ASC Engineered Solutions

Oil Country Couplings
Tubing Couplings

☐ Sub Tubing Couplings J-55

Size	Weight Each	Size	Weight Each
2 EUE x 2 Reg	5	3 EUE x 2 Reg	15
2½ Reg x 2 Reg	5	3 EUE x 2 EUE	14
2½Reg x 2 EUE	5	3 EUE x 2½ Reg	16
2½ EUE x 2 Reg	8	3 EUE x 2½ EUE	15
2½ EUE x 2 EUE	8	3 EUE x 3 Reg	13
2½ EUE x 2½ Reg	7	4 Reg x 3 Reg	10
3 Reg x 2 Reg	11	4 Reg x 3 EUE	12
3 Reg x 2 EUE	11	4 EUE x 3 Reg	11
3 Reg x 2½ Reg	10	4 EUE x 3 EUE	11
3 Reg x 2½ EUE	10	4 EUE x 4 Reg	10

☐ API Tubing Couplings

Size Nominal Inches	Tubing O.D.	Non-Upset			External Upset			
		J-55	N-80	Lbs. Per 100	J-55	N-80	C-75	Lbs. Per 100
2"	2⅜"	POA	POA	282	POA	POA	POA	342
2½"	2⅞"	POA	POA	515	POA	POA	POA	529
3"	3½"	POA	POA	817	POA	POA	POA	902
3½"	4"	POA	POA	957	POA	POA	POA	1,056
4	4½"	POA	POA	1,076	POA	POA	POA	1,331

☐ Special Clearance Tubing Couplings

Size Nominal Inches	Tubing O.D.	External Upset			Lbs. Per 100	Actual O.D. Inches
		J-55	N-80	C-75 L-80		
2"	2⅜"	POA	POA	POA	240	2.91
2½"	2⅞"	POA	POA	POA	348	3.46
3"	3½"	POA	POA	POA	540	4.18

PROJECT INFORMATION	APPROVAL STAMP
Project:	☐ Approved
Address:	☐ Approved as noted
Contractor:	☐ Not approved
Engineer:	Remarks:
Submittal Date:	
Notes 1:	
Notes 2:	

ASC Engineered Solutions

Tubing Couplings

JB J.B.SMITH
An ASC Engineered Solution

J.B. Smith oil country tubular fittings, swages and bull plugs add an important dimension to the industry's leading line of flow control products offered by Anvil. J.B. Smith is a respected name and its products are well known for high quality and consistency.

Full Traceability

All J.B. Smith swages, bull plugs, tubing and casing nipples, and chambers are traceable to the original mill test report. To ensure traceability, all fittings are steel stamped as follows:

Material Specification

- Material Grade WPB (ASTM A234 – Line Pipe)
- Material Grade J–55, K–55, L–80, N–80 (API 5CT – Oil Country Sizes)

Raw Material Code

Each is stamped with unique JBS material code for traceability to material type, details of purchase and mill test report.

Heat Treatment

Items made to specification grades requiring final heat treatment bear an additional two letter code for heat treatment traceability.

All J.B. Smith products conform to the following applicable specifications:

- **API 5B –** Threading Oil Country size
- **API 5CT –** Raw material, Process, End Finish (Oil Country Sizes)
- **ASME B1.20.1 –** Threading Line Pipe
- **ASME B16.9 –** Weld Bevels
- **MSS SP–95 –** Swage and Bull Plug
- **ASTM A234 WPB** – Raw material, Process, End Finish (Line Pipe High Temp)
- **ASTM A420 WPL6 –** Raw material, Process, End Finish (Line Pipe Low Temp)
- **ASTM B633 Type III Class III –** Zinc Electroplate
- **NACE MR–01–75 –** As Applicable

asc–es.com

Building connections that last™

Swage Nipples, Bull Plugs, Oil Country Fittings, Couplings, Stainless Swages

Manufacturing Specification

J.B. Smith manufactures swage nipples and bull plugs in accordance to the applicable specification, API 5CT, ASTM A234, MSS SP-95. Materials include ASTM A106, GR B seamless pipe, A-1000 low to medium carbon, fine grain bar stock, API grades J-55 through N-80 tubing and casing, processed and heat treated to applicable specification requirements. Fitting chemical and physical properties fall within the ranges listed below.

All fittings are manufactured in the U.S.A.

Traceability

All material purchased by J.B. Smith is fully traceable to the mill source. A unique JBS material code appears on all products made since the institution of this program. As a result, mill test reports are now available at any time on products so coded (See EXTRAS for MTR charges.)

Pressure Ratings

Due to the wide variation in service conditions, temperature, vibrations, etc., J.B. Smith Mfg. can make no recommendations as to allowable working pressure of swage nipples and bull plugs. There are a number of working pressure formulas from which the end user may choose to determine the required wall thickness of the piping system. It is our responsibility only to furnish a fitting with end dimensions equal to those of the pipe size and schedule ordered.

Material Certification – Carbon Steel

J.B Smith certifies that the material used to manufacture line pipe sizes of swage nipples and bull plugs has be processed to comply with the requirements of ASTM A234 grade WPB and the chemical and physical properties of the fittings fall within the ranges listed below.

Marking

All J.B. Smith fittings are permanently marked as follows:

- **Manufacturer's symbol –** JBS
- **Material Specification or Grade**
  WBP (Line Pipe Sizes)
  J-55, K-55, L-80, N-80 (Oil Country Sizes)
- **Raw Material Code –** Each part is die stamped with unique JBS material code for traceability to material type, details of purchase and mill test report.
- **Heat Treatment –** Heat treatments are performed to ASTM A234 WPB or API 5CT specification grade requirement as applicable. Fittings bear a two letter code provide traceability to final heat treatment.

Threading

Line Pipe, Tubing and Casing threads conform to ASME B1.20.1 B or API 5B as applicable.

Oil Country Industry Thread Color Code

Industry Color Codes as follows:

8R – Red 10R – Yellow 10V – Blue 11½V – Green LP – Silver

Coatings

- **Zinc Electroplate** – ASTM B633 Type III Class III
- **Paint** (Weld Bevel Ends)

Weld Bevels

Weld bevels are machined per ASME B16.9 specifications.

Chemical and Physical Requirements

API 5CT Material

Chemical Requirements

Grp	Gr	C	Mn	Mo	Cr	Ni	Cu	P	S	Si
1	J55	–	–	–	–	–	–	0.030 Max	0.030 Max	–
1	K55	–	–	–	–	–	–	0.030 Max	0.030 Max	–
1	N80 Type1	–	–	–	–	–	–	0.030 Max	0.030 Max	–
2	L80 Type1	0.43 Max	1.90 Max	–	–	0.25 Max	0.35 Max	0.030 Max	0.030 Max	0.45 Max

Physical Requirements

Grp	Gr	Total Elongation under load %	Yield Strength ksi	Tensile Strength ksi	Hardness	
1	J55	0.5	55-80	75	–	–
1	K55	0.5	55-80	95	–	–
1	N80 Type1	0.5	80-110	100	–	–
2	L80 Type1	0.5	80-110	95	23	241

Note:
- Fittings made from bar or plate may have 0.35 Max Carbon.
- Fittings made from forgings may have a 0.35 Max Carbon and 0.35 Max Silicon.
- For each reduction of 0.01% below the specified carbon maximum, an increase of 0.06% manganese above the specified maximum will be permitted, up to a maximum of 1.35%.
- The sum of Copper, Nickel Chromium and Molybdenum shall not exceed 1.00%.
- The sum of Chromium and Molybdenum shall not exceed 0.32%.

Tubing Couplings

Oil Country Fittings

Current API Thread Standards

Current API Thread Standards

Size		O.D.		Pipe	Tubing & Casing
NPS	DN	in	mm		
¾	20	1.050	27	14	–
¾ EUE	20	1.050	27	–	10 Rd.
1	25	1.315	33	11½	10 Rd.
1 EUE	25	1.315	33	–	10 Rd.
1¼	32	1.660	42	11½	10 Rd.
1¼ EUE	32	1.660	42	–	10 Rd.
1½	40	1.900	48	11½	10 Rd.
1½ EUE	40	1.900	48	–	10 Rd.
2	50	2⅜	60	11½	10 Rd.
2 EUE	50	2⅜	60	–	8 Rd.
2½	65	2⅞	73	8V	10 Rd.
2½ EUE	65	2⅞	73	–	8 Rd.
3	80	3½	89	8V	10 Rd.
3 EUE	80	3½	89	–	8 Rd.
3½	90	4	102	8V	8 Rd.
3½ EUE	90	4	102	8V	8 Rd.
4	100	4½	114	8V	8 Rd.
4 EUE	100	4½	114	–	8 Rd.
–	–	5	127	–	8 Rd.
–	–	5½	140	–	8 Rd.
5	125	5⁹⁄₁₆	141	8V	–
–	–	6	152	–	8 Rd.
6	150	6⅝	168	8V	8 Rd.
–	–	7	178	–	8 Rd.
–	–	7⅝	194	–	8 Rd.
8	200	8⅝	219	8V	8 Rd.
–	–	9⅝	244	–	8 Rd.
10	250	10¾	273	8V	8 Rd.
–	–	11¾	298	–	8 Rd.
12	300	12¾	324	8V	–
–	–	13⅜	340	–	8 Rd.
–	–	14	356	8V	–
–	–	16	406	8V	8 Rd.
–	–	18	457	8V	–
–	–	20	508	8V	8 Rd.