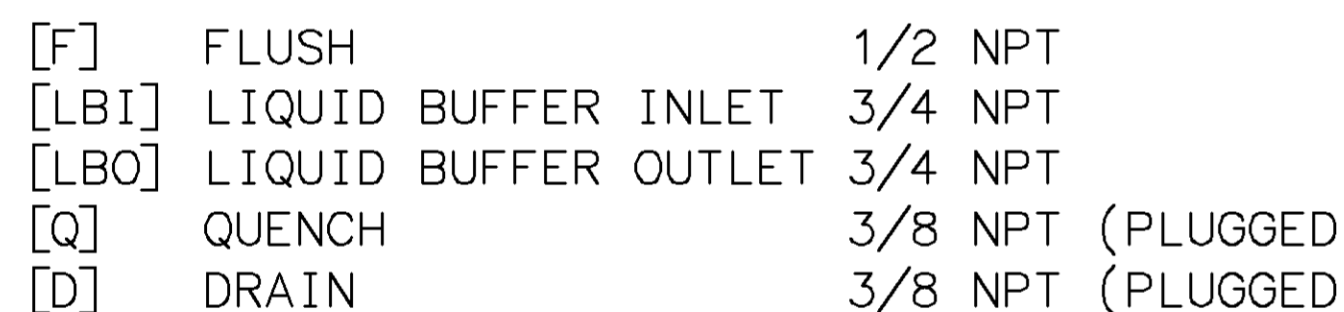


Customer	PETROLEUM & ENERGY INFRASTRUCTURE LTD.	Project No.	2351497-001,003
Project Name	Haifa & Hadera BB3 tender	Service	LIQUID FUELS
Item No.	'P-04 & P-07	Specification	Boosting pump
Order No.	PO23000964	Doc No.	2351497-PEI-HGS-PS-SLD-001

MECHANICAL SEAL & SEAL SYSTEM DRAWING

1	2024.01.05	For Approval	J.S.KIM	H.C.CHOI	J.G.BEAK
0	2023.07.27	For Approval	J.S.KIM	H.C.CHOI	J.G.BEAK
Rev.	Date	Revision Description	Prepared by	Reviewed by	Approved by



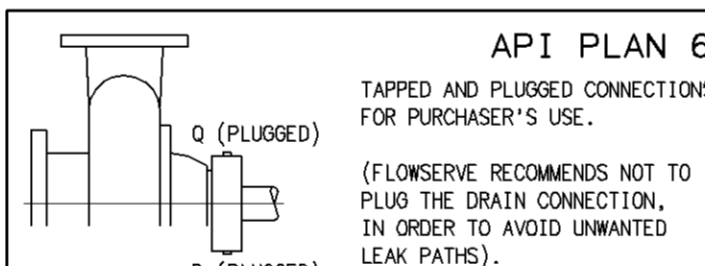
(SEE A3H81052 SHEET 1 OF 2 FOR DRIVE END

2. DISENGAGE SETTING DEVICE BEFORE START-UP.
3. TIGHTEN SETSCREWS EQUALLY, CROSSWISE, IN 4 STEPS. FINAL TORQUE: 4.2 Nm [37 LBF.INCH]. SECURE AT ASSEMBLY.
4. TIGHTEN SETSCREWS EQUALLY, CROSSWISE, IN 4 STEPS. FINAL TORQUE: 33 Nm [290 LBF.INCH].
5. CUSTOMER TO RE-WORK EQUIPMENT AS SHOWN.
6. CUSTOMER TO MAINTAIN THE TOLERANCE AS SHOWN.
7. CUSTOMER TO APPROVE THE LOCATION AND ORIENTATION OF PIPING CONNECTIONS IN BOTH VIEWS.

APPROVAL DRAWING
FOR CUSTOMER REVIEW

DIM'S ARE REF UNLESS SPECIFIED OTHERWISE
DIM'S IN: MM [INCHES]

API PLAN 52
FOR SYSTEM DRAWING
REFER A3H81041



FLUSH (INJECTION) RATE: 13 LPM [3.5 GPM]

1	SUGGESTED SPARE PARTS
2	CODE/BSC [X]/OFF. STD [W]

NO	PARTCODE	QTY	DESCRIPTION	MATERIAL	1	2
1	3H-----DB	1	SLEEVE	316		
11	3H-----DB	1	GLAND	316		
5	4R55650DB	1	PIN	316		V
5.2	670407DB	1	PIN	316		
11.1	3H-----DB	1	GLAND	316		
5.1	4R55650DB	1	PIN	316		V
13	568247GG	1	SEAT GASKET	PERFLUOROELASTOMER	*	
13.1	568247GG	1	SEAT GASKET	PERFLUOROELASTOMER	*	
14	4N12177SL	1	STATIONARY FACE	SILICON CARBIDE	*	
14.1	4N12177SL	1	STATIONARY FACE	SILICON CARBIDE	*	
15	154820RY	1	ROTATING FACE	CARBON	*	
15.1	154820RY	1	ROTATING FACE	CARBON	*	
16	669515NL	12	COIL SPRING	ALLOY C-276	*	
16.1	669515NL	12	COIL SPRING	ALLOY C-276	*	
17	154822DB	1	SPRING HOLDER	316		
17.1	154822DB	1	SPRING HOLDER	316		
18	568261GG	1	GLAND GASKET	PERFLUOROELASTOMER	*	
18.1	568261GG	1	GLAND GASKET	PERFLUOROELASTOMER	*	
19	568240GG	1	SLEEVE GASKET	PERFLUOROELASTOMER	*	
24	3N83387GE	1	BUSHING	CARBON		
40	4N01749DB	4	SHCS 5/16-18 X 3/4	316		
40.1	4R2889DB	4	HHCS 5/16-18 X 1/2	316		
54	668924DB	1	RETAINING RING	316		
54.1	668924DB	1	RETAINING RING	316		
57	4R0438DB	4	SSCP 3/8-16 X 1/2	316	*	
57.1	4R0439DB	4	SSCP 3/8-16 X 5/8	316	*	V
57.2	4R0439CI	6	SSCP 3/8-16 X 5/8	ALLOY STEEL, ZINC PLATED	*	
58	4H17675DB	1	DRIVE COLLAR	316		
71	568155GG	1	O-RING GASKET	PERFLUOROELASTOMER	*	
76	568244GG	1	ROTATING FACE GASKET	PERFLUOROELASTOMER	*	
76.1	568244GG	1	ROTATING FACE GASKET	PERFLUOROELASTOMER	*	
103	4R15130DB	4	SETTING DEVICE	316		
111	SB153X515	1	SNAP RING	ALLOY 718		
142	3H-----DB	1	RETAINER	316		
167	4R3000X953	2	PIPE PLUG	SA-479 TY316 / 316L		
172	4R10424DB	1	ADAPTER	316		

FSD MAT.CODE	ASTM
DB	A276 TYPE 316
NL	B574 TYPE ALLOY C-276
SL	Reaction Bonded SiC.
CI	A354 TYPE ALLOY 4140
X515	B637 TYPE ALLOY 718
X953	A479 TYPE 316/316L

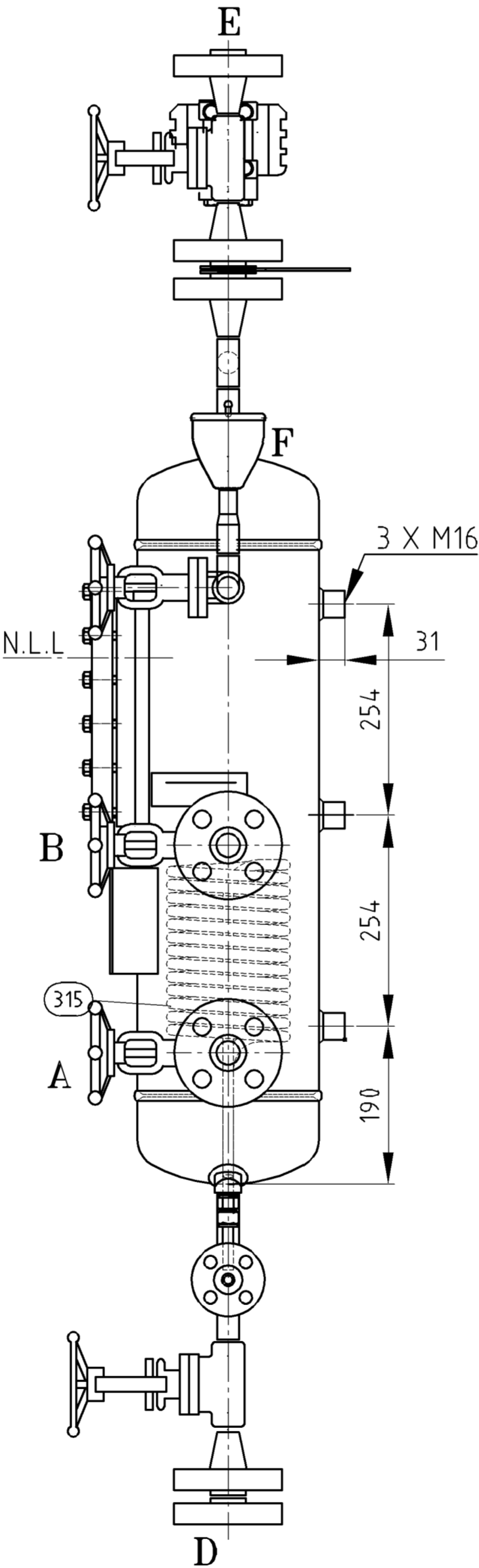
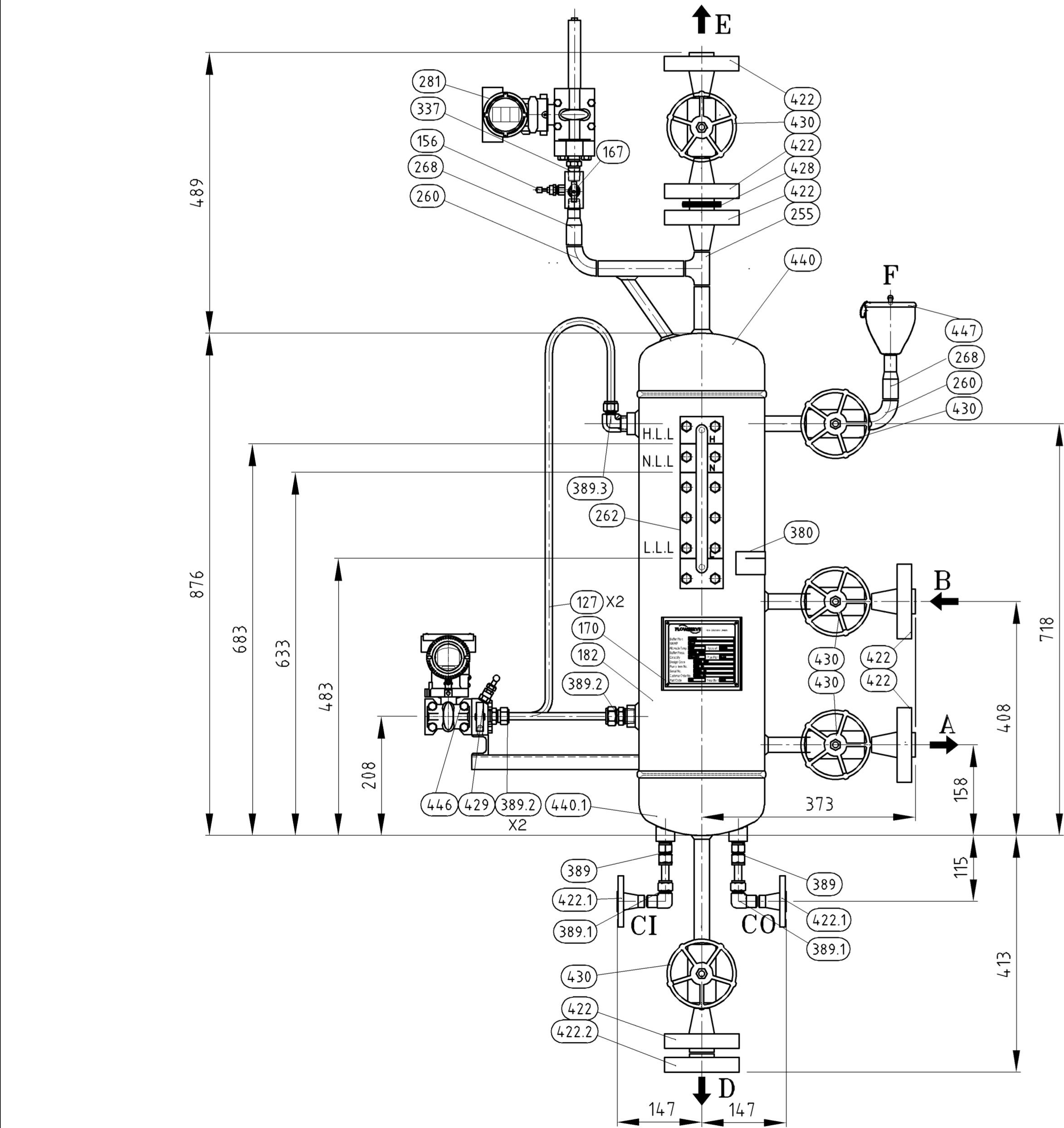
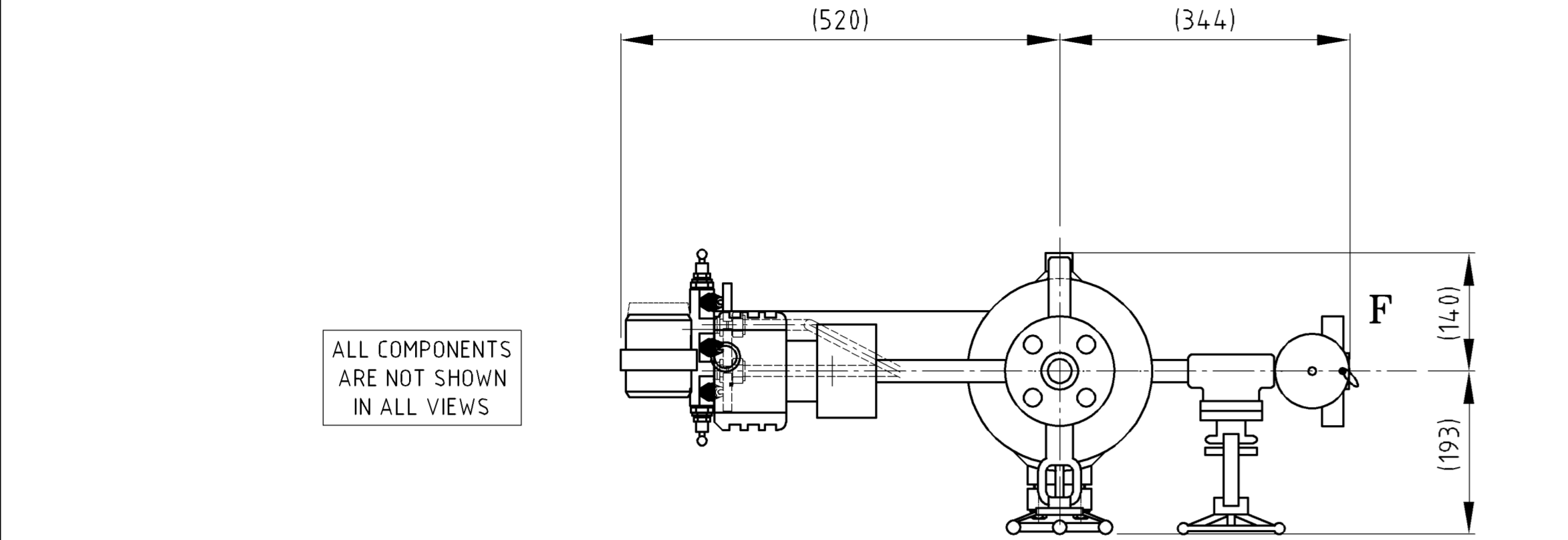
SEAL CHAMBER PRESS.: NOR.5.0 BARG
MAX.19.0 BARG
SUCTION PRESS.: NOR.5.0 BARG
MAX.19.0 BARG
DISCHARGE PRESS.: NOR.73.2 BARG
RPM: 2970
EQUIP ITEM NO.: P-04
SERVICE: BOOSTING PUMP
API PLAN: 11/52/61
API 682 CODE: 22A-FIN-095-11/52/61
API CODE: BTTIN
P.O. NO.: 2351497



Flowserve
Flow Solutions Group

SCALE: TO SCALE
DRAWN: SSAKTHIVEL
DATE: 24-JUL-2023
CHKD: SSAKTHIVEL
APPVD:
JOB NO: FB2023071

	A3H81052	F
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- NOTES:
- ALL DIMENSIONS ARE ± 10.0 MM UNLESS OTHERWISE NOTED.
 - ALL DIMENSIONS IN () ARE REFERENCE.
 - STAINLESS STEEL STUDS(ASTM A193 GR B8M CL2)& NUTS (ASTM A194 GR 8M).
 - ALL TUBE FITTINGS ARE DOUBLE FERRULE TYPE.
 - PRESSURE CONTAINING PARTS ARE IN COMPLIANCE WITH MATERIAL CERTIFICATES PER EN10204/3.1 REQUIRES EXCEPT TUBE & TUBE FITTING.
6. RECOMMENDED BUFFER FLUID SHOULD BE CHECKED BY CUSTOMER.

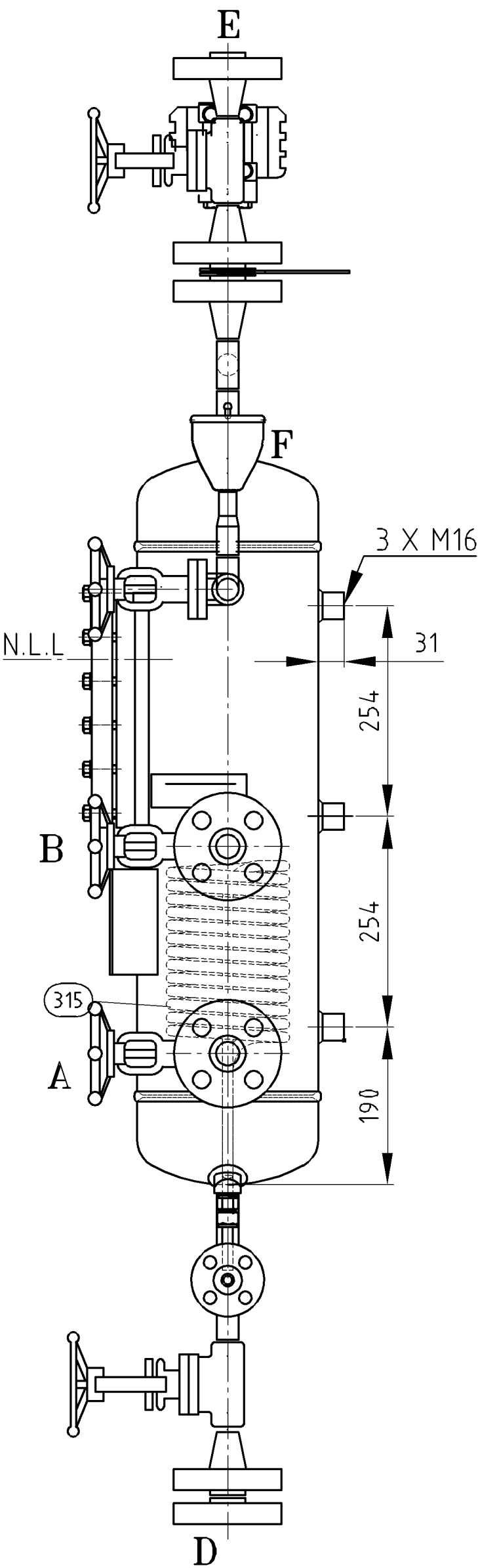
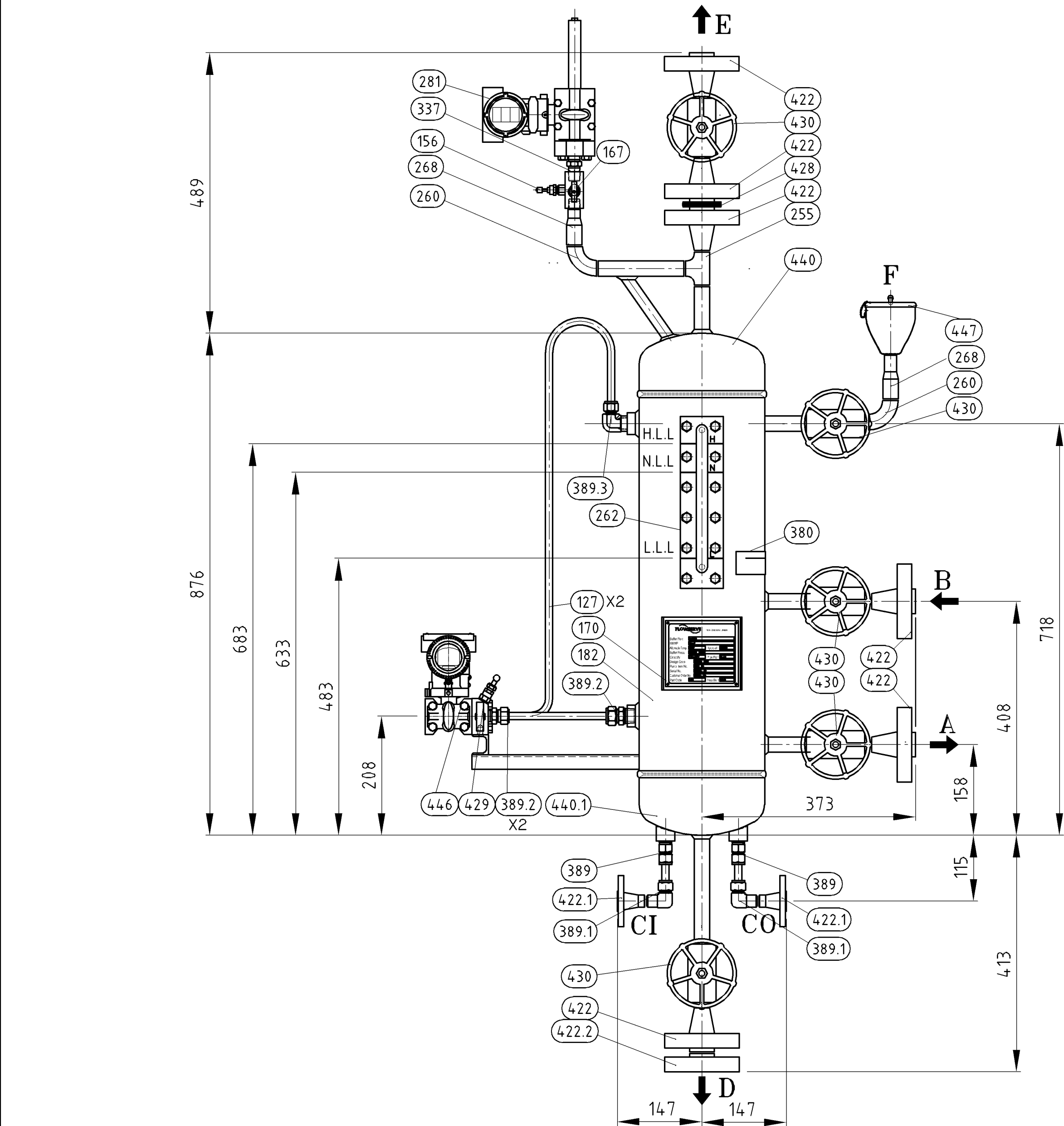
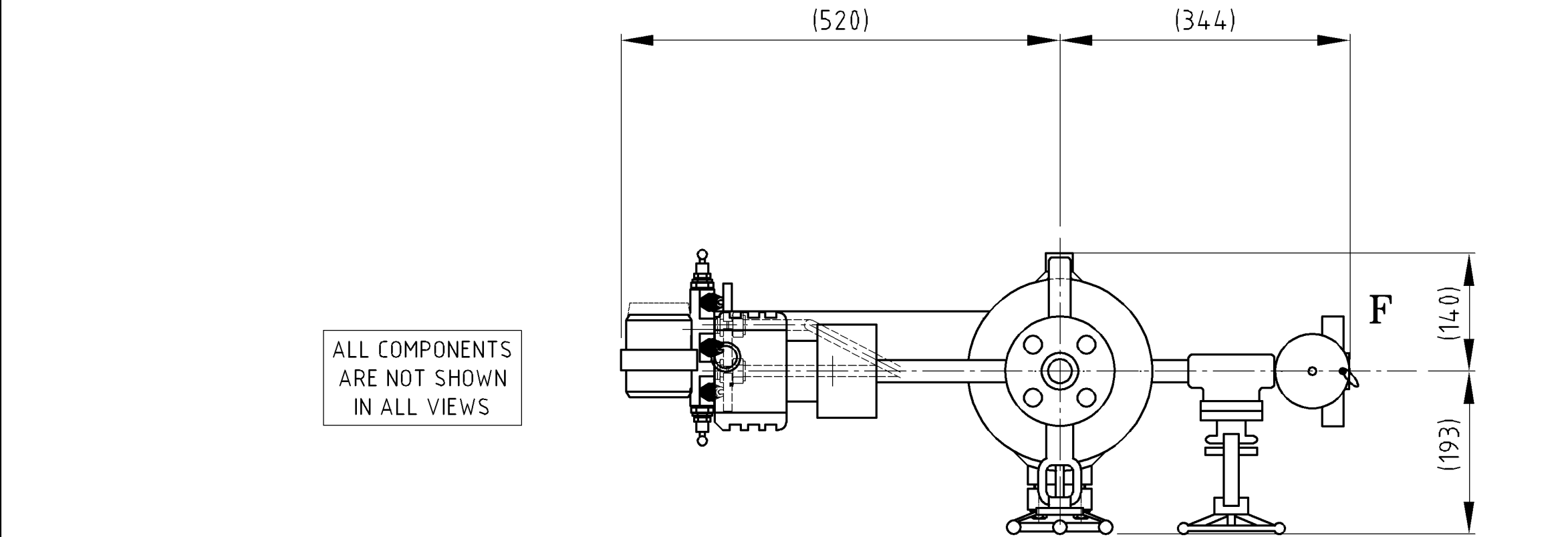
DRIVE END

(SEE A3H81041 SHEET 2 OF 2 FOR NON-DRIVE END)

DESIGN CONDITIONS			BILL OF MATERIAL NO: A3H81041-01		1 SUGGESTED SPARE PARTS CODE/ISS/D/PT STD/
NO	PARTCODE	QTY DESCRIPTION	MATERIAL		1 2
UNIT					
6. BUFFER FLUID	DURACLEAR5				
MAWP	108.90 BARG @ 38 °C				
BUFFER PRESSURE	ATM	KG/CM2G			
BUFFER TEMPERATURE	MAX 80	°C			
SETTING PRESSURE ALARM	1.0	KG/CM2G			
DESIGN CODE	ASME VIII DIV.1 WITHOUT U-STAMP				
EXPLOSION CLASS(PT/LT)	ATEX Ex D IIC T6				
CALIBRATION RANGE(PT)	0 TO 2	KG/CM2G			
CALIBRATION RANGE(LT)	0 TO 475	MMH2O			
LEVEL ALARM(LOW/HIGH)	220/380	MMH2O			
OPERATING VOLUME	20	LITER			
WEIGHT EMPTY	~200	KG			
N.D TESTING/INSPECTION					
HYDROTEST PRESSURE	166	BARG			
DYE-PENETRANT	NA				
RT	NA				
PMI	NA				
INSPECTION	FLOWERVE				
WELDING					
WPS & PQR IN ACCORDANCE WITH ASME IX					
REMARKS					
# - ONLY FOR MECHANICAL DESIGN					
BOLT HOLES TO STRADDLE CENTERLINE					
STAINLESS STEEL WELDS TO BE PICKLED AND PASSIVATED OR GLASS-PEARL CLEANED.					
DO NO USE TEFLON TAPE BUT ENGINEERING LOCTITE					
CONNECTIONS					
NO.	NAME	SIZE			
A	TO SEAL	3/4" 1500# RFWN			
B	FROM SEAL	3/4" 1500# RFWN			
D	DRAIN	3/4" 1500# RFBL			
E	VENT	3/4" 1500# RFWN			
F	FILLING	FUNNEL			
CI	COOLING WATER IN	1/2" 150# RFWN			
CO	COOLING WATER OUT	1/2" 150# RFWN			

CUSTOMER: HYOSUNG GOODS SPRINGS, INC.	SEAL CHAMBER PRESS.: NOR. 5.0 BARG
ADDRESS: ULTIMATE USER: PETROLEUM AND ENERGY INFRASTRUCTURES LTD	SUCTION PRESS.: NOR. 5.0 BARG
PROJECT NAME: HAIFA & HADERA TRANSFER PUMP	MAX. 19.0 BARG
PRODUCT: GASOLINE, DIESEL, KEROSENE	DISCHARGE PRESS.: NOR. 73.2 BARG
TEMP.: NOR. 20 °C	RPM: 2970
MAX. 30 °C	EQUIP ITEM NO.: P-04
SPECIFIC GRAVITY: NOR. 0.81	SERVICE: BOOSTING PUMP
MAX. 0.85	API PLAN: 11/52/61
VISCOSITY: NOR. 1 CP	API CODE: BITTIN
VAPOR PRESS.: NOR. 0.70 BARa	P.O. NO.: 2351497

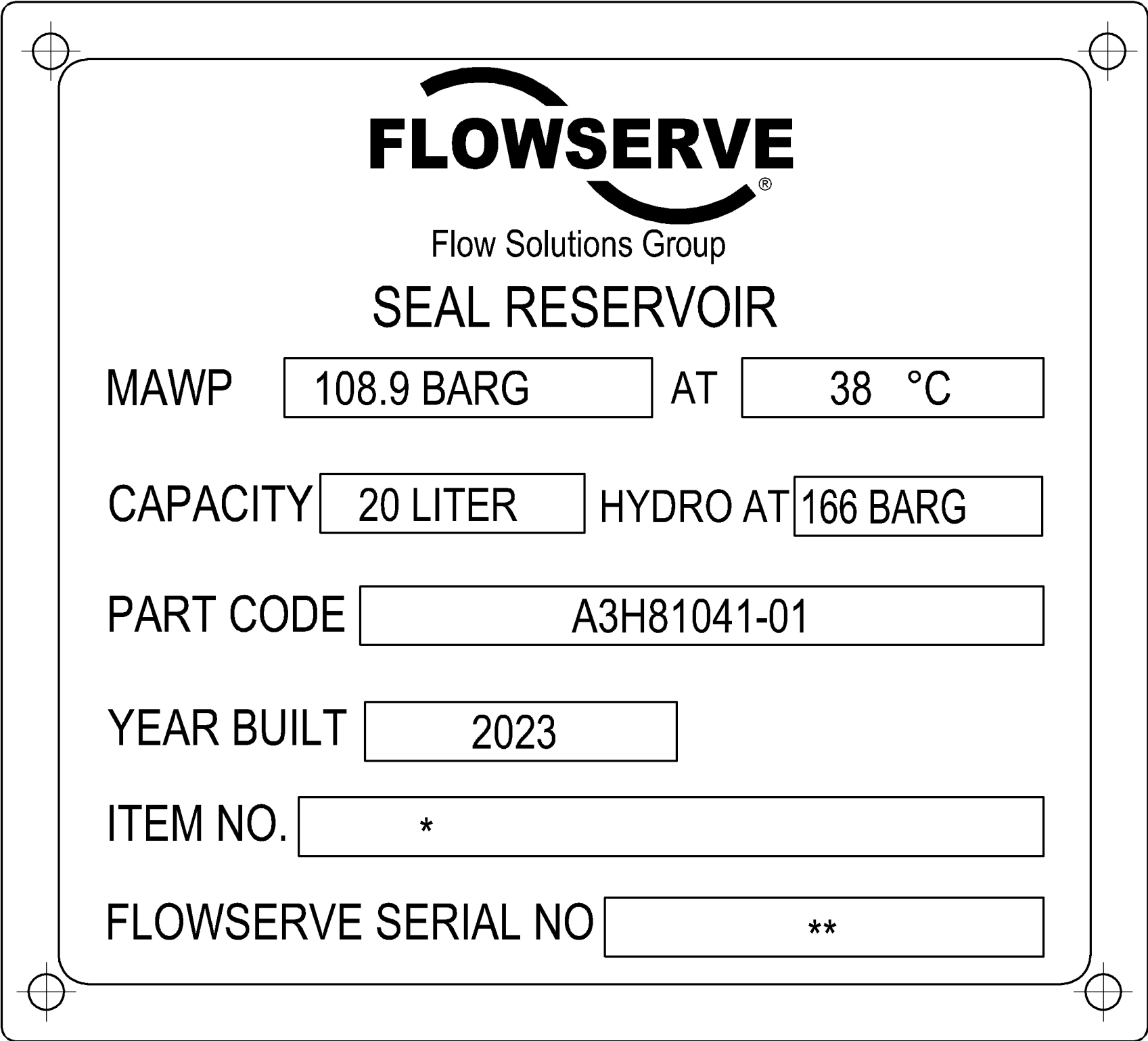
AUXILIARY TYPE: API 682 RESERVOIR 20 LITER	
AUX CODE: PLAN 52	
REF PART CODE:	
SCALE: TO SCALE	PARTS LIST NO:
DRAWN: CHOUNGHLEE	REF DWG: D0328371, A3H80813, A3H80158
DATE: 24-JUL-2023	FORM DWG:
CHKD: CHANGLEE	DRAWING NO:
APPVD: CHANGLEE	SHEET: 1 OF 3
JOB NO: ER2023071605	A3H81041
	-



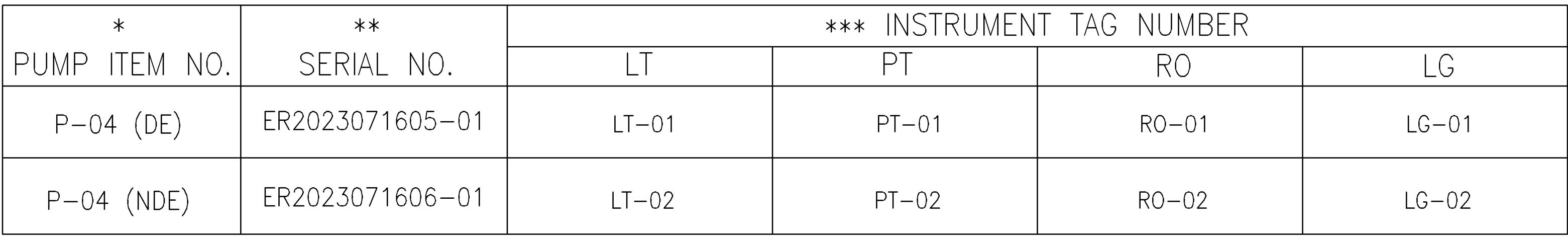
- NOTES:
- ALL DIMENSIONS ARE ± 10.0 MM UNLESS OTHERWISE NOTED.
 - ALL DIMENSIONS IN () ARE REFERENCE.
 - STAINLESS STEEL STUDS(ASM A193 GR B8M CL2)& NUTS (ASM A194 GR 8M).
 - ALL TUBE FITTINGS ARE DOUBLE FERRULE TYPE.
 - PRESSURE CONTAINING PARTS ARE IN COMPLIANCE WITH MATERIAL CERTIFICATES PER EN10204/3.1 REQUIRES EXCEPT TUBE & TUBE FITTING.
- RECOMMENDED BUFFER FLUID SHOULD BE CHECKED BY CUSTOMER.

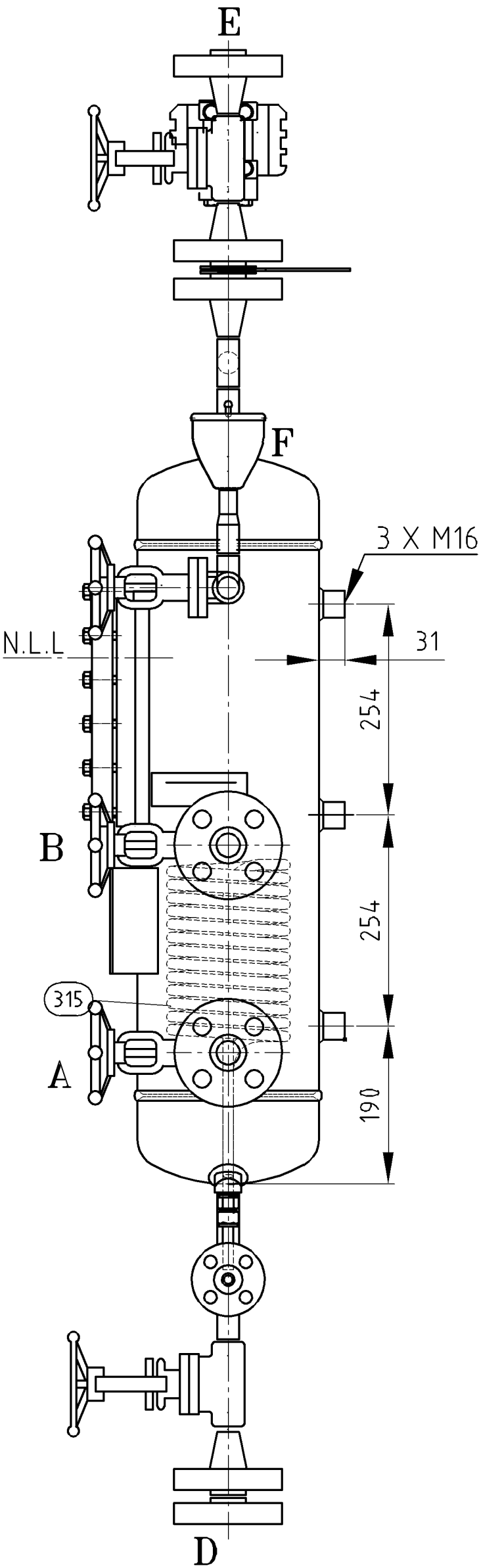
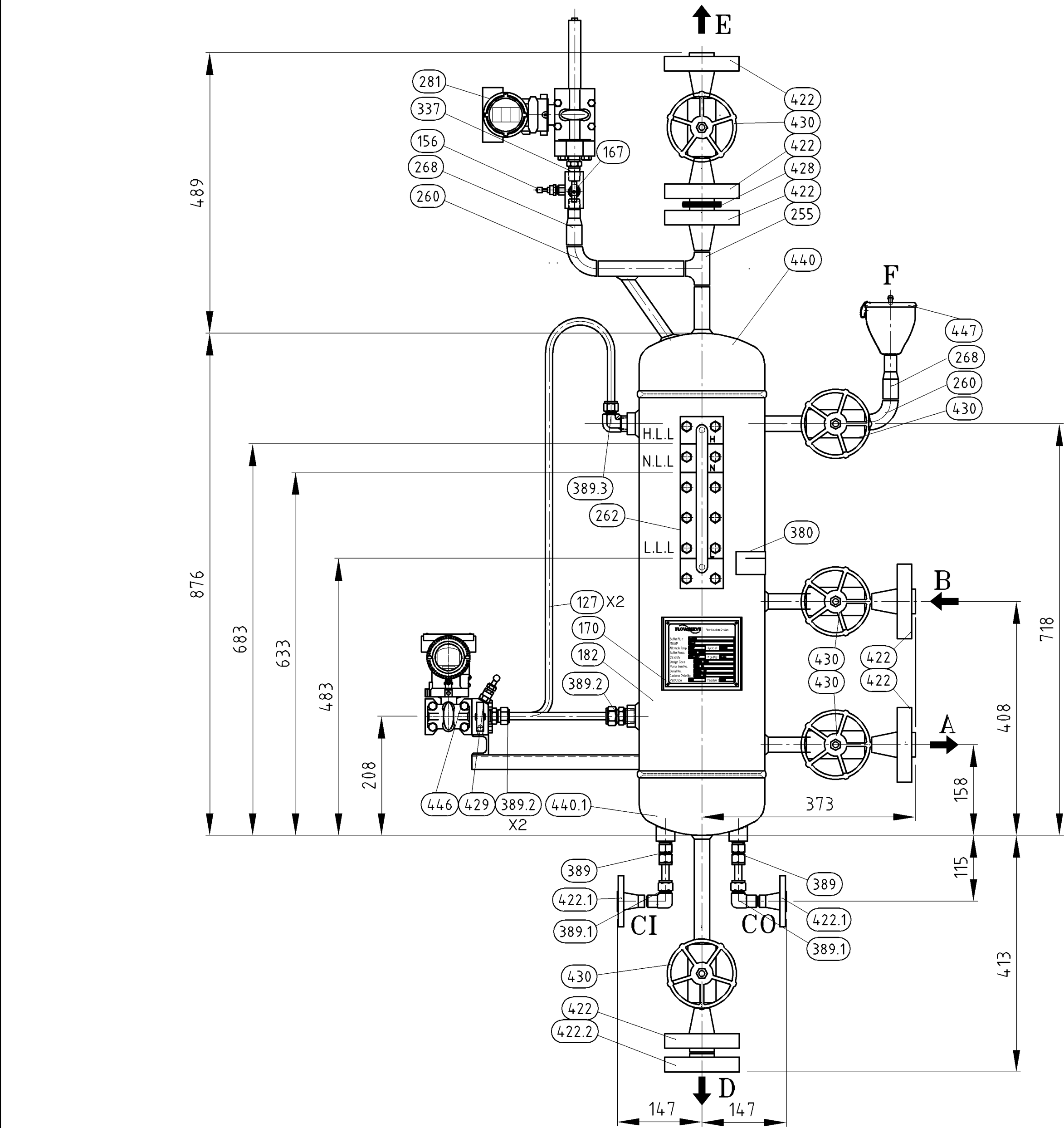
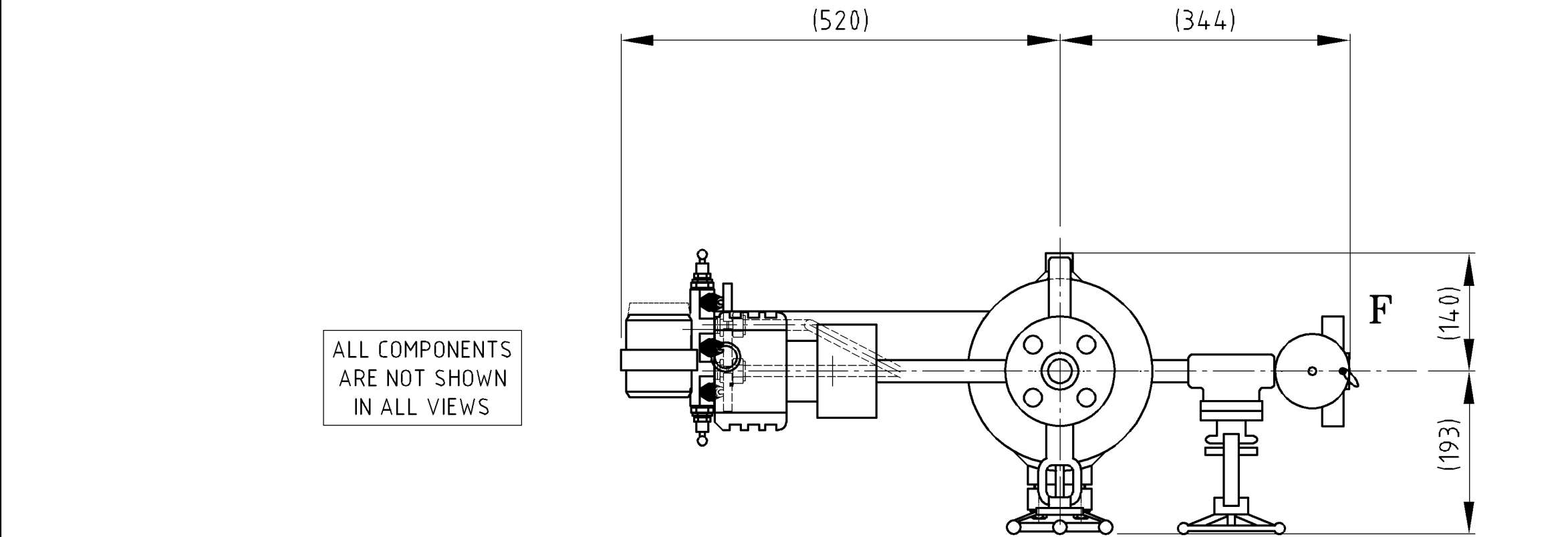
NON-DRIVE END
(SEE A3H81041 SHEET 1 OF 2 FOR DRIVE END)

DESIGN CONDITIONS			BILL OF MATERIAL NO: A3H81041-01			1 SUGGESTED SPARE PARTS 2 CODE/ISS/10/REF. STD/01	
NO	PARTCODE	DESCRIPTION	QTY	MATERIAL	UNIT		
127	C0127402ZZ	TUBING 1/2" X .065" SMLS	2	ASTM A213 TP316/316L SEAMLESS			1/2
156	C0325489ZZ	2-VALVE MANIFOLD, 1/2" FNPT CONN., 1/2" NPT BLEED/TEST, PTFE PACKING HY-LOK: M2VTB8N-S316	1	A479 TY 316 SS			
167	4R3001X953	PIPE PLUG 1/2 NPT HEX HEAD	1	SA-479 TY316/316L			
170	C0200048ZZ	NAMEPLATE FOR RESERVOIR	1	SA-240 TY304			
182	A3H81041AA	RESERVOIR 20 LITER	1	SA-312 TP316L			
255	C0167389ZZ	TEE FITTING 3/4" BW, S/80	1	SA-403 TY316L			
260	C0167393ZZ	ELBOW FITTING 3/4" BW, S/80	2	316L			
268	C0167388ZZ	PIPE NIPPLE 3/4" X 1/2" S/80 SWAGE BLE/TSE, BW	2	SA-403 TY316L			
315	4R101664X973	COOLING COIL 1/2" X .065" 8" PIPE	1	A276/479 316L SS			
422	C0161867ZZ	PIPE FLANGE 3/4" RTWN S/80 CL.1500	6	SA-182 F316L			
422.1	C0122061ZZ	PIPE FLANGE 1/2" RFWN S/80 CL. 150	2	SA-182 F316L			
422.2	C0129319ZZ	PIPE FLANGE 3/4" RF BLIND S/80 CL. 1500	1	SA-182 F316L			
428	C0078214NC	ORIFICE PLATE 3/4" 3.2MM DIA CL.1500	1	SA-182 F316L			
430	C0111459ZZ	GATE VALVE BOLTED BONNET 1500 LBS, 3/4" BW, REDUCED PORT	5	A-182 F316L			
WELDING							
WPS & PQR IN ACCORDANCE WITH ASME IX			440	C0328499X947			SA-403 WP316/316L
REMARKS			440.1	C0328500X947			SA-403 WP316/316L
# - ONLY FOR MECHANICAL DESIGN							
BOLT HOLES TO STRADDLE CENTERLINE							
STAINLESS STEEL WELDS TO BE PICKLED AND PASSIVATED OR GLASS-PEARL CLEANED.			262	C0328720ZZ			A240 316L SS
DO NO USE TEFLON TAPE BUT ENGINEERING LOCTITE							
CONNECTIONS							
NO.	NAME	SIZE					
A	TO SEAL	3/4" 1500# RFWN					
B	FROM SEAL	3/4" 1500# RFWN					
D	DRAIN	3/4" 1500# RFBL					
E	VENT	3/4" 1500# RFWN					
F	FILLING	FUNNEL					
CI	COOLING WATER IN	1/2" 150# RFWN					
CO	COOLING WATER OUT	1/2" 150# RFWN					
337	C0143219ZZ	HEXAGON NIPPLE 1/2" NPTM X 1/2" NPTM, 3M	1	SA-182 F316/316L			
380	C0091113ZZ	TAGPLATE FOR LEVEL	1	SA-240 TY304			
380.1	C0317989ZZ	TAGPLATE FOR INSTRUMENT	4	A240 304 SS			
389	C0156489ZZ	TUBE FITTING MALE CONN, 1/2" NPT BORE THRU HY-LOK: CMCT 8-8N-S316	2	A276/A479 TY316			
389.1	C0185318ZZ	TUBE FITTING BW ELBOW, 1/2" TUBE X 1/2" PIPE HY-LOK: CLW 8-8P-S316	2	A276/A479 TY 316			
389.2	C0127405ZZ	TUBE FITTING MALE CONN, 1/2" TUBE X 1/2" NPTM HY-LOK: CMC 8-8N-S316	3	A276/A479 TY 316			
389.3	C0133235ZZ	TUBE FITTING MALE ELBOW, 1/2" TUBE X 1/2" NPTM HY-LOK: CLMA 8-8N-S316	1	A276/A479 TY 316			
429	C0091124ZZ	MANIFOLD 5-VALVE, SINGLE BLOCK FLANGE, (2)1/2" FNPT, (2)1/4" FNPT VENT HY-LOK: MSVDMATV8N-S316	1	A479 TY 316 SS			
446	4H67306ZZ	LEVEL TRANSMITTER -10000 TO 10000 MMH2O, 1/4" NPT(F) PROCESS CONN., 4-20MA HART PROTOCOL, SIL2 CERTI., ELEC.CONN: 1/2 NPT(F), LCD DISPLAY, LOW-COPPER ALUMINIUM HOUSING, ATEX YOKOGAWA: EJA110E-JMS5G -91CDN-KF22/D4/M01/T12	1	316L SS			
447	C0091105ZZ	COMPONENT KIT FILLING FUNNEL, 1/2" NPT	1	304 SS			
CUSTOMER: HYOSUNG GOODS SPRINGS, INC.			SEAL CHAMBER PRESS.: NOR. 5.0 BARG MAX. 19.0 BARG				
ADDRESS: ULTIMATE USER: PETROLEUM AND ENERGY INFRASTRUCTURES LTD			SUCTION PRESS.: NOR. 5.0 BARG MAX. 19.0 BARG				
PROJECT NAME: HAIFA & HADERA TRANSFER PUMP			DISCHARGE PRESS.: NOR. 73.2 BARG RPM: 2970				
PRODUCT: GASOLINE, DIESEL, KEROSENE			EQUIP ITEM NO.: P-04				
TEMP.: NOR. 20 °C			SERVICE: BOOSTING PUMP				
MAX. 30 °C			API PLAN: 11/52/61				
SPECIFIC GRAVITY: NOR. 0.81			API CODE: BT11N				
MAX. 0.85			P.O. NO.: 2351497				
VISCOSITY: NOR. 1 CP							
VAPOR PRESS.: NOR. 0.70 BARa							
AUXILIARY TYPE: API 682 RESERVOIR 20 LITER							
AUX CODE: PLAN 52							
REF PART CODE:							
SCALE: TO SCALE			PARTS LIST NO:				
DRAWN: CHOUNGHLEE			REF DWG: D0328371, A3H80813, A3H80158				
DATE: 24-JUL-2023			FORM DWG:				
CHKD: CHANGLEE			DRAWING NO:				
APPVD: CHANGLEE			SHEET: 2 of 3 REV:				
JOB NO: ER2023071606			A3H81041				



170 NAME PLATE DETAIL





- NOTES:
1.

ALL DIMENSIONS ARE ± 10.0 MM UNLESS OTHERWISE NOTED.
2.

ALL DIMENSIONS IN () ARE REFERENCE.
3.

STAINLESS STEEL STUDS(ASM A193 GR B8M CL2)& NUTS (ASM A194 GR 8M).
4.

ALL TUBE FITTINGS ARE DOUBLE FERRULE TYPE.
5.

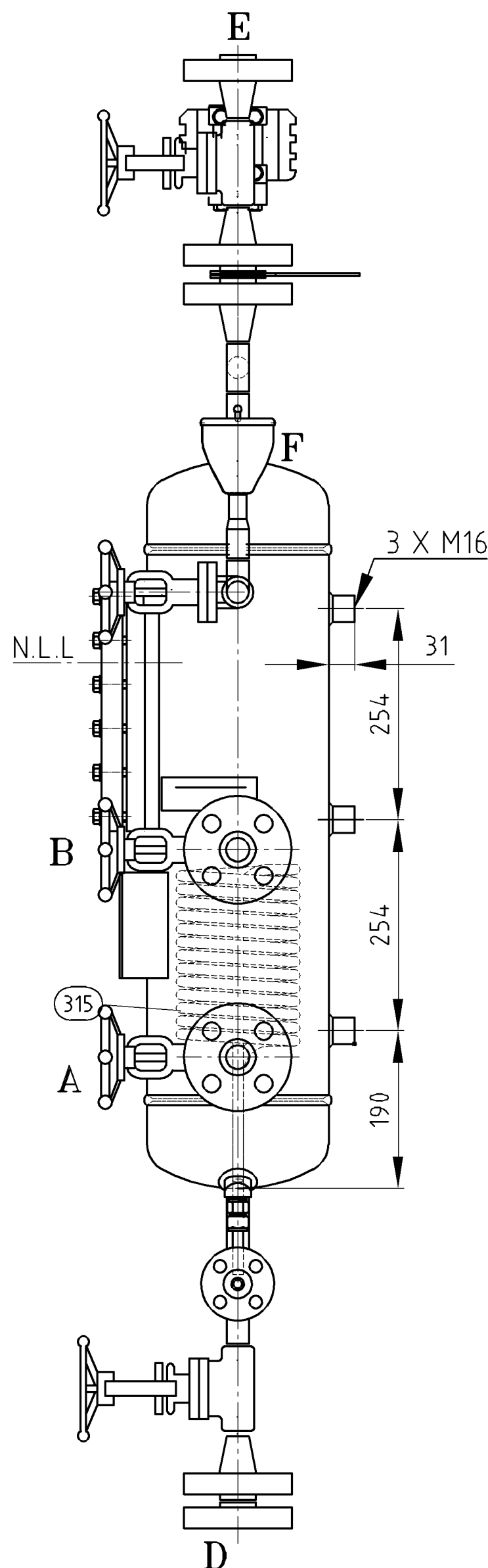
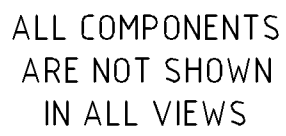
PRESSURE CONTAINING PARTS ARE IN COMPLIANCE WITH MATERIAL CERTIFICATES PER EN10204/3.1
6.

REQUIRES EXCEPT TUBE & TUBE FITTING. RECOMMENDED BUFFER FLUID SHOULD BE CHECKED BY CUSTOMER.

DRIVE END

(SEE A3H81042 SHEET 2 OF 2 FOR NON-DRIVE END)

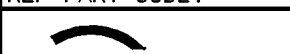
DESIGN CONDITIONS			BILL OF MATERIAL NO: A3H81042-01				1 SUGGESTED SPARE PARTS 2 CODE/BSC/D/J/OFF_STD[W]		
		UNIT	NO	PARTCODE	QTY	DESCRIPTION	MATERIAL		
△6	BUFFER FLUID	DURACLEARS	127	C0127402ZZ	2	TUBING 1/2" X .065" SMLS	ASTM A213 TP316/316L SEAMLESS		
	MAWP	93.20 BARG @ 38 °C	156	C0325489ZZ	1	2-VALVE MANIFOLD, 1/2" FNPT CONN, 1/2" NPT BLEED/TEST, PTFE PACKING HY-LOK: M2VTB8N-S316	A479 TY 316 SS		
	BUFFER PRESSURE	ATM							
	BUFFER TEMPERATURE	MAX 80 °C							
	SETTING PRESSURE ALARM	1.0 KG/CM2G	167	4R3001X953	1	PIPE PLUG 1/2 NPT HEX HEAD	SA-479 TY316/316L		
	DESIGN CODE	ASME VIII DIV.1 WITHOUT U-STAMP	170	C0200048ZZ	1	NAMEPLATE FOR RESERVOIR	SA-240 TY304		
	EXPLOSION CLASS(PT/LT)	ATEX Ex D IIC T6	182	A3H81041AA	1	RESERVOIR 20 LITER	SA-312 TP316L		
	CALIBRATION RANGE(PT)	0 TO 2 KG/CM2G	255	C0167389ZZ	1	TEE FITTING 3/4" BW, S/80	SA-403 TY316L		
	CALIBRATION RANGE(LT)	0 TO 475 MMH2O	260	C0167393ZZ	2	ELBOW FITTING 3/4" BW, S/80	316L		
	LEVEL ALARM(LOW/HIGH)	220/380 MMH2O	268	C0167388ZZ	2	PIPE NIPPLE 3/4" X 1/2" S/80 SWAGE BLE/TSE, BW	SA-403 TY316L		
N.D TESTING/INSPECTION			315	4R101664X973	1	COOLING COIL 1/2" X.065" 8" PIPE	A276/479 316L SS		
HYDROTEST PRESSURE			422	C0161867ZZ	6	PIPE FLANGE 3/4" RTWN S/80 CL.1500	SA-182 F316L		
DYE-PENETRANT			422.1	C0122061ZZ	2	PIPE FLANGE 1/2" RFWN S/80 CL. 150	SA-182 F316L		
RT			422.2	C0129319ZZ	1	PIPE FLANGE 3/4" RF BLIND S/80 CL. 1500	SA-182 F316L		
PMI			428	C0078214NC	1	ORIFICE PLATE 3/4" 3.2MM DIA CL.1500	SA-182 F316L		
INSPECTION			430	C0111459ZZ	5	GATE VALVE BOLTED BONNET 1500 LBS, 3/4" BW, REDUCED PORT	A-182 F316L		
WELDING			440	C0328499X947	1	ELLIPTICAL HEAD 8" S/80 MODIFIED FOR 3/4"	SA-403 WP316/316L		
WPS & PQR IN ACCORDANCE WITH ASME IX			440.1	C0328500X947	1	ELLIPTICAL HEAD 8" S/80 MODIFIED FOR(2) 1/2" FULL & (1)3/4"	SA-403 WP316/316L		
REMARKS			262	C0328270ZZ	1	LIQUID LEVEL INDICATOR WELD PAD, REFLEX GLASS, VISUAL LENGTH:255MM	A240 316L SS		
# - ONLY FOR MECHANICAL DESIGN			281	4H67305ZZ	1	PRESSURE TRANSMITTER -1 TO 5 KG/CM2G, PROCESS CONN.: 1/2" NPTF, ELEC.CONN.: 1/2" NPTF, 4-20MA HART PROTOCOL, IP66, LCD DISPLAY, ATEX ALUMINIUM ALLOY HOUSING, YOKOGAWA: EJ4A30E/JHS4G/31CDN/KF22/D4/U1/M11/T11	316L SS		
BOLT HOLES TO STRADDLE CENTERLINE			337	C0143219ZZ	1	HEXAGON NIPPLE 1/2" NPTM X 1/2" NPTM, 3M	SA-182 F316/316L		
STAINLESS STEEL WELDS TO BE PICKLED AND PASSIVATED OR GLASS-PEARL CLEANED.			380	C0091113ZZ	1	TAGPLATE FOR LEVEL	SA-240 TY304		
DO NO USE TEFLON TAPE BUT ENGINEERING LOCTITE			380.1	C0317989ZZ	4	TAGPLATE FOR INSTRUMENT	A240 304 SS		
CONNECTIONS			389	C0156489ZZ	2	TUBE FITTING MALE CONN, 1/2" NPT BORE THRU HY-LOK: CMCT 8-8N-S316	A276/A479 TY316		
NO.	NAME	SIZE	389.1	C0185318ZZ	2	TUBE FITTING BW ELBOW, 1/2" TUBE X 1/2" PIPE HY-LOK: CLW 8-8P-S316	A276/A479 TY 316		
A	TO SEAL	3/4" 1500# RFWN	389.2	C0127405ZZ	3	TUBE FITTING MALE CONN, 1/2" TUBE X 1/2" NPTM HY-LOK: CMC 8-8N-S316	A276/A479 TY 316		
B	FROM SEAL	3/4" 1500# RFWN	389.3	C0133235ZZ	1	TUBE FITTING MALE ELBOW, 1/2" TUBE X 1/2" NPTM HY-LOK: CLMA 8-8N-S316	A276/A479 TY 316		
D	DRAIN	3/4" 1500# RFBL	429	C0091124ZZ	1	MANIFOLD 5-VALVE, SINGLE BLOCK FLANGE, (2)1/2" FNPT, (2)1/4" FNPT VENT HY-LOK: MSVDMATV8N-S316	A479 TY 316 SS		
E	VENT	3/4" 1500# RFWN	446	4H67306ZZ	1	LEVEL TRANSMITTER -10000 TO 10000 MMH2O, 1/4" NPT(F) PROCESS CONN., 4-20MA HART PROTOCOL, SIL2 CERTI., ELEC.CONN: 1/2 NPT(F), LCD DISPLAY, LOW-COPPER ALUMINIUM HOUSING, ATEX YOKOGAWA: EJA110E-JMS5G -91CDN-KF22/D4/M01/T12	316L SS		
F	FILLING	FUNNEL	447	C0091105ZZ	1	COMPONENT KIT FILLING FUNNEL, 1/2" NPT	304 SS		
CI	COOLING WATER IN	1/2" 150# RFWN							
CO	COOLING WATER OUT	1/2" 150# RFWN							
NS ARE ± 10.0 MM UNLESS STATED.									
NS IN () ARE REFERENCE.									
EEL STUDS(ASTM A193 GR B8M									
ASTM A194 GR 8M).									
TINGS ARE DOUBLE FERRULE TYPE.									
TAINING PARTS ARE IN COMPLIANCE									
L CERTIFICATES PER EN10204/3.1									
EPT TUBE & TUBE FITTING.									
BUFFER FLUID SHOULD BE CHECKED									
VE END									
2 SHEET 2 OF 2 FOR NON-DRIVE END)									
CUSTOMER: HYOSUNG GOODS SPRINGS, INC.				SEAL CHAMBER PRESS.: NOR.2 BARG					
ADDRESS:				MAX.5 BARG					
ULTIMATE USER: PETROLEUM AND ENERGY INFRASTRUCTURES LTD				SUCTION PRESS.: NOR.2 BARG					
PROJECT NAME: HAIFA & HADERA TRANSFER PUMP				MAX.5 BARG					
PRODUCT: GASOLINE, DIESEL, KERO				DISCHARGE PRESS.: NOR.68.4 BARG					
TEMP.: NOR.20 °C				RPM: 2970					
MAX.30 °C				EQUIP ITEM NO.: P-07					
SPECIFIC GRAVITY: NOR.0.81				SERVICE: BOOSTING PUMP					
MAX.0.85				API PLAN: 11/52/61					
VISCOSITY: NOR.1 CP				API CODE: BT11N					
VAPOR PRESS.: NOR.0.7 BARA				P.O. NO.: 2351497					
AUXILIARY TYPE: API 682 RESERVOIR 20 LITER									
AUX CODE: PLAN 52									
REF PART CODE:									
SCALE: TO SCALE				PARTS LIST NO:					
DRAWN: CHOUNGHLEE				REF DWG: D0328371, A3H80813, A3H80158					
DATE: 24-JUL-2023				FORM DWG:					
CHKD: CHANGLEE				DRAWING NO:					
APPVD: CHANGLEE				SHEET: 1 of 3					
JOB NO: ER2023071607				REV:					
Flow Solutions Group				A3H81042					



NO.	NAME	SIZE
A	TO SEAL	3/4" 1500# RFWN
B	FROM SEAL	3/4" 1500# RFWN
D	DRAIN	3/4" 1500# RTBL
E	VENT	3/4" 1500# RTWN
F	FILLING	FUNNEL
CI	COOLING WATER IN	1/2" 150# RFWN
C0	COOLING WATER OUT	1/2" 150# RFWN

1. ALL DIMENSIONS ARE ± 10.0 MM UNLESS OTHERWISE NOTED.
2. ALL DIMENSIONS IN () ARE REFERENCE.
3. STAINLESS STEEL STUDS (ASTM A193 GR B8M CL2) & NUTS (ASTM A194 GR 8M).
4. ALL TUBE FITTINGS ARE DOUBLE FERRULE TYPE.
5. PRESSURE CONTAINING PARTS ARE IN COMPLIANCE WITH MATERIAL CERTIFICATES PER EN10204/3.1 REQUIRES EXCEPT TUBE & TUBE FITTING.
6. RECOMMENDED BUFFER FLUID SHOULD BE CHECKED BY CUSTOMER.

NON-DRIVE END
(SEE A3H81042 SHEET 1 OF 2 FOR DRIVE END)

 Flow Solutions Group	SCALE: TO SCALE	PARTS LIST NO:
	DRAWN: CHOUNGHEE	REF DWG: D0328371, A3H80813, A3H80158
	DATE: 24-JUL-2023	FORM DWG:
	CHKD: CHANGLEE	DRAWING NO: A3H81042
	APPVD: CHANGLEE	SHEET: 2 of 3
	JOB NO: ER2023071608	REV: -

