

GUHRING

MQL

BY GUHRING



GM300 | MQL-Program

EDITION 2012

GUHRING - YOUR WORLD-WIDE PARTNER

MQL

GUHRING MQL SYSTEMS

DELIVERING
ONLY THE
REQUIRED AMOUNT



As one of the pioneers of MQL technology we have an extensive knowledge of minimal quantity lubrication. Guhring standard MQL Chucks have been supplied a thousand fold throughout the world and are recognised by the automotive industry as ideal MQL solutions as either the one or two channel systems.

Higher cutting speeds and longer tool life are possible thanks to adapted cooling as well as highest surface qualities thanks to the pure lubricant. Workpieces and chips remain dry! Save the cost of de-greasing your workpieces as well as disposal of swarf and soluble oil.

1 MQL BY GÜHRING

Our products for the MQL 1-channel technology are identified by this symbol.

**Visual feature
of the 1-channel system**
is the gold coloured MQL
length setting screw.



2 MQL BY GÜHRING

Our products for the MQL 2-channel technology are identified by this symbol.

**Visual feature
of the 2-channel system**
is the black coloured MQL
length setting screw.



SQL 1-CHANNEL SYSTEM**from page 7**

| | |
|-------------------|----|
| Hydraulic chucks | 8 |
| Shrink fit chucks | 10 |
| Accessories | 14 |
| Synchro-chucks | 19 |

SQL-CHECK 3000**from page 47****MMS 2-CHANNEL SYSTEM****from page 20**

| | |
|-------------------|----|
| Hydraulic chucks | 21 |
| Shrink fit chucks | 24 |
| Accessories | 30 |
| Synchro-chucks | 35 |

TECHNICAL INFORMATION**from page 48****HSK CLAMPING TECHNOLOGY****from page 37**

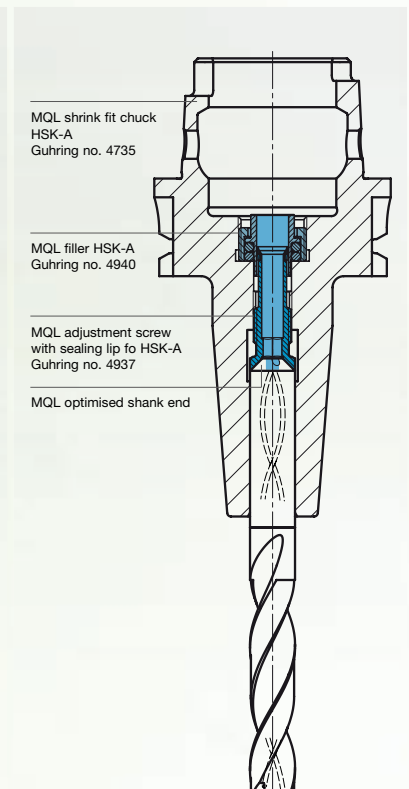
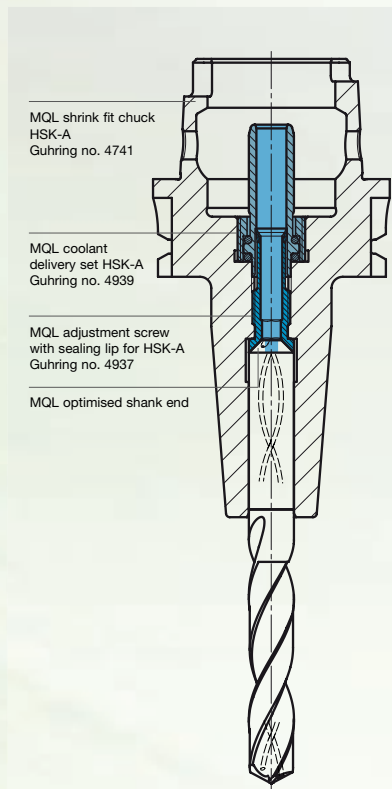
| | |
|--|----|
| GühroClamp SQL 4-point clamping sets | 43 |
| M-contour clamping sets for SQL and IC | 45 |

MQL SYSTEM FINDER

| | | | HSK-A for automatic tool change | HSK-A for manual tool change |
|--------------------------------------|-------------------|---|---------------------------------------|------------------------------------|
| 1 MQL BY GÜHRING | Hydraulic chucks |  | 4210, p. 9 | 4209, p. 8 |
| | Shrink fit chucks |  | 4741, p. 12 | 4735, p. 10 |
| | Synchro-chucks |  | 4330, p. 19 | 4298, p. 19 |
| 2 MQL BY GÜHRING | Hydraulic chucks |  | 4612, p. 22 | 4611, p. 21 |
| | Shrink fit chucks |  | 4614, p. 27 | 4613, p. 24 |
| | Synchro-chucks |  | 4341, p. 35 | 4298, p. 35 |


automatic tool change

manual tool change



MQL

TECHNOLOGY AND ADVANTAGES

- 
- ⇒ Cost reduction due to reduced cleaning
 - ⇒ Environment & health protection
 - ⇒ Less cooling lubrication requirement – high coolant effect
 - ⇒ Low process temperatures
 - ⇒ Lower working temperature at tool point
 - ⇒ Instant cooling lubricant delivery
 - ⇒ Direct response without losses
 - ⇒ High compatibility

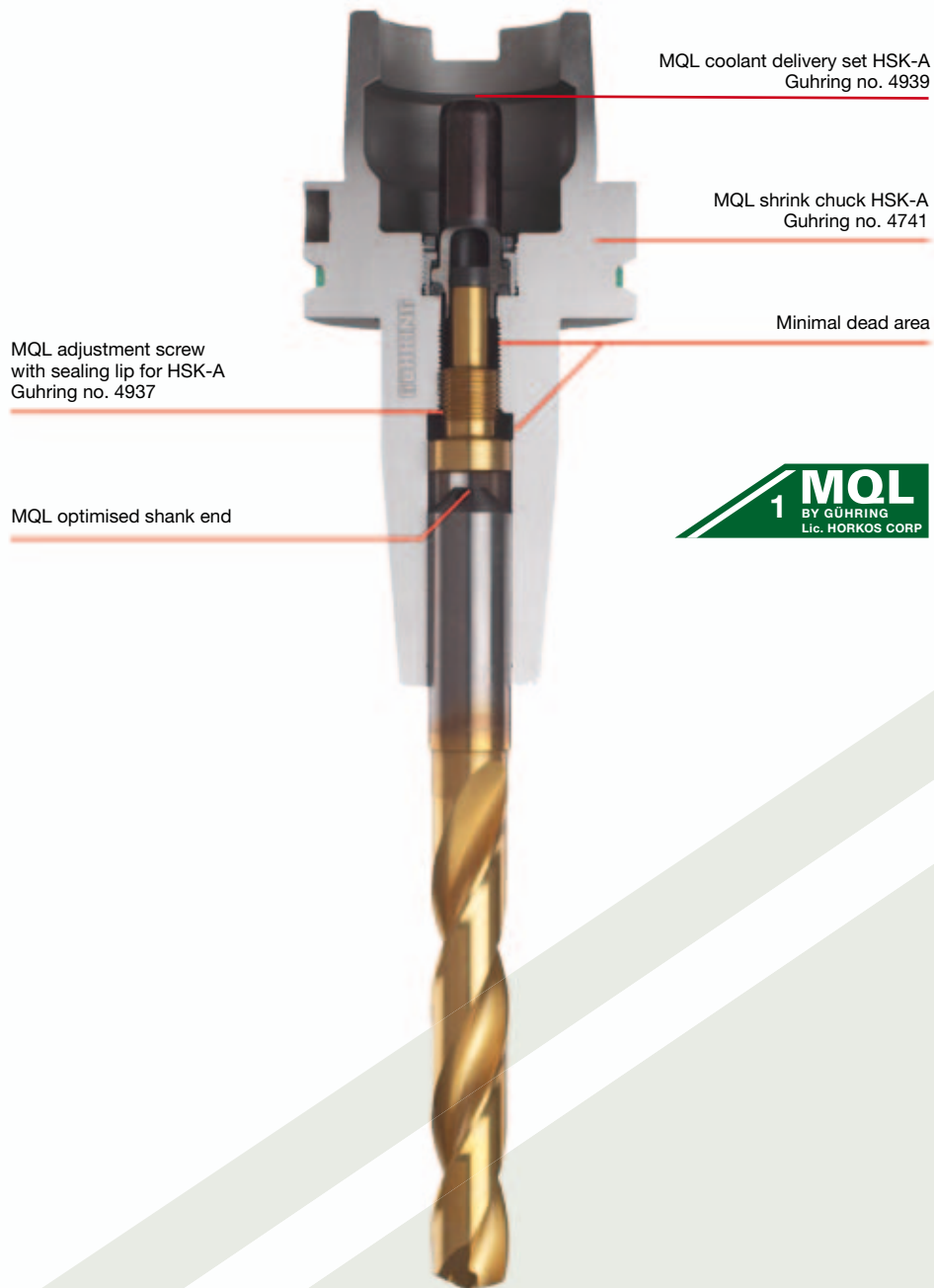
MQL

BY GÜHRING



Our products for the MQL 1-channel technology are identified by this symbol.

Visual feature of the 1-channel system is the gold coloured MQL length setting screw.

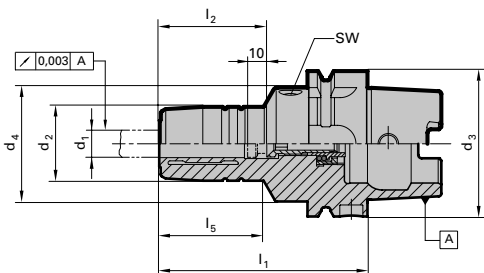


Product information

- to Guhring MQL standard
- for 1-channel-systems
- balancing quality: G6.3 / 15,000 rev./min
- for tool shank tolerance h6
- axial length setting

Scope of delivery

- incl. MQL adjustment screw with sealing lip Guhring no. 4937 and MQL coolant delivery set Guhring no. 4940 (filler)
- incl. hexagon chuck key Guhring no. 4912



| | |
|-----------------------|-------------|
| Guhring no. | 4209 |
| Discount group | 147 |

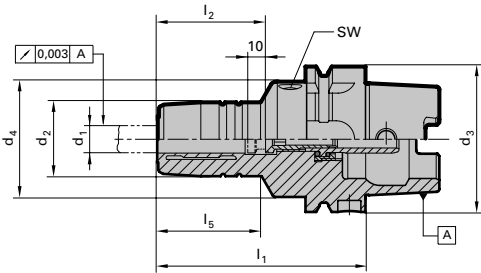
| HSK-A d ₃ | for shank Ø d ₁ h6 mm | d ₂ mm | d ₄ mm | l ₁ mm | l ₂ mm | l ₅ mm | incl. setting screw no. 4937 ... | SW | kg | Code no. | Availability |
|----------------------|----------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|----------------------------------|----|------|----------|--------------|
| 50 | 6 | 26 | 40 | 80 | 36 | 38.0 | 6,050 | 4 | 0.95 | 6,050 | ● |
| 50 | 8 | 28 | 40 | 80 | 36 | 38.0 | 8,050 | 4 | 0.95 | 8,050 | ● |
| 50 | 10 | 30 | 40 | 85 | 40 | 44.0 | 10,050 | 4 | 0.95 | 10,050 | ● |
| 50 | 12 | 32 | 40 | 90 | 45 | 49.0 | 12,050 | 4 | 0.95 | 12,050 | ● |
| 50 | 14 | 34 | 40 | 90 | 45 | 49.0 | 14,050 | 4 | 0.95 | 14,050 | ● |
| 50 | 16 | 38 | 53 | 95 | 48 | 36.0 | 16,050 | 5 | 1.25 | 16,050 | ● |
| 50 | 18 | 40 | 57 | 95 | 48 | 36.0 | 18,050 | 5 | 1.25 | 18,050 | ● |
| 50 | 20 | 42 | 60 | 100 | 50 | 39.0 | 20,050 | 5 | 1.25 | 20,050 | ● |
| 63 | 6 | 26 | 50 | 80 | 36 | 34.5 | 6,100 | 5 | 1.25 | 6,063 | ● |
| 63 | 8 | 28 | 50 | 80 | 36 | 35.5 | 8,100 | 5 | 1.25 | 8,063 | ● |
| 63 | 10 | 30 | 50 | 85 | 40 | 40.0 | 10,100 | 5 | 1.25 | 10,063 | ● |
| 63 | 12 | 32 | 50 | 90 | 45 | 45.0 | 12,100 | 5 | 1.35 | 12,063 | ● |
| 63 | 14 | 34 | 50 | 90 | 45 | 46.0 | 14,100 | 5 | 1.35 | 14,063 | ● |
| 63 | 16 | 38 | 50 | 95 | 48 | 51.0 | 16,100 | 5 | 1.45 | 16,063 | ● |
| 63 | 18 | 40 | 50 | 95 | 48 | 52.0 | 18,100 | 5 | 1.45 | 18,063 | ● |
| 63 | 20 | 42 | 50 | 100 | 50 | 58.0 | 20,100 | 5 | 1.45 | 20,063 | ● |
| 63 | 25 | 57 | 63 | 115 | 56 | 50.0 | 25,100 | 6 | 2.45 | 25,063 | ● |
| 63 | 32 | 64 | 75 | 120 | 60 | 58.0 | 32,100 | 6 | 3.10 | 32,063 | ● |
| 100 | 6 | 26 | 50 | 85 | 36 | 36.0 | 6,100 | 5 | 2.60 | 6,100 | ● |
| 100 | 8 | 28 | 50 | 85 | 36 | 36.0 | 8,100 | 5 | 2.60 | 8,100 | ● |
| 100 | 10 | 30 | 50 | 90 | 40 | 42.0 | 10,100 | 5 | 2.60 | 10,100 | ● |
| 100 | 12 | 32 | 50 | 95 | 45 | 47.0 | 12,100 | 5 | 2.65 | 12,100 | ● |
| 100 | 14 | 34 | 50 | 95 | 45 | 47.0 | 14,100 | 5 | 2.65 | 14,100 | ● |
| 100 | 16 | 38 | 50 | 100 | 48 | 53.0 | 16,100 | 5 | 2.85 | 16,100 | ● |
| 100 | 18 | 40 | 50 | 100 | 48 | 53.0 | 18,100 | 5 | 2.85 | 18,100 | ● |
| 100 | 20 | 42 | 50 | 105 | 50 | 59.0 | 20,100 | 5 | 3.35 | 20,100 | ● |
| 100 | 25 | 57 | 63 | 115 | 56 | 67.0 | 25,100 | 6 | 3.50 | 25,100 | ● |
| 100 | 32 | 64 | 75 | 120 | 60 | 72.0 | 32,100 | 6 | 3.95 | 32,100 | ● |

Product information

- to Guhring MQL standard
- for 1-channel-systems
- balancing quality: G6.3 / 15,000 rev./min
- for tool shank tolerance h6
- axial length setting

Scope of delivery

- incl. MQL adjustment screw with sealing lip Guhring no. 4937 and MQL coolant delivery set Guhring no. 4939
- incl. hexagon chuck key Guhring no. 4912



Guhring no. 4210

Discount group 147

| HSK-A d ₃ | for shank Ø d ₁ h6 mm | d ₂ mm | d ₄ mm | l ₁ mm | l ₂ mm | l ₅ mm | incl. setting screw no. 4937 ... | SW | kg | Code no. | Availability |
|----------------------|----------------------------------|-------------------|-------------------|-------------------|-------------------|-------------------|----------------------------------|----|------|----------|--------------|
| 50 | 6 | 26 | 40 | 80 | 36 | 38.0 | 6,050 | 4 | 0.95 | 6,050 | ● |
| 50 | 8 | 28 | 40 | 80 | 36 | 38.0 | 8,050 | 4 | 0.95 | 8,050 | ● |
| 50 | 10 | 30 | 40 | 85 | 40 | 44.0 | 10,050 | 4 | 0.95 | 10,050 | ● |
| 50 | 12 | 32 | 40 | 90 | 45 | 49.0 | 12,050 | 4 | 0.95 | 12,050 | ● |
| 50 | 14 | 34 | 40 | 90 | 45 | 49.0 | 14,050 | 4 | 0.95 | 14,050 | ● |
| 50 | 16 | 38 | 53 | 95 | 48 | 36.0 | 16,050 | 5 | 1.25 | 16,050 | ● |
| 50 | 18 | 40 | 57 | 95 | 48 | 36.0 | 18,050 | 5 | 1.25 | 18,050 | ● |
| 50 | 20 | 42 | 60 | 100 | 50 | 39.0 | 20,050 | 5 | 1.25 | 20,050 | ● |
| 63 | 6 | 26 | 50 | 80 | 36 | 34.5 | 6,100 | 5 | 1.25 | 6,063 | ● |
| 63 | 8 | 28 | 50 | 80 | 36 | 35.5 | 8,100 | 5 | 1.25 | 8,063 | ● |
| 63 | 10 | 30 | 50 | 85 | 40 | 40.0 | 10,100 | 5 | 1.25 | 10,063 | ● |
| 63 | 12 | 32 | 50 | 90 | 45 | 45.0 | 12,100 | 5 | 1.35 | 12,063 | ● |
| 63 | 14 | 34 | 50 | 90 | 45 | 46.0 | 14,100 | 5 | 1.35 | 14,063 | ● |
| 63 | 16 | 38 | 50 | 95 | 48 | 51.0 | 16,100 | 5 | 1.45 | 16,063 | ● |
| 63 | 18 | 40 | 50 | 95 | 48 | 52.0 | 18,100 | 5 | 1.45 | 18,063 | ● |
| 63 | 20 | 42 | 50 | 100 | 50 | 58.0 | 20,100 | 5 | 1.45 | 20,063 | ● |
| 63 | 25 | 57 | 63 | 115 | 56 | 50.0 | 25,100 | 6 | 2.45 | 25,063 | ● |
| 63 | 32 | 64 | 75 | 120 | 60 | 58.0 | 32,100 | 6 | 3.10 | 32,063 | ● |
| 100 | 6 | 26 | 50 | 85 | 36 | 36.0 | 6,100 | 5 | 2.60 | 6,100 | ● |
| 100 | 8 | 28 | 50 | 85 | 36 | 36.0 | 8,100 | 5 | 2.60 | 8,100 | ● |
| 100 | 10 | 30 | 50 | 90 | 40 | 42.0 | 10,100 | 5 | 2.60 | 10,100 | ● |
| 100 | 12 | 32 | 50 | 95 | 45 | 47.0 | 12,100 | 5 | 2.65 | 12,100 | ● |
| 100 | 14 | 34 | 50 | 95 | 45 | 47.0 | 14,100 | 5 | 2.65 | 14,100 | ● |
| 100 | 16 | 38 | 50 | 100 | 48 | 53.0 | 16,100 | 5 | 2.85 | 16,100 | ● |
| 100 | 18 | 40 | 50 | 100 | 48 | 53.0 | 18,100 | 5 | 2.85 | 18,100 | ● |
| 100 | 20 | 42 | 50 | 105 | 50 | 59.0 | 20,100 | 5 | 3.35 | 20,100 | ● |
| 100 | 25 | 57 | 63 | 115 | 56 | 67.0 | 25,100 | 6 | 3.50 | 25,100 | ● |
| 100 | 32 | 64 | 75 | 120 | 60 | 72.0 | 32,100 | 6 | 3.95 | 32,100 | ● |

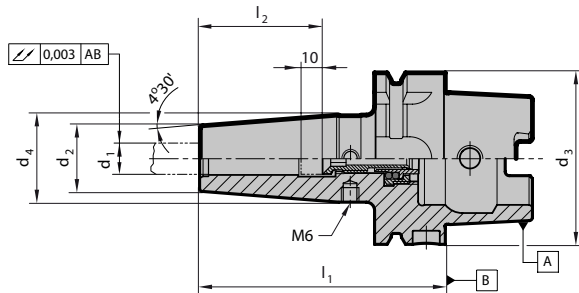
MQL 1-channel shrink fit chucks HSK-A for manual tool change

Product information

- to Guhring MQL standard
- for 1-channel-systems
- balancing quality: G6.3 / 15,000 rev./min
- incl. balancing thread 4xM6/6xM6
- for tool shank tolerance h6
- also available in the lengths l1 = 120 mm and 160 mm (concentricity 5 µm)

Scope of delivery

- incl. MQL adjustment screw with sealing lip Guhring no. 4937 and MQL coolant delivery set Guhring no. 4940
- special dimensions on request



Guhring no. **4735**

Discount group **148**

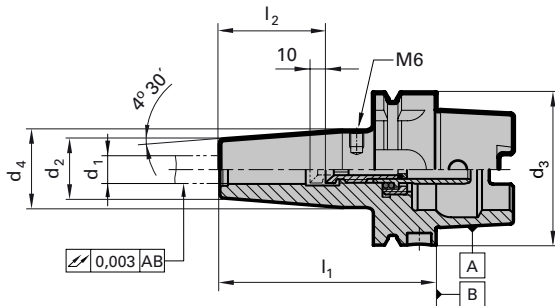
| HSK-A d ₃ | for shank Ø d ₁ h ₆ mm | d ₂ mm | d ₄ mm | l ₁ mm | l ₂ mm | incl. setting screw no. 4937 ... | kg | Code no. | Availability |
|-------------------------|--|----------------------|----------------------|----------------------|----------------------|--|------|----------|--------------|
| 40 | 6 | 21 | 27 | 80 | 36 | 6,040 | 0.40 | 6,040 | ● |
| 40 | 8 | 21 | 27 | 80 | 36 | 8,040 | 0.40 | 8,040 | ● |
| 40 | 10 | 24 | 32 | 80 | 40 | 10,040 | 0.50 | 10,040 | ● |
| 40 | 12 | 24 | 32 | 90 | 45 | 12,040 | 0.50 | 12,040 | ● |
| 40 | 14 | 27 | 34 | 90 | 45 | 14,040 | 0.60 | 14,040 | ● |
| 40 | 16 | 27 | 34 | 90 | 48 | 16,040 | 0.50 | 16,040 | ● |
| 50 | 6 | 21 | 27 | 80 | 36 | 6,050 | 0.60 | 6,050 | ● |
| 50 | 8 | 21 | 27 | 80 | 36 | 8,050 | 0.60 | 8,050 | ● |
| 50 | 10 | 24 | 32 | 85 | 40 | 10,050 | 0.70 | 10,050 | ● |
| 50 | 12 | 24 | 32 | 90 | 45 | 12,050 | 0.70 | 12,050 | ● |
| 50 | 14 | 27 | 34 | 90 | 45 | 14,050 | 0.70 | 14,050 | ● |
| 50 | 16 | 27 | 34 | 95 | 48 | 16,050 | 0.70 | 16,050 | ● |
| 50 | 18 | 33 | 42 | 95 | 48 | 18,050 | 0.90 | 18,050 | ● |
| 50 | 20 | 33 | 42 | 100 | 50 | 20,050 | 0.90 | 20,050 | ● |
| 63 | 6 | 21 | 27 | 80 | 36 | 6,100 | 0.70 | 6,063 | ● |
| 63 | 8 | 21 | 27 | 80 | 36 | 8,100 | 0.70 | 8,063 | ● |
| 63 | 10 | 24 | 32 | 85 | 40 | 10,100 | 0.70 | 10,063 | ● |
| 63 | 12 | 24 | 32 | 90 | 45 | 12,100 | 0.80 | 12,063 | ● |
| 63 | 14 | 27 | 34 | 90 | 45 | 14,100 | 0.80 | 14,063 | ● |
| 63 | 16 | 27 | 34 | 95 | 48 | 16,100 | 0.90 | 16,063 | ● |
| 63 | 18 | 33 | 42 | 95 | 48 | 18,100 | 0.90 | 18,063 | ● |
| 63 | 20 | 33 | 42 | 100 | 50 | 20,100 | 1.00 | 20,063 | ● |
| 63 | 25 | 44 | 53 | 115 | 56 | 25,100 | 1.00 | 25,063 | ● |
| 63 | 32 | 44 | 53 | 120 | 60 | 32,100 | 1.10 | 32,063 | ● |
| 63 | 6 | 21 | 27 | 120 | 36 | 6,032 | 0.90 | 806,063 | ● |
| 63 | 8 | 21 | 27 | 120 | 36 | 8,040 | 1.00 | 808,063 | ● |
| 63 | 10 | 24 | 32 | 120 | 40 | 10,050 | 1.10 | 810,063 | ● |
| 63 | 12 | 24 | 32 | 120 | 45 | 12,100 | 1.20 | 212,063 | ● |
| 63 | 14 | 27 | 34 | 120 | 45 | 14,100 | 1.40 | 214,063 | ● |
| 63 | 16 | 27 | 34 | 120 | 48 | 16,100 | 1.40 | 216,063 | ● |
| 63 | 18 | 33 | 42 | 120 | 48 | 18,100 | 1.60 | 218,063 | ● |
| 63 | 20 | 33 | 42 | 120 | 50 | 20,100 | 1.60 | 220,063 | ● |
| 63 | 6 | 21 | 27 | 160 | 36 | 6,032 | 0.80 | 906,063 | ● |
| 63 | 8 | 21 | 27 | 160 | 36 | 8,040 | 0.80 | 908,063 | ● |
| 63 | 10 | 24 | 32 | 160 | 40 | 10,050 | 0.90 | 910,063 | ● |
| 63 | 12 | 24 | 32 | 160 | 45 | 12,100 | 0.90 | 112,063 | ● |
| 63 | 14 | 27 | 34 | 160 | 45 | 14,100 | 1.00 | 114,063 | ● |
| 63 | 16 | 27 | 34 | 160 | 48 | 16,100 | 1.00 | 116,063 | ● |
| 63 | 18 | 33 | 42 | 160 | 48 | 18,100 | 1.20 | 118,063 | ● |
| 63 | 20 | 33 | 42 | 160 | 50 | 20,100 | 1.20 | 120,063 | ● |
| 63 | 25 | 44 | 53 | 160 | 56 | 25,100 | 1.80 | 125,063 | ● |
| 63 | 32 | 44 | 53 | 160 | 60 | 32,100 | 1.70 | 132,063 | ● |

Product information

- to Guhring MQL standard
- for 1-channel-systems
- balancing quality: G6.3 / 15,000 rev./min
- incl. balancing thread 4xM6/6xM6
- for tool shank tolerance h6
- max. deviation f. concentricity 3 µm
- also available in the lengths l1 = 120 mm and 160 mm (concentricity 5 µm)

Scope of delivery

- incl. MQL adjustment screw with sealing lip Guhring no. 4937 and MQL coolant delivery set Guhring no. 4939
- special dimensions on request



| | |
|-----------------------|-------------|
| Guhring no. | 4741 |
| Discount group | 148 |

| HSK-A d3 | for shank Ø d1 h6 mm | d2 mm | d4 mm | l1 mm | l2 mm | incl. setting screw no. 4937 ... | kg | Code no. | Availability |
|----------|----------------------|-------|-------|-------|-------|----------------------------------|------|----------|--------------|
| 40 | 6 | 21 | 27 | 80 | 36 | 6,040 | 0.40 | 6,040 | ● |
| 40 | 8 | 21 | 27 | 80 | 36 | 8,040 | 0.40 | 8,040 | ● |
| 40 | 10 | 24 | 32 | 80 | 40 | 10,040 | 0.50 | 10,040 | ● |
| 40 | 12 | 24 | 32 | 90 | 45 | 12,040 | 0.50 | 12,040 | ● |
| 40 | 14 | 27 | 34 | 90 | 45 | 14,040 | 0.60 | 14,040 | ● |
| 40 | 16 | 27 | 34 | 90 | 48 | 16,040 | 0.50 | 16,040 | ● |
| 50 | 6 | 21 | 27 | 80 | 36 | 6,050 | 0.60 | 6,050 | ● |
| 50 | 8 | 21 | 27 | 80 | 36 | 8,050 | 0.60 | 8,050 | ● |
| 50 | 10 | 24 | 32 | 85 | 40 | 10,050 | 0.70 | 10,050 | ● |
| 50 | 12 | 24 | 32 | 90 | 45 | 12,050 | 0.70 | 12,050 | ● |
| 50 | 14 | 27 | 34 | 90 | 45 | 14,050 | 0.70 | 14,050 | ● |
| 50 | 16 | 27 | 34 | 95 | 48 | 16,050 | 0.70 | 16,050 | ● |
| 50 | 18 | 33 | 42 | 95 | 48 | 18,050 | 0.90 | 18,050 | ● |
| 50 | 20 | 33 | 42 | 100 | 50 | 20,050 | 0.90 | 20,050 | ● |
| 63 | 6 | 21 | 27 | 80 | 36 | 6,100 | 0.70 | 6,063 | ● |
| 63 | 8 | 21 | 27 | 80 | 36 | 8,100 | 0.70 | 8,063 | ● |
| 63 | 10 | 24 | 32 | 85 | 40 | 10,100 | 0.70 | 10,063 | ● |
| 63 | 12 | 24 | 32 | 90 | 45 | 12,100 | 0.80 | 12,063 | ● |
| 63 | 14 | 27 | 34 | 90 | 45 | 14,100 | 0.80 | 14,063 | ● |
| 63 | 16 | 27 | 34 | 95 | 48 | 16,100 | 0.90 | 16,063 | ● |
| 63 | 18 | 33 | 42 | 95 | 48 | 18,100 | 0.90 | 18,063 | ● |
| 63 | 20 | 33 | 42 | 100 | 50 | 20,100 | 1.00 | 20,063 | ● |
| 63 | 25 | 44 | 53 | 115 | 56 | 25,100 | 1.00 | 25,063 | ● |
| 63 | 32 | 44 | 53 | 120 | 60 | 32,100 | 1.10 | 32,063 | ● |
| 63 | 6 | 21 | 27 | 120 | 36 | 6,032 | 0.90 | 806,063 | ● |
| 63 | 8 | 21 | 27 | 120 | 36 | 8,040 | 1.00 | 808,063 | ● |
| 63 | 10 | 24 | 32 | 120 | 40 | 10,050 | 1.10 | 810,063 | ● |
| 63 | 12 | 24 | 32 | 120 | 45 | 12,100 | 1.20 | 212,063 | ● |
| 63 | 14 | 27 | 34 | 120 | 45 | 14,100 | 1.40 | 214,063 | ● |
| 63 | 16 | 27 | 34 | 120 | 48 | 16,100 | 1.40 | 216,063 | ● |
| 63 | 18 | 33 | 42 | 120 | 48 | 18,100 | 1.60 | 218,063 | ● |
| 63 | 20 | 33 | 42 | 120 | 50 | 20,100 | 1.60 | 220,063 | ● |
| 63 | 6 | 21 | 27 | 160 | 36 | 6,032 | 0.80 | 906,063 | ● |
| 63 | 8 | 21 | 27 | 160 | 36 | 8,040 | 0.80 | 908,063 | ● |
| 63 | 10 | 24 | 32 | 160 | 40 | 10,050 | 0.90 | 910,063 | ● |
| 63 | 12 | 24 | 32 | 160 | 45 | 12,100 | 0.90 | 112,063 | ● |
| 63 | 14 | 27 | 34 | 160 | 45 | 14,100 | 1.00 | 114,063 | ● |
| 63 | 16 | 27 | 34 | 160 | 48 | 16,100 | 1.00 | 116,063 | ● |
| 63 | 18 | 33 | 42 | 160 | 48 | 18,100 | 1.20 | 118,063 | ● |
| 63 | 20 | 33 | 42 | 160 | 50 | 20,100 | 1.20 | 120,063 | ● |
| 63 | 25 | 44 | 53 | 160 | 56 | 25,100 | 1.80 | 125,063 | ● |
| 63 | 32 | 44 | 53 | 160 | 60 | 32,100 | 1.70 | 132,063 | ● |

MQL 1-channel shrink fit chucks HSK-A for automatic tool change

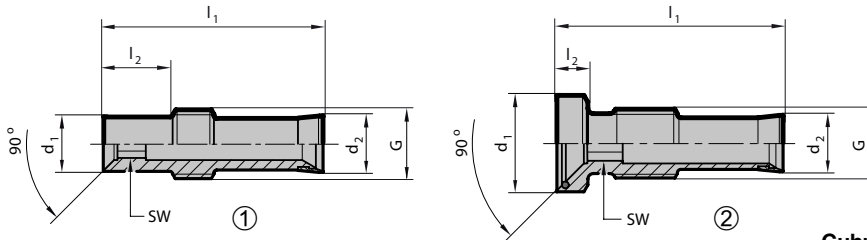
| | | | | | | | | Guhring no. 4741 | | |
|----------------------|--|-------------------|-------------------|-------------------|-------------------|----------------------------------|------|--------------------|--------------|--|
| | | | | | | | | Discount group 148 | | |
| HSK-A d ₃ | for shank Ø d ₁ h ₆ mm | d ₂ mm | d ₄ mm | l ₁ mm | l ₂ mm | incl. setting screw no. 4937 ... | kg | Code no. | Availability | |
| 80 | 6 | 21 | 27 | 85 | 36 | 6,100 | 1.30 | 6,080 | ● | |
| 80 | 8 | 21 | 27 | 85 | 36 | 8,100 | 1.30 | 8,080 | ● | |
| 80 | 10 | 24 | 32 | 90 | 40 | 10,100 | 1.40 | 10,080 | ● | |
| 80 | 12 | 24 | 32 | 95 | 45 | 12,100 | 1.40 | 12,080 | ● | |
| 80 | 14 | 27 | 34 | 95 | 45 | 14,100 | 1.50 | 14,080 | ● | |
| 80 | 16 | 27 | 34 | 100 | 48 | 16,100 | 1.50 | 16,080 | ● | |
| 80 | 18 | 33 | 42 | 100 | 48 | 18,100 | 1.70 | 18,080 | ● | |
| 80 | 20 | 33 | 42 | 105 | 50 | 20,100 | 1.70 | 20,080 | ● | |
| 80 | 25 | 44 | 53 | 115 | 56 | 25,100 | 2.20 | 25,080 | ● | |
| 80 | 32 | 44 | 53 | 120 | 60 | 32,100 | 2.10 | 32,080 | ● | |
| 100 | 6 | 21 | 27 | 85 | 36 | 6,100 | 2.10 | 6,100 | ● | |
| 100 | 8 | 21 | 27 | 85 | 36 | 8,100 | 2.20 | 8,100 | ● | |
| 100 | 10 | 24 | 32 | 90 | 40 | 10,100 | 2.30 | 10,100 | ● | |
| 100 | 12 | 24 | 32 | 95 | 45 | 12,100 | 2.30 | 12,100 | ● | |
| 100 | 14 | 27 | 34 | 95 | 45 | 14,100 | 2.30 | 14,100 | ● | |
| 100 | 16 | 27 | 34 | 100 | 48 | 16,100 | 2.30 | 16,100 | ● | |
| 100 | 18 | 33 | 42 | 100 | 48 | 18,100 | 2.50 | 18,100 | ● | |
| 100 | 20 | 33 | 42 | 105 | 50 | 20,100 | 2.50 | 20,100 | ● | |
| 100 | 25 | 44 | 53 | 115 | 56 | 25,100 | 3.00 | 25,100 | ● | |
| 100 | 32 | 44 | 53 | 120 | 60 | 32,100 | 3.00 | 32,100 | ● | |
| 100 | 6 | 21 | 27 | 160 | 36 | 6,032 | 2.60 | 106,100 | ● | |
| 100 | 8 | 21 | 27 | 160 | 36 | 8,040 | 2.50 | 108,100 | ● | |
| 100 | 10 | 24 | 32 | 160 | 40 | 10,050 | 2.70 | 110,100 | ● | |
| 100 | 12 | 24 | 32 | 160 | 45 | 12,100 | 2.70 | 112,100 | ● | |
| 100 | 14 | 27 | 34 | 160 | 45 | 14,100 | 2.80 | 114,100 | ● | |
| 100 | 16 | 27 | 34 | 160 | 48 | 16,100 | 2.80 | 116,100 | ● | |
| 100 | 18 | 33 | 42 | 160 | 48 | 18,100 | 3.20 | 118,100 | ● | |
| 100 | 20 | 33 | 42 | 160 | 50 | 20,100 | 3.10 | 120,100 | ● | |
| 100 | 25 | 44 | 53 | 160 | 56 | 25,100 | 3.90 | 125,100 | ● | |
| 100 | 32 | 44 | 53 | 160 | 60 | 32,100 | 3.70 | 132,100 | ● | |

Product information

- to Guhring MQL standard
- for 1-channel-systems
- for the use of tool shanks to Guhring MQL standard
- gold colour, corrosion protective coating to visually identify the 1-channel system
- the patented face orientated o-ring provides axial force clamping which eliminates concentricity errors

Scope of delivery

- incl. sealing lip
- MQL key tool for the assembly Guhring no. 4050 to be ordered separately



Guhring no.

4937

Discount group

114

| HSK-A | for shank Ø d1 h6 mm | for d2 mm | l1 mm | l2 mm | G | SW | picture | Code no. | Availability |
|-----------|----------------------|-----------|-------|-------|--------|----|---------|----------|--------------|
| 32 | 6 | 4.0 | 34.7 | 2.5 | M5x0.8 | 2 | 2 | 6,032 | ● |
| 32 | 8 | 4.0 | 34.7 | 3.0 | M7x1 | 2 | 2 | 8,032 | ● |
| 32 | 10 | 4.0 | 35.7 | 3.5 | M8x1 | 2 | 2 | 10,032 | ● |
| 32 | 12 | 4.0 | 35.7 | 3.5 | M10x1 | 2 | 2 | 12,032 | ● |
| 40 | 6 | 5.4 | 34.3 | 11.0 | M7x1 | 3 | 1 | 6,040 | ● |
| 40 | 8 | 5.4 | 34.3 | 3.0 | M7x1 | 3 | 2 | 8,040 | ● |
| 40 | 10 | 5.4 | 30.3 | 3.5 | M8x1 | 3 | 2 | 10,040 | ● |
| 40 | 12 | 5.4 | 35.3 | 3.5 | M10x1 | 3 | 2 | 12,040 | ● |
| 40 | 14 | 5.4 | 35.3 | 4.5 | M10x1 | 3 | 2 | 14,040 | ● |
| 40 | 16 | 5.4 | 32.3 | 5.5 | M12x1 | 3 | 2 | 16,040 | ● |
| 50 | 6 | 6.5 | 32.0 | 10.0 | M8x1 | 4 | 1 | 6,050 | ● |
| 50 | 8 | 6.5 | 32.0 | 3.0 | M8x1 | 4 | 2 | 8,050 | ● |
| 50 | 10 | 6.5 | 33.0 | 3.5 | M8x1 | 4 | 2 | 10,050 | ● |
| 50 | 12 | 6.5 | 33.0 | 3.5 | M10x1 | 4 | 2 | 12,050 | ● |
| 50 | 14 | 6.5 | 33.0 | 4.5 | M10x1 | 4 | 2 | 14,050 | ● |
| 50 | 16 | 6.5 | 35.0 | 5.5 | M12x1 | 4 | 2 | 16,050 | ● |
| 50 | 18 | 6.5 | 35.0 | 6.5 | M12x1 | 4 | 2 | 18,050 | ● |
| 50 | 20 | 6.5 | 38.0 | 6.5 | M16x1 | 4 | 2 | 20,050 | ● |
| 63/80/100 | 6 | 8.0 | 31.0 | 10.0 | M10x1 | 4 | 1 | 6,100 | ● |
| 63/80/100 | 8 | 8.0 | 31.8 | 10.0 | M10x1 | 4 | 1 | 8,100 | ● |
| 63/80/100 | 10 | 8.0 | 32.8 | 3.5 | M10x1 | 4 | 2 | 10,100 | ● |
| 63/80/100 | 12 | 8.0 | 32.8 | 3.5 | M10x1 | 5 | 2 | 12,100 | ● |
| 63/80/100 | 14 | 8.0 | 32.8 | 4.5 | M10x1 | 5 | 2 | 14,100 | ● |
| 63/80/100 | 16 | 8.0 | 34.8 | 5.5 | M12x1 | 5 | 2 | 16,100 | ● |
| 63/80/100 | 18 | 8.0 | 34.8 | 6.5 | M12x1 | 5 | 2 | 18,100 | ● |
| 63/80/100 | 20 | 8.0 | 37.8 | 6.5 | M16x1 | 5 | 2 | 20,100 | ● |
| 63/80/100 | 25 | 8.0 | 43.8 | 10.0 | M16x1 | 5 | 2 | 25,100 | ● |
| 63/80/100 | 32 | 8.0 | 44.8 | 14.0 | M16x1 | 5 | 2 | 32,100 | ● |

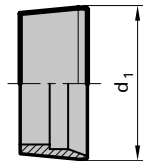
Sealing lips for MQL 1-channel length setting screws

Product information

- sealing lips for MQL 1-channel length setting screws Guhring no. 4937

Scope of delivery

- packaging unit: 5 pieces



| | |
|-----------------------|-------------|
| Guhring no. | 4617 |
| Discount group | 114 |

| HSK-A | d ₁ mm | Code no. | Availability |
|---------------|----------------------|----------|--------------|
| 32 | 4.0 | 1,032 | ● |
| 40 | 5.6 | 1,040 | ● |
| 50 | 6.7 | 1,050 | ● |
| 63 / 80 / 100 | 8.2 | 1,100 | ● |

MQL-Key 3000

Product information

- special tool set for the secure assembly of MQL tapered screws for 1- and 2-channel systems
- simplifies the handling when assembling the MQL length setting screws
- prevents damage to the MQL sealing elements
- i.e. to be applied for:
MQL 1-channel length setting screws Guhring no. 4937 or MQL 2-channel length setting screws Guhring no. 4621

Scope of delivery

- complete set in case or additional set



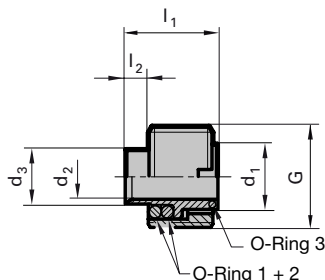
| | |
|-----------------------|------------------|
| Guhring no. | 4050 |
| Discount group | Net price |

| | Code no. | Availability |
|---|----------|--------------|
| Case with complete 1- channel basis set | 1,000 | ● |
| 2-channel additional set | 2,000 | ● |

MQL 1-channel coolant delivery set HSK-A (filler)

Product information

- to Guhring MQL standard
- for 1-channel-systems
- for tool holders with manual tool change
- optimal seal for MQL clamping set



Guhring no. 4940

Discount group 114

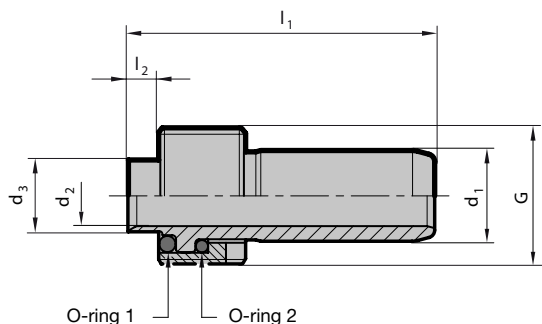
| for HSK-A | d ₁ mm | d ₂ mm | d ₃ mm | l ₁ mm | l ₂ mm | G | O-ring 1 & 2 Viton 75 | O-ring 3 Viton 80 | Code no. | Availability |
|-----------|-------------------|-------------------|-------------------|-------------------|-------------------|---------|-----------------------|-------------------|----------|--------------|
| 32* | 5.8 | 4.0 | 4.8 | 18.7 | 12.5 | M10x1 | 5x1.2 | 4.3x0.5 | 10,032 | ● |
| 40 | 7.6 | 5.4 | 6.8 | 13.8 | 5.5 | M12x1.0 | 7.5x1.5 | 6x0.7 | 12,040 | ● |
| 50 | 9.6 | 6.5 | 7.8 | 15.8 | 5.5 | M16x1.0 | 9.0x2.0 | 7.5x0.8 | 16,050 | ● |
| 63 | 11.6 | 8.0 | 9.7 | 16.3 | 4.0 | M18x1.0 | 10x2.5 | 9x1 | 18,063 | ● |
| 80 | 13.6 | 8.0 | 9.7 | 18.4 | 4.0 | M20x1.5 | 13.0x2.0 | 9.5x1.5 | 20,080 | ● |
| 100 | 15.6 | 8.0 | 11.7 | 18.4 | 2.0 | M24x1.5 | 14.0x3.0 | 11.5x1.5 | 24,100 | ● |

* for HSK extensions Guhring no. 4350

MQL 1-channel coolant delivery set HSK-A

Product information

- to Guhring MQL standard
- for 1-channel-systems
- for tool holders with automatic tool change



Guhring no. 4939

Discount group 114

| for HSK-A | d ₁ mm | d ₂ mm | d ₃ mm | l ₁ mm | l ₂ mm | G | O-ring 1 Viton 75 | O-ring 2 Viton 75 | Code no. | Availability |
|-----------|-------------------|-------------------|-------------------|-------------------|-------------------|---------|-------------------|-------------------|----------|--------------|
| 32 | 6 | 4.0 | 4.8 | 38.5 | 12.5 | M10x1.0 | 5x1.2 | 5x1.2 | 10,032 | ● |
| 40 | 8 | 5.4 | 6.5 | 35.0 | 5.5 | M12x1.0 | 7.5x1.5 | 7.5x1.5 | 12,040 | ● |
| 50 | 10 | 6.5 | 7.5 | 38.5 | 5.5 | M16x1.0 | 9.0x2.0 | 9.0x2.0 | 16,050 | ● |
| 63 | 12 | 8.0 | 9.5 | 40.5 | 4.0 | M18x1.0 | 10.0x2.5 | 10.0x2.0 | 18,063 | ● |
| 80 | 14 | 8.0 | 9.7 | 44.0 | 4.0 | M20x1.5 | 13.0x2.0 | 13.0x2.0 | 20,080 | ● |
| 100 | 16 | 8.0 | 11.5 | 46.0 | 2.0 | M24x1.5 | 14.0x3.0 | 14.0x3.0 | 24,100 | ● |

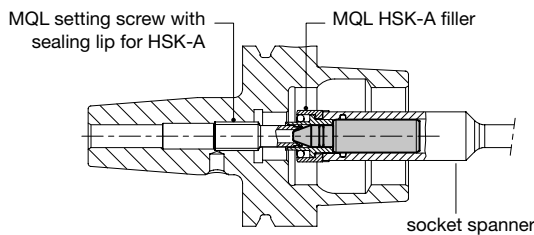
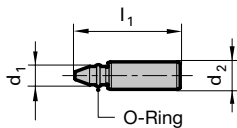
Mounting adaptor for MQL HSK-A coolant delivery set (filler)

Product information

- adaptor for socket spanner, Guhring no. 4911
- for mounting MQL HSK-A coolant delivery set (filler), Guhring no. 4940, for manual tool change

Scope of delivery

- incl. operating manual
- socket spanner, Guhring no. 4911 to be ordered separately



| | |
|----------------|------|
| Guhring no. | 4948 |
| Discount group | 114 |

| for HSK-A | d ₁ mm | d ₂ mm | l ₁ mm | Code no. | Availability |
|-----------|-------------------|-------------------|-------------------|----------|--------------|
| 40 | 5.4 | 8 | 38.5 | 8,040 | ● |
| 50 | 6.5 | 10 | 42.0 | 10,050 | ● |
| 63 | 8.0 | 12 | 46.0 | 12,063 | ● |
| 80 | 8.0 | 14 | 48.5 | 14,080 | ● |
| 100 | 8.0 | 16 | 51.5 | 16,100 | ● |

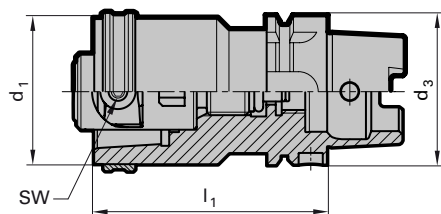
HSK-A/HSK-C extensions with MQL 4 point clamping set

Product information

- MQL suitable
- for 1-channel-systems

Scope of delivery

- incl. MQL 4 point clamping set Guhring no. 4930 and adaptor for extensions
- incl. brass locking ring Guhring no. 4953
- order coolant delivery set separately:
 - for automatic tool change Guhring no. 4939
 - for manual tool change Guhring no. 4940



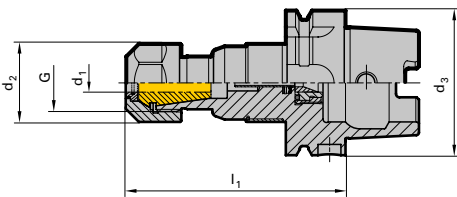
| | |
|----------------|------|
| Guhring no. | 4350 |
| Discount group | 114 |

| HSK-A/HSK-C d ₁ / d ₃ | l ₁ mm | SW | kg | Code no. | Availability |
|---|-------------------|-----|------|----------|--------------|
| 32 | 60 | 2.5 | 0.30 | 60,032 | ● |
| 40 | 80 | 3.0 | 0.70 | 80,040 | ● |
| 50 | 80 | 4.0 | 0.90 | 80,050 | ● |
| 50 | 100 | 4.0 | 1.10 | 100,050 | ● |
| 63 | 100 | 5.0 | 1.80 | 100,063 | ● |
| 63 | 140 | 5.0 | 2.30 | 140,063 | ● |
| 80 | 120 | 6.0 | 4.20 | 120,080 | ● |
| 80 | 160 | 6.0 | 5.80 | 160,080 | ● |
| 100 | 140 | 8.0 | 8.00 | 140,100 | ● |

MQL HSK-A synchro tapping chucks for manual tool change

Product information

- for MQL single and double channel systems
- compensate synchronisation errors
- minimal length compensation in tension and compression direction balances very small pitch differences between synchro spindle and tap, which can cause high frictional forces on the thread flanks and increase thread quality and tool life
- length-setting screw allows 2 to 3 mm readjustment
- MQL pressure up to max. 10 bar
- mounted MQL coolant supply pipe
- Guhring MQL identifiable by green coloured ring



Scope of delivery

- incl. MQL coolant delivery set for manual tool change (filler)
- Incl. sealed IC/ER clamping nut Guhring no. 4306 (*see torque)
- incl. adjustment key for MQL adjustment screw
- order MQL adjustment screw Guhring no. 4305 separately
- order sealing washer Guhring no. 4335 separately
- order collet Guhring no. 4308 separately
- order chuck spanner Guhring no. 4913 for ER retaining nut separately



Guhring no. 4298

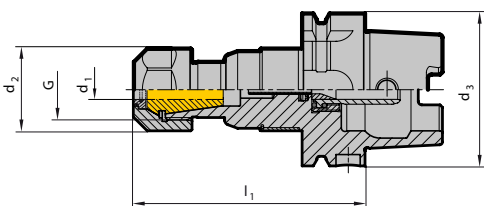
Discount group 114

| HSK-A d ₃ | nom. size | for thread | G | d ₁ mm | d ₂ mm | l ₁ mm | tension/compr. ± mm | torque* Nm | kg | Code no. | Availability |
|----------------------|-----------|------------|---------|-------------------|-------------------|-------------------|---------------------|------------|------|----------|--------------|
| 63 | ER20 | M3.5-M14 | M25x1.5 | 4.5-11 | 34 | 95.5 | 0.15 | 40 | 1.00 | 20,063 | ● |
| 63 | ER32 | M3.5-M28 | M40x1.5 | 4.5-20 | 50 | 109.0 | 0.15 | 170 | 1.50 | 32,063 | ● |

MQL HSK-A synchro tapping chucks for single channel systems for automatic tool change

Product information

- for MQL single channel systems
- compensate synchronisation errors
- minimal length compensation in tension and compression direction balances very small pitch differences between synchro spindle and tap, which can cause high frictional forces on the thread flanks and increase thread quality and tool life
- length-setting screw allows 2 to 3 mm readjustment
- MQL pressure up to max. 10 bar
- mounted MQL coolant supply pipe
- Guhring MQL identifiable by green coloured ring



Scope of delivery

- incl. MQL coolant delivery set for automatic tool change
- Incl. sealed IC/ER clamping nut Guhring no. 4306 (*see torque)
- incl. adjustment key for MQL adjustment screw
- order MQL adjustment screw Guhring no. 4305 separately
- order sealing washer Guhring no. 4335 separately
- order collet Guhring no. 4308 separately
- order chuck spanner Guhring no. 4913 for ER retaining nut separately



Guhring no. 4330

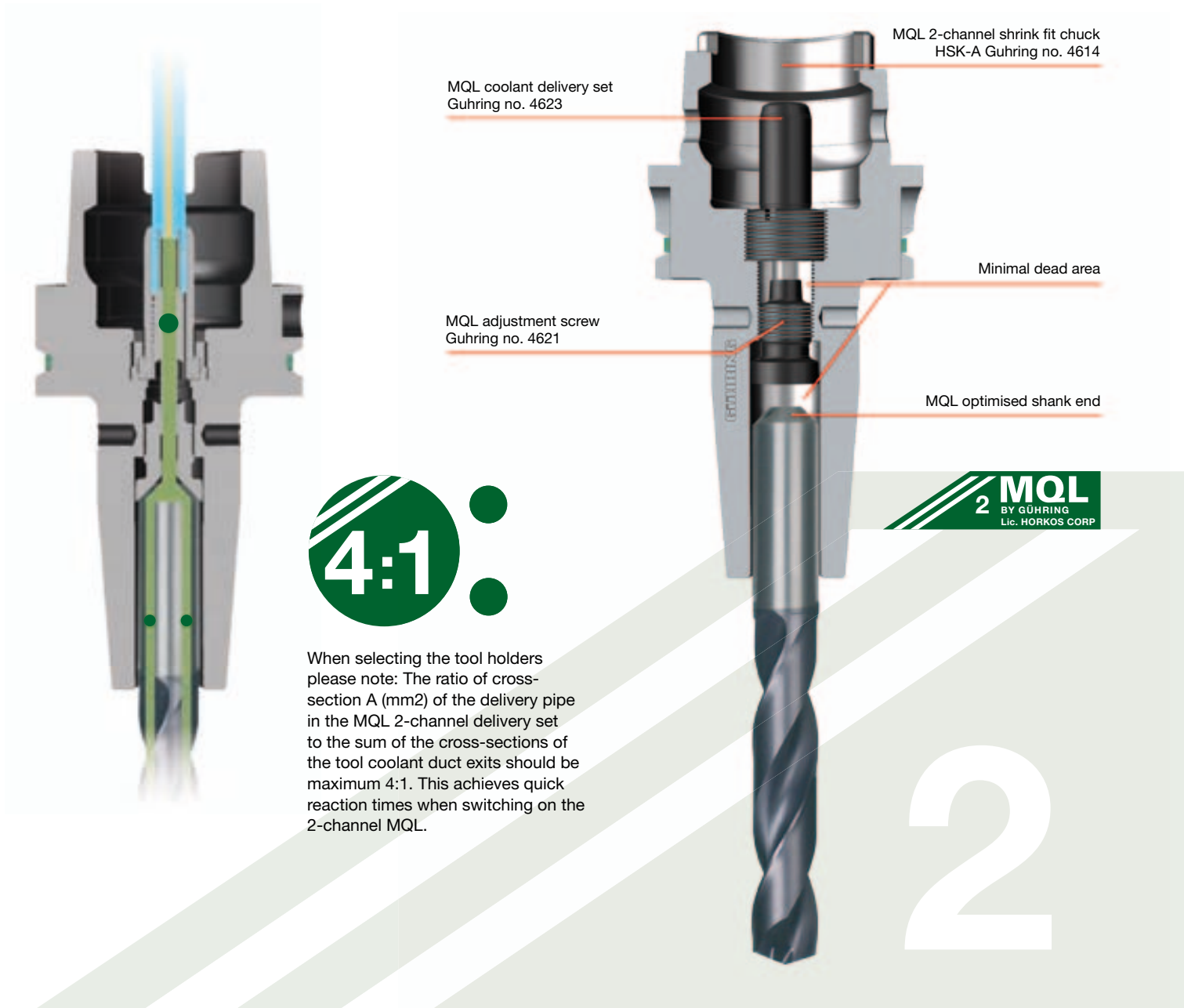
Discount group 114

| HSK-A d ₃ | nom. size | for thread | G | d ₁ mm | d ₂ mm | l ₁ mm | tension/compr. ± mm | torque* Nm | kg | Code no. | Availability |
|----------------------|-----------|------------|---------|-------------------|-------------------|-------------------|---------------------|------------|------|----------|--------------|
| 63 | ER20 | M3.5-M14 | M25x1.5 | 4.5-11 | 34 | 95.5 | 0.15 | 40 | 1.00 | 20,063 | ● |
| 63 | ER32 | M3.5-M28 | M40x1.5 | 4.5-20 | 50 | 109.0 | 0.15 | 170 | 1.50 | 32,063 | ● |
| 100 | ER20 | M3.5-M14 | M25x1.5 | 4.5-11 | 34 | 102.0 | 0.15 | 40 | 2.40 | 20,100 | ● |
| 100 | ER32 | M3.5-M28 | M40x1.5 | 4.5-20 | 50 | 115.5 | 0.15 | 170 | 3.00 | 32,100 | ● |



Our products for the MQL 2-channel technology are identified by this symbol.

Visual feature of the 2-channel system is the black coloured MQL length setting screw.



4:1

When selecting the tool holders please note: The ratio of cross-section A (mm²) of the delivery pipe in the MQL 2-channel delivery set to the sum of the cross-sections of the tool coolant duct exits should be maximum 4:1. This achieves quick reaction times when switching on the 2-channel MQL.

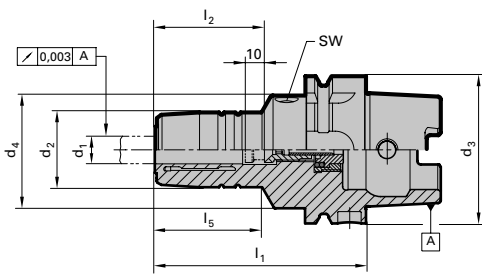
MQL 2-channel hydraulic chucks HSK-A for manual tool change

Product information

- to Guhring MQL standard
- for 2-channel-systems
- balancing quality: G6.3 / 15,000 rev./min
- for tool shank tolerance h6
- also available in the lengths $l_1 = 120$ mm and 160 mm (concentricity $5 \mu\text{m}$)
- axial length setting

Scope of delivery

- incl. MQL adjustment screw Guhring no. 4621 and MQL coolant delivery set Guhring no. 4622
- incl. hexagon chuck key Guhring no. 4912
- special dimensions on request



Guhring no. **4611**

Discount group **147**

| HSK-A d ₃ | for shank Ø d ₁ h ₆ mm | A mm ² | d ₂ mm | d ₄ mm | l ₁ mm | l ₂ mm | l ₅ mm | incl. setting screw no. 4621 ... | incl. filler no. 4622 ... | SW | kg | Code no. | | Availability | |
|-------------------------|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--|---------------------------------|----|------|----------|--|--------------|--|
| | | | | | | | | | | | | | | | |
| 50 | 6 | 2.01 | 26 | 40 | 80 | 36 | 38 | 6.050 | 10.050 | 4 | 0.95 | 6,050 | | ● | |
| 50 | 6 | 4.15 | 26 | 40 | 80 | 36 | 38 | 6.150 | 10.150 | 4 | 0.95 | 6,150 | | ● | |
| 50 | 8 | 2.01 | 28 | 40 | 80 | 36 | 38 | 8.050 | 10.050 | 4 | 0.95 | 8,050 | | ● | |
| 50 | 8 | 4.15 | 28 | 40 | 80 | 36 | 38 | 8.150 | 10.150 | 4 | 0.95 | 8,150 | | ● | |
| 50 | 10 | 2.01 | 30 | 40 | 85 | 40 | 44 | 10.050 | 10.050 | 4 | 0.95 | 10,050 | | ● | |
| 50 | 10 | 4.15 | 30 | 40 | 85 | 40 | 44 | 10.150 | 10.150 | 4 | 0.95 | 10,150 | | ● | |
| 50 | 12 | 2.01 | 32 | 40 | 90 | 45 | 49 | 12.050 | 18.050 | 4 | 0.95 | 12,050 | | ● | |
| 50 | 12 | 4.15 | 32 | 40 | 90 | 45 | 49 | 12.150 | 20.050 | 4 | 0.95 | 12,150 | | ● | |
| 50 | 12 | 9.08 | 32 | 40 | 90 | 45 | 49 | 12.250 | 20.150 | 4 | 0.95 | 12,250 | | ● | |
| 50 | 14 | 2.01 | 34 | 40 | 90 | 45 | 49 | 14.050 | 18.050 | 4 | 0.95 | 14,050 | | ● | |
| 50 | 14 | 4.15 | 34 | 40 | 90 | 45 | 49 | 14.150 | 20.050 | 4 | 0.95 | 14,150 | | ● | |
| 50 | 14 | 9.08 | 34 | 40 | 90 | 45 | 49 | 14.250 | 20.150 | 4 | 0.95 | 14,250 | | ● | |
| 50 | 16 | 2.01 | 38 | 53 | 95 | 48 | 36 | 16.050 | 18.050 | 5 | 1.25 | 16,050 | | ● | |
| 50 | 16 | 4.15 | 38 | 53 | 95 | 48 | 36 | 16.150 | 20.050 | 5 | 1.25 | 16,150 | | ● | |
| 50 | 16 | 9.08 | 38 | 53 | 95 | 48 | 36 | 16.250 | 20.150 | 5 | 1.25 | 16,250 | | ● | |
| 50 | 18 | 2.01 | 40 | 57 | 95 | 48 | 36 | 18.050 | 18.050 | 5 | 1.25 | 18,050 | | ● | |
| 50 | 18 | 4.15 | 40 | 57 | 95 | 48 | 36 | 18.150 | 20.050 | 5 | 1.25 | 18,150 | | ● | |
| 50 | 18 | 9.08 | 40 | 57 | 95 | 48 | 36 | 18.250 | 20.150 | 5 | 1.25 | 18,250 | | ● | |
| 50 | 20 | 4.15 | 42 | 60 | 100 | 50 | 39 | 20.050 | 20.050 | 5 | 1.25 | 20,050 | | ● | |
| 50 | 20 | 9.08 | 42 | 60 | 100 | 50 | 39 | 20.150 | 20.150 | 5 | 1.25 | 20,150 | | ● | |
| 50 | 20 | 16.62 | 42 | 60 | 100 | 50 | 39 | 20.250 | 20.250 | 5 | 1.25 | 20,250 | | ● | |
| 63 | 6 | 2.01 | 26 | 50 | 80 | 36 | 34.5 | 6.100 | 10.063 | 5 | 1.25 | 6,063 | | ● | |
| 63 | 6 | 4.15 | 26 | 50 | 80 | 36 | 34.5 | 6.101 | 10.163 | 5 | 1.25 | 6,163 | | ● | |
| 63 | 8 | 2.01 | 28 | 50 | 80 | 36 | 35.5 | 8.100 | 10.063 | 5 | 1.25 | 8,063 | | ● | |
| 63 | 8 | 4.15 | 28 | 50 | 80 | 36 | 35.5 | 8.101 | 10.163 | 5 | 1.25 | 8,163 | | ● | |
| 63 | 10 | 2.01 | 30 | 50 | 85 | 40 | 40 | 10.100 | 10.063 | 5 | 1.25 | 10,063 | | ● | |
| 63 | 10 | 4.15 | 30 | 50 | 85 | 40 | 40 | 10.101 | 10.163 | 5 | 1.25 | 10,163 | | ● | |
| 63 | 12 | 2.01 | 32 | 50 | 90 | 45 | 45 | 12.100 | 18.063 | 5 | 1.35 | 12,063 | | ● | |
| 63 | 12 | 4.15 | 32 | 50 | 90 | 45 | 45 | 12.101 | 20.063 | 5 | 1.35 | 12,163 | | ● | |
| 63 | 12 | 9.08 | 32 | 50 | 90 | 45 | 45 | 12.102 | 20.163 | 5 | 1.35 | 12,263 | | ● | |
| 63 | 14 | 2.01 | 34 | 50 | 90 | 45 | 46 | 14.100 | 18.063 | 5 | 1.35 | 14,063 | | ● | |
| 63 | 14 | 4.15 | 34 | 50 | 90 | 45 | 46 | 14.101 | 20.063 | 5 | 1.35 | 14,163 | | ● | |
| 63 | 14 | 9.08 | 34 | 50 | 90 | 45 | 46 | 14.102 | 20.163 | 5 | 1.35 | 14,263 | | ● | |
| 63 | 16 | 2.01 | 38 | 50 | 95 | 48 | 51 | 16.100 | 18.063 | 5 | 1.45 | 16,063 | | ● | |
| 63 | 16 | 4.15 | 38 | 50 | 95 | 48 | 51 | 16.101 | 20.063 | 5 | 1.45 | 16,163 | | ● | |
| 63 | 16 | 9.08 | 38 | 50 | 95 | 48 | 51 | 16.102 | 20.163 | 5 | 1.45 | 16,263 | | ● | |
| 63 | 18 | 2.01 | 40 | 50 | 95 | 48 | 52 | 18.100 | 18.063 | 5 | 1.45 | 18,063 | | ● | |
| 63 | 18 | 4.15 | 40 | 50 | 95 | 48 | 52 | 18.101 | 20.063 | 5 | 1.45 | 18,163 | | ● | |
| 63 | 18 | 9.08 | 40 | 50 | 95 | 48 | 52 | 18.102 | 20.163 | 5 | 1.45 | 18,263 | | ● | |
| 63 | 20 | 4.15 | 42 | 50 | 100 | 50 | 58 | 20.100 | 20.063 | 5 | 1.45 | 20,063 | | ● | |
| 63 | 20 | 9.08 | 42 | 50 | 100 | 50 | 58 | 20.101 | 20.163 | 5 | 1.45 | 20,163 | | ● | |
| 63 | 20 | 16.62 | 42 | 50 | 100 | 50 | 58 | 20.102 | 20.263 | 5 | 1.45 | 20,263 | | ● | |
| 63 | 25 | 4.15 | 57 | 63 | 115 | 56 | 50 | 25.100 | 32.063 | 6 | 2.45 | 25,063 | | ● | |
| 63 | 25 | 9.08 | 57 | 63 | 115 | 56 | 50 | 25.101 | 32.163 | 6 | 2.45 | 25,163 | | ● | |
| 63 | 25 | 16.62 | 57 | 63 | 115 | 56 | 50 | 25.102 | 32.263 | 6 | 2.45 | 25,263 | | ● | |
| 63 | 32 | 4.15 | 64 | 75 | 120 | 60 | 58 | 32.100 | 32.063 | 6 | 3.10 | 32,063 | | ● | |

MQL 2-channel hydraulic chucks HSK-A for manual tool change

| | | | | | | | | | | | | Guhring no. 4611 | |
|----------------------|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|----------------------------------|---------------------------|----|------|--------------------|--------------|
| | | | | | | | | | | | | Discount group 147 | |
| HSK-A d ₃ | for shank Ø d ₁ h ₆ mm | A mm ² | d ₂ mm | d ₄ mm | l ₁ mm | l ₂ mm | l ₅ mm | incl. setting screw no. 4621 ... | incl. filler no. 4622 ... | SW | kg | Code no. | Availability |
| 63 | 32 | 9.08 | 64 | 75 | 120 | 60 | 58 | 32.101 | 32.163 | 6 | 3.10 | 32,163 | ● |
| 63 | 32 | 16.62 | 64 | 75 | 120 | 60 | 58 | 32.102 | 32.263 | 6 | 3.10 | 32,263 | ● |
| 100 | 6 | 2.01 | 26 | 50 | 85 | 36 | 36 | 6.100 | 10.100 | 5 | 2.60 | 6,100 | ● |
| 100 | 6 | 4.15 | 26 | 50 | 85 | 36 | 36 | 6.101 | 10.101 | 5 | 2.60 | 6,101 | ● |
| 100 | 8 | 2.01 | 28 | 50 | 85 | 36 | 36 | 8.100 | 10.100 | 5 | 2.60 | 8,100 | ● |
| 100 | 8 | 4.15 | 28 | 50 | 85 | 36 | 36 | 8.101 | 10.101 | 5 | 2.60 | 8,101 | ● |
| 100 | 10 | 2.01 | 30 | 50 | 90 | 40 | 42 | 10.100 | 10.100 | 5 | 2.60 | 10,100 | ● |
| 100 | 10 | 4.15 | 30 | 50 | 90 | 40 | 42 | 10.101 | 10.101 | 5 | 2.60 | 10,101 | ● |
| 100 | 12 | 2.01 | 32 | 50 | 95 | 45 | 47 | 12.100 | 18.100 | 5 | 2.65 | 12,100 | ● |
| 100 | 12 | 4.15 | 32 | 50 | 95 | 45 | 47 | 12.101 | 32.100 | 5 | 2.65 | 12,101 | ● |
| 100 | 12 | 9.08 | 32 | 50 | 95 | 45 | 47 | 12.102 | 32.101 | 5 | 2.65 | 12,102 | ● |
| 100 | 14 | 2.01 | 34 | 50 | 95 | 45 | 47 | 14.100 | 18.100 | 5 | 2.65 | 14,100 | ● |
| 100 | 14 | 4.15 | 34 | 50 | 95 | 45 | 47 | 14.101 | 32.100 | 5 | 2.65 | 14,101 | ● |
| 100 | 14 | 9.08 | 34 | 50 | 95 | 45 | 47 | 14.102 | 32.101 | 5 | 2.65 | 14,102 | ● |
| 100 | 16 | 2.01 | 38 | 50 | 100 | 48 | 53 | 16.100 | 18.100 | 5 | 2.85 | 16,100 | ● |
| 100 | 16 | 4.15 | 38 | 50 | 100 | 48 | 53 | 16.101 | 32.100 | 5 | 2.85 | 16,101 | ● |
| 100 | 16 | 9.08 | 38 | 50 | 100 | 48 | 53 | 16.102 | 32.101 | 5 | 2.85 | 16,102 | ● |
| 100 | 18 | 2.01 | 40 | 50 | 100 | 48 | 53 | 18.100 | 18.100 | 5 | 2.85 | 18,100 | ● |
| 100 | 18 | 4.15 | 40 | 50 | 100 | 48 | 53 | 18.101 | 32.100 | 5 | 2.85 | 18,101 | ● |
| 100 | 18 | 9.08 | 40 | 50 | 100 | 48 | 53 | 18.102 | 32.101 | 5 | 2.85 | 18,102 | ● |
| 100 | 20 | 4.15 | 42 | 50 | 105 | 50 | 59 | 20.100 | 32.100 | 5 | 3.35 | 20,100 | ● |
| 100 | 20 | 9.08 | 42 | 50 | 105 | 50 | 59 | 20.101 | 32.101 | 5 | 3.35 | 20,101 | ● |
| 100 | 20 | 16.62 | 42 | 50 | 105 | 50 | 59 | 20.102 | 32.102 | 5 | 3.35 | 20,102 | ● |
| 100 | 25 | 4.15 | 57 | 63 | 115 | 56 | 67 | 25.100 | 32.100 | 6 | 3.50 | 25,100 | ● |
| 100 | 25 | 9.08 | 57 | 63 | 115 | 56 | 67 | 25.101 | 32.101 | 6 | 3.50 | 25,101 | ● |
| 100 | 25 | 16.62 | 57 | 63 | 115 | 56 | 67 | 25.102 | 32.102 | 6 | 3.50 | 25,102 | ● |
| 100 | 32 | 4.15 | 64 | 75 | 120 | 60 | 72 | 32.100 | 32.100 | 6 | 3.95 | 32,100 | ● |
| 100 | 32 | 9.08 | 64 | 75 | 120 | 60 | 72 | 32.101 | 32.101 | 6 | 3.95 | 32,101 | ● |
| 100 | 32 | 16.62 | 64 | 75 | 120 | 60 | 72 | 32.102 | 32.102 | 6 | 3.95 | 32,102 | ● |

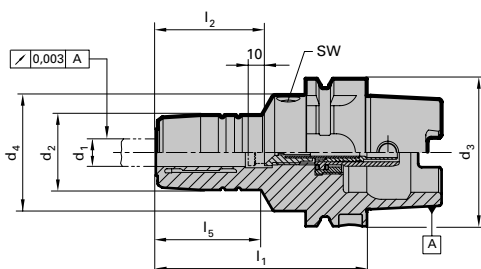
MQL 2-channel hydraulic chucks HSK-A for automatic tool change

Product information

- to Guhring MQL standard
- for 2-channel-systems
- balancing quality: G6.3 / 15,000 rev./min
- for tool shank tolerance h6
- axial length setting


Scope of delivery

- incl. MQL adjustment screw with sealing lip Guhring no. 4621 and MQL coolant delivery set Guhring no. 4623
- incl. hexagon chuck key Guhring no. 4912
- special dimensions on request



| | | | | | | | | | | | | Guhring no. 4612 | |
|----------------------|--|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|----------------------------------|---------------------------|----|------|--------------------|--------------|
| | | | | | | | | | | | | Discount group 147 | |
| HSK-A d ₃ | for shank Ø d ₁ h ₆ mm | A mm ² | d ₂ mm | d ₄ mm | l ₁ mm | l ₂ mm | l ₅ mm | incl. setting screw no. 4621 ... | incl. filler no. 4623 ... | SW | kg | Code no. | Availability |
| 50 | 6 | 2.01 | 26 | 40 | 80 | 36 | 38 | 6.050 | 10.050 | 4 | 0.95 | 6,050 | ● |
| 50 | 6 | 4.15 | 26 | 40 | 80 | 36 | 38 | 6.150 | 10.150 | 4 | 0.95 | 6,150 | ● |
| 50 | 8 | 2.01 | 28 | 40 | 80 | 36 | 38 | 8.050 | 10.050 | 4 | 0.95 | 8,050 | ● |
| 50 | 8 | 4.15 | 28 | 40 | 80 | 36 | 38 | 8.150 | 10.150 | 4 | 0.95 | 8,150 | ● |
| 50 | 10 | 2.01 | 30 | 40 | 85 | 40 | 44 | 10.050 | 10.050 | 4 | 0.95 | 10,050 | ● |
| 50 | 10 | 4.15 | 30 | 40 | 85 | 40 | 44 | 10.150 | 10.150 | 4 | 0.95 | 10,150 | ● |
| 50 | 12 | 2.01 | 32 | 40 | 90 | 45 | 49 | 12.050 | 18.050 | 4 | 0.95 | 12,050 | ● |

MQL 2-channel hydraulic chucks HSK-A for automatic tool change

| | | | | | | | | | | | | | Guhring no. 4612 | |
|-------------------------|--|--|----------------------|----------------------|----------------------|----------------------|----------------------|--|---------------------------------|----|------|----------|--------------------|--|
| | | | | | | | | | | | | | Discount group 147 | |
| HSK-A d ₃ | for shank Ø d ₁ h ₆ mm |  A mm ² | d ₂ mm | d ₄ mm | l ₁ mm | l ₂ mm | l ₅ mm | incl. setting screw no. 4621 ... | incl. filler no. 4623 ... | SW | kg | Code no. | Availability | |
| | | | | | | | | | | | | | | |
| 50 | 12 | 4.15 | 32 | 40 | 90 | 45 | 49 | 12.150 | 20.050 | 4 | 0.95 | 12,150 | ● | |
| 50 | 12 | 9.08 | 32 | 40 | 90 | 45 | 49 | 12.250 | 20.150 | 4 | 0.95 | 12,250 | ● | |
| 50 | 14 | 2.01 | 34 | 40 | 90 | 45 | 49 | 14.050 | 18.050 | 4 | 0.95 | 14,050 | ● | |
| 50 | 14 | 4.15 | 34 | 40 | 90 | 45 | 49 | 14.150 | 20.050 | 4 | 0.95 | 14,150 | ● | |
| 50 | 14 | 9.08 | 34 | 40 | 90 | 45 | 49 | 14.250 | 20.150 | 4 | 0.95 | 14,250 | ● | |
| 50 | 16 | 2.01 | 38 | 53 | 95 | 48 | 36 | 16.050 | 18.050 | 5 | 1.25 | 16,050 | ● | |
| 50 | 16 | 4.15 | 38 | 53 | 95 | 48 | 36 | 16.150 | 20.050 | 5 | 1.25 | 16,150 | ● | |
| 50 | 16 | 9.08 | 38 | 53 | 95 | 48 | 36 | 16.250 | 20.150 | 5 | 1.25 | 16,250 | ● | |
| 50 | 18 | 2.01 | 40 | 57 | 95 | 48 | 36 | 18.050 | 18.050 | 5 | 1.25 | 18,050 | ● | |
| 50 | 18 | 4.15 | 40 | 57 | 95 | 48 | 36 | 18.150 | 20.050 | 5 | 1.25 | 18,150 | ● | |
| 50 | 18 | 9.08 | 40 | 57 | 95 | 48 | 36 | 18.250 | 20.150 | 5 | 1.25 | 18,250 | ● | |
| 50 | 20 | 4.15 | 42 | 60 | 100 | 50 | 39 | 20.050 | 20.050 | 5 | 1.25 | 20,050 | ● | |
| 50 | 20 | 9.08 | 42 | 60 | 100 | 50 | 39 | 20.150 | 20.150 | 5 | 1.25 | 20,150 | ● | |
| 50 | 20 | 16.62 | 42 | 60 | 100 | 50 | 39 | 20.250 | 20.250 | 5 | 1.25 | 20,250 | ● | |
| 63 | 6 | 2.01 | 26 | 50 | 80 | 36 | 34.5 | 6.100 | 10.063 | 5 | 1.25 | 6,063 | ● | |
| 63 | 6 | 4.15 | 26 | 50 | 80 | 36 | 34.5 | 6.101 | 10.163 | 5 | 1.25 | 6,163 | ● | |
| 63 | 8 | 2.01 | 28 | 50 | 80 | 36 | 35.5 | 8.100 | 10.063 | 5 | 1.25 | 8,063 | ● | |
| 63 | 8 | 4.15 | 28 | 50 | 80 | 36 | 35.5 | 8.101 | 10.163 | 5 | 1.25 | 8,163 | ● | |
| 63 | 10 | 2.01 | 30 | 50 | 85 | 40 | 40 | 10.100 | 10.063 | 5 | 1.25 | 10,063 | ● | |
| 63 | 10 | 4.15 | 30 | 50 | 85 | 40 | 40 | 10.101 | 10.163 | 5 | 1.25 | 10,163 | ● | |
| 63 | 12 | 2.01 | 32 | 50 | 90 | 45 | 45 | 12.100 | 18.063 | 5 | 1.35 | 12,063 | ● | |
| 63 | 12 | 4.15 | 32 | 50 | 90 | 45 | 45 | 12.101 | 20.063 | 5 | 1.35 | 12,163 | ● | |
| 63 | 12 | 9.08 | 32 | 50 | 90 | 45 | 45 | 12.102 | 20.163 | 5 | 1.35 | 12,263 | ● | |
| 63 | 14 | 2.01 | 34 | 50 | 90 | 45 | 46 | 14.100 | 18.063 | 5 | 1.35 | 14,063 | ● | |
| 63 | 14 | 4.15 | 34 | 50 | 90 | 45 | 46 | 14.101 | 20.063 | 5 | 1.35 | 14,163 | ● | |
| 63 | 14 | 9.08 | 34 | 50 | 90 | 45 | 46 | 14.102 | 20.163 | 5 | 1.35 | 14,263 | ● | |
| 63 | 16 | 2.01 | 38 | 50 | 95 | 48 | 51 | 16.100 | 18.063 | 5 | 1.45 | 16,063 | ● | |
| 63 | 16 | 4.15 | 38 | 50 | 95 | 48 | 51 | 16.101 | 20.063 | 5 | 1.45 | 16,163 | ● | |
| 63 | 16 | 9.08 | 38 | 50 | 95 | 48 | 51 | 16.102 | 20.163 | 5 | 1.45 | 16,263 | ● | |
| 63 | 18 | 2.01 | 40 | 50 | 95 | 48 | 52 | 18.100 | 18.063 | 5 | 1.45 | 18,063 | ● | |
| 63 | 18 | 4.15 | 40 | 50 | 95 | 48 | 52 | 18.101 | 20.063 | 5 | 1.45 | 18,163 | ● | |
| 63 | 18 | 9.08 | 40 | 50 | 95 | 48 | 52 | 18.102 | 20.163 | 5 | 1.45 | 18,263 | ● | |
| 63 | 20 | 4.15 | 42 | 50 | 100 | 50 | 58 | 20.100 | 20.063 | 5 | 1.45 | 20,063 | ● | |
| 63 | 20 | 9.08 | 42 | 50 | 100 | 50 | 58 | 20.101 | 20.163 | 5 | 1.45 | 20,163 | ● | |
| 63 | 20 | 16.62 | 42 | 50 | 100 | 50 | 58 | 20.102 | 20.263 | 5 | 1.45 | 20,263 | ● | |
| 63 | 25 | 4.15 | 57 | 63 | 115 | 56 | 50 | 25.100 | 32.063 | 6 | 2.45 | 25,063 | ● | |
| 63 | 25 | 9.08 | 57 | 63 | 115 | 56 | 50 | 25.101 | 32.163 | 6 | 2.45 | 25,163 | ● | |
| 63 | 25 | 16.62 | 57 | 63 | 115 | 56 | 50 | 25.102 | 32.263 | 6 | 2.45 | 25,263 | ● | |
| 63 | 32 | 4.15 | 64 | 75 | 120 | 60 | 58 | 32.100 | 32.063 | 6 | 3.10 | 32,063 | ● | |
| 63 | 32 | 9.08 | 64 | 75 | 120 | 60 | 58 | 32.101 | 32.163 | 6 | 3.10 | 32,163 | ● | |
| 63 | 32 | 16.62 | 64 | 75 | 120 | 60 | 58 | 32.102 | 32.263 | 6 | 3.10 | 32,263 | ● | |
| 100 | 6 | 2.01 | 26 | 50 | 85 | 36 | 36 | 6.100 | 10.100 | 5 | 2.60 | 6,100 | ● | |
| 100 | 6 | 4.15 | 26 | 50 | 85 | 36 | 36 | 6.101 | 10.101 | 5 | 2.60 | 6,101 | ● | |
| 100 | 8 | 2.01 | 28 | 50 | 85 | 36 | 36 | 8.100 | 10.100 | 5 | 2.60 | 8,100 | ● | |
| 100 | 8 | 4.15 | 28 | 50 | 85 | 36 | 36 | 8.101 | 10.101 | 5 | 2.60 | 8,101 | ● | |
| 100 | 10 | 2.01 | 30 | 50 | 90 | 40 | 42 | 10.100 | 10.100 | 5 | 2.60 | 10,100 | ● | |
| 100 | 10 | 4.15 | 30 | 50 | 90 | 40 | 42 | 10.101 | 10.101 | 5 | 2.60 | 10,101 | ● | |
| 100 | 12 | 2.01 | 32 | 50 | 95 | 45 | 47 | 12.100 | 18.100 | 5 | 2.65 | 12,100 | ● | |
| 100 | 12 | 4.15 | 32 | 50 | 95 | 45 | 47 | 12.101 | 32.100 | 5 | 2.65 | 12,101 | ● | |
| 100 | 12 | 9.08 | 32 | 50 | 95 | 45 | 47 | 12.102 | 32.101 | 5 | 2.65 | 12,102 | ● | |
| 100 | 14 | 2.01 | 34 | 50 | 95 | 45 | 47 | 14.100 | 18.100 | 5 | 2.65 | 14,100 | ● | |
| 100 | 14 | 4.15 | 34 | 50 | 95 | 45 | 47 | 14.101 | 32.100 | 5 | 2.65 | 14,101 | ● | |
| 100 | 14 | 9.08 | 34 | 50 | 95 | 45 | 47 | 14.102 | 32.101 | 5 | 2.65 | 14,102 | ● | |
| 100 | 16 | 2.01 | 38 | 50 | 100 | 48 | 53 | 16.100 | 18.100 | 5 | 2.85 | 16,100 | ● | |
| 100 | 16 | 4.15 | 38 | 50 | 100 | 48 | 53 | 16.101 | 32.100 | 5 | 2.85 | 16,101 | ● | |
| 100 | 16 | 9.08 | 38 | 50 | 100 | 48 | 53 | 16.102 | 32.101 | 5 | 2.85 | 16,102 | ● | |
| 100 | 18 | 2.01 | 40 | 50 | 100 | 48 | 53 | 18.100 | 18.100 | 5 | 2.85 | 18,100 | ● | |
| 100 | 18 | 4.15 | 40 | 50 | 100 | 48 | 53 | 18.101 | 32.100 | 5 | 2.85 | 18,101 | ● | |
| 100 | 18 | 9.08 | 40 | 50 | 100 | 48 | 53 | 18.102 | 32.101 | 5 | 2.85 | 18,102 | ● | |
| 100 | 20 | 4.15 | 42 | 50 | 105 | 50 | 59 | 20.100 | 32.100 | 5 | 3.35 | 20,100 | ● | |
| 100 | 20 | 9.08 | 42 | 50 | 105 | 50 | 59 | 20.101 | 32.101 | 5 | 3.35 | 20,101 | ● | |
| 100 | 20 | 16.62 | 42 | 50 | 105 | 50 | 59 | 20.102 | 32.102 | 5 | 3.35 | 20,102 | ● | |
| 100 | 25 | 4.15 | 57 | 63 | 115 | 56 | 67 | 25.100 | 32.100 | 6 | 3.50 | 25,100 | ● | |
| 100 | 25 | 9.08 | 57 | 63 | 115 | 56 | 67 | 25.101 | 32.101 | 6 | 3.50 | 25,101 | ● | |
| 100 | 25 | 16.62 | 57 | 63 | 115 | 56 | 67 | 25.102 | 32.102 | 6 | 3.50 | 25,102 | ● | |
| 100 | 32 | 4.15 | 64 | 75 | 120 | 60 | 72 | 32.100 | 32.100 | 6 | 3.95 | 32,100 | ● | |
| 100 | 32 | 9.08 | 64 | 75 | 120 | 60 | 72 | 32.101 | 32.101 | 6 | 3.95 | 32,101 | ● | |
| 100 | 32 | 16.62 | 64 | 75 | 120 | 60 | 72 | 32.102 | 32.102 | 6 | 3.95 | 32,102 | ● | |

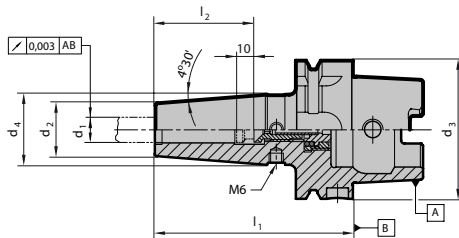
MQL 2-channel shrink fit chucks HSK-A for manual tool change

Product information

- to Guhring MQL standard
- for 2-channel-systems
- balancing quality: G6.3 / 15,000 rev./min
- incl. balancing thread 4xM6/6xM6
- for tool shank tolerance h6
- also available in the lengths l1 = 120 mm and 160 mm (concentricity 5 µm)

Scope of delivery

- incl. MQL adjustment screw Guhring no. 4621 and MQL coolant delivery set Guhring no. 4622
- special dimensions on request




Guhring no. **4613**


Discount group **148**

| HSK-A d3 | for shank Ø d1 h6 mm | A mm ² | d2 mm | d4 mm | l1 mm | l2 mm | incl. setting screw no. 4621 ... | incl. filler no. 4622 ... | kg | 4:1 | |
|-------------|----------------------------|----------------------|----------|----------|----------|----------|--|---------------------------------|------|----------|--------------|
| | | | | | | | | | | Code no. | Availability |
| 40 | 6 | 2.01 | 21 | 27 | 80 | 36 | 6.040 | 16.040 | 0.40 | 6,040 | ● |
| 40 | 6 | 4.15 | 21 | 27 | 80 | 36 | 6.140 | 16.140 | 0.40 | 6,140 | ● |
| 40 | 8 | 2.01 | 21 | 27 | 80 | 36 | 8.040 | 16.040 | 0.40 | 8,040 | ● |
| 40 | 8 | 4.15 | 21 | 27 | 80 | 36 | 8.140 | 16.140 | 0.40 | 8,140 | ● |
| 40 | 10 | 2.01 | 24 | 32 | 80 | 40 | 10.040 | 16.040 | 0.50 | 10,040 | ● |
| 40 | 10 | 4.15 | 24 | 32 | 80 | 40 | 10.140 | 16.140 | 0.50 | 10,140 | ● |
| 40 | 12 | 2.01 | 24 | 32 | 90 | 45 | 12.040 | 16.040 | 0.50 | 12,040 | ● |
| 40 | 12 | 4.15 | 24 | 32 | 90 | 45 | 12.140 | 16.140 | 0.50 | 12,140 | ● |
| 40 | 12 | 9.08 | 24 | 32 | 90 | 45 | 12.240 | 16.240 | 0.50 | 12,240 | ● |
| 40 | 14 | 2.01 | 27 | 34 | 90 | 45 | 14.040 | 16.040 | 0.60 | 14,040 | ● |
| 40 | 14 | 4.15 | 27 | 34 | 90 | 45 | 14.140 | 16.140 | 0.60 | 14,140 | ● |
| 40 | 14 | 9.08 | 27 | 34 | 90 | 45 | 14.240 | 16.240 | 0.60 | 14,240 | ● |
| 40 | 16 | 2.01 | 27 | 34 | 90 | 48 | 16.040 | 16.040 | 0.50 | 16,040 | ● |
| 40 | 16 | 4.15 | 27 | 34 | 90 | 48 | 16.140 | 16.140 | 0.50 | 16,140 | ● |
| 40 | 16 | 9.08 | 27 | 34 | 90 | 48 | 16.240 | 16.240 | 0.50 | 16,240 | ● |
| 50 | 6 | 2.01 | 21 | 27 | 80 | 36 | 6.050 | 10.050 | 0.60 | 6,050 | ● |
| 50 | 6 | 4.15 | 21 | 27 | 80 | 36 | 6.150 | 10.150 | 0.60 | 6,150 | ● |
| 50 | 8 | 2.01 | 21 | 27 | 80 | 36 | 8.050 | 10.050 | 0.60 | 8,050 | ● |
| 50 | 8 | 4.15 | 21 | 27 | 80 | 36 | 8.150 | 10.150 | 0.60 | 8,150 | ● |
| 50 | 10 | 2.01 | 24 | 32 | 85 | 40 | 10.050 | 10.050 | 0.70 | 10,050 | ● |
| 50 | 10 | 4.15 | 24 | 32 | 85 | 40 | 10.150 | 10.150 | 0.70 | 10,150 | ● |
| 50 | 12 | 2.01 | 24 | 32 | 90 | 45 | 12.050 | 18.050 | 0.70 | 12,050 | ● |
| 50 | 12 | 4.15 | 24 | 32 | 90 | 45 | 12.150 | 20.050 | 0.70 | 12,150 | ● |
| 50 | 12 | 9.08 | 24 | 32 | 90 | 45 | 12.250 | 20.150 | 0.70 | 12,250 | ● |
| 50 | 14 | 2.01 | 27 | 34 | 90 | 45 | 14.050 | 18.050 | 0.70 | 14,050 | ● |
| 50 | 14 | 4.15 | 27 | 34 | 90 | 45 | 14.150 | 20.050 | 0.70 | 14,150 | ● |
| 50 | 14 | 9.08 | 27 | 34 | 90 | 45 | 14.250 | 20.150 | 0.70 | 14,250 | ● |
| 50 | 16 | 2.01 | 27 | 34 | 95 | 48 | 16.050 | 18.050 | 0.70 | 16,050 | ● |
| 50 | 16 | 4.15 | 27 | 34 | 95 | 48 | 16.150 | 20.050 | 0.70 | 16,150 | ● |
| 50 | 16 | 9.08 | 27 | 34 | 95 | 48 | 16.250 | 20.150 | 0.70 | 16,250 | ● |
| 50 | 18 | 2.01 | 33 | 42 | 95 | 48 | 18.050 | 18.050 | 0.90 | 18,050 | ● |
| 50 | 18 | 4.15 | 33 | 42 | 95 | 48 | 18.150 | 20.050 | 0.90 | 18,150 | ● |
| 50 | 18 | 9.08 | 33 | 42 | 95 | 48 | 18.250 | 20.150 | 0.90 | 18,250 | ● |
| 50 | 20 | 4.15 | 33 | 42 | 100 | 50 | 20.050 | 20.050 | 0.90 | 20,050 | ● |
| 50 | 20 | 9.08 | 33 | 42 | 100 | 50 | 20.150 | 20.150 | 0.90 | 20,150 | ● |
| 50 | 20 | 16.62 | 33 | 42 | 100 | 50 | 20.250 | 20.250 | 0.90 | 20,250 | ● |
| 63 | 6 | 2.01 | 21 | 27 | 80 | 36 | 6.100 | 10.063 | 0.70 | 6,063 | ● |
| 63 | 6 | 4.15 | 21 | 27 | 80 | 36 | 6.101 | 10.163 | 0.70 | 6,163 | ● |
| 63 | 8 | 2.01 | 21 | 27 | 80 | 36 | 8.100 | 10.063 | 0.70 | 8,063 | ● |
| 63 | 8 | 4.15 | 21 | 27 | 80 | 36 | 8.101 | 10.163 | 0.70 | 8,163 | ● |
| 63 | 10 | 2.01 | 24 | 32 | 85 | 40 | 10.100 | 10.063 | 0.70 | 10,063 | ● |
| 63 | 10 | 4.15 | 24 | 32 | 85 | 40 | 10.101 | 10.163 | 0.70 | 10,163 | ● |
| 63 | 12 | 2.01 | 24 | 32 | 90 | 45 | 12.100 | 18.063 | 0.80 | 12,063 | ● |
| 63 | 12 | 4.15 | 24 | 32 | 90 | 45 | 12.101 | 20.063 | 0.80 | 12,163 | ● |
| 63 | 12 | 9.08 | 24 | 32 | 90 | 45 | 12.102 | 20.163 | 0.80 | 12,263 | ● |
| 63 | 14 | 2.01 | 27 | 34 | 90 | 45 | 14.100 | 18.063 | 0.80 | 14,063 | ● |
| 63 | 14 | 4.15 | 27 | 34 | 90 | 45 | 14.101 | 20.063 | 0.80 | 14,163 | ● |


MQL 2-channel shrink fit chucks HSK-A for manual tool change

| | | | | | | | | | | Guhring no. 4613 | |
|-------------------------|--|--|----------------------|----------------------|----------------------|----------------------|--|---------------------------------|------|--------------------|--------------|
| | | | | | | | | | | Discount group 148 | |
| HSK-A d ₃ | for shank Ø d ₁ h ₆ mm |  A mm ² | d ₂ mm | d ₄ mm | l ₁ mm | l ₂ mm | incl. setting screw no. 4621 ... | incl. filler no. 4622 ... | kg | Code no. | Availability |
| 63 | 14 | 9.08 | 27 | 34 | 90 | 45 | 14.102 | 20.163 | 0.80 | 14,263 | ● |
| 63 | 16 | 2.01 | 27 | 34 | 95 | 48 | 16.100 | 18.063 | 0.90 | 16,063 | ● |
| 63 | 16 | 4.15 | 27 | 34 | 95 | 48 | 16.101 | 20.063 | 0.90 | 16,163 | ● |
| 63 | 16 | 9.08 | 27 | 34 | 95 | 48 | 16.102 | 20.163 | 0.90 | 16,263 | ● |
| 63 | 18 | 2.01 | 33 | 42 | 95 | 48 | 18.100 | 18.063 | 0.90 | 18,063 | ● |
| 63 | 18 | 4.15 | 33 | 42 | 95 | 48 | 18.101 | 20.063 | 0.90 | 18,163 | ● |
| 63 | 18 | 9.08 | 33 | 42 | 95 | 48 | 18.102 | 20.163 | 0.90 | 18,263 | ● |
| 63 | 20 | 4.15 | 33 | 42 | 100 | 50 | 20.100 | 20.063 | 1.00 | 20,063 | ● |
| 63 | 20 | 9.08 | 33 | 42 | 100 | 50 | 20.101 | 20.163 | 1.00 | 20,163 | ● |
| 63 | 20 | 16.62 | 33 | 42 | 100 | 50 | 20.102 | 20.263 | 1.00 | 20,263 | ● |
| 63 | 25 | 4.15 | 44 | 53 | 115 | 56 | 25.100 | 32.063 | 1.00 | 25,063 | ● |
| 63 | 25 | 9.08 | 44 | 53 | 115 | 56 | 25.101 | 32.163 | 1.00 | 25,163 | ● |
| 63 | 25 | 16.62 | 44 | 53 | 115 | 56 | 25.102 | 32.263 | 1.00 | 25,263 | ● |
| 63 | 32 | 4.15 | 44 | 53 | 120 | 60 | 32.100 | 32.063 | 1.10 | 32,063 | ● |
| 63 | 32 | 9.08 | 44 | 53 | 120 | 60 | 32.101 | 32.163 | 1.10 | 32,163 | ● |
| 63 | 32 | 16.62 | 44 | 53 | 120 | 60 | 32.102 | 32.263 | 1.10 | 32,263 | ● |
| 63 | 6 | 2.01 | 21 | 27 | 120 | 36 | 6.032 | 208.063 | 0.90 | 206,063 | ● |
| 63 | 6 | 4.15 | 21 | 27 | 120 | 36 | 6.132 | 208.163 | 0.90 | 206,163 | ● |
| 63 | 8 | 2.01 | 21 | 27 | 120 | 36 | 8.040 | 208.063 | 1.00 | 208,063 | ● |
| 63 | 8 | 4.15 | 21 | 27 | 120 | 36 | 8.140 | 208.163 | 1.00 | 208,163 | ● |
| 63 | 10 | 2.01 | 24 | 32 | 120 | 40 | 10.050 | 210.063 | 1.10 | 210,063 | ● |
| 63 | 10 | 4.15 | 24 | 32 | 120 | 40 | 10.150 | 210.063 | 1.10 | 210,163 | ● |
| 63 | 12 | 2.01 | 24 | 32 | 120 | 45 | 12.100 | 214.063 | 1.20 | 212,063 | ● |
| 63 | 12 | 4.15 | 24 | 32 | 120 | 45 | 12.101 | 214.163 | 1.20 | 212,163 | ● |
| 63 | 12 | 9.08 | 24 | 32 | 120 | 45 | 12.102 | 214.263 | 1.20 | 212,263 | ● |
| 63 | 14 | 2.01 | 27 | 34 | 120 | 45 | 14.100 | 214.063 | 1.20 | 214,063 | ● |
| 63 | 14 | 4.15 | 27 | 34 | 120 | 45 | 14.101 | 214.163 | 1.20 | 214,163 | ● |
| 63 | 14 | 9.08 | 27 | 34 | 120 | 45 | 14.102 | 214.263 | 1.20 | 214,263 | ● |
| 63 | 16 | 2.01 | 27 | 34 | 120 | 48 | 16.100 | 218.063 | 1.20 | 216,063 | ● |
| 63 | 16 | 4.15 | 27 | 34 | 120 | 48 | 16.101 | 218.163 | 1.20 | 216,163 | ● |
| 63 | 16 | 9.08 | 27 | 34 | 120 | 48 | 16.102 | 218.263 | 1.20 | 216,263 | ● |
| 63 | 18 | 2.01 | 33 | 42 | 120 | 48 | 18.100 | 218.063 | 1.40 | 218,063 | ● |
| 63 | 18 | 4.15 | 33 | 42 | 120 | 48 | 18.101 | 218.163 | 1.40 | 218,163 | ● |
| 63 | 18 | 9.08 | 33 | 42 | 120 | 48 | 18.102 | 218.263 | 1.40 | 218,263 | ● |
| 63 | 20 | 4.15 | 33 | 42 | 120 | 50 | 20.100 | 220.063 | 1.40 | 220,063 | ● |
| 63 | 20 | 9.08 | 33 | 42 | 120 | 50 | 20.101 | 220.163 | 1.40 | 220,163 | ● |
| 63 | 20 | 16.62 | 33 | 42 | 120 | 50 | 20.102 | 220.263 | 1.40 | 220,263 | ● |
| 63 | 6 | 2.01 | 21 | 27 | 160 | 36 | 6.032 | 108.063 | 0.80 | 106,063 | ● |
| 63 | 6 | 4.15 | 21 | 27 | 160 | 36 | 6.132 | 108.163 | 0.80 | 106,163 | ● |
| 63 | 8 | 2.01 | 21 | 27 | 160 | 36 | 8.040 | 108.063 | 0.80 | 108,063 | ● |
| 63 | 8 | 4.15 | 21 | 27 | 160 | 36 | 8.140 | 108.163 | 0.80 | 108,163 | ● |
| 63 | 10 | 2.01 | 24 | 32 | 160 | 40 | 10.050 | 110.063 | 0.90 | 110,063 | ● |
| 63 | 10 | 4.15 | 24 | 32 | 160 | 40 | 10.150 | 110.163 | 0.90 | 110,163 | ● |
| 63 | 12 | 2.01 | 24 | 32 | 160 | 45 | 12.100 | 114.063 | 0.90 | 112,063 | ● |
| 63 | 12 | 4.15 | 24 | 32 | 160 | 45 | 12.101 | 114.163 | 0.90 | 112,163 | ● |
| 63 | 12 | 9.08 | 24 | 32 | 160 | 45 | 12.102 | 114.263 | 0.90 | 112,263 | ● |
| 63 | 14 | 2.01 | 27 | 34 | 160 | 45 | 14.100 | 114.063 | 1.00 | 114,063 | ● |
| 63 | 14 | 4.15 | 27 | 34 | 160 | 45 | 14.101 | 114.163 | 1.00 | 114,163 | ● |
| 63 | 14 | 9.08 | 27 | 34 | 160 | 45 | 14.102 | 114.263 | 1.00 | 114,263 | ● |
| 63 | 16 | 2.01 | 27 | 34 | 160 | 48 | 16.100 | 118.063 | 1.00 | 116,063 | ● |
| 63 | 16 | 4.15 | 27 | 34 | 160 | 48 | 16.101 | 118.163 | 1.00 | 116,163 | ● |
| 63 | 16 | 9.08 | 27 | 34 | 160 | 48 | 16.102 | 118.263 | 1.00 | 116,263 | ● |
| 63 | 18 | 2.01 | 33 | 42 | 160 | 48 | 18.100 | 118.063 | 1.20 | 118,063 | ● |
| 63 | 18 | 4.15 | 33 | 42 | 160 | 48 | 18.101 | 118.163 | 1.20 | 118,163 | ● |
| 63 | 18 | 9.08 | 33 | 42 | 160 | 48 | 18.102 | 118.263 | 1.20 | 118,263 | ● |
| 63 | 20 | 4.15 | 33 | 42 | 160 | 50 | 20.100 | 120.063 | 1.20 | 120,063 | ● |
| 63 | 20 | 9.08 | 33 | 42 | 160 | 50 | 20.101 | 120.163 | 1.20 | 120,163 | ● |
| 63 | 20 | 16.62 | 33 | 42 | 160 | 50 | 20.102 | 120.263 | 1.20 | 120,263 | ● |
| 63 | 25 | 4.15 | 44 | 53 | 160 | 56 | 25.100 | 125.063 | 1.80 | 125,063 | ● |
| 63 | 25 | 9.08 | 44 | 53 | 160 | 56 | 25.101 | 125.163 | 1.80 | 125,163 | ● |
| 63 | 25 | 16.62 | 44 | 53 | 160 | 56 | 25.102 | 125.263 | 1.80 | 125,263 | ● |
| 63 | 32 | 4.15 | 44 | 53 | 160 | 60 | 32.100 | 132.063 | 1.70 | 132,063 | ● |
| 63 | 32 | 9.08 | 44 | 53 | 160 | 60 | 32.101 | 132.163 | 1.70 | 132,163 | ● |
| 63 | 32 | 16.62 | 44 | 53 | 160 | 60 | 32.102 | 132.263 | 1.70 | 132,263 | ● |
| 80 | 6 | 2.01 | 21 | 27 | 85 | 36 | 6.100 | 10.080 | 1.30 | 6,080 | ● |
| 80 | 6 | 4.15 | 21 | 27 | 85 | 36 | 6.101 | 10.180 | 1.30 | 6,180 | ● |
| 80 | 8 | 2.01 | 21 | 27 | 85 | 36 | 8.100 | 10.080 | 1.30 | 8,080 | ● |
| 80 | 8 | 4.15 | 21 | 27 | 85 | 36 | 8.101 | 10.180 | 1.30 | 8,180 | ● |

MQL 2-channel shrink fit chucks HSK-A for manual tool change

| | | | | | | | | | | | Guhring no. 4613 | |
|----------------------|--|---|-------------------|-------------------|-------------------|-------------------|----------------------------------|---------------------------|------|----------|--------------------|--|
| | | | | | | | | | | | Discount group 148 | |
| HSK-A d ₃ | for shank Ø d ₁ h ₆ mm |  A mm ² | d ₂ mm | d ₄ mm | l ₁ mm | l ₂ mm | incl. setting screw no. 4621 ... | incl. filler no. 4622 ... | kg | Code no. | Availability | |
| 80 | 10 | 2.01 | 24 | 32 | 90 | 40 | 10.100 | 10.080 | 1.40 | 10,080 | ● | |
| 80 | 10 | 4.15 | 24 | 32 | 90 | 40 | 10.101 | 10.180 | 1.40 | 10,180 | ● | |
| 80 | 12 | 2.01 | 24 | 32 | 95 | 45 | 12.100 | 18.080 | 1.40 | 12,080 | ● | |
| 80 | 12 | 4.15 | 24 | 32 | 95 | 45 | 12.101 | 32.080 | 1.40 | 12,180 | ● | |
| 80 | 12 | 9.08 | 24 | 32 | 95 | 45 | 12.102 | 32.180 | 1.40 | 12,280 | ● | |
| 80 | 14 | 2.01 | 27 | 34 | 95 | 45 | 14.100 | 18.080 | 1.50 | 14,080 | ● | |
| 80 | 14 | 4.15 | 27 | 34 | 95 | 45 | 14.101 | 32.080 | 1.50 | 14,180 | ● | |
| 80 | 14 | 9.08 | 27 | 34 | 95 | 45 | 14.102 | 32.180 | 1.50 | 14,280 | ● | |
| 80 | 16 | 2.01 | 27 | 34 | 100 | 48 | 16.100 | 18.080 | 1.50 | 16,080 | ● | |
| 80 | 16 | 4.15 | 27 | 34 | 100 | 48 | 16.101 | 32.080 | 1.50 | 16,180 | ● | |
| 80 | 16 | 9.08 | 27 | 34 | 100 | 48 | 16.102 | 32.180 | 1.50 | 16,280 | ● | |
| 80 | 18 | 2.01 | 33 | 42 | 100 | 48 | 18.100 | 18.080 | 1.70 | 18,080 | ● | |
| 80 | 18 | 4.15 | 33 | 42 | 100 | 48 | 18.101 | 32.080 | 1.70 | 18,180 | ● | |
| 80 | 18 | 9.08 | 33 | 42 | 100 | 48 | 18.102 | 32.180 | 1.70 | 18,280 | ● | |
| 80 | 20 | 4.15 | 33 | 42 | 105 | 50 | 20.100 | 32.080 | 1.70 | 20,080 | ● | |
| 80 | 20 | 9.08 | 33 | 42 | 105 | 50 | 20.101 | 32.180 | 1.70 | 20,180 | ● | |
| 80 | 20 | 16.62 | 33 | 42 | 105 | 50 | 20.102 | 32.280 | 1.70 | 20,280 | ● | |
| 80 | 25 | 4.15 | 44 | 53 | 115 | 56 | 25.100 | 32.080 | 2.20 | 25,080 | ● | |
| 80 | 25 | 9.08 | 44 | 53 | 115 | 56 | 25.101 | 32.180 | 2.20 | 25,180 | ● | |
| 80 | 25 | 16.62 | 44 | 53 | 115 | 56 | 25.102 | 32.280 | 2.20 | 25,280 | ● | |
| 80 | 32 | 4.15 | 44 | 53 | 120 | 60 | 32.100 | 32.080 | 2.10 | 32,080 | ● | |
| 80 | 32 | 9.08 | 44 | 53 | 120 | 60 | 32.101 | 32.180 | 2.10 | 32,180 | ● | |
| 80 | 32 | 16.62 | 44 | 53 | 120 | 60 | 32.102 | 32.280 | 2.10 | 32,280 | ● | |
| 100 | 6 | 2.01 | 21 | 27 | 85 | 36 | 6.100 | 10.100 | 2.10 | 6,100 | ● | |
| 100 | 6 | 4.15 | 21 | 27 | 85 | 36 | 6.101 | 10.101 | 2.10 | 6,101 | ● | |
| 100 | 8 | 2.01 | 21 | 27 | 85 | 36 | 8.100 | 10.100 | 2.20 | 8,100 | ● | |
| 100 | 8 | 4.15 | 21 | 27 | 85 | 36 | 8.101 | 10.101 | 2.20 | 8,101 | ● | |
| 100 | 10 | 2.01 | 24 | 32 | 90 | 40 | 10.100 | 10.100 | 2.30 | 10,100 | ● | |
| 100 | 10 | 4.15 | 24 | 32 | 90 | 40 | 10.101 | 10.101 | 2.30 | 10,101 | ● | |
| 100 | 12 | 2.01 | 24 | 32 | 95 | 45 | 12.100 | 18.100 | 2.30 | 12,100 | ● | |
| 100 | 12 | 4.15 | 24 | 32 | 95 | 45 | 12.101 | 32.100 | 2.30 | 12,101 | ● | |
| 100 | 12 | 9.08 | 24 | 32 | 95 | 45 | 12.102 | 32.101 | 2.30 | 12,102 | ● | |
| 100 | 14 | 2.01 | 27 | 34 | 95 | 45 | 14.100 | 18.100 | 2.30 | 14,100 | ● | |
| 100 | 14 | 4.15 | 27 | 34 | 95 | 45 | 14.101 | 32.100 | 2.30 | 14,101 | ● | |
| 100 | 14 | 9.08 | 27 | 34 | 95 | 45 | 14.102 | 32.101 | 2.30 | 14,102 | ● | |
| 100 | 16 | 2.01 | 27 | 34 | 100 | 48 | 16.100 | 18.100 | 2.30 | 16,100 | ● | |
| 100 | 16 | 4.15 | 27 | 34 | 100 | 48 | 16.101 | 32.100 | 2.30 | 16,101 | ● | |
| 100 | 16 | 9.08 | 27 | 34 | 100 | 48 | 16.102 | 32.101 | 2.30 | 16,102 | ● | |
| 100 | 18 | 2.01 | 33 | 42 | 100 | 48 | 18.100 | 18.100 | 2.50 | 18,100 | ● | |
| 100 | 18 | 4.15 | 33 | 42 | 100 | 48 | 18.101 | 32.100 | 2.50 | 18,101 | ● | |
| 100 | 18 | 9.08 | 33 | 42 | 100 | 48 | 18.102 | 32.101 | 2.50 | 18,102 | ● | |
| 100 | 20 | 4.15 | 33 | 42 | 105 | 50 | 20.100 | 32.100 | 2.50 | 20,100 | ● | |
| 100 | 20 | 9.08 | 33 | 42 | 105 | 50 | 20.101 | 32.101 | 2.50 | 20,101 | ● | |
| 100 | 20 | 16.62 | 33 | 42 | 105 | 50 | 20.102 | 32.102 | 2.50 | 20,102 | ● | |
| 100 | 25 | 4.15 | 44 | 53 | 115 | 56 | 25.100 | 32.100 | 3.00 | 25,100 | ● | |
| 100 | 25 | 9.08 | 44 | 53 | 115 | 56 | 25.101 | 32.101 | 3.00 | 25,101 | ● | |
| 100 | 25 | 16.62 | 44 | 53 | 115 | 56 | 25.102 | 32.102 | 3.00 | 25,102 | ● | |
| 100 | 32 | 4.15 | 44 | 53 | 120 | 60 | 32.100 | 32.100 | 3.00 | 32,100 | ● | |
| 100 | 32 | 9.08 | 44 | 53 | 120 | 60 | 32.101 | 32.101 | 3.00 | 32,101 | ● | |
| 100 | 32 | 16.62 | 44 | 53 | 120 | 60 | 32.102 | 32.102 | 3.00 | 32,102 | ● | |
| 100 | 6 | 2.01 | 21 | 27 | 160 | 36 | 6.032 | 108.100 | 2.60 | 106,100 | ● | |
| 100 | 6 | 4.15 | 21 | 27 | 160 | 36 | 6.132 | 108.101 | 2.60 | 106,101 | ● | |
| 100 | 8 | 2.01 | 21 | 27 | 160 | 36 | 8.040 | 108.100 | 2.50 | 108,100 | ● | |
| 100 | 8 | 4.15 | 21 | 27 | 160 | 36 | 8.140 | 108.101 | 2.50 | 108,101 | ● | |
| 100 | 10 | 2.01 | 24 | 32 | 160 | 40 | 10.050 | 110.100 | 2.70 | 110,100 | ● | |
| 100 | 10 | 4.15 | 24 | 32 | 160 | 40 | 10.150 | 110.101 | 2.70 | 110,101 | ● | |
| 100 | 12 | 2.01 | 24 | 32 | 160 | 45 | 12.100 | 114.100 | 2.70 | 112,100 | ● | |
| 100 | 12 | 4.15 | 24 | 32 | 160 | 45 | 12.101 | 114.101 | 2.70 | 112,101 | ● | |
| 100 | 12 | 9.08 | 24 | 32 | 160 | 45 | 12.102 | 114.102 | 2.70 | 112,102 | ● | |
| 100 | 14 | 2.01 | 27 | 34 | 160 | 45 | 14.100 | 114.100 | 2.80 | 114,100 | ● | |
| 100 | 14 | 4.15 | 27 | 34 | 160 | 45 | 14.101 | 114.101 | 2.80 | 114,101 | ● | |
| 100 | 14 | 9.08 | 27 | 34 | 160 | 45 | 14.102 | 114.102 | 2.80 | 114,102 | ● | |
| 100 | 16 | 2.01 | 27 | 34 | 160 | 48 | 16.100 | 118.100 | 2.80 | 116,100 | ● | |
| 100 | 16 | 4.15 | 27 | 34 | 160 | 48 | 16.101 | 118.101 | 2.80 | 116,101 | ● | |
| 100 | 16 | 9.08 | 27 | 34 | 160 | 48 | 16.102 | 118.102 | 2.80 | 116,102 | ● | |
| 100 | 18 | 2.01 | 33 | 42 | 160 | 48 | 18.100 | 118.100 | 3.20 | 118,100 | ● | |
| 100 | 18 | 4.15 | 33 | 42 | 160 | 48 | 18.101 | 118.101 | 3.20 | 118,101 | ● | |
| 100 | 18 | 9.08 | 33 | 42 | 160 | 48 | 18.102 | 118.102 | 3.20 | 118,102 | ● | |
| 100 | 20 | 4.15 | 33 | 42 | 160 | 50 | 20.100 | 120.100 | 3.10 | 120,100 | ● | |

MQL 2-channel shrink fit chucks HSK-A for manual tool change

| | | | | | | | | | | Guhring no. 4613 | |
|----------------------|--|---|-------------------|-------------------|-------------------|-------------------|----------------------------------|---------------------------|------|---------------------------|--------------|
| | | | | | | | | | | Discount group 148 | |
| HSK-A d ₃ | for shank Ø d ₁ h ₆ mm |  A mm ² | d ₂ mm | d ₄ mm | l ₁ mm | l ₂ mm | incl. setting screw no. 4621 ... | incl. filler no. 4622 ... | kg | Code no. | Availability |
| 100 | 20 | 9.08 | 33 | 42 | 160 | 50 | 20.101 | 120.101 | 3.10 | 120,101 | ● |
| 100 | 20 | 16.62 | 33 | 42 | 160 | 50 | 20.102 | 120.102 | 3.10 | 120,102 | ● |
| 100 | 25 | 4.15 | 44 | 53 | 160 | 56 | 25.100 | 125.100 | 3.90 | 125,100 | ● |
| 100 | 25 | 9.08 | 44 | 53 | 160 | 56 | 25.101 | 125.101 | 3.90 | 125,101 | ● |
| 100 | 25 | 16.62 | 44 | 53 | 160 | 56 | 25.102 | 125.102 | 3.90 | 125,102 | ● |
| 100 | 32 | 4.15 | 44 | 53 | 160 | 60 | 32.100 | 132.100 | 3.70 | 132,100 | ● |
| 100 | 32 | 9.08 | 44 | 53 | 160 | 60 | 32.101 | 132.101 | 3.70 | 132,101 | ● |
| 100 | 32 | 16.62 | 44 | 53 | 160 | 60 | 32.102 | 132.102 | 3.70 | 132,102 | ● |

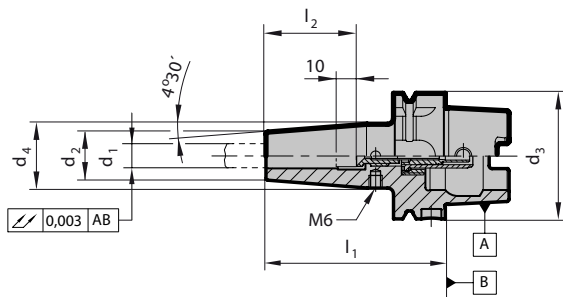
MQL 2-channel shrink fit chucks HSK-A for automatic tool change


Product information

- to Guhring MQL standard
- for 2-channel-systems
- balancing quality: G6.3 / 15,000 rev./min
- incl. balancing thread 4xM6/6xM6
- for tool shank tolerance h6
- also available in the lengths l₁ = 120 mm and 160 mm (concentricity 5 µm)


Scope of delivery

- incl. MQL adjustment screw Guhring no. 4621 and MQL coolant delivery set Guhring no. 4623
- special dimensions on request




| | | | | | | | | | | Guhring no. 4614 | |
|----------------------|--|---|-------------------|-------------------|-------------------|-------------------|----------------------------------|---------------------------------|------|---------------------------|--------------|
| | | | | | | | | | | Discount group 148 | |
| HSK-A d ₃ | for shank Ø d ₁ h ₆ mm |  A mm ² | d ₂ mm | d ₄ mm | l ₁ mm | l ₂ mm | incl. setting screw no. 4621 ... | incl. cool. deliv. set 4623 ... | kg | Code no. | Availability |
| 40 | 6 | 2.01 | 21 | 27 | 80 | 36 | 6.040 | 16.040 | 0.40 | 6,040 | ● |
| 40 | 6 | 4.15 | 21 | 27 | 80 | 36 | 6.140 | 16.140 | 0.40 | 6,140 | ● |
| 40 | 8 | 2.01 | 21 | 27 | 80 | 36 | 8.040 | 16.040 | 0.40 | 8,040 | ● |
| 40 | 8 | 4.15 | 21 | 27 | 80 | 36 | 8.140 | 16.140 | 0.40 | 8,140 | ● |
| 40 | 10 | 2.01 | 24 | 32 | 80 | 40 | 10.040 | 16.040 | 0.50 | 10,040 | ● |
| 40 | 10 | 4.15 | 24 | 32 | 80 | 40 | 10.140 | 16.140 | 0.50 | 10,140 | ● |
| 40 | 12 | 2.01 | 24 | 32 | 90 | 45 | 12.040 | 16.040 | 0.50 | 12,040 | ● |
| 40 | 12 | 4.15 | 24 | 32 | 90 | 45 | 12.140 | 16.140 | 0.50 | 12,140 | ● |
| 40 | 12 | 9.08 | 24 | 32 | 90 | 45 | 12.240 | 16.240 | 0.50 | 12,240 | ● |
| 40 | 14 | 2.01 | 27 | 34 | 90 | 45 | 14.040 | 16.040 | 0.60 | 14,040 | ● |
| 40 | 14 | 4.15 | 27 | 34 | 90 | 45 | 14.140 | 16.140 | 0.60 | 14,140 | ● |
| 40 | 14 | 9.08 | 27 | 34 | 90 | 45 | 14.240 | 16.240 | 0.60 | 14,240 | ● |
| 40 | 16 | 2.01 | 27 | 34 | 90 | 48 | 16.040 | 16.040 | 0.50 | 16,040 | ● |
| 40 | 16 | 4.15 | 27 | 34 | 90 | 48 | 16.140 | 16.140 | 0.50 | 16,140 | ● |
| 40 | 16 | 9.08 | 27 | 34 | 90 | 48 | 16.240 | 16.240 | 0.50 | 16,240 | ● |
| 50 | 6 | 2.01 | 21 | 27 | 80 | 36 | 6.050 | 10.050 | 0.60 | 6,050 | ● |
| 50 | 6 | 4.15 | 21 | 27 | 80 | 36 | 6.150 | 10.150 | 0.60 | 6,150 | ● |
| 50 | 8 | 2.01 | 21 | 27 | 80 | 36 | 8.050 | 10.050 | 0.60 | 8,050 | ● |
| 50 | 8 | 4.15 | 21 | 27 | 80 | 36 | 8.150 | 10.150 | 0.60 | 8,150 | ● |
| 50 | 10 | 2.01 | 24 | 32 | 85 | 40 | 10.050 | 10.050 | 0.70 | 10,050 | ● |
| 50 | 10 | 4.15 | 24 | 32 | 85 | 40 | 10.150 | 10.150 | 0.70 | 10,150 | ● |
| 50 | 12 | 2.01 | 24 | 32 | 90 | 45 | 12.050 | 18.050 | 0.70 | 12,050 | ● |
| 50 | 12 | 4.15 | 24 | 32 | 90 | 45 | 12.150 | 20.050 | 0.70 | 12,150 | ● |
| 50 | 12 | 9.08 | 24 | 32 | 90 | 45 | 12.250 | 20.150 | 0.70 | 12,250 | ● |
| 50 | 14 | 2.01 | 27 | 34 | 90 | 45 | 14.050 | 18.050 | 0.70 | 14,050 | ● |
| 50 | 14 | 4.15 | 27 | 34 | 90 | 45 | 14.150 | 20.050 | 0.70 | 14,150 | ● |
| 50 | 14 | 9.08 | 27 | 34 | 90 | 45 | 14.250 | 20.150 | 0.70 | 14,250 | ● |
| 50 | 16 | 2.01 | 27 | 34 | 95 | 48 | 16.050 | 18.050 | 0.70 | 16,050 | ● |


MQL 2-channel shrink fit chucks HSK-A for automatic tool change

| HSK-A d ₃ | for shank Ø d ₁ h ₆ mm |  A mm ² | d ₂ mm | d ₄ mm | l ₁ mm | l ₂ mm | incl. setting screw no. 4621 ... | incl. cool. deliv. se t 4623 ... | kg | Guhring no. | 4614 | | |
|-------------------------|--|--|----------------------|----------------------|----------------------|----------------------|--|--|------|----------------|--------------|-----|--|
| | | | | | | | | | | Discount group | | 148 | |
| | | | | | | | | | | Code no. | Availability | | |
| 50 | 16 | 4.15 | 27 | 34 | 95 | 48 | 16.150 | 20.050 | 0.70 | 16,150 | ● | | |
| 50 | 16 | 9.08 | 27 | 34 | 95 | 48 | 16.250 | 20.150 | 0.70 | 16,250 | ● | | |
| 50 | 18 | 2.01 | 33 | 42 | 95 | 48 | 18.050 | 18.050 | 0.90 | 18,050 | ● | | |
| 50 | 18 | 4.15 | 33 | 42 | 95 | 48 | 18.150 | 20.050 | 0.90 | 18,150 | ● | | |
| 50 | 18 | 9.08 | 33 | 42 | 95 | 48 | 18.250 | 20.150 | 0.90 | 18,250 | ● | | |
| 50 | 20 | 4.15 | 33 | 42 | 100 | 50 | 20.050 | 20.050 | 0.90 | 20,050 | ● | | |
| 50 | 20 | 9.08 | 33 | 42 | 100 | 50 | 20.150 | 20.150 | 0.90 | 20,150 | ● | | |
| 50 | 20 | 16.62 | 33 | 42 | 100 | 50 | 20.250 | 20.250 | 0.90 | 20,250 | ● | | |
| 63 | 6 | 2.01 | 21 | 27 | 80 | 36 | 6.100 | 10.063 | 0.70 | 6,063 | ● | | |
| 63 | 6 | 4.15 | 21 | 27 | 80 | 36 | 6.101 | 10.163 | 0.70 | 6,163 | ● | | |
| 63 | 8 | 2.01 | 21 | 27 | 80 | 36 | 8.100 | 10.063 | 0.70 | 8,063 | ● | | |
| 63 | 8 | 4.15 | 21 | 27 | 80 | 36 | 8.101 | 10.163 | 0.70 | 8,163 | ● | | |
| 63 | 10 | 2.01 | 24 | 32 | 85 | 40 | 10.100 | 10.063 | 0.70 | 10,063 | ● | | |
| 63 | 10 | 4.15 | 24 | 32 | 85 | 40 | 10.101 | 10.163 | 0.70 | 10,163 | ● | | |
| 63 | 12 | 2.01 | 24 | 32 | 90 | 45 | 12.100 | 18.063 | 0.80 | 12,063 | ● | | |
| 63 | 12 | 4.15 | 24 | 32 | 90 | 45 | 12.101 | 20.063 | 0.80 | 12,163 | ● | | |
| 63 | 12 | 9.08 | 24 | 32 | 90 | 45 | 12.102 | 20.163 | 0.80 | 12,263 | ● | | |
| 63 | 14 | 2.01 | 27 | 34 | 90 | 45 | 14.100 | 18.063 | 0.80 | 14,063 | ● | | |
| 63 | 14 | 4.15 | 27 | 34 | 90 | 45 | 14.101 | 20.063 | 0.80 | 14,163 | ● | | |
| 63 | 14 | 9.08 | 27 | 34 | 90 | 45 | 14.102 | 20.163 | 0.80 | 14,263 | ● | | |
| 63 | 16 | 2.01 | 27 | 34 | 95 | 48 | 16.100 | 18.063 | 0.90 | 16,063 | ● | | |
| 63 | 16 | 4.15 | 27 | 34 | 95 | 48 | 16.101 | 20.063 | 0.90 | 16,163 | ● | | |
| 63 | 16 | 9.08 | 27 | 34 | 95 | 48 | 16.102 | 20.163 | 0.90 | 16,263 | ● | | |
| 63 | 18 | 2.01 | 33 | 42 | 95 | 48 | 18.100 | 18.063 | 0.90 | 18,063 | ● | | |
| 63 | 18 | 4.15 | 33 | 42 | 95 | 48 | 18.101 | 20.063 | 0.90 | 18,163 | ● | | |
| 63 | 18 | 9.08 | 33 | 42 | 95 | 48 | 18.102 | 20.163 | 0.90 | 18,263 | ● | | |
| 63 | 20 | 4.15 | 33 | 42 | 100 | 50 | 20.100 | 20.063 | 1.00 | 20,063 | ● | | |
| 63 | 20 | 9.08 | 33 | 42 | 100 | 50 | 20.101 | 20.163 | 1.00 | 20,163 | ● | | |
| 63 | 20 | 16.62 | 33 | 42 | 100 | 50 | 20.102 | 20.263 | 1.00 | 20,263 | ● | | |
| 63 | 25 | 4.15 | 44 | 53 | 115 | 56 | 25.100 | 32.063 | 1.00 | 25,063 | ● | | |
| 63 | 25 | 9.08 | 44 | 53 | 115 | 56 | 25.101 | 32.163 | 1.00 | 25,163 | ● | | |
| 63 | 25 | 16.62 | 44 | 53 | 115 | 56 | 25.102 | 32.263 | 1.00 | 25,263 | ● | | |
| 63 | 32 | 4.15 | 44 | 53 | 120 | 60 | 32.100 | 32.063 | 1.10 | 32,063 | ● | | |
| 63 | 32 | 9.08 | 44 | 53 | 120 | 60 | 32.101 | 32.163 | 1.10 | 32,163 | ● | | |
| 63 | 32 | 16.62 | 44 | 53 | 120 | 60 | 32.102 | 32.263 | 1.10 | 32,263 | ● | | |
| 63 | 6 | 2.01 | 21 | 27 | 120 | 36 | 6.032 | 208.063 | 0.90 | 206,063 | ● | | |
| 63 | 6 | 4.15 | 21 | 27 | 120 | 36 | 6.132 | 208.163 | 0.90 | 206,163 | ● | | |
| 63 | 8 | 2.01 | 21 | 27 | 120 | 36 | 8.040 | 208.063 | 1.00 | 208,063 | ● | | |
| 63 | 8 | 4.15 | 21 | 27 | 120 | 36 | 8.140 | 208.163 | 1.00 | 208,163 | ● | | |
| 63 | 10 | 2.01 | 24 | 32 | 120 | 40 | 10.050 | 210.063 | 1.10 | 210,063 | ● | | |
| 63 | 10 | 4.15 | 24 | 32 | 120 | 40 | 10.150 | 210.063 | 1.10 | 210,163 | ● | | |
| 63 | 12 | 2.01 | 24 | 32 | 120 | 45 | 12.100 | 214.063 | 1.20 | 212,063 | ● | | |
| 63 | 12 | 4.15 | 24 | 32 | 120 | 45 | 12.101 | 214.163 | 1.20 | 212,163 | ● | | |
| 63 | 12 | 9.08 | 24 | 32 | 120 | 45 | 12.102 | 214.263 | 1.20 | 212,263 | ● | | |
| 63 | 14 | 2.01 | 27 | 34 | 120 | 45 | 14.100 | 214.063 | 1.20 | 214,063 | ● | | |
| 63 | 14 | 4.15 | 27 | 34 | 120 | 45 | 14.101 | 214.163 | 1.20 | 214,163 | ● | | |
| 63 | 14 | 9.08 | 27 | 34 | 120 | 45 | 14.102 | 214.263 | 1.20 | 214,263 | ● | | |
| 63 | 16 | 2.01 | 27 | 34 | 120 | 48 | 16.100 | 218.063 | 1.20 | 216,063 | ● | | |
| 63 | 16 | 4.15 | 27 | 34 | 120 | 48 | 16.101 | 218.163 | 1.20 | 216,163 | ● | | |
| 63 | 16 | 9.08 | 27 | 34 | 120 | 48 | 16.102 | 218.263 | 1.20 | 216,263 | ● | | |
| 63 | 18 | 2.01 | 33 | 42 | 120 | 48 | 18.100 | 218.063 | 1.40 | 218,063 | ● | | |
| 63 | 18 | 4.15 | 33 | 42 | 120 | 48 | 18.101 | 218.163 | 1.40 | 218,163 | ● | | |
| 63 | 18 | 9.08 | 33 | 42 | 120 | 48 | 18.102 | 218.263 | 1.40 | 218,263 | ● | | |
| 63 | 20 | 4.15 | 33 | 42 | 120 | 50 | 20.100 | 220.063 | 1.40 | 220,063 | ● | | |
| 63 | 20 | 9.08 | 33 | 42 | 120 | 50 | 20.101 | 220.163 | 1.40 | 220,163 | ● | | |
| 63 | 20 | 16.62 | 33 | 42 | 120 | 50 | 20.102 | 220.263 | 1.40 | 220,263 | ● | | |
| 63 | 6 | 2.01 | 21 | 27 | 160 | 36 | 6.032 | 108.063 | 0.80 | 106,063 | ● | | |
| 63 | 6 | 4.15 | 21 | 27 | 160 | 36 | 6.132 | 108.163 | 0.80 | 106,163 | ● | | |
| 63 | 8 | 2.01 | 21 | 27 | 160 | 36 | 8.040 | 108.063 | 0.80 | 108,063 | ● | | |
| 63 | 8 | 4.15 | 21 | 27 | 160 | 36 | 8.140 | 108.163 | 0.80 | 108,163 | ● | | |
| 63 | 10 | 2.01 | 24 | 32 | 160 | 40 | 10.050 | 110.063 | 0.90 | 110,063 | ● | | |
| 63 | 10 | 4.15 | 24 | 32 | 160 | 40 | 10.150 | 110.163 | 0.90 | 110,163 | ● | | |
| 63 | 12 | 2.01 | 24 | 32 | 160 | 45 | 12.100 | 114.063 | 0.90 | 112,063 | ● | | |
| 63 | 12 | 4.15 | 24 | 32 | 160 | 45 | 12.101 | 114.163 | 0.90 | 112,163 | ● | | |
| 63 | 12 | 9.08 | 24 | 32 | 160 | 45 | 12.102 | 114.263 | 0.90 | 112,263 | ● | | |
| 63 | 14 | 2.01 | 27 | 34 | 160 | 45 | 14.100 | 114.063 | 1.00 | 114,063 | ● | | |
| 63 | 14 | 4.15 | 27 | 34 | 160 | 45 | 14.101 | 114.163 | 1.00 | 114,163 | ● | | |
| 63 | 14 | 9.08 | 27 | 34 | 160 | 45 | 14.102 | 114.263 | 1.00 | 114,263 | ● | | |

MQL 2-channel shrink fit chucks HSK-A for automatic tool change

| | | | | | | | | | | Guhring no. 4614 | |
|----------------|----------------------------------|---|----------------|----------------|----------------|----------------|----------------------------------|----------------------------------|------|--------------------|--------------|
| | | | | | | | | | | Discount group 148 | |
| HSK-A | for shank Ø |  A | d ₂ | d ₄ | l ₁ | l ₂ | incl. setting screw no. 4621 ... | incl. cool. deliv. se t 4623 ... | kg | Code no. | Availability |
| d ₃ | d ₁ h ₆ mm | mm ² | mm | mm | mm | mm | | | | | |
| 63 | 16 | 2.01 | 27 | 34 | 160 | 48 | 16.100 | 118.063 | 1.00 | 116,063 | ● |
| 63 | 16 | 4.15 | 27 | 34 | 160 | 48 | 16.101 | 118.163 | 1.00 | 116,163 | ● |
| 63 | 16 | 9.08 | 27 | 34 | 160 | 48 | 16.102 | 118.263 | 1.00 | 116,263 | ● |
| 63 | 18 | 2.01 | 33 | 42 | 160 | 48 | 18.100 | 118.063 | 1.20 | 118,063 | ● |
| 63 | 18 | 4.15 | 33 | 42 | 160 | 48 | 18.101 | 118.163 | 1.20 | 118,163 | ● |
| 63 | 18 | 9.08 | 33 | 42 | 160 | 48 | 18.102 | 118.263 | 1.20 | 118,263 | ● |
| 63 | 20 | 4.15 | 33 | 42 | 160 | 50 | 20.100 | 120.063 | 1.20 | 120,063 | ● |
| 63 | 20 | 9.08 | 33 | 42 | 160 | 50 | 20.101 | 120.163 | 1.20 | 120,163 | ● |
| 63 | 20 | 16.62 | 33 | 42 | 160 | 50 | 20.102 | 120.263 | 1.20 | 120,263 | ● |
| 63 | 25 | 4.15 | 44 | 53 | 160 | 56 | 25.100 | 125.063 | 1.80 | 125,063 | ● |
| 63 | 25 | 9.08 | 44 | 53 | 160 | 56 | 25.101 | 125.163 | 1.80 | 125,163 | ● |
| 63 | 25 | 16.62 | 44 | 53 | 160 | 56 | 25.102 | 125.263 | 1.80 | 125,263 | ● |
| 63 | 32 | 4.15 | 44 | 53 | 160 | 60 | 32.100 | 132.063 | 1.70 | 132,063 | ● |
| 63 | 32 | 9.08 | 44 | 53 | 160 | 60 | 32.101 | 132.163 | 1.70 | 132,163 | ● |
| 63 | 32 | 16.62 | 44 | 53 | 160 | 60 | 32.102 | 132.263 | 1.70 | 132,263 | ● |
| | | | | | | | | | | | |
| 80 | 6 | 2.01 | 21 | 27 | 85 | 36 | 6.100 | 10.080 | 1.30 | 6,080 | ● |
| 80 | 6 | 4.15 | 21 | 27 | 85 | 36 | 6.101 | 10.180 | 1.30 | 6,180 | ● |
| 80 | 8 | 2.01 | 21 | 27 | 85 | 36 | 8.100 | 10.080 | 1.30 | 8,080 | ● |
| 80 | 8 | 4.15 | 21 | 27 | 85 | 36 | 8.101 | 10.180 | 1.30 | 8,180 | ● |
| 80 | 10 | 2.01 | 24 | 32 | 90 | 40 | 10.100 | 10.080 | 1.40 | 10,080 | ● |
| 80 | 10 | 4.15 | 24 | 32 | 90 | 40 | 10.101 | 10.180 | 1.40 | 10,180 | ● |
| 80 | 12 | 2.01 | 24 | 32 | 95 | 45 | 12.100 | 18.080 | 1.40 | 12,080 | ● |
| 80 | 12 | 4.15 | 24 | 32 | 95 | 45 | 12.101 | 32.080 | 1.40 | 12,180 | ● |
| 80 | 12 | 9.08 | 24 | 32 | 95 | 45 | 12.102 | 32.180 | 1.40 | 12,280 | ● |
| 80 | 14 | 2.01 | 27 | 34 | 95 | 45 | 14.100 | 18.080 | 1.50 | 14,080 | ● |
| 80 | 14 | 4.15 | 27 | 34 | 95 | 45 | 14.101 | 32.080 | 1.50 | 14,180 | ● |
| 80 | 14 | 9.08 | 27 | 34 | 95 | 45 | 14.102 | 32.180 | 1.50 | 14,280 | ● |
| 80 | 16 | 2.01 | 27 | 34 | 100 | 48 | 16.100 | 18.080 | 1.50 | 16,080 | ● |
| 80 | 16 | 4.15 | 27 | 34 | 100 | 48 | 16.101 | 32.080 | 1.50 | 16,180 | ● |
| 80 | 16 | 9.08 | 27 | 34 | 100 | 48 | 16.102 | 32.180 | 1.50 | 16,280 | ● |
| 80 | 18 | 2.01 | 33 | 42 | 100 | 48 | 18.100 | 18.080 | 1.70 | 18,080 | ● |
| 80 | 18 | 4.15 | 33 | 42 | 100 | 48 | 18.101 | 32.080 | 1.70 | 18,180 | ● |
| 80 | 18 | 9.08 | 33 | 42 | 100 | 48 | 18.102 | 32.180 | 1.70 | 18,280 | ● |
| 80 | 20 | 4.15 | 33 | 42 | 105 | 50 | 20.100 | 32.080 | 1.70 | 20,080 | ● |
| 80 | 20 | 9.08 | 33 | 42 | 105 | 50 | 20.101 | 32.180 | 1.70 | 20,180 | ● |
| 80 | 20 | 16.62 | 33 | 42 | 105 | 50 | 20.102 | 32.280 | 1.70 | 20,280 | ● |
| 80 | 25 | 4.15 | 44 | 53 | 115 | 56 | 25.100 | 32.080 | 2.20 | 25,080 | ● |
| 80 | 25 | 9.08 | 44 | 53 | 115 | 56 | 25.101 | 32.180 | 2.20 | 25,180 | ● |
| 80 | 25 | 16.62 | 44 | 53 | 115 | 56 | 25.102 | 32.280 | 2.20 | 25,280 | ● |
| 80 | 32 | 4.15 | 44 | 53 | 120 | 60 | 32.100 | 32.080 | 2.10 | 32,080 | ● |
| 80 | 32 | 9.08 | 44 | 53 | 120 | 60 | 32.101 | 32.180 | 2.10 | 32,180 | ● |
| 80 | 32 | 16.62 | 44 | 53 | 120 | 60 | 32.102 | 32.280 | 2.10 | 32,280 | ● |
| | | | | | | | | | | | |
| 100 | 6 | 2.01 | 21 | 27 | 85 | 36 | 6.100 | 10.100 | 2.10 | 6,100 | ● |
| 100 | 6 | 4.15 | 21 | 27 | 85 | 36 | 6.101 | 10.101 | 2.10 | 6,101 | ● |
| 100 | 8 | 2.01 | 21 | 27 | 85 | 36 | 8.100 | 10.100 | 2.20 | 8,100 | ● |
| 100 | 8 | 4.15 | 21 | 27 | 85 | 36 | 8.101 | 10.101 | 2.20 | 8,101 | ● |
| 100 | 10 | 2.01 | 24 | 32 | 90 | 40 | 10.100 | 10.100 | 2.30 | 10,100 | ● |
| 100 | 10 | 4.15 | 24 | 32 | 90 | 40 | 10.101 | 10.101 | 2.30 | 10,101 | ● |
| 100 | 12 | 2.01 | 24 | 32 | 95 | 45 | 12.100 | 18.100 | 2.30 | 12,100 | ● |
| 100 | 12 | 4.15 | 24 | 32 | 95 | 45 | 12.101 | 32.100 | 2.30 | 12,101 | ● |
| 100 | 12 | 9.08 | 24 | 32 | 95 | 45 | 12.102 | 32.101 | 2.30 | 12,102 | ● |
| 100 | 14 | 2.01 | 27 | 34 | 95 | 45 | 14.100 | 18.100 | 2.30 | 14,100 | ● |
| 100 | 14 | 4.15 | 27 | 34 | 95 | 45 | 14.101 | 32.100 | 2.30 | 14,101 | ● |
| 100 | 14 | 9.08 | 27 | 34 | 95 | 45 | 14.102 | 32.101 | 2.30 | 14,102 | ● |
| 100 | 16 | 2.01 | 27 | 34 | 100 | 48 | 16.100 | 18.100 | 2.30 | 16,100 | ● |
| 100 | 16 | 4.15 | 27 | 34 | 100 | 48 | 16.101 | 32.100 | 2.30 | 16,101 | ● |
| 100 | 16 | 9.08 | 27 | 34 | 100 | 48 | 16.102 | 32.101 | 2.30 | 16,102 | ● |
| 100 | 18 | 2.01 | 33 | 42 | 100 | 48 | 18.100 | 18.100 | 2.50 | 18,100 | ● |
| 100 | 18 | 4.15 | 33 | 42 | 100 | 48 | 18.101 | 32.100 | 2.50 | 18,101 | ● |
| 100 | 18 | 9.08 | 33 | 42 | 100 | 48 | 18.102 | 32.101 | 2.50 | 18,102 | ● |
| 100 | 20 | 4.15 | 33 | 42 | 105 | 50 | 20.100 | 32.100 | 2.50 | 20,100 | ● |
| 100 | 20 | 9.08 | 33 | 42 | 105 | 50 | 20.101 | 32.101 | 2.50 | 20,101 | ● |
| 100 | 20 | 16.62 | 33 | 42 | 105 | 50 | 20.102 | 32.102 | 2.50 | 20,102 | ● |
| 100 | 25 | 4.15 | 44 | 53 | 115 | 56 | 25.100 | 32.100 | 3.00 | 25,100 | ● |
| 100 | 25 | 9.08 | 44 | 53 | 115 | 56 | 25.101 | 32.101 | 3.00 | 25,101 | ● |
| 100 | 25 | 16.62 | 44 | 53 | 115 | 56 | 25.102 | 32.102 | 3.00 | 25,102 | ● |
| 100 | 32 | 4.15 | 44 | 53 | 120 | 60 | 32.100 | 32.100 | 3.00 | 32,100 | ● |
| 100 | 32 | 9.08 | 44 | 53 | 120 | 60 | 32.101 | 32.101 | 3.00 | 32,101 | ● |
| 100 | 32 | 16.62 | 44 | 53 | 120 | 60 | 32.102 | 32.102 | 3.00 | 32,102 | ● |

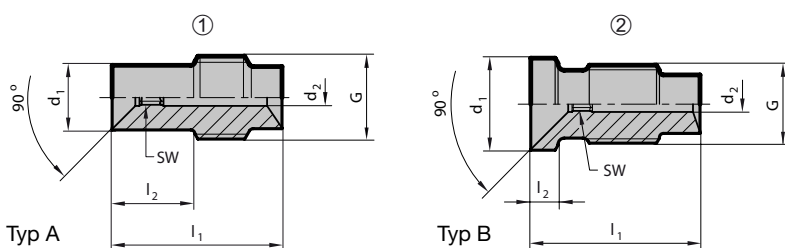
MQL 2-channel shrink fit chucks HSK-A for automatic tool change


| | | | | | | | | | | Guhring no. 4614 | |
|----------------------|--|---|-------------------|-------------------|-------------------|-------------------|----------------------------------|---------------------------------|------|---------------------------|--------------|
| | | | | | | | | | | Discount group 148 | |
| HSK-A d ₃ | for shank Ø d ₁ h ₆ mm |  A mm ² | d ₂ mm | d ₄ mm | l ₁ mm | l ₂ mm | incl. setting screw no. 4621 ... | incl. cool. deliv. set 4623 ... | kg | Code no. | Availability |
| 100 | 6 | 2.01 | 21 | 27 | 160 | 36 | 6.032 | 108.100 | 2.60 | 106,100 | ● |
| 100 | 6 | 4.15 | 21 | 27 | 160 | 36 | 6.132 | 108.101 | 2.60 | 106,101 | ● |
| 100 | 8 | 2.01 | 21 | 27 | 160 | 36 | 8.040 | 108.100 | 2.50 | 108,100 | ● |
| 100 | 8 | 4.15 | 21 | 27 | 160 | 36 | 8.140 | 108.101 | 2.50 | 108,101 | ● |
| 100 | 10 | 2.01 | 24 | 32 | 160 | 40 | 10.050 | 110.100 | 2.70 | 110,100 | ● |
| 100 | 10 | 4.15 | 24 | 32 | 160 | 40 | 10.150 | 110.101 | 2.70 | 110,101 | ● |
| 100 | 12 | 2.01 | 24 | 32 | 160 | 45 | 12.100 | 114.100 | 2.70 | 112,100 | ● |
| 100 | 12 | 4.15 | 24 | 32 | 160 | 45 | 12.101 | 114.101 | 2.70 | 112,101 | ● |
| 100 | 12 | 9.08 | 24 | 32 | 160 | 45 | 12.102 | 114.102 | 2.70 | 112,102 | ● |
| 100 | 14 | 2.01 | 27 | 34 | 160 | 45 | 14.100 | 114.100 | 2.80 | 114,100 | ● |
| 100 | 14 | 4.15 | 27 | 34 | 160 | 45 | 14.101 | 114.101 | 2.80 | 114,101 | ● |
| 100 | 14 | 9.08 | 27 | 34 | 160 | 45 | 14.102 | 114.102 | 2.80 | 114,102 | ● |
| 100 | 16 | 2.01 | 27 | 34 | 160 | 48 | 16.100 | 118.100 | 2.80 | 116,100 | ● |
| 100 | 16 | 4.15 | 27 | 34 | 160 | 48 | 16.101 | 118.101 | 2.80 | 116,101 | ● |
| 100 | 16 | 9.08 | 27 | 34 | 160 | 48 | 16.102 | 118.102 | 2.80 | 116,102 | ● |
| 100 | 18 | 2.01 | 33 | 42 | 160 | 48 | 18.100 | 118.100 | 3.20 | 118,100 | ● |
| 100 | 18 | 4.15 | 33 | 42 | 160 | 48 | 18.101 | 118.101 | 3.20 | 118,101 | ● |
| 100 | 18 | 9.08 | 33 | 42 | 160 | 48 | 18.102 | 118.102 | 3.20 | 118,102 | ● |
| 100 | 20 | 4.15 | 33 | 42 | 160 | 50 | 20.100 | 120.100 | 3.10 | 120,100 | ● |
| 100 | 20 | 9.08 | 33 | 42 | 160 | 50 | 20.101 | 120.101 | 3.10 | 120,101 | ● |
| 100 | 20 | 16.62 | 33 | 42 | 160 | 50 | 20.102 | 120.102 | 3.10 | 120,102 | ● |
| 100 | 25 | 4.15 | 44 | 53 | 160 | 56 | 25.100 | 125.100 | 3.90 | 125,100 | ● |
| 100 | 25 | 9.08 | 44 | 53 | 160 | 56 | 25.101 | 125.101 | 3.90 | 125,101 | ● |
| 100 | 25 | 16.62 | 44 | 53 | 160 | 56 | 25.102 | 125.102 | 3.90 | 125,102 | ● |
| 100 | 32 | 4.15 | 44 | 53 | 160 | 60 | 32.100 | 132.100 | 3.70 | 132,100 | ● |
| 100 | 32 | 9.08 | 44 | 53 | 160 | 60 | 32.101 | 132.101 | 3.70 | 132,101 | ● |
| 100 | 32 | 16.62 | 44 | 53 | 160 | 60 | 32.102 | 132.102 | 3.70 | 132,102 | ● |

MQL 2-channel length setting screws for HSK-A


Product information

- to Guhring MQL standard
- for 2-channel-systems
- for the use of tool shanks to Guhring MQL standard
- black colour, corrosion protective coating to visually identify the 2-channel system



| | | | | | | | | | | Guhring no. 4621 | |
|-------|----------------------------|---|-------------------|-------------------|-------------------|--------|-----|------|----------|---------------------------|--|
| | | | | | | | | | | Discount group 114 | |
| HSK-A | holder Ø d ₁ mm |  für A mm ² | d ₂ mm | l ₁ mm | l ₂ mm | G | SW | Bild | Code no. | Availability | |
| 32 | 6 | 2.01 | 2 | 25.8 | 2.5 | M5x0.8 | 1.5 | 2 | 6,032 | ● | |
| 32 | 6 | 4.15 | 2.9 | 25.8 | 2.5 | M5x0.8 | 2 | 2 | 6,132 | ● | |
| 32 | 8 | 2.01 | 2 | 21 | 3 | M7x1 | 1.5 | 2 | 8,032 | ● | |
| 32 | 8 | 4.15 | 2.9 | 21 | 3 | M7x1 | 2 | 2 | 8,132 | ● | |
| 32 | 10 | 2.01 | 2 | 22 | 3.5 | M8x1 | 1.5 | 2 | 10,032 | ● | |
| 32 | 10 | 4.15 | 2.9 | 22 | 3.5 | M8x1 | 2 | 2 | 10,132 | ● | |
| 32 | 12 | 2.01 | 2 | 22 | 3.5 | M10x1 | 1.5 | 2 | 12,032 | ● | |
| 32 | 12 | 4.15 | 2.9 | 22 | 3.5 | M10x1 | 2 | 2 | 12,132 | ● | |

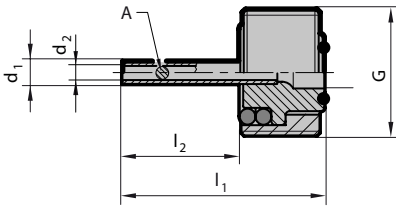
MQL 2-channel length setting screws for HSK-A

| HSK-A | holder Ø d ₁ mm |  für A mm ² | d ₂ mm | l ₁ mm | l ₂ mm | G | SW | Bild | Guhring no. | 4621 | | |
|-----------|----------------------------------|--|----------------------|----------------------|----------------------|-------|-----|------|----------------|--------------|-----|--|
| | | | | | | | | | Discount group | | 114 | |
| | | | | | | | | | Code no. | Availability | | |
| 40 | 6 | 2.01 | 2 | 26.5 | 11 | M7x1 | 1.5 | 1 | 6,040 | ● | | |
| 40 | 6 | 4.15 | 2.9 | 26.5 | 11 | M7x1 | 2 | 1 | 6,140 | ● | | |
| 40 | 8 | 2.01 | 2 | 26.5 | 3 | M7x1 | 1.5 | 2 | 8,040 | ● | | |
| 40 | 8 | 4.15 | 2.9 | 26.5 | 3 | M7x1 | 2 | 2 | 8,140 | ● | | |
| 40 | 10 | 2.01 | 2 | 22.2 | 3.5 | M8x1 | 1.5 | 2 | 10,040 | ● | | |
| 40 | 10 | 4.15 | 2.9 | 22.2 | 3.5 | M8x1 | 2 | 2 | 10,140 | ● | | |
| 40 | 12 | 2.01 | 2 | 26.5 | 3.5 | M10x1 | 1.5 | 2 | 12,040 | ● | | |
| 40 | 12 | 4.15 | 2.9 | 26.5 | 3.5 | M10x1 | 2 | 2 | 12,140 | ● | | |
| 40 | 12 | 9.08 | 4.1 | 26.5 | 3.5 | M10x1 | 3 | 2 | 12,240 | ● | | |
| 40 | 14 | 2.01 | 2 | 26.5 | 4.5 | M10x1 | 1.5 | 2 | 14,040 | ● | | |
| 40 | 14 | 4.15 | 2.9 | 26.5 | 4.5 | M10x1 | 2 | 2 | 14,140 | ● | | |
| 40 | 14 | 9.08 | 4.1 | 26.5 | 4.5 | M10x1 | 3 | 2 | 14,240 | ● | | |
| 40 | 16 | 2.01 | 2 | 23.5 | 5.5 | M12x1 | 1.5 | 2 | 16,040 | ● | | |
| 40 | 16 | 4.15 | 2.9 | 23.5 | 5.5 | M12x1 | 2 | 2 | 16,140 | ● | | |
| 40 | 16 | 9.08 | 4.1 | 23.5 | 5.5 | M12x1 | 3 | 2 | 16,240 | ● | | |
| 50 | 6 | 2.01 | 2 | 22 | 10 | M8x1 | 1.5 | 1 | 6,050 | ● | | |
| 50 | 6 | 4.15 | 2.9 | 22 | 10 | M8x1 | 2 | 1 | 6,150 | ● | | |
| 50 | 8 | 2.01 | 2 | 22 | 3 | M8x1 | 1.5 | 2 | 8,050 | ● | | |
| 50 | 8 | 4.15 | 2.9 | 22 | 3 | M8x1 | 2 | 2 | 8,150 | ● | | |
| 50 | 10 | 2.01 | 2 | 23 | 3.5 | M8x1 | 1.5 | 2 | 10,050 | ● | | |
| 50 | 10 | 4.15 | 2.9 | 23 | 3.5 | M8x1 | 2 | 2 | 10,150 | ● | | |
| 50 | 12 | 2.01 | 2 | 23.7 | 3.5 | M10x1 | 1.5 | 2 | 12,050 | ● | | |
| 50 | 12 | 4.15 | 2.9 | 23.7 | 3.5 | M10x1 | 2 | 2 | 12,150 | ● | | |
| 50 | 12 | 9.08 | 4.1 | 23.7 | 3.5 | M10x1 | 3 | 2 | 12,250 | ● | | |
| 50 | 14 | 2.01 | 2 | 23.7 | 4.5 | M10x1 | 1.5 | 2 | 14,050 | ● | | |
| 50 | 14 | 4.15 | 2.9 | 23.7 | 4.5 | M10x1 | 2 | 2 | 14,150 | ● | | |
| 50 | 14 | 9.08 | 4.1 | 23.7 | 4.5 | M10x1 | 3 | 2 | 14,250 | ● | | |
| 50 | 16 | 2.01 | 2 | 25.7 | 5.5 | M12x1 | 1.5 | 2 | 16,050 | ● | | |
| 50 | 16 | 4.15 | 2.9 | 25.7 | 5.5 | M12x1 | 2 | 2 | 16,150 | ● | | |
| 50 | 16 | 9.08 | 4.1 | 25.7 | 5.5 | M12x1 | 3 | 2 | 16,250 | ● | | |
| 50 | 18 | 2.01 | 2 | 25.7 | 6.5 | M12x1 | 1.5 | 2 | 18,050 | ● | | |
| 50 | 18 | 4.15 | 2.9 | 25.7 | 6.5 | M12x1 | 2 | 2 | 18,150 | ● | | |
| 50 | 18 | 9.08 | 4.1 | 25.7 | 6.5 | M12x1 | 3 | 2 | 18,250 | ● | | |
| 50 | 20 | 4.15 | 2.9 | 27.5 | 6.5 | M16x1 | 2 | 2 | 20,050 | ● | | |
| 50 | 20 | 9.08 | 4.1 | 27.5 | 6.5 | M16x1 | 3 | 2 | 20,150 | ● | | |
| 50 | 20 | 16.62 | 5.4 | 27.5 | 6.5 | M16x1 | 4 | 2 | 20,250 | ● | | |
| 63/80/100 | 6 | 2.01 | 2 | 20.5 | 10 | M10x1 | 1.5 | 1 | 6,100 | ● | | |
| 63/80/100 | 6 | 4.15 | 2.9 | 20.5 | 10 | M10x1 | 2 | 1 | 6,101 | ● | | |
| 63/80/100 | 8 | 2.01 | 2 | 20.5 | 10 | M10x1 | 1.5 | 1 | 8,100 | ● | | |
| 63/80/100 | 8 | 4.15 | 2.9 | 20.5 | 10 | M10x1 | 2 | 1 | 8,101 | ● | | |
| 63/80/100 | 10 | 2.01 | 2 | 21.2 | 3.5 | M10x1 | 1.5 | 2 | 10,100 | ● | | |
| 63/80/100 | 10 | 4.15 | 2.9 | 21.2 | 3.5 | M10x1 | 2 | 2 | 10,101 | ● | | |
| 63/80/100 | 12 | 2.01 | 2 | 21.7 | 3.5 | M10x1 | 1.5 | 2 | 12,100 | ● | | |
| 63/80/100 | 12 | 4.15 | 2.9 | 21.7 | 3.5 | M10x1 | 2 | 2 | 12,101 | ● | | |
| 63/80/100 | 12 | 9.08 | 4.1 | 21.7 | 3.5 | M10x1 | 3 | 2 | 12,102 | ● | | |
| 63/80/100 | 14 | 2.01 | 2 | 21.8 | 4.5 | M10x1 | 1.5 | 2 | 14,100 | ● | | |
| 63/80/100 | 14 | 4.15 | 2.9 | 21.8 | 4.5 | M10x1 | 2 | 2 | 14,101 | ● | | |
| 63/80/100 | 14 | 9.08 | 4.1 | 21.8 | 4.5 | M10x1 | 3 | 2 | 14,102 | ● | | |
| 63/80/100 | 16 | 2.01 | 2 | 23.7 | 5.5 | M12x1 | 1.5 | 2 | 16,100 | ● | | |
| 63/80/100 | 16 | 4.15 | 2.9 | 23.7 | 5.5 | M12x1 | 2 | 2 | 16,101 | ● | | |
| 63/80/100 | 16 | 9.08 | 4.1 | 23.7 | 5.5 | M12x1 | 3 | 2 | 16,102 | ● | | |
| 63/80/100 | 18 | 2.01 | 2 | 23.8 | 6.5 | M12x1 | 1.5 | 2 | 18,100 | ● | | |
| 63/80/100 | 18 | 4.15 | 2.9 | 23.8 | 6.5 | M12x1 | 2 | 2 | 18,101 | ● | | |
| 63/80/100 | 18 | 9.08 | 4.1 | 23.8 | 6.5 | M12x1 | 3 | 2 | 18,102 | ● | | |
| 63/80/100 | 20 | 4.15 | 2.9 | 26.7 | 6.5 | M16x1 | 2 | 2 | 20,100 | ● | | |
| 63/80/100 | 20 | 9.08 | 4.1 | 26.7 | 6.5 | M16x1 | 3 | 2 | 20,101 | ● | | |
| 63/80/100 | 20 | 16.62 | 5.4 | 26.7 | 6.5 | M16x1 | 4 | 2 | 20,102 | ● | | |
| 63/80/100 | 25 | 4.15 | 2.9 | 30.6 | 10 | M16x1 | 2 | 2 | 25,100 | ● | | |
| 63/80/100 | 25 | 9.08 | 4.1 | 30.6 | 10 | M16x1 | 3 | 2 | 25,101 | ● | | |
| 63/80/100 | 25 | 16.62 | 5.4 | 30.6 | 10 | M16x1 | 4 | 2 | 25,102 | ● | | |
| 63/80/100 | 32 | 4.15 | 2.9 | 31.6 | 14 | M16x1 | 2 | 2 | 32,100 | ● | | |
| 63/80/100 | 32 | 9.08 | 4.1 | 31.6 | 14 | M16x1 | 3 | 2 | 32,101 | ● | | |
| 63/80/100 | 32 | 16.62 | 5.4 | 31.6 | 14 | M16x1 | 4 | 2 | 32,102 | ● | | |

MQL 2-channel coolant delivery set HSK-A (filler)


Product information

- to Guhring MQL standard
- for 2-channel-systems
- for tool holders with manual tool change
- sealed thanks to bypass system




Guhring no. 4622

Discount group 114

| for HSK-A | for clamp. Ø mm |  A mm ² | d ₁ mm | d ₂ mm | l ₁ mm | l ₂ mm | G | for chuck length | Code no. | Availability |
|-----------|-----------------|---|-------------------|-------------------|-------------------|-------------------|---------|------------------|----------|--------------|
| 40 | 6-16 | 2.01 | 1.9 | 1.6 | 22.8 | 14.5 | M12x1 | std. | 16,040 | ● |
| 40 | 6-16 | 4.15 | 2.8 | 2.3 | 22.8 | 14.5 | M12x1 | std. | 16,140 | ● |
| 40 | 12-16 | 9.08 | 4 | 3.4 | 22.6 | 14.3 | M12x1 | std. | 16,240 | ● |
| 50 | 6-10 | 2.01 | 1.9 | 1.6 | 26.3 | 16 | M16x1.0 | std. | 10,050 | ● |
| 50 | 6-10 | 4.15 | 2.8 | 2.3 | 26.3 | 16 | M16x1.0 | std. | 10,150 | ● |
| 50 | 12-18 | 2.01 | 1.9 | 1.6 | 24.2 | 13.9 | M16x1.0 | std. | 18,050 | ● |
| 50 | 12-20 | 4.15 | 2.8 | 2.3 | 24.2 | 13.9 | M16x1.0 | std. | 20,050 | ● |
| 50 | 12-20 | 9.08 | 4 | 3.4 | 24.2 | 13.9 | M16x1.0 | std. | 20,150 | ● |
| 50 | 20 | 16.62 | 5.3 | 4.6 | 24.2 | 13.9 | M16x1.0 | std. | 20,250 | ● |
| 63 | 6-10 | 2.01 | 1.9 | 1.6 | 26.4 | 14.1 | M18x1.0 | std. | 10,063 | ● |
| 63 | 6-10 | 4.15 | 2.8 | 2.3 | 26.4 | 14.1 | M18x1.0 | std. | 10,163 | ● |
| 63 | 12-18 | 2.01 | 1.9 | 1.6 | 25.3 | 13.0 | M18x1.0 | std. | 18,063 | ● |
| 63 | 12-20 | 4.15 | 2.8 | 2.3 | 25.3 | 13.0 | M18x1.0 | std. | 20,063 | ● |
| 63 | 12-20 | 9.08 | 4.0 | 3.4 | 25.3 | 13.0 | M18x1.0 | std. | 20,163 | ● |
| 63 | 20 | 16.62 | 5.3 | 4.6 | 26.5 | 14.2 | M18x1.0 | std. | 20,263 | ● |
| 63 | 25-32 | 4.15 | 2.8 | 2.3 | 30.6 | 18.3 | M18x1.0 | std. | 32,063 | ● |
| 63 | 25-32 | 9.08 | 4.0 | 3.4 | 30.6 | 18.3 | M18x1.0 | std. | 32,163 | ● |
| 63 | 25-32 | 16.62 | 5.3 | 4.6 | 30.6 | 18.3 | M18x1.0 | std. | 32,263 | ● |
| 63 | 6-8 | 2.01 | 1.9 | 1.6 | 66.4 | 54.1 | M18x1.0 | 120 | 208,063 | ● |
| 63 | 6-8 | 4.15 | 2.8 | 2.3 | 66.4 | 54.1 | M18x1.0 | 120 | 208,163 | ● |
| 63 | 10 | 2.01 | 1.9 | 1.6 | 61.4 | 49.1 | M18x1.0 | 120 | 210,063 | ● |
| 63 | 10 | 4.15 | 2.8 | 2.3 | 61.4 | 49.1 | M18x1.0 | 120 | 210,163 | ● |
| 63 | 12-14 | 2.01 | 1.9 | 1.6 | 55.3 | 43.0 | M18x1.0 | 120 | 214,063 | ● |
| 63 | 12-14 | 4.15 | 2.8 | 2.3 | 55.3 | 43.0 | M18x1.0 | 120 | 214,163 | ● |
| 63 | 12-14 | 9.08 | 4.0 | 3.4 | 55.3 | 43.0 | M18x1.0 | 120 | 214,263 | ● |
| 63 | 16-18 | 2.01 | 1.9 | 1.6 | 50.3 | 38.0 | M18x1.0 | 120 | 218,063 | ● |
| 63 | 16-18 | 4.15 | 2.8 | 2.3 | 50.3 | 38.0 | M18x1.0 | 120 | 218,163 | ● |
| 63 | 16-18 | 9.08 | 4.0 | 3.4 | 50.3 | 38.0 | M18x1.0 | 120 | 218,263 | ● |
| 63 | 20 | 4.15 | 2.8 | 2.3 | 46.5 | 34.2 | M18x1.0 | 120 | 220,063 | ● |
| 63 | 20 | 9.08 | 4.0 | 3.4 | 46.5 | 34.2 | M18x1.0 | 120 | 220,163 | ● |
| 63 | 20 | 16.62 | 5.3 | 4.6 | 46.5 | 34.2 | M18x1.0 | 120 | 220,263 | ● |
| 63 | 6-8 | 2.01 | 1.9 | 1.6 | 106.4 | 94.1 | M18x1.0 | 160 | 108,063 | ● |
| 63 | 6-8 | 4.15 | 2.8 | 2.3 | 106.4 | 94.1 | M18x1.0 | 160 | 108,163 | ● |
| 63 | 10 | 2.01 | 1.9 | 1.6 | 101.4 | 89.1 | M18x1.0 | 160 | 110,063 | ● |
| 63 | 10 | 4.15 | 2.8 | 2.3 | 101.4 | 89.1 | M18x1.0 | 160 | 110,163 | ● |
| 63 | 12-14 | 2.01 | 1.9 | 1.6 | 95.3 | 83.0 | M18x1.0 | 160 | 114,063 | ● |
| 63 | 12-14 | 4.15 | 2.8 | 2.3 | 95.3 | 83.0 | M18x1.0 | 160 | 114,163 | ● |
| 63 | 12-14 | 9.08 | 4.0 | 3.4 | 95.3 | 83.0 | M18x1.0 | 160 | 114,263 | ● |
| 63 | 16-18 | 2.01 | 1.9 | 1.6 | 90.3 | 78.0 | M18x1.0 | 160 | 118,063 | ● |
| 63 | 16-18 | 4.15 | 2.8 | 2.3 | 90.3 | 78.0 | M18x1.0 | 160 | 118,163 | ● |
| 63 | 16-18 | 9.08 | 4.0 | 3.4 | 90.3 | 78.0 | M18x1.0 | 160 | 118,263 | ● |
| 63 | 20 | 4.15 | 2.8 | 2.3 | 86.5 | 74.2 | M18x1.0 | 160 | 120,063 | ● |
| 63 | 20 | 9.08 | 4.0 | 3.4 | 86.5 | 74.2 | M18x1.0 | 160 | 120,163 | ● |
| 63 | 20 | 16.62 | 5.3 | 4.6 | 86.5 | 74.2 | M18x1.0 | 160 | 120,263 | ● |
| 63 | 25 | 4.15 | 2.8 | 2.3 | 75.6 | 63.3 | M18x1.0 | 160 | 125,063 | ● |
| 63 | 25 | 9.08 | 4.0 | 3.4 | 75.6 | 63.3 | M18x1.0 | 160 | 125,163 | ● |
| 63 | 25 | 16.62 | 5.3 | 4.6 | 75.6 | 63.3 | M18x1.0 | 160 | 125,263 | ● |
| 63 | 32 | 4.15 | 2.8 | 2.3 | 70.6 | 58.3 | M18x1.0 | 160 | 132,063 | ● |
| 63 | 32 | 9.08 | 4.0 | 3.4 | 70.6 | 58.3 | M18x1.0 | 160 | 132,163 | ● |
| 63 | 32 | 16.62 | 5.3 | 4.6 | 70.6 | 58.3 | M18x1.0 | 160 | 132,263 | ● |
| 80 | 6-10 | 2.01 | 1.9 | 1.6 | 29.0 | 14.6 | M20x1.5 | std. | 10,080 | ● |
| 80 | 6-10 | 4.15 | 2.8 | 2.3 | 29.0 | 14.6 | M20x1.5 | std. | 10,180 | ● |
| 80 | 12-18 | 2.01 | 1.9 | 1.6 | 27.9 | 13.5 | M20x1.5 | std. | 18,080 | ● |
| 80 | 12-32 | 4.15 | 2.8 | 2.3 | 27.9 | 13.5 | M20x1.5 | std. | 32,080 | ● |
| 80 | 12-32 | 9.08 | 4.0 | 3.4 | 27.9 | 13.5 | M20x1.5 | std. | 32,180 | ● |
| 80 | 20-32 | 16.62 | 5.3 | 4.6 | 28.4 | 14.0 | M20x1.5 | std. | 32,280 | ● |

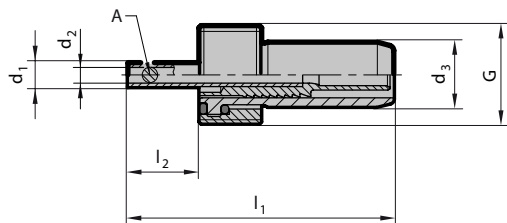
MQL 2-channel coolant delivery set HSK-A (filler)


| | | | | | | | | | | Guhring no. 4622 | |
|-----------|-----------------|---|-------------------|-------------------|-------------------|-------------------|---------|------------------|----------|--------------------|--|
| | | | | | | | | | | Discount group 114 | |
| for HSK-A | for clamp. Ø mm |  A mm ² | d ₁ mm | d ₂ mm | l ₁ mm | l ₂ mm | G | for chuck length | Code no. | Availability | |
| 100 | 6-10 | 2.01 | 1.9 | 1.6 | 29.0 | 12.6 | M24x1.5 | std. | 10,100 | ● | |
| 100 | 6-10 | 4.15 | 2.8 | 2.3 | 29.0 | 12.6 | M24x1.5 | std. | 10,101 | ● | |
| 100 | 12-18 | 2.01 | 1.9 | 1.6 | 27.9 | 11.5 | M24x1.5 | std. | 18,100 | ● | |
| 100 | 12-32 | 4.15 | 2.8 | 2.3 | 27.9 | 11.5 | M24x1.5 | std. | 32,100 | ● | |
| 100 | 12-32 | 9.08 | 4.0 | 3.4 | 27.9 | 11.5 | M24x1.5 | std. | 32,101 | ● | |
| 100 | 20-32 | 16.62 | 5.3 | 4.6 | 28.4 | 12.0 | M24x1.5 | std. | 32,102 | ● | |
| 100 | 6-8 | 2.01 | 1.9 | 1.6 | 104.0 | 87.6 | M24x1.5 | 160 | 108,100 | ● | |
| 100 | 6-8 | 4.15 | 2.8 | 2.3 | 104.0 | 87.6 | M24x1.5 | 160 | 108,101 | ● | |
| 100 | 10 | 2.01 | 1.9 | 1.6 | 99.0 | 82.6 | M24x1.5 | 160 | 110,100 | ● | |
| 100 | 10 | 4.15 | 2.8 | 2.3 | 99.0 | 82.6 | M24x1.5 | 160 | 110,101 | ● | |
| 100 | 12-14 | 2.01 | 1.9 | 1.6 | 92.9 | 76.5 | M24x1.5 | 160 | 114,100 | ● | |
| 100 | 12-14 | 4.15 | 2.8 | 2.3 | 92.9 | 76.5 | M24x1.5 | 160 | 114,101 | ● | |
| 100 | 12-14 | 9.08 | 4.0 | 3.4 | 92.9 | 76.5 | M24x1.5 | 160 | 114,102 | ● | |
| 100 | 16-18 | 2.01 | 1.9 | 1.6 | 87.9 | 71.5 | M24x1.5 | 160 | 118,100 | ● | |
| 100 | 16-18 | 4.15 | 2.8 | 2.3 | 87.9 | 71.5 | M24x1.5 | 160 | 118,101 | ● | |
| 100 | 16-18 | 9.08 | 4.0 | 3.4 | 87.9 | 71.5 | M24x1.5 | 160 | 118,102 | ● | |
| 100 | 20 | 4.15 | 2.8 | 2.3 | 83.4 | 67.0 | M24x1.5 | 160 | 120,100 | ● | |
| 100 | 20 | 9.08 | 4.0 | 3.4 | 83.4 | 67.0 | M24x1.5 | 160 | 120,101 | ● | |
| 100 | 20 | 16.62 | 5.3 | 4.6 | 83.4 | 67.0 | M24x1.5 | 160 | 120,102 | ● | |
| 100 | 25 | 4.15 | 2.8 | 2.3 | 73.4 | 57.0 | M24x1.5 | 160 | 125,100 | ● | |
| 100 | 25 | 9.08 | 4.0 | 3.4 | 73.4 | 57.0 | M24x1.5 | 160 | 125,101 | ● | |
| 100 | 25 | 16.62 | 5.3 | 4.6 | 73.4 | 57.0 | M24x1.5 | 160 | 125,102 | ● | |
| 100 | 32 | 4.15 | 2.8 | 2.3 | 68.4 | 52.0 | M24x1.5 | 160 | 132,100 | ● | |
| 100 | 32 | 9.08 | 4.0 | 3.4 | 68.4 | 52.0 | M24x1.5 | 160 | 132,101 | ● | |
| 100 | 32 | 16.62 | 5.3 | 4.6 | 68.4 | 52.0 | M24x1.5 | 160 | 132,102 | ● | |


MQL 2-channel coolant delivery set HSK-A

Product information

- to Guhring MQL standard
- for 2-channel-systems
- for tool holders with automatic tool change
- sealed thanks to bypass system
- "Crashsafe" design similar to DIN 69090-2 delivery collar
- all dimensions to DIN 69895 unless stated



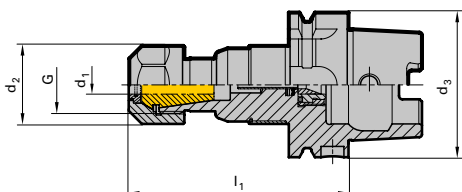
| | | | | | | | | | | Guhring no. 4623 | |
|-----------|-----------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|---------|------------------|--------------------|--------------|
| | | | | | | | | | | Discount group 114 | |
| for HSK-A | for clamp. Ø mm |  A mm ² | d ₁ mm | d ₂ mm | d ₃ mm | l ₁ mm | l ₂ mm | G | for chuck length | Code no. | Availability |
| 40 | 6-16 | 2.01 | 1.9 | 1.6 | 8 | 43.3 | 14.5 | M12x1 | std. | 16,040 | ● |
| 40 | 6-16 | 4.15 | 2.8 | 2.3 | 8 | 43.3 | 14.5 | M12x1 | std. | 16,140 | ● |
| 40 | 12-16 | 9.08 | 4.0 | 3.4 | 8 | 43.1 | 14.3 | M12x1 | std. | 16,240 | ● |
| 50 | 6-10 | 2.01 | 1.9 | 1.6 | 10 | 48.6 | 16.0 | M16x1.0 | std. | 10,050 | ● |
| 50 | 6-10 | 4.15 | 2.8 | 2.3 | 10 | 48.6 | 16.0 | M16x1.0 | std. | 10,150 | ● |
| 50 | 12-18 | 2.01 | 1.9 | 1.6 | 10 | 46.5 | 13.9 | M16x1.0 | std. | 18,050 | ● |
| 50 | 12-20 | 4.15 | 2.8 | 2.3 | 10 | 46.5 | 13.9 | M16x1.0 | std. | 20,050 | ● |
| 50 | 12-20 | 9.08 | 4.0 | 3.4 | 10 | 46.5 | 13.9 | M16x1.0 | std. | 20,150 | ● |
| 50 | 20 | 16.62 | 5.3 | 4.6 | 10 | 46.5 | 13.9 | M16x1.0 | std. | 20,250 | ● |
| 63 | 6-10 | 2.01 | 1.9 | 1.6 | 12 | 50.0 | 14.1 | M18x1.0 | std. | 10,063 | ● |
| 63 | 6-10 | 4.15 | 2.8 | 2.3 | 12 | 50.0 | 14.1 | M18x1.0 | std. | 10,163 | ● |
| 63 | 12-18 | 2.01 | 1.9 | 1.6 | 12 | 48.8 | 13.0 | M18x1.0 | std. | 18,063 | ● |
| 63 | 12-20 | 4.15 | 2.8 | 2.3 | 12 | 48.8 | 13.0 | M18x1.0 | std. | 20,063 | ● |
| 63 | 12-20 | 9.08 | 4.0 | 3.4 | 12 | 48.8 | 13.0 | M18x1.0 | std. | 20,163 | ● |
| 63 | 20 | 16.62 | 5.3 | 4.6 | 12 | 50.0 | 14.2 | M18x1.0 | std. | 20,263 | ● |

| | | | | | | | | | | Guhring no. 4623 | | |
|-----------|-----------------|---|-------------------|-------------------|-------------------|-------------------|-------------------|---------|------------------|--------------------|--------------|--|
| | | | | | | | | | | Discount group 114 | | |
| for HSK-A | for clamp. Ø mm |  A mm ² | d ₁ mm | d ₂ mm | d ₃ mm | l ₁ mm | l ₂ mm | G | for chuck length | Code no. | Availability | |
| 63 | 25-32 | 4.15 | 2.8 | 2.3 | 12 | 54.1 | 18.3 | M18x1.0 | std. | 32,063 | ● | |
| 63 | 25-32 | 9.08 | 4.0 | 3.4 | 12 | 54.1 | 18.3 | M18x1.0 | std. | 32,163 | ● | |
| 63 | 25-32 | 16.62 | 5.3 | 4.6 | 12 | 54.1 | 18.3 | M18x1.0 | std. | 32,263 | ● | |
| 63 | 6-8 | 2.01 | 1.9 | 1.6 | 12 | 90.0 | 54.1 | M18x1.0 | 120 | 208,063 | ● | |
| 63 | 6-8 | 4.15 | 2.8 | 2.3 | 12 | 90.0 | 54.1 | M18x1.0 | 120 | 208,163 | ● | |
| 63 | 10 | 2.01 | 1.9 | 1.6 | 12 | 85.0 | 49.1 | M18x1.0 | 120 | 210,063 | ● | |
| 63 | 10 | 4.15 | 2.8 | 2.3 | 12 | 85.0 | 49.1 | M18x1.0 | 120 | 210,163 | ● | |
| 63 | 12-14 | 2.01 | 1.9 | 1.6 | 12 | 78.8 | 43.0 | M18x1.0 | 120 | 214,063 | ● | |
| 63 | 12-14 | 4.15 | 2.8 | 2.3 | 12 | 78.8 | 43.0 | M18x1.0 | 120 | 214,163 | ● | |
| 63 | 12-14 | 9.08 | 4.0 | 3.4 | 12 | 78.8 | 43.0 | M18x1.0 | 120 | 214,263 | ● | |
| 63 | 16-18 | 2.01 | 1.9 | 1.6 | 12 | 73.8 | 38.0 | M18x1.0 | 120 | 218,063 | ● | |
| 63 | 16-18 | 4.15 | 2.8 | 2.3 | 12 | 73.8 | 38.0 | M18x1.0 | 120 | 218,163 | ● | |
| 63 | 16-18 | 9.08 | 4.0 | 3.4 | 12 | 73.8 | 38.0 | M18x1.0 | 120 | 218,263 | ● | |
| 63 | 20 | 4.15 | 2.8 | 2.3 | 12 | 70.0 | 34.2 | M18x1.0 | 120 | 220,063 | ● | |
| 63 | 20 | 9.08 | 4.0 | 3.4 | 12 | 70.0 | 34.2 | M18x1.0 | 120 | 220,163 | ● | |
| 63 | 20 | 16.62 | 5.3 | 4.6 | 12 | 70.0 | 34.2 | M18x1.0 | 120 | 220,263 | ● | |
| 63 | 6-8 | 2.01 | 1.9 | 1.6 | 12 | 130.0 | 94.1 | M18x1.0 | 160 | 108,063 | ● | |
| 63 | 6-8 | 4.15 | 2.8 | 2.3 | 12 | 130.0 | 94.1 | M18x1.0 | 160 | 108,163 | ● | |
| 63 | 10 | 2.01 | 1.9 | 1.6 | 12 | 125.0 | 89.1 | M18x1.0 | 160 | 110,063 | ● | |
| 63 | 10 | 4.15 | 2.8 | 2.3 | 12 | 125.0 | 89.1 | M18x1.0 | 160 | 110,163 | ● | |
| 63 | 12-14 | 2.01 | 1.9 | 1.6 | 12 | 118.8 | 83.0 | M18x1.0 | 160 | 114,063 | ● | |
| 63 | 12-14 | 4.15 | 2.8 | 2.3 | 12 | 118.8 | 83.0 | M18x1.0 | 160 | 114,163 | ● | |
| 63 | 12-14 | 9.08 | 4.0 | 3.4 | 12 | 118.8 | 83.0 | M18x1.0 | 160 | 114,263 | ● | |
| 63 | 16-18 | 2.01 | 1.9 | 1.6 | 12 | 113.8 | 78.0 | M18x1.0 | 160 | 118,063 | ● | |
| 63 | 16-18 | 4.15 | 2.8 | 2.3 | 12 | 113.8 | 78.0 | M18x1.0 | 160 | 118,163 | ● | |
| 63 | 16-18 | 9.08 | 4.0 | 3.4 | 12 | 113.8 | 78.0 | M18x1.0 | 160 | 118,263 | ● | |
| 63 | 20 | 4.15 | 2.8 | 2.3 | 12 | 110.0 | 74.2 | M18x1.0 | 160 | 120,063 | ● | |
| 63 | 20 | 9.08 | 4.0 | 3.4 | 12 | 110.0 | 74.2 | M18x1.0 | 160 | 120,163 | ● | |
| 63 | 20 | 16.62 | 5.3 | 4.6 | 12 | 110.0 | 74.2 | M18x1.0 | 160 | 120,263 | ● | |
| 63 | 25 | 4.15 | 2.8 | 2.3 | 12 | 99.1 | 63.3 | M18x1.0 | 160 | 125,063 | ● | |
| 63 | 25 | 9.08 | 4 | 3.4 | 12 | 99.1 | 63.3 | M18x1.0 | 160 | 125,163 | ● | |
| 63 | 25 | 16.62 | 5.3 | 4.6 | 12 | 99.1 | 63.3 | M18x1.0 | 160 | 125,263 | ● | |
| 63 | 32 | 4.15 | 2.8 | 2.3 | 12 | 94.1 | 58.3 | M18x1.0 | 160 | 132,063 | ● | |
| 63 | 32 | 9.08 | 4.0 | 3.4 | 12 | 94.1 | 58.3 | M18x1.0 | 160 | 132,163 | ● | |
| 63 | 32 | 16.62 | 5.3 | 4.6 | 12 | 94.1 | 58.3 | M18x1.0 | 160 | 132,263 | ● | |
| 80 | 6-10 | 2.01 | 1.9 | 1.6 | 14 | 54.2 | 14.6 | M20x1.5 | std. | 10,080 | ● | |
| 80 | 6-10 | 4.15 | 2.8 | 2.3 | 14 | 54.2 | 14.6 | M20x1.5 | std. | 10,180 | ● | |
| 80 | 12-18 | 2.01 | 1.9 | 1.6 | 14 | 53.1 | 13.5 | M20x1.5 | std. | 18,080 | ● | |
| 80 | 12-32 | 4.15 | 2.8 | 2.3 | 14 | 53.1 | 13.5 | M20x1.5 | std. | 32,080 | ● | |
| 80 | 12-32 | 9.08 | 4.0 | 3.4 | 14 | 53.1 | 13.5 | M20x1.5 | std. | 32,180 | ● | |
| 80 | 20-32 | 16.62 | 5.3 | 4.6 | 14 | 53.6 | 14.0 | M20x1.5 | std. | 32,280 | ● | |
| 100 | 6-10 | 2.01 | 1.9 | 1.6 | 14 | 56.2 | 12.6 | M24x1.5 | std. | 10,100 | ● | |
| 100 | 6-10 | 4.15 | 2.8 | 2.3 | 14 | 56.2 | 12.6 | M24x1.5 | std. | 10,101 | ● | |
| 100 | 12-18 | 2.01 | 1.9 | 1.6 | 14 | 55.1 | 11.5 | M24x1.5 | std. | 18,100 | ● | |
| 100 | 12-32 | 4.15 | 2.8 | 2.3 | 14 | 55.1 | 11.5 | M24x1.5 | std. | 32,100 | ● | |
| 100 | 12-32 | 9.08 | 4.0 | 3.4 | 14 | 55.1 | 11.5 | M24x1.5 | std. | 32,101 | ● | |
| 100 | 20-32 | 16.62 | 5.3 | 4.6 | 14 | 55.6 | 12.0 | M24x1.5 | std. | 32,102 | ● | |
| 100 | 6-8 | 2.01 | 1.9 | 1.6 | 12 | 131.2 | 87.6 | M24x1.5 | 160 | 108,100 | ● | |
| 100 | 6-8 | 4.15 | 2.8 | 2.3 | 12 | 131.2 | 87.6 | M24x1.5 | 160 | 108,101 | ● | |
| 100 | 10 | 2.01 | 1.9 | 1.6 | 12 | 126.2 | 82.6 | M24x1.5 | 160 | 110,100 | ● | |
| 100 | 10 | 4.15 | 2.8 | 2.3 | 12 | 126.2 | 82.6 | M24x1.5 | 160 | 110,101 | ● | |
| 100 | 12-14 | 2.01 | 1.9 | 1.6 | 12 | 120.1 | 76.5 | M24x1.5 | 160 | 114,100 | ● | |
| 100 | 12-14 | 4.15 | 2.8 | 2.3 | 12 | 120.1 | 76.5 | M24x1.5 | 160 | 114,101 | ● | |
| 100 | 12-14 | 9.08 | 4.0 | 3.4 | 12 | 120.1 | 76.5 | M24x1.5 | 160 | 114,102 | ● | |
| 100 | 16-18 | 2.01 | 1.9 | 1.6 | 12 | 115.1 | 71.5 | M24x1.5 | 160 | 118,100 | ● | |
| 100 | 16-18 | 4.15 | 2.8 | 2.3 | 12 | 115.1 | 71.5 | M24x1.5 | 160 | 118,101 | ● | |
| 100 | 16-18 | 9.08 | 4.0 | 3.4 | 12 | 115.1 | 71.5 | M24x1.5 | 160 | 118,102 | ● | |
| 100 | 20 | 4.15 | 2.8 | 2.3 | 12 | 110.6 | 67.0 | M24x1.5 | 160 | 120,100 | ● | |
| 100 | 20 | 9.08 | 4.0 | 3.4 | 12 | 110.6 | 67.0 | M24x1.5 | 160 | 120,101 | ● | |
| 100 | 20 | 16.62 | 5.3 | 4.6 | 12 | 110.6 | 67.0 | M24x1.5 | 160 | 120,102 | ● | |
| 100 | 25 | 4.15 | 2.8 | 2.3 | 12 | 100.6 | 57.0 | M24x1.5 | 160 | 125,100 | ● | |
| 100 | 25 | 9.08 | 4.0 | 3.4 | 12 | 100.6 | 57.0 | M24x1.5 | 160 | 125,101 | ● | |
| 100 | 25 | 16.62 | 5.3 | 4.6 | 12 | 100.6 | 57.0 | M24x1.5 | 160 | 125,102 | ● | |
| 100 | 32 | 4.15 | 2.8 | 2.3 | 12 | 95.6 | 52.0 | M24x1.5 | 160 | 132,100 | ● | |
| 100 | 32 | 9.08 | 4.0 | 3.4 | 12 | 95.6 | 52.0 | M24x1.5 | 160 | 132,101 | ● | |
| 100 | 32 | 16.62 | 5.3 | 4.6 | 12 | 95.6 | 52.0 | M24x1.5 | 160 | 132,102 | ● | |

MQL HSK-A synchro tapping chucks for manual tool change

Product information

- for MQL single and double channel systems
- compensate synchronisation errors
- minimal length compensation in tension and compression direction balances very small pitch differences between synchro spindle and tap, which can cause high frictional forces on the thread flanks and increase thread quality and tool life
- length-setting screw allows 2 to 3 mm readjustment
- MQL pressure up to max. 10 bar
- mounted MQL coolant supply pipe
- Guhring MQL identifiable by green coloured ring



Scope of delivery

- incl. MQL coolant delivery set for manual tool change (filler)
- Incl. sealed IC/ER clamping nut Guhring no. 4306 (*see torque)
- incl. adjustment key for MQL adjustment screw
- order MQL adjustment screw Guhring no. 4305 separately
- order sealing washer Guhring no. 4335 separately
- order collet Guhring no. 4308 separately
- order chuck spanner Guhring no. 4913 for ER retaining nut separately



Guhring no. 4298

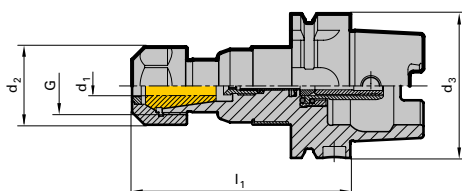
Discount group 114

| HSK-A d ₃ | nom. size | for thread | G | d ₁ mm | d ₂ mm | l ₁ mm | tension/compr. ± mm | torque* Nm | kg | Code no. | Availability |
|----------------------|-----------|------------|---------|-------------------|-------------------|-------------------|---------------------|------------|------|----------|--------------|
| 63 | ER20 | M3.5-M14 | M25x1.5 | 4.5-11 | 34 | 95.5 | 0.15 | 40 | 1.00 | 20,063 | ● |
| 63 | ER32 | M3.5-M28 | M40x1.5 | 4.5-20 | 50 | 109.0 | 0.15 | 170 | 1.50 | 32,063 | ● |

MQL HSK-A synchro tapping chucks for 1-channel systems for automatic tool change

Product information

- for 2-channel-systems
- compensate synchronisation errors
- minimal length compensation in tension and compression direction balances very small pitch differences between synchro spindle and tap, which can cause high frictional forces on the thread flanks and increase thread quality and tool life
- length-setting screw allows 2 to 3 mm readjustment
- MQL pressure up to max. 10 bar
- mounted MQL coolant supply pipe
- Guhring MQL identifiable by green coloured ring



Scope of delivery

- incl. MQL coolant delivery set for automatic tool change
- Incl. sealed IC/ER clamping nut Guhring no. 4306 (*see torque)
- incl. adjustment key for MQL adjustment screw
- order MQL adjustment screw Guhring no. 4305 separately
- order sealing washer Guhring no. 4335 separately
- order collet Guhring no. 4308 separately
- order chuck spanner Guhring no. 4913 for ER retaining nut separately



Guhring no. 4341

Discount group 114

| HSK-A d ₃ | nom. size | for thread | G | d ₁ mm | d ₂ mm | l ₁ mm | tension/compr. ± mm | torque* Nm | kg | Code no. | Availability |
|----------------------|-----------|------------|---------|-------------------|-------------------|-------------------|---------------------|------------|------|----------|--------------|
| 63 | ER20 | M3.5-M14 | M25x1.5 | 4.5-11 | 34 | 95.5 | 0.15 | 40 | 1.00 | 20,063 | ● |
| 63 | ER32 | M3.5-M28 | M40x1.5 | 4.5-20 | 50 | 109.0 | 0.15 | 170 | 1.50 | 32,063 | ● |
| 100 | ER20 | M3.5-M14 | M25x1.5 | 4.5-11 | 34 | 102.0 | 0.15 | 40 | 2.40 | 20,100 | ● |
| 100 | ER32 | M3.5-M28 | M40x1.5 | 4.5-20 | 50 | 115.5 | 0.15 | 170 | 3.00 | 32,100 | ● |

HSK



HSK CLAMPING TECHNOLOGY

MQL
By GÜHRING

ONE CLAMPING
MANY NEW
POSSIBILITIES!





*SUITABLE FOR DIFFERENT
SPINDLE CONTOURS*



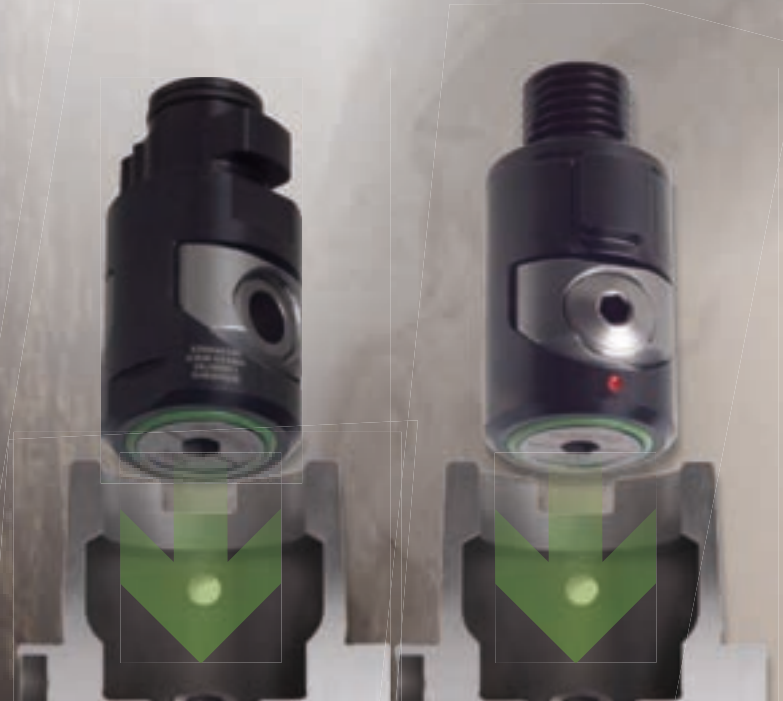
MAXIMUM CLAMPING



*OPTIMAL COOLANT
SUPPLY – MQL &
CONVENTIONAL*



*STRAIGHT-
LINE COOLANT
THROUGHFLOW*



4-POINT CLAMPING TECHNOLOGY FOR MQL

TECHNICAL INFORMATION AND ADVANTAGES

GÜHROCLAMP



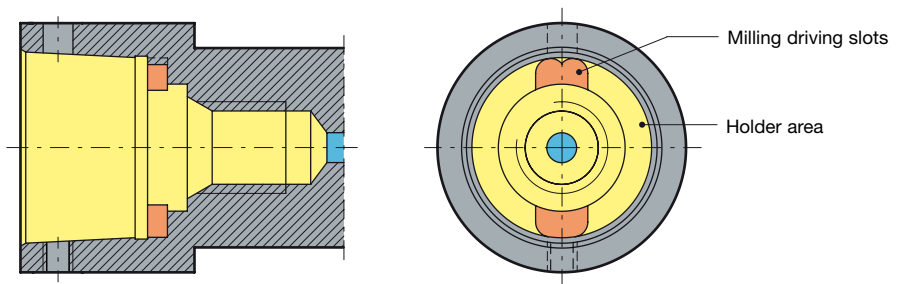
Our 4-point clamping system is suitable for radial manual clamping. Primarily designed for installation in spindles (short drilling spindles, multiple-spindle drilling heads).



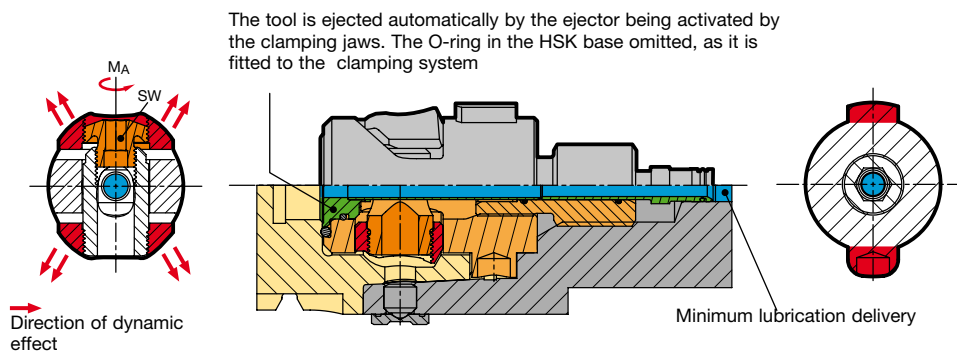
Advantages:

- simple and hence more economic spindle manufacture
- short, small diameter spindles with constricted spindle bearing spacing
- suitable for a pressure up to 160 bar (for conventional internal cooling)
- fast response time thanks to uninterrupted MQL delivery
- compatible installation contour and application of our 4-point clamping set for conventional cooling

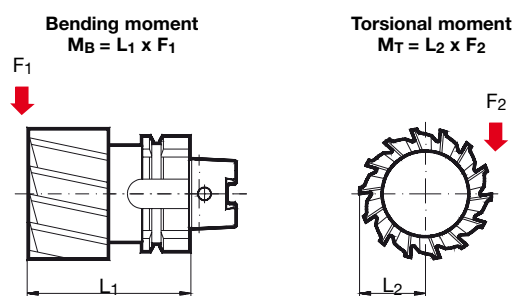
Internal contour of spindle



Installation and principle of operation



Bending, torsional and tightening moment for 4-point clamping sets for MQL



① We recommend M_A max. for rough machining and milling operations. For drilling and reaming operations a lower deviation of M_A max. up to 30% is permissible. Please check the torque with a torque wrench.

② Depending on temperature and lubricating conditions these values can be up to 15% lower.

③ Due to the screwed connection, M_T max. can be lower with adaptors.

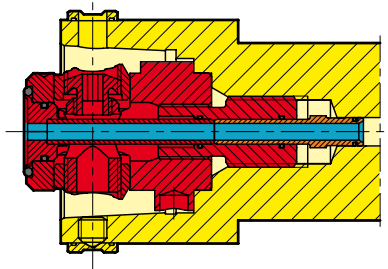
| HSK-C | max. torque M_A [Nm] ① | Key size | max. drawing force [kN] ② | max. linear bending moment M_B [Nm] ② | max. transferrable torsional moment M_T [Nm] ② ③ |
|-------|--------------------------|----------|---------------------------|---|--|
| 32 | 3.0 | 2.5 | 8.5 | 72 | 105 |
| 40 | 6.0 | 3.0 | 12.5 | 135 | 180 |
| 50 | 12.0 | 4.0 | 24.0 | 330 | 390 |
| 63 | 24.0 | 5.0 | 32.0 | 570 | 680 |
| 80 | 40.0 | 6.0 | 45.0 | 1000 | 1570 |
| 100 | 60.0 | 8.0 | 53.0 | 1620 | 4200 |

General notes: Our manual clamping sets must not be operated with motor-driven tools (impulse screwdriver or similar). The hexagonal key should not exceed the key size over its entire length, this largely prevents excessive torque being transferred. We recommend the T-handle hexagonal key, Guhring no. 4912. For accurate setting of the maximum torque and achieving the maximum interface rigidity, we recommend the application of a torque wrench, Guhring no. 4915 with hexagonal sockets, Guhring no. 4916. Production drawings of the spindle contour to suit direct installation are available on request, including .dxf.

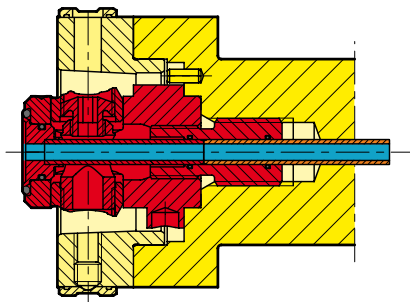


MQL 4-point clamping set connection dimensions for new designs

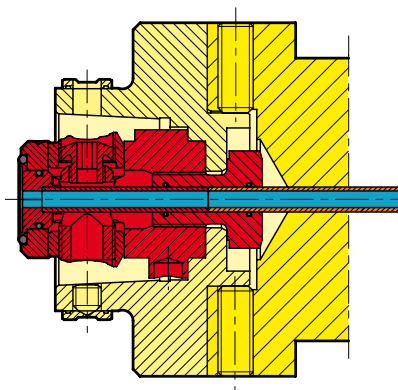
Direct installation in spindle with MQL adaptor



Short spindle adaptor with MQL delivery pipe



Adaptor (in front) with MQL delivery pipe



GÜHROCLAMP MQL 4-point clamping sets for MQL and IC

Product information

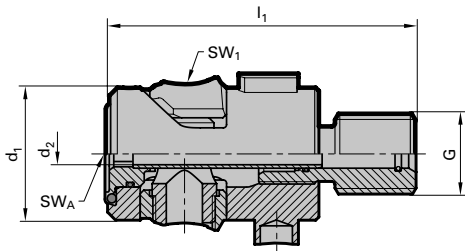
- for radial manual HSK tool clamping
- universal application for MQL and high-pressure IC
- the central and coaxial MQL supply with constant internal diameter prevents coolant from consolidating to DIN 69090-2
- For a coolant pressure up to 160 bar

Scope of delivery

- complete as shown in illustration
- Installation and operating instructions



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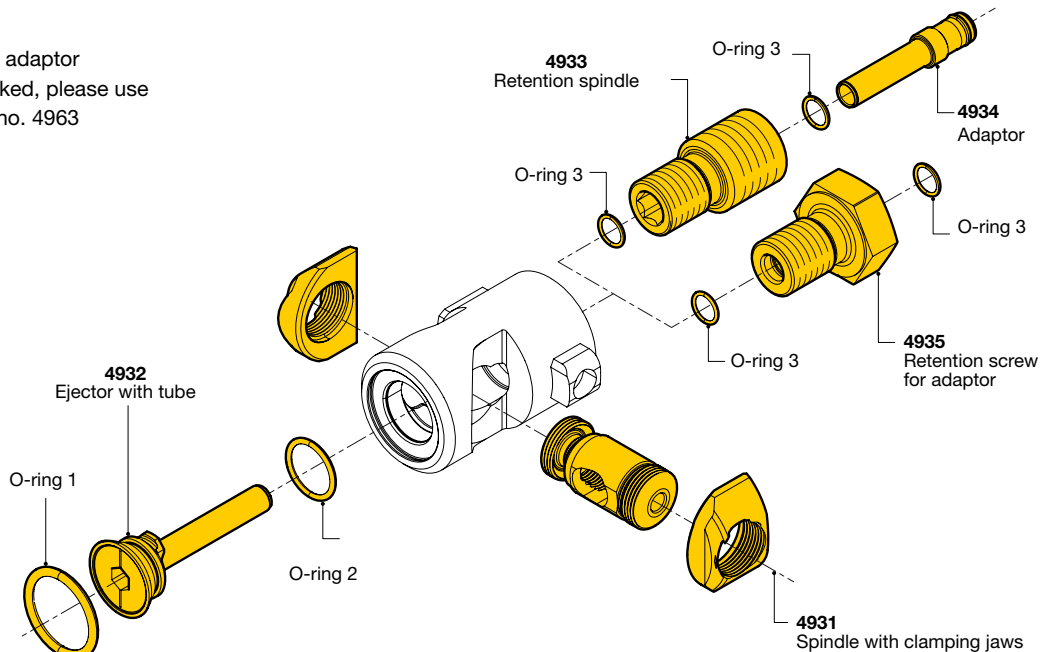


| | |
|-----------------------|-------------|
| Guhring no. | 4930 |
| Discount group | 114 |

| for HSK-C | d ₁ mm | d ₂ mm | l ₁ mm | G | SW1 | SW _A | kg | Code no. | Availability |
|-----------|-------------------|-------------------|-------------------|-----|-----|-----------------|------|----------|--------------|
| 32 | 16.7 | 3 | 39.5 | M10 | 2.5 | 3 | 0.05 | 24,100 | ● |
| 40 | 20.6 | 4 | 49.5 | M12 | 3 | 4 | 0.09 | 30,100 | ● |
| 50 | 25.5 | 5 | 59.0 | M16 | 4 | 5 | 0.18 | 38,100 | ● |
| 63 | 33.0 | 6 | 76.0 | M20 | 5 | 6 | 0.37 | 48,100 | ● |
| 80 | 41.0 | 8 | 98.0 | M24 | 6 | 8 | 0.70 | 60,100 | ● |
| 100 | 52.0 | 10 | 117.5 | M24 | 8 | 10 | 1.30 | 75,100 | ● |

GÜHROCLAMP component parts for MQL 4-point clamping sets Guhring no. 4930

- retention screw only for adaptor
- If spindle cannot be locked, please use torque socket Guhring no. 4963



GÜHROCLAMP

| | | | | | | | |
|--|--|--|--|-------------|--|-------------|--|
| | | | | 4931 | | 4932 | |
|--|--|--|--|-------------|--|-------------|--|

| for HSK-C | O-ring 1 NBR 70 | O-ring 2 NBR 70 | O-ring 3 NBR 70 | Spindle with clamping jaws | Availability Discount group 114 | Ejector with tube | Availability Discount group 114 |
|-----------|-----------------|-----------------|-----------------|----------------------------|---------------------------------|-------------------|---------------------------------|
| 32 | 10.82x1.78 | 6.0x1.5 | - | 24.000 | ● | 24,100 | ● |
| 40 | 13.0x2.0 | 7.0x1.5 | 4.5x1.0/5.0x1.0 | 30.000 | ● | 30,100 | ● |
| 50 | 16.0x2.0 | 10.0x1.5 | 5.5x1.0/7x1.0 | 38.000 | ● | 38,100 | ● |
| 63 | 20.3x2.4 | 14.0x1.5 | 7.0x1.0 | 48.000 | ● | 48,100 | ● |
| 80 | 24.0x3.0 | 16.0x2.0 | 10.0x1.5 | 60.000 | ● | 60,100 | ● |
| 100 | 31.34x3.53 | 22.0x2.0 | 12.0x1.70 | 75.000 | ● | 75,100 | ● |

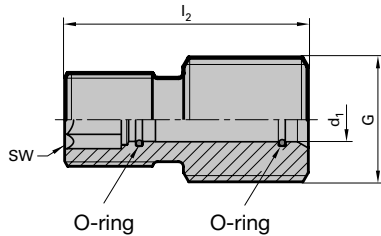
Retention spindles for GÜHROCLAMP MQL 4-point clamping sets

Product information

- retention spindle for direct installation in spindle

Scope of delivery

- complete as shown in illustration



Guhring no. **4933**

Discount group **114**

| for HSK-C | d ₁ mm | l ₁ mm | G | SW | O-ring 1 | O-ring 2 | Code no. | Availability |
|-----------|-------------------|-------------------|------|----|-----------|-----------|----------|--------------|
| 32 | M7x0.5 | 17.0 | M10 | 4 | - | - | 24,100 | ● |
| 40 | 5.1 | 23.0 | M 12 | 5 | 4.5x1.0 | 5x1 | 30,100 | ● |
| 50 | 7.1 | 27.0 | M 16 | 6 | 5.5x1.0 | 7x1.0 | 38,100 | ● |
| 63 | 7.1 | 39.0 | M 20 | 8 | 7.0x1.0 | 7.0x1.0 | 48,100 | ● |
| 80 | 10.1 | 50.0 | M 24 | 10 | 10.0x1.5 | 10.0x1.5 | 60,100 | ● |
| 100 | 12.1 | 60.0 | M 24 | 12 | 12.0x1.70 | 12.0x1.70 | 75,100 | ● |

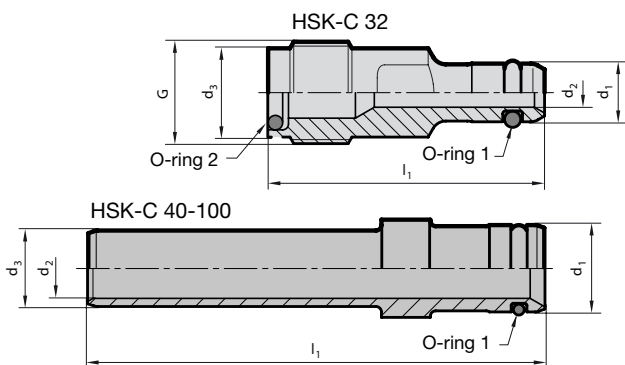
Adaptor for GÜHROCLAMP MQL 4-point clamping sets

Product information

- Adaptor for direct installation in spindle and spindle adaptor (integrated) for coolant delivery and sealing

Scope of delivery

- complete as shown in illustration



Guhring no. **4934**

Discount group **114**

| for HSK-C | d ₁ mm | d ₂ mm | d ₃ mm | l ₁ mm | O-ring 12xNBR70 | O-ring 2NBR70 | Code no. | Availability |
|-----------|-------------------|-------------------|-------------------|-------------------|-----------------|---------------|----------|--------------|
| 32 | 4.0 | 2.0 | 6.1 | 19 | 2.0 x 1.0 | 3.5 x 1.0 | 24,100 | ● |
| 40 | 5.0 | 3.0 | 5.0 | 28 | 3.0 x 1.0 | - | 30,100 | ● |
| 50 | 6.0 | 4.0 | 7.0 | 28 | 4.0 x 1.0 | - | 38,100 | ● |
| 63 | 8.0 | 5.5 | 7.0 | 42 | 6.0 x 1.0 | - | 48,100 | ● |
| 80 | 10.2 | 7.5 | 10.0 | 56 | 8.0 x 1.0 | - | 60,100 | ● |
| 100 | 12.0 | 9.5 | 11.8 | 60 | 10.0 x 1.0 | - | 75,100 | ● |

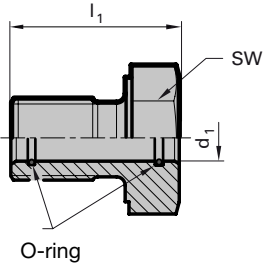
Retention screw for GÜHROCLAMP MQL 4-point clamping sets

Product information

- necessary for installation of MQL 4-point clamping set in spindle adaptors Guhring no. 4386 and 4387
- change against standard retention bolt

Scope of delivery

- complete as shown in illustration



| | |
|-----------------------|-------------|
| Guhring no. | 4935 |
| Discount group | 114 |

| for HSK-C | d_1 mm | l_1 mm | SW | O-ring 2 x NBR 70 | Code no. | Availability |
|-----------|----------|----------|----|----------------------|----------|--------------|
| 32 | 4.0 | 21.5 | 13 | - | 24,000 | ● |
| 40 | 5.0 | 21 | 16 | 5x1.0 | 30,000 | ● |
| 50 | 6.0 | 25 | 18 | 6x1.0 | 38,000 | ● |
| 63 | 8.0 | 31 | 24 | 8x1.0 | 48,000 | ● |
| 80 | 10.0 | 36 | 24 | 10x1.5 | 60,000 | ● |
| 100 | 12.0 | 40 | 32 | 12x1.7 | 75,000 | ● |

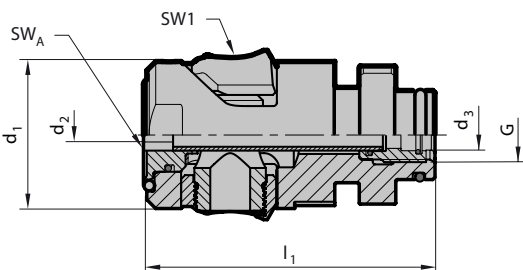
M contour clamping sets for MQL and IC

Product information

- HSK clamping sets compatible with M contour spindles and adaptors
- universal application for MQL and high-pressure IC
- the central, coaxial MQL supply with constant internal diameter ensures a uninterrupted coolant delivery to DIN 69090-2
- for a coolant pressure up to 160 bar
- for radial manual HSK tool clamping

Scope of delivery

- incl. adaptor with through hole for uninterrupted coolant delivery
- including installation and operating instructions
- order adaptor with spigot connection Guhring no. 4616 separately
- spindle connection dimensions on request



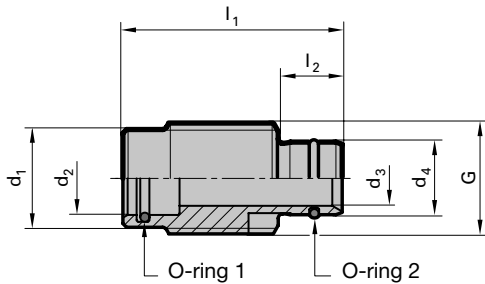
| | |
|-----------------------|-------------|
| Guhring no. | 4615 |
| Discount group | 114 |

| for HSK-C | d_1 mm | d_2 mm | d_3 mm | l_1 mm | G | SW1 | SWA | Code no. | Availability |
|-----------|----------|----------|----------|----------|-------|-----|-----|----------|--------------|
| 32 | 16.7 | 3.0 | 4.1 | 43.4 | M8x1 | 2.5 | 3 | 24,000 | ● |
| 40 | 20.6 | 4.0 | 5.1 | 48.3 | M10x1 | 3 | 4 | 30,000 | ● |
| 50 | 22.5 | 5.0 | 7.1 | 55.3 | M12x1 | 4 | 5 | 38,000 | ● |
| 63 | 33.0 | 6.0 | 7.1 | 64.7 | M12x1 | 5 | 6 | 48,000 | ● |
| 80 | 41.0 | 8.0 | 10.1 | 75.3 | M16x1 | 6 | 8 | 60,000 | ● |
| 100 | 52.0 | 10.0 | 12.1 | 94.5 | M18x1 | 8 | 10 | 75,000 | ● |

Adaptor with spigot transition for M contour clamping set

Product information

- application on M contour clamping sets
Guhring no. 4615 instead of adaptor with coolant transfer hole
- universal application for MQL and high-pressure IC
- for a coolant pressure up to 160 bar
- adaptor for spindles without coolant tube for uninterrupted coolant delivery
- spindle connection dimensions on request



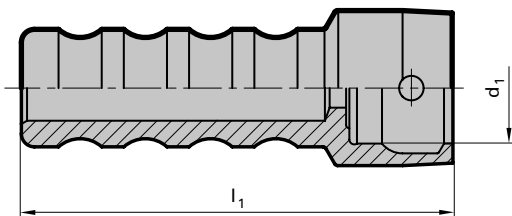
Guhring no. **4616**
Discount group **114**

| for HSK-C | d ₁ mm | d ₂ mm | d ₃ mm | d ₄ mm | l ₁ mm | l ₂ mm | O-ring 1 NBR 70 | O-ring 2 NBR 70 | G | Code no. | Availability |
|-----------|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|--------------------|--------------------|-------|----------|--------------|
| 32 | - | 4 | 3 | 5.00 | 14.4 | 5.4 | 4x1 | 3x1 | M8x1 | 24,000 | ● |
| 40 | 7.7 | 5 | 4 | 6.00 | 22.0 | 6.5 | 5x1 | 4x1 | M10x1 | 30,000 | ● |
| 50 | 8.5 | 6 | 5 | 8.00 | 23.0 | 7.5 | 5x1 | 6x1 | M12x1 | 38,000 | ● |
| 63 | 10.7 | 8 | 6 | 8.00 | 24.0 | 7.0 | 8x1 | 6x1 | M12x1 | 48,000 | ● |
| 80 | - | 10 | 8 | 11.30 | 23.3 | 8.3 | 10x1.5 | 8x1.5 | M12x1 | 60,000 | ● |
| 100 | - | 12 | 10 | 13.80 | 30.6 | 9.6 | 12x1.5 | 12x1.5 | M18x1 | 75,000 | ● |

Tool for the assembly / disassembly of M contour clamping sets

Product information

- for the assembly and disassembly of M contour clamping sets Guhring no. 4615



Guhring no. **4624**
Discount group **114**

| for HSK | d ₁ mm | l ₁ mm | Code no. | Availability |
|---------|----------------------|----------------------|----------|--------------|
| 32 | 17 | 119 | 32,000 | ● |
| 40 | 21 | 121.5 | 40,000 | ● |
| 50 | 26 | 127.5 | 50,000 | ● |
| 63 | 34 | 132 | 63,000 | ● |
| 80 | 42 | 143 | 80,000 | ● |
| 100 | 53 | 152 | 100,000 | ● |

MQL-CHECK 3000

PROVIDES AN OVERVIEW

Especially with minimal quantity lubrication, optimal delivery of the minimal coolant volume to the cutting edge is paramount. An insufficient delivery or a delayed response time respectively can lead to disastrous results such as premature wear, a deterioration in machining quality or even tool breakage. In contrast, excessive coolant volume results in increased costs through unnecessary coolant consumption and additional cleaning expense for components or machines as well as an unnecessary impact on the environment and personnel.

- ⇒ simple, quick measurements of the coolant volume directly at the tool point
- ⇒ ascertaining the actual response time, i.e. the time from starting the system to the coolant exiting at the tool point
- ⇒ reproduceable and at any time comparable measuring data
- ⇒ a workshop suitable system, wireless operation - in terms of power supply as well as data transfer
- ⇒ comparative measuring regarding function of MQL equipment, machine, spindle, tool holder and tool



Technical Data

| | |
|---------------------|--|
| Measuring range | 5 to 60 ml/h |
| Tool diameter range | 3 to 20 mm |
| Measuring position | 0 to 90° (vertical and horizontal machining) |
| Power supply | battery |

MQL-Check 3000 consists of:

- measuring unit incl. sender and magnetic base for installation with horizontal machining
- display facility with receiver
- measuring filter for measuring range up to 30 ml/h

Data interface and PC software are available as an option.

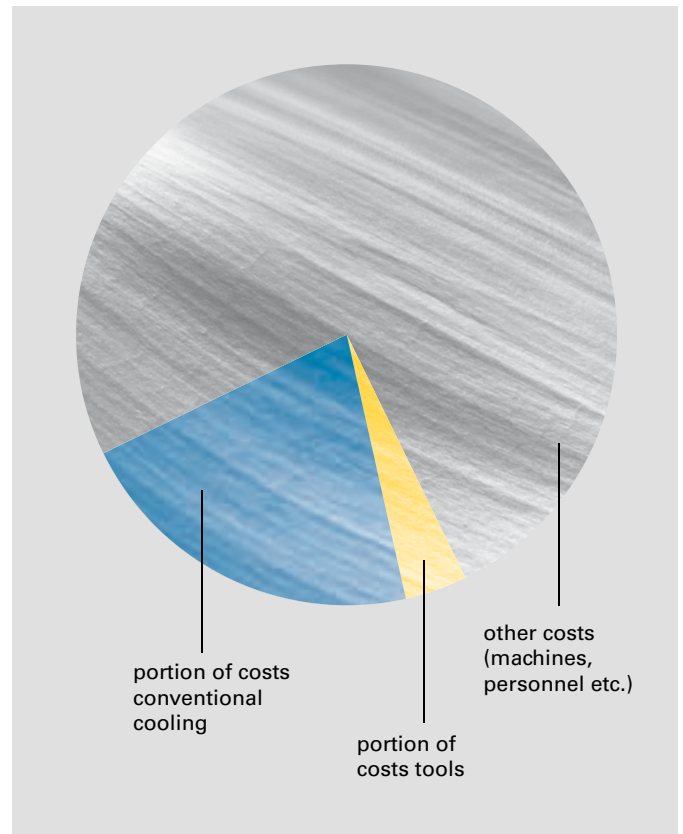


TECHNICAL INFORMATION

Introduction

Alongside the machine and tooling the costs for coolant are a considerable portion of the overall cost of the machining process. Therefore, a reduction in the cooling lubrication requirements offers a potential for cost savings.

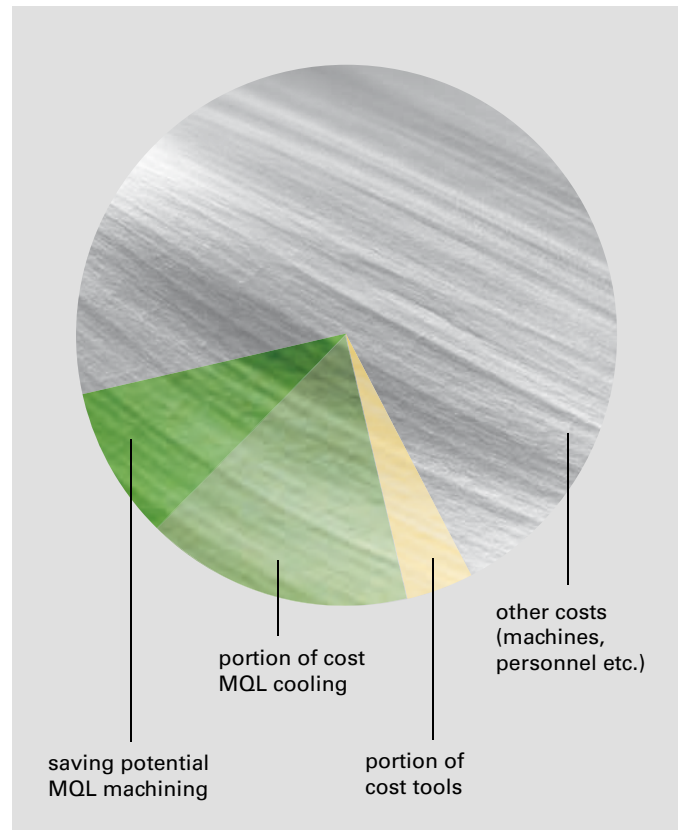
The reduction of cooling lubricants is not only cost saving but is also of benefit to the environment and health protection. Guhring is one of the pioneers in the research and development of MQL that began in the mid 1990's.



The aim of MQL machining

The acquisition of a new MQL cooling lubricant system is significantly less expensive than conventional cooling!

- reduction of thermal stresses at the tool point
- less tool wear
- effective chip evacuation from deep holes
- reduction of cooling lubricant requirement
- high cooling and lubrication effect especially in deep holes
- lowering the resulting costs such as:
 - component cleaning costs
 - cooling lubricant disposal costs
 - swarf disposal costs
- environment and health protection



The development of present-day MQL systems

Thanks to the research in MQL machining Guhring created the pre-condition for a practical MQL technology. From the clamping set to the tool's cutting edge all the components were integrated in the development – the result was the first MQL delivery system.

Features:

- modular constructed and standardised system
- MQL and conventional clamping set are freely interchangeable thanks to an identical spindle contour
- hydraulic, shrink fit and synchro chucks are all designed for the MQL clamping set



Guhring's current MQL system

By incorporating the MQL length adjustment screw to Guhring's first MQL delivery system in 2007, the original drawback was eliminated. There is, therefore, currently a MQL delivery system available to the customer that optimally meets the requirements of the present-day production process.

Features of the first Guhring MQL delivery system:

- no lubricant delays
- special MQL coolant delivery unit
- MQL suitable tool shank end
- tapered length setting screw

The user, therefore, benefits from a standardised system and a clearly reduced stock keeping thanks to compatible components.



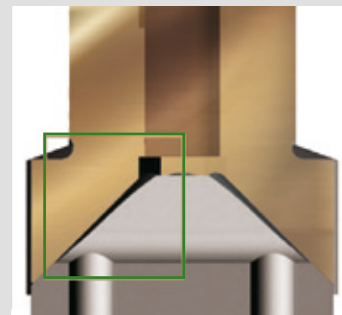
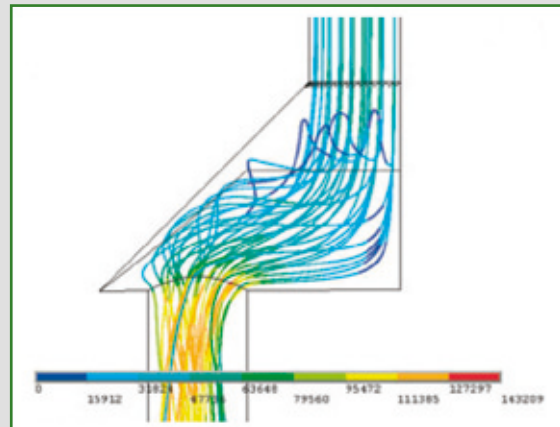
Optimally formed shank end! For a secure MQL delivery

The delivery of these extremely low coolant quantities directly to the effective area is of utmost importance. Hereby, the geometric design of the shank end plays a significant role! The Guhring developed conical shank end optimally satisfies the relevant MQL conditions.

Advantages of the tapered shank end:

- no lubricant delays
- minimal dead area
- simple operation
- cost-efficient production

Flow pattern with low vortex formation

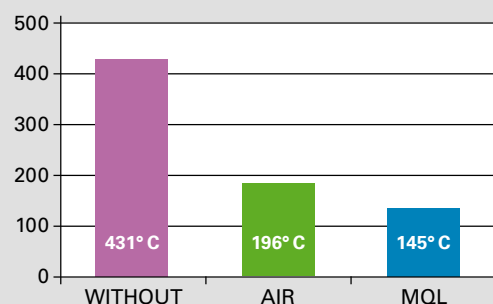
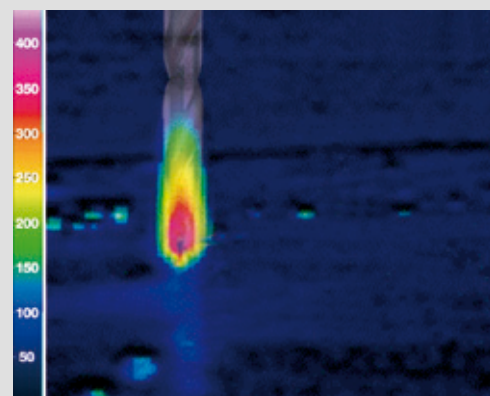


Flow conditions in the coolant duct connection slot at the point of the tapered transition

Keeping a cool point

With MQL the process temperature can be considerably reduced in comparison to dry machining resulting in longer tool life and an increased process reliability.

Thermographic examination at Guhring:
Comparison of tool temperatures



The best form for MQL!

Optimal MQL machining results thanks to the optimised tool geometry of RT 100 T!



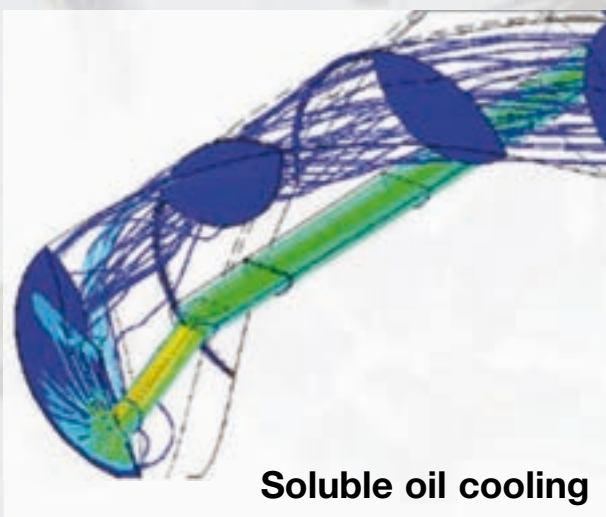
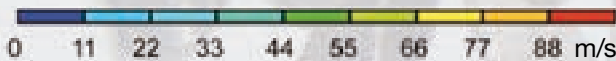
1. Flute cross section:

The flute geometry of Guhring MQL tools ensures short chips that are optimally evacuated from deep holes.

2. Maximum coolant duct cross-section:

The cooling lubricant supply as well as the chip evacuation have been optimised through the tool's maximum coolant duct cross-section.

Flow speed comparison



The flow speed

in the flute with MQL is 30.4 m/s.

The volume with MQL

is 6.960 l/h (std.litres air/h).

Tool \varnothing = 11.7 mm

Pressure at pump = 6 bar

Pressure at tool = 4 bar

The flow speed

In the flute with soluble oil is 3.5 m/s.

The volume with soluble oil

is 600 l/h (std.litres air/h).

Tool \varnothing = 11.7 mm

Pressure at pump = 60 bar

Pressure at tool = 31 bar

MQL system types

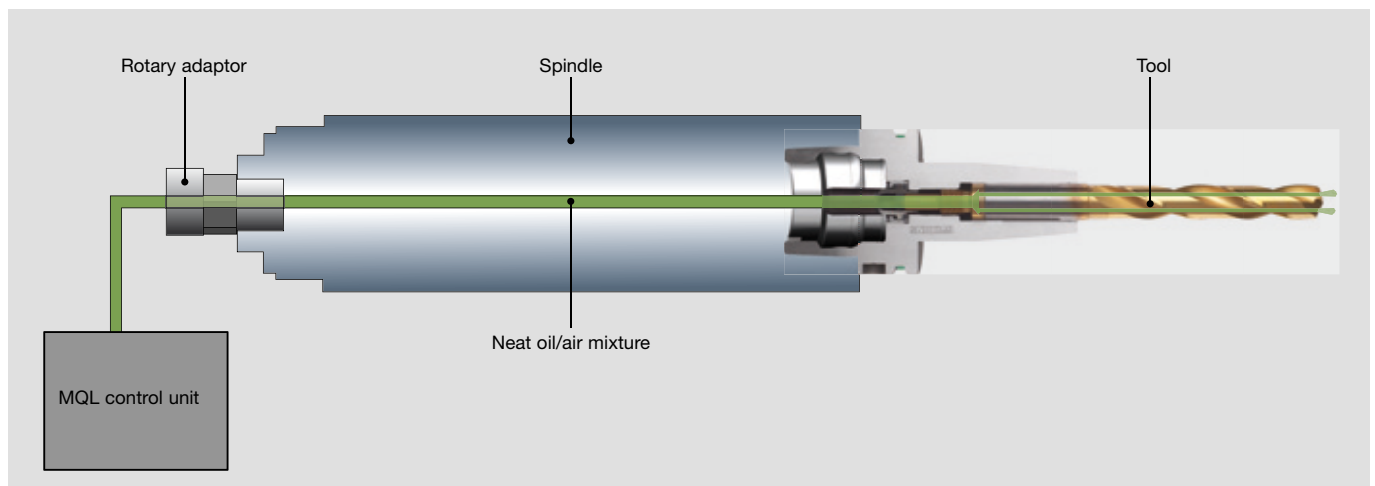
The provision of the MQL medium to the tool can be achieved in two ways: the aerosol mixture can be prepared outside the machine and conveyed to the machining location (1-channel system) or compressed air and MQL medium are conveyed separately to the mixing chamber where they are then mixed together (2-channel system).

The aerosol feed to the machining location is achieved via a suitable minimal quantity lubrication rotary adaptor (preferably with axial flowthrough), the spindle, the clamping system and finally the cutting tool. Unavoidable cross-section modifications should be as streamlined as possible.

1-channel MQL system

With a 1-channel MQL system, a lubricating aerosol is created in a separate MQL unit attached to the machine tool. Special nozzle systems inside a pressurised container create a lubri-

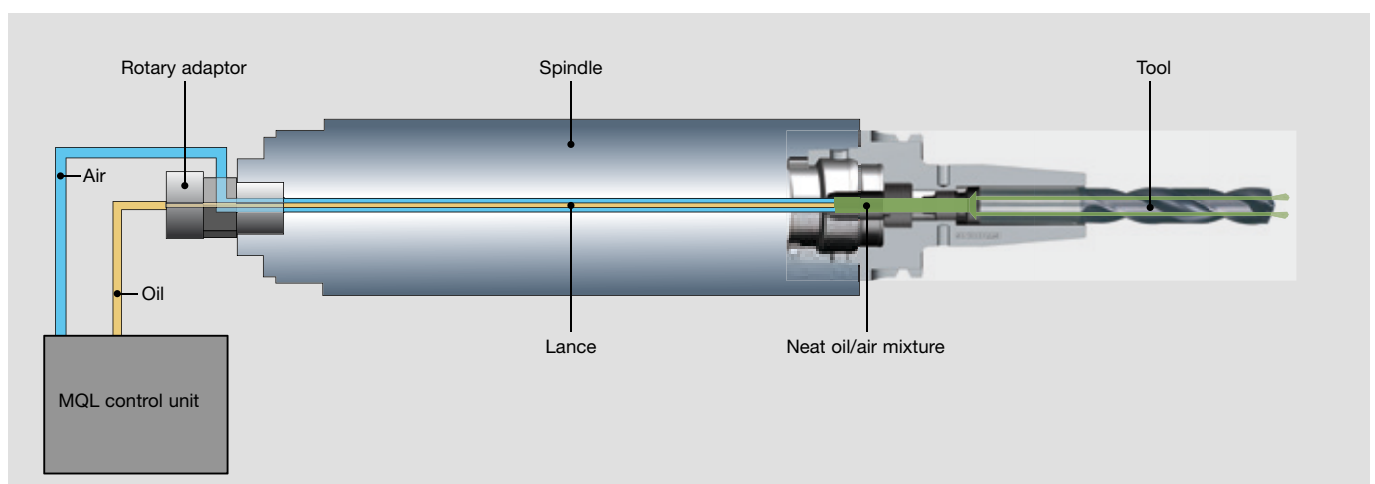
cating aerosol via a regulated compressed air feed, its neat oil content adjustable and then maintained within the physical limits by the MQL control.



The 2-channel MQL system

With a 2-channel system the neat oil reaches the rotary adaptor from the unit via a ring line and a as short as possible stub line. In it is incorporated a quick valve that regulates minute quantities of neat oil. The neat oil is transported into the tool holder via a lance attached in the spindle. The second channel of the rotary adaptor is used for the air supply to the tool holder. Only at this point the air is mixed with the neat oil.

To achieve this, the tool holder possesses a pressed-in pipe nozzle in which the mixing chamber is located. Neat oil and air can be mixed with this system in more or less any quantities. The route from the mixing chamber to the point of destination is only minimal resulting in a rapid response time and allowing a very quick alteration of the volume of neat oil.



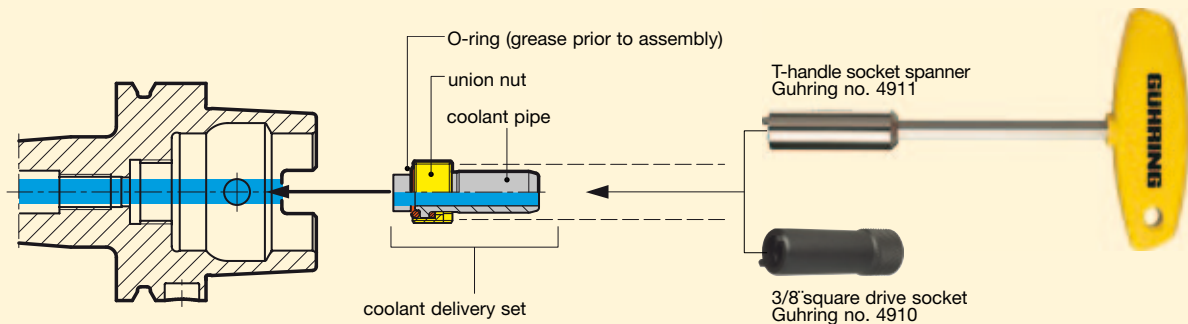
INSTALLATION INSTRUCTIONS

1. The HSK holder must be clean, free of swarf and undamaged.
2. Grease the O-rings prior to assembly.
3. Centrally insert the complete coolant delivery set (coolant pipe, union nut and 2 O-rings) in the HSK with the assistance of the socket spanner. When inserting the MQL coolant delivery unit, it is paramount to ensure that the MQL pipe is inserted centrally and undamaged into the MQL length setting screw (do not kink).
4. Screw in the coolant delivery set/coolant delivery unit and tighten (see table for torque figures)
5. Check coolant pipe for radial mobility.

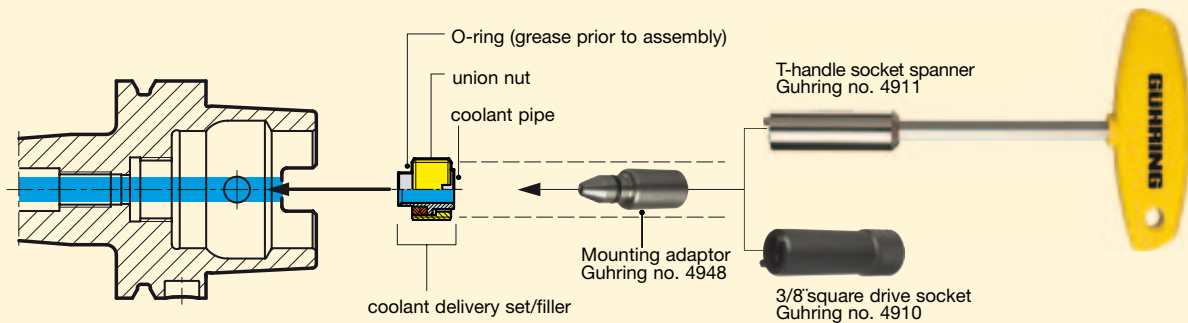
Torque figures

| for HSK | MA Nm |
|---------|-------|
| 32 | 7 |
| 40 | 11 |
| 50 | 15 |
| 63 | 20 |
| 80 | 25 |
| 100 | 30 |

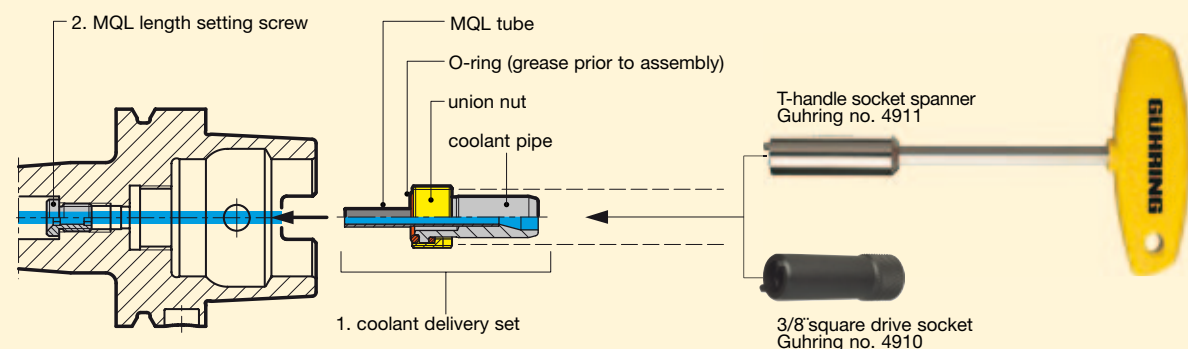
Installation of MQL coolant delivery set 4939



Installation of MQL coolant delivery set filler 4940



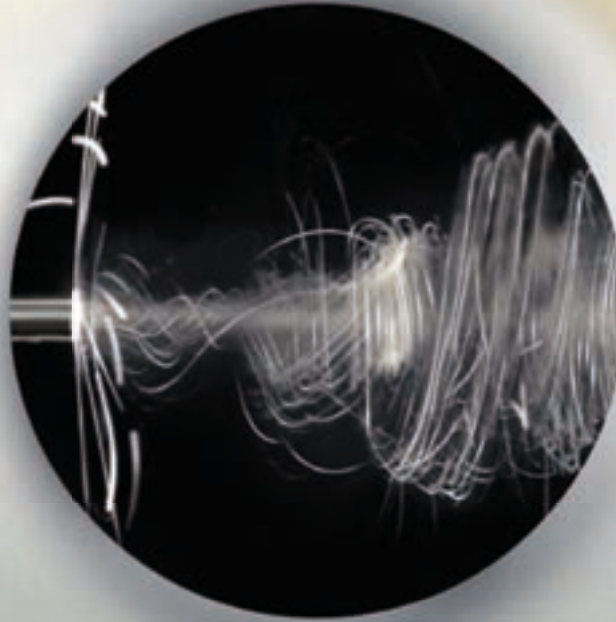
Installation of MQL coolant delivery unit 4623/4924



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MQL - PERFORMANCE TEST



MQL
BY GÜHRING

RESEARCH & DEVELOPMENT

MADE VISIBLE

In Guhring's R&D department the MQL spray pattern of a tool can be made visible under the most diverse application conditions such as MQL 1- or 2-channel system, pressure and speed with the help of a test facility as well as a high speed camera always giving you the assurance that your MQL supply operates perfectly.

Guhring oHG

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