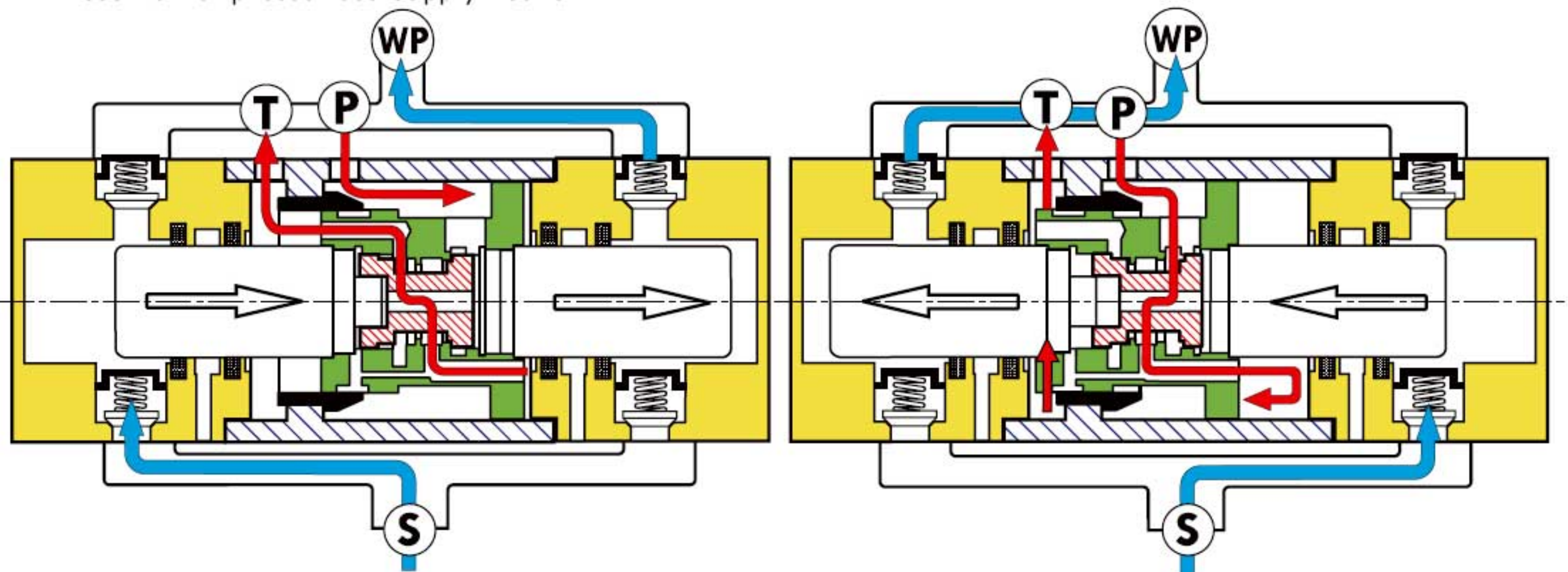


HPW CONVERTER - HOW IT WORKS

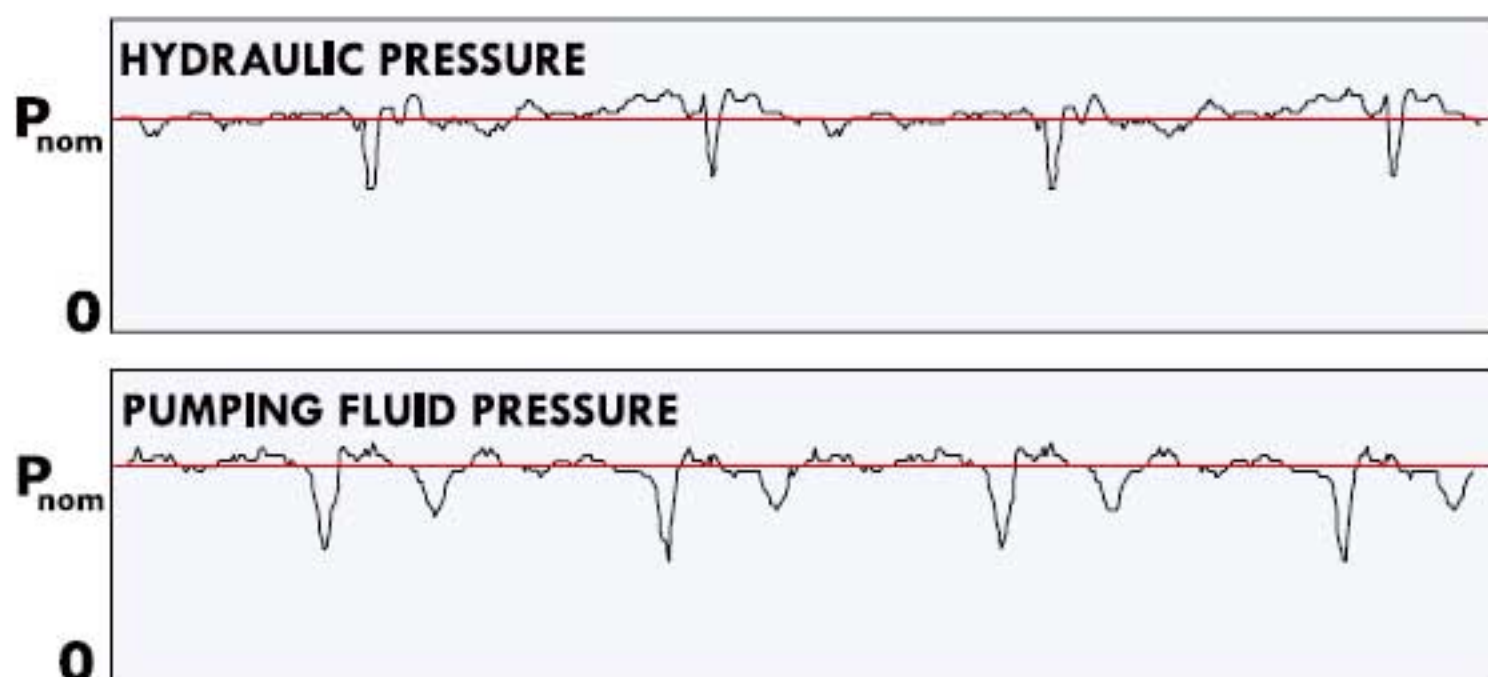
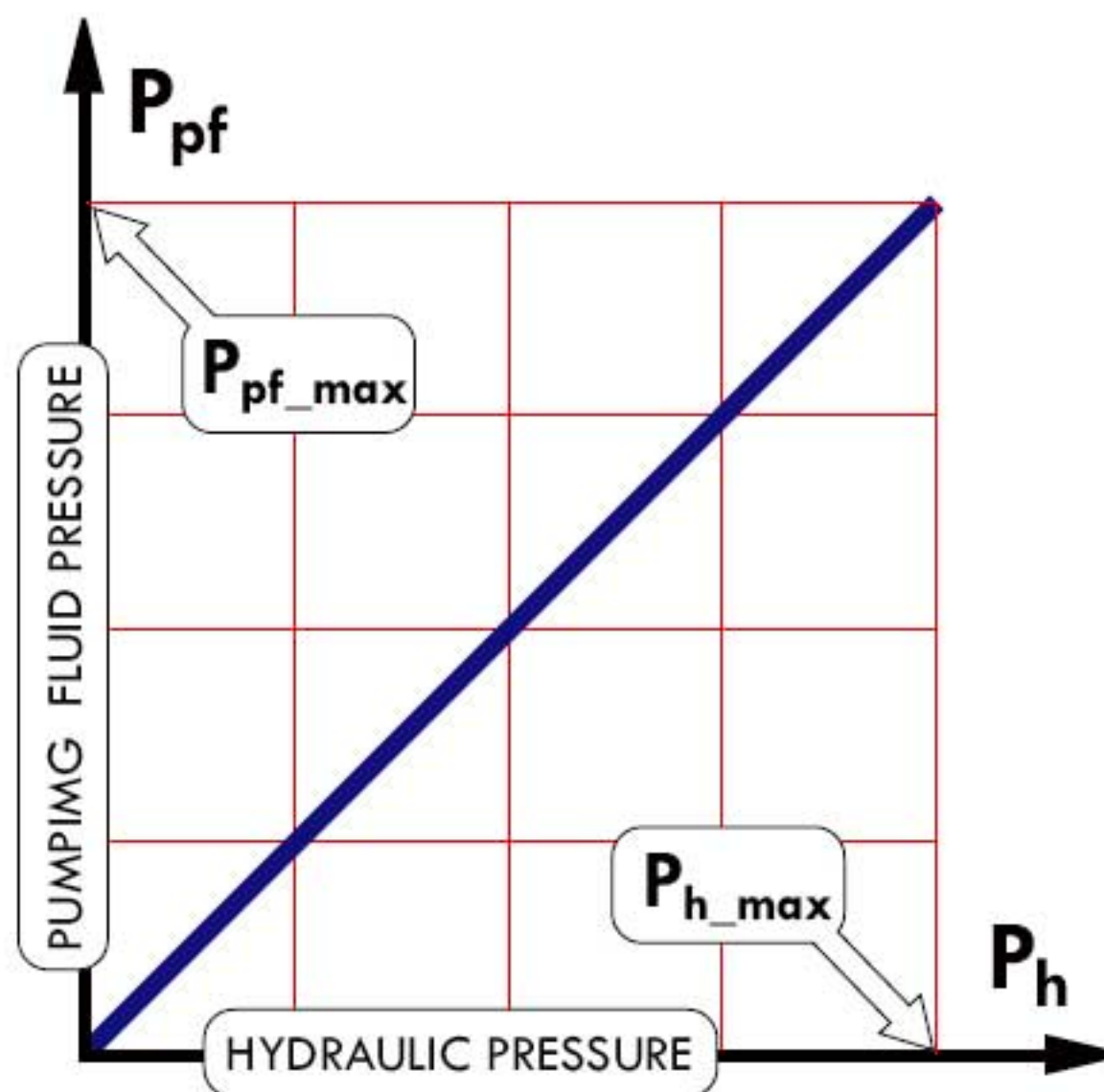
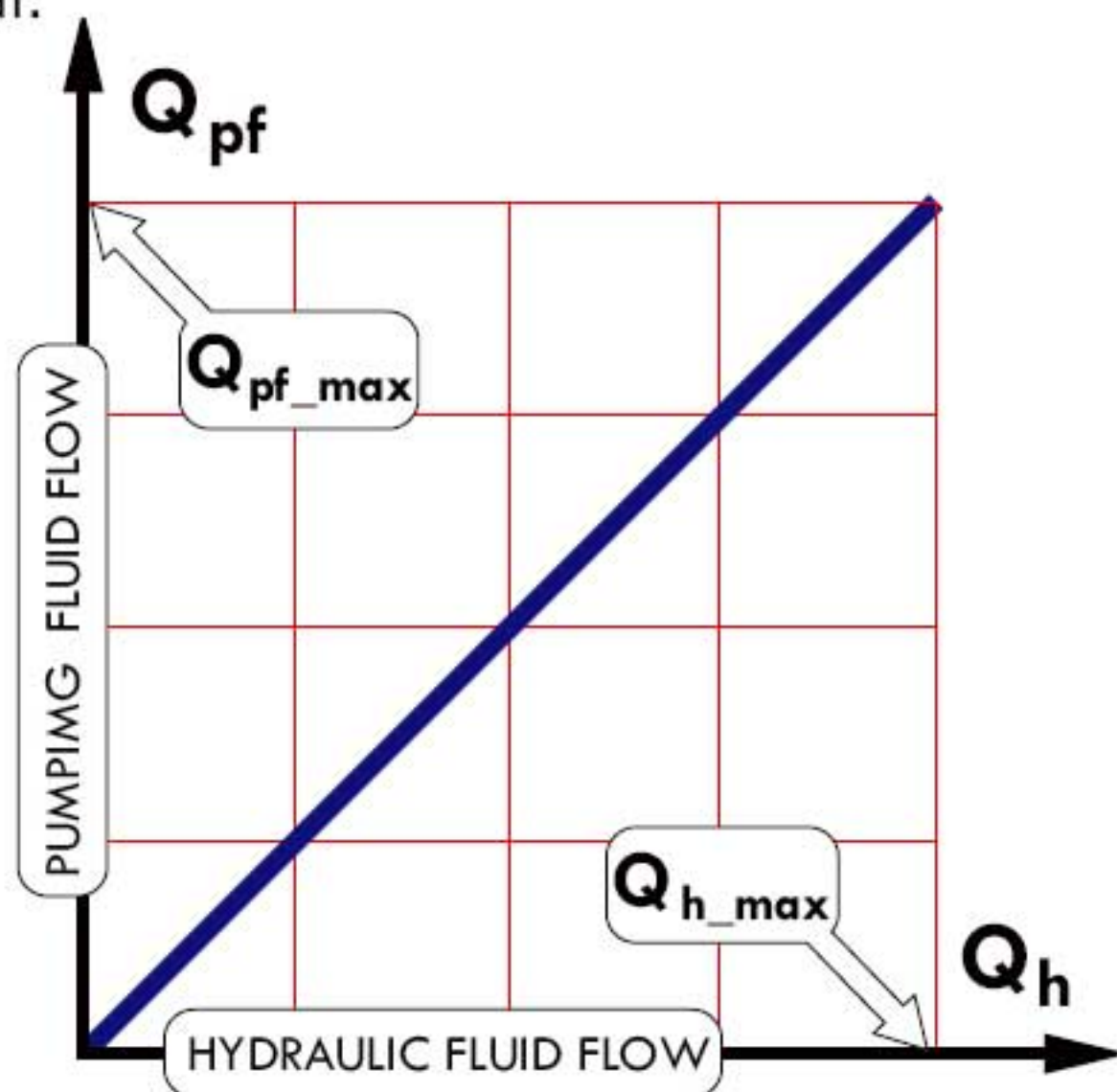
DYNASET HPW-pump is a converter, which transforms actuating fluid power, usually hydraulic oil, into pumping fluid's power, which is defined by flow rate and pressure. Actuating power is provided by the hydraulic system of a carrier machine or other installation. Water or any other pumping fluid can be taken from natural source, reservoir or pressurised supply network.



The patented HPW-pump utilises the reciprocal motion of hydraulic piston, when two water plungers, flanked to it, develop pressure in delivery (pressure) line. Hydraulic flow moves the piston assembly until the other water plunger reaches its extreme position, when changes the incorporated reversal valve direction of hydraulic flow and, by that, the piston assembly is being set to counter direction. Vacuum is being developed into pumping fluid's intake line and positive pressure in delivery line accordingly. Within pumping cycle water (or other pumping fluid) is being taken by water plungers through intake valves and pumped through pressure valves into delivery line.

PERFORMANCE DIAGRAMS

Relation of pumping fluid's flow rate and pressure to corresponding parameters of hydraulic fluid is linear.



OSCILLOSCOPE PRESSURE GRAPHS OF HPW CONVERTER

Test conditions:

- * nominal pressure, WP
- * nominal water flow, Q
- * suction head 2 m
- * water temperature 60 °C
- * pressure response time 0,2 ms