



Exploration & Production

GENERAL SPECIFICATION

ROTATING MACHINERY

DS MEC 262

Reciprocating compressor data sheet
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01	08/03	Change of Group name and logo
00	11/01	First issue
Rev.	Date	Notes



Exploration & Production

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Rev: 01

CUSTOMER :		ITEM :		SPECIF.	
LOCATION :		Nbr. of units :			
JOB N° :		UNIT :		Page : /	
1 APPLICABLE TO ☐ PROPOSAL ☐ PURCHASE ☐ AS-BUILT					
2 Manufacturer : Manufacturing plant :					
3 Size & Type : Functional design : ☐ Package ☐ Unit					
4 Service : ☐ Continuous ☐ Intermittent ☐ Standby					
5 Driver type : ISO classification ☐ A ☐ B ☐ C ☒ D					
6 RATED OPERATING CONDITIONS					
7 Operating case					
8 Gas handled (see page 2)					
9 Capacity Nm ³ /h					
10 Specific weight kg/m ³					
11 Weight capacity kg/h					
12 Suction capacity m ³ /h					
13 Suction Pressure (1) bar a					
14 Conditions Temperature °C					
15 Compressib. factor					
16 Discharge Pressure (1) bar a					
17 Conditions Temperature °C					
18 Compressib. factor					
19 Guarantee case ☐ ☐ ☐ ☐					
20					
21 SHOP TEST / INSPECTION					
22 ☒ Shop inspection ☐ by control agency					
23 Tests :					
24 Manufacturer standard shop tests					
25 Actual running clearances check & records					
26 Cylinder hydrostatic test					
27 Cylinder ☐ Pneumatic test ☐ Helium leak test					
28 Cylinder water jacket hydrostatic test					
29 Valve leak test					
30 Mechanical 4 hour run test (with job driver ☐)					
31 Lube oil console operational & 4 hour run test					
32 Auxiliary equipments operational & run test					
33 Bar-over to check rod runout					
34 Dismantling after test					
35 Cleanliness of equip., piping & appurtenances					
36 Shop fit-up pulsation suppress. device & piping					
37 String test : ☐ Full load ☐ Full speed					
38					
39					
40 ☐ ACCESSORIES BY MANUFACTURER (M) OR OTHER (O)					
41					
42 Base plate ☐ with drip rim					
43 Stainless steel shim					
44 Levelling pads					
45 Foundation bolts / Anchor bolts					
46 Driver					
47 Reducing gear					
48 Belt drive					
49 Transmission guard					
50 Low speed coupling					
51 High speed coupling					
52 Coupling guard(s)					
53 Fly wheel and guard					
54 Barring device					
55 Lube oil unit					
56 Suction filter					
57					
58 Notes: Information to be completed : ☐ By purchaser ☐ By manufacturer ☐ Either by purchaser or manufacturer					
59 (1) Measured at limit of supply					
60					
61					
62					
63					
64					
65					
66					
67					
68 DESIGNATION Date By Appr Rev DESIGNATION Date By Appr Rev					



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1 OPERATING CONDITIONS (Each machine)													
2 Operating cases		I Guaranteed Pressures				II Maximum case (note 1)				III			
3 Stage number		1	2	3	4	1	2	3	4	1	2	3	4
4 Flow Nm ³ /h													
5 Weight flow kg/h													
6 Suction conditions													
7 Volume flow m ³ /h													
8 Pressure @ damper fl'ge bar a													
9 Pressure @ cylinder fl'ge bar a													
10 Temperature (2) °C													
11 Isentropic exponent Cp/Cv													
12 Compressibility factor Z													
13 Discharge conditions													
14 Volume flow m ³ /h													
15 Pressure @ damper fl'ge bar a													
16 Pressure @ cylinder fl'ge bar a													
17 Temperature adiabatic (2) °C													
18 Temperature predicted (2) °C													
19 Isentropic exponent Cp/Cv													
20 Compressibility factor Z													
21 Volumetric eff'cy. %HE / %CE													
22 Combined road load C (3) kN													
23 Combined road load T (3) kN													
24 Compression ratio													
25 Stage power requirement kW													
26 Total shaft power kW													
27 Driver power kW													
28													
29 GAS ANALYSIS						30 CAPACITY CONTROL							
Analysis ☐ % Weight ☐ % Mole						Capacity variation:							
31 Component	M.W.	Normal				☐ Continuous control from : % to %							
32 Oxygen O ₂	32.00					Control method :							
33 Nitrogen N ₂	28.01					☐ By pass between discharge and suction							
34 Water vapor H ₂ O	18.02					☐ Speed variation from : to RPM							
35 Carbon monoxide CO	28.01					☐ Variable clearance pockets from % to %							
36 Carbon dioxide CO ₂	44.01					☐ On Head end acting ; Number :							
37 Hydrogen sulfide H ₂ S	34.08					☐ On Crank end acting ; Number :							
38 Hydrogen H ₂	2.02					☐ Step control							
39 Methane CH ₄	16.04					Steps : ☐ 25% ☐ 50% ☐ 75% ☐ 100%							
40 Ethylene C ₂ H ₄	28.05					☐ By suction valve unloaders							
41 Ethane C ₂ H ₆	30.07					☐ By plug system on suction valves							
42 Propylene C ₃ H ₆	42.08					☐ By Fixed clearance pockets							
43 Propane C ₃ H ₈	44.10					☐ On Head end acting ; Number :							
44 i-Butane iC ₄	58.12					☐ On Crank end acting ; Number :							
45 n-Butane nC ₄	58.12					☐ On valves Number :							
46 i-Pentane iC ₅	72.15					☐ Compressor start unloaded							
47 n-Pentane nC ₅	72.15					Unloading method :							
48 Hexane plus C ₆ +						☐ Suction valve unloaders							
49						☐ Plug system on suction valves							
50	Total %	100				☐ By pass between discharge and suction							
51	Average molar weight					☐ Operation							
52	Relative humidity %					Capacity control							
53	Corrosion by					Unloading							
54						Manual ☐							
55	Floating parts :					Automatic ☐							
56	Solids					Local ☐							
57	Liquids					From control panel ☐							
58						Remote control ☐							
59						Electric ☐							
60						Pneumatic ☐							
Notes: (1) Minimum suction pressure; discharge pressure equal to relief valve setting pressure, (2) Measured at limit of supply													
HE = Head end; CE = Crank End; (3) Gas and inertia loads C = Compression; T = Tension													
61													
62													
63													
64													
65				4		5							
66				2		3							
67				0		1							
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1 CONSTRUCTION FEATURES					
2 CYLINDER TECHNICAL DATA					
3	Compression stage	1	2	3	4
4	Cylinders : N'ber per stage				
5	Single (S)/ Double (D) acting				
6	Dry liner	☐	☐	☐	☐
7	Liner external Ø mm				
8	Lubrication	☐	☐	☐	☐
9	Number of lubrication points				
10	Cylinder cooled	☐	☐	☐	☐
11	Cylinder bore mm				
12	Piston stroke mm				
13	Head/crank end clear'ce %				
14	Volumetric efficiency %				
15	Suction flange : Ø "/ serial				
16	Discharge fl'ge : Ø "/ serial				
17	Maxi allow. temperature °C				
18	Maxi allow. pressure bar g				
19	Relief valve setting bar g				
20	Design pressure bar g				
21	Hydrostatic test press. bar g				
22	Helium test pressure bar g				
23	Water jacket pressure bar g				
24	Jacket test presure. bar g				
25					
26	Piston : Solid	☐	☐	☐	☐
27	Piston ring number				
28	Piston wear band number				
29	Average piston speed m/s				
30	Displacement m3/h				
31					
32	Valves : Manufacturer				
33	Valve type				
34	Number per suction acting				
35	Total area per acting cm2				
36	Valve lift mm				
37	Average gas velocity m/s				
38	Number per discharge acting				
39	Total area per acting cm2				
40	Valve lift mm				
41	Average gas velocity m/s				
42					
43	Piston rod : Ø mm				
44	Maxi allowable load (T) daN				
45	Maxi allowable load (C) daN				
46	Rod load (T) in case I daN				
47	Rod load (C) in case I daN				
48	Rod load (T) in case II daN				
49	Rod load (C) in case II daN				
50					
51	Extended piston rod	☐	☐	☐	☐
52	Diameter mm				
53					
54					
55					
56	Notes: C = Compression; T = Tension ; Rod loads in lines 46 to 49 shall include gas and inertia loads.				
57					
58					
59					
60					
61					
62					
63					
64					
65				4	5
66				2	3
67				0	1
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FRAME TECHNICAL DATA	
Speed : maxi / actual / mini :	RPM
Rotation (view from drive end) :	☐ CW ☐ CCW
Frame Maxi power :	kW @ RPM
WR2 :	kg.m2
☐ Compressor only ☐ With fly wheel	
Frame :	☐ Cast ☐ Fabricated steel
Drain Ø :	Serial : N'ber:
Vent Ø :	Serial : N'ber:
Crankshaft :	
Maxi number of throws :	Actual :
Angle :	Bearing number :
☐ Sleeve bearing ☐ Ø x L :	mm
☐ Anti friction bearing ☐ N'ber :	
Connecting rod length :	
Ratio length / radius:	
Big end type :	☐ Ø x L : mm
Small end type :	☐ Ø x L : mm
Cross head guide : ☐ With frame ☐ Separate	
Drain Ø :	Serial : N'ber:
Vent Ø :	Serial : N'ber:
Cross head : ☐ with integrated shoes ☐ Separate	
Fly wheel : ☐ Irregularity coefficient : %	
Distance piece :	
☐ 1 compartment ☐ standard ☐ extra-long ☐ closed	
Vent ☐ To atmosphere	
☐ To flare ☐ Maxi back press. barg	
Drain ☐ To open drain ☐ To closed drain	
☐ 2 compartments ☐ standard ☐ extra-long	
Closed compartment near frame	
Vent ☐ To atmosphere	
☐ To flare ☐ Maxi back press. barg	
Drain ☐ To open drain ☐ To closed drain	
Compart'nt near cylinder : ☐ closed ☐ pressurised	
Vent ☐ To atmosphere	
☐ To flare ☐ Maxi back press. barg	
Drain ☐ To open drain ☐ To closed drain	
☐ Packing between compartments	
☐ dP Maxi between compartments : bar	
Drain Ø :	Serial : N'ber:
Vent Ø :	Serial : N'ber:
Rod packing :	
☐ Gasket ☐ Metallic	
☐ Pressure lubricated	
Cooled with : ☐ Water ☐ Oil	
Vent ☐ To atmosphere	
☐ To flare ☐ Maxi back press. barg	



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1 CONSTRUCTION FEATURES (continued)					
2 ☐ MATERIALS of CONSTRUCTION					
3 Frame :		Stage number :	1	2	3
4 Crankshaft :		Cylinder			
5 Main Bearing cap :		Liner			
6 Main Bearing shell :		Piston			
7 Connecting rod :		Wear band			
8 Crankpin bearing (Big end):		Piston ring			
9 Rod pin bushing (Small end) :		Valve body			
10 Crosshead :		Seat/plate			
11 Guide : Shoe :		Min hardness			
12 Pin bushing : Pin :		Guard			
13 Flywheel :		Discs			
14 Distance piece :		Springs			
15 Rod pressure packing :		Piston rod			
16 Packing case :		Yield daN/mm2			
17 Packing ring : Packing spring :		Hardness Rc			
18 Seal/buffer packing :		Coating mat'rial			
19 Distance piece :		Hardness Rc			
20 Intermediate :		Exten'd pist.rod			
21					
22 ☐ LUBRICATION					
23 ☐ Frame basic lube oil system : ☐ Splash ☐ Forced pressure ☐ API 614 lube system : ☐ Yes ☐ No					
24 Pressure system: ☐ Main oil pump driven by : ☐ Comp. crankshaft ☐ Elec. motor ☐ Other :					
25 ☐ Pressure relief valve for main pump external to crankcase ☐ Check valve on main pump					
26 ☐ Auxiliary pump driven by : ☐ Elec. motor ☐ Other :					
27 ☐ Auxiliary pump used for : ☐ Prelubrication ☐ Starting ☐ Stand by					
28 ☐ Auxiliary pump control : ☐ Manual ☐ Automatic ☐ On-Off-Auto selector switch by ☐ Mfr. ☐ Purch.					
29 ☐ Hand operated pre-lube pump for starting ☐ Separate console for pressure lube system					
30 ☐ Basic system requirements : (Normal oil flows & volumes)					
31 ☐ Lube oil		Flow (m3/h)	Pressure (bar g)	Sump volume (m3)	Oil quality & viscosity @ 40°C & @ 100°C
32 ☐ Compressor frame					
33 ☐ Driver					
34 ☐ Gear					
35 System pressure (Bar g) : ☐ Design: ☐ Hydrotest: ☐ Pressure control valve setting: ☐ Pump PSV :					
36 ☐ Pumps :		Gear/screw	Flow	Press.	Cold start
37 (Type only)		m3/h	bar g	kW	Driver
38 Main					Speed
39 Auxiliary					RPM
					Casing Material
					Coupling
					Guard
					Mech.Seal
40 ☐ Oil cooler : ☐ Single ☐ Duplex w/transfer valve ☐ Shell & tube ☐ M'fr standard ☐ TEMA C ☐ Removable bundle					
41 ☐ Water cooled ☐ With bypass & temperature control valve : ☐ Manual ☐ Automatic					
42 ☐ Air cooled exchanger w/auto temperature control ☐ Manual ☐ Automatic ☐ Louvers for air exchanger					
43 ☐ Manufacturer: ☐ Type: ☐ Inlet / outlet oil temperature : °C					
44 ☐ Filter(s) : ☐ Single ☐ Cleaning possible while running ☐ Duplex with transfer valve					
45 ☐ ASME code design ☐ ASME code stamp ☐ Other :					
46 ☐ Design pressure: bar g ☐ dP clean: bar ☐ dP collapse: bar ☐ Filtration : µ					
47 ☐ Cylinder lubrication : ☐ Non-lube ☐ Lubricated ☐ Mini-lube ☐ Sight flow on each line					
48 Type of oil : ☐ Synthetic: ☐ Mineral : ☐ Oil consumption: L/day					
49 Lubricator driven by : ☐ Comp. Crankshaft,direct ☐ Chain, from crankshaft ☐ Electric motor ☐ Other:					
50 Lubricator : ☐ Manufacturer: ☐ Model: Type : ☐ Divider blocks ☐ Single plunger per point					
51 ☐ Compartment, total Qty: ☐ Plunger pumps, total Qty: ☐ Number of line: ☐ Check valve on each line					
52 ☐ Spare compartment without plungers : ☐ Spare plungers, Qty : ☐ Casing sump capacity : Liter					
53 ☐ Interconnecting piping : ☐ Prefabricated ☐ Mounted					
54 ☐ Material : Cooler shell: Cooler tubes: Filter casing: Cartridge:					
55 Piping upstream filter ☐ Carbon steel ☐ Stainless steel with SS flange ☐ Stainless steel with CS flange					
56 Piping downstream filter ☐ Carbon steel ☐ Stainless steel with SS flange ☐ Stainless steel with CS flange					
57 ☐ Oil heating : Required for ☐ Frame ☐ Cylinder & packing ☐ Other					
58 In crankcase / under sump case ☐ / ☐ / ☐ / ☐ / ☐ /					
59 Electric with thermostat / Power - kW ☐ / ☐ / ☐ / ☐ /					
60 Steam coil / Consumption - kg/h ☐ / ☐ / ☐ / ☐ /					
61 Piping & valve mounted/delivered separatly ☐ / ☐ / ☐ / ☐ / ☐ /					
62 Notes:					
63					
64					
65 4 5					
66 2 3					
67 0 1					
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1 COOLING WATER SYSTEM											
2 ☐ Basic cooling syst. for ☐ Cylinders ☐ Oil cooler(s) ☐ Heater requi'd for pre-heating ☐ Electric with thermostat											
3 ☐ Separate console for cooling water system ☐ One console for each compressor ☐ One console for Compressors											
4 ☐ Packing cooling ☐ Stuffing box cooling ☐ Packing directly cooled ☐ Flow sight on each packing outlet											
5 ☐ ☐ Filter on packing inlet ☐ Relief valve on packing outlet ☐ Interconnecting piping											
6 ☐ Cylinder cooling ☐ Flow regulation by : ☐ Valves ☐ Orifice plates											
7 ☐ ☐ Interconnecting piping : cylinder - oil cooler ☐ Shut off valves											
8 ☐ Pressure forced circulating system ☐ Open, piping by ☐ Purchaser ☐ Manufacturer ☐ Closed, piping by manufact'r											
9 Main water pump driven by : ☐ Electric motor ☐ Other: Auxiliary pump by : ☐ Electric motor ☐ Other:											
10 Auxiliary pump control : ☐ Manual ☐ Automatic ☐ On-Off-Auto selector switch by ☐ Manufacturer ☐ Purchaser											
11 ☐ Basic system requirements : (Normal water flow data) ☐ Cooling water to be % ethylene glycol											
		Forced	Thermo	Stand	Flow	Press.	Temperature °C	Flow	Sight flow		
		Cooling	Syphon	Pipe	m3/h	bar g	Inlet	Series	Indicator		
12 Cylinder(s) : stage		☐	☐	☐				☐	☐		
13 Cylinder(s) : stage		☐	☐	☐				☐	☐		
14 Cylinder(s) : stage		☐	☐	☐				☐	☐		
15 Cylinder(s) : stage		☐	☐	☐				☐	☐		
16 Piston rod packing (total)		☐						☐	☐		
17 Oil cooler(s)		☐						☐	☐		
18		☐						☐	☐		
19		☐						☐	☐		
20		☐						☐	☐		
21		☐						☐	☐		
22 Total flow :											
23 System pressure (Bar g) : ☐ Design: ☐ Hydrotest: ☐ Pressure control valve setting:											
24 ☐ Water reservoir : ☐ Size : Ø x height = mm ☐ Capacity at normal operating level: m3											
25 ☐ Reservoir material : ☐ Internal coating, type :											
26 ☐ Level gauge ☐ Level switch ☐ Drain valve ☐ Vent valve ☐ Inspection & clean-out openings											
27 ☐ Pumps :		Centrifugal	Flow	Press.	Required	Driver	Speed	Casing Material	Coupling	Guard	Mech.Seal
		(Type only)	m3/h	Bar g	KW	kw	RPM		Req'd	Req'd	Req'd
28 Main									☐	☐	☐
29 Auxiliary									☐	☐	☐
30 ☐ Cooling water heat exchanger ☐ Single ☐ Dual with transfer valve ☐ Shell & tube ☐ M'fr standard ☐ TEMA C											
31 ☐ Water cooled ☐ With bypass & temp. control valve ☐ Manual ☐ Automatic											
32 ☐ Air cooled exchanger w/automatic temperature control ☐ Manual ☐ Automatic ☐ Louvers for air exchanger											
33 ☐ Manufacturer : ☐ Type :											
34 MISCELLANEOUS											
35 ☐ Mounting plates : ☐ Baseplate common to the complete shaft line ☐ Including pulsation suppression devices											
36 ☐ Baseplate furnished for : ☐ Gear ☐ Driver ☐ Compressor only ☐ Other :											
37 ☐ Baseplate will be on concrete foundation ☐ Machined mounting pads required											
38 ☐ Stainless steel shim thickness (mm) : ☐ Driver : ☐ Gear : ☐ Compressor :											
39 ☐ Driver : ☐ Electric motor : ☐ Synchronous ☐ Asynchronous ☐ Explosion proof ☐ Internal combustion engine											
40 ☐ Nominal power : kW ☐ Constant speed: RPM ☐ Variable speed from: to RPM											
41 ☐ Direction of rotation (view from drive end) ☐ CW ☐ CCW											
42 ☐ Reducing gear : ☐ Gear rated power : kW Manufacture : Type-size :											
43 ☐ Rated speed (RPM) Input : Output : ☐ Specified ☐ Nominal ☐ Reduction ratio :											
44 ☐ Service factor : ☐ Mechanical rating kW at RPM ☐ Full load power loss : kW											
45 ☐ Starting torque : N.m ☐ Breakaway torque: N.m@LS shaft ☐ Mechanical efficiency: %											
46 ☐ Variable speed changer : ☐ From to RPM Manufacture : Type-size :											
47 Control ☐ Manual ☐ Automatic ☐ Local From: ☐ Control panel ☐ Remote panel ☐ Electric ☐ Pneumatic											
48 ☐ Lubrication : ☐ Reducing gear ☐ Variable speed changer ☐ Splash system ☐ Pressure system											
49 ☐ Couplings and guards :											
50 ☐ HS coupling : ☐ API std 671 data sheet provided ☐ LS coupling : ☐ API std 671 data sheet provided											
51 Manufacturer : Type-size :											
52 ☐ Rigid ☐ Flexible ☐ Gear Spacer length: mm											
53 ☐ Limited end float ☐ Keyed ☐ Hydraulic fit											
54 Lubrication : ☐ Continu. oil lube ☐ Non-lube ☐ Grease											
55 ☐ Coupling guard type : ☐ Fully enclosed ☐ Semi-open											
56 ☐ No sparking ☐ Material :											
57 ☐ Belt drive : ☐ Manufacture : Type-size: Section: mm2 Belt number :											
58 ☐ Wheel Ø: mm ☐ Pulley Ø: mm ☐ Belt drive guard : ☐ Standard ☐ No sparking ☐ Material :											
59 ☐ Barring over device : ☐ Manual ☐ Pneumatic ☐ Electric ☐ Motor : kW at RPM											
60 ☐ Control : ☐ Manual ☐ Automatic ☐ Local ☐ From control panel ☐ Remote control											
61 Notes:											
62											
63											
64											
65											
66											
67											
68											
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1 MISCELLANEOUS (Continued)										
2 ☐ Pulsation and vibration control										
3 ☐ Study required ☐ Acoustical ☐ Mechanical ☐ API std 618 design approach: ☐ 1 ☐ 2 ☐ 3										
4 ☒ General information ☐ See page : 7 for design and construction requirements of pulsation suppression devices										
5 ☐ Pulsation suppression devices : ☐ On suction ☐ On discharge ☐ Of each stage ☐ Of each cylinder										
6										
7 ☒ Gas cooler : ☐ Interstage ☐ Type : ☐ Standard : ☐ Manufacturer :										
8 ☐ Final ☐ Type : ☐ Standard : ☐ Manufacturer :										
9 ☐ See page : 8 for design and construction requirements of cooler(s)										
10										
11 ☒ Condensate separators : ☐ On suction ☐ Interstage ☐ Combined with cooler ☐ Separate										
12 ☐ Final ☐ Combined with cooler ☐ Separate ☐ Traps ☐ Manual ☐ Automatic										
13 ☐ Traps installed on ☐ Suction; volume: liter ☐ Interstage; volume: liter ☐ Discharge; volume: liter										
14										
15										
16 ☒ Suction filter : ☐ Temporary ☐ Permanent ☐ T type ☐ Y type ☐ Taper ☐ Between flanges										
17 ☐ Inspection without piping dismantling ☐ Manufacturer : ☐ Type & size :										
18 ☒ Filtration (µm): dP nor./max: bar										
19										
20 INSTRUMENTATION										
21 ☐ Gas circuit : ☐ At suction of each: ☐ Stage ☐ Cylinder										
22 ☐ Pressure gauge ☐ Pressure transmitter ☐ Thermometer ☐ RTD's										
23 ☐ At discharge of each: ☐ Stage ☐ Cylinder										
24 ☐ Pressure gauge ☐ Pressure transmitter ☐ Thermometer ☐ RTD's										
25 ☐ Oil circuit : ☐ Pressure gauge after: ☐ Pump ☐ Filter ☐ Differential pressure switch on filter										
26 ☐ Pressure gauge ☐ Pressure transmitter ☐ Thermometer ☐ RTD's ☐ At frame header										
27 ☐ Thermometer : ☐ Upstream cooler ☐ Downstream cooler										
28 ☐ Main journal bearings : ☐ Thermocouple ☐ RTD's										
29 ☐ Water circuit : ☐ Of each cooled point : ☐ Thermometer at : ☐ Inlet ☐ Outlet ☐ Sight flow indicator at each outlet										
30 ☐ Pressure gauge at cooling water header : ☐ Inlet ☐ Outlet										
31 ☐ Pressure relief valves :										
Location		Manufacturer	Type - Size	Material	@ bar g	Inlet fl'ge Ø / serial	Outlet fl'ge Ø / serial			
☐ Interstage 1-2										
☐ Interstage 2-3										
☐ Interstage 3-4										
☐ On discharge										
37										
38 ALARM (A) AND SHUTDOWNS (SD)			In local panel by manuff'r	In remote panel by mft'r	In control room by other					
39 ☐ Low lube oil pressure @ Bearing header			☐ A ☐ SD	☐ A ☐ SD	☐ A ☐ SD					
40 ☐ Auxilliary lube oil pump start failure			☐ A ☐ SD	☐ A ☐ SD	☐ A ☐ SD					
41 ☐ High lube oil dP across filter			☐ A ☐ SD	☐ A ☐ SD	☐ A ☐ SD					
42 ☐ Frame low lube oil level			☐ A ☐ SD	☐ A ☐ SD	☐ A ☐ SD					
43 ☐ Mechanical lubricator low oil level			☐ A ☐ SD	☐ A ☐ SD	☐ A ☐ SD					
44 ☐ High jacket water temperature each cylinder			☐ A ☐ SD	☐ A ☐ SD	☐ A ☐ SD					
45 ☐ High cooling water temperature			☐ A ☐ SD	☐ A ☐ SD	☐ A ☐ SD					
46 ☐ High condensate level in each separator			☐ A ☐ SD	☐ A ☐ SD	☐ A ☐ SD					
47 ☐ Low gas inlet pressure ☐ first stage only			☐ A ☐ SD	☐ A ☐ SD	☐ A ☐ SD					
48 ☐ High gas disch. pressure ☐ each cyl. ☐ final			☐ A ☐ SD	☐ A ☐ SD	☐ A ☐ SD					
49 ☐ High gas discharge temperature each cylinder			☐ A ☐ SD	☐ A ☐ SD	☐ A ☐ SD					
50 ☐ High cylinder gas diff. pressure, each stage			☐ A ☐ SD	☐ A ☐ SD	☐ A ☐ SD					
51 ☐ Compressor excessive vibration			☐ A ☐ SD	☐ A ☐ SD	☐ A ☐ SD					
52 ☐ Compressor main bearing high temperature			☐ A ☐ SD	☐ A ☐ SD	☐ A ☐ SD					
53										
54 WEIGHTS AND DIMENSIONS										
55 ☐ Compressor weight :		kg	☐ Maximum erection weight :		kg					
56 ☐ Driver weight :		kg	☐ Maximum maintenance weight :		kg					
57 ☐ Gear weight :		kg	☐ Piston rod removal distance :		mm					
58 ☐ Total weight :		kg	☐ Space requirement (length X width X height) :		mm					
59										
60 Notes:										
61										
62										
63										
64										
65										
66										
67										
68										
DESIGNATION		Date	By	Appr	Rev	DESIGNATION	Date	By	Appr	Rev



Exploration & Production

General Specification

Date: 08/03

DS MEC 262

Rev: 01

CUSTOMER :		ITEM :		SPECIF.	
LOCATION :		Nbr. of units :			
JOB N° :		UNIT :		Page : /	
1 PULSATION SUPPRESSION DEVICES					
2 ☐ Pulsation and vibration control					
3 ☐ Study required ☐ Acoustical ☐ Mechanical ☐ API std 618 design approach: ☐ 1 ☐ 2 ☐ 3					
4 ☒ General information					
5 ☐ ASME code stamp ☐ Governmental codes of: code regulations apply ☐ Other code:					
6 ☐ Radiography of welds: ☐ 100% ☐ Spot (10% + knots) ☐ Special welding requirements					
7 ☐ Shop inspection ☐ Witnessed ☐ Observed ☐ Witnessed hydrotest ☐ Special paint specification					
8 ☒ Suppressor design data Compressor manufacturer's rated capacity: kg/h ; m3/h ; Nm3/h					
9 ☒ These sheet to be filled for each sevice and/or stage Service : Stage number :					
		Inlet suppressor		Discharge suppressor	
10 ☐ Suppressor tag number					
11 ☒ Line side operating pressure		Inlet : bar a		Discharge: bar a	
12 ☒ Operating temperature within suppressor		Inlet : °C		Discharge: °C	
13 ☐ Allowable pressure drop through suppressor		bar / %		bar / %	
14 ☐ Combined inlet suppressor separator / Internal		☐ Yes ☐ No / ☐ Yes ☐ No		/ ☐ Yes ☐ No	
15 ☒ Quantity of inlet & discharge suppressor per stage					
16 ☐ Allowable peak-peak pulse @ line side flange		bar / %		bar / %	
17 ☐ Allowable peak-peak pulse @ cylinder flange		bar / %		bar / %	
18 ☐ Design for full vacuum capability		☐ Yes ☐ No		☐ Yes ☐ No	
19 ☐ Mini required working pressure & temperature		bar g at °C		bar g at °C	
20 ☐ Initial sizing volume (per formula § 3.9.2.2.2)		m3		m3	
21 ☐ As built volume		m3		m3	
22 ☒ Construction requirements & data					
23 ☐ Basic material required (CS; SS; etc.)					
24 ☐ Actual material designation (Shell / Head)					
25 ☒ Corrosion allowance required mm mm					
26 ☐ Special hardness limitations Shell & Heads welds Shell & Heads welds					
27 ☐ Wall thickness: Shell / Head (mm)					
28 ☐ Nominal shell Ø x overall length (mm)					
29 ☐ Pipe or rolled plate construction ☐ Pipe ☐ Rolled plate ☐ Pipe ☐ Rolled plate					
30 ☐ Actual max. allowable working pressure & temperature bar g at °C bar g at °C					
31 ☐ Minimum design metal temperature °C °C					
32 ☒ Hydrostatic test pressure bar g bar g					
33 ☐ Inlet & discharge suppressor with same MAWP ☐ Yes ☐ No ☐ Yes ☐ No					
34 ☐ Maximum pressure drop dP / % line Pressure bar / % bar / %					
35 ☐ Weight kg kg					
36 ☐ Peak-Peak pulse @ line side/cyl. flange; % line press. % / % % / %					
37 (based on final suppressor design)					
38 ☐ Supports, type & quantity					
39 ☒ Connection requirements & data					
40 ☐ Line side flange, Size / Rating / Facing / Type					
41 ☐ Comp. cylindre flange: Size / Rating / Facing / Type					
42 ☒ Flange finish: ☐ In accordance with ASME B16.5					
43 ☐ Inspection openings required ☐ Yes ☐ No ☐ Blinded ☐ Yes ☐ No ☐ Blinded					
44 ☐ Specify quantity, size, flange type & rating					
45 ☐ Vent connections required ☐ Yes ☐ No ☐ Yes ☐ No					
46 ☐ Specify quantity, size, flange type & rating					
47 ☐ Drain connections required ☐ Yes ☐ No ☐ Yes ☐ No					
48 ☐ Specify quantity, size, flange type & rating					
49 ☐ Pressure connections required ☐ Yes ☐ No ☐ Yes ☐ No					
50 ☐ Specify quantity, size, flange type & rating					
51 ☐ Temperature connections required ☐ Yes ☐ No ☐ Yes ☐ No					
52 ☐ Specify quantity, size, flange type & rating					
53 ☐ Cylinder nozzle ☐ Main body					
54					
55					
56					
57					
58 Notes:					
59					
60					
61					
62					
63					
64					
65		4		5	
66		2		3	
67		0		1	
68 DESIGNATION		Date	By	Appr	Rev

CUSTOMER :				ITEM :				SPECIF.			
LOCATION :				Nbr. of units :							
JOB N° :				UNIT :				Page : /			
1 WATER COOLED EXCHANGERS											
2 ☐ Service :											
3 ☐ Stand'rd : ASME/TEMA C/TEMA R/ other				☐ / ☐ / ☐ / ☐				☐ / ☐ / ☐ / ☐			
4 ☐ Type											
5 Side				Shell		Tube		Shell		Tube	
6 ☐ Fluid											
7 ☐ Flow kg/h											
8 ☐ Operating temp. : Inlet / Outlet °C											
9 ☐ Design Pressure bar g											
10 ☐ Hydrostatic test pressure bar g											
11 ☐ Fouling factor m²h°C/kjoule											
12 ☐ Total area m²											
13 ☐ Shell: Ø Tube : Number per shell				mm		mm		mm		mm	
14 length thickness / Ø				m		mm		m		mm	
15 Arrangement				☐ ☐ ☐ ☐		☐ ☐ ☐ ☐		☐ ☐ ☐ ☐		☐ ☐ ☐ ☐	
16 Pitch											
17 ☐ Flanges : Inlet Ø - Serial - Face											
18 Outlet Ø - Serial - Face											
19 Drain Ø - Serial - Face											
20 Vent Ø - Serial - Face											
21 ☐ Material : Shell / Tube											
22 Shell flange / Tube sheets											
23 Baffles / Channel											
24 Channel flanges											
25 Channel nozzle flanges											
26 ☐ Weight : Bundle only				kg		kg		kg		kg	
27 Total weight				kg		kg		kg		kg	
28 Test weight (full of liquid)				kg		kg		kg		kg	
30											
31 AIR COOLED EXCHANGERS											
32 ☐ Service :											
33 ☐ Fluid											
34 Side				Air		Tube		Air		Tube	
35 ☐ Flow kg/h											
36 ☐ Operating temp. : Inlet / Outlet °C											
37 ☐ Fouling factor m²h°C/kjoule											
38 ☐ Total area m²											
39 ☐ Design / hydrostatic test pressure bar g											
40 ☐ Number of bays / N'ber of tubes per bay											
41 ☐ Bundles in // - Serial / Bays in // - Serial				☐ - ☐ / ☐ - ☐		☐ - ☐ / ☐ - ☐		☐ - ☐ / ☐ - ☐		☐ - ☐ / ☐ - ☐	
42 ☐ Tubes : Ø - mm / length - m				mm / m		mm / m		mm / m		mm / m	
43 ☐ Flanges : Inlet Ø - Serial - Face											
44 Outlet Ø - Serial - Face											
45 Drain Ø - Serial - Face											
46 Vent Ø - Serial - Face											
47 ☐ Fan : Number of blades / Material											
48 Fixed pitch / Variable / Manual/ Auto.				☐ - ☐ / ☐ - ☐		☐ - ☐ / ☐ - ☐		☐ - ☐ / ☐ - ☐		☐ - ☐ / ☐ - ☐	
49 Speed RPM / Power kW				/		/		/		/	
50 ☐ Driver : Type / Speed RPM											
51 Belt drive / N'ber of belts / Type				☐ /		☐ /		☐ /		☐ /	
52 Gear / Parallel shafts / Angle gear				☐ / ☐ / ☐		☐ / ☐ / ☐		☐ / ☐ / ☐		☐ / ☐ / ☐	
53 AGMA factor / Gear ratio											
54 ☐ Material: Header / Tubes											
55 Flanges											
56 ☐ Weight : Bundle only											
57 Total weight											
58 Test weight (full of liquid)											
59											
60 Notes:											
61											
62											
63											
64											
65											
66											
67											
68											
DESIGNATION				Date	By</						