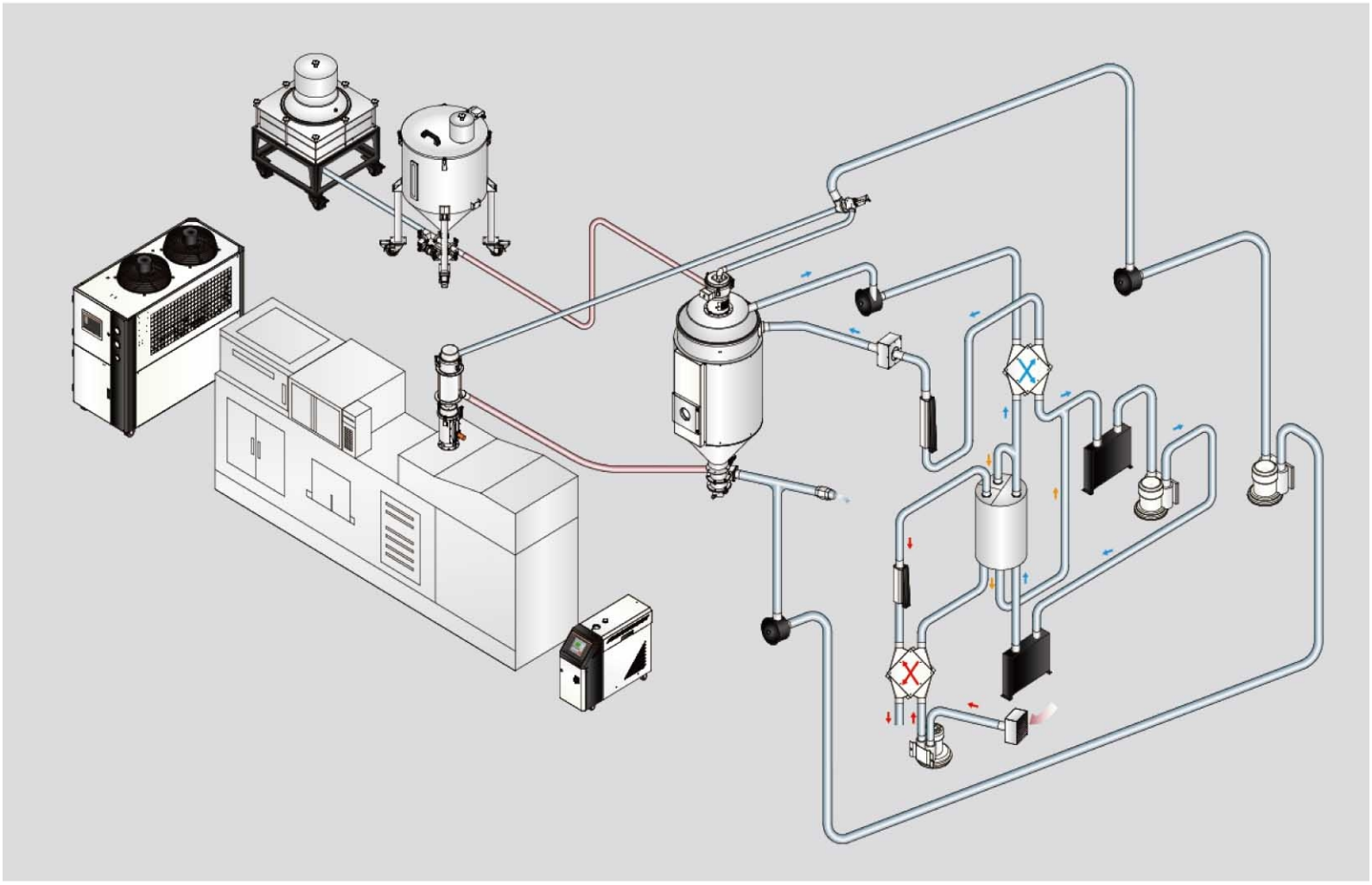
Medical and Optical System

Simple Solution

SHINI

Medical and Optical System

Recent years has witnessed the innovation of plastic used in medical field that traditional materials can not achieve. The constant increasing medical expense drives the consumer to seek for more efficient way to lower the cost. Then disposable medical parts emerged to replace the disinfectant glass products and now they are widely used in medical field.



Generally, plastics used in medical field are PA, PET, PEEK, PLLA/PDLA and PC etc.

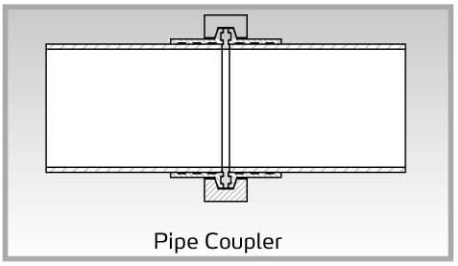
For the production of medical parts is specific, the requirements on processing equipments are restrictive. Normally the production of medical parts needs the injection molding equipments repeatedly, highly-stably and safely forms high-quality parts within a very short cycle time.

During medical parts production, any foreign materials and non-certified parts are prohibited from contacting; therefore the production must be taken place in clean rooms.

Medical and Optical System

Conveying

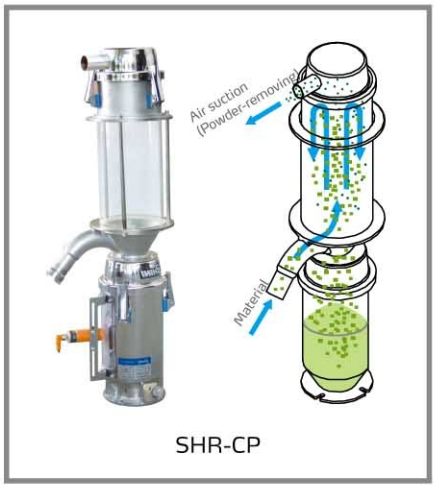
- Pipeline is made of SUS304 stainless steel or glass, the special pipe coupler helps to achieve seamless connection.
- Hose channel adopts PU pipe and copper wire connect to ensure no static electricity.
- All pipelines meet the national GB/T14975-94 standard.
- Each feeding unit equips with stainless steel shut-off valve ensures no impurities caused by friction, also there are cleaning process after each feed cycle.



Pipe Coupler

- With HEPA high-efficiency particulate absorbing filter, filtration precision can reach 0.3μm and filtration efficiency can reach 99.995%.

- Powder-removing hoppers SHR-CP are equipped to remove subtle powder and help to prevent stain in the molding of optical products.



SHR-CP

Drying

— Return air loop equips high-efficiency dust-separator to make sure the drying air can be fully filtered.
— Drying system equips HEPA high-efficiency particulate absorbing filter to filter tiny dust of 0.3μm and filtration efficiency can reach 99.995%.
— All material contact surfaces adopt SUS304 stainless steel with polishing, together with the air-tight feeding system; the materials are protected from being polluted and moisture regain.
— Hermetic two-stage conveying system can help reduce the heat loss and the risk of material moisture regain during the conveying of hot material or material after drying to the hopper located on the injection molding machines.
— Real time monitoring of material level.

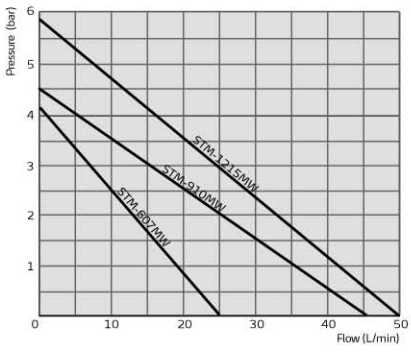
Storage

— Storage tank made of SUS304 stainless steel with inner wall polished to protect material from being polluted.
— Hermetic structure protects material from being polluted by the outside air.
— Special air refill equipment installed at the discharge port to make material conveying more fluent.
— When HEPA is not in the consideration of the customer's, Shini also provide a simple filter with accuracy of 5μm for use.

Mould Temperature

Shini develop many kinds of mould temperature controller with heating temperature ranges from 95℃ to 300℃. Equipped with turbo pump, large flow pump, magnetic pump and micro computer controller, our mould temperature controllers can meet all the requirements of different plastics processing.

— Controller adopts 3.2"LCD to visually display the operation.
— Adopt P.I.D. temperature control system to maintain stable mould temperature at any time, control accuracy can reach ±0.5℃.
— High-efficiency high-temperature pumps are optional to meet the requirements of precision mould and mould with small diameter molding cycle.
— Optional RS485 communicating functions and display of mould temperature and return water temperature.



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