A420 WPL6 Carbon Steel Concentric Reducer With SCH40 SCH60 SCH80

Our Product Introduction

Basic Information

- Place of Origin: CHINA
- Brand Name: DEYE
- Certification: ISO9001:2015 PED
- Model Number: PF-RE-C06
- Minimum Order Quantity: 10PCS
- Price: USD0.58-USD100 for seamless fittings
- Packaging Details: Ply-wooden cases, pallets, cartons
- Delivery Time: 5-8 days for stock items
- Payment Terms: L/C, T/T, D/P

Product Specification

- Stanard: ASME ANSI DIN GOST
- Thickness: SGP, STD, SCH20, SCH30,SCH40, SCH60, SCH80, SCH160, XS, XXS
- Material: A234WPB, WP11, WP22, WPC, P9, P11, A420WPL6
- Size: 1/2"-72"
- Connection: Butt Welded BW
- Surface: Black Painting, Vanish Painting, Anti-rust Oil, Sandblastic
- Highlight: **WPL6 carbon steel concentric reducer**, **A420 carbon steel concentric reducer**, **SCH80 fitting carbon steel**

Product Description

A420 WPL6 Carbon Steel Concentric Reducer With SCH40 SCH60 SCH80

ASTM A420 is the standard specification for pipe fittings of carbon steel and alloy steel used for low temperature services. WPL6 is the most used grade material under A420. Besides Grade WPL6, the standard also includes WPL9, WPL3, WPL8, impact test temperature correspondingly at -45 , -75 , -100 , -195 . ASTM A420 WPL6 pipe fittings compatible with ASTM A333 Grade 6 Pipe and ASTM A350LF2 Class 1 Flange.

Product Information/Product Description/Basis Information/Specification

Product Name	Con. reducers stuitable for low temperture A420 WPL6, WPL9
Types	Con. Reducers, Ecc. reducers,LR 90deg Elbows, SR 90deg Elbow, 45deg LR elbow, 22.5LR Elbow, 80deg Returns, Bends, Reducing Elbow, straight Tee, Equal Tee, Y tees, caps, Stub Ends, Long and short lap joint stub ends
Size	1/2"-48" DN15-DN1200
Wall Thickness	SCH10,SCH20,SCH30,STD,SCH40,SCH60,XS,SCH80,SCH100,SCH120,SCH140,SCH160,XXS, DIN, SGP
Mat. Standard	ASTMA234,ASTM A420,ASTM A312, ANSI B16.9/B16.28/B16.25,ASME B16.9,
	JIS B2311-1997/2312, JIS B2311/B2312, DIN 2605-1/2617/2615,
	GB 12459-99,EN Standard etc.
Material Grade	Carbon Steel : A234 WPB, WP5, WP6, WP9,WP11,WP12, WP22, A420WPL6, WPL8, WP91
	12CrMo, 15Cr5Mo, 1Cr5Mo, 12Cr1MoV , WPHY 42, WPHY 46, WPHY 52, WPH 60, WPHY 65 & WPHY 70
	ST37.0,ST35.8,ST37.2,ST35.4/8,ST42,ST45,ST52,ST52.4
	STP G38,STP G42,STPT42,STB42,STS42,STPT49,STS49
	Stainless Steel304, 304L, 304H. 316, 316L, 316H, 321, 347, 347H, Duplex SS 2507, DSS2205, UNS31803 UNS32750 1.4301,1.4306, 1.4401, 1.4435, 1.4406, 1.4404, 1.4462, 1.4410, 1.4501
Surface	Black painting,varnish paint, anti rust oil, hot galvanized, cold galvanized, 3PE,etc.
Transport Package	Plastic film,wooden cases ,wooden pallet,or as per customers' requests

Features /Characteristics

1)Fittings under ASTM A420 shall be furnished in the normalized, normalized and tempered, annealed, or quenched and tempered condition. All welding shall be completed prior to the austenitizing heat treatment.
2)ASTM A420 covers elbow, tee, reducer, cap, union and etc, which manufactured according to ASME B16.9, ASME B16.11, MSS SP-79 and MSS SP-95, types in seamless and welded structual pipe fittings. These fittings commonly used in pressure pipelines and pressure vessel/tanks at lower temperature

Technology/ Technical Data Sheet

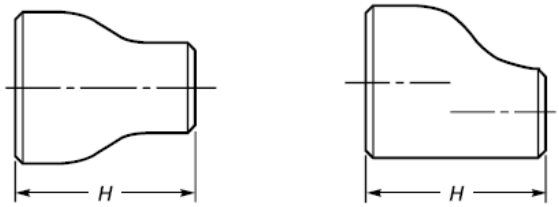
Thickness List for pipefittings ANSI B16.9

Unit: mm

NPS	Outside Dimeter	Different thickness with tolerance of +-12.5%									
		Sch20	Sch30	STD	**Sch40**	Sch60	**XS**	**Sch80**	Schl20	Sch160	**XXS**
1/8	10. 3	——	——	1. 73	1. 73	——	2. 41	2. 41	——	——	——
1/4	13. 7	—	—	2. 24	2. 24	—	3. 02	3. 02	—	—	—
3/8	17. 1	—	—	2. 31	2. 31	—	3. 20	3. 20	—	—	—
1/2	21. 3	——	——	2. 77	2. 77	——	3. 73	3. 73	——	4. 78	7. 47
3/4	26. 7	——	——	2. 87	2. 87	——	3. 91	3. 91	——	5. 56	7. 82
1	33.4	—	—	3. 38	3. 38	—	4. 55	4. 55	—	6. 35	9. 09
1 1/4	42. 2	—	—	3. 56	3. 56	—	4. 85	4. 85	—	6. 35	9. 70
1 1/2	48. 3	——	——	3. 68	3. 68	——	5. 08	5. 08	——	7. 14	10. 15
2	60. 3	——	——	3. 91	3. 91	——	5. 54	5. 54	——	8. 74	11. 07
2 1/2	73. 0	—	—	5. 16	5. 16	—	7. 01	7.01	—	9. 53	14. 02
3	88. 9	—	—	5. 49	5. 49	—	7. 62	7. 62	—	11. 13	15. 24
3 1/2	101. 6	——	——	5. 74	5. 74	——	8. 08	8. 08	——	——	——
4	114. 3	——	——	6.02	6. 02	——	8. 56	8. 56	11. 13	13. 49	17. 12
5	141. 3	—	—	6. 55	6. 55	—	9. 53	9. 53	12. 70	15. 88	19. 05
6	168. 3	—	—	7. 11	7. 11	—	10. 97	10. 97	14. 27	18. 26	21.95
8	219. 1	6. 35	7. 04	8. 18	8. 18	10. 31	12. 70	12. 70	18. 26	23. 01	22.23
10	273. 1	6. 35	7. 80	9. 27	9.27	12. 70	12. 70	15. 09	21. 44	28. 58	25. 40
12	323.9	6. 35	8. 38	9. 53	10. 31	14. 27	12. 70	17. 48	25. 40	33. 32	25. 40
14	355. 6	7. 92	9. 53	9. 53	11. 13	15. 09	12. 70	19. 05	27. 79	35. 71	—
16	406. 4	7. 92	9. 53	9. 53	12. 70	16. 66	12. 70	21. 44	30. 96	40. 49	——
18	457. 2	7. 92	11. 13	9. 53	14. 27	19. 05	12. 70	23. 83	34. 96	45. 24	——

20	508. 0	9. 53	12. 70	9. 53	15. 09	20. 62	12. 70	26. 19	38. 10	50. 01	—
22	558. 8	9. 53	12. 70	9. 53	—	22. 23	12. 70	28. 58	41. 28	53. 98	—
24	609. 6	9. 53	14. 27	9. 53	17. 48	24. 61	12. 70	30. 96	46. 02	59. 54	——
26	660.4	12. 70	——	9. 53	——	——	12. 70	——	——	——	——
28	711.2	12. 70	15. 88	9. 53	—	—	12. 70	—	—	—	—
30	762. 0	12. 70	15. 88	9. 53	—	—	12. 70	—	—	—	—
32	812. 8	12. 70	15. 88	9. 53	17. 48	——	12. 70	——	——	——	——
34	863. 6	12. 70	15. 88	9. 53	17. 48	——	12. 70	——	——	——	——
36	914. 4	12. 70	15. 88	9. 53	17. 48	—	12. 70	—	—	—	—
38	965.2	—	—	9. 53	—	—	12. 70	—	—	—	—
40	1016. 0	——	——	9. 53	——	——	12. 70	——	——	——	——
42	1066. 8	——	——	9. 53	——	——	12. 70	——	——	——	——
44	1117. 6	—	—	9. 53	—	—	12. 70	—	—	—	—
46	1168.4	—	—	9. 53	—	—	12. 70	—	—	—	—
48	1219. 2	—	—	9. 53	—	—	12. 70	—	—	—	—

Dimensions of Reducers



Nominal Pipe Size (NPS)	Outside Diameter at Bevel		End-to-End, H	Size	Outside Diameter at Bevel		End-to-End,
	Large End	Small End		(NPS)	Large End	Small End	H
3/4 x 1/2	26.7	21.3	38	5X4	141.3	114.3	127
3/4 x 3/8	26.7	17.3	38	5 x 3'/2	141.3	101.6	127
1 X 3/4	33.4	26.7	51	5X3	141.3	88.9	127
1 x 1/2	33.4	21.3	51	5 x 2'/2	141.3	73.0	127
1-1/4 X 1	42.2	33.4	51	5X2	141.3	60.3	127
1-1/4 X 3/4	42.2	26.7	51	6X5	168.3	141.3	140
1-1/4 x 1/2	42.2	21.3	51	6X4	168.3	114.3	140
1-1/2 x 1-1/4	48.3	42.2	64	6 x 31/,	168.3	101.6	140
1-1/2 X 1	48.3	33.4	64	6x3	168.3	88.9	140
1-1/2X3/4	48.3	26.7	64	6 x 27	168.3	73.0	140
1-1/2X1/2	48.3	21.3	64	8x6	219.1	168.3	152
2 X 1-/2	60.3	48.3	76	8X5	219.1	141.3	152
2 X 1-1/4	60.3	42.2	76	8X4	219.1	114.3	152
2X1	60.3	33.4	76	8 x 3-1/2	219.1	101.6	152
2 X 3/4	60.3	26.7	76	10 X 8	273.0	219.1	178
2-1/2 X 2	73.0	60.3	89	10 x 6	273.0	168.3	178
2-1/2 x 1-1/2	73.0	48.3	89	10 x 5	273.0	141.3	178
2-1/2 X 1-1/4	73.0	42.2	89	10 x 4	273.0	114.3	178
2-1/2 X 1	73.0	33.4	89	12 x 10	323.8	273.0	203
3 X 2-1/2	88.9	73.0	89	12 x 8	323.8	219.1	203
3x2	88.9	60.3	89	12 x 6	323.8	168.3	203
3 x 1-1/2	88.9	48.3	89	12 x 5	323.8	141.3	203
3 x 1-1/4	88.9	42.2	89	14 x 12	355.6	323.8	330
3-1/2 x 3	101.6	88.9	102	14 X 10	355.6	273.0	330
3-1/2x 2-1/2	101.6	73.0	102	14 X 8	355.6	219.1	330
3-1/2 X 2	101.6	60.3	102	14 x 6	355.6	168.3	330
3-1/2 x 1-1/2	101.6	48.3	102	16 x 14	406.4	355.6	356
3-1/2x 1-1/4	101.6	42.2	102	16 x 12	406.4	323.8	356
4 x 3-1/2	114.3	101.6	102	16 x 10	406.4	273.0	356
4X3	114.3	88.9	102	16 x 8	406.4	219.1	356
4 X 2-1/2	114.3	73.0	102	18 x 16	457	406.4	381
4X2	114.3	60.3	102	18 x 14	457	355.6	381
4 x1-1/2	114.3	48.3	102	18 x 12	457	323.8	381
				18 x 10	457	273.0	381

Nominal Pipe Size (NPS)	Outside Diameter at Bevel		End-to-End, H	Nominal Pipe Size (NPS)	Outside Diameter at Bevel		End-to-End, H
	Large End	Small End			Large End	Small End	
20 X 18	508	457.0	508	36 x 34	914	864	610
20 X 16	508	406.4	508	36 x 32	914	813	610

20 x 14	508	355.6	508	36 x 30	914	762	610
20 x 12	508	323.8	508	36 x 26	914	660	610
				36 x 24	914	610	610
22 X 20	559	508.0	508				
22 X 18	559	457.0	508	38 x 36	965	914	610
22 x 16	559	406.4	508	38 x 34	965	864	610
22 X 14	559	355.4	508	38 X 32	965	813	610
				38 x 30	965	762	610
				38 X 28	965	711	610
24 X 22	610	559.0	508	38 x 26	965	660	610
24 X 20	610	508.0	508				
24 x 18	610	457.0	508	40 x 38	1 016	965	610
24 X 16	610	406.4	508	40 x 36	1 016	914	610
				40 X 34	1 016	864	610
26 x 24	660	610.0	610	40 X 32	1 016	813	610
26 X 22	660	559.0	610	40 x 30	1 016	762	610
26 X 20	660	508.0	610				
26 X 18	660	457.0	610	42 X 40	1 067	1 016	610
				42 X 38	1 067	965	610
28 X 26	711	660.0	610	42 x 36	1 067	914	610
28 X 24	711	610.0	610	42 X 34	1 067	864	610
28 x 20	711	508.0	610	42 X 32	1 067	813	610
28 X 18	711	457.0	610	42 X 30	1 067	762	610
30 X 28	762	711.0	610	44 X 42	1 118	1 067	610
30 X 26	762	660.0	610	44 X 40	1 118	1 016	610
30 X 24	762	610.0	610	44 X 38	1 118	965	610
30 X 20	762	508.0	610	44 X 36	1 118	914	610
32 X 30	813	762.0	610	46 X 44	1 168	1 118	711
32 X 28	813	711.0	610	46 X 42	1 168	1 067	711
32 x 26	813	660.0	610	46 x 40	1 168	1 016	711
32 x 24	813	610.0	610	46 x 38	1 168	965	711
34 x 32	864	813.0	610	48 x 46	1 219	1 168	711
34 X 30	864	762.0	610	48 X 44	1 219	1 118	711
34 x 26	864	660.0	610	48 x 42	1 219	1 067	711
34 x 24	864	610.0	610	48 x 40	1 219	1 016	711

Application/Usage

Low and middle pressure fluid pipeline, boiler, petroleum and natural gas industry, drilling, chemical industry, electric industry, shipbuilding, fertilizer equipment and pipeline, structure, petrochemical, pharmaceutical industries, etc.

Material Specification

Designation: A 234/A 234M – 05 Standard Specification for Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and High Temperature Service

This specification covers wrought carbon steel and alloy steel fittings of seamless and welded construction covered by the latest revision of ASME B16.9, B16.11, MSS SP-79, and MSS SP-95. These fittings are for use in pressure piping and in pressure vessel fabrication for service at moderate and elevated temperatures. Fittings differing from these ASME and MSS standards shall be furnished in accordance with Supplementary Requirement S58 of Specification A 960.

Chemical Requirements (Composition, %)

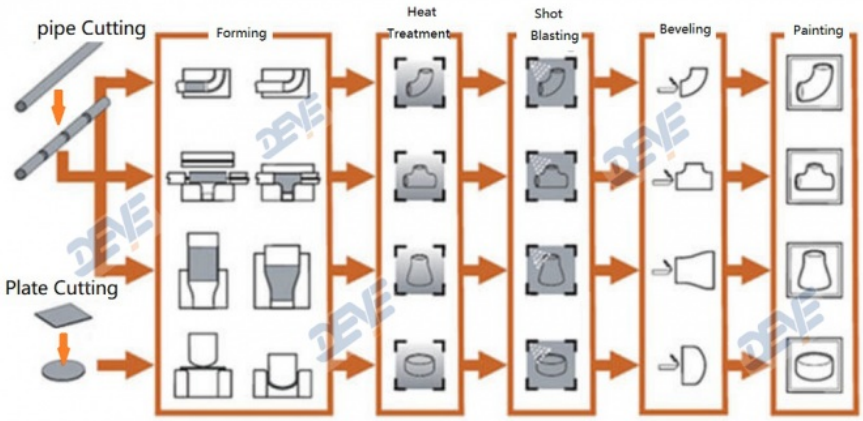
Grade and Material	C	Mn	P	S	Silicon	Chromium	Molybdenum	Nickel	Copper
WPB[B,C,D,E,F] 0.30 max		0.29–1.06	0.05	0.058	0.10 min	0.40 max	0.15 max	0.40 max	0.40 max
WPC[C,D,E,F] 0.35 max		0.29–1.06	0.05	0.058	0.10 min	0.40 max	0.15 max	0.40 max	0.40 max
WP1	0.28 max	0.30–0.90	0.045	0.045	0.10–0.50	. . .	0.44–0.65		
WP12 CL1,	0.05–0.20	0.30–0.80	0.045	0.045	0.60 max	0.80–1.25	0.44–0.65		
WP12 CL2									
WP11 CL1	0.05–0.15	0.30–0.60	0.03	0.03	0.50–1.00	1.00–1.50	0.44–0.65		
WP11 CL2,	0.05–0.20	0.30–0.80	0.04	0.04	0.50–1.00	1.00–1.50	0.44–0.65		
WP11 CL3									
WP22 CL1,	0.05–0.15	0.30–0.60	0.04	0.04	0.50 max	1.90–2.60	0.87–1.13		
WP22 CL3									
WP5 CL1,	0.15 max	0.30–0.60	0.04	0.03	0.50 max	4.0–6.0	0.44–0.65		
WP5 CL3									
WP9 CL1,	0.15 max	0.30–0.60	0.03	0.03	1.00 max	8.0–10.0	0.90–1.10		
WP9 CL3 WPR									
	0.20 max	0.40–1.06	0.045	0.05	. . .	. . .	. . .	1.60–2.24	0.75–1.25
WP91	0.08–0.12	0.30–0.60	0.02	0.01	0.20–0.50	8.0–9.5	0.85–1.05	0.40 max	. . .

WP911	0.09–0.13	0.30–0.60	0.02	0.01	0.10–0.50	8.5–9.5	0.90–1.10	0.40 max	. .

Mechanical Performance Requirements

		WPC		WP11 CL1		WP11 CL3			
Grade and Marking Symbol	WPB	WP11 CL2	WP1	WP22 CL1	WPR	WP22 CL3	WP91	WP911	WP12 CL1
		WP12 CL2		WP5 CL1		WP5 CL3			
				WP9 CL1		WP9 CL3			
Tensile strength, range ksi [MPa]	60–85	70–95	55–80	60–85	63–88	75–100	85–110	90–120	60–85
	[415–585]	[485–655]	[380–550]	[415–585]	[435–605]	[520–690]	[585–760]	[620–840]	[415–585]
Yield strength, min, ksi [MPa]	35 [240]	40 [275]	30 [205]	30 [205]	46 [315]	45 [310]	60 [415]	64 [440]	32 [220]
(0.2 % offset or 0.5 % extension-under-load)									

Production Process



Reference Standards

ASME B16.9 Specification for Butt Welded Fittings
ASME B16.9 specification is designed for butt welded fittings applied in industrial construction pipelines. Including elbow, tee, cross, cap, reducer, and etc.

Standard Scope
The standard includes specifications of NPS 1/2 to NPS 48 (DN15-DN1200) factory-made wrought butt-welded pipe fittings overall dimensions, tolerances ratings, test methods and markings.

Special Fittings
Special fittings here refer to special sizes, forms and tolerances that agreed between buyer and manufacturer.

Fabricated Fittings
Fabricated laterals and other fittings by circumferential or intersection welds are considered pipe fabrication could not apply this standard.

Units under ASME B16.9 shall be stated in both SI (Metric) and U.S. Customary units. Designation for size is NPS.

Reference Standards
It is not considered practical to identify the specific edition of each standard and specification in the individual references. A product made comply with a prior edition of referenced standards and in all other respects conforming to this standard will be considered complied.

ASME B16.5: Pipe Flanges and Flanged Fittings: NPS 1⁄2 Through NPS 24 Metric/Inch Standard
ASME B16.25: For Buttwelding Ends
ASME B31: Code for Pressure Piping
ASME B31.3: Process Piping
ASME B36.10M, Welded and Seamless Wrought Steel Pipe
ASME B36.19M, Stainless Steel Pipe
ASME Boiler and Pressure Vessel Code
ASTM A234/A234M-17, Specification for Piping Fittings of Wrought Carbon Steel and Alloy Steel for Moderate and High Temperature Service
ASTM A403/A403M-16, Specification for Wrought Austenitic Stainless Steel Piping Fittings
ASTM A420/A420M-16, Specification for Piping Fittings of Wrought Carbon Steel and Alloy Steel for LowTemperature Service
ASTM A815/A815M-14e1, Specification for Wrought Ferritic, Ferritic/Austenitic and Martensitic Stainless Steel Piping Fittings
ASTM A960/A960M-16a, Specification for Common Requirements for Wrought Steel Piping Fittings
ASTM E29-13, Practice for Using Significant Digits in Test Data to Determine Conformance With Specifications
ASTM B361-16, ASTM B363-14, ASTM B366/B366M-17: For other material metals. (Aluminum, Titanium, Nickel, and alloy).

FAQ/ Customer Question and Answers

Q: Customer asked for butt weld fittings in A105:
A: Most common carbon steel buttweld fitting material is A234WPB. It is equivalent to A105 flanges, however there is no such thing as an A105 or A106 butt weld fitting A106 Gr.B is for pipe grade. The A234WPB fittings are made from A106GR.B pipes. A105 is a material from Bar forged to be High pressure Fittings or Flange

Q: Customer requests “Normalized” butt weld fittings:
A: This is also a misconception since flanges are available in A105 and A105 N, where N stands for normalized. However, there is no such thing as A234WPBN. Manufactures normalize their butt weld fittings was considered that normalized heat treating process was done, Especially for the elbows and Tees Customer needing “normalized” butt weld fittings should request WPL6 fittings which are high yield and are normalized as a standard procedure.

Q: Customer forgets to mention pipe schedule:
A: Buttweld fittings are sold as per pipe size but pipe schedule must be specified to match the ID of the fitting to the ID of the pipe. If no schedule is mentioned, we will assume a standard wall is requested.

Q; Customer forgets to mention welded or seamless butt weld fitting:
A: Butt weld fittings are available in both welded and seamless configuration. A seamless butt weld carbon steel or stainless-steel fitting is made of seamless pipe and is generally more expensive. Seamless pipe fittings are NOT common in sizes bigger than 12”. Welded pipe fittings are made of ERW welded carbon steel or stainless-steel pipe. They are available in sizes ½” to 72” and are more affordable than seamless fittings.

Q: What does Short Radius (SR) or Long Radius (LR) means?
A: You will often hear SR45 elbow or LR45 elbow. The 45 or 90 refers to the angle of the bend for buttweld fitting to change the direction of flow.A long radius elbow (LR 90 Elbow or LR 45 elbow) will have a pipe bend that will be 1.5 times the size of the pipe. So, a 6 inch LR 90 has bending radius that is 1.5 x nominal pipe size. A short radius elbow (SR45 or SR90) has a pipe bend that is equal to the size of the fitting, so a 6” SR 45 has a bending radius that is 6” nominal pipe size.

Q: What is a 3R or 3D elbow pipe fitting?
A: First, the terms 3R or 3D are used synonymously. A 3R butt weld elbow has a bending radius that is 3 times the nominal pipe size. A 3R elbow is equal to 3D Elbows

DEYE PIPING COMPANY Service

1. Technical support
2. Raw Material Quality control.
3. Inspection during the production time.
4. Final Test includes Surface, Dimension, PT Test, RT test, ultrasonic Test
5. Test Report each shipment
4. Flexible Delivery terms. EXW FOB CIF CFR DDP DDU
5. Flexible payment Ways: LC. TT. DP
6. Customized Package includes Logo. Cases Dimension.
7. 18 months quality Guarantee time.
9. Free replacement by air if any error founded
10. 24 hours to Feedback your questions

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