



**I Application**

The RVN centrifugal pump with helicoidal impeller is the best solution for the transfer of liquids with solid particles or medium viscosity products that cannot be pumped with an ordinary centrifugal pump. Due to the helicoidal shape of the impeller, the transfer of the product is gentle and without clogging., e.g. solid particles suspended in water (proportion 40% to 60%).

It is ideal for applications of the transfer of pieces of fruit or whole fruits, olives, mushrooms, slices of orange, vegetables, fish, etc.

RVN pumps are widely used in wineries for the pump-over process where the high capacity and minimum destruction of the solid parts (seeds, skins, etc.) is required. The design of the pump contributes to a better extraction of tannin, the coloring matter of wine, in the phase of vinification, reducing the lees formation and, as the result, achieving high quality wines.

**I Design and features**

RVN is a range of close-coupled centrifugal pumps, characterised by compact design, high efficiency (>70%) and low energy consumption. It is made of a pump casing with drain port, helicoidal impeller, mechanical seal, lantern and shaft, connected to the motor shaft by mechanical compression.

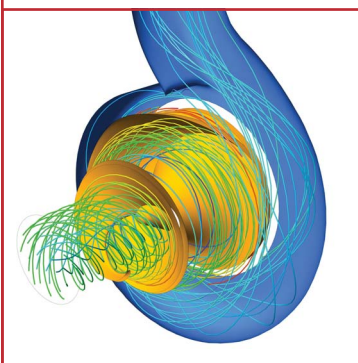
Due to the helicoidal shape of the impeller and to the flow optimised to avoid the obstruction of the pump, solid particles pass through the pump without being damaged.

**I Mechanical seal**

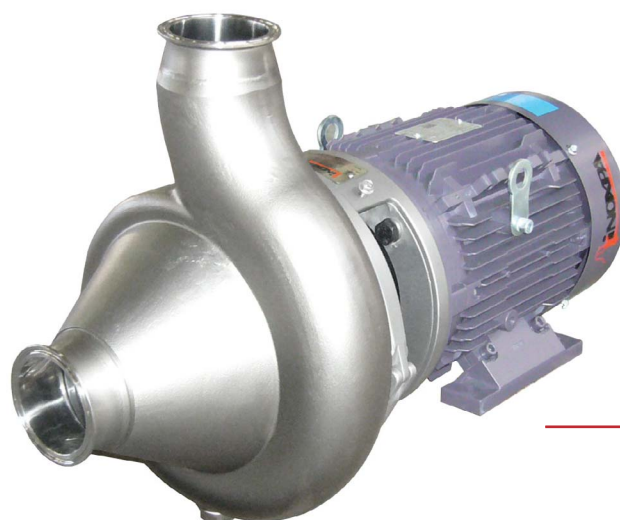
The RVN pump is provided with an internal single mechanical seal. As standard, the stationary and the rotary parts are in silicon carbide, the gaskets are in EPDM.

**I Technical specifications**

<i>Materials</i>	
Parts in contact with the product	Stainless steel AISI 316L (1.4404)
Other steel parts	Stainless steel AISI 304 (1.4301)
Gaskets in contact with the product	EPDM
Mechanical seal	Silicon carbide (SiC/SiC)
Gaskets	EPDM



The helicoidal impeller is designed with the CFD tool (Computational Fluid Dynamics)



## I Technical specifications

External surface finish      *Matte*  
 Internal surface finish      *Ra < 0,8 µm*                      *Ra < 32 µinch*

Connections:                      *CLAMP*

Motor:                                *Premium Efficiency Nema C Face*

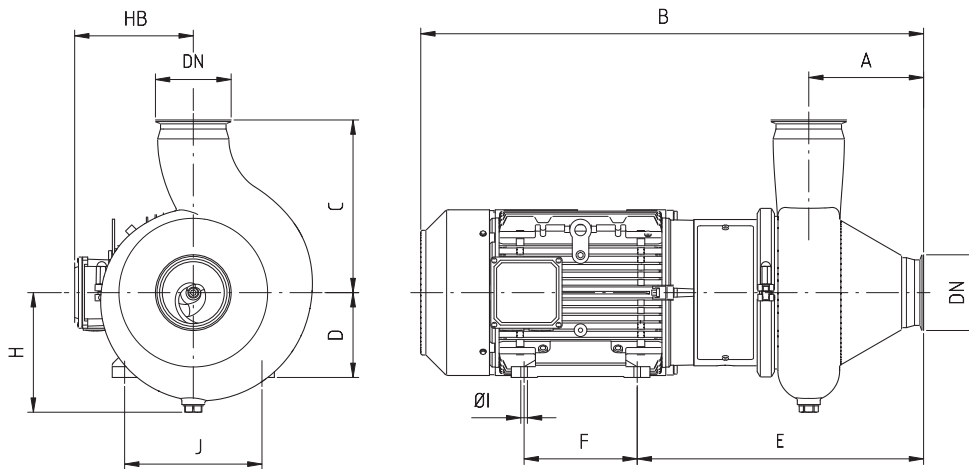
### Operating limits:

Nominal pressure                *10 bar*                                      *145 PSI*  
 Temperature range              *-10 °C to +120 °C (EPDM)*      *14 °F to 248 °F*  
    *+140 °C (SIP, max. 30 min)*      *284 °F*  
 Max.flow                          *180 m³/h*                                  *790 US GPM*  
 Max.differential head          *22 mcl*                                      *72 ft*  
 Max.speed                         *1800 rpm*

## I Options

Gaskets: *FPM and PTFE.*  
 Stainless steel trolley.  
 Control panel.

## I General dimensions



Pump	Ø solids	HP	Motor	DN	A	B	C	D	E	F	H	HB	ØI	J	Weight [lbs]
RV-65	1,7	1	143TC	2 ½"	4,86	20,67	8,60	3,50	12,78	4,00	5,12	5,90	0,34	5,50	53
		1,5	145TC	2 ½"	4,86	21,26	8,60	3,50	12,78	5,00	5,12	5,90	0,34	5,50	57
RV-80	2,3	5	184TC	3"	6,73	25,59	9,80	4,50	15,35	5,50	6,50	7,03	0,41	7,50	128
RV-100	3	7,5	213TC	4"	7,11	29,53	10,69	5,25	17,71	5,50	7,40	7,48	0,41	8,50	185
		10	215TC	4"	7,11	31,13	10,69	5,25	17,71	7,00	7,40	7,48	0,41	8,50	205

\* Dimensions in inches



*I Performance charts*

