

CHUAN YI PUMP Series





Company Profile



Office view

- ◆ Established year: 1982
- ◆ Capital : \$USD 4,000,000
- ◆ Employees: 90 employees
- ◆ Scope and field of business:

Submersible pumps, low suction pumps, auto prime engine pumps, vertical pump, axial/diagonal pump.

All kind Pump repair, maintenance, installation, pumps testing, pumping station constructions, consigned operating service on pumping stations and auto priming engine pumps, technical service and consultation.

Company History

- 1961:** The company was established under the name of Ta-li. The authorized capital was 100,000NTD. In the initial stage, we acted as the distributor of TECO and Shin San Dong motors.
- 1967:** We created not only own brand, "Sin-Ta-li", but also manufactured motors and pumps. We were successful known for manufacturing submersible pumps as our main products in middle of Taiwan.
- 1978:** Reorganized and established "Chuan Pao Electric Co., Ltd.", Expanded factory up to 3,300 square meters. Used "CP" as corporate identity system until now.
- 1982:** Established "Chuan Yi Electric Machinery Works Co., Ltd.", Joined to the organize and expanded factory up to 6,000 square meters. Increased capital to USD 180,000.
- 1991:** Enhanced machinery, techniques and quality control equipment to achieve standardization of manufacturing level and awarded Chinese National Standard (CNS).
- 1996:** ISO 9002 approved, the leader in competitors.
- 1999:** Reorganized related companies, increased capital to USD 1,600,000. Set up headquarter in Taichung City.
- 2001:** ISO 9001 approved.
- 2006:** Purchased land in Nan-tou industrial park about 8,300 square meters.
- 2009:** Taiwan Accreditation Foundation (TAF) Testing Tab approved.
- 2011:** New factory in Nan-tou industrial park has been constructing, the cost estimated USD 7,500,000 and to be completed in 2013.



Plant view



Plant inside view

Manufacture Process

By using modern machinery and the latest technology, we ensure that products manufactured and supplied by our company will be of the highest standards. The company has more than 30 professional employees that in charge of machine welding, painting, assembly.

The production line is complete. Specialized division of the production and manufacturing experience to produce the best products in the shortest period.



Pump assembly process

The prototype of self-priming pump was manufactured in 1989. We are keep going in research and development. Now Chuan Yi pump is a leading pump brand and market share in Taiwan.

Every year we invest appreciable money in R&D. Our engineering staff utilizes the most up to date computer assisted drafting to help design and engineering from routine application to large scale of highly complex pump and piping system.

We have obtained various patents and certificates. Meanwhile, we introduce precise components and technology to upgrade our level by means of cooperation with overseas pump manufacturer.



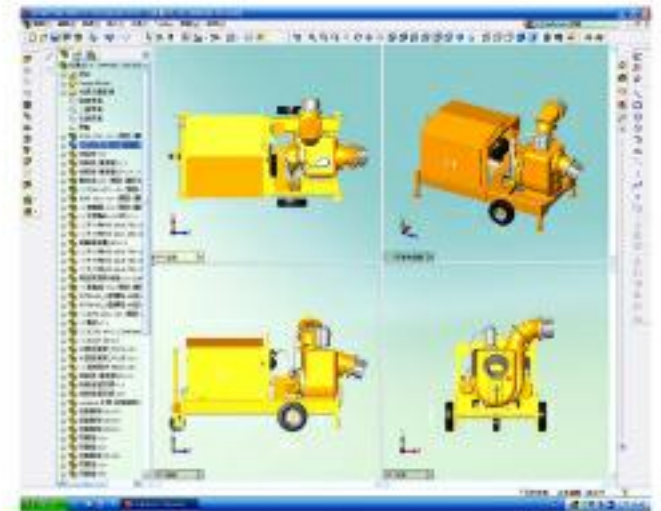
R & D department



Air Chamber Patent



Quick Connecting Joint Patent



Computer assistant engineering

Marketing

Owing to climate is changing fast in the whole world, flood is also become a issue now. In order to know more international situation of water problem, Chuan Yi focus on international market and attend international exhibition every year to learn the demand of market ,information and bring the better product to customers.

CHUAN YI have been growing steadily. Besides provide service for domestic customers, we are marketing actively for export market in Southeast Asia, Mideast Asia, Europe, etc.



International Exhibition



Domestic Exhibition



D&B Commercial credit registered certificate

Quality Certification

In the pump industry, we lead all the way with the competitors.

We enhanced machinery, techniques, quality control equipment and performance test to achieve standardization of manufacturing level. We awarded five certificates of Chinese National Standard (CNS) and ISO 9001 approved.

Chuan Yi continuously invests in equipment of quality control. Taiwan Accreditation Foundation (TAF) approved the test LAB of pump and motor.



Taiwan Accreditation Foundation (TAF) Test LAB



ISO 9001:2010 Certificate



Chinese National Standards (CNS) Certificate

Inspection Equipment

Chuan Yi operates two sets of pump test bed equipment, where the computation of gateway and volume flow is satisfactorily calibrated by SGS. The pump test bed primary can test the pump of capacity range, voltage, horsepower, efficiency and so forth.



Pump Test Bed Equipment



Computerized Automatic Pump Testing System



Impeller Balancing Machine

Pump Test

Each pump parts, including shafts and impellers must undergo precisely test that makes pump run smooth and silent. Each pump will proceed the performance test, then go through continually operating to ensure no malfunction before shipping.



Pump Performance Test



Pump Continuous Running Test



Pump Performance Test

Auto Prime Engine Pump Sets Profile

The pump is started by diesel engine that drives this pump directly. The pump equipped non clog impeller and vacuum system. While impeller is rotating and vacuum pumps synchronized, that drive out air and finished self priming water. It is not necessary to fill the pump casing with water. Therefore, this pump can drain off water effectively.

For diesel driven versions, the engine is within easy reach for changing oil, air and fuel filters, and for maintenance on the starter motor and alternator.

The compact dimensions of the units facilitate transport and storage.

Solids handling, dry-running and portability make the CPM series the perfect choice for dewatering and bypassing applications.

Features

1. Auto prime pumps have a special design vacuum that can detect water automatically, under no water condition.
2. The special design chamber can separate water and air. The pump will fill water in few minutes automatically.
3. Non-clog design impeller, can pass large solid. The pump has clean hole for cleaning sediment.
4. Engine speed adjustment tool, allow you control the rotational speed.
5. Many types of advanced control system for your choice for warning and protection.
6. The better aluminum-made quick connection joint is easy to operate and light weight. The rubber water pipe can match the connecting joint firmly and closely.
7. Light weight and small size, easy to setup and moveable. This pump is available for draining water at basement.



CPM30



CPM20

Applications

1. The groundwater control or the basement de-water.
2. The sewage water drainage.
3. Flood waters drainage promptly.
4. Drains off water for ships .
5. Drain off water in the remote suburb.
6. Water control for aqua farm.
7. Draining water at basement.



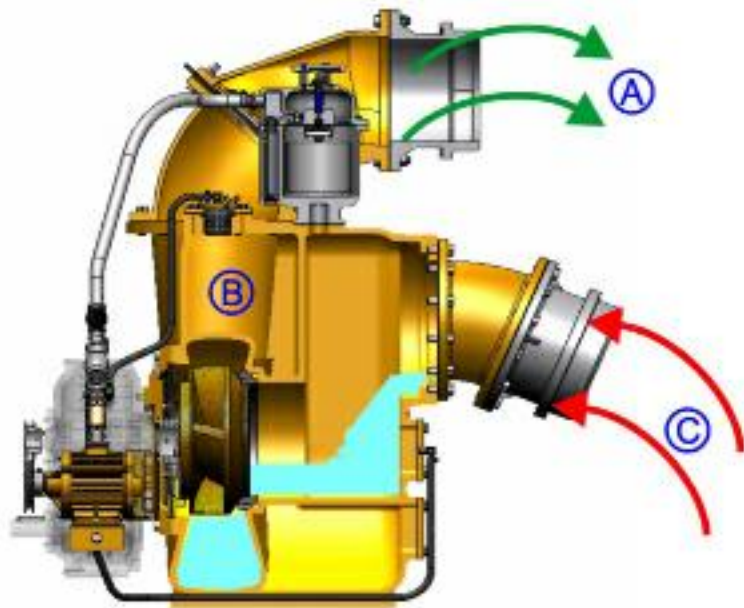
Draining water at basement



Auto Prime Engine Pump Set

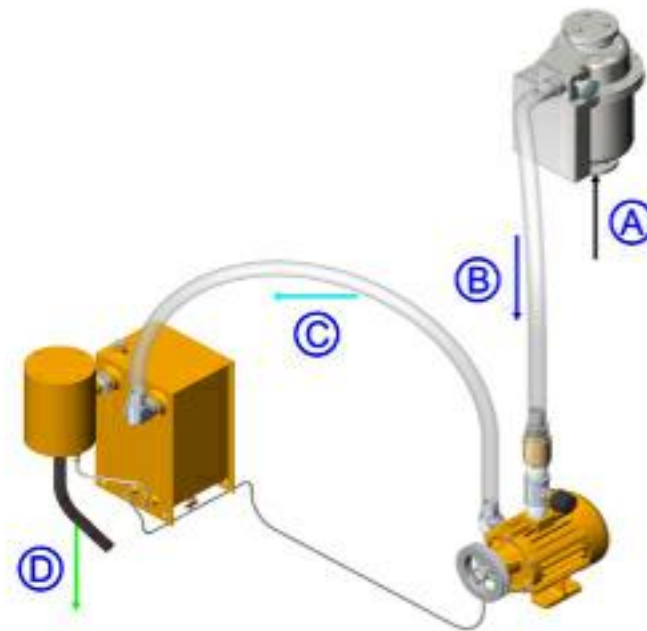
Pump Priming Theory

- A. While motor starts working, the vacuum pump draw out the air from pump.
- B. Vacuum chamber assisted vacuum pump in separating water and air.
- C. Once all of the air has been expelled from the suction pipe, the pump is primed and works like a normal centrifugal pump. The pump can also work with an air-liquid mixture.



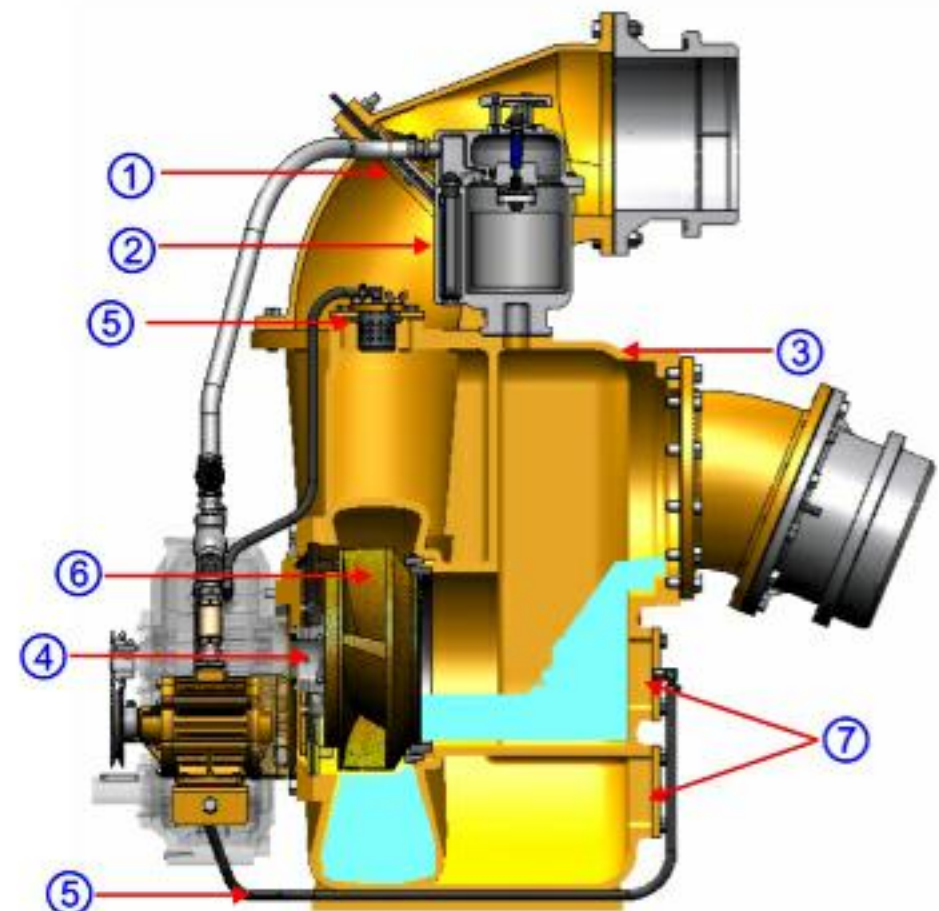
Vacuum Assistant System

- A. The air is sucked out of pump and pipes through vacuum chamber when the engine is started.
- B. The vacuum chamber works to separate the air and water, and prevent the water sucked into the vacuum pump.
- C. The vacuum pump is oil-lubricated, its can operate for long time to assist the pump keeping the vacuum degree.
- D. The oil tank passes the air out and collects the oil gas, circling the oil to vacuum pump.



Pump Special Design

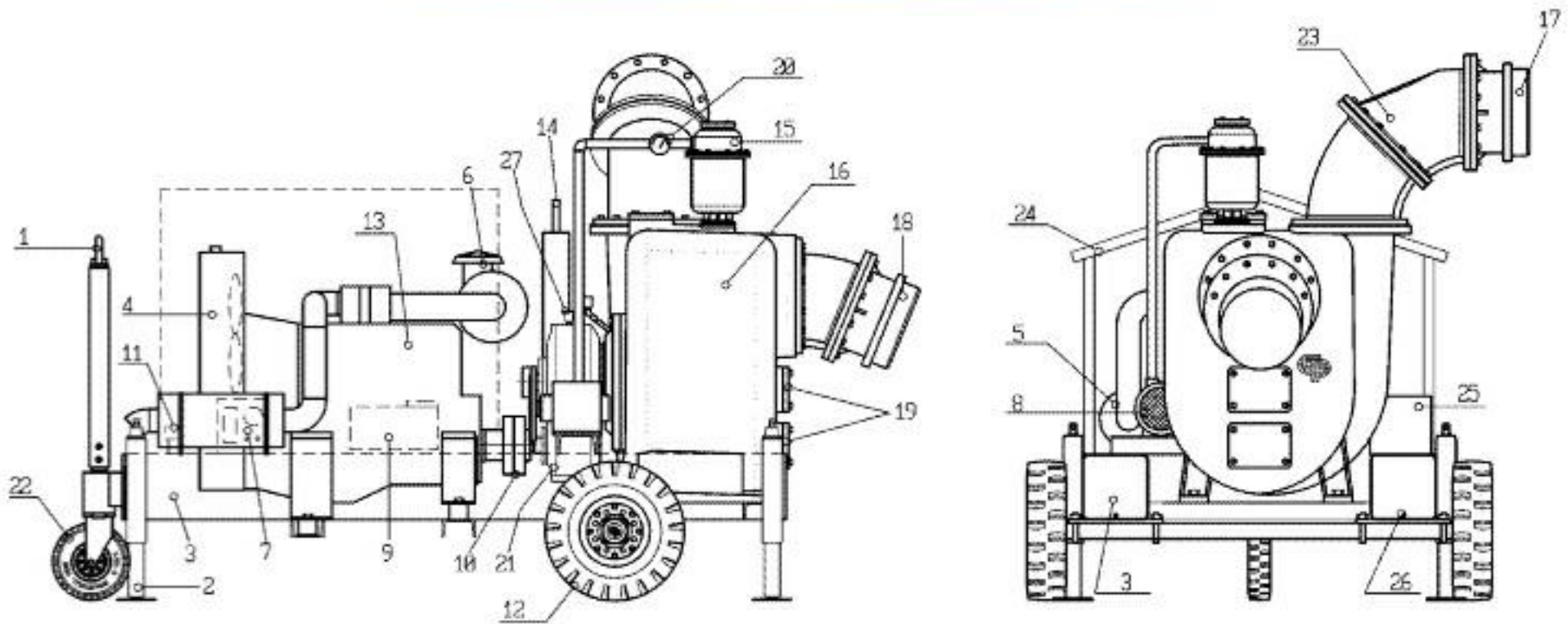
1. Check valve is rubber coated that is stainless. Therefore, air is not leaking.
2. Patented vacuum chamber is automatic design that water won't get into vacuum pump.
3. Pump equipped with water detect sensor. Pump will stop automatically if pump doesn't prime in 3 minutes.
4. Pump is compact because pump and gear box use the same shaft.
5. Gear box equipped with cooling device that connect to pump. Cooling device can provide function of heat exchange and cooling. With filter to prevent pump from clogging and easy to clean.
6. Big solid can pass because of non clog impeller.
7. It is easy to disassemble and clean because of pump with two cleaning holes.



Auto Prime Engine Pump Set

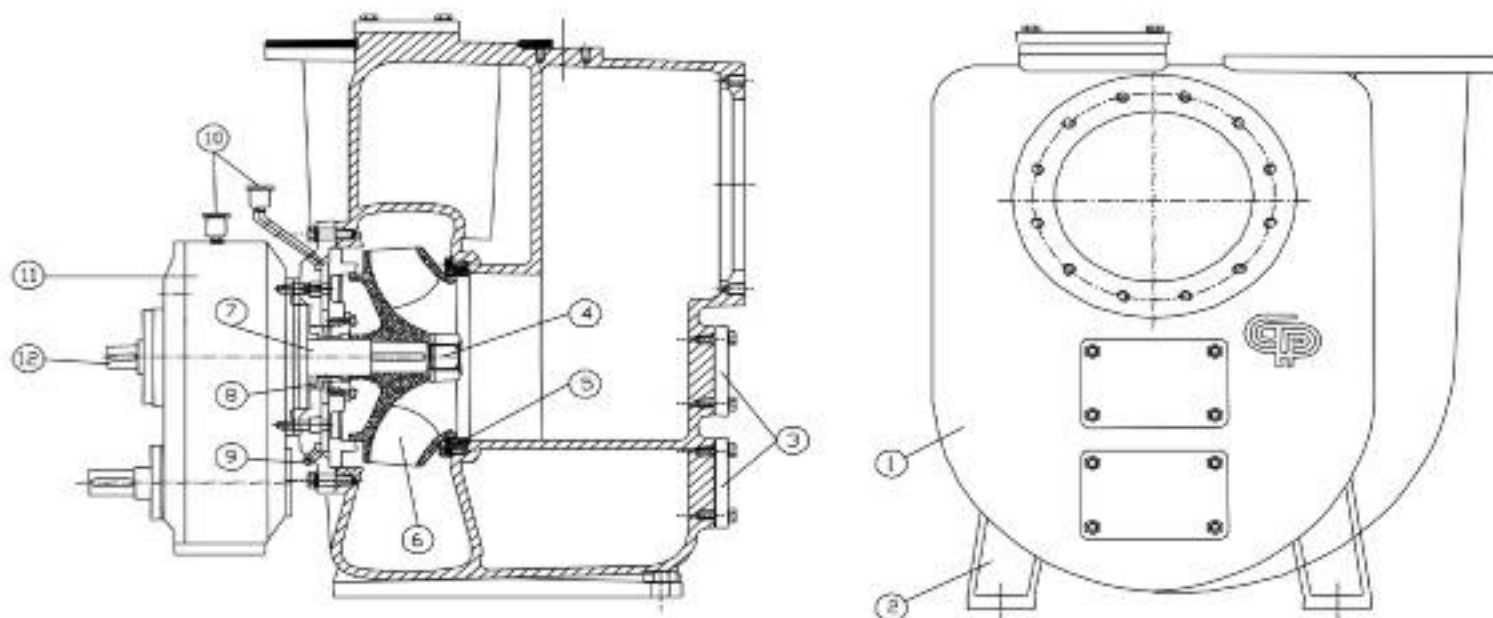


Structure Drawing



- | | | | |
|--------------------|-------------------|---------------------|-----------------------|
| 1. drag rod | 8. vacuum pump | 15. vacuum chamber | 22. steering wheel |
| 2. adjustable rack | 9. battery | 16. self prime pump | 23. check valve |
| 3. fuel tank | 10. coupling | 17. outlet | 24. protective shield |
| 4. radiator | 11. fuelling hole | 18. inlet | 25. lube tank |
| 5. exhaust pipe | 12. rubber tires | 19. cleaning hole | 26. leak plug |
| 6. air cleaner | 13. engine | 20. vacuum gauge | 27. filler hole |
| 7. control panel | 14. lift rack | 21. gear box | |

Material Chart



NO	Item	Material	NO	Item	Material
1	Pump body	FC250	7	Shaft	SUS410
2	foot	FC250	8	Seal	SIC/TC
3	Cleaning hole	FC250	9	Oil drain off Plug	-
4	Impeller nut	SS41	10	Oil cup	SUS
5	Impeller sleeve	FC250	11	Gear box	FC250
6	Impeller	FC250	15	Vacuum pump shaft	SUS410

※ Customer's specifications are acceptable.

Gear Box

1. Heat Exchanger build inside the gear box. Gear box can be operated under long term situation without over heat.
2. The gears process precisely according to AGMA and have been thermal treated. It is silent and smooth when running.
3. With the best quality seal and ball bearing, gear box can run in long life.
4. Efficiency of gear transmission can reach 95%.
5. With two output shafts, gear boxes offer various application.
6. Dimensionally accurate and compact in size, our gear boxes offer high performance free from any problem.



Vacuum Pump

1. The vacuum pump with special design rotor, that can work 24 hours continuous operating without overheat.
2. Smooth and quiet continuous operation.
3. Highly efficient oil circulation system ensures perfect lubrication and sealing in all critical areas of pump.
4. Equipped with the vacuum adjuster to setup the rated vacuum pressure and the oil gas collector that reduced loss of oil under 0.7% per hour.
5. Automatic clutch is an optional device that will reduce power loss and synchronizes with pump when water discharge or not.

PM-10



PM-20



PM-25



PS-32

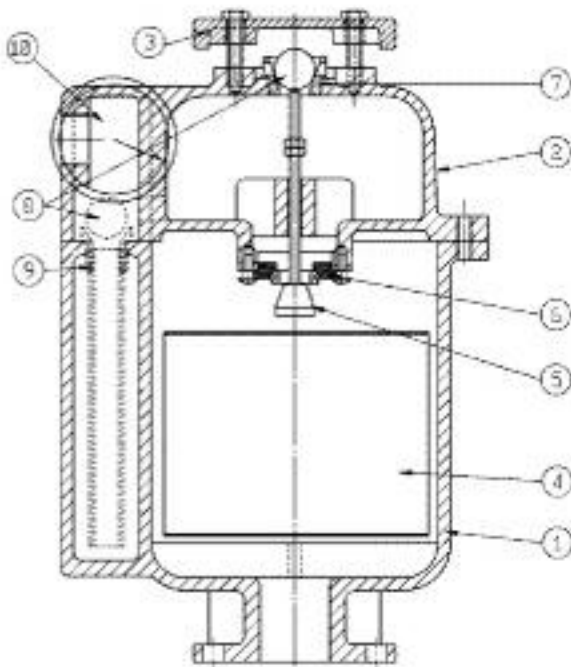


Vacuum Chamber

1. The vacuum chamber is patent certificated in Taiwan, its special design for the auto prime pump.
2. Vacuum chamber is made of aluminum, and compact design reduced weight of pump.
3. With vacuum gauge, it is easy to observe pressure of pump.
4. Automatic design will adjust vacuum suction between vacuum pump and pump body. After vacuum pump exhausts, vacuum chamber will relief pressure automatically that makes no water into the vacuum pump.



Specification



NO	Item	Material
1	Casing	Aluminus
2	Separator	
3	Valve cap	
4	Floating ball	Styrofoam
5	Valve plug	plastic
6	Valve plug	plastic
7	Valve plug	plastic
8	Ball valve	rubber
9	Suction Valve set	plastic
10	Gauge	Stainless steel

Control Panel

1. LED type control panel is suitable in the wet environments.
2. LED type control panel is easier to operate and observe.
3. Control panel is made of stainless steel, that can be used in raining day.
4. Digital screen control panel could store 2,000 information.
5. Board is cover by waterproof design to prevent humidity.
6. Digital screen control panel could extend function of GPRS communication to control engine.



LED type control panel



Digital screen control panel

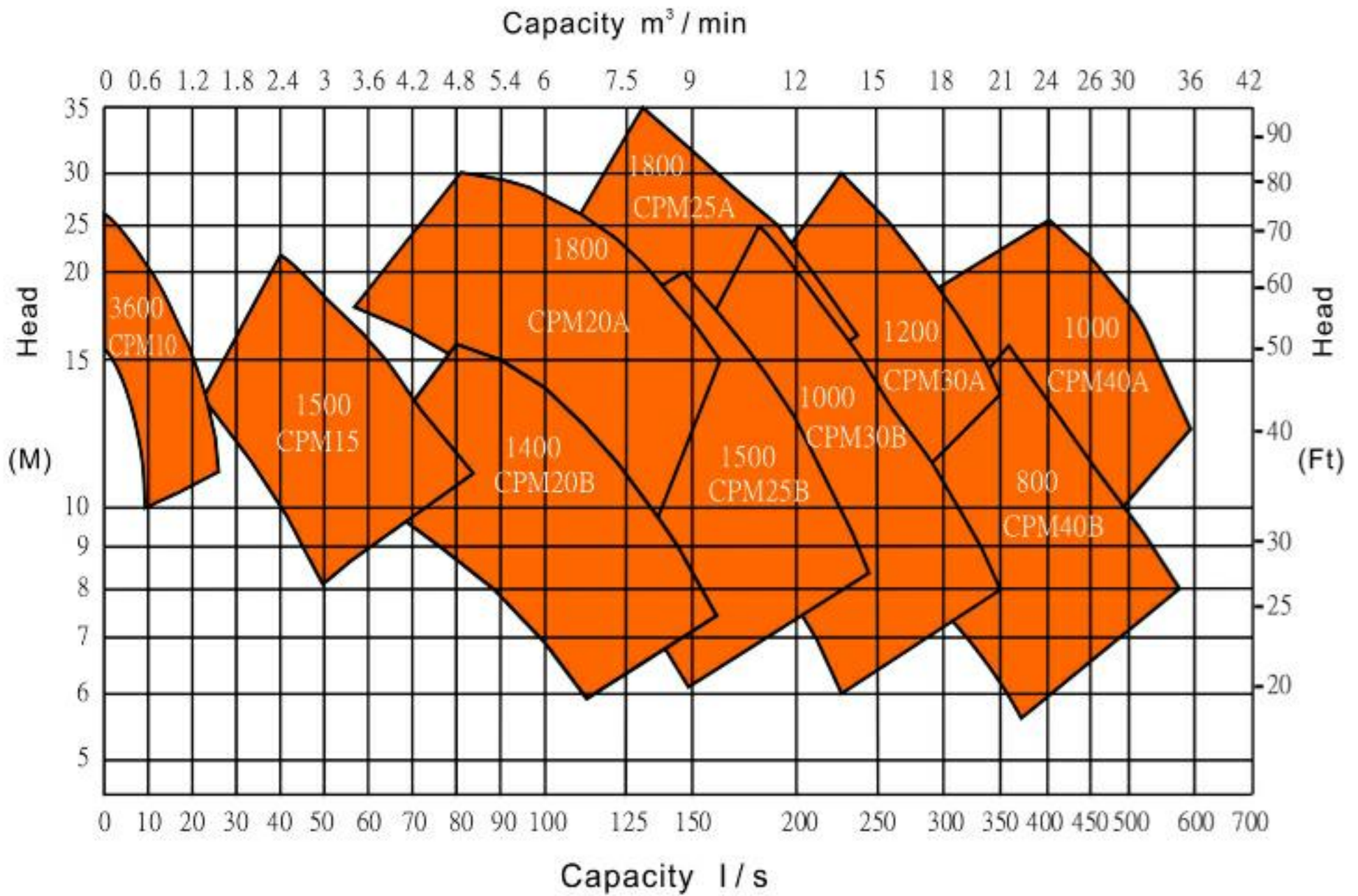


Board



Auto Prime Engine Pump Set

Performance Curve



Performance Specification

Model	Diameter Inch	Max Capacity M^3/min	Max Head m	Rated Rpm	Solid Passage mm	Air displacement L/min
CPM10	4	1.5	24	3600	20	-
CPM15	6	5	22	1500	40	300
CPM20A	8	10	30	1800	45	700
CPM20B	8	10	16	1400	45	700
CPM25A	10	14	35	1800	60	700
CPM25B	10	14	25	1500	75	700
CPM30A	12	21	30	1200	65	800
CPM30B	12	21	20	1000	75	800
CPM40A	16	35	25	1000	85	1000
CPM40B	16	35	16	800	100	1000

✘ Customer's specifications are acceptable.

Auto Prime Engine Pump Set



Water Supply Rubber Hose



Aluminum Quick Connecting Elbow



Stainless Strainer



Steel Wire Reinforced Rubber Hose



Aluminum Quick Connecting Joint



Water Supply Rubber Hose Specification

Item	Diameter		Thickness		Weight		Working pressure Kg/cm ²	Maximum pressure Kg/cm ²
	mm	Inch	mm	Inch	Kg/m	Pond/ft		
1	100	4	2.3	0.09	2.0	0.9	3	6
2	150	6	3	0.12	3.6	2.4	3	6
3	200	8	4	0.16	5.0	3.4	3	6
4	250	10	5	0.20	6	4.0	3	6
5	300	12	6	0.24	8	5.3	3	6
6	400	16	8	0.32	12	8.1	3	6

Steel Wire Reinforced Rubber Hose Specification

Item	Diameter		Thickness		Length m	Weight		Bending radius		Working pressure Kg/cm ²	Maximum pressure Kg/cm ²
	mm	Inch	mm	Inch		Kg/m	Pond/ft	mm	Inch		
1	100	4	6	0.24	1-15	4	2.7	600	23.6	5	10
2	150	6	7	0.28	1-15	7	4.7	900	35.4	5	10
3	200	8	8	0.31	1-15	10	6.7	1200	47.2	5	10
4	250	10	9	0.35	1-12	15	10.1	1500	59.1	5	10
5	300	12	10	0.39	1-12	18	14.8	1800	70.9	5	10
6	400	16	14	0.55	1-10	42	28.3	3000	118.1	5	10

