Date of Issue: November 2019

Affected Publication: API Specification 7-2, *Threading and Gauging of Rotary Shouldered Connections*, Second Edition, January 2017

Errata 2

Section 5.1.3, 4th paragraph: A change shall be made as indicated in the red box:

This feature reduces the stress concentration factor in this area. Rotary shouldered connections on products other than drill collars, such as tool joints, may have a tapered region at the pin base rather than a cylindrical region. In this case the radius at the intersection of the taper and the sealing face shall be 0.79 mm ±0.12 mm (0.031 in. ±0.005 in.), as shown in Figure 2.

Section 5.1.9, 1st paragraph: A change shall be made as indicated in the red box:

The thread form shall be as defined in Table B.2 and shown in Figures 4 and 5. The surface finish of the thread flanks and root before any surface treatment shall be 1.6 µm (63 µin.) R_a or better in order to maximize the fatigue life of the connection. This may be demonstrated using a sacrificial test piece on a process qualification basis.

Section 6.4.2, 2nd paragraph: A change shall be made as indicated in the red boxes:

The diameter of the cylinder benchmark feature in the box is the counterbore diameter, Q_c, plus 0.79 mm (0.031 in.), tabulated as D_{PB} in Table B.5.

Section 8.1, 2nd paragraph: The paragraph shall be replaced with the following:

The standoff value, S_0, of certified Reference Master gauges (Figure 17a) shall be measured at 20 °C ± 1 °C (68 °F ± 2 °F). Verifications of Working gauges (Figures 17b to 17d) may be at any temperature as long as both the master and Working gauges have normalized to the same temperature.

Section 9.1, 3rd paragraph: The paragraph shall be replaced with the following:

All instruments shall be exposed to the same temperature conditions as the gauge to be inspected, for a time sufficient to eliminate any temperature difference. All measurements of gauges shall be made at 20 °C ± 1°C (68 °F ± 2 °F).

Section 9.3.2.4: The section shall be replaced with the following:

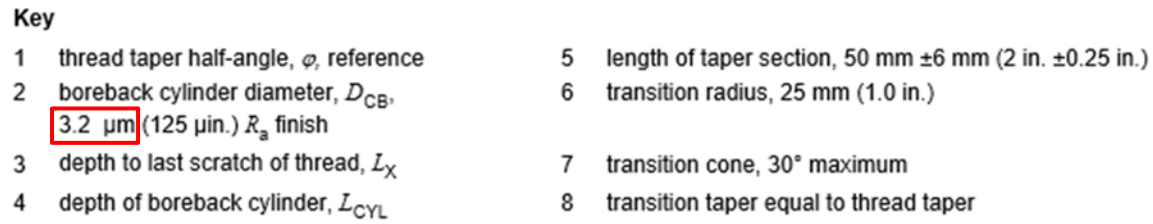
The pitch diameter at gauge point shall be measured on plug gauges at 20 °C ± 1 °C (68 °F ± 2 °F).

Figure 3: A change shall be made as indicated in the red box:

Key

1 taper half-angle, φ
2 chamfer angle, typically 25° to 45°
3 break edge or radius 0.8 mm (0.031 in.) max
4 30° maximum taper
5 counterbore depth, L_{Qc} +2.4/–0.8 mm (+0.094/–0.031 in.)
6 counterbore diameter, Q_c
7 bevel angle, 45° ±10°
8 depth of box threads, L_{BT}
9 box depth, L_{BC}
10 connection bevel diameter
11 bore detail (see 6.3.3)

Figure 7: A change shall be made as indicated in the red box:



Key

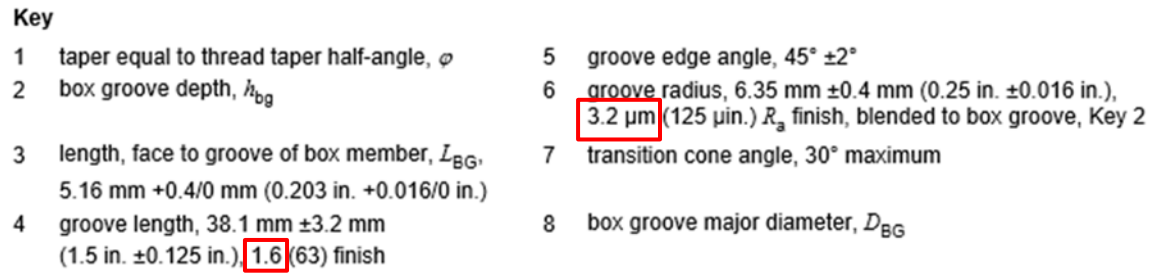
1 thread taper half-angle, φ, reference
2 boreback cylinder diameter, D_{CB}, 3.2 µm (125 µin.) R_a finish
3 depth to last scratch of thread, L_X
4 depth of boreback cylinder, L_{CYL}
5 length of taper section, 50 mm ±6 mm (2 in. ±0.25 in.)
6 transition radius, 25 mm (1.0 in.)
7 transition cone, 30° maximum
8 transition taper equal to thread taper

Figure 8: A change shall be made as indicated in the red boxes:

Key

1 stress-relief groove diameter, D_{SRG}, 1.6 µm (63 µin.) R_a finish
2 groove length, L_{SRG}, 18.26 to 26.19 mm (0.719 to 1.031 in.)
3 radius 6.4 ±0.4 mm (0.25 in. ±0.016 in.), 1.6 µm (63 µin.) R_a finish, blended with D_{SRG}
4 45° ref

Figure 9: A change shall be made as indicated in the red boxes:



Key

1 taper equal to thread taper half-angle, φ
2 box groove depth, h_{bg}
3 length, face to groove of box member, L_{BG}, 5.16 mm +0.4/0 mm (0.203 in. +0.016/0 in.)
4 groove length, 38.1 mm ±3.2 mm (1.5 in. ±0.125 in.), 1.6 (63) finish
5 groove edge angle, 45° ±2°
6 groove radius, 6.35 mm ±0.4 mm (0.25 in. ±0.016 in.), 3.2 µm (125 µin.) R_a finish, blended to box groove, Key 2
7 transition cone angle, 30° maximum
8 box groove major diameter, D_{BG}

Table C.2: A change shall be made as indicated in the red box:

1	2	3	4	5	6	7	8
Thread Form		**V-038R**	**V-038R**	**V-040**	**V-050**	**V-050**	**V-055**
threads per inch	n	4	4	5	4	4	6
lead, ref	p	0.25	0.25	0.2	0.25	0.25	0.166667

Table K.2: A change shall be made as indicated in the red box:

1	2	3	4	5	6	7
Thread Form		**90-V-050**	**90-V-050**	**V-065** [a]	**V-076**	**90-V-084**
threads per 25.4 mm	n	3.5	3.5	4	4	3
lead, ref	p	7.257136	7.257 136	6.350000	6.350000	8.466658

Table L.2: A change shall be made as indicated in the red box:

1	2	3	4	5	6	7
Thread Form		**90-V-050**	**90-V-050**	**V-065**[a]	**V-076**	**90-V-084**
threads per inch	n	3.5	3.5	4	4	3
lead, ref	p	0.285714	0.285714	0.25	0.25	0.333333