

PROJECT: PP-PE PILOT PLANT

client:



شرکت ملی صنایع پتروشیمی
شرکت پژوهش و فناوری پتروشیمی

Title: DATA SHEET FOR 1ST GAS PHASE REACTOR
CENTRIFUGAL COMPRESSOR (CF-411A/B)

DATA SHEET FOR Recycle Gas COMPRESSOR (C-2800)

Document No.: 400-DAS-A4-RE-0037

Rev.: 03

Owner Job No.:

Type: DAS

Page 1

Process Data Sheet

DATE
2022/03

PLANT: **EO R&T Mahshahr Center**

AREA
200

Sheet
3 OF **6**

SERVICE **RECYCLE GAS OIL FREE COMPRESSOR** ITEM **C-2800**

TYPE AND MODEL BY VENDOR Quantity: 1

LOCATION OUTDOOR UNDER ROOF MEZZANINE GROUND FLOOR

SERVICE DATA

CONDITIONS	NORMAL	ALTERNATIVE 1	ALTERNATIVE 2	ALTERNATIVE 3	ALTERNATIVE 4
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POSITION					
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COMPRESSOR CASING					
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COMPRESSED GAS (SEE ANALYSIS)					
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BAROMETRIC PRESSURE:	bar a				
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CAPACITY	kg/h	55	55	55	
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	std m ³ /h	45.68	45.69	46.42	
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	m ³ /h AT INTAKE CONDITIONS	2.97	2.99	3.39	
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INTAKE CONDITIONS

PRESSURE	bar a	16.5	16.5	15	
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TEMPERATURE	°C	40	40	40	
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RELATIVE HUMIDITY	%				
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MOLAR MASS	Kg/Kmol	1.932	1.932	1.963	
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Cp/Cv (K1)		1.359	1.373	1.423	
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DENSITY	Kg/m ³	18.53	18.39	16.22	
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Z ₁ - COMPRESSIBILITY FACTOR		0.9745	0.9815	0.9961	
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DISCHARGE CONDITIONS

PRESSURE	bar a	18	18	17	
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TEMPERATURE EXPECTED/ACTUAL	°C				
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Cp/Cv (K2)					
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Z ₂ - COMPRESSIBILITY FACTOR					
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SURGE LIMIT AT DES. COND.	%				
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COMPRESSION RATIO					
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POLYTROPIC HEAD	m				
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POWER REQUIRED	KW	BY VENDOR	BY VENDOR	BY VENDOR	
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COMPRESSOR SPEED	RPM	BY VENDOR	BY VENDOR	BY VENDOR	
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DRIVER (1&4) ELECTRIC MOTOR STEAM TURBINE

GAS ANALYSIS (2)

COMPOSITION	MOLAR MASS	% MOLAR	% MOLAR	% MOLAR	% MOLAR	% MOLAR	% MOLAR
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1 Nitrogene	28.0	57.00	67.00	100.00			
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2 Ethylene	28.0	35.00	25.00	0.00			
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3 Oxygene	32.0	7.00	7.00	0.00			
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4 Carbon deoxide	44.0	1.00	1.00	0.00			
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5							
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6							
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7							
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8							
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Total		100.00	100.00	100.00			
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NOTES ON GASES:

CORROSION CAUSED BY:

COMPRESSOR SKETCH

NOTES:

(1) ALL ELECTRICAL MOTORS SHOULD BE ACCORDANCE EXPLOSION PROOF STANDARD EXIICT3.

(2)

(3)

(4)

REV. 03

	Process Data Sheet	DATE 2022/03					
PLANT: EO R&T Mahshahr Center	AREA 200	SHEET 4 OF 6					
1 SERVICE RECYCLE GAS OIL FREE COMPRESSOR	ITEM	C-2800					
2 TYPE AND MODEL Quantity: 1							
3 LOCATION <input checked="" type="checkbox"/> OUTDOOR <input type="checkbox"/> UNDER ROOF <input type="checkbox"/> MEZZANINE <input checked="" type="checkbox"/> GROUND FLOOR							
4 ENGINEERING DATA							
5 COMPRESSOR SPEED RPM CRITICAL SPEEDS 1st RPM							
6 MAX CONTINUOUS SPEED RPM CRITICAL SPEEDS 2nd RPM							
7 SURGE LIMIT m3/h AT DESIGN CONDITIONS % OF DESIGN CAPACITY							
8 DIRECTION OF ROTATION (COMPRESSOR VIEWED FROM MOTOR)							
9 MATERIALS AND CONSTRUCTION							
10 COMPRESSOR CASING	SPLIT <input type="checkbox"/> HORIZONTAL <input type="checkbox"/> VERTICAL	MATERIAL					
11	THICKNESS mm	CORROSION ALLOWANCE mm					
12	MAX ALLOWABLE TEMP. °C	MAX ALLOW.PRESS/HYDR.TEST bar g					
13 IMPELLERS	TYPE <input type="checkbox"/> ENCLOSED <input type="checkbox"/> OPEN	MATERIAL					
14	CONSTRUCTION <input type="checkbox"/> CAST <input type="checkbox"/> WELDED <input type="checkbox"/> RIVETED <input type="checkbox"/> MILLED <input type="checkbox"/>						
15	No. DIAMETERS	MAX					
16 DIAPHRAGMS	COOLED <input type="checkbox"/> YES <input type="checkbox"/> NO	MATERIAL					
17 LABYRINTHS	RADIAL CLEARANCES mm	MATERIAL					
18 SHAFT	DIAMETERS (IMPELLER FIT) mm	MATERIAL					
19 RADIAL BEARINGS	HOUSING <input type="checkbox"/> INTEGRAL <input type="checkbox"/> SEPARATE						
20	TYPE <input type="checkbox"/> BABBIT METAL PLATED SHELLS <input type="checkbox"/>						
21	LUBRICATION <input type="checkbox"/> RING <input type="checkbox"/> FORCED <input type="checkbox"/>	OIL PRESS. bar g					
22	SPAN mm DIAMETER mm LENGTH mm	CLEARANCE mm					
23 THRUST BEARINGS	TYPE <input type="checkbox"/> KINGSBURY SINGLE <input type="checkbox"/> KINGSBURY DOUBLE <input type="checkbox"/> BALL <input type="checkbox"/> ROLLER						
24 SHAFT SEAL (NOTE 1)	LUBRICATION <input type="checkbox"/> FORCED <input type="checkbox"/> RING <input type="checkbox"/>	OIL PRESS. bar g					
25 BASEPLATE	TYPE <input type="checkbox"/> LABYRINTH <input type="checkbox"/> LIQUID FILM <input type="checkbox"/> MECHANICAL <input type="checkbox"/> RING						
26	TYPE <input type="checkbox"/> WELDED STEEL <input type="checkbox"/> CAST STEEL <input type="checkbox"/>						
27	COMMON WITH COMPRESSOR AND MOTOR <input type="checkbox"/> YES <input type="checkbox"/> NO						
28	SUPPLIED BY <input checked="" type="checkbox"/> COMPRESSOR MANUFACTURER						
29 COUPLING	POSITION	GEAR MOTOR COMPR. MOTOR COMPR. TURBINE					
30	MANUFACTURER						
31	TYPE						
32	LUBRICATION						
33 COUPLING GUARD	TYPE <input type="checkbox"/> SHEET STEEL <input type="checkbox"/> NONSPARKING <input type="checkbox"/>						
34	SUPPLIED BY <input type="checkbox"/> COMPRESSOR MANUFACTURER						
35							
36 OTHER PARTS:							
37 MASS: COMPRESSOR WITHOUT BASE PLATE	Kg MAX FOR MAINTENANCE	Kg					
38 MASS: MAX TO MOUNTING	Kg COMPRESSOR WITH BASE PLATE	Kg					
39 CONNECTIONS							
40 CONNECTION (a)	SIZE	RATING	FACING	UPWARDS	DOWNWARDS	RIGHT (b)	LEFT (b)
41 INTAKE PIPING	2	#300	RF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
42 DELIVERY PIPING	1.5	#300	RF	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
43				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
44				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
45				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
46				<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
47 PURGE CONNECTIONS LIQUID USED	SIZE	RATING AND FACING	No.				
48 DRAIN CONNECTIONS	SIZE	RATING AND FACING	No.				
49 VENT CONNECTIONS	SIZE	RATING AND FACING	No.				
50							
51 NOTES:							
52 NOTE 1: It is recommended to be Face to Face Type of Gas Seal							
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67 REV.	03						

Process Data Sheet

DATE
2022/03

PLANT: **EO R&T Mahshahr Center** AREA **200** SHEET **5** OF **6**

1 SERVICE **RECYCLE GAS OIL FREE COMPRESSOR** ITEM **C-2800**

2 TYPE AND MODEL Quantity: 1

3 LOCATION OUTDOOR UNDER ROOF MEZZANINE GROUND FLOOR

4 LUBRICATION AND SEALING SYSTEM

5 COMPRESSOR MANUFACTURER WILL SUPPLY A FORCED OIL LUBRICATION SYSTEM

6 COMMON WITH COMPRESSOR GEAR DRIVER

7 COMBINED WITH SEAL OIL SYSTEM SEPARATE FROM SEAL OIL SYSTEM WITHOUT SEAL OIL UNIT

8 SYSTEM ACCORDING TO DIAGRAM FIG. OF API STANDARD No. 617

9 OIL SYSTEM LUBRICATION SEAL

10 TYPE OF OIL USED

11 WORKING PRESSURE bar g

12 MAX ALLOWABLE PRESSURE bar g

13 REQUIRED OIL FLOW RATE m³/h

14 RESERVOIR: MOUNTED ON BASE PLATE CONSOLE BASE PLATE CONSOLE

15 CAPACITY m³

16 RETENTION TIME min

17 PROVIDED WITH HEATER ELECTRIC STEAM ELECTRIC STEAM

18 MATERIAL

19 MAIN PUMP; MANUFACTURER

20 TYPE-MODEL

21 CASING MATERIAL

22 CAPACITY-SPEED-POWER m³/h RPM KW m³/h RPM KW

23 MOUNTED ON BASE PLATE CONSOLE BASE PLATE CONSOLE

24 DRIVEN BY SHAFT MOTOR TURBINE SHAFT MOTOR TURBINE

25 STAND-BY PUMP; MANUFACTURER

26 TYPE-MODEL

27 CASING MATERIAL

28 CAPACITY-SPEED-POWER m³/h RPM KW m³/h RPM KW

29 MOUNTED ON BASE PLATE CONSOLE BASE PLATE CONSOLE

30 DRIVEN BY SHAFT MOTOR TURBINE SHAFT MOTOR TURBINE

31 AUTOMATIC START YES NO

32 ACTUATED ON YES NO

33 PUMP SAFETY VALVES; SET PRESS. bar g

34 TYPE INTEGRAL SEPARATE INTEGRAL SEPARATE

35 OIL COOLER DUAL SINGLE DUAL SINGLE

36 MOUNTED ON BASE PLATE CONSOLE BASE PLATE CONSOLE

37 COOLING MEDIUM

38 CONSTRUCTION CODE TEMA C TEMA C

39 SHELL MATERIAL

40 PIPE MATERIAL

41 EXCHANGING HEAT KW

42 FILTERS SINGLE DUAL SINGLE DUAL

43 MANUFACTURER -TYPE

44 FILTERING DEGREE

45 FILTERING ELEMENT REPLACEABLE CLEANING TYPE REPLACEABLE CLEANING TYPE

46 BODY MATERIAL

47 VALVES: BODY MATERIAL

48 OIL DRAINS: REQUIRED YES NO SUPPLIED BY

49 MOUNTED ON BASE PLATE CONSOLE

50 MAX SEAL OIL LEAK LITERS/DAY

51 OVERHEAD SEAL OIL TANK: REQUIRED YES NO

52 SUPPLIED BY COMPRESSOR MANUFACTURER

53 PLACED METERS ABOVE COMPRESSOR CENTERLINE

54 CLARIFIER: REQUIRED YES NO

55 SUPPLIED BY COMPRESSOR MANUFACTURER

56 CAPACITY 100% DAY 50% DAY

57 OIL PIPING MATERIAL C-STEEL, CLEAN AND PICKLED

58 STAINLESS STEEL

59 DRAIN OIL PIPING MATERIAL STAINLESS STEEL

60 OTHER DATA

61 NOTES:

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Process Data Sheet

DATE
2022/03

PLANT: **EO R&T Mahshahr Center**

AREA
200

SHEET
6 OF 6

1 SERVICE **RECYCLE GAS OIL FREE COMPRESSOR** ITEM **C-2800**

2 TYPE AND MODEL Quantity: **1.00**

3 LOCATION OUTDOOR UNDER ROOF MEZZANINE GROUND FLOOR

4 INSTRUMENT AND PROTECTIONS

5 INSTRUMENT READ OUT METRIC UNITS ENGLISH UNITS

6 LOCAL PANEL FOR COMPRESSOR SUPPLIED BY COMPR.MANUF. PURCHASER NOT REQUIRED NOT NEEDED

7 ELECTRICAL AND INSTRUMENT CONNECTIONS SHALL BE BROUGHT OUT TO TERMINAL BOXES BY:

8 COMPR.MANUFACTURER PURCHASER

METERS AND INDICATORS	MANUFACTURER	TYPE AND SIZE
9 PRESSURE GAUGES		
10 THERMOMETERS		
11 LEVEL INDICATORS		
12 SIGHT FLOW INDICATORS		
13 TACHOMETERS		
14 PRESSURE SWITCHES		
15 TEMPERATURE SWITCHES		
16 AXIAL DISPLACEMENT INDICATORS		
17 SAFETY AND/OR RELIEF VALVES		
18 POWER INDICATOR & RECORDER		

20 INSTRUMENTS COMPRESSOR MANUFACTURER SHALL SUPPLY AS A MINIMUM

PRESSURE GAUGES	LOCAL MOUNTED	PANEL MOUNTED	PROTECTIONS	ALARM	LOCK
21 OIL PUMP DISCHARGE	<input type="checkbox"/>	<input type="checkbox"/>	LUBE OIL LOW PRESSURE	<input type="checkbox"/>	<input type="checkbox"/>
22 LUBE OIL EACH LEVEL	<input type="checkbox"/>	<input type="checkbox"/>	SEAL OIL LOW PRESSURE	<input type="checkbox"/>	<input type="checkbox"/>
23 SEAL OIL EACH LEVEL	<input type="checkbox"/>	<input type="checkbox"/>	RESERVOIR OIL LOW LEVEL	<input type="checkbox"/>	<input type="checkbox"/>
24 DIFFERENTIAL, SEAL OIL	<input type="checkbox"/>	<input type="checkbox"/>	GOV. CONTROL OIL LOW PRESSURE	<input type="checkbox"/>	<input type="checkbox"/>
25 DIFF. BEFORE/AFTER FILTERS	<input type="checkbox"/>	<input type="checkbox"/>	OIL FILTERS DIFF. HIGH PRESSURE	<input type="checkbox"/>	<input type="checkbox"/>
26 GOV. CONTROL OIL	<input type="checkbox"/>	<input type="checkbox"/>	COMPR. DISCHARGE HIGH TEMP.	<input type="checkbox"/>	<input type="checkbox"/>
27 COMPRESSOR DISCHARGE	<input type="checkbox"/>	<input type="checkbox"/>	ROTOR AXIAL POSITION	<input type="checkbox"/>	<input type="checkbox"/>
28 COMPRESSOR SUCTION	<input type="checkbox"/>	<input type="checkbox"/>	STARTING OF AUXILIARY/SPARE PUMPS	<input type="checkbox"/>	<input type="checkbox"/>
29 INTERMEDIATE STAGES	<input type="checkbox"/>	<input type="checkbox"/>	HIGH VIBRATIONS ON EACH BEARING	<input type="checkbox"/>	<input type="checkbox"/>
30 THERMOMETERS:			HIGH TEMP. LUBE OIL	<input type="checkbox"/>	<input type="checkbox"/>
31 OUTLET, EACH BEARING	<input type="checkbox"/>	<input type="checkbox"/>	HIGH TEMP EACH BEARING	<input type="checkbox"/>	<input type="checkbox"/>
32 OUTLET, EACH SEAL	<input type="checkbox"/>	<input type="checkbox"/>			
33 COOLER INLET/OUTLET	<input type="checkbox"/>	<input type="checkbox"/>			
34 COMPR. SUCTION/DISCHARGE	<input type="checkbox"/>	<input type="checkbox"/>			
35					
36					
37					

38 REMOTE LOCKING ELECTRIC PNEUMATIC HYDRAULIC

39 AXIAL POSITION CONTINUOUS INDICATOR

40 VISUAL FLOW INDICATOR ON EACH OIL OUTLET LINE FOR BEARINGS-SEAL-COUPPLINGS

41 LEVEL GAUGES LUBE

42

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44 TO ACTUATE ALARMS AND LOCKS THE CONTACT WILL:

45 OPEN CLOSE TO SOUND ALARM

46 OPEN CLOSE TO LOCK

47 ALARM AND LOCK CONTACTS WILL BE SEPARATE AND:

48 ONE-POLE DOUBLE-THROW TYPE

49 TWO-POLE DOUBLE-THROW TYPE

50 CONTROL

51 METHOD SPEED VARIATION FROM TO RPM ON SUCTION DISCHARGE

52 BY-PASS FROM TO % AUTOMATIC MANUAL

53 CONTROL DEVICE WITH PRESSURE SWITCH WITH THERMOSTAT

54 SIGNAL FROM TYPE RANGE

55 EFFECT ON VARIATION

56 ANTISURGE CONTROL

57 NOTES:

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67 REV. 03

PROJECT: PP-PE PILOT PLANT

client:



شرکت ملی صنایع پتروشیمی
شرکت پژوهش و فناوری پتروشیمی

Title: DATA SHEET FOR 1ST GAS PHASE REACTOR
CENTRIFUGAL COMPRESSOR (CF-411A/B)

DATA SHEET FOR Boost COMPRESSOR (C-2900)

Document No.: 400-DAS-A4-RE-0037

Rev.: 03

Owner Job No.:

Type: DAS

Page 1

Process Data Sheet

DATE
2022/03

PLANT: **EO R&T Mahshahr Center** AREA **200** Sheet **3** OF **6**

SERVICE **OIL FREE BOOST COMPRESSOR** ITEM **C-2900**

TYPE AND MODEL BY VENDOR Quantity: 1

LOCATION OUTDOOR UNDER ROOF MEZZANINE GROUND FLOOR

SERVICE DATA

CONDITIONS NORMAL ALTERNATIVE 1 ALTERNATIVE 2 ALTERNATIVE 3 ALTERNATIVE 4

POSITION

COMPRESSOR CASING

COMPRESSED GAS (SEE ANALYSIS)

BAROMETRIC PRESSURE: bar a

CAPACITY kg/h 12.44 12.44 12.44

std m³/h 10.5 10.5 10.5

m³/h AT INTAKE CONDITIONS 1.44 1.54 1.65

INTAKE CONDITIONS

PRESSURE bar a 8 7.5 7

TEMPERATURE °C 40 40 40

RELATIVE HUMIDITY %

MOLAR MASS Kg/Kmol 0.44 0.44 0.44

Cp/Cv (K1) 1.41 1.41 1.41

DENSITY Kg/m³ 8.64 8.10 7.56

Z₁ - COMPRESSIBILITY FACTOR 0.9978 0.9979 0.9980

DISCHARGE CONDITIONS

PRESSURE bar a 30~35 30~35 30~35

TEMPERATURE EXPECTED/ACTUAL °C

Cp/Cv (K2)

Z₂ - COMPRESSIBILITY FACTOR

SURGE LIMIT AT DES. COND. %

COMPRESSION RATIO

POLYTROPIC HEAD m

POWER REQUIRED KW BY VENDOR BY VENDOR BY VENDOR

COMPRESSOR SPEED RPM BY VENDOR BY VENDOR BY VENDOR

DRIVER (1&4) ELECTRIC MOTOR STEAM TURBINE

GAS ANALYSIS (2)

COMPOSITION	MOLAR MASS	% MOLAR	% MOLAR	% MOLAR	% MOLAR	% MOLAR	% MOLAR
1 Nitrogene	28.0	100.00	100.00	100.00			
2							
3							
4							
5							
6							
7							
8							
Total		100.00	100.00	100.00			

1 Nitrogene 28.0 100.00 100.00 100.00

2

3

4

5

6

7

8

Total 100.00 100.00 100.00

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48 NOTES ON GASES:

49 CORROSION CAUSED BY:

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52 COMPRESSOR SKETCH

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55 NOTES:

56 (1) ALL ELECTRICAL MOTORS SHOULD BE ACCORDANCE WITH EXPLOSION PROOF STANDARD EXIICT3.

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58 (2)

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60 (3)

61 (4)

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		Process Data Sheet				DATE 2022/03	
PLANT: EO R&T Mahshahr Center			AREA 200		SHEET 4 OF 6		
1 SERVICE OIL FREE BOOST COMPRESSOR			ITEM		C-2900		
2 TYPE AND MODEL Quantity: 1							
3 LOCATION <input checked="" type="checkbox"/> OUTDOOR <input type="checkbox"/> UNDER ROOF <input type="checkbox"/> MEZZANINE <input checked="" type="checkbox"/> GROUND FLOOR							
4 ENGINEERING DATA							
5 COMPRESSOR SPEED RPM CRITICAL SPEEDS 1st RPM							
6 MAX CONTINUOUS SPEED RPM CRITICAL SPEEDS 2nd RPM							
7 SURGE LIMIT m3/h AT DESIGN CONDITIONS % OF DESIGN CAPACITY							
8 DIRECTION OF ROTATION (COMPRESSOR VIEWED FROM MOTOR)							
9 MATERIALS AND CONSTRUCTION							
10 COMPRESSOR CASING SPLIT <input type="checkbox"/> HORIZONTAL <input type="checkbox"/> VERTICAL MATERIAL							
11 THICKNESS mm CORROSION ALLOWANCE mm							
12 MAX ALLOWABLE TEMP. °C MAX ALLOW.PRESS/HYDR.TEST bar g							
13 IMPELLERS TYPE <input type="checkbox"/> ENCLOSED <input type="checkbox"/> OPEN MATERIAL							
14 CONSTRUCTION <input type="checkbox"/> CAST <input type="checkbox"/> WELDED <input type="checkbox"/> RIVETED <input type="checkbox"/> MILLED <input type="checkbox"/>							
15 No. DIAMETERS MAX							
16 DIAPHRAGMS COOLED <input type="checkbox"/> YES <input type="checkbox"/> NO MATERIAL							
17 LABYRINTHS RADIAL CLEARANCES mm MATERIAL							
18 SHAFT DIAMETERS (IMPELLER FIT) mm MATERIAL							
19 RADIAL BEARINGS HOUSING <input type="checkbox"/> INTEGRAL <input type="checkbox"/> SEPARATE							
20 TYPE <input type="checkbox"/> BABBIT METAL PLATED SHELLS <input type="checkbox"/>							
21 LUBRICATION <input type="checkbox"/> RING <input type="checkbox"/> FORCED <input type="checkbox"/> OIL PRESS. bar g							
22 SPAN mm DIAMETER mm LENGTH mm CLEARANCE mm							
23 THRUST BEARINGS TYPE <input type="checkbox"/> KINGSBURY SINGLE <input type="checkbox"/> KINGSBURY DOUBLE <input type="checkbox"/> BALL <input type="checkbox"/> ROLLER							
24 SHAFT SEAL (NOTE 1) LUBRICATION <input type="checkbox"/> FORCED <input type="checkbox"/> RING <input type="checkbox"/> OIL PRESS. bar g							
25 BASEPLATE TYPE <input type="checkbox"/> LABYRINTH <input type="checkbox"/> LIQUID FILM <input type="checkbox"/> MECHANICAL <input type="checkbox"/> RING							
26 TYPE <input type="checkbox"/> WELDED STEEL <input type="checkbox"/> CAST STEEL <input type="checkbox"/>							
27 COMMON WITH COMPRESSOR AND MOTOR <input type="checkbox"/> YES <input type="checkbox"/> NO							
28 SUPPLIED BY <input checked="" type="checkbox"/> COMPRESSOR MANUFACTURER							
29 COUPLING POSITION GEAR MOTOR COMPR. MOTOR COMPR. TURBINE							
30 MANUFACTURER							
31 TYPE							
32 LUBRICATION							
33 COUPLING GUARD TYPE <input type="checkbox"/> SHEET STEEL <input type="checkbox"/> NONSPARKING <input type="checkbox"/>							
34 SUPPLIED BY <input type="checkbox"/> COMPRESSOR MANUFACTURER							
35							
36 OTHER PARTS:							
37 MASS: COMPRESSOR WITHOUT BASE PLATE Kg MAX FOR MAINTENANCE Kg							
38 MASS: MAX TO MOUNTING Kg COMPRESSOR WITH BASE PLATE Kg							
39 CONNECTIONS							
40 CONNECTION (a) SIZE RATING FACING UPWARDS DOWNWARDS RIGHT (b) LEFT (b)							
41 INTAKE PIPING 1.5 #300 RF <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>							
42 DELIVERY PIPING 1 #300 RF <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>							
43 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>							
44 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>							
45 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>							
46 <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>							
47 PURGE CONNECTIONS LIQUID USED SIZE RATING AND FACING No.							
48 DRAIN CONNECTIONS SIZE RATING AND FACING No.							
49 VENT CONNECTIONS SIZE RATING AND FACING No.							
50							
51 NOTES:							
52 NOTE 1: It is recommended to be Face to Face Type of Gas Seal							
53							
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67 REV. 03							

Process Data Sheet

DATE

2022/03

PLANT: **EO R&T Mahshahr Center**

AREA
200

SHEET
5 OF 6

1 SERVICE OIL FREE BOOST COMPRESSOR	ITEM	C-2900
2 TYPE AND MODEL Quantity: 1		
3 LOCATION <input checked="" type="checkbox"/> OUTDOOR <input type="checkbox"/> UNDER ROOF <input type="checkbox"/> MEZZANINE <input checked="" type="checkbox"/> GROUND FLOOR		
4 LUBRICATION AND SEALING SYSTEM		
5 COMPRESSOR MANUFACTURER WILL SUPPLY A FORCED OIL LUBRICATION SYSTEM		
6 COMMON WITH <input type="checkbox"/> COMPRESSOR <input checked="" type="checkbox"/> GEAR <input type="checkbox"/> DRIVER <input type="checkbox"/>		
7 <input type="checkbox"/> COMBINED WITH SEAL OIL SYSTEM <input type="checkbox"/> SEPARATE FROM SEAL OIL SYSTEM <input type="checkbox"/> WITHOUT SEAL OIL UNIT		
8 SYSTEM ACCORDING TO DIAGRAM FIG. OF API STANDARD No. 617		
9 OIL SYSTEM	LUBRICATION	SEAL
10 TYPE OF OIL USED		
11 WORKING PRESSURE	bar g	
12 MAX ALLOWABLE PRESSURE	bar g	
13 REQUIRED OIL FLOW RATE	m ³ /h	
14 RESERVOIR: MOUNTED ON	<input type="checkbox"/> BASE PLATE <input type="checkbox"/> CONSOLE	<input type="checkbox"/> BASE PLATE <input type="checkbox"/> CONSOLE
15 CAPACITY	m ³	
16 RETENTION TIME	min	
17 PROVIDED WITH HEATER	<input type="checkbox"/> ELECTRIC <input type="checkbox"/> STEAM	<input type="checkbox"/> ELECTRIC <input type="checkbox"/> STEAM
18 MATERIAL		
19 MAIN PUMP; MANUFACTURER		
20 TYPE-MODEL		
21 CASING MATERIAL		
22 CAPACITY-SPEED-POWER	m ³ /h RPM KW	m ³ /h RPM KW
23 MOUNTED ON	<input type="checkbox"/> BASE PLATE <input type="checkbox"/> CONSOLE	<input type="checkbox"/> BASE PLATE <input type="checkbox"/> CONSOLE
24 DRIVEN BY	<input type="checkbox"/> SHAFT <input checked="" type="checkbox"/> MOTOR <input type="checkbox"/> TURBINE	<input type="checkbox"/> SHAFT <input checked="" type="checkbox"/> MOTOR <input type="checkbox"/> TURBINE
25 STAND-BY PUMP; MANUFACTURER		
26 TYPE-MODEL		
27 CASING MATERIAL		
28 CAPACITY-SPEED-POWER	m ³ /h RPM KW	m ³ /h RPM KW
29 MOUNTED ON	<input type="checkbox"/> BASE PLATE <input type="checkbox"/> CONSOLE	<input type="checkbox"/> BASE PLATE <input type="checkbox"/> CONSOLE
30 DRIVEN BY	<input type="checkbox"/> SHAFT <input type="checkbox"/> MOTOR <input type="checkbox"/> TURBINE	<input type="checkbox"/> SHAFT <input type="checkbox"/> MOTOR <input type="checkbox"/> TURBINE
31 AUTOMATIC START	<input type="checkbox"/> YES <input type="checkbox"/> NO	
32 ACTUATED ON		<input type="checkbox"/> YES <input type="checkbox"/> NO
33 PUMP SAFETY VALVES; SET PRESS.	bar g	
34 TYPE	<input type="checkbox"/> INTEGRAL <input type="checkbox"/> SEPARATE	<input type="checkbox"/> INTEGRAL <input type="checkbox"/> SEPARATE
35 OIL COOLER	<input type="checkbox"/> DUAL <input type="checkbox"/> SINGLE	<input type="checkbox"/> DUAL <input type="checkbox"/> SINGLE
36 MOUNTED ON	<input type="checkbox"/> BASE PLATE <input type="checkbox"/> CONSOLE	<input type="checkbox"/> BASE PLATE <input type="checkbox"/> CONSOLE
37 COOLING MEDIUM		
38 CONSTRUCTION CODE	<input type="checkbox"/> TEMA C <input type="checkbox"/>	<input type="checkbox"/> TEMA C <input type="checkbox"/>
39 SHELL MATERIAL		
40 PIPE MATERIAL		
41 EXCHANGING HEAT	KW	
42 FILTERS	<input type="checkbox"/> SINGLE <input type="checkbox"/> DUAL	<input type="checkbox"/> SINGLE <input type="checkbox"/> DUAL
43 MANUFACTURER -TYPE		
44 FILTERING DEGREE		
45 FILTERING ELEMENT	<input type="checkbox"/> REPLACEABLE <input type="checkbox"/> CLEANING TYPE	<input type="checkbox"/> REPLACEABLE <input type="checkbox"/> CLEANING TYPE
46 BODY MATERIAL		
47 VALVES: BODY MATERIAL		
48 OIL DRAINS: REQUIRED	<input type="checkbox"/> YES <input type="checkbox"/> NO	SUPPLIED BY
49 MOUNTED ON	<input type="checkbox"/> BASE PLATE <input type="checkbox"/> CONSOLE	<input type="checkbox"/>
50 MAX SEAL OIL LEAK		LITERS/DAY
51 OVERHEAD SEAL OIL TANK: REQUIRED	<input type="checkbox"/> YES <input type="checkbox"/> NO	
52 SUPPLIED BY	<input type="checkbox"/> COMPRESSOR MANUFACTURER <input type="checkbox"/>	
53 PLACED	METERS ABOVE COMPRESSOR CENTERLINE	
54 CLARIFIER: REQUIRED	<input type="checkbox"/> YES <input type="checkbox"/> NO	
55 SUPPLIED BY	<input type="checkbox"/> COMPRESSOR MANUFACTURER <input type="checkbox"/>	
56 CAPACITY	<input type="checkbox"/> 100% DAY <input type="checkbox"/> 50% DAY <input type="checkbox"/>	
57 OIL PIPING MATERIAL	<input type="checkbox"/> C-STEEL, CLEAN AND PICKLED <input type="checkbox"/>	
	<input type="checkbox"/> STAINLESS STEEL <input type="checkbox"/>	
59 DRAIN OIL PIPING MATERIAL	<input type="checkbox"/> STAINLESS STEEL <input type="checkbox"/>	
60 OTHER DATA		
61 NOTES:		
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69 REV.	03	

Process Data Sheet

DATE
2022/03

PLANT: **EO R&T Mahshahr Center**

AREA
200

SHEET
6 OF 6

1 SERVICE **OIL FREE BOOST COMPRESSOR** ITEM **C-2900**

2 TYPE AND MODEL Quantity: **1.00**

3 LOCATION OUTDOOR UNDER ROOF MEZZANINE GROUND FLOOR

4 INSTRUMENT AND PROTECTIONS

5 INSTRUMENT READ OUT METRIC UNITS ENGLISH UNITS

6 LOCAL PANEL FOR COMPRESSOR SUPPLIED BY COMPR.MANUF. PURCHASER NOT REQUIRED NOT NEEDED

7 ELECTRICAL AND INSTRUMENT CONNECTIONS SHALL BE BROUGHT OUT TO TERMINAL BOXES BY:

8 COMPR.MANUFACTURER PURCHASER

METERS AND INDICATORS	MANUFACTURER	TYPE AND SIZE
9 PRESSURE GAUGES		
10 THERMOMETERS		
11 LEVEL INDICATORS		
12 SIGHT FLOW INDICATORS		
13 TACHOMETERS		
14 PRESSURE SWITCHES		
15 TEMPERATURE SWITCHES		
16 AXIAL DISPLACEMENT INDICATORS		
17 SAFETY AND/OR RELIEF VALVES		
18 POWER INDICATOR & RECORDER		

20 INSTRUMENTS COMPRESSOR MANUFACTURER SHALL SUPPLY AS A MINIMUM

PRESSURE GAUGES	LOCAL MOUNTED	PANEL MOUNTED	PROTECTIONS	ALARM	LOCK
21 OIL PUMP DISCHARGE	<input type="checkbox"/>	<input type="checkbox"/>	LUBE OIL LOW PRESSURE	<input type="checkbox"/>	<input type="checkbox"/>
22 LUBE OIL EACH LEVEL	<input type="checkbox"/>	<input type="checkbox"/>	SEAL OIL LOW PRESSURE	<input type="checkbox"/>	<input type="checkbox"/>
23 SEAL OIL EACH LEVEL	<input type="checkbox"/>	<input type="checkbox"/>	RESERVOIR OIL LOW LEVEL	<input type="checkbox"/>	<input type="checkbox"/>
24 DIFFERENTIAL, SEAL OIL	<input type="checkbox"/>	<input type="checkbox"/>	GOV. CONTROL OIL LOW PRESSURE	<input type="checkbox"/>	<input type="checkbox"/>
25 DIFF. BEFORE/AFTER FILTERS	<input type="checkbox"/>	<input type="checkbox"/>	OIL FILTERS DIFF. HIGH PRESSURE	<input type="checkbox"/>	<input type="checkbox"/>
26 GOV. CONTROL OIL	<input type="checkbox"/>	<input type="checkbox"/>	COMPR. DISCHARGE HIGH TEMP.	<input type="checkbox"/>	<input type="checkbox"/>
27 COMPRESSOR DISCHARGE	<input type="checkbox"/>	<input type="checkbox"/>	ROTOR AXIAL POSITION	<input type="checkbox"/>	<input type="checkbox"/>
28 COMPRESSOR SUCTION	<input type="checkbox"/>	<input type="checkbox"/>	STARTING OF AUXILIARY/SPARE PUMPS	<input type="checkbox"/>	<input type="checkbox"/>
29 INTERMEDIATE STAGES	<input type="checkbox"/>	<input type="checkbox"/>	HIGH VIBRATIONS ON EACH BEARING	<input type="checkbox"/>	<input type="checkbox"/>
30 THERMOMETERS:			HIGH TEMP. LUBE OIL	<input type="checkbox"/>	<input type="checkbox"/>
31 OUTLET, EACH BEARING	<input type="checkbox"/>	<input type="checkbox"/>	HIGH TEMP EACH BEARING	<input type="checkbox"/>	<input type="checkbox"/>
32 OUTLET, EACH SEAL	<input type="checkbox"/>	<input type="checkbox"/>			
33 COOLER INLET/OUTLET	<input type="checkbox"/>	<input type="checkbox"/>			
34 COMPR. SUCTION/DISCHARGE	<input type="checkbox"/>	<input type="checkbox"/>			
35					
36					
37					

38 REMOTE LOCKING ELECTRIC PNEUMATIC HYDRAULIC

39 AXIAL POSITION CONTINUOUS INDICATOR

40 VISUAL FLOW INDICATOR ON EACH OIL OUTLET LINE FOR BEARINGS-SEAL-COUPPLINGS

41 LEVEL GAUGES LUBE

42

43

44 TO ACTUATE ALARMS AND LOCKS THE CONTACT WILL:

45 OPEN CLOSE TO SOUND ALARM

46 OPEN CLOSE TO LOCK

47 ALARM AND LOCK CONTACTS WILL BE SEPARATE AND:

48 ONE-POLE DOUBLE-THROW TYPE

49 TWO-POLE DOUBLE-THROW TYPE

50 CONTROL

51 METHOD SPEED VARIATION FROM TO RPM ON SUCTION DISCHARGE

52 BY-PASS FROM TO % AUTOMATIC MANUAL

53 CONTROL DEVICE WITH PRESSURE SWITCH WITH THERMOSTAT

54 SIGNAL FROM TYPE RANGE

55 EFFECT ON VARIATION

56 ANTISURGE CONTROL

57 NOTES:

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