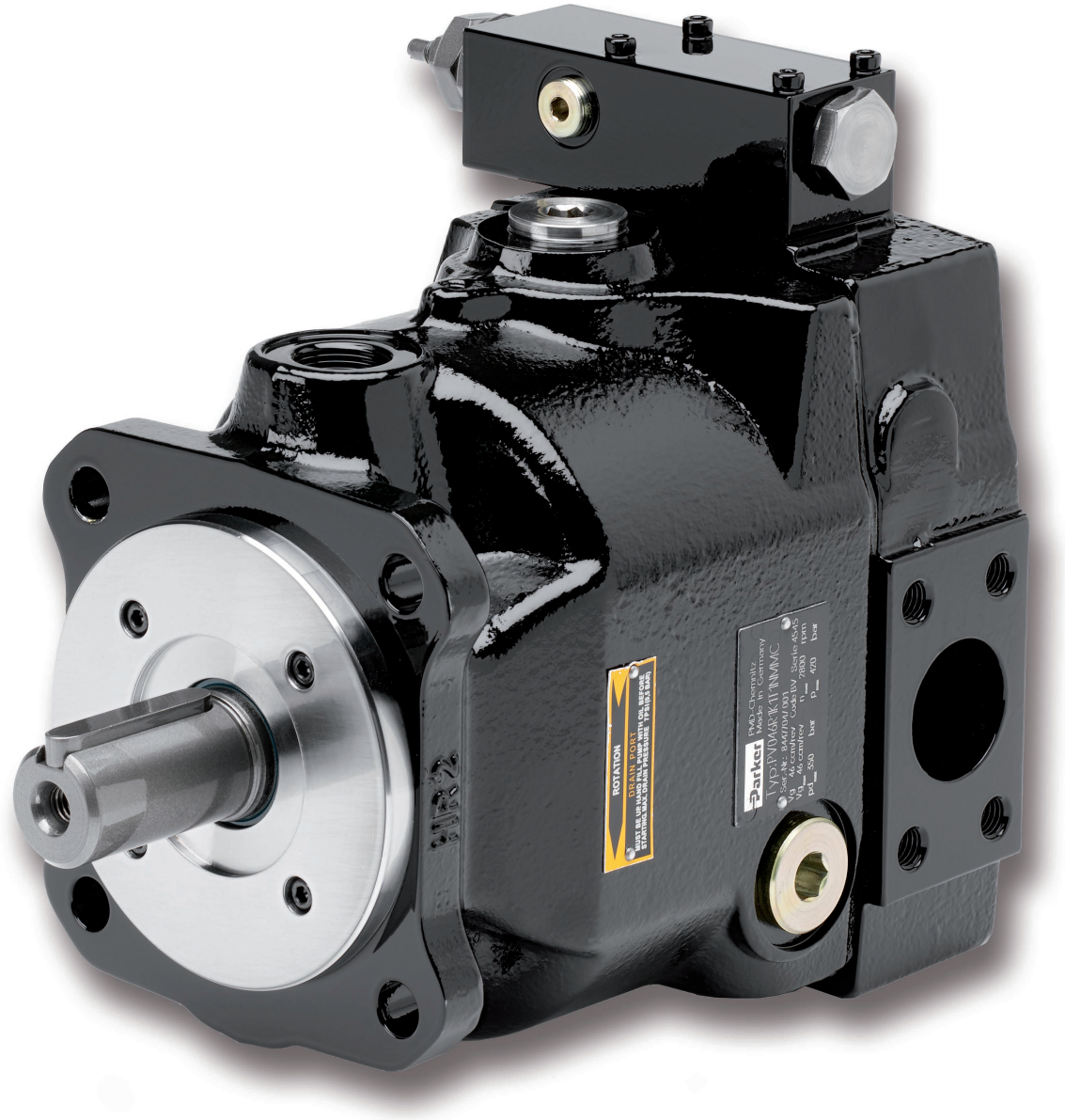

Axial Piston Pumps

Series PVplus
Variable Displacement

parker.com/pmde

Parker

ENGINEERING YOUR SUCCESS.

		PV016	PV020	PV023	PV028	PV032	PV040	PV046
Frame size		1	1	1	1	2	2	2
Max. Displacement	[cm^3/rev.]	16	20	23	28	32	40	46
Output flow at 1500 rpm	[l/min]	24	30	34,5	42	48	60	69
Nominal pressure pN	[bar]	350	350	350	350	350	350	350
Min. outlet pressure	[bar]	15	15	15	15	15	15	15
Max. pressure pmax at 20% working cycle[1)]	[bar]	420	420	420	420	420	420	420
Case drain pressure, continuous	[bar]	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Case drain pressure, max. peak	[bar]	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Min. Inlet pressure, abs.	[bar]	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Max. Inlet pressure	[bar]	16	16	16	16	16	16	16
Input power at 1500 rpm and 350 bar	[kW]	15.5	19.5	22.5	27.5	31	39	45
Max speed at 1 bar, abs, inlet pressure	[rpm]	3000	3000	3000	3000	2800	2800	2800
Min. speed	[rpm]	50	50	50	50	50	50	50
Moment of inertia	[kgm^2]	0.0017	0.0017	0.0017	0.0017	0.0043	0.0043	0.0043
Weight	[kg]	19	19	19	19	30	30	30

		PV063	PV080	PV092	PV140	PV180	PV270	PV360
Frame size		3	3	3	4	4	5	6
Max. Displacement	[cm^3/rev.]	63	80	92	140	180	270	360
Output flow at 1500 rpm	[l/min]	94.5	120	138	210	270	405	540
Nominal pressure pN	[bar]	350	350	350	350	350	350	350
Min. outlet pressure	[bar]	15	15	15	15	15	15	15
Max. pressure pmax at 20% working cycle[1)]	[bar]	420	420	420	420	420	420	420
Case drain pressure, continuous	[bar]	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Case drain pressure, max. peak	[bar]	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Min. Inlet pressure, abs.	[bar]	0.8	0.8	0.8	0.8	0.8	0.8	0.8
Max. Inlet pressure	[bar]	16	16	16	16	16	16	16
Input power at 1500 rpm and 350 bar	[kW]	61.5	78	89.5	136	175	263	350
Max speed at 1 bar, abs, inlet pressure	[rpm]	2800	2500	2300	2400	2200	1800	1750
Min. speed	[rpm]	50	50	50	50	50	50	50
Moment of inertia	[kgm^2]	0.018	0.018	0.018	0.030	0.030	0.098	0.103
Weight	[kg]	59	59	59	90	90	172	180

1) Check adjustment range each compensator.

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Pump & Motor Division Europe
Chemnitz, Germany

P	V				R	1	K	1	T	1	N			

axial piston pump variable displacement

size and displacement

rotation

variation

mounting interface

threads code

through drive code

coupling code

seals

compensator

see next page

Code	Displacement	Size
063	**63 cm³/rev**	**3**
080	**80 cm³/rev**	**3**
092	**92 cm³/rev**	**3**

Code	Seals	Shaft seal
N	**NBR**	**FKM**
V	FKM	FKM
W	NBR	PTFE

Code	Rotation [1]
R	**Clockwise**
L	Counter clockwise

[1] When looked on shaft

Code	Variation
1	**Standard**
2	Electronic displacement sensor [2]
9	Special adjustment [3]

[2] not for horse power control
[3] requires Kxxxx number

Code	Coupling for through drive	as single part [8]
1	**Single pump, no coupling**	
H	with coupling 25 x 1.5 x 15, DIN 5480	MK-PVBG3K01
J	with coupling 32 x 1.5 x 20, DIN 5480	MK-PVBG3K02
K	with coupling 40 x 1.5 x 25, DIN 5480	MK-PVBG3K03
Y	with coupling SAE A 9T-16/32 DP	MK-PVBG3K11
A	with coupling SAE - 11T-16/32 DP	MK-PVBG3K12
B	with coupling SAE B 13T-16/32 DP	MK-PVBG3K13
C	with coupling SAE B-B 15T-16/32 DP	MK-PVBG3K14
D	with coupling SAE C 14T-12/24 DP	MK-PVBG3K15
E	with coupling SAE C-C 17T-12/24 DP	MK-PVBG3K16
F	with coupling SAE D, E 13T-8/16 DP	MK-PVBG3K17

Code	Mounting interface		Shaft
K	**metr. ISO 3019/2**	**4-hole flange Ø160 mm**	**Cylindric, key**
L		**4-hole flange Ø160 mm**	**Splined, DIN 5480**
D	SAE ISO 3019/1	4-hole flange SAE D	Cylindric, key
E		4-hole flange SAE D	Splined, SAE

Code	Through drive option	
	No adaptor for 2nd pump	
T	**Single pump prepared for through drive**	
	with adaptor for 2nd pump	as single part [8]
A	SAE A, Ø 82.55 mm	MK-PVBG3Axx
B	SAE B, Ø 101.6 mm	MK-PVBG3Bxx
C	SAE C, Ø 127 mm	MK-PVBG3Cxx
D	SAE D, Ø 152.4 mm	MK-PVBG3Dxx
H	metric, Ø 80 mm	MK-PVBG3Hxx
J	metric, Ø 100 mm	MK-PVBG3Jxx
K	metric, Ø 125 mm	MK-PVBG3Kxx
L	metric, Ø 160 mm	MK-PVBG3Lxx

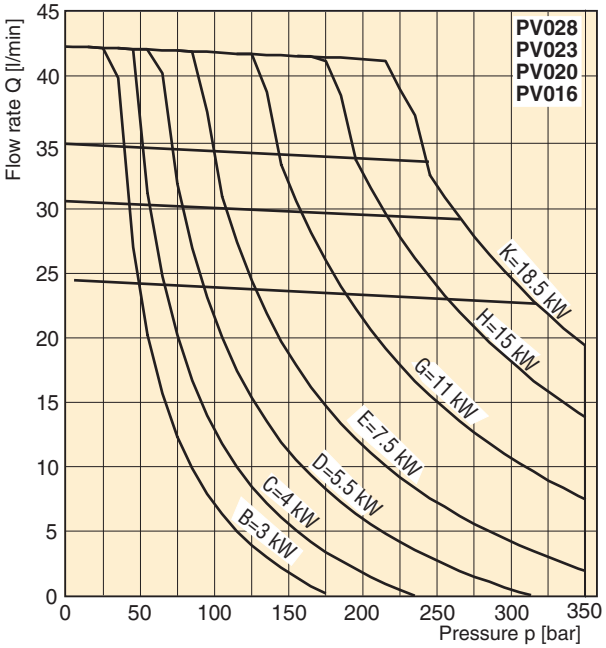
See dimensions for details
[8] to be ordered separately as single part
see page 63

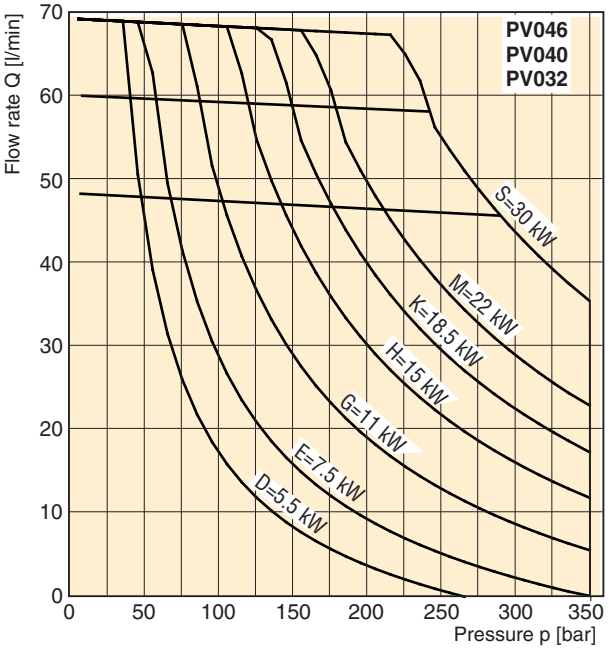
Code	Port[4]	Threads[5]
1	**BSPP**	**metric**
3	UNF	UNC
4 [6]	BSPP	metr. M14
8 [7]	ISO 6149	metric

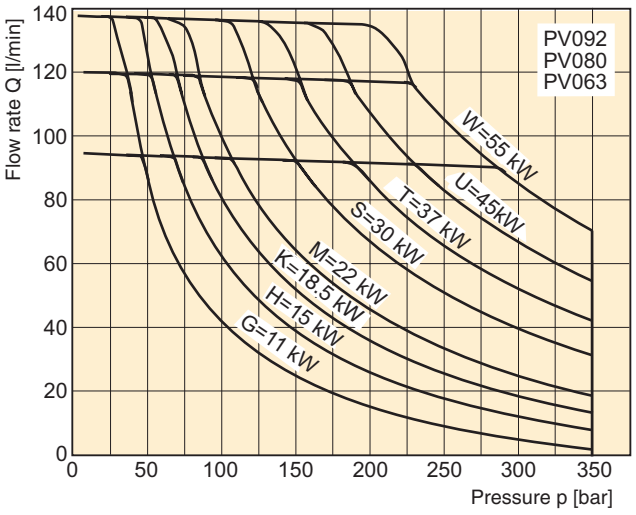
[4] Drain, gage and flushing ports
[5] All mounting and connecting threads
[6] For PV063-PV092 only: pressure port 1 1/4" with 4 x M14 instead of 4 x M12
[7] for mounting interface K and L only

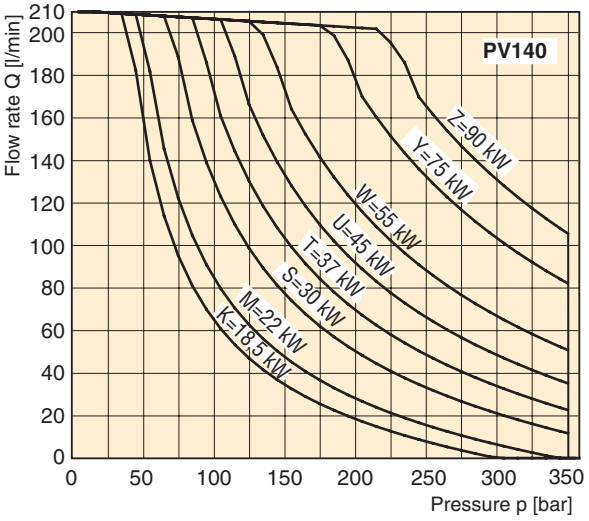
Standard pump is not painted. Black painted pump and ATEX (excludes electronic components) certification (Zone 2) is available as special option. For additional informations please contact Parker Hannifin.

Typical Horse Power/Torque Control Characteristics



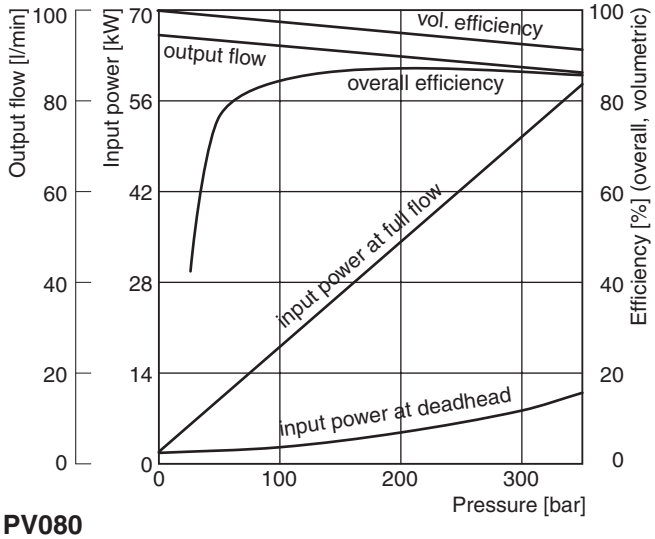




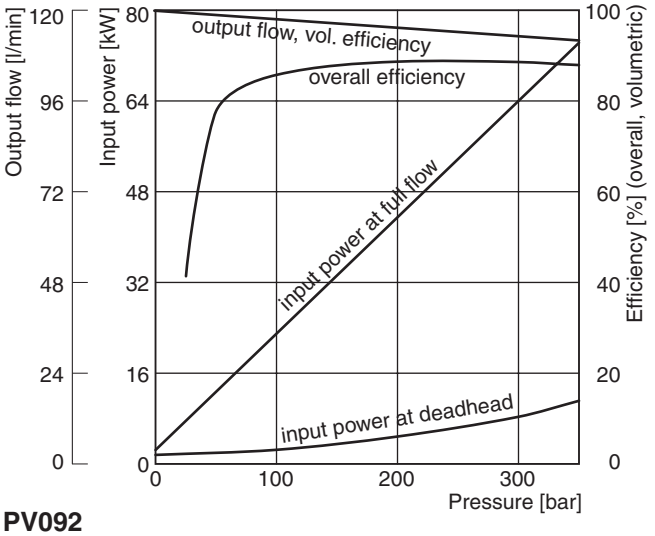


Efficiency, power consumption

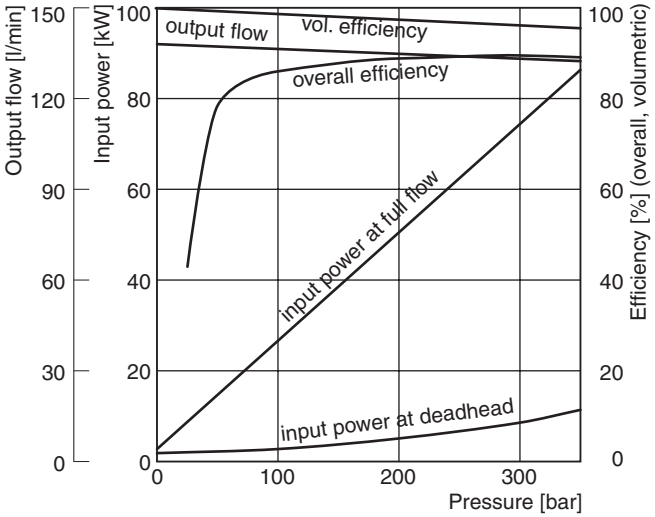
PV063



PV080



PV092



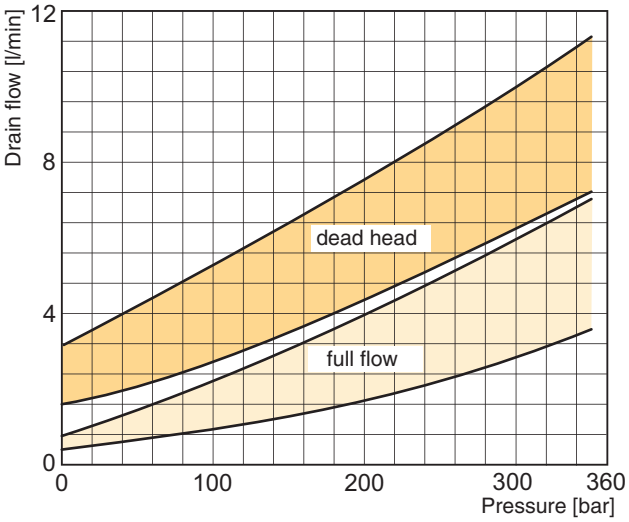
Efficiency and case drain flows PV063, PV080, PV092

The efficiency and power graphs are measured at an input speed of n = 1500 rpm, a temperature of 50 °C and a fluid viscosity of 30 mm^2/s.

Case drain flow and compensator control flow leave via the drain port of the pump. To the values shown are to be added 1 to 1.2 l/min, if at pilot operated compensators the control flow of the pressure pilot valve also goes through the pump.

Please note: The values shown below are only valid for static operation. Under dynamic conditions and at rapid compensation of the pump the volume displaced by the servo piston also leaves the case drain port. This dynamic control flow can reach up to 80 l/min! Therefore the case drain line is to lead to the reservoir at full size and without restrictions as short and direct as possible.

Case drain flows PV063-092



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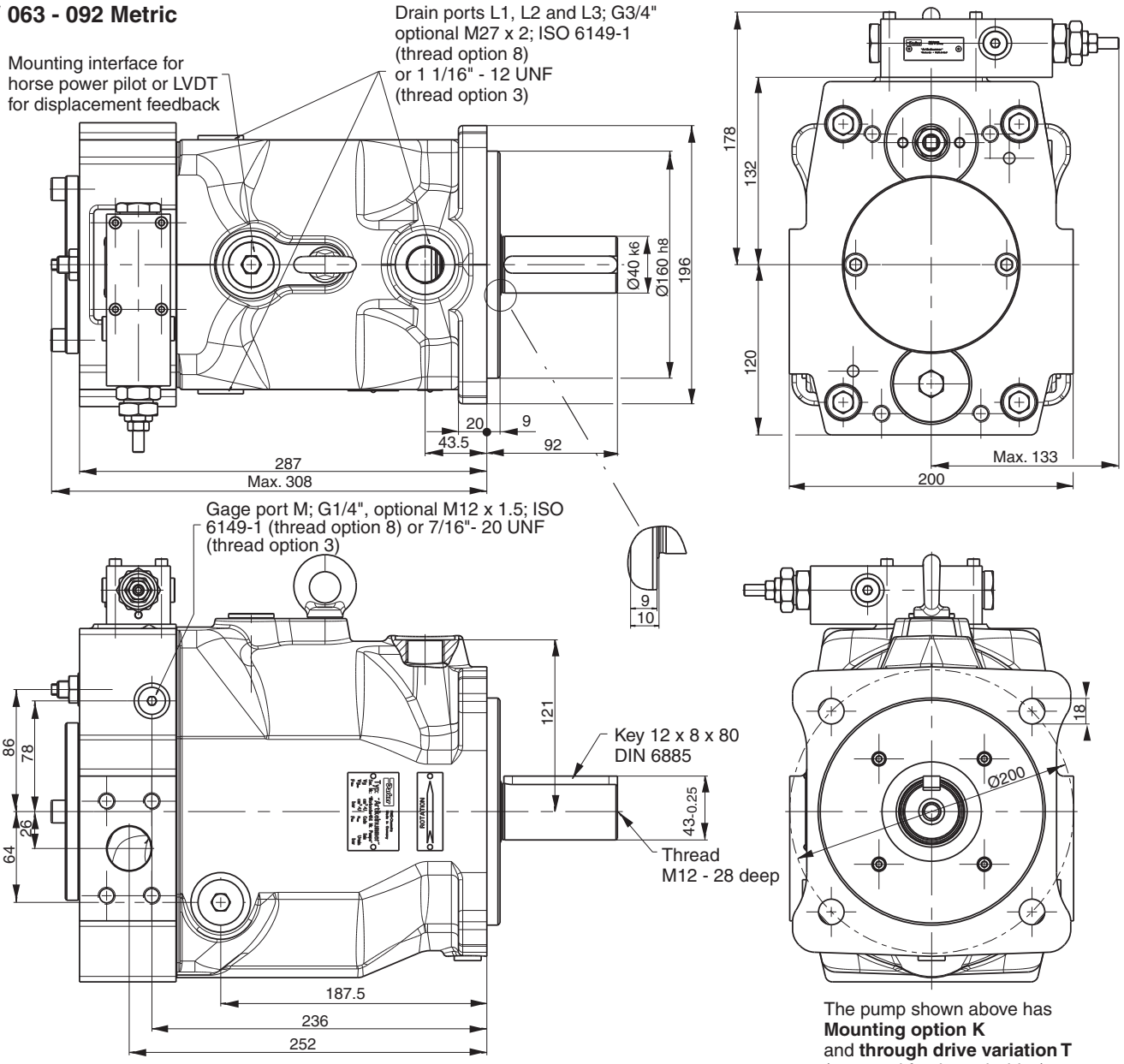
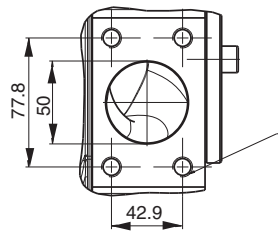
PV 063 - 092 Metric

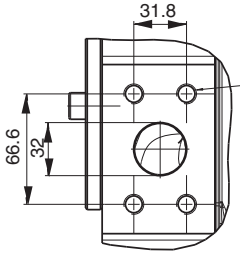


The pump shown above has
Mounting option K
and **through drive variation T**
(prepared for through drive)



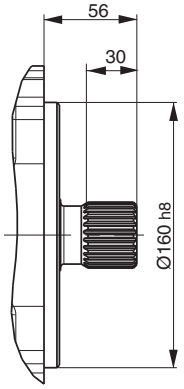
INLET for metric and SAE version:
flange according ISO 6162
DN 51; PN 200 bar

4 x M12, 20 deep
optional 1/2" - 13 UNC - 2B
(thread options 3)



4 x M12, 20 deep
optional 1/2" - 13 UNC - 2B
(thread options 3)
or thread options 4:
4 x M14, 20 deep

OUTLET for metric and SAE version:
flange according ISO 6162
DN 32; PN 400 bar



Mounting option L, splined shaft
W40 x 1.5 x 25 x 8f DIN 5480

Shown is a clockwise rotating pump with standard pressure compensator.
Counter clockwise rotating pumps have inlet, outlet and gage port reversed.

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Chemnitz, Germany

Mounting kits for multiple pumps, for second pump option

MK – PV BG ☐ ☐ ☐ ☐

Mounting kit; Axial piston pump series PV; Size; Second pump; Thread; Seals

Code	Pump size
1	Pump size 1: PV016 - PV028
2	Pump size 2: PV032 - PV046
3	Pump size 3: PV063 - PV092
4	Pump size 4: PV140 - PV180
5	Pump size 5: PV270 - PV360

Code	Second pump, SAE
T	Prepared for thru drive option (plugged)
Y	SAE AA, diameter 50.8 mm (only Size1)
A	SAE A, diameter 82.55 mm
B	SAE B, diameter 101.6 mm
C	SAE C, diameter 127 mm
D	SAE D, diameter 152.4 mm
E	SAE E, diameter 165.1 mm
	Second pump, metric
H	Diameter 80 mm
J	Diameter 100 mm
K	Diameter 125 mm
L	Diameter 160 mm
M	Diameter 200 mm

Code	Seals
N	NBR
V	FPM

Code	Thread
M	Metric
S	SAE

Kit contains positions 30, 69, 84, 85 and 87, see spare part list

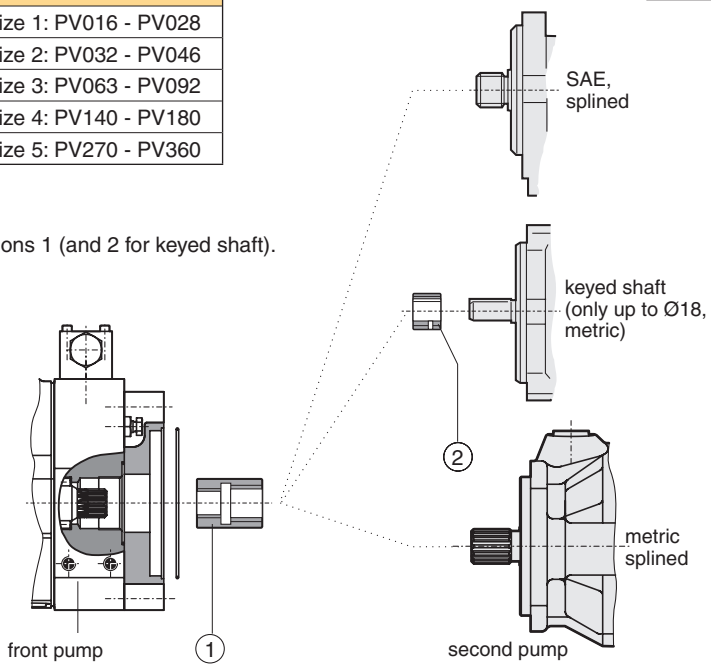
Mounting kits for multiple pumps, couplings

MK – PV BG ☐ K ☐

Mounting kit; Axial piston pump series PV; Size; Coupling

Code	Pump size
1	Pump size 1: PV016 - PV028
2	Pump size 2: PV032 - PV046
3	Pump size 3: PV063 - PV092
4	Pump size 4: PV140 - PV180
5	Pump size 5: PV270 - PV360

Kit contains positions 1 (and 2 for keyed shaft).



Code	Coupling for metric, splined shaft DIN 5480
01	N25 x 1.5 x 15
02	N32 x 1.5 x 20
03	N40 x 1.5 x 25
04	N50 x 2 x 24
05	N60 x 2 x 28
06	N70 x 3 x 22*
	Coupling for SAE splined shaft flat root, side fit
11	SAE A, 9T 16/32
12	SAE-, 11T 16/32
13	SAE B, 13T 16/32
14	SAE B-B, 15T 16/32
15	SAE C, 14T 12/24
16	SAE C-C, 17T 12/24
17	SAE D+E, 13T 8/16
18	SAE F, 15T 8/16
	Coupling + adaptor for keyed shaft
20	Diameter 12 mm
21	Diameter 16 mm
22	Diameter 18 mm

* For PV360 only

Availability of through drive flange and coupling please check with ordering code options per each pump size, starting at page 6

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