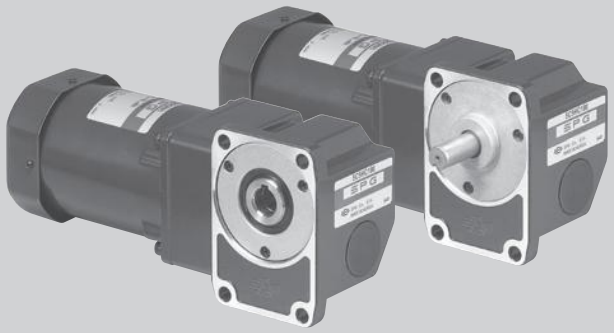


RIGHT ANGLE GEAR HEAD

□80㎜ / □90㎜, 25W / 40W / 60W / 90W

RIGHT ANGLE GEAR HEAD 특징 (Characteristics of RIGHT ANGLE GEAR HEAD)

- WORM GEAR를 이용하여 모터와 직각으로 설치하여 사용할 수 있습니다. (Can be installed to a motor at a right angle using worm gears and special helical gears.)
- 기존 사각 박스 대비 설치 공간을 줄일 수 있습니다.(최대 50%) (Space saving of maximum 50% compared to existing square boxes.)
- SPG 표준 AC/DC 모터와 바로 조립하여 적용 가능합니다. (Can be assembled and applied with SPG standard motors.)
- 감속비는 표준형 GEAR HEAD와 유사하게 구성되어 있으며, 1/3~1/180까지 가능합니다. (Ratio can be selected in between 1/3 and 1/180, and is shown in the cover of the gear head.)

RIGHT ANGLE GEAR HEAD CODING SYSTEM

MAKER MODEL	SIZE	SHAFT TYPE	OUTPUT	GEAR RATIO		SPECIAL TYPE
SC	9	K	C	180	-	□□□
	8 : □80㎜ 9 : □90㎜	K : Key type H : Hollow shaft	A : 25W B : 40W C : 60W/90W	3~180 : Reduction Ratio		

SC : SPG Crossing Gear Head

RIGHT ANGLE GEAR HEAD 사양 (SPECIFICATION OF RIGHT ANGLE GEAR HEAD)

품명 (TYPE)	감속비 (RATIO)	최대허용토크(MAXIMUM PERMISSIBLE TORQUE)		허용(PERMISSIBLE) OVERHUNG 하중 (LOAD)				허용(PERMISSIBLE) THRUST 하중(LOAD)	
		kgf · cm	N · m	SHAFT 앞 끝에서 10㎜ (DISTANCE FROM FRONT EDGE OF SHAFT 10mm)		SHAFT 앞 끝에서 20㎜ (DISTANCE FROM FRONT EDGE OF SHAFT 20mm)			
				kgf	N	kgf	N	kgf	N
SC8HA□	3~180	80	8	★25	★250	★22	★220	10	100
SC9HB□	3~180	100	10	★35	★350	★31	★310	20	200
SC9HC□	3~180	200	20	★56	★560	★50	★500	25	250
SC8KA□	3~18 25~180	80	8	10 20	100 200	15 30	150 300	10	100
SC9KB□	3~18 25~180	100	10	25 30	250 300	35 45	350 450	20	200
SC9KC□	3~9 12.5~25 30~180	200	20	40 45 50	400 450 500	50 60 70	500 600 700	25	250

❖ 중공축 type에서 허용 OVERHUNG 하중은 FLANGE 면에서의 거리입니다.(★ 부분) (★ is the distance from the flange mounting surface.)
❖ 품명 중 □는 감속비입니다. (The code in □ of gearhead model is gear ratio.)
❖ Self Locking은 작동하지 않습니다. (Self Locking isn't working.)

RIGHT ANGLE GEAR HEAD 전달 효율 (TRANSFER EFFICIENCY)

품명(Model) \ 감속비 (Gear Ratio)	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
SC8KA□ SC8HA□	50%						60%													
SC9KB□ SC9HB□	68%									60%										
SC9KC□ SC9HC□	68%										60%							50%		

❖ 효율은 정격 기준이고 참고값이므로 실제 적용시 상이할 수 있습니다.(The efficiency referenced may vary when applied.)

RIGHT ANGLE GEAR HEAD 허용 TORQUE (PERMISSIBLE TORQUE)

50Hz

MODEL	GEAR RATIO	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
	rpm	500	417	300	250	200	167	120	100	83	60	50	42	30	25	20	17	15	12.5	10	8.3
SC8KA□ SC8HA□ (25W)	kg-cm	3.2	3.8	5.3	6.3	7.9	9.5	15.8	18.9	22.7	31.5	37.8	45.4	63	75.6	80	80	80	80	80	80
	N-m	0.32	0.38	0.53	0.63	0.79	0.95	1.58	1.89	2.27	3.15	3.78	4.58	6.30	7.56	8	8	8	8	8	8
SC9KB□ SC9HB□ (40W)	kg-cm	6.4	7.7	10.7	12.9	16.1	19.3	26.8	32.1	38.6	47.3	56.7	68	94.5	100	100	100	100	100	100	100
	N-m	0.64	0.77	1.07	1.29	1.61	1.93	2.68	3.21	3.86	4.73	5.67	6.8	9.45	10	10	10	10	10	10	10
SC9KC□ SC9HC□ (60W)	kg-cm	9.4	11.3	15.6	18.8	23.5	28.2	39.1	46.9	56.3	78.2	82.8	99.4	138	165.6	200	200	200	200	200	200
	N-m	0.94	1.13	1.56	1.88	2.35	2.82	3.91	4.69	5.63	7.82	8.28	9.94	13.8	16.56	20	20	20	20	20	20
SC9KC□ SC9HC□ (90W)	kg-cm	14.1	16.9	23.5	28.2	35.2	42.2	58.7	70.4	84.5	117.3	124.2	149	200	200	200	200	200	200	200	200
	N-m	1.41	1.69	2.35	2.82	3.52	4.22	5.87	7.04	8.45	11.73	12.42	14.9	20	20	20	20	20	20	20	20

60Hz

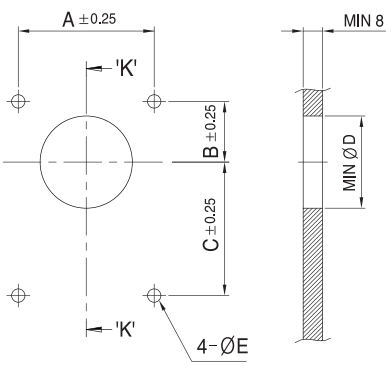
MODEL	GEAR RATIO	3	3.6	5	6	7.5	9	12.5	15	18	25	30	36	50	60	75	90	100	120	150	180
	rpm	600	500	360	300	240	200	144	120	100	72	60	50	36	30	24	20	18	15	12	10
SC8KA□ SC8HA□ (25W)	kg-cm	25	3	4.1	5	6.2	7.4	12.4	14.9	17.8	24.8	29.7	35.6	49.5	59.4	74.3	80	80	80	80	80
	N-m	0.25	0.3	0.41	0.5	0.62	0.74	1.24	1.49	1.78	2.48	2.97	3.56	4.95	5.94	7.43	8	8	8	8	8
SC9KB□ SC9HB□ (40W)	kg-cm	5.1	6.1	8.5	10.2	12.8	15.3	21.3	25.5	30.6	37.5	45	54	75	90	100	100	100	100	100	100
	N-m	0.51	0.61	0.85	1.02	1.28	1.53	2.13	2.55	3.06	3.75	4.5	5.4	7.5	9	10	10	10	10	10	10
SC9KC□ SC9HC□ (60W)	kg-cm	8	9.5	13.3	15.9	19.9	23.9	33.2	39.8	47.7	66.3	70.2	84.2	117	140.4	175.5	200	200	200	200	200
	N-m	0.8	0.95	1.33	1.59	1.99	2.39	3.32	3.98	4.77	6.63	7.02	8.42	11.7	14.04	17.5	20	20	20	20	20
SC9KC□ SC9HC□ (90W)	kg-cm	11.4	13.7	19	22.8	28.6	34.3	47.6	57.1	68.5	95.2	100.8	121	168	200	200	200	200	200	200	200
	N-m	1.14	1.37	19	2.28	2.86	3.43	4.76	5.71	6.85	9.52	10.08	12.1	16.8	20	20	20	20	20	20	20

❖ 출력축 회전방향은 모두 MOTOR 회전방향과 반대방향입니다. (Basically, all output shaft rotates in an opposite way to that of a motor.)
❖ 회전수는 MOTOR의 동기 회전수(50Hz : 1500rpm, 60Hz : 1800rpm)를 기준으로 하여 감속비로 나누어 계산하였습니다. (Rpm is based on synchronous speed (50Hz: 1500rpm, 60Hz: 1800rpm) divided by gear ratio.)
❖ 실제 회전수는 부하의 크기에 따라 2~20% 적습니다. (The actual rotation speed can be 2~20% less than displayed value depending on the load.)

RIGHT ANGLE GEAR HEAD 설치 치수 (Dimensions of the gearhead mounting surface)

TYPE	품명(MODEL)	A	B	C	ØD	ØE
중공축	SC8HA□	56	25	55	Ø16	Ø5.5
	SC9HB□	58	33	57	Ø16	Ø6.5
	SC9HC□	60	33	67	Ø18	Ø8.5
중실축	SC8KA□	56	25	55	Ø35	Ø5.5
	SC9KB□	58	33	57	Ø35	Ø6.5
	SC9KC□	60	33	67	Ø35	Ø8.5

❖ 품명 중 □는 감속비입니다. (The code in □ of gearhead model is gear ratio.)



SECTION 'K' - 'K'

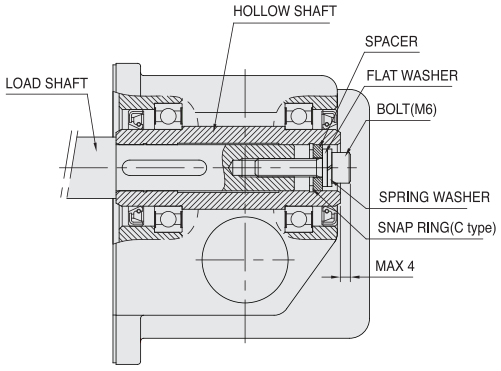
중공축 RIGHT ANGLE GEAR HEAD 부하축 설치 방법 (Mounting load shaft to hollow shaft right angle gearhead)

(부하축 설치 예(Example of mounting the load))

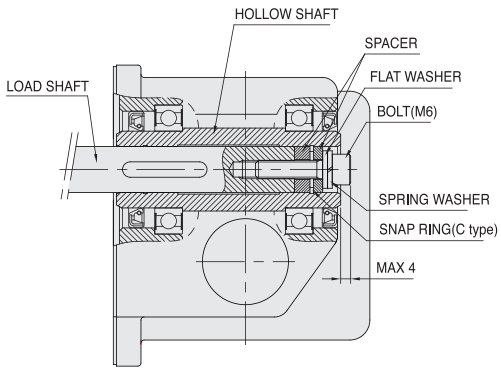
부하축 단이 있는 경우는 단을 출력축에 밀착시켜 조립하시고, 부하축 단이 없는 경우는 출력단 끝을 SANP RING에 밀착시켜 조립하여 주십시오. 만일 단이 없는 경우에서 부하축이 짧은 경우 SPACER를 사용하여 부하단 끝과 SNAP RING의 유격이 없도록 하여 주십시오. 부하축의 권장지수는 아래쪽 표를 참조하십시오. 볼트의 끝과 중공축 단면보다 4㎜ 이상 나오면 안전커버(부속품)를 장착할 수 없습니다. (For stepped load shaft, insert the load shaft all the way into the hollow shaft. For straight load shaft, insert the load shaft all the way to the snap ring. If the load shaft is not long enough, use spacer to eliminate any space between the load shaft and the snap ring. Refer to the below table for the dimensional relationship between the load shaft and the hollow shaft. Note that if the extrusion of the bolt is more than 4mm, the safety cover (accessory) cannot be installed.)

품명 (MODEL)	중공축 내경 및 공차 (Inner diameter and tolerance of hollow shaft)	부하축 권장 축지름 및 공차 (Shaft diameter and tolerance recommended of load shaft)
SC8HA□	Ø15H8 $^{+0.027}_{0}$	Ø15h7 $^{0}_{-0.018}$
SC9HB□	Ø15H8 $^{+0.027}_{0}$	Ø15h7 $^{0}_{-0.018}$
SC9HC□	Ø17H8 $^{+0.027}_{0}$	Ø17h7 $^{0}_{-0.018}$

❖ 품명 중 □는 감속비입니다. (The code in □ of gearhead model is gear ratio.)



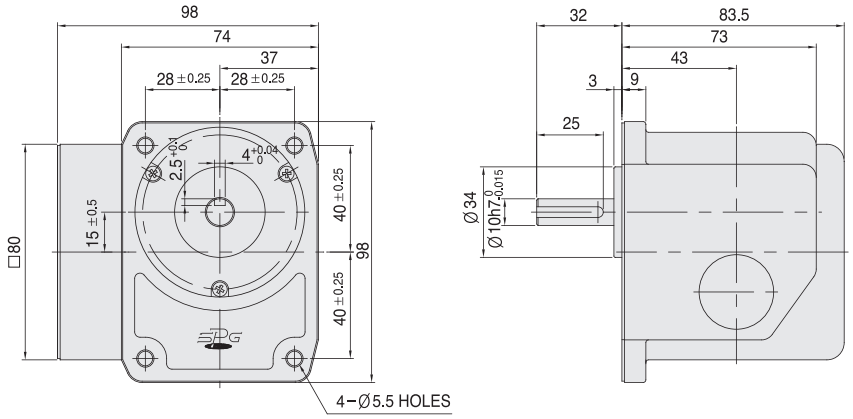
(부하축 단이 있는 경우 (Stepped load shaft))



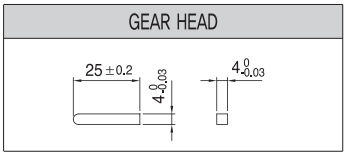
(부하축 단이 없는 경우 (Straight load shaft))

DIMENSIONS : SOLID SHAFT

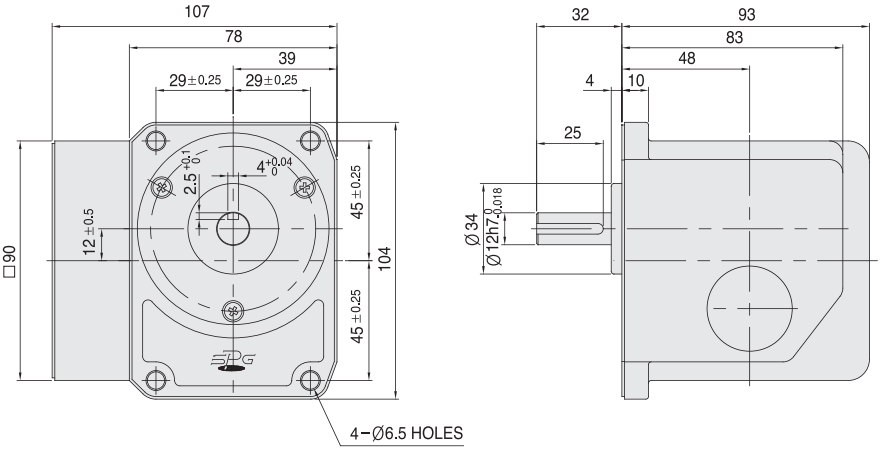
SC8KA□ (Weight : 1.6kg)



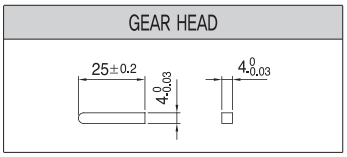
✚ KEY SPEC



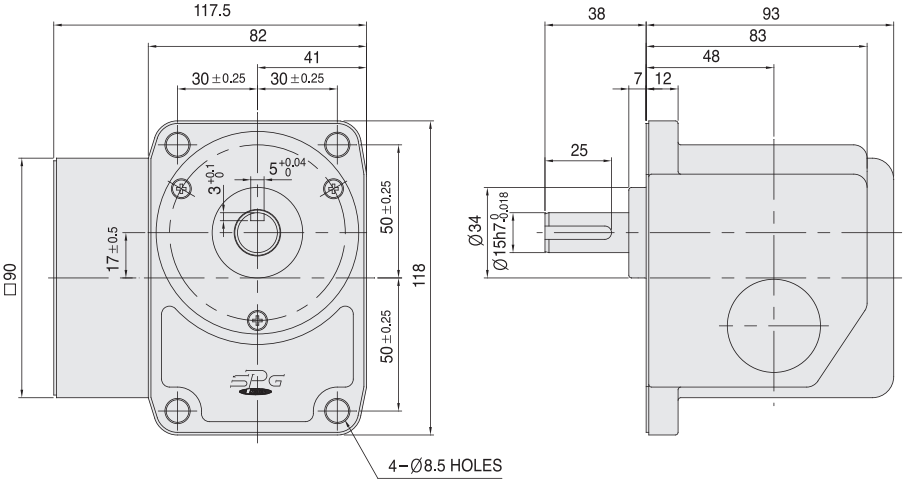
SC9KB□ (Weight : 2.0kg)



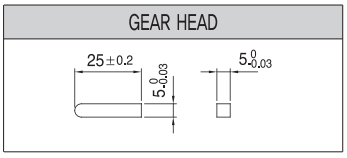
✚ KEY SPEC



SC9KC□ (Weight : 2.5kg)

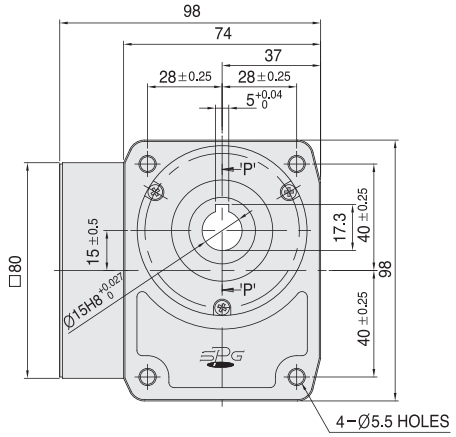


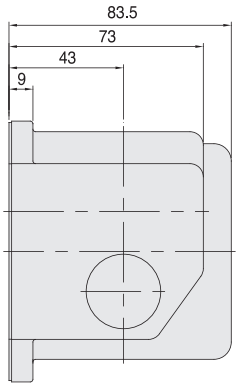
✚ KEY SPEC

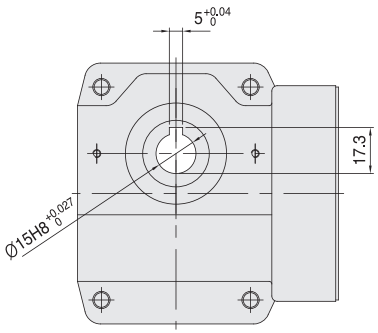


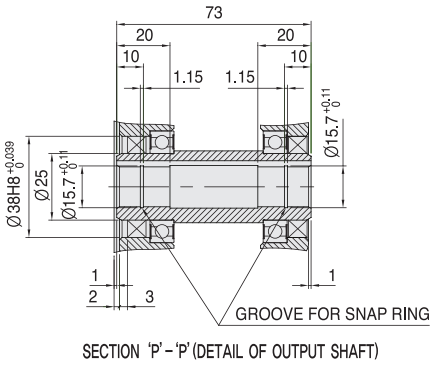
DIMENSIONS : HOLLOW SHAFT

SC8HA□ (Weight : 1.6kg)



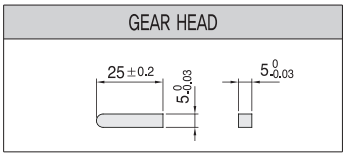




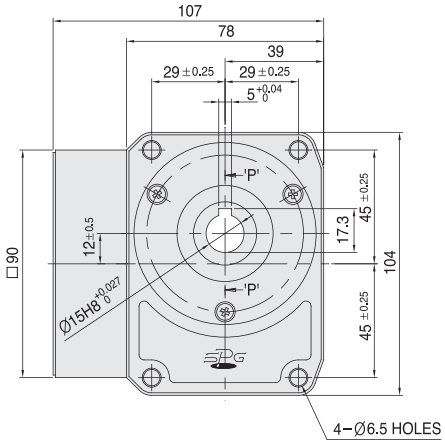


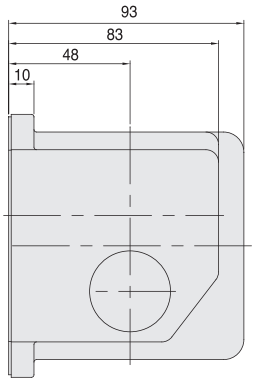
SECTION 'P'-'P' (DETAIL OF OUTPUT SHAFT)

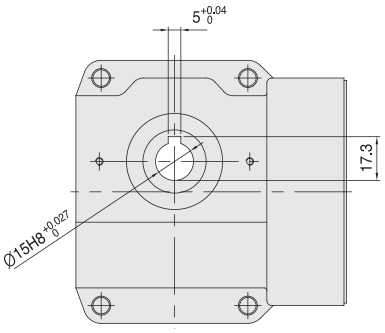
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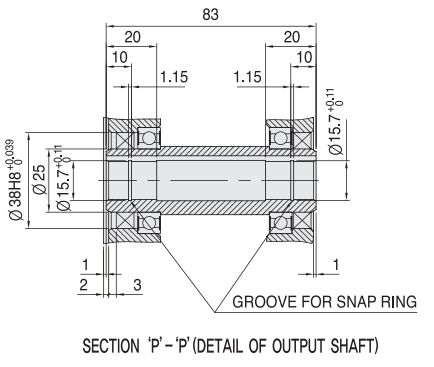


SC9HB□ (Weight : 2.0kg)



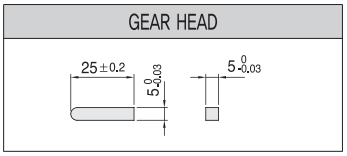






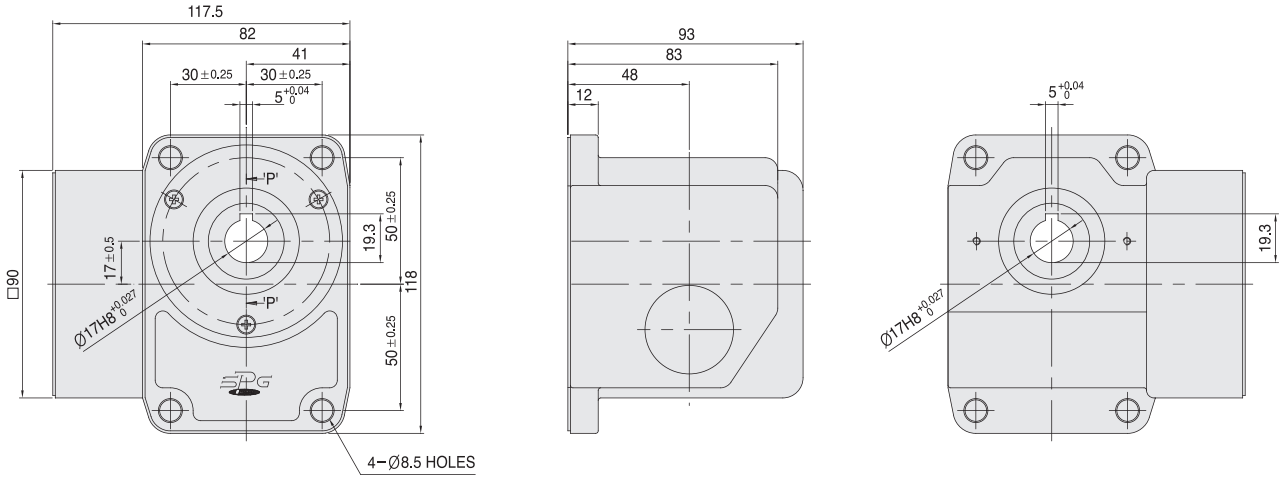
SECTION 'P'-'P' (DETAIL OF OUTPUT SHAFT)

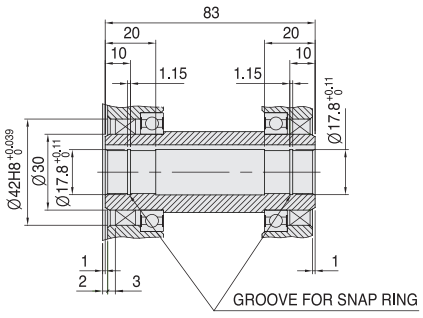
✚ KEY SPEC



DIMENSIONS : HOLLOW SHAFT

SC9HC□ (Weight : 2.5kg)





SECTION 'P'-'P'(DETAIL OF OUTPUT SHAFT)

✚ KEY SPEC

