CV Shank Tools

- Kennametal's "balanced-by-design" CV toolholders meet or exceed ANSI B5.50 specifications and recent standard updates. The detent hole in the shallow drive slot is deepened to a controlled depth. This modification enables the toolholder still to be loaded in the ATC in only one position, but now corrects the unnecessary inherent imbalance of the CV taper flange to significantly reduce spindle wear at higher speeds.
- The 7/24 shank cones are produced to the highest industry standards according to ISO-1947, with a taper accuracy of AT3 or better to provide optimum fit between the spindle and toolholder.
- Essential surfaces are not black-oxide, to provide better fitments.
- All non-critical surfaces are black-oxide, except for the high-performance toolholders.
- Through-coolant is a standard feature when permitted by toolholder design.
- Depending on the application, Kennametal's CV40 and CV50 balanced-by-design toolholders perform effectively up to 12,000 rpm. All other toolholders are effective at speeds up to 10,000 rpm, unless stated otherwise. Kennametal recommends that toolholder assemblies (toolholder, components, retention knob, collets, cutting tools) should be balanced when used at speeds in excess of 10,000 rpm.

IMPORTANT!

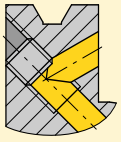
- All critical surfaces must be protected from damage. Neglect from dings and scratches will impair accuracy and performance.
- All assembly components must be clean. Never overtighten the components; this can permanently destroy the function and accuracy of the toolholder.

For retention knobs, please see page D50.

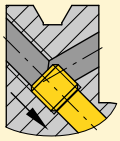
Form B coolant

Some toolholders are equipped with the form B coolant-style feature.

CAUTION!

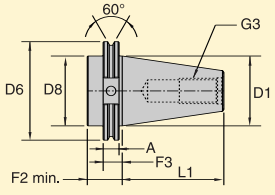


Toolholders are factory set to the form B coolant supply position. When relocating coolant position screws, use of a removable liquid (small screw thread locker) is recommended.



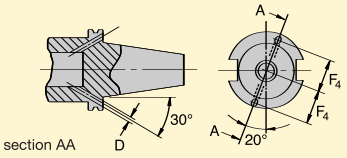
Possible variation of coolant supply to DIN 69871 form AD; tightening screws will stop coolant from escaping through the flange.

Caterpillar (inch) CV – ANSI B5.50



	D1	D6	D8	L1	F2	F3	A	G3
30	1.250 (31,75)	1.812 (46,02)	1.250 (31,75)	1.875 (47,63)	1.375 (35,00)	.750 (19,05)	.125 (3,18)	1/2-13 thread
40	1.750 (44,45)	2.500 (63,05)	1.750 (44,45)	2.687 (68,25)	1.375 (35,00)	.750 (19,05)	.125 (3,18)	5/8-11 thread
45	2.250 (57,15)	3.250 (82,50)	2.250 (57,15)	3.250 (82,55)	1.375 (35,00)	.750 (19,05)	.125 (3,18)	3/4-10 thread
50	2.750 (69,85)	3.875 (98,41)	2.750 (69,85)	4.000 (101,60)	1.375 (35,00)	.750 (19,05)	.125 (3,18)	1-8 thread
60	4.250 (107,95)	5.500 (139,70)	4.250 (107,95)	6.375 (161,93)	1.500 (38,10)	.750 (19,05)	.125 (3,18)	1 1/4-7 thread

Form B – Flange Coolant Entry Ports



	D	F4 ±.004
30	.157 (4,00)	.827 (21,00)
40	.157 (4,00)	1.063 (27,00)
45	.197 (5,00)	1.378 (35,00)
50	.236 (6,00)	1.654 (42,00)