

Recommended tool steels for press tooling

TABLE 14-10 Recommended Tool Steels for Press Tooling

Application	AISI steel type*	Hardness, Rockwell C
Blanking dies and punches (short runs)	W2	57–65
	O1	58–62
	A2	58–62
Blanking dies and punches (long runs)	A2	58–62
	D2	58–62
	M4	58–62
Bending dies	O1	58–62
	A2	58–62
	D2	58–62
Coining dies	S1	52–55
	W1	58–62
	A2	58–62
	D2	58–62
Drawing dies	D4	58–62
	W1 or W2	58–64
	O1	58–62
	O6	58–62
	A2	58–62
Dies (cold extrusion)	D2	58–62
	D4	58–62
	D2	60–64
Dies (embossing)	M4	63–65
	O1	59–61
	O2	59–61
	A2	59–61
Dies (lamination)	D2	59–61
	M2	58–62
	D2	58–62
	D4	58–62
	M4	60–62
Dies (sizing)	T15	60–62
	D7	60–62
	A7	60–62
	W2	61–64
	M2	61–64
Dies and punches (trimming)	D2	61–64
	M4	61–64
	W2	57–60
	A2	57–60
	D2	57–60
Punches (embossing)	D4	57–60
	M4	57–60
	S1	59–61
Punches (trimming)	S5	59–61
	W2	57–60
Punches (notching)	O1	57–60
	W2	57–60
	M2	57–60

*Several of the other tool steels listed in Table 14-9 are also used for these applications, depending on the preferences, special applications, and heat-treating facilities found in certain plants.

Source: Frank W. Wilson, *Die Design Handbook*, New York, 1965. Reprinted with permission from The McGraw-Hill Companies.

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