

Hy~Line Model Specification

The pump shall be an ITT Jabsco Hy~Line rotary positive-displacement lobe-type pump or identical equivalent.

The pump shall be capable of delivering _____ litres/minute [_____ US gpm] of liquid viscosity _____ cP against a differential pressure of _____ bar [_____ psi]. at a speed of _____ rpm +/- _____%. The absorbed power shall be _____ watts [_____ hp] and the Nett Inlet Pressure Required by the pump is _____ bar abs [_____ psi abs].

All metal pump head parts in contact with the pumped fluid shall be manufactured from austenitic stainless steel grade AISI 316 or equivalent and all product contact surfaces shall be finished to *0.8µm Ra / 0.8µm Ra and electropolished / 0.5µm Ra and electropolished*. The pump rotor case shall have an internal shape which allows low-viscosity liquid to freely drain and gases to vent through the port connections when installed with the pipe axis vertical. The port connections shall be bolted to the rotor case and sealed with crevice free joint rings.

The rotor case shall be removable from the bearing housing in situ without draining lubricant or disturbing shafts and bearings. Any adjustment shims must be captive to prevent loss. The pump bearing housing shall be coated with high-gloss epoxy-polyester coating applied by an electro-static powder process and firmly adhered to all external surfaces. The external shape shall prevent the collection of pools of wash-down liquid. The area between the pump rotor case and bearing housing shall be accessible and free-draining to prevent build-up of product leakage and to allow inspection. A removable safety guard shall be provided to protect users from rotating parts during operation.

The rotors shall be of the scimitar type designed to minimise shear of liquid of all viscosities and shall not contact each other or the pump rotor case up to their full design limits of pressure and temperature. They shall be secured by retainers which are flush with or below the front surface of the rotors and correspondingly there shall be no recesses in the end cover. The rotor drive spline shall be sealed from the product.

The pumped fluid shall contact only the outside diameters of the primary shaft seal faces. The seal area shall be free from crevices liable to harbour micro-organisms and shall allow liquid to freely drain. Product contact seal faces shall be made from *Carbon on 316L stainless steel / Carbon on Silicon Carbide / Silicon Carbide on Silicon Carbide* materials conforming to US FDA requirements and shall be accessible without removing the rotor case from the pump. The rotating faces shall be fitted into the backs of the rotors. Elastomer seals in product contact shall be moulded from: *food-grade nitrile rubber / peroxide-cured EPDM certified to US FDA CFR 21 section 177.2600 / Viton®*.