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1918-2018

M ANZANO
Flottweg
Separation Technology



COMPANY HISTORY

Antonio Manzano Carpio founded CALDERERÍA MANZANO in 1918. He was a manufacturer of metal work for household use and machinery repair in oil mills. At the time, his sales were mainly limited to local and regional markets.

After his death in 1941, three of his sons, Miguel, Tomás and Luis took over the business. Throughout the years, the company extended its facilities and staff several times, becoming one of the leading suppliers of the storehouses in the 1960s, built to serve as buffer warehouses, oil mills and refineries.

At the beginning of the 1990s, crossed by the crisis of the sector, the company was on the brink of disappearing. Then, some of its workers became shareholders of the company and joined the family business.

The business volume requires nowadays an average of 65 employees. The company services range from adapting the warehouses to the food safety requirements, manufacturing hundreds of them in stainless steel, the original design of the piston pumps used nowadays for paste and pomace in most of the big oil mills, to a complete line of auxiliary machinery for the extraction process: malaxers, mills, vibrating screens, etc. all of them manufactured for the leading extraction lines suppliers.

Aiming to maintain quality as the first technical requirement of its designs, operating with full autonomy when dealing with clients, as well as keeping one of the most efficient and reliable after-sales service of the sector, the company decided to become a supplier of complete olive oil extraction lines. From 1st January 2017, MANZANO becomes the only representative of FLOTTWEG SE for the implementation of its olive oil technologies in Spain, Portugal, Morocco, Tunisia, Algeria and Iran.

ABOUT US

Our Company is specialized in stainless metalworking and machinery for olive oil extraction plants. Our brand is well known for the manufacture of high-quality storehouses, separation and polishing technologies and our machinery is a synonym for reliability and innovation in 15 countries. CALDERERÍA MANZANO has a staff of 65 young yet experienced employees. In fact, most of them are under 40 years old and have over 15 years of experience in the business on average.

We are fully aware of the quality requirements of our customers, thus we focus on investigation and development, aiming to find solutions that guarantee the highest competitiveness, safety and flexibility of the products we manufacture.

At CALDERERÍA MANZANO, our job does not end when the equipment is delivered and installed. Therefore, we provide our customers with an efficient after-sales service, offering support in the start-up process, troubleshooting and any other enquiries they may have.

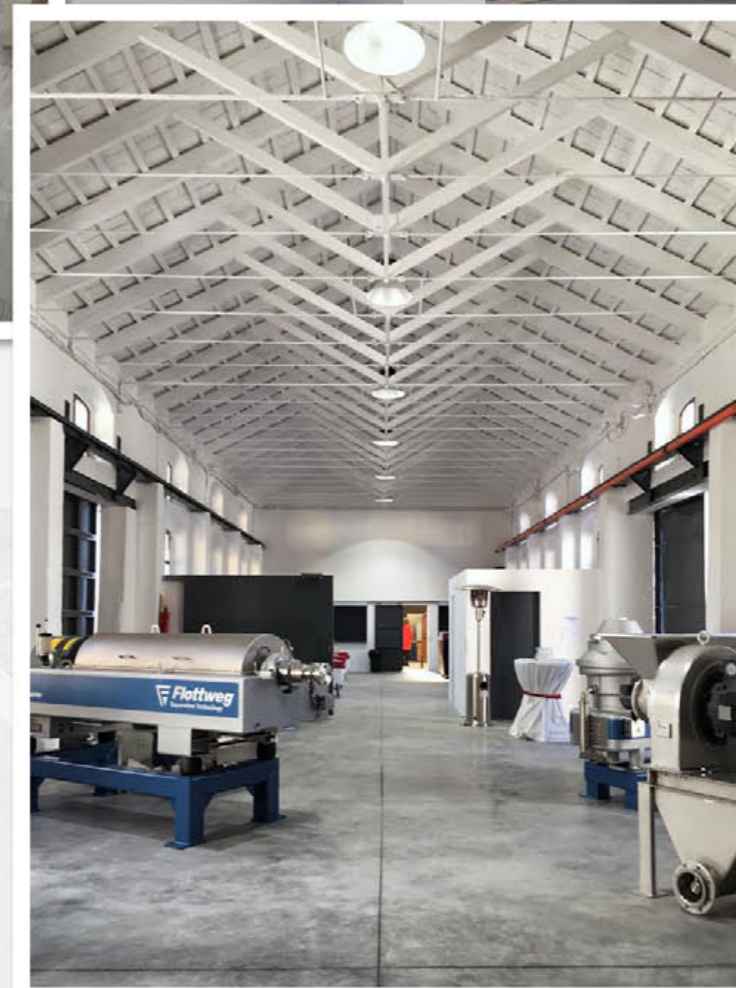
Choose us if you are looking for expert advice, variety, efficiency and excellent finish. You will receive a prompt answer, reliability and commitment.

We are looking for demanding customers willing to work with us now and in the future

FACILITIES

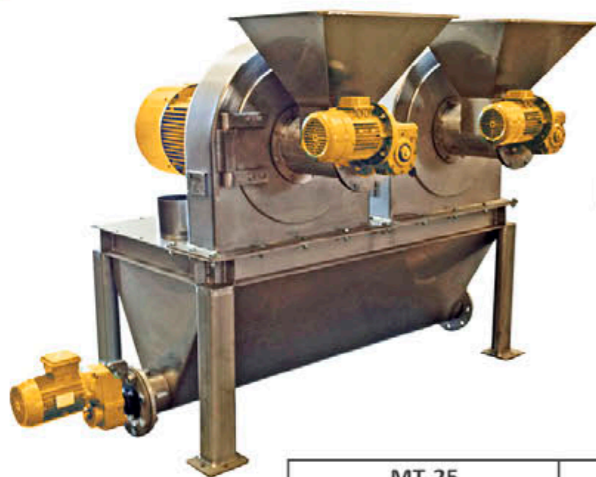
Our facilities are situated in two locations, in Bujalance and Villafranca de Cordoba, both in the homonymous province.

MANZANO is headquartered in Bujalance, origin and operation centre of the company since 1918. The main office and the workshop for machines manufacture are located here. These facilities have a total surface area of 9000 m² and comprise a shipping and receiving area and 3000 m² for manufacture and machinery assembly. The office building, the permanent machinery exhibition hall, the warehouse and the spare part shop have been completely renovated during 2016.



All our tanks and olive oil decanters are manufactured in Villafranca de Cordoba since 2014. Prior to this, the manufacturing process was carried out in Bujalance. All the process machinery was upgraded to state-of-the-art technology. In 2015 and 2016, more than 300 tanks have been manufactured and delivered each year to 5 different countries.

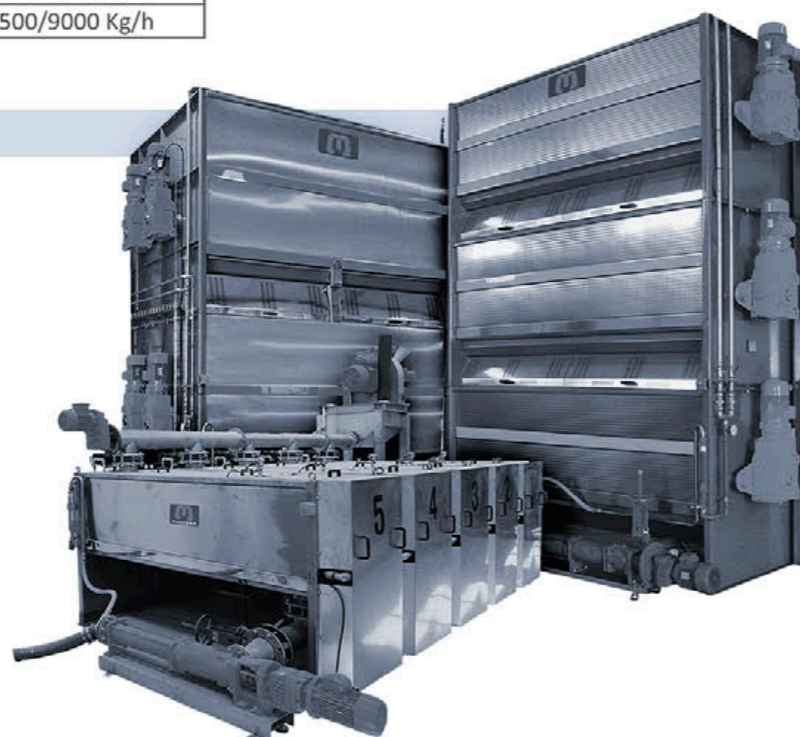
MILLING



HAMMER MILL MT SERIES

The crusher is a machine that takes active part in the fruit transformation and preparation for oil extraction. Energy consumption: at 3000 rpm, consumption ranges between 22.5 and 60 kw per unit, depending on the model.

	MT-25	MT-30	MT-40	MT-50
Production	25 C.V. + 1 C.V.	30 C.V. + 1 C.V.	40 C.V. + 1 C.V.	50 C.V. + 1 C.V.
Power	2500/3500 Kg/h	3000/4500 Kg/h	4000/5500 Kg/h	5000/6500 Kg/h
	MT-60/S	MT-75/S		
Production	60 C.V. + 1 C.V.	75 C.V. + 1 C.V.		
Power	6000/7500 Kg/h	7500/9000 Kg/h		



THERMOMALAXERS

The malaxer is a crucial step for optimum olive oil separation.

We boast several decades of experience in the design and manufacture of malaxers, offering one of the widest ranges of the market regarding capacity and flexibility, thanks to its modular conception. We manufacture malaxers for continuous or batch processing of up to 30000kg.

THERMOMALAXERS T1 SERIES				
MODEL	T11-300-3	T12-300-7	T12-375-9	T12-450-11
Capacity (Tn)	3	7	9	11
Net weight (kg)	2250	4515	4725	4975
Moduls	1	2	2	2
Total Power (kw)	4	8	8	8
Speed (r.p.m.)	17	17	17	17
Dimensions (L, W, H) (mm)	3700x1515x1715	3700x1515x3850	4450x1515x3850	5200x1515x3850

THERMOMALAXERS T2 SERIES				
MODEL	T22-375-15	T22-450-18	T23-450-27	T24-450-36
Capacity (Tn)	15	18	27	36
Net weight (kg)	5125	5450	8425	11200
Moduls	2	2	3	4
Total Power (kw)	10,95	10,95	16,4	27,4
Speed (r.p.m.)	17	17	17	17
Dimensions (L, W, H) (mm)	4450x4355x1765	5200x4355x17650	5200x4355x1765	5200x4355x1765

MALAXING



FLOTTWEG DECANTER

Flottweg is one of the leading suppliers of solid-liquid separation technologies in the world. Headquartered in Vilsbiburg, in the industrial heart of Germany, has a staff of over 850 employees.

The essential part of the Flottweg Decanter is the patented innovation SIMP-DRIVE, which regulates automatically the differential speed of the scroll adapting to the load, and the IMPELLER, which regulates the discharge during operation.



Flottweg Decanter is, without a doubt, one of the best machines in the market.

	Serie Z3	Serie Z4	Serie Z5
Capacity	30-50 Tm/24 h	70-90 Tm/24 h	110-150 Tm/24 h
Ø Bowl	300	420	529
Bowl Speed (rpm)	5.250	3.800	3.500
Weight (kg)	1.850	3.000	6.200
Length/Width/Height (mm)	2.645/1.180/890	3.740/1.000/1.200	4.500/1.600/1.150

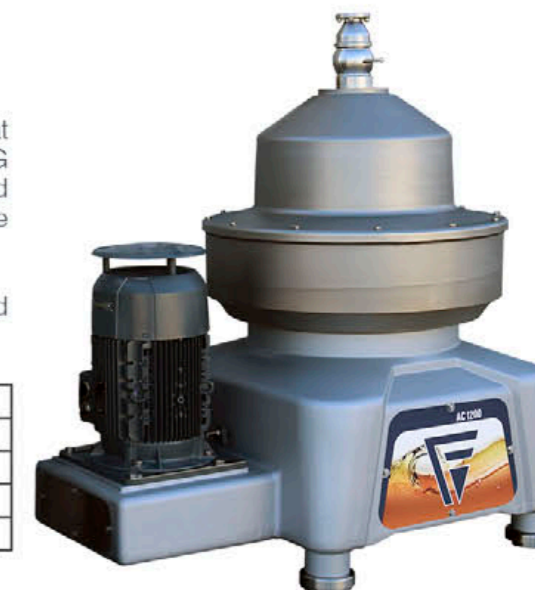
	Serie Z6	Serie Z8
Capacity	180-250 Tm/24 h	300-400 Tm/24 h
Ø Bowl	620	770
Bowl Speed (rpm)	3.200	2.650
Weight (kg)	9.750/9.850	14.140
Length/Width/Height (mm)	5.147/1.705/1.500	6.440/2.000/1.480

FLOTTWEG DISC STACK CENTRIFUGE

FLOTTWEG DISC STACK CENTRIFUGE is a centrifuge decanter that operates at a higher speed per minute than the FLOTTWEG DECANTER, what enables the separation of the finest solids and liquids with different densities. This separation is critical, since remaining solids and water may affect oil quality.

The Flottweg stack centrifuge is also equipped with the patented SIMP-DRIVE technology.

	AC1200-440 FO	AC1510-440 FO
Bowl Speed (rpm)	7.800	6.800
Dimensions (mm)	1.200/970/1.280	1.500/1.000/1.800
Weight (Kg)	820	1650
Capacity (L/hour)	1.200	2.000



PUMPING

PISTON PUMP PTM SERIES

Our piston pumps are an original design from 1996. More than 3000 units have been installed in 15 countries.

- Robust and simple design
- Low maintenance cost
- High flow rate
- Compliance with Food Safety Regulations



	PTM-100	PTM-200	PTM-300	PTM-400
Power	4 C.V.	7,5 C.V.	10 C.V.	15 C.V.
Flow	6 m3/h	12 m3/h	17 m3/h	20 m3/h
Production	100 T/24h	200 T/24h	300 T/24h	400 T/24h

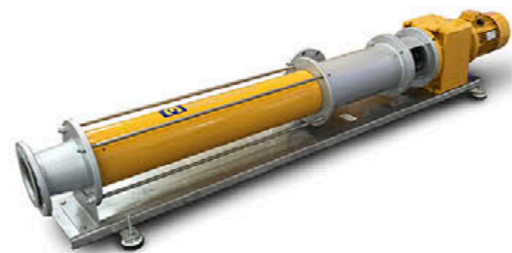
	PTM-150/S	PTM-175/S	PTM-250/S	PTM-350/S	PTM-500/S
Power	7,5 C.V.	10 C.V.	15 C.V.	20 C.V.	25 C.V.
Flow	6 m3/h	8 m3/h	12 m3/h	17 m3/h	22 m3/h
Production	120 T/24h	150 T/24h	250 T/24h	350 T/24h	500 T/24h

PASTE PUMPS BMM SERIES

The paste is transported from the malaxer to the decanter by a pump. This process requires a continuous flow. Therefore, most factories choose a centrifugal pump, especially with helicoidal impeller.

The transfer of the product is gentle and allows a low-noise operation. Its maintenance is easy and economical.

BMM series includes four models for paste pumping in lines from 40 t/24 hours to 500 t/24 hours.



	BMM-100	BMM-200	BMM-300	BMM-400
Power	4 C.V.	5,5 C.V.	5,5 C.V.	7,5 C.V.
Flow	3 - 6 m3/h	5 - 10 m3/h	7 - 12 m3/h	10 - 20 m3/h
Production	160 m3/24h	300 m3/24h	380 m3/24h	570 m3/24h

OIL PUMPS BMA SERIE

Different sized impurities do not allow the use of pumps, which require a clean product. Moreover, the manufacturer may like to lower the speed to avoid the oil emulsion or to prevent its organoleptic properties from being affected.

BMA series includes four models for paste pumping in lines from 1500 l/hour to 10000 l/hour.

	BMA-15	BMA-35	BMA-50	BMA-100
Power	1 C.V.	1 C.V.	2 C.V.	3 C.V.
Flow	1500 l/h	3500 l/h	5000 l/h	10000 l/h



AUXILIARY EQUIPMENT

VIBRATING SCREEN

MANZANO Vibrating Screen for liquids incorporates a vibrating sieve that separates suspended solids

	VT-145-1500	VT-250-3500	VT-250-5000
Capacity	145 L	250 L	250 L
Flow	1500 l/h	3500 l/h	5000 l/h
Process (n. Phases)	2	2	2

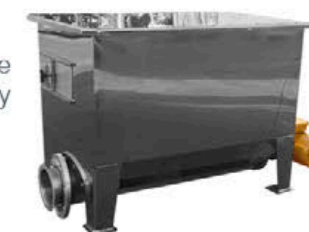
	VT2503FBMA-15-50	VT2503FBMA-35-50	VT2503FBMA-50-100
Capacity	250 L	250 L	250 L
Flow	1500 l/h + 5000 l/h	3500 l/h + 5000 l/h	5000 l/h + 10000 l/h
Process (n. Phases)	3	3	3



POMACE EVACUATOR

Replacing the old pomace receiving receptacles, CALDERERIA MANZANO pomace evacuator is a stainless steel chute that incorporates a 1 C.V. injector to enable an easy discharge into the piston pump

	EO-350	EO-800
Power	1 C.V.	1 C.V.
Capacity	350 L	800 L



DECANTER TANK FOR THE DISC STACK CENTRIFUGE

The oil fed from the disc stack centrifuge is discharged into a double wall decanter tank completely manufactured in stainless steel by CALDERERIA MANZANO.

	DAC - 1500	DAC - 3500	DAC - 5000
Capacity	275 L	275 L	275 L
Olive Oil Pump	1500 l/h	3500 l/h	5000 l/h



PIT-PULP SEPARATOR

The olive pit can self-supply the boiler of the plant and its surplus is a product highly valued as industrial and industrial biomass nowadays.

CALDERERIA MANZANO, S.A. Designs and manufactures the SH series, which obtains a pit in excellent conditions of cleaning and humidity, very remarkable among the machinery available in the market

	SH - 200	SH - 300	SH - 400	SH - 500	SH - 600	SH - 750
Product	Two phases pomace					
Flow	3 m3/h	6 m3/h	9 m3/h	12 m3/h	15 m3/h	18 m3/h
Main Engine Power (CV)	20 CV	30 CV	40 CV	50 CV	60 CV	75 CV
Feeder Power (CV)	1 CV	1 CV	1 CV	1 CV	1 CV	1 CV
Material	Stainless Steel AISI 304					



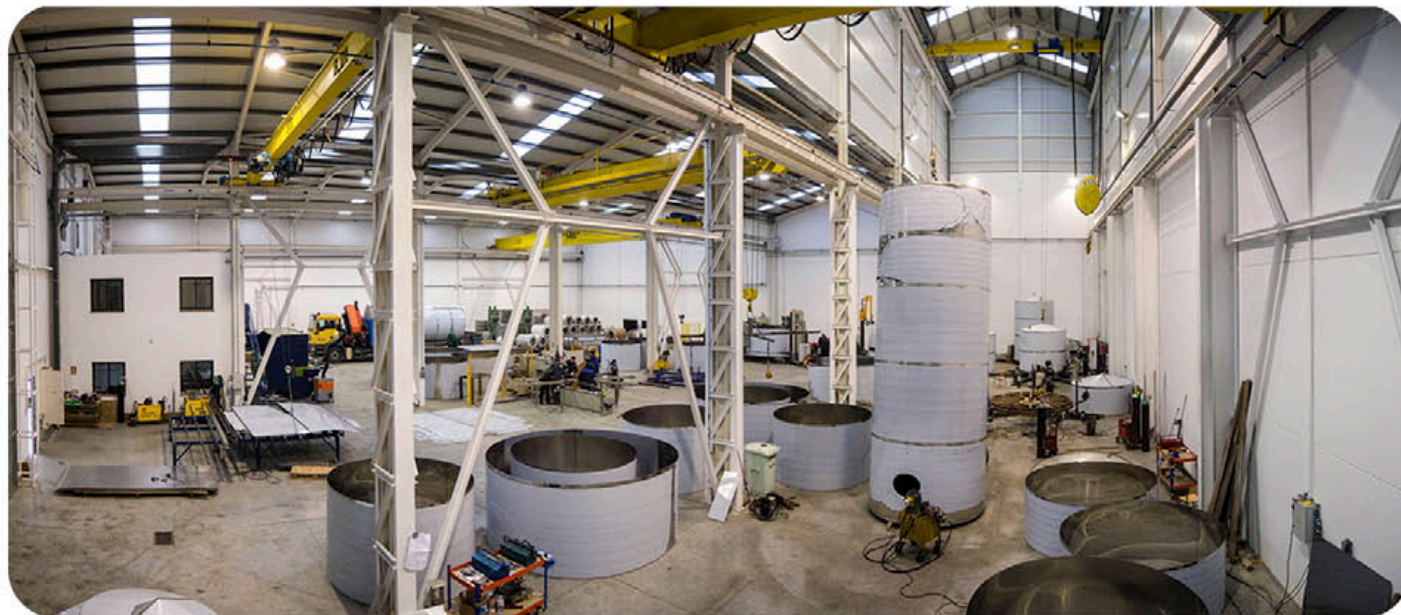
PIT-PULP SEPARATION

STORAGE

- 1.- SLOPED FLAT BOTTOM
- 2.- CONICAL BOTTOM WITH BENCH
- 3.- CONICAL BOTTOM ON LEGS



The tanks are completely manufactured in stainless steel and specifically designed for the olive oil industry. The manufacturing process takes place in our factory in Villafranca, where, since 2014, more than 300 tanks have been delivered from to 5 different countries. It was then when the company started new improved systems, leading to an automated and precise assembly process, with high quality welding and a wider range of diameter to cater for our customer's needs.



HIGH CAPACITY



HIGH CAPACITY TANKS

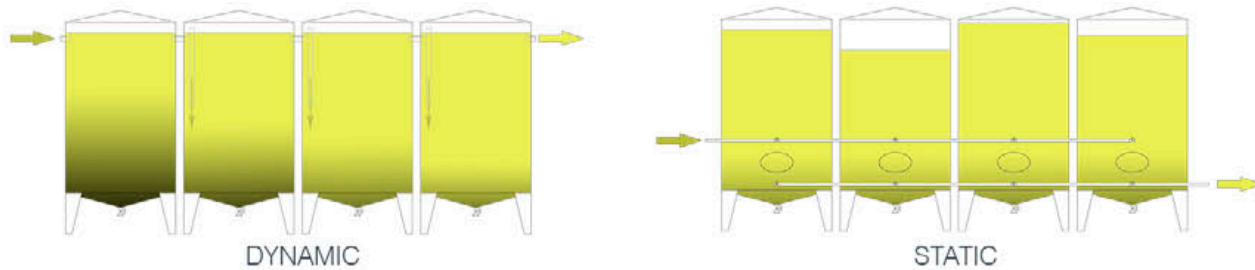
Nowadays, oil mills require large capacity storage and top quality. We manufacture tanks of up to 170 T with robot welding meeting the Food Safety Regulations, as well as all the accessories, material and finish featured by lower capacity tanks. Choose high capacity tanks that suit your needs.

DECANTING



DECANTATION AND SELECTION TANKS

The definition, design and manufacture of the tanks for decanting and polishing processes prior to the storage are crucial. Choosing a proper size, cone angle, a static or dynamic settling and the design of their connection will allow the olive oil manufacturer to properly separate the different qualities and varieties, avoiding then heterogeneous batches resulting in a decrease in value of the product.



STOREHOUSES AUXILIARY EQUIPMENT

The best of the storehouses requires a cleaning and maintenance system that prevents stored oil and equipment from damage over time. We offer a mobile cleaning system with high-pressure water or water sprinkler and a water pumping system to meet your needs.



CLEANING MACHINE

- Water projector and accesories
- Cleaning pipeline with diffuser ball



PURGES COLLECTOR

ACCESORIES

Inertization system, decanting elbows for emptying, precise level indicators in stainless steel without adhesive or paint, sample taking valves from any point, and other accessories that will customize tank to meet the customer's needs.

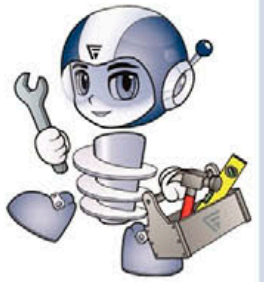
EQUIPEMENTS AUXILIARES

ORIGINAL SPARE PARTS MANZANO - FLOTTWEG

Customers do not only benefit from an efficient spare part service, with a catalogue featuring all our products and prices, but also from our new online shop for MANZANO-FLOTTWEG spare parts.

Moreover, we are the only suppliers of original wear parts for all FLOTTWEG customers from the olive oil industry.

We ensure a fast and reliable spare part service.



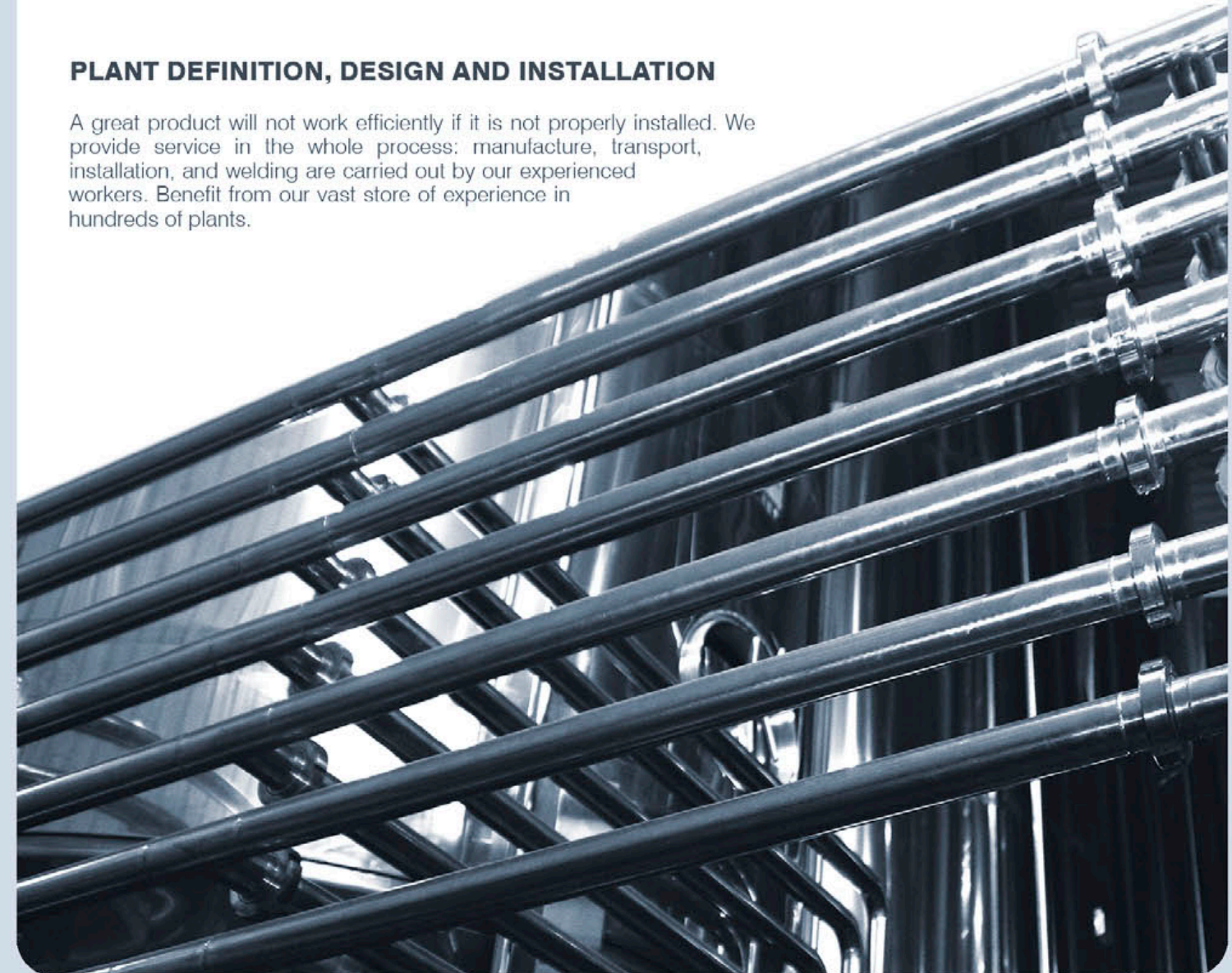
TECHNICAL SUPPORT

Since piston pumps were launched in 1996, MANZANO counts on four service vehicles fully equipped for site work with all the equipment needed for inspections or repair work.

We are fast and efficient. We work to minimize downtime.

PLANT DEFINITION, DESIGN AND INSTALLATION

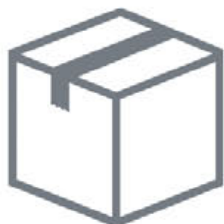
A great product will not work efficiently if it is not properly installed. We provide service in the whole process: manufacture, transport, installation, and welding are carried out by our experienced workers. Benefit from our vast store of experience in hundreds of plants.





TECHNICAL SUPPORT

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SPARE PARTS STORE FLOTTWEG ORIGINAL WEAR PARTS

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