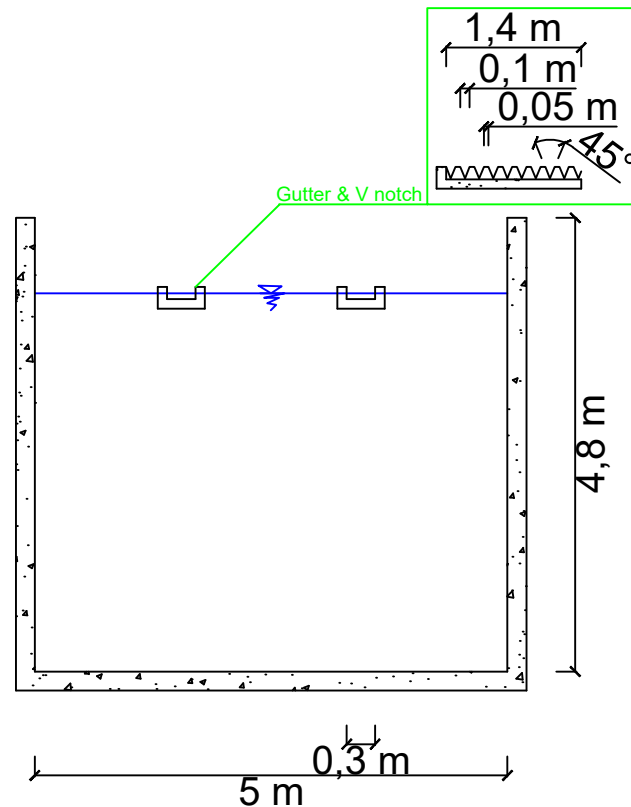
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JUMLAH

TANGGAL ACC

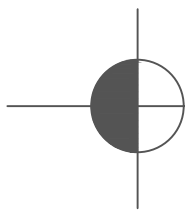
16

23



DENAH BAK SEDIMENTASI
POTONGAN C-C

1:80





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DENAH UNIT DESINFEKSI
DAN RESERVOIR

SKALA

1:50

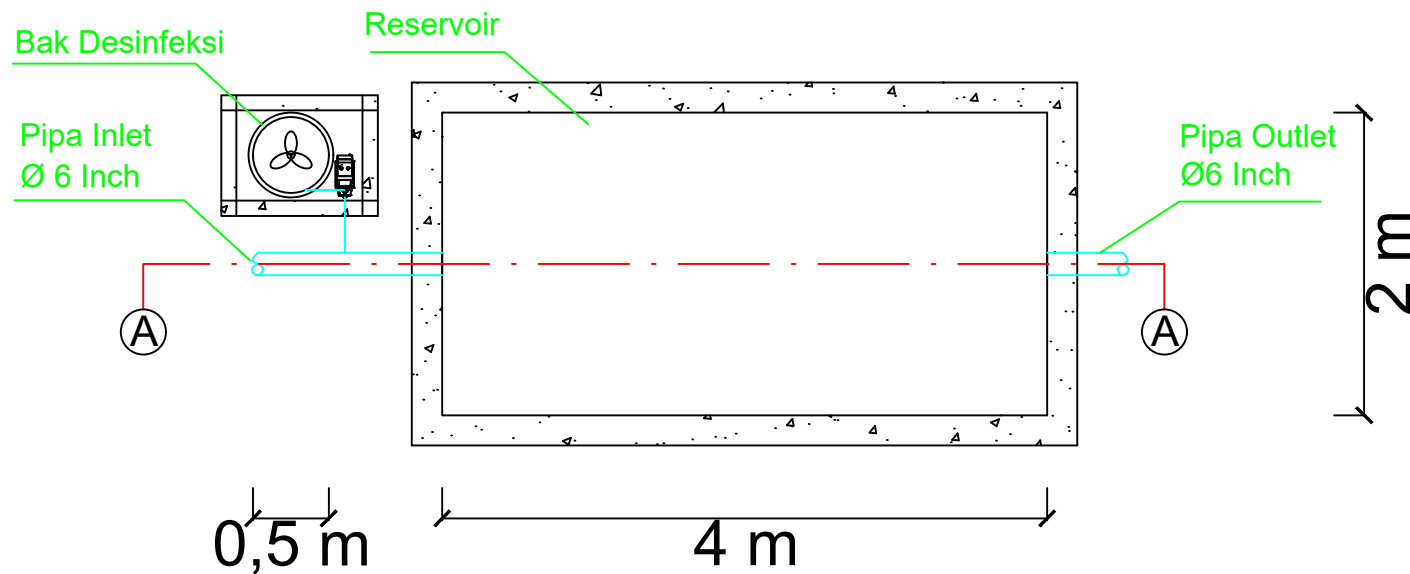
LEMBAR KE

JUMLAH

TANGGAL ACC

17

23



DENAH UNIT DESINFEKSI DAN RESERVOIR

1:50



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DENAH UNIT DESINFEKSI
DAN RESERVOIR POTONGAN
A-A

SKALA

1:70

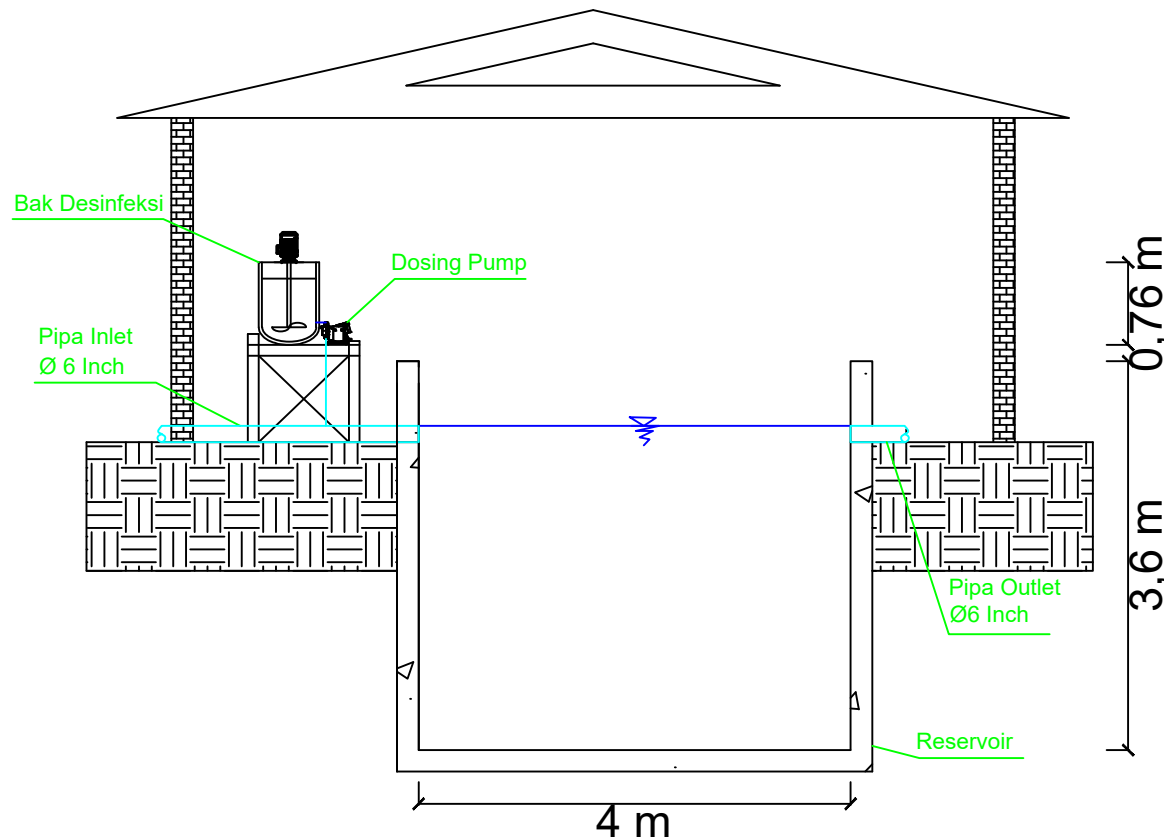
LEMBAR KE

JUMLAH

TANGGAL ACC

18

23



DENAH UNIT DESINFEKSI DAN RESERVOIR
POTONGAN A-A

1:70





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DENAH
SLUDGE DRYING BED

SKALA

1:100

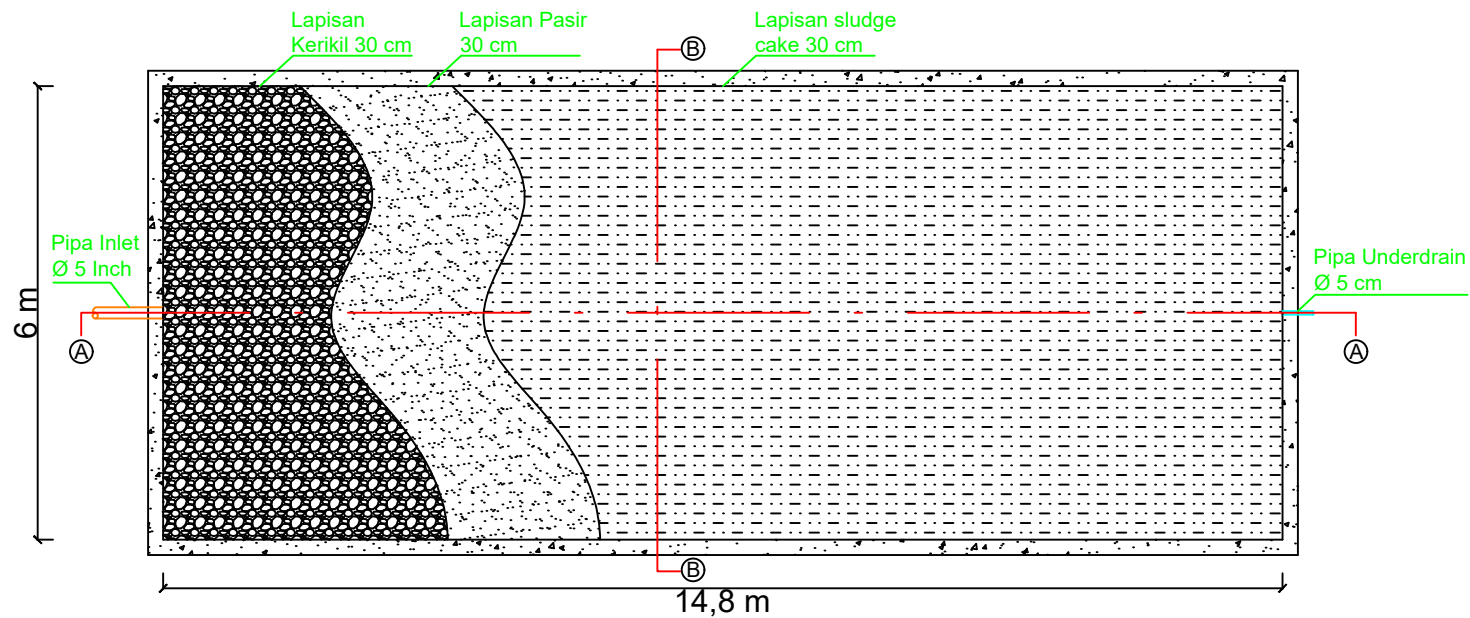
LEMBAR KE


JUMLAH

TANGGAL ACC

19

23



 DENAH SLUDGE DRYING BED
1:100



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DENAH
SLUDGE DRYING BED
POTONGAN A-A

SKALA

1:100

LEMBAR KE

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20

23

Pipa Inlet
Ø 5 Inch

Lapisan Sludge
Cake 30 cm

Lapisan pasir 30
cm

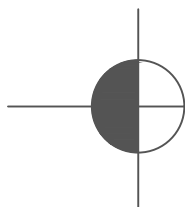
Lapisan Kerikil
30 cm

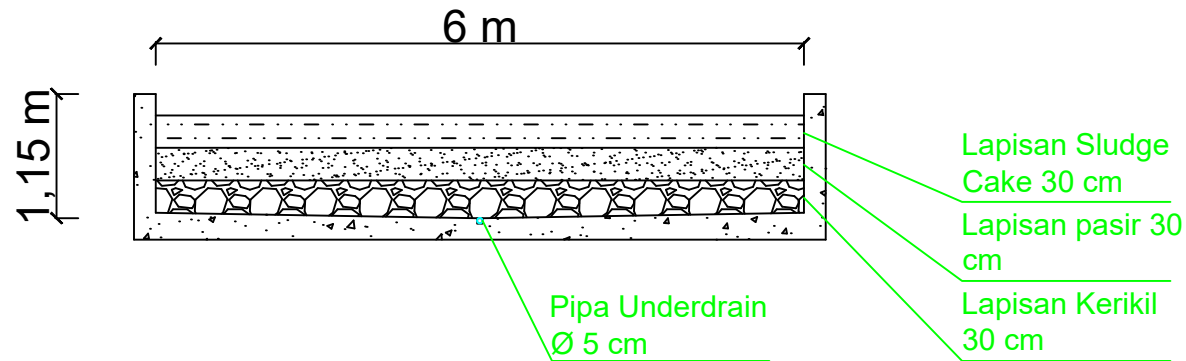
14,8 m

1,15 m

DENAH SLUDGE DRYING BED
POTONGAN A-A

1:100





DENAH SLUDGE DRYING BED
POTONGAN A-A

1:70



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GAMBAR

DENAH
SLUDGE DRYING BED
POTONGAN A-A

SKALA

1:70

LEMBAR KE

JUMLAH

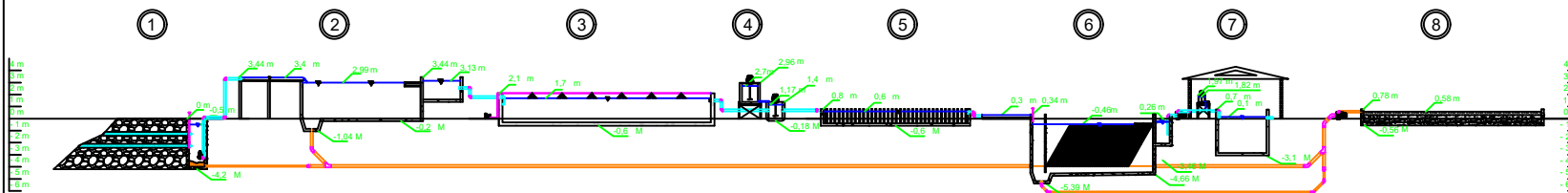
TANGGAL ACC

21

23



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Keterangan :

1. Unit River Intake dan Sumur Pengumpul
2. Unit Prasedimentasi
3. Unit Aerasi
4. Unit Koagulasi
5. Unit Flokulasi
6. Unit Sedimentasi
7. Unit Desinfeksi dan Reservoir
8. Unit Sludge Drying Bed

- █ Muka Air
- █ Pipa Air
- █ Pipa Lumpur
- █ Aksesoris
Elbow/Tee/Reducer

DENAH PROFIL HIDROLIS

1:600

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DENAH PROFIL HIDROLIS

SKALA

1:600

LEMBAR KE

JUMLAH

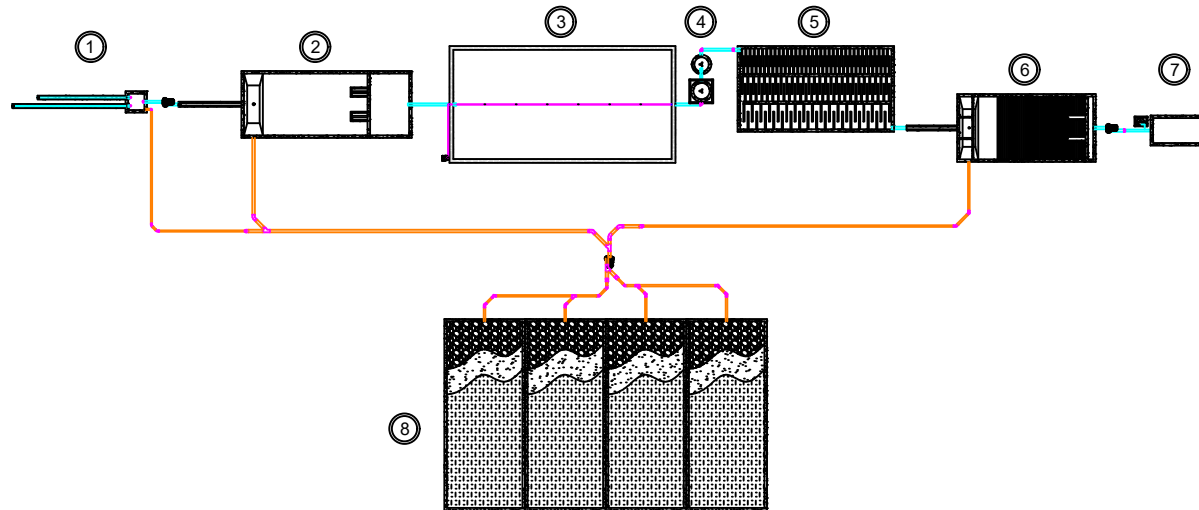
TANGGAL ACC

22

23



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FAKULTAS TEKNIK
PROGRAM STUDI TEKNIK LINGKUNGAN



Keterangan :

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3. Unit Aerasi
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7. Unit Desinfeksi dan Reservoir
8. Unit Sludge Drying Bed

- Muka Air
- Pipa Air
- Pipa Lumpur
- Aksesoris
Elbow/Tee/Reducer

DENAH PROFIL HIDROLIS

1:600

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DENAH LAYOUT BANGUNAN

SKALA

1:600

LEMBAR KE

JUMLAH

TANGGAL ACC

23

23