Weco® 3” 1505 Wing Union

Fifteen times stronger in fatigue applications
TechnipFMC Weco® 3” 1505

Wing Unions or Hammer Unions, are pipe and fitting connectors that have been in use since the early 1930s. The primary components are a male sub with a spherical contact surface, a female sub with external ACME threads, and a wing nut with internal ACME threads to hold the components together.

TechnipFMC’s Weco® 3” 1505 Wing Union has several improvements over the Weco® 3” 1502 Wing Union that address fatigue and extend life significantly in critical applications.

Quality
TechnipFMC products are easy to service with minimal downtime allowing you to maximize your investment.

Superior performance and service are what you can expect from the original Weco®. Don’t settle for a copycat solution

Quality control during every phase of production ensures TechnipFMC’s products meet the stringent demands of our customers. All products are manufactured in accordance with ISO-9001:2000 standards.

Benefits
- A new thread start marker on the nut eliminates cross-threading and reduces make up time
- New component markings include TechnipFMC’s figure number, size, pressure rating and traceability for positive identification in the field.
- Improved fatigue life.
- Eliminates conventional retainer segments that limit durability.
- Use of proven TSi style seals with anti-extrusion ring in an improved configuration.
- Fully compatible with TechnipFMC’s Weco® 3” 1502 iron.

Weco 1505 - Compatibility with Weco 1502

![3” 1502 Male Sub](image1)
![3” 1505 Male Sub](image2)
![3” 1502 Female Sub Standard](image3)
![3” 1505 Female Sub 1.5x stronger](image4)

3” 1502 Female Sub 1.5x stronger
3” 1505 Female Sub 7x stronger
3” 1505 Female Sub 15x stronger

Weco 3” 1505 Wing Union
Weco® 3” 1505 Wing Union

Feature overview
- Wholly compatible with TechnipFMC’s Weco® 3” 1502 iron.
- Improvements address fatigue and extend life significantly in critical applications.
- Weco® 3” 1505 proven to outlast current wing union technology in fatigue applications over 15 times as compared to current wing unions.
- Positive seal retention in female sub to simplify make-up and minimize errors.

Weco® 3” 1505 connections
- Check Valves
- Plug Valves
- Swivel Joints
- Integral Pup Joints
- Integral adapters and fittings

Configuration
- Services - Standard
- Seal options: Nitrile and other seal materials (consult factory)
- OD: 3” Fig 1505 - 3.75”
- ID: 3” Fig 1505 - 2.75”

Design rating
- Figure 1505, 3”
- 15,000 psi CWP
**Interconnectable:** Weco® 3” 1505 is fully compatible with Weco® 3” 1502 iron.

**Improved male sub-to-female sub contact surface:** 3” 1505 has larger face-to-face contact diameter than the 3” 1502, which has a spherical surface-to-chamfer line contact. Larger contact diameter of the 3” 1505 improves bending capacity.

<table>
<thead>
<tr>
<th></th>
<th>Nut</th>
<th>Male sub</th>
<th>Female sub</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Part</td>
<td>Weight</td>
<td>Part</td>
</tr>
<tr>
<td><strong>3” 1505</strong></td>
<td>18.5 lb.</td>
<td>7.6 lb.</td>
<td>8.6 lb.</td>
</tr>
<tr>
<td><strong>3” 1502</strong></td>
<td>13.3 lb.</td>
<td>3.84 lb.</td>
<td>8.2 lb.</td>
</tr>
</tbody>
</table>

The Weco® 3” 1505 Wing Union is a ruggedized option for pumpers who experience fatigue cracking.

NPST male and female sub ends were used for comparison.
Load segments

- The Weco® 3"1505 port plug on the nut has positive retention groove to keep it securely in place.
- 3" 1505 load segments are axially symmetric, so that they can be loaded into loading port in nut either direction.

Do not suspend loads on service lines using wing union connections. Externally applied bending or tensile loads are additive to the loads already induced by internal pressure. Externally applied loads can result in an over-stress condition resulting in catastrophic failure. If external loads are a consideration, consult TechnipFMC for limitations.

TechnipFMC cannot anticipate all of the situations a user may encounter while installing and using these products. Therefore, the user must know and follow all applicable specifications on their safe installation and use. For additional safety information, refer to the TechnipFMC website at www.technipfmc.com or contact TechnipFMC at 800-772-8582.

Use of non-TechnipFMC manufactured parts in combination with TechnipFMC products may result in death, personal injury or property damage. The use of non-TechnipFMC parts voids all design, type, case, test and quality approvals by third-party certifying authorities and may void product warranty.

Never assemble wing union components together in which the manufacturer, service and pressure rating is not positively identified. Improper assembly can result in connections failing under pressure, which can lead to death, serious personal injury and severe property damage.
**Weco® 3” 1505 nut**

- 3”1505 nut provides the same traceability as all TechnipFMC Weco® products.
- Lugs centered to improve fatigue characteristics.
- 3” 1505 sub ends are not marked, but the size will allow it to stand apart from 3” 1502 sub ends.

**Female sub**

- No partial threads on female sub end.
- The 1505 has 4 full threads of engagement compared with 3 full threads of engagement on the 3” 1502.
- Full threaded start on 3” 1505 female sub end and lead in feature on the nut allows for easy thread starts.

**Seal**

- The Weco® 3” 1505 seal features an anti-extrusion ring.
- The 3” 1505 seal uses a barb retention, as compared to the internal groove on the 3” 1502 female seal pocket.