

INDEX

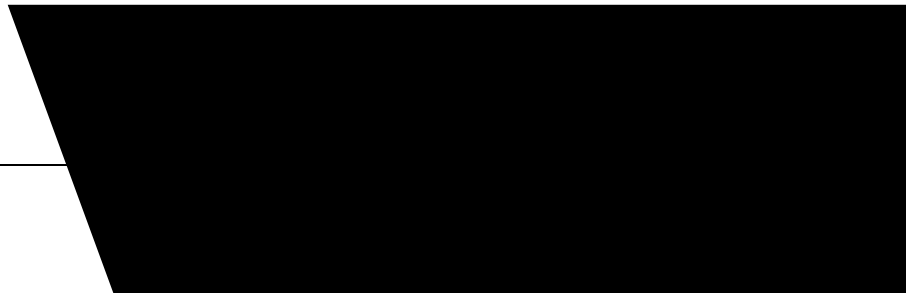
	.....	3
1.1	.....	3
2	.....	4
1.3	.....	4
1.4	.....	4
2	.....	6
2.1	6
2.2	6
2.3	7
2.4	

?

1.1

||

● ●



8	35
8.1	35
8.2	52
9	58
9.1	58
9.2	58
10	59
A	60
B	61
B.0.1	61
B.0.2	61
B.0.3 G·M	61
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C.0.1	62
C.0.2	68
C.0.3	73
C.0.4	74
C.0.5	77
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D	83
D.0.1	83
D.0.2	83
D.0.3	89
D.0.4	89
.....	93

1

1.1

1.2

1.3

1.4

1.4-1

1
2
2.1
42

+

+

2.2

1	1	420m ²	
2		189.98m ²	
3	SF	6	30m ³ SF
30m ³ SF	2		4
GB50156-2021	3.0.9		120m ³
	a a	a "	

5

6

1.6m

4.5m



24h

SF

FRP

FRP



“ ”

2.3.2

d



2.4

2.4.1

25

56.4m 45.4m

13.5m

2F

21.9m 37.4m

2.4.2

1563.87m²

2.4.3

2 30m³

SF

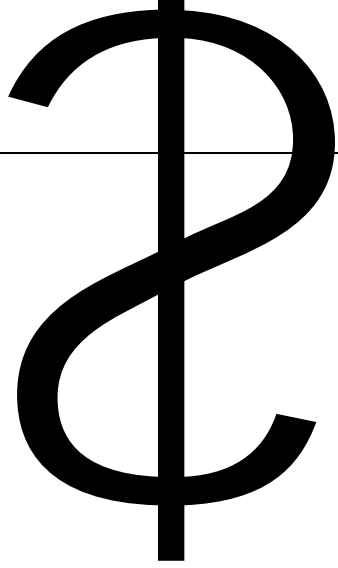
4 30m³

SF

180m³

2.5

2.5.1



5min

†

6m

6.2m

8.1m

8.1m 8m 18.8m

4m

14.7m

2.6

2.6.1

1

5m³/d

0.28m³/h

0.56m³/h

1.0MPa

PP-R

S3.2

2

5

2.6.2

220/380V

TN-S

ZRYJV-1KV

(SC)

ZRBV-450/750V

NHBV-450/750V

UPS

2.6.3

SF

2.6.4

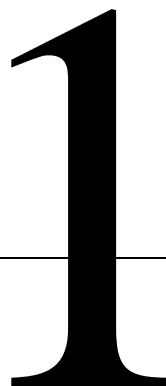
1

2

3

2.6.7

13	1	-	-		
14	1	STC-1	-		
15	1	-	-	1	1 8



3

3.1

2015

3.1-1

3.1-1

				CAS		UN				
1		2*								
		1B								
		2								
		1	3	86290-81-5	1630	1203		-46	AT3	
		-								
		2								
		-								
		2								
2			3							
			3	68334-30-5	1674	1202		>45	AT3	
1										
2										
3										
4										
5										

3.2

3.2-1

3.2-1

6					
7					
8					

3.4 “ ”

C

5

5-1

5-1

1			
2			
		G.M	
3			
4			

6

6.1

6.1-1

6.1-1

6.2

6.2.1

6.2-1

6.2-1

	t						
	45t						
	106.8t						

$$\begin{aligned} &= \quad = \quad \times \quad = 60\text{m}^3 \times 0.75\text{g/cm}^3 = 45\text{t} \\ &= \quad \times \quad = 120\text{m}^3 \times 0.89\text{g/cm}^3 = 106.8\text{t} \end{aligned}$$

6.2.2

6.2-2

6.2-2

						Q_{TNT}
1			45000kg	$43.0 \times 10^3 \text{kJ/Kg}$	$1.935 \times 10^9 \text{kJ}$	34.97kg
			106800kg	$42.8 \times 10^3 \text{kJ/Kg}$	$4.571 \times 10^9 \text{kJ}$	16.14kg

6.3

6.3.1

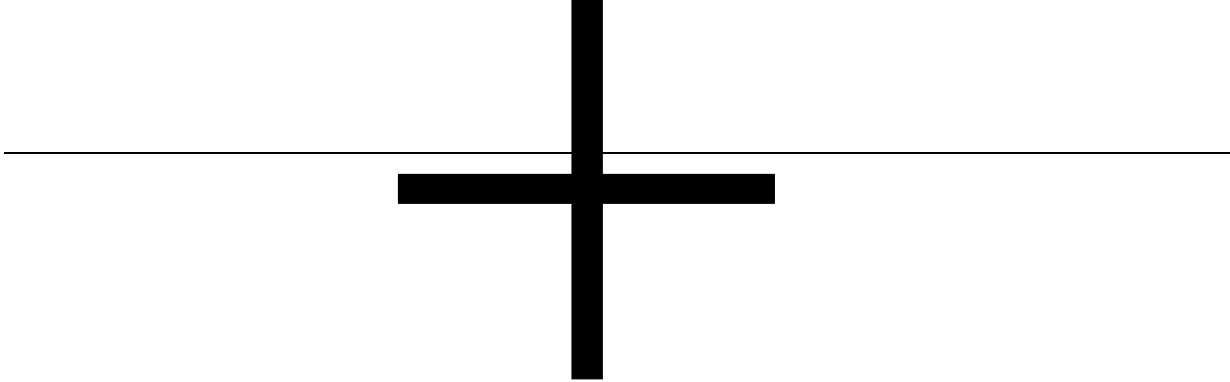
6.3.2

/

0.24mJ

1

1m



6.3.3

I

G·M

SF

30m

J

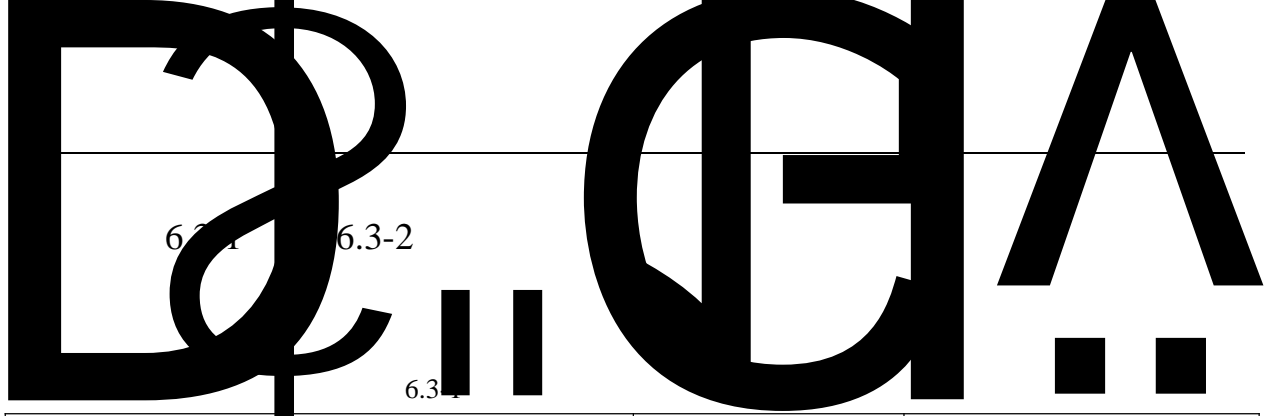
A

W g " : "

$\theta < \epsilon$



Q_{TNT}



6.3-1 6.3-2

6.3-1

P MPa		P MPa	
0.02 0.03		0.05 0.10	
0.03 0.05		>0.1	

6.3-2

P ₀ /MPa	P ₀ /MPa
0.005 0.006	0.06 0.07
0.006 0.015	0.07 0.10
0.015 0.02	0.10 0.20
0.02 0.03	0.20 0.30
0.04 0.05	

0.015 0.02		12.54 11.49	0.10 0.20		7.06 5.64
0.02 0.03		11.49 10.13	0.20 0.30		5.64 4.97
0.03 0.05		10.13 8.69			

2

6.3-3

6.3-4

0.02MPa

0.005MPa

11.18m

17.75m

7

7.1

7.1.3

fl "

8

15.0cm

1.17m

7

0.10g

1

7

7

2

—

10^6V/m ,

b



—

23.4d

3

658mm

15cm

4

7.2



		95%	
3			
4			
5			
1			
2		SF	
3		5kg 35kg 2m ³	14 2 5
4			A
5			
6			
7			
8			
9			

7.3

8

8.1

8.1.1

8

GB 50156-2021

5.0.11

9 m\$, m\$

GB 50156-2021

5.0.12

2.2m

4.0.4~

4.0.8

1.5

25m

E•BñAî Q→2005C E•v0 Di

0

W# ăš'ĐKà YDBY..

↓ ↓

0'425

L



2	6.1.5	-
		-
	SH/T 3178	
3	6.1.9	
4	6.1.10	
	80mm	4mm
5	6.1.11	
6	6.1.12	
	0.5m	
7	GB 50156-2021	
6.1.13		
8	6.1.14	
9	6.1.15	

90%

95%

10 6.1.16

2

1 6.2.2

50L/min

2 6.2.3

3 6.2.4

4 6.2.5

5 6.6.2

3

1 6.3.1

2 6.3.2

3

6.3.3

4

6.3.4

100mm

5

6.3.5

6

6.3.6

7

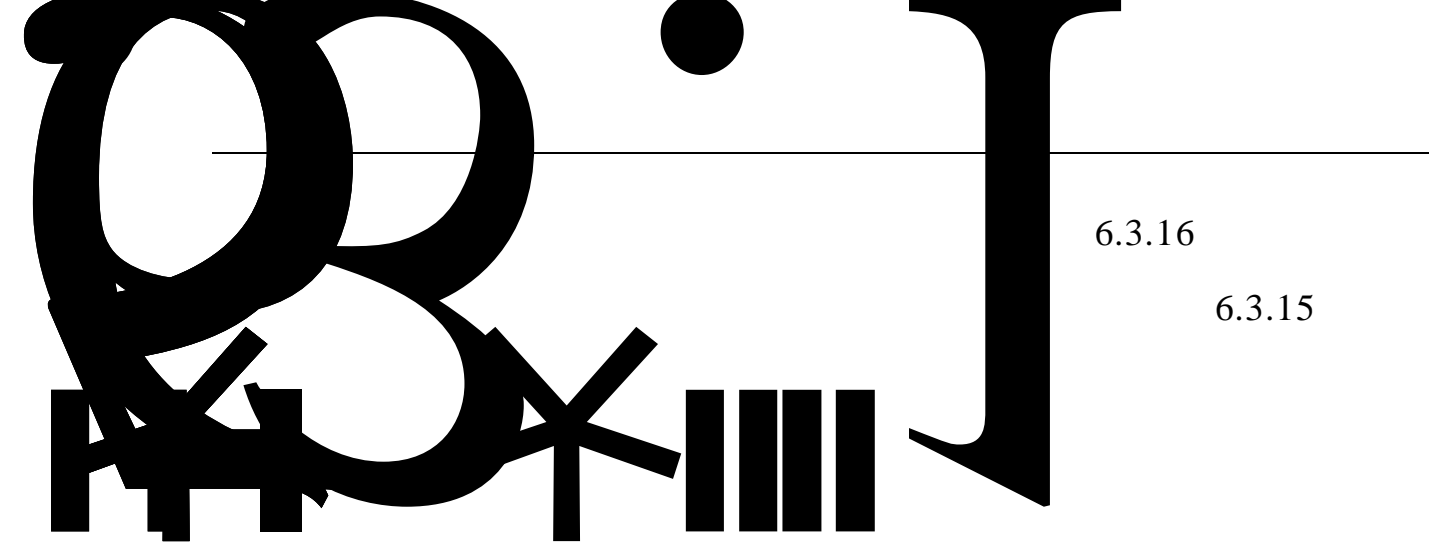
6.3.7

1

50mm

1.0 1.2

25mm



6.3.16

6.3.15



1

12.1.1

2

2 5kg

1 5kg

1 6L

2 2

1 35kg

15m

5 2m³

2

12.3.2

0.25m

0.25m

3

12.3.3

1

1

13.1.1

2

13.1.3

90min

3

13.1.5

4

13.1.6

5

13.1.7

GB50058

6

10

4.5.5

11

3.2.5

3.2.5

12

5.3.2

100mm

50mm

100m

100mm

50mm

2

1

13.2.1

2

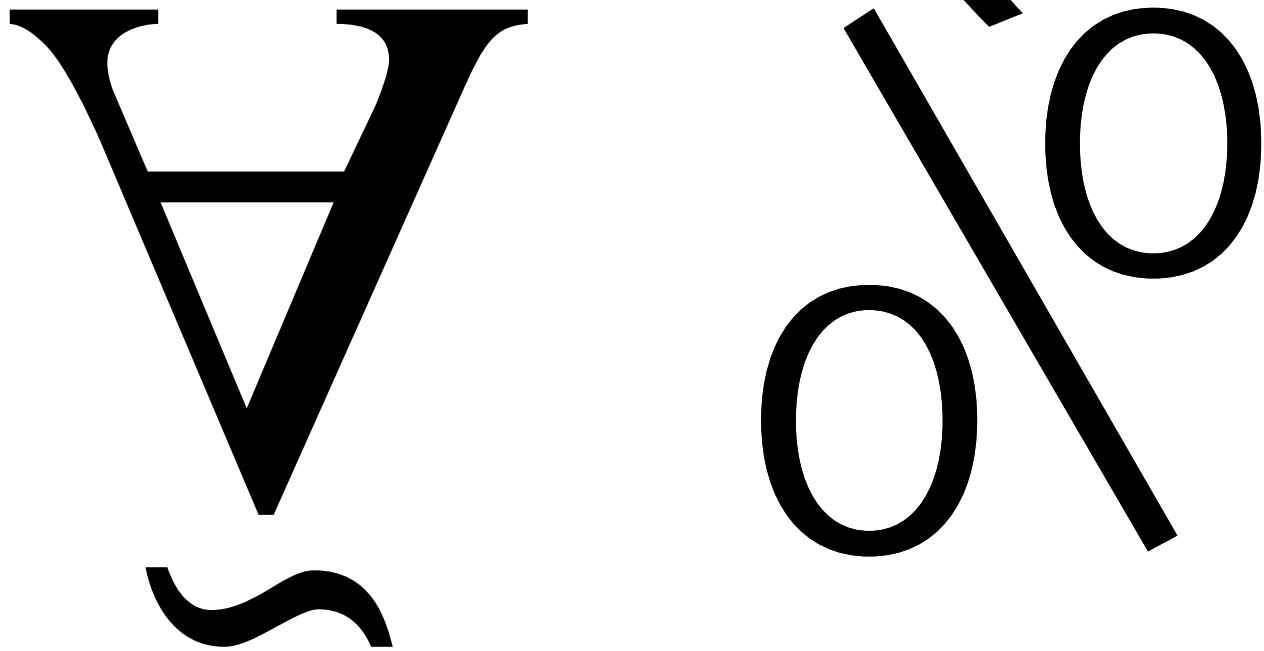
13.2.2

4

1 .2 1 13.2



W %



30

10 13.2.11

11 A B 13.2.12

5

12 13.2.13

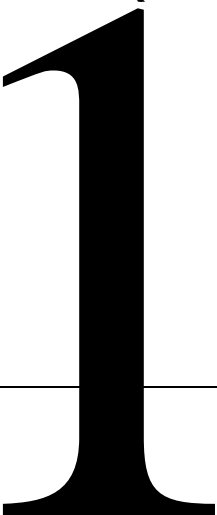
13 И - - 13.2.14

14 13.2.15

100

15 13.2.16

— # 0 0xв0 λb0x00d, jλ





3

6

4

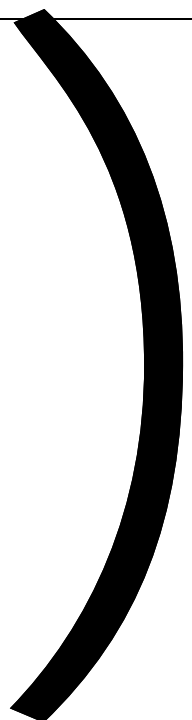
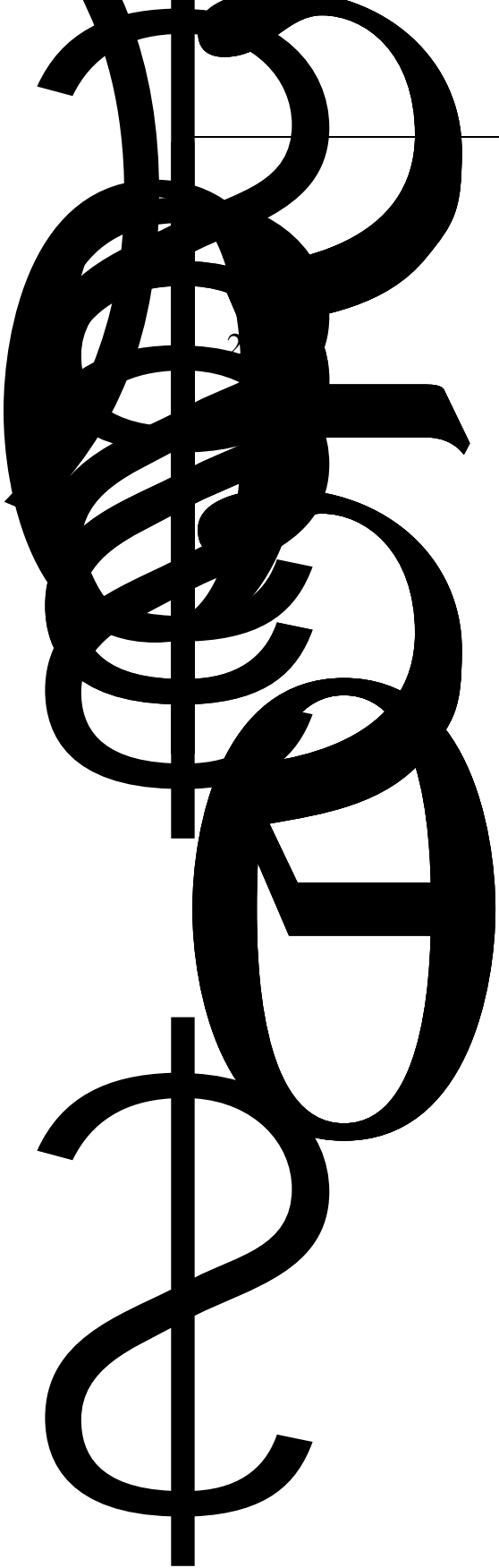
13.5.2

1

l i \$(X1p \$)2,\$\$q3E

5

7-PÄ 7 ¼ 0000P P 97#s% 11Pis@D pa." 5, \$



14.1.5

			0.6m	
4			GB 50156-2021	14.2.4
			GB 50016	
5			14.2.7	
		14.1.4		
6			14.2.9	
7			14.2.10	
			300m ²	
8			14.2.11	
		B		
			GB50016	
9			14.2.12	
3h				
10			14.2.14	
				5.0.13

25m

3.00h

11 14.2.15

12 14.2.16

13 14.3.1

14 9.1

8.2

1

2 15.1.1

3 15.1.5

4 15.1.6

5

15.2.1

6

15.2.9

GB 50517

11

15.7.1

GB 50171

12

15.7.2

GB 50168

13

15.7.3

GB 50303

14

15.7.4

GB 50169

0.6m

% \$ %

19 15.7.9

20 15.7.10

300mm

21 15.8.4

5 80%

22 15.8.5

18.5m

23 GB 2894-2008 9.1

24

25 4.4
GB/T2893.5 GB2894 GB13495.1 GB15630

26 4.5

27 5.1.6

28

9

9.1

9.2

1

2

GB50156-2021

3

10

A

C

C.0.1

C.0.1.1

			2*			1B	
	2		1	-		2	
-		2					
			1630	UN	1203		
			E10	(GB18351-2017)		E10	
			(RON)	92	95	98	3
=1	0.70	0.80		=1	3	4	-46
1.3	7.6%		415	530			0.813MPa

:

GB 7231

5

15min

50m

300m

Ä
å ; ü ð ð • ð 0 Q B 7 •

F

Ä

ž

3

6					
7					
8					

C.0.2.1

1

70m

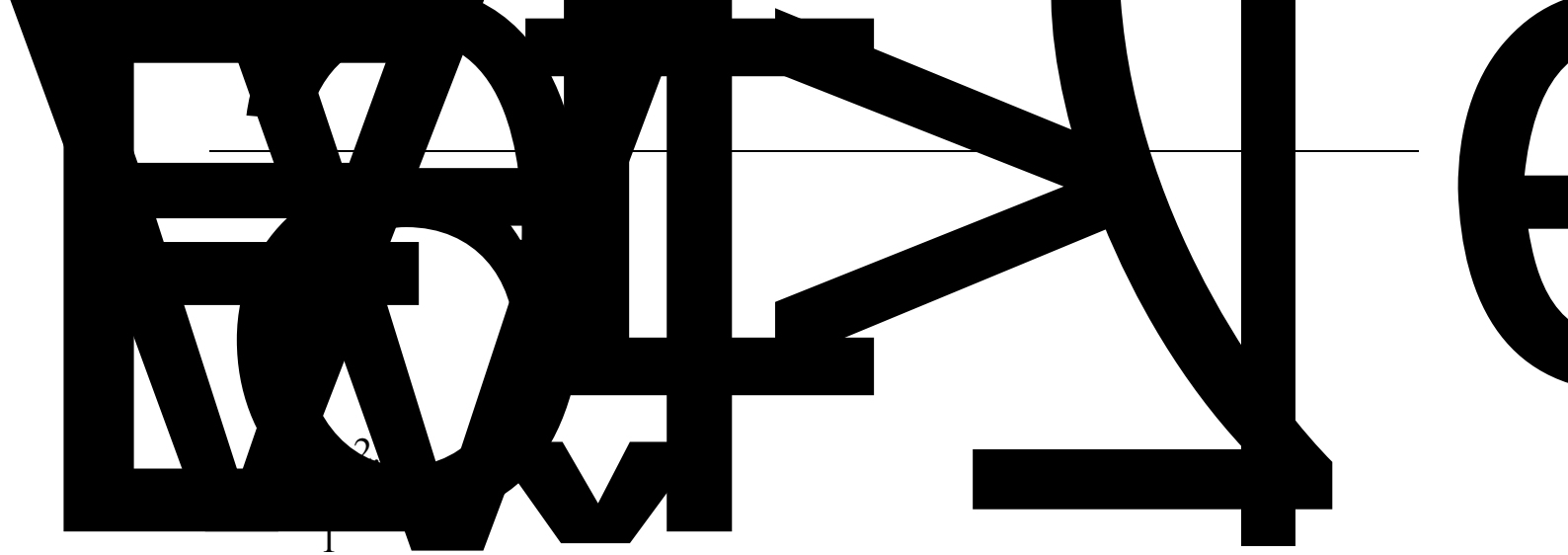
6

46

2

XX X X

XX X X



2

1



2

C.0.2.3

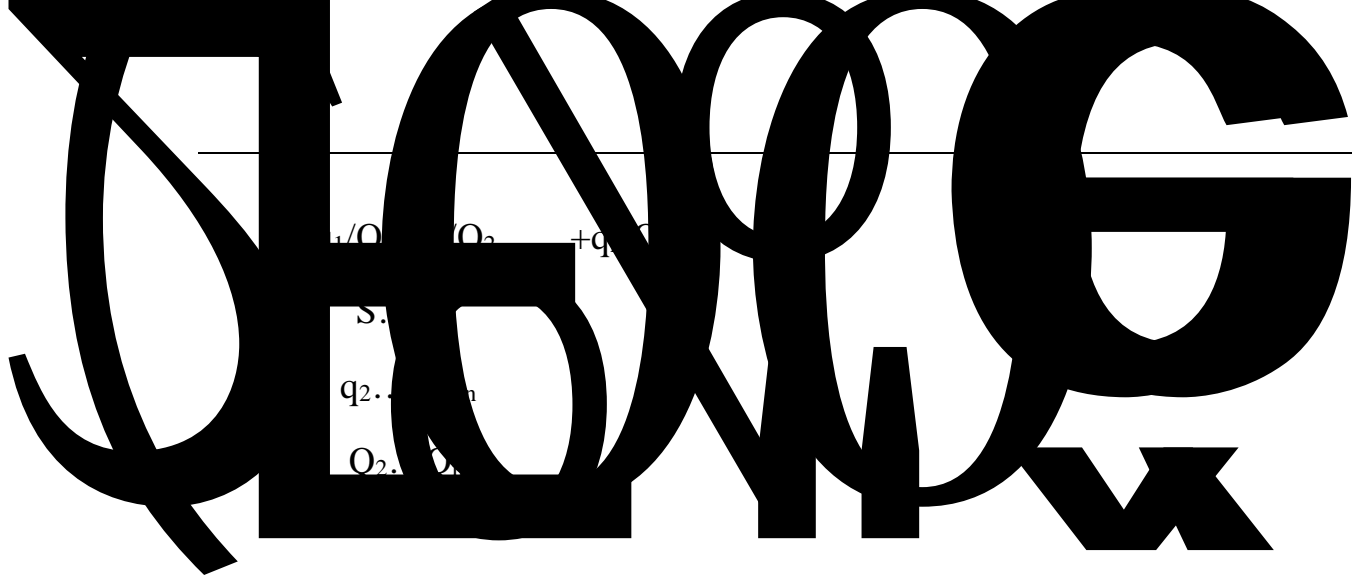
C.0.2.4

C.0.2.5

C.0.2.6

C.0.2.7

1



1

200t

60m³

0.75

45t

5000t

120m³

0.89

106.8t

$$45/200+106.8/5000=0.24636<1$$

C.0.4

C.0.4.1

1

2004 1

2001 3 18 13 15 xx

20m

2

“ ”

C.0.4.4

1

2

3

4

C.0.5

GB 50156-2021

C.0.5-1

	1	GB50156-2021 3.0.4		
	2 L-GNG GB50156 3.0.17	GB50156-2021 3.0.17	30m ³	
	3	GB50156-2021 3.0.25		
	4	GB50156-2021 3.0.27	8	
	1	GB50156-2021 4.0.1		
	2 GB50156 4.0.4	GB50156-2021 4.0.4	2.4-2 2.4-1	
	3	GB50156-2021 4.0.13		
	1	GB50156-2021 5.0.1		
	2 6m 4m	GB50156-2021	8.4m 10m	

				8%	5.0.2		
					GB50156-2021 5.0.8		
				300m ²	GB50156-2021 5.0.9		
				4.0.4	GB50156-2021 5.0.10		
				” “ ” “			
					GB50156-2021 5.0.11		
				2.2m			
				4.0.4 1.5 25m	GB50156-2021 5.0.12	4.0.4	
						1.5 25m	
				4.0.4			
				8 GB50156 5.0.13-1 5.0.13-2	GB50156-2021 5.0.13	2.5-5 2.5-1	
				9 C	GB50156-2021 5.0.16		

C.0.6

C.0.6-1

C.0.6-2

C.0.6-1

C.0.6-2

(<PHA>)

1

2

5

(1
2
3
4
5
6)

30mA/S

		2		3 4			2 3 4
		1 2 3		1 2 3			1 2 3
		1 2		1			1

D

D.0.1

1
2021 9 1 %
2 2021
4 29
3
2024 11 1

5 T di VB.C o.º OEb ºº K ºº J e B W.º 3

4

Q D s0, @

dÄS / d7 ä

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&

&

30

12

14 34 2025 5 29

13

[13] 103 2022 11 9

7 **D.0.2**

1 2015

7

2015 2 5

2022

8 7 2023 1 1

2

45

79

2015 5 27

3

55 2015

7

10

16

2019 62 2019 12 26

26

<

>

2020 38

2020 10 23

27

b

2020 3 261 1 2020 13 28 5 30

Ø

28

(2011 \$a "

\$

2022 8 2023 1 1

42

13861-2022

17 (GBZ/T 230-2010)

18 GB/T 50610-2010

19 GB 50057-2010

20 GB 6944-2025

21

GB 50171-2012

22 GB 50009-2012

23 GB 50343-2012

24 GB 12268-2025

25 1 GB/T

30040.1-2013

26 2 GB/T

30040.2-2013

27 3

GB/T 30040.3-2013

28 4

GB/T 30040.4-2013

29 5

GB/T 30040.5-2013

30 6

GB/T 30040.6-2013

31 7

GB/T 30040.7-2013

32 GB 50058-2014

3
S/T 3178-2
34
-20

3 1 8 0

32
3

3 1 8 0

91



50

AQ 8001-2007

D.0.4

1

2005 4

2

C

1	1	
2	2	
3		
4		
4	1	
5	1	
6		1