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### Applications



## DIAMOND SERIES

Pumping your success

- 1 Drive cover
- 2 Open hopper
- 3 Drive
- 4 Shaft seal
- 5 Patented pin joint
- 6 Transmission shaft
- 7 Trolley
- 8 Conical inlet section
- 9 Rotor
- 10 Output flange

## Hopper Series

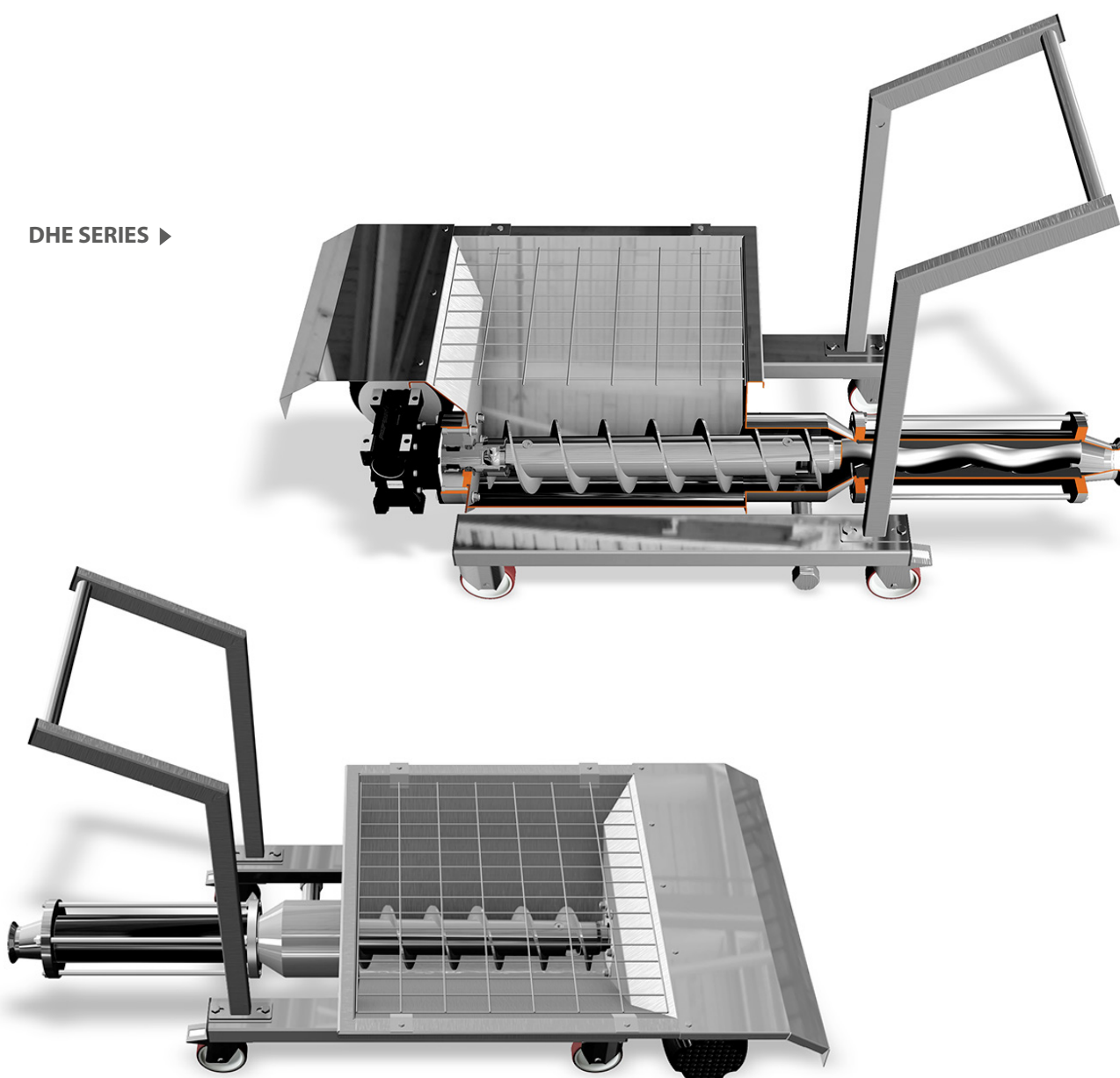
Series with hopper an auger feed screw to convey directly the product to hydraulic part, are the ideal machines for pumping viscous and non-flowing, with a very high solids content.

Version with large eccentric rectangular hopper, auger feed screw, and integrated trolley. Ideal for oenological sector in connection with the destemmer, for pumping the crushed grapes or without stalks. Extremely compact construction made of stainless steel AISI 304 as standard, in all its components.

It uses a worm helical bevel gearbox to optimize the available space. As standard it is supplied with welded mesh protection on the hopper, carter for motorization protection and a large handle suitable to implement electrical panel and inverter. Can be supplied with a level probe into the hopper for automatic switching off of the pump.

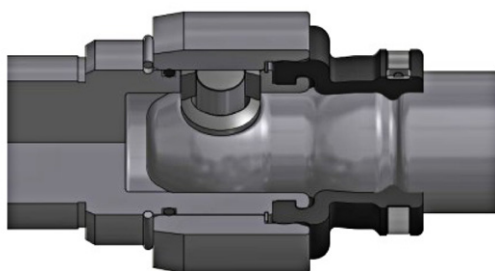
- **DHE Series:** the drive is integrated directly into the machine construction. Helical bevel worm gear reducers are used, allowing considerable axial compactness, following the overall dimensions of the eccentric hopper. The gearbox is coupled directly to the pump via a plug-in shaft to the pump entrance. The protection cover mounted directly to the hopper protects the drive from any damage.

### DHE SERIES ►



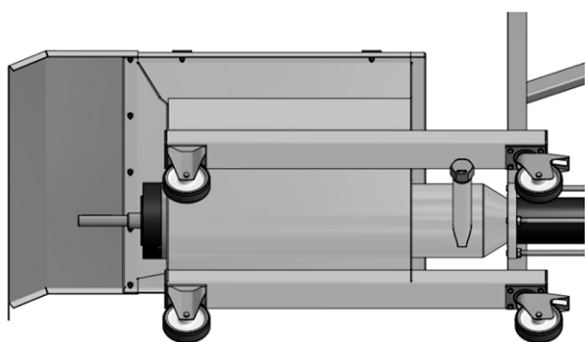
### Patented Pin Joint:

The pin-type joint, the actual heart of the single screw pump, is the best solution of its type on the market. It offers greater durability, reliability and reduced maintenance costs, managing to combine extreme compactness with unrivaled strength. Its special construction allows the sub-division of axial loads and torque in different elements, making it one of a kind. As well as the above, replacement of worn parts is cheap thanks to the bushes in the worn zones, avoiding costly replacement of parts (rotor, driveshaft, and female drive shaft).



### Trolley:

The hopper structure provides an integrated cart that gives great strength to the pump. The thicknesses used are superior to any other product on the market. The handle is easily removable in case of any space problems. The wheels are made in stainless steel.



### Materials:

All parts in contact with the product of the DHE Diamond Series pumps are in stainless steel AISI 304, as well as other materials on request such as AISI316. Also, in this version, the protection devices in the hopper, motorization carter, trolley construction and handling are made of stainless steel AISI304. The seals in NBR are food-grade, suitable for foodstuff contact.

### Performance:

Duration, efficiency, reliability and low consumption. With the Diamond series, we have reached the maximum levels of technological development in every aspect.

### Low pulsating flows:

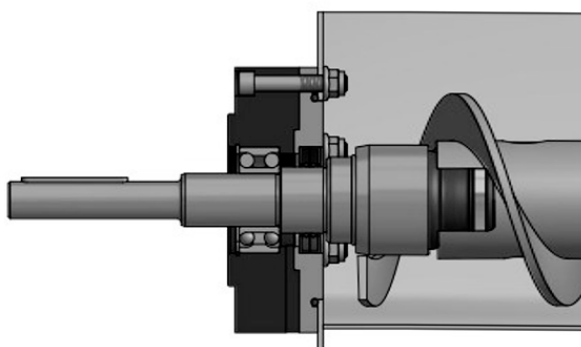
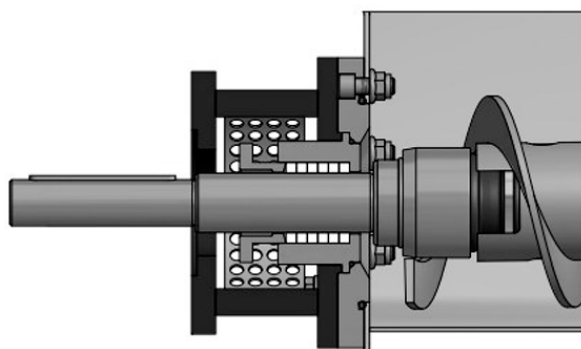
Tensional stress and pulsating flow are very low. The centrifugal effect is reduced to a minimum thanks to the low operating speeds and mainly the axial development of the pump.

### Modularity:

The Diamond series is based on the concept of modularity in every characteristic: hydraulic parts, casing, seals, base plates, housing, drive shafts. Each part can be manufactured in a series of variants without changing the structure of the machine, while keeping the main spare parts standard.

### Shaft sealing:

In the DHE series two seal systems are provided. They are designed specifically for wine applications, to guarantee reliability and ease of maintenance. Both systems are positioned to be easily accessible from the hopper, this permit to avoid stagnation, death zones and high cleanability.



### Efficiency:

Maximum performance level, exceptional operating efficiency thanks to the optimum volumetric yield and high pressure and is consumption reduced to a minimum. All the Diamond series hydraulics efficiencies were calculated to guarantee the maximum found on today's market.

### Motorizations:

All the drives which are installed on the Diamond series have been tested for long periods and subject to strict and rigorous technical checks. We can install both electric and hydraulic motors.

All the models of reducers and variators present determined characteristics in terms of strength, size of the bearings and the quality of the gears.

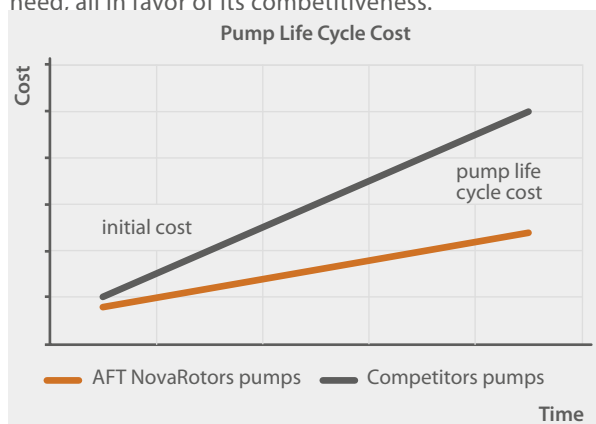
### Maintenance:

The Diamond series is designed to ensure easy maintenance and normally require the replacement of a minimum number of components. In particular the joint bushes allow the replacement of the cheap parts, simultaneous protecting costly rotors and shafts. The costs of maintenance are really reduced. The cost of the pump, considered in his full life cycle, is highly competitive.



### Cost / benefit:

The Diamond series, thanks to the compactness of its elements combined technical success without comparison at very competitive costs. The modularity allows you to make the right solutions depending on the application to avoid paying for features you do not need, all in favor of its competitiveness.



### Ease of installation:

The pumps of the Diamond series are easy to install due to compactness, simplicity of operation and operational flexibility thanks to the various features included.

### Versatility:

The Diamond series was designed to be versatile whatever its use. For this reason it can be set up with various options and accessories suitable for every field of application. As well as the above, the special features of the single screw pump are naturally taken advantage of with various types of fluids pumped, from low to the highest viscosity, clean and containing solids varying in size and nature.

### Quality:

Each part is manufactured according to the highly restrictive quality specifications. The finishes and precision of each part are the basis of every pump manufactured. All parts are subject to specific controls based on their characteristics and functionality.

### Detailed documentation:

Each pump comes with clear and detailed operating instructions. Orders are followed by experienced and qualified staff that prepares specific and detailed documentation for every individual pump.



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