Date of Issue: September 2018

Affected Publication: API Standard 526, Flanged Steel Pressure-relief Valves, September 2017

### Errata 1

Table of Contents: Added the following line:

Table of Contents: Changed "Effective Area" to "Effective Orifice Area" in the following lines:

8	Spring-loaded Pressure-relief Valves "J" Orifice (Effective Orifice Area = 1.287 in.2)	2
9	Spring-loaded Pressure-relief Valves "K" Orifice f (Effective Orifice Area = 1.838 in.2)	3
10	Spring-loaded Pressure-relief Valves "L" Orifice f (Effective Orifice Area = 2.853 in.2)	4
11	Spring-loaded Pressure-relief Valves "M" Orifice f (Effective Orifice Area = 3.60 in.2)	5
12	Spring-loaded Pressure-relief Valves "N" Orifice f (Effective Orifice Area = 4.34 in.2)	6
13	Spring-loaded Pressure-relief Valves "P" Orifice f (Effective Orifice Area = 6.38 in.2)	7
14	Spring-loaded Pressure-relief Valves "Q" Orifice f (Effective Orifice Area = 11.05 in.2)	8
15	Spring-loaded Pressure-relief Valves "R" Orifice f (Effective Orifice Area = 16.00 in.2)	9
16	Spring-loaded Pressure-relief Valves "T" Orifice f (Effective Orifice Area = 26.00 in.2)	0

Table of Contents: Changed "Limits" to "Limits<sup>1</sup>" in the following lines:

	Pressure—temperature Limits <sup>1</sup> to be Used with Table 3 to Table 30 of This Standard	
<b>B.2</b>	Pressure—temperature Limits <sup>1</sup> to be Used with Table 3 to Table 30 of This Standard	36
B.3	Pressure—temperature Limits <sup>1</sup> to be Used with Table 3 to Table 30 of This Standard	37
<b>B.4</b>	Pressure—temperature Limits <sup>1</sup> to be Used with Table 3 to Table 30 of This Standard	37
B.5	Pressure-temperature Limits <sup>1</sup> to be Used with Table 3 to Table 30 of This Standard	38

Table 3: The boxed sections below reflect changes made to the table:

				Tempe	erature Ra	nge Inclu	sive 801°F	to 1000	°F				
Chrome Molybdenum Steel	1D2 1D2 1 <sup>1</sup> /2D2 1 <sup>1</sup> /2D2 1 <sup>1</sup> /2D3	300 600 900 1500 2500	150 150 300 300 300					510 1015 1525 2540 4230	215 430 650 1080 1800	290 290 (600) (600) 750	230 230 500 500 500	4 <sup>1</sup> /8 4 <sup>1</sup> /8 4 <sup>1</sup> /8 4 <sup>1</sup> /8 5 <sup>1</sup> /2	4 <sup>1</sup> /2 4 <sup>1</sup> /2 5 <sup>1</sup> /2 5 <sup>1</sup> /2 7
Temperature Range Inclusive - 450 °F to 1000 °F													
Austenitic Stainless Steel	1D2 ° 1D2 ° 1D2 1D2 1 1/2D2 1 1/2D2 1 1/2D3	150 300 300 600 900 1500 2500	150 150 150 150 300 300 300	275 (275) 720 1440 2160 3600 (4000)	275 (275) 720 1440 2160 3600 6000	275 (275) 720 1440 2160 3600 6000	180 (275) 495 990 1485 2480 4130	80 (275) 420 845 1265 2110 3520	20 (275) 365 725 1090 1820 3030	275 275 275 275 (600) (600) 720	230 230 230 230 500 500 500	4 1/8 4 1/8 4 1/8 4 1/8 4 1/8 4 1/8 4 1/8 5 1/2	4 1/2 4 1/2 4 1/2 4 1/2 5 1/2 5 1/2 7
				Tempe	erature Ra	nge Inclus	ive –20 °F	to 300 °F	: е				
Alloy 20 <sup>e</sup>	1D2 1D2 ° 1D2 1D2 1 1/2D2 1 1/2D2 1 1/2D3	150 300 300 600 900 1500 2500	150 150 150 150 300 300 300			230 (230) 600 1200 1800 3000 5000	180 (180) 465 930 1395 2330 3880			230 230 230 230 230 600 600	230 230 230 230 230 500 500 500	4 1/8 4 1/8 4 1/8 4 1/8 4 1/8 4 1/8 5 1/2	4 <sup>1</sup> /2 4 <sup>1</sup> /2 4 <sup>1</sup> /2 4 <sup>1</sup> /2 5 <sup>1</sup> /2 5 <sup>1</sup> /2 7

Table 7: The boxed section below reflects changes made to the table:

	Temperature Range Inclusive –20 °F to 900 °F d												
Nickel/ Copper Alloy <sup>d</sup>	1 1/2H3 1 1/2H3 ° 2H3 2H3 2H3	150 300 300 600 900	150 150 150 150 150		230 (230) 600 1200 1800	175 (230) 475 945 1420	80 (230) 460 915 1375	50 (230) 275 550 825	230 230 230 230 230 230	230 230 230 230 230 230	5 1/8 5 1/8 5 1/8 6 1/16 6 1/16	4 <sup>7</sup> /8 4 <sup>7</sup> /8 4 <sup>7</sup> /8 6 <sup>3</sup> /8 6 <sup>3</sup> /8	

Table 8: The title was changed to the following:

Table 8—Spring-loaded Pressure-relief Valves "J" Orifice f (Effective Orifice Area = 1.287 in.<sup>2</sup>)

Table 9: The title was changed to the following:

Table 9—Spring-loaded Pressure-relief Valves "K" Orifice f (Effective Orifice Area = 1.838 in.<sup>2</sup>)

Table 9: The boxed section below reflects changes made to the table:

	Temperature Range Inclusive –20 °F to 300 °F e													
Alloy 20 e	3K4 3K4° 3K4 3K4 3K6 3K6	150 300 300 600 900 1500	150 150 150 150 150 150 300			230 (230) 600 1200 1800 (2220)	180 (180) 465 930 1395 (2220)			230 230 230 230 230 230 600	150 150 150 200 200 200	6 1/8 6 1/8 6 1/8 7 1/4 7 13/16 7 3/4	6 3/8 6 3/8 6 3/8 7 1/8 8 1/2 8 1/2	

Table 10: The title was changed to the following:

Table 10—Spring-loaded Pressure-relief Valves "L" Orifice f
(Effective Orifice Area = 2.853 in.²)

Table 10: The boxed section below reflects changes made to the table:

Austenitic 3L4 150 150 (275) 275 275 180 80 20 275 100 6 1/8 6 1/2 (275) Stainless 4L6 300 150 (535) (535) (700) (1500) (1500) 1485 1265 1090 275 170 7 3/4 8 3/4		Temperature Range Inclusive –450 °F to 1000 °F													
	Stainless	3L4° 4L6 4L6	300 300 600	150 150 150	(275) (535) (535)	(275) 720 (1000)	(275) 720 (1000)	(275) 495 990	(275) 420 845	(275) 365 725	275 275 275	100 170 170	6 <sup>1</sup> /8 7 <sup>1</sup> /16 7 <sup>1</sup> /16	6 1/2 7 1/8 8	

Table 11: The title was changed to the following:

Table 11—Spring-loaded Pressure-relief Valves "M" Orifice f (Effective Orifice Area = 3.60 in.<sup>2</sup>)

Table 12: The title was changed to the following:

Table 12—Spring-loaded Pressure-relief Valves "N" Orifice f
(Effective Orifice Area = 4.34 in.<sup>2</sup>)

Table 12: The boxed section below reflects changes made to the table:

	Temperature Range Inclusive −20 °F to 300 °F °													
Alloy 20 <sup>e</sup>	4N6 4N6 <sup>c</sup> 4N6 4N6 4N6	150 300 300 600 900	150 150 150 150 150			230 (230) 600 (1000) (1000)	180 (180) 465 930 (1000)			230 230 230 230 230 230	80 80 160 160 160	7 <sup>3</sup> /4 7 <sup>3</sup> /4 7 <sup>3</sup> /4 7 <sup>3</sup> /4 7 <sup>3</sup> /4	8 <sup>1</sup> / <sub>4</sub> 8 <sup>1</sup> / <sub>4</sub> 8 <sup>1</sup> / <sub>4</sub> 8 <sup>3</sup> / <sub>4</sub> 8 <sup>3</sup> / <sub>4</sub>	

Table 13: The title was changed to the following:

Table 13—Spring-loaded Pressure-relief Valves "P" Orifice f
(Effective Orifice Area = 6.38 in.²)

Table 14: The title was changed to the following:

Table 14—Spring-loaded Pressure-relief Valves "Q" Orifice f
(Effective Orifice Area = 11.05 in.²)

Table 15: The title was changed to the following:

Table 15—Spring-loaded Pressure-relief Valves "R" Orifice f
(Effective Orifice Area = 16.00 in.²)

Table 15: The boxed sections below reflects changes made to the table:

	Inlet by Orifice by Outlet			Co	onvention	al and Bala	(psig)		(in.)				
B ody/ B onnet		I N L E	0 U T L F	-450 °F to -76 °F	-75°F to -21°F	-20°F to 100°F	450 °F	800 °F	1000 °F	Flange Rating Limit <sup>a</sup>	Bellows Rating Limit <sup>a</sup>	N L E T	0 U T
		T	Ť							100 °F	100°F		Ē T
				Tempe	rature Ra	inge Inclu	sive –20	∘F to 900	∘Fd				
Nickel/ Copper Alloy d	6R8 6R8° 6R10 6R10	150 300 300 600	150 150 150 150			(100) (100) (230) (300)	(100) (100) (230) (300)	80 (100) (230) (300)	50 (100) (230) (300)	(60) (60) (100) (100)	60 60 100 100	9 <sup>7</sup> /18 9 <sup>7</sup> /16 9 <sup>7</sup> /16 9 <sup>7</sup> /18	9 <sup>1</sup> /2 9 <sup>1</sup> /2 10 <sup>1</sup> /2 10 <sup>1</sup> /2

Table 16: The title was changed to the following:

Table 16—Spring-loaded Pressure-relief Valves "T" Orifice f
(Effective Orifice Area = 26.00 in.²)

Figure B.1: The title was changed to the following:

Figure B.1—Pressure–temperature Limits<sup>1</sup> to be Used with Table 3 to Table 30 of This Standard

Figure B.2: The title was changed to the following:

## Figure B.2—Pressure–temperature Limits<sup>1</sup> to be Used with Table 3 to Table 30 of This Standard

Figure B.3: The title was changed to the following:

Figure B.3—Pressure–temperature Limits<sup>1</sup> to be Used with Table 3 to Table 30 of This Standard

Figure B.4: The title was changed to the following:

Figure B.4—Pressure–temperature Limits<sup>1</sup> to be Used with Table 3 to Table 30 of This Standard

Figure B.5: The title was changed to the following:

Figure B.5—Pressure–temperature Limits<sup>1</sup> to be Used with Table 3 to Table 30 of This Standard

# Flanged Steel Pressure-relief Valves

API STANDARD 526 SEVENTH EDITION, SEPTEMBER 2017

ERRATA 1, SEPTEMBER 2018



### **Special Notes**

API publications necessarily address problems of a general nature. With respect to particular circumstances, local, state, and federal laws and regulations should be reviewed.

Neither API nor any of API's employees, subcontractors, consultants, committees, or other assignees make any warranty or representation, either express or implied, with respect to the accuracy, completeness, or usefulness of the information contained herein, or assume any liability or responsibility for any use, or the results of such use, of any information or process disclosed in this publication. Neither API nor any of API's employees, subcontractors, consultants, or other assignees represent that use of this publication would not infringe upon privately owned rights.

API publications may be used by anyone desiring to do so. Every effort has been made by the Institute to ensure the accuracy and reliability of the data contained in them; however, the Institute makes no representation, warranty, or guarantee in connection with this publication and hereby expressly disclaims any liability or responsibility for loss or damage resulting from its use or for the violation of any authorities having jurisdiction with which this publication may conflict.

API publications are published to facilitate the broad availability of proven, sound engineering and operating practices. These publications are not intended to obviate the need for applying sound engineering judgment regarding when and where these publications should be utilized. The formulation and publication of API publications is not intended in any way to inhibit anyone from using any other practices.

Any manufacturer marking equipment or materials in conformance with the marking requirements of an API standard is solely responsible for complying with all the applicable requirements of that standard. API does not represent, warrant, or guarantee that such products do in fact conform to the applicable API standard.

All rights reserved. No part of this work may be reproduced, translated, stored in a retrieval system, or transmitted by any means, electronic, mechanical, photocopying, recording, or otherwise, without prior written permission from the publisher. Contact the Publisher, API Publishing Services, 1220 L Street, NW, Washington, DC 20005.

Copyright © 2017 American Petroleum Institute

#### Foreword

Nothing contained in any API publication is to be construed as granting any right, by implication or otherwise, for the manufacture, sale, or use of any method, apparatus, or product covered by letters patent. Neither should anything contained in the publication be construed as insuring anyone against liability for infringement of letters patent.

The verbal forms used to express the provisions in this document are as follows.

Shall: As used in a standard, "shall" denotes a minimum requirement in order to conform to the standard.

Should: As used in a standard, "should" denotes a recommendation or that which is advised but not required in order to conform to the standard.

May: As used in a standard, "may" denotes a course of action permissible within the limits of a standard.

Can: As used in a standard, "can" denotes a statement of possibility or capability.

This document was produced under API standardization procedures that ensure appropriate notification and participation in the developmental process and is designated as an API standard. Questions concerning the interpretation of the content of this publication or comments and questions concerning the procedures under which this publication was developed should be directed in writing to the Director of Standards, American Petroleum Institute, 1220 L Street, NW, Washington, DC 20005. Requests for permission to reproduce or translate all or any part of the material published herein should also be addressed to the director.

Generally, API standards are reviewed and revised, reaffirmed, or withdrawn at least every five years. A one-time extension of up to two years may be added to this review cycle. Status of the publication can be ascertained from the API Standards Department, telephone (202) 682-8000. A catalog of API publications and materials is published annually by API, 1220 L Street, NW, Washington, DC 20005.

Suggested revisions are invited and should be submitted to the Standards Department, API, 1220 L Street, NW, Washington, DC 20005, standards@api.org.