



GENERAL TECHNICAL CHARACTERISTICS OF THE MANZINI SUPERBA ELECTRIC PISTON PUMPS (ref. ct/43)

1) the MANZINI SUPERBA range of pumps is designed for the **transfer of liquids as different as wines, vinegars, fruit juices and pulps (including citrus fruits), de-stalked grapes, must, dregs, oil, sludges, and dense liquids in general even containing suspended bodies** (see the high pressure pumps catalogue for purification sludge transfer), **liqueurs, and industrial and drinking alcohol requiring flame-proof motors etc. ;**

2) SUPERBA pumps are **self priming to heights of 9.3 metres below pump level** and have **maximum operating pressures of up to 3.5 atm.. Unlike many other types of pump, MANZINI piston pumps can run dry without any problems;**

3) MANZINI pumps are manufactured **using thick castings for extra strength, reliability, and a longer working life;**

4) MANZINI pumps feature an **ample end of stroke gap to ensure that solid foreign bodies** (bottom of tank dregs, pieces of wood or metal, small stones, or tools **accidentally sucked in do not cause serious damage to the piston and connecting rod or drive gear;**

5) the dimensions of MANZINI pump bodies are carefully designed **to give a lower number of piston strokes for the same delivery than with alternative pumps. This makes these pumps particularly gentle on the product. Extra slow speed electric pumps (down to 15-30 strokes/minute or to order) can also be provided on request.** These give an even flow with performance similar to screw pumps with rubber stator or lobe pumps while still maintaining the traditional advantages of piston pumps, **including a lower operating speed than virtually any other type of pump, causing less damage to the product and avoiding product heating. These pumps also offer trouble-free dry running (unlike screw pumps with rubber stator), trouble-free transfer of liquids containing solid bodies in suspension, excellent self-priming characteristics, maximum versatility, minimum maintenance, and a long working life;**

6) MANZINI SUPERBA pumps are designed for maximum **interchangeability of components subject to wear, and for simple servicing;**

7) the SUPERBA pumps are available in standard, stainless steel and bronze version (see below) and with pump bodies manufactured entirely from stainless steel (see catalogue). **The fully stainless steel versions can be fitted with an optional throttle inverter for use with liquids containing large solid bodies in suspension. This replaces the ball inverter and by-pass fitted as standard (a patented MANZINI exclusive). This device enables pump delivery to be reduced until the lines become completely closed;**

8) **stainless steel and bronze versions are fitted with interchangeable polished cylinder sleeves (4 mm in thickness), connecting rods, piston, valve guides, air chambers, cylinder ends, and other parts in stainless steel** to eliminate the problem of metal transfer to pumped liquids. **All mechanical moving parts subject to any form of friction or to compression are in stainless steel.** Metal transfer can in any case be completely eliminated by the simple expedient of never leaving liquids standing in the pump for hours and by washing the pump out at the end of each working day. This prevents active liquids from remaining in contact with bronze components for extended periods of time. **The use of stainless steel for those parts subject to friction or compression not only eliminates the risk of metal transfer during transfer of wine, but also ensures a longer working life for the pump;**

9) the electrical system comes complete with a 24 V CEI standard transformer. **Special electrical systems** can be fitted to order. **This electrical system is designed So that the two pump speeds are controlled by completely independent circuits, both protected** against voltage peaks and over-current caused by mechanical overload, which could otherwise damage the motor. If one of the two circuits develops a fault (e.g. a coil fault), the other circuit continues to work perfectly so that the day's work can be completed using the second speed before repairs have to be carried out; An exceptionally reliable and compact radio control can also be fitted to enable the pump to be switched on and off and for speed changes to be made at a distance;

10) please refer to the specifications table for details on individual models.