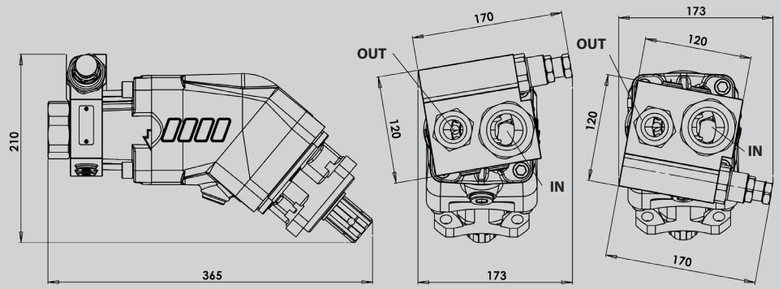
Relief valve assembly

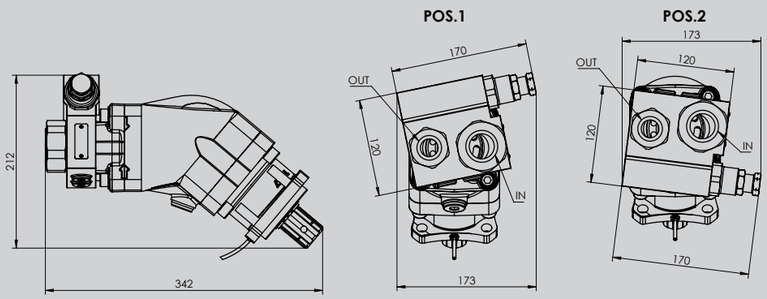
Relief valve assembly for "HDS-MDS-HDT" bent axis piston pumps

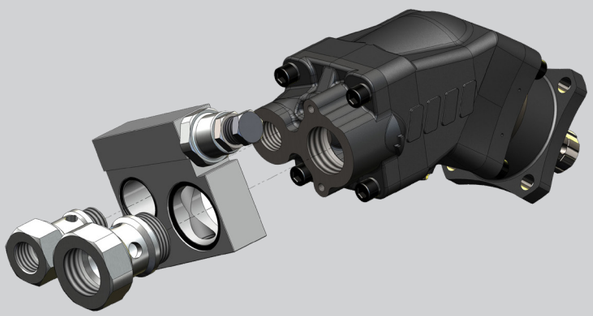
This valve can be directly fitted on the rear cover of the pump in such a way that the return flow goes back to tank through the pump itself saving one hose. The valve protects the pump from peak pressure due to any wrong operations such as closed circuit or coupling not connected. The fitment of the relief valve assembly onto the pump is symmetric, thus it is possible to rotate it by 180° just to avoid any interferences.

HDS-MDS



HDT

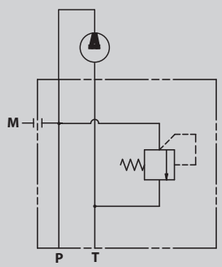




TECHNICAL FEATURES

	Pump type	Order code	Setting pressure bar min.	Setting pressure bar max.	IN	OUT
	HDS-40 ISO HDS-47 ISO HDS-55 ISO HDS-64 ISO MDS-80 ISO	10820500479	45 ± 5	360 ± 5	G 1 1/4	G 3/4
	HDS-84 ISO	10820500844	45 ± 5	360 ± 5	G 1 1/4	G 1
	HDS-108 ISO MDS-130 ISO	10820501085			G 1 1/2	G 1
	HDT-75 HDT-84 HDT-96 HDT-108	10820550843	45 ± 5	360 ± 5	G 1 1/4	G 1

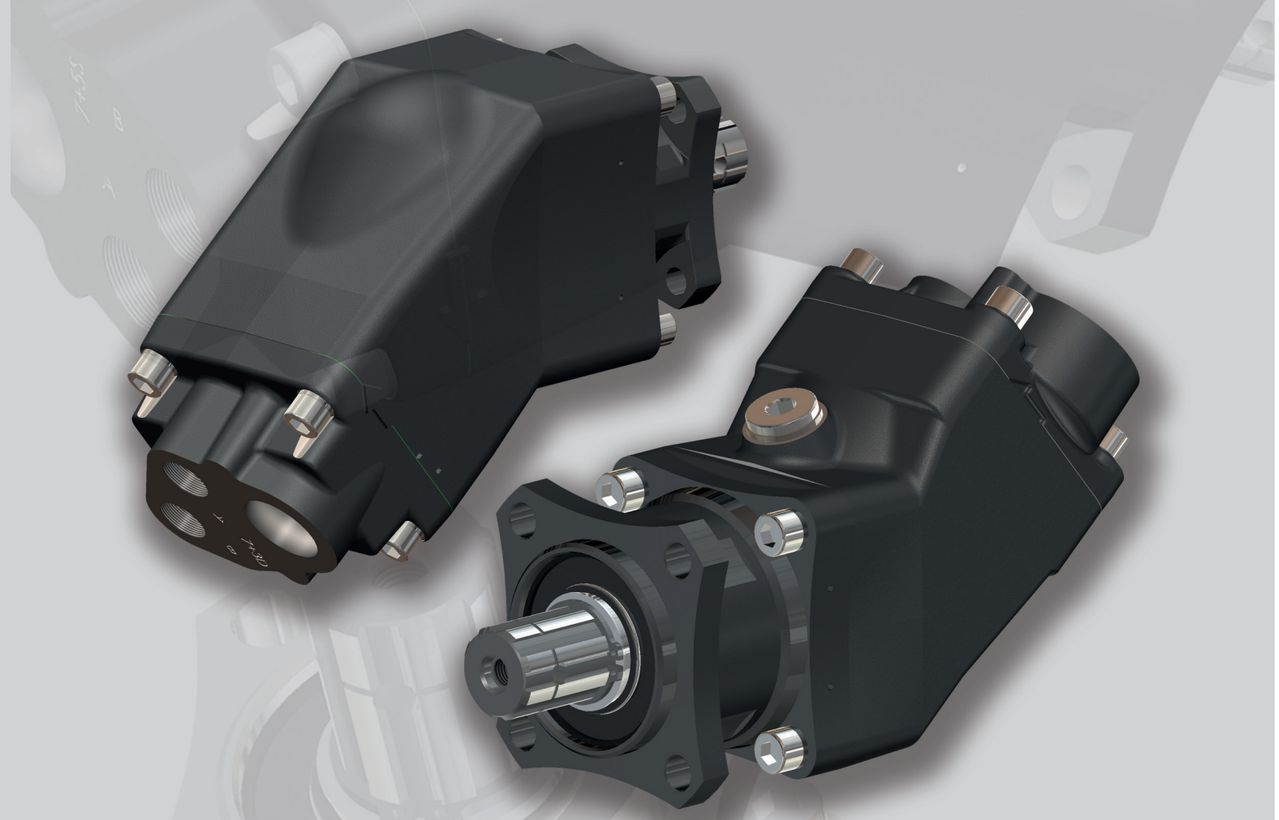
HYDRAULIC SCHEME



O.M.F.B. S.p.A. Hydraulic Components - Via Cave, 7/9 - 25050 Provaglio d'Iseo (Bs) Italy - Tel. 030 9830611 - www.omfb.com - contatti@omfb.it

BENT-AXIS PISTON PUMPS

The bent axis piston pumps series HDS, HDT, MDS and TFP ensure lower noise level thanks to internal gear machining method that improves significantly the mechanical coupling between the cylinder block and the driving gear guaranteeing maximum performances at extremely low noise level.



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COMPANY WITH QUALITY SYSTEM CERTIFIED BY DNV
IATF 16949

A very unique pump

Compact size cast iron body.
Overall dimensions reduced and high resistance to pressure peaks (up to 400 Bar) to match higher working pressure of the latest machines.

Hardened splined output shaft.
Better resistance to the torque driven by the PTO.

HNBR and reinforced oil-seals.
This solution allows the pump to bear back pressures.

Operating temperature.
Special seals allow the pump to operate at a temparature ranging from -40°C and +140°C.

Seven pistons.
The optimal solution to allow a more constant load on bearing and, consequently, a more fluent delivery and less pulsation.

Improved suction port.
Optimised in order to achieve lower noise level.

Pistons' barrel driven by the shaft.
The already proven tapered toothing allows the pistons to work without radial load resulting in a longer resistance to fatigue.

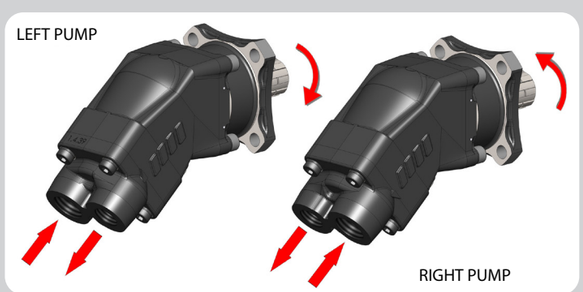
Choice of compatible materials for sliding surfaces.
Sliding surfaces made of steel and nitrated cast iron to guarantee a longer life against contaminated fluid.

Tapered roller bearings.
The tapered roller bearings offer bigger load capacity against high working pressure.

3-piece body.
This solution allows constant lubrication of the bearings.

By-pass valve option.
The by-pass valve is mainly used in applications where the pump is permanently driven.

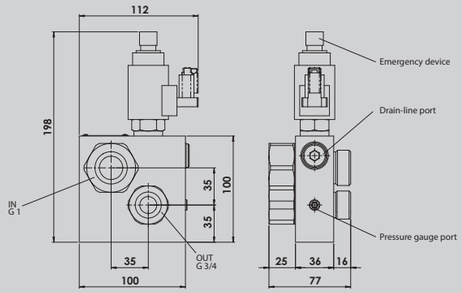
Special versions available:
Versions with SAE shafts and UNF ports.

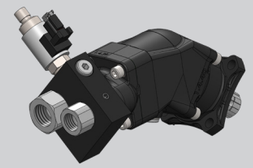


By-pass valves

By-pass valve is used together with Bent Axis HDS-HDT piston pumps in case the pump is always in rotation while the vehicle is turned on (mounting with PTO without engagement or directly on motor).

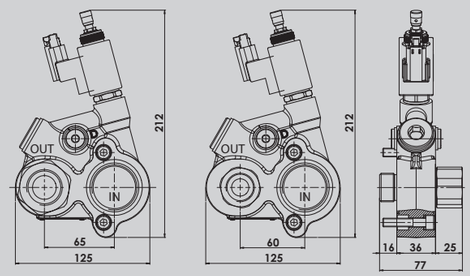
HDS 12-17-25-34

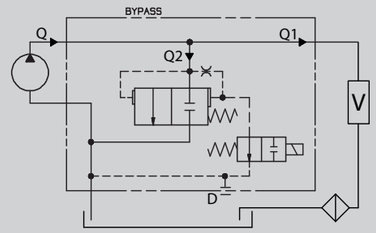


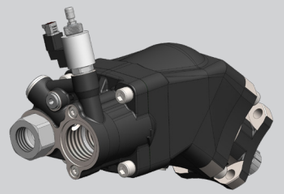


HDS - MDS - HDT

HDT **HDS-MDS**

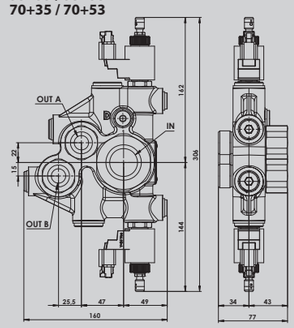




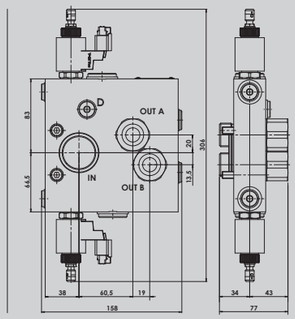


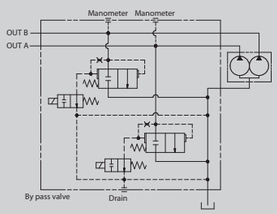
TWIN FLOW

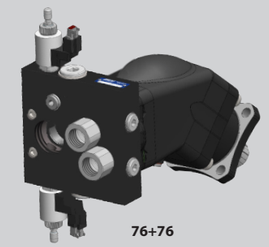
53+35 / 53+53
70+35 / 70+53



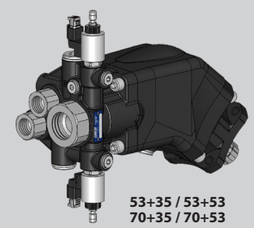
76+76







76+76



53+35 / 53+53
70+35 / 70+53

TECHNICAL FEATURES

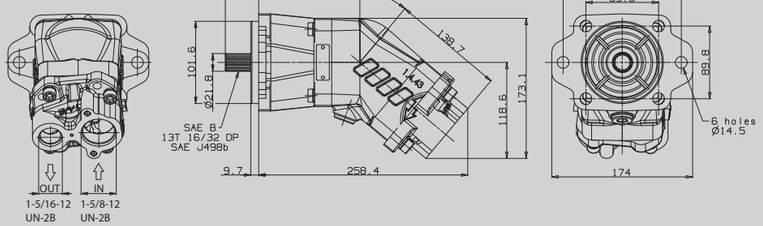
	Pump type	Order code 12 V	Order code 24 V	Pressure max bar	IN	OUT	Manometer	Drain-line	Enclosure	Coil power W
	HDS-12 ISO HDS-17 ISO HDS-25 ISO HDS-34 ISO	10820012345	10820024341	400*	G 1	G 3/4	G 1/8	G 3/8	IP 66	22
	HDS-40 ISO HDS-47 ISO HDS-55 ISO HDS-64 ISO	10820012498	10820024494	400*	G 1 1/4	G 3/4	G 3/4	G 1/4	IP 66	22
	MDS-80 ISO									
	HDS-84 ISO HDS-108 ISO	10820012872	10820024878		G 1 1/2	G 1	G 3/4	G 1/4	IP 66	22
	MDS-130 ISO									
	HDT-75 HDT-84 HDT-96 HDT-108	10820012881	10820024887	400*	G 1 1/4	G 1	G 3/4	G 1/4	IP 66	22
	TWIN-FLOW 53+35 53+53 / 70+35	10820012550	10820024556	400*	G 1 1/4	G 3/4	G 3/8	G 1/4	IP 66	22
	TWIN-FLOW 70+53	10820012729	10820024725		G 1 1/2					
	TWIN-FLOW 76+76	10820012765	10820024761							

* See pumps catalogue for related pressure values.

HDS-MDS SAE

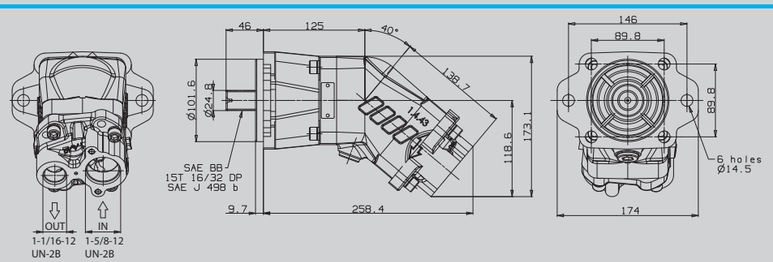
Unidirectional bent axis piston pumps, displacements from 47 to 130 cm3, available with shaft and flange SAE-B, SAE-BB and SAE-C.

HDS SAE-B - MDS SAE-B



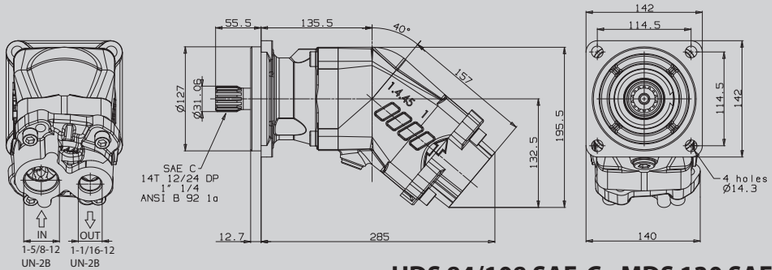


HDS SAE-BB - MDS SAE-BB



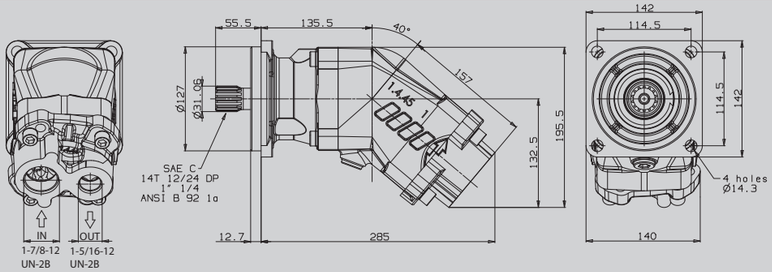


HDS 47/55/64 SAE-C - MDS 80 SAE-C





HDS 84/108 SAE-C - MDS 130 SAE-C





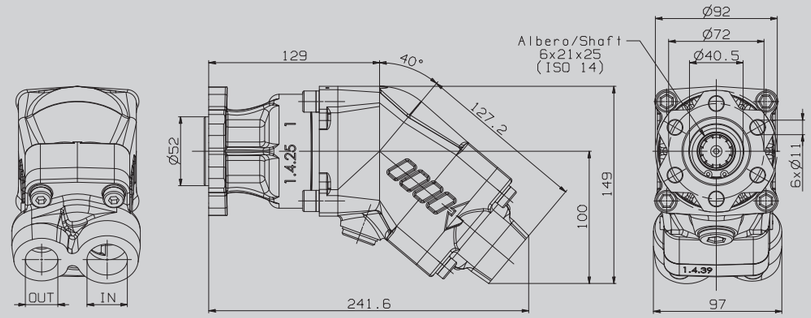
TECHNICAL FEATURES

	Pump type	Rotation		Displac.	Pressure		Max speed			Min speed	Weight
		right	left	cm³	bar P1	bar P3	rpm without load	rpm continuous	rpm intermittent	rpm	kg
	HDS-47 SAE-B	61307450473	61307450479	47,13	350	400	2700	1900	2500	300	14,2
	HDS-55 SAE-B	61307450553	61307450559	56,70	350	400	2700	1900	2500	300	14,2
	HDS-64 SAE-B	61307450643	61307450649	63,56	350	400	2700	1900	2500	300	14,2
	HDS-47 SAE-BB	61307750473	61307750479	47,13	350	400	2700	1900	2500	300	15,2
	HDS-55 SAE-BB	61307750553	61307750559	56,70	350	400	2700	1900	2500	300	15,2
	HDS-64 SAE-BB	61307750643	61307750649	63,56	350	400	2700	1900	2500	300	15,2
	MDS-80 SAE-BB	61307750803	61307750809	77,25	250	300	2300	1800	2100	300	15,2
	HDS-47 SAE-C	61408050473	61408050479	47,13	350	400	2700	1900	2500	300	14
	HDS-55 SAE-C	61408050553	61408050559	56,70	350	400	2700	1900	2500	300	14
	HDS-64 SAE-C	61408050643	61408050649	63,56	350	400	2700	1900	2500	300	14
	MDS-80 SAE-C	61408050803	61408050809	77,25	250	300	2300	1800	2100	300	14
	HDS-84 SAE-C	61408050843	61408050849	84,33	350	400	2300	1500	2000	300	17,8
	HDS-108 SAE-C	61408051083	61408051089	107	350	400	2300	1500	2000	300	17,8
	MDS-130 SAE-C	61408051303	61408051309	131,62	250	270	2300	1500	2000	300	17,8

HDS UNI

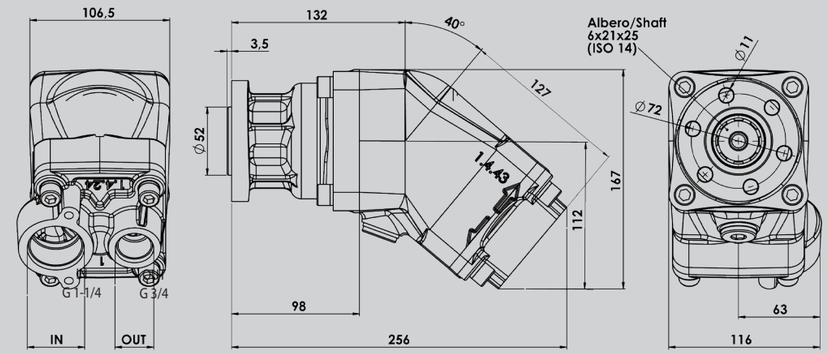
Unidirectional bent axis piston pumps with displacement from 12 to 64 cm3 .

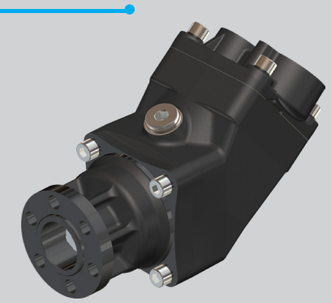
HDS 12-17-25-34 UNI





HDS 40-47-55-64 UNI





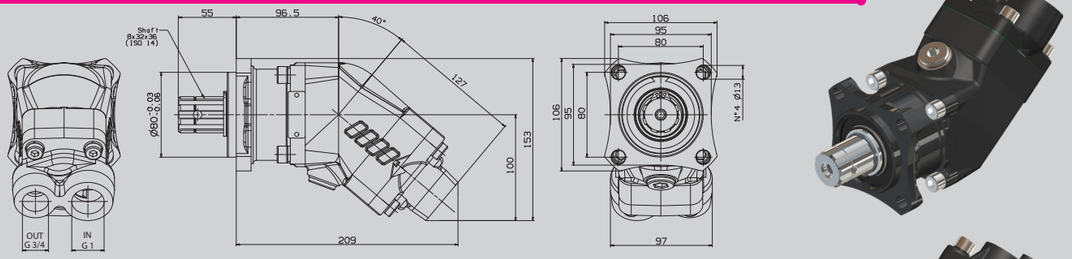
TECHNICAL FEATURES

	Pump type	Rotation		Displac.	Pressure		Max speed			Min speed	Weight
		right	left	cm³	bar P1	bar P3	rpm without load	rpm continuous	rpm intermittent	rpm	kg
	HDS-12 UNI	60600210123	60600210129	12,62	350	400	3000	2300	3000	300	8,3
	HDS-17 UNI	60600210173	60600210179	16,98	350	400	3000	2300	3000	300	8,3
	HDS-25 UNI	60600210253	60600210259	25,12	350	400	3000	2300	3000	300	8,4
	HDS-34 UNI	60600210343	60600210349	33,80	350	400	3000	2300	3000	300	8,3
	HDS-40 UNI	60600210403	60600210409	41,25	350	400	2700	1900	2500	300	11,3
	HDS-47 UNI	60600210473	60600210479	47,13	350	400	2700	1900	2500	300	11,7
	HDS-55 UNI	60600210553	60600210559	56,70	300	350	2700	1900	2500	300	11,6
	HDS-64 UNI	60600210643	60600210649	63,56	280	300	2700	1900	2500	300	11,4

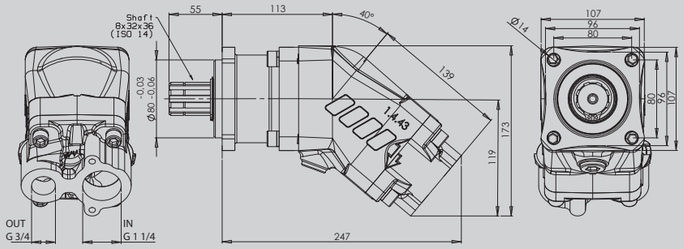
HDS

Unidirectional bent axis piston pumps with displacement from 12 to 130 cm3 .

HDS 12-17-25-34 ISO

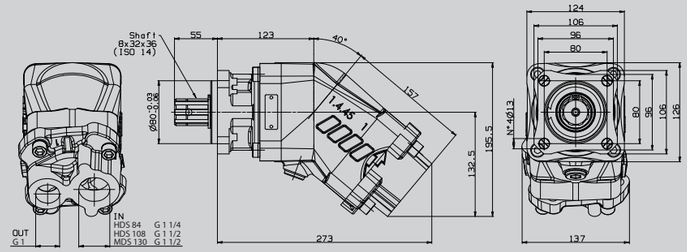


HDS 40-47-55-64 - MDS 80 ISO



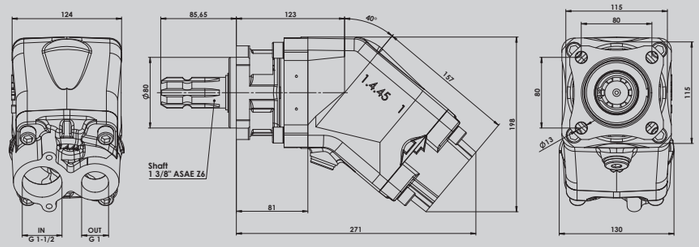


HDS 84-96-108-130 - MDS 130 ISO





HDS 130 ASAE





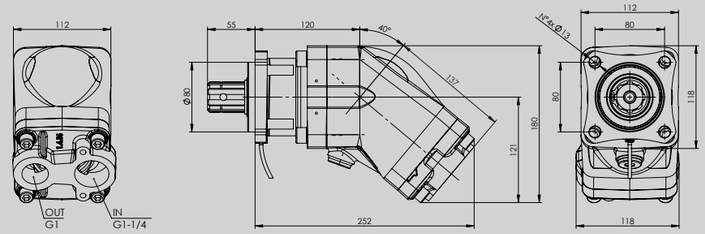
TECHNICAL FEATURES

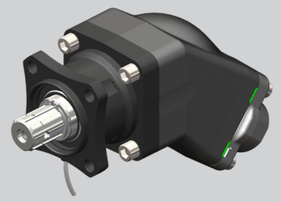
Pump type	Rotation right	Rotation left	Displac. cm³	Pressure bar P1	Pressure bar P3	Max speed rpm without load	Max speed rpm continuous	Max speed rpm intermittent	Min speed rpm	Weight kg
HDS-12 ISO	60100110123	60100110129	12,62	350	400	3000	2300	3000	300	8,7
HDS-17 ISO	60100110173	60100110179	16,98	350	400	3000	2300	3000	300	8,7
HDS-25 ISO	60100110253	60100110259	25,12	350	400	3000	2300	3000	300	8,8
HDS-34 ISO	60100110343	60100110349	33,80	350	400	3000	2300	3000	300	8,7
HDS-40 ISO	60100110403	60100110409	41,25	350	400	2700	1900	2500	300	12,3
HDS-47 ISO	60100110473	60100110479	47,13	350	400	2700	1900	2500	300	12,4
HDS-55 ISO	60100110553	60100110559	56,70	350	400	2700	1900	2500	300	12,2
HDS-64 ISO	60100110643	60100110649	63,56	350	400	2700	1900	2500	300	12,2
MDS-80 ISO	60300110803	60300110809	77,25	250	300	2300	1800	2100	300	12
HDS-84 ISO	60100110843	60100110849	84,33	350	400	2300	1500	2000	300	19,2
HDS-96 ISO	60100110963	60100110969	95,5	350	400	2300	1500	2000	300	19
HDS-108 ISO	60100111083	60100111089	107	350	400	2300	1500	2000	300	18,6
HDS-130 ISO	60100111303	60100111309	131,62	350	400	2300	1750	2000	300	18,3
MDS-130 ISO	60300111303	60300111309	131,62	250	270	2300	1500	2000	300	18,7
HDS-130 ASAE	-	60100311309F	131,62	350	400	2300	1750	2000	300	18,7

HDT

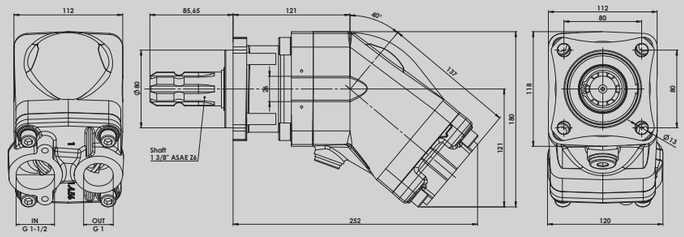
Unidirectional bent axis piston pumps with displacement from 75 to 108 cm3 .

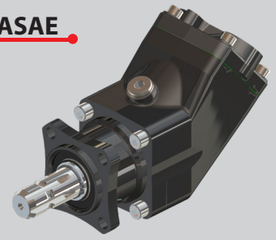
HDT 75-84-96-108 ISO





HDT 84-108 ASAE





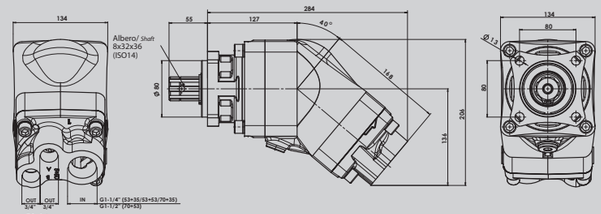
TECHNICAL FEATURES

Pump type	Rotation right	Rotation left	Displac. cm³	Pressure bar P1	Pressure bar P3	Max speed rpm without load	Max speed rpm continuous	Max speed rpm intermittent	Min speed rpm	Weight kg
HDT-75 ISO	60200110753	60200110759	75,5	350	370	2300	1500	2000	300	14,9
HDT-84 ISO	60200110843	60200110849	84,2	350	370	2300	1500	2000	300	14,7
HDT-96 ISO	60200110963	60200110969	95,5	350	370	2300	1500	2000	300	14,7
HDT-108 ISO	60200111083	60200111089	107	350	370	2300	1500	2000	300	14,6
HDT-84 ASAE	-	60200310849F	84,2	350	370	2300	1500	2000	300	15
HDT-108 ASAE	-	60200311089F	107	350	370	2300	1500	2000	300	15

TWIN-FLOW

Unidirectional bent axis piston pumps with double output.

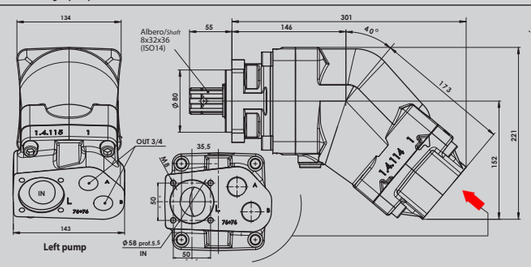
TWIN FLOW 53+35/53+53/70+35/70+53/76+76



TWIN FLOW 53+35
53+53/70+35/70+53



TWIN FLOW 76+76



TECHNICAL FEATURES

Pump type	Rotation right	Rotation left	Rear cover	Pressure bar P1	Pressure bar P2	Max speed rpm without load	Max speed rpm with load on A and B outputs	Max speed rpm with load on 1 output only	Max. power kW continuous	Max. power kW intermit.
TWIN-FLOW 53+35	60400115033	60400115039	50002995101 50002995209	350	400	2550	1800	2100	94	107
TWIN-FLOW 53+53	60400115053	60400115059	50002995307 50002995405	350	400	2550	1800	2100	111	127
TWIN-FLOW 70+35	60400117033	60400117039	50002997001 50002997109	350	400	2550	1800	2100	108	123
TWIN-FLOW 70+53	60400117053	60400117059	50002997403 50002997501	300	350	2550	1650	2100	98	114
TWIN-FLOW 76+76	60400117673	60400117679	50002997618 50002997609	300	350	2550	1500	2100	110	129