**AG Worm Wheels**

**Specifications**
- **Pressure-grade**: KHK W 002 grade 2
- **Rotating section of gear**: Rotating plane
- **Gear teeth**: Standard full depth
- **Diameter**: Standard
- **Material**: CACG (formerly AS R-C)
- **Heat treatment**: HA

**Module 0.5, 0.8**

| Catalog No. | Reduction ratio | Transmission module | No. of teeth | Number of starts | Helix angle | Hand thread | Shape | Am | B | C | D | E | Catalog No. |
|-------------|----------------|---------------------|--------------|-----------------|-------------|-------------|-------|----|---|---|---|-------------|
| AGG.5-08R1 | 20             | 20                  | 1            | 3°11'           | R            | HA          | HA    | 4  | 9 | 10| 11 | 5 | AGG.5-08R1  |
| AGG.5-08R2 | 10             | 20                  | 2            | 6°20'           | R            | HA          | HA    | 4  | 9 | 10| 11 | 5 | AGG.5-08R2  |
| AGG.5-08R3 | 30             | 30                  | 1            | 3°11'           | R            | HA          | HA    | 4  | 12| 15| 16 | 5 | AGG.5-08R3  |
| AGG.5-08R4 | 15             | 30                  | 2            | 6°20'           | R            | HA          | HA    | 4  | 12| 15| 16 | 5 | AGG.5-08R4  |
| AGG.5-08R5 | 40             | 40                  | 1            | 3°11'           | R            | HA          | HA    | 5  | 15| 20| 21 | 5 | AGG.5-08R5  |
| AGG.5-08R6 | 50             | 50                  | 1            | 3°11'           | R            | HA          | HA    | 5  | 20| 25| 26 | 5 | AGG.5-08R6  |
| AGG.5-08R7 | 10             | 20                  | 1            | 3°11'           | R            | HA          | HA    | 5  | 25| 30| 31 | 5 | AGG.5-08R7  |
| AGG.5-08R8 | 20             | 20                  | 1            | 3°11'           | R            | HA          | HA    | 5  | 12| 16| 17 | 6 | AGG.5-08R8  |
| AGG.5-08R9 | 30             | 20                  | 2            | 7°36'           | R            | HA          | HA    | 5  | 12| 16| 17 | 6 | AGG.5-08R9  |
| AGG.5-08R10| 10             | 30                  | 1            | 3°11'           | R            | HA          | HA    | 5  | 18| 24| 25 | 6 | AGG.5-08R10 |
| AGG.5-08R11| 15             | 30                  | 2            | 7°36'           | R            | HA          | HA    | 5  | 18| 24| 25 | 6 | AGG.5-08R11 |
| AGG.5-08R12| 40             | 40                  | 1            | 3°11'           | R            | HA          | HA    | 6  | 20| 32| 33 | 6 | AGG.5-08R12 |
| AGG.5-08R13| 50             | 50                  | 1            | 3°11'           | R            | HA          | HA    | 8  | 25| 40| 41 | 6 | AGG.5-08R13 |
| AGG.5-08R14| 10             | 30                  | 1            | 3°11'           | R            | HA          | HA    | 8  | 25| 40| 41 | 6 | AGG.5-08R14 |

**Notes**:
1. The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see Page 358 for more details.
2. Please read "Caution on Performing Secondary Operations" (Page 362) when performing modifications and/or secondary operations for safety concerns. KHK Quick-Mod Gear, the KHK’s system for quick modification of KHK stock gears is also available.
3. Due to the gear teeth being induction hardened, no secondary operations can be performed on tooth areas including the bottom land (approx. 2 to 3 mm). Use carbide tools for the modification of the shaft area near the bottom land.

**KWH Gears**

**Ground Worm Shafts**
### Ground Worm Shafts

#### Module 1, 1.5

![Image](W6.png)

#### Specifications

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Axial module</th>
<th>Number of teeth</th>
<th>Axial length</th>
<th>Axial thrust</th>
<th>Shape</th>
<th>Face width</th>
<th>Tooth length (R)</th>
<th>Pitch dia.</th>
</tr>
</thead>
<tbody>
<tr>
<td>KG01-R1</td>
<td>m1</td>
<td>1</td>
<td>3°35&quot;</td>
<td>R</td>
<td>W6</td>
<td>140</td>
<td>35</td>
<td>10</td>
</tr>
<tr>
<td>KG01-R2</td>
<td>m1</td>
<td>2</td>
<td>7°08&quot;</td>
<td>R</td>
<td>W6</td>
<td>140</td>
<td>35</td>
<td>10</td>
</tr>
<tr>
<td>KG01.5-R1</td>
<td>m1.5</td>
<td>1</td>
<td>3°26&quot;</td>
<td>R</td>
<td>W6</td>
<td>190</td>
<td>50</td>
<td>15</td>
</tr>
<tr>
<td>KG01.5-R2</td>
<td>m1.5</td>
<td>2</td>
<td>6°51&quot;</td>
<td>R</td>
<td>W6</td>
<td>190</td>
<td>50</td>
<td>15</td>
</tr>
</tbody>
</table>

**Notes:**
- The allowable torques shown in the table are the calculated values according to the assumed conditions. Please see Page 358 for more details.
- These worms produce axial thrust forces. See Page 362 for more details.

---

### AG Worm Wheels

#### Module 1, 1.5

![Image](AG.png)

#### Specifications

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Axial module</th>
<th>Number of teeth</th>
<th>Axial length</th>
<th>Axial thrust</th>
<th>Shape</th>
<th>Face width</th>
<th>Tooth length (R)</th>
<th>Pitch dia.</th>
</tr>
</thead>
<tbody>
<tr>
<td>AG1-20R1</td>
<td>m1</td>
<td>1</td>
<td>3°35&quot;</td>
<td>R</td>
<td>W6</td>
<td>140</td>
<td>35</td>
<td>10</td>
</tr>
<tr>
<td>AG1-20R2</td>
<td>m1</td>
<td>2</td>
<td>7°08&quot;</td>
<td>R</td>
<td>W6</td>
<td>140</td>
<td>35</td>
<td>10</td>
</tr>
<tr>
<td>AG1.5-20R1</td>
<td>m1.5</td>
<td>1</td>
<td>3°26&quot;</td>
<td>R</td>
<td>W6</td>
<td>190</td>
<td>50</td>
<td>15</td>
</tr>
<tr>
<td>AG1.5-20R2</td>
<td>m1.5</td>
<td>2</td>
<td>6°51&quot;</td>
<td>R</td>
<td>W6</td>
<td>190</td>
<td>50</td>
<td>15</td>
</tr>
</tbody>
</table>

**Notes:**
- The allowable torques shown in the table are the calculated values according to the assumed conditions. Please see Page 358 for more details.
- Please read “Caution on Performing Secondary Operations” (Page 362) when performing modifications and/or secondary operations for safety concerns. KHK Quick-Mod Gear, the KHK’s system for quick modification of KHK stock gears is also available.

---

### J Series

**To order J Series products, please specify:** Catalog No. + J = BORE

<table>
<thead>
<tr>
<th>Keyway size</th>
<th>Screw size</th>
<th>Backlash</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>8</td>
<td>10</td>
<td>12</td>
</tr>
</tbody>
</table>

**Notes:**
- As available-on-request products, requires a lead time for shipping within 7 working days (includes the day ordered), after placing an order.
- Please allow additional shipping time to get to your local distributor.
- Number of products we can process for one order is 1 to 20 units. For quantities of 21 or more pieces, we need to quote price and lead time.
- Keyways are made according to JIS B1301 standards, J/J tolerance.
- Certain products which would otherwise have a very long tapped hole are counterbored to reduce the length of the tap.
- For products having a tapped hole, a set screw is included.

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**You can download CAD data (DXF format) of KHK Products from the Web Catalog.**
Catalog No. | Reduction ratio | Number of teeth | Module | Head angle | Lead angle | Shafts |
--- | --- | --- | --- | --- | --- | --- |
KWG2-R1 | 20 | 16 | 2.5 | 10° | 13° | H6 | L6 |
KWG2-R2 | 15 | 12 | 4 | 9° | 14° | H6 | L6 |
AGF2-SR1 | 25 | 20 | 1 \(-0.5\) | 10°18' | 13° | H6 | L6 |
AGF2-SR2 | 20 | 16 | 2 \(-0.5\) | 10°18' | 13° | H6 | L6 |
AGF2-3SR1 | 25 | 20 | 1 \(-0.5\) | 5° | 7° | H6 | L6 |
AGF2-3SR2 | 20 | 16 | 2 \(-0.5\) | 5° | 7° | H6 | L6 |
AGF2-4SR1 | 35 | 28 | 1 \(-0.5\) | 5° | 7° | H6 | L6 |
AGF2-4SR2 | 30 | 24 | 2 \(-0.5\) | 5° | 7° | H6 | L6 |
AGF2-5SR1 | 50 | 40 | 1 \(-0.5\) | 5° | 7° | H6 | L6 |
AGF2-5SR2 | 50 | 40 | 2 \(-0.5\) | 5° | 7° | H6 | L6 |

Catalog No. | Reduction ratio | Number of teeth | Module | Head angle | Lead angle | Shafts |
--- | --- | --- | --- | --- | --- | --- |
AGF2-6SR1 | 60 | 50 | 1 \(-0.5\) | 5° | 7° | H6 | L6 |
AGF2-6SR2 | 50 | 40 | 2 \(-0.5\) | 5° | 7° | H6 | L6 |

**Module 2.5**

Catalog No. | Head angle | Lead angle | Shafts |
--- | --- | --- | --- |
KWG2-R1 | 25° | 32° | H6 |
KWG2-R2 | 20° | 28° | H6 |
AGF2-R1 | 36° | 44° | H6 |
AGF2-R2 | 30° | 40° | H6 |
AGF2-3R1 | 48° | 56° | H6 |
AGF2-3R2 | 42° | 52° | H6 |
AGF2-4R1 | 60° | 70° | H6 |
AGF2-4R2 | 55° | 65° | H6 |
AGF2-5R1 | 72° | 82° | H6 |
AGF2-5R2 | 65° | 75° | H6 |

**Worm Wheels**

Catalog No. | Reduction ratio | Number of teeth | Module | Head angle | Lead angle | Shafts |
--- | --- | --- | --- | --- | --- | --- |
AGF2-0R1 | 40 | 1 | 0 | 4°40' | 7° | H6 |
AGF2-0R2 | 35 | 2 | 0 | 4°28' | 7° | H6 |
AGF2-1R1 | 40 | 1 | 0 | 4°40' | 7° | H6 |
AGF2-1R2 | 35 | 2 | 0 | 4°28' | 7° | H6 |
AGF2-2R1 | 40 | 1 | 0 | 4°40' | 7° | H6 |
AGF2-2R2 | 35 | 2 | 0 | 4°28' | 7° | H6 |
AGF2-3R1 | 48 | 3 | 0 | 4°48' | 7° | H6 |
AGF2-3R2 | 40 | 2 | 0 | 4°28' | 7° | H6 |
AGF2-4R1 | 50 | 3 | 0 | 4°50' | 7° | H6 |
AGF2-4R2 | 40 | 2 | 0 | 4°28' | 7° | H6 |
AGF2-5R1 | 55 | 4 | 0 | 4°55' | 7° | H6 |
AGF2-5R2 | 45 | 2 | 0 | 4°28' | 7° | H6 |
AGF2-6R1 | 60 | 4 | 0 | 4°60' | 7° | H6 |
AGF2-6R2 | 50 | 2 | 0 | 4°28' | 7° | H6 |

**Catalog No.**

KWG2-R1 | 26 | 17 | 35 | 2.25 | 0.64 |
KWG2-R2 | 35 | 23 | 30.2 | 1.27 |

---

① There may be space in the casting between the two materials, but it will not affect the joint strength.

② Due to the gear teeth being induction hardened, no secondary operations can be performed on tooth areas including the bottom land (approx. 2 to 3 mm). Use carbide tools for the modification of the shaft area near the bottom land.

---

① The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see Page 358 for more details.

② There may be space in the casting between the two materials, but it will not affect the joint strength.
### Ground Worm Shafts

#### Specifications
- **KHW W 501 grade 2**
- **Material:** Special quenched and tempered steel
- **Hardness:** HRC 55

#### Catalog No.
- **KWG3-R1**
- **KWG3-R2**
- **KWG4-R1**
- **KWG4-R2**

#### Table: Ground Worm Shafts

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Module</th>
<th>Number of starts</th>
<th>Tooth height</th>
<th>Tooth width</th>
<th>Gear teeth</th>
<th>Precision grade</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>KWG3-R1</td>
<td>m3</td>
<td>1</td>
<td>4°3’1”</td>
<td>30</td>
<td>60</td>
<td>1</td>
<td>SCM440</td>
</tr>
<tr>
<td>KWG3-R2</td>
<td>m4</td>
<td>1</td>
<td>5°4’3”</td>
<td>30</td>
<td>60</td>
<td>1</td>
<td>SCM440</td>
</tr>
<tr>
<td>KWG4-R1</td>
<td>m3</td>
<td>2</td>
<td>4°3’1”</td>
<td>30</td>
<td>60</td>
<td>1</td>
<td>SCM440</td>
</tr>
<tr>
<td>KWG4-R2</td>
<td>m4</td>
<td>2</td>
<td>5°4’3”</td>
<td>30</td>
<td>60</td>
<td>1</td>
<td>SCM440</td>
</tr>
</tbody>
</table>

### AGF Worm Wheels

#### Specifications
- **KHW W 501 grade 2**
- **Material:** Special quenched and tempered steel
- **Hardness:** HRC 55

#### Catalog No.
- **AGF3-20R1**
- **AGF3-20R2**
- **AGF4-30R1**
- **AGF4-30R2**

#### Table: AGF Worm Wheels

<table>
<thead>
<tr>
<th>Catalog No.</th>
<th>Module</th>
<th>Number of starts</th>
<th>Tooth height</th>
<th>Tooth width</th>
<th>Gear teeth</th>
<th>Precision grade</th>
<th>Material</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGF3-20R1</td>
<td>20</td>
<td>1</td>
<td>+0.333</td>
<td>4°3’1”</td>
<td>60</td>
<td>1</td>
<td>SCM440</td>
</tr>
<tr>
<td>AGF3-20R2</td>
<td>30</td>
<td>1</td>
<td>+0.333</td>
<td>4°3’1”</td>
<td>60</td>
<td>1</td>
<td>SCM440</td>
</tr>
<tr>
<td>AGF4-30R1</td>
<td>30</td>
<td>1</td>
<td>+0.333</td>
<td>4°3’1”</td>
<td>60</td>
<td>1</td>
<td>SCM440</td>
</tr>
<tr>
<td>AGF4-30R2</td>
<td>30</td>
<td>1</td>
<td>+0.333</td>
<td>4°3’1”</td>
<td>60</td>
<td>1</td>
<td>SCM440</td>
</tr>
</tbody>
</table>

### Caution on Product Characteristics
- Please read "Caution on Performing Secondary Operations" (Page 362) when performing modifications and/or secondary operations for safety concerns. KHK Quick-Mod Gears, the KHK’s system for quick modification of KHW stock gears is also available.
- Due to the gear teeth being induction hardened, no secondary operations can be performed on tooth areas including the bottom land (approx. 2 to 3 mm). Use carbide tools for the modification of the shaft area near the bottom land.

---

**Module 3, 4**

**KWG Ground Worm Shafts**

**AGF Worm Wheels**

You can download CAD data (DXF format) of KHK Products from the Web Catalog.
**Ground Worm Shafts**

### Specifications

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Module</th>
<th>Number of teeth</th>
<th>Module</th>
<th>Hardened</th>
<th>Thread shape</th>
<th>Head thread</th>
<th>Shape</th>
<th>Pitch dia.</th>
<th>End dia.</th>
<th>Face width</th>
<th>Face thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>KWG5-R1</td>
<td>m5</td>
<td>1</td>
<td>5°43' R</td>
<td>H9</td>
<td>140</td>
<td>240</td>
<td>250</td>
<td>255</td>
<td>150</td>
<td>260</td>
<td>265</td>
</tr>
<tr>
<td>KWG6-R1</td>
<td>m5</td>
<td>1</td>
<td>5°43' R</td>
<td>H9</td>
<td>220</td>
<td>300</td>
<td>310</td>
<td>315</td>
<td>200</td>
<td>210</td>
<td>215</td>
</tr>
</tbody>
</table>

1. These worms produce axial thrust forces. See Page 362 for more details.

---

**Worm Wheels**

### Specifications

<table>
<thead>
<tr>
<th>Cat. No.</th>
<th>Module</th>
<th>Number of teeth</th>
<th>Module</th>
<th>Hardened</th>
<th>Thread shape</th>
<th>Head thread</th>
<th>Shape</th>
<th>Pitch dia.</th>
<th>End dia.</th>
<th>Face width</th>
<th>Face thickness</th>
</tr>
</thead>
<tbody>
<tr>
<td>AGF5-20R1</td>
<td>m5</td>
<td>20</td>
<td>0°</td>
<td>H8</td>
<td>175</td>
<td>310</td>
<td>320</td>
<td>325</td>
<td>150</td>
<td>200</td>
<td>205</td>
</tr>
<tr>
<td>AGF5-25R1</td>
<td>m5</td>
<td>25</td>
<td>0°</td>
<td>H8</td>
<td>230</td>
<td>370</td>
<td>380</td>
<td>385</td>
<td>150</td>
<td>200</td>
<td>205</td>
</tr>
</tbody>
</table>

1. The allowable torques shown in the table are the calculated values according to the assumed usage conditions. Please see Page 358 for more details.
2. There may be space in the casting between the two materials, but it will not affect the joint strength.
3. For H0-shaped products with a bore size of 190 or more, the bore tolerance is H8.

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**Notes**

- Please see "Caution on Performing Secondary Operations" (Page 362) when performing modifications and/or secondary operations for safety concerns. KHK Quick-Mod Gears, the KHK’s system for quick modification of KHK stock gears is also available.
- Due to the gear teeth being induction hardened, no secondary operations can be performed on tooth areas including the bottom land (approx. 2 to 3 mm). Use carbide tools for the modification of the shaft area near the bottom land.

---

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