The endoscope HTO 20 is rather aimed for inspections of small high temperature furnaces. Its small diameter, its lightness and the fact that it is extremely handy allow it to use it as a portable endoscope; however it can be used as a stationary endoscope.

The endoscope HTO 20 provides a high quality of images with its objective lenses transmission, it can also be equipped with a fiber optic lighting system. The observation of the furnace is possible to the naked eyed but a video or a camera can be adapted to record the images. The endoscope HTO 20 is very convenient to use and is available in different lengths, axial views and fields of views and thanks to its cooling jacket, matches the furnaces whose temperature can reach up to 1400°C.

The direction of vision is the axis the endoscope looks towards. It can be axial or lateral. You have to choose your direction of vision in the table below:

- 0°
- 45°
- 90°
- 110°

Once your direction of vision is chosen, choose your field of view.

Field of view: angle representing the surface of the monitored area. Bigger is the angle, more panoramic is the vision.
HTO-20 | Portable endoscope

This endoscope can be used to the naked eyed or with the accessories below.

**ACCESSORIES**

The adapters allow the use of a camera or a video on the endoscope.

- **C-Mount for the video**
- **T2-Mount for the camera**

**Monitoring system** of the fluids which triggers the alarm in case of dysfunction.

**Safety station**: portable equipment

### Available equipments

<table>
<thead>
<tr>
<th>Length</th>
<th>Direction of vision (Dov) / Field of view (Fov)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>V 0°/ Ch 40°</td>
</tr>
<tr>
<td>L 325 mm</td>
<td>320N111</td>
</tr>
<tr>
<td>L 336 mm</td>
<td>X</td>
</tr>
<tr>
<td>L 525 mm</td>
<td>320N112</td>
</tr>
<tr>
<td>L 536 mm</td>
<td>X</td>
</tr>
<tr>
<td>L 725 mm</td>
<td>320N113</td>
</tr>
<tr>
<td>L 925 mm</td>
<td>320N116</td>
</tr>
</tbody>
</table>

### Technologies

<table>
<thead>
<tr>
<th></th>
<th>Image transmission</th>
<th>Optical</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooling system</td>
<td>Water</td>
<td>Triple jacket</td>
</tr>
<tr>
<td>Using temperature</td>
<td>Diameter</td>
<td>From 20°C to 1 400°C</td>
</tr>
<tr>
<td></td>
<td>Length</td>
<td>325 mm to 925 mm</td>
</tr>
<tr>
<td></td>
<td>Weight</td>
<td>Less than 2 kg</td>
</tr>
</tbody>
</table>

### Cooling system

- Water: Loop system
- Air: Lost

### Type of Vision

- Naked eye
- Eyepiece

### Direction of Vision

- Axial: 0°
- Lateral: 45° - 90°

### Field of View

- for axial DoV: 40° or 100° in option
- for 45° DoV: 55°
- for 90° DoV: 65°

### Focus

- Focusing ring: 10 cm to infinity

### Illumination

- By optical fibers

### Connections

| Inlet/Outlet | Water: BSP 1/2” | Air: BSP 3/8” |

### Accessories

- Video adapter: C/CS mount
- Camera adapter: T2 ring for DLSR
- Filters: Available on demand
- Lighting generator: Halogen or metal halide
- Optical cable: 1 800 mm
- Control and security: Safety station
- Extraction bench