

Conversion from BC406 to MXP16N

Bore Size:

The bore size of the BC406 is .625" [16 mm].
The bore size of the MXP16N is .625" [16 mm].

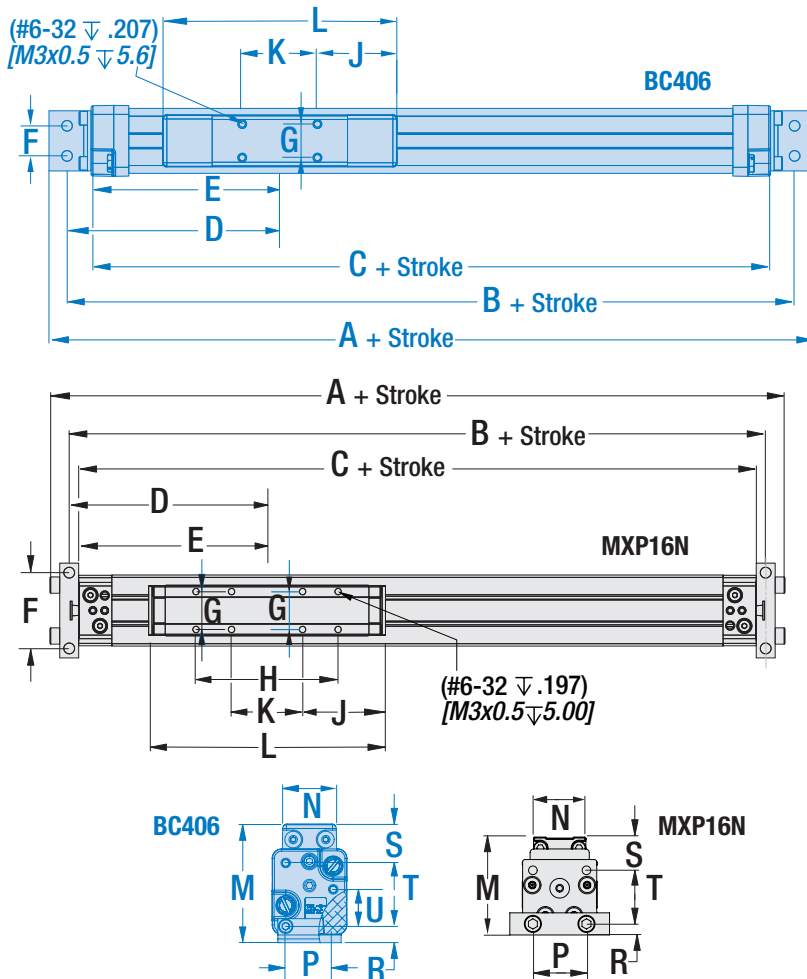
Envelope Size:

With foot mounts, the overall length, height and width of the BC406 is slightly larger than the MXP16N of equal stroke length.

Dead Length:

Dead length is the part of the band cylinder required for mounting and mechanisms. The overall length of a band cylinder is the stroke length plus the dead length ("C" dimension in the table).

The BC406 dead length is 6.296" [159.92 mm] compared to the MXP16N at 6.264" [159.10 mm].



Dimensions in inches

Dimensions in millimeters

	BC406	MXP16N
A	7.696	7.222
B	7.096	6.579
C	6.296	6.264
D	3.538	3.289
E	3.138	3.132
F	0.500	1.260
G	0.558	0.630
H	-	2.362
J	1.321	0.709
K	1.250	1.181
L	3.892	3.780
M	1.876	1.545
N	0.862	0.827
P	0.750	0.846
R	0.260	0.175
S	0.616	0.524
T	1.000	-
U	0.583	-

	BC406	MXP16N
A	195.48	183.43
B	188.24	167.10
C	159.92	159.10
D	89.87	83.55
E	79.71	79.55
F	12.70	32.00
G	14.17	16.00
H	-	60.00
J	33.56	18.00
K	31.75	30.00
L	98.86	96.00
M	47.65	39.25
N	21.89	21.00
P	19.05	21.50
R	6.60	4.44
S	15.65	13.31
T	25.40	-
U	14.81	-

MOUNTING

Drawing repeated for reference

MOUNTING VIA HEAD BOLTS:

Bolt pattern "P" on the BC406 is .75" [19.05mm].
 Bolt pattern "P" on the MXP16N is 0.846" [21.50mm] square.
 Bolt pattern "T" on the BC406 is 1.00" [25.4mm].
 Bolt pattern "U" on the BC406 is 0.583" [14.81mm].

CARRIER RELATION TO HEAD BOLT MOUNTING:

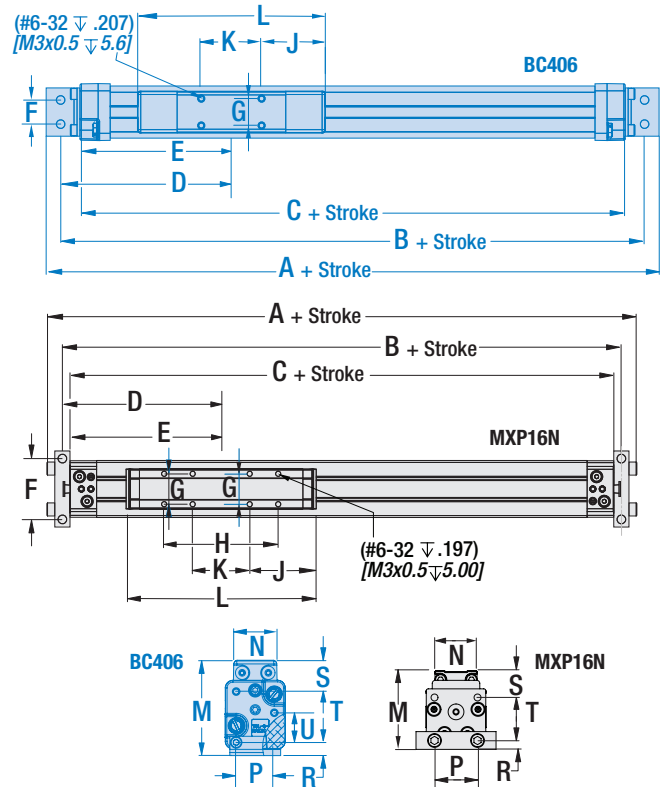
1. Distance from the top of the carrier to the center of the top mounting bolts "S" is decreased by 0.092" [2.34mm].

MOUNTING VIA FOOT MOUNTS:

1. When mounting the BC406 with foot mounts, the distance between the mounting brackets "B" is reduced by 0.092" [2.34mm] when using the MXP16N.
 2. Height of the carrier relative to the bottom of the foot mounts "M" is reduced by 0.331" [8.40mm].

CARRIER:

1. Carrier bolt pattern "G" & "K" of the BC406 is not replicated on the MXP16N.
 2. Carrier length "L" decreases by 0.112" [2.84mm].
 3. Distance from the center of the carrier to the back edge of the head "E" decreases by 0.006" [0.152mm].
 4. Additional mounting holes "H" are available on the MXP16N.



ORDERING

SAMPLE CROSSOVER CONFIGURATION:

DISCONTINUED

BC406 NP SK5.000 FM2

Config. String: BC406 NP SK5.000 FM2

Bore Size: 0.625" [16 mm]

Unit of measure: SK (inches)

Stroke length 5.000 in

FM: Foot mount for actuator mounting,
 Quantity: 2

NEW

MXP16N NP SK5.000 FM2

Config. String: MXP16N NP SK5.000 FM2

Bore Size: 0.625" [16 mm]

Unit of measure: SK (inches)

Stroke length 5.000 in

FM: Foot mount for actuator mounting,
 Quantity: 2

Tolomatic[™]
 EXCELLENCE IN MOTION

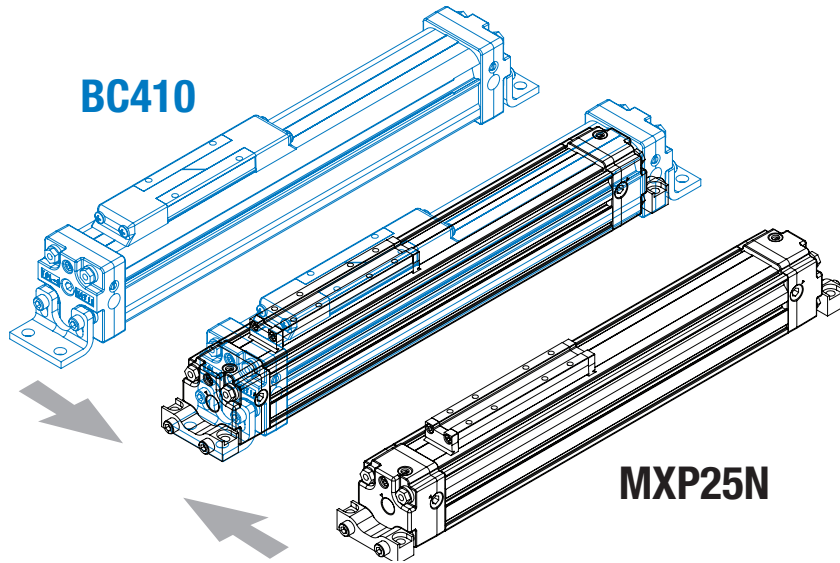
3800 County Road 116, Hamel, MN 55340 USA

http://www.tolomatic.com • Email: Help@Tolomatic.com

Phone: (763) 478-8000 • Fax: (763) 478-8080 • Toll Free: 1-800-328-2174

COMPANY WITH
 QUALITY SYSTEM
 CERTIFIED BY DNV GL
 = ISO 9001 =

All brand and product names are trademarks or registered trademarks of their respective owners. Information in this document is believed accurate at time of printing. However, Tolomatic assumes no responsibility for its use or for any errors that may appear in this document. Tolomatic reserves the right to change the design or operation of the equipment described herein and any associated motion products without notice. Information in this document is subject to change without notice.



Conversion from BC410 to MXP25N

Bore Size:

The bore size of the BC410 is 1" [25 mm].
The bore size of the MXP25N is 1" [25 mm].

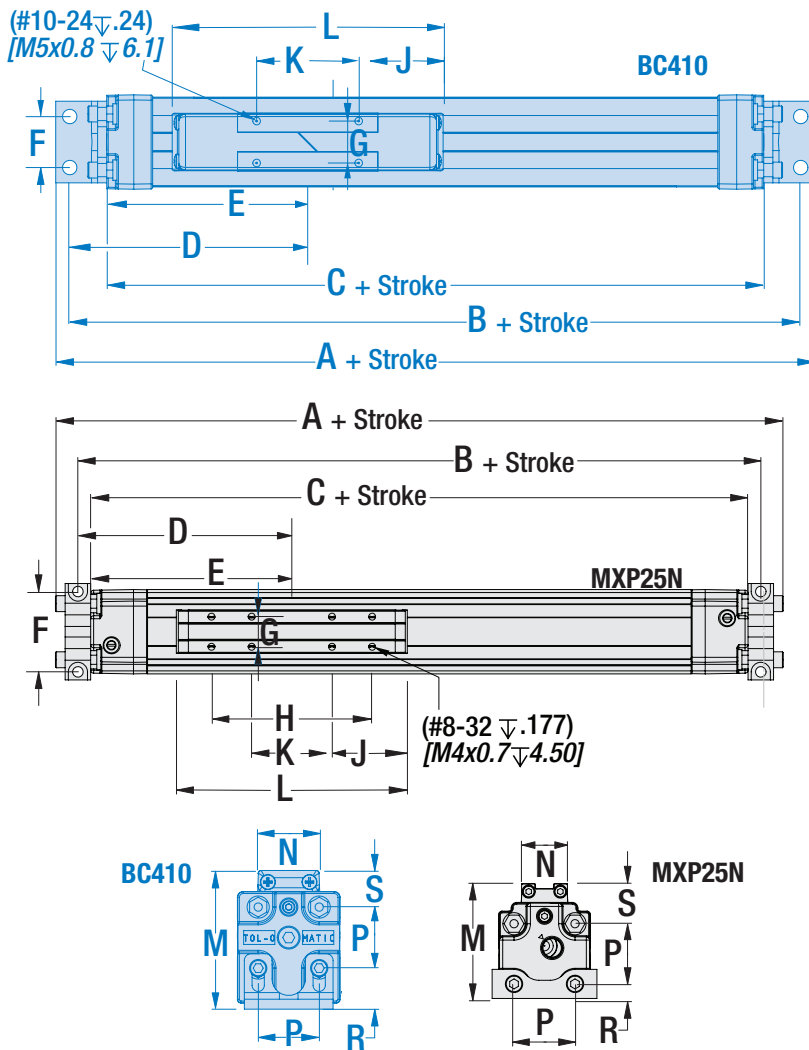
Envelope Size:

With foot mounts, the overall length, height and width of the BC410 is slightly larger than the MXP25N of equal stroke length.

Dead Length:

Dead length is the part of the band cylinder required for mounting and mechanisms. The overall length of a band cylinder is the stroke length plus the dead length ("C" dimension in the table).

The BC410 dead length is 7.878" [200.10 mm] compared to the MXP25N at 7.886" [200.30 mm].



Dimensions in inches

Dimensions in millimeters

	BC410	MXP25N
A	9.878	9.266
B	9.328	8.386
C	7.878	7.886
D	4.664	4.193
E	3.939	3.943
F	1.000	1.575
G	0.822	0.591
H	-	3.150
J	1.500	1.713
K	2.000	1.575
L	5.310	4.449
M	2.501	2.071
N	1.125	0.827
P	1.100	1.100
R	0.741	0.262
S	0.660	0.723

	BC410	MXP25N
A	250.90	235.36
B	236.93	213.00
C	200.10	200.30
D	118.47	106.50
E	100.05	100.15
F	25.40	40.00
G	20.88	15.01
H	-	80.00
J	38.10	43.50
K	50.80	40.00
L	134.87	113.00
M	63.53	52.60
N	28.58	21.00
P	27.94	27.94
R	18.80	6.67
S	16.76	18.36

MOUNTING

Drawing repeated for reference

MOUNTING VIA HEAD BOLTS:

Bolt pattern "P" on the BC410 is 1.10" [27.94mm] square.
Bolt pattern "P" on the MXP25N is 1.10" [27.94mm] square.

CARRIER RELATION TO HEAD BOLT MOUNTING:

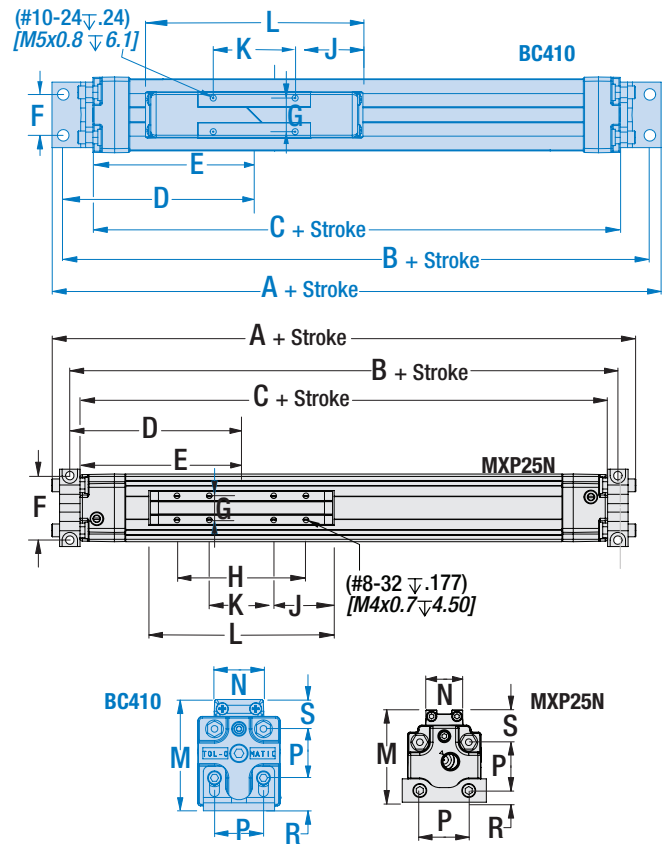
- Distance from the top of the carrier to the center of the top mounting bolts "S" is increased by 0.063" [1.60mm].

MOUNTING VIA FOOT MOUNTS:

- When mounting the BC410 with foot mounts the distance between the mounting brackets "B" is reduced by 0.942" [23.92mm] when using the MXP25N.
- Height of the carrier relative to the bottom of the foot mounts "M" is reduced by 0.43" [10.92mm].

CARRIER:

- Carrier bolt pattern "G" & "K" of the BC410 is not replicated on the MXP25N.
- Carrier length "L" decreases by 0.861" [21.87mm].
- Distance from the center of the carrier to the back edge of the head "E" increased by 0.004" [0.102mm].
- Additional mounting holes "H" are available on the MXP25N.

**ORDERING****SAMPLE CROSSOVER CONFIGURATION:****DISCONTINUED****BC410 NP SK5.000 FM2**

Config. String: BC410 NP SK5.000 FM2

Bore Size: 1.00" [25 mm]

Unit of measure: SK (inches)

Stroke length 5.000 in

FM: Foot mount for actuator mounting,
Quantity: 2**NEW****MXP25N NP SK5.000 FM2**

Config. String: MXP25N NP SK5.000 FM2

Bore Size: 1.00" [25 mm]

Unit of measure: SK (inches)

Stroke length 5.000 in

FM: Foot mount for actuator mounting,
Quantity: 2

Tolomatic[™]
EXCELLENCE IN MOTION

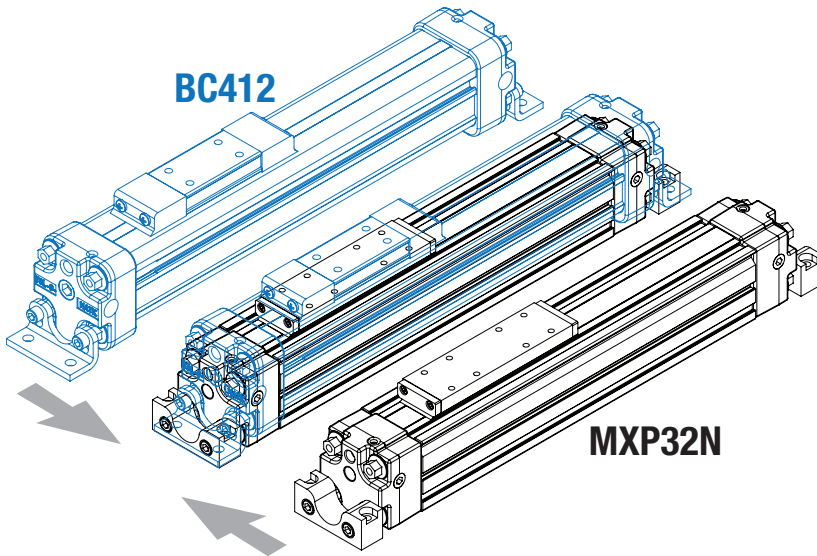
3800 County Road 116, Hamel, MN 55340 USA

http://www.tolomatic.com • Email: Help@Tolomatic.com

Phone: (763) 478-8000 • Fax: (763) 478-8080 • Toll Free: 1-800-328-2174

COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =

All brand and product names are trademarks or registered trademarks of their respective owners. Information in this document is believed accurate at time of printing. However, Tolomatic assumes no responsibility for its use or for any errors that may appear in this document. Tolomatic reserves the right to change the design or operation of the equipment described herein and any associated motion products without notice. Information in this document is subject to change without notice.



Conversion from BC412 to MXP32N

Bore Size:

The bore size of the BC412 is 1.25" [32 mm].
The bore size of the MXP32N is 1.25" [32 mm].

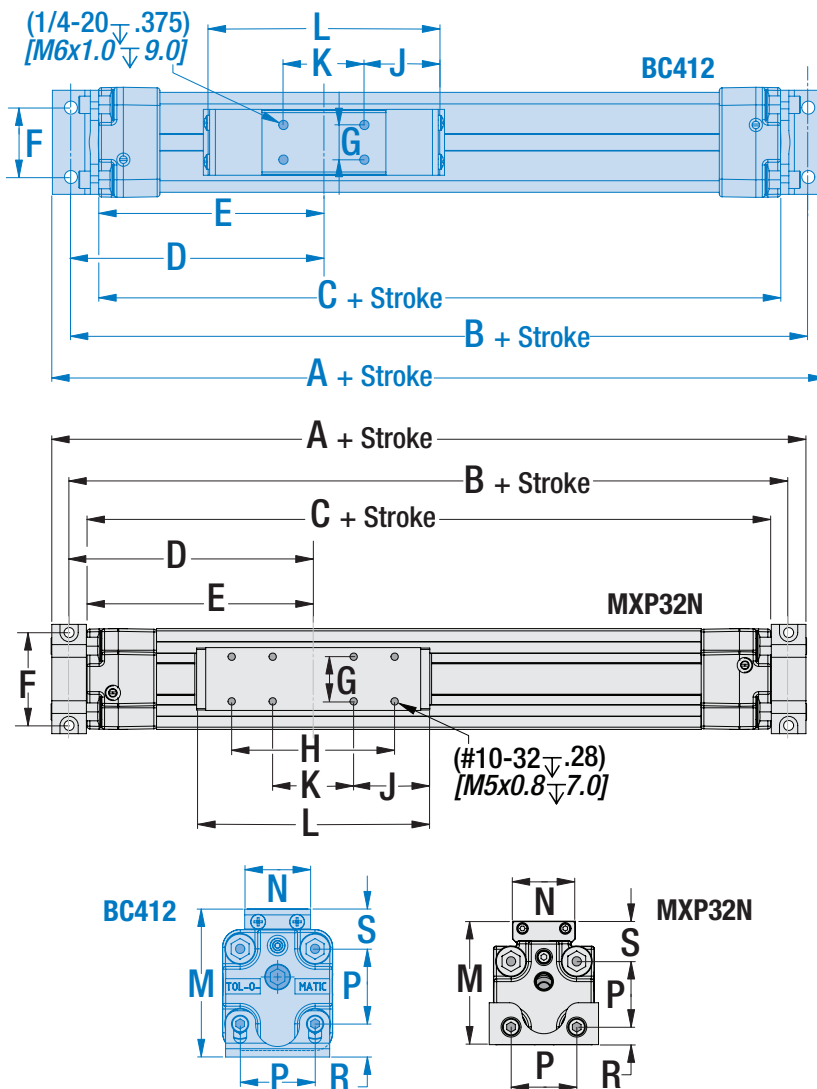
Envelope Size:

With foot mounts, the overall length, height and width of the BC412 is slightly larger than the MXP32N of equal stroke length.

Dead Length:

Dead length is the part of the band cylinder required for mounting and mechanisms. The overall length of a band cylinder is the stroke length plus the dead length ("C" dimension in the table).

The BC412 dead length is 9.736" [247.29mm] compared to the MXP32N at 9.803" [249.00mm].



Dimensions in inches

Dimensions in millimeters

	BC412	MXP32N
A	11.737	11.299
B	10.937	10.551
C	9.736	9.803
D	5.469	5.276
E	4.868	4.902
F	1.500	2.008
G	0.750	0.965
H	-	3.522
J	1.625	1.625
K	1.750	1.750
L	4.942	5.039
M	3.200	2.668
N	1.424	1.358
P	1.620	1.420
R	0.716	0.380
S	1.470	1.460

	BC412	MXP32N
A	298.12	287.00
B	277.80	268.00
C	247.29	249.00
D	138.90	134.00
E	123.65	124.50
F	38.10	51.00
G	16.05	24.51
H	-	89.46
J	41.28	41.28
K	44.45	44.45
L	125.53	128.00
M	81.28	67.77
N	36.17	34.50
P	41.15	36.07
R	18.19	9.65
S	37.34	37.08

MOUNTING**MOUNTING VIA HEAD BOLTS:**

Bolt pattern "P" on the BC412 is 1.620" [41.15 mm] square.
Bolt pattern "P" on the MXP32N is 1.420" [36.07 mm] square.

CARRIER RELATION TO HEAD BOLT MOUNTING:

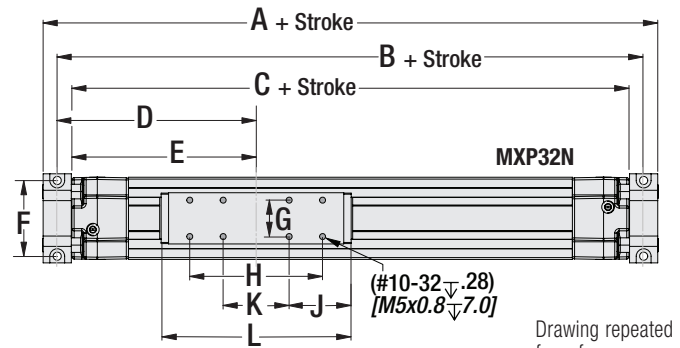
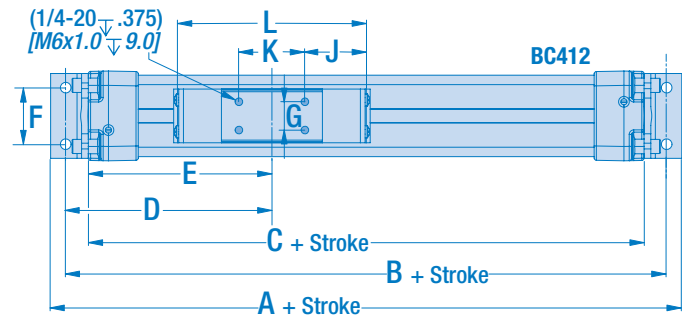
- Distance from the top of the carrier to the center of the top mounting bolts "S" is decreased by 0.010" [0.25 mm].

MOUNTING VIA FOOT MOUNTS:

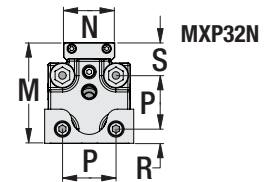
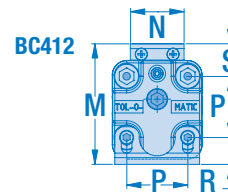
- When mounting the BC412 with foot mounts the distance between the mounting brackets "B" is reduced by 0.386" [9.8 mm] when using the MXP32N.
- Height of the carrier relative to the bottom of the foot mounts "M" is reduced by 0.532" [13.51 mm].

CARRIER:

- Carrier bolt pattern "G" & "K" of the BC412 is not duplicated on the MXP32N cylinder. The tapped holes change from 1/4 -20 [M6 X 1.0] to #10-32 [M5 X 0.8].
- Carrier length "L" increases by 0.097" [2.46 mm].
- Distance from the center of the carrier to the back edge of the head "E" increases by 0.034" [0.86 mm].
- Additional mounting holes "H" are available on the MXP32N.



Drawing repeated for reference

**ORDERING****SAMPLE CROSSOVER CONFIGURATION:****DISCONTINUED****BC412 NP SK5.000 FM2**

Config. String: BC412 NP SK5.000 FM2

Bore Size: 1.25" [32 mm]

Unit of measure: SK (inches)

Stroke length 5.000 in

FM: Foot mount for actuator mounting,
Quantity: 2**NEW****MXP32N NP SK5.000 FM2**

Config. String: MXP32N NP SK5.000 FM2

Bore Size: 1.25" [32 mm]

Unit of measure: SK (inches)

Stroke length 5.000 in

FM: Foot mount for actuator mounting,
Quantity: 2

TolomaticTM
EXCELLENCE IN MOTION

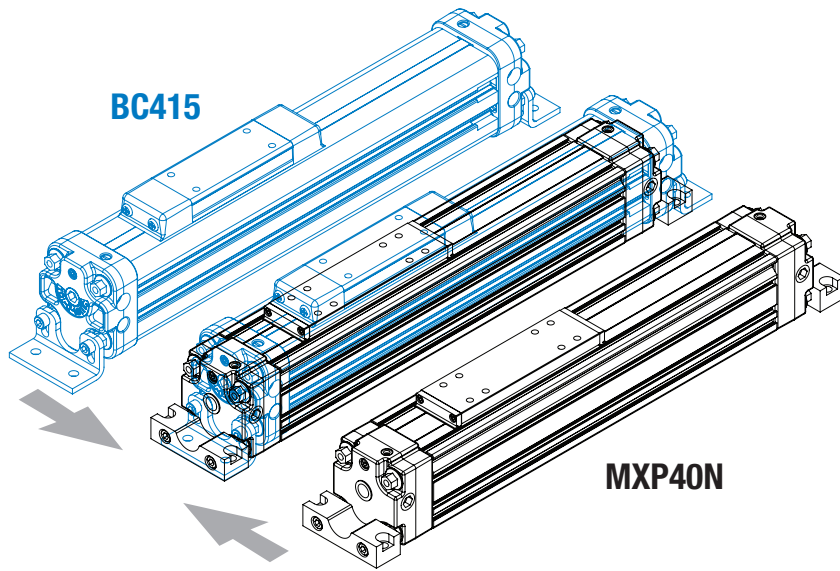
3800 County Road 116, Hamel, MN 55340 USA

http://www.tolomatic.com • Email: Help@Tolomatic.com

Phone: (763) 478-8000 • Fax: (763) 478-8080 • Toll Free: 1-800-328-2174

COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =

All brand and product names are trademarks or registered trademarks of their respective owners. Information in this document is believed accurate at time of printing. However, Tolomatic assumes no responsibility for its use or for any errors that may appear in this document. Tolomatic reserves the right to change the design or operation of the equipment described herein and any associated motion products without notice. Information in this document is subject to change without notice.



Conversion from BC415 to MXP40N

Bore Size:

The bore size of the BC415 is 1.5" [38 mm].
The bore size of the MXP40N is 1.5" [38 mm].

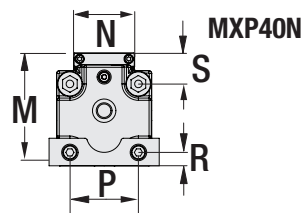
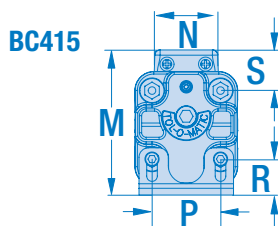
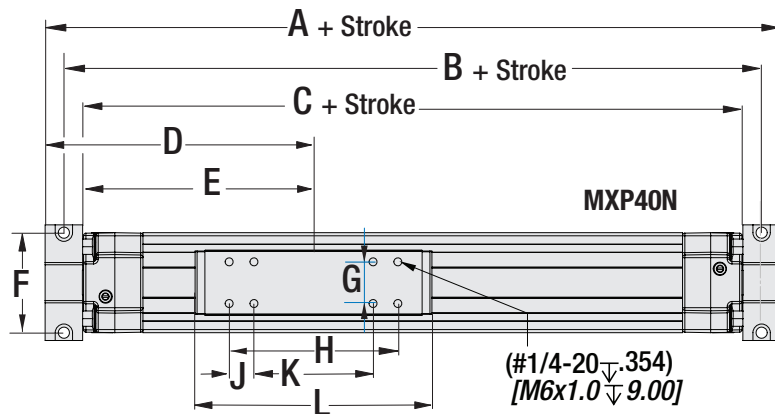
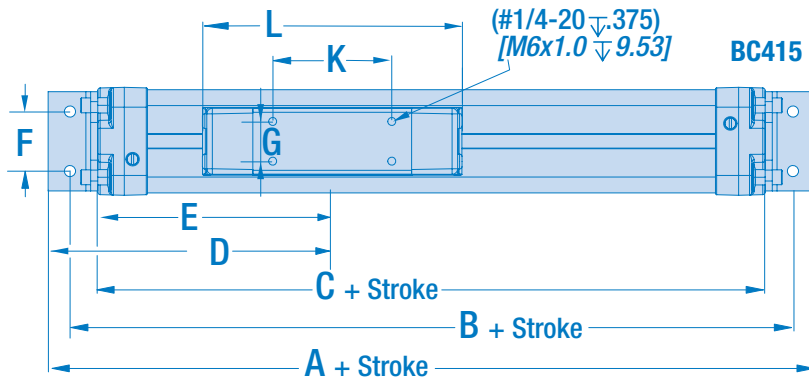
Envelope Size:

With foot mounts, the overall length, height and width of the BC415 is slightly larger than the MXP40N of equal stroke length.

Dead Length:

Dead length is the part of the band cylinder required for mounting and mechanisms. The overall length of a band cylinder is the stroke length plus the dead length ("C" dimension in the table).

The BC415 dead length is 11.810" [299.97 mm] compared to the MXP40N at 11.633" [295.47 mm].



Dimensions in inches

Dimensions in millimeters

	BC415	MXP40N
A	14.313	13.522
B	13.213	12.578
C	11.810	11.633
D	6.927	6.761
E	5.675	5.816
F	1.500	2.520
G	1.000	1.050
H	-	4.250
J	-	0.808
K	3.000	3.000
L	6.320	5.866
M	3.838	2.984
N	1.705	1.614
P	1.812	1.812
R	0.952	0.354
S	1.074	0.818

	BC415	MXP40N
A	363.56	343.47
B	335.62	319.47
C	299.97	295.47
D	175.94	171.73
E	144.15	147.73
F	38.10	64.00
G	25.40	26.67
H	-	107.95
J	-	20.53
K	76.20	76.20
L	160.52	149.00
M	97.43	75.80
N	43.31	41.00
P	46.02	46.02
R	24.18	8.99
S	27.28	20.79

MOUNTING

MOUNTING VIA HEAD BOLTS:

Bolt pattern "P" on the BC415 is 1.812" [46.02mm] square.
Bolt pattern "P" on the MXP40N is 1.812" [46.02mm] square.

CARRIER RELATION TO HEAD BOLT MOUNTING:

- Distance from the top of the carrier to the center of the top mounting bolts "S" is decreased by 0.256" [6.50mm].

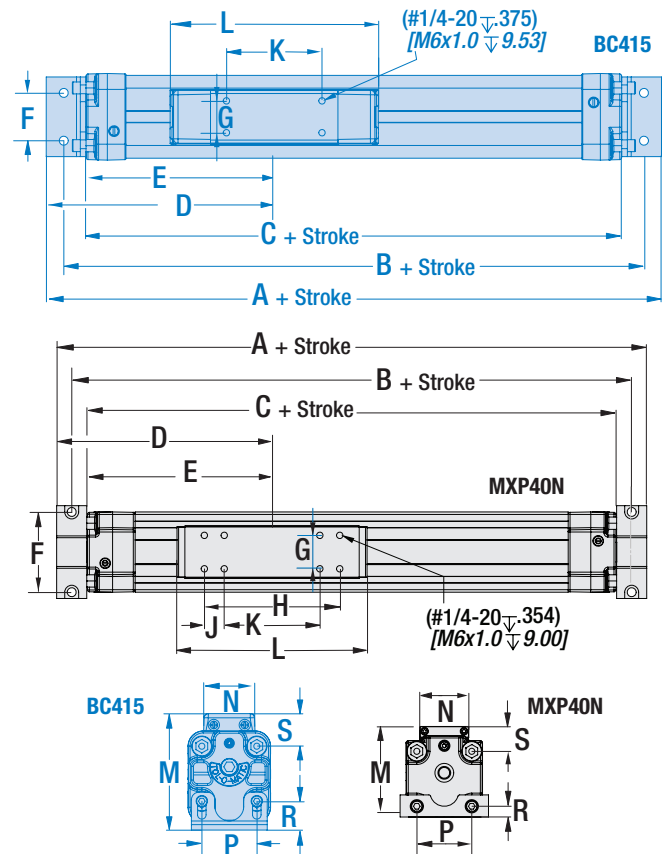
MOUNTING VIA FOOT MOUNTS:

- When mounting the BC415 with foot mounts the distance between the mounting brackets "B" is reduced by 0.635" [16.129mm] when using the MXP40N.
- Height of the carrier relative to the bottom of the foot mounts "M" is reduced by 0.854" [21.69mm].

CARRIER:

- Carrier bolt pattern "G" & "K" of the BC415 is not replicated on the MXP40N.
- Carrier length "L" decreases by 0.454" [11.53mm].
- Distance from the center of the carrier to the back edge of the head "E" increased by 0.141" [3.58mm].
- Additional mounting holes "H" are available on the MXP40N.

Drawing repeated for reference



ORDERING

SAMPLE CROSSOVER CONFIGURATION:

DISCONTINUED

BC415 NP SK5.000 FM2

Config. String: BC415 NP SK5.000 FM2

Bore Size: 1.5" [38mm]

Unit of measure: SK (inches)

Stroke length 5.000 in

FM: Foot mount for actuator mounting,

Quantity: 2

NEW

MXP40N NP SK5.000 FM2

Config. String: MXP40N NP SK5.000 FM2

Bore Size: 1.5" [38mm]

Unit of measure: SK (inches)

Stroke length 5.000 in

FM: Foot mount for actuator mounting,

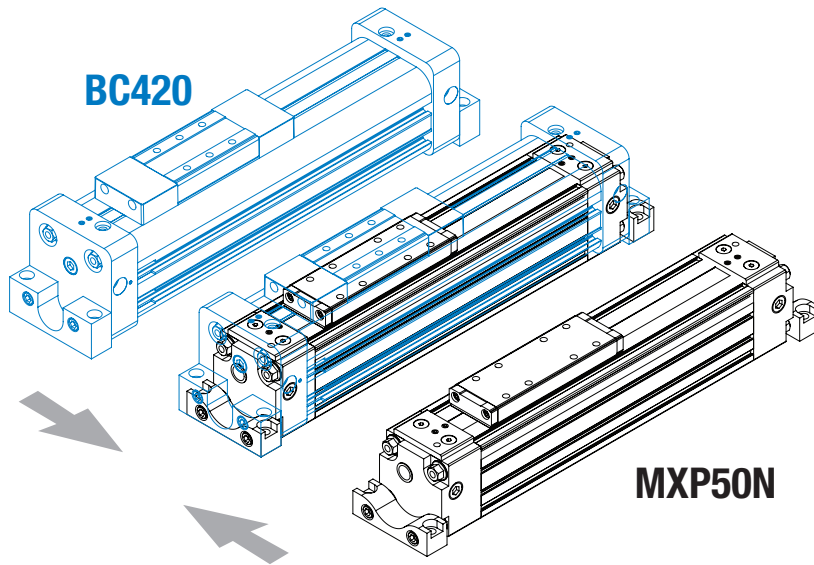
Quantity: 2

Tolomatic[™]
EXCELLENCE IN MOTION

3800 County Road 116, Hamel, MN 55340 USA
http://www.Tolomatic.com • Email: Help@Tolomatic.com
Phone: (763) 478-8000 • Fax: (763) 478-8080 • Toll Free: 1-800-328-2174

COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =

All brand and product names are trademarks or registered trademarks of their respective owners. Information in this document is believed accurate at time of printing. However, Tolomatic assumes no responsibility for its use or for any errors that may appear in this document. Tolomatic reserves the right to change the design or operation of the equipment described herein and any associated motion products without notice. Information in this document is subject to change without notice.



Conversion from BC420 to MXP50N

Bore Size:

The bore size of the BC420 is 2" [50 mm].
The bore size of the MXP50N is 2" [50 mm].

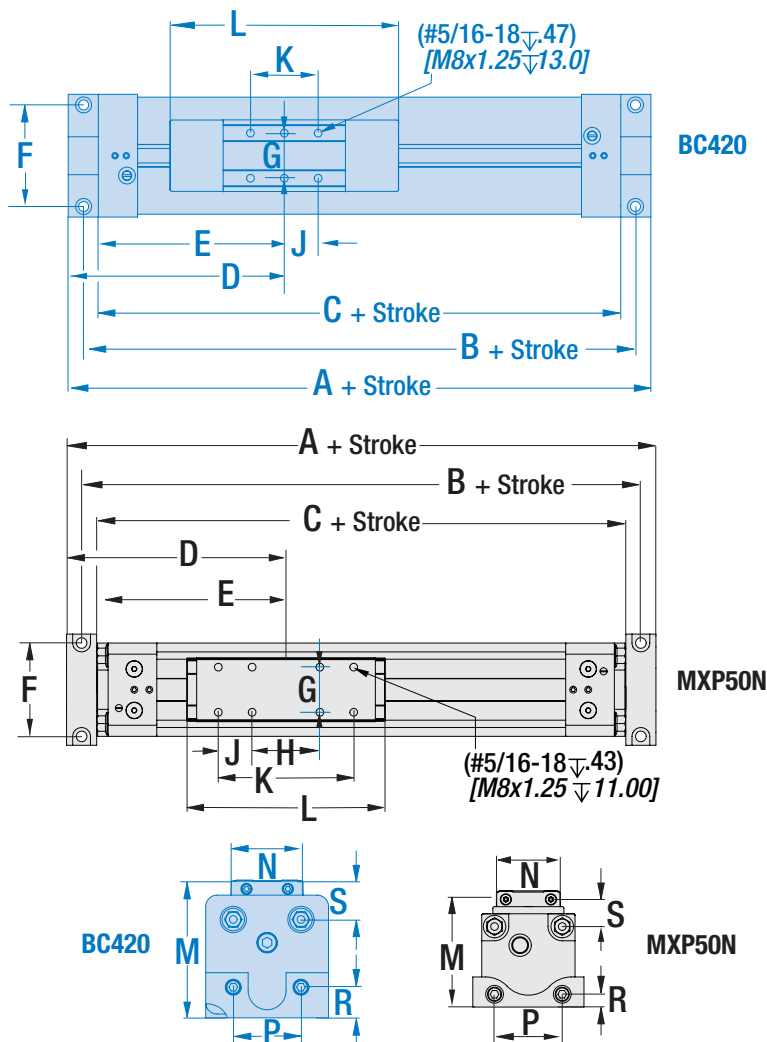
Envelope Size:

With foot mounts, the overall length, height and width of the BC420 is slightly larger than the MXP50N of equal stroke length.

Dead Length:

Dead length is the part of the band cylinder required for mounting and mechanisms. The overall length of a band cylinder is the stroke length plus the dead length ("C" dimension in the table).

The BC420 dead length is 12.362" [313.99 mm] compared to the MXP50N at 12.585" [319.66mm].



Dimensions in inches

Dimensions in millimeters

	BC420	MXP50N		BC420	MXP50N
A	14.362	14.585	A	364.79	370.46
B	13.338	13.585	B	338.79	345.06
C	12.362	12.585	C	313.99	319.66
D	7.181	7.292	D	182.40	185.23
E	6.181	6.292	E	157.00	159.83
F	3.375	3.104	F	85.73	78.85
G	1.500	1.500	G	38.10	38.10
H	-	2.250	H	-	57.15
J	2.668	1.035	J	67.76	26.27
K	2.250	4.500	K	57.15	114.30
L	7.585	6.569	L	192.66	166.84
M	4.578	3.862	M	116.28	98.09
N	2.371	2.126	N	60.23	54.00
P	2.250	2.250	P	57.15	57.15
R	0.891	0.425	R	22.63	10.80
S	1.310	1.187	S	33.27	30.15

MOUNTING

Drawing repeated for reference

MOUNTING VIA HEAD BOLTS:

Bolt pattern "P" on the BC420 is 2.250" [57.15mm] square.
Bolt pattern "P" on the MXP50N is 2.250" [57.15mm] square.

CARRIER RELATION TO HEAD BOLT MOUNTING:

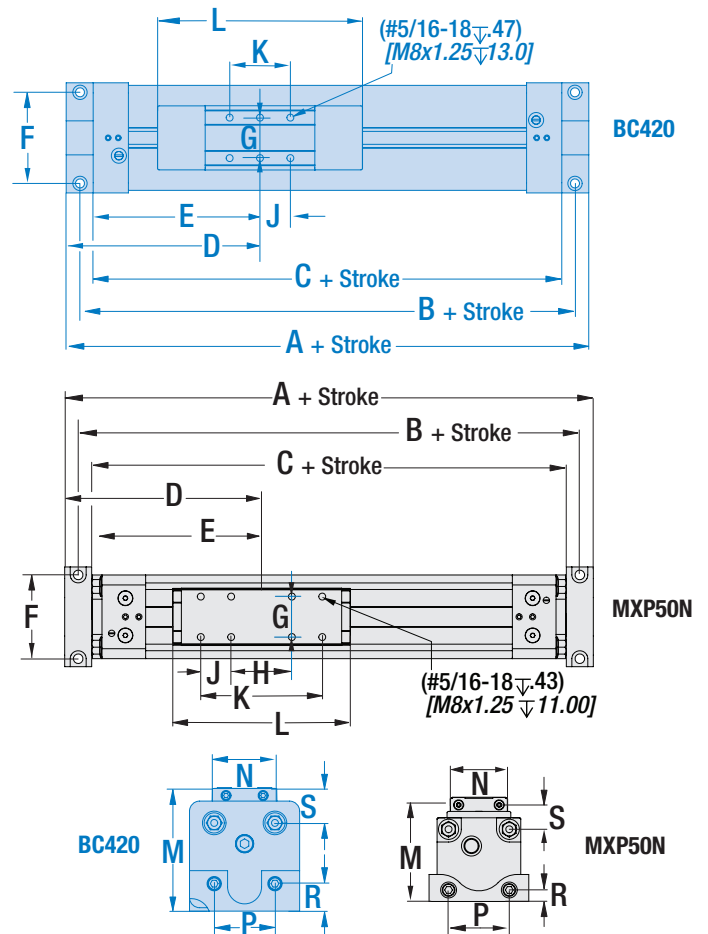
1. Distance from the top of the carrier to the center of the top mounting bolts "S" is decreased by 0.123" [3.12mm].

MOUNTING VIA FOOT MOUNTS:

1. When mounting the BC420 with foot mounts the distance between the mounting brackets "B" is increased by 0.247" [6.27mm] when using the MXP50N.
2. Height of the carrier relative to the bottom of the foot mounts "M" is reduced by 0.716" [18.19mm].

CARRIER:

1. Carrier bolt pattern "G" & "K" of the BC420 is replicated on the MXP50N.
2. Carrier length "L" decreases by 1.02" [52.58mm].
3. Distance from the center of the carrier to the back edge of the head "E" increased by 0.111" [2.82mm].
4. Additional mounting holes "K" are available on the MXP50N.

**ORDERING****SAMPLE CROSSOVER CONFIGURATION:****DISCONTINUED****BC420 NP SK5.000 FM2**

Config. String: BC420 NP SK5.000 FM2

Bore Size: 2" [50 mm]

Unit of measure: SK (inches)

Stroke length 5.000 in

FM: Foot mount for actuator mounting,
Quantity: 2**NEW****MXP50N NP SK5.000 FM2**

Config. String: MXP50N NP SK5.000 FM2

Bore Size: 2" [50 mm]

Unit of measure: SK (inches)

Stroke length 5.000 in

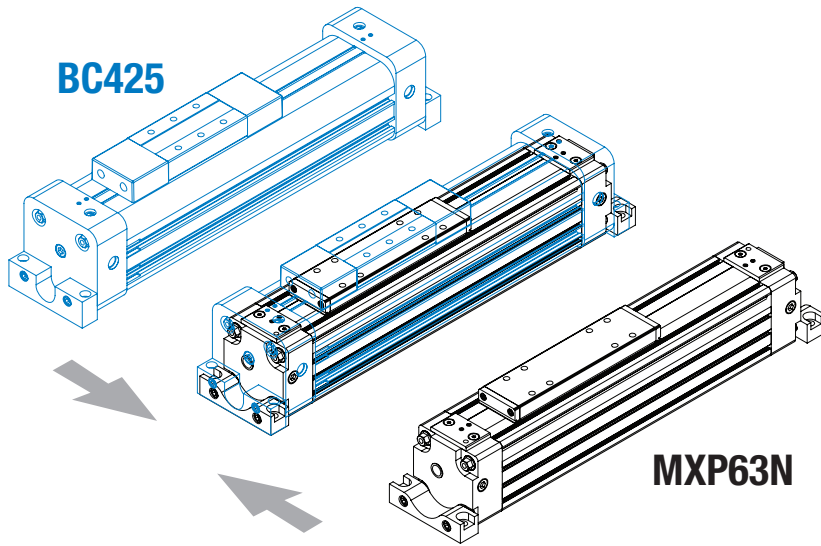
FM: Foot mount for actuator mounting,
Quantity: 2

Tolomatic[™]
EXCELLENCE IN MOTION

3800 County Road 116, Hamel, MN 55340 USA
http://www.Tolomatic.com • Email: Help@Tolomatic.com
Phone: (763) 478-8000 • Fax: (763) 478-8080 • Toll Free: 1-800-328-2174

COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =

All brand and product names are trademarks or registered trademarks of their respective owners. Information in this document is believed accurate at time of printing. However, Tolomatic assumes no responsibility for its use or for any errors that may appear in this document. Tolomatic reserves the right to change the design or operation of the equipment described herein and any associated motion products without notice. Information in this document is subject to change without notice.



Conversion from BC425 to MXP63N

Bore Size:

The bore size of the BC425 is 2.5" [63 mm].
The bore size of the MXP63N is 2.5" [63 mm].

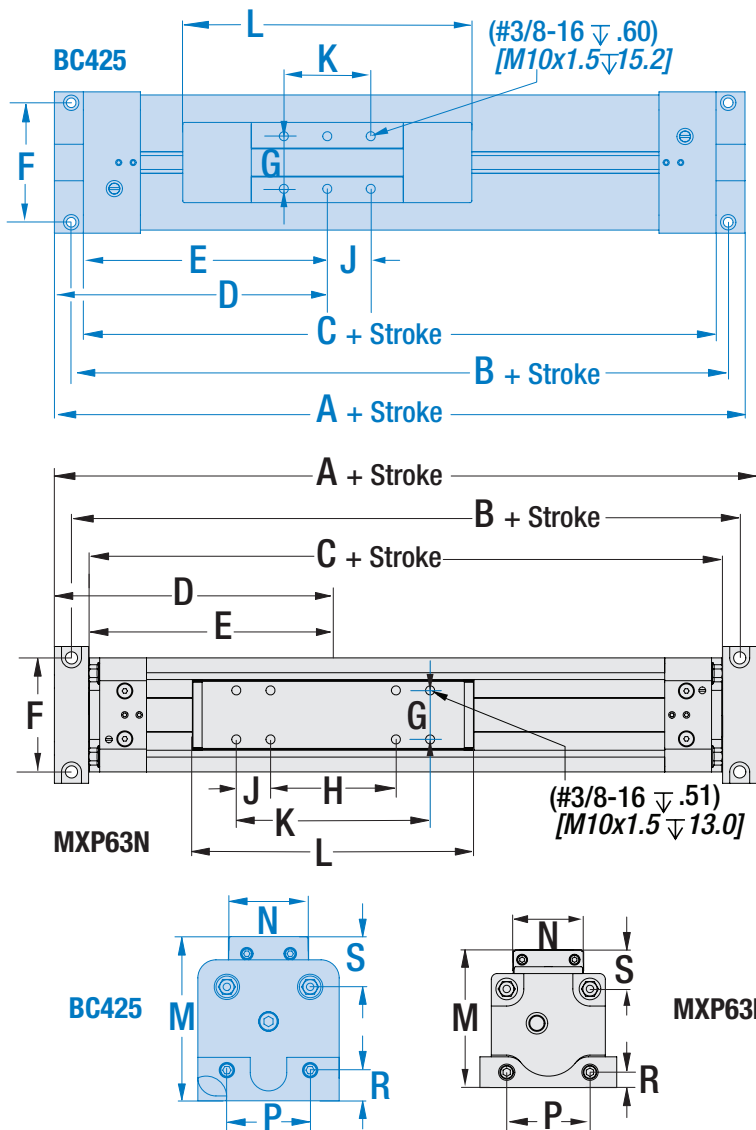
Envelope Size:

With foot mounts, the overall length, height and width of the BC425 is slightly larger than the MXP63N of equal stroke length.

Dead Length:

Dead length is the part of the band cylinder required for mounting and mechanisms. The overall length of a band cylinder is the stroke length plus the dead length ("C" dimension in the table).

The BC425 dead length is 16.846" [427.89 mm] compared to the MXP63N at 16.892" [429.06 mm].



Dimensions in inches

Dimensions in millimeters

	BC425	MXP63N
A	18.846	19.254
B	17.686	18.073
C	16.846	16.892
D	9.423	9.627
E	8.423	8.446
F	4.125	3.937
G	1.817	1.693
H	-	4.33
J	1.500	3.347
K	3.00	6.693
L	9.980	9.685
M	5.669	4.756
N	2.770	2.441
P	2.875	2.875
R	0.891	0.531
S	1.735	1.350

	BC425	MXP63N
A	478.69	489.06
B	449.23	459.06
C	427.89	429.06
D	239.34	244.53
E	213.94	214.53
F	104.78	100.00
G	46.15	43.00
H	-	110.00
J	38.10	85.00
K	76.20	170.00
L	253.49	246.00
M	143.99	120.81
N	70.36	62.00
P	73.03	73.03
R	22.63	13.49
S	44.07	34.30

MOUNTING

MOUNTING VIA HEAD BOLTS:

Bolt pattern "P" on the BC425 is 2.875" [73.02mm] square.
Bolt pattern "P" on the MXP63N is 2.875" [73.02mm] square.

CARRIER RELATION TO HEAD BOLT MOUNTING:

- Distance from the top of the carrier to the center of the top mounting bolts "S" is decreased by 0.385" [9.78mm].

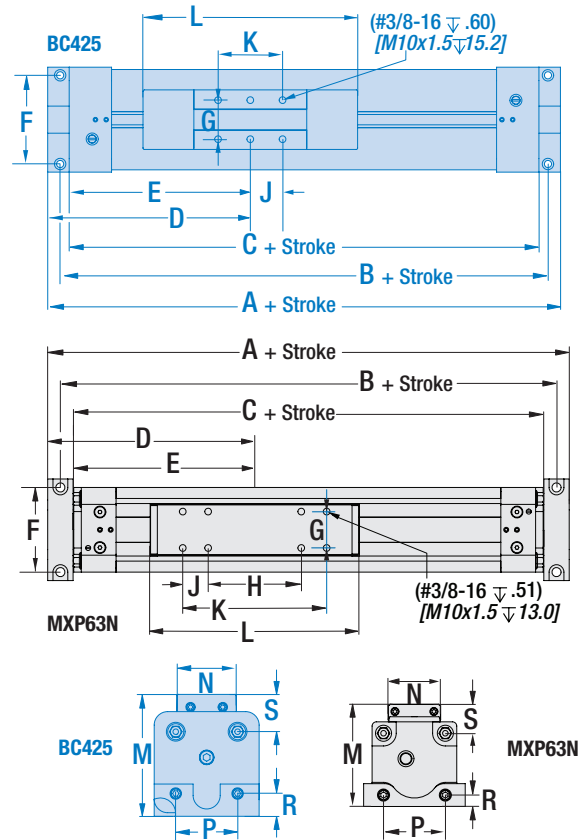
MOUNTING VIA FOOT MOUNTS:

- When mounting the BC425 with foot mounts the distance between the mounting brackets "B" is increased by 0.387" [9.83mm] when using the MXP63N.
- Height of the carrier relative to the bottom of the foot mounts "M" is reduced by 0.913" [23.19mm].

CARRIER:

- Carrier bolt pattern "G" & "K" of the BC425 is not replicated on the MXP63N.
- Carrier length "L" decreases by 0.295" [7.49mm].
- Distance from the center of the carrier to the back edge of the head "E" increased by 0.023" [0.584mm].
- Additional mounting holes "K" are available on the MXP63N.

Drawing repeated for reference



ORDERING

SAMPLE CROSSOVER CONFIGURATION:

DISCONTINUED

BC425 NP SK5.000 FM2

Config. String: BC425 NP SK5.000 FM2

Bore Size: 2.5" [63 mm]

Unit of measure: SK (inches)

Stroke length 5.000 in

FM: Foot mount for actuator mounting,
Quantity: 2

NEW

MXP63N NP SK5.000 FM2

Config. String: MXP63N NP SK5.000 FM2

Bore Size: 2.5" [63 mm]

Unit of measure: SK (inches)

Stroke length 5.000 in

FM: Foot mount for actuator mounting,
Quantity: 2

Tolomatic[™]
EXCELLENCE IN MOTION

3800 County Road 116, Hamel, MN 55340 USA
http://www.Tolomatic.com • Email: Help@Tolomatic.com
Phone: (763) 478-8000 • Fax: (763) 478-8080 • Toll Free: 1-800-328-2174

COMPANY WITH
QUALITY SYSTEM
CERTIFIED BY DNV GL
= ISO 9001 =

All brand and product names are trademarks or registered trademarks of their respective owners. Information in this document is believed accurate at time of printing. However, Tolomatic assumes no responsibility for its use or for any errors that may appear in this document. Tolomatic reserves the right to change the design or operation of the equipment described herein and any associated motion products without notice. Information in this document is subject to change without notice.