



INSTANT-PRIME[®] PUMPS

Designed in USA & Patent Pending



ALL-IN-ONE PUMP SOLUTION

- ✓ Dewatering
- ✓ By Pass
- ✓ Lift Station Backup
- ✓ Well Point
- ✓ Water Transfer
- ✓ Mining



CONTACT US

www.amospump.com 

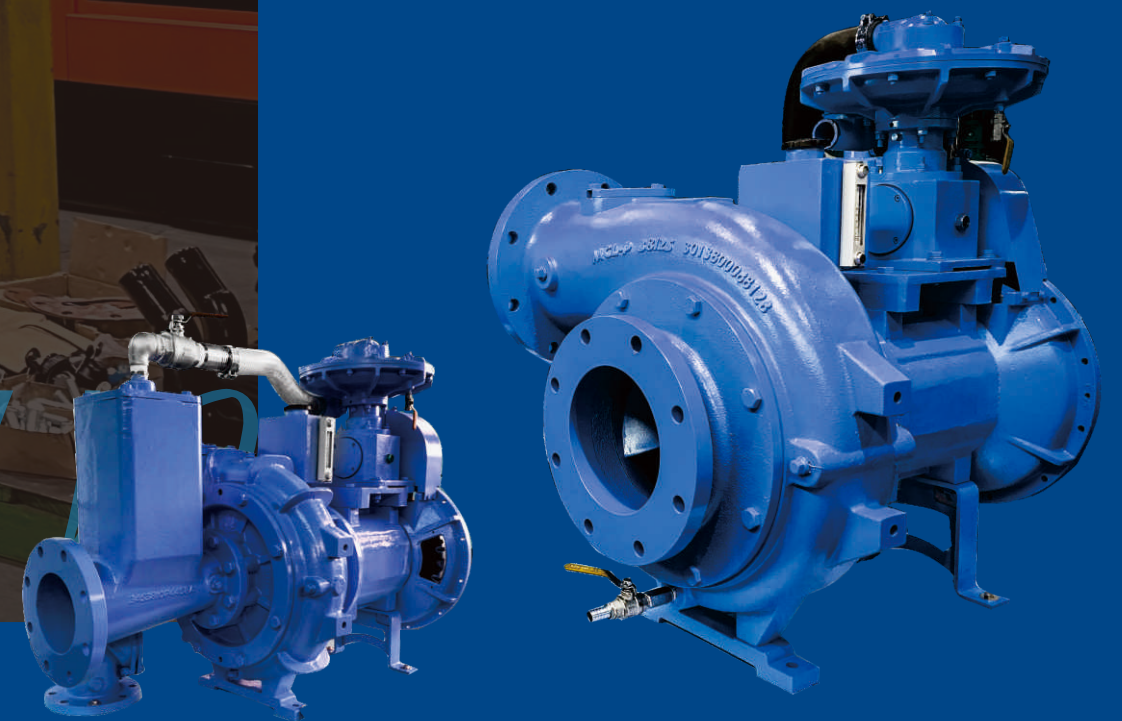
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STANDARD PRIMING SYSTEM-VCM

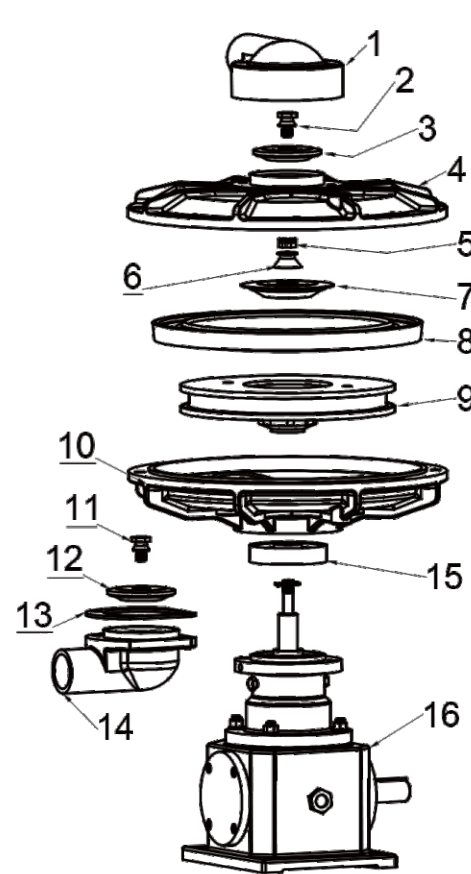
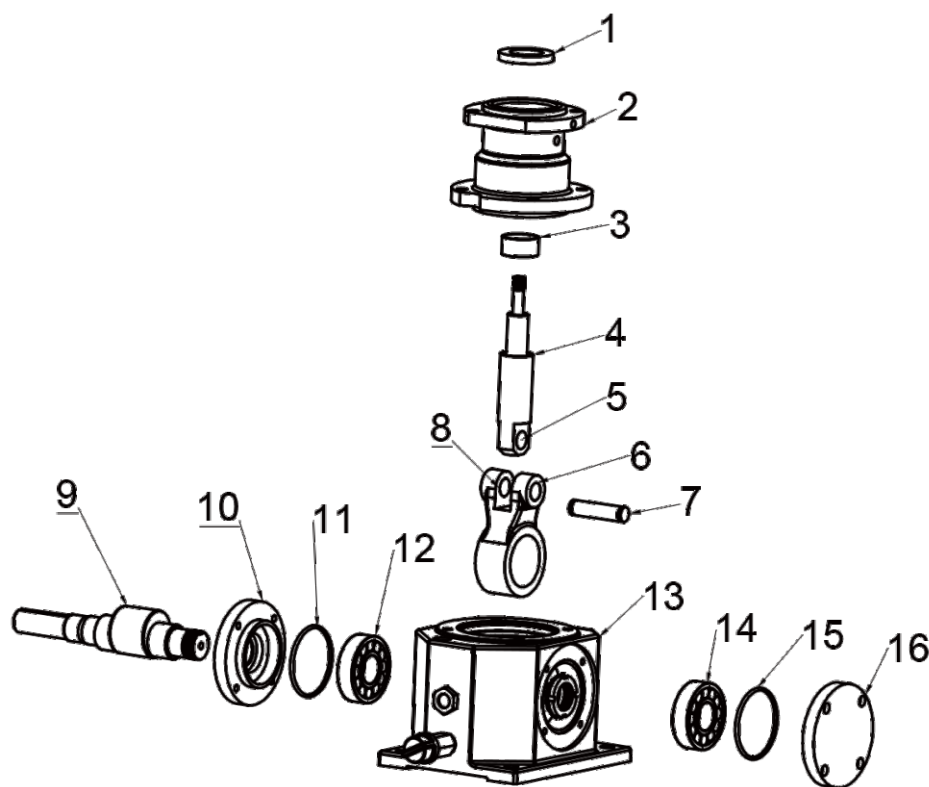
VCM priming system is widely used on electric or diesel engine driven pump packages, which is consisted of a diaphragm vacuum pump, a priming chamber with floating ball linkage and a hose to create a vacuum in centrifugal pump and its suction hose allowing the water to be drawn upwards towards the pump until the centrifugal pump is fully primed.



AMOS PUM

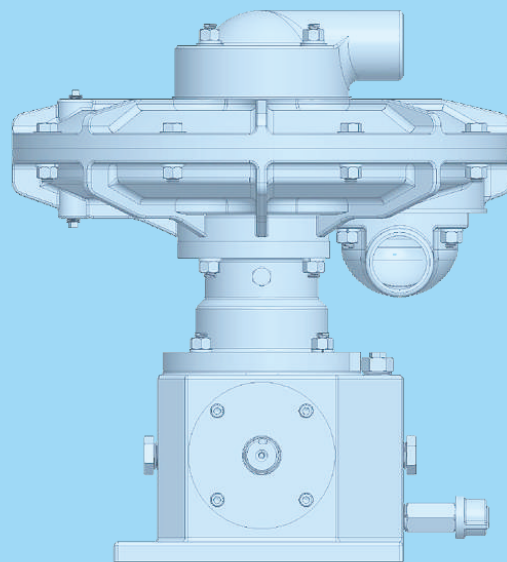
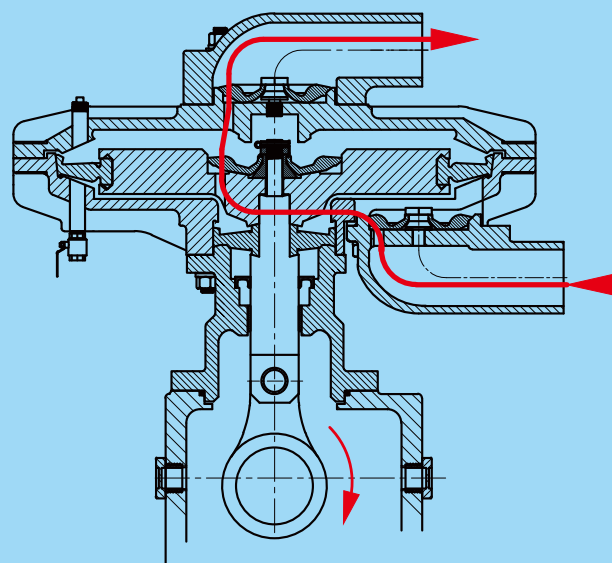
VCM VACUUM PUMP EXPLODED VIEW

Part Name
01: Framework oil seal
02: Base
03: Actuator bearing
04: Actuator shaft
05: connecting rod small end bearing
06: connecting rod
07: Drive support shaft
08: connecting rod small end bearing
09: Crank shaft
10: Drive end bearing gland
11: Bearing gland sealing ring
12: drive-end bearing
13: crankcase
14: Non drive end bearing
15: Non drive end sealing ring
16: Non drive end bearing gland



Part Name
01: exhaust nozzle
02: Inlet/exhaust valve bolts
03: exhaust valve
04: Upper cover
05: Slotted Hex Nut
06: Actuator washer
07: Actuator valve
08: Sealing ring for actuator
09: actuator
10: Lower cover
11: Inlet/exhaust valve bolts
12: Inlet valve
13: Inlet nozzle gasket
14: inlet nozzle
15: Neck seal
16: VCM vacuum pump lower part

Working Principle Diagram



Main Technical Data:

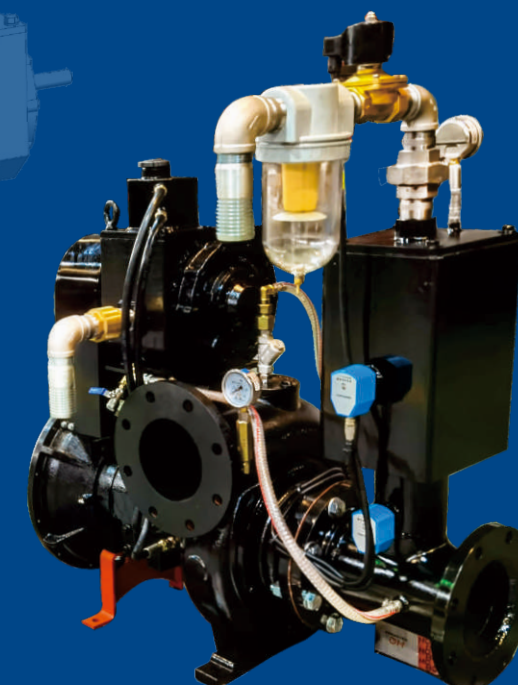
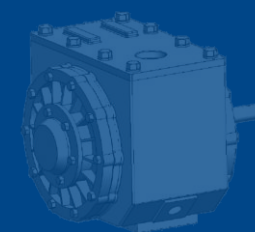
Air Capacity: 50CFM (Single Pump)
/100CFM (Twin Pump);
Suction Lift: 8.5M;
Suction Pipe Size: 1.5";
Discharge Pipe Size: 1.5";



AMOS PUMP

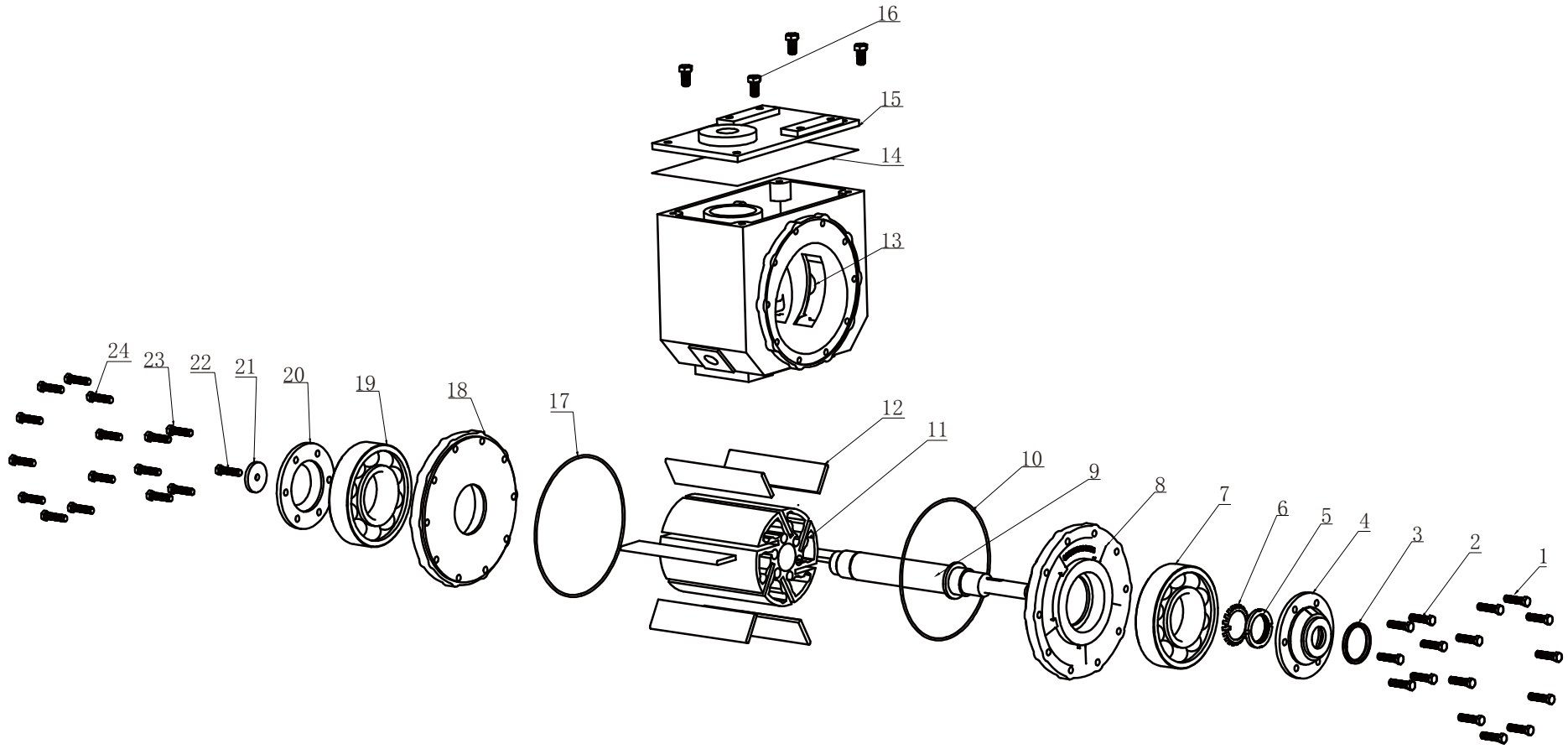
OPTIONAL PRIMING SYSTEM-EVP

EVP self-priming system is a new generation of dry priming system for driven electric or diesel engine pump packages. It enables any centrifugal pump finish priming within seconds to tens of seconds. It has extraordinary features like large air process capability, high vacuum, low operation temperature, maintenance-free, oil and mechanical seal free, etc., which sets up a new bench mark in the self-priming pump market.

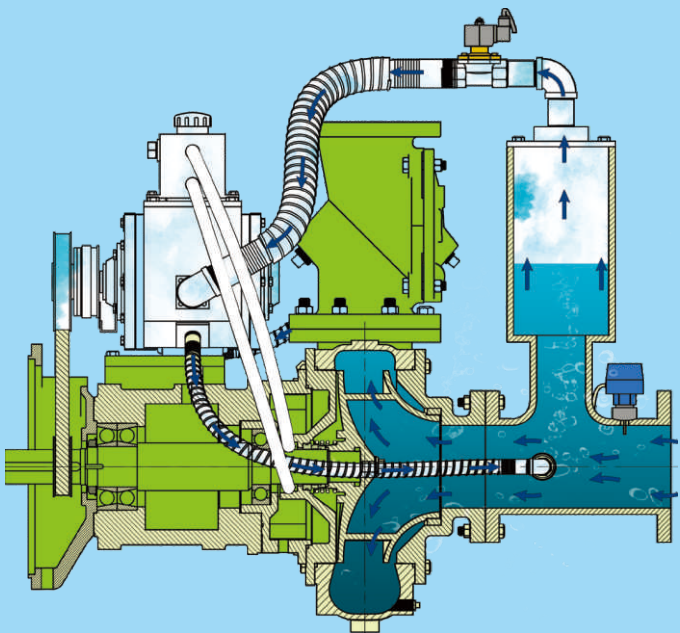


EVP VACUUM PUMP EXPLODED VIEW

Part Name	
01: Bolt_Q235	13: Pump body_HT250
02: Bolt_Q235	14: O-ring_FKM
03: Framework oil seal_NBR	15: Water tank cover_Q235
04: Bearing gland_HT250	16: Bolt_Q235
05: Lock washer_Q235	17: O-ring_FKM
06: Locking nut_Q235	18: Pump cover_HT250
07: Bearings_SKF	19: Bearings_SKF
08: Pump cover_HT250	20: Bearing gland_HT250
09: Axis_4140	21: Retaining ring_Q235
10: O-ring_FKM	22: Bolt_Q235
11: Rotating body_QT450-10 E	23: Bolt_Q235
12: Slide plate_graphite	24: Bolt_Q235



Working Principle Diagram



Main Technical Data:

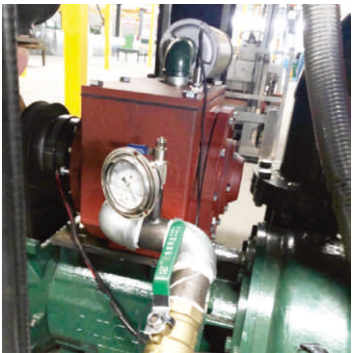
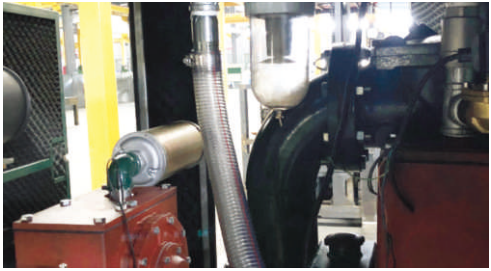
- Air Capacity: 112CFM ;
- Suction Lift: 8.8M;
- Suction Pipe Size: 3”;
- Discharge Pipe Size: 3”;

ABOUT INSTANT-PRIME® PUMPS

AMOS Pump designed the best Instant-Prime® Pumps with our soul and heart. Before we design, an extensive discussion is held within our team and everybody envisions what our “baby” will look like, what unique and outstanding functions we should pursue, what material we should select to make sure it has a strong “body”. All ideas and proposals are then filtered, optimized, and improved to make sure our “baby” will win huge advantages after it is born. Just like the IT industry, we have also actively invited our customers from all over the world to participate in this iterative design process. After numerous hours of back and forth, Instant-Prime® Pumps are finally born into the world through the joint efforts of our great customers and the AMOS Pump team. We are now ready to challenge the world.



From the moment Instant-Prime pump was born, we started thinking about how to be different and how to create more value for our customers. Innovation is the beating heart of our team. We thrive to think outside the box to bring to market a unique product that will bring great advantages and benefits. We challenged traditional quality control methods and innovatively created a production-inspection integrated process in our centrifugal pumps' production. Innovation is the driving force during AMOS Instant-Prime® Pump's design and development.



We believe product quality is the key to success. We focus on every component to make sure there is no weak link in our system. A wide variety of tests were conducted in the past two years, with certain tests repeated over ten thousand times. Our goal is to identify all potential problems before we introduce these pumps onto the market.

Durability and reliability can't define product quality alone. That's why we are adding “capability” to the meaning of quality by improving our product performance index in all aspects and making the impossible, possible.

By partnering with the most advanced diesel engine leaders like Cat, Cummins, Deutz, Hatz, etc., and some well-known control panel manufacturers in the world, we make sure we are using the best components to build all of our equipment. At AMOS Pump, we believe you get out what you put in.

AMOS Pump has a state-of-the-art fabrication center in China, where we rely on our intelligent fabrication team, which consists of laser cutters, CNC benders, welding robots, high precision assembling tables, and the smartest fabricators.

Every Instant-Prime® Pump is 100% made in house, including centrifugal pump, vacuum pump, skid, trailer, and canopy. We have large production facilities both in China and Houston. Our standard configured products are fabricated in China; while custom and urgent orders will be assembled at our Houston facility.

Fabrication seems easy, but high-quality fabricated pump packages are never as easy as you might think. We invested heavily in importing from Europe the high precision assembling tables, which play a very important role in our cutting and assembling process for manufacturing pump skids, fuel tanks, and canopies.



INSTANT-PRIME PUMP FEATURES



1. PRIME-SLEEP-PRIME (P-S-P) AUTO SWITCH SYSTEM

Both priming system can be fitted with P-S-P auto switch device so that the vacuum pump can be switched to...sleep status automatically once priming is finished. When it is used for general purpose applications, the EVP system only operates for a few seconds for priming, which makes it almost unnecessary for daily maintenance or changing spare parts at its life cycle.



2. DRY RUNNING PROTECTION SYSTEM

Instant-Prime® Pumps can run dry for a long time without damaging their mechanical seal due to the dry-running protection system, which consists of a normal mechanical seal, an oil chamber, and an oil reservoir. The oil chamber and oil reservoir are connected by two hoses and forms an oil circulating loop. As an option, the mechanical seal stationary seat can also be made with an air cushion designed surface, which eliminates the use of oil lubrication in case of pump's long-time dry running. We can also use a set of lip seals to replace the mechanical seal as a second option 2, which makes the sealing result even better and subsequent maintenance easier.

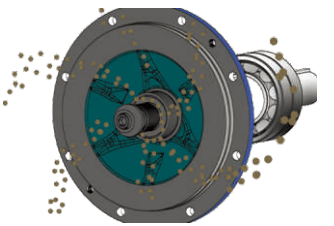


3. NON-CLOGGING IMPELLER DESIGN

All the solids handling Instant-Prime® Pumps are designed with a wide water passage impeller, which allows solids with 3" diameter or larger to pass through the impeller easily. Instant-Prime® Pumps can be widely used in any critical application like sewage, sludge, and even processing fluid with large size stones.

4. SELF-CLEANING FUNCTION

Instant-Prime® Pump's stuffing box is designed with a special structure to mix and discharge solids. Any small size solids or sands entering the stuffing box will be mixed by the mixers located on the wall of the stuffing box, and then discharged to the outside of the stuffing box with the centrifugal force generated by the impeller back vanes. This self-cleaning function efficiently prevents the mechanical seal spring from clogging by any solids or sands accumulated inside the stuffing box, thus avoiding any mechanical seal failures.



5. COOLING SYSTEM

A pressurized cooling flush water is introduced from the centrifugal pump's water passage through an access port into the vacuum pump's water jacket, which contains the entire vacuum pump. Cooling water flows into the water jacket from one side through a suction hose and discharges from the other side, then returns back to the centrifugal pump's suction side through a discharge hose. Pressurized flushing water cools the vacuum pump quickly and brings most of the heat out of the vacuum pump's cavity, keeping the vacuum pump running at a very low temperature and giving the EVP system an extraordinarily long life.



6. EASY-TO-DISASSEMBLE STRUCTURE

It is very convenient to remove the vacuum pump's cover from its non-drive end, and slides can easily be pulled out for inspection or replacement. It is also easy to access the centrifugal pump's impeller, wear ring, and mechanical seal for inspection or maintenance without removing the diesel engine or the pump's frame since the centrifugal pump's suction cover can be fully opened.



- Agricultural Drought Resistance
- Industrial Wastewater Treatment

- Dewatering
- Sewer By-Pass

- Backup Pump Station

- Mining



DESIGNED FOR A NEW ERA



ECO-FRIENDLY BASE

Sound attenuated pump base is designed to contain any possible leakage from the pump, engine, or the internally installed fuel tank. A drainage port and plug is available to easily drain the leaked liquid. All Instant-Prime® Pump bases are designed with large internal space to contain a minimum of 110% of the total capacity of the diesel tank and all engine fluids.



AIR-WATER ISOLATOR

Vapor is normally generated during the vacuum pump's evacuation and then becomes either water or ice, staying inside of the vacuum pump when ambient temperatures are low. The accumulated water or ice is a big threat to the vacuum pump, especially in colder areas. Therefore, an air-water isolator is suggested to be installed in every Instant-Prime® Pump to collect the vapor/water before it enters into the vacuum pump.



AUTO START/STOP CONTROL

The remote control is available when a water level sensor is installed on the pump to control the pump's start/stop automatically. A state-of-the-art microprocessor-based digital engine control monitors all engine functions including alarms. The control panel features an easy-to-read 32-character display. It is ideal for conserving fuel and preventing engine overhauls, and it comes standard on all Instant-Prime® Pumps.

INSTANT-PRIME® PUMP SELECTION CHART

MODEL	SUCTION SIZE	DISCHARGE SIZE	IMPELLER DIA.	MAX. FLOW	MAX. HEAD	MAX. SOLIDS	RPM
Low Head Models							
LH100C8	5"	4"	9"	1,300 GPM	160'	1"	2,400
LH100S8	4"	4"	8.25"	1,340 GPM	120'	3"	2,200
LH100S10	4"	4"	10"	1,470 GPM	150'	3"	2,000
LH125C10	6"	5"	10.9"	2,300 GPM	240'	1.3"	2,400
LH150S10	6"	6"	10"	2,650 GPM	165'	3"	2,200
LH150S11	6"	6"	11"	2,900 GPM	160'	3"	2,000
LH200S11	8"	8"	11"	4,000 GPM	145'	3"	2,000
LH200S12	8"	8"	12.25"	4,500 GPM	197'	3"	2,000
LH250S12	10"	10"	12"	4,700 GPM	81'	4"	1,500
LH350S21	14"	14"	21.2"	12,700 GPM	200'	3.5"	1,200
LH500S39C	20"	20"	39"	20,680 GPM	183'	6"	585
LH600S33A	24"	24"	33"	26,400 GPM	107'	6.5"	585
LH750S33A	30"	30"	33"	37,400 GPM	65'	8"	485
LH1050S46B	42"	42"	46"	66,000 GPM	85'	9.8"	360
Medium Head Models							
MH80C14	5"	3"	13.5"	930 GPM	295'	0.5"	2,200
MH100C14	5"	4"	13.5"	1,000 GPM	305'	0.7"	2,200
MH100S14	4"	4"	14"	1,650 GPM	425'	3"	2,300
MH125C14	6"	5"	13.5"	2,400 GPM	340'	1"	2,300
MH150C14	8"	6"	13.5"	2,700 GPM	270'	1.7"	2,100
MH150C17	8"	6"	17.2"	3,200 GPM	370'	1.1"	1,900
MH150S12	6"	6"	12"	3,100 GPM	242'	3"	2,200
MH150S14E	6"	6"	14"	2,950 GPM	290'	3"	2,000
MH150S14F	6"	6"	14"	3,300 GPM	270'	3"	2,000
MH200C14	10"	8"	13.5"	4,800 GPM	190'	2.4"	1,800
MH200C17	10"	8"	17.2"	4,800 GPM	320'	1.4"	1,800
MH200S17	10"	8"	17.5"	7,000 GPM	440'	3.5"	2,000
MH300S17	12"	12"	17.25"	9,000 GPM	300'	3.7"	1,780
High Head Models							
HH100C19	4"	3"	19.5"	770 GPM	710'	0.7"	2,400
HH125C17E	5"	3"	17.2"	880 GPM	560'	0.4"	2,300
HH125C17F	5"	4"	17.2"	1,300 GPM	560'	0.6"	2,300
HH125C21	5"	4"	21.5"	1,250 GPM	520'	0.7"	1,800
HH150C17	6"	5"	17.2"	2,290 GPM	550'	0.8"	2,300
HH150C21	6"	5"	21.5"	2,250 GPM	520'	0.8"	1,800
HH150C22	6"	4"	22"	1,600 GPM	660'	2"	1,900
HH200C21	8"	6"	21.5"	3,590 GPM	510'	0.8"	1,800
HH200S22	8"	6"	22"	4,150 GPM	640'	2"	1,900
HH250S22	10"	8"	22"	8,600 GPM	590'	4"	1,800
HH300S22	12"	8"	22"	10,500 GPM	760'	3"	2,100

OTHER TYPE OF PUMPS >>>

01 MCST SERIES SELF PRIMING PUMPS



MCST
2"



MCST
3"



MCST
4"



MCST
6"



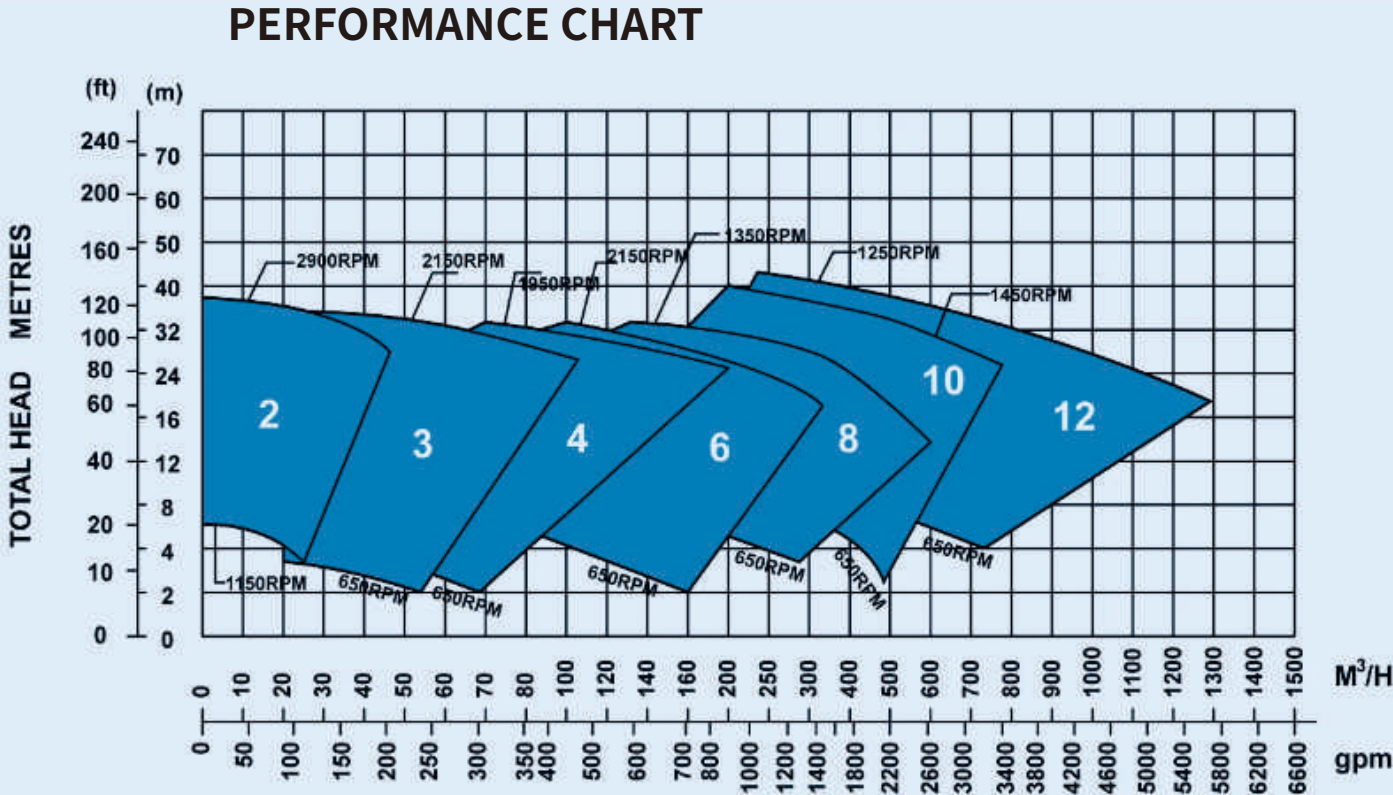
MCST
8"



MCST
10"



MCST
12"



02 MCSU SERIES SELF PRIMING PUMPS



MCSU
3"



MCSU
4"



MCSU
6"

Main Technical Data:

Dis.charge Size: 2"-12" (50mm-300mm)

Capacity: Max 1200M3/H

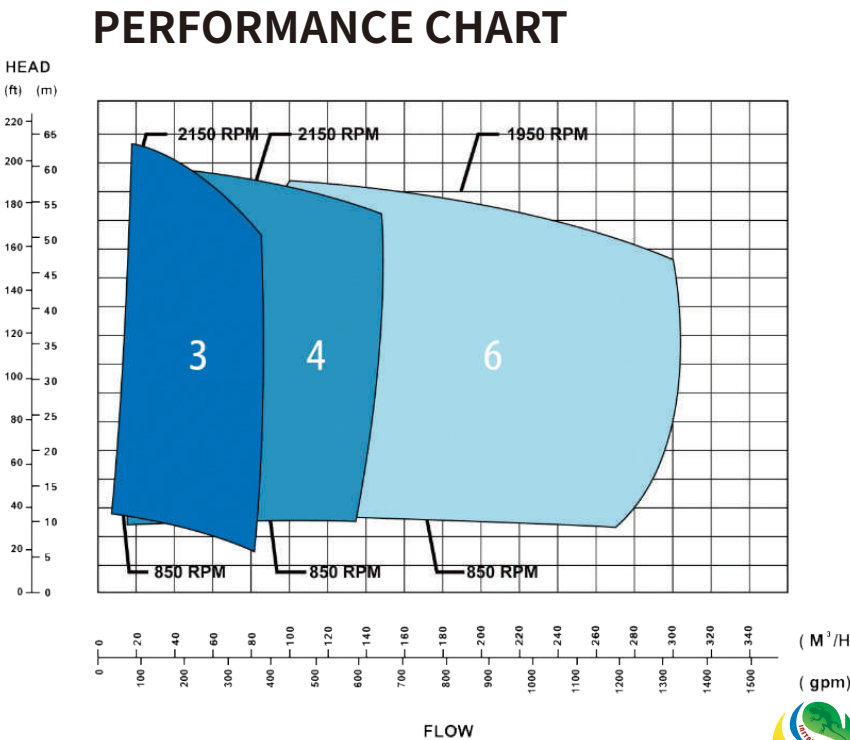
Head: Max 35M

Media Temp: -10°C~+85°C

System Pressure: Max 3.5BAR

Suction: Max 7.6m

Solids: Max 76.2mm



OTHER TYPE OE PRODUCTS AND DEVELOPMENT HISTORY >>>

NON-STANDARD

MCBP MCGO
MCGV MCK
MCL-AH MCL-GR
MCL-P MCO-2500
MCO-SM MCO-XP
MCP-CC MCP-FM
MCQ MCR
MCS MCST
MCSU MCT
MCU MCV
MCW MCX

ISO2858 STANDARD

MCI MCJ

EN733 STANDARD

MCA MCB
MCD MCE
MCF MCFA

ANSI B73.1M STANDARD

MCN-D MCN-G
MCN-LF MCN-SP

2004



MCA

2005



MCA



MCB



MCC



MCE



MCF

2006



MCA



MCB



MCC



MCE



MCF



MCO-2500



MCQ

2007



MCA



MCO-1180



MCO-1780



MCO-SM



MCR-3



MCV



MCV

2008



MCN-G



MCI



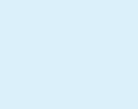
MCJ



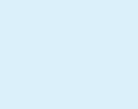
MCP



MCO-XP



MCK



MCK

2009



MCN-G



MCI



MCJ



MCP



MCK



MCK



MCK

2010



MCN-G



MCI



MCK



MCT



MCX



MCL-GR



MCL-5J

2011



MCU



MCS



MCSU



MCBP



MCN-LF



MCN-LF



MCN-LF

2012



MCST



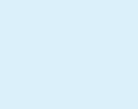
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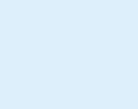
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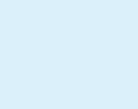
MCN-LF



MCN-LF



MCN-LF



MCN-LF

2013



MCL-AH



MCST package



MCST package



MCST package



MCST package



MCST package



MCST package

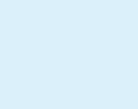
2014



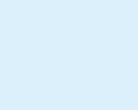
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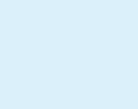
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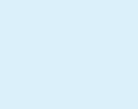
MCN-SP



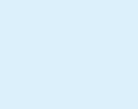
MCN-V



MCGV



MCGV



MCGV

2015



MCL-P



MCN-D



MCN-SP



MCN-V



MCGV



MCGV



MCGV

2016-2018



MCL-P



MCGR



MCD



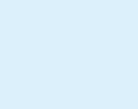
MCFA



MH200S17



MH200S17



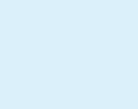
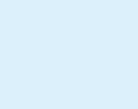
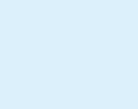
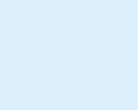
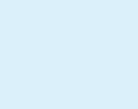
MH200S17

2019-2023



Red car

THE NEXT



Red and black container