**HTS Series**

**Max. Power**

150,000 min⁻¹ (0.5 MPa)

**Max. Power**

25W

High Speed 150,000 min⁻¹
Suitable for Small Diameter Milling

Air Turbine mechanism has extremely low heat generation.

Negligible spindle expansion

- Air Turbine mechanism has extremely low heat generation.
- Up to cutting tool R x 0.1 depth of cut is possible.

Highly stable milling conditions are possible even with very small diameter cutting tools

- Usable max. cutting tool diameter: Ball End Mill R0.5mm, Square End Mill ø1mm

Spindle Runout: Within 1 μm

Collet: Max. ø4.0mm

Dramatically shorten mold cavity machining time

**Caution**

- Do not rotate the machining center's main spindle with the HTS1501 spindle installed.

Clean, lubricated, and regulated air is required for HTS Series spindles. Please refer to the diagram to the right for proper connections. AL-M1202 incorporates a filter, regulator and lubricator to provide the appropriate air.
Do not rotate the machining center's main spindle with the HTS1501 spindle installed.

**HTS SERIES** TURBINE SPINDLE

UPGRADE MACHINING CENTERS TO HIGH SPEED MACHINES SOLUTION

* Please mention "Code Number" upon your order.
The AL-M1202 provides simple, automatic conditioning of the air supplied to NAKANISHI air motors. The filter removes water and impure substances from the input air supply. The regulator maintains proper air pressure and the lubricator ensures proper oil flow to the motor and spindle. This Air Line Kit is wall mountable.

**Standard Equipment and Accessories:**
- Connection Hose (K-275) : 2m
- Lubricating Oil (K-211) : 1pc.

**Parts**

<table>
<thead>
<tr>
<th>Inside Diameter : ød</th>
<th>Model</th>
<th>Code No.</th>
</tr>
</thead>
</table>
| ø0.5~ø0.9           | CHA-3.175A* | 91496  
| ø0.5, ø0.6, ø0.7, ø0.8, ø0.9 | CHA-3.175AA | 91495  
| ø1.0, ø1.1, ø1.2, ø1.3, ø1.4, ø1.7, ø1.8, ø1.9 | CHA-3.175A | 91494  
| ø3.0                | CHA-3.0  | 91430  
| ø3.0AA*             | CHA-3.0AA | 91429  
| ø4.0                | CHA-4.0  | 91440  
| ø4.0AA*             | CHA-4.0AA | 91435  
| ø6.0                | CHA-6.0  | 91445  
| ø10.0               | CHA-10.0 | 91450  

**Collet Nut for Collet (CHA)**

<table>
<thead>
<tr>
<th>Inside Diameter : ød</th>
<th>Model</th>
<th>Code No.</th>
</tr>
</thead>
</table>
| ø3.0AA               | CHA-3.0AA | 91495  
| ø3.175AA             | CHA-3.175AA | 91496  

**Hose ø6 mm (O.D.)**

<table>
<thead>
<tr>
<th>Inside Diameter : ød</th>
<th>Model</th>
<th>Code No.</th>
</tr>
</thead>
</table>
| ø1.0                 | K-247 | 2056  
| ø1.0~ø4.0            | K-211 | 1057  

**Lubricating Oil (70cc)**

<table>
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<tr>
<th>Inside Diameter : ød</th>
<th>Model</th>
<th>Code No.</th>
</tr>
</thead>
</table>
| ø1.0~ø4.0            | K-202 | 1058  

Note: For right hand (cw) rotation only.

- Please mention “Code Number” upon your order.