Table 1: Summary of the test data of the circular CFST column.

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (mm) | (mm) | (MPa) | (MPa) | Ref. |  | (mm) | (mm) | (MPa) | (MPa) | Ref. |
| 14 | 76-153 | 1.7-4.9 | 363-633 | 21-43 | [1] | 13 | 114-115 | 3.8-5 | 343-365 | 25-95 | [2] |
| 11 | 168-169 | 2.6-5 | 221-317 | 18-37 | [3] | 12 | 100-200 | 3 | 304 | 50 | [4] |
| 1 | 83 | 1.4 | 483 | 41 | [5] | 26 | 108-450 | 3-6.5 | 279-853 | 25-85 | [6] |
| 12 | 100-160 | 1.5-4.5 | 232-410 | 28-40 | [7] | 4 | 120-180 | 1.5 | 223 | 37-41 | [8] |
| 10 | 92-210 | 1.5-4 | 232-434 | 20-47 | [9] | 6 | 165-219 | 2.7-4.8 | 350 | 35-68 | [10] |
| 30 | 101-160 | 0.6-5.3 | 265-357 | 23-39 | [11] | 4 | 100 | 1.9 | 404 | 112 | [12] |
| 1 | 109 | 4.6 | 272 | 30 | [13] | 3 | 112-114 | 1.9-3.6 | 260-261 | 40-48 | [14] |
| 16 | 166-320 | 5-7 | 250-275 | 27-47 | [15] | 7 | 76 | 2.5-3.3 | 278-305 | 145 | [16] |
| 3 | 108 | 4 | 339 | 29 | [17] | 6 | 114 | 2.7-5.9 | 235-355 | 56-107 | [18] |
| 10 | 100-102 | 0.5-5.7 | 244-320 | 18-37 | [19] | 2 | 165 | 2.4 | 288 | 24 | [20] |
| 2 | 150 | 0.7 | 245 | 23-33 | [21] | 3 | 558-559 | 16.5 | 546 | 25 | [22] |
| 10 | 159-1020 | 5.1-13.3 | 291-392 | 15-46 | [23] | 36 | 153-477 | 1.5-11.4 | 290-345 | 76 | [24] |
| 12 | 174-179 | 3-9 | 249-283 | 22-46 | [25] | 11 | 114-219 | 3.6-10 | 300-428 | 50-178 | [26] |
| 1 | 324 | 5.6 | 444 | 92 | [27] | 7 | 100-168 | 2.5-3 | 318-446 | 34-95 | [28] |
| 2 | 152 | 1.7 | 270 | 73 | [29] | 20 | 140 | 4.4-16.7 | 359-1153 | 53-125 | [30] |
| 4 | 111-133 | 2-4.5 | 324-355 | 67 | [31] | 9 | 108-115 | 2.1-8 | 252-304 | 59-131 | [32] |
| 6 | 190 | 1.1 | 203 | 95-110 | [33] | 40 | 89-169 | 2.1-12.1 | 336-460 | 40-79 | [34] |
| 13 | 108-133 | 1-4.7 | 232-358 | 77-85 | [35] | 36 | 153-477 | 1.5-11.4 | 290-345 | 76 | [24] |
| 15 | 165-190 | 0.9-2.8 | 186-363 | 41-108 | [36] | 12 | 297-302 | 4.5-11.9 | 348-472 | 27-79 | [37] |
| 13 | 101-319 | 3-10.4 | 331-452 | 23-53 | [38] | 36 | 129-133 | 3-5 | 306 | 46-67 | [39] |
| 2 | 120 | 2.7 | 340 | 15-29 | [40] | 26 | 60-250 | 1.9-2 | 282-404 | 76-80 | [41] |
| 2 | 158 | 1.5-2.1 | 286-308 | 19 | [42] | **509** | **60-1020** | **0.5-16.7** | **186-1153** | **15-178** | **Total** |

Table 2: Summary of the test data of the rectangular CFST column.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (mm) | (mm) | (mm) | (MPa) | (MPa) | Ref. |  | (mm) | (mm) | (mm) | (MPa) | (MPa) | Ref. |
| 7 | 100 | 100 | 2.2-4.3 | 194-339 | 20-32 | [43] | 3 | 250-251 | 250-251 | 3.7-3.8 | 324 | 33 | [44] |
| 4 | 150-200 | 150 | 0.7-1.4 | 245 | 23-34 | [21] | 6 | 150 | 150 | 4-6 | 416-437 | 88 | [45] |
| 13 | 150 | 100 | 5 | 363 | 41 | [46] | 4 | 200-300 | 200-300 | 3-8 | 414-464 | 47 | [47] |
| 17 | 120-250 | 120-250 | 5-8 | 300-439 | 31-103 | [48] | 2 | 200 | 200 | 2-3.5 | 301-315 | 50 | [49] |
| 4 | 305 | 305 | 5.8-8.9 | 269-660 | 110 | [50] | 8 | 110-180 | 110-180 | 5 | 701 | 21-55 | [51] |
| 7 | 100-301 | 100-301 | 2.2-6.1 | 300-395 | 27-64 | [38] | 3 | 150-203 | 102-150 | 8.3 | 488 | 36-47 | [52] |
| 20 | 120-200 | 120-200 | 3.8-5.9 | 321-330 | 12-46 | [53] | 2 | 300 | 300 | 3.7-3.8 | 311 | 32-49 | [54] |
| 30 | 101-173 | 101-142 | 2-5.1 | 255-347 | 47-67 | [55] | 7 | 74-150 | 74-150 | 4.9 | 762 | 100 | [56] |
| 18 | 90-160 | 70-135 | 2.9-7.6 | 194-228 | 51 | [57] | 9 | 150 | 150 | 8-12.5 | 446-779 | 141-158 | [26] |
| 6 | 100-183 | 98-181 | 4.2 | 550 | 62-73 | [58] | 6 | 197-201 | 197-201 | 6.1-10.3 | 382-438 | 19-21 | [59] |
| 38 | 119-323 | 119-323 | 4.4-9.5 | 262-835 | 25-91 | [6] | 9 | 200-402 | 200-203 | 3.7-3.8 | 311 | 29-49 | [60] |
| 6 | 125 | 125 | 3.2-6 | 285-299 | 36-51 | [61] | 4 | 300-500 | 300-500 | 6-10 | 302-334 | 28 | [62] |
| 17 | 101-143 | 101-143 | 2-5.1 | 255-347 | 49-67 | [63] | 3 | 300 | 300 | 2-6 | 177-356 | 53 | [64] |
| 10 | 106-160 | 106-140 | 4 | 495 | 60-89 | [65] | 1 | 200 | 200 | 5.6 | 397 | 112 | [66] |
| 2 | 129-250 | 128-249 | 2.5 | 234 | 51-53 | [67] | 2 | 130 | 130 | 5 | 1031 | 76-125 | [68] |
| 3 | 120-180 | 120-180 | 1.5 | 223 | 48-49 | [8] | 22 | 60-250 | 60-250 | 1.9-2 | 282-404 | 43-72 | [41] |
| 6 | 80-149 | 80-149 | 1.5-3.6 | 280-284 | 34-45 | [69] | 4 | 110-160 | 110-160 | 5 | 750 | 28-30 | [70] |
| 6 | 190-250 | 190-250 | 2.5 | 270-342 | 50-58 | [71] | 2 | 120-170 | 120-170 | 5 | 761 | 20 | [72] |
| 3 | 160-280 | 160-280 | 2.5 | 202-221 | 33-39 | [73] | 19 | 80-162 | 51-162 | 3.9-5 | 629-1022 | 36-115 | [74] |
| 4 | 410-500 | 410-500 | 10-16 | 358-389 | 43 | [75] | **337** | **60-500** | **51-500** | **0.7-16** | **177-1031** | **12-158** | **Total** |

Table 3: Summary of concrete-filled double-skin circular steel tubular (CFDST) stub column test data.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | (mm) | (mm) | (mm) | (mm) | (MPa) | (MPa) | (MPa) | Ref. |
| 26 | 75-114 | 0.6-1.8 | 61-89 | 0.6-1.6 | 255-524 | 216-512 | 59 | [76] |
| 12 | 114-300 | 3 | 48-165 | 3 | 276-295 | 295-396 | 47 | [77] |
| 14 | 114-165 | 1.7-6 | 48-102 | 2.8-3.3 | 395-454 | 394-425 | 63 | [78] |
| 5 | 160 | 1-2.1 | 75-112 | 1-2.1 | 220-300 | 220-300 | 24 | [79] |
| 4 | 240 | 3-4 | 80-120 | 3-4 | 280 | 280 | 29 | [80] |
| 9 | 157-159 | 0.9-2.1 | 38-115 | 0.9-2.1 | 221-308 | 221-308 | 19 | [81] |
| 2 | 350 | 3.8 | 231 | 2.9 | 439 | 397 | 44 | [82] |
| 5 | 139 | 2 | 75 | 3 | 250 | 250 | 47 | [83] |
| 6 | 114 | 2 | 48-89 | 1.6 | 279 | 235 | 40 | [84] |
| 19 | 102-203 | 1.6-3.2 | 50-114 | 1.5-3.2 | 226-353 | 226-399 | 40 | [85] |
| 23 | 140-166 | 2.9 | 22-89 | 3.9-10.8 | 276-300 | 433-1029 | 41-116 | [86] |
| 4 | 356 | 5.5 | 168-219 | 3.3 | 618 | 356-357 | 39 | [87] |
| 8 | 114 | 2.7-5.9 | 60 | 2.5-5.8 | 285-455 | 310-396 | 39-64 | [88] |
| 8 | 114 | 2.7-6.1 | 60 | 2.5-5.8 | 355-535 | 310-396 | 41-68 | [89] |
| 24 | 188-191 | 4.2-6.8 | 34-102 | 3.1-4.1 | 327-464 | 342-348 | 29-51 | [90] |
| 24 | 494-496 | 165 | 3.7-6 | 43-76 | 3 | 347-429 | 386-410 | [91] |
| 2 | 300 | 2-4 | 180 | 2 | 250 | 250 | 28 | [92] |
| 195 | **75-356** | **0.6-6.8** | **22-231** | **0.6-10.8** | **220-618** | **216-1029** | **19-141** | **Total** |

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