

**Pumps Manufacturing Company** 

### Since 1952



Lucca, 05 Oct 2016



# Pompe 3P<sup>®</sup> Rotary Vane Pumps – Main Applications

### **CN Series - Tanker Load and Unload Pumps**





### **CN Series – Rotary Vane Pumps**

The CN Series Rotary Vane Pumps are Positive Displacement Pumps for the transfer of fluids with a wide range of viscosities and are wear-compensating. They are Self Priming and have an High Suction Lift.

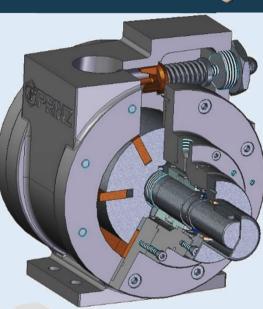
Rotary Vane Pumps are ideal for pumping low viscosity and volatile, light fluids, however the same pump can be used also for pumping liquids with higher viscosity. They are capable of supplying higher flow rate than other pumps at the same comparable size and operating speed.

The Power Consumption of these Pumps is lower than other Positive Displacement Pumps, thanks to its high speed and light construction.

#### **Principle of operation:**

Their impeller rotates eccentrically to the pump internal body. The fluid that is enclosed between the impeller, the vanes and the body, is pumped forward.





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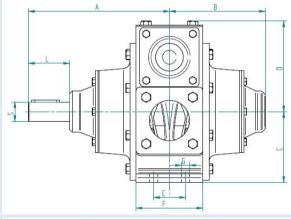
### CN Series Rotary Vane Pumps – Advantages and Benefits

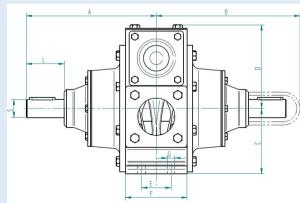
- Self Priming
- High Suction Lift
- Self-adjustment of Wear Out
- API 676 Versions available
- Capable of Pumping Low Viscosity Fluids at Outstanding Performances
- Lower Power Consumption and Higher Capacity compared to other Positive Displacement Pumps
- Interchangeable ports dimensions with major other Rotary Vane Suppliers



#### **CN Series Rotary Vane Pumps – Advantages and Benefits**

- Accurate Selection of Vanes Materials for allowing very low friction and minimal wear-out
- Easy and Fast Maintenance (no need to disassembly from main line)
- Versions for Reversible Operation (Double Shaft) are available for Loading and Unloading
- Suitable to a wide range of Temperatures
- PTO driven versions are available







#### **CN Series – Materials of Construction**

The Pump Body and Rotor are made of Cast Iron and the Vanes are self-lubricating. A range of Mechanical Seals is available for fitting many applications and fluids. Vanes are available in several Materials that fit the fluid application.

Special Executions are available, starting from Cast Iron to Ductile Iron, Carbon Steel, Stainless Steel, Duplex Stainless Steel and Special Alloys for the most corrosive applications.

CN Series Pumps are provided with an Internal By-pass for relieving the flow.

Generally Rotary Vane pumps series are supplied with motor or moto-variator and mounted on a suitable skid.

#### **DRIVE OPTIONS:**

These Pumps can be operated by:

- Electric Motor
- Diesel Engine
- Hydraulic Motor
- Truck-mounted version, PTO Driven



# Pompe 3P<sup>®</sup> Rotary Vane Pumps Applications



#### **CN Series – Main Applications**

CN Series Pumps are used in petrochemical applications like:

- Refineries
- Terminals
- Tank Farms
- Chemical plants

#### but also in transportation for loading/off-loading:

- Trucks
- Trains
- Ships and Barges





# Pompe 3P<sup>®</sup> Rotary Vane Pumps Performances



#### **CN Series – Pump Performances**

Pump Type			
Series	Rotary Vane		
Model	CN40	CN50	CN60
Suction Flange Ø	2"	2,5"	3"
Discharge Flange Ø	2''	2,5"	3"
Flow rate (@ 980 rpm) – 1 Cst	26 m3/h	44 m3/h	96 m3/h
Flow rate (@ 780 rpm) – 1 cSt	20 m3/h	35 m3/h	76 m3/h
Flow rate (@ 640 rpm) – 22 cSt	16 m3/h	28 m3/h	62 m3/h
Flow rate (@ 400 rpm) – 1100 cSt	10 m3/h	18 m3/h	40 m3/h
Differential pressures [bar]	7 bar	7 bar	7 bar
Max. pressures [bar]	10 bar	10 bar	10 bar

Viscosity Range: Minimum 0,3 cSt Maximum 5000 cSt (maximum recommended 500 cSt)

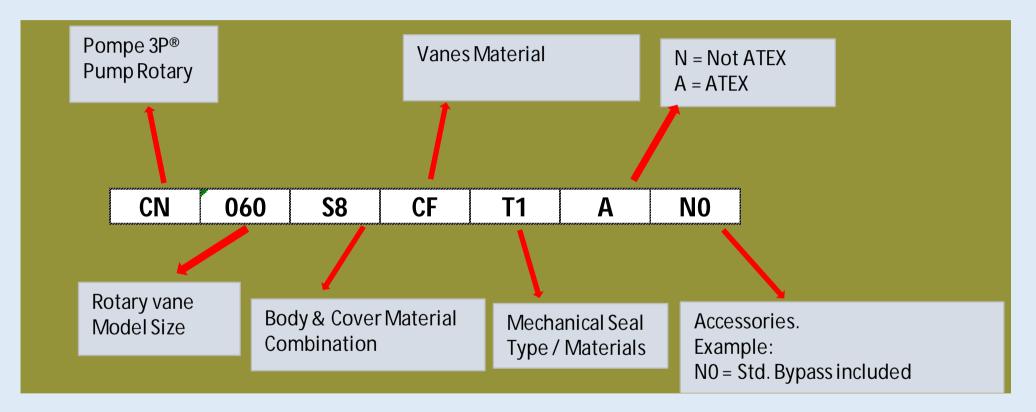
For higher viscosities, a different Vane material shall be selected.

As per 3P Prinz Experience, for viscosities 500 cSt and higher, the Hollow Disk Pump is cheaper and more long-lasting than the Rotary Vane Pump

*CN 30 (1.1/2" ports) and CN 70 (4" ports) are available for quotation* 

# Pompe 3P<sup>®</sup> Rotary Vane Pumps Decodification





FUTURE DEVELOPMENTS: increase the Pump Size Models up to 6" PORTS



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