

**MAINTENANCE MANUAL
FOR
YB SERIES VANE PUMP**



Shanghai Cowell Machinery Co.Ltd

Description:

YB Self priming rotary vane pump with internal bypass valve. The pumps use a rotor with sliding vanes to draw the liquid. The material of construction is nodular iron with sliding vanes built in a special self-lubricating material. Due to its efficiency, the pumps can handle viscous and also volatile liquids and require less horsepower than other equivalent pumps. The pumps are capable of higher flow rates at lower number of revolutions than other designs.

Advantage:

- | Durable pumps for fast and quiet operation.
- | Sliding vane design provides sustained performance and trouble free operation, high reliability.
- | Adjustable relief valve protects pump from excessive pressure.
- | T-Type strainers are available to protect pumping system from damage caused by welding slag and foreign matter in the piping and tanks.

Application:

- | Fuel oil delivery truck
- | Fleet refueling
- | Lube oil

- | Aviation refuelers
- | Transport of Petro Chemicals, gasoline, Kerosene, biofuels, solvents and many more.

Flow Rate:

Model	Speed Flow Rate	650RPM		600RPM		550RPM		500RPM		450RPM		400RPM		Weight	
		G/min	L/min	G/min	L/min	G/min	L/min	G/min	L/min	G/min	L/min	G/min	L/min	Lbs	Kg
YB-50	50mm / 2 "1/2	80	300	72	270	64	240	56	210	48	180	40	150	66	30
YB-65	65mm / 2 "	132	500	123	465	114	430	103	390	93	350	82	310	82	37
YB-80	80mm / 3 "	265	1000	243	920	222	840	200	760	180	680	160	600	133	60
YB-100	100mm / 4 "							505	1900			405	1530	295	134

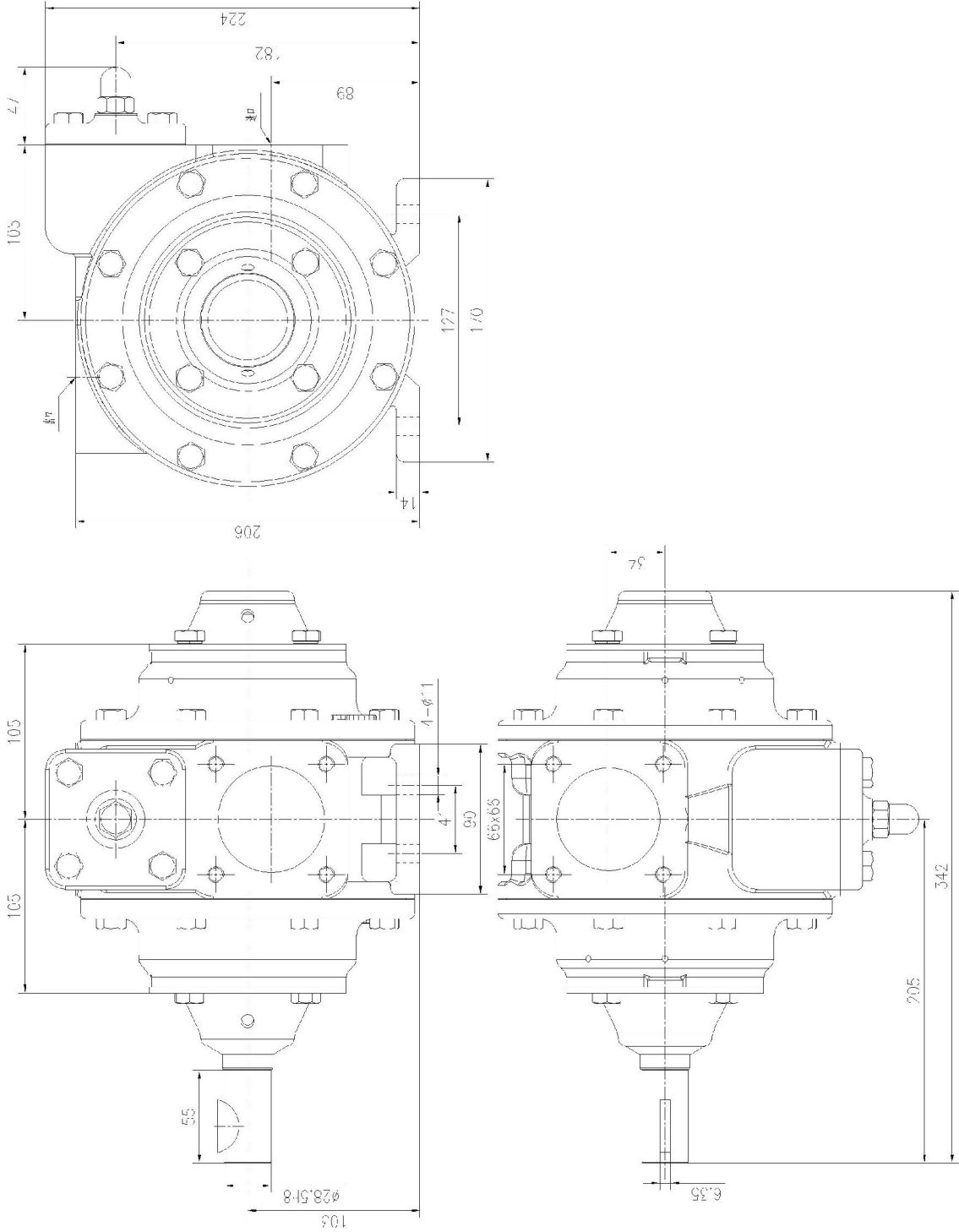
Maximum Operating Limit:

Model	Nominal Flowrate		Pump Speed	Viscosity		Differential Pressure		Working Pressure		Temperature	
	GPM	LPM	RPM	SSU	Cp	PSI	Bar	PSI	Bar	°F	
YB-50	87	329	780	20,000	4,250	125	8.6	175	12.1	300	149
YB-65	157	594	780	20,000	4,250	125	8.6	175	12.1	300	149
YB-80	270	1,022	640	20,000	4,250	125	8.6	175	12.1	300	149
YB-100	505	1900	500	20,000	4,250	125	8.6	175	12.1	300	149

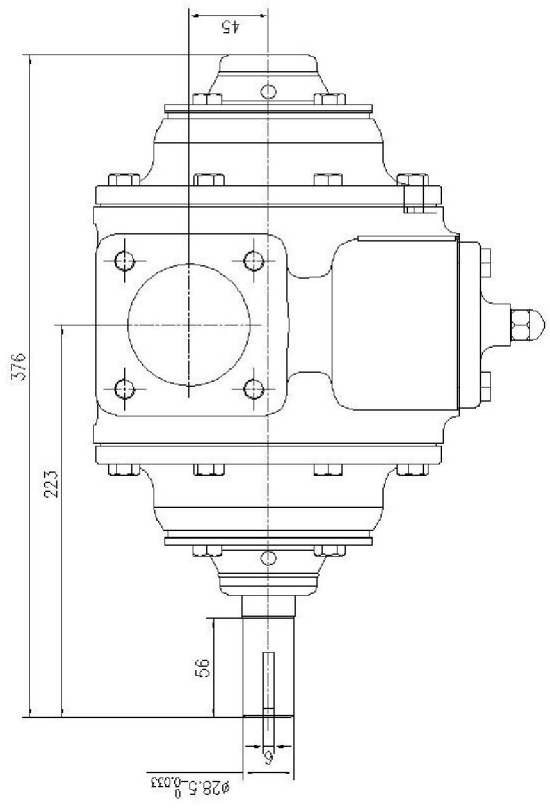
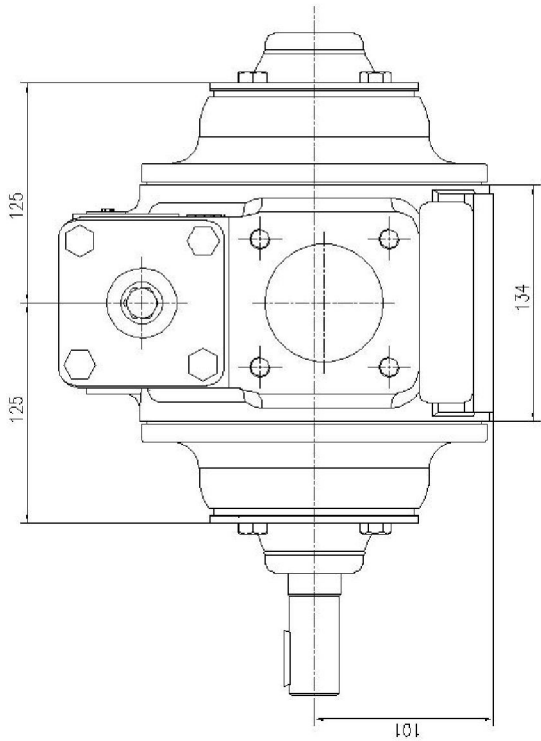
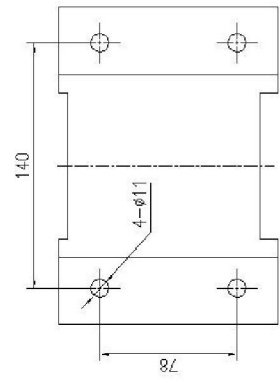
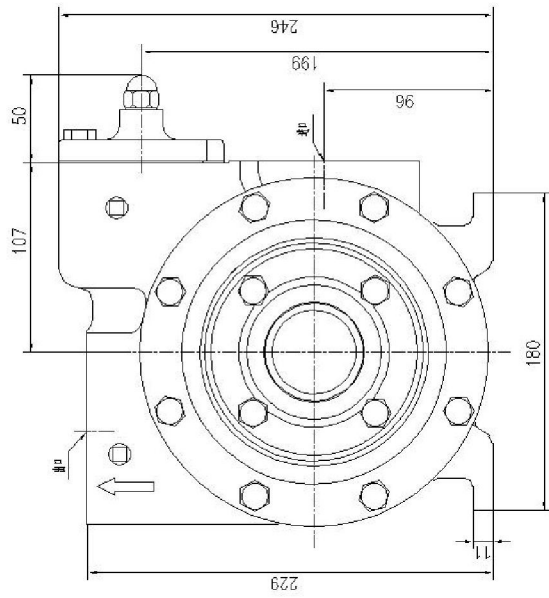
Material:

Item NO.	Description	Material
1	Body, Cover, Relief Valve Cover	Cast Iron
2	Rotor	Ductile Iron
3	Shaft	Alloy Steel
4	Relief Valve	Cast Iron
6	Relief Valve Spring	Spring Steel
7	"O" Ring	Fluoroelastomers
8	Vane	PPS

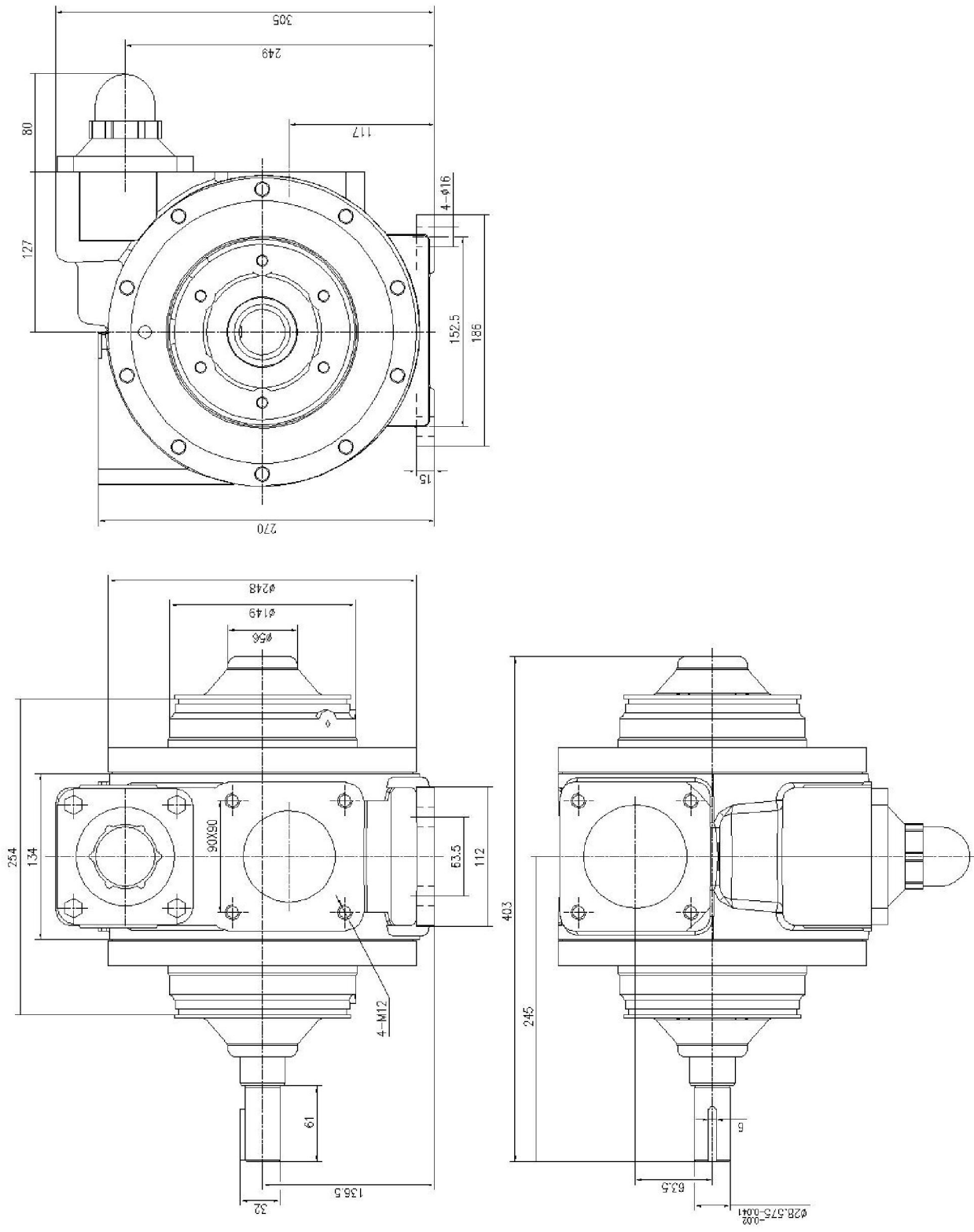
Installation Size:



YB-50 Installtion Diagram



YB-65 Installtion Diagram

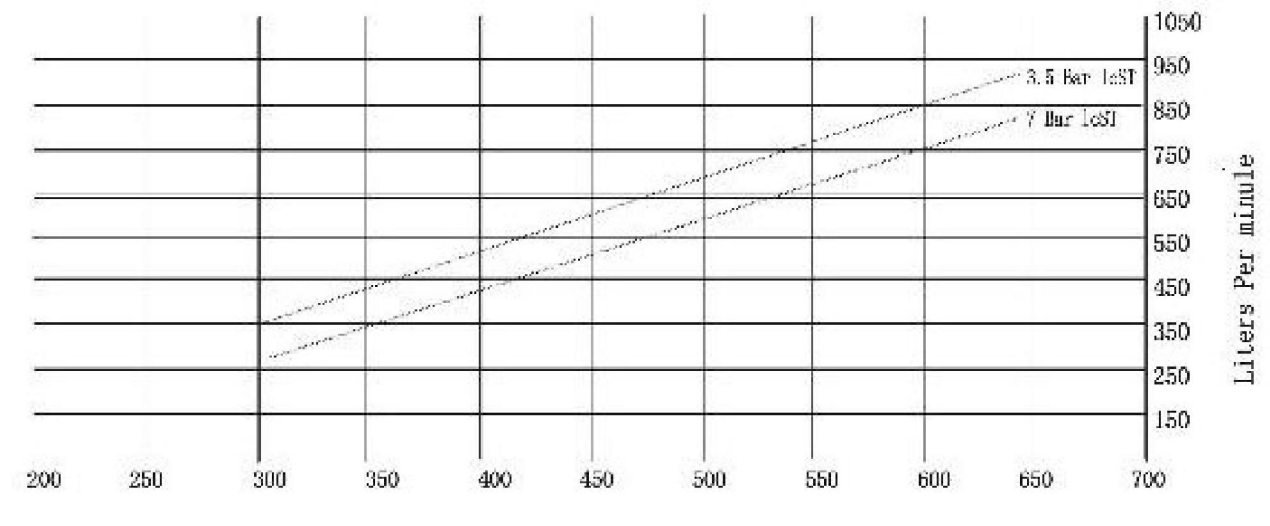


YB-80 Installtion Diagram

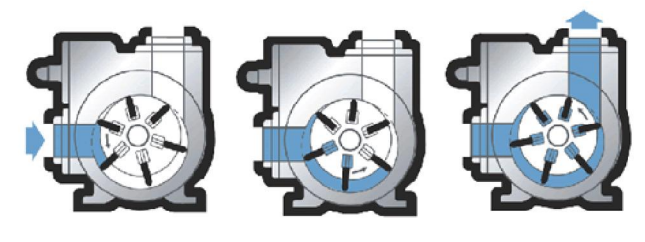
Installation:

The pumps are widely used on mobile applications or fixed installations. With cardan shafts or hydraulic motor, the pumps can be installed on any kind of tank truck or they are coupled to electric or diesel engine on metal bases to be used either on terminals, heavy duty dispensers, pumping/metering skids and mobile transfer units. Equipped with Teflon seals, the pumps can also be used on a wide variety of solvents in the petrochemical industry.

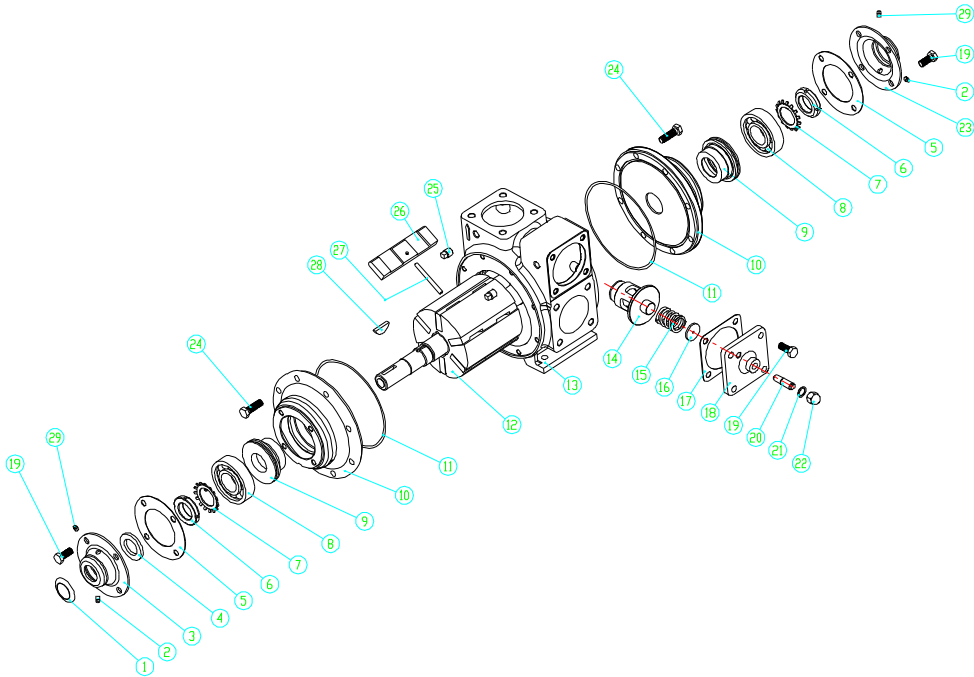
Performance Curve:



Construction:



Structure Parts:



Nb.	Description	Q. ty		
		YB-50	YB-65	YB-80
01	Dirt shield	1	1	-
02	Grease relief fitting	-	-	-
03	Inboard bearing cover	1	1	1
04	Grease seal	-	-	-
05	Bearing cover gasket	2	2	2
06	Bearing locknut	-	2	2
07	Bearing lockwasher	-	2	2
08	Ball bearing	2	2	2
09	Mechanical seal	2	2	2
10	Head	2	2	2
11	O-ring	2	2	2
12	Rotor & shaft assy	1	1	1
13	Cylinder	1	1	1
14	Bypass Valve	1	1	1
15	Bypass Valve Spring	1	1	1
16	Spring seat	1	1	1
17	Bypass valve cover gasket	1	1	1
18	Bypass valve cover	1	1	1
19	Screw M10X25	12	12	12
20	Adjusting screw	1	1	1
21	Valve cap gasket	1	1	1
22	Valve cap	1	1	1
23	Outboard bearing cover	1	1	1
24	Screw M10X35	16	16	16
25	Plug 1/4"	2	2	2
26	Vane	4	6	6
27	Push rod	2	3	3
28	Key	1	1	1
29	Grease fitting	2	2	2