

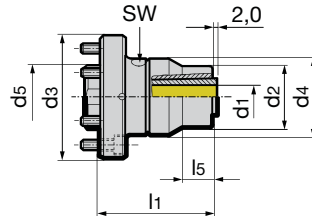
## Module 6x6 HPC clamping chuck flange

### Product information

- for the highly accurate radial and axial alignment on alignment adaptors or machine spindles
- cooling lubricant without loss and flow-disruption thanks to the use of an intermediate tube
- highest concentricity, clamping force and rigidity thanks to mech. tension gearing
- suitable for internal cooling up to 80 bar
- positive damping characteristics
- for tool shank tolerance h6

### Scope of delivery

- incl. hexagon chuck key Series no. 4912
- incl. 6 angular alignment sets Series no. 4715
- incl. 6 clamping screws
- order intermediate tube Series no. 4716 separately
- order clamping sleeves article nos. 4302, 4235, 4236, 4237 separately



| Series no. 4714      |           |                            |          |          |          |          |          |                                                |    |          | 4714          |  |
|----------------------|-----------|----------------------------|----------|----------|----------|----------|----------|------------------------------------------------|----|----------|---------------|--|
| Module-Ø<br>d3<br>mm | nom. size | for shank Ø<br>d1 h6<br>mm | d2<br>mm | d4<br>mm | d5<br>mm | l1<br>mm | l5<br>mm | intermediate<br>sleeve tube<br>Series no. 4716 | SW | Code no. | EDP Number    |  |
| 70                   | 20        | 3 - 20                     | 40       | 53       | 35       | 87       | 20       | 20.030                                         | 4  | 20.070   | 9047140200700 |  |
| 80                   | 20        | 3 - 20                     | 40       | 53       | 40       | 73       | 20       | 20.030                                         | 4  | 20.080   | 9047140200800 |  |
| 100                  | 25        | 16-32                      | 53       | 63       | 50       | 118      | -        | 20.030                                         | 4  | 25.100   | 9047140251000 |  |

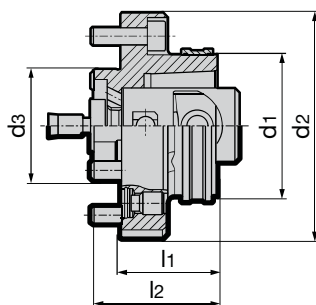
## Module 6x6 HSK adaptor flange

### Product information

- for the highly accurate radial and axial alignment on alignment adaptors or machine spindles
- suitable for MQL and conventional cooling
- for the transferable torsional moment the interface between spindle and flange has to be taken into consideration
- for holding HSK-A/C shanks to ISO 12164-1/DIN 69893

### Scope of delivery

- incl. MQL 4-point clamping set Series no. 4930
- incl. clamping screw Series no. 4935
- incl. brass lock ring Series no. 4953
- incl. 6 angular alignment sets Series no. 4715
- incl. 6 clamping screws
- incl. intermediate tube Series no. 4716



Holders for  
fine machining



| Series no. 4363   |                      |          |     |          |          |                                                |          | 4363          |  |
|-------------------|----------------------|----------|-----|----------|----------|------------------------------------------------|----------|---------------|--|
| HSK-C<br>d1<br>mm | Module-Ø<br>d2<br>mm | d3<br>mm | kg  | l1<br>mm | l2<br>mm | intermediate<br>sleeve tube<br>Series no. 4716 | Code no. | EDP Number    |  |
| 32                | 60                   | 30       | 0.4 | 26       | 36       | 24.060                                         | 24.060   | 9043630240600 |  |
| 40                | 70                   | 35       | 0.6 | 30       | 40       | 30.070                                         | 30.070   | 9043630300700 |  |
| 50                | 80                   | 40       | 1.0 | 35       | 45       | 238.080                                        | 38.080   | 9043630380800 |  |
| 63                | 100                  | 50       | 1.8 | 43       | 55       | 48.100                                         | 48.100   | 9043630481000 |  |
| 80                | 117                  | 60       | 2.9 | 50       | 62       | 60.117                                         | 60.110   | 9043630601100 |  |
| 100               | 140                  | 80       | 5.8 | 75       | 87       | 75.140                                         | 75.140   | 9043630751400 |  |

**4949**

Coolant supply  
set HSK-A  
(conventional)



**4939**

MQL 1-channel  
coolant supply  
set HSK-A



**4940**

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



**4723**

Module  
HSK-A  
alignment adaptor



**4725**

Module  
SK taper  
alignment adaptor



**4712**

Module  
taper  
alignment adaptor BT



machine spindle  
direct installation



Intermediate sleeve



**4716**

Intermediate sleeve



**4363**

Module  
HSK adaptor  
flange



**4722**

Module  
hydraulic chuck  
flange



**4717**

Module  
shrink fit chuck  
flange



**4714**

Module  
HPC clamping chuck  
flange



Holders for  
fine machining



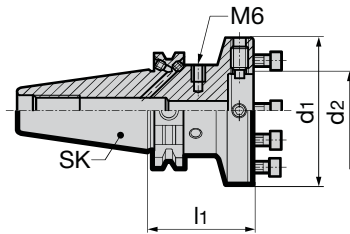
## Module 6x6 SK taper alignment adaptor

### Product information

- ISO taper to DIN ISO 7388-1 form AD/B
- for the highly accurate alignment of all modular flanges 6x6
- cooling lubricant without loss and flow-disruption thanks to the use of an intermediate tube
- suitable for MQL and conventional cooling
- balancing quality G6.3 / 15,000 rev./min
- 6 balancing threads M6
- SK40 - M16 x 2.0 retention knob
- SK50 - M24 x 3.0 retention knob

### Scope of delivery

- incl. 6 screws for radial adjustment
- incl. 6 clamping screws



Series no.

4725

| SK | d <sub>1</sub><br>mm | d <sub>2</sub><br>mm | l <sub>1</sub><br>mm | Code no. | EDP Number    |
|----|----------------------|----------------------|----------------------|----------|---------------|
| 40 | 60                   | 30                   | 50                   | 60.040   | 9047250600400 |
| 40 | 70                   | 35                   | 50                   | 70.040   | 9047250700400 |
| 40 | 80                   | 40                   | 55                   | 80.040   | 9047250800400 |
| 40 | 100                  | 50                   | 60                   | 100.040  | 9047251000400 |
| 50 | 60                   | 30                   | 50                   | 60.050   | 9047250600500 |
| 50 | 70                   | 35                   | 50                   | 70.050   | 9047250700500 |
| 50 | 80                   | 40                   | 50                   | 80.050   | 9047250800500 |
| 50 | 100                  | 50                   | 60                   | 100.050  | 9047251000500 |
| 50 | 117                  | 60                   | 60                   | 117.050  | 9047251170500 |
| 50 | 140                  | 80                   | 60                   | 140.050  | 9047251400500 |

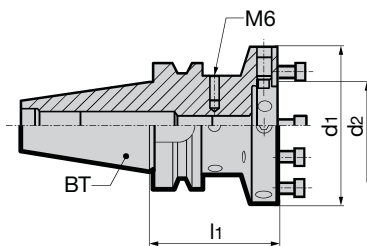
## Module 6x6 taper alignment adaptor BT

### Product information

- MAS/BT to DIN ISO 7388-2 form AD
- for the highly accurate alignment of all modular flanges 6x6
- cooling lubricant without loss and flow-disruption thanks to the use of an intermediate tube
- suitable for MQL and conventional cooling
- balancing quality G6.3 / 15,000 rev./min
- 6 balancing threads M6
- BT30 - M12 x 1.75 retention knob
- BT40 - M16 x 2.0 retention knob
- BT50 - M24 x 3.0 retention knob

### Scope of delivery

- incl. 6 screws for radial adjustment
- incl. 6 clamping screws



Series no.

4712

| BT | d <sub>1</sub><br>mm | d <sub>2</sub><br>mm | l <sub>1</sub><br>mm | Code no. | EDP Number    |
|----|----------------------|----------------------|----------------------|----------|---------------|
| 30 | 60                   | 30                   | 50                   | 60.030   | 9047120600300 |
| 30 | 70                   | 35                   | 50                   | 70.030   | 9047120700300 |
| 40 | 60                   | 30                   | 55                   | 60.040   | 9047120600400 |
| 40 | 70                   | 35                   | 55                   | 70.040   | 9047120700400 |
| 40 | 80                   | 40                   | 65                   | 80.040   | 9047120800400 |
| 40 | 100                  | 50                   | 70                   | 100.040  | 9047121000400 |
| 50 | 60                   | 30                   | 70                   | 60.050   | 9047120600500 |
| 50 | 70                   | 35                   | 70                   | 70.050   | 9047120700500 |
| 50 | 80                   | 40                   | 70                   | 80.050   | 9047120800500 |
| 50 | 100                  | 50                   | 70                   | 100.050  | 9047121000500 |
| 50 | 117                  | 60                   | 80                   | 117.050  | 9047121170500 |
| 50 | 140                  | 80                   | 80                   | 140.050  | 9047121400500 |

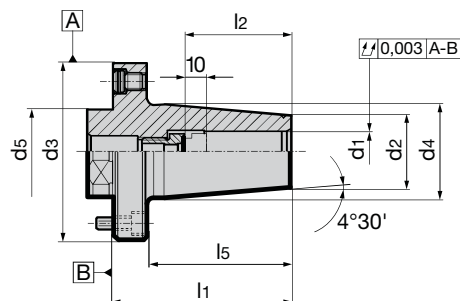


## Product information

- for the highly accurate radial and axial alignment on alignment adaptors or machine spindles
- cooling lubricant without loss and flow-disruption thanks to the use of an intermediate tube
- balancing quality G6.3 / 15,000 rev./min
- for tool shank tolerance h6
- with axial damping screw for optimal concentricity

### Scope of delivery

- incl. adjustment screw with axial force
- damping Series no. 4941
- incl. 6 angular alignment sets  
Series no. 4715
- incl. 6 clamping screws
- order intermediate tube Series no. 4716  
separately
- further dimensions on request



|                     |                             |          |          |          |          |          |          |                                         |                                              | Series no. | 4717          |
|---------------------|-----------------------------|----------|----------|----------|----------|----------|----------|-----------------------------------------|----------------------------------------------|------------|---------------|
| Modul-Ø<br>d3<br>mm | für<br>Schaft-Ø<br>d1 h6 mm | d2<br>mm | d4<br>mm | d5<br>mm | l1<br>mm | l2<br>mm | l5<br>mm | incl.<br>setting screw<br>art. no. 4941 | intermediate<br>sleeve tube<br>art. no. 4716 | Code no.   | EDP Number    |
| 60                  | 6                           | 21       | 27       | 30       | 70       | 36       | 56       | 6.100                                   | 14.010                                       | 6.060      | 9047170060600 |
| 60                  | 8                           | 21       | 27       | 30       | 70       | 36       | 56       | 8.100                                   | 14.010                                       | 8.060      | 9047170080600 |
| 60                  | 10                          | 24       | 32       | 30       | 70       | 40       | 56       | 10.100                                  | 14.020                                       | 10.060     | 9047170100600 |
| 60                  | 12                          | 24       | 32       | 30       | 70       | 45       | 56       | 12.100                                  | 14.030                                       | 12.060     | 9047170120600 |
| 70                  | 12                          | 24       | 32       | 35       | 75       | 45       | 60       | 12.100                                  | 14.020                                       | 12.070     | 9047170120700 |
| 70                  | 14                          | 27       | 34       | 35       | 75       | 45       | 60       | 14.100                                  | 14.020                                       | 14.070     | 9047170140700 |
| 70                  | 16                          | 27       | 34       | 35       | 75       | 48       | 60       | 16.100                                  | 14.040                                       | 16.070     | 9047170160700 |
| 80                  | 18                          | 33       | 42       | 40       | 80       | 48       | 65       | 18.100                                  | 14.050                                       | 18.080     | 9047170180800 |
| 80                  | 20                          | 33       | 42       | 40       | 80       | 50       | 65       | 20.100                                  | 14.040                                       | 20.080     | 9047170200800 |
| 100                 | 25                          | 44       | 52       | 50       | 80       | 56       | 61       | 25.100                                  | 20.010                                       | 25.100     | 9047170251000 |
| 100                 | 32                          | 44       | 52       | 50       | 80       | 60       | 61       | 32.100                                  | 20.020                                       | 32.100     | 9047170321000 |

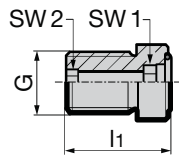
**Holders for  
fine machining**

## Length adjustment screw for conventional cooling

### Product information

- to adapt MQL tool holders to meet the requirements of conventional wet machining. For plain end shanks. The height of screw head compensates the height of MQL taper

- for MQL HSK-A shrink fit and hydraulic chucks
- for use with shank according to DIN 6535 with plain shank end for conventional cooling
- with the patented face orientated O ring axial force damping is provided which prevents concentricity errors.



Series no. **4941**

| for HSK-A           | clamping-<br>Ø | G     | d <sub>1</sub><br>mm | l <sub>1</sub><br>mm | SW1 | SW2 | Code no. | EDP Number    |
|---------------------|----------------|-------|----------------------|----------------------|-----|-----|----------|---------------|
| 40                  | 6              | M5    | 6.0                  | 14.9                 | 2.5 | -   | 6.0400   | 9049410060400 |
| 40                  | 6              | M7x1  | 5.8                  | 15.0                 | 2.5 | -   | 6.0410   | 9049410060410 |
| 40                  | 8              | M7x1  | 5.8                  | 18.0                 | 3   | -   | 6.0500   | 9049410060500 |
| 50                  | 6              | M8x1  | 5.8                  | 14.0                 | 2.5 | -   | 6.1000   | 9049410061000 |
| 50                  | 8              | M8x1  | 6.8                  | 18.0                 | 3   | -   | 8.0400   | 9049410080400 |
| 40 / 50             | 10             | M8x1  | 9.8                  | 17.7                 | 4   | -   | 8.0500   | 9049410080500 |
| 63/ 80/ 100         | 6              | M10x1 | 5.8                  | 17.0                 | 2.5 | -   | 8.1000   | 9049410081000 |
| 63/ 80/ 100         | 8              | M10x1 | 7.8                  | 17.0                 | 3   | -   | 10.0500  | 9049410100500 |
| 63/ 80/ 100         | 10             | M10x1 | 9.8                  | 16.2                 | 4   | -   | 10.1000  | 9049410101000 |
| 40/ 50/ 63/ 80/ 100 | 12             | M10x1 | 9.8                  | 16.0                 | 5   | -   | 12.1000  | 9049410121000 |
| 40/ 50/ 63/ 80/ 100 | 14             | M10x1 | 9.8                  | 17.2                 | 5   | -   | 14.1000  | 9049410141000 |
| 50/ 63/ 80/ 100     | 16             | M12x1 | 15.8                 | 18.2                 | 6   | -   | 16.1000  | 9049410161000 |
| 50/ 63/ 80/ 100     | 18             | M12x1 | 15.8                 | 19.2                 | 6   | -   | 18.1000  | 9049410181000 |
| 50/ 63/ 80/ 100     | 20             | M16x1 | 15.8                 | 19.2                 | 6   | 8   | 20.1000  | 9049410201000 |
| 63/ 80/ 100         | 25             | M16x1 | 15.8                 | 22.7                 | 6   | 8   | 25.1000  | 9049410251000 |
| 63/ 80/ 100         | 32             | M16x1 | 15.8                 | 26.7                 | 6   | 8   | 32.1000  | 9049410321000 |

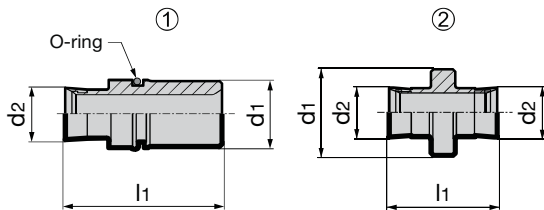
## Intermediate sleeves for module flange and alignment adaptor 6x6 and 4x4

### Product information

- for sealing when machining with either coolant or MQL
- Design without O-ring for HSK module adaptor flange art. no. 4363 and art. no. 4713

### Scope of delivery

- with O-ring and sealing lip
- Series no. 4617 1.140



Series no. **4716**

| d <sub>1</sub><br>mm | for d <sub>2</sub><br>mm | l <sub>1</sub><br>mm | O-ring | type | Code no. | EDP Number    |
|----------------------|--------------------------|----------------------|--------|------|----------|---------------|
| 14                   | 10.5                     | 47.5                 | 10x1.5 | 1    | 14.01    | 9047160140100 |
| 14                   | 10.5                     | 32.0                 | 10x1.5 | 1    | 14.02    | 9047160140200 |
| 14                   | 10.5                     | 37.5                 | 10x1.5 | 1    | 14.03    | 9047160140300 |
| 14                   | 10.5                     | 26.5                 | 10x1.5 | 1    | 14.04    | 9047160140400 |
| 14                   | 10.5                     | 31.5                 | 10x1.5 | 1    | 14.05    | 9047160140500 |
| 20                   | 10.5                     | 28.0                 | 17x1.5 | 1    | 20.01    | 9047160200100 |
| 20                   | 10.5                     | 25.5                 | 17x1.5 | 1    | 20.02    | 9047160200200 |
| 20                   | 10.5                     | 16.5                 | 17x1.5 | 1    | 20.03    | 9047160200300 |
| 4                    | 10.5                     | 26.1                 | –      | 1    | 24.060   | 9047160240600 |
| 5                    | 10.5                     | 21.9                 | –      | 1    | 30.070   | 9047160300700 |
| 6                    | 10.5                     | 21.9                 | –      | 1    | 238.080  | 9047162380800 |
| 7                    | 10.5                     | 31.7                 | –      | 1    | 48.100   | 9047160481000 |
| 10                   | 10.5                     | 28.6                 | –      | 1    | 60.117   | 9047160601170 |
| 12                   | 10.5                     | 36.4                 | –      | 1    | 75.140   | 9047160751400 |
| 17.8                 | 10.5                     | 22.3                 | –      | 2    | 60.100   | 9047160601000 |
| 17.8                 | 10.5                     | 26.3                 | –      | 2    | 117.140  | 9047161171400 |

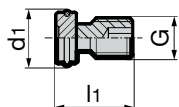
## Angle alignment units for module flange and alignment adaptor 6x6 and 4x4

### Product information

- for accurate angle alignment of module flanges

### Scope of delivery

- pressure disc, threaded pin and snap ring



Series no. **4715**

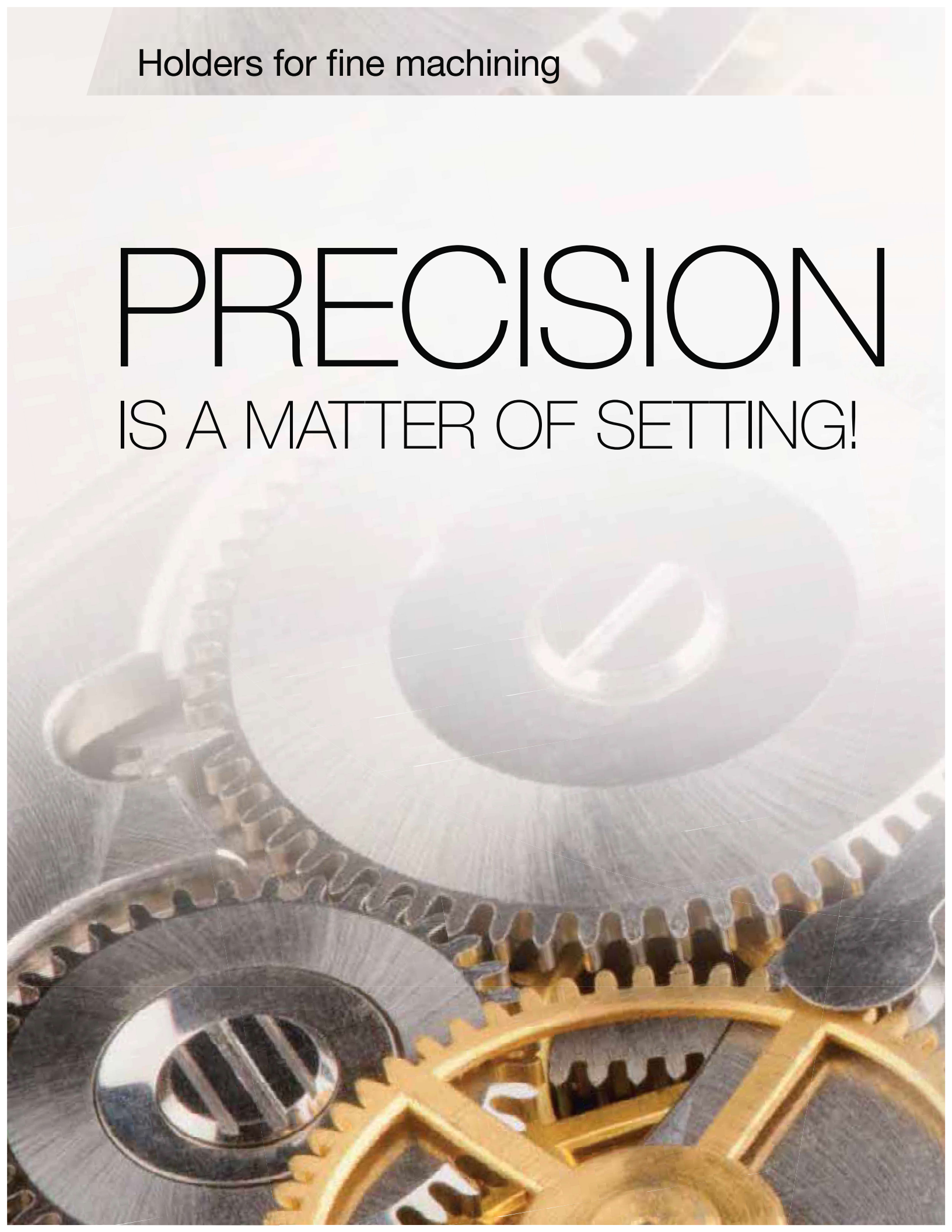
| for module      | G     | d <sub>1</sub><br>mm | l <sub>1</sub><br>mm | Code no. | EDP Number    |
|-----------------|-------|----------------------|----------------------|----------|---------------|
| 60 / 70 / 80    | M8x1  | 11.5                 | 13                   | 8.01     | 9047150080100 |
| 100 / 117 / 140 | M10x1 | 13.6                 | 19                   | 10.01    | 9047150100100 |
|                 |       |                      |                      |          |               |
|                 |       |                      |                      |          |               |
|                 |       |                      |                      |          |               |
|                 |       |                      |                      |          |               |

Holders for  
fine machining



Holdings for fine machining

# PRECISION IS A MATTER OF SETTING!





**QUICK + SIMPLE  
ADJUSTMENT**



**AXIAL + RADIAL  
 $\mu$ -ACCURATE SETTING**



**CONCENTRICITY AND  
ALIGNMENT ERROR  
COMPENSATION**



**MQL SUITABLE**

