SAVE FOR FUTURE

C.R.I. PUMPS
Pumping trust. Worldwide.

PRODUCT VIEW-50Hz

*For specific models only.

THE CHANGE AGENT

Powered by technology and the spirit of innovation, C.R.I. has always set the benchmark when it comes to quality and performance. C.R.I. has what it takes experience, expertise, commitment and a clear vision to be a precursor of change, an innovator of new technologies and a standard bearer for quality.

Today, C.R.I. is a multi-winged organization that produces different varieties of pumps and motors that are engineered to perfection. The name C.R.I. itself encapsulates the company's ethos: "Commitment, Reliability, Innovation" and it has now become a household name associated with pumping solutions.

THE DAWN

The C.R.I. success story began in the year 1961 with the manufacture of irrigation equipment at an in-house foundry with very limited facilities. There has been no looking back since then. Today, C.R.I. is one of the leading names in the manufacture of pumping systems globally with the vision and the capability to be counted as one among the top global pump companies.

With its comprehensive range of products over 1800 models C.R.I. is catering to diverse customer profiles including Residential, Agriculture, Industries, Building services, General Water supply, Mining, Oil & Gas, Sewage & Waste Water and Coal Bed Methane applications.

QUALITY KNOWS NO BOUNDRIES

C.R.I.'s unwavering determination had made us a strong presence in more than 120 countries. With a solid production capacity of over 2 million pumps per annum C.R.I. has been rated as one among the best brands worldwide. Besides in recognition of its pioneering efforts and contribution to the cause of progress and quality C.R.I. has been honored with many prestigious awards including: Export Excellence Award 11 times since 2003. The ISO 9001 and ISO 14001 certified company, spanning across 300,000 sq.mtr. covered area, has a strong R & D wing recognised by Ministry of science & technology which is one of the best in the world and are equipped with the latest in technology for research and design. C.R.I. constantly upgrades the product features to match with the ever changing market trend & customer needs.

VISION, MISSION AND VALUES

To be the industry leader providing best-in-class fluid management solutions to individual and institutional customers and societies in our chosen markets.

We will achieve this through our dedicated efforts to enhance the welfare of all our stakeholders and by living by our values of commitment, reliability and innovation.

RECOGNITIONS OF MERIT

C.R.I's dream never ends with laurels and adulations. We are on an unending mission to upgrade and innovate concepts and solutions for a much better living, where sophistication, quality and reliability reach higher altitudes. Our each action is inspired by truly good intentions. No wonder why several prestigious awards decorate our shelves.

WELL CONNECTED

- 8 Manufacturing companies & 38 Distribution centers
- 5000 plus channel Partners
- More than 1500 Authorized Service Centers
- Sold in more than 120 Countries


aly
Turkey
China
UAE
India
South
Africa

INVESTMENT IS A COMMITMENT

The infrastructure defines the company and its quality. No other reason we have to highlight for installing sophisticated pieces of equipment inside an up-to-the-minute state-of-the-art ambience. As the proof of our long term planning, this investment with an unambiguous foresight continues to drive up productivity, drives down costs, enables

ROBOTICS

METAL MEETS METTLE

With a production capacity of over 16000 metric tons per annum, our state-of-the-art steel foundry ensures the availability of first-rate castings to meet our requirements. And this results in finer quality products from C.R.I.

THOSE WHO CHANGE CAN CHANGE THE WORLD

Earth's unwritten law never entertains rigid minds. Those who sense the change and are ready to meet the changing demands only will survive in this planet. But the one who can predict the changes, before anybody else can, alone take the leadership. C.R.I. falls into this category. The result: the birth of many trendsetters and the transformation of C.R.I. into one of the global leaders.

Residential

Garden Irrigation
Pressure boosting
Fountains
Landscaping
Swimming pool

Agriculture

Live Stock Farms
Corporate Farming
Irrigation
Drip Irrigation
Sprinkler Irrigation
Center Pivot Irrigation

SEGMENTS COVERED

Construction/ Building services

Drainage/ De-Watering
Pressure boosting
HVAC
Fire Fighting
Reverse Osmosis
Landscaping
Swimming pool

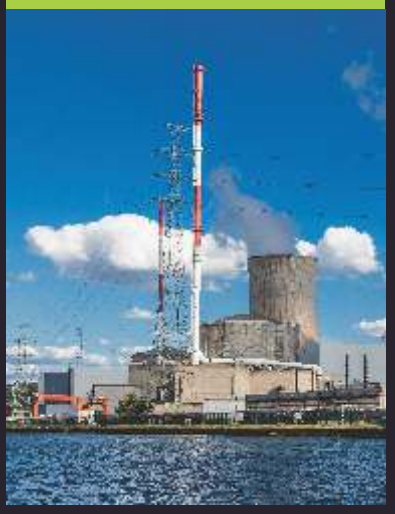
Mining

Water Supply / Transfer
De-Watering / Slurry Pumping
Coal Bed Methane
High Pressure water Supply
Cooling & Wash Plant

General water supply

Desalination
Drinking Water supply
Irrigation Projects
Sewage & Water treatment plants
Fountains
Reverse Osmosis

Industry



Water Supply
Waste and Effluent Treatment
Pressure Boosting I Boiler Feed
Hot water circulation
Chemical Transfer I Cooling towers
Wash plants I Power Plant I Marine
Food Processing I Paper & Pulp

Oil & Gas

General Water Supply
Water Injection
Coal Bed Methane (CBM)
Petrochemical

Renewable Energy

Residential
Irrigation
Live Stock Farms
Public Water Supply
Small Farms
Industries

A WORLD OF PUMPS

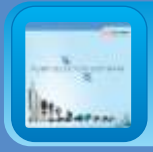
Production capacity exceeding two million pumps and motors per annum. More than 2300 varieties of water lifting pumps & motos to choose from. Most of the components & accessories (cables, pipes, winding wires etc) produced in-house for better, integrated quality control systems.

PRODUCT RANGES

- Industrial Pumps
- Deepwell Submersible Pumps
- Bottom Suction Submersible Pumps
- Openwell Submersible Pumps
- Deepwell Submersible Motors
- Vertical Multistage Pumps
- Horizontal Multistage Pumps
- Centrifugal Monoblock Pumps
- Self-priming Jet Pumps
- Peripheral Pumps
- Swimming Pool Pumps
- Waste Water Submersible Pumps
- Solar Pumping Systems
- End-suction Pumps
- Induction Motors
- Engines & Engine Pumps
- Generators
- Valves
- uPVC Pipes & Flexible Hose
- Submersible Cables
- Control Panels
- Pressure Controls

www.crigroups.com / www.cripumps.com

Technical Data Sheets are available on our website



Selection of Pumps shall be made through our Pump selection software which is available on our website

CONTENTS

DEEPWELL SUBMERSIBLE PUMPS
3" SILVER LINE SERIES

Description : C.R.I. 3" Silver line series Submersible pumps are built with thermoplastic impellers, diffusers and inbuilt check valve. All vital components of these pumps are made of corrosive resistance thermoplastic and the shaft is of SS 431. Pumps are multistage centrifugal type. The optimal design of impellers and diffusers enables the best possible hydraulic efficiency.

The pumps are offered with C.R.I. Oil filled motors, which operates submerged beneath the surface of water.

PUMP SPECIFICATIONS	
Nominal Dia.	3"
Maximum Outer Dia.	75 mm
Power Range	0.25 kW - 1.1 kW
Speed	2900 rpm
Discharge Range	0.6 - 3.5 m^3/h
Head Range	8 - 138 m
Maximum Liquid Temperature	33°C
Maximum Operating Pressure	0.14 MPa (14 bar)
Permissible amount of Sand	25 g/m^3 (max)
Allowable Solids	3000 ppm (max)
Turbidity	50 ppm Silica Scale

Nominal Flow	m^3/h	1.8
Head Maximum	m	138
Nominal outlet size	inches	1

Can be fitted only with C.R.I. Oil filled rewindable submersible motors.

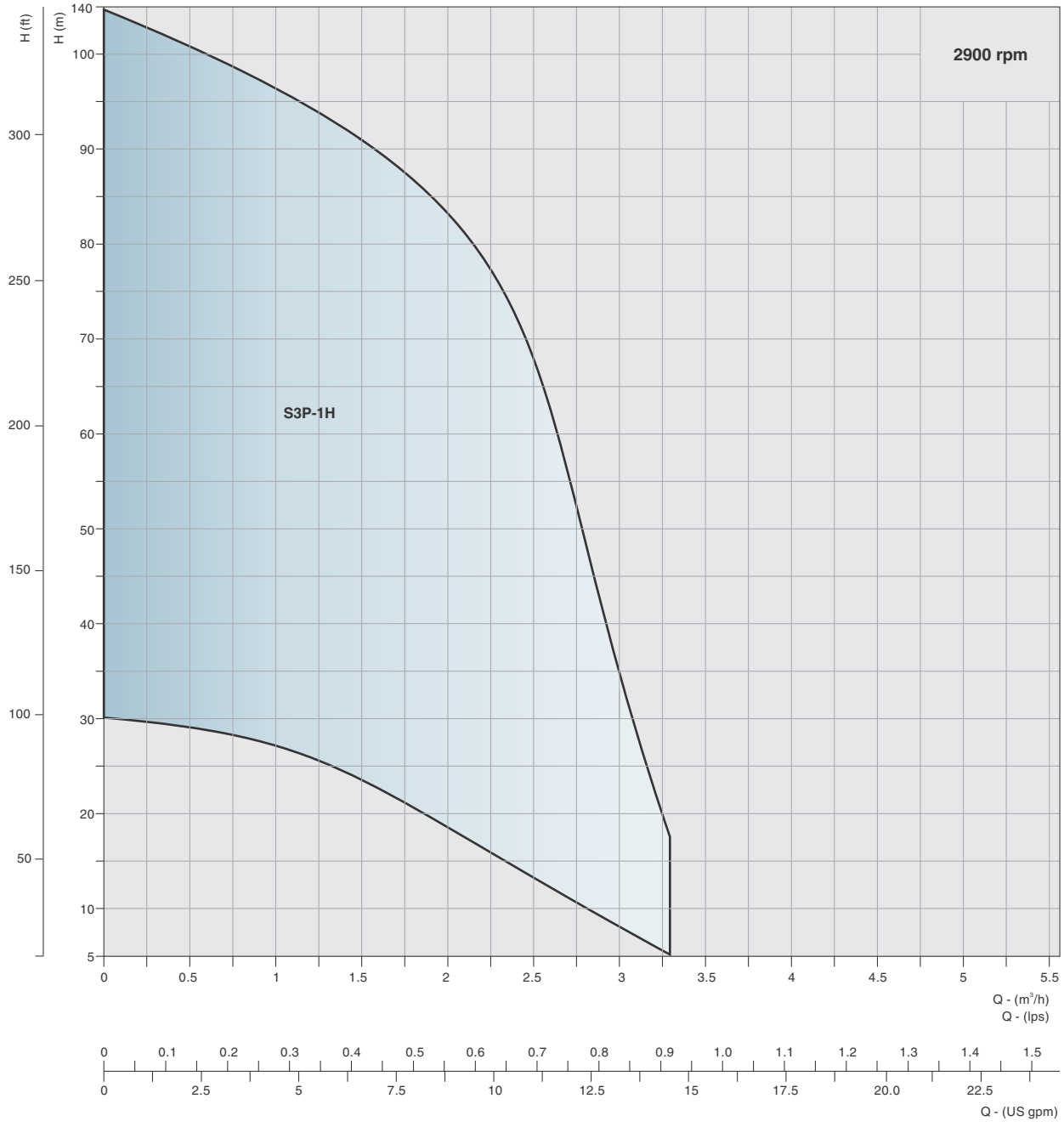
MOTOR SPECIFICATIONS	
Motor Type	Oil Filled - Wet wound Rewindable
Maximum outer Dia.	78 mm
Power Range	0.25 kW - 1.1 kW
Speed	2900 rpm
Versions	A.C. Single Phase 230 V - 50 Hz Incorporated with Thermal Overload Protector
Method of Starting	CSR
Type of duty	S1 (Continuous)
Degree of protection	IP 58

APPLICATIONS Residential | Small Farms & Gardens | Nurseries | Hotels | Fountains | Industries

FEATURES | Highly durable | Wearing ring in diffuser for long life | Water cooled rewindable motor | Can be easily dismantled and repaired | Can handle more upthrust loads | Available M.O.C. : Type P



Group Performance Curves - 3"



DEEPWELL SUBMERSIBLE PUMPS
4" SILVER LINE SERIES

Description : C.R.I. 4" Silver line series Submersible pumps are built with thermoplastic impellers, diffusers and inbuilt check valve. All vital components of these pumps are made of corrosive resistance thermoplastic and the shaft is of AISI 304 / 431. Pumps are multistage centrifugal type. The optimal design of impellers and diffusers enables the best possible hydraulic efficiency.

The pump is firmly coupled to a electric motor which operates submerged beneath the surface of water. Built in check valve prevents backflow and reduces the risk of water hammer. All mounting dimensions of pumps

SPECIFICATIONS	
Nominal Dia.	4"
Maximum Outer Dia.	100 mm
Power Range	0.37 kW - 7.5 kW
Speed	2900 rpm
Discharge Range	0.75 - 24 m³/h
Head Range	4.0 - 270 m
Maximum Liquid Temperature	33°C
Maximum Operating Pressure	2.5 MPa (25 bar)
Permissible amount of Sand	100 g/m³ (max)
Allowable Solids	3000 ppm (max)
Turbidity	50 ppm Silica Scale (max)

Nominal Flow	m³/h	1.5	2	3	4	5	8	10	14	18
Head Maximum	m	226	260	221	270	184	270	153	134	116

Mounting dimensions are in accordance with NEMA STANDARDS

APPLICATIONS

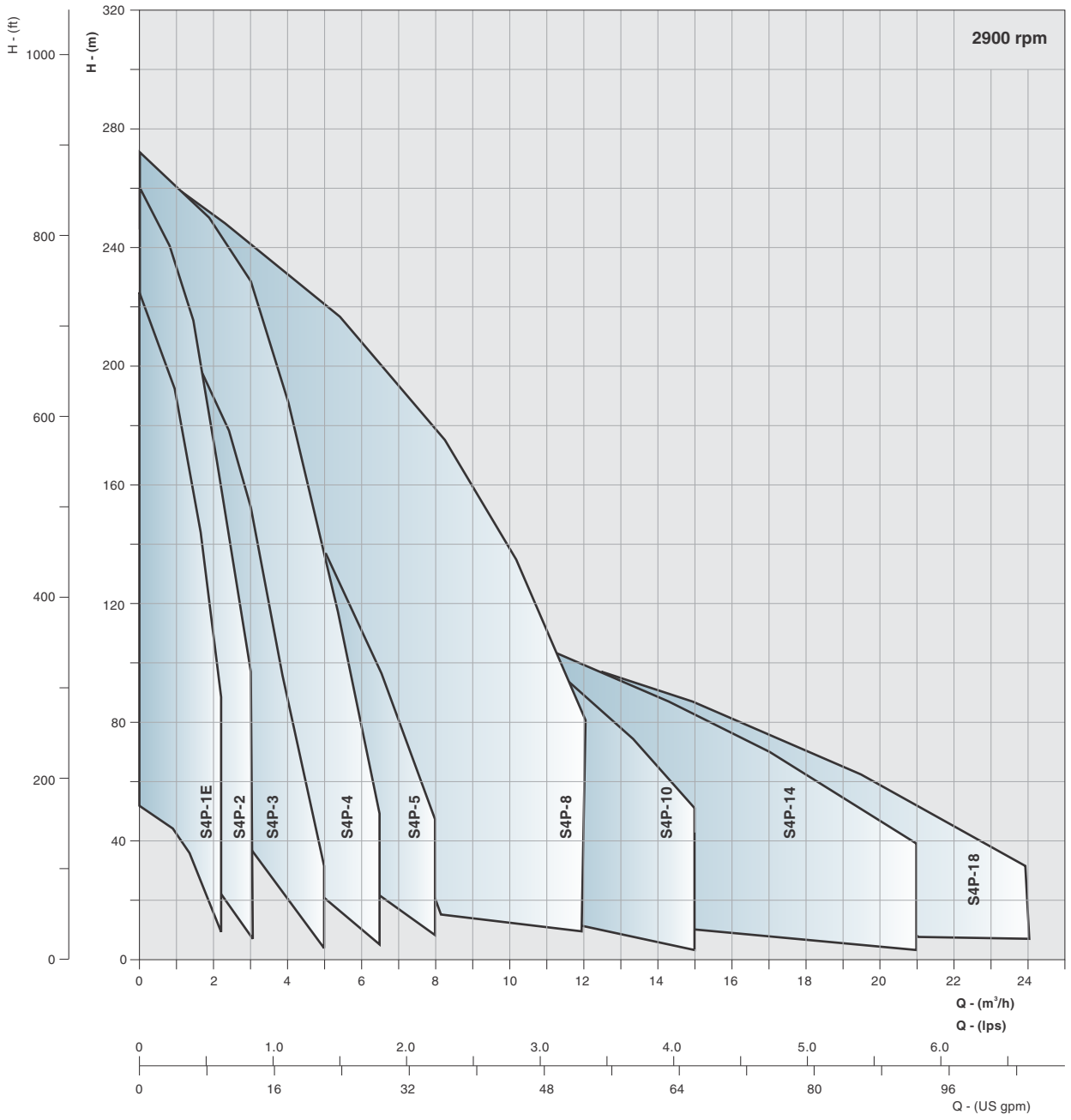
- Residential
- Irrigation
- Civil water supply
- Fountains
- Industrial and rural water supply
- Fire fighting
- Gardens
- Pressure boosting units
- Sprinkler systems

FEATURES

I Best operating efficiency I Floating Impeller design to handle sand I S.S. 304 / Ceramic top bearing I Highly durable I Water filled rewindable / Oil filled / Encapsulated resin filled motor I Can be easily dismantled and repaired I Can handle more upthrust loads I Wearing ring in diffuser for long life I Available M.O.C. : Type P



Group Performance Curves - 4"



DEEPWELL SUBMERSIBLE PUMPS
G - FLOW

Description : G-flow series pumps are compact, cost effective and supplied with motor to meet the customer expectations in small horse power & lower head applications. These pumps and oil filled motors are coupled and supplied along with 30 m Submersible cable and control box in one pack. Safety rope can be supplied on demand.

SPECIFICATIONS		
Nominal dia	3" (80 mm)	4" (100 mm)
Power Range	0.37 kW to 2.2 kW	0.25 kW to 1.1 kW
Speed	2900 rpm	2900 rpm
Discharge Range	Upto 3.3 m^3/h	Upto 7 m^3/h
Head Range	Upto 153 m	Upto 220 m
Version	1 Ph 230 V, 50 Hz, A.C Supply 3 Ph, 380-415 V, 50 Hz A.C Supply	1 Ph 230 V, 50 Hz, A.C Supply 3 Ph, 380-415 V, 50 Hz A.C Supply
Class of Insulation	"F"	"F"
Degree of Protection	IP 68	IP 68
Type of duty	S1 (continuous)	S1 (continuous)
Min.Cooling flow	0.15 m/s	0.15 m/s
Max.Liquid temp.	33°C	33°C
Max.immersion depth	100 m	150 m
Starts per hour	20 Times	20 Times
Pump outlet size	1" BSP	1¼" , 1½" & 2"

APPLICATIONS

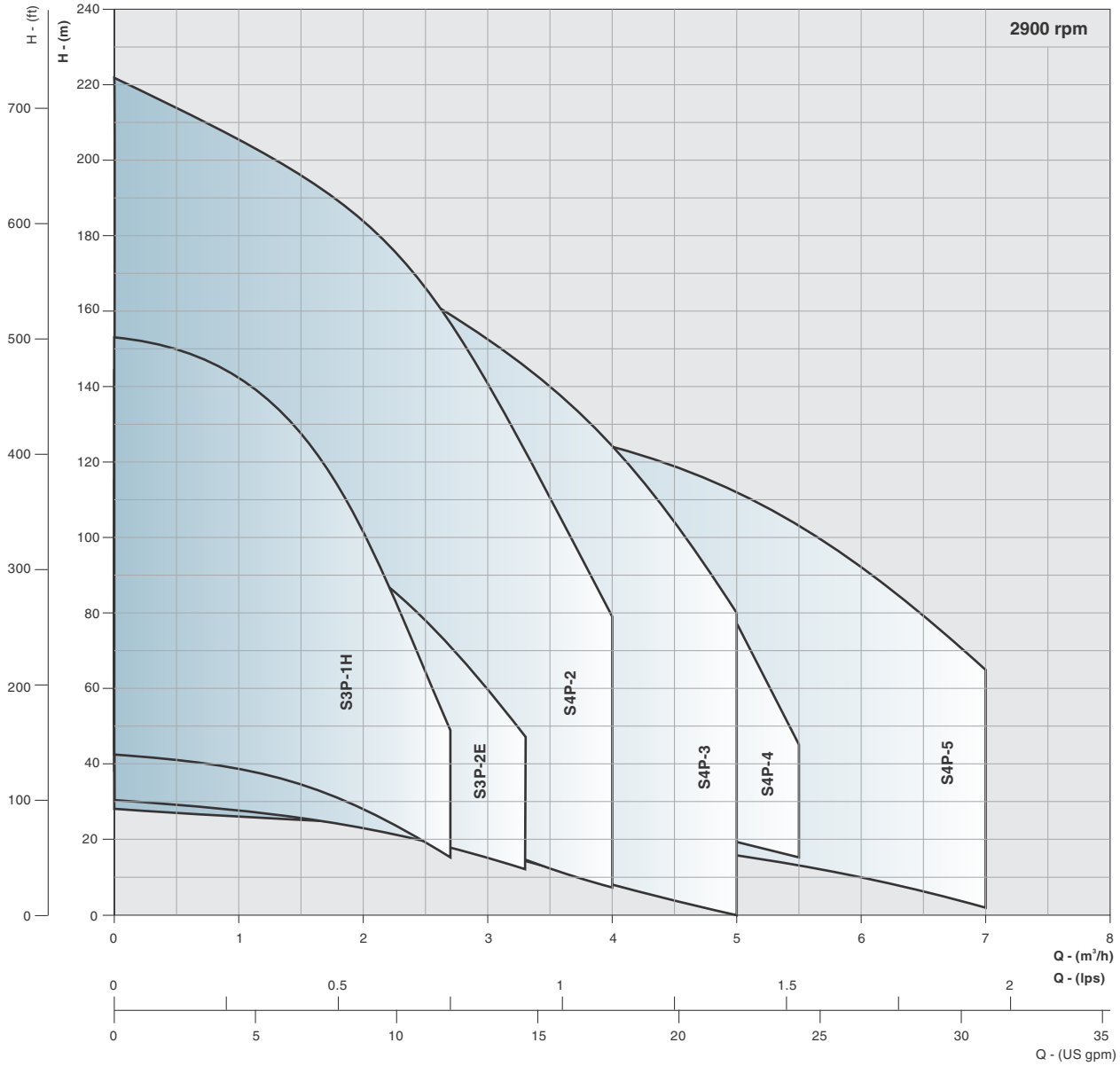
- Residential
- Irrigation
- Civil water supply
- Fountains
- Industrial and rural water supply
- Fire fighting
- Gardens
- Pressure boosting units
- Sprinkler systems

FEATURES

I Factory coupled pump and motor with 30 m drop cable I Ready to install I High operating efficiency I Pump with built in check valve I Floating impeller design prevents sand blockages I NEMA mounting standard I Extremely hard wearing water lubricated bearings I Easy to transport



Group Performance Curves - 4"



DEEPWELL SUBMERSIBLE PUMPS
MAXI KIT

MK-Series - 4” Submersible pump kit

Description : In view of meeting the customer's expectation & simplifying the installation process C.R.I. with it's 5 decades of experience in pump industry has introduced a first in its kind compact submersible pump kit called Maxi Kit under MK series. This series consist limited models suitable mainly for low head applications up to 50 meters with maximum flow of 5.5m³/h. This Maxi Kit comprises the following items and supplied all in one pack.

- 4” Submersible pump
- 4” L series oil filled motor
- Control box (For single phase only)
- 50 mtrs spliced drop cable
- 50 mtrs safety Rope
- Borehole base plate
- Adaptor

SPECIFICATIONS	
Nominal Dia.	4” (100 mm)
Power range	0.37 kW to 1.1 kW
Speed	2900 rpm
Discharge range	1.0 - 5.3 m^3/h
Head range	21 - 98 m
Version	1 Ph, 230 V, 50 Hz, A.C Supply 3 Ph, 380 V, 50 Hz, A.C Supply
Class of insulation	“B"
Degree of protection	IP 68
Type of duty	S1 (Continuous)
Min. Cooling flow	0.15 m/s
Max. Liquid temp.	33°C
Max. Immersion depth	150 m
Starts per hour	20 times
Pump outlet size	1¼"

APPLICATIONS

Residential | Irrigation | Civil water supply | Fountains | Industrial and rural water supply

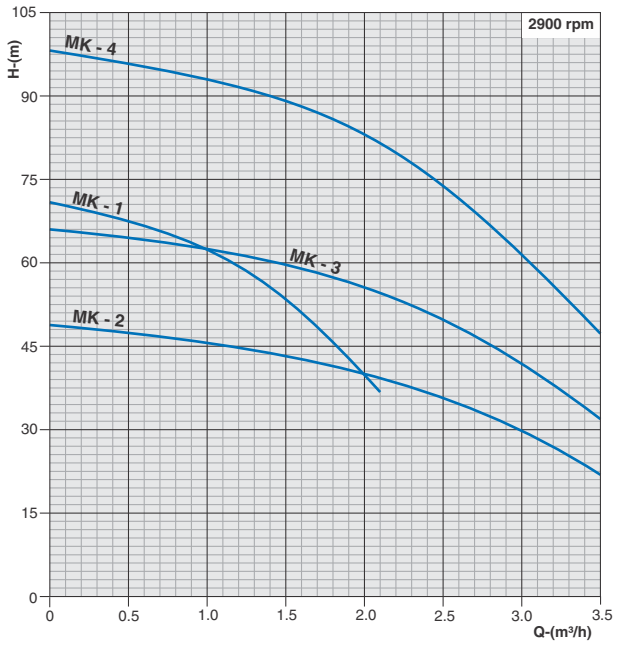
Fire fighting | Gardens | Pressure boosting units | Sprinkler systems

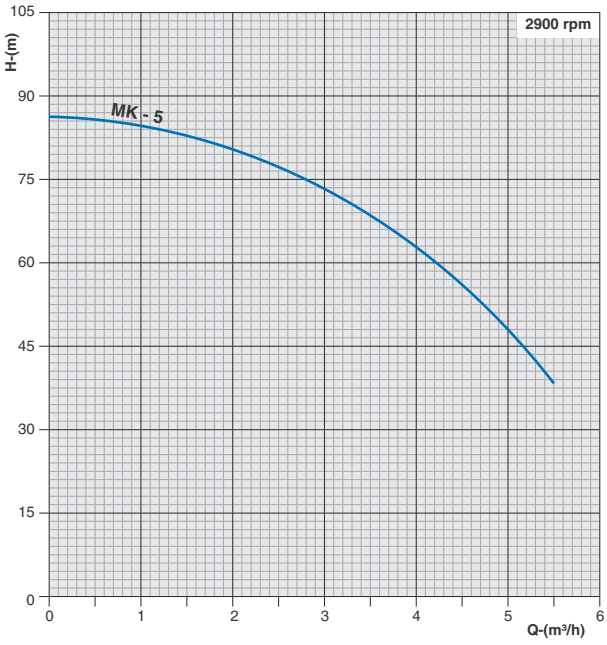
FEATURES

I Factory coupled Pump & motor with 50 mtrs spliced drop cable I Ready to install I Built-in Thermal overload protector I Corrosion resistance Stainless steel pump & motor body I Pumps with built-in check valve I Packed in single carton I Easy to transport and store I NEMA standard Mounting standards



Performance Curves





PERFORMANCE TABLE											
PUMP MODEL	MOTOR POWER		lps	0	0.28	0.42	0.5	0.55	0.69	0.83	0.97
	kW	HP	m³/h	0	1.0	1.5	1.8	2.0	2.5	3.0	3.5
MK - 1	0.37	0.5	Head in (m)	71	63	53	46	40	-	-	-
MK - 2	0.37	0.5		49	46	43	42	40	36	30	22
MK - 3	0.55	0.75		66	63	60	57	56	50	42	32
MK - 4	0.75	1.0		98	93	89	86	83	73	62	47

PUMP MODEL	MOTOR POWER		lps	0	0.55	0.83	0.97	1.11	1.25	1.39	1.53
	kW	HP	m³/h	0	2	3	3.5	4	4.5	5	5.5
MK - 5	1.1	1.5	Head in (m)	86	80	76	68	64	56	48	38

Suffix letter “T” in model name for 3 Phase models

DEEPWELL SUBMERSIBLE PUMPS
4" STAINLESS STEEL SERIES

Description : C.R.I. 4" Stainless Steel Submersible pumps are made of corrosion resistance Stainless Steel with inbuilt check valve. All vital components are made of high quality 304 / 316 grade Stainless Steel and the shaft is of SS 304 / 329 / 431. The optimal design of impellers and diffusers enables the best possible hydraulic efficiency.

The pumps are of multistage centrifugal type, which can be firmly coupled to a submersible electric motor, which operates submerged beneath the surface of water. Built in check valve prevents back flow and reduce the risk of water hammer. All mounting dimensions of pumps are in accordance with NEMA Standard.

SPECIFICATIONS	
Nominal Dia.	4"
Maximum Outer Dia.	100 mm
Power Range	0.37 kW - 11 kW
Speed	2900 rpm
Discharge Range	0.4 - 19 m^3/h
Head Range	4.0 - 535 m
Maximum Liquid Temperature	33°C
Maximum Operating Pressure	5.4 MPa (54 bar)
Permissible amount of Sand	50 g/m^3 (max)
Allowable Solids	3000 ppm (max)
Turbidity	50 ppm Silica Scale (max)

Nominal Flow	m^3/h	1	2	3	5	8	14
Head Maximum	m	320	535	312	487	422	

Mounting dimensions are in accordance with NEMA STANDARDS

APPLICATIONS

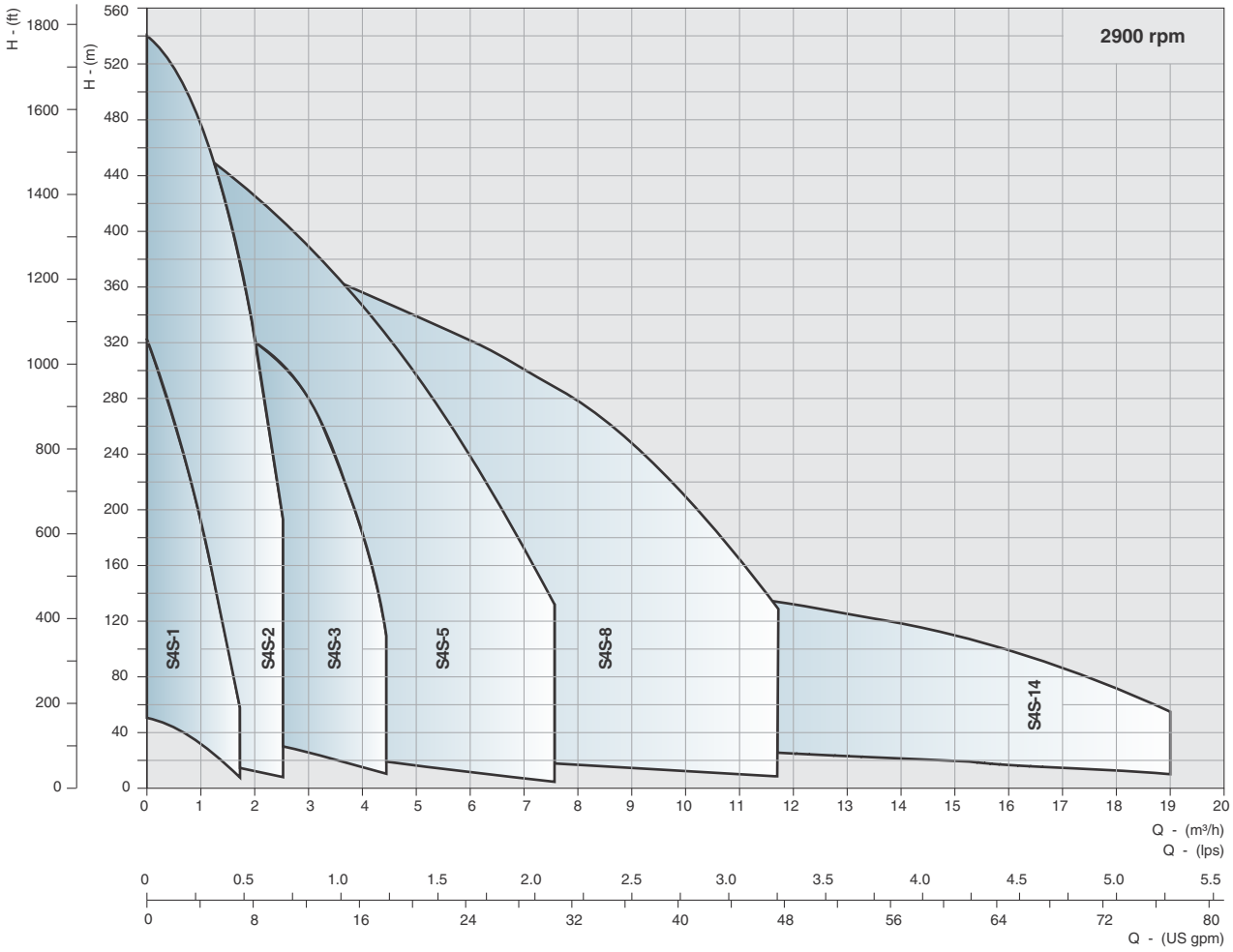
- Residential
- Irrigation
- Fountains
- Civil water supply
- Mining
- Fire fighting
- Pressure boosting units
- Gardens
- Sprinkler systems
- Golf course
- Oil & Gas
- Industrial and rural water supply
- De-watering
- Food process industry

FEATURES

I Best operating efficiency I Precise parts made of SS 304/316 I Highly durable & Hygiene I Good resistance to sand I Water cooled rewindable / Oil filled / Encapsulated resin filled motor I Can be easily dismantled and repaired I Can handle more upthrust loads I Available M.O.C. : Type S & N I Additional intermediate bearing in higher stage pumps I Carbon upthrust pad I Rubber bush bearing in all stages



Group Performance Curves - 4"



DEEPWELL SUBMERSIBLE PUMPS
6" STAINLESS STEEL SERIES

Description : C.R.I. 6" Stainless Steel Submersible pumps are made of corrosion resistance Stainless Steel with inbuilt check valve. All vital components are made of high quality 304 / 316 grade Stainless Steel and the shaft is of SS 304 / 329 / 431. The optimal design of impellers and diffusers enables the best possible hydraulic efficiency.

The pumps are of multistage centrifugal type, which can be firmly coupled to a submersible electric motor, which operates submerged beneath the surface of water. Built in check valve prevents back flow and reduce the risk of water hammer. All mounting dimensions of pumps are in accordance with

SPECIFICATIONS	
Nominal Dia.	6"
Maximum Outer Dia.	149 mm
Power Range	2.2 kW - 63 kW
Speed	2900 rpm
Discharge Range	7.0 - 80 m^3/h
Head Range	4.5 - 620 m
Maximum Liquid Temperature	33°C
Maximum Operating Pressure	6.2 MPa (62 bar)
Permissible amount of Sand	50 g/m^3 (max)
Allowable Solids	3000 ppm (max)
Turbidity	50 ppm Silica Scale (max)

Nominal Flow 60	m^3/h	14	17	18	22	30	48
Head Maximum 420	m	574	650	540	570	620	505

Mounting dimensions are in accordance with NEMA STANDARDS

APPLICATIONS

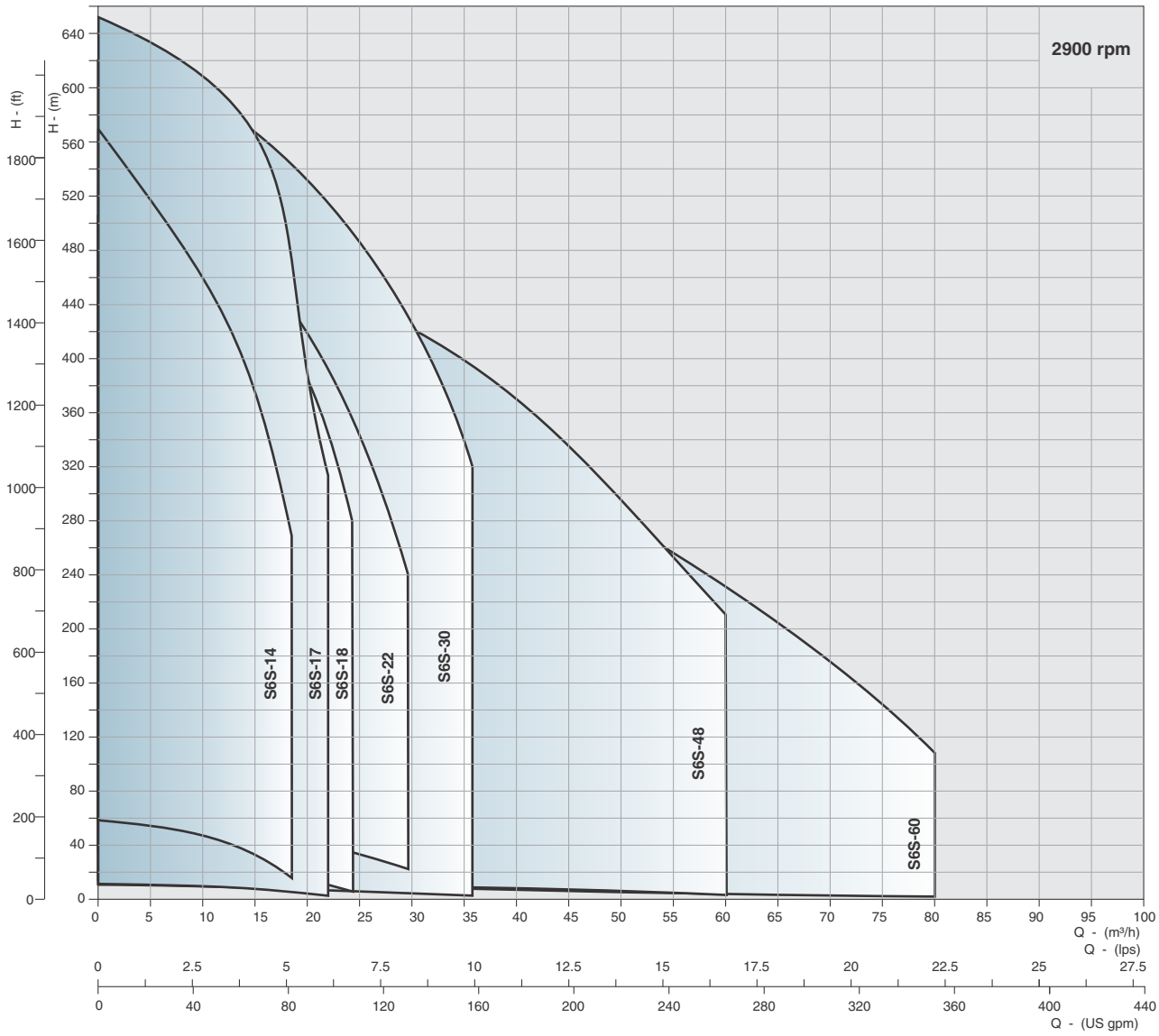
- Residential
- Civil water supply
- Irrigation
- Industrial and rural water supply
- Fountains
- Fire fighting
- Pressure boosting units
- Gardens
- Sprinkler systems
- Mining
- Oil & Gas
- De-watering
- Food process industry
- De-salination plants
- Golf course

FEATURES

I Best operating efficiency I Precise parts made of SS 304/316 I Highly durable & Hygiene I Good resistance to sand I Water filled rewindable motor I Can be easily dismantled and repaired I Can handle more upthrust loads I Available M.O.C. : Type S & N I Available with different mounting dimensions I SS 329 Coupling splines for longer life I Casted SS suction interconnector



Group Performance Curves - 6"



DEEPWELL SUBMERSIBLE PUMPS
8” & 10” STAINLESS STEEL SERIES

Description : C.R.I. 8” & 10” Stainless Steel Submersible pumps are made of corrosion resistance Stainless Steel with inbuilt check valve. All vital components are made of high quality 304 / 316 grade Stainless Steel and the shaft is of SS 304 / 329 / 431. The optimal design of impellers and diffusers enables the best possible hydraulic efficiency.

The pumps are of multistage centrifugal type, which can be firmly coupled to a submersible electric motor, which operates submerged beneath the surface of water. Built in check valve prevents back flow and reduce

SPECIFICATIONS		
Nominal Dia.	8" (200 mm)	10" (250 mm)
Maximum Outer Dia.	195 mm	255 mm
Power Range	5.5 kW - 110 kW	9.3 kW - 220 kW
Speed	2900 rpm	2900 rpm
Discharge Range	20 - 126 m³/h	18 - 280 m³/h
Head Range	2.0 - 475 m	6.0 - 488 m
Maximum Liquid Temperature	33°C	33°C
Maximum Operating Pressure	4.7 MPa (47 bar)	4.9 MPa (49 bar)
Permissible amount of Sand	50 g/m³ (max)	50 g/m³ (max)
Allowable Solids	3000 ppm (max)	3000 ppm (max)
Turbidity	50 ppm Silica Scale (max)	50 ppm Silica Scale (max)

Nominal Flow 215	m^3/h	78	95	125	160
Head Maximum 425	m	440	518	488	455

Mounting dimensions are in accordance with NEMA STANDARDS

APPLICATIONS

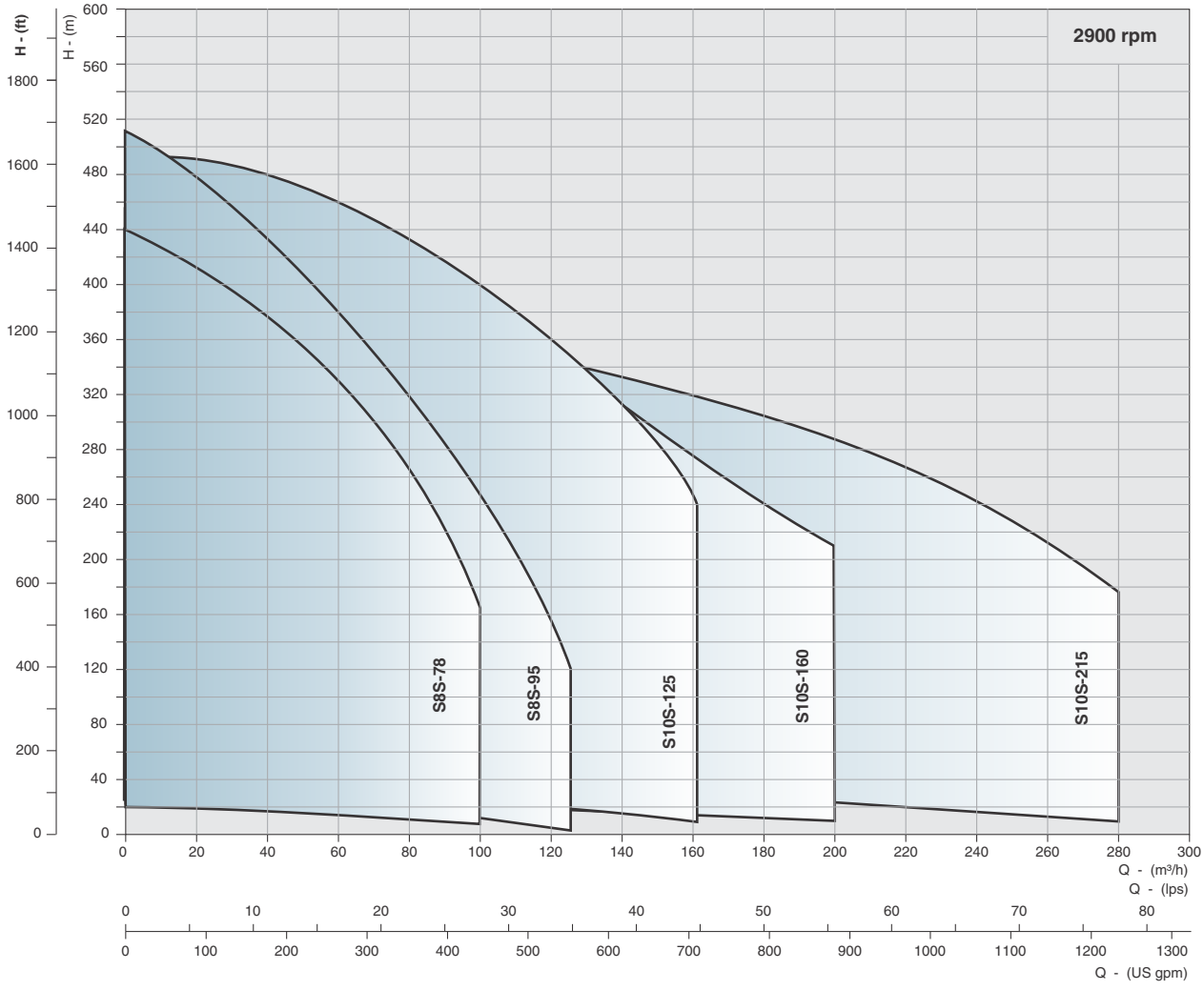
- Irrigation
- Civil water supply
- Fountains
- Industrial and rural water supply
- Fire fighting
- Gardens
- Sprinkler systems
- Oil & Gas
- De-watering
- Mining
- Pressure boosting units
- De-salination plants

FEATURES

| Best operating efficiency | Precise parts made of SS 304/316 | Highly durable & Hygiene | Good resistance to sand
| Can be easily dismantled and repaired | Can handle more upthrust loads | Available M.O.C. : Type S & N



Group Performance Curves - 8" & 10”



DEEPWELL SUBMERSIBLE PUMPS
6” & 8" EVERGREEN SERIES

Description : C.R.I. 6” & 8” Evergreen series submersible pumps are available with different material of construction. Pumps are incorporated with externally hardwearing bearing and built in Stainless Steel Check valve. All vital components of these pumps are designed for the best possible hydraulic efficiency.

All the bronze components are made of zinc free bronze to resist corrosion and to withstand wear and tear caused by sand. The Shaft made of SS 431 ensures the long life of the pump. Pumps are multistage centrifugal type, which are firmly coupled to submersible electric motor which operates submerged beneath the surface of water. Built in check valve prevents the back flow and reduces the risk of water

SPECIFICATIONS		
Nominal Dia.	6"	8"
Maximum Outer Dia.	144 mm	195 mm
Power Range	3.7 kW - 26 kW	5.5 kW - 93 kW
Speed	2900 rpm	2900 rpm
Discharge Range	9.0 - 83 m^3/h	20 - 187 m^3/h
Head Range	2.0 - 272 m	3.0 - 345 m
Maximum Liquid Temperature	33°C	33°C
Maximum Operating Pressure	2.72 MPa (27.2 bar)	3.7 MPa (37 bar)
Permissible amount of Sand	50 g/m^3 (max)	50 g/m^3 (max)
Allowable Solids	3000 ppm (max)	3000 ppm (max)
Turbidity	50 ppm Silica Scale (max)	50 ppm Silica Scale (max)

6"

Nominal Flow	m^3/h	27	32	38	46	60
Head Maximum	m	262	272	210	157	158

8"

Nominal Flow	m^3/h	50	60	68	80	90	100	125
Head Maximum	m	252	218	375	320	324	280	

Mounting dimensions are in accordance with NEMA STANDARDS

APPLICATIONS

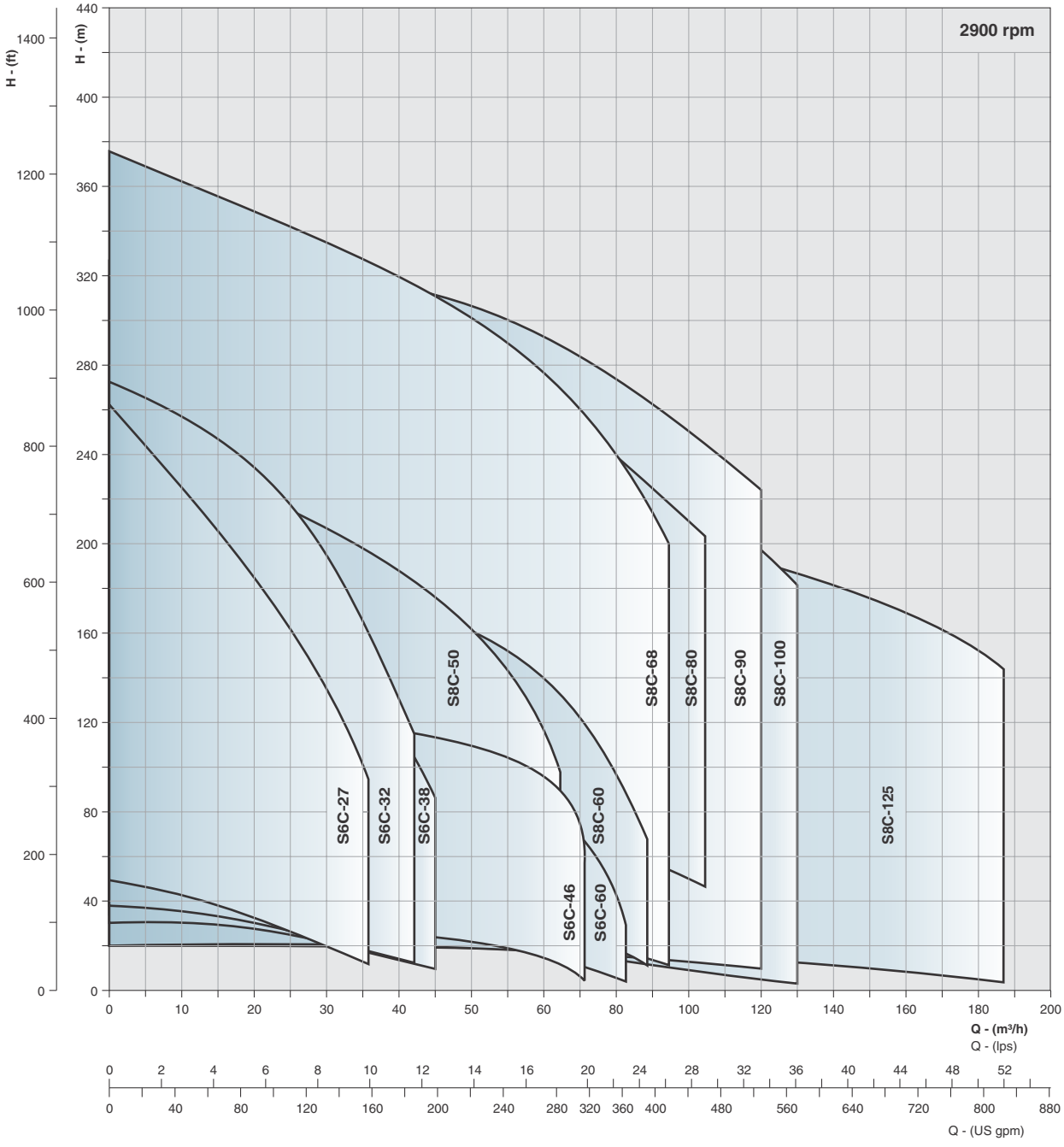
- Irrigation
- Civil water supply
- Fountains
- Industrial and rural water supply
- Fire fighting
- Pressure boosting units
- Gardens
- Sprinkler systems
- Mining

FEATURES

I Best operating efficiency I Extremely hardwearing water lubricated bearings I Highly durable I Water cooled rewindable motor I Can be easily dismantled and repaired I Can handle more upthrust loads I Available M.O.C. : Type C



Group Performance Curves - 6" & 8"



DEEPWELL SUBMERSIBLE PUMPS
8", 10", 12" & 14" EVERGREEN GRAND SERIES

Description : C.R.I. 6" & 8" Evergreen series submersible pumps are available with different material of construction. Pumps are incorporated with externally hardwearing bearing and built in Stainless Steel Check valve. All vital components of these pumps are designed for the best possible hydraulic efficiency.

All the components are made of SS/CI impeller to resist corrosion and to withstand wear and tear caused by sand. The Shaft made of SS 431 ensures the long life of the pump. Pumps are multistage centrifugal type, which are firmly coupled to submersible electric motor which operates submerged beneath the surface of water. Built in check valve prevents the back flow and reduces the risk of water

SPECIFICATIONS				
Nominal Dia.	8"	10"	12"	14"
Maximum Outer Dia.	202 mm	249 mm	298 mm	310 mm
Power Range	7.5kW - 110kW	11kW - 185kW	45kW - 250kW	37kW - 110kW
Speed	2900 rpm	2900 rpm	2900 rpm	2900 rpm
Discharge Range	24-192 m^3/h	48-420 m^3/h	180-540 m^3/h	180-540 m^3/h
Head Range	7 - 488 m	5 - 489 m	14 - 320 m	10 - 106 m
Max. Liquid Temperature	30°C	30°C	30°C	30°C
Max. Operating Pressure	49 bar	49 bar	32 bar	10 bar
Max. Permissible amount of Sand	40 g/m^3	40 g/m^3	40 g/m^3	40 g/m^3
Max. Allowable Solids	3000 ppm	3000 ppm	3000 ppm	3000 ppm
Max. Turbidity	50 ppm	50 ppm	50 ppm	50 ppm

8"

Nominal Flow	m^3/h	60	85	110	120	135 140
Head Maximum	m	488	462	478	376	335 344

10"

Nominal Flow	m^3/h	180	200	260	300
Head Maximum	m	466	489	315	254

APPLICATIONS

- Irrigation
- Civil water supply
- Fountains
- Industrial and rural water supply
- Mining
- Fire fighting
- Pressure boosting units
- Gardens
- De-watering
- Oil & Gas
- De-salination plants

FEATURES

I Best operating efficiency I Precise parts made of SS 316/Highly durable & Hygiene I Good resistance wo sand I Can be easily dismantled and repaired I Can handle more upthrust loads



12"

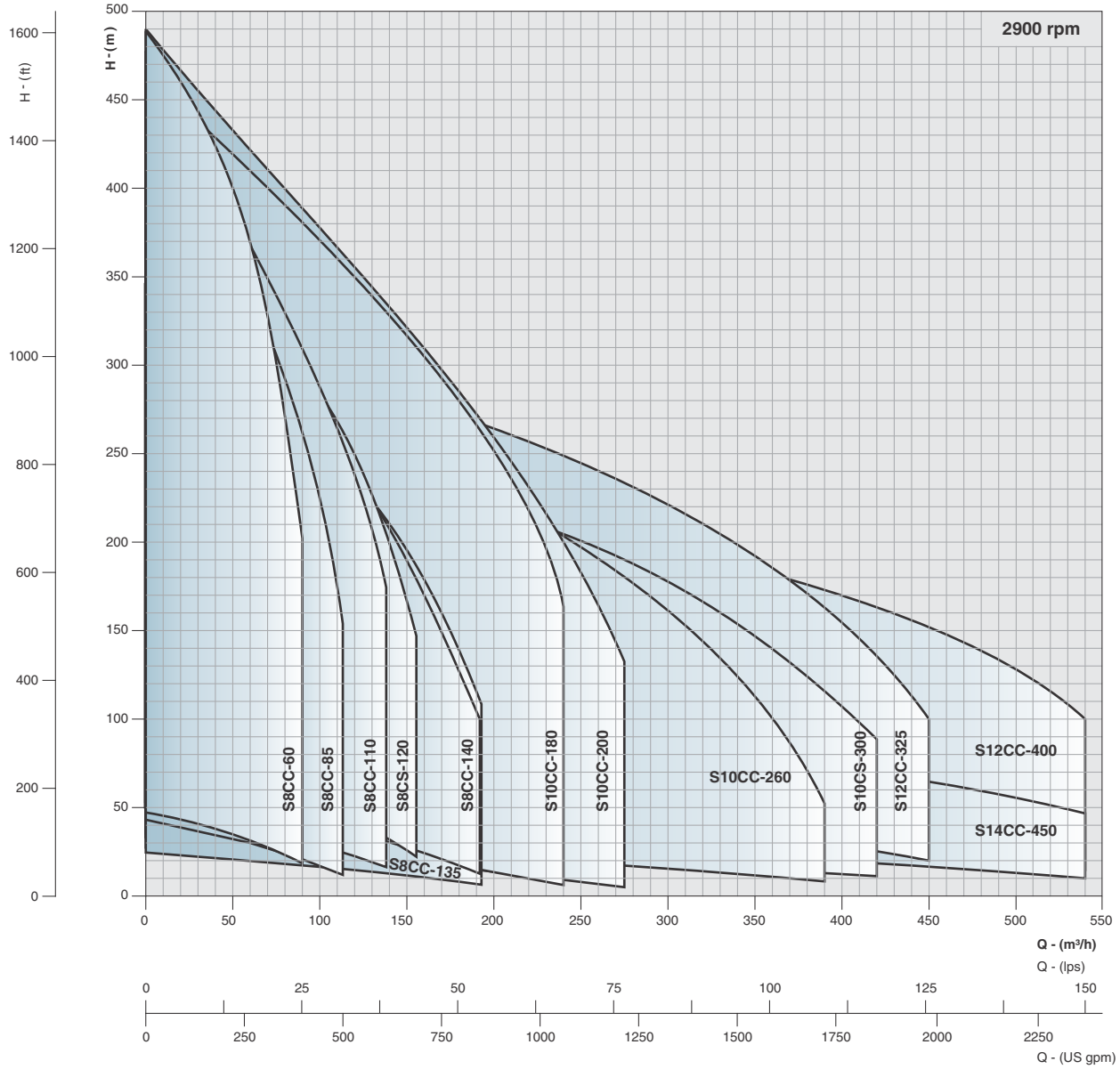
Nominal Flow	m^3/h	325	400
Head Maximum	m	320	261
Nominal outlet size	inches	7	7

14"

Nominal Flow	m^3/h	450
Head Maximum	m	106
Nominal outlet size	inches	8

Mounting dimensions are in accordance with NEMA STANDARDS

Group Performance Curves - 8",10",12" & 14"



DEEPWELL SUBMERSIBLE PUMPS
8", 10", 12" & 14" STAINLESS STEEL GRAND SERIES

Description : C.R.I. 6" & 8" Evergreen series submersible pumps are available with different material of construction. Pumps are incorporated with externally hardwearing bearing and built in Stainless Steel Check valve. All vital components of these pumps are designed for the best possible hydraulic efficiency.

All the bronze components are made of zinc free bronze to resist corrosion and to withstand wear and tear caused by sand. The Shaft made of SS 431 ensures the long life of the pump. Pumps are multistage centrifugal type, which are firmly coupled to submersible electric motor which operates submerged beneath the surface of water. Built in check valve prevents the back flow and reduces the risk of water hammer. All mounting dimension of pump are accordance with NEMA standard.

SPECIFICATIONS				
Nominal Dia.	8"	10"	12"	14"
Maximum Outer Dia.	198 mm	243 mm	298 mm	340 mm
Power Range	4 kW - 110 kW	13 kW -185 kW	45 kW -250 kW	75 kW -300 kW
Speed	2900 rpm	2900 rpm	2900 rpm	2900 rpm
Discharge Range	24 - 192 m^3/h	48 - 390 m^3/h	180 - 540 m^3/h	180 - 810 m^3/h
Head Range	10 - 466 m	8 - 486 m	14 - 320 m	23 - 196 m
Max. Liquid Temperature	30°C	30°C	30°C	30°C
Max. Operating Pressure	47 bar	49 bar	32 bar	20 bar
Max. Permissible amount of Sand	40 g/m^3	40 g/m^3	40 g/m^3	40 g/m^3
Max. Allowable Solids	3000 ppm	3000 ppm	3000 ppm	3000 ppm
Max. Turbidity	50 ppm	50 ppm	50 ppm	50 ppm

8"

Nominal Flow	m^3/h	68	85	105	130
Head Maximum	m	465	466	446	

10"

Nominal Flow	m^3/h	180	190	260
Head Maximum	m	435	486	349

12"

Nominal Flow	m^3/h	325	400
Head Maximum	m	320	261
Nominal outlet size	inches	7	7

14"

Nominal Flow	m^3/h	600
Head Maximum	m	196
Nominal outlet size	inches	9

Mounting dimensions are in accordance with NEMA STANDARDS

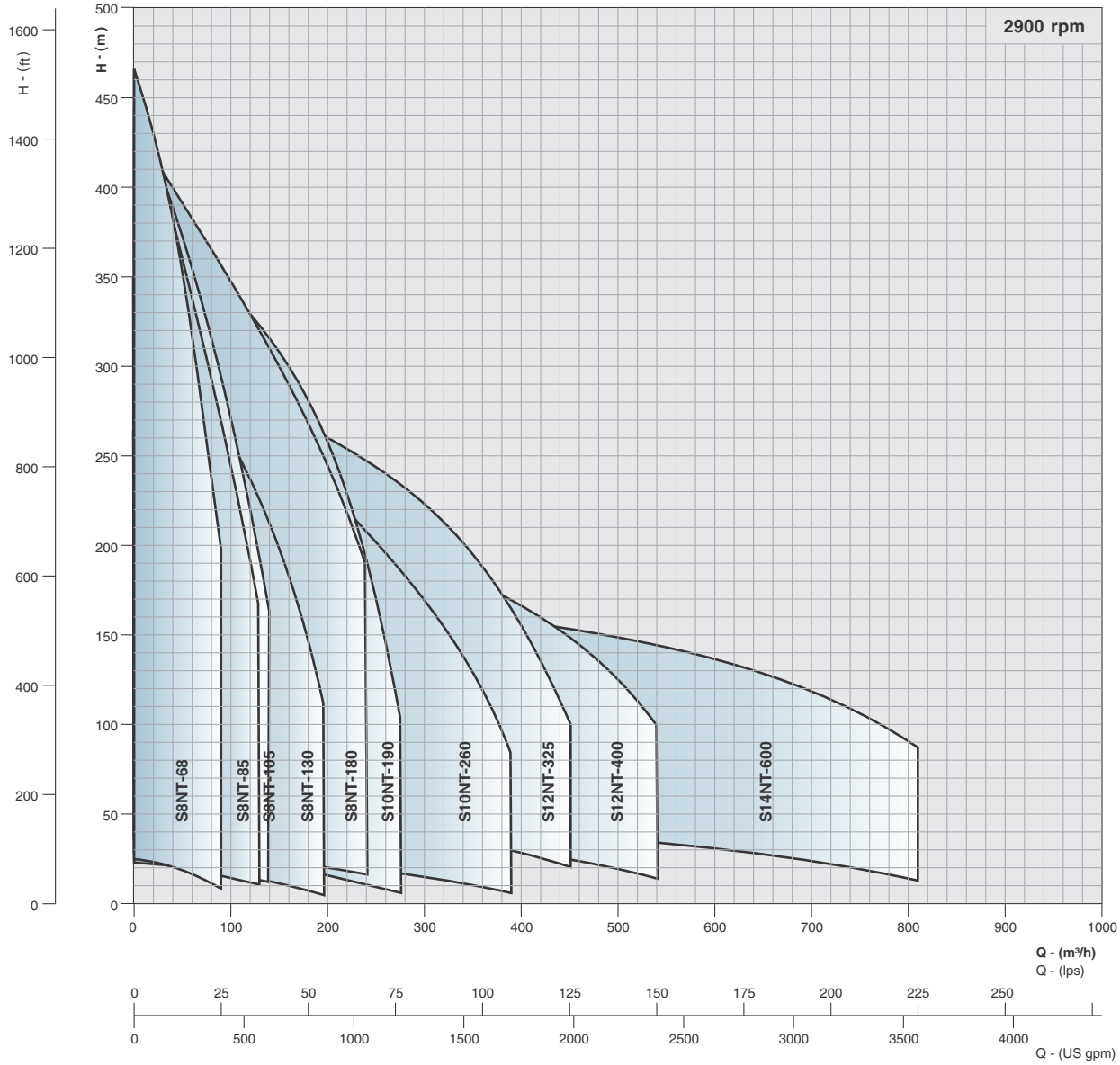
APPLICATIONS

- Irrigation
- Civil water supply
- Fountains
- Industrial and rural water supply
- Mining
- Fire fighting
- Pressure boosting system
- Gardens
- De-salination plants
- Oil & Gas
- De-watering

FEATURES

I Best operating efficiency I Precise parts made of SS 316/Highly durable & Hygiene I Good resistance wo sand I Can be easily dismantled and repaired I Can handle more upthrust loads

Group Performance Curves - 8",10",12" & 14"



BOTTOM SUCTION PUMPS
BS - SERIES

Description : C.R.I.'s Bottom Suction Pumps are close coupled type and available with multi impellers and motor is protected by double sealing system with and oil chamber.

SPECIFICATIONS	
Maximum over all Dia.	133 mm
Power range (kW)	0.6 kW - 1.2 kW
Speed	2850 rpm
Versions	Single phase 230 V, 50 Hz, A.C. Supply
Degree of protection	IP 68
Class of insulation	'F'
Max. Liquid temperature	40°C
Permissible amount of sand	25 g/m³
Method of starting	Permanent Split Capacitor (PSC)
Maximum immersion depth	20 m

Flow	m³/h	3	5
Head Maximum	m	90	66.5
Nominal outlet size	inches	1¼	1¼

Mounting dimensions are in accordance with NEMA STANDARDS

APPLICATIONS

Residential | Sprinkler irrigation systems | Pressure boosting | Garden Irrigation

Drainage | Civil and industrial water supply

FEATURES

| Most reliable double sealing system | Silent operation | Self cooling system | Aesthetically designed | Fitted with thermal overload protector to protect motor | Float switch to avoid dry running | Can be operated in horizontal position

OPENWELL SUBMERSIBLE PUMPS
LB, LH & LT - SERIES

Description : C.R.I.'s horizontal and vertical open well submersible pumps are ideally suitable for open wells where there is a wide fluctuation in water level. This works under water and it rest at the bottom of the well.

Pump portion is of single stage (horizontal pump) & single or multi stage (Vertical pump) and fitted with cast iron casing and impeller. Pump volute chamber is designed to give the best possible hydraulic efficiency. Dynamically balanced impeller offer vibration free operation with long life.

Prime mover is eco friendly wet wound type water filled rewindable. The stator windings are of water proof synthetic film insulated copper winding wires. It features water lubricated thrust and journal bearing. Motor is pre filled with clear, cold, pure, fresh filtered water.

Dynamically balanced rotor maintain uniform clearance thereby giving better efficiency and increase the life cycle of the water lubricated bush bearings. Specially designed high performance thrust bearings are used that can withstand high axial thrust loads and up thrust loads with wear and tear.

Pressure equalizing rubber diaphragm is provided to guard against pressure and volume variations due to thermal expansion of water inside the

SPECIFICATIONS

	LB SERIES	LH SERIES	LT SERIES
Power range	0.75 kW - 2.2 kW	3 kW - 18.5 kW	3 kW - 45 kW
Speed	2900 rpm	2900 rpm	2900 rpm
Versions	A.C. Three phase – 230V - 50 Hz Permanent Split Capacitor (PSC) – Incorporated with Thermal Overload Protector	A.C. Three phase – 380 - 415 V - 50 Hz Direct on line (DOL), upto 5.5 kW Star Delta (SD) 5.5 kW – 18.5 kW	A.C. Three phase – 380 - 415 V - 50 Hz Direct on line (DOL), upto 5.5 kW Star Delta (SD) 5.5 kW – 45 kW
Type of duty	S1 (Continuous)	S1 (Continuous)	S1 (Continuous)
Degree of protection	IP 58	IP 58	IP 58
Flow range upto	10 / 35 m^3/h	194 m^3/h	217 m^3/h
Head range upto	35 m	80 m	320 m
Nominal Delivery size in inches	1,1½, 2	2, 2½, 3 & 4	1, 2, 2½, & 3, 4, 6
Maximum liquid Temperature	33°C	33°C	33°C

APPLICATIONS Residential | Irrigation | Drip & sprinkler systems | Public water supply | Industrial & Rural water supply

FEATURES I No suction & priming problem I No need of pump house I Noiseless operation I High operating efficiency I Water lubricated bushes I Highly durable water cooled rewindable motor I Can be easily dismantled and repaired

DEEPWELL SUBMERSIBLE MOTORS
W - SERIES WATER FILLED

Description : C.R.I.'s W – Series motors are eco-friendly wet type, water filled and rewindable. The stator winding are of water proof synthetic film insulated copper winding wires. It features lubricated thrust and journal bearings. Motor is prefilled with clear, cold, pure, fresh, filtered water. Dynamically balanced rotor of these 'W' series motors maintain uniform clearance there by giving better efficiency and increase the life cycle of the water lubricated bush bearings. Specially designed high performance thrust bearings are used that can withstand high axial thrust loads and up thrust loads with wear and tear.

Pressure equalizing rubber diaphragm is provided to guard against pressure and volume variations due to thermal expansion of water inside the motor. Motor sealing are made by means of 'O' rings, shaft seals and sand guard to prevent ingress of well water, sand and fibre particles in to the motor. Mounting dimension of Motors are

APPLICATIONS

- Residential
- Irrigation
- Gardens
- Industrial water supply
- De-watering
- Fountains
- Mining
- Oil & Gas
- Sprinkler Systems
- CBM (Coal bed methane)
- Pressure boosting units

FEATURES

I Water cooled rewindable motor I Can be easily dismantled and repaired I High operating efficiency I Extremely hardwearing water lubricated bearings I Specially designed thrust bearing to withstand high axial and down thrust loads I AISI 630 (17- 4PH) motor shaft extension for longer life



SPECIFICATIONS					
Nominal Dia.	4" (100 mm)	6" (150 mm)	8" (200 mm)	10" (250 mm)	12" (300 mm)
Max. Outer Dia.	98 mm	144 mm	195 mm	231 mm	273 mm
Power Range	0.37 kW - 2.2 kW Single Phase Incorporated with Thermal Overload Protector 0.37 kW - 7.5 kW - Three Phase	2.2 kW - 45 kW Three Phase	15 kW - 93 kW Three Phase	81 kW - 185 kW Three Phase	150 kW - 300 kW Three Phase
Speed	2900 rpm	2900 rpm	2900 rpm	2900 rpm	2900 rpm
Versions	A.C. Single Phase : 230 V - 50 Hz Capacitor Start Capacitor Run (CSCR) A.C. Three Phase: 380 V - 415 V - 50 Hz Direct online (D.O.L)	A.C. Three Phase: 380 V - 415 V & 525 V - 50 Hz Direct online (D.O.L) : 2.2 kW - 45 kW Star Delta (S.D) : 5.5 kW - 45 kW	A.C. Three Phase: 380 V - 415 V & 525 V - 50 Hz Direct online (D.O.L) : 15 kW - 93 kW Star Delta (S.D) : 15 kW - 93 kW	A.C. Three Phase: 380 V - 415 V, 525 V - 50 Hz Direct online (D.O.L) : 81 kW - 150 kW Star Delta (S.D) : 81 kW - 185 kW	A.C. Three Phase: 380 V - 415 V, 690 V - 50 Hz Direct online (D.O.L) : 150 kW - 300 kW Star Delta (S.D) : 260 kW - 300 kW
Maximum Down Thrust Load	0.37kW - 1.5kW: 3000N 2.2kW - 7.5kW : 6500N	2.2kW - 22kW : 15500N 26KW - 45kW: 27500N	15kW - 18.5kW : 27000N 22kW - 93kW : 45500N	81KW-185kW:75000N	60000N
Type of Duty	S1 (continuous)	S1 (continuous)	S1 (continuous)	S1 (continuous)	S1 (continuous)
Degree of Protection	IP 58	IP 58 / IP 68	IP 58 / IP 68	IP 68	IP 68
Class of Insulation	Y	Y	Y	Y	Y
Maximum Liquid Temperature	33°C	33°C / 70°C	33°C / 70°C	30°C / 70°C	30°C / 70°C
Minimum Cooling Flow	0.15 m/s	0.15 m/s	0.15 m/s	0.15 m/s	0.15 m/s
Starts per Hour	20 times	20 times	10 times	10 times	10 times
Shaft	Splined as per NEMA Standard	Splined as per NEMA Standard	Splined as per NEMA Standard	Splined as per NEMA Standard	Splined as per NEMA Standard
Available M.O.C	Type : A & N	Type : A, B & N	Type : A, B & N	Type : A, B & N	Type : A, B & N

Mounting dimensions are in accordance with NEMA STANDARDS

DEEPWELL SUBMERSIBLE MOTORS
L - SERIES OIL FILLED

Deepstar

Description : C.R.I.'s L – Series motors are developed with diligence complying with all safety standards and giving importance to the customers need. All the components that are in contact with water is made of AISI 304 Stainless Steel. The motor is prefilled with edible grade oil which acts as coolant as well as lubricant and heat dissipation media.

Dynamically balanced rotor of these 'L' series motors are equipped with quality ball bearing maintain uniform clearance thereby giving better efficiency and increase the life cycle. The shaft extension is made of 300 series Stainless Steel to avoid splines worn out.

High quality carbon / ceramic mechanic seal and oil seal made of Nitrile rubber are used to ensure better sealing system. For easy maintenance and safe handling plug in type removable cable leads are provided. Mounting dimension of Motors are accordance with NEMA standard.

SPECIFICATIONS		
Nominal Dia.	4"	6"
Maximum Outer Dia.	96 mm	135 mm
Power Range	0.37 kW - 2.2 kW - Single Phase, 0.37 kW - 7.5 kW - Three Phase	5.5 kW - 45 kW - Three Phase,
Speed	2900 rpm	2900 rpm
Versions	A.C. Single Phase : 230 V - 50 Hz : Permenent Split Capacitor (PSC) A.C. Three Phase: 415 V - 50 Hz 0.37 kW - 7.5 kW : Direct online (D.O.L)	A.C. Three Phase: 380 V - 415 V 50 Hz
Maximum Down Thrust Load	0.37 kW - 0.75 kW : 1500 N, 1.1 kW - 4 kW : 2500 N, 5.5 kW - 7.5 kW : 4500 N	5.5 kW - 15 kW : 15,500 N, 18.5 kW - 45 kW : 30,000 N
Type of Duty	S1 (continuous)	S1 (continuous)
Degree of Protection	IP 68	IP 68
Class of Insulation	F	F
Maximum Immersion depth	150 m	70 m
Maximum Liquid Temperature	33°C	33°C
Minimum Cooling Flow	0.15 m/s	0.15 m/s
Starts per Hour	20 times	20 times
Shaft	Splined as per NEMA Standard	Splined as per NEMA Standard

Mounting dimensions are in accordance with NEMA STANDARDS

These prime mover submersible motors are suitable to couple with deepwell submersible pump ends, used for :

APPLICATIONS

- Residential
- Irrigation
- Fountains
- Industrial water supply
- Sprinkler systems
- Gardens
- Mining
- Pressure boosting units
- CBM (Coal bed methane)

FEATURES

I High operating efficiency and lesser power consumption I Extremely hard wearing ball & angular contact bearings I Corrosive resistence stainless steel body I Filled with non-toxic oil I Can be easily dismantled repaired

DEEPWELL SUBMERSIBLE MOTORS
R - SERIES RESIN FILLED ENCAPSULATED

Description : C.R.I.'s R – Series motors are hermetically sealed encapsulated and water lubricated type with Removable cable lead out. The stator winding are of enamelled copper wire and the wounded stator in mounted in a stainless steel shell and completely protected by a stainless steel cylinder and stator room is pre-filled with Resin. Dynamically balanced rotor of these 'R' series motors maintain uniform clearance there by giving better efficiency and increase the life cycle of the water lubricated bush bearings. Specially designed high performance thrust bearings are used that can withstand high axial thrust loads and up thrust loads with wear and tear.

Pressure equalizing rubber diaphragm is provided to guard against pressure and volume variations due to thermal expansion of water inside the motor. Motor sealing are made by means of 'O' rings, shaft seals and sand guard to prevent ingress of well water, sand and fibre particles in to the motor. Mounting dimension of

SPECIFICATIONS		
Nominal Dia.	4" (100 mm)	6" (150 mm)
Maximum Outer Dia.	96 mm	139 mm
Power Range	0.37 kW - 1.1 kW - Single Phase 2 Wire, 0.37 kW - 2.2 kW - Single Phase 3 Wire Incorporated with Thermal Overload Protector upto 0.75 kW, 0.37 kW - 7.5 kW - Three Phase 3 Wire	4 kW to 45 kW
Speed	2900 rpm	2900 rpm
Versions	A.C. Single Phase : 230 V - 50 Hz, Permenent Split Capacitor (PSC) Capacitor Start Capacitor Run (CSCR) A.C. Three Phase: 415 V - 50 Hz, Direct online (D.O.L)	A.C. Three phase 380-415 V, 50Hz
Maximum Down Thrust Load	0.37 kW - 0.55 kW : 1500 N, 0.75 kW - 1.5 kW - 3000 N, 2.2 kW - 7.5 kW : 6500 N	
Type of Duty	S1 (continuous)	S1 (continuous)
Degree of Protection	IP 68	IP
Class of Insulation	B	F
Maximum Liquid Temperature	33°C	33°C
Minimum Cooling Flow	0.15 m/s	0.15 m/s
Starts per Hour	20 times	20 times
Shaft	Splined as per NEMA Standard	Splined as per NEMA Standard

Mounting dimensions are in accordance with NEMA STANDARDS

These prime mover submersible motors are suitable to couple with deepwell submersible pump ends, used for :

APPLICATIONS

Residential | Irrigation | Fountains | Industrial water supply | Pressure boosting units

De-watering | Gardens | Oil & Gas | Sprinkler systems | Mining

FEATURES

I Can be easily dismantled and repaired I Higher power factor resulting in lesser power consumption I High operating efficiency I Extremely hardwearing water lubricated bearings I Specially designed thrust bearing to withstand high axial thrust loads I Larger shaft diameter for better power transmission I Corrosive resistance stainless steel body I Stator filled with resin for better heat dissipation

VERTICAL MULTISTAGE PUMPS
MV - SERIES

Description : C.R.I.'s vertical multistage centrifugal pumps (MV Series) are non self priming axial suction and delivery type available with DIN standard for connection. All components like impeller, diffuser & shaft of these pumps are made of corrosion resistant AISI Stainless Steel and designed to deliver the best possible hydraulic efficiency. 'O' ring and gasket prevents leakage at the intermediate casing during high pressure.

These pumps are powered by a totally enclosed fan cooled. A.C. induction motor, suitable for continuous Duty. Motor stator is made of low watt loss steel lamination assembled under pressure and rigidly locked in the frame.

Dynamically balanced rotor ensures vibration and noise free operation. Shaft of Ample size made of quality steel and precisely ground is used for transmitting rated Horse Power. Thermal over load protector is incorporated in all single phase motors.C.R.I.'s vertical multistage centrifugal pumps (MV Series) are non self priming axial suction and delivery type available with DIN standard for connection.

SPECIFICATIONS	
Power Range	0.37 kW - 110 kW
Speed	2900 rpm
Versions	A.C. Single Phase - 230V, 50Hz Permenent Split Capacitor (PSC) Inbuilt Thermal Overload Protector A.C. Three Phase - 380V / 415V, 50Hz
Type of Duty	S1 (Continuous)
Degree of Protection	IP 55 (Optional: IP 44, IP 54)
Class of Insulation	F / B (Optional 'B')
Discharge Range	upto 200 m^3/h
Head Range	10 - 330 m
Maximum Suction Lift	7m
Flange Type	Round (Optional: PJE, Oval)
Sealing type	Mechanical Seal - Catridge Type
Maximum Liquid Temperature	- 15°C to + 120°C
Maximum Ambient Temperature	40°C
Maximum Operating Pressure	3 MPa (30 bar)
Flange Standard	DIN
Pipe Connection	DN25, DN32, DN40, DN50, DN65, DN80 & DN100

APPLICATIONS

- Pressure boosting units
- Industrial water supply
- Fire fighting systems
- Reverse osmosis systems
- HVAC
- High pressure water supply
- Irrigation
- Washing systems
- Food processing industry
- Golf Course
- Mining
- Boiler feeding
- Water treatment plants

FEATURES

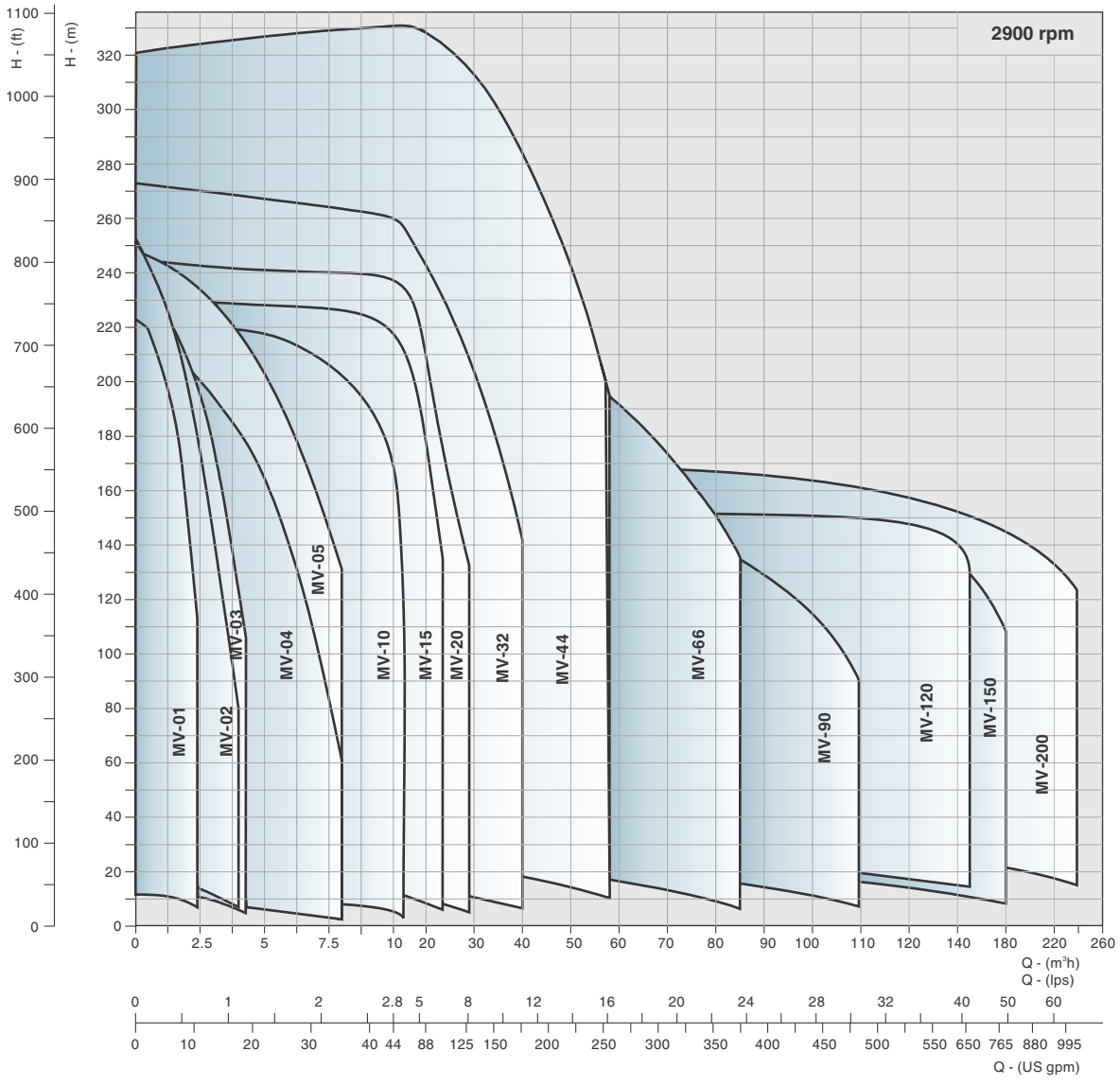
I High operating efficiency I Precise parts for hygiene I Good suction lift and operating pressure I Dynamically balanced rotating parts I Balanced and rigid construction I Available M.O.C. Type S, N & C.



Nominal Flow	m^3/h	1	2	3	4	5	10	15	20	32	44	66	90	120
150	200													
Head Maximum	m	219	230	227	206	238	219	233	245	275	330	232	193	167

Mounting dimensions are in accordance with NEMA STANDARDS

Group Performance Curves



VERTICAL MULTISTAGE PUMPS
BRAVO SERIES

Description : C.R.I. Bravo Series Pumps are designed to deliver the best possible hydraulic efficiency. The pump and the motor are connected with a single shaft to eliminate any transmission loss. Wear resistant bearings ensure better hydraulic efficiency and noiseless operation and the pump casing & bracket are made of high quality cast-iron. Dynamically balanced rotor ensure vibration and noise free operation. Shaft of ample size made of quality steel and precisely ground is used for transmitting the rated horsepower. Thermal over load protector is incorporated in single phase motors. These pumps are reliable, easy to install and high end user comfort.

SPECIFICATIONS	
Power Range	0.55 kW - 2.2 kW
Speed	2900 rpm
Versions	1 Ph, 230 V, 50 Hz, AC Supply 3 Ph, 380 V - 415 V, 50 Hz, AC Supply
Type of Duty	S1
Degree of Protection	IP 55
Class of Insulation	F
Head Range	77 - 22 m
Flow Range	1 - 7 m^3/h
Pump Size	1¼" x 1¼", 1½" x 1¼"

Flow	m^3/h	1	2	3	4	5	6	7
Shut-off Head	m	76	74	71.5	67.5	63.5	58	51.5
Outlet size	inches	1¼	1¼	1¼	1¼	1¼	1¼	1¼

Nominal Flow	m^3/h	2E	5
Head	m	47	63
Outlet size	inches	1¼ x 1¼	1½ x 1¼

APPLICATIONS

- Industrial and domestic water supply
- Small farms
- Pressure boosting and distribution
- Pumping of clean liquids in industry
- Car Washing
- Gardens

FEATURES

I High operating efficiency I Precise parts for hygiene I Good suction lift and operating pressure I Dynamically balanced rotating parts I Balanced and rigid construction

HORIZONTAL MULTISTAGE PUMPS
MHS, MHB & MD SERIES

Description : C.R.I.'s Horizontal Multistage Centrifugal Pumps (MH Series) are non self priming, axial suction and vertical radial delivery type threaded ports. All vital components like impellers, diffusers & shaft of these pumps are made of corrosion resistance AISI Stainless Steel and designed to deliver the best possible hydraulic efficiency. The pump and motor are connected with a single drive shaft to eliminate any transmission loss. 'O' ring and gasket prevents leakage at the intermediate casing during high pressure. Mechanical seal of these pumps are made of ceramic and carbon graphite to ensure reliability and easy replacement.

These pumps are powered by a totally enclosed fan cooled. A.C. induction motor, suitable for continuous Duty. Motor stator is made of low watt loss steel lamination assembled under pressure and rigidly locked in the frame.

Dynamically balanced rotor ensures vibration and noise free operation and the varnished impregnated winding made of enamelled copper wire offer excellent resistance. Thermal over load protector is incorporated in all single phase motors.

SPECIFICATIONS		
	MHS	**MHB**
Power Range	0.22 kW - 2.2 kW	0.25 kW - 2.2 kW
Speed	2900 rpm	2900 rpm
Versions	A.C. Single Phase - 230V, 50Hz Permenent Split Capacitor (PSC) Inbuilt Thermal Overload Protector A.C. Three Phase - 380V / 415V, 50Hz	A.C. Single Phase - 230V, 50Hz Permenent Split Capacitor (PSC) Inbuilt Thermal Overload Protector A.C. Three Phase - 380V / 415V, 50Hz
Type of Duty	S1 (Continuous)	S1 (Continuous)
Degree of Protection	IP 54	IP 55
Class of Insulation	B (Optional 'F')	F
Discharge Range	1 - 14 m^3/h	0.6 - 6.8 m^3/h
Head Range	5 - 57 m	12 - 70 m
Maximum Suction Lift	5 m	2 m
Sealing type	Mechanical Seal - Carbon Ceramic	Mechanical Seal - Carbon Ceramic
Maximum Liquid Temperature	90°C	50°C
Maximum Ambient Temperature	40°C	40°C
Maximum Operating Pressure	0.55 MPa (5.5 bar)	0.7 MPa (7 bar)
Nominal Suction & Delivery Size	1" x 1", 1½" x 1¼", 1½" x 1½"	1" x 1", 1¼" x 1¼"

APPLICATIONS

- Residential & Industrial Pressure boosting
- Small farms
- Washing systems
- Food processing industry
- Reverse osmosis systems
- Golf Course
- Industrial water supply
- HVAC

FEATURES

I High operating efficiency I Precise parts for hygiene I Good suction lift and operating pressure I Dynamically balanced rotating parts I Balanced and rigid construction I Available M.O.C. Type S, L, N & B I Inbuilt thermal overload protector in all single phase pumps

HORIZONTAL MULTISTAGE PUMPS
MHS, MHB & MD SERIES

SPECIFICATIONS	MD - Series
Power Range	0.37 kW - 3.0 kW
Speed	2900 rpm
Versions	A.C. Single Phase, 230 V, 50 Hz Permenent Split capacitor Inbuilt Thermal overload protector A.C. Three Phase 380 V / 415 V, 50 Hz
Type of Duty	S1 (Continuous)
Degree of Protection	IP 55
Class of Insulation	F
Discharge Range	1 - 28 m³/h
Head Range	5 - 65 m
Maximum Suction Lift	
Sealing type	Mechanical Seal - Carbon ceramic
Maximum Liquid Temperature	10 - 70°C
Maximum Ambient Temperature	50°C
Maximum Operating Pressure	10 Bar
Nominal Suction & Delivery Size	1" x 1", 1¼" x 1", 1½" x 1½", 2" x 2"

MHS - 50 Hz

Flow	m³/h	2.5	5	8	12
Head Maximum	m	55	54	53	57
Nominal inlet and outlet size	inches	1 x 1	1 x 1	1½ x 1¼	1½ x

MHB - 50 Hz

Flow	m³/h	1.2	2.4	3.6	4.8		
6.8							

MD - 50 Hz

Nominal Flow	m³/h	2	4	6	8	10	12	16	20	24
28										

HYDRO PNEUMATIC PRESSURE BOOSTER SYSTEMS
MHBS & MVHS SERIES

SPECIFICATIONS	MH - Series
Power Range	0.22 kW – 2.2 kW
Head (max.)	57 m
Flow (max.)	Discharge (max) of the individual pump x No. of pumps connected in parallel
Version	1 Ph, 230 V, 50 Hz / 3 Ph, 380 V - 415 V, 50 Hz, A.C.Supply
Degree of Protection	IP 54
Class of insulation	B / F (Optional)
Max. Liquid Temp	90°C
Max. Ambient Temp	40°C
Type of Duty	S1 (Continuous)
Outlet Sizes	1", 1¼", & 1½"

SPECIFICATIONS	MV - Series
Power Range	0.37 kW - 110 kW
Head (max.)	330 m
Flow (max.)	Discharge (max) of the individual pump x No. of pumps connected in parallel
Version	380 - 415 V, 3 Ph, A.C. Supply
Degree of Protection	IP 55 (Optional IP 44, IP 54)
Class of insulation	'F' & 'B' (Optional)
Max. Liquid Temp	-5°C to 120°C
Max. Ambient Temp	40°C
Type of Duty	S1 (Continuous)
Flange Sizes (DIN)	DN 25 to DN 100
Flange Types	Round / PJE

APPLICATIONS

- Hotels
- Apartments
- Commercial centers
- Industries
- Golf Course
- HVAC
- Food processing industry
- Reverse osmosis systems
- Water purification plants
- Washing systems
- Small farms

FEATURES

I Constant Pressure I Sturdy & Compact I Easy To Install I Low Running cost I Energy Saving I Ensures efficient & constant water pressure management throughout the building round the clock I Lesser running cost and reduced energy cost upto 40% compare to conventional constant speed systems I Control panel with VFD, PLC & Pressure Transmitter to meet the end-user's requirement I Reputed make variable frequency drive (VFD) and programmable logic controller (PLC) to regulate the speed of the duty pump as per the required flow rate to maintain constant pressure I Considerable saving in power & Plumbing cost I No manual interference to operate the plumbing system I No OHT or OHR required, so avoids water polution I Reduces the constructional cost and stress involved in building structure I Low noise & vibration level tough & reliable low maintenance cost I High operating efficiency I The complete system assembled compactly and well mounted on a single rigid base. Occupies lesser space due to its sturdy and compact design

CENTRIFUGAL MONOBLOCK PUMPS
CT-SERIES

Description : C.R.I's Centrifugal monoblock pump's volute chamber and impellers are carefully designed to give the best possible hydraulic efficiency and suction lift characteristics. Most modern and highly sophisticated machinery and technology are employed in the manufacture of these pumps using quality raw material, dynamically balanced impellers, seals and ball bearing to ensure long life. Dynamically balanced rotor ensures vibration and noise free operation. Shaft is made of quality steel, precision ground of ample size for

SPECIFICATIONS		
	Single Phase	**Three Phase**
Power Range	0.37 kW - 2.2 kW	2.2 kW - 15 kW
Speed	2900 rpm	2900 rpm
Versions	230V, 50Hz A.C. Supply Permanent Split Capacitor (PSC) with Inbuilt Thermal Overload Protector	380 - 415V, 50Hz A.C. Supply Direct Online (D.O.L) & S.D
Type of Duty	S1 (Continuous)	S1 (Continuous)
Degree of Protection	IP 54 / IP 44	IP 54
Insulation Class	F / B	F / B
Suction lift upto	7 m	7 m
Maximum Liquid Temperature	40°C	50°C
Maximum ambient Temperature	50°C	40°C
Discharge Range	1 - 42 m³/h	18 - 120 m³/h
Head Range	6 - 51 m	5 - 77 m
Nominal Suction Size	1", 1¼", 1½", 2", 2½	2", 2½", 3", 4"
Nominal Delivery Size	1", 1¼", 1½", 2"	1½", 2", 2½", 3", 4"

APPLICATIONS

Residential | Industrial water supply | Drip & sprinkler systems | Farms

Irrigation | Water treatment plants | General water supply

FEATURES

I High operating efficiency resulting in lower power consumption I Good suction lift characteristics I Dynamically balanced rotating parts including rotor & impeller I Balanced and rigid construction.

CENTRIFUGAL MONOBLOCK PUMPS
CTSS SERIES

Description : C.R.I's Centrifugal monoblock pump's volute chamber and impellers are carefully designed to give the best possible hydraulic efficiency and suction lift characteristics. Most modern and highly sophisticated machinery and technology are employed in the manufacture of these pumps using quality raw material, dynamically balanced impellers, seals and ball bearing to ensure long life. Dynamically balanced rotor ensures vibration and noise free operation. Shaft is made of quality steel, precision ground of ample size for transmitting the rated Horse power.

SPECIFICATIONS	
Power Range	0.37 kW - 3.0 kW
Speed	2900 rpm
Versions	Single Phase : 230 V, 50 Hz A.C. Supply Inbuilt Thermal Overload Protector Three Phase : 380 V - 415 V, 50 Hz A.C. Supply
Type of Duty	S1 (Continuous)
Degree of Protection	IP 55
Class of Insulation	F / B
Suction lift upto	7 m
Operating Liquid Temperature	5°C to 60°C
Maximum ambient Temperature	50°C
Discharge Range	1 - 35 m³/h
Head Range	8 - 35 m
Nominal Suction & Delivery Size	1¼" x 1", 1½" x 1", 1½" x 1¼", 2" x 2"

CTS

Flow	m³/h	2	4	6	8	10	12
Head Maximum	m	29.5	27.7	26	24	22	

APPLICATIONS

- Residential
- Small Farms
- Industrial water supply
- Food processing industries
- Irrigation
- Washing systems
- Pressure boosting units

FEATURES

I High operating efficiency I Good suction lift characteristics I Dynamically balanced rotating parts including rotor and impeller I Stainless steel parts for hygiene I Inbuilt thermal overload protector in all single phase pumps I Sturdy and compact construction

CENTRIFUGAL MONOBLOCK PUMPS
CT & CTSS SERIES - 3PH DIN STANDARD

Description : C.R.I's Centrifugal monoblock pump's volute chamber and impellers are carefully designed to give the best possible hydraulic efficiency and suction lift characteristics. Most modern and highly sophisticated machinery and technology are employed in the manufacture of these pumps using quality raw material, dynamically balanced impellers, seals and ball bearing to ensure long life. Dynamically balanced rotor ensures vibration and noise free operation. Shaft is made of quality steel, precision ground of ample size for transmitting the rated Horse power.

SPECIFICATIONS	CT -Series	CTSS -Series
Power Range	2.2 kW - 30 kW, 2 Pole, Three Phase	1.1kW - 18.5kW, 2 Pole, Three Phase
Speed	2900 rpm	2900 rpm
Degree of Protection	IP 55	IP 55
Class of Insulation	F / B	F
Versions	Three Phase, 380 V-415 V, 50 Hz A.C. Supply	Three Phase, 380 V -415 V, 50 Hz A.C. Supply
Degree of Rotation	Clockwise viewed from driving end	Clockwise viewed from driving end
Type of Duty	S1 (Continuous)	S1 (Continuous)
Nominal Suction & Delivery Sizes	2" x 1¼", 2½" x 1½", 2½" x 2", 3" x 2½", 4" x 3"	2" x 1¼", 2½" x 1½", 2½" x 2"
Head Range	10 - 90 m	8 - 73 m
Flow Range	10 - 245 m^3/h	3 - 70 m^3/h
Maximum Suction lift	7 m	7 m
Maximum Liquid Temperature	70°C	70°C
Maximum ambient Temperature	40°C	40°C

APPLICATIONS

Residential | General water supply | Industrial water supply | Farms

Irrigation | Water treatment plants | Drip & sprinkler systems

FEATURES

I Overall Dimension and Performance are according to EN 733 / DIN 24255 Standards I High operating efficiency resulting in lower power consumption I Good suction lift characteristics I Dynamically balanced rotating parts including rotor & impeller I Balanced and rigid construction.

SELF-PRIMING JET PUMPS
JTS & JTB SERIES

Description : C.R.I's Self-Priming Jet Pump's casing and ejector unit are designed carefully to give the best hydraulic efficiency and suction lift characteristics. Mechanical seals are made of carbon & ceramic which is precisely grounded to close tolerances. Most modern and highly sophisticated machinery and technology are employed in manufacturing these pumps using quality raw materials and dynamically balanced impellers, rotors & shafts ensure longer life and noise free

SPECIFICATIONS	JTS - SERIES	JTB - SERIES
Power Range	0.37 kW - 1.1 kW	0.45 kW – 1.5 kW
Speed	2900 rpm	2900 rpm
Degree of Protection	IP 55 / IP 54	IP 44
Class of Insulation	F / B	B / F
Versions	Single Phase : 230 V, 50 Hz A.C. Supply Inbuilt Thermal Overload Protector Three Phase : 380 V, 50 Hz A.C. Supply	Single Phase 230 V, 50 Hz, A.C. Supply (Permanent Split Capacitor - PSC) Incorporated with Thermal Overload Protector.
Direction of Rotation	Clockwise viewed from driving end	Clockwise viewed from driving end
Type of Duty	S1 (Continuous)	S1 (Continuous)
Nominal Suction & Delivery Sizes	1" x 1"	1" x 1", 1¼" x 1"
Head Range	10 - 45 m	10 - 55 m
Flow Range	0.5 - 4 m³/h	1 - 5 m³/h
Maximum Suction Lift	7 m	8 - 9 m
Maximum Liquid Temperature	5°C to 60°C	40°C
Maximum Ambient Temperature	50°C	50°C

JTS

Flow	m^3/h	1	2	3	4
Head Maximum	m	39.5	32.5	26.5	10

JTB

Flow	m^3/h	1	2	3	4
Head Maximum	m	49	43.5	38	33

APPLICATIONS

Residential | Irrigation | Small Farms | Pressure boosting units

Industrial water supply | Washing systems

FEATURES

I High operating efficiency I Good suction lift characteristics I Dynamically balanced rotating parts including rotor and impeller I Inbuilt thermal overload protector in all single phase pumps I Sturdy and compact construction

PRESSURE BOOSTER SYSTEMS
JTS & JTB SERIES

Description : C.R.I. Automatic pressure booster systems comprises of Self priming jet pump (JTS / JTC - Series), Pressure tank, Mechanical Pressure switch & other accessories designed ingeniously for delivering optimal performance. This system eliminates the need of over-head tanks & float switch. The electro mechanical control device switches ON & OFF the pump automatically whenever the pressure reaches the minimum and maximum preset levels. It maintains uniform pressurized water in the pipelines suitable for all domestic applications.

SPECIFICATIONS		JTS - SERIES	JTB - SERIES
Power Range		0.55 kW - 0.75 kW	0.45 kW – 1.5 kW
Speed		2900 rpm	2900 rpm
Degree of Protection		IP 55	IP 44
Class of Insulation		B / F	B / F
Versions		Single Phase 230V, 50Hz, A.C. Supply (Permanent Split Capacitor - PSC) Incorporated with Thermal Overload Protector	Single Phase 230V, 50Hz, A.C. Supply (Permanent Split Capacitor - PSC) Incorporated with Thermal Overload Protector
Direction of Rotation		Clockwise viewed from driving end	Clockwise viewed from driving end
Type of Duty		S1 (Continuous)	S1 (Continuous)
Nominal Suction & Delivery Sizes		1" x 1"	1" x 1", 1¼" x 1"
Head Range		19 - 31 m	20 - 33 m
Flow Range		1.5 - 2.4 m³/h	1.5 - 2.4 m³/h
Maximum Suction Lift		7 m	7 m
Maximum Liquid Temperature		5°C to 60°C	40°C
Maximum Ambient Temperature		50°C	50°C
Pressure setting	Cut-in Cut-out	1 bar & 2.1 bar 2.5 bar & 3.5 bar	1.4 bar & 2.1 bar 2.8 bar & 3.5 bar

APPLICATIONS

Residential | Multi-storeyed apartments | Villas | Commercial centers

Gardens | Hotels/Restaurant

FEATURES

I Sets free from operating the pump every time manually I Eliminates need of overhead tank & float switch I Ensures uninterrupted water supply with adequate pressure always I Saves water, electrically & time I Designed for easy installation

PERIPHERAL PUMPS
PE SERIES

Description : C.R.I.'s Peripheral pump's volute chamber and impellers are designed to give the best possible hydraulic efficiency and suction lift characteristics. The brass inserts provided inside the pump casing reduces wear & tear and this give longer life and prevent the pump from seizing if it is kept idle for long period. Motor starter is made of low watt loss steel laminations. The windings are of high grade enameled copper wire and are varnish impregnated. Dynamically balanced rotor ensure vibration and noise free operations. Construction of motor frames and usage of quality materials result in high performance and low temperature rise thereby increasing the life cycle of the motor.

SPECIFICATIONS	
Power Range	0.37 kW & 0.75 kW
Speed	2900 rpm
Versions	A.C. Single Phase - 230 V - 50 Hz Permanent Split Capacitor (PSC) - Incorporated with Thermal Overload Protector
Type of Duty	S1 (Continuous)
Degree of Protection	IP 54
Class of Insulation	'B'
Flow rate upto	0.87 lps / 3.13 m^3/h
Head range upto	243 ft / 74 m
Suction lift upto	25 ft / 8 m
Nominal Suction x Delivery Size in inches	1 x 1 (BSP)
Maximum liquid Temperature	50°C
Maximum ambient Temperature	40°C
Maximum Operating Pressure	7.4 bar

APPLICATIONS

Residential | Gardens | Pressure boosting | Washing systems | Civil applications

FEATURES

I Sturdy and compact I Quiet and maintenance free I Excellent hydraulic performance I Optimal design I Good suction capacity I Brass insert is provided in the pump casing I Incorporated with thermal overload protector I Dynamically balanced rotating parts

SWIMMING POOL PUMPS
NOVA & VISTA-SERIES

Description : C.R.I.'s "Vista" and "Nova" series swimming pool pumps are self-priming type inbuilt with pre filter basket for cleaning the pool water. The mechanical seals are made of graphite and alumina with close tolerance for perfect sealing systems and the dynamically balanced rotary parts ensure vibration and noise free operation. All the parts of both pumps and motors are made of high quality materials to enhance the life span and efficiency. All single phase pumps are equipped with thermal overload protector to protect the

VISTA

Flow	m^3/h	3	6	9	12	15	19

NOVA

Flow	m^3/h	6	12	18	24	30	34

SPECIFICATIONS		
	VISTA	**NOVA**
Power Range	0.37 kW - 1.1 kW Single & Three phase	1.1 kW & 1.5 kW Single & Three phase 2.2 kW - Three phase
Speed	2900 rpm	2900 rpm
Versions	A.C. Single Phase 220 V - 50 Hz A.C. incorporation with thermal overload protector A.C. Three phase 380 V - 50 Hz	A.C. Single Phase 220 V - 50 Hz A.C. incorporation with thermal overload protector A.C. Three phase 380 V - 50 Hz
Type of Duty	S1 (Continuous)	S1 (Continuous)
Degree of Protection	IP 55	IP 55
Class of Insulation	'F'	'F'
Motor type	Asynchronous	Asynchronous
Nominal suction and delivery size (inches)	2 x 2	2½ x 2½
Suction lift upto	7 m	7 m
Discharge Range	3 - 19 m^3/h	6 - 34 m^3/h
Head Range	7 - 17 m	7 - 21 m

APPLICATIONS Swimming pool filtration and recycling

FEATURES | Noise free operation | Self priming with inbuilt pre filter | High operating efficiency resulting at lower consumption | Dynamically balanced rotating parts including rotor and impeller | Inbuilt thermal overload protector in all single phase pumps | Compact construction

WASTE WATER SUBMERSIBLE PUMPS
MS & MP SERIES

Description : With the excellence gained in pump technology over the period of 52 years C.R.I. has introduced highly efficient and reliable sewage & drainage pumps in a comprehensive range. These pumps are available with different materials of construction and features a multitude of applications in waste water handling and treatment.

Besides expanding its product portfolio, C.R.I. is firmly committed to contribute a vital role in creating a more pleasant and affluent living condition world wide, which is one among its ambitious goal.

SPECIFICATIONS	
Power Range	400 Watts to 1100 Watts
Version	Single Phase 230 V, 50 Hz, A.C Supply
Degree of Protection	IP X8
Class of Insulation	B
Delivery Size	Drainage : 1¼", Sewage : 1½"
Max. ampient temp.	40°C
Max. liquid temp.	40°C
pH Value	6 - 8.5
Max. immersible depth	5 m

PERFORMANCE DATA

MP Series Plastic Pump & Motor Body

Model	Power (Watts)	Outlet Size	Max. Flow (m³/h)	Max. Head (m)	Weight (kg)
MS - S550	550	1¼"	8	7	6
MS - S750	750	1¼"	10	8	6.3
MS - S900	900	1¼"	10	9	7
MS - S1100	1100	1¼"	12	10.5	7.8
MS - D400	400	1¼"	6	6.5	5
MS - D550	550	1¼"	7	7.5	5.5
MS - D750	750	1¼"	9	8.5	5.6
MS - D900	900	1¼"	10	9.5	5.8

PERFORMANCE DATA

MS Series - SS Pump & Motor Body

Model	Power (Watts)	Outlet Size	Max. Flow (m³/h)	Max. Head (m)	Weight (kg)
MP - T400	400	1¼"	6	5.5	4
MP - T550	550	1¼"	8	7	4.5
MP - T750	750	1¼"	10	8	5
MP - T900	900	1¼"	12	8.5	5.5

APPLICATIONS — Residential Drainage and Sewage | Gardening | De-watering

WASTE WATER SUBMERSIBLE PUMPS
DL, SL & CSL SERIES

Description : With the excellence gained in pump technology over the period of 52 years C.R.I. has introduced highly efficient and reliable sewage & drainage pumps in a comprehensive range. These pumps are available with different materials of construction and features a multitude of applications in waste water handling and treatment.

Besides expanding its product portfolio, C.R.I. is firmly committed to contribute a vital role in creating a more pleasant and affluent living condition world wide, which is one among its ambitious goal.

All C.R.I. drainage & sewage pumps are perfectly powered by motor designed to deliver optimal performance and to with stand vagaries of weather and power fluctuation.

Drainage Pumps	:	DL - Series	SS Drainage Pumps	:	DLS - Series
Sewage Pumps	:	SL - Series	SS Sewage Pumps	:	SLS - Series
Sewage Pumps with Cutter	:	SLC - Series	SS Sewage Pumps with Cutter	:	SLSC - Series

APPLICATIONS

- Pumping waste water in industries
- Draining sewage water from hotels, houses, commercial buildings, complexes etc.
- Pumping sewage water from stock farms & manhole sewer
- Sewage treatment plants
- Septic tank
- Pumping municipal sewage water
- Tunnels and mines
- Leather factories

FEATURES

I Heavy duty bearings I High efficiency copper wound motor I In built capacitor for single phase and conductor for three phase which eliminates / starter / control box (DL & SL - Series) I Safe and quite operation I Most reliable and hard wearing I Tailor - made designs I Multipurpose applications I Easy and cost effective serviceability



TECHNICAL SPECIFICATIONS - CAST IRON SERIES

	DL - Series	SL - Series	SLC - Series	Light Sewage/Drainage
Power Range	0.37 kW - 2.2 kW, 1Ph -	0.55 kW - 1.5 kW, 1 Ph 1.1 kW - 1.5 kW, 3 Ph	1.1 kW - 1.8 kW, 1 Ph 1.1 kW - 1.8 kW, 3 Ph	Sewage : 0.55 kW - 2.2 kW, 1 Ph Drainage : 0.37 kW - 2.2 kW, 1 Ph Sewage : 0.75 kW - 2.2 kW, 3 Ph Drainage : 0.75 kW - 2.2 kW, 3 Ph
Speed	**2900 rpm**			**2900 rpm**
Version	**230V - 50Hz A.C. Supply** **380 - 415V - 50Hz A.C. Supply**			**380 - 230V - 50Hz A.C., 1 Ph** **415V - 50Hz A.C., 3 Ph**
Max. Flow Range	40 m^3/h	20 m^3/h	22 m^3/h	Sewage : upto 35 m^3/h Drainage : upto 28 m
Max. Head Range	19 m	23 m	11 m	Sewage : 16.5 m Drainage : 18 m
Degree of Protection	IP 68			IP 68
Insulation Class	B / E			B / F (optional)
Motor Type	Dry - type			Dry (Rewindable)
Duty	S1 (Continous)			S1 (Continous)
Direction of Rotation	Clockwise			Clockwise
Maximum Immersion Depth	5 m			5 m
Mechanical Seal	Carbon / Ceramic			Carbon / Ceramic
Impeller Type	Closed Double Channel / Semi-Open Double Channel / Vortex			Vortex / Semi open
Outlet Size	1", 1¼, 1½", 2", 2½" & 3"			1½", 2" & DN 65

TECHNICAL SPECIFICATIONS - STAINLESS STEEL SERIES

	DLS - Series	SLS - Series	SLSC - Series
Power Range	0.37 kW - 1.1 kW, 1 Ph 0.37 kW - 1.1 kW, 3 Ph	0.55 kW - 1.5 kW, 1 Ph 0.55 kW - 2.2 kW, 3 Ph	1.1 kW - 1.5 kW, 1 Ph 1.1 kW - 1.5 kW, 3 Ph
Speed	**2900 rpm**		
Version	**230V - 50Hz A.C. Supply, 1 Ph** **380 - 415V - 50Hz A.C. Supply, 3 Ph**		
Max. Flow Range	42 m^3/h	22 m^3/h	30 m^3/h
Max. Head Range	17 m	19 m	17 m
Degree of Protection	IP 68		
Insulation Class	B		
Motor Type	Dry - type		
Duty	S1 (Continous)		
Direction of Rotation	Clockwise		
Maximum Immersion Depth	5 m		
Mechanical Seal	Carbon / Ceramic		
Impeller Type	Closed Double Channel / Semi-Open Double Channel / Vortex		
Outlet Size	1½", 2" & 2½"		

WASTE WATER SUBMERSIBLE PUMPS
DM, SM & SH SERIES

Description : With the excellence gained in pump technology over the period of 52 years C.R.I. has introduced highly efficient and reliable sewage & drainage pumps in a comprehensive range. These pumps are available with different materials of construction and features a multitude of applications in waste water handling and treatment.

Besides expanding its product portfolio, C.R.I. is firmly committed to contribute a vital role in creating a more pleasant and affluent living condition world wide, which is one among its ambitious goal.

All C.R.I. drainage & sewage pumps are perfectly powered by motor designed to deliver optimal performance and to with stand vagaries of weather and power fluctuation.

APPLICATIONS

- Pumping waste water in industries
- Draining sewage water from hotels, houses, commercial buildings, complexes etc.
- Pumping sewage water from stock farms & manhole sewer
- Sewage treatment plants
- Septic tank
- Pumping municipal sewage water
- Leather factories
- Tunnels and mines

FEATURES

I Heavy duty bearings I High efficiency copper wound motor I In built capacitor for single phase and conductor for three phase which eliminates / starter / control box I Safe and quite operation I Most reliable and hard wearing I Tailor - made designs I Multipurpose applications I Easy and cost effective serviceability



Type	Medium Sewage	Heavy Sewage	SS Medium Sewage	Cutter Type
Series	**SM Series**	**SH Series**	**SMS Series**	**SMC Series**
Power Range	2.2 kW - 5.5 kW	2900 rpm : 5.5 kW - 15 kW 1450 rpm : 7.5 kW - 37 kW	2.2 kW - 7.5 kW	1.1 kW - 1.85 kW
Speed	2900 rpm	2900 rpm / 1440 rpm	2900 rpm	2900 rpm
Versions	3Ph, 380V - 415V - 50Hz	3Ph, 380 - 415V - 50Hz	3Ph, 380 - 415V - 50Hz	1Ph, 230V - 50Hz 3Ph, 380V - 50Hz
Type of Duty	S1 (Continuous)	S1 (Continuous)	S1 (Continuous)	S1 (Continuous)
Degree of Protection	IP 68	IP 68	IP 68	IP 68
Insulation Class	F	F	F	F
Impeller Type	Closed Double Channel	Closed Double Channel	Closed Double Channel	Vortex
Motor Type	Dry (Rewindable)	Dry (Rewindable)	Dry (Rewindable)	Dry (Rewindable)
pH Value	6 to 10	6 to 10	4 to 10	6 to 10
Head Maximum	53 m	2900 rpm : 62.5 m 1450 rpm : 42.5 m	45 m	23.5 m
Maximum Flow	70 m^3/h	2900 rpm : 160 m^3/h 1450 rpm : 780 m^3/h	160 m^3/h	20 m^3/h
Solid Handling Capacity	up to 35 mm	upto 55 mm	upto 35 mm	NA

Type	Medium Drainage DM Series			
Series	**DM-1M Series**	**DM-2M Series**	**DMA Series**	**DMS Series**
Power Range	1.5 kW - 5.5 kW	5.5 kW - 15 kW	4 kW - 9 kW	2.2 kW - 22 kW
Speed	2900 rpm	2900 rpm	1450 rpm	2900 rpm
Versions	3Ph, 380-415V - 50Hz	3Ph, 380-415V - 50Hz	3Ph, 380-415V - 50Hz	3Ph, 380V - 50Hz
Type of Duty	S1 (Continuous)	S1 (Continuous)	S1 (Continuous)	S1 (Continuous)
Degree of Protection	IP 68	IP 68	IP 68	IP 68
Insulation Class	F	F	F	F
Impeller Type	Closed Double Channel	Semi open Multi-channel	Semi open Multi-channel	Closed Double channel
Motor Type	Dry (Rewindable)	Dry (Rewindable)	Dry (Rewindable)	Dry (Rewindable)
pH Value	6 to 10	6 to 10	6 to 10	6 to 10
Head Maximum	48.5 m	34 m	21.5 m	47 m
Maximum Flow	156 m^3/h	105 m^3/h	170 m^3/h	280 m^3/h
Solid Handling Capacity	upto 19.5 mm	upto 8.5 mm	upto 30 mm	upto 8 mm
Maximum Liquid Temperature	40°C	40°C	40°C	40°C
Delivery Size	2", 3", 4" & 6"	2" & 4"	3", 4" & 6"	2½", 3", 4", 5", 6" & 10"

WASTE WATER SUBMERSIBLE PUMPS
i-TECH SERIES

Description : With the excellence gained in pump technology over the period of 52 years C.R.I. has introduced highly efficient and reliable sewage & drainage pumps in a comprehensive range. These pumps are available with different materials of construction and features a multitude of applications in waste water handling and treatment.

Besides expanding its product portfolio, C.R.I. is firmly committed to contribute a vital role in creating a more pleasant and affluent living condition world wide, which is one among its ambitious goal.

All C.R.I. drainage & sewage pumps are perfectly powered by motor designed to deliver optimal performance and to with stand vagaries

APPLICATIONS

- Pumping waste water in industries
- Septic tank
- Tunnels and mines
- Pumping sewage water from stock farms & manhole sewer
- Leather factories
- Pumping municipal sewage water
- Sewage treatment plants
- Draining sewage water from hotels, houses, commercial buildings, complexes etc.

DRAINAGE PUMPS

- Aquaculture water supply and drainage
- Water supply for agriculture irrigation, underground water pumping
- Landscape and horticulture irrigation
- Pumping of water from river and lakes

FEATURES

I International standard design: VCT cable, auto-cut, silicon carbide mechanical seal, high grade cast iron, good quality and performance I Multiple impeller design, there are different kinds of impeller to handle different sewage and waste water I Full range from low head to high head, compact and easy installation, equipped with rail system available.



SPECIFICATIONS	
Power Range	Single Phase : 0.5 kW - 2.3 kW Three Phase : 0.5 kW - 800 kW
Speed	2900/1450/960/750/600/500/375 rpm
Versions	A.C. Single Phase 230 V A.C. Three Phase 400V, 415V, 690V, 3300V & 6600V
Type of Duty	S1 (Continuous)
Degree of Protection	IP 68
Insulation Class	B / F
Impeller Type	Vortex / Closed Single Channel / Closed Multi Channel / Open Single Channel
Motor Type	Dry (Rewindable)
pH Value	4 to 10
Head Maximum	upto 73 m
Maximum flow	upto 10000 m^3/h
Solid Handling Capacity	6 mm to 165 mm
Maximum Liquid Temperature	40°C / 50°C (Optional : 60°C and 70°C on request)
Delivery Size	1½" to 2½" / DN50 to DN800

* Optional : with & without Float Switch

DEWATERING PUMPS
NON-CLOG SELFPRIMING PUMPS - ECN SERIES

Description : ECN Series pumps are of non-clog, self-priming centrifugal type that is uniquely designed for various dewatering applications. These pumps are featured with easy removal of front cover and removal of back rotating assembly for easy maintenance of clog, solid particles etc.,

SPECIFICATIONS	
Power Range	0.75 kw to 94 kW
pH Value	5 to 9
Discharge Range	2.5 m3/h to 1280 m3/h
Head Range	2 m to 62.5 m
Max. solid size	76.2mm
Max. Liquid temperature	80 Deg C
Delivery Sizes	2”, 3”, 4”, 6”, 8”, 10”& 12”

These pumps can be supplied with Electric/Diesel Prime movers

APPLICATIONS

- Pumping waste water in industries
- Tunnels and mines
- Pumping municipal sewage water
- Sewage treatment plants
- Draining sewage water from hotels, houses, commercial buildings, complexes etc.

FEATURES

I Easy removal of clogs, can be fitted on the trolley and use it for mobile dewatering purposes I This pump is designed to avoid frequent priming

DEWATERING PUMPS
WELL POINT DEWATERING PUMPS - ECD SERIES

Description : ECD series pumps are designed for well point de-watering applications. These pumps can be coupled with engine/motor and mounted on a skid with trailer for easy mobility. These pumps are supported with Vacuum pump to facilitate auto self-priming

SPECIFICATIONS	
Power Range	11 kW to 82.5 kW
pH Value	5 to 9
Discharge Range	115 m3/h to 1200 m3/h
Head Range	22 m to 30 m
Max. Operating Pressure	16 kg/cm^2
Max. solid size	25 mm
Max. Liquid temperature	60^{o}C
Delivery Sizes with Inbuilt in Vacuum pump	4", 8" & 12"

APPLICATIONS

- Pumping waste water in industries
- Tunnels and mines
- Pumping municipal sewage water
- Sewage treatment plants
- Draining sewage water from hotels, houses, commercial buildings, complexes etc.

FEATURES

I Easy removal of clogs, can be fitted on the trolley and use it for mobile dewatering purposes I Vacuum pump is fitted to avoid frequent priming

SOLAR PUMPING SYSTEMS
D.C. SOLAR SUBMESIBLE PUMPS

C.R.I. SOLAR SUBMERSIBLE PUMPS

C.R.I Pumps with 5 decades of engineering expertise in pump industry, in keeping with its innovative spirit, have extended its Solar Pumping systems with new comprehensive range of products from Deepwell Submersible systems to Surface pump ranges. These product ranges ensures that even in areas where there is little or no power distribution the need for water is met. It is also part of the Company's initiatives to promote GREEN ENERGY.

These next generation C.R.I. Solar Pumping systems are developed with modern methods of design, integrated with the most advanced production technologies. C.R.I Solar pumping systems are designed for various applications, combine with high performance and durability.

C.R.I A.C/D.C. SOLAR SUBMERSIBLE PUMPING SYSTEMS

These Deepwell pumping systems are available in Screw and Centrifugal type Solar Pumps with different head and flow range to meet customer requirements. Lower capacity pumps of these systems are supplied with C.R.I. Oil filled permanent magnet, brushless DC motors and Higher capacity pumps are supplied with C.R.I. Water filled rewindable A.C motors. High quality polycrystalline solar panel ensures optimum efficiency of the system.

D.C. SOLAR SUBMERSIBLE PUMPS	
Nominal Dia.	3" & 4"
Power range	80 W - 1000 W
Voltage	12 - 110 V DC
Motor Type	DC Oil filled Brushless motor
Type of duty	S1 (Continuous)
Degree of protection	IP 68
Max. immersion depth	30 m
Pump Type	Screw or Multistage Centrifugal
Max. Head	120 m
Max. Flow	7 m³/h
Outlet size	¾", 1", 1¼", 1½", 2"

APPLICATIONS

Residential | Irrigation | Remote areas | Live stock farms | Public water supply

Small farms | Industries | De-watering | Golf course

FEATURES

I Eco friendly I Centrifugal & Helical Rotor design I Silicon Crystalline PV technology I High module Cell Efficiency I Pumps Available in 3 different constructions / Dry Run Protector I NEMA mounting standard I Water Level Sensor I Powered by C.R.I. Brand DC / AC motors

SOLAR PUMPING SYSTEMS

D.C. SOLAR SURFACE PUMPS

C.R.I. D.C. Solar Surface Pumps

C.R.I. Range of Solar Surface pumps are available in different types such as D.C. Solar Pool Pumps, D.C. Solar Peripheral Pumps, D.C. Solar S.S Jet Pumps & D.C. Solar Screw Pumps to suit various applications. These pumps are available up to 1500 Watts power ranges with Maximum Head range upto 95 m and flow range upto 28 m^3/h.

D.C. SOLAR SURFACE PUMPS					
Power range	120 W - 1500 W				
Voltage	24 - 110 V DC				
Motor Type	DC Brushless motor				
Type of duty	S1 (Continuous)				
Pump Type	Pool	Peripheral	Screw	JET	
Max. Head	21 m	36 m	95 m	34 m	
Max. Flow	29 m^3/h	2 m^3/h	3 m^3/h	3 m^3/h	
Outlet size	1½" x 1½" 3" x 3"	1" x 1"	1" x 1"	1" x 1"	

SOLAR PUMPING SYSTEMS
A.C. SOLAR PUMP CONTROLLERS

VFD cum Inverter

C.R.I. A.C.Solar pump controllers

C.R.I. A.C Solar pumping systems are supplied with A.C. Solar Pump Controllers integrated with unique features. These controllers are used to convert D.C. power generated from the PV Modules to 3 Phase A.C. power to drive any 3 Phase A.C pumping systems (Submersible or Surface Pumps). The Maximum Power Point Tracking (MPPT) function on the controller ensures improved and overall

A.C. SOLAR PUMP CONTROLLER	
Power Range	0.37 kW - 7.5 kW : 220V output controller 1.1 kW - 18.5 kW: 380V output controller
Versions	3 Ph - 220 V / 230 V - 50 Hz 3 Ph - 380 V - 50 Hz
Input Varients	DC input from PV modules 3 Ph - AC input from Grid / Generator
Degree of Protection	IP 42
Ambient Temp.	-10 to +50^{o}C
Input DC Voltage (Vmp) range	220 V output: 270 - 370 V DC 380 V output: 500 - 600 V DC
Input AC Voltage range	220 V output: 200 - 240 V AC +/- 10% 380 V output: 380 - 480 V AC +/- 10%

SOLAR PUMPING SYSTEMS
SOLAR PANELS

C.R.I. Solar Panels

All C.R.I Solar Pumping Systems are supplied with Highly Durable, high quality photovoltaic modules made up of Polycrystalline & Monocrystalline cells. These modules are available from 10 Wp to 300 Wp and are certified in accordance with IEC 61215 and supplied with IP 65 protection junction box & bypass diodes to avoid partial shading.

PV MODULES	
Type	Polycrystalline & Monocrystalline
Power Range	35 W to 300 W
Voltage	18 - 36 Vmp
Temp. Co-efficient Voltage	60.8 mV / ^{o}C
Temp. Co-efficient current	2.2 mA / ^{o}C
Max. power tolerance	5%
No. of cells	36 / 48 / 54 / 60 / 72

END-SUCTION PUMPS
ECW & ECM SERIES

Description : C.R.I Pumps with over 5 decades of engineering expertise in pump industry, in keeping with its innovative spirit, presents a complete & Comprehensive range of ECW Series End Suctions pumps for Clear Water applications. With the host of positive and impressive features these pumps augments the Extensive range of C.R.I. Pumps. Designed to meet high pumping requirements in terms of performance and efficiency, these ranges are offered with different specifications & variants that are customized to suit specific applications of the customers in different segments.

C.R.I.'s extensive range of these End suction pumps are developed with at most care and reinforced by the commitment delivered through the performance and Engineering perfection that stands for customer satisfaction beyond the limits of technology.

Features : Heavy Duty Construction / Parts Interchangeability / Bearing Condition Monitoring / Various Sealing Options; Gland Packing, Mechanical Seal, Expellers / Back Pull-out Designs / Renewable Wear Parts / Heavy Duty Shaft Bearings / Excellent Impeller

SPECIFICATIONS		
	ECW - Series	**ECM - Series**
Outlet Size	DN 32 to DN150	DN 250 to DN 450
Speed	2900 rpm / 1450 rpm	720 rpm / 960 rpm / 1450 rpm
Flow Range	up to 550 m³/h	up to 3500 m³/h
Head Range	up to 100 m	up to 45 m
Maximum Operating Temperature	90°C	60°C
Maximum working Pressure	16 bar	16 bar

APPLICATIONS

- General water supply
- Water treatment plants
- Fire fighting
- HAVC
- Sprinkler systems
- Industrial water supply
- De-salination
- Power plants
- Paper & pulp industries
- Irrigation

FEATURES

I Designed to allow interchangeability of their components I Minimizes shaft deflection maximizes bearing and mechanical seal life I Heavy duty bearing ensures long life I Back pullout design facilitates dismantling the pump without disconnecting the pipes I Dimensions and characteristics according to DIN 24255 I Available both in mechanical seal and soft packed stuffing box design

END-SUCTION PUMPS
ECP SERIES

Description : C.R.I Pumps with over 5 decades of engineering expertise in pump industry, in keeping with its innovative spirit, presents a complete & Comprehensive range of ECP Series End Suctions pumps for various applications like, Paper & Pulp process, Food & Beverage process, Mining & Mineral process and Power Generation & Steel. With the host of positive and impressive features these pumps augments the Extensive range of C.R.I. Pumps. Designed to meet high pumping requirements in terms of performance and efficiency, these ranges are offered with different specifications & variants that are customized to suit specific applications of the customers in different segments.

C.R.I.'s extensive range of these End suction pumps are developed with at most care and reinforced by the commitment delivered through the performance and Engineering perfection that stands for customer satisfaction beyond the limits of technology.

Features : Heavy Duty Construction / Parts Interchangeability / Bearing Condition

SPECIFICATIONS	
Power Range	40 kW - 340 kW
Nominal Speeds	720 / 960 / 1450 rpm
Max. Discharge	3100 m^3/h
Head Range	97 m
Max. Solid allowable	95 mm
Max. Operating Pressure	10 bar
Outlet size	80 - 355 mm
Max. Operating Temperature	232°C

APPLICATIONS

- Paper & pulp industries
- Food & Beverages
- Mining & Mineral Processes
- Power Generations
- Steel Plants

FEATURES

I Back pull- out type I Easy Maintenance & Repair I Universal Joints(optional) I Different MOC for High corrosive & errosive fluids I Flanges with ANSI & DIN standards [DIN is optional] I High Efficiency Non-clog, Semi-open impellers I Sealing : Gland / Mechanical seal [optional] I Heavy duty shaft & bearing I External Impeller adjustment I Low maintanance cost

END-SUCTION PUMPS
ECC SERIES

Description : C.R.I Pumps with over 5 decades of engineering expertise in pump industry, in keeping with its innovative spirit, presents a complete & Comprehensive range of ECC Series End Suctions pumps for various applications like, General Industry, Oil, Gas & Chemical process. With the host of positive and impressive features these pumps augments the Extensive range of C.R.I. Pumps. Designed to meet high pumping requirements in terms of performance and efficiency, these ranges are offered with different specifications & variants that are customized to suit specific applications of the customers in different segments.

C.R.I.'s extensive range of these End suction pumps are developed with at most care and reinforced by the commitment delivered through the performance and Engineering perfection that stands for customer satisfaction beyond the limits of technology.

SPECIFICATIONS	
Power Range	5 kW - 150 kW
Nominal Speeds	970 / 1450 / 2900 rpm
Max. Discharge	1020 m^3/h
Head Range	198 m
Max. Solid allowable	50 mm
Max. Operating Pressure	16 bar
Outlet size	25 - 200 mm
Max. Operating Temperature	232°C

APPLICATIONS Chemical Industry | Oil & Gas | General Industry

FEATURES I Heavy Duty Construction I Parts Interchangeability I Bearing Condition Monitoring I Various Sealing Options; Gland Packing, Mechanical Seal, Expellers I Back Pull-out Designs I Renewable Wear Parts I Heavy Duty Shaft Bearings I Excellent Impeller Adjustment.

END-SUCTION PUMPS
ECH SERIES

Description : C.R.I Pumps with over 5 decades of engineering expertise in pump industry, in keeping with its innovative spirit, presents a complete & Comprehensive range of ECH Series End Suctions pumps for various Hard metal Slurry applications. With the host of positive and impressive features these pumps augments the Extensive range of C.R.I. Pumps. Designed to meet high pumping requirements in terms of performance and efficiency, these ranges are offered with different specifications & variants that are customized to suit specific applications of the customers in different segments.

C.R.I.'s extensive range of these End suction pumps are developed with at most care and reinforced by the commitment delivered through the performance and Engineering perfection that stands for customer satisfaction beyond the limits of technology.

SPECIFICATIONS	
Power Range	20 kW - 280 kW
Nominal Speeds	720 / 970 / 1450 rpm
Max. Discharge	2750 m^3/h
Head Range	60 m
Max. Solid allowable	127 mm
Max. Operating Pressure	10 bar
Outlet size	80 - 350 mm
Max. Operating Temperature	232°C

APPLICATIONS

- All abrasive slurries & Sludge
- Abrasive Chemical & process liquor
- Aggrecate & Mineral slurries
- Sand Filter Recovery
- Cyclone feed & Under Flow
- Coal Preparation
- Mineral & Ore processing
- Coal & Ash Slurries
- Dewatering , Wash down & slucing

| Lime & Clay slurries | Classifier under-flow | Highly abrasive solids in suspension | Metal waste seperation & recovery | Tailings disposal | Beach (sand) Recovery /dispersal | Hard Solids Entertained Liquors

FEATURES

| Heavy Duty Construction | Parts Interchangeability | Bearing Condition Monitoring | Various Sealing Options; Gland Packing, Mechanical Seal, Expellers | Back Pull-out Designs | Renewable Wear Parts | Heavy Duty Shaft Bearings | Excellent Impeller Adjustment.

HORIZONTAL MULTISTAGE PUMPS
HMW SERIES

Description : C.R.I. Horizontal multi-stage centrifugal pumps are engineered to perfection with innovative design and stringent quality control to give you trouble free service. These pumps are robust in construction and tested to a high standard of excellence. High grade materials are used to make these pumps durable, efficient and easy to maintain. Shaft is made of high quality steel, precision ground of ample size for transmitting the rated horsepower.

These Horizontal multi-stage centrifugal pumps are of Single Suction, non-self priming type. The impellers are of radial flow design and are balanced to handle hydraulic axial thrust. Based on application multiple outlet ports can be supplied and direction of inlet & outlet ports can be tilted. These pumps are used to transfer clear cold & hot water without solid particles. Also other mediums such as oil, corrosive & abrasive liquids can be pumped by suitably changing the material of construction and sealing type of these pumps.

SPECIFICATIONS	
Power Range	Upto 1120 kW
Speed	2900 & 1450 rpm
Head Range	33 - 1056 m
Flow Range	6 - 850 m^3/h
Pump Size	1" to 10"
Sealing	Gland packing or mechanical seal
Impeller MOC	CI / Bronze / SS

APPLICATIONS

- General Water supply
- High rise buildings
- Drinking water transfer
- Boiler feed
- Pressure Booster
- Irrigation
- Hot & cold water circulation
- HVAC
- Fire fighting
- Swimming pool & amusement parks
- Various industrial applications

FEATURES

I Dynamically balanced rotating parts I Rigid construction I High operating efficiency I Heavy duty bearings ensures long life I Available with different MOC & wide range for various applications I Balance & rigid construction I Available with multiple outlets

HORIZONTAL SPLIT CASE PUMPS
SCW SERIES

Description : C.R.I. Horizontal split case pumps are engineered to perfection with innovative design and stringent quality control to give you trouble free service. The pump volute chamber & impellers are carefully designed to give the best possible hydraulic efficiency. Most modern, highly sophisticated machinery & technology are employed in the manufacture of these pumps using quality raw materials, dynamically balanced impeller & rotor ensures vibration & noise fee operations. Shaft is made of high quality steel, precision ground of ample size for transmitting the rated horsepower.

These Horizontal split case pumps are of Single stage, double suction, split volute, centrifugal Non-self priming type with radial suction & discharge ports. The split case design of these pumps enables easy removal & dismantling of bearings, wearing rings, Impeller & seals without disturbing the pipeline & motor.

Pumps can be supplied as such without motor or complete set with motor & base plate based on requirement.

SPECIFICATIONS	
Power Range	3 kW - 3000 kW
Head Range	7 - 200 m
Flow Capacity	22 - 30000 m^3/h
Outlet size	3" - 36"
Temperature	-20°C to 200°C
Permissible Pressure	5 Mpa
Sealing	Gland packing or mechanical seal
Impeller MOC	CI / Bronze
Inlet / outlet size	150 - 1600 mm

APPLICATIONS

- General Water supply
- HVAC
- Cooling towers
- Fire fighting
- Hot & cold water circulation
- Drinking water transfer
- Flood Irrigation & Sprinkler irrigation
- Swimming pool & amusement parks
- Various industrial applications

FEATURES

I Dynamically balanced rotating parts I Robust construction I High operating efficiency & low life cycle cost I Heavy duty bearings ensures long life I Service friendly design I Available with different MOC & wide range for various applications I Balance & rigid construction

VERTICAL SINGLE STAGE PUMPS
VS SERIES

Description : C.R.I.'s vertical In-line centrifugal pumps (VS Series) are non self priming axial suction and delivery type with Standard motor and Shaft seals. All components like impeller, diffuser & shaft of these pumps are carefully designed to deliver the best possible hydraulic efficiency. The pumps are of the close-coupled type wherein the pump and motor are of separate units in bigger power ratings which ensure easy dismantling and service.

These pumps are powered by a totally enclosed fan cooled. A.C. induction motor, suitable for continuous Duty. Motor stator is made of low watt loss steel lamination assembled under pressure and rigidly locked in the frame. Dynamically balanced rotor ensures vibration and noise free operation. Shaft of Ample size made of quality steel and precisely ground is used for transmitting rated Horse Power.

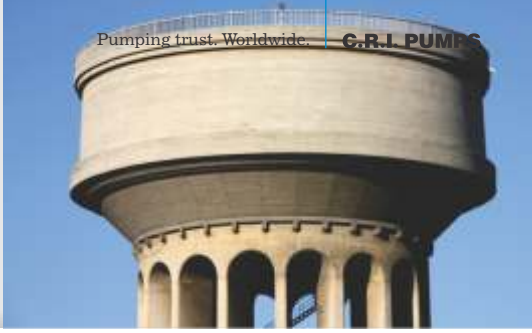
SPECIFICATIONS	
Power Range	1.1 kW - 132 kW
Speed	2900 & 1450 rpm
Head Range	9 - 83 m
Flow Capacity	8 - 630 m^3/h
Outlet size	32 - 250 mm
Liquid Temperature	-15°C to 110°C
Permissible Pressure	12 Bar / 16 Bar
Sealing	Mechanical seal
Ambient Temperature	40°C

APPLICATIONS

Heating & Cooling | Industrial Processes | Air Conditioning | Pressure Boosting | Industrial Water Supply

FEATURES

I High Operating Efficiency I Dynamically Balance rotating parts I Balanced and Rigid Construction I Reduced power consumption I High-efficiency motors – IE3/ IE2 I Top-pull-out design ensure Easy dismantling & service I Improved corrosion resistance ED coated Components I Pumps with built-in frequency converter (Optional)



VERTICAL TURBINE PUMPS
VT SERIES

Description : C.R.I. Vertical Turbine Pumps are manufactured using state-of-the-art techniques suitable for a wide range of hydraulic conditions in the industry with optimum efficiency. These pumps are of flexible design which allows to use different materials of construction and design features to meet the tailor-made requirements of the End user. The impeller and diffuser type casing are designed to deliver the best possible hydraulic efficiency. Multi-staged design of these pumps allows flexibility in changing the pump rating both in the initial pump selection and in the event of future system modifications.

A variety of material options offers the selection of a pump best suited even for the most severe conditions. The bowl and impeller assembly of these pumps are featured with 4 way sealing which ensures a perfect non-leaking fitting reducing the loss of liquid through bypass.

Design Features

Line Shaft : High carbon steel threaded and ground solid line shaft coated with a special "ASFOSIL" plastic coating for corrosion resistance and increased life.

Impellers: Impeller vanes are carefully designed to deliver high monometric efficiency and are statically and dynamically balanced for a vibration free operation. Pumps are supplied with both Closed / Semi open impellers.

Suctions Case : The suction case of these pumps are made up of Cast Iron and hydraulically contoured to guide a uniform flow to the impeller. The conical strainer provided at the bottom prevents entry of large solid particles.

API standard heavy duty steel column pipes.

Discharge Case & Top Bowl provided with additional intermediate bearings for perfect oil separation.

SPECIFICATIONS

Pump model	Minimum		Capacity range		Head Range per stage		Speed rpm	Allowable stage	Maximum HP per stage
	inch	Dia. mm	gph	lpm	ft	metre			
4S	4	100	1000 - 4000	75 - 300	15 - 8	4.6 - 2.44	2880	30	0.285
6S	6	150	4000 - 8500	300 - 650	10 - 5	3.05 - 1.52	1440	30	0.85
6S	6	150	10000 - 7000	750 - 1300	35 - 20	10.7 - 6.1	2880	10	2.40
7S	8	200	6000 - 3000	455 - 985	15 - 8	4.57 - 2.44	1440	30	0.77
7S	8	200	14000 - 26000	1060 - 1970	50 - 29	15.25 - 8.8	2830	10	6.16
8S	8	200	10000 - 20000	750 - 1515	17 - 11	5.20 - 3.35	1440	18	1.45
9S	10	250	160000 - 38000	1212 - 2880	23 - 10	7.00 - 3.05	1440	14	2.10
10S	10	250	25000 - 55000	1900 - 4150	25 - 10	7.6 - 3.05	1440	13	5.80
12S	12	300	40000 - 80000	3030 - 9100	38 - 20	11.6 - 6.1	1440	8	11.42
14S	14	350	80000 - 120000	8050 - 8100	48 - 28	14.65 - 8.75	1440	6	25.70
16S	16	400	100000 - 160000	7500 - 12600	65 - 25	19.85 - 7.64	1440	5	40.20
20S	20	500	200000 - 320000	15150 - 24200	90 - 48	27.4 - 14.65	1440	2	150.20
24S	24	600	300000 - 475000	22750 - 36000	124 - 60	37.8 - 24.4	1440	2	251.50

APPLICATIONS

Municipal Water Supply Systems | Finished water Projects | Mining | Agriculture

Commercial Applications

HOT WATER CIRCULATORY PUMPS

Description : Technological competence and immense experience of C.R.I. pumps always inspire its Engineers in an optimistic manner to come out with successful and innovative products. These single head circulatory pumps are yet another quality products from the house of C.R.I. which can meet the demanding technological challenges, and stand as testimony to C.R.I.'s quality & consistent performance for years.

C.R.I. Circulatory pumps are used to circulate hot / cold water will adequate pressure in HVAC systems. All parts & components have been uncompromisingly tested to ensure trouble free performance and safety operation. The motor is of 2 pole asynchronous and squirrel cage type and consists of canned rotor portion. All the rotating parts are in touch with pumped liquid and thus it acts as lubricant

SPECIFICATIONS		
Power Range	Multi speed Single speed	38 W - 270 W 400 W - 1100 W
Head Range	Multi speed Single speed	1 m - 14 m 2 m - 20 m
Flow range	Multi speed Single speed	0.15 m^3/h - 9.5 m^3/h 0.5 m^3/h - 23 m^3/h
Ambient Temperature		40°C
Maximum humidity		95%
Liquid temp. range		-5°C to +110°C
Max. operating pressure		10 bar
Voltage		Single phase 230V
Frequency		50 Hz
Degree of protection		IP 44
Insulation Class		F
Mounting position		Horizontal
Connection type		Screw / Flange
Head		Single

APPLICATIONS

- Domestic heating systems
- Air Conditioning
- Cooling system
- Industrial hot water circulatory systems

FEATURES

I Tried and trusted I Highly efficient I Corrosion free parts for hygiene I Low water and tear I Easy for installation & service I Multi speed control (3 levels) I Perfectly and aesthetically designed I Silent operation & reduced electrical energy consumption

INDUCTION MOTORS

Description : C.R.I. A.C. Induction motors are high efficient suitable for continuous duty operations. Motor stator is made of low watt loss steel laminations assembled under pressure and rigidly locked in the stator frame. Dynamically balanced rotor ensures vibration free and noise free operations. The varnish impregnated windings are made of high-grade enameled copper wire.

Shaft is made of high quality steel, precision ground of ample size for transmitting the rated horsepower. Construction of motor frames and usage of quality materials

result in high performance and low temperature rise, thereby increasing the life cycle of the motor. Frame and end shield are of high-grade cast iron machined at close limits to ensure for an accurate alignment of bearings. In foot mounted motors, the frame and Legs are one single molded piece that ensures resistance against vibrations. High quality, heavy duty bearings are fitted in specially designed housings packed with grease that protects against dirt and dust. All single and three phase motors require adequate motor protection

SPECIFICATIONS		
	Single Phase	**Three Phase**
Power Range (EFF2)	0.37 kW - 2.2 kW	Power Range (IE 1) : 0.37 kW - 315 kW Power Range (IE 2) : 0.75 kW - 315 kW Power Range (IE 3) : 0.75 kW - 315 kW
Frequency	50 Hz	50 Hz
Voltage	230 V	380 - 415 V, 220 V, 380 V, 440 V
Speed 2 Pole 4 Pole	2800 1400	2800 1400
Starting method	0.37 kW - 0.55 kW : PSC & 0.75 kW - 2.2 kW : CSCR	D.O.L / Star Delta
Mounting std	Foot & Face mounting	Foot, Face & Flange mounting
Protection	IP 54 / IP 55	IP 54 / IP 55
Insulation class	F	F
Duty	Continuous (S1)	Continuous (S1)
Max. Ambient Temp.	50°C	50°C

APPLICATIONS

Machines | Pumps | Fans | Crushers | Grinders

Elevators | Presses | Mill | Equipments and for various other applications

Conveyor system

FEATURES

I High efficient I Minimal power consumption I Very low Noise I Specially designed cooling fan & stator fins for easy heat dissipation I Designed for S1 Continuous duty Operations

PETROL & DIESEL ENGINE PUMPS

Descriptions : C.R.I. Engine driven water pumps are engineered to perfection with innovative design and stringent quality control to give you trouble free service. These pumps are robust in construction and tested to a high standard of excellence. High grade materials are used to make these pumps durable, efficient and easy to maintain.

C.R.I. Engine Driven Pumps are self-priming centrifugal pumps driven by air cooled, direct injection, 4 stroke, fuel efficient, diesel engines suitable for various applications like irrigation, fire fighting, industries, etc, & for places where there is no electrical energy available.

C.R.I. Engine Driven Pumps are self-priming centrifugal pumps driven by air cooled, 4 stroke, fuel efficient, petrol engines suitable for various applications like irrigation, fire fighting, industries, etc, & for places where there is no electrical energy available.

APPLICATIONS

Agriculture | Irrigation | Firefighting | Hotels/Restaurant

Industries | Resorts | Well suited for remote places where there is no power supply.

FEATURES

I Efficient I Wide head ranges I Lower Fuel consumption I Less Noise I Manual (recoil) / Battery start options

PETROL & DIESEL ENGINE PUMPS

SPECIFICATIONS			
Petrol Engine Pumps	**Normal Pump**	**High Pressure Pump**	**Trash Pump**
Pump Size	1½", 2", 3", 4"	2" & 3"	3"
Max. Flow	upto 65 m³/h	upto 40 m³/h	50 m³/h
Max. Head	upto 28 m	upto 75 m	25 m
Engine Speed	3600 rpm	3600 rpm	3600 rpm
Displacement	87 cc to 270 cc	196 cc to 389 cc	200 cc
Max. suc head	8 m	8 m	8 m
Max. output HP	2.65 to 9.0 HP	6.5 to 13.0 HP	6.5 HP
Starting method	Recoil / Electric	Recoil / Electric	Recoil / Electric
Engine	Aircooled 4 Stroke Petrol Engine	Aircooled 4 Stroke Petrol Engine	Aircooled 4 Stroke Petrol Engine
Pump Body	Casted Aluminium	Casted Aluminium	Casted Aluminium
Impeller	Cast iron	Cast iron	Cast iron

SPECIFICATIONS			
Diesel Engine Pumps	**Normal Pump**	**High Pressure Pump**	**Trash Pump**
Pump Size	2", 3", 4"	2" & 3"	3"
Max. Flow	upto 65 m³/h	upto 40 m³/h	50 m³/h
Max. Head	upto 28 m	upto 75 m	25 m
Engine Speed	3600 rpm	3600 rpm	3600 rpm
Displacement	211 cc to 406 cc	296 cc to 406 cc	296 cc
Max. Suc head	8 m	8 m	8 m
Max. output HP	4.2 to 10.0 HP	6.0 to 10.0 HP	6.0 HP
Starting method	Recoil / Electric	Recoil / Electric	Recoil / Electric
Engine	Air cooled direct injection type Diesel Engine	Air cooled direct injection type Diesel Engine	Air cooled direct injection type Diesel Engine
Pump Body	Casted Aluminium	Casted Aluminium	Casted Aluminium
Impeller	Cast iron	Cast iron	Cast iron

PETROL & DIESEL ENGINES

Description : C.R.I. Petrol / Diesel Engines are engineered to perfection with innovative design and stringent quality control to give trouble free service. These engines are tested to high standard of excellence and specially designed to make these engines durable, efficient and easy to handle.

C.R.I. Petrol / Diesel engines are of single and double cylinder type, suitable for continuous operation with recoil / electric starting

SPECIFICATIONS		
Petrol Engines	**Single cylinder**	**Double Cylinder**
Engine Speed	3000 / 3600	3000 / 3600
Rated output	4.3 - 11 HP	17 HP
Max. output	5.5 - 16 HP	20 HP
Max. Torque	10 - 24.5 Nm @ 2500 rpm	38.5 Nm @ 2500 rpm
Displacement	163 - 420 cc	614 cc
Starting method	Recoil / Electric	Electric

SPECIFICATIONS			
Diesel Engines	**Single cylinder**		**Double Cylinder**
Engine Speed	3000	3600	3000 / 3600
Rated output	3.4 - 7.7 HP	3.8 - 8.6 HP	17 HP
Max. output	3.8 - 8.6 HP	4.2 - 10 HP	20 HP
Max. Torque	9 - 20.4 Nm @ 2400 rpm	8.4 - 18.8 Nm @ 2880 rpm	38.5 Nm @ 2500 rpm
Displacement	211 - 418 cc		954 cc
Starting method	Recoil / Electric		Electric

FEATURES

I Compact in size I Low maintenance expenses I Longest life for engines I Trouble-free operation I Low fuel consumption I Easy to operate I Economical spare parts I Suitable for continuous operation I Simple design

PORTABLE GENERATORS - PETROL

Description : C.R.I. Generators are engineered to perfection with innovative design and stringent quality control to give you trouble free service. C.R.I. Generators are tested to a high standard of excellence and specially designed to make these Generators durable, efficient and easy to handle.

High quality alternator is coupled to air cooled, 4 stroke, fuel efficient, petrol engines to provide required electricity in remote areas.

Both open and closed (canopy) type Generator sets are available with single phase and three phase in 50 & 60 Hz, versions as per customer requirement.

SPECIFICATIONS		
Petrol Gensets	**Open type**	**Canopy type**
Frequency	50 Hz	50 Hz
Rated AC Output kW	0.65 kW - 8.5 kW	4.5 kW - 8.5 kW
Max. AC Output kW	0.72 kW - 9.5 kW	5.0 kW - 9.5 kW
Speed	3000 rpm	3000 rpm
Displacement	63 cc - 614 cc	389 cc - 614 cc
DC output V - A	12 V - 8.3 A	12 V - 8.3 A
AC output Voltage	1 Ph: 110 / 240 V 3 Ph: 220 / 380 V	1 Ph: 110 / 240 V 3 Ph: 220 / 380 V
Engine type	Air cooled 4 stroke petrol engine	Air cooled 4 stroke Diesel engine
Max. Noise Level	96 dB/A @ 7 m	96 dB/A @ 7 m
Starting method	Recoil / Electric	Electric

APPLICATIONS

Hotels/Restaurants | Industries | Resorts | Camping sites

Villas, summer houses, & well suited for remote areas where there is no power supply.

FEATURES

I Efficient I Lower Fuel consumption I Lower Noise & vibration I Stable voltage & current supply I Alternators with copper windings Manual (recoil) / Battery start options

PORTABLE GENERATORS - DIESEL

Description : C.R.I. Generators are engineered to perfection with innovative design and stringent quality control to give you trouble free service. C.R.I. Generators are tested to a high standard of excellence and specially designed to make these Generators durable, efficient and easy to handle.

High quality alternator is coupled to air cooled, direct injection, 4 stroke, fuel efficient, diesel engines to provide required electricity in remote areas.

Both open and closed (canopy) type Generator sets are available with single phase and three phase in 50 & 60 Hz, versions as per

SPECIFICATIONS		
Diesel Gensets	**Open type**	**Canopy type**
Frequency	50 Hz	50 Hz
Rated AC Output kW	1.7 kW - 10 kW	3.0 kW - 10 kW
Max. AC Output kW	1.9 kW - 11 kW	3.3 kW - 11 kW
Speed	3000 rpm	3000 rpm
Displacement	211 cc - 954 cc	296 cc - 954 cc
DC output V - A	12 V - 8.3 A	12 V - 8.3 A
AC output Voltage	1 Ph : 110 / 240 V 3 Ph : 220 / 380 V	1 Ph : 110 / 240 V 3 Ph : 220 / 380 V
Engine type	Air cooled 4 stroke Diesel engine	Air cooled 4 stroke Diesel engine
Max. Noise Level	96 dB/A @ 7 m	96 dB/A @ 7 m
Starting method	Recoil / Electric	Electric

GENERATORS

Description : C.R.I. Gensets are 1500 rpm, 50Hz, 415V. 0.8pf (lag), 3 Phase Generators, direct injection type, liquid cooled (with radiator) inline engines and are fitted with engine tripping facility for low lube oil pressure and high water temperature. They are provided with emergency trip on canopy Rotate anti clock wise when viewed from alternator end Fuel Consumption figures are based on field reports, It is at 80% load, subject to +5% tolerance and 0.835 specific gravity Sump capacity includes filters, hoses etc. Lube oil recommended is 15 W 40 Cables are 3.1/2 or 4 core armored aluminum (pls check with your electrical inspectorate for sizes) Alternators are normally single bearing, Brushless type Class of insulation, enclosures vary for different makes of alternators Ratings as per BS 5514 / ISO 3046 / ISO 8528 Figures are as per std reference conditions AMF Panels, Spl Panels, Single phase sets with Trailer Mounted sets supplied against specific orders.

SPECIFICATIONS	
Power Rating	10 kVA – 250 kVA
Output	415 V, 3 Phase – 0.8 pf
Type	Direct Injection type In-line water cooled / Air Cooled
Speed	1500 rpm
Engine Rated Power	23.5 – 310.3 HP
No. of cylinders	Up to 82.5 kVA – 4 & 100 – 250 kVA – 6
Motor Starter	Up to 125 kVA – PE & 140 – 250 kVA – Axial
Control Panel	Standard / AMF / SAMF

FEATURES I Compact in size I Low maintenance expenses I Longest life for engines I Trouble-free operation I Low fuel consumption I Easy to operate I Economical spare parts I Suitable for continuous operation I Simple design

VALVES
BUTTERFLY, GATE, GLOBE, BALL, AIR RELEASE, PRESSURE REGULATING, BALANCING & CHECK VALVES

Description : C.R.I. Valves have been designed with clear focus on the customer's diverse applications and needs using best of the design tools and technology. These valves are manufactured in the state-of-the-Art facility backed-up with in-house steel foundry. C.R.I. valves meet th exacting demands of a variety of applications - a fact well recognized by the accreditations and certifications such as API 600, IBR and ISO 9001. In fact the valve designs have also been validated by Lloyds Registras which itself speaks about the quality of the

APPLICATIONS

- Process industries
- Pharmaceutical
- Fluid distribution systems
- Refineries
- Pipe line systems
- Power plants
- Water treatment Plants
- Drilling rigs
- Construction Industries
- Petro chemical & fertilizer industries

VALVES
BUTTERFLY, GATE, GLOBE, BALL, AIR RELEASE, PRESSURE REGULATING, BALANCING & CHECK VALVES

SPECIFICATIONS			
Valve Type	Sizes	Pressure class	Design Standard
Butterfly Valve	DN50 to DN1200	PN 10 & PN 16	EN593 /API 609 / ISO 5752 / BS 5155/ MSS SP-67
Cast Steel Gate Valve	DN50 to DN300	150#, 300# & 600#	API 600
Cast Steel Globe Valve	DN50 to DN150	150#, 300# & 600#	BS 1873
Cast Steel Check Valve	DN50 to DN 300	150#, 300# & 600#	API 6D / BS 1868
Forged Steel Gate Valve	15 mm to 50 mm	ANSI – 800#, 1500# & 2500#	BS 5352
Forged Steel Globe Valve	15 mm to 50 mm	ANSI – 800#, 1500# & 2500#	BS 5352
Forged Steel Check Valve	15 mm to 50 mm	ANSI – 800#, 1500# & 2500#	BS 5352
Ball Valve - Floating	DN15 to DN200	ANSI – 150#, 300# & 600#	API 608 / ISO172692 / API6D / ASME B16.34 / ISO 14313 / ASME VIII
Ball Valve – Trunion Mounted	DN15 to DN300	ANSI – 150#, 300# & 600#	API 6D / ISO17292 / ASME B16.34 / ISO 14313 / ASME VIII
Gate Valve	DN50 to DN300	PN 16 / 125#	MSS SP-70/ BS 5163/ EN 1074 – 1/ EN 1074 – 2 / IS 14846:2000
Globe Valve	DN50 to DN300	PN 16 / 125#	MSS SP-85/ BS 5163
Check Valve – Swing Type	DN50 to DN300	PN16 / 125#	EN12334(BS5153)/ MSS SP-71
Check Valve – Double Door	DN50 to DN1000	PN16/ 125#, 150#,300# & 600#	DIN 3202 / API 594
Check Valve – Wafer Type	DN25 to DN600	PN 10 , PN 16	API 6D / ANSI B 16
Air Release Valve	DN50 to DN200	PN 10 , PN 16	AWWA C-512-07
Pressure Relief Valve	DN50 to DN400	PN 16	BS EN 1092-2 / CJ/T219 , JB/T10674
Dynamic Balancing Valve	DN50 to DN600	PN 16	
Double Regulating Valve	DN65 to DN300	PN 16	BS 7350
Double Regulating Valve - Bronze	DN15 to DN50	PN 25	BS 7350
Pressure Reducing Valve - Bronze	DN15 to DN40	PN 16	BS 21 BS EN10226-1
Bronze Gate Valve	DN15 to DN100	PN 20	ISO 7
Brass Gate Valve	DN15 to DN50	PN 16	ISO 228
Bronze Globe Valve	DN15 to DN50	PN 20	ISO 7
Brass Globe Valve	DN32 to DN50	PN 16	ISO 228
Bronze Check Valve	DN10 to DN50	PN 20 , PN 25	ISO 7
Brass Check Valve	DN15 to DN100	PN 16	ISO 228
Bronze Ball Valve	DN 8 to DN50	PN 25	ISO 7
Brass Ball Valve	DN 8 to DN50	PN25	ISO 228
Bronze Strainer	DN15 to DN50	PN20	ISO 7
Brass Strainer	DN15 to DN100	PN16	ISO 228
Y Strainer	DN50 to DN450	PN16 & 125#	

uPVC COLUMN PIPES

Description : C.R.I. 's vast experience & successful track record in pump industry spanning over 50 years facilitate not only to enhance the range of pumps & motors, but also to produce and supply quality pumping accessories. C.R.I.'s uPVC pipes are one among such accessories produced with specially designed formulation under integrated quality control systems, right from sourcing raw materials. Also adequate safety factors has been considered in designing the pipes to have maximum weight carrying capacity.

These pipes are specially designed for submersible pumps, capable of handling both internal hydrostatic pressure as well as high tensile load caused by the pump weight & column water pressure and weight. In general the first pipe fitted with the pump will be subjected to high hydrostatic pressure and the top most one has to withstand the entire weight of the column water & pump.

The unique formulation used in the manufacture of these pipes ensures that the threads do not turn brittle, break or chip during the entire life cycle. The threading & dimension standards maintained make these pipes ideally suitable for using as column pipes for submersible pumps worldwide. These pipes are produced in difference types which can be selected according to the installation requirements. PBTS

SPECIFICATIONS	
Nominal Diameter in inches	1, 1¼, 1½, 2, 2½, 3, 4, 5, 6
Class of material	Elite (150 m), Medium (210 m), Standard (300 m), Heavy (350 m), Super Heavy (350 m)
Weight Carrying Capacity	Elite - 2350 kg, Medium - 7500 kg, Standard - 16400 kg, Heavy - 16400 kg, Super Heavy - 19800

APPLICATIONS

Can be used as columm / raiser pipes

High pressure pipe line systems

FEATURES

I Rigid construction & durable for even upto 25 years I Specially designed square threads have very high load holding capacity & these threads do not get corroded, rusted or deteriorate even upto 25 years of use. Special rubber seals are provided with the thread to ensure 100% leak proof at high pump pressure I Internal surface of these pipes are very smooth, resulting in very low head loss due to friction& water discharge is increased upto the maximum of 30%, when compared with traditional G.I. Pipes I These pipes come in 3m Standard length and are light weight ensuring easy handling during pump installation & removing process I Because of its light weight characteristic & special square thread design these pipes can be tightened easily using bare hands itself, evicting the use of pipe wrench I uPVC column pipes are resistant to chemical reactions when used in acidic or alkaline waters assuring long life inside the borewell.

FLEXI HOSE

Description : C.R.I. Vast experience & successful track record in pump industry spanning over 5 decades facilitate not only to enhance the range of pumps & motors, but also to produce and supply quality pumping accessories. C.R.I.'s flexible rising hose is one among such accessories produced with specially designed formulation under integrated quality control system, right from sourcing raw materials to end process. Also adequate safety factors have been considered in designing this hose to have maximum weight carrying capacity, and to ensure longevity. Flexideep is a flexible rising main system used for ground water pumping and it has been designed to reduce the time of installing borehole pumps. It has superior flow characteristics and longer life. Flexideep is technologically superior and right alternate to the conventional type rigid steel or PVC pipes. Installation or removal of Steel / PVC pipes is comparatively time consuming and laborious. It is also cost effective solution to water well applications. This hose is specially designed for submersible pumps, capable of handling internal hydrostatic pressure and withstand the weight of the column water, pump with motor and cable. It doesn't require any

SPECIFICATIONS	
Nominal Dia. in Inches	1, 1¼, 2, 3, 4, 5 & 6
Type of pipes	Medium (1", 1¼", 2") & Standard (2", 3", 4", 5" & 6")
Ultimate Breaking Load	Medium – 1700 kg Standard – 8000 kg
Maximum operating Pressure	Medium – 10 bar Standard – 57 bar

APPLICATIONS

I Made of Polyether Polyurethane with high tenacity polyester textile internal reinforcement (Standard Type) I It doesn't corrode and no scale formation I Minimizes vibrations and reduces noise during operation I Light weight, easy to handle and occupies less storage space I Packed in reel and easy to transport, which saves transport economically I Expansion during pumping minimizes friction loss I Hydrostatically tested for high tensile strength and pressure rating I Easy to install and remove I Longer life span I Low installation and maintenance cost

CABLES

SUBMERSIBLE CABLES

Descriptions : C.R.I Submersible cables are produced in a well equipped manufacturing plant using superior grade rubber & PVC compounds, bright electrolytic copper. Outer sheath is made up of special grade of abrasion resistant water proof PVC / Rubber compound. C.R.I. produces different types of submersible cables in a wide range to meet the different needs of customers across the world. C.R.I. supplies cables both in SWG (Standard wire gauge, Sq.mm) and AWG (American wire gauge) dimensions. These cables are produced keeping vagaries of field conditions and voltage fluctuations in mind, to ensure longevity & reliability.

SPECIFICATIONS	
Available sizes in sq.mm	1.5, 2.5, 4, 6, 10, 16, 25, 35, 50, 70 & 95 - 3 core & 4 core
Voltage Rating	1100 V
Temperature Range	-10°C to +70°C
Conductor annealed	High conductivity annealed and bunched copper
Insulated material	Flexible water proof PVC / EPDM / EPR
Sheath material	Flexible water proof PVC / Rubber (EPDM / NBR / PCP)
Sheath colour	Black / Blue / Green
Core Colour - 3 core 4 core	Red, Yellow & Blue / Brown, Blue & Black / Yellow, Black & Red / Brown, Blue & Yellow with Green line Red, Yellow, Blue & Green with Yellow line / Brown, Blue, Black & Yellow with Green line, Yellow, Black, Red & Green / Brown, Blue, Black & Yellow with Green line

ARMOURED POWER CABLES

1100 Volts grade, Copper flexible conductor, XLPE Insulated, Cores Laid up, PVC extruded inner-sheath, Galvanized Steel Wire / Strip Armoured. Extruded PVC Sheathed power cables.

SPECIFICATIONS	
Available sizes in sq.mm	1.5 to 400 3 core & 4 core
Voltage Rating	1100 V
Insulated material	XLPE insulated PVC

APPLICATIONS To supply power to submersible motors, pumping equipments & industrial machineries

FEATURES

I High conductivity annealed and bunched flexible electrolytic bright copper conductors I High grade flexible PVC insulation and PVV / Rubber Sheath I Good withstanding capacity to high voltage and current I Substantial reduction in power consumption I Prolongs the life of electrical installations I Can withstand any sudden surge current and voltage I Protects from electrical shocks and any electrical hazards I Both flat and round cables are available

CONTROL PANELS

Descriptions : C.R.I Pumps with over 5 decades of engineering expertise in pump industry, in keeping with its innovative spirit, presents a complete & Comprehensive range C.R.I. Control Panels which are made of hi-tech components and designed to perfection with various features to give ultimate protection to the prime movers such as Submersible motors; Centrifugal pumps etc. Different types of single-phase and three-phase control panels are available which can be selected according to the control measures and features required.

SPECIFICATIONS	
Power Range	0.37 kW - 2.2 kW Single phase, 0.37 kW - 93 kW Three phase
Method of connection	Single Phase : Capacitor Start & Capacitor Run (CSCR) - Capacitor Start & Run (CSR) Three Phase : Direct On Line Starter (DOL) : 0.37 kW - 93 kW Star Delta Starter (SD) : 55 kW - 93 kW
Degree of Protection	Degree of Protection : IP 55 & IP 52

ELECTRONIC CONTROL PANEL

Features

Single phase prevention, Unbalance Voltage Protection, Phase Reversal, Over load/Dry run cut off, Low/High Voltage cut off, Dry run auto restart, With Error data

MODEL	ELCON
Type	Auto / Manual
Power Range in kW	Upto 1.1 (1 PH) Upto 7.5 (3 PH)
Voltage Range	140 V to 300 V (1 PH) 200 V to 600 V (3 PH) DOL
Protection	IP 58

APPLICATIONS

These control panels can be used to control and protect all kinds of prime movers especially submersible motors, Centrifugal pumps etc, used for various applications.

FEATURES

Features of Pump Protection Relay (PPR) Control Panels; I Incorporated with surge arresters to protect the pumping system from high voltage surges I Technically advanced, highly sensitive pump protection relay (PPR) enables immediate tripping of power supply in overload and under load conditions I Protects the pumpsets against dry running by sensing the current I Protects against phase failure and phase imbalance conditions I Control panels with PPR, comprises of auto start provision and phase sequence protection I An option for float switch is provided in the control panel with PPR, for the automatic operation of the pumpset based on water level I Provision of Ammeter and Voltmeter to check the Voltage & Current (in specific models only) I Attractive powder coated sheet metal enclosure

ELECTRONIC PRESSURE CONTROLS

Descriptions : C.R.I Electronic Pressure Control Switch is yet another quality & reliable product from the house of CRI which is carefully designed to regulate the water pressure in the domestic water supply system. It switches ON the pump automatically whenever there is a pressure drop in the pipeline and maintains preset level of pressure in the pipe line. It also switches off the pump automatically whenever pumping is not required and there by makes the entire pumping system effective and efficient. The preset pressure level drops as and when the water is drawn. Likewise once the pipeline is closed it completely switches OFF the pump automatically after few seconds. The inbuilt check valve & logic circuit system protect the pump from back flow of water & dry running which enhance the life span of the pump.

Certain models of vertical type pressure controls are inbuilt with adjustable pressure gauge wherein the pressure can be set manually based on the requirement.

SPECIFICATIONS	
Ambient Temperature	Maximum + 60°C
Liquid Temperature	Maximum + 60°C
Cut in Pressure	CPH 15N, CPH 15, CPV 15 : 1.5 bar CPH 22 : 2.2 bar, CPV 3A (1.5 to 3.0 bar), CPV - 15 N
System Pressure	Maximum 10 bar
Supply voltage	220 V / 240 V
Frequency	50 Hz
Maximum current	10 Amps
Enclosure Class	IP 65
Min. Flow rate Max. Flow rate	CPH - 0.8 - 1.0 lpm, CPVS - 0.8 - 1.0 lpm, CPV - 2.0 lpm 10000 lph

APPLICATIONS It can be used for all kinds of small domestic pumps installed in apartments, houses, villas, gardens etc.

FEATURES I Sets free from operating the pump every time I Ensure uninterrupted water supply with adequate pressure I Saves electricity & time I Protects pump from dry running & back flow of water I Different models to select. CPV models are supplied with inbuilt pressure guage I Colourful LED's to indicate various functions I Designed for easy installation

FLOAT SWITCHES / PRESSURE TANKS / MECHANICAL PRESSURE SWITCHES

FLOAT SWITCHES

Descriptions : C.R.I . Flot switch is a state-of -the-art product from the house of C.R.I. which has earned a unique place in the pump industry and is recognised both for its standards & quality for over 5 decades. It sets you free from operating the pump. It also helps you to save water, electricity and your valuable time.

SPECIFICATIONS	
Maximum Current	10 Amps / 16 Amps
Voltage Range	125 V - 250 V, AC
Frequency	50 Hz
Maximum Working Temperature	55°C
Degree of Protection	IP 68
Maximum Immersion Depth	10 meters
Cable	H07RN-F Rubber Insulated 3 Core round cable
Cable Size	0.75 sq. mm & 1.00 sq. mm
Cable length	2 m, 3 m, 4 m, 5 m & 10 m
Operation in specific gravities	From 0.9 to 1.3
Float Dimensions	(L) : 135 mm, (B) : 51 mm, (H) : 43 mm

MECHANICAL PRESSURE SWITCHES

This pressure controller is one of the vital accessories to the pressure boosting systems which is commonly used along with pressure tanks. This can be fixed directly to the small domestic pumps. This is yet another innovative product that bears C.R.I. hallmark of

TECHNICAL DETAILS	
Lowest Pressure	20 psi
Highest Pressure	80 psi
Pressure settings	20 - 40 psi; 30 - 50 psi; 40 - 60 psi
Volt	230 V A.C.
Max. Current	2.0 HP - 12 Amps, 3.0 HP - 17 Amps
Connector threads	Male / Female

Note: 1 bar = 1.02 kgf / cm² = 14.5 psi = 33.52 feet of water.

PRESSURE TANKS

This pressure controller is one of the vital accessories to the pressure boosting systems which is commonly used along with pressure tanks. This can be fixed directly to the small domestic pumps. This is yet another innovative product that bears C.R.I. hallmark of excellence.

	Model	Available tank capacity in "l"	Connector size
Vertical pressure tank	CTV	9, 16, 24, 60, 100	1"
Horizontal pressure tank	CTH	9, 16, 24, 60, 100	1"

BORE HOLE BOTTOM PLATE

Available sizes - 32 mm, 40 mm & 50 mm

APPLICATIONS It can be used for all single phase pumping systems

FEATURES I Sets you free from operating your pump every time I Ensures uninterrupted water supply I Never allows your over head tank to spill over or be empty I Eliminates water, power & time wastage I Protects pump from dry run I Absence of rigid or fixed part inside the tanks makes cleaning easy

IMPORTANT INSTRUCTIONS

- To get better performance, install pumpset according to the recommended head range between 50% to 80% of its shut-off head
- The performance data are at rated voltage and only indicative. Actual discharge depends on static & drawdown water level based on water source, height of the water column and submergence depth of pumpset (incase of submersible pumps)
- Pipe frictional losses have not been included in the performance curves and tables
- The curves are inclusive of check valve and suction inter-connector losses at actual speed
- Curve tolerance according to ISO : 9906, Grade 3B.
- The given performance are for a specific material of construction of pump
- All water filled rewindable motors and open well submersible pumps must be filled or topped-up with clear, cold drinking water as mentioned in the operator's manual before commissioning
- Pumpset should not be operated at dry condition. Install a proper control system with dry run preventer
- Use appropriate good quality cable and starter with necessary protection devices
- Use low friction good quality pipes / tubes
- The pipe diameter must never be smaller than the pump outlet diameter
- Reduce number of bends, elbows, T-bends as much as possible in the pipe line
- All pumpsets (except waste water pumps) are only suitable for pumping clear, cold, non-aggressive, non-explosive water without abrasives, solid / fiber particles
- Pumpsets must be operated for few minutes atleast once in 2 days to prevent from seizing /Pump Jam
- Avoid fatal electrical shock or injury by disconnecting power before working on or around the pumping system. Only technically qualified personnel must perform the works complying with the local electricity rules and regulations
- To avoid the risk of electrical shocks during operation, an appropriate earthing is mandatory
- Use Air valves / Check valves in lengthy delivery pipe line to avoid pipe damages
- Performance applicable to liquid of specific gravity 1 and viscosity equivalent to water

NOTES

NOTES

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