



AXIAL PISTON PUMPS

SERIES PVPLUS – DESIGN SERIES 47



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		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 P _{MAX} 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]	15.9	19.7	22.4	26.9	31.1	38.5	43.8
MAX. INPUT TORQUE AT 350 BAR	[NM]	94.5	118.1	135.9	165.4	184.3	230.4	265.0
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]	0.0016	0.0016	0.0016	0.0016	0.0047	0.0047	0.0047
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 P _{MAX} 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]	61.3	76.9	87.5	136.1	173.1	259.6	338.7
MAX. INPUT TORQUE AT 350 BAR	[NM]	365.2	463.7	533.3	812.4	1044.5	1550.5	2067.4
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

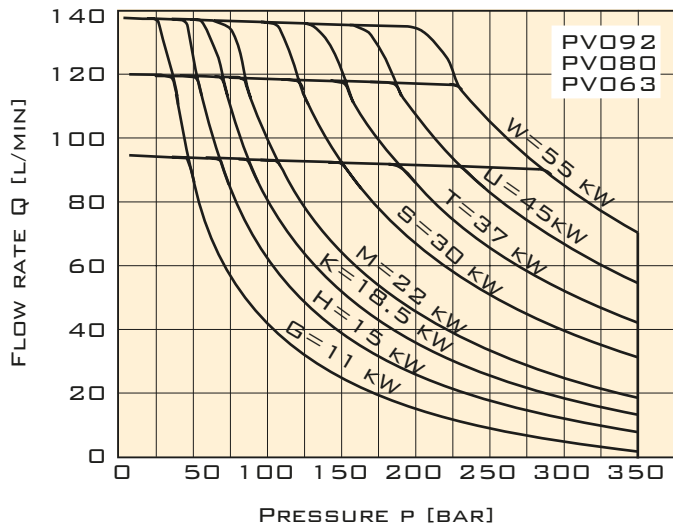
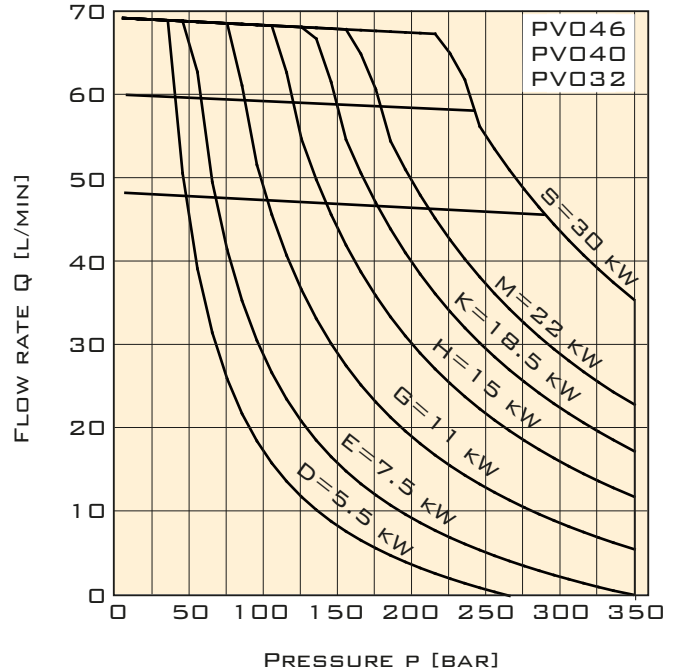
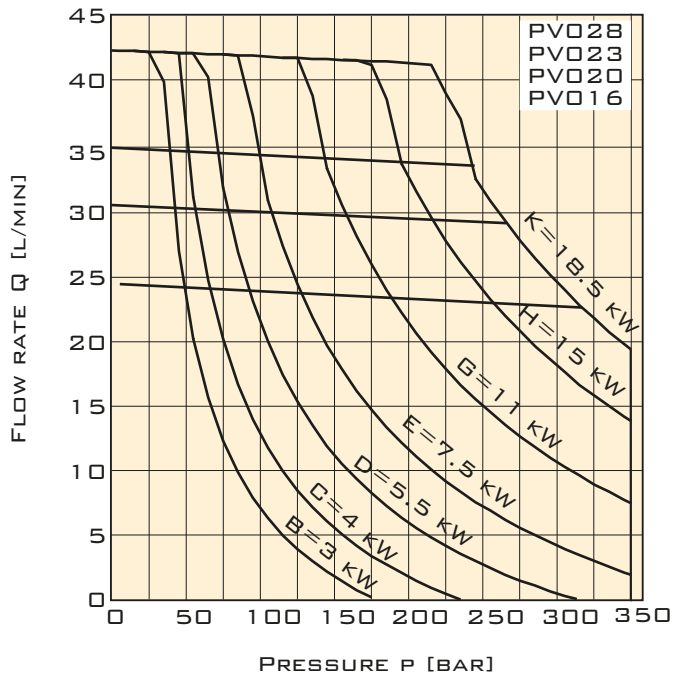
¹⁾ CHECK ADJUSTMENT RANGE EACH COMPENSATOR.



AXIAL PISTON PUMPS

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TYPICAL HORSE POWER/TORQUE CONTROL CHARACTERISTICS

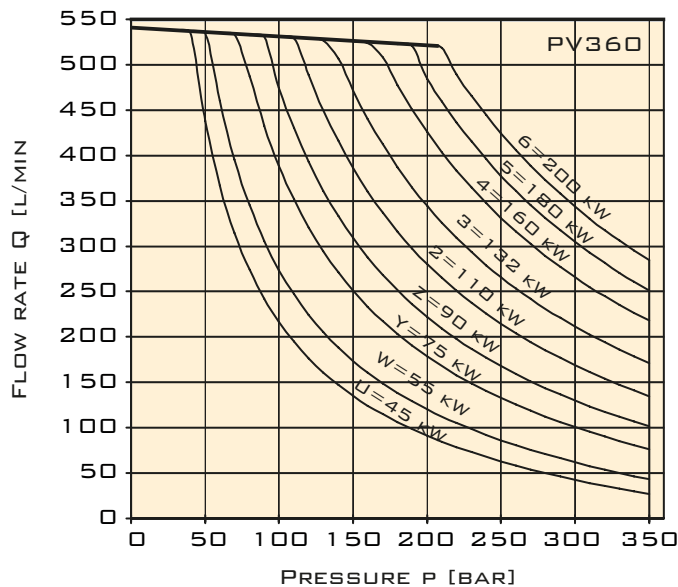
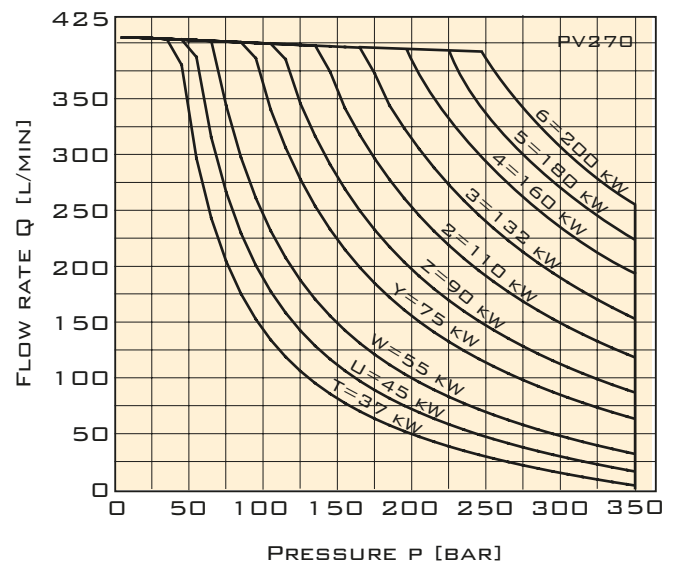
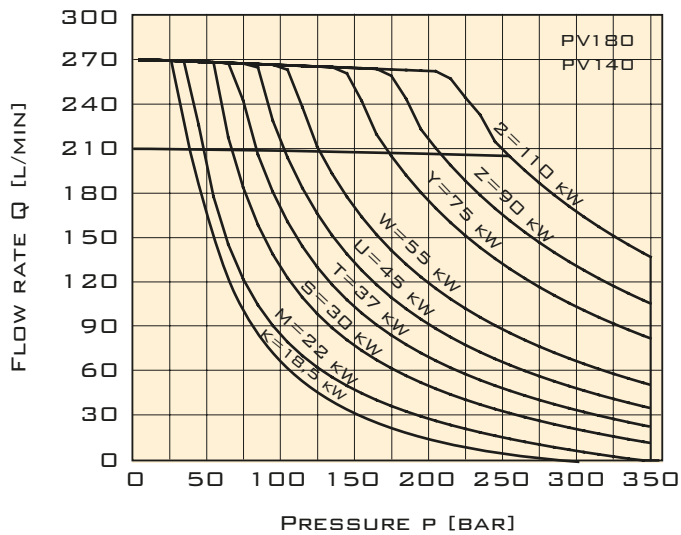


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TYPICAL HORSE POWER/TORQUE CONTROL CHARACTERISTICS

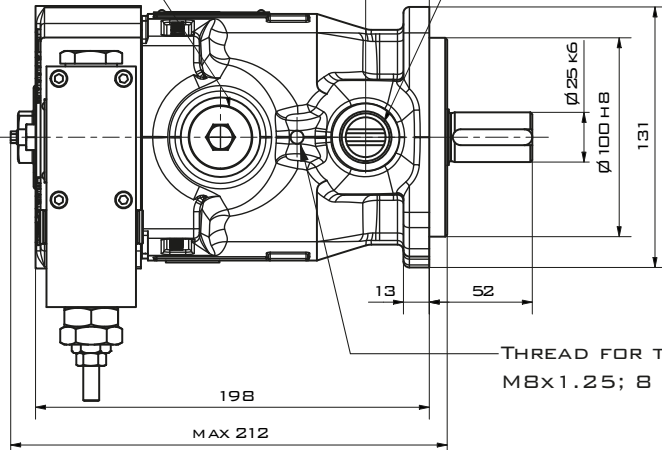


SPEED: $N = 1500 \text{ REV/MIN}$
 TEMPERATURE: $T = 50 \text{ }^\circ\text{C}$
 FLUID: HLP, ISO VG46
 VISCOSITY: $\nu = 46 \text{ MM}^2/\text{s}$ AT $40 \text{ }^\circ\text{C}$
 PRESSURE: MAXIMUM 350 BAR,
 DEPENDING ON HP LEVEL

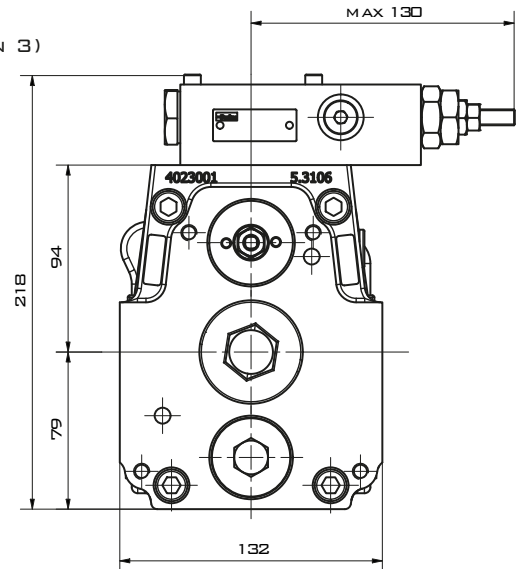
PV016-028, METRIC VERSION

INTERFACE FOR HORSE POWER PILOT CARTRIDGE OR CIP FOR DISPLACEMENT FEEDBACK

DRAIN PORT L1; G1/2" OPTIONAL M22x1.5; ISO 6149-1 (THREAD OPTIONS 8) OR 7/8"-14 UNF (THREAD OPTION 3)

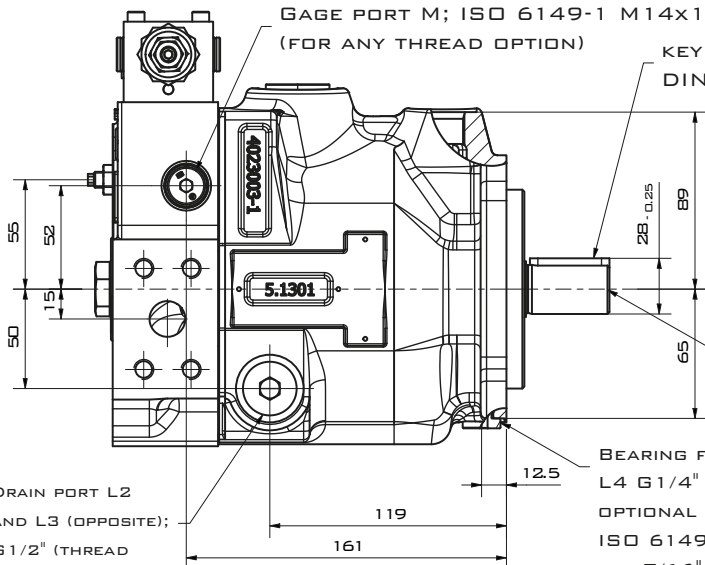


THREAD FOR TRANSPORT: M8x1.25; 8 DEEP



GAGE PORT M; ISO 6149-1 M14x1.5 (FOR ANY THREAD OPTION)

KEY 8x7x40 DIN 6885

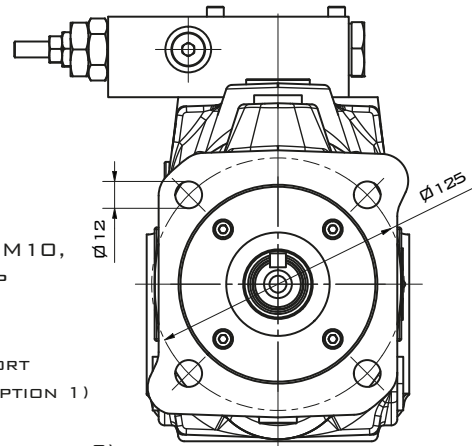


THREAD M10, 22 DEEP

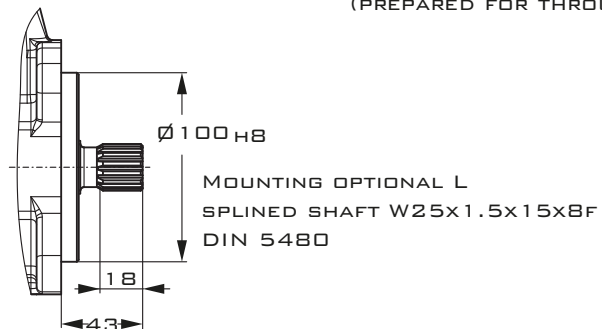
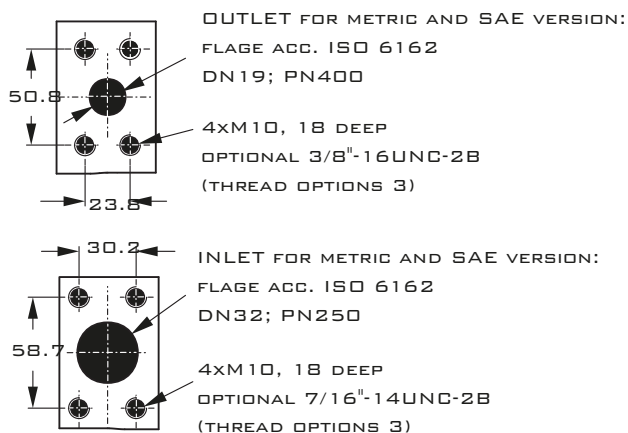
BEARING FLUSHING PORT L4 G1/4" (THREAD OPTION 1) OPTIONAL M12x1.5; ISO 6149-1 (THREAD OPTION 8) OR 7/16"-20 UNF (THREAD OPTION 3)

DRAIN PORT L2 AND L3 (OPPOSITE); G1/2" (THREAD OPTION 1)

OPTIONAL M22x1.5; ISO 6149-1 (THREAD OPTIONS 8) OR 7/8"-14 UNF (THREAD OPTION 3)



THE PUMP SHOWN ABOVE HAS MOUNTING OPTION K AND THROUGH DRIVE VARIATION T (PREPARED FOR THROUGH DRIVE)



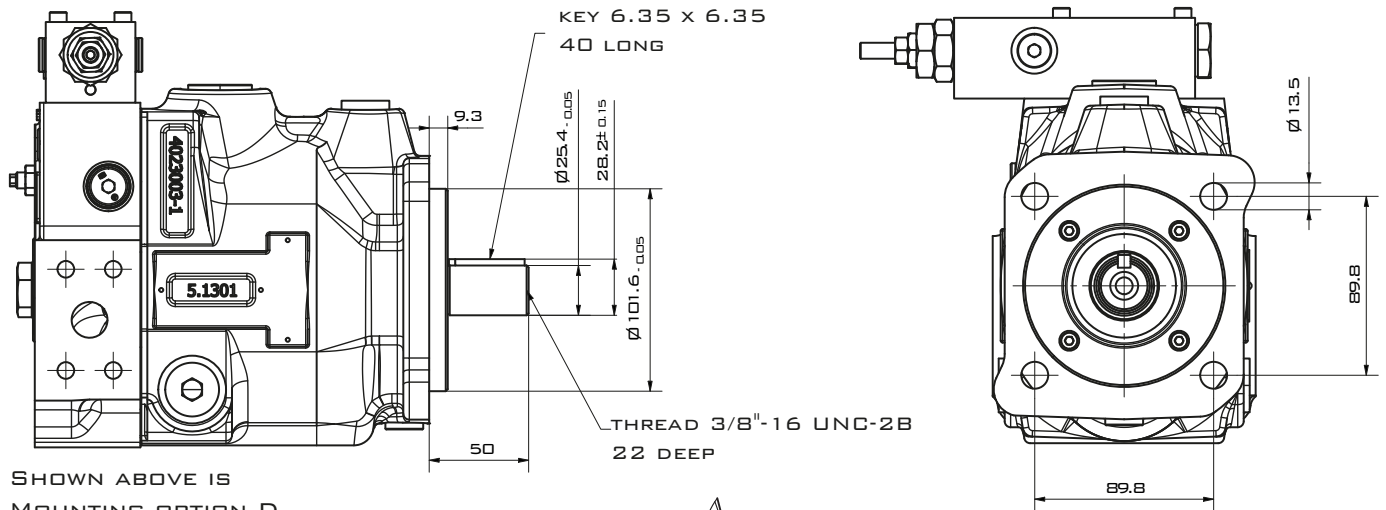
SHOWN IS A CLOCKWISE ROTATING PUMP WITH STANDARD PRESSURE COMPENSATOR. COUNTER CLOCKWISE ROTATING PUMPS HAVE INLET, OUTLET AND GAGE PORT REVERSED.

AXIAL PISTON PUMPS

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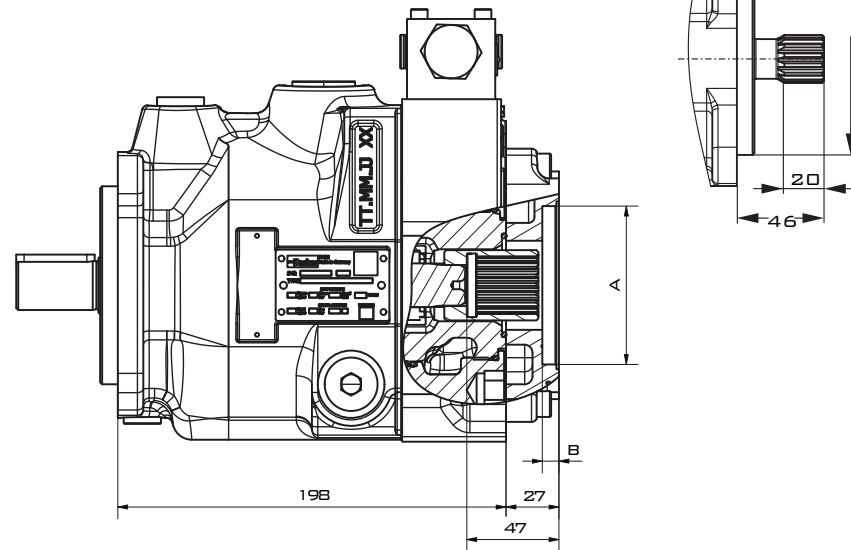


PV016-028, SAE VERSION

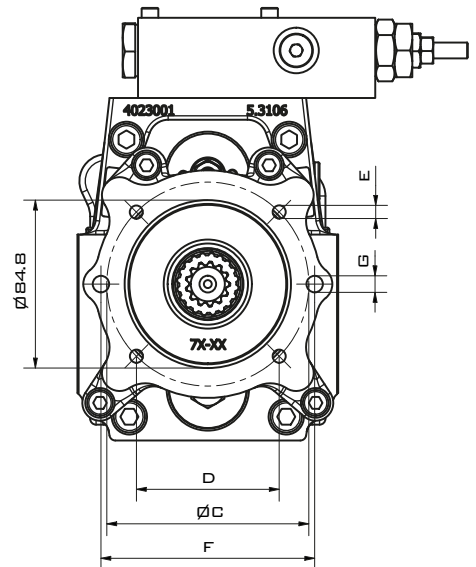


SHOWN ABOVE IS
MOUNTING OPTION D

VARIATION WITH THROUGH DRIVE



MOUNTING OPTION E
SPLINED SHAFT 15T-16/32 DP,
FLAT ROOT, SIDE FIT ANSI B92.1



THROUGH DRIVE ADAPTORS ARE AVAILABLE WITH THE FOLLOWING DIMENSIONS

THROUGH DRIVE OPTION	DRAWING DIMENSION	A	B	C	D	E	F	G	REMARK
A		82.55	8	-	-	-	106	M10	SAE A 2-BOLT
B		101.6	10.5	127	89.8	M12	-	-	SAE B 4-BOLT
J		100	10.5	125	88.4	M10	-	-	4-BOLT

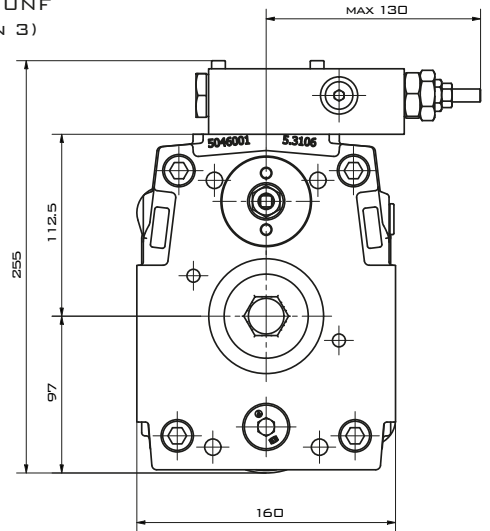
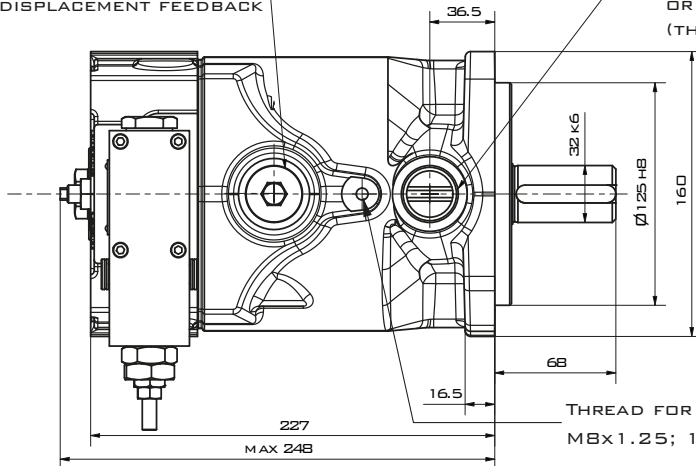
AXIAL PISTON PUMPS

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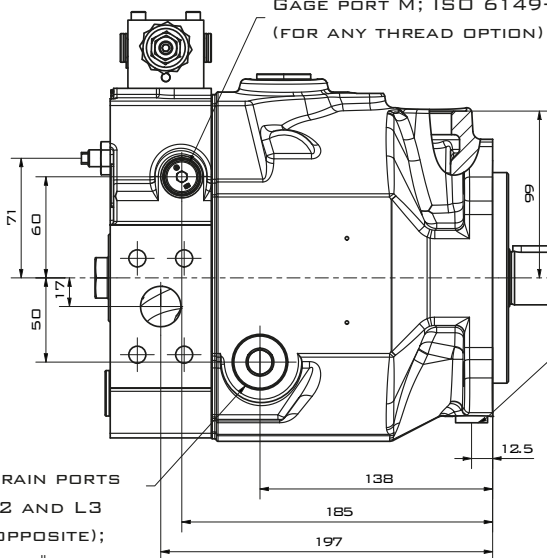
PV032-046, METRIC VERSION

INTERFACE FOR POWER PILOT
CARTRIDGE OR CIP SENSOR
FOR DISPLACEMENT FEEDBACK

DRAIN PORT L1; G3/4"
OPTIONAL M27 x 2;
ISO 6149-1
(THREAD OPTIONS 8)
OR 1 1/16"-12 UNF
(THREAD OPTION 3)

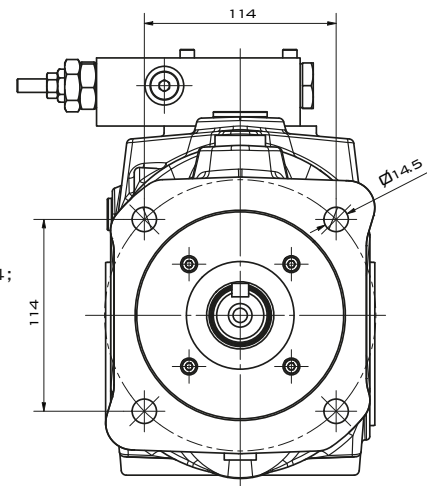


GAGE PORT M; ISO 6149-1 M14x1.5
(FOR ANY THREAD OPTION)



KEY
10 x 8 x 56
DIN 6885
THREAD M10,
22 DEEP

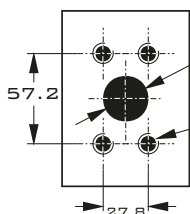
BEARING FLUSHING PORT L4;
G1/4" (THREAD OPTIONS 1)
OPTIONAL M12 x 1.5;
ISO 6149-1
(THREAD OPTIONS 8)
OR 7/16" - 20 UNF
(THREAD OPTIONS 3)



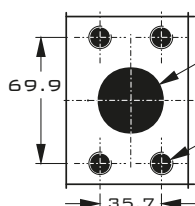
DRAIN PORTS
L2 AND L3
(OPPOSITE);
G3/4"

OPTIONAL M27 x 2; ISO 6149-1
(THREAD OPTIONS 8) OR 1 1/16" - 12 UNF (THREAD OPTION 3)

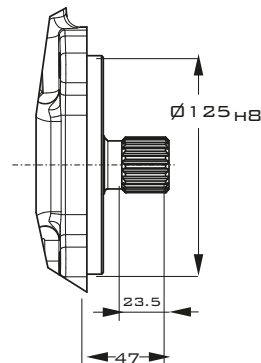
THE PUMP SHOWN ABOVE HAS
MOUNTING OPTION K AND
THROUGH DRIVE VARIATION T
(PREPARED FOR THROUGH DRIVE)



OUTLET FOR METRIC AND SAE VERSION:
FLANGE ACC. ISO 6162
DN25; PN400
4 x M12, 18 DEEP
OPTIONAL 7/16"-14 UNC-2B
(THREAD OPTIONS 3)



INLET FOR METRIC AND SAE VERSION:
FLANGE ACC. ISO 6162
DN38; PN200
4 x M12, 18 DEEP
OPTIONAL 1/2"-13 UNC-2B
(THREAD OPTIONS 3)



MOUNTING OPTIONAL L
SPLINED SHAFT W32x1.5x20x8F
DIN 5480

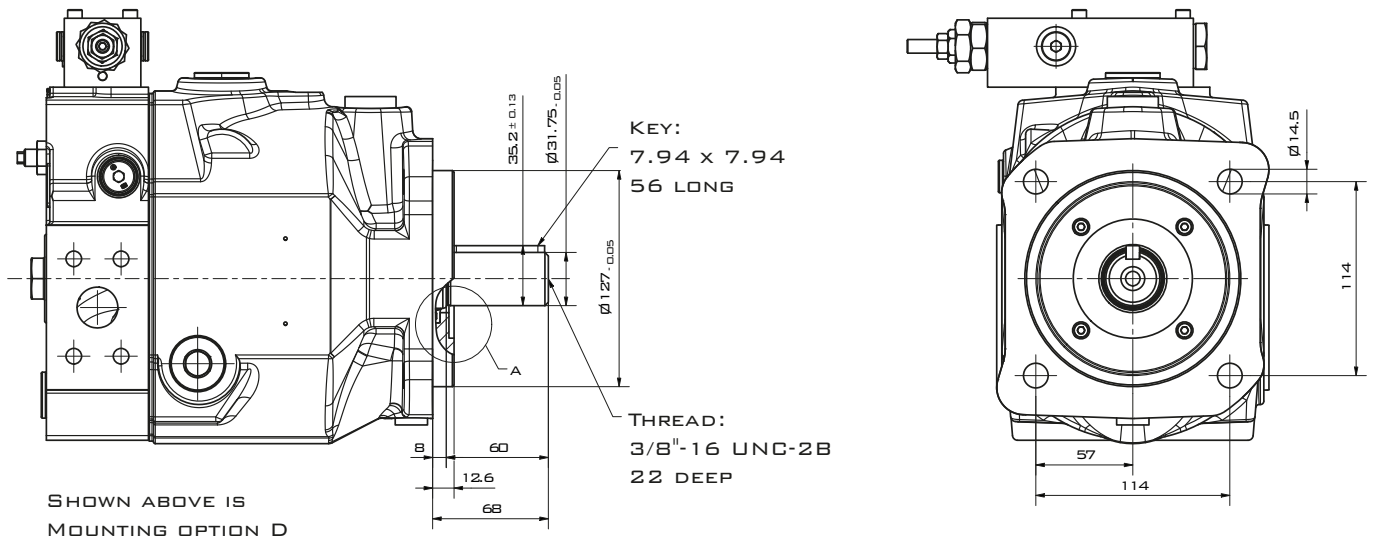
SHOWN IS A CLOCKWISE ROTATING PUMP WITH STANDARD PRESSURE
COMPENSATOR. COUNTER CLOCKWISE ROTATING PUMPS HAVE INLET,
OUTLET AND GAGE PORT REVERSED.

AXIAL PISTON PUMPS

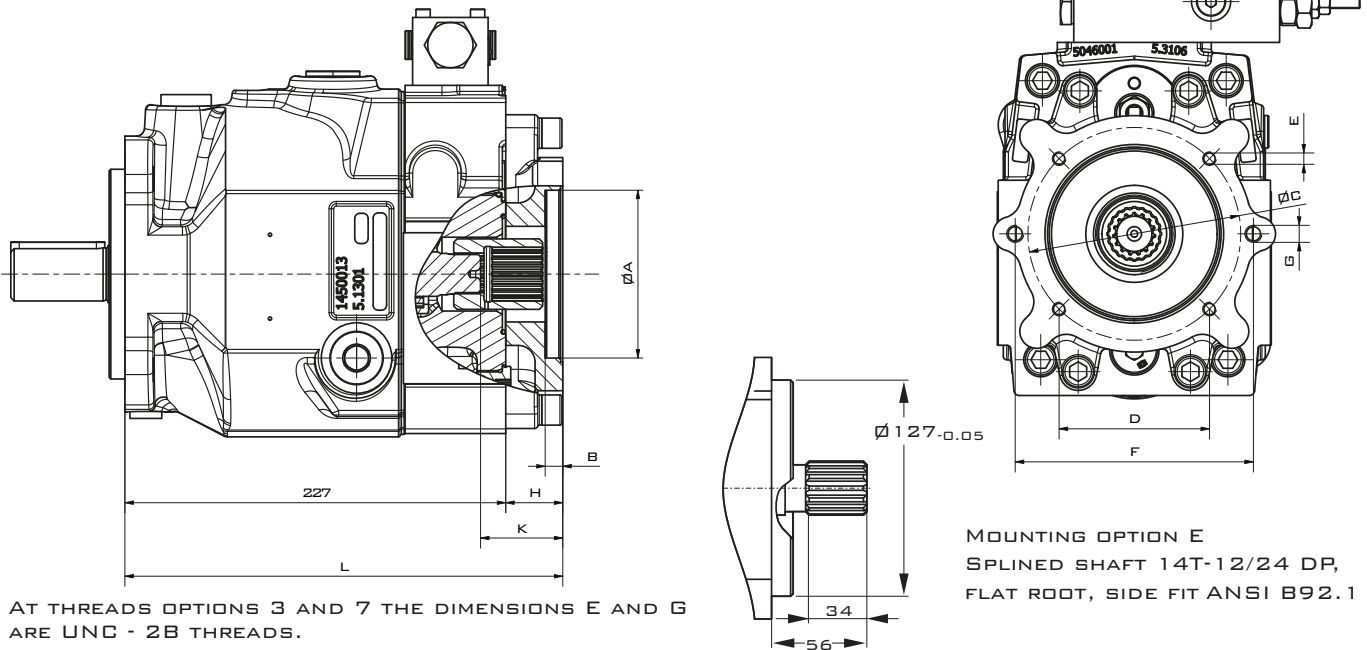
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PV032-046, SAE VERSION



VARIATION WITH THROUGH DRIVE



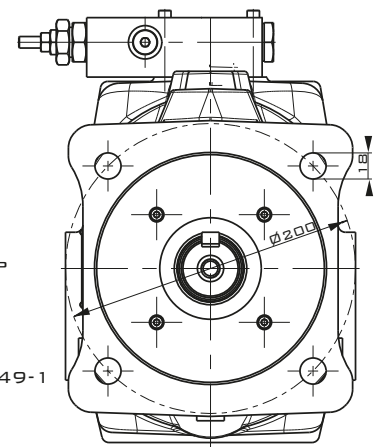
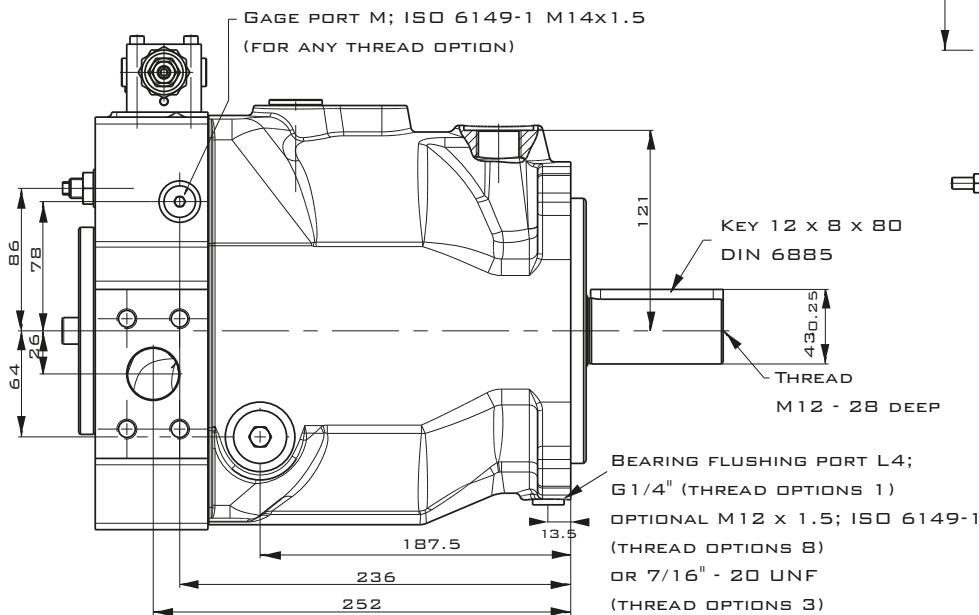
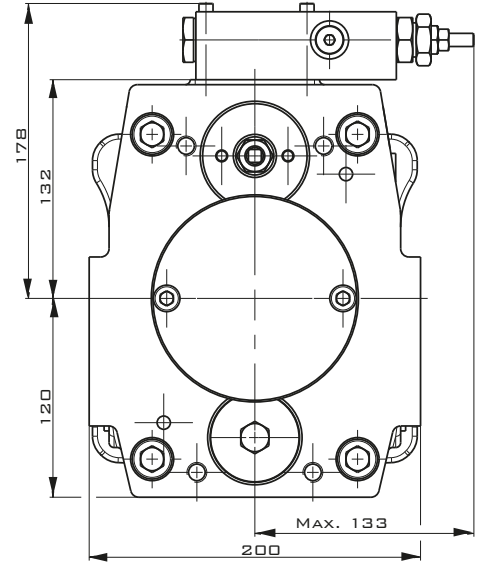
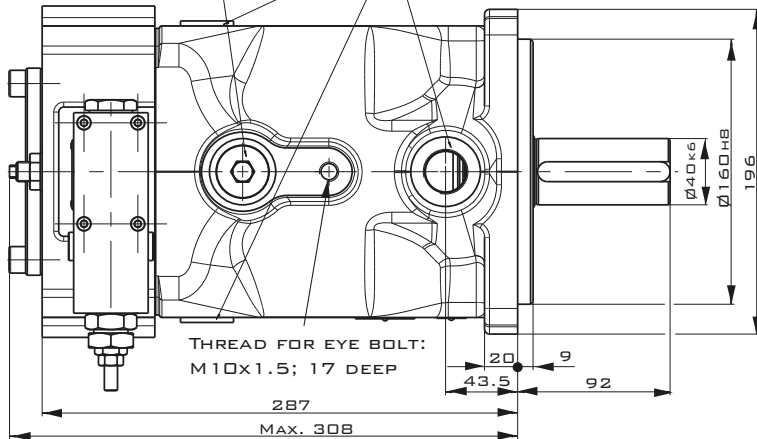
THROUGH DRIVE ADAPTORS ARE AVAILABLE WITH THE FOLLOWING DIMENSIONS

THROUGH DRIVE OPTION	DRAWING DIMENSION	A	B	C	D	E	F	G	H	K	L	REMARK
A		82.55	8	-	-	-	106	M10	34	48	261	SAE A 2-BOLT
B		101.6	11	127	89.8	M12	146	M12	34	48	261	SAE B 2/4-BOLT
C		127	13.5	162	114.6	M12	-	-	49	63	276	SAE C 4-BOLT
J		100	10.5	125	88.4	M10	140	M12	34	48	261	2/4-BOLT
K		125	10.5	160	113.1	M12	-	-	34	48	261	4-BOLT

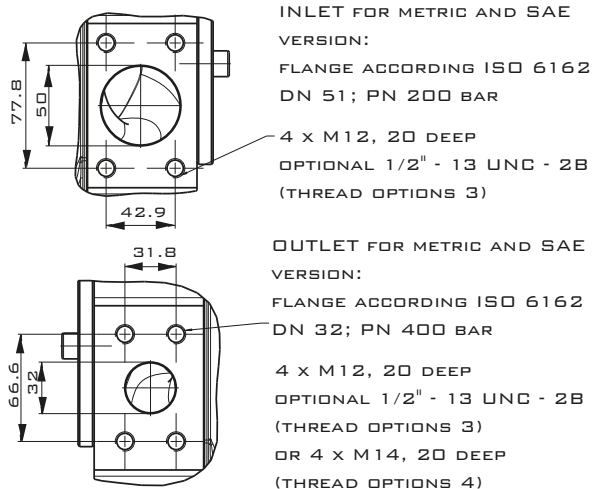
PV 063-092, METRIC VERSION

MOUNTING INTERFACE FOR HORSE
POWER PILOT OR CIP FOR
DISPLACEMENT FEEDBACK

DRAIN PORTS L1, L2 AND L3; G3/4"
OPTIONAL M27 x 2; ISO 6149-1
(TREAD OPTION 8) OR 1 1/16" - 12 UNF
(TREAD OPTION 3)



THE PUMP SHOWN ABOVE HAS
MOUNTING OPTION K
AND THROUGH DRIVE VARIATION T
(PREPARED FOR THROUGH DRIVE)

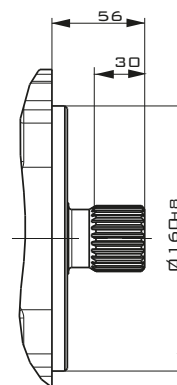


INLET FOR METRIC AND SAE
VERSION:
FLANGE ACCORDING ISO 6162
DN 51; PN 200 BAR

4 x M12, 20 DEEP
OPTIONAL 1/2" - 13 UNC - 2B
(THREAD OPTIONS 3)

OUTLET FOR METRIC AND SAE
VERSION:
FLANGE ACCORDING ISO 6162
DN 32; PN 400 BAR

4 x M12, 20 DEEP
OPTIONAL 1/2" - 13 UNC - 2B
(THREAD OPTIONS 3)
OR 4 x M14, 20 DEEP
(THREAD OPTIONS 4)



MOUNTING OPTION L,
SPLINED SHAFT
W40 x 1.5 x 25 x 8f DIN 5480

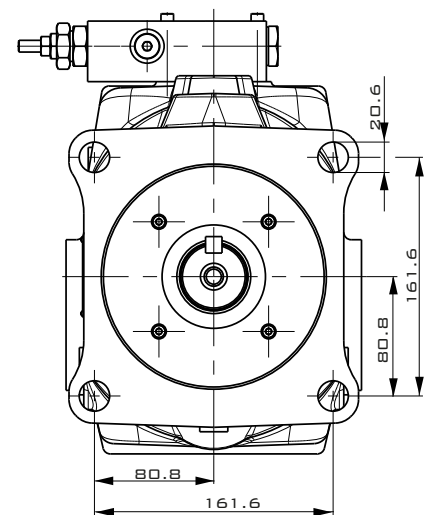
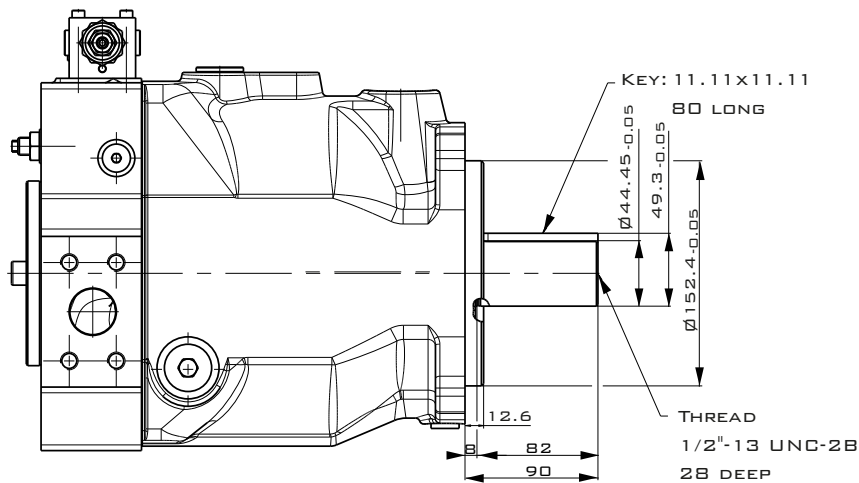
SHOWN IS A CLOCKWISE ROTATING PUMP WITH STANDARD PRESSURE
COMPENSATOR. COUNTER CLOCKWISE ROTATING PUMPS HAVE INLET,
OUTLET AND GAGE PORT REVERSED.

AXIAL PISTON PUMPS

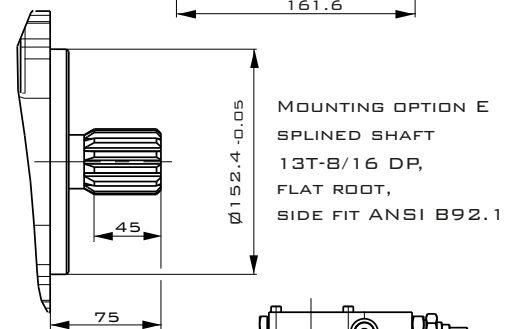
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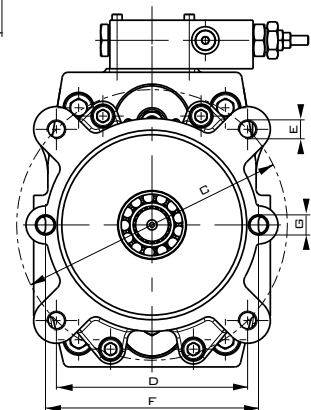
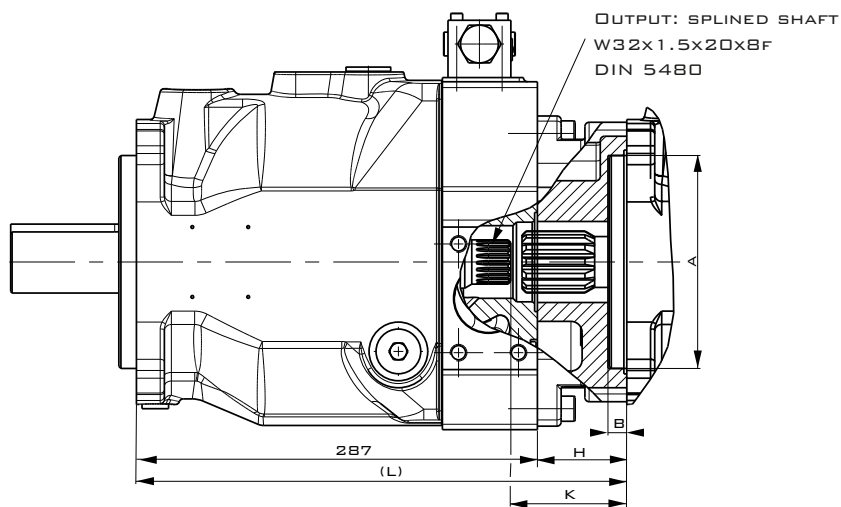
PV 063-092 SAE VERSION



SHOWN ABOVE IS
MOUNTING OPTION D



VARIATION WITH THROUGH DRIVE



THROUGH DRIVE ADAPTORS ARE AVAILABLE WITH THE FOLLOWING DIMENSIONS

THROUGH DRIVE OPTION	DRAWING DIMENSION	A	B	C	D	E	F	G	H	K	L	REMARK
A		82.55	8	-	-	-	106	M10	39	58	326	SAE A 2-BOLT
B		101.6	11	127	89.8	M12	146	M12	39	58	326	SAE B 2/4-BOLT
C		127	13.5	162	114.6	M12	181	M16	39	58	326	SAE C 2/4-BOLT
D		152.4	13.5	228.5	161.6	M16	-	-	64	83	351	SAE D 4-BOLT
J		100	10.5	125	88.4	M10	140	M12	39	58	326	2/4-BOLT
K		125	10.5	160	113.1	M12	180	M16	39	58	326	2/4-BOLT
L		160	13.5	200	141.4	M16	-	-	39	58	326	4-BOLT

AXIAL PISTON PUMPS

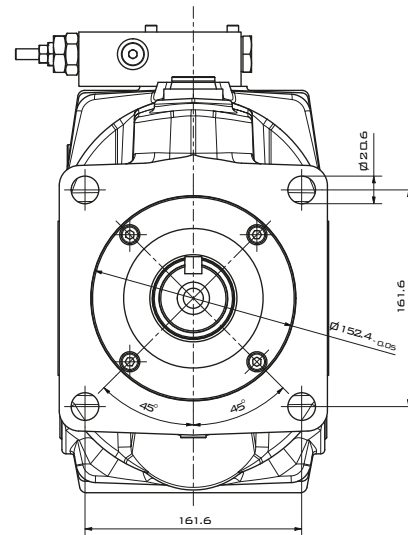
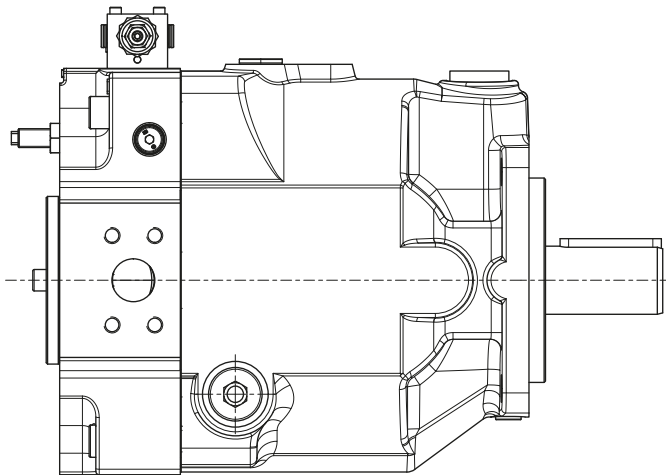
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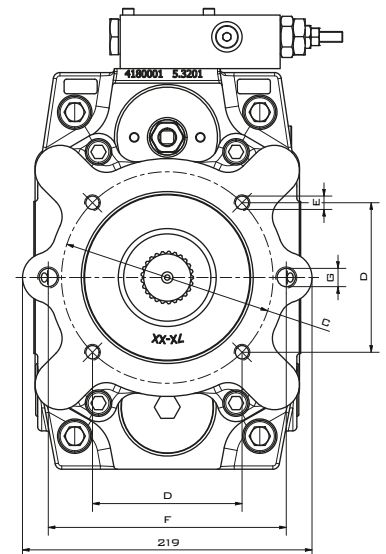
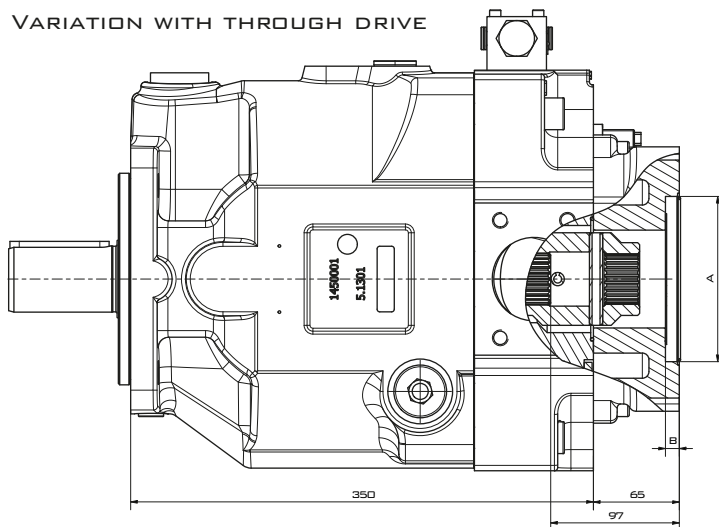
PV 140-180 SAE VERSION

FLANGE ACCORDING DIN ISO 3019-1 SAE
FOR MOUNTING INTERFACE CODE D, E, F AND G

SHOWN ARE CLOCKWISE ROTATING PUMPS. COUNTER CLOCKWISE
ROTATING PUMPS HAVE INLET, OUTLET AND GAGE PORT REVERSED.



VARIATION WITH THROUGH DRIVE

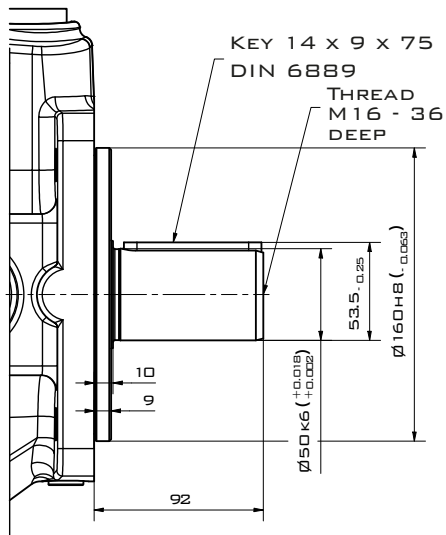


THROUGH DRIVE ADAPTORS ARE AVAILABLE WITH THE FOLLOWING DIMENSIONS

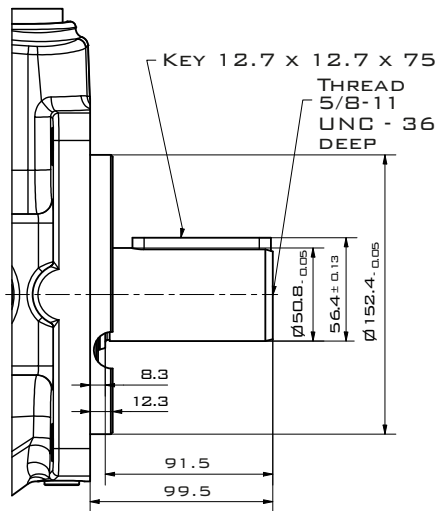
THROUGH DRIVE OPTION	DRAWING DIMENSION	A	B	C	D	E	F	G	REMARK
A		82.55	8	-	-	-	106	M10	SAE A 2-BOLT
B		101.6	11	127	89.8	M12	146	M12	SAE B 2/4-BOLT
C		127	13.5	162	114.6	M12	181	M16	SAE C 2/4-BOLT
D		152.4	13.5	228.5	161.6	M16	-	-	SAE D 4-BOLT
J		100	10.5	125	88.4	M10	140	M12	2/4-BOLT
K		125	10.5	160	113.1	M12	180	M16	2/4-BOLT
L		160	13.5	200	141.4	M16	-	-	4-BOLT

PV 140-180 MOUNTING OPTIONS

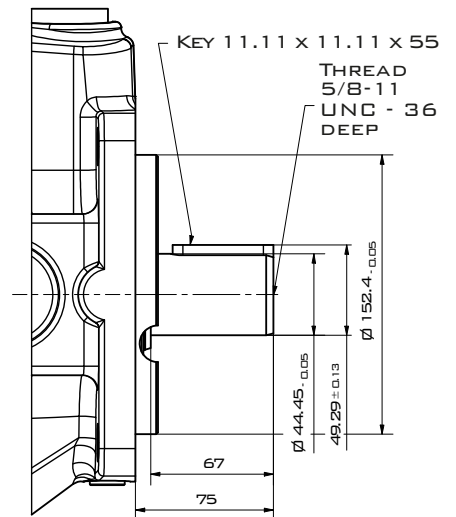
MOUNTING OPTION K
SHAFT KEYED METRIC



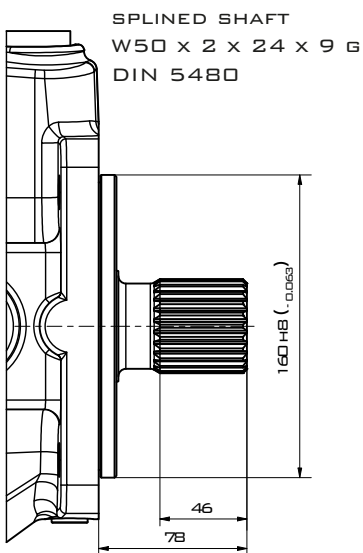
MOUNTING OPTION D
SHAFT KEYED SAE



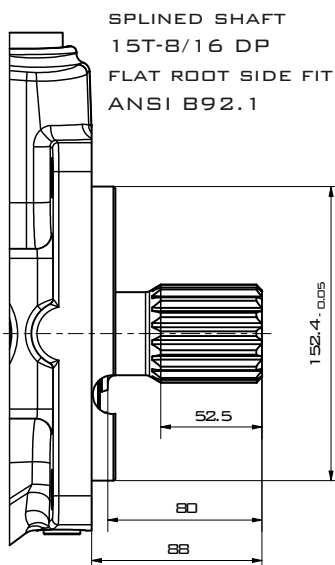
MOUNTING OPTION F
SHAFT KEYED SAE



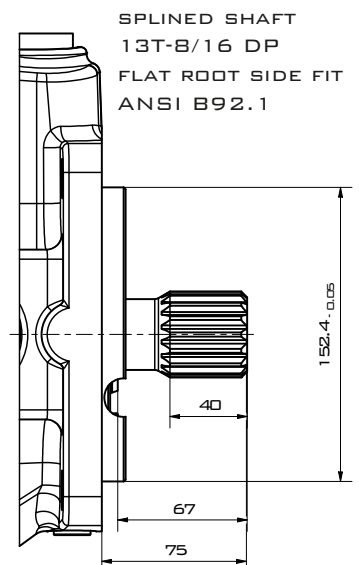
MOUNTING OPTION L
SHAFT SPLINED METRIC



MOUNTING OPTION E
SHAFT SPLINED SAE



MOUNTING OPTION G
SHAFT SPLINED SAE



AXIAL PISTON PUMPS

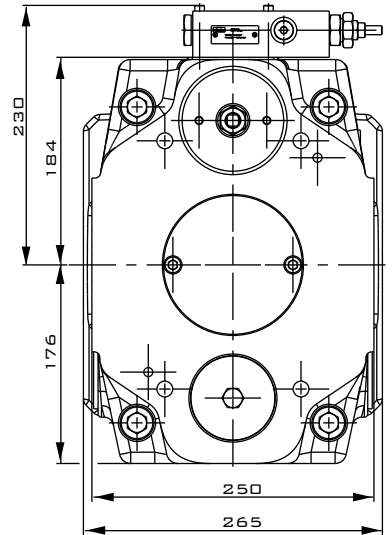
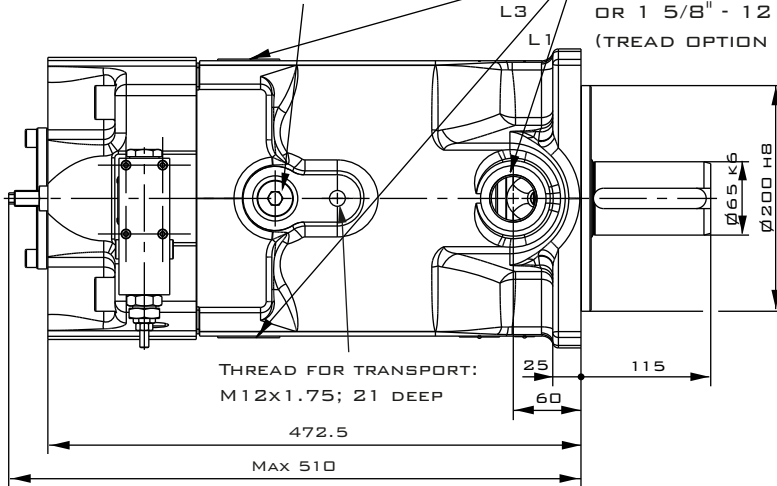
SERIES PVPLUS – DESIGN SERIES 47



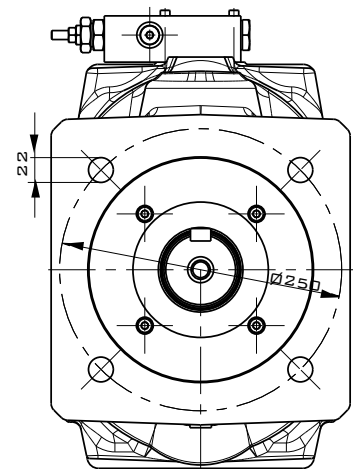
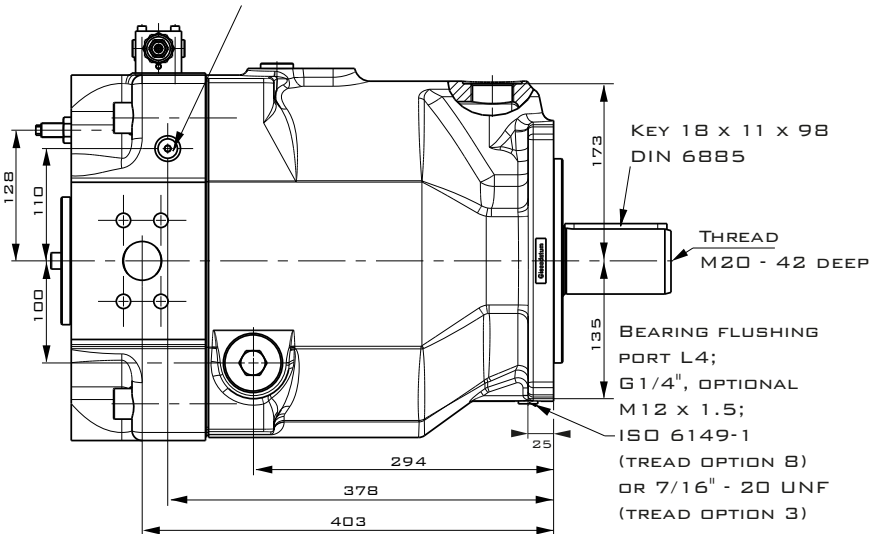
PV 270, METRIC VERSION

MOUNTING INTERFACE FOR HORSE POWER PILOT
OR CIP FOR DISPLACEMENT FEEDBACK L2

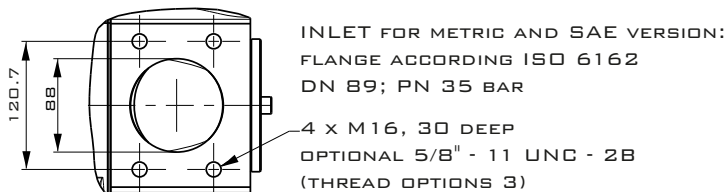
DRAIN PORTS L1, L2 AND L3; G1 1/4"
OPTIONAL M42 x 2; ISO 6149-1
(TREAD OPTION 8)
OR 1 5/8" - 12 UNF
(TREAD OPTION 3)



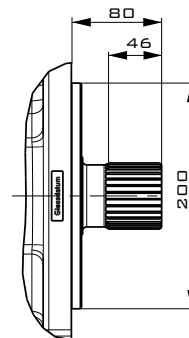
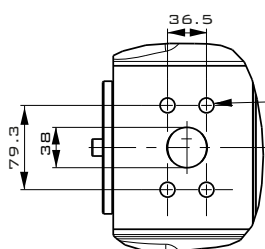
GAGE PORT M; ISO 6149-1 M14x1.5
(FOR ANY THREAD OPTION)



THE PUMP SHOWN ABOVE HAS
MOUNTING OPTION K
AND THROUGH DRIVE VARIATION T
(PREPARED FOR THROUGH DRIVE)



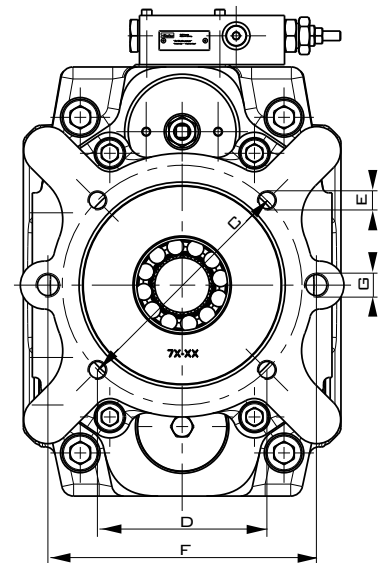
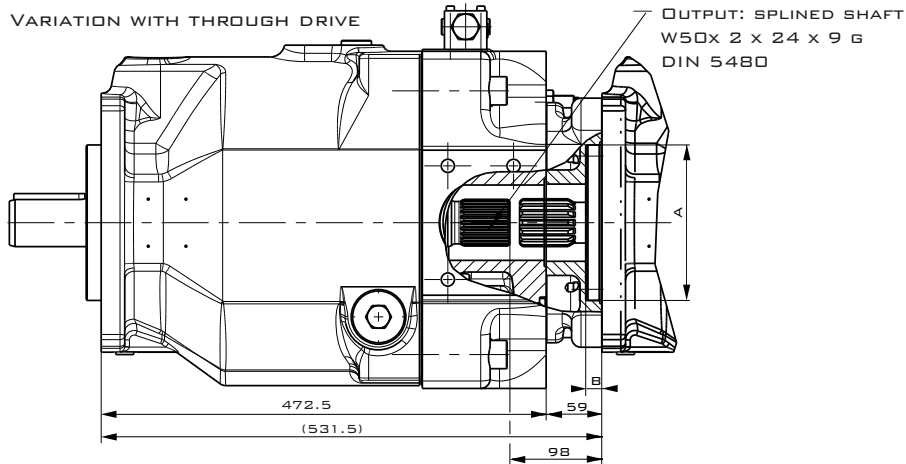
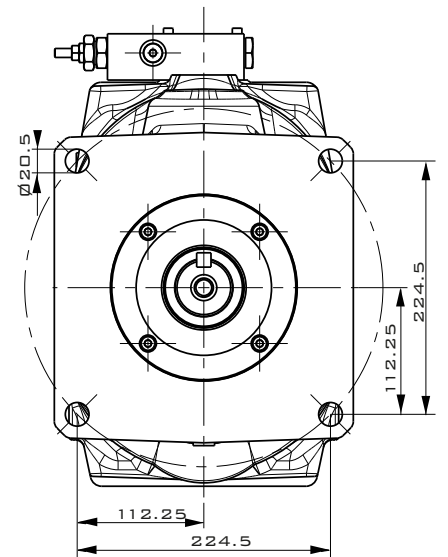
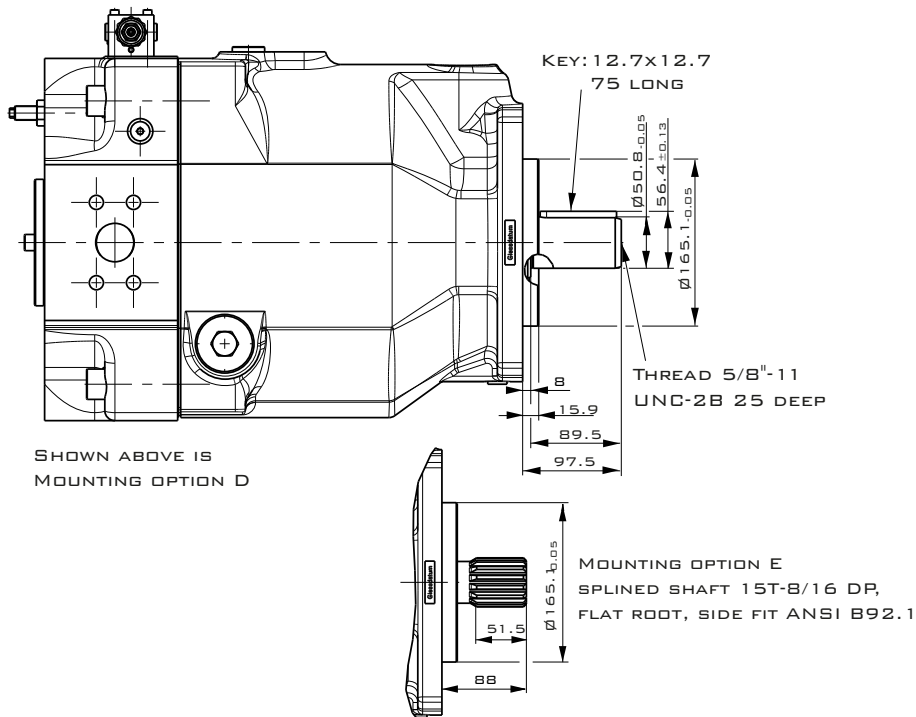
OUTLET FOR METRIC AND
SAE VERSION:
FLANGE ACCORDING ISO 6162
DN 38; PN 400 BAR
4 x M16, 30 DEEP
OPTIONAL 5/8" - 11 UNC - 2B
(THREAD OPTIONS 3)



MOUNTING OPTION, L
SPLINED SHAFT
W60 x 2 x 28 x 96 DIN 5480

SHOWN IS A CLOCKWISE ROTATING PUMP
WITH STANDARD PRESSURE CONTROL.
COUNTER CLOCKWISE ROTATING PUMP HAVE INLET,
OUTLET AND GAGE PORT REVERSED.

PV 270 SAE VERSION



THROUGH DRIVE ADAPTORS ARE AVAILABLE WITH THE FOLLOWING DIMENSIONS

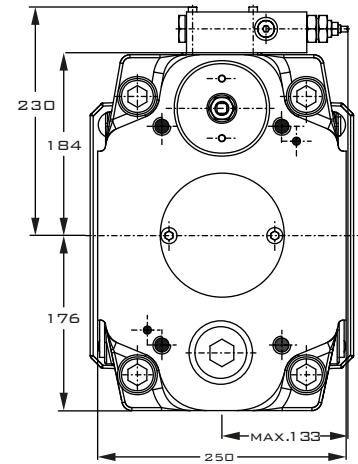
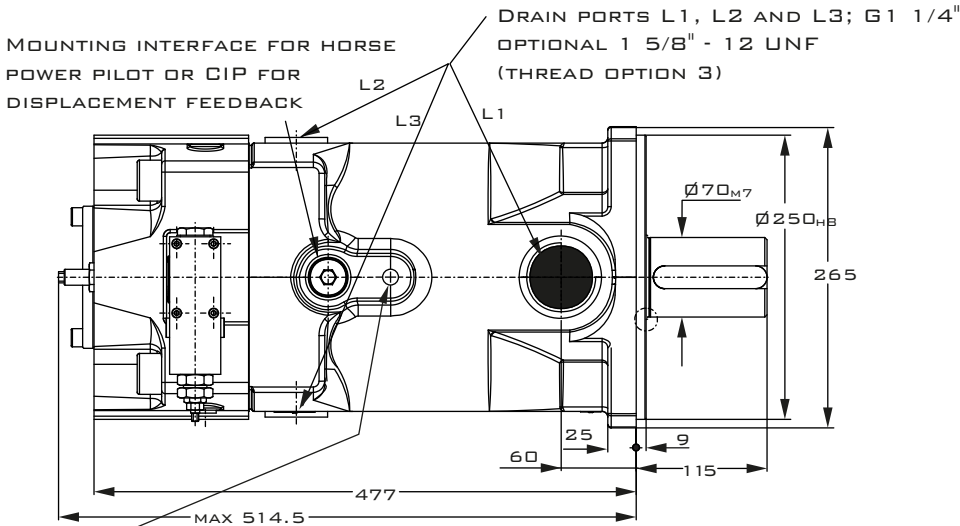
THROUGH DRIVE OPTION	DRAWING DIMENSION	A	B	C	D	E	F	G	REMARK
A		82.55	8	-	-	-	106	M10	SAE A 2-BOLT
B		101.6	11	127	89.8	M12	146	M12	SAE B 2/4-BOLT
C		127	13.5	162	114.6	M12	181	M16	SAE C 2/4-BOLT
D		152.4	13.5	228.5	161.6	M16	229	M16	SAE D 4-BOLT
E		165.1	17	317.5	224.5	M20	-	-	SAE E 4-BOLT
J		100	10.5	125	88.4	M10	140	M12	2/4-BOLT
K		125	10.5	160	113.1	M12	180	M16	2/4-BOLT
L		160	13.5	200	141.4	M16	224	M20	2/4-BOLT
M		200	13.5	250	176.8	M20	-	-	4-BOLT

AXIAL PISTON PUMPS

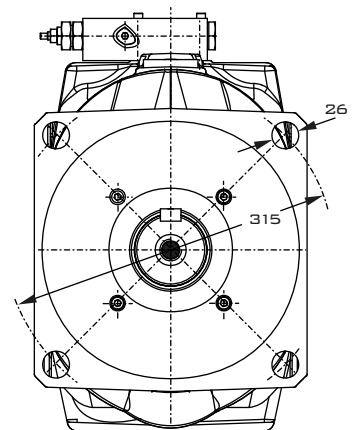
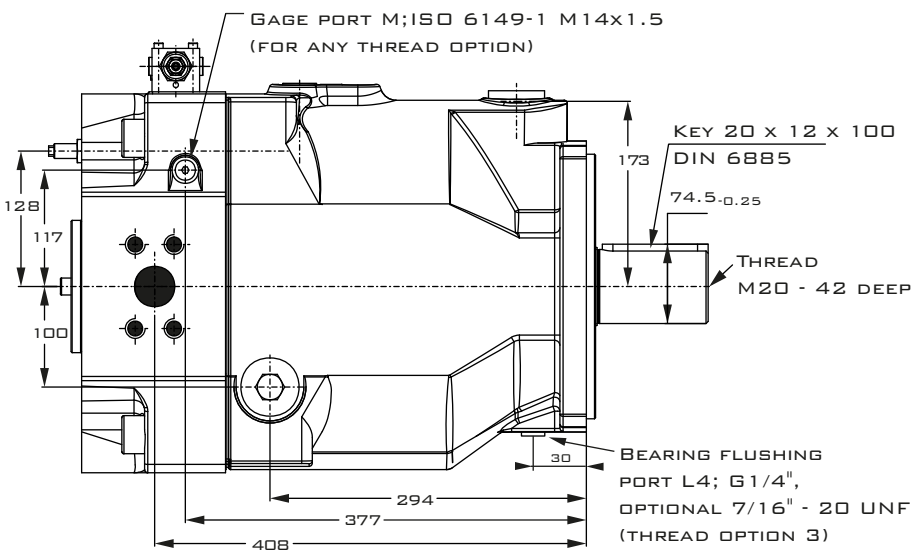
SERIES PVPLUS – DESIGN SERIES 47



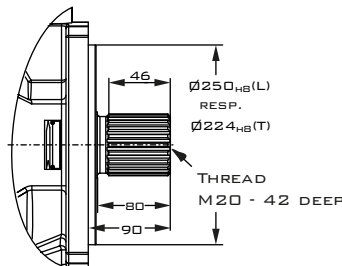
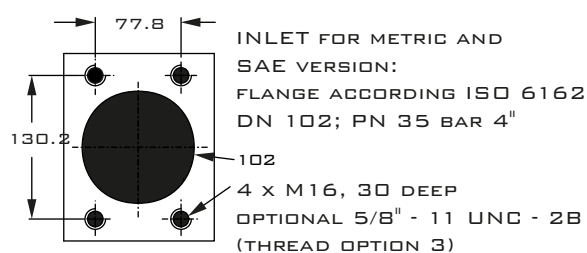
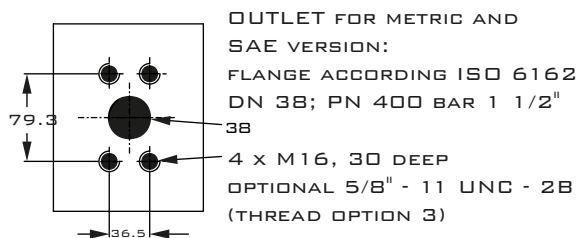
PV 360, METRIC VERSION



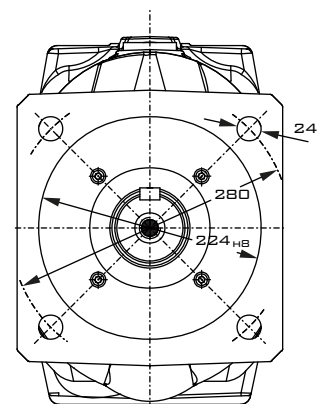
THREAD FOR TRANSPORT:
M12x1.75; 21 DEEP



THE PUMP SHOWN ABOVE HAS MOUNTING OPTION K AND THROUGH DRIVE VARIATION T (PREPARED FOR THROUGH DRIVE)



MOUNTING OPTION L, T, SPLINED SHAFT
W 70 x 3 x 22 x 8F DIN 5480

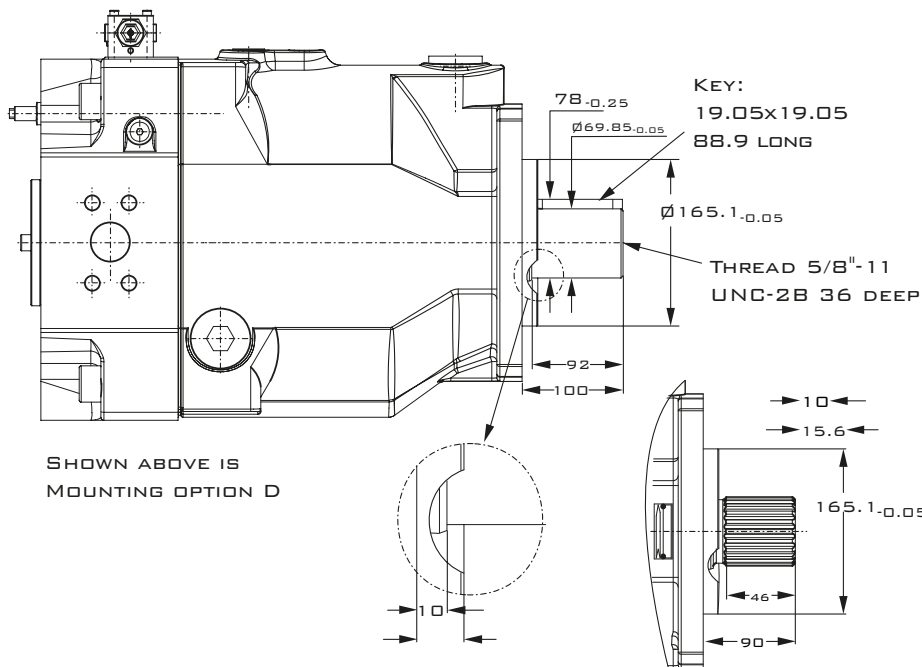


MOUNTING OPTION R
PILOT DIAMETER $\varnothing 224$ MM

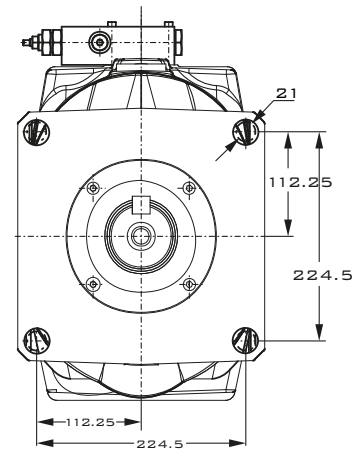
SHOWN IS A CLOCKWISE ROTATING PUMP WITH STANDARD PRESSURE CONTROL. COUNTER CLOCKWISE ROTATING PUMP HAVE INLET, OUTLET AND GAGE PORT REVERSED.

AXIAL PISTON PUMPS SERIES PVPLUS – DESIGN SERIES 47

PV 360 SAE VERSION

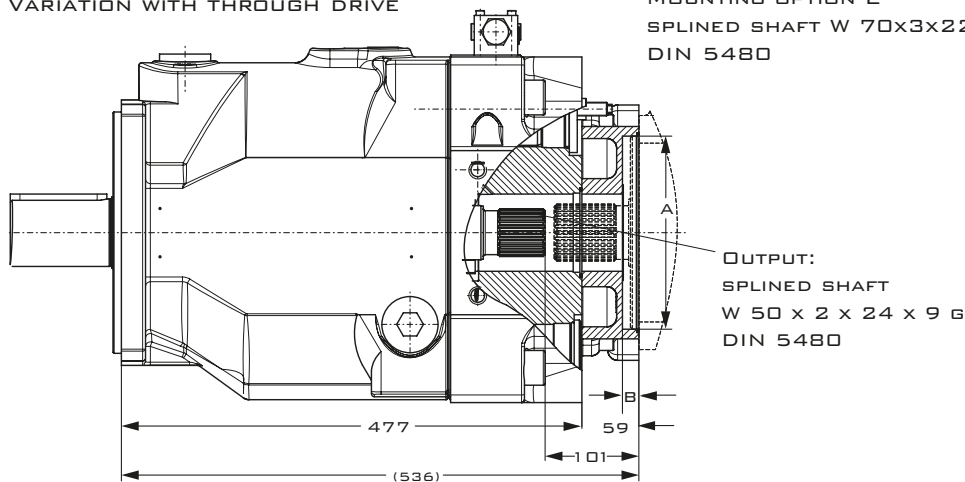


SHOWN ABOVE IS
MOUNTING OPTION D

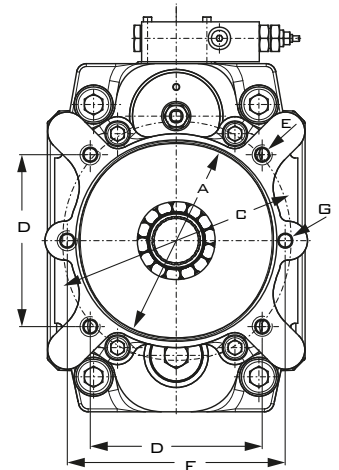


NOTE:
THE DIMENSIONS SHOWN CONFORM TO ISO 3019/1 THE ACTUAL HOLE DIMENSIONS CONFORM TO ISO 3019/2 (PITCH Ø315, HOLE Ø26, SEE PREVIOUS PAGE) AND COVER ISO 3019/1 DIMENSIONS AS WELL. USE WASHERS WHEN ASSEMBLING PUMP.

ARIATION WITH THROUGH DRIVE



MOUNTING OPTION E
SPLINED SHAFT W 70x3x22x8F,
DIN 5480



THROUGH DRIVE ADAPTORS ARE AVAILABLE WITH THE FOLLOWING DIMENSIONS

THROUGH DRIVE OPTION	DRAWING DIMENSION	A	B	C	D	E	F	G	REMARK
A		82.55	8	-	-	-	106	M10	SAE A 2-BOLT
B		101.6	11	127	89.8	M12	146	M12	SAE B 2/4-BOLT
C		127	13.5	162	114.6	M12	181	M16	SAE C 2/4-BOLT
D		152.4	13.5	228.5	161.6	M16	229	M16	SAE D 4-BOLT
E		165.1	17	317.5	224.5	M20	-	-	SAE E 4-BOLT
J		100	10.5	125	88.4	M10	140	M12	2/4-BOLT
K		125	10.5	160	113.1	M12	180	M16	2/4-BOLT
L		160	13.5	200	141.4	M16	224	M20	2/4-BOLT
M		200	13.5	250	176.8	M20	-	-	4-BOLT

AXIAL PISTON PUMPS

SERIES PVPLUS – DESIGN SERIES 47



ORDERING CODE FRAME SIZE 1

P V **R 1 K 1 T 1 N**

AXIAL PISTON PUMP
VARIABLE DISPLACEMENT

SIZE AND DISPLACEMENT

ROTATION

MOUNTING INTERFACE

THROUGH DRIVE CODE

SEALS

CONTROL

SEE NEXT PAGE

VARIATION

THREADS CODE

COUPLING CODE

CODE	DISPLACEMENT	SIZE
016	16 CM ³ /REV	1
020	20 CM ³ /REV	1
023	23 CM ³ /REV	1
028	28 CM ³ /REV	1

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
4	ELECTRONIC DISPLACEMENT SENSOR (CIP) ²⁾
5	CIP-SENSOR & SPEC. ADJUSTMENT ³⁾ (4 & 9)
9	SPECIAL ADJUSTMENT ³⁾

²⁾ NOT FOR HORSE POWER CONTROL, MANDATORY WITH FDV/UD*

³⁾ REQUIRES KXXXX NUMBER

CODE	MOUNTING INTERFACE	SHAFT
K	METR. ISO 4-HOLE FLANGE Ø100 MM	CYLINDRIC, KEY
L	3019/2 4-HOLE FLANGE Ø100 MM	SPLINED, DIN 5480
D	SAE ISO 4-HOLE FLANGE SAE B	CYLINDRIC, KEY
E	3019/1 4-HOLE FLANGE SAE B-B	SPLINED, SAE

CODE	PORT ⁴⁾	THREADS ⁵⁾
1	BSPP	METRIC
3	UNF	UNC
8 ⁶⁾	ISO 6149	METRIC

⁴⁾ DRAIN AND FLUSHING PORTS

⁵⁾ ALL MOUNTING AND CONNECTING THREADS

⁶⁾ MOUNTING INTERFACE, CODE K AND L ONLY

CODE	COUPLING FOR THROUGH DRIVE	AS SINGLE PART ⁷⁾
1	SINGLE PUMP, NO COUPLING	
H	WITH COUPLING 25 x 1.5 x 15, DIN 5480	MK-PVBG1K01
Y	WITH COUPLING SAE A 9T-16/32 DP	MK-PVBG1K11
A	WITH COUPLING SAE 11T-16/32 DP	MK-PVBG1K12
B	WITH COUPLING SAE B 13T-16/32 DP	MK-PVBG1K13
C	WITH COUPLING SAE B-B 15T-16/32 DP	MK-PVBG1K14

CODE	THROUGH DRIVE OPTION	AS SINGLE PART ⁷⁾
	NO ADAPTOR FOR 2ND PUMP	
T	SINGLE PUMP PREPARED FOR THROUGH DRIVE	
	WITH ADAPTOR FOR 2ND PUMP	AS SINGLE PART ⁷⁾
A	SAE A-2, Ø 82.55 MM	MK-PVBG1Axx
B	SAE B-4, Ø 101.6 MM	MK-PVBG1Bxx
J	METRIC, Ø 100 MM	MK-PVBG1Jxx

SEE DIMENSIONS FOR DETAILS

⁷⁾ TO BE ORDERED SEPARATELY AS SINGLE PART

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.



AXIAL PISTON PUMPS

SERIES PVPLUS – DESIGN SERIES 47

CODE			CONTROL OPTIONS
0	0	1	NO CONTROL
1	0	0	WITH COVER PLATE, NO CONTROL FUNCTION (FIXED DISPLACEMENT PUMP)
M	M		STANDARD PRESSURE CONTROL
M	R		REMOTE PRESSURE CONTROL
M	F		LOAD SENSING (FLOW) CONTROL
M	T		TWO SPOOL LS CONTROL
			CONTROL VARIATION
		0	STANDARD VERSION, INTEGRATED PILOT VALVE ¹⁾
		1	NG6 INTERFACE TOP SIDE FOR PILOT VALVES ¹⁾
		2	REMOTE PRESSURE PORT INT. SUPPLY, NG6 INTERFACE ²⁾
		3	REMOTE PRESSURE PORT EXT. SUPPLY ²⁾
		W	WITH UNLOADING FUNCTION, 24VDC SOLENOID ¹⁾
		K	PROP.-PILOT VALVE TYPE PVACRE...K35 MOUNTED
		Z	WITHOUT INTEGRATED PILOT VALVE, NG6 INTERFACE, FOR MOUNTING OF ACCESSORY CODE PVAC*
		B	WITHOUT INTEGRATED PILOT VALVE, WITHOUT NG6 INTERFACE ³⁾
		P	MTZ WITH MOUNTED PILOT VALVE PVAC1P ²⁾
		F	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 0 - 10V
		R	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 4 - 20 MA

- ¹⁾ NOT FOR MT & *Z
²⁾ ONLY FOR MT & *Z
³⁾ NOT FOR MT & MM

CODE			HORSE POWER / TORQUE CONTROL	
			NOMINAL HP AT 1.500 RPM	NOMINAL TORQUE
B			3 kW	20 NM
C			4 kW	25 NM
D			5.5 kW	35 NM
E			7.5 kW	50 NM
G			11 kW	71 NM
H			15 kW	97 NM
K			18.5 kW	120 NM
			FUNCTION	
	L		HORSE POWER CONTROL WITH PRESSURE CONTROL ⁴⁾	
	C		HORSE POWER CONTROL WITH LOAD SENSING (SINGLE SPOOL)	
	Z		HORSE POWER CONTROL WITH TWO SPOOL LS CONTROL	
			CONTROL VARIATION	
		0	STANDARD VERSION, INTEGRATED PILOT VALVE ¹⁾	
		1	NG 6 INTERFACE TOP SIDE	
		W	WITH UNLOADING FUNCTION, 24 VDC SOLENOID	
		K	PROP.-PILOT VALVE TYPE PVACRE...K35 MOUNTED	
		Z	WITHOUT INTEGRATED PILOT VALVE, NG6 INTERFACE, FOR MOUNTING OF ACCESSORY CODE PVAC* ⁴⁾	
		B	WITHOUT INTEGRATED PILOT VALVE, WITHOUT NG6 INTERFACE ^{1), 4)}	
		P	*ZZ WITH MOUNTED PILOT VALVE PVAC1P ²⁾	
		F	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 0 - 10V	
		R	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 4 - 20 MA	

- ⁴⁾ CONTROL VARIATION Z AND B WITHOUT PRESSURE PILOT

CODE			CONTROL OPTION
			ELECTRO HYDRAULIC CONTROL ⁵⁾
F	D	V	PROPORTIONAL DISPLACEMENT CONTROL, NO PRESSURE COMPENSATION
U	D		PROPORTIONAL DISPLACEMENT CONTROL, WITH PRESSURE COMPENSATION
			CONTROL VARIATION
		R	PILOT OPERATED PRESSURE CONTROL, OPEN NG6 INTERFACE
		K	PILOT OPERATED PRESSURE CONTROL, PROPORTIONAL PILOT VALVE TYPE PVACRE...K35 MOUNTED
		M	PILOT OPERATED PRESSURE CONTROL, PRESSURE SENSOR AND PROPORTIONAL PILOT VALVE TYPE PVACRE...K35 MOUNTED FOR PRESSURE CONTROL AND/OR POWER CONTROL

- ⁵⁾ FURTHER INFO IN MSG30-3254

AXIAL PISTON PUMPS

SERIES PVPLUS – DESIGN SERIES 47



ORDERING CODE FRAME SIZE 2

P V **R 1 K 1 T 1 N**

AXIAL PISTON
PUMP
VARIABLE
DISPLACEMENT

SIZE AND
DISPLACEMENT

ROTATION

MOUNTING
INTERFACE

THROUGH
DRIVE
CODE

SEALS

CONTROL

SEE NEXT PAGE

VARIATION

THREADS
CODE

COUPLING
CODE

CODE	DISPLACEMENT	SIZE
032	32 CM ³ /REV	2
040	40 CM ³ /REV	2
046	46 CM ³ /REV	2

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
4	ELECTRONIC DISPLACEMENT SENSOR (CIP) ²⁾
5	CIP-SENSOR & SPEC. ADJUSTMENT ³⁾ (4 & 9)
9	SPECIAL ADJUSTMENT ³⁾

²⁾ NOT FOR HORSE POWER CONTROL,
MANDATORY WITH FDV/UD*

³⁾ REQUIRES KXXXX NUMBER

CODE	MOUNTING INTERFACE	SHAFT
K	METR. ISO 3019/2	4-HOLE FLANGE Ø125 MM CYLINDRIC, KEY
L	SAE ISO 3019/1	4-HOLE FLANGE Ø125 MM SPLINED, DIN 5480
D	SAE ISO 3019/1	4-HOLE FLANGE SAE C CYLINDRIC, KEY
E	SAE ISO 3019/1	4-HOLE FLANGE SAE C SPLINED, SAE

CODE	PORT ⁴⁾	THREADS ⁵⁾
1	BSPP	METRIC
3	UNF	UNC
8 ⁶⁾	ISO 6149	METRIC

⁴⁾ DRAIN AND FLUSHING PORTS

⁵⁾ ALL MOUNTING AND CONNECTING THREADS

⁶⁾ MOUNTING INTERFACE, CODE K AND L ONLY

CODE	COUPLING FOR THROUGH DRIVE	AS SINGLE PART ⁷⁾
1	SINGLE PUMP, NO COUPLING	
H	WITH COUPLING 25 x 1.5 x 15, DIN 5480	MK-PVVG2K01
J	WITH COUPLING 32 x 1.5 x 20, DIN 5480	MK-PVVG2K02
Y	WITH COUPLING SAE A 9T-16/32 DP	MK-PVVG2K11
A	WITH COUPLING SAE 11T-16/32 DP	MK-PVVG2K12
B	WITH COUPLING SAE B 13T-16/32 DP	MK-PVVG2K13
C	WITH COUPLING SAE B-B 15T-16/32 DP	MK-PVVG2K14
D	WITH COUPLING SAE C 14T-12/24 DP	MK-PVVG2K15

CODE	THROUGH DRIVE OPTION	AS SINGLE PART ⁷⁾
	NO ADAPTOR FOR 2ND PUMP	
T	SINGLE PUMP PREPARED FOR THROUGH DRIVE	
	WITH ADAPTOR FOR 2ND PUMP	AS SINGLE PART ⁷⁾
A	SAE A-2, Ø 82.55 MM	MK-PVVG2Axx
B	SAE B-2/4, Ø 101.6 MM	MK-PVVG2Bxx
C	SAE C-4, Ø 127 MM	MK-PVVG2Cxx
J	METRIC, Ø 100 MM	MK-PVVG2Jxx
K	METRIC, Ø 125 MM	MK-PVVG2Kxx

SEE DIMENSIONS FOR DETAILS

⁷⁾ TO BE ORDERED SEPARATELY AS SINGLE PART

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.



AXIAL PISTON PUMPS

SERIES PVPLUS – DESIGN SERIES 47

CODE			CONTROL OPTIONS
0	0	1	NO CONTROL
1	0	0	WITH COVER PLATE, NO CONTROL FUNCTION (FIXED DISPLACEMENT PUMP)
M	M		STANDARD PRESSURE CONTROL
M	R		REMOTE PRESSURE CONTROL
M	F		LOAD SENSING (FLOW) CONTROL
M	T		TWO SPOOL LS CONTROL
			CONTROL VARIATION
		C	STANDARD VERSION, INTEGRATED PILOT VALVE ¹⁾
		1	NG6 INTERFACE TOP SIDE FOR PILOT VALVES ¹⁾
		2	REMOTE PRESSURE PORT INT. SUPPLY, NG6 INTERFACE ²⁾
		3	REMOTE PRESSURE PORT EXT. SUPPLY ²⁾
		W	WITH UNLOADING FUNCTION, 24VDC SOLENOID ¹⁾
		K	PROP.-PILOT VALVE TYPE PVACRE...K35 MOUNTED
		Z	WITHOUT INTEGRATED PILOT VALVE, NG6 INTERFACE, FOR MOUNTING OF ACCESSORY CODE PVAC*
		B	WITHOUT INTEGRATED PILOT VALVE, WITHOUT NG6 INTERFACE ³⁾
		P	MTZ WITH MOUNTED PILOT VALVE PVAC1P ²⁾
		F	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 0 - 10V
		R	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 4 - 20 MA

- 1) NOT FOR MT & *Z
 2) ONLY FOR MT & *Z
 3) NOT FOR MT & MM

HORSE POWER / TORQUE CONTROL			
CODE		NOMINAL HPAT 1.500 RPM	NOMINAL TORQUE
D		5.5 kW	35 NM
E		7.5 kW	50 NM
G		11 kW	71 NM
H		15 kW	97 NM
K		18.5 kW	120 NM
M		22 kW	142 NM
S		30 kW	195 NM
FUNCTION			
	L	HORSE POWER CONTROL WITH PRESSURE CONTROL ⁴⁾	
	C	HORSE POWER CONTROL WITH LOAD SENSING (SINGLE SPOOL)	
	Z	HORSE POWER CONTROL WITH TWO SPOOL LS CONTROL	
CONTROL VARIATION			
		C	STANDARD VERSION, INTEGRATED PILOT VALVE ¹⁾
		1	NG 6 INTERFACE TOP SIDE
		W	WITH UNLOADING FUNCTION, 24 VDC SOLENOID
		K	PROP.-PILOT VALVE TYPE PVACRE...K35 MOUNTED
		Z	WITHOUT INTEGRATED PILOT VALVE, NG6 INTERFACE, FOR MOUNTING OF ACCESSORY CODE PVAC* ⁴⁾
		B	WITHOUT INTEGRATED PILOT VALVE, WITHOUT NG6 INTERFACE ^{1), 4)}
		P	*ZZ WITH MOUNTED PILOT VALVE PVAC1P ²⁾
		F	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 0 - 10V
		R	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 4 - 20 MA

- 4) CONTROL VARIATION Z AND B WITHOUT PRESSURE PILOT

CODE			CONTROL OPTION
			ELECTRO HYDRAULIC CONTROL ⁵⁾
F	D	V	PROPORTIONAL DISPLACEMENT CONTROL, NO PRESSURE COMPENSATION
U	D		PROPORTIONAL DISPLACEMENT CONTROL, WITH PRESSURE COMPENSATION
			CONTROL VARIATION
		R	PILOT OPERATED PRESSURE CONTROL, OPEN NG6 INTERFACE
		K	PILOT OPERATED PRESSURE CONTROL, PROPORTIONAL PILOT VALVE TYPE PVACRE...K35 MOUNTED
		M	PILOT OPERATED PRESSURE CONTROL, PRESSURE SENSOR AND PROPORTIONAL PILOT VALVE TYPE PVACRE...K35 MOUNTED FOR PRESSURE CONTROL AND/OR POWER CONTROL

- 5) FURTHER INFO IN MSG30-3254

AXIAL PISTON PUMPS

SERIES PVPLUS – DESIGN SERIES 47



ORDERING CODE FRAME SIZE 3

P V [] [] [] R 1 K 1 T 1 N [] [] []

AXIAL PISTON PUMP
VARIABLE DISPLACEMENT

SIZE AND DISPLACEMENT

ROTATION

MOUNTING INTERFACE

THROUGH DRIVE CODE

SEALS

CONTROL

SEE NEXT PAGE

VARIATION

THREADS CODE

COUPLING CODE

CODE	DISPLACEMENT	SIZE
063	63 CM ³ /REV	3
080	80 CM ³ /REV	3
092	92 CM ³ /REV	3

CODE	ROTATION ¹⁾
R	CLOCKWISE
L	COUNTER CLOCKWISE

¹⁾ WHEN LOOKED ON SHAFT

CODE	VARIATION
1	STANDARD
4	ELECTRONIC DISPLACEMENT SENSOR (CIP) ²⁾
5	CIP-SENSOR & SPEC. ADJUSTMENT (4 & 9) ³⁾
9	SPECIAL ADJUSTMENT ³⁾

²⁾ NOT FOR HORSE POWER CONTROL, MANDATORY WITH FDV/UD*

³⁾ REQUIRES KXXXX NUMBER

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	PORT ⁴⁾	THREADS ⁵⁾
1	BSPP	METRIC
3	UNF	UNC
4 ⁶⁾	BSPP	METR. M14
8 ⁷⁾	ISO 6149	METRIC

⁴⁾ DRAIN 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.

CODE	SEALS	SHAFT SEAL
N	NBR	FKM
V	FKM	FKM
W	NBR	PTFE

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	THROUGH DRIVE OPTION	AS SINGLE PART ⁸⁾
	NO ADAPTOR FOR 2ND PUMP	
T	SINGLE PUMP PREPARED FOR THROUGH DRIVE	
	WITH ADAPTOR FOR 2ND PUMP	
A	SAE A-2, Ø 82.55 MM	MK-PVBG3Axx
B	SAE B-2/4, Ø 101.6 MM	MK-PVBG3Bxx
C	SAE C-2/4, Ø 127 MM	MK-PVBG3Cxx
D	SAE D-4, Ø 152.4 MM	MK-PVBG3Dxx
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



AXIAL PISTON PUMPS SERIES PVPLUS – DESIGN SERIES 47

CONTROL OPTIONS			
0	0	1	NO CONTROL
1	0	0	WITH COVER PLATE, NO CONTROL FUNCTION (FIXED DISPLACEMENT PUMP)
M	M		STANDARD PRESSURE CONTROL
M	R		REMOTE PRESSURE CONTROL
M	F		LOAD SENSING (FLOW) CONTROL
M	T		TWO SPOOL LS CONTROL
CONTROL VARIATION			
	C		STANDARD VERSION, INTEGRATED PILOT VALVE ¹⁾
	1		NG6 INTERFACE TOP SIDE FOR PILOT VALVES ¹⁾
	2		REMOTE PRESSURE PORT INT. SUPPLY, NG6 INTERFACE ²⁾
	3		REMOTE PRESSURE PORT EXT. SUPPLY ²⁾
	W		WITH UNLOADING FUNCTION, 24VDC SOLENOID ¹⁾
	K		PROP.-PILOT VALVE TYPE PVACRE...K35 MOUNTED
	Z		WITHOUT INTEGRATED PILOT VALVE, NG6 INTERFACE, FOR MOUNTING OF ACCESSORY CODE PVAC*
	B		WITHOUT INTEGRATED PILOT VALVE, WITHOUT NG6 INTERFACE ³⁾
	P		MTZ WITH MOUNTED PILOT VALVE PVAC1P ²⁾
	F		PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 0 - 10V
	R		PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 4 - 20 MA

- ¹⁾ NOT FOR MT & *Z
²⁾ ONLY FOR MT & *Z
³⁾ NOT FOR MT & MM

HORSE POWER / TORQUE CONTROL			
CODE		NOMINAL HP AT 1.500 RPM	NOMINAL TORQUE
G		11 kW	71 NM
H		15 kW	97 NM
K		18.5 kW	120 NM
M		22 kW	142 NM
S		30 kW	195 NM
T		37 kW	240 NM
U		45 kW	290 NM
W		55 kW	355 NM
FUNCTION			
	L		HORSE POWER CONTROL WITH PRESSURE CONTROL ⁴⁾
	C		HORSE POWER CONTROL WITH LOAD SENSING (SINGLE SPOOL)
	Z		HORSE POWER CONTROL WITH TWO SPOOL LS CONTROL
CONTROL VARIATION			
	C		STANDARD VERSION, INTEGRATED PILOT VALVE ¹⁾
	1		NG 6 INTERFACE TOP SIDE
	W		WITH UNLOADING FUNCTION, 24 VDC SOLENOID
	K		PROP.-PILOT VALVE TYPE PVACRE...K35 MOUNTED
	Z		WITHOUT INTEGRATED PILOT VALVE, NG6 INTERFACE, FOR MOUNTING OF ACCESSORY CODE PVAC* ⁴⁾
	B		WITHOUT INTEGRATED PILOT VALVE, WITHOUT NG6 INTERFACE ^{1), 4)}
	P		*ZZ WITH MOUNTED PILOT VALVE PVAC1P ²⁾
	F		PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 0 - 10V
	R		PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 4 - 20 MA

- ⁴⁾ CONTROL VARIATION Z AND B
WITHOUT PRESSURE PILOT

CONTROL OPTION			
ELECTRO HYDRAULIC CONTROL ⁵⁾			
F	D	V	PROPORTIONAL DISPLACEMENT CONTROL, NO PRESSURE COMPENSATION
U	D		PROPORTIONAL DISPLACEMENT CONTROL, WITH PRESSURE COMPENSATION
CONTROL VARIATION			
	R		PILOT OPERATED PRESSURE CONTROL, OPEN NG6 INTERFACE
	K		PILOT OPERATED PRESSURE CONTROL, PROPORTIONAL PILOT VALVE TYPE PVACRE...K35 MOUNTED
	M		PILOT OPERATED PRESSURE CONTROL, PRESSURE SENSOR AND PROPORTIONAL PILOT VALVE TYPE PVACRE...K35 MOUNTED FOR PRESSURE CONTROL AND/OR POWER CONTROL

- ⁵⁾ FURTHER INFO IN
MSG30-3254

AXIAL PISTON PUMPS

SERIES PVPLUS – DESIGN SERIES 47



ORDERING CODE FRAME SIZE 4

P V **R 1 K 1 T 1 N**

AXIAL PISTON PUMP
VARIABLE DISPLACEMENT

SIZE AND DISPLACEMENT

ROTATION

MOUNTING INTERFACE

THROUGH DRIVE CODE

SEALS

CONTROL

SEE NEXT PAGE

CODE	DISPLACEMENT	SIZE
140	140 CM ³ /REV	4
180	180 CM ³ /REV	4

CODE	ROTATION ¹⁾
R	CLOCKWISE
L	COUNTER CLOCKWISE

¹⁾ WHEN LOOKED ON SHAFT

CODE	VARIATION
1	STANDARD
4	ELECTRONIC DISPLACEMENT SENSOR (CIP) ²⁾
5	CIP-SENSOR & SPEC. ADJUSTMENT(4 & 9) ³⁾
9	SPECIAL ADJUSTMENT ³⁾

²⁾ NOT FOR HORSE POWER CONTROL, MANDATORY WITH FDV/UD*

³⁾ REQUIRES KXXXX NUMBER

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	4-HOLE FLANGE SAE D	CYLINDRIC, KEY, SAE F
E	SAE ISO 3019/1 4-HOLE FLANGE SAE D	SPLINED, SAE F, SAE D
F	4-HOLE FLANGE SAE D	CYLINDRIC, KEY, SAE D
G	4-HOLE FLANGE SAE D	SPLINED, SAE D

CODE	PORT ⁴⁾	THREADS ⁵⁾
1	BSPP	METRIC
3	UNF	UNC
4 ⁶⁾	BSPP	METR. M14
8 ⁷⁾	ISO 6149	METRIC

⁴⁾ DRAIN AND FLUSHING PORTS

⁵⁾ ALL MOUNTING AND CONNECTING THREADS

⁶⁾ PRESSURE PORT 1 1/4" WITH 4 x M14 INSTEAD OF 4 x M12

⁷⁾ MOUNTING INTERFACE, CODE 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.

CODE	SEALS	SHAFT SEAL
N	NBR	FKM
V	FKM	FKM
W	NBR	PTFE

CODE	COUPLING FOR THROUGH DRIVE	AS SINGLE PART ^{B)}
1	SINGLE PUMP, NO COUPLING	
H	WITH COUPLING 25 x 1.5 x 15, DIN 5480	MK-PVVG4K01
J	WITH COUPLING 32 x 1.5 x 20, DIN 5480	MK-PVVG4K02
K	WITH COUPLING 40 x 1.5 x 25, DIN 5480	MK-PVVG4K03
L	WITH COUPLING 50 x 2 x 24, DIN 5480	MK-PVVG4K04
Y	WITH COUPLING SAE A 9T-16/32 DP	MK-PVVG4K11
A	WITH COUPLING SAE 11T-16/32 DP	MK-PVVG4K12
B	WITH COUPLING SAE B 13T-16/32 DP	MK-PVVG4K13
C	WITH COUPLING SAE B-B 15T-16/32 DP	MK-PVVG4K14
D	WITH COUPLING SAE C 14T-12/24 DP	MK-PVVG4K15
E	WITH COUPLING SAE C-C 17T-12/24 DP	MK-PVVG4K16
F	WITH COUPLING SAE D, E 13T-8/16 DP	MK-PVVG4K17
G	WITH COUPLING SAE F 15T-8/16 DP	MK-PVVG4K18

CODE	THROUGH DRIVE OPTION	AS SINGLE PART ^{B)}
	NO ADAPTOR FOR 2ND PUMP	
T	SINGLE PUMP PREPARED FOR THROUGH DRIVE	
	WITH ADAPTOR FOR 2ND PUMP	
A	SAE A-2, Ø 82.55 MM	MK-PVVG4Axx
B	SAE B-2/4, Ø 101.6 MM	MK-PVVG4Bxx
C	SAE C-2/4, Ø 127.0 MM	MK-PVVG4Cxx
D	SAE D-4, Ø 152.4 MM	MK-PVVG4Dxx
J	METRIC, Ø 100 MM	MK-PVVG4Jxx
K	METRIC, Ø 125 MM	MK-PVVG4Kxx
L	METRIC, Ø 160 MM	MK-PVVG4Lxx

SEE DIMENSIONS FOR DETAILS

^{B)} TO BE ORDERED SEPARATELY AS SINGLE PART



AXIAL PISTON PUMPS SERIES PVPLUS – DESIGN SERIES 47

CODE			CONTROL OPTIONS
0	0	1	NO CONTROL
1	0	0	WITH COVER PLATE, NO CONTROL FUNCTION (FIXED DISPLACEMENT PUMP)
M	M		STANDARD PRESSURE CONTROL
M	R		REMOTE PRESSURE CONTROL
M	F		LOAD SENSING (FLOW) CONTROL
M	T		TWO SPOOL LS CONTROL
			CONTROL VARIATION
		C	STANDARD VERSION, INTEGRATED PILOT VALVE ¹⁾
		1	NG6 INTERFACE TOP SIDE FOR PILOT VALVES ¹⁾
		2	REMOTE PRESSURE PORT INT. SUPPLY, NG6 INTERFACE ²⁾
		3	REMOTE PRESSURE PORT EXT. SUPPLY ²⁾
		W	WITH UNLOADING FUNCTION, 24VDC SOLENOID ¹⁾
		K	PROP.-PILOT VALVE TYPE PVACRE...K35 MOUNTED
		Z	WITHOUT INTEGRATED PILOT VALVE, NG6 INTERFACE, FOR MOUNTING OF ACCESSORY CODE PVAC*
		B	WITHOUT INTEGRATED PILOT VALVE, WITHOUT NG6 INTERFACE ³⁾
		P	MTZ WITH MOUNTED PILOT VALVE PVAC1P ²⁾
		F	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 0 - 10V
		R	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 4 - 20 MA

- ¹⁾ NOT FOR MT & *Z
²⁾ ONLY FOR MT & *Z
³⁾ NOT FOR MT & MM

HORSE POWER / TORQUE CONTROL			
CODE		NOMINAL HP AT 1.500 RPM	NOMINAL TORQUE
K		18.5 kW	120 NM
M		22 kW	142 NM
S		30 kW	195 NM
T		37 kW	240 NM
U		45 kW	290 NM
W		55 kW	355 NM
Y		75 kW	485 NM
Z		90 kW	585 NM
2		110 kW	700 NM
FUNCTION			
	L	HORSE POWER CONTROL WITH PRESSURE CONTROL ⁴⁾	
	C	HORSE POWER CONTROL WITH LOAD SENSING (SINGLE SPOOL)	
	Z	HORSE POWER CONTROL WITH TWO SPOOL LS CONTROL	
CONTROL VARIATION			
		C	STANDARD VERSION, INTEGRATED PILOT VALVE ¹⁾
		1	NG 6 INTERFACE TOP SIDE
		W	WITH UNLOADING FUNCTION, 24 VDC SOLENOID
		K	PROP.-PILOT VALVE TYPE PVACRE...K35 MOUNTED
		Z	WITHOUT INTEGRATED PILOT VALVE, NG6 INTERFACE, FOR MOUNTING OF ACCESSORY CODE PVAC* ⁴⁾
		B	WITHOUT INTEGRATED PILOT VALVE, WITHOUT NG6 INTERFACE ^{1), 4)}
		P	*ZZ WITH MOUNTED PILOT VALVE PVAC1P ²⁾
		F	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 0 - 10V
		R	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 4 - 20 MA

- ⁴⁾ CONTROL VARIATION Z AND B WITHOUT PRESSURE PILOT

CODE			CONTROL OPTION
			ELECTRO HYDRAULIC CONTROL ⁵⁾
F	D	V	PROPORTIONAL DISPLACEMENT CONTROL, NO PRESSURE COMPENSATION
U	D		PROPORTIONAL DISPLACEMENT CONTROL, WITH PRESSURE COMPENSATION
			CONTROL VARIATION
		R	PILOT OPERATED PRESSURE CONTROL, OPEN NG6 INTERFACE
		K	PILOT OPERATED PRESSURE CONTROL, PROPORTIONAL PILOT VALVE TYPE PVACRE...K35 MOUNTED
		M	PILOT OPERATED PRESSURE CONTROL, PRESSURE SENSOR AND PROPORTIONAL PILOT VALVE TYPE PVACRE...K35 MOUNTED FOR PRESSURE CONTROL AND/OR POWER CONTROL

- ⁵⁾ FURTHER INFO IN MSG30-3254

AXIAL PISTON PUMPS

SERIES PVPLUS – DESIGN SERIES 47



ORDERING CODE FRAME SIZE 5

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

CONTROL

SEE NEXT PAGE

CODE	DISPLACEMENT	SIZE
270	270 CM ³ /REV	5

CODE	ROTATION ¹⁾
R	CLOCKWISE
L	COUNTER CLOCKWISE

¹⁾ WHEN LOOKED ON SHAFT

CODE	VARIATION
1	STANDARD
4	ELECTRONIC DISPLACEMENT SENSOR (CIP) ²⁾
5	CIP-SENSOR & SPEC. ADJUSTMENT(4 & 9) ³⁾
9	SPECIAL ADJUSTMENT ³⁾

²⁾ NOT FOR HORSE POWER CONTROL, MANDATORY WITH FDV/UD*

³⁾ REQUIRES KXXXX NUMBER

CODE	MOUNTING INTERFACE	SHAFT
K	METR. ISO 3019/2 4-HOLE FLANGE Ø200 MM	CYLINDRIC, KEY
L	4-HOLE FLANGE Ø200 MM	SPLINED, DIN 5480
D	SAE ISO 3019/1 4-HOLE FLANGE SAE E	CYLINDRIC, KEY
E	4-HOLE FLANGE SAE E	SPLINED, SAE

CODE	PORT ⁴⁾	THREADS ⁵⁾
1	BSPP	METRIC
3	UNF	UNC
8	ISO 6149	METRIC

⁴⁾ DRAIN AND FLUSHING PORTS

⁵⁾ ALL MOUNTING AND CONNECTING THREADS

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.

CODE	SEALS	SHAFT SEAL
N	NBR	FKM
V	FKM	FKM
W	NBR	PTFE

CODE	COUPLING FOR THROUGH DRIVE	AS SINGLE PART ⁶⁾
1	SINGLE PUMP, NO COUPLING	
H	WITH COUPLING 25 x 1.5 x 15, DIN 5480	MK-PVBG5K01
J	WITH COUPLING 32 x 1.5 x 20, DIN 5480	MK-PVBG5K02
K	WITH COUPLING 40 x 1.5 x 25, DIN 5480	MK-PVBG5K03
L	WITH COUPLING 50 x 2 x 24, DIN 5480	MK-PVBG5K04
M	WITH COUPLING 60 x 2 x 28, DIN 5480	MK-PVBG5K05
Y	WITH COUPLING SAE A 9T-16/32 DP	MK-PVBG5K11
A	WITH COUPLING SAE 11T-16/32 DP	MK-PVBG5K12
B	WITH COUPLING SAE B 13T-16/32 DP	MK-PVBG5K13
C	WITH COUPLING SAE B-B 15T-16/32 DP	MK-PVBG5K14
D	WITH COUPLING SAE C 14T-12/24 DP	MK-PVBG5K15
E	WITH COUPLING SAE C-C 17T-12/24 DP	MK-PVBG5K16
F	WITH COUPLING SAE D, E 13T-8/16 DP	MK-PVBG5K17
G	WITH COUPLING SAE F 15T-8/16 DP	MK-PVBG5K18

CODE	THROUGH DRIVE OPTION	AS SINGLE PART ⁶⁾
	NO ADAPTOR FOR 2ND PUMP	
T	SINGLE PUMP PREPARED FOR THROUGH DRIVE	
	WITH ADAPTOR FOR 2ND PUMP	
A	SAE A-2, Ø 82.55 MM	MK-PVBG5Axx
B	SAE B-2/4, Ø 101.6 MM	MK-PVBG5Bxx
C	SAE C-2/4, Ø 127 MM	MK-PVBG5Cxx
D	SAE D-4, Ø 152.4 MM	MK-PVBG5Dxx
E	SAE E-4, Ø 165.1 MM	MK-PVBG5Exx
J	METRIC, Ø 100 MM	MK-PVBG5Jxx
K	METRIC, Ø 125 MM	MK-PVBG5Kxx
L	METRIC, Ø 160 MM	MK-PVBG5Lxx
M	METRIC, Ø 200 MM	MK-PVBG5Mxx

SEE DIMENSIONS FOR DETAILS

⁶⁾ TO BE ORDERED SEPARATELY AS SINGLE PART



AXIAL PISTON PUMPS SERIES PVPLUS – DESIGN SERIES 47

CODE			CONTROL OPTIONS
0	0	1	NO CONTROL
1	0	0	WITH COVER PLATE, NO CONTROL FUNCTION (FIXED DISPLACEMENT PUMP)
M	M		STANDARD PRESSURE CONTROL
M	R		REMOTE PRESSURE CONTROL
M	F		LOAD SENSING (FLOW) CONTROL
M	T		TWO SPOOL LS CONTROL
			CONTROL VARIATION
		C	STANDARD VERSION, INTEGRATED PILOT VALVE ¹⁾
		1	NG6 INTERFACE TOP SIDE FOR PILOT VALVES ¹⁾
		2	REMOTE PRESSURE PORT INT. SUPPLY, NG6 INTERFACE ²⁾
		3	REMOTE PRESSURE PORT EXT. SUPPLY ²⁾
		W	WITH UNLOADING FUNCTION, 24VDC SOLENOID ¹⁾
		K	PROP.-PILOT VALVE TYPE PVACRE...K35 MOUNTED
		Z	WITHOUT INTEGRATED PILOT VALVE, NG6 INTERFACE, FOR MOUNTING OF ACCESSORY CODE PVAC*
		B	WITHOUT INTEGRATED PILOT VALVE, WITHOUT NG6 INTERFACE ³⁾
		P	MTZ WITH MOUNTED PILOT VALVE PVAC1P ²⁾
		F	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 0 - 10 V
		R	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 4 - 20 MA

- ¹⁾ NOT FOR MT & *Z
²⁾ ONLY FOR MT & *Z
³⁾ NOT FOR MT & MM

HORSE POWER / TORQUE CONTROL			
CODE		NOMINAL HP AT 1.500 RPM	NOMINAL TORQUE
T		37 kW	240 NM
U		45 kW	290 NM
W		55 kW	350 NM
Y		75 kW	480 NM
Z		90 kW	580 NM
2		110 kW	700 NM
3		132 kW	840 NM
4		160 kW	1020 NM
5		180 kW	1150 NM
6		200 kW	1280 NM
FUNCTION			
	L	HORSE POWER CONTROL WITH PRESSURE CONTROL ⁴⁾	
	C	HORSE POWER CONTROL WITH LOAD SENSING (SINGLE SPOOL)	
	Z	HORSE POWER CONTROL WITH TWO SPOOL LS CONTROL	
CONTROL VARIATION			
		C	STANDARD VERSION, INTEGRATED PILOT VALVE ¹⁾
		1	NG 6 INTERFACE TOP SIDE
		W	WITH UNLOADING FUNCTION, 24 VDC SOLENOID
		K	PROP.-PILOT VALVE TYPE PVACRE...K35 MOUNTED
		Z	WITHOUT INTEGRATED PILOT VALVE, NG6 INTERFACE, FOR MOUNTING OF ACCESSORY CODE PVAC* ⁴⁾
		B	WITHOUT INTEGRATED PILOT VALVE, WITHOUT NG6 INTERFACE ^{1), 4)}
		P	*ZZ WITH MOUNTED PILOT VALVE PVAC1P ²⁾
		F	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 0 - 10V
		R	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 4 - 20MA

- ⁴⁾ CONTROL VARIATION Z AND B WITHOUT PRESSURE PILOT

CODE			CONTROL OPTION
			ELECTRO HYDRAULIC CONTROL ⁵⁾
F	D	V	PROPORTIONAL DISPLACEMENT CONTROL, NO PRESSURE COMPENSATION
U	D		PROPORTIONAL DISPLACEMENT CONTROL, WITH PRESSURE COMPENSATION
			CONTROL VARIATION
		R	PILOT OPERATED PRESSURE CONTROL, OPEN NG6 INTERFACE
		K	PILOT OPERATED PRESSURE CONTROL, PROPORTIONAL PILOT VALVE TYPE PVACRE...K35 MOUNTED
		M	PILOT OPERATED PRESSURE CONTROL, PRESSURE SENSOR AND PROPORTIONAL PILOT VALVE TYPE PVACRE...K35 MOUNTED FOR PRESSURE CONTROL AND/OR POWER CONTROL

- ⁵⁾ FURTHER INFO IN MSG30-3254

AXIAL PISTON PUMPS

SERIES PVPLUS – DESIGN SERIES 47



ORDERING CODE FRAME SIZE 6

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

CONTROL

SEE NEXT PAGE

CODE	DISPLACEMENT	SIZE
360	360 CM ³ /REV	6

CODE	ROTATION ¹⁾
R	CLOCKWISE
L	COUNTER CLOCKWISE

¹⁾ WHEN LOOKED ON SHAFT

CODE	VARIATION
1	STANDARD
4	ELECTRONIC DISPLACEMENT SENSOR (CIP) ²⁾
5	CIP-SENSOR & SPEC. ADJUSTMENT (4 & 9) ³⁾
9	SPECIAL ADJUSTMENT ³⁾

²⁾ NOT FOR HORSE POWER CONTROL, MANDATORY WITH FDV/UD*

³⁾ REQUIRES KXXXX NUMBER

CODE	MOUNTING INTERFACE	SHAFT
K	4-HOLE FLANGE Ø250 MM	CYLINDRIC, KEY
L	4-HOLE FLANGE Ø250 MM	SPLINED, DIN 5480
R	4-HOLE FLANGE Ø224 MM	CYLINDRIC, KEY
T	4-HOLE FLANGE Ø224 MM	SPLINED, DIN 5480
D	4-HOLE FLANGE SAE E	CYLINDRIC, KEY
E	4-HOLE FLANGE SAE E	SPLINED, DIN 5480

CODE	PORT ⁴⁾	THREADS ⁵⁾
1	BSPP	METRIC
3	UNF	UNC

⁴⁾ DRAIN AND FLUSHING PORTS

⁵⁾ ALL MOUNTING AND CONNECTING THREADS

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.

CODE	SEALS	SHAFT SEAL
N	NBR	FKM
V	FKM	FKM

CODE	COUPLING FOR THROUGH DRIVE	AS SINGLE PART ⁶⁾
1	SINGLE PUMP, NO COUPLING	
H	WITH COUPLING 25 x 1.5 x 15, DIN 5480	MK-PVVG5K01
J	WITH COUPLING 32 x 1.5 x 20, DIN 5480	MK-PVVG5K02
K	WITH COUPLING 40 x 1.5 x 25, DIN 5480	MK-PVVG5K03
L	WITH COUPLING 50 x 2 x 24, DIN 5480	MK-PVVG5K04
M	WITH COUPLING 60 x 2 x 28, DIN 5480	MK-PVVG5K05
P	WITH COUPLING 70 x 3 x 22, DIN 5480	MK-PVVG5K06
Y	WITH COUPLING SAE A 9T-16/32 DP	MK-PVVG5K11
A	WITH COUPLING SAE 11T-16/32 DP	MK-PVVG5K12
B	WITH COUPLING SAE B 13T-16/32 DP	MK-PVVG5K13
C	WITH COUPLING SAE B-B 15T-16/32 DP	MK-PVVG5K14
D	WITH COUPLING SAE C 14T-12/24 DP	MK-PVVG5K15
E	WITH COUPLING SAE C-C 17T-12/24 DP	MK-PVVG5K16
F	WITH COUPLING SAE D, E 13T-8/16 DP	MK-PVVG5K17
G	WITH COUPLING SAE F 15T-8/16 DP	MK-PVVG5K18

CODE	THROUGH DRIVE OPTION	
	NO ADAPTOR FOR 2ND PUMP	
T	SINGLE PUMP PREPARED FOR THROUGH DRIVE	
	WITH ADAPTOR FOR 2ND PUMP	AS SINGLE PART ⁶⁾
A	SAE A-2, Ø 82.55 MM	MK-PVVG5Axx
B	SAE B-2/4, Ø 101.6 MM	MK-PVVG5Bxx
C	SAE C-2/4, Ø 127 MM	MK-PVVG5Cxx
D	SAE D-4, Ø 152.4 MM	MK-PVVG5Dxx
E	SAE E-4, Ø 165.1 MM	MK-PVVG5Exx
J	METRIC, Ø 100 MM	MK-PVVG5Jxx
K	METRIC, Ø 125 MM	MK-PVVG5Kxx
L	METRIC, Ø 160 MM	MK-PVVG5Lxx
M	METRIC, Ø 200 MM	MK-PVVG5Mxx

SEE DIMENSIONS FOR DETAILS

⁶⁾ TO BE ORDERED SEPARATELY AS SINGLE PART



AXIAL PISTON PUMPS

SERIES PVPLUS – DESIGN SERIES 47

CODE			CONTROL OPTIONS
0	0	1	NO CONTROL
1	0	0	WITH COVER PLATE, NO CONTROL FUNCTION (FIXED DISPLACEMENT PUMP)
M	M		STANDARD PRESSURE CONTROL
M	R		REMOTE PRESSURE CONTROL
M	F		LOAD SENSING (FLOW) CONTROL
M	T		TWO SPOOL LS CONTROL
			CONTROL VARIATION
		C	STANDARD VERSION, INTEGRATED PILOT VALVE ¹⁾
		2	REMOTE PRESSURE PORT INT. SUPPLY, NG6 INTERFACE ²⁾
		3	REMOTE PRESSURE PORT EXT. SUPPLY ²⁾
		W	WITH UNLOADING FUNCTION, 24VDC SOLENOID ¹⁾
		K	PROP.-PILOT VALVE TYPE PVACRE...K35 MOUNTED
		Z	WITHOUT INTEGRATED PILOT VALVE, NG6 INTERFACE, FOR MOUNTING OF ACCESSORY CODE PVAC*
		B	WITHOUT INTEGRATED PILOT VALVE, WITHOUT NG6 INTERFACE ³⁾
		P	MTZ WITH MOUNTED PILOT VALVE PVAC1P ²⁾
		F	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 0 - 10V
		R	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 4 - 20 MA

- 1) NOT FOR MT & *Z
 2) ONLY FOR MT & *Z
 3) NOT FOR MT & MM

CODE			HORSE POWER / TORQUE CONTROL	
			NOMINAL HP AT 1.500 RPM	NOMINAL TORQUE
U			45 kW	290 NM
W			55 kW	350 NM
Y			75 kW	480 NM
Z			90 kW	580 NM
2			110 kW	700 NM
3			132 kW	840 NM
4			160 kW	1020 NM
5			180 kW	1150 NM
6			200 kW	1280 NM

REMARK:
 AS TORQUE IS PRETTY MUCH
 SPEED INDEPENDENT
 POWER AT ALTERNATIVE
 SPEEDS CAN GET RECAL
 CULATED TO 1500 RPM FOR
 CODE SELECTION EASILY.

EXAMPLE:
 YOUR ENGINE ALLOWS
 90 kW @ 1800 RPM
 $\frac{90 \text{ kW}}{1800 \text{ RPM}} \times 1500 \text{ RPM} = 75 \text{ kW}$
 1800 RPM

SELECT A FIRST DIGIT
 "Y"-CONTROL.

			FUNCTION
	L		HORSE POWER CONTROL WITH PRESSURE CONTROL ⁴⁾
	C		HORSE POWER CONTROL WITH LOAD SENSING (SINGLE SPOOL)
	Z		HORSE POWER CONTROL WITH TWO SPOOL LS CONTROL
			CONTROL VARIATION
		C	STANDARD VERSION, INTEGRATED PILOT VALVE ¹⁾
		1	NG 6 INTERFACE TOP SIDE
		W	WITH UNLOADING FUNCTION, 24 VDC SOLENOID
		K	PROP.-PILOT VALVE TYPE PVACRE...K35 MOUNTED
		Z	WITHOUT INTEGRATED PILOT VALVE, NG6 INTERFACE, FOR MOUNTING OF ACCESSORY CODE PVAC* ⁴⁾
		B	WITHOUT INTEGRATED PILOT VALVE, WITHOUT NG6 INTERFACE ^{1), 4)}
		P	*ZZ WITH MOUNTED PILOT VALVE PVAC1P ²⁾
		F	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 0 - 10V
		R	PROP.-PILOT VALVE PVACRE*35T WITH OBE MOUNTED, COMMAND SIGNAL 4 - 20 MA

⁴⁾ CONTROL VARIATION Z AND B
 WITHOUT PRESSURE PILOT

CODE			CONTROL OPTION
			ELECTRO HYDRAULIC CONTROL ⁵⁾
F	D	V	PROPORTIONAL DISPLACEMENT CONTROL, NO PRESSURE COMPENSATION
U	D		PROPORTIONAL DISPLACEMENT CONTROL, WITH PRESSURE COMPENSATION
			CONTROL VARIATION
		R	PILOT OPERATED PRESSURE CONTROL, OPEN NG6 INTERFACE
		K	PILOT OPERATED PRESSURE CONTROL, PROPORTIONAL PILOT VALVE TYPE PVACRE...K35 MOUNTED
		M	PILOT OPERATED PRESSURE CONTROL, PRESSURE SENSOR AND PROPORTIONAL PILOT VALVE TYPE PVACRE...K35 MOUNTED FOR PRESSURE CONTROL AND/OR POWER CONTROL

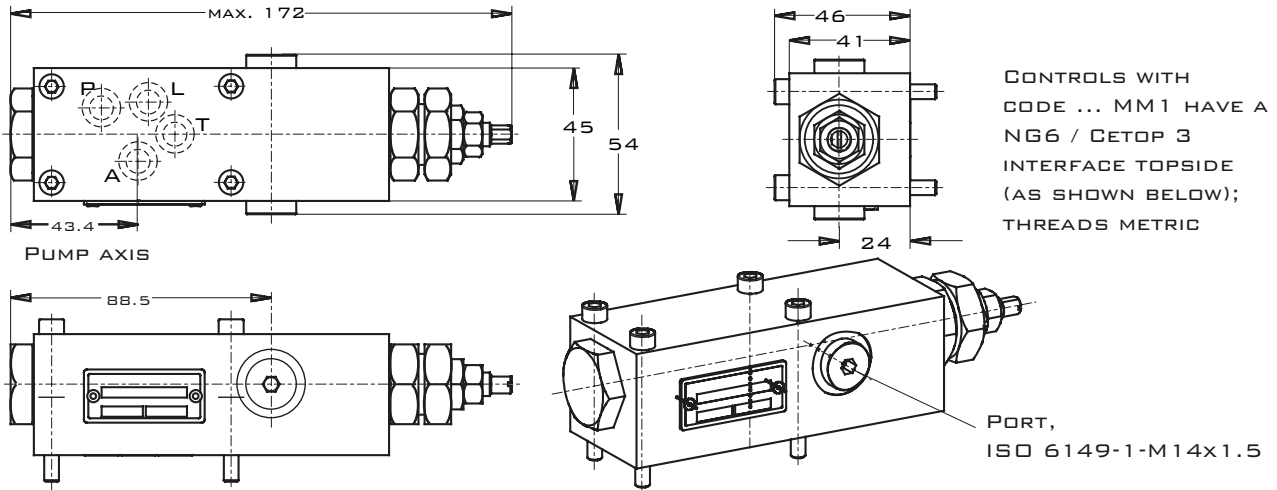
⁵⁾ FURTHER INFO IN
 MSG30-3254

AXIAL PISTON PUMPS

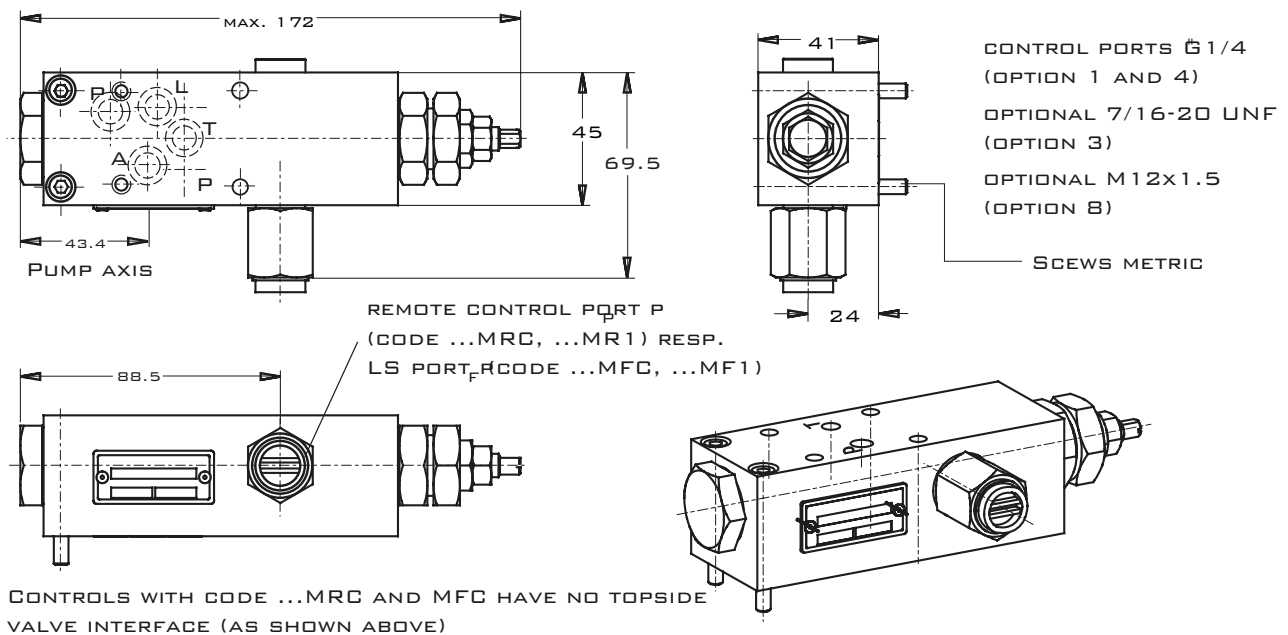
SERIES PVPLUS – DESIGN SERIES 47



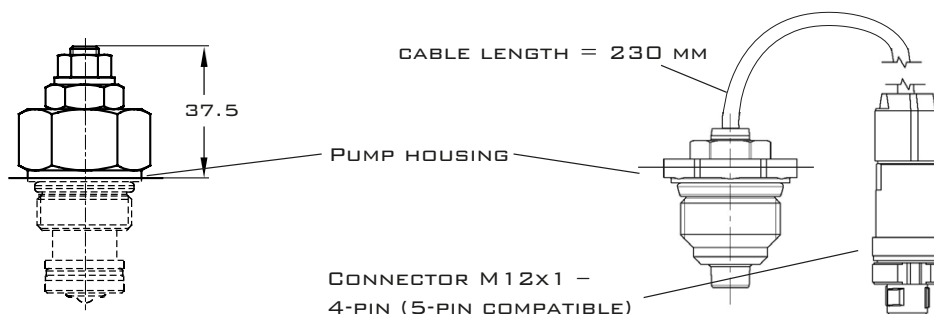
DIMENSIONS STANDARD PRESSURE CONTROL, CODE ...MMC



DIMENSIONS REMOTE PRESSURE AND LOAD SENSING CONTROL, CODES ...MR1, ...MF1



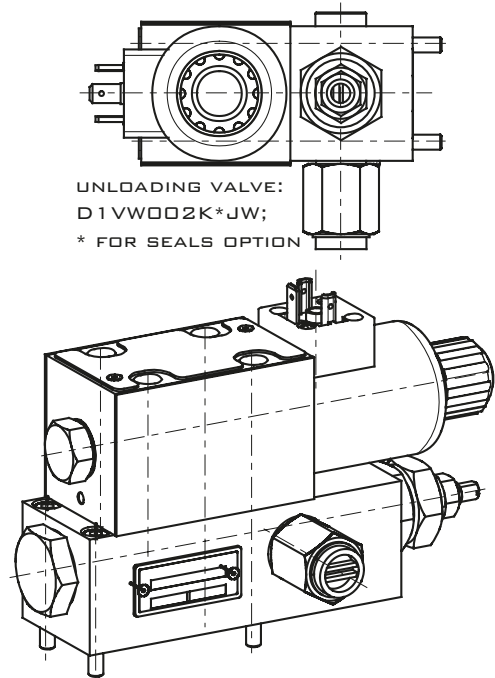
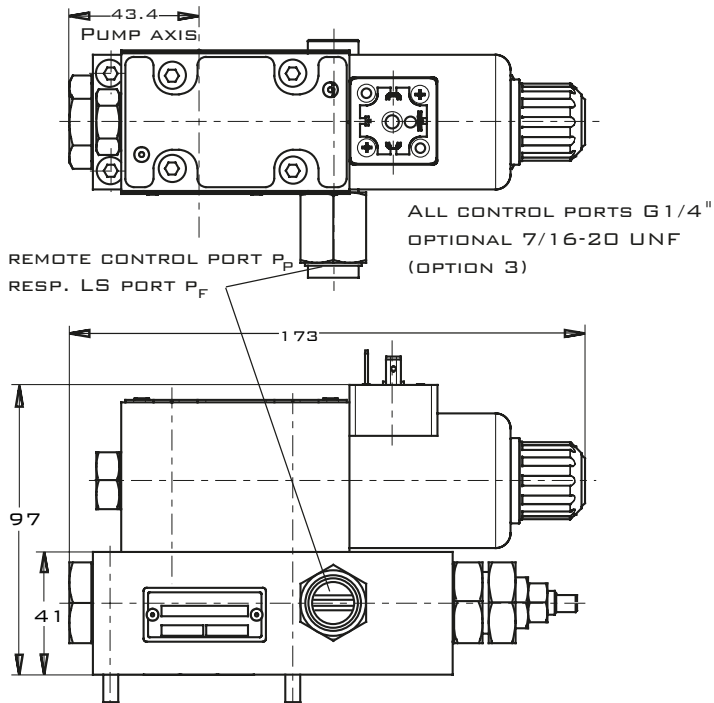
DIMENSIONS HORSE POWER PILOT CARTRIDGE, DISPLACEMENT SENSOR (CONTACTLESS INDUCTIVE POSITION)



AXIAL PISTON PUMPS

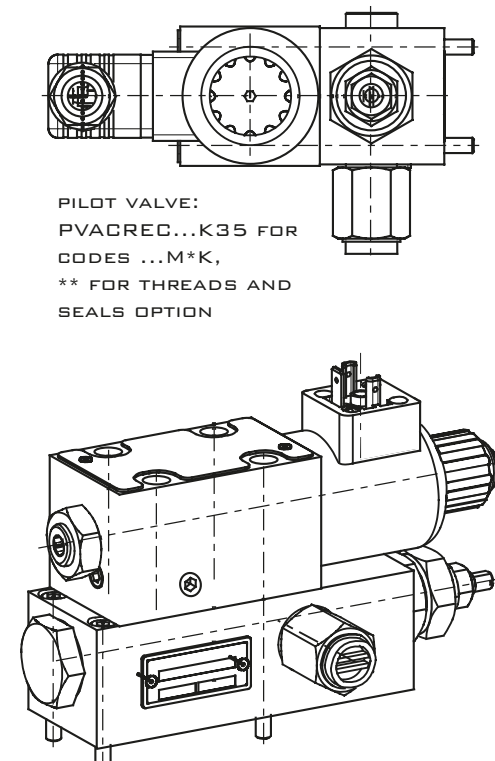
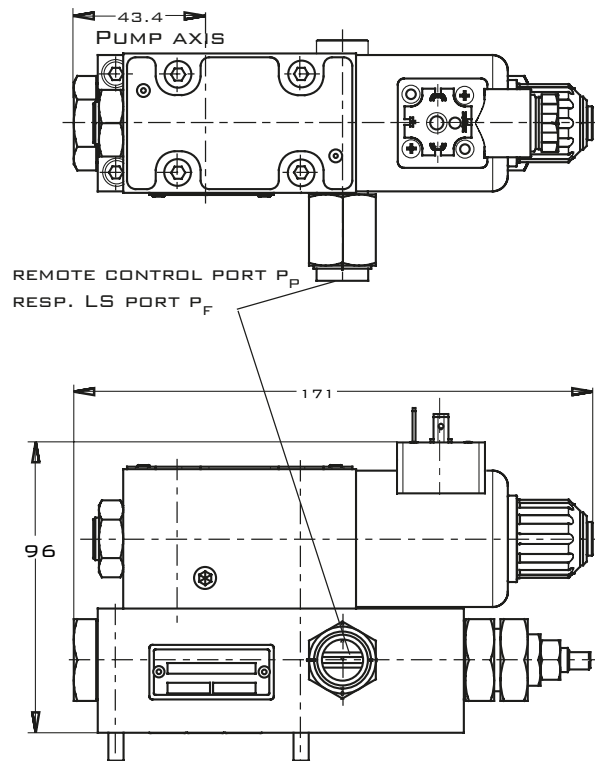
SERIES PVPLUS – DESIGN SERIES 47

DIMENSIONS FOR CONTROLS WITH UNLOADING VALVE, CODES ...M*W



SHOWN IN VERSION MRW/MFW, VERSION MMW HAS NO REMOTE CONTROL PORT.

DIMENSIONS FOR CONTROLS WITH PROPORTIONAL PRESSURE PILOT VALVE, CODES ...M*K



SHOWN IN VERSION MRK/MFK, VERSION MMK HAS NO REMOTE CONTROL PORT.

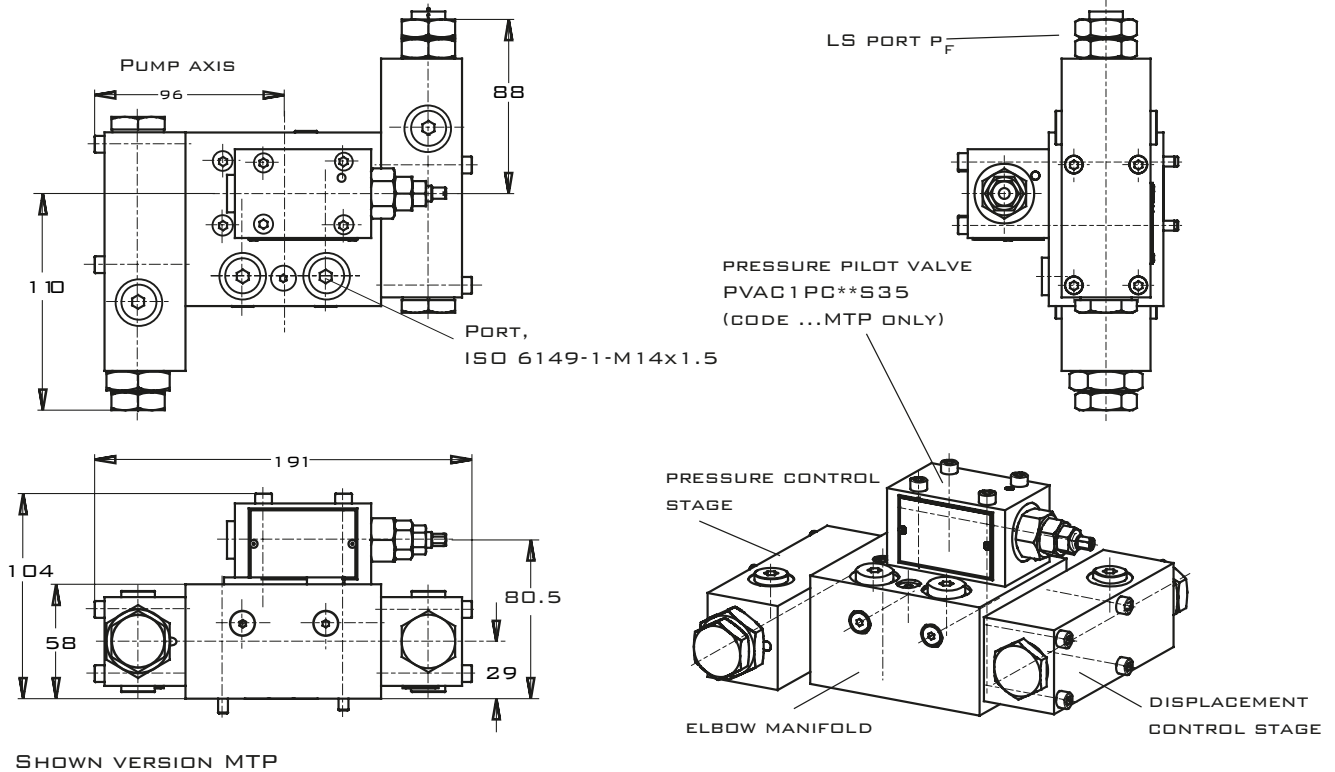
DIMENSIONS FOR HORSE POWER COMPENSATOR *L* AND *C* ARE IDENTICAL TO MM* RESPECTIVELY MF*.

AXIAL PISTON PUMPS

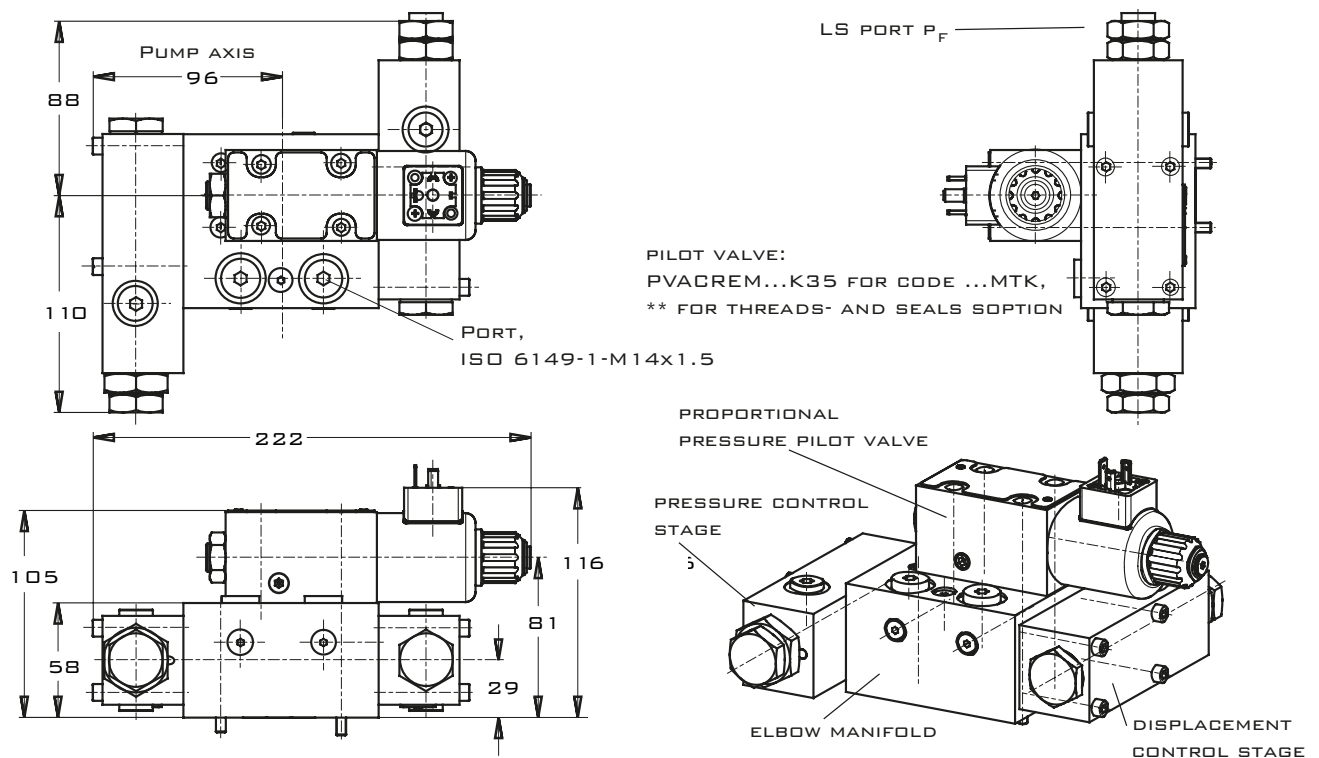
SERIES PVPLUS – DESIGN SERIES 47



DIMENSIONS TWO SPOOL LOAD SENSING CONTROL, CODE ...MT1, ...MTP ALL CONNECTING SCREWS METRIC

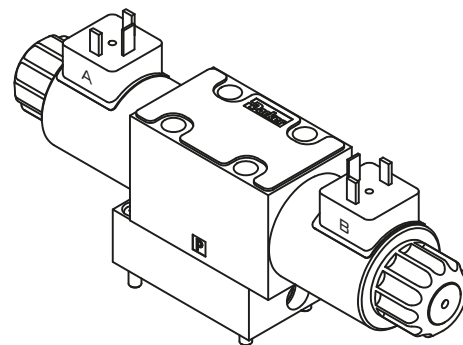
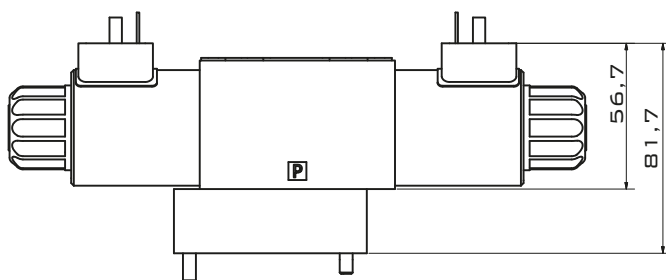
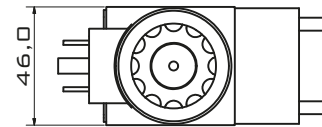
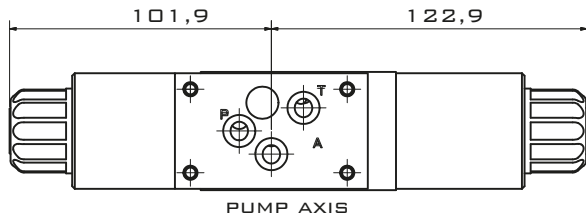


DIMENSIONS TWO SPOOL LOAD SENSING CONTROL WITH PROPORTIONAL PRESSURE PILOT VALVE, CODE ...MTK – ALL CONNECTING SCREWS METRIC



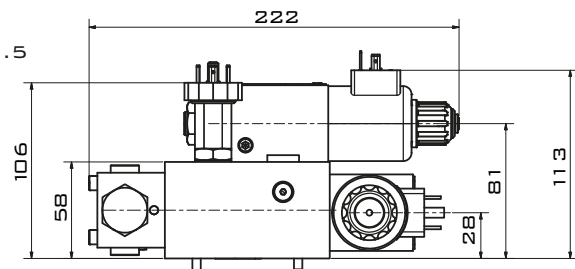
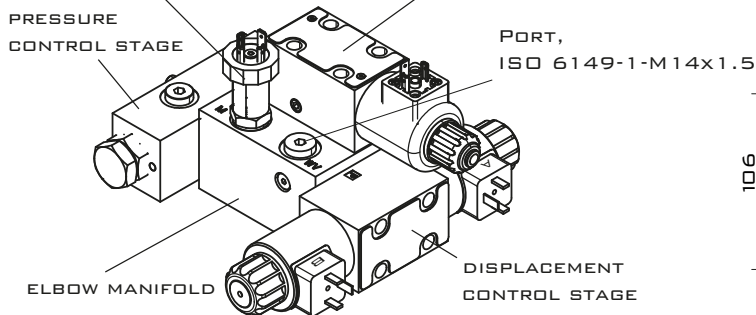
AXIAL PISTON PUMPS SERIES PVPLUS – DESIGN SERIES 47

DIMENSIONS PROPORTIONAL DISPLACEMENT CONTROL, CODE ...FDV
– ALL CONNECTING SCREWS METRIC

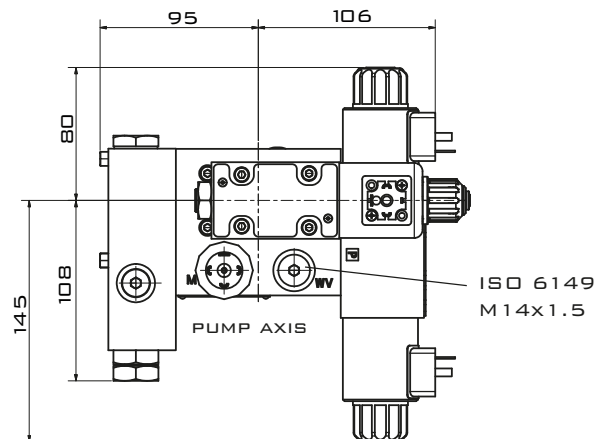
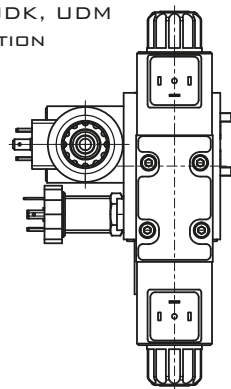


DIMENSIONS PROPORTIONAL P/Q-CONTROL, CODES ...UDR, ...UDK, ...UDM
ALL CONNECTING SCREWS METRIC

PRESSURE SENSOR (CODE ...UDM ONLY) PRESSURE PILOT VALVE (CODES ...UDK, ...UDM ONLY)



PILOT VALVE:
PVAGREM...K35 FOR CODE ...UDK, UDM
** FOR THREADS- AND SEALS OPTION

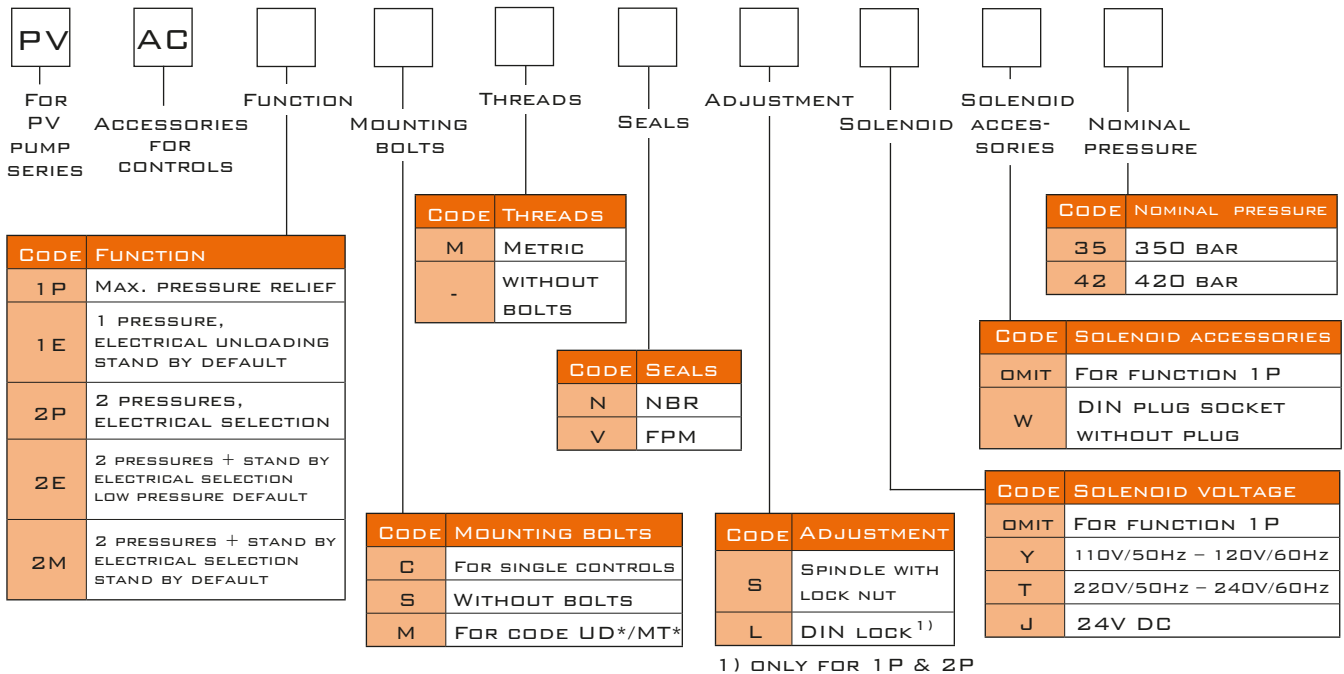


AXIAL PISTON PUMPS

SERIES PVPLUS – DESIGN SERIES 47



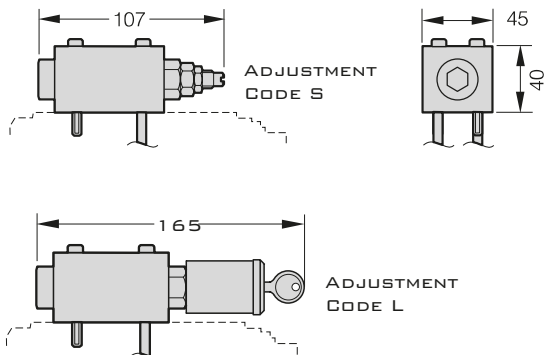
ACCESSORIES CONTROL



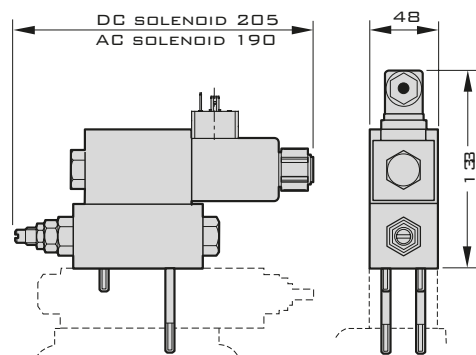
WARNING: RISK OF DAMAGING BOLT HOLES! PRIOR DESIGN SERIES WILL NEED UNC BOLTS FOR PUMPS WITH THREADCODE "3".

DIMENSIONS

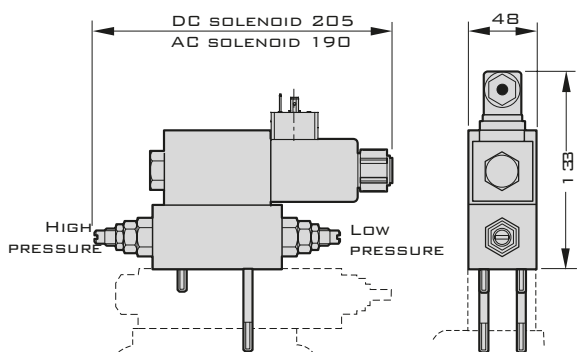
PVAC1P*



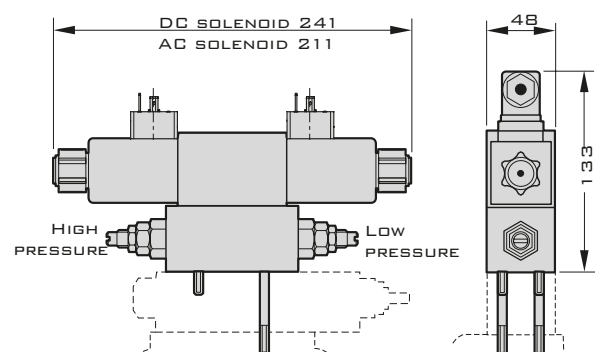
PVAC1E*



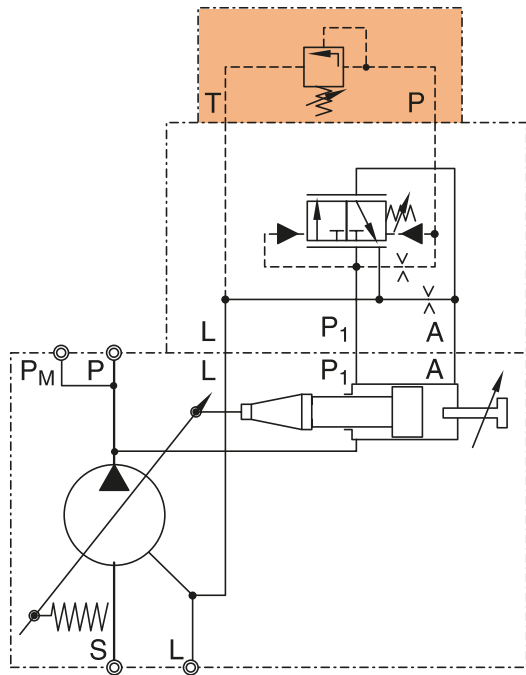
PVAC2P*



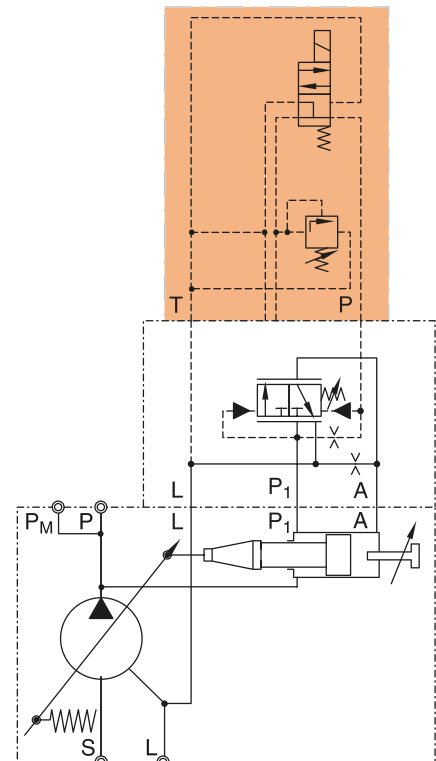
PVAC2M*/PVAC2E*



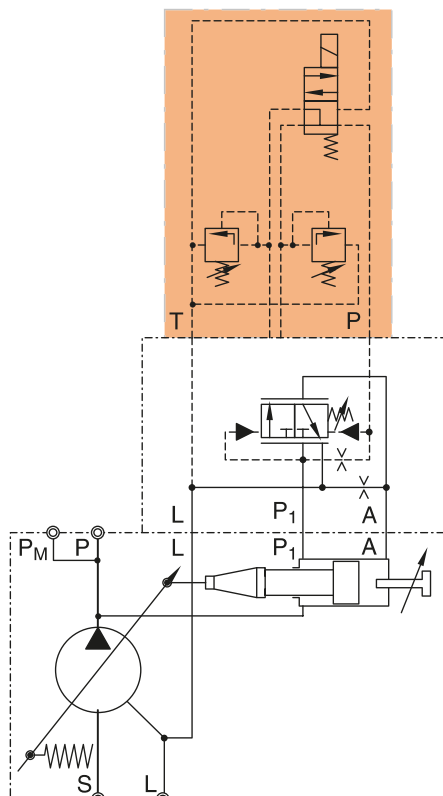
SCHEMATICS PVAC1P*



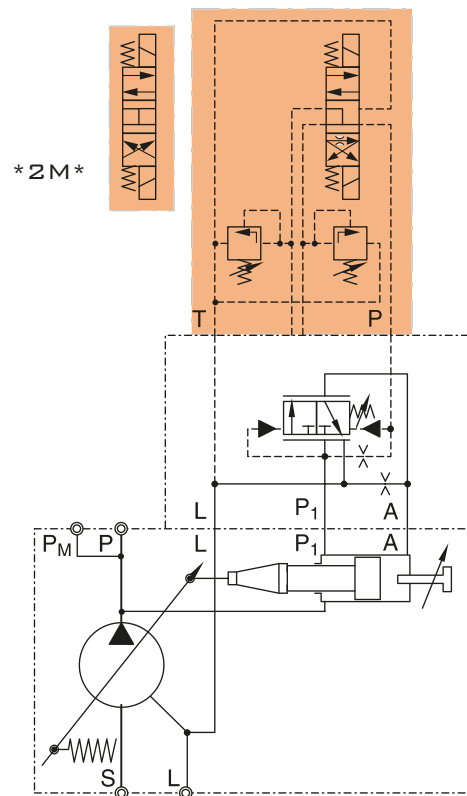
SCHEMATICS PVAC1E*



SCHEMATICS PVAC2P*



SCHEMATICS PVAC2M*/PVAC2E*



AXIAL PISTON PUMPS

SERIES PVPLUS – DESIGN SERIES 47



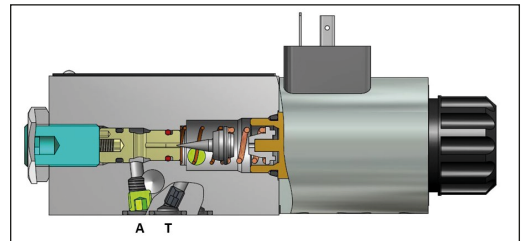
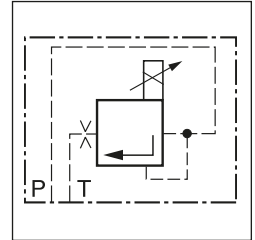
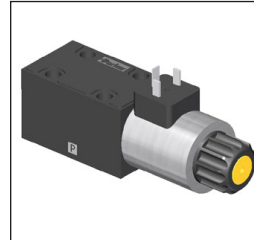
PROPORTIONAL PRESSURE RELIEF VALVE PVACRE*

PROPORTIONAL PRESSURE RELIEF VALVE PVACRE*

THE PRESSURE RELIEF VALVE PVACRE* IS A DIRECT OPERATED PROPORTIONAL VALVE, WHICH IS TYPICALLY USED FOR A REMOTE PRESSURE CONTROL.

FUNCTION

WHEN THE PRESSURE IN PORT P EXCEEDS THE PRESSURE SETTING AT THE SOLENOID, THE CONE OPENS TO PORT T AND LIMITS THE PRESSURE IN PORT P TO THE ADJUSTED LEVEL. THE OPTIMUM PERFORMANCE CAN BE ACHIEVED IN COMBINATION WITH THE DIGITAL AMPLIFIER MODULE PCDOOA-400.



TECHNICAL DATA

GENERAL		
NOMINAL SIZE		DIN NG06 / CETOP03 / NFPA D03
MOUNTING POSITION		AS DESIRED, HORIZONTAL MOUNTING PREFERRED
AMBIENT TEMPERATURE	[°C]	-20 ... +70
WEIGHT	[KG]	1.8
HYDRAULIC		
MAX. OPERATING PRESSURE	[BAR]	PORT P UP TO 420; PORT T DEPRESSURIZED
PRESSURE STAGES	[BAR]	350, 420
FLUID		HYDRAULIC OIL AS PER DIN 51524 ... 525
VISCOSITY, RECOMMENDED PERMITTED	[cST]/ [MM ² /S] [cST]/ [MM ² /S]	30 ... 80 12 ... 380
FLUID TEMPERATURE	[°C]	-20 ... +60
FILTRATION		ISO 4406 (1999), 18/16/13
LINEARITY	[%]	±4
REPEATABILITY	[%]	±2
HYSTERESIS	[%]	±4.5 OF P _{MAX}
ELECTRICAL		
DUTY RATIO	[%]	100 ED
PROTECTION CLASS		IP 65 IN ACCORDANCE WITH EN 60529 (PLUGGED AND MOUNTED)
NOMINAL VOLTAGE	[V]	12 (2.2 A FOR NOMINAL PRESSURE)
COIL RESISTANCE	[OHM]	4.4 AT 20°C
SOLENOID CONNECTION		CONNECTOR AS PER EN 175301-803
POWER AMPLIFIER, RECOMMENDED		PCDOOA-400 (OPEN LOOP – NO SENSOR), PWDXXA-400 (CLOSED LOOP – WITH PRESSURE SENSOR)
RECOMMENDED DITHER FREQUENCY	[Hz]	60
RECOMMENDED DITHER AMPLITUDE	[%]	4

AXIAL PISTON PUMPS SERIES PVPLUS – DESIGN SERIES 47

ORDERING CODE PROPORTIONAL PRESSURE RELIEF VALVE

PV	AC	RE				K	
PUMP SERIES PV	ACCESSORIES FOR CONTROLLER	PROP. PRESSURE VALVE	MOUNTING BOLTS	THREAD OPTION	SEAL	12VDC	NOMINAL PRESSURE

CODE	MOUNTING BOLTS/ PORTS
C	FOR SINGLE CONTROLLER
S	WITHOUT BOLTS
M	FOR CODE UD*/MT* DESIGN SERIES 45 - 47

CODE	THREAD OPTION
M	METRIC
-	IF LESS BOLTS

CODE	NOMINAL PRESSURE
35	350 BAR
42	420 BAR

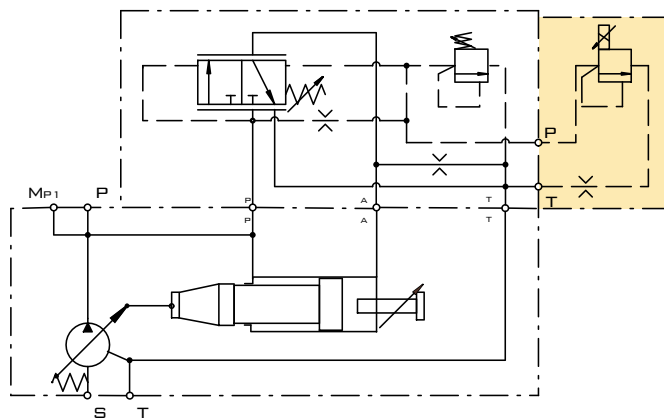
CODE	SEAL
N	NBR
V	FPM

WARNING:

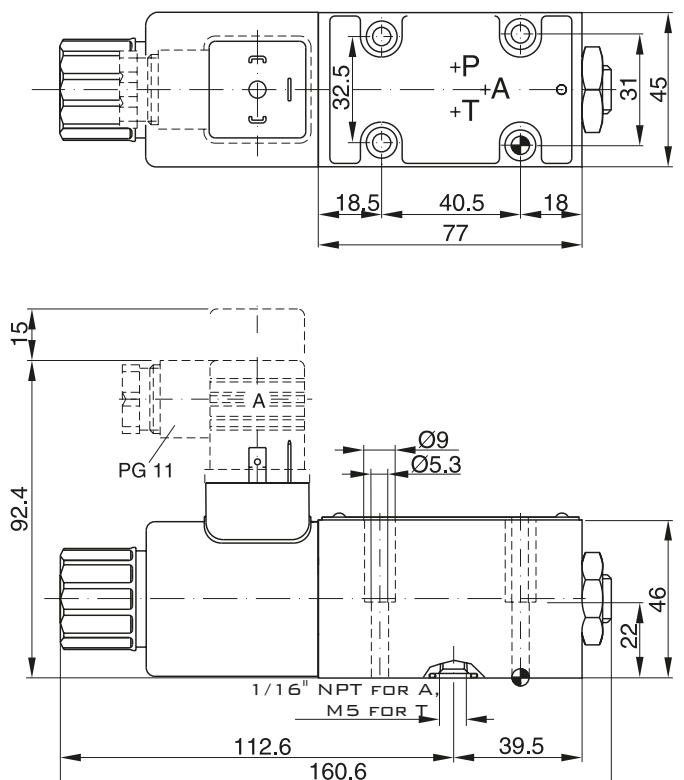
RISK OF DAMAGING BOLT HOLES! PRIOR DESIGN SERIES WILL NEED UNC BOLTS FOR PUMPS WITH THREADCODE "3".

SCHEMATIC PVACRE*

EXAMPLE FOR PVACRE* MOUNTED



DIMENSIONS PVACRE*



AXIAL PISTON PUMPS

SERIES PVPLUS – DESIGN SERIES 47



PROPORTIONAL PRESSURE RELIEF VALVE PVACRE*T

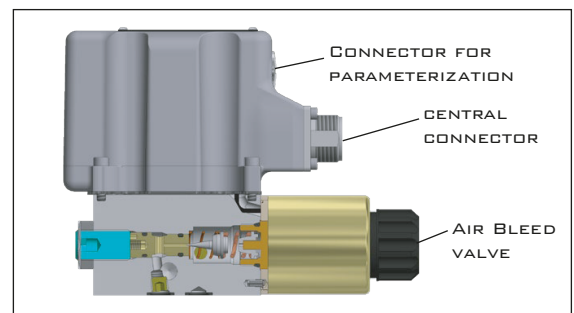
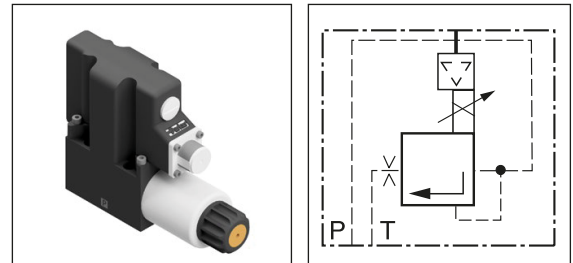
PROPORTIONAL PRESSURE RELIEF VALVE WITH OBE PVACRE*T

THE DIRECT OPERATED PROPORTIONAL PRESSURE VALVES OF THE REQ6M*T SERIES WITH INTEGRATED ELECTRONICS ARE BASED ON THE FUNCTIONALITY OF THE PVACRE SERIES. THE DIGITAL ONBOARD ELECTRONIC ARE SECURELY HOUSED IN A ROBUST METAL BOX AND CAN ALSO BE USED UNDER HARSH AMBIENT CONDITIONS. THE SET VALVE PARAMETERS HAVE BEEN SPECIALLY TUNED TO THE PVPLUS PUMP SERIES.

VALVE PARAMETERS CAN BE ADJUSTED AND DIAGNOSTIC VALUES DISPLAYED BY USING THE PROPXD SOFTWARE AND THE OPTIONALLY AVAILABLE PARAMETERIZATION CABLE.

FUNCTION

WHEN THE PRESSURE IN PORT P EXCEEDS THE PRESSURE SETTING AT THE SOLENOID, THE CONE OPENS TO PORT T AND LIMITS THE PRESSURE IN PORT P TO THE ADJUSTED LEVEL.



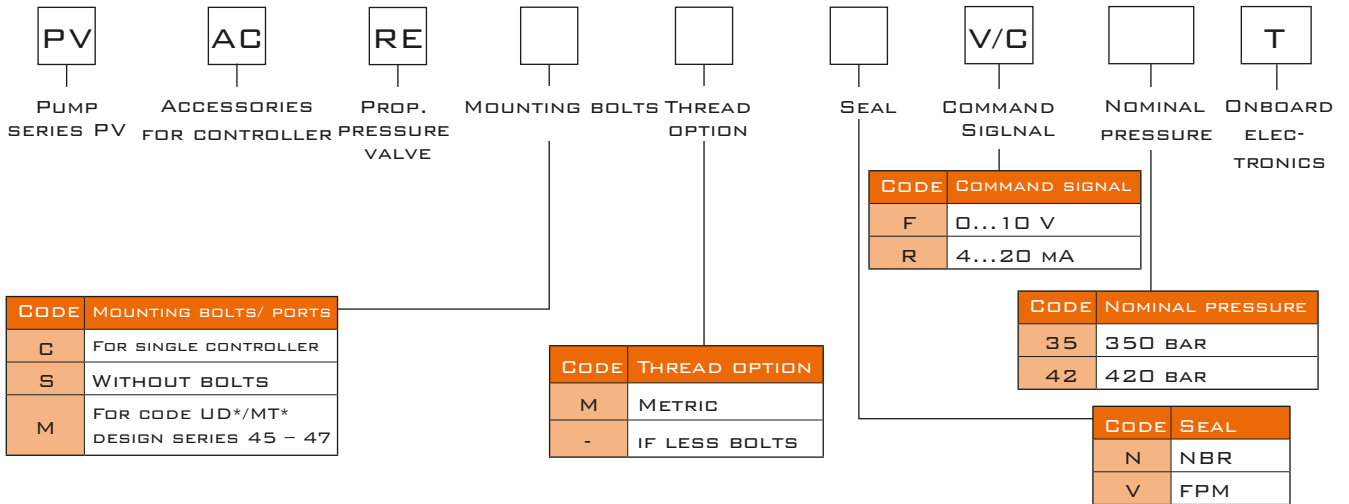
TECHNICAL DATA

GENERAL		
NOMINAL SIZE		DIN NG06 / CETOP03 / NFPA D03
MOUNTING POSITION		AS DESIRED, HORIZONTAL MOUNTING PREFERRED
AMBIENT TEMPERATURE	[°C]	-20 ... +70
WEIGHT	[KG]	2.2
HYDRAULIC		
MAX. OPERATING PRESSURE	[BAR]	PORT P UP TO 420; PORT T DEPRESSURIZED
PRESSURE STAGES	[BAR]	350, 420
FLUID		HYDRAULIC OIL AS PER DIN 51524 ... 525
VISCOSITY, RECOMMENDED PERMITTED	[cST]/ [MM ² /S] [cST]/ [MM ² /S]	30 ... 80 12 ... 380
FLUID TEMPERATURE	[°C]	-20 ... +60
FILTRATION		ISO 4406 (1999), 18/16/13
LINEARITY	[%]	±4
REPEATABILITY	[%]	±2
HYSTERESIS	[%]	±4.5 OF P _{MAX}
ELECTRICAL		
DUTY RATIO	[%]	100 ED
PROTECTION CLASS		IP 65 IN ACCORDANCE WITH EN 60529 (PLUGGED AND MOUNTED)
NOMINAL VOLTAGE	[V]	18 ... 30 (2 A FOR NOMINAL PRESSURE)
COIL RESISTANCE	[OHM]	4.4 AT 20°C
SOLENOID CONNECTION		CONNECTOR AS PER EN 175301-803



AXIAL PISTON PUMPS SERIES PVPLUS – DESIGN SERIES 47

ORDERING CODE PROPORTIONAL PRESSURE RELIEF VALVE WITH OBE

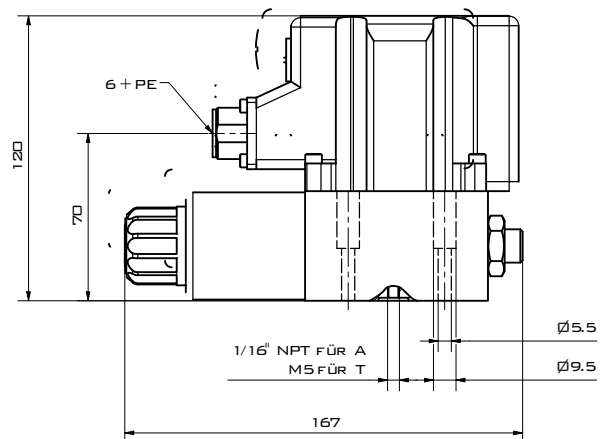
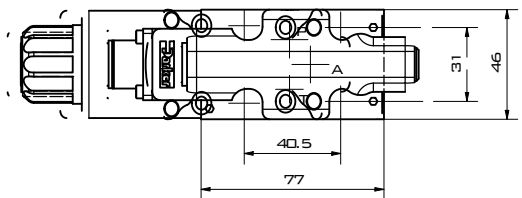
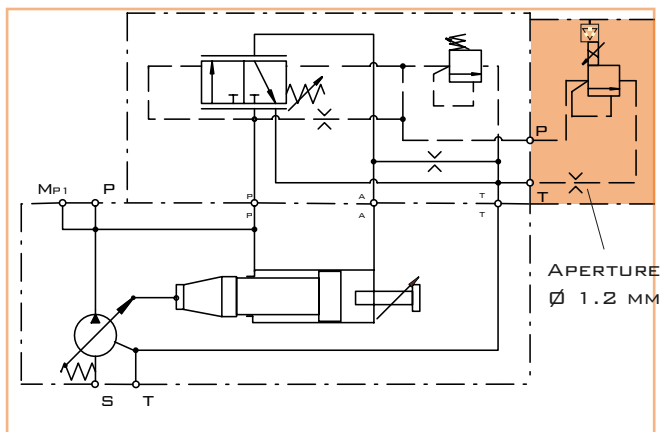


WARNING:
RISK OF DAMAGING BOLT HOLES! PRIOR DESIGN SERIES WILL NEED
UNC BOLTS FOR PUMPS WITH THREADCODE "3".

SCHEMATIC PVACRE*T

DIMENSIONS PVACRE*T

EXAMPLE FOR PVACRE* T MOUNTED



AXIAL PISTON PUMPS

SERIES PVPLUS – DESIGN SERIES 47



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: PVD16 - PVD28
2	PUMP SIZE 2: PVD32 - PVD46
3	PUMP SIZE 3: PVD63 - PVD92
4	PUMP SIZE 4: PV140 - PV180
5	PUMP SIZE 5: PV270 - PV360

CODE	SECOND PUMP, SAE
T	PREPARED FOR THROUGH DRIVE OPTION (PLUGGED)
A	SAE A-2, DIAMETER 82.55 MM
B	SAE B-2/4, DIAMETER 101.6 MM
C	SAE C-2/4, DIAMETER 127 MM
D	SAE D-4, DIAMETER 152.4 MM
E	SAE E-4, DIAMETER 165.1 MM
SECOND PUMP, METRIC	
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: PVD16 - PVD28
2	PUMP SIZE 2: PVD32 - PVD46
3	PUMP SIZE 3: PVD63 - PVD92
4	PUMP SIZE 4: PV140 - PV180
5	PUMP SIZE 5: PV270 - PV360

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

KIT CONTAINS POSITIONS 1 (AND 2 FOR KEYED SHAFT).

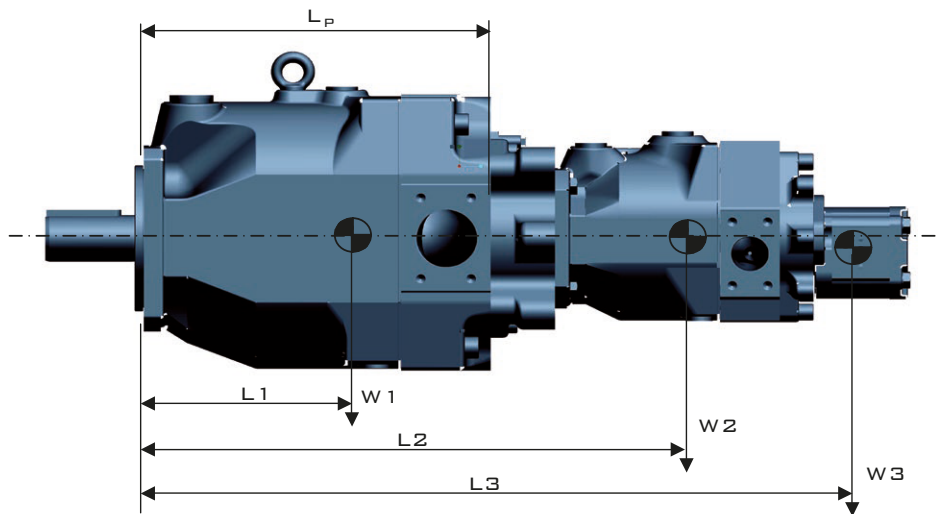
* FOR PV360 ONLY

AVAILABILITY OF THROUGH DRIVE FLANGE AND COUPLING PLEASE CHECK WITH ORDERING CODE OPTIONS PER EACH PUMP SIZE

MULTIPLE PUMP COMBINATIONS – MAXIMUM MOMENT

COMBINATIONS OF MULTIPLE PUMPS MIGHT REQUIRE ADDITIONAL PUMP SUPPORT TO AVOID HIGH STRESS ON THE FRONT MOUNTING FLANGE. COMBINATIONS OF TWO PVPLUS PUMPS IN THE SAME FRAME SIZE GENERALLY DO NOT NEED ADDITIONAL SUPPORT IN AN INDUSTRIAL APPLICATION. FOR COMBINATIONS OF MORE PUMPS SUPPORT IS REQUIRED.

IN CASE OF COMBINATIONS OF A PVPLUS PUMP WITH ANOTHER TYPE OF PUMP IT IS RECOMMENDED TO CALCULATE THE MOMENT FOR THE COMBINATION AND COMPARE WITH THE MAXIMUM MOMENT IN TABLE 1 BELOW.



$$\text{MOMENT } M = (L1 \times W1 + L2 \times W2 + L3 \times W3 + \dots)$$

NOTE: IF THE CALCULATED MOMENT M EXCEEDS THE MAXIMUM MOMENT IN TABLE 1 BELOW, ADDITIONAL PUMP SUPPORT IS NEEDED

TABLE 1: MAXIMUM MOMENT AND PUMP DIMENSIONS

	PV016-PV028	PV032-PV046	PV063-PV092	PV140-PV180	PV270	PV360
MAXIMUM MOMENT ¹⁾ [NM]	81	151	401	591	1686	1686
WEIGHT W [N]	186	294	589	883	1687	1766
DISTANCE L1 [MM TO C/G]	106	119	178	184	234	238
DISTANCE LP [MM]	197.5	227	287	350	472.5	477

¹⁾ AT DYNAMIC WEIGHT ACCELERATION 10G = 98.1 M/SEC²

TABLE 2 THROUGH DRIVE ADAPTER PLATE THICKNESS [MM]

ADAPTER OPTION ²⁾	PV016-PV028	PV032-PV046	PV063-PV092	PV140-PV180	PV270	PV360
A	27	34	39	65	59	59
B	27	34	39	65	59	59
C	-	49	39	65	59	59
D	-	-	64	65	59	59
E	-	-	-	-	59	59
G	27	34	39	-	-	-
J	27	34	39	65	59	59
K	-	34	39	65	59	59
L	-	-	39	65	59	59
M	-	-	-	-	59	59

AXIAL PISTON PUMPS

SERIES PVPLUS – DESIGN SERIES 47



THROUGH DRIVE – SHAFT LOAD LIMITATIONS

MAXIMUM ALLOWED TRANSFERABLE TORQUE FRONT							
SHAFT CODE	SHAFT TYPE	TRANSFERABLE TORQUE AT FRONT SHAFT END. [NM]					
		PV016-028	PV032-046	PV063-092	PV140-180	PV270	PV360
D	SAE - KEY	300	650	1850	2150	2150	4750
E	SAE - SPLINE	320	630	1700	2750	2800	8100*
F	SAE - KEY				1200		
G	SAE - SPLINE				1700		
R	METRIC - KEY						3750
T	METRIC - SPLINE						8100
K	METRIC - KEY	280	640	1200	1550	3300	3750
L	METRIC - SPLINE	320	720	1500	3050	5750	8100
MAXIMUM ALLOWED TRANSFERABLE TORQUE REAR							
MAX. TORQUE TRANSMISSION CAP. FOR REAR MOUNTED PUMP		350	520	1100	1550	3150	3250

* DIN5480 SPLINED

IMPORTANT NOTICE:

THE MAX. ALLOWABLE TORQUE OF THE INDIVIDUAL SHAFT MUST NOT BE EXCEEDED. FOR 2-PUMP COMBINATIONS THERE IS NO PROBLEM BECAUSE PV SERIES OFFERS 100 % THROUGH TORQUE. FOR 3-PUMP COMBINATIONS (AND MORE) THE LIMIT TORQUE COULD BE REACHED OR EXCEEDED. THEREFORE IT IS NECESSARY TO CALCULATE THE RESULTING INPUT AS WELL AS THROUGH DRIVE TORQUE.