

RIGHT ANGLE GEARHEAD

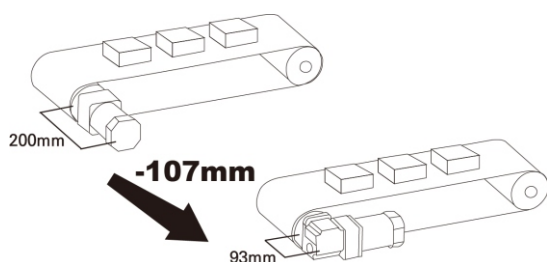
Diagram and general contents



Product Features

1. Space saver

Space saving is possible because motor can be assembled rectangularly with gearbox.



※ In case of mounting gear ratio 18:1 to K9IP90F□

2. Offering a wide range

20 kinds of wide range from 3 up to 180 gear ratio is supplied. You can choose optimum gear ratio like parallel gearhead. Max allowable torque is same as parallel gearhead.

3. Costs Saving

BRH gearhead contributes components cost saving, assembly process number saving by removing connected components.

■ Model name coding

K 9 P 180 BRH

① ② ③ ④

①+②	Gearhead Installation size + PINION TYPE	
	8G : 80mm (G)GENERAL 9P : 90mm (P)POWERFUL	
③	Ratio	180 (180:1)
④	BRH : Right Angle Gearhead · Hollow Shaft type BRS : Right Angle Gearhead · Solid Shaft type	

■ kind

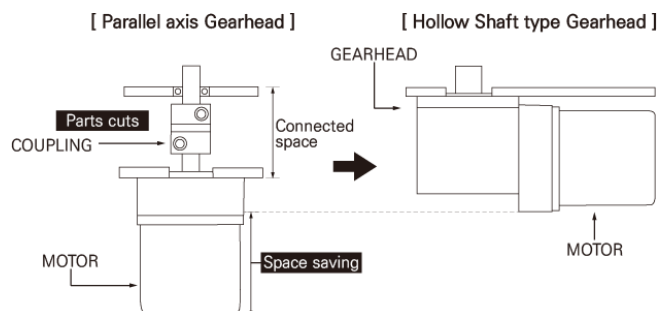
Hollow Shaft type (BTH)		Solid Shaft type (BRS)	
Gearhead Model	Ratio	Gearhead Model	Ratio
K8G□BRH	3~180	K8G□BRS	3~180
K9P□BRH	3~180	K9P□BRS	3~180

Specification

Model	Ratio	Maximum permissible Torque (N.m)	Permissible overhung load (N)		Permissible Thrust load (N)
			10mm from shaft end	20mm from shaft end	
K8G□BRH	3~180	8	250	220	100
K9P□BRH	3~180	20	560	500	250
K8G□BRS	3~18	8	100	150	100
	25~180		200	300	
K9P□BRS	3~18	10	250	350	200
	25~180		300	450	

※ Allowable overhung load in BRH type is distance value from flange surface

※ The code in □ of gearhead name is for gear ratio.



Transfer Efficiency of the Gearhead

Ratio		3	3,6	5	6	7,5	9	12,5	15	18	25	30	36	50	60	75	90	100	120	150	180	
K8G□BRH	Rated	40%				50%			60%													
K9P□BRH	Rated	50%				68%						60%						50%				
K8G□BRS	Rated	50%						68%														
K9P□BRS	Rated	68%										60%						50%				

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Allowable Overhung load calculation

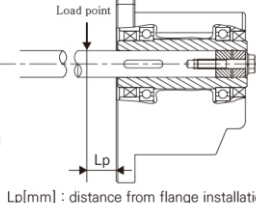
Allowable overhung load which is not supporting load shaft with bearing unit is as below.

(This product is most complicated in overhung load.)

■ K8G□BRH
 Allowable overhung load $W [N] = \frac{59.5}{59.5 + L_p} \times 295 [N] *$
※295 [N] : Allowable overhung load from flange surface

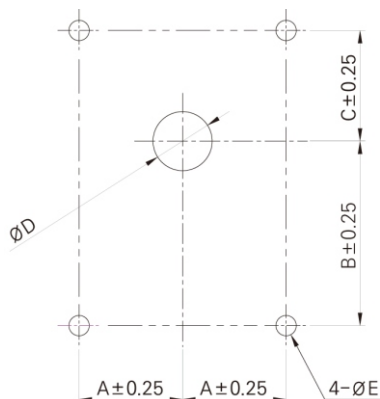
■ K9P□BRH
 Allowable overhung load $W [N] = \frac{68.5}{68.5 + L_p} \times 645 [N] *$
※645 [N] : Allowable overhung load from flange surface

$L_p [mm]$: distance from flange installation surface to load point.



Installation method for BRH Type gearhead

■ Mounting flange and dimensions



Unit : mm

Model	Bolt size	Installation holes dimensions					
		Thickness of flange	A	B	C	D	E
K8G□BRH	M5	9	28	55	25	Ø16	Ø5.5
K8G□BRS						Ø35	
K9P□BRH	M8	12	30	67	33	Ø18	Ø8.5
K9P□BRS						Ø35	

※ The code in □ of gearhead name is for gear ratio.

■ Recommended Installation dimension of load shaft

Unit : mm

Item	K8G□BRH	K9P□BRH
Inner diameter of hollow shaft (H8)	Ø15 $^{+0.027}_0$	Ø17 $^{+0.027}_0$
Diameter of load shaft (h7)	Ø15 $^{-0.018}_0$	Ø17 $^{-0.018}_0$
Diameter for hole fixing ring	Ø15 C Type fixing ring	Ø17 C Type fixing ring
applicable bolt	M5	M5
Thickness of spacer	4	4
Outdiameter D of short load shaft	25	30
La dimension of short load shaft	58~60	68~70

※ Do spacer thickness as dimension of table. Exceeded dimension can't put safe cover by bolt coming out.

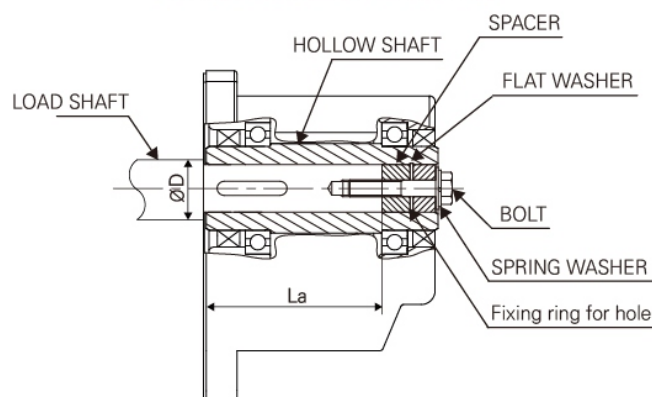
※ Fixing Ring, Spacer, Bolt to install load shaft are not attached. Please arrange them by yourself.

Example

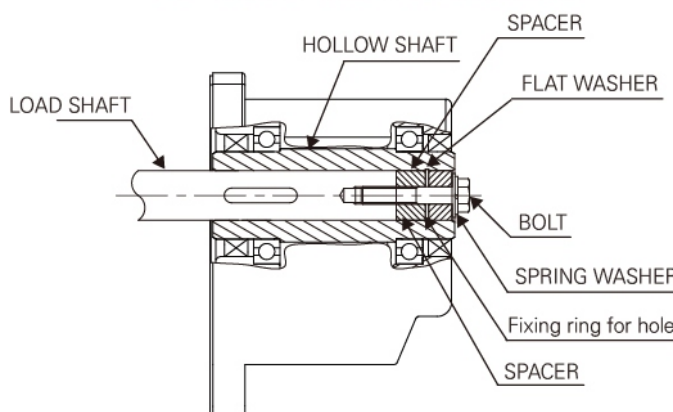
(Install as following picture according to shaft shape)

- When installing load shaft to hollow shaft, adjust center of hollow shaft and load shaft.
- There is key way in hollow shaft.
- Also there is key way in load shaft and fix with key.
- H7 is recommended as load shaft tolerance.
- In case of high impact by frequent instant stop and high overhung load, Short load shaft is recommended.

■ In case of short shaft shape



■ In case of non short shaft shape



※ Please put safe cover after inserting load shaft.