



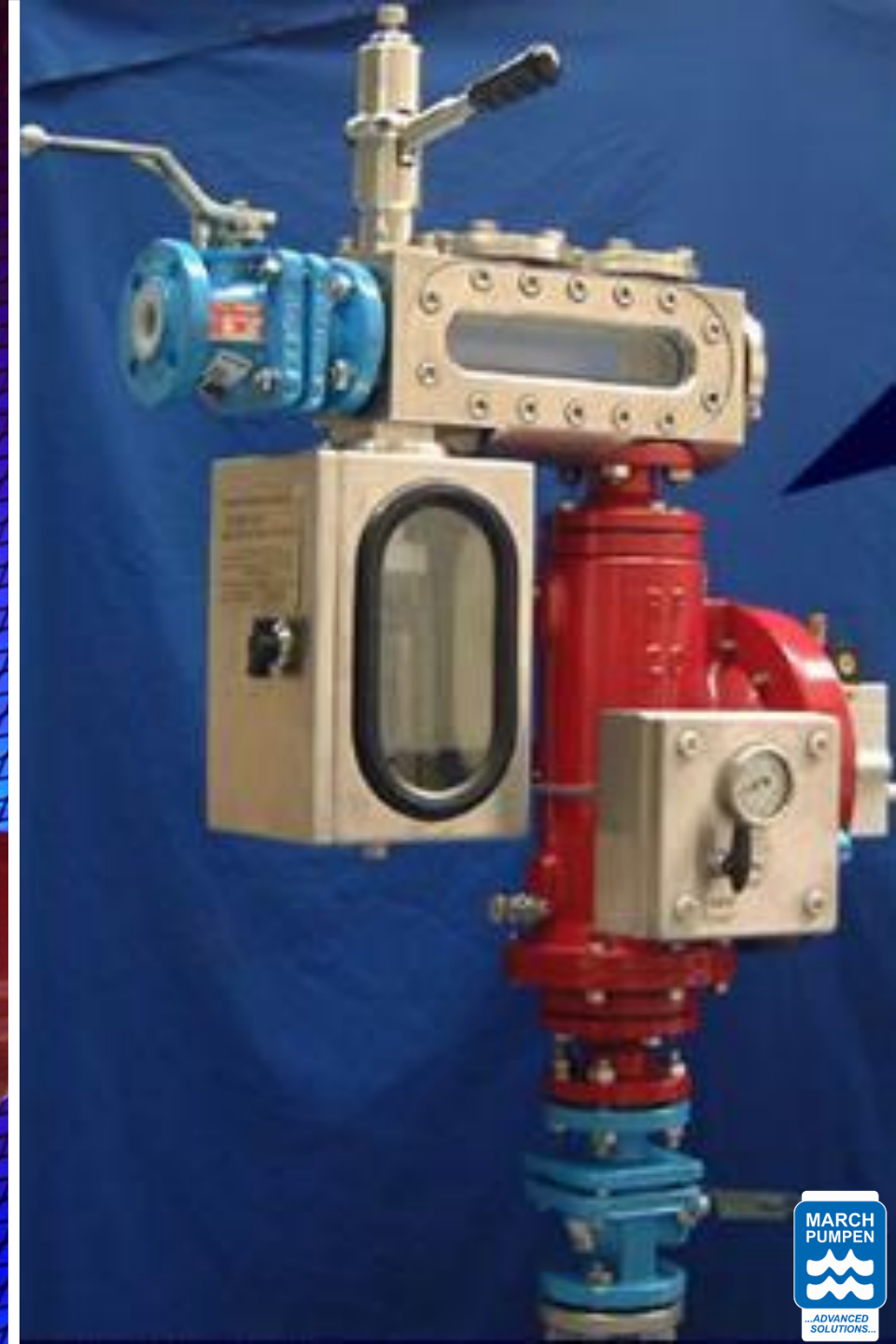
MARCH
CODIP RP
CODIP KB
MARSH



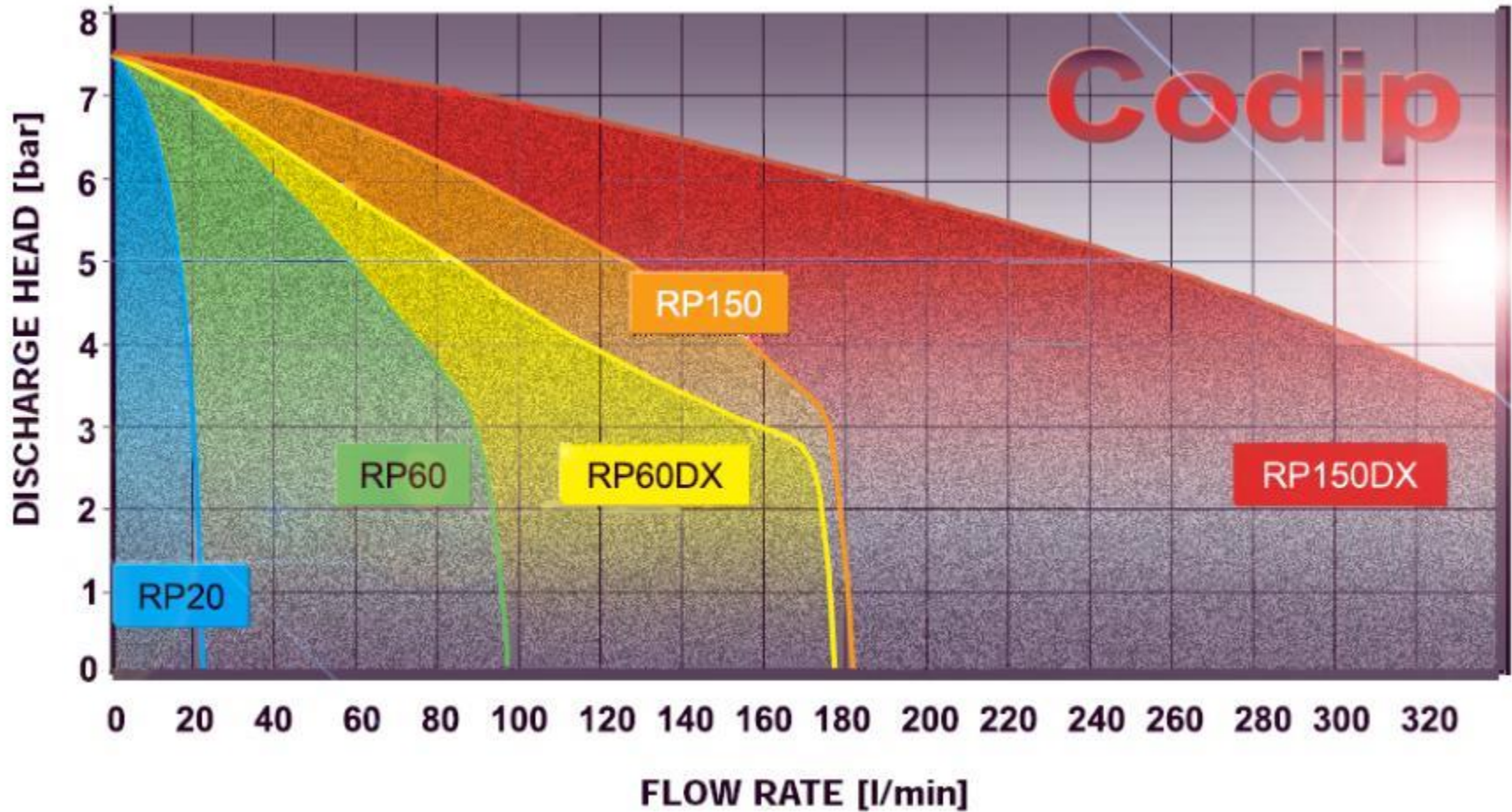
AIR OPERATED PTFE TUBULAR DIAPHRAGM PUMP

Experience and reliability in handling of corrosive chemicals

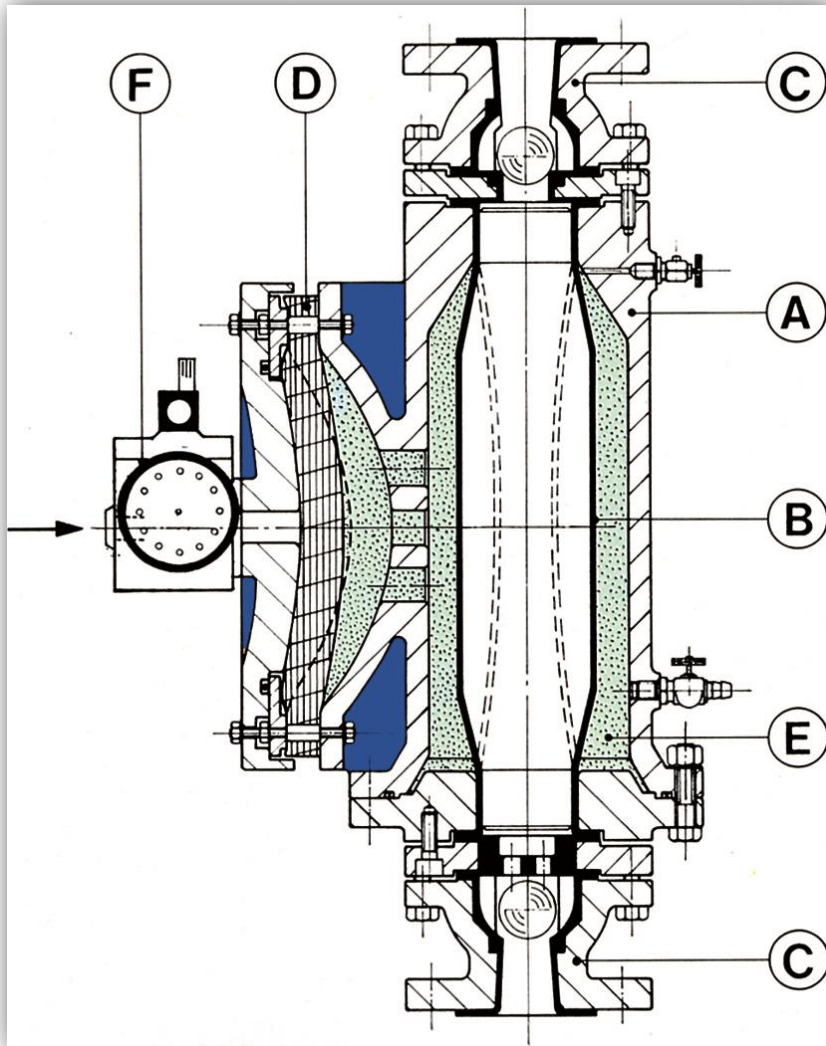




Model selection



How a CODIP pump works

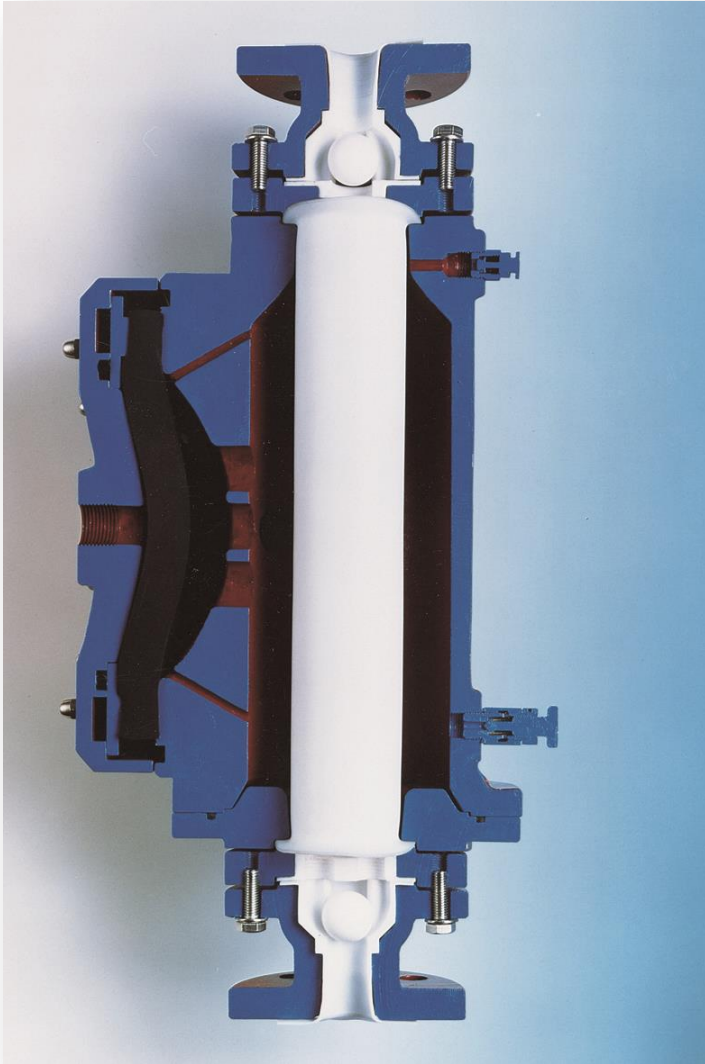


CODIP pump operates without any mechanical linkage, electric motor or mechanical seal; it is self-priming and offers double containment as standard.

An independent automatic air distributor (F) supplies air pressure to one side of a flat rubber air diaphragm (D).

An inert liquid (E) transmits this pressure uniformly to the tubular diaphragm (B) without mechanical stress.

Technical features



- Pure (virgin) hydrostatically pressed **PTFE wetted parts**, fully guaranteed against permeation, for all corrosive chemicals and blends

- Optional **Viton®**, **Hypalon®** or **EPDM** construction is available for extremely abrasive and/or corrosive liquids.

- **Sealless double containment** configuration prevents any exhausting of process fluid into the atmosphere.

Technical features



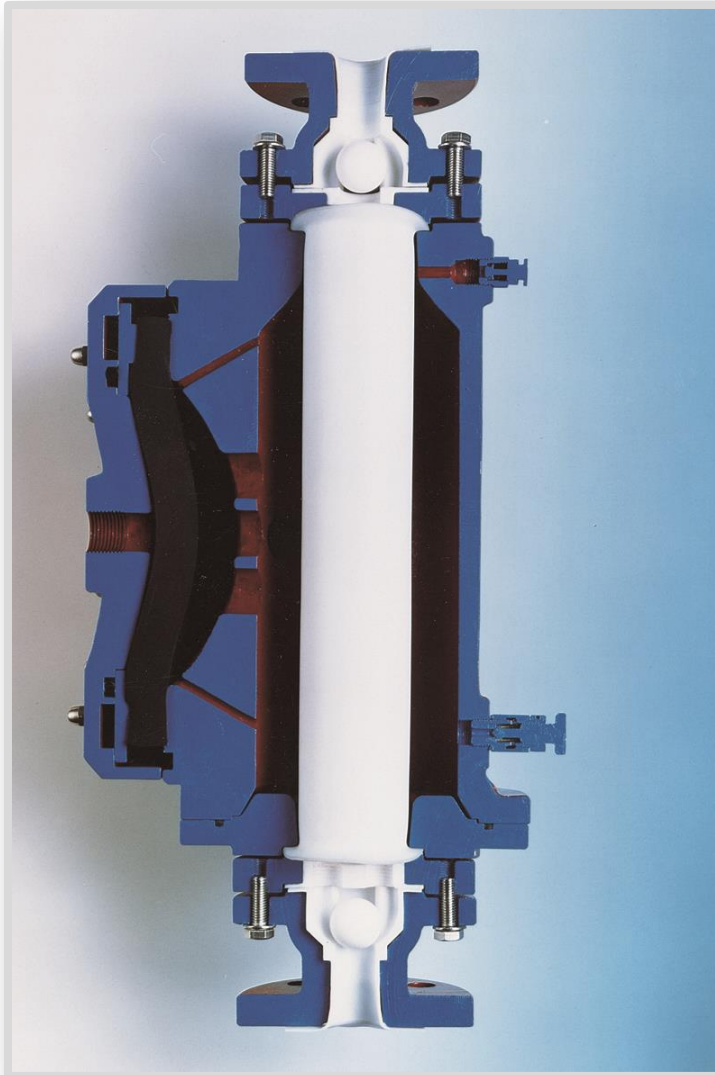
– 20°C up to 180°C
temperature range

Dry self-priming,
can run dry without damage

Dead heading without
damage

Free-leak design

Wetted parts



PTFE

CONDUCTIVE PTFE

EPDM

VITON®

HYPALON®

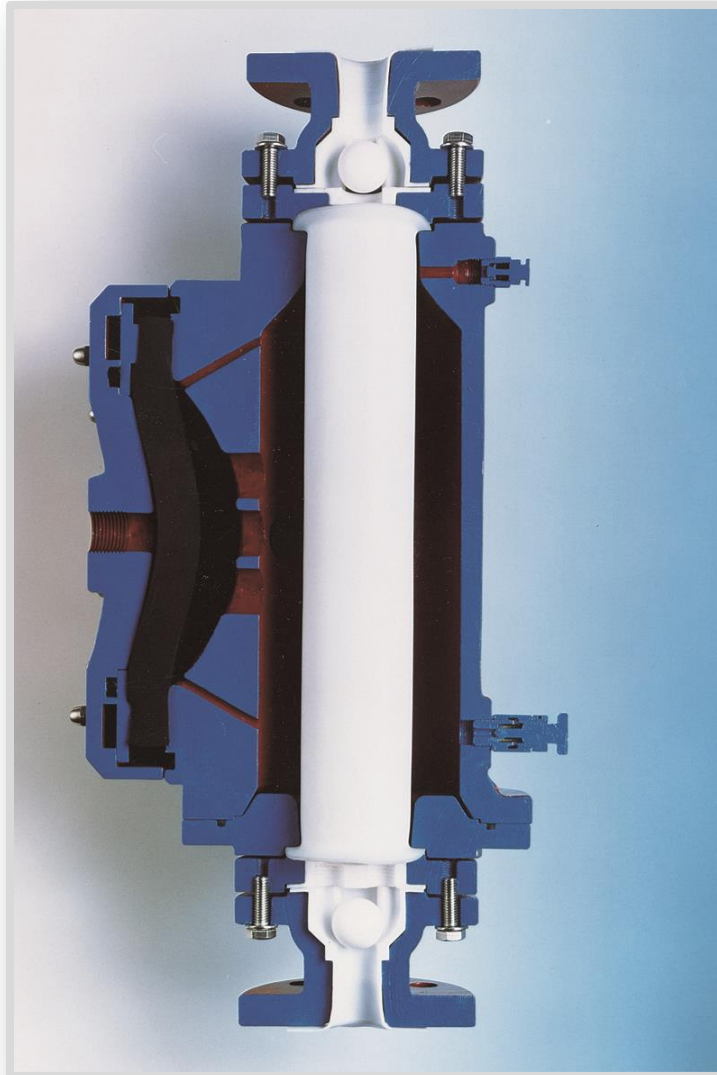
Optional materials for check valves only

GLASS FILLED PTFE

316 STAINLESS STEEL

CERAMIC

Non wetted parts



Pump housing

aluminium alloy

ductile iron

Hydraulic inert liquid

glycol

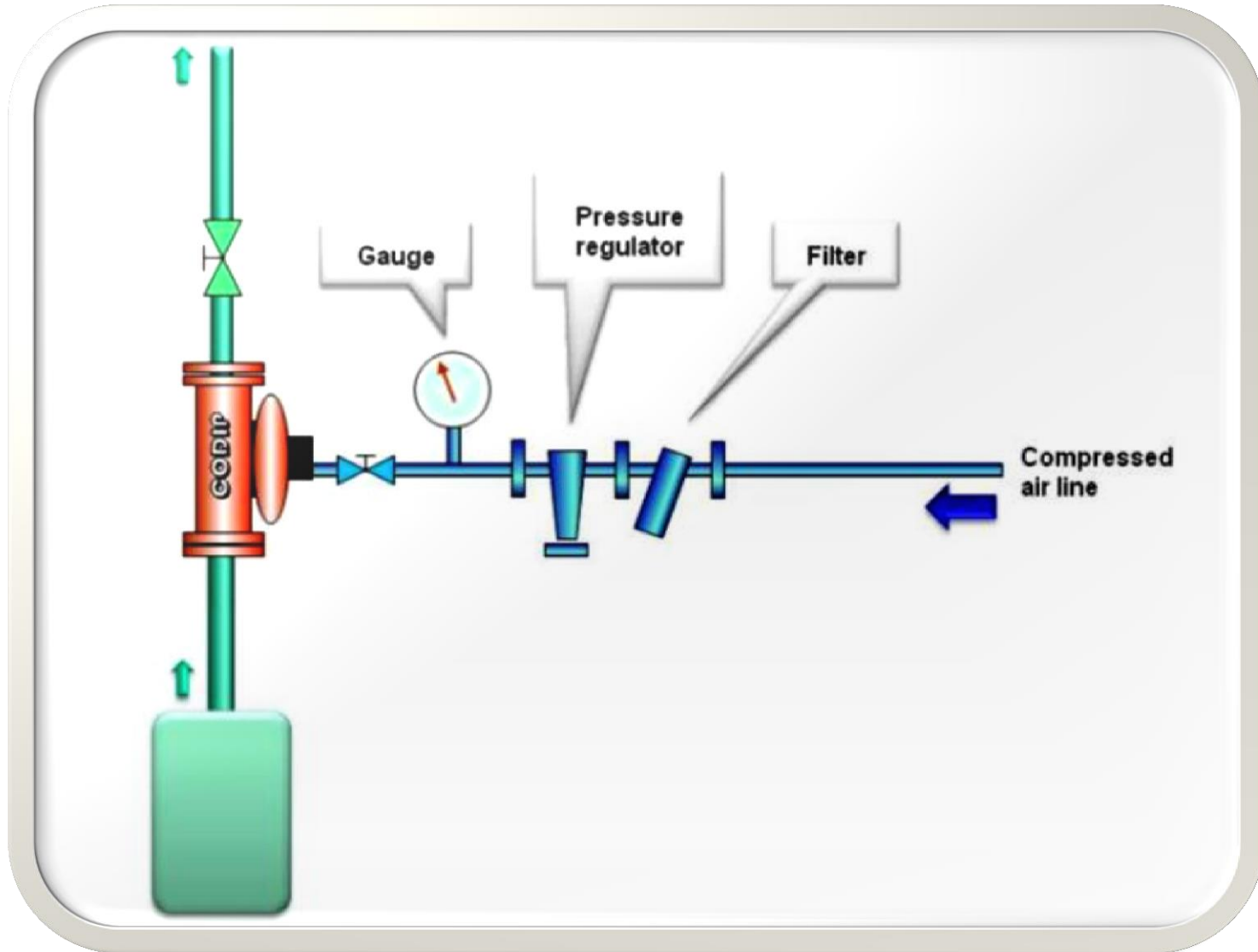
glycerin

silicone oil

FDA approved oil

other on demand

Pump installation



CODIP RP

CODIB KB



SPECIAL ASSEMBLIES

Pumps "SD" range **To allow maximum passage**



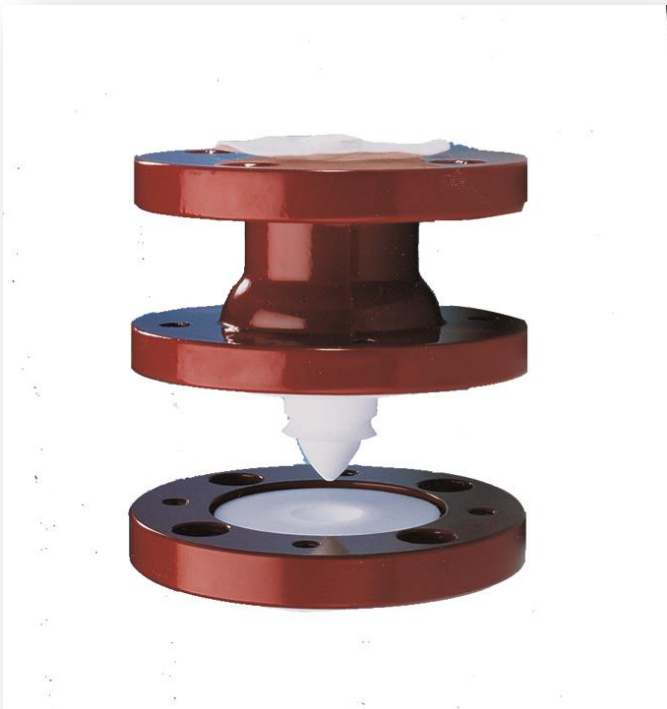
Suitable for processes containing solids that require all PTFE wetted parts

Specifically designed to handle liquids containing solids

Inside free to allow maximum passage of suspended solids or crystals (max. concentration 50%) up to diameters of 7 mm

Pumps "SH" range

Maximized suction head



Minimized priming time

Maximum check valves tightness

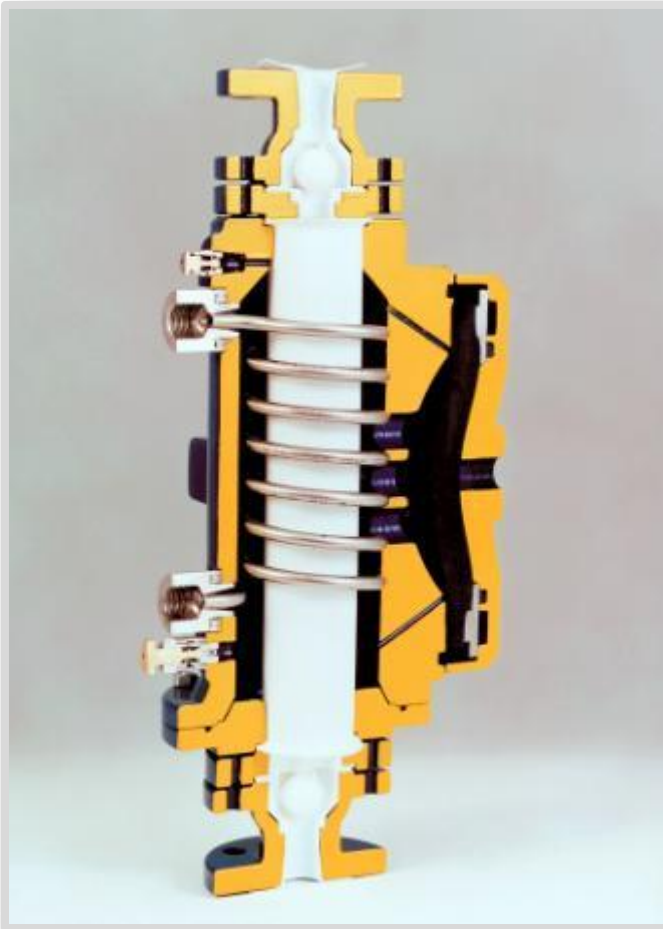
Minimized seats wear

Increased pump efficiency

Reduced friction losses

Pumps "HC" range

Heat exchanger for heating/cooling pumping liquids



Totally inside SS AISI 316 coil

Fully immersed into the inert liquid

Coaxial to the tubular diaphragm

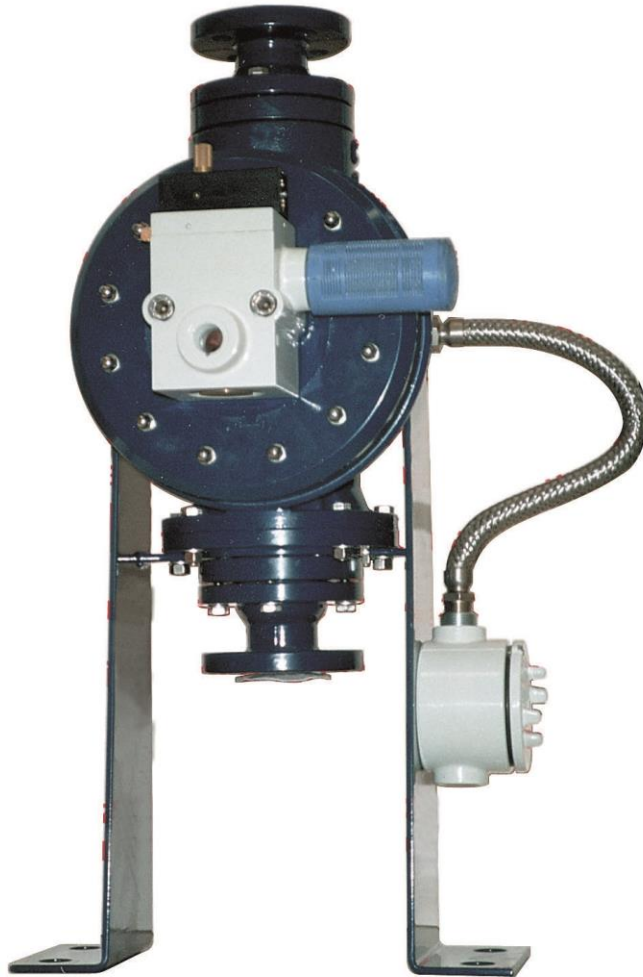
Heating system

Steam

Diathermic oil

Water

Conductive titanium probe



Extremely accurate system

High sensitivity system

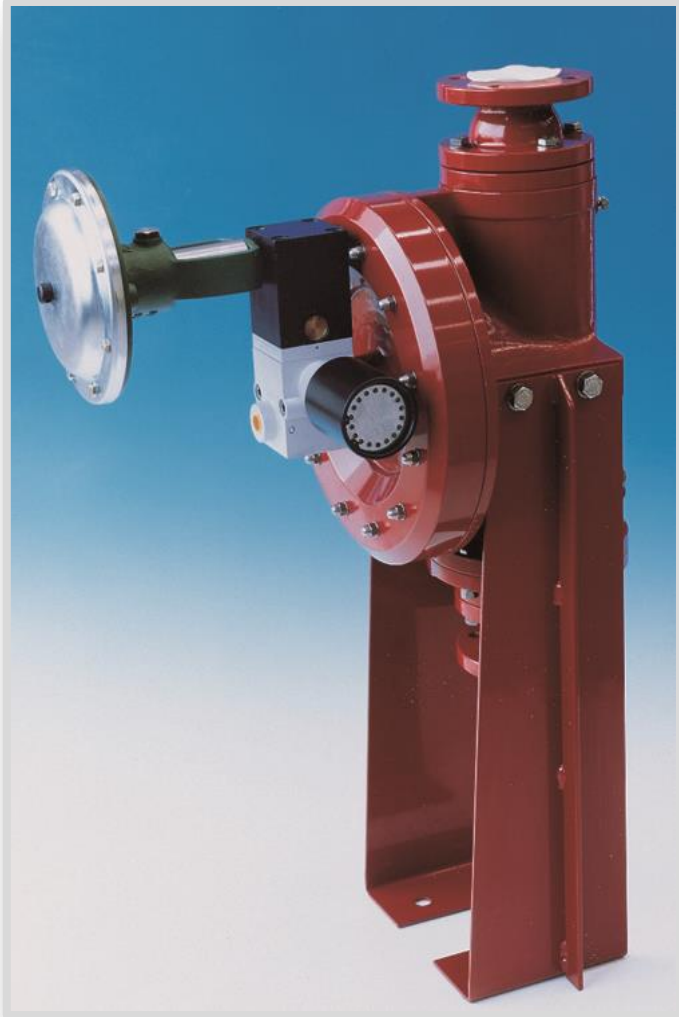
Alarm signal on

Titanium sensor fitted into the pump body

Conductivity detection of the inert liquid

Connection to an extra level limit switch

Remote control for metering applications



The remote control unit is designed to adjust the pump capacity by a 3-15 psi pneumatic actuator

The 3-15 psi actuator determines the value of the frequency strokes (0/120 cycles/min)

The unit can be driven by current loop through a 4-20 mA I/P converter

Totalizing-predetermining impulse counter



Impulse counter is designed to predetermine the frequency strokes to allow the required flow rate

Preset number of pneumatic pulses represents the value of frequency cycles for dosing the pumping liquid

Automatic repeat and reset by a pneumatic signal

Pneumatic safety switch



Emergency on-off control to stop the pump by a start-stop pushbutton

Totally pneumatic system, intrinsically safe

Pump stop and restart by a pneumatic signal

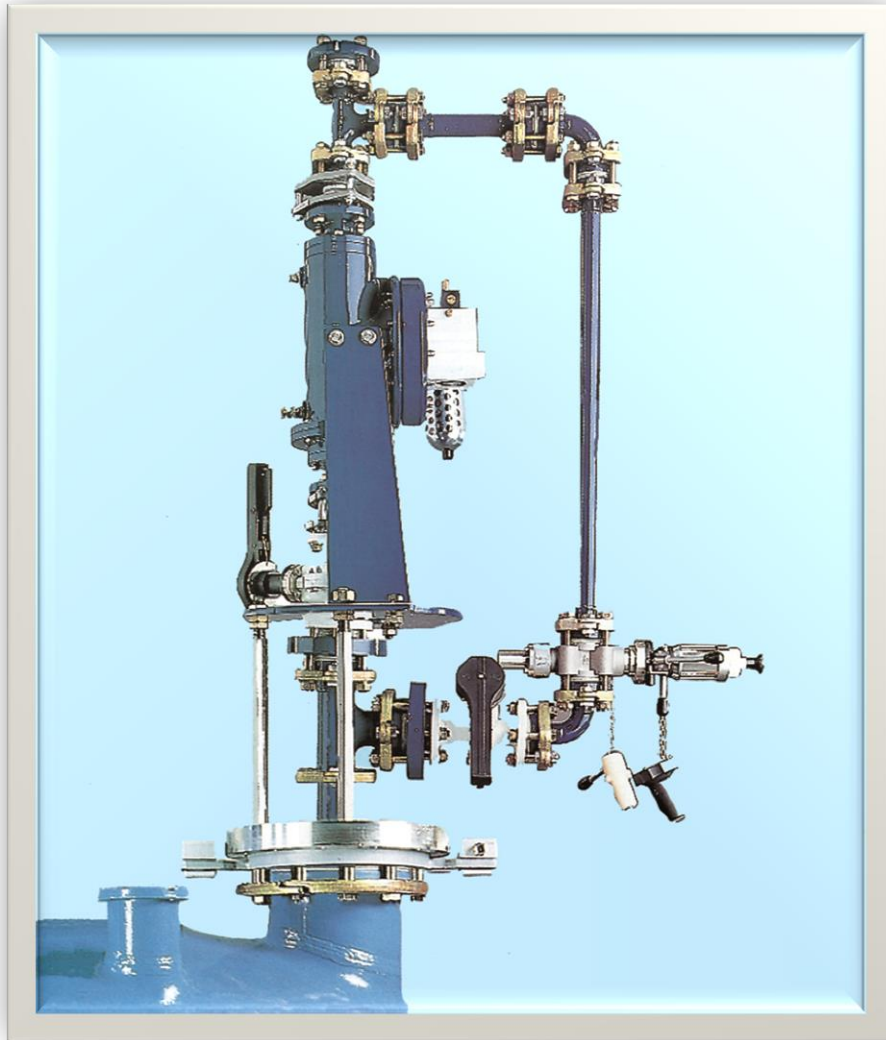
CODIP RP

CODIP BP



MAIN APPLICATIONS

Sampling systems



PTFE tubular diaphragm pump



Corrosive liquids (both hot and cold)

Sulphuric acid

Hydrochloric acid

Hydrofluoric acid

Chlorinated compounds

Liquid bromine

Corrosive blends, etc.

PTFE tubular diaphragm pump



Solvents (electrical motors not permitted)

Hazardous

Toxic

Inflammable

Unstable dispersions

PVDC

Latex, etc

PTFE Codip tubular diaphragm pump

Straight-flow PTFE "SD" range: ease of sterilization and larger solids passage



Pharmaceuticals

fermentation broth

antibiotics

vitamins, etc.

Ultra-pure liquids

contamination control
and minimized
product degradation

PTFE Codip tubular diaphragm pump



Paints
(non-sticking properties of PTFE)

Varnishes

Glues

Inks

Resins, etc.

Rubber tubular diaphragm pump



Abrasive and
high viscosity fluids

ceramic

slurries

crystalline products

chemical waste, etc.

MARCH PUMPEN GmbH

Experience and reliability in handling of corrosive chemicals



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