

The **SILI KCB series** is horizontal positive displacement gear oil pump. These pumps use two identical gears rotating against each other, the drive gear operates the idler gear. Liquid flows into the cavity of the teeth and is directed and pressurized toward the discharge port by the gear rotation.

- Large capacity range, up to 500m<sup>3</sup>/h.
- Reliable and easy to Maintain
- Good self-priming function.
- Self-lubrication by the pumped liquid.
- With built-in relief valve.
- Screw port or flange port for connection.
- Explosion-proof motor optional.

### Design Features

--Coupled gear set with high quality carbon steel(2Cr 13 carbon steel as standard), stainless steel or bronze material gear is available.

--Each gear is fitted on a shaft supported by two internal quality bearings immersed in the pumped liquid.(small size in sliding bearing, to model KCB-83.3/0.33, big size in rolling bearing, from model KCB-135/0.33). There are no external bearings.

--Pump has only one shaft penetration(the drive gear side) through the housing sealed with a mechanical seal, soft packing seal is available.

--Pumps are driven with electric motors through elastic coupling or spacer coupling.

--With built-in relief valve, setting value 1.5 times of discharge pressure, to protect pump and pipe system.

--Positive type pump, good self-priming function, suction head about 5 meter.

--Self-lubrication, no need extra lub. oil or grease.

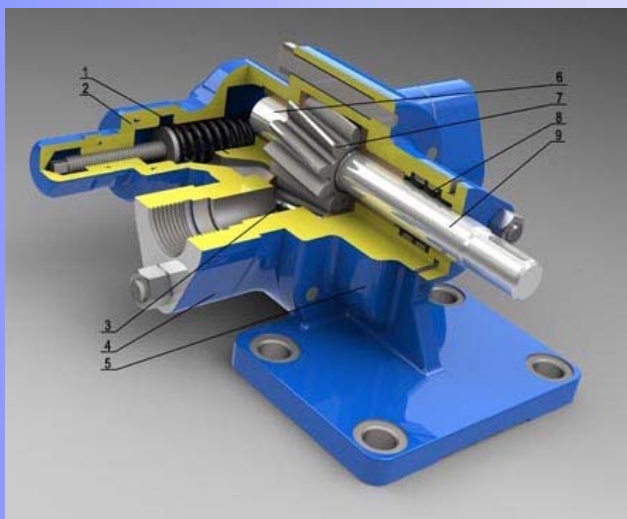
--Both screw port(small size, to model KCB-83.3/0.33), flange port(KCB-135/0.33, from model KCB-135/0.33)



### Applications

KCB gear pumps are used to pump thick and viscous liquids without suspended solids. They have also a constant flow even if delivery pressure changes during operation. Internal fine tolerances make these pumps usable only with clean fluids having some lubrication properties. Typical application of KCB gear pumps on board ship or vessel are **supply of F.O., M.O., L.O., diesel oil**, or even petrol, benzene and so on.

<b>Capacity range:</b> 1.1m <sup>3</sup> /h to 570m <sup>3</sup> /h in 50HZ
<b>Pressure range:</b> 0.33Mpa to 0.6Mpa in 50HZ
<b>Power:</b> 1.5kw to 250kw, 380V/400V/415V, 50HZ
<b>Speed(motor poles)</b> 740 rpm(8 poles), 970rpm (6 poles), 1450rpm (4 poles) in 50HZ
<b>Port size(inlet and outlet):</b> Screw type: G0.75inch to G1.5inch Flange type: DN50mm to DN350mm
<b>Temperature range:</b> Max to 120 C degree. Up to 200 C degree with special design(GCB type)
<b>Viscosity range:</b> 5cst to 1500cst
<b>Liquid:</b> F.O., M.O., L.O., diesel oil, petrol, kerosene etc.



### Structure and part item list

The KCB type of pumps are horizontal positive gear pump, which is composed of casing and cover, gear couples, relief valve, bearing and shaft seal and so on.

1	Front cover(casing)	6	Bearing
2	Relief valve	7	Driving gear
3	Driven gear	8	Shaft seal
4	Inlet/outlet port	9	Shaft
5	Rear cover(casing)		

### Material

Part name	Material	
	Common type	Special type
Cover	Cast iron	Cast iron
Driving gear	Carbon steel	Bronze or Stainless steel
Driven gear	Carbon steel	Bronze or Stainless steel
Shaft seal	Mech. seal or soft packing	Mech. seal or soft packing
Shaft	Carbon steel	Stainless steel

Bronze: ZCuZn16Si4

Stainless steel: 1Cr18Ni9Ti(SS304)

Cast iron: HT250 or GG25.

Carbon steel: high quality carbon steel with chrome (2Cr13 carbon steel)

--bronze pump for low flash point liquid;

--stainless steel pump for the corrosive liquid.



**SILI PUMP,**  
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