

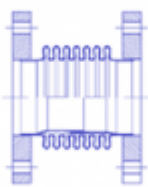
MB master bellows®

Axial expansion joints with flanges

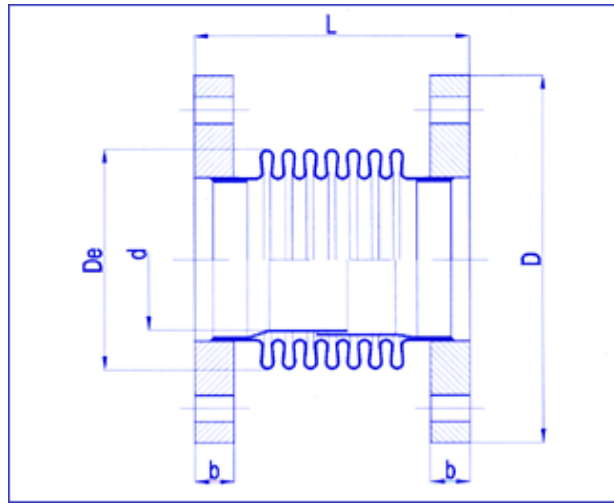
N 20

AS FF PN 2.5 - AS FF PN 6 - AS FF PN 10 - AS FF PN 16

AS FF PN 25 - AS FF PN 40

| | |
|---|---|
|  | <p>Description: Axial expansion joints with fixed flanges</p> |
| <p>Characteristics:</p> | <p>Excellent reliability, no ageing, absence of permeability, resistant to corrosion, high working temperature In conformity with EJMA (Expansion Joint Manufacturer Association) Standards, movements indicated in the technical tables are calculated for 3000 complete cycles at nominal pressure</p> |
| <p>Size range:</p> | <p>From DN50 to DN600 Special and large diameters available upon request</p> |
| <p>Testing:</p> | <ul style="list-style-type: none"> - Pneumatic leak test (standard) - Hydraulic test, specific dimensional controls, non-destructive tests, material certificates of main pressure bearing parts (on request) |
| <p>Fittings:</p> | <p>Flanges conforming to EN1092-1 or ANSI B16.5 Special flanges upon request</p> |
| <p>Materials:</p> | <p>Bellows in stainless steel 1.4541 EN10028-7 (AISI 321) Flanges in carbon steel On request, other grades of stainless steel or nickel alloys</p> |
| <p>Construction:</p> | <ul style="list-style-type: none"> - Single or multi-ply metal corrugated bellows - Ends: flanges; other types according to customer's specifications <p>The corrugations are formed by a PLC controlled automatic process. The special forming process, free from friction and lamination, allows constancy and accuracy of the corrugation profile with minimal material yielding Internal sleeves from rolled and welded austenitic stainless steel plate (nickel alloys on request)</p> |
| <p>Use:</p> | <p>Correction of static offsets and compensation for thermal expansion and movements</p> |

| | |
|--------------------------|---|
| Applications: | Superheated water, steam, diathermic oil, gas and inflammable fluid lines; gas and steam turbines, transformers, blast furnaces, converters, exhaust gas lines, tank trucks loading and unloading, burners |
| Working pressure: | From 2.5 to 40 bar |
| Temperature: | <p>Stainless steel: -200° ÷ 550°C</p> <p>For expansion joints with flanges in carbon steel: -20° ÷ 350°C</p> <p>For a temperature range 50° ÷ 550°C performances (movements, working pressure, n° of cycles) must be reduced by applying the relevant coefficients (See document " N205 Derating factors" available in the attachments in the Technical Data section of this product)</p> <p>For a temperature range higher than 550°C, please contact our Technical Department</p> |



| AS FF PN 2.5 | | | | | | | | | | |
|--------------|---------------------------|-----|----|-----|-----|-----|------------------------------------|---------------------|--------|----------------------------|
| DN | Axial movement $\pm C$ | L | b | D | De | d | Axial spring rate Ka $\pm 20\%$ | Effective area A | Weight | Product Code |
| mm | mm | mm | mm | mm | mm | mm | N/mm | cm ² | kg | n° |
| 50 | ± 21 | 169 | 16 | 140 | 76 | 50 | 44 | 35 | 3,5 | MB.EJ.ASx0.yy.050.02.MFFC3 |
| | ± 27 | 200 | | | 76 | | 35 | | 3,6 | MB.EJ.ASx0.yy.050.02.LFFC3 |
| 65 | ± 25 | 169 | 16 | 160 | 95 | 66 | 40 | 55 | 4,2 | MB.EJ.ASx0.yy.065.02.MFFC3 |
| | ± 31 | 199 | | | 95 | | 32 | | 4,3 | MB.EJ.ASx0.yy.065.02.LFFC3 |
| 80 | ± 30 | 162 | 18 | 190 | 114 | 79 | 31 | 79 | 6,3 | MB.EJ.ASx0.yy.080.02.MFFC3 |
| | ± 35 | 178 | | | 114 | | 27 | | 6,4 | MB.EJ.ASx0.yy.080.02.LFFC3 |
| 100 | ± 30 | 200 | 18 | 210 | 138 | 103 | 37 | 121 | 7,5 | MB.EJ.ASx0.yy.100.02.MFFC3 |
| | ± 38 | 226 | | | 138 | | 30 | | 7,6 | MB.EJ.ASx0.yy.100.02.LFFC3 |
| 125 | ± 32 | 189 | 20 | 240 | 169 | 126 | 34 | 181 | 9,8 | MB.EJ.ASx0.yy.125.02.MFFC3 |
| | ± 43 | 224 | | | 169 | | 26 | | 10,1 | MB.EJ.ASx0.yy.125.02.LFFC3 |
| | ± 66 | 299 | | | 170 | | 38 | | 12,2 | MB.EJ.ASx0.yy.125.02.XFFC3 |
| 150 | ± 33 | 189 | 20 | 265 | 198 | 155 | 40 | 257 | 12,3 | MB.EJ.ASx0.yy.150.02.MFFC3 |
| | ± 47 | 234 | | | 198 | | 28 | | 12,7 | MB.EJ.ASx0.yy.150.02.LFFC3 |
| | ± 67 | 309 | | | 199 | | 41 | | 15,4 | MB.EJ.ASx0.yy.150.02.XFFC3 |
| 200 | ± 23 | 152 | 22 | 320 | 253 | 206 | 65 | 430 | 15,9 | MB.EJ.ASx0.yy.200.02.CFFC3 |
| | ± 36 | 192 | | | 253 | | 41 | | 16,4 | MB.EJ.ASx0.yy.200.02.MFFC3 |
| | ± 50 | 232 | | | 253 | | 30 | | 16,8 | MB.EJ.ASx0.yy.200.02.LFFC3 |
| | ± 75 | 322 | | | 254 | | 42 | | 20,3 | MB.EJ.ASx0.yy.200.02.XFFC3 |
| 250 | ± 24 | 154 | 24 | 375 | 313 | 260 | 66 | 665 | 21,8 | MB.EJ.ASx0.yy.250.02.CFFC3 |
| | ± 42 | 234 | | | 313 | | 38 | | 22,5 | MB.EJ.ASx0.yy.250.02.MFFC3 |
| | ± 54 | 228 | | | 313 | | 29 | | 22,9 | MB.EJ.ASx0.yy.250.02.LFFC3 |
| | ± 85 | 329 | | | 314 | | 39 | | 27,5 | MB.EJ.ASx0.yy.250.02.XFFC3 |

| AS FF PN 2.5 | | | | | | | | | | |
|--------------|-----------------------|-----|----|-----|-----|-----|-------------------------------|---------------------|--------|----------------------------|
| DN | Axial movement ± C | L | b | D | De | d | Axial spring rate Ka ± 20% | Effective area A | Weight | Product Code |
| mm | mm | mm | mm | mm | mm | mm | N/mm | cm ² | kg | n° |
| 300 | ±29 | 174 | 24 | 440 | 368 | 309 | 60 | 929 | 27,1 | MB.EJ.ASx0.yy.300.02.CFFC3 |
| | ±43 | 210 | | | 368 | | 40 | | 27,7 | MB.EJ.ASx0.yy.300.02.MFFC3 |
| | ±64 | 265 | | | 368 | | 27 | | 28,6 | MB.EJ.ASx0.yy.300.02.LFFC3 |
| | ±89 | 335 | | | 369 | | 41 | | 33,4 | MB.EJ.ASx0.yy.300.02.XFFC3 |
| 350 | ±28 | 170 | 26 | 490 | 400 | 341 | 65 | 1110 | 37,6 | MB.EJ.ASx0.yy.350.02.CFFC3 |
| | ±42 | 206 | | | 400 | | 43 | | 38,2 | MB.EJ.ASx0.yy.350.02.MFFC3 |
| | ±63 | 261 | | | 400 | | 29 | | 39,2 | MB.EJ.ASx0.yy.350.02.LFFC3 |
| | ±100 | 355 | | | 401 | | 41 | | 45,1 | MB.EJ.ASx0.yy.350.02.XFFC3 |
| 400 | ±27 | 171 | 28 | 540 | 450 | 391 | 72 | 1425 | 45,0 | MB.EJ.ASx0.yy.400.02.CFFC3 |
| | ±41 | 210 | | | 450 | | 48 | | 45,7 | MB.EJ.ASx0.yy.400.02.MFFC3 |
| | ±61 | 260 | | | 450 | | 32 | | 46,8 | MB.EJ.ASx0.yy.400.02.LFFC3 |
| | ±98 | 359 | | | 451 | | 45 | | 53,5 | MB.EJ.ASx0.yy.400.02.XFFC3 |
| 450 | ±27 | 167 | 30 | 595 | 507 | 439 | 116 | 1802 | 58,1 | MB.EJ.ASx0.yy.450.02.CFFC3 |
| | ±55 | 232 | | | 507 | | 58 | | 60,2 | MB.EJ.ASx0.yy.450.02.MFFC3 |
| | ±73 | 277 | | | 507 | | 43 | | 61,6 | MB.EJ.ASx0.yy.450.02.LFFC3 |
| | ±105 | 347 | | | 507 | | 43 | | 66,5 | MB.EJ.ASx0.yy.450.02.XFFC3 |
| 500 | ±27 | 167 | 30 | 645 | 558 | 490 | 126 | 2206 | 66,6 | MB.EJ.ASx0.yy.500.02.CFFC3 |
| | ±54 | 232 | | | 558 | | 63 | | 68,9 | MB.EJ.ASx0.yy.500.02.MFFC3 |
| | ±71 | 277 | | | 558 | | 47 | | 70,4 | MB.EJ.ASx0.yy.500.02.LFFC3 |
| | ±103 | 347 | | | 558 | | 46 | | 75,9 | MB.EJ.ASx0.yy.500.02.XFFC3 |
| 600 | ±26 | 171 | 32 | 755 | 660 | 592 | 146 | 3137 | 83,6 | MB.EJ.ASx0.yy.600.02.CFFC3 |
| | ±52 | 236 | | | 660 | | 73 | | 86,3 | MB.EJ.ASx0.yy.600.02.MFFC3 |
| | ±70 | 277 | | | 660 | | 55 | | 88,1 | MB.EJ.ASx0.yy.600.02.LFFC3 |
| | ±118 | 396 | | | 660 | | 45 | | 97,1 | MB.EJ.ASx0.yy.600.02.XFFC3 |

In the Product Code:

- Replace x with
0 = without internal sleeve, C = with internal sleeve
- Replace yy , with bellows material :
27 = X6CrNiTi 18-10 N° 1.4541 EN 10028-7
24 = X2CrNiMo 17-12-2 N° 1.4404 EN 10028-7

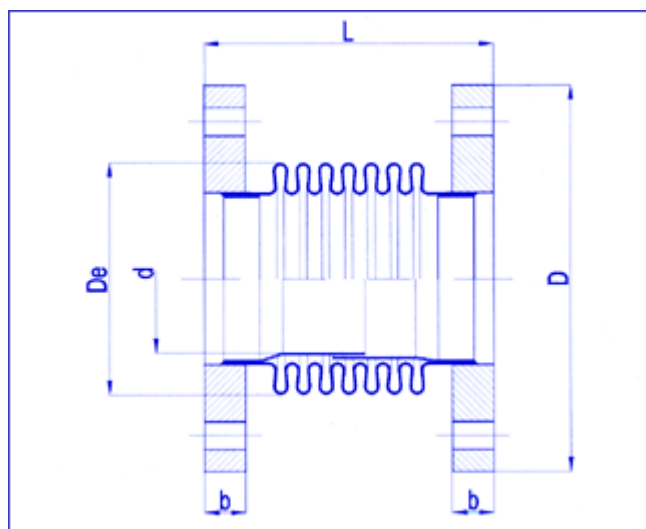
Other materials upon request.

Weight is approximate and calculated for the expansion joint with internal sleeve.

For example:

Axial expansion joint DN 125 with bellows in AISI 321, standard series, without internal sleeve =

Product code MB.EJ.AS00.27.125.02.MFFC3.



| AS FF PN 6 | | | | | | | | | | |
|------------|---------------------------|-----|----|-----|-----|-----|------------------------------------|---------------------|--------|----------------------------|
| DN | Axial movement $\pm C$ | L | b | D | De | d | Axial spring rate Ka $\pm 20\%$ | Effective area A | Weight | Product Code |
| mm | mm | mm | mm | mm | mm | mm | N/mm | cm ² | kg | n° |
| 50 | ± 21 | 175 | 16 | 140 | 77 | 50 | 69 | 35 | 3,7 | MB.EJ.ASx0.yy.050.06.MFFC3 |
| | ± 26 | 209 | | | 77 | | 82 | | 4,0 | MB.EJ.ASx0.yy.050.06.LFFC3 |
| 65 | ± 23 | 169 | 16 | 160 | 96 | 66 | 65 | 55 | 4,4 | MB.EJ.ASx0.yy.065.06.MFFC3 |
| | ± 32 | 220 | | | 97 | | 93 | | 5,3 | MB.EJ.ASx0.yy.065.06.LFFC3 |
| 80 | ± 19 | 122 | 18 | 190 | 114 | 79 | 47 | 79 | 6,1 | MB.EJ.ASx0.yy.080.06.CFFC3 |
| | ± 27 | 157 | | | 115 | | 53 | | 6,6 | MB.EJ.ASx0.yy.080.06.MFFC3 |
| | ± 35 | 203 | | | 116 | | 75 | | 7,5 | MB.EJ.ASx0.yy.080.06.LFFC3 |
| 100 | ± 19 | 160 | 18 | 210 | 138 | 103 | 56 | 121 | 7,2 | MB.EJ.ASx0.yy.100.06.CFFC3 |
| | ± 29 | 205 | | | 139 | | 57 | | 7,9 | MB.EJ.ASx0.yy.100.06.MFFC3 |
| | ± 40 | 251 | | | 140 | | 80 | | 9,2 | MB.EJ.ASx0.yy.100.06.LFFC3 |
| 125 | ± 20 | 154 | 20 | 240 | 169 | 126 | 51 | 181 | 9,6 | MB.EJ.ASx0.yy.125.06.CFFC3 |
| | ± 32 | 194 | | | 170 | | 53 | | 10,3 | MB.EJ.ASx0.yy.125.06.MFFC3 |
| | ± 44 | 244 | | | 171 | | 70 | | 11,9 | MB.EJ.ASx0.yy.125.06.LFFC3 |
| 150 | ± 22 | 154 | 20 | 265 | 198 | 155 | 60 | 257 | 12,0 | MB.EJ.ASx0.yy.150.06.CFFC3 |
| | ± 33 | 194 | | | 199 | | 60 | | 12,9 | MB.EJ.ASx0.yy.150.06.MFFC3 |
| | ± 45 | 244 | | | 200 | | 78 | | 14,8 | MB.EJ.ASx0.yy.150.06.LFFC3 |
| 200 | ± 23 | 157 | 22 | 320 | 254 | 206 | 100 | 430 | 16,4 | MB.EJ.ASx0.yy.200.06.CFFC3 |
| | ± 36 | 197 | | | 254 | | 62 | | 17,1 | MB.EJ.ASx0.yy.200.06.MFFC3 |
| | ± 52 | 257 | | | 255 | | 79 | | 19,8 | MB.EJ.ASx0.yy.200.06.LFFC3 |
| 250 | ± 23 | 159 | 24 | 375 | 314 | 260 | 136 | 665 | 23,0 | MB.EJ.ASx0.yy.250.06.CFFC3 |
| | ± 41 | 209 | | | 314 | | 77 | | 24,4 | MB.EJ.ASx0.yy.250.06.MFFC3 |
| | ± 55 | 249 | | | 315 | | 77 | | 26,4 | MB.EJ.ASx0.yy.250.06.LFFC3 |

| AS FF PN 6 | | | | | | | | | | |
|------------|---------------------------|-----|----|-----|-----|-----|------------------------------------|---------------------|--------|----------------------------|
| DN | Axial movement $\pm C$ | L | b | D | De | d | Axial spring rate Ka $\pm 20\%$ | Effective area A | Weight | Product Code |
| mm | mm | mm | mm | mm | mm | mm | N/mm | cm ² | kg | n° |
| 300 | ± 28 | 179 | 24 | 440 | 369 | 309 | 126 | 929 | 28,6 | MB.EJ.ASx0.yy.300.06.CFFC3 |
| | ± 41 | 215 | | | 360 | | 83 | | 29,8 | MB.EJ.ASx0.yy.300.06.MFFC3 |
| | ± 65 | 280 | | | 370 | | 70 | | 33,1 | MB.EJ.ASx0.yy.300.06.LFFC3 |
| 350 | ± 27 | 159 | 26 | 490 | 402 | 341 | 168 | 1110 | 39,6 | MB.EJ.ASx0.yy.350.06.CFFC3 |
| | ± 43 | 194 | | | 402 | | 112 | | 41,4 | MB.EJ.ASx0.yy.350.06.MFFC3 |
| | ± 64 | 264 | | | 402 | | 75 | | 43,8 | MB.EJ.ASx0.yy.350.06.LFFC3 |
| 400 | ± 27 | 156 | 28 | 540 | 452 | 391 | 184 | 1425 | 47,3 | MB.EJ.ASx0.yy.400.06.CFFC3 |
| | ± 44 | 198 | | | 452 | | 123 | | 49,3 | MB.EJ.ASx0.yy.400.06.MFFC3 |
| | ± 66 | 272 | | | 452 | | 82 | | 52,0 | MB.EJ.ASx0.yy.400.06.LFFC3 |
| 450 | ± 16 | 137 | 30 | 595 | 508 | 439 | 485 | 1802 | 59,1 | MB.EJ.ASx0.yy.450.06.CFFC3 |
| | ± 31 | 179 | | | 508 | | 242 | | 62,6 | MB.EJ.ASx0.yy.450.06.MFFC3 |
| | ± 43 | 216 | | | 508 | | 182 | | 65,0 | MB.EJ.ASx0.yy.450.06.LFFC3 |
| | ± 69 | 314 | | | 508 | | 112 | | 70,8 | MB.EJ.ASx0.yy.450.06.XFFC3 |
| 500 | ± 16 | 137 | 30 | 645 | 559 | 490 | 534 | 2206 | 67,7 | MB.EJ.ASx0.yy.500.06.CFFC3 |
| | ± 31 | 179 | | | 559 | | 267 | | 71,6 | MB.EJ.ASx0.yy.500.06.MFFC3 |
| | ± 42 | 219 | | | 559 | | 200 | | 74,2 | MB.EJ.ASx0.yy.500.06.LFFC3 |
| | ± 68 | 314 | | | 559 | | 123 | | 80,6 | MB.EJ.ASx0.yy.500.06.XFFC3 |
| 600 | ± 16 | 143 | 30 | 755 | 661 | 592 | 629 | 3137 | 84,9 | MB.EJ.ASx0.yy.600.06.CFFC3 |
| | ± 31 | 179 | | | 661 | | 315 | | 89,5 | MB.EJ.ASx0.yy.600.06.MFFC3 |
| | ± 41 | 219 | | | 661 | | 237 | | 92,6 | MB.EJ.ASx0.yy.600.06.LFFC3 |
| | ± 68 | 314 | | | 661 | | 146 | | 100,0 | MB.EJ.ASx0.yy.600.06.XFFC3 |

In the Product Code:

- Replace x with
0 = without internal sleeve, C = with internal sleeve
- Replace yy , with bellows material :
27 = X6CrNiTi 18-10 N° 1.4541 EN 10028-7
24 = X2CrNiMo 17-12-2 N° 1.4404 EN 10028-7

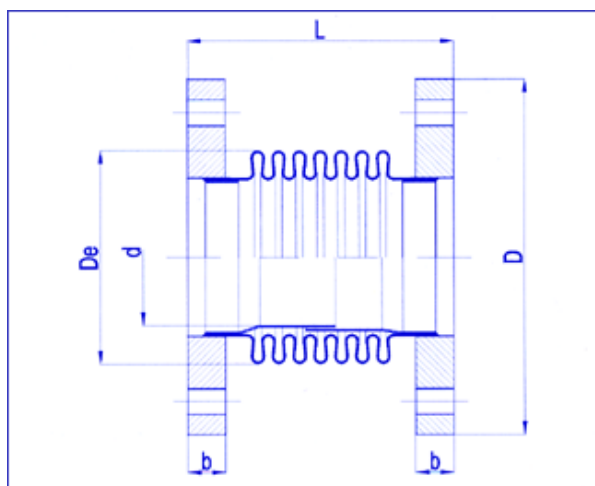
Other materials upon request.

Weight is approximate and calculated for the expansion joint with internal sleeve.

For example:

Axial expansion joint DN 125 with bellows in AISI 316L, standard series, with internal sleeve =

Product code MB.EJ.ASC0.24.125.06.MFFC3.



| AS FF PN 10 | | | | | | | | | | |
|-------------|---------------------------|-----|----|-----|-----|-----|-------------------------------------|---------------------|--------|----------------------------|
| DN | Axial movement $\pm C$ | L | b | D | De | d | Axial spring rate $K_a \pm 20\%$ | Effective area A | Weight | Product Code |
| mm | mm | mm | mm | mm | mm | mm | N/mm | cm ² | kg | n° |
| 50 | ± 14 | 131 | 19 | 165 | 76 | 50 | 66 | 35 | 5,8 | MB.EJ.ASx0.yy.050.10.CFFC3 |
| | ± 20 | 176 | | | 77 | | 108 | | 6,2 | MB.EJ.ASx0.yy.050.10.MFFC3 |
| 65 | ± 15 | 127 | 20 | 185 | 95 | 66 | 63 | 55 | 6,7 | MB.EJ.ASx0.yy.065.10.CFFC3 |
| | ± 22 | 172 | | | 96 | | 96 | | 7,3 | MB.EJ.ASx0.yy.065.10.MFFC3 |
| 80 | ± 16 | 168 | 20 | 200 | 114 | 79 | 53 | 79 | 8,1 | MB.EJ.ASx0.yy.080.10.CFFC3 |
| | ± 24 | 156 | | | 115 | | 80 | | 8,8 | MB.EJ.ASx0.yy.080.10.MFFC3 |
| 100 | ± 16 | 120 | 22 | 220 | 138 | 103 | 63 | 121 | 10,2 | MB.EJ.ASx0.yy.100.10.CFFC3 |
| | ± 27 | 170 | | | 139 | | 85 | | 11,2 | MB.EJ.ASx0.yy.100.10.MFFC3 |
| 125 | ± 17 | 110 | 22 | 250 | 170 | 126 | 94 | 181 | 13,8 | MB.EJ.ASx0.yy.125.10.CFFC3 |
| | ± 29 | 150 | | | 170 | | 81 | | 14,6 | MB.EJ.ASx0.yy.125.10.MFFC3 |
| 150 | ± 17 | 126 | 24 | 285 | 199 | 155 | 147 | 257 | 17,5 | MB.EJ.ASx0.yy.150.10.CFFC3 |
| | ± 31 | 169 | | | 199 | | 82 | | 18,4 | MB.EJ.ASx0.yy.150.10.MFFC3 |
| 200 | ± 21 | 131 | 24 | 340 | 254 | 206 | 137 | 430 | 22,8 | MB.EJ.ASx0.yy.200.10.CFFC3 |
| | ± 33 | 168 | | | 254 | | 85 | | 23,7 | MB.EJ.ASx0.yy.200.10.MFFC3 |
| | ± 40 | 188 | | | 255 | | 96 | | 24,8 | MB.EJ.ASx0.yy.200.10.LFFC3 |
| 250 | ± 14 | 172 | 26 | 395 | 315 | 260 | 413 | 665 | 31,8 | MB.EJ.ASx0.yy.250.10.CFFC3 |
| | ± 25 | 217 | | | 315 | | 236 | | 33,5 | MB.EJ.ASx0.yy.250.10.MFFC3 |
| | ± 35 | 267 | | | 315 | | 165 | | 35,2 | MB.EJ.ASx0.yy.250.10.LFFC3 |
| | ± 55 | 353 | | | 317 | | 199 | | 43,6 | MB.EJ.ASx0.yy.250.10.XFFC3 |
| 300 | ± 17 | 177 | 26 | 445 | 370 | 309 | 375 | 929 | 34,8 | MB.EJ.ASx0.yy.300.10.CFFC3 |
| | ± 25 | 212 | | | 370 | | 250 | | 36,3 | MB.EJ.ASx0.yy.300.10.MFFC3 |
| | ± 38 | 266 | | | 370 | | 167 | | 38,5 | MB.EJ.ASx0.yy.300.10.LFFC3 |
| | ± 60 | 357 | | | 372 | | 195 | | 48,8 | MB.EJ.ASx0.yy.300.10.XFFC3 |

| AS FF PN 10 | | | | | | | | | | |
|-------------|---------------------------|-----|----|-----|-----|-----|------------------------------------|---------------------|--------|----------------------------|
| DN | Axial movement $\pm C$ | L | b | D | De | d | Axial spring rate Ka $\pm 20\%$ | Effective area A | Weight | Product Code |
| mm | mm | mm | mm | mm | mm | mm | N/mm | cm ² | kg | n° |
| 350 | ± 17 | 135 | 28 | 505 | 402 | 341 | 407 | 1110 | 50,6 | MB.EJ.ASx0.yy.350.10.CFFC3 |
| | ± 25 | 166 | | | 402 | | 271 | | 52,2 | MB.EJ.ASx0.yy.350.10.MFFC3 |
| | ± 37 | 220 | | | 402 | | 181 | | 54,6 | MB.EJ.ASx0.yy.350.10.LFFC3 |
| | ± 60 | 311 | | | 404 | | 210 | | 65,7 | MB.EJ.ASx0.yy.350.10.XFFC3 |
| 400 | ± 16 | 149 | 32 | 565 | 452 | 391 | 458 | 1425 | 63,3 | MB.EJ.ASx0.yy.400.10.CFFC3 |
| | ± 24 | 174 | | | 452 | | 306 | | 65,1 | MB.EJ.ASx0.yy.400.10.MFFC3 |
| | ± 36 | 228 | | | 452 | | 204 | | 67,9 | MB.EJ.ASx0.yy.400.10.LFFC3 |
| | ± 63 | 339 | | | 454 | | 218 | | 82,0 | MB.EJ.ASx0.yy.400.10.XFFC3 |
| 450 | ± 16 | 156 | 36 | 615 | 509 | 439 | 646 | 1802 | 76,9 | MB.EJ.ASx0.yy.450.10.CFFC3 |
| | ± 27 | 176 | | | 509 | | 388 | | 79,9 | MB.EJ.ASx0.yy.450.10.MFFC3 |
| | ± 43 | 236 | | | 509 | | 242 | | 84,6 | MB.EJ.ASx0.yy.450.10.LFFC3 |
| | ± 68 | 335 | | | 510 | | 202 | | 96,0 | MB.EJ.ASx0.yy.450.10.XFFC3 |
| 500 | ± 16 | 160 | 38 | 670 | 560 | 490 | 709 | 2206 | 91,7 | MB.EJ.ASx0.yy.500.10.CFFC3 |
| | ± 26 | 180 | | | 560 | | 425 | | 95,1 | MB.EJ.ASx0.yy.500.10.MFFC3 |
| | ± 42 | 240 | | | 560 | | 266 | | 100,0 | MB.EJ.ASx0.yy.500.10.LFFC3 |
| | ± 63 | 320 | | | 560 | | 177 | | 107,0 | MB.EJ.ASx0.yy.500.10.XFFC3 |
| 600 | ± 16 | 182 | 42 | 780 | 662 | 592 | 832 | 3137 | 118,0 | MB.EJ.ASx0.yy.600.10.CFFC3 |
| | ± 26 | 194 | | | 662 | | 499 | | 121,0 | MB.EJ.ASx0.yy.600.10.MFFC3 |
| | ± 41 | 254 | | | 662 | | 314 | | 128,0 | MB.EJ.ASx0.yy.600.10.LFFC3 |
| | ± 62 | 334 | | | 662 | | 209 | | 136,0 | MB.EJ.ASx0.yy.600.10.XFFC3 |

In the Product Code:

- Replace x with
0 = without internal sleeve, C = with internal sleeve
- Replace yy , with bellows material :
27 = X6CrNiTi 18-10 N° 1.4541 EN 10028-7
24 = X2CrNiMo 17-12-2 N° 1.4404 EN 10028-7

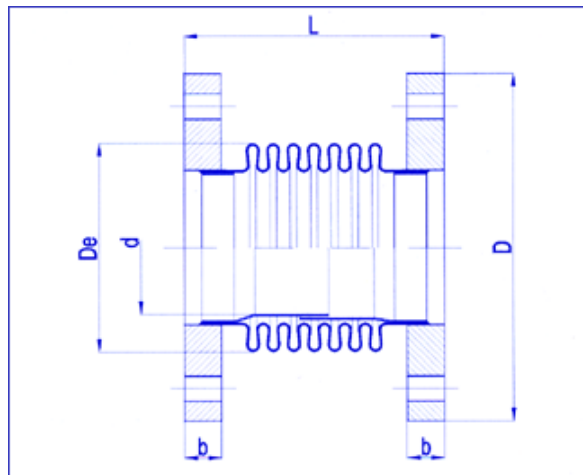
Other materials upon request.

Weight is approximate and calculated for the expansion joint with internal sleeve.

For example:

Axial expansion joint DN 125 with bellows in AISI 321, standard series, without internal sleeve =

Product code MB.EJ.AS00.27.125.10.MFFC3.



| AS FF PN 16 | | | | | | | | | | |
|-------------|---------------------------|-----|----|-----|-----|-----|------------------------------------|---------------------|--------|----------------------------|
| DN | Axial movement $\pm C$ | L | b | D | De | d | Axial spring rate Ka $\pm 20\%$ | Effective area A | Weight | Product Code |
| mm | mm | mm | mm | mm | mm | mm | N/mm | cm ² | kg | n° |
| 50 | ± 12 | 131 | 19 | 165 | 77 | 50 | 112 | 35 | 5,9 | MB.EJ.ASx0.yy.050.16.CFFC3 |
| | ± 16 | 151 | | | 77 | | 132 | | 6,1 | MB.EJ.ASx0.yy.050.16.MFFC3 |
| 65 | ± 13 | 122 | 20 | 185 | 96 | 66 | 109 | 55 | 6,8 | MB.EJ.ASx0.yy.065.16.CFFC3 |
| | ± 19 | 162 | | | 97 | | 147 | | 7,4 | MB.EJ.ASx0.yy.065.16.MFFC3 |
| 80 | ± 13 | 107 | 20 | 200 | 115 | 79 | 97 | 79 | 8,2 | MB.EJ.ASx0.yy.080.16.CFFC3 |
| | ± 20 | 151 | | | 116 | | 117 | | 8,9 | MB.EJ.ASx0.yy.080.16.MFFC3 |
| 100 | ± 19 | 136 | 22 | 220 | 139 | 103 | 116 | 121 | 10,8 | MB.EJ.ASx0.yy.100.16.CFFC3 |
| | ± 23 | 155 | | | 140 | | 134 | | 11,3 | MB.EJ.ASx0.yy.100.16.MFFC3 |
| 125 | ± 17 | 115 | 22 | 250 | 171 | 126 | 167 | 181 | 14,3 | MB.EJ.ASx0.yy.125.16.CFFC3 |
| | ± 24 | 140 | | | 171 | | 119 | | 14,8 | MB.EJ.ASx0.yy.125.16.MFFC3 |
| | ± 28 | 211 | | | 172 | | 215 | | 16,9 | MB.EJ.ASx0.yy.125.16.LFFC3 |
| 150 | ± 17 | 127 | 24 | 285 | 200 | 155 | 188 | 257 | 17,9 | MB.EJ.ASx0.yy.150.16.CFFC3 |
| | ± 24 | 144 | | | 200 | | 134 | | 18,4 | MB.EJ.ASx0.yy.150.16.MFFC3 |
| | ± 29 | 230 | | | 201 | | 231 | | 21,3 | MB.EJ.ASx0.yy.150.16.LFFC3 |
| | ± 40 | 295 | | | 203 | | 291 | | 25,7 | MB.EJ.ASx0.yy.150.16.XFFC3 |
| 200 | ± 13 | 130 | 26 | 340 | 255 | 206 | 413 | 430 | 23,2 | MB.EJ.ASx0.yy.200.16.CFFC3 |
| | ± 21 | 173 | | | 255 | | 258 | | 24,4 | MB.EJ.ASx0.yy.200.16.MFFC3 |
| | ± 29 | 213 | | | 255 | | 187 | | 25,6 | MB.EJ.ASx0.yy.200.16.LFFC3 |
| | ± 44 | 293 | | | 258 | | 304 | | 33,0 | MB.EJ.ASx0.yy.200.16.XFFC3 |
| 250 | ± 15 | 189 | 29 | 405 | 316 | 260 | 552 | 665 | 40,0 | MB.EJ.ASx0.yy.250.16.CFFC3 |
| | ± 25 | 239 | | | 316 | | 316 | | 42,3 | MB.EJ.ASx0.yy.250.16.MFFC3 |
| | ± 38 | 289 | | | 316 | | 221 | | 44,6 | MB.EJ.ASx0.yy.250.16.LFFC3 |
| | ± 48 | 344 | | | 318 | | 282 | | 51,6 | MB.EJ.ASx0.yy.250.16.XFFC3 |

| AS FF PN 16 | | | | | | | | | | |
|-------------|---------------------------|-----|----|-----|-----|-----|------------------------------------|---------------------|--------|----------------------------|
| DN | Axial movement $\pm C$ | L | b | D | De | d | Axial spring rate Ka $\pm 20\%$ | Effective area A | Weight | Product Code |
| mm | mm | mm | mm | mm | mm | mm | N/mm | cm ² | kg | n° |
| 300 | ± 18 | 203 | 32 | 460 | 371 | 309 | 501 | 929 | 46,2 | MB.EJ.ASx0.yy.300.16.CFFC3 |
| | ± 25 | 235 | | | 371 | | 335 | | 48,2 | MB.EJ.ASx0.yy.300.16.MFFC3 |
| | ± 38 | 290 | | | 371 | | 224 | | 51,2 | MB.EJ.ASx0.yy.300.16.LFFC3 |
| | ± 53 | 350 | | | 373 | | 280 | | 59,7 | MB.EJ.ASx0.yy.300.16.XFFC3 |
| 350 | ± 18 | 156 | 35 | 520 | 404 | 341 | 682 | 1110 | 68,4 | MB.EJ.ASx0.yy.350.16.CFFC3 |
| | ± 27 | 190 | | | 404 | | 455 | | 71,2 | MB.EJ.ASx0.yy.350.16.MFFC3 |
| | ± 40 | 250 | | | 404 | | 304 | | 75,3 | MB.EJ.ASx0.yy.350.16.LFFC3 |
| | ± 49 | 285 | | | 404 | | 249 | | 78,1 | MB.EJ.ASx0.yy.350.16.XFFC3 |
| 400 | ± 17 | 176 | 38 | 580 | 454 | 391 | 762 | 1425 | 83,5 | MB.EJ.ASx0.yy.400.16.CFFC3 |
| | ± 26 | 196 | | | 454 | | 508 | | 86,6 | MB.EJ.ASx0.yy.400.16.MFFC3 |
| | ± 39 | 256 | | | 454 | | 338 | | 91,3 | MB.EJ.ASx0.yy.400.16.LFFC3 |
| | ± 55 | 321 | | | 455 | | 305 | | 100,0 | MB.EJ.ASx0.yy.400.16.XFFC3 |
| 450 | ± 11 | 176 | 42 | 640 | 509 | 439 | 1270 | 1802 | 93,6 | MB.EJ.ASx0.yy.450.16.CFFC3 |
| | ± 18 | 188 | | | 509 | | 762 | | 96,5 | MB.EJ.ASx0.yy.450.16.MFFC3 |
| | ± 29 | 244 | | | 509 | | 476 | | 101,0 | MB.EJ.ASx0.yy.450.16.LFFC3 |
| | ± 51 | 359 | | | 511 | | 387 | | 118,0 | MB.EJ.ASx0.yy.450.16.XFFC3 |
| 500 | ± 12 | 195 | 46 | 715 | 562 | 490 | 1852 | 2206 | 115,0 | MB.EJ.ASx0.yy.500.16.CFFC3 |
| | ± 19 | 204 | | | 562 | | 1111 | | 119,0 | MB.EJ.ASx0.yy.500.16.MFFC3 |
| | ± 31 | 262 | | | 562 | | 694 | | 127,0 | MB.EJ.ASx0.yy.500.16.LFFC3 |
| | ± 50 | 367 | | | 562 | | 427 | | 139,0 | MB.EJ.ASx0.yy.500.16.XFFC3 |
| 600 | ± 12 | 217 | 52 | 840 | 664 | 592 | 2188 | 3137 | 158,0 | MB.EJ.ASx0.yy.600.16.CFFC3 |
| | ± 19 | 224 | | | 664 | | 1313 | | 163,0 | MB.EJ.ASx0.yy.600.16.MFFC3 |
| | ± 30 | 274 | | | 664 | | 826 | | 171,0 | MB.EJ.ASx0.yy.600.16.LFFC3 |
| | ± 50 | 379 | | | 664 | | 508 | | 186,0 | MB.EJ.ASx0.yy.600.16.XFFC3 |

In the Product Code:

- Replace x with
0 = without internal sleeve, C = with internal sleeve
- Replace yy , with bellows material :
27 = X6CrNiTi 18-10 N° 1.4541 EN 10028-7
24 = X2CrNiMo 17-12-2 N° 1.4404 EN 10028-7

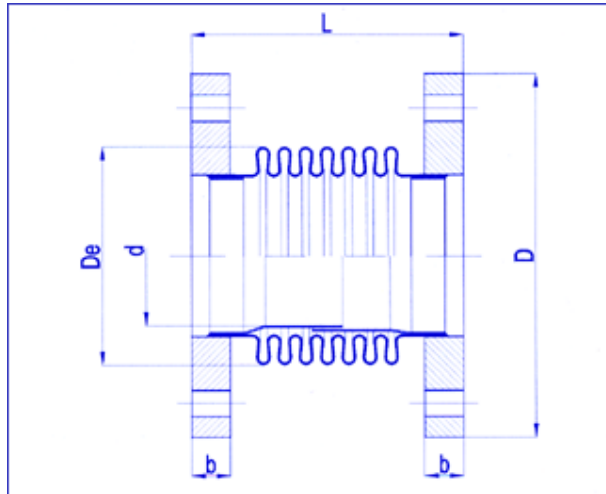
Other materials upon request.

Weight is approximate and calculated for the expansion joint with internal sleeve.

For example:

Axial expansion joint DN 125 with bellows in AISI 316L, standard series, with internal sleeve =

Product code MB.EJ.ASC0.24.125.16.MFFC3.



| AS FF PN 25 | | | | | | | | | | |
|-------------|---------------------------|-----|----|-----|-----|-----|------------------------------------|---------------------|--------|----------------------------|
| DN | Axial movement $\pm C$ | L | b | D | De | d | Axial spring rate Ka $\pm 20\%$ | Effective area A | Weight | Product Code |
| mm | mm | mm | mm | mm | mm | mm | N/mm | cm ² | kg | n° |
| 50 | ± 12 | 128 | 20 | 165 | 77 | 50 | 172 | 35 | 6,2 | MB.EJ.ASx0.yy.050.25.CFFC3 |
| 65 | ± 15 | 147 | 22 | 185 | 97 | 66 | 177 | 55 | 8,6 | MB.EJ.ASx0.yy.065.25.CFFC3 |
| 80 | ± 15 | 133 | 24 | 200 | 116 | 79 | 150 | 79 | 10,2 | MB.EJ.ASx0.yy.080.25.CFFC3 |
| 100 | ± 17 | 139 | 26 | 235 | 140 | 103 | 172 | 121 | 14,1 | MB.EJ.ASx0.yy.100.25.CFFC3 |
| | ± 24 | 235 | | | 142 | | 344 | | 14,7 | MB.EJ.ASx0.yy.100.25.LFFC3 |
| 125 | ± 10 | 133 | 28 | 270 | 171 | 126 | 380 | 181 | 18,6 | MB.EJ.ASx0.yy.125.25.CFFC3 |
| | ± 19 | 177 | | | 171 | | 211 | | 19,5 | MB.EJ.ASx0.yy.125.25.MFFC3 |
| | ± 25 | 218 | | | 173 | | 301 | | 21,8 | MB.EJ.ASx0.yy.125.25.LFFC3 |
| 150 | ± 10 | 137 | 30 | 300 | 200 | 155 | 448 | 257 | 23,7 | MB.EJ.ASx0.yy.150.25.CFFC3 |
| | ± 18 | 181 | | | 200 | | 249 | | 24,8 | MB.EJ.ASx0.yy.150.25.MFFC3 |
| | ± 28 | 237 | | | 202 | | 317 | | 28,1 | MB.EJ.ASx0.yy.150.25.LFFC3 |
| 200 | ± 13 | 145 | 32 | 360 | 256 | 206 | 553 | 430 | 32,1 | MB.EJ.ASx0.yy.200.25.CFFC3 |
| | ± 21 | 190 | | | 256 | | 347 | | 33,7 | MB.EJ.ASx0.yy.200.25.MFFC3 |
| | ± 27 | 220 | | | 256 | | 276 | | 34,8 | MB.EJ.ASx0.yy.200.25.LFFC3 |
| | ± 35 | 341 | | | 259 | | 554 | | 45,3 | MB.EJ.ASx0.yy.200.25.XFFC3 |
| 250 | ± 10 | 163 | 35 | 425 | 316 | 260 | 1071 | 665 | 47,7 | MB.EJ.ASx0.yy.250.25.CFFC3 |
| | ± 17 | 191 | | | 316 | | 612 | | 50,1 | MB.EJ.ASx0.yy.250.25.MFFC3 |
| | ± 22 | 221 | | | 316 | | 476 | | 51,8 | MB.EJ.ASx0.yy.250.25.LFFC3 |
| | ± 35 | 301 | | | 318 | | 437 | | 58,9 | MB.EJ.ASx0.yy.250.25.XFFC3 |
| 300 | ± 13 | 171 | 38 | 485 | 373 | 309 | 1288 | 929 | 64,1 | MB.EJ.ASx0.yy.300.25.CFFC3 |
| | ± 19 | 196 | | | 373 | | 859 | | 66,9 | MB.EJ.ASx0.yy.300.25.MFFC3 |
| | ± 28 | 252 | | | 373 | | 575 | | 71,2 | MB.EJ.ASx0.yy.300.25.LFFC3 |
| | ± 38 | 311 | | | 373 | | 431 | | 75,5 | MB.EJ.ASx0.yy.300.25.XFFC3 |

| AS FF PN 25 | | | | | | | | | | |
|-------------|---------------------------|-----|----|-----|-----|-----|------------------------------------|---------------------|--------|----------------------------|
| DN | Axial movement $\pm C$ | L | b | D | De | d | Axial spring rate Ka $\pm 20\%$ | Effective area A | Weight | Product Code |
| mm | mm | mm | mm | mm | mm | mm | N/mm | cm ² | kg | n° |
| 350 | ± 12 | 187 | 42 | 555 | 405 | 341 | 1402 | 1110 | 91,6 | MB.EJ.ASx0.yy.350.25.CFFC3 |
| | ± 19 | 204 | | | 405 | | 938 | | 94,8 | MB.EJ.ASx0.yy.350.25.MFFC3 |
| | ± 28 | 260 | | | 405 | | 625 | | 99,4 | MB.EJ.ASx0.yy.350.25.LFFC3 |
| | ± 38 | 319 | | | 405 | | 469 | | 104,0 | MB.EJ.ASx0.yy.350.25.XFFC3 |
| 400 | ± 12 | 205 | 46 | 620 | 455 | 391 | 1584 | 1425 | 120,0 | MB.EJ.ASx0.yy.400.25.CFFC3 |
| | ± 18 | 212 | | | 455 | | 1056 | | 123,0 | MB.EJ.ASx0.yy.400.25.MFFC3 |
| | ± 27 | 268 | | | 455 | | 704 | | 128,0 | MB.EJ.ASx0.yy.400.25.LFFC3 |
| | ± 45 | 378 | | | 456 | | 562 | | 144,0 | MB.EJ.ASx0.yy.400.25.XFFC3 |
| 450 | ± 12 | 212 | 50 | 670 | 512 | 439 | 2087 | 1802 | 122,0 | MB.EJ.ASx0.yy.450.25.CFFC3 |
| | ± 20 | 221 | | | 512 | | 1252 | | 126,0 | MB.EJ.ASx0.yy.450.25.MFFC3 |
| | ± 27 | 280 | | | 512 | | 783 | | 135,0 | MB.EJ.ASx0.yy.450.25.LFFC3 |
| | ± 47 | 365 | | | 512 | | 528 | | 146,0 | MB.EJ.ASx0.yy.450.25.XFFC3 |
| 500 | ± 12 | 224 | 56 | 730 | 563 | 490 | 2295 | 2206 | 153,0 | MB.EJ.ASx0.yy.500.25.CFFC3 |
| | ± 19 | 233 | | | 563 | | 1377 | | 158,0 | MB.EJ.ASx0.yy.500.25.MFFC3 |
| | ± 31 | 292 | | | 563 | | 861 | | 167,0 | MB.EJ.ASx0.yy.500.25.LFFC3 |
| | ± 47 | 377 | | | 563 | | 574 | | 180,0 | MB.EJ.ASx0.yy.500.25.XFFC3 |
| 600 | ± 12 | 266 | 68 | 845 | 665 | 592 | 2700 | 3137 | 194,0 | MB.EJ.ASx0.yy.600.25.CFFC3 |
| | ± 19 | 273 | | | 665 | | 1620 | | 197,0 | MB.EJ.ASx0.yy.600.25.MFFC3 |
| | ± 31 | 316 | | | 665 | | 1019 | | 208,0 | MB.EJ.ASx0.yy.600.25.LFFC3 |
| | ± 45 | 401 | | | 665 | | 680 | | 222,0 | MB.EJ.ASx0.yy.600.25.XFFC3 |

In the Product Code:

- Replace x with
0 = without internal sleeve, C = with internal sleeve
- Replace yy , with bellows material :
27 = X6CrNiTi 18-10 N° 1.4541 EN 10028-7
24 = X2CrNiMo 17-12-2 N° 1.4404 EN 10028-7

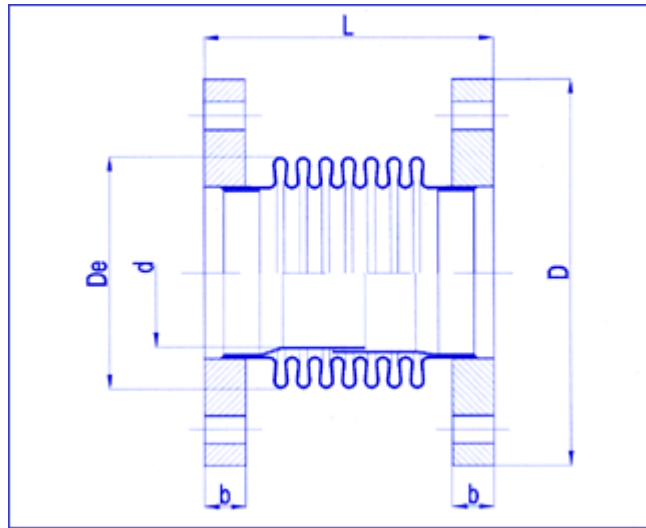
Other materials upon request.

Weight is approximate and calculated for the expansion joint with internal sleeve.

For example:

Axial expansion joint DN 125 with bellows in AISI 321, standard series, without internal sleeve =

Product code MB.EJ.AS00.27.125.25.MFFC3.



| AS FF PN 40 | | | | | | | | | | |
|-------------|---------------------------|-----|----|-----|-----|-----|-------------------------------------|---------------------|--------|----------------------------|
| DN | Axial movement $\pm C$ | L | b | D | De | d | Axial spring rate $K_a \pm 20\%$ | Effective area A | Weight | Product Code |
| mm | mm | mm | mm | mm | mm | mm | N/mm | cm ² | kg | n° |
| 50 | ± 9 | 113 | 40 | 165 | 77 | 50 | 215 | 35 | 6,0 | MB.EJ.ASx0.yy.050.40.CFFC3 |
| 65 | ± 12 | 131 | 22 | 185 | 97 | 66 | 221 | 55 | 8,5 | MB.EJ.ASx0.yy.065.40.CFFC3 |
| 80 | ± 10 | 135 | 24 | 200 | 116 | 79 | 327 | 79 | 10,5 | MB.EJ.ASx0.yy.080.40.CFFC3 |
| | ± 14 | 160 | | | 117 | | 351 | | 11,2 | MB.EJ.ASx0.yy.080.40.MFFC3 |
| 100 | ± 10 | 139 | 26 | 235 | 140 | 103 | 396 | 121 | 14,1 | MB.EJ.ASx0.yy.100.40.CFFC3 |
| | ± 15 | 179 | | | 141 | | 375 | | 15,1 | MB.EJ.ASx0.yy.100.40.MFFC3 |
| 125 | ± 11 | 137 | 28 | 270 | 173 | 126 | 663 | 181 | 19,5 | MB.EJ.ASx0.yy.125.40.CFFC3 |
| | ± 18 | 178 | | | 173 | | 414 | | 20,7 | MB.EJ.ASx0.yy.125.40.MFFC3 |
| 150 | ± 11 | 141 | 30 | 300 | 202 | 155 | 763 | 257 | 24,8 | MB.EJ.ASx0.yy.150.40.CFFC3 |
| | ± 20 | 197 | | | 202 | | 424 | | 26,7 | MB.EJ.ASx0.yy.150.40.MFFC3 |
| 200 | ± 10 | 159 | 36 | 375 | 258 | 206 | 1420 | 430 | 40,8 | MB.EJ.ASx0.yy.200.40.CFFC3 |
| | ± 16 | 204 | | | 258 | | 886 | | 43,2 | MB.EJ.ASx0.yy.200.40.MFFC3 |
| | ± 22 | 254 | | | 258 | | 643 | | 45,5 | MB.EJ.ASx0.yy.200.40.LFFC3 |
| 250 | ± 11 | 165 | 42 | 450 | 319 | 260 | 1778 | 665 | 70,7 | MB.EJ.ASx0.yy.250.40.CFFC3 |
| | ± 19 | 220 | | | 319 | | 1016 | | 75,2 | MB.EJ.ASx0.yy.250.40.MFFC3 |
| | ± 25 | 260 | | | 319 | | 790 | | 78,0 | MB.EJ.ASx0.yy.250.40.LFFC3 |
| 300 | ± 12 | 190 | 48 | 515 | 374 | 309 | 1615 | 929 | 93,1 | MB.EJ.ASx0.yy.300.40.CFFC3 |
| | ± 18 | 222 | | | 374 | | 1078 | | 98,4 | MB.EJ.ASx0.yy.300.40.MFFC3 |
| | ± 25 | 262 | | | 374 | | 809 | | 101,0 | MB.EJ.ASx0.yy.300.40.LFFC3 |

In the Product Code:

- Replace x with
0 = without internal sleeve, C = with internal sleeve
- Replace yy , with bellows material :
27 = X6CrNiTi 18-10 N° 1.4541 EN 10028-7
24 = X2CrNiMo 17-12-2 N° 1.4404 EN 10028-7

Other materials upon request.

Weight is approximate and calculated for the expansion joint with internal sleeve.

For example:

Axial expansion joint DN 125 with bellows in AISI 316L, standard series, with internal sleeve =

Product code MB.EJ.ASC0.24.125.40.MFFC3.