



2014

90

"

"

"

"

AAA

100

MF

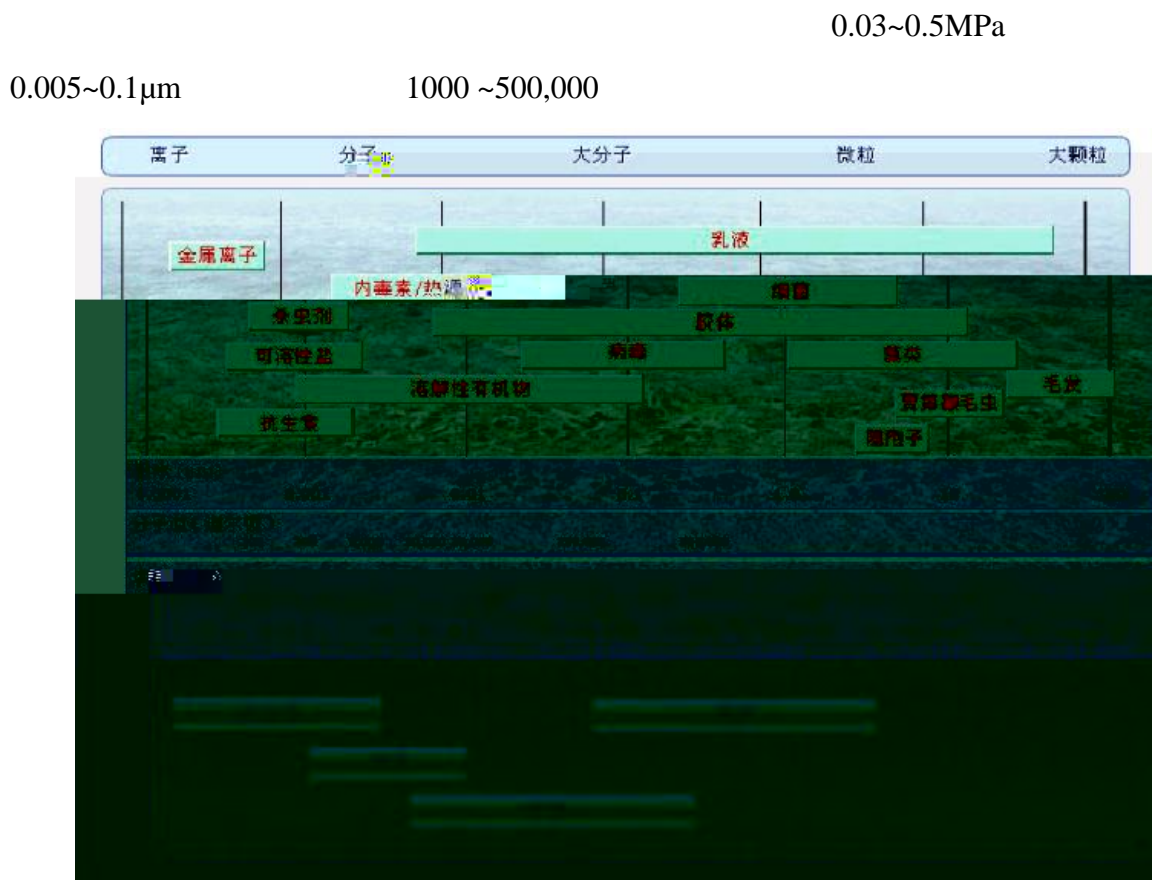
UF

2000

2.1	.....	2
2.2	.....	3
3.1	.....	5
3.2	.....	13
3.2.1	.....	13
3.2.2	.....	13
3.3	.....	14
3.3.1	.....	14
3.3.2	.....	14
3.3.3	.....	15
4.1	.....	16
4.1.1	.....	16
4.1.2	.....	16
4.2	.....	16
4.2.1	.....	16
4.2.2	.....	17
4.3.3	.....	17
5.1	.....	18
5.2	.....	20
5.3	.....	20
5.3.1	.....	20
5.3.2	.....	21
5.3.3	.....	21
5.4	.....	21
6.1	.....	24
6.2	.....	24
7.1	.....	25
7.2	.....	25
7.3	.....	25
7.4	.....	26



7.5	.....	26
		..
1	.....	28
2	.....	29
3 ZC	.....	30
4	.....	31

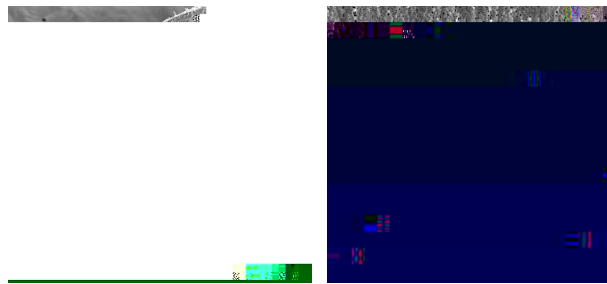


1 PVDF PVDF PVDF PES
PVDF PVDF ZC

2

ZC

PVDF



a.ZC

b.ZC

2-1 ZC

3

ZC

PVDF

<60°

4

ZC

0.02μm

5

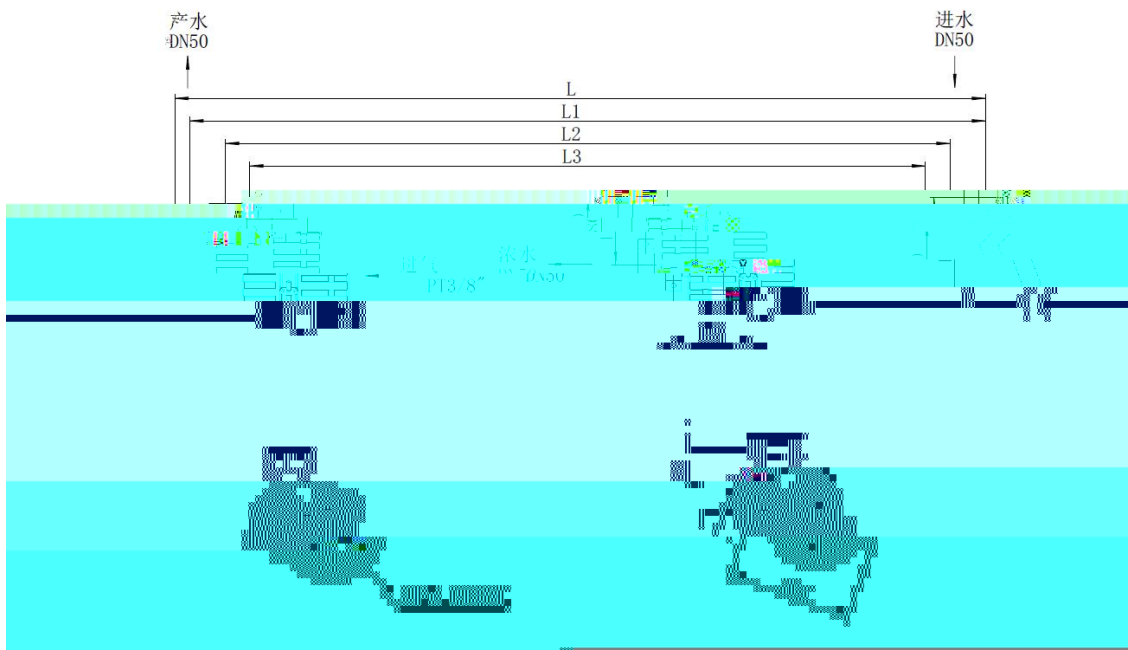
ZC

6

7

2-2 ZC-8

2-1 ZC-8



mm

						D
		L	L1	L2	L3	
ZC-8051-B	mm	1860	1820	1630	1500	225
ZC-8077-B	mm	2360	2320	2130	2000	225

2



ZC

	×H	mm	225×1860	225×2360
		-	PT3/8"	
		-	PVDF	
		-		
		-	UPVC	
		NTU	300	
		MPa	0.30	
			40	
	pH	-	2 12	
		-		

UF

UF

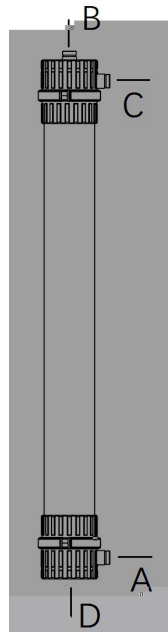
60%

3-1 A B C D

3-1

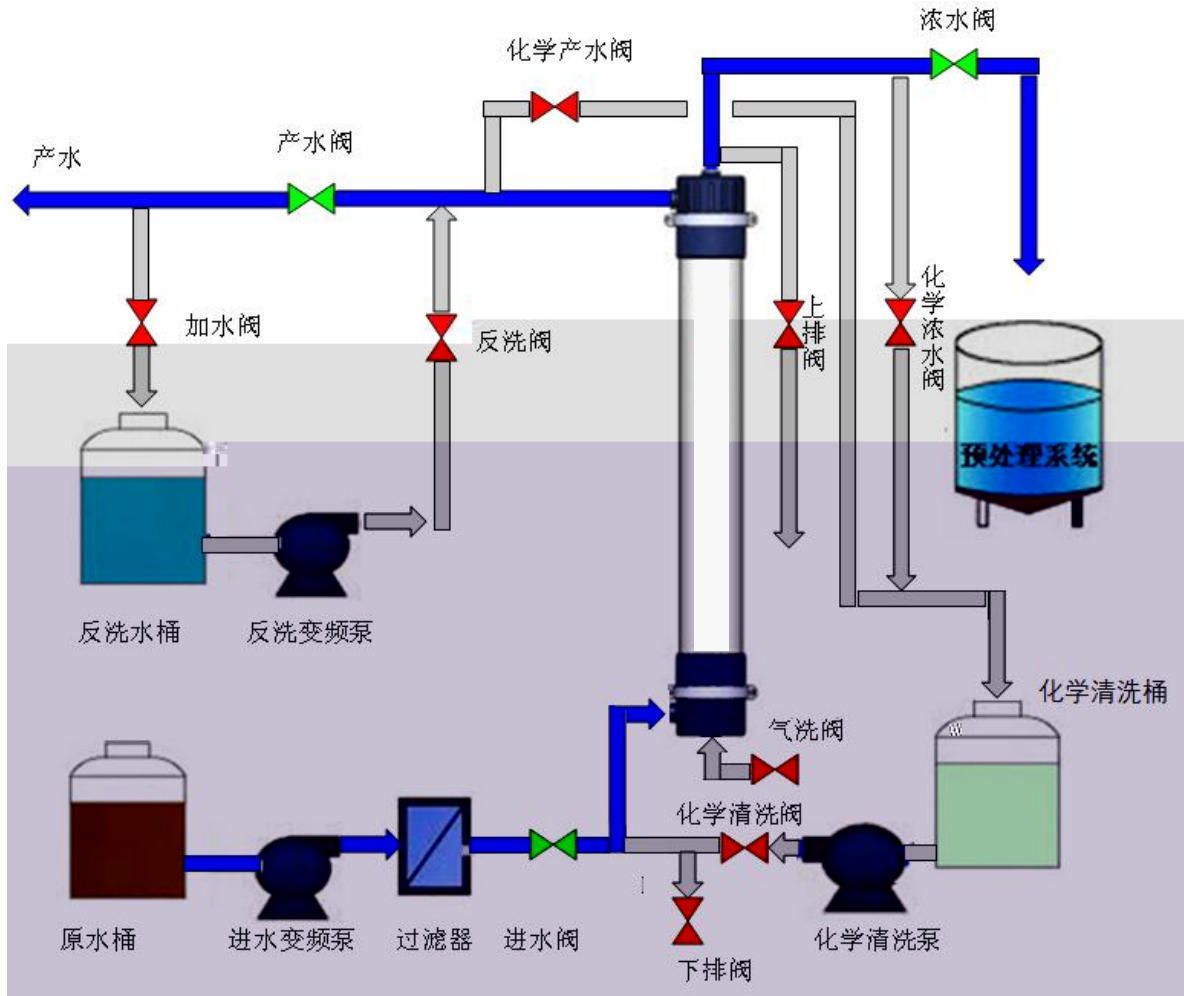
1		A B C	
2		C B	
3		D C B	
4		A	
5		A B	
6		A B	
		A C	

A D



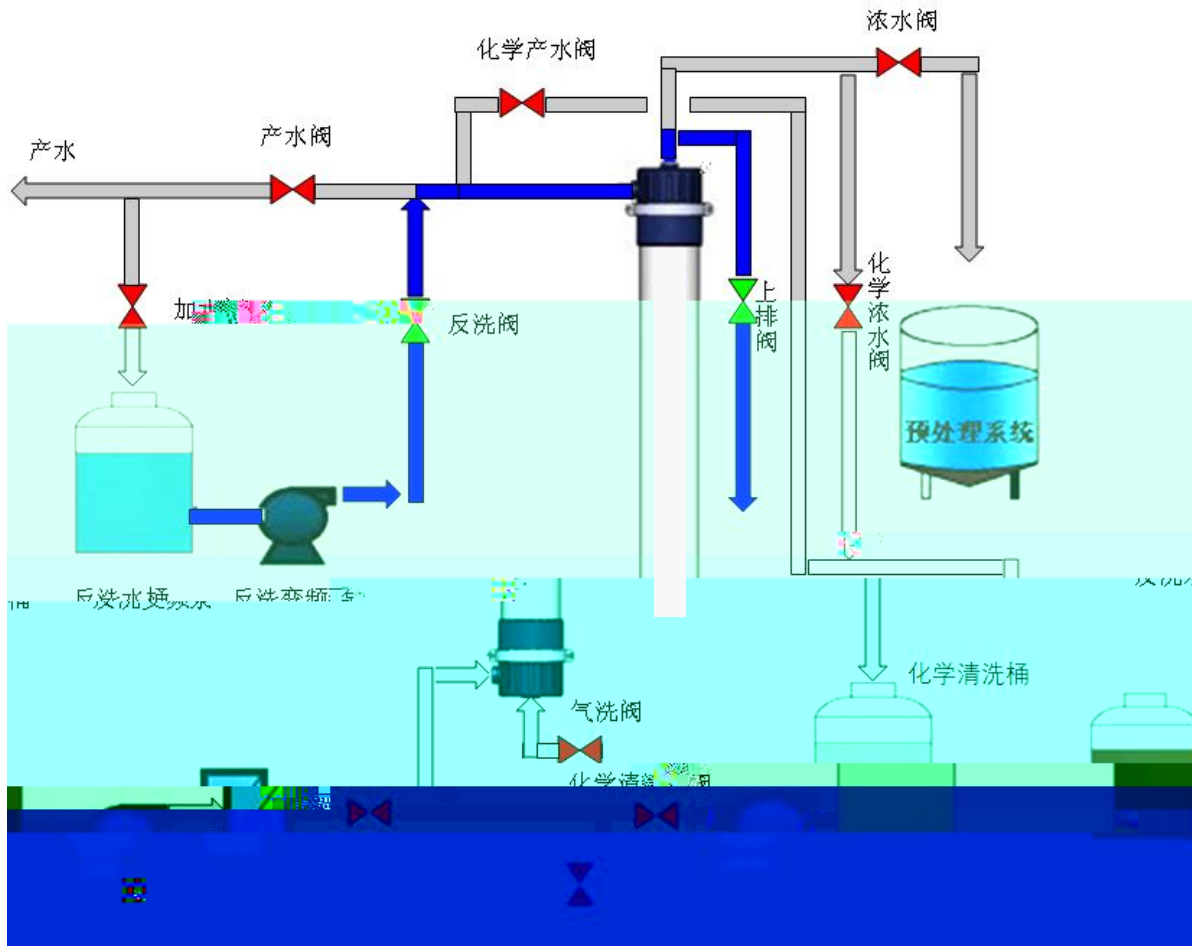
3-1

60min



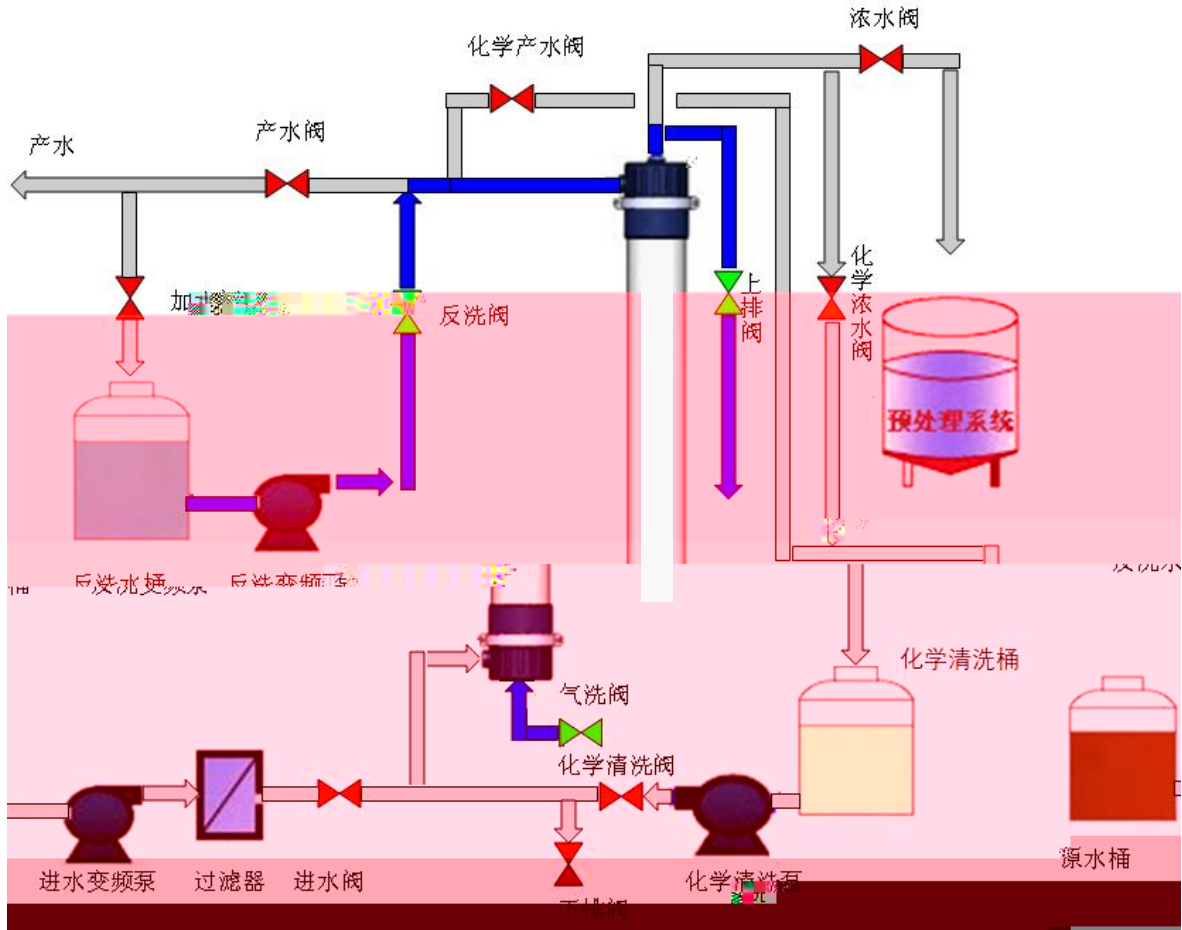
3-2

20 60s

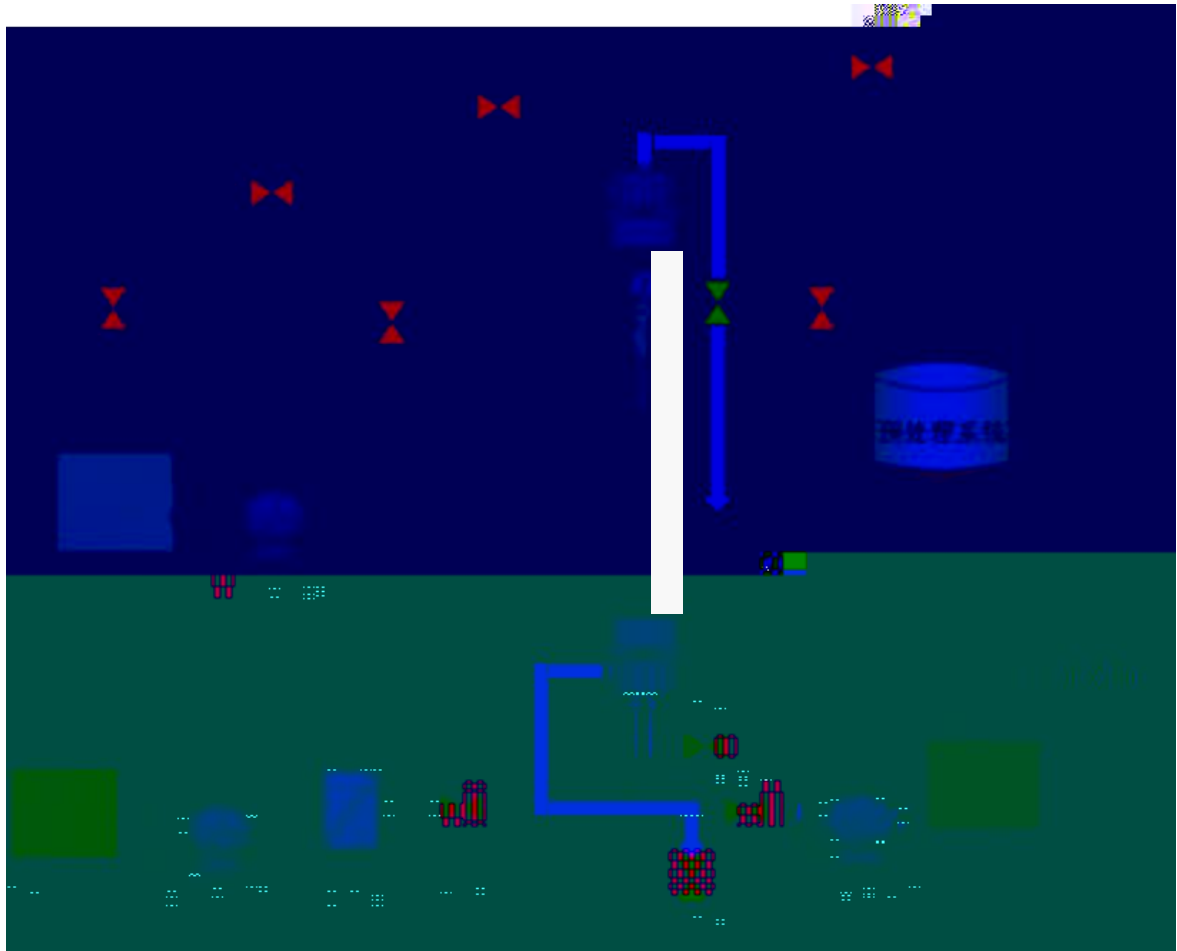


3-3

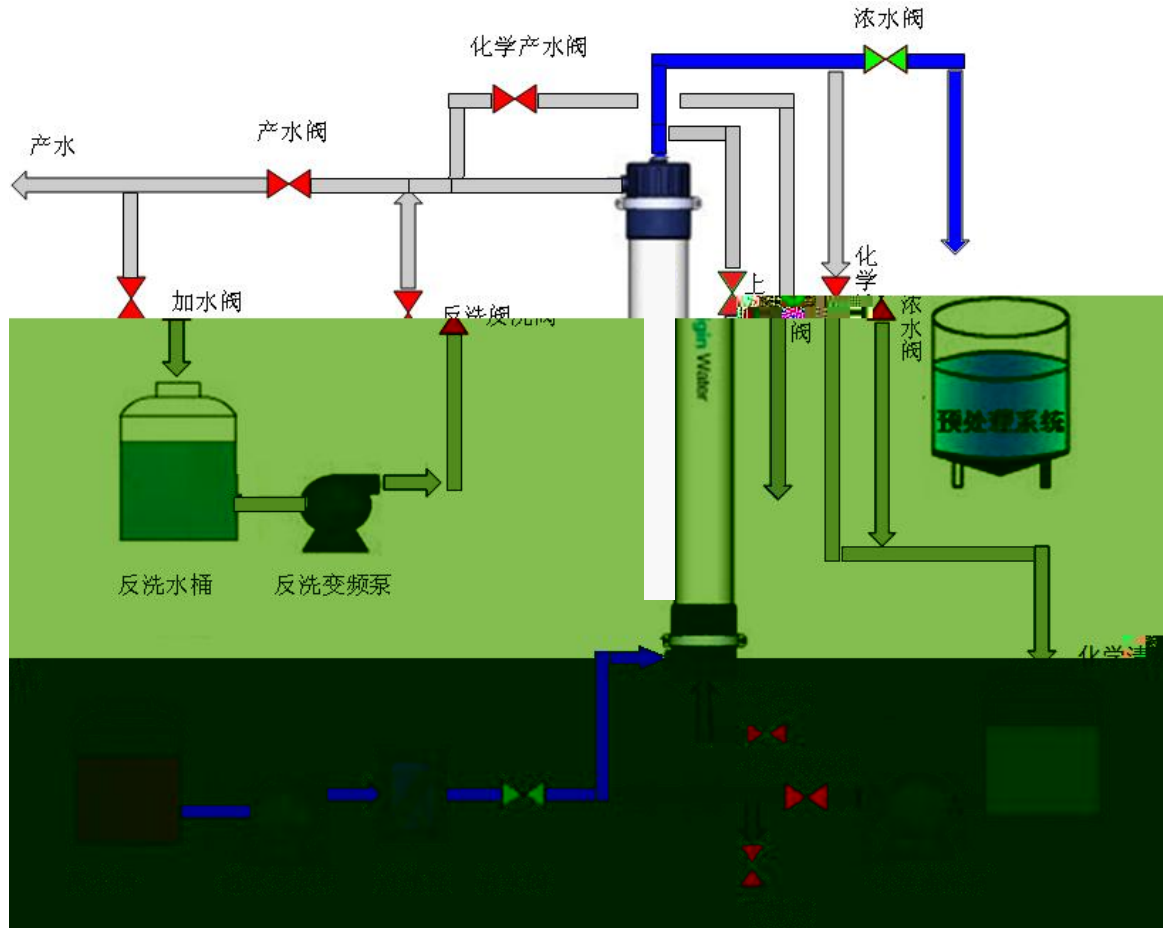
20 60s



3.4 -

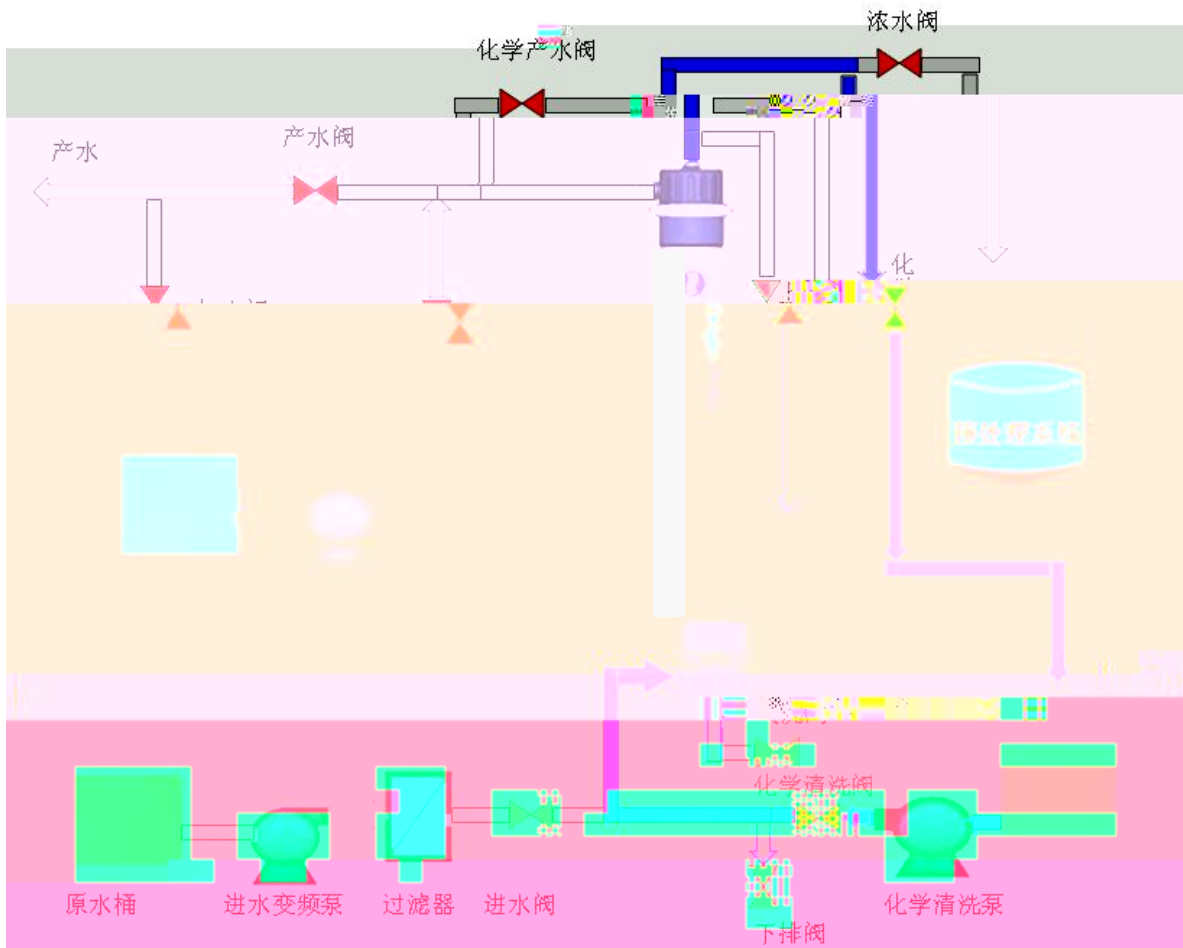


3-5



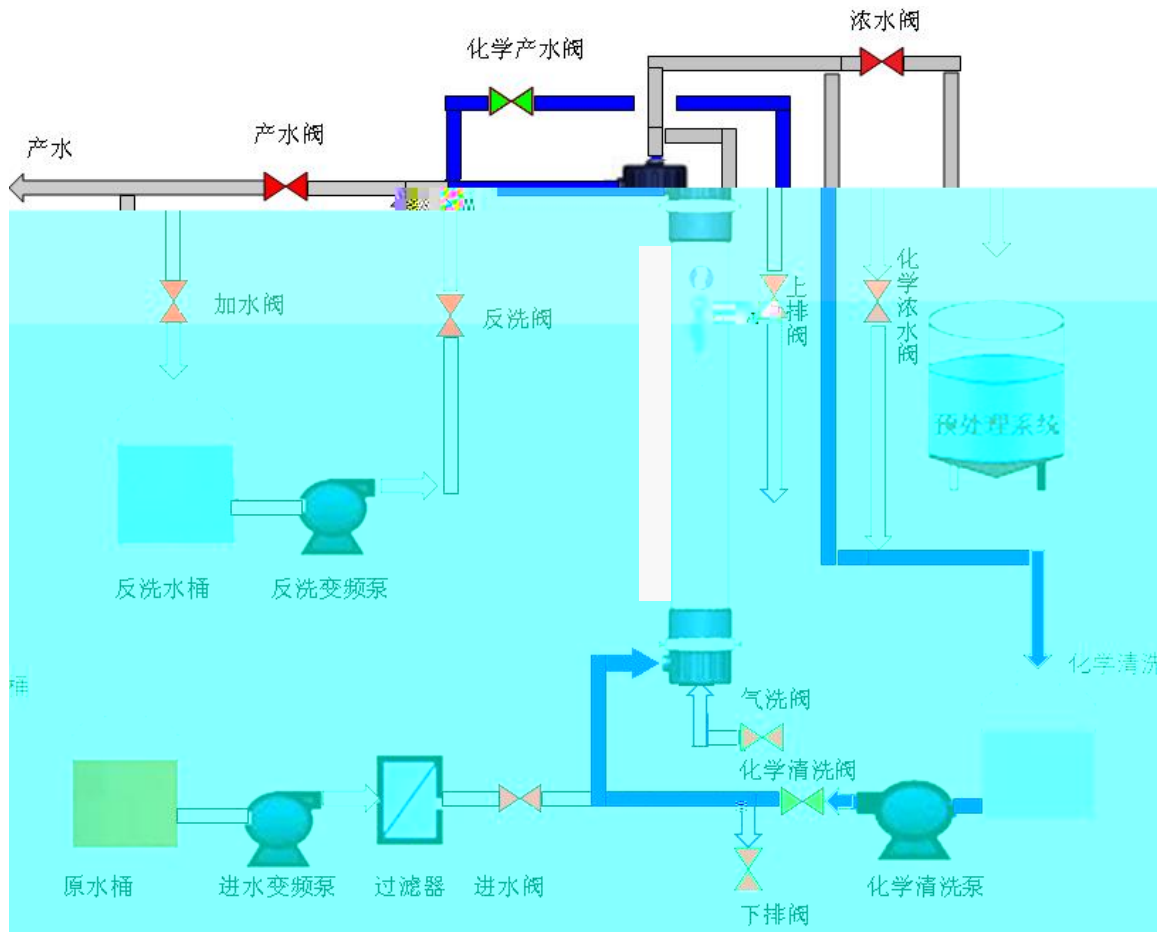
3.6

30 60min



3-7

30 60min



3-8

1	28.5	58.5min												
2	0.5min													
3	0.5min													



ZC

4	0.5min													
5														
6														
7														

3.2.1

	GB8978-1996
	500µm TSS 100mg/L
	<2 mg/L
pH	2 10
	40
	<0.2NTU 0.1NTU

3.2.2

		50 100L/m ² ·h
		30 150kPa
		200kPa
		300kPa
		10% 30%
		24 48 /
		150kPa
		0.5 1.5
		8 12Nm ³ /h
		30 60min
	CEBW	
		50min
	CEBW	1 /1 3 /
	CEBW	1 /1 3 /
	CEBW	1 2m ³ /
		0.5% 1% 300 500ppm
	CIP	
	CIP	90 180min
	CIP	1 /30 90 /

	1		
Ch	1		
	19%	2%	
	10		
	20	30	

%

3.3.1

1

3 10min

2

#G #G

1				3	5			
			NaClO	ClO ₂				NaClO/NaOH
			EDTA					
2		0.1%		0.2%	NaOH			0.05MPa
20 min	20	40min						
3	NaClO		300	3000ppm	NaClO		40	60min
			NaClO	10%				
4			0.1%	0.3	HCl		40	60min
					HCl		30%	
5		HCl	0.1%	0.3			0.3%	0.05mol/L
pH=1	2		EDTA					0.5%
2%								
							20	30
3.3.3								



4.1.1

1

16mm(M10) 17mm M12 13mm M8

2

3

4.1.2

1

2

3

4

4.2.1

1

2

3

4

1%

NaHSO₃

4.2.2

1

/

2

3

/

4.3.3

1

2

3

4

4

60%

24h

PLC



❖ PLC



❖			0.08MPa
❖			
❖	ZC		0.15MPa
❖			
1			
❖			
❖			
❖			
❖			
2			
❖			
3			
❖			
❖			
❖			
❖		0.2MPa	
4			
❖			
❖		0.1MPa	0.15MPa
❖			
❖			
❖			
❖			

❖ 15

❖

❖

❖

1 2 3d 30 60min

2 7d

1% NaHSO₃

pH pH 3

3

4

5.3.1

1

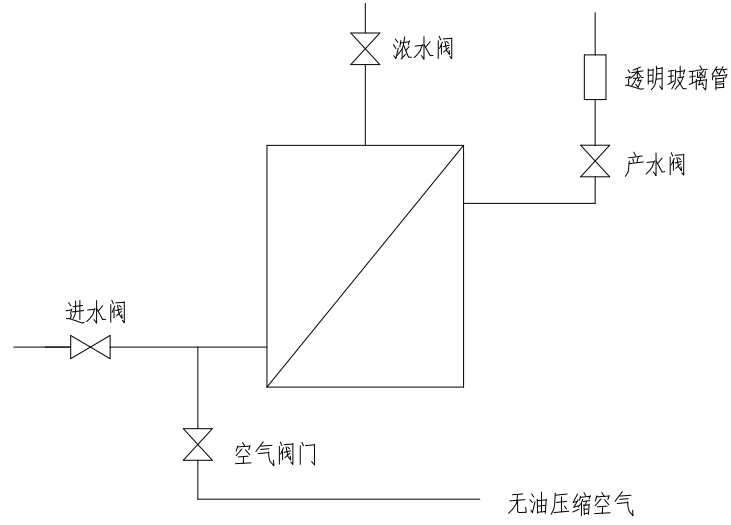
2

3

0

0.1Mpa

0.1MPa



5-1

5.3.2

1

2

0.1MPa

3

3 4min

0.1MPa

10min

4

10min

12kPa

12kPa

5

5.3.3

1

2

3

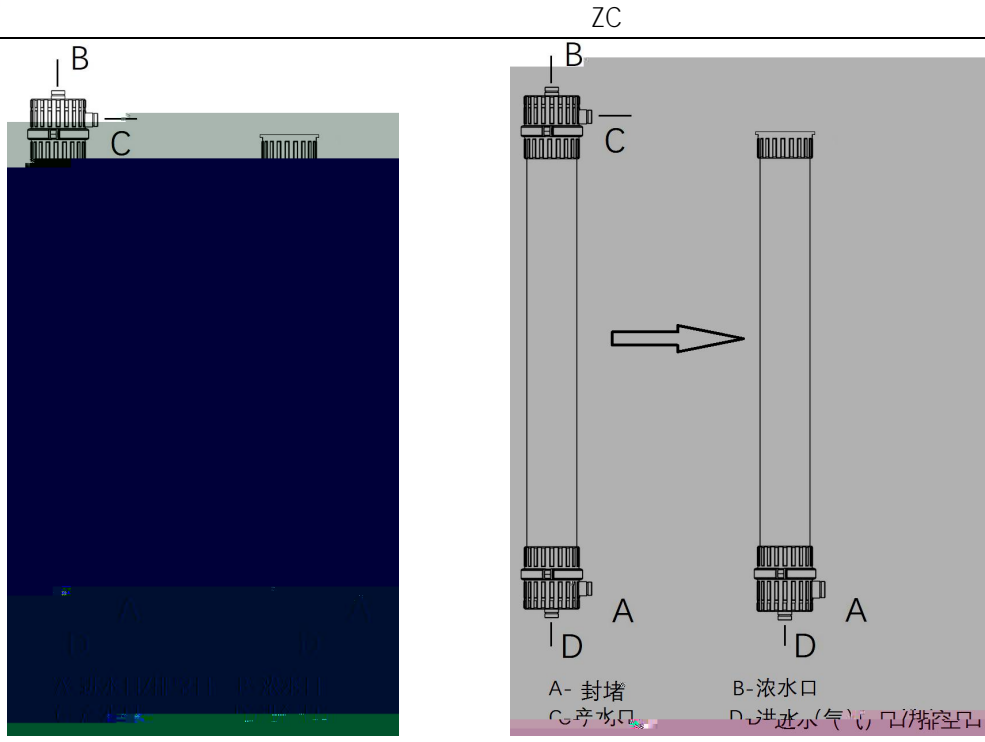
0.05 0.1MPa

4

█ █ 0.05 0.1MPa

0.05 0.1MPa

" &



5-2



•

1 ZC

g

w

12

(

)

:

1	SDI	3	
2		0.1%	
3		0.2NTU	0.1NTU

1

2

3

4

35 (95° F) 0 (32° F)

1

)

(

(

)

2

1

2

3

50%

4

5

TMP

6

6

7

8

9



	PLC	

