



ROTARY LOBE PUMPS

FEATURES

- **Compact construction:** space saving;
- **Self-priming** up to 7-8 mt.;
- **Dry running** for short periods;
- **Reversible operation;**
- **Easy maintenance** - maintenance and cleaning in place: fast opening of the pump because of the possibility of removal of the front inspection cover without disturbing the pump housing or pipe work;
- **Pump body can be supplied with hard metal replaceable wearing plates** at front and rear; they can be replaced easily on site;
- **Possibility to handle large solids particle up to 25 - 30 mm.**

EXECUTION

- **PUMP BODY:** in grey cast iron (type PLG) with possibility of replaceable hard metal wearing plates in HARDOX (PLGP type); for oenologic execution: see special section.

- **LOBES:** covered with

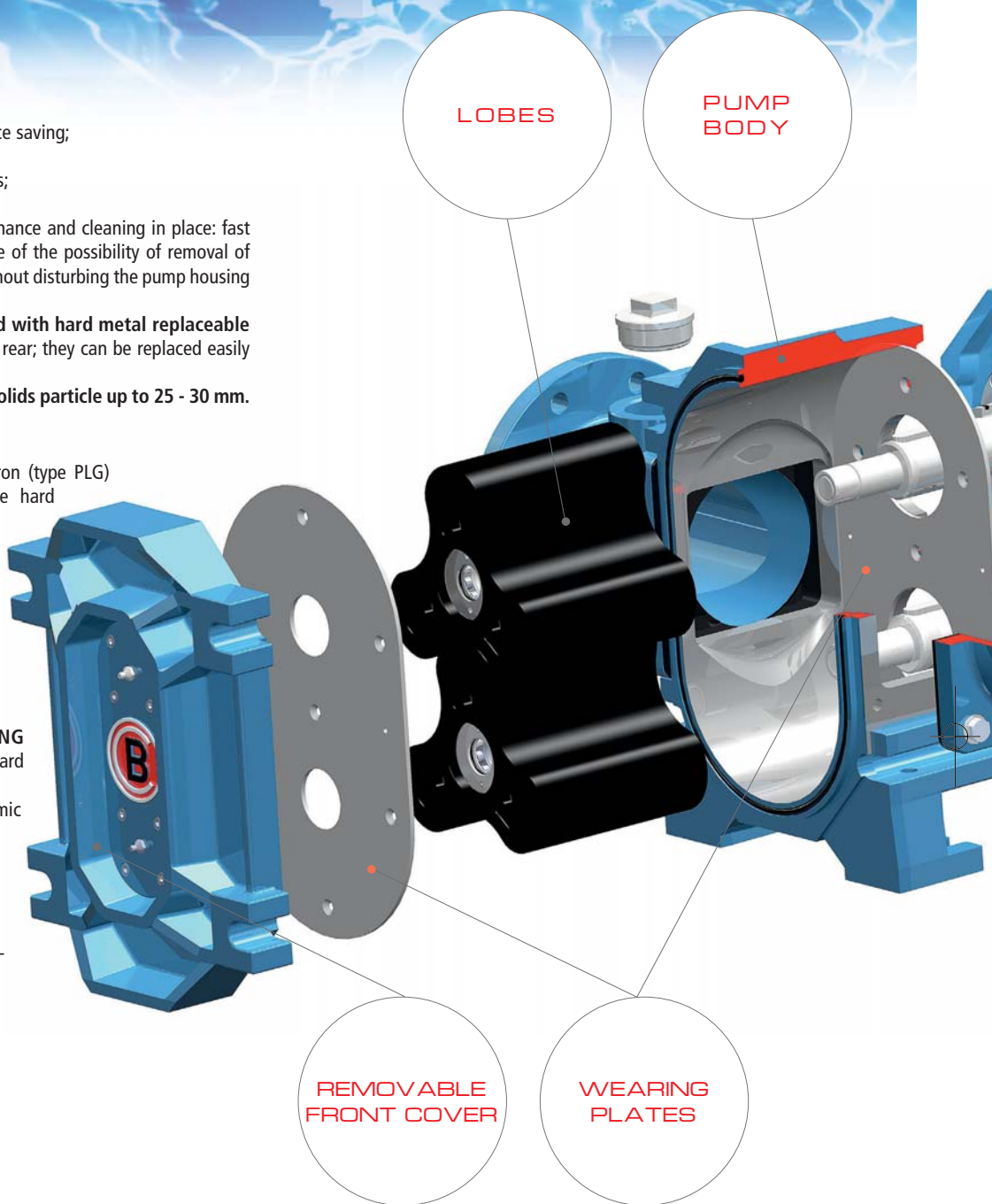
- NBR rubber
- EPDM rubber
- FPM rubber
- Other on request;

- **HARD METAL WEARING PLATES:** internal removable hard steel HARDOX plates;

- **MECHANICAL SEAL:** ceramic or tungsten carbide self-lubricated;

- **CONNECTIONS:**

- flange according to UNI/DIN
- ball joints
- oenological type "garolla" - DIN - SMS
- other on request.



OPERATION

Bellin Rotary Lobe Pumps type "PL" are of the positive displacement pumps type; the two counter-rotating rubber tri-lobes are synchronised.

The product is displaced in the direction of the volume flow into the discharge side.



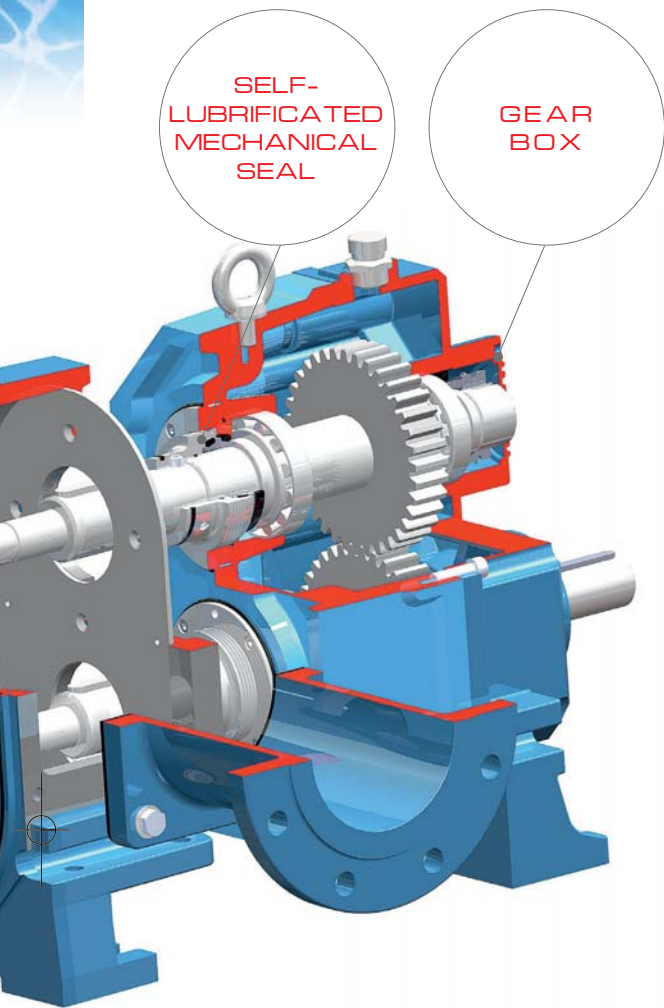
PERFORMANCE TABLE

PUMP TYPE	MAX CAPACITY @ 0 bar	MAX PRESSURE	MAX SPEED
	m ³ /h	bar	r.p.m.
PL-500	35	8	600
PL-1500	80	8	500
PL-2500	132	8	500
PL-3500	180	6	400
PL-4000	125	3	300
PL-7000	230	3	250

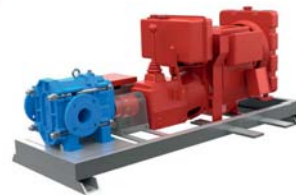
E X E C U T I O N

ROTARY LOBE PUMPS

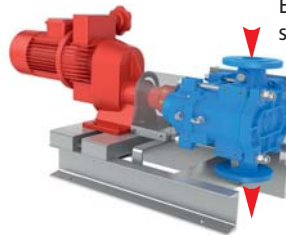
DRIVES SYSTEM



Execution with speed reducer



Execution with diesel engine with speed gear



Execution with mechanical variable speed drive and pump in vertical position



Execution with hydraulic motor



Execution with simpla-belt variator drive



Execution with V-belt transmission

FIELDS OF APPLICATION

CERAMIC INDUSTRY: to pump china slip, clay, fireclay, enamels, etc.

BUILDING INDUSTRY: to transfer unicellular cement, mortar of cement, cement/sand and water mixtures, bentonite, grout, lime compound, light concrete, etc.

PAPER-MAKING INDUSTRY: to pump starch paste, rag pulp, paper-mill mud, milk of lime, etc.

MINING INDUSTRY: to transfer mining water with various compositions, for flotation mud, grease, oils, etc.

SHIPYARDS: for brackish water, separation mud, separator feed, etc.

FISH PROCESSING INDUSTRY: for pumping small pieces of fish, press water and fish waste, concentrate.

AGRICULTURE: to transfer sewage pigs and cattle, various swill, chemicals and liquids product for the consolidation of land, sewage sludge, etc.

EXECUTION OENOLOGICAL: see special section.

SUGAR-REFINERIES: to transfer sugary solutions, molasses, saturation and waste mud, thickened mud and milk of lime.

WATER TREATMENT PLANTS: to feed centrifugal machines - press belts - filter presses; to meter milk of lime and flocculants, to transfer primary mud, digested mud, waste water mud, waste lye, washing water, etc.

For applications on **WASTE DISPOSAL TANKERS - TANK TRUCK** recovery oils.

USE IN POTENTIALLY EXPLOSIVE ATMOSPHERES ACCORDING TO ATEX DIRECTIVE 94/9/EC petrochemical, offshore platforms, distilleries, paint manufacturing, dyeing fabrics, etc.



RECOVERY OILS PLANT



INSTALLATION ON TANK TRUCK



WATER TREATMENT PLANTS

DRIVES SYSTEM - APPLICATIONS



OENOLOGY PUMPS

THE BELLIN ECCENTRIC SCREW PUMPS are used successfully for years in the oenological industry, olive oil and agro-alimentary. Thanks to its great versatility, eccentric screw pumps can be used in the "oenological" sector in many different ways: for pumping wine must for simples transfers, for filter replacement-feeding - filling operation etc. In the "olive oil" sector have been successfully used for pumping olive paste (decanter feeding), humid olive residues, filtered and unfiltered oil, etc...

Execution with capacity from 10 to 1000 qli/h - pressure up to 6-14-24 bar.

Bellin eccentric screw pumps in **execution with hopper** and infeed screw are used, for the transfer of crushed grapes and fermented grapes. Also available with additional infeed paddles for pumping whole grapes or heavy fermented grapes.



Eccentric screw pump for transfer of wine - must - oil



Pump type TLS with paddle bridge-breaker for transfer of whole grapes-fermented grapes



Pump type LTS dry running protection device (temperature probe in the stator)



Eccentric screw pump with variable speed drive and bypass against over-pressure

THE BELLIN ROTARY LOBE PUMPS are used for transfer grapes - crushed grapes; to handle fermented grapes coming from the fermentation tanks.

Fixed executions for direct coupling to the infeed-conveyor or executions on trolley complete of inlet hopper.

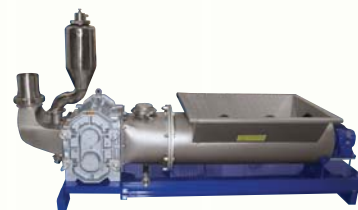
Usable also without inlet hopper for transfer of wine, must, crushed grapes.

ROTARY LOBE PUMPS: PERFORMANCE TABLE

PUMP TYPE	CAPACITY	PRESSURE	SPEED	POWER	OUTLET CONNECTIONS
	t/h	bar	r.p.m.	kW	mm
PLWX 4000	30-70	3	140-190	5,5-7,5	120
PLWX 7000	50-140	2-3	100-140	11-15	120-150



Rotary lobes pump type PL 4000 for pumping of whole grape



Rotary lobes pump type PL 7000 - fixed execution with inlet hopper



Rotary lobes pump type PL 4000 for transfer of wine-must-crushed grapes



Pump-multipurpose PL 4000 for use down vertical fermentation tanks or coupled to infeed-conveyors

O E N O L O G Y

CUSTOM PUMPS



Eccentric screw pump with hopper with one side open for connection to infeed conveyor



Eccentric screw pump with "raised" hopper



Eccentric screw pump with big suction connection for direct connection to tanks



Eccentric screw pump with special hopper under tank



Eccentric screw pump with special infeed paddles bridge breaker



Eccentric screw pump with enlarged extra-hopper



Eccentric screw pump with hopper and special suction cover to be connected to silos



Multistage high-pressure eccentric screw pump

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TÜV IT 09 ATEX 034 AR
TÜV IT 10 ATEX 002 AR
TÜV IT 10 ATEX 041 AR