

BENT AXIS HYDRAULIC MOTORS, PUMPS AND ACCESSORIES



 **Hidro
KONTROL**

www.hidrokontrol.com.tr

FIXED SINGLE FLOW PUMPS

HPT hydraulic is your right supplier of wide range of bent-axis pumps. These pumps are boost for all hydraulic application. The different sizes start from 12-130 cm³ with pressure up to 400 bar.



2/3

HPTP 012-108 DIN



4/5

HPTL 040-064 DIN



6/7

HPTP DIN Optimised

DOUBLE OUTPUT FLOW PUMPS

For high achievement of hydraulic system, we offer dual pumps with fixed displacement. these pumps are HPTD and HPTDL comprises with 9 different sizes start from 20/20 cm³ up to 53/53 cm³. the HPTD are bent-axis design whereas the HPTDL pump are of inline design with swash plate.



16/17

HPTD 56/26 DIN
dual displacement

FIXED DISPLACEMENT BENT- AXIS MOTORS

HPT hydraulic motors are not only SAE,ISO and DIN standard but also cartridge motors. The displacement is 12-130 cm³ depend on choice of shafts, seals and connection ports. Both high revolution speeds and operating pressure up to 400 bar gives a power output up to 285kw.



20/21

HPTM 012-130 DIN



22/23

HPTM 012-130 SAE



22/23

HPTM 012-034 SAE B2

HPT'S ACCESSORIES

HPT'S accessories are well designed and uniquely manufactured to meet our customer needs.



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POWER TAKE-OFF



28

ADAPTER & FLANGES

8/9



HPTF 090-130 DIN
five pistons

10/11



HPTP 084-108 DIN
optimized for Injector

12/13



HPTP 012-108 SAE
pumps

14/15



HPT 012-130 ISO
type pump

VARIABLE DISPLACEMENT PUMPS

The displacement of our variable pumps are 62, 92, 112 and 130 cm³. The operating pressure reach up to 450 bar. We offer different types of regulators and tandem pump assembly to enable you to use this pump in almost all hydraulic applications.

18/19



HPTVH 062, 092, 112

18/19



HPTVH 130

24/25



HPTM 012-130 ISO
motors

26/27



HPTM 025-108 M2
motors

28



PUMP BRACKETS

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**ANTI-CAVITATION &
FLUSHING VALVES**

29



K-JET INJECTORS

HPTP 012-108 DIN

HPTP 012-108 DIN is a fixed displacement bent-axis pumps for mobile hydraulic applications.

HPTP 012-0108 DIN pumps displacement range 12-108 cm/rev.

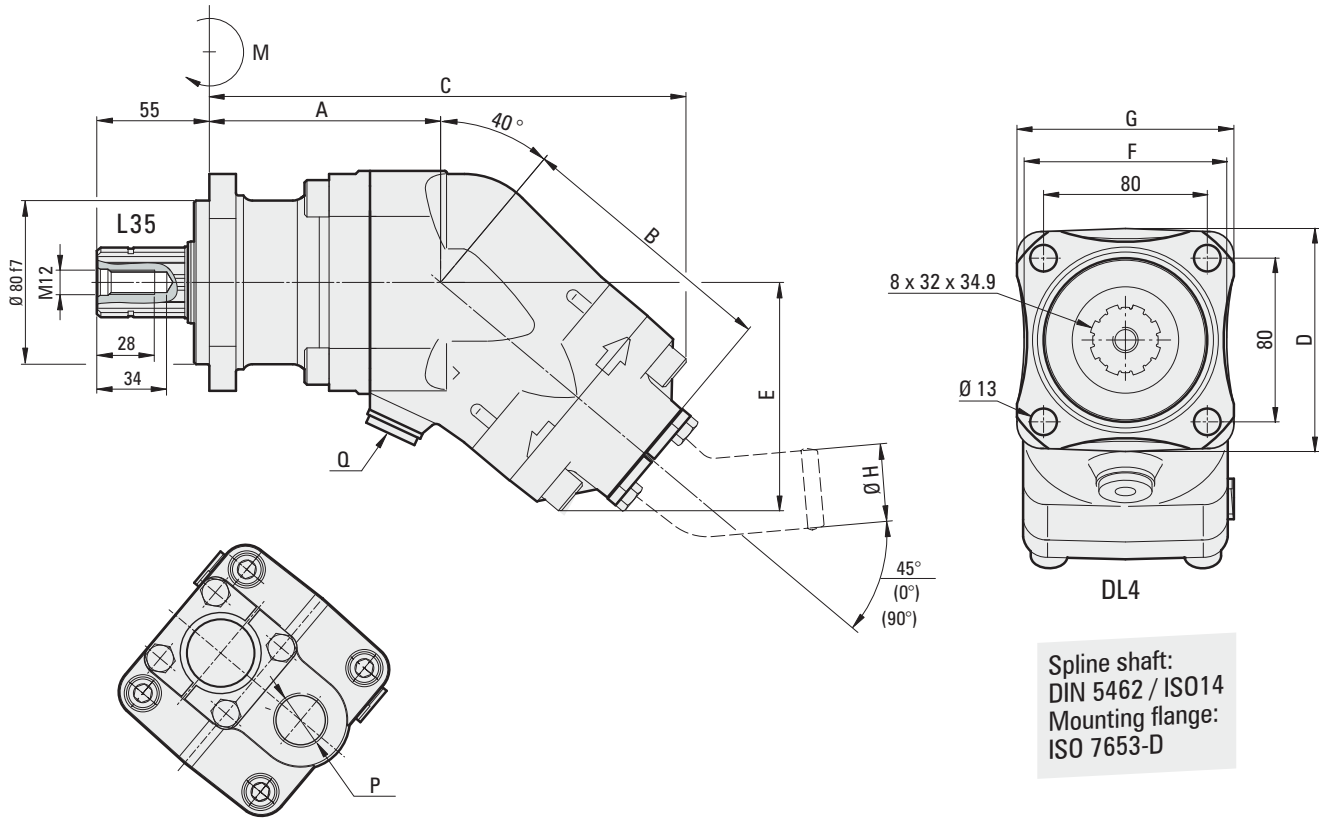
Maximum operating pressure is 400 bar. This pump meets the market's high demands due to its high flow performance, pressure efficiency and simplest of installation.

Further advantages:

- Low noise levels at high maximum speed due to its quality production and design.
- The operation over the entire speed range is smooth.
- Long usage life due to its high demands on material selection such as seals, bearings, ect.
- To avoid leakage from the pump and PTO, there are O-rings on all contact surfaces and double shaft seals for high pressure.
- All pumps are test under extreme testing environment before delivery to custom.
- Easy to change the rotation of pump flow.



HYDRAULIC PUMP



Spline shaft:
DIN 5462 / ISO14
Mounting flange:
ISO 7653-D

HPTP 012-108 DIN		012	017	025	034	040	047	056	064	084	108		
Theoretical oil flow l/min at pump speed		l/min											
	rpm	500	6.3	8.5	12.7	17.1	20.6	23.5	28.0	31.8	41.5	54.0	
		1000	12.6	17.0	25.4	34.2	41.2	47.1	56.0	63.6	83.6	108.0	
		1500	18.9	25.5	38.1	51.3	61.8	70.6	84.0	95.4	125.4	162.0	
Displacement	cm ³ /rev		12.6	17.0	25.4	34.2	41.2	47.1	56.0	63.6	83.6	108.0	
Max pump speed													
	rpm		2300	2300	2300	2300	1900	1900	1900	1900	1500	1500	
			3000	3000	3000	3000	2500	2500	2500	2500	2000	2000	
Max working pressure	bar		400	400	400	400	400	400	400	400	400	400	
Weight	kg		8.3	8.3	8.5	8.5	11.7	11.7	11.7	11.7	17.0	17.0	
Dimensions	mm	A	97	97	97	97	113	113	113	113	123	123	
		B	112	112	112	112	130	130	130	130	147	147	
		C	202	202	202	202	228	228	228	228	259	259	
		D	99	99	99	99	109	109	109	109	109	126	126
		E	97	97	97	97	109	109	109	109	109	126	126
		F	89	89	89	89	99	99	99	99	99	115	115
		G	97	97	97	97	106	106	106	106	106	123	123
		H	38	38	38	38	38	38	38	38	38	50	50
				50	50	50	50	50	50	50	50	64	64
				ISO G	P	3/4	3/4	3/4	3/4	3/4	3/4	3/4	1
		ISO G	Q	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	
Tare-weight torque (M)	Nm		6.9	6.9	7.4	7.4	13	13	13	13	21	21	
Direction of rotation			Left (L) or Right (R)										

HPTL 040-064 DIN

HPTL 040-064DIN is a fixed displacement bent-axis pumps with light weight housing for mobile hydraulic applications.

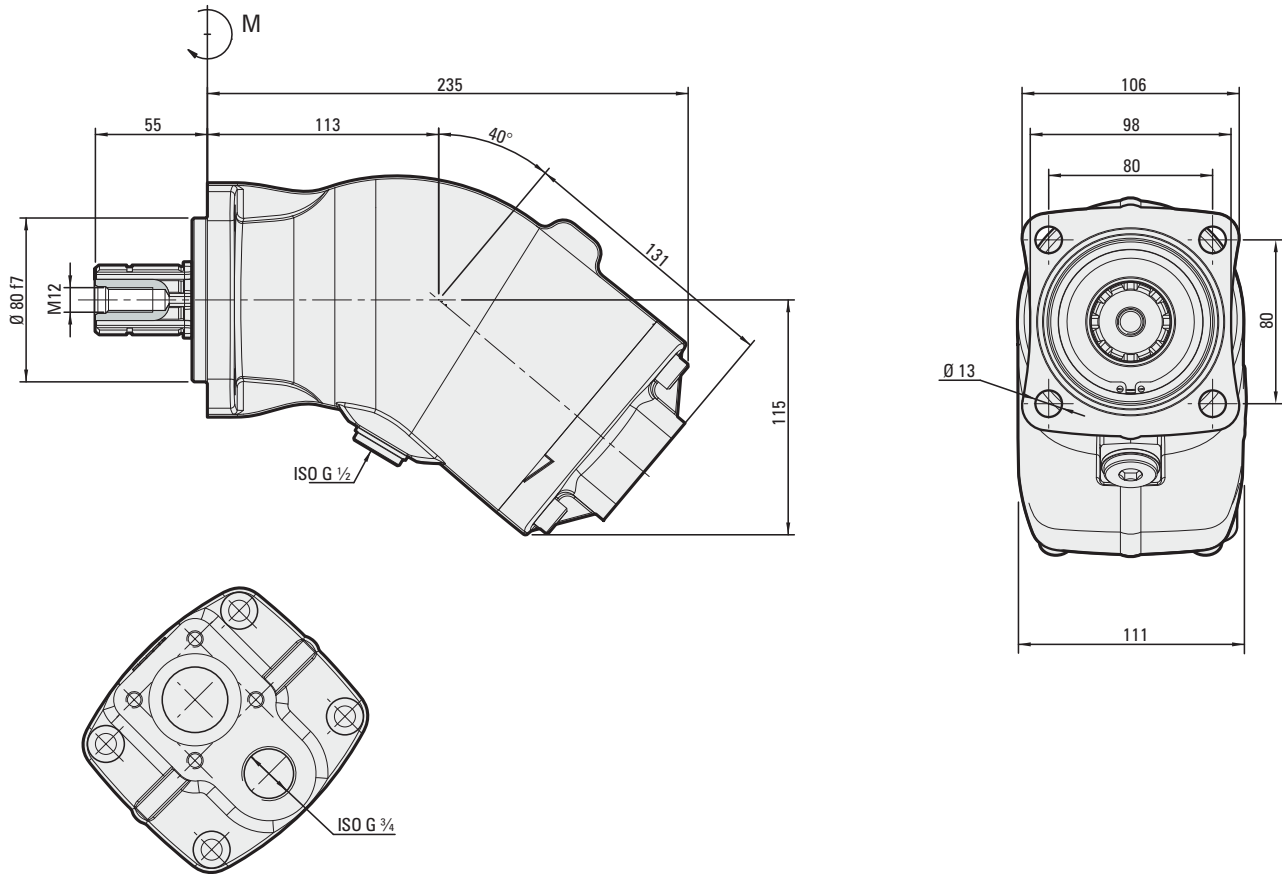
HPTAP 040-064 DIN is light weight pump with maximum pressure up to 400 bar. This pump for modern mobile hydraulic trucks. This pump meets the market's high demands due to its high flow performance, pressure efficiency and simplest of installation.

Further advantages:

- Light weight metal casing design offer low custom fees for many countries.
- The operation over the entire speed range is smooth.
- Long usage life due to its high demands on material selection such as seals, bearings, ect.
- Less heat generation due to its housing design.



HYDRAULIC PUMPS



HPTL 040-064 DIN			040	047	056	064
Theoretical oil flow at pump speed	l/min					
		500	20.6	23.5	28.0	31.8
	rpm	1000	41.2	47.1	56.0	63.6
		1500	61.8	70.6	84.0	95.4
Displacement	cm ³ /rev.		41.2	47.1	56.0	63.6
Max pump speed:	rpm	continuous	1900	1900	1900	1900
		limited	2500	2500	2500	2500
Max working pressure	bar	continuous	350	350	350	350
		intermittent	400	400	400	400
Weight	kg		9.8	9.8	9.8	9.8
Tare-weight torque (M)	Nm		11.5	11.5	11.5	11.5
Direction of rotation	Left (L) and Right (R)					

Intermittent operation is equated to a max of 6 seconds per minute.

HPTP DIN Optimized

HPTP DIN optimized is a fixed displacement bent-axis pumps for mobile hydraulic applications.

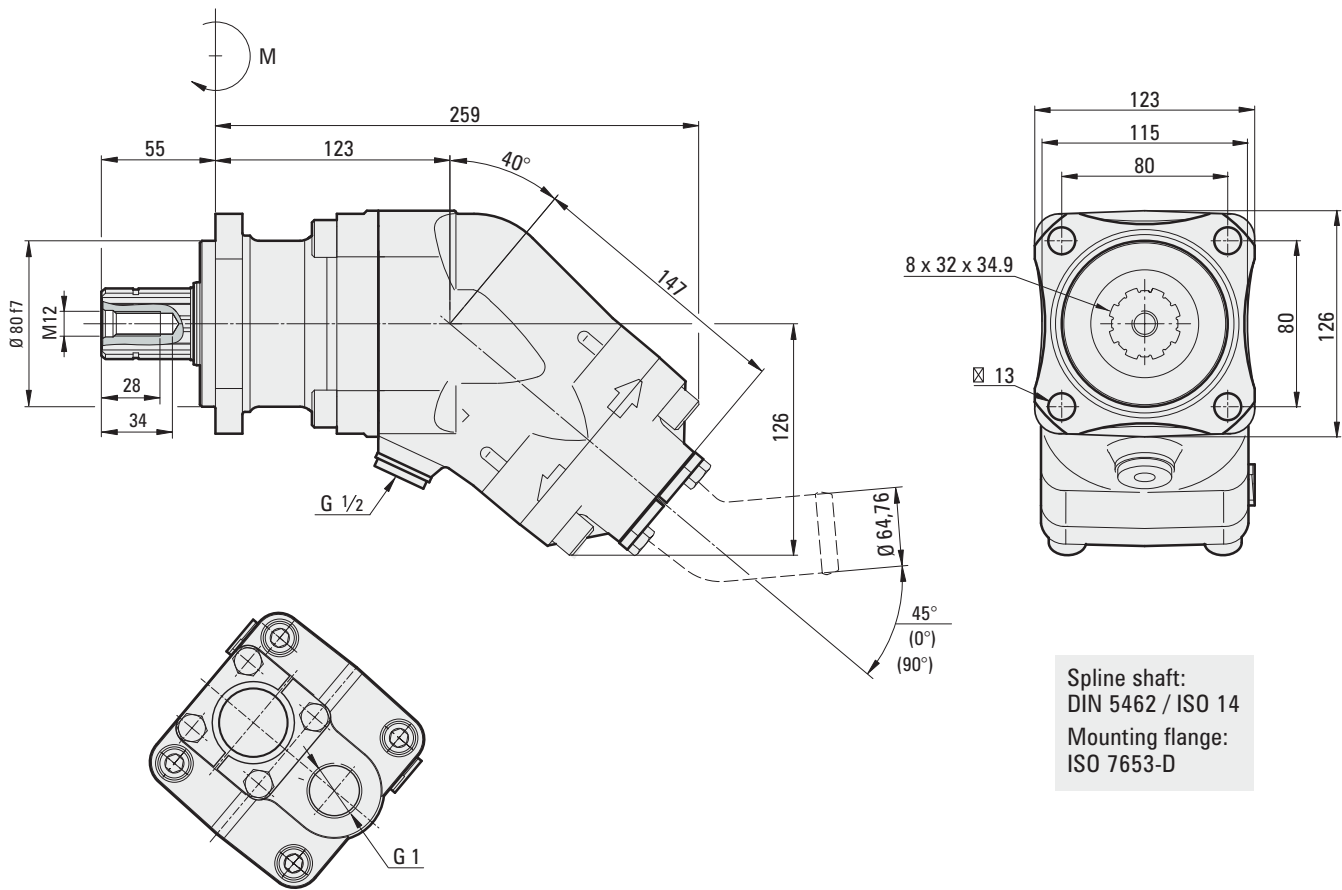
HPTP 084-108 DIN optimized pumps displacement range 84 and 108 cm³/rev. This operating pressure reaches up to 400 bar. This modern pump meets the market's high demands due to its high flow performance, pressure efficiency and simplest of installation. Due to it is speed-optimized pump, we offer it either left (L) or right (R) rotation direction.

Further advantages:

- We use Viton- seals in front shaft seals to stand higher temperatures involved with engine mounting.
- Low noise levels at high maximum speed due to its quality production and design.
- The operation over the entire speed range is smooth.
- Long usage life due to its high demands on material selection such as seals, bearings, ect
- To avoid leakage from the pump and PTO, there are O-rings on all contact surfaces and double shaft seals for high pressure.



HYDRAULIC PUMPS



HPTP DIN Optimised		084	108
Nominal oil speed at pump speed	rpm	500	54.0
		1000	108.0
		1500	162.0
Displacement	cm ³ /rev.	83.6	108.0
Max pump speed:	rpm	1700	1800
		2200	2300
Max operating pressure	bar	350	350
		400	400
Weight	kg	17.0	17.0
Tare-weight torque (M)	Nm	21	21
Direction of rotation	Left (L) and Right (R)		

Intermittent operation is equated to a max of 6 seconds per minute.

HPTF 090 & 130 DIN five pistons

HPTF 090&130 DIN FIVE PISTONS is a fixed displacement bent-axis pumps for mobile hydraulic applications.

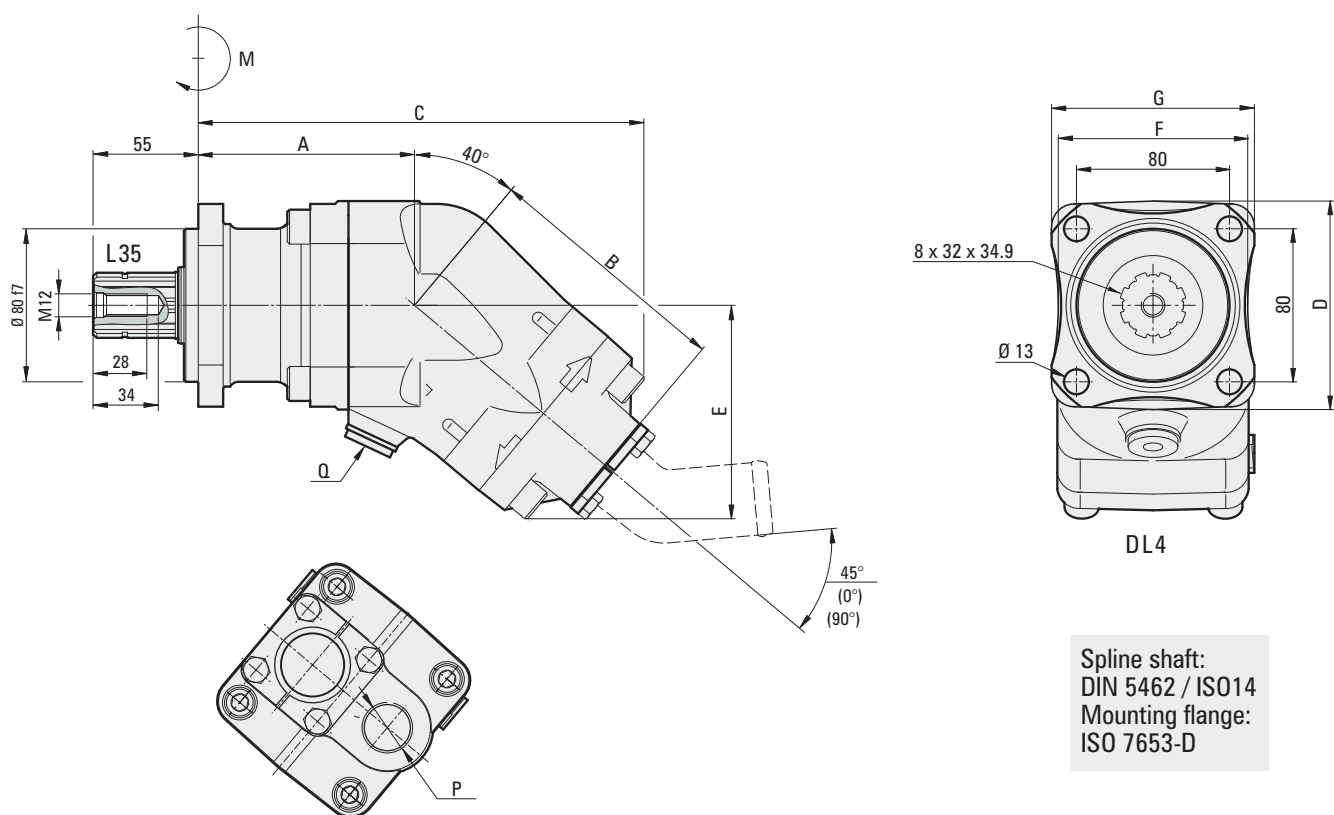
HPTF 090&130 DIN are an ideal pumps for applications that require both a high flow and a high pressure. It is easy mounted directly on the PTO or on a frame bracket via an intermediate shaft.

Further advantages:

- Low noise levels at high maximum speed due to its quality production and design.
- The operation over the entire speed range is smooth.
- Long usage life due to its high demands on material selection such as seals, bearings, ect.
- To avoid leakage from the pump and PTO, there are O-rings on all contact surfaces and double shaft seals for high pressure.
- All pumps are test under extreme testing environment before delivery to custom.
- Easy to change the rotation of pump flow.



HYDRAULIC PUMPS



HPTF 090 & 130 DIN FIVE PISTONS		090	130	
Nominal oil flow at pump speed	rpm	500	65.0	
		1000	130.0	
		1500	195.0	
Displacement	cm ³ /rev.	90.0	130.0	
Max pump speed:				
	continuous	rpm	1500	
intermittent		2000	2000	
Max working pressure	bar	300	300	
Weight	kg	11.7	17.0	
Dimensions	mm	A	113	
		B	130	
		C	228	
		D	109	
		E	109	
		F	99	
		G	106	
		ISO G	P	3/4
		ISO G	Q	1/2
				1/2
Tare-weight torque (M)	Nm	13	21	
Direction of rotation	Left (L) and Right (R)			

HPTP 084 & 108 DIN optimized for injector

HPTPDIN is a fixed displacement bent-axis pumps for mobile hydraulic applications. The combination of HPTP pump and injector K-Jet2 offers high oil flow.

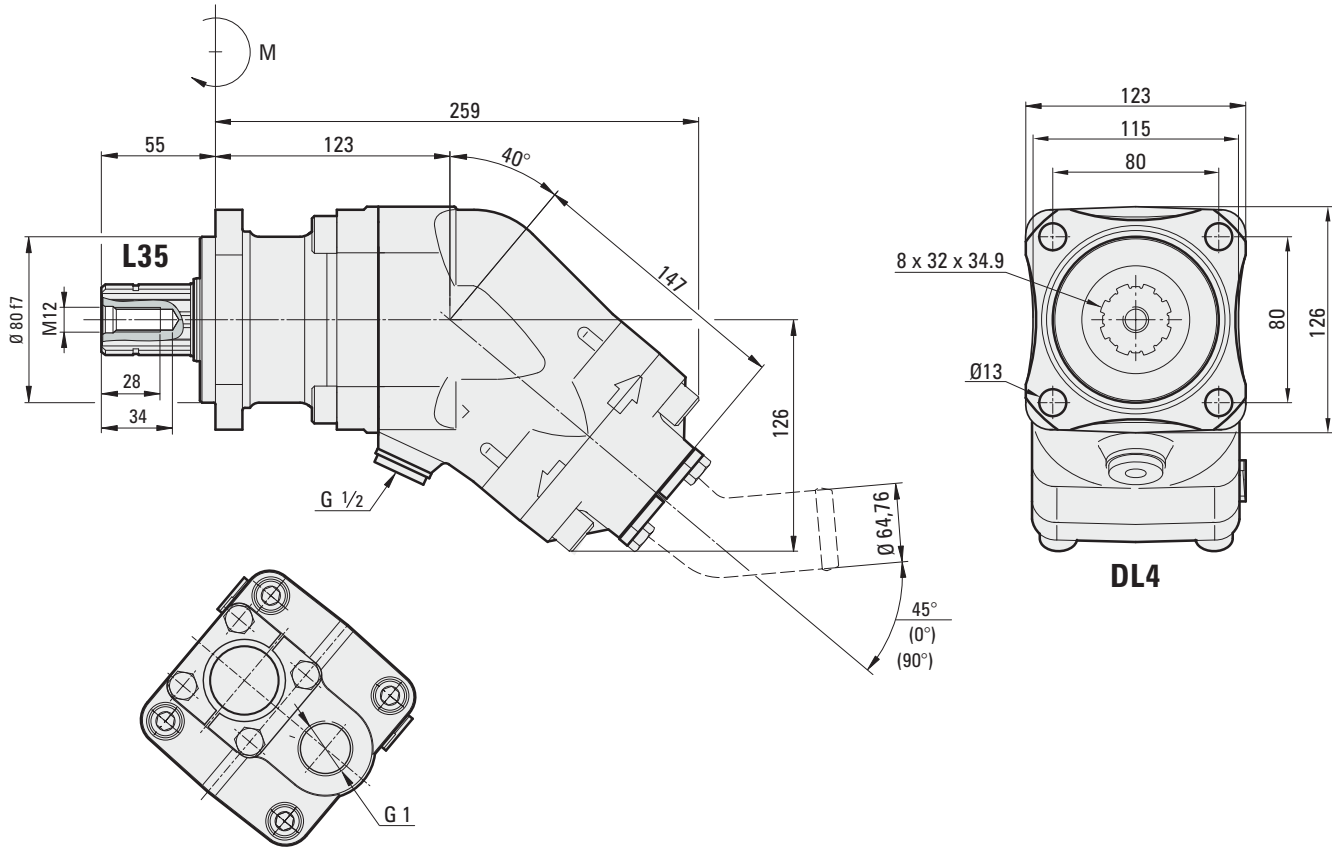
HPTP 084, 108 DIN optimized pumps for injector is suitable for hydraulic motor operations in closed hydraulic systems with injector K-Jet2 for pressurization of the suction side. For this it gives excellent speed characteristics and high flows. We supply it either with left (L) or right (R) rotation direction.

Further advantages:

- Low noise levels at high maximum speed due to its quality production and design.
- The operation over the entire speed range is smooth.
- Long usage life due to its high demands on material selection such as seals, bearings, ect.
- To avoid leakage from the pump and PTO, there are O-rings on all contact surfaces and double shaft seals for high pressure.
- All pumps are test under extreme testing environment before delivery to custom.
- Easy to change the rotation of pump flow.



HYDRAULIC PUMPS



HPTP 084 & 108 DIN optimized for injector		084			108			
		without	160	250	without	160	250	350
K-Jet 2								
Oil flow at	rpm	l/min			l/min			
97% vol. efficiency and 20 MPa	500	41.0	-	-	52.0	52.0	-	-
	1000	81.0	81.0	-	105.0	105.0	105.0	-
	1500	122.0	122.0	122.0	157.0	157.0	157.0	157.0
	2000		162.0	162.0			210.0	210.0
	2500			203.0			262.0	262.0
	3000			243.0				314.0
Displacement	cm ³ /rev	83.6			108.0			
Max working pressure	rpm							
min continuous		300	750	1200	300	550	1000	1200
max continuous		1700	2000	3000	1800	1500	2500	3000
max limited		2200			2300			
Max operating pressure	bar							
continuous			350			350		
intermittent			400			400		
Weight	kg	17.0			17.0			
Tare-weight torque (M)	Nm	21			21			
Direction of rotation		Left (L) and Right (R)			Left (L) and Right (R)			

Intermittent operation is equated to a max of 6 seconds per minute.

HPTP 012-108 SAE pumps

HPTP 012-108 SAE is a fixed displacement bent-axis pumps for mobile hydraulic applications.

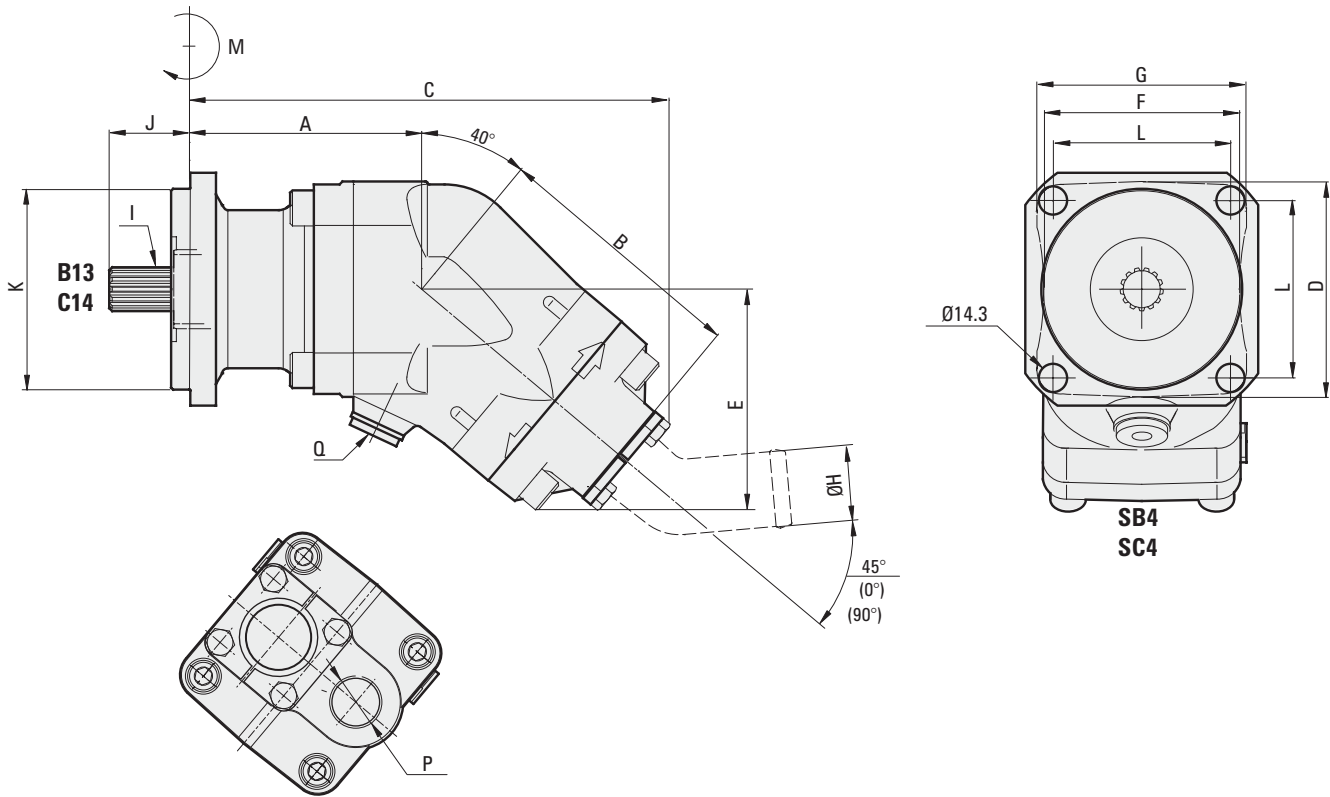
HPTP 012-108 SAE are equipped with shafts and flanges according to the SAE-B and SAE-C standard. Pumps displacement range 012-0108 cm. This modern pump meets the market's high demands due to its high flow performance, pressure efficiency and simplest of installation.

Further advantages:

- Low noise levels at high maximum speed due to its quality production and design.
- The operation over the entire speed range is smooth.
- Long usage life due to its high demands on material selection such as seals, bearings, ect.
- To avoid leakage from the pump and PTO, there are O-rings on all contact surfaces and double shaft seals for high pressure.



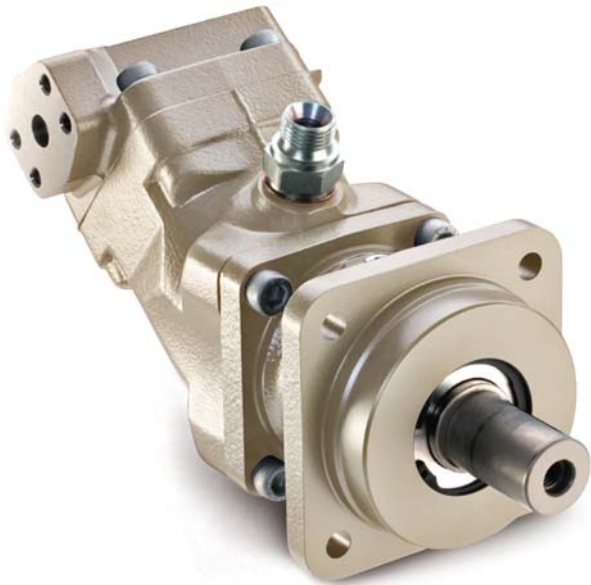
HYDRAULIC PUMPS



HPTP 012-108 SAE PUMPS		012	017	025	034	040	047	056	064	040	047	056	064	084	108	
Theoretical oil flow at pump speed	rpm	500	6.3	8.5	12.7	17.1	20.6	23.5	28.0	31.8	20.6	23.5	28.0	31.8	41.8	54.0
		1000	12.6	17.0	25.4	34.2	41.2	47.1	56.0	63.6	41.2	47.1	56.0	63.6	83.6	108.0
		1500	18.9	25.5	38.1	51.3	61.8	70.6	84.0	95.4	61.8	70.6	84.0	95.4	125.4	162.0
Displacement	cm ³ /rev		12.6	17.0	25.4	34.2	41.2	47.1	56.0	63.6	41.2	47.1	56.0	63.6	83.6	108.0
Max pump speed	rpm		2300	2300	2300	2300	1900	1900	1900	1900	1900	1900	1900	1900	1500	1500
			3000	3000	3000	3000	2500	2500	2500	2500	2500	2500	2500	2500	2000	2000
Max working pressure	bar		350	350	350	350	350	350	350	350	350	350	350	350	350	350
			400	400	400	400	400	400	400	400	400	400	400	400	400	400
Weight	kg		8.7	8.6	8.9	8.8	12.3	12.3	12.3	12.2	14.3	14.3	14.3	14.1	19.0	19.0
Dimensions	A		101	101	101	101	117	117	117	117	119	119	119	119	128	128
	B		117	117	117	117	130	130	130	130	130	130	130	130	147	147
	C		209	209	209	209	235	235	235	235	237	237	237	237	262	262
	D		99	99	99	99	109	109	109	109	109	109	109	109	126	126
	E		97	97	97	97	112	112	112	112	112	112	112	112	126	126
	F		89	89	89	89	99	99	99	99	99	99	99	99	115	115
	G		97	97	97	97	106	106	106	106	106	106	106	106	123	123
	H		38	38	38	38	38	38	38	38	38	38	38	38	50	50
			50	50	50	50	50	50	50	50	50	50	50	64	64	
SAE standard			SAE B 13T-16/32DP							SAE C 14T-12/24DP						
	J		41	41	41	41	41	41	41	41	56	56	56	56	56	56
	K		101.6	101.6	101.6	101.6	101.6	101.6	101.6	101.6	127.0	127.0	127.0	127.0	127.0	127.0
	L		89.8	89.8	89.8	89.8	89.8	89.8	89.8	89.8	114.5	114.5	114.5	114.5	114.5	114.5
	ISO G P		3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	3/4	1	1
	ISO G Q		1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2	1/2
Tare-weight torque (M)	Nm		6.9	6.9	7.4	7.4	13	13	13	13	13	13	13	13	21	21
Direction of rotation			Left (L) and Right (R)													

Intermittent operation is equated to a max of 6 seconds per minute.

HPT 012-130 ISO type pump



HPTP 012-108 ISO is a fixed displacement bent-axis pumps for stationery & mobile hydraulic applications.

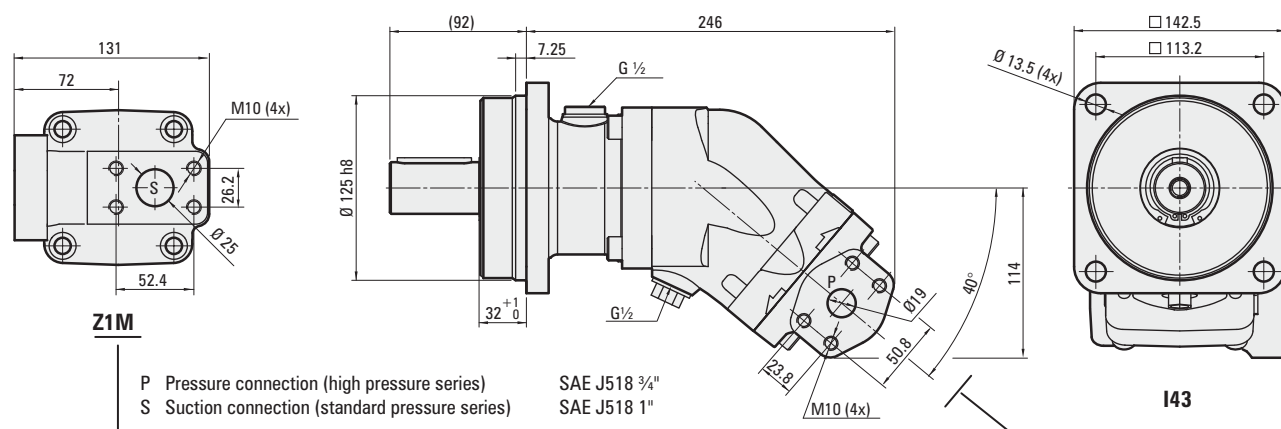
HPTP 012-0130 ISO standard range of displacement from 12-130 cm³/rev. Maximum operating pressure up to 400 bar. The pump well design and dimensioned, double tapered roller bearings permit high shaft loads and performance characteristics. This pump is drained xternally. We supply five different shaft types.

Further advantages:

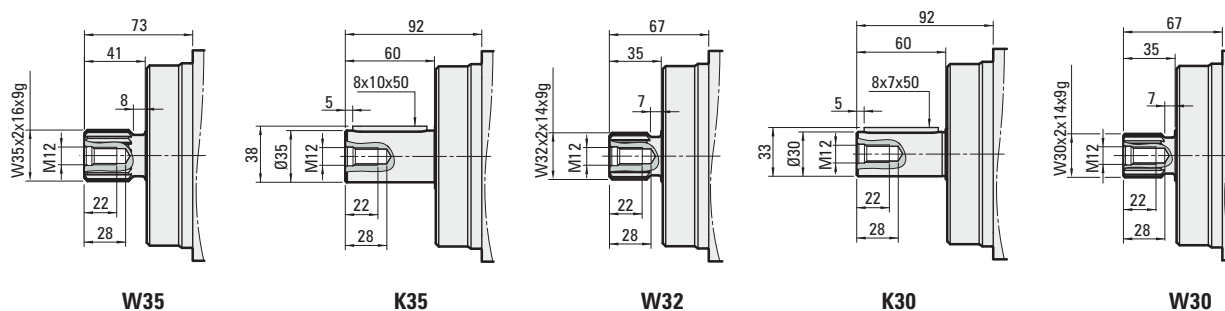
- Low noise levels at high maximum speed due to its quality production and design.
- The operation over the entire speed range is smooth.
- Long usage life due to its high demands on material selection such as seals, bearings, ect



HYDRAULIC PUMPS



Right-hand design **R** Left-hand design **L** has pressure outlets on the opposite side.



HPT 012-0130 ISO TYPE PUMP		012	017	025	034	040	047	056	064	084	090	108	130	
Nominal oil flow at pump speed	rpm	500	6.3	8.5	12.7	17.1	20.6	23.5	28.0	31.8	41.5	45.5	54.0	65.0
		1000	12.6	17.0	25.4	34.2	41.2	47.1	56.0	63.6	83.6	90.7	108.0	130.0
		1500	18.9	25.5	38.1	51.3	61.8	70.6	84.0	95.4	125.4	136.1	162.0	195.0
Displacement	cm ³ /rev	12.6	17.0	25.4	34.2	41.2	47.1	56.0	63.6	83.6	90.7	108.0	130.0	
Max operating pressure continuous	bar	350	350	350	350	350	350	350	350	350	350	350	350	
intermittent		400	400	400	400	400	400	400	400	400	400	400	400	
Max pump speed	$n_{max(1)}$ rpm	3300	3200	2550	2250	2200	2200	2100	2050	1700	1700	1700	1600	
	$n_{max\ limit(2)}$ rpm	6000	5700	4700	4550	4300	4300	3750	3700	3350	3000	3000	2900	
Max power	kW	25	35	40	50	55	65	75	85	90	95	120	120	
Weight	kg	7.5	7.5	8.5	8.5	15.5	15.5	15.5	15.5	27.0	27.0	29.5	29.5	
Mass moment of inertia	($\times 10^{-3}$) kg m ²	0.9	0.9	1.1	1.1	2.6	2.6	2.6	2.6	7.4	7.4	7.4	7.4	
Direction of rotation	Left (L) and Right (R)													

Intermittent operation is equated to a max of 6 seconds per minute.

(1) The values shown are valid for an absolute pressure of 1 bar at the suction inlet.

(2) By increase of the input pressure the rotational speeds can be increased to the max. admissible speed $n_{max\ limit}$.

HPTD 56/26 DIN dual displacement

HPTD is dual displacement pump is an ideal solution for vehicles that require two different flows.

Dual displacement pumps are the best solution for vehicles with several types of hydraulic equipment such as refuse trucks. Single flow large pump can be a poor solution for these vehicles. For different movement of certain parts of equipment such as fast movement or slow movement. A HPTD pump is most economical solution and high performance. HPTD pumps come with two equal large flows or one large and one small flow.

For variety system solutions:

- Two different circuits
- Parallel working operation

HPTD 56/26 DIN is a twin pump with two separate flows of different size.

HPTD 56/26 is that one flow with 56cm³/rev and the second flow with 26 cm³/rev.

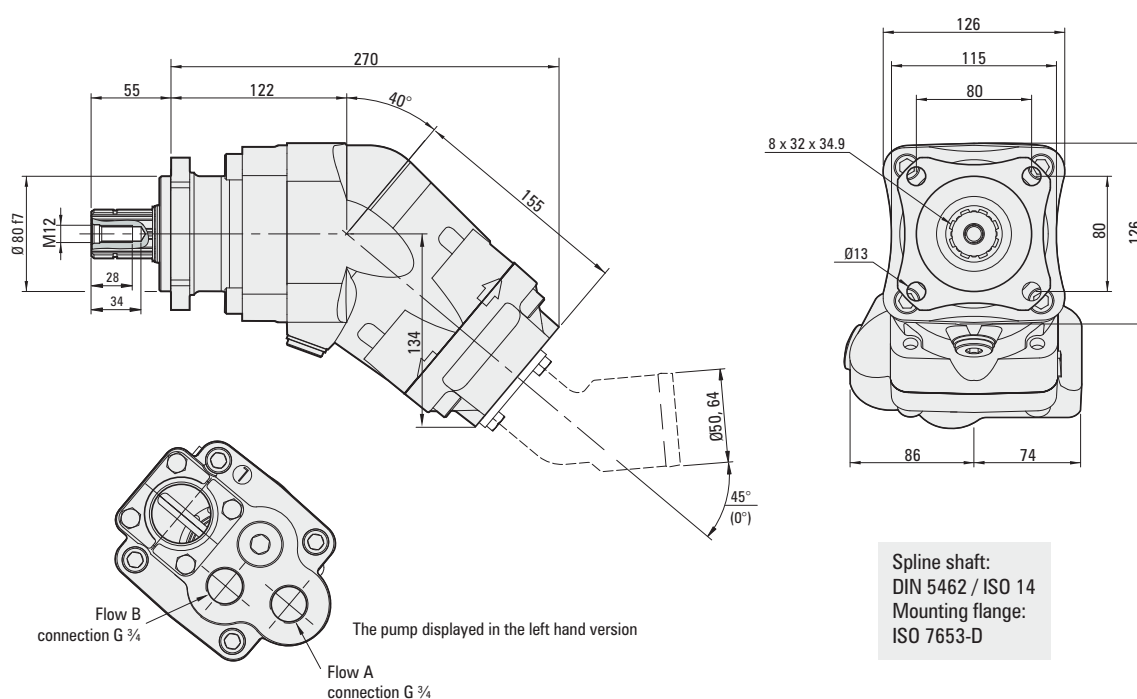
The maximum pressure reaches up to 400 bar per each flow. It can be offer with right(R) or left (L) direction rotation.

Further benefits:

- Low noise levels at high maximum speed due to its quality production and design.
- The operation over the entire speed range is smooth.
- Long usage life due to its high demands



HYDRAULIC PUMPS



HPTD 56/26 DIN Dual displacement

Nominal oil flow A+B at pump speed		l/min			
rpm	600	33.5 + 15.5 = 49			
	1000	56.0 + 26.0 = 82			
	1200	67.0 + 31.0 = 98			
	1500	84.0 + 39.0 = 123			
	1800	100.5 + 46.5 = 147			
Displacement A+B	cm ³ /rev	56.0 + 26.0			
Max pump speed	rpm	1850			
Max operating pressure	bar	continuous			
		intermittent			
Weight	kg	180			
Tare-weight torque	Nm	21			
Nominal power at pressure and pump speed	rpm	200 Bar		300 Bar	400 Bar
		600	11.2 + 5.2 = 16.4 kW	16.8 + 7.8 = 24.6 kW	22.4 + 10.4 = 32.8 kW
		1200	22.4 + 10.4 = 32.8 kW	33.6 + 15.6 = 49.2 kW	44.8 + 20.8 = 65.6 kW
Nominal torque on pump shaft at different pressures		200 Bar		300 Bar	400 Bar
			178 + 83 = 261 Nm	267 + 124 = 391 Nm	356 + 165 = 521 Nm
Direction of rotation	Left (L) and Right (R)				

Intermittent operation is equated to a max of 6 seconds per minute.



HPTVH 062, 092, 112 & 130

HPT VH is variable displacement axial piston pump. This pump designed for load sensing systems & directly installation on the trucks power take-off.

For load sensing systems HPTVH is one of best solution with a maximum pressure up to 450 bar. Displacement range 62, 92, 112 and 130 cm³/rev. Main applications are forestry cranes, general cargo cranes, suction vehicles refuse collection vehicles. This pump is uniquely feature a slim pump housing which permits direct mounting on PTO.

Further advantages:

- Low noise levels at high maximum speed due to its quality production and design.
- The operation over the entire speed range is smooth.
- Short reaction time when resetting the flow.

Pump controllers description, HPTVH 062, 092, 112 & 130:

LSNR = Load-Sensing controller with integrated pressure limitation.

NR = Pressure controller, adjustable directly at the pump. The Pressure controller automatically maintains a constant system pressure independent of the required flow. Therefore it is ideally suited for constant pressure systems, where differing flow is required or as efficient pressure limitation of the hydraulic system.

/ZL (SVH 062, 092, 112) = Intermediate plate with power controller (torque limitation) "Pressure x Displacement" is held constant. Adjustment range: 25-100% of max. drive torque.

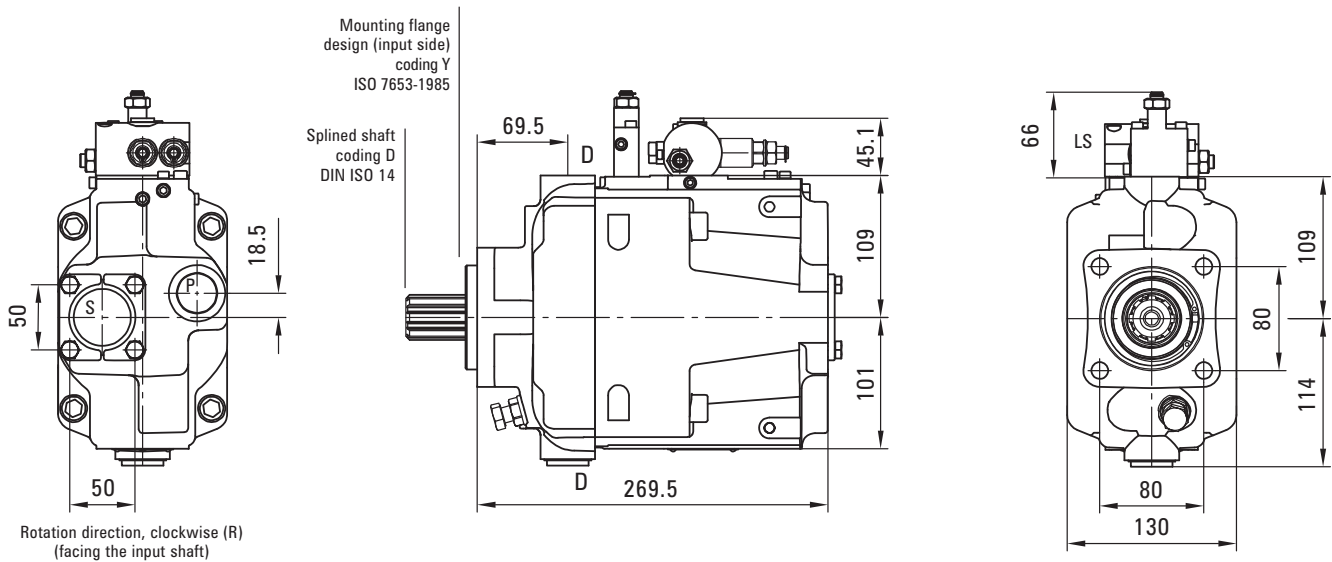
/ZW = Angled intermediate plate (45°) mandatory for mounting controller at pumps with radial inlet and outlet.

/L (SVH 130) = Power controller for SVH 130. Adjustment range: 200-700 Nm



HPTVH 062, 092, 112 & 130		SVH 062	SVH 092	SVH 112	SVH 130
Geometric displacement V _g	cm ³ /rev.	62.4	87.2	110.4	130
Nom. pressure p _{nom}	bar	350	350	350	400
Pressure p _{max}	bar	400	400	400	450
Angle of the swash plate		21.5°	21.5°	21.5°	21.5°
Required inlet pressure (absolute) for open circuit	bar	0.85	0.85	0.85	0.85
Max. permissible drive torque (flange/shaft)	Nm	430	530	900	900
Max. torque for the pump (with power controller)	Nm	430	530	600	700
Max. permissible torque for the thru-shaft, dep. on flange	Nm	100	530	600	700
Max. rev. rating when self priming and max. angle of the swash plate at 1 bar absolute inlet pressure	rpm	2500	2300	2200	2100
Min. rev. rating for permanent running	rpm	500	500	500	500
Required torque at 100 bar	Nm	100	151	184	230
Drive power for 250 bar and 2000 rpm	kW	53	79.5	97.2	120
Mass (weight) complete with controller	kg	24	27	30	30.8
Tare weight torque	Nm	30	35.3	40	40
Inertia moment	kg m ²	0.005	0.008	0.01	0.011
Sound level at 250 bar, 1500 rpm and max. swash plate angle (Measured in a sound measuring room DIN ISO 4412, distance 1 m)	dB(A)	75	75	75	75

HYDRAULIC PUMPS



HPTM 012-130 DIN

HPTM 012-130 DIN is bent-axis motors an ideal for mobile hydraulics. These motors are spherical pistons as a type of bent- axis.

HPTM 012-130 DIN the simplest of design it gives a compact motor with few moving parts, high starting torque and high operational reliability. Displacement range 12-130 cm³/rev. max pressure 400 bar. Long usage life due to its high demands on material selection such as seals, bearings, hardening methods, ect.

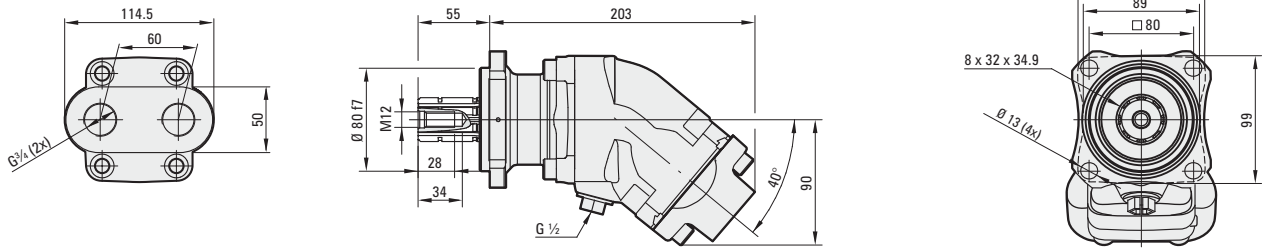
Further advantages:

- Low noise levels at high maximum speed due to its quality production and design.
- The operation over the entire speed range is smooth.
- Short reaction time when resetting the flow.

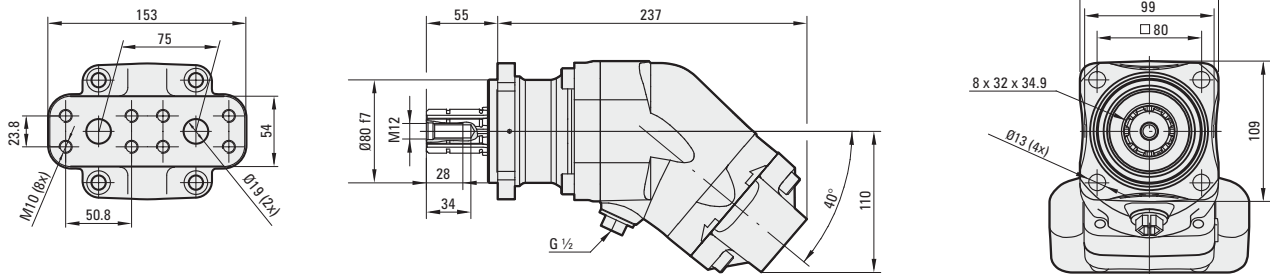


HYDRAULIC MOTOR

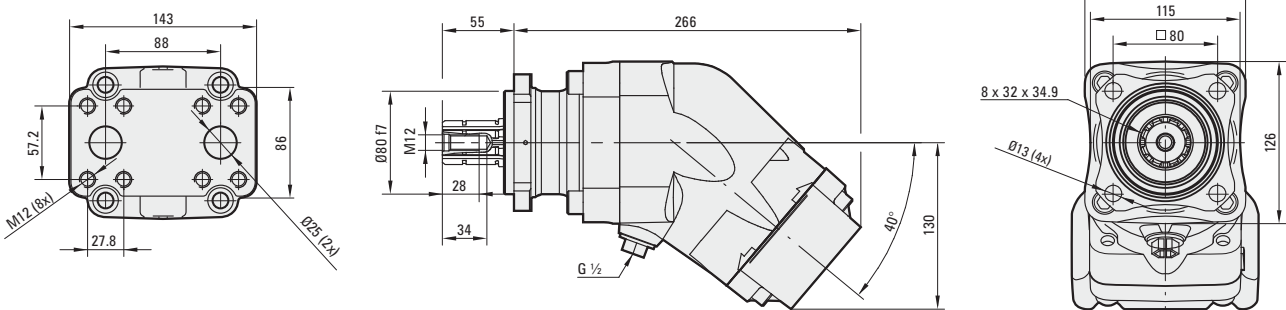
HPTM 012-034



HPTM 040-064



HPTM 084-130



HPTM 012-130 DIN		012	017	025	034	040	047	056	064	084	108	130
Displacement	cm ³ /rev	12.6	17.0	25.4	34.2	41.2	47.1	56.7	63.5	83.6	108.0	130.0
MOperating pressure												
max intermittent	bar	400	400	400	400	400	400	400	400	400	400	330
max continuous	bar	350	350	350	350	350	350	350	350	350	350	280
Revolutions												
max intermittent	rev/min	3000	3000	3000	3000	2500	2500	2500	2500	2000	2000	2000
max continuous	rev/min	2400	2400	2400	2400	2000	2000	2000	2000	1600	1600	1600
min continuous	rev/min	300	300	300	300	300	300	300	300	300	300	300
Power												
max intermittent	kW	18	24	36	49	57	65	78	88	93	120	124
max continuous	kW	14	19	29	39	46	52	62	70	74	96	99
Starting torque theoretical value	Nm/bar	0.2	0.27	0.4	0.54	0.66	0.75	0.89	1.0	1.33	1.72	2.07
Moment of inertia (x 10 ⁻³)	kg m ²	0.9	0.9	1.1	1.1	2.6	2.6	2.6	2.6	7.4	7.4	7.4
Max intermittent housing pressure	bar	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Weight	kg	8.4	8.4	8.6	8.6	13.0	13.0	13.0	13.0	18.2	18.2	18.2

Information about technical data

- RPM data concern is depending on maximum permitted peripheral velocity for the tapered roller bearings.
- For some applications, max intermittent power can be suitable. Contact HPT for further information.
- In term of continuous power data is based on maximum output power, no need for external cooling of motor housing.
- Intermittent duty is defi ned as follows: max 6 seconds per minute, e.g. peak RPM when unloading or accelerating.

HPTM 012-130 SAE



HPTM 012-130 SAE is bent-axis motors, an ideal for mobile hydraulics. These motors are spherical pistons as a type of bent- axis.

HPTM 012-130 SAE is an bent-axis type with spherical pistons. The robust design gives a perfect compact motor with few moving parts, high starting torque and perfect reliability.

The displacement is from 12-130 cm³/rev with a maximum 400 bar. It comes with double tapered roller bearings that allow high shaft loads and results perfect speed performance. This pump meets the market's high demands due to its high flow performance, pressure efficiency and simplest of installation.

Further advantages:

- Low noise levels at high maximum speed due to its quality production and design.
- The operation over the entire speed range is smooth.
- We offer it in many different types of shafts and connections parts.
- Long life with high performance.
- An ideal solution for applications that require high angular accelerations.

HPTM 012-034 SAE B2



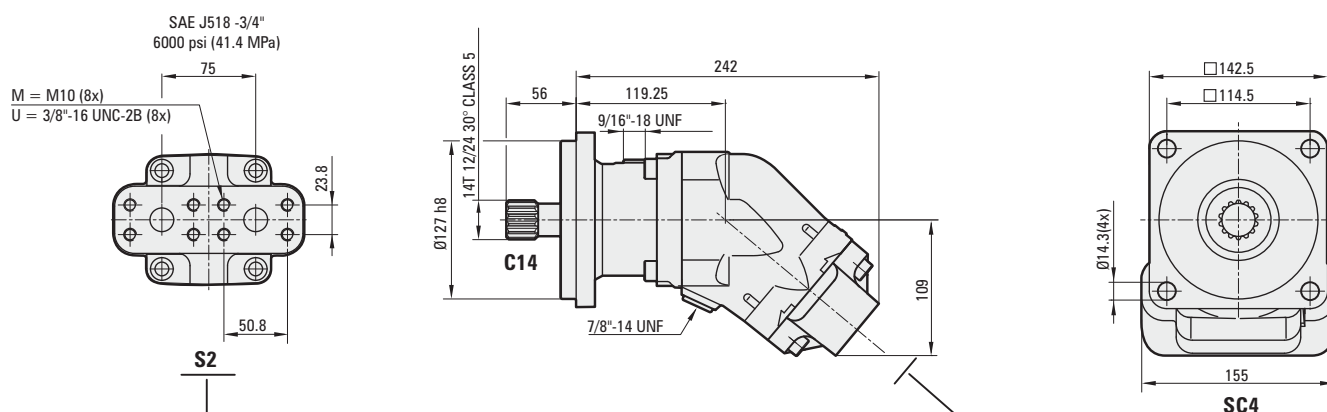
For-bolt flange, HPT offers you SAE B2 012-034 in the HPTM brands.

The robust design gives a perfect compact motor with few moving parts, high starting torque and perfect reliability.

Further advantages:

- Low noise levels at high maximum speed due to its quality production and design.
- The operation over the entire speed range is smooth.
- We offer it in many different types of shafts and connections parts.
- Long life with high performance.
- An ideal solution for applications that require high angular accelerations.

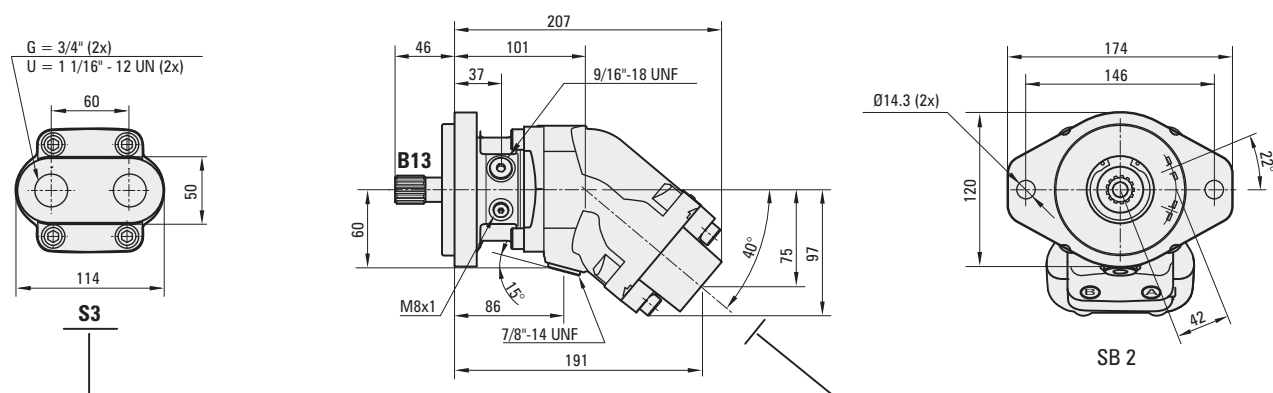
HYDRAULIC MOTOR



HPTM 012-130 SAE		012	017	025	025	034	034	040	047	056	064	084	084	090	090	108	108	130
		SAE B	SAE B	SAE B	SAE C	SAE B	SAE C	SAE C	SAE C	SAE C	SAE C	SAE C	SAE C	SAE D	SAE C	SAE D	SAE C	SAE D
Displacement	cm ³ /rev.	12.6	17.0	25.4	25.4	34.2	34.2	41.2	47.1	56.7	63.5	83.6	83.6	90.7	90.7	108.0	108.0	130.0
MOperating pressure (dependent on shaft)																		
max. intermittent	bar	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	350
max. continuous	bar	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	300
Revolutions																		
max. intermittent	rpm	8250	8250	6500	6500	6500	6500	5900	5900	5900	5900	4800	4600	4800	4600	4800	4600	4600
max. continuous	rpm	7500	7500	5900	5900	5900	5900	5300	5300	5300	5300	4400	4200	4400	4200	4400	4200	4200
min. continuous	rpm	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
Power																		
max. intermittent	kW	50	70	80	80	110	110	120	135	165	180	200	190	215	205	255	245	255
max. continuous	kW	20	25	40	40	55	55	60	65	80	90	100	100	110	110	130	130	135
Start torque theoretical value	Nm/bar	0.2	0.27	0.40	0.40	0.54	0.40	0.66	0.75	0.89	1.0	1.33	1.33	1.44	1.44	1.71	1.71	2.05
Mass moment of inertia (x 10 ⁻³)	kg m ²	0.9	0.9	1.1	1.1	1.1	1.1	2.6	2.6	2.6	2.6	6.3	7.4	6.3	7.4	6.3	7.4	7.4
Weight	kg	9.0	9.0	9.0	9.0	9.0	9.0	15.0	15.0	15.0	15.0	18.0	35.0	18.0	5.0	18.0	35.0	35.0

Information about technical data

- RPM data concern is depending on maximum permitted peripheral velocity for the tapered roller bearings.
- For some applications, max intermittent power can be suitable. Contact HPT for further information.
- In term of continuous power data is based on maximum output power, no need for external cooling of motor housing.
- Intermittent duty is defi ned as follows: max 6 seconds per minute, e.g. peak RPM when unloading or accelerating.



Choice of staff seal

Temp.

Max. housing pressure bar at rpm

Motor HPTM	Code	°C	1000	2000	3000	4000	5000
012-034 B	N	75	5.5	2.7	1.8	1.4	1.1
	H	75	24.6	12.3	8.2	6.1	5.1
	V	90	5.5	2.7	1.8	1.4	1.1
040-108 C	N	75	5.5	2.7	1.8	1.4	1.1
	H	75	24.6	12.3	8.2	6.1	5.1
	V	90	5.5	2.7	1.8	1.4	1.1
084-130 D	N	75	3.5	1.7	1.2		
	H	75	15.6	7.8	5.2		
	V	90	3.5	1.7	1.2		

HPTM 012-130 ISO motors



HPTM 012-130 ISO is bent-axis motors an ideal for mobile hydraulics. These motors are spherical pistons as a type of bent- axis.

HPTM 012-130 SAE is an bent-axis type with spherical pistons. The robust design gives a perfect compact motor with few moving parts, high starting torque and perfect reliability.

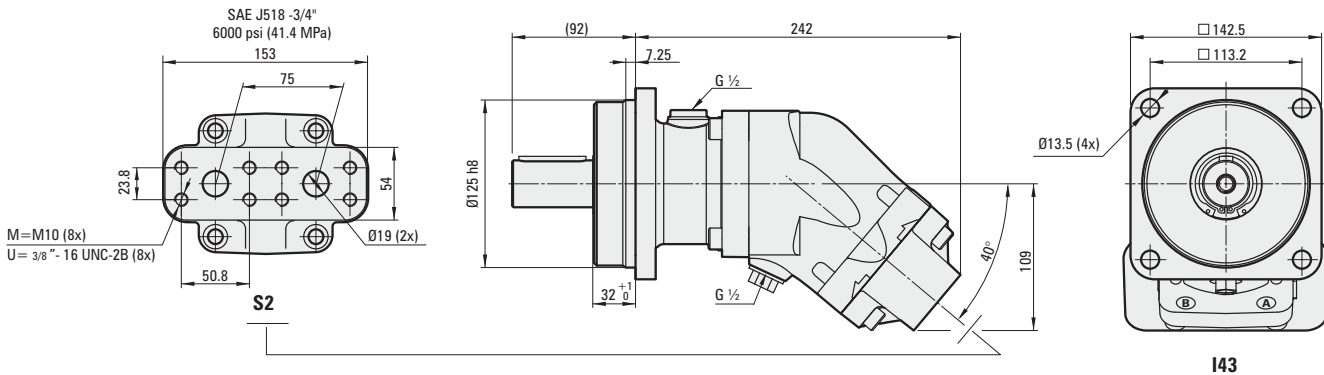
The displacement is from 12-130 cm³/rev with a maximum 400 bar. It comes with double tapered roller bearings that allow high shaft loads and results perfect speed performance. This pump meets the market's high demands due to its high flow performance, pressure efficiency and simplest of installation.

Further advantages:

- Low noise levels at high maximum speed due to its quality production and design.
- The operation over the entire speed range is smooth.
- We offer it in many different types of shafts and connections parts.
- Long life with high performance.
- An ideal solution for applications that require high angular accelerations.



HYDRAULIC MOTOR



Choice of staff seal

Temp.

Max. housing pressure bar at rpm

Motor HPTM	Code	°C	1000	2000	3000	4000	5000	6000	7000	8000	9000
012-034	N	75	5.5	2.7	1.8	1.4	1.1	0.9	0.8	0.7	0.6
	H	75	24.6	12.3	8.2	6.1	4.9	4.1	3.5	3.1	2.7
	V	90	5.5	2.7	1.8	1.4	1.1	0.9	0.8	0.7	0.6
040-064	N	75	5.5	2.7	1.8	1.4	1.1	0.9	0.8		
	H	75	24.6	12.3	8.2	6.1	4.9	4.1	3.5		
	V	90	5.5	2.7	1.8	1.4	1.1	0.9	0.8		
084-130	N	75	3.8	1.9	1.3	1.0	0.8	0.6			
	H	75	17.2	8.6	5.7	4.3	3.4	2.9			
	V	90	3.8	1.9	1.3	1.0	0.8	0.6			

SCM 012-130 ISO

		012	017	025	034	040	047	056	064	084	090	108	130
Displacement	cm ³ /rev.	12.6	17.0	25.4	34.2	41.2	47.1	56.7	63.5	83.6	90.7	108.0	130.0
MOperating pressure													
max. intermittent	bar	400	400	400	400	400	400	400	400	400	400	400	350
max. continuous	bar	350	350	350	350	350	350	350	350	350	350	350	300
Revolutions													
max. intermittent	rpm	8800	8800	7000	7000	6300	6300	6300	6300	5200	5200	5200	5200
max. continuous	rpm	8000	8000	6300	6300	5700	5700	5700	5700	4700	4700	4700	4700
min. continuous	rpm	300	300	300	300	300	300	300	300	300	300	300	300
Power													
max. intermittent	kW	54	74	86	115	125	145	175	195	215	230	275	285
max. continuous	kW	20	25	40	55	60	65	80	90	100	110	130	135
Start torque theoretical value	Nm/bar	0.2	0.27	0.4	0.54	0.66	0.75	0.89	1.0	1.33	1.44	1.71	2.05
Mass moment of inertia (x 10 ⁻³)	kg m ²	0.9	0.9	1.1	1.1	2.6	2.6	2.6	2.6	7.4	7.4	7.4	7.4
Weight	kg	8.5	8.5	9.5	9.5	16.5	16.5	16.5	16.5	28.0	28.0	30.5	30.5

Information about technical data

- RPM data concern is depending on maximum permitted peripheral velocity for the tapered roller bearings.
- For some applications, max intermittent power can be suitable. Contact HPT for further information.
- In term of continuous power data is based on maximum output power, no need for external cooling of motor housing.
- Intermittent duty is defined as follows: max 6 seconds per minute, e.g. peak RPM when unloading or accelerating.

HPTM 025-108 M2 motors



HPTM 025-108 M2 modern motor with cartridge flange ideal choice for winch-, slewing-, wheel-, & track drives.

SHPTM 025-108 M² is an bent-axis type with spherical pistons. The robust design gives a perfect compact motor with few moving parts, high starting torque and perfect reliability.

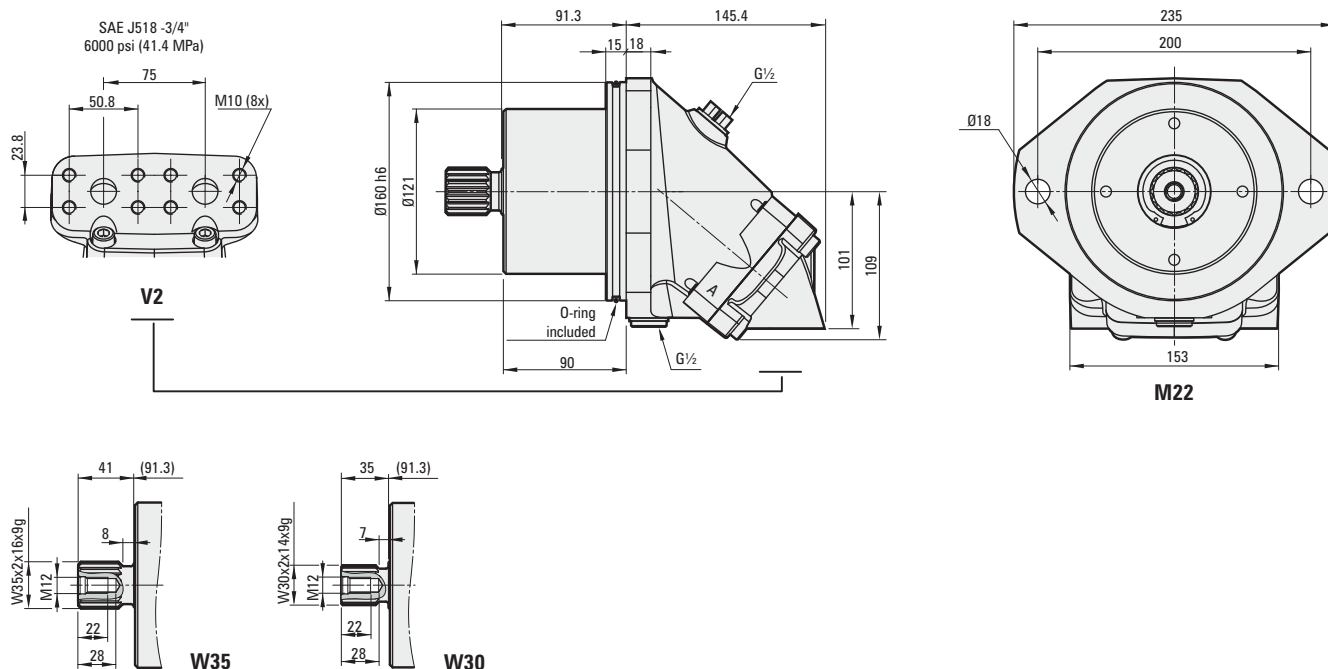
The displacement is from 25-108 cm³/rev with a maximum 400 bar. It comes with double tapered roller bearings that allow high shaft loads and results perfect speed performance. This pump meets the market's high demands due to its high flow performance, pressure efficiency and simplest of installation

Further advantages:

- Low noise levels at high maximum speed due to its quality production and design.
- The operation over the entire speed range is smooth.
- We offer it in many different types of shafts and connections parts.
- Long life with high performance.
- An ideal solution for applications that require high angular accelerations.



HYDRAULIC MOTOR



Choice of shaft seal

Temp.

Max. housing pressure bar at rpm

Motor HPTM	Code	°C	1000	2000	3000	4000	5000	6000	7000
012-034	N	75	5.5	2.7	1.8	1.4	1.1	0.9	0.8
	H	75	24.6	12.3	8.2	6.1	4.9	4.1	3.5
	V	90	5.5	2.7	1.8	1.4	1.1	0.9	0.8
084-130	N	75	3.8	1.9	1.3	1.0	0.8	0.6	
	H	75	17.2	8.6	5.7	4.3	3.4	2.9	
	V	90	3.8	1.9	1.3	1.0	0.8	0.6	

HPTM 025-108 M2 MOTORS		025	034	040	047	056	064	084	090	108
Displacement	cm ³ /rev.	25.4	34.2	41.2	47.1	56.7	63.5	83.6	90.7	108.0
Operating pressure										
max. intermittent	bar	400	400	400	400	400	400	400	400	350
max. continuous	bar	350	350	350	350	350	350	350	350	300
Revolutions										
max. intermittent	rpm	7000	7000	6300	6300	6300	6300	5200	5200	5200
max. continuous	rpm	6300	6300	5700	5700	5700	5700	4700	4700	4700
min. continuous	rpm	300	300	300	300	300	300	300	300	300
Power										
max. intermittent	kW	86	115	125	145	175	195	215	230	230
max. continuous	kW	40	55	60	65	80	90	100	110	110
Start torque theoretical value	Nm/bar	0.4	0.54	0.66	0.75	0.89	1.0	1.33	1.44	1.71
Mass moment of inertia (x 10 ⁻³)	kg m ²	1.1	1.1	2.6	2.6	2.6	2.6	7.4	7.4	7.4
Weight	kg	11.0	11.0	18.3	18.3	18.3	18.3	26.0	26.0	26.0

Information about technical data

- RPM data concern is depending on maximum permitted peripheral velocity for the tapered roller bearings.
- For some applications, max intermittent power can be suitable. Contact HPT for further information.
- In term of continuous power data is based on maximum output power, no need for external cooling of motor housing.
- Intermittent duty is defined as follows: max 6 seconds per minute, e.g. peak RPM when unloading or accelerating.

Power Take-Off

- PTO adaptors
- Single PTO
- Double PTO
- Adapter for drive shaft
- SAE adaptors



The link between the vehicle and pump is HPT's power take-off. It can be easily mounted on gearbox or engine.

HPT hydraulic offers you with wide range of power take-offs with different ratios and torques to fit most vehicles gearbox. HPT engineers always keep on reaches to improve the quality and to supply demands with high economically and immense choice of parts.

HPT offers its customer with wide range of accessories for mounting pumps and motors.

For applications that is not possible to direct mounting a pump or motor, HPT offers you wide range of adapters & brackets to help you

in installation facilities . An example, a lack of space can be happen on a countershaft .

Adapter & Flanges

- Adapter fl ange for splitter gearbox
- Adapter fl anges
- Splined drive fl anges
- Neutral drive fl anges
- Drive fl anges



Pump Brackets

- Frame attachments
- Pump brackets





Anti-cavitation valve for HPTM

To prevent cavitation problems during load is running down , HPT offers you anti-cavitation valve can be directly mounted on hydraulic motor.

To minimize the risk of cavitation damage in connection with insufficient inlet pressure, we advise you to use HPT anti-cavitation valve. For example this can be occur in applications such as relatively large rotating mass with a long run-down. This valve can be adapted to both direction rotation right and left.



Flushing valve for HPTM

During high operating speed and power level, flushing valve is required.

The principle work of flushing valve is to ensure the oil temperature inside the motor housing to remain at specified level. High temperature results to reduce the service-life of the shaft seal and oil quality.



K-JET INJECTOR

HPT Injector K-JET2 is an ideal solution for the recirculation of oil in closed hydraulic systems which is cost efficiency and saves weight.

Aim of using K-JET 2 is to recirculates the oil with an injector. This modern function replaces the previous standard of feed pressure pumps such as compensation for leakage oil losses in main circuit and any rummaging pumps for cooling and filtering circuits.

Further advantages:

- Remarkably higher pump speed
- Reduction of tank size and oil volume.
- Decrease weight through smaller oil tanks
- Decrease oil cost.



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