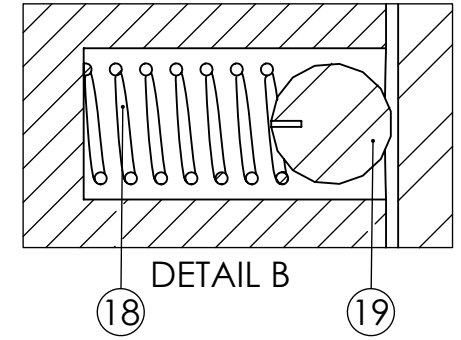
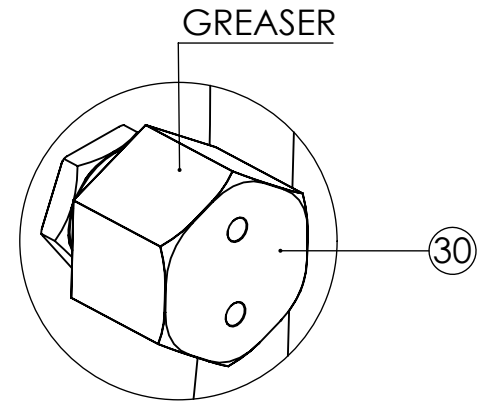
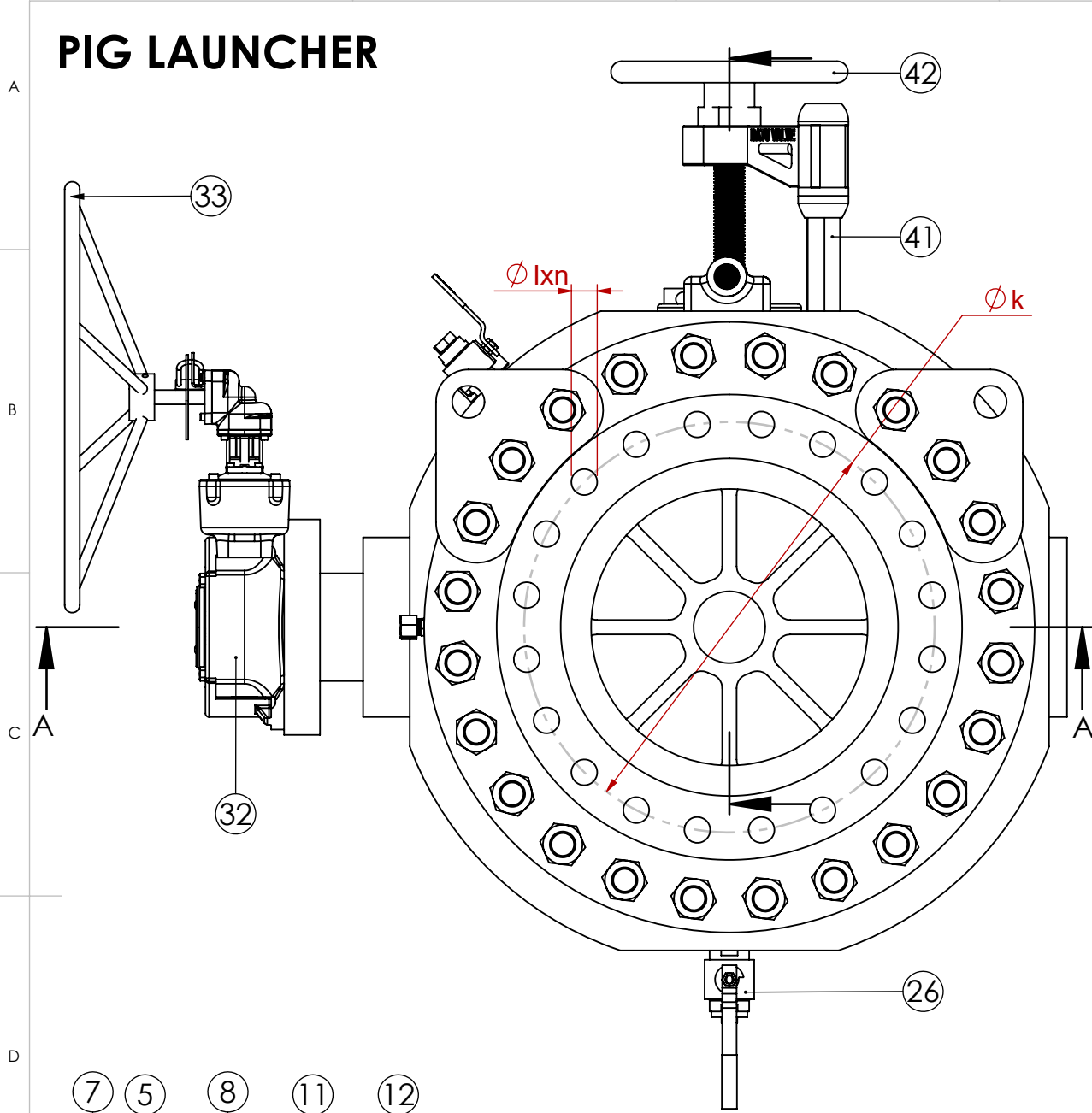
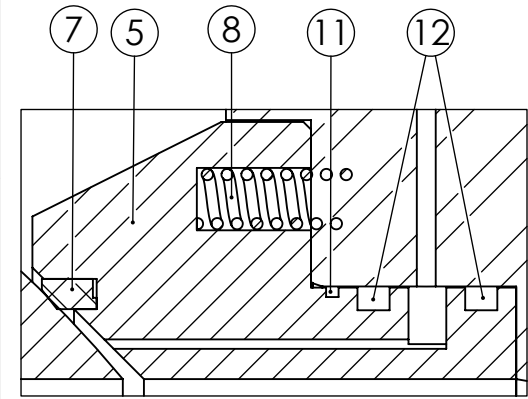


PIG LAUNCHER



Bill of Materials		
ITEM NO	ITEM DESCRIPTION	MATERIAL
42	HAND WHEEL	CARBON STEEL
41	BEARING POST	ASTM A350 LF2
40	LEVER CONNECTION PART	ASTM A350 LF2
39	BUTTRESS GEAR STEM	SS 420
38	BUTTRESS GEAR STEM PART	ASTM A350 LF2
37	PIG BONNET	ASTM A350 LF2
36	PIG COVER SEAL	VITON
35	PIG COVER	ASTM A350 LF2
34	SUPPORT LEG	CARBON STEEL
33	WHEEL	CARBON STEEL
32	GEAR OP.	ROTORK AB 1950/PR4
31	DRY BEARING	BRONZE
30	GREASER	SS 304
29	BLIND PLUG	ASTM A350 LF2
28	VENT	3/4" 6000 PSIG BALL VALVE
27	VENT+LOCKED PART	STAINLESS STEEL
26	DRAIN	1" 6000 PSIG BALL VALVE
25	PIG BEARING	ASTM A350 LF2
24	TRUNNION SEAL	VITON
23	TRUNNION BOLT	ASTM A193 - Gr. B7M
22	TRUNNION	ASTM A350 LF2
21	NUT	ASTM A194 - Gr.7M
20	STUD	ASTM A193 - Gr. B7M
19	ANTISTATIC BALL	1,4301
18	ANTISTATIC SPRING	1,4301
17	BONNET PACKING	316 SS+GRAPHITE+VITON
16	BONNET BOLT	ASTM A193 - Gr. B7M
15	BONNET SEAL	VITON
14	BONNET FLANGE	ASTM A350 LF2
13	BONNET	ASTM A350 LF2
12	SEAT SEAL	VITON
11	FIRE STOPPER	GRAPHITE
10	BODY SEAL	316 SS+GRAPHITE+VITON
9	COVER SEAL	VITON
8	SEAT SPRING	INCONEL X-750
7	SEAT	RPTFE (%25 GLASS FILLED)
6	SEAT RETAINER-PIG CATCH	ASTM A350 LF2+ENP
5	SEAT RETAINER	ASTM A350 LF2+ENP
4	STEM	17-4PH SS
3	BALL	ASTM A350 LF2+ENP
2	COVER	ASTM A350 LF2
1	BODY	ASTM A350 LF2



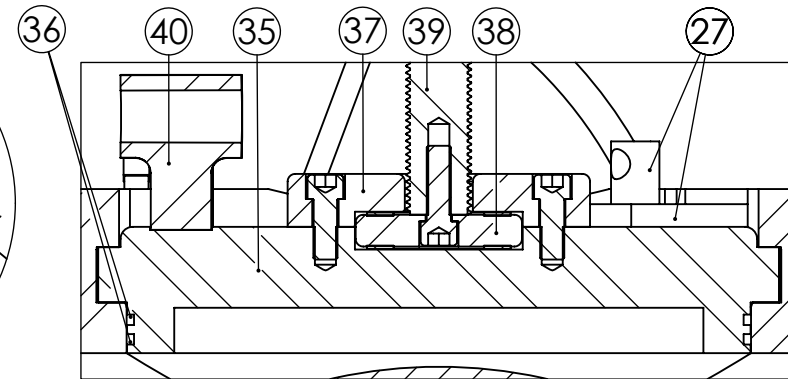
DETAIL A

Approximate Valve Weight: 3500kg

Bolt & nut Xylan fluorocarbon

HAZIRLAYAN Prepared By	YAYIN TARİHİ Publication Date	 ADET Total
ÇİZEN Draw By	REVİZYON TARİHİ Revision Date	
KONTROL Checking	REVİZYON NO Revision No	
ONAY Approval	ÖLÇEK Scale	

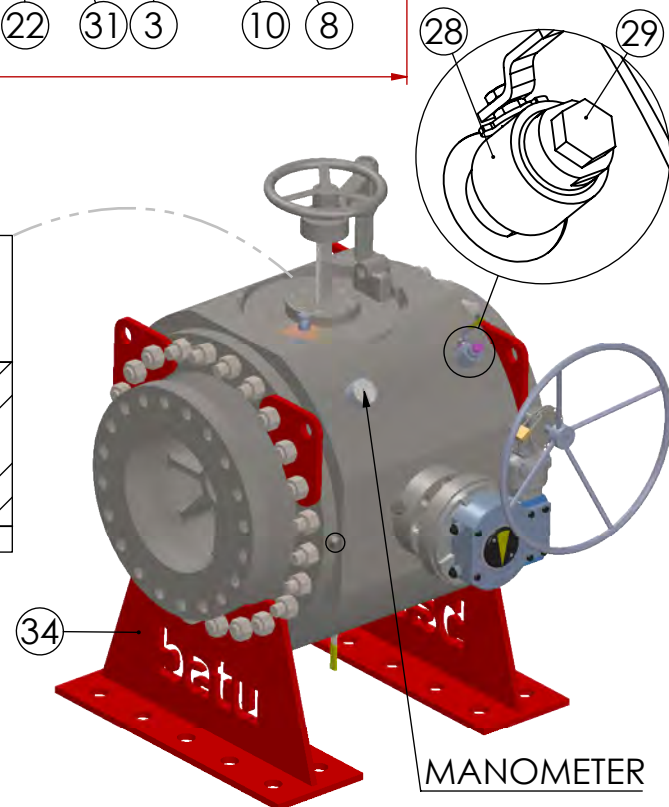
ÜRÜN
Product
PARÇA
Piece



LOCKABLE SYSTEM

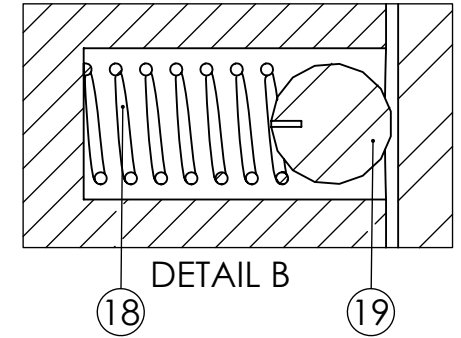
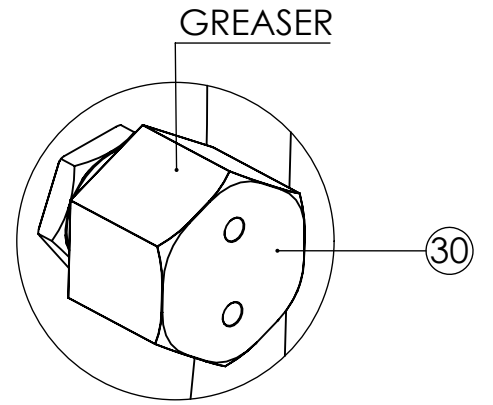
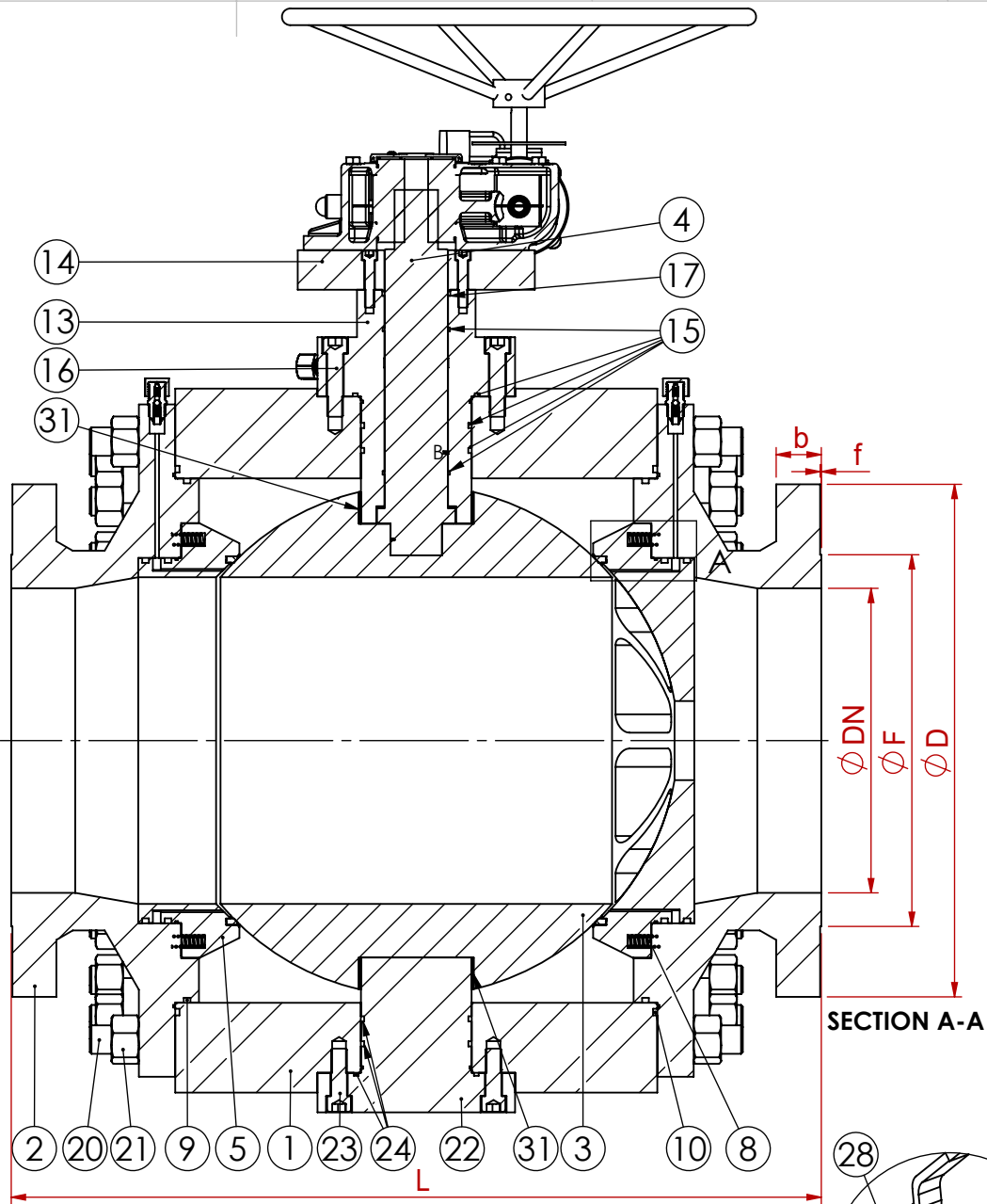
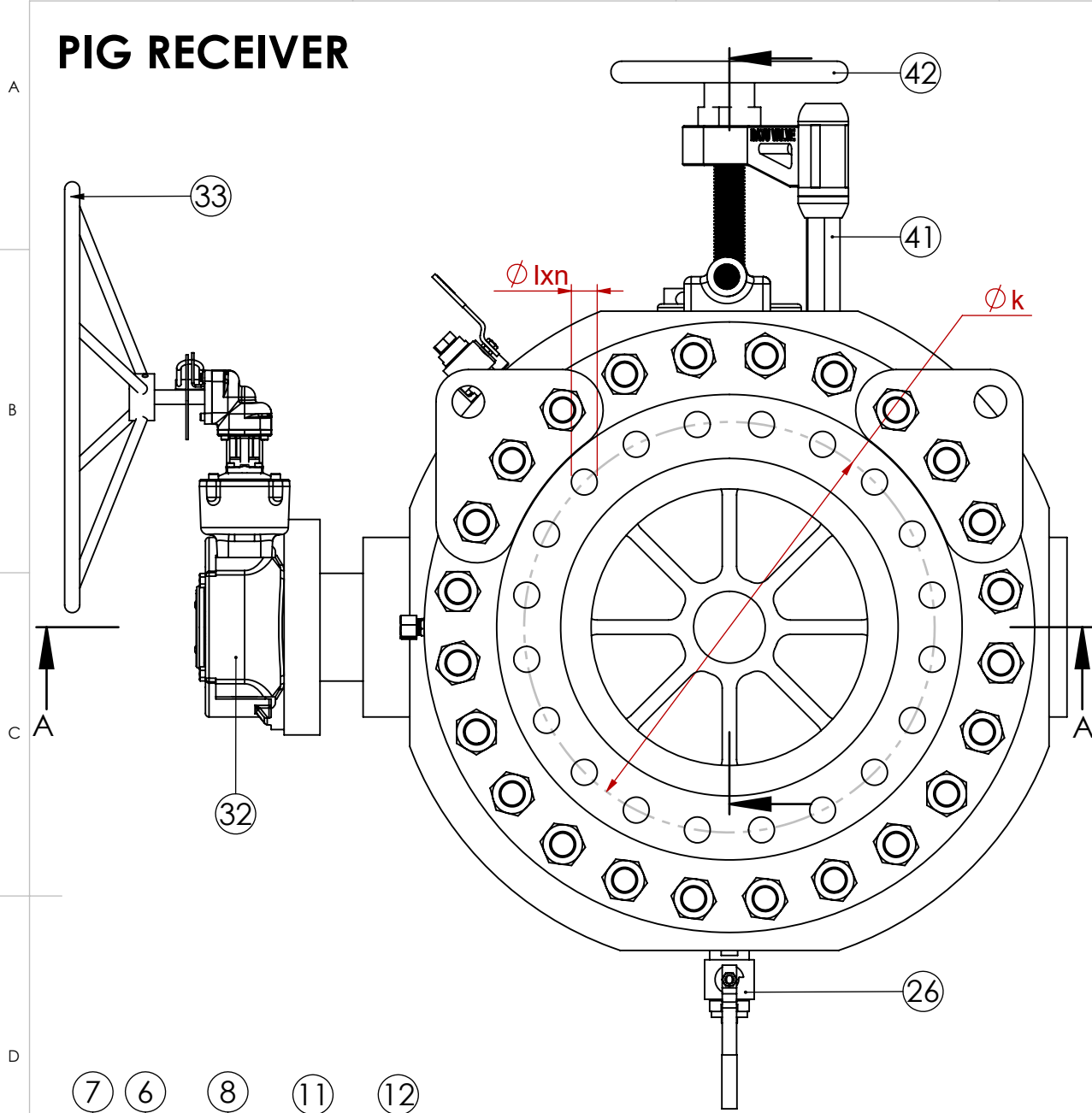
MALZEME	Materials	ÇALIŞMA BASINCI WORKING PRESSURE	TEST BASINCI TEST PRESSURE
SİPARİŞ NO	Reference No	-.46 / +38 °C 50 Bar	SHELL 75 Bar
ÜRÜN NO	Product No	Max. 180 °C 40 Bar	CLOSURE 55 Bar
PARÇA NO	Piece No		GAS 6 Bar

CLASS	SIZE	ØDN	L	ØD	ØF	Øk	b	f	ØI	HOLE UNIT(n)
300	16"	385	1025	648	469,9	571,5	57,1	1,5	35	20



MANOMETER

PIG RECEIVER

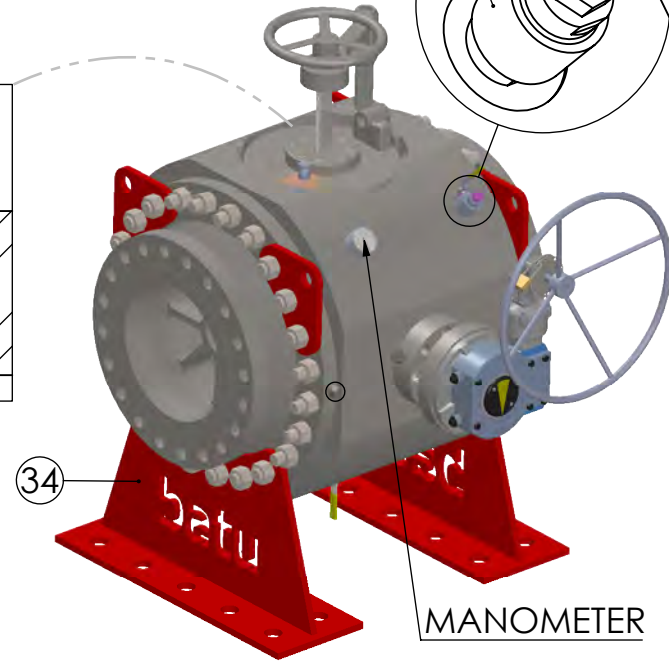
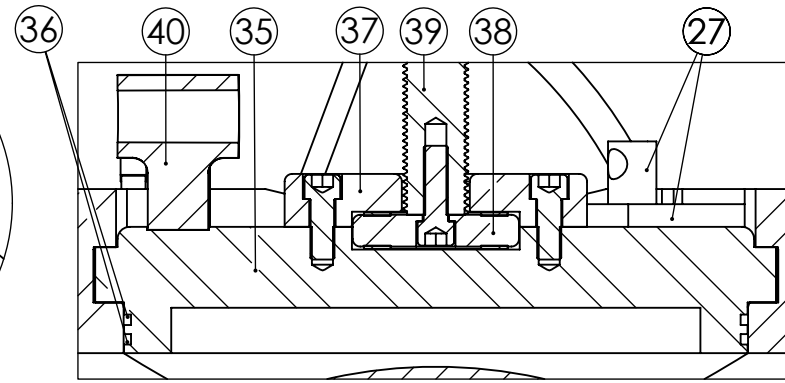
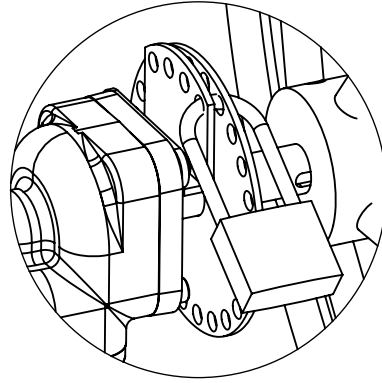


DETAIL B

Bill of Materials

ITEM NO	ITEM DESCRIPTION	MATERIAL
42	HAND WHEEL	CARBON STEEL
41	BEARING POST	ASTM A350 LF2
40	LEVER CONNECTION PART	ASTM A350 LF2
39	BUTTRESS GEAR STEM	SS 420
38	BUTTRESS GEAR STEM PART	ASTM A350 LF2
37	PIG BONNET	ASTM A350 LF2
36	PIG COVER SEAL	VITON
35	PIG COVER	ASTM A350 LF2
34	SUPPORT LEG	CARBON STEEL
33	WHEEL	CARBON STEEL
32	GEAR OP.	ROTORK AB 1950/PR4
31	DRY BEARING	BRONZE
30	GREASER	SS 304
29	BLIND PLUG	ASTM A350 LF2
28	VENT	3/4" 6000 PSIG BALL VALVE
27	VENT+LOCKED PART	STAINLESS STEEL
26	DRAIN	1" 6000 PSIG BALL VALVE
25	PIG BEARING	ASTM A350 LF2
24	TRUNNION SEAL	VITON
23	TRUNNION BOLT	ASTM A193 - Gr. B7M
22	TRUNNION	ASTM A350 LF2
21	NUT	ASTM A194 - Gr.7M
20	STUD	ASTM A193 - Gr. B7M
19	ANTISTATIC BALL	1,4301
18	ANTISTATIC SPRING	1,4301
17	BONNET PACKING	316 SS+GRAPHITE+VITON
16	BONNET BOLT	ASTM A193 - Gr. B7M
15	BONNET SEAL	VITON
14	BONNET FLANGE	ASTM A350 LF2
13	BONNET	ASTM A350 LF2
12	SEAT SEAL	VITON
11	FIRE STOPPER	GRAPHITE
10	BODY SEAL	316 SS+GRAPHITE+VITON
9	COVER SEAL	VITON
8	SEAT SPRING	INCONEL X-750
7	SEAT	RPTFE (%25 GLASS FILLED)
6	SEAT RETAINER-PIG CATCH	ASTM A350 LF2+ENP
5	SEAT RETAINER	ASTM A350 LF2+ENP
4	STEM	17-4PH SS
3	BALL	ASTM A350 LF2+ENP
2	COVER	ASTM A350 LF2
1	BODY	ASTM A350 LF2

LOCKABLE SYSTEM



DETAIL A

Approximate Valve Weight: 3500kg

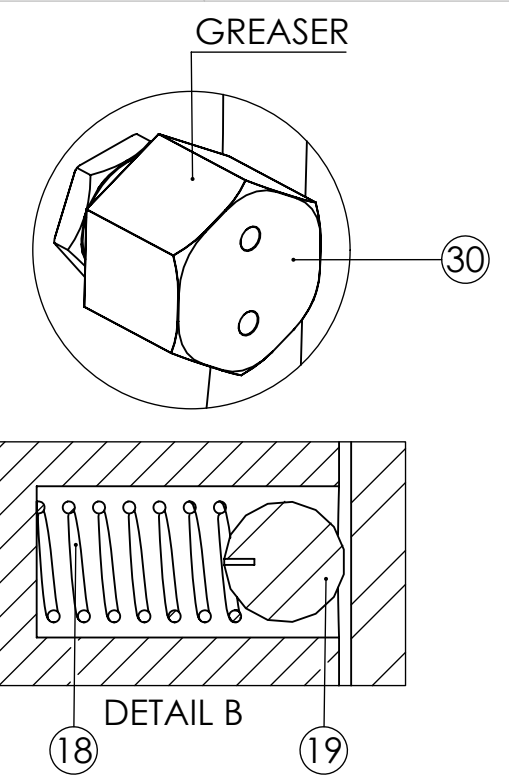
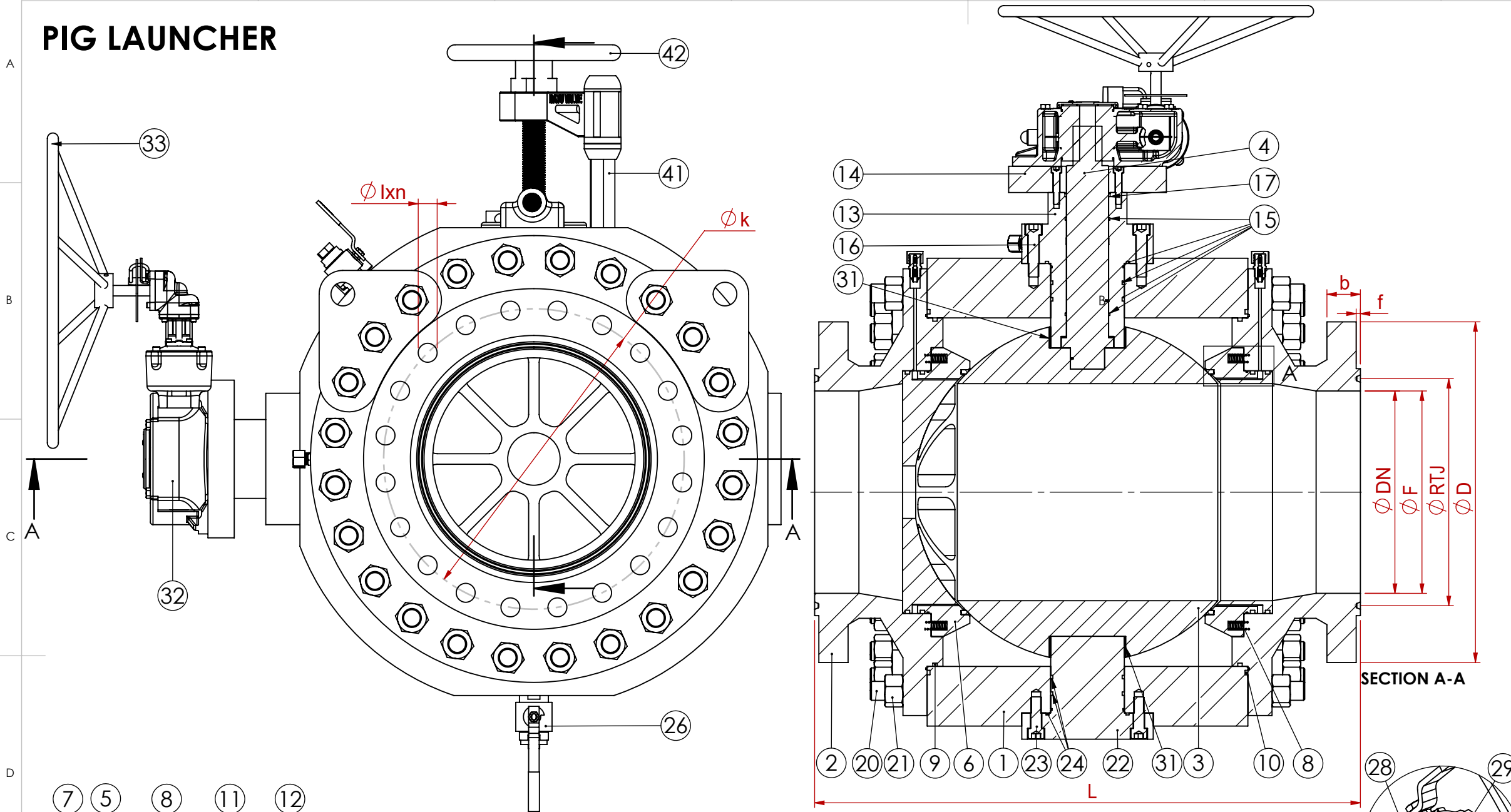
Bolt & nut Xylan fluorocarbon

HAZIRLAYAN Prepared By	YAYIN TARİHİ Publication Date	 MAKİNA SANAYİ VE TİCARET A.Ş. ADET Total	MALZEME Materials
ÇİZEN Draw By	REVİZYON TARİHİ Revision Date		SİPARİŞ NO Reference No
KONTROL Checking	REVİZYON NO Revision No		ÜRÜN NO Product No
ONAY Approval	ÖLÇEK Scale		PARÇA NO Piece No
ÜRÜN Product			
PARÇA Piece			

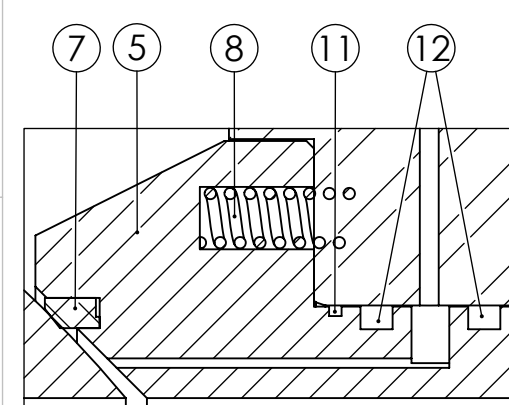
ÇALIŞMA BASINCI WORKING PRESSURE	TEST BASINCI TEST PRESSURE
-46 / +38 °C 50 Bar	SHELL 75 Bar
Max. 180 °C 40 Bar	CLOSURE 55 Bar
	GAS 6 Bar

CLASS	SIZE	ØDN	L	ØD	ØF	Øk	b	f	ØI	HOLE UNIT(n)
300	16"	385	1025	648	469,9	571,5	57,1	1,5	35	20

PIG LAUNCHER



Bill of Materials		
ITEM NO	ITEM DESCRIPTION	MATERIAL
42	HAND WHEEL	CARBON STEEL
41	BEARING POST	ASTM A350 LF2
40	LEVER CONNECTION PART	ASTM A350 LF2
39	BUTTRESS GEAR STEM	SS 420
38	BUTTRESS GEAR STEM PART	ASTM A350 LF2
37	PIG BONNET	ASTM A350 LF2
36	PIG COVER SEAL	VITON
35	PIG COVER	ASTM A350 LF2
34	SUPPORT LEG	CARBON STEEL
33	WHEEL	CARBON STEEL
32	GEAR OP.	ROTORK AB 1950/PR4
31	DRY BEARING	BRONZE
30	GREASER	SS 304
29	BLIND PLUG	ASTM A350 LF2
28	VENT	3/4" 6000 PSIG BALL VALVE
27	VENT+LOCKED PART	STAINLESS STEEL
26	DRAIN	1" 6000 PSIG BALL VALVE
25	PIG BEARING	ASTM A350 LF2
24	TRUNNION SEAL	VITON
23	TRUNNION BOLT	ASTM A193 - Gr. B7M
22	TRUNNION	ASTM A350 LF2
21	NUT	ASTM A194 - Gr.7M
20	STUD	ASTM A193 - Gr. B7M
19	ANTISTATIC BALL	1,4301
18	ANTISTATIC SPRING	1,4301
17	BONNET PACKING	316 SS+GRAPHITE+VITON
16	BONNET BOLT	ASTM A193 - Gr. B7M
15	BONNET SEAL	VITON
14	BONNET FLANGE	ASTM A350 LF2
13	BONNET	ASTM A350 LF2
12	SEAT SEAL	VITON
11	FIRE STOPPER	GRAPHITE
10	BODY SEAL	316 SS+GRAPHITE+VITON
9	COVER SEAL	VITON
8	SEAT SPRING	INCONEL X-750
7	SEAT	RPTFE (%25 GLASS FILLED)
6	SEAT RETAINER-PIG CATCH	ASTM A350 LF2+ENP
5	SEAT RETAINER	ASTM A350 LF2+ENP
4	STEM	17-4PH SS
3	BALL	ASTM A350 LF2+ENP
2	COVER	ASTM A350 LF2
1	BODY	ASTM A350 LF2

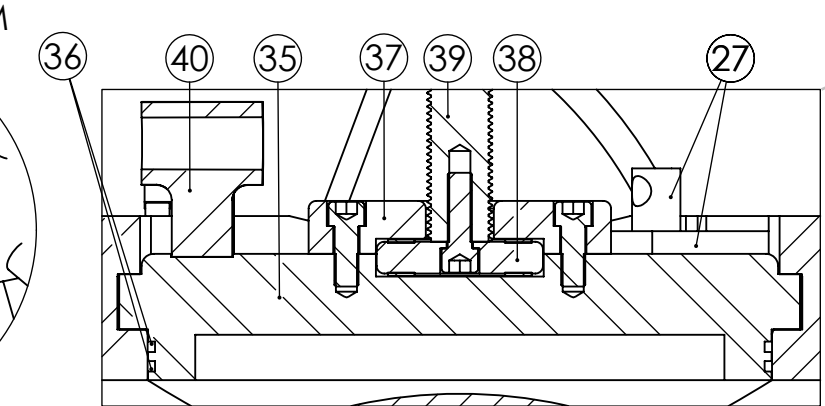


DETAIL A

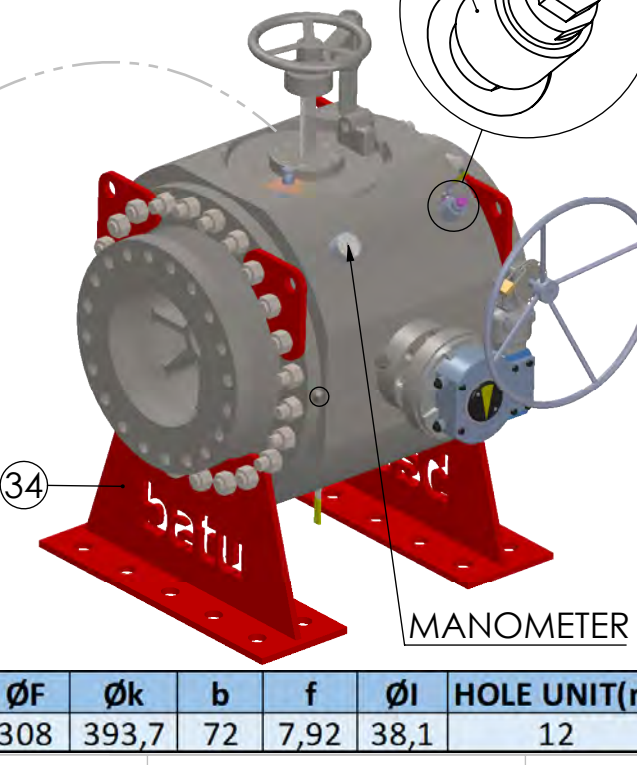
Approximate Valve Weight: 1500kg

Bolt & nut Xylan fluorocarbon

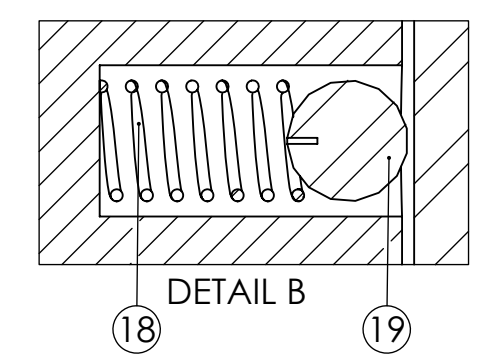
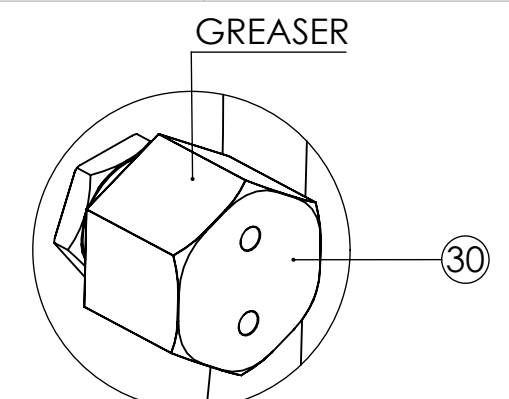
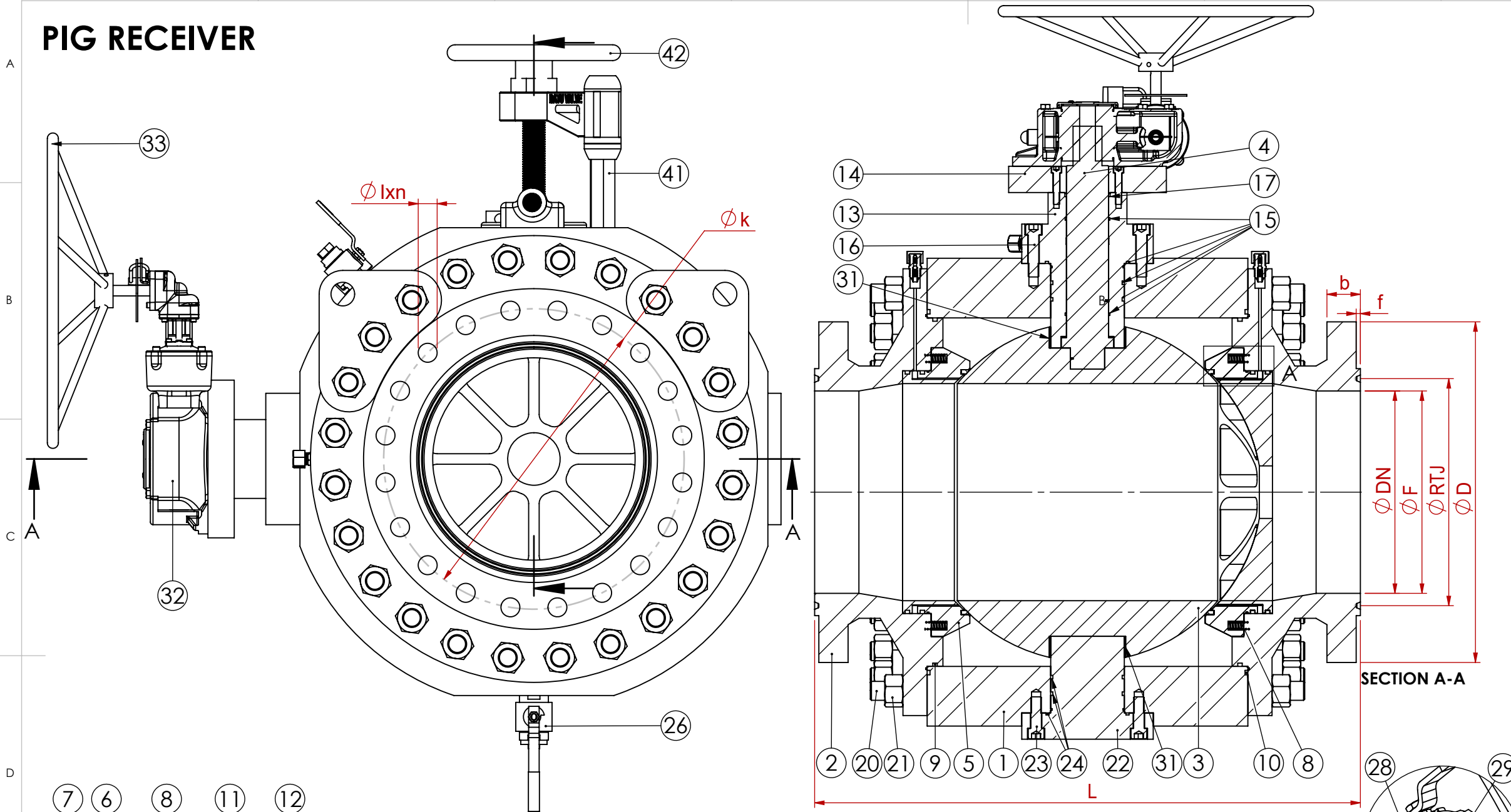
HAZIRLAYAN Prepared By	YAYIN TARİHİ Publication Date	 MAKİNA SANAYİ VE TİCARET A.Ş. ADET Total
ÇİZEN Draw By	REVİZYON TARİHİ Revision Date	
KONTROL Checking	REVİZYON NO Revision No	
ONAY Approval	ÖLÇEK Scale	
ÜRÜN Product		
PARÇA Piece		



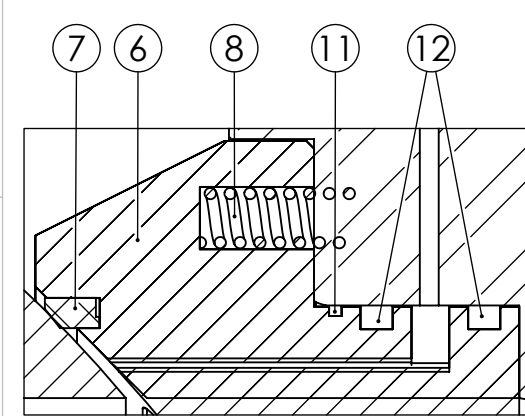
MALZEME	Materials	ÇALIŞMA BASINCI WORKING PRESSURE	TEST BASINCI TEST PRESSURE
SİPARİŞ NO	Reference No	-.46 / +38 °C 150 Bar	SHELL 225 Bar
ÜRÜN NO	Product No	Max. 180 °C 110 Bar	CLOSURE 165 Bar
PARÇA NO	Piece No		GAS 6 Bar



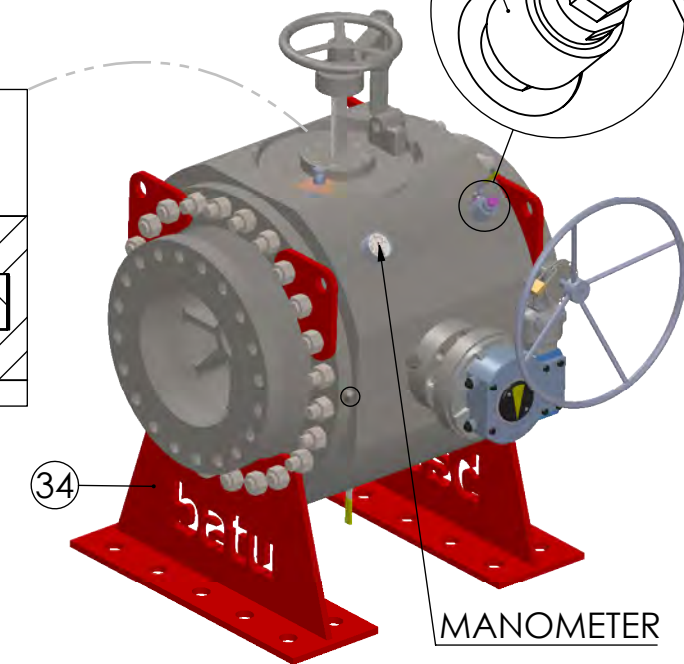
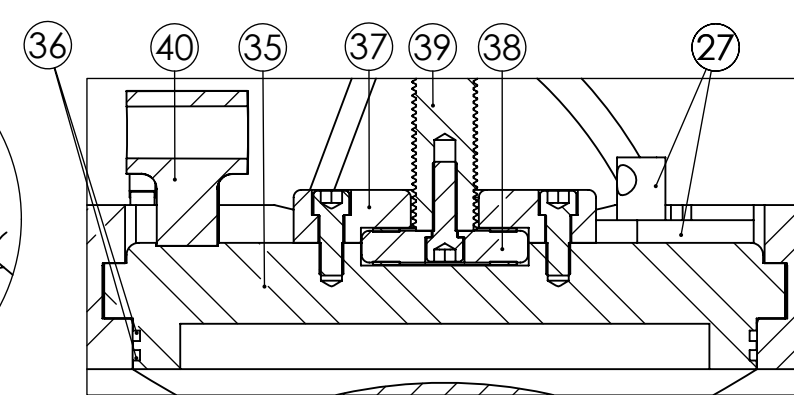
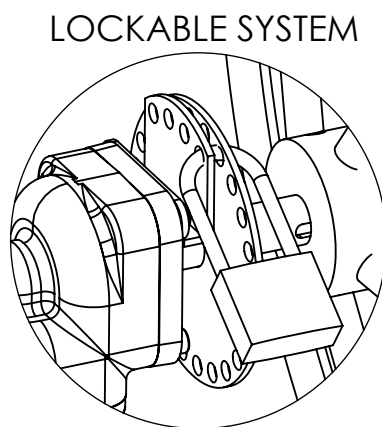
PIG RECEIVER



Bill of Materials		
ITEM NO	ITEM DESCRIPTION	MATERIAL
42	HAND WHEEL	CARBON STEEL
41	BEARING POST	ASTM A350 LF2
40	LEVER CONNECTION PART	ASTM A350 LF2
39	BUTTRESS GEAR STEM	SS 420
38	BUTTRESS GEAR STEM PART	ASTM A350 LF2
37	PIG BONNET	ASTM A350 LF2
36	PIG COVER SEAL	VITON
35	PIG COVER	ASTM A350 LF2
34	SUPPORT LEG	CARBON STEEL
33	WHEEL	CARBON STEEL
32	GEAR OP.	ROTOR AB 1950/PR4
31	DRY BEARING	BRONZE
30	GREASER	SS 304
29	BLIND PLUG	ASTM A350 LF2
28	VENT	3/4" 6000 PSIG BALL VALVE
27	VENT+LOCKED PART	STAINLESS STEEL
26	DRAIN	1" 6000 PSIG BALL VALVE
25	PIG BEARING	ASTM A350 LF2
24	TRUNNION SEAL	VITON
23	TRUNNION BOLT	ASTM A193 - Gr. B7M
22	TRUNNION	ASTM A350 LF2
21	NUT	ASTM A194 - Gr.7M
20	STUD	ASTM A193 - Gr. B7M
19	ANTISTATIC BALL	1,4301
18	ANTISTATIC SPRING	1,4301
17	BONNET PACKING	316 SS+GRAPHITE+VITON
16	BONNET BOLT	ASTM A193 - Gr. B7M
15	BONNET SEAL	VITON
14	BONNET FLANGE	ASTM A350 LF2
13	BONNET	ASTM A350 LF2
12	SEAT SEAL	VITON
11	FIRE STOPPER	GRAPHITE
10	BODY SEAL	316 SS+GRAPHITE+VITON
9	COVER SEAL	VITON
8	SEAT SPRING	INCONEL X-750
7	SEAT	RPTFE (%25 GLASS FILLED)
6	SEAT RETAINER-PIG CATCH	ASTM A350 LF2+ENP
5	SEAT RETAINER	ASTM A350 LF2+ENP
4	STEM	17-4PH SS
3	BALL	ASTM A350 LF2+ENP
2	COVER	ASTM A350 LF2
1	BODY	ASTM A350 LF2



DETAIL A
Approximate Valve Weight: 1500kg
Bolt & nut Xylan fluorocarbon



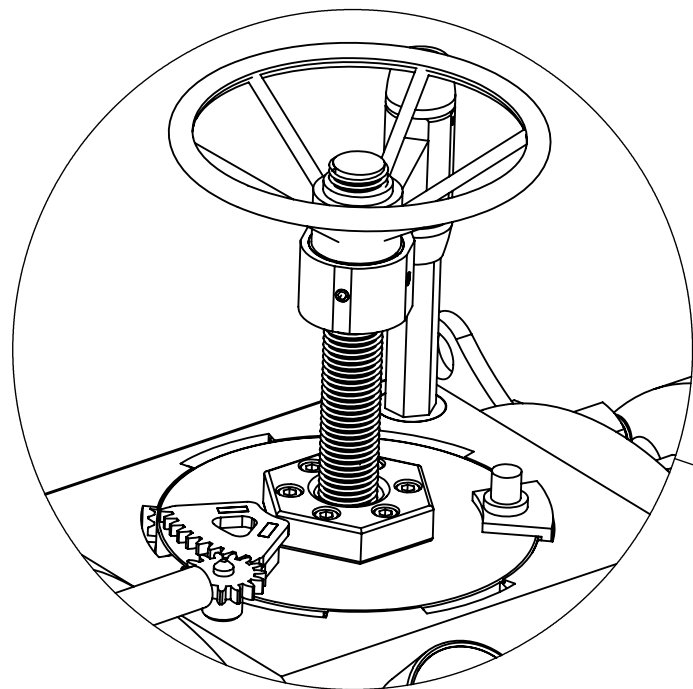
HAZIRLAYAN Prepared By	YAYIN TARİHİ Publication Date	 MAKİNA SANAYİ VE TİCARET A.Ş. ADET Total	MALZEME Materials	ÇALIŞMA BASINCI WORKING PRESSURE	TEST BASINCI TEST PRESSURE
ÇİZEN Draw By	REVİZYON TARİHİ Revision Date		SİPARİŞ NO Reference No	.-46 / +38 °C 150 Bar	SHELL 225 Bar
KONTROL Checking	REVİZYON NO Revision No		ÜRÜN NO Product No	Max. 180 °C 110 Bar	CLOSURE 165 Bar
ONAY Approval	ÖLÇEK Scale		PARÇA NO Piece No		GAS 6 Bar
ÜRÜN Product					
PARÇA Piece					

CLASS	SIZE	ØDN	L	ØD	ØRTJ	ØF	Øk	b	f	ØI	HOLE UNIT(n)
900	8"	201	892	470	269,9	308	393,7	72	7,92	38,1	12

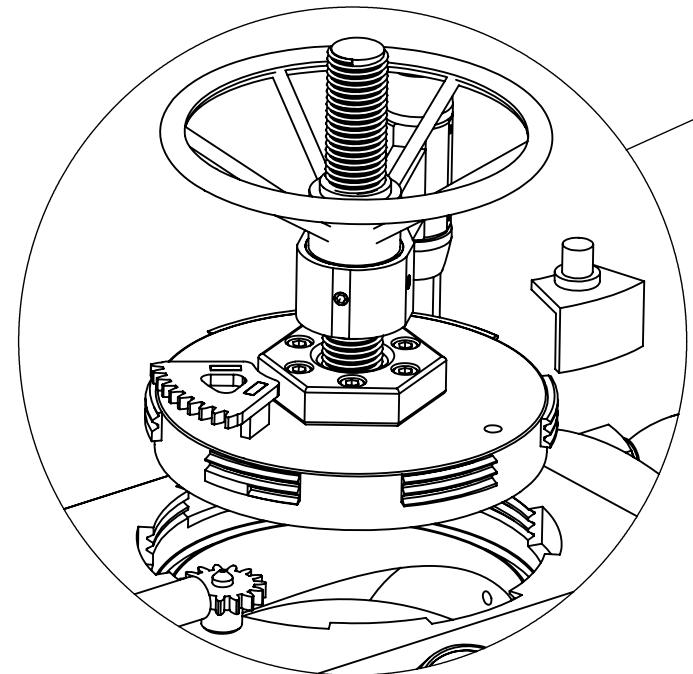
QUICK OPENING CLOSURE

LOCK-CLOSE / OPEN

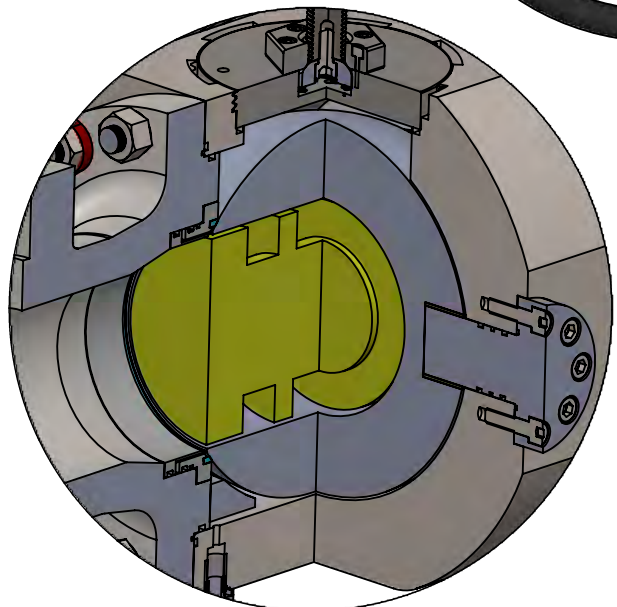
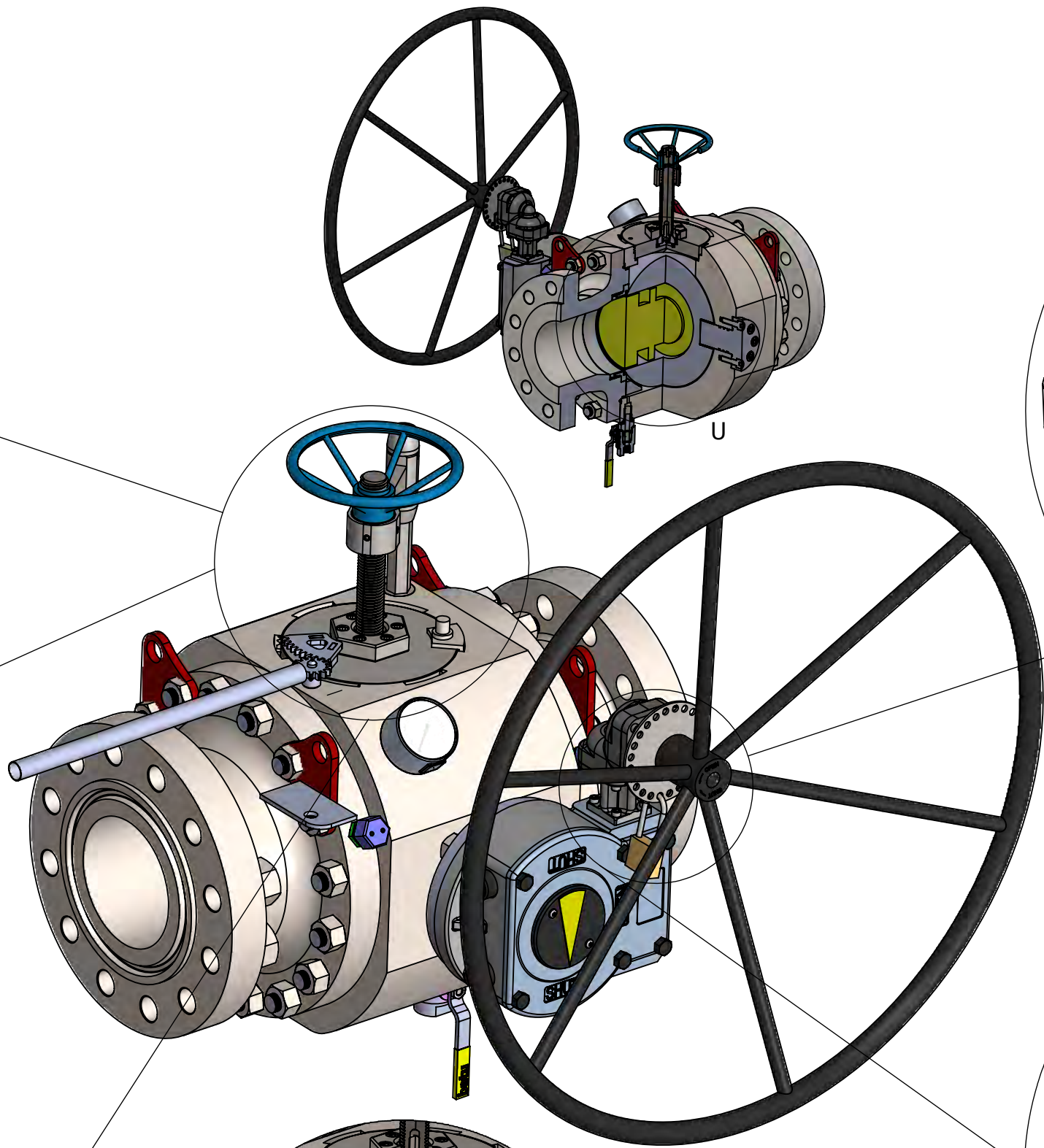
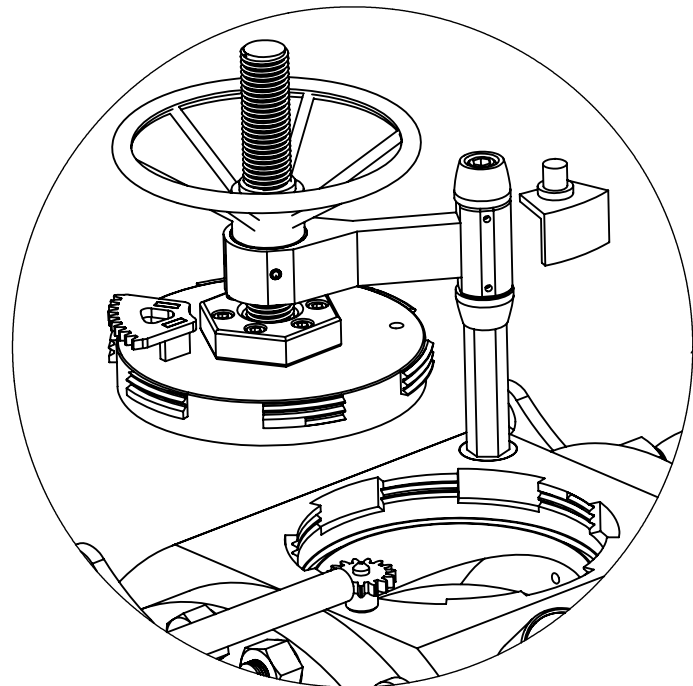
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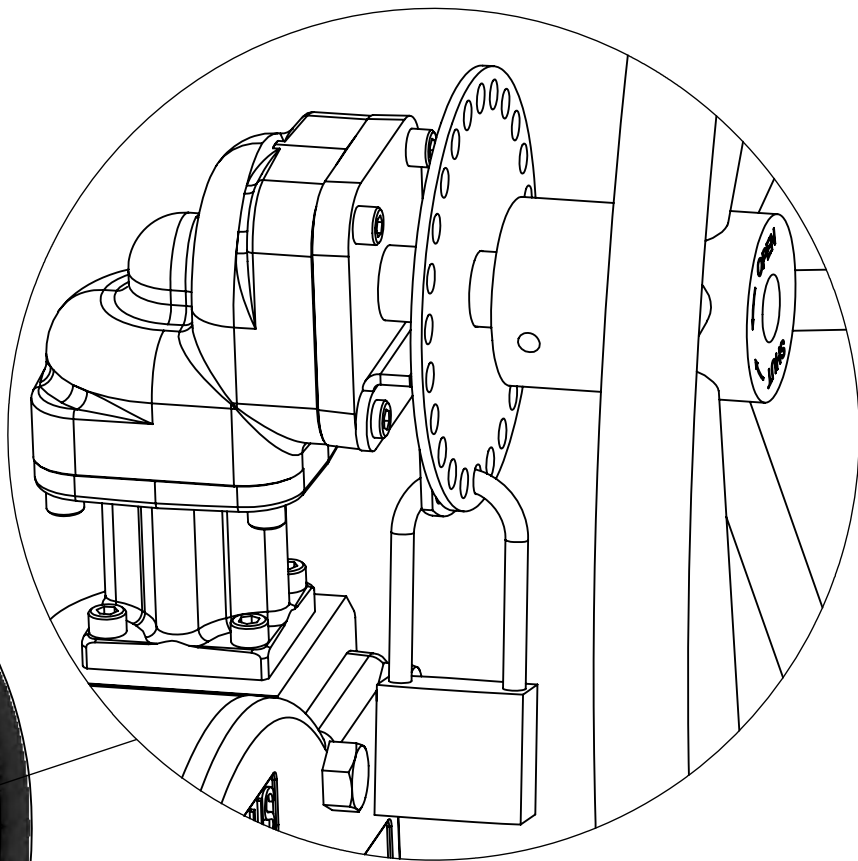
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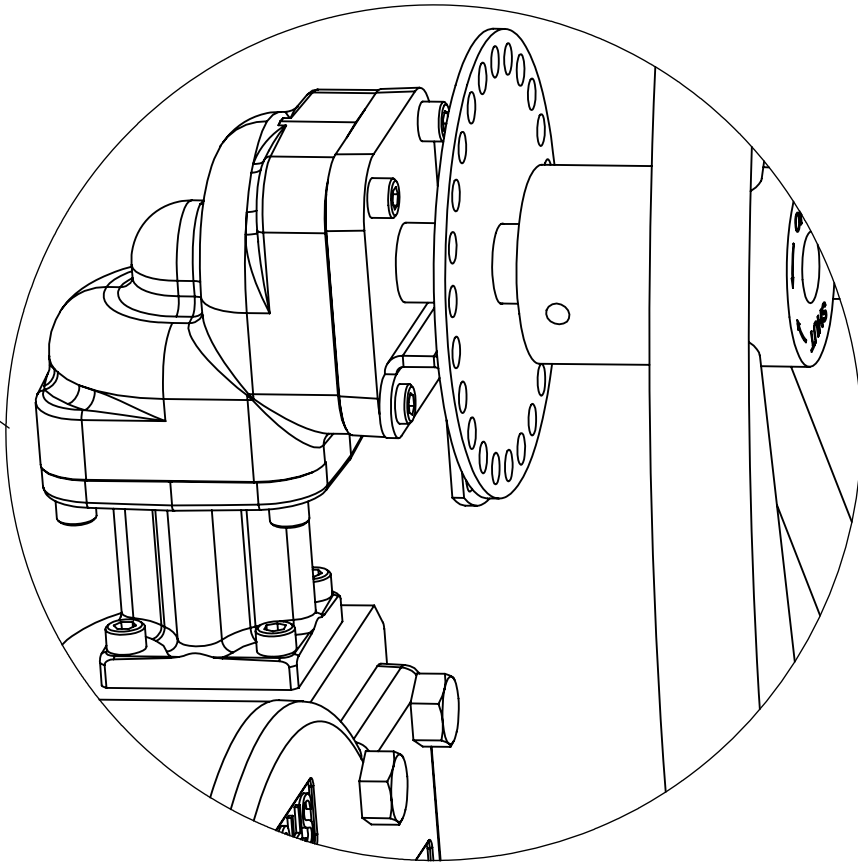
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DETA U

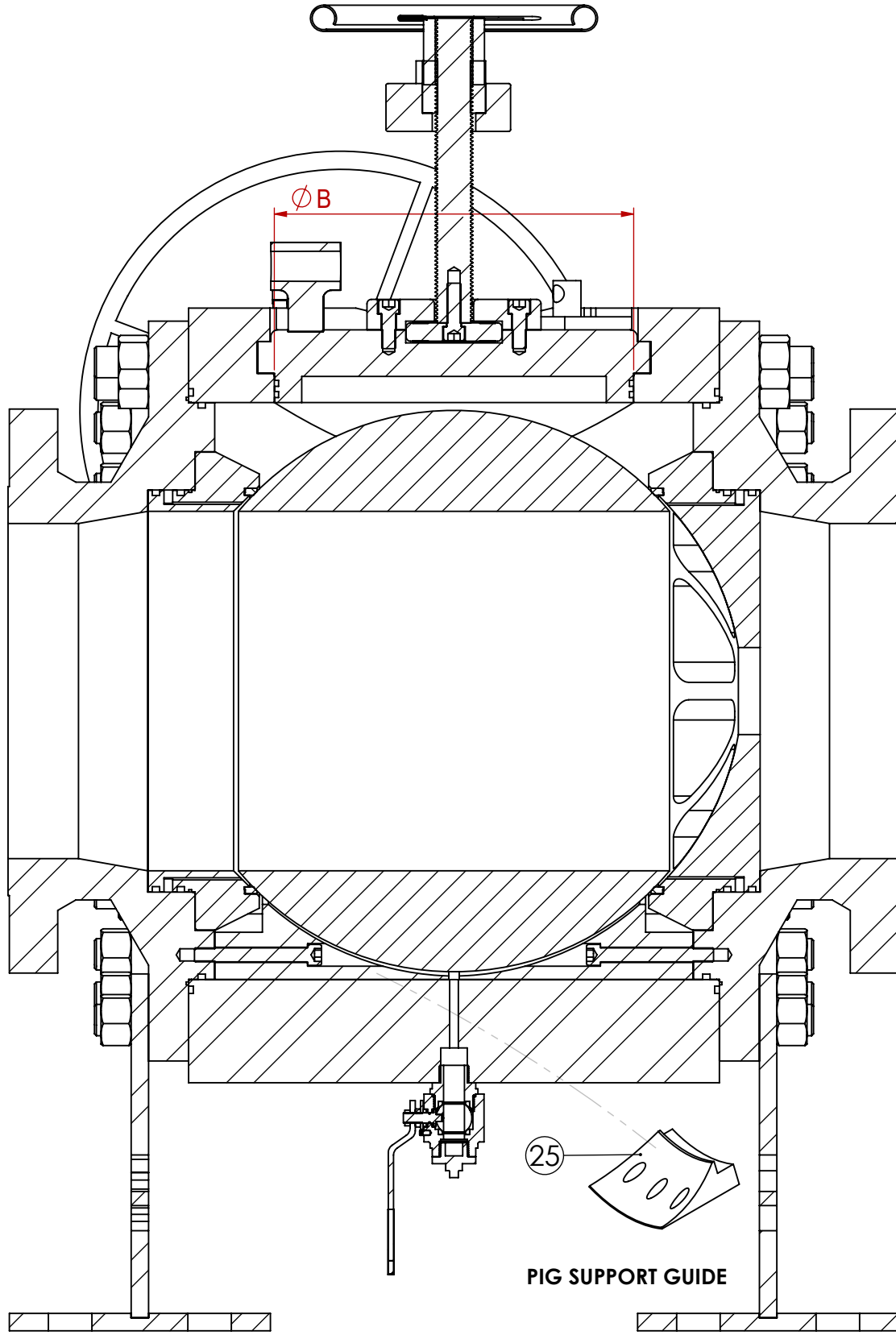


LOCKED

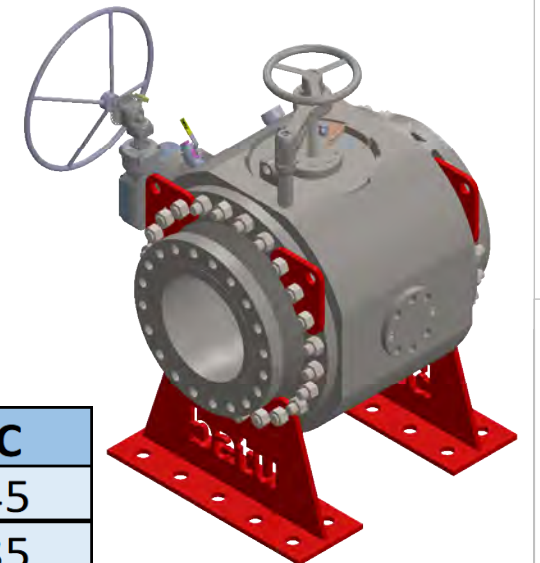
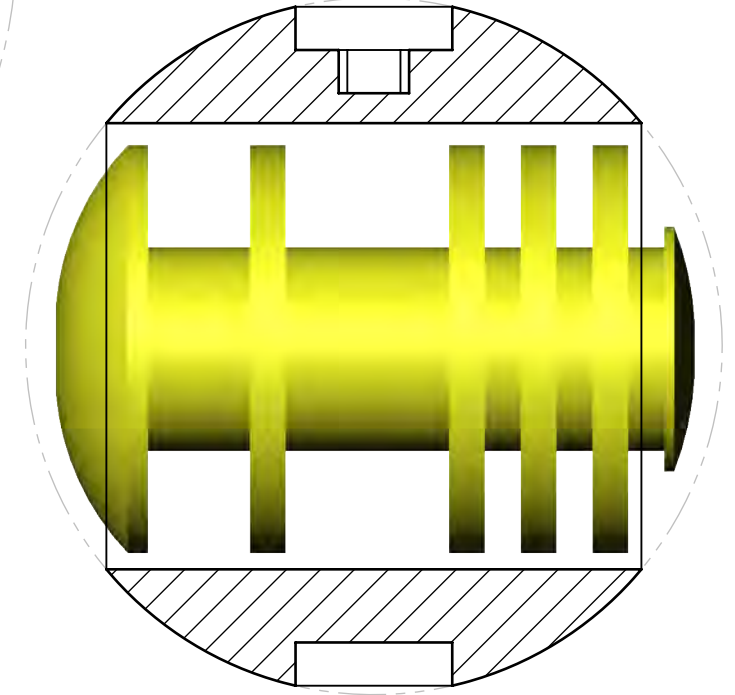
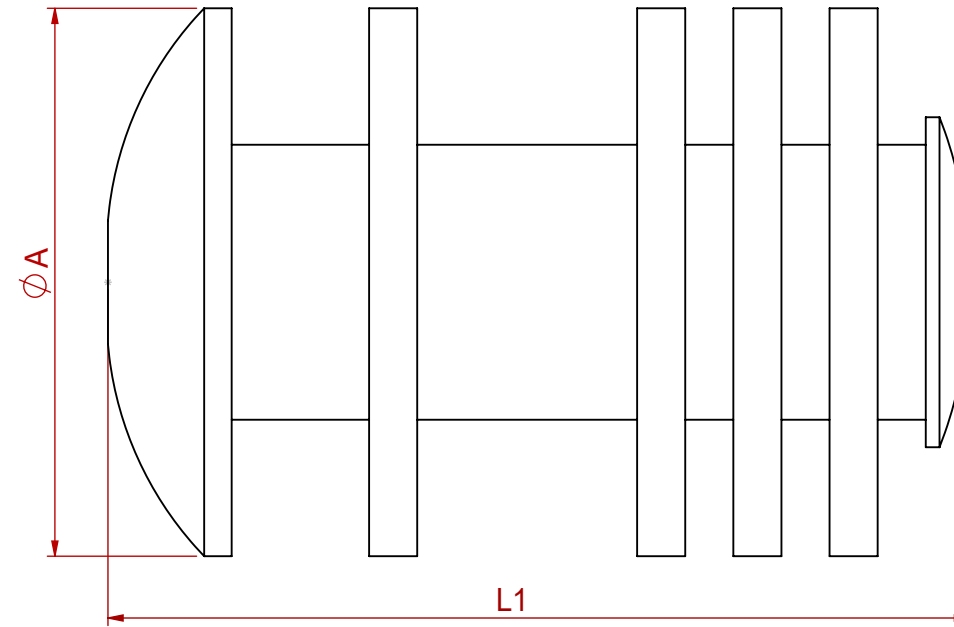
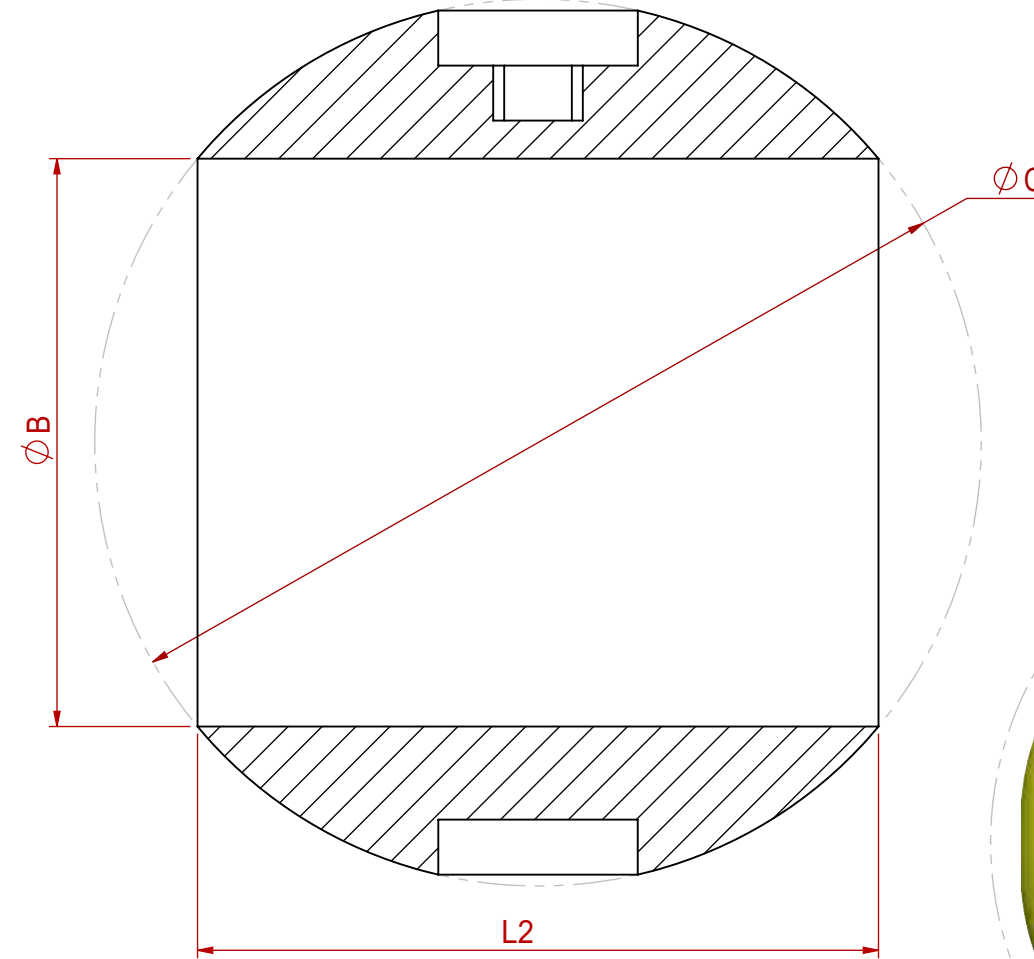


UNLOCKED

CUP & DISK STYLE PIGS (POLY/ CAST)



PIG SUPPORT GUIDE

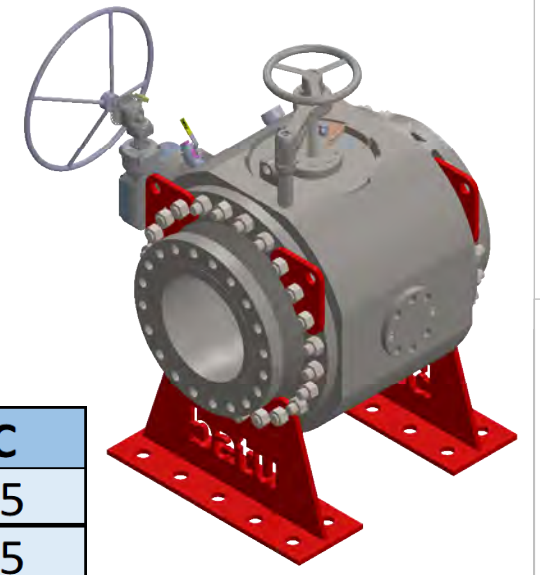
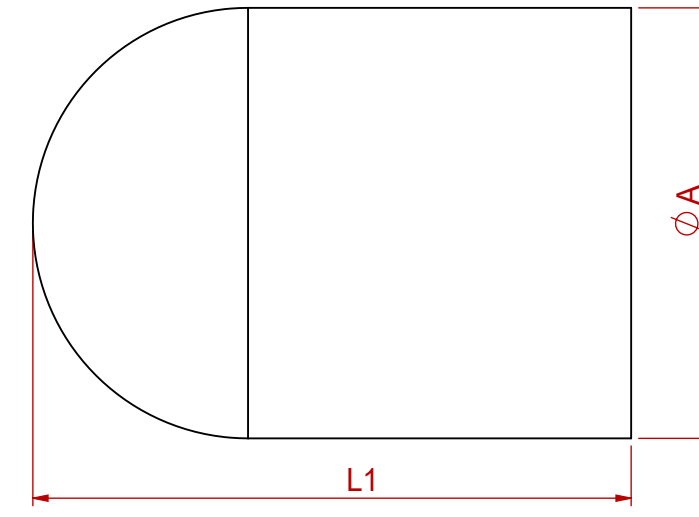
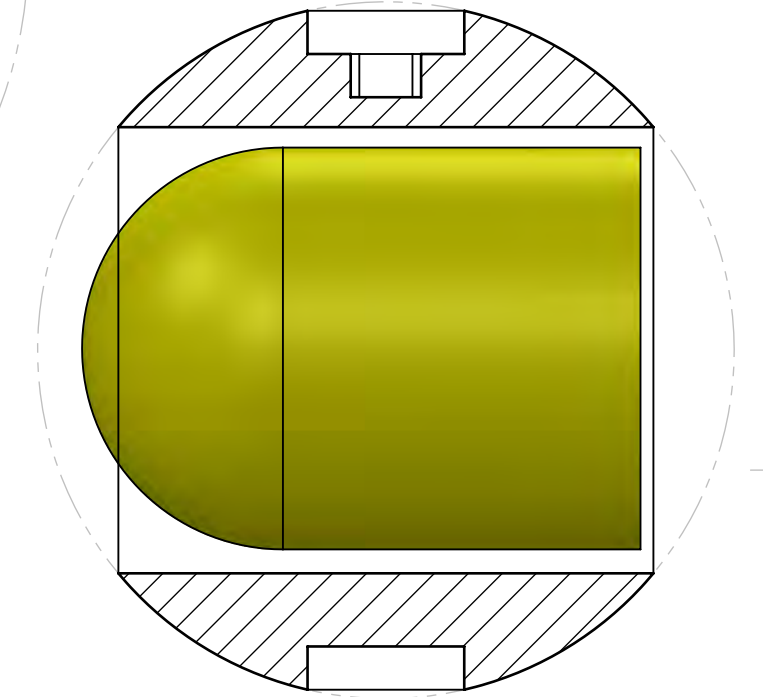
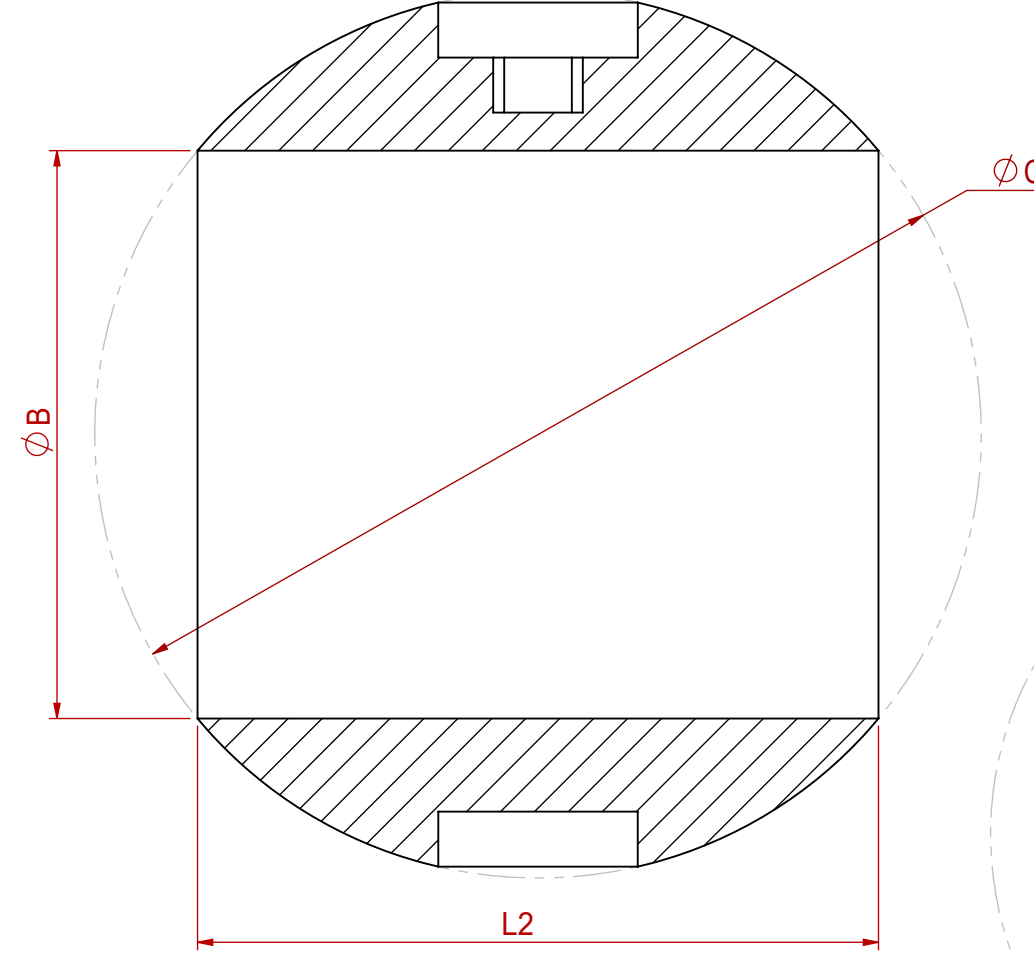
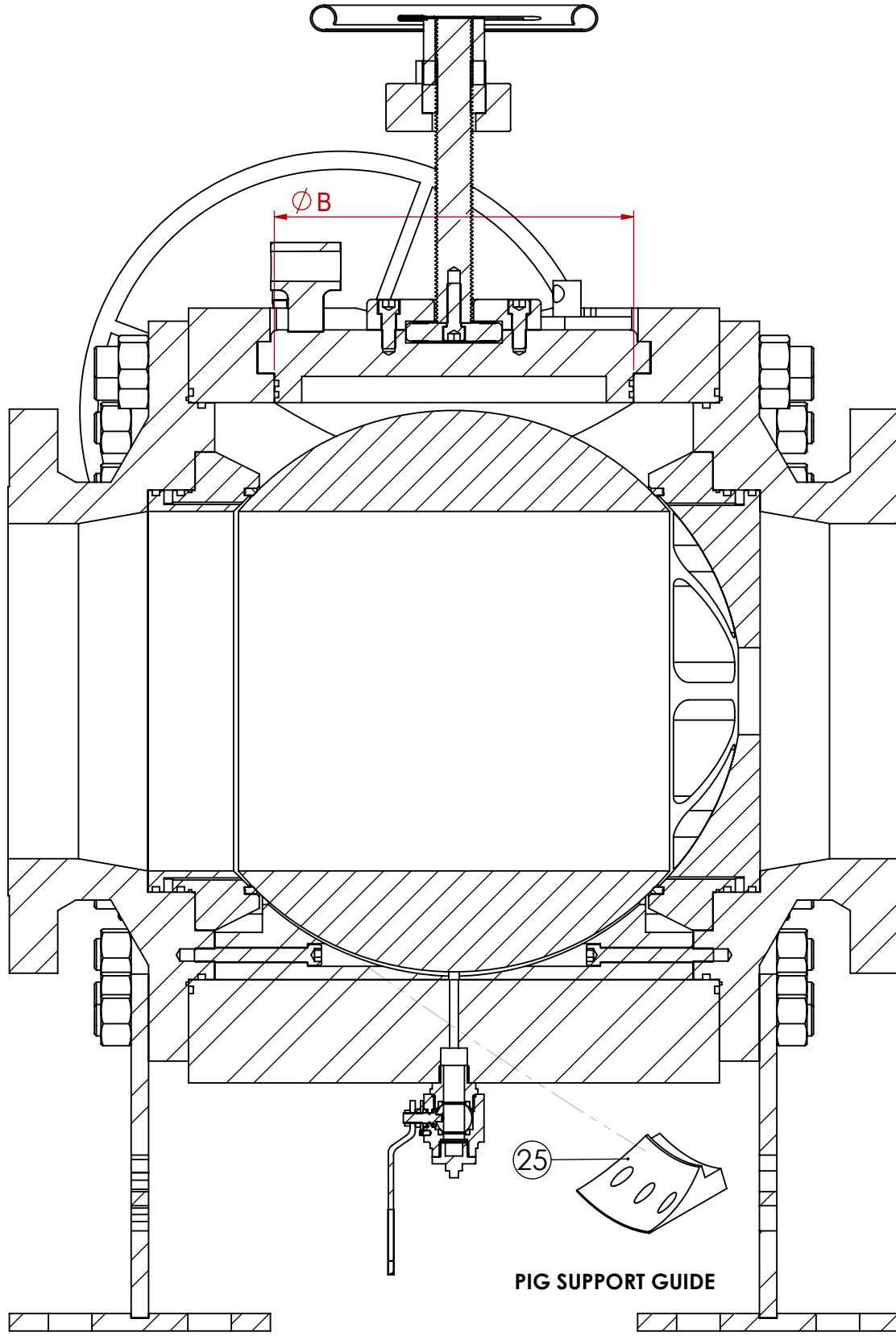


HAZIRLAYAN Prepared By	YAYIN TARİHİ Publication Date	 MAKİNA SANAYİİ VE TİCARET A.Ş.	MALZEME Materials
ÇİZEN Draw By	REVİZYON TARİHİ Revision Date		SİPARİŞ NO Reference No
KONTROL Checking	REVİZYON NO Revision No		ÜRÜN NO Product No
ONAY Approval	ÖLÇEK Scale		PARÇA NO Piece No
ÜRÜN Product			
PARÇA Piece			

KK-F-040/2

CLASS	SIZE	L1	ØA	L2	ØB	ØC
300	16"	625,6	398,5	495,5	413	645
900	8"	362	209	314,5	222	385

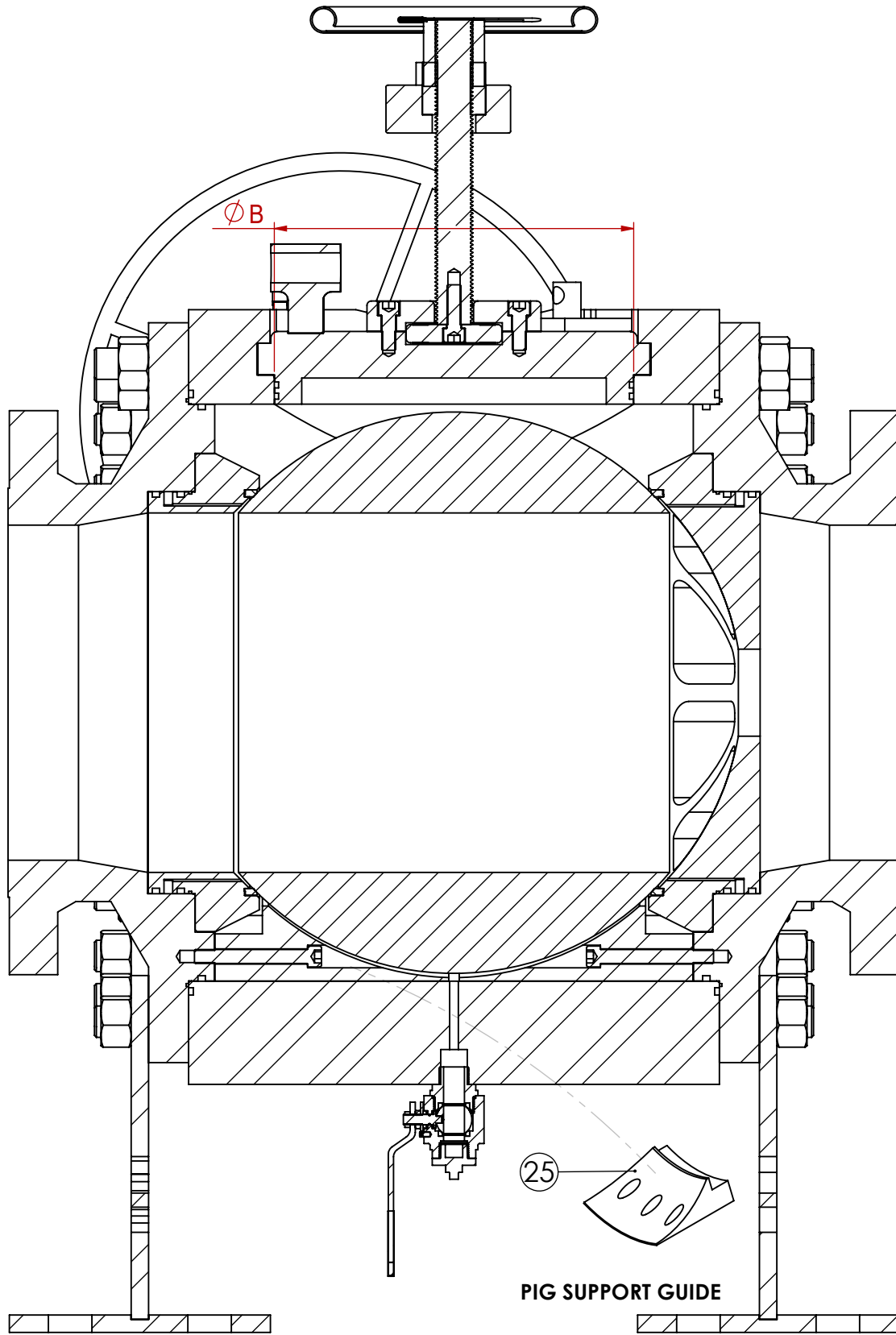
BULLET STYLE PIGS (FOAM)



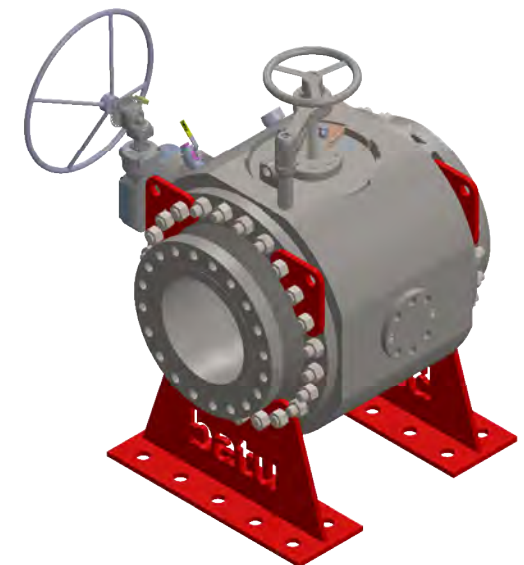
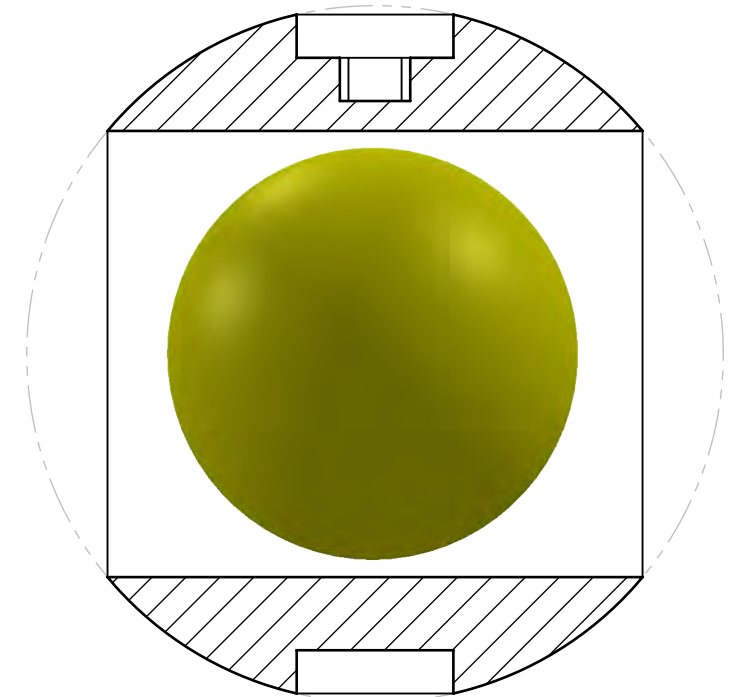
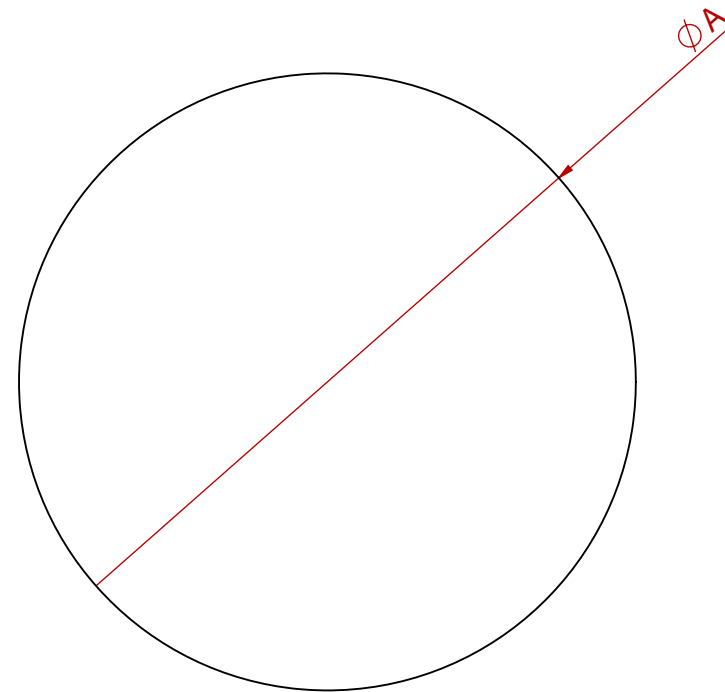
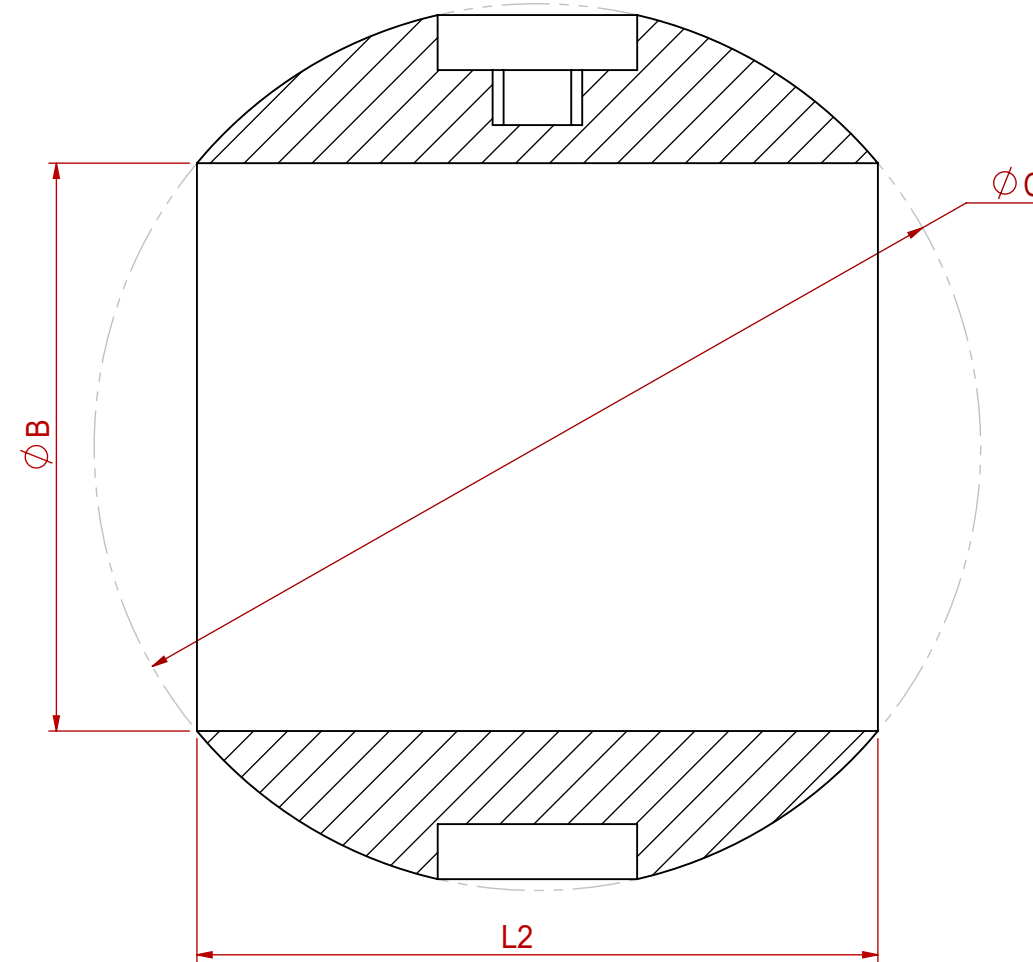
HAZIRLAYAN Prepared By	YAYIN TARİHİ Publication Date	 ADET Total	MALZEME Materials
ÇİZEN Draw By	REVİZYON TARİHİ Revision Date		SİPARİŞ NO Reference No
KONTROL Checking	REVİZYON NO Revision No		ÜRÜN NO Product No
ONAY Approval	ÖLÇEK Scale		PARÇA NO Piece No
ÜRÜN Product			
PARÇA Piece			

CLASS	SIZE	L1	ØA	L2	ØB	ØC
300	16"	554	409	495,5	413	645
900	8"	320,7	219	314,5	222	385

INFLATABLE SPHERES STYLE PIGS

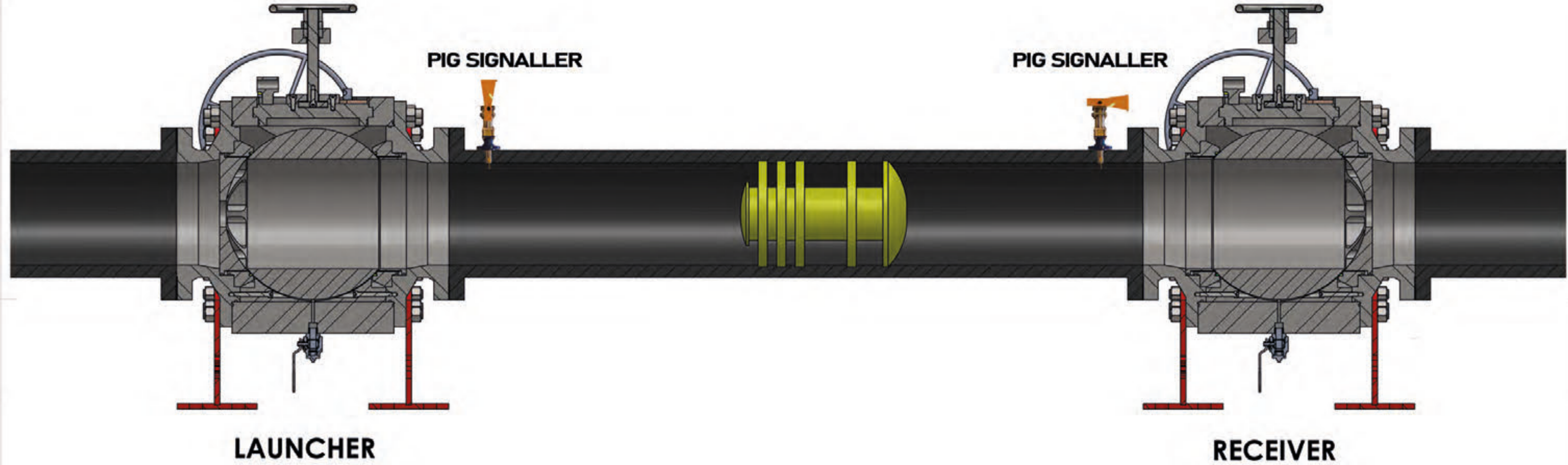


PIG SUPPORT GUIDE



HAZIRLAYAN Prepared By	YAYIN TARİHİ Publication Date	 MAKİNA SANAYİİ VE TİCARET A.Ş.	MALZEME Materials
ÇİZEN Draw By	REVİZYON TARİHİ Revision Date		SİPARİŞ NO Reference No
KONTROL Checking	REVİZYON NO Revision No		ÜRÜN NO Product No
ONAY Approval	ÖLÇEK Scale		PARÇA NO Piece No
ÜRÜN Product			
PARÇA Piece			

CLASS	SIZE	ØA	L2	ØB	ØC
300	16"	408	495,5	413	645
900	8"	212	314,5	222	385



HAZIRLAYAN Prepared By	YAYIN TARİHİ Publication Date	 ADET Total	MALZEME Materials
ÇİZEN Drawn By	REVİZYON TARİHİ Revision Date		SİPARİŞ NO Reference No
KONTROL Checking	REVİZYON NO Revision No		ÜRÜN NO Product No
ONAY Approval	ÖLÇEK Scale		PARÇA NO Piece No
ÜRÜN Product			
PARÇA Piece			