THE FOUR-VALVE HIGH-PRESSURE PUMP OFFERS A COST-EFFECTIVE SOLUTION FOR INCREASING PRESSURE WITH MINIMAL PULSATION IN SEALING APPLICATIONS.

**Designed for the needs of the automotive industry**
Sealing and PVC processes in the automotive industry, for example for applying sound absorbing material or rocker panel coating, are becoming increasingly automated. As a result, there is growing demand for reliable, cost-effective solutions to generate high pressure. Eisenmann’s range of four-valve high-pressure pumps meet this need.

In many cases, in conjunction with a pressure regulator, these four-valve high-pressure pumps can replace costly, high-maintenance piston dosing units. This significantly reduces the capital expenditure required. In contrast to two-valve pumps, four-valve technology uses energy fed by the supply pump into the pipe network evenly on both the upward and downward stroke. This reduces pulsation, enabling operation with low charge pressure. In addition to reduced energy consumption, the uniform piston speed increases the service life of the piston rod and cylinder seals. Furthermore, pulsation of the medium is almost completely eliminated, regardless of the charge pressure of the pump. The pump range is available either with a pneumatic or hydraulic motor, and each model has passed a pressure test of 1,200 bar.

**Conveniently close to the applicator**
In particular, automated installations involving large quantities of material – such as the application of sound absorbing– require large and heavy piston dosing units. Due to their considerable weight, these cannot be mounted on a robot arm. Instead, the piston dosing unit is placed on the robot’s seventh axis or even further away, often at a distance of 5 to 6 m from the applicator. That largely negates its higher precision. In contrast, when using a four-valve pump, the pressure regulator can be mounted on the robot arm, only a short distance from the applicator.

**Impressively easy to install and maintain**
To facilitate installation and repairs, the four-valve high-pressure pump is designed with a highly convenient weight of 40 kg (not including motor). The valve blocks are mounted on the side and can be separately detached. This reduces the weight by half.

The valves are easily accessible, meaning that they can be replaced quickly and simply without requiring the pump to be dismantled. The piston rod seals are housed in an adjustable cartridge, which also enables rapid change-over. An integrated, fully enclosed container for rinsing agent helps to increase the service life of the piston rod seal. The rinsing agent can be controlled by means of an external compensation tank.
FOUR-VALVE HIGH-PRESSURE PUMP
SIMPLE INSTALLATION, MAINTENANCE AND HANDLING

Advantages at a glance
- Ideal for increasing pressure in sealing applications, with minimal pulsation
- Saves energy by using charge pressure on the upward and downward stroke
- Simple maintenance, thanks to lightweight design, with valve blocks that are easy to replace
- In conjunction with an Eisenmann pressure regulator, can replace high-cost, high-maintenance piston dosing units in many applications