

We are offering complete Drum Drive System for Transit Mixers “TW Mixer Drives” consisting from : SPV pumps, SMF or MFS motors, PM series Planetary Gear Boxes and Oil Cooler.

Pumps, motors – original Sauer & Sundstrand design, brand new components produced in Slovakia

Gear Box PM – designed in Germany, produced in Slovakia

Our gear boxes are suitable for Transit Mixer Drum capacity from 6 – 18 m³ with torque from 50.000 up to 85.000 Nm.

FAG main bearing with high quality proved in severe operational conditions.

Oil Cooler – ASA brand, high quality reliable coolers

All assembling dimensions interchangeable with world top producers.

ONE SUPPLIER & ONE SHIPMENT & ONE GUARANTEE !



PV pump + MF or MFS motor + PM gear box + Oil Cooler = Complete System

MIXER DRUM CONFIGURATIONS

DRUM VOLUME	GEAR BOX MODEL	GEAR BOX RATIO	HYDRAULIC PUMP	HYDRAULIC MOTOR	MAX. TORQUE
6 - 8 m ³	PM 8	1 : 98	PV22 (70 cm ³)	MF22 (70 cm ³)	51.000 Nm
9 - 10 m ³	PM 10	1 : 112	PV23 (89 cm ³)	MF23 (89 cm ³)	61.000 Nm
10 - 12 m ³	PM 12	1 : 130	PV23 (89 cm ³)	MF23 (89 cm ³)	71.000 Nm
14-18 m ³	PM 18	1 : 145	PV112 (112 cm ³)	MF112 (112 cm ³)	85.000 Nm

Axial Piston Variable Pumps SPV


PUMP MODEL	Parameter	MIXER DRUM CAPACITY		
		6 m ³	7 – 12 m ³	13 – 15 m ³
		PV 22	PV 23	PV 112
Max. displacement per revolution	cm ³	69.8	89.0	110,8
Charge pump displacement	cm ³	18,03	18,03	18,03
Max. flow	liter.min ⁻¹	196.14	230.51	320
Max. pressure	MPa	42		
Nominal pressure	Mpa	21		
Max. control pressure	Mpa	3,50		
Max. case pressure	Mpa	max. constant 0.25; intermittent 0.5		
Max. speed	min ⁻¹	2810	2590	2590
Minimum speed	min ⁻¹	500		
Nominal speed	min ⁻¹	1500		
Working fluid		Mineral oil		
Operating temperature	°C	- 40 to + 50		
Max. oil temperature in tank	°C	80		
Purity of working fluid	microns	10		
Weight	kg	63	78	80

All dimensions are identical with original Sauer –Sundstrand design

For more detail information please see our technical catalogue.

Axial Piston Fixed Motors MF and MFS
Standard MF

Short Motors MFS


MOTOR MODEL	Parameter	MIXER DRUM CAPACITY		
		6 m ³	7 – 12 m ³	13 – 15 m ³
		MF22/MFS 22	MF23/MFS 23	MF112/MFS 112
Max. displacement per rev.	cm ³	69.8	89.0	110,8
Max. flow	liter.min ⁻¹	196	230	320
Max. torque	Nm	369	471	583
Max. working pressure	MPa	42		
Nominal pressure	Mpa	21		
Max. control pressure	Mpa	3,50		
Max. case pressure	Mpa	max. constant 0.25; intermittent 0.5		
Max. speed	min ⁻¹	2810	2590	2590
Minimum speed	min ⁻¹	500		
Nominal speed	min ⁻¹	1500		
Working fluid		Mineral oil		
Operating temperature	°C	- 40 to + 50		
Max. oil temperature	°C	80		
Purity of working fluid	microns	10		
Weight	kg	40/35	47/35	50/37

All dimensions are identical with original Sauer –Sundstrand design

For more detail information please see our technical catalogue



TRADEWILL Ltd., Slovakia

www.tradewill.sk

TRANSIT MIXER GEAR BOXES SERIES PM

Model/Parameter	PM 8	PM 10	PM 12	PM 18
Gear ratio	1 : 98	1 : 112	1 : 130	1 : 145
Drum volume (m³)	6 – 8	9 – 10	10 - 12	13 - 18
Gear box type	2 stages	2 stages	3 stages	3 stages
Input speed (rpm)	800 – 1600	1100 -1350	1100-1350	1100-1350
Max. Torque (Nm)	51.000	61.000	71.000	85.000
Drum speed (rpm)	10-19	11-14	11-14	10-14
Recommended hydraulic motor	MF 23	MF 23	MF 23	MF 112
Recommended hydraulic pump	PV 23	PV 23	PV 23	PV 112
Oil quantity up to eye-sight (ltr)	10.5	12.5	14	17
Sound pressure level (dB)	75	75	82	82
Weight (kg)	233	275	295	375

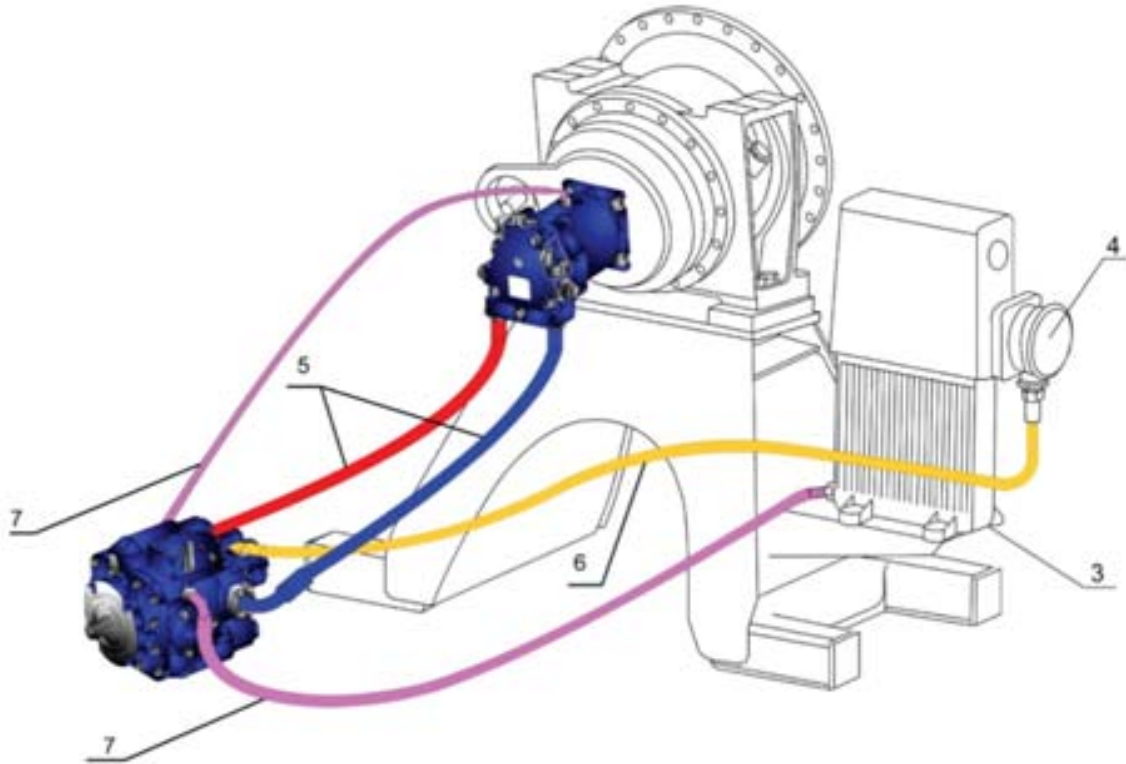
Ordering example :

PM 10 – Gear Box capacity 10 m³, without water pump drive

PM 10 WP – Gear Box capacity 10 m³, with water pump drive

ADVANTAGES OF OUR GEAR BOXES SERIES PM :

- HIGH TORQUE: FROM 50.000 TO 85.000 Nm
- MAIN FAG BEARING WITH HIGH STATIC AND DYNAMIC LOAD
- FLOATING FEMALE SPLINE SUN GEAR FOR RADIAL LOAD ABSORPTION
- CASTINGS & FORGINGS ARE PRODUCED ACCORDING DIN HIGH STANDARDS
- PROFESSIONAL WORKMANSHIP TO ASSURE OPTIMUM QUALITY AND PERFORMANCE
- COMPACT DESIGN: OUR SERIES PM ARE ONE OF THE LIGHTEST GEAR-BOXES IN THE INDUSTRY
- SPECIAL TRIANGULAR DESIGN OF PLANET CARRIERS
- INTERCHANGEABILITY: MAIN HOUSING, OUTPUT FLANGE, CROWN GEAR & PLANETARY CARRIERS ARE SAME IN MANY MODELS
- ASSEMBLY DIMENSIONS, FLANGE AND MOUNTING HOLES ARE THE SAME WITH ALL OTHER MAIN BRANDS

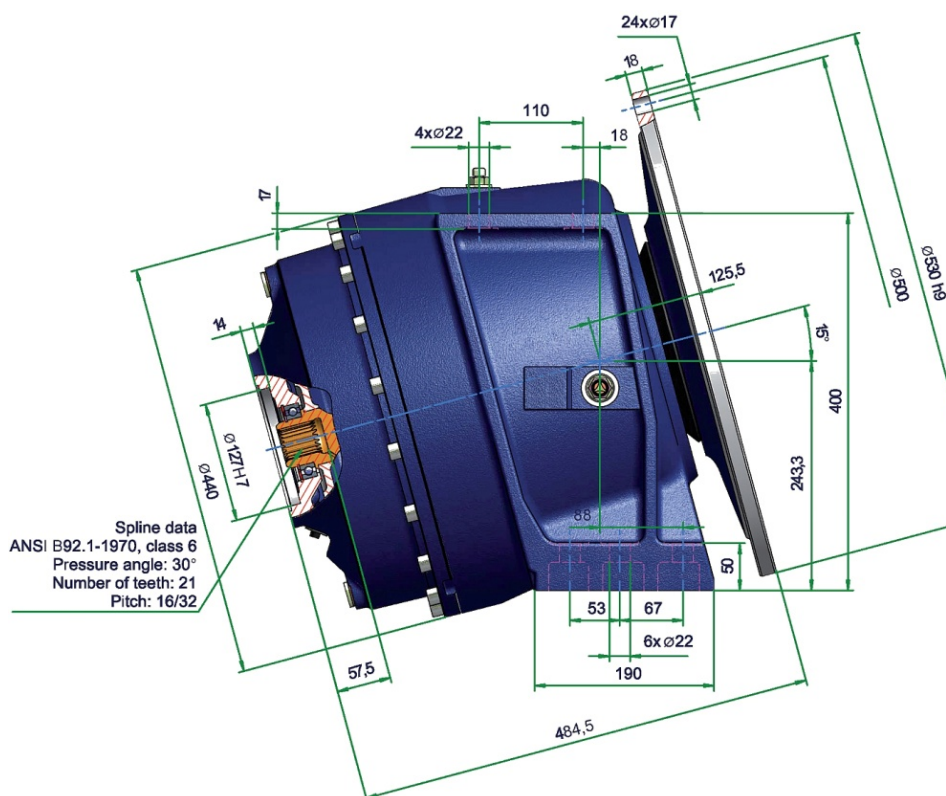
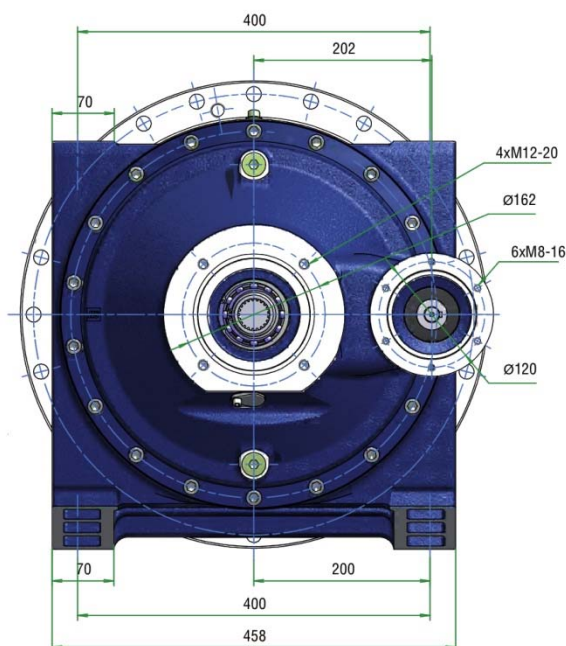
TRANSIT MIXER DRUM DRIVE SYSTEM

1. Variable Piston Pump
2. Fixed Piston Motor
3. Oil cooler with oil tank
 - Minimal oil flow 18 ltr./min. at 1000 engine rpm (36 ltr. at 2000 rpm)
 - Recommended Oil flow 150 – 200 ltr./min (our ASA Oil Coller)
4. Oil Filter – 10 micrones
5. High Pressure Hose (A,B)
6. Charge Pressure Hose – inner diameter minimum 24 – 30 mm
7. Drain Hose – inner diameter minimum 24 – 30 mm

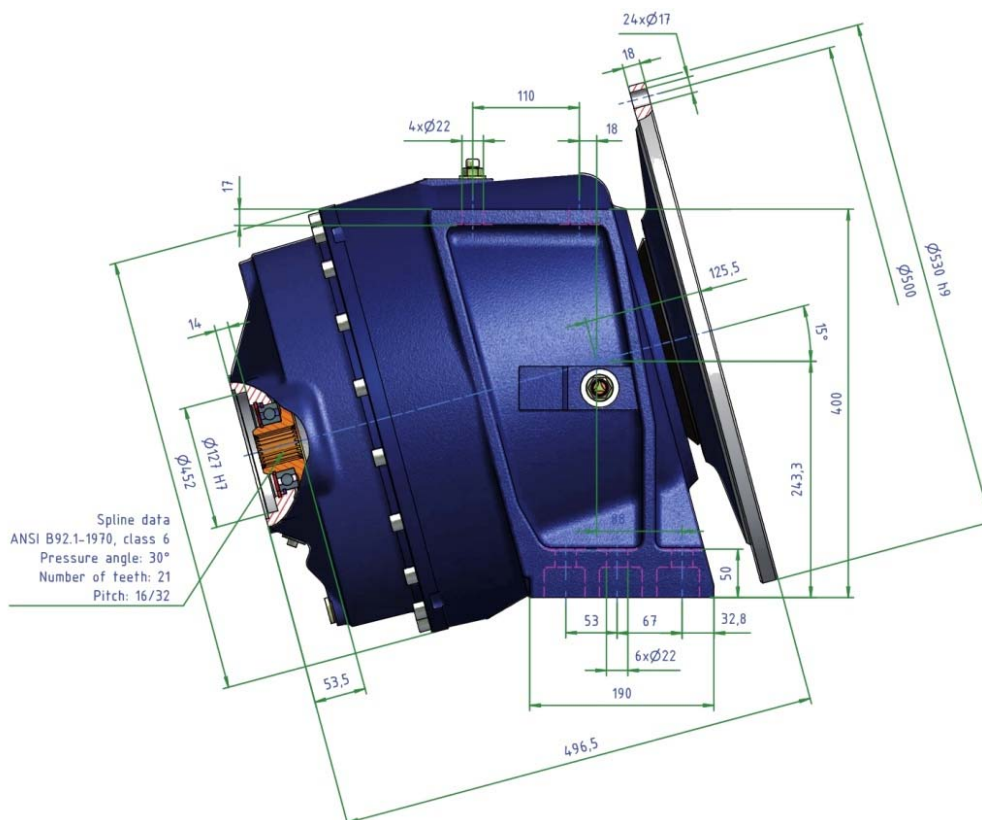
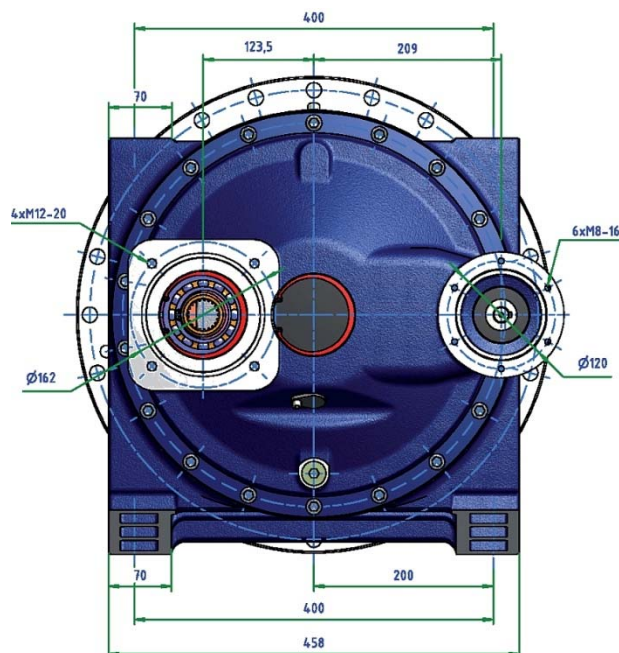
In case the hose size and cooler capacity not match the requirements, hydraulic system will be working in dangerous mode with high risk of system overheating, causing serious damage to the rotating parts of the Pump and Motor and so decrease the pump power.

Make sure that customer installed the pump correctly and fully filled the hydraulic system with new oil. The pump must be running on engine idle speed for 5 minutes before moving the control bar/swashplate in order to fill all sections of the system with oil and push the air out from the pump.

Number of Gear Stages	2
Torque (with PV23/MF23 Pump+Motor)	61.000 Nm (hydraulic pressure 400 Bar)
Ratio	1 : 112
Weight	285 kgs
Drum Speed +/- 15 %	10 - 19 rpm
Input Speed +/- 15 %	1.150 rpm
Oil (AH408.802.990-001 EN (Shell SPIRAX A90LS)	12.5 liters
Max. dynamic swivel angle of the drum flange	± 6 degrees
Hydraulic Motor Mounting (21 teeth splined shaft)	SAE J744c- SAE C 16/32



Number of Gear Stages	3
Torque (with PV23/MF23 Pump+Motor)	71.000 Nm (hydraulic pressure 400 Bar)
Ratio	1 : 129
Weight	295 kgs
Drum Speed +/- 15 %	10 - 19 rpm
Input Speed +/- 15 %	1.150 rpm
Oil (AH408.802.990-001 EN (Shell SPIRAX A90LS)	14 liters
Max. dynamic swivel angle of the drum flange	± 6 degrees
Hydraulic Motor Mounting (21 teeth splined shaft)	SAE J744c- SAE C 16/32





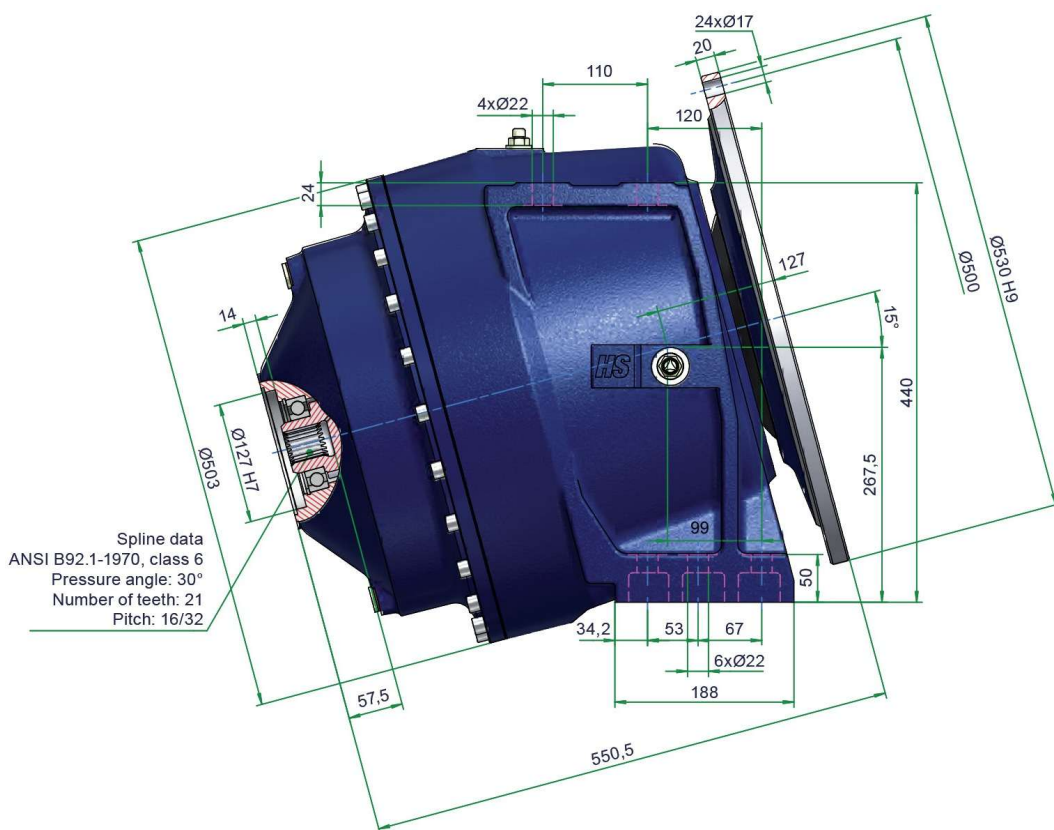
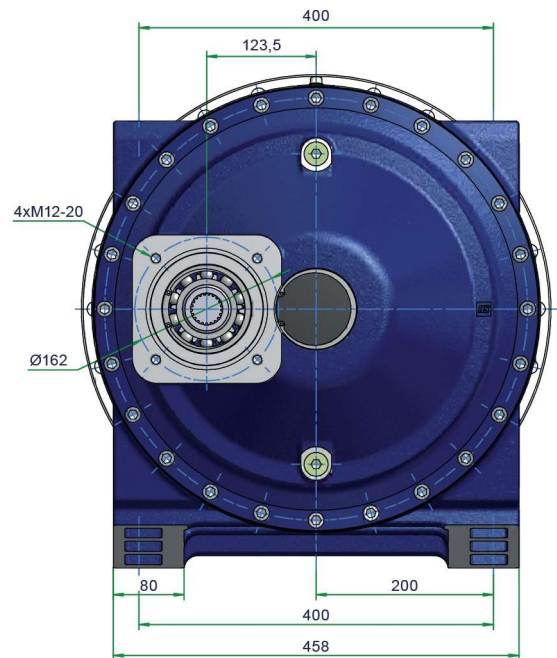
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TRANSIT MIXER GEAR BOX PM 18

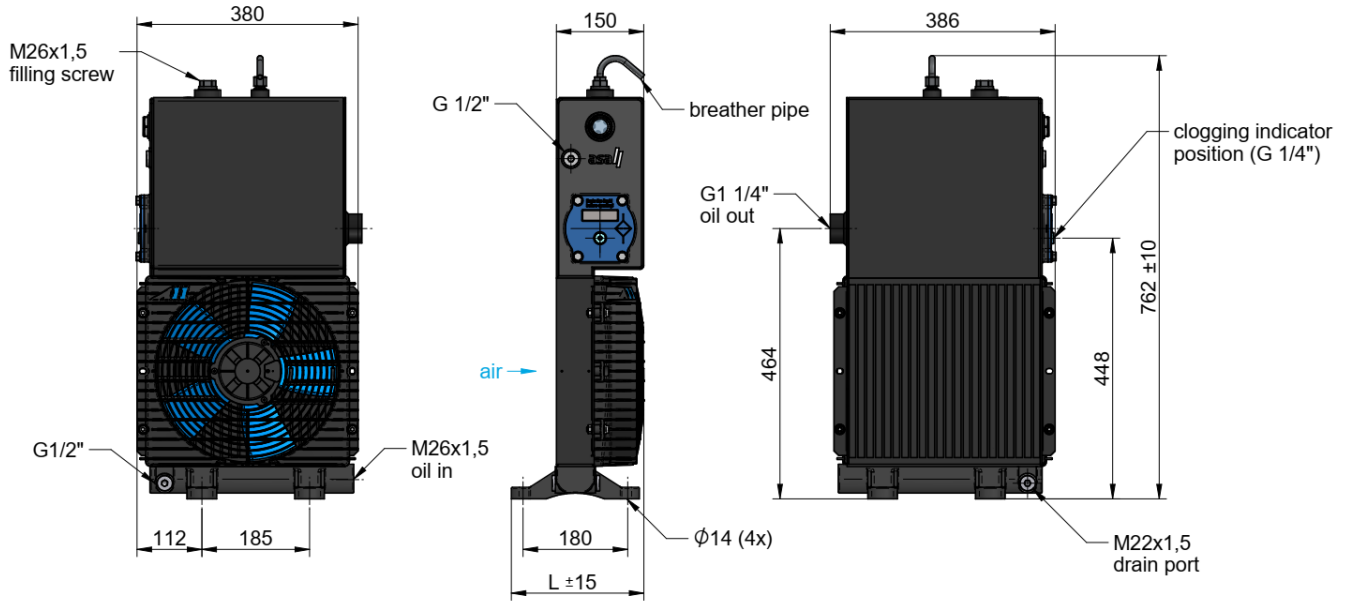
Drum capacity : 14 - 18 m³

Number of Gear Stages :	3
Max. Torque (with PV23/MF23 Pump+Motor)	85.000 Nm
Ratio	1 : 145
Weight	380 kgs
Drum Speed +/- 15 %	10 - 19 rpm
Max. Input Speed	2500 rpm
Oil (AH408.802.990-001 EN (Shell SPIRAX A90LS)	17 liters
Hydraulic Motor Mounting (21 teeth splined shaft)	SAE J744c-SAE C 16/32



Oil/Air Cooler eco-exchanger FT 11

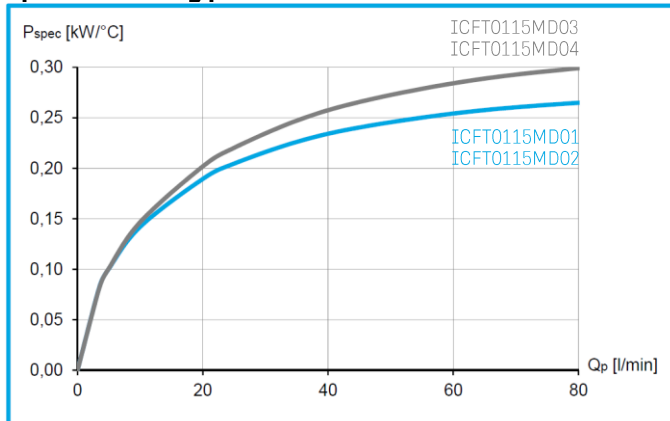
12V / 24V DC with integrated suction filter and tank



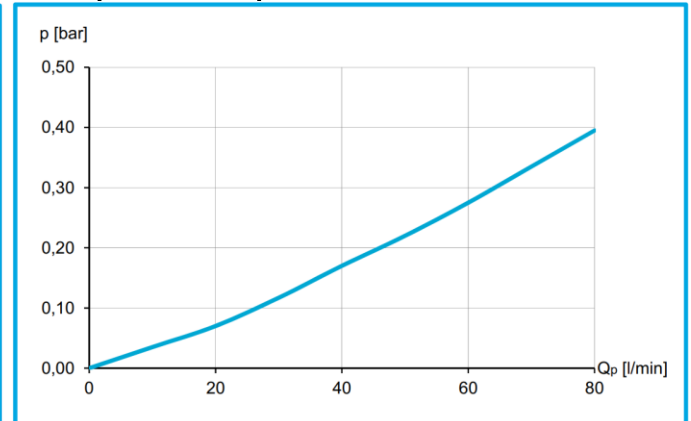
Technical Data

order number	description	motor power	current	protection	air flow	noise level	L	weight
		[kW]	[A]		[kg/s]	[dB(A)]	[mm]	[kg]
ICFT0115MD01	ECO 11 12V DC filt. w. filter i.tank	0,16	12,5	IP 68	0,60	77	232	15
ICFT0115MD02	ECO 11 24V DC filt. w. filter i.tank	0,18	7,0	IP 68	0,60	77	232	15
ICFT0115MD03	ECO 11 12V DC h.p. filt. w. filter i.tank	0,29	22,2	IP 68	0,74	79	252	16
ICFT0115MD04	ECO 11 24V DC h.p. filt. w. filter i.tank	0,29	11,0	IP 68	0,74	79	252	16

Specific cooling performance



cooler pressure drop at 30cSt



Radiator

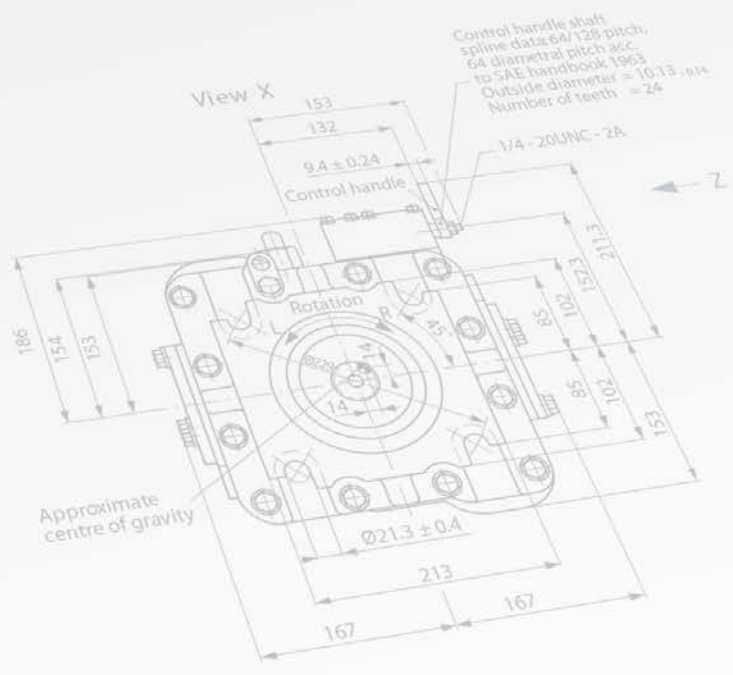
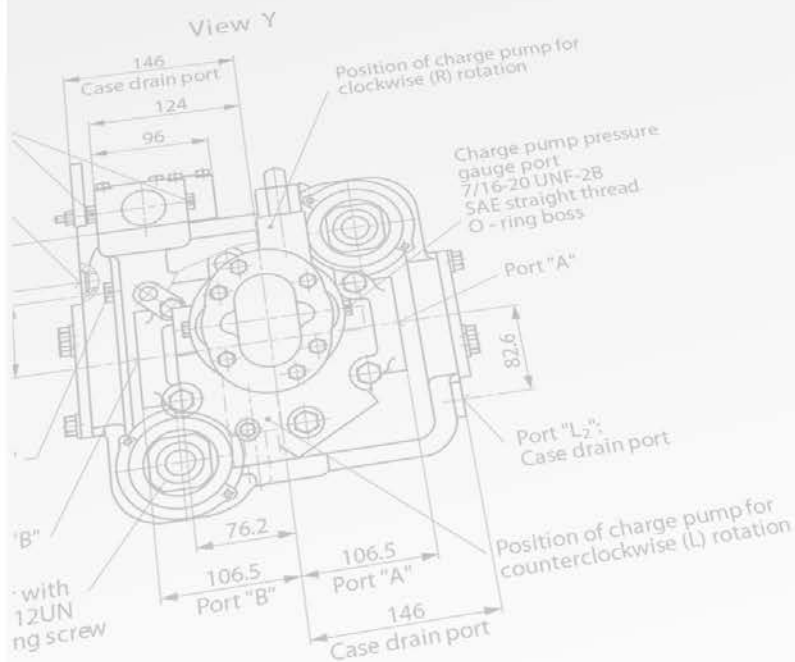
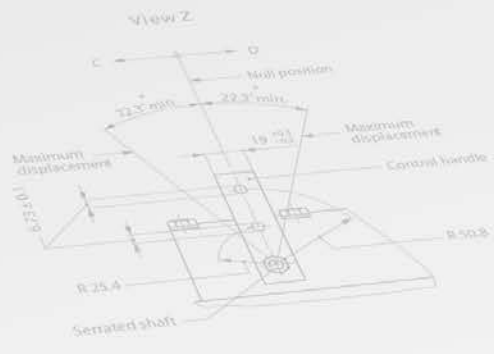
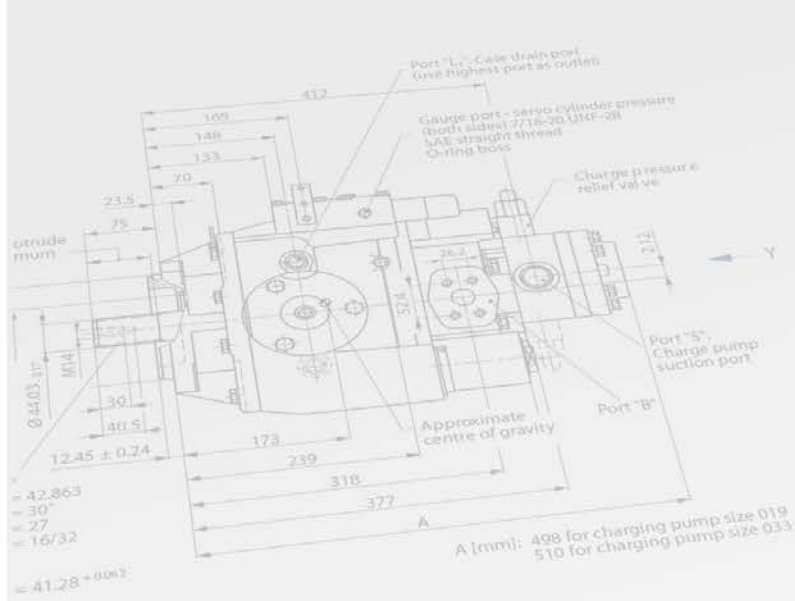
material:	aluminium
working temperature range:	-20°C to +100°C (oil temperature)
air fin shape:	wavy
max. working pressure:	1,2 bar

Tank

capacity	12 l
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Filter

filter efficiency	$\beta_{20} > 2$ DHC $\geq 50g$ ISO MTD DUST (0,3bar – 15cSt) to ISO 16889
pressure drop	0,03 bar @ 45lpm 0,06 bar @ 70lpm in accordance to ISO 3968



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