

P2000

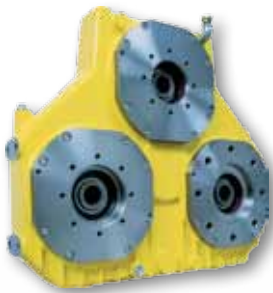
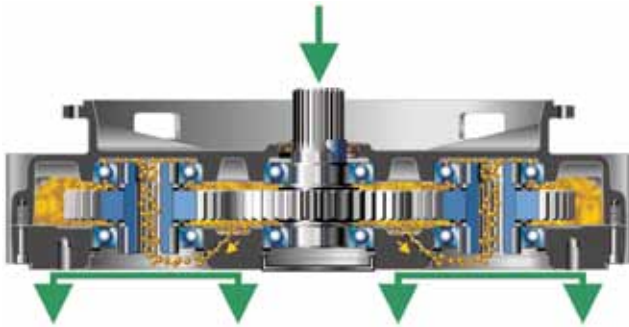
Pump Drives



P2000

The special power take-off gear series

- Force-feed lubrication of the profiled hollow shafts in conjunction with gear hub profiles made of tempered and nitrited chromiummolybdenum steel prevents vibration rust and galling and protects against premature wear of the pump shafts.
- Oil cooling can almost always be dispensed with thanks to the special lubrication system in conjunction with adequately ribbed housings.
- Radial Shaft seals made of Viton, manufactured by Freudenberg, running rings hardened, ground and replaceable.
- STIEBEL-pump drives are intended to be used with high elastic engine coupling. Generous ventilation openings in the drive-side SAE coupling bell housings prevent heat accumulation and thus increase the service life of the torsional vibration dampers.





P2000

Pump Drives

Introduction			2
Performances			4
Documentation			7
Size	Type	Ratings	Page
1 Pad			8
L	4381	280 kW	10
2 Pads			12
XS	4504	193 kW	14
S	4363, 4360	320 kW	16
M	4370	400 kW	18
L	4380	530 kW	20
XL	4390	700 kW	22
XXL	4331	900 kW	24
3 Pads			26
S	4362	320 kW	28
M	4372	400 kW	30
L	4382	530 kW	32
L	4383	530 kW	34
XL	4392	700 kW	36
XL	4396	700 kW	38
XXL	4517	900 kW	40
XXL	4332	900 kW	42
4 Pads			44
L	4384	530 kW	46
L	4399	530 kW	48
XL	4394	700 kW	50
XXL	4325, 4525	900 kW	52
Special pump drives and Extras			54
Different pump speeds			56
Both side pump mounting			57
Input: electric motor			59
Different pump speeds			61
Both side pump mounting with intermediate gears			62
Disengageable pump adapters			65
XXXL			66
SAE - dimensions			68
Lubricants			70

Performances

Size		XS	S	M
Axle base Input / Output (mm)		122,5	147	168
1 Pad	Type			
	Motor power: P			
	Torque: T			
	Speeds: n			
	Max speed: n_{max}			
2 Pads	Type	4504	4363, 4360	4370
	Motor power: P	193 kW	320 kW	400 kW
	Torque: T	800 Nm	1100 Nm	1500 Nm
	Speeds: n	2300 min ⁻¹	2800 min ⁻¹	2500 min ⁻¹
	Max speed: n_{max}	4000 min ⁻¹	3500 min ⁻¹	3500 min ⁻¹
3 Pads	Type		4362	4372
	Motor power: P		320 kW	400 kW
	Torque: T		1100 Nm	1500 Nm
	Speeds: n		2800 min ⁻¹	2500 min ⁻¹
	Max speed: n_{max}		3500 min ⁻¹	3500 min ⁻¹
4 Pads	Type			
	Motor power: P			
	Torque: T			
	Speeds: n			
	Max speed: n_{max}			
per Output:				
Motor power: P		115 kW	175 kW	210 kW
Torque: T		340 Nm	600 Nm	800 Nm
Speeds: n		3250 min ⁻¹	2800 min ⁻¹	2500 min ⁻¹
Torque: T_{max}		400 Nm	900 Nm	1000 Nm
Ratios from - to		0,50 - 0,94	0,65 - 1,55	0,6 - 1,53
Motor connection Shaft DIN 5480		SAE 3 W40x2	SAE 2, SAE 3 W50x2	SAE 1, SAE 2, SAE 3 W50x2
Pump adapter sizes		SAE A / B / C	SAE A / B / C	SAE B / C / D

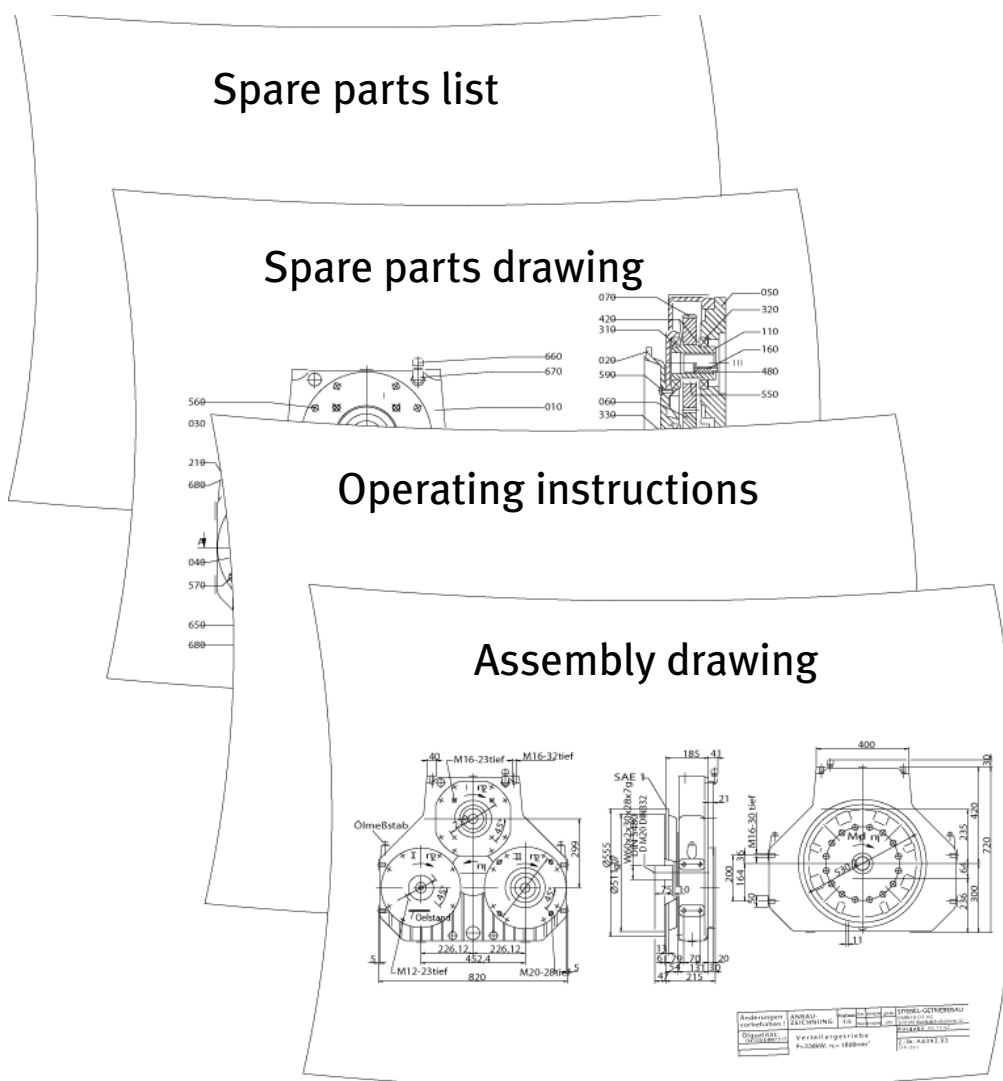
Performances

Size		L	XL	XXL	
Axle base Input / Output (mm)		203	235	282,8	
1 Pad	Type	4381			
	Motor power: P	280 kW			
	Torque: T	1500 Nm			
	Speeds: n	2200 min ⁻¹			
	Max speed: n _{max}	3000 min ⁻¹			
2 Pads	Type	4380	4390	4331	
	Motor power: P	530 kW	700 kW	900 kW	
	Torque: T	2300 Nm	3300 Nm	4800 Nm	
	Speeds: n	2200 min ⁻¹	2000 min ⁻¹	1800 min ⁻¹	
	Max speed: n _{max}	3000 min ⁻¹	2800 min ⁻¹	2500 min ⁻¹	
3 Pads	Type	4382, 4383	4392, 4396	4332, 4517**	
	Motor power: P	530 kW	700 kW	900 kW	
	Torque: T	2300 Nm	3300 Nm	4800 Nm	
	Speeds: n	2200 min ⁻¹	2000 min ⁻¹	1800 min ⁻¹	
	Max speed: n _{max}	3000 min ⁻¹	2800 min ⁻¹	2500 min ⁻¹	
4 Pads	Type	4384, 4399*	4394	4325	4525
	Motor power: P	530 kW	700 kW	900 kW	750 kW
	Torque: T	2300 Nm	3300 Nm	4800 Nm	3770 Nm
	Speeds: n	2200 min ⁻¹	2000 min ⁻¹	1800 min ⁻¹	1900 min ⁻¹
	Max speed: n _{max}	3000 min ⁻¹	2800 min ⁻¹	2500 min ⁻¹	2500 min ⁻¹
per Output:					
Motor power: P		280 kW	360 kW	460 kW	420 kW
Torque: T		1250 Nm	1750 Nm	2450 Nm	2110 Nm
Speeds: n		2200 min ⁻¹	2000 min ⁻¹	1800 min ⁻¹	1900 min ⁻¹
Torque: T _{max}		1500 Nm	1900 Nm	2750 Nm	2300 Nm
Ratios from - to		0,66 - 1,52	0,66 - 1,51	0,67 - 1,49	
Motor connection Shaft DIN 5480		SAE 1, SAE 2, SAE 3 without SAE-flange W50x2	SAE 0, SAE 1, SAE 2 without SAE-flange W60x2	SAE 0, SAE 1 without SAE-flange W70x3, W60x2	
Pump adapter sizes		SAE B / C / D / E	up to 355 ccm	up to 500 ccm	

* a = 234,5 ** a = 220



Documentation



Ratio

The gear transmission ratio i is given as a decimal number.

$$i = \frac{\text{Input speed}}{\text{Output speed}}$$

$i < 1 \rightarrow \text{SPEED-UP}$

$i > 1 \rightarrow \text{SPEED-REDUCTION}$





Fax to +49 2291 791-298
Stiebel Getriebebau GmbH & Co. KG
Industriestr. 12

D-51545 Waldbröl

Company: _____

Contact: _____

Street: _____

Postcode, Town: _____

Phone: _____

Fax: _____

E-Mail: _____

Pump drives with 1 pad

Type

Type

Input Speed

 min⁻¹

Pump Speed

 min⁻¹

Details of application

Machine

Duty Cycle

 h

Ambient temperature from

 °C

to

 °C

Site of operation

Input

☐ Diesel engine

☐ Other

Power

 kW

at Speed

 min⁻¹

Control: ☐ hydrostatic

Max. torque

 Nm

at Speed

 min⁻¹

☐ through engine speed

☐ Input housing SAE

Flywheel size SAE

Shaft

☐ Coupling (motor / gearbox)

☐ Cardan flange

Diameter

 mm

Term

Output Mounting position I

Pump

 Manufacturer, type

Flange SAE

(2-hole / 4-hole)

Drive shaft, profile

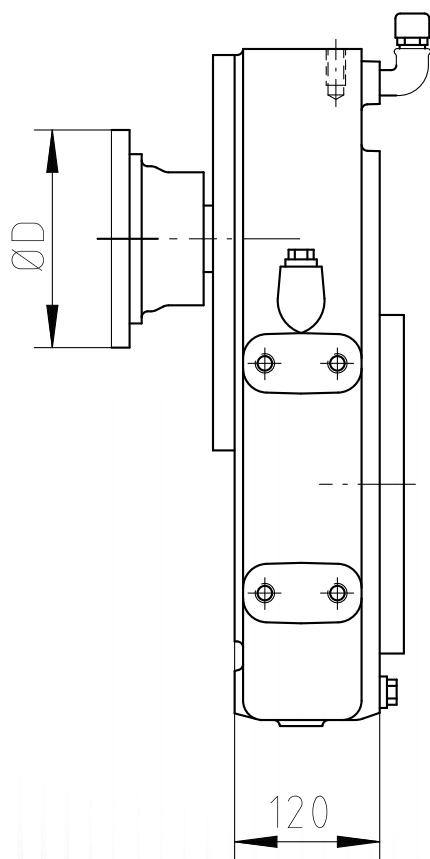
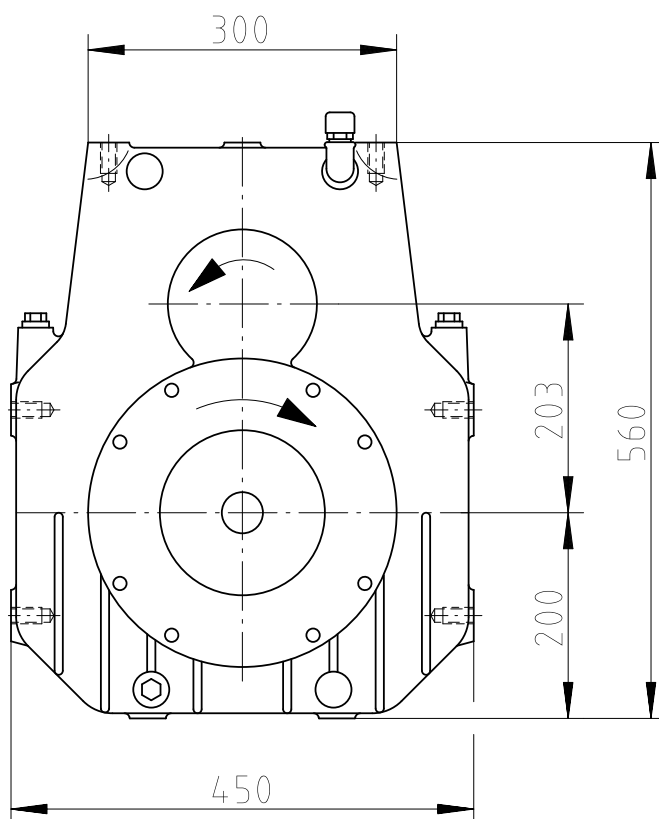
Type 4381

Pump adapter sizes:

SAE B, SAE C, SAE D, SAE E

Housing material:

grey cast iron



Input flange D

150

180

180 cross-tooth

SAE 1800

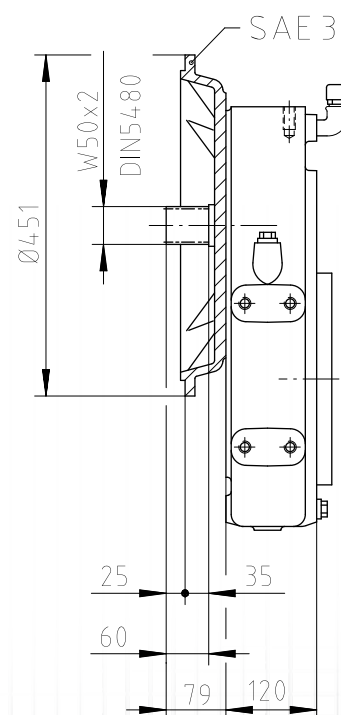
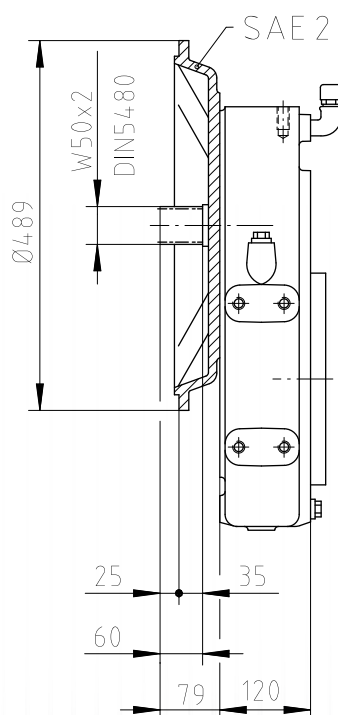
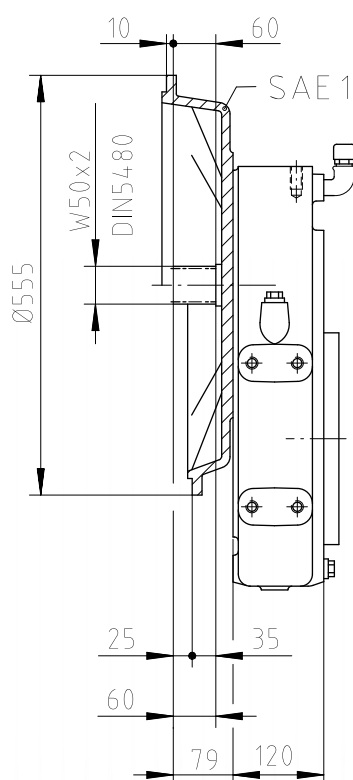
Type 4381

Ratings

Power P	280 kW
Power per pump	280 kW
Max. torque per pump T	1500 Nm
Max. speed n	3000 min ⁻¹
approximate weight	105 kg

i*	0,6572	0,7059	0,7576	0,8125	0,8710	0,9661	1,0351	1,1481	1,2308	1,3200	1,4167	1,5217
J** [kgm ²]	0,1356	0,1262	0,1176	0,1097	0,1023	0,0923	0,0862	0,0779	0,0728	0,0680	0,0634	0,0592

* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.







Fax to +49 2291 791-298
Stiebel Getriebebau GmbH & Co. KG
Industriestr. 12

D-51545 Waldbröl

Company: _____

Contact: _____

Street: _____

Postcode, Town: _____

Phone: _____

Fax: _____

E-Mail: _____

Pump drives with 2 pads

Type

Type

Input Speed min⁻¹

Pump Speed min⁻¹

Details of application

Machine

Duty Cycle h Ambient temperature from °C to °C

Site of operation

Input

☐ Diesel engine ☐ Other

Power kW at Speed min⁻¹ Control: ☐ hydrostatic

Max. torque Nm at Speed min⁻¹ ☐ through engine speed

☐ Input housing SAE Flywheel size SAE Shaft

☐ Coupling (motor / gearbox)

☐ Cardan flange Diameter mm Term

Output Mounting position I

Pump Manufacturer, type

Flange SAE (2-hole / 4-hole) Drive shaft, profile

Output Mounting position II

Pump Manufacturer, type

Flange SAE (2-hole / 4-hole) Drive shaft, profile

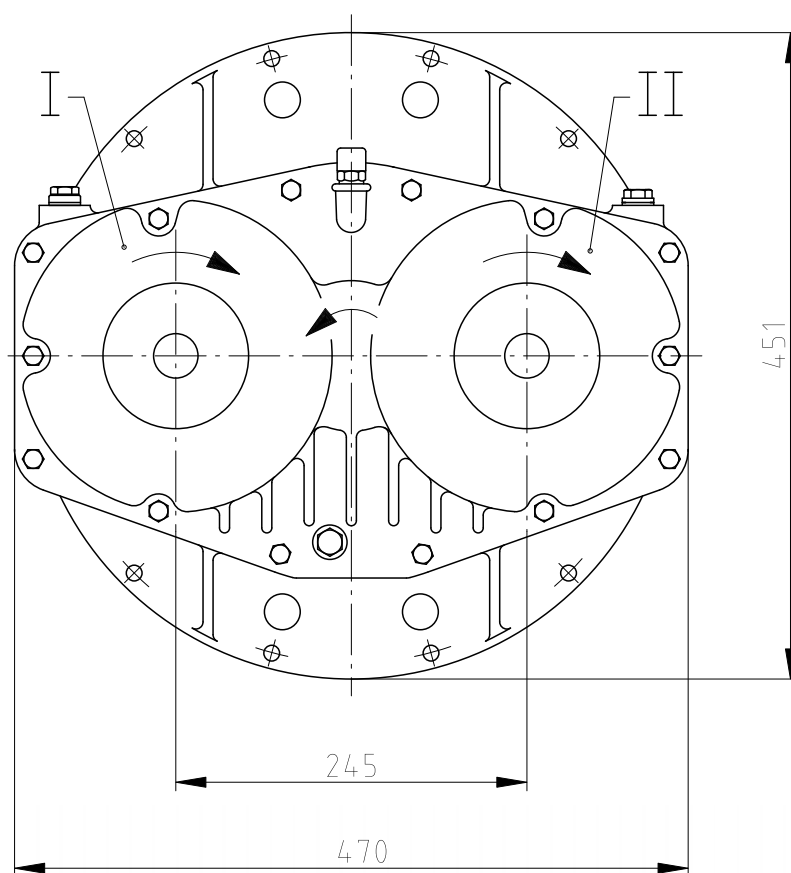
Type 4504

Pump adapter sizes:

SAE B, SAE C

Housing material:

grey cast iron



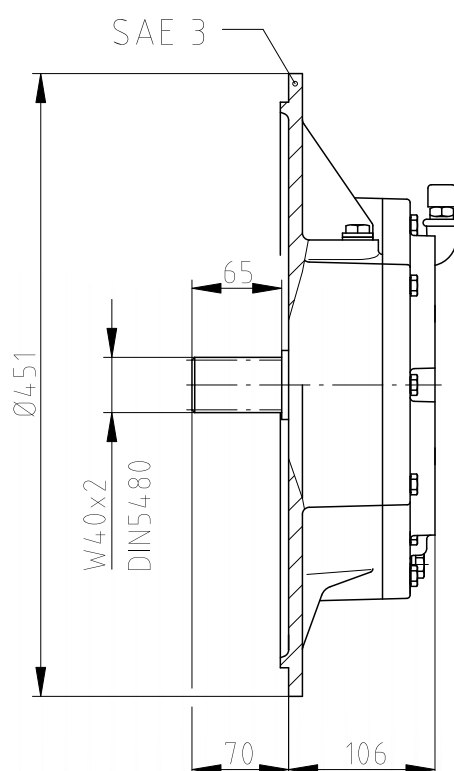
Type 4504

Ratings

Power P	193 kW
Power per pump	115 kW
Max. torque per pump T	400 Nm
Max. speed n	4000 min ⁻¹
approximate weight	55 kg

i*	0,5000	0,5909	0,7073	0,816	0,8421	0,9444	0,9714
J** [kgm ²]	0,0344	0,0299	0,0250	0,0221	0,0205	0,0193	0,0175

* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.



Type 4363 / 4360

Pump adapter sizes:

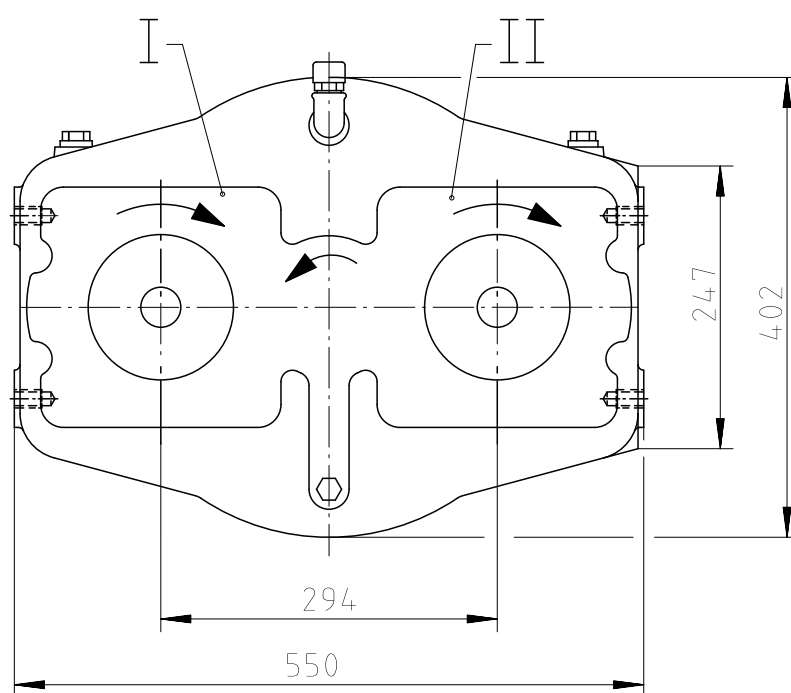
SAE A, SAE B, SAE C, SAE D

Housing material:

Type 4363 grey cast iron

Alternativ housing material:

Type 4360 aluminium



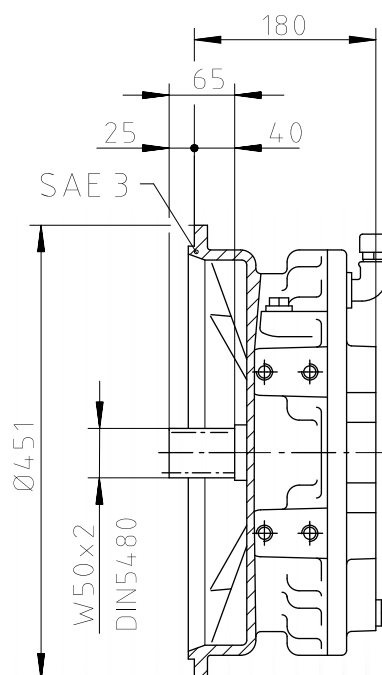
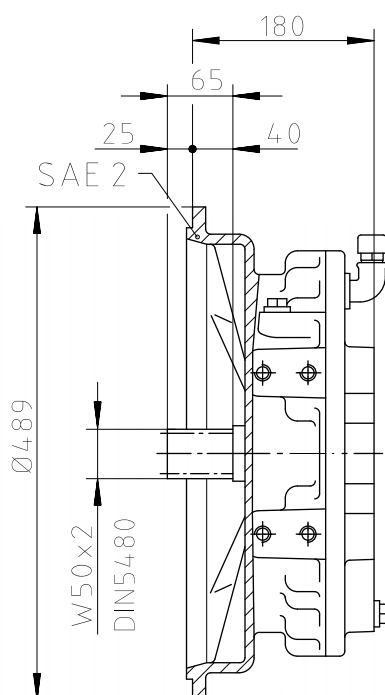
Type 4363 / 4360

Ratings

Power P	320 kW
Power per pump	175 kW
Max. torque per pump T	900 Nm
Max. speed n	3500 min ⁻¹
approximate weight	87/45 kg

i*	0,6471	0,7143	0,7500	0,8261	0,9091	0,9535	1,0488	1,1000	1,2105	1,3333	1,4000	1,5455
J** [kgm ²]	0,0549	0,0507	0,0488	0,0452	0,0421	0,0406	0,0378	0,0365	0,0340	0,0316	0,0305	0,0282

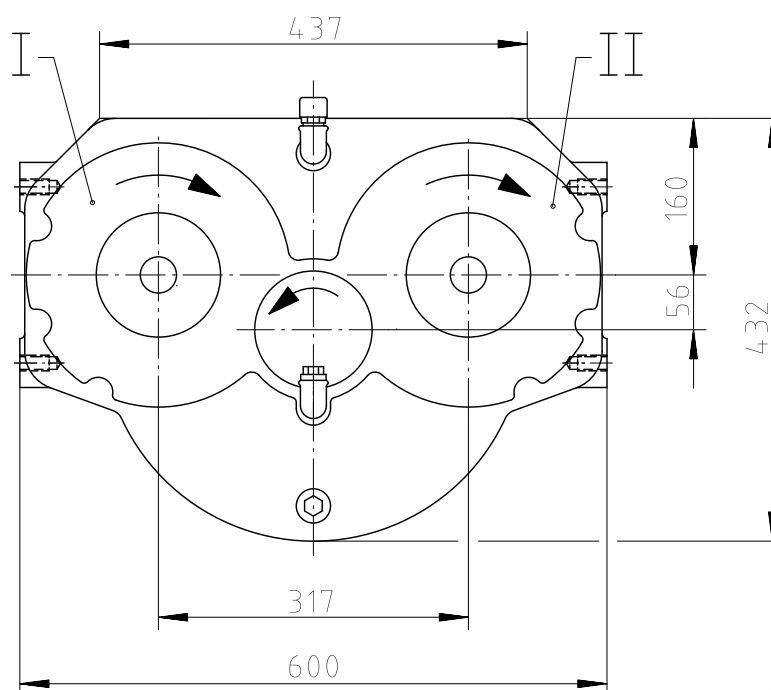
* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.



Type 4370

Pump adapter sizes:
SSAE B, SAE C, SAE D

Housing material:
grey cast iron



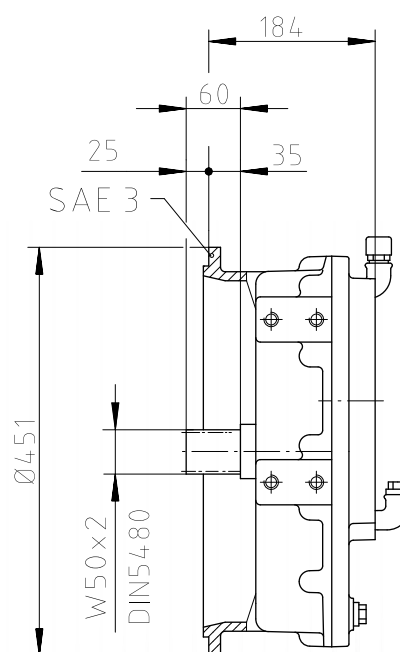
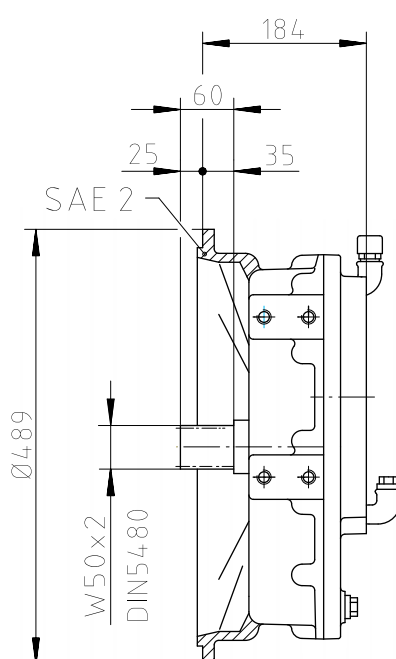
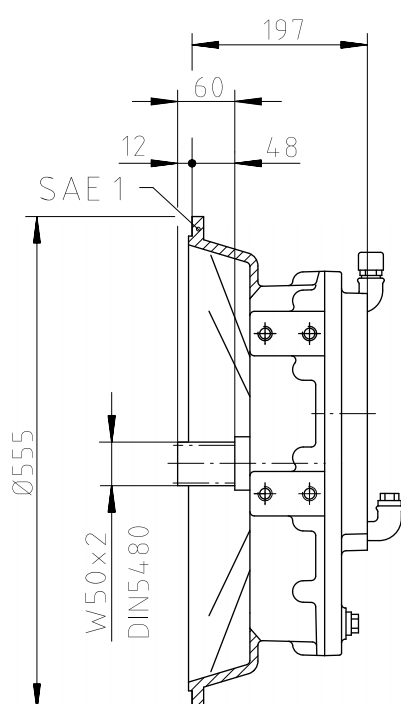
Type 4370

Ratings

Power P	400 kW
Power per pump	210 kW
Max. torque per pump T	1000 Nm
Max. speed n	3500 min ⁻¹
approximate weight	104 kg

i*	0,6000	0,6552	0,7143	0,7778	0,8462	0,9200	0,9592	1,0426	1,0870	1,1818	1,2857	1,4000	1,5263
J** [kgm ²]	0,0942	0,0882	0,0828	0,0778	0,0733	0,0692	0,0672	0,0634	0,0616	0,0581	0,0547	0,0514	0,0482

* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.



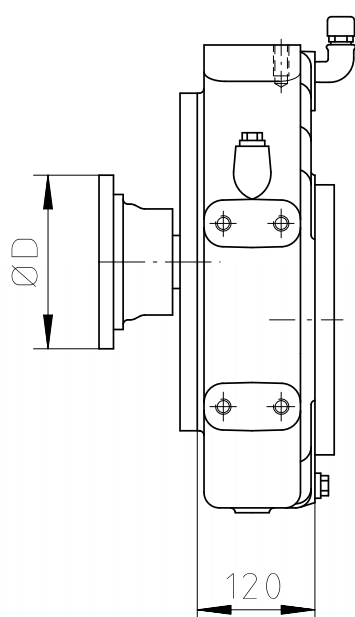
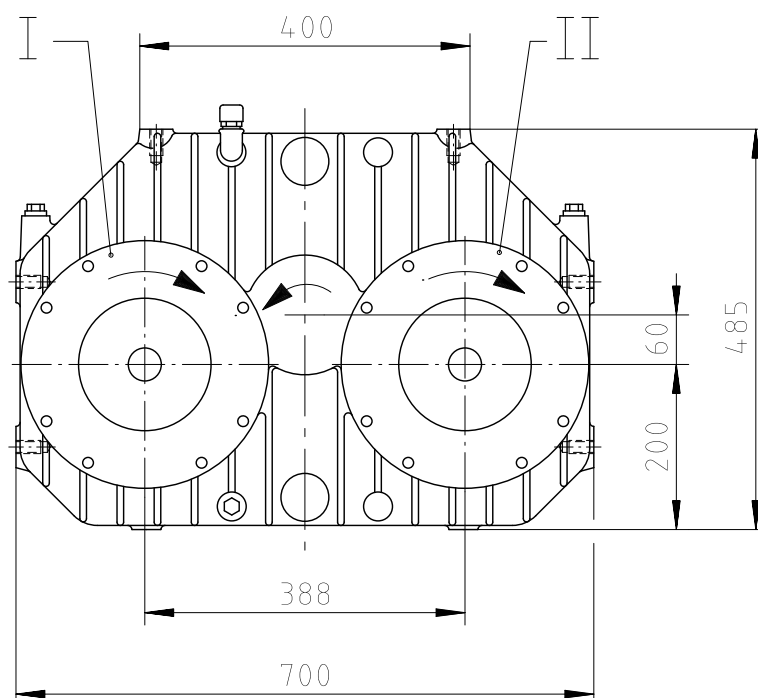
Type 4380

Pump adapter sizes:

SAE B, SAE C, SAE D, SAE E

Housing material:

grey cast iron



Input flange D

150

180

180 cross-tooth

SAE 1800

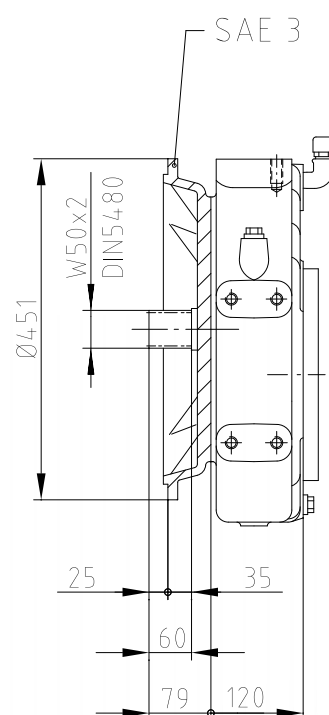
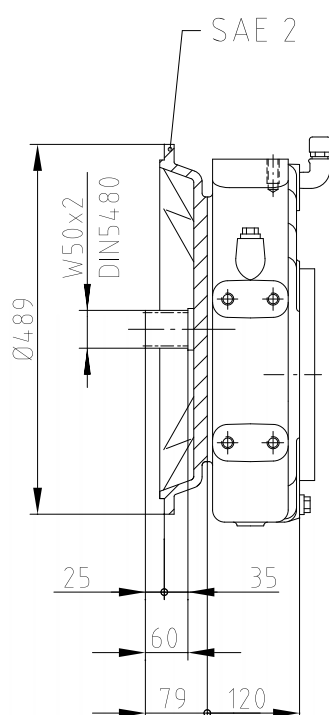
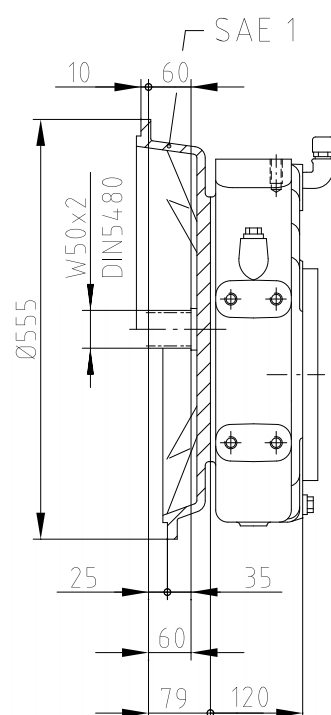
Type 4380

Ratings

Power P	530 kW
Power per pump	280 kW
Max. torque per pump T	1500 Nm
Max. speed n	3000 min ⁻¹
approximate weight	150 kg

i*	0,6572	0,7059	0,7576	0,8125	0,8710	0,9661	1,0351	1,1481	1,2308	1,3200	1,4167	1,5217
J** [kgm ²]	0,1790	0,1700	0,1617	0,1540	0,1467	0,1365	0,1301	0,1210	0,1152	0,1094	0,1039	0,0985

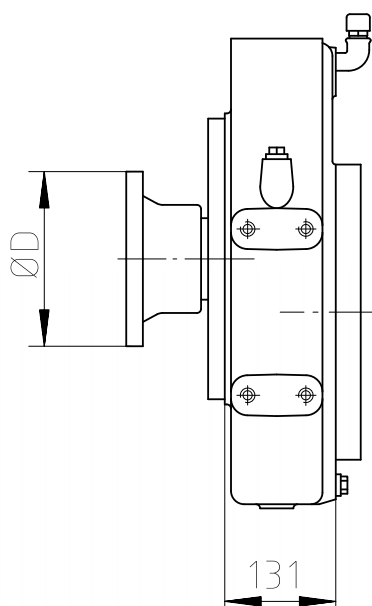
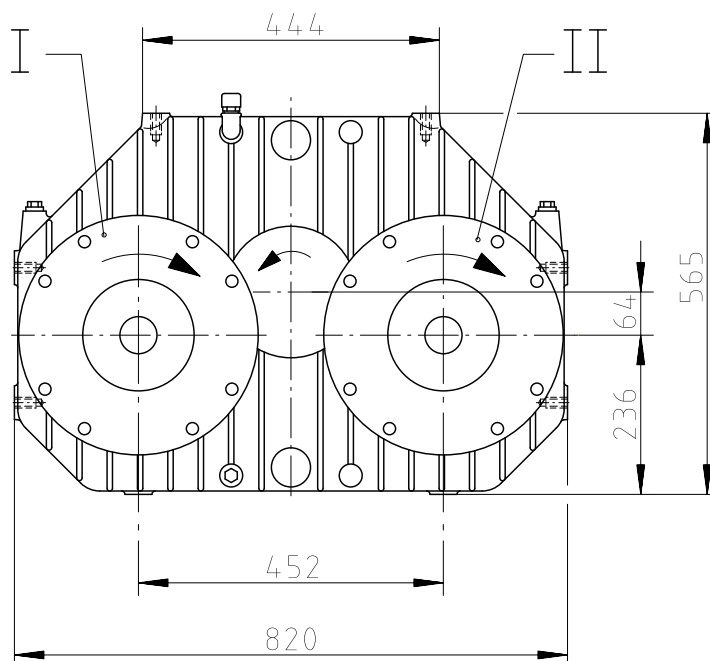
* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.



Type 4390

Pump adapter sizes:
SAE B, SAE C, SAE D, SAE E

Housing material:
grey cast iron



Input flange D

150

180

180 cross-tooth

SAE 1800

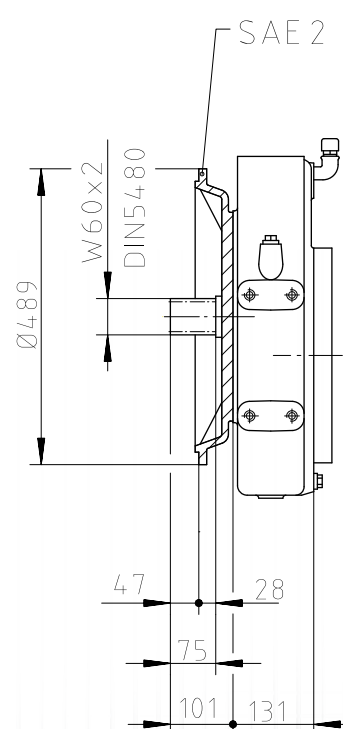
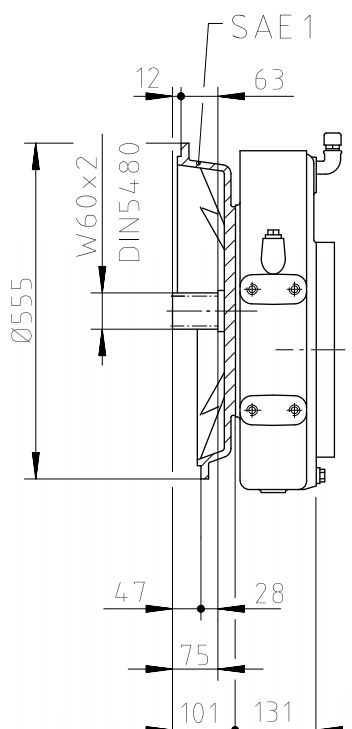
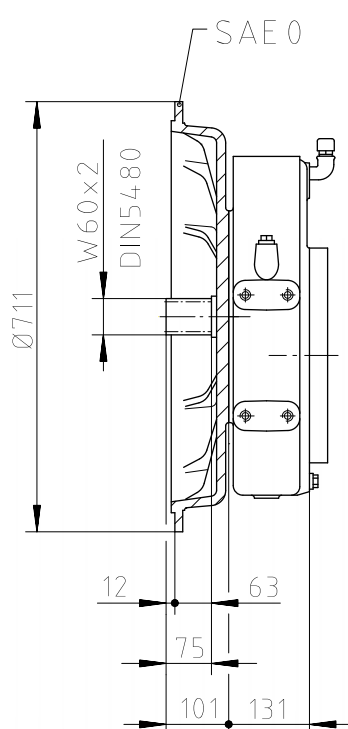
Type 4390

Ratings

Power P	700 kW
Power per pump	360 kW
Max. torque per pump T	1900 Nm
Max. speed n	2800 min ⁻¹
approximate weight	225 kg

i*	0,6607	0,7091	0,7736	0,8431	0,9184	0,9787	1,0217	1,0889	1,1860	1,2927	1,4103	1,5135
J** [kgm ²]	0,3546	0,3497	0,3282	0,3085	0,2902	0,2666	0,2586	0,2572	0,2419	0,2272	0,2129	0,1938

* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.



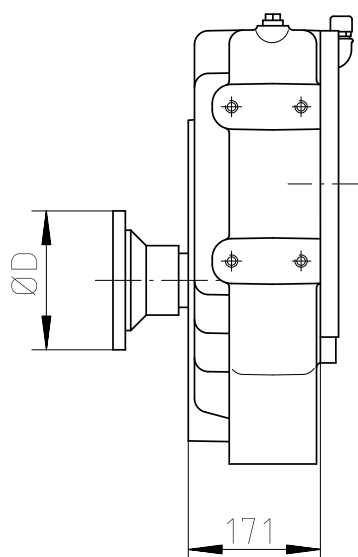
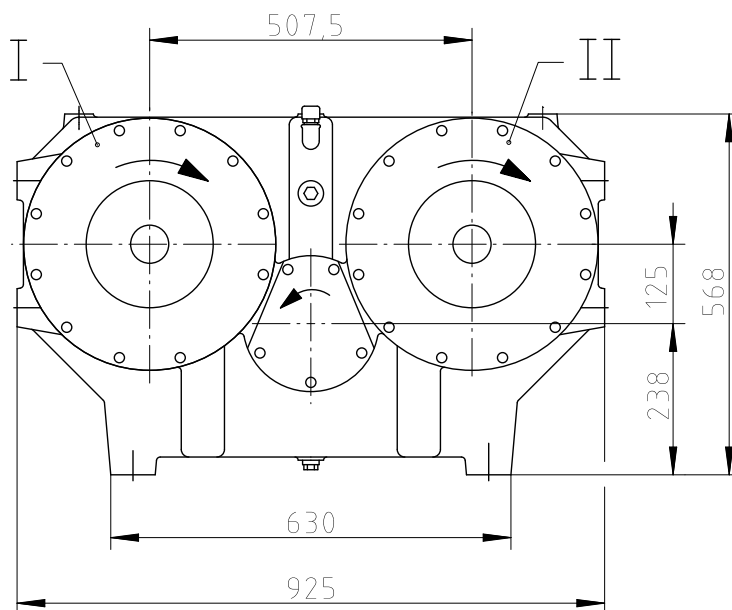
Type 4331

Pump adapter sizes:

SAE C, SAE D, SAE E, SAE F

Housing material:

grey cast iron



Input flange D

150

180

180 cross-tooth

SAE 1800

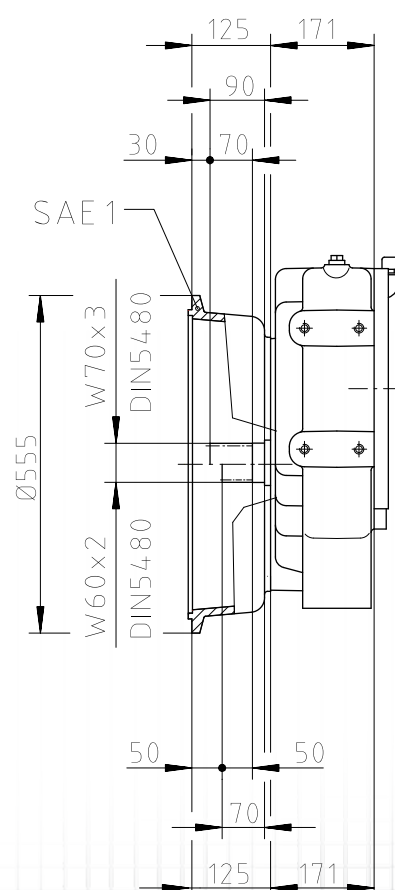
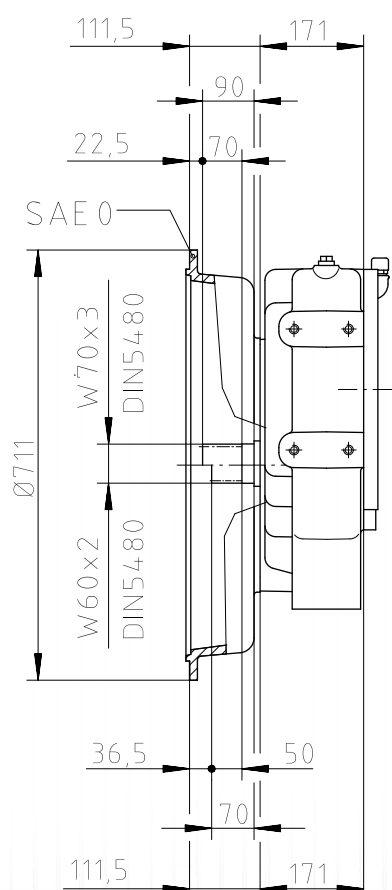
Type 4331

Ratings

Power P	900 kW
Power per pump	460 kW
Max. torque per pump T	2750 Nm
Max. speed n	2500 min ⁻¹
approximate weight	350 kg

i*	0,6716	0,7500	0,8226	0,8833	0,9483	1,0545	1,1321	1,2157	1,3333	1,4889
J** [kgm ²]	0,8554	0,7880	0,7613	0,7234	0,6876	0,6375	0,6059	0,5754	0,5199	0,4780

* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.







Fax to +49 2291 791-298
Stiebel Getriebebau GmbH & Co. KG
Industriestr. 12

D-51545 Waldbröl

Company: _____

Contact: _____

Street: _____

Postcode, Town: _____

Phone: _____

Fax: _____

E-Mail: _____

Pump drives with 3 pads

Type

Type Input Speed min⁻¹ Pump Speed min⁻¹

Details of application

Machine
Duty Cycle h Ambient temperature from °C to °C
Site of operation

Input

☐ Diesel engine ☐ Other
Power kW at Speed min⁻¹ Control: ☐ hydrostatic
Max. torque Nm at Speed min⁻¹ ☐ through engine speed
☐ Input housing SAE Flywheel size SAE Shaft
☐ Coupling (motor / gearbox)
☐ Cardan flange Diameter mm Term

Output Mounting position I

Pump Manufacturer, type
Flange SAE (2-hole / 4-hole) Drive shaft, profile

Output Mounting position II

Pump Manufacturer, type
Flange SAE (2-hole / 4-hole) Drive shaft, profile

Output Mounting position III

Pump Manufacturer, type
Flange SAE (2-hole / 4-hole) Drive shaft, profile

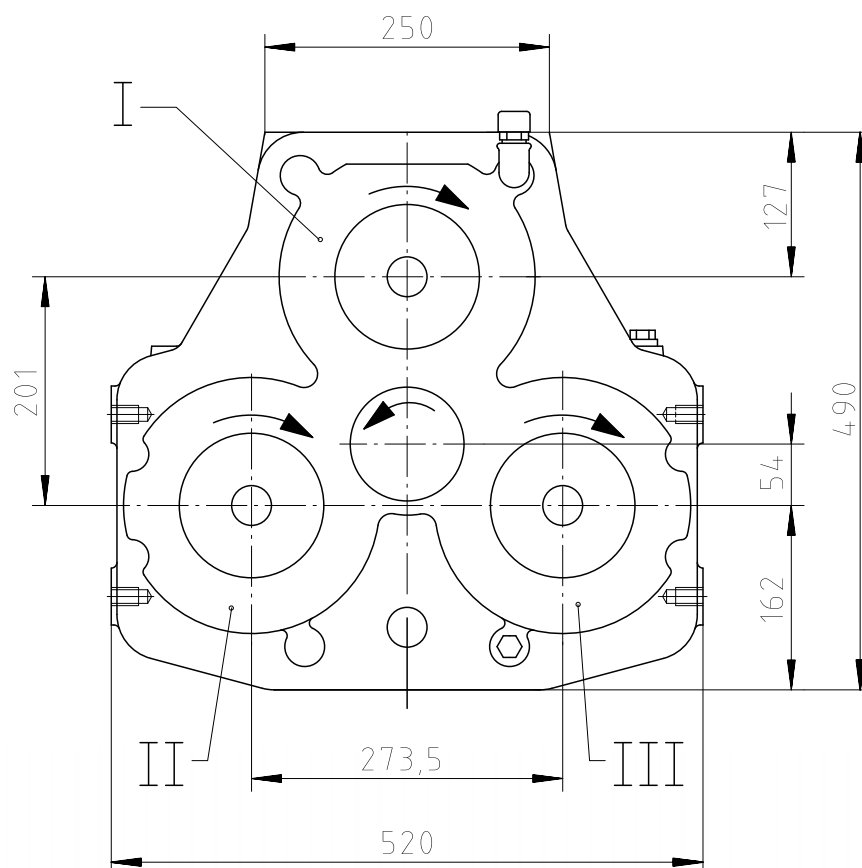
Type 4362

Pump adapter sizes:

SAE A, SAE B, SAE C

Housing material:

aluminium



Type 4362

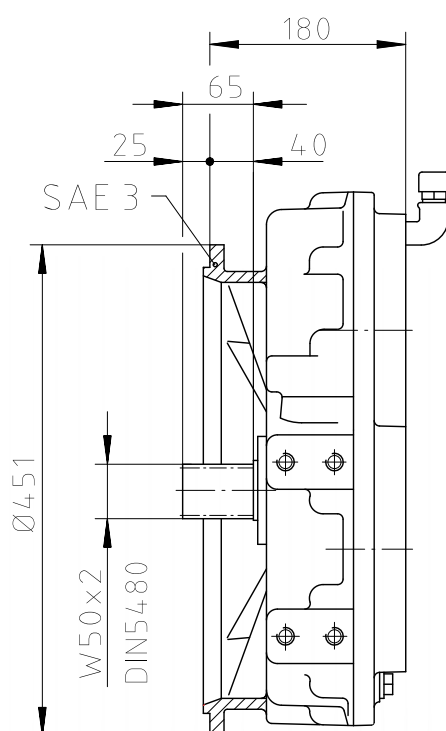
Ratings

Power P	320 kW
Power per pump	175 kW
Max. torque per pump T	900 Nm
Max. speed n	3500 min ⁻¹
approximate weight	55 kg

i*	0,6471	0,7143	0,7500	0,8261	0,9091	0,9535	1,0488	1,1000	1,2105	1,3333	1,4000	1,5455
J** [kgm ²]	0,0690	0,0645	0,0625	0,0588	0,0554	0,0538	0,0507	0,0492	0,0464	0,0435	0,0421	0,0393

$$* i = \frac{\text{Input speed}}{\text{Output speed}}$$

** Moment of inertia, referring to input shaft.



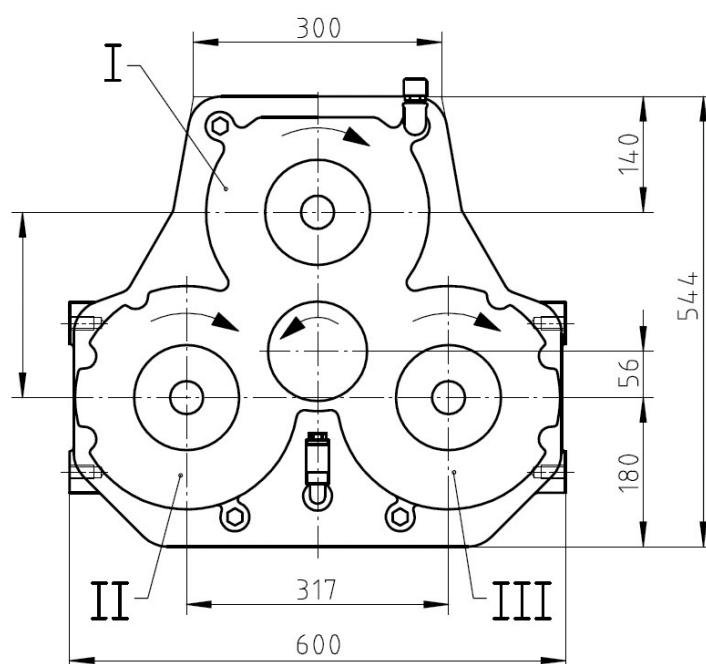
Type 4372

Pump adapter sizes:

SAE B, SAE C, SAE D

Housing material:

grey cast iron



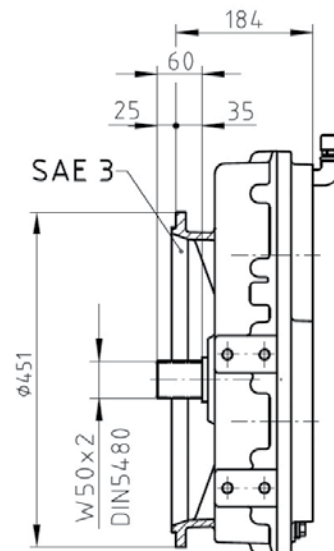
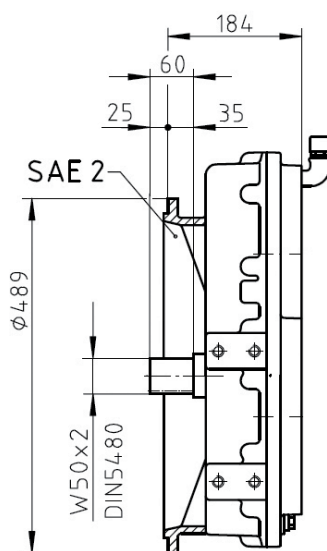
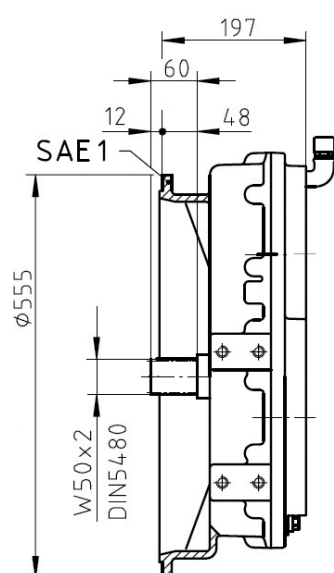
Type 4372

Ratings

Power P	400 kW
Power per pump	210 kW
Max. torque per pump T	1000 Nm
Max. speed n	3500 min ⁻¹
approximate weight	130 kg

i*	0,6000	0,6552	0,7143	0,7778	0,8462	0,9200	0,9592	1,0426	1,0870	1,1818	1,2857	1,4000	1,5263
J** [kgm ²]	0,1157	0,1097	0,1043	0,0994	0,0948	0,0905	0,0885	0,0844	0,0824	0,0785	0,0747	0,0708	0,0669

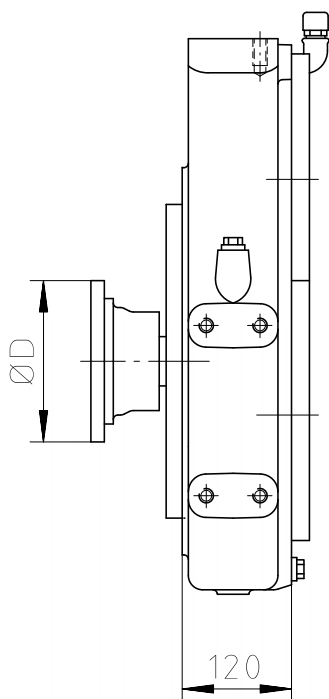
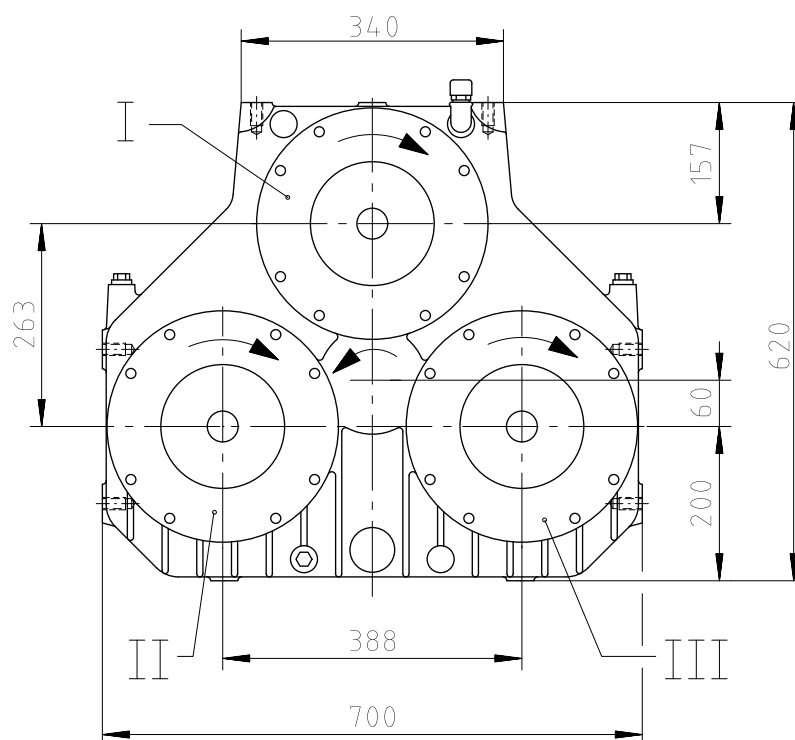
* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.



Type 4382

Pump adapter sizes:
SAE B, SAE C, SAE D

Housing material:
grey cast iron



Input flange D

150

180

180 cross-tooth

SAE 1800

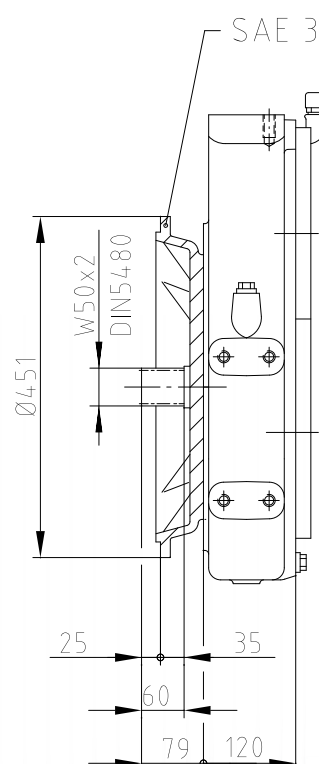
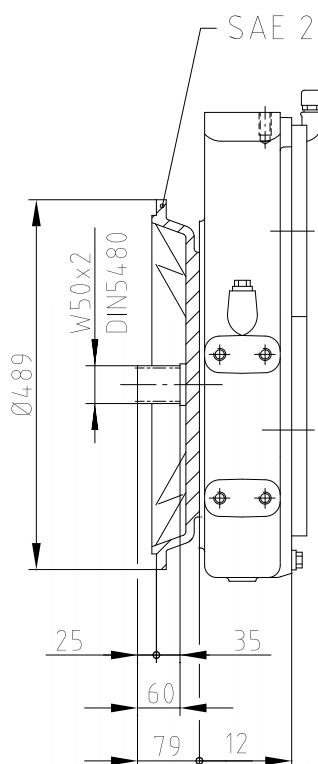
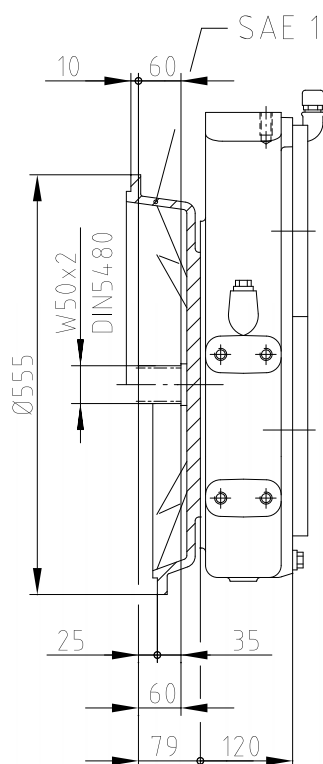
Type 4382

Ratings

Power P	530 kW
Power per pump	280 kW
Max. torque per pump T	1500 Nm
Max. speed n	3000 min ⁻¹
approximate weight	200 kg

i*	0,6572	0,7059	0,7576	0,8125	0,8710	0,9661	1,0351	1,1481	1,2308	1,3200	1,4167	1,5217
J** [kgm ²]	0,2225	0,2139	0,2058	0,1983	0,1911	0,1807	0,1740	0,1642	0,1576	0,1511	0,1445	0,1378

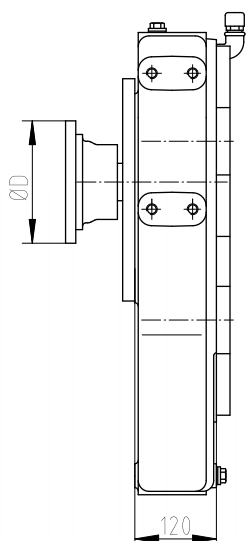
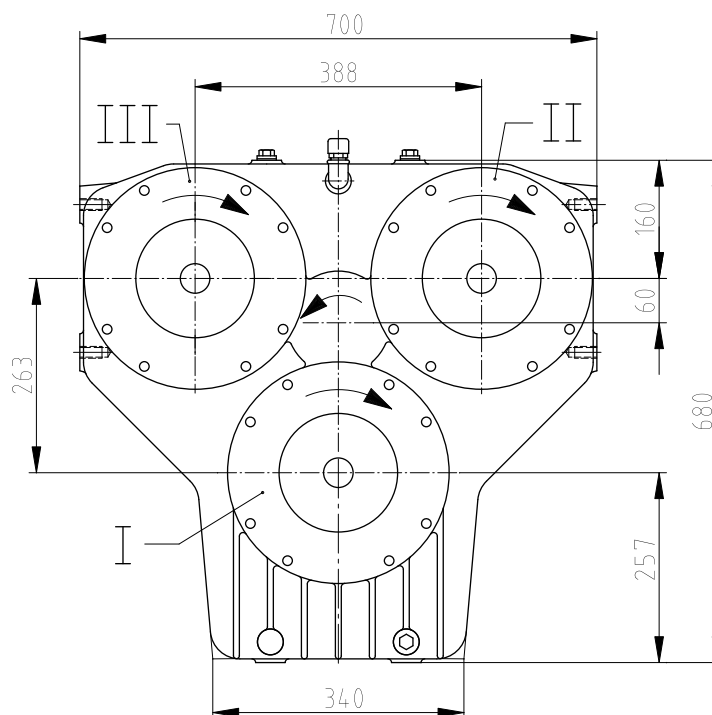
* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.



Type 4383

Pump adapter sizes:
SAE B, SAE C, SAE D

Housing material:
grey cast iron



Input flange D

150

180

180 cross-tooth

SAE 1800

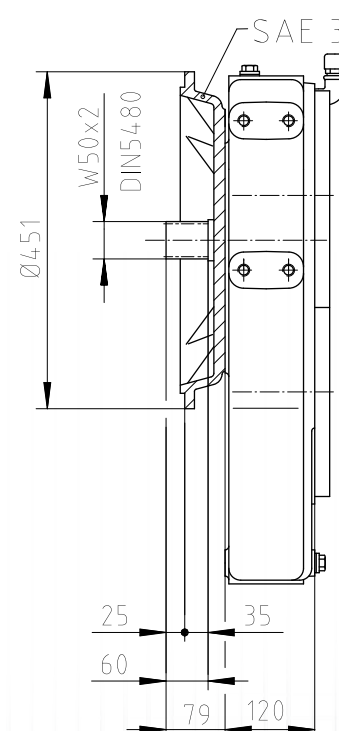
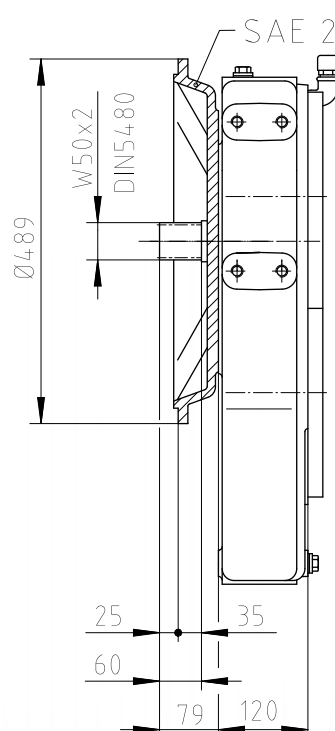
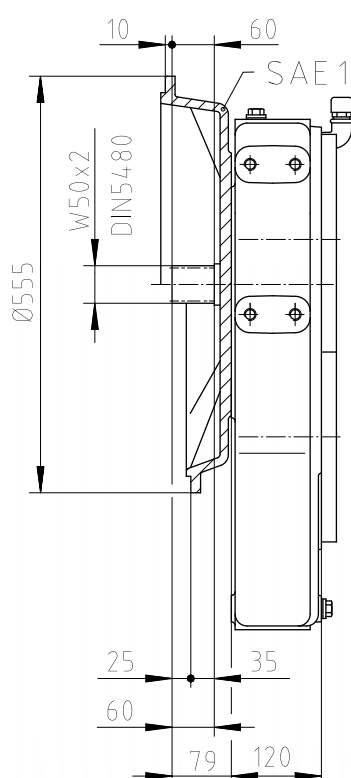
Type 4383

Ratings

Power P	530 kW
Power per pump	280 kW
Max. torque per pump T	1500 Nm
Max. speed n	3000 min ⁻¹
approximate weight	200 kg

i*	0,6572	0,7059	0,7576	0,8125	0,8710	0,9661	1,0351	1,1481	1,2308	1,3200	1,4167	1,5217
J** [kgm ²]	0,2225	0,2139	0,2058	0,1983	0,1911	0,1807	0,1740	0,1642	0,1576	0,1511	0,1445	0,1378

* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.



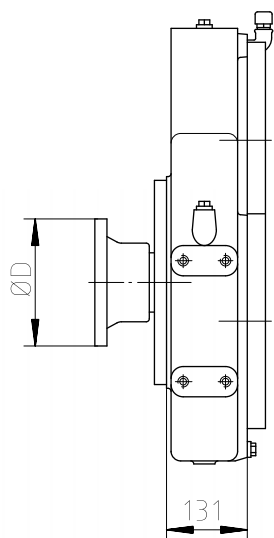
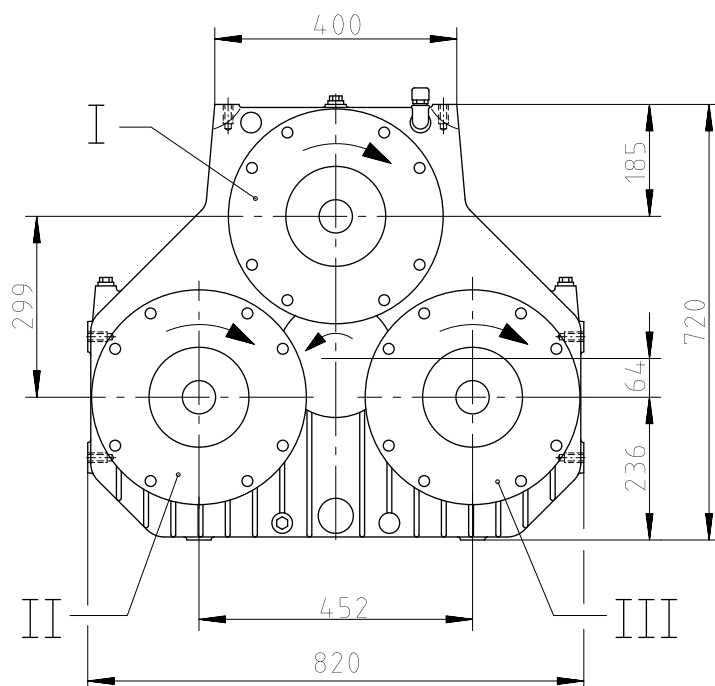
Type 4392

Pump adapter sizes:

SAE B, SAE C, SAE D, SAE E

Housing material:

grey cast iron



Input flange D

150

180

180 cross-tooth

SAE 1800

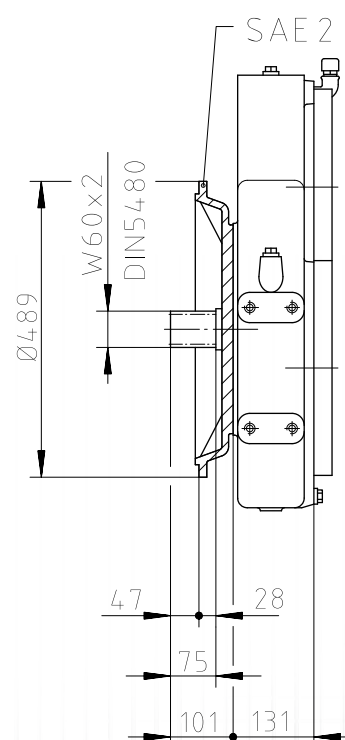
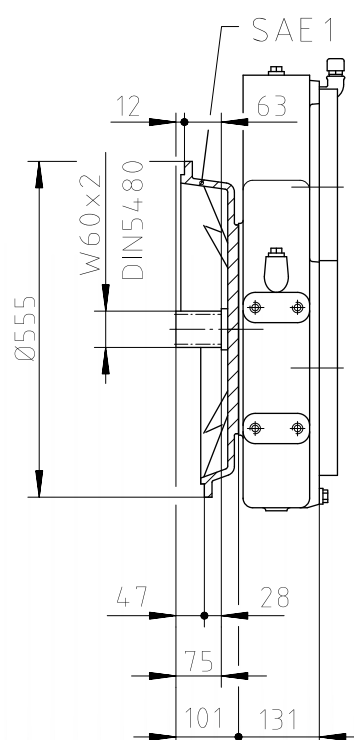
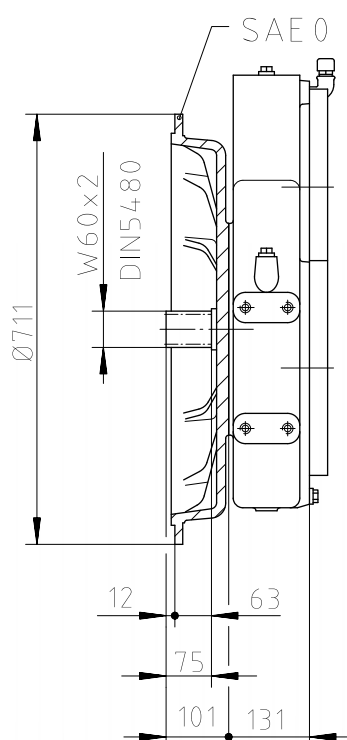
Type 4392

Ratings

Power P	700 kW
Power per pump	360 kW
Max. torque per pump T	1900 Nm
Max. speed n	2800 min ⁻¹
approximate weight	270 kg

i*	0,6607	0,7091	0,7736	0,8431	0,9184	0,9787	1,0217	1,0889	1,1860	1,2927	1,4103	1,5135
J** [kgm ²]	0,4432	0,4417	0,4203	0,4005	0,3818	0,3540	0,3455	0,3466	0,3297	0,3127	0,2958	0,2710

* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.



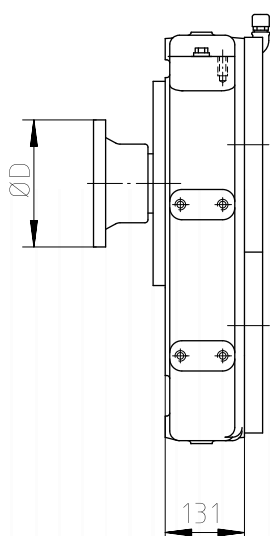
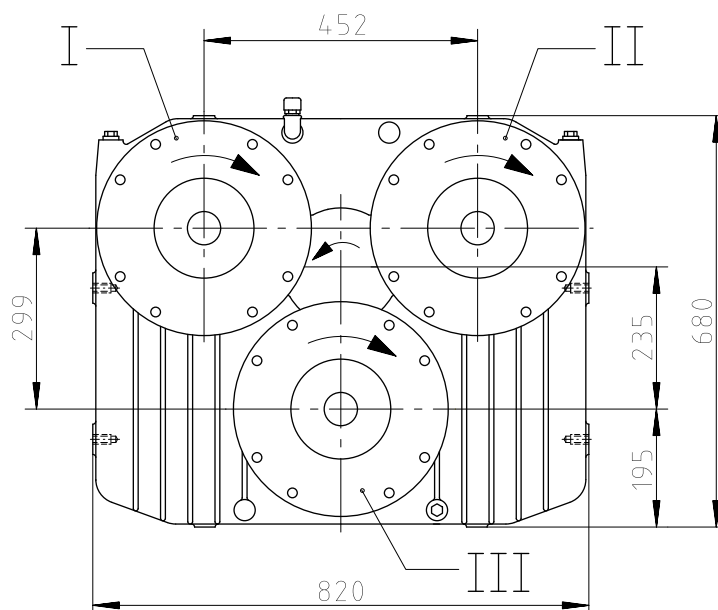
Type 4396

Pump adapter sizes:

SAE B, SAE C, SAE D, SAE E

Housing material:

grey cast iron



Input flange D

150

180

180 cross-tooth

SAE 1800

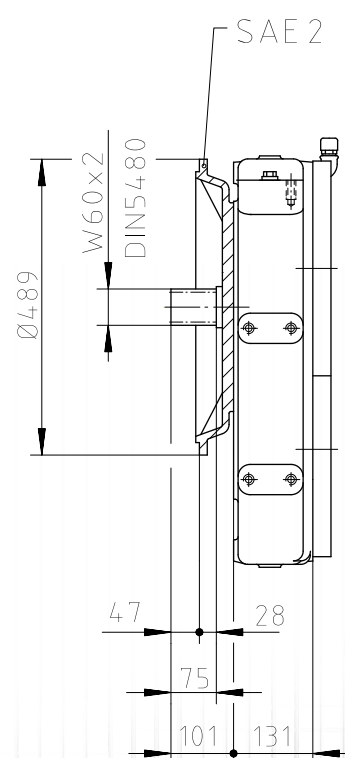
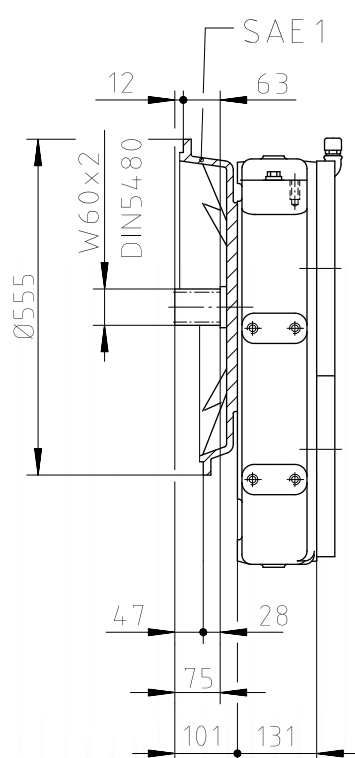
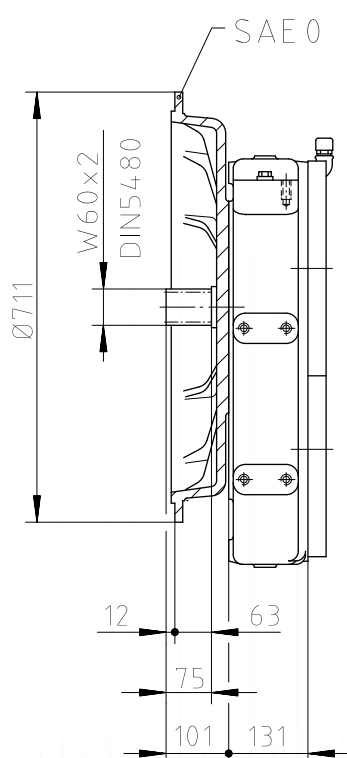
Type 4396

Ratings

Power P	700 kW
Power per pump	360 kW
Max. torque per pump T	1900 Nm
Max. speed n	2800 min ⁻¹
approximate weight	290 kg

i*	0,6607	0,7091	0,7736	0,8431	0,9184	0,9787	1,0217	1,0889	1,1860	1,2927	1,4103	1,5135
J** [kgm ²]	0,4432	0,4417	0,4203	0,4005	0,3818	0,3540	0,3455	0,3466	0,3297	0,3127	0,2958	0,2710

* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.



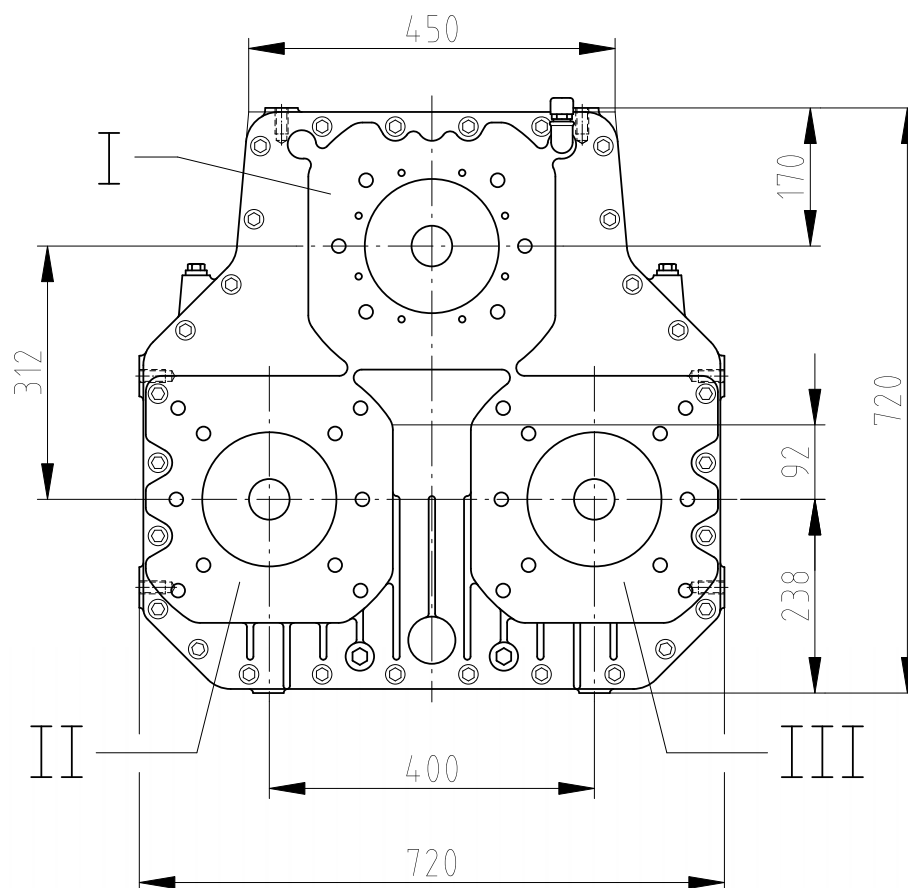
Type 4517

Pump adapter sizes:

SAE D, SAE E

Housing material:

grey cast iron



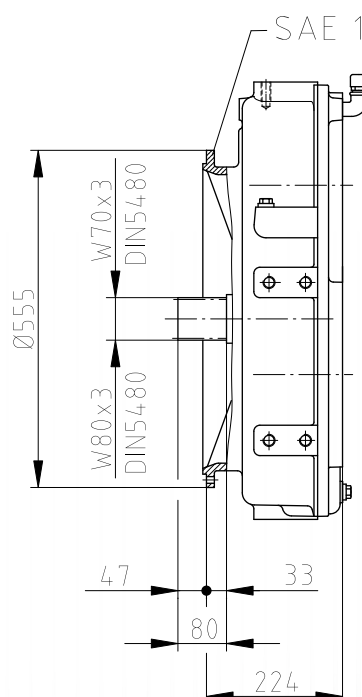
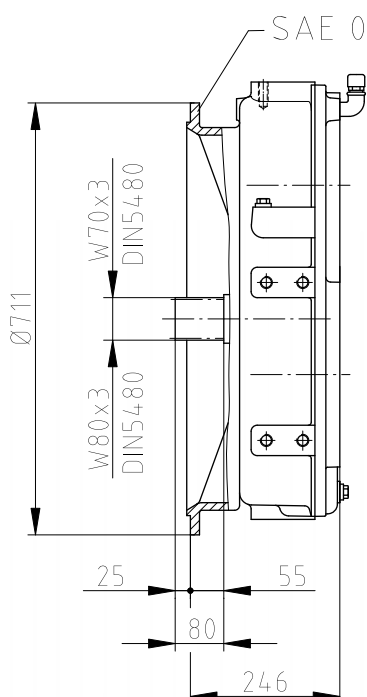
Type 4517

Ratings

Power P	900 kW
Power per pump	460 kW
Max. torque per pump T	2750 Nm
Max. speed n	2500 min ⁻¹
approximate weight	300 kg

i*	0,5536	0,6000	0,6604	0,7255	0,7959	0,8723	0,9555	1,0465
J** [kgm ²]	0,4412	0,4221	0,3934	0,3667	0,3625	0,3642	0,3076	0,2907

* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.



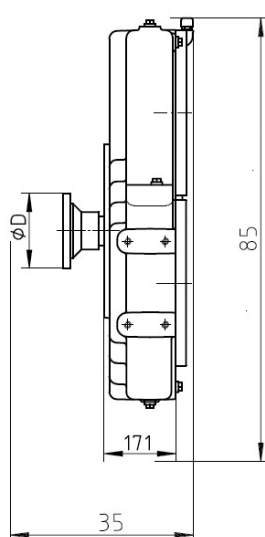
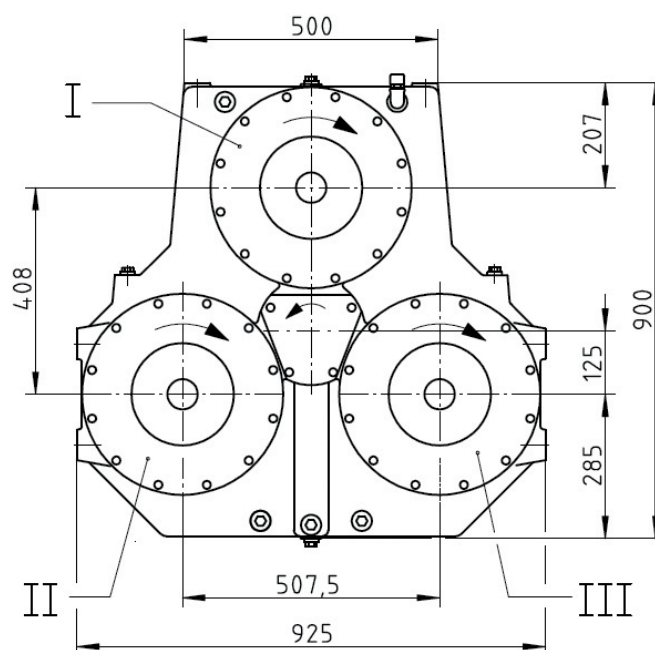
Type 4332

Pump adapter sizes:

SAE C, SAE D, SAE E, SAE F

Housing material:

grey cast iron



Input flange D

150

180

180 cross-tooth

SAE 1800

Type 4332

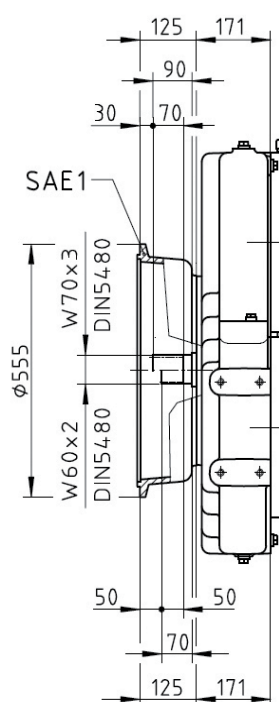
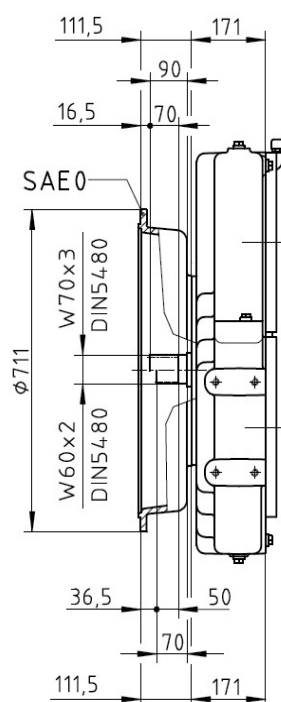
Ratings

Power P	900 kW
Power per pump	460 kW
Max. torque per pump T	2750 Nm
Max. speed n	2500 min ⁻¹
approximate weight	430 kg

i*	0,6716	0,7500	0,8226	0,8833	0,9483	1,0545	1,1321	1,2157	1,3333	1,4889
J** [kgm ²]	1.0723	1,0054	0,9856	0,9471	0,9100	0,8568	0,8220	0,7877	0,7192	0,6687

$$* i = \frac{\text{Input speed}}{\text{Output speed}}$$

** Moment of inertia, referring to input shaft.







Fax to +49 2291 791-298
Stiebel Getriebebau GmbH & Co. KG
Industriestr. 12

D-51545 Waldbröl

Company:

Contact:

Street:

Postcode, Town:

Phone:

Fax:

E-Mail:

Pump drives with 4 pads

Type

Type Input Speed min⁻¹ Pump Speed min⁻¹

Details of application

Machine
Duty Cycle h Ambient temperature from °C to °C
Site of operation

Input

☐ Diesel engine ☐ Other
Power kW at Speed min⁻¹ Control: ☐ hydrostatic
Max. torque Nm at Speed min⁻¹ ☐ through engine speed
☐ Input housing SAE Flywheel size SAE Shaft
☐ Coupling (motor / gearbox)
☐ Cardan flange Diameter mm Term

Output Mounting position I

Pump Manufacturer, type
Flange SAE (2-hole / 4-hole) Drive shaft, profile

Output Mounting position II

Pump Manufacturer, type
Flange SAE (2-hole / 4-hole) Drive shaft, profile

Output Mounting position III

Pump Manufacturer, type
Flange SAE (2-hole / 4-hole) Drive shaft, profile

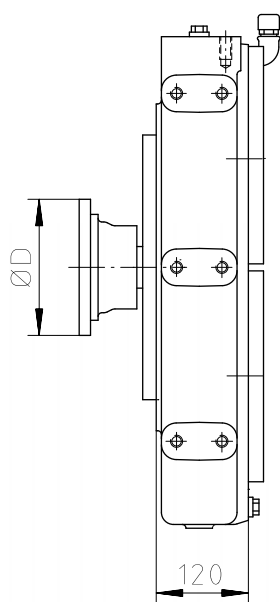
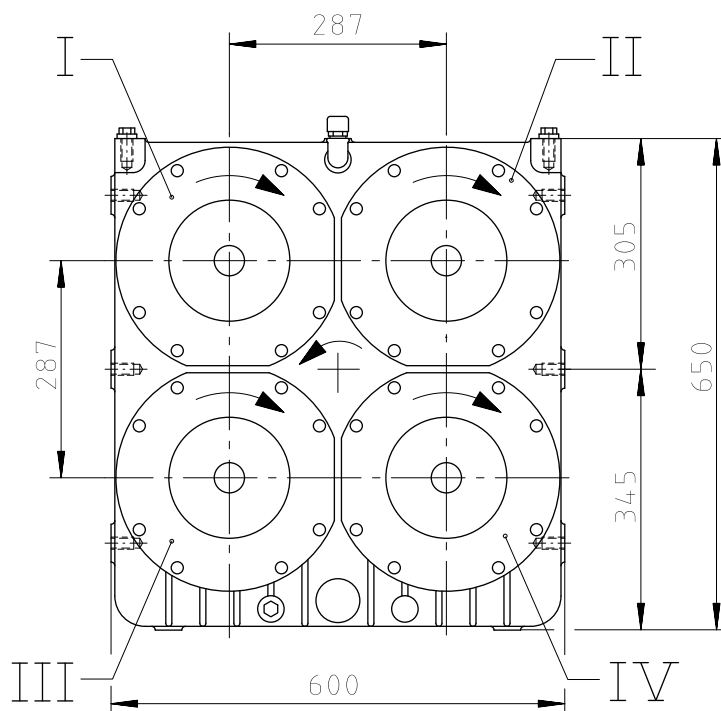
Output Mounting position IV

Pump Manufacturer, type
Flange SAE (2-hole / 4-hole) Drive shaft, profile

Type 4384

Pump adapter sizes:
SAE B, SAE C, SAE D

Housing material:
grey cast iron



Input flange D

150

180

180 cross-tooth

SAE 1800

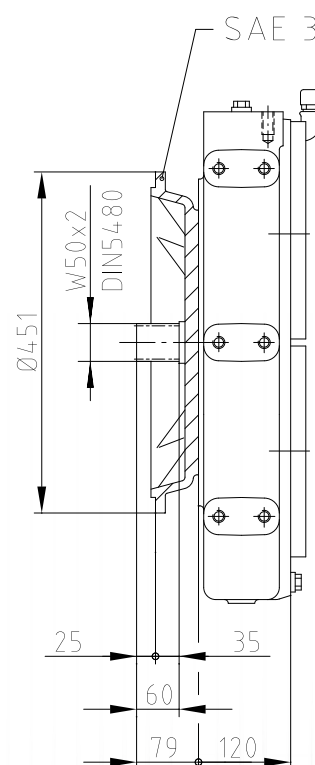
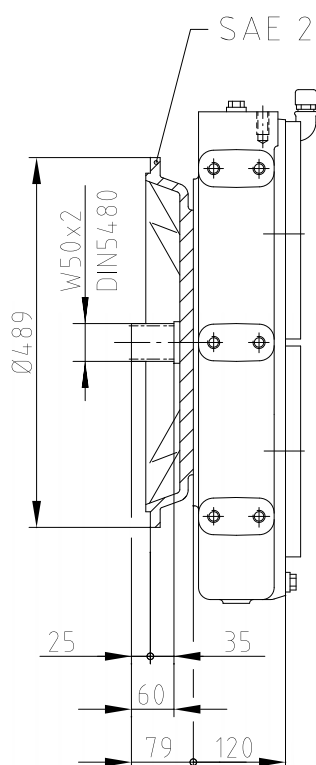
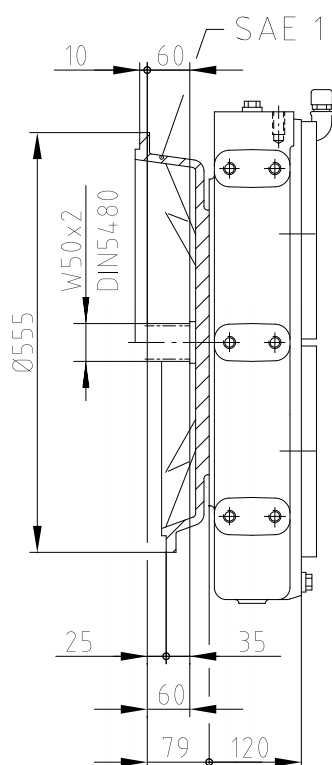
Type 4384

Ratings

Power P	530 kW
Power per pump	280 kW
Max. torque per pump T	1500 Nm
Max. speed n	3000 min ⁻¹
approximate weight	230 kg

i*	0,6572	0,7059	0,7576	0,8125	0,8710	0,9661	1,0351	1,1481	1,2308	1,3200	1,4167	1,5217
J** [kgm ²]	0,2659	0,2577	0,2500	0,2426	0,2354	0,2249	0,2179	0,2073	0,2001	0,1926	0,1850	0,1771

* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.



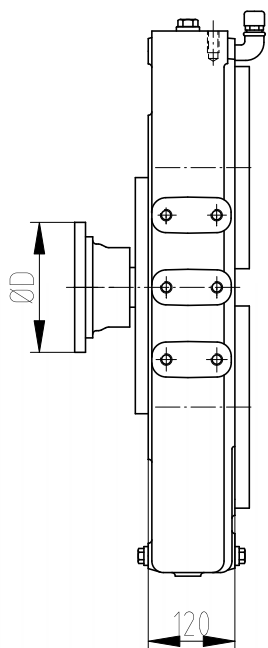
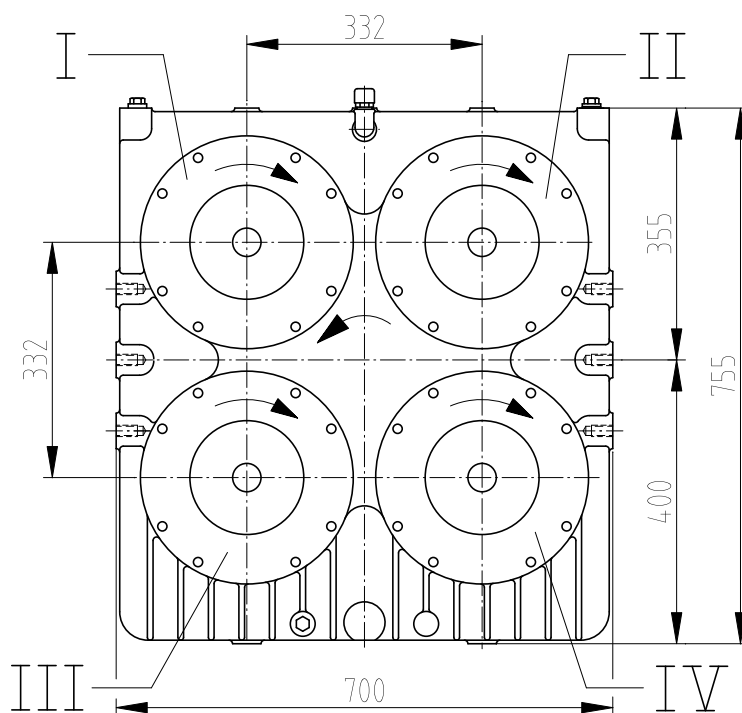
Type 4399

Pump adapter sizes:

SAE B, SAE C, SAE D, SAE E

Housing material:

grey cast iron



Input flange D

150

180

180 cross-tooth

SAE 1800

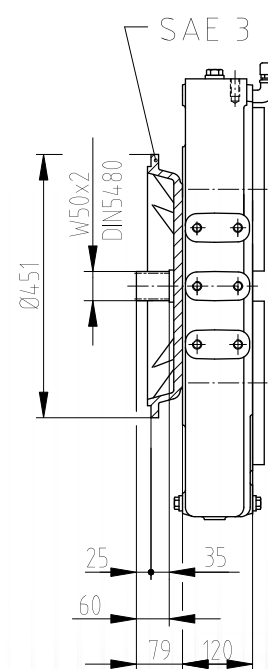
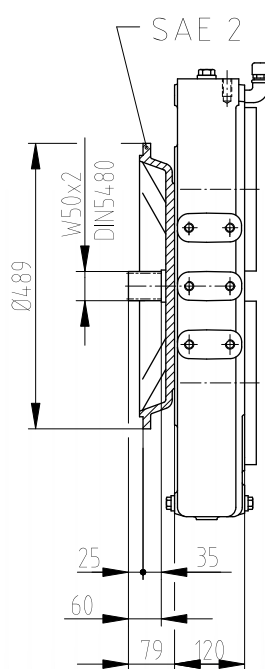
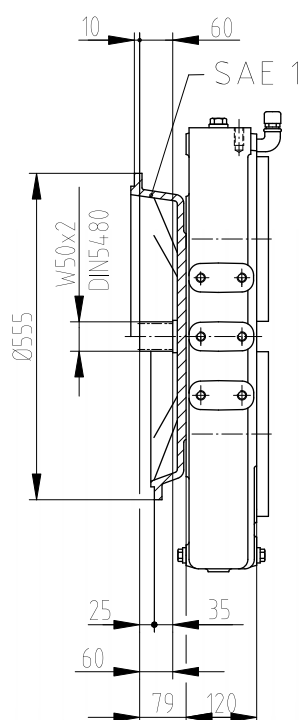
Type 4399

Ratings

Power P	530 kW
Power per pump	280 kW
Max. torque per pump T	1500 Nm
Max. speed n	3000 min ⁻¹
approximate weight	280 kg

i*	0,6750	0,7180	0,7632	0,7867	0,8611	0,9143	0,9706	1,0938
J** [kgm ²]	0,4504	0,4397	0,4294	0,4244	0,4095	0,3987	0,3899	0,3399

* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.



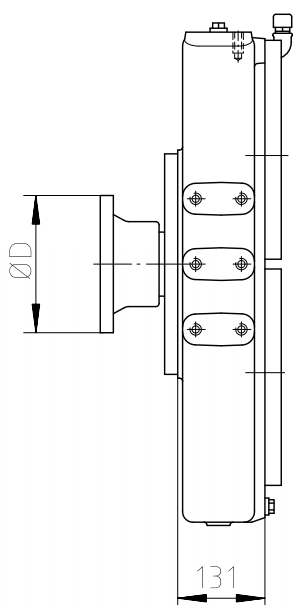
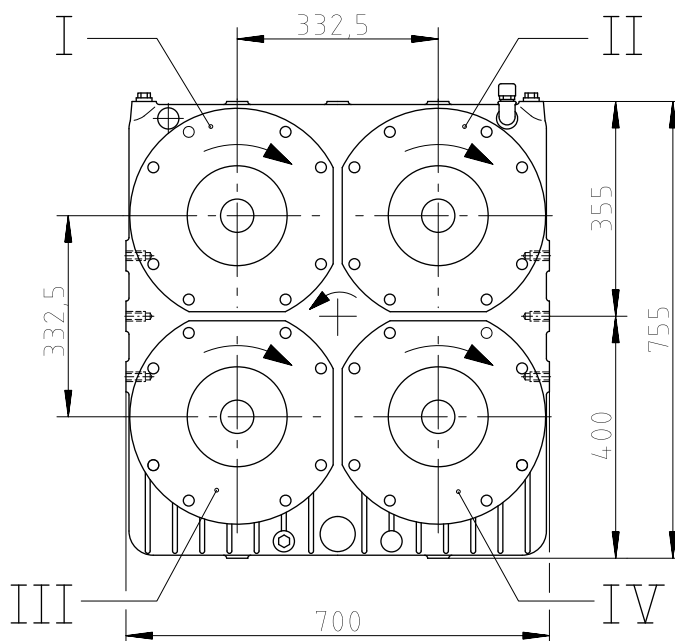
Type 4394

Pump adapter sizes:

SAE B, SAE C, SAE D, SAE E

Housing material:

grey cast iron



Input flange D

150

180

180 cross-tooth

SAE 1800

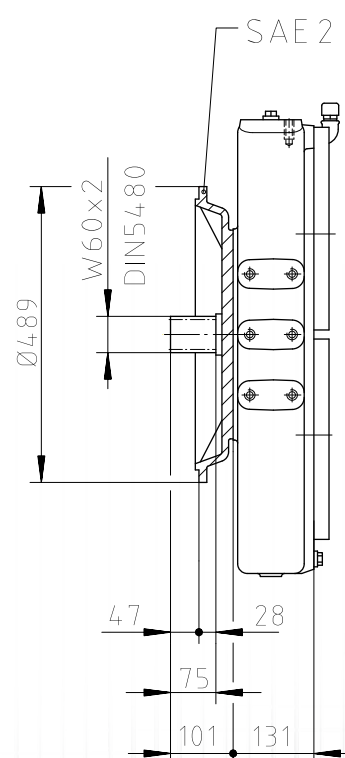
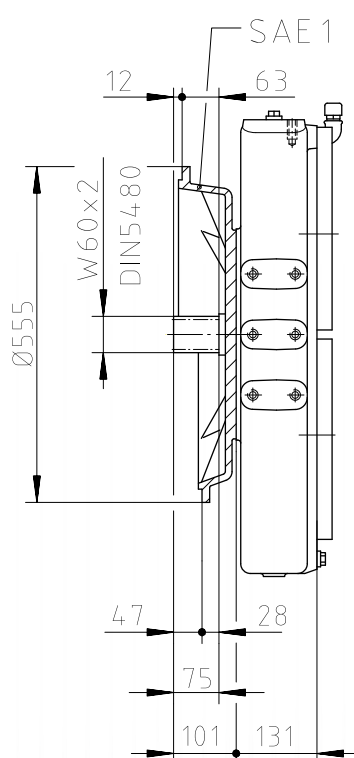
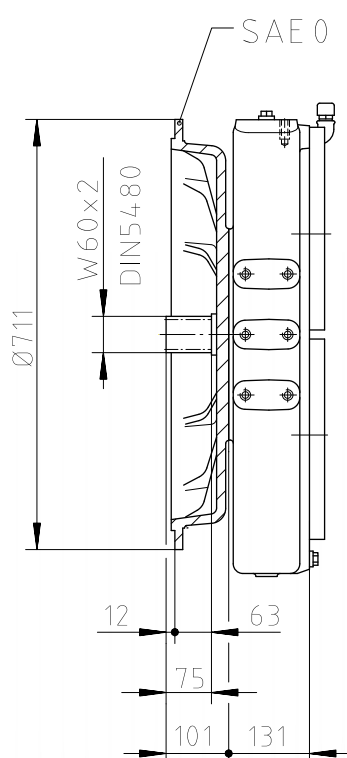
Type 4394

Ratings

Power P	700 kW
Power per pump	360 kW
Max. torque per pump T	1900 Nm
Max. speed n	2800 min ⁻¹
approximate weight	280 kg

i*	0,6607	0,7091	0,7736	0,8431	0,9184	0,9787	1,0217	1,0889	1,1860	1,2927	1,4103	1,5135
J** [kgm ²]	0,5317	0,5337	0,5125	0,4925	0,4734	0,4415	0,4325	0,4361	0,4174	0,3983	0,3787	0,3481

* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.



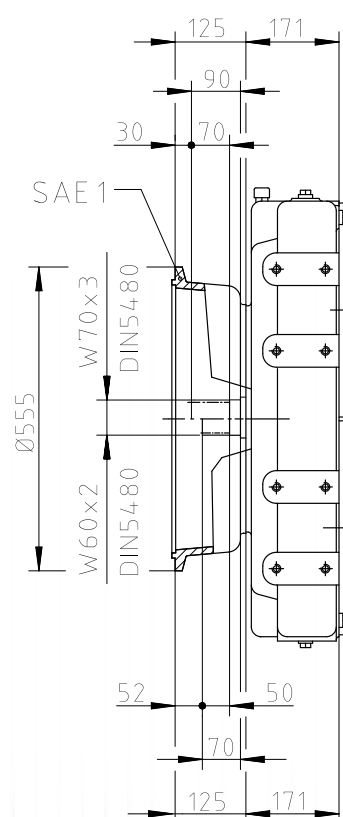
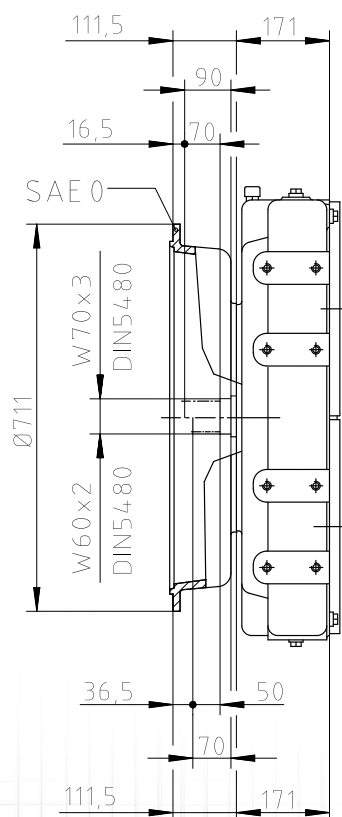
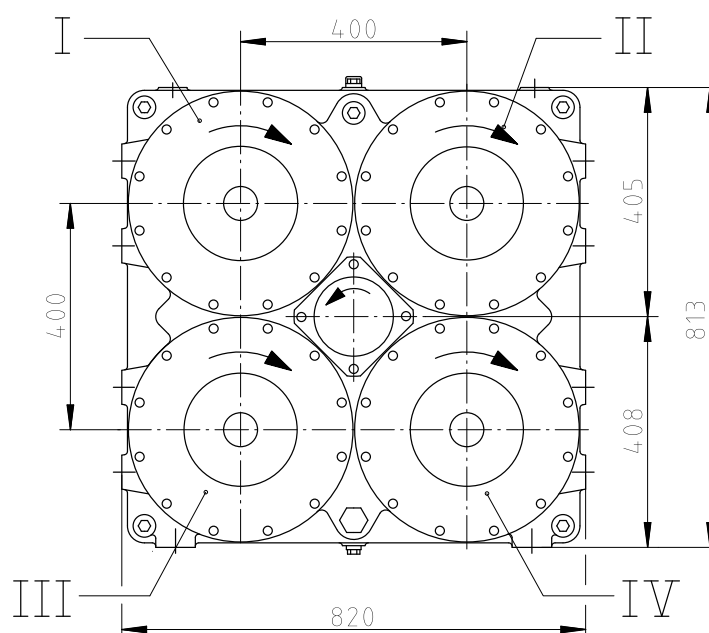
Type 4325 / 4525

Pump adapter sizes:

SAE C, SAE D, SAE E, SAE F

Housing material:

grey cast iron



Type 4325 / 4525

Ratings	Type 4325	Type 4525
Power P	900 kW	750 kW
Power per pump	460 kW	420 kW
Max. torque per pump T	2750 Nm	2300 Nm
Max. speed n	2500 min ⁻¹	2500 min ⁻¹
approximate weight	480 kg	460 kg

Type 4325

i*	0,6716	0,7500	0,8226	0,8833	0,9483	1,0545	1,1321	1,2157	1,3333	1,4889
J** [kgm ²]	1,2892	1,2228	1,2098	1,1707	1,1324	1,0761	1,0382	1,0001	0,9185	0,8593

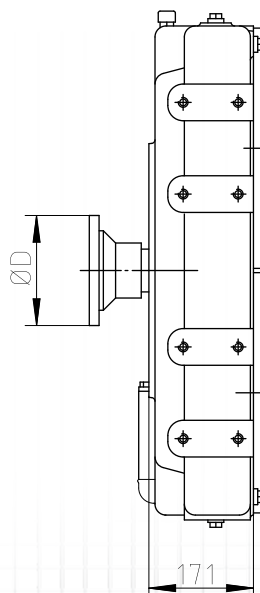
* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.

Type 4525

i*	0,6618	0,7656	0,8833	0,9483
J** [kgm ²]	1,0553	1,0085	0,9583	0,9319

* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.

Input flange D
150
180
180 cross-tooth
SAE 1800







Fax to +49 2291 791-298
Stiebel Getriebebau GmbH & Co. KG
Industriestr. 12

D-51545 Waldbröl

Company: _____

Contact: _____

Street: _____

Postcode, Town: _____

Phone: _____

Fax: _____

E-Mail: _____

Special pump drives

Type

Type Input Speed min⁻¹ Pump Speed min⁻¹

Details of application

Machine
Duty Cycle h Ambient temperature from °C to °C
Site of operation

Input

☐ Diesel engine ☐ Other
Power kW at Speed min⁻¹ Control: ☐ hydrostatic
Max. torque Nm at Speed min⁻¹ ☐ through engine speed
☐ Input housing SAE Flywheel size SAE Shaft
☐ Coupling (motor / gearbox)
☐ Cardan flange Diameter mm Term

Mounting position	Pump Manufacturer, type	Pump capacity P [kW]	Pump Speed n [min ⁻¹]

Type 4406

Different pump speeds

Pump adapter sizes:
SAE B, SAE C, SAE D

Housing material:
aluminium

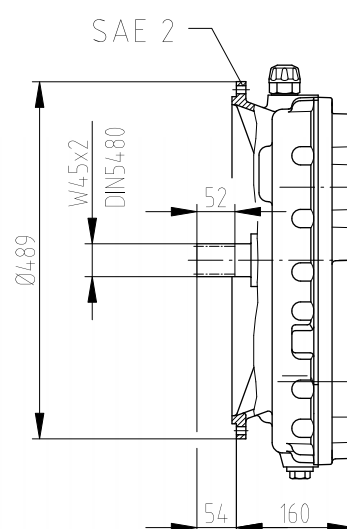
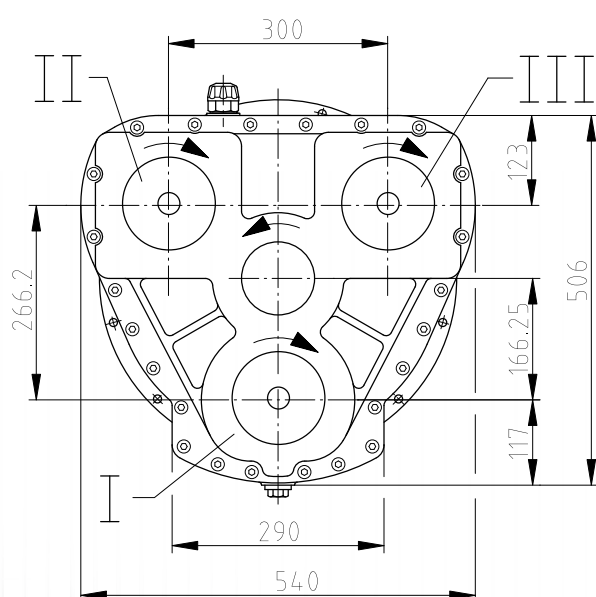
Ratings

Power P	246 kW
Power per pump	165 kW (I); 165 kW (II, III)
Max. torque per pump T	850 Nm (I); 1000 Nm (II, III)
Max. speed n	3500 min ⁻¹
approximate weight	57 kg

i*	$i_1=0,610$; $i_2=0,746$	$i_1=0,741$; $i_2=0,907$
J** [kgm ²]	0,1291	0,1161

* $i = \frac{\text{Input speed}}{\text{Output speed}}$

** Moment of inertia, referring to input shaft.

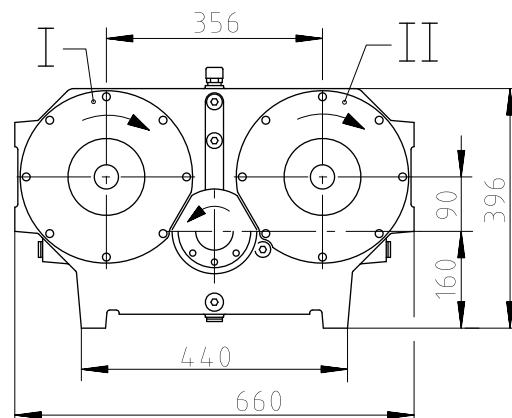


Type 4561

Both side pump mounting

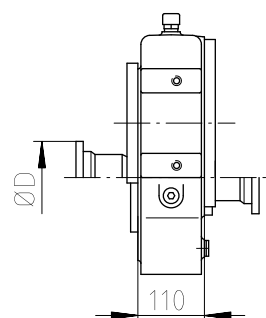
Ratings

Power P	530 kW
Power per pump	280 kW
Max. torque per pump T	1500 Nm
Max. speed n	3000 min ⁻¹
approximate weight	150 kg



Input flange D

120
150

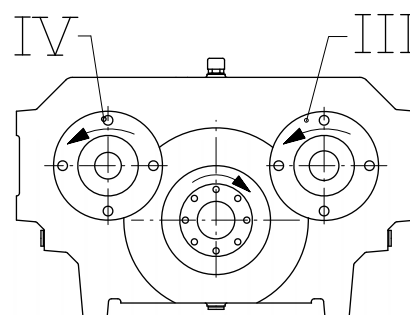


Pump adapter sizes:

SAE B, SAE C, SAE D, SAE E

Housing material:

grey cast iron

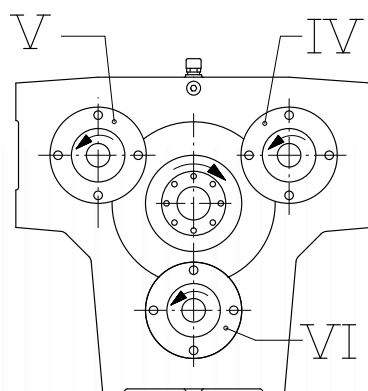
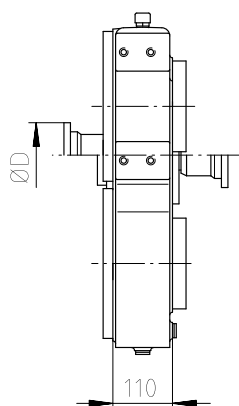
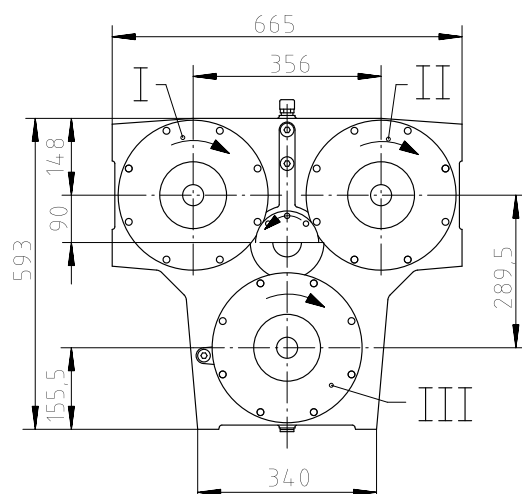


i*	0,6765	0,7272	0,7813	0,8387	0,9000	0,9655	1,0357	1,1111	1,1923	1,2800	1,3750	1,4783
J** [kgm ²]	on request											

* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.

Type 4572

Both side pump mounting



Ratings

Power P	530 kW
Power per pump	280 kW
Max. torque per pump T	1500 Nm
Max. speed n	3000 min ⁻¹
approximate weight	210 kg

Input flange D

120

150

Pump adapter sizes:

SAE A, SAE B, SAE C, SAE D, SAE E

Housing material:

grey cast iron

i*	0,6765	0,7272	0,7813	0,8387	0,9000	0,9655	1,0357	1,1111	1,1923	1,2800	1,3750	1,4783
J** [kgm ²]	on request											

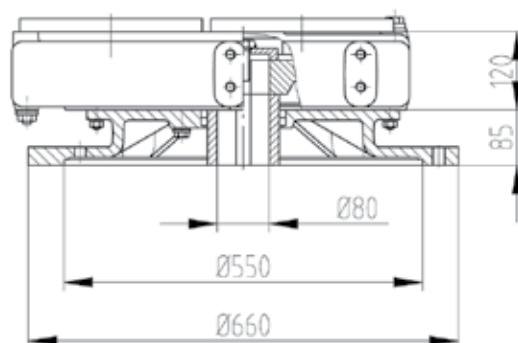
* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.

Type 4387

Input: Electric motor

Ratings

Power P	330 kW
Power per pump	250 kW
Max. torque per pump T	1100 Nm
Max. speed n	2500 min ⁻¹
approximate weight	215 kg

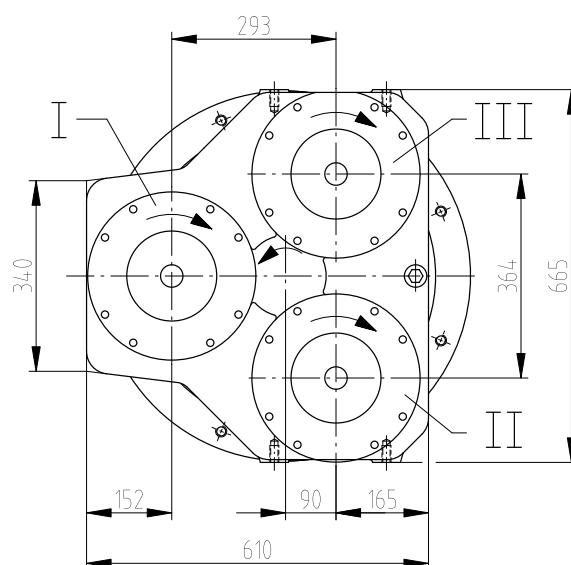


Pump adapter sizes:

SAE B, SAE C, SAE D, SAE E

Housing material:

grey cast iron



i*	0,6056	0,7313	0,8710	0,9333
J** [kgm ²]	0,2287	0,2195	0,1980	0,1934

* i = $\frac{\text{Input speed}}{\text{Output speed}}$

** Moment of inertia, referring to input shaft.

Type 4584

Pump adapter sizes:
SAE B, SAE C, SAE D, SAE E

Housing material:
grey cast iron

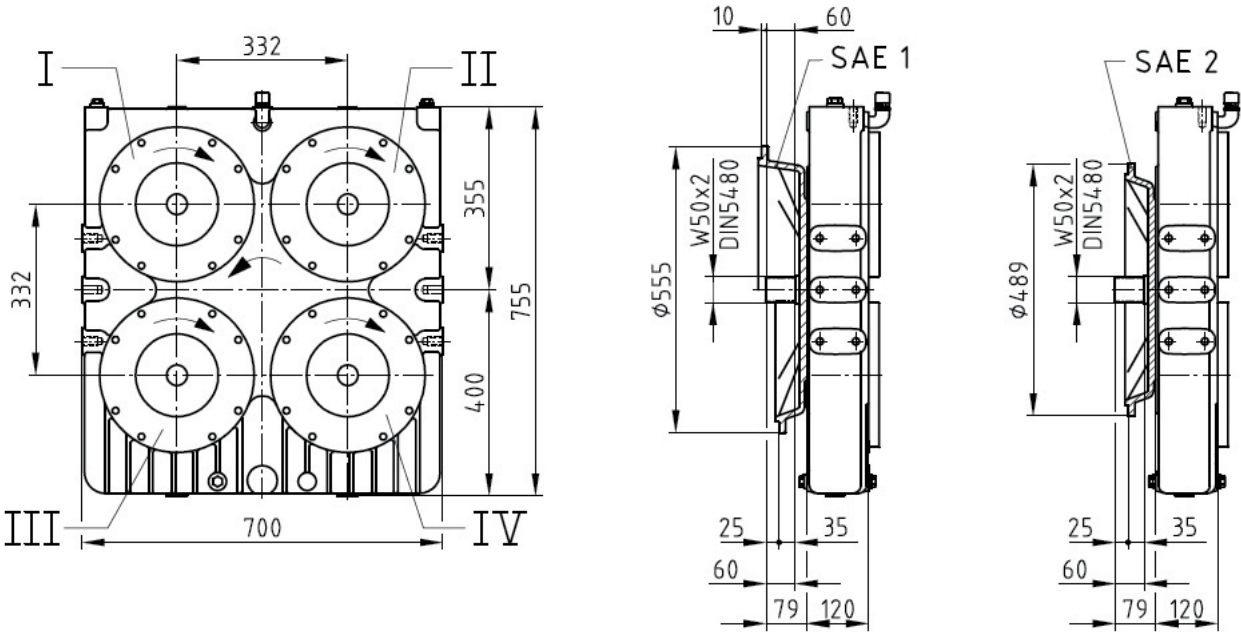
Ratings

Power P	530 kW
Power per pump	235 kW
Max. torque per pump T	1250 Nm
Max. speed n	3000 min ⁻¹
approximate weight	200 kg

i*	0,506	0,523	0,558	0,595	0,634
J** [kgm ²]	on request				

* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.

0,558



Type 4389

Different pump speeds

Ratings	
Power P	380 kW
Power per pump	210 kW
Max. torque per pump T	1100 Nm
Max. speed n	3000 min ⁻¹
approximate weight	111 kg

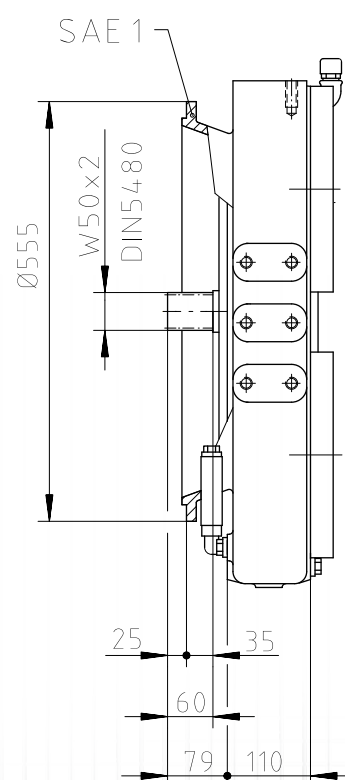
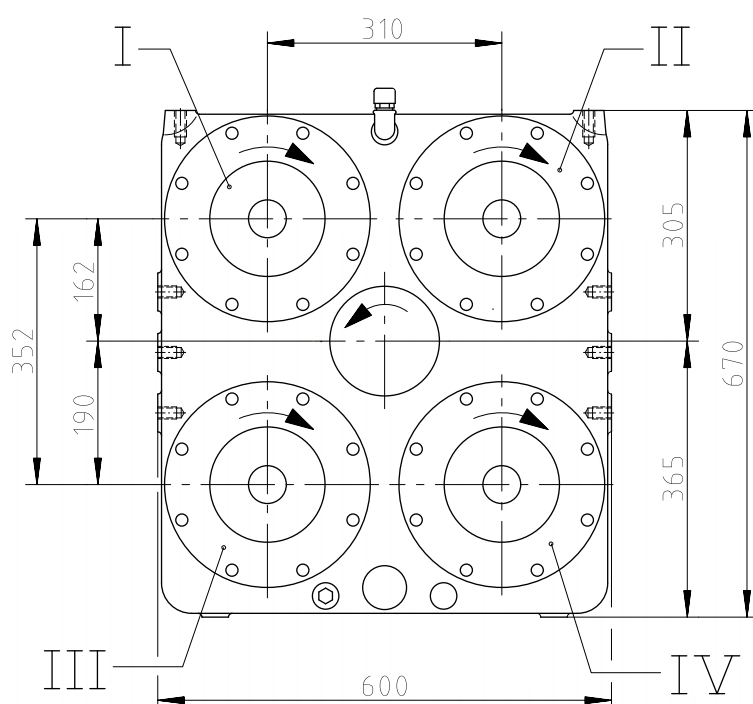
Pump adapter sizes:
SAE B, SAE C, SAE D

Housing material:
aluminium

i*	$i_1=0,6000; i_2=0,7500$
J** [kgm ²]	0,4533

$$* i = \frac{\text{Input speed}}{\text{Output speed}}$$

** Moment of inertia, referring to input shaft.



Type 4395

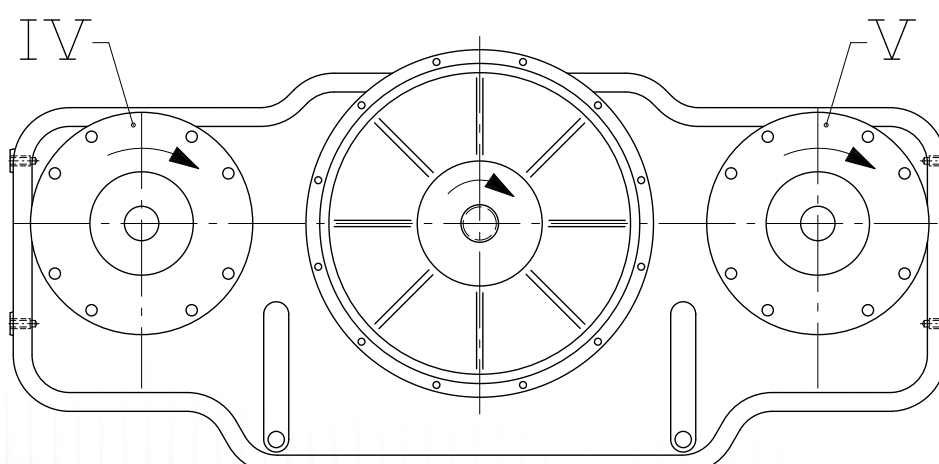
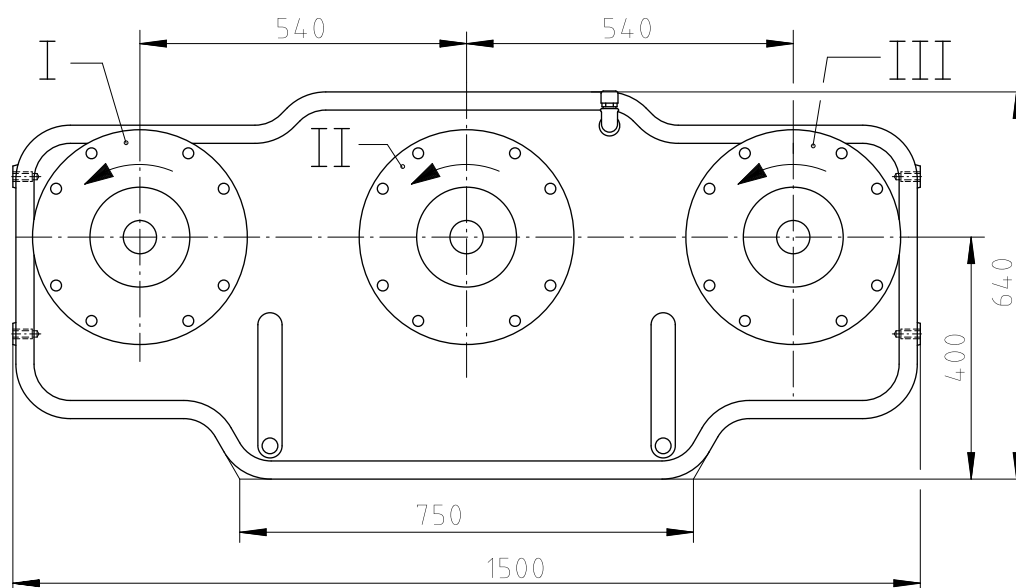
Both side pump mounting with intermediate gears

Pump adapter sizes:

SAE B, SAE C, SAE D, SAE E

Housing material:

grey cast iron



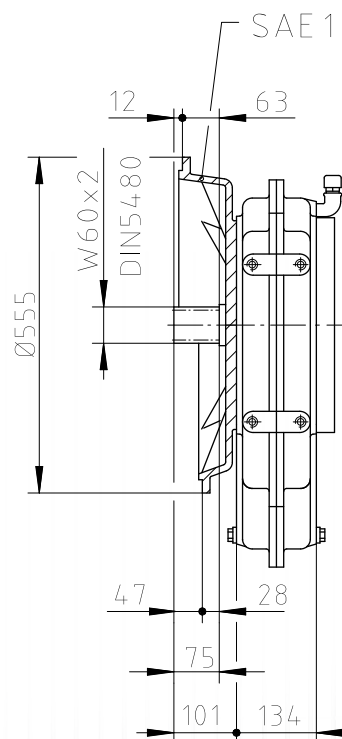
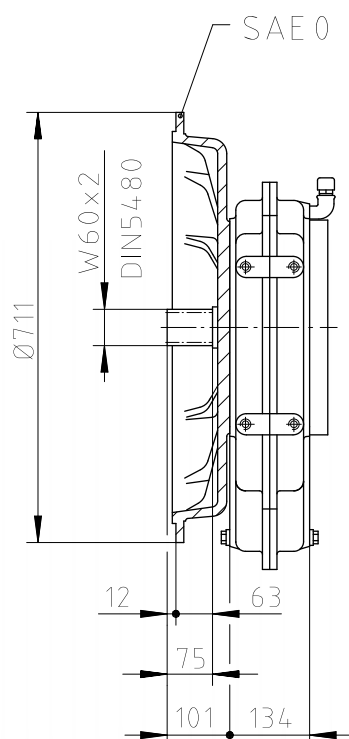
Type 4395

Both side pump mounting with intermediate gears

Ratings	
Power P	700 kW
Power per pump	360 kW
Max. torque per pump T	1900 Nm
Max. speed n	2800 min ⁻¹
approximate weight	380 kg

i*	0,672	0,8197	0,925
J** [kgm ²]	on request		

* i = $\frac{\text{Input speed}}{\text{Output speed}}$ ** Moment of inertia, referring to input shaft.

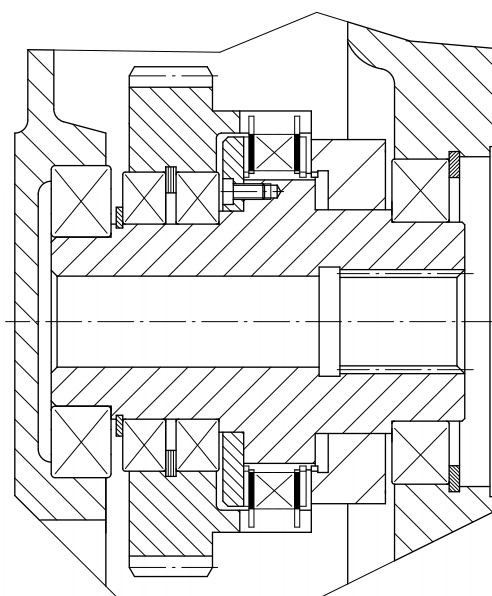
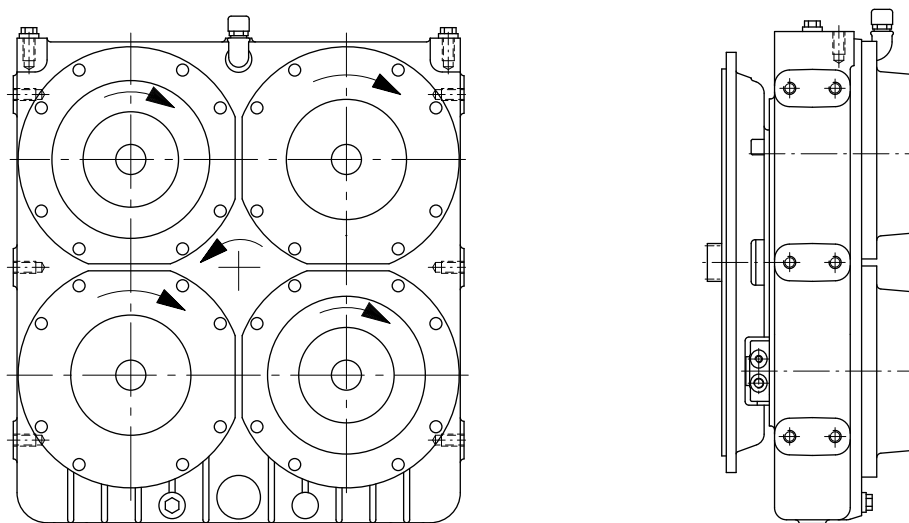




Pump disconnect

Hydraulic forced, power shiftable, 800 Nm

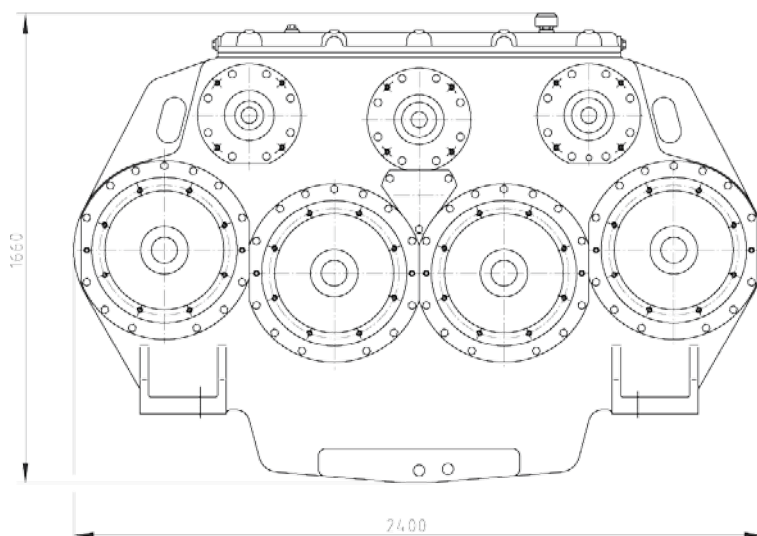
Series 438x



XXXL

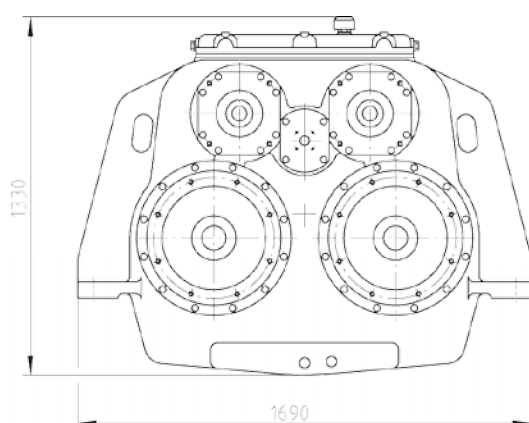


These high-performance drives are designed and made to suit our client's specific requirements. The following examples show some of the possibilities as a proposal for your drive concept and are proof of our company's efficiency.

XXXL


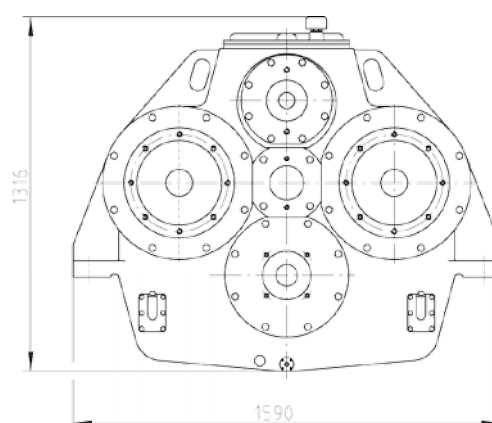
Motor power 1600 kW

Main pumps 4 x 1000 cm³



Motor power 1000 kW

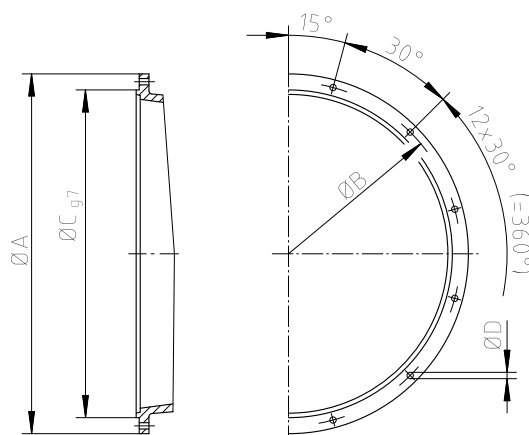
Main pumps 2 x 1000 cm³



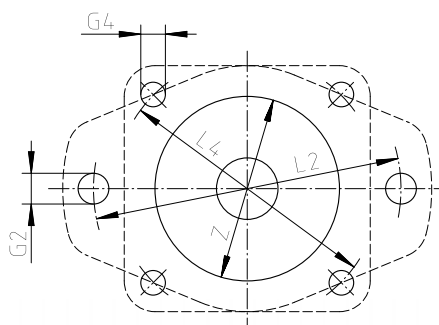
Motor power 800 kW

Main pumps 2 x 500 cm³

Dimensions

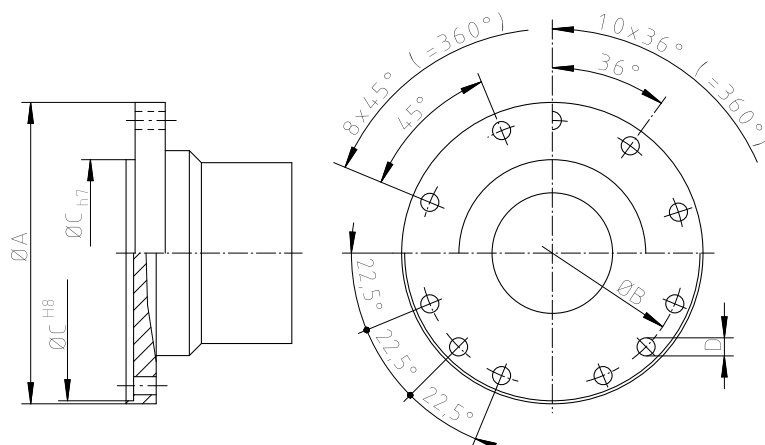


SAE flanges				
	A mm (inch)	B mm (inch)	C mm (inch)	D mm (inch)
SAE 0	711 (28)	679,5 (26,75)	647,5 (25,5)	13 (0,51)
SAE 1	555 (21,85)	530,2 (20,87)	511,17 (20,12)	11 (0,43)
SAE 2	489 (19,25)	466,7 (18,37)	447,70 (18,8)	11 (0,43)
SAE 3	451 (17,25)	428,6 (16,87)	409,58 (16,12)	11 (0,43)



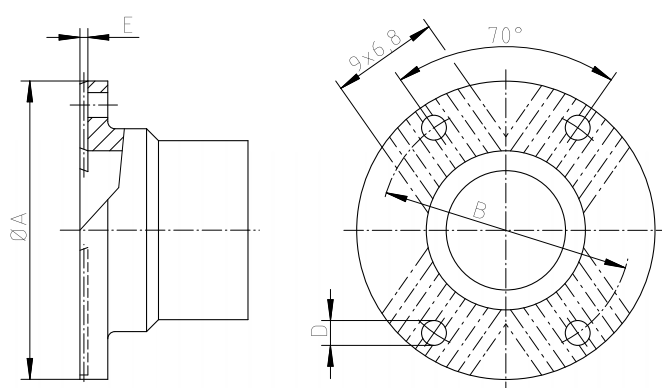
SAE Pump adapter sizes					
	G2 mm (inch)	L2 mm (inch)	G4 mm (inch)	L4 mm (inch)	Z mm (inch)
SAE A	11,13 (0,438)	106,4 (4,188)	–	–	82,55 (3,25)
SAE B	14,27 (0,562)	146 (5,75)	14,27 (0,562)	127 (5)	101,6 (4)
SAE C	17,27 (0,68)	181 (7,125)	14,27 (0,562)	162 (6,375)	127 (5)
SAE D	20,62 (0,812)	228,6 (9)	20,62 (0,812)	228,6 (9)	152,4 (6)
SAE E	26,97 (1,062)	317,5 (12,5)	20,62 (0,812)	317,5 (12,5)	165,1 (6,5)
SAE F	26,97 (1,062)	350 (13,781)	26,97 (1,062)	350 (13,781)	177,8 (7)

Dimensions



Cardan flanges

	A mm (inch)	B mm (inch)	C mm (inch)	D mm (inch)
120	120 (4,724)	101,5 (4)	75 (2,953)	8 x 10,5 (0,413)
150	150 (5,905)	130 (5,118)	90 (2,953)	8 x 12,5 (0,492)
180	180 (7,087)	155,5 (6,122)	110 (4,33)	8 x 14,5 (0,571)
180	180 (7,087)	155,5 (6,122)	110 (4,33)	10 x 16,5 (0,65)
225	225 (8,858)	196 (7,716)	140 (5,512)	8 x 16,5 (0,65)
SAE 1800	203,2 (8)	184,15 (7,25)	196,78 (7,75)	12 x 10,5 (0,413)



Cardan flange cross-tooth

	A mm (inch)	B mm (inch)	D mm (inch)	E mm (inch)
180	180 (7,087)	150 (5,905)	15 (0,59)	3,5 (0,138)
SAE 1	555 (21,85)	530,2 (20,87)	511,17 (20,12)	11 (0,43)

Lubricants

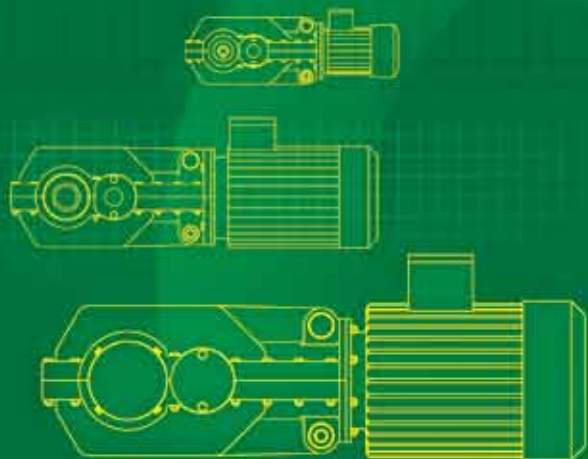
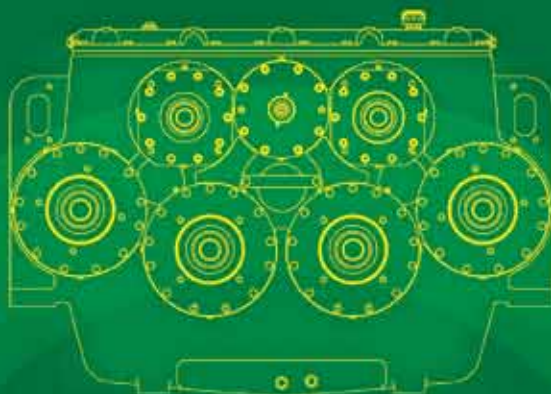
- The lubricating oils must comply with the minimum requirements of DIN 51517, Part 3 and / or ISO / DP 6743-6 for mineral lubricating oils CLP or higher. The ISO viscosity classification corresponds to DIN 51519 and ISO 3448. The following gear oil can also be used: viscosity class SAE 90 EP and SAE 85W-90 EP according to SAE J 306, if it fulfils the classification API GL-4, API GL-5 or MIL-L-2105 D. Ambient temperature -10 °C to +40 °C.
- The choice of synthetic lubricating oils results from the special operating conditions of the gear, for example the ambient temperature. The oil temperature at work is significant. The lubricant oil producers therefore recommend the products listed in the following table.
- As a rule STIEBEL power take-off gears are operated with mineral oil. Here, it must be ensured that the oil temperature does not exceed 95 °C, otherwise synthetic oil (max. temperature = 120 °C) is to be used. Oil temperatures exceeding 120 °C are inadmissible; if necessary, the oil has to be cooled.
- Quantity of lubricant
The amount of oil to be poured in is indicated on the nameplate. However, the decisive factor is a check of the oil level with dipstick or by unscrew the oil overflow screw. The oil level is to be checked after about 15 or 30 minutes running time and necessary, filled up.
- Lubricant change
The first oil change should be performed after 200 hours of operation unless special regulations apply. All subsequent changes should be performed after 2000 hours of operation but at the latest after 12 month.
- For further information please look at the operating instructions which are added to each pump drive.



Lubricant type	Mineral oil	Synthetic oil
	CLP DIN 51517-3	CLP HC DIN 51517-3
Kinem. viscosity in cSt at 40°C mm²/s	220	150
Ambient temperature [°C]	-10 to 40	-35 to 80
BANTLEON	GEAR RSX 220	Syntogear PE 150 AVILUB GEAR PAO 150
	Agip Blasias 220	–
	Alpha SP 220 Tribol 1100/220	Alphasyn EP 150 Alphasyn T 150 Optigear Synthetic X 150
ExxonMobil	Mobilgear XMP 220 Mobilgear 600 XP 220	Mobilgear SHC XMP 150 Mobilgear SHC 150
	Renolin CLP 220 Renolin CLP 220 Plus	Renolin Unisyn CLP 150
	Klüberoil GEM 1-220 N	Klübersynth GEM-4-150 N
	STEELO 220	–
	Omala 220	Omala HD 150
	CARTER EP 220	CARTER SH 150

Special Gear Units

Custom-made Drive Solutions

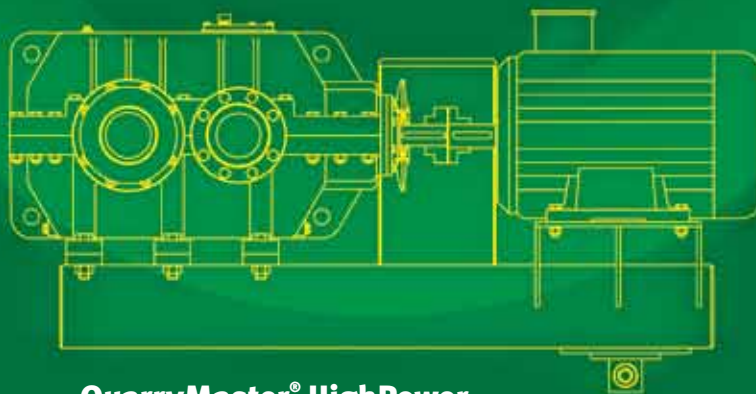


P 2000

Pump Drives

QuarryMaster®

Helical-bevel Geared Motors



QuarryMaster® HighPower

Drive Groups



Stiebel Getriebebau GmbH & Co. KG

Industriestraße 12

D-51545 Waldbröl

Phone +49 2291 791-0

Telefax +49 2291 791-290

Internet: www.stiebel.de

E-Mail: p2000@stiebel.de