1: Our screw and barrel material is high quality alloy steel 38CrMoAlA. This material is made in China from SHANGHAI BAOSTEEL COMPANY!

Backig material (38CrMoALAl) Chemical composition (weight%) and Main Feature

<table>
<thead>
<tr>
<th>C</th>
<th>Si</th>
<th>Mn</th>
<th>S</th>
<th>P</th>
<th>Cr</th>
<th>Al</th>
<th>Ni</th>
<th>Cu</th>
<th>Mo</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.35~0.42</td>
<td>0.20~0.45</td>
<td>0.30~0.60</td>
<td>≤0.035</td>
<td>≤0.035</td>
<td>1.35~1.65</td>
<td>0.70~1.10</td>
<td>≤0.030</td>
<td>≤0.030</td>
<td>0.15~0.25</td>
</tr>
</tbody>
</table>

2: Layer of bimetallic;

**Bimetallic screw production method:**
The PTA powder plasma welding applies the positive and negative electrodes of arc welding, allowing the welding path to be completely welded with the base material. The minimum possibility of the welding path becoming less rigid fully prevents the welding layer from peeling off—thereby effectively upgrading the life time of the screws.

PTA is a Nickel-based alloy. Its chemical composition includes Ni, WC, Co, Fe, Si, B, Cr and C

**Bimetallic barrel production method:** Centrifugal Casting

Usually our Bimetallic alloy material is Nickel-based Alloy (Wc30%、Co15%).
Its chemical composition includes Ni-We-Co-Fe-Cu-B+Cr,Mo,V. Hardness is HRC60-67, extra wear-resistance and corrosion-resistance!

The depth of bimetallic layer: more than 2.5-3mm
The hardness of bimetallic layer: HRC58-65
The length of bimetallic barrel is more than 300mm

Other technical information:
- **Heat Treatment**
- High Frequency Treatment
- Nitriding treatment (more than 120 Hours)
- Depth of Nitrided Layer: 0.5-0.8 mm
- Hardness of Nitrided Layer: 900-1020Hv (HRC56°-65°)
- Hard Chrome Plating treatment:
  - Thickness of Hard Chrome Plating Layer: 0.05-0.10mm
  - Hardness of Hard Chrome Plating Layer: >950HV
- Roughness of the surface: Ra0.4um
- Linearity of the screw: ≤0.015mm
- Linear axis limit: ≤0.02mm
- Hardness after Hardening & Tempering: HB240-280
- Fragility of Nitration: ≤Two class
Our screw and barrel production:


3: Packaging: oil, film wrapped in wooden case without fumigation