

# Compact hydraulic power packs type HK, HKF, HKL

Because of the unique integrated fan configuration, the "ready for connection" hydraulic power packs are ideal for continuous operation. Another version for temperature sensitive applications features an auxiliary blower, thereby gaining improved cooling (approx. 25%).

This type is available for single circuit operation (radial piston or gear pump), dual circuit operation (radial piston and/or gear pump) or triple circuit operation (radial piston pump only). Both single and dual circuit pumps are also available as a horizontal version (type HKL).

Complete hydraulic control systems can be created by directly mounting various combinations of connection blocks and valve banks to the

hydraulic power pack. These hydraulic power packs are used for machine tools (lathes and milling machines), jigs or general machine applications, making a commonly used external radiator superfluous.



**Nomenclature:** Radial piston pump and/or gear pump with integrated motor (Version for 3-phase mains)

**Design:** Oil immersed compact hydraulic power pack for permanent and intermittent operation (S 1 / S 3 service)

**P<sub>max</sub>:** 700 bar (radial piston pump)  
150 bar (gear pump)

**Q<sub>max</sub>:** Radial piston pump approx. 13 lpm (high press.) (V<sub>g</sub> = 9.15 cm<sup>3</sup>/rev)  
Gear pump 16 lpm (low pressure) (V<sub>g</sub> = 11.0 cm<sup>3</sup>/rev)

**V<sub>usable max</sub>:** approx. 4.6 l

## Basic types and general parameters

Basic type

and size

Standard version

Parameters: Delivery flow Q<sub>pu</sub> (lpm), approximate reference

value and max. pressure P<sub>max</sub> (bar) with S 6 operation <sup>1)</sup>

Radial piston pump

Gear pump

Single circuit pump:

HK 24	Q <sub>max</sub>	H 0,46	H 0,7	H 1,08	H 1,77			
	P <sub>max</sub>	700	550	400	200			
HK 33	Q <sub>max</sub>	H 1,25	H 2,5	H 3,6	H 6,5	Z 2,7	Z 4,5	Z 6,9
	P <sub>max</sub>	380	185	130	70	150	100	70
HK 34	Q <sub>max</sub>	H 1,25	H 2,5	H 3,6	H 6,5	Z 2,7	Z 4,5	Z 6,9
	P <sub>max</sub>	700	400	270	150	150	100	70
HK 43, HKF 43	Q <sub>max</sub>	H 2,08	H 2,6	H 7,0	H 13,1	Z 4,5	Z 11,3	Z 16
	P <sub>max</sub>	580	450	170	90	170	110	70
HK 44, HKF 44	Q <sub>max</sub>	H 2,08	H 2,6	H 7,0	H 13,1	Z 4,5	Z 11,3	Z 16
	P <sub>max</sub>	700	550	215	130	170	130	90

Dual circuit pump:

HK 44, HKF 44	Q <sub>max</sub>	H 0,9	H 1,5	H 3,6	H 6,5	Z 2,7	Z 4,5	Z 16
HKF 48	P <sub>max</sub>	700	550	350	160	150	150	90

Triple circuit pump:

HK 44, HKF 44	Q <sub>max</sub>	H 0,83	H 1,6	H 2,4	H 4,4			
HKF 48	P <sub>max</sub>	700	450	350	130			

Horizontal version:

HKL 34, HKLW 34	Q <sub>max</sub>	H 1,65	H 3,35	H 4,80	H 8,70	Z 2,7	Z 4,5	Z 11,3
HKL 32, HKLW 32	P <sub>max</sub>	700	560	390	220	170	170	130

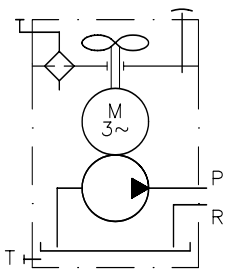
HKL 38

<sup>1)</sup> The parameter listed here represent only a choice from a variety of possibilities.

**Symbols**

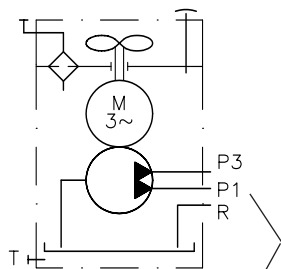
**Single stage pump**

(radial piston pump, gear pump)

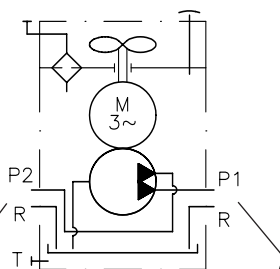


**Dual stage pump**

(radial piston/radial piston pump, gear pump/gear pump, radial piston pump/gear pump)



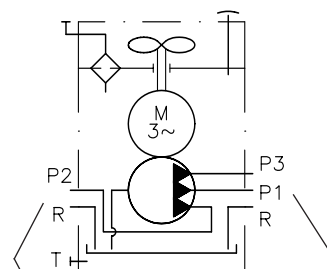
Joint pump pedestal



Separate pump pedestals

**Triple circuit pump**

(only radial piston pump)



Separate pump pedestals

**Additional parameter**

Basic type and size	Rev. rating $n_N$ (rpm)	$P_N$ (kW) <sup>2)</sup>	$V_{usable\ max}$ (l)	Nom. voltage
HK 24	1400	0.55	0.85	3 ~ 230/400V $\Delta$ Y 50 Hz <sup>3)</sup>
HK 33, HK 338	1410	0.8	1.45/2.9	3 ~ 500V Y 50 Hz
HKL(W) 32(9), HKL(W) 328(9) <sup>4)</sup>	2840	1.8	1.7/2.6 (8.2/9.1)	
HKL(W) 34(9), HKL(W) 348(9) <sup>4)</sup>	1410	1.8	1.7/2.6 (8.2/9.1)	
HK 34, HK 348	1400	1.1	1.45/2.9	
HK 36, HK 368	2750	2.2	1.45/2.9	
HK(F) 43, (438, 435, 439)	1425	1.5	2.4/4.6/1.8/5.5	
HK(F) 44, (448, 445, 449)	1410	2.2	2.4/4.6/1.8/5.5	
HK(F) 485, (489)	1460	3	1.8/5.5	
HKL 38(9), HKL 388(9)	1450	2.2	1.7/2.6 (8.2/9.1)	

<sup>2)</sup> The actual power input is depends on the respective operation pressure and can be up to  $1.5 \times P_N$   
<sup>3)</sup> Also suitable for mains  
 3 ~ 265/460V  $\Delta$ Y 60 Hz  
<sup>4)</sup> The motors of the single phase version (type HKLW) are available for 1 ~ 230V / 50 Hz and 1 ~ 115V / 60 Hz

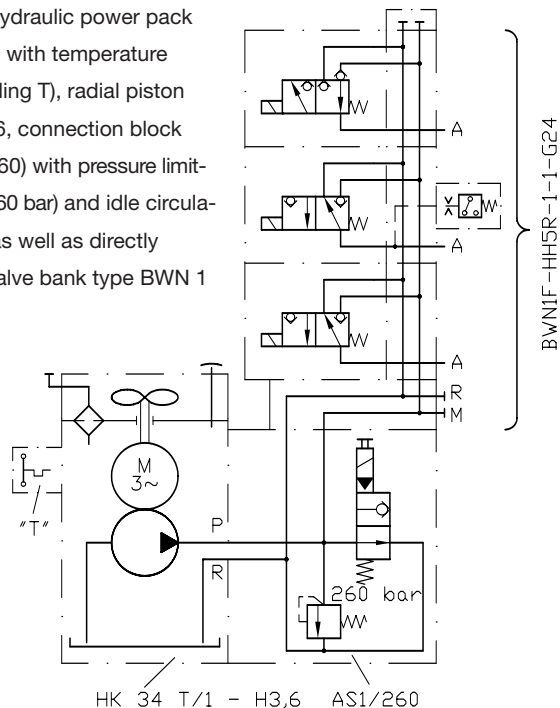
**Additional versions**

- Temperature and fluid level switches
- Version with plug Co. HARTING
- Version with additional leakage port (type HK 4.L)
- Version with moulded motor
- Various oil filler neck designs
- Completion with connection block and valve banks (see also "Additional information")

**Order examples**

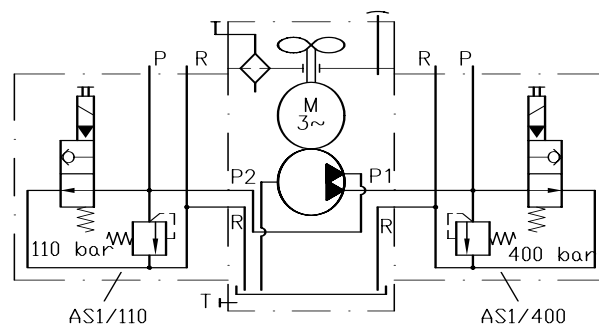
**HK 34 T/1 - H 3,6 - AS1/260 - BWN1F - H H5 R - 1 - 1 - G24**

Compact hydraulic power pack type HK 34 with temperature switch (coding T), radial piston pump H 3,6, connection block (type A 1/260) with pressure limiting valve (260 bar) and idle circulation valve as well as directly mounted valve bank type BWN 1



**HK 44 /1 - H 2,5 - Z 6,9 - AS1/400 - AS1/110 - G24**

Compact hydraulic power pack type HK 44 with radial piston pump H 2,5 and gear pump Z 6,9, pressure outlet on separate pump pedestals, two connection blocks (type AS1/..) with pressure limiting valve (400 bar and 110 bar) and idle circulation valve (direct connection of valve banks possible)

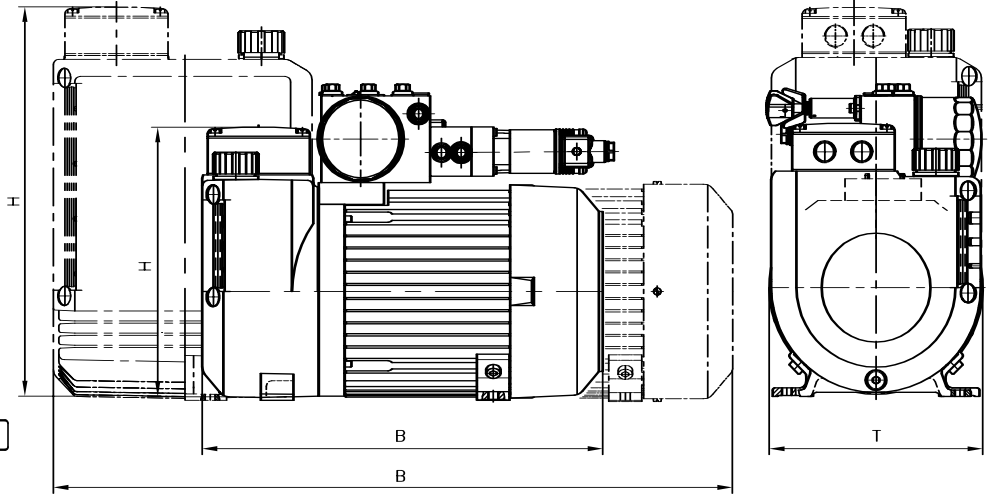
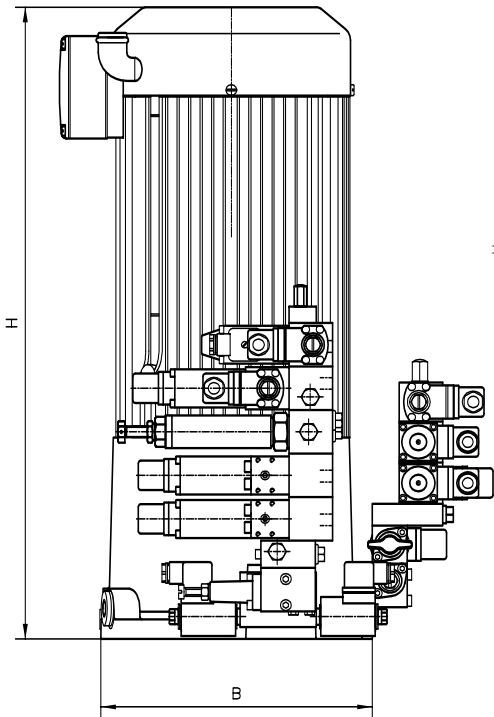


**Dimensions**

**Type HK..**

(illustrated version acc. to the example circuit on next page)

**Type HKL..**



Basic type	H <sub>max</sub>	B	T	m (kg)
HK 24	340	196	196	13
HK 33, HK 34	405	212	212	20.5
HK 3.8	495	212	212	22.2
HKL(W) 32, HKL(W) 34	251	368	196	19.2
HKL(W) 3.8	251	486	196	20.5
HKL(W) 3.9	358	503	196	22
HKL(W) 3.89	358	621	196	23.3
HK(F) 43, HK(F) 44	460	240	240	29
HK(F) 4.8	580	240	240	34
HK(F) 4.9	630	240	240	36
HK(F) 4.5	513	240	240	30

All dimensions in mm, subject to change without notice!

**Additional information**

- Compact-hydraulic power packs type HK(F) 43 (44) D 7600-4  
 type HK 33 (34) D 7600-3  
 type HK 24 D 7600-2  
 type HKL(W) D 7600-3L
- Connection blocks type A D 6905 A/1  
 type B D 6905 B  
 type C D 6905 C
- Directly mountable valve banks type VB D 7302  
 type BWH(N) D 7470 B/1  
 type BVZP 1 D 7785 B  
 type SWR, SWS D 7450, D 7451, D 7951  
 type BA D 7788

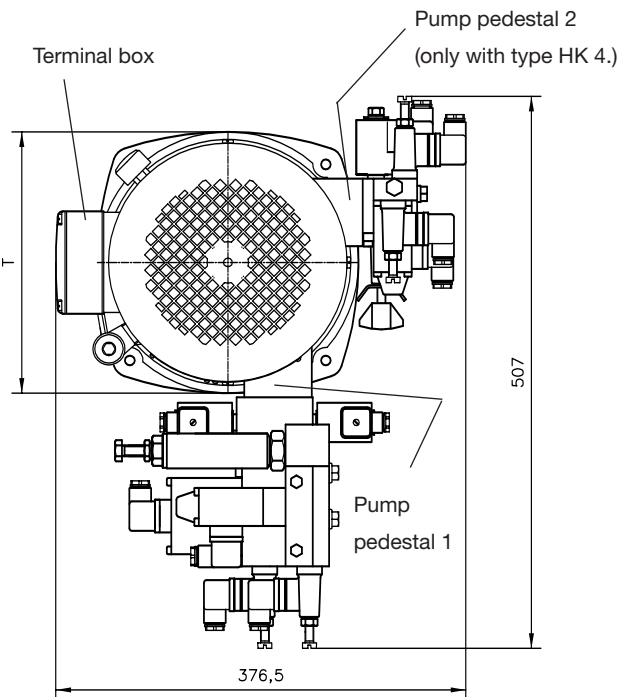
• see also "Turn-key solutions from our modular system"

• see also section "Devices for special applications"

(Hydraulics for clamping, Devices for up to 700 bar)

For section and page of the additionally listed devices,

see type index

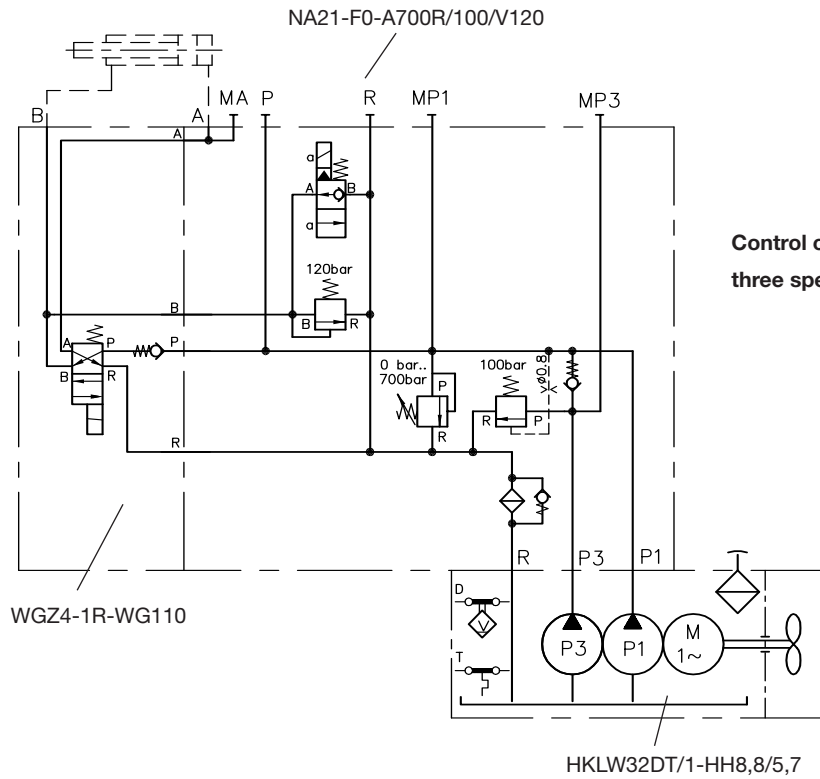


**Circuit example**

**HKLW 32 DT/1 - HZ0,57/2,0**

- NA21F0-A700R/100/V120-WGZ4-1R-WG110

Motor voltage 1 ~ 110V 60 Hz



**HK 448/1 - HH1,0/2,8 - H4,4 -**

- SS - A1/250 - BVZP1F - G22/0

- D22/0

- CZ2/180/5R

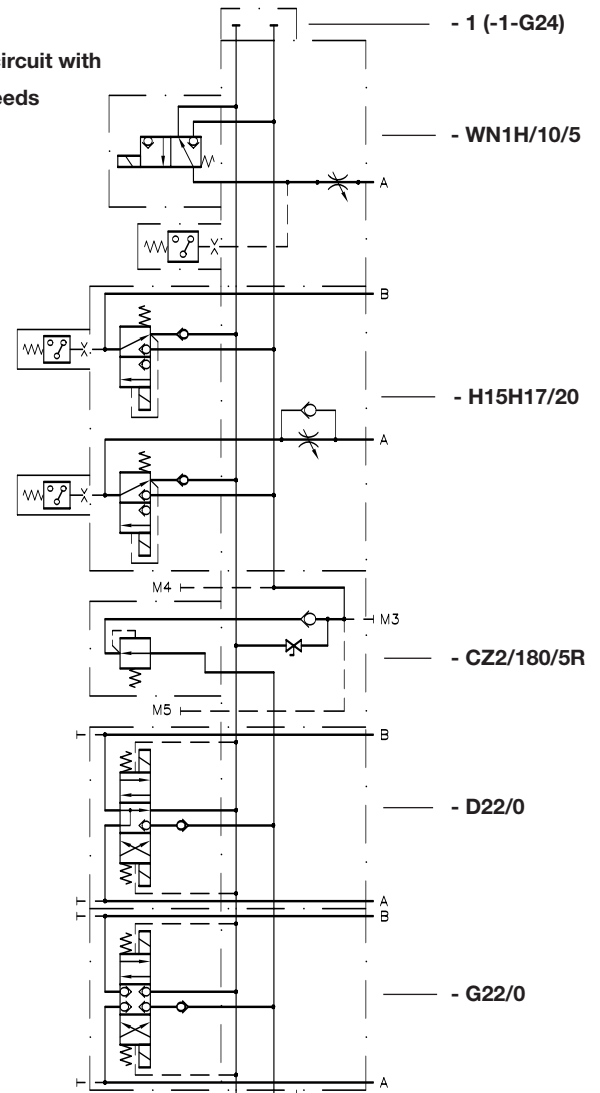
- H15H17/20

- WN1H/10/5 - 1 - 1

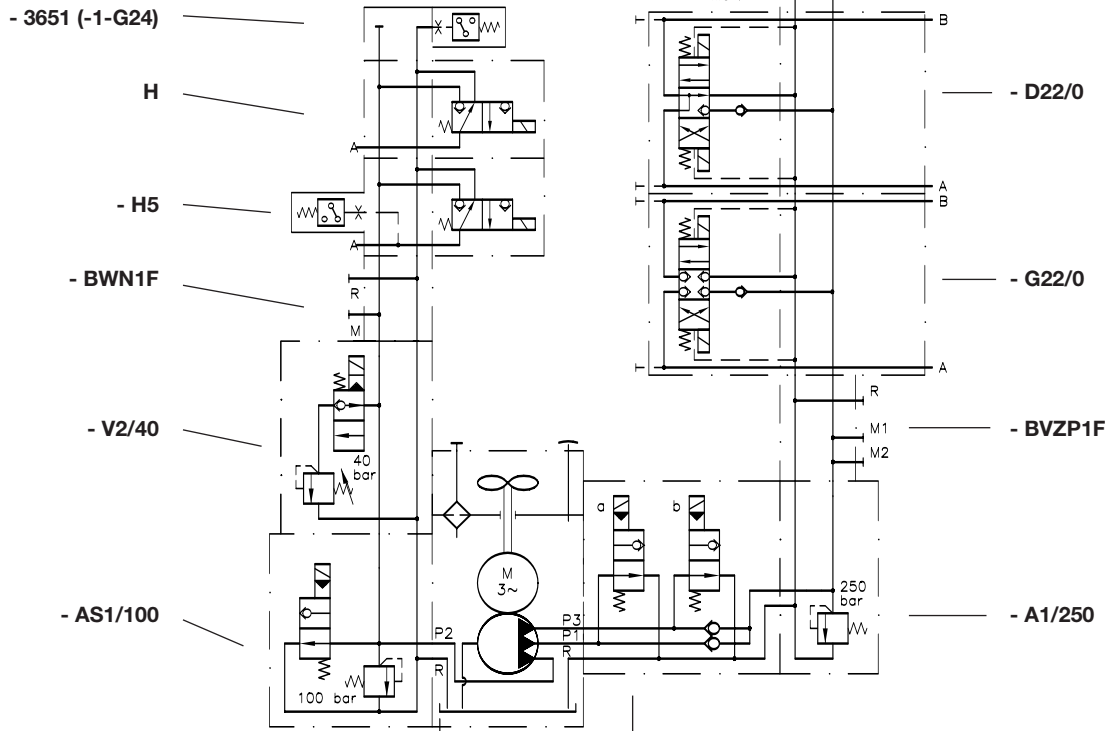
- AS1/100 - V2/40 - BWN1F - H5H - 3651 - 1 - G24

Motor voltage 3 ~ 400/230V 50 Hz  $\nabla$   $\Delta$

**Control circuit with three speeds**



**Control circuit with two pressure ratings**



**HK448/1 - HH1,0/2,8 - H4,4 - SS**