



Exploration & Production

GENERAL SPECIFICATION

PIPING VALVES VESSELS

GS PVV 922

Plant survey, pressure vessels and heat exchangers

01	10/03	Change of Group name and logo
00	03/01	First issue
Rev.	Date	Notes



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Part 1

Name of the Manufacturer:

Date of survey:

**Name of the COMPANY representative
who has performed the survey:**

Description of the facilities

This part may be filled-in in advance by the Manufacturer prior to the survey.

*All facilities described herein are meant to be in-house facilities only.
Any sub-contracted activity must be clearly indicated showing the names and addresses of
related Subcontractors.*

*The number, type and status of all listed equipment are subject to thorough checks by the
COMPANY representative in charge of the Plant Survey during his visit of the facilities.*



Addresses of the Manufacturer

	Head Quarters	Plant
Address		
Location		
Phone		
Telefax		

1. General

1.1 Type of Work (tick where appropriate)

	Type of Work	Comments
	Pressure Vessels (heavy)	
	Pressure Vessels (medium)	
	Pressure Vessels (small)	
	Pressure Vessels (stainless steel and alloys)	
	Tubular heat exchangers (heavy)	
	Tubular heat exchangers (medium)	
	Tubular heat exchangers (small)	
	Tubular heat exchangers (stainless steel and alloys)	
	Plate heat exchangers	
	Air coolers	



1.2 Manufacturer Management

Position	Names
Managing Director	
Sales Manager	
Plant Manager	
Production Manager	
Quality Assurance Manager	
Design Manager	
Quality Control Manager	
Head of Welding department	



1.3 References on similar Jobs

(Fill in the Table here after)

Year	Type of work	Customer

1.4 This firm is qualified to furnish construction to the following codes

ASME VIII div 1	
ASME VIII div 2	
ASME VIII div 3	
PD 5500	
CODAP	

TEMA	
Stoomwezen	
AD Merkblatt	



1.5 Name of inspection agencies usually employed to perform code inspection

1.6 Are crews and equipment available for field erection?



2. Personnel

2.1 Total number of Employees: _____

2.2 Number of Supervisory Personnel

- Management: _____
- Shop supervision: _____

2.3 Number of Engineering Department Employees: _____

2.4 Number of Procurement Employees: _____

2.5 Number of Fabrication Employees: _____

2.6 Number of Quality Control Employees: _____

2.7 Number of qualified welders/operators

- Total number: _____
- Number of welders qualified per welding process and material grade:

	P1	P8	Ni Alloys (P43 to P45)	Cu-Ni	Ti
SMAW					
SAW					
GMAW					
GTAW					
FCAW					

- Number of arc-air gouging skillful operators: _____



2.8 Quality Control (Inspection) organization (attach an organization chart)

Function or qualification	Name (Staff) or number of people
QC Manager	
Radiographic Inspector Level III	
Radiographic Inspector Level II	
Radiographic Operator Level I	
UT Inspector Level III	
UT Inspector Level II	
MPI Inspector Level III	
MPI Inspector Level II	
DP Inspector Level III	
DP Inspector Level II	



3. General facilities

3.1 Approximate surface of plant area

3.2 Building Bay and Crane Data

Bay no.	Bay Dimensions (m x m)	Type of Crane	Number of Cranes	Capacity (tons)	Height under Hook (m)	Electric or Manual
1						
2						
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						



3.3 Source of materials (give names of usual Suppliers)

Plates: _____
Clad Plates: _____
Heads: _____
Tubes: _____
Forgings: _____

3.4 Maximum handling capacity (including shipping consideration)

Diameter (m): _____
Length (m): _____
Weight (tons): _____
Plate thickness (mm): _____

3.5 Shipping facilities

Railroad siding with spur in plant: _____
Trucking facilities: _____
Facilities for water shipment: _____



4. Design facilities

4.1 Drafting facilities

Number of drawing boards:	Permanent staff:
Number of CAD work stations:	Permanent staff:

4.2 Calculation facilities

Type of design	Computer programs names	Design codes
Pressure vessels		
Heat Exchangers		
Boilers		
Fabricated piping		
Structural steel members		

5. Manufacturing equipment

5.1 Cutting equipment

	Max. Capacity plate width (mm) thickness (mm)	Number	Condition
Plate Shears			
Plate Edge Planner			
Automatic Flame Cutting			
Plasma cutting			
Saw			

5.2 Forming equipment

	Type	Capacity (tons)
Hydraulic Press		

Experience in various types of forming work (Maximum diameter of heads):

- Hemi-spherical heads:
- Elliptical heads:
- Cones:



5.3 Plate rolls

	Roll no. 1	Roll no. 2	Roll no. 3	Roll no. 4	Roll no. 5
Type or name					
Maximum plate thickness (mm)					
Maximum width of plate (mm)					
Minimum I.D. (mm)					
Maximum thickness at minimum I.D. (mm)					
Minimum I.D. at maximum thickness (mm)					

5.4 Flanged heads

Type of flanging machine: _____

Maximum plate thickness (mm): _____

Maximum diameter of flanged heads (mm): _____

5.5 Tube and pipes bending

Facilities for cold bending including table, machines and limitations:

Facilities for hot bending including furnace description and sand loading equipment:

5.6 Welding equipment: List of welding equipment available

(permanent equipment only)

Welding Process	Manual		Automatic	
	Number	Current Range (A)	Number	Current Range (A)
SMAW (AC)				
SMAW (DC)				
SAW				
GMAW				
GTAW				
FCAW				
Weld Overlay Processes				

Number of Welding Positioners: Manual: _____ Automatic: _____

Number of Shell Turning Rolls: Manual: _____ Automatic: _____

5.7 Qualified welding procedures (American Welding Society Designations)

(Attach Samples)

Summary table of qualified Welding procedures (by approximate numbers):

Welding Process	Manual	Automatic
SMAW		
SAW		
GMAW		
GTAW		
FCAW		
Weld Overlay Processes		



5.8 Machines Tools

(Give number, type and size)

	Type	Number	Capacity
Boring Mills			
Lathes			
Drilling machines			
Punches			

5.9 Other machines

(Give number, type and size)



5.10 Heat treating furnaces

	Furnace no. 1	Furnace no. 2	Furnace no. 3	Furnace no. 4
Heating source (Fuel, Gas, Electric)				
Inside dimensions (Height x Width x Length) (m)				
Automatic control or manual				
Maximum number of thermocouples per charge				
Number of readings recorded per charge				
Method of loading				
Maximum temperature				
Maximum load at maximum temperature				

5.11 Non-destructive testing equipment

Type of inspection	Number of equipment	Description
X-rays		
Gamma rays		
Ultrasonic Testing		
Magnetic particle		
Liquid penetrant		



5.12 Mechanical testing equipment

	Type	Capacity
Tensile Testing		
Bending Facilities		
Impact Testing		
Hardness Testing		

5.13 Chemical analysis equipment

5.14 Leak testing

5.15 Pressure testing

Hydrostatic medium	Max. Pressure (bars)

Water treatment facilities:

5.16 List of any other equipment available

5.17 Vessel coating facilities



Part 2

Name of the Manufacturer:

Date of survey:

**Name of the COMPANY representative
who has performed the survey:**

Remarks and recommendations

(This part must be filled exclusively by the COMPANY representative who has performed the survey)



1. Remarks and recommendations

1.1 People met

Name	Position

1.2 Remarks on quality of workmanship observed on work in progress

Drafting/Engineering organization: _____

Material traceability: _____

Shop floor organization: _____

Shop floor cleanliness: _____

Weld preparation: _____

Drying of welding products: _____

Preheating: _____

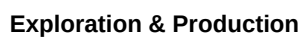
Welding operations: _____

Weld finish: _____

QC organization: _____

Inspection: _____

Radiographic films: _____



General Specification

Date: 10/03

GS PVV 922

Rev: 01

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1.4 Recommendations

This Manufacturer is recommended for the following only (tick where appropriate and cross-out other items for which the Manufacturer is not recommended):

	Type of Work	Comments
	Pressure Vessels (heavy)	
	Pressure Vessels (medium)	
	Pressure Vessels (small)	
	Pressure Vessels (stainless steel and alloys)	
	Tubular heat exchangers (heavy)	
	Tubular heat exchangers (medium)	
	Tubular heat exchangers (small)	
	Tubular heat exchangers (stainless steel and alloys)	
	Plate heat exchangers	
	Air coolers	

Additional comments:

Signed by:

Date:

Table 1 - References on similar jobs

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