1.1 1
1.2 1
1.3 5
1.4 5

2.1 7
2.2 7
2.3 8
2.4 13
2.5 13
2.6 13
2.7 15

3.1 19
3.2 20
3.3 25

4.1 30
4.2 30

1.

1.1

1.2

1.2.1.

1 2021 9 1

2 2024 11 1

3 591 2013 12 7
645

4 708 2019 4 1

5 2025
14 34 2025 5 28

6 23 2024
10 1

7 3 2015
5 29 80 2015 7 1

21

2020 1 2020 5 30

22 2015

2015 80 2015 8 19

23

2011 95 2011 7 1

24

2011 142 2011 7 1

25

1.2.2.

1	GB50156-2021
2	GB 6944-2025
3	GB 12268-2025
4	GB 18218-2018
5	GB 17914 2013
6	GB 50058-2014
7	

1.2.3.

1 2005 4

2 2002

11

3 2003 7

1.3

1

2

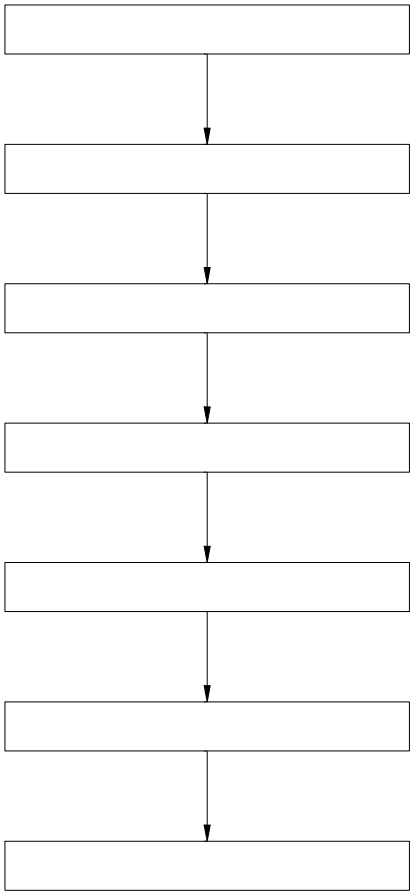
3

4

5

1.4

1-1



1-1

2.

SF 5 1 1

4

5 2 30m^3 3 30m^3

105m^3 GB50156-2021

3.0.9 2022

11

2.1

107

22m 43m 50m

(10m) 29m 20m

2.2

1

7.7

7 25.2

1 -12.7

38.3

-30.6

8.3

6.9

2

69%

67%

7 78%

1 61%

3

101.2kPa

103.9kPa

96.9kPa

4

755.4mm

997.3mm

520.5mm

178.8mm

42.6mm

5

250.0mm

6

3.2m/s

23m/s

7

28.3d

42d

8

6

1.40m

2.3

3000m^2 2.2m

5m

12m

0.2m 1.2m 0.6m

6m

7m 13m 13m

4m 0.6m 0.5m 5

50mm 4m

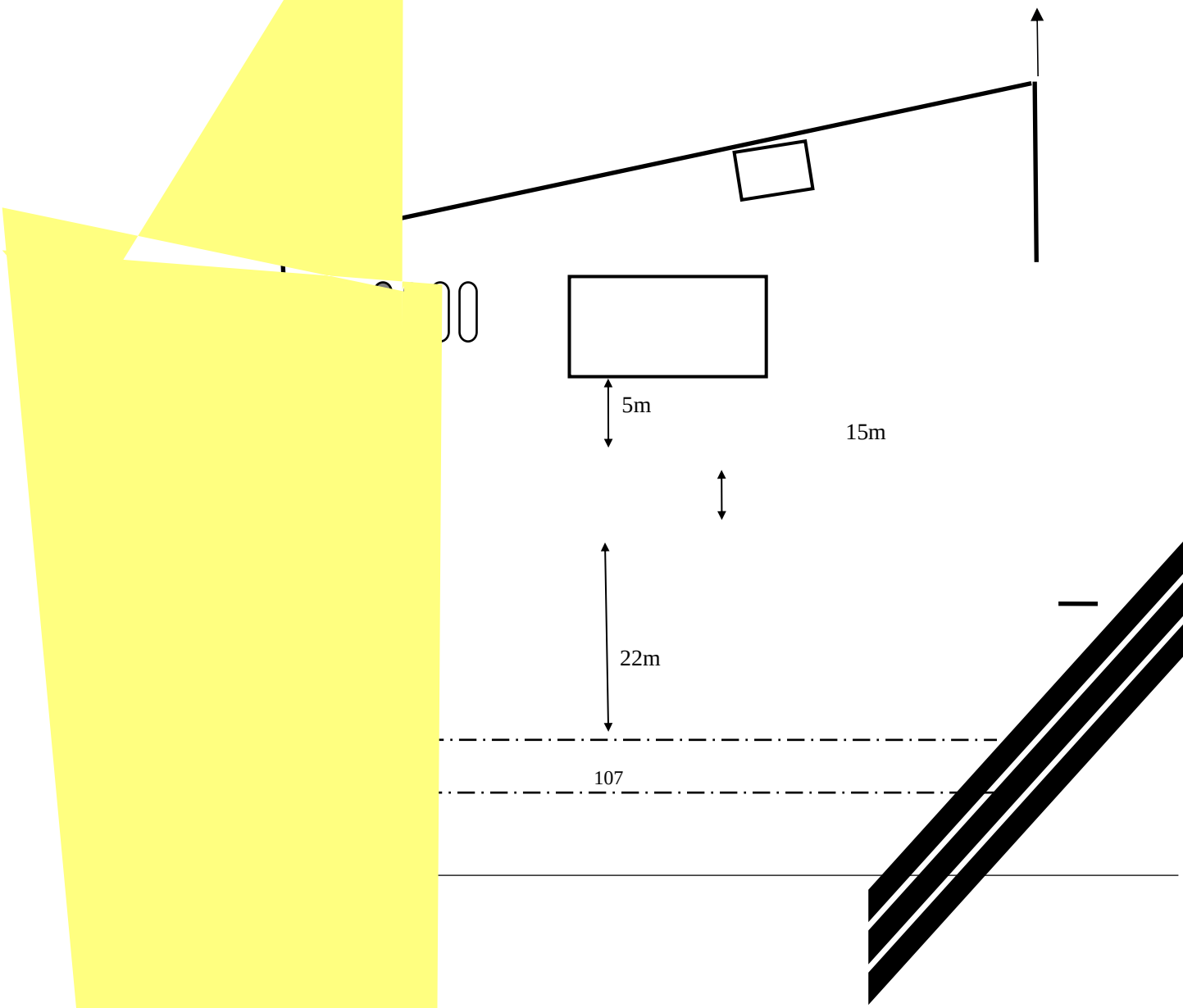
24m 26m

15m 6m

13m

2-1

2-1 2-2



m

			m	
			11	90
			5.5	43
			5	30

		0.75		
	H=10m		5m	39
		11		50
	—	—		—
		10.5		95
107		5		49
		5		25
	H=10m	5		34
		10.5		54
	—	—		—
		10.5		65
107		5		34
		5		40
	H=10m	5		49
		10.5		55
	—	—		—

H˙ ˇ

Ь ‵H ˝ ´

2.4

2-3

2-3

1	217.21m^2
2	664.7m^2
3	48m^2

2024 12 3

2

[2022]000235

2022 11 29 2025 11 28

3

(1062024001)[2025]00458

2025 10 17

3

2.7.2

1

4

380/220V TN-S

UPS

5

5

6

8 5kg 8

5kg 6 2kg CO_2 8 35kg

1 $2m^3$

7

13 2

2 1 5

4m 1 4m 1

Q_1 $Q_{2...}Q_n$—— t

3

3.1.3

3-1

3-1

1		200t
2		5000t

$60m^3$ 0.75

45t $90m^3$ 0.89 80.1t

S=45/200+80.1/5000=0.24102<1

3.2

3.2.1

2* 1B 2

1 - 2 - 2

1630

92 95 98 3 =1

0.72 0.775 =1 3 4 -46 1.4% 7.6%

415 530 0.813MPa

5 0 -10 60 -20

50 -35 -50 45

15min

3.2.2

3.3.1

1

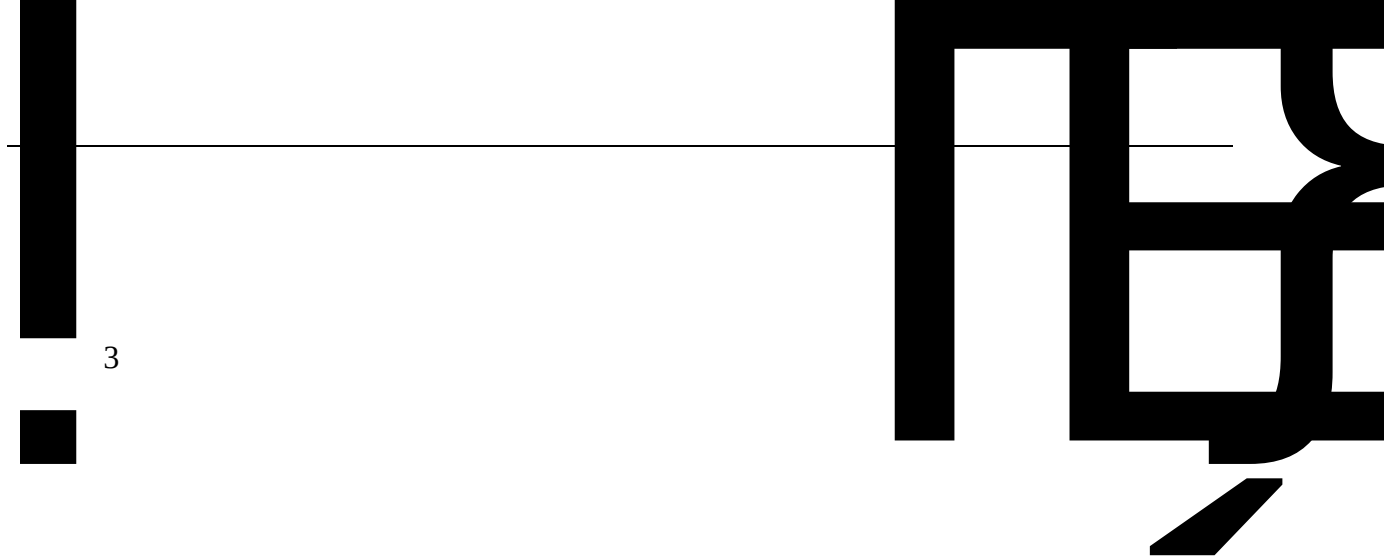
70m

6 46

2

1987 2 4

1986 5 2



3

4

3.3.2

1

3

3.3.3

3.3.4

3.3.5

3.3.6

3.3.7

1

2

4.

4.1

8

1

2

3

4

5

6

7

8

4.2

5.

8

5-1~ 5-9

5-1

1

	7		
	8		
	9		
	10		
	11		
	12		
	13		
	14		
	15		
	16		
	17		
	18		
	1		
	2		
	3		
	1		
	1		
	2 GB/T29639-2020		
	3		
	1		
	2		
	3		

2025 7 31

	4	GB50156-2021 4.0.12		
	5	GB50156-2021 4.0.13		
	1	GB50156-2021 5.0.1		
	2 4m 6m 8%	GB50156-2021 5.0.2	12m 8%	
	3	GB50156-2021 5.0.3		
	4 “ ” “ ”	GB50156-2021 5.0.5	“ ” “ ”	
	5	GB50156-2021 5.0.8		
	6 14.2.10 300m^2	GB50156-2021 5.0.9		
	7 4.0.4 “ ” “ ”	GB50156-2021 5.0.10		

8

GB50156-2021

5.0.11

9

2.2m

4.0.4 1.5 25m

GB50156-2021

5.0.12

2-1

GB50156-2021

4.0.4

10

GB50156 5.0.13-1 GB50156-2021

5.0.13

2-2

11 5.0.13-1

5.0.11

GB50156-2021

A 5.0.15

12

C GB50156-2021

5.0.16

	10	GB50156-2021 6.1.11		
	11 0.5m 0.9m 0.3m	GB50156-2021 6.1.12	1m 0.5m	
	12	GB50156-2021 6.1.13		
	13	GB50156-2021 6.1.14		
	14 90% 95%	GB50156-2021 6.1.15		
	15 0.8L/h	GB50156-2021 6.1.16		
	16 SH/T 3022	GB50156-2021 6.1.17	SF	
	1	GB50156-2021 6.2.1		
	2 50L/min		5~50L/min	

150mm

200mm

9

16

GB50156-2021
6.3.18

17

6.3.12

1. 2.8m/s
2. GB50156-2021
6.3.19

18

GB50156-2021
GB/T21447
6.3.20

19

SF
GB50156-2021
6.5.1

20

GB 50108

10mm

30mm

22

	5	GB50156-2021 13.1.5		
	6	GB50156-2021 13.1.6		
	7 GB 50058	GB50156-2021 13.1.7		
	8 IP44	GB50156-2021 13.1.8	IP44	
	1 2	GB50156-2021 13.2.1	2	
	2 4Ω	GB50156-2021 13.2.2		
	3 LPG	GB50156-2021 13.2.4		
	4 0.5mm 0.65mm 0.7mm	GB50156-2021 13.2.6		

	5	GB50156-2021 13.2.7		
	6	GB50156-2021 13.2.8		
	7 380/220V TN-S 380V TN-C-S	GB50156-2021 13.2.9		
	8 30Ω	GB50156-2021 13.2.10		
	9	GB50156-2021 13.2.11		
	10 5	GB50156-2021 13.2.12		
	11	GB50156-2021 13.2.13		
	12	GB50156-2021 13.2.14		

ь Ӊ ˮ ˊ

	4	GB50156-2021 13.5.4		

5-7

	1 140kW 2m	GB50156-2021 14.1.3		
	2 12 5 300cm²/m² 2	GB50156-2021 14.1.4		
	3	GB50156-2021 14.1.5		
	1	GB50156-2021 14.2.1		
	2			

	4.5m 2m GB50068 GB50009 GB/T 50011	GB50156-2021 14.2.2	6m GB50009 GB/T50011	
	3 0.15 0.2m 1.2m 0.6m 100mm 0.5m	GB50156-2021 14.2.3	1.2m 0.2m 0.6m	
	4 GB 50016	GB50156-2021 14.2.4		
	5	GB50156-2021 14.2.7		
	6	GB50156-2021 14.2.9		
	7 300m^2	GB50156-2021		

		14.2.10		
	8 B GB50016	GB50156-2021 14.2.11		
	9 3h	GB50156-2021 14.2.12		
	10	GB50156-2021 14.2.13		
	11 5.0.13 25m 3.0h	GB50156-2021 14.2.14		
	12	GB50156-2021 14.2.15		
	13	GB50156-2021 14.2.16		
	1	GB50156-2021 14.3.1		

5-8

	1			
	2			
	3 “ ”			
	4			
	5			
	6			
	7			
	8			

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17

18

19

5-9

5 5

正体隠せ

1

7.

GB50156-2021

1.

GB50058-2014

1 0

2 1

3 2

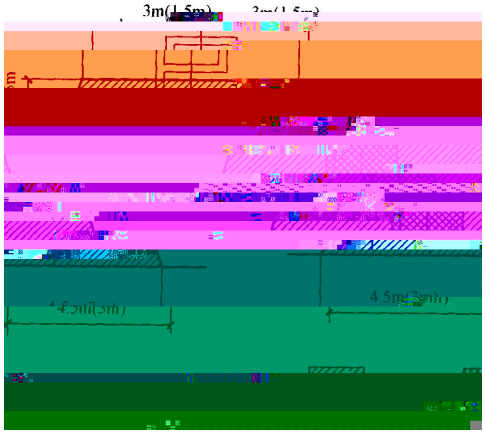
2. 1

3. 1

1 1

2 4.5m

0.15m 3m 2



1

4. 2

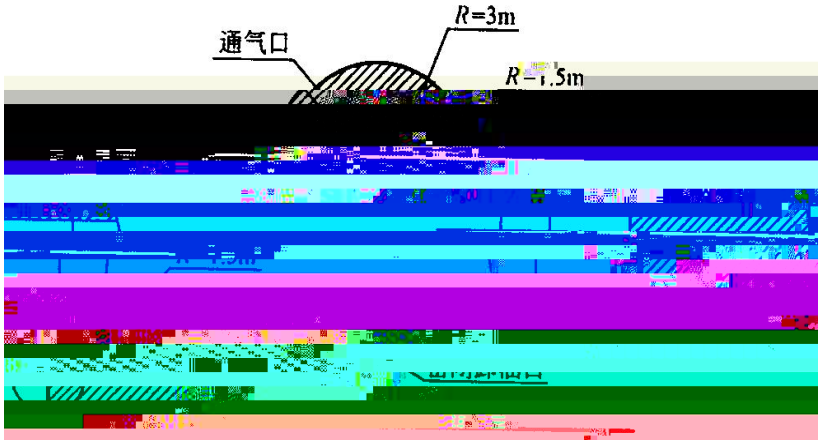
1 0

2 1.5m 0.5m

1

3 3m

1.5m 2



2

5. 3

1 0

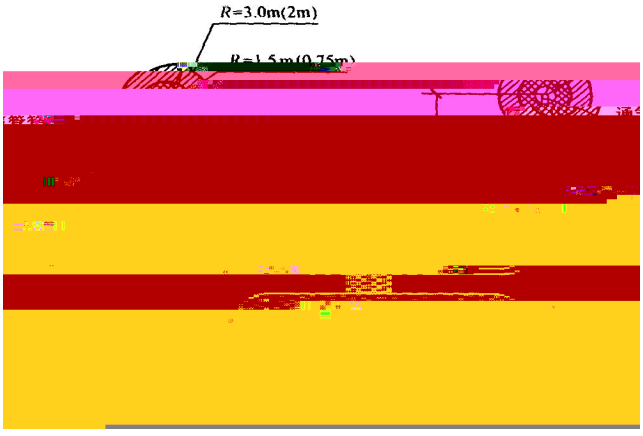
2 1.5m 0.75m

0.5m 1

3 1.5m 1m

3m 2m 1.5m

2



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