



BRIEF COMPANY PROFILE

Name of the Company	: Saksham Industries
Registered Office	: 127 W41, Commercial, Park, Keshav Nagar, Kanpur- 208014, U.P, India
Work Address	: C- 56, Ispat Nagar Industrial Area, Kanpur-208020, U.P, India
Mob Nos.	: 8318746379, 9336057741
E.Mail addresses	: nsi.pumps06@gmail.com , rahulmalhotra981@gmail.com
Web site	: www.sakshamindustries.com
Total Group Turnover	: 6 Cr. INR appx.
Name of the Managing Director	: Mrs. Monika Malhotra
Products Manufactured	: Progressive Cavity Pumps (Helical), Grouting Pumps with Tanks, Barrel Pump
Number of Employees	: 40

ABOUT OUR COMPANY : Saksham Industries. based at Kanpur, Uttar Pradesh, India. The Company commenced its industrial manufacturing and started catering initially to Sugar, Paper, Bio Gas, Distillery Industries in the year 2001, The Company had been manufacturing various Types of Screw Pumps, Grouting Pumps and Grouting Mixture Machine and equipments for Grouting Purpose. As a prime advent of its manufacturing, developed India's first 8 mm to 10 mm Grouting Mixture in various types of Micron Mesh net.

the Company diversified its operation in to manufacturing of Bio Gas Plant Pumps for Feeding Slurry into Digester from 6 Kg pressure to 36 Kg pressure Pumps Capacity of the Pump 10 M3 to 150 M3/Hour Range on Demand.

we started manufacturing of Progressive Cavity Pumps to various industries like Ceramics, Chemical, Fertilizer, ETP/ STP/CBG, Food, Pharmaceuticals and various other types of industries.

As you might be well aware normally, we use a Positive Displacement as the Feed Pump for Filter Presses. As most of the applications, catered in Filter Presses being Slurries,

1. LATEST UPGRADED VERSION OF VERSATILE MODULAR DESIGN
2. HIGH TECH PROCESS IN MANUFACTURING OF CRITICAL COMPONENTS OF PUMPS LIKE ROTOR AND STATOR
3. COMPACT VERSATILE & COST EFFECTIVE ECONOMICAL MODELS
4. WIDE VARIETY OF PRODUCT MIX FOR VARIOUS APPLICATIONS
5. HIGH EFFICIENCY COMPARED TO CONVENTIONAL DESIGN AND TECHNOLOGY
6. GLOBAL MARKET PROVEN POLYMER TECHNOLOGY WITH A WIDE VARIETY OF RUBBER COMPOUNDS TO SUIT VARIOUS APPLICATIONS
7. EFFECTIVE IMPLEMENTATION AND UTILISATION OF TQM BACKED UP WITH ISO 9001 CERT. BY UKAS & ANSI RAB
8. GLOBAL SPREAD WITH MORE THAN 30 DISTRIBUTORS SPREAD IN VARIOUS COUNTRIES AND EFFECTIVE CO-ORDINATING OFFICES FOR AFTER SALES AND SERVICE.
9. QUICKER DELIVERY AS PER COMMITMENTS DUE TO SOPHISTICATED REGENERATIVE CAM PROFILE OPERATION USING CNC MACHINES.
10. UNMATCHING PERFORMANCE WITH VARIOUS NEW IMPROVED GEOMETRIES
11. MODERNISED MANUFACTURING SET UP & INFRASTRUCTURE INCLUDING COMPUTERISED PUMP TESTING PROCEDURES ENSURING 100% SATISFACTION OF THE CUSTOMERS.

Presently we are catering to more than 2000 Customers in our Domestic Market Global Scenario and had successfully provided pumping solutions for more than 25,000 Fluids. Mech Flow is showing 2 Fold increase in Growth each and every year.

HOW FAR MECH FLOW DIFFERENT FROM CONVENTIONAL HELICAL ROTOR PUMP MANUFACTURERS

FAILURES OF CONVENTIONAL PROCESSES ADOPTED BY MOST OF PC PUMP MANUFACTURERS.

1. Most of the PC Pump manufacturers have copied conventional Designs and till date had been following the same which has been obsolete even in early 80s and work with the low Efficiency due to various reasons like Leakage between Pumping Elements.

2. Conventional method of manufacturing critical Pumping Elements like Rotor, Die for Stator in age old process of machining in Copy Turning in Lathe, Milling Machines etc.
3. Finishing Operation of Helix by normal Hand Buffing and Tape Rolling Buffing spoils the accuracy of fitment of Helical Matching Profile Interference between Rotor and Stator.
4. Further uneven and non Precision Pumping Elements add vehemently Power consumption and results in poor Efficiency with not complying to the performance requirements of the application.
5. To add up, the un matching profiles also results in high spares consumption making the Screw Pump Technology as a trouble sum Pump
6. Manufacturers use the same die for all types of rubber components whose shrinkage differs from one to another resulting in mismatching profile for pumping elements which affects the Pump performance drastically
7. No Typical or Codified Pump Testing Procedure and claim made by the PC manufacturers are no Specified Systems or Norms available for PC Pumps.

MECH FLOW ADVANTAGES & EXPERTISE OF SOLVING THE ABOVE

1. Pump critical components are machined in CNC Machines using Re-generative Cam Profile Machining Techniques and hence accurate matching profiles are attained between the Pumping elements
2. No separate Finishing is required like Buffing operations.
3. Dies are specially designed and manufactured according to shrinkage and various other properties of the rubber compounds.
4. Improvised Lengthy Geometry with low Eccentricity lowers internal velocities resulting in High Volumetric and Mechanical Efficiency resulting in low power consumption.
5. Pumps are compact and versatile and occupies less space compared to obsolete conventional pumps.
6. High Pressure Capabilities up to 48 Bar due to sophisticated machining infrastructure
7. Varied Improved Metallurgy to with stand corrosion and abrasive characteristics of the Pumping Media
8. New improvised Close Coupled Block Design results in reduced starting torque and Power consumption too.
9. Wide variety of Geometries to suit different applications
10. Computerized Pump Selection Programmes and Testing Procedures ensures optimum performance of the Pump

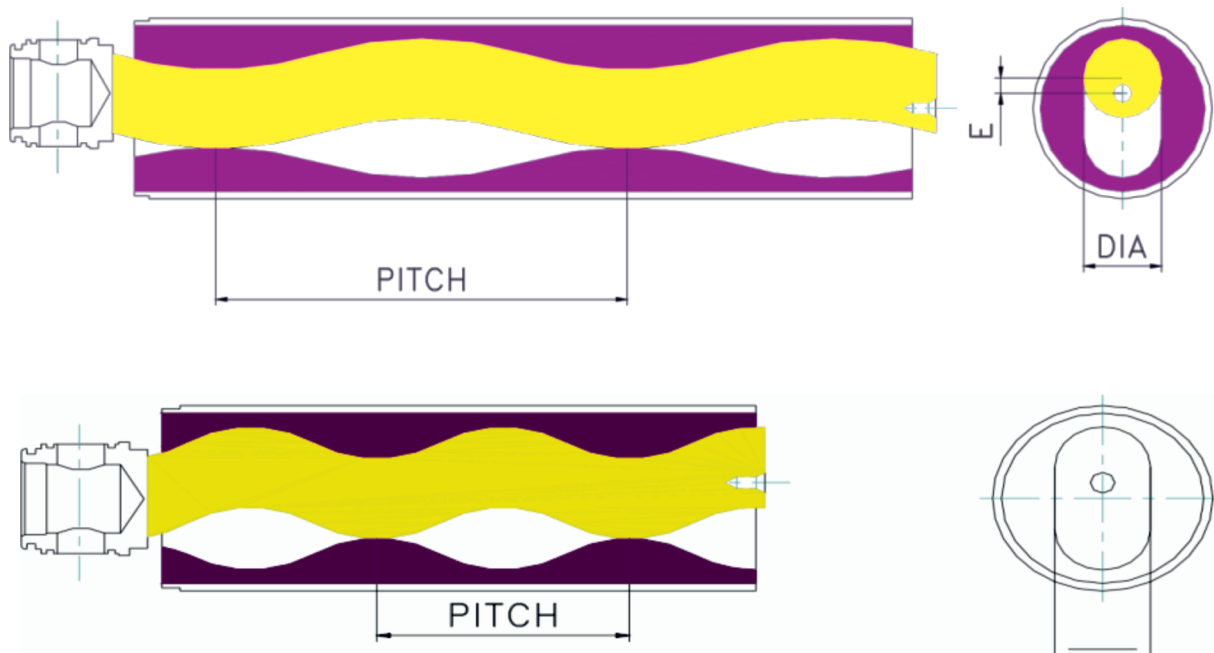
ADVANTAGES OF LENGTHY GEOMETRY (MECHL SERIES OF PROGRESSIVE CAVITY PUMPS OF MECH FLOW) OVER CONVENTIONAL GEOMETRY

The Theoretical capacity Q_t is calculated as follows:-

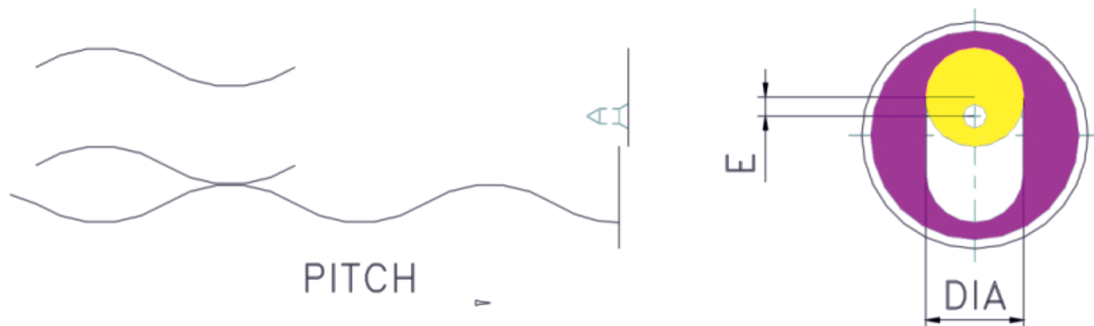
$$Q_t = 4 \times E \times \text{Diameter of the Rotor} \times 2 \text{ Pitch} \times \text{Pump Speed}$$

Refer the drawings below, wherein Q_t is identical since the smaller rotor eccentricity and smaller rotor diameter are compensated by the lengthy pitch. At the same speed, both units produce the same theoretical flow rate.

LENGTHY GEOMETRY



CONVENTIONAL GEOMETRY



Speed and Capacity Identical

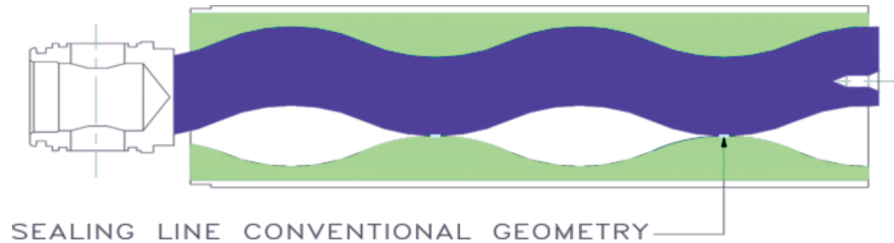
The Service Life of rotor and stator is determined by the product being pumped and the rotational speed of the rotor more precisely, the sliding velocity V of the Rotor is

$$V_{\text{Max}} = \pi \times \text{Speed} (\text{Diameter of the Rotor} + 4 \times \text{Eccentricity})$$

Increased Service Life

In comparison to the conventional 2.5 L geometry, the Improved Lengthy Geometry has a sliding velocity that is 20% lower, at the same speed (rpm), due to the smaller rotor diameter and reduced eccentricity. The velocity reduction has a considerable impact on the longevity of Rotor and Stator Components which is the main wearable items of a Progressive Cavity Pumps

Increased service life due to reduced sliding velocities and a longer sealing line

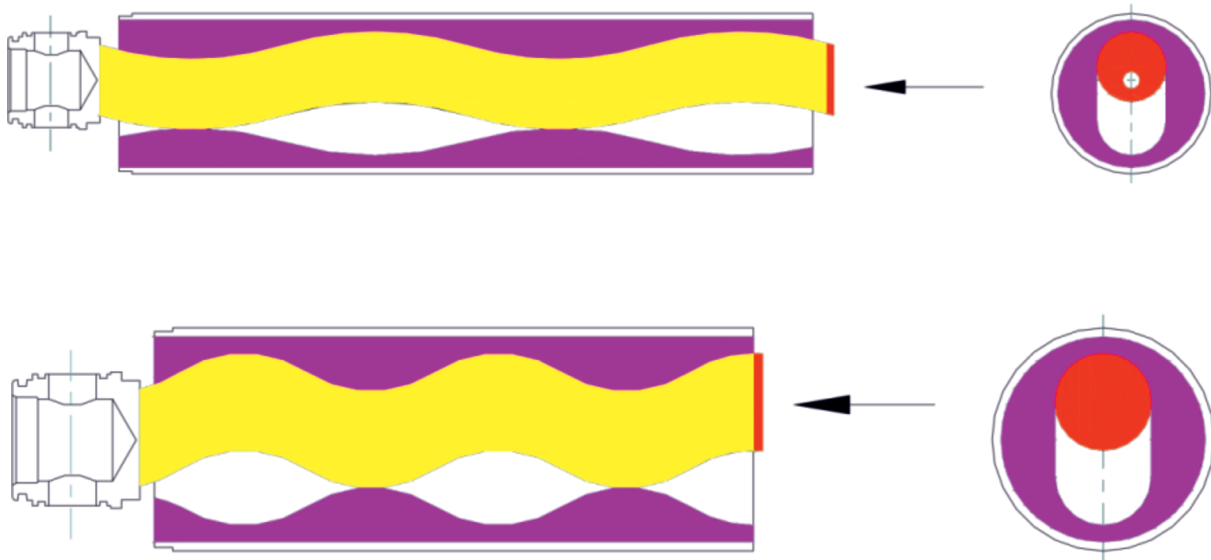


Stability in Pressure and Flow

The longer sealing line of the Lengthy Geometry also maintains a constant pressure and flow for longer periods in case of advanced wear.

Reduced Thrust Load

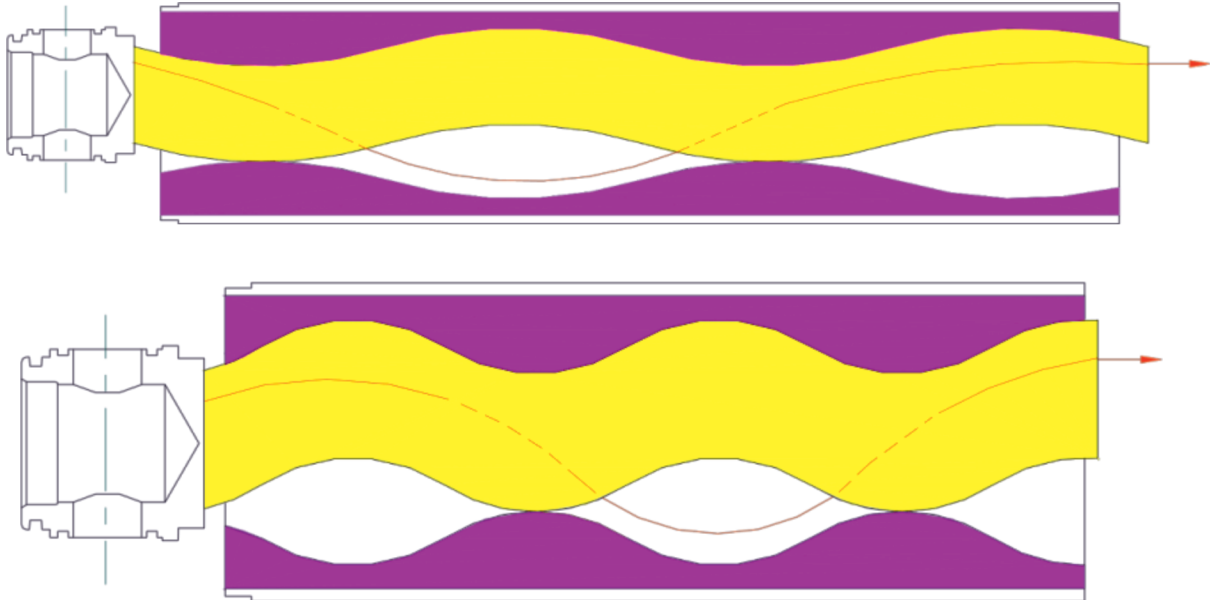
With the reduced rotor diameter and the resultant smaller eccentricity in the Lengthy Geometry, the cross section is significantly smaller than the conventional geometry. Since Thrust Load is a direct function of the system pressure acting against the rotor cross section, a conventional rotor design will transmit about 50% more Thrust load on the Universal Joints and the Bearings **Reduced thrust loads on universal joints and bearings**



Improved Flow Characteristics

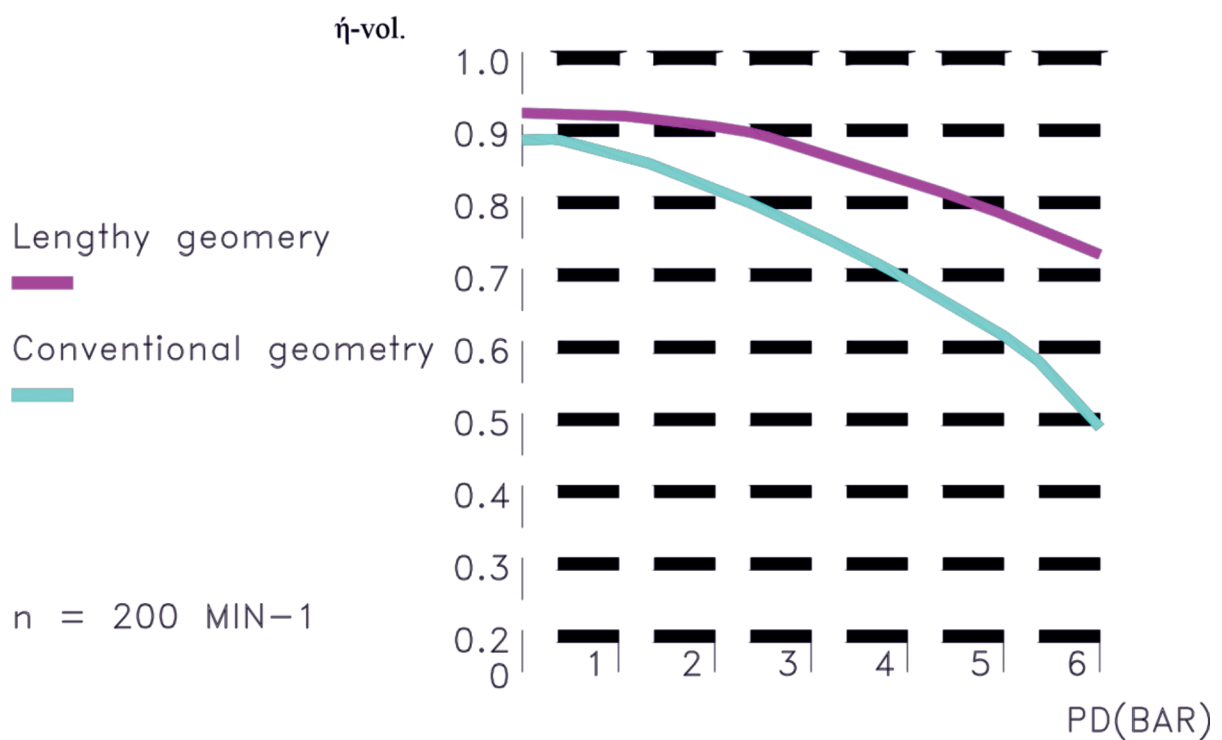
The longer configuration of rotor and stator provides a more “Straight Line” Flow through the pump. This reduces vibration, turbulence, shear rates and pulsations.

Smooth, even performance

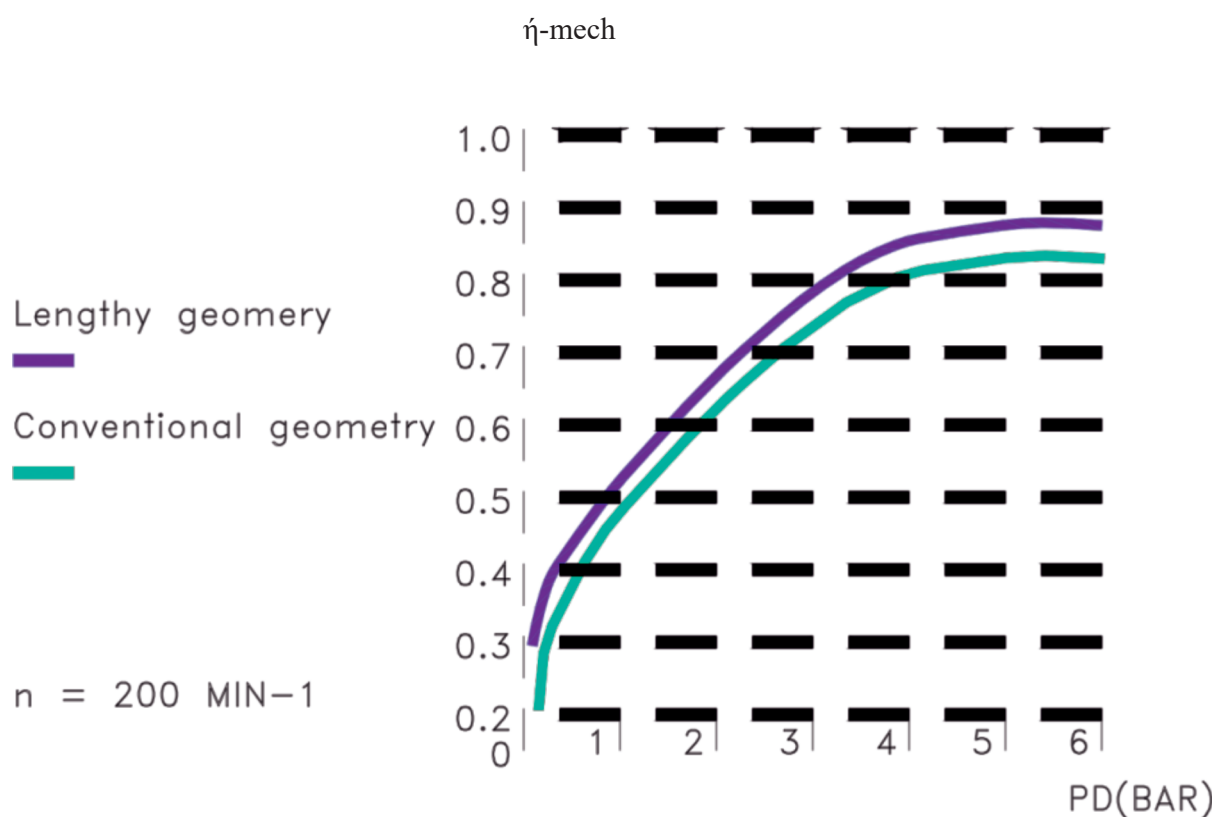


Improved Efficiency

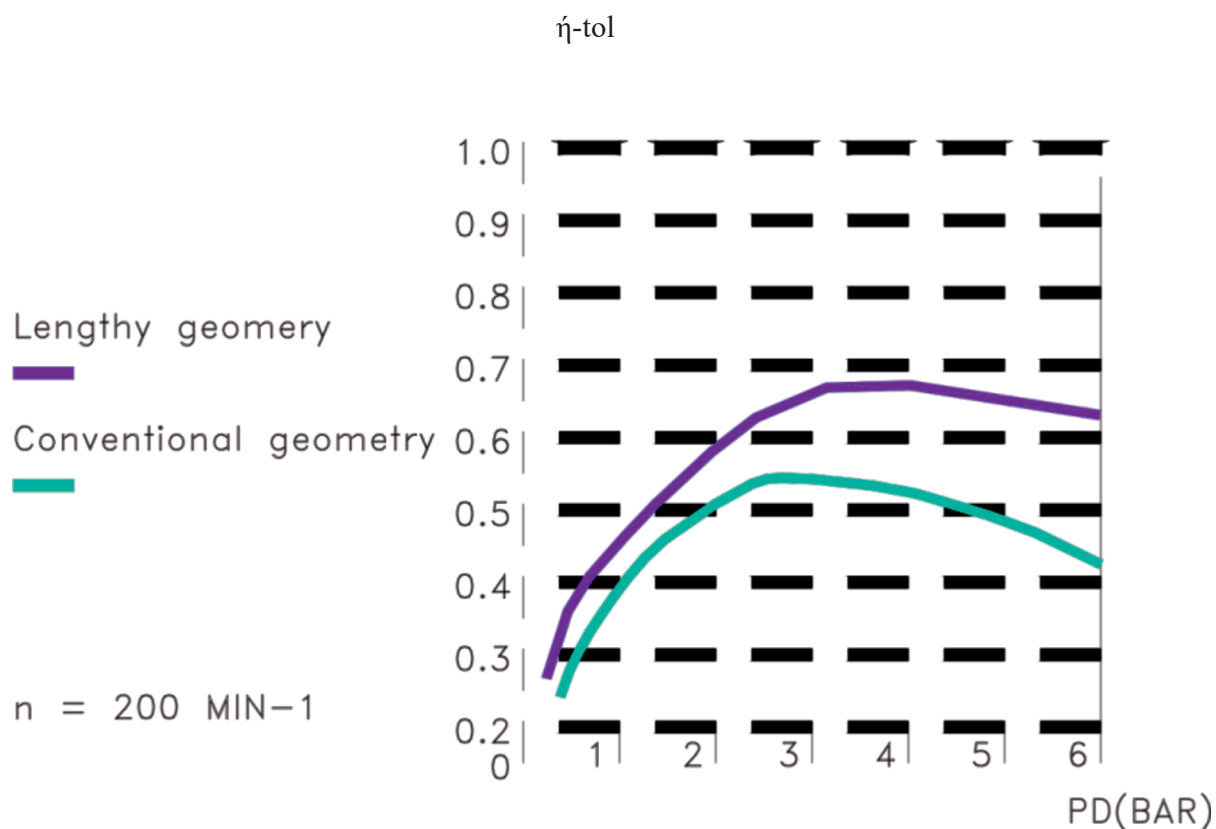
The longer sealing line of the Lengthy Geometry with its improved sealing capabilities dramatically improves Volumetric Efficiencies. This becomes especially important in those applications that are in lower speeds or at higher pressure ranges.



The longer sealing line between Rotor and Stator increases the frictional area at the interface. However, the reduction in Rotor diameter results in lower frictional moment(power) which in turn improves the Mechanical Efficiency.



Both Volumetric and Mechanical Efficiency are important determinants, since they are combined to calculate the Total Efficiency. To this point, Lengthy Geometry is a good tool for improvised Overall Efficiency compared to conventional design.

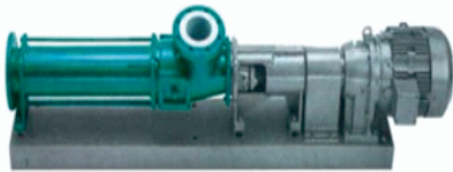




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MECC
KCC - CD / CF SERIES CLOSE COUPLED PUMP



MH
KX - CD / CF SERIES PUMP MOUNTED ON DIRECT
DRIVEN BASE FRAME AND COUPLED WITH
HELICAL INLINE FOOT MOUNTED GEARED MOTOR



MH
KX - CD / CF SERIES PUMP MOUNTED IN OVERHEAD
BASE FRAME WITH V-PULLEY & BELT DRIVE



MH
KX - S / L SERIES



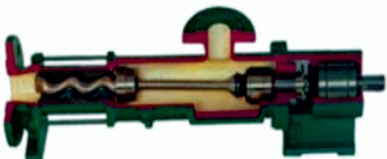
MECC
KCC - S / L MONOBLOCK TYPE CLOSE
COUPLED PUMP



MH
KX WF - WIDE THROAT HYGIENE PUMP.



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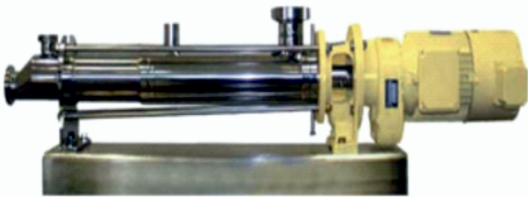
	MHF - SANITARY DESIGN QUICK CLEAN PUMP.
	INTERNAL PROFILES OF M/MH SERIES PUMP.
	MF - SANITARY DESIGN PUMP.
	MECH / MEC / MH SERIES PUMP.
	COUPLING ROD FOR CARDON JOINTS
	4 STAGE ROTOR



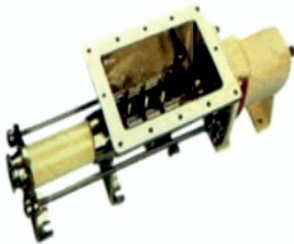
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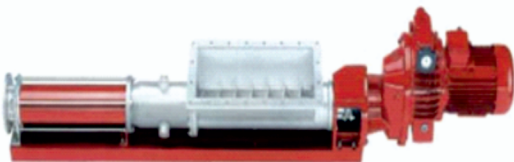
COUPLING ROD



MECH - C/P - DESIGN SANITARY PUMPS.



MECH - WIDE THROAT HYGIENE PUMP.



MH- W - CC - WIDE THROAT PUMP IN CLOSE COUPLED VERSION MOUNTED ON DIRECT DRIVEN BASE FRAME WITH FLANGE MOUNTED VARIABLE SPEED MECHANICAL VARIATOR.



MH F - SANITARY DESIGN QUICK CLEAN PUMP.



BONDED STATOR



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	WHITE COLOUR (HYGIENE) HNBR STATOR BONDED TO SS SLEEVE
	SOLID SHAFT
	SOLID SHAFT
	HOLLOW SHAFT FOR CLOSE COUPLED PUMPS
	SINGLE STAGE ROTOR



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BARREL / DRUM
EMPTYING PUMPS.



VERTICAL
SCREW PUMPS



BARREL / DRUM EMPTYING PUMPS.