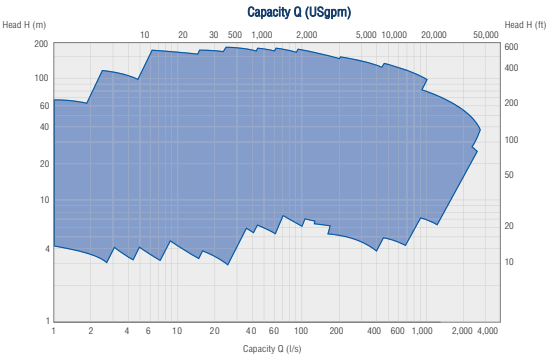


Performance Ranges and Material Options

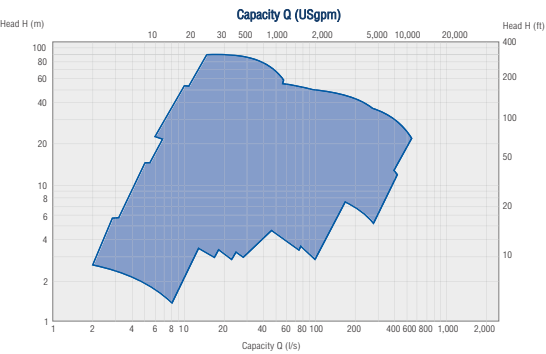
AVZ Performance

Head up to 160 m / 525 ft
Capacity up to 2,500 l/s / 40,000 USgpm
Temperature max. 180 oC / 355 °F
Frequency 50 or 60 Hz
Pressure up to 1.6/2.5 MPa /
230/360 psi, depending on
material and size. Closed, low flow,
open, special open, low pulse and
high efficiency non-clogging vortex impellers.



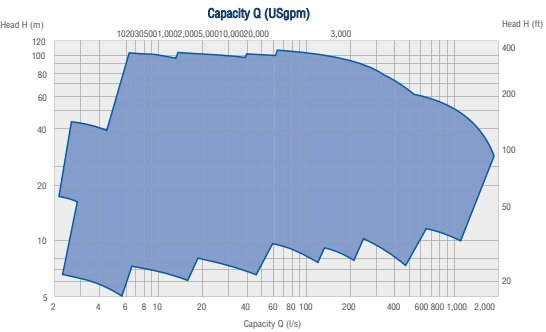
NVZ Performance

Head up to 90 m / 295 ft
Capacity up to 550 l/s / 8,700 USgpm
Temperature max. 180 oC / 355 °F
Frequency 50 or 60 Hz
Pressure up to 1.6 MPa / 230 psi,
depending on material and size.
Non-clogging closed and non-clogging vortex impellers.



WVZ Performance

Head up to 110 m / 360 ft
Capacity up to 2,000 l/s / 32,000 USgpm
Temperature max. 180 oC / 355 °F
Frequency 50 or 60 Hz
Pressure up to 1.6 MPa / 230 psi,
depending on material and size.
Wear-resistant closed, wear-resistant
special open and wear-resistant non-clogging vortex impellers.



Material Options

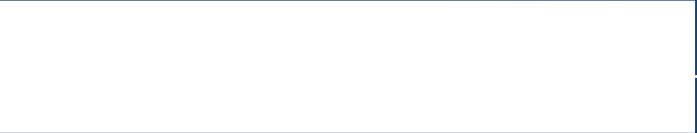
Standard material combinations			Nominal chemical composition %					
Stainless steel design			C max.	Cr	Ni	Mo	Cu	N
Duplex SS	ASTM A890 Grade 3A	41	0.06	24.0-27.0	4.0-6.0	1.75-2.50	-	0.15-0.25
	ASTM A890 Grade 1B	4L	0.04	24.5-26.5	4.75-6.00	1.75-2.25	2.75-3.25	-
	ASTM A890 Grade 5A	4T	0.03	24.0-26.0	6.0-8.0	4.0-5.0	-	0.10-0.30
Austenitic SS	ASTM A743 Grade CF-8	4C	0.08	18.0-21.0	8.0-11.0	-	-	-
	ASTM A743 Grade CG-3M	4G	0.03	18.0-21.0	9.0-13.0	3.0-4.0	-	-
	ASTM A743 Grade CN-7M	43	0.07	19.0-22.0	27.5-30.5	2.0-3.0	3.0-4.0	-
	AVESTA 654 SMO 1)	4U	0.025	23.0-25.0	21.0-23.0	7.1-7.5	0.3-0.7	0.45-0.55
Martensitic SS	ASTM A747 Grade CB7Cu-2	4E	0.07	14.0-15.5	4.5-5.5	-	2.5-3.2	-
Other design			C max.	Cr	Ni	Mo	Cu	N
Nickel alloy	A494CW-6M	4J	0.07	17.0-20.0	balance	17.0-20.0	-	-
Cast iron design			C	Cr	Ni	Mo	Cu	Si
Cast iron	ASTM A48 CL 35 B	53	3.1-3.4	-	-	-	0.5-1.0	1.5-2.1
Chromium iron 2)	A532 IIIA	5B	2.0-3.3	23.0-30.0	2.5 max.	3.0 max.	1.2 max.	1.5 max.
Material alternatives for other parts								
Gasket material	Klinger SIL C-4430	83	Used in temperature range -40...+160°C and pH 2-12					
	PTFE/Glass	84	Used in temperature range -190...+240°C and pH 0-14					
O-ring material	EPDM	92	Used in temperature range -50...+150°C					
	FKM	96	Used in temperature range -20...+210°C					



Centrifugal Pump
The Heart of your process

@Waterpumptn

Contact



www.venz.co.th

Features and Benefits

An Impeller Tailored to Each Liquid

Closed Impeller

is used for pumping clean liquids or liquids containing some impurities.

For pump types:
APP
EPP



Open Impeller

is designed for liquids containing solid particles abrasive liquids or stock up to 8 % consistency.

For pump types:
APP
ARP
ASP
EPP



Special Open Impeller

is suitable for liquids containing larger solid particles and long fibers, abrasive liquids or stock up to 8 % consistency.

For pump types:
APP
ARP
ASP



Low Pulse Impeller

is designed and manufactured to minimize pressure pulsations.

For pump type:
APP



Non-Clogging Closed Impeller

is used for sludges or slurries containing large solid particles.

For pump types:
NPP
NRP
NSP



Vortex Impeller

is suitable for liquids containing large or long solid particles or abrasive liquids.

For pump types:
NPP
NRP
NSP
WPP
WRP
WSP



Wear-Resistant Closed Impeller

is used for pumping both erosive and corrosive liquids or slurries containing solid particles.

For pump types:
WPP
WRP
WSP



Wear-Resistant Open Impeller

is suitable for liquids with larger solid particles and long fibers, abrasive liquids or stock up to 8 % consistency.

For pump types:
WPP
WRP
WSP



Expanded VENZ Process Pumps

A double volute casing in larger VENZ pumps reduces radial forces and shaft deflection.

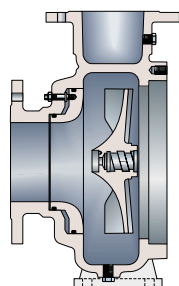
The self-venting, top centerline casing prevents air lock in the top of the casing.

The sideplate is adjusted externally to maintain a constant impeller clearance and continuous high efficiency.

ROTOKEY impeller mounting provides strong, reliable power transmission. It is self-locking and reverse rotation safe. ROTOKEY facilitates the installation and removal of the impeller. It is not sensitive to axial loads created during pump operation.

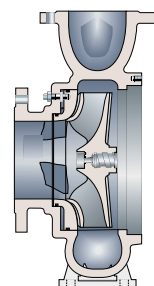
A-Hydraulics

Designed for pumping clean, abrasive or corrosive liquids especially stocks of various kinds.



N-Hydraulics

Non-clogging process pumps are the right solutions when the liquid contains large or long particles.



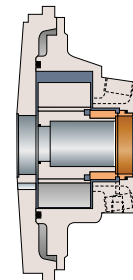
W-Hydraulics

Wear-resistant pumps guarantee reliable pumping when the liquid is very corrosive and/or abrasive.

A wide selection of shaft seals is available to meet the needs of each specific application. Dynamic seals and ready fitted mechanical seals suit all requirements.

Self-Priming S

Self-priming pumps with an internal vacuum pump are designed for selfpriming purposes and to pump gascontaining liquids.



Bearing Unit

Simplified heavy-duty bearing unit design ensures reliability.

Grease Lubrication

Temperature of pumped liquid max. 120oC

Oil Lubrication

Temperature of pumped liquid max. 180oC (EPP 210oC)

Heavy-duty shaft. Deflection at stuffing box less than 0.05 mm. High strength duplex stainless steel is standard shaft material.

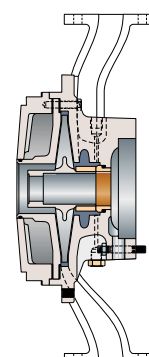
Non-contacting bearing protection for the combined advantages of labyrinth ring, deflector and lipseal. Lipseal protects in standstill position.

Strong and rigid bearing support foot improves mounting stability and maintains solid support.

Jackscrews for simple disassembly.

Air-Separating R

Air-separating pumps with an external vacuum pump are particularly applicable for pumping gas-containing liquids.



Others

VENZ hydraulics are also utilized in NVP non-clogging vertical process pumps and NKP/WKP non-clogging cantilever pumps. EPP hot liquid pumps for industrial processes where the system pressure is high and pressure or temperature strokes occur.