



## 4. Standard Material

INTERNAL GEAR	CROWN GEAR	FLANGE	Bolt	O-Ring
SM 45C-N			SM 45C-H	NBR

- Special material and/or special treatment is required under the unusual application environments, such as high speed, high or low temperature, chemical corrosiveness, maximum load stress.
- Under the heavy load, high speed and corrosive environment, special materials shall be required.

## 5. Selection method of size

### 1. Selection

- ① Using the following formula, obtain Design Torque required.

$$T = 97,400 \frac{\text{kw}}{\text{N}} \times \text{S.F} \quad \text{또는} \quad T = 71,620 \frac{\text{HP}}{\text{N}} \times \text{S.F}$$

- T = Design torque(kg · cm)  
 kw = Power(kw)  
 HP = Power(HP)  
 N = Working revolution (rpm)  
 S · F = Recommended Service Factor

- ② Select the size with the same or greater value at the Basic Torque column, Refer to the maximum speed allowed to the size selected size, and then compare the shaft diameters of the application with the max. bore dia of the selected size. If the coupling bore is not suitable, select the next larger coupling size.

### 2. Special requirements.

- ① At the application of the Sliding Gear Coupling (type KGH) that endfloat movement occurs more than 5 times per hour, add 0.5 to the listed value of service factor
- ② At the applications such as continuous reverse revolutions, intermit operation, often peak load and high inertia required system, multiply 1.5 to the Design Torque calculated.
- ③ In the type of KGES-R and KGFS-O, the thickness and length of intermediate shaft must be determined according to our company's material specifications, consult with our Engineer.
- ④ Selecting the size of types KGDBW and KGSBW : apply brake power, if exceeds the prime mover power.



# KCP Gear Coupling

## 3. Example

Select Gear Coupling to connect 450HP 1,170rpm electric motor with reducer.

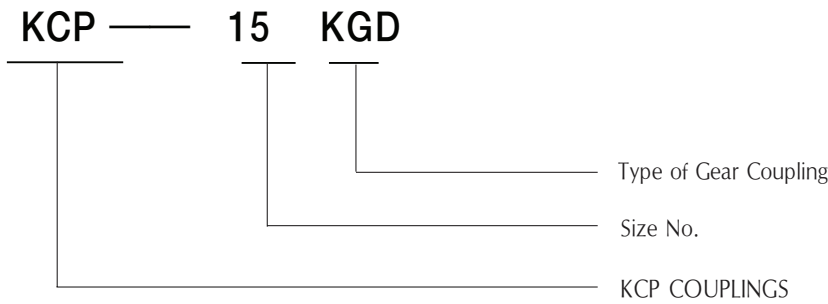
Motor shaft diameter is 80ϕmm, Reducer shaft diameter is 90ϕmm, Max. parallel alignment is 1.5mm

- ① Select type KGDE for higher valued application of parallel misalignment.
- ② Service factor is 2.0
- ③ Use the normal formula

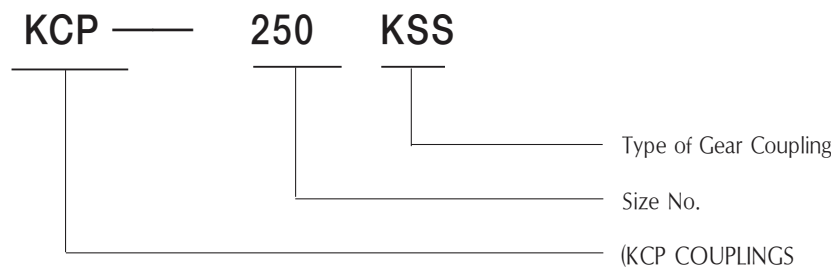
$$HP/100rpm = \frac{450 \times 100 \times 2.0}{1.170} = 76.9$$

Size KGDE25 is selected with rating of 90 HP per 100rpm. To apply larger shaft dia 90ϕmm, finally KGDE 30 is selected.

## 6. Designation



- KGD : Double Engagement Coupling
- KGD L : Double Engagement Large Coupling
- KGS : Single Engagment Coupling
- KGSL : Single Engagment Large Coupling
- KGDS : Spacer Coupling - Double Engagement
- KGH10 : Double Engagmen - Horizontal Sliding Coupling
- KGH20 : Single Engagmen - Horizontal Sliding Coupling



- KSS : Double Engagment Coupling
- KSE : Single Engagement Coupling
- KCC : Double Engagement Coupling - Large type
- KCE : Single Engagment Coupling - Large type