

| 等级标记                                                                                        | 等级标准                              | 材料        | 公称尺寸 (英寸)       | 机械性能            |              |                    |        |          | 洛氏硬度 |      |
|---------------------------------------------------------------------------------------------|-----------------------------------|-----------|-----------------|-----------------|--------------|--------------------|--------|----------|------|------|
|                                                                                             |                                   |           |                 | 最小保证载荷<br>(ksi) | 最小屈服强度 (ksi) | 最小抗拉强度<br>(ksi)    | 最小延伸率% | 最小断面收缩率% | 最小值  | 最大值  |
|            | SAE J429<br>Grade 1               | 低碳钢或中碳钢   | 1/4"-1-1/2"     | 33              | 36           | 60                 | 18     | 35       | B70  | B100 |
|            | A307 Grade A                      | 低碳钢或中碳钢   | 1/4" - 4"       | -               | -            | 60                 | 18     | -        | B69  | B100 |
|            | A307 Grade B                      | 低碳钢或中碳钢   | 1/4" - 4"       | -               | -            | 60 最小值<br>100 最大值  | 18     | -        | B69  | B95  |
| <br>一端涂绿   | A307 Grade C                      | 低碳钢或中碳钢   | 1/4" - 4"       | -               | 36           | 58 最小值<br>80 最大值   | 23     | -        | -    | -    |
| <br>一端涂蓝   | F1554 Grade 36                    | 低碳钢或中碳钢   | 1/2" - 4"       | -               | 36           | 58 最小值<br>80 最大值   | 23     | 40       | -    | -    |
| <br>一端涂黄   | F1554 Grade 55                    | 低碳钢或中碳钢   | 1/2" - 2"       | -               | 55           | 75 最小值<br>95 最大值   | 21     | 30       | -    | -    |
|                                                                                             |                                   |           | 2-1/4"- 2-1/2"  |                 |              |                    | 21     | 30       |      |      |
|                                                                                             |                                   |           | 2-3/4" - 3"     |                 |              |                    | 21     | 30       |      |      |
|                                                                                             |                                   |           | 3-1/4" - 4"     |                 |              |                    | 21     | 30       |      |      |
|            | SAE J429<br>Grade 2               | 低碳钢或中碳钢   | 1/4" - 3/4"     | 55              | 57           | 74                 | 18     | 35       | B80  | B100 |
|                                                                                             |                                   |           | 7/8" - 1-1/2"   | 33              | 36           | 60                 | 18     |          | B70  | B100 |
|            | A193/A320<br>Grade B8<br>Class 1  | SUS304不锈钢 | No Restrictions | -               | 30           | 75                 | 30     | 50       | -    | B96  |
|           | A193/A320<br>Grade B8<br>Class 2  | SUS304不锈钢 | Up to 3/4"      | -               | 100          | 125                | 12     | 35       | -    | C35  |
|                                                                                             |                                   |           | 7/8"-1"         |                 | 80           | 115                | 15     | 35       |      |      |
|                                                                                             |                                   |           | 1-1/8" - 1-1/4" |                 | 65           | 105                | 20     | 35       |      |      |
|                                                                                             |                                   |           | 1-3/8" - 1-1/2" |                 | 50           | 100                | 28     | 45       |      |      |
|          | A193/A320 Grade B8M               | SUS316不锈钢 | No Restrictions | -               | 30           | 75                 | 30     | 50       | -    | B96  |
|          | A193/A320<br>Grade B8M<br>Class 2 | SUS316不锈钢 | Up to 3/4"      | -               | 95           | 110                | 15     | 45       | -    | C35  |
|                                                                                             |                                   |           | 7/8"-1"         |                 | 80           | 100                | 20     | 45       |      |      |
|                                                                                             |                                   |           | 1-1/8" - 1-1/4" |                 | 65           | 95                 | 25     | 45       |      |      |
|                                                                                             |                                   |           | 1-3/8" - 1-1/2" |                 | 50           | 90                 | 30     | 45       |      |      |
|          | F3125 Grade A325 Type 1           | 调质处理中碳钢   | 1/2" - 1-1/2"   | 85              | 92           | 120                | 14     | 35       | C24  | C35  |
|          | F3125 Grade A325 Type 3           | 调质处理耐候钢   | 1/2" - 1-1/2"   | 85              | 92           | 120                | 14     | 35       | C24  | C35  |
|          | SAE J429<br>Grade 5               | 调质处理中碳钢   | 1/4" - 1"       | 85              | 92           | 120                | 14     | 35       | C25  | C34  |
|                                                                                             |                                   |           | 1-1/8"- 1-1/2"  | 74              | 81           | 105                |        |          | C19  | C30  |
|          | A449 Type 1                       | 调质处理中碳钢   | 1/4" - 1"       | 85              | 92           | 120                | 14     | 35       | C25  | C34  |
|                                                                                             |                                   |           | 1-1/8"- 1-1/2"  | 74              | 81           | 105                |        |          | C19  | C30  |
|                                                                                             |                                   |           | 1-5/8" - 3"     | 55              | 58           | 90                 |        |          | B91  | B100 |
|          | A449 Type 3                       | 调质处理耐候钢   | 1/4" - 1"       | 85              | 92           | 120                | 14     | 35       | C25  | C34  |
|                                                                                             |                                   |           | 1-1/8"- 1-1/2"  | 74              | 81           | 105                |        |          | C19  | C30  |
|                                                                                             |                                   |           | 1-5/8" - 3"     | 55              | 58           | 90                 |        |          | B91  | B100 |
|          | A193 Grade B7                     | 调质处理中碳合金钢 | 1/4" - 2-1/2"   | -               | 105          | 125                | 16     | 50       | -    | C35  |
|                                                                                             |                                   |           | 2-5/8" - 4"     |                 | 95           | 115                | 16     | 50       |      | C35  |
|                                                                                             |                                   |           | 4-1/8" - 7"     |                 | 75           | 100                | 18     | 50       |      | C35  |
|          | A354 Grade BC                     | 调质处理中碳合金钢 | 1/4" - 2-1/2"   | 105             | 109          | 125                | 16     | 50       | C26  | C36  |
|                                                                                             |                                   |           | Over 2-1/2"     | 95              | 99           | 115                | 16     | 45       | C22  | C33  |
| <br>一端涂红 | F1554 Grade 105                   | 调质处理中碳合金钢 | 1/2" - 3"       | -               | 105          | 125 最小值<br>150 最大值 | 15     | 45       | -    | -    |

|                                                                                   |                         |                   |               |     |     |                    |    |    |     |     |
|-----------------------------------------------------------------------------------|-------------------------|-------------------|---------------|-----|-----|--------------------|----|----|-----|-----|
|  | A320 Grade L7           | 4140, 4142, 或4145 | 1/4" - 2-1/2" | -   | 105 | 125                | 16 | 50 | -   | -   |
|  | A320 Grade L43          | 4340              | 1/4" - 4"     | -   | 105 | 125                | 16 | 50 | -   | -   |
|  | F3125 Grade A490 Type 1 | 调质处理中碳合金钢         | 1/2" - 1-1/2" | 120 | 130 | 150 最小值<br>173 最大值 | 14 | 40 | C33 | C38 |
|  | F3125 Grade A490 Type 3 | 调质处理耐大气腐蚀钢        | 1/2" - 1-1/2" | 120 | 130 | 150 最小值<br>173 最大值 | 14 | 40 | C33 | C38 |
|  | SAE J429 Grade 8        | 调质处理中碳合金钢         | 1/4" - 1-1/2" | 120 | 130 | 150                | 12 | 35 | C33 | C39 |
|  | A354 Grade BD           | 调质处理中碳合金钢         | 1/4" - 4"     | -   | 130 | 150 最小值<br>173 最大值 | 14 | 40 | C33 | C38 |