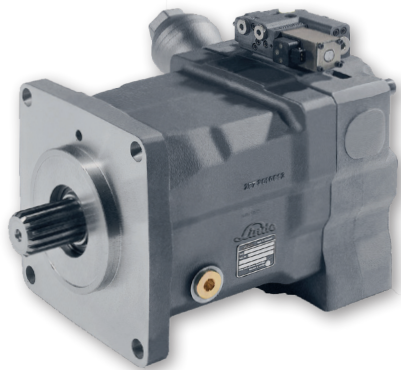


Open Circuit. Self-Regulating Pump. HPR-02.



Legal emission regulations force manufacturers of mobile machinery to optimize the noise emission of their products. Since secondary measures tend to be expensive and less efficient Linde Hydraulics prefers to fight the noise where it is generated: by optimally connecting an additional volume directly next to the commutation of the HPR-02 pump, Linde Hydraulics invented the SPU silencer. The adaptive SPU reduces pressure pulsations in the regulating pump over the entire range of operation – without loss of power.

Design characteristics

- Axial piston pump in swashplate design
- Exact controllers with and without position feedback
- Adaptive noise optimization SPU
- Hydrostatic plain bearing of the swashplate

Product advantages

- Excellent suction up to rated speed
- High power density
- Energy saving operation by 'flow on demand'-control

General technical data

| HPR-02 | | |
|--------------------------------|--|--------|
| Nominal size | | |
| Displacement | Max. displacement | cc/rev |
| Speed | Max. operating speed (without tank pressurization) | rpm |
| Volume flow | Max. volume flow* | l/min |
| Pressure | Nominal pressure | bar |
| | Max. pressure** | bar |
| | Max. housing pressure | bar |
| Torque | Torque | Nm |
| Corner power (theoretical) | | kW |
| Weight (approx.) (without oil) | | kg |

| 55 | 75 | 95 | 105 | 135 | 165 | 210 | 280 |
|-------|-------|-------|-------|-------|-------|-------|-------|
| 55 | 75.9 | 94.7 | 105 | 135.7 | 163.6 | 210.1 | 281.9 |
| 2700 | 2500 | 2500 | 2500 | 2350 | 2400 | 2100 | 2000 |
| 148.5 | 189.8 | 237.5 | 246.8 | 312.1 | 392.6 | 441.2 | 563.8 |
| 420 | 420 | 350 | 420 | 420 | 350 | 420 | 420 |
| 500 | 500 | 420 | 500 | 500 | 420 | 500 | 500 |
| 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 | 2.5 |
| 368 | 507 | 528 | 702 | 907 | 911 | 1404 | 1884 |
| 104 | 132.8 | 138 | 172.7 | 218.5 | 229 | 308.8 | 394.7 |
| 39 | 39 | 44.5 | 50 | 65 | 74 | 116 | 165 |

| 105 D | 125 D | 165 D |
|-------|-------|-------|
| 210 | 2x125 | 2x165 |
| 2450 | 2400 | 2100 |
| 514.5 | 600.0 | 695.5 |
| 420 | 350 | 420 |
| 500 | 420 | 500 |
| 2.5 | 2.5 | 2.5 |
| 1245 | 1393 | 1964 |
| 319.4 | 337 | 431.8 |
| 96 | 113 | 177 |



Customer interfaces

| | Control options**** | | | | | |
|----------------------|---------------------|---------------------------|----------------------------|--|--------------------------|---|
| | pressure cut-off | hydraulic APLS - override | electrical APLS - override | electric stroke limiter and pressure cut-off | hyperbolic power limiter | hyperbolic power limiter and pressure cut-off |
| Load sensing | ✓ | ✓ | ✓ | ✓ | ✓ | |
| Electro-proportional | | | | | | ✓ |

| Sensors | |
|-------------|--------------|
| Swash angle | Speed sensor |
| ✓ | |

| Shafts**** | | |
|---------------------------------------|-----------------------------------|----------|
| ISO 3019-1 (SAE) 7444 ANSI B92.1-1970 | Compagnon flange SAE J 1946 Typ A | DIN 5480 |
| ✓ | ✓ | ✓ |

* theoretical data of a single unit without efficiency effects | ** highest transient pressure, that can temporarily occur | **** Availability depends on nominal size



LEARN MORE
HPR-02

