HAIMER®
Quality Wins.

Grinding Wheel Adapters

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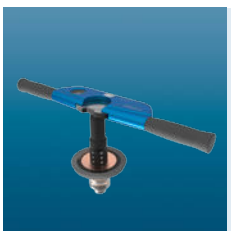

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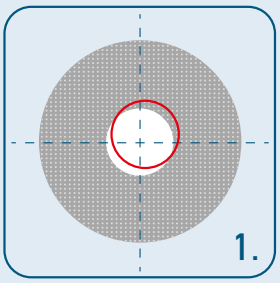
Why balance grinding wheels?

Dressing ≠ Balancing

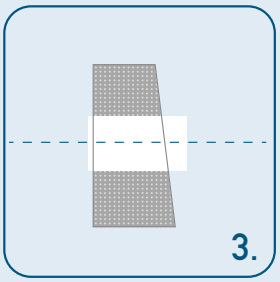
Balancing of grinding wheels is essential in spite of dressing them!

Causes of unbalance on a grinding wheel:



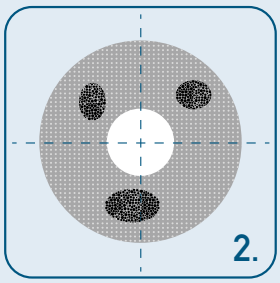
1. Tolerance of the grinding wheel bore

– Tolerance of the grinding wheel arbor



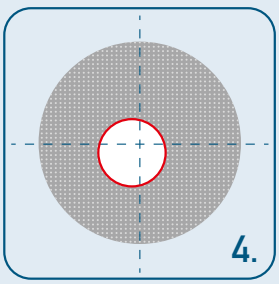
3. Parallelism of the grinding wheel

– Wear of the grinding wheel



2. Homogeneity of the grinding wheel

– Dressing of the grinding wheel



4. Concentricity of the grinding wheel

– Profiling of the grinding wheel

Consequences of unbalance

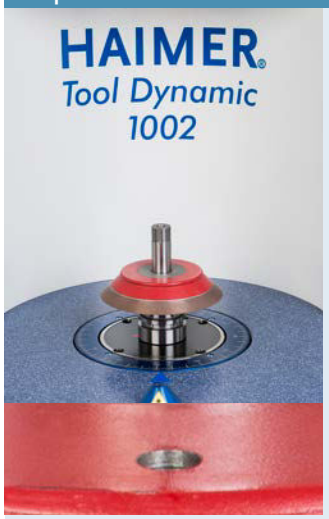
1. Reduced surface quality → Chatter marks
2. Reduced dimensional accuracy on the work piece → Increased costs for wheels dressing
3. Extremly high grinding wheel wear → Reduced tool life
4. Spindle head wear out → danger of machine down time → unnecessary repairs → expensive inspections

As a result, the grinding parameters are reduced and productivity is decreased

HOW TO BALANCE YOUR GRINDING WHEELS CORRECTLY!

Guideline for initial balancing of a new grinding wheel pack

Step 1



1. Add first grinding wheel on arbor
2. Add spacer
3. Tighten nut
4. Measure unbalance
5. Correct unbalance (e.g. by axial drilling)

Step 2

1. Add 2nd grinding wheel to arbor
2. Add position reference marking on both grinding wheels
3. Tighten nut
4. Measure unbalance
5. Correct unbalance (e.g. by axial drilling)

Step 3

1. Add 3rd grinding wheel to arbor
2. Add position reference marking on all three grinding wheels
3. Tighten nut
4. Measure unbalance
5. Correct unbalance (e.g. by axial drilling)

➔ Prebalancing finished

Step 4

1. Dressing of complete grinding wheel
2. Measure unbalance
3. Correct unbalance (e.g. by balancing screws s. page 15/18)

➔ Fine-balancing finished

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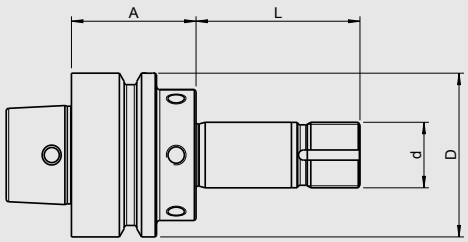
DECKEL GRINDING WHEEL ADAPTER HSK F50 (WITH ACCESS HOLE) Ø 20 MM FOR SPACERS Ø 40 MM

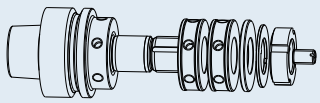


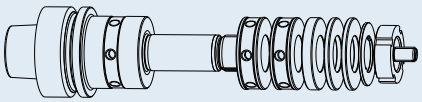
CERTIFICATE OF QUALITY
- ☑ *All functional surfaces fine machined*
- ☑ *More accurate than DIN*
- ☑ *Body with balancing threads*
- ☑ *Balanced*

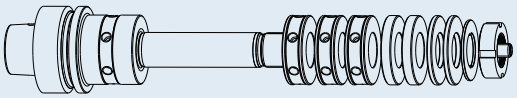
Use:
Grinding wheel adapter HSK F50 (with access hole) / Ø 20 mm suitable for Deckel tool grinding machines for spacers Ø 40 mm

Delivery:
Spacer pack, clamping nut, sealing pin, lock plate

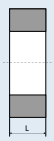
Clamping	Ø d [mm]	20
Length A [mm]		**38**
	Ø D [mm]	40
	L [mm]	50
Order No.	**F50.160.20.3** incl. spacers + 1 sealing pin (2x L=12, 1x L=3 [mm])	
Length A [mm]		**58**
	Ø D [mm]	40
	L [mm]	60
Order No.	**F50.163.20.3** incl. spacers + 1 sealing pin (2x L=12, 1x L=6, 2x L=3 [mm])	
Length A [mm]		**58**
	Ø D [mm]	40
	L [mm]	90
Order No.	**F50.161.20.3** incl. spacers + 1 sealing pin (3x L=12, 2x L=6, 2x L=3 [mm])	







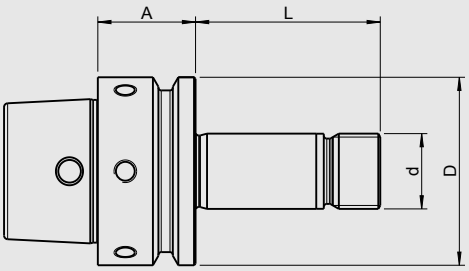
Accessories		
Spacers Ø 40 mm		
Length L [mm]		3
Order No.	**999001-1135**	*1
Length L [mm]		6
Order No.	**999001-1136**	*1
Length L [mm]		12
Order No.	**999001-1137**	*2
Lock plate		
Dimensions		35x20x1,5
Order No.	**999001-1134**	
Clamping nut		
Thread		M20x1
Order No.	**915005-0004**	
Set of balancing screws		
Order No.	**80.203.00**	
Sealing pin - POM/white		
Order No.	**900052-0007**	M8



**1= without balancing thread *2= with balancing thread*

UWS (REINECKER) GRINDING WHEEL ADAPTER HSK E50 (WITH ACCESS HOLE) Ø 20 MM FOR SPACERS Ø 50 MM

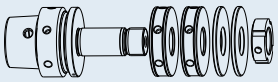
CERTIFICATE OF QUALITY
- ☑ *All functional surfaces fine machined*
- ☑ *More accurate than DIN*
- ☑ *Body with balancing threads*
- ☑ *Balanced*

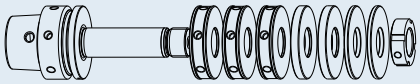


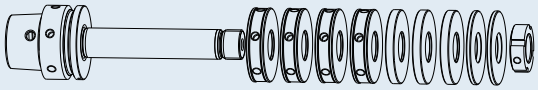
Use:
Grinding wheel adapter HSK E50 (with access hole) / Ø 20 mm suitable for Reinecker tool grinding machines for spacers Ø 50 mm

Delivery:
Spacer pack, clamping nut

Clamping	Ø d [mm]	20
Length A [mm]		**26**
	Ø D [mm]	50
	L [mm]	49
Order No.	**E50.160.20.2** incl. spacers (2x L=12, 2x L=3 [mm])	
Length A [mm]		**26**
	Ø D [mm]	50
	L [mm]	74
Order No.	**E50.163.20.2** incl. spacers (3x L=12, 2x L=6, 2x L=3 [mm])	
Length A [mm]		**26**
	Ø D [mm]	50
	L [mm]	109
Order No.	**E50.161.20.2** incl. spacers (4x L=12, 3x L=6, 2x L=3 [mm])	







Accessories		
Spacers Ø 50 mm		
Length L [mm]		3
Order No.	**999001-1139**	*1
Length L [mm]		6
Order No.	**999001-1140**	*1
Length L [mm]		12
Order No.	**999001-1138**	*2
Clamping nut		
Thread		M20x1,5
Order No.	**915005-0001**	
Set of balancing screws		
Order No.	**80.203.00**	

**1= without balancing thread *2= with balancing thread*

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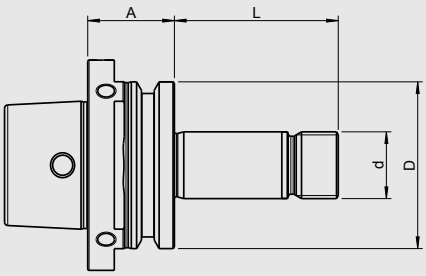
ROLLOMATIC GRINDING WHEEL ADAPTER HSK E50 (Ø 20 MM WITH ACCESS HOLE) FOR SPACERS Ø 50 MM

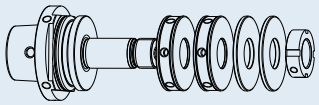


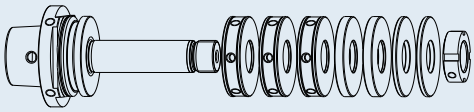
CERTIFICATE OF QUALITY
- ☑ *All functional surfaces fine machined*
- ☑ *More accurate than DIN*
- ☑ *Body with balancing threads*
- ☑ *Balanced*

Use:
Grinding wheel adapter HSK E50 (with access hole) / Ø 20 mm suitable for Rollomatic tool grinding machines for spacers Ø 50 mm

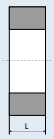
Delivery:
Spacer pack, clamping nut

Clamping	Ø d [mm]	20
Length A [mm]		**26**
	Ø D [mm]	50
	L [mm]	49
Order No.	**E50.160.20.1** incl. spacers (2x L=12, 2x L=3 [mm])	
Length A [mm]		**26**
	Ø D [mm]	50
	L [mm]	81
Order No.	**E50.163.20.1** incl. spacers (3x L=12, 2x L=6, 2x L=3 [mm])	





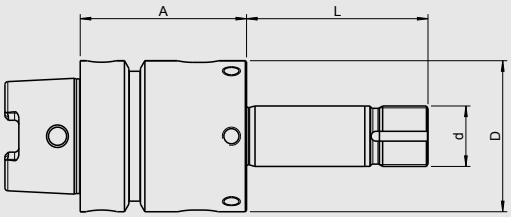
Accessories		
Spacers Ø 50 mm		
Length L [mm]		3
Order No.	**999001-1139**	*1
Length L [mm]		6
Order No.	**999001-1140**	*1
Length L [mm]		12
Order No.	**999001-1138**	*2
Clamping nut		
Thread		M20x1,5
Order No.	**915005-0001**	
Set of balancing screws		
Order No.	**80.203.00**	



**1= without balancing thread *2= with balancing thread*

WALTER GRINDING WHEEL ADAPTER HSK C50 Ø 20 MM FOR SPACERS Ø 50 MM

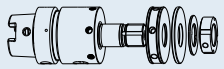
CERTIFICATE OF QUALITY
- ☑ *All functional surfaces fine machined*
- ☑ *More accurate than DIN*
- ☑ *Body with balancing threads*
- ☑ *Balanced*

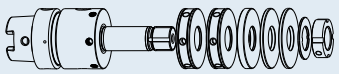


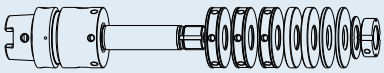
Use:
Grinding wheel adapter HSK C50 / Ø 20 mm suitable for Walter tool grinding machines for spacers Ø 50 mm

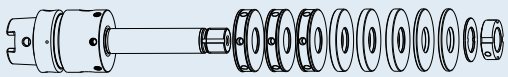
Delivery:
Spacer pack, clamping nut, lock plate

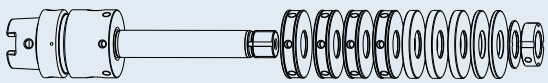
Clamping	Ø d [mm]	20
Length A [mm]	**55**	
	Ø D [mm]	50
	L [mm]	40
Order No.	**C50.165.20.4**	
incl. spacers	(1x L=12, 1x L=3 [mm])	
Length A [mm]	**55**	
	Ø D [mm]	50
	L [mm]	60
Order No..	**C50.160.20.4**	
incl. spacers	(2x L=12, 1x L=6, 2x L=3 [mm])	
Length A [mm]	**55**	
	Ø D [mm]	50
	L [mm]	85
Order No.	**C50.163.20.4**	
incl. spacers	(3x L=12, 2x L=6, 2x L=3 [mm])	
Length A [mm]	**55**	
	Ø D [mm]	50
	L [mm]	100
Order No.	**C50.161.20.4**	
incl. spacers	(3x L=12, 3x L=6, 2x L=3 [mm])	
Length A [mm]	**55**	
	Ø D [mm]	50
	L [mm]	120
Order No.	**C50.167.20.4**	
incl. spacers	(4x L=12, 3x L=6, 2x L=3 [mm])	







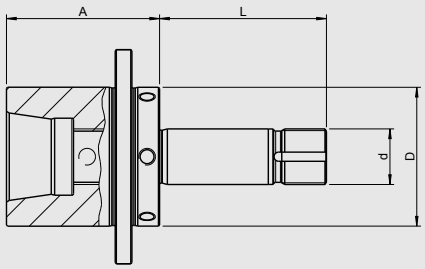




Accessories		
Spacers Ø 50 mm		
Length L [mm]		3
Order No.	**999001-1139**	*1
Length L [mm]		6
Order No.	**999001-1140**	*1
Length L [mm]		12
Order No.	**999001-1138**	*2
Lock plate		
Dimensions [mm]		35x20x1,5
Order No.	**999001-1134**	
Clamping nut		
Thread		M20x1
Order No.	**915005-0004**	
Set of balancing screws		
Order No.	**80.203.00**	

**1= without balancing thread *2= with balancing thread*

WALTER GRINDING WHEEL ADAPTER Z50 Ø 20 MM FOR SPACERS Ø 50 MM

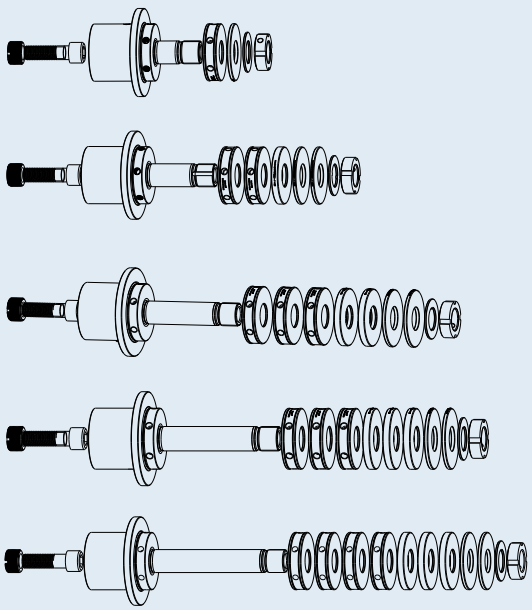


CERTIFICATE OF QUALITY
- ☑ *All functional surfaces fine machined*
- ☑ *Body with balancing threads*
- ☑ *Balanced*

Use:
Grinding wheel adapter Z50 / Ø 20 mm suitable for Walter tool grinding machines for spacers Ø 50 mm

Delivery:
Spacer pack, clamping nut, lock plate, thread piece, cylinder screw, thread pin

Clamping	Ø d [mm]	20
Length A [mm]		**55**
	Ø D [mm]	50
	L [mm]	40
Order No.	**Z50.165.20.5**	
incl. spacers	(1x L=12, 1x L=3 [mm])	
Length A [mm]		**55**
	Ø D [mm]	50
	L [mm]	60
Order No.	**Z50.160.20.5**	
incl. spacers	(2x L=12, 1x L=6, 2x L=3 [mm])	
Length A [mm]		**55**
	Ø D [mm]	50
	L [mm]	85
Order No.	**Z50.163.20.5**	
incl. spacers	(3x L=12, 2x L=6, 2x L=3 [mm])	
Length A [mm]		**55**
	Ø D [mm]	50
	L [mm]	100
Order No.	**Z50.161.20.5**	
incl. spacers	(3x L=12, 3x L=6, 2x L=3 [mm])	
Length A [mm]		**55**
	Ø D [mm]	50
	L [mm]	120
Order No.	**Z50.167.20.5**	
incl. spacers	(4x L=12, 3x L=6, 2x L=3 [mm])	



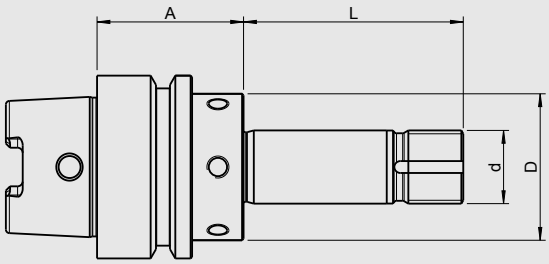
Accessories		
Spacers Ø 50 mm		
Length L [mm]		3
Order No.	**999001-1139**	*1
Length L [mm]		6
Order No.	**999001-1140**	*1
Length L [mm]		12
Order No.	**999001-1138**	*2
Lock plate		
Dimensions [mm]		35x20x1,5
Order No.	**999001-1134**	
Clamping nut		
Thread		M20x1
Order No.	**915005-0004**	
Set of balancing screws		
Order No.	**80.203.00**	

**1= without balancing thread *2= with balancing thread*

SAACKE/VOLLMER GRINDING WHEEL ADAPTER HSK C50 (WITH GROOVES FOR TOOL CHANGER) Ø 20 MM FOR SPACERS Ø 50 MM

CERTIFICATE OF QUALITY

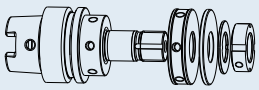
- ☑ *All functional surfaces fine machined*
- ☑ *More accurate than DIN*
- ☑ *Body with balancing threads*
- ☑ *Balanced*

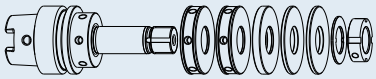


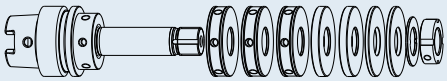
Use:
Grinding wheel adapter HSK C50 (with grooves for tool changer) / Ø 20 mm suitable for Saacke and Vollmer tool grinding machines for spacers Ø 50 mm

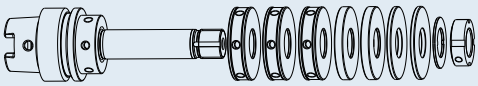
Delivery:
Spacer pack, clamping nut, lock plate

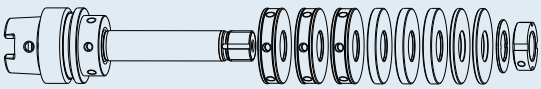
Clamping	Ø d [mm]	20
Length A [mm]		**40**
	Ø D [mm]	50
	L [mm]	40
Order No.	**C50.165.20.6**	
incl. spacers	(1x L=12, 1x L=3 [mm])	
Length A [mm]		**40**
	Ø D [mm]	50
	L [mm]	60
Order No.	**C50.160.20.6**	
incl. spacers	(2x L=12, 1x L=6, 2x L=3 [mm])	
Length A [mm]		**40**
	Ø D [mm]	50
	L [mm]	75
Order No.	**C50.168.20.6**	
incl. spacers	(3x L=12, 2x L=6, 2x L=3 [mm])	
Length A [mm]		**40**
	Ø D [mm]	50
	L [mm]	85
Order No.	**C50.163.20.6**	
incl. spacers	(3x L=12, 2x L=6, 2x L=3 [mm])	
Length A [mm]		**40**
	Ø D [mm]	50
	L [mm]	100
Order No.	**C50.161.20.6**	
incl. spacers	(3x L=12, 3x L=6, 2x L=3 [mm])	









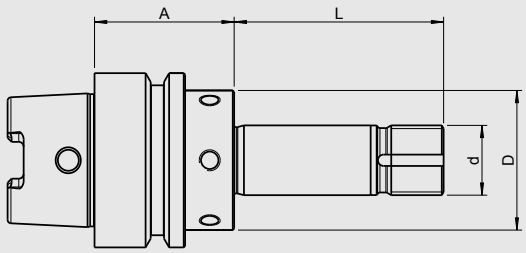


Accessories		
Spacers Ø 50 mm		
Length L [mm]		3
Order No.	**999001-1139**	*1
Length L [mm]		6
Order No.	**999001-1140**	*1
Length L [mm]		12
Order No.	**999001-1138**	*2
Lock plate		
Dimensions [mm]		35x20x1,5
Order No.	**999001-1134**	
Clamping nut		
Thread		M20x1
Order No.	**915005-0004**	
Set of balancing screws		
Order No.	**80.203.00**	

**1= without balancing thread *2= with balancing thread*

HAIMER

SCHÜTTE GRINDING WHEEL ADAPTER HSK C50 (WITH GRIPPER GROOVE HSK E50) Ø 20 MM FOR SPACERS Ø 50 MM

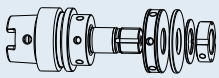


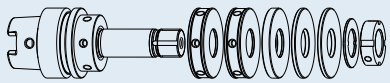
CERTIFICATE OF QUALITY
- ☑ *All functional surfaces fine machined*
- ☑ *More accurate than DIN*
- ☑ *Body with balancing threads*
- ☑ *Balanced*

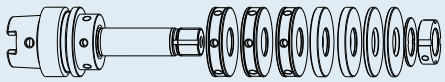
Use:
Grinding wheel adapter HSK C50 (with gripper groove HSK E50) / Ø 20 mm suitable for Schütte tool grinding machines (205 series) for spacers Ø 50 mm

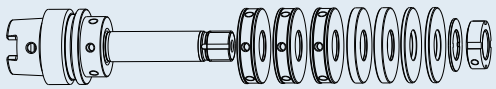
Delivery:
Spacer pack, clamping nut, lock plate

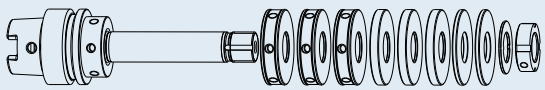
Clamping	Ø d [mm]	20
Length A [mm]		**40**
	Ø D [mm]	50
	L [mm]	40
Order No.	**C50.165.20.6**	
incl. spacers	(1x L=12, 5x L=3 [mm])	
Length A [mm]		**40**
	Ø D [mm]	50
	L [mm]	60
Order No.	**C50.160.20.6**	
incl. spacers	(2x L=12, 1x L=6, 2x L=3 [mm])	
Length A [mm]		**40**
	Ø D [mm]	50
	L [mm]	75
Order No.	**C50.168.20.6**	
incl. spacers	(3x L=12, 2x L=6, 2x L=3 [mm])	
Length A [mm]		**40**
	Ø D [mm]	50
	L [mm]	85
Order No.	**C50.163.20.6**	
incl. spacers	(3x L=12, 2x L=6, 2x L=3 [mm])	
Length A [mm]		**40**
	Ø D [mm]	50
	L [mm]	100
Order No.	**C50.161.20.6**	
incl. spacers	(3x L=12, 3x L=6, 2x L=3 [mm])	



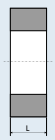








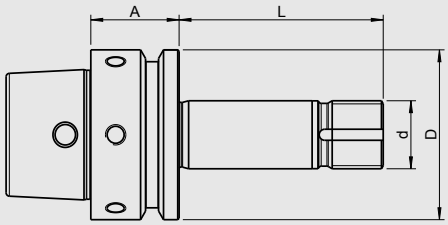
Accessories		
Spacers Ø 50 mm		
Length L [mm]		3
Order No.	**999001-1139**	*1
Length L [mm]	6	
Order No.	**999001-1140**	*1
Length L [mm]	12	
Order No.	**999001-1138**	*2
Lock plate		
Dimensions [mm]		35x20x1,5
Order No.	**999001-1134**	
Clamping nut		
Thread		M20x1
Order No.	**915005-0004**	
Set of balancing screws		
Order No.	**80.203.00**	



**1= without balancing thread *2= with balancing thread*

SCHÜTTE GRINDING WHEEL ADAPTER HSK E50 (WITH ACCESS BORE) Ø 20 MM FOR SPACERS Ø 50 MM

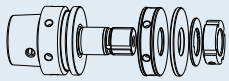
CERTIFICATE OF QUALITY
- ☑ *All functional surfaces fine machined*
- ☑ *More accurate than DIN*
- ☑ *Body with balancing threads*
- ☑ *Balanced*

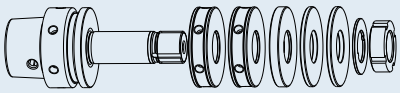


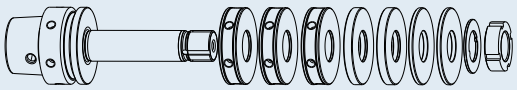
Use:
Grinding wheel adapter HSK E50 (with access bore) / Ø 20 mm suitable for Schütte tool grinding machines (305 series) for spacers Ø 50 mm

Delivery:
Spacer pack, clamping nut, lock plate

Clamping	Ø d [mm]	20
Length A [mm]		**26**
	Ø D [mm]	50
	L [mm]	40
Order No.	**E50.165.20.8**	
incl. spacers	(1x L=12, 1x L=3 [mm])	
Length A [mm]		**26**
	Ø D [mm]	50
	L [mm]	55
Order No.	**E50.160.20.8**	
incl. spacers	(2x L=12, 1x L=6, 2x L=3 [mm])	
Length A [mm]		**26**
	Ø D [mm]	50
	L [mm]	85
Order No.	**E50.163.20.8**	
incl. spacers	(3x L=12, 2x L=6, 2x L=3 [mm])	



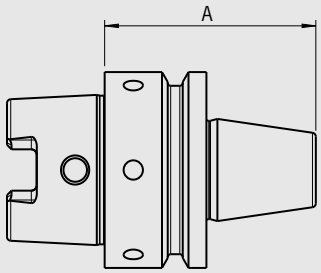




Accessories		
Spacers Ø 50 mm		
Length L [mm]		3
Order No.	**999001-1139**	*1
Length L [mm]		6
Order No.	**999001-1140**	*1
Length L [mm]		12
Order No.	**999001-1138**	*2
Lock plate		
Dimensions [mm]		35x20x1,5
Order No.	**999001-1134**	
Clamping nut		
Thread		M20x1
Order No.	**915005-0004**	
Set of balancing screws		
Order No.	**80.203.00**	

**1= without balancing thread *2= with balancing thread*

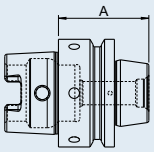
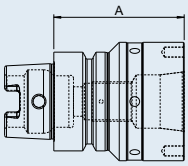
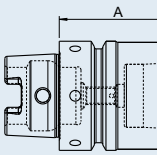
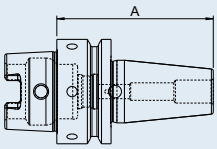
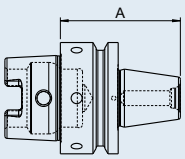
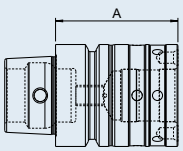
ADAPTER HSK A50 FOR TOOL GRINDING MACHINES, DRESSING MACHINES, TOOL PRESETTERS, BALANCING MACHINES



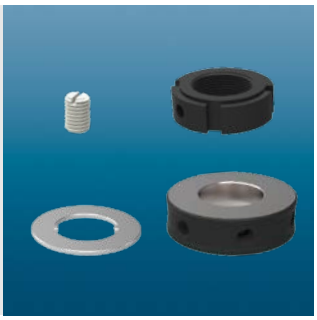
CERTIFICATE OF QUALITY

- ☑ *All functional surfaces fine machined*
- ☑ *More accurate than DIN*
- ☑ *Body with balancing threads*
- ☑ *Balanced*

Use:
Adapter HSK A50 for tool grinding machines, dressing machines, tool presetters, balancing machines

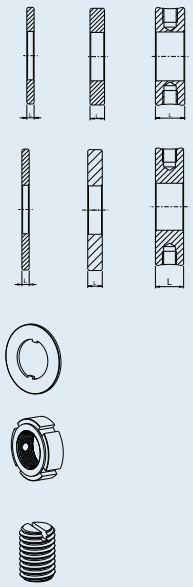
Adapter				
Length A [mm]		**42**		
Walter, Haas	Thread	M12x1,25		
Order No.	**A50.165.Z50.5**			
Length A [mm]		**66**		
Saacke	Thread	M20x1,5		
Order No.	**A50.165.Z50.7**			
Length A [mm]		**54**		
Strausak Promat	Thread	M8		
Order No.	**A50.165.Z50.9**			
Length A [mm]		**75**		
Strausak Fleximat	Thread	M10		
Order No.	**A50.165.Z50.10**			
Length A [mm]		**54**		
Anca	Thread	M8		
Order No.	**A50.165.Z50.11**			
Length A [mm]		**60**		
Rollomatic Perfect Arbor	Thread	M10		
Order No..	**A50.165.Z50.12**			

ACCESSORIES FOR GRINDING WHEEL ADAPTERS

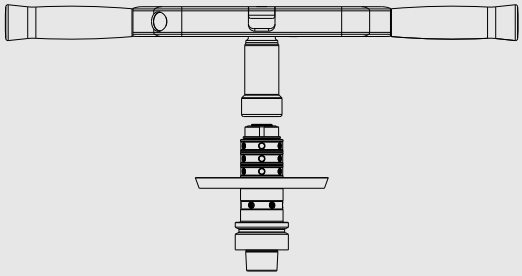


Summary of the accessories for HAIMER grinding wheel adapters

Accessories		
Spacers Ø D 40 mm/d 20 mm		**L [mm]**
Order No.		
999001-1135	without balancing thread	3
999001-1136	without balancing thread	6
999001-1137	with balancing thread	12
Spacers Ø D 50 mm/d 20 mm		**L [mm]**
Order No.		
999001-1139	without balancing thread	3
999001-1140	without balancing thread	6
999001-1138	with balancing thread	12
Lock plate		
Order No.		**Dimensions**
999001-1134		35x20x1,5
Clamping nut		
Order No.		**Thread**
915005-0004		M20x1
915005-0001	(only Rollomatic+Reinecker)	20x1,5
Sealing pin POM white		
Order No.		
900052-0007		M8



TORQUE WRENCH WITH EXTENSION AND BOX NUT FOR HAIMER GRINDING WHEEL ADAPTERS



Use:

- For highest runout accuracy (no one-side clamping)
- Optimal power transmission (consistent force application)
- For highest clamping accuracy and repeatability with dial gauge
- Maximum torque for highest clamping force
- Changeable inserts

Torque wrench with extension and box nut extension

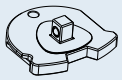
Torque wrench

Order No. **84.600.01**

Extension

To accommodate all standard square socket wrench inserts 1/2“

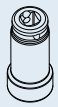
Order No. **84.630.1/2z**

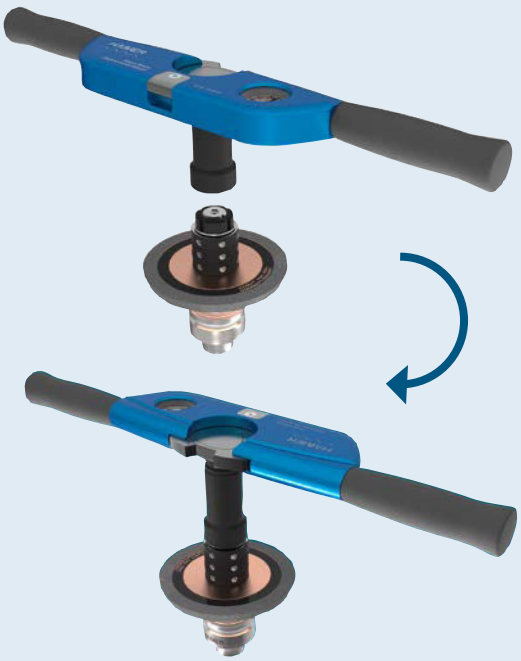


Box nut 4-KM4

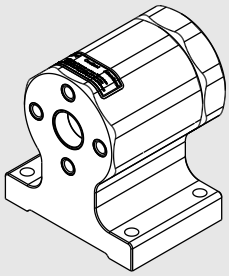
Suitable for all HAIMER clamping nuts

Order No. **915005-0005**





TOOL ASSEMBLY DEVICE TOOL CLAMP WITH VARIOUS ADAPTERS



The new tool assembly device:

- Secure tool assembling
- Minimum locking force needed
- Quick-change function for different taper interfaces – without additional tooling
- Accident-free assembling of cutting tools
- Spring-loaded locking pin
- Mechanical security pin
- Better tool clamping thanks to optimum ergonomics
- Replaceable brass tool pots protect the taper surface
- Required space 140 x 100 mm

Tool Clamp without tool holder adapter, 4 x 90° indexable	
Order No.	84.700.00

Tool holder adapter SK (DIN/MAS-BT/CAT)	
Order No.	Type
84.701.30	SK/ISO 30
84.701.40	SK/ISO 40
84.701.50	SK/ISO 50
Tool holder adapter HSK-A (DIN 69893/1)	
Order No.	Type
84.702.40	HSK-A40
84.702.50	HSK-A50
84.702.63	HSK-A63
84.702.80	HSK-A80
84.702.10	HSK-A100
Tool holder adapter HSK-C/HSK-E (DIN 69893/1)	
Order No.	Type
84.703.32	HSK-C/E32
84.703.40	HSK-C/E40
84.703.50	HSK-C/E50
84.703.63	HSK-C/E63
84.703.80	HSK-C/E80
Tool holder adapter HSK-F	
Order No.	Type
84.704.63	HSK-F63
84.704.80.M	HSK-F80 MAKINO
Tool holder adapter Capto	
Order No.	Type
84.705.40	Capto C4
84.705.50	Capto C5
84.705.60	Capto C6

Tool Clamp

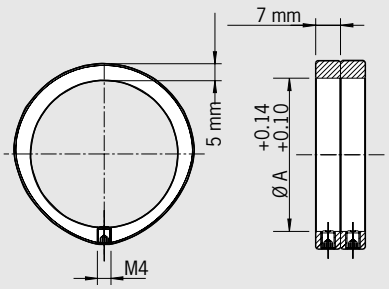
Tool holder adapter SK

SET OF BALANCING SCREWS AND BALANCING RINGS

Use:
For fine-balancing of grinding wheel adapter and spacers with balancing threads M6. **(Order No. 80.203.00)**

The screws have different weights in fine increments. They are screwed into the balancing threads of the tool holder so that their weight compensates the unbalance of the tool holder.
– Set consisting of screws of 11 different sizes and weights
– The screws are tightened to the bottom of the thread. No additional fixing of screws necessary.
– Balancing quickly and precisely
– No damage of tool holders
– Can be repeated as often as necessary
– Suitable for tool holders of all brands
– The balancing machine calculates the necessary weight of the screws (e. g. HAIMER TOOL DYNAMIC)

Delivery:
Case with 11 x 10 balancing screws, screwdriver

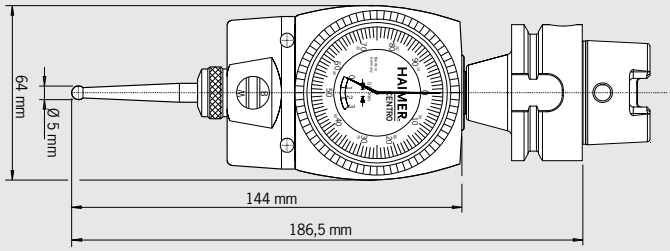


Use:
Balancing index rings for fine-balancing of all tools with cylindrical outer diameter (diam. A) from 15 mm to 100 mm. **(Order No. 79.350.15 to 79.350.100)**

The balancing index rings have a defined unbalance in themselves. They are turned in such a position that the unbalance of the tool holder will be compensated. There are always 2 rings needed per balancing plane.
– Balancing quickly and precisely
– No damage of tool holder
– Can be repeated as often as necessary
– Simply fixed by clamping screw
– Suitable for tool holders of all brands
– The balancing machine determines the position of the rings (e. g. HAIMER Tool Dynamic)

Delivery:
2 balancing rings with clamping screws; without hex wrench

CENTRO WITH INTEGRATED SHORT ADAPTER HSK A50



Centro

Center bores and arbors quickly and precisely
The Centro is clamped into the spindle of a grinding machine and positioned close to the sought axis. The probe tip is adjusted and touches the bore or arbor close to the desired axis.

Dial gauge always in field of vision
With low RPMs the probe slides along the bore or arbor. Its movement is transferred to the dial gauge. By using an antenna the Centro does not spin around and stays in the field of vision.

By using the Centro, you can find the axis of bores or arbors - reliably
As long as the spindle is out of the center of the bore or arbor the hands of the dial gauge stay in movement. By changing the position of x- and y- axis at the machine you can jibe the axis of the spindle and the work piece.

Further advantages:
– Check the axial run-out of the work piece to the spindle
– Compensation of the run-out errors of the spindle and tool holder
  >> No adjustment necessary
– Even in bigger distance the unusual size of the dial gauge is helpful to finish the job
– Replaceable probes

Technical details	
Centro with integrated short adapter HSK A50	
Centering accuracy	0.003 mm
Max. rotation speed	150 RPMs
Measuring range interior diameter (drill hole)	3–125 mm
Measuring range exterior diameter (shaft, with probe tip bent)	0–125 mm
Order No.	**80.303.A50**

Accessories	
Probe tip straight with diameter of ball 5 mm **Order No.**	**80.301.00**
Probe tip bent with diameter of ball 5 mm **Order No.**	**80.302.00**
Probe tip straight with diameter of ball 2 mm, for small bores **Order No.**	**80.303.00**

Tool Dynamic TD 1002:
For minimalists

Runout Measuring device for TD 1002 see page 31

Picture shows TD1002 with runout measuring device (optional)

TOOL DYNAMIC TD 1002
MODULAR BALANCING SYSTEM

Balancing machine to balance grinding wheels on 1 and 2 planes (optional)
- Force measuring table machine
- Optimised for balancing grinding wheels
- Clamping by adapter with automatic clamping system for grinding arbors (HSK or SK)
- Or clamping by balancing arbor for balancing of each grinding wheel separately (optional, specify clamping-Ø)

Features
- Menu-based handling via integrated user interface and display
- Safety hood with automated door lock
- Special high precision spindle bearings

Characteristics	
Vibration optimised base	Adapted table for optimized base
User interface	Integrated user interface for easy handling of the machine
Optical indexing help	Indication of the exact spindle angle position on display
Laser marking	Indicates the position of unbalance and correction with a laser
Radial drilling	Balancing by drilling radially
Software for compensation with balancing rings	Balancing by rings or other movable weights
Index balancing	Compensation of measuring errors by index balancing (2 measuring runs, indexing angle 180°)
Balancing with spindle compensation	Quick and precise measurement of repetition parts (single measuring run)
Balancing in 1 plane	Measuring and compensation of unbalance in 1 plane (static)
English/German/French/Italian/Spanish	Languages for user interface
Accessories and special equipment	See Tool Dynamic catalog

Technical details			
Tool Dynamic TD 1002			
Dimensions [mm]	500×680×820	Power usage [kW]	0.4
Weight [kg]	200	Compressed air [bar]	6
Spindle speed [rpm]	300–1100	max. tool length [mm]	360
Measuring accuracy [gmm]	< 1	max. tool diameter [mm]	340
Power requirements [V/Hz]	230/50–60	max. tool weight [kg]	15
		Order No.	**80.250.00**

Tool Dynamic TD 2009 Comfort: For the ambitious

Picture shows special equipment: Safety hood type 3 for tools with length up to 700 mm (optional)

TOOL DYNAMIC TD 2009 COMFORT MODULAR BALANCING SYSTEM

If you want to use the Tool Dynamic frequently and keep the balancing time as short as possible, you should decide for the TD 2009 Comfort machine. It's equipped with a PC, keyboard, mouse and monitor. The big screen enables a fast input of tool data and all the comfort of a graphical user interface – you just balance faster! In addition the software of the machine offers the possibility to correct the unbalance with the help of a milling program that is a very common practice to correct the unbalance.

Characteristics

- Base made of polymer concrete
- Software for compensation with balancing rings
- Balancing in 2 planes
- User interface
- Index balancing
- Fixed components
- Optical indexing help
- Balancing with spindle compensation
- Automatic indexing
- Laser marking
- Balancing in 1 plane
- Rack for accessories
- Radial drilling
- Screen holder
- Print label
- Milling program
- Balancing software TD 4.0
- TFT monitor
- Accessories and special equipment
- English/German/French/ Italian/Spanish

Technical details

Tool Dynamic TD 2009 Comfort			
Dimensions [mm]	1100 × 1500 × 820	Compressed air [bar]	6
Weight [kg]	450	max. tool length [mm]	400
Spindle speed [rpm]	300–1100	optional	700
Measuring accuracy [gmm]	< 0,5	max. tool diameter [mm]	380
Power requirements [V/Hz]	230/50–60	optional	425
Power usage [kW]	0.4	max. tool weight [kg]	30
		Order No.	**80.224.00.09**

Tool Dynamic TD Preset: For individualists

Picture shows Tool Dynamic Preset with Control Terminal

TOOL DYNAMIC TD PRESET
TOOL BALANCING AND PRESETTING

Two approved systems – a trendsetting innovation

Tool balancing and presetting are key elements of modern manufacturing. It is obviously a good idea to combine these two procedures. The Tool Dynamic TD Preset is a perfect combination of HAIMER's balancing technology and Zoller's measuring technology. The tool is clamped in the high precision balancing spindle fitted with HAIMER's proven adapter system. This saves time and increases accuracy because the tool does not have to be re-clamped.

- Forward-looking state-of-the-art technology by technology leaders
- Highest efficiency and saved time by combining two production stages
- Utmost precision due to high precision clamping in HAIMER's balancing adapters
- Reasonable price and efficiency ratio
- Compact design
- Simple and logical operation
- Adapter for all interfaces
- Highest possible measuring comfort

Order No. 80.240.00

Presetting
Measuring system with high resolution camera and digital photo processing

Software for professionals
Various options for measuring and balancing in clearly arranged menus

Tool Dynamic TD 800: For specialists

Picture shows special equipment: Runout measuring console

TOOL DYNAMIC TD 800
SPECIAL BALANCING MACHINE

Your solution for big rotors up to diam. 800 mm

Based on the proven Tool Dynamic balancing technology, the Tool Dynamic TD 800 allows balancing of large rotors of all kinds: bearing rings, grinding wheels and turbine wheels. With hand tailored clamping adapters you can balance your rotors as easy and quick as usual.

The safety hood is segmented and opens to the side. Thus the rotor is accessible from above. Heavy parts can be handled by a crane.

Technical details			
Tool Dynamic TD 800			
Dimensions [mm]	500×1910×900	Compressed air [bar]	6
Weight [kg]	550	Compressed air [bar]	5–6
Spindle speed [rpm]	200–1100	Air consumption [l/h]	30
Measuring accuracy [gmm]	< 0.5	Max. tool length [mm]	750
Power requirements [V/Hz]	230/50–60	Max. tool diameter [mm]	800
Power usage [kW]	1.0	Max. tool weight [kg]	110
		Order No.	**80.270.00**

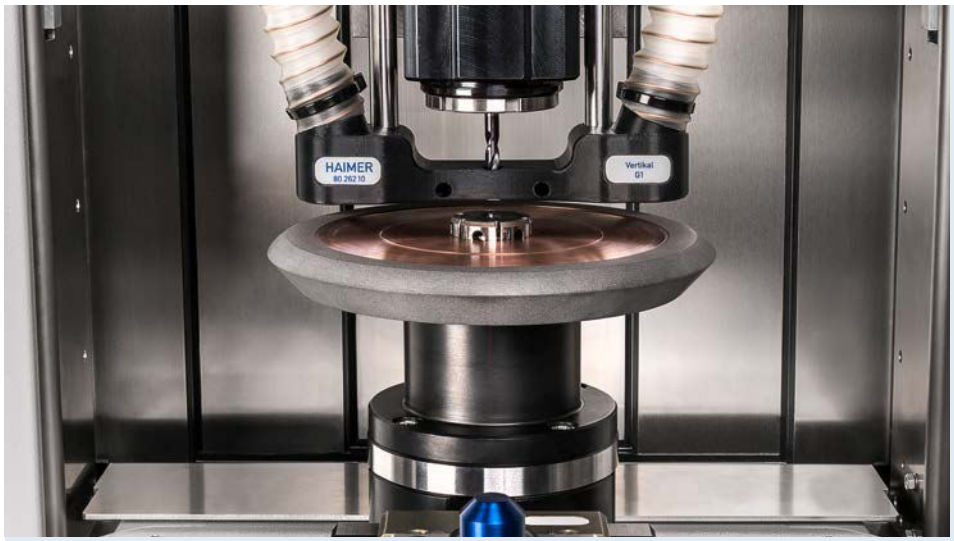
Tool Dynamic TD 2010 Automatic: For professionals

TOOL DYNAMIC TD 2010 AUTOMATIC SPECIAL BALANCING MACHINE

Technical details		
Measuring accuracy		
Measuring accuracy	<0.5 gmm	
Limitation of the rotor		
Max. diameter	400 mm	
Max. length	600 mm	
Max. weight	50 kg	
Operational range		
X-axis	160 mm	
Y-axis	400 mm	
Z-axis	250 mm	
B-axis	360°	
Rapid mode	20 m/min	on all axis
Balancing spindle		
Max. RPM	1400 rpm	
Max. torque	35 Nm	
CNC unit		
Interface	VDI 30	
Max. RPMs	6000 U/min	adjustable
Max. torque	15 Nm	at S3-25%
Max. drilling capacity	Ø 10 mm	in hardened steel with HRC 60
Operational range of rotor in horizontal mode		
Max. diameter	400 mm	
Max. height	250 mm	
Operational range of rotor in vertical mode		
Max. diameter	400 mm	
Max. height	280 mm	
Order No.	**80.260.00**	

Integrated control and balancing software

APPLICATION EXAMPLES TD 2010 AUTOMATIC



Balancing of a grinding wheel by axial drilling

Balancing of tools with a HG balancing adapter for tools with a cylindrical shank

Tools for woodworking
Balancing avoids breaking of cutting edges and vibrations and enables the highest accuracy at the edges of the piece of furniture. Thus you raise your productivity and you can realize a higher cutting capacity.

RUNOUT MEASURING DEVICE FOR TD 1002

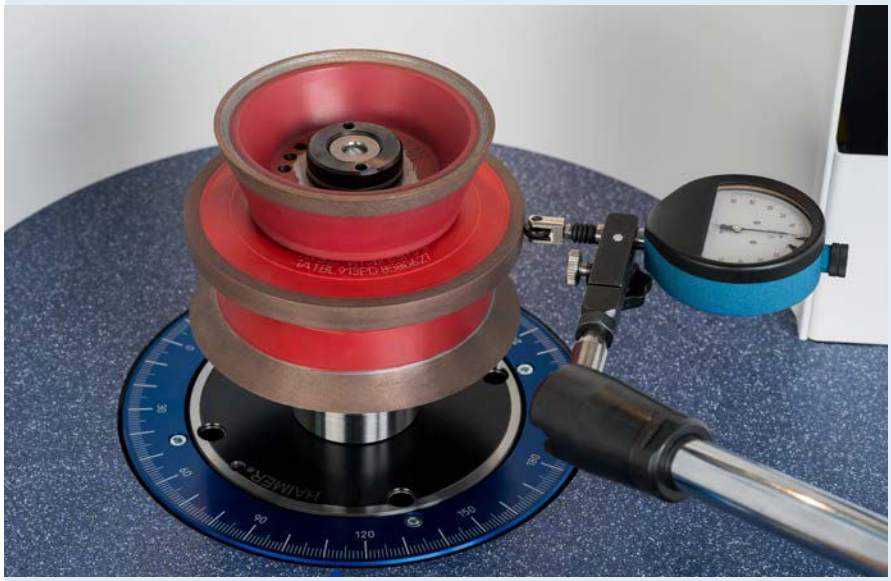
Accessories for maximum performance!

Runout measuring device

Axial runout check

With the runout measuring device you can do an easy and reliable check of your grinding wheel's runout and axial runout.
The runout measuring unit consists of: Measuring arm with tripod and fine indicator in 0.001 mm accuracy execution as well as a measuring roll.

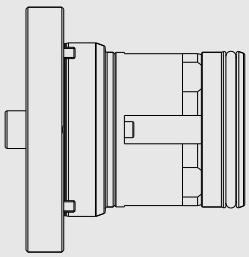
Runout measuring device
Order No. 80.254.00



Runout measuring

Measuring runout and axial runout as well as balancing without re-clamping!

BALANCING ADAPTER HSK

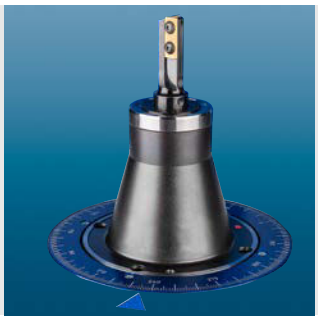


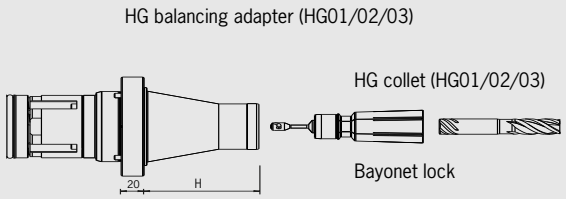
Use:
– µm precise clamping for highest measuring accuracy and repeatability
– Easy and quickest changing due to compact design

Note:
Adapters only to be used with original HAIMER Tool Dynamic Balancing Machines

HSK balancing adapter with automatic clamping system			
HSK interface	**Adapter Order No.**	**Equivalent**	**Description**
HSK 32			
A	**80.201.A32.00**		Adapter for HSK-A32 with clamping system
B	**80.201.E25.00**	B32 = E25	Adapter for HSK-E25 with clamping system
C	**80.201.A32.00**	C32 = A32	Adapter for HSK-A32 with clamping system
D	**80.201.E25.00**	D32 = E25	Adapter for HSK-E25 with clamping system
E	**80.201.E32.00**		Adapter for HSK-E32 with clamping system
F	**80.201.E25.00**	F32 = E25	Adapter for HSK-E25 with clamping system
HSK 40			
A	**80.201.A40.00**		Adapter for HSK-A40 with clamping system
B	**80.201.E32.00**	B40=E32	Adapter for HSK-E32 with clamping system
C	**80.201.A40.00**	C40=A40	Adapter for HSK-A40 with clamping system
D	**80.201.E32.00**	D40=E32	Adapter for HSK-E32 with clamping system
E	**80.201.E40.00**		Adapter for HSK-E40 with clamping system
F	**80.201.E32.00**	F40=E32	Adapter for HSK-E32 with clamping system
HSK 50			
A	**80.201.A50.00**		Adapter for HSK-A50 with clamping system
B	**80.201.E40.00**	B50=E40	Adapter for HSK-E40 with clamping system
C	**80.201.A50.00**	C50=A50	Adapter for HSK-A50 with clamping system
D	**80.201.E40.00**	D50=E40	Adapter for HSK-E40 with clamping system
E	**80.201.E50.00**		Adapter for HSK-E50 with clamping system
F	**80.201.E40.00**	F50=E40	Adapter for HSK-E40 with clamping system
HSK 63			
A	**80.201.A63.00**		Adapter for HSK-A63 with clamping system
B	**80.201.E50.00**	B63=E50	Adapter for HSK-E50 with clamping system
C	**80.201.A63.00**	C63=A63	Adapter for HSK-A63 with clamping system
D	**80.201.E50.00**	D63=E50	Adapter for HSK-E50 with clamping system
E	**80.201.E63.00**		Adapter for HSK-E63 with clamping system
F	**80.201.E50.00**	F63=E50	Adapter for HSK-E50 with clamping system
Weinig			
Weinig	**80.201.W63.00**		Adapter for Weinig tool holder
HSK 80			
A	**80.201.A80.00**		Adapter for HSK-A80 with clamping system
B	**80.201.E63.00**	B80=E63	Adapter for HSK-E63 with clamping system
C	**80.201.A80.00**	C80=A80	Adapter for HSK-A80 with clamping system
D	**80.201.E63.00**	D80=E63	Adapter for HSK-E63 with clamping system
E	**80.201.E80.00**		Adapter for HSK-E80 with clamping system
F	**80.201.E63.00**	F80=E63	Adapter for HSK-E63 with clamping system

HG BALANCING ADAPTER





Balancing adapter for tools with a cylindrical shank
– For efficient and automatic clamping of tools with a cylindrical shank
– For cylindrical shanks up to tolerance h8
– Available with shank diameter up to 40 mm upon request

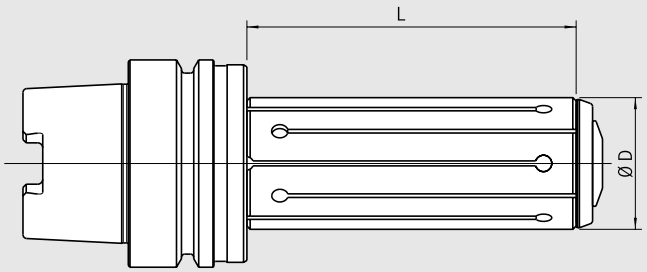
Balancing adapter with exchangeable high precision collets (HG system) and automatic clamping. From now on you can clamp your cylindrical shank directly in the balancing adapter without any accessories.

Note:
Adapters only to be used with original HAIMER Tool Dynamic Balancing Machines

HG adapter	Collet	Clamping range D
Order No.	Order No.	
HG01	**HG01**	**Ø 2–9.25 mm**
80.201.HG01.00	**80.201.HG01.02**	2 mm
	80.201.HG01.02.5	2.5 mm
	80.201.HG01.03	3 mm
	80.201.HG01.03.5	3.5 mm
	80.201.HG01.04	4 mm
	80.201.HG01.04.5	4.5 mm
	80.201.HG01.05	5 mm
	80.201.HG01.05.5	5.5 mm
	80.201.HG01.05.6	5.6 mm
	80.201.HG01.06	6 mm
	80.201.HG01.06.3	6.3 mm
	80.201.HG01.07	7 mm
	80.201.HG01.07.1	7.1 mm
	80.201.HG01.08	8 mm
	80.201.HG01.09	9 mm
HG02	**HG02**	**Ø 10–14 mm**
80.201.HG02.00	**80.201.HG02.10**	10 mm
	80.201.HG02.11	11 mm
	80.201.HG02.12	12 mm
	80.201.HG02.12.5	12.5 mm
	80.201.HG02.13	13 mm
	80.201.HG02.14	14 mm
HG03	**HG03**	**Ø 16–20 mm**
80.201.HG03.00	**80.201.HG03.16**	16 mm
	80.201.HG03.18	18 mm
	80.201.HG03.20	20 mm
HG04	**HG04**	**Ø 20–32 mm**
80.201.HG04.00	**80.201.HG04.20** [1]	20 mm
	80.201.HG04.22 [1]	22 mm
	80.201.HG04.25 [1]	25 mm
	80.201.HG04.27 [1]	27 mm
	80.201.HG04.30 [1]	30 mm
	80.201.HG04.32 [1]	32 mm

[1] *10 bars required*

BALANCING ARBOUR

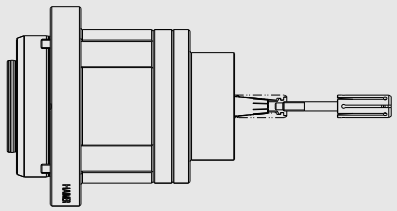


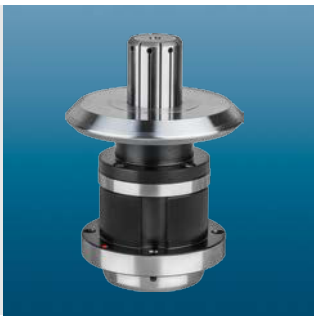
– To balance tools with cylindrical bore
– Precise centrically clamping for highest repeatability
– Fine balanced to < 1 gmm
– Can be used individually

Balancing arbour	Collet	Clamping range Ø D	L
Order No.	Order No.		
DG07, Clamping range 25–34.5 mm			
80.250.A63.070	80.250.07.25	Ø 25–25.5	100
	80.250.07.26	Ø 26–26.5	100
	80.250.07.28	Ø 28–28.5	100
	80.250.07.30	Ø 30–30.5	100
	80.250.07.32	Ø 32–32.5	100
	80.250.07.34	Ø 34–34.5	100
DG08, Clamping range 35–44.5 mm			
80.250.A63.080	80.250.08.35	Ø 35–35.5	100
	80.250.08.36	Ø 36–36.5	100
	80.250.08.38	Ø 38–38.5	100
	80.250.08.40	Ø 40–40.5	100
	80.250.08.42	Ø 42–42.5	100
	80.250.08.44	Ø 44–44.5	100
DG09, Clamping range 45–54.5 mm			
80.250.A63.090	80.250.09.45	Ø 45–45.5	125
	80.250.09.48	Ø 48–48.5	125
	80.250.09.50	Ø 50–50.5	125
	80.250.09.52	Ø 52–52.5	125
	80.250.09.54	Ø 54–54.5	125
DG10, Clamping range 55–64.5 mm			
80.250.A63.100	80.250.10.55	Ø 55–55.5	135
	80.250.10.58	Ø 58–58.5	135
	80.250.10.60	Ø 60–60.5	135
	80.250.10.62	Ø 62–62.5	135
	80.250.10.64	Ø 64–64.5	135

By ordering you need one balancing arbour and one collet

HSM BALANCING ADAPTER (MANUAL)





Balancing adapter with manual clamping for internal diameters of 15 mm up to 100 mm

– Clamping range - 0.3 / + 0.5 mm
– Precise centrically clamping for highest repeatability
– Fine balanced to < 1 gmm
– Can be used individually

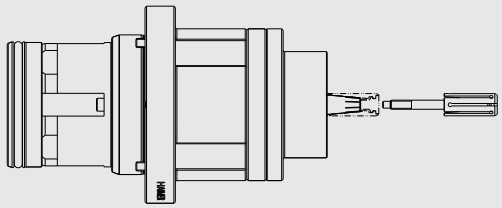
Note:
Adapters only to be used with original HAIMER Tool Dynamic Balancing Machines

HSM balancing adapter with manual clamping system 80.201.HSM00.00		
HSM 00 Clamping range 15-20 mm		
Order No. Clamping set	**Bore Ø D - 0.3 /+ 0.5 mm**	**Clamping length**
80.201.HSZ00.15	Ø 15.0	34 mm
80.201.HSZ00.15.5	Ø 15.5	34 mm
80.201.HSZ00.16	Ø 16.0	34 mm
80.201.HSZ00.16.5	Ø 16.5	34 mm
80.201.HSZ00.17	Ø 17.0	34 mm
80.201.HSZ00.17.5	Ø 17.5	34 mm
80.201.HSZ00.18	Ø 18.0	34 mm
80.201.HSZ00.18.5	Ø 18.5	34 mm
80.201.HSZ00.19	Ø 19.0	34 mm
80.201.HSZ00.19.5	Ø 19.5	34 mm
80.201.HSZ00.20	Ø 20.0	34 mm

HSM Balancing Adapters (manual) are also available with diameters of 20.5 mm – 101 mm

By ordering you need one balancing arbour and one collet

HSA BALANCING ADAPTER (AUTOMATIC)



Balancing adapter with automatic clamping for internal diameters of 15 mm up to 100 mm.

– Clamping range - 0.3 / + 0.5 mm
– Precise centrically clamping for highest repeatability
– Fine balanced to < 1 gmm
– Can be used individually

Note:
Adapters only to be used with original HAIMER Tool Dynamic Balancing Machines

HSA balancing adapter with automatic clamping system 80.201.HSA00.00		
HSA 00 Clamping range 15-20 mm		
Order No. Clamping set	**Bore Ø D - 0.3 /+ 0.5 mm**	**Clamping length**
80.201.HSZ00.15	Ø 15.0	34 mm
80.201.HSZ00.15.5	Ø 15.5	34 mm
80.201.HSZ00.16	Ø 16.0	34 mm
80.201.HSZ00.16.5	Ø 16.5	34 mm
80.201.HSZ00.17	Ø 17.0	34 mm
80.201.HSZ00.17.5	Ø 17.5	34 mm
80.201.HSZ00.18	Ø 18.0	34 mm
80.201.HSZ00.18.5	Ø 18.5	34 mm
80.201.HSZ00.19	Ø 19.0	34 mm
80.201.HSZ00.19.5	Ø 19.5	34 mm
80.201.HSZ00.20	Ø 20.0	34 mm

HSA Balancing Adapters (automatic) are also available with diameters of 20.5 mm – 101 mm

HAIMER Tool Management: For efficient working

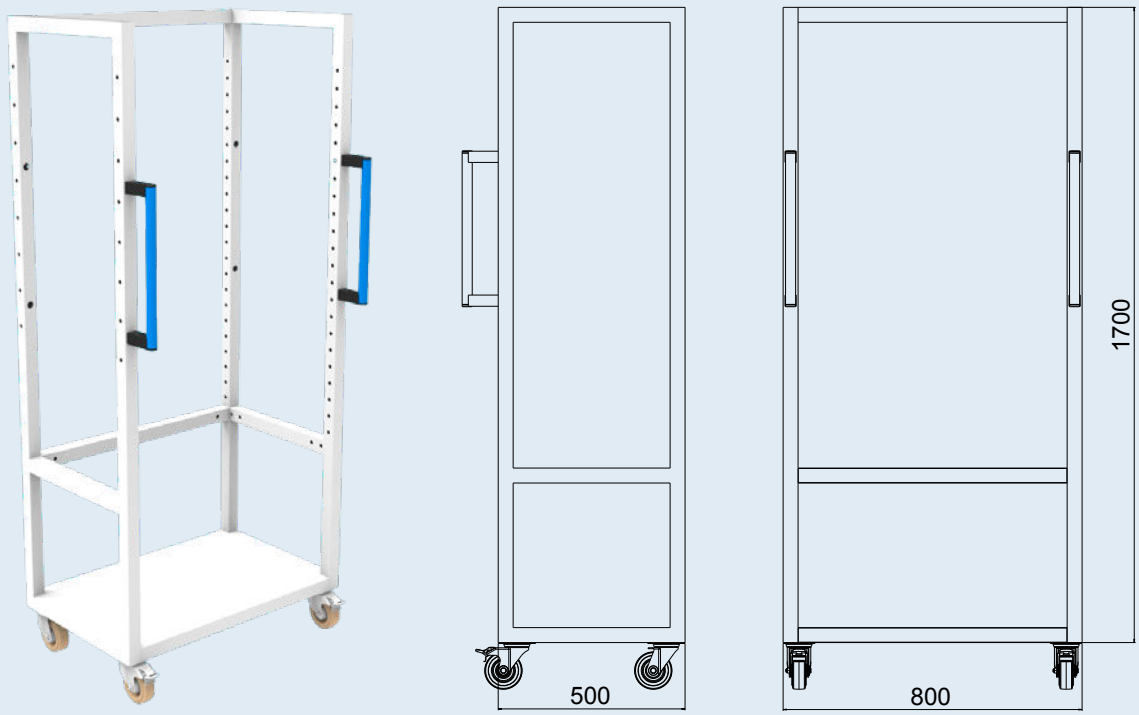
The HAIMER Tool Management completes the HAIMER product program as a system partner around tool clamping. That means HAIMER offers the complete Tool Management equipment from a single source. As a complete solution for tool presetting and tool management, the HAIMER Tool Management provides you with a functional and ergonomic criteria for the design of work stations. The storage, setup and management of tools is simplified and optimized by the HAIMER solutions so that efficient working is guaranteed.

– Modular room design according to the customer's requirements
– Shrinking, balancing and presetting already integrated into the concept
– Tidy and isolated solution for concentrated working

See our catalogue „HAIMER Tool Management“ for further information.

This is how you store your grinding wheel adapters and accessories correctly.

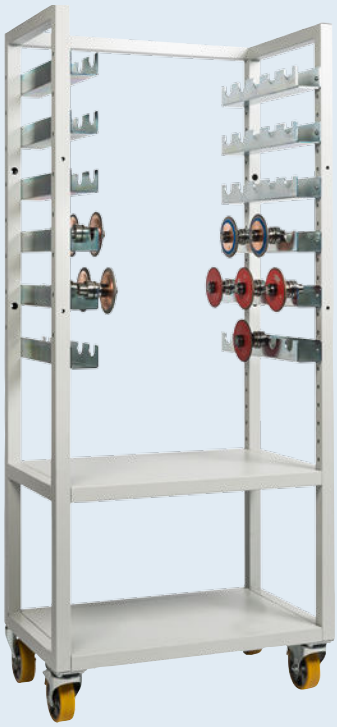
Tool cart - base frame

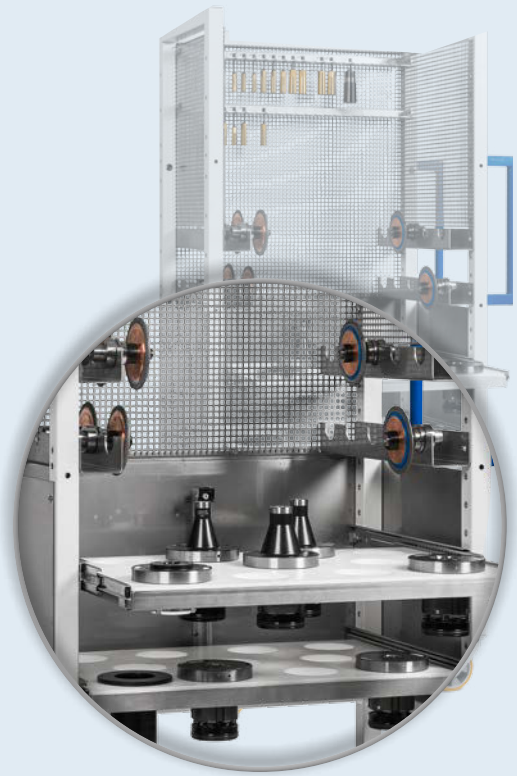


Use:

- Standard frame with four wheels, brakes and two handles
- Individual delivery by using a predefined modular system
- Safe transport of the grinding wheel adapters and accessories to the machine
- More organization at the machine area
- More tidy than commercially available tool carts
- Tool cart for grinding wheel adapters (held using standard size gripper grooves)
- Tool cart works for any tool used at the machine, no matter if it has an internal hexagon, external hexagon, hook wrench, rubber mallet, gauging tool etc.
- Tool cart for wheel balancer accessories to hold balancing adapters, HG collets, etc.

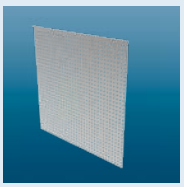
Configuration examples – tool cart

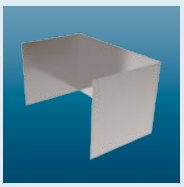


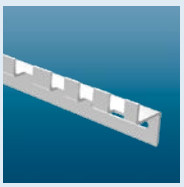


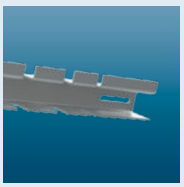
TOOL MANAGEMENT
TOOL CART – EQUIPMENT AND ACCESSORIES

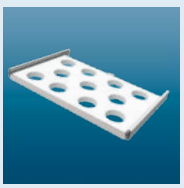
Description	Order No.
Base frame	
without intermediate plate	**140956-0003**
with intermediate plate	**140956-0010**
Perforated plate	
back long	**140056-0013**
back short	**140056-0009**
side long	**140056-0014**
side short	**140056-0010**
Metal cover plate	
long	**140056-0008**
short	**140956-0005**
HG Collet holder	
HG01 - HG04	**140056-0005**
Screwdriver holder	
for 6 screwdrivers	**84.810.10**
Wrench holder	
for 12 wrenches	**84.810.11**
Drawer insert for balancing adapters	
Angle plate frame	**140056-0006**
Shelf	**140056-0007**
Drawer slide	**140956-0006**
Partition wall (6 piece bottom plate)	
	140056-0015

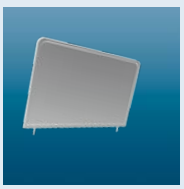






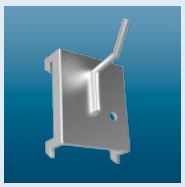
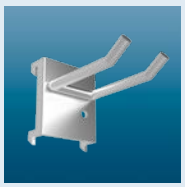
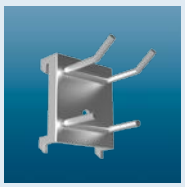


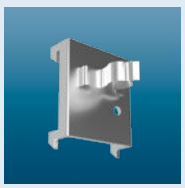
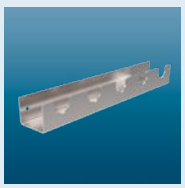




TOOL MANAGEMENT
TOOL CART – EQUIPMENT AND ACCESSORIES

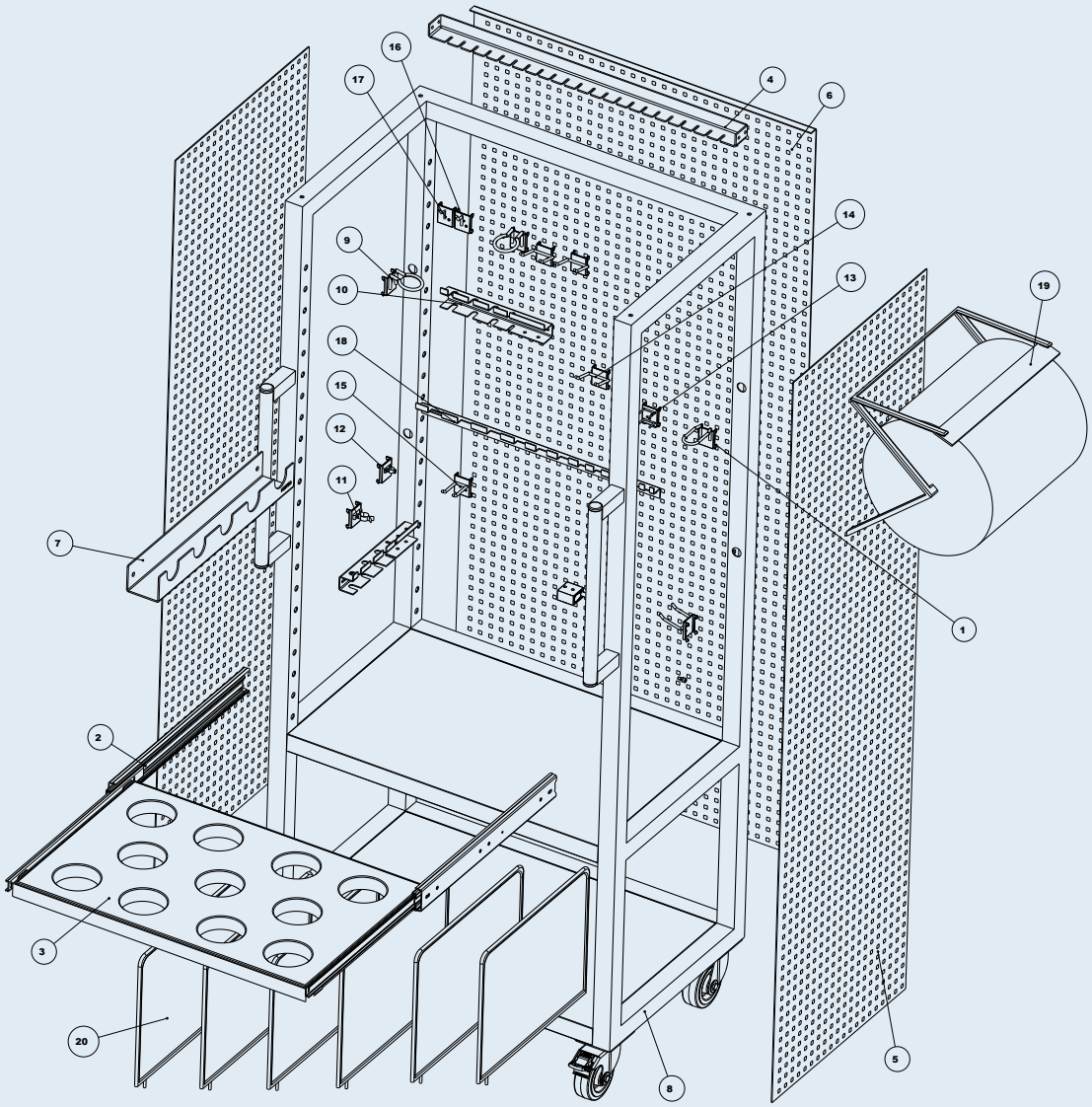
Description		Order No.
Paper dispenser		
without paper roll		**84.810.23**
Tool holder		
Hook single	Ø 3 Ø 5	**84.810.01** **84.810.02**
Hook double	55x25 50x40	**84.810.03** **84.810.04**
Cllip hook	Ø 12 Ø 15	**84.810.06** **84.810.07**
Articulated wrench hook		**84.810.05**
Ring holder		**84.810.08**
Pliers holder		**84.810.16**
Base holder		**84.810.09**
Tool holder fixture		
plain		**140052-0019**
SK30		**140052-0012**
SK40		**140052-0001**
SK50		**140052-0002**
BT30		**140052-0014**
BT40		**140052-0003**
BT50		**140052-0004**
CAT40		**140052-0005**
CAT50		**140052-0006**
HSK A/E 32		**140052-0007**
HSK A/E/F 40		**140052-0008**
HSK A/E/F 50		**140052-0009**
HSK A/E/F 63		**140052-0010**
HSK A/F 80		**140052-0020**
HSK A 100		**140052-0011**
Capto C6		**140052-0018**

Further accessories available on request

TOOL MANAGEMENT
TOOL CART DESIGN



1	Pliers holder 7x40	**11**	Tool clip Ø 25 mm
2	Drawer slide	**12**	Tool clip Ø 12 mm
3	Shelf for balancing adapters	**13**	Articulated wrench hook (28 mm x Ø 3 mm)
4	Shelf for collets	**14**	Double hook (50 mm x 40 mm)
5	Perforated plate long version (side)	**15**	Double hook (55 mm x 25 mm)
6	Perforated plate long version (back)	**16**	Hook (24 mm x Ø 5)
7	Shelf for tool holders	**17**	Hook (22 mm x Ø 3)
8	Base cart	**18**	Screw wrench holder
9	Ring holder (inside Ø 40 mm)	**19**	Paper dispenser (without paper roll)
10	Screwdriver holder	**20**	Partition wall

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