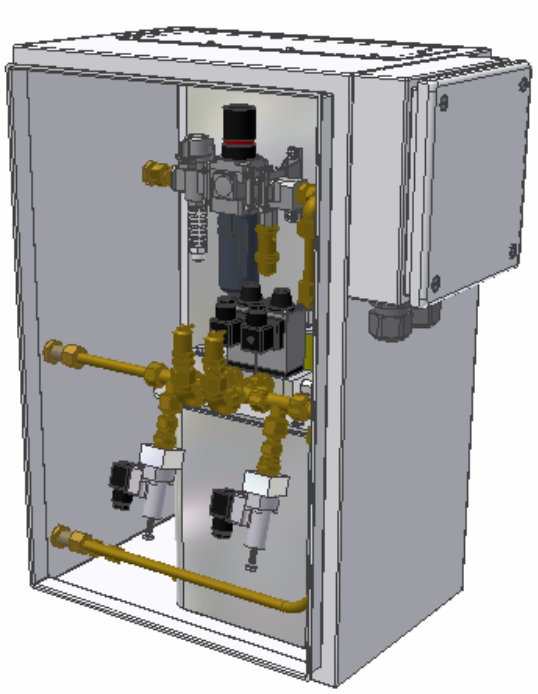
PRESSURE SUPPLY UNIT – COMPACTUS

PNEUMATICALLY OPERATED HYDRAULIC PUMP SYSTEM

The system consists of a **pneumatically operated hydraulic pump with control valves (pos 1), pneumatic pressure regulator with filter unit and shut off valve (pos 2)**. **All units are built in to a closed cabinet (pos 3).**



The customer only plugs in; **Inlet air (pos 4), hydraulic piping to the brake/brakes control (pos 5) and electrical signal cables (pos 6).**

The pump is a valve-controlled, two-way plunger pump on the principle of pneumatic-hydraulic pressure intensifier. The low-pressure piston with large area on the drive-side (air-side) pushes the piston with smaller area (hydraulic-side) against a high fluid pressure outlet.

With the ratio of 1:39, 200 bar hydraulic pressure can be achieved with 5.2 bar pneumatic pressure. The pump works with oscillating strokes. The stroke reversal is automatic via a direct mounted, self-piloted 4/2-way valve, which receives a reverse impulse always in the end positions on the pneumatic piston. The pump behave like load-controlled pump, i.e. the stroke frequency slows down with the delivery flow decreasing while the hydraulic system pressure rises steadily until a balance between the pneumatic and hydraulic forces is achieved where the stroke will stall. At this point where no more air is consumed depends on the set pressure on the pneumatic side.

The pump will restart automatically as soon as the hydraulic pressure drops again in an effort to maintain a constant pressure on the hydraulic side.

The system can control a number of different brakes individually by just adding control valves.

Options

There are several options available – for example:

- Pressure switches
- Manually operated control valves
- Adjustable braking time unit

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