# E SERIES

## Complete pumping unit for fuel/oil transfer



ULTRA POMPE, founded in 1957, was one of the first Italian firms that completely design, produce and test external gear pumps in its own workshops. We have devoted all our efforts, energies and resources toward developing and improving gear pumps.

ULTRA POMPE carries on in its own premises the whole of mechanical processing, gear cutting included, thus achieving an unparalleled quality standard of the finished products. Our success is based on satisfying customers' requirement thorough efficient manufacturing and by providing quality products and competitive pricing.

Gear pumps are simple and economical pumps. A gear pump uses the meshing of gears to pump fluid by displacement. They are one of the most common types of pumps for hydraulic fluid power applications, however are also widely used in chemical installations to pump fluid with a certain viscosity

Gear pumps, being rotary volumetric pumps, are the best metering pumps, since their delivery depends directly on the revolutions rate. Also gear pumps will not generate flow pulsations, as standard metering pumps do, making the media flow constant.

Gear pumps delivery and revolution ratio won't be affected by use and work, if provided viscosity and differential pressure are kept constant. Any small delivery loss, due to normal wear and wear of the rotating parts, will be easily corrected and compensated for by an equally slight rise in revolution rate.

Housing and rotors are machined from rolled bar that is cut and turned and machined into their final shape, thus ensuring maximum hardness as apposed to using cast parts.

The bearings are aided by a metal backing to increase resistance especially for corrosive environments. A lining of PTFE is coated in the inner diameter of the bearings forming a solid lubricant film.

O-Rings are used on all mating surfaces to reduce leakage even when pumping fluid of low viscosity. The shaft is sealed with doublel lip seal for bidirectional use.

Inlet and outlet ports are threaded UNI388 INCH-GAS Cylindric and of the same diameter.

The E-series can be supplied in different coupling configurations. Complete units consisting of pumps already coupled to flange mounted motors and special design coupling. Explosion proof motors, gear reducers, and variable speed drives are also available on request.







Housing: ROTORS: BEARINGS:

SHAFT SEAL: WORK SENSE: GASKET:

LANTERN: JOINT:

**BOLT & WASHER:** 

PAINT:

**CAST IRON G25** STEEL 39NICRMo3

STAINLESS STEEL + PTFE

**FPM** 

**BIDIRECTIONAL** 

**FPM** 

**A**LUMINUM STEEL 11SMNPB37+C

STEEL

**RAL 5010** 

## **Operating Fields**

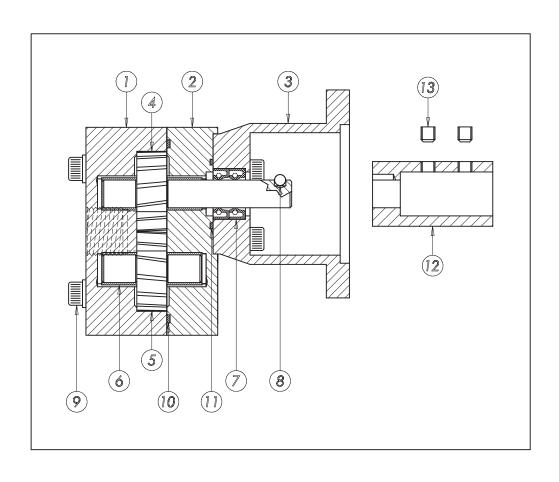
This label easily shows the direct relation between pump capacity and its rotations speed. Delivery is calculated with approximated rotations speeds. Available Three-Phase and Mono-Phase 50Hz motor.

	PUMP	PORT	МОТ	TOR	DELIVERY	МО	TOR	DELIVERY		MOTOR	DELIVERY	
MAX 8 BAR	E3-71	Ø ½"	2p 0.37i	kw 71A	8 L/MIN	4p 0.25	кw 71A	4 L/MIN	6	P 0.18KW 71A	2 L/MIN	
	E5-71	Ø ½"	2p 0.55i	kw 71B	14 L/MIN	4p 0.37	7kw 71B	7 L/MIN	6	р 0.25кw 71B	4 L/MIN	
	E7-80	Ø ½"	2p 0.75i	kw 80A	20 L/MIN	4p 0.55	кw 80A	10 L/MIN	6	P 0.37KW 80A	6 L/MIN	
MAX 8 BAR	E12-80	Ø ¾"	2p 0.75i	kw 80A	30 L/MIN	4p 0.55	кw 80A	15 L/MIN	6	P 0.37KW 80A	10 L/MIN	
	E17-80	Ø 3/4"	2p 1.1K	w 80B	45 L/MIN	4p 0.75	кw 80B	20 L/MIN	6	р 0.55кw 80B	15 L/MIN	
	E22-80	Ø ¾"	2p 1.1K	w 80B	60 L/MIN	4p 0.75	кw 80B	30 L/MIN	6	р 0.55кw 80B	20 L/MIN	
BAR	E28-90	Ø 1"	-		-	4p 1.1	кw 90S	40 L/MIN	6	P 0.75kw 90S	25 L/MIN	
9	E43-90	Ø 1"	-		-	4P 1.1	кw 90S	60 L/MIN	(	5p 1.1kw 90L	40 L/MIN	
MAX	E58-90	Ø 1"	-		-	4P 1.5	кw 90L	80 L/MIN	(	6p 1.1kw 90L	50 L/MIN	
			N	MAX 100 CST			мах 400 с	ST	MAX 800 CST			

**Application:** Oil displacement between barrels and drums. Diathermic oil recirculation on bitumen plants. Bitumen or rubber transport. Gasoline flow on blast furnace. Addition of pigments to the main product flow. Dosing of solvent according to main product status. Oil recirculation on heavy speed reducer or variator. Machine tools lubrication. Any oil displacement from/to tank unit.

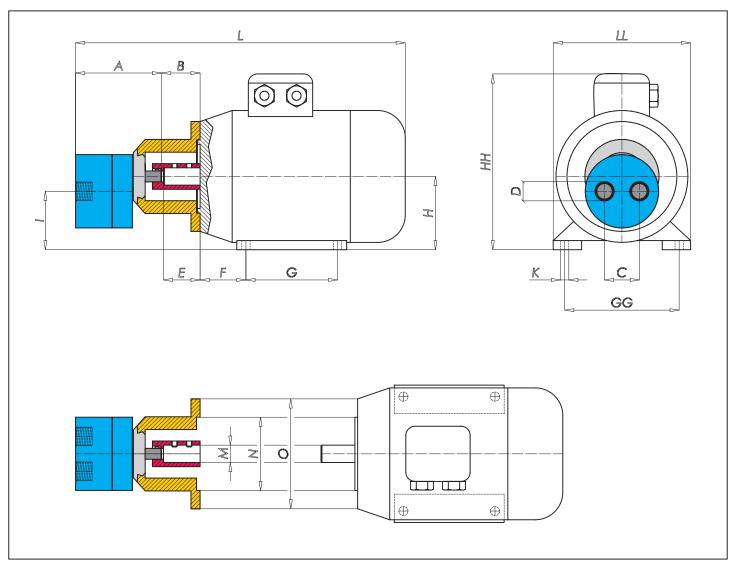
#### **Part List**

- 1 Housing
- 2 Front cover
- 3 Seal cover
- 4 Drive rotor
- 5 Driven rotor
- **6** Bearings
- **7** Shaft seal
- 8 Shaft key
- 9 Bolts
- 10 Housing gasket
- 11 Seal gasket
- **12** Coupling
- 13 Coupling screw



#### **Overall Dimension**

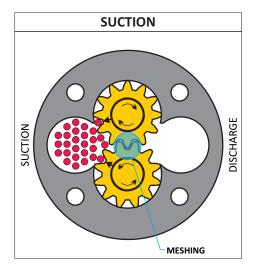
All dimensions contained in this brochure are not binding and may change without advise. Please contact our office for detailed drawings.

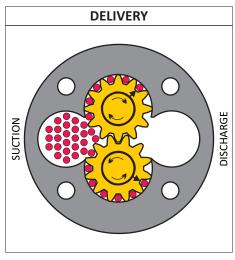


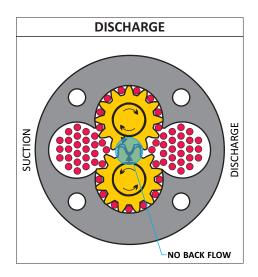
PUMP	Α	В	С	D	E	F	G	GG	Н	НН	I	K	L	LL	M	N	0
E3-71	83	32	38	1/2"	30	45	90	112	71	175	55	7	319	132	14	70	105
E5-71	89	-	-	-	-	-	-	-	-	-	-	-	325	-	-	-	-
E7-80	94	42	-	-	40	50	100	125	80	192	64	10	360	150	19	80	120
E12-80	108	42	49	3/4"	40	50	100	125	80	192	64	10	374	150	19	80	120
E17-80	113	-	-	-	-	-	-	-	-	-	-	-	379	-	-	-	-
E22-80	118	-	-	-	-	-	-	-	-	-	-	-	384	-	-	-	-
E28-90	113	52	60	1"	50	56	100	140	90	208	65	10	417	164	24	95	140
E43-90 (S)	122	-	-	-	-	-	-	-	-	-	-	-	426	-	-	-	-
E43-90 (L)	-	-	-	-	-	-	125	-	-	-	-	-	446	-	-	-	-
E58-90	131	-	-	-	-	-	-	-	-	-	-	-	455	-	-	-	-

#### **Gear Pumps**

Into a gear pumps the two rotors, that are respectively called driving and driven rotor, are seated in a body that round them from all side. On the both sides of the mesh zone of the teeth there is a hole in the body of the pump, respectively called suction and discharge. Spinning the rotors the fluid is moved, through the chambers between the teeth of the rotors and the body, from the suction side to the discharge side. Fluid does not pass through the meshing zone of the gears due to small tolerances. A back-flow of the fluid is blocked by the contact of the teeth of the two rotors in the meshing zone.







### **Pipe Connection**

Follow the nearby figure to create an in-line connection systems. Pump is bidirectional, so it can works in both sense.

