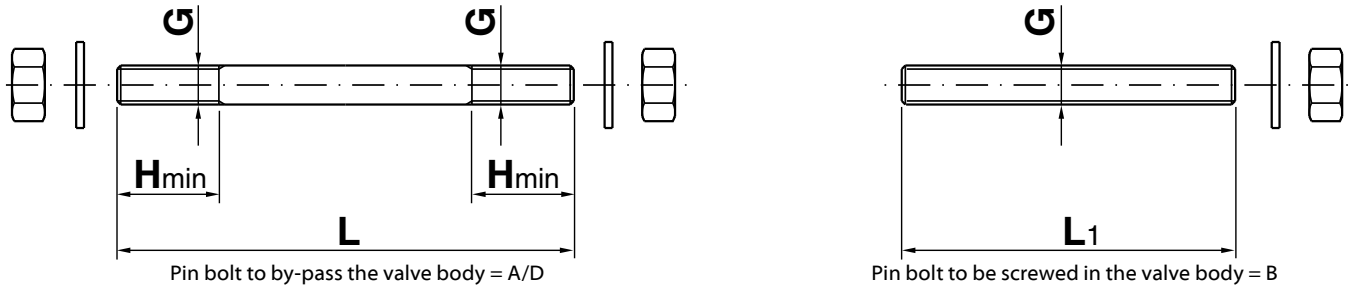


# Technical information

# Ti-917 EN

## Pin bolts to clamp valves in between pipe flanges

Edition: 2022-11



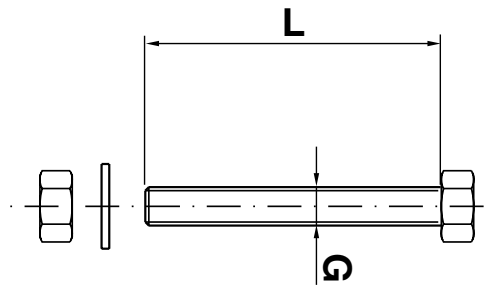
Flanges	NPS	DN	KVTW/KVXW (KVT/KVX) A PN10-25 Standard face to face					KVTW/KVXW (KVT/KVX) D PN10-25 Short face to face					KVT/KVX PN40/ Class300				KVTW-A/ KVXW-A Standard face to face				KVTW-D/ KVXW-D Short face to face			
			3	4	6	8	10	3	4	6	8	10	1	1 1/2	2	2 1/2	1	1 1/2	2	2 1/2	1	1 1/2	2	2 1/2
			80	100	150	200	250	80	100	150	200	250	25	40	50	65	25	40	50	65	25	40	50	65
PN 10	G		M16	M16	M20	M20	M20	M16	M16	M20	M20	M20	M12	M16	M16	M16	M12	M16	M16	M16	M12	M16	M16	M16
	H		30	30	35	35	35	30	30	35	35	35	25	30	30	30	25	30	30	30	25	30	30	30
	L		195	210	265	315	360	184	200	255	300	340	125	160	175	205	125	160	175	205	115	135	155	185
	L1															60								
	Q'ty A		8	8	8	12	12	8	8	8	12	12	4	4	4	6	4	4	4	8	4	4	4	8
	Q'ty B														2+2									
PN 16	G		M16	M16	M20	M20	M24	M16	M16	M20	M20	M24	M12	M16	M16	M16	M12	M16	M16	M16	M12	M16	M16	M16
	H		30	30	35	35	45	30	30	35	35	45	25	30	30	30	25	30	30	30	25	30	30	30
	L		195	210	265	315	375	184	200	255	300	355	125	160	175	205	125	160	175	205	115	135	155	185
	L1															60								
	Q'ty A		8	8	8	12	12	8	8	8	12	12	4	4	4	6	4	4	4	8	4	4	4	8
	Q'ty B														2+2									
PN 25	G		M16	M20	M24	M24	M27	M16	M20	M24	M24	M27	M12	M16	M16	M16	M12	M16	M16	M16	M12	M16	M16	M16
	H		30	35	45	45	50	30	35	45	45	50	25	30	30	30	25	30	30	30	25	30	30	30
	L		205	225	290	340	390	194	215	280	325	370	125	165	180	215	125	165	180	215	115	140	160	195
	L1															65								
	Q'ty A		8	8	8	12	12	8	8	8	12	12	4	4	4	6	4	4	4	8	4	4	4	8
	Q'ty B														2+2									
PN 40	G												M12	M16	M16	M16	M12	M16	M16	M16	M12	M16	M16	M16
	H												25	30	30	30	25	30	30	30	25	30	30	30
	L												125	165	180	215	125	165	180	215	115	140	160	195
	L1															65								
	Q'ty A												4	4	4	4	4	4	4	8	4	4	4	8
	Q'ty B														4+4									
Class 150	G		5/8	5/8	3/4	3/4	7/8	5/8	5/8	3/4	3/4	7/8	-	-	-	5/8	1/2	1/2	5/8	5/8	1/2	1/2	5/8	5/8
	H		30	30	35	35	45	30	30	35	35	45	-	-	-	30	25	30	30	30	25	30	30	30
	L		205	220	275	325	380	194	210	265	310	360	-	-	-	215	125	165	180	215	115	140	160	195
	L1												-	-	-	65								
	Q'ty A		4	8	8	8	12	4	8	8	8	12	Not possible in Class 150				2	4	4	4	4	4	4	4
	Q'ty B														2+2									
	Note		1)																					
Class 300	G												5/8	3/4	5/8	3/4	5/8	3/4	5/8	3/4	5/8	3/4	5/8	3/4
	H												30	35	30	30	30	35	30	30	30	35	30	30
	L												140	170	185	225	140	170	185	225	130	145	165	205
	L1																							
	Q'ty A												4	4	8	8					4	4	8	8
	Q'ty B																							

1) Adjustment of valve body necessary for this rating.



**KVTF/KVXF PN10 - 25**

		<b>NPS</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>14</b>	<b>16</b>	<b>20</b>
<b>Flange</b>		<b>DN</b>	<b>80</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>200</b>	<b>250</b>	<b>300</b>	<b>350</b>	<b>400</b>	<b>500</b>
PN 10	G		M16	M16	M16	M20	M20	M20	M20	M20	M24	M24
	L		69	71	73	78	91	98.5	105	104	111	110
	Q'ty		16	16	16	16	16	24	24	32	32	40
PN 16	G		M16	M16	M16	M20	M20	M24	M24	M24	M27	M30
	L		69	71	73	78	91	103.5	110	113	119	145
	Q'ty		16	16	16	16	24	24	24	32	32	40
PN 25	G		M16	M20	M24	M24	M24	M27	M27	M30	M33	M33
	L		73	75	85	89	102	111.5	120	125	132	155
	Q'ty		16	16	16	16	24	24	32	32	32	40
Class 150	G		5/8	5/8	3/4	3/4	3/4	7/8	7/8	1	1	1 1/8
	L		80	85	85	90	100	110		125	130	150
	Q'ty		8	16	16	16	16	24	24	24	32	40



**KVTF/KVXF PN40/Class300**

		<b>NPS</b>	<b>1</b>	<b>1 1/2</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>6</b>	<b>8</b>	<b>10</b>
<b>Flange</b>		<b>DN</b>	<b>25</b>	<b>40</b>	<b>50</b>	<b>80</b>	<b>100</b>	<b>150</b>	<b>200</b>	<b>250</b>
PN 25	G		M12	M16	M16					
	L		60	70	75					
	Q'ty		8	8	8					
PN 40	G		M12	M16	M16	M16	M20	M24	M27	M30
	L		60	70	75	85	91	105	118	135
	Q'ty		8	8	8	16	16	16	24	24
Class 150	G		1/2	1/2	5/8					
	L		60	70	70					
	Q'ty		8	8	8					
Class 300	G		5/8	3/4	5/8	3/4	3/4	3/4	7/8	1
	L		65	75	75	100	105	115	125	130
	Q'ty		8	8	16	16	16	24	24	32

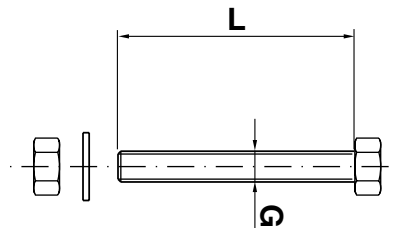


## KVTF-C/KVXF-C PN10-25

Flange	NPS (in) DN mm	3 80		4 100		6 150		8 200		10 250		12 300		14 350		16 400	
		Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet	Inlet	Outlet
PN 10	G	M16	M16	M16	M16	M20	M20	M20	M20	M20	M20	M20	M20	M20	M20	M24	M24
	Q'ty	8	8	8	8	8	8	8	8	12	12	12	12	16	16	16	16
	Q'ty threaded	2	2	2	2	2	2	2	2	4	4	4	4	4	4	4	4
	L	70	70	75	75	85	85	90	90	95	95	100	100	105	105	115	115
PN 16	L (threaded)	55	55	55	55	65	65	70	70	75	75	80	80	85	85	90	90
	G	M16	M16	M16	M16	M20	M20	M20	M20	M24	M24	M24	M24	M24	M24	M27	M27
	Q'ty	8	8	8	8	8	8	12	12	12	12	12	12	16	16	16	16
	Q'ty threaded	2	2	2	2	2	2	4	4	4	4	4	4	4	4	4	4
PN 25	L	70	70	75	75	85	85	90	90	100	100	110	110	115	115	125	125
	L (threaded)	55	55	55	55	65	65	70	70	75	75	85	85	90	90	100	100
	G	M16	M16	M20	M20	M24	M24	M24	M24	M27	M27	M27	M27	M30	M30	M33	M33
	Q'ty	8	8	8	8	8	8	12	12	12	12	16	16	16	16	16	16
Cl 150	Q'ty threaded	2	2	2	2	2	2	4	4	4	4	4	4	4	4	4	4
	L	70	70	80	80	95	95	105	105	110	110	120	120	130	130	140	140
	L (threaded)	55	55	55	55	70	70	80	80	80	80	90	90	100	100	105	105
	G	5/8"	5/8"	5/8"	5/8"	3/4"	3/4"	3/4"	3/4"	7/8"	7/8"	7/8"	7/8"	7/8"	1"	1"	1"
Cl 150	Q'ty	4	4	8	8	8	8	8	8	12	12	12	12	12	12	16	16
	Q'ty threaded	2	2	2	2	2	2	2	2	4	4	4	4	4	4	4	4
	L	75	75	75	75	90	90	95	95	105	105	115	115	125	125	130	130
	L (threaded)	60	60	60	60	70	70	75	75	80	80	95	95	100	100	120	120



		<b>SKV PN10 - 50</b>											
<b>Flange</b>	<b>NPS</b>	<b>1</b>	<b>1 1/2</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>14</b>	<b>16</b>
	<b>DN</b>	<b>25</b>	<b>40</b>	<b>50</b>	<b>80</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>200</b>	<b>250</b>	<b>300</b>	<b>350</b>	<b>400</b>
PN 10	G	M12	M16	M16	M16	M16	M16	M20	M20	M20	M20	M20	M24
	L	60	70	75	65	70	70	75	75	80	80	85	90
	Q'ty	8	8	8	16	16	16	16	16	24	24	32	32
PN 16	G	M12	M16	M16	M16	M16	M16	M20	M20	M24	M24	M24	M27
	L	60	70	75	65	70	70	75	80	90	90	100	110
	Q'ty	8	8	8	16	16	16	16	24	24	24	32	32
PN 25	G	M12	M16	M16	M16	M20	M24	M24	M24	M27	M27	M30	M33
	L	60	70	75	75	75	90	90	100	110	110	110	115
	Q'ty	8	8	8	16	16	16	16	24	24	32	32	32
PN 40	G	M12	M16	M16	M16	M20	M24	M24	M27	M30	M30	M33	M36
	L	60	70	75	75	75	80	85	90	90	100	115	120
	Q'ty	8	8	8	16	16	16	16	24	24	32	32	32
Class 150	G	1/2	1/2	5/8	5/8	5/8	3/4	3/4	3/4	7/8	7/8	1	1
	L	60	70	75	65	70	75	75	85	90	100	100	110
	Q'ty	8	8	8	8	16	16	16	16	24	24	24	32
Class 300	G	5/8	3/4	5/8									
	L	60	70	75									
	Q'ty	8	8	16									



**SKVT  
DN 450**

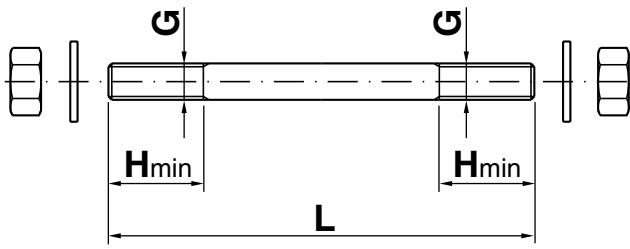
	<b>G</b>	<b>L</b>	<b>Number of holes</b>
PN 10	M24	130	20
PN 16	M27	140	20
PN 25	M33	160	20
Class 150	1 <sup>1/8</sup>	140	16

**SKVT  
DN 500**

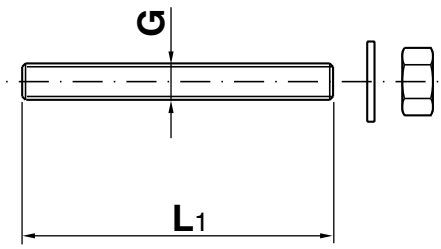
	<b>G</b>	<b>L</b>	<b>Number of holes</b>
PN 10	M24	130	20
PN 16	M30	140	20
PN 25	M33	160	20
Class 150	1 <sup>1/8</sup>	152	20

The tables for SKVT DN450-DN500 are valid for counter flanges according to EN 1092-1 types 11, 12 and 13. For other types of flanges, please refer to EN 1092-1.

Flanges for Class 150 and 300 according to ASME B16.5 raised face 2 mm. For other types see ASME B16.5.



Pin bolt to by-pass the valve body = A



Pin bolt to be screwed in the valve body = B

**VSS PN10 - 25, DN80 - 800 / MTV PN25, DN80 - 500 / VSS PN10, DN900 - 1200  
SPV PN10, DN80-1200**

Flange	NPS Inch		DN mm		3		4		5		6		8		10		12		14		16		18		20		24		28		32		36		40		48			
	G	H	L	L <sub>1</sub>	Q'ty A	Q'ty B	G	H	L	L <sub>1</sub>	Q'ty A	Q'ty B	G	H	L	L <sub>1</sub>	Q'ty A	Q'ty B	G	H	L	L <sub>1</sub>	Q'ty A	Q'ty B	G	H	L	L <sub>1</sub>	Q'ty A	Q'ty B	G	H	L	L <sub>1</sub>	Q'ty A	Q'ty B				
PN 10	M16	30	135	8	8	M16	30	135	8	8	M16	30	135	8	8	M16	30	135	8	8	M16	30	135	8	8	M16	30	135	8	8	M16	30	135	8	8	M16	30	135	8	8
	M20	35	150	8	8	M20	35	150	8	8	M20	35	150	8	8	M20	35	150	8	8	M20	35	150	8	8	M20	35	150	8	8	M20	35	150	8	8	M20	35	150	8	8
	M24	45	170	8	8	M24	45	170	8	8	M24	45	170	8	8	M24	45	170	8	8	M24	45	170	8	8	M24	45	170	8	8	M24	45	170	8	8	M24	45	170	8	8
	M27	50	180	8	8	M27	50	180	8	8	M27	50	180	8	8	M27	50	180	8	8	M27	50	180	8	8	M27	50	180	8	8	M27	50	180	8	8	M27	50	180	8	8
	M30	55	190	8	8	M30	55	190	8	8	M30	55	190	8	8	M30	55	190	8	8	M30	55	190	8	8	M30	55	190	8	8	M30	55	190	8	8	M30	55	190	8	8
PN 16	M16	30	135	8	8	M16	30	135	8	8	M16	30	135	8	8	M16	30	135	8	8	M16	30	135	8	8	M16	30	135	8	8	M16	30	135	8	8	M16	30	135	8	8
	M20	35	150	8	8	M20	35	150	8	8	M20	35	150	8	8	M20	35	150	8	8	M20	35	150	8	8	M20	35	150	8	8	M20	35	150	8	8	M20	35	150	8	8
	M24	45	170	8	8	M24	45	170	8	8	M24	45	170	8	8	M24	45	170	8	8	M24	45	170	8	8	M24	45	170	8	8	M24	45	170	8	8	M24	45	170	8	8
	M27	50	180	8	8	M27	50	180	8	8	M27	50	180	8	8	M27	50	180	8	8	M27	50	180	8	8	M27	50	180	8	8	M27	50	180	8	8	M27	50	180	8	8
	M30	55	190	8	8	M30	55	190	8	8	M30	55	190	8	8	M30	55	190	8	8	M30	55	190	8	8	M30	55	190	8	8	M30	55	190	8	8	M30	55	190	8	8
PN 25	M16	30	145	8	8	M16	30	145	8	8	M16	30	145	8	8	M16	30	145	8	8	M16	30	145	8	8	M16	30	145	8	8	M16	30	145	8	8	M16	30	145	8	8
	M20	35	150	8	8	M20	35	150	8	8	M20	35	150	8	8	M20	35	150	8	8	M20	35	150	8	8	M20	35	150	8	8	M20	35	150	8	8	M20	35	150	8	8
	M24	45	170	8	8	M24	45	170	8	8	M24	45	170	8	8	M24	45	170	8	8	M24	45	170	8	8	M24	45	170	8	8	M24	45	170	8	8	M24	45	170	8	8
	M27	50	180	8	8	M27	50	180	8	8	M27	50	180	8	8	M27	50	180	8	8	M27	50	180	8	8	M27	50	180	8	8	M27	50	180	8	8	M27	50	180	8	8
	M30	55	190	8	8	M30	55	190	8	8	M30	55	190	8	8	M30	55	190	8	8	M30	55	190	8	8	M30	55	190	8	8	M30	55	190	8	8	M30	55	190	8	8
Class 150	M16	30	145	4	8	M16	30	145	4	8	M16	30	145	4	8	M16	30	145	4	8	M16	30	145	4	8	M16	30	145	4	8	M16	30	145	4	8	M16	30	145	4	8
	M20	35	150	4	8	M20	35	150	4	8	M20	35	150	4	8	M20	35	150	4	8	M20	35	150	4	8	M20	35	150	4	8	M20	35	150	4	8	M20	35	150	4	8
	M24	45	170	4	8	M24	45	170	4	8	M24	45	170	4	8	M24	45	170	4	8	M24	45	170	4	8	M24	45	170	4	8	M24	45	170	4	8	M24	45	170	4	8
	M27	50	180	4	8	M27	50	180	4	8	M27	50	180	4	8	M27	50	180	4	8	M27	50	180	4	8	M27	50	180	4	8	M27	50	180	4	8	M27	50	180	4	8
	M30	55	190	4	8	M30	55	190	4	8	M30	55	190	4	8	M30	55	190	4	8	M30	55	190	4	8	M30	55	190	4	8	M30	55	190	4	8	M30	55	190	4	8

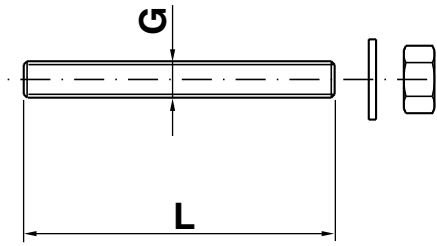


		<b>VSS PN, DN80 - 600</b>									
		<b>3</b>	<b>4</b>	<b>6</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>14</b>	<b>16</b>	<b>20</b>	<b>24</b>
<b>Flanges</b>	<b>NPS DN</b>	<b>80</b>	<b>100</b>	<b>150</b>	<b>200</b>	<b>250</b>	<b>300</b>	<b>350</b>	<b>400</b>	<b>500</b>	<b>600</b>
PN 40	G	M16	M20	M24	M27	M30	M30	M33	M36	M39	M45
	H	40	40	50	60	60	60	70	70	90	90
	L	150	170	200	230	270	280	320	340	390	440
	L <sub>1</sub>				110	130	130	150	160	190	210
	Q'ty A	8	8	8	8	8	12	12	12	16	16
	Q'ty B				8	8	8	8	8	8	8
Class 300	G	3/4	3/4	3/4	7/8	1	1 1/8	1 1/8	1 1/4	1 1/4	1 1/2
	H	50	50	50	50	60	65	65	70	75	85
	L	160	180	210	230	280	290	310	330	360	410
	L <sub>1</sub>				110	130	140	150	160	170	200
	Q'ty A	8	8	12	8	12	12	16	16	20	20
	Q'ty B				8	8	8	8	8	8	8

Wafer type according to EN 558-1



		<b>MTVF</b>									
<b>Flange</b>	<b>NPS DN</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>8</b>	<b>10</b>	<b>12</b>	<b>14</b>	<b>16</b>	<b>20</b>
		<b>80</b>	<b>100</b>	<b>125</b>	<b>150</b>	<b>200</b>	<b>250</b>	<b>300</b>	<b>350</b>	<b>400</b>	<b>500</b>
PN 10	G	M16	M16	M16	M16	M20	M20	M20	M20	M24	M24
	Q'ty total	12	12	12	12	16	20	20	28	28	36
	Q'ty threaded	4	4	4	4	---	4	4	4	4	4
	L	70	70	75	85	95	105	105		110	125
	L (threaded)	50	50	55	65	75	85	85		80	100
PN 16	G	M16	M16	M16	M20	M20	M24	M24	M24	M27	M30
	Q'ty total	20	12	12	12	20	20	20	28	28	36
	Q'ty threaded	4	4	4	4	4	4	4	4	4	4
	L	70	70	75	85	95	105	105		115	130
	L (threaded)	50	50	55	65	75	85	85		90	105
PN 25	G	M16	M20	M24	M24	M24	M27	M27	M30	M33	M33
	Q'ty total	12	12	12	12	12	20	28	28	28	36
	Q'ty threaded	4	4	4	4	4	4	4	4	4	4
	L	70	70	80	90	105	115	120		140	160
	L (threaded)	50	50	55	60	75	85	90		105	125
CI 150	G	5/8"	5/8"	3/4"	3/4"	3/4"	7/8"	7/8"	1"	1"	1 1/8"
	Q'ty total	8	12	12	12	16	20	20	20	28	36
	Q'ty threaded	---	4	4	4	---	4	4	4	4	4
	L	70	70	80	90	110	115	120		145	160
	L (threaded)	50	50	55	65	90	90	90		110	130



**Valves with lugs according to EN  
VSS PN10 - 25, DN80 - 1200 / MTV PN25, DN80 - 350**

Flange	NPS DN	3	4	5	6	8	10	12	14	16	18	20	24	28	32	36	40	48
		80	100	125	150	200	250	300	350	400	450	500	600	700	800	900	1000	1200
PN 10	G	M16	M16	M16	M20	M20	M20	M20	M20	M24	M24	M24	M27	M27	M30	M30	M33	M36
	L	70	70	70	85	85	85	85	90	105	105	115	145	120	120	125,	125,	135,
	Q'ty	16	16	16	16	16	24	24	32	32	40	40	40	48	48	48	28	56
PN 16	G	M16	M16	M16	M20	M20	M24	M24	M24	M27	M27	M30	M33	M33	M36			
	L	70	70	70	85	85	95	95	105	120	120	145	170	150	175			
	Q'ty	16	16	16	16	24	24	24	32	32	40	40	40	48	48			
PN 25	G	M16	M20	M24	M24	M24	M27	M27	M30	M33	M33	M33	M36	M39	M45			
	L	70	85	95	95	95	110	110	130	145	145	160	190	160	185			
	Q'ty	16	16	16	16	24	24	32	32	32	40	40	40	48	48			
Class 150	G	5/8	5/8	3/4	3/4	3/4	7/8	7/8	1	1	1 1/8	1 1/8	1 1/4	1 1/4	1 1/2			
	L	75	75	85	85	85	95	105	120	120	120	145	170	170	195			
	Q'ty	8	16	16	16	16	24	24	24	32	32	40	40	56	56			

**Valves with lugs according to EN  
VSS PN40/Class300, DN80 - 600**

Flange	NPS DN	3	4	6	8	10	12	14	16	20	24
		80	100	150	200	250	300	350	400	500	600
PN 25	G										M36
	L										160
	Q'ty										40
PN 40	G	M16	M20	M24	M27	M30	M30	M33	M36	M39	M45
	L	75	85	100	115	135	140	160	170	195	220
	Q'ty	16	16	16	24	24	32	32	32	40	40
Class 300	G1	3/4	3/4	3/4	7/8	1	1 1/8	1 1/8	1 1/4	1 1/4	1 1/2
	L	80	90	105	115	140	145	155	165	180	205
	Q'ty	16	16	24	24	32	32	40	40	48	48

**Comments:**

Pin bolts for flanges according to PN-rating have mm-threads.  
For ANSI 150 and ANSI 300 flanges, pin bolts have threads according to UNC up to and including 1 inch.  
For 1 1/8 inch and above should be according to 8UN-serie.

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*Somas reserves the right to make improvements without prior notice.*