

SMPB series



정속한 운전

헬리컬 기어 적용으로 저진동, 저소음 실현.

Quiet operation

Helical gears contribute to reduce vibration and noise.

고정밀

표준 백래시 ≤ 5 arc-min.

High precision

Standard backlash is 5 arc-min, ideal for precision control.

고강성 & 고토크

Uncaged 니들롤러베어링을 사용하여 강성과 토크 향상.

High rigidity & torque

High rigidity & high torque were achieved by uncaged needle roller bearings.

어댑터-부싱 연결방식

다양한 모터에 취부 가능.

Adapter-bushing connection

Can be attached to any motor all over the world.

그리스 누유현상 없음

고점도 분리방지 그리스를 사용.

No grease leakage

Perfect solution using high viscosity anti-separation grease.

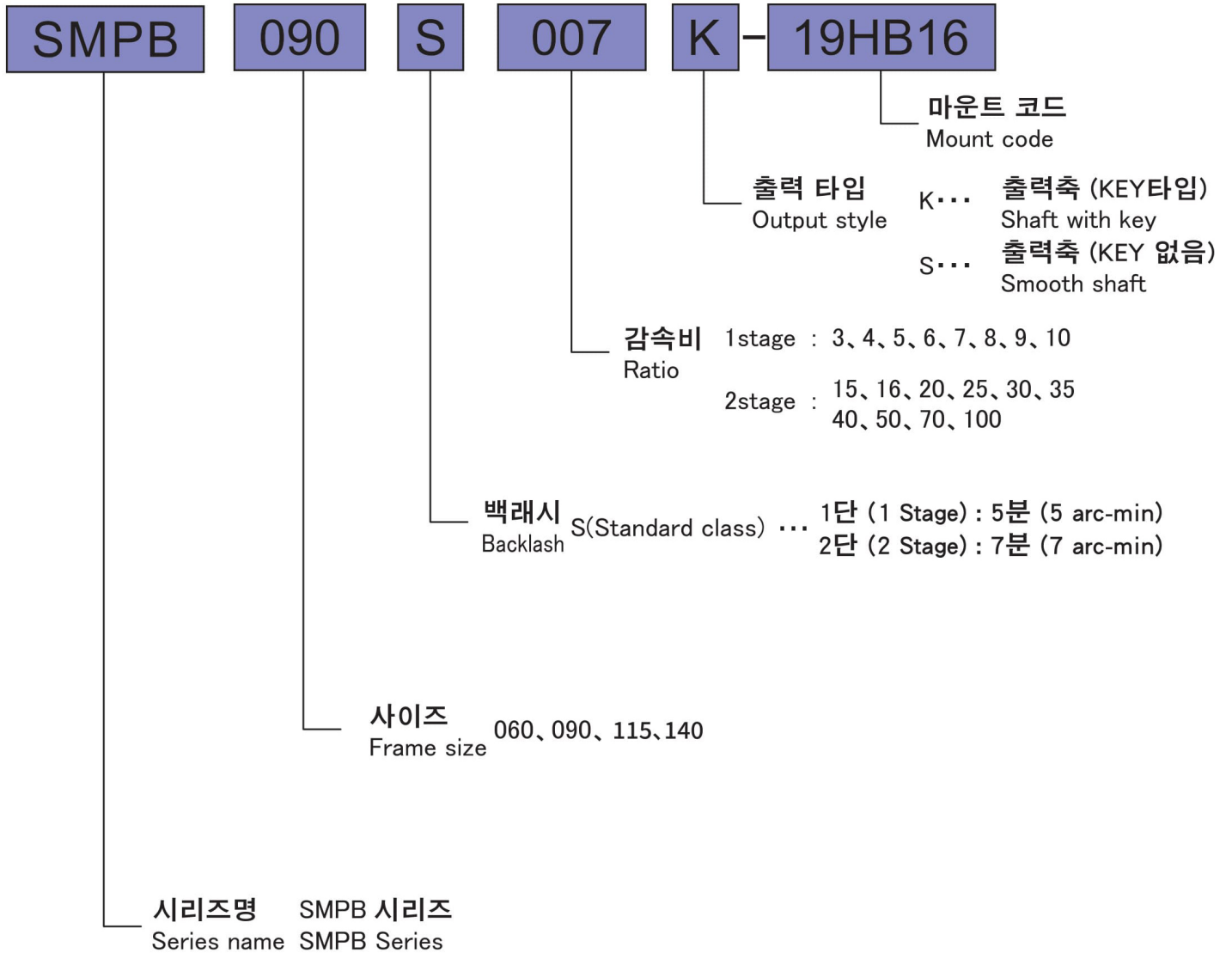
유지 보수 불필요

제품 수명 동안 그리스 교체 불필요 자유로운 설치 가능.

Maintenance-free

No need to replace the grease for the life of the unit.
Can be attached in any position.

SMPB series



Model No.		Unit	Stage	Ratio ¹	SMPB060	SMPB090	SMPB115	SMPB140
Rated Output Torque (Nominal Output torque)	T _{2N}	Nm	1	3	39	106	195	440
				4	39	110	210	460
				5	43	110	210	580
				6	43	108	160	530
				7	43	108	200	490
				8	43	79	190	420
				9	35	90	170	390
				10	30	88	170	370
				15	35	84	195	440
				16	39	100	210	460
			2	20	39	100	210	460
				25	43	110	210	580
				30	39	90	195	440
				35	43	108	200	580
				40	43	110	210	460
				50	43	110	210	580
				70	43	108	200	490
				100	39	88	170	370
Max. Acceleration Torque	T _{2B}	Nm	1,2	3~100	1.8 Times of Rated Output Torque			
Max. Output Torque Emergency Stop Torque	T _{2NOT}	Nm	1,2	3~100	3 Times of Rated Output Torque			
Nominal Input speed	n _{1n}	rpm	1,2	3~100	3,000	3,000	3,000	2,000
Max. Input speed	n _{1B}	rpm	1,2	3~100	6,000	6,000	6,000	5,000
Backlash (Standard class)		arcmin	1	3~10	≤5	≤5	≤5	≤5
			2	15~100	≤7	≤7	≤7	≤7
Torsional Rigidity		Nm/arcmin	1,2	3~100	5	12	23	38
Max. Radial load ²	F _{2rB}	N	1,2	3~100	930	2,350	5,100	8,100
Max. Axial load ²	F _{2aB}	N	1,2	3~100	860	1,700	3,900	8,200
Service life	L _H	hr	1,2	3~100	20,000	20,000	20,000	20,000
Noise level ³		dB(A)	1,2	3~100	≤ 58	≤ 60	≤ 63	≤ 65
Weight		kg	1	3~10	1.3	3.9	6.2	16
			2	15~100	1.8	4.6	8	17
Mass Moments of Inertia ⁴		kg cm ²	1	3~10	0.22	1.1	4.5	14
			2	15~100	0.16	0.2	1.8	11
Operating Temp. ⁵		°C	1,2	3~100	-10 ~ +90			
Lubrication			1,2	3~100	High temperature & Extreme pressure Lubricant			
Mounting position			1,2	3~100	All directions			
Efficiency	η	%	1	3~10	≥ 95			
			2	15~100	≥ 90			
Degree of protection			1,2	3~100	IP 65			

(1) Ratio (감속비) = N_{in} / N_{out}

(2) 기준 : 출력회전수 100rpm, 출력축 중앙 부하, 부하계수(Ka)=1, 연속운전 10,000시간

These values are based on the following conditions : 100 rpm at the output. Load applied to the middle of the output shaft.

Load coefficient(Ka)=1. Continuous operation(S1 ≒ 10,000hrs).

(3) 입력 회전수 3000 rpm, 무부하 운전상태에서 감속기 취부면에서 1m 떨어진 거리에서 측정 (모델에 따라 차이가 있을수 있습니다)

Noise level : A measurement 1m away from the reducer (with ratio10 or ratio 100), 3000 input rpm and at no load condition.

(Background noise 40dB(A)) With lower ratio and/or higher rpm, the noise level could be 3 to 5 dB higher.

(4) 관성모멘트 : 감속비 중 대표값 (i=1/5)

Moment of inertia : A measurement at the input shaft and representatives from each ratio.(i=1/5)

(5) 감속기 작동온도 : -10~+90 °C, 감속기 주위온도 -10~40°C

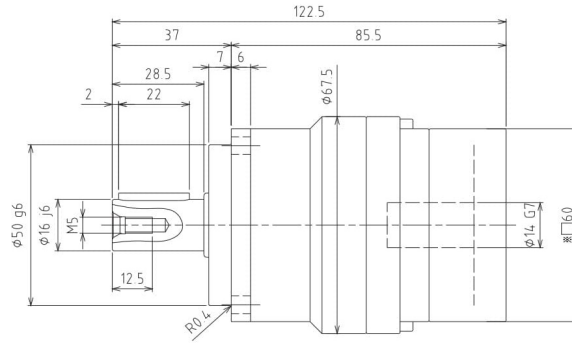
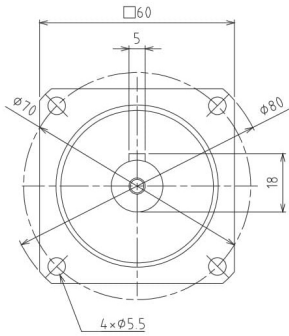
Operating temperature : Surface temperature of gear case in -10 °C~40 °C of ambient temperature.

※ 제품 성능 향상을 위해 사양은 별도의 고지 없이 변경될 수 있습니다.

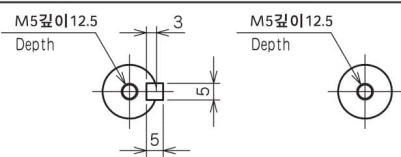
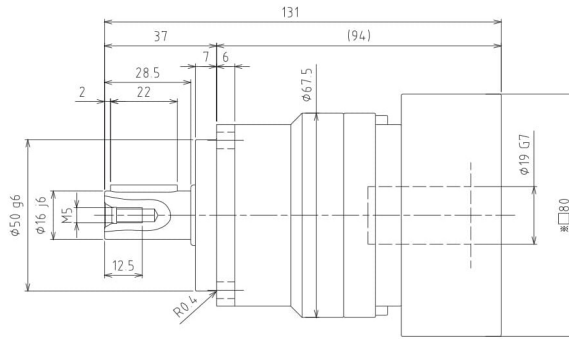
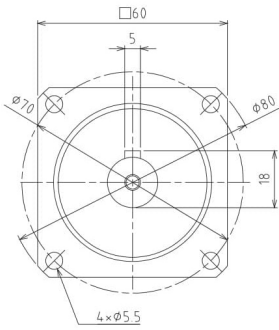
Specifications are subject to change without notice to improve product performances.

SMPB 060 1단 1stage

입력축 내경 Input shaft bore $\leq \phi 14$



입력축 내경 Input shaft bore $\leq \phi 19$



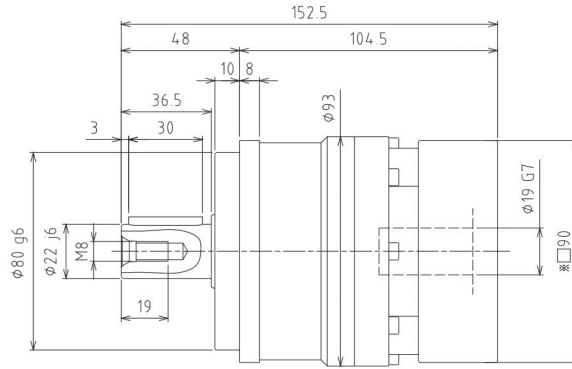
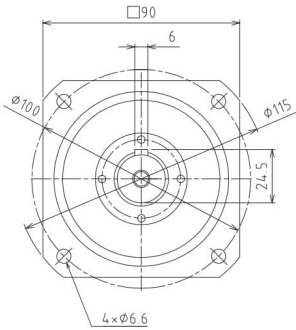
출력축 (KEY타입)
Shaft with key

출력축 (KEY없음)
Smooth shaft

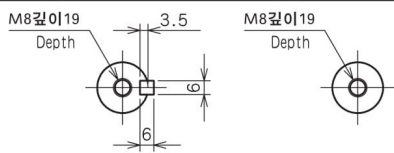
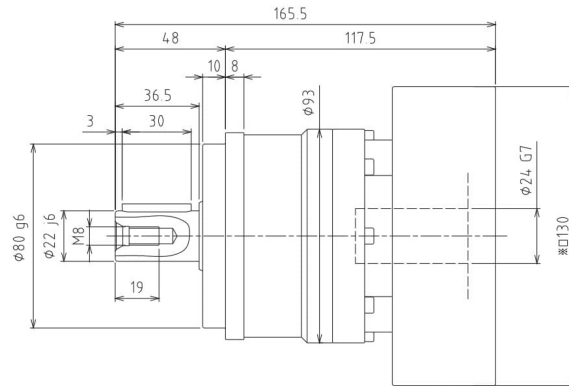
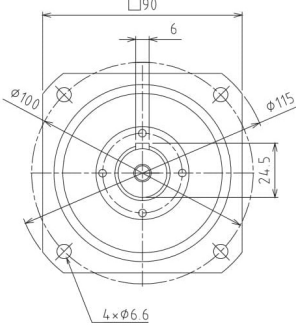
- ※ 1 적용 모터에 따라 길이는 변경될 수 있습니다.
- ※ 2 모터 축과 감속기의 입력축 내경이 다를 경우에는 부싱이 삽입됩니다.
- ※ 1 Length will vary depending on motor.
- ※ 2 Bushing will be inserted to adapt to motor shaft.

SMPB 090 1단 1stage

입력축 내경 Input shaft bore $\leq \phi 19$



입력축 내경 Input shaft bore $\leq \phi 24$



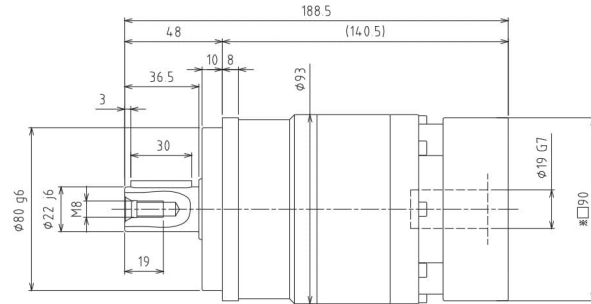
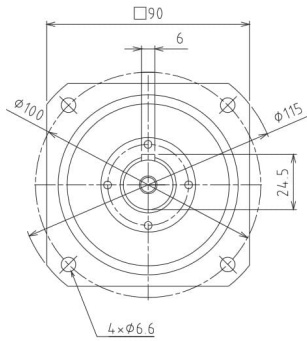
출력축 (KEY타입)
Shaft with key

출력축 (KEY없음)
Smooth shaft

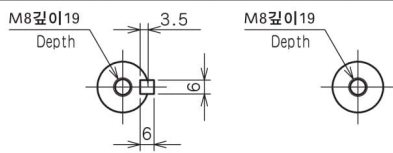
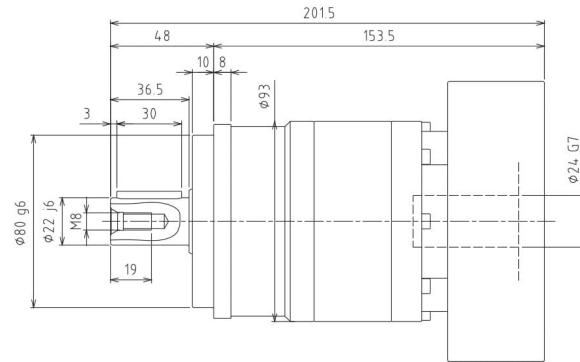
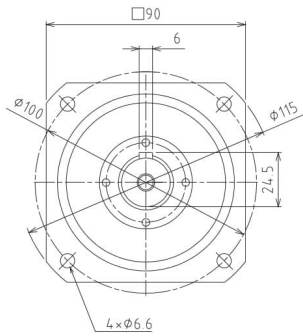
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- ※ 1 Length will vary depending on motor.
- ※ 2 Bushing will be inserted to adapt to motor shaft.

SMPB 090 2단 2stage

입력축 내경 Input shaft bore $\leq \phi 19$



입력축 내경 Input shaft bore $\leq \phi 24$

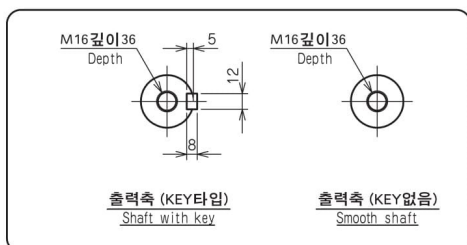
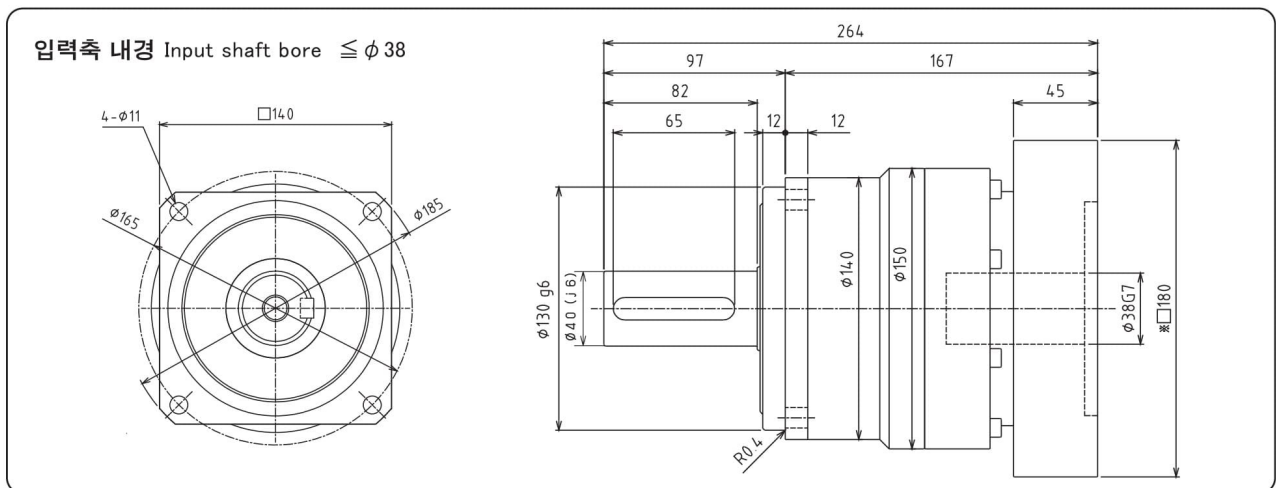
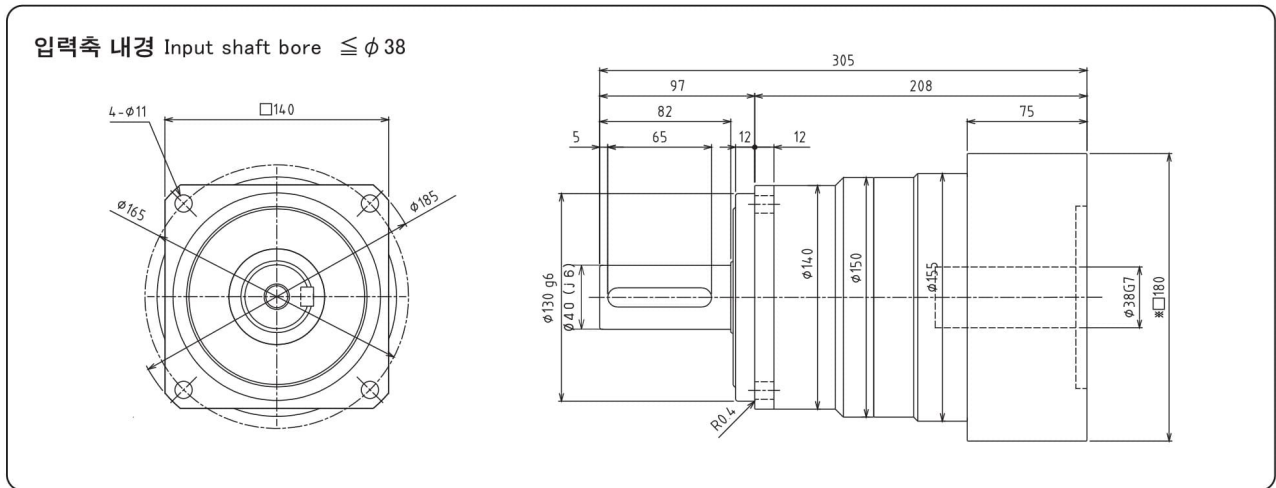
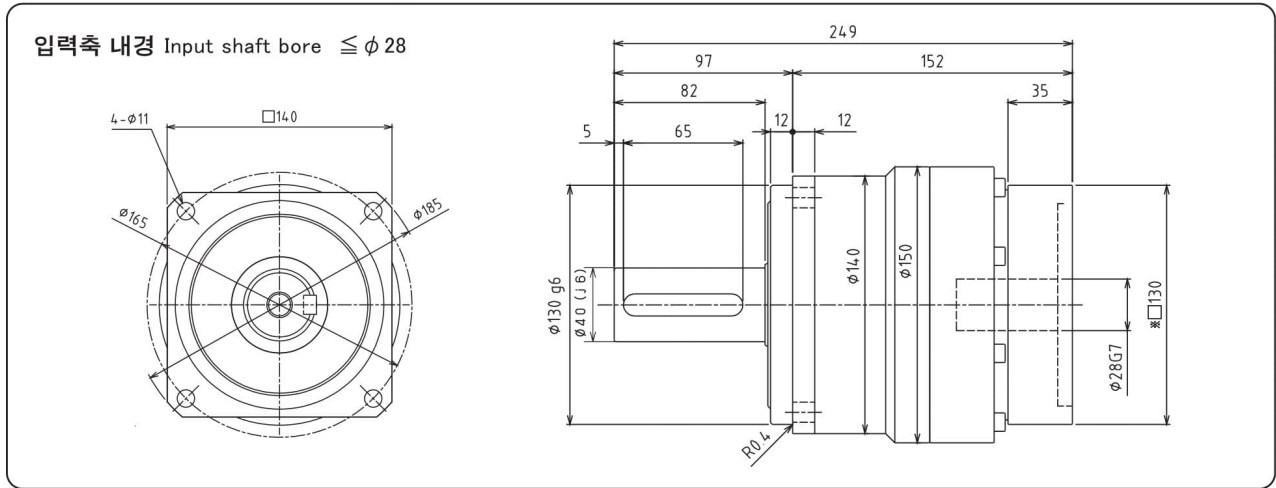


출력축 (KEY타입)
Shaft with key

출력축 (KEY없음)
Smooth shaft

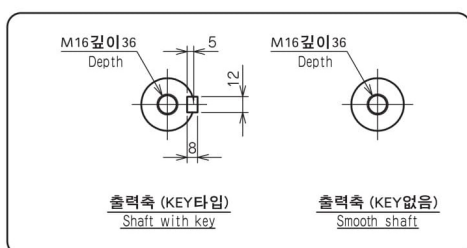
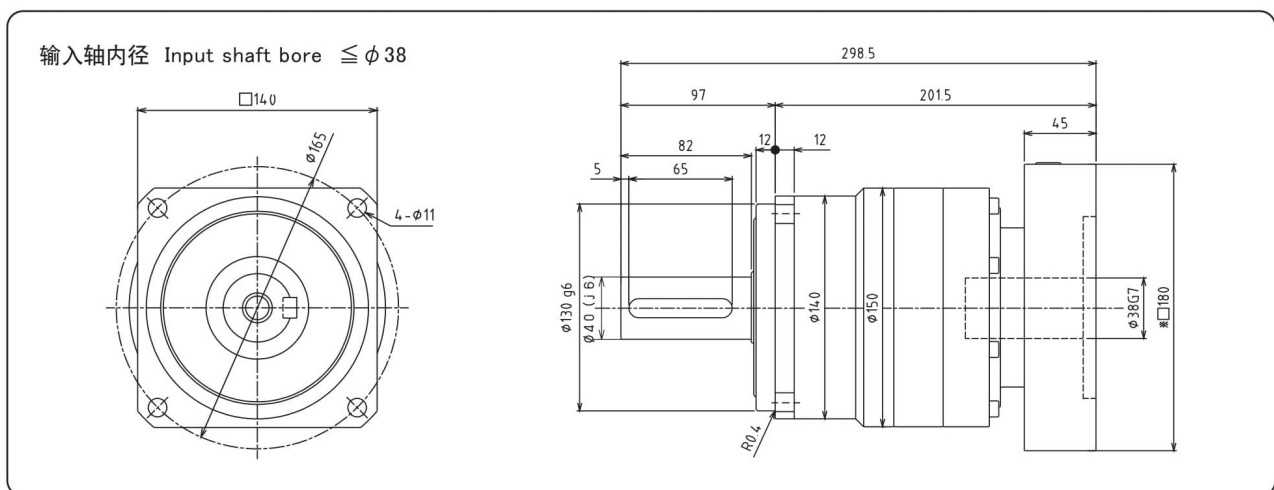
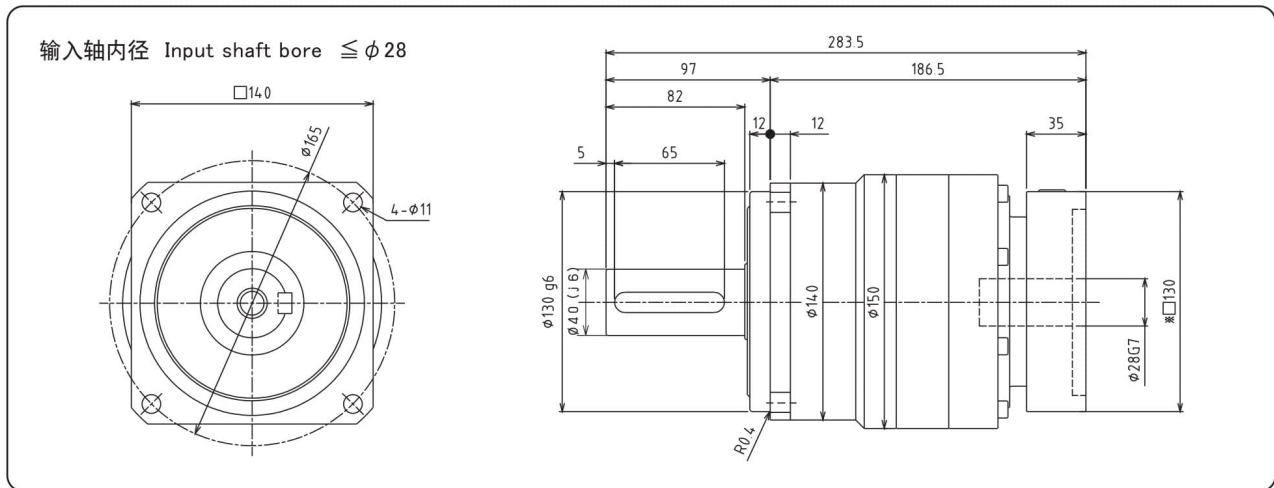
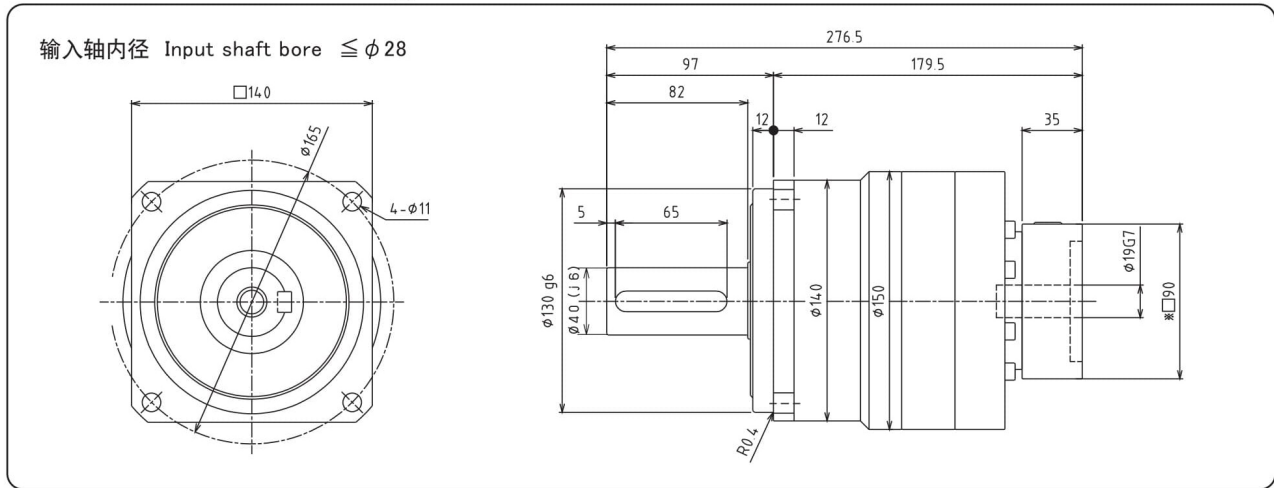
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- ※1 Length will vary depending on motor.
- ※2 Bushing will be inserted to adapt to motor shaft.

SMPB 140 1단 1stage



- ※1 적용 모터에 따라 길이는 변경될 수 있습니다.
- ※2 모터 축과 감속기의 입력축 내경이 다를 경우에는 부싱이 삽입됩니다.
- ※1 Length will vary depending on motor.
- ※2 Bushing will be inserted to adapt to motor shaft.

SMPB 140 2段 2stage



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- ※2 모터 축과 감속기의 입력축 내경이 다를 경우에는 부싱이 삽입됩니다.
- ※1 Length will vary depending on motor.
- ※2 Bushing will be inserted to adapt to motor shaft.