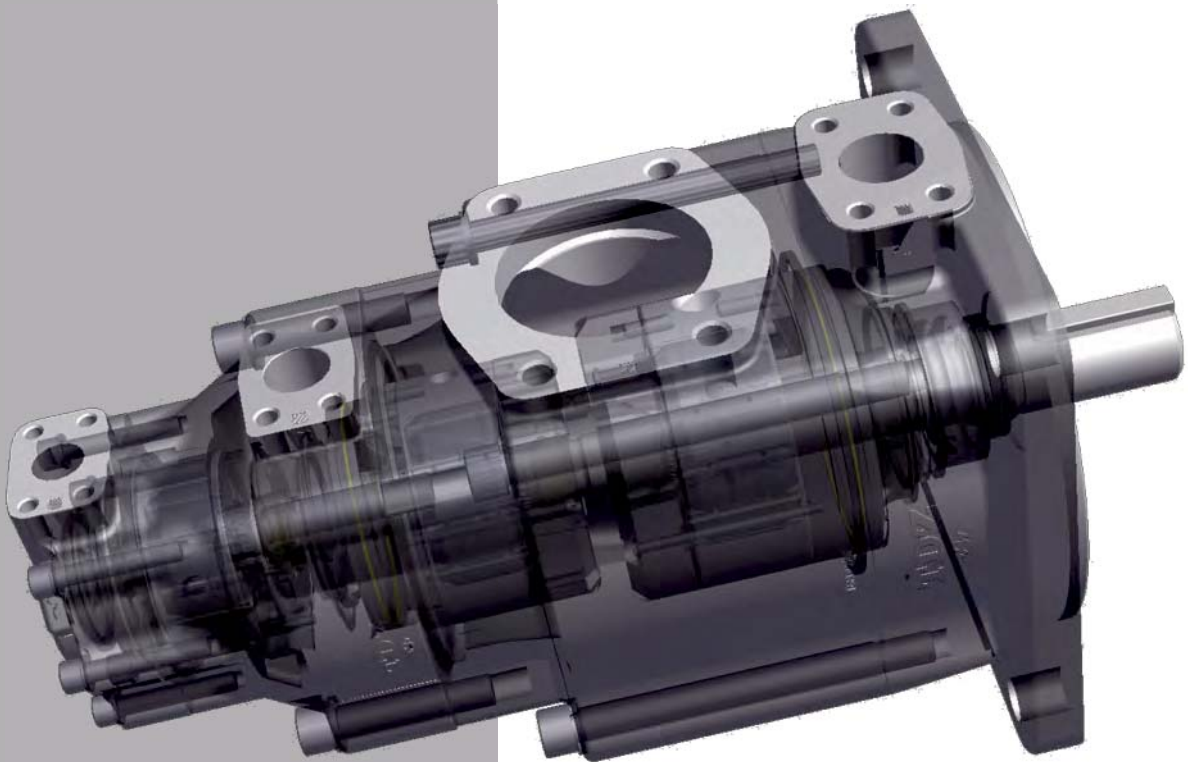




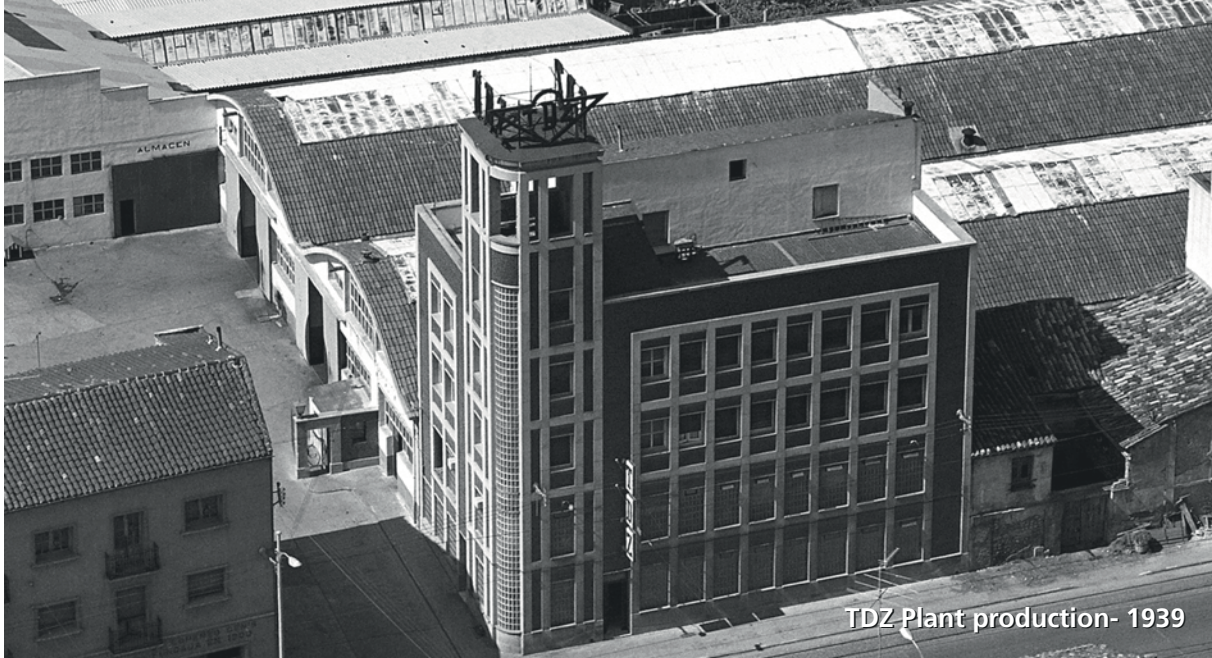
Bezares Group

- Vane pumps & motors
- Replacement Parts for Vane Pumps
- Hydraulics for Truck & Mobile applications
- Hydraulic Valves: CETOP program



1939 - 2016  
Moving Forward





TDZ, located in Zaragoza and Toledo, (Spain), have been manufacturing equipment for the automotive sector and industrial machinery since 1939. We are proud to celebrate our 75 Anniversary during 2014.

Its beginnings as a producer of injection pumps for the most important industrial vehicle manufacturers, (Mercedes Benz, Robert Bosch, G.M., Case, etc...) provided TDZ with the required human and technical capital to create in the 60's the first hydraulic pump plant.

Currently, TDZ products may be found in more than 100 countries over five continents through our network of distributors, customers and OEM's.

This presentation of the company has been created for a better overall understanding of the hydraulic range manufactured by TDZ. We do not in any way intend to substitute the technical catalogues which will always be available when required and which are essential for a correct application and knowledge of our products.

We hope that the following information may be useful and will meet your future requirements within the hydraulic field.

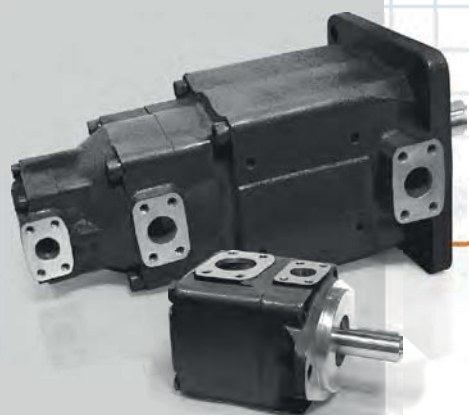
Yours faithfully,

Ignacio Esteban  
Managing Director



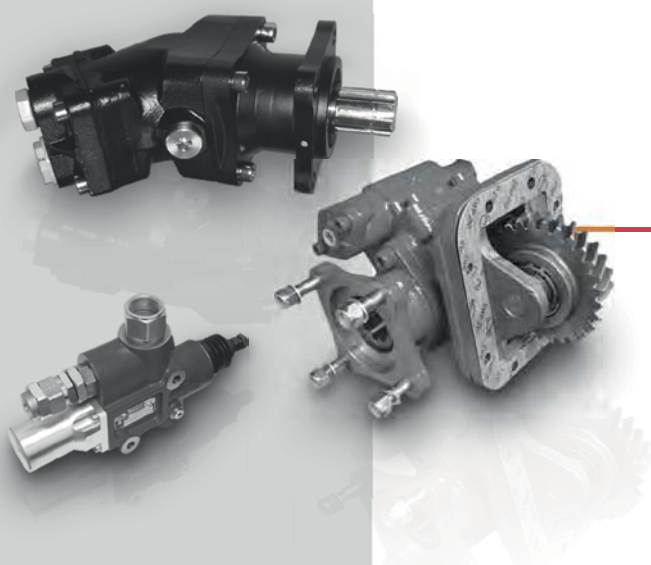
BEZARES - TDZ Plant production - 2014





## VANE PUMPS AND MOTORS

Page 3



## HYDRAULICS FOR TRUCK & MOBILE APPLICATIONS

Page 4



## REPLACEMENT PARTS FOR VANE PUMPS AND VANE MOTORS

Page 5



## HYDRAULIC VALVES CETOP DIRECTIONAL AND MODULAR VALVES

Page 6

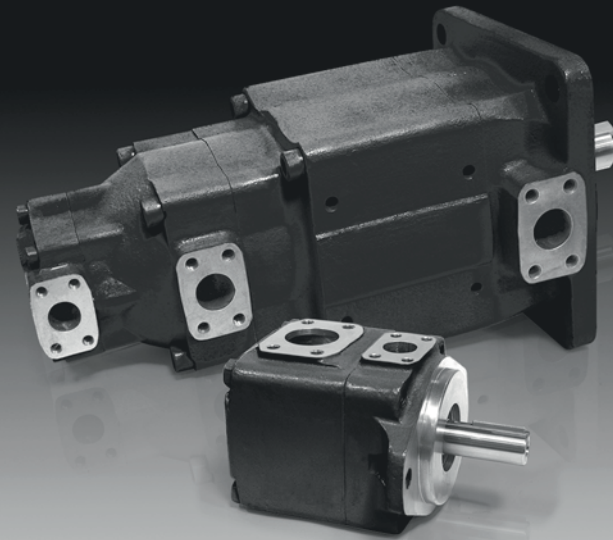
TDZ vane pumps and motors are manufactured in a wide range of displacements, from 3 c.c./rev. to 269 c.c./rev for single pumps and hundreds of flow combinations for double and triple pumps.

All TDZ pumps have a low power to weight ratio, high efficiency, low noise level and ease of maintenance.

Ease of maintenance is achieved by the pump design, where the working components are contained within a cartridge which can quickly and easily be replaced without disconnecting the pump from the prime mover.

TDZ vane pumps are hydraulically balanced, reducing wear and eliminating bearing loads from within the pump. The option to rotate the outlet port in relation to the inlet port provides flexibility and easy installation. Depending on the application, there are two versions: low noise industrial and mobile application models.

Full catalogue containing all the technical information is available on request



## PRODUCTS

Type	Series	Displacement	Max. Speed	Max. Pressure
Vane Pumps	<b>TDZ Design</b>	<b>c.c./rev. (1)</b>	<b>r.p.m. (1)</b>	<b>bar (1)</b>
	Single Vane Pump	BHP4, BHP6, BHP7	2, ... 7 26, ... 235	175 210
	<b>Denison Design</b>	<b>c.c./rev. (1)</b>	<b>r.p.m. (1)</b>	<b>Bar (1)</b>
	Single Vane Pump Very high pressure	T7B	6, ... 52	2800
	Single Vane Pump	T6C, T6D, T6E	11, ... 270	2800
	Double Vane Pump Very high pressure	T7BB, T67CB, T67DB T67EB	9, ... 270	2800
	Double Vane Pump	T6CC, T6DC, T6EC, T6ED	11, ... 270	2800
	Triple Vane Pump Very high pressure	T67DBB, T67EDB	9, ... 270	2800
	Triple Vane Pump	T6DCC, T6EDC	11, ... 270	2800
	<b>Vickers Design</b>	<b>Gal. at 1200 r.p.m. (1)</b>	<b>r.p.m. (1)</b>	<b>Bar (1)</b>
	Single Vane Pump	V10, V20	1, ... 13	4800
	Single Vane Pump	20V*, 25V*, 35V*, 45V*	2, ... 72	2500
	Double Vane Pump	2520V*, 3520V*, 3525V*	2, ... 45	2500
	Double Vane Pump	4520V*, 4525V*, 4535V*	2, ... 72	2500
	Thru Drive Vane Pump	25VT*, 35VT*, 45VT*	8, ... 72	2500
	Single Vane Pump	V10F, V20F, VTM42	1, ... 13	4800

with flow control and relief valve

(1) See our catalogue for details

Type	Series	Displacement	Max. Speed	Max. Pressure
Motors	<b>TDZ Design, (bidirectional)</b>	<b>c.c./rev. (1)</b>	<b>r.p.m. (1)</b>	<b>Bar (1)</b>
	Single Vane Motor	MH4D	52, ... 115	3000
	<b>Denison Design, (bidirectional)</b>			
	Single Vane Motor	M4C	25, ... 100	3600

(1) See our catalogue for details

TDZ-Bezares specialise in supplying equipment packages into the mobile industry predominantly onto commercial vehicles and trailers. The areas served by us are Tipping, Waste collection, Recovery Equipment, Cranes, Access Equipment, Transporters, Road Tankers and others.

To enable TDZ to offer a comprehensive package to the above applications we carry a large stock of the following products: Power Take Off's, Cast Iron Gear Pumps, Bent Axis Piston Pumps, Directional Valves, Pneumatics Controls...

Orders of Power Take Off's can be placed under a single OEM part number because we manufacture all PTO's precisely to the original manufacturer's specifications. These are just some of them: Allison, Clark, Eaton, Isuzu, Iveco, Kamaz, Mack, Mercedes, Mitsubishi, Nissan, Pegaso, Praga, Renault, Rover, Scania, Spicer, Toyota, Turner, Volkswagen, Volvo, ZF...

Full catalogue containing all the technical information is available on request



## PRODUCTS

Type	Series	Displacement	Max. Speed	Max. Pressure
		<b>c.c./rev.</b>	<b>r.p.m.</b>	<b>bar</b>
Aluminium Gear Pumps	BEA	8,...20	2000	<b>250</b>
Cast Iron Gear Pumps	BE	16,...150	2000	300
Axial Piston Pumps (Straight)	BZ	12,...100	1700	<b>350</b>
Axial Piston Pumps (Bent Axis)	FR	20,...110	2300	400
Vane Pumps (Single and Double)	T6GC	10,...100	2800	320

Truck Pumps

### Power Take Off's

Orders of Power Take Off's can be placed under a single OEM part number because we manufacture all PTO's precisely to the original manufacturer's specifications.

TDZ supplies PTO's for the following gear boxes: Allison, Clark, Eaton, Isuzu, Iveco, Kamaz, Mack, Mercedes, Mitsubishi, Nissan, Pegaso, Praga, Renault, Rover, Scania, Spicer, Toyota, Turner, Volkswagen, Volvo, ZF,...

PTO'S

### Hydraulic, electrical and Pneumatic valves - Recovery winches - Multiplier gearbox

- Proportional tipping valves up to 250 litres and 400 bar, Electrical tipping valves, Monobloc directional valves, Bypass valves with relief valve...
- Hydraulic recovery winches in different sizes in order to fit different vehicles. Birotational. Including disk brake able to hold 100% load.
- Gearbox with possibility of 1, 2 or 3 pump outputs and different mounting flanges. Wide range of internal ratios. High power and output torque.

Accessories



Whether your application is mobile or industrial, TDZ has the cartridge kit or part you need. All of our kits are manufactured at our plant located in Toledo, Spain.

TDZ replacement parts are manufactured in our modern plant using the latest machining technology. From raw materials to finished product TDZ make sure our parts meet or exceed OEM specifications. Every cartridge kit is fully tested and guaranteed to be free of defects in material and workmanship.

With hundreds of thousands items in stock, we can dispatch the part you need the same day we receive your order. We also carry a complete line of seals, shafts and bearings to make sure your repair is right the first time.

You can depend on TDZ to have all the parts you need to complete the job properly. Since TDZ sells only new, you never have to risk using rebuilt or reaconditioned parts.

Full catalogue containing all the technical information is available on request

## PRODUCTS

### Vickers equivalent kits

Replacement Cartridge kits for Vickers, (10 vane VQ & 12 vane V series - mobile & industrial applications)

20V / 20VQ:	2*, 5, 8, 9, 11, 12, 14 Gal/1200 rpm
25V / 25VQ:	10, 12, 14, 17, 19, 21, 24, 27* Gal/1200 rpm
30V / 30VQ:	24, 28 Gal/1200 rpm
35V / 35VQ:	21, 25, 30, 35, 38, 45 Gal/1200 rpm
45V / 45VQ:	42, 47, 50, 57, 60, 66, 75 Gal/1200 rpm

Note: please, specify sense of rotation of the pump and if the cartridge kit is mounted in a single or double pump, (front body or rear cover cartridge kit). \* 2 and 27 Gallons only mounted in industrial version.

### Denison equivalent kits

Replacement Cartridge kits for Denison, (T6C, T6D, T6E and T7B series)

T7B:	2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 14, 15 Gal/1200 rpm
T6C:	3, 5, 6, 8, 10, 12, 14, 17, 20, 22, 25, 28, 31 Gal/1200 rpm
T6D:	14, 20, 24, 28, 31, 35, 38, 42, 45, 50, 61 Gal/1200 rpm
T6E:	42, 45, 50, 52, 62, 66, 72, 85 Gal/1200 rpm

Note: please, specify sense of rotation of the pump and if the cartridge kit is mounted in a single or double pump, (front body or rear cover cartridge kit). Indicate exactly pump model.

### Parts Seals Shafts

Shafts - Seal kits and shaft seals - Miscellaneous Parts

- Keyed and splined for single, double, triple and thru drive pumps
- Seal kits and shaft seals for single, double, triple & thru drive pumps
- T6, T7, V and VQ series
- NBR & Viton seal kits and shaft seals (ask for different seal materials)
- Primary and secondary shaft seals
- Front body, inlet housing, rear cover, housing bolts, (4 units required), flex plates, bearings, etc...  
For single, double, triple and thru drive pumps.

TDZ directional control, pressure control and flow control valves offer you the flexibility to make your system operates the way you need it to operate.

With a wide array of CETOP valve styles and operating capabilities at your selection, TDZ valves maximize the control of your system through various valve combinations limited only by your imagination.

The versatility of designs, and the flexibility of various porting, spool action and circuit options, are just a few of the fundamental benefits you will find with TDZ valves.

Covered in our range is a full selection of CETOP modular valves, (check valves, flow control, pressure control, etc...) as well as a complete line of directional control valves in CETOP 3, 5, 7, 8 and 10 operated via AC/DC voltages.

Full catalogue containing all the technical information is available on request



## PRODUCTS

### Directional Control Valves: CETOP

#### Solenoid Directional Control Valves

- Max. Pressure: 350 bar, (5000 psi)  
 Max flow: ISO 03, (CETOP 3): 80 (31) l/min. (GPM)  
 ISO 05, (CETOP 5): 120 (50) l/min. (GPM)  
 Remarks: Optional terminal box, DIN plug-in connector, any worldwide current and frequency are available upon request.

#### Pilot Operated Directional Control Valves

- Max. Pressure: 315 bar, (4500 psi)  
 Max. Flow: ISO 07, (CETOP 7): 300 (80), l/min (GPM)  
 ISO 08, (CETOP 8): 500 (132), l/min. (GPM)  
 ISO 10, (CETOP 10): 1100 (290), l/min (GPM)

#### Check Valves

Pilot operated check valves

Directional control valves

### Flow Control & Pressure Control Valves: CETOP

- Max. Pressure: 210 bar, (3000 psi)  
 Max. Flow: 70 l.p.m., (20 GPM)  
 Port Size: 1/4", 3/8"  
 Model: Modular Relief Valve, Modular Pressure Reducing Valve, Modular Throttle Valve, Modular Throttle and Check Valve, Modular Check Valve, Modular Pilot Check Valve, Modular Solenoid Check Valve, Multi-station manifold Blocks, modular sub-plates.

Modular valves



Hydraulic Equipment

World reference in hydraulic  
equipment manufacturing



## VANE PUMPS AND MOTORS

Vane pumps and motors for multiple applications.

Image: DT6GC

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