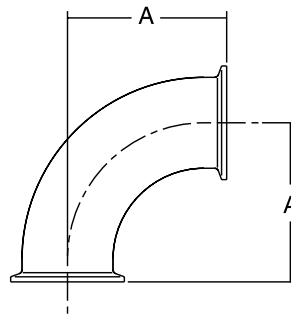


# Clamp Fittings

## 2CMP, 90° Elbow

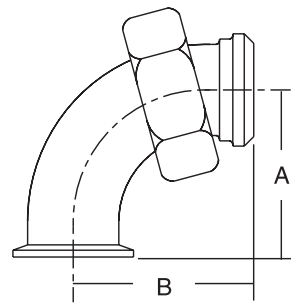
Size		A	
in	mm	in	mm
1	25.4	2	50.8
1½	38.1	2¾	69.9
2	50.8	3½	88.9
2½	63.5	4¼	108.0
3	76.2	5	127.0
4	101.6	6⅝	168.3



Material Options: 304 (Finish Number 7), 316L (Finish Number 7)

## 2FMP-14, 90° Sweep Elbow

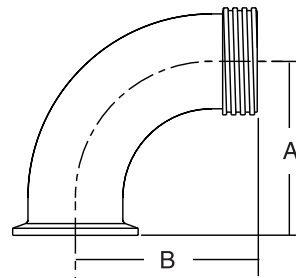
Size		A		B	
in	mm	in	mm	in	mm
1½	38.1	2¾	69.9	2 <sup>31</sup> / <sub>32</sub>	75.4
2	50.8	3½	88.9	3 <sup>23</sup> / <sub>32</sub>	94.5
2½	63.5	4¼	108.0	4 <sup>19</sup> / <sub>32</sub>	116.7
3	76.2	5	127.0	5 <sup>13</sup> / <sub>32</sub>	137.3
4	101.6	6⅝	168.3	7 <sup>7</sup> / <sub>32</sub>	183.4



Material Option: 304 (Finish Number 7)

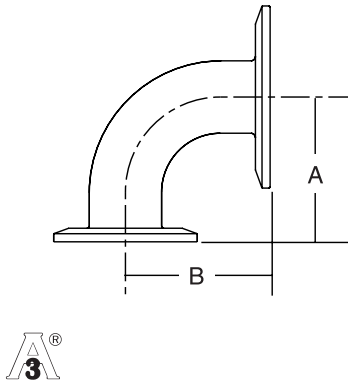
## 2FMP-15, 90° Sweep Elbow

Size		A		B	
in	mm	in	mm	in	mm
1½	38.1	2¾	69.9	2 <sup>31</sup> / <sub>32</sub>	75.4
2	50.8	3½	88.9	3 <sup>23</sup> / <sub>32</sub>	94.5
2½	63.5	4¼	108.0	4 <sup>19</sup> / <sub>32</sub>	116.7
3	76.2	5	127.0	5 <sup>13</sup> / <sub>32</sub>	137.3
4	101.6	6⅝	168.3	7 <sup>7</sup> / <sub>32</sub>	183.4



Material Option: 304 (Finish Number 7)

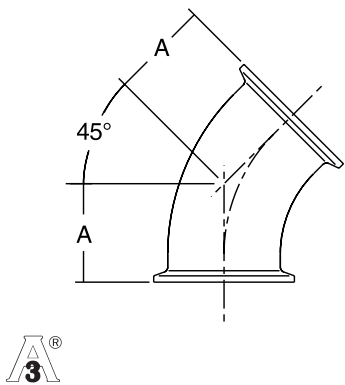
**2CMP-31MP - 90° Reducing Elbow,  
Non-Tapered**



Size		A		B	
in	mm	in	mm	in	mm
2 x 1	50.8 x 25.4	2	50.8	2	50.8
2 x 1½	50.8 x 38.1	2¾	69.9	2¾	69.9
2¾ x 2	63.5 x 50.8	3½	88.9	3½	88.9
3 x 2	76.2 x 50.8	3½	88.9	3½	88.9
3 x 2¾	76.2 x 63.5	4¼	108.0	4¼	108.0
4 x 3	101.6 x 76.2	5	127.0	5½	130.2

**Material Option: 304 (Finish Number 7)**

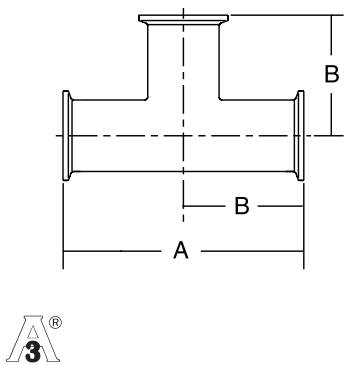
**2KMP - 45° Elbow**



Size		A	
in	mm	in	mm
1	25.4	1⅝	28.6
1½	38.1	1⅞	36.6
2	50.8	1¾	44.5
2½	63.5	2¼	52.3
3	76.2	2⅝	60.5
4	101.6	3⅝	79.3

**Material Options: 304 (Finish Number 7), 316L (Finish Number 7)**

**7MP - Tee**

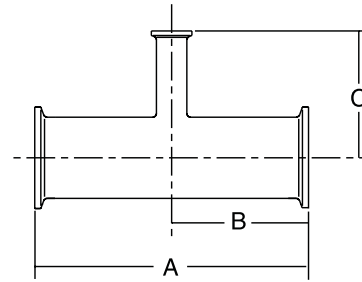


Size		A		B	
in	mm	in	mm	in	mm
1	25.4	5¼	133.4	2⅝	66.7
1½	38.1	5¾	146.1	2⅞	73.0
2	50.8	6¾	171.5	3⅜	85.7
2½	63.5	7¼	184.2	3⅝	92.1
3	76.2	7¾	196.9	3⅞	98.4
4	101.6	9½	241.3	4¾	120.7

**Material Options: 304 (Finish Number 7), 316L (Finish Number 7)**

### 7RMP - Reducing Tee

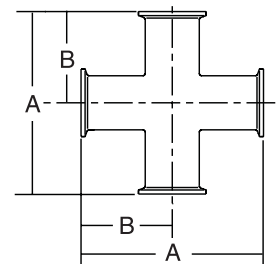
Size		A		B		C	
in	mm	in	mm	in	mm	in	mm
2 x 1	50.8 x 25.4	6¾	171.5	3⅝	85.7	3⅝	79.4
2 x 1½	50.8 x 38.1	6¾	171.5	3⅝	85.7	3⅝	79.4
2½ x 2	63.5 x 50.8	7¼	184.2	3⅝	92.1	3⅝	85.7
3 x 2	76.2 x 50.8	7¾	196.9	3⅝	98.4	3⅝	98.4
3 x 2½	76.2 x 63.5	7¾	196.9	3⅝	98.4	3⅝	98.4
4 x 1	101.6 x 25.4	9½	241.3	4¾	120.7	4¾	104.8
4 x 1½	101.6 x 38.1	9½	241.3	4¾	120.7	4¾	104.8
4 x 2	101.6 x 50.8	9½	241.3	4¾	120.7	4¾	111.1
4 x 2½	101.6 x 63.5	9½	241.3	4¾	120.7	4¾	111.1
4 x 3	101.6 x 76.2	9½	241.3	4¾	120.7	4¾	111.1



Material Options: 304 (Finish Number 7), 316L (Finish Number 7)

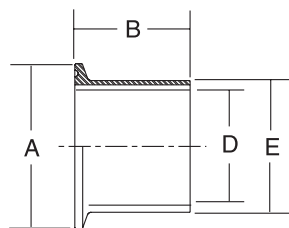
### 9MP - Cross

Size		A		B	
in	mm	in	mm	in	mm
1	25.4	5¼	133.4	2⅝	66.7
1½	38.1	5¾	146.1	2⅞	73.0
2	50.8	6¾	171.5	3⅝	85.7
2½	63.5	7¼	184.2	3⅝	92.1
3	76.2	7¾	196.9	3⅝	98.4
4	101.6	9½	241.3	4¾	120.7



Material Options: 304 (Finish Number 7), 316L (Finish Number 7)

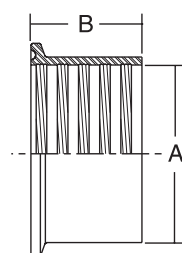
### 14MPW - Tank Welding Ferrule



Size		A		B		D		E	
in	mm	in	mm	in	mm	in	mm	in	mm
1	25.4	1 <sup>63</sup> / <sub>64</sub>	50.4	1 <sup>5</sup> / <sub>8</sub>	41.3	<sup>7</sup> / <sub>8</sub>	22.2	1 <sup>5</sup> / <sub>32</sub>	29.5
1½	38.1	1 <sup>63</sup> / <sub>64</sub>	50.4	1 <sup>5</sup> / <sub>8</sub>	41.3	1 <sup>3</sup> / <sub>8</sub>	34.9	1 <sup>43</sup> / <sub>64</sub>	42.6
2	50.8	2 <sup>39</sup> / <sub>64</sub>	64.0	1 <sup>3</sup> / <sub>4</sub>	44.5	1 <sup>7</sup> / <sub>8</sub>	47.6	2 <sup>3</sup> / <sub>16</sub>	55.7
2½	63.5	3 <sup>3</sup> / <sub>64</sub>	77.4	1 <sup>3</sup> / <sub>4</sub>	44.5	2 <sup>3</sup> / <sub>8</sub>	60.3	2 <sup>45</sup> / <sub>64</sub>	68.8
3	76.2	3 <sup>37</sup> / <sub>64</sub>	91.0	1 <sup>13</sup> / <sub>16</sub>	46.0	2 <sup>7</sup> / <sub>8</sub>	73.0	3 <sup>7</sup> / <sub>32</sub>	81.9
4	101.6	4 <sup>11</sup> / <sub>16</sub>	118.9	2 <sup>1</sup> / <sub>8</sub>	54.0	3 <sup>5</sup> / <sub>64</sub>	97.4	4 <sup>1</sup> / <sub>4</sub>	108.0

Material Option: 304 (Finish Number 7), 316L (Finish Number 7)

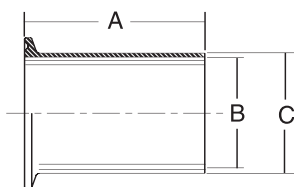
### 14RMP - Recessless Ferrule



Size		A		B	
in	mm	in	mm	in	mm
1	25.4	1	25.4	<sup>3</sup> / <sub>4</sub>	19.0
1½	38.1	1½	38.1	1 <sup>5</sup> / <sub>8</sub>	28.6
2	50.8	2	50.8	1 <sup>5</sup> / <sub>16</sub>	33.3
2½	63.5	2½	63.5	1 <sup>3</sup> / <sub>8</sub>	34.9
3	76.2	3	76.2	1 <sup>7</sup> / <sub>16</sub>	36.5
4	101.6	4	101.6	1½	38.1

Material Options: 304 (Finish Number 7), 316L (Finish Number 7)

### 14WLMP - Tank Welding Ferrule, Light

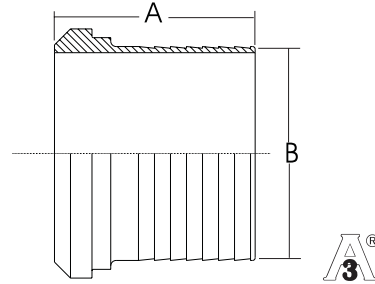


Size		A		B		C	
in	mm	in	mm	in	mm	in	mm
1	25.4	3	76.2	<sup>7</sup> / <sub>8</sub>	22.2	1	25.4
1½	38.1	3	76.2	1 <sup>3</sup> / <sub>8</sub>	34.9	1½	38.1
2	50.8	3	76.2	1 <sup>7</sup> / <sub>8</sub>	47.6	2	50.8
2½	63.5	3	76.2	2 <sup>3</sup> / <sub>8</sub>	60.3	2½	63.5
3	76.2	4	101.6	2 <sup>7</sup> / <sub>8</sub>	73.0	3	76.2
4	101.6	4	101.6	3 <sup>5</sup> / <sub>64</sub>	97.4	4	101.6

Material Options: 304 (Finish Number 7), 316L (Finish Number 7)

### 14AHR - Rubber Hose Adapter

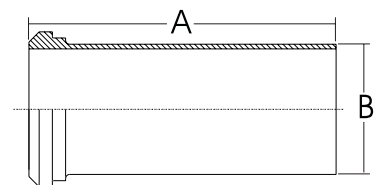
Size		A		B	
in	mm	in	mm	in	mm
1½	38.1	1 <sup>11</sup> / <sub>16</sub>	42.9	1½	38.1
2	50.8	2 <sup>5</sup> / <sub>16</sub>	58.7	2	50.8
2½	63.5	2 <sup>11</sup> / <sub>32</sub>	59.5	2½	63.5
3	76.2	3½	88.9	3	76.2
4	101.6	4	101.6	4	101.6



Material Option: 304 (Finish Number 7)

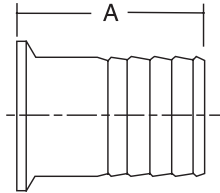
### 14AHT - Tygon Hose Adapter

Size		A		B	
in	mm	in	mm	in	mm
1	25.4	4 <sup>11</sup> / <sub>16</sub>	119.1	1	25.4
1½	38.1	4 <sup>23</sup> / <sub>32</sub>	119.9	1½	38.1
2	50.8	4 <sup>23</sup> / <sub>32</sub>	119.9	2	50.8
2½	63.5	4 <sup>27</sup> / <sub>32</sub>	123	2½	63.5
3	76.2	4 <sup>29</sup> / <sub>32</sub>	124.6	3	76.2
4	101.6	5 <sup>7</sup> / <sub>32</sub>	132.6	4	101.6



Material Option: 304 (Finish Number 7)

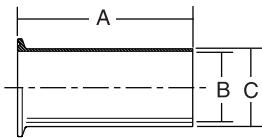
### 14 MPHR - Rubber Hose Adapter



Size		A	
in	mm	in	mm
1	25.4	1 <sup>11</sup> / <sub>16</sub>	42.9
1½	38.1	1 <sup>11</sup> / <sub>16</sub>	42.9
2	50.8	2 <sup>5</sup> / <sub>16</sub>	58.7
2½	63.5	2	50.8
3	76.2	3 <sup>7</sup> / <sub>64</sub>	80.0
4	101.6	3 <sup>13</sup> / <sub>32</sub>	86.5

**Material Options:** 304 (Finish Number 7), 316L (Finish Number 7)

### 14 MPHT - Tygon Hose Adapter



Size		A		B		C	
in	mm	in	mm	in	mm	in	mm
1	25.4	4½	114.3	7/8	22.2	1	25.4
1½	38.1	4½	114.3	1¾	34.9	1½	38.1
2	50.8	4½	114.3	1 <sup>7</sup> / <sub>8</sub>	47.6	2	50.8
2½	63.5	4½	114.3	2¾	60.3	2½	63.5
3	76.2	4½	114.3	2 <sup>7</sup> / <sub>8</sub>	73.0	3	76.2
4	101.6	4 <sup>5</sup> / <sub>8</sub>	117.5	3 <sup>53</sup> / <sub>64</sub>	97.4	4	101.6

**Material Options:** 304 (Finish Number 7), 316L (Finish Number 7)

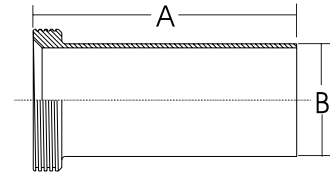
**Note:** 1" (25.4mm) take 1½" (38.1mm) clamp assemblies. A 14MHC clamp is available for use with 14 MPHT, order by specifying hose O.D. size.



**Highland  
Equipment  
Limited**  
STAINLESS STEEL EQUIPMENT

**15AHT - Tygon Hose Adapter**

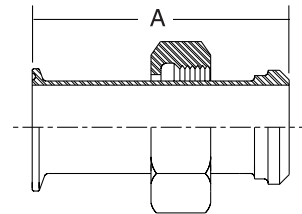
Size		A		B	
in	mm	in	mm	in	mm
1	25.4	4 <sup>11/16</sup>	119.1	1	25.4
1½	38.1	4 <sup>23/32</sup>	119.9	1½	38.1
2	50.8	4 <sup>23/32</sup>	119.9	2	50.8
2½	63.5	4 <sup>27/32</sup>	123	2½	63.5
3	76.2	4 <sup>29/32</sup>	124.6	3	76.2
4	101.6	5 <sup>7/32</sup>	132.6	4	101.6



**Material Option: 304 (Finish Number 7)**

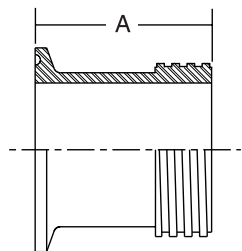
**17MP-14 - Adapter**

Size		A	
in	mm	in	mm
1	25.4	3	76.2
1½	38.1	3	76.2
2	50.8	3	76.2
2½	63.5	3½	88.9
3	76.2	3¾	95.3
4	101.6	4	101.6



**Material Option: 304 (Finish Number 7)**

### 17MP-15 - Adapter



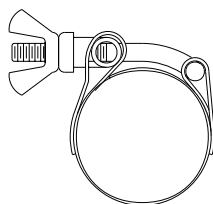
Size		A	
in	mm	in	mm
1	25.4	1 <sup>11</sup> / <sub>16</sub>	42.9
1½	38.1	1 <sup>23</sup> / <sub>32</sub>	43.7
2	50.8	1 <sup>23</sup> / <sub>32</sub>	43.7
2½	63.5	1 <sup>27</sup> / <sub>32</sub>	46.8
3	76.2	1 <sup>29</sup> / <sub>32</sub>	48.4
4	101.6	2 <sup>11</sup> / <sub>32</sub>	59.5

Material Option: 304 (Finish Number 7)

### A14MHC - Sanitary Hose Clamp

#### Hose OD

in	mm
1.125	28.6
1.25	31.8
1.375	34.9
1.5	38.1
1.625	41.3
1.75	44.5
1.875	47.6
2	50.8
2.125	54
2.25	57.227
2.375	60.3
2.5	63.5
2.625	66.7
2.75	69.9
3	76.2
3.25	82.6
3.5	88.9
3.75	95.3
4	101.6
4.5	114.3

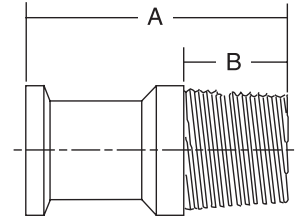


Material Option: 304



### 21MP - Adapter (N.P.T. pipe threads - Non 3A)

Size		A		B	
in	mm	in	mm	in	mm
1 x ¾	25.4 x 19.0	2 <sup>3</sup> / <sub>16</sub>	55.6	<sup>6</sup> / <sub>64</sub>	25.0
1 x 1	25.4 x 25.4	2 <sup>1</sup> / <sub>4</sub>	57.2	<sup>11</sup> / <sub>16</sub>	17.5
1½ x ¾	38.1 x 19.0	2 <sup>3</sup> / <sub>16</sub>	55.6	<sup>3</sup> / <sub>64</sub>	13.9
1½ x 1	38.1 x 25.4	2 <sup>5</sup> / <sub>16</sub>	58.7	<sup>2</sup> / <sub>32</sub>	18.3
1½ x 1¼	38.1 x 31.8	2 <sup>7</sup> / <sub>16</sub>	61.9	<sup>4</sup> / <sub>64</sub>	17.9
1½ x 1½	38.1 x 38.1	2 <sup>7</sup> / <sub>16</sub>	61.9	<sup>2</sup> / <sub>32</sub>	18.3
1½ x 2	38.1 x 50.8	2 <sup>5</sup> / <sub>8</sub>	66.7	<sup>2</sup> / <sub>32</sub>	18.3
2 x 1½	50.8 x 38.1	2 <sup>15</sup> / <sub>32</sub>	62.7	<sup>3</sup> / <sub>4</sub>	19.0
2 x 2	50.8 x 50.8	2 <sup>21</sup> / <sub>32</sub>	67.5	<sup>3</sup> / <sub>4</sub>	19.0
2 ½ x 2	63.5 x 50.8	3 ½	79.4	1 <sup>9</sup> / <sub>64</sub>	28.9
2 ½ x 2 ½	63.5 x 63.5	3 <sup>9</sup> / <sub>32</sub>	83.3	1 <sup>3</sup> / <sub>8</sub>	34.9
3 x 3	76.2 x 76.2	3 ½	89	1 <sup>13</sup> / <sub>64</sub>	30.6
4 x 4	101.6 x 101.6	3 <sup>13</sup> / <sub>16</sub>	96.84	1 <sup>19</sup> / <sub>64</sub>	32.9

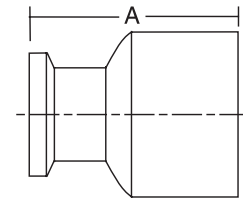


**Material Options:** 304 (Finish Number 7), 316L (Finish Number 7)

**Notes:** When adapter dimensions are given, the sanitary style end is always indicated first.  
Appearance may vary according to size.

### 22MP - Adapter (N.P.T. pipe thread - Non 3A)

Size		A	
in	mm	in	mm
1 x ¾	25.4 x 19.0	1 <sup>5</sup> / <sub>8</sub>	41.3
1 x 1	25.4 x 25.4	1 <sup>5</sup> / <sub>8</sub>	41.3
1½ x ¾	38.1 x 19.0	1 <sup>5</sup> / <sub>8</sub>	41.3
1½ x 1	38.1 x 25.4	1 <sup>5</sup> / <sub>8</sub>	41.3
1½ x 1¼	38.1 x 31.8	2 <sup>1</sup> / <sub>4</sub>	57.2
1½ x 1½	38.1 x 38.1	2 <sup>1</sup> / <sub>4</sub>	57.2
2 x 1½	50.8 x 38.1	1 <sup>11</sup> / <sub>16</sub>	42.9
2 x 2	50.8 x 50.8	2 <sup>11</sup> / <sub>32</sub>	59.5
2 1/2 X 1 1/2	63.5 X 38.1	1 <sup>11</sup> / <sub>16</sub>	42.9
2 1/2 X 2	63.5 X 50.8	1 <sup>13</sup> / <sub>32</sub>	35.7
2 1/2 X 2 1/2	63.5 X 63.5	2 <sup>3</sup> / <sub>32</sub>	53.2
3 X 3	76.2 X 76.2	2 <sup>3</sup> / <sub>16</sub>	55.6
4 X 4	101.6 X 101.6	2 <sup>21</sup> / <sub>32</sub>	67.5



**Material Options:** 304 (Finish Number 7), 316L (Finish Number 7)

**Notes:** When adapter dimensions are given, the sanitary style end is always indicated first.  
Appearance may vary according to size.

### 16 AMP - Solid End Cap

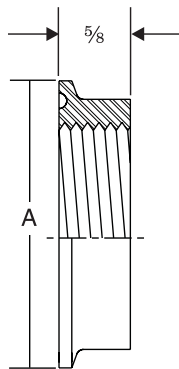


Size		A		B	
in	mm	in	mm	in	mm
1 & 1½	25.4 & 38.1	¼	6.4	1 <sup>63</sup> / <sub>64</sub>	50.4
2	50.8	¼	6.4	2 <sup>33</sup> / <sub>64</sub>	63.9
2½	63.5	¼	6.4	3 <sup>3</sup> / <sub>64</sub>	77.4
3	76.2	¼	6.4	3 <sup>37</sup> / <sub>64</sub>	90.9
4	101.6	¼	6.4	4 <sup>11</sup> / <sub>16</sub>	118.9

**Material Options:** 304 (Finish Number 7), 316L (Finish Number 7)

**Note:** 1½" 16 AMP used on both 1" and 1½" lines.

### 23 MP - Thermometer Cap Non 3A



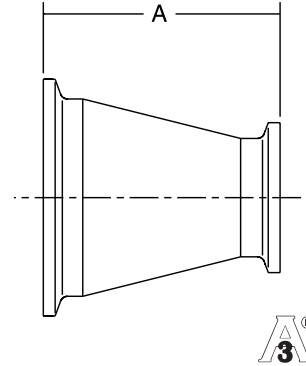
Size		A	
in	mm	in	mm
1	25.4	1 <sup>63</sup> / <sub>64</sub>	50.4
1½	38.1	1 <sup>63</sup> / <sub>64</sub>	50.4
2	50.8	2 <sup>33</sup> / <sub>64</sub>	64.0
2½	63.5	3 <sup>3</sup> / <sub>64</sub>	77.4
3	76.2	3 <sup>37</sup> / <sub>64</sub>	90.9
4	101.6	4 <sup>11</sup> / <sub>16</sub>	118.9

**Material Option:** 304 (Finish Number 7)

**Note:** 1" (25.4mm) tapped = ½" (12.7mm) NPT. All others = ¾" (19.0mm) NPT.

### 31-14MP - Concentric Reducer

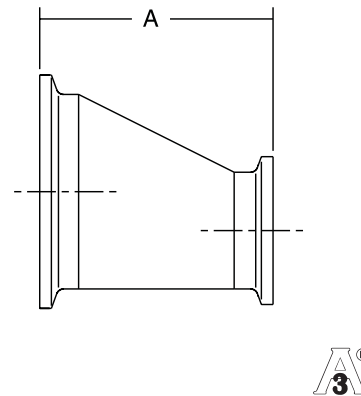
Size		A	
in	mm	in	mm
1½ x 1	38.1 x 25.4	3	76.2
2 x 1	50.8 x 25.4	5	127.0
2 x 1½	50.8 x 38.1	3	76.2
2½ x 1½	63.5 x 38.1	5	127.0
2½ x 2	63.5 x 50.8	3	76.2
3 x 2	76.2 x 50.8	5	127.0
3 x 2½	76.2 x 63.5	3	76.2
4 x 2	101.6 x 50.8	9½	231.8
4 x 2½	101.6 x 63.5	7½	180.9
4 x 3	101.6 x 76.2	5½	130.2



Material Option: 316L (Finish Number 7)

### 32-14MP - Eccentric Reducer

Size		A	
in	mm	in	mm
1½ x 1	38.1 x 25.4	3	76.2
2 x 1	50.8 x 25.4	5	127.0
2 x 1½	50.8 x 38.1	3	76.2
2½ x 1½	63.5 x 38.1	5	127.0
2½ x 2	63.5 x 50.8	3	76.2
3 x 2	76.2 x 50.8	5	127.0
3 x 2½	76.2 x 63.5	3	76.2
4 x 3	101.6 x 76.2	5½	130.2



Material Option: 316L (Finish Number 7)