

Making your challenges

FOOD • WINE • BEVERAGES • COSMETICS





DM SERIES PUMPS



- Introduction

DM series pumps are specially designed for applications in food, beverage and cosmetic industries. These pumps are simple in construction with emphasis on quick cleaning. All metallic parts in contact with the media are 316 and 304 stainless steel with a smooth finish. Wide throat hopper inlets incorporating coupling rod mounted augers are available for highly viscous media.

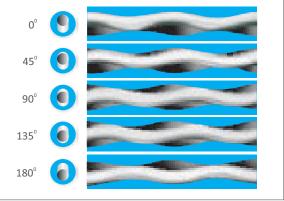
Distinctive design, features and benefits

- POSITIVE DISPLACEMENT The head developed is independent of speed, whereas capacity is proportionate to the speed
- NON CONTAMINATING METALS All metallic surfaces in contact with the media are smooth surface stainless steel
- NO RETAINING POCKETS Avoids chemical or bacterial contamination
- CLEANING IN PLACE Ensures positive cleaning
- HIGH SUCTION LIFT Ideal for lifting viscous fluids. Effective even in high vacuum conditions
- LOW FLUID VELOCITY Ensures gentle handling of shear sensitive fluids
- UNIFORM FLOW No pulsation, turbulence or aeration
- NON CLOGGING Ability to handle solids in suspension or mixtures containing high percentage of solids
- SELF PRIMING
 Can handle high percentage of air/gas/vapor with liquid
- VERSATILITY Handles any fluid from clear water to highly viscous media
- REVERSIBLE
 The rotation and direction of flow are
 reversible. This offers flexibility in handling
 variety of applications.

Progressive Cavity Pumping Principle

The pumping elements consist of a precision machined single helical metal rotor and a double helical elastomer stator. With the rotor engaged in the stator a seal line is formed along the axis of the rotor. The seal line is maintained in both static and dynamic conditions. As the rotor turns inside the stator, a series of cavities form that progress from the suction to the discharge end of the pump. As one cavity opens and closes, it's opposing cavity closes and opens at exactly the same rate resulting in a constant non-pulsating fluid flow.

- Cavity movement through 180 $^{\circ}$ of Rotor rotation-



Typical Applications

FOOD -

- Milk Curd Oil slurries Cheese Ice-cream
- Chocolates Taco Sauce Dough balms
- Lecithin Jam Butter oils Diced vegetables
- Fruit pulp Fruit juice Beer Beverages
- Liquor Wine Malt Extracts
- Tomato pastes etc.

PHARMA AND COSMETICS —

- Syrups Pill pastes Creams Shampoos
- Tooth pastes Heavy liquid lotion Creams
- Selenium liquid Chyawanprash Bulk drugs
- Vitamins Emulsion Gelatin
- Essential oils concentrate Ointments
- Liquid make up Fruit pulp Herbal pastes etc.

Zero leakage @ low torque





Rotor

Stainless Steel with different coating options.

Stator

Wide selection of elastomers that meet FDA standards.

Connections

Smooth and polished end cover with SMS, IDF and Triclamp connections are available.

Coupling Rod

- Stainless steel.
- Single auger option.

Single Flight Augur Options



Shaft Sealing

- Single coil mechanical Seal flushed by the product.
- Double mechanical seal or Soft gland packing optional.

CIP (Cleaning in Place) Single and double CIP ports

available.

MONTHS

Cardan Universal Joint -

Suction Housing

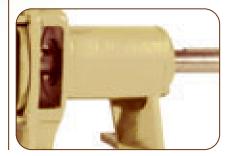
- Polished stainless steel.
- Jacketed housings optional.
- For viscous fluids wide throat pump housing available.

Wide Throat



Close Coupled Drive Options

- Pump lanterns designed for gear motors or mechanical variable speed drives.
- Bearing Housing optional.

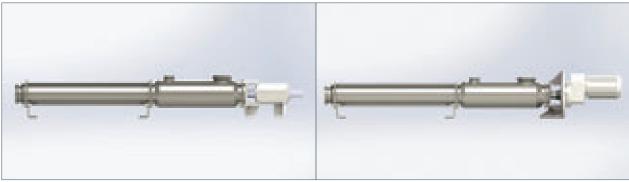


Material Options

- Fabricated stainless steel housing
- Stainless steel rotor
- Stainless steel hardware
- Stator options:
 - Nitrile Black
 - Nitrile Off-white
 - EPDM Black
 - EPDM White
 - Fluoroelastomer
- Other exotic materials
 - Duplex
 - Super Duplex

Technical & Performance Information;





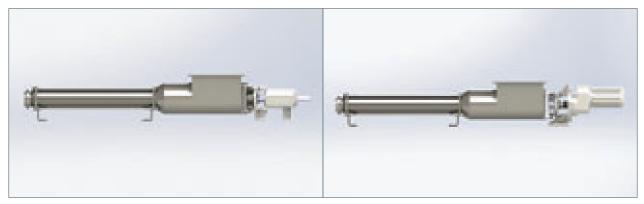
Single Stage Pumps

Size	51	53	54M	57M	59M	61M	63M
Capacity							
M³/hr	7	10	18	31	51	63	86
Pressure							
Bar	6	6	6	6	6	6	6

Two and Four Stage Pumps

Size	51	53	54	56	58	60	62	
Capacity								
M³/hr	7	10	14	18	26	37	55	
Pressure								
Bar	12	12	12	12	24	24	12	

Wide Throat Series



Two and Four Stage Pumps

Size	51	53	54	56	58	60	62	
Capacity								
M³/hr	4	6	7	11	16	22	33	
Pressure								
Bar	12	12	12	12	24	24	12	

Roto Pumps Limited, Manufacturing Plant, India



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