

Hyper Spindle HP - H

Speed Increaser

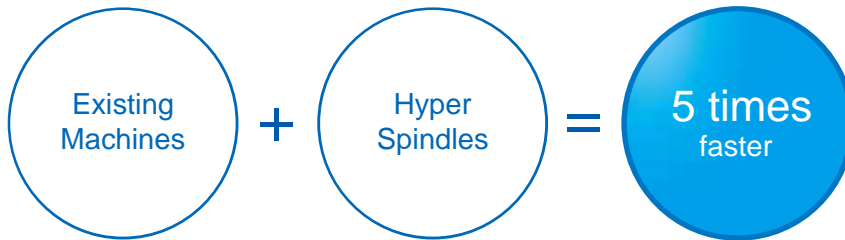
HP-H

30000min⁻¹



Advantages

- Increases tooling RPMs 5 times.
- Maximum 30,000 min⁻¹ models available.
- Assures low noise and vibration by precision ground steel gears.
- Tool shanks as small as 0.5mm (0.02in) (FDC 07 series), up to 12mm (0.472in) (FDC 12 series) can be chucked.
- Overheating is prevented by the cooling turbo fan.



Cutting data

	BT50-HP07H-150	BT50-HP07H-150	BT50-HP12H-165
Work material	Aluminium alloys (A2017)		
Rotational speed (min ⁻¹)	30000		
Feed(in/min)	1200(47.28)	900(47.28)	1200(47.28)
Mil dia(in)	6.0(0.24)	3.0(0.12)	12.0(0.47)
Depth of cut	<p>Two-flute endmill (HSS)</p>	<p>Two-flute carbide endmill</p>	<p>Two-flute carbide endmill</p>

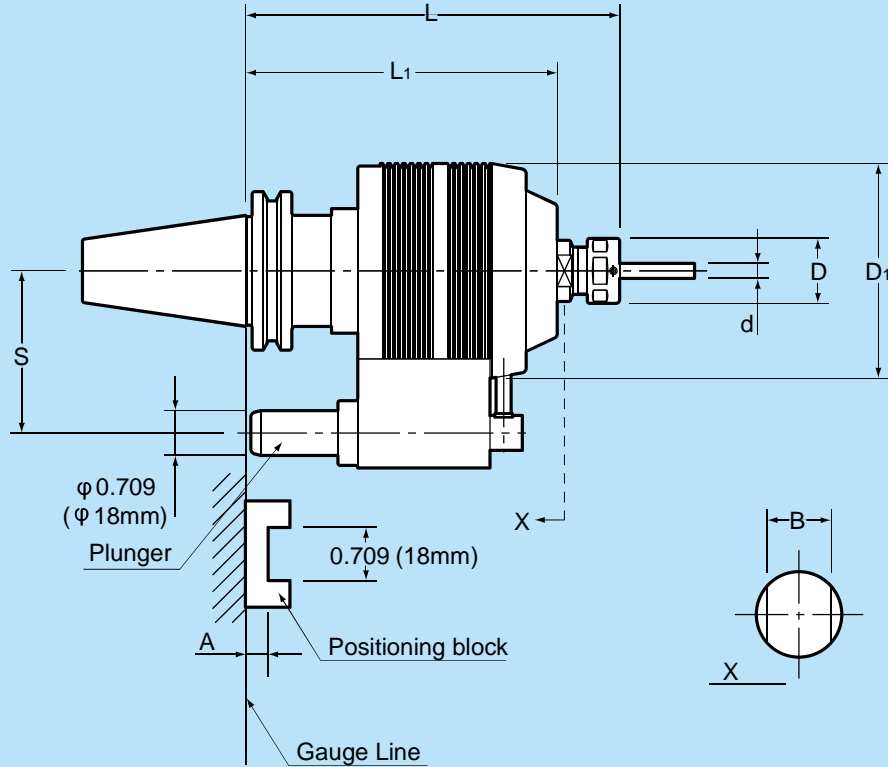
Recommended tightening torque

Size	Spanner for cap	Spanner for head shank	Recommended torque value
HP07H	S - 0	16 mm	10 - 15Nm (80 - 133lbf-in)
HP09H	S - 1L	21 mm	30 - 35Nm (266 - 310lbf-in)
HP12H	S - 3L	21 mm	35 - 40Nm (310 - 354lbf-in)

Maximum rotational speed and chucking accuracy

Size	Collet size	Speed ratio	Max. speed	Chucking accuracy
HP07H	FDC07	1 : 5	30,000min ⁻¹ (M/C6,000min ⁻¹)	10µm / 4D (0.4µin / 4D)
HP09H	FDC09			
HP12H	FDC12			

Hyper Spindle CAT / HP - H



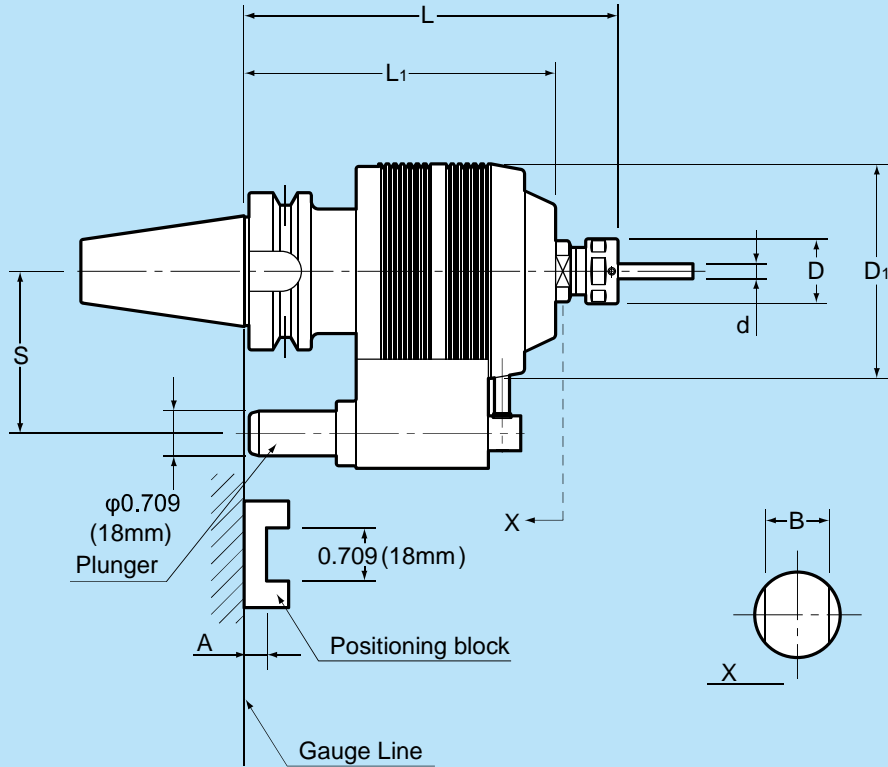
Part Number	d	L	L ₁	D	D ₁	S	B	Gear ratio	MAX rpm	Nut	Collet	Spanner
CAT40	-HP07H -150* -180*	0.020 - 0.276	$\frac{5.906}{7.087}$	0.906			0.630 (16mm)	5:1	30,000	HDP-07A	FDC-07-AA	S-0
	-HP09H -150* -180*	0.098 - 0.354	$\frac{5.906}{7.087}$	1.024	3.386	2.559 (65mm)	0.827 (21mm)			HDP-09	FDC-09-AA	S-1L
	-HP12H -165* -180*	0.098 - 0.472	$\frac{6.496}{7.087}$	1.260						HDP-12	FDC-12-AA	S-3L
CAT50	-HP07H -150* -180*	0.020 - 0.276	$\frac{5.906}{7.087}$	0.906			0.630 (16mm)	5:1	30,000	HDP-07A	FDC-07-AA	S-0
	-HP09H -150* -180*	0.098 - 0.354	$\frac{5.906}{7.087}$	1.024	3.386	3.150 (80mm)	0.827 (21mm)			HDP-09	FDC-09-AA	S-1L
	-HP12H -165* -180*	0.098 - 0.472	$\frac{6.496}{7.087}$	1.260						HDP-12	FDC-12-AA	S-3L

	Plunger				
	No.1	No.2	No.3	No.4	No.5
All Type	A +0.594 ~ +0.945	A +0.240 ~ +0.591	A -0.114 ~ +0.236	A -0.469 ~ -0.118	A -0.823 ~ -0.472

Ordering Example CAT40-HP09H-150- * * : Plunger No.

- Collet and spanner (page 55 - 61) are sold separately.
- Use " AA " class collet only.
- Positioning blocks are shown on page 165.
- NT standard A dimension is 0.236" (6mm).

Hyper Spindle BT / HP - H



Part Number	d	L	L ₁	D	D ₁	S	B	Gear ratio	MAX rpm	Nut	Collet	Spanner
BT40	-HP07H -150* -180*	0.020 - 0.276	$\frac{5.906}{7.087}$	0.906			0.630 (16mm)	5:1	30,000	HDP-07A	FDC-07-AA	S-0
	-HP09H -150* -180*	0.098 - 0.354	$\frac{5.906}{7.087}$	4.921	1.024	3.386	2.559 (65mm)			HDP-09	FDC-09-AA	S-1L
	-HP12H -165* -180*	0.098 - 0.472	$\frac{6.496}{7.087}$	1.260			0.827 (21mm)			HDP-12	FDC-12-AA	S-3L
BT50	-HP07H -150* -180*	0.020 - 0.276	$\frac{5.906}{7.087}$	0.906			0.630 (16mm)	5:1	30,000	HDP-07A	FDC-07-AA	S-0
	-HP09H -150* -180*	0.098 - 0.354	$\frac{5.906}{7.087}$	4.921	1.024	3.386	3.150 (80mm)			HDP-09	FDC-09-AA	S-1L
	-HP12H -165* -180*	0.098 - 0.472	$\frac{6.496}{7.087}$	1.260			0.827 (21mm)			HDP-12	FDC-12-AA	S-3L

	Plunger				
	No.1	No.2	No.3	No.4	No.5
All Type	A	A	A	A	A
	+0.594 ~ +0.945	+0.240 ~ +0.591	-0.114 ~ +0.236	-0.469 ~ -0.118	-0.823 ~ -0.472

Ordering Example

BT40-HP09H-150-*

* : Plunger No.

- Collet and spanner (page 55 - 61) are sold separately.
- Use "AA" class collet only.
- Positioning blocks are shown on page 165.
- NT standard A dimension is 0.236" (6mm).