

Engineered Products Catalog

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www.cranepumps.com*

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NOTICE:

Performance and dimensional data presented in this catalog are for planning purposes only and are subject to change without notice.

Consult your authorized Barnes distributor for specific details and the latest information, or call Crane Pumps & Systems, Inc. direct at (937) 778-8947.

Introduction

The catalog is organized in 6 Major Sections and a number of Sub-Sections, along with the General, and Warranty & Service sections.

- Section 0.1 contains Solids Handling Submersible Pumps
- Section 0.2 contains Submersible Chopper Pumps
- Section 1 contains Submersible Wastewater and Sump Pumps
- Section 3 contains Submersible Effluent and Grinder pumps
- Submersible Accessories,
- Section 4 contains Self-Priming pumps
- Section 5 contains Other pumps (Fountain Pumps and End Suction Centrifugal pumps)
- Section 6 contains Self-Priming Accessories

Each Major Section is labeled with the type of pump, Submersible Non-Clog Pumps, Effluent/Grinder Pumps, etc., which contains a Family Curve, by discharge size. By laying your pumping requirements within this curve, you can come up with the discharge size of the pump. Now turn to the corresponding Sub-Section which is detailed by discharge size for pump data, dimensions and performance. One Sub-Section, usually the last, will have typical Installation drawings and/or Package Systems.

Also within the Major Section will be sample Specifications for each type of pump construction. These will help you in preparing your Project Specifications using Barnes® pumps.

- Section 0.1: Solids Handling Submersible Pumps;
Family Curves & Sample Specifications
 - Sect. 0.1A: 3" Solids Handling Pumps
 - Sect. 0.1B: 3" Solids Handling Pumps Explosion Proof
 - Sect. 0.1C: 4" Solids Handling Pumps
 - Sect. 0.1D: 4" Solids Handling Pumps Explosion Proof
 - Sect. 0.1E: 6" Solids Handling Pumps
 - Sect. 0.1F: 6" Solids Handling Pumps Explosion Proof
 - Sect. 0.1G: 8" Solids Handling Pumps
 - Sect. 0.1H: 8" Solids Handling Pumps Explosion Proof
 - Sect. 0.1J: 10" Solids Handling Pumps
 - Sect. 0.1K: 10" Solids Handling Pumps Explosion Proof

- Section 0.2: Submersible Chopper Pumps;
Family Curves & Sample Specifications
 - Sect. 0.2C: 4" Submersible Chopper Pumps
 - Sect. 0.2D: 4" Submersible Chopper Pumps Explosion Proof
 - Sect. 0.2E: 6" Submersible Chopper Pumps
 - Sect. 0.2F: 6" Submersible Chopper Pumps Explosion Proof

- Section 1: Submersible Non-Clog Pumps;
Family Curves & Sample Specifications
 - Sect. 1A: Sump & Utility Pumps
 - Sect. 1B: 1-1/2", 2" & 3" Vertical Discharge Non-Clog
 - Sect. 1D: 4" Horizontal Discharge
 - Sect. 1L: Non-Clog Installation Drawings
 - Sect. 1M: Non-Clog Explosion Proof; Installation Drawings

- Section 3: Submersible Effluent and Grinder Pumps;
Family Curves & Sample Specifications
 - Sect. 3A: Effluent Pumps
 - Sect. 3B: Grinder Pumps
 - Sect. 3C: Grinder Pumps Explosion Proof
 - Sect. 3E: Package Systems and Installation Drawings

- Submersible Accessories:
 - Sect. A: Panels & Accessories
 - Sect. B: Break Away Fittings and Accessories
 - Sect. C: Basins & Accessories

- Section 4: Self-Priming Pumps;
Family Curves & Sample Specifications
 - Sect. 4A: 2" thru 10" Solids Handling Motor-Driven
 - Sect. 4E: 1-1/2" thru 6" Universal Drive Pumps

- Section 5: Other Pumps;
 - Sect. 5A: Fountain Pumps
 - Sect. 5B: End Suction Pumps

- Section 6: Self-Priming Accessories

THE FOLLOWING MODEL NOMENCLATURE IS USED IN SECTIONS 1 THRU 3 INCLUDING SUB-SECTIONS.

DISCHARGE SIZE:

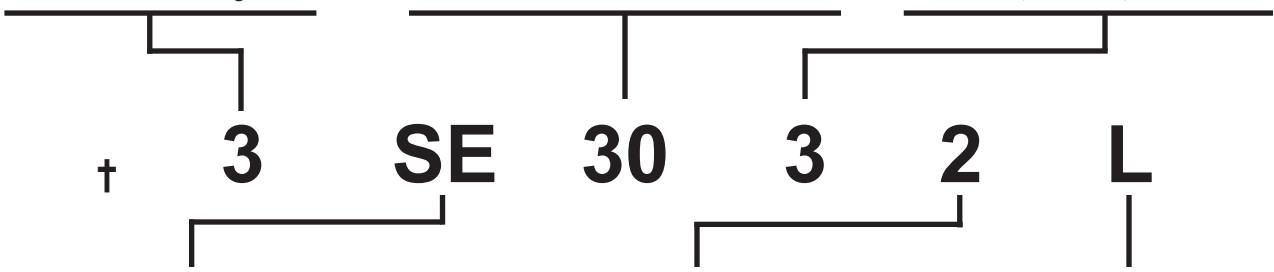
- * = 1.25" Discharge
- * = 1.50" Discharge
- 2 = 2" Discharge
- 3 = 3" Discharge
- 4 = 4" Discharge
- 6 = 6" Discharge
- 8 = 8" Discharge

NAMEPLATE HORSEPOWER:

- 9 = 0.9HP
- 19 = 1.9HP
- 37 = 3.7HP
- 50 = 5HP
- 113 = 11.3HP
- 2000 = 200HP

MOTOR, PHASE & VOLTAGE:

- 0=200 Volt , 1 Phase,60 Hz.
- 1=115 Volt , 1 Phase,60 Hz.
- 2=230 Volt , 1 Phase,60 Hz.
- 3=230 Volt , 3 Phase,60 Hz.
- 4=460 Volt , 3 Phase,60 Hz.
- 5=575 Volt , 3 Phase,60 Hz.
- 6=200 Volt , 3 Phase,60 Hz.
- 7=200/230 Volt , 1 Phase,60 Hz.
- 8=230/460 Volt , 3 Phase,60 Hz.
- 9=200/230 Volt , 3 Phase,60 Hz.
- N = 208-230/460 Volt , 3 Phase, 60 Hz.
- T=380 Volt , 3 Phase, 60Hz.
- V=415 Volt , 3 Phase, 50 Hz.
- W=110 Volt , 1 Phase, 50 Hz.
- X=220 Volt , 1 Phase, 50 Hz.
- Y=220 Volt , 3 Phase, 50 Hz.
- Z=380 Volt , 3 Phase, 50 Hz



SERIES PUMP:

- BP = Sump/Effluent
- E = Effluent
- EH = Effluent
- EHV = Effluent-Vortex
- HCU = Horizontal Centrifugal Universal Drive
- SC = SITHE Submersible Chopper
- SE = Sewage Ejector
- SF = Submersible Fountain
- SFU = Submersible Fountain
- SEV = Sewage Ejector-Vortex
- SGV = Vortex Submersible Grinder
- SGVF = High Flow, Vortex Submersible Grinder
- SGVH = High Head, Vortex Submersible Grinder
- SH = Solids Handling Pump
- SP = Sump/Effluent
- STEP = Septic Tank Effluent Pump
- SU = Sump & Utility
- OGVF = High Flow, Vortex Submersible OMNIGrind
- OGVH = High Head, Vortex Submersible OMNIGrind
- OGP = Two Stage, High Head, Vortex Submersible Grinder
- UT = Utility
- XGV = BLADE Explosion Proof Submersible Grinder
- XSGV = Explosion Proof Vortex Submersible Grinder

SPEED:

- | | |
|-------------|---------------|
| 60Hz | (50Hz) |
| 2=3450RPM | (2850) |
| 4=1750RPM | (1425) |
| 6=1150RPM | (950) |
| 8=870RPM | (720) |

DESIGN CODE:

- A = Air Filled (3" to 8" pumps only)
- A = Automatic (2" and lower)
- AU = Automatic
- AUE = Automatic (ESPS level control)
- AUF = Automatic (Swing type level control)
- DS = Double Seal Oil Filled
- EA = Air Filled
- EDS = Double Seal Oil Filled
- EHA = High Efficiency Air Filled
- EL = Oil Filled
- HA = High Efficiency Air Filled
- HD = Heavy Duty
- HF = High Flow
- HL = High Efficiency Oil Filled
- HT=High Temperature
- L =Oil Filled
- M = ABS Retrofit / Horizontal Discharge
- S=Special
- SS=Single Seal Oil Filled
- VF=Vertical level control
- X=Cord length variation

(*) Discharge designation is not used on these models.
 (†) This model nomenclature does not apply to the following submersible Non-Clog pumps: SE411, SE421, SE411HT, SE51, SE52, SE51HT, SE52HT & UT17.

Model Nomenclature Chart

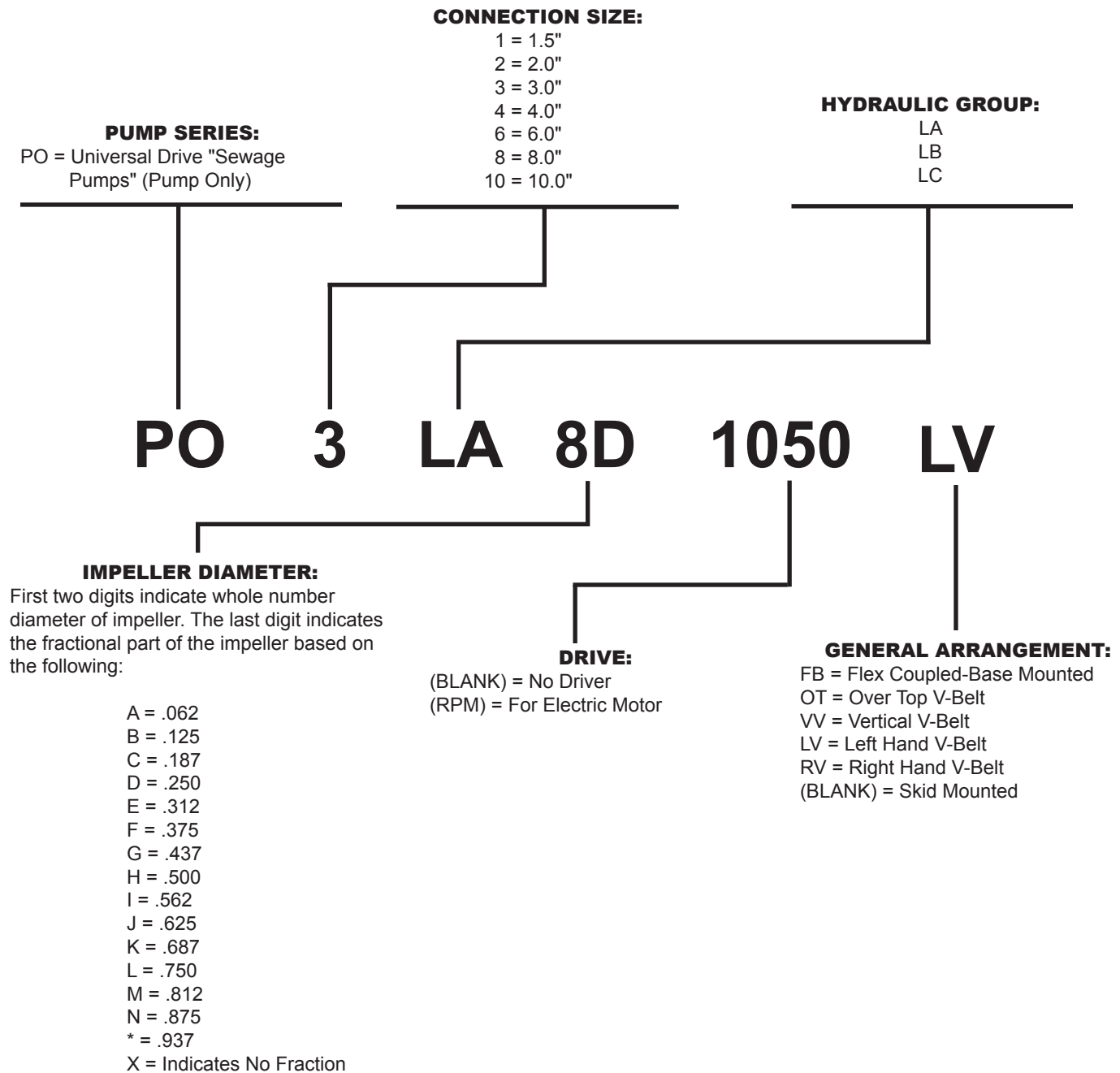
CROWN Sewage Pumps

BARNES®

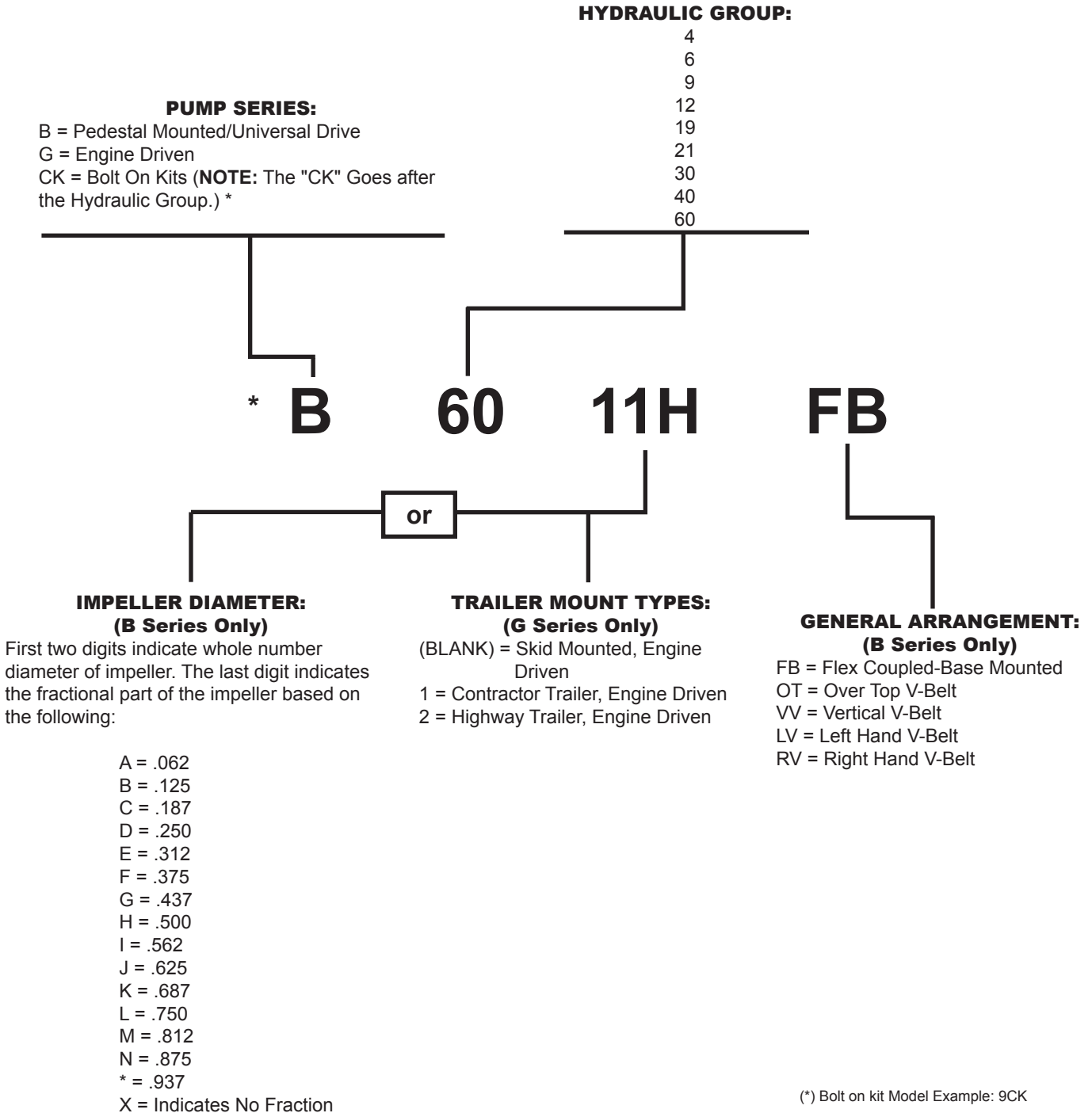
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Introduction

THE FOLLOWING MODEL NOMENCLATURE IS USED IN SECTIONS 4, 4A, AND 4C.



THE FOLLOWING MODEL NOMENCLATURE IS USED IN SECTIONS 4E, 4F AND 4G.



BARNES®

BARNES®
PRESSURE **PS** SYSTEMS



burks®

WEINMAN®

DEMING®

PROSSER®

Standard Terms and Conditions

OUR ACCEPTANCE OF YOUR ORDER IS EXPRESSLY CONDITIONED ON THE GENERAL TERMS AND CONDITIONS SET FORTH BELOW AND ALL TERMS STATED ON THE FACE OF THIS FORM. THE CONTRACT SHALL NOT INCLUDE ANY DEVIATING OR ADDITIONAL TERMS UNLESS EXPRESSLY AGREED TO IN WRITING AND SIGNED BY AN OFFICER OF OUR COMPANY.

PRICES: All prices are subject to change without notice and all shipments will be invoiced at the price in effect at the time of shipment, except when otherwise agreed to in writing by our authorized representative. Published prices are for products of our standard design and construction and any item not covered by the most recent published price list must be referred to us for special pricing. Prices do not include freight. Weights shown in price lists are approximate shipping weights. The amount of any applicable present or future tax or other government charge upon the production, sale, shipment or use of goods ordered or sold is not in the price and will be added to billing unless you provide us with an appropriate exemption certificate.

QUOTATIONS: Prices quoted by us are valid for 30 days from date of quotation unless we have otherwise specified in writing. Clerical errors on quotations are subject to our correction and such errors will not be binding.

CANCELLATION AND REVISIONS: No purchase orders accepted and acknowledged by us may be cancelled or revised by you except with our prior written consent and upon payment of reasonable cancellation charges compensating us for all costs incurred in work done and material purchased. We reserve the right to determine what constitutes reasonable cancellation charges.

RETURN OF EQUIPMENT: No equipment shall be returned to us without first obtaining a written Returned Goods Authorization and shipping instructions from us. The returner must prepay the charges in full for transportation to our factory. Credit allowed for new, undamaged equipment of current standard design will be a maximum of 80%; or less as determined by Customer Service; of the invoiced price or current billing price, whichever is less. The minimum value of returned product is \$250 invoiced price or current billing price. Equipment which has been used, however slight, will not be accepted. Authorization will not be given for return of equipment, (1) which would, in our opinion, result in an excess in the amount of stock we normally carry, (2) not invoiced within the last 12 months, or (3) which is non-standard and manufactured specifically to a buyer's specifications. For non-standard equipment not of our manufacture, the only credit allowed will be such credit as may be allowed by the manufacturer of such equipment. Equipment must be returned within 30 days of the issuance of the Returned Goods Authorization. No item with a net value of less than \$35.00 will be authorized for return. Items not available for return are those that have a shelf life and hardware items. Unauthorized returns may be refused and/or returned freight collect.

CREDIT AND PAYMENT: Payment is due as noted on our invoice. Overdue accounts are subject to a service charge. All orders are subject to approval of our credit department and we may require full or partial payment in advance. Pro rata payments shall become due as shipments are made. If the shipments are delayed by you for any cause, payments shall become due from date on which we are prepared to make shipment and storage shall be at your risk and expense. If manufacture is delayed by you for any cause, a partial payment based upon the proportion of the order completed shall become due from the date on which we are notified of the delay.

SECURITY INTEREST: We shall have a lien on all goods sold as security for payment on the invoice price, and upon request you shall provide and execute a financing statement showing such lien.

DELIVERY: We will make reasonable effort to meet your delivery requirement provided you provide us, on a timely basis, all approvals, technical data, instructions and credit approval requirements needed for release of the shipment. However, all delivery and/or shipment dates are estimates only unless we have expressly guaranteed delivery of such dates in writing at your specific request. In no event shall we have any liability if delivery is delayed by strikes, labor disturbances, material shortages, plant calamities or disaster, acts of God, government actions, civil disturbance, the failure of any pre-supposed condition of the contract, withholding shipments due to credit clearance, or other interferences beyond our reasonable control, and the date of delivery shall be extended for a period of time equal to the time lost because of any such reason. Emergency Orders and Rush Orders: Contact the Sales Department for applicable handling fees.

SHIPPING: Unless you specify in writing and we acknowledge in writing, (A) goods will be boxed or crated as we may deem proper for protection against normal handling and for domestic shipment, (B) routing and manner of shipment will be at our discretion, and may be insured at your expense. An extra charge will be made for special handling. All shipments

are F.O.B. point of manufacture. Delivery of goods to the initial carrier will constitute delivery to you and all goods will be shipped at your risk. A claim for loss or damage in transit must be entered with the carrier and prosecuted by you. Acceptance of material from a common carrier constitutes a waiver of any claims against us for delay, damage or loss.

FACTORY STORAGE: In the event Purchaser is unable to authorize or accept shipment upon notification of Crane Pumps & Systems readiness to ship, equipment shall be placed in suitable storage by Crane Pumps & Systems. Storage charges and any charges for drayage, re-inspection by Quality Assurance, etc. will be for the account of the Purchaser.

GOVERNING LAW: It is understood and agreed that these Terms and Conditions of Sale shall be interpreted under and pursuant to the laws of the State of Ohio; you agree that any action at law or suit which is related to any contract of sale brought against us shall be filed in a federal or state court located in the State of Ohio.

LIMITED WARRANTY: Crane Pumps & Systems warrants that products of our manufacture will be free of defects in material and workmanship under normal use and service for twenty-four (24) months after manufacture date, when installed and maintained in accordance with our instructions. This warranty gives you specific legal rights, and there may also be other rights which vary from state to state. In the event the product is covered by the Federal Consumer Product Warranties Law (1) the duration of any implied warranties associated with the product by virtue of said law is limited to the same duration as stated herein, (2) this warranty is a LIMITED WARRANTY, and (3) no claims of any nature whatsoever shall be made against us, until the ultimate consumer, his successor, or assigns, notifies us in writing of the defect, and delivers the product and/or defective part(s) freight prepaid to our factory or nearest authorized service station. Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply. THE SOLE AND EXCLUSIVE REMEDY FOR BREACH OF ANY AND ALL WARRANTIES WITH RESPECT TO ANY PRODUCT SHALL BE TO REPLACE OR REPAIR AT OUR ELECTION, F.O.B. POINT OF MANUFACTURE OR AUTHORIZED REPAIR STATION, SUCH PRODUCTS AND/OR PARTS AS PROVEN DEFECTIVE. THERE SHALL BE NO FURTHER LIABILITY, WHETHER BASED ON WARRANTY, NEGLIGENCE OR OTHERWISE. Unless expressly stated otherwise, guarantees in the nature of performance specifications furnished in addition to the foregoing material and workmanship warranties on a product manufactured by us, if any, are subject to laboratory tests corrected for field performance. Any additional guarantees, in the nature of performance specifications must be in writing and such writing must be signed by our authorized representative. Due to inaccuracies in field testing if a conflict arises between the results of field testing conducted by or for user, and laboratory tests corrected for field performance, the latter shall control. RECOMMENDATIONS FOR SPECIAL APPLICATIONS OR THOSE RESULTING FROM SYSTEMS ANALYSES AND EVALUATIONS WE CONDUCT WILL BE BASED ON OUR BEST AVAILABLE EXPERIENCE AND PUBLISHED INDUSTRY INFORMATION. SUCH RECOMMENDATIONS DO NOT CONSTITUTE A WARRANTY OF SATISFACTORY PERFORMANCE AND NO SUCH WARRANTY IS GIVEN.

This warranty shall not apply when damage is caused by (a) improper installation, (b) improper voltage (c) lightning (d) excessive sand or other abrasive material (e) scale or corrosion build-up due to excessive chemical content. Any modification of the original equipment will also void the warranty. We will not be responsible for loss, damage or labor cost due to interruption of service caused by defective parts. Neither will we accept charges incurred by others without our prior written approval.

This warranty is void if our inspection reveals the product was used in a manner inconsistent with normal industry practice and/or our specific recommendations. The purchaser is responsible for communication of all necessary information regarding the application and use of the product. UNDER NO CIRCUMSTANCES WILL WE BE RESPONSIBLE FOR ANY OTHER DIRECT OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO TRAVEL EXPENSES, RENTED EQUIPMENT, OUTSIDE CONTRACTOR FEES, UNAUTHORIZED REPAIR SHOP EXPENSES, LOST PROFITS, LOST INCOME, LABOR CHARGES, DELAYS IN PRODUCTION, IDLE PRODUCTION, WHICH DAMAGES ARE CAUSED BY ANY DEFECTS IN MATERIAL AND/OR WORKMANSHIP AND/OR DAMAGE OR DELAYS IN SHIPMENT. THIS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.

No rights extended under this warranty shall be assigned to any other person, whether by operation of law or otherwise, without our prior written approval.

If any litigation is commenced between the parties hereto for the enforcement of any rights hereunder, the successful party in subject litigation shall be entitled to receive from the unsuccessful party all costs incurred in connection therewith, including a reasonable amount for attorney's fees.

YOUR ACCEPTANCE OF ANY GOODS SUPPLIED BY US, OR ON OUR BEHALF, SHALL, WITHOUT LIMITATION CONSTITUTE ACCEPTANCE OF ALL TERMS AND CONDITIONS STATED ABOVE.



A Crane Co. Company

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Introduction

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