

ASTM A815-WP UNS S31803 45 Degree BW Elbow Duplex Stainless Steel Butt Welding Elbow

Our Product Introduction

Basic Information

- Place of Origin: CHINA
- Brand Name: KASUGAI
- Certification: ISO-9001; PED; AD 2000
- Model Number: ASTM A815-WP
- Minimum Order Quantity: TO BE NEGOTIATED
- Price: PER BASE MATERIAL PRICE
- Packaging Details: SEAWORTHY PACKING
- Delivery Time: 60 DAYS FOR ONE CONTAINER
- Payment Terms: L / C , T / T
- Supply Ability: 100 TONS / MONTH



Product Specification

- Product Name: Stainless Steel Butt Weld Fittings
- Material: UNS S31803
- Size Range: Dimension: 1/2" To 48"
- Standards: ASTM A815 MSS SP-75
- Keyword: Stainless Steel Fittings
- Application: Electronic Industry, Chemical Pipelines,
- Manufacturing Standards: ASME B16.9
- Highlight: **UNS S31803 Butt Welding Elbow,
ASTM A815-WP Butt Welding Elbow,
45 Degree BW Elbow Duplex**

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Product Description

ASTM A815-WP UNS S31803 45 Degree BW Elbow Duplex Stainless Steel Butt Welding Elbow

Elbow Radius

The elbow radius typically refers to the radius of the curvature at the elbow joint. It is a measure used in engineering, especially in fields like piping design or mechanical engineering, to ensure proper bend radius for pipes or cables to prevent damage or excessive stress.

If the radius is larger than pipe diameter, $R \geq 1.5$ Diameter, then we call it a long radius elbow (LR Elbow), applied for high pressure and high flow rate pipelines.

45 degree elbow of long radius

The pipe elbow is mounted between two pipes so that the fluid direction can be changed to 45 degrees. Compared to 90 degree elbow, 45 degree elbow produces less friction, and with the lower pressure.

45 degree elbow of short radius

SR Elbow in 45 degree is usually attached to copper, plastic, steel, cast iron and lead, and can also be connected to stainless and rubber fixtures. It is widely used in chemical, food, water supply facilities, electronic industry, chemical pipelines, horticulture, agriculture production, solar equipment pipelines, air conditioning pipeline and other fields.

Class WP Fitting Categorizations

Class WP fittings are subdivided into three subclasses: Classes WP-S, WP-W, and WPWX. They are manufactured to the requirements of ANSI B16.9, B16.11, B16.28, or MSS Standard Practice SP-79, and they have pressure ratings compatible with 9.2.

Class WP-S fittings are those manufactured from seamless product by a seamless method of manufacture (marked with class symbol WP-S);

Class WP-W fittings contain welds where the fitting fabrication or construction welds have been radiographed (marked with class symbol WP-W);

Class WP-WX fittings are those which contain welds where all welds have been radiographed (marked with class symbol WP-WX).

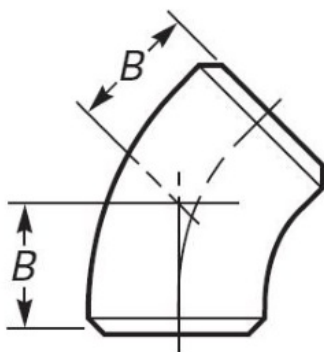
Product Information

Product Name	ASTM A815-WP UNS S31803 45 Degree Duplex Stainless Steel BW Elbow
Size Range	Dimension: 1/2" to 48"
Wall Thickness	Sch10S Sch20 STD Sch40 XS Sch80
Standards	ASTM A815 WP
Material	UNS S31803
Manufacturing Standards	ASME B16.9

Material (UNS S31803) Chemical Compositions

UNS Designation	C	Mn	P	S	Si	Ni	Cr	Mo	N
S31803	0.03	2.00	0.03	0.02	1.00	4.5-6.5	21.0-23.0	2.5-3.5	0.08-0.20

45° Butt Weld Elbow Dimensions and Weight



Long Radius (LR) (Refer Standard ASME B16.9)

Nominal Pipe Size (NPS)	Outside Dia. at Bevel (mm)	Center-to-End 45° Elbows A (mm)	Weight (kg)					
			Sch 10S	Sch 20	STD	Sch 40	XS	Sch 80
1/2	21.3	16	0.03		0.04	0.04	0.08	0.08
3/4	26.7	19	0.03		0.04	0.04	0.08	0.08
1	33.4	22	0.09		0.08	0.08	0.10	0.10
1-1/4	42.2	25	0.12		0.12	0.12	0.18	0.18
1-1/2	48.3	29	0.17		0.18	0.18	0.25	0.25
2	60.3	35	0.25		0.32	0.32	0.47	0.47
2-1/2	73.0	44	0.48		0.64	0.64	0.85	0.85
3	88.9	51	0.62		1.02	1.02	1.37	1.37

3-1/2	101.6	57	0.76		1.43	1.43	1.97	1.97
4	114.3	64	1.10		1.95	1.95	2.70	2.70
5	141.3	79	1.80		3.25	3.25	4.42	4.42
6	168.3	95	2.75		5.10	5.10	7.67	7.67
8	219.1	127	5.30	9.00	11.15	11.15	14.95	14.95
10	273.0	159	9.80	18.50	20.50	20.50	24.30	30.00
12	323.8	190	13.60	24.75	27	29.57	35.00	49.94
14	355.6	222	18.10	32.00	34	39.98	47.17	69.92
16	406.4	254	23.80	46.50	48	62.37	62.37	102.15
18	457	286	30	56	60	88.53	79.00	143.92
20	508	318	50	71.20	71.20	114	97.16	195.67
22	559	343		89	89		118.00	256.70
24	610	381	71	102	102.95	192.04	141.20	333.70
26	660	406		165	124.90		165.71	
28	711	438		202	150		202	
30	762	470		220	167		220	
32	813	502		255	193	344	255	
34	864	533		280	215	389	280	
36	914	565		312	241	476	312	
38	965	600			272		354	
40	1016	632			290		372	
42	1067	660			327		420	
44	1118	695			363		488	
46	1168	727			408		530	
48	1219	759			443		567	

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