

X-TREME-SQ



Acceleration capacity	++++
Fast reversals	+++
Radial efforts	+++++
Axial efforts	+++++
Stiffness	++++
Precision	+++++
Economy	++++

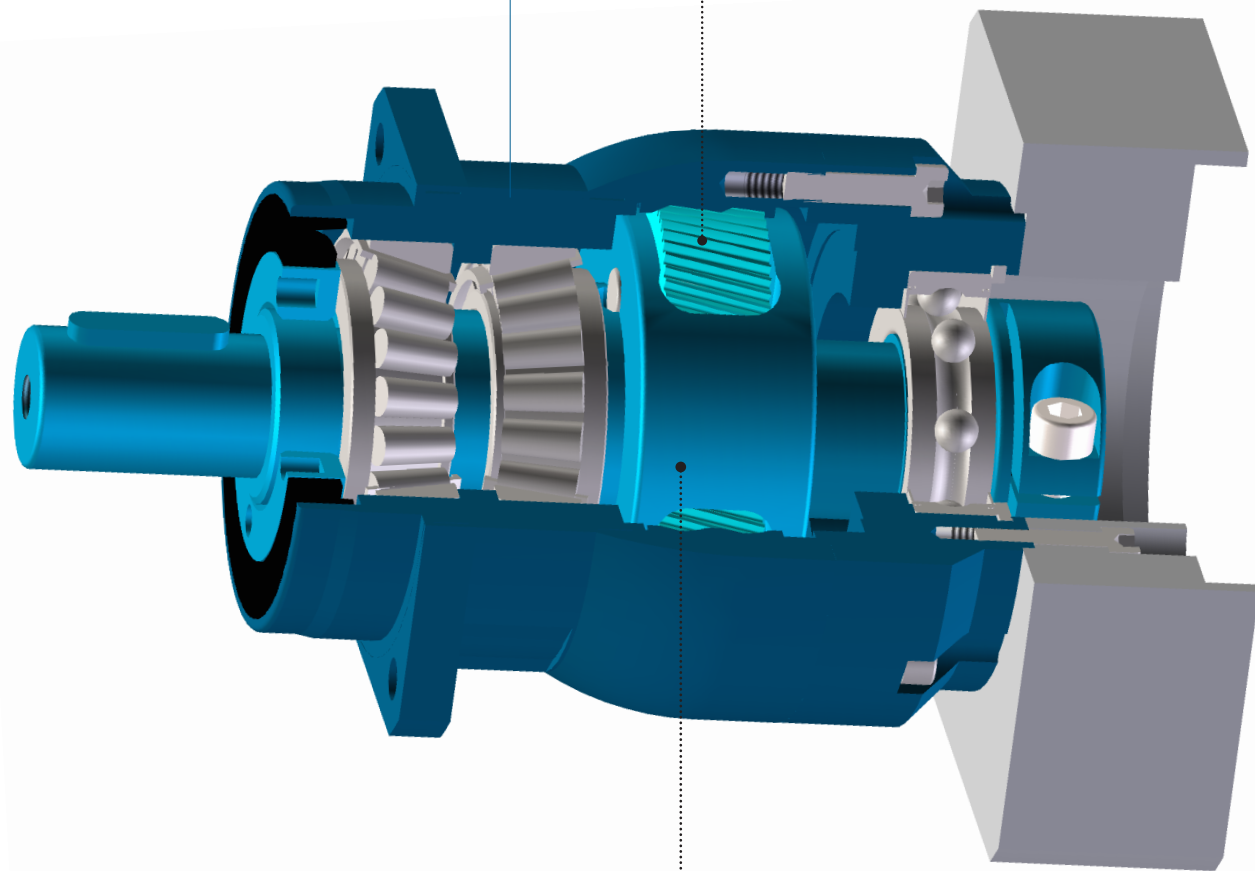
X-TREME-SQ-ST_ Internal construction

X-TREME is a high-precision planetary gearbox. It was designed for applications requiring high combined radial and axial loads (like high speed helical racks and pinions) with extreme precision.

The ring gear is monobloc with the external housing and the output flange to allow higher stiffness and very dynamic reversals.

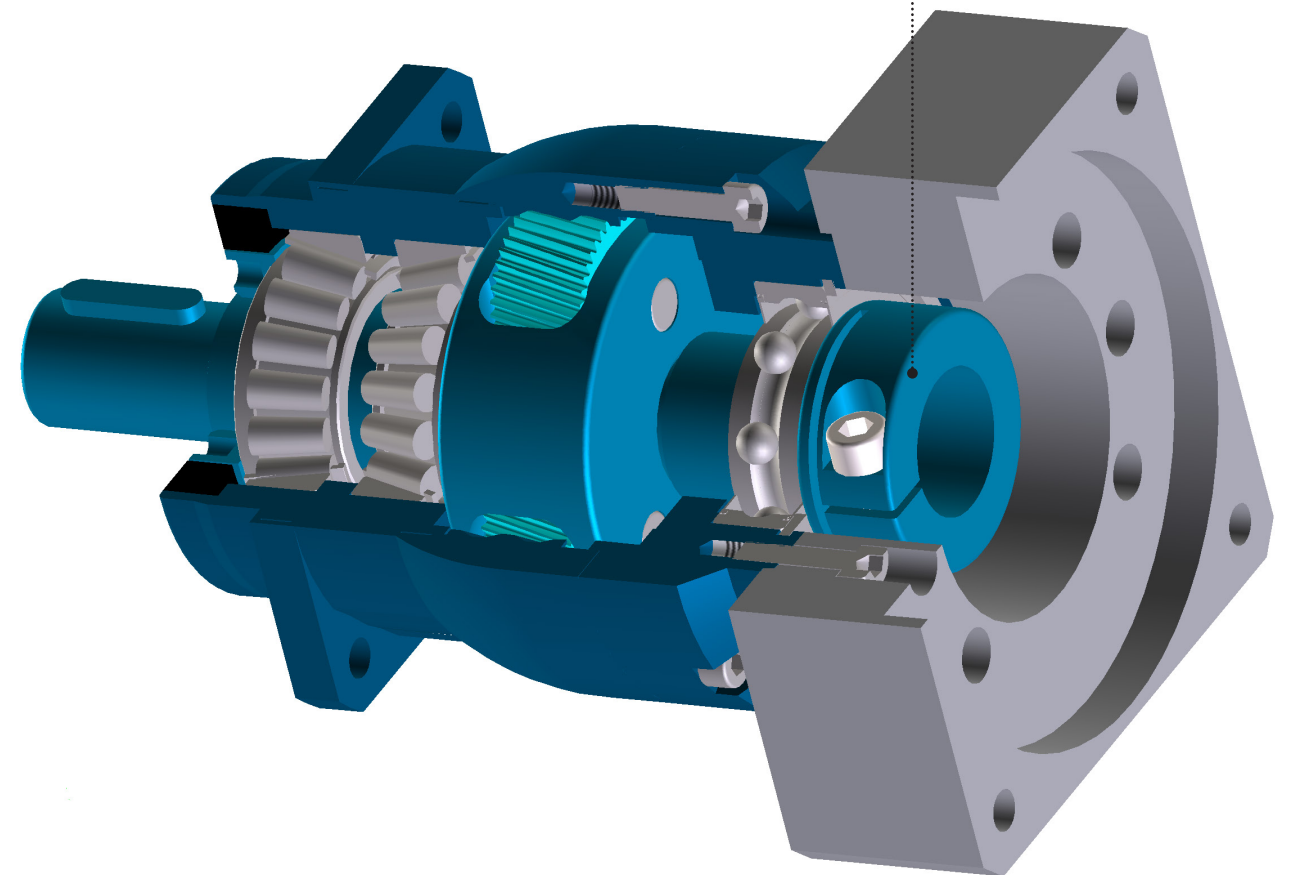
Carburized and quenched helical teeth for quiet operation, reliability and acceleration capacity.

The balanced coupling limits vibration and reduce loads on your motor shaft bearings.



The caged planet carrier provides stiffness, reliability and acceleration capacity to the gearbox.

The caged planet carrier prevents the planets from tilting.

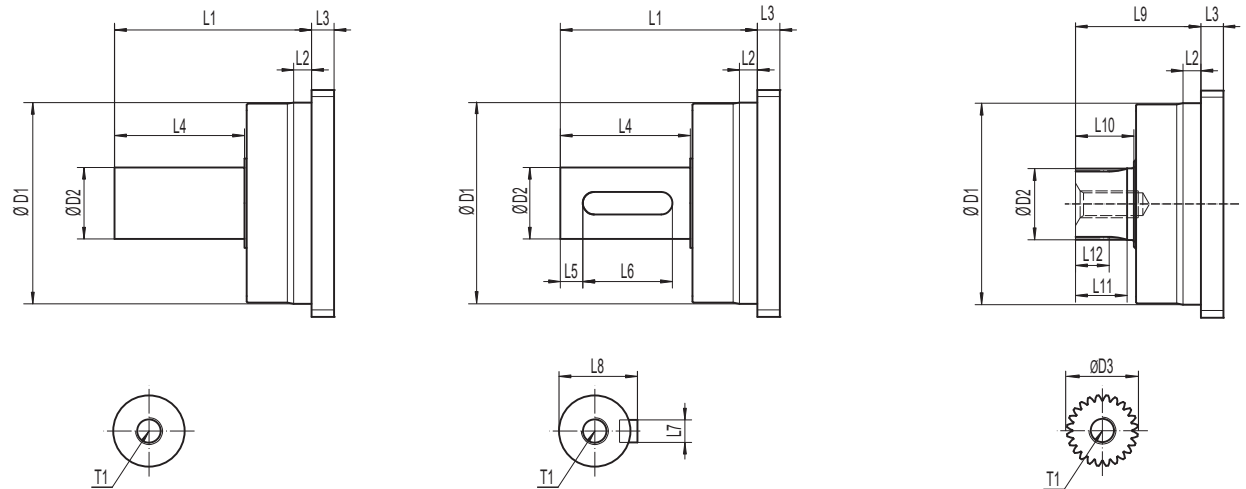


	Ratio**	X-TREME-SQ-ST											
		060-P*	075-R*	075-P*	100-R*	100-P*	140-R*	140-P*	180-R*	180-P*	210-R*	210-P*	240-R*
Nominal torque ¹ T _{2N} (Nm)	3	29	102		231		384		1,370		2,125		3,550
	4	42	154		244		407		1,888		3,075		4,252
	5	33	120		190		438		1,475		2,390		3,663
	5,5	44	164		260		590		2,005		3,270		4,500
	6	27	81		179		440		1,480		2,420		3,670
	7	30	108		203		465		1,570		2,560		3,900
	8	18	55		164		408		1,468		2,450		3,800
	9	16	47		137		353		1,280		2,150		3,330
	10	18	66		147		308		1,140		1,925		2,980
	12	29	65	102	203	231	283	384	573	1,370	1,683	2,125	2,795
	15	29	68	102	210	231	295	384	822	1,370	1,755	2,125	2,913
	16	42	86	154	244	244	377	407	764	1,888	2,244	3,075	3,727
	20	42	90	154	244	244	393	407	1,096	1,888	2,340	3,075	3,884
	21	29	51	102	137	231	269	384	720	1,370	1,666	2,125	2,845
	22	44	118	164	260	260	518	590	1,051	2,005	3,085	3,270	4,500
	25	33	113	120	190	190	438	438	1,370	1,475	2,390	2,390	3,663
	27,5	44	124	164	260	260	540	590	1,507	2,005	3,218	3,270	4,500
	28	42	68	154	183	244	359	407	960	1,888	2,222	3,075	3,793
	30	27	81	81	179	179	440	440	1,480	1,480	2,420	2,420	3,670
	35	33	85	120	190	190	438	438	1,200	1,475	2,390	2,390	3,663
	38,5	44	94	164	252	260	494	590	1,320	2,005	3,055	3,270	4,500
	40	39	40	113	113	218	218	407	577	1,888	1,397	2,319	2,327
	42	27	81	81	179	179	440	440	1,440	1,480	2,420	2,420	3,670
	49	30	108	108	203	203	465	465	1,570	1,570	2,560	2,560	3,900
	50	33	49	120	141	190	273	438	721	1,475	1,746	2,390	2,909
	55	44	54	164	156	260	300	590	794	2,005	1,921	3,188	3,200
	60	27	59	81	170	179	327	440	866	1,480	2,096	2,420	3,491
	70	30	69	108	198	203	382	465	1,010	1,570	2,445	2,560	3,900
	80	18	55	55	164	164	408	408	1,154	1,468	2,450	2,450	3,800
	90	16	47	47	137	137	353	353	1,280	1,280	2,150	2,150	3,330
	100	18	66	66	147	147	308	308	1,140	1,140	1,925	1,925	2,980
Peak torque ² T _{max} (Nm)	3	64	200		378		628		2,635		4,250		6,410
	4	77	190		488		810		3,515		5,950		8,475
	5	55	170		380		870		2,945		4,770		7,303
	5,5	73	235		500		1100		3,630		5,630		8,636
	6	38	114		327		815		2,700		4,450		6,235
	7	54	161		379		804		2,695		4,400		6,643
	8	37	111		322		765		2,550		4,170		6,260
	9	36	104		305		728		2,450		4,000		6,000
	10	50	157		353		715		2,445		3,950		6,000
	12	64	92	200	242	378	502	628	1,143	2,635	3,180	4,250	5,231
	15	64	86	200	206	378	477	628	1,343	2,635	2,914	4,250	4,835
	16	77	122	190	322	488	669	810	1,524	3,515	4,240	5,950	6,975
	20	77	115	190	275	488	636	810	1,791	3,515	3,885	5,950	6,447
	21	64	85	200	212	378	457	628	1,238	2,635	2,708	4,250	4,407
	22	73	168	235	443	500	920	1,100	2,095	3,630	5,630	5,630	8,636
	25	55	144	170	344	380	795	870	2,238	2,945	4,770	4,770	7,303
	27,5	73	158	235	378	500	875	1,100	2,462	3,630	5,342	5,630	8,636
	28	77	113	190	282	488	609	810	1,651	3,515	3,611	5,844	5,876
	30	38	114	114	327	327	815	815	2,686	2,700	4,450	4,450	6,235
	35	55	141	170	353	380	762	870	2,064	2,945	4,514	4,770	7,303
	38,5	73	155	235	388	500	838	1,100	2,270	3,630	4,965	5,630	8,080
	40	77	109	190	259	488	560	810	1,480	3,515	3,337	5,298	5,309
	42	38	114	114	327	327	815	815	2,476	2,700	4,450	4,450	6,635
	49	54	161	161	379	379	804	804	2,695	2,695	4,400	4,400	6,643
	50	55	136	170	324	380	700	870	1,850	2,945	4,171	4,770	6,636
	55	73	150	235	356	500	770	1,100	2,035	3,630	4,589	5,630	7,300
	60	38	114	114	327	327	815	815	2,220	2,700	4,450	4,450	6,235
	70	54	161	161	379	379	804	804	2,590	2,695	4,400	4,400	6,643
	80	37	111	111	322	322	765	765	2,550	2,550	4,170	4,170	6,260
	90	36	104	104	305	305	728	728	2,450	2,450	4,000	4,000	6,000
	100	50	157	157	353	353	715	715	2,445	2,445	3,950	3,950	6,000
Emergency stop torque ³ (Nm)		1,5 x T _{max}											
Max angular backlash (minutes)	1 stage	Standard : ≤5 Option : ≤3		Standard : ≤3 : Option : ≤1									
	2 stages			Standard : ≤5 : Option : ≤3									
Nominal input speed (rpm) ⁴		4,000	3,100	2,800	2,600	2,000	1,700	1,500					
Max input speed (rpm) ⁵		7,500	6,000	5,500	5,000	4,500	3,000	3,000					
Max radial load (N) ⁶		2,800	4,150	6,600	9,900	15,400	21,000	30,000					
Max axial load (N) ⁶		2,400	3,350	5,650	9,870	15,570	30,000	33,000					
Efficiency (%) ⁷	1 stage	≥97											
	2 stages	≥94											
Torsional stiffness (Nm/min)		4	13	34	54	210	460	610					
Life (h) ⁸		20,000											
Min / max ambient temperature ⁹		-15 / +45											
Max temperature of the body (°C)		90											
Protection class		IP 65											
Noise level (dB) ¹⁰		≤60	≤62	≤63	≤66	≤71	≤75	≤77					
Lubrication		Lifetime lubrication (grease)											
Coating color		Capri blue (RAL 5019)											
Input flange		Anodized aluminum											

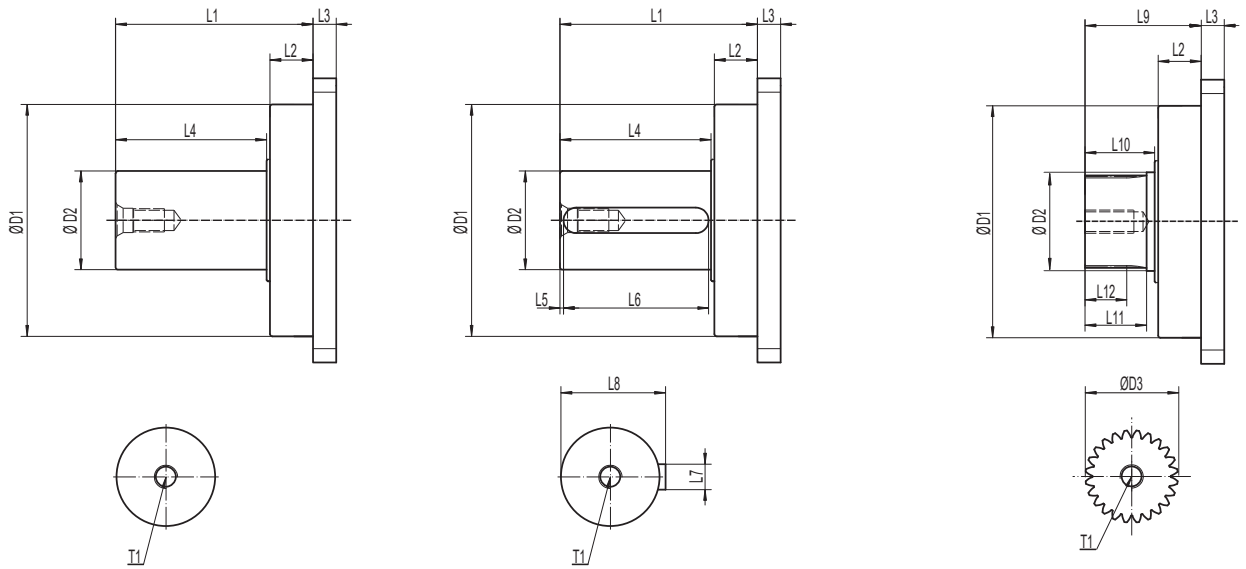
* 2 stage-gearboxes, can be equipped with a light, space-saving, low inertia input stage (R) or with a larger input stage (P), offering more power (as a paying option).
** Others ratios are available upon request.

1 : Calculation based on the ISO 6336-2 standard (life = 20,000 h, speed = nominal speed, internal temperature = 60°C, Application Factor = 1,25).
Using max 10% of the max radial load. Torque capacity decreases when the radial load increases. Please refer to the website for more information
2 : Calculation based on the ISO 6336-2 standard (life = 2,000 h, speed = nominal speed, internal temperature = 60°C , Safety Factor = 1,4).
This rating will not provide a 2 000 hours life if used at max speed. Contact us to get an estimation of the product lifetime in your application.
Using a torque higher than the rated torque may affect the gearbox precision.
3 : 1 000 occurrences maximum.
4 : Speed at which the nominal torque is applicable 20,000 hours.
5 : Peak speed only.
6 : Applied at the middle of the output shaft at 100 rpm.
7 : Measured at full load and at 25°C
8 : Lifetime at nominal torque and speed. Consult us to obtain a free estimation of lifetime in your working conditions
9 : Room temperature. Refer to temperature factors in dedicated section.
10 : Ratio 10 at nominal speed, measured at 1m.

X-TREME-SQ-ST-060 TO X-TREME-SQ-ST-140

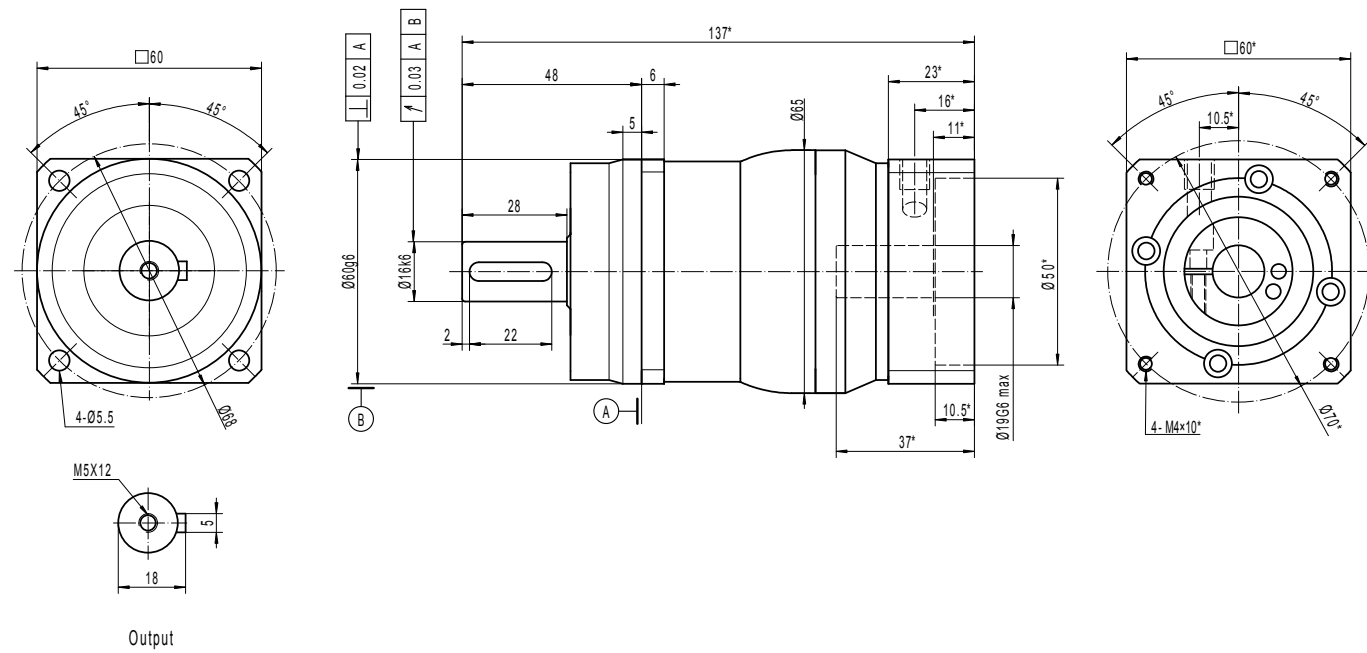


X-TREME-SQ-ST-180 TO X-TREME-SQ-ST-240

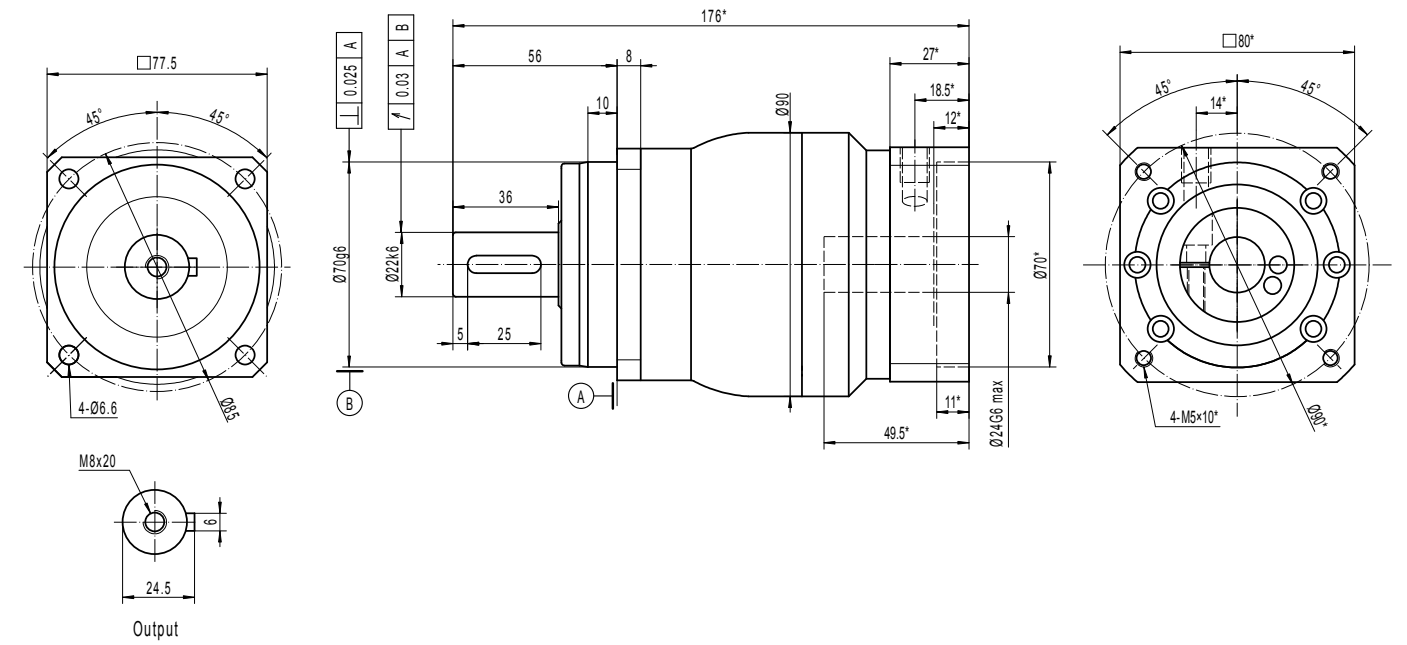


Size	D1	D2	D3	L1	L2	L3	L4	L5	L6	L7	L8	L9	L10	L11	L12	T1	DIN5480
060	60g6	16k6	15,84	48	5	6	28	2	22	5	18	46	26	21	15	M5x12	W16x0,8x30x18x6m
075	70g6	22k6	21,75	56	10	8	36	5	25	6	24,5	46	26	22,5	15	M8x20	W22x1,25x30x16x6m
100	90g6	32k6	31,75	88	8	10	58	10	40	10	35	56	26	23	15	M12x28	W32x1,25x30x24x6m
140	130g6	40k6	39,6	112	10	12	82	5	70	12	43	70	40	33,5	20	M16x36	W40x2x30x18x6m
180	160g6	55k6	54,6	112	27	15	82	6	70	16	59	71,5	41,5	33,5	21,5	M20x42	W55x2x30x26x6m
210	180g6	75k6	69,6	143	35	17	105	7	90	20	79,5	90	52	45	28	M20x42	W70x2x30x34x6m
240	200g6	85k6	79,6	170	37	20	130	3	125	22	90	100	60	53	36	M20x42	W80x2x30x38x6m

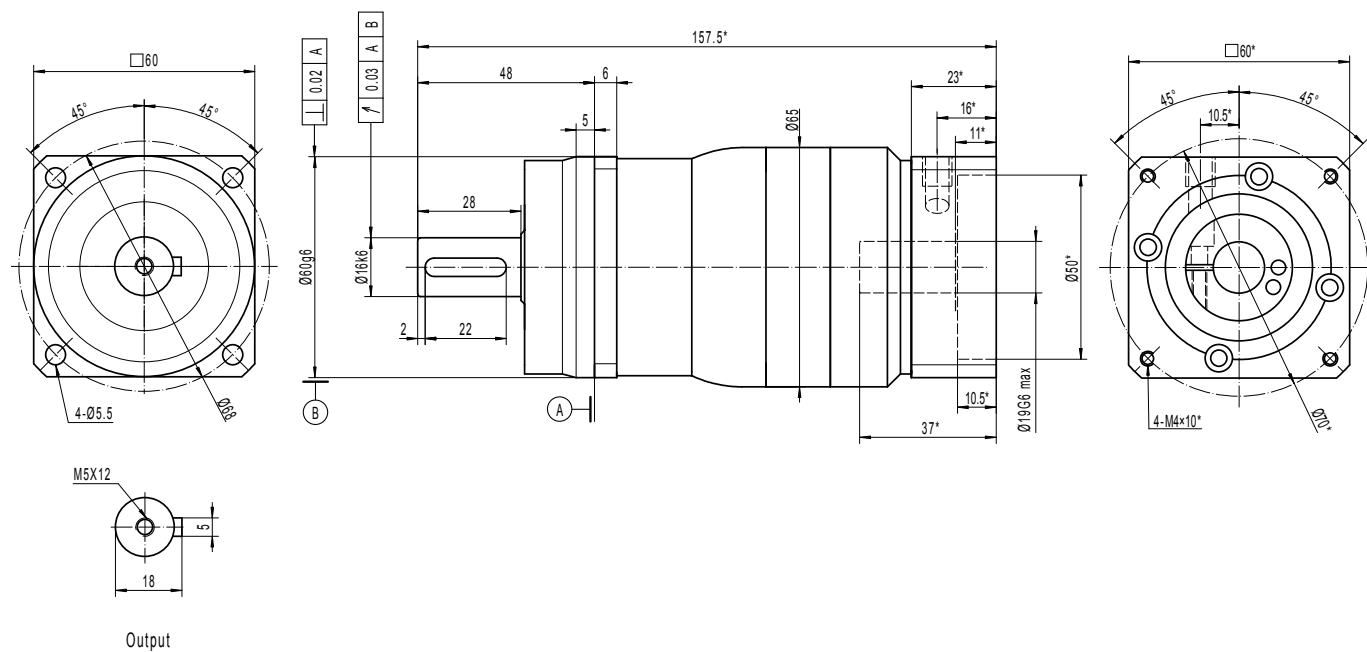
X-TREME-SQ-ST-060- 1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 19$



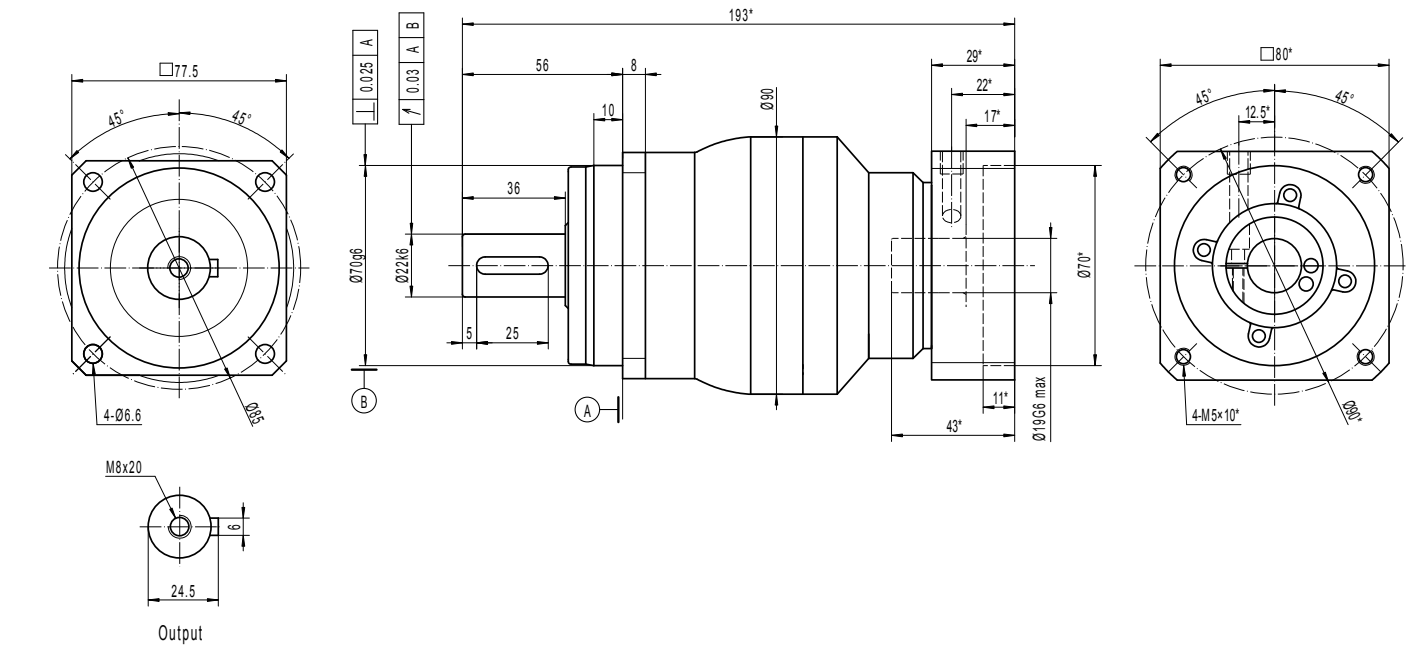
X-TREME-SQ-ST-075- 1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 24$



X-TREME-SQ-ST-060- 2 STAGES-P - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 19$



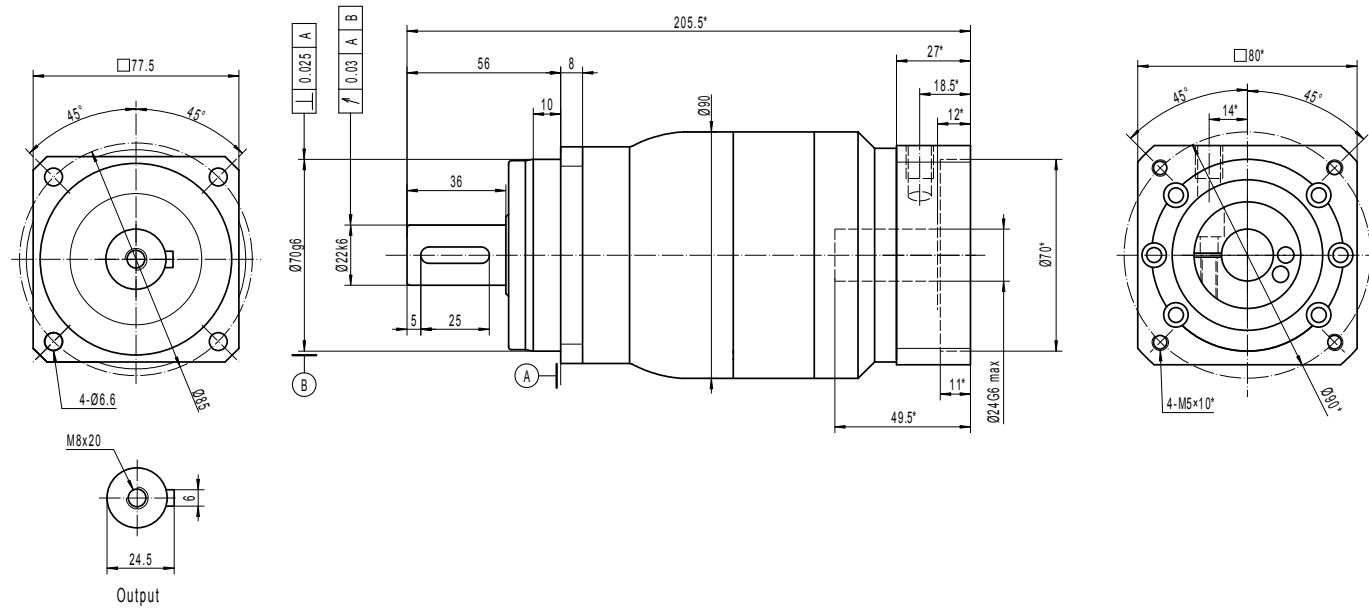
X-TREME-SQ-ST-075- 2 STAGES-R - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 19$



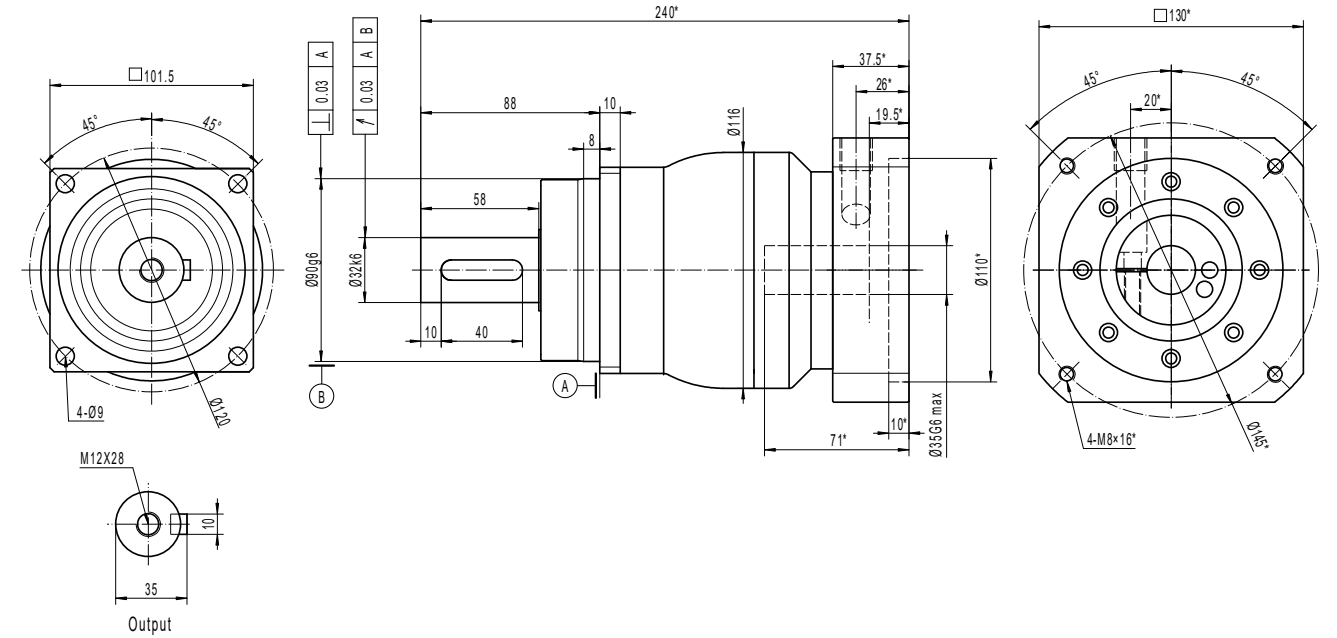
*VARIES WITH YOUR MOTOR DIMENSIONS

*VARIES WITH YOUR MOTOR DIMENSIONS

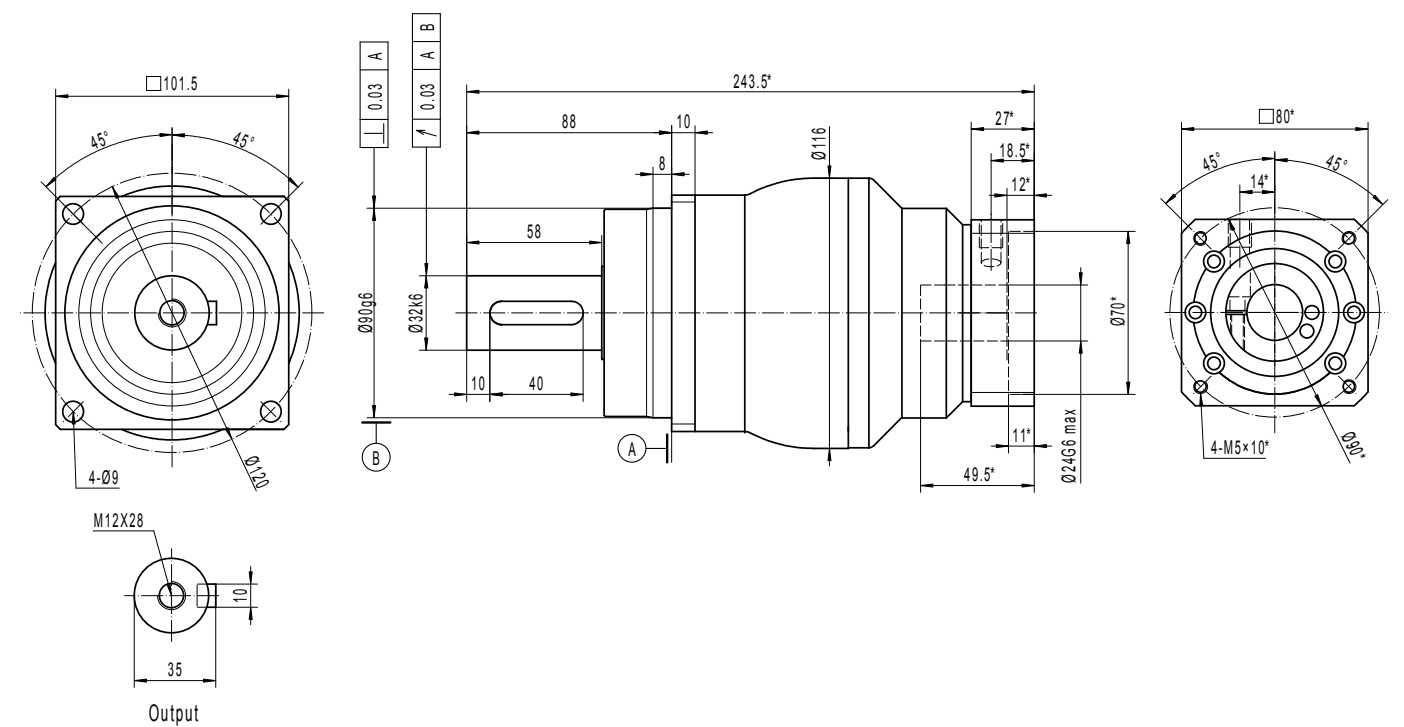
X-TREME-SQ-ST-075- 2 STAGES-P - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 24$



X-TREME-SQ-ST-100- 1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 35$



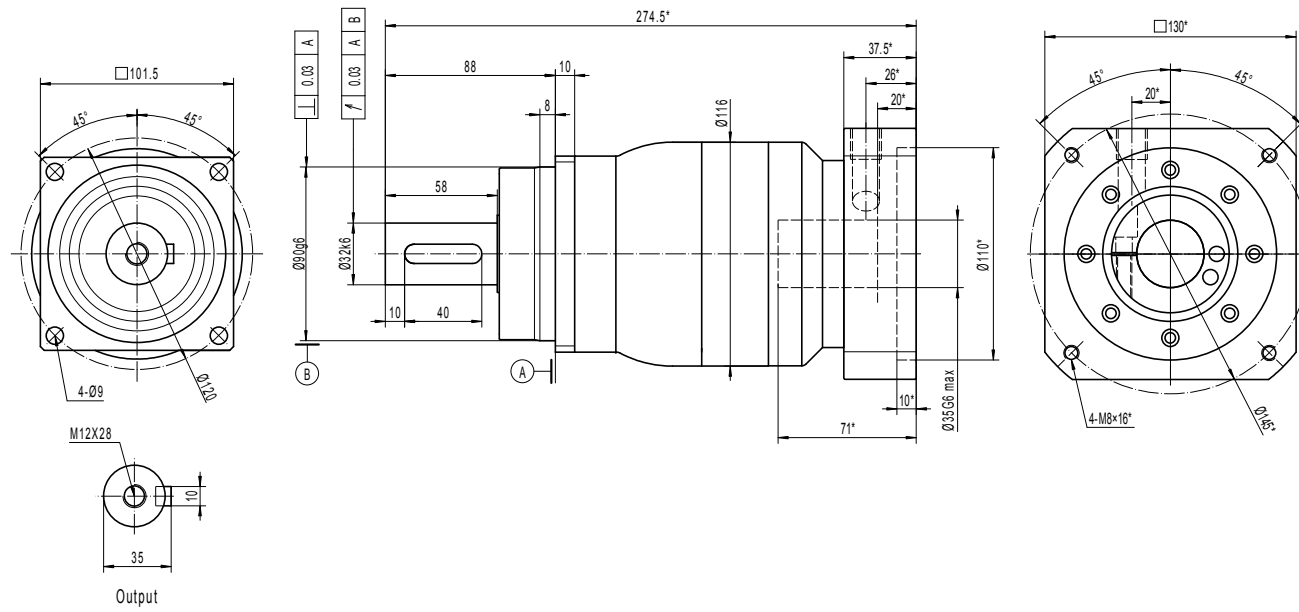
X-TREME-SQ-ST-100- 2 STAGES-R - RATIOS 12 TO 100
FOR MOTOR SHAFT $\varnothing 24$



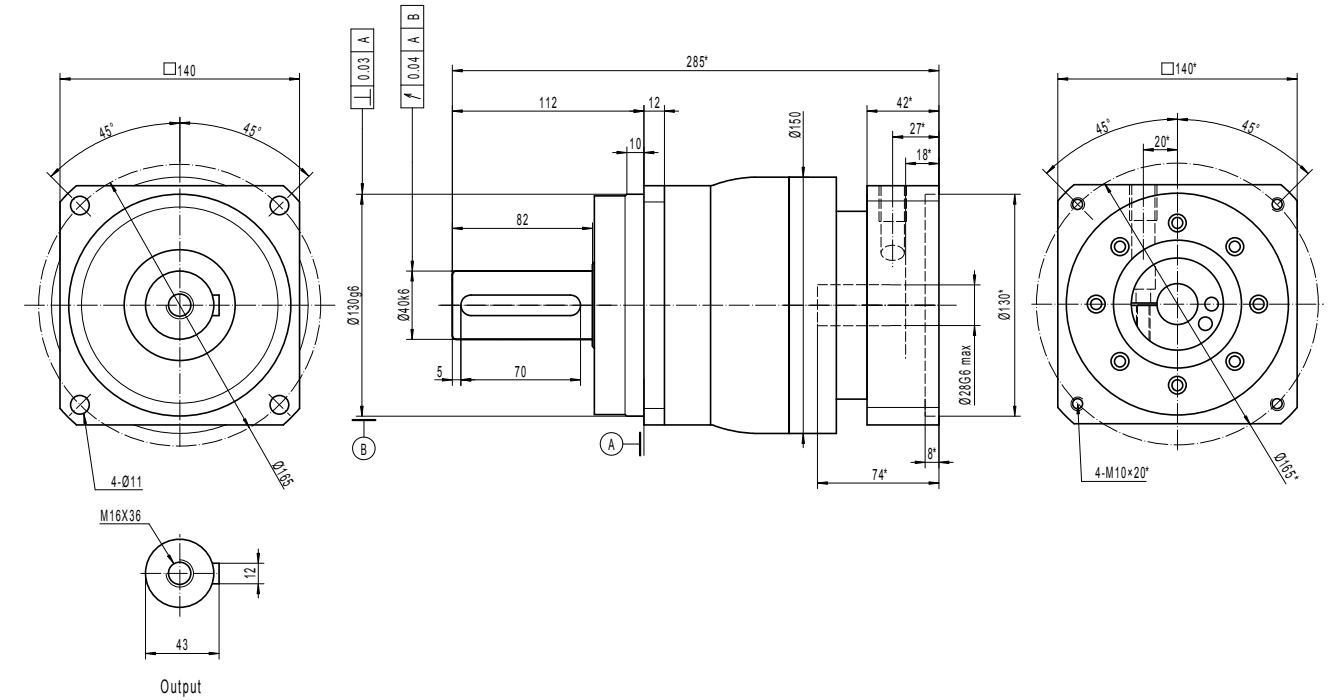
*VARIES WITH YOUR MOTOR DIMENSIONS

*VARIES WITH YOUR MOTOR DIMENSIONS

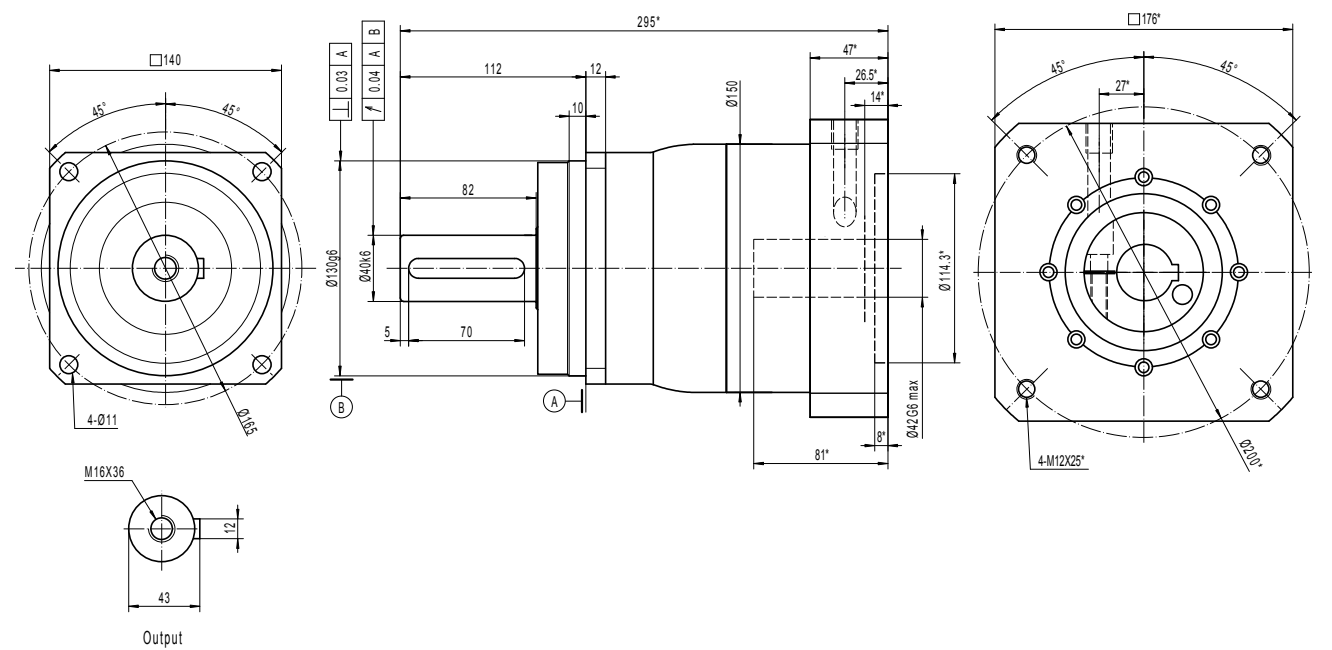
X-TREME-SQ-ST-100- 2 STAGES-P - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 35$



X-TREME-SQ-ST-140- 1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 28$



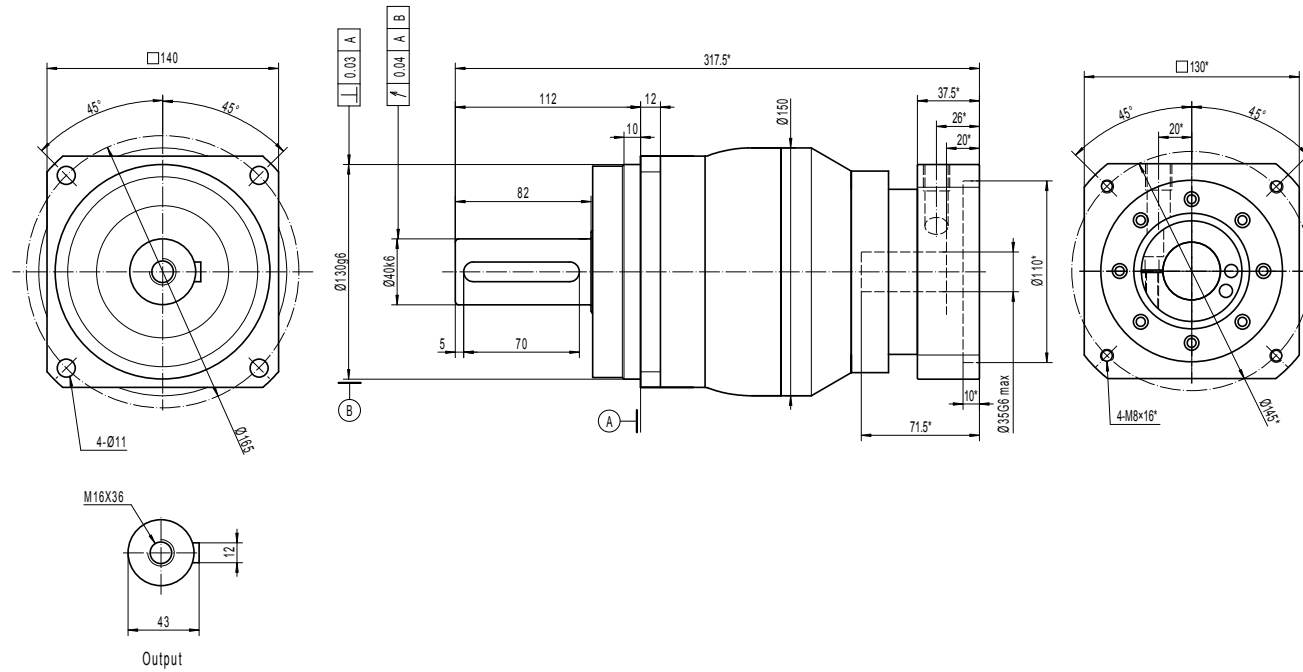
X-TREME-SQ-ST-140- 1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 42$



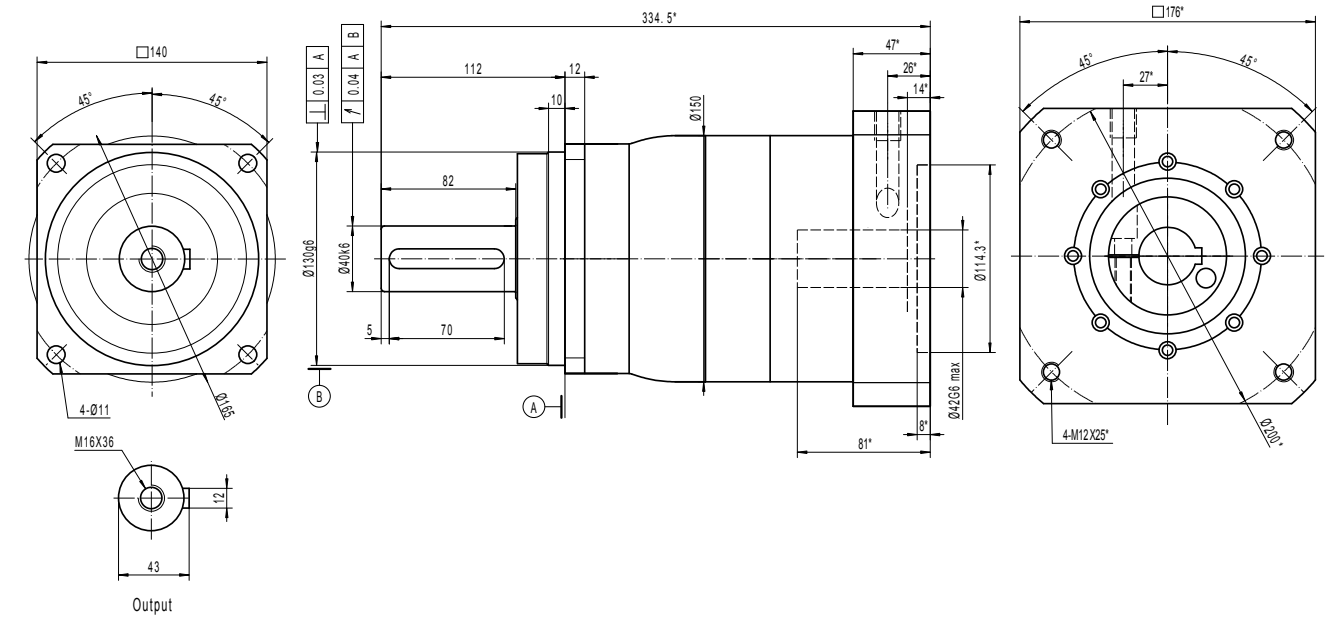
*VARIES WITH YOUR MOTOR DIMENSIONS

*VARIES WITH YOUR MOTOR DIMENSIONS

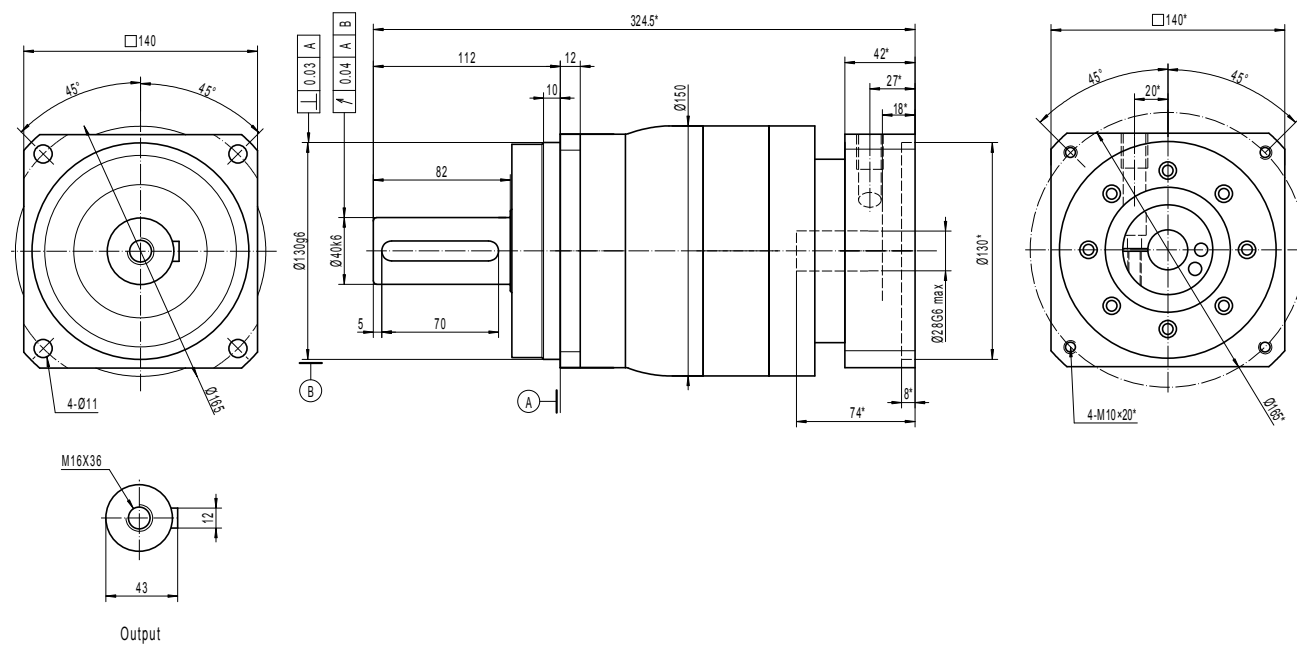
X-TREME-SQ-ST-140- 2 STAGES-R - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 35$



X-TREME-SQ-ST-140- 2 STAGES-P - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 42$



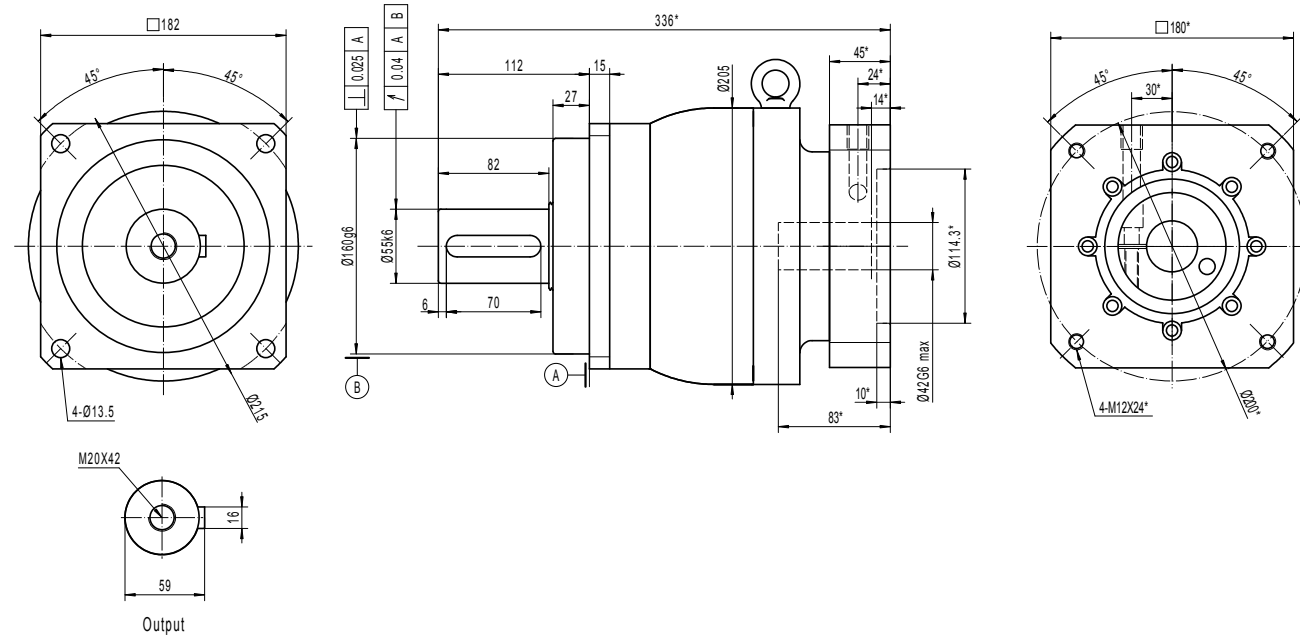
X-TREME-SQ-ST-140- 2 STAGES-P - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 28$



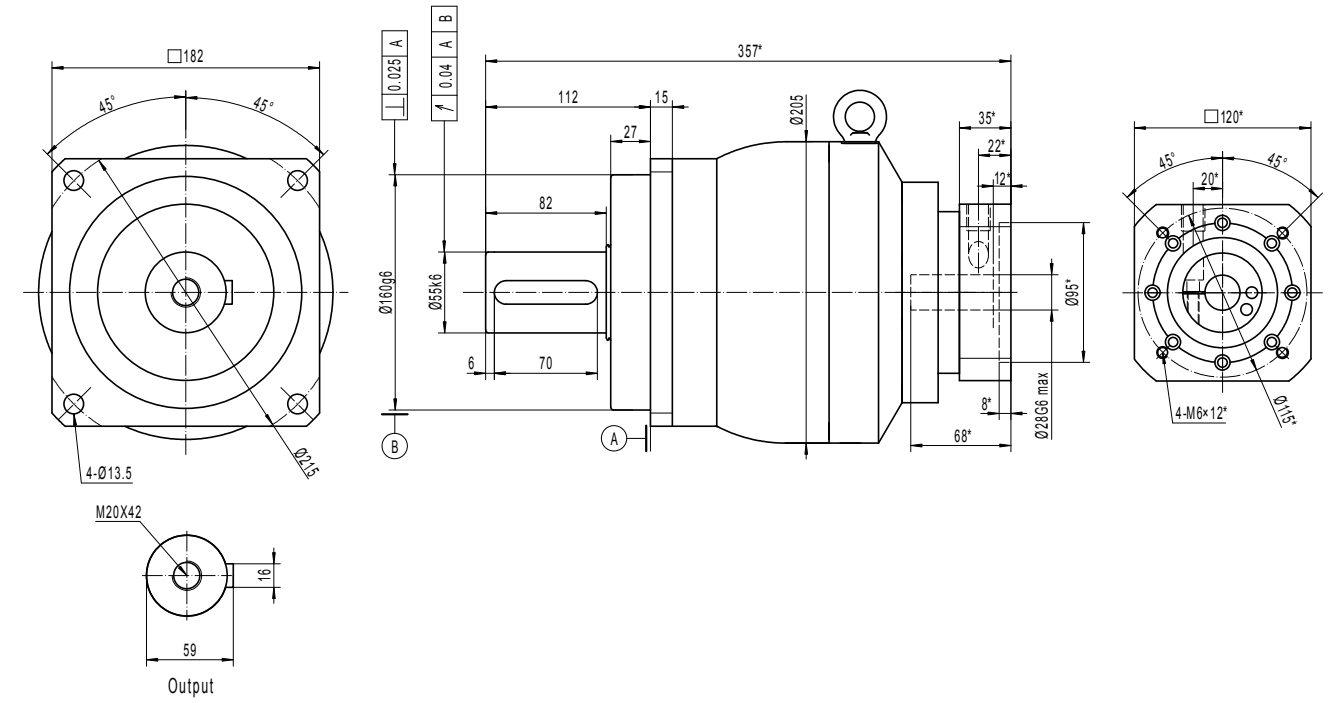
*VARIES WITH YOUR MOTOR DIMENSIONS

*VARIES WITH YOUR MOTOR DIMENSIONS

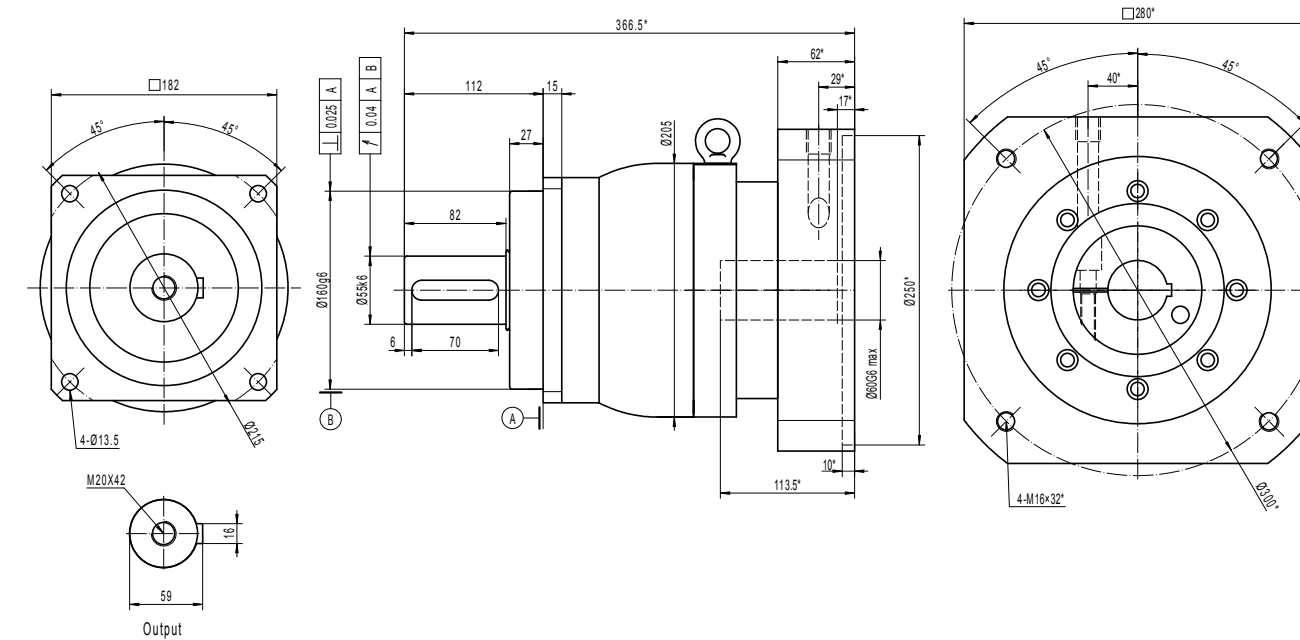
X-TREME-SQ-ST-180- 1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 42$



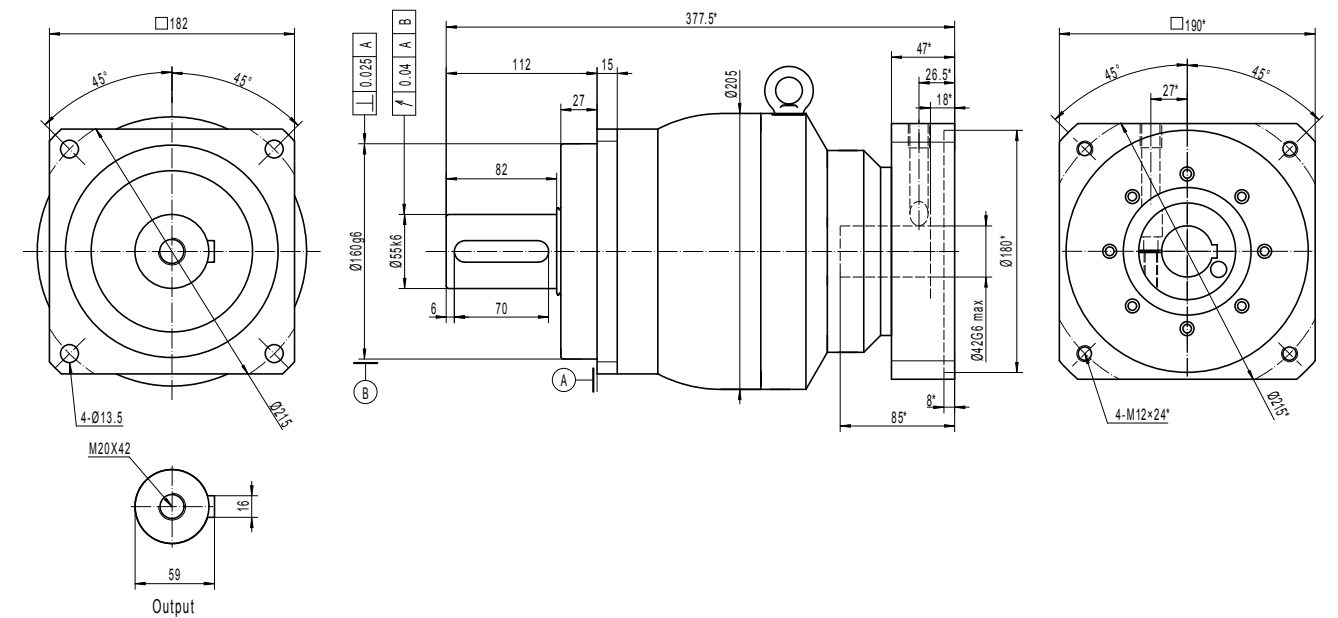
X-TREME-SQ-ST-180- 2 STAGES-R - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 28$



X-TREME-SQ-ST-180- 1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 60$



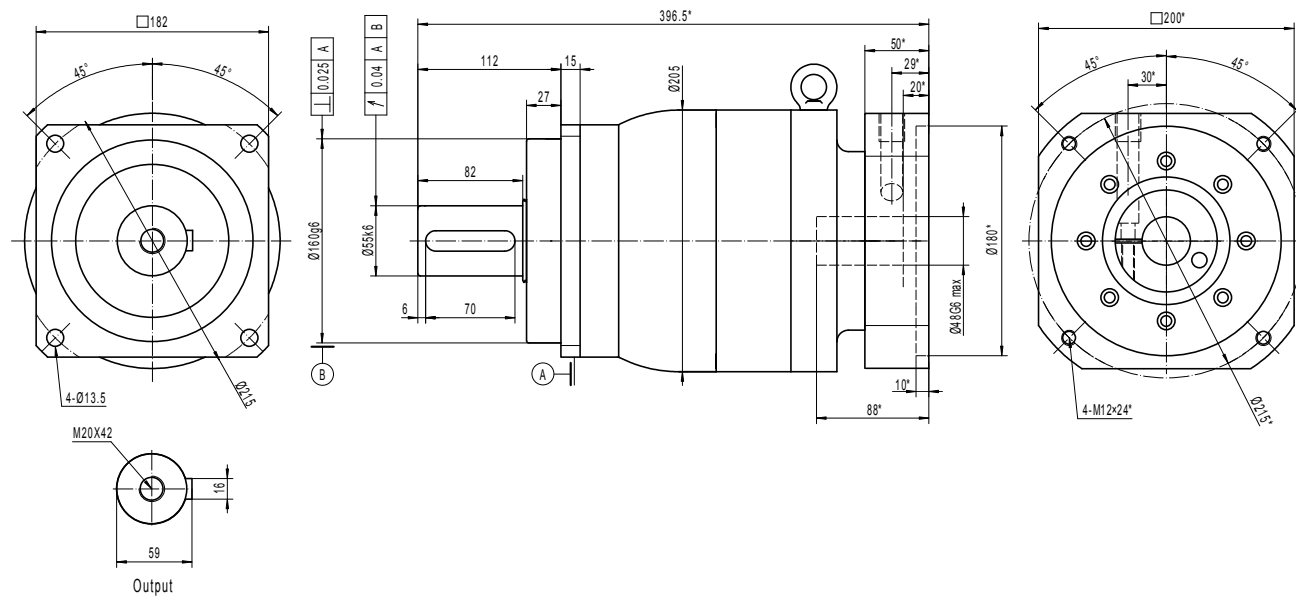
X-TREME-SQ-ST-180- 2 STAGES-R - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 42$



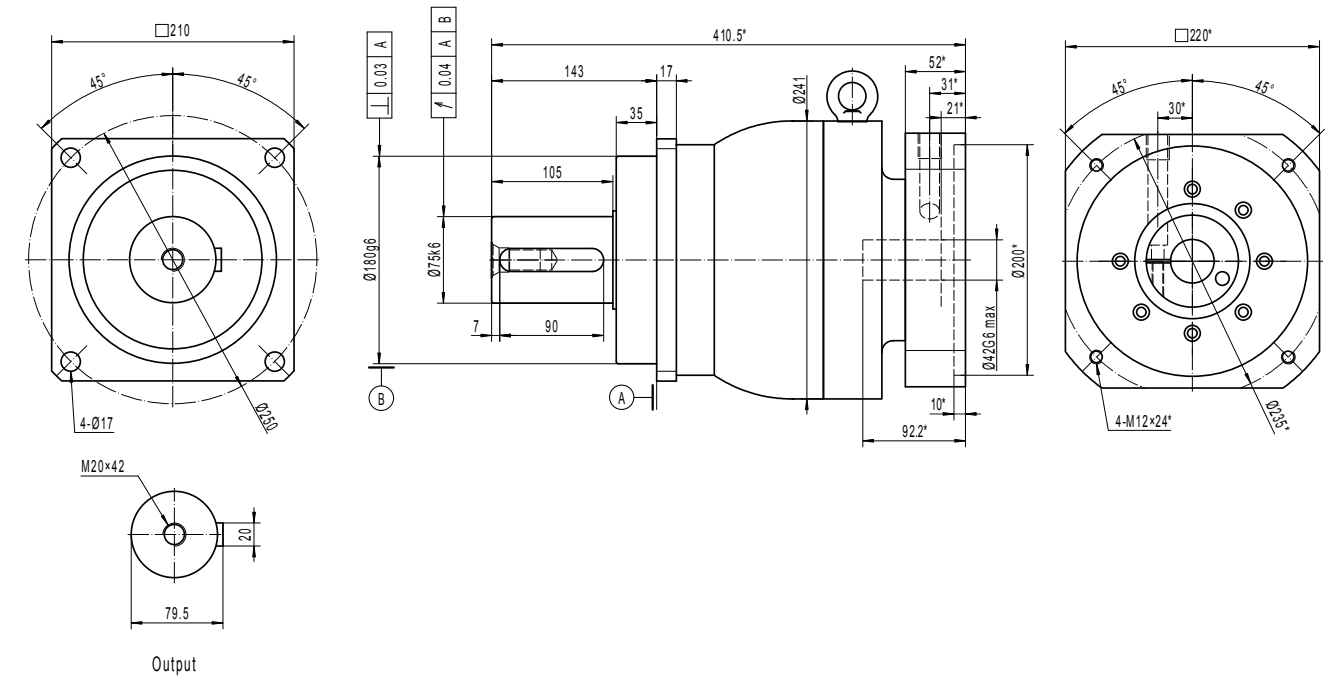
*VARIES WITH YOUR MOTOR DIMENSIONS

*VARIES WITH YOUR MOTOR DIMENSIONS

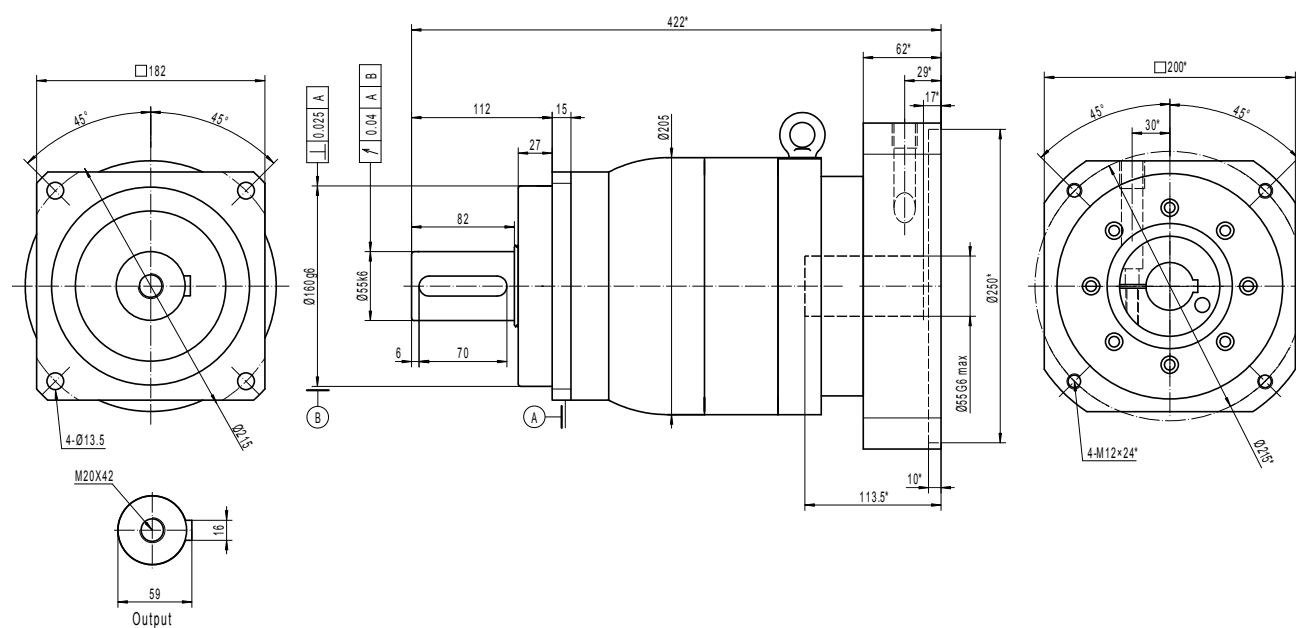
X-TREME-SQ-ST-180- 2 STAGES-P - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 48$



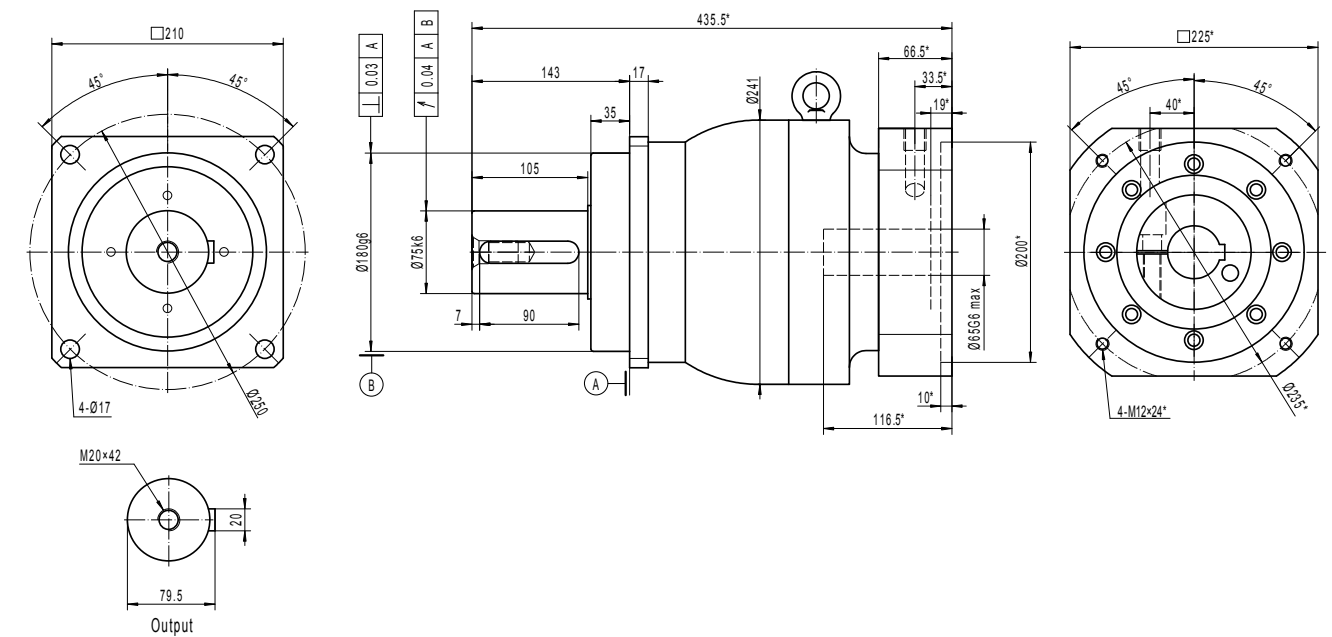
X-TREME-SQ-ST-210- 1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 42$



X-TREME-SQ-ST-180- 2 STAGES-P - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 55$



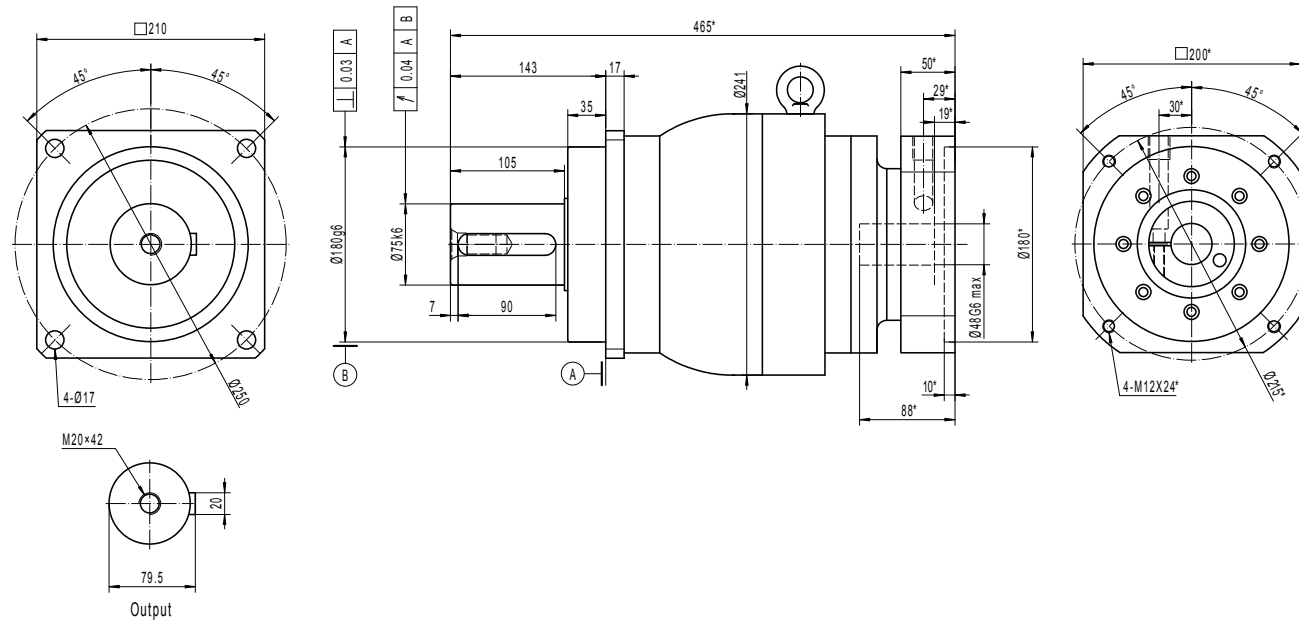
X-TREME-SQ-ST-210- 1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 65$



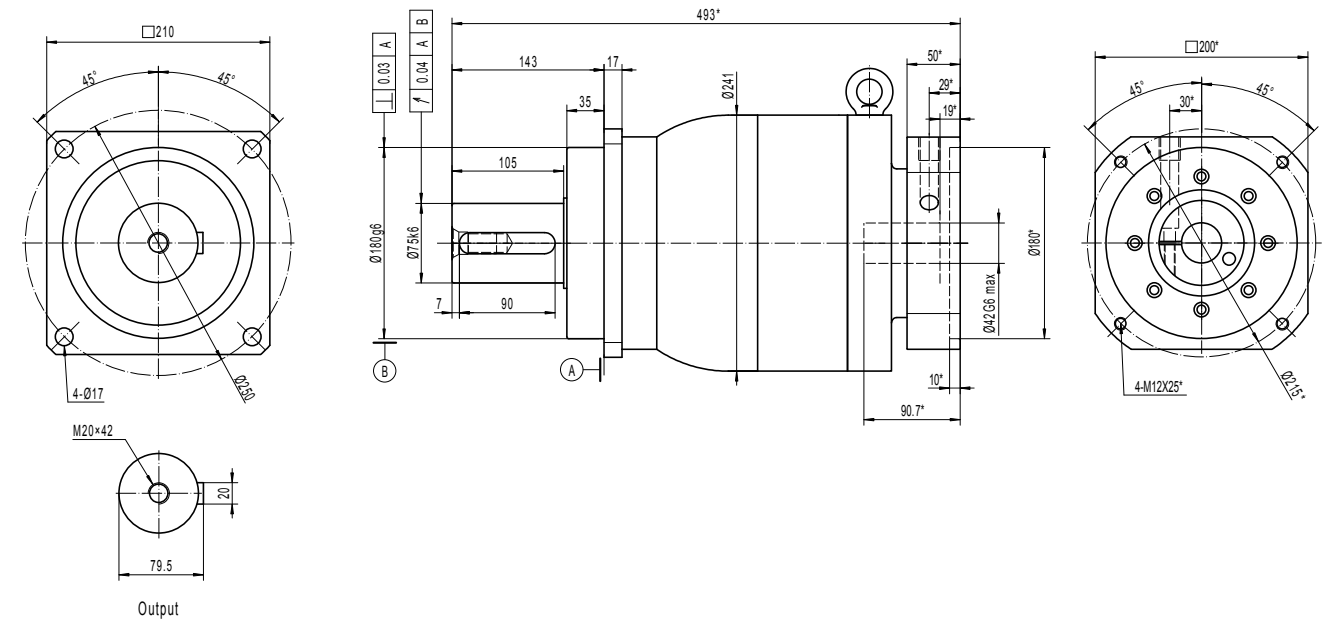
*VARIES WITH YOUR MOTOR DIMENSIONS

*VARIES WITH YOUR MOTOR DIMENSIONS

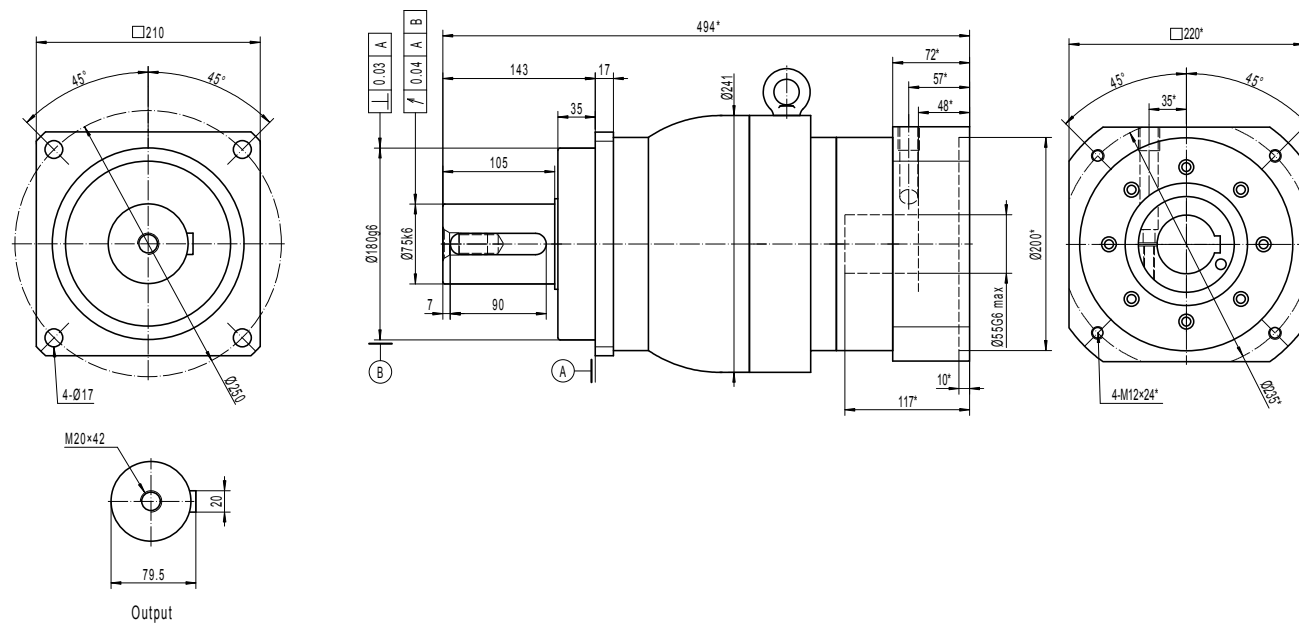
X-TREME-SQ-ST-210- 2 STAGES-R - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 48$



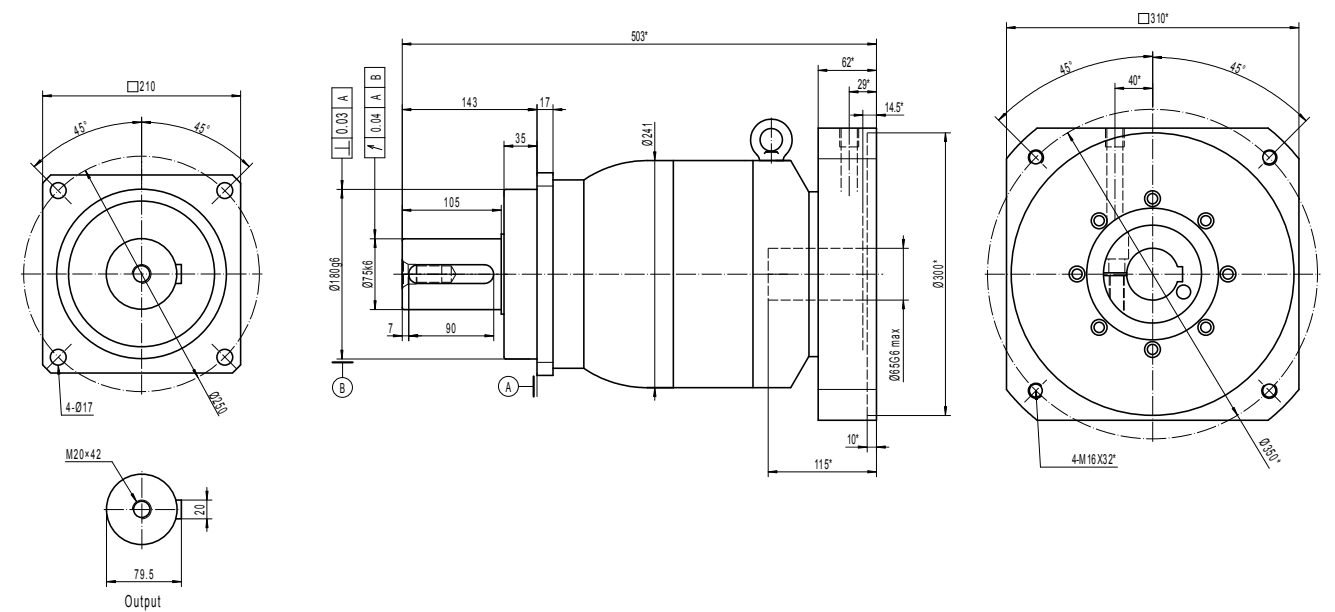
X-TREME-SQ-ST-210- 2 STAGES-P - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 42$



X-TREME-SQ-ST-210- 2 STAGES-R - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 55$



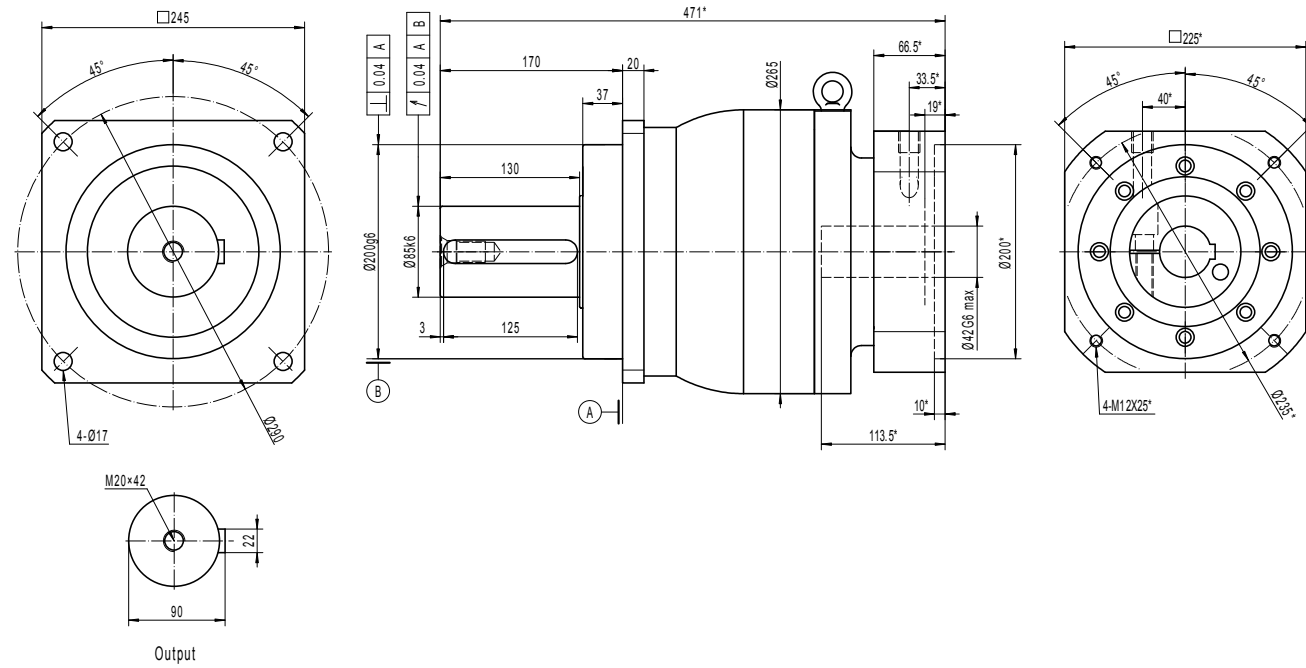
X-TREME-SQ-ST-210- 2 STAGES-P - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 65$



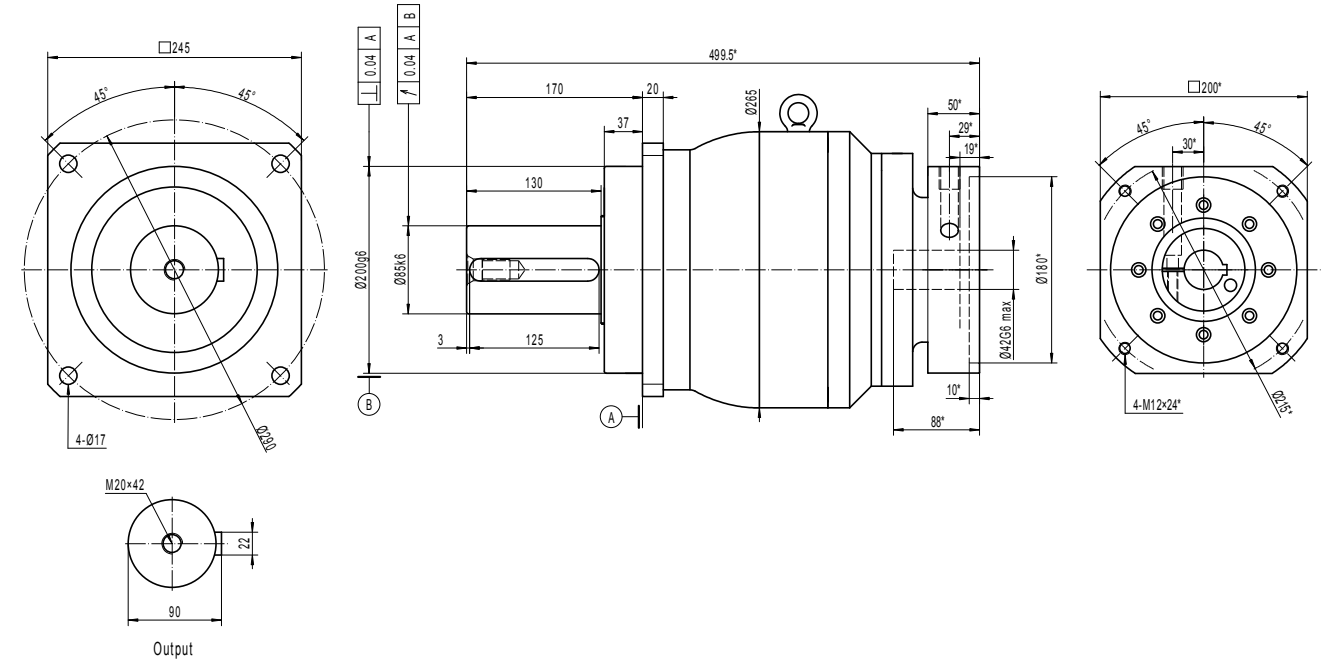
*VARIES WITH YOUR MOTOR DIMENSIONS

*VARIES WITH YOUR MOTOR DIMENSIONS

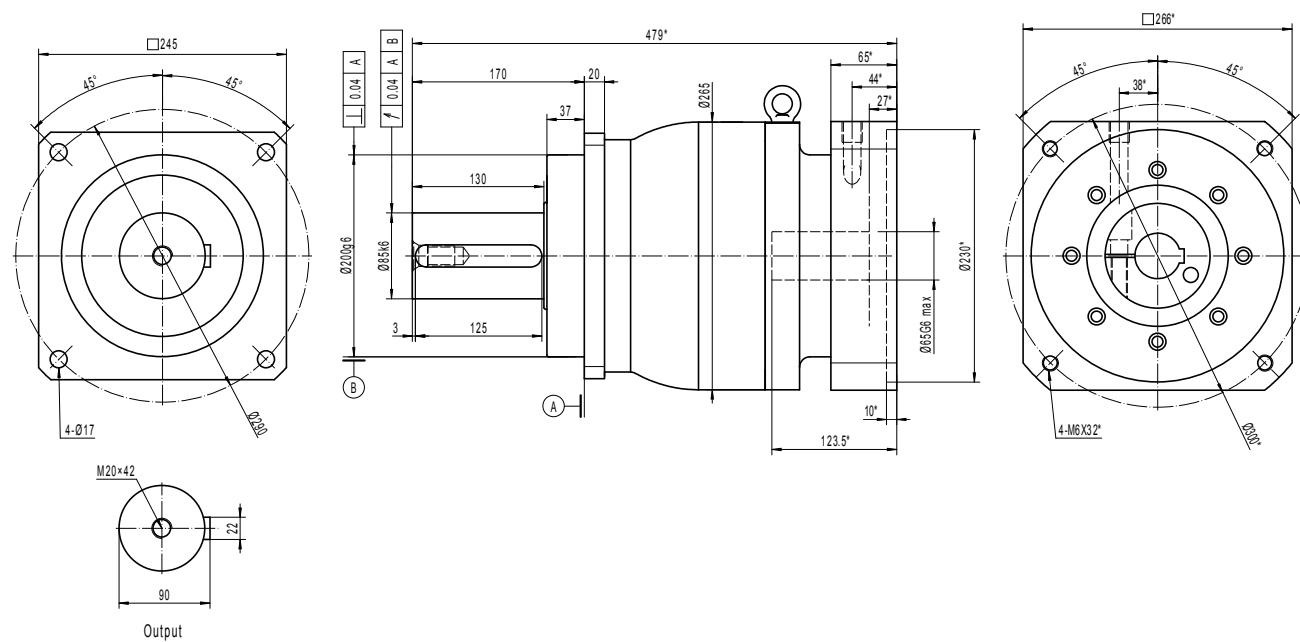
X-TREME-SQ-ST-240- 1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 42$



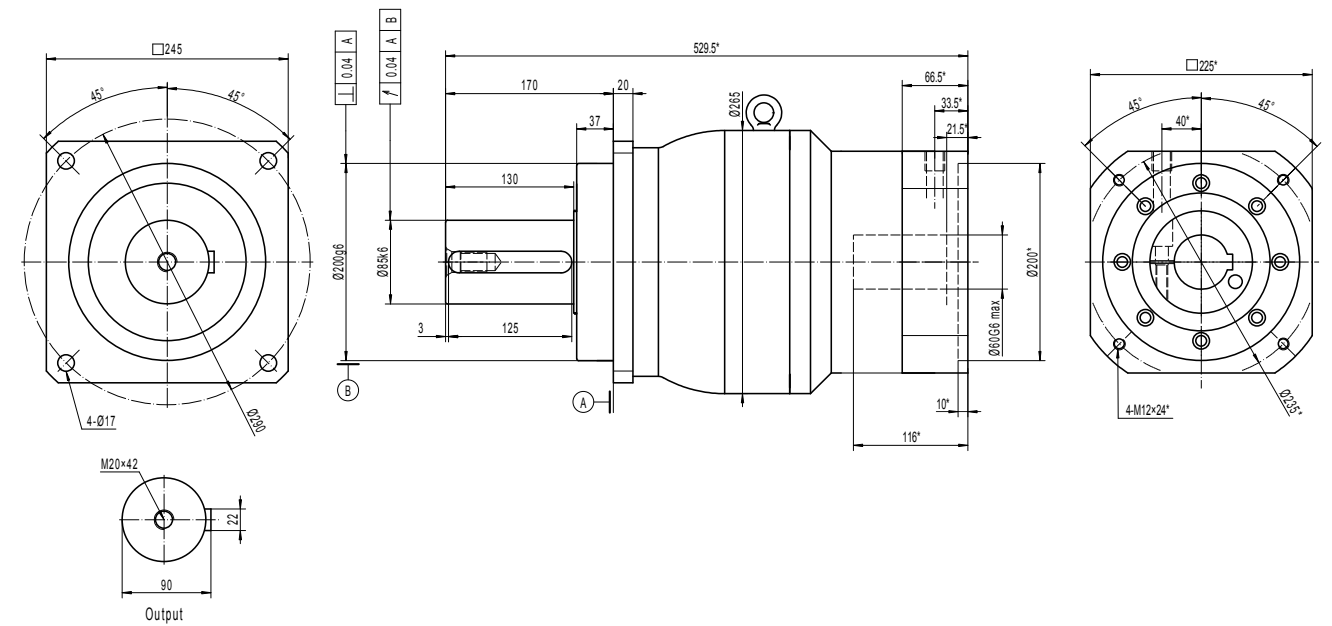
X-TREME-SQ-ST-240- 2 STAGES-R - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 42$



X-TREME-SQ-ST-240- 1 STAGE - RATIOS 3 TO 10
FOR MOTOR SHAFT $\leq \varnothing 65$



X-TREME-SQ-ST-240- 2 STAGES-R - RATIOS 12 TO 100
FOR MOTOR SHAFT $\leq \varnothing 60$



*VARIES WITH YOUR MOTOR DIMENSIONS

*VARIES WITH YOUR MOTOR DIMENSIONS