

**CARRY STAINLESS STEEL
AXIAL-FLOW SUBMERSIBLE PUMP**

**CP10 SERIES - 3 PHASE
OWNERS MANUAL**



**Carry Manufacturing, Inc. · 1360 Prospect Ave. · Caro, MI 48723
www.carrypumps.com · 800-492-2779 · sales@carrypumps.com**



**CP10 SERIES - 3 PHASE HIGH VOLUME STAINLESS STEEL
VERTICAL AXIAL-FLOW SUBMERSIBLE PUMP
MODEL NUMBER EXPLANATION**

2018 MODEL NUMBER

EXAMPLE: CP10-0200-233-X

GENERAL DESCRIPTION:

CP10 = Carry High-Volume Pump with Impeller

HORSEPOWER:

0200 = 20 Horsepower

0250 = 25 Horsepower

0300 = 30 Horsepower

VOLTAGE/PHASE:

233 = 230 Volt/3 Phase

463 = 460 Volt/3 Phase

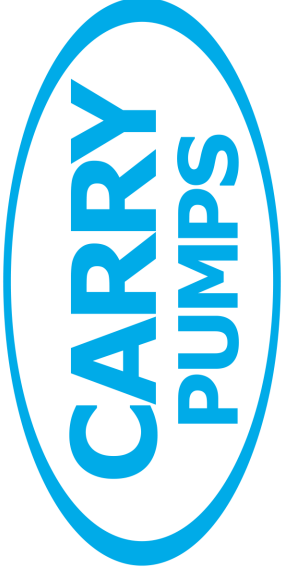
IMPELLER PITCH:

X = [10] = 10° Impeller
[12.5] = 12.5° Impeller
[14] = 14° Impeller
[18] = 18° Impeller

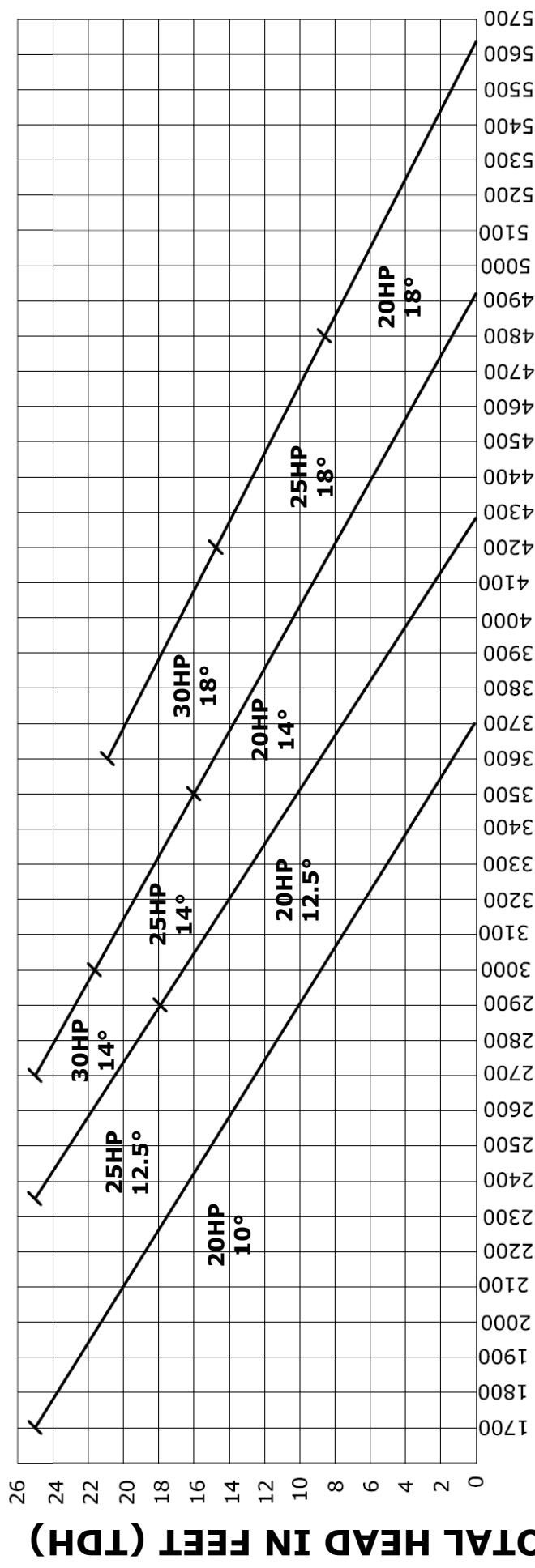
(chosen from pump curve chart)

PLEASE NOTE: All Carry CP10 Pumps come standard with a 30' power lead. Additional length may be added and is priced per foot.

Carry Manufacturing, Inc. · 1360 Prospect Ave. · Caro, MI 48723
www.carrypumps.com · 800-492-2779 · sales@carrypumps.com



CP10 SERIES - 3 PHASE SUBMERSIBLE PUMP CURVES



FLOW IN U.S. GALLONS PER MINUTE

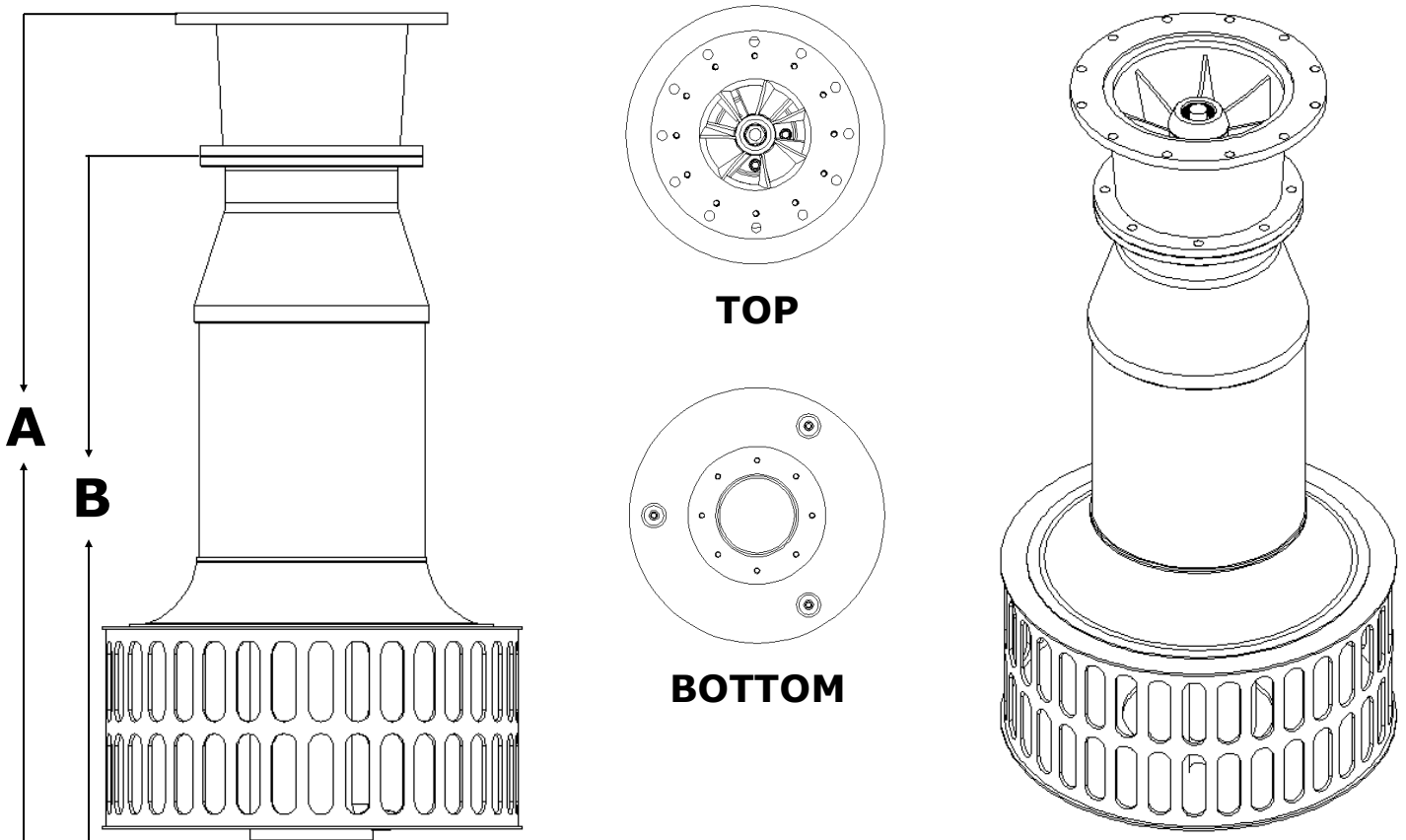
PLOT YOUR POINT: Follow the flow in U.S. gallons per minute required horizontally on the chart to your Gallons per Minute required; then follow up to your Total Dynamic Head required for your application.

The location of the point plotted on the chart determines the horsepower of pump and the degree of impeller required.

Carry Manufacturing, Inc. · 1360 Prospect Ave. · Caro, MI 48723
www.carrypumps.com · 800-492-2779 · sales@carrypumps.com



CP10 SERIES - 3 PHASE PUMP DIMENSIONS

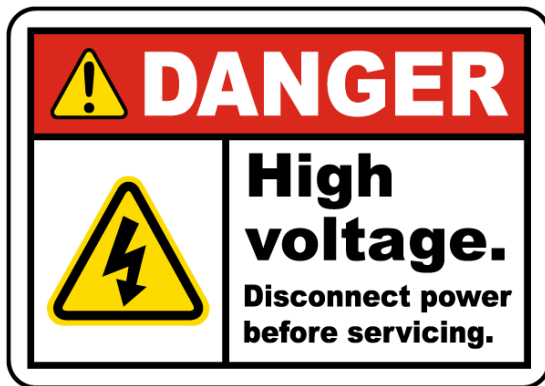


HORSEPOWER	WEIGHT	(A) OVERALL HEIGHT	(B) MINIMUM SU- BERGENCE
20 HP	650	54"	43"
25 HP	700	58"	47"
30 HP	750	60"	49"



8" SAER MOTORS 3 PHASE SUBMERSIBLE MOTOR SPECIFICATIONS & TESTING PARAMETERS

HORSEPOWER MOTOR DIA. MAKE & RPM	VOLTS	PHASE	Hz	SERVICE FACTOR	FULL LOAD AMPS	MAX LOAD AMPS	LINE to LINE RESISTANCE IN OHMS	LOCKED ROTOR AMPS
20 HP 8" SAER 1800 RPM	230V	3 PH	60 Hz	1.15	58.0	66.7	0.10 - 0.30	N/A
	460V				28.0	32.0	0.90 - 1.1	N/A
25 HP 8" SAER 1800 RPM	230V	3 PH	60 Hz	1.15	70.0	80.5	0.22 - 0.26	N/A
	460V				34.0	40.0	0.87 - 1.07	N/A
30 HP 8" SAER 1800 RPM	230V	3 PH	60 Hz	1.15	80.0	92.0	0.13 - 0.33	N/A
	460V				40.0	45.0	0.70 - 0.90	N/A



IMPORTANT

- DO NOT** test Winding resistance with the motor connected to the Control Box or Variable Frequency Drive (VFD).
- Test the windings by using a Multimeter or Ohmmeter to measure Ohms (Resistance) between Yellow or White to Red, Yellow or White to Black, and Red to Black.
- Resistance measured between any combination of wires should be a similar value.
- A bound pump will cause locked rotor amps and over-current fault/shut down. Check for obstructions in the pump and/or the amps on the Black wire at start-up.

Carry Manufacturing, Inc. · 1360 Prospect Ave. · Caro, MI 48723
www.carrypumps.com · 800-492-2779 · controls@carrypumps.com



General Recommendations for SAER SUBMERSIBLE INVERTER DUTY MOTORS



SAER MS SERIES WATER-FILLED SUBMERSIBLE MOTORS

INSTALLATION

- Vertical installation only is highly recommended.
- Motor must be completely submersed in water that is completely free-flowing to ensure adequate cooling of internal components.

OPERATING FREQUENCY LIMITS

- Maximum working frequency should never exceed the nominal frequency of the motor.
- Minimum frequency should be calculated to ensure motor cooling and should never be lower than 30Hz.
- Operating at less than 30Hz can cause serious damage to thrust bearings, bushings, and motor windings.

START

- Starting ramp should last approximately 4-6 seconds (from start to reaching the minimum operating frequency of 30Hz)
- A starting ramp that is too short can cause a water hammer on the plant.
- A starting ramp that is too long can cause damage to the motor.

FREQUENCY VARIATION LIMITS PER MINUTE

- Max number of frequency variations in a minute = 6

STOP

Stopping can be achieved in two ways:

- Taking away the power source so that the motor stops by inertia. The inertia method safeguards the motor but can cause the appearance of water hammers.
- Setting a stopping ramp to slowly stop the motor

SERVICE FACTOR

- Variations in power supply voltage must be +/- 5% of the nominal value
- Service factor = 1.15 for 60Hz motors.

Carry Manufacturing, Inc.
1360 Prospect Ave.
Caro, MI 48723

www.carrypumps.com · (800) 492-2779 · sales@carrypumps.com

STANDARD WARRANTY AND CONDITIONS OF SALE

PRELIMINARY INFORMATION: Any preliminary drawings and illustrative materials used in the specification build-up process show general arrangement and approximate dimensions only. Certified drawings will be submitted after receipt of an order, if required.

PRICES: Any listed price is subject to change without notice. Orders are accepted with the understanding that the product will be billed at the price in effect at the time of shipment, unless otherwise specified by Carry Manufacturing, Inc.

QUOTATIONS: Any quotation 60 days old is subject to change without notice. The price of each order is subject to the resource availability and costs incurred by Carry Manufacturing, Inc. at the time of manufacture.

FREIGHT: F.O.B. Carry's factory in Caro, Michigan. Catalog weights are careful estimates, but they are not guaranteed. No allowance will be made for cartage at destination.

TAXES AND OTHER CHARGES: The prices do not include any Federal, State or Local sales, use or other taxes, or brokerage fees that may be applicable. The amount of any such applicable taxes or fees will be added to the invoice at the rate in effect at the time of shipment.

ACCEPTANCE: No order shall be binding upon Carry Manufacturing, Inc. until accepted in writing by an authorized official at its home office in Caro, Michigan. Any contract for the sale of product and these Conditions of Sale, shall be governed by and construed according to the Uniform Commercial Code as adopted in the State of Michigan. If the product quoted is not approved by the Consulting Engineer, Carry Manufacturing, Inc. assumes no responsibility to furnish any item manufactured by others.

CREDIT: Credit worthiness of a Purchaser will be determined upon receipt of the contract. Credit terms, if authorized, are subject to change during the life of the contract if the financial condition of the Purchaser changes.

CANCELLATION: Cancellation of orders will be accepted with the understanding that Carry Manufacturing, Inc. will be entitled to reimbursement for expenses incurred at the time of cancellation, including any and all special engineering, design, tooling, manufacturing, storage or transportation costs.

TERMS, PAYMENT & INVOICING: Standard payment terms are COD. Payment is due prior to shipment. For Open Accounts (with approved credit), payment terms are NET 30 days from the date of invoice. Retaining a percentage of the contract sale amount is prohibited without prior, written agreement. Payment must be made in U.S. Funds. An invoice will be rendered as of the date product is ready for shipment. A service fee of 1-1/2% per month on all invoices over 30 days past due will be imposed. In the event of any default by the Purchaser, Carry Manufacturing, Inc. shall have the right to repossess the product as well as all other rights afforded to a conditional seller under the provisions of the Uniform Conditional Sales Act and any other applicable laws.

MANUALS: One (1) owner's/service manual will be provided with each purchase of a single pump, included with the pump, control panel or variable frequency drive. Additional owner's/service manuals are available on our website: www.carrymfg.com. Specialty Owner's Manuals for custom products will be available upon request.

DELIVERY: Standard lead times for Storm Water products is 7-10 business days. 316 Stainless Steel and custom designed products have an 8-10 week lead time. The estimated shipping date is based on the production time required to process the order commencing with the date the order is accepted by Carry Manufacturing, Inc. In the event it is necessary to revise the design, specifications, or Conditions of Sale, the shipping date shall be automatically extended by the period of time required to achieve the mutually agreed upon correction or adjustments of the design, specifications or Conditions of Sale.

Carry Manufacturing, Inc. reserves the right to make shipment of completed segments of an order and pro rate the invoice for those segments as shipments are made.

DELAYS IN DELIVERY: Carry Manufacturing, Inc. shall not be responsible for any delay or for any damages suffered by the Purchaser by reason of any delay due to fires, strikes, riots, Acts of God, priorities, Government orders or restriction, delays in transportation, delays of suppliers of materials or parts, inability to obtain necessary labor, or other causes beyond the control of Carry Manufacturing, Inc. In the event of such a delay, the shipping date shall be extended for a period of time equal to the time lost by reason of such a delay.

Any product held more than three (3) weeks after the estimated shipping date at the Purchaser's request will be stored at the Purchaser's expense unless otherwise agreed upon.

DAMAGE OR LOSS IN TRANSIT: Delivery of the product to a carrier at Carry Manufacturing's plant or other shipping point selected by Carry Manufacturing shall constitute delivery to the Purchaser. Regardless of freight payment, all risk, loss or damage in transit shall pass to the Purchaser at that time. The Purchaser shall make claims for loss or damage to product while in transit, against the carrier and not against Carry Manufacturing, Inc. Carry Manufacturing, Inc. will assist the Purchaser in securing satisfactory adjustment of such claims.

BETWEEN SHIPMENT AND PAYMENT: The Purchaser shall be responsible for the care, maintenance and protection of the material or product after delivery. The Purchaser agrees to provide and maintain adequate insurance for the product or materials shipped to the Purchaser against loss or damage by fire, explosion or other causes during the time between shipment and final payment in an amount fully protecting Carry Manufacturing, Inc.

The title and right of possession to the machinery shall remain with Carry Manufacturing, Inc. and the machinery shall remain personal property irrespective of attachment to, or location on, any foundation or in any structure, until all payments shall have been made in cash. The Purchaser will do all acts necessary to protect the above title and right.

INSTALLATION: Unless specifically stated otherwise, all material or product shall be installed and placed in service by, at the expense of, and under the exclusive responsibility of the Purchaser.

RETURNED PRODUCT: Authorization and shipping instructions for the return of any product must first be obtained by the Purchaser from Carry. Otherwise shipment will be refused. Contact Carry Manufacturing to be issued an RGA form. Complete the form and include a copy with the product to be returned freight pre-paid. Only unused standard product or materials of current design by Carry will be considered for return. Custom products cannot be returned for credit. If the returned product is in sellable condition, a credit memorandum will be issued minus a **minimum restocking charge of 15%** and minus any and all transportation charges paid by Carry.

LIMITED WARRANTY: Carry warrants the product sold by it to be free from defects in materials and workmanship for a period of one (1) year from the date of purchase of the pump.

WARRANTY DISCLAIMER: This warranty does not apply to the product if used in an aquacultural application or to pumps that have been subject to misuse (including use in a manner inconsistent with the design of the pump), abuse, neglect, accident or improper installation or maintenance, or to pumps that have been altered or repaired by anyone other than Carry. The warranties in this agreement are in lieu of all other warranties, express or implied, including without limitation, any warranties of merchantability or fitness for a particular purpose, said warranties being expressly disclaimed.

WARRANTY AMENDMENTS: Prior or subsequent courses of dealing, trade usage and verbal agreements not reduced to a writing signed by Carry, to the extent they differ from, modify, add to or detract from this warranty shall not be binding upon Carry. There are no agreements, promises or understandings, either verbal or written, that are not fully expressed in this warranty. No statements, recommendations or assistance by either party have been relied upon by either party nor shall they be relied upon and shall not constitute a waiver by either party of any of the provisions hereof. This warranty may be amended or altered only if agreed to in writing signed by Carry.

LIMITED REMEDY: Carry and Purchaser agree the repair or replacement of the pump at issue is a commercially reasonable allocation of risk and, therefore, Purchaser agrees that its sole and exclusive remedy against Carry shall be limited to the repair or replacement of the pump at issue. This exclusive remedy shall not be deemed to have failed of its essential purpose so long as Carry is willing and able to repair or replace the pump at issue. In the event Carry is unable to repair or replace the pump at issue in a manner acceptable to purchaser, or in the event it shall be determined by a court having jurisdiction thereof that any provisions of this warranty are unconscionable or fail in its essential purpose, then the maximum liability of Carry shall be that as set forth in the paragraph next following entitled "Limitation on Liability".

LIMITATION ON LIABILITY: Carry shall not be liable for any loss, damage or injury resulting from delay in delivery or installation of the pump or for any failure to perform which is due to circumstances beyond its control. Carry and Purchaser agree it is a commercially reasonable allocation of risk that the maximum liability, if any, of Carry for all damages, including without limitation contract damages and damages for injuries to persons or property, whether arising from Carry's breach of this agreement, breach of warranty, negligence, strict liability or other tort, is limited to an amount not to exceed the purchase price of the pump at issue in the dispute and said liability is so limited. In no event shall Carry be liable to Purchaser for any incidental, consequential or special damages, including without limitation, lost revenues and profits, even if it has been advised of the possibility of such damages.

WARRANTY CLAIM PROCEDURE: This warranty is valid only if the following conditions are complied with by the Purchaser: Purchaser shall notify Carry in writing of the defect in the pump at issue within 30 days of discovery of the defect. The notice shall include with it copies of the warranty card, proof of purchase and the return receipt signed by a representative of Carry as provided above. In the event repair or replacement of the pump at issue is approved by Carry, Purchaser shall, upon written notice by Carry of the approval (RGA), return the pump to Carry, freight prepaid. Carry will return the repaired or replaced pump to Purchaser, freight prepaid. The repair or replacement of the pump shall not extend the duration of the one-year warranty term.

GOVERNING LAW: This warranty shall be governed and controlled by and enforced in accordance with the laws of the State of Michigan, U.S.A., in all respects.

FORUM: The parties agree they are of equal bargaining power and irrevocably submit to the jurisdiction and venue of the Circuit Court for the County of Tuscola, State of Michigan or, if original jurisdiction can be established, the United States District Court for the Eastern District of Michigan, Northern Division, with respect to any performance or breach of this agreement. The parties hereby stipulate that the venues referenced in this agreement are convenient to each of them.

GENERAL: These terms and conditions shall constitute a part of any contract which may be entered into and shall not be altered, modified, or added to unless specifically and expressly agreed to in writing by CMI. All oral agreements and representations of CMI or its representative to the Purchaser shall be embodied in any written contract of which CMI is a part.