SUNFAB
THE SOURCE OF HYDRAULIC POWER

Hydraulic pumps, motors and accessories

The solution for all your hydraulic needs

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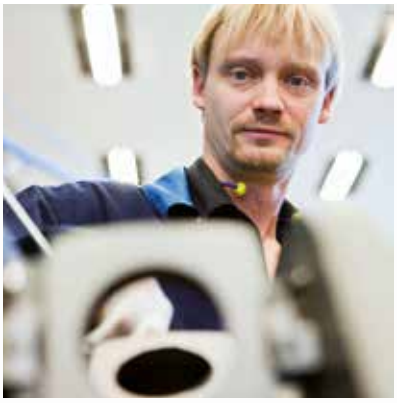


Our successes continue and we have only just started

Sunfab develops, produces and sells piston pumps and motors for operating demanding hydraulic equipment in mobile applications.

The company Sunfab can trace its roots back to Sundins Fabriker, a family company that was established as long ago as 1925 and, for many years, was a successful manufacturer of skis. A fleet of vehicles ensured reliable transportation of raw materials to the factory. Heavy, irrational loading and unloading gave Eric Sundin, the founder of the company, the incentive required to develop cranes for the vehicles.

The first crane was built in 1947 by HIAB, a separate company. As time went on, demands increased for greater capacity and, in 1954, a hydraulic pump was developed that laid the foundation for the future successes of the new company, Sunfab.

These days, Sunfab Hydraulics AB supplies companies with some of the world's most sophisticated products in its niche market. Products that meet stringent quality, environmental and safety requirements and offer functional solutions. We are just embarking on a long and successful journey of development.

Sunfab hydraulic pumps, motors and accessories. August 2014. Copyright © by Sunfab Hydraulics AB

Development

Sunfab's product quality is world famous.

Our Pumps and Motors undergo stringent testing in our own lab and test rigs during production to ensure unsurpassed reliability in the field. Our state of the art production facility employs only the most experienced NC operators and Service Technicians.

Cutting edge technology, together with high quality sensors and control components, produce the requisite conditions for structured and accurate measurement results.

Our Design Department is pleased to answer customers' technical questions on the e-mail address tech@sunfab.se.

Production

Proven production ensures quality

We are convinced our manufacturing expertise and know-how are key ingredients in our continuing success.

That's why we manufacture all core components in-house, ensuring that our products live up to their well known quality and high performance.

Innovations and visions of the future

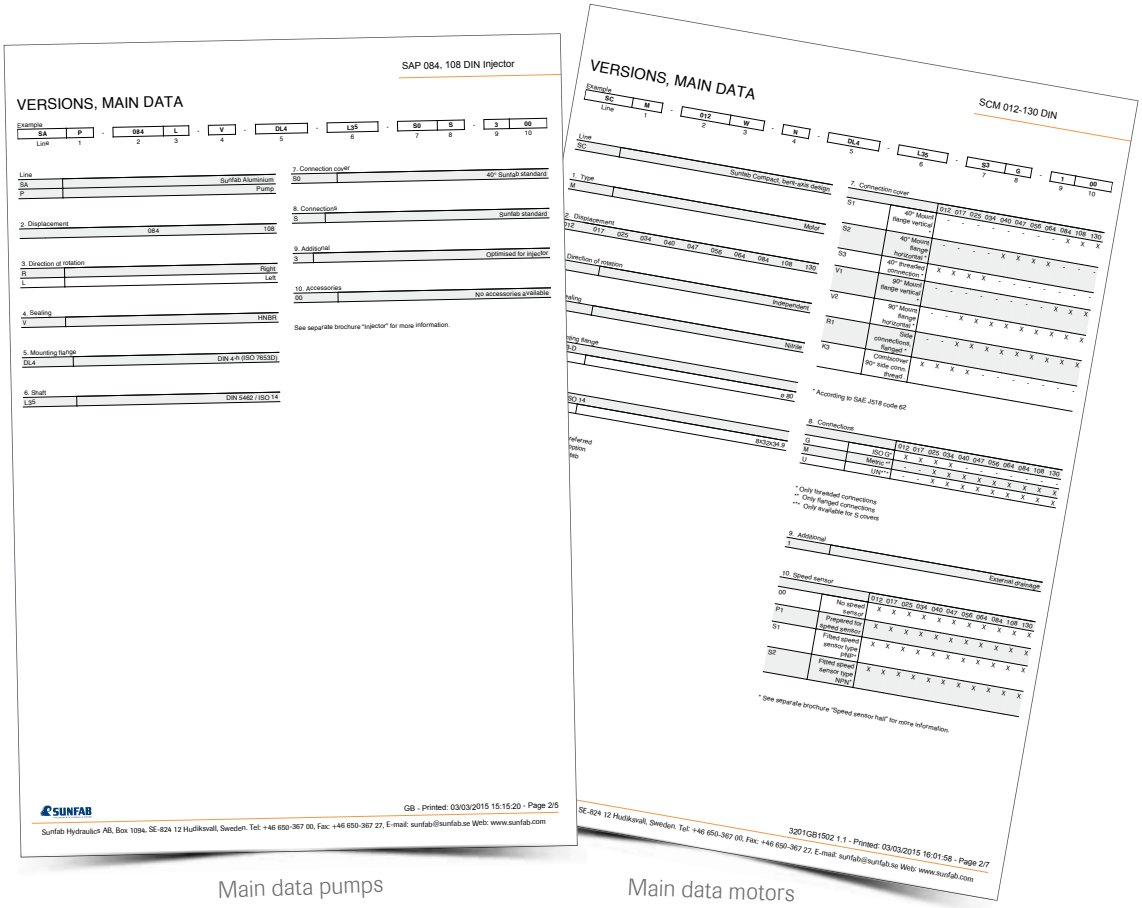
Our knowledge gives power to hydraulics

A series of factors have accounted for Sunfab's success in the market. Creative and innovative development and long-term work have been combined with stringent demands on environmental accountability, function, quality and components.

Our ability to listen to the real needs of our customers provides the essential impulses for driving developments forward and creating new, improved products. The commitment, sense of responsibility and creativity of our employees are other key factors. We strive to make continual improvements in all areas of our business, which is registered under the ISO 9001:2008 and ISO 14001:2004 standards.

We are constantly upgrading our machinery to ensure we always work with state-of-the-art production equipment and we have total control of the whole manufacturing process that takes place in our own factory in Sweden. At each state of product development, we systematically select design and production solutions that provide optimal performance and reliability.

Before being released onto the market, all products are subjected to a gruelling series of tests, both in the laboratory and in practice. Since 1995, the demand for our hydraulic pumps and motors has accelerated and sales have tripled. In 2006, to satisfy the demands and needs of the market, we carried out our largest ever investment programme - the construction of a 3,500 sqm workshop area. The new factory was integrated with the existing facilities to offer maximum efficiency.



Main data pumps

Main data motors

Product overview

Single flow pumps

Sunfab is your supplier of a wide range of hydraulic pumps. The pumps are optimised for all kinds of applications. We offer 12 different sizes in the range of 12-130 cm³ with pressure up to 400 bar.

SAP 012-108 DIN

10

SAP 084, 108 DIN Optimised

12

SAP 084, 108 DIN Optimised for injector

14

Dual flow pumps

The range of fixed displacement dual flow pumps SCPD and SLPD comprises 10 different sizes from 20/20 cm³ up to 76/76 cm³. The SCPD dual flow pumps are of bent-axis design, the SLPD pumps are of inline design with swash plate.

SCPD 56/26 DIN

24

SCPD 56/26 DIN By-Pass

26

SCPD 76/76 DIN

28

Variable flow pumps

We offer variable pumps with a displacement of 62, 92, 112 and 130 cm³.
An operating pressure of up to 450 bar, different kinds of regulators and tandem pump assembly enable you to use this kind of pump in almost all applications where you need a variable oil flow.

SVH 062, 092, 112

34

SVH 130

34

Fixed motors

Sunfab offers hydraulic motors according to SAE, ISO and DIN standard as well as cartridge motors. The displacement is 10-130 cm³ with a choice of shafts, seals and connection ports. High revolution speeds and a operating pressure up to 400 bar allows a power output of up to 285 kW.

SCM 010-130 ISO

36

SCM 010-130 SAE

38

SCM 010-034 SAE B2

38

Accessories

Sunfab's accessories are a unique range of components designed to meet a bodybuilder's need of basic hydraulic installations.

By-Pass

44

PTO Tracpower

44

Splitter Gearbox

44

Power Take-Off

45

SAPT 090, 130 DIN

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SCP 012-108 DIN

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SCP 012-108 SAE

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SCP 012-130 ISO

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SLPD 20/20-64/32 DIN

30

SLPD 20/20-64/32 DIN SAVTEC

32

SLPD 40/20-64/32 SAE

32

SCM 025-108 M2

40

SCM 012-130 DIN

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Adapters & Flanges

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Pump Brackets

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Anti-cavitation & Flushing Valves

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Speed Sensors

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Injectors

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Pumps fixed single flow

SAP 012-108 DIN

SAP 012-108 DIN is a series of light weight casing piston pumps with a fixed displacement for demanding mobile hydraulics.

SAP 012-108 DIN covers the displacement range 012-108 cm^3/rev. at a maximum pressure of 400 bar. It is a modern, compact pump which meets the market's high demands on flow performance, pressure, efficiency and small installation dimensions. The pump is either mounted directly on the power take-off or on a frame bracket via an intermediate shaft.

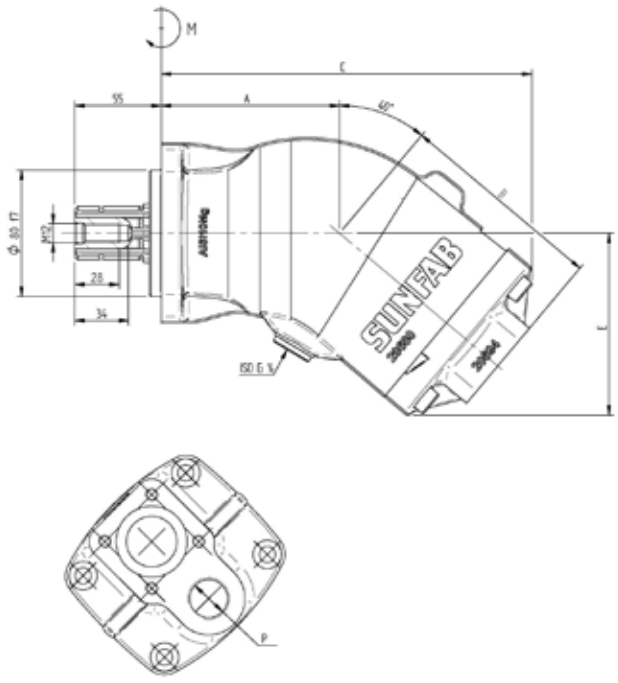
Other advantages:

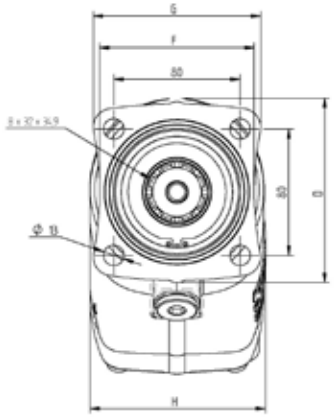
- Light weight metal casing design
- Smooth operation over the entire speed range
- Long life due to high demands on material selection, such as bearings, seals, etc
- Corrosion free lightweight-housing
- Less heat generation due to better ability to dissipate heat through housing

For more information, technical data and drawings visit: **www.sunfab.com**

SAP 012-108 DIN

			012	017	025	034	040	047	056	064	084	108
Theoretical oil flow *l*/min							l/min					
at pump speed	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												
continuous	rpm		2300	2300	2300	2300	1900	1900	1900	1900	1600	1600
limited			3000	3000	3000	3000	2500	2500	2500	2500	2100	2100
Max working pressure	bar		400	400	400	400	400	400	400	400	400	400
Weight	kg		6.9	6.9	7.1	7.1	9.8	9.8	9.8	9.8	13.9	13.9
Dimensions	mm	A	97	97	97	97	113	113	113	113	122	122
		B	116	116	116	116	131	131	131	131	147	147
		C	206	206	206	206	235	235	235	235	264	264
		D	115	115	115	115	118	118	118	118	127	127
		E	102	102	102	102	115	115	115	115	133	133
		F	98	98	98	98	98	98	98	98	98	98
		G	106	106	106	106	106	106	106	106	106	106
		H	97	97	97	97	111	111	111	111	118	118
	ISO G	P	¾	¾	¾	¾	¾	¾	¾	¾	1	1
Tare-weight torque (M)	Nm		6.0	6.0	6.5	6.5	11.5	11.5	11.5	11.5	18.0	18.0
Direction of rotation	Left (L) or Right (R)											





Spline shaft:
DIN 5462 / ISO 14

Mounting flange:
ISO 7653-D

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Pumps fixed single flow

SAP 084, 108 DIN Optimised

SAP DIN Optimised is a series of piston pumps with a fixed displacement for demanding mobile hydraulics.

SAP 084, 108 DIN Optimised covers the displacement range 84 and 108 cm^3/rev. at a maximum pressure of 400 bar. It is a modern, compact pump which meets the market's high demands on flow performance, pressure, efficiency and small installation dimensions. It is either mounted directly on the power take-off or on a frame bracket via an intermediate shaft.

It is a speed-optimised pump and are therefore supplied for either left (L) or right (R) rotation direction.

The pump's front shaft seals are manufactured from HNBR to withstand the higher temperatures involved with engine mounting.

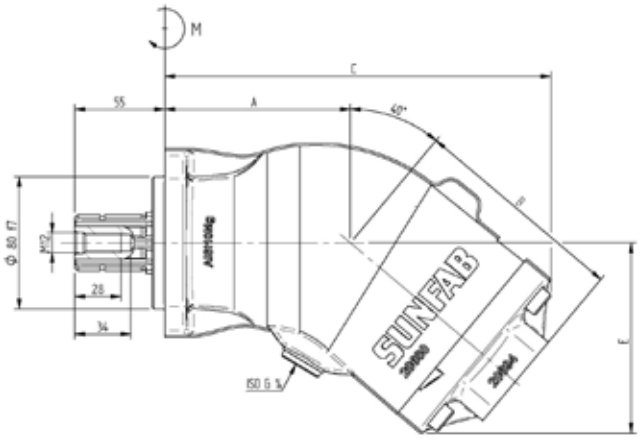
Other advantages:

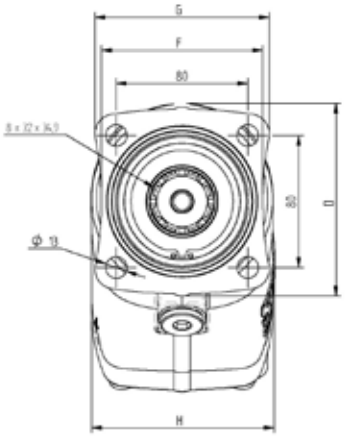
- Light weight metal casing design
- Smooth operation over the entire speed range
- Long life due to high demands on material selection, such as bearings, seals, etc
- Corrosion free lightweight-housing
- Less heat generation due to better ability to dissipate heat through housing

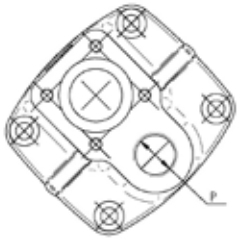
For more information, technical data and drawings visit: **www.sunfab.com**

SAP 084, 108 DIN Optimised

			084	108
Theoretical oil flow *l*/min			l/min	
at pump speed	rpm	500	41.8	54
		1000	83.6	108
		1500	125.4	106
Displacement	cm^3/rev		83.6	108.0
Max pump speed				
continuous	rpm		1800	1800
limited			2300	2300
Max working pressure	bar		400	400
Weight	kg		13.9	13.9
Dimensions	mm	A	122	122
		B	147	147
		C	264	264
		D	127	127
		E	133	133
		F	98	98
		G	106	106
		H	118	118
	ISO G	P	1	1
Tare-weight torque (M)	Nm		18.0	18.0
Direction of rotation	Left (L) or Right (R)			







Spline shaft:
DIN 5462 / ISO 14

Mounting flange:
ISO 7653-D

Pumps fixed single flow

SAP 084, 108 DIN Optimised for Injector

SAP DIN Optimised for Injector is an externally drained variant of the SAP series, which offers a very high oil flow in combination with the Sunfab injector K-Jet 2.

SAP 084, 108 DIN Optimised for Injector is suitable for hydraulic motor operations in closed hydraulic systems with injector K-Jet 2 for pressurisation of the suction side. This gives excellent speed characteristics and high flows.

The pump's front shaft seals are manufactured from HNBR to withstand the higher temperatures involved with engine mounting.

It is a speed-optimised pump and therefore supplied for either left (L) or right (R) rotation direction.

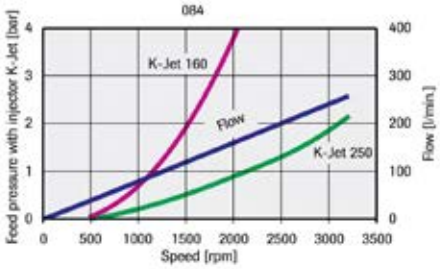
Other advantages:

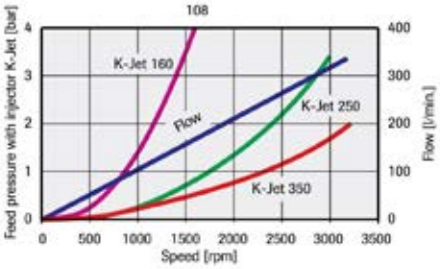
- Light weight metal casing design
- Smooth operation over the entire speed range
- Long life due to high demands on material selection, such as bearings, seals, etc
- Corrosion free lightweight-housing
- Less heat generation due to better ability to dissipate heat through housing

For more information, technical data and drawings visit: **www.sunfab.com**

SAP 084, 108 DIN Optimised for Injector

		084			108			
K-Jet 2		without	160	250	without	160	250	350
Oil flow at 97% vol. efficiency	rpm		l/min			l/min		
and 20 MPa	500	41.0	-	-	52.0	52.0	-	-
	100	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 pump speed								
min continuous	rpm	300	750	1200	300	550	1000	1200
max continuous		1800	2000	3000	1800	1500	2500	3000
max limited		2300			2300			
Max working pressure	bar		400			400		
Weight	kg		13.9			13.9		
Dimensions	mm							
	A		122			122		
	B		147			147		
	C		264			264		
	D		127			127		
	E		133			133		
	F		98			98		
	G		106			106		
	H		118			118		
	ISO G P		1			1		
Tare-weight torque (M)	Nm		18			18		
Direction of rotation	Left (L) or Right (R)							

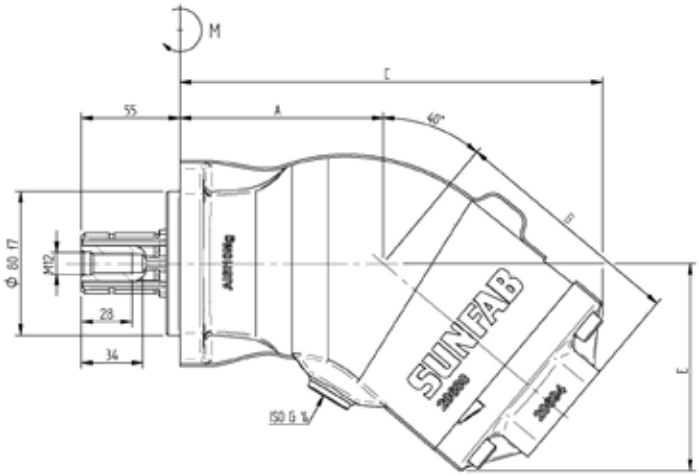


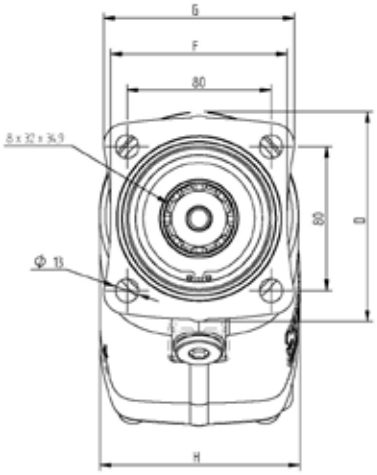


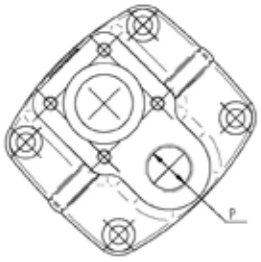
Spline shaft:
DIN 5462 / ISO14

Mounting flange:
ISO 7653-D

Threaded suction connection with feed pressure above 4 bar.







Pumps fixed single flow

SAPT 090, 130 DIN

SAPT 090, 130 DIN is an addition to the SAP series that supports larger flows and pressure up to 300 bar.

SAPT 090, 130 DIN are ideal for applications that require both a high flow and a high operating pressure in combination with demands on small installation measurements. The pumps are either mounted directly on the power take-off or on a frame bracket via an intermediate shaft.

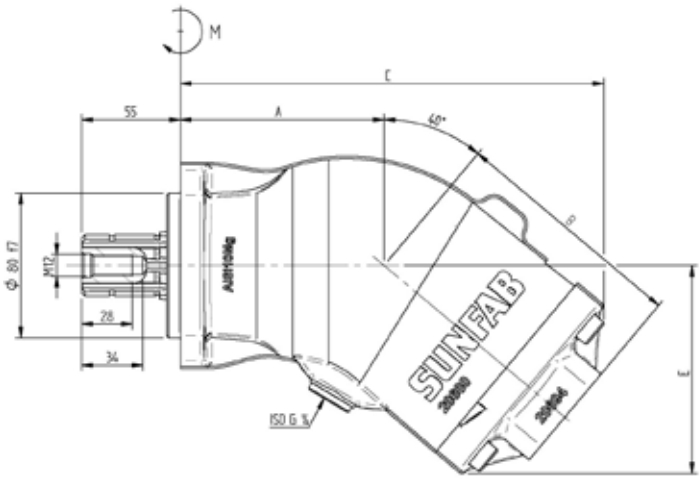
Other advantages:

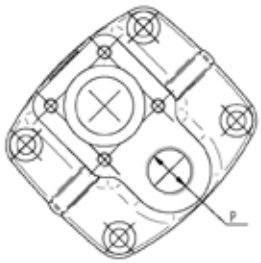
- Light weight metal casing design
- Smooth operation over the entire speed range
- Long life due to high demands on material selection, such as bearings, seals, etc
- Corrosion free lightweight-housing
- Less heat generation due to better ability to dissipate heat through housing

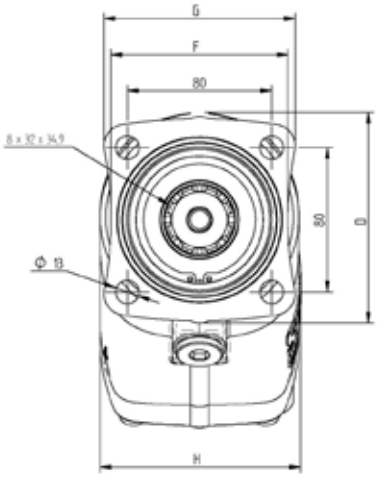
For more information, technical data and drawings visit: **www.sunfab.com**

SAPT 090, 130 DIN

			090	130
Nominal oil flow at pump speed	l/min			
	rpm	500	45.0	65.0
		1000	90.0	130.0
		1500	135.0	195.0
Displacement	cm^3/rev		90.0	130.0
Max pump speed				
continuous	rpm		1500	1500
limited			2000	2000
Max working pressure	bar		300	300
Weight	kg		9.8	13.9
Dimensions	mm	A	113	122
		B	131	147
		C	235	264
		D	118	127
		E	115	133
		F	98	98
		G	106	106
		H	111	118
	ISO G	P	3/4	1
Tare-weight torque (M)	Nm	M	11.5	18.0
Direction of rotation	Left (L) or Right (R)			







Spline shaft:
DIN 5462 / ISO14

Mounting flange:
ISO 7653-D

Pumps fixed single flow

SCP 012-108 DIN

SCP 012-108 DIN is a series of piston pumps with a fixed displacement for demanding mobile hydraulics.

SCP 012-108 DIN covers the entire displacement range 12-108 cm³/rev. at a maximum operating pressure of 400 bar. It is a modern, compact pump which meets the market's high demands on flow performance, pressure, efficiency and small installation dimensions.

It is either mounted directly on the power take-off, or on a frame bracket via an intermediate shaft.

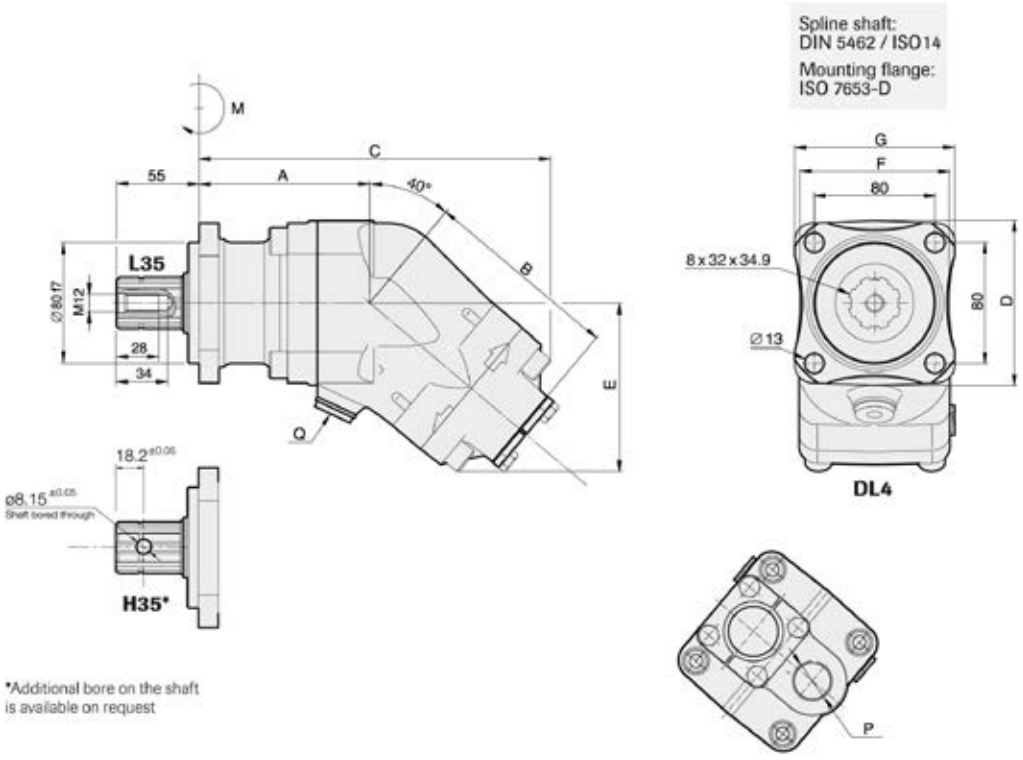
Other advantages:

- High maximum speed while maintaining low noise levels
- Smooth operation over the entire speed range
- Long life due to high demands on material selection, such as bearings, seals, etc.
- O-rings on all contact surfaces as well as double shaft seals eliminate oil leakage from the pump and power take-off
- The stop shoulder on the angular housing allows the pump's direction of rotation to be changed without the risk of altering the gear meshing

For more information, technical data and drawings visit: **www.sunfab.com**

SCP 012-108 DIN

			012	017	025	034	040	047	056	064	084	108
Theoretical oil flow *l*/min							l/min					
at pump speed	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												
continuous	rpm		2300	2300	2300	2300	1900	1900	1900	1900	1500	1500
limited			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	126	126
		E	97	97	97	97	109	109	109	109	126	126
		F	89	89	89	89	99	99	99	99	115	115
		G	97	97	97	97	106	106	106	106	123	123
	ISO G	P	¾	¾	¾	¾	¾	¾	¾	¾	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
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)											



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Pumps fixed single flow

SCP 012-108 SAE

SCP 012-108 SAE is a series of piston pumps with a fixed displacement for demanding mobile hydraulics.

Sunfab's SCP 012-108 SAE pumps are equipped with shafts and flanges according to the SAE-B and SAE-C standard. They are available in the range from 12-108 cm^3. It is a modern, compact pump which meets the market's high demands on flow performance, pressure, efficiency and small installation dimensions.

The pump is either mounted directly on the power take-off or on a frame bracket via an intermediate shaft. The stop shoulder on the angular housing allows the pump's direction of rotation to be changed without the risk of altering the gear meshing.

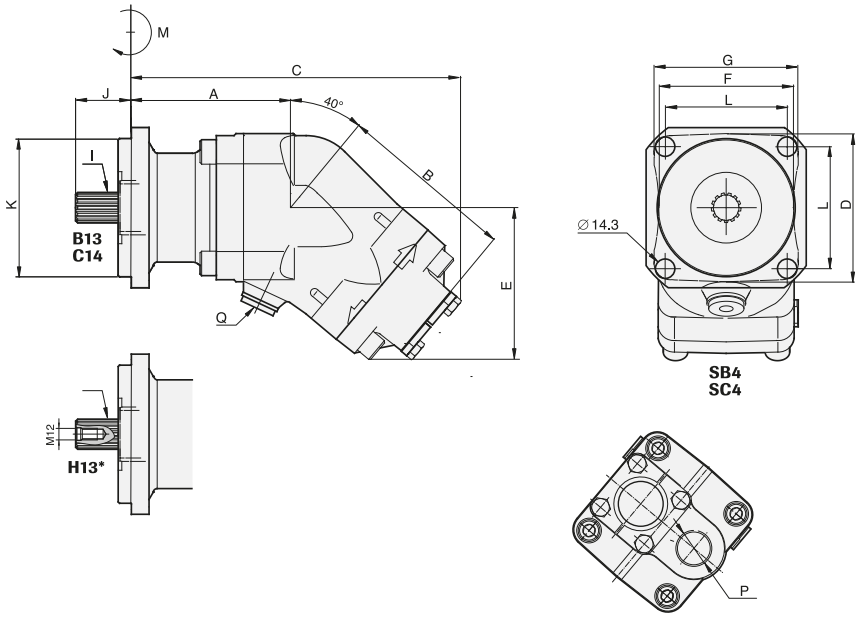
Other advantages:

- High maximum speed while maintaining low noise levels
- Smooth operation over the entire speed range
- Long life due to high demands on material selection, such as bearings, seals, etc
- O-rings on all contact surfaces as well as double shaft seals eliminate oil leakage from the pump and power take-off

For more information, technical data and drawings visit: **www.sunfab.com**

SCP 012-108 SAE

			012	017	025	034	040	047	056	064	040	047	056	064	084	108
Theoretical oil flow						l/min							l/min			
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																
continuous	rpm		2300	2300	2300	2300	1900	1900	1900	1900	1900	1900	1900	1900	1500	1500
limited			3000	3000	3000	3000	2500	2500	2500	2500	2500	2500	2500	2500	2000	2000
Max working pressure	bar		400	400	400	400	400	400	400	350	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	mm	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	50	64	64
SAE standard		I				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	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	¾	1	1
	ISO G	Q	½	½	½	½	½	½	½	½	½	½	½	½	½	½
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) or Right (R)															



Pumps fixed single flow

SCP 012-130 ISO

SCP 012-130 ISO is a series of piston pumps with a fixed displacement for mobile and stationary hydraulics.

SCP 012-130 ISO covers the entire displacement range 12-130 cm^3/rev. at a maximum pressure of 400 bar.
The pump's well dimensioned, double tapered roller bearings permit high shaft loads and lead to excellent speed characteristics. The pump is drained externally. It is speed-optimised and therefore supplied for either left (L) or right (R) rotation direction.

Other advantages:

- High maximum speed while maintaining low noise levels
- Smooth operation over the entire speed range
- Long life due to high demands on material selection, such as bearings, seals, etc.

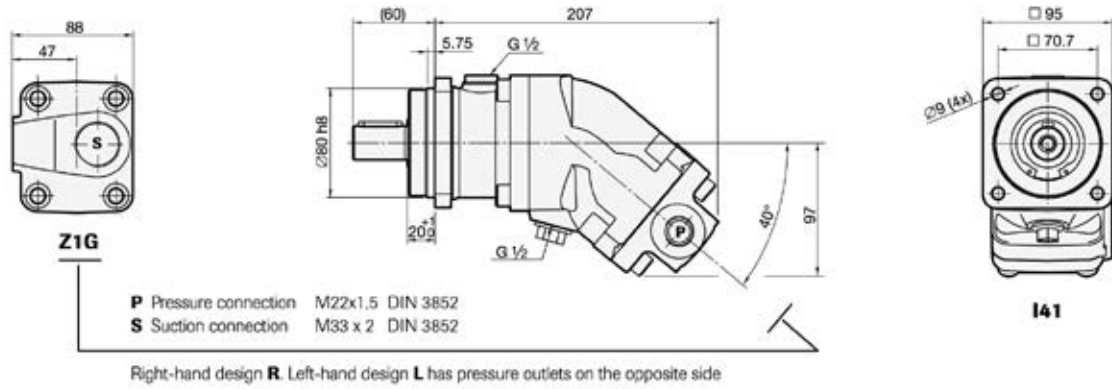
For more information, technical data and drawings visit: **www.sunfab.com**

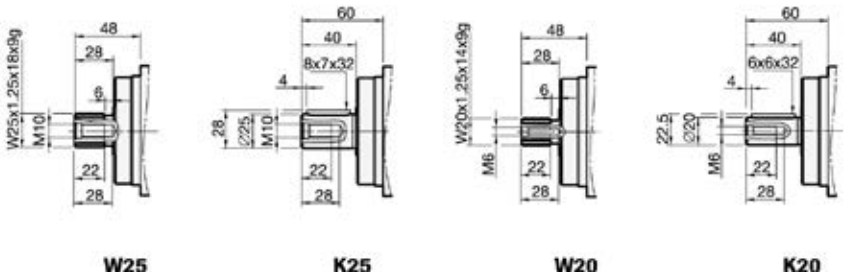
SCP 012-130 ISO

			012	017	025	034	040	047	056	064	084	090	108	130
Nominal oil flow									l/min					
at pump speed	rpm	500	6.3	8.5	12.7	17.1	20.6	23.5	28.0	31.8	41.5	45.4	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 working pressure	bar		400	400	400	400	400	400	400	400	400	400	400	350
Max pump speed $n_{max\ (1)}$	rpm		3300	3200	2550	2250	2200	2200	2100	2050	1700	1700	1700	1600
$n_{max\ limit\ (2)}$			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 (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
Direction of rotation	Left (L) or Right (R)													

(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.

Example drawing. For more information, technical data and drawings visit: **www.sunfab.com**





Pumps fixed dual flow

SCPD 56/26 DIN

Sunfab dual flow pump is ideal for vehicles which require two different flows.

For vehicles with several types of hydraulic equipment, a large pump with a single flow is often a poor compromise. Certain parts of the equipment run too fast, others too slowly or too much heat is generated. A Sunfab dual flow pump is both the optimum technical and most economical solution for this.

Sunfab dual flow pumps are available with two equal large flows or one small and one large flow. The latter can give three different total flows: the small, the large and the combined. Where there is a need for different pressure levels, the flow and the pressure can be combined for a maximum use of the permitted power take-off torque.

Several system solutions:

- Two separate circuits
- Parallel operation
- Torque limiting

SCPD 56/26 DIN is a double pump with two separate flows of different sizes.

SCPD 56/26 DIN gives 56.0 and 26.0 cm^3/rev. and supports a maximum operating pressure of 400 bar. It can effectively be directly mounted on gear boxes equipped with engageable and disengageable power take-offs. It is speed optimised and therefore supplied for either left (L) or right (R) rotation direction.

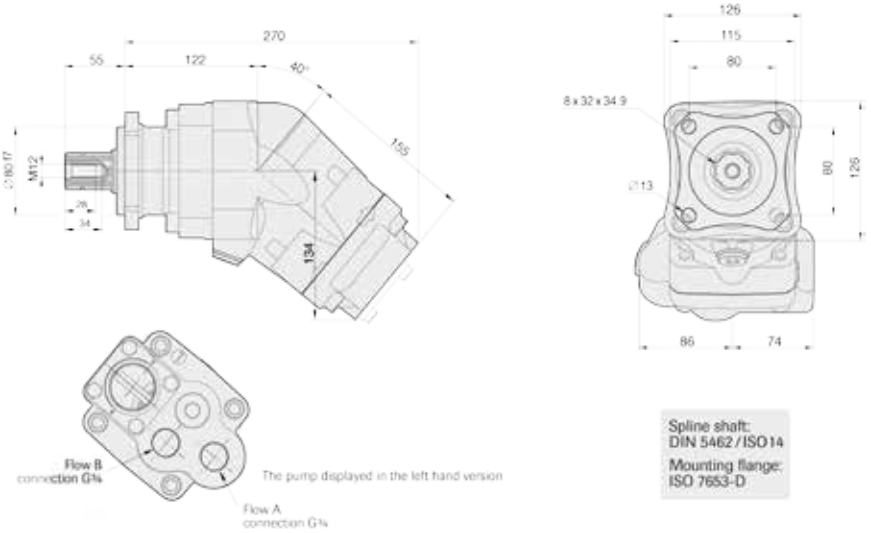
Other advantages:

- High self-priming speed
- Constant low noise level
- Long life due to high demands on material selection, such as bearings, seals, etc.
- O-rings on all contact surfaces as well as double shaft seals

For more information, technical data and drawings visit: **www.sunfab.com**

SCPD 56/26 DIN

Theoretical oil flow A+B		rpm	l/min		
at pump speed		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 working pressure	bar	400			
Weight	kg	18			
Tare-weight torque without valve	Nm	21			
Nominal power at pressure		rpm	200 Bar	300 Bar	400 Bar
and pump speed		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
		1800	33.6 + 15.6 = 49.2 kW	50.4 + 23.4 = 73.8 kW	67.2 + 31.2 = 98.4 kW
Nominal torque on pump shaft			200 Bar	300 Bar	400 Bar
at different pressures			178 + 83 = 261 Nm	267 + 124 = 391 Nm	356 + 165 = 521 Nm
Direction of rotation	Left (L) or Right (R)				



Pumps fixed dual flow

SCPD 56/26 DIN By-Pass

With two separate flows and a directly mounted By-Pass valve, the Sunfab's SCPD 56/26 By-Pass DIN is the most flexible compact fixed flow pump on the market.

SCPD 56/26 DIN By-Pass is ideal for combination vehicles which require different flows and where there is a need to operate equipment while moving. The pump is primarily intended for engine-mounted power take-offs.

The constant engagement is made possible by the By-Pass valve, which immediately relieves the load on the pump and power take-off when oil is not required. The pressure drop of the By-Pass valve is very low, so its function is energy efficient.

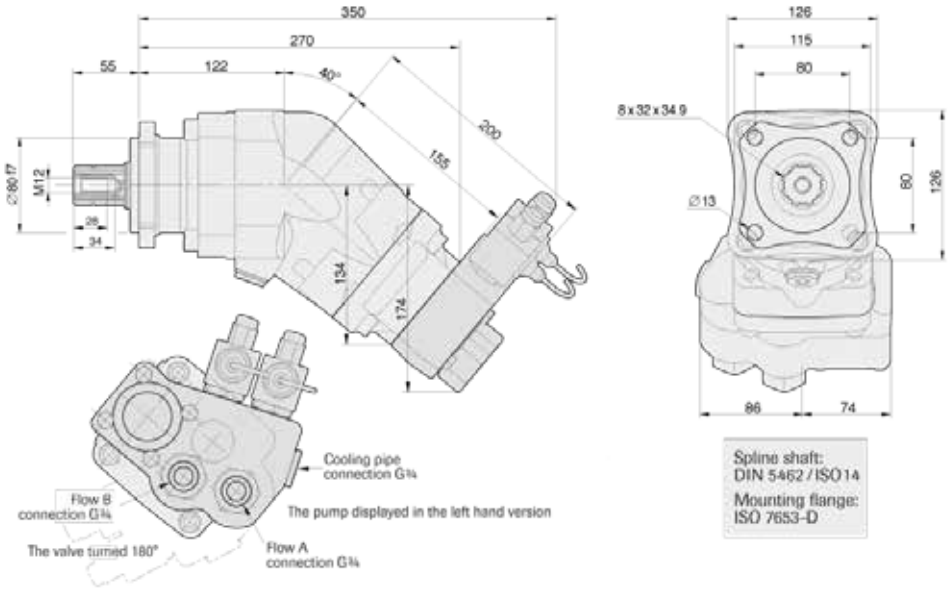
Other advantages:

- The By-Pass valve can relieve the load from full operating pressure of 400 bar, which allows emergency stop function
- The valve's 24 V solenoids have integrated electrical cables which meet protection class ADR

For more information, technical data and drawings visit: **www.sunfab.com**

SCPD 56/26 DIN By-Pass

Theoretical oil flow A+B at pump speed		rpm 600 1000 1200 1500 1800	l/min 33.5 + 15.5 = 49 56.0 + 26.0 = 82 67.0 + 31.0 = 98 84.0 + 39.0 = 123 100.5 + 46.5 = 147		
Displacement A+B	cm^3/rev	56.0 + 26.0			
Max pump speed A+B	rpm	1850			
Max pump speed A	rpm	1850			
Max pump speed B	rpm	2200			
Max pump speed, relieved	rpm	2700			
Max working pressure	bar	400			
Weight without valve	kg	18			
Weight with valve	kg	22.5			
Tare-weight torque without valve	Nm	21			
Tare-weight torque with valve	Nm	25.5			
Nominal power at pressure and pump speed		rpm 600 1200 1800	200 Bar 11.2 + 5.2 = 16.4 kW 22.4 + 10.4 = 32.8 kW 33.6 + 15.6 = 49.2 kW	300 Bar 16.8 + 7.8 = 24.6 kW 33.6 + 15.6 = 49.2 kW 50.4 + 23.4 = 73.8 kW	400 Bar 22.4 + 10.4 = 32.8 kW 44.8 + 20.8 = 65.6 kW 67.2 + 31.2 = 98.4 kW
Nominal torque on pump shaft at different pressures			200 Bar 178 + 83 = 261 Nm	300 Bar 267 + 124 = 391 Nm	400 Bar 356 + 165 = 521 Nm
Direction of rotation	Left (L) or Right (R)				



Pumps fixed dual flow

SCPD 76/76 DIN

SCPD 76/76 DIN is a dual flow pump with two separate flows of equal sizes.

SCPD 76/76 DIN gives a maximum flow of 127 + 127 = 254 lit/min and supports a maximum working pressure of 350 bar. It can effectively be directly mounted on gear boxes equipped with engageable and disengageable power take-offs.

SCPD 76/76 DIN is a modern, compact pump, which meets the market's high demands on flow performance, pressure, efficiency and small installation dimensions. It is speed optimized and therefore supplied for either left (L) or right (R) rotation direction.

SCPD 76/76 DIN is superior by offering two big flows in combination with extremely compact size. The compact size makes it possible to mount the pump directly on the power take-off in very restricted spaces.

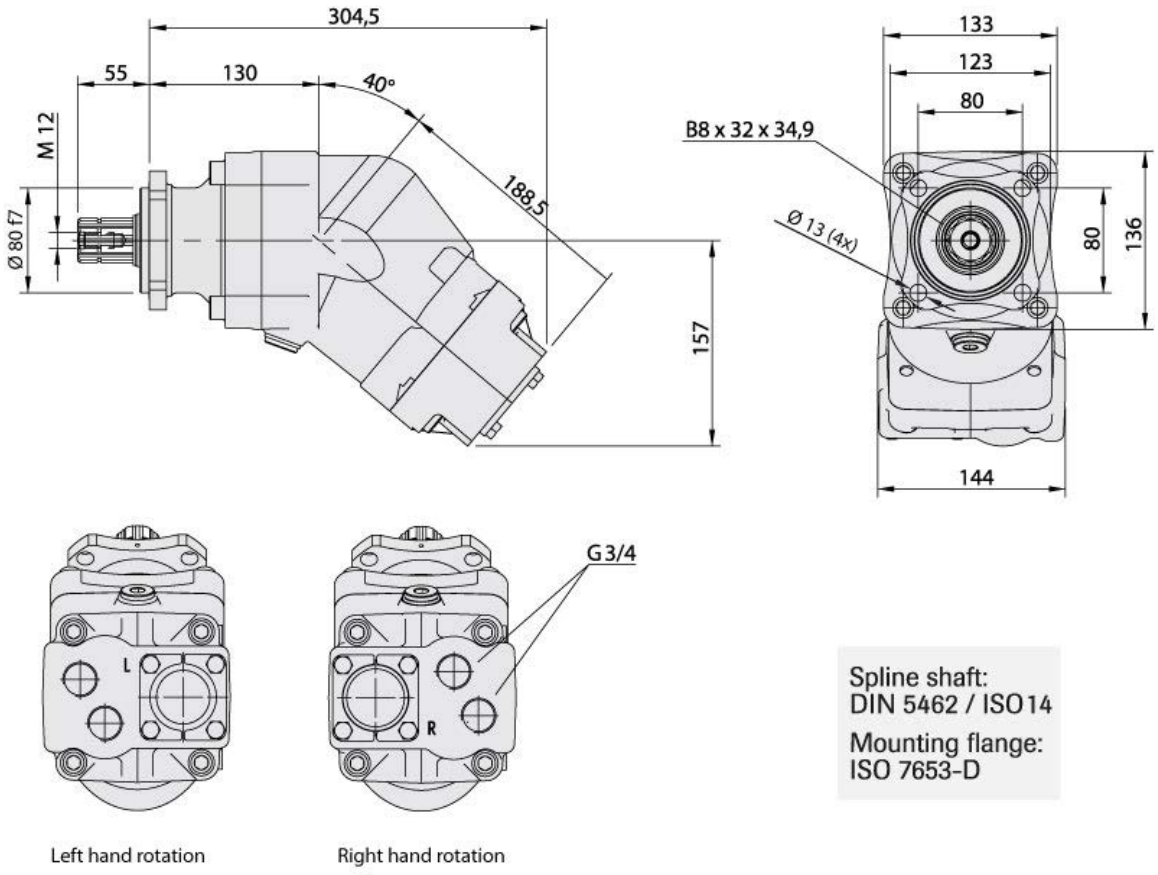
Other advantages:

- Large displacement gives the possibility of low engine speeds and low noise levels.
- Long life due to high demands on material selection, such as bearings, seals, etc.
- O-rings on all contact surfaces as well as double shaft seals eliminate oil leakage from the pump and power takeoff.
- Highest displacement-to-size-ratio on the market.

For more information, technical data and drawings visit: **www.sunfab.com**

SCPD 76/76 DIN

Theoretical oil flow at pump speed			l/min		
	rpm	500	37.5 + 37.5 = 75		
		1000	75.0 + 75.0 = 150		
		1500	127.0 + 127.0 = 254		
Displacement	cm^3/rev	75 + 75			
Max pump speed continuous limited	rpm	1500 1700			
Max working pressure	bar	350			
Weight	kg	23.2			
Tare-weight torque without valve	Nm	34.5			
Theoretical power at pressure and pump speed			200 Bar	250 Bar	350 Bar
	rpm	500	12.5 + 12.5 = 25.0 kW	15.6 + 15.6 = 31.2 kW	21.9 + 21.9 = 43.8 kW
		1000	25.0 + 25.0 = 50.0 kW	31.3 + 31.3 = 62.6 kW	43.8 + 43.8 = 87.6 kW
		1500	37.5 + 37.5 = 75 kW	46.9 + 46.9 = 93.8 kW	65.6 + 65.6 = 131.2 kW
Nominal torque on pump shaft at different pressures			200 Bar 239 + 239 = 478 Nm	250 Bar 298 + 298 = 596 Nm	350 Bar 418 + 418 = 836 Nm
Direction of rotation	Left (L) or Right (R)				



Pumps fixed dual flow

SLPD 20/20-64/32 DIN

SLPD 20/20-64/32 DIN is a series of in-line dual flow pumps with extremely low noise levels for demanding mobile hydraulics.

SLPD 20/20-64/32 DIN comes in eight different sizes, where three models feature differentiated flows. Pumps with differentiated flow increase the field of application as they can provide three different flows: one small, one large and one combined flow. Maximum pressure is 330-350 bar depending on the model. Its slim pump housing makes direct mounting on the power take-off possible in very confined areas. SLPD 20/20-64/32 DIN is also ideal for installation using a frame bracket via an intermediate shaft.

It is available in a version with a Savtec valve for applications where the hydraulics need to be used while the vehicle is on the move.

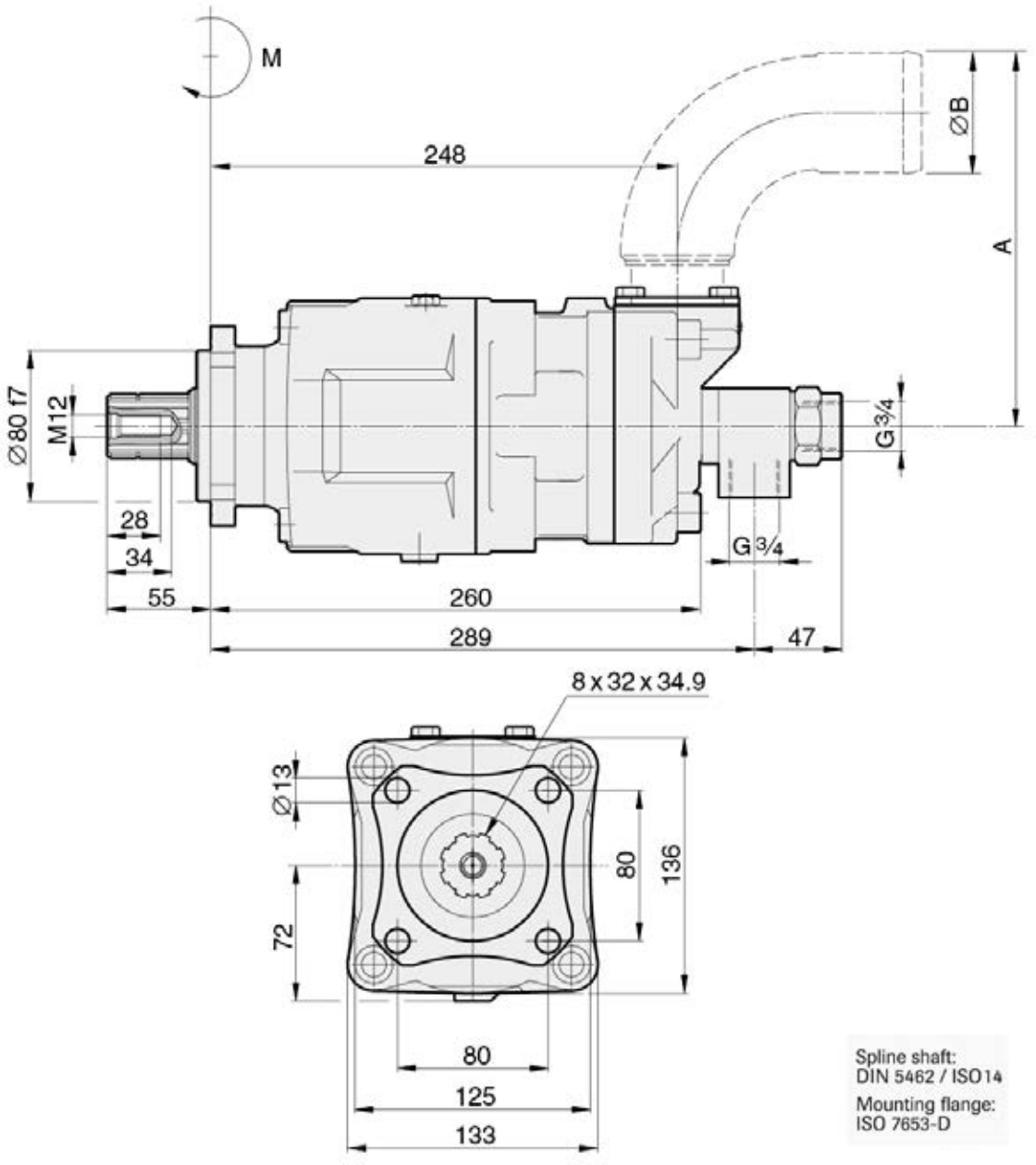
Other advantages:

- Independent direction of rotation
- A cost effective total solution in relation to a conventional installation using two pumps with a splitter gear box
- Smooth operation over the entire speed range
- Long life due to high demands on material selection, such as bearings, seals, etc.
- O-rings on all contact surfaces as well as double shaft seals

For more information, technical data and drawings visit: **www.sunfab.com**

SLPD 20/20-64/32 DIN

			20/20	28/28	40/20	35/35	56/28	46/46	53/53	64/32
Theoretical oil flow						l/min				
at pump speed	rpm	500	10.1 +10.1	13.7 +13.7	20.3 +10.1	16.9 +16.9	27.4 +13.7	22.9 +22.9	26.2 +26.2	31.5 +15.7
		1000	20.3 +20.3	27.5 +27.5	40.7 +20.3	33.9 +33.9	54.9 +27.5	45.8 +45.8	52.5 +52.5	63 + 31.5
		1500	30.4 +30.4	41.3 +41.3	61.0 +30.4	50.8 +50.8	82.3 +41.2	68.7 +68.7	78.7 +78.7	94.5 +47.2
Displacement	cm^3/rev		20.3 +20.3	27.5 + 27.5	40.7 + 20.3	33.9 + 33.9	54.9 + 27.5	45.8 + 45.8	52.5 + 52.5	63.0 + 31.5
Max pump speed	rpm		2200	1800	2200	2200	1800	1800	1600	1600
Max working pressure	bar		350	350	350	330	350	330	330	350
Weight	kg		22.0	22.0	22.0	22.0	22.0	22.0	22.0	22.0
Dimensions	mm	A	133	133	133	133	166	166	166	166
Min. dimensions		B	50	50	50	50	64	64	64	64
Tare-weight torque (M)	Nm		26.5	26.5	26.5	26.5	26.5	26.5	26.5	26.5
Direction of rotation	Independent									



Pumps fixed dual flow

SLPD 20/20-64/32 DIN SAVTEC

SLPD 20/20-64/32 DIN Savtec is equipped with a SAVTEC shut-off valve. Using a Savtec valve makes it possible to control the SLPD pump so it only feeds oil when required.

SLPD 20/20-64/32 DIN Savtec's valve is available for electrical 24 V or pneumatic remote control. The signal is obtained from a panel switch or automatically from, e.g. the parking brake, pressure sensor or diode gate. With a closed Savtec valve it generates neither flow nor pressure, and in doing so does not load the power take-off. This has a positive effect on fuel economy.
SLPD 20/20-64/32 DIN Savtec features extra lubrication ducts on the bearings for lubrication even when the pump is run with the Savtec-valve closed.

The pump comes in eight different sizes, where three models feature differentiated flows. Pumps with differentiated flow increase the field of application as they can provide three different flows: one small, one large and one combined flow. Max pressure is 330-350 bar depending on the model.

Other advantages:

- Independent direction of rotation
- A cost effective total solution in relation to a conventional installation using two pumps in a splitter gear box
- Extremely low noise level
- Smooth operation over the entire speed range
- Long life due to high demands on material selection, such as bearings, seals, etc.
- O-rings on all contact surfaces as well as double shaft seals eliminate oil leakage from the pump and power take-off
- The Savtec valve can also be used as an emergency stop

SLPD 40/20-64/32 SAE

SLPD 40/20-64/32 SAE is a series of in-line double pumps with extremely low noise levels for demanding mobile hydraulics.

SLPD 40/20-64/32 SAE pumps are equipped with shafts and flanges according to the SAE-C standard. They are available in six different sizes. It's slim pump housing enables direct installation on the power take-off in very confined spaces. SLPD is also easy to install with frame mountings via an intermediate shaft. The high level of reliability is based on the choice of materials, hardening methods, surface structures and the quality assured manufacturing process.

Other advantages:

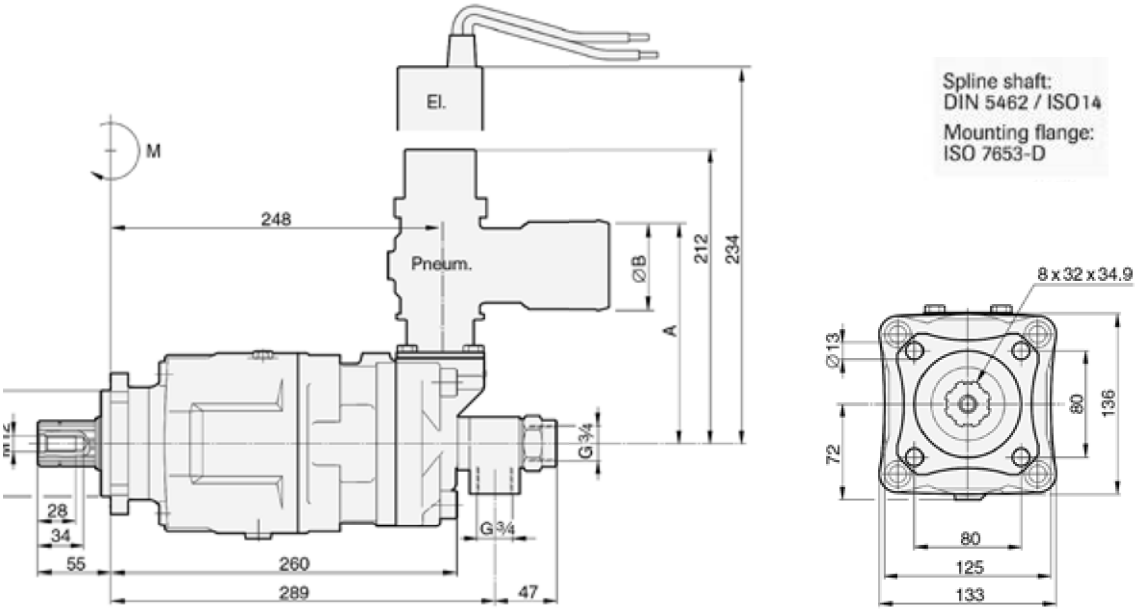
- Independent direction of rotation
- A cost effective total solution in relation to a conventional installation using two pumps with a splitter gear box
- Smooth operation over the entire speed range
- Long life due to high demands on material selection, such as bearings, seals, etc.
- O-rings on all contact surfaces as well as double shaft seals eliminate oil leakage from the pump and power take-off

For more information, technical data and drawings visit: **www.sunfab.com**

SLPD 20/20-64/32 DIN SAVTEC

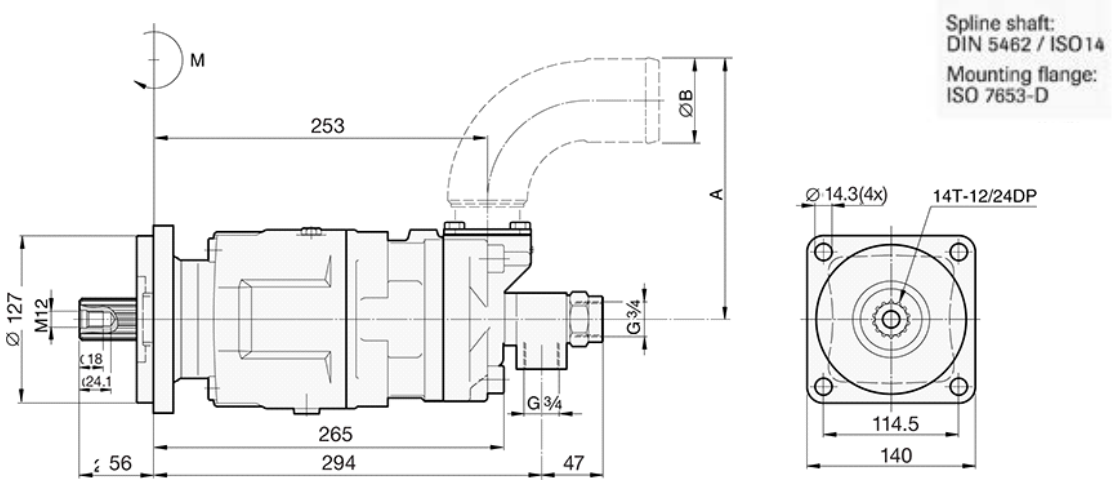
			20/20	28/28	40/20	35/35	56/28	46/46	53/53	64/32
Theoretical oil flow						l/min				
at pump speed	rpm	500	10.1 + 10.1	13.7 + 13.7	20.3 + 10.1	16.9 + 16.9	27.4 + 13.7	22.9 + 22.9	26.2 + 26.2	31.5 + 15.7
		1000	20.3 + 20.3	27.5 + 27.5	40.7 + 20.3	33.9 + 33.9	54.9 + 27.5	45.8 + 45.8	52.5 + 52.5	63 + 31.5
		1500	30.4 + 30.4	41.3 + 41.3	61.0 + 30.4	50.8 + 50.8	82.3 + 41.2	68.7 + 68.7	78.7 + 78.7	94.5 + 47.2
Displacement	cm^3/rev		20.3 + 20.3	27.5 + 27.5	40.7 + 20.3	33.9 + 33.9	54.9 + 27.5	45.8 + 45.8	52.5 + 52.5	63.0 + 31.5
Max pump speed	rpm		2200	1800	2200	2200	1800	1800	1600	1600
Max speed, idling	rpm		3000	2500	3000	3000	2500	2500	2500	2500
Max working pressure	bar		350	350	350	330	350	330	330	350
Weight*	kg		24.5/23.5	24.5/23.5	24.5/23.5	24.5/23.5	24.5/23.5	24.5/23.5	24.5/23.5	24.5/23.5
Dimensions	mm	A	133	133	133	133	166	166	166	166
Min. dimensions		B	50	50	50	50	64	64	64	64
Tare-weight torque *	(M) Nm		32.5/29.5	32.5/29.5	32.5/29.5	32.5/29.5	32.5/29.5	32.5/29.5	32.5/29.5	32.5/29.5
Direction of rotation	Independent									

*Electrical/pneumatic



SLPD 40/20-64/32 SAE

			40/20	35/35	56/28	46/46	53/53	64/32
Theoretical oil flow					l/min			
at pump speed	rpm	500	20.3 + 10.1	16.9 + 16.9	27.4 + 13.7	22.9 + 22.9	26.2 + 26.2	31.5 + 15.7
		1000	40.7 + 20.3	33.9 + 33.9	54.9 + 27.5	45.8 + 45.8	52.5 + 52.5	63.0 + 31.5
		1500	61.0 + 30.4	50.8 + 50.8	82.3 + 41.2	68.7 + 68.7	78.7 + 78.7	94.5 + 47.2
Displacement	cm^3/rev		40.7 + 20.3	33.9 + 33.9	54.9 + 27.5	45.8 + 45.8	52.5 + 52.5	63.0 + 31.5
Max pump speed	rpm		2200	2200	1800	1800	1600	1600
Max working pressure	bar		350	330	350	330	330	350
Weight	kg		22	22	22	22	22	22
Dimensions	mm	A	133	133	166	166	166	166
Min. dimensions		B	50	50	64	64	64	64
Tare-weight torque (M)	Nm		26.5	26.5	26.5	26.5	26.5	26.5
Direction of rotation	Independent							



Pumps variable flow

SVH 062, 092, 112, 130

Sunfab SVH is a variable axial piston pump for load sensing systems, designed for direct installation on the truck's power take-off.

SVH supports a maximum pressure up to 450 bar, and is available in the sizes 62, 92, 112 and 130 cm^3/rev. It is intended for use on forestry cranes, general cargo cranes, suction vehicles, refuse collection vehicles, etc. SVH variable pumps uniquely feature a slim pump housing which permits direct mounting on the power take-off.

Other advantages:

- Short reaction time when resetting the flow
- Compact installation dimensions
- High pressure
- Low noise level

Description of pump controllers, SVH 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°) mandetory for mounting controller at pumps with radial inlet and outlet.

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

For more information, technical data and drawings visit: **www.sunfab.com**

SVH 062, 092, 112, 130

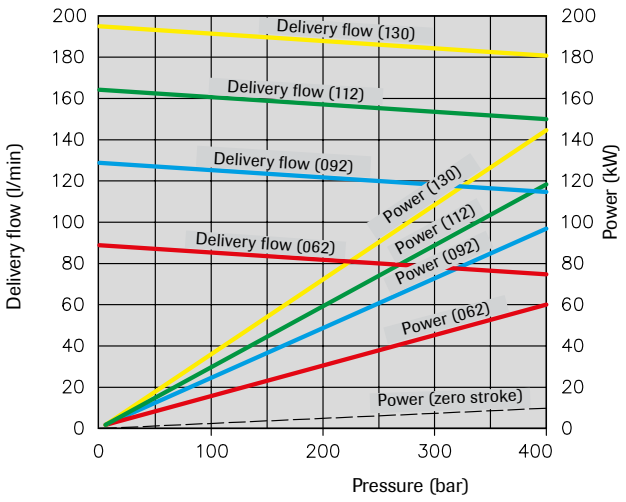
		SVH 062	SVH 092	SVH 112	SVH 130
Geometric displacement V_g	cm^3/rev.	62.4	87.2	110.4	130
Nom. pressure p_{nom}	bar	350	350	350	400
Pressure p_{max}	bar	400	400	400	450
Angle of the swash plate		21.5°	21.5°	21.5°	21.5°
Required inlet pressure (absolute) for open circuit	bar	0.85	0.85	0.85	0.85
Max. permissible inlet pressure, absolute	bar	2	2	2	2
Max. permissible housing pressure, absolute	bar	3	3	3	3
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

Flow and Power

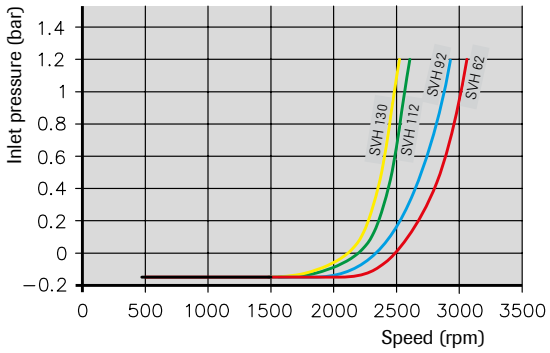
Charts show flow/pressure (without controller). Power at max. setting angle and power at min.setting angle and 1500 rpm

Spline shaft:
DIN 5462 / ISO14

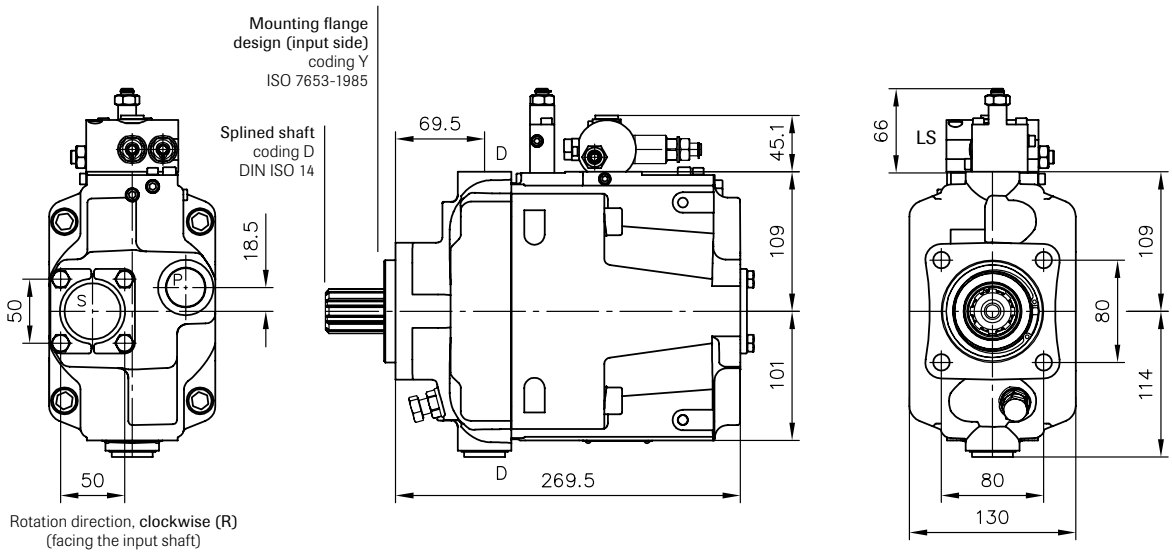
Mounting flange:
ISO 7653-D



Inlet pressure (LSNR-controller)
Graph valid at viscosity 75 mm^2/s at max. setting angle.



Example drawing (SVH 130). For more information, technical data and drawings visit: **www.sunfab.com**



SCM 010-130 ISO

SCM 010-130 ISO is a range of robust axial piston motors especially suitable for mobile hydraulics.

SCM 010-130 ISO is of the bent-axis type with spherical pistons.
The design results in a compact motor with few moving parts, high starting torque and high reliability. It covers the entire displacement range 10-130 cm^3/rev. at a maximum pressure of 400 bar. It's well dimensioned, double tapered roller bearings permit high shaft loads and lead to excellent speed characteristics. The motor's high level of reliability is based on the choice of materials, hardening methods, surface structures and the quality assured manufacturing process.

Other advantages:

- High maximum speed
- Smooth operation over the entire speed range
- Available in many different configurations of shafts and connections
- High efficiency
- Speed sensor available as option
- Suitable for applications with high angular accelerations due to its high rotary stiffness (timing gear)

For more information, technical data and drawings visit: **www.sunfab.com**

SCM 010-130 ISO

		010	012	017	025	034	040	047	056	064	084	090	108	130
Displacement	cm^3/rev	9.6	12.6	17.0	25.4	34.2	41.2	47.1	56.7	63.5	83.6	90.7	108.0	130.0
Working pressure														
max intermittent	bar	400	400	400	400	400	400	400	400	400	400	400	400	350
max continuous		350	350	350	350	350	350	350	350	350	350	350	350	300
Revolutions														
max intermittent	rpm	8800	8800	8800	7000	7000	6300	6300	6300	6300	5200	5200	5200	5200
max continuous		8000	8000	8000	6300	6300	5700	5700	5700	5700	4700	4700	4700	4700
min continuous		300	300	300	300	300	300	300	300	300	300	300	300	300
Power														
max intermittent	kW	41	54	74	86	115	125	145	175	195	215	230	275	285
max continuous		15	20	25	40	55	60	65	80	90	100	110	130	135
Starting torque theoretical value	Nm/bar	0.15	0.20	0.27	0.40	0.54	0.66	0.75	0.89	1.0	1.33	1.44	1.71	2.06
Moment of inertia (x 10^{-3})	$kg\ m^2$	0.9	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	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

Data concerning RPM is based on maximum permitted peripheral velocity for the tapered roller bearings.
Max intermittent power may depend on application. For further information please contact Sunfab.
Continuous power data is based on maximum output power without external cooling of the motor housing.
Intermittent duty is defined as follows: max 6 seconds per minute, e.g. peak RPM when unloading or accelerating.

Choice of shaft seal

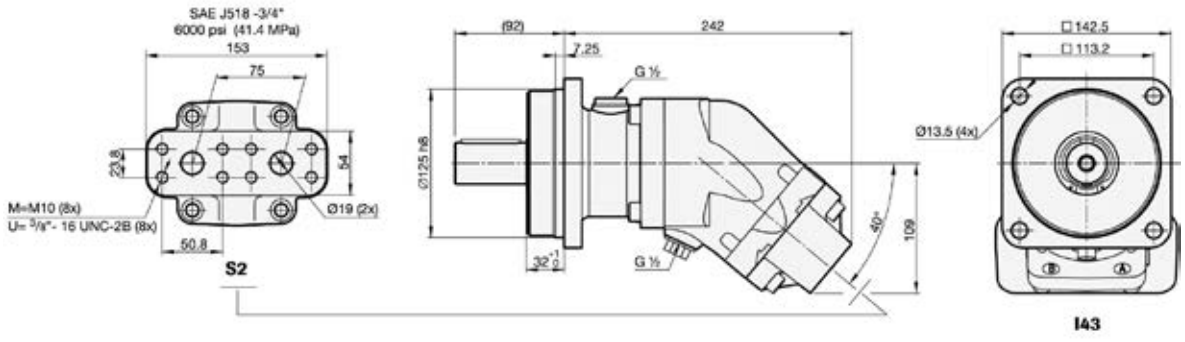
		Temp.	Max. housing pressure bar at rpm								
Motor SCM	Code	°C	1000	2000	3000	4000	5000	6000	7000	8000	9000
010-034	N	75	5.5	2.7	1.8	1.4	1.1	0.9	0.8	0.7	0.6
	H	75	24.6	12.3	8.2	6.1	4.9	4.1	3.5	3.1	2.7
	V	90	5.5	2.7	1.8	1.4	1.1	0.9	0.8	0.7	0.6
040-064	N	75	5.5	2.7	1.8	1.4	1.1	0.9	0.8		
	H	75	24.6	12.3	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			

Code according to page 2, Versions, main data

Factors affecting the choice of shaft seal include the hydraulic motor housing pressure and the drainage oil temperature.

The drainage oil should have a maximum temperature of 75 °C with a Nitrile shaft seal and 90 °C with a Viton shaft seal. These temperatures must not be exceeded.
The housing pressure must be equal to or greater than the external pressure on the shaft seal.

Example drawing. For more information, technical data and drawings visit: **www.sunfab.com**



Motors fixed

SCM 010-130 SAE

Sunfab's SCM 010-130 SAE is a range of robust axial piston motors especially suitable for mobile hydraulics.

SCM 010-130 SAE is of the bent-axis type with spherical pistons. The design results in a compact motor with few moving parts, high starting torque and high reliability. It covers the entire displacement range 10-130 cm^3/rev. at a maximum pressure of 400 bar. It features double tapered roller bearings, which permits high shaft loads and gives superb speed performance.

The high level of reliability is based on the choice of materials, hardening methods, surface structures and the quality assured manufacturing process.

Other advantages:

- High maximum speed
- Smooth operation over the entire speed range
- Available in many different configurations of shafts and connections
- High efficiency
- Speed sensor available as option
- Suitable for applications with high angular accelerations due to its high rotary stiffness (timing gear)

For more information, technical data and drawings visit: **www.sunfab.com**

SCM 010-034 SAE B2

Sunfab also offers a two-bolt flange, SAE B2 010-034 in the SCM family.

The design features double tapered roller bearings, which permits high shaft loads and gives superb speed performance.

Other advantages:

- High maximum speed
- Smooth operation over the entire speed range
- Available in many different configurations of shafts and connections
- High efficiency
- Speed sensor available as option
- Suitable for applications with high angular accelerations due to its high rotary stiffness (timing gear)

For more information, technical data and drawings visit: **www.sunfab.com**

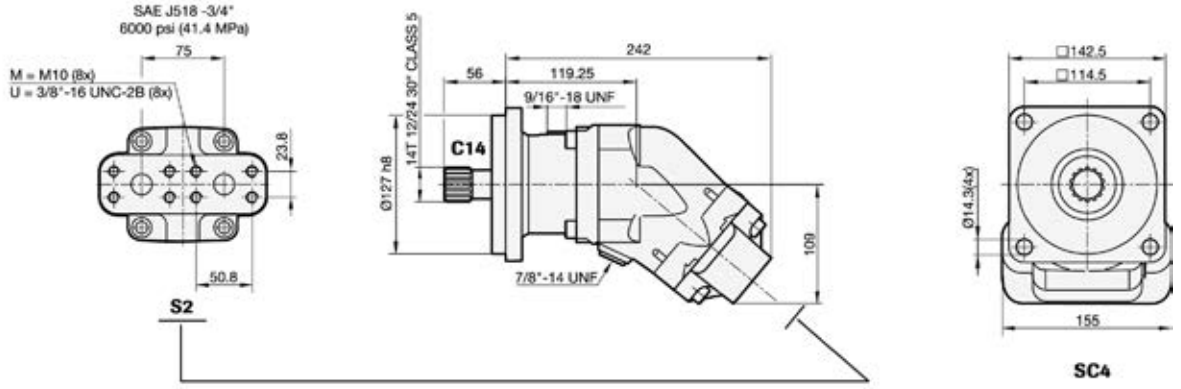
SCM 010-130 SAE

		010 SAE B	012 SAE B	017 SAE B	025 SAE B	025 SAE C	034 SAE B	034 SAE C	040 SAE C	047 SAE C	056 SAE C	064 SAE C	084 SAE C	084 SAE D	090 SAE C	090 SAE D	108 SAE C	108 SAE D	130 SAE D
Displacement	cm^3/rev	9.6	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
Working pressure																			
max intermittent	bar	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	400	350
max continuous		350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	350	300
Revolutions																			
max intermittent	rpm	8250	8250	8250	6500	6500	6500	6500	5900	5900	5900	5900	4800	4600	4800	4600	4800	4600	4600
max continuous		7500	7500	7500	5900	5900	5900	5900	5300	5300	5300	5300	4400	4200	4400	4200	4400	4200	4200
min continuous		300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300	300
Power																			
max intermittent	kW	41	50	70	80	80	110	110	120	135	165	180	200	190	215	205	255	245	255
max continuous		15	20	25	40	40	55	55	60	65	80	90	100	100	110	110	130	130	135
Starting torque theoretical value	Nm/bar	0.15	0.20	0.27	0.40	0.40	0.54	0.54	0.66	0.75	0.89	1.00	1.33	1.33	1.44	1.44	1.71	1.71	2.06
Mass moment of inertia (x 10^{-3})	kg m^2	0.9	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	9.0	15.0	15.0	15.0	15.0	18.0	35.0	18.0	35.0	18.0	35.0	35.0

Information about technical data

Data concerning RPM is based on maximum permitted peripheral velocity for the tapered roller bearings.
Max intermittent power may depend on application. For further information please contact Sunfab.
Continuous power data is based on maximum output power without external cooling of the motor housing.
Intermittent duty is defined as follows: max 6 seconds per minute, e.g. peak RPM when unloading or accelerating.

Example drawing. For more information, technical data and drawings visit: **www.sunfab.com**



Choice of shaft seal

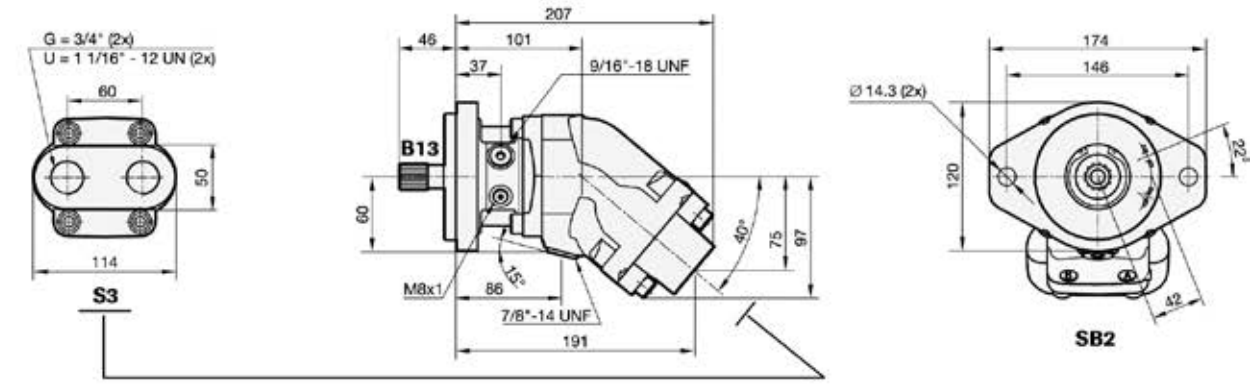
Motor SCM	Code	Temp. °C	Max. housing pressure bar at rpm 1000	2000	3000	4000	5000
010-034 B	N	75	5.5	2.7	1.8	1.4	1.1
	H	75	24,6	12,3	8.2	6.1	5.1
	V	90	5.5	2.7	1.8	1.4	1.1
040-108 C	N	75	5.5	2.7	1.8	1.4	1.1
	H	75	24,6	12,3	8.2	6.1	5.1
	V	90	5.5	2.7	1.8	1.4	1.1
084-130 D	N	75	3.5	1.7	1.2		
	H	75	15,6	7.8	5.2		
	V	90	3.5	1.7	1.2		

Code according to page 2, Versions, main data

Factors affecting the choice of shaft seal include the hydraulic motor housing pressure and the drainage oil temperature.

The drainage oil should have a maximum temperature of 75 °C with a Nitrile shaft seal and 90 °C with a Viton shaft seal. These temperatures must not be exceeded.
The housing pressure must be equal to or greater than the external pressure on the shaft seal.

Example drawing. For more information, technical data and drawings visit: **www.sunfab.com**



Motors fixed

SCM 025-108 M2

Sunfab's SCM 025-108 M2 is a range of robust axial piston motors with cartridge flange especially suitable for winch-, slewing-, wheel- and track drives.

SCM 025-108 M2 is of the bent-axis type with spherical pistons. The design results in a compact motor with few moving parts, high starting torque and high reliability. The SCM 025-108 M2 covers the entire displacement range 25-108 cm^3/rev. at a maximum pressure of 400 bar.

It's well dimensioned, double tapered roller bearings permit high shaft loads and lead to excellent speed characteristics. It's high level of reliability is based on the choice of materials, hardening methods, surface structures and the quality assured manufacturing process.

Other advantages:

- High maximum speed
- Smooth operation over the entire speed range
- High efficiency
- Suitable for applications with high angular accelerations due to its high rotary stiffness (timing gear)

For more information, technical data and drawings visit: **www.sunfab.com**

SCM 025-108 M2

		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
Working pressure										
max intermittent	bar	400	400	400	400	400	400	400	400	350
max continuous		350	350	350	350	350	350	350	350	300
Revolutions										
max intermittent	rpm	7000	7000	6300	6300	6300	6300	5200	5200	5200
max continuous		6300	6300	5700	5700	5700	5700	4700	4700	4700
min continuous		300	300	300	300	300	300	300	300	300
Power										
max intermittent	kW	86	115	125	145	175	195	215	230	230
max continuous		40	55	60	65	80	90	100	110	110
Starting torque theoretical value	Nm/bar	0.40	0.54	0.66	0.75	0.89	1.00	1.33	1.44	1.71
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

Data concerning RPM is based on maximum permitted peripheral velocity for the tapered roller bearings.
Max intermittent power may depend on application. For further information please contact Sunfab.
Continuous power data is based on maximum output power without external cooling of the motor housing.
Intermittent duty is defined as follows: max 6 seconds per minute, e.g. peak RPM when unloading or accelerating.

Choice of shaft seal

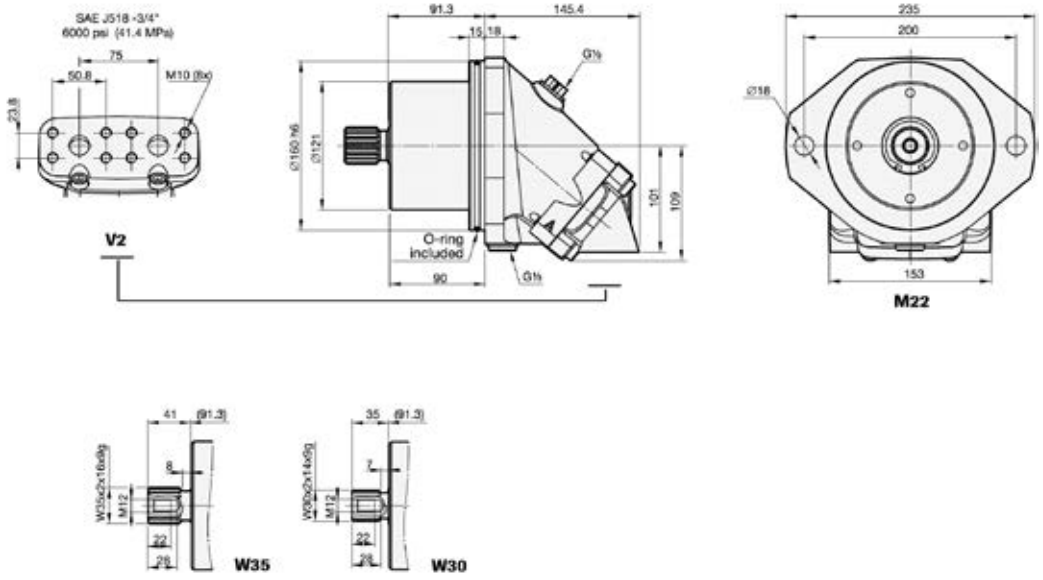
Motor SCM	Code	Temp. °C	Max. housing pressure bar at rpm 1000	2000	3000	4000	5000	6000	7000
025–064	N	75	5.5	2.7	1.8	1.4	1.1	0.9	0.8
	H	75	24,6	12,3	8.2	6.1	4.9	4.1	3.5
	V	90	5.5	2.7	1.8	1.4	1.1	0.9	0.8
084–108	N	75	3.8	1.9	1.3	1.0	0.8	0.6	
	H	75	17,2	8.6	5.7	4.3	3.4	2.9	
	V	90	3.8	1.9	1.3	1.0	0.8	0.6	

Code according to page 2, Versions, main data

Factors affecting the choice of shaft seal include the hydraulic motor housing pressure and the drainage oil temperature.

The drainage oil should have a maximum temperature of 75 °C with a Nitrile shaft seal and 90 °C with a Viton shaft seal. These temperatures must not be exceeded.
The housing pressure must be equal to or greater than the external pressure on the shaft seal.

Example drawing. For more information, technical data and drawings visit: **www.sunfab.com**



Motors fixed

SCM 012-130 DIN

SCM 012-130 DIN is a series of axial piston motors particularly suitable for mobile hydraulics. SCM 012-130 DIN is of the bent-axis type with spherical pistons.

The design gives a compact motor with few moving parts, high starting torque and high operational reliability. It covers the entire displacement range 12-130 cm^3/rev. with max. pressure 400 bar.

It's high level of reliability is due to the choice of materials, hardening methods, surface structures and the quality assured manufacturing process.

Other advantages:

- Smooth operation over the entire speed range
- High efficiency
- Suitable for applications with high angular accelerations due to its high rotary stiffness (timing gear)

For more information, technical data and drawings visit: **www.sunfab.com**

SCM 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
Working pressure												
max intermittent	bar	400	400	400	400	400	400	400	400	400	400	330
max continuous		350	350	350	350	350	350	350	350	350	350	280
Revolutions												
max intermittent	rpm	3000	3000	3000	3000	2500	2500	2500	2500	2000	2000	2000
max continuous		2400	2400	2400	2400	2000	2000	2000	2000	1600	1600	1600
min continuous		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		14	19	29	39	46	52	62	70	74	96	99
Starting torque theoretical value	Nm/bar	0.20	0.27	0.40	0.54	0.66	0.75	0.89	1.0	1.33	1.71	2.06
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	5	5	5	5	5	5	5	5	5	5
Weight	kg	8.4	8.4	8.6	8.6	13.0	13.0	13.0	13.0	18.2	18.2	18.2

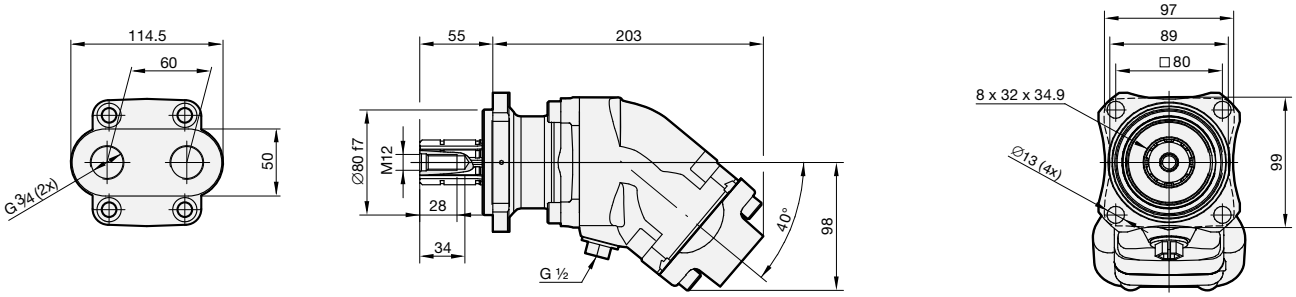
Intermittent operation refers to a max of 6 seconds per minute, representing e.g. peaks in rotational speed during unloading and acceleration.

Information about technical data

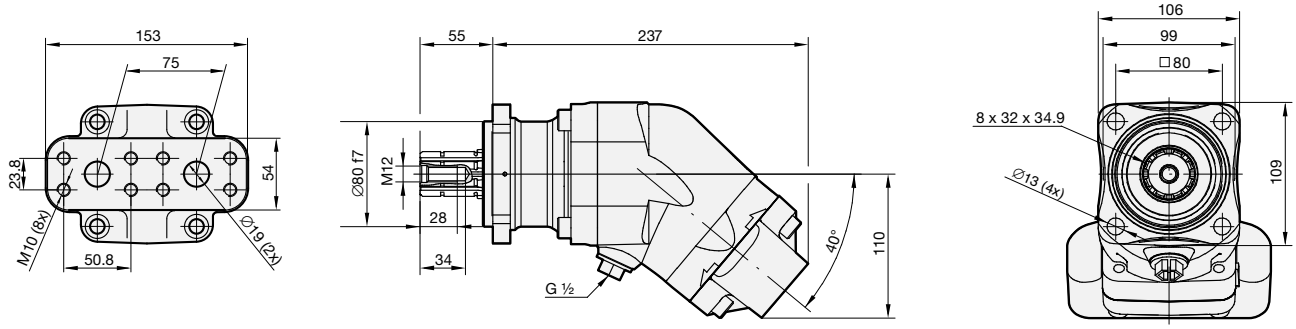
Data concerning RPM is based on maximum permitted peripheral velocity for the tapered roller bearings.
Max intermittent power may depend on application. For further information please contact Sunfab.
Continuous power data is based on maximum output power without external cooling of the motor housing.
Intermittent duty is defined as follows: max 6 seconds per minute, e.g. peak RPM when unloading or accelerating.

Example drawing. For more information, technical data and drawings visit: **www.sunfab.com**

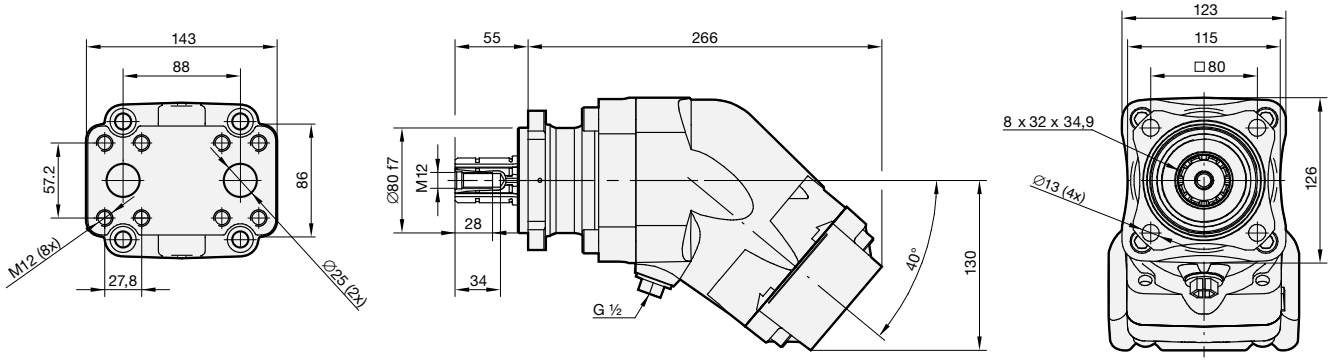
SCM 012-034



SCM 040-064



SCM 084-130



Accessories

By-Pass

Sunfab By-Pass is a relief valve for the SAP and SCP pump providing remote switching between idling and operation.

By-Pass is used in installations where the power take-off is not disengaged during transport. These are usually found on vehicles fitted with hydraulic equipment that needs to be operated while on the move, for example, road maintenance vehicles, concrete mixers, refuse collection trucks, etc.

Other advantages:

- Symmetrical design supports installation of the magnetic valve in different directions, and use on both right and left-hand rotating pumps
- ATEX approved as an option
- Highly efficient due to low pressure drop

Splitter Gearbox

Splitter gearbox SZ mounted in a frame bracket, permits the assembly of two pumps on the same power take-off.

Splitter gearbox SZ provides unlimited freedom to combine pumps with different size flows.

Other advantages:

- Suitable for all Sunfab pumps with DIN flange
- Can be mounted horizontally or vertically

Tracpower PTO

Tracpower increases the speed of the tractor's power take-off 2.5 times, which gives better conditions for hydraulic operation.

Tracpower is the solution when the tractor's original hydraulics do not give sufficiently large flow and pressure.

Other advantages:

- Suitable for all Sunfab pumps with DIN flange
- Can be mounted horizontally or vertically

For more information, technical data and drawings visit: **www.sunfab.com**

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

A wide range of power take-offs are available from Sunfab with different ratios and torques to fit most gearboxes. Together with Sunfab's extensive range of pumps these form unbeatable combinations both technically and economically and offer immense choice.

Sunfab's power take-offs are designed for direct mounting of all Sunfab pumps. The power take-off is supplemented with an adapter for intermediate shaft installation.

For more information, technical data and drawings visit: **www.sunfab.com**

Power Take-Off

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

Sunfab has a wide range of accessories that facilitates the mounting of pumps and motors

In applications where it is not possible to directly mount a pump or motor, Sunfab has a wide range of adapters, flanges and brackets to help facilitate the installation. For example mounting on a countershaft due to lack of space, two or more pump gearboxes and compressors.

Adapter & Flanges

- Adapter flange for splitter gearbox
- Adapter flanges
- Splined drive flanges
- Neutral drive flanges
- Drive flanges

Pump Brackets

- Frame attachments
- Pump brackets

Sunfab hydraulic pumps, motors and accessories. August 2014. Copyright © by Sunfab Hydraulics AB

Accessories

Anti-cavitation Valve for SCM

The Sunfab anti-cavitation valve is designed to be mounted directly on the hydraulic motor and prevents cavitation problems when the load is running down e.g. vacuum pumps.

Sunfab's anti-cavitation valve is used to minimise the risk of cavitation damage in connection with insufficient inlet pressure.

This can occur, for example, in applications with a relatively large rotating mass with a long run-down time (e.g. fan operations). The hydraulic motor must have a defined direction of rotation when using Sunfab's anti-cavitation valve. The valve can be adapted to both left and right rotation.

Flushing Valve for SCM

The flushing valve is required when operating at high speeds and power levels.

The flushing valve ensures that the oil temperature inside the motor housing remains at the recommended level. Excessively high temperatures reduce the service-life of the shaft seal and the viscosity of the oil deteriorates.

Speed Sensor for SCM

For hydraulic motors that require a specific given speed Sunfab offers a speed sensor with electronic measurement.

Sunfab speed sensor is available for any ISO/SAE/DIN motor, displacement 010-130 cc. The sensor is a two channel hall effect sensor. The sensor has two frequency outputs both giving square wave signals, phase shifted. It can operate at high temperatures. The frequency is determined by:

$$f = \frac{30*n}{60} = \frac{n}{2}, \; n \text{ (rpm)}$$

Other benefits:

- It can operate at high temperatures.
- The speed is detected from the gears on the cylinder block. Since the sensor is working with two channels the rotation direction can be detected.
- The number of gears is 30 for all motor displacements.
- Motors manufactured prepared for speed sensor can also have a sensor fitted afterwards.

For more information, technical data and drawings visit: **www.sunfab.com**

Injector

Sunfab Injector K-JET 2 is a basic technical solution for the recirculation of oil in closed hydraulic systems which is cost efficient and saves weight.

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

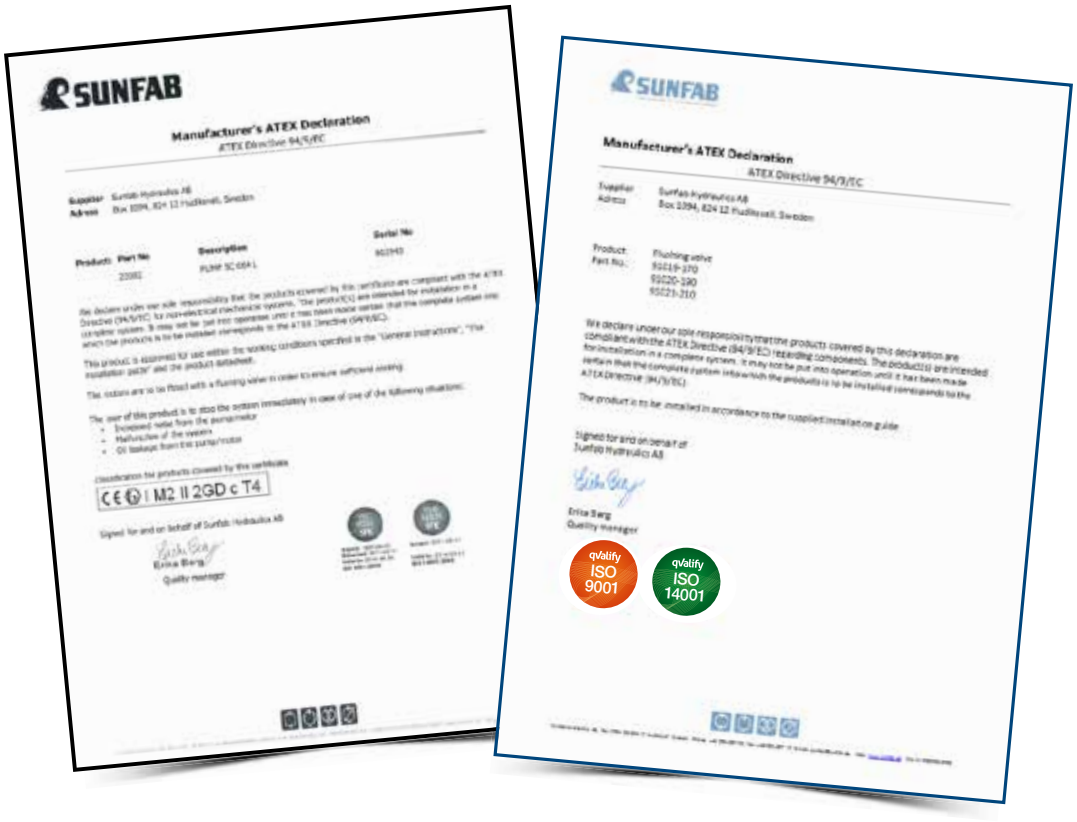
Other advantages:

- Significantly higher pump speed
- Reduced tank size and oil volume. Only 15-20 % of the main pump flow
- Lower weight through smaller oil tanks
- Lower cost for oil

For more information, technical data and drawings visit: **www.sunfab.com**

ATEX Certificate

Sunfab can offer ATEX classification of its standard range of pumps (SCP and SAP) and motors (SCM). The products satisfy the requirements defined in the ATEX Directive 94/9/EC for non-electrical equipment.



Our service features

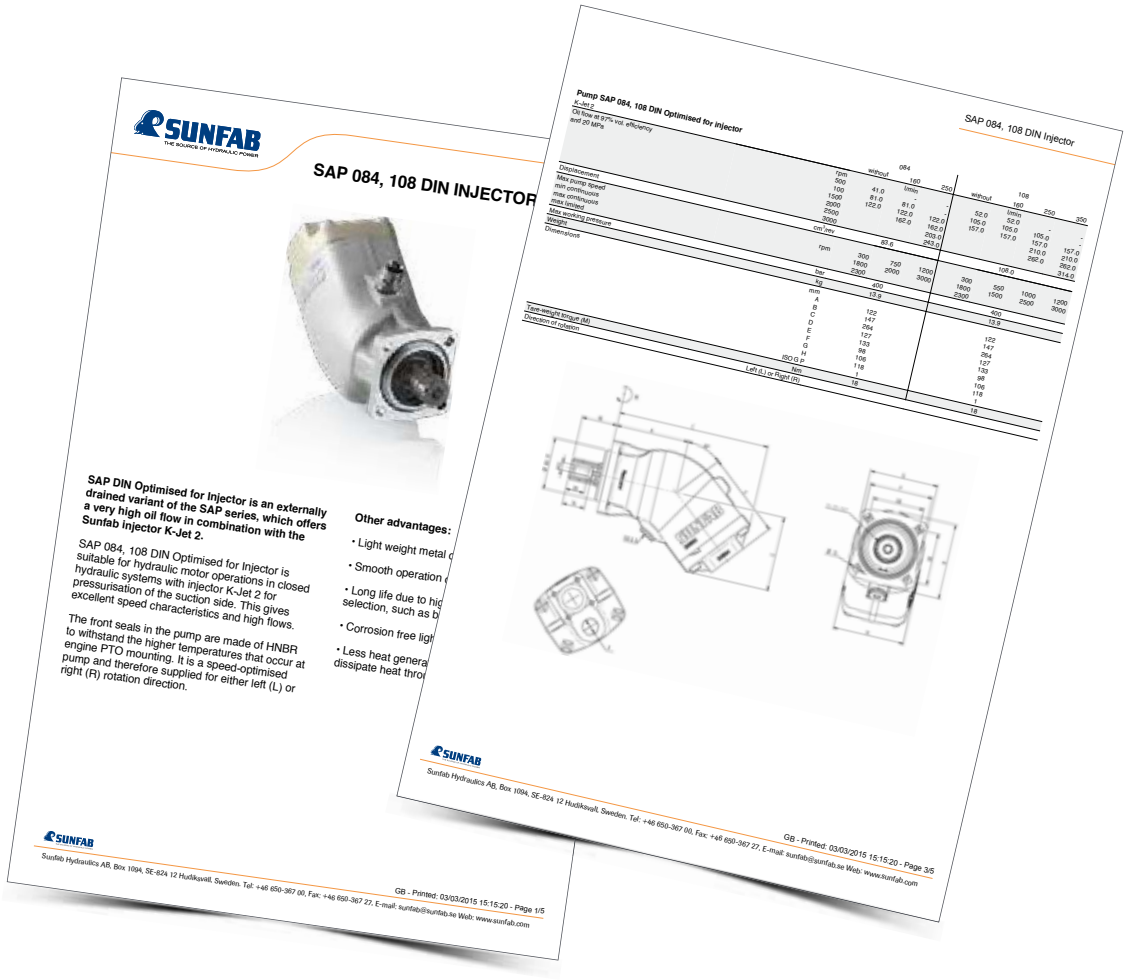
We are at your service. It is always easy to find the right contact person in our company.

The service line offers fast help. Please send your technical questions to: tech@sunfab.se

On the website www.sunfab.com you can find the newest datasheets, installation guides and news.

In warranty matters we assure a fast reaction: delivery of spare parts within 24h and fast defect analysis are guaranteed.

If you require further information about our products, please send an email to: sunfab@sunfab.se



Find all our data sheets on our web page: **www.sunfab.com**

A global company with a local presence

- Head office
- Subsidiary office
- Distributors

We now have representatives in 60 countries.
Our head office is located in Hudiksvall, Sweden. Our subsidiary companies can be found in Germany, France, the UK and Spain; together we form the Sunfab Group. We also sell our products via distributors and to direct customers all over the world.

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