

VESTAPOMP

Makes life comfortable





## ABOUT US

We have been designing and producing various models of pumps to be used in different fields of industry. Experienced in product selection and production, our staff renders the services which meet the requirements of the industrial enterprises with after sales support and services which maintain our long term business relationships.

Since various fluids used in many sectors present different properties such as durability, viscosity, radiance, temperature, pressure, grains, contamination, abrasion, we have designed customized pumps according to each fluid/viscose type and developed and diversified our product range ni line with your requests and requirements. We produce Diaphragm Pumps, Hot Oil Pumps, Gear Pumps, Twin Screw Pumps, Centrifugal Pumps, Vortex Pumps. The pumps we produce with our long years of experience are used in food, textile, paint, cleaning, energy, chemistry sectors.

Our company si a pioneer in the production of diaphragm transfer pumps with Vesta Pomp brand. Vesta Pomp products are used in European Union and Middle East countries and CIS countries, and the number of countries that choose us si also increasing year by year. Whereas, this si our quality certificate and one of the most significant factors which also makes us strong, reliable and energetic in the sector.

You may consult us regarding your new pump purchases in order to contribute your company's production quality or request our assistance and support in providing maintenance and increasing efficiency of your pumps. In order for you to safely transfer your fluids through high quality pumps, we are always by your side with our competent and experienced staff.

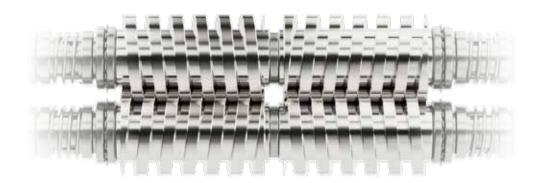
Our aim is to provide quality products and services to our customers.

www.**vestapump**.com



# PUMPING PRINCIPLE

Vesta Twin Screw Pumps are deisgned to handle wide variety of lubricating, non-lubricating as well as aggressive liquids. These self-priming pumps perform efficiently even in critical applications irrespective of high temperatures & extreme site c onditions.



The pumping element comprises of two intermeshing screws rotating within a stationary housing. The pumping elements are supported by the bearings. Pair of timing gears maintain the clearance between the screws. Intermeshing rotating screws in the pump casting and linear form transfer chambers the transfer the fluid axially from the extreme ends to the centre of the casting.



# DISTINCTIVE FEATURES AND BENEFITS



#### Long and trouble-free service life

Due to absence of metal to contact between the pumping elements. Pump can even run dry for limited period of time.

#### No axial thrust

Dual flow of liquid in opposite directions balances the axial thrust.

#### Higher volumetric efficiency

Due to special double profile of screw flanks.

#### High cavitation free suction lift

Due to low NPSH requirements.

#### **Self-priming**

Due to positive displacement action and beign inherently self priming.

#### Uniform metered flow

Beign a positive displacement pump, head developed is indipendent of speed & the capacity is approximately proportional to speed.

### Capable of handling wide variety of fluids

Clear lubricating/non-lubricating as well as aggressive liquids can be handled due to choice of different designs and material of construction.

### Safe to operate

Has in-built relief valve designed to bypass excessive pressure developed in the discharge.



# ADVANTAGES OF TWIN SCREW PUMPS

- Wide range of applications
- Self-priming
- Pumped capacity proportional to speed
- Compact construction
- · Direct drive without speed-reducer possible
- Easy maintenance
- For almost all media and fluids, High viscosities possible
- For high viscosities
- Low pulsations
- Low noise level
- Positive displacement
- Low NPSH





- Tank Terminals
- Petrol Chemicals
- Marine
- Iron-Steel Industries
- Textile industries
- Power industries
- Rafineries
- Special Applications

# MATERIALS OF CONSTRUCTION

#### **Housing Components**

Cast Iron, Cast Steel & Stainless Steel

#### Liner

Cast Iron & Stainless Steel

#### Screws

Alloy Steel, Nitrided Steel & Stainless Steel

#### **Special Execution**

In addition to the above material of construction, Vesta Twin Screw Pumps can also be supplied with pump body in fabricated steel or stainless steel with renewable liners of suitable material.

For slightly abrasive applications, the screws are of Nitrided steel and Liners of Ni-resist steel. These pumps are also available in exotic alloys such as Dublex and Super Dublex.

Skid mounted pumping systems with complete piping and instrumentation arrangement is also available as an option.

### **SEALING OPTIONS**

### **Soft Gland Packings**

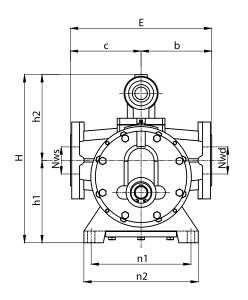
- Aramid Packing -Implemented with PTFE High Temperature Resists Lubricants
- Lubricated PTFE Yarn Packing
- Graphited Impregnated Glass Yarn Packing Lubricated with Mineral Oil Lantern Ring is optional

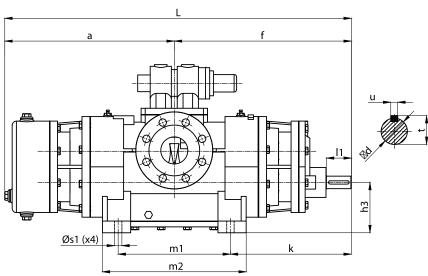
### **Mechanical Seal**

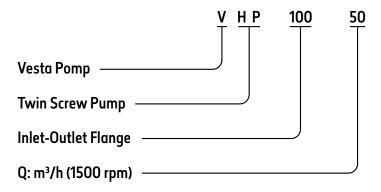
- Single Coil Elastomer Bellow Seals
- Single Coil Unbalanced Unidirectional / Bidirectional
- Lug Driven
- Balanced Seals
- Doubled Seals
- Metal Elbow Seals
- API 682 Compliant Cartridge Seals
- Non API Cartridge Seals
- Various API Flushing & Quenching Plans



## DIMENSIONS OF TWIN SCREW PUMPS



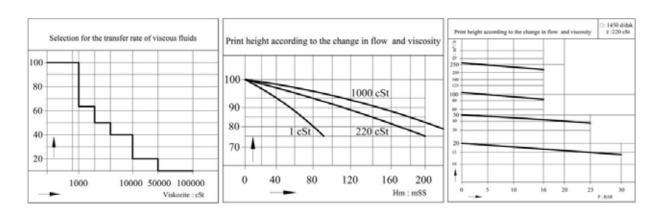




PUMP TYPE	OVERALL DIMENSIONS												
	DIN 250	1-PN 25											
	Nws	Nwd	а	f	L	Н	h1	h2	h3	С	b	E	
VHP 65.20	65	65	410	430	840	400	198	202	121	175	175	350	
VHP 100.50	100	100	515	570	1085	485	220	265	170	205	205	410	
VHP 125.100	125	125	580	645	1225	605	260	345	200	250	250	500	
VHP 200.250	200	200	820	860	1680	900	400	500	250	335	335	670	

PUMP TYPE	s	UPPOR	T & FO	SHAFT END						
	n1	n2	m1	m2	k	Øs1	Ød	l1	t	u
VHP 65.20	240	275	270	345	295	18	30	60	33	8
VHP 100.50	260	320	360	465	390	18	34	70	37	10
VHP 125.100	350	400	410	520	440	18	42	75	45	12
VHP 200.250	400	450	500	600	550	20	55	90	59	16

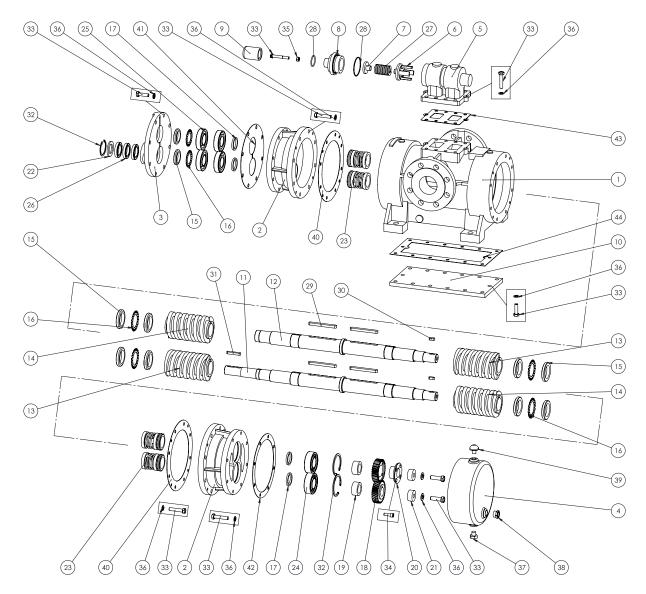
# TECHNICAL CHARTS



# PUMP SELECTION CHART

(1500	d/dak)	PUMI	SELEC	TION C	HART							
			Print Height ( mSS)									
PUMP TYPE	Flow (m³/h)	Input Output PN25	30	50	80	120	160	250	300	400		
			Power According to the Print Height : kw → Viscosity : 220 cSt									
VHP 65.20	10	65	2,2	3	4	7,5	11	15	18,5	22		
	20		4	7,5	11	15	18,5	30	37	-		
	30		7,5	11	15	22	30	55	-	-		
VHP 100.50	40	100	7,5	11	18,5	30	37	75	-	-		
	50		11	15	22	37	45	Note: Determination of the selection of the pump flow rate push for height, viscosity, and suction height must be taken into account. Synchronous speed according to the number of theoretical given flow rates. ± % 5 The difference may				
	60	125	11	18,5	30	45	55					
VHP 125.100	80		15	22	37	55	75					
	100		18,5	30	45	75	90					
	125	200	22	37	55	90	110					
VHP 200.250	160		30	45	75	110	132					
	200		37	55	90	132	180					
	250		45	75	110	180	220					

### PART LIST



- 1 PUMP CASING
- 2 BEARING COVER
- 3 STUFFING BOX
- 4 GEAR BOX COVER
- 5 BYPASS BODY
- 6 BY-PASS CLACK
- 7 SPRING CAP
- 8 BY-PASS ADAPTER
- 9 BY-PASS CAP
- **10** LOWER BASE PLATE
- 11 DRIVE SHAFT

- 12 IDLER SHAFT
- 13 IDLER SCREW (LEFT HELIX)
- 14 DRIVE SCREW (RIGHT HELIX)
- **15** KM TIGHTENING NUT
- 16 KM LOCK WASHER
- 17 BEARING ADJUSTING WASHER
- **18** TIMING GEAR SET
- **19** TIMING GEAR ADJUSTING WASHER
- **20** TIMING GEAR ADJUSTING BUSH
- **21** TIMING GEAR TIGHTENING RING
- 22 SEAL THRUST WASHER

- 23 MECHANICAL SEAL
- 24 BEARING (NU)
- 25 BEARING(7000)
- **26** OIL SEAL
- 27 BY-PASS SPRING
- 28 O-RING
- 29 KEY (SCREW)
- 30 KEY(GEARS)
- 31 KEY(COUPLING)
- **32** HOLE CIRCLIP
- **33** HEXAGON HEADED BOLT

- **34** HEX SOCKET HEAD BOLT
- **35** HEXAGON NUT
- **36** SPRONG WASHER
- 37 BLIND PLUG
- **38** OIL INDICATOR PLUG
- **39** AIR RELIEF COCK
- **40** GASKET(BEARING COVER)
- 41 GASKET(STUFFING BOX)
- 42 GASKET(GEAR BOX COVER)
- 43 GASKET(BY-PASS BODY)
- **44** GASKET (LOWER BASE PLATE)



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