



**CRANE**®

# Crane Pumps & Systems

## Deming 7365 & 7365N Demersible

# Deming Demersible

*Everyone. Everywhere. On Time Every Time.*

- Question: What is a “Demersible”???
- Answer:

**De**ming + Sub**mersible**

= ***Demersible!***

7365 Deming Demersible



# Applications

*Everyone. Everywhere. On Time Every Time.*

- General Drainage
- Storm water Runoff
- Building Services
- Power & Utility
- Pollution Control
- Dock Dewatering
- Process Wastewater





# Deming Demersible

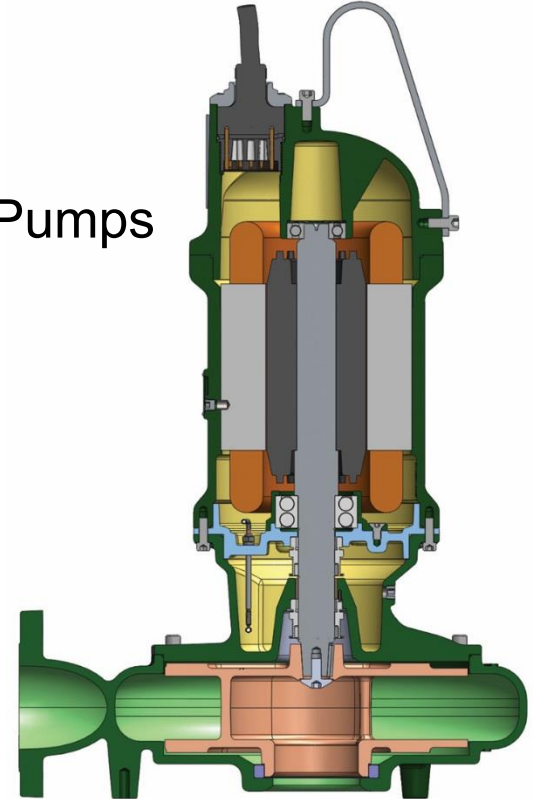
*Everyone. Everywhere. On Time Every Time.*

- The 7365 Demersible Replaces the Older 7360/7370 Pumps which were Limited in Range:
  - 3" & 4" Discharge Sizes Only
  - Maximum Flow of 900 GPM
  - Maximum Head of 140 Feet
  - 20 HP Maximum
  - Long Lead Times Due to Reliance Motors



## ■ The 7365 Demersible Provides:

- 3", 4", 6", 8" & 10" Horizontal Discharge Pumps
- Capacities to Over 4,500 GPM
- Heads to Over 260 Feet
- Three Phase Motors
  - 5 to 50 HP 3450 RPM
  - 2 to 150 HP 1750 RPM
  - 7.5 to 100 HP 1150 RPM
  - 10 to 50 HP 870 RPM
- Single Phase Motors
  - 5 HP 3450 RPM
  - 2 to 5 HP 1750 RPM
  - Single Phase Pumps Provided w/ Capacitors, Relay & Terminal Strip on a Back Plane for Mounting in a Control Panel
- 50 Hz Models w/ Motors Rated 1.5 to 45 KW

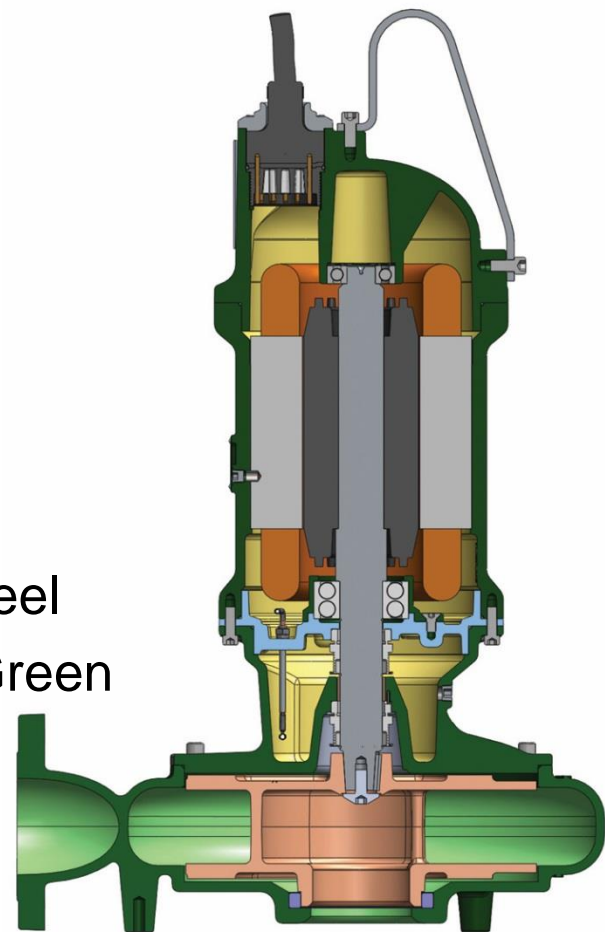


# Deming Demersible

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## ■ 7365 Demersible Materials of Construction:

- Impeller: Ductile Iron
- Suction Wear Rings: Cast Iron
- Casing: Cast Iron
- Shaft: 416 Stainless Steel
- Motor Housing: Cast Iron
- Seal Chamber: Cast Iron
- Gaskets & O-Rings: Buna N
- Hardware and Lifting Bail: 304 Stainless Steel
- Paint System: Oil-Based Enamel, Deming Green



## Deming 7365 Demersible Models Available

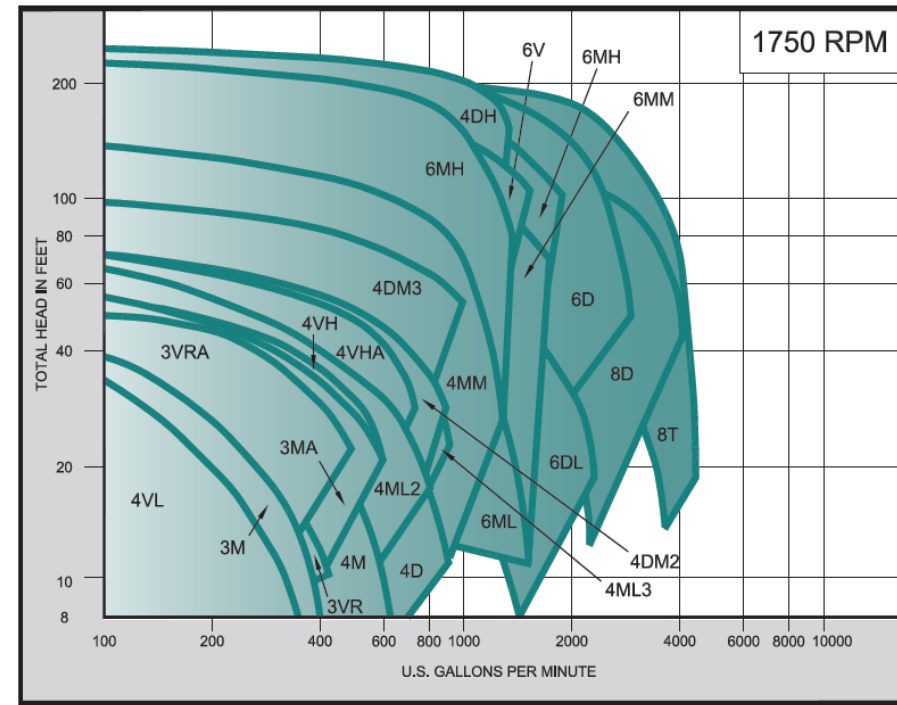
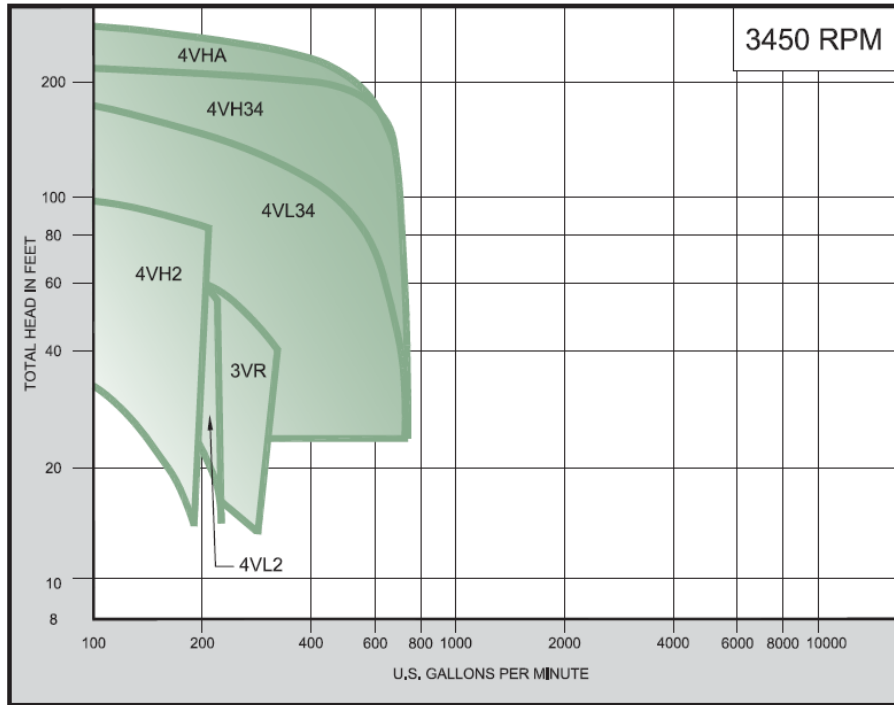
- Meet The 7365 Family
- Model Breakdown - 27 Total
- 3" – 4 Different Impeller Options
- 4" – 11 Different Impeller Options
- 6" – 7 Different Impeller Options
- 8" – 3 Different Impeller Options
- 10" – 2 Different Impeller Options

#2 Frame  
2 – 10 HP



# Deming Demersible

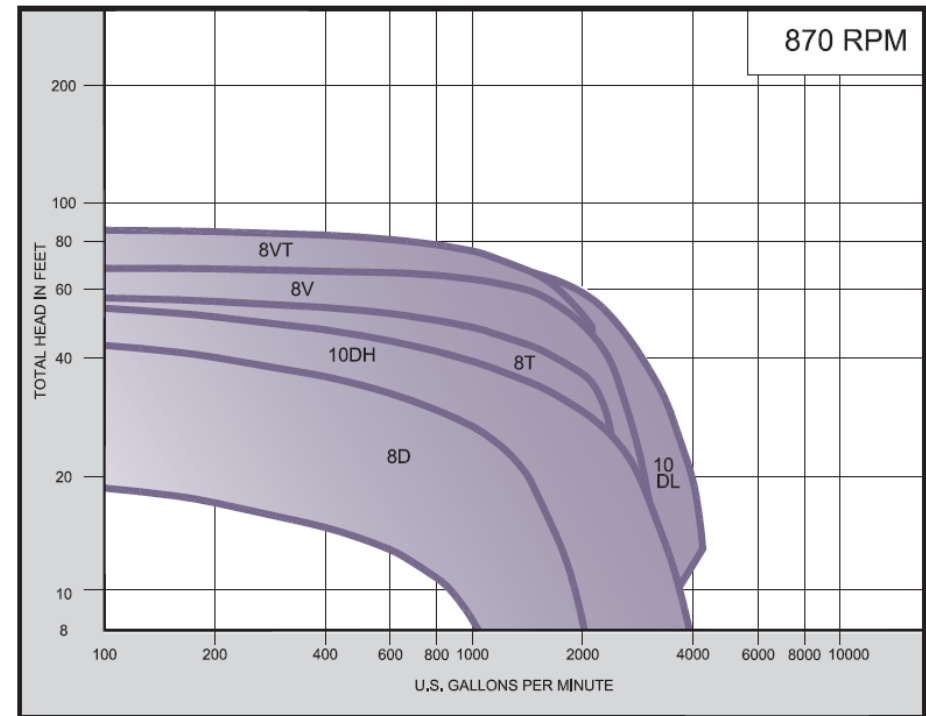
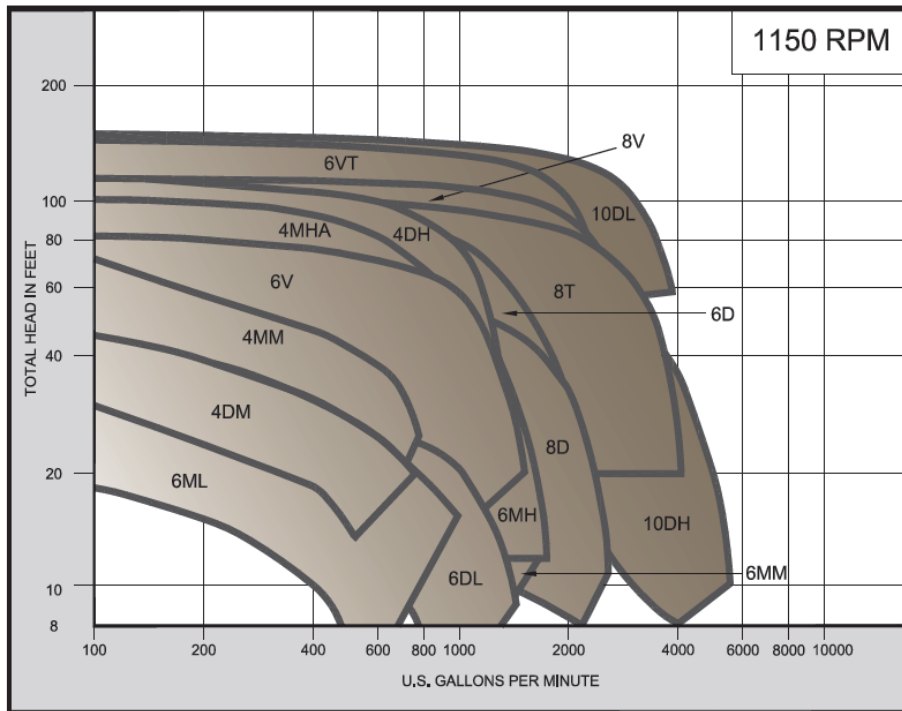
*Everyone. Everywhere. On Time Every Time.*



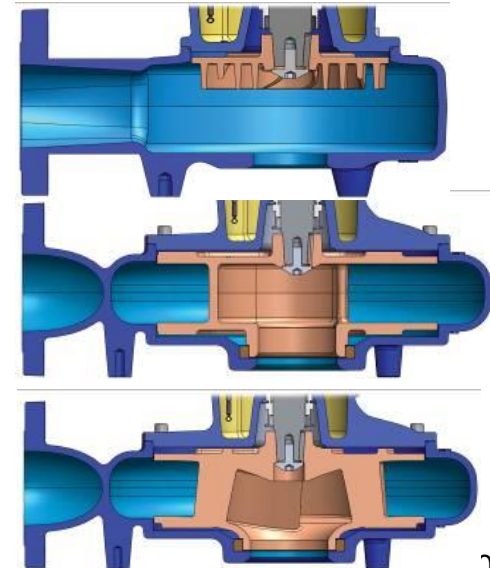


# Deming Demersible

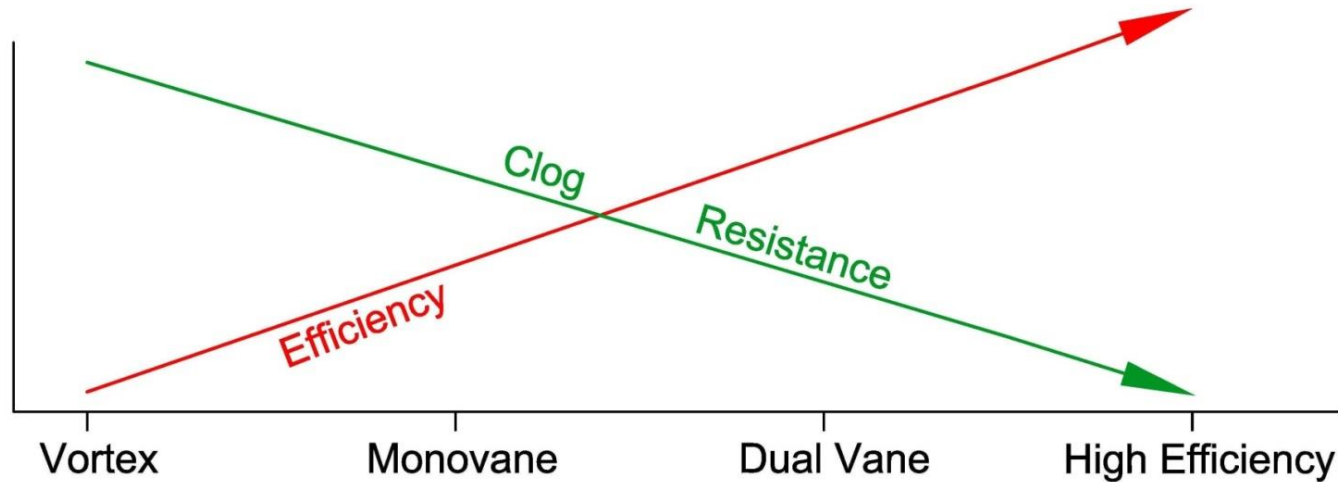
*Everyone. Everywhere. On Time Every Time.*



- The 7365 Demersible Provides Impellers Optimized for Non-Abrasive Solids Handling
  - **Trimmmable** Monovane Impellers for Low to Moderate Flows and Heads – 3" Spherical Solids Passage (2-1/2" on 3" Pumps)
  - Dual Vane Impellers (Tri-Vane on 8") for Higher Flows and Heads – 3" Spherical Solid Passage (4" Solids on 8" & 10" Pumps)
  - Vortex Impellers for Stringy Solids – 3" Spherical Solids (2-5/8" Solids on 3" Pumps and 4" on 8" Pumps)
  - Ductile Iron Impellers for Higher Strength
  - Keyed Tapered Shaft Drive
    - Lower Stress Drive than Sliding Fit Straight Shafts
    - Automatic Impeller Centering to Reduce Vibration
  - Front and Rear Pump-Out Vanes
    - Protect Lower Mechanical Seals
    - Reduce Pressure at Ring Fits



## There is a Trade-Off in Impeller Design:



	Clog Resistance	Efficiency
Vortex	Excellent	Low
Mono Vane	Pretty Good	Medium
Dual Vane	Okay	Great

**NOTE:** Diapers, Wipes, Rag, etc. are all roughly the same size which means Dual Vane and Mono Vane impellers are likely sufficient.

# Deming Demersible

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— Sufficient Passage Size

Scouring Velocity -

3ft/sec vertical flow velocity Required!!!	
Pipe Size inches	Minimum GPM
3"	70GPM
4"	120GPM
6"	270GPM
8"	470GPM
10"	740GPM



- VFD's and Start Torque

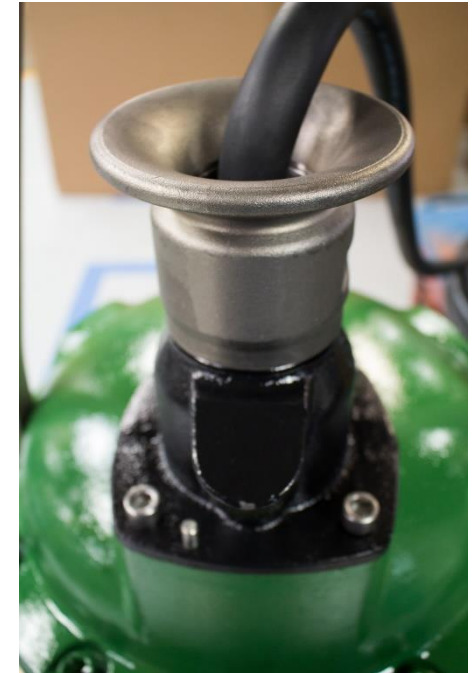
Operate near BEP to avoid cavitation -



# Deming Demersible

*Everyone. Everywhere. On Time Every Time.*

- 7365 Demersible Patented Plug-n-Play Power Cord:
  - Available on all sizes
  - Frame # 2 & #3
    - **Orange** Plugs for 460 or 575 Volts
    - **Black** Plugs for 208-230 Volts
    - Plug In and Tighten the Clamping Plate Bolts until the Plate and Housing are Metal-to-Metal
    - 30, 50, 75 or 100 Ft Cord Lengths
  - Frame #4 & #5
    - Single voltage plugs
    - Plug In and Tighten the cap screws until the Plate and Housing are Metal-to-Metal, tighten to 35 ft-lb
    - 208-230, 460 or 575 Volts
    - 50, 75 or 100 Ft Cord Lengths
  - Easy Installation
    - Allows for Simple Maintenance as Pumps Can be Un-Plugged
    - Eliminates the Need to Pull Power Cord from Conduit When Service is Needed (and Snake the Cord Back In When Returning the Pump!)





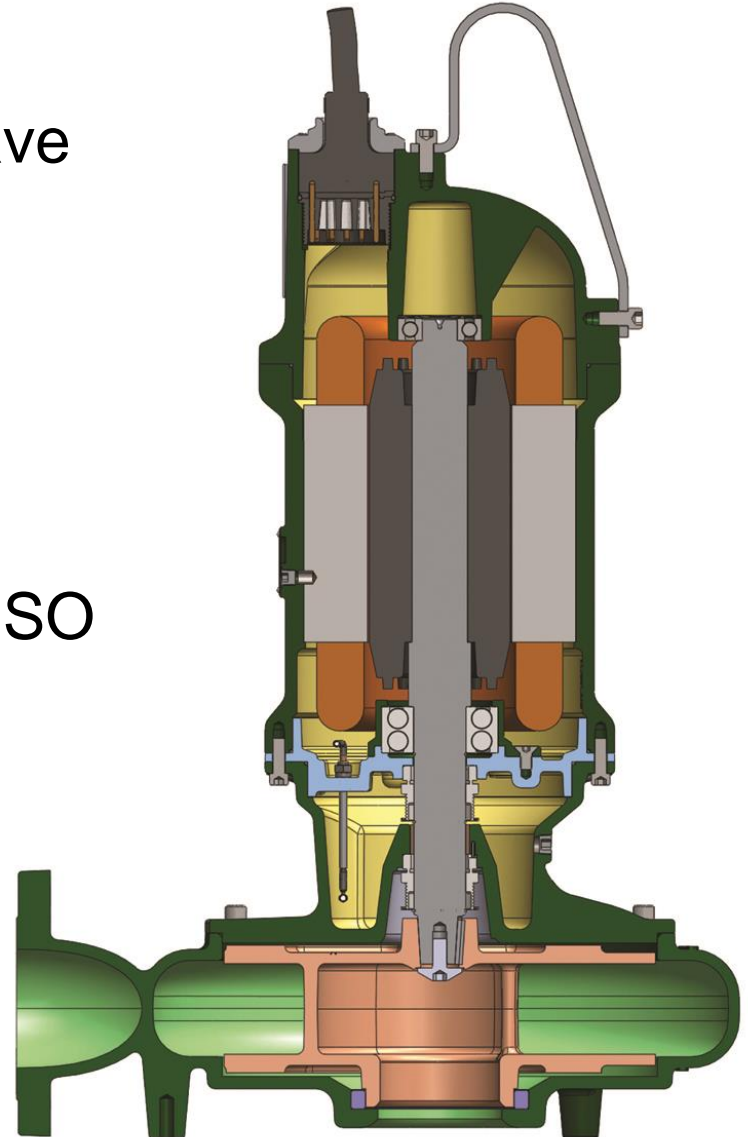
- The 7365 Demersible Pump Utilizes Motors Optimized for Tough Applications, Including VFD Drive:
  - The Motors are Provided on Four Frames:
    - #2 Frame for 2 to 10 HP at 1750 RPM
    - #3 Frame for 7.5 to 20 HP at 1150 RPM; to 30 HP at 1750 RPM
    - #4 Frame for 20 to 40 HP at 1150 RPM; to 60 HP at 1750 RPM
    - #5 Frame for 50 to 75 HP at 1150 RPM; to 100 HP at 1750 RPM
  - **All** Motors are Wound with Class H Insulation and Leads for Easy Handling of High Loads
  - **All** Motors are Inverter-Duty Rated per NEMA MG-1 Part 31 Standards
  - **All** Motors Have a 1.2 Service Factor

The Deming logo consists of the word "DEMING" in a bold, black, sans-serif font. A small registered trademark symbol (®) is located at the top right of the letter "G". The logo is enclosed within a thin, light blue rectangular border.

# Deming Demersible

*Everyone. Everywhere. On Time Every Time.*

- All 7365 Demersible Motors Have Oil-Filled Motors
  - Better Thermal Management
  - Oil-Lubricated Bearings
- Flanges are Slotted to Accommodate Both ANSI and ISO (Metric) Piping



# Deming Demersible

*Everyone. Everywhere. On Time Every Time.*

- The 7365 Demersible Utilizes Readily Available Mechanical Seals:
  - Individual Type 21 BF1C1 Seals in a Tandem Configuration
  - Both Upper and Lower Seals are Identical for Simplicity
  - Also Available with Silicon Carbide Face Materials
- The 7365 Demersible also Utilizes a Dual Probe Moisture Detector that Provides Advance Warning of a Seal that is Wearing
  - The Probes Measure Conductivity, so a Seal Leak into the Oil-Filled Seal Chamber Triggers an Alarm
  - When the Alarm is Triggered, Maintenance Has 2-3 Weeks to Schedule Repair

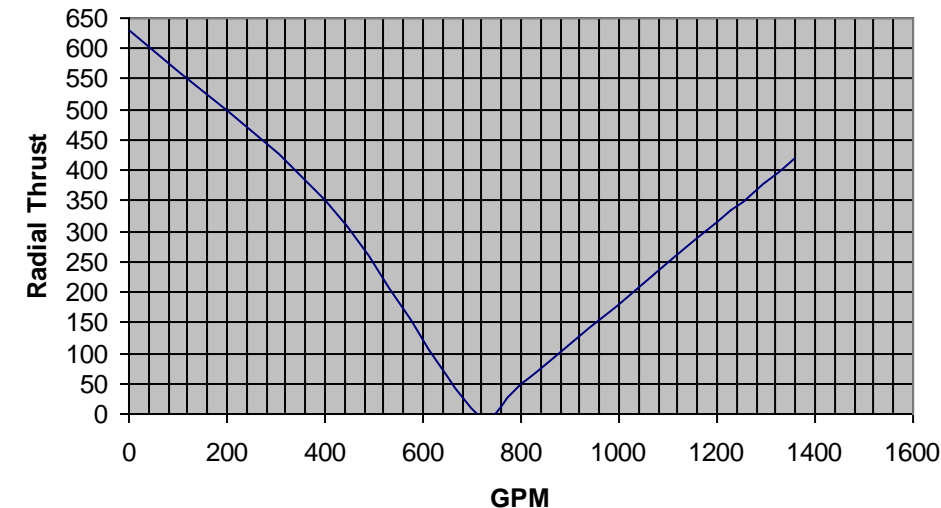
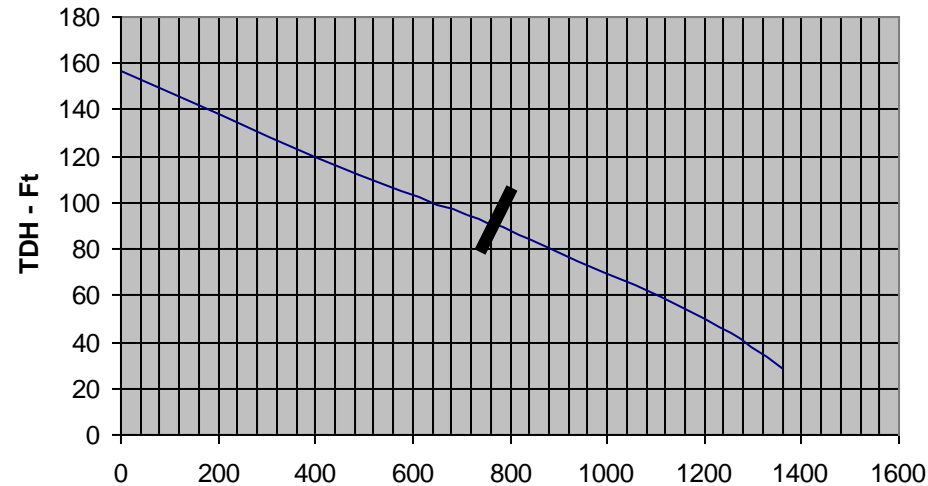


- The 7365 Deming Demersible is Provided with Heavy-Duty, **Oil-Lubricated Bearings**
  - Oil-Lubricated Bearings Have **Twice** the Life of Grease-Lube Bearings
  - The Bearings are Rated at a **Minimum** of 50,000 Hours at Minimum Flow
  - Minimum Flow for the 7365 for Bearing Calculations is 2 Ft/Sec
    - e.g., 80 GPM for a 4 inch Pump
  - **Actual** Minimum Flow is Based on the Piping:
    - 2-3 Ft/Sec Needed to Move Solids in a Horizontal Pipe
    - > 3 Ft/Sec Needed to Move Solids in a Vertical Pipe



# Deming Demersible

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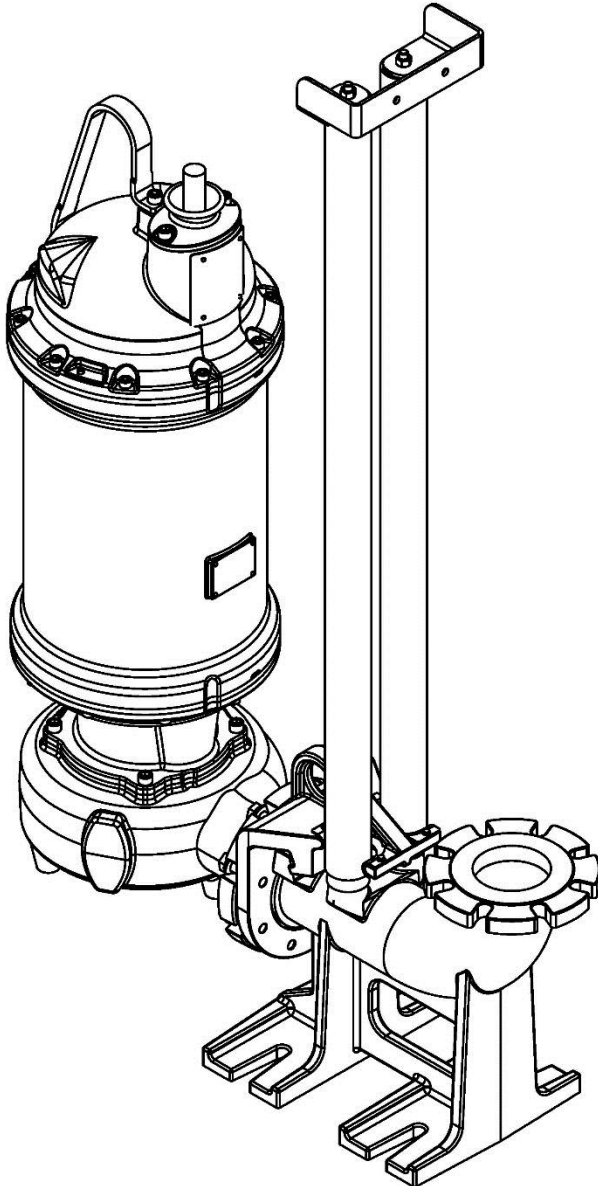
Performance and Radial Thrust Curves for a 4ML

- **Anyone** Can Claim High Bearing Life at BEP
- 7365 Demersible Pumps are Designed for 50,000 Hour Life at 2 Ft/ Sec Minimum Flow
- **Actual** Minimum Flow is Higher, Based on System Piping



# Deming Demersible

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- The 7365 Deming Demersible Can Be Mounted Two Ways:
  - A Break-Away Fitting (BAF) with Slide Rails; the Pump is Bolted to a Slide Rail Assembly and a Large O-Ring Seals Between the Adapter and the Base Elbow
  - A Leg Kit is Available for Free-Standing Pumps; Bell-Shaped Castings Bolt to the Casing Sub-Feet to Provide a Stable Base

## WHAT'S NEW

### 7365N

- NON- Xprof
- Flow up to 4000gpm
- TDH up to 265'
- 2-150HP
- 3"-10" Discharge
- RPM:  
870,1150,1750,3450



## What Changes?

OLD	NEW
X-prof Only	X-prof and Non X-prof
Cord comes with pump	Cord ordered separately <ul style="list-style-type: none"><li>• Multi- voltage motors</li><li>• Cords determines voltage</li><li>• Plug and play cord design</li></ul>
Hard to carry inventory	Mix/ Match cords for ease of inventory
Cost prohibitive	Non X-prof is much more cost effective

# 7365 Demersible

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- The 7365/ 7365N Demersible and Demersible Choppers are Manufactured in the CP&S Plant in Piqua, Ohio.
- Standard Lead Time is **3 Weeks**, for a Maximum Quantity of Three Units per Order, Frame Size 5 Standard Lead Time is 6 Weeks.
- Brochures are Available for Order on CP&S Connect
- Catalog and Price Pages Available for Download
- Mentor Online Available for Your Use



## **QUESTION:**

**What is the required scouring velocity  
in vertical pipe?**





**CRANE**®

# Crane Pumps & Systems

Deming 7366 Demersible Chopper

## BUILT TO LAST

## **WARNING:** GRAPHIC CONTENT

This gallery contains graphic images  
that some viewers may find disturbing.

# Demersible Chopper

*Everyone. Everywhere. On Time Every Time.*



No.1 Issue  
with Sewage  
Pumps...  
**CLOGGING!!!**

# Demersible Chopper

*Everyone. Everywhere. On Time Every Time.*



Foreign  
Material in the  
Waste Stream



# Demersible Chopper

*Everyone. Everywhere. On Time Every Time.*



Increasing  
Solids  
Content!!!



# Demersible Chopper

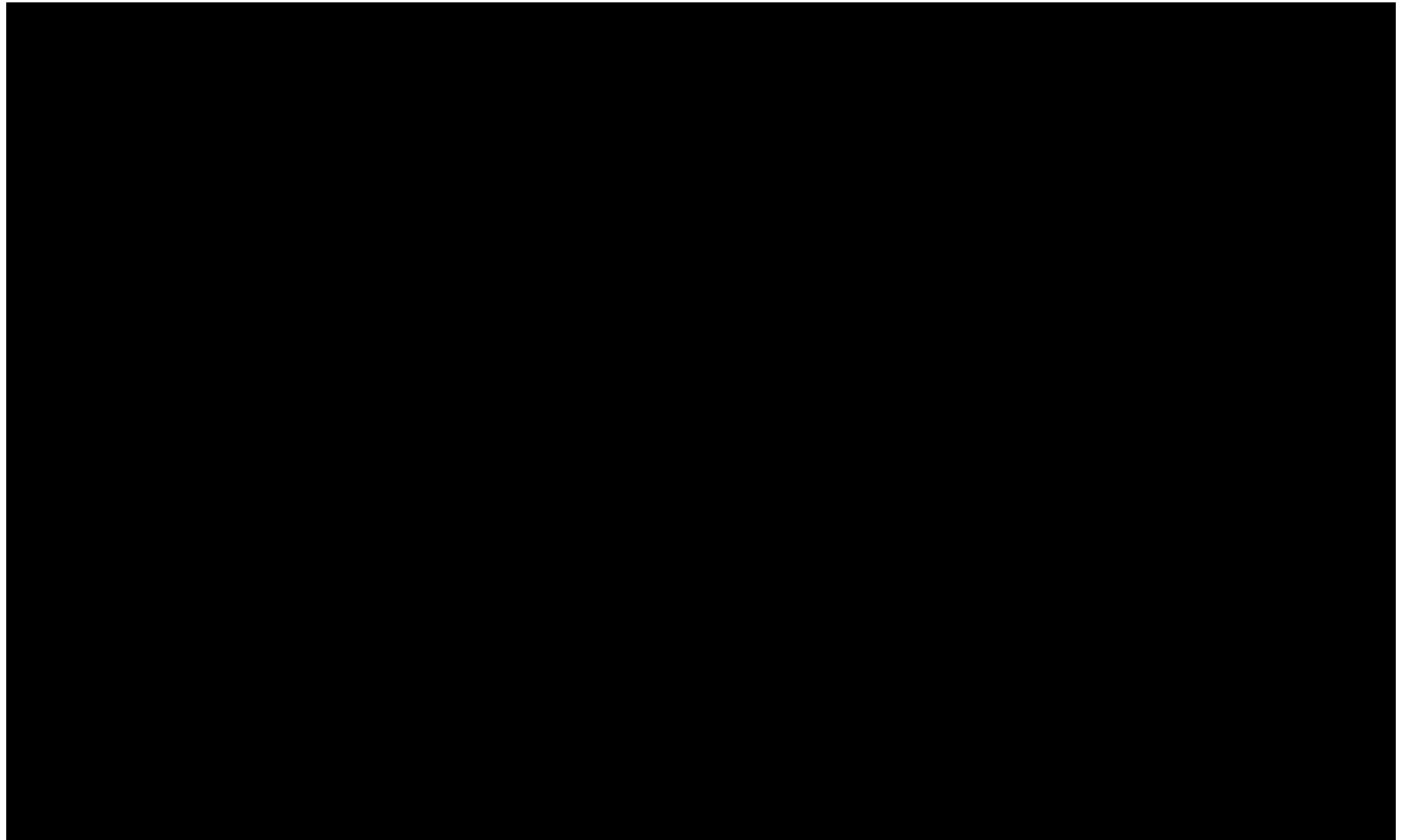
*Everyone. Everywhere. On Time Every Time.*



Adult Wipes,  
Diapers and  
Bowl  
Cleaners!!!

# CHOPPER-Video

*Everyone. Everywhere. On Time Every Time.*



# Chopper Value Proposition

*Think Big. Be Bold. Act Fast.*

## Superior Solid Size Reduction and Non Clogging

- Unique patent pending open center design that chops and passes troublesome solids
- Proven Deming hydraulics that can pass solids without clogging
- Heat treated 440C stainless steel chopping blades with 53-60 HRC
- Designed to prevent clogging of downstream check valve and screens.



## Rugged & Reliable

- Unique and efficient slicing action reduces stress on shaft and seals
- Chopping blades cut hard items with minimal impact on sharpness
- Long lasting blades that don't need replacement for 7 to 8 years
- Cord integral moisture & temperature sensors

# Chopper Value Proposition

*Think Big. Be Bold. Act Fast.*

## Ease of Servicing

- High quality Silicon Carbide/ Silicon Carbide pump end seals reduces seal failure
- All wear items like blades and seals can be replaced in the field
- Plug-n-play quick connect cord facilitates easy pump removal from wet well



Field replaceable blades



## Upgradability

- Demersible chopper pumps can easily upgrade existing sewage ejectors & non clog pumps
- Includes accessories that can fit into rail systems of other pump brands
- No major changes required to wet well and control panel during upgrading



# The Problem Solver

*Think Big. Be Bold. Act Fast.*



- **Solids Reduction to 1-3"**
- **Alleviates stoppages at valves**
- **Keeps the Wet Well Clean**
- **Keeps downstream infrastructure from clogging**
- **No more maintenance calls**
- **Waste Treatment facility friendly**

Deming Chopper	Deming Non-Clog
More Efficient: <ul style="list-style-type: none"> <li>Dual Vane or Mono Vane Only</li> </ul>	Less efficient with Vortex Impeller
Solids Reduction: <ul style="list-style-type: none"> <li>1-3" in size</li> </ul>	No Solids Reduction
Clears wet well of debris <ul style="list-style-type: none"> <li>Designed to draw in solids</li> </ul>	Clears what is in the flow path
Less Power Consumption	More Power Consumption
Plug and Play Cord	Plug and Play Cord
Very Competitively Priced	Very Competitively Priced

**The Deming Demersible 7365 can be field converted into a Deming Chopper**



# Where should we look???

*Think Big. Be Bold. Act Fast.*



**Issues with Hay, Straw,  
Baling Twine or  
rodents???**

**Food processing  
plants**



# Where should we look???

*Think Big. Be Bold. Act Fast.*



**Nursing Homes,  
Schools, Prisons,  
Camp Grounds, etc.**

**Retail Stores and  
Malls**





**QUESTION:**

**The Demersible Chopper Pump  
reduces solids to what size?**

# Deming Demersible

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## Any Questions?

