



Attached Document

# MECHANICAL SEAL GENERAL ARRANGEMENT DRAWING

Flowserve Document Title: MECHANICAL SEAL GENERAL ARRANGEMENT DRAWING

**Flowserve Document Number : COS 11-10P40239-6104**

**Project Name : FAGEN GAINESVILLE**  
**Customer Name : FAGEN INC.**  
**Customer PO Number : 104009**  
**End User : Gainesville Renewable Energy**  
**Site/Location : FAGEN GAINESVILLE**

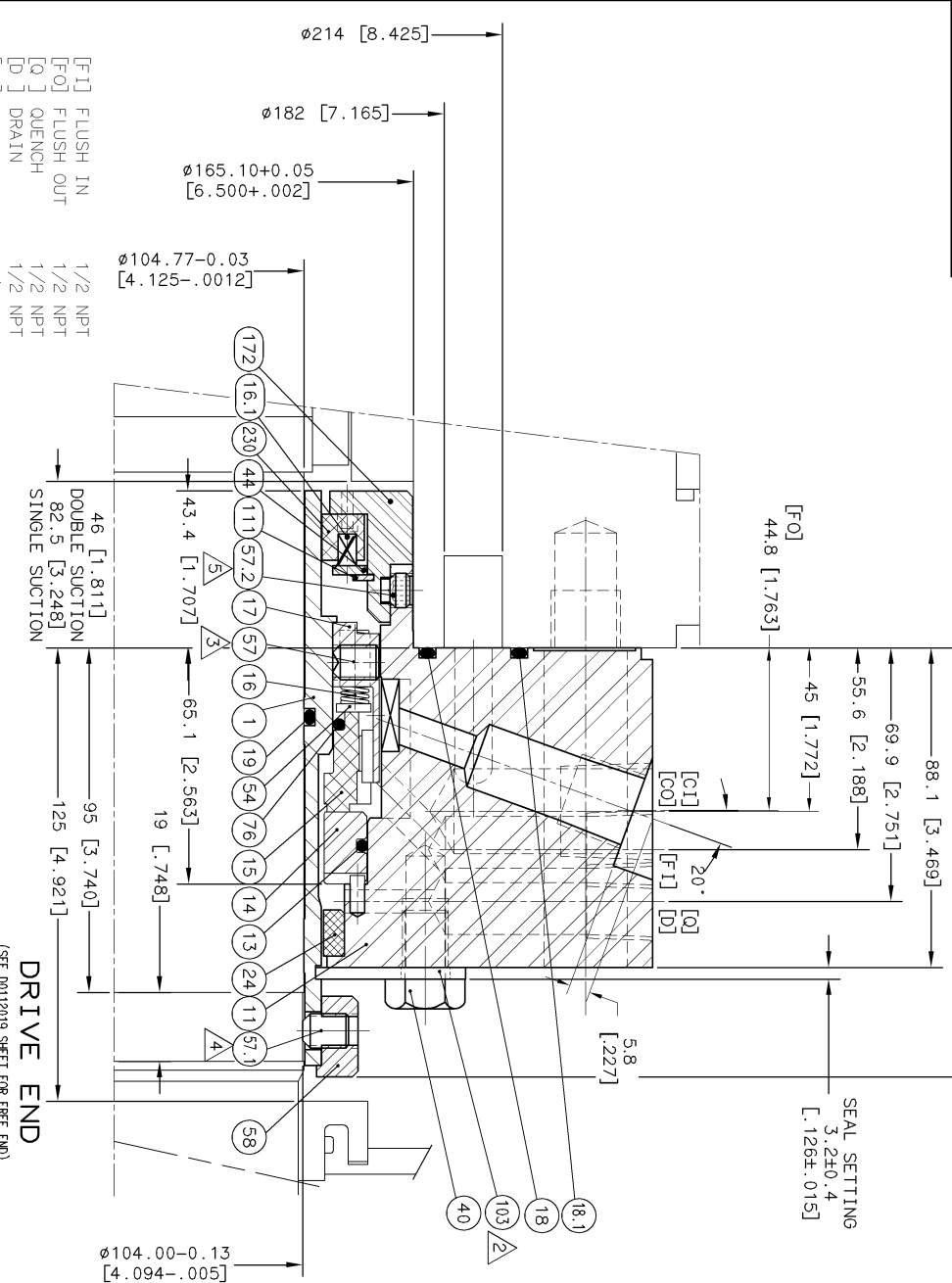
**Flowserve Order/Line : COS 11-10P40239**

**Equipment Type : WXH**  
**Equipment Size : 6x15**  
**Flowserve serial no. : M-151532 / M-151533**  
**Quantity : 2**  
**Equipment Service : BFP**

Please complete and return:			
Document Reviewed by:		Document Reviewed date:	
<input type="checkbox"/> APPROVED. NO ACTION REQUIRED <input type="checkbox"/> APPROVED. RE-SUBMIT AS FINAL. <input type="checkbox"/> APPROVED EXCEPT AS NOTED. DOCUMENT WILL BE MODIFIED AND RESUBMITTED AS FINAL. <input type="checkbox"/> REJECTED. CORRECT AND RE-SUBMIT FOR APPROVAL.			

MaC	LOB	LOB	00		02/02/2012
PREPARED	CHECKED	APPROVED	Revision No.	Status/Desc	Date Approved

NO: D0112019 REV: P1



- FOR INSTALLATION AND OPERATING INSTRUCTIONS SEE APPROPRIATE FLOWSERVE INSTALLATION SHEET (FIS).
- DISengage SETTING DEVICE BEFORE START-UP.
- TIGHTEN SETSCREWS EQUALLY, CROSSWISE, IN 4 STEPS. FINAL TORQUE: 8.5 Nm [75 Lbf. INCH]. SECURE AT ASSEMBLY.
- TIGHTEN SETSCREWS EQUALLY, CROSSWISE, IN 4 STEPS. FINAL TORQUE: 33 Nm [290 Lbf. INCH].
- DO NOT OVERTIGHTEN. SECURE AT ASSEMBLY.

REVISION: P1 DATE: 19-JAN-2012 BY: KRAMMOORTHY CHKD: JPALANI  
 REVISION NOTE: PRE-RELEASE

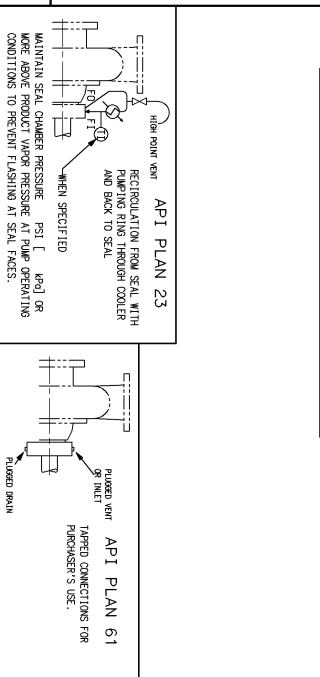
APPROVAL DRAWING FOR CUSTOMER REVIEW

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NO	PART CODE	QTY	DESCRIPTION	MATERIAL	1 SUGGESTED SHARE PARTS 2 CODE (ISO/DA/INT/STDM)
1	2N75912DB	1	SLEEVE	316	
11	1N62969DB	1	GLAND	316	
13	568252AF	1	SEAT GASKET	TFE-PROPYLENE (FEPM)	* X
14	668932V0	1	STATIONARY FACE	SILICON CARBIDE	* X
15	154832RV	1	ROTATING FACE	CARBON	* X
16	669515ML	12	COIL SPRING	ALLOY C-276	* X
16-1	628440NL	12	COIL SPRING	ALLOY C-276	* X
17	154834DB	1	SPRING HOLDER	316	X
18	568261AF	1	GLAND GASKET	TFE-PROPYLENE (FEPM)	* X
18-1	568269AF	1	GLAND GASKET	TFE-PROPYLENE (FEPM)	* X
19	568243AF	1	SLEEVE GASKET	TFE-PROPYLENE (FEPM)	* X
24	6700590E	1	GLAND BUSHING	CARBON	*
40	4R6707CK	4	HCCS 1/2-13 X 3/4	18-8	*
44	4N17560B	1	BACKING RING	316	
54	669440B	1	RETAINING RING	316	X
57	4R04380B	4	SSCP 3/8-16 X 1/2	316	X
57.1	4R0438C1	6	SSCP 3/8-16 X 1/2	ALY STL, ZINC PLTD	*
57.2	4R0464DV	6	SSHP 3/8-16X5/16	ALLOY 20	*
58	6707040B	1	DRIVE COLLAR	316	
76	568248AF	1	ROT. FACE GASKET	TFE-PROPYLENE (FEPM)	* X
103	4R1787DB	4	SETTING DEVICE	316	*
111	UR5500K	1	SNAP RING	18-8	
172	3N7553IDB	1	ADAPTER	316	
230	3N46936SE	1	THROAT BUSHINGS	CARBON	*

FPD PROJECT : GAINESVILLE  
 FPD REFERENCE : COS-11-10P40239



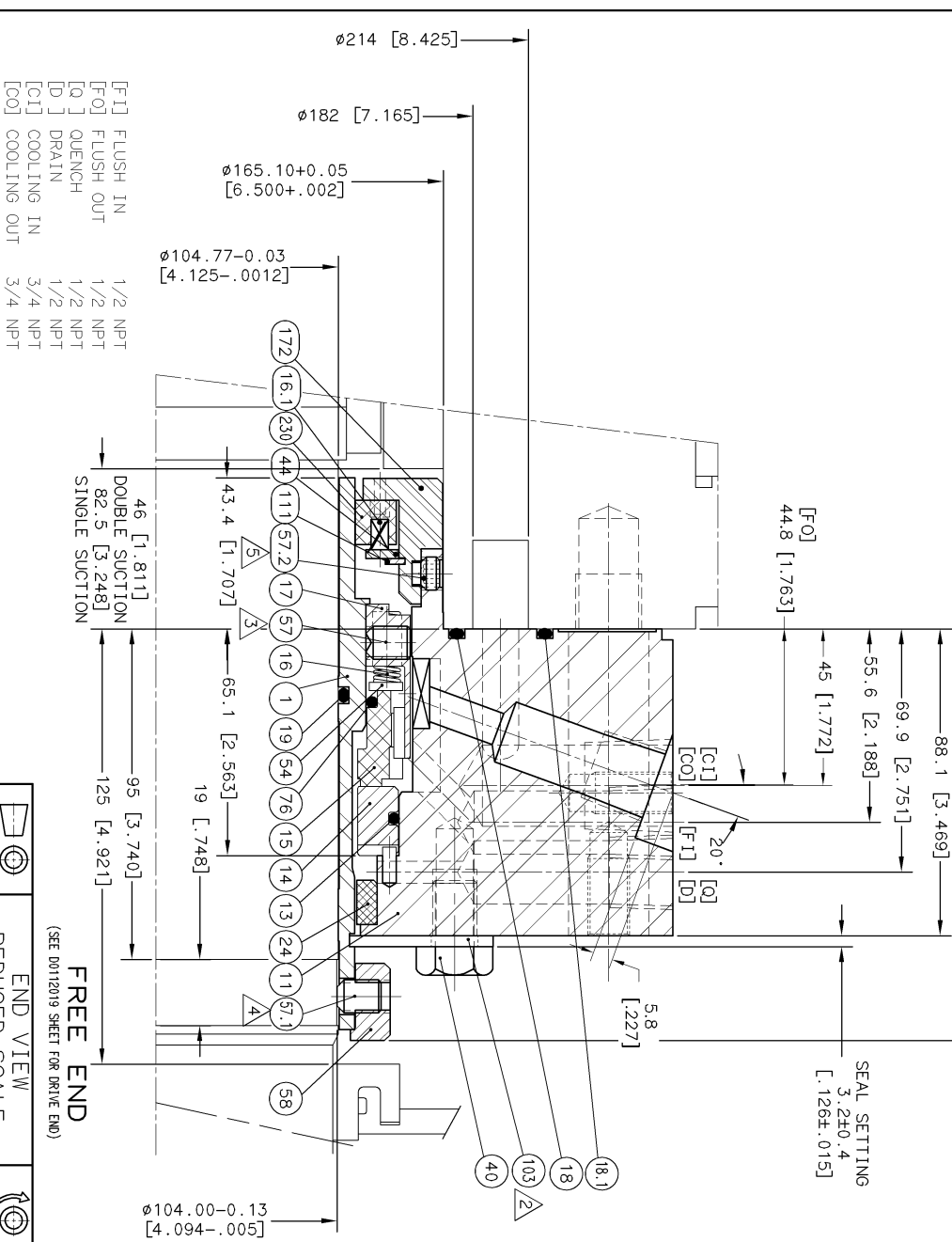
PIPING REQUIREMENTS	
CUSTOMER: FLOWSERVE FPD COSLADA	SPEC GRAVITY: 0.921
ADDRESS: COSLADA (MADRID) SPAIN	SEAL CHAMBER PRES: 75 PSI
ULTIMATE USER: GAINESVILLE RENEWABLE ENERGY	DISCH PRES: 2000 PSIG
ADDRESS: GAINESVILLE UNITED STATES	RFM: 3360
CUSTOMER P. O.: 70358	EQUIP ITEM NO.: COS-11-10P40239
PRODUCT: BOILER FEED WATER	APL PLAN: 23/61
TEMP.: 294 F	EQUIP. SERIAL NO.: SPECIFY
SEAL TYPE: OB	SEAL SIZE: 4.750
SEAL CODE: SINGLE INSIDE-CARRIIDGE	
MATL CODE: SUAZ	
EQUIP MFR: FPD COSLADA	INSR: FIS144
EQUIP MODEL: 6X14WX / HOR / 7 STAGES	
EQUIP DWG: M-09023 REV A	

SCALE: 10 SCALE	
SCALE: 10 SCALE	PARTS LIST NO: L0003334
DRWNG: KRAMMOORTHY	REF DWG: FM0110860
DATE: 19-JAN-2012	FORM DWG: FM0110860
CHKD: JPALANI	DRAWING NO: SHEET 1 OF 2
APPVD: VISBRAMANIAM	D0112019
JOB NO: 963456	P1



Flow Solutions Group

NO: D0112019  
REV: P1



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4. TIGHTEN SETSCREWS EQUALLY, CROSSWISE, IN 4 STEPS. FINAL TORQUE: 33 Nm [290 Lbf. INCH].
5. DO NOT OVERTIGHTEN. SECURE AT ASSEMBLY.

REVISION: P1 DATE: 19-JAN-2012 BY: KRAMADORTHY CHKD: JPALANI ECN NO:

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API PLAN 61

NO	PART CODE	QTY	DESCRIPTION	MATERIAL	1 SUGGESTED SPARE PARTS 2 CODE: 652/DN/07F, 3/DN
1	2N75912DB	1	SLEEVE	316	
11	1N82990DB	1	GLAND	316	
13	568252AF	1	SEAT GASKET	TFE-PROPYLENE (FEPM)	* X
14	668932VO	1	STATIONARY FACE	SILICON CARBIDE	* X
15	1548328Y	1	ROTATING FACE	CARBON	* X
16	669515NL	12	COIL SPRING	ALLOY C-276	* X
16-1	628444NL	12	COIL SPRING	ALLOY C-276	* X
17	154834DB	1	SPRING HOLDER	316	X
18	568261AF	1	GLAND GASKET	TFE-PROPYLENE (FEPM)	*
18-1	568269AF	1	GLAND GASKET	TFE-PROPYLENE (FEPM)	*
19	568243AF	1	SLEEVE GASKET	TFE-PROPYLENE (FEPM)	*
24	6700590E	1	GLAND BUSHING	CARBON	*
40	4R6707CK	4	HHCS 1/2-13 X 3/4	18-8	
44	4N317560B	1	BACKING RING	316	
54	668944DB	1	RETAINING RING	316	X
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57.1	4R0438C1	6	SSCP 3/8-16 X 1/2	ALY STL, ZINC PLTD	*
57.2	4R0464DV	6	SSHP 3/8-16X5/16	ALLOY 20	*
58	670704DB	1	DRIVE COLLAR	316	
76	568248AF	1	ROT. FACE GASKET	TFE-PROPYLENE (FEPM)	* X
103	4R1787DB	4	SETTING DEVICE	316	
111	UR5500K	1	SNAP RING	18-8	
172	3N7553IDB	1	ADAPTER	316	
220	3N469386E	1	THROAT BUSHINGS	CARBON	*

FDI PROJECT : GAINESVILLE  
FPD REFERENCE : COS-11-10P40239

SECTION	REQUIREMENTS
PIPING REQUIREMENTS	SPEC GRAVITY: 0.921 SEAL CHAMBER PRES: 75 PSI SLOT PRES: 75 PSI DISCH PRES: 2000 PSI RFM: 3350 EQUIP ITEM NO.: COS-11-10P40239 API PUMP: 23/61 EQUIP. SERIAL NO.: SPECIFY
SEAL TYPE: OB	SEAL SIZE: 4.750
SEAL CONFG: SINGLE INSIDE-CARRIIDGE	
MATL CODE: SUAZ	
EQUIP MFR: FPD COSLADA	
EQUIP MODEL: 6X14WX / HOR / 7 STAGES	
EQUIP DWG: M-09023 REV A	
SCALE: 10 SCALE	
DRAWN: KRAMADORTHY	
CHKD: JPALANI	
APP'D: VISBRAMANIAM	
JOB NO: 963456	
PARTS LIST NO: L0003333	
REF DWG: FMO110861	
FORM DWG: FMO110861	
DRAWING NO: 00112019	
REV: 1	
REV: 2	
REV: P1	