

# Pressure/Temperature Ratings for Fisher™ Valves (ASME B16.34-2013) - Metric Units

## Material Reference Guide Table

### Metric Units

Fisher valves conforming to ASME B16.34-2013 standard have specific pressure-temperature limits depending on construction materials. Use the material references in table 1 when determining pressure-temperature ratings of valves used in accordance with the ASME standard.

Table 1. Valve Body Materials

CATEGORY	ASME			
	Specification	Grade	Material Group	Nominal Designation
Carbon Steel	SA-216	WCC <sup>(1)</sup>	1.2	S-Mn-Si
	SA-352	LCC <sup>(2)</sup>	1.2	S-Mn-Si
	SA-350	LF2	1.1	C-Mn-Si
Alloy Steels	SA-217	WC6	1.9	1-1/4Cr-1/2 Mo
		WC9	1.10	2-1/4Cr-1 Mo
		C12A	1.15	9Cr-1 Mo-V
Stainless Steel	SA-351	CF8M	2.2	16Cr-12 Ni-2Mo
		CF8	2.1	18Cr-8 Ni
		CF8C	2.11	18Cr-10 Ni-Cb
		CF3M	2.2	16Cr-12 Ni-2Mo
		CG8M	2.2	19Cr-10 Ni-3Mo
		CK3MCuN	2.8	20Cr-18 Ni-6Mo
	SA-995	CD3MN <sup>(3)</sup> (Grade 4A)	2.8	22Cr-5 Ni-3Mo-N
		CD3MWCuN (Grade 6A)	2.8	25Cr-7 Ni-3.5Mo-Cb

1. WCC is a standard substitute for WCB material.  
2. LCC is a standard substitute for LCB material.  
3. Listed as A351-CD3MN in B16.34-2013.

# Standard Pressure-Temperature Ratings for CL150 and CL300 Valves

Fisher valve materials that conform to ASME B16.34-2013 Standard Class pressure-temperature ratings are listed in tables 2 and 3. These ratings apply to all Fisher cast, forged, and fabricated steel valves.

Table 2. For ASME Standard CL150 Valves<sup>(1)</sup>

SERVICE TEMP (°C)	WORKING PRESSURE (Bar)														
	LCC	LF2	WCC	WC6 (2)	WC9 (2)	C12A (2)	CF8 <sup>(2,3)</sup> or 304 <sup>(2,3)</sup>	CF8M <sup>(2,3)</sup> or 316 <sup>(2,3)</sup>	CF3M	316L	CG8M	317 (2,3)	CF8C (2,3)	347	CK3MCuN CD3MN CD3MWCuN
-29 to 38	19.8	19.6	19.8	19.8	19.8	20.0	19.0	19.0	19.0	15.9	19.0	19.0	19.0	19.0	20.0
50	19.5	19.2	19.5	19.5	19.5	19.5	18.3	18.4	18.4	15.3	18.4	18.4	18.7	18.7	19.5
100	17.7	17.7	17.7	17.7	17.7	17.7	15.7	16.2	16.2	13.3	16.2	16.2	17.4	17.4	17.7
150	15.8	15.8	15.8	15.8	15.8	15.8	14.2	14.8	14.8	12.0	14.8	14.8	15.8	15.8	15.8
200	13.8	13.8	13.8	13.8	13.8	13.8	13.2	13.7	13.7	11.2	13.7	13.7	13.8	13.8	13.8
250	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	12.1	10.5	12.1	12.1	12.1	12.1	12.1
300	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.2	10.0	10.2	10.2	10.2	10.2	10.2
325	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3	9.3
350		8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4	8.4
375		7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4	7.4
400		6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5	6.5
425		5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	5.5	
450				4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	4.6	
475				3.7	3.7	3.7	3.7	3.7			3.7	3.7	3.7	3.7	
500				2.8	2.8	2.8	2.8	2.8			2.8	2.8	2.8	2.8	
538				1.4	1.4	1.4	1.4	1.4			1.4	1.4	1.4	1.4	
550				1.4	1.4	1.4	1.4	1.4				1.4	1.4		
575				1.4	1.4	1.4	1.4	1.4				1.4	1.4		
600						1.4	1.4	1.4				1.4	1.4		
625						1.4	1.4	1.4				1.4	1.4		
650						1.4	1.4	1.4				1.4	1.4		
675							1.4	1.4				1.4	1.4		
700							1.4	1.4				1.4	1.4		
725							1.4	1.4				1.4	1.4		
750							1.4	1.4				1.4	1.2		
775							1.4	1.4				1.4	0.9		
800							1.2	1.2				1.2	0.8		
816							1.0	1.0				1.0	0.7		

1. Table information is extracted from the Valve—Flanged, Threaded, and Welding End, ASME Standard B16.34-2013. These tables must be used in accordance with the ASME standard. The user is advised that a valve used under the jurisdiction of the ASME Boiler and Pressure Vessel Code, ASME Code for Pressure Piping, or governmental regulations is subject to any limitation of that code or regulation. This includes any maximum temperature limitation for a material or rule governing the use of a material at a low temperature.\* Information copied with permission of the publisher; The American Society of Mechanical Engineers, 345 East 47th Street, New York, New York, 10017.  
2. Flange end valve ratings terminate at 538°C.  
3. At temperatures above 538°C, use only when carbon content is 0.04% or higher.

Table 3. For ASME Standard CL300 Valves<sup>(1)</sup>

SERVICE TEMP (°C)	WORKING PRESSURE (Bar)														
	LCC	LF2	WCC	WC6	WC9	C12A <sup>(2)</sup>	CF8 <sup>(2,3)</sup> or 304 <sup>(2,3)</sup>	CF8M <sup>(2,3)</sup> or 316 <sup>(2,3)</sup>	CF3M	316L	CG8M	317 (2)	CF8C (2)	347	CK3MCuN CD3MN CD3MWCuN
-29 to 38	51.7	51.1	51.7	51.7	51.7	51.7	49.6	49.6	49.6	41.4	49.6	49.6	49.6	49.6	51.7
50	51.7	50.1	51.7	51.7	51.7	51.7	47.8	48.1	48.1	40.0	48.1	48.1	48.8	48.8	51.7
100	51.5	46.6	51.5	51.5	51.5	51.5	40.9	42.2	42.2	34.8	42.2	42.2	45.3	45.3	50.7
150	50.2	45.1	50.2	49.7	50.3	50.3	37.0	38.5	38.5	31.4	38.5	38.5	42.5	42.5	45.9
200	48.6	43.8	48.6	48.0	48.6	48.6	34.5	35.7	35.7	29.2	35.7	35.7	39.9	39.9	42.7
250	46.3	41.9	46.3	46.3	46.3	46.3	32.5	33.4	33.4	27.5	33.4	33.4	37.8	37.8	40.5
300	42.9	39.8	42.9	42.9	42.9	42.9	30.9	31.6	31.6	26.1	31.6	31.6	36.1	36.1	38.9
325	41.4	38.7	41.4	41.4	41.4	41.4	30.2	30.9	30.9	25.5	30.9	30.9	35.4	35.4	38.2
350		37.6	40.0	40.3	40.3	40.3	29.6	30.3	30.3	25.1	30.3	30.3	34.8	34.8	37.6
375		36.4	37.8	38.9	38.9	38.9	29.0	29.9	29.9	24.8	29.9	29.9	34.2	34.2	37.4
400		34.7	34.7	36.5	36.5	36.5	28.4	29.4	29.4	24.3	29.4	29.4	33.9	33.9	36.5
425		28.8	28.8	35.2	35.2	35.2	28.0	29.1	29.1	23.9	29.1	29.1	33.6	33.6	
450				33.7	33.7	33.7	27.4	28.8	28.8	23.4	28.8	28.8	33.5	33.5	
475				31.7	31.7	31.7	26.9	28.7			28.7	28.7	31.7	31.7	
500				25.7	28.2	28.2	26.5	28.2			28.2	28.2	28.2	28.2	
538				14.9	18.4	25.2	24.4	25.2			25.2	25.2	25.2	25.2	
550				12.7	15.6	25.0	23.6	25.0				25.0	25.0		
575				8.8	10.5	24.0	20.8	24.0				24.0	24.0		
600						19.5	16.9	19.9				19.9	19.8		
625						14.6	13.8	15.8				15.8	13.9		
650						9.9	11.3	12.7				12.7	10.3		
675							9.3	10.3				10.3	8.0		
700							8.0	8.4				8.4	5.6		
725							6.8	7.0				7.0	4.0		
750							5.8	5.9				5.9	3.1		
775							4.6	4.6				4.6	2.5		
800							3.5	3.5				3.5	2.0		
816							2.8	2.8				2.8	1.9		

1. Table information is extracted from the Valve—Flanged, Threaded, and Welding End, ASME Standard B16.34-2013. These tables must be used in accordance with the ASME standard. The user is advised that a valve used under the jurisdiction of the ASME Boiler and Pressure Vessel Code, ASME Code for Pressure Piping, or governmental regulations is subject to any limitation of that code or regulation. This includes any maximum temperature limitation for a material or rule governing the use of a material at a low temperature. Information copied with permission of the publisher; The American Society of Mechanical Engineers, 345 East 47th Street, New York, New York, 10017.  
2. Flange end valve ratings terminate at 538°C.  
3. At temperatures above 538°C, use only when carbon content is 0.04% or higher.

# Special Pressure-Temperature Ratings for CL150 and CL300 Threaded or Welding End Valves

Fisher valve materials that conform to ASME B16.34-2013 Special Class pressure-temperature ratings are listed in tables 4 and 5. These ratings apply to all Fisher cast, forged, and fabricated steel valves. Nondestructive examination applies (Fisher Process Level 6).

Table 4. For ASME Special CL150 Valves<sup>(1)</sup>

SERVICE TEMP (°C)	WORKING PRESSURE (Bar)														
	LCC	LF2	WCC	WC6	WC9	C12A(2)	CF8(2) or 304(2)	CF8M(2) or 316(2)	CF3M	316L	CG8M	317 (2)	CF8C (2)	347	CK3MCuN CD3MN CD3MWCuN
-29 to 38	20.0	19.8	20.0	19.8	19.8	20.0	19.8	19.8	19.8	17.7	19.8	19.8	19.8	20.0	20.0
50	20.0	19.8	20.0	19.8	19.8	20.0	19.4	19.5	19.5	17.1	19.5	19.5	19.6	20.0	20.0
100	20.0	19.8	20.0	19.8	19.8	20.0	17.5	18.1	18.1	14.9	18.1	18.1	18.8	19.4	20.0
150	20.0	19.6	20.0	19.8	19.5	20.0	15.8	16.5	16.5	13.4	16.5	16.5	17.4	18.2	19.6
200	20.0	19.4	20.0	19.8	19.3	20.0	14.8	15.3	15.3	12.5	15.3	15.3	16.5	17.1	18.2
250	20.0	19.4	20.0	19.8	19.2	20.0	13.9	14.3	14.3	11.8	14.3	14.3	16.0	16.2	17.3
300	20.0	19.4	20.0	19.8	19.1	20.0	13.2	13.5	13.5	11.2	13.5	13.5	15.4	15.4	16.6
325	20.0	19.2	20.0	19.8	19.0	20.0	12.9	13.2	13.2	10.9	13.2	13.2	15.1	15.1	16.3
350		18.7	19.8	19.8	18.9	19.8	12.7	13.0	13.0	10.7	13.0	13.0	14.9	14.9	16.1
375		18.1	19.3	19.3	18.7	19.3	12.4	12.8	12.8	10.6	12.8	12.8	14.6	14.6	16.0
400		16.6	19.3	19.3	18.7	19.3	12.2	12.6	12.6	10.4	12.6	12.6	14.5	14.5	15.2
425		13.8	18.0	19.0	18.7	19.0	12.0	12.5	12.5	10.2	12.5	12.5	14.4	14.4	
450				18.1	18.1	18.1	11.7	12.3	12.3	10.0	12.3	12.3	14.3	14.3	
475				16.4	16.4	16.4	11.5	12.3			12.3	12.3	14.3	14.3	
500				12.3	13.7	13.7	11.3	12.2			12.2	12.2	13.7	13.7	
538				7.1	8.8	11.0	11.0	11.0			11.0	11.0	11.0	11.0	
550				6.1	7.5	11.0	10.9	11.0				11.0	11.0		
575				4.2	5.0	10.9	10.0	10.9				10.9	10.9		
600						9.3	8.1	9.5				9.5	9.5		
625						7.0	6.6	7.6				7.6	6.6		
650						4.8	5.4	6.1				6.1	4.9		
675							4.5	4.9				4.9	3.8		
700							4.1	4.4				4.4	3.1		
725							3.5	3.7				3.7	2.3		
750							2.8	2.8				2.8	1.6		
775							2.2	2.2				2.2	1.2		
800							1.8	1.8				1.8	1.0		
816							1.4	1.4				1.4	0.9		

1. Table information is extracted from the Valve—Flanged, Threaded, and Welding End, ASME Standard B16.34-2013. These tables must be used in accordance with the ASME standard. The ASME standard states in paragraph "2.1.3 Special Class Valves, Threaded or welding end valves that conform to all the requirements of para. 2.1.2 and in addition have successfully passed the examinations required by Section 8, may be designated Special Class valves." The standard also stipulates that, "Special Class ratings shall not be used for flanged end valves." Information copied with permission of the publisher; The American Society of Mechanical Engineers, 345 East 47th Street, New York, New York, 10017.  
2. At temperatures above 538°C, use only when carbon content is 0.04% or higher.

Table 5. For ASME Special CL300 Valves<sup>(1)</sup>

SERVICE TEMP (°C)	WORKING PRESSURE (Bar)														
	LCC	LF2	WCC	WC6	WC9	C12A(2)	CF8(2) or 304(2)	CF8M(2) or 316(2)	CF3M	316L	CG8M	317 (2)	CF8C (2)	347	CK3MCuN CD3MN CD3MWCuN
-29 to 38	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	51.7	46.2	51.7	51.7	51.7	51.7	51.7
50	51.7	51.7	51.7	51.7	51.7	51.7	50.5	50.8	50.8	44.7	50.8	50.8	51.2	51.7	51.7
100	51.7	51.6	51.7	51.7	51.6	51.7	45.6	47.1	47.1	38.8	47.1	47.1	48.9	50.6	51.7
150	51.7	51.0	51.7	51.7	51.0	51.7	41.3	43.0	43.0	35.0	43.0	43.0	45.4	47.4	51.3
200	51.7	50.6	51.7	51.7	50.2	51.7	38.5	39.8	39.8	32.5	39.8	39.8	43.1	44.6	47.6
250	51.7	50.5	51.7	51.7	50.0	51.7	36.3	37.3	37.3	30.7	37.3	37.3	41.6	42.2	45.2
300	51.7	50.5	51.7	51.7	49.8	51.7	34.5	35.3	35.3	29.1	35.3	35.3	40.2	40.3	43.4
325	51.7	50.1	51.7	51.7	49.6	51.7	33.7	34.5	34.5	28.4	34.5	34.5	39.5	39.5	42.6
350		48.9	51.1	51.5	49.2	51.5	33.1	33.8	33.8	28.0	33.8	33.8	38.8	38.8	42.0
375		47.1	48.4	50.6	48.8	50.6	32.4	33.3	33.3	27.6	33.3	33.3	38.2	38.2	41.7
400		43.4	43.4	50.3	48.8	50.3	31.7	32.9	32.9	27.1	32.9	32.9	37.8	37.8	39.7
425		36.0	36.0	49.6	48.8	49.6	31.2	32.5	32.5	26.6	32.5	32.5	37.5	37.5	
450				47.3	47.3	47.3	30.6	32.2	32.2	26.1	32.2	32.2	37.3	37.3	
475				42.8	42.8	42.8	30.1	32.0			32.0	32.0	37.3	37.3	
500				32.2	35.6	35.6	29.6	31.7			31.7	31.7	35.6	35.6	
538				18.6	23.0	29.0	28.6	29.0			29.0	29.0	29.0	29.0	
550				15.9	19.5	29.0	28.4	29.0				29.0	29.0		
575				11.0	13.2	28.6	26.1	28.6				28.6	28.6		
600						24.4	21.1	24.9				24.9	24.8		
625						18.3	17.2	19.8				19.8	17.3		
650						12.4	14.1	15.8				15.8	12.9		
675							11.7	12.9				12.9	9.9		
700							10.7	11.4				11.4	8.2		
725							9.2	9.5				9.5	5.9		
750							7.4	7.4				7.4	4.1		
775							5.8	5.8				5.8	3.1		
800							4.4	4.4				4.4	2.7		
816							3.4	3.4				3.4	2.4		

1. Table information is extracted from the Valve—Flanged, Threaded, and Welding End, ASME Standard B16.34-2013. These tables must be used in accordance with the ASME standard. The ASME standard states in paragraph "2.1.3 Special Class Valves, Threaded or welding end valves that conform to all the requirements of para. 2.1.2 and in addition have successfully passed the examinations required by Section 8, may be designated Special Class valves." The standard also stipulates that, "Special Class ratings shall not be used for flanged end valves." Information copied with permission of the publisher, The American Society of Mechanical Engineers, 345 East 47th Street, New York, New York, 10017.  
2. At temperatures above 538°C, use only when carbon content is 0.04% or higher.

# Standard Pressure-Temperature Ratings for CL600 and CL900 Valves

Fisher valve materials that conform to ASME B16.34-2013 Standard Class pressure-temperature ratings are listed in tables 6 and 7. These ratings apply to all Fisher cast, forged, and fabricated steel valves.

Table 6. For ASME Standard CL600 Valves<sup>(1)</sup>

SERVICE TEMP (°C)	WORKING PRESSURE (Bar)														
	LCC	LF2	WCC	WC6	WC9	C12A <sup>(2)</sup>	CF8 <sup>(2,3)</sup> or 304 <sup>(2,3)</sup>	CF8M <sup>(2,3)</sup> or 316 <sup>(2,3)</sup>	CF3M	316L	CG8M	317 (2,3)	CF8C (2,3)	347	CK3MCuN CD3MN CD3MWCuN
-29 to 38	103.4	102.1	103.4	103.4	103.4	103.4	99.3	99.3	99.3	82.7	99.3	99.3	99.3	99.3	103.4
50	103.4	100.2	103.4	103.4	103.4	103.4	95.6	96.2	96.2	80.0	96.2	96.2	97.5	97.5	103.4
100	103.0	93.2	103.0	103.0	103.0	103.0	81.7	84.4	84.4	69.6	84.4	84.4	90.6	90.6	101.3
150	100.3	90.2	100.3	99.5	100.3	100.3	74.0	77.0	77.0	62.8	77.0	77.0	84.9	84.9	91.9
200	97.2	87.6	97.2	95.9	97.2	97.2	69.0	71.3	71.3	58.3	71.3	71.3	79.9	79.9	85.3
250	92.7	83.9	92.7	92.7	92.7	92.7	65.0	66.8	66.8	54.9	66.8	66.8	75.6	75.6	80.9
300	85.7	79.6	85.7	85.7	85.7	85.7	61.8	63.2	63.2	52.1	63.2	63.2	72.2	72.2	77.7
325	82.6	77.4	82.6	82.6	82.6	82.6	60.4	61.8	61.8	51.0	61.8	61.8	70.7	70.7	76.3
350		75.1	80.0	80.4	80.4	80.4	59.3	60.7	60.7	50.1	60.7	60.7	69.5	69.5	75.3
375		72.7	75.7	77.6	77.6	77.6	58.1	59.8	59.8	49.5	59.8	59.8	68.4	68.4	74.7
400		69.4	69.4	73.3	73.3	73.3	56.9	58.9	58.9	48.6	58.9	58.9	67.8	67.8	73.3
425		57.5	57.5	70.0	70.0	70.0	56.0	58.3	58.3	47.7	58.3	58.3	67.2	67.2	
450				67.7	67.7	67.7	54.8	57.7	57.7	46.8	57.7	57.7	66.9	66.9	
475				63.4	63.4	63.4	53.9	57.3			57.3	57.3	63.4	63.4	
500				51.5	56.5	56.6	53.0	56.5			56.5	56.5	56.5	56.5	
538				29.8	36.9	50.0	48.9	50.0			50.0	50.0	50.0	50.0	
550				25.4	31.3	49.8	47.1	49.8				49.8	49.8		
575				17.6	21.1	47.9	41.7	47.9				47.9	47.9		
600						39.0	33.8	39.8				39.8	39.6		
625						29.2	27.6	31.6				31.6	27.7		
650						19.9	22.5	25.3				25.3	20.6		
675							18.7	20.6				20.6	15.9		
700							16.1	16.8				16.8	11.2		
725							13.5	14.0				14.0	8.0		
750							11.6	11.7				11.7	6.2		
775							9.0	9.0				9.0	4.9		
800							7.0	7.0				7.0	4.0		
816							5.9	5.9				5.9	3.8		

1. Table information is extracted from the Valve—Flanged, Threaded, and Welding End, ASME Standard B16.34-2013. These tables must be used in accordance with the ASME standard. The user is advised that a valve used under the jurisdiction of the ASME Boiler and Pressure Vessel Code, ASME Code for Pressure Piping, or governmental regulations is subject to any limitation of that code or regulation. This includes any maximum temperature limitation for a material or rule governing the use of a material at a low temperature. Information copied with permission of the publisher, The American Society of Mechanical Engineers, 345 East 47th Street, New York, New York, 10017.  
 2. Flange end valve ratings terminate at 538°C.  
 3. At temperatures above 538°C, use only when carbon content is 0.04% or higher.

Table 7. For ASME Standard CL900 Valves<sup>(1)</sup>

SERVICE TEMP (°C)	WORKING PRESSURE (Bar)														
	LCC	LF2	WCC	WC6	WC9	C12A <sup>(2)</sup>	CF8 <sup>(2,3)</sup> or 304 <sup>(2,3)</sup>	CF8M <sup>(2,3)</sup> or 316 <sup>(2,3)</sup>	CF3M	316L	CG8M	317 (2,3)	CF8C (2,3)	347	CK3MCuN CD3MN CD3MWCuN
-29 to 38	155.1	153.2	155.1	155.1	155.1	155.1	148.9	148.9	148.9	124.1	148.9	148.9	148.9	148.9	155.1
50	155.1	150.4	155.1	155.1	155.1	155.1	143.5	144.3	144.3	120.1	144.3	144.3	146.3	146.3	155.1
100	154.6	139.8	154.6	154.4	154.6	154.6	122.6	126.6	126.6	104.4	126.6	126.6	135.9	135.9	152.0
150	150.5	135.2	150.5	149.2	150.6	150.6	111.0	115.5	115.5	94.2	115.5	115.5	127.4	127.4	137.8
200	145.8	131.4	145.8	143.9	145.8	145.8	103.4	107.0	107.0	87.5	107.0	107.0	119.8	119.8	128.0
250	139.0	125.8	139.0	139.0	139.0	139.0	97.5	100.1	100.1	82.4	100.1	100.1	113.4	113.4	121.4
300	128.6	119.5	128.6	128.6	128.6	128.6	92.7	94.9	94.9	78.2	94.9	94.9	108.3	108.3	116.6
325	124.0	116.1	124.0	124.0	124.0	124.0	90.7	92.7	92.7	76.4	92.7	92.7	106.1	106.1	114.5
350		112.7	120.1	120.7	120.7	120.7	88.9	91.0	91.0	75.2	91.0	91.0	104.3	104.3	112.9
375		109.1	113.5	116.5	116.5	116.5	87.1	89.6	89.6	74.3	89.6	89.6	102.6	102.6	112.1
400		104.2	104.2	109.8	109.8	109.8	85.3	88.3	88.3	72.9	88.3	88.3	101.7	101.7	109.8
425		86.3	86.3	105.1	105.1	105.1	84.0	87.4	87.4	71.6	87.4	87.4	100.8	100.8	
450				101.4	101.4	101.4	82.2	86.5	86.5	70.2	86.5	86.5	100.4	100.4	
475				95.1	95.1	95.1	80.8	86.0			86.0	86.0	95.1	95.1	
500				77.2	84.7	84.7	79.5	84.7			84.7	84.7	84.7	84.7	
538				44.7	55.3	75.2	73.3	75.2			75.2	75.2	75.2	75.2	
550				38.1	46.9	74.8	70.7	74.8				74.8	74.8		
575				26.4	31.6	71.8	62.5	71.8				71.8	71.8		
600						58.5	50.6	59.7				59.7	59.4		
625						43.8	41.4	47.4				47.4	41.6		
650						29.8	33.8	38.0				38.0	30.9		
675							28.0	31.0				31.0	23.9		
700							24.1	25.1				25.1	16.8		
725							20.3	21.0				21.0	11.9		
750							17.3	17.6				17.6	9.3		
775							13.7	13.7				13.7	7.4		
800							10.5	10.5				10.5	6.1		
816							8.6	8.6				8.6	5.7		

1. Table information is extracted from the Valve—Flanged, Threaded, and Welding End, ASME Standard B16.34-2013. These tables must be used in accordance with the ASME standard. The user is advised that a valve used under the jurisdiction of the ASME Boiler and Pressure Vessel Code, ASME Code for Pressure Piping, or governmental regulations is subject to any limitation of that code or regulation. This includes any maximum temperature limitation for a material or rule governing the use of a material at a low temperature. \* Information copied with permission of the publisher; The American Society of Mechanical Engineers, 345 East 47th Street, New York, New York, 10017.  
2. Flange end valve ratings terminate at 538°C.  
3. At temperatures above 538°C, use only when carbon content is 0.04% or higher.

# Special Pressure-Temperature Ratings for CL600 and CL900 Threaded or Welding End Valves

Fisher valve materials that conform to ASME B16.34-2013 Special Class pressure-temperature ratings are listed in tables 8 and 9. These ratings apply to all Fisher cast, forged, and fabricated steel valves. Nondestructive examination applies (Fisher Process Level 6).

Table 8. For ASME Special CL600 Valves<sup>(1)</sup>

SERVICE TEMP (°C)	WORKING PRESSURE (Bar)														
	LCC	LF2	WCC	WC6	WC9	C12A(2)	CF8(2) or 304(2)	CF8M(2) or 316(2)	CF3M	316L	CG8M	317 (2)	CF8C (2)	347	CK3MCuN CD3MN CD3MWCuN
-29 to 38	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	103.4	92.3	103.4	103.4	103.4	103.4	103.4
50	103.4	103.4	103.4	103.4	103.4	103.4	101.0	101.6	101.6	89.3	101.6	101.6	102.4	103.4	103.4
100	103.4	103.3	103.4	103.4	103.2	103.4	91.2	94.2	94.2	77.7	94.2	94.2	97.9	101.1	103.4
150	103.4	102.1	103.4	103.4	101.9	103.4	82.6	85.9	85.9	70.1	85.9	85.9	90.8	94.8	102.5
200	103.4	101.1	103.4	103.4	100.4	103.4	77.0	79.6	79.6	65.1	79.6	79.6	86.1	89.1	95.2
250	103.4	101.1	103.4	103.4	100.0	103.4	72.5	74.5	74.5	61.3	74.5	74.5	83.3	84.4	90.3
300	103.4	101.1	103.4	103.4	99.6	103.4	69.0	70.6	70.6	58.2	70.6	70.6	80.3	80.6	86.7
325	103.4	100.2	103.4	103.4	99.2	103.4	67.5	68.9	68.9	56.9	68.9	68.9	78.9	78.9	85.2
350		97.8	102.2	102.8	98.4	102.8	66.1	67.7	67.7	56.0	67.7	67.7	77.6	77.6	84.0
375		94.2	96.7	101.0	97.5	101.0	64.8	66.7	66.7	55.2	66.7	66.7	76.4	76.4	83.4
400		86.8	86.8	100.6	97.5	100.6	63.5	65.7	65.7	54.3	65.7	65.7	75.7	75.7	79.4
425		71.9	71.9	99.3	97.5	99.3	62.5	65.1	65.1	53.3	65.1	65.1	75.0	75.0	
450				94.4	94.4	94.4	61.2	64.4	64.4	52.3	64.4	64.4	74.7	74.7	
475				85.5	85.5	85.5	60.1	64.0			64.0	64.0	74.6	74.6	
500				64.3	71.5	71.5	59.1	63.4			63.4	63.4	71.5	71.5	
538				37.2	46.1	57.9	57.3	57.9			57.9	57.9	57.9	57.9	
550				31.8	39.1	57.9	56.8	57.9				57.9	57.9		
575				22.0	26.3	57.1	52.1	57.1				57.1	57.1		
600						48.7	42.2	49.8				49.8	49.5		
625						36.5	34.5	39.5				39.5	34.6		
650						24.8	28.2	31.7				31.7	25.7		
675							23.4	25.8				25.8	19.9		
700							21.3	22.8				22.8	16.4		
725							18.5	19.1				19.1	11.8		
750							14.8	14.8				14.8	8.2		
775							11.4	11.4				11.4	6.2		
800							8.8	8.8				8.8	5.3		
816							7.2	7.2				7.2	4.7		

1. Table information is extracted from the Valve—Flanged, Threaded, and Welding End, ASME Standard B16.34-2013. These tables must be used in accordance with the ASME standard. The ASME standard states in paragraph "2.1.3 Special Class Valves, Threaded or welding end valves that conform to all the requirements of para. 2.1.2 and in addition have successfully passed the examinations required by Section 8, may be designated Special Class valves." The standard also stipulates that, "Special Class ratings shall not be used for flanged end valves." Information copied with permission of the publisher; The American Society of Mechanical Engineers, 345 East 47th Street, New York, New York, 10017.  
2. At temperatures above 538°C, use only when carbon content is 0.04% or higher.



Table 9. For ASME Special CL900 Valves<sup>(1)</sup>

SERVICE TEMP (°C)	WORKING PRESSURE (Bar)														
	LCC	LF2	WCC	WC6	WC9	C12A <sup>(2)</sup>	CF8 <sup>(2)</sup> or 304 <sup>(2)</sup>	CF8M <sup>(2)</sup> or 316 <sup>(2)</sup>	CF3M	316L	CG8M	317 (2)	CF8C (2)	347	CK3MCuN CD3MN CD3MWCuN
-29 to 38	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	155.1	138.5	155.1	155.1	155.1	155.1	155.1
50	155.1	155.1	155.1	155.1	155.1	155.1	151.5	152.5	152.5	134.0	152.5	152.5	153.6	155.1	155.1
100	155.1	154.9	155.1	155.1	154.9	155.1	136.8	141.3	141.3	116.5	141.3	141.3	146.8	151.7	155.1
150	155.1	153.1	155.1	155.1	152.9	155.1	123.9	128.9	128.9	105.1	128.9	128.9	136.1	142.2	153.8
200	155.1	151.7	155.1	155.1	150.7	155.1	115.4	119.4	119.4	97.6	119.4	119.4	129.2	133.7	142.8
250	155.1	151.6	155.1	155.1	149.9	155.1	108.8	111.8	111.8	92.0	111.8	111.8	124.9	126.6	135.5
300	155.1	151.6	155.1	155.1	149.3	155.1	103.5	105.9	105.9	87.3	105.9	105.9	120.5	120.8	130.1
325	155.1	150.3	155.1	155.1	148.8	155.1	101.2	103.4	103.4	85.3	103.4	103.4	118.4	118.4	127.8
350		146.7	153.3	154.3	147.6	154.3	99.2	101.5	101.5	83.9	101.5	101.5	116.4	116.4	126.1
375		141.3	145.1	151.5	146.3	151.5	97.2	100.0	100.0	82.9	100.0	100.0	114.5	114.5	125.1
400		130.2	130.2	150.6	146.3	150.6	95.2	98.6	98.6	81.4	98.6	98.6	113.5	113.5	119.1
425		107.9	107.9	148.9	146.3	148.9	93.7	97.6	97.6	79.9	97.6	97.6	112.5	112.5	
450				141.4	141.4	141.4	91.8	96.6	96.6	78.4	96.6	96.6	112.0	112.0	
475				128.2	128.2	128.2	90.2	96.0			96.0	96.0	111.9	111.9	
500				96.5	107.1	107.1	88.7	95.1			95.1	95.1	107.1	107.1	
538				55.8	69.1	86.9	85.9	86.9			86.9	86.9	86.9	86.9	
550				47.7	58.6	86.9	85.1	86.9				86.9	86.9		
575				33.0	39.5	85.7	78.2	85.7				85.7	85.7		
600						73.1	63.3	74.6				74.6	74.3		
625						54.8	51.7	59.3				59.3	52.0		
650						37.2	42.2	47.5				47.5	38.6		
675							35.1	38.7				38.7	29.8		
700							32.0	34.3				34.3	24.5		
725							27.7	28.6				28.6	17.7		
750							22.1	22.1				22.1	12.2		
775							17.2	17.2				17.2	9.3		
800							13.2	13.2				13.2	8.0		
816							10.7	10.7				10.7	7.1		

1. Table information is extracted from the Valve—Flanged, Threaded, and Welding End, ASME Standard B16.34-2013. These tables must be used in accordance with the ASME standard. The ASME standard states in paragraph "2.1.3 Special Class Valves, Threaded or welding end valves that conform to all the requirements of para. 2.1.2 and in addition have successfully passed the examinations required by Section 8, may be designated Special Class valves." The standard also stipulates that, "Special Class ratings shall not be used for flanged end valves." Information copied with permission of the publisher, The American Society of Mechanical Engineers, 345 East 47th Street, New York, New York, 10017.  
2. At temperatures above 538°C, use only when carbon content is 0.04% or higher.

# Standard Pressure-Temperature Ratings for CL1500 and CL2500 Valves

Fisher valve materials that conform to ASME B16.34-2013 Standard Class pressure-temperature ratings are listed in tables 10 and 11. These ratings apply to all Fisher cast, forged, and fabricated steel valves.

Table 10. For ASME Standard CL1500 Valves<sup>(1)</sup>

SERVICE TEMP (°C)	WORKING PRESSURE (Bar)														
	LCC	LF2	WCC	WC6	WC9	C12A <sup>(2)</sup>	CF8 <sup>(2,3)</sup> or 304 <sup>(2,3)</sup>	CF8M <sup>(2,3)</sup> or 316 <sup>(2,3)</sup>	CF3M	316L	CG8M	317 (2,3)	CF8C (2,3)	347	CK3MCuN CD3MN CD3MWCuN
-29 to 38	258.6	255.3	258.6	258.6	258.6	258.6	248.2	248.2	248.2	206.8	248.2	248.2	248.2	248.2	258.6
50	258.6	250.6	258.6	258.6	258.6	258.6	239.1	240.6	240.6	200.1	240.6	240.6	243.8	243.8	258.6
100	257.6	233.0	257.6	257.4	257.6	257.6	204.3	211.0	211.0	173.9	211.0	211.0	226.5	226.5	253.3
150	250.8	225.4	250.8	248.7	250.8	250.8	185.0	192.5	192.5	157.0	192.5	192.5	212.4	212.4	229.6
200	243.2	219.0	243.2	239.8	243.4	243.4	172.4	178.3	178.3	145.8	178.3	178.3	199.7	199.7	213.3
250	231.8	209.7	231.8	231.8	231.8	231.8	162.4	166.9	166.9	137.3	166.9	166.9	189.1	189.1	202.3
300	214.4	199.1	214.4	214.4	214.4	214.4	154.6	158.1	158.1	130.3	158.1	158.1	180.4	180.4	194.3
325	206.6	193.6	206.6	206.6	206.6	206.6	151.1	154.4	154.4	127.4	154.4	154.4	176.8	176.8	190.8
350		187.8	200.1	201.1	201.1	201.1	148.1	151.6	151.6	125.4	151.6	151.6	173.8	173.8	188.2
375		181.8	189.2	194.1	194.1	194.1	145.2	149.4	149.4	123.8	149.4	149.4	171.0	171.0	186.8
400		173.6	173.6	183.1	183.1	183.1	142.2	147.2	147.2	121.5	147.2	147.2	169.5	169.5	183.1
425		143.8	143.8	175.1	175.1	175.1	140.0	145.7	145.7	119.3	145.7	145.7	168.1	168.1	
450				169.0	169.0	169.0	137.0	144.2	144.2	117.1	144.2	144.2	167.3	167.3	
475				158.2	158.2	158.2	134.7	143.4			143.4	143.4	158.2	158.2	
500				128.6	140.9	140.9	132.4	140.9			140.9	140.9	140.9	140.9	
538				74.5	92.2	125.5	122.1	125.5			125.5	125.5	125.5	125.5	
550				63.5	78.2	124.9	117.8	124.9			124.9	124.9			
575				44.0	52.6	119.7	104.2	119.7			119.7	119.7			
600						97.5	84.4	99.5			99.5	99.5			
625						73.0	68.9	79.1			79.1	69.3			
650						49.6	56.3	63.3			63.3	51.5			
675							46.7	51.6			51.6	39.8			
700							40.1	41.9			41.9	28.1			
725							33.8	34.9			34.9	19.9			
750							28.9	29.3			29.3	15.5			
775							22.8	22.8			22.8	12.3			
800							17.4	17.4			17.4	10.1			
816							14.1	14.1			14.1	9.5			

1. Table information is extracted from the Valve—Flanged, Threaded, and Welding End, ASME Standard B16.34-2013. These tables must be used in accordance with the ASME standard. The user is advised that a valve used under the jurisdiction of the ASME Boiler and Pressure Vessel Code, ASME Code for Pressure Piping, or governmental regulations is subject to any limitation of that code or regulation. This includes any maximum temperature limitation for a material or rule governing the use of a material at a low temperature. Information copied with permission of the publisher, The American Society of Mechanical Engineers, 345 East 47th Street, New York, New York, 10017.  
2. Flange end valve ratings terminate at 538°C.  
3. At temperatures above 538°C, use only when carbon content is 0.04% or higher.

Table 11. For ASME Standard CL2500 Valves<sup>(1)</sup>

SERVICE TEMP (°C)	WORKING PRESSURE (Bar)														
	LCC	LF2	WCC	WC6	WC9	C12A <sup>(2)</sup>	CF8 <sup>(2,3)</sup> or 304 <sup>(2,3)</sup>	CF8M <sup>(2,3)</sup> or 316 <sup>(2,3)</sup>	CF3M	316L	CG8M	317 (2,3)	CF8C (2,3)	347	CK3MCuN CD3MN CD3MWCuN
-29 to 38	430.9	425.5	430.9	430.9	430.9	430.9	413.7	413.7	413.7	344.7	413.7	413.7	413.7	413.7	430.9
50	430.9	417.7	430.9	430.9	430.9	430.9	398.5	400.9	400.9	333.5	400.9	400.9	406.4	406.4	430.9
100	429.4	388.3	429.4	429.0	429.4	429.4	340.4	351.6	351.6	289.9	351.6	351.6	377.4	377.4	422.2
150	418.1	375.6	418.1	414.5	418.2	418.2	308.4	320.8	320.8	261.6	320.8	320.8	353.9	353.9	382.7
200	405.4	365.0	405.4	399.6	405.4	405.4	287.3	297.2	297.2	243.0	297.2	297.2	332.8	332.8	355.4
250	386.2	349.5	386.2	386.2	386.2	386.2	270.7	278.1	278.1	228.9	278.1	278.1	315.1	315.1	337.2
300	357.1	331.8	357.1	357.1	357.1	357.1	257.6	263.5	263.5	217.2	263.5	263.5	300.7	300.7	323.8
325	344.3	322.6	344.3	344.3	344.3	344.3	251.9	257.4	257.4	212.3	257.4	257.4	294.6	294.6	318.0
350		313.0	333.5	335.3	335.3	335.3	246.9	252.7	252.7	208.9	252.7	252.7	289.6	289.6	313.7
375		303.1	315.3	323.2	323.2	323.2	241.9	249.0	249.0	206.3	249.0	249.0	285.1	285.1	311.3
400		289.3	289.3	304.9	304.9	304.9	237.0	245.3	245.3	202.5	245.3	245.3	282.6	282.6	304.9
425		239.7	239.7	291.6	291.6	291.6	233.3	242.9	242.9	198.8	242.9	242.9	280.1	280.1	
450				281.8	281.8	281.8	228.4	240.4	240.4	195.1	240.4	240.4	278.8	278.8	
475				263.9	263.9	263.9	224.5	238.9			238.9	238.9	263.9	263.9	
500				214.4	235.0	235.0	220.7	235.0			235.0	235.0	235.0	235.0	
538				124.1	153.7	208.9	203.6	208.9			208.9	208.9	208.9	208.9	
550				105.9	130.3	208.0	196.3	208.0				208.0	208.0		
575				73.4	87.7	199.5	173.7	199.5				199.5	199.5		
600						162.5	140.7	165.9				165.9	165.1		
625						121.7	114.9	131.8				131.8	115.5		
650						82.7	93.8	105.5				105.5	85.8		
675							77.9	86.0				86.0	66.3		
700							66.9	69.8				69.8	46.8		
725							56.3	58.2				58.2	33.1		
750							48.1	48.9				48.9	25.8		
775							38.0	38.0				38.0	20.4		
800							29.2	29.2				29.2	16.9		
816							23.8	23.8				23.8	15.8		

1. Table information is extracted from the Valve—Flanged, Threaded, and Welding End, ASME Standard B16.34-2013. These tables must be used in accordance with the ASME standard. The user is advised that a valve used under the jurisdiction of the ASME Boiler and Pressure Vessel Code, ASME Code for Pressure Piping, or governmental regulations is subject to any limitation of that code or regulation. This includes any maximum temperature limitation for a material or rule governing the use of a material at a low temperature. Information copied with permission of the publisher; The American Society of Mechanical Engineers, 345 East 47th Street, New York, New York, 10017.  
2. Flange end valve ratings terminate at 538°C.  
3. At temperatures above 538°C, use only when carbon content is 0.04% or higher.

# Special Pressure-Temperature Ratings for CL1500 and CL2500 Threaded or Welding End Valves

Fisher valve materials that conform to ASME B16.34-2013 Special Class pressure-temperature ratings are listed in tables 12 and 13. These ratings apply to all Fisher cast, forged, and fabricated steel valves. Nondestructive examination applies (Fisher Process Level 6).

Table 12. For ASME Special CL1500 Valves<sup>(1)</sup>

SERVICE TEMP (°C)	WORKING PRESSURE (Bar)														
	LCC	LF2	WCC	WC6	WC9	C12A(2)	CF8(2) or 304(2)	CF8M(2) or 316(2)	CF3M	316L	CG8M	317 (2)	CF8C (2)	347	CK3MCuN CD3MN CD3MWCuN
-29 to 38	258.6	258.6	258.6	258.6	258.6	258.6	258.6	258.6	258.6	230.9	258.6	258.6	258.6	258.6	258.6
50	258.6	258.6	258.6	258.6	258.6	258.6	252.5	254.1	254.1	223.3	254.1	254.1	256.0	258.6	258.6
100	258.6	258.2	258.6	258.6	258.1	258.6	228.0	235.5	235.5	194.1	235.5	235.5	244.7	252.8	258.6
150	258.6	255.2	258.6	258.6	254.8	258.6	206.5	214.8	214.8	175.2	214.8	214.8	226.9	237.0	256.3
200	258.6	252.9	258.6	258.6	251.1	258.6	192.4	199.0	199.0	162.7	199.0	199.0	215.3	222.9	238.0
250	258.6	252.6	258.6	258.6	249.9	258.6	181.3	186.3	186.3	153.3	186.3	186.3	208.2	211.0	225.8
300	258.6	252.6	258.6	258.6	248.9	258.6	172.5	176.4	176.4	145.5	176.4	176.4	200.9	201.4	216.8
325	258.6	250.6	258.6	258.6	248.0	258.6	168.7	172.3	172.3	142.2	172.3	172.3	197.3	197.3	213.0
350		244.6	255.5	257.1	246.0	257.1	165.3	169.2	169.2	139.9	169.2	169.2	194.0	194.0	210.1
375		235.5	241.9	252.5	243.8	252.5	162.0	166.7	166.7	138.1	166.7	166.7	190.9	190.9	208.4
400		217.0	217.0	251.2	243.8	251.2	158.7	164.3	164.3	135.6	164.3	164.3	189.2	189.2	198.6
425		179.8	179.8	248.2	243.8	248.2	156.2	162.6	162.6	133.1	162.6	162.6	187.6	187.6	
450				235.8	235.8	235.8	153.0	161.0	161.0	130.6	161.0	161.0	186.7	186.7	
475				213.7	213.7	213.7	150.3	160.0			160.0	160.0	186.5	186.5	
500				160.8	178.6	178.6	147.8	158.6			158.6	158.6	178.6	178.6	
538				93.1	115.2	145.1	143.1	145.1			145.1	145.1	145.1	145.1	
550				79.4	97.7	145.1	141.9	145.1				145.1	145.1		
575				55.0	65.8	143.0	130.3	143.0				143.0	143.0		
600						121.9	105.5	124.4				124.4	123.8		
625						91.3	86.2	98.8				98.8	86.6		
650						62.1	70.4	79.1				79.1	64.4		
675							58.4	64.5				64.5	49.7		
700							53.3	57.1				57.1	40.9		
725							46.2	47.7				47.7	29.5		
750							36.7	36.7				36.7	20.4		
775							28.5	28.5				28.5	15.5		
800							22.0	22.0				22.0	13.3		
816							17.9	17.9				17.9	11.8		

1. Table information is extracted from the Valve—Flanged, Threaded, and Welding End, ASME Standard B16.34-2013. These tables must be used in accordance with the ASME standard. The ASME standard states in paragraph "2.1.3 Special Class Valves, Threaded or welding end valves that conform to all the requirements of para. 2.1.2 and in addition have successfully passed the examinations required by Section 8, may be designated Special Class valves." The standard also stipulates that, "Special Class ratings shall not be used for flanged end valves." Information copied with permission of the publisher; The American Society of Mechanical Engineers, 345 East 47th Street, New York, New York, 10017.  
2. At temperatures above 538°C, use only when carbon content is 0.04% or higher.

Table 13. For ASME Special CL2500 Valves<sup>(1)</sup>

SERVICE TEMP (°C)	WORKING PRESSURE (Bar)														
	LCC	LF2	WCC	WC6	WC9	C12A(2)	CF8(2) or 304(2)	CF8M(2) or 316(2)	CF3M	316L	CG8M	317 (2)	CF8C (2)	347	CK3MCuN CD3MN CD3MWCuN
-29 to 38	430.9	430.9	430.9	430.9	430.9	430.9	430.9	430.9	430.9	384.8	430.9	430.9	430.9	430.9	430.9
50	430.9	430.9	430.9	430.9	430.9	430.9	420.8	423.5	423.5	372.2	423.5	423.5	426.7	430.9	430.9
100	430.9	430.3	430.9	430.9	430.2	430.9	380.0	392.4	392.4	323.6	392.4	392.4	407.8	421.3	430.9
150	430.9	425.3	430.9	430.9	424.6	430.9	344.2	358.0	358.0	291.9	358.0	358.0	378.2	395.0	427.2
200	430.9	421.4	430.9	430.9	418.5	430.9	320.7	331.7	331.7	271.2	331.7	331.7	358.8	371.5	396.7
250	430.9	421.1	430.9	430.9	416.5	430.9	302.2	310.4	310.4	255.4	310.4	310.4	347.0	351.7	376.3
300	430.9	421.1	430.9	430.9	414.8	430.9	287.5	294.1	294.1	242.4	294.1	294.1	334.8	335.6	361.4
325	430.9	417.6	430.9	430.9	413.3	430.9	281.1	287.2	287.2	237.0	287.2	287.2	328.8	328.8	355.0
350		407.6	425.8	428.6	410.0	428.6	275.5	282.1	282.1	233.2	282.1	282.1	323.3	323.3	350.2
375		392.5	403.1	420.9	406.3	420.9	270.0	277.9	277.9	230.2	277.9	277.9	318.1	318.1	347.4
400		361.7	361.7	418.3	406.3	418.3	264.5	273.8	273.8	226.0	273.8	273.8	315.4	315.4	330.9
425		299.6	299.6	413.7	406.3	413.7	260.4	271.1	271.1	221.9	271.1	271.1	312.6	312.6	
450				393.1	393.1	393.1	254.9	268.3	268.3	217.7	268.3	268.3	311.1	311.1	
475				356.3	356.3	356.3	250.5	266.6			266.6	266.6	310.9	310.9	
500				268.0	297.5	297.5	246.4	264.3			264.3	264.3	297.5	297.5	
538				155.1	192.1	241.7	238.5	241.7			241.7	241.7	241.7	241.7	
550				132.4	162.8	241.7	236.5	241.7				241.7	241.7		
575				91.7	109.7	238.3	217.2	238.3				238.3	238.3		
600						203.1	175.8	207.3				207.3	206.4		
625						152.1	143.6	164.7				164.7	144.3		
650						103.4	117.3	131.9				131.9	107.3		
675							97.4	107.5				107.5	82.9		
700							88.9	95.2				95.2	68.2		
725							77.0	79.5				79.5	49.2		
750							61.2	61.2				61.2	34.0		
775							47.6	47.6				47.6	25.8		
800							36.6	36.6				36.6	22.2		
816							29.6	29.6				29.6	19.7		

1. Table information is extracted from the Valve—Flanged, Threaded, and Welding End, ASME Standard B16.34-2013. These tables must be used in accordance with the ASME standard. The ASME standard states in paragraph "2.1.3 Special Class Valves, Threaded or welding end valves that conform to all the requirements of para. 2.1.2 and in addition have successfully passed the examinations required by Section 8, may be designated Special Class valves." The standard also stipulates that, "Special Class ratings shall not be used for flanged end valves." Information copied with permission of the publisher, The American Society of Mechanical Engineers, 345 East 47th Street, New York, New York, 10017.  
2. At temperatures above 538°C, use only when carbon content is 0.04% or higher.

# Standard and Special Pressure-Temperature Ratings for CL4500 Valves

Fisher valve materials that conform to ASME B16.34-2013 Standard and Special Class pressure-temperature ratings are listed in tables 14 and 15. These ratings apply to all Fisher cast, forged, and fabricated steel valves. For Special Class pressure-temperature ratings, nondestructive examination applies (Fisher Process Level 6).

Table 14. For ASME Standard CL4500 Valves<sup>(1)</sup>

SERVICE TEMP (°C)	WORKING PRESSURE (Bar)														
	LCC	LF2	WCC	WC6	WC9	C12A <sup>(2)</sup>	CF8 <sup>(2,3)</sup> or 304 <sup>(2,3)</sup>	CF8M <sup>(2,3)</sup> or 316 <sup>(2,3)</sup>	CF3M	316L	CG8M	317 (2,3)	CF8C (2,3)	347	CK3MCuN CD3MN CD3MWCuN
-29 to 38	775.7	765.9	775.7	775.7	775.7	775.7	744.6	744.6	744.6	620.5	744.6	744.6	744.6	744.6	775.7
50	775.7	751.9	775.7	775.7	775.7	775.7	717.3	721.7	721.7	600.3	721.7	721.7	731.5	731.5	775.7
100	773.0	699.0	773.0	772.2	773.0	773.0	612.8	632.9	632.9	521.8	632.9	632.9	679.4	679.4	759.9
150	752.6	676.1	752.6	746.2	752.8	752.8	555.1	577.4	577.4	470.9	577.4	577.4	637.1	637.1	688.9
200	729.7	657.0	729.7	719.4	729.8	729.8	517.2	534.9	534.9	437.3	534.9	534.9	599.1	599.1	639.8
250	694.8	629.1	694.8	694.8	694.8	694.8	487.3	500.6	500.6	412.0	500.6	500.6	567.2	567.2	606.9
300	642.6	597.3	642.6	642.6	642.6	642.6	463.7	474.3	474.3	391.0	474.3	474.3	541.3	541.3	582.8
325	619.6	580.7	619.6	619.6	619.6	619.6	453.3	463.3	463.3	382.2	463.3	463.3	530.3	530.3	572.5
350		563.5	600.3	603.3	603.3	603.3	444.4	454.9	454.9	376.1	454.9	454.9	521.3	521.3	564.7
375		545.5	567.5	581.8	581.8	581.8	435.5	448.2	448.2	371.3	448.2	448.2	513.1	513.1	560.3
400		520.8	520.8	548.5	548.5	548.5	426.6	441.6	441.6	364.6	441.6	441.6	508.6	508.6	548.5
425		431.5	431.5	524.7	524.7	524.7	419.9	437.1	437.1	357.9	437.1	437.1	504.2	504.2	
450				507.0	507.0	507.0	411.1	432.7	432.7	351.2	432.7	432.7	501.8	501.8	
475				474.8	474.8	474.8	404.0	430.1			430.1	430.1	474.8	474.8	
500				385.9	423.0	423.0	397.3	423.0			423.0	423.0	423.0	423.0	
538				223.4	276.6	375.8	366.4	375.8			375.8	375.8	375.8	375.8	
550				190.6	234.5	374.2	353.4	374.2				374.2	374.2		
575				132.0	157.9	359.1	312.7	359.1				359.1	359.1		
600						292.5	253.2	298.6				298.6	297.1		
625						219.1	206.8	237.2				237.2	207.9		
650						148.9	168.9	189.9				189.9	154.5		
675							140.2	154.8				154.8	119.4		
700							120.4	125.7				125.7	84.2		
725							101.3	104.8				104.8	59.6		
750							86.7	87.9				87.9	46.4		
775							68.4	68.4				68.4	36.8		
800							52.6	52.6				52.6	30.4		
816							42.7	42.7				42.7	28.4		

1. Table information is extracted from the Valve—Flanged, Threaded, and Welding End, ASME Standard B16.34-2013. These tables must be used in accordance with the ASME standard. The user is advised that a valve used under the jurisdiction of the ASME Boiler and Pressure Vessel Code, ASME Code for Pressure Piping, or governmental regulations is subject to any limitation of that code or regulation. This includes any maximum temperature limitation for a material or rule governing the use of a material at a low temperature. Information copied with permission of the publisher: The American Society of Mechanical Engineers, 345 East 47th Street, New York, New York, 10017.  
 2. Flange end valve ratings terminate at 538°C.  
 3. At temperatures above 538°C, use only when carbon content is 0.04% or higher.

Table 15. For ASME Special CL4500 Valves<sup>(1)</sup>

SERVICE TEMP (°C)	WORKING PRESSURE (Bar)														
	LCC	LF2	WCC	WC6	WC9	C12A(2)	CF8(2) or 304(2)	CF8M(2) or 316(2)	CF3M	316L	CG8M	317 (2)	CF8C (2)	347	CK3MCuN CD3MN CD3MWCuN
-29 to 38	775.7	775.7	775.7	775.7	775.7	775.7	775.7	775.7	775.7	692.6	775.7	775.7	775.7	775.7	775.7
50	775.7	775.7	775.7	775.7	775.7	775.7	757.4	762.3	762.3	670.0	762.3	762.3	768.1	775.7	775.7
100	775.7	774.5	775.7	775.7	774.3	775.7	683.9	706.4	706.4	582.4	706.4	706.4	734.1	758.3	775.7
150	775.7	765.5	775.7	775.7	764.3	775.7	619.6	644.4	644.4	525.5	644.4	644.4	680.7	711.0	768.9
200	775.7	758.6	775.7	775.7	753.4	775.7	577.2	597.0	597.0	488.1	597.0	597.0	645.8	668.6	714.1
250	775.7	757.9	775.7	775.7	749.7	775.7	543.9	558.8	558.8	459.8	558.8	558.8	624.5	633.0	677.4
300	775.7	757.9	775.7	775.7	746.7	775.7	517.5	529.3	529.3	436.4	529.3	529.3	602.6	604.1	650.4
325	775.7	751.7	775.7	775.7	743.9	775.7	506.0	517.0	517.0	426.6	517.0	517.0	591.8	591.8	638.9
350		733.7	766.4	771.4	738.1	771.4	496.0	507.7	507.7	419.7	507.7	507.7	581.9	581.9	630.3
375		706.5	725.6	757.4	731.3	757.4	486.0	500.2	500.2	414.4	500.2	500.2	572.7	572.7	625.3
400		651.0	651.0	753.2	731.3	753.2	476.1	492.9	492.9	406.9	492.9	492.9	567.7	567.7	595.7
425		539.3	539.3	744.6	731.3	744.6	468.7	487.9	487.9	399.4	487.9	487.9	562.7	562.7	
450				707.6	707.6	707.6	458.9	482.9	482.9	391.9	482.9	482.9	560.0	560.0	
475				641.3	641.3	641.3	450.9	480.0			480.0	480.0	559.6	559.6	
500				482.4	535.4	535.4	443.5	475.7			475.7	475.7	535.4	535.4	
538				279.2	345.7	435.1	429.4	435.1			435.1	435.1	435.1	435.1	
550				238.3	293.1	435.1	425.7	435.1				435.1	435.1		
575				165.1	197.4	428.8	390.9	428.8				428.8	428.8		
600						365.6	316.5	373.2				373.2	371.4		
625						273.8	258.5	296.5				296.5	259.8		
650						186.2	211.2	237.4				237.4	193.1		
675							175.3	193.5				193.5	149.2		
700							160.0	171.3				171.3	122.7		
725							138.6	143.0				143.0	88.5		
750							110.3	110.3				110.3	61.2		
775							85.6	85.6				85.6	46.4		
800							65.6	65.6				65.6	40.0		
816							53.1	53.1				53.1	35.5		

1. Table information is extracted from the Valve—Flanged, Threaded, and Welding End, ASME Standard B16.34-2013. These tables must be used in accordance with the ASME standard. The ASME standard states in paragraph "2.1.3 Special Class Valves, Threaded or welding end valves that conform to all the requirements of para. 2.1.2 and in addition have successfully passed the examinations required by Section 8, may be designated Special Class valves." The standard also stipulates that, "Special Class ratings shall not be used for flanged end valves." Information copied with permission of the publisher; The American Society of Mechanical Engineers, 345 East 47th Street, New York, New York, 10017.  
2. At temperatures above 538°C, use only when carbon content is 0.04% or higher.

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