

Making your challenges  
**MANAGEABLE**

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.

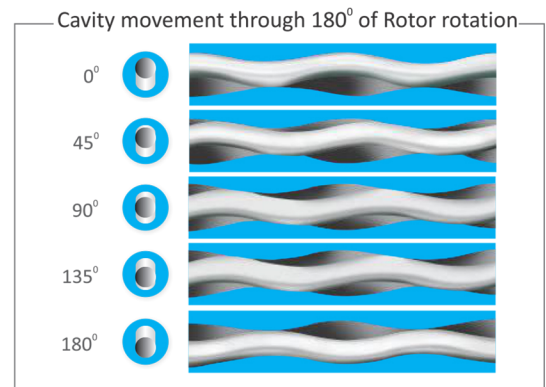
### Distinctive design, features and benefits

- **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.



### 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



**SPECTRO ANALYTICAL LABS LIMITED**

**TEST REPORT**

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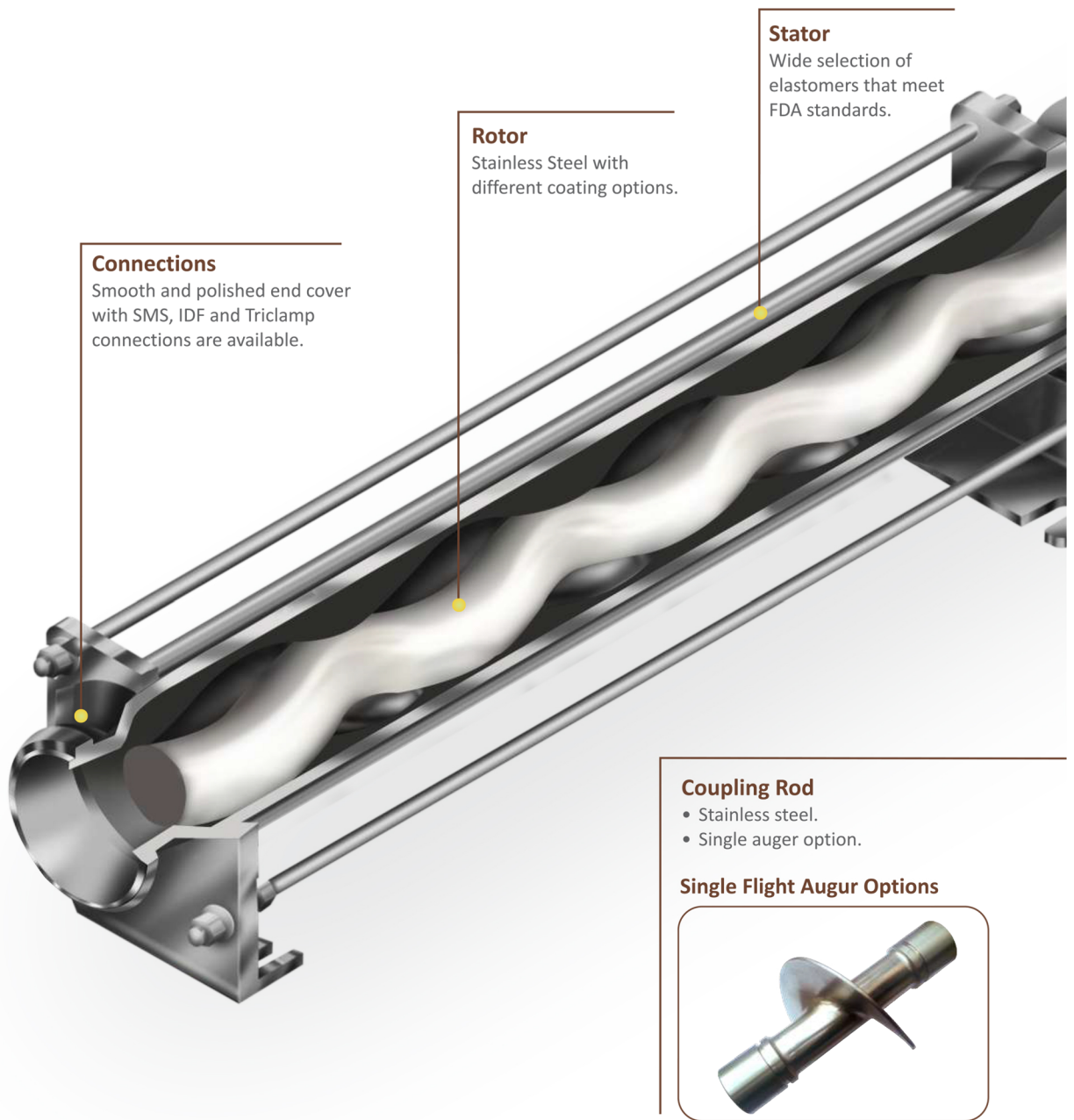
Time of Test of Testing: 12:45:00:11  
Date of Completion of Test: 2023/03/03

**COORDINATE TEST**

S/N	REMARKS	MEASURED	REQUIREMENT	COMPLIANCE	TEST METHOD
1	Leakage (Leakage measurement for 1 hour, 1000 RPM)	0.00	0.00 (Max)	YES	IS 15714 (2018)
2	Leakage (Leakage measurement for 1 hour, 100 RPM)	0.00	0.00 (Max)	YES	IS 15714 (2018)
3	Leakage (Leakage measurement for 1 hour, 10 RPM)	0.00	0.00 (Max)	YES	IS 15714 (2018)

Based on the following standards: IS 15714 (2018) for Leakage Test in metal Contact in water.

TRA-150934



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

**Rotor**  
Stainless Steel with different coating options.

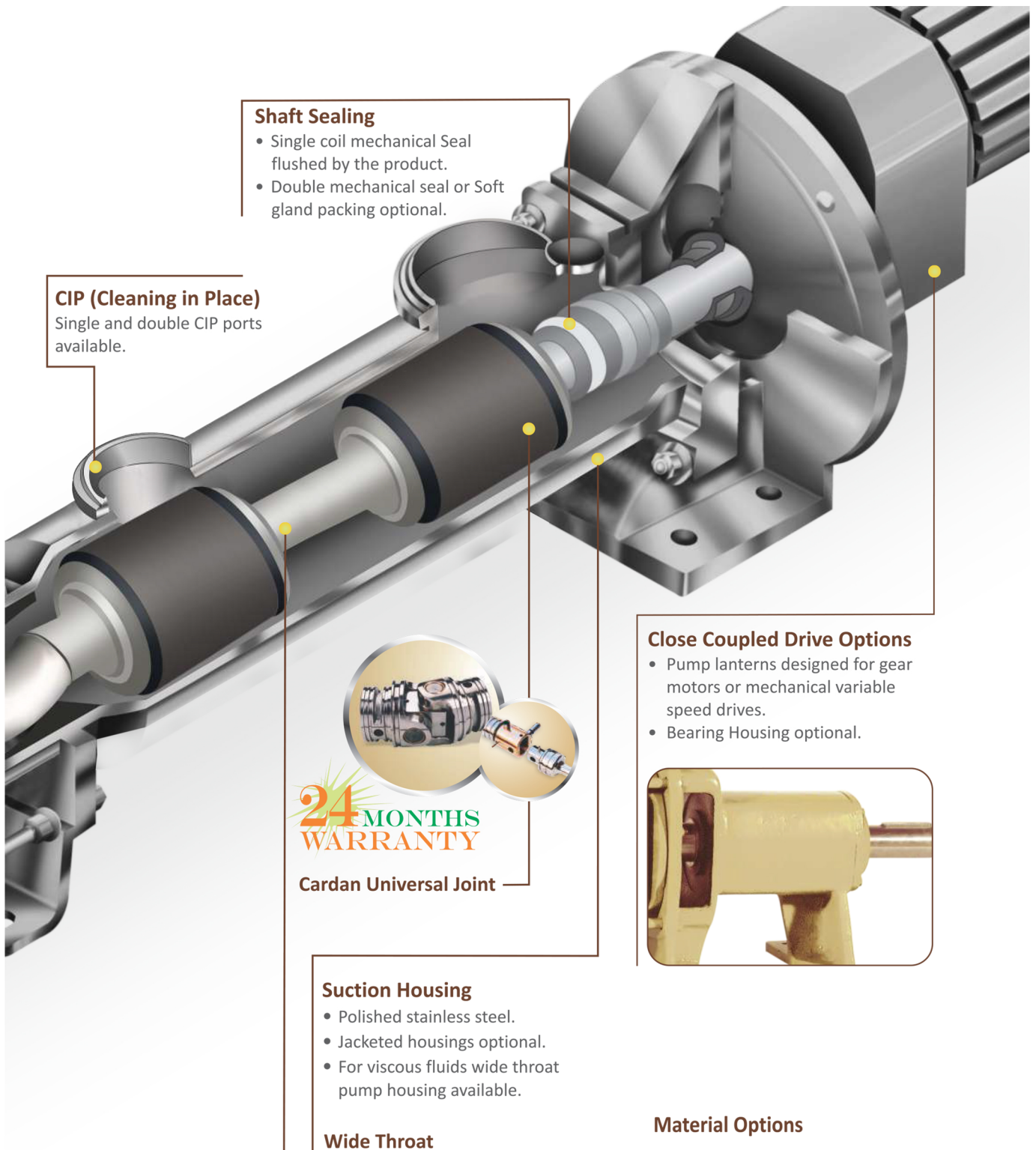
**Stator**  
Wide selection of elastomers that meet FDA standards.

**Coupling Rod**

- Stainless steel.
- Single auger option.

**Single Flight Augur Options**

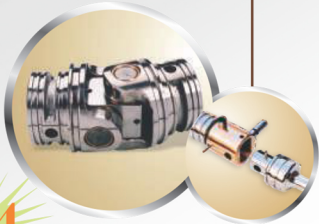




**Shaft Sealing**

- 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.



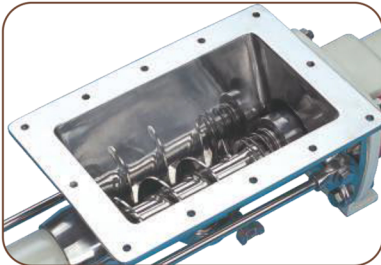
**24 MONTHS WARRANTY**

**Cardan Universal Joint**

**Suction Housing**

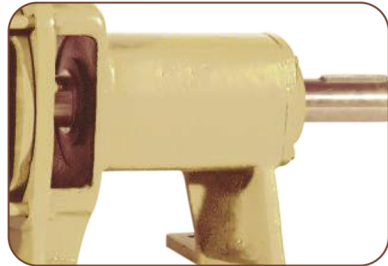
- Polished stainless steel.
- Jacketed housings optional.
- For viscous fluids wide throat pump housing available.

**Wide Throat**



**Close Coupled Drive Options**

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

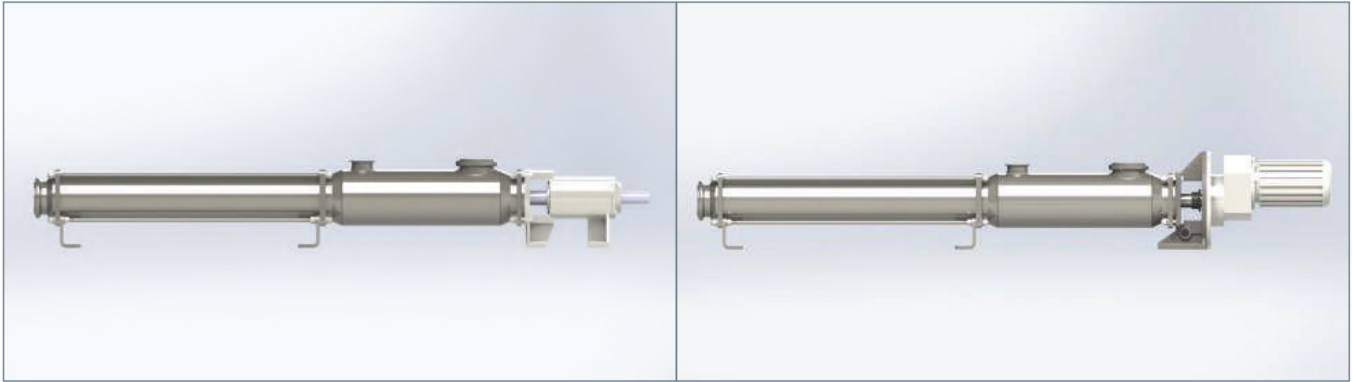


**Material Options**

- 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;**

**Threaded Port Series**



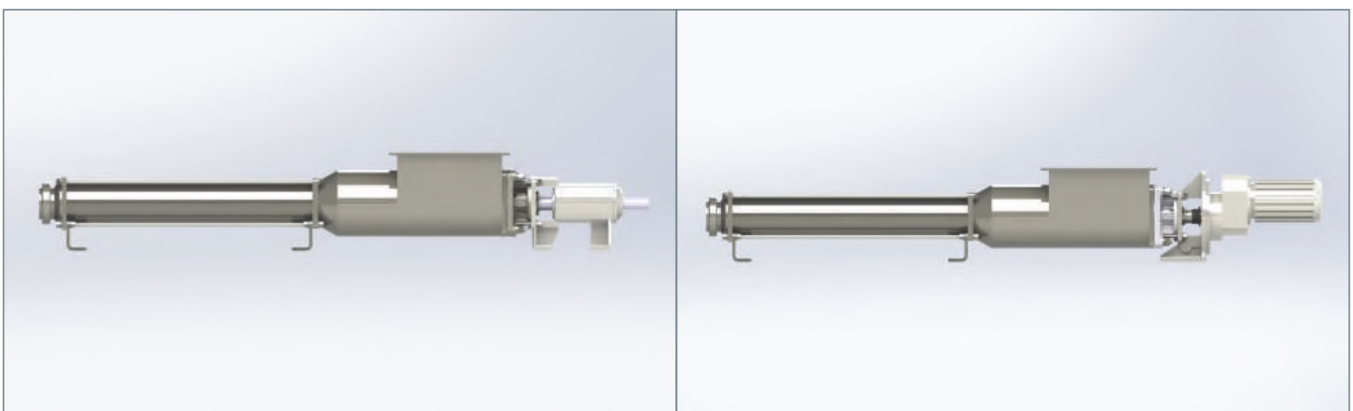
**Single Stage Pumps**

Size	51	53	54M	57M	59M	61M	63M
<b>Capacity</b>							
M <sup>3</sup> /hr	7	10	18	31	51	63	86
<b>Pressure</b>							
Bar	6	6	6	6	6	6	6

**Two and Four Stage Pumps**

Size	51	53	54	56	58	60	62
<b>Capacity</b>							
M <sup>3</sup> /hr	7	10	14	18	26	37	55
<b>Pressure</b>							
Bar	12	12	12	12	24	24	12

**Wide Throat Series**



**Two and Four Stage Pumps**

Size	51	53	54	56	58	60	62
<b>Capacity</b>							
M <sup>3</sup> /hr	4	6	7	11	16	22	33
<b>Pressure</b>							
Bar	12	12	12	12	24	24	12

Roto Pumps Limited, Manufacturing Plant, India



Melbourne Office & Warehouse



Manchester Office & Warehouse



Roto Pumps North America, Inc



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