



## Full Laser Parts in Nd:YAG Lasers

For lamp-pumped Nd:YAG lasers and diode-pumped Nd:YAG lasers

Based on our years experience on lasers, we can provide the OEM laser makers with all laser parts in the diode- or lamp-pumped Nd:YAG laser parts. We also supply you with all mechanical parts in the laser heads. The laser base, carrier and cover are made of aluminum via injection mold. They are precise, reliable and repeatable.

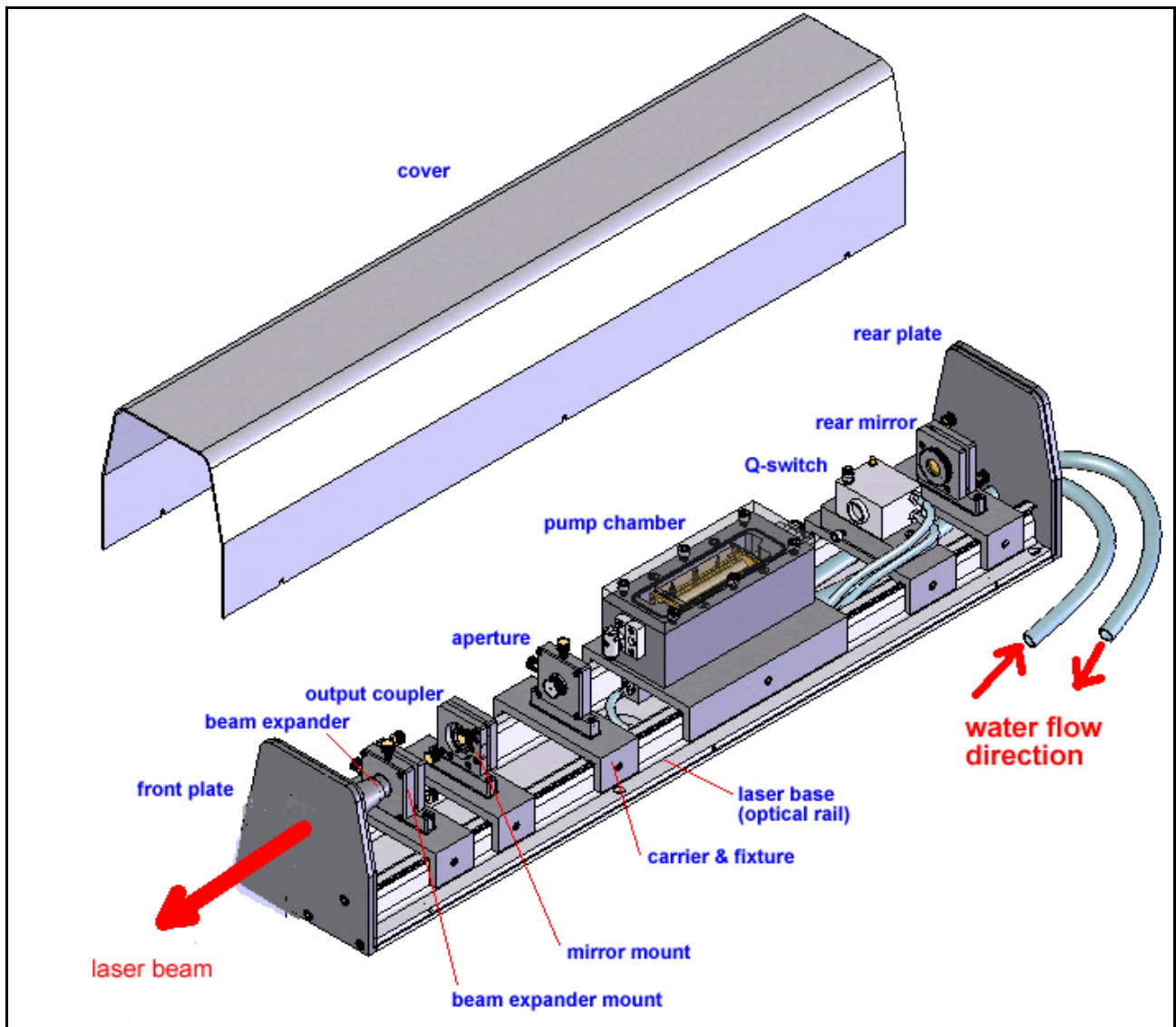
### 1. Full Parts for Lamp-pumped Nd:YAG Lasers

Including laser head, CW or pulsed lamp driver (power supply), chiller and Q-switch driver.

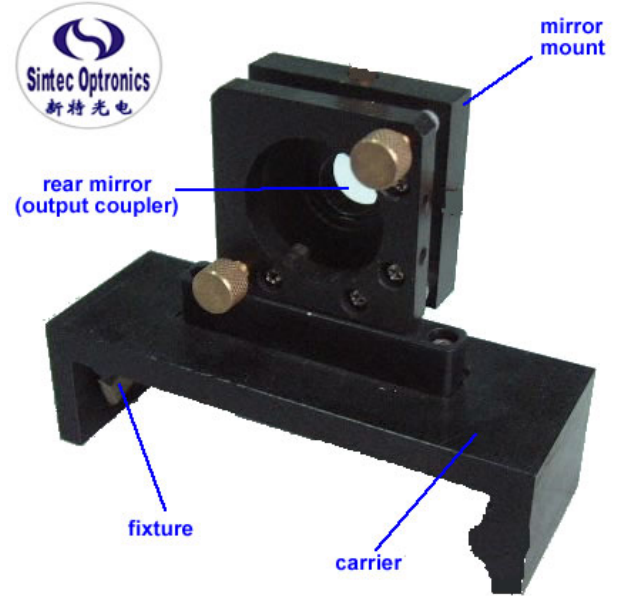
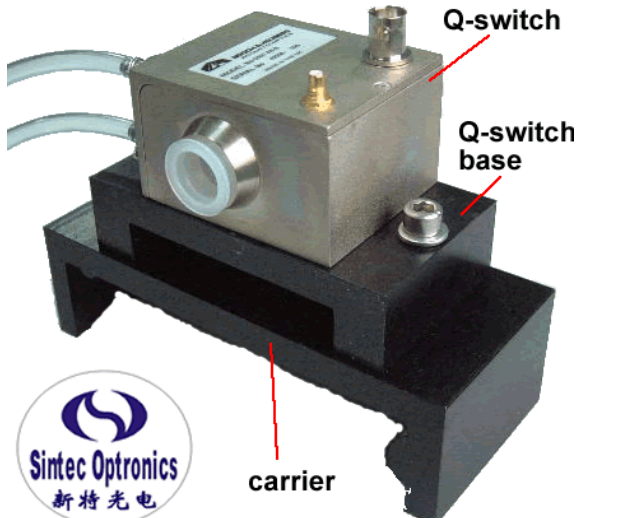
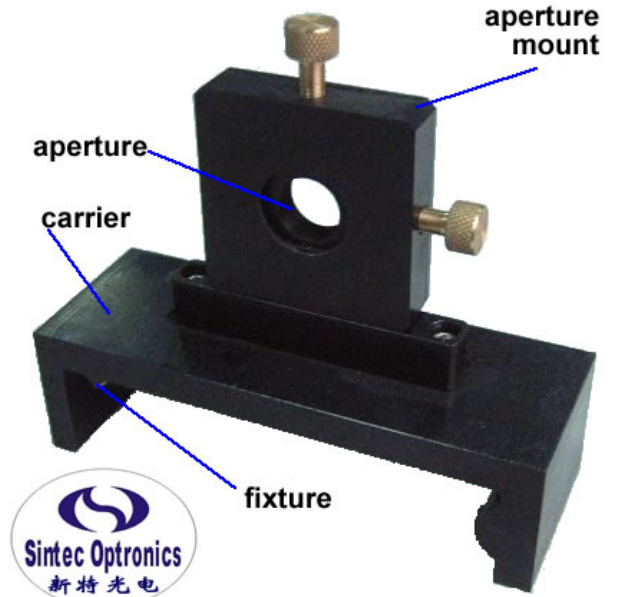


#### (1) Laser Head

Including pump chamber including YAG rod and lamp, resonator optics including output coupler and reflective mirror (or called rear mirror), Q-switch, aperture, beam expander and mechanical parts including laser base (or called optical rail), carrier, cover, vertical front plate and vertical rear plate.



<p>The detailed view of the pump chamber module includes the following labels:</p> <ul style="list-style-type: none"> <li>Sintec Optronics logo</li> <li>lamp</li> <li>YAG rod</li> <li>pump chamber</li> <li>carrier</li> <li>fixture</li> </ul>	<p><b>Pump chamber module</b></p> <ul style="list-style-type: none"> <li>● pump chamber (gold-coated reflector or ceramic reflector)</li> <li>● laser lamp (Kr or Xe)</li> <li>● YAG rod</li> <li>● carrier &amp; fixture</li> </ul>
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 <p>The diagram shows a black metal assembly consisting of a base fixture, a central carrier, and a vertical mirror mount. A rear mirror (output coupler) is mounted on the carrier. Labels with blue lines point to the 'mirror mount', 'rear mirror (output coupler)', 'fixture', and 'carrier'. The Sintec Optronics logo is in the top left corner.</p>	<p><b>Resonator modules</b> including output mirror module and rear mirror module</p> <ul style="list-style-type: none"> <li>● output coupler (or rear mirror)</li> <li>● mirror mount</li> <li>● carrier &amp; fixture</li> </ul> <p>Remark: prepared for default mirror dimension of D20x5mm. Other available upon request.</p>
 <p>The diagram shows a silver metal Q-switch mounted on a black carrier, which is placed on a base fixture. Labels with red lines point to the 'Q-switch', 'Q-switch base', and 'carrier'. The Sintec Optronics logo is in the bottom left corner.</p>	<p><b>Q-switch module</b></p> <ul style="list-style-type: none"> <li>● Q-switch</li> <li>● Q-switch base</li> <li>● Carrier &amp; fixture</li> </ul>
 <p>The diagram shows a black metal assembly with a central carrier holding an aperture, mounted on a base fixture. An aperture mount is visible on top of the carrier. Labels with blue lines point to the 'aperture mount', 'aperture', 'carrier', and 'fixture'. The Sintec Optronics logo is in the bottom left corner.</p>	<p><b>Aperture module</b></p> <ul style="list-style-type: none"> <li>● Aperture</li> <li>● aperture mount</li> <li>● carrier &amp; fixture</li> </ul> <p>Remark: default aperture diameter is 1.5mm. Others available upon request.</p>

<p>beam expander</p> <p>beam expander mount</p> <p>carrier</p> <p>fixture</p> <p>Sintec Optronics 新特光电</p>	<p><b>Beam expander module</b></p> <ul style="list-style-type: none"> <li>● Beam expander</li> <li>● beam expander mount</li> <li>● carrier &amp; fixture</li> </ul>
<p>carrier</p> <p>carrier fixture</p>	<p><b>Mechanical parts</b></p> <ul style="list-style-type: none"> <li>● carrier &amp; fixture</li> </ul>
<p>cover</p> <p>Sintec Optronics 新特光电</p>	<p><b>Mechanical parts</b></p> <ul style="list-style-type: none"> <li>● cover</li> </ul> <p>Remark: default cover length is 902mm.</p>
	<p><b>Mechanical parts</b></p> <ul style="list-style-type: none"> <li>● laser base</li> <li>● vertical front plate</li> <li>● vertical rear plate</li> </ul> <p>Remark: default base length is 892mm.</p>

**(2) lamp driver**

CW or pulsed lamp drivers (power supply), dual-lamp drivers



CW lamp driver



Pulsed lamp driver

**(3) Q-switch driver**



19" panel QSD series drivers



R390 series drivers

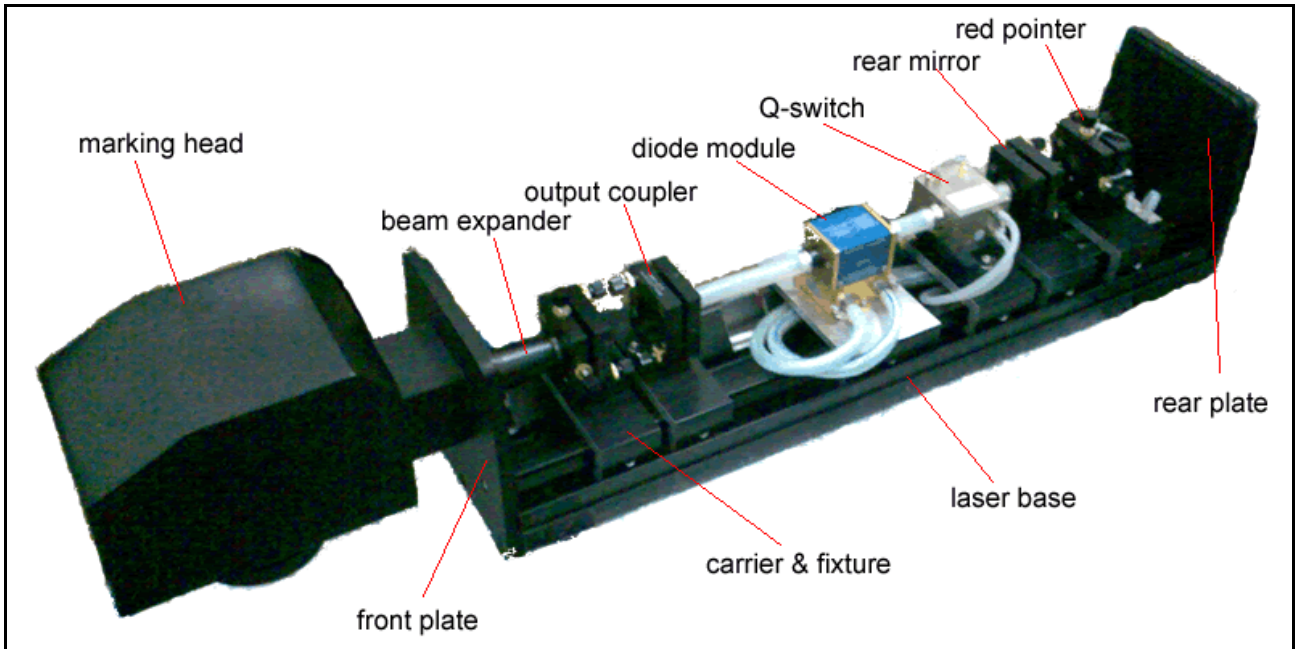
**2. Full Parts for Diode-pumped Nd:YAG Lasers**

Including laser head (diode pump module, laser resonator, Q-switch cell), Q-switch driver, diode driver and chiller.

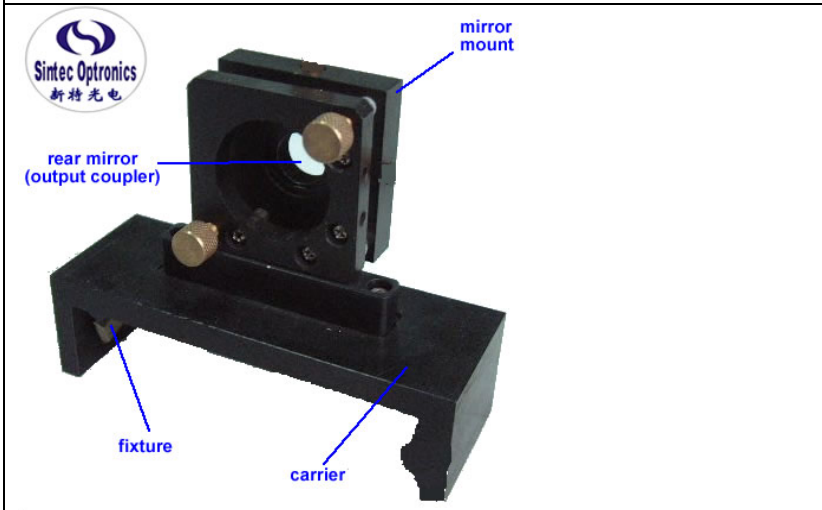


**(1) Laser Head**

A laser head consists of laser base, diode pump module, output coupler and rear mirror, front plate, rear plate, and cover. Options include aperture, AO Q-switch cell, red pointer and beam expander.

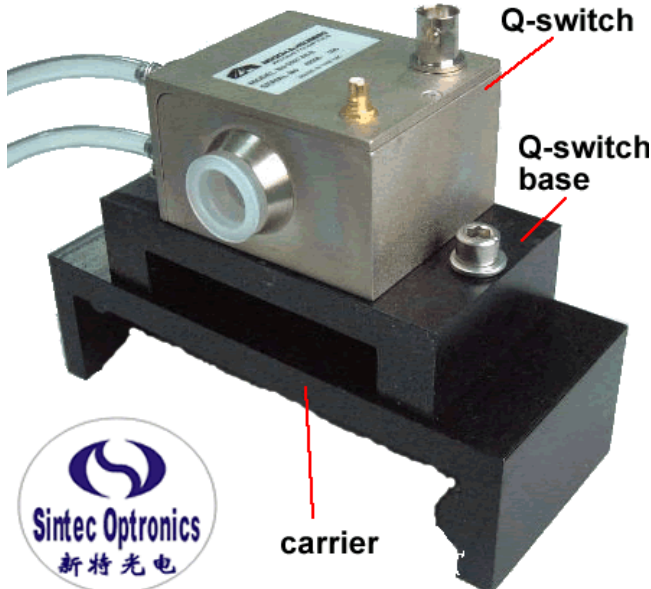
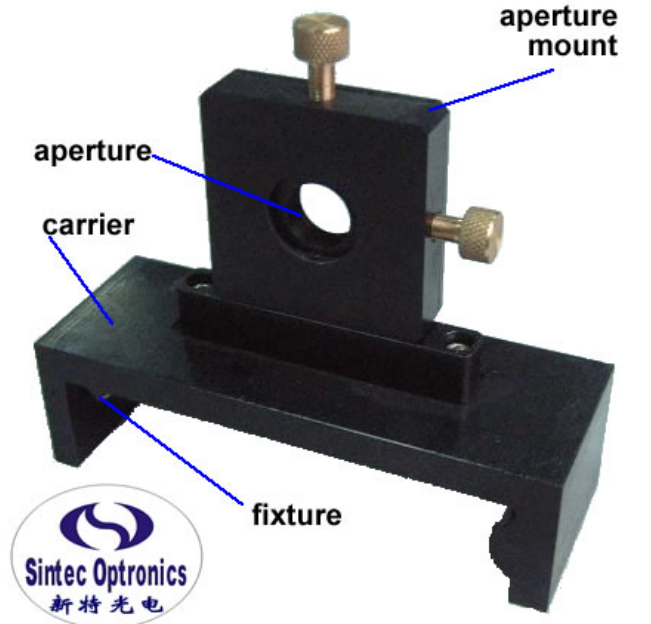
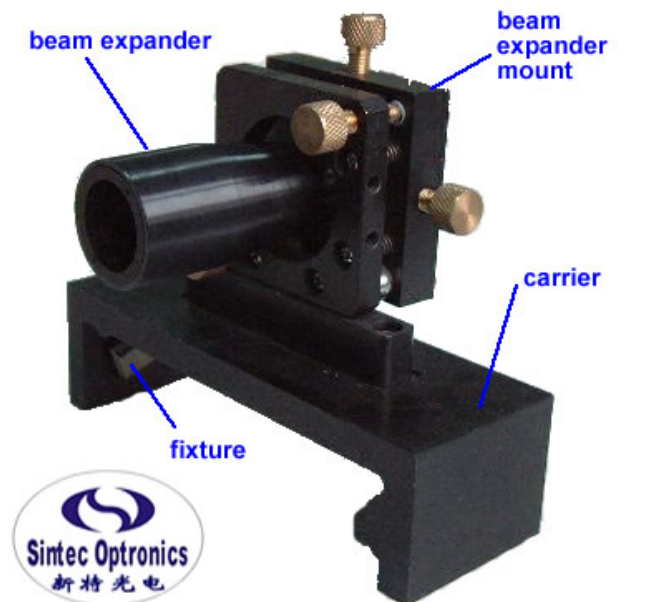


- Diode pump module**
- diode module including YAG rod
  - carrier & fixture



- Resonator modules**  
including output mirror module and rear mirror module
- output coupler (or rear mirror)
  - mirror mount
  - carrier & fixture

Remark: prepared for default mirror dimension of D20x5mm. Other available upon request.

 <p>The image shows a Q-switch module assembly. It consists of a silver metal Q-switch mounted on a black Q-switch base, which is further mounted on a black carrier. Two blue cables are connected to the side of the Q-switch. Red lines point to the Q-switch, Q-switch base, and carrier. The Sintec Optronics logo is in the bottom left corner.</p>	<p><b>Q-switch module</b></p> <ul style="list-style-type: none"> <li>● Q-switch</li> <li>● Q-switch base</li> <li>● Carrier &amp; fixture</li> </ul>
 <p>The image shows an aperture module assembly. It features a white circular aperture mounted on a black aperture mount, which is secured to a black carrier by two brass screws. The carrier is mounted on a black fixture. Blue lines point to the aperture, aperture mount, carrier, and fixture. The Sintec Optronics logo is in the bottom left corner.</p>	<p><b>Aperture module</b></p> <ul style="list-style-type: none"> <li>● Aperture</li> <li>● aperture mount,</li> <li>● carrier &amp; fixture.</li> </ul> <p>Remark: default aperture diameter is 1.5mm.</p>
 <p>The image shows a beam expander module assembly. It includes a black beam expander mounted on a black beam expander mount, which is secured to a black carrier by two brass screws. The carrier is mounted on a black fixture. Blue lines point to the beam expander, beam expander mount, carrier, and fixture. The Sintec Optronics logo is in the bottom left corner.</p>	<p><b>Beam expander module</b></p> <ul style="list-style-type: none"> <li>● Beam expander</li> <li>● beam expander mount</li> <li>● carrier &amp; fixture.</li> </ul>

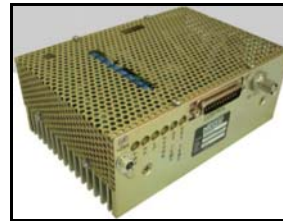
		<p><b>Red pointer module</b></p> <ul style="list-style-type: none"> <li>● red diode laser &amp; diode holder</li> <li>● beam expander mount</li> <li>● carrier &amp; fixture.</li> </ul>
		<p><b>Mechanical parts</b></p> <ul style="list-style-type: none"> <li>● carrier &amp; fixture</li> </ul>
		<p><b>Mechanical parts</b></p> <ul style="list-style-type: none"> <li>● cover</li> </ul> <p>Remark: default cover length is 682mm.</p>
		<p><b>Mechanical parts</b></p> <ul style="list-style-type: none"> <li>● laser base</li> <li>● front plate</li> <li>● rear plate</li> </ul> <p>Remark: default base length is 672mm.</p>



**(2) Q-switch Driver**



19" panel QSD series drivers



N390 series drivers

**(3) Diode Driver**



The panel is standard 19 inch.

**(4) Control Cabinet**

Used to mount key board, Q-switch driver, computer, lamp driver (or diode driver) and electrical controller. The electrical controller is used in YAG laser markers.

