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# MS35493 screw — round, cross-recessed

MS35493: wood screw, round head, steel (cadmium or zinc plated) or brass, sizes 2 to 16.

## Specification

| Item | Value |
|---|---|
| Head | round, cross-recessed |
| Drive | cross-recess (MS9006) |
| Thread series | Wood screw thread; threads per inch by size (maximum variation ±10 percent) |
| Material | Carbon steel 1010 thru 1022 or 1108 thru 1118 (QQ-S-631, QQ-S-634, QQ-S-637 or QQ-W-405); brass, alloy 260 or 268, quarter-hard (QQ-B-613 or QQ-B-626), or alloy 260 or 270, quarter-hard (QQ-W-321) |

| Item | Value |
|---|---|
| Finish | Steel: cadmium plated (QQ-P-416, Type II, Class 3, or MIL-C-81562, Type II, Class 3) or zinc coated (QQ-Z-325, Type II, Class 3, or MIL-C-81562, Type II, Class 3). Brass: plain, uncoated |
| Procurement | FF-S-111 |
| Status | Check the current issue before design use. Rev. E (15 Aug 1974). Notice 1 (31 Jan 1995): cancelled; future acquisitions to refer to (CID) A-A-55605. Notice 2 (1 Feb 1996): reinstated for acquisition. Notice 3 (18 Nov 1999): inactive for new design; used only for replacement purposes. Notices 4 (Sep 2018) and 5 (Dec 2024): remains inactive for new design; valid for use. Sizes 3, 5, 7 and 9 are inactive for new design after 15 Aug 1974. |

## Dimensions by size

| Dimension, in | No. 2 | No. 3 | No. 4 | No. 5 | No. 6 | No. 7 | No. 8 | No. 9 | No. 10 | No. 12 | No. 14 | No. 16 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| D screw dia | .079 - .090; basic .086 | .092 - .103; basic .099 | .105 - .116; basic .112 | .118 - .129; basic .125 | .131 - .142; basic .138 | .144 - .155; basic .151 | .157 - .168; basic .164 | .170 - .181; basic .177 | .183 - .194; basic .190 | .209 - .220; basic .216 | .235 - .246; basic .242 | .261 - .272; basic .268 |
| A head dia | .146 - .162 | .169 - .187 | .193 - .211 | .217 - .236 | .240 - .260 | .264 - .285 | .287 - .309 | .311 - .334 | .334 - .359 | .382 - .408 | .429 - .457 | .476 - .506 |
| H head height | .059 - .069 | .067 - .078 | .075 - .086 | .083 - .095 | .091 - .103 | .099 - .111 | .107 - .120 | .115 - .128 | .123 - .137 | .139 - .153 | .155 - .170 | .171 - .187 |
| R fillet radius max | .02 | .02 | .02 | .03 | .03 | .03 | .03 | .03 | .03 | .03 | .05 | .05 |
| driver size | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 |
| threads per inch | 26 | 24 | 22 | 20 | 18 | 16 | 15 | 14 | 13 | 11 | 10 | 9 |

Inches, as tabulated in MS35493 Rev. E Table I; letters as on the standard's drawing. D: basic, maximum and minimum screw diameter.

## Part numbers and lengths

**No. 2** 10 part numbers

| Part no. | Length, in | Tol. |
|---|---|---|
| MS35493-1 | .25 | +.00/-.03 |
| MS35493-2 | .38 | +.00/-.03 |
| MS35493-3 | .50 | +.00/-.03 |
| MS35493-4 | .62 | +.00/-.03 |
| MS35493-5 | .75 | +.00/-.05 |
| MS35493-201 | .25 | +.00/-.03 |
| MS35493-202 | .38 | +.00/-.03 |
| MS35493-203 | .50 | +.00/-.03 |
| MS35493-204 | .62 | +.00/-.03 |
| MS35493-205 | .75 | +.00/-.05 |

**No. 3** 8 part numbers

| Part no. | Length, in | Tol. |
|---|---|---|
| MS35493-8 | .38 | +.00/-.03 |
| MS35493-9 | .50 | +.00/-.03 |
| MS35493-10 | .62 | +.00/-.03 |
| MS35493-11 | .75 | +.00/-.05 |
| MS35493-910 | .38 | +.00/-.03 |
| MS35493-911 | .50 | +.00/-.03 |
| MS35493-912 | .62 | +.00/-.03 |
| MS35493-913 | .75 | +.00/-.05 |

**No. 4** 16 part numbers

| Part no. | Length, in | Tol. |
|---|---|---|
| MS35493-13 | .25 | +.00/-.03 |
| MS35493-14 | .38 | +.00/-.03 |
| MS35493-15 | .50 | +.00/-.03 |
| MS35493-16 | .62 | +.00/-.03 |
| MS35493-17 | .75 | +.00/-.05 |
| MS35493-18 | .88 | +.00/-.05 |
| MS35493-19 | 1.00 | +.00/-.05 |
| MS35493-20 | 1.25 | +.00/-.05 |
| MS35493-21 | 1.50 | +.00/-.05 |
| MS35493-206 | .25 | +.00/-.03 |
| MS35493-207 | .38 | +.00/-.03 |
| MS35493-208 | .50 | +.00/-.03 |
| MS35493-209 | .62 | +.00/-.03 |
| MS35493-210 | .75 | +.00/-.05 |
| MS35493-211 | .88 | +.00/-.05 |
| MS35493-212 | 1.00 | +.00/-.05 |

**No. 5** 12 part numbers

| Part no. | Length, in | Tol. |
|---|---|---|
| MS35493-23 | .38 | +.00/-.03 |
| MS35493-24 | .50 | +.00/-.03 |
| MS35493-25 | .62 | +.00/-.03 |
| MS35493-26 | .75 | +.00/-.05 |
| MS35493-27 | .88 | +.00/-.05 |
| MS35493-28 | 1.00 | +.00/-.05 |
| MS35493-215 | .38 | +.00/-.03 |
| MS35493-216 | .50 | +.00/-.03 |
| MS35493-217 | .62 | +.00/-.03 |
| MS35493-218 | .75 | +.00/-.05 |
| MS35493-219 | .88 | +.00/-.05 |
| MS35493-220 | 1.00 | +.00/-.05 |

**No. 6** 20 part numbers

| Part no. | Length, in | Tol. |
|---|---|---|
| MS35493-32 | .38 | +.00/-.03 |
| MS35493-33 | .50 | +.00/-.03 |
| MS35493-34 | .62 | +.00/-.03 |
| MS35493-35 | .75 | +.00/-.05 |
| MS35493-36 | .88 | +.00/-.05 |
| MS35493-37 | 1.00 | +.00/-.05 |
| MS35493-38 | 1.25 | +.00/-.05 |
| MS35493-39 | 1.50 | +.00/-.05 |
| MS35493-40 | 1.75 | +.00/-.06 |
| MS35493-41 | 2.00 | +.00/-.06 |
| MS35493-42 | 2.25 | +.00/-.06 |
| MS35493-901 | 2.50 | +.00/-.06 |
| MS35493-223 | .38 | +.00/-.03 |
| MS35493-224 | .50 | +.00/-.03 |
| MS35493-225 | .62 | +.00/-.03 |
| MS35493-226 | .75 | +.00/-.05 |
| MS35493-227 | .88 | +.00/-.05 |
| MS35493-228 | 1.00 | +.00/-.05 |
| MS35493-229 | 1.25 | +.00/-.05 |
| MS35493-230 | 1.50 | +.00/-.05 |

**No. 7** 15 part numbers

| Part no. | Length, in | Tol. |
|---|---|---|
| MS35493-43 | .50 | +.00/-.03 |
| MS35493-44 | .62 | +.00/-.03 |
| MS35493-45 | .75 | +.00/-.05 |
| MS35493-46 | .88 | +.00/-.05 |
| MS35493-47 | 1.00 | +.00/-.05 |
| MS35493-48 | 1.25 | +.00/-.05 |
| MS35493-49 | 1.50 | +.00/-.05 |
| MS35493-232 | .38 | +.00/-.03 |
| MS35493-233 | .50 | +.00/-.03 |
| MS35493-234 | .62 | +.00/-.03 |
| MS35493-235 | .75 | +.00/-.05 |
| MS35493-236 | .88 | +.00/-.05 |
| MS35493-237 | 1.00 | +.00/-.05 |
| MS35493-238 | 1.25 | +.00/-.05 |
| MS35493-239 | 1.50 | +.00/-.05 |

**No. 8** 23 part numbers

| Part no. | Length, in | Tol. |
|---|---|---|
| MS35493-50 | .38 | +.00/-.03 |
| MS35493-51 | .50 | +.00/-.03 |
| MS35493-52 | .62 | +.00/-.03 |
| MS35493-53 | .75 | +.00/-.05 |
| MS35493-54 | .88 | +.00/-.05 |
| MS35493-55 | 1.00 | +.00/-.05 |
| MS35493-56 | 1.25 | +.00/-.05 |
| MS35493-57 | 1.50 | +.00/-.05 |
| MS35493-58 | 1.75 | +.00/-.06 |
| MS35493-59 | 2.00 | +.00/-.06 |
| MS35493-60 | 2.25 | +.00/-.06 |
| MS35493-61 | 2.50 | +.00/-.06 |
| MS35493-62 | 2.75 | +.00/-.06 |
| MS35493-63 | 3.00 | +.00/-.09 |
| MS35493-242 | .50 | +.00/-.03 |
| MS35493-243 | .62 | +.00/-.03 |
| MS35493-244 | .75 | +.00/-.05 |
| MS35493-245 | .88 | +.00/-.05 |
| MS35493-246 | 1.00 | +.00/-.05 |
| MS35493-247 | 1.25 | +.00/-.05 |
| MS35493-248 | 1.50 | +.00/-.05 |
| MS35493-249 | 1.75 | +.00/-.06 |
| MS35493-250 | 2.00 | +.00/-.06 |



Reference data. The aircraft manufacturer's documentation (SRM / IPC) takes precedence.

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**No. 9** 14 part numbers

| Part no. | Length, in | Tol. |
|---|---|---|
| MS35493-65 | .75 | +.00/-.05 |
| MS35493-66 | .88 | +.00/-.05 |
| MS35493-67 | 1.00 | +.00/-.05 |
| MS35493-68 | 1.25 | +.00/-.05 |
| MS35493-69 | 1.50 | +.00/-.05 |
| MS35493-70 | 1.75 | +.00/-.06 |
| MS35493-71 | 2.00 | +.00/-.06 |
| MS35493-253 | .75 | +.00/-.05 |
| MS35493-254 | .88 | +.00/-.05 |
| MS35493-255 | 1.00 | +.00/-.05 |
| MS35493-256 | 1.25 | +.00/-.05 |
| MS35493-257 | 1.50 | +.00/-.05 |
| MS35493-258 | 1.75 | +.00/-.06 |
| MS35493-259 | 2.00 | +.00/-.06 |

**No. 10** 24 part numbers

| Part no. | Length, in | Tol. |
|---|---|---|
| MS35493-74 | .50 | +.00/-.03 |
| MS35493-75 | .62 | +.00/-.03 |
| MS35493-76 | .75 | +.00/-.05 |
| MS35493-77 | .88 | +.00/-.05 |
| MS35493-78 | 1.00 | +.00/-.05 |
| MS35493-79 | 1.25 | +.00/-.05 |
| MS35493-80 | 1.50 | +.00/-.05 |
| MS35493-81 | 1.75 | +.00/-.06 |
| MS35493-82 | 2.00 | +.00/-.06 |
| MS35493-83 | 2.25 | +.00/-.06 |
| MS35493-84 | 2.50 | +.00/-.06 |
| MS35493-85 | 2.75 | +.00/-.06 |
| MS35493-86 | 3.00 | +.00/-.09 |
| MS35493-87 | 3.50 | +.00/-.09 |
| MS35493-261 | .62 | +.00/-.03 |
| MS35493-262 | .75 | +.00/-.05 |
| MS35493-263 | .88 | +.00/-.05 |
| MS35493-264 | 1.00 | +.00/-.05 |
| MS35493-265 | 1.25 | +.00/-.05 |
| MS35493-266 | 1.50 | +.00/-.05 |
| MS35493-267 | 1.75 | +.00/-.06 |
| MS35493-268 | 2.00 | +.00/-.06 |
| MS35493-269 | 2.25 | +.00/-.06 |
| MS35493-270 | 2.50 | +.00/-.06 |

**No. 12** 25 part numbers

| Part no. | Length, in | Tol. |
|---|---|---|
| MS35493-88 | .62 | +.00/-.03 |
| MS35493-89 | .75 | +.00/-.05 |
| MS35493-90 | .88 | +.00/-.05 |
| MS35493-91 | 1.00 | +.00/-.05 |
| MS35493-92 | 1.25 | +.00/-.05 |
| MS35493-93 | 1.50 | +.00/-.05 |
| MS35493-94 | 1.75 | +.00/-.06 |
| MS35493-95 | 2.00 | +.00/-.06 |
| MS35493-96 | 2.25 | +.00/-.06 |
| MS35493-97 | 2.50 | +.00/-.06 |
| MS35493-98 | 2.75 | +.00/-.06 |
| MS35493-99 | 3.00 | +.00/-.09 |
| MS35493-100 | 3.50 | +.00/-.09 |
| MS35493-902 | 4.00 | +.00/-.09 |
| MS35493-273 | .75 | +.00/-.05 |
| MS35493-274 | .88 | +.00/-.05 |
| MS35493-275 | 1.00 | +.00/-.05 |
| MS35493-276 | 1.25 | +.00/-.05 |
| MS35493-277 | 1.50 | +.00/-.05 |
| MS35493-278 | 1.75 | +.00/-.06 |
| MS35493-279 | 2.00 | +.00/-.06 |
| MS35493-280 | 2.25 | +.00/-.06 |
| MS35493-281 | 2.50 | +.00/-.06 |
| MS35493-283 | 3.00 | +.00/-.09 |
| MS35493-284 | 3.50 | +.00/-.09 |

**No. 14** 23 part numbers

| Part no. | Length, in | Tol. |
|---|---|---|
| MS35493-101 | .75 | +.00/-.05 |
| MS35493-102 | .88 | +.00/-.05 |
| MS35493-103 | 1.00 | +.00/-.05 |
| MS35493-104 | 1.25 | +.00/-.05 |
| MS35493-105 | 1.50 | +.00/-.05 |
| MS35493-106 | 1.75 | +.00/-.06 |
| MS35493-107 | 2.00 | +.00/-.06 |
| MS35493-108 | 2.25 | +.00/-.06 |
| MS35493-109 | 2.50 | +.00/-.06 |
| MS35493-110 | 2.75 | +.00/-.06 |
| MS35493-111 | 3.00 | +.00/-.09 |
| MS35493-903 | 3.50 | +.00/-.09 |
| MS35493-904 | 4.00 | +.00/-.09 |
| MS35493-905 | 4.50 | +.00/-.09 |
| MS35493-906 | 5.00 | +.00/-.09 |
| MS35493-286 | 1.00 | +.00/-.05 |
| MS35493-287 | 1.25 | +.00/-.05 |
| MS35493-288 | 1.50 | +.00/-.05 |
| MS35493-289 | 1.75 | +.00/-.06 |
| MS35493-290 | 2.00 | +.00/-.06 |
| MS35493-291 | 2.25 | +.00/-.06 |
| MS35493-292 | 2.50 | +.00/-.06 |
| MS35493-294 | 3.00 | +.00/-.09 |

**No. 16** 13 part numbers

| Part no. | Length, in | Tol. |
|---|---|---|
| MS35493-112 | 1.00 | +.00/-.05 |
| MS35493-113 | 1.25 | +.00/-.05 |
| MS35493-114 | 1.50 | +.00/-.05 |
| MS35493-115 | 1.75 | +.00/-.06 |
| MS35493-116 | 2.00 | +.00/-.06 |
| MS35493-117 | 2.25 | +.00/-.06 |
| MS35493-118 | 2.50 | +.00/-.06 |
| MS35493-119 | 2.75 | +.00/-.06 |
| MS35493-120 | 3.00 | +.00/-.09 |
| MS35493-121 | 3.50 | +.00/-.09 |
| MS35493-122 | 4.00 | +.00/-.09 |
| MS35493-123 | 4.50 | +.00/-.09 |
| MS35493-124 | 5.00 | +.00/-.09 |

## How to read the part number

| Part | Meaning |
|---|---|
| Format | MS35493-<dash number> |
| Example | MS35493-1 |
| Length tolerance, .25 to .62 | +.00/-.03 |
| Length tolerance, .75 to 1.50 | +.00/-.05 |
| Length tolerance, 1.75 to 2.75 | +.00/-.06 |
| Length tolerance, 3.00 to 5.00 | +.00/-.09 |
| Dash | Dash number from Table II (steel, cadmium or zinc plated) or Table III (brass, plain) selects size, length and material |

## Notes

- Threaded length approximately 2/3 L.
- Recess in accordance with MS9006.
- Dash numbers of sizes 3, 5, 7 and 9 are inactive for new design after 15 August 1974 (crossed out in Tables II and III).
- Supersedes AN545 in part. Steel cadmium plated screws of revision A and brass black oxide coated screws of revision B were cancelled in 1967 and 1968; Table IV of the standard gives their replacements.
- Part number: the MS number plus the dash number, for example MS35493-1.

**SOURCES** · MS35493 Rev. E, 15 Aug 1974 — Screw, Wood, Round Head, Cross-Recessed, Steel and Brass

SCAN · OPEN THIS DATA SHEET
theaviationpoint.com/parts/screws/ms35493/



Reference data. The aircraft manufacturer's documentation (SRM / IPC) takes precedence.

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