Powerful Torque up to 900Nm
High Performance

The Hydro-Power is designed for the highest rigidity. It is suitable for various milling work with the powerful gripping force.

Experience the best performance at a reasonable price!

*3Dx3 micron run-out accuracy for optimal work

*Perfect price / Performance ratio

*G2.5 at 25,000rpm high balance, positive influence to tools and machine spindles

*Cost effective because no expensive heating device is required

*For universal use in milling, reaming, boring, and thread milling

*Increased service tool life up to 40% lead to cost savings

*Easy, handy setting of tool and change
HSK Taper Hydraulic Toolholder

It is designed for rotating applications. All GRIP HSK Taper hydraulic toolholders are suitable for high-speed applications where consistent performance is key.

Features and Benefits

Run-out system TIR ≤3 μm
Hydraulic system consists of hydro-line. All components together ensure best run-out and accuracy.

Balancing
100% balanced to G2.5 at 25,000 rpm.

Surface finish max. Ra 0.25
Achieve high clamping force and high transferable torque.

Vibration damping
Hydraulic toolholders offer a good vibration damping to sustain a high surface finish and can prevent cutting force alterations.

Matched tooling system for best fit
For highest precision and best result the entire machining system counts. Therefore our components are carefully matched for optimum fit and accuracy. This guarantees the best run-out and balance.

ID chip hole (only HSK form A)
In accordance with DIN 69873 for 10 mm diameter. Available on request.

Advises
For all HSK-A and HSK-E form hydraulic toolholders a range of coolant tubes (CT) is available. For CT part numbers please refer to page 100.

HSK Form and Their Key Characteristics

- **HSK Form A**
  - Standard type for machining centers and milling machines.
  - For automatic tool change.
  - Coolant supply through center via coolant tube.
  - Drive keys at the end of HSK taper.
  - Hole for data carrier DIN STD 69873 in the flange is available on request.

- **HSK Form B**
  - For machining centers, milling and turning machines.
  - With enlarged flange size for higher radial rigidity.
  - For automatic tool change.
  - Coolant supply through the flange.
  - Drive keys at the flange.

- **HSK Form C**
  - For transfer lines, special machines and modular tooling system.
  - For manual tool change.
  - Drive keys at the end of HSK taper.

- **HSK Form D**
  - For special machines.
  - With enlarged flange size for higher radial rigidity.
  - For automatic tool change.
  - Coolant supply through the flange.
  - Drive keys at the flange.

- **HSK Form E**
  - For high-speed applications.
  - For automatic tool change.
  - Coolant supply through center via coolant tube.
  - Without any drive keys for absolute symmetry.

- **HSK Form F**
  - For high-speed applications.
  - For automatic tool change.
  - With enlarged flange size for higher radial rigidity.
  - Without any drive keys for absolute symmetry.
<table>
<thead>
<tr>
<th>Type</th>
<th>Dimensions[mm]</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>D1  D2  D3  D4  L1  L2  L3  L4  L5  L6  G</td>
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<td>12   42  52.5 33.5 80  47  10  34  4  33.5  M6</td>
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<tr>
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**Availability:**
- Stock
- Short lead time
- On request

- Tool shank quality H6
- Bore for data carrier as an option (page 101)
- T-wrench is ordered separately (page 102)
- Hydro-sleeve is ordered separately (page 94-97)
- Center through coolant system
- Additional sizes and special designs available on request
JIS-BT Taper Hydraulic Toolholder

It is universally suitable for various types of machining application. The BT taper hydraulic toolholders cater to different machining needs.

MAS 403/ JIS B 6339/ DIN ISO 7388-2

Features and Benefits

Run-out system TIR ≤3 μm
Our hydraulic system consists of hydro-line. All components together ensure best run-out and accuracy.

Balancing
100% balanced to G2.5 at 25,000 rpm.

Surface finish max. Ra 0.25
Achieve high clamping force and high transferable torque.

Vibration damping
Hydraulic toolholders offer a good vibration damping to sustain a high surface finish and can prevent cutting force alterations.

Taper accuracy AT1
Better spindle-to-holder fit and accuracy.

Applications
These hydraulic toolholders are designed for CNC-machining centers with an automatic tool changer. They are universally suitable for different machining applications. Their vibration dampening reduces spindle wear and extends tool life.

Balancing
Grip hydro-lines are balanced to G2.5 at 25,000 rpm

Cooling Options
All size hydraulic toolholders are for an internal coolant supply.

Matched Tooling System for Best Fit
For highest precision and best result, the entire machining system counts. Therefore our components are carefully matched for optimum fit and accuracy. This guarantees the best run-out and balance.
### JIS-BT Hydro-Power

#### Dimensions [mm]

<table>
<thead>
<tr>
<th>Type</th>
<th>Type</th>
<th>D1</th>
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</table>

**Availability:**
- ● stock
- ▲ short lead time
- ○ on request

- Tool shank quality h6
- T-wrench is ordered separately (page 101)
- Hydro-sleeve is ordered separately (page 94~97)
- Center through coolant system
- Additional sizes and special designs available on request

#### Additional Information:
- BT50
- BT50/GPO20/83.5
  - 20 52.5 - 44 83.5 52 10 - 4 38.5 M8
- BT50/GPO32/90
  - 32 72 - 61.5 90 65 10 - 4 48 M16

**Availability:**
- ● stock
- ▲ short lead time
- ○ on request

- Tool shank quality h6
- T-wrench is ordered separately (page 101)
- Hydro-sleeve is ordered separately (page 94~97)
- Center through coolant system
- Additional sizes and special designs available on request
SK Taper Hydraulic Toolholder

It is universally suitable for various machining applications.

Applications
These hydraulic toolholders are designed for CNC-machining centers with an automatic tool changer. They are universally suitable for different machining applications. Their vibration dampening reduces spindle wear and extends tool life.

Balancing
Grip hydro-lines are balanced to G2.5 at 25,000 rpm.

Cooling Options
All size hydraulic toolholders are for an internal coolant supply.

Matched Tooling System for Best Fit
For highest precision and best result, the entire machining system counts. Therefore our components are carefully matched for optimum fit and accuracy. This guarantees the best run-out and balance.
### SK Hydro-Power

#### Dimensions [mm]

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**Availability:**

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- **▲ short lead time**
- **○ on request**

- Tool shank quality h6
- Bore for data carrier as an option (page 101)
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