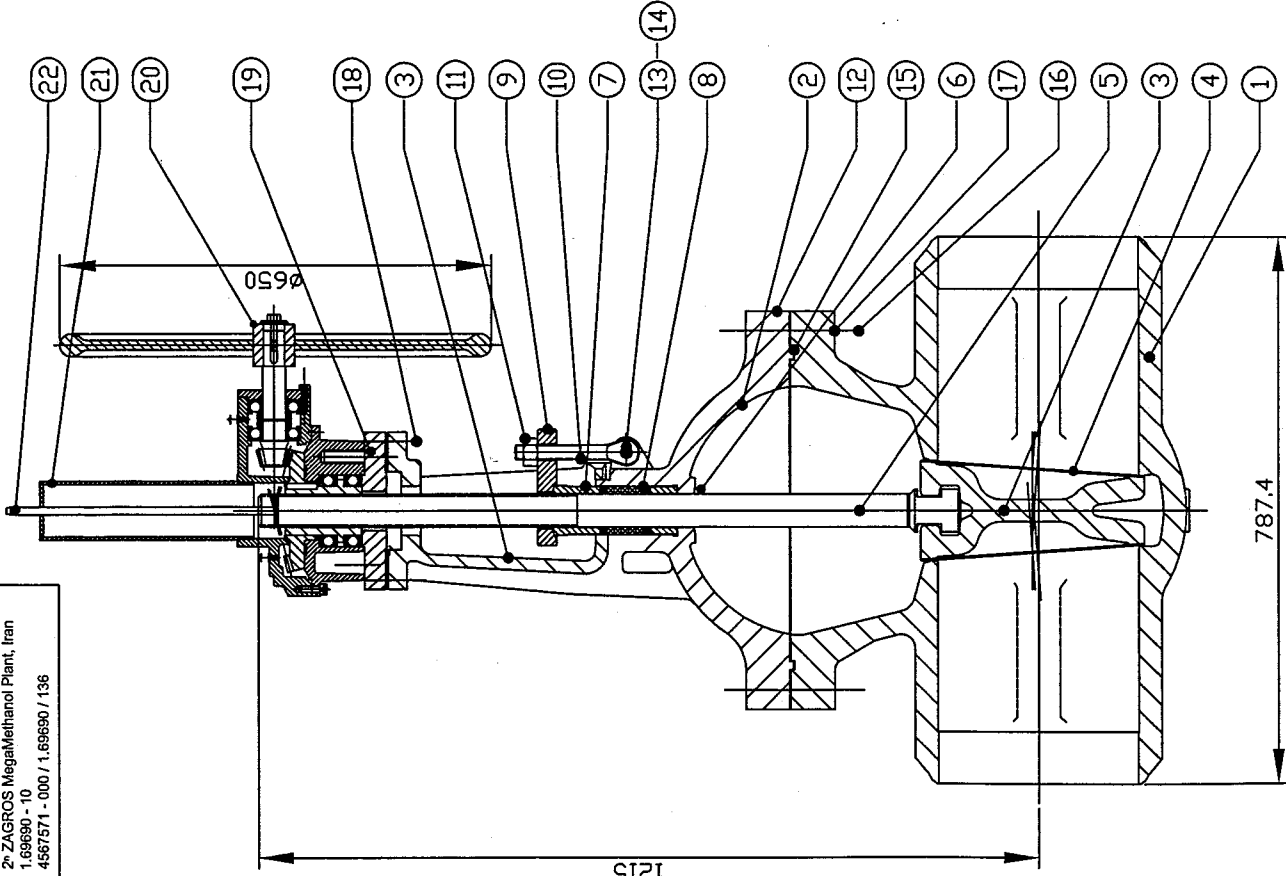


Klaus Union
Client: Lurgi Oel Gas Chemie GmbH
Project Title: 2^o ZAGROS MegaMethanol Plant, Iran
Lurgi Contract - No.: 1.69690 - 10
Lurgi P.O. - No.: 4567571 - 000 / 1.69690 / 136

No.: HH - 02536

1215



Item	CODE	QTY	BW	Sch	W'tkg
00010	S555	2	273 x 4.19		635

DESIGN TO : API 600
BUTT WELDING ENDS : ANSI B 16.25
END TO ENDS : ANSI B 16.10 Long Pattern
SPECIAL : SUITABLE FOR OXYGEN SERVICE
WEDGE : FLEXIBLE
PRESSURE TEMP. : ASME/ANSI B16.34
PRESSURE TEST. : API 598
TEMPERATURE : up to +427°C

MARC	DENOMINATION	PIECES N°	DRAW. N°	MATERIAL
22	Indicator			AISI 304
21	Protector			Carbon Steel
20	Gear Operator			Commercial (Painted)
19	Coupling flange			S275JR Zincated
18	Bolt			A2-70
17	Nut			A194 Gr.8
16	Stud bolt			A193 Gr. B8 CL.2
15	Gasket			UNS N06625+Graphite
14	Nut			A2-70
13	Bolt			A2-70
12	Nameplate			Stainless steel
11	Nut			A 194 Gr.8
10	Eye bolt			AISI 304
9	Gland flange			AISI 304
8	Packing			Graphite
7	Gland follower			UNS N06625
6	Back seat bushing			Integral
5	Stem			UNS N06625
4	Seat ring			Integral
3	Wedge			UNS N06625/ CW.6MC
2	Bonnet / Yoke			UNS N06625/ CW.6MC
1	Body			UNS N06625/ CW.6MC

REVISIONS:

N°	CLIENTE:
12	
11	
10	
9	
8	
7	

Designed
Drawn
Checked
SCALE:

P. Morón
V. Glass
09-07-01
24-11-04
Fecha: 24-11-04
V°B°



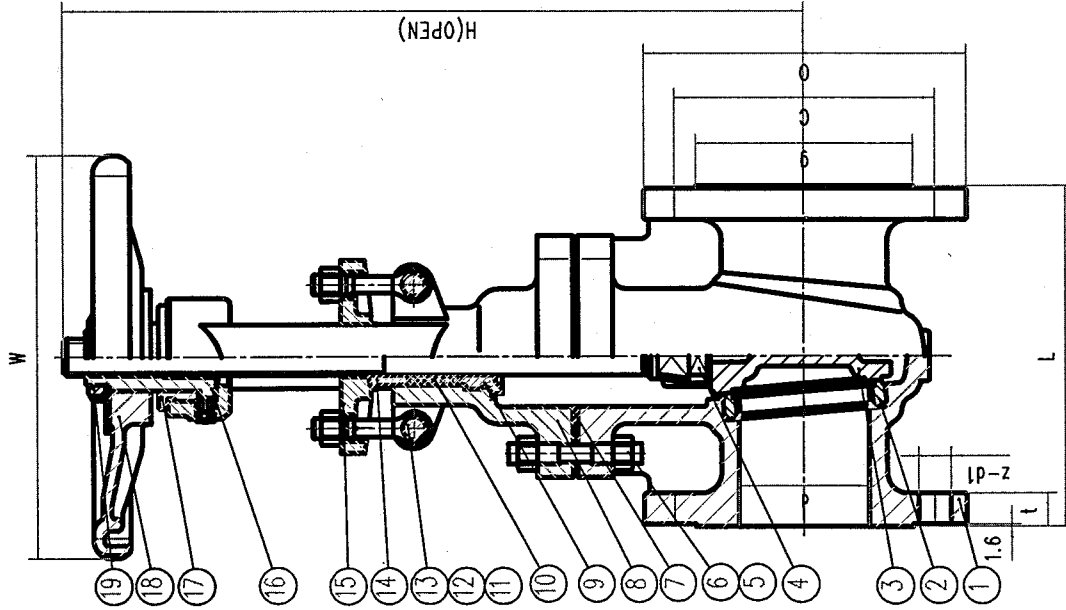
DRAWING N°: 10 Rev.5
Subst. for
Substbyr

GATE VALVE
CLASS 600 L.B. - 10" BW

Klaus Union P.O. - No.: HH - 02536
Client: Lurgi Oel Gas Chemie GmbH
Project Title: 2nd ZAGROS MegaMethanol Plant, Iran
Lurgi Contract - No.: 1.69690 - 10
Lurgi P.O. - No.: 4567571 - 000 / 1.69690 / 136

MAIN PARAMETER SPECIFICATION

- Design and manufacture : API 600.
- Face to face : ASME/ANSI B16.10
- End Flange Dimensions : ASME/ANSI B16.5
- Pressure-Temp : ASME/ANSI B16.34
- Pressure test : API 598
- Wedge : Flexible
- Temperature : Up to +427°C



ITEM	CODE	NPS	General dimensions					Flange dimensions					W't _{net}	Q'ty
			in	mm	d	L	H	W	O	C	g	t	z-d1	
20	S655	2	50	51	178	409	200	152	120.5	92	16	4-#19	20	2

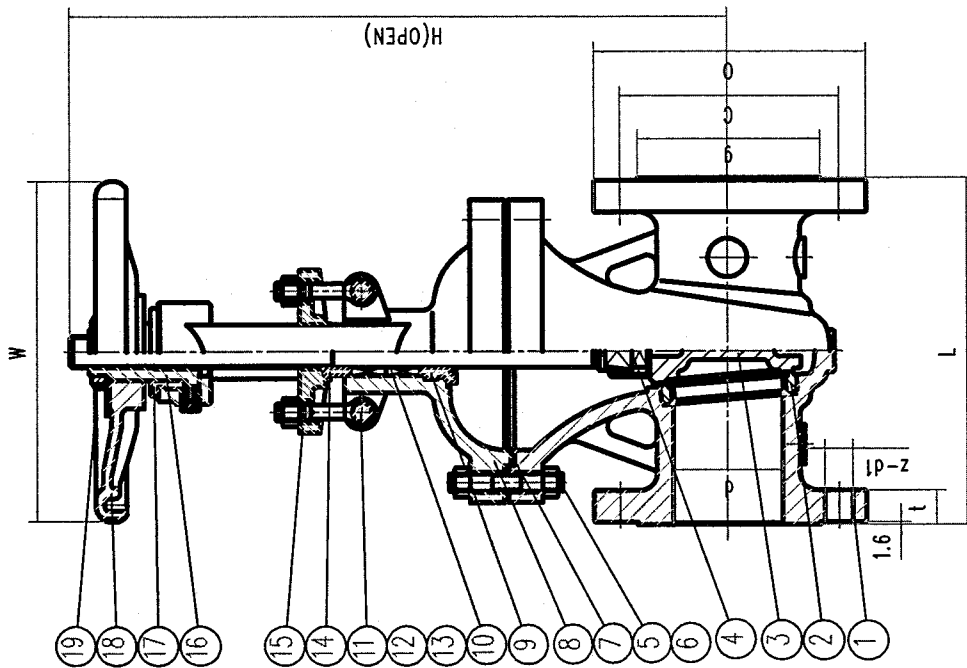
19	H.W. Lock Nut	SS
18	Handwheel	Ductile Iron (Black)
17	Retaining Nut	SS
16	Stem Nut	A439-D-2
15	Gland flange	A351 CF8C
14	Gland	A182 F321
13	Gland Eyebolt	A193 B8
12	Pin	A276 410
11	Gland Nut	A194 8
10	Stem packing	Graphite
9	Backseat bushing	A182 F321
8	Bonnet	A351 CF8C
7	Gasket	SS321+Graphite
6	Bonnet Nut	A194 8
5	Bonnet Bolt	A193 B8 Class2
4	Stem	A182 F321
3	Flexible Wedge	A351 CF8C
2	Seat Ring	A182 F321
1	Body	A351 CF8C
No	Parts Name	Material

GATE VALVE			CLASS 150 RF			NPS 2		
DESIGNED BY		KU						
CHECKED BY		J.Valdez						
STANDARD BY		P.Morón						
APPROVED BY		W. Glass						
			REV: 5			DATE		
DRW. N°: 20						23-11-04		

KLAUS UNION
ASSEMBLING DRAWING

Klaus Union P.O. - No.: HH - 02536
Client: Lurgi Oel Gas Chemie GmbH
Project Title: 2^o ZAGROS MegaRefinery Plant, Iran
Lurgi Contract - No.: 1.69690 - 10
Lurgi P.O. - No.: 4587571 - 000 / 1.69690 / 136

- MAIN PARAMETER SPECIFICATION
- Design and manufacture : API600.
 - Face to face : ASME/ANSI B16.10
 - End Flange Dimensions : ASME/ANSI B16.5
 - Pressure-Temp : ASME/ANSI B16.34
 - Pressure test : API 598
 - Wedge : Flexible
 - Temperature : Up to +427°C



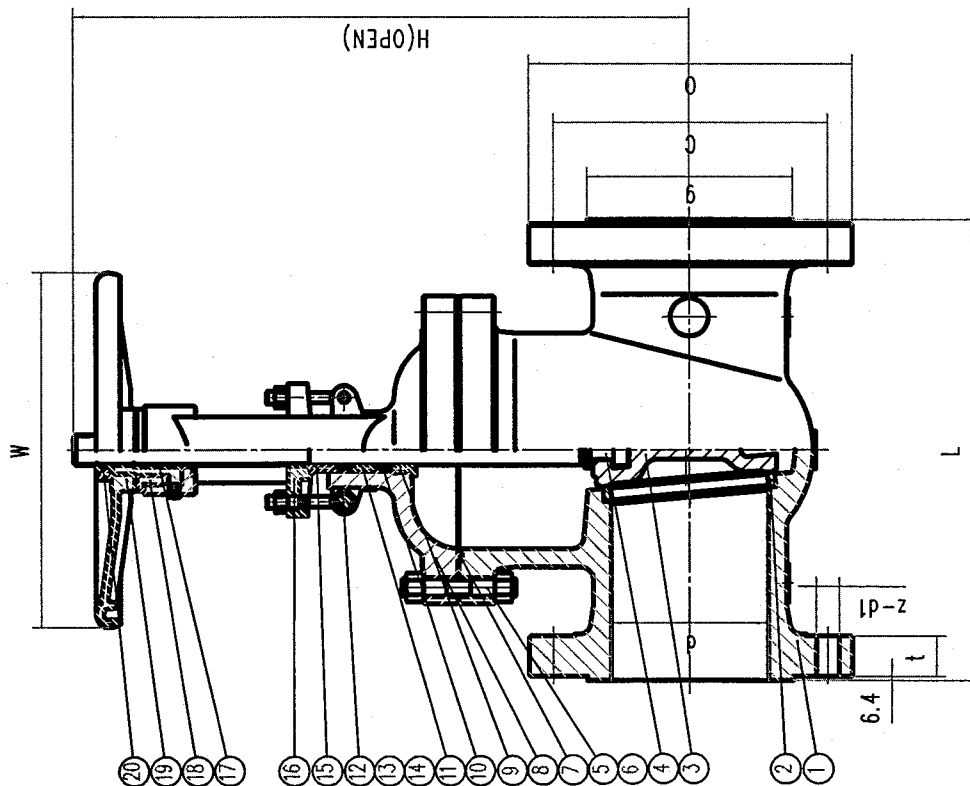
ITEM	CODE	NPS	General dimensions										Flange dimensions				W't _{val}	Q'ty
			in	mm	d	L	H	W	O	C	g	t	z-d1	z-d1	z-d1	z-d1		
30	S655	2	50	51	216	420	200	165	127	92	92	23	8-#19	30	4			
50	S655	4	100	102	305	615	300	254	200	157	157	32	8-#22	83	2			

19	H. W. Lock Nut	SS
18	Handwheel	Ductile Iron(Black)
17	Retaining Nut	SS
16	Stem Nut	A439-D-2
15	Gland flange	A351 CF8C
14	Gland	A182 F321
13	Gland Nut	A194 8
12	Gland Eyebolt	A193 B8
11	Pin	A276 410
10	Stem packing	Graphite
9	Back seat	A182 F321
8	Bonnet	A351 CF8C
7	Gasket	SS321+Graphite
6	Bonnet Nut	A194 8
5	Bonnet Bolt	A193 B8 Class2
4	Stem	A182 F321
3	Flexible Wedge	A351 CF8C
2	Seat Ring	A182 F321
1	Body	A351 CF8C
No	Parts Name	Material

GATE VALVES			CLASS 300 RF			NPS 2~4		
DESIGNED BY	KU							
CHECKED BY	J.Valdez							
STANDARD BY	P.Morón							
APPROVED BY	W. Glass							
KLAUS UNION			ASSEMBLING DRAWING			DATE 23-11-04		
REV: 5			DRW. N.: 030-050					

Klaus Union P.O. - No.: HH - 02536
Client: Lurgi Oel Gas Chemie GmbH
Project Title: 2nd ZAGROS MegaMethanol Plant, Iran
Lurgi Contract - No.: 1.69690 - 10
Lurgi P.O. - No.: 4567571 - 000 / 1.69690 / 136

MAIN PARAMETER SPECIFICATION
1.DESIGN AND MANUFACTURE : API600.
2.FACE TO FACE : ASME/ANSI B16.10.
3.END FLANGE DIMENSIONS : ASME/ANSI B16.5.
4.PRESSURE-TEMP : ASME/ANSI B16.34.
5.PRESSURE TEST : API598.
6.WEDGE : FLEXIBLE
5.TEMPERATURE : UP TO +427° C



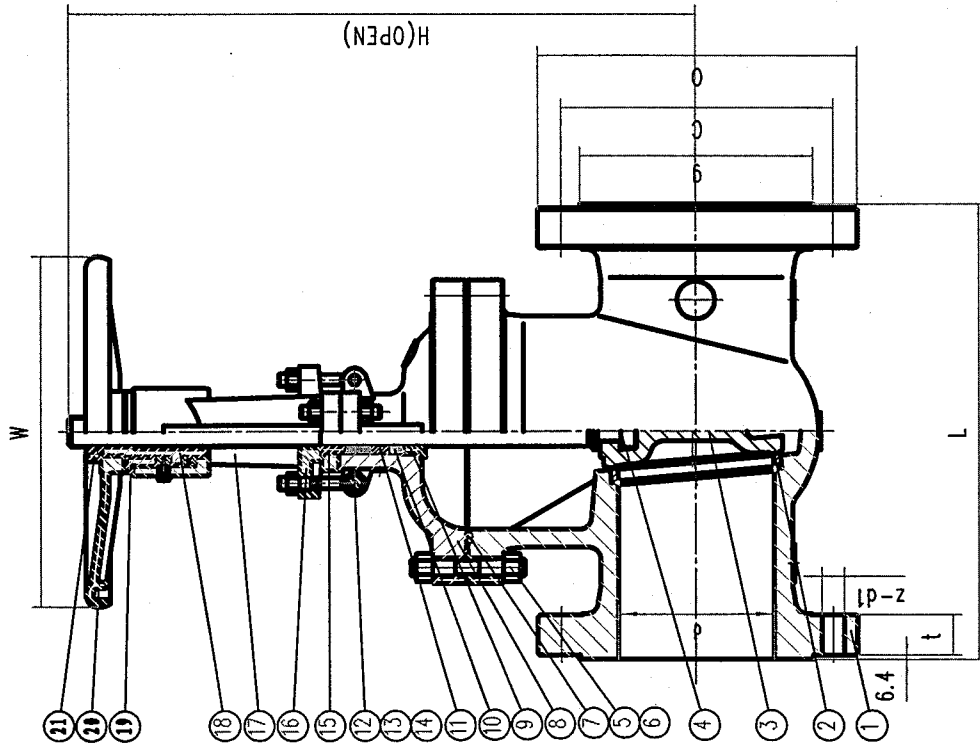
ITEM CODE	NPS	General dimensions					Flange dimensions					W't	Q'ty	
		in	mm	d	L	H	W	O	C	g	t			z-d1
40	S655	2	50	51	292	455	250	165	127	92	26	8-φ19	41	25

20	H.W. Lock nut	SS
19	Hand wheel	Ductile iron (Black)
18	Retaining nut	SS
17	Stem nut	A439-D-2
16	Gland flange	A351 CF8C
15	Gland	A182 F321
14	Gland eyebolt	A193 B8
13	Gland nut	A194 8
12	Pin	A276 410
11	Lantern	A182 F321
10	Stem packing	Graphite
9	Backseat bushing	A182 F321
8	Bonnet	A351 CF8C
7	Gasket	SS321+Graphite
6	Bonnet nut	A194 8
5	Bonnet bolt	A193 B8 Class2
4	Stem	A182 F321
3	Flexible Wedge	A351 CF8C
2	Seat	A182 F321
1	Body	A351 CF8C
No. Parts name		
Material		

GATE VALVE			CLASS 600 RF	NPS 2
DESIGNED BY	KU			
CHECKED BY	J.Valdez			
STANDARD BY	P.Morón			
APPROVED BY	W. Glass			
KLAUS UNION				
ASSEMBLING DRAWING				
REV: 5				DATE
23-11-04				

Klaus Union P.O. - No.: HH - 02536
Client: Lurgi Oel Gas Chemie GmbH
Project Title: 2nd ZAGROS MegaMethanol Plant, Iran
Lurgi Contrac - No.: 1.69690 - 10
Lurgi P.O. - No.: 4567571 - 000 / 1.69690 / 136

MAIN PARAMETER SPECIFICATION
1.DESIGN AND MANUFACTURE :API600.
2.FACE TO FACE :ASME/ANSI B16.10.
3.END FLANGE DIMENSIONS :ASME/ANSI B16.5.
4.PRESSURE-TEMP :ASME/ANSI B16.34.
5.PRESSURE TEST :API598.
6.WEDGE :FLEXIBLE
7.TEMPERATURE :UP TO +427° C



ITEM	CODE	NPS		General dimensions				Flange dimensions						W ¹ _(eq)	Q ¹ _{ty}
		in	mm	d	L	H	W	O	C	g	t	z-d1			
60	S655	8	200	200	660	1122	500	419	349	270	56	12-#32	413	3	
70	S655	10	250	248	787	1330	550	508	432	324	64	16-#35	623	4	

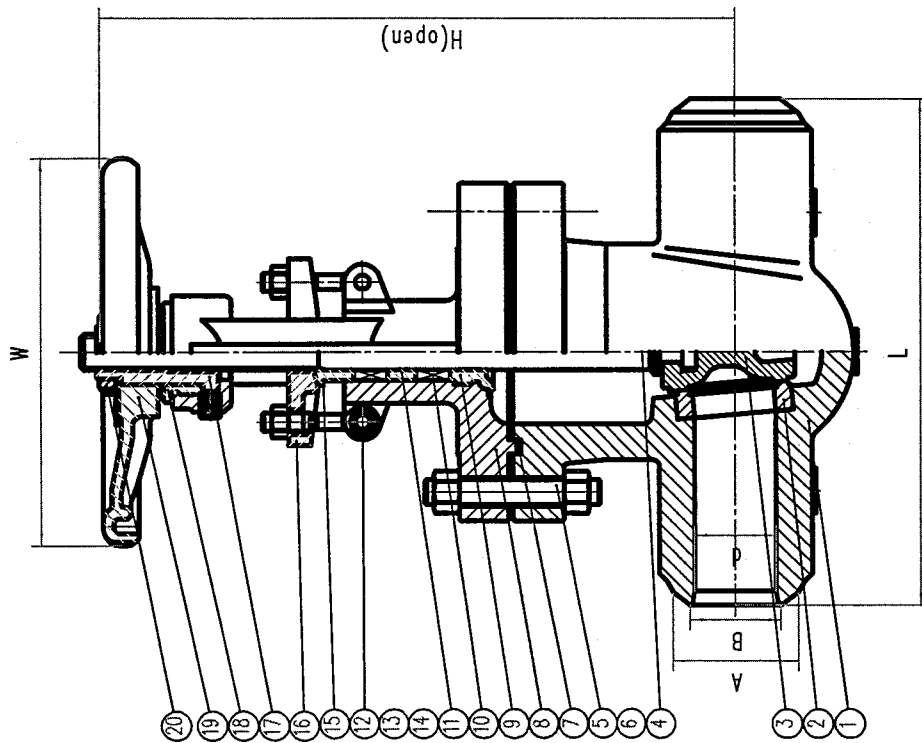
21	H. W. Lock nut	SS
20	Hand wheel	Ductile iron(Black)
19	Retaing nut	SS
18	Stem nut	A439-D-2
17	Yoke	A351 CF8C
16	Gland flange	A351 CF8C
15	Gland	A182 F321
14	Gland eyebolt	A193 B8
13	Gland nut	A194 8
12	Pin	A276 410
11	Lantern	A182 F321(The part is optional by the customer.)
10	Stem packing	Graphite
9	Backseat bushing	A182 F321
8	Bonnet	A351 CF8C
7	Gasket	SS321+Graphite
6	Bonnet nut	A194 8
5	Bonnet bolt	A193 B8 Class2
4	Stem	A182 F321
3	Flexible Wedge	A351 CF8C
2	Seat	A182 F321
1	Body	A351 CF8C
No. Parts name		Material

GATE VALVES			CLASS 600 RF		NPS 8~10	
DESIGNED BY		KU				
CHECKED BY		J.Valdez				
STANDARD BY		P.Morón				
APPROVED BY		W. Glass				
REV: 5			ASSEMBLING DRAWING			
DRW. N.º: 060-070			DATE		23-11-04	

Klaus Union P.O. - No.: HH - 02536
Client: Lurgi Oel Gas Chemie GmbH
Project Title: 2nd ZAGROS MegalMethanol Plant, Iran
Lurgi Contrac - No.: 1.69690 - 10
Lurgi P.O. - No.: 4567571 - 000 / 1.69690 / 136

MAIN PARAMETER SPECIFICATION

1. DESIGN AND MANUFACTURE : API600.
2. FACE TO FACE : ASME/ANSI B16.10. Long Pattern.
3. BUTT WELDING ENDS : ASME/ANSI B16.25.
4. PRESSURE - TEMP : ASME/ANSI B16.34.
5. PRESSURE TEST : API598.
6. WEDGE : FLEXIBLE
7. TEMPERATURE : UP TO +427°C
8. SPECIAL TEST : ASME B16.34 PARA 8



ITEM CODE	NPS	Dimensions						W't (kg)	Q'ty	BW SCH.
		in	mm	d	L	H	W	A	B	
80 S656	2	50	47	368	574	350	60.3	49.22	93	2
90 S656	3	80	70	470	806	450	60.3	42.82	93	3
110 S656	4	100	92	546	887	560	88.9	66.64	185	1
130 S656	6	150	141	813	1143	813	114.3	87.32	285	2

20	H. W. Nut		SS
19	Handwheel	Ductile iron(Black)	
18	Retaining Nut		SS
17	Stem Nut		A439-D-2
16	Gland flange		A351 CF8C
15	Gland		A182 F321
14	Gland eyebolt		A193 B8
13	Gland nut		A194 8
12	pin		A276 410
11	Lantern		A182 F321 (The part is optional by the customer.)
10	Stem packing		Graphite
9	Backseat bushing		A182 F321
8	Bonnet		A351 CF8C
7	Gasket		SS321+Graphite
6	Bonnet nut		A194 8
5	Bonnet bolt		A193 B8 Class2
4	Stem		A182 F321
3	Solid Wedge		A351 CF8C
2	Seat		A182 F321
1	Body		A351 CF8C
No.	Parts name	Material	
GATE VALVES CLASS 1500 BW NPS 2~4			
DESIGNED BY	KU		
CHECKED BY	J.Valdez		
STANDARD BY	P.Morón		
APPROVED BY	W. Glass		
		ASSEMBLING DRAWING	
DRW. N°: 080-090-110-130		REV: 5	DATE 23-11-04

Klaus Union P.O. - No.: HH - 02536
Client: Lurgi Oel Gas Chemie GmbH
Project Title: 2nd ZAGROS Megamethanol Plant, Iran
Lurgi Contrac - No.: 1.69690 - 10
Lurgi P.O. - No.: 4567571 - 000 / 1.69690 / 136

MAIN PARAMETER SPECIFICATION

1.DESIGN AND MANUFACTURE : API600.

2.FACE TO FACE : ASME/ANSI B16.10.Long Pattern.

3.BUTT WELDING ENDS : ASME/ANSI B16.25.

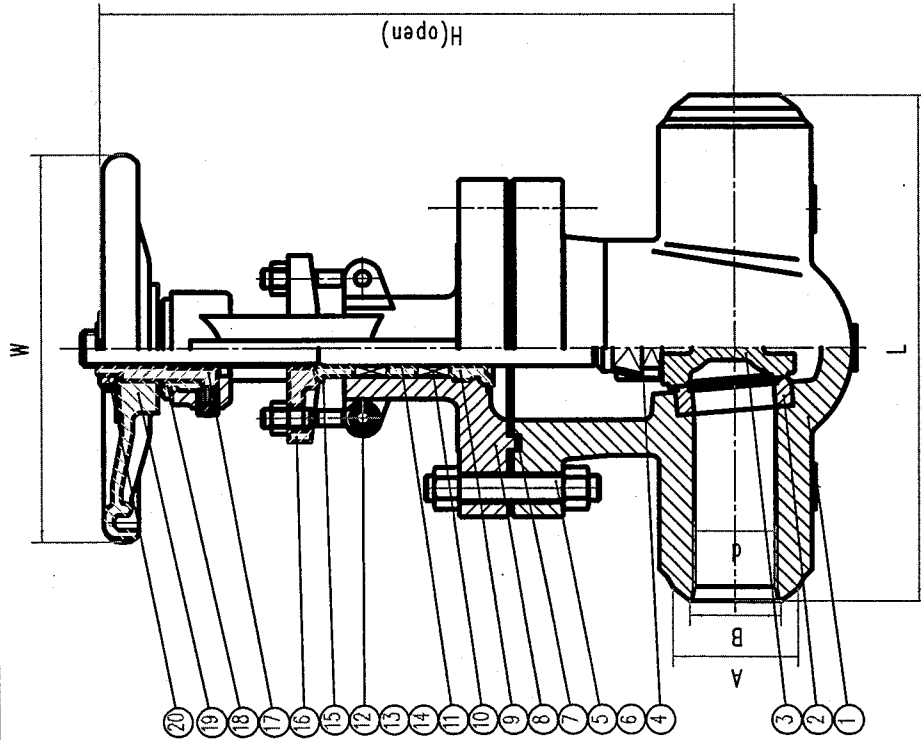
4.PRESSURE-TEMP : ASME/ANSI B16.34.

5.PRESSURE TEST : API598.

6.WEDGE : FLEXIBLE

7.TEMPERATURE : UP TO +427° C

8.SPECIAL TEST : ASME B16.34 PARA 8



No.	H. W. Nut	SS
20	Handwheel	Ductil iron (Black)
19	Retaining Nut	SS
18	Stem Nut	A439-D-2
17	Gland flange	A351 CF8C
16	Gland	A182 F321
15	Gland eyebolt	A193 B8
14	Gland nut	A194 8
13	pin	A276 410
12	Lantern	A182 F321 (The part is optional by the customer.)
11	Stem packing	Graphite
10	Backseat bushing	A182 F321
9	Bonnet	A351 CF8C
8	Gasket	SS321+Graphite
7	Bonnet nut	A194 8
6	Bonnet bolt	A193 B8 Class2
5	Stem	A182 F321
4	Flexible Wedge	A351 CF8C
3	Seat	A182 F321
2	Body	A351 CF8C
1	Parts name	Material

ITEM CODE	NPS		Dimensions						W't (lbs)	Q'ty	BW SCH.
	in	mm	d	L	H	W	A	B			
100 S656	3	80	73	381	574	400	88.9	77.92	108	9	88.9x5.49
120 S656	4	100	98	457	806	450	114.3	102.26	122	2	114.3x6.02
140 S656	6	150	146	610	887	560	168.3	154.08	359	2	168.3x7.11

GATE VALVES		CLASS 900 BW		NPS 3~6	
DESIGNED BY		KU			
CHECKED BY		J.Valdez			
STANDARD BY		P.Morón			
APPROVED BY		W. Glass			
ASSEMBLING DRAWING					
DRW. N°: 100-120-140		REV: 5		DATE	23-11-04

DRW. N°: 100-120-140

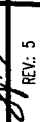
HH - 02536

1.DESIGN AND MANUFACTURE : API600.

2. FACE TO FACE
3. BUTT WELDING ENDS
4. PRESSURE-TEMP
5. PRESSURE TEST
6. WEDGE
7. OXYGEN SERVICE
8. DEGREASING DISPOSAL.
9. TEMPERATURE
: ASME/ANSI B16.10. Long Pattern
: ASME/ANSI B16.25.
: ASME/ANSI B16.34.
: API598.
: FLEXIBLE
: UP TO +350° C



ITEM CODE	NPS		Dimensions						W't _(tp)	Q'ty	BW SCH.
	in	mm	d	L	H	W	A	B			
150 S658	2	50	51	292	474	250	60.3	49.22	108	4	60.3x5.54

20	H. W. Nut		SS
19	Handwheel		Ductile iron(Black)
18	Retaining Nut		SS
17	Stem Nut		A439-D-2
16	Gland flange		A351 CF8C
15	Gland		A182 F321
14	Gland eyebolt		A193 B8
13	Gland nut		A194 8
12	pin		A276 410
11	Lantern		A182 F321 (The part is optional by the customer.)
10	Stem packing		Graphite
9	Backseat bushing		A182 F321
8	Bonnet		A351 CF8C
7	Gasket		SS321+Graphite
6	Bonnet nut		A194 8
5	Bonnet bolt		A193 B8 Class2
4	Stem		A182 F321
3	Flexible Wedge		A351 CF8C
2	Seat		A182 F321
1	Body		A351 CF8C
No.	Parts name		Material
GATE VALVE		CLASS 600 BW	
DESIGNED BY		NPS 2	
CHECKED BY		 J. Valdez	
STANDARD BY		 P. Morón	
APPROVED BY		 W. Gloss	
DRW. N°: 150		REV: 5	
DATE		23-11-04	

DRW. N°: 150

REV: 5

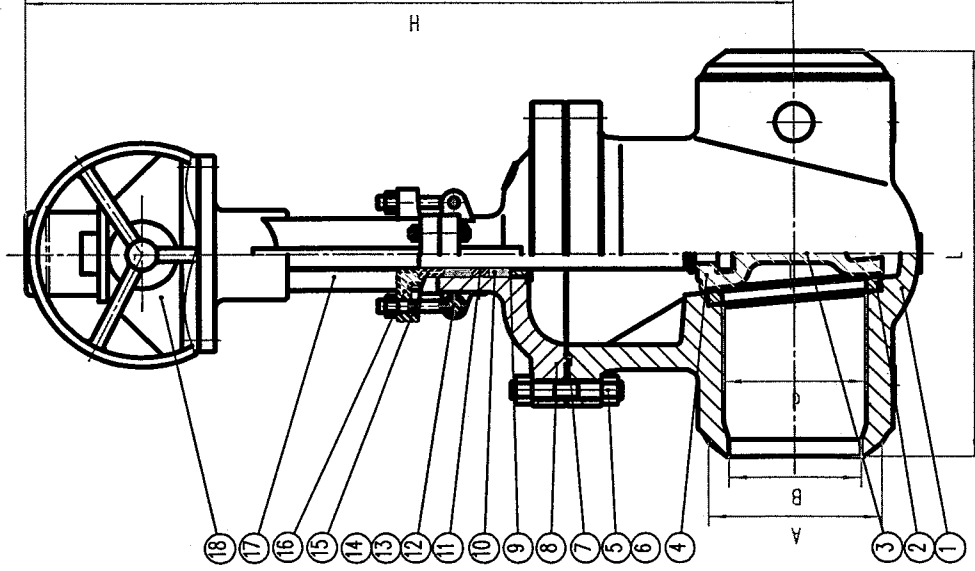
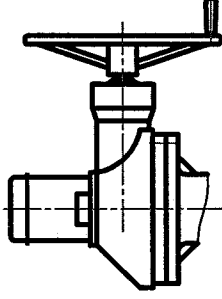
DATE

23-11-04

Klaus Union P.O. - No.: HH - 02536
Client: Lurgi Oel Gas Chemie GmbH
Project Title: 2^o ZAGROS MegaMethanol Plant, Iran
Lurgi Contrac - No.: 1.69690 - 10
Lurgi P.O. - No.: 4567571 - 000 / 1.69690 / 136

MAIN PARAMETER SPECIFICATION

- 1.DESIGN AND MANUFACTURE :API600.
2.FACE TO FACE :ASME/ANSI B16.10.Long Pattern.
3.BUTT WELDING ENDS :ASME/ANSI B16.25.
4.PRESSURE-TEMP :ASME/ANSI B16.34.
5.PRESSURE TEST :API598.
6.WEDGE :FLEXIBLE
7.TEMPERATURE :UP TO +427° C
8.SPECIAL TEST :ASME B16.34 PARA 8



ITEM	CODE	NPS		Dimensions						W't _(w)	Q'ty	BW SCH.
		in	mm	d	L	H	A	B				
160	S6576	10	250	238	838	1590	273.0	247.60	980	1	273.0×12.7	
170	S6576	12	300	282	965	1795	323.9	298.50	1450	2	323.9×12.7	
190	S6576	16	400	356	1130	2170	406.4	373.08	2390	1	406.4×16.66	

		Commercial Painted
18	Gear Actuator	
17	Yoke	A351 CF8C
16	Gland flange	A351 CF8C
15	Gland	A182 F321
14	Gland eyebolt	A193 B8
13	Gland nut	A194 8
12	pin	A276 410
11	Lantern	A182 F321 (The part is optional by the customer.)
10	Stem packing	Graphite
9	Backseat bushing	A182 F321
8	Bonnet	A351 CF8C
7	Gasket	SS321+Graphite
6	bonnet nut	A194 8
5	Bonnet bolt	A193 B8 Class2
4	Stem	A182 F321
3	Flexible Wedge	A351 CF8C
2	Seat	A182 F321
1	Body	A351 CF8C
No.	Parts name	Material

GATE VALVES		CLASS 900 BW	NPS 10~16
DESIGNED BY	KU		
CHECKED BY	J.Valdez		
STANDARD BY	P.Morón		
APPROVED BY	W. Glass		
KLAUS UNION		ASSEMBLING DRAWING	
DRW. N°.: 160-170-190		REV.: 5	DATE: 23-11-04

Klaus Union P.O. - No.: HH - 02536
Client: Lurgi Oil Gas Chemie GmbH
Project Title: 2nd ZAGROS MegaMethanol Plant, Iran
Lurgi Contract - No.: 1.69690 - 10
Lurgi P.O. - No.: 4567571 - 000 / 1.69690 / 136

MAIN PARAMETER SPECIFICATION

1. DESIGN AND MANUFACTURE : API600.

2. FACE TO FACE : ASME/ANSI B16.10. Long Pattern

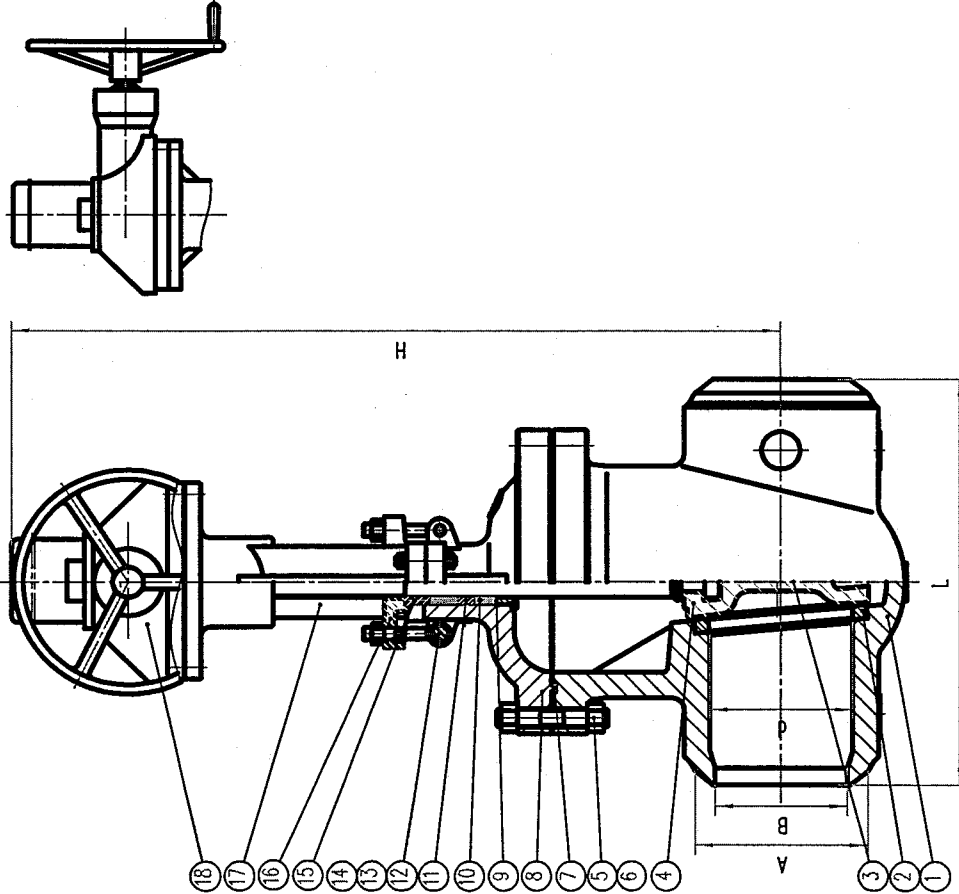
3. BUTT WELDING ENDS : ASME/ANSI B16.25.

4. PRESSURE-TEMP : ASME/ANSI B16.34.

5. PRESSURE TEST : API598.

6. WEDGE : FLEXIBLE

7. TEMPERATURE : UP TO +427°C



No.	Parts name	Material
18	Gear Actuator	Commercial Painted
17	Yoke	A351 CF8C
16	Gland flange	A351 CF8C
15	Gland	A182 F321
14	Gland eyebolt	A193 B8
13	Gland nut	A194 8
12	pin	A276 410
11	Lantern	A182 F321 (The part is optional by the customer.)
10	Stem packing	Graphite
9	Backseat bushing	A182 F321
8	Bonnet	A351 CF8C
7	Gasket	SS321+Graphite
6	bonnet nut	A194 8
5	Bonnet bolt	A193 B8 Class 2
4	Stem	A182 F321
3	Flexible Wedge	A351 CF8C
2	Seat	A182 F321
1	Body	A351 CF8C

GATE VALVE				CLASS 600 BW		NPS 16	
DESIGNED BY	KU						
CHECKED BY	J.Valdez						
STANDARD BY	P.Morón						
APPROVED BY	W. Glass						
				REV: 5		DATE	
				23-11-04			

ITEM	CODE	NPS		Dimensions						W't (kg)	Q'ty	BW SCH.
		in	mm	d	L	H	A	B				
180	S6576	16	400	375	991	1835	406.4	381.0	1448	2	406.4x12.7	

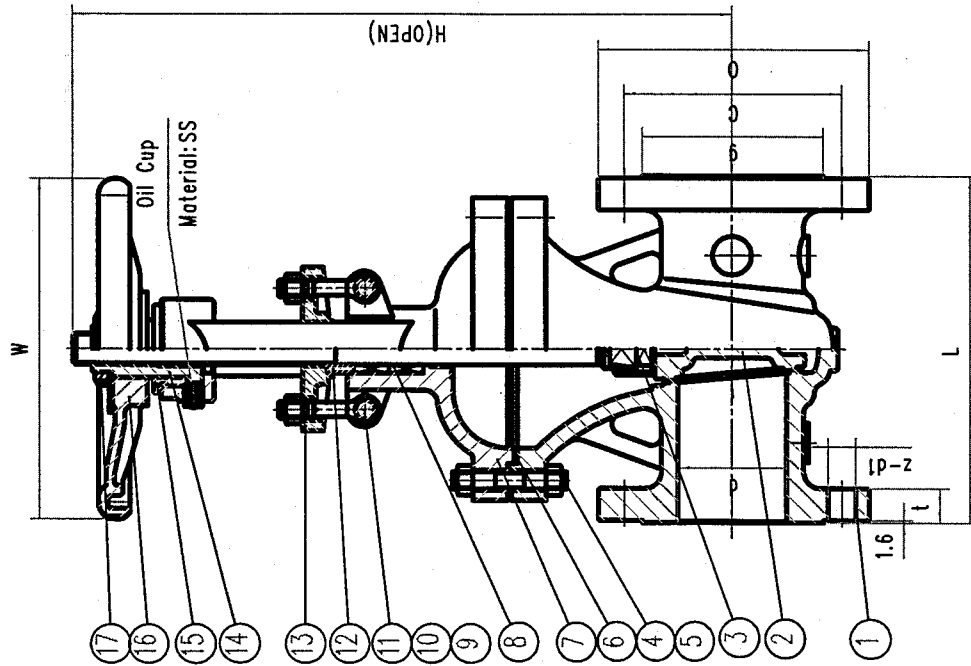


ASSEMBLING DRAWING

Klaus Union P.O. - No.: HH - 02536 - 02.
Client: Lurgi Oel Gas Chemie GmbH
Project Title: 2nd ZAGROS MegaMethanol Plant, Iran
Lurgi Contrac - No.: 1.69690 - 10
Lurgi P.O. - No.: 4567571 - 001 / 1.69690 / 136

MAIN PARAMETER SPECIFICATION

1. Design and manufacture : API600.
2. Face to face : ASME/ANSI B16.10
3. End Flange Dimensions : ASME/ANSI B16.5
4. Pressure-Temp : ASME/ANSI B16.34
5. Pressure test : API 598
6. Wedge : Flexible
7. Temperature : Up to +427°C
8. Marking : MSS SP-25 + Ident N°



17	H.W.Lock Nut	SS
16	Handwheel	Ductile Iron(Black)
15	Retaining Nut	SS
14	Stem Nut	A439-D-2
13	Gland flange	A351 CF8C
12	Gland	A182 F321
11	Gland Nut	A194 8
10	Gland Eyebolt	A193 B8
9	Pin	A276 410
8	Stem packing	Graphite
7	Bonnet	A351 CF8C
6	Gasket	SS321+Graphite
5	Bonnet Nut	A194 8
4	Bonnet Bolt	A193 B8 Class2
3	Stem	A182 F321
2	Flexible Wedge	A351 CF8C
1	Body	A351 CF8C
No	Parts Name	Material

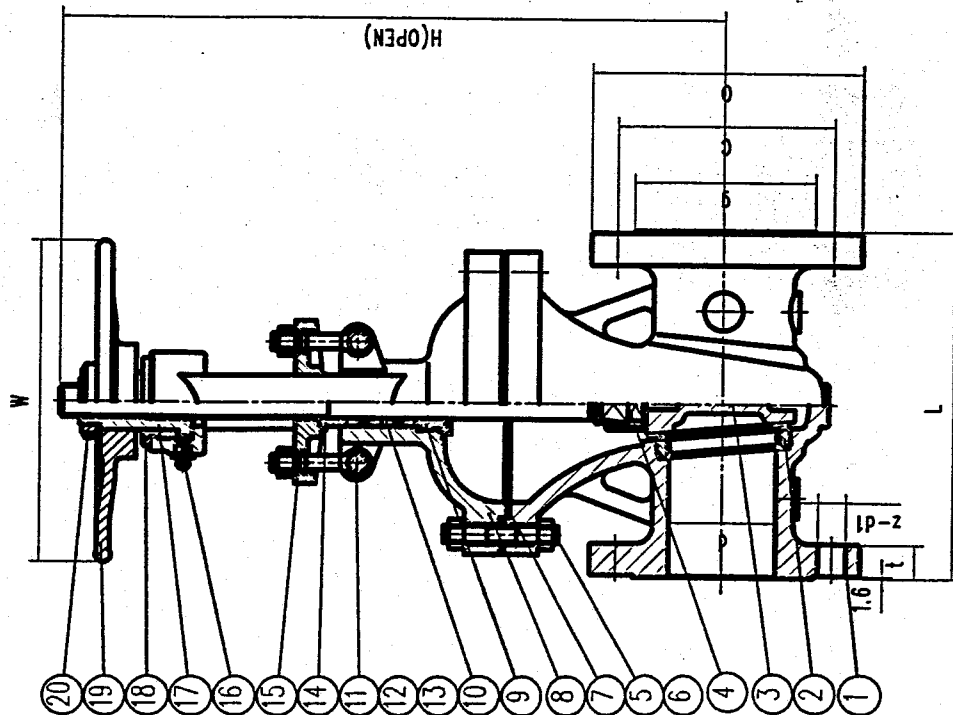
GATE VALVE		CLASS 300 RF	NPS 2
DESIGNED BY			
CHECKED BY			
STANDARD BY			
APPROVED BY			
DRAWING No.: 00220	REV.: 1	DATE	05/27/05

ITEM	CODE	NPS		General dimensions				Flange dimensions					W't _(tot)	Q'ty
		in	mm	d	L	H	W	O	C	g	t	z-d1		
00220	S655	2	50	51	216	420	200	165	127	92	23	8-#19	30	2

Klaus Union
 Client: HH - 02538-02
 Project Title: Lurgi Oil Gas Chemie GmbH
 Lurgi Contract - No.: 2-ZAGROS Megalmetanol Plant, Iran
 Lurgi P.O. - No.: 1.89890 - 10
 4587571 - 002 / 1.89890 / 138

MAIN PARAMETER SPECIFICATION

1. Design and manufacture : API600.
2. Face to face : ASME/ANSI B16.10
3. End Flange Dimensions : ASME/ANSI B16.5
4. Pressure-Temp : ASME/ANSI B16.34
5. Pressure test : API 598.
6. Wedge : Flexible
7. Temperature : Up to 427°C
8. Marking : MSS SP-25 + Ident. No.



ITEM	ID	NPS	General dimensions					Flange dimensions					W't _(lbs)	Q'ty
			In	mm	d	L	H	W	O	C	g	t		
00230	S360	3	80	76	283	538	250	210	168.5	127	29	8-#22	45	1

20	H. W. Lock Nut	AISI 1035
19	Handwheel	A47(Painted Black)
18	Retaining Nut	AISI 1035
17	Stem Nut	A439 D2
16	Oil Cup	SS
15	Gland flange	A216 WCB
14	Gland	A182 F6
13	Gland Nut	A194 2H
12	Gland Eyebolt	A193 B7
11	Pin	AISI 1045
10	Stem packing	Graphite
9	Back seat	A182 F6
8	Bonnet	A216 WCB
7	Gasket	SS304+Graphite
6	Bonnet Nut	A194 2H
5	Bonnet Bolt	A193 B7
4	Stem	A182 F6
3	Flexible Wedge	A216 WCB+13Cr
2	Seat Ring	A105+13Cr
1	Body	A216 WCB
No	Parts Name	Material

GATE VALVE				CLASS 300 RF				NPS 3			
DESIGNED	BY										
CHECKED	BY										
STANDARD	BY										
APPROVED	BY										
DRW No.: 450-230				REV.: 3				DATE 11/07/05			

KLAUS UNION
 ASSEMBLING DRAWING

Klaus Union
O. - No.:
Client:
Project Title:
Lurgi Contract - No.:
Lurgi P.O. - No.:

HH - 02536-02

Lurgi Oil Gas Chemie GmbH

2^o ZAGROS Megahydrofural Plant, Iran

1.69990 - 10

432711 - 002 / 1.69990 / 136

MAIN PARAMETER SPECIFICATION

1. DESIGN AND MANUFACTURE : API600.

2. END TO END

: ASME/ANSI B16.10 Long Pattern.

3. BUTT WELDING ENDS

: ASME/ANSI B16.25.

4. PRESSURE-TEMP

: ASME/ANSI B16.34.

5. PRESSURE TEST

: API598.

6. WEDGE

: SOLID

7. SPECIAL TEST

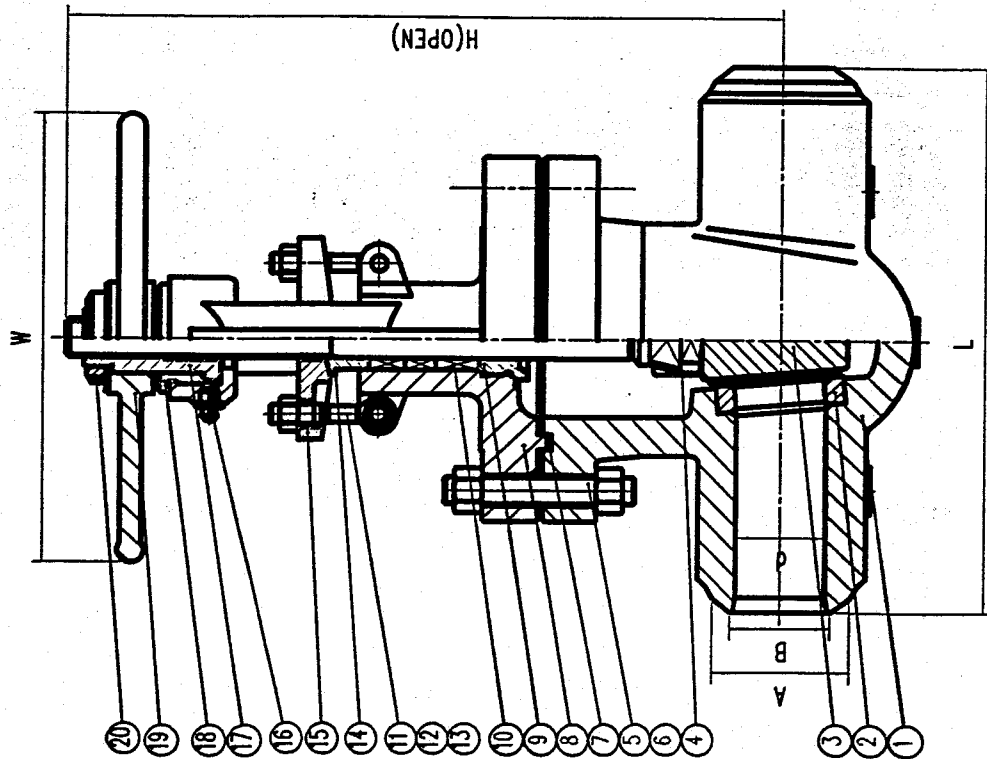
: ASME B16.34 PARA 8

8. TEMPERATURE

: UP TO 538°C

9. MARKING

: MSS SP-25 + Ident No. + welding end wall thickness



No.	Parts name	Material
20	H.W. Lock Nut	SS
19	Handwheel	A47(Painted Black)
18	Retaining Nut	AISI 1035
17	Stem Nut	A439 D2
16	Oil Cup	SS
15	Gland flange	A217 WC6
14	Gland	A182 F304
13	Gland eyebolt	A193 B16
12	Gland nut	A194 4
11	pin	A276 410
10	Stem packing	Graphite
9	Backseat bushing	A182 F304
8	Bonnet	A217 WC6
7	Gasket	SS304+Graphite
6	Bonnet nut	A194 4
5	Bonnet bolt	A193 B16
4	Stem	A182 F304
3	Solid Wedge	A217 WC6+STL
2	Seat	A182 F304+STL
1	Body	A217 WC6

GATE VALVE		CLASS 1500 BW		NPS 2	
DESIGNED BY					
CHECKED BY					
STANDARD BY					
APPROVED BY					
DRW No.: 450-240				REV.: 3	DATE 11/07/05

ITEM	ID	NPS						Dimensions				W't (kg)	Q'ty	BW	SCH.
		in	mm	d	L	H	W	A	B						
240	S421	2	50	47	368	574	350	60.3	49.22	93	1	60.3	5.54		

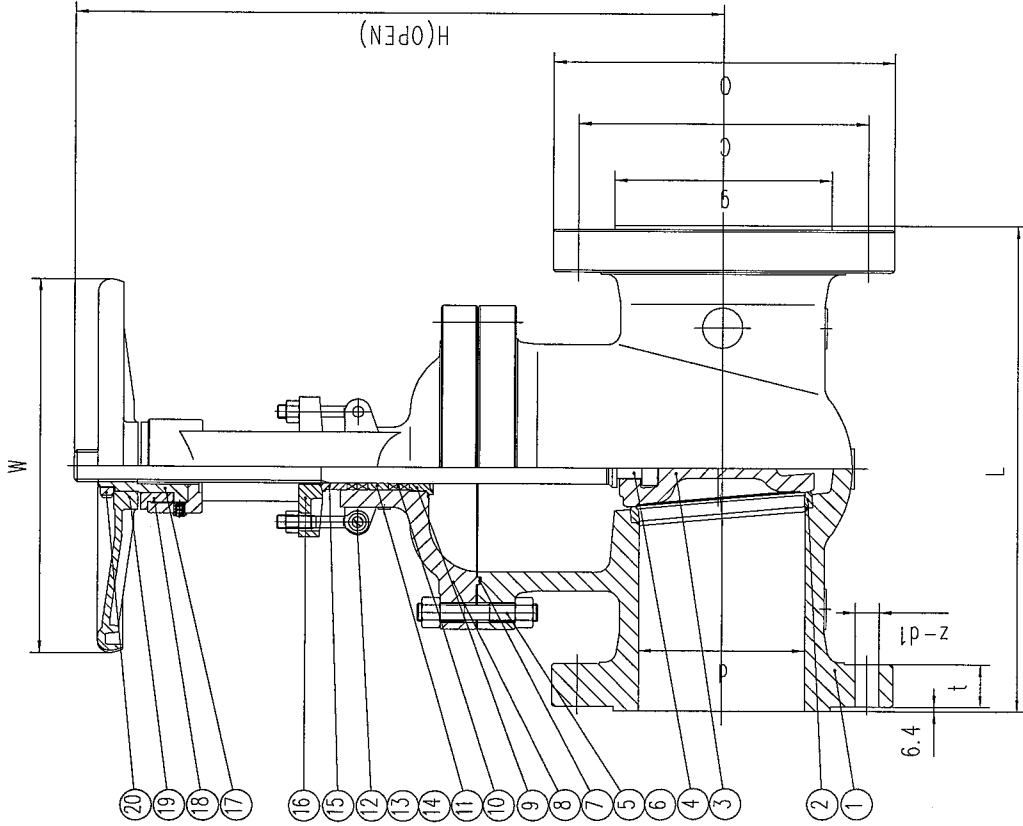


ASSEMBLING DRAWING

Klaus Union Logo
No.: HH - 02536-01
Client: Lurgi Oel Gas Chemie GmbH
Project Title: 2nd ZAGROS MegaMethanol Plant, Iran
Lurgi Contrac - No.: 1.69690 - 10
Lurgi P.O. - No.: 4569249 - 000 / 1.69690 / 136

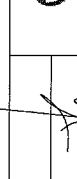
MAIN PARAMETER SPECIFICATION

- 1.DESIGN AND MANUFACTURE : API600.
- 2.FACE TO FACE : ASME/ANSI B16.10.
- 3.END FLANGE DIMENSIONS : ASME/ANSI B16.5.
- 4.PRESSURE - TEMP : ASME/ANSI B16.34.
- 5.PRESSURE TEST : API598.
- 6.WEDGE : FLEXIBLE
- 5.TEMPERATURE : UP TO +427° C



ITEM CODE	NPS	General dimensions						Flange dimensions				w't	Q'ty
		in	mm	d	L	H	W	O	C	g	t	z - d1	
10	S655	2	50	51	292	455	250	165	127	92	26	8 - ø19	41
													1

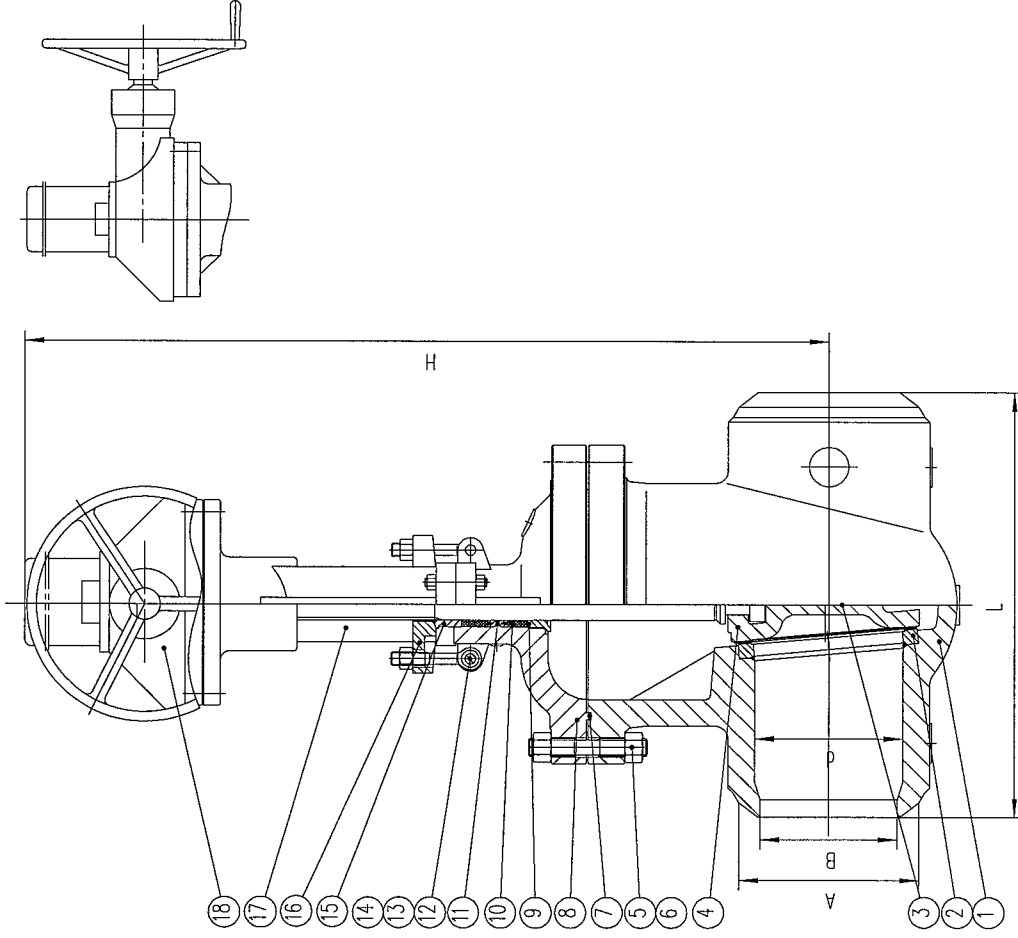
20	H. W. Lock nut	SS
19	Hand wheel	Ductile iron (Black)
18	Retaining nut	SS
17	Stem nut	A439-D-2
16	Gland flange	A351 CF8C
15	Gland	A182 F321
14	Gland eyebolt	A193 B8
13	Gland nut	A194 8
12	Pin	A276 410
11	Lantern	A182 F321
10	Stem packing	Graphite
9	Backseat bushing	A182 F321
8	Bonnet	A351 CF8C
7	Gasket	SS321+Graphite
6	Bonnet nut	A194 8
5	Bonnet bolt	A193 B8 Class2
4	Stem	A182 F321
3	Flexible Wedge	A351 CF8C
2	Seat	A182 F321
1	Body	A351 CF8C
No. Parts name		
Material		

GATE VALVE		CLASS 600 RF		NPS 2			
DESIGNED BY	KU						
CHECKED BY	J.Valdez						
STANDARD BY	P.Morón						
APPROVED BY	W. Glass						
DRW. N.º: 010		REV.: 1		DATE		04-03-05	
				ASSEMBLING DRAWING			

Klaus Union P.O. - No.: HH - 02536-01
Client: Lurgi Oel Gas Chemie GmbH
Project Title: 2ⁿ ZAGROS MegaMethanol Plant, Iran
Lurgi Contrac - No.: 1.69690 - 10
Lurgi P.O. - No.: 4569249 - 000 / 1.69690 / 136

MAIN PARAMETER SPECIFICATION

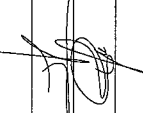
- 1.DESIGN AND MANUFACTURE : API600.
2.FACE TO FACE : ASME/ANSI B16.10.Long Pattern.
3.BUTT WELDING ENDS : ASME/ANSI B16.25.
4.PRESSURE-TEMP : ASME/ANSI B16.34.
5.PRESSURE TEST : API598.
6.WEDGE : FLEXIBLE
7.TEMPERATURE : UP TO +427° C
8.SPECIAL TEST : ASME B16.34 PARA 8



18	Gear Actuator	Commercial Painted
17	Yoke	A351 CF8C
16	Gland flange	A351 CF8C
15	Gland	A182 F321
14	Gland eyebolt	A193 B8
13	Gland nut	A194 8
12	pin	A276 410
11	Lantern	A182 F321 (The part is optional by the customer.)
10	Stem packing	Graphite
9	Backseat bushing	A182 F321
8	Bonnet	A351 CF8C
7	Gasket	SS321+Graphite
6	bonnet nut	A194 8
5	Bonnet bolt	A193 B8 Class2
4	Stem	A182 F321
3	Flexible Wedge	A351 CF8C
2	Seat	A182 F321
1	Body	A351 CF8C
No. Parts name		Material

GATE VALVES CLASS 900 BW NPS 10~16

ITEM	CODE	NPS		Dimensions					W't _(kg)	Q'ty	BW SCH.
		in	mm	d	L	H	A	B			
20	S6576	10	250	238	838	1590	273.0	247.60	980	1	273.0×12.7

DESIGNED BY	KU			
CHECKED BY	J.Valdez			
STANDARD BY	P.Morón			
APPROVED BY	W. Glass			
ASSEMBLING DRAWING				
DRW. N.º: 020		REV.: 1	DATE	04-03-05