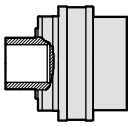
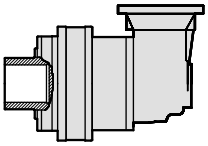
Size 080 - 18000 Nm

ST-080 Technical data



Stages	Ratio	$T_{2N(1.2M)}$ (1)	$T_{2N(6M)}$ (1)	T_{2Peak} (2)	n_{1N} (3)	n_{1Max} (4)	P_t (5)	η
	i	(Nm)	(Nm)	(Nm)	(rpm)	(rpm)	(kW)	(%)
2	13.0	18020	13570	36040	1500	2800	25	96
	15.8	18020	13570	36040	1500	2800	25	96
	19.0	15700	11830	31400	1500	2800	25	96
	21.4	15700	11830	31400	1500	2800	25	96
	24.9	15700	11830	31400	1500	2800	25	96
	30.0	15700	11830	31400	1500	2800	25	96
	39.2	12010	9050	24020	1500	2800	25	96
	47.3	9130	6880	18260	1500	2800	25	96
3	49.3	18020	13570	36040	1500	2800	17	94
	53.8	18020	13570	36040	1500	2800	17	94
	59.5	18020	13570	36040	1500	2800	17	94
	65.0	18020	13570	36040	1500	2800	17	94
	67.4	18020	13570	36040	1500	2800	17	94
	73.3	18020	13570	36040	1500	2800	17	94
	81.3	18020	13570	36040	1500	2800	17	94
	88.4	15700	11830	31400	1500	2800	17	94
	94.5	18020	13570	36040	1500	2800	17	94
	98.0	15700	11830	31400	1500	2800	17	94
	106.7	18020	13570	36040	1500	2800	17	94
	114.2	18020	13570	36040	1500	2800	17	94
	128.9	18020	13570	36040	1500	2800	17	94
	149.1	15700	11830	31400	1500	2800	17	94
	155.3	15700	11830	31400	1500	2800	17	94
	180.2	15700	11830	31400	1500	2800	17	94
	194.9	12010	9050	24020	1500	2800	17	94
	217.5	15700	11830	31400	1500	2800	17	94
4	175.1	18020	13570	36040	1500	2800	13	92
	191.2	18020	13570	36040	1500	2800	13	92
	238.8	18020	13570	36040	1500	2800	13	92
	287.8	18020	13570	36040	1500	2800	13	92
	301.2	18020	13570	36040	1500	2800	13	92
	348.6	18020	13570	36040	1500	2800	13	92
	363.0	18020	13570	36040	1500	2800	13	92
	377.2	18020	13570	36040	1500	2800	13	92
	393.6	18020	13570	36040	1500	2800	13	92
	438.4	18020	13570	36040	1500	2800	13	92
	489.2	18020	13570	36040	1500	2800	13	92
	549.1	18020	13570	36040	1500	2800	13	92
	582.1	18020	13570	36040	1500	2800	13	92
	620.0	18020	13570	36040	1500	2800	13	92
	677.9	18020	13570	36040	1500	2800	13	92
	720.0	18020	13570	36040	1500	2800	13	92
	770.6	18020	13570	36040	1500	2800	13	92
	818.8	18020	13570	36040	1500	2800	13	92
	849.7	15700	11830	31400	1500	2800	13	92
	928.7	15700	11830	31400	1500	2800	13	92
	987.2	15700	11830	31400	1500	2800	13	92
	1112.9	15700	11830	31400	1500	2800	13	92
	1216.2	15700	11830	31400	1500	2800	13	92

SX-080 Technical data



Stages	Ratio	$T_{2N(1.2M)}$ (1)	$T_{2N(6M)}$ (1)	T_{2Peak} (2)	n_{1N} (3)	n_{1Max} (4)	P_t (5)	η
	i	(Nm)	(Nm)	(Nm)	(rpm)	(rpm)	(kW)	(%)
3	40.3	18020	13570	36040	1500	2800	17	94
	54.9	18020	13570	36040	1500	2800	17	94
	60.3	18020	13570	36040	1500	2800	17	94
	72.8	18020	13570	36040	1500	2800	17	94
	76.8	15700	11830	31400	1500	2800	17	94
	82.2	18020	13570	36040	1500	2800	17	94
	99.1	15700	11830	31400	1500	2800	17	94
	115.0	15700	11830	31400	1500	2800	17	94
	121.1	12010	9050	24020	1500	2800	17	94
	138.7	15700	11830	31400	1500	2800	17	94
	146.0	9130	6880	18260	1500	2800	17	94
	150.2	12010	9050	24020	1500	2800	17	94
	181.3	12010	9050	24020	1500	2800	17	94
	218.5	9130	6880	36040	1500	2800	17	94
4	144.3	18020	13570	36040	1500	2800	13	92
	157.6	18020	13570	36040	1500	2800	13	92
	174.3	18020	13570	36040	1500	2800	13	92
	190.3	18020	13570	36040	1500	2800	13	92
	214.9	18020	13570	36040	1500	2800	13	92
	238.4	18020	13570	36040	1500	2800	13	92
	276.8	18020	13570	36040	1500	2800	13	92
	300.4	15700	11830	31400	1500	2800	13	92
	333.8	15700	11830	31400	1500	2800	13	92
	362.5	15700	11830	31400	1500	2800	13	92
	376.2	15700	11830	31400	1500	2800	13	92
	403.1	15700	11830	31400	1500	2800	13	92
	455.1	15700	11830	31400	1500	2800	13	92
	492.2	12010	9050	24020	1500	2800	13	92
	527.9	15700	11830	31400	1500	2800	13	92
	594.8	12010	9050	24020	1500	2800	13	92
	637.2	15700	11830	31400	1500	2800	13	92
	690.0	12010	9050	24020	1500	2800	13	92
	715.3	9130	6880	18260	1500	2800	13	92
	832.7	12010	9050	24020	1500	2800	13	92
	1003.7	9130	6880	18260	1500	2800	13	92

(1) T_{2N} values are calculated at $n_1=n_{1n}$, continuous duty cycle, uniform operation and KA=1 according to ISO 6336. $T_{2N(1.2M)}$ has been calculated for 1200000 of revolutions at the output shaft, and $T_{2N(6M)}$ has been calculated for 6000000 of revolutions at the output shaft. The application factor f_s must be considered for each duty cycle and machine type.

(2) T_{2Peak} is the maximum output torque the gearbox can tolerate during startups, inversions or other peaks. This value should never be used for continuous operation or for intermittent operation with frequent accelerations.

(3) n_{1n} is the rated input speed for continuous operation

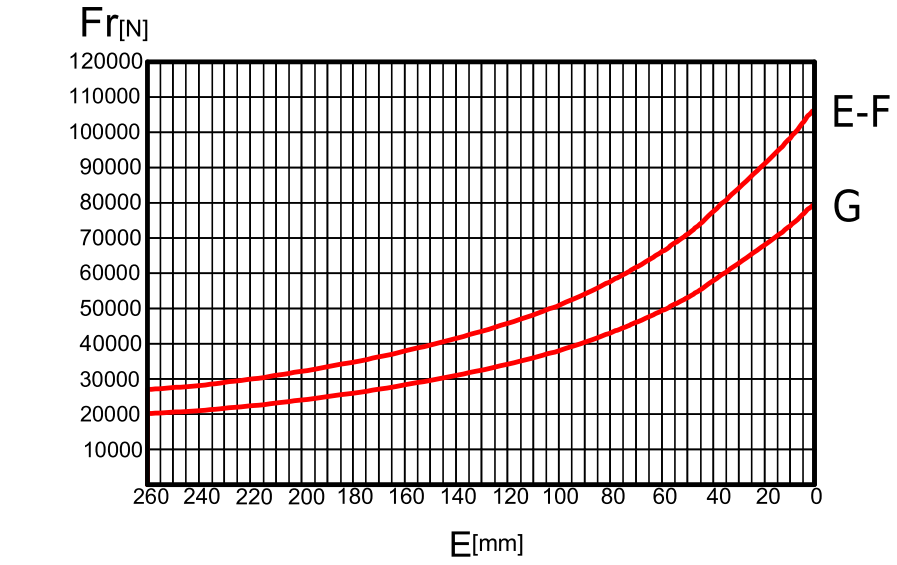
(4) n_{1max} is the maximum input speed for intermittent service. For continuous operation at speeds over n1n please inquire.

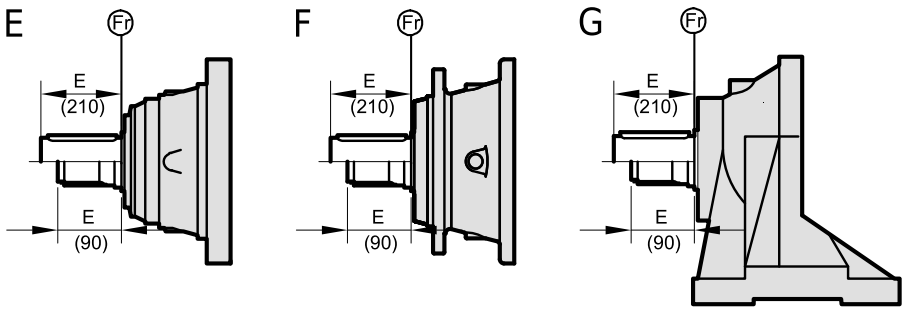
(5) Pt is the thermal power rating, that is the power in kW that, at 20°C, the gearbox can transmit during continuous operation, at $n_1=n_{1n}$ and lubricated with ISO-VG-220 oil without it exceeding 90°C. It depends on ambient temperature.

Output Shaft Radial Load Capacity

Radial Load Capacity is only given for gearboxes with solid shafts (Smooth Solid Shaft with Key (P) and DIN 5480 Splined Shaft (W)) for a design life of 6 million revolutions of the output shaft ($6 \cdot 10^6$). These values can be adjusted for other number of revolutions of the output shaft applying the Output Bearing Lifetime Factor (f_{obl})

Radial Load capacity depends on gearbox version and application point. Find the value for your machine using this chart.





Output Shaft Axial Load Capacity

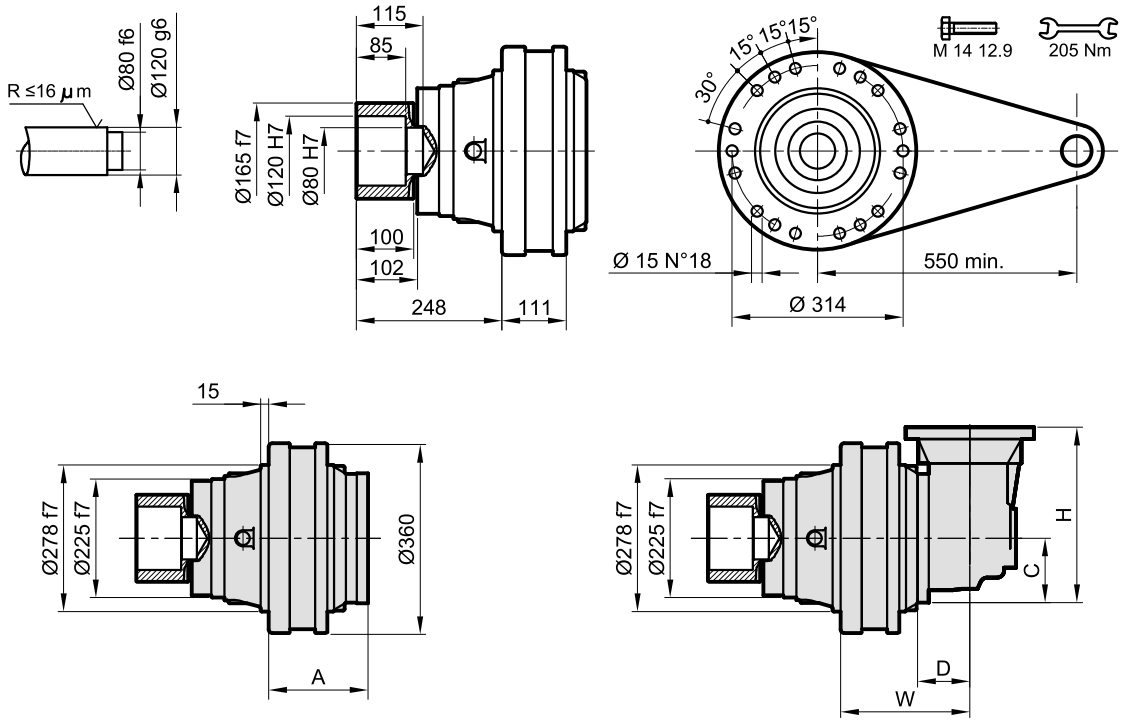
Axial Load Capacity is only given for gearboxes with solid shafts (Smooth Solid Shaft with Key (P) and DIN 5480 Splined Shaft (W)) for a design life of 6 million revolutions of the output shaft ($6 \cdot 10^6$). These values can be adjusted for other number of revolutions of the output shaft applying the Output Bearing Lifetime Factor (f_{obl})

Axial Load Capacity depends on the direction of the load:

	Push	Pull
$\mathbf{F_a}$	65000 N	45000 N

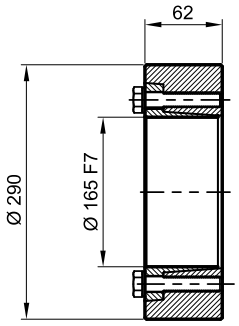
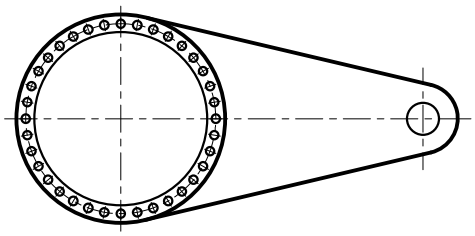
Dimensions

S□-E-080-□□-H120×115

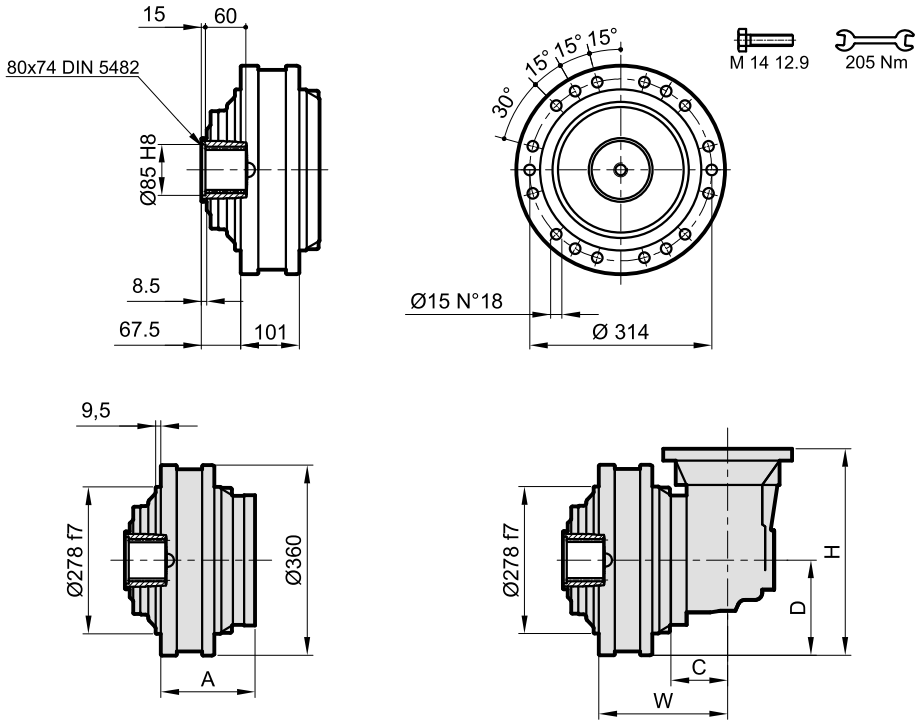


Stages	A	W	D	C	H	ST Mass (1)	SX Mass (1)
1	-	-	-	-	-	-	-
2	241.5	-	-	-	-	132	-
3	301.5	305	118.5	140	390	144	182
4	349.5	377	75	92.5	253.5	151	162

(1) Mass in kg for gearboxes without input modules (solid input shaft, motor flange, etc) or accessories. To obtain actual mass, add the mass for your chosen input module, please inquire.

Accessories	
SA-H-165	**SA-T-□-278-314-18×15-□-□**
 Max. Torque: 44 kNm Screw Tightening Torque: 322 Nm	 See the chapter on Torque Arms

S□-E-080-□□-N80×75

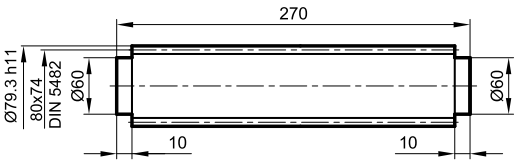


Stages	A	W	D	C	H	ST Mass (1)	SX Mass (1)
1	-	-	-	-	-	-	-
2	231.5	-	-	-	-	95	-
3	291.5	295	118.5	140	390	108	145
4	339.5	367	75	92.5	253.5	168	125

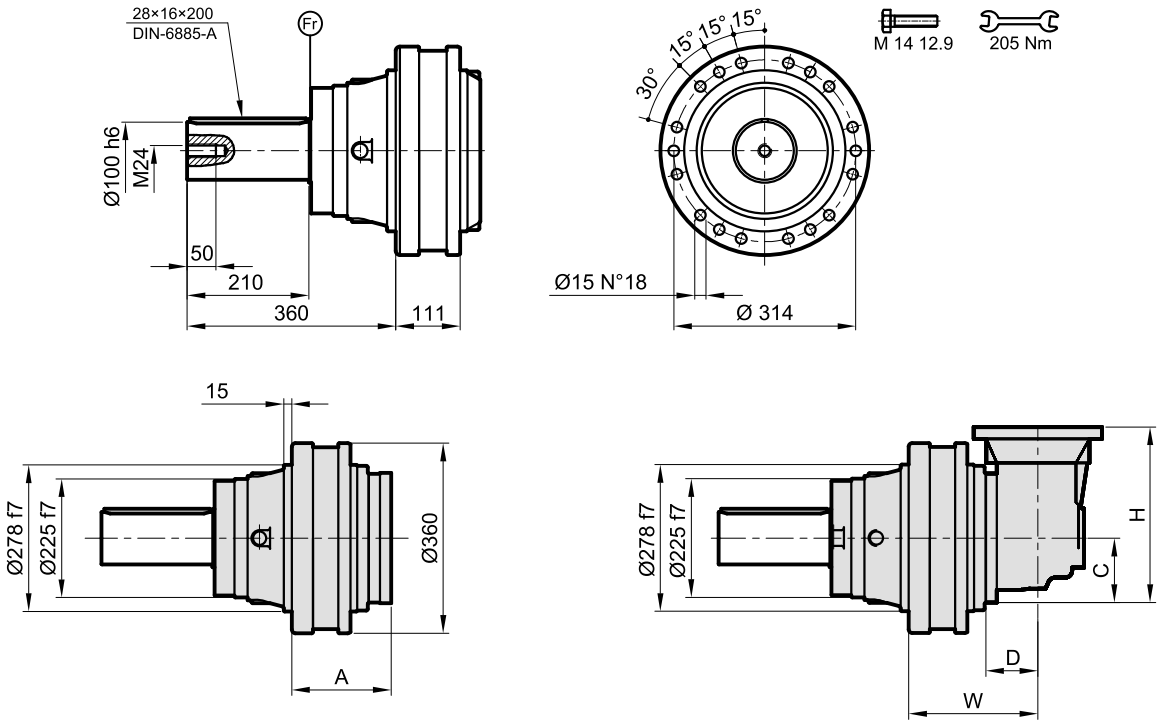
(1) Mass in kg for gearboxes without input modules (solid input shaft, motor flange, etc) or accessories. To obtain actual mass, add the mass for your chosen input module, please inquire.

Accessories

SA-S-80×74



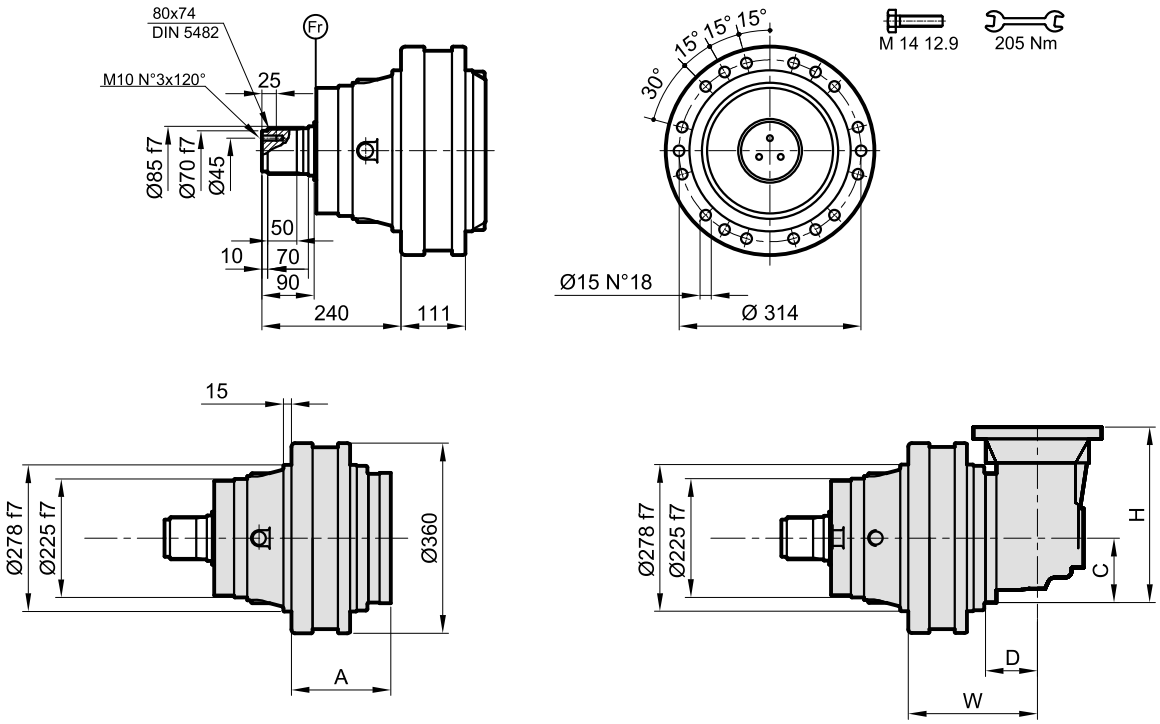
S□-E-080-□□-P100×210



Stages	A	W	D	C	H	ST Mass (1)	SX Mass (1)
1	-	-	-	-	-	-	-
2	241.5	-	-	-	-	137	-
3	301.5	305	118.5	140	390	149	187
4	349.5	377	75	92.5	253.5	156	167

(1) Mass in kg for gearboxes without input modules (solid input shaft, motor flange, etc) or accessories. To obtain actual mass, add the mass for your chosen input module, please inquire.

S□-E-080-□□-W80×90

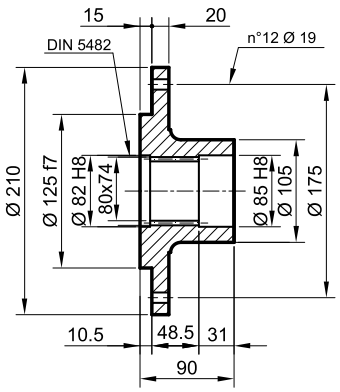


Stages	A	W	D	C	H	ST Mass (1)	SX Mass (1)
1	-	-	-	-	-	-	-
2	241.5	-	-	-	-	137	-
3	301.5	305	118.5	140	390	149	187
4	349.5	377	75	92.5	253.5	156	167

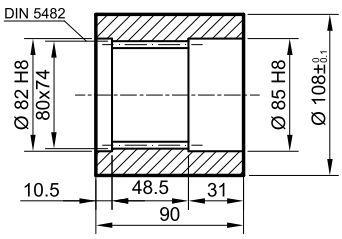
(1) Mass in kg for gearboxes without input modules (solid input shaft, motor flange, etc) or accessories. To obtain actual mass, add the mass for your chosen input module, please inquire.

Accessories

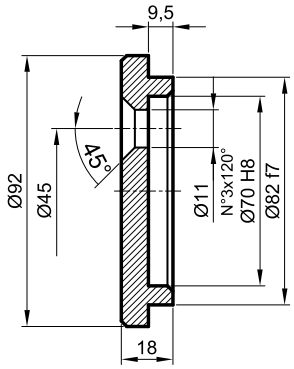
SA-F-80×74-S



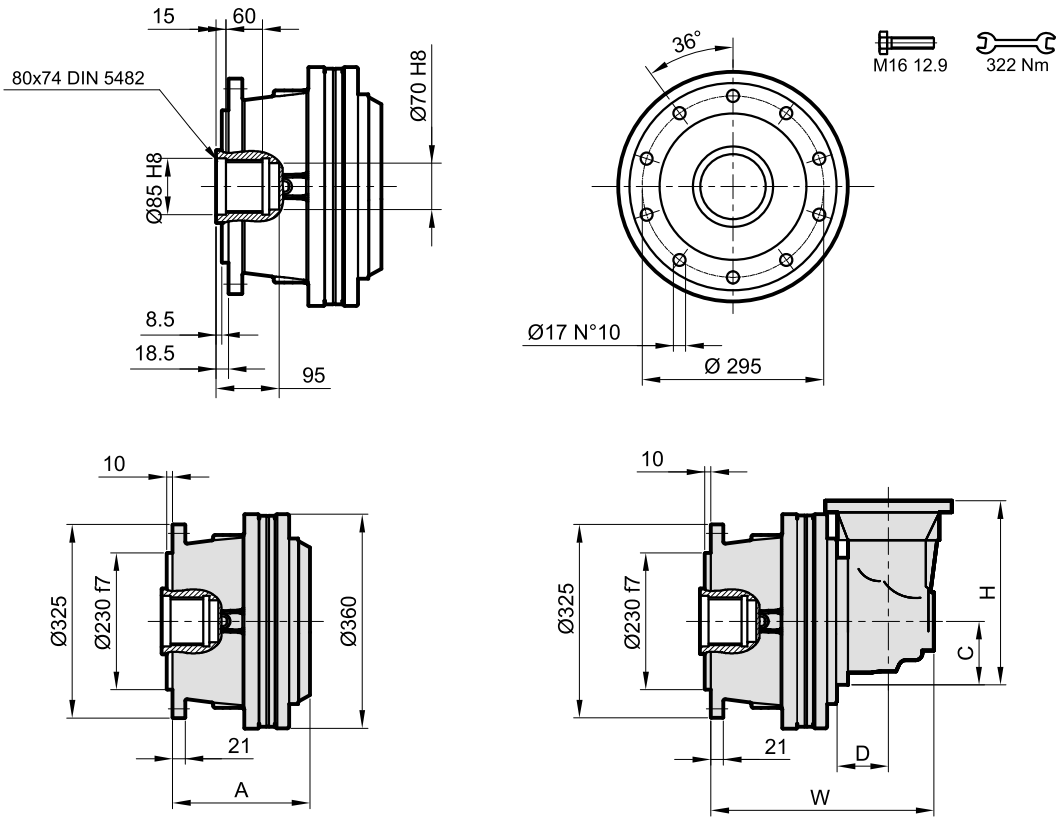
SA-B-80×74-S



SA-P-82



S□-F-080-□□-N80×95

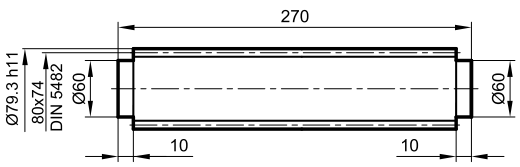


Stages	A	W	D	C	H	ST Mass (1)	SX Mass (1)
1	-	-	-	-	-	-	-
2	346	-	-	-	-	120	-
3	406	409.5	118.5	140	390	132	170
4	454	481.5	75	92.5	253.5	139	150

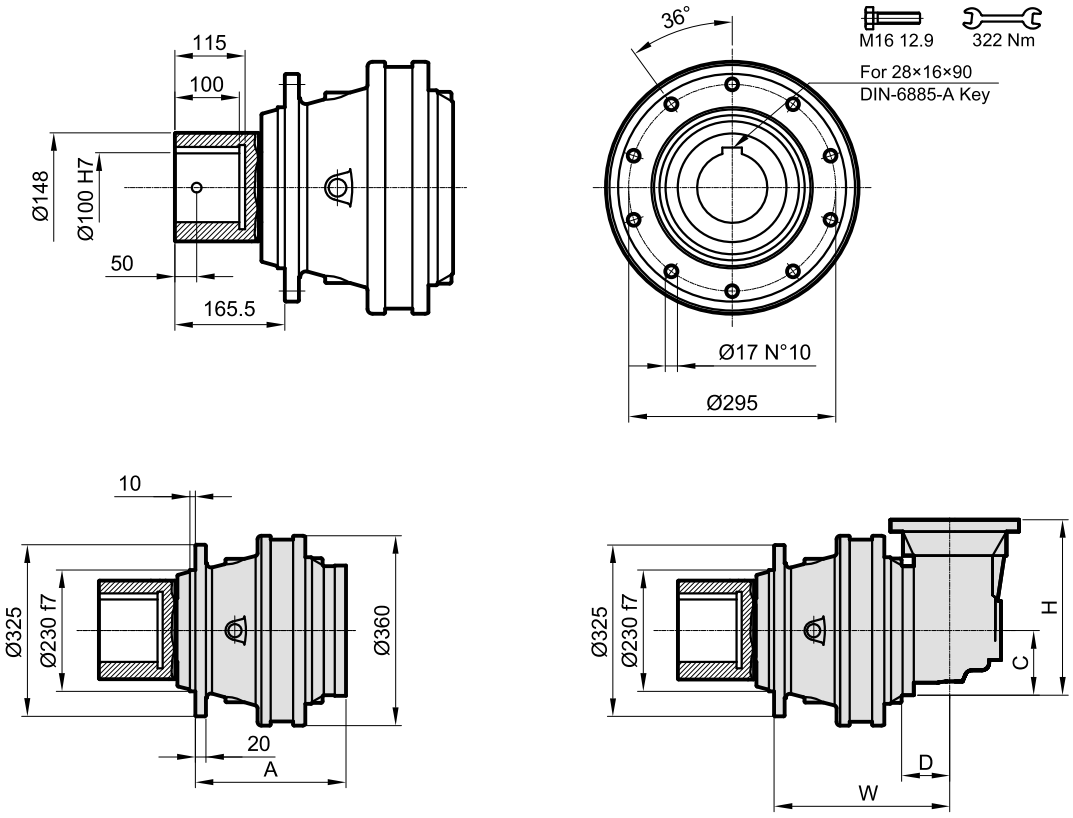
(1) Mass in kg for gearboxes without input modules (solid input shaft, motor flange, etc) or accessories. To obtain actual mass, add the mass for your chosen input module, please inquire.

Accessories

SA-S-80×74



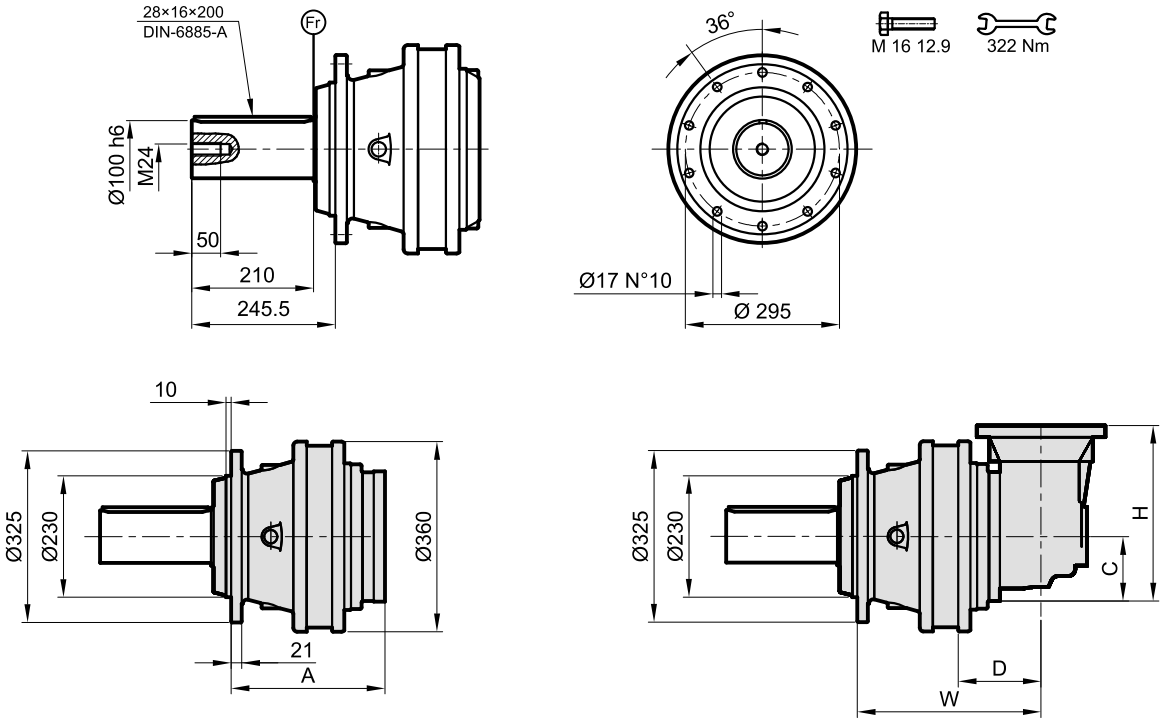
S□-F-080-□□-K100×115



Stages	A	W	D	C	H	ST Mass (1)	SX Mass (1)
1	-	-	-	-	-	-	-
2	345.5	-	-	-	-	133	-
3	405.5	409	118.5	140	390	146	183
4	453.5	481	75	92.5	253.5	152	163

(1) Mass in kg for gearboxes without input modules (solid input shaft, motor flange, etc) or accessories. To obtain actual mass, add the mass for your chosen input module, please inquire.

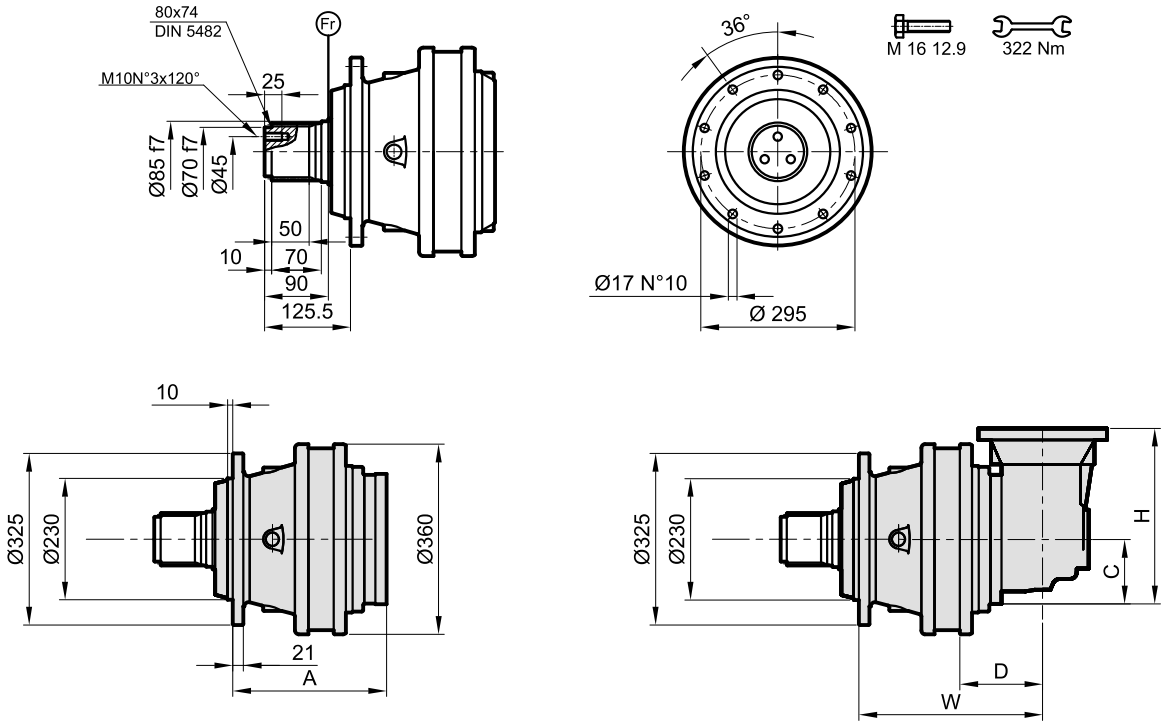
S□-F-080-□□-P100×210



Stages	A	W	D	C	H	ST Mass (1)	SX Mass (1)
1	-	-	-	-	-	-	-
2	345.5	-	-	-	-	136	-
3	405.5	409	118.5	140	390	149	186
4	453.5	481	75	92.5	253.5	155	166

(1) Mass in kg for gearboxes without input modules (solid input shaft, motor flange, etc) or accessories. To obtain actual mass, add the mass for your chosen input module, please inquire.

S□-F-080-□□-W80×90

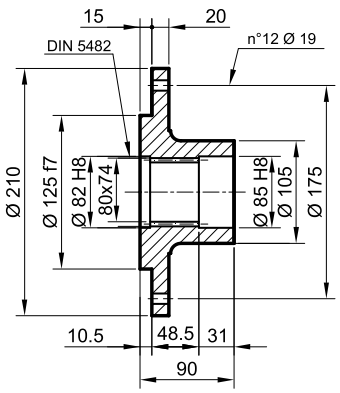


Stages	A	W	D	C	H	ST Mass (1)	SX Mass (1)
1	-	-	-	-	-	-	-
2	345.5	-	-	-	-	136	-
3	405.5	409	118.5	140	390	149	186
4	453.5	481	75	92.5	253.5	155	166

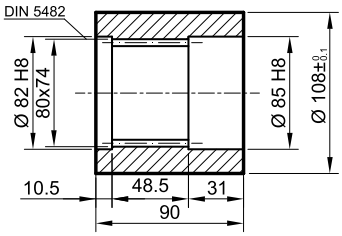
(1) Mass in kg for gearboxes without input modules (solid input shaft, motor flange, etc) or accessories. To obtain actual mass, add the mass for your chosen input module, please inquire.

Accessories

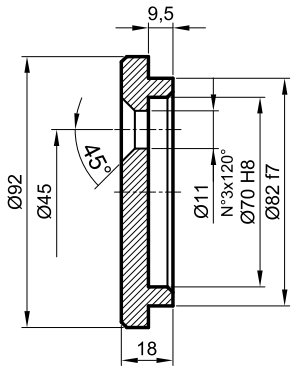
SA-F-80×74-S



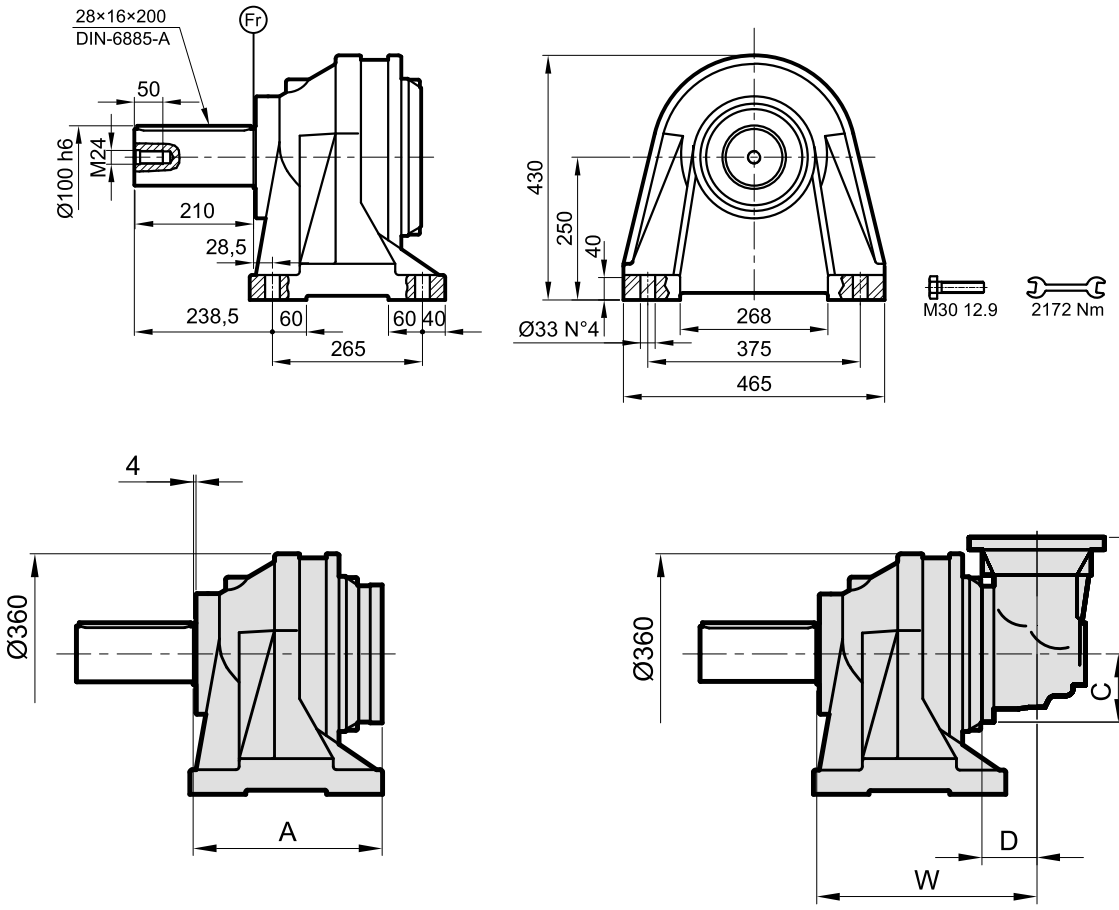
SA-B-80×74-S



SA-P-82



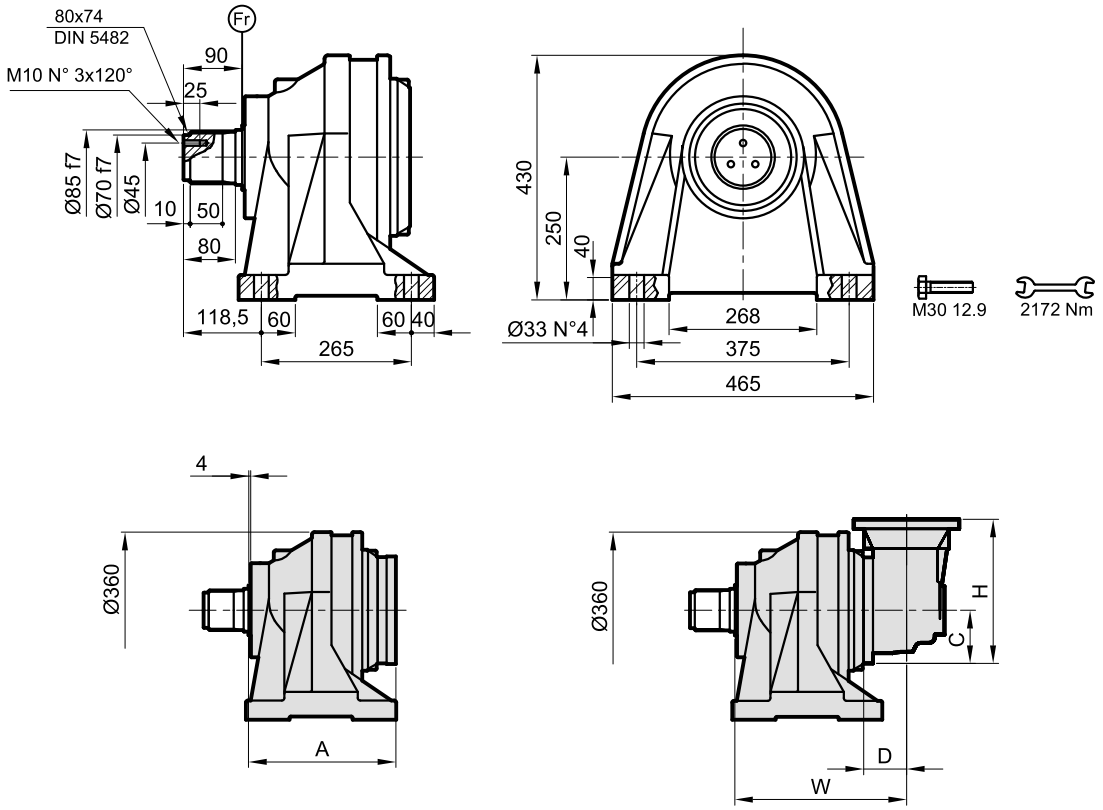
S□-G-080-□□-P100×210



Stages	A	W	D	C	H	ST Mass (1)	SX Mass (1)
1	-	-	-	-	-	-	-
2	396.5	-	-	-	-	195	-
3	456.5	460	118.5	140	390	207	245
4	504.5	532	75	92.5	253.5	214	225

(1) Mass in kg for gearboxes without input modules (solid input shaft, motor flange, etc) or accessories. To obtain actual mass, add the mass for your chosen input module, please inquire.

S□-G-080-□□-W80×90

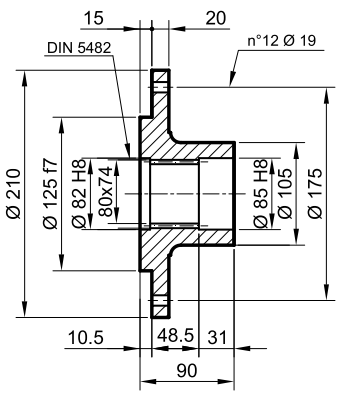


Stages	A	W	D	C	H	ST Mass (1)	SX Mass (1)
1	-	-	-	-	-	-	-
2	396.5	-	-	-	-	195	-
3	456.5	460	118.5	140	390	207	245
4	504.5	532	75	92.5	253.5	214	225

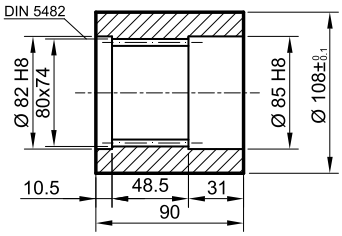
(1) Mass in kg for gearboxes without input modules (solid input shaft, motor flange, etc) or accessories. To obtain actual mass, add the mass for your chosen input module, please inquire.

Accessories

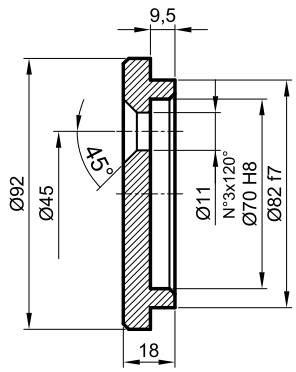
SA-F-80×74-S



SA-B-80×74-S

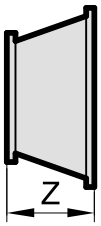


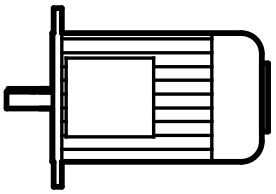
SA-P-82



Inputs

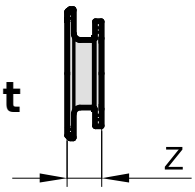
IEC Motor Input

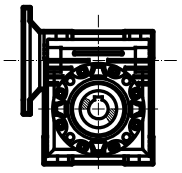




IEC	71	80	90	100	112	132	160	180	200	225	250	280
Stages	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z	Z
1	-	-	-	-	-	-	-	-	-	-	-	-
2	-	-	-	-	-	-	120.5	120.5	148.5	148.5	183.5	183.5
3	35.5	61.5	61.5	71	71	104	120.5	120.5	-	-	-	-
4	35.5	61.5	61.5	71	71	104	120.5	120.5	-	-	-	-

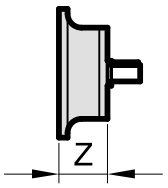
Worm Gearbox Input





Stages	SVS-050 SQS-050	SVS-063 SQS-063	SVS-075 SQS-075	SVS-090 SQS-090	SVS-110 SQS-110
	Z	Z	Z	Z	Z
1	-	-	-	-	-
2	-	-	-	-	95
3	80	80	57	57	57
4	80	80	57	57	57

Solid Shaft Input



Stages	E25×50 E28×50	E35×50 E42×82	E48×82.5 E65×105	E70×120 E80×130	E90×140 E100×140
	Z		Z	Z	Z
1	-		-	-	-
2	-		159	-	-
3	112		159	-	-
4	112		-	-	-