

NOTICE: When Government drawings, specifications, or other data are used for any purpose other than in connection with a definitely related Government procurement operation, the United States Government thereby incurs no responsibility, and the fact that the Government may have furnished, furnished, or in any way supplied the said drawings, specifications, or other data is not to be regarded as an implied warranty of any kind, or as an assumption of liability on the part of the Government, or as an endorsement of the quality or value of the material, or as a representation of the results to be obtained therefrom, or as a guarantee of the safety or usefulness of the material, or as a representation of the results to be obtained therefrom, or as a representation of the results to be obtained therefrom, or as a representation of the results to be obtained therefrom.

NOTE: This drawing was approved by joint action of the Air Force and Navy Departments as the Air Force-Navy standard for this product. This drawing supersedes all antecedent standard drawings for the same product and shall become effective for the procurement of aeronautical supplies, or for use in new design, on the date 6 months after the latest date of approval shown.

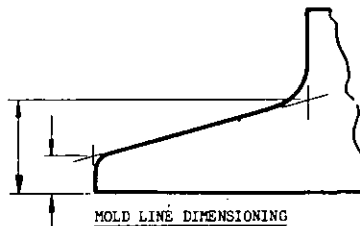
GENERAL

- A DIMENSIONING OF THE SECTION SHALL FACILITATE INSPECTION OF THE EXTRUSION AT ANY POINT THROUGHOUT ITS LENGTH
- B DIMENSIONING SHALL NOT RESULT IN CONFLICTING TOLERANCES.
- C ALL DIMENSIONS AND NOTES SHALL BE PLACED ON THE EXTRUSION DRAWING SO THAT THEY READ FROM A HORIZONTAL PLANE.
- D LINEAR DIMENSIONS SHALL BE SPECIFIED IN DECIMALS, PREFERABLY IN THOUSANDTHS OF AN INCH.

SPECIFIC

- E METAL TO METAL DIMENSIONING AND THE USE OF MOLD LINES.

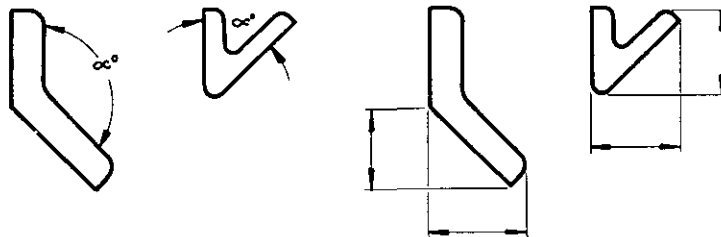
- 1 DIMENSIONING SHALL BE METAL TO METAL EXCEPT WHEN THE USE OF MOLD LINES IS NECESSARY. NOTE: THE TERM "MOLD LINE" REFERS TO THE IMAGINARY EXTENSION OF SURFACES ENDING IN A POINT OF INTERSECTION EITHER INSIDE OR OUTSIDE THE CROSS-SECTIONAL PERIMETER.



MOLD LINE DIMENSIONING

- 2 UNDER THE CONDITIONS REQUIRING MOLD LINE DIMENSIONING, PROVISION MAY HAVE TO BE MADE FOR ADDITIONAL TOLERANCES IN RECOGNITION OF DIFFICULTY IN INSURING CONFORMANCE TO STANDARD TOLERANCES.

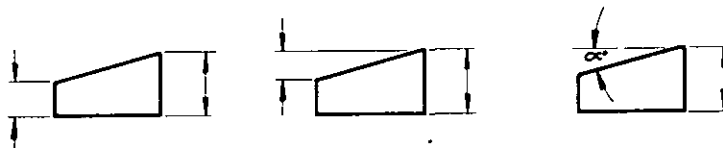
- F ANGLES SHOULD BE SPECIFIED INSTEAD OF OFFSETS IN DEPICTING THE RELATIONSHIP OF SURFACES NOT AT 90° TO EACH OTHER. IF CLOSER THAN STANDARD ANGULARITY TOLERANCES ARE REQUIRED, IT SHALL BE PERMISSIBLE TO SPECIFY WHAT TOLERANCE IS NEEDED ON THE ANGLE (PREFERRED METHOD), OR TO DIMENSION OFFSETS WHICH MAY REQUIRE ADDITIONAL TOLERANCES IN RECOGNITION OF DIFFICULTY IN INSURING CONFORMANCE TO STANDARD TOLERANCES.



(PREFERRED)

(PERMISSIBLE)

- G TAPERED SURFACES MAY BE DIMENSIONED BY METAL THICKNESSES AT SPECIFIED POINTS, BY OFFSETS, OR BY ANGLES. WHEN THE RELATIONSHIP OF THE SURFACES IS GREATER THAN 15°, METAL THICKNESS OR OFFSET DIMENSIONS MAY REQUIRE GREATER THAN STANDARD TOLERANCES IN RECOGNITION OF DIFFICULTY IN INSURING CONFORMANCE TO STANDARD TOLERANCES.



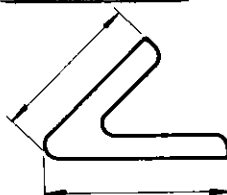
OPTIONAL METHODS

H ADJOINING SURFACES

- 1 AT ANY ANGLE 90° OR LESS SHALL HAVE THEIR LENGTHS DEFINED BY DIMENSIONS PARALLEL TO THE SURFACES.

Ⓐ CANCELED AFTER 9 MAY 1979

NO SUPERSEDING STANDARD



Ⓐ DENOTES CHANGE

AIR FORCE-NAVY AERONAUTICAL DESIGN STANDARD
STANDARD DIMENSIONING SYSTEM FOR EXTRUDED SECTIONS

AND10481

SHEET 1 OF 2

NOT A PART NUMBER

APPROVED 18 Oct 50 REVISED 9 MAY 1979

A schematic diagram of a bent pipe. The pipe has a vertical section on the left and a horizontal section on the right, connected by a 90-degree elbow. The angle between the vertical section and the horizontal section is labeled α° . A vertical dimension line on the left indicates the height of the vertical section. A dashed line extends from the top of the vertical section to the right, and another dashed line extends from the bottom of the horizontal section to the left, meeting at a point that forms a right angle with the horizontal section.

A diagram of a stepped profile. It consists of a vertical section on the left and a horizontal section on the right. The vertical section has a height dimension indicated by a vertical line with arrows. The horizontal section has a length dimension indicated by a horizontal line with arrows. The profile is shown in a perspective view, with dashed lines indicating the hidden edges.

- 3 AN AND10366 REFERENCE NOTE, SPECIFYING ANY NON-STANDARD TOLERANCE AS A PART OF THE DIMENSION CALLOUT.

WHEN DIMENSIONING SYMMETRICAL SECTIONS, THE WHOLE CROSS SECTION SHALL BE SHOWN; HOWEVER, IT SHALL BE PERMISSIBLE TO SPECIFY RADII AND OTHER DIMENSIONS ON ONE HALF OF THE SHAPE, DEPICTING A CENTER LINE, AND NOTING "SYMMETRICAL ABOUT C". DO NOT SHOW DIMENSIONS TO THE CENTER LINE FOR LOCATION OF WEBS, ETC.

CORNER AND FILLET RADII MAY BE SPECIFIED IN THE FORM OF A GENERAL NOTE ON THE DRAWING.

1 THE TERM "REFERENCE" (REF) IS USED TO RECORD A USEFUL MEAN DIMENSION APPROXIMATE IN THE SENSE THAT WITHOUT THE SUFFIX
IT MIGHT CONFLICT WITH ACCUMULATED TOLERANCES. IT DOES NOT CARRY A TOLERANCE AND IT IS NOT A WORKING DIMENSION.

2 REFERENCE DIMENSIONS SHALL BE SHOWN ON EXTENDED SECTION DRAWINGS ONLY WHEN REQUIRED FOR CLARIFICATION. IN NO CASE
SHALL A WORKING DIMENSION BE LABELED AS "REFERENCE" BECAUSE OF DIFFICULTY IN INSPECTION WITH ORDINARY GAGING EQUIPMENT.

WHEN EXTRUSIONS ARE DESIGNED AND DIMENSIONED TO MATE WITH OTHERS, THE MANNER OF ASSEMBLY SHOULD BE SHOWN IN PHANTOM. WHENEVER PRACTICAL THE DIMENSIONS THAT CONTROL THE ASSEMBLY SHOULD BE SPECIFIED.

1 STANDARD INSPECTION EQUIPMENT CONSISTS OF:

- | | | | |
|---|--------------------|----|------------------|
| 1 | OUTSIDE MICROMETER | 6 | PROTRACTOR |
| 2 | INSIDE MICROMETER | 7 | OUTSIDE CALIPERS |
| 3 | DEPTH GAGE | 8 | INSIDE CALIPERS |
| 4 | FLATNESS GAGE | 9 | RADIUS GAGE |
| 5 | SQUARE | 10 | PLUG GAGE |

- 2 SPECIAL INSPECTION EQUIPMENT CONSISTS OF ANY TOOL CONSTRUCTED TO SPECIFICALLY INSPECT A PORTION OF A PARTICULAR EXTRUSION. EXAMPLES:

- 1 MAXIMUM AND MINIMUM TEMPLATES.
2 GO AND NO-GO GAGES.

- 3 THE EXTRUSION PURCHASER'S DRAWINGS SHALL BE THE ONLY AUTHORITY FOR ACCEPTANCE OF EXTRUSIONS IN THE PURCHASER'S PLANT. CHANGES MAY BE NEGOTIATED BETWEEN THE EXTRUSION PRODUCER AND THE PURCHASER ON THE PURCHASER'S DRAWING OR MARKED-UP PHOTOSTATIC PRINTS OF IT.

NOTE: This drawing was approved by joint action of the Air Force and Navy Departments as the Air Force-Navy standard for this product. This drawing superseded all antecedent standard drawings for the same product and should become obligatory for the procurement of conventional supplies, or for use in new designs, not later than 6 months after the latest date of approval shown.

APPROVED 18 Oct 50 REVISED (A) FOR CHANGES SEE SHEET 1

STANDARD DIMENSIONING SYSTEM FOR EXTRUDED SECTIONS

AND10481

1
 2
 3
 4
 5
 6
 7
 8
 9
 10
 11
 12
 13
 14
 15
 16
 17
 18
 19
 20
 21
 22
 23
 24
 25
 26
 27
 28
 29
 30
 31
 32
 33
 34
 35
 36
 37
 38
 39
 40
 41
 42
 43
 44
 45
 46
 47
 48
 49
 50
 51
 52
 53
 54
 55
 56
 57
 58
 59
 60
 61
 62
 63
 64
 65
 66
 67
 68
 69
 70
 71
 72
 73
 74
 75
 76
 77
 78
 79
 80
 81
 82
 83
 84
 85
 86
 87
 88
 89
 90
 91
 92
 93
 94
 95
 96
 97
 98
 99
 100
 101
 102
 103
 104
 105
 106
 107
 108
 109
 110
 111
 112
 113
 114
 115
 116
 117
 118
 119
 120
 121
 122
 123
 124
 125
 126
 127
 128
 129
 130
 131
 132
 133
 134
 135
 136
 137
 138
 139
 140
 141
 142
 143
 144
 145
 146
 147
 148
 149
 150
 151
 152
 153
 154
 155
 156
 157
 158
 159
 160
 161
 162
 163
 164
 165
 166
 167
 168
 169
 170
 171
 172
 173
 174
 175
 176
 177
 178
 179
 180
 181
 182
 183
 184
 185
 186
 187
 188
 189
 190
 191
 192
 193
 194
 195
 196
 197
 198
 199
 200
 201
 202
 203
 204
 205
 206
 207
 208
 209
 210
 211
 212
 213
 214
 215
 216
 217
 218
 219
 220
 221
 222
 223
 224
 225
 226
 227
 228
 229
 230
 231
 232
 233
 234
 235
 236
 237
 238
 239
 240
 241
 242
 243
 244
 245
 246
 247
 248
 249
 250
 251
 252
 253
 254
 255
 256
 257
 258
 259
 260
 261
 262
 263
 264
 265
 266
 267
 268
 269
 270
 271
 272
 273
 274
 275
 276
 277
 278
 279
 280
 281
 282
 283
 284
 285
 286
 287
 288
 289
 290
 291
 292
 293
 294
 295
 296
 297
 298
 299
 300
 301
 302
 303
 304
 305
 306
 307
 308
 309
 310
 311
 312
 313
 314
 315
 316
 317
 318
 319
 320
 321
 322
 323
 324
 325
 326
 327
 328
 329
 330
 331
 332
 333
 334
 335
 336
 337
 338
 339
 340
 341
 342
 343
 344
 345
 346
 347
 348
 349
 350
 351
 352
 353
 354
 355
 356
 357
 358
 359
 360
 361
 362
 363
 364
 365
 366
 367
 368
 369
 370
 371
 372
 373
 374
 375
 376
 377
 378
 379
 380
 381
 382
 383
 384
 385
 386
 387
 388
 389
 390
 391
 392
 393
 394
 395
 396
 397
 398
 399
 400
 401
 402
 403
 404
 405
 406
 407
 408
 409
 410
 411
 412
 413
 414
 415
 416
 417
 418
 419
 420
 421
 422
 423
 424
 425
 426
 427
 428
 429
 430
 431
 432
 433
 434
 435
 436
 437
 438
 439
 440
 441
 442
 443
 444
 445
 446
 447
 448
 449
 450
 451
 452
 453
 454
 455
 456
 457
 458
 459
 460
 461
 462
 463
 464
 465
 466
 467
 468
 469
 470
 471
 472
 473
 474
 475
 476
 477
 478
 479
 480
 481
 482
 483
 484
 485
 486
 487
 488
 489
 490
 491
 492
 493
 494
 495
 496
 497
 498
 499
 500
 501
 502
 503
 504
 505
 506
 507
 508
 509
 510
 511
 512
 513
 514
 515
 516
 517
 518
 519
 520
 521
 522
 523
 524
 525

NOT A PART NUMBER