



**PETAL SA**  
HUSI, Str. A.I. Cuza 99, Romania

**ECHIPAMENT  
PETROLIER SI METALURGIC**  
[www.petal.ro](http://www.petal.ro)



Tel: 0040235/481781, 480054  
480031, 480027, 481604

Fax: 0040235/481342, 480086  
e-mail: [office@petal.ro](mailto:office@petal.ro)

Bank: BRD GSG HUSI  
AccNo: RO29BRDE380SV02534383800

Reg.No: J37/191/2003  
SIRUES Code: 370408587  
CIF No: RO841186

### **SC PETAL SA HUSI (PRESENTATION)**

**PETAL Company** achieved in the last years an accelerated ascension by modernizing the production capacities and increasing the professional qualification of the employers, which permitted the assimilation of a wide range of products.

The company is one of the producers with tradition in oilfield equipment production for different climatic and environment conditions.

At this moment the company manufactures a wide range of products:

- Cementing units AC 350, AC 400, AC 500, ACF 700, ACF 1050;
- Wellhead equipments and Christmas trees for oil and gas;
- Valves and chokes;
- Spare parts for cementing units and for slush pumps;
- Various metallurgical equipment.

**PETAL Company** implemented and maintains a Quality Management System according to ISO 9001:2000 standard, certified by LLOYD'S REGISTER QUALITY ASSURANCE for the design and the manufacture of oilfield equipment and spare parts for these.

Since June 2004 the company is certified by AMERICAN PETROLEUM INSTITUTE according to API Spec. Q1 and 6A for valves and chokes PSL 1-3 and owns the Licence no. 6A-0655.

The design, manufacturing and repairs are conducted in accordance with national and international in force standards.

The main customers of the company are:

- on internal market: S.N.P. PETROM Bucharest, Petromservice Bucharest, EXPROGAZ, C.O.S. Targoviste, Foraj Sonde Bucharest;
- foreign markets: Ukraine, Russia, Uzbekistan, Germany, China, Poland, England, Slovakia and Turkey.

#### The Quality Policy – our top priority

The Quality Management is our strategic base, on which the leaders of our company, „PETAL” S.A. rely when they have to determine the quality policy and objectives. The maintaining and continual improvement of the implemented quality management system according to ISO 9001:2000 demands is our main concern.

Our shared purpose is to demonstrate the ability of PETAL S.A. to always satisfy our client's demands, and through applied regulations to improve the performances of our products thereby exceeding our client's expectations.

The leadership of PETAL S.A. is orientated on finding and developing the aptitudes of its employees by training, recruiting, making them responsible and continually evaluating them.

Our priority objectives are:

- a continuous increase of the business value;
- the weight of the oilfield equipment will be continuously increasing within the framework of total manufacture;
- we plan to increase the export value year by year;
- the increase of the gross profit;



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The materialization of the declared quality policy and objectives and the demands of the Quality Manual are compulsory tasks for each of the PETAL S.A.'s employees.

Our commitment is the satisfying of our customers.

„We exist only by our satisfied customers!”

„We exist for satisfying our customers”

General Manager,  
Eng. Ion VASILCA

PETAL S.A. Commercial Company was founded in 1949 and has an experience of more than 20 years in oil equipment processing, valves, industrial valves and over 30 years of experience in the processing of metallurgical equipment.

Our company is one of the best-known oil-plant units and oil field equipment for various geographical climate and environmental conditions, equipment items and spare parts made for the petroleum and pit gas drilling and extraction, industrial Christmas trees, geological equipment items, spare parts manufactured for metallurgical capital repairs.

At present our company manufactures a rich set of products:

#### ■ OIL FIELD EQUIPMENT

- ▶ Cementing and fracturing units;
- ▶ Wellheads and christmas trees for gas and oil;
- ▶ Valves and chokes for neutral and low corrosive media (crude oil and other oil goods, bore-hole fluids, water and gases);
- ▶ Spare parts for cementing units and mud pumps.

#### ■ METALLURGICAL EQUIPMENT

SC PETAL S.A has permanently implemented, mentained and improved the QUALITY MANAGEMENT SYSTEM, in accordance with the requiremnts of the ISO 9001:2000 standard. The Quality System of S.C PETAL S.A .is certified by the renown firm LLOYD'S REGISTER QUALITY ASSURANCE.

For the manufacture of valves and flow adjusting chokes, SC PETAL holds the Official API Monogram, the company is being certified by the AMERICAN PETROLEUM INSTITUTE in accordance with the provisions of the API Spec.Q1 Quality Assurance Programmes and API



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Spec.6A standards for the PSL1, PSL2, PSL 3 quality levels.

S.C. PETAL S.A. is well-known abroad on the external market as exporting goods to countries such as: United Kingdom, Germany, Czech Republic, Slovakia, Turkey, Russia, Belarus, Ukraine, Uzbekistan, Azerbaidjan, Turmenistan, India, China, Iran, Iraq, etc.

#### CONTACT DATA:

##### ■ LOCATION

99th, A.I. Cuza Street  
HUSI, 735100  
VASLUI – ROMANIA  
Phone: 0040 - 235 481 781  
Fax: 0040 - 235 481 342  
E-mail: [office@petal.ro](mailto:office@petal.ro)  
website: <http://www.petal.ro>  
General Manager: ing. Ion VASÎLCA

#### VALVES.

Petal Company produces valves into a wide dimensional-type-assortment range with pressure values up to 15000 psi( 1050) bar for neutral working conditions and low corrosive action( oil and other petroleum products, drilling fluids, water, gasses) intended for wellhead equipments, cementing and fracturing units, various technological equipment.

Since June 2004 AMERICAN PETROLEUM INSTITUTE certified our company according to API spec. Q1 and 6A for valves and chokes PSL 1-3 and owns the license number 6A-0655.

**Steel wedge gate valves with nonascending stem- acc.to API 6A** used for a complete or partial shutting-off of a fluid flow as well as for resuming the initial flow of the same fluid, for nominal pressures of 140, 210, 350 bar (2000, 3000, 5000 PSI).

Nominal diameters: 2 1/16 ; 2 9/16 ; 3 1/8 ;

4 1/16 in Working medium: water, gases, petroleum products and other similar fluids with a light corrosive action .

##### **1. Expanding parallel gate valves with nonascending stem, WKM type –acc.to API 6A**

used in the oilfield industry for drilling and production operations for nominal pressures of 140, 210, 350 bar (2000, 3000, 5000 PSI) .

Nominal diameters: 2 1/16 ; 2 9/16 ; 3 1/8 ;

4 1/16 in



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## 2. FC Model gate valves

is used in the oilfield industry for drilling and production operations for nominal pressures of 210, 350, 700 and 1050 bar (3000, 5000, 10 000 and 15000 PSI).

Nominal diameters: 2 1/16 ; 2 9/16 ; 3 1/8 ;  
4 1/16 ; 7 1/16 in.

Working medium: water, oil products, gases, steam or other fluids with low corrosion.

### 1. Straight gate valves, RSDM type

used in the oilfield industry for drilling and production operations for nominal pressures of 350 bar (5000 PSI) and temperatures up to 60 °C.

Working medium: water, drilling mud.

### 1. Straight gate valves RSDF type

is used in the oilfield industry for drilling and production operations for nominal pressures of 140, 210 si 350 bar (2000, 3000, 5000 PSI) and temperatures up to 60 °C.

Nominal Diameters: 2 1/16; 3 1/8;  
4 1/16 in

Working medium: water, drilling mud.

## 2. Flexible wedge gate valves, rising/nonrising stem, acc. to DIN 3352

used as industrial fittings within pressure installations., between 25- 64 bar.

Nominal diameters: 50; 65; 80; 100; 150; 200; 250; 400; 500 mm

Working medium: water, steam, gases, petroleum products and other similar fluids, with low corrosion, exclusive hydrogen, mixtures of hydrogen, as well as aggressive mediums with sulphur or sulphuretted hydrogen.

Working temperature: -10÷ 225 °C

### 1. Globe valves

used as industrial fittings within low pressure installations. (25; 40 bar).

Nominal diameters: 20; 25; 50 mm

Working medium: water, steam, gases, petroleum products and other similar fluids, with low corrosion, exclusive hydrogen, mixtures of hydrogen, as well as aggressive mediums with sulphur or sulphuretted hydrogen.

Working temperature: -10÷ 400 °C

## 10. Ball valves

used as tight shut- off fittings for a complete or partial shutting-off into transport and distribution installations.

Nominal pressure: 25; 140 bar

Nominal diameters: 2 1/16 ; 2 9/16 ; 3 1/8 in

Working medium: water, gases, petroleum products and other similar fluids, with low corrosion, exclusive hydrogen, mixtures of hydrogen, as well as aggressive mediums with sulphur or sulphuretted hydrogen.



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## 10. Check valves with piston

Exploitation, transport and distribution of industrial water and oil products.

Nominal pressure : 2000 – 10 000 psi (140 – 700 bar)

Nominal diameters : 2 1/16' 2 9/16 ; 3 1/8 ; 4 1/16 in

### Metallurgical Equipment.

PETAL's metallurgical products are performed to its own designs and specifications or to special customer order and design.

PETAL a.s. performs the following kinds of metallurgical equipments:

- reducer gears;
- band brakes; brakes;
- rollers;
- band conveyors; rolls conveyors;
- slide valves;
- elastic and toothed clutches couplings;
- pressure groups, etc;

### Cementing and Fracturing Units

The cementing units are mobile units designed to perform cementing, fracturing, pressure balancing, extinguishing and acidizing operations at the wells.

Normally, the cementing units are mounted on TATRA, ROMAN or KRAZ chassis truck. On request, the cementing and fracturing units can be mounted on skids, provided with traction and lifting facilities, or on the other type of chassis truck.

The Cementing and Fracturing Units are designed to perform the interchangeability of pieces and subassy.

The Unit can be operated by only one operator and, at request, can be equipped with a cab for operator.

The cementing units are equipped with a high pressure triplex plunger pump that can develop the required pressure under discontinuous operating conditions.

“PETAL” HUSI is one of the producers with long tradition in oilfield industry, performing a large Cementing and Fracturing Units range, as shown below:

Nr.crt. Item	Denumire, simbol produs/ Denomination, symbol of product	Motor actionare, transmisie/ driving engine, transmission	Tip pompa, echipament/ Pump, equipment type
1.	Agregat de cimentare AC350 B/ AC 350B Cementing Unit	Motorul autosasiului, cutie de viteze/ chassis engine, gear box	Pompa duplex cu pistoane- echipament 4in; 4 ½ in; 5 in/ Duplex



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			pistons Pump- equipment 4 in; 4 ½ in; 5 in
2.	Agregat de cimentare AC 400/ AC 400 Cementing Unit	<b>Var. 1-</b> motor WOLA/ cutie de viteze CV5-302; WOLA engine/ CV5-302 gear box <b>Var. 2-</b> motor si transmisie Caterpillar/ Caterpillar Engine and Transmission	Pompa triplex cu plungere- echipament D100; D115 mm/ Triplex Plunger Pump- equipment D100; 115 mm
3.	Agregat de cimentare AC 500B/ AC 500B Cementing Unit	<b>Var. 1-</b> motor WOLA/ cutie de viteze CV6-350; WOLA engine/ CV6-350 gear box <b>Var. 2-</b> motor si transmisie Caterpillar/ Caterpillar Engine and Transmission	Pompa triplex cu plungere- echipament D90;;D100; D115; D125 mm/ Triplex Plunger Pump- equipment D90; D100; D115; D125 mm
4.	Agregat de cimentare si fisurareACF 700B/ ACF 700 B Cementing and Fracturing Units	<b>Var. 1-</b> motor WOLA/ cutie de viteze CV12-350; WOLA engine/ CV12-350 gear box <b>Var. 2-</b> motor si transmisie Caterpillar/ Caterpillar Engine and Transmission <b>Var.3</b> – motor diesel Detroit model DDC seria 60/ Cutie de viteze Cv12-352; Diesel Detroit DDC serie 60 engine/ CV12-352 gearbox	Pompa triplex cu plungere- echipament D100; D115; D125 mm/ Triplex Plunger Pump- equipment D100; D115; D125 mm
5.	Agregat de cimentare si fisurareACF 1050B ACF 1050 Cementing and Fracturing Units	<b>Var. 1-</b> motor WOLA/ cutie de viteze CV12-350; WOLA engine/ CV12-351 gear box <b>Var. 2-</b> motor si transmisie Caterpillar/ Caterpillar Engine and Transmission	Pompa triplex cu plungere- echipament D85; D100; D115; D125 mm/ Triplex Plunger Pump- equipment D85; D100; D115; D125 mm

### Spare Parts for Mud Pumps.

**PETAL Company** manufactures spare parts for Mud pumps. In the last twenty years our company had built up a tradition into this area. In this time we manufactured and delivered on Romanian market and on foreign market this kind of products.

#### 1. Liners



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used as spare parts at mud pump ( R5x10 ; 2PN160 ; 2PN400 ; 2PN630 ; 2PN700 ; 2Pn1250 ; 2PN1300 ; 2Pn1600 ; 3Pn465 ; 3Pn700 ; 3PN1000 ; 3PN1300 ; 3PN1600) from oil well, providing the operation in liner-piston-piston rod assembly.

Working medium: drilling mud, water, other fluids with similar characteristics.

## 1. Valves.

The valves belong to the Fluid ends in pressure installations used in oil industry.

Working medium: drilling mud, other fluids with similar characteristics .

The valves are seat guide type with low resistance on the fluid flow. The valve gasket is symetric with two faces which can be reversed and used further after the first workface has been worn.

The valve seat is mounted in the hydraulic body by pressing on the cone and seals against this metal-to-metal. The seat and the valve disk are hardened by carburation and have high-resistance against wear.

The valve spring provides a proper steadiness of the valve during operation.

Nr.crt Item	Simbol supapa Valve symbol	DN, in	PN, bar	Sect.trec.scaun Passing area through valve seat	Sect.trec.sup. deschisa Passing area through open valve	Cursa supapa Valve strike	Masa neta Net weight
1.	2PN160-M3	3	160				3,400
2.	2PN400-M4	4	400	50,2	76,5	30	3,500
3.	2PN400-M5	5	400				6,765
4.	2PN400-M6	6	400	70	70	26	8,500
5.	3PN1600-M7	7	1600	55,75	67	25	10,500
6.	2PN700-M9	9	700÷1600	95	120	30	15,125

## 1. Piston Rods.

The piston rods are used as connecting segments between piston and headcross, the sealing being done by stuffingbox.

The pistons rods are fastened on the conic head of the pistons by tightening with nut and counter nut.

These acting the pistons by one alternative rectlineal motion in horizontal plan into the bearings.

The piston rods and the extension rods are designed in accordance with the API specification 6A requirements, being made by high characteristics steel which provide one proper operation in severe conditions.

The metal wear surfaces are hardened and heat treated to obtain a minimum 60 HRC harness.



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Nr.crt Item	Den. tija, simbol Rod symbol	Masa,kg Weight	Dimensiuni tija piston- Piston rod dimensions						Tija prelungire Extension rod	
			L	d	T	S	1:k	1:k <sub>1</sub>	L <sub>1</sub>	d <sub>1</sub>
1.	2PN1250	54,80	1320	85	T14	S10	1:12	1:6		
2.	2PN700	35,70	1200	75	T12	S8	1:12	1:12		
3.	2PH400	21,00	1082	56	T9	M48	1:12	-		
4.	2PN160	10,10	1155	40	T5	M30	1:6	1:9,6		
5.	3PN465	21,00	1070	56	M48	-	1:12	-		
6.	R5 x 10	9,80	1130	38	W38	M30	1:12	-		
7.	2PN250	79,50			T14	-	1:6	1:6	800	130
8.	2PN630	64,00			T12	-	1:6	1:6	755	120
9.	2PN400	23,00			T12	-	1:6	1:6	550	90

## 2. Removable gaskets Pistons, Mission type.

are used as spare parts for Hydraulic Groups from Oil industry which transport water, stem treated with crude oil and Diesel oil, at 90°C maximum temperature.

The pistons are fastened on the conic extremity of piston rod and are tightened by way nuts and counternuts.

The piston is an ensemble done by body piston on which are mounted the removable gaskets by means of disk and safety rings.

There are two types of removable gaskets pistons:

- type B, size 5- 4 1/2÷8 in
- type L, size 6- 5 1/4÷8 in

## 3. Monoblock pistons.

The pistons are used as spare parts for Hydraulic Groups from Oil industry which transport water, stem treated with crude oil and Diesel oil, at 90°C maximum temperature.

The monoblock pistons are fastened on the conic extremity of piston rod and are tightened by way nuts and counternuts.

The piston is an ensemble done by body piston which is vulcanized the rubber sleeve.

## Export market.

PETAL a.s. delivers its products in:

- United Kingdom, Germany, Czech Republic, Slovakia, Turkey, Russia, Belarus, Ukraine, Uzbekistan, Azerbaidjan, Turmenistan, India, China, Iran, Iraq, etc.