

# BALANCEABLE TOOLHOLDERS



STUB, BORING, BLANK

RETENTION STUDS

HSK TOOLING

BALANCEABLE TOOLHOLDERS

SHRINK FIT TOOLHOLDERS

ACCESSORIES

R8/5C/3J/16C

TECHNICAL SECTION

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## HSBALANCE™ Toolholders

### Features

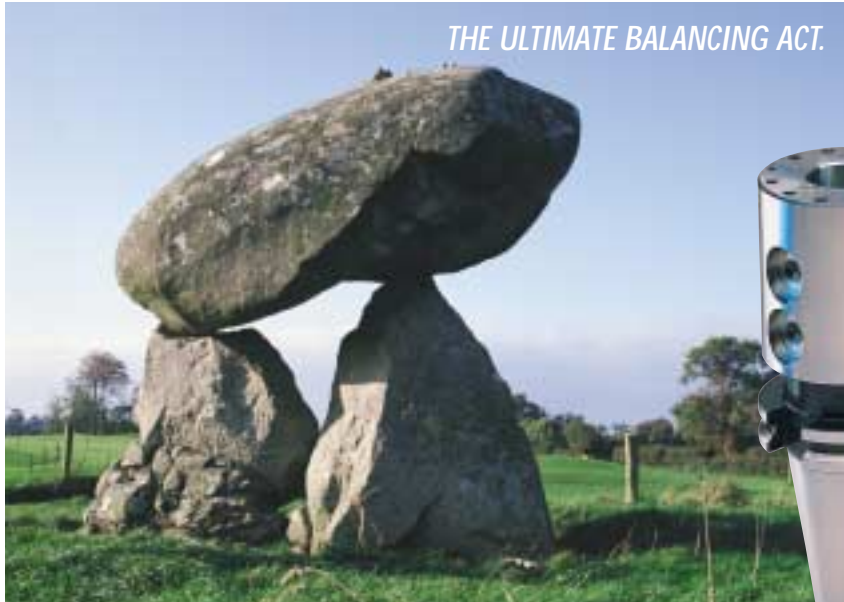
- Patented balancing method
- Pre-balanced and balanceable
- Each tool comes with its own balance certificate
- CT/BT/HSK tapers in stock
- Available in most toolholder types
- High repeatability of balance
- Easy to re-balance

### Benefits

- Field proven for over 10 years
- Increased cutting tool life
- Improved part surface finish
- Balancing screws not subject to centrifugal force
- Balanced retention studs provide accurate concentricity
- Balancing screws not depth sensitive



# BALANCEABLE TOOLHOLDERS



***Our patented HSBALANCE™ holders arrive tightly pre-balanced, and are easily re-balanced to fine-tune toolholder, cutting tool, and retention knob assemblies to the tightest specs.***

Accuracy of balance comes from balancing the full assembly, not just the toolholder itself. Even though its mass is comparatively less than that of the toolholder, unbalanced cutting tools and retention studs may have a relatively high degree of inherent unbalance. Therefore, a certain amount of unbalance will still be created when the cutting tool, the retention knob and a pre-balanced toolholder are assembled. This could easily exceed the maximum acceptable level of unbalance. As the cutting speed increases this becomes more pronounced. Rebalancing the toolholding assembly is definitely necessary for any high-speed spindles.

The toolholder is, in most cases, the dominant unbalance source, and the most accessible component for balancing in any assemblies. Therefore, toolholders for high-speed machining need to be pre-balanced to a certain specification, and need to be balanceable to compensate for other unbalanced components for any re-assembling.

Lyndex's HSBALANCE toolholder employs a series of tapped holes surrounding the holder's centerline. Small set screws and weights are used to achieve balance. The holes are drilled parallel (not perpendicular) to the holder's centerline so the inserted set screws are not depth sensitive. A deeper setting will not affect the weight distribution. Parallel holes offer an additional advantage: set screws cannot become unscrewed and back out during high-speed operations, so they need not be affixed semi-permanently.

HSBALANCE toolholders are easily re-balanced by adding, removing, or relocating the balancing weights, to bring any assembly into the finest level of acceptable unbalance.

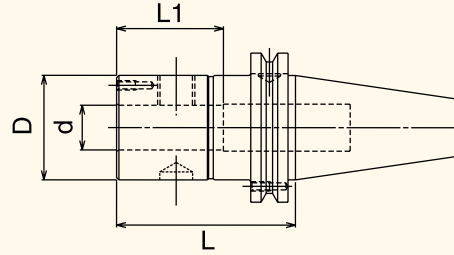


*30, 35 & 40 taper toolholders are pre-balanced to G2.5 or better at 20,000RPM*

*50 taper toolholders are pre-balanced to G2.5 or better at 15,000RPM*



### CT40 *hsBALANCE*<sup>™</sup> END MILL HOLDERS



Part Number	Taper	d	L	L1	D	Set Screw
C4006-0125B	CT40	1/8"	2.50"	0.62"	0.75"	6-32X1/4
C4016-0125B	CT40	1/8"	4.00"	0.62"	0.75"	6-32X1/4
C4006-0187B	CT40	3/16"	2.50"	0.86"	0.75"	8-32X1/4
C4016-0187B	CT40	3/16"	4.00"	0.86"	0.75"	8-32X1/4
C4006-0250B	CT40	1/4"	2.50"	1.10"	0.94"	1/4-28X1/4
C4016-0250B	CT40	1/4"	4.00"	1.10"	0.94"	1/4-28X1/4
C4006-0312B	CT40	5/16"	2.50"	1.25"	0.94"	5/16-24X1/4
C4016-0312B	CT40	5/16"	4.00"	1.25"	0.94"	5/16-24X1/4
C4006-0375B	CT40	3/8"	2.50"	1.25"	0.94"	3/8-24X5/16
C4016-0375B	CT40	3/8"	4.00"	1.25"	0.94"	3/8-24X5/16
C4006-0500B	CT40	1/2"	3.00"	1.49"	1.38"	7/16-20X3/8
C4016-0500B	CT40	1/2"	4.00"	1.49"	1.38"	7/16-20X3/8
C4006-0625B	CT40	5/8"	3.00"	1.61"	1.65"	9/16-18X1/2
C4016-0625B	CT40	5/8"	4.00"	1.61"	1.65"	9/16-18X1/2
C4006-0750B	CT40	3/4"	3.00"	1.77"	1.75"	5/8-18X1/2
C4016-0750B	CT40	3/4"	4.00"	1.77"	1.75"	5/8-18X1/2
C4006-0875B	CT40	7/8"	3.50"	2.08"	2.00"	5/8-18X1/2 (2)
C4016-0875B	CT40	7/8"	6.00"	2.08"	2.00"	5/8-18X1/2 (2)
C4006-1000B	CT40	1"	4.00"	2.36"	2.36"	3/4-16X11/16 (2)
C4016-1000B	CT40	1"	6.00"	2.36"	2.36"	3/4-16X11/16 (2)
C4006-1250B	CT40	1-1/4"	4.00"	2.56"	2.48"	3/4-16X5/8 (2)
C4016-1250B	CT40	1-1/4"	6.00"	2.56"	2.48"	3/4-16X5/8 (2)

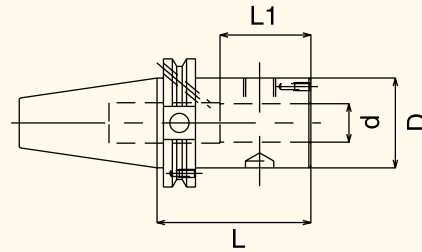
Note: Use balance-qualified retention studs with these holders. See catalog page 197.

**hsBALANCE<sup>™</sup> End Mill Holders** come equipped with set screws. Custom sizes and lengths may be made to order. **hsBALANCE<sup>™</sup>** toolholders come with a printout of actual balance condition. For balance specifications, please see page 223.



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### CT40 *HSBALANCE™* END MILL HOLDERS - DIN

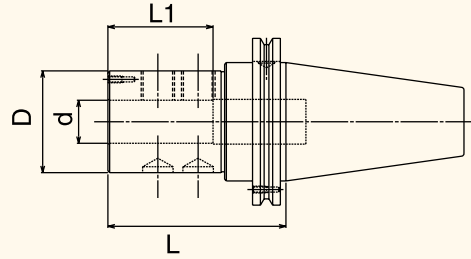


Part Number	Taper	d	L	L1	D	Set Screw
C4006-0125B-DIN	CT40	1/8"	2.50"	0.63"	0.75"	6-32X1/4
C4006-0187B-DIN	CT40	3/16"	2.50"	0.87"	0.75"	8-32X1/4
C4006-0250B-DIN	CT40	1/4"	2.50"	1.10"	0.94"	1/4-28X1/4
C4006-0312B-DIN	CT40	5/16"	2.50"	1.25"	0.94"	5/16-24X1/4
C4006-0375B-DIN	CT40	3/8"	2.50"	1.25"	0.94"	3/8-24X5/16
C4006-0500B-DIN	CT40	1/2"	3.00"	1.49"	1.38"	7/16-20X3/8
C4006-0625B-DIN	CT40	5/8"	3.00"	1.61"	1.65"	9/16-18X1/2
C4006-0750B-DIN	CT40	3/4"	3.00"	1.77"	1.75"	5/8-18X1/2
C4006-0875B-DIN	CT40	7/8"	3.50"	2.08"	2.00"	5/8-18X1/2 (2)
C4006-1000B-DIN	CT40	1"	4.00"	2.36"	2.36"	3/4-16X11/16 (2)
C4006-1250B-DIN	CT40	1-1/4"	4.00"	2.55"	2.48"	3/4-16X5/8 (2)

Note: "DIN" designates suitability for coolant through the flange per DIN 69871 Form B specs.



### CT50 *hsBALANCE*™ END MILL HOLDERS

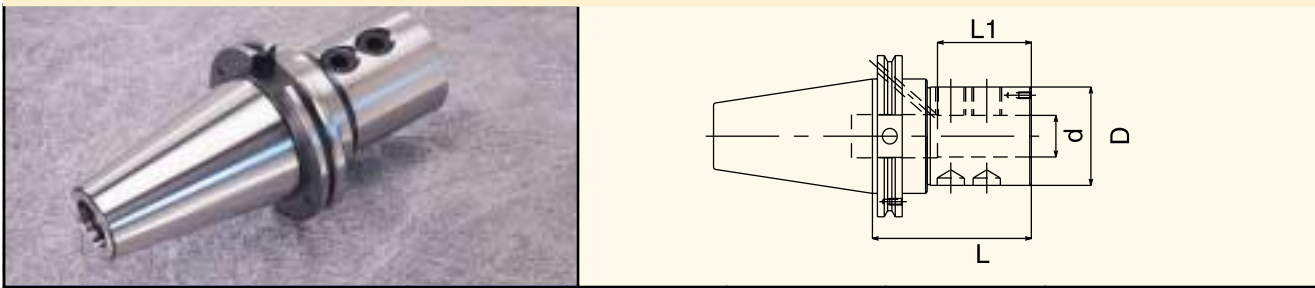


Part Number	Taper	d	L	L1	D	Set Screw
C5006-0250B	CT50	1/4"	3.00"	1.10"	0.94"	1/4-28X1/4
C5016-0250B	CT50	1/4"	4.00"	1.10"	0.94"	1/4-28X1/4
C5006-0375B	CT50	3/8"	3.00"	1.26"	0.94"	3/8-24X5/16
C5016-0375B	CT50	3/8"	4.00"	1.26"	0.94"	3/8-24X5/16
C5026-0375B	CT50	3/8"	6.00"	1.26"	0.94"	3/8-24X5/16
C5006-0500B	CT50	1/2"	3.00"	1.49"	1.38"	7/16-20X3/8
C5016-0500B	CT50	1/2"	4.00"	1.49"	1.38"	7/16-20X3/8
C5026-0500B	CT50	1/2"	6.00"	1.49"	1.38"	7/16-20X3/8
C5006-0625B	CT50	5/8"	3.00"	1.61"	1.65"	9/16-18X1/2
C5016-0625B	CT50	5/8"	4.00"	1.61"	1.65"	9/16-18X1/2
C5026-0625B	CT50	5/8"	6.00"	1.61"	1.65"	9/16-18X1/2
C5006-0750B	CT50	3/4"	3.00"	1.77"	1.75"	5/8-18X1/2
C5016-0750B	CT50	3/4"	4.00"	1.77"	1.75"	5/8-18X1/2
C5026-0750B	CT50	3/4"	6.00"	1.77"	1.75"	5/8-18X1/2
C5006-0875B	CT50	7/8"	4.00"	2.08"	2.00"	5/8-18X1/2 (2)
C5016-0875B	CT50	7/8"	6.00"	2.08"	2.00"	5/8-18X1/2 (2)
C5006-1000B	CT50	1"	4.00"	2.36"	2.36"	3/4-16X11/16 (2)
C5016-1000B	CT50	1"	6.00"	2.36"	2.36"	3/4-16X11/16 (2)
C5006-1250B	CT50	1-1/4"	4.00"	2.55"	2.48"	3/4-16X5/8 (2)
C5016-1250B	CT50	1-1/4"	6.00"	2.55"	2.48"	3/4-16X5/8 (2)
C5006-1500B	CT50	1-1/2"	4.50"	2.83"	2.91"	3/4-16X5/8 (2)
C5016-1500B	CT50	1-1/2"	7.00"	2.83"	2.91"	3/4-16X5/8 (2)

Note: Use balance-qualified retention studs with these holders. See catalog page 197.

**hsBALANCE™ End Mill Holders** come equipped with set screws. Custom sizes and lengths may be made to order. hsBALANCE™ toolholders come with a printout of actual balance condition. For balance specifications, please see page 223.

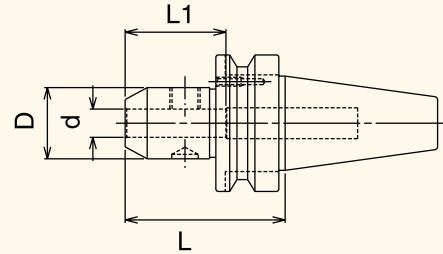
### CT50 *hsBALANCE™* END MILL HOLDERS - DIN



Part Number	Taper	d	L	L1	D	Set Screw
C5006-0250B-DIN	CT50	1/4"	3.00"	1.10"	0.94"	1/4-28X1/4
C5006-0375B-DIN	CT50	3/8"	3.00"	1.25"	0.94"	3/8-24X5/16
C5006-0500B-DIN	CT50	1/2"	3.00"	1.49"	1.38"	7/16-20X3/8
C5006-0625B-DIN	CT50	5/8"	3.00"	1.61"	1.65"	9/16-18X1/2
C5006-0750B-DIN	CT50	3/4"	3.00"	1.77"	1.75"	5/8-18X1/2
C5006-0875B-DIN	CT50	7/8"	4.00"	2.08"	2.00"	5/8-18X1/2 (2)
C5006-1000B-DIN	CT50	1"	4.00"	2.36"	2.36"	3/4-16X11/16 (2)
C5006-1250B-DIN	CT50	1-1/4"	4.00"	2.55"	2.48"	3/4-16X5/8 (2)

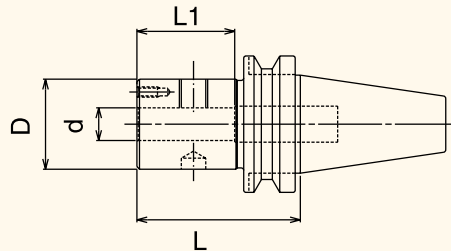
Note: "DIN" designates suitability for coolant through the flange per DIN 69871 Form B specs.

### BT30 *hsBALANCE™* END MILL HOLDERS



Part Number	Taper	d	L	L1	D	Set Screw
B3006-0125B	BT30	1/8"	2.00"	0.62"	0.74"	6-32X1/4
B3006-0187B	BT30	3/16"	2.00"	0.86"	0.74"	8-32X1/4
B3006-0250B	BT30	1/4"	2.00"	1.10"	0.94"	1/4-28X1/4
B3006-0312B	BT30	5/16"	2.00"	1.25"	0.94"	5/16-24X1/4
B3006-0375B	BT30	3/8"	2.00"	1.25"	0.94"	3/8-24X5/16
B3006-0500B	BT30	1/2"	2.50"	1.49"	1.37"	7/16-20X3/8
B3006-0625B	BT30	5/8"	2.50"	1.61"	1.65"	9/16-18X1/2
B3006-0750B	BT30	3/4"	2.50"	1.77"	1.75"	5/8-18X1/2

### BT35 *hsBALANCE™* END MILL HOLDERS

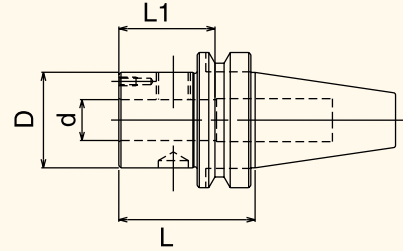


Part Number	Taper	d	L	L1	D	Set Screw
B3506-0125B	BT35	1/8"	2.00"	0.62"	0.74"	6-32X1/4
B3506-0187B	BT35	3/16"	2.00"	0.86"	0.74"	8-32X1/4
B3506-0250B	BT35	1/4"	2.00"	1.10"	0.94"	1/4-28X1/4
B3506-0312B	BT35	5/16"	2.00"	1.25"	0.94"	5/16-24X1/4
B3506-0375B	BT35	3/8"	2.00"	1.25"	0.94"	3/8-24X5/16
B3506-0500B	BT35	1/2"	2.50"	1.49"	1.37"	7/16-20X3/8
B3506-0625B	BT35	5/8"	2.50"	1.61"	1.65"	9/16-18X1/2
B3506-0750B	BT35	3/4"	2.50"	1.77"	1.75"	5/8-18X1/2
B3506-0875B	BT35	7/8"	3.50"	2.08"	2.00"	5/8-18X1/2 (2)
B3506-1000B	BT35	1"	3.50"	2.36"	2.36"	3/4-16X5/8 (2)
B3506-1250B	BT35	1-1/4"	3.50"	2.24"	2.48"	3/4-16X5/8 (2)

**hsBALANCE™ End Mill Holders** come equipped with set screws. Custom sizes and lengths may be made to order. **hsBALANCE™** toolholders come with a printout of actual balance condition. For balance specifications, please see page 223.



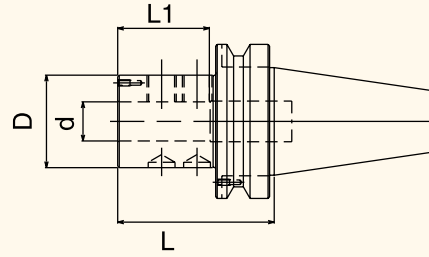
### BT40 HSBALANCE™ END MILL HOLDERS



Part Number	Taper	d	L	L1	D	Set Screw
B4006-0125B	BT40	1/8"	2.00"	0.62"	0.74"	6-32 XI/4
B4016-0125B	BT40	1/8"	4.00"	0.62"	0.74"	6-32X1/4
B4006-0187B	BT40	3/16"	2.00"	0.86"	0.74"	8-32X1/4
B4016-0187B	BT40	3/16"	4.00"	0.86"	0.74"	8-32X1/4
B4006-0250B	BT40	1/4"	2.00"	1.10"	0.94"	1/4-28X1/4
B4016-0250B	BT40	1/4"	4.00"	1.10"	0.94"	1/4-28X1/4
B4006-0312B	BT40	5/16"	2.00"	1.25"	0.94"	5/16-24X1/2
B4016-0312B	BT40	5/16"	4.00"	1.25"	0.94"	5/16-24X1/2
B4006-0375B	BT40	3/8"	2.50"	1.25"	0.94"	3/8-24X5/16
B4016-0375B	BT40	3/8"	4.00"	1.25"	0.94"	3/8-24X5/16
B4006-0500B	BT40	1/2"	2.50"	1.49"	1.37"	7/16-20X3/8
B4016-0500B	BT40	1/2"	4.00"	1.49"	1.37"	7/16-20X3/8
B4006-0625B	BT40	5/8"	2.50"	1.61"	1.65"	9/16-18X1/2
B4016-0625B	BT40	5/8"	4.00"	1.61"	1.65"	9/16-18X1/2
B4006-0750B	BT40	3/4"	2.50"	1.77"	1.75"	5/8-18X1/2
B4016-0750B	BT40	3/4"	4.00"	1.77"	1.75"	5/8-18X1/2
B4006-0875B	BT40	7/8"	3.50"	2.08"	2.00"	5/8-18X1/2 (2)
B4016-0875B	BT40	7/8"	6.00"	2.08"	2.00"	5/8-18X1/2 (2)
B4006-1000B	BT40	1"	4.00"	2.36"	2.36"	3/4-16X11/16 (2)
B4016-1000B	BT40	1"	6.00"	2.36"	2.36"	3/4-16X11/16 (2)
B4006-1250B	BT40	1-1/4"	4.00"	2.55"	2.48"	3/4-16X5/8 (2)
B4016-1250B	BT40	1-1/4"	6.00"	2.55"	2.48"	3/4-16X5/8 (2)



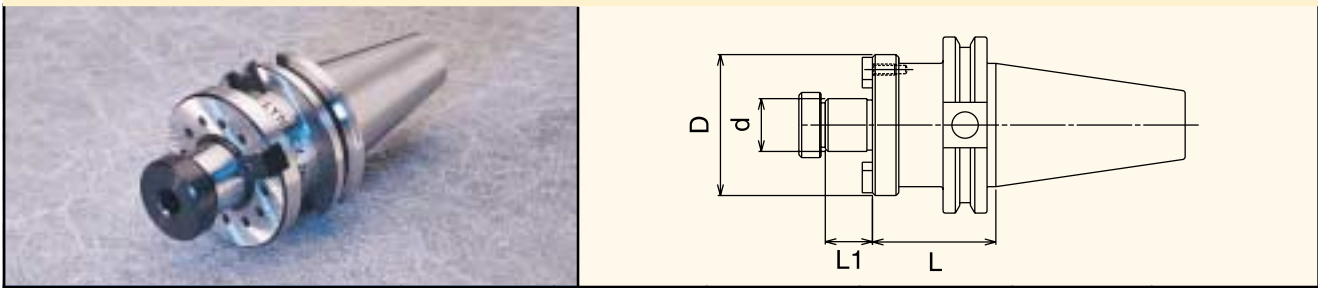
### BT50 *hsBALANCE™* END MILL HOLDERS



Part Number	Taper	d	L	L1	D	Set Screw
B5006-0250B	BT50	1/4"	3.00"	1.10"	0.94"	1/4-28X1/4
B5016-0250B	BT50	1/4"	6.00"	1.10"	0.94"	1/4-28X1/4
B5006-0375B	BT50	3/8"	3.00"	1.25"	0.94"	3/8-24X5/16
B5016-0375B	BT50	3/8"	6.00"	1.25"	0.94"	3/8-24X5/16
B5006-0500B	BT50	1/2"	3.00"	1.49"	1.38"	7/16-20X3/8
B5016-0500B	BT50	1/2"	6.00"	1.49"	1.38"	7/16-20X3/8
B5006-0625B	BT50	5/8"	3.00"	1.61"	1.65"	9/16-18X1/2
B5016-0625B	BT50	5/8"	6.00"	1.61"	1.65"	9/16-18X1/2
B5006-0750B	BT50	3/4"	3.00"	1.77"	1.75"	5/8-18X1/2
B5016-0750B	BT50	3/4"	6.00"	1.77"	1.75"	5/8-18X1/2
B5006-0875B	BT50	7/8"	4.00"	2.08"	2.00"	5/8-18X1/2 (2)
B5016-0875B	BT50	7/8"	6.00"	2.08"	2.00"	5/8-18X1/2 (2)
B5006-1000B	BT50	1"	4.00"	2.36"	2.36"	3/4-16X11/16 (2)
B5016-1000B	BT50	1"	6.00"	2.36"	2.36"	3/4-16X11/16 (2)
B5006-1250B	BT50	1-1/4"	4.00"	2.55"	2.48"	3/4-16X5/8 (2)
B5016-1250B	BT50	1-1/4"	6.00"	2.55"	2.48"	3/4-16X5/8 (2)

**hsBALANCE™ End Mill Holders** come equipped with set screws. Custom sizes and lengths may be made to order. hsBALANCE™ toolholders come with a printout of actual balance condition. For balance specifications, please see page 223.

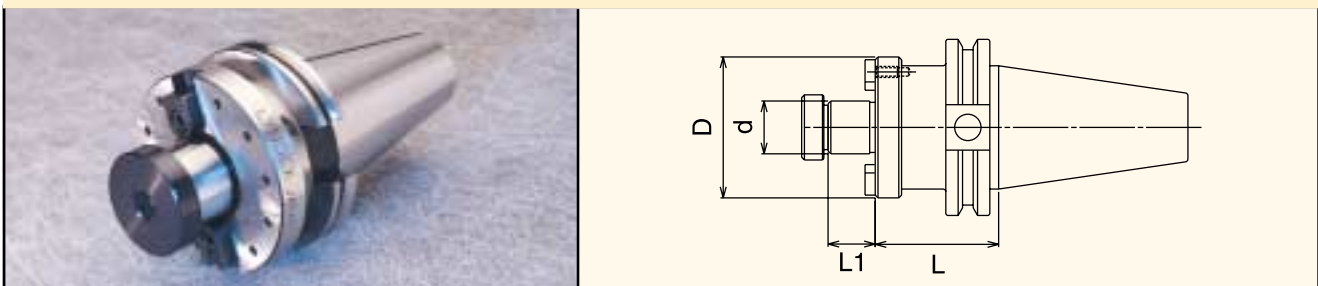
### CT40 *HSBALANCE™* SHELL MILL HOLDERS



Part Number	Taper	d	D	L	L1	Key Size	Arbor Thread
C4001-0750B	CT40	3/4"	2.00"	1.75"	0.67"	5/16"	3/8" -24
C4001-1000B	CT40	1"	2.38"	1.75"	0.67"	3/8"	1/2" -20
C4001-1250B	CT40	1-1/4"	2.88"	2.00"	0.67"	1/2"	5/8" -18
C4001-1500B	CT40	1-1/2"	3.80"	2.00"	0.93"	5/8"	3/4" -16

Note: Use balance-qualified retention studs with these holders. See catalog page 197.

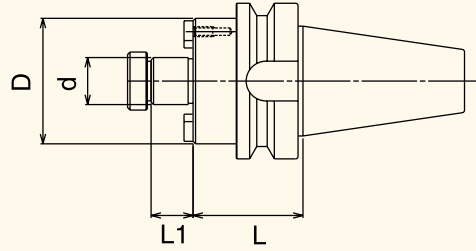
### CT50 *HSBALANCE™* SHELL MILL HOLDERS



Part Number	Taper	d	D	L	L1	Key Size	Arbor Thread
C5001-0750B	CT50	3/4"	2.00"	1.75"	0.67"	5/16"	3/8" -24
C5011-0750B	CT50	3/4"	2.00"	4.00"	0.67"	5/16"	3/8" -24
C5001-1000B	CT50	1"	2.75"	1.75"	0.67"	3/8"	1/2" -20
C5011-1000B	CT50	1"	2.75"	4.00"	0.67"	3/8"	1/2" -20
C5001-1250B	CT50	1-1/4"	2.88"	2.00"	0.67"	1/2"	5/8" -18
C5011-1250B	CT50	1-1/4"	2.88"	4.00"	0.67"	1/2"	5/8" -18
C5001-1500B	CT50	1-1/2"	3.80"	2.00"	0.93"	5/8"	3/4" -16
C5011-1500B	CT50	1-1/2"	3.81"	4.00"	0.93"	5/8"	3/4" -16
C5001-2000B	CT50	2"	4.38"	2.00"	0.93"	3/4"	1" -14
C5011-2000B	CT50	2"	4.38"	4.00"	0.93"	3/4"	1" -14

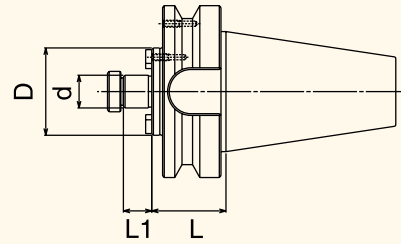
**HSBALANCE™ Shell Mill Holders** come equipped with drive keys and an arbor screw. Custom sizes and lengths may be made to order. **HSBALANCE™** toolholders come with a printout of actual balance condition. For balance specifications, please see page 223.

### BT40 *hsBALANCE™* SHELL MILL HOLDERS



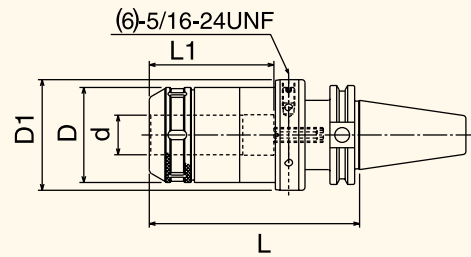
Part Number	Taper	d	D	L	L1	Key Size	Arbor Thread
B4001-0750B	BT40	3/4"	2.00"	1.75"	0.67"	5/16"	3/8"-24
B4001-1000B	BT40	1"	2.38"	1.75"	0.67"	3/8"	1/2"-20
B4001-1250B	BT40	1-1/4"	2.88"	2.00"	0.67"	1/2"	5/8"-18
B4001-1500B	BT40	1-1/2"	3.80"	2.00"	0.93"	5/8"	3/4"-16

### BT50 *hsBALANCE™* SHELL MILL HOLDERS



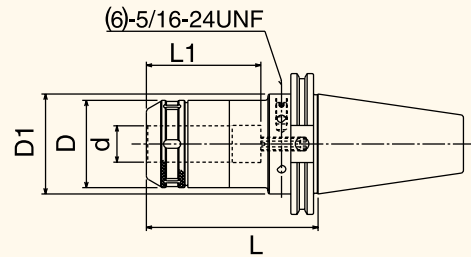
Part Number	Taper	d	D	L	L1	Key Size	Arbor Thread
B5001-0750B	BT50	3/4"	2.00"	1.75"	0.67"	5/16"	3/8"-24
B5001-1000B	BT50	1"	2.38"	1.75"	0.67"	3/8"	1/2"-20
B5001-1250B	BT50	1-1/4"	2.88"	2.00"	0.67"	1/2"	5/8"-18
B5001-1500B	BT50	1-1/2"	3.80"	2.00"	0.93"	5/8"	3/4"-16

### CT40 BALANCEABLE MILLING CHUCKS



Part Number	Taper	Collet Series	Clamping Range	d	L	L1	D	D1
C40MC-0750B	CT40	S750	.125 - .750"	0.75"	5.32"	3.15"	2.05"	2.44"
C40MC-1000B	CT40	S1000	.125 - 1.00"	1.00"	5.32"	3.15"	2.40"	2.80"
C40MC-1250B	CT40	S1250	.187 - 1.25"	1.25"	5.32"	3.15"	2.88"	2.88"

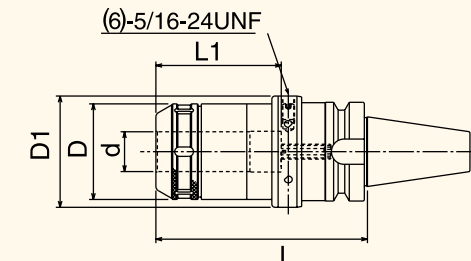
### CT50 BALANCEABLE MILLING CHUCKS



Part Number	Taper	Collet Series	Clamping Range	d	L	L1	D	D1
C50MC-0750B	CT50	S750	.125 - .750"	0.75"	4.73"	3.15"	2.05"	2.75"
C50MC-1000B	CT50	S1000	.125 - 1.00"	1.00"	4.73"	3.15"	2.40"	2.75"
C50MC-1250B	CT50	S1250	.187 - 1.25"	1.25"	4.73"	3.15"	2.88"	2.88"

Note: Use balance-qualified retention studs with these holders. See catalog page 197.

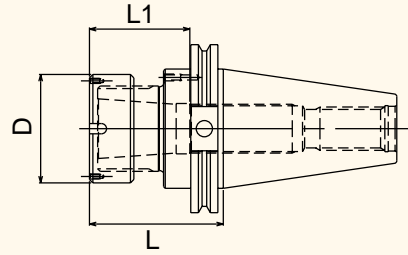
### BT40 BALANCEABLE MILLING CHUCKS



Part Number	Taper	Collet Series	Clamping Range	d	L	L1	D	D1
B40MC-0750B	BT40	S750	.125 - .750"	0.75"	4.73"	3.15"	2.05"	2.44"
B40MC-1000B	BT40	S1000	.125 - 1.00"	1.00"	5.32"	3.15"	2.40"	2.80"
B40MC-1250B	BT40	S1250	.187 - 1.25"	1.25"	5.32"	3.15"	2.88"	2.88"

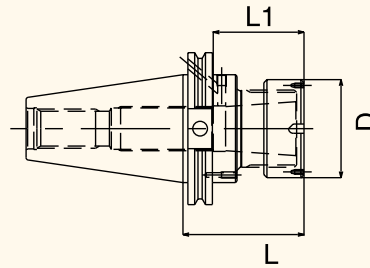
Note: For milling chuck collets, please see pages 86-90.

### CT TAPER *hsBALANCE*<sup>™</sup> 100TG COLLET CHUCKS



Part Number	Taper	Collet Series	Collet Range	L	L1	D
C4007-0750B	CT40	75TG	3/64-3/4"	3.00"	1.60"	1.97"
C4007-1000B	CT40	100TG	3/64-1"	3.75"	2.12"	2.50"
C4017-1000B	CT40	100TG	3/64-1"	5.50"	2.12"	2.50"
C5007-0750B	CT50	75TG	3/64-3/4"	3.50"	1.60"	1.97"
C5007-1000B	CT50	100TG	3/64-1"	3.50"	2.12"	2.50"
C5017-1000B	CT50	100TG	3/64-1"	5.50"	2.12"	2.50"

### CT TAPER *hsBALANCE*<sup>™</sup> 100TG COLLET CHUCKS - DIN

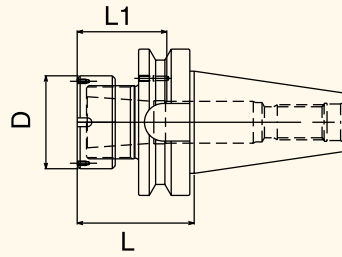


Part Number	Taper	Collet Series	Collet Range	L	L1	D
C4007-1000B-DIN	CT40	100TG	3/64-1"	3.75"	2.52"	2.50"
C5007-1000B-DIN	CT50	100TG	3/64-1"	3.50"	2.12"	2.50"

Note: Use balance-qualified retention studs with these holders. For TG Collets, see pages 107-113.

"DIN" designates suitability for coolant through the flange per DIN 69871 Form B specs.

### BT TAPER *HSBALANCE™* TG COLLET CHUCKS

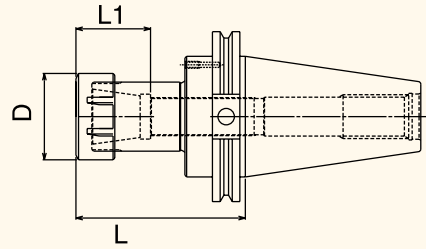


Part Number	Taper	Collet Series	Collet Range	L	L1	D
B3007-0750B	BT30	75TG	3/64-3/4"	3.00"	1.60"	1.97"
B4007-0750B	BT40	75TG	3/64-3/4"	3.00"	1.60"	1.97"
B4007-1000B	BT40	100TG	3/64-1"	3.50"	2.12"	2.50"
B4017-1000B	BT40	100TG	1/16-1"	5.50"	2.12"	2.50"
B5007-0750B	BT50	75TG	3/64-3/4"	3.50"	1.60"	1.97"
B5007-1000B	BT50	100TG	3/64-1"	3.50"	2.12"	2.50"
B5017-1000B	BT50	100TG	1/16-1"	5.50"	2.12"	2.50"

Note: For TG Collets, see pages 107-113.

**HSBALANCE™ Collet Chucks** are supplied with a left-hand-threaded stop screw and a chuck nut. **HSBALANCE™** toolholders come with a printout of actual balance condition. For balance specifications, please see page 223.

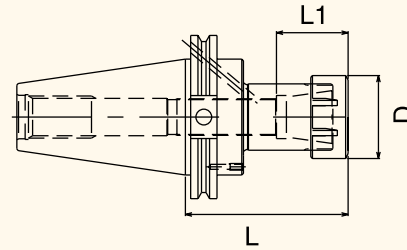
### CT TAPER *hsBALANCE™* ER COLLET CHUCKS



Part Number	Taper	Collet Series	Collet Range	L	L1	D
C4007-0008B	CT40	ER8	.019-.196"	2.50"	0.51"	0.47"
C4017-0008B	CT40	ER8	.019-.196"	4.00"	0.51"	0.47"
C4007-0011B	CT40	ER11	.019-.275"	2.50"	0.65"	0.63"
C4017-0011B	CT40	ER11	.019-.275"	4.00"	0.65"	0.63"
C4007-0016B	CT40	ER16	.019-.406"	2.50"	0.87"	0.87"
C4017-0016B	CT40	ER16	.019-.406"	4.00"	0.87"	0.87"
C4007-0020B	CT40	ER20	.039-.511"	2.50"	1.06"	1.10"
C4017-0020B	CT40	ER20	.039-.511"	4.00"	1.06"	1.10"
C4007-0025B	CT40	ER25	.039-.629"	2.50"	1.18"	1.65"
C4017-0025B	CT40	ER25	.039-.629"	4.00"	1.18"	1.65"
C4007-0032B	CT40	ER32	.078-.787"	3.00"	1.33"	1.97"
C4017-0032B	CT40	ER32	.078-.787"	5.00"	1.33"	1.97"
C5007-0016B	CT50	ER16	.019-.406"	2.50"	0.87"	0.87"
C5017-0016B	CT50	ER16	.019-.406"	4.00"	0.87"	0.87"
C5007-0020B	CT50	ER20	.039-.511"	2.50"	1.06"	1.10"
C5017-0020B	CT50	ER20	.039-.511"	4.00"	1.06"	1.10"
C5007-0025B	CT50	ER25	.039-.629"	2.50"	1.18"	1.65"
C5017-0025B	CT50	ER25	.039-.629"	4.00"	1.18"	1.65"
C5007-0032B	CT50	ER32	.078-.787"	4.00"	1.33"	1.97"
C5017-0032B	CT50	ER32	.078-.787"	6.00"	1.33"	1.97"
C5007-0040B	CT50	ER40	.118-1.023"	4.00"	1.50"	2.48"
C5017-0040B	CT50	ER40	.118-1.023"	6.00"	1.50"	2.48"

Note: Use balance-qualified retention studs with these holders. See catalog page 197. For ER Collets, see pages 121-135.

### CT TAPER *hsBALANCE™* ER COLLET CHUCKS - DIN



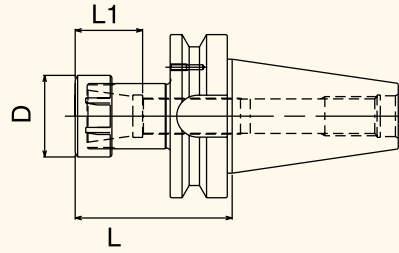
Part Number	Taper	Collet Series	Collet Range	L	L1	D
C4007-0016B-DIN	CT40	ER16	.019-.406"	2.50"	1.06"	0.87"
C4007-0020B-DIN	CT40	ER20	.039-.511"	2.50"	1.06"	1.10"
C4007-0025B-DIN	CT40	ER25	.039-.629"	2.50"	1.18"	1.65"
C4007-0032B-DIN	CT40	ER32	.078-.787"	3.00"	1.77"	1.97"
C5007-0016B-DIN	CT50	ER16	.019-.406"	2.50"	1.06"	0.87"
C5007-0020B-DIN	CT50	ER20	.039-.511"	2.50"	1.06"	1.10"
C5007-0025B-DIN	CT50	ER25	.039-.629"	2.50"	1.18"	1.65"
C5007-0032B-DIN	CT50	ER32	.078-.787"	4.00"	2.08"	1.97"
C5007-0040B-DIN	CT50	ER40	.118-1.023"	4.00"	2.12"	2.48"

Note: "DIN" designates suitability for coolant through the flange per DIN 69871 Form B specs.

**hsBALANCE™ Collet Chucks** are supplied with a left-hand-threaded stop screw and a chuck nut. **hsBALANCE™** toolholders come with a printout of actual balance condition. For balance specifications, please see page 223.



### BT TAPER HS*BALANCE*™ ER COLLET CHUCKS



Part Number	Taper	Collet Series	Collet Range	L	L1	D
B3007-0008B	BT30	ER8	.019-.196"	2.00"	0.51"	0.47"
B3017-0008B	BT30	ER8	.019-.196"	4.00"	0.51"	0.47"
B3007-0011B	BT30	ER11	.019-.275"	2.00"	0.65"	0.63"
B3017-0011B	BT30	ER11	.019-.275"	4.00"	0.65"	0.63"
B3007-0016B	BT30	ER16	.019-.406"	2.00"	0.87"	0.87"
B3017-0016B	BT30	ER16	.019-.406"	4.00"	0.87"	0.87"
B3007-0020B	BT30	ER20	.039-.511"	2.50"	1.06"	1.10"
B3017-0020B	BT30	ER20	.039-.511"	4.00"	1.06"	1.10"
B3007-0025B	BT30	ER25	.039-.629"	2.50"	1.18"	1.65"
B3017-0025B	BT30	ER25	.039-.629"	4.00"	1.18"	1.65"
B3007-0032B	BT30	ER32	.078-.787"	3.00"	1.33"	1.97"
B3017-0032B	BT30	ER32	.078-.787"	5.00"	1.33"	1.97"
B3507-0011B	BT35	ER11	.019-.275"	2.00"	0.65"	0.63"
B3517-0011B	BT35	ER11	.019-.275"	4.00"	0.65"	0.63"
B3507-0016B	BT35	ER16	.019-.406"	2.50"	0.87"	0.87"
B3517-0016B	BT35	ER16	.019-.406"	4.00"	0.87"	0.87"
B3507-0025B	BT35	ER25	.039-.629"	2.50"	1.18"	1.65"
B3517-0025B	BT35	ER25	.039-.629"	4.00"	1.18"	1.65"
B4007-0008B	BT40	ER8	.019-.196"	2.50"	0.51"	0.47"
B4017-0008B	BT40	ER8	.019-.196"	4.00"	0.51"	0.47"
B4007-0011B	BT40	ER11	.019-.275"	2.50"	0.65"	0.63"
B4017-0011B	BT40	ER11	.019-.275"	4.00"	0.65"	0.63"
B4007-0016B	BT40	ER16	.031-.406"	2.50"	0.87"	0.87"
B4017-0016B	BT40	ER16	.031-.406"	4.00"	0.87"	0.87"
B4007-0020B	BT40	ER20	.039-.511"	2.50"	1.06"	1.10"
B4017-0020B	BT40	ER20	.039-.511"	4.00"	1.06"	1.10"
B4007-0025B	BT40	ER25	.039-.629"	2.50"	1.18"	1.65"
B4017-0025B	BT40	ER25	.039-.629"	4.00"	1.18"	1.65"
B4007-0032B	BT40	ER32	.078-.787"	3.00"	1.33"	1.97"
B4017-0032B	BT40	ER32	.078-.787"	5.00"	1.33"	1.97"
B5007-0016B	BT50	ER16	.031-.406"	2.50"	0.87"	0.87"
B5017-0016B	BT50	ER16	.031-.406"	4.00"	0.87"	0.87"
B5007-0020B	BT50	ER20	.039-.511"	2.75"	1.06"	1.10"
B5017-0020B	BT50	ER20	.039-.511"	4.00"	1.06"	1.10"
B5007-0025B	BT50	ER25	.039-.629"	2.50"	1.18"	1.65"
B5017-0025B	BT50	ER25	.039-.629"	4.00"	1.18"	1.65"
B5007-0032B	BT50	ER32	.078-.787"	4.00"	1.33"	1.97"
B5017-0032B	BT50	ER32	.078-.787"	6.00"	1.33"	1.97"

Note: For ER Collets, see pages 121-135.

HS*BALANCE*™ Collet Chucks are supplied with a left-hand-threaded stop screw and a chuck nut.

HS*BALANCE*™ toolholders come with a printout of actual balance condition. For balance specifications, please see page 223.





### HI-SPEED NUT SPANNER WRENCHES

Part Number	Description
08-HSSPAN	ER8 Hi-Speed Nut Spanner Wrench
011-HSSPAN	ER11 Hi-Speed Nut Spanner Wrench
016-HSSPAN	ER16 Hi-Speed Nut Spanner Wrench
020-HSSPAN	ER20 Hi-Speed Nut Spanner Wrench



### REPLACEMENT HI-SPEED ER NUTS

Part Number	Description
08-HSNUT	ER8 Hi-Speed Nut
011-HSNUT	ER11 Hi-Speed Nut
016-HSNUT	ER16 Hi-Speed Nut
020-HSNUT	ER20 Hi-Speed Nut



### REPLACEMENT BALANCEABLE TG NUTS

Part Number	Description
75TG-NUT(B)	75TG Balanceable Nut
100TG-NUT(B)	100TG Balanceable Nut

### PTB-21.2 Two Plane Balancing System

The PTB-21.2 is the latest addition to American Hofmann Corporation's industry leading toolholder balancers. It is a single and/or two-plane balancer offering superior accuracy, hard bearing construction and permanent calibration. It comes standard with a laser pointing indexing aid and tooling compensation.

#### Features

- Hard bearing design using highly sensitive piezoceramic transducers for permanent calibration.
- Single- and/or two-plane balancing without calibration runs.
- Precision spindle adapters for steep taper and HSK toolholders.
- DSP controlled measuring electronic.
- Electrically interlocked transparent safety guard meeting ISO 7475 standards.
- LCD display for rotor setup and unbalance reading in terms of:
  - polar imbalance (g, gmm, ounce, oz. in.)
  - correction position of compensation rings
  - drill depth in mm
  - 3 - 12 components (for balancing w/set screws)
- Auto-indexing system with laser pointing for fast precise unbalance positioning.
- Menu in English, French, German, Italian & Spanish.
- Automatic determination of ISO G Grade.
- Programmable to Lyndex HsBalance™ toolholders.



Technical Specifications	US	Metric
Maximum weight of rotor (including adapter)	44 lb	20 kg
Minimum weight of rotor	2.2 lb	1 kg
Maximum diameter	15.75 in	400 mm
Maximum height of rotor	11.75 in	300mm
Balancing speed	600 - 1400 rpm	600 - 1400 rpm
Sensitivity (displacement of C.G.)	< 60 mircoinch	1.5 micron
Unbalance reduction ratio	95%	95%
Power of motor	400W	400W
Electrical characteristics	115/230V, 60-50Hz	115/230V, 60-50Hz

### PTB-7.2 TWO PLANE BALANCING SYSTEM

The PTB-7.2 is the latest addition to American Hofmann Corporation's industry leading toolholder balancers. It is a single and/or two plane, portable balancer offering superior accuracy, hard bearing construction and permanent calibration. It comes standard with a laser pointing indexing aid and tooling compensation.

#### Features

- Hard bearing design using highly sensitive piezo-ceramic transducers for permanent calibration.
- Single and/or two plane balancing without calibration runs.
- Precision spindle adapters for steep taper and HSK toolholders.
- DSP controlled measuring electronic.
- Electrically interlocked transparent safety guard meeting ISO 7475 standards.
- LCD display for rotor setup and unbalance reading in terms of:
  - polar imbalance (g, gmm, ounce, oz.in).
  - correction position of compensation rings.
  - drill and/or mill depth in mm.
  - 3 -12 components (for balancing w/set screws).
- Auto-indexing system with laser pointing for fast, precise unbalancing positioning.
- Menu in English, French, German, Italian & Spanish.
- Automatic determination of ISO G Grade.
- Programmable to Lyndex *HSBalance™* toolholders.



Technical Specifications	US	Metric
Maximum weight of rotor (including adapter)	15 lb.	7 kg
Minimum weight of rotor	1.5 lb.	.7 kg
Maximum diameter	8 in	200 mm
Maximum height of rotor	10.8 in	275 mm
Balancing speed	600 - 1400 rpm	600 - 1400 rpm
Sensitivity (displacement of C.G.)	< 60 mircoinch	1.5 micron
Unbalance reduction ratio	95%	95%
Power of motor	110W	110W
Electrical characteristics	115/230V, 60-50Hz	115/230V, 60-50Hz





### CT/BT SPINDLES

Part Number	Description
PTB7.2-30	30 Taper Spindle for PTB7.2
PTB7.2-40	40 Taper Spindle for PTB7.2
PTB7.2-50	50 Taper Spindle for PTB7.2



### HSK SPINDLES

Part Number	Description
PTB7.2-HSK40	HSK40 A, C, Adapter for PTB7.2
PTB7.2-HSK50	HSK50 A, C, Adapter for PTB7.2
PTB7.2-HSK63	HSK63 A, C, Adapter for PTB7.2
PTB7.2-HSK80	HSK80 A, C, Adapter for PTB7.2
PTB7.2-HSK100	HSK100 A, C, Adapter for PTB7.2



### HSBALANCE™ BALANCING KITS

Part Number	Description
BAL-KIT (M3)	HSBALANCE Balancing Kit for small I.D. weight holes
BAL-KIT (M4)	HSBALANCE Balancing Kit for large I.D. weight holes

This kit contains the precise weights and securing screws used to custom rebalance your HSBALANCE™ Toolholders to assure that individual cutting packages (consisting of a toolholder, a cutting tool and a retention stud) meet the most demanding G-tolerance specs. The kit is sufficient for several re-balancings and includes a long arm magnetic hex wrench.