

Hydraulic power packs type MP and MPN

These compact power packs are intended, for intermittent or load/no load operation at stationary applications. Two pumps can be installed so that dual stage drives e.g. for presses or dual circuit systems can be easily accomplished. Tank size and drive power can be selected according to the system requirement. Compact hydraulic controls can be created by direct mounting of connection blocks and valve banks.

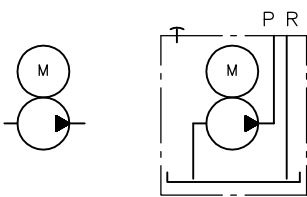
Nomenclature:	Radial piston and/or gear pump with integrated motor single or dual circuit pump
Design:	Oil immersed hydraulic power pack for intermittent or load/no load operation (S2-/S3-/S6-service)
P_{max}:	Radial piston pump 700 bar (high pressure) Gear pump 220 bar (low pressure)
Q_{max}:	13.1 lpm (high pressure) ($V_g = 10.7 \text{ cm}^3/\text{rev}$) 135 lpm (low pressure) ($V_g = 60 \text{ cm}^3/\text{rev}$)
$V_{tank max}$:	approx. 100 lpm



Symbols

Single stage pump

(radial piston pump, gear pump)

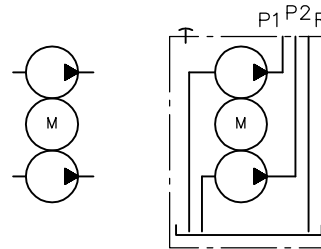


Installation pump

Hydraulic power pack (incl. tank)

Dual stage pump

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



Installation pump

Hydraulic power pack (incl. tank)

Basic types and general parameters (selection)

Basic type and size	Coding	Parameter: Delivery flow Q_{pu} (lpm) approximate reference value and max. pressure p_{max} (bar) ¹⁾								
		Radial piston pump					Gear pump			
MP 14		H 0,27	H 0,42	H 0,64	H 0,81	H 1,1	Z 0,5	Z 1,8	Z 3,5	Z 6,9
	Q_{max}	0.27	0.42	0.64	0.82	1.07	0.5	1.85	3.5	6.9
	p_{max}	700	570	370	280	220	150	75	40	15
MP 12		H 0,27	H 0,42	H 0,64	H 0,81	H 1,1	Z 1,0	Z 1,8	Z 2,7	Z 3,5
	Q_{max}	0.53	0.82	1.18	1.61	2.1	2.0	3.7	5.4	6.9
	p_{max}	700	650	420	320	250	150	110	75	60
MP 24		H 0,46	H 0,70	H 1,08	H 1,39	H 1,77	Z 2,0	Z 3,5	Z 5,2	Z 12,3
	Q_{max}	0.46	0.7	1.0	1.37	1.73	2.0	3.5	5.2	12.3
	p_{max}	700	650	520	400	310	150	120	80	35
MP 22		H 0,46	H 0,70	H 1,08	H 1,39	H 1,77	Z 2,0	Z 5,2	Z 9	Z 21
	Q_{max}	0.88	1.37	1.94	2.69	3.51	4	10.2	17.1	41.3
	p_{max}	700	650	430	320	260	150	75	45	18
MPN 42		H 1,25	H 1,5	H 1,8	H 2,5	H 3,8	Z 4,5	Z 6,5	Z 9,0	Z 16
	Q_{max}	2.39	3.13	3.52	4.89	7.33	8.46	12.28	16.38	30.02
	p_{max}	700	590	525	380	250	200	150	110	60
MPN 44		H 1,5	H 2,5	H 2,4	H 5,0	H 5,6	Z 6,9	Z 12,3	Z 16	Z 28
	Q_{max}	1.53	2.39	2.39	4.77	5.37	5.37	11.33	14.66	25.99
	p_{max}	700	560	390	320	250	200	135	100	55
MPN 46		H 1,5	H 2,45	H 3,6	H 4,3	H 5,6	Z 6,5	Z 12,3	Z 21	Z 37
	Q_{max}	3.16	4.94	7.11	8.35	11.12	12.41	23.45	40.00	71.73
	p_{max}	700	560	390	330	250	200	120	70	40
MPN 48		H 2,45	H 2,5	H 2,5	H 4,3	H 4,3	Z 4,5	Z 16	Z 24	Z 37
	Q_{max}	2.36	2.40	2.40	4.06	4.06	4.16	14.77	22.82	34.91
	p_{max}	700	560	490	330	330	220	150	95	60
MPN 404		H 3,2	H 5,0	H 2,5	H 3,6	H 3,6	Z 2,7	Z 28	Z 45	Z 75
	Q_{max}	3.10	4.84	4.84	3.49	3.49	2.70	26.37	40.84	68.16
	p_{max}	700	560	490	340	340	220	110	70	45

Additional parameter

Basic type and size	Rev. rating	P_N (kW) ²⁾	$V_{usable\ max}$ (l) ³⁾	Nom. voltage
	n_N (rpm)			
MP 14 A	1320	0.25	6,5	3 ~ 230/400V Δ Y 50 Hz ⁴⁾
MP 12 A	2810	0.37	6,5	3 ~ 500V Y 50 Hz
MP 24 A	1390	0.75	13	1 ~ 230V 50 Hz (type MPW, MPNW)
MP 22 A	2830	0.55	13	1 ~ 110V 60 Hz (type MPW, MPNW)
MPN 42	2715	2.1	55	
MPN 44	1360	2.1	55	
MPN 46	2815	3.0	75	
MPN 48	1370	3.0	75	
MPN 404	1380	4.2	75	

1) The parameter listed here represent only a choice from a variety of possibilities.

2) The actual power input is dependent on the respective operation pressure and can be up to $1.5 \times P_N$

3) Various tank sizes available

4) Also suitable for mains 3 ~ 265/460V Δ Y 60 Hz

Additional versions

- Type MPW hydraulic power pack with 1-phase-motor (e.g. 1 ~ 230V 50 Hz), 30 ... 50% reduced performance depending on size (type MPW, MPNW)
- Temperature switch
- Fluid level gauge
- Float switch
- Completion with connection blocks and valve banks (see also "Additional information")
- Cover plate version for customer furnished tank
- Version with internal gear pump
- Version connected via plug (Co. HARTING)

Order examples

MP 24 - H 0,46

Installation pump type MP 24 with radial piston pump $Q_{pu} = 0.46$ lpm at 1390 rpm; $p_{max} = 700$ bar (motor and pump, retrofitting of with tank and valves by the customer)

MPN 44 - H 1,5 Z 12,3-B 10-20-NE 21 - 500/30 - VB 21 GM - RH - 3 -G 24

Dual stage pump type MP 44 with radial piston and gear pump $Q_{pu} = 1.5/12.3$ lpm at 1450 rpm; $p_{perm\ max} = 520/30$ bar, tank B 10 (V_{usable} approx. 9 l), two stage valve type NE 21 (high pressure 500 bar, low pressure 30 bar) with directly mounted valve bank type VB 21

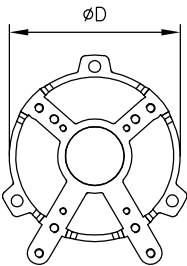
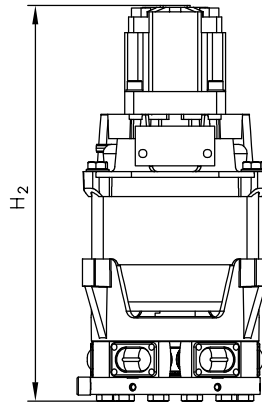
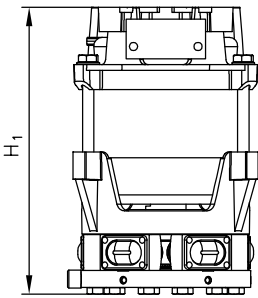
Dimensions

Single stage pump

(see order example, without tank and valves)

Dual stage pump

(see order example, without tank and valves)



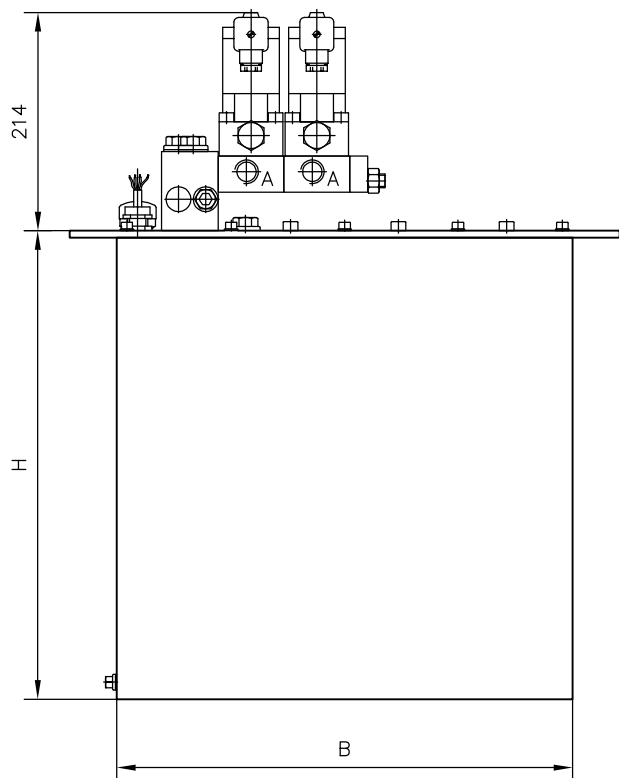
All dimensions in mm, subject to change without notice!

⁵⁾ Figures apply to both radial piston pump and gear pump

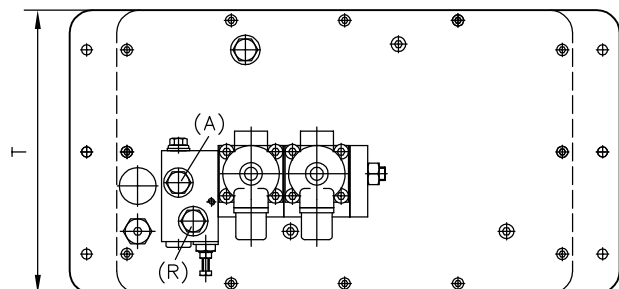
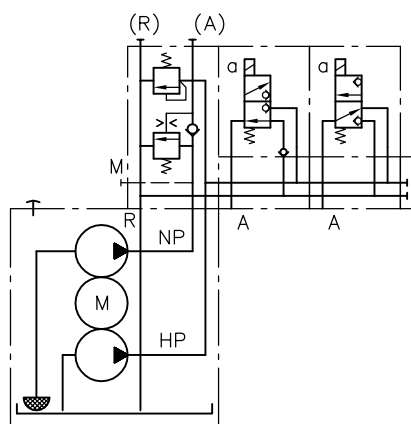
Basic type	H1 ⁵⁾	H2 _{max}	ØD	m _{max} (kg) ⁵⁾
MP 14, MP 12	183 / 228	249	124	5.2 / 5.0
MP 24, MP 22	195 / 291	322.5	140	9.1 / 7.7
MPN 42, MPN 44	251 / 258	431	165	12.9
MPN 46, MPN 48	274 / 281	454	165	18.5
MPN 404	298 / 313	486	165	26.4

Compact hydraulic power pack

(see order example, for tank with directly mounted valves)



Symbol



Size	Tank size	H	B	T
MP 1.	B 3	225	216	136
MP 1., MP 2.	B 5	265	258	160
MP 2., MPN 4.	B 10	358	324	200
MPN 4.	B 25	458	402	250
MPN 4.	B 55	470	560	350
MPN 4.	B 110	495	560	350

All dimensions in mm, subject to change without notice !

Additional information

- Hydraulic power packs type MP, MPW D 7200, D 7200 H
type MPN, MPNW D 7207
- Connection blocks type A D 6905 A/1
type B D 6905 B
type C D 6905 C
- Directly mountable valves
Two stage valve type NE D 7161

- Directly mountable valve banks
type VB D 7302
type BWH(N) D 7470 B/1
type BVZP D 7785 B
type SWR, SWS D 7450, D 7451, D 7951
type BA D 7788
type BVH D 7788 BV

- see also "Turn-key solutions from our modular system"
- see also section "Devices for special applications"
(Hydraulics for clamping, Press controls, Devices for up to 700 bar)

For section and page of the additionally listed devices, see type index