

## Description

Listed below is the current range of Vickers bolt kits available for fastening surface-mounting products, with or without stacking valves, to subplates or other mounting pads.

Certain kits contain the two sizes of bolts needed for some products. Some bolt kits include spring washers; these kits are marked by “u”.

Unless otherwise stated, all bolts are of Class 12.9 (ISO 898) strength, minimum U.T.S = 1200 MN/m<sup>2</sup> (17,4 x 10<sup>4</sup> lbf/in<sup>2</sup>).

## Metric Sizes

Size x length, mm (in)	Qty.	Bolt kit
<b>M5</b>		
M5 x 20 (0.79)	4	BK466834M
M5 x 25 (0.98)	4	BK465723M
M5 x 30 (1.18)	4	BK616452M
M5 x 40 (1.57)	4	BK02-156493M
M5 x 40 (1.57) <sup>s</sup>	4	BK991917
M5 x 50 (1.97)	4	BKDG3699M
M5 x 55 (2.17)	4	BK986135M
M5 x 60 (2.36)	4	BK466836M
M5 x 70 (2.76)	4	BK464125M
M5 x 75 (2.95)	4	BK869720M
M5 x 80 (3.15)	4	BK466837M
M5 x 90 (3.54)	4	BK466838M
M5 x 95 (3.74)	4	BK869721M
M5 x 100 (3.94)	4	BK466839M
M5 x 110 (4.33)	4	BK466840M
M5 x 120 (4.72)	4	BK466841M
M5 x 130 (5.12)	4	BK466842M
M5 x 140 (5.12)	4	BK466843M
M5 x 150 (5.91)	4	BK466844M
M5 x 160 (6.30)	4	BK466845M
M5 x 170 (6.30)	4	BK466846M
M5 x 200 (7.87)	4	BK464468M

<sup>s</sup> Zinc plated, for use with aluminium body of EHST-3 valve

## Fixing Bolt Kits

Size x length, mm (in)	Qty.	Bolt kit
<b>M6</b>		
M6 x 16 (0.63)	4	BK534564M
M6 x 20 (0.79)	4	BK534565M
M6 x 25 (0.98)	4	BK534566M
M6 x 30 (1.18)	4	BK534567M
M6 x 40 (1.57)	4	BKDG01633M <sup>u</sup>
M6 x 45 (1.77)	4	BK534569M
M6 x 50 (1.97)	4	BK534570M
M6 x 55 (2.17)	4	BK534571M
M6 x 65 (2.56)	4	BK534572M
M6 x 70 (2.76)	4	BK534573M
M6 x 75 (2.95)	4	BK534574M
M6 x 80 (3.15)	4	BK638873M
M6 x 80 (3.15)	4	BKDGFN01637M <sup>u</sup>
M6 x 85 (3.35)	4	BK978478M
M6 x 90 (3.54)	4	BK534576M
M6 x 100 (3.94)	4	BK978479M
M6 x 110 (4.33)	4	BK978480M
M6 x 115 (4.53)	4	BK534580M
M6 x 120 (4.72)	4	BK534581M
M6 x 140 (5.51)	4	BK638878M
<b>M8</b>		
M8 x 40 (1.57)	4	BKDN16701M
M8 x 50 (1.97)	4	BKPNG16703M

## Metric Sizes

Size x length, mm (in)	Qty.	Bolt kit
<b>M10</b>		
M10 x 30 (1.18)	4	BKCGR02
M10 x 45 (1.77)	4	BKXG2V6
M10 x 45 (1.77) + M6 x 45 (1.77)	4 + 2	BKDG7858918
M10 x 60 (2.36) + M6 x 55 (2.16)	4 + 2	BKDG7M
M10 x 75 (2.95)	4	BKPCGV6
M10 x 80 (3.15)	4	BKPCGV8
M10 x 120 (4.72)	6	BKRX10662M
M10 x 200 (7.87) + M6 x 200 (7.87)	4 + 2	BKDG7858919
<b>M12</b>		
M12 x 40 (1.57)	4	BKDPNG25705M
M12 x 65 (2.56)	6	BKDG8655M
M12 x 65 (2.56)	6	BKDG06635M u
M12 x 80 (3.15)	6	BKDG8658M
M12 x 145 (5.71)	6	BKDG8976124
M12 x 165 (6.50)	6	BKDG8976125
M12 x 180 (7.09)	6	BKDG8976126
M12 x 235 (9.25)	6	BKDG8976127
M12 x 255 (10.04)	6	BKDG8976129
M12 x 270 (10.63)	6	BKDG8976130
M12 x 325 (12.80)	6	BKDG8976131
M12 x 355 (13.98)	6	BKDG8976134

Size x length, in (mm)	Qty.	Bolt kit
<b>M16</b>		
M16 x 45 (1.77)	4	BKCG815612M
M16 x 50 (1.97)	4	BKCG2V8
M16 x 55 (2.17)	4	BKDNG32718
M16 x 80 (3.15)	4	BKCG06600M
<b>M20</b>		
M20 x 60 (2.36)	4	BKDPNG40707M
M20 x 75 (2.95)	6	BKDG10636M u
M20 x 80 (3.15)	4	BKDNG50709M
M20 x 90 (3.54)	4	BKCG10616M
M20 x 100 (3.94)	4	BKCG10601M
M20 x 150 (5.9)	4	BK02-157288
M20 x 240 (9.45)	6	BK0304M
<b>M24</b>		
M24 x 300 (11.81)	6	BK0406M
<b>M30</b>		
M30 x 90 (3.54)	4	BKDNG63711M
M30 x 150 (5.9)	4	BK02-157289
<b>M36</b>		
M36 x 400 (15.75)	6	BK0608M/BK0708M
<b>M48</b>		
M48 x 600 (23.62)	6	BK0911M
<b>M64</b>		
M64 x 760 (29.9)	6	BK1216M

## Inch Sizes

Size x length, in (mm)	Qty.	Bolt kit
<b>#10 - 24</b>		
#10 - 24 x 1/2" (12,7)	4	BK590715
#10 - 24 x 3/4" (19,05)	4	BK466847
#10 - 24 x 1" (25,4)	4	BK304
#10 - 24 x 1 1/4" (31,8)	4	BK590716
#10 - 24 x 1 1/2" (38,1)	4	BK306
#10 - 24 x 1 5/8" (41,2)	4	BK590720
#10 - 24 x 1 3/4" (44,4)	4	BK02-156494
#10 - 24 x 1 3/4" (44,4) s	4	BKMOD617
#10 - 24 x 2" (50,8)	4	BKDG3698
#10 - 24 x 2 1/4" (57,2)	4	BK02-139165
#10 - 24 x 2 3/8" (60,3)	4	BK466849
#10 - 24 x 2 3/4" (69,9)	4	BK870017
#10 - 24 x 2 3/4" (69,9)	4	BKDGFNL694 u
#10 - 24 x 3" (76,2)	4	BK02-156496
#10 - 24 x 3 1/8" (79,4)	4	BK466850

Size x length, in (mm)	Qty.	Bolt kit
#10 - 24 x 3 1/2" (88,9)	4	BK466851
#10 - 24 x 3 3/4" (95,3)	4	BK869704
#10 - 24 x 3 15/16" (100)	4	BK466852
#10 - 24 x 4" (101,6)	4	BK02-156497
#10 - 24 x 4 3/4" (120,7)	4	BK466854
#10 - 24 x 4 15/16" (125,4)	4	BK466853
#10 - 24 x 5" (127,0)	4	BK02-156499
#10 - 24 x 5 1/8" (130,2)	4	BK466855
#10 - 24 x 5 1/4" (133,4)	4	BK02-156498
#10 - 24 x 5 3/16" (134,9)	4	BK466857
#10 - 24 x 5 1/2" (139,7)	4	BK466856
#10 - 24 x 6 5/16" (160,3)	4	BK466858
#10 - 24 x 6 11/16" (170,0)	4	BK466859
#10 - 24 x 7" (177,8)	4	BK890325

s. Zinc plated, for use with aluminium body of EHST-3 valve

## Inch Sizes

Size x length, in (mm)	Qty.	Bolt kit
<b>1/4" - 20</b>		
1/4" - 20 x 3/4" (19,1)	4	BK590719
1/4" - 20 x 1 1/2" (38,1)	4	BK869705
1/4" - 20 x 1 1/2" (38,1)	4	BKDG01633 u
1/4" - 20 x 2" (50,8)	2	BKSG02681
1/4" - 20 x 2" (50,8)	4	BK590726
1/4" - 20 x 2 1/2" (63,5)	4	BKXDG01634 u
1/4" - 20 x 2 3/4" (69,9)	4	BK534553
1/4" - 20 x 3" (76,2)	4	BK534554
1/4" - 20 x 3" (76,2)	4	BKSF4648 u
1/4" - 20 x 3 1/4" (82,6)	4	BK590714
1/4" - 20 x 3 1/4" (82,6)	4	BKDGFN01637 u
1/4" - 20 x 3 1/2" (88,9)	4	BK534556
1/4" - 20 x 3 1/2" (88,9)	4	BK255654 u
1/4" - 20 x 4" (101,6)	4	BK534558
#10 - 24 x 5" (127,0)	4	BK02-156499
1/4" - 20 x 4" (101,6)	4	BK255689 u
1/4" - 20 x 4 1/2" (114,3)	4	BKDGFN01624
1/4" - 20 x 4 1/2" (114,3)	4	BK255690 u
1/4" - 20 x 5 1/8" (130,2)	4	BK534562
1/4" - 20 x 5 3/4" (146,1)	4	BKDGXFN01666
1/4" - 20 x 6" (152,4)	4	BK255657 u
1/4" - 20 x 6 1/2" (165,1)	4	BK255664 u
1/4" - 20 x 7" (177,8)	4	BK255667 u
1/4" - 20 x 8 1/2" (215,9)	4	BK255659 u
1/4" - 20 x 9" (228,6)	4	BK255674 u
1/4" - 20 x 9 1/2" (241,3)	4	BK255675 u
1/4" - 20 x 13" (330,2)	4	BK590729 u

Size x length, in (mm)	Qty.	Bolt kit
<b>5/16" - 16</b>		
5/16" - 16 x 1 1/4" (31,8)	4	BKCGR02
5/16" - 16 x 1 1/4" (31,8)	4	BKDG04632 u
3/8" - 18 x 1 3/4" (44,5) + 1/4" - 20 x 1 3/4" (44,5)	4 + 2	BK590724
5/16" - 16 x 2 3/4" (69,9)	4	BKRX03660
5/16" - 16 x 3" (76,2)	4	BKFG03645
5/16" - 16 x 3 1/4" (82,6)	4	BKRX06661
5/16" - 16 x 3 3/4" (95,3)	4	BKDG1506627
5/16" - 16 x 4" (101,6)	6	BKRX10662
5/16" - 16 x 8" (203,2) + 1/4" - 20 x 8" (203,2)	4 + 4	BK590725
<b>5/16" - 18</b>		
5/16" - 18 x 1 1/2" (38,1)	4	BKDNG16700
5/16" - 18 x 2" (50,8)	4	BKPNG16702
5/16" - 18 x 2 1/4" (57,2)	4	BK509
5/16" - 18 x 4" (101,6)	4	BKDNG16712

## Inch Sizes

Size x length, in (mm)	Qty.	Bolt kit
<b>1/2" - 13</b>		
1/2" - 13 x 1 1/2" (38,1)	4	BKDPNG25704
1/2" - 13 x 2" (50,8)	4	BKCG03602
1/2" - 13 x 2 1/2" (63,5)	4	BKDG06622 u
1/2" - 13 x 2 1/2" (63,5)	6	BKDG06635
1/2" - 13 x 3" (76,2)	4	BKCGV06603
1/2" - 13 x 3" (76,2)	6	BKDG06618
1/2" - 13 x 3 1/2" (88,9)	6	BKCP2242680
1/2" - 13 x 4" (101,6)	4	BK02-157290
1/2" - 13 x 4 1/2" (114,3)	4	BK590731
1/2" - 13 x 5 1/2" (133,4)	6	BK255693 u
1/2" - 13 x 6" (152,4)	6	BK255691 u
1/2" - 13 x 6 1/2" (165,1)	6	BK255692 u
1/2" - 13 x 7 1/2" (190,5)	6	BKDGPC8656 u
1/2" - 13 x 8 3/4" (222,3)	6	BK255668 u
1/2" - 13 x 9 1/4" (235)	6	BK255671u
1/2" - 13 x 9 1/2" (241,3)	6	BK255670 u
1/2" - 13 x 10" (254)	6	BK590723
1/2" - 13 x 10" (254)	6	BK255669 u
1/2" - 13 x 12 1/4" (311)	6	BK255676 u
1/2" - 13 x 12 3/4" (324)	6	BK255677 u
1/2" - 13 x 13" (330)	6	BK255678 u
1/2" - 13 x 13 1/2" (343)	6	BK255679 u
<b>5/8" - 11</b>		
5/8" - 11 x 2" (50,8)	4	BKDNG32713
5/8" - 11 x 2 3/4" (69,9)	4	BKCG06604
5/8" - 11 x 3" (76,2)	4	BK1015
5/8" - 11 x 4" (101,6)	4	BFG06646
5/8" - 11 x 4 1/4" (108,0)	4	BK02-157291
5/8" - 11 x 4 3/4" (120,7) +		
5/8" - 11 x 2 1/4" (57,2)	4 + 2	BKCG506610

Size x length, in (mm)	Qty.	Bolt kit
<b>3/4" - 10</b>		
3/4" - 10 x 2 1/4" (57,2)	4	BKDPNG40706
3/4" - 10 x 2 3/4" (69,9)	4	BKCG825613
3/4" - 10 x 2 3/4" (69,9)	6	BKDG10636 u
3/4" - 10 x 3" (76,2)	4	BKDNG50708
3/4" - 10 x 3 1/2" (88,9)	4	BKCG10616
3/4" - 10 x 5" (127,0)	4	BK02-157292
3/4" - 10 x 5" (127,0) +		
3/4" - 10 x 3" (76,2)	4 + 2	BKCG510611
3/4" - 10 x 6" (152,4)	4	BK02-157293
3/4" - 10 x 9" (229)	6	BK0304
<b>1" - 8</b>		
1" - 8 x 8" (203)	4	BK1665
1" - 8 x 12" (305)	6	BK0406
<b>1 1/4" - 7</b>		
1 1/4" - 7 x 3 1/2" (88,9)	4	BKDNG63710
1 1/4" - 7 x 6" (152,4)	4	BK02-300324
<b>1 1/2" - 6</b>		
1 1/2" - 6 x 15 3/4" (400)	6	BK0608/BK0708
<b>2" - 4.5</b>		
2" - 4.5 x 22" (559)	6	BK0911
<b>2 1/2" - 4</b>		
2 1/2" - 4 x 28" (712)	6	BK1216

## Application

To determine the correct bolt length please refer to the Product Technical Literature.

Each product technical brochure details the product's bolt clamping dimension in the installation data section. Calculate the total clamping dimension maintaining the recommended maximum number of valves in any one stack.

Each bolt must include the correct thread engagement length for the sub-plate / manifold block and material used. To provide a guide to the length, a minimum factor of 1.5 x bolt diameter should be used with the consideration to the material and/or system pressure selected.

Example:

Directional Control	DG4V-3	=	21,75
Flow control	DGMFN-3	=	40,00
Check Valve	DGMDC-3	=	40,00
Thread engagement		=	7,50
(Min. 1.5 x Bolt diameter)			

Total = 109,25mm

Bolt Kit number = BK 466840 (M5 x 110)