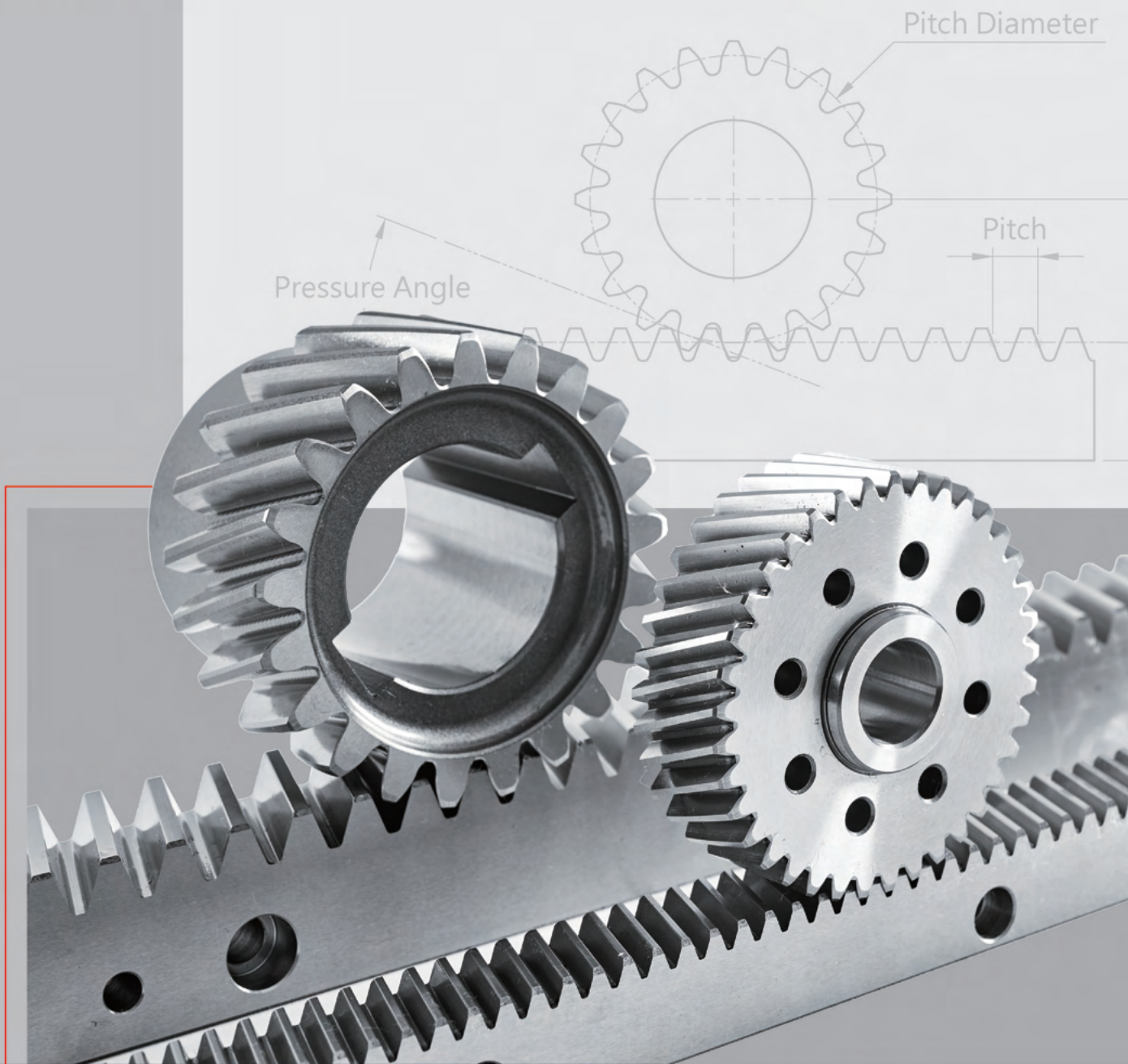




# KAI HE MACHINERY CO., LTD



## Grinding Rack Gear Professional Manufacturer



# KAI HE MACHINERY

**KAI HE** is mainly specialized in the production of transmission rack gears. the first ground rack manufacturer in Taiwan , while today it is a certified company (ISO 9001 : 2015), technologically advanced and structured with updated production plants.

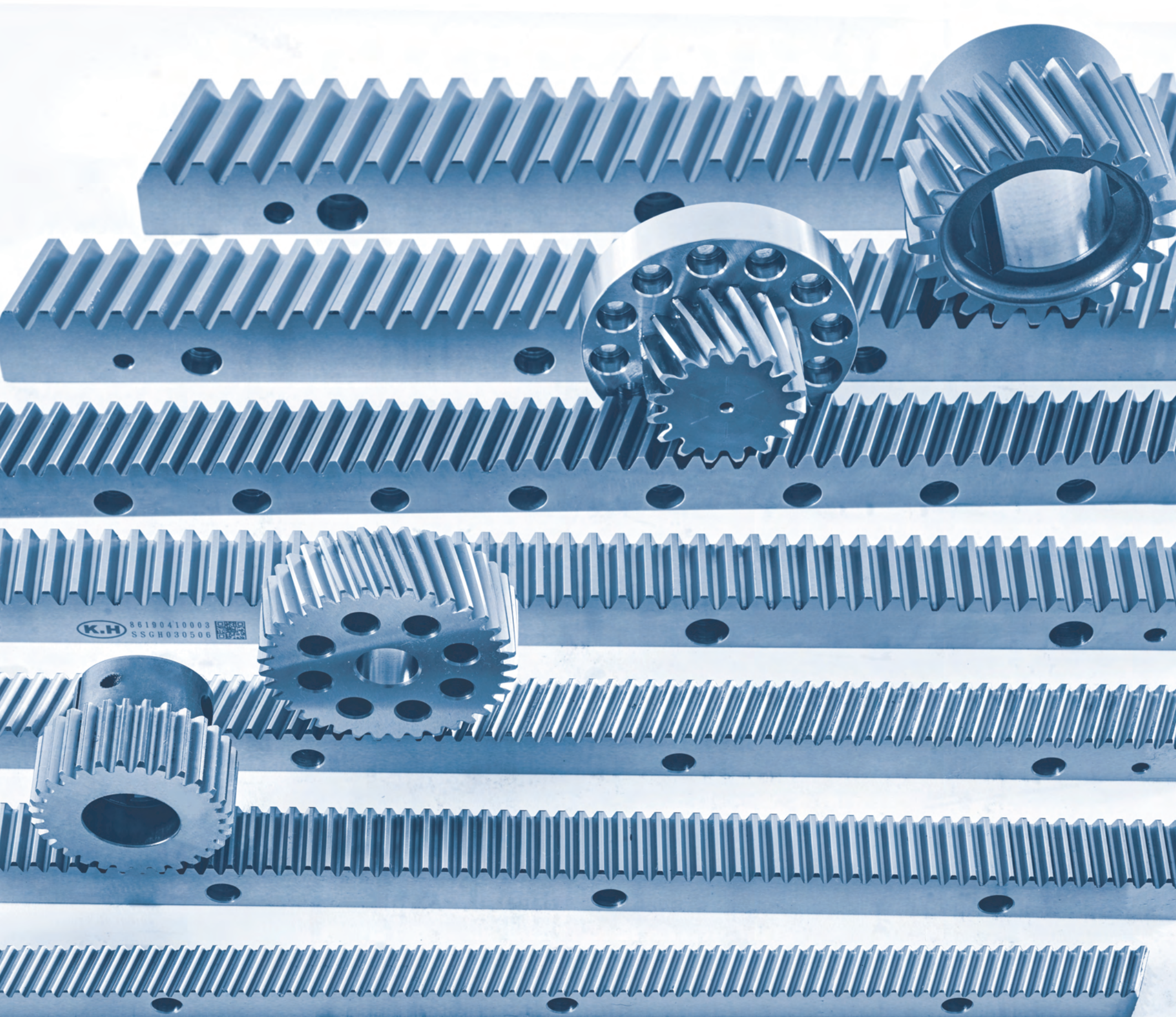
Internally HAI HE has highly qualified personnel in order to offer customized answers to the most complex demands of every customer. Today, thanks to the production flexibility and to the industrial automation, KAI HE is able to realize products with high competitive prices in all over the world, both with standard features and with the most elaborate customizations.

With over 15 years of experience in rack manufacturing under their belt and rank among the top five rack manufacturers in Asia, Kai He Machinery Co., Ltd. is also the first Taiwanese company to use all German-made machinery while insisting on only using Taiwan-produced steel.

Kai He stresses the importance of its ten manufacturing processes and is adamant that these processes are the reason that it could provide products of high precision, high rigidity, and great precision, just like those produced by German brands.

Using the latest and most cutting-edge Computer Numerical Control (CNC) milling and grinding machines from Germany, Kai He ensures that the rack tooth surfaces are uniform and of the same quality even when mass produced.

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## Module

The module is the relative size of the rack and pinion as described by the pinion. It is the ratio of the diameter of a gear to the number of teeth on the gear. The module and number of teeth give the reference pitch diameter:

$$\text{Module (M)} = \frac{\text{Pitch Diameter}}{\text{Number of Teeth (z)}}$$

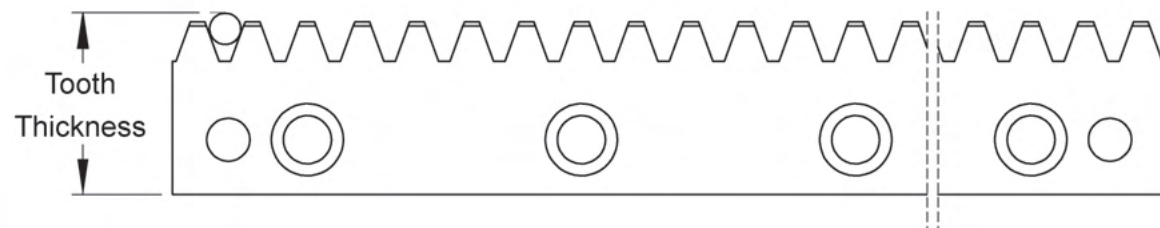
Reference Pitch Diameter = Module (M) x Number of Teeth (z)

The rack and pinion must have the same modules.

## Tooth Thickness Tolerance

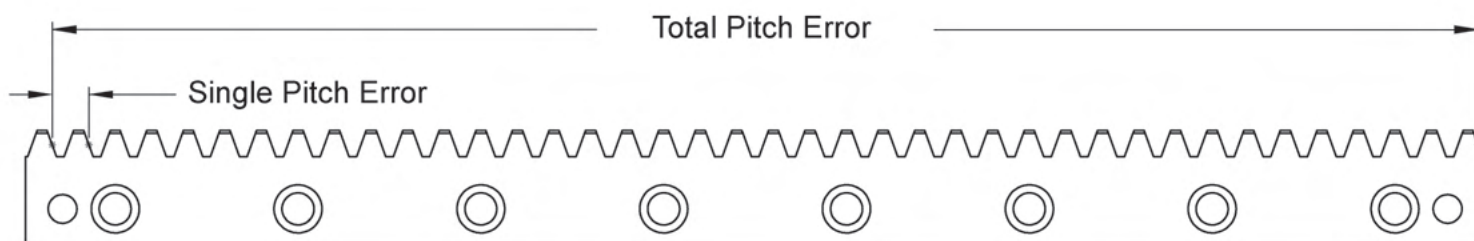
Tooth Thickness Tolerance is the relationship between tooth thickness and a measuring pin measurement.

- The tooth thickness of racks is usually measured via the pin measurement as tooth thickness can not be measured directly.
- A measuring pin is put into the teeth and measured to the back of the rack.



## Pitch Error

**Pitch:** Distance between teeth as measured from a point on one rack tooth to the corresponding point on the next gear tooth.

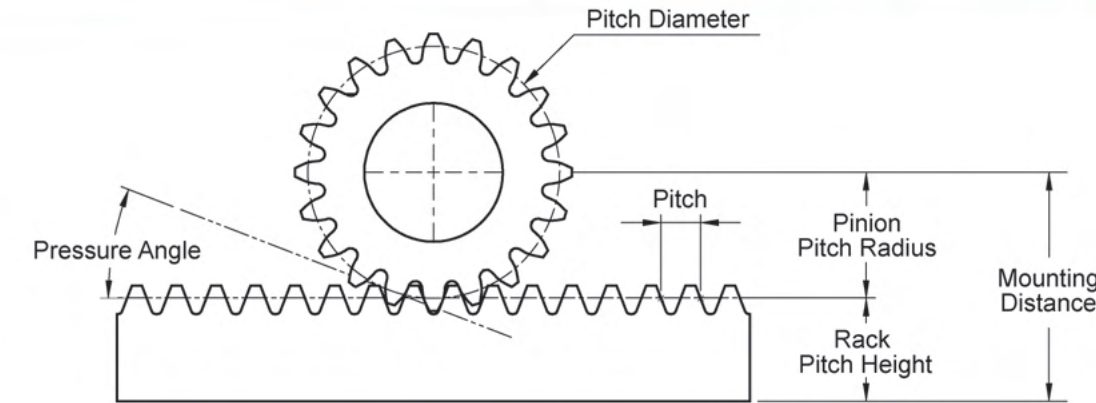


**Single Pitch Error:** Error in the pitch between two teeth relative to the ideal.

**Total Pitch Error:** Cumulative pitch error over the length of the rack.

### Circular Pitch:

The distance from a point on one gear tooth to the corresponding point on the next gear tooth, measured along the pitch circle.



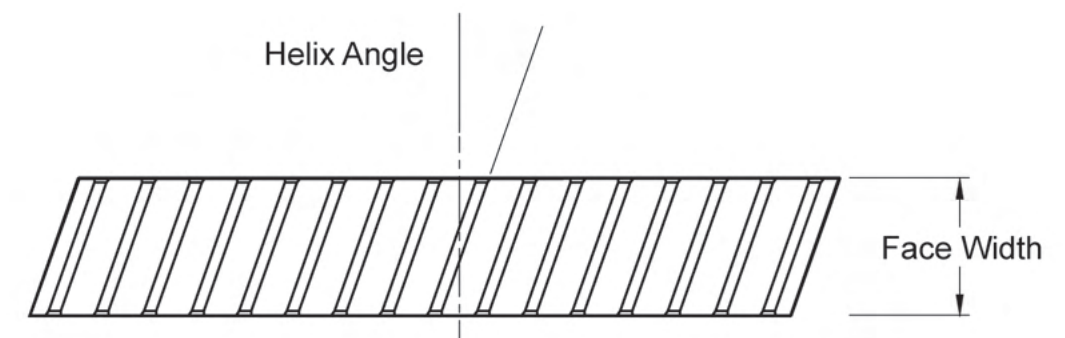
**Pitch Circle:** A circle transcribing the contact point on the teeth where the rack and pinion mesh correctly.

**Pitch Diameter:** The diameter of the gear's pitch circle.

**Pressure Angle:** The angle made by the sides of the tooth as it angles towards the top of the tooth. Mating gears and racks must have the same pressure angle.

**Mounting Distance:** Distance between the center of the pinion and the bottom of the rack that ensures proper mesh. The mounting distance could stay consistent for the length of the rack.

$$\text{Mounting Distance} = \text{Pitch Height of Rack} + \text{Pitch Radius of Pinion}$$



**Helix Angle:** Angle of the rack or gear tooth.

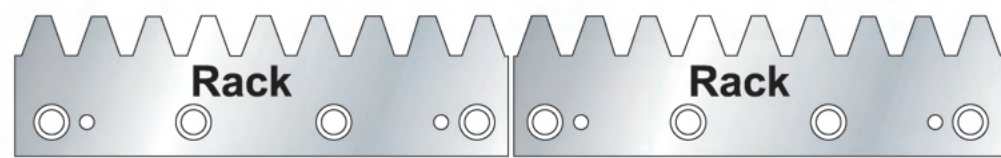
Racks and pinions use a common helix angle of 19°31'42"

## Rack Installation

These are the three main steps to installing rack. See the Rack Installation Instructions for more detailed installation information. Installation of multiple rack pieces end-to-end requires an opposite tooth installation gauge:

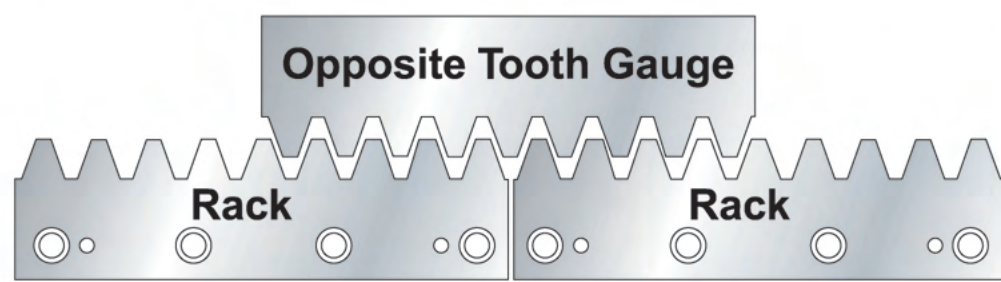
### Step 1

Put the racks on the base, end to end, without the screw



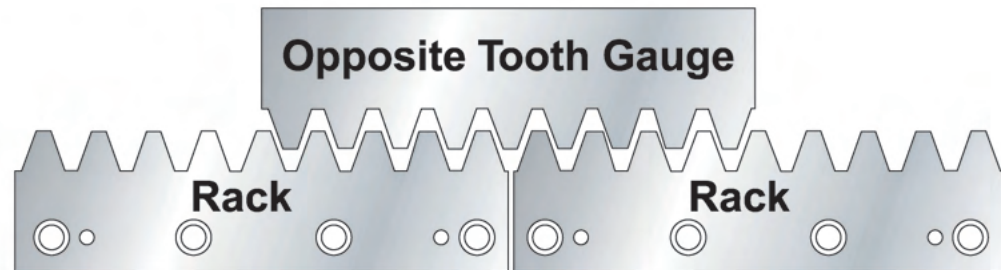
### Step 2

Put the racks gauge across the ends of the joined racks and adjust the pitch. The ends of the racks each from half a tooth.



### Step 3

Bolt the racks to the base in sequence. Install dowel pins.

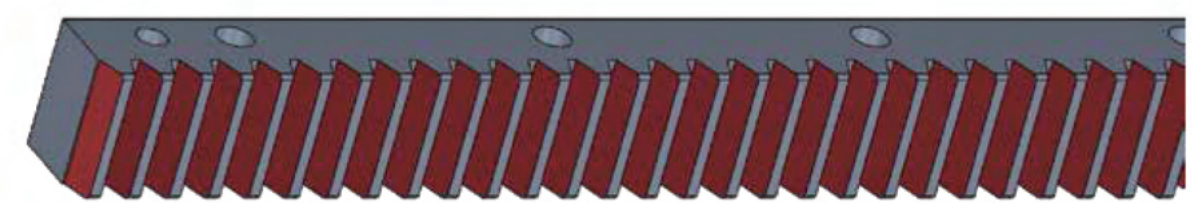


## Rack & Pinion Alignment

For best performance, the rack and pinion must be installed with proper tooth engagement. To check this, we recommend using a red compound and check the gear mesh contact pattern under load conditions.

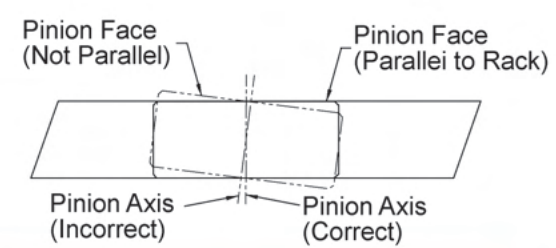
### Correct

Contact is even across the face of the tooth



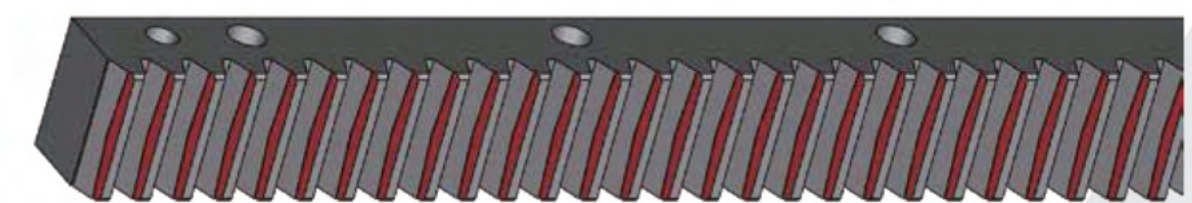
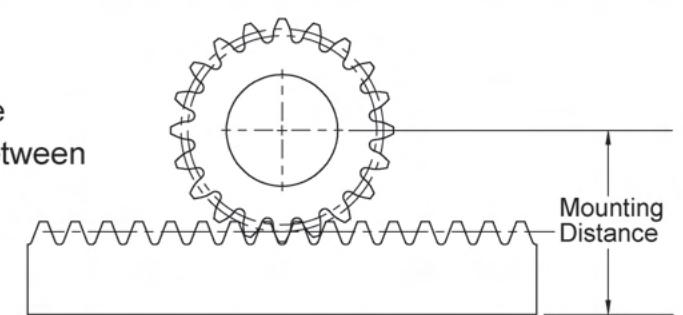
### Not Parallel

The pinion and rack are not parallel. Adjust the pinion so the face of the pinion and the side of the rack are parallel. The axis of the pinion should be perpendicular to the rack.

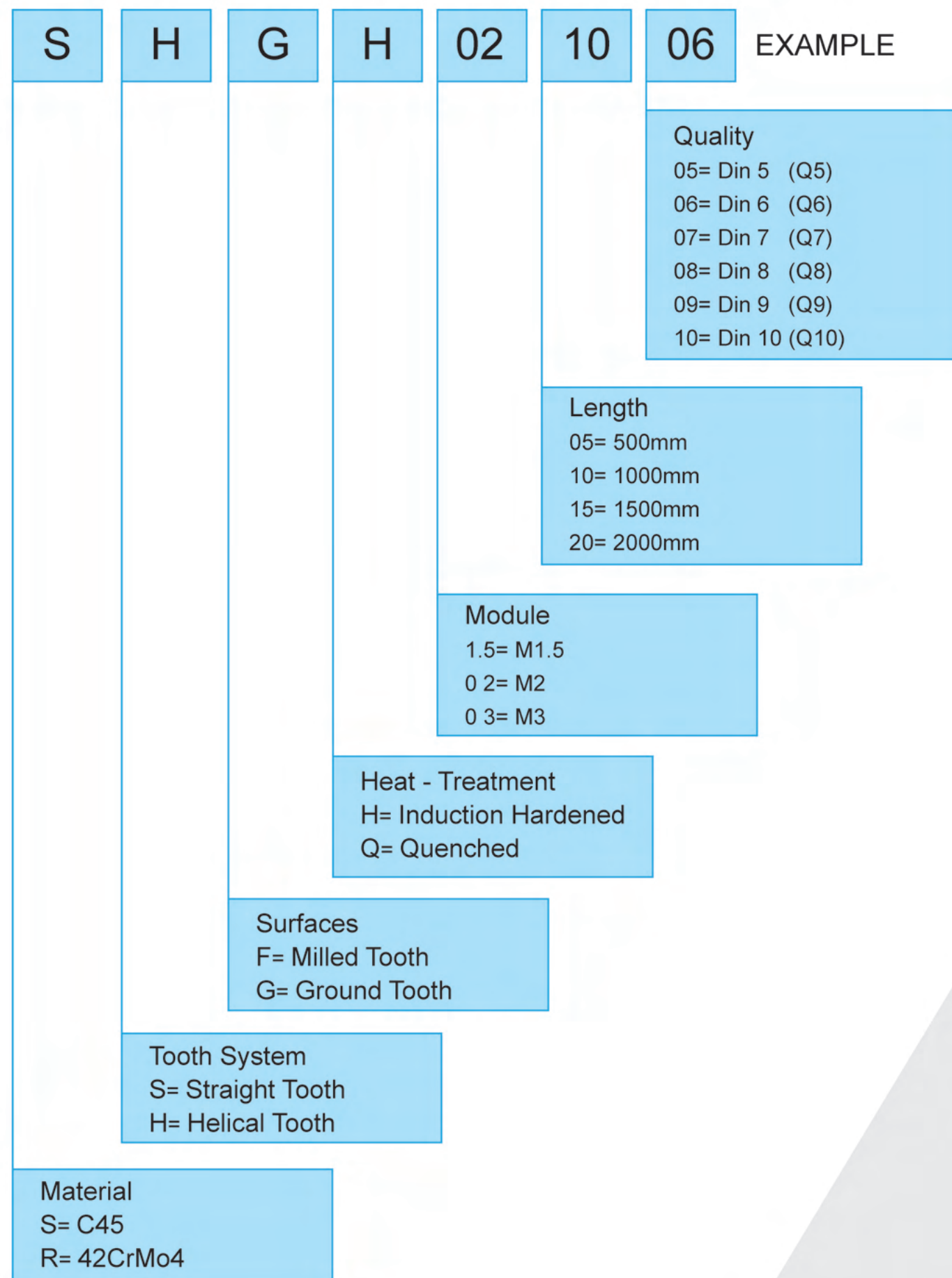


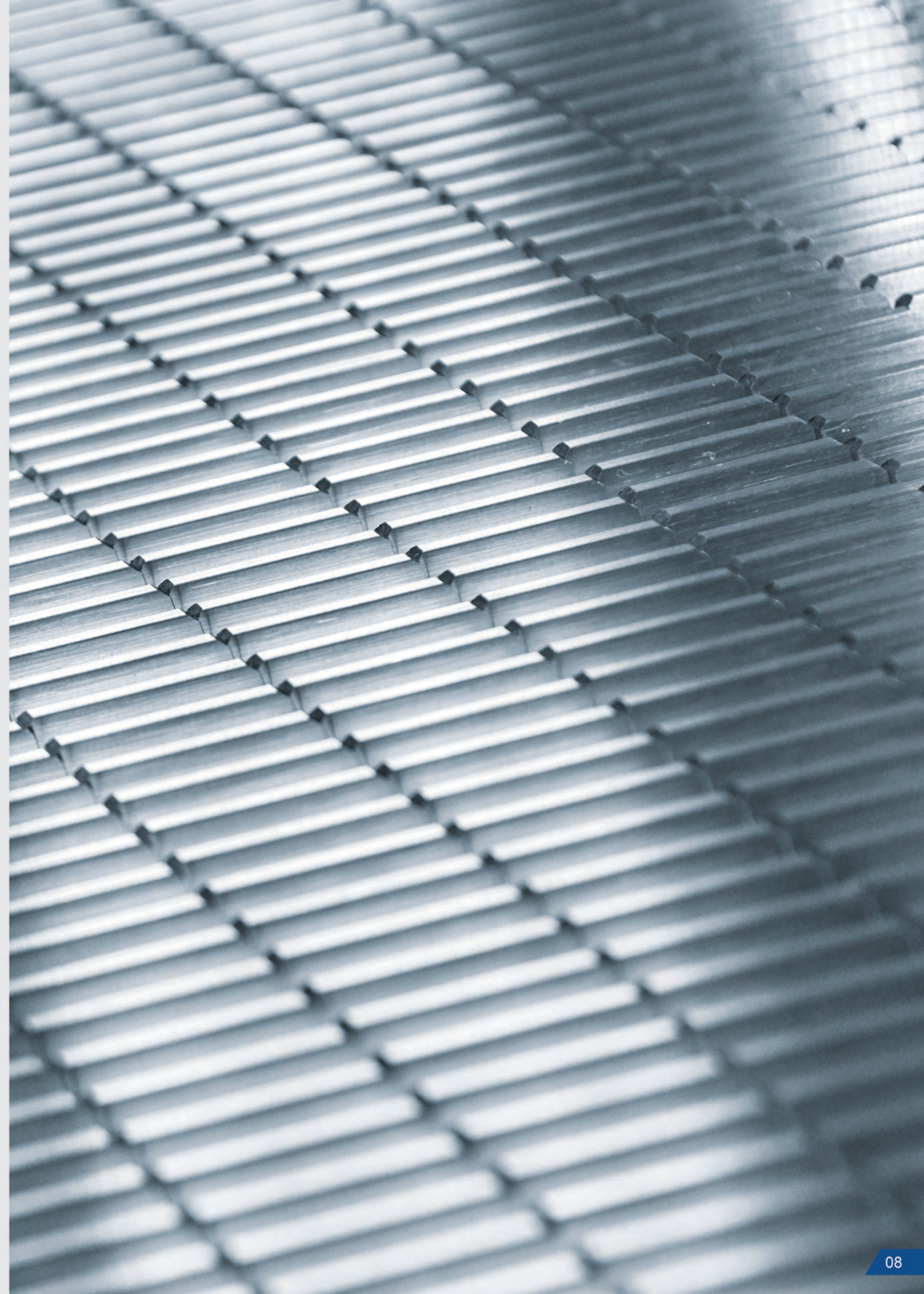
### Incorrect Mounting Distance

There is insufficient tooth contact between the rack and pinion. Adjust the center distance between the rack and the pinion. The pinion specification tables include the center distance for each size pinion.



| Quality | Total Pitch Error<br>( $\mu\text{m}/1000\text{mm}$ ) | Tooth Thickness Tolerance<br>( $\mu\text{m}/1000\text{mm}$ ) | Applications (Examples)                                                                                                                                                                                                                            |
|---------|------------------------------------------------------|--------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 5       | $\pm 25$                                             | -22                                                          | <ul style="list-style-type: none"> <li>High precision machine tools with electrical preload.</li> <li>Machine tools, lifting axis, multiple pinion contact.</li> </ul>                                                                             |
| 6       | $\pm 35$                                             | -36                                                          | <ul style="list-style-type: none"> <li>Wood, plastic, composite, aluminium working machines.</li> <li>Machine tools, integratable racks, water cutting machines, tube bending systems, plasma cutting machines, laser cutting machines.</li> </ul> |
| 7       | $\pm 45$                                             | -47                                                          | <ul style="list-style-type: none"> <li>Wood working machines, Linear axis with high requirement for a smooth running.</li> <li>Robots.</li> </ul>                                                                                                  |
| 8       | $\pm 60$                                             | -95                                                          | <ul style="list-style-type: none"> <li>Portals, handing linear axis.</li> <li>Linear axis.</li> </ul>                                                                                                                                              |
| 9       | $\pm 90$                                             | -109                                                         | <ul style="list-style-type: none"> <li>Linear axis with low load feed units for adjustment.</li> </ul>                                                                                                                                             |
| 10      | $\pm 200$                                            | -109                                                         | <ul style="list-style-type: none"> <li>Lifting axis, Handling, welding robots.</li> </ul>                                                                                                                                                          |





|  | Quality Classes | Quality Tolerances | Pitch Error |
|--|-----------------|--------------------|-------------|
|--|-----------------|--------------------|-------------|

| M1.5<br>L500 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|--------------|-----------------|----------------------------|-------------------------|------------------------|
|              | Q5              | -0.015                     | ±0.005                  | ±0.024                 |
|              | Q6              | -0.020                     | ±0.008                  | ±0.026                 |
|              | Q7              | -0.040                     | ±0.008                  | ±0.034                 |
|              | Q8              | -0.066                     | ±0.015                  | ±0.060                 |
|              | Q9              | -0.080                     | ±0.020                  | ±0.080                 |
|              | Q10             | -0.120                     | ±0.034                  | ±0.140                 |

| M1.5<br>L1000 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|---------------|-----------------|----------------------------|-------------------------|------------------------|
|               | Q5              | -0.015                     | ±0.005                  | ±0.024                 |
|               | Q6              | -0.020                     | ±0.008                  | ±0.032                 |
|               | Q7              | -0.040                     | ±0.008                  | ±0.042                 |
|               | Q8              | -0.066                     | ±0.015                  | ±0.060                 |
|               | Q9              | -0.080                     | ±0.020                  | ±0.090                 |
|               | Q10             | -0.120                     | ±0.034                  | ±0.140                 |

| M1.5<br>L1500 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|---------------|-----------------|----------------------------|-------------------------|------------------------|
|               | Q5              | N/A                        | N/A                     | N/A                    |
|               | Q6              | -0.020                     | ±0.009                  | ±0.036                 |
|               | Q7              | -0.040                     | ±0.009                  | ±0.042                 |
|               | Q8              | -0.088                     | ±0.016                  | ±0.072                 |
|               | Q9              | -0.130                     | ±0.024                  | ±0.090                 |
|               | Q10             | -0.180                     | ±0.037                  | ±0.148                 |

| M1.5<br>L2000 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|---------------|-----------------|----------------------------|-------------------------|------------------------|
|               | Q5              | N/A                        | N/A                     | N/A                    |
|               | Q6              | -0.020                     | ±0.009                  | ±0.038                 |
|               | Q7              | -0.040                     | ±0.009                  | ±0.044                 |
|               | Q8              | -0.088                     | ±0.016                  | ±0.072                 |
|               | Q9              | -0.130                     | ±0.024                  | ±0.104                 |
|               | Q10             | -0.180                     | ±0.038                  | ±0.160                 |

|  | Quality Classes | Quality Tolerances | Pitch Error |
|--|-----------------|--------------------|-------------|
|--|-----------------|--------------------|-------------|

| M2<br>L500 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|------------|-----------------|----------------------------|-------------------------|------------------------|
|            | Q5              | -0.015                     | ±0.005                  | ±0.020                 |
|            | Q6              | -0.020                     | ±0.008                  | ±0.026                 |
|            | Q7              | -0.040                     | ±0.008                  | ±0.034                 |
|            | Q8              | -0.066                     | ±0.016                  | ±0.060                 |
|            | Q9              | -0.085                     | ±0.021                  | ±0.080                 |
|            | Q10             | -0.120                     | ±0.035                  | ±0.144                 |

| M2<br>L1000 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|-------------|-----------------|----------------------------|-------------------------|------------------------|
|             | Q5              | -0.015                     | ±0.005                  | ±0.025                 |
|             | Q6              | -0.020                     | ±0.008                  | ±0.035                 |
|             | Q7              | -0.040                     | ±0.008                  | ±0.042                 |
|             | Q8              | -0.066                     | ±0.016                  | ±0.060                 |
|             | Q9              | -0.085                     | ±0.021                  | ±0.090                 |
|             | Q10             | -0.120                     | ±0.035                  | ±0.144                 |

| M2<br>L1500 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|-------------|-----------------|----------------------------|-------------------------|------------------------|
|             | Q5              | -0.015                     | ±0.007                  | ±0.027                 |
|             | Q6              | -0.020                     | ±0.008                  | ±0.036                 |
|             | Q7              | -0.040                     | ±0.008                  | ±0.044                 |
|             | Q8              | -0.095                     | ±0.016                  | ±0.072                 |
|             | Q9              | -0.130                     | ±0.025                  | ±0.104                 |
|             | Q10             | -0.180                     | ±0.038                  | ±0.160                 |

| M2<br>L2000 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|-------------|-----------------|----------------------------|-------------------------|------------------------|
|             | Q5              | -0.015                     | ±0.007                  | ±0.027                 |
|             | Q6              | -0.020                     | ±0.008                  | ±0.038                 |
|             | Q7              | -0.040                     | ±0.008                  | ±0.046                 |
|             | Q8              | -0.100                     | ±0.016                  | ±0.072                 |
|             | Q9              | -0.135                     | ±0.023                  | ±0.104                 |
|             | Q10             | -0.180                     | ±0.038                  | ±0.160                 |

|  | Quality Classes | Quality Tolerances | Pitch Error |
|--|-----------------|--------------------|-------------|
|--|-----------------|--------------------|-------------|

| M3<br>L500 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|------------|-----------------|----------------------------|-------------------------|------------------------|
|            | Q5              | -0.015                     | ±0.006                  | ±0.022                 |
|            | Q6              | -0.020                     | ±0.009                  | ±0.035                 |
|            | Q7              | -0.040                     | ±0.009                  | ±0.037                 |
|            | Q8              | -0.066                     | ±0.016                  | ±0.060                 |
|            | Q9              | -0.085                     | ±0.024                  | ±0.090                 |
|            | Q10             | -0.120                     | ±0.036                  | ±0.160                 |

| M3<br>L1000 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|-------------|-----------------|----------------------------|-------------------------|------------------------|
|             | Q5              | -0.015                     | ±0.006                  | ±0.025                 |
|             | Q6              | -0.020                     | ±0.009                  | ±0.035                 |
|             | Q7              | -0.040                     | ±0.009                  | ±0.044                 |
|             | Q8              | -0.066                     | ±0.016                  | ±0.066                 |
|             | Q9              | -0.085                     | ±0.024                  | ±0.100                 |
|             | Q10             | -0.120                     | ±0.036                  | ±0.160                 |

| M3<br>L1500 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|-------------|-----------------|----------------------------|-------------------------|------------------------|
|             | Q5              | -0.015                     | ±0.007                  | ±0.030                 |
|             | Q6              | -0.020                     | ±0.009                  | ±0.036                 |
|             | Q7              | -0.040                     | ±0.009                  | ±0.050                 |
|             | Q8              | -0.095                     | ±0.016                  | ±0.072                 |
|             | Q9              | -0.130                     | ±0.024                  | ±0.104                 |
|             | Q10             | -0.180                     | ±0.041                  | ±0.167                 |

| M3<br>L2000 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|-------------|-----------------|----------------------------|-------------------------|------------------------|
|             | Q5              | -0.015                     | ±0.008                  | ±0.030                 |
|             | Q6              | -0.020                     | ±0.010                  | ±0.042                 |
|             | Q7              | -0.040                     | ±0.010                  | ±0.052                 |
|             | Q8              | -0.095                     | ±0.018                  | ±0.078                 |
|             | Q9              | -0.130                     | ±0.026                  | ±0.112                 |
|             | Q10             | -0.180                     | ±0.044                  | ±0.180                 |

|  | Quality Classes | Quality Tolerances | Pitch Error |
|--|-----------------|--------------------|-------------|
|--|-----------------|--------------------|-------------|

| M4<br>L500 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|------------|-----------------|----------------------------|-------------------------|------------------------|
|            | Q5              | -0.015                     | ±0.007                  | ±0.026                 |
|            | Q6              | -0.020                     | ±0.009                  | ±0.035                 |
|            | Q7              | -0.040                     | ±0.009                  | ±0.040                 |
|            | Q8              | -0.066                     | ±0.016                  | ±0.060                 |
|            | Q9              | -0.085                     | ±0.024                  | ±0.090                 |
|            | Q10             | -0.120                     | ±0.040                  | ±0.170                 |

| M4<br>L1000 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|-------------|-----------------|----------------------------|-------------------------|------------------------|
|             | Q5              | -0.015                     | ±0.007                  | ±0.026                 |
|             | Q6              | -0.020                     | ±0.009                  | ±0.035                 |
|             | Q7              | -0.040                     | ±0.009                  | ±0.044                 |
|             | Q8              | -0.066                     | ±0.016                  | ±0.066                 |
|             | Q9              | -0.085                     | ±0.024                  | ±0.110                 |
|             | Q10             | -0.120                     | ±0.040                  | ±0.170                 |

| M4<br>L1500 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|-------------|-----------------|----------------------------|-------------------------|------------------------|
|             | Q5              | -0.015                     | ±0.008                  | ±0.032                 |
|             | Q6              | -0.020                     | ±0.010                  | ±0.040                 |
|             | Q7              | -0.040                     | ±0.010                  | ±0.056                 |
|             | Q8              | -0.095                     | ±0.018                  | ±0.072                 |
|             | Q9              | -0.130                     | ±0.025                  | ±0.120                 |
|             | Q10             | -0.180                     | ±0.045                  | ±0.180                 |

| M4<br>L2000 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|-------------|-----------------|----------------------------|-------------------------|------------------------|
|             | Q5              | -0.015                     | ±0.008                  | ±0.032                 |
|             | Q6              | -0.020                     | ±0.010                  | ±0.044                 |
|             | Q7              | -0.040                     | ±0.010                  | ±0.056                 |
|             | Q8              | -0.095                     | ±0.019                  | ±0.078                 |
|             | Q9              | -0.130                     | ±0.026                  | ±0.120                 |
|             | Q10             | -0.180                     | ±0.045                  | ±0.180                 |

|  | Quality Classes | Quality Tolerances | Pitch Error |
|--|-----------------|--------------------|-------------|
|--|-----------------|--------------------|-------------|

| M5<br>L500 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|------------|-----------------|----------------------------|-------------------------|------------------------|
|            | Q5              | -0.015                     | ±0.007                  | ±0.026                 |
|            | Q6              | -0.020                     | ±0.009                  | ±0.035                 |
|            | Q7              | -0.040                     | ±0.009                  | ±0.040                 |
|            | Q8              | -0.066                     | ±0.018                  | ±0.071                 |
|            | Q9              | -0.085                     | ±0.026                  | ±0.100                 |
|            | Q10             | -0.120                     | ±0.042                  | ±0.170                 |

| M5<br>L1000 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|-------------|-----------------|----------------------------|-------------------------|------------------------|
|             | Q5              | -0.015                     | ±0.007                  | ±0.028                 |
|             | Q6              | -0.020                     | ±0.010                  | ±0.035                 |
|             | Q7              | -0.040                     | ±0.010                  | ±0.044                 |
|             | Q8              | -0.066                     | ±0.018                  | ±0.078                 |
|             | Q9              | -0.085                     | ±0.026                  | ±0.110                 |
|             | Q10             | -0.120                     | ±0.042                  | ±0.170                 |

| M5<br>L1500 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|-------------|-----------------|----------------------------|-------------------------|------------------------|
|             | Q5              | N/A                        | N/A                     | N/A                    |
|             | Q6              | -0.020                     | ±0.010                  | ±0.040                 |
|             | Q7              | -0.040                     | ±0.010                  | ±0.050                 |
|             | Q8              | -0.095                     | ±0.019                  | ±0.080                 |
|             | Q9              | -0.130                     | ±0.028                  | ±0.120                 |
|             | Q10             | -0.180                     | ±0.045                  | ±0.180                 |

| M5<br>L2000 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|-------------|-----------------|----------------------------|-------------------------|------------------------|
|             | Q5              | N/A                        | N/A                     | N/A                    |
|             | Q6              | -0.020                     | ±0.010                  | ±0.044                 |
|             | Q7              | -0.040                     | ±0.010                  | ±0.054                 |
|             | Q8              | -0.095                     | ±0.019                  | ±0.090                 |
|             | Q9              | -0.130                     | ±0.028                  | ±0.120                 |
|             | Q10             | -0.180                     | ±0.045                  | ±0.190                 |

|  | Quality Classes | Quality Tolerances | Pitch Error |
|--|-----------------|--------------------|-------------|
|--|-----------------|--------------------|-------------|

| M6<br>L500 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|------------|-----------------|----------------------------|-------------------------|------------------------|
|            | Q5              | -0.015                     | ±0.007                  | ±0.026                 |
|            | Q6              | -0.020                     | ±0.010                  | ±0.035                 |
|            | Q7              | -0.040                     | ±0.010                  | ±0.040                 |
|            | Q8              | -0.066                     | ±0.018                  | ±0.071                 |
|            | Q9              | -0.085                     | ±0.026                  | ±0.105                 |
|            | Q10             | -0.120                     | ±0.042                  | ±0.170                 |

| M6<br>L1000 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|-------------|-----------------|----------------------------|-------------------------|------------------------|
|             | Q5              | -0.015                     | ±0.007                  | ±0.028                 |
|             | Q6              | -0.020                     | ±0.010                  | ±0.040                 |
|             | Q7              | -0.040                     | ±0.010                  | ±0.044                 |
|             | Q8              | -0.066                     | ±0.018                  | ±0.078                 |
|             | Q9              | -0.085                     | ±0.026                  | ±0.110                 |
|             | Q10             | -0.120                     | ±0.042                  | ±0.170                 |

| M6<br>L1500 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|-------------|-----------------|----------------------------|-------------------------|------------------------|
|             | Q5              | N/A                        | N/A                     | N/A                    |
|             | Q6              | -0.020                     | ±0.010                  | ±0.040                 |
|             | Q7              | -0.040                     | ±0.010                  | ±0.052                 |
|             | Q8              | -0.095                     | ±0.019                  | ±0.080                 |
|             | Q9              | -0.130                     | ±0.028                  | ±0.120                 |
|             | Q10             | -0.180                     | ±0.045                  | ±0.180                 |

| M6<br>L2000 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|-------------|-----------------|----------------------------|-------------------------|------------------------|
|             | Q5              | N/A                        | N/A                     | N/A                    |
|             | Q6              | -0.020                     | ±0.010                  | ±0.044                 |
|             | Q7              | -0.040                     | ±0.010                  | ±0.054                 |
|             | Q8              | -0.095                     | ±0.019                  | ±0.090                 |
|             | Q9              | -0.130                     | ±0.028                  | ±0.120                 |
|             | Q10             | -0.180                     | ±0.045                  | ±0.190                 |

|  | Quality Classes | Quality Tolerances | Pitch Error |
|--|-----------------|--------------------|-------------|
|--|-----------------|--------------------|-------------|

| M8<br>L500 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|------------|-----------------|----------------------------|-------------------------|------------------------|
|            | Q5              | -0.015                     | ±0.008                  | ±0.026                 |
|            | Q6              | -0.020                     | ±0.010                  | ±0.035                 |
|            | Q7              | -0.040                     | ±0.010                  | ±0.042                 |
|            | Q8              | -0.066                     | ±0.021                  | ±0.081                 |
|            | Q9              | -0.085                     | ±0.028                  | ±0.110                 |
|            | Q10             | -0.120                     | ±0.048                  | ±0.180                 |

| M8<br>L1000 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|-------------|-----------------|----------------------------|-------------------------|------------------------|
|             | Q5              | -0.015                     | ±0.008                  | ±0.030                 |
|             | Q6              | -0.020                     | ±0.011                  | ±0.040                 |
|             | Q7              | -0.040                     | ±0.011                  | ±0.044                 |
|             | Q8              | -0.066                     | ±0.021                  | ±0.084                 |
|             | Q9              | -0.085                     | ±0.028                  | ±0.110                 |
|             | Q10             | -0.120                     | ±0.048                  | ±0.180                 |

| M8<br>L1500 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|-------------|-----------------|----------------------------|-------------------------|------------------------|
|             | Q5              | N/A                        | N/A                     | N/A                    |
|             | Q6              | -0.020                     | ±0.011                  | ±0.041                 |
|             | Q7              | -0.040                     | ±0.011                  | ±0.051                 |
|             | Q8              | -0.095                     | ±0.021                  | ±0.090                 |
|             | Q9              | -0.130                     | ±0.031                  | ±0.130                 |
|             | Q10             | -0.180                     | ±0.050                  | ±0.200                 |

| M8<br>L2000 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|-------------|-----------------|----------------------------|-------------------------|------------------------|
|             | Q5              | N/A                        | N/A                     | N/A                    |
|             | Q6              | -0.020                     | ±0.011                  | ±0.044                 |
|             | Q7              | -0.040                     | ±0.011                  | ±0.054                 |
|             | Q8              | -0.095                     | ±0.021                  | ±0.095                 |
|             | Q9              | -0.130                     | ±0.031                  | ±0.130                 |
|             | Q10             | -0.180                     | ±0.050                  | ±0.200                 |

|  | Quality Classes | Quality Tolerances | Pitch Error |
|--|-----------------|--------------------|-------------|
|--|-----------------|--------------------|-------------|

| M10<br>L500 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|-------------|-----------------|----------------------------|-------------------------|------------------------|
|             | Q5              | -0.015                     | ±0.008                  | ±0.026                 |
|             | Q6              | -0.020                     | ±0.016                  | ±0.026                 |
|             | Q7              | -0.040                     | ±0.016                  | ±0.042                 |
|             | Q8              | -0.066                     | ±0.022                  | ±0.060                 |
|             | Q9              | -0.085                     | ±0.030                  | ±0.110                 |
|             | Q10             | -0.120                     | ±0.048                  | ±0.180                 |

| M10<br>L1000 | Quality Classes | Tooth Thickness Error (mm) | Single Pitch Error (mm) | Total Pitch Error (mm) |
|--------------|-----------------|----------------------------|-------------------------|------------------------|
|              | Q5              | -0.015                     | ±0.008                  | ±0.030                 |
|              | Q6              | -0.036                     | ±0.016                  | ±0.034                 |
|              | Q7              | -0.040                     | ±0.016                  | ±0.043                 |
|              | Q8              | -0.066                     | ±0.022                  | ±0.060                 |
|              | Q9              | -0.085                     | ±0.030                  | ±0.110                 |
|              | Q10             | -0.120                     | ±0.048                  | ±0.180                 |

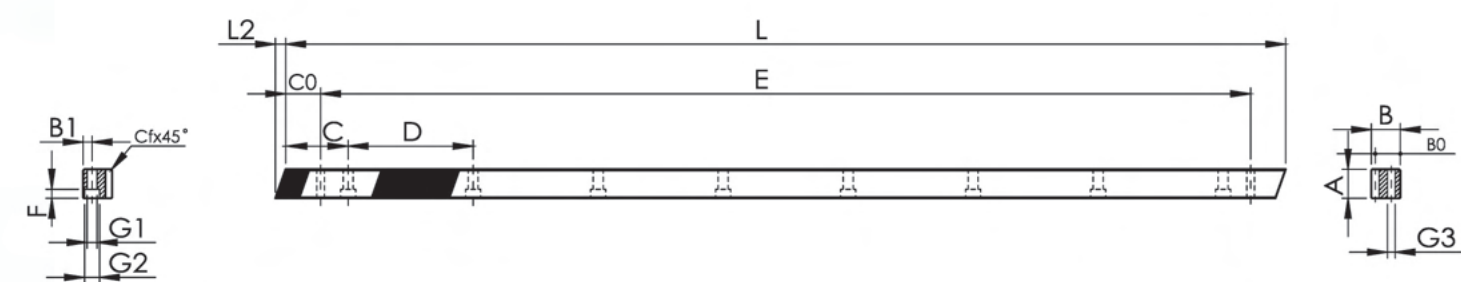




**Q5 - C45**

Specifications

|                |                        |                  |                                  |
|----------------|------------------------|------------------|----------------------------------|
| Quality        | Din5                   | Heat - Treatment | Teeth Induction Hardened         |
| Material       | C45 (Carbon Steel)     | Hardness         | HRC 50-55                        |
| Helical Angle  | 19° 31' 42" Right Hand | Surface          | Ground Surfaces and Ground Teeth |
| Pressure Angle | 20°                    |                  |                                  |



Dimensions (M: Module • Pt: Tooth Pitch • Z: Number of Teeth)

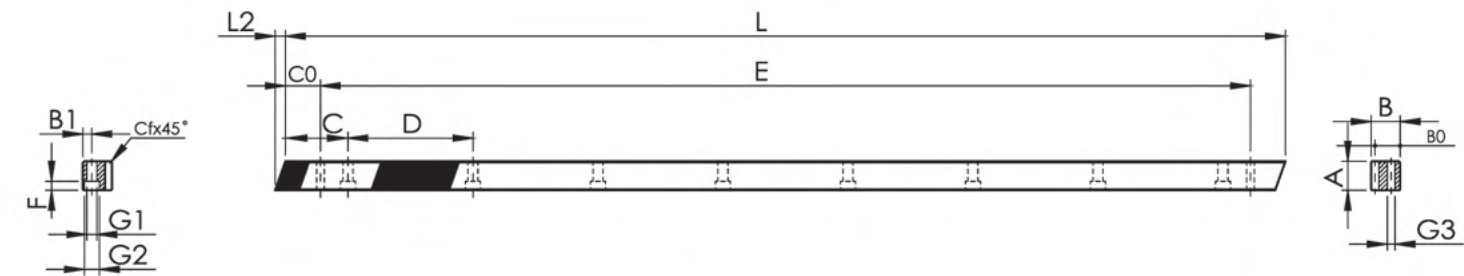
| Item Code   | M   | L       | L2    | Pt      | Z   | A  | B  | B0   | C     | D   | N° of Holes | B1 | G1 | G2   | F  | C0    | E      | G3   | KG   |
|-------------|-----|---------|-------|---------|-----|----|----|------|-------|-----|-------------|----|----|------|----|-------|--------|------|------|
| SHGH1.50505 | 1.5 | 500     | 6     | 5.0000  | 100 | 17 | 17 | 15.5 | 62.50 | 125 | 4           | 8  | 6  | 9.5  | 7  | 31.7  | 436.6  | 5.7  | 1.3  |
| SHGH1.51005 | 1.5 | 1000    | 6     | 5.0000  | 200 | 17 | 17 | 15.5 | 62.50 | 125 | 8           | 8  | 6  | 9.5  | 7  | 31.7  | 936.6  | 5.7  | 2.6  |
| SHGH020505  | 2   | 500     | 8.5   | 6.6666  | 75  | 24 | 24 | 22.0 | 62.50 | 125 | 4           | 8  | 7  | 11.0 | 7  | 31.7  | 436.6  | 5.7  | 2.1  |
| SHGH021005  | 2   | 1000    | 8.5   | 6.6666  | 150 | 24 | 24 | 22.0 | 62.50 | 125 | 8           | 8  | 7  | 11.0 | 7  | 31.7  | 936.6  | 5.7  | 4.1  |
| SHGH021505  | 2   | 1500    | 8.5   | 6.6666  | 225 | 24 | 24 | 22.0 | 62.50 | 125 | 12          | 8  | 7  | 11.0 | 7  | 31.7  | 1436.6 | 5.7  | 6.1  |
| SHGH022005  | 2   | 2000    | 8.5   | 6.6666  | 300 | 24 | 24 | 22.0 | 62.50 | 125 | 16          | 8  | 7  | 11.0 | 7  | 31.7  | 1936.6 | 5.7  | 8.1  |
| SHGH030505  | 3   | 500     | 10.3  | 10.0000 | 50  | 29 | 29 | 26.0 | 62.50 | 125 | 4           | 9  | 10 | 15.0 | 9  | 35.0  | 430.0  | 7.7  | 2.9  |
| SHGH031005  | 3   | 1000    | 10.3  | 10.0000 | 100 | 29 | 29 | 26.0 | 62.50 | 125 | 8           | 9  | 10 | 15.0 | 9  | 35.0  | 930.0  | 7.7  | 5.7  |
| SHGH031505  | 3   | 1500    | 10.3  | 10.0000 | 150 | 29 | 29 | 26.0 | 62.50 | 125 | 12          | 9  | 10 | 15.0 | 9  | 35.0  | 1430.0 | 7.7  | 8.5  |
| SHGH032005  | 3   | 2000    | 10.3  | 10.0000 | 200 | 29 | 29 | 26.0 | 62.50 | 125 | 16          | 9  | 10 | 15.0 | 9  | 35.0  | 1930.0 | 7.7  | 11.4 |
| SHGH040505  | 4   | 506.67  | 13.8  | 13.3333 | 38  | 39 | 39 | 35.0 | 62.50 | 125 | 4           | 12 | 10 | 15.0 | 9  | 33.3  | 433.4  | 7.7  | 5.3  |
| SHGH041005  | 4   | 1000    | 13.8  | 13.3333 | 75  | 39 | 39 | 35.0 | 62.50 | 125 | 8           | 12 | 10 | 15.0 | 9  | 33.3  | 933.4  | 7.7  | 10.4 |
| SHGH041505  | 4   | 1506.67 | 13.8  | 13.3333 | 113 | 39 | 39 | 35.0 | 62.50 | 125 | 12          | 12 | 10 | 15.0 | 9  | 33.3  | 1440.1 | 11.7 | 15.7 |
| SHGH042005  | 4   | 2000    | 13.8  | 13.3333 | 150 | 39 | 39 | 35.0 | 62.50 | 125 | 16          | 12 | 10 | 15.0 | 9  | 33.3  | 1933.4 | 11.7 | 20.8 |
| SHGH050505  | 5   | 500     | 17.4  | 16.6666 | 30  | 49 | 39 | 34.0 | 62.50 | 125 | 4           | 12 | 14 | 20.0 | 13 | 37.5  | 425.0  | 11.7 | 6.1  |
| SHGH051005  | 5   | 1000    | 17.4  | 16.6666 | 60  | 49 | 39 | 34.0 | 62.50 | 125 | 8           | 12 | 14 | 20.0 | 13 | 37.5  | 925.0  | 11.7 | 12.3 |
| SHGH060505  | 6   | 500     | 20.9  | 20.0000 | 25  | 59 | 49 | 43.0 | 62.50 | 125 | 4           | 16 | 18 | 26.0 | 17 | 37.5  | 425.0  | 15.7 | 9.1  |
| SHGH061005  | 6   | 1000    | 20.9  | 20.0000 | 50  | 59 | 49 | 43.0 | 62.50 | 125 | 8           | 16 | 18 | 26.0 | 17 | 37.5  | 925.0  | 15.7 | 18.4 |
| SHGH080505  | 8   | 500     | 28    | 26.6667 | 18  | 79 | 79 | 71.0 | 60.00 | 120 | 4           | 25 | 22 | 33.0 | 21 | 120.0 | 240.0  | 19.7 | 20.0 |
| SHGH081005  | 8   | 1000    | 28    | 26.6667 | 36  | 79 | 79 | 71.0 | 60.00 | 120 | 8           | 25 | 22 | 33.0 | 21 | 120.0 | 720.0  | 19.7 | 40.2 |
| SHGH100505  | 10  | 500     | 35.11 | 33.3333 | 15  | 99 | 99 | 89.0 | 62.50 | 125 | 4           | 32 | 33 | 48.0 | 32 | 125.0 | 250.0  | 19.7 | 35.0 |
| SHGH101005  | 10  | 1000    | 35.11 | 33.3333 | 30  | 99 | 99 | 89.0 | 62.50 | 125 | 8           | 32 | 33 | 48.0 | 32 | 125.0 | 750.0  | 19.7 | 68.7 |

Notes: Available Material on rack- Carbon Steel/42CrMo4/Stainless/Aluminum alloy.

**Q6 - C45**

Specifications

|                |                        |                  |                                  |
|----------------|------------------------|------------------|----------------------------------|
| Quality        | Din6                   | Heat - Treatment | Teeth Induction Hardened         |
| Material       | C45 (Carbon Steel)     | Hardness         | HRC 50-55                        |
| Helical Angle  | 19° 31' 42" Right Hand | Surface          | Ground Surfaces and Ground Teeth |
| Pressure Angle | 20°                    |                  |                                  |



Dimensions (M: Module • Pt: Tooth Pitch • Z: Number of Teeth)

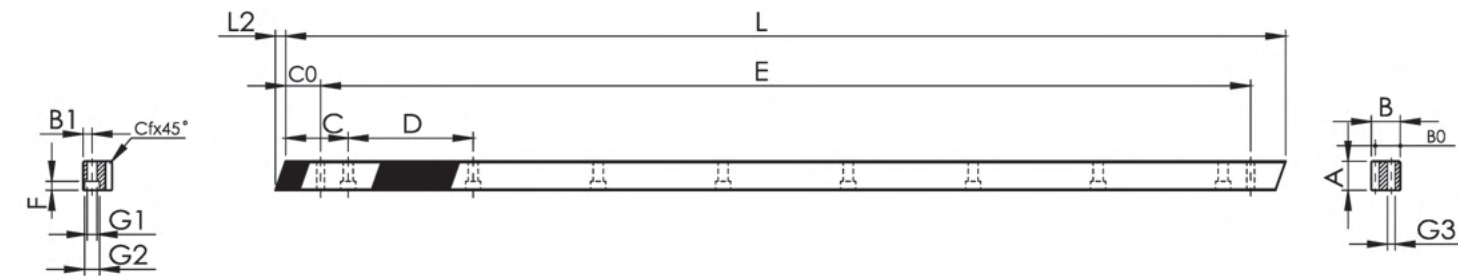
| Item Code     | M   | L       | L2    | Pt      | Z   | A  | B  | B0   | C     | D   | N° of Holes | B1 | G1 | G2   | F  | C0    | E      | G3   | KG   |
|---------------|-----|---------|-------|---------|-----|----|----|------|-------|-----|-------------|----|----|------|----|-------|--------|------|------|
| SHGH1.50506   | 1.5 | 500     | 6     | 5.0000  | 100 | 17 | 17 | 15.5 | 62.50 | 125 | 4           | 8  | 6  | 9.5  | 7  | 31.7  | 436.6  | 5.7  | 1.3  |
| SHGH1.51006   | 1.5 | 1000    | 6     | 5.0000  | 200 | 17 | 17 | 15.5 | 62.50 | 125 | 8           | 8  | 6  | 9.5  | 7  | 31.7  | 936.6  | 5.7  | 2.6  |
| SHGH1.51506   | 1.5 | 1500    | 6     | 5.0000  | 300 | 17 | 17 | 15.5 | 62.50 | 125 | 12          | 8  | 6  | 9.5  | 7  | 31.7  | 1436.6 | 5.7  | 3.8  |
| SHGH1.52006   | 1.5 | 2000    | 6     | 5.0000  | 400 | 17 | 17 | 15.5 | 62.50 | 125 | 16          | 8  | 6  | 9.5  | 7  | 31.7  | 1936.6 | 5.7  | 5.4  |
| SHGH2.020506  | 2   | 500     | 8.5   | 6.6666  | 75  | 24 | 24 | 22.0 | 62.50 | 125 | 4           | 8  | 7  | 11.0 | 7  | 31.7  | 436.6  | 5.7  | 2.1  |
| SHGH2.021006  | 2   | 1000    | 8.5   | 6.6666  | 150 | 24 | 24 | 22.0 | 62.50 | 125 | 8           | 8  | 7  | 11.0 | 7  | 31.7  | 936.6  | 5.7  | 4.1  |
| SHGH2.021506  | 2   | 1500    | 8.5   | 6.6666  | 225 | 24 | 24 | 22.0 | 62.50 | 125 | 12          | 8  | 7  | 11.0 | 7  | 31.7  | 1436.6 | 5.7  | 6.1  |
| SHGH2.022006  | 2   | 2000    | 8.5   | 6.6666  | 300 | 24 | 24 | 22.0 | 62.50 | 125 | 16          | 8  | 7  | 11.0 | 7  | 31.7  | 1936.6 | 5.7  | 8.1  |
| SHGH3.030506  | 3   | 500     | 10.3  | 10.0000 | 50  | 29 | 29 | 26.0 | 62.50 | 125 | 4           | 9  | 10 | 15.0 | 9  | 35.0  | 430.0  | 7.7  | 2.9  |
| SHGH3.031006  | 3   | 1000    | 10.3  | 10.0000 | 100 | 29 | 29 | 26.0 | 62.50 | 125 | 8           | 9  | 10 | 15.0 | 9  | 35.0  | 930.0  | 7.7  | 5.7  |
| SHGH3.031506  | 3   | 1500    | 10.3  | 10.0000 | 150 | 29 | 29 | 26.0 | 62.50 | 125 | 12          | 9  | 10 | 15.0 | 9  | 35.0  | 1430.0 | 7.7  | 8.5  |
| SHGH3.032006  | 3   | 2000    | 10.3  | 10.0000 | 200 | 29 | 29 | 26.0 | 62.50 | 125 | 16          | 9  | 10 | 15.0 | 9  | 35.0  | 1930.0 | 7.7  | 11.4 |
| SHGH4.040506  | 4   | 506.67  | 13.8  | 13.3333 | 38  | 39 | 39 | 35.0 | 62.50 | 125 | 4           | 12 | 10 | 15.0 | 9  | 33.3  | 433.4  | 7.7  | 5.4  |
| SHGH4.041006  | 4   | 1000    | 13.8  | 13.3333 | 75  | 39 | 39 | 35.0 | 62.50 | 125 | 8           | 12 | 10 | 15.0 | 9  | 33.3  | 933.4  | 7.7  | 10.4 |
| SHGH4.041506  | 4   | 1506.67 | 13.8  | 13.3333 | 113 | 39 | 39 | 35.0 | 62.50 | 125 | 12          | 12 | 10 | 15.0 | 9  | 33.3  | 1440.1 | 7.7  | 15.7 |
| SHGH4.042006  | 4   | 2000    | 13.8  | 13.3333 | 150 | 39 | 39 | 35.0 | 62.50 | 125 | 16          | 12 | 10 | 15.0 | 9  | 33.3  | 1933.4 | 7.7  | 20.8 |
| SHGH5.050506  | 5   | 500     | 17.4  | 16.6666 | 30  | 49 | 49 | 34.0 | 62.50 | 125 | 4           | 12 | 14 | 20.0 | 13 | 37.5  | 425.0  | 11.7 | 6.1  |
| SHGH5.051006  | 5   | 1000    | 17.4  | 16.6666 | 60  | 49 | 49 | 34.0 | 62.50 | 125 | 8           | 12 | 14 | 20.0 | 13 | 37.5  | 925.0  | 11.7 | 12.3 |
| SHGH5.051506  | 5   | 1500    | 17.4  | 16.6666 | 90  | 49 | 49 | 34.0 | 62.50 | 125 | 12          | 12 | 14 | 20.0 | 13 | 37.5  | 1425.0 | 11.7 | 18.5 |
| SHGH5.052006  | 5   | 2000    | 17.4  | 16.6666 | 120 | 49 | 49 | 34.0 | 62.50 | 125 | 16          | 12 | 14 | 20.0 | 13 | 37.5  | 1925.0 | 11.7 | 24.7 |
| SHGH6.060506  | 6   | 500     | 20.9  | 20.0000 | 25  | 59 | 49 | 43.0 | 62.50 | 125 | 4           | 16 | 18 | 26.0 | 17 | 37.5  | 425.0  | 15.7 | 9.1  |
| SHGH6.061006  | 6   | 1000    | 20.9  | 20.0000 | 50  | 59 | 49 | 43.0 | 62.50 | 125 | 8           | 16 | 18 | 26.0 | 17 | 37.5  | 925.0  | 15.7 | 18.4 |
| SHGH6.061506  | 6   | 1500    | 20.9  | 20.0000 | 75  | 59 | 49 | 43.0 | 62.50 | 125 | 12          | 16 | 18 | 26.0 | 17 | 37.5  | 1425.0 | 15.7 | 27.6 |
| SHGH6.062006  | 6   | 2000    | 20.9  | 20.0000 | 100 | 59 | 49 | 43.0 | 62.50 | 125 | 16          | 16 | 18 | 26.0 | 17 | 37.5  | 1925.0 | 15.7 | 36.9 |
| SHGH8.080506  | 8   | 480     | 28    | 26.6667 | 18  | 79 | 79 | 71.0 | 60.00 | 120 | 4           | 25 | 22 | 33.0 | 21 | 120.0 | 240.0  | 19.7 | 20.0 |
| SHGH8.081006  | 8   | 960     | 28    | 26.6667 | 36  | 79 | 79 | 71.0 | 60.00 | 120 | 8           | 25 | 22 | 33.0 | 21 | 120.0 | 720.0  | 19.7 | 40.2 |
| SHGH8.081506  | 8   | 1440    | 28    | 26.6667 | 54  | 79 | 79 | 71.0 | 60.00 | 120 | 12          | 25 | 22 | 33.0 | 21 | 120.0 | 1200.0 | 19.7 | 59.6 |
| SHGH8.082006  | 8   | 1920    | 28    | 26.6667 | 72  | 79 | 79 | 71.0 | 60.00 | 120 | 16          | 25 | 22 | 33.0 | 21 | 120.0 | 1680.0 | 19.7 | 80.8 |
| SHGH10.100506 | 10  | 500     | 35.11 | 33.3333 | 15  | 99 | 99 | 89.0 | 62.50 | 125 | 4           | 32 | 33 | 48.0 | 32 | 125.0 | 250.0  | 19.7 | 35.0 |
| SHGH10.101006 | 10  | 1000    | 35.11 | 33.3333 | 30  | 99 | 99 | 89.0 | 62.50 | 125 | 8           | 32 | 33 | 48.0 | 32 | 125.0 | 750.0  | 19.7 | 68.7 |

Notes: Available Material on rack- Carbon Steel/42CrMo4/Stainless/Aluminum alloy.

**Q7 - C45**

Specifications

|                |                        |                  |                                  |
|----------------|------------------------|------------------|----------------------------------|
| Quality        | Din7                   | Heat - Treatment | Teeth Induction Hardened         |
| Material       | C45 (Carbon Steel)     | Hardness         | HRC 50-55                        |
| Helical Angle  | 19° 31' 42" Right Hand | Surface          | Ground Surfaces and Ground Teeth |
| Pressure Angle | 20°                    |                  |                                  |



Dimensions (M: Module • Pt: Tooth Pitch • Z: Number of Teeth)

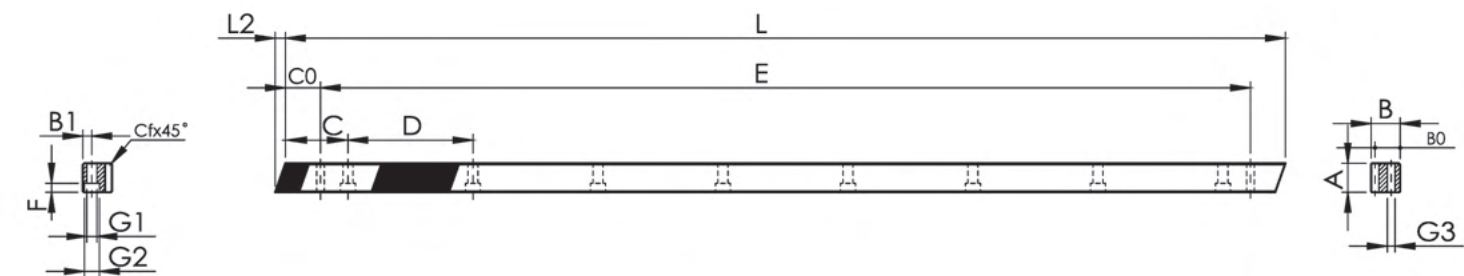
| Item Code     | M   | L       | L2    | Pt      | Z   | A  | B  | B0   | C     | D   | N° of Holes | B1 | G1 | G2   | F  | C0    | E      | G3   | KG   |
|---------------|-----|---------|-------|---------|-----|----|----|------|-------|-----|-------------|----|----|------|----|-------|--------|------|------|
| SHGH1.50507   | 1.5 | 500     | 6     | 5.0000  | 100 | 17 | 17 | 15.5 | 62.50 | 125 | 4           | 8  | 6  | 9.5  | 7  | 31.7  | 436.6  | 5.7  | 1.3  |
| SHGH1.51007   | 1.5 | 1000    | 6     | 5.0000  | 200 | 17 | 17 | 15.5 | 62.50 | 125 | 8           | 8  | 6  | 9.5  | 7  | 31.7  | 936.6  | 5.7  | 2.6  |
| SHGH1.51507   | 1.5 | 1500    | 6     | 5.0000  | 300 | 17 | 17 | 15.5 | 62.50 | 125 | 12          | 8  | 6  | 9.5  | 7  | 31.7  | 1436.6 | 5.7  | 3.8  |
| SHGH1.52007   | 1.5 | 2000    | 6     | 5.0000  | 400 | 17 | 17 | 15.5 | 62.50 | 125 | 16          | 8  | 6  | 9.5  | 7  | 31.7  | 1936.6 | 5.7  | 5.4  |
| SHGH2.020507  | 2   | 500     | 8.5   | 6.6666  | 75  | 24 | 24 | 22.0 | 62.50 | 125 | 4           | 8  | 7  | 11.0 | 7  | 31.7  | 436.6  | 5.7  | 2.1  |
| SHGH2.021007  | 2   | 1000    | 8.5   | 6.6666  | 150 | 24 | 24 | 22.0 | 62.50 | 125 | 8           | 8  | 7  | 11.0 | 7  | 31.7  | 936.6  | 5.7  | 4.1  |
| SHGH2.021507  | 2   | 1500    | 8.5   | 6.6666  | 225 | 24 | 24 | 22.0 | 62.50 | 125 | 12          | 8  | 7  | 11.0 | 7  | 31.7  | 1436.6 | 5.7  | 6.1  |
| SHGH2.022007  | 2   | 2000    | 8.5   | 6.6666  | 300 | 24 | 24 | 22.0 | 62.50 | 125 | 16          | 8  | 7  | 11.0 | 7  | 31.7  | 1936.6 | 5.7  | 8.1  |
| SHGH3.030507  | 3   | 500     | 10.3  | 10.0000 | 50  | 29 | 29 | 26.0 | 62.50 | 125 | 4           | 9  | 10 | 15.0 | 9  | 35.0  | 430.0  | 7.7  | 2.9  |
| SHGH3.031007  | 3   | 1000    | 10.3  | 10.0000 | 100 | 29 | 29 | 26.0 | 62.50 | 125 | 8           | 9  | 10 | 15.0 | 9  | 35.0  | 930.0  | 7.7  | 5.8  |
| SHGH3.031507  | 3   | 1500    | 10.3  | 10.0000 | 150 | 29 | 29 | 26.0 | 62.50 | 125 | 12          | 9  | 10 | 15.0 | 9  | 35.0  | 1430.0 | 7.7  | 8.5  |
| SHGH3.032007  | 3   | 2000    | 10.3  | 10.0000 | 200 | 29 | 29 | 26.0 | 62.50 | 125 | 16          | 9  | 10 | 15.0 | 9  | 35.0  | 1930.0 | 7.7  | 11.4 |
| SHGH4.040507  | 4   | 506.67  | 13.8  | 13.3333 | 38  | 39 | 39 | 35.0 | 62.50 | 125 | 4           | 12 | 10 | 15.0 | 9  | 33.3  | 433.4  | 7.7  | 5.4  |
| SHGH4.041007  | 4   | 1000    | 13.8  | 13.3333 | 75  | 39 | 39 | 35.0 | 62.50 | 125 | 8           | 12 | 10 | 15.0 | 9  | 33.3  | 933.4  | 7.7  | 10.4 |
| SHGH4.041507  | 4   | 1506.67 | 13.8  | 13.3333 | 113 | 39 | 39 | 35.0 | 62.50 | 125 | 12          | 12 | 10 | 15.0 | 9  | 33.3  | 1440.1 | 7.7  | 15.7 |
| SHGH4.042007  | 4   | 2000    | 13.8  | 13.3333 | 150 | 39 | 39 | 35.0 | 62.50 | 125 | 16          | 12 | 10 | 15.0 | 9  | 33.3  | 1933.4 | 7.7  | 20.8 |
| SHGH5.050507  | 5   | 500     | 17.4  | 16.6666 | 30  | 49 | 49 | 34.0 | 62.50 | 125 | 4           | 12 | 14 | 20.0 | 13 | 37.5  | 425.0  | 11.7 | 6.1  |
| SHGH5.051007  | 5   | 1000    | 17.4  | 16.6666 | 60  | 49 | 49 | 34.0 | 62.50 | 125 | 8           | 12 | 14 | 20.0 | 13 | 37.5  | 925.0  | 11.7 | 12.3 |
| SHGH5.051507  | 5   | 1500    | 17.4  | 16.6666 | 90  | 49 | 49 | 34.0 | 62.50 | 125 | 12          | 12 | 14 | 20.0 | 13 | 37.5  | 1425.0 | 11.7 | 18.5 |
| SHGH5.052007  | 5   | 2000    | 17.4  | 16.6666 | 120 | 49 | 49 | 34.0 | 62.50 | 125 | 16          | 12 | 14 | 20.0 | 13 | 37.5  | 1925.0 | 11.7 | 24.7 |
| SHGH6.060507  | 6   | 500     | 20.9  | 20.0000 | 25  | 59 | 49 | 43.0 | 62.50 | 125 | 4           | 16 | 18 | 26.0 | 17 | 37.5  | 425.0  | 15.7 | 9.1  |
| SHGH6.061007  | 6   | 1000    | 20.9  | 20.0000 | 50  | 59 | 49 | 43.0 | 62.50 | 125 | 8           | 16 | 18 | 26.0 | 17 | 37.5  | 925.0  | 15.7 | 18.4 |
| SHGH6.061507  | 6   | 1500    | 20.9  | 20.0000 | 75  | 59 | 49 | 43.0 | 62.50 | 125 | 12          | 16 | 18 | 26.0 | 17 | 37.5  | 1425.0 | 15.7 | 27.6 |
| SHGH6.062007  | 6   | 2000    | 20.9  | 20.0000 | 100 | 59 | 49 | 43.0 | 62.50 | 125 | 16          | 16 | 18 | 26.0 | 17 | 37.5  | 1925.0 | 15.7 | 36.9 |
| SHGH8.080507  | 8   | 480     | 28    | 26.6667 | 18  | 79 | 79 | 71.0 | 60.00 | 120 | 4           | 25 | 22 | 33.0 | 21 | 120.0 | 240.0  | 19.7 | 20.0 |
| SHGH8.081007  | 8   | 960     | 28    | 26.6667 | 36  | 79 | 79 | 71.0 | 60.00 | 120 | 8           | 25 | 22 | 33.0 | 21 | 120.0 | 720.0  | 19.7 | 40.2 |
| SHGH8.081507  | 8   | 1440    | 28    | 26.6667 | 54  | 79 | 79 | 71.0 | 60.00 | 120 | 12          | 25 | 22 | 33.0 | 21 | 120.0 | 1200.0 | 19.7 | 59.6 |
| SHGH8.082007  | 8   | 1920    | 28    | 26.6667 | 72  | 79 | 79 | 71.0 | 60.00 | 120 | 16          | 25 | 22 | 33.0 | 21 | 120.0 | 1680.0 | 19.7 | 80.8 |
| SHGH10.100507 | 10  | 500     | 35.11 | 33.3333 | 15  | 99 | 99 | 89.0 | 62.50 | 125 | 4           | 32 | 33 | 48.0 | 32 | 125.0 | 250.0  | 19.7 | 35.0 |
| SHGH10.101007 | 10  | 1000    | 35.11 | 33.3333 | 30  | 99 | 99 | 89.0 | 62.50 | 125 | 8           | 32 | 33 | 48.0 | 32 | 125.0 | 750.0  | 19.7 | 68.7 |

Notes: Available Material on rack- Carbon Steel/42CrMo4/Stainless/Aluminum alloy.

## Q8 - C45

### Specifications

|                |                        |                  |                                  |
|----------------|------------------------|------------------|----------------------------------|
| Quality        | Din8                   | Heat - Treatment | Material Quenched                |
| Material       | C45 (Carbon Steel)     | Hardness         | HRC 15-20                        |
| Helical Angle  | 19° 31' 42" Right Hand | Surface          | Milled Surfaces and Milled Teeth |
| Pressure Angle | 20°                    |                  |                                  |



Dimensions (M: Module • Pt: Tooth Pitch • Z: Number of Teeth)

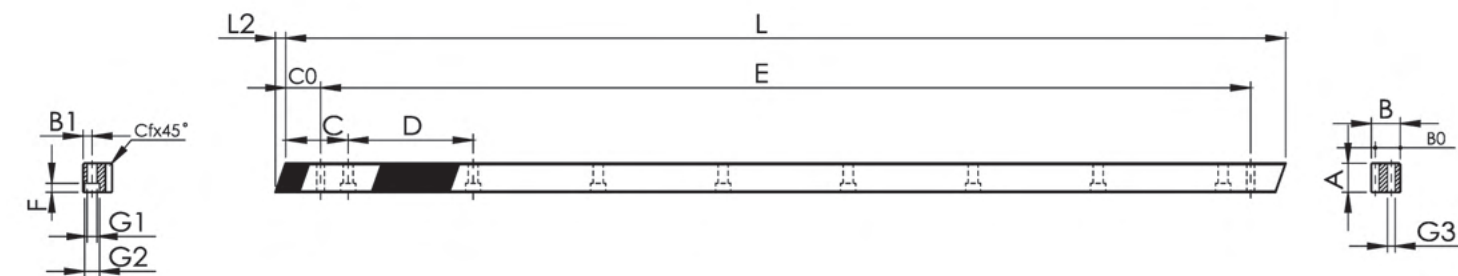
| Item Code   | M   | L       | L2    | Pt      | Z   | A  | B  | B0   | C     | D   | N° of Holes | B1 | G1 | G2   | F  | C0    | E      | G3   | KG   |
|-------------|-----|---------|-------|---------|-----|----|----|------|-------|-----|-------------|----|----|------|----|-------|--------|------|------|
| SHFQ1.50508 | 1.5 | 500     | 6     | 5.0000  | 100 | 17 | 17 | 15.5 | 62.50 | 125 | 4           | 8  | 6  | 9.5  | 7  | 31.7  | 436.6  | 5.7  | 1.3  |
| SHFQ1.51008 | 1.5 | 1000    | 6     | 5.0000  | 200 | 17 | 17 | 15.5 | 62.50 | 125 | 8           | 8  | 6  | 9.5  | 7  | 31.7  | 936.6  | 5.7  | 2.6  |
| SHFQ1.51508 | 1.5 | 1500    | 6     | 5.0000  | 300 | 17 | 17 | 15.5 | 62.50 | 125 | 12          | 8  | 6  | 9.5  | 7  | 31.7  | 1436.6 | 5.7  | 3.8  |
| SHFQ1.52008 | 1.5 | 2000    | 6     | 5.0000  | 400 | 17 | 17 | 15.5 | 62.50 | 125 | 16          | 8  | 6  | 9.5  | 7  | 31.7  | 1936.6 | 5.7  | 5.4  |
| SHFQ020508  | 2   | 500     | 8.5   | 6.6666  | 75  | 25 | 24 | 22.0 | 62.50 | 125 | 4           | 8  | 7  | 11.0 | 7  | 31.7  | 436.6  | 5.7  | 2.1  |
| SHFQ021008  | 2   | 1000    | 8.5   | 6.6666  | 150 | 25 | 24 | 22.0 | 62.50 | 125 | 8           | 8  | 7  | 11.0 | 7  | 31.7  | 936.6  | 5.7  | 4.1  |
| SHFQ021508  | 2   | 1500    | 8.5   | 6.6666  | 225 | 25 | 24 | 22.0 | 62.50 | 125 | 12          | 8  | 7  | 11.0 | 7  | 31.7  | 1436.6 | 5.7  | 6.1  |
| SHFQ022008  | 2   | 2000    | 8.5   | 6.6666  | 300 | 25 | 24 | 22.0 | 62.50 | 125 | 16          | 8  | 7  | 11.0 | 7  | 31.7  | 1936.6 | 5.7  | 8.1  |
| SHFQ030508  | 3   | 500     | 10.3  | 10.0000 | 50  | 30 | 29 | 26.0 | 62.50 | 125 | 4           | 9  | 10 | 15.0 | 9  | 35.0  | 430.0  | 7.7  | 2.9  |
| SHFQ031008  | 3   | 1000    | 10.3  | 10.0000 | 100 | 30 | 29 | 26.0 | 62.50 | 125 | 8           | 9  | 10 | 15.0 | 9  | 35.0  | 930.0  | 7.7  | 5.8  |
| SHFQ031508  | 3   | 1500    | 10.3  | 10.0000 | 150 | 30 | 29 | 26.0 | 62.50 | 125 | 12          | 9  | 10 | 15.0 | 9  | 35.0  | 1430.0 | 7.7  | 8.5  |
| SHFQ032008  | 3   | 2000    | 10.3  | 10.0000 | 200 | 30 | 29 | 26.0 | 62.50 | 125 | 16          | 9  | 10 | 15.0 | 9  | 35.0  | 1930.0 | 7.7  | 11.4 |
| SHFQ040508  | 4   | 506.67  | 13.8  | 13.3333 | 38  | 40 | 39 | 35.0 | 62.50 | 125 | 4           | 12 | 10 | 15.0 | 9  | 33.3  | 433.4  | 7.7  | 5.4  |
| SHFQ041008  | 4   | 1000    | 13.8  | 13.3333 | 75  | 40 | 39 | 35.0 | 62.50 | 125 | 8           | 12 | 10 | 15.0 | 9  | 33.3  | 933.4  | 7.7  | 10.4 |
| SHFQ041508  | 4   | 1506.67 | 13.8  | 13.3333 | 113 | 40 | 39 | 35.0 | 62.50 | 125 | 12          | 12 | 10 | 15.0 | 9  | 33.3  | 1440.1 | 7.7  | 15.7 |
| SHFQ042008  | 4   | 2000    | 13.8  | 13.3333 | 150 | 40 | 39 | 35.0 | 62.50 | 125 | 16          | 12 | 10 | 15.0 | 9  | 33.3  | 1933.4 | 7.7  | 20.8 |
| SHFQ050508  | 5   | 500     | 17.4  | 16.6666 | 30  | 50 | 39 | 34.0 | 62.50 | 125 | 4           | 12 | 14 | 20.0 | 13 | 37.5  | 425.0  | 11.7 | 6.1  |
| SHFQ051008  | 5   | 1000    | 17.4  | 16.6666 | 60  | 50 | 39 | 34.0 | 62.50 | 125 | 8           | 12 | 14 | 20.0 | 13 | 37.5  | 925.0  | 11.7 | 12.3 |
| SHFQ051508  | 5   | 1500    | 17.4  | 16.6666 | 90  | 50 | 39 | 34.0 | 62.50 | 125 | 12          | 12 | 14 | 20.0 | 13 | 37.5  | 1425.0 | 11.7 | 18.5 |
| SHFQ052008  | 5   | 2000    | 17.4  | 16.6666 | 120 | 50 | 39 | 34.0 | 62.50 | 125 | 16          | 12 | 14 | 20.0 | 13 | 37.5  | 1925.0 | 11.7 | 24.7 |
| SHFQ060508  | 6   | 500     | 20.9  | 20.0000 | 25  | 59 | 49 | 43.0 | 62.50 | 125 | 4           | 16 | 18 | 26.0 | 17 | 37.5  | 425.0  | 15.7 | 9.1  |
| SHFQ061008  | 6   | 1000    | 20.9  | 20.0000 | 50  | 59 | 49 | 43.0 | 62.50 | 125 | 8           | 16 | 18 | 26.0 | 17 | 37.5  | 925.0  | 15.7 | 18.4 |
| SHFQ061508  | 6   | 1500    | 20.9  | 20.0000 | 75  | 59 | 49 | 43.0 | 62.50 | 125 | 12          | 16 | 18 | 26.0 | 17 | 37.5  | 1425.0 | 15.7 | 27.6 |
| SHFQ062008  | 6   | 2000    | 20.9  | 20.0000 | 100 | 59 | 49 | 43.0 | 62.50 | 125 | 16          | 16 | 18 | 26.0 | 17 | 37.5  | 1925.0 | 15.7 | 36.9 |
| SHFQ080508  | 8   | 480     | 28    | 26.6667 | 18  | 79 | 79 | 71.0 | 60.00 | 120 | 4           | 25 | 22 | 33.0 | 21 | 120.0 | 240.0  | 19.7 | 20.0 |
| SHFQ081008  | 8   | 960     | 28    | 26.6667 | 36  | 79 | 79 | 71.0 | 60.00 | 120 | 8           | 25 | 22 | 33.0 | 21 | 120.0 | 720.0  | 19.7 | 40.2 |
| SHFQ081508  | 8   | 1440    | 28    | 26.6667 | 54  | 79 | 79 | 71.0 | 60.00 | 120 | 12          | 25 | 22 | 33.0 | 21 | 120.0 | 1200.0 | 19.7 | 59.6 |
| SHFQ082008  | 8   | 1920    | 28    | 26.6667 | 72  | 79 | 79 | 71.0 | 60.00 | 120 | 16          | 25 | 22 | 33.0 | 21 | 120.0 | 1680.0 | 19.7 | 80.8 |
| SHFQ100508  | 10  | 500     | 35.11 | 33.3333 | 15  | 99 | 99 | 89.0 | 62.50 | 125 | 4           | 32 | 33 | 48.0 | 32 | 125.0 | 250.0  | 19.7 | 35.0 |
| SHFQ101008  | 10  | 1000    | 35.11 | 33.3333 | 30  | 99 | 99 | 89.0 | 62.50 | 125 | 8           | 32 | 33 | 48.0 | 32 | 125.0 | 750.0  | 19.7 | 68.7 |

Notes: Available Material on rack- Carbon Steel/42CrMo4/Stainless/Aluminum alloy.

## Q9 - C45

### Specifications

|                |                        |                  |                                  |
|----------------|------------------------|------------------|----------------------------------|
| Quality        | Din9                   | Heat - Treatment | Soft                             |
| Material       | C45 (Carbon Steel)     | Hardness         | HRC 8-12                         |
| Helical Angle  | 19° 31' 42" Right Hand | Surface          | Milled Surfaces and Milled Teeth |
| Pressure Angle | 20°                    |                  |                                  |



Dimensions (M: Module • Pt: Tooth Pitch • Z: Number of Teeth)

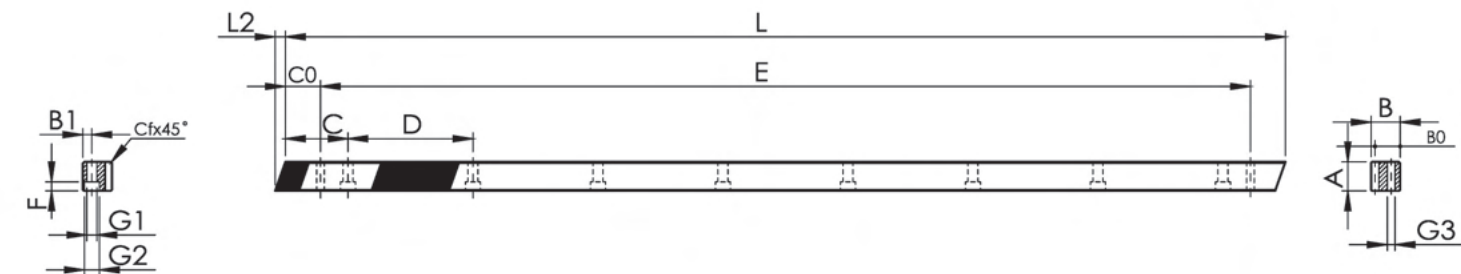
| Item Code  | M   | L       | L2    | Pt      | Z   | A  | B  | B0   | C     | D   | N° of Holes | B1 | G1 | G2   | F  | C0    | E      | G3   | KG   |
|------------|-----|---------|-------|---------|-----|----|----|------|-------|-----|-------------|----|----|------|----|-------|--------|------|------|
| SHF1.50509 | 1.5 | 500     | 6     | 5.0000  | 100 | 17 | 17 | 15.5 | 62.50 | 125 | 4           | 8  | 6  | 9.5  | 7  | 31.7  | 436.6  | 5.7  | 1.4  |
| SHF1.51009 | 1.5 | 1000    | 6     | 5.0000  | 200 | 17 | 17 | 15.5 | 62.50 | 125 | 8           | 8  | 6  | 9.5  | 7  | 31.7  | 936.6  | 5.7  | 2.7  |
| SHF1.51509 | 1.5 | 1500    | 6     | 5.0000  | 300 | 17 | 17 | 15.5 | 62.50 | 125 | 12          | 8  | 6  | 9.5  | 7  | 31.7  | 1436.6 | 5.7  | 4.0  |
| SHF1.52009 | 1.5 | 2000    | 6     | 5.0000  | 400 | 17 | 17 | 15.5 | 62.50 | 125 | 16          | 8  | 6  | 9.5  | 7  | 31.7  | 1936.6 | 5.7  | 5.4  |
| SHF020509  | 2   | 500     | 8.5   | 6.6666  | 75  | 24 | 24 | 22.0 | 62.50 | 125 | 4           | 8  | 7  | 11.0 | 7  | 31.7  | 436.6  | 5.7  | 2.1  |
| SHF021009  | 2   | 1000    | 8.5   | 6.6666  | 150 | 24 | 24 | 22.0 | 62.50 | 125 | 8           | 8  | 7  | 11.0 | 7  | 31.7  | 936.6  | 5.7  | 4.2  |
| SHF021509  | 2   | 1500    | 8.5   | 6.6666  | 225 | 24 | 24 | 22.0 | 62.50 | 125 | 12          | 8  | 7  | 11.0 | 7  | 31.7  | 1436.6 | 5.7  | 6.3  |
| SHF022009  | 2   | 2000    | 8.5   | 6.6666  | 300 | 24 | 24 | 22.0 | 62.50 | 125 | 16          | 8  | 7  | 11.0 | 7  | 31.7  | 1936.6 | 5.7  | 8.4  |
| SHF030509  | 3   | 500     | 10.3  | 10.0000 | 50  | 29 | 29 | 26.0 | 62.50 | 125 | 4           | 9  | 10 | 15.0 | 9  | 35.0  | 430.0  | 7.7  | 3.0  |
| SHF031009  | 3   | 1000    | 10.3  | 10.0000 | 100 | 29 | 29 | 26.0 | 62.50 | 125 | 8           | 9  | 10 | 15.0 | 9  | 35.0  | 930.0  | 7.7  | 5.9  |
| SHF031509  | 3   | 1500    | 10.3  | 10.0000 | 150 | 29 | 29 | 26.0 | 62.50 | 125 | 12          | 9  | 10 | 15.0 | 9  | 35.0  | 1430.0 | 7.7  | 8.8  |
| SHF032009  | 3   | 2000    | 10.3  | 10.0000 | 200 | 29 | 29 | 26.0 | 62.50 | 125 | 16          | 9  | 10 | 15.0 | 9  | 35.0  | 1930.0 | 7.7  | 11.8 |
| SHF040509  | 4   | 506.67  | 13.8  | 13.3333 | 38  | 39 | 39 | 35.0 | 62.50 | 125 | 4           | 12 | 10 | 15.0 | 9  | 33.3  | 433.4  | 7.7  | 5.4  |
| SHF041009  | 4   | 1000    | 13.8  | 13.3333 | 75  | 39 | 39 | 35.0 | 62.50 | 125 | 8           | 12 | 10 | 15.0 | 9  | 33.3  | 933.4  | 7.7  | 10.7 |
| SHF041509  | 4   | 1506.67 | 13.8  | 13.3333 | 113 | 39 | 39 | 35.0 | 62.50 | 125 | 12          | 12 | 10 | 15.0 | 9  | 33.3  | 1440.1 | 7.7  | 16.1 |
| SHF042009  | 4   | 2000    | 13.8  | 13.3333 | 150 | 39 | 39 | 35.0 | 62.50 | 125 | 16          | 12 | 10 | 15.0 | 9  | 33.3  | 1933.4 | 7.7  | 21.3 |
| SHF050509  | 5   | 500     | 17.4  | 16.6666 | 30  | 49 | 39 | 34.0 | 62.50 | 125 | 4           | 12 | 14 | 20.0 | 13 | 37.5  | 425.0  | 11.7 | 6.3  |
| SHF051009  | 5   | 1000    | 17.4  | 16.6666 | 60  | 49 | 39 | 34.0 | 62.50 | 125 | 8           | 12 | 14 | 20.0 | 13 | 37.5  | 925.0  | 11.7 | 12.6 |
| SHF051509  | 5   | 1500    | 17.4  | 16.6666 | 90  | 49 | 39 | 34.0 | 62.50 | 125 | 12          | 12 | 14 | 20.0 | 13 | 37.5  | 1425.0 | 11.7 | 18.9 |
| SHF052009  | 5   | 2000    | 17.4  | 16.6666 | 120 | 49 | 39 | 34.0 | 62.50 | 125 | 16          | 12 | 14 | 20.0 | 13 | 37.5  | 1925.0 | 11.7 | 25.2 |
| SHF060509  | 6   | 500     | 20.9  | 20.0000 | 25  | 59 | 49 | 43.0 | 62.50 | 125 | 4           | 16 | 18 | 26.0 | 17 | 37.5  | 425.0  | 15.7 | 9.3  |
| SHF061009  | 6   | 1000    | 20.9  | 20.0000 | 50  | 59 | 49 | 43.0 | 62.50 | 125 | 8           | 16 | 18 | 26.0 | 17 | 37.5  | 925.0  | 15.7 | 18.7 |
| SHF061509  | 6   | 1500    | 20.9  | 20.0000 | 75  | 59 | 49 | 43.0 | 62.50 | 125 | 12          | 16 | 18 | 26.0 | 17 | 37.5  | 1425.0 | 15.7 | 28.1 |
| SHF062009  | 6   | 2000    | 20.9  | 20.0000 | 100 | 59 | 49 | 43.0 | 62.50 | 125 | 16          | 16 | 18 | 26.0 | 17 | 37.5  | 1925.0 | 15.7 | 37.5 |
| SHF080509  | 8   | 480     | 28    | 26.6667 | 18  | 79 | 79 | 71.0 | 60.00 | 120 | 4           | 25 | 22 | 33.0 | 21 | 120.0 | 240.0  | 19.7 | 20.0 |
| SHF081009  | 8   | 960     | 28    | 26.6667 | 36  | 79 | 79 | 71.0 | 60.00 | 120 | 8           | 25 | 22 | 33.0 | 21 | 120.0 | 720.0  | 19.7 | 40.2 |
| SHF081509  | 8   | 1440    | 28    | 26.6667 | 54  | 79 | 79 | 71.0 | 60.00 | 120 | 12          | 25 | 22 | 33.0 | 21 | 120.0 | 1200.0 | 19.7 | 59.6 |
| SHF082009  | 8   | 1920    | 28    | 26.6667 | 72  | 79 | 79 | 71.0 | 60.00 | 120 | 16          | 25 | 22 | 33.0 | 21 | 120.0 | 1680.0 | 19.7 | 80.8 |
| SHF100509  | 10  | 500     | 35.11 | 33.3333 | 15  | 99 | 99 | 89.0 | 62.50 | 125 | 4           | 32 | 33 | 48.0 | 32 | 125.0 | 250.0  | 19.7 | 35.0 |
| SHF101009  | 10  | 1000    | 35.11 | 33.3333 | 30  | 99 | 99 | 89.0 | 62.50 | 125 | 8           | 32 | 33 | 48.0 | 32 | 125.0 | 750.0  | 19.7 | 68.7 |

Notes: Available Material on rack- Carbon Steel/42CrMo4/Stainless/Aluminum alloy.

Q10 - C45

Specifications

|                |                        |                  |                                  |
|----------------|------------------------|------------------|----------------------------------|
| Quality        | Din10                  | Heat - Treatment | Teeth Induction Hardened         |
| Material       | C45 (Carbon Steel)     | Hardness         | HRC 50-55                        |
| Helical Angle  | 19° 31' 42" Right Hand | Surface          | Milled Surfaces and Milled Teeth |
| Pressure Angle | 20°                    | Finishing        | Options                          |



Dimensions (M: Module • Pt: Tooth Pitch • Z: Number of Teeth)

| Item Code   | M   | L       | L2    | Pt      | Z   | A  | B  | B0   | C     | D   | N° of Holes | B1 | G1 | G2   | F  | C0    | E      | G3   | KG   |
|-------------|-----|---------|-------|---------|-----|----|----|------|-------|-----|-------------|----|----|------|----|-------|--------|------|------|
| SHFH1.50510 | 1.5 | 500     | 6     | 5.0000  | 100 | 17 | 17 | 15.5 | 62.50 | 125 | 4           | 8  | 6  | 9.5  | 7  | 31.7  | 436.6  | 5.7  | 1.4  |
| SHFH1.51010 | 1.5 | 1000    | 6     | 5.0000  | 200 | 17 | 17 | 15.5 | 62.50 | 125 | 8           | 8  | 6  | 9.5  | 7  | 31.7  | 936.6  | 5.7  | 2.8  |
| SHFH1.51510 | 1.5 | 1500    | 6     | 5.0000  | 300 | 17 | 17 | 15.5 | 62.50 | 125 | 12          | 8  | 6  | 9.5  | 7  | 31.7  | 1436.6 | 5.7  | 4.3  |
| SHFH1.52010 | 1.5 | 2000    | 6     | 5.0000  | 400 | 17 | 17 | 15.5 | 62.50 | 125 | 16          | 8  | 6  | 9.5  | 7  | 31.7  | 1936.6 | 5.7  | 5.4  |
| SHFH020510  | 2   | 500     | 8.5   | 6.6666  | 75  | 24 | 24 | 22.0 | 62.50 | 125 | 4           | 8  | 7  | 11.0 | 7  | 31.7  | 436.6  | 5.7  | 2.2  |
| SHFH021010  | 2   | 1000    | 8.5   | 6.6666  | 150 | 24 | 24 | 22.0 | 62.50 | 125 | 8           | 8  | 7  | 11.0 | 7  | 31.7  | 936.6  | 5.7  | 4.4  |
| SHFH021510  | 2   | 1500    | 8.5   | 6.6666  | 225 | 24 | 24 | 22.0 | 62.50 | 125 | 12          | 8  | 7  | 11.0 | 7  | 31.7  | 1436.6 | 5.7  | 6.6  |
| SHFH022010  | 2   | 2000    | 8.5   | 6.6666  | 300 | 24 | 24 | 22.0 | 62.50 | 125 | 16          | 8  | 7  | 11.0 | 7  | 31.7  | 1936.6 | 5.7  | 8.8  |
| SHFH030510  | 3   | 500     | 10.3  | 10.0000 | 50  | 29 | 29 | 26.0 | 62.50 | 125 | 4           | 9  | 10 | 15.0 | 9  | 35.0  | 430.0  | 7.7  | 3.1  |
| SHFH031010  | 3   | 1000    | 10.3  | 10.0000 | 100 | 29 | 29 | 26.0 | 62.50 | 125 | 8           | 9  | 10 | 15.0 | 9  | 35.0  | 930.0  | 7.7  | 6.1  |
| SHFH031510  | 3   | 1500    | 10.3  | 10.0000 | 150 | 29 | 29 | 26.0 | 62.50 | 125 | 12          | 9  | 10 | 15.0 | 9  | 35.0  | 1430.0 | 7.7  | 9.2  |
| SHFH032010  | 3   | 2000    | 10.3  | 10.0000 | 200 | 29 | 29 | 26.0 | 62.50 | 125 | 16          | 9  | 10 | 15.0 | 9  | 35.0  | 1930.0 | 7.7  | 12.2 |
| SHFH040510  | 4   | 506.67  | 13.8  | 13.3333 | 38  | 39 | 39 | 35.0 | 62.50 | 125 | 4           | 12 | 10 | 15.0 | 9  | 33.3  | 433.4  | 7.7  | 5.5  |
| SHFH041010  | 4   | 1000    | 13.8  | 13.3333 | 75  | 39 | 39 | 35.0 | 62.50 | 125 | 8           | 12 | 10 | 15.0 | 9  | 33.3  | 933.4  | 7.7  | 11.0 |
| SHFH041510  | 4   | 1506.67 | 13.8  | 13.3333 | 113 | 39 | 39 | 35.0 | 62.50 | 125 | 12          | 12 | 10 | 15.0 | 9  | 33.3  | 1440.1 | 7.7  | 16.1 |
| SHFH042010  | 4   | 2000    | 13.8  | 13.3333 | 150 | 39 | 39 | 35.0 | 62.50 | 125 | 16          | 12 | 10 | 15.0 | 9  | 33.3  | 1933.4 | 7.7  | 22.0 |
| SHFH050509  | 5   | 500     | 17.4  | 16.6666 | 30  | 49 | 39 | 34.0 | 62.50 | 125 | 4           | 12 | 14 | 20.0 | 13 | 37.5  | 425.0  | 11.7 | 6.5  |
| SHFH051009  | 5   | 1000    | 17.4  | 16.6666 | 60  | 49 | 39 | 34.0 | 62.50 | 125 | 8           | 12 | 14 | 20.0 | 13 | 37.5  | 925.0  | 11.7 | 13.0 |
| SHFH051509  | 5   | 1500    | 17.4  | 16.6666 | 90  | 49 | 39 | 34.0 | 62.50 | 125 | 12          | 12 | 14 | 20.0 | 13 | 37.5  | 1425.0 | 11.7 | 19.5 |
| SHFH052009  | 5   | 2000    | 17.4  | 16.6666 | 120 | 49 | 39 | 34.0 | 62.50 | 125 | 16          | 12 | 14 | 20.0 | 13 | 37.5  | 1925.0 | 11.7 | 26.0 |
| SHFH060510  | 6   | 500     | 20.9  | 20.0000 | 25  | 59 | 49 | 43.0 | 62.50 | 125 | 4           | 16 | 18 | 26.0 | 17 | 37.5  | 425.0  | 15.7 | 9.5  |
| SHFH061010  | 6   | 1000    | 20.9  | 20.0000 | 50  | 59 | 49 | 43.0 | 62.50 | 125 | 8           | 16 | 18 | 26.0 | 17 | 37.5  | 925.0  | 15.7 | 19.2 |
| SHFH061510  | 6   | 1500    | 20.9  | 20.0000 | 75  | 59 | 49 | 43.0 | 62.50 | 125 | 12          | 16 | 18 | 26.0 | 17 | 37.5  | 1425.0 | 15.7 | 28.7 |
| SHFH062010  | 6   | 2000    | 20.9  | 20.0000 | 100 | 59 | 49 | 43.0 | 62.50 | 125 | 16          | 16 | 18 | 26.0 | 17 | 37.5  | 1925.0 | 15.7 | 38.5 |
| SHFH080510  | 8   | 480     | 28    | 26.6667 | 18  | 79 | 79 | 71.0 | 60.00 | 120 | 4           | 25 | 22 | 33.0 | 21 | 120.0 | 240.0  | 19.7 | 20.0 |
| SHFH081010  | 8   | 960     | 28    | 26.6667 | 36  | 79 | 79 | 71.0 | 60.00 | 120 | 8           | 25 | 22 | 33.0 | 21 | 120.0 | 720.0  | 19.7 | 40.2 |
| SHFH081510  | 8   | 1440    | 28    | 26.6667 | 54  | 79 | 79 | 71.0 | 60.00 | 120 | 12          | 25 | 22 | 33.0 | 21 | 120.0 | 1200.0 | 19.7 | 59.6 |
| SHFH082010  | 8   | 1920    | 28    | 26.6667 | 72  | 79 | 79 | 71.0 | 60.00 | 120 | 16          | 25 | 22 | 33.0 | 21 | 120.0 | 1680.0 | 19.7 | 80.8 |
| SHFH100510  | 10  | 500     | 35.11 | 33.3333 | 15  | 99 | 99 | 89.0 | 62.50 | 125 | 4           | 32 | 33 | 48.0 | 32 | 125.0 | 250.0  | 19.7 | 35.0 |
| SHFH101010  | 10  | 1000    | 35.11 | 33.3333 | 30  | 99 | 99 | 89.0 | 62.50 | 125 | 8           | 32 | 33 | 48.0 | 32 | 125.0 | 750.0  | 19.7 | 68.7 |

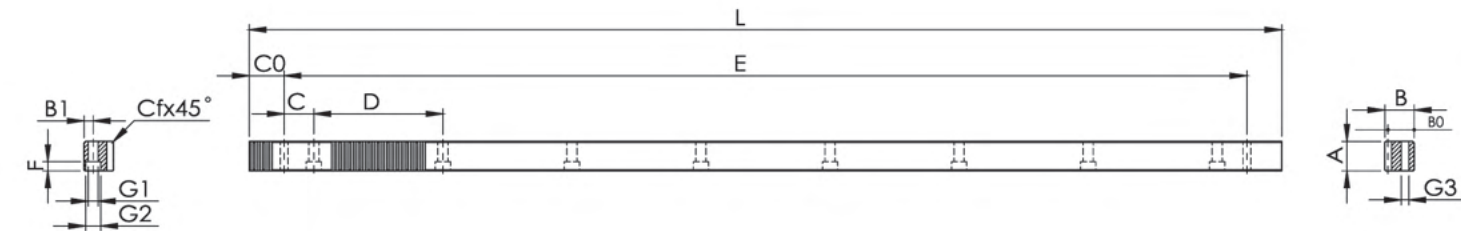
Notes: Available Material on rack- Carbon Steel/42CrMo4/Stainless/Aluminum alloy.



**Q5 - C45**

Specifications

|                |                    |                  |                                  |
|----------------|--------------------|------------------|----------------------------------|
| Quality        | Din5               | Heat - Treatment | Teeth Induction Hardened         |
| Material       | C45 (Carbon Steel) | Hardness         | HRC 50-55                        |
| Pressure Angle | 20°                | Surface          | Ground Surfaces and Ground Teeth |



Dimensions (M: Module • Pt: Tooth Pitch • Z: Number of Teeth)

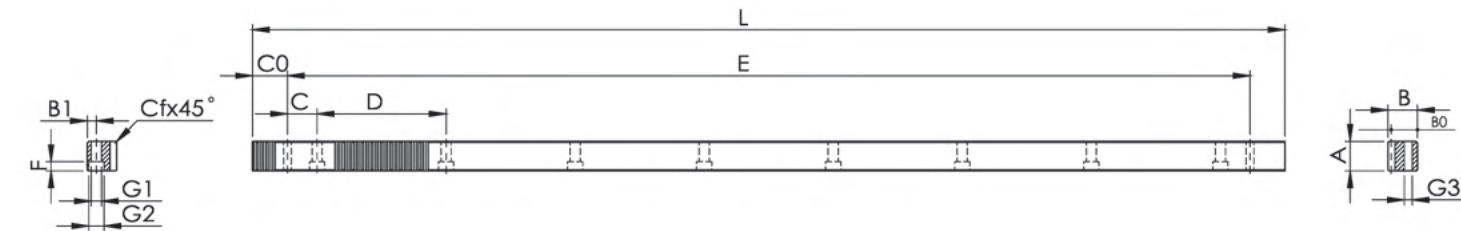
| Item Code   | M   | L       | Pt      | Z   | A  | B  | B0   | C     | D      | N° of Holes | B1 | G1 | G2   | F  | C0     | E       | G3   | KG   |
|-------------|-----|---------|---------|-----|----|----|------|-------|--------|-------------|----|----|------|----|--------|---------|------|------|
| SSGH1.50505 | 1.5 | 499.51  | 4.7124  | 106 | 17 | 17 | 15.5 | 62.44 | 124.88 | 4           | 8  | 6  | 9.5  | 7  | 29.0   | 441.50  | 5.7  | 1.3  |
| SSGH1.51005 | 1.5 | 999.03  | 4.7124  | 212 | 17 | 17 | 15.5 | 62.44 | 124.88 | 8           | 8  | 6  | 9.5  | 7  | 29.0   | 941.00  | 5.7  | 2.6  |
| SSGH020505  | 2   | 502.64  | 6.2832  | 80  | 24 | 24 | 22.0 | 62.83 | 125.66 | 4           | 8  | 7  | 11.0 | 7  | 31.3   | 440.10  | 5.7  | 2.1  |
| SSGH021005  | 2   | 1005.28 | 6.2832  | 160 | 24 | 24 | 22.0 | 62.83 | 125.66 | 8           | 8  | 7  | 11.0 | 7  | 31.3   | 942.70  | 5.7  | 4.1  |
| SSGH021505  | 2   | 1507.97 | 6.2832  | 240 | 24 | 24 | 22.0 | 62.83 | 125.66 | 12          | 8  | 7  | 11.0 | 7  | 31.3   | 1445.40 | 5.7  | 6.1  |
| SSGH022005  | 2   | 2010.62 | 6.2832  | 320 | 24 | 24 | 22.0 | 62.83 | 125.66 | 16          | 8  | 7  | 11.0 | 7  | 31.3   | 1948.00 | 5.7  | 8.2  |
| SSGH030505  | 3   | 508.95  | 9.4248  | 54  | 29 | 29 | 26.0 | 63.62 | 127.23 | 4           | 9  | 10 | 15.0 | 9  | 34.4   | 440.10  | 7.7  | 2.9  |
| SSGH031005  | 3   | 1017.90 | 9.4248  | 108 | 29 | 29 | 26.0 | 63.62 | 127.23 | 8           | 9  | 10 | 15.0 | 9  | 34.4   | 949.10  | 7.7  | 5.8  |
| SSGH031505  | 3   | 1526.82 | 9.4248  | 162 | 29 | 29 | 26.0 | 63.62 | 127.23 | 12          | 9  | 10 | 15.0 | 9  | 34.4   | 1458.00 | 7.7  | 8.7  |
| SSGH032005  | 3   | 2035.75 | 9.4248  | 216 | 29 | 29 | 26.0 | 63.62 | 127.23 | 16          | 9  | 10 | 15.0 | 9  | 34.4   | 1967.00 | 7.7  | 11.6 |
| SSGH040505  | 4   | 502.64  | 12.5664 | 40  | 39 | 39 | 35.0 | 62.83 | 125.66 | 4           | 12 | 10 | 15.0 | 9  | 37.5   | 427.70  | 7.7  | 5.3  |
| SSGH041005  | 4   | 1005.28 | 12.5664 | 80  | 39 | 39 | 35.0 | 62.83 | 125.66 | 8           | 12 | 10 | 15.0 | 9  | 37.5   | 930.30  | 7.7  | 10.5 |
| SSGH041505  | 4   | 1507.90 | 12.5664 | 120 | 39 | 39 | 35.0 | 62.83 | 125.66 | 12          | 12 | 10 | 15.0 | 9  | 37.5   | 1432.90 | 7.7  | 15.7 |
| SSGH042005  | 4   | 2010.62 | 12.5664 | 160 | 39 | 39 | 35.0 | 62.83 | 125.66 | 16          | 12 | 10 | 15.0 | 9  | 37.5   | 1935.60 | 7.7  | 20.9 |
| SSGH050505  | 5   | 502.65  | 15.708  | 32  | 49 | 39 | 34.0 | 62.83 | 125.66 | 4           | 12 | 14 | 20.0 | 13 | 30.1   | 442.40  | 11.7 | 6.2  |
| SSGH051005  | 5   | 1005.31 | 15.708  | 64  | 49 | 39 | 34.0 | 62.83 | 125.66 | 8           | 12 | 14 | 20.0 | 13 | 30.1   | 945.00  | 11.7 | 12.4 |
| SSGH060505  | 6   | 508.95  | 18.8496 | 27  | 59 | 49 | 43.0 | 63.62 | 127.23 | 4           | 16 | 18 | 26.0 | 17 | 31.4   | 446.10  | 15.7 | 9.3  |
| SSGH061005  | 6   | 1017.90 | 18.8496 | 54  | 59 | 49 | 43.0 | 63.62 | 127.23 | 8           | 16 | 18 | 26.0 | 17 | 31.4   | 955.00  | 15.7 | 18.7 |
| SSGH080505  | 8   | 502.64  | 25.1328 | 20  | 79 | 79 | 71.0 | 62.83 | 125.66 | 4           | 25 | 22 | 33.0 | 21 | 26.6   | 449.50  | 19.7 | 21.3 |
| SSGH081005  | 8   | 1005.28 | 25.1328 | 40  | 79 | 79 | 71.0 | 62.83 | 125.66 | 8           | 25 | 22 | 33.0 | 21 | 26.6   | 952.00  | 19.7 | 42.5 |
| SSGH100505  | 10  | 502.65  | 31.4159 | 16  | 99 | 99 | 89.0 | 62.83 | 125.66 | 12          | 32 | 33 | 48.0 | 32 | 125.66 | 253.96  | 19.7 | 35.0 |
| SSGH101005  | 10  | 1005.31 | 31.4159 | 32  | 99 | 99 | 89.0 | 62.83 | 125.66 | 16          | 32 | 33 | 48.0 | 32 | 125.66 | 753.96  | 19.7 | 68.7 |

Notes: Available Material on rack- Carbon Steel/42CrMo4/Stainless/Aluminum alloy.

**Q6 - C45**

Specifications

|                |                    |                  |                                  |
|----------------|--------------------|------------------|----------------------------------|
| Quality        | Din6               | Heat - Treatment | Teeth Induction Hardened         |
| Material       | C45 (Carbon Steel) | Hardness         | HRC 50-55                        |
| Pressure Angle | 20°                | Surface          | Ground Surfaces and Ground Teeth |



Dimensions (M: Module • Pt: Tooth Pitch • Z: Number of Teeth)

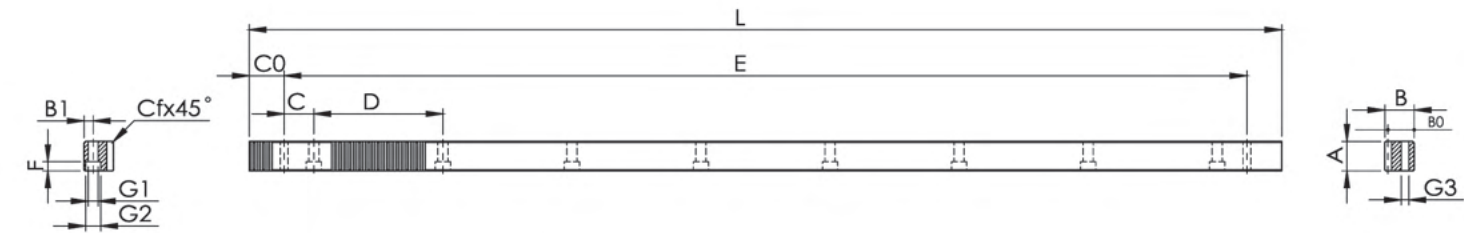
| Item Code   | M   | L       | Pt      | Z   | A  | B  | B0   | C     | D      | N° of Holes | B1 | G1 | G2   | F  | C0     | E       | G3   | KG   |
|-------------|-----|---------|---------|-----|----|----|------|-------|--------|-------------|----|----|------|----|--------|---------|------|------|
| SSGH1.50506 | 1.5 | 499.51  | 4.7124  | 106 | 17 | 17 | 15.5 | 62.44 | 124.88 | 4           | 8  | 6  | 9.5  | 7  | 29.0   | 441.50  | 5.7  | 1.3  |
| SSGH1.51006 | 1.5 | 999.03  | 4.7124  | 212 | 17 | 17 | 15.5 | 62.44 | 124.88 | 8           | 8  | 6  | 9.5  | 7  | 29.0   | 941.00  | 5.7  | 2.6  |
| SSGH1.51506 | 1.5 | 1498.53 | 4.7124  | 318 | 17 | 17 | 15.5 | 62.44 | 124.88 | 12          | 8  | 6  | 9.5  | 7  | 29.0   | 1441.00 | 5.7  | 3.9  |
| SSGH1.52006 | 1.5 | 1998.05 | 4.7124  | 424 | 17 | 17 | 15.5 | 62.44 | 124.88 | 16          | 8  | 6  | 9.5  | 7  | 29.0   | 1941.00 | 5.7  | 5.4  |
| SSGH020506  | 2   | 502.64  | 6.2832  | 80  | 24 | 24 | 22.0 | 62.83 | 125.66 | 4           | 8  | 7  | 11.0 | 7  | 31.3   | 440.10  | 5.7  | 2.1  |
| SSGH021006  | 2   | 1005.28 | 6.2832  | 160 | 24 | 24 | 22.0 | 62.83 | 125.66 | 8           | 8  | 7  | 11.0 | 7  | 31.3   | 942.70  | 5.7  | 4.1  |
| SSGH021506  | 2   | 1507.97 | 6.2832  | 240 | 24 | 24 | 22.0 | 62.83 | 125.66 | 12          | 8  | 7  | 11.0 | 7  | 31.3   | 1445.40 | 5.7  | 6.1  |
| SSGH022006  | 2   | 2010.62 | 6.2832  | 320 | 24 | 24 | 22.0 | 62.83 | 125.66 | 16          | 8  | 7  | 11.0 | 7  | 31.3   | 1948.00 | 5.7  | 8.2  |
| SSGH030506  | 3   | 508.95  | 9.4248  | 54  | 29 | 29 | 26.0 | 63.62 | 127.23 | 4           | 9  | 10 | 15.0 | 9  | 34.4   | 440.10  | 7.7  | 2.9  |
| SSGH031006  | 3   | 1017.90 | 9.4248  | 108 | 29 | 29 | 26.0 | 63.62 | 127.23 | 8           | 9  | 10 | 15.0 | 9  | 34.4   | 949.10  | 7.7  | 5.8  |
| SSGH031506  | 3   | 1526.82 | 9.4248  | 162 | 29 | 29 | 26.0 | 63.62 | 127.23 | 12          | 9  | 10 | 15.0 | 9  | 34.4   | 1458.00 | 7.7  | 8.7  |
| SSGH032006  | 3   | 2035.75 | 9.4248  | 216 | 29 | 29 | 26.0 | 63.62 | 127.23 | 16          | 9  | 10 | 15.0 | 9  | 34.4   | 1967.00 | 7.7  | 11.6 |
| SSGH040506  | 4   | 502.64  | 12.5664 | 40  | 39 | 39 | 35.0 | 62.83 | 125.66 | 4           | 12 | 10 | 15.0 | 9  | 37.5   | 427.70  | 7.7  | 5.4  |
| SSGH041006  | 4   | 1005.28 | 12.5664 | 80  | 39 | 39 | 35.0 | 62.83 | 125.66 | 8           | 12 | 10 | 15.0 | 9  | 37.5   | 930.30  | 7.7  | 10.5 |
| SSGH041506  | 4   | 1507.90 | 12.5664 | 120 | 39 | 39 | 35.0 | 62.83 | 125.66 | 12          | 12 | 10 | 15.0 | 9  | 37.5   | 1432.90 | 7.7  | 15.7 |
| SSGH042006  | 4   | 2010.62 | 12.5664 | 160 | 39 | 39 | 35.0 | 62.83 | 125.66 | 16          | 12 | 10 | 15.0 | 9  | 37.5   | 1935.60 | 7.7  | 20.9 |
| SSGH050506  | 5   | 502.65  | 15.708  | 32  | 49 | 39 | 34.0 | 62.83 | 125.66 | 4           | 12 | 14 | 20.0 | 13 | 30.1   | 442.40  | 11.7 | 6.2  |
| SSGH051006  | 5   | 1005.31 | 15.708  | 64  | 49 | 39 | 34.0 | 62.83 | 125.66 | 8           | 12 | 14 | 20.0 | 13 | 30.1   | 945.00  | 11.7 | 12.4 |
| SSGH051506  | 5   | 1502.65 | 15.708  | 96  | 49 | 39 | 34.0 | 62.83 | 125.66 | 12          | 12 | 14 | 20.0 | 13 | 30.1   | 1447.70 | 11.7 | 18.6 |
| SSGH052006  | 5   | 2005.31 | 15.708  | 128 | 49 | 39 | 34.0 | 62.83 | 125.66 | 16          | 12 | 14 | 20.0 | 13 | 30.1   | 1950.40 | 11.7 | 24.8 |
| SSGH060506  | 6   | 508.95  | 18.8496 | 27  | 59 | 49 | 43.0 | 63.62 | 127.23 | 4           | 16 | 18 | 26.0 | 17 | 31.4   | 446.10  | 15.7 | 9.3  |
| SSGH061006  | 6   | 1017.90 | 18.8496 | 54  | 59 | 49 | 43.0 | 63.62 | 127.23 | 8           | 16 | 18 | 26.0 | 17 | 31.4   | 955.00  | 15.7 | 18.7 |
| SSGH061506  | 6   | 1526.81 | 18.8496 | 81  | 59 | 49 | 43.0 | 63.62 | 127.23 | 12          | 16 | 18 | 26.0 | 17 | 31.4   | 1464.00 | 15.7 | 28.2 |
| SSGH062006  | 6   | 2035.75 | 18.8496 | 108 | 59 | 49 | 43.0 | 63.62 | 127.23 | 16          | 16 | 18 | 26.0 | 17 | 31.4   | 1973.00 | 15.7 | 37.6 |
| SSGH080506  | 8   | 502.64  | 25.1328 | 20  | 79 | 79 | 71.0 | 62.83 | 125.66 | 4           | 25 | 22 | 33.0 | 21 | 26.6   | 449.50  | 19.7 | 21.3 |
| SSGH081006  | 8   | 1005.28 | 25.1328 | 40  | 79 | 79 | 71.0 | 62.83 | 125.66 | 8           | 25 | 22 | 33.0 | 21 | 26.6   | 952.00  | 19.7 | 42.5 |
| SSGH081506  | 8   | 1502.64 | 25.1328 | 60  | 79 | 79 | 71.0 | 62.83 | 125.66 | 12          | 25 | 22 | 33.0 | 21 | 26.6   | 1452.00 | 19.7 | 63.6 |
| SSGH082006  | 8   | 2010.61 | 25.1328 | 80  | 79 | 79 | 71.0 | 62.83 | 125.66 | 16          | 25 | 22 | 33.0 | 21 | 26.6   | 1957.30 | 19.7 | 83.6 |
| SSGH100506  | 10  | 502.65  | 31.4159 | 16  | 99 | 99 | 89.0 | 62.83 | 125.66 | 12          | 32 | 33 | 48.0 | 32 | 125.66 | 253.96  | 19.7 | 35.0 |
| SSGH101006  | 10  | 1005.31 | 31.4159 | 32  | 99 | 99 | 89.0 | 62.83 | 125.66 | 16          | 32 | 33 | 48.0 | 32 | 125.66 | 753.96  | 19.7 | 68.7 |

Notes: Available Material on rack- Carbon Steel/42CrMo4/Stainless/Aluminum alloy.

**Q7 - C45**

Specifications

|                |                    |                  |                                  |
|----------------|--------------------|------------------|----------------------------------|
| Quality        | Din7               | Heat - Treatment | Teeth Induction Hardened         |
| Material       | C45 (Carbon Steel) | Hardness         | HRC 50-55                        |
| Pressure Angle | 20°                | Surface          | Ground Surfaces and Ground Teeth |



Dimensions (M: Module • Pt: Tooth Pitch • Z: Number of Teeth)

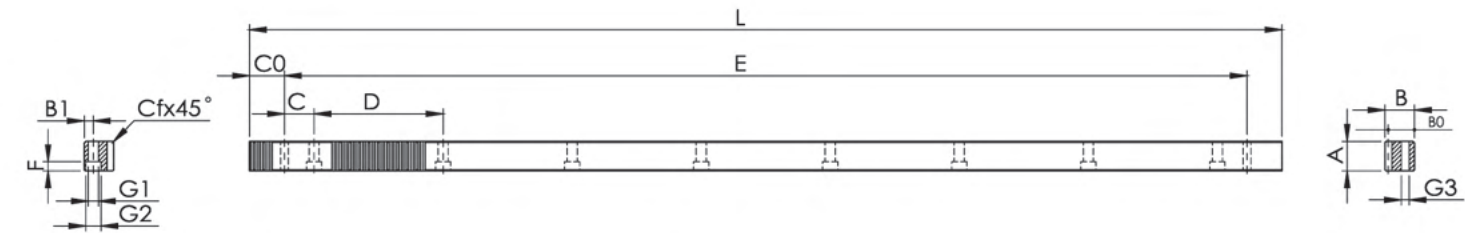
| Item Code   | M   | L       | Pt      | Z   | A  | B  | B0   | C     | D      | N° of Holes | B1 | G1 | G2   | F  | C0     | E       | G3   | KG   |
|-------------|-----|---------|---------|-----|----|----|------|-------|--------|-------------|----|----|------|----|--------|---------|------|------|
| SSGH1.50507 | 1.5 | 499.51  | 4.7124  | 106 | 17 | 17 | 15.5 | 62.44 | 124.88 | 4           | 8  | 6  | 9.5  | 7  | 29.0   | 441.50  | 5.7  | 1.3  |
| SSGH1.51007 | 1.5 | 999.03  | 4.7124  | 212 | 17 | 17 | 15.5 | 62.44 | 124.88 | 8           | 8  | 6  | 9.5  | 7  | 29.0   | 941.00  | 5.7  | 2.6  |
| SSGH1.51507 | 1.5 | 1498.53 | 4.7124  | 318 | 17 | 17 | 15.5 | 62.44 | 124.88 | 12          | 8  | 6  | 9.5  | 7  | 29.0   | 1441.00 | 5.7  | 3.9  |
| SSGH1.52007 | 1.5 | 1998.05 | 4.7124  | 424 | 17 | 17 | 15.5 | 62.44 | 124.88 | 16          | 8  | 6  | 9.5  | 7  | 29.0   | 1941.00 | 5.7  | 5.4  |
| SSGH020507  | 2   | 502.64  | 6.2832  | 80  | 24 | 24 | 22.0 | 62.83 | 125.66 | 4           | 8  | 7  | 11.0 | 7  | 31.3   | 440.10  | 5.7  | 2.1  |
| SSGH021007  | 2   | 1005.28 | 6.2832  | 160 | 24 | 24 | 22.0 | 62.83 | 125.66 | 8           | 8  | 7  | 11.0 | 7  | 31.3   | 942.70  | 5.7  | 4.1  |
| SSGH021507  | 2   | 1507.97 | 6.2832  | 240 | 24 | 24 | 22.0 | 62.83 | 125.66 | 12          | 8  | 7  | 11.0 | 7  | 31.3   | 1445.40 | 5.7  | 6.1  |
| SSGH022007  | 2   | 2010.62 | 6.2832  | 320 | 24 | 24 | 22.0 | 62.83 | 125.66 | 16          | 8  | 7  | 11.0 | 7  | 31.3   | 1948.00 | 5.7  | 8.2  |
| SSGH030507  | 3   | 508.95  | 9.4248  | 54  | 29 | 29 | 26.0 | 63.62 | 127.23 | 4           | 9  | 10 | 15.0 | 9  | 34.4   | 440.10  | 7.7  | 2.9  |
| SSGH031007  | 3   | 1017.90 | 9.4248  | 108 | 29 | 29 | 26.0 | 63.62 | 127.23 | 8           | 9  | 10 | 15.0 | 9  | 34.4   | 949.10  | 7.7  | 5.9  |
| SSGH031507  | 3   | 1526.82 | 9.4248  | 162 | 29 | 29 | 26.0 | 63.62 | 127.23 | 12          | 9  | 10 | 15.0 | 9  | 34.4   | 1458.00 | 7.7  | 8.7  |
| SSGH032007  | 3   | 2035.75 | 9.4248  | 216 | 29 | 29 | 26.0 | 63.62 | 127.23 | 16          | 9  | 10 | 15.0 | 9  | 34.4   | 1967.00 | 7.7  | 11.6 |
| SSGH040507  | 4   | 502.64  | 12.5664 | 40  | 39 | 39 | 35.0 | 62.83 | 125.66 | 4           | 12 | 10 | 15.0 | 9  | 37.5   | 427.70  | 7.7  | 5.4  |
| SSGH041007  | 4   | 1005.28 | 12.5664 | 80  | 39 | 39 | 35.0 | 62.83 | 125.66 | 8           | 12 | 10 | 15.0 | 9  | 37.5   | 930.30  | 7.7  | 10.5 |
| SSGH041507  | 4   | 1507.90 | 12.5664 | 120 | 39 | 39 | 35.0 | 62.83 | 125.66 | 12          | 12 | 10 | 15.0 | 9  | 37.5   | 1432.90 | 7.7  | 15.7 |
| SSGH042007  | 4   | 2010.62 | 12.5664 | 160 | 39 | 39 | 35.0 | 62.83 | 125.66 | 16          | 12 | 10 | 15.0 | 9  | 37.5   | 1935.60 | 7.7  | 20.9 |
| SSGH050507  | 5   | 502.65  | 15.708  | 32  | 49 | 49 | 34.0 | 62.83 | 125.66 | 4           | 12 | 14 | 20.0 | 13 | 30.1   | 442.40  | 11.7 | 6.2  |
| SSGH051007  | 5   | 1005.31 | 15.708  | 64  | 49 | 49 | 34.0 | 62.83 | 125.66 | 8           | 12 | 14 | 20.0 | 13 | 30.1   | 945.00  | 11.7 | 12.4 |
| SSGH051507  | 5   | 1502.65 | 15.708  | 96  | 49 | 49 | 34.0 | 62.83 | 125.66 | 12          | 12 | 14 | 20.0 | 13 | 30.1   | 1447.70 | 11.7 | 18.6 |
| SSGH052007  | 5   | 2005.31 | 15.708  | 128 | 49 | 49 | 34.0 | 62.83 | 125.66 | 16          | 12 | 14 | 20.0 | 13 | 30.1   | 1950.40 | 11.7 | 24.8 |
| SSGH060507  | 6   | 508.95  | 18.8496 | 27  | 59 | 49 | 43.0 | 63.62 | 127.23 | 4           | 16 | 18 | 26.0 | 17 | 31.4   | 446.10  | 15.7 | 9.3  |
| SSGH061007  | 6   | 1017.90 | 18.8496 | 54  | 59 | 49 | 43.0 | 63.62 | 127.23 | 8           | 16 | 18 | 26.0 | 17 | 31.4   | 955.00  | 15.7 | 18.7 |
| SSGH061507  | 6   | 1526.81 | 18.8496 | 81  | 59 | 49 | 43.0 | 63.62 | 127.23 | 12          | 16 | 18 | 26.0 | 17 | 31.4   | 1464.00 | 15.7 | 28.2 |
| SSGH062007  | 6   | 2035.75 | 18.8496 | 108 | 59 | 49 | 43.0 | 63.62 | 127.23 | 16          | 16 | 18 | 26.0 | 17 | 31.4   | 1973.00 | 15.7 | 37.6 |
| SSGH080507  | 8   | 502.64  | 25.1328 | 20  | 79 | 79 | 71.0 | 62.83 | 125.66 | 4           | 25 | 22 | 33.0 | 21 | 26.6   | 449.50  | 19.7 | 21.3 |
| SSGH081007  | 8   | 1005.28 | 25.1328 | 40  | 79 | 79 | 71.0 | 62.83 | 125.66 | 8           | 25 | 22 | 33.0 | 21 | 26.6   | 952.00  | 19.7 | 42.5 |
| SSGH081507  | 8   | 1502.64 | 25.1328 | 60  | 79 | 79 | 71.0 | 62.83 | 125.66 | 12          | 25 | 22 | 33.0 | 21 | 26.6   | 1452.00 | 19.7 | 63.6 |
| SSGH082007  | 8   | 2010.61 | 25.1328 | 80  | 79 | 79 | 71.0 | 62.83 | 125.66 | 16          | 25 | 22 | 33.0 | 21 | 26.6   | 1957.30 | 19.7 | 83.6 |
| SSGH100507  | 10  | 502.65  | 31.4159 | 16  | 99 | 99 | 89.0 | 62.83 | 125.66 | 12          | 32 | 33 | 48.0 | 32 | 125.66 | 253.96  | 19.7 | 35.0 |
| SSGH101007  | 10  | 1005.31 | 31.4159 | 32  | 99 | 99 | 89.0 | 62.83 | 125.66 | 16          | 32 | 33 | 48.0 | 32 | 125.66 | 753.96  | 19.7 | 68.7 |

Notes: Available Material on rack- Carbon Steel/42CrMo4/Stainless/Aluminum alloy.

**Q8 - C45**

Specifications

|                |                    |                  |                                  |
|----------------|--------------------|------------------|----------------------------------|
| Quality        | Din8               | Heat - Treatment | Material Quenched                |
| Material       | C45 (Carbon Steel) | Hardness         | HRC 15-20                        |
| Pressure Angle | 20°                | Surface          | Milled Surfaces and Milled Teeth |



Dimensions (M: Module • Pt: Tooth Pitch • Z: Number of Teeth)

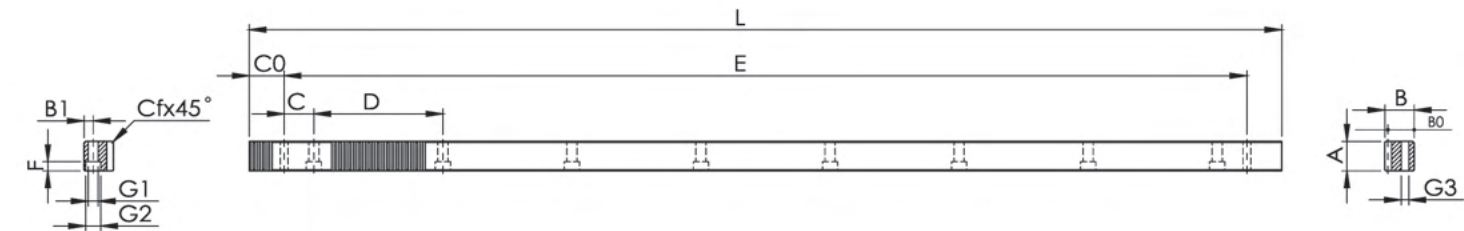
| Item Code   | M   | L       | Pt      | Z   | A  | B  | B0   | C     | D      | N° of Holes | B1 | G1 | G2   | F  | C0     | E       | G3   | KG   |
|-------------|-----|---------|---------|-----|----|----|------|-------|--------|-------------|----|----|------|----|--------|---------|------|------|
| SSFQ1.50508 | 1.5 | 499.51  | 4.7124  | 106 | 17 | 17 | 15.5 | 62.44 | 124.88 | 4           | 8  | 6  | 9.5  | 7  | 29.0   | 441.50  | 5.7  | 1.3  |
| SSFQ1.51008 | 1.5 | 999.03  | 4.7124  | 212 | 17 | 17 | 15.5 | 62.44 | 124.88 | 8           | 8  | 6  | 9.5  | 7  | 29.0   | 941.00  | 5.7  | 2.6  |
| SSFQ1.51508 | 1.5 | 1498.53 | 4.7124  | 318 | 17 | 17 | 15.5 | 62.44 | 124.88 | 12          | 8  | 6  | 9.5  | 7  | 29.0   | 1441.00 | 5.7  | 3.9  |
| SSFQ1.52008 | 1.5 | 1998.05 | 4.7124  | 424 | 17 | 17 | 15.5 | 62.44 | 124.88 | 16          | 8  | 6  | 9.5  | 7  | 29.0   | 1941.00 | 5.7  | 5.4  |
| SSFQ020508  | 2   | 502.64  | 6.2832  | 80  | 25 | 24 | 22.0 | 62.83 | 125.66 | 4           | 8  | 7  | 11.0 | 7  | 31.3   | 440.10  | 5.7  | 2.1  |
| SSFQ021008  | 2   | 1005.28 | 6.2832  | 160 | 25 | 24 | 22.0 | 62.83 | 125.66 | 8           | 8  | 7  | 11.0 | 7  | 31.3   | 942.70  | 5.7  | 4.1  |
| SSFQ021508  | 2   | 1507.97 | 6.2832  | 240 | 25 | 24 | 22.0 | 62.83 | 125.66 | 12          | 8  | 7  | 11.0 | 7  | 31.3   | 1445.40 | 5.7  | 6.1  |
| SSFQ022008  | 2   | 2010.62 | 6.2832  | 320 | 25 | 24 | 22.0 | 62.83 | 125.66 | 16          | 8  | 7  | 11.0 | 7  | 31.3   | 1948.00 | 5.7  | 8.2  |
| SSFQ030508  | 3   | 508.95  | 9.4248  | 54  | 30 | 29 | 26.0 | 63.62 | 127.23 | 4           | 9  | 10 | 15.0 | 9  | 34.4   | 440.10  | 7.7  | 2.9  |
| SSFQ031008  | 3   | 1017.90 | 9.4248  | 108 | 30 | 29 | 26.0 | 63.62 | 127.23 | 8           | 9  | 10 | 15.0 | 9  | 34.4   | 949.10  | 7.7  | 5.9  |
| SSFQ031508  | 3   | 1526.82 | 9.4248  | 162 | 30 | 29 | 26.0 | 63.62 | 127.23 | 12          | 9  | 10 | 15.0 | 9  | 34.4   | 1458.00 | 7.7  | 8.7  |
| SSFQ032008  | 3   | 2035.75 | 9.4248  | 216 | 30 | 29 | 26.0 | 63.62 | 127.23 | 16          | 9  | 10 | 15.0 | 9  | 34.4   | 1967.00 | 7.7  | 11.6 |
| SSFQ040508  | 4   | 502.64  | 12.5664 | 40  | 40 | 39 | 35.0 | 62.83 | 125.66 | 4           | 12 | 10 | 15.0 | 9  | 37.5   | 427.70  | 7.7  | 5.4  |
| SSFQ041008  | 4   | 1005.28 | 12.5664 | 80  | 40 | 39 | 35.0 | 62.83 | 125.66 | 8           | 12 | 10 | 15.0 | 9  | 37.5   | 930.30  | 7.7  | 10.5 |
| SSFQ041508  | 4   | 1507.90 | 12.5664 | 120 | 40 | 39 | 35.0 | 62.83 | 125.66 | 12          | 12 | 10 | 15.0 | 9  | 37.5   | 1432.90 | 7.7  | 15.7 |
| SSFQ042008  | 4   | 2010.62 | 12.5664 | 160 | 40 | 39 | 35.0 | 62.83 | 125.66 | 16          | 12 | 10 | 15.0 | 9  | 37.5   | 1935.60 | 7.7  | 20.9 |
| SSFQ050508  | 5   | 502.65  | 15.708  | 32  | 50 | 39 | 34.0 | 62.83 | 125.66 | 4           | 12 | 14 | 20.0 | 13 | 30.1   | 442.40  | 11.7 | 6.2  |
| SSFQ051008  | 5   | 1005.31 | 15.708  | 64  | 50 | 39 | 34.0 | 62.83 | 125.66 | 8           | 12 | 14 | 20.0 | 13 | 30.1   | 945.00  | 11.7 | 12.4 |
| SSFQ051508  | 5   | 1502.65 | 15.708  | 96  | 50 | 39 | 34.0 | 62.83 | 125.66 | 12          | 12 | 14 | 20.0 | 13 | 30.1   | 1447.70 | 11.7 | 18.6 |
| SSFQ052008  | 5   | 2005.31 | 15.708  | 128 | 50 | 39 | 34.0 | 62.83 | 125.66 | 16          | 12 | 14 | 20.0 | 13 | 30.1   | 1950.40 | 11.7 | 24.8 |
| SSFQ060508  | 6   | 508.95  | 18.8496 | 27  | 59 | 49 | 43.0 | 63.62 | 127.23 | 4           | 16 | 18 | 26.0 | 17 | 31.4   | 446.10  | 15.7 | 9.3  |
| SSFQ061008  | 6   | 1017.90 | 18.8496 | 54  | 59 | 49 | 43.0 | 63.62 | 127.23 | 8           | 16 | 18 | 26.0 | 17 | 31.4   | 955.00  | 15.7 | 18.7 |
| SSFQ061508  | 6   | 1526.81 | 18.8496 | 81  | 59 | 49 | 43.0 | 63.62 | 127.23 | 12          | 16 | 18 | 26.0 | 17 | 31.4   | 1464.00 | 15.7 | 28.2 |
| SSFQ062008  | 6   | 2035.75 | 18.8496 | 108 | 59 | 49 | 43.0 | 63.62 | 127.23 | 16          | 16 | 18 | 26.0 | 17 | 31.4   | 1973.00 | 15.7 | 37.6 |
| SSFQ080508  | 8   | 502.64  | 25.1328 | 20  | 79 | 79 | 71.0 | 62.83 | 125.66 | 4           | 25 | 22 | 33.0 | 21 | 26.6   | 449.50  | 19.7 | 21.3 |
| SSFQ081008  | 8   | 1005.28 | 25.1328 | 40  | 79 | 79 | 71.0 | 62.83 | 125.66 | 8           | 25 | 22 | 33.0 | 21 | 26.6   | 952.00  | 19.7 | 42.5 |
| SSFQ081508  | 8   | 1502.64 | 25.1328 | 60  | 79 | 79 | 71.0 | 62.83 | 125.66 | 12          | 25 | 22 | 33.0 | 21 | 26.6   | 1452.00 | 19.7 | 63.6 |
| SSFQ082008  | 8   | 2010.61 | 25.1328 | 80  | 79 | 79 | 71.0 | 62.83 | 125.66 | 16          | 25 | 22 | 33.0 | 21 | 26.6   | 1957.30 | 19.7 | 83.6 |
| SSFQ100508  | 10  | 502.65  | 31.4159 | 16  | 99 | 99 | 89.0 | 62.83 | 125.66 | 12          | 32 | 33 | 48.0 | 32 | 125.66 | 253.96  | 19.7 | 35.0 |
| SSFQ101008  | 10  | 1005.31 | 31.4159 | 32  | 99 | 99 | 89.0 | 62.83 | 125.66 | 16          | 32 | 33 | 48.0 | 32 | 125.66 | 753.96  | 19.7 | 68.7 |

Notes: Available Material on rack- Carbon Steel/42CrMo4/Stainless/Aluminum alloy.

## Q9 - C45

### Specifications

|                |                    |                  |                                  |
|----------------|--------------------|------------------|----------------------------------|
| Quality        | Din9               | Heat - Treatment | Soft                             |
| Material       | C45 (Carbon Steel) | Hardness         | HRC 8-12                         |
| Pressure Angle | 20°                | Surface          | Milled Surfaces and Milled Teeth |



Dimensions (M: Module • Pt: Tooth Pitch • Z: Number of Teeth)

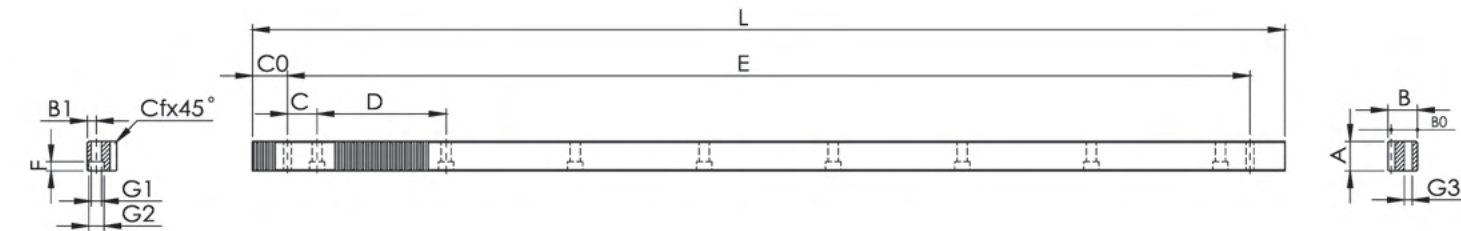
| Item Code  | M   | L       | Pt      | Z   | A  | B  | B0   | C     | D      | N° of Holes | B1 | G1 | G2   | F  | C0     | E       | G3   | KG   |
|------------|-----|---------|---------|-----|----|----|------|-------|--------|-------------|----|----|------|----|--------|---------|------|------|
| SSF1.50509 | 1.5 | 499.51  | 4.7124  | 106 | 17 | 17 | 15.5 | 62.44 | 124.88 | 4           | 8  | 6  | 9.5  | 7  | 29.0   | 441.50  | 5.7  | 1.4  |
| SSF1.51009 | 1.5 | 999.03  | 4.7124  | 212 | 17 | 17 | 15.5 | 62.44 | 124.88 | 8           | 8  | 6  | 9.5  | 7  | 29.0   | 941.00  | 5.7  | 2.7  |
| SSF1.51509 | 1.5 | 1498.53 | 4.7124  | 318 | 17 | 17 | 15.5 | 62.44 | 124.88 | 12          | 8  | 6  | 9.5  | 7  | 29.0   | 1441.00 | 5.7  | 4.1  |
| SSF1.52009 | 1.5 | 1998.05 | 4.7124  | 424 | 17 | 17 | 15.5 | 62.44 | 124.88 | 16          | 8  | 6  | 9.5  | 7  | 29.0   | 1941.00 | 5.7  | 5.4  |
| SSF020509  | 2   | 502.64  | 6.2832  | 80  | 24 | 24 | 22.0 | 62.83 | 125.66 | 4           | 8  | 7  | 11.0 | 7  | 31.3   | 440.10  | 5.7  | 2.2  |
| SSF021009  | 2   | 1005.28 | 6.2832  | 160 | 24 | 24 | 22.0 | 62.83 | 125.66 | 8           | 8  | 7  | 11.0 | 7  | 31.3   | 942.70  | 5.7  | 4.4  |
| SSF021509  | 2   | 1507.97 | 6.2832  | 240 | 24 | 24 | 22.0 | 62.83 | 125.66 | 12          | 8  | 7  | 11.0 | 7  | 31.3   | 1445.40 | 5.7  | 6.4  |
| SSF022009  | 2   | 2010.62 | 6.2832  | 320 | 24 | 24 | 22.0 | 62.83 | 125.66 | 16          | 8  | 7  | 11.0 | 7  | 31.3   | 1948.00 | 5.7  | 8.5  |
| SSF030509  | 3   | 508.95  | 9.4248  | 54  | 29 | 29 | 26.0 | 63.62 | 127.23 | 4           | 9  | 10 | 15.0 | 9  | 34.4   | 440.10  | 7.7  | 3.0  |
| SSF031009  | 3   | 1017.90 | 9.4248  | 108 | 29 | 29 | 26.0 | 63.62 | 127.23 | 8           | 9  | 10 | 15.0 | 9  | 34.4   | 949.10  | 7.7  | 6.0  |
| SSF031509  | 3   | 1526.82 | 9.4248  | 162 | 29 | 29 | 26.0 | 63.62 | 127.23 | 12          | 9  | 10 | 15.0 | 9  | 34.4   | 1458.00 | 7.7  | 9.0  |
| SSF032009  | 3   | 2035.75 | 9.4248  | 216 | 29 | 29 | 26.0 | 63.62 | 127.23 | 16          | 9  | 10 | 15.0 | 9  | 34.4   | 1967.00 | 7.7  | 12.0 |
| SSF040509  | 4   | 502.64  | 12.5664 | 40  | 39 | 39 | 35.0 | 62.83 | 125.66 | 4           | 12 | 10 | 15.0 | 9  | 37.5   | 427.70  | 7.7  | 5.5  |
| SSF041009  | 4   | 1005.28 | 12.5664 | 80  | 39 | 39 | 35.0 | 62.83 | 125.66 | 8           | 12 | 10 | 15.0 | 9  | 37.5   | 930.30  | 7.7  | 10.7 |
| SSF041509  | 4   | 1507.90 | 12.5664 | 120 | 39 | 39 | 35.0 | 62.83 | 125.66 | 12          | 12 | 10 | 15.0 | 9  | 37.5   | 1432.90 | 7.7  | 16.7 |
| SSF042009  | 4   | 2010.62 | 12.5664 | 160 | 39 | 39 | 35.0 | 62.83 | 125.66 | 16          | 12 | 10 | 15.0 | 9  | 37.5   | 1935.60 | 7.7  | 22.1 |
| SSF050509  | 5   | 502.65  | 15.708  | 32  | 49 | 39 | 34.0 | 62.83 | 125.66 | 4           | 12 | 14 | 20.0 | 13 | 30.1   | 442.40  | 11.7 | 6.5  |
| SSF051009  | 5   | 1005.31 | 15.708  | 64  | 49 | 39 | 34.0 | 62.83 | 125.66 | 8           | 12 | 14 | 20.0 | 13 | 30.1   | 945.00  | 11.7 | 12.6 |
| SSF051509  | 5   | 1502.65 | 15.708  | 96  | 49 | 39 | 34.0 | 62.83 | 125.66 | 12          | 12 | 14 | 20.0 | 13 | 30.1   | 1447.70 | 11.7 | 19.0 |
| SSF052009  | 5   | 2005.31 | 15.708  | 128 | 49 | 39 | 34.0 | 62.83 | 125.66 | 16          | 12 | 14 | 20.0 | 13 | 30.1   | 1950.40 | 11.7 | 25.3 |
| SSF060509  | 6   | 508.95  | 18.8496 | 27  | 59 | 49 | 43.0 | 63.62 | 127.23 | 4           | 16 | 18 | 26.0 | 17 | 31.4   | 446.10  | 15.7 | 9.5  |
| SSF061009  | 6   | 1017.90 | 18.8496 | 54  | 59 | 49 | 43.0 | 63.62 | 127.23 | 8           | 16 | 18 | 26.0 | 17 | 31.4   | 955.00  | 15.7 | 19.1 |
| SSF061509  | 6   | 1526.81 | 18.8496 | 81  | 59 | 49 | 43.0 | 63.62 | 127.23 | 12          | 16 | 18 | 26.0 | 17 | 31.4   | 1464.00 | 15.7 | 28.6 |
| SSF062009  | 6   | 2035.75 | 18.8496 | 108 | 59 | 49 | 43.0 | 63.62 | 127.23 | 16          | 16 | 18 | 26.0 | 17 | 31.4   | 1973.00 | 15.7 | 38.2 |
| SSF080509  | 8   | 502.64  | 25.1328 | 20  | 79 | 79 | 71.0 | 62.83 | 125.66 | 4           | 25 | 22 | 33.0 | 21 | 26.6   | 449.50  | 19.7 | 21.3 |
| SSF081009  | 8   | 1005.28 | 25.1328 | 40  | 79 | 79 | 71.0 | 62.83 | 125.66 | 8           | 25 | 22 | 33.0 | 21 | 26.6   | 952.00  | 19.7 | 42.5 |
| SSF081509  | 8   | 1502.64 | 25.1328 | 60  | 79 | 79 | 71.0 | 62.83 | 125.66 | 12          | 25 | 22 | 33.0 | 21 | 26.6   | 1452.00 | 19.7 | 63.6 |
| SSF082009  | 8   | 2010.61 | 25.1328 | 80  | 79 | 79 | 71.0 | 62.83 | 125.66 | 16          | 25 | 22 | 33.0 | 21 | 26.6   | 1957.30 | 19.7 | 83.6 |
| SSF100509  | 10  | 502.65  | 31.4159 | 16  | 99 | 99 | 89.0 | 62.83 | 125.66 | 12          | 32 | 33 | 48.0 | 32 | 125.66 | 253.96  | 19.7 | 35.0 |
| SSF101009  | 10  | 1005.31 | 31.4159 | 32  | 99 | 99 | 89.0 | 62.83 | 125.66 | 16          | 32 | 33 | 48.0 | 32 | 125.66 | 753.96  | 19.7 | 68.7 |

Notes: Available Material on rack- Carbon Steel/42CrMo4/Stainless/Aluminum alloy.

## Q10 - C45

### Specifications

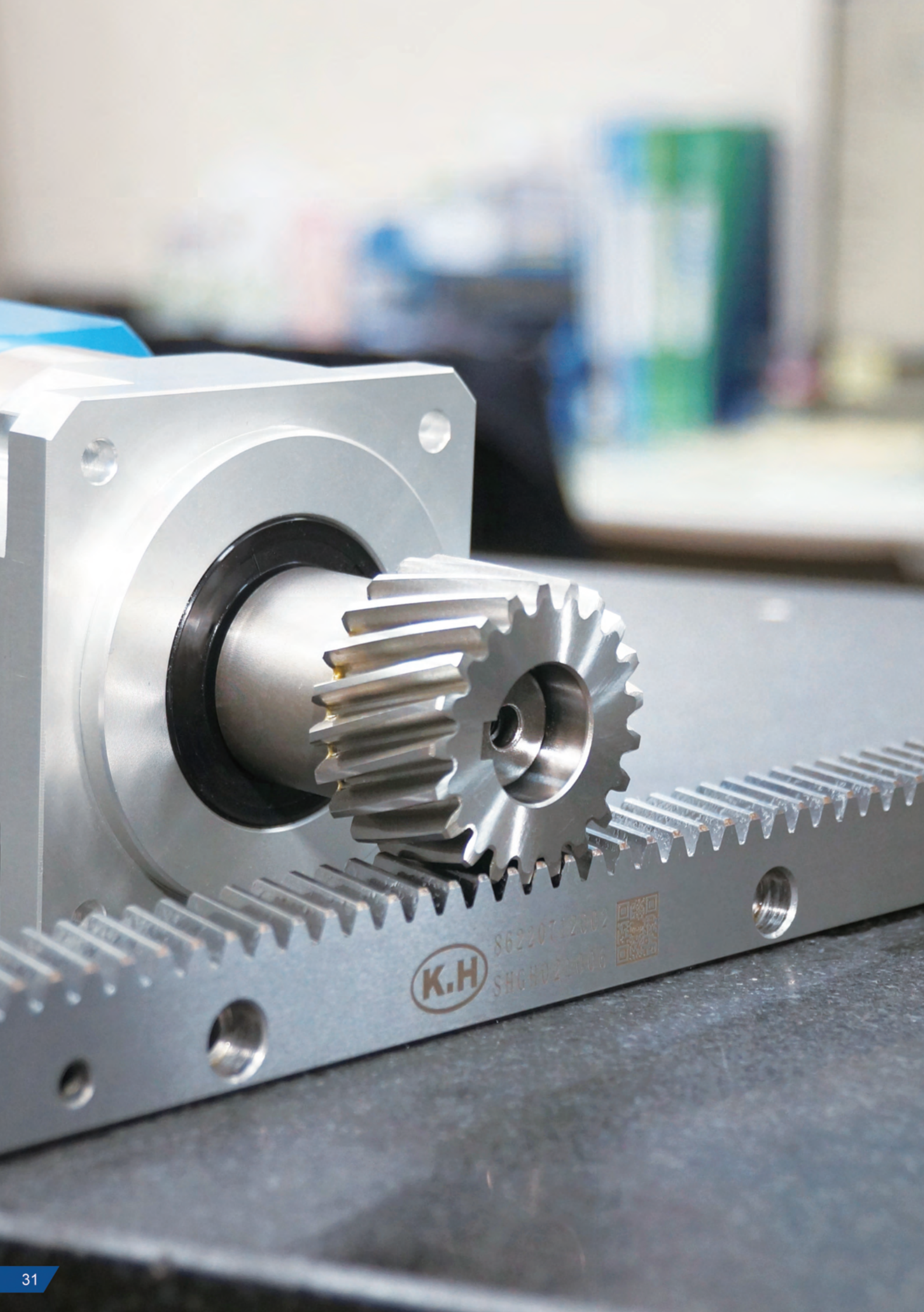
|                |                    |                  |                                  |
|----------------|--------------------|------------------|----------------------------------|
| Quality        | Din10              | Heat - Treatment | Teeth Induction Hardened         |
| Material       | C45 (Carbon Steel) | Hardness         | HRC 50-55                        |
| Pressure Angle | 20°                | Surface          | Milled Surfaces and Milled Teeth |
|                |                    | Finishing        | Options                          |



Dimensions (M: Module • Pt: Tooth Pitch • Z: Number of Teeth)

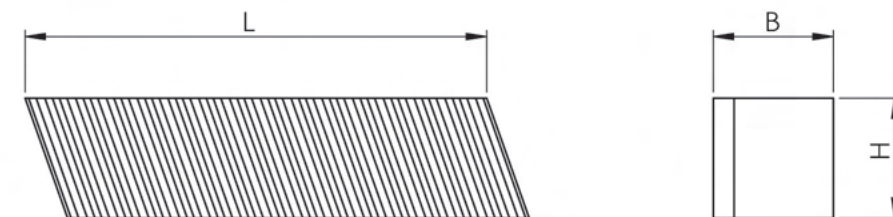
| Item Code   | M   | L       | Pt      | Z   | A  | B  | B0   | C     | D      | N° of Holes | B1 | G1 | G2   | F  | C0     | E       | G3   | KG   |
|-------------|-----|---------|---------|-----|----|----|------|-------|--------|-------------|----|----|------|----|--------|---------|------|------|
| SSFH1.50510 | 1.5 | 499.51  | 4.7124  | 106 | 17 | 17 | 15.5 | 62.44 | 124.88 | 4           | 8  | 6  | 9.5  | 7  | 29.0   | 441.50  | 5.7  | 1.5  |
| SSFH1.51010 | 1.5 | 999.03  | 4.7124  | 212 | 17 | 17 | 15.5 | 62.44 | 124.88 | 8           | 8  | 6  | 9.5  | 7  | 29.0   | 941.00  | 5.7  | 2.9  |
| SSFH1.51510 | 1.5 | 1498.53 | 4.7124  | 318 | 17 | 17 | 15.5 | 62.44 | 124.88 | 12          | 8  | 6  | 9.5  | 7  | 29.0   | 1441.00 | 5.7  | 4.3  |
| SSFH1.52010 | 1.5 | 1998.05 | 4.7124  | 424 | 17 | 17 | 15.5 | 62.44 | 124.88 | 16          | 8  | 6  | 9.5  | 7  | 29.0   | 1941.00 | 5.7  | 5.4  |
| SSFH020510  | 2   | 502.64  | 6.2832  | 80  | 24 | 24 | 22.0 | 62.83 | 125.66 | 4           | 8  | 7  | 11.0 | 7  | 31.3   | 440.10  | 5.7  | 2.2  |
| SSFH021010  | 2   | 1005.28 | 6.2832  | 160 | 24 | 24 | 22.0 | 62.83 | 125.66 | 8           | 8  | 7  | 11.0 | 7  | 31.3   | 942.70  | 5.7  | 4.5  |
| SSFH021510  | 2   | 1507.97 | 6.2832  | 240 | 24 | 24 | 22.0 | 62.83 | 125.66 | 12          | 8  | 7  | 11.0 | 7  | 31.3   | 1445.40 | 5.7  | 6.7  |
| SSFH022010  | 2   | 2010.62 | 6.2832  | 320 | 24 | 24 | 22.0 | 62.83 | 125.66 | 16          | 8  | 7  | 11.0 | 7  | 31.3   | 1948.00 | 5.7  | 8.9  |
| SSFH030510  | 3   | 508.95  | 9.4248  | 54  | 29 | 29 | 26.0 | 63.62 | 127.23 | 4           | 9  | 10 | 15.0 | 9  | 34.4   | 440.10  | 7.7  | 3.1  |
| SSFH031010  | 3   | 1017.90 | 9.4248  | 108 | 29 | 29 | 26.0 | 63.62 | 127.23 | 8           | 9  | 10 | 15.0 | 9  | 34.4   | 949.10  | 7.7  | 6.2  |
| SSFH031510  | 3   | 1526.82 | 9.4248  | 162 | 29 | 29 | 26.0 | 63.62 | 127.23 | 12          | 9  | 10 | 15.0 | 9  | 34.4   | 1458.00 | 7.7  | 9.4  |
| SSFH032010  | 3   | 2035.75 | 9.4248  | 216 | 29 | 29 | 26.0 | 63.62 | 127.23 | 16          | 9  | 10 | 15.0 | 9  | 34.4   | 1967.00 | 7.7  | 12.5 |
| SSFH040510  | 4   | 502.64  | 12.5664 | 40  | 39 | 39 | 35.0 | 62.83 | 125.66 | 4           | 12 | 10 | 15.0 | 9  | 37.5   | 427.70  | 7.7  | 5.5  |
| SSFH041010  | 4   | 1005.28 | 12.5664 | 80  | 39 | 39 | 35.0 | 62.83 | 125.66 | 8           | 12 | 10 | 15.0 | 9  | 37.5   | 930.30  | 7.7  | 11.1 |
| SSFH041510  | 4   | 1507.90 | 12.5664 | 120 | 39 | 39 | 35.0 | 62.83 | 125.66 | 12          | 12 | 10 | 15.0 | 9  | 37.5   | 1432.90 | 7.7  | 16.7 |
| SSFH042010  | 4   | 2010.62 | 12.5664 | 160 | 39 | 39 | 35.0 | 62.83 | 125.66 | 16          | 12 | 10 | 15.0 | 9  | 37.5   | 1935.60 | 7.7  | 22.1 |
| SSFH050510  | 5   | 502.65  | 15.708  | 32  | 49 | 39 | 34.0 | 62.83 | 125.66 | 4           | 12 | 14 | 20.0 | 13 | 30.1   | 442.40  | 11.7 | 6.5  |
| SSFH051010  | 5   | 1005.31 | 15.708  | 64  | 49 | 39 | 34.0 | 62.83 | 125.66 | 8           | 12 | 14 | 20.0 | 13 | 30.1   | 945.00  | 11.7 | 13.4 |
| SSFH051510  | 5   | 1502.65 | 15.708  | 96  | 49 | 39 | 34.0 | 62.83 | 125.66 | 12          | 12 | 14 | 20.0 | 13 | 30.1   | 1447.70 | 11.7 | 19.6 |
| SSFH052010  | 5   | 2005.31 | 15.708  | 128 | 49 | 39 | 34.0 | 62.83 | 125.66 | 16          | 12 | 14 | 20.0 | 13 | 30.1   | 1950.40 | 11.7 | 26.1 |
| SSFH060510  | 6   | 508.95  | 18.8496 | 27  | 59 | 49 | 43.0 | 63.62 | 127.23 | 4           | 16 | 18 | 26.0 | 17 | 31.4   | 446.10  | 15.7 | 9.7  |
| SSFH061010  | 6   | 1017.90 | 18.8496 | 54  | 59 | 49 | 43.0 | 63.62 | 127.23 | 8           | 16 | 18 | 26.0 | 17 | 31.4   | 955.00  | 15.7 | 19.5 |
| SSFH061510  | 6   | 1526.81 | 18.8496 | 81  | 59 | 49 | 43.0 | 63.62 | 127.23 | 12          | 16 | 18 | 26.0 | 17 | 31.4   | 1464.00 | 15.7 | 29.4 |
| SSFH062010  | 6   | 2035.75 | 18.8496 | 108 | 59 | 49 | 43.0 | 63.62 | 127.23 | 16          | 16 | 18 | 26.0 | 17 | 31.4   | 1973.00 | 15.7 | 39.2 |
| SSFH080510  | 8   | 502.64  | 25.1328 | 20  | 79 | 79 | 71.0 | 62.83 | 125.66 | 4           | 25 | 22 | 33.0 | 21 | 26.6   | 449.50  | 19.7 | 21.3 |
| SSFH081010  | 8   | 1005.28 | 25.1328 | 40  | 79 | 79 | 71.0 | 62.83 | 125.66 | 8           | 25 | 22 | 33.0 | 21 | 26.6   | 952.00  | 19.7 | 42.5 |
| SSFH081510  | 8   | 1502.64 | 25.1328 | 60  | 79 | 79 | 71.0 | 62.83 | 125.66 | 12          | 25 | 22 | 33.0 | 21 | 26.6   | 1452.00 | 19.7 | 63.6 |
| SSFH082010  | 8   | 2010.61 | 25.1328 | 80  | 79 | 79 | 71.0 | 62.83 | 125.66 | 16          | 25 | 22 | 33.0 | 21 | 26.6   | 1957.30 | 19.7 | 83.6 |
| SSFH100510  | 10  | 502.65  | 31.4159 | 16  | 99 | 99 | 89.0 | 62.83 | 125.66 | 12          | 32 | 33 | 48.0 | 32 | 125.66 | 253.96  | 19.7 | 35.0 |
| SSFH101010  | 10  | 1005.31 | 31.4159 | 32  | 99 | 99 | 89.0 | 62.83 | 125.66 | 16          | 32 | 33 | 48.0 | 32 | 125.66 | 753.96  | 19.7 | 68.7 |

Notes: Available Material on rack- Carbon Steel/42CrMo4/Stainless/Aluminum alloy.



|          |                      |
|----------|----------------------|
|          | Opposite Tooth Gauge |
| Material | C45                  |
| Surface  | Ground Teeth         |

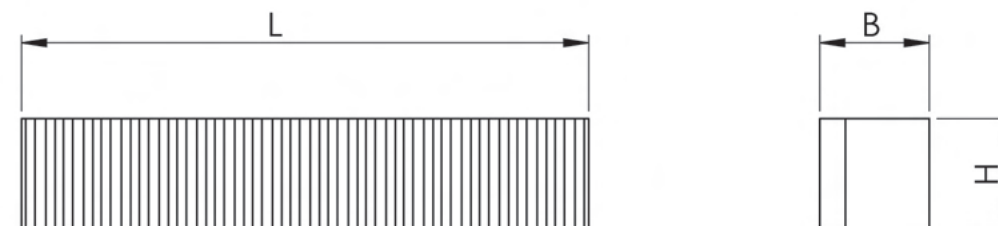
Helical Tooth Gauge



Dimensions (Helical Tooth System: 19° 31' 42" Left Hand)

| Item Code   | Module | L   | H  | B  | Z  | fp    | FP    |
|-------------|--------|-----|----|----|----|-------|-------|
| SHG02-GAUGE | 2      | 150 | 24 | 24 | 22 | 0.004 | 0.015 |
| SHG03-GAUGE | 3      | 150 | 29 | 29 | 15 | 0.004 | 0.015 |
| SHG04-GAUGE | 4      | 150 | 39 | 39 | 11 | 0.003 | 0.010 |
| SHG05-GAUGE | 5      | 150 | 49 | 39 | 9  | 0.003 | 0.010 |
| SHG06-GAUGE | 6      | 150 | 59 | 49 | 7  | 0.003 | 0.010 |

Straight Tooth Gauge



Dimensions

| Item Code   | Module | L   | H  | B  | Z  | fp    | FP    |
|-------------|--------|-----|----|----|----|-------|-------|
| SSG02-GAUGE | 2      | 150 | 24 | 24 | 22 | 0.004 | 0.015 |
| SSG03-GAUGE | 3      | 150 | 29 | 29 | 15 | 0.004 | 0.015 |
| SSG04-GAUGE | 4      | 150 | 39 | 39 | 11 | 0.003 | 0.010 |
| SSG05-GAUGE | 5      | 150 | 49 | 39 | 9  | 0.003 | 0.010 |
| SSG06-GAUGE | 6      | 150 | 59 | 49 | 7  | 0.003 | 0.010 |

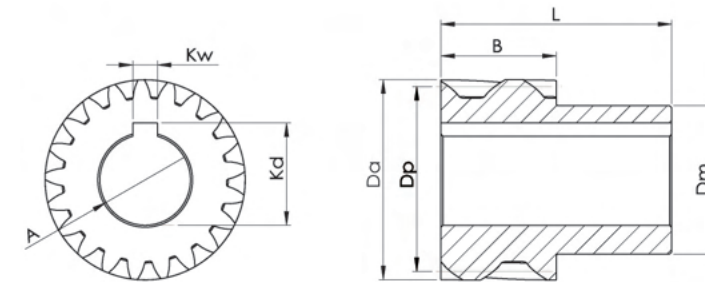
**Notes:** Available Material on pinion gear- Carbon Steel/16CrMn4/42CrMo4/Stainless/Aluminum alloy.  
Any pinion gears are customizable.

# Q5 - 16CrMo4

## Ground Pinion

### Specifications

|               |                       |                  |                |
|---------------|-----------------------|------------------|----------------|
| Quality       | 5e24                  | Heat - Treatment | Case Hardening |
| Material      | 16CrMo4               | Hardness         | HRC 55-60      |
| Helical Tooth | 19° 31' 42" Left Hand | Surface          | Ground         |



### Dimensions

| Item Code      | M   | Z  | Da     | Dp     | Kw | Kd   | A <sub>(H6)</sub> | B   | L   | Dm  |
|----------------|-----|----|--------|--------|----|------|-------------------|-----|-----|-----|
| HGK1.51610B65L | 1.5 | 16 | 28.46  | 25.46  | 4  | 11.5 | 10                | 28  | 65  | 20  |
| HGK1.51815B65L | 1.5 | 18 | 31.64  | 28.64  | 5  | 17.3 | 15                | 28  | 65  | 22  |
| HGK1.52015B65L | 1.5 | 20 | 34.83  | 31.83  | 5  | 17.3 | 15                | 28  | 65  | 25  |
| HGK1.52420B65L | 1.5 | 24 | 41.19  | 38.19  | 6  | 22.8 | 20                | 28  | 65  | 32  |
| HGK1.54040B65L | 1.5 | 40 | 66.66  | 63.66  | 12 | 43.3 | 40                | 28  | 65  | 58  |
| HGK021615B65L  | 2   | 16 | 37.95  | 33.95  | 5  | 17.3 | 15                | 28  | 65  | 25  |
| HGK021815B65L  | 2   | 18 | 42.20  | 38.20  | 5  | 17.3 | 15                | 28  | 65  | 30  |
| HGK022122B56L  | 2   | 21 | 48.56  | 44.56  | 6  | 24.8 | 22                | 26  | 56  | 36  |
| HGK022225B65L  | 2   | 22 | 50.69  | 46.69  | 8  | 28.3 | 25                | 28  | 65  | 36  |
| HGK022425B65L  | 2   | 24 | 54.93  | 50.93  | 8  | 28.3 | 25                | 28  | 65  | 36  |
| HGK023025B65L  | 2   | 30 | 67.66  | 63.66  | 8  | 28.3 | 25                | 28  | 65  | 36  |
| HGK024040B65L  | 2   | 40 | 88.88  | 84.88  | 12 | 43.3 | 40                | 28  | 65  | 62  |
| HGK032020B65L  | 3   | 20 | 69.66  | 63.66  | 6  | 22.8 | 20                | 28  | 65  | 30  |
| HGK032225B65L  | 3   | 22 | 76.03  | 70.03  | 8  | 28.3 | 25                | 28  | 65  | 36  |
| HGK032425B65L  | 3   | 24 | 82.39  | 76.39  | 8  | 28.3 | 25                | 28  | 65  | 36  |
| HGK034040B65L  | 3   | 40 | 133.32 | 127.32 | 12 | 43.3 | 40                | 28  | 65  | 62  |
| HGK042035B75L  | 4   | 20 | 92.88  | 84.88  | 10 | 38.3 | 35                | 40  | 75  | 55  |
| HGK042535B75L  | 4   | 25 | 114.10 | 106.10 | 10 | 38.3 | 35                | 40  | 75  | 55  |
| HGK043035B75L  | 4   | 30 | 135.32 | 127.32 | 10 | 38.3 | 35                | 40  | 75  | 55  |
| HGK043235B75L  | 4   | 32 | 143.81 | 135.81 | 10 | 38.3 | 35                | 40  | 75  | 55  |
| HGK052045B75L  | 5   | 20 | 116.10 | 106.10 | 14 | 48.8 | 45                | 50  | 75  | 68  |
| HGK052445B75L  | 5   | 24 | 137.32 | 127.32 | 14 | 48.8 | 45                | 50  | 75  | 68  |
| HGK052545B75L  | 5   | 25 | 142.63 | 132.63 | 14 | 48.8 | 45                | 50  | 75  | 68  |
| HGK053045B75L  | 5   | 30 | 169.15 | 159.15 | 14 | 48.8 | 45                | 50  | 75  | 68  |
| HGK062055B120L | 6   | 20 | 139.32 | 127.32 | 16 | 59.3 | 55                | 60  | 120 | 80  |
| HGK062155B120L | 6   | 21 | 145.69 | 133.69 | 16 | 59.3 | 55                | 60  | 120 | 80  |
| HGK062455B120L | 6   | 24 | 164.79 | 152.79 | 16 | 59.3 | 55                | 60  | 120 | 80  |
| HGK062555B120L | 6   | 25 | 171.15 | 159.15 | 16 | 59.3 | 55                | 60  | 120 | 80  |
| HGK063055B120L | 6   | 30 | 202.99 | 190.99 | 16 | 59.3 | 55                | 60  | 120 | 80  |
| HGK082075B145L | 8   | 20 | 185.77 | 169.77 | 20 | 79.9 | 75                | 80  | 145 | 110 |
| HGK102085B165L | 10  | 20 | 232.21 | 212.21 | 22 | 90.4 | 85                | 100 | 165 | 125 |

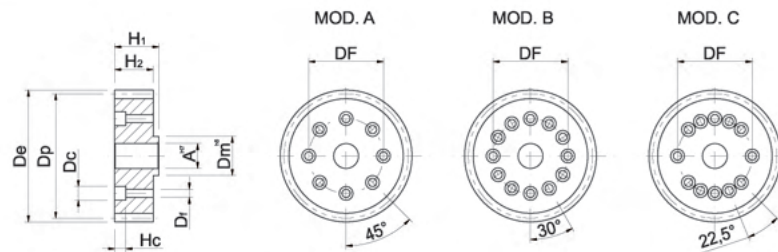
**Notes:** Available Material on pinion gear- Carbon Steel/16CrMn4/42CrMo4/Stainless/Aluminum alloy.  
Any pinion gears are customizable.

## Q5 - 16CrMo4

### Flanged Pinion

#### Specifications

|                |                       |                  |                |
|----------------|-----------------------|------------------|----------------|
| Quality        | 5e24                  | Heat - Treatment | Case Hardening |
| Material       | 16CrMo4               | Hardness         | HRC 55-60      |
| Helical Tooth  | 19° 31' 42" Left Hand | Surface          | Ground         |
| Pressure Angle | 20°                   |                  |                |



#### Dimensions

| Item Code        | Model | M | Z  | X      | De     | Dp     | Dm(h6) | A    | H1   | H2 | DF    | Df   | DC | HC |
|------------------|-------|---|----|--------|--------|--------|--------|------|------|----|-------|------|----|----|
| HGFA022615B29L   | A     | 2 | 26 | 0.4065 | 60.60  | 56.80  | 20.0   | 15.0 | 29.0 | 26 | 31.5  | 5.5  | 10 | 12 |
| HGFA022715B33.5L | A     | 2 | 27 | 0.0000 | 61.29  | 57.30  | 20.0   | 15.0 | 33.5 | 30 | 31.5  | 5.5  | 10 | 11 |
| HGFA022915B29L   | A     | 2 | 29 | 0.4150 | 67.00  | 63.20  | 20.0   | 15.0 | 29.0 | 26 | 31.5  | 5.5  | 10 | 12 |
| HGFA023320B30L   | A     | 2 | 33 | 0.3928 | 75.30  | 71.60  | 31.5   | 20.0 | 30.0 | 26 | 50.0  | 6.6  | 11 | 14 |
| HGFA023515B29L   | A     | 2 | 35 | 0.3819 | 79.60  | 75.80  | 20.0   | 15.0 | 29.0 | 26 | 31.5  | 5.5  | 10 | 12 |
| HGFA023620B34L   | A     | 2 | 36 | 0.0000 | 80.39  | 76.40  | 31.5   | 20.0 | 34.0 | 30 | 50.0  | 6.6  | 11 | 8  |
| HGFA023720B30L   | A     | 2 | 37 | 0.4209 | 84.00  | 80.20  | 31.5   | 20.0 | 30.0 | 26 | 50.0  | 6.6  | 11 | 14 |
| HGFB023720B30L   | B     | 2 | 37 | 0.4209 | 84.00  | 80.20  | 31.5   | 20.0 | 30.0 | 26 | 50.0  | 6.6  | 11 | 14 |
| HGFC024031.5B30L | C     | 2 | 40 | 0.3792 | 90.20  | 86.40  | 40.0   | 31.5 | 30.0 | 26 | 63.0  | 6.6  | 11 | 14 |
| HGFC024531.5B30L | C     | 2 | 45 | 0.3267 | 100.60 | 96.80  | 40.0   | 31.5 | 30.0 | 26 | 63.0  | 6.6  | 11 | 14 |
| HGFA033120B35.5L | A     | 3 | 31 | 0.3540 | 106.60 | 100.80 | 31.5   | 20.0 | 35.5 | 31 | 50.0  | 6.6  | 11 | 9  |
| HGFB033540B35L   | B     | 3 | 35 | 0.3652 | 119.40 | 113.60 | 50.0   | 40.0 | 35.0 | 31 | 80.0  | 9.0  | 15 | 11 |
| HGFB034040B35L   | B     | 3 | 40 | 0.3792 | 135.40 | 129.60 | 50.0   | 40.0 | 35.0 | 31 | 80.0  | 9.0  | 15 | 11 |
| HGFC033020B39L   | C     | 3 | 30 | 0.0000 | 101.49 | 95.49  | 40.0   | 20.0 | 39.0 | 35 | 63.0  | 6.6  | 11 | 10 |
| HGFB043040B49L   | B     | 4 | 30 | 0.0000 | 135.32 | 127.32 | 50.0   | 40.0 | 49.0 | 45 | 80.0  | 9.0  | 15 | 11 |
| HGFB053660B61L   | B     | 5 | 36 | 0.0000 | 200.98 | 190.99 | 80.0   | 60.0 | 61.0 | 55 | 125.0 | 11.0 | 18 | 13 |

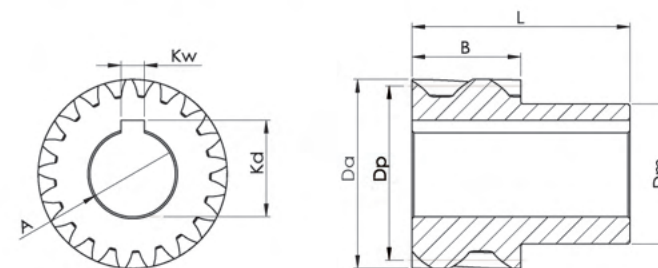
**Notes:** Available Material on pinion gear- Carbon Steel/16CrMn4/42CrMo4/Stainless/Aluminum alloy.  
Any pinion gears are customizable.

## Q10 - C45

### Milled Pinion

#### Specifications

|               |                       |                  |                           |
|---------------|-----------------------|------------------|---------------------------|
| Quality       | 10e25                 | Heat - Treatment | Induction Hardening       |
| Material      | C45                   | Hardness         | HRC 50-55                 |
| Helical Tooth | 19° 31' 42" Left Hand | Surface          | Milled Teeth, Black Oxide |



#### Dimensions

| Item Code      | M   | Z  | Da     | Dp     | Kw | Kd   | A(H7) | B   | L   | Dm  |
|----------------|-----|----|--------|--------|----|------|-------|-----|-----|-----|
| HMK1.51610B65L | 1.5 | 16 | 28.46  | 25.46  | 4  | 11.5 | 10    | 28  | 65  | 20  |
| HMK1.51815B65L | 1.5 | 18 | 31.64  | 28.64  | 5  | 17.3 | 15    | 28  | 65  | 22  |
| HMK1.52015B65L | 1.5 | 20 | 34.83  | 31.83  | 5  | 17.3 | 15    | 28  | 65  | 25  |
| HMK1.52420B65L | 1.5 | 24 | 41.19  | 38.19  | 6  | 22.8 | 20    | 28  | 65  | 32  |
| HMK1.53040B65L | 1.5 | 30 | 50.74  | 47.74  | 8  | 28.3 | 25    | 28  | 65  | 40  |
| HMK1.54040B65L | 1.5 | 40 | 66.66  | 63.66  | 12 | 43.3 | 40    | 28  | 65  | 58  |
| HMK021615B65L  | 2   | 16 | 37.95  | 33.95  | 5  | 17.3 | 15    | 28  | 65  | 25  |
| HMK021815B65L  | 2   | 18 | 42.20  | 38.20  | 5  | 17.3 | 15    | 28  | 65  | 30  |
| HMK022122B56L  | 2   | 21 | 46.44  | 42.44  | 6  | 22.8 | 20    | 28  | 65  | 30  |
| HMK022225B65L  | 2   | 22 | 50.69  | 46.69  | 8  | 28.3 | 25    | 28  | 65  | 36  |
| HMK022425B65L  | 2   | 24 | 54.93  | 50.93  | 8  | 28.3 | 25    | 28  | 65  | 36  |
| HMK023025B65L  | 2   | 30 | 67.66  | 63.66  | 8  | 28.3 | 25    | 28  | 65  | 36  |
| HMK024040B65L  | 2   | 40 | 88.88  | 84.88  | 12 | 43.3 | 40    | 28  | 65  | 62  |
| HMK032020B65L  | 3   | 20 | 69.66  | 63.66  | 6  | 22.8 | 20    | 28  | 65  | 30  |
| HMK032225B65L  | 3   | 22 | 76.03  | 70.03  | 8  | 28.3 | 25    | 28  | 65  | 36  |
| HMK032425B65L  | 3   | 24 | 82.39  | 76.39  | 8  | 28.3 | 25    | 28  | 65  | 36  |
| HMK034040B65L  | 3   | 40 | 133.32 | 127.32 | 12 | 43.3 | 40    | 28  | 65  | 62  |
| HMK042035B75L  | 4   | 20 | 92.88  | 84.88  | 10 | 38.3 | 35    | 40  | 75  | 55  |
| HMK042535B75L  | 4   | 25 | 114.10 | 106.10 | 10 | 38.3 | 35    | 40  | 75  | 55  |
| HMK043035B75L  | 4   | 30 | 135.32 | 127.32 | 10 | 38.3 | 35    | 40  | 75  | 55  |
| HMK043235B75L  | 4   | 32 | 143.81 | 135.81 | 10 | 38.3 | 35    | 40  | 75  | 55  |
| HMK052045B75L  | 5   | 20 | 116.10 | 106.10 | 14 | 48.8 | 45    | 50  | 75  | 68  |
| HMK052445B75L  | 5   | 24 | 137.32 | 127.32 | 14 | 48.8 | 45    | 50  | 75  | 68  |
| HMK052545B75L  | 5   | 25 | 142.63 | 132.63 | 14 | 48.8 | 45    | 50  | 75  | 68  |
| HMK053045B75L  | 5   | 30 | 169.15 | 159.15 | 14 | 48.8 | 45    | 50  | 75  | 68  |
| HMK062055B120L | 6   | 20 | 139.32 | 127.32 | 16 | 59.3 | 55    | 60  | 120 | 80  |
| HMK062155B120L | 6   | 21 | 145.69 | 133.69 | 16 | 59.3 | 55    | 60  | 120 | 80  |
| HMK062455B120L | 6   | 24 | 164.79 | 152.79 | 16 | 59.3 | 55    | 60  | 120 | 80  |
| HMK062555B120L | 6   | 25 | 171.15 | 159.15 | 16 | 59.3 | 55    | 60  | 120 | 80  |
| HMK063055B120L | 6   | 30 | 202.99 | 190.99 | 16 | 59.3 | 55    | 60  | 120 | 80  |
| HMK082075B145L | 8   | 20 | 185.77 | 169.77 | 20 | 79.9 | 75    | 80  | 145 | 110 |
| HMK102085B165L | 10  | 20 | 232.21 | 212.21 | 22 | 90.4 | 85    | 100 | 165 | 125 |

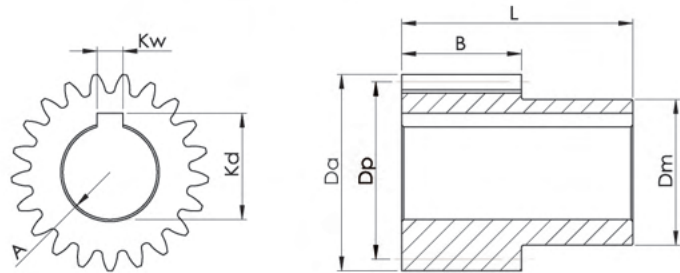
**Notes:** Available Material on pinion gear- Carbon Steel/16CrMn4/42CrMo4/Stainless/Aluminum alloy.  
Any pinion gears are customizable.

## Q5 - 16CrMo4

### Ground Pinion

#### Specifications

|                |         |                  |                |
|----------------|---------|------------------|----------------|
| Quality        | 5e24    | Heat - Treatment | Case Hardening |
| Material       | 16CrMo4 | Hardness         | HRC 55-60      |
| Pressure Angle | 20°     | Surface          | Ground Teeth   |



#### Dimensions

| Item Code      | M   | Z  | Da  | Dp  | Kw | Kd   | A <sub>(H6)</sub> | B   | L   | Dm  |
|----------------|-----|----|-----|-----|----|------|-------------------|-----|-----|-----|
| SGK1.51610B65L | 1.5 | 16 | 27  | 24  | 4  | 11.5 | 10                | 28  | 65  | 20  |
| SGK1.51815B65L | 1.5 | 18 | 30  | 27  | 5  | 17.3 | 15                | 28  | 65  | 22  |
| SGK1.52015B65L | 1.5 | 20 | 33  | 30  | 5  | 17.3 | 15                | 28  | 65  | 25  |
| SGK1.52420B65L | 1.5 | 24 | 39  | 36  | 6  | 22.8 | 20                | 28  | 65  | 32  |
| SGK1.53040B65L | 1.5 | 30 | 48  | 45  | 8  | 28.3 | 25                | 28  | 65  | 40  |
| SGK1.54040B65L | 1.5 | 40 | 63  | 60  | 12 | 43.3 | 40                | 28  | 65  | 58  |
| SGK021615B65L  | 2   | 16 | 36  | 32  | 5  | 17.3 | 15                | 28  | 65  | 25  |
| SGK021815B65L  | 2   | 18 | 40  | 36  | 5  | 17.3 | 15                | 28  | 65  | 30  |
| SGK022122B56L  | 2   | 21 | 44  | 40  | 6  | 22.8 | 20                | 28  | 65  | 30  |
| SGK022225B65L  | 2   | 22 | 48  | 44  | 8  | 28.3 | 25                | 28  | 65  | 36  |
| SGK022425B65L  | 2   | 24 | 52  | 48  | 8  | 28.3 | 25                | 28  | 65  | 36  |
| SGK023025B65L  | 2   | 30 | 64  | 60  | 8  | 28.3 | 25                | 28  | 65  | 36  |
| SGK024040B65L  | 2   | 40 | 84  | 80  | 12 | 43.3 | 40                | 28  | 65  | 62  |
| SGK032020B65L  | 3   | 20 | 66  | 60  | 6  | 22.8 | 20                | 28  | 65  | 30  |
| SGK032225B65L  | 3   | 22 | 72  | 66  | 8  | 28.3 | 25                | 28  | 65  | 36  |
| SGK032425B65L  | 3   | 24 | 78  | 72  | 8  | 28.3 | 25                | 28  | 65  | 36  |
| SGK034040B65L  | 3   | 40 | 126 | 120 | 12 | 43.3 | 40                | 28  | 65  | 62  |
| SGK042035B75L  | 4   | 20 | 88  | 80  | 10 | 38.3 | 35                | 40  | 75  | 55  |
| SGK042535B75L  | 4   | 25 | 108 | 100 | 10 | 38.3 | 35                | 40  | 75  | 55  |
| SGK043035B75L  | 4   | 30 | 128 | 120 | 10 | 38.3 | 35                | 40  | 75  | 55  |
| SGK043235B75L  | 4   | 32 | 136 | 128 | 10 | 38.3 | 35                | 40  | 75  | 55  |
| SGK052045B75L  | 5   | 20 | 110 | 100 | 14 | 48.8 | 45                | 50  | 75  | 68  |
| SGK052445B75L  | 5   | 24 | 130 | 120 | 14 | 48.8 | 45                | 50  | 75  | 68  |
| SGK052545B75L  | 5   | 25 | 135 | 125 | 14 | 48.8 | 45                | 50  | 75  | 68  |
| SGK053045B75L  | 5   | 30 | 160 | 150 | 14 | 48.8 | 45                | 50  | 75  | 68  |
| SGK062055B120L | 6   | 20 | 132 | 120 | 16 | 59.3 | 55                | 60  | 120 | 80  |
| SGK062155B120L | 6   | 21 | 138 | 126 | 16 | 59.3 | 55                | 60  | 120 | 80  |
| SGK062455B120L | 6   | 24 | 156 | 144 | 16 | 59.3 | 55                | 60  | 120 | 80  |
| SGK062555B120L | 6   | 25 | 162 | 150 | 16 | 59.3 | 55                | 60  | 120 | 80  |
| SGK063055B120L | 6   | 30 | 192 | 180 | 16 | 59.3 | 55                | 60  | 120 | 80  |
| SGK082075B145L | 8   | 20 | 176 | 160 | 20 | 79.9 | 75                | 80  | 145 | 110 |
| SGK102085B165L | 10  | 20 | 220 | 200 | 22 | 90.4 | 85                | 100 | 165 | 125 |

**Notes:** Available Material on pinion gear- Carbon Steel/16CrMn4/42CrMo4/Stainless/Aluminum alloy.

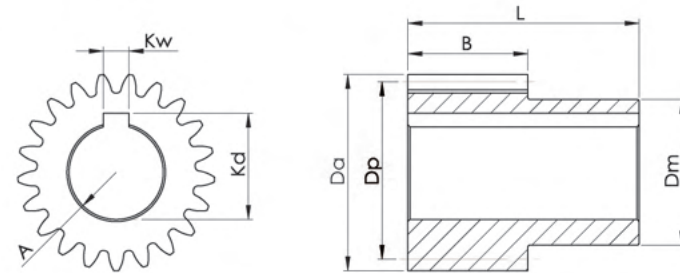
Any pinion gears are customizable.

## Q10 - C45

### Milled Pinion

#### Specifications

|                |       |                  |                     |
|----------------|-------|------------------|---------------------|
| Quality        | 10e25 | Heat - Treatment | Induction Hardening |
| Material       | C45   | Hardness         | HRC 50-55           |
| Pressure Angle | 20°   | Surface          | Milled Teeth        |



#### Dimensions

| Item Code      | M   | Z  | Da  | Dp  | Kw | Kd   | A <sub>(H6)</sub> | B   | L   | Dm  |
|----------------|-----|----|-----|-----|----|------|-------------------|-----|-----|-----|
| SMK1.51610B65L | 1.5 | 16 | 27  | 24  | 4  | 11.5 | 10                | 28  | 65  | 20  |
| SMK1.51815B65L | 1.5 | 18 | 30  | 27  | 5  | 17.3 | 15                | 28  | 65  | 22  |
| SMK1.52015B65L | 1.5 | 20 | 33  | 30  | 5  | 17.3 | 15                | 28  | 65  | 25  |
| SMK1.52420B65L | 1.5 | 24 | 39  | 36  | 6  | 22.8 | 20                | 28  | 65  | 32  |
| SMK1.53040B65L | 1.5 | 30 | 48  | 45  | 8  | 28.3 | 25                | 28  | 65  | 40  |
| SMK1.54040B65L | 1.5 | 40 | 63  | 60  | 12 | 43.3 | 40                | 28  | 65  | 58  |
| SMK021615B65L  | 2   | 16 | 36  | 32  | 5  | 17.3 | 15                | 28  | 65  | 25  |
| SMK021815B65L  | 2   | 18 | 40  | 36  | 5  | 17.3 | 15                | 28  | 65  | 30  |
| SMK022122B56L  | 2   | 21 | 44  | 40  | 6  | 22.8 | 20                | 28  | 65  | 30  |
| SMK022225B65L  | 2   | 22 | 48  | 44  | 8  | 28.3 | 25                | 28  | 65  | 36  |
| SMK022425B65L  | 2   | 24 | 52  | 48  | 8  | 28.3 | 25                | 28  | 65  | 36  |
| SMK023025B65L  | 2   | 30 | 64  | 60  | 8  | 28.3 | 25                | 28  | 65  | 36  |
| SMK024040B65L  | 2   | 40 | 84  | 80  | 12 | 43.3 | 40                | 28  | 65  | 62  |
| SMK032020B65L  | 3   | 20 | 66  | 60  | 6  | 22.8 | 20                | 28  | 65  | 30  |
| SMK032225B65L  | 3   | 22 | 72  | 66  | 8  | 28.3 | 25                | 28  | 65  | 36  |
| SMK032425B65L  | 3   | 24 | 78  | 72  | 8  | 28.3 | 25                | 28  | 65  | 36  |
| SMK034040B65L  | 3   | 40 | 126 | 120 | 12 | 43.3 | 40                | 28  | 65  | 62  |
| SMK042035B75L  | 4   | 20 | 88  | 80  | 10 | 38.3 | 35                | 40  | 75  | 55  |
| SMK042535B75L  | 4   | 25 | 108 | 100 | 10 | 38.3 | 35                | 40  | 75  | 55  |
| SMK043035B75L  | 4   | 30 | 128 | 120 | 10 | 38.3 | 35                | 40  | 75  | 55  |
| SMK043235B75L  | 4   | 32 | 136 | 128 | 10 | 38.3 | 35                | 40  | 75  | 55  |
| SMK052045B75L  | 5   | 20 | 110 | 100 | 14 | 48.8 | 45                | 50  | 75  | 68  |
| SMK052445B75L  | 5   | 24 | 130 | 120 | 14 | 48.8 | 45                | 50  | 75  | 68  |
| SMK052545B75L  | 5   | 25 | 135 | 125 | 14 | 48.8 | 45                | 50  | 75  | 68  |
| SMK053045B75L  | 5   | 30 | 160 | 150 | 14 | 48.8 | 45                | 50  | 75  | 68  |
| SMK062055B120L | 6   | 20 | 132 | 120 | 16 | 59.3 | 55                | 60  | 120 | 80  |
| SMK062155B120L | 6   | 21 | 138 | 126 | 16 | 59.3 | 55                | 60  | 120 | 80  |
| SMK062455B120L | 6   | 24 | 156 | 144 | 16 | 59.3 | 55                | 60  | 120 | 80  |
| SMK062555B120L | 6   | 25 | 162 | 150 | 16 | 59.3 | 55                | 60  | 120 | 80  |
| SMK063055B120L | 6   | 30 | 192 | 180 | 16 | 59.3 | 55                | 60  | 120 | 80  |
| SMK082075B145L | 8   | 20 | 176 | 160 | 20 | 79.9 | 75                | 80  | 145 | 110 |
| SMK102085B165L | 10  | 20 | 220 | 200 | 22 | 90.4 | 85                | 100 | 165 | 125 |

**Notes:** Available Material on pinion gear- Carbon Steel/16CrMn4/42CrMo4/Stainless/Aluminum alloy.

Any pinion gears are customizable.

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