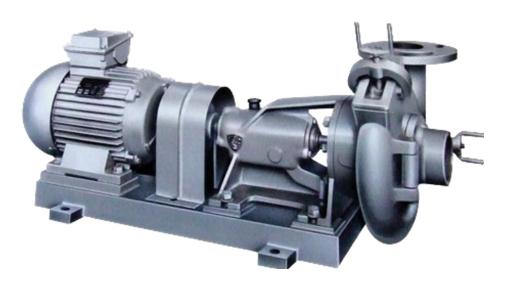
# BROCHURE V-VL SERIES

## **BIRAGHI POMPE 1906**





• SINCE 1906



Centrifugal Process Pumps with open Impeller for dirty liquids

#### **V PROCESS PUMP**

V pumps is a series of pumps specially designed to convey sludge, even containing solid suspended matter.

They are single-stage pumps with volute case provided with inspection and cleaning door. The suction cover has a port with threaded plug. It's provided with hinges and can be easily opened. The supporting is realized with a support outside the pump casing and provided with spaced ball bearings into bath lubrication.

The drive can be either direct through flexible coupling by electric or diesel etc. engine, or indirect cantilevered pulleys and trapezoidal belts (V-belts).

#### **MATERIALS**

- ⇒ Pump casing and impeller are made of cast iron
- ⇒ Shaft of stainless steel AISI 431
- ⇒ Rubber O-ring packing between pump casing and cover
- ⇒ Support made of cast iron

Capacitiy	to 115 m³ /hr
Head	to 14 m
Max working	to 6 bar
Temperature	to 140 C°

#### **APPLICATIONS**

To convey dense liquids up to 105 C°; for higher temperatures with cooled stuffing box

- $\Rightarrow$  Sludge
- ⇒ Slurries
- ⇒ Dregs
- ⇒ Paper pulp
- ⇒ Every liquids containing solid suspended matter having the following maximum diameter

#### **CONSTRUCTION MATERIALS**

	STANDARD	b,	b,	X <sub>s</sub>	g,	a	g <sub>a</sub>
Corpo pompa	Ghisa G25	Bronzo BZN7	Bronzo B10	AISI 316	Ghisa GS400/12	Acc. Fuso	Ghisa al Ni
Pump case	Cast iron G25	Bronze BZN7	Bronze B10	AISI 316	Cast. i. GS400/12	Stain. still	Ni cast iron
Coperchio	Ghisa G25	Bronzo BZN7	Bronzo B10	AISI 316	Ghisa GS400/12	Acc. Fuso	Ghisa al Ni
Cover	Cast iron G25	Bronze BZN7	Bronze B10	AISI 316	Cast. i. GS400/12	Stain. still	Ni cast iron
Diffusore	Ghisa G25	Bronzo BZN7	Bronzo B10	AISI 316	Ghisa G25	Ghisa G25	Ghisa al Ni
Diffuser	Cast iron G25	Bronze BZN7	Bronze B10	AISI 316	Cast iron G25	Cast iron G25	Ni cast iron
Girante	Ghisa G25	Bronzo BZN7	Bronzo B10	AISI 316	Ghisa G25	Ghisa al Ni	Ghisa al Ni
Impeller	Cast iron G25	Bronze BZN7	Bronze B10	AISI 316	Cast iron G25	Ni cast iron	Ni cast iron
Anelli usura	Ghisa G25	Bronzo BZN7	Bronzo B10	AISI 316	Ghisa G25	Ghisa al Ni	Ghisa al Ni
Wear rings	Cast iron G25	Bronze BZN7	Bronze B10	AISI 316	Cast iron G25	Ni cast iron	Ni cast iron
Supporto	Ghisa G25						
Support	Cast iron G25						
Albero T.B.	Acc. 38NCD4	Acc. AISI 431	Acc. AISI 431	Acc. AISI 316	Acc. 38NCD4	Acc. 38NCD4	Acc. AISI 316
Shaft T.B.	Stain. still 38NCD4	Stain. still AISI 431	Stain. still AISI 431	Stain. still AISI 316	Stain. still 38NCD4	Stain. still 38NCD4	Stain. still AISI 316
Albero T.M.	Acc. AISI 431	Acc. AISI 431	Acc. AISI 431	Acc. AISI 316	Acc. AISI 431	Acc. AISI 431	Acc. AISI 316
Shaft T.M.	Stain. still AISI 431	Stain. still AISI 431	Stain. still AISI 431	Stain. still AISI 316	Stain. still AISI 431	Stain. still AISI 431	Stain. still AISI 316

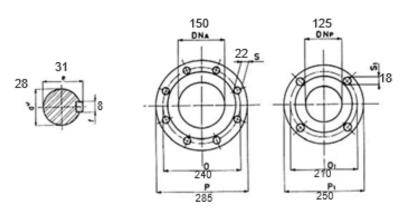


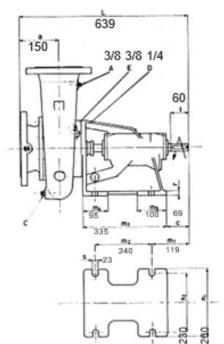
Revolution Speed: Up to 3500 RPM

Revolution direction: Right hand, if seen from the drive side,

i.e. clockwise

### **OVERALL SIZES**





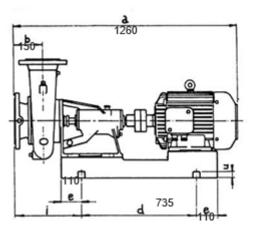
A pressure-gauge connection

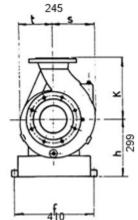
C drain

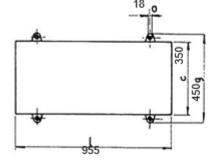
D two cooling connections

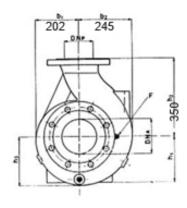
E sealing liquid connection

G vacuum-gauge connection









#### **V PROCESS PUMP**

V series pumps foresee also a Vertical series derived from the horizontal ones and thus have the same essentials features. The suction port is axial and turned downwards, provided with threaded plug; the discharge port is turned radially on the pump volute and provided with threaded counterflange.

The drive can be either direct through flexible coupling by electric motor or petrol engine (spark ignition, diesel, etc) provided with an angle RPM reduction gear with downward shaft. The maximum allowable distance between the lower surface of the mounting and the threaded plug end of the suction port is 4 M.

#### Supporting can be:

- ⇒ S Simple supporting (deep grove support and thrust ball bearings located in the mounting) for centre distance up to 1,5 M
- ⇒ S/1 Double supporting (ball bearing in the mounting 1 grease lubricated, intermediate support) for centre distance up to 2,5 M
- ⇒ S/2 Triple supporting (ball bearing in the mounting 2 grease lubricated intermediate support) for centre distance up to 4 M

#### **APPLICATION**

To convey dense liquids:

- $\Rightarrow$  Sludge
- ⇒ Slurries
- $\Rightarrow$  Dregs
- ⇒ Paper pulp
- ⇒ Every liquids containing solid suspended matter having the following maximum diameter up to 40 mm

Capacitiy	to 115 m³/hr
Head	to 14 m
Max working	to 6 bar
Temperature	to 140 C°



Revolution direction: Right hand, if seen from the drive side, i.e. clockwise

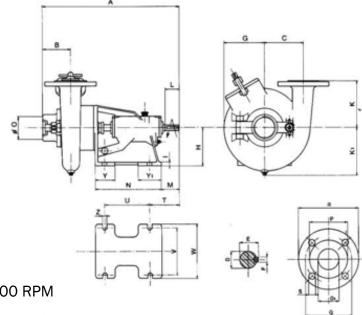
#### MATERIALS

- ⇒ Pump casing with volute case (provided with inspection and cleaning door) made of cast iron
- $\Rightarrow$  Open impeller of hardened cast iron
- ⇒ Vertical propeller shaft mad of steel C 40
- ⇒ Shaft housing of cast iron for centre distance of 1 M and of weld steel for centre distance over 1 M
- ⇒ Mounting in cast iron

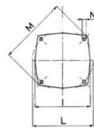
#### **OVERALL SIZES**

#### SPECIAL EXECUTIONS FOR BOTH SERIES

- RP stuffing box provided with cooling chamber with cold water circulation for liquids with temperature over 105 C
- OT mechanical seal unit in different matter according to the features of the liquids to be conveyed
- BR all parts contacting the liquid in bronze BZN7, shaft in stainless steel
- BRA all parts contacting the liquid in acid resistant bronze, shaft in stainless steel
- X all parts contacting the liquid in  $\Rightarrow$ stainless steel



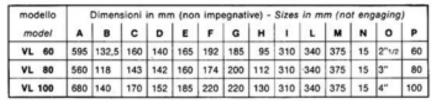
Revolution Speed: Up to 1700 RPM



modello			Dimen	sioni in	mm (no	n impe	gnative)	- Sizes	in mm	(not ang	eging)		
model	A	В	C	D		F	G	н	K	K,	1	L	M
V 60	471	95	132,5	18	20,5	6	140	112	160	165	13	40	70,5
V 80	490	112	118	18	20,5	6	142	112	143	160	13	40	70,5
V 100	578	130	140	24	27	8	152	160	170	185	18	60	76

Tange secondo UNI 2236/2237/2229-PN 10 - Flances according to UNI 2236/2237/2229-PN 10

model	N	0	0,	P	Q	R	8	T	U	٧	w	z	Y	Y,
V 60	225	2"1/2	60	122	145	185	18	103	160	150	180	15	60	60
V 80	225	3"	80	138	160	200	18	103	160	150	180	15	60	60
V 100	280	4"	100	158	180	220	18	126	190	200	230	19	85	95



Pumps for higher capacities upon request.

#### Biraghi Pompe 1906 Plants







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