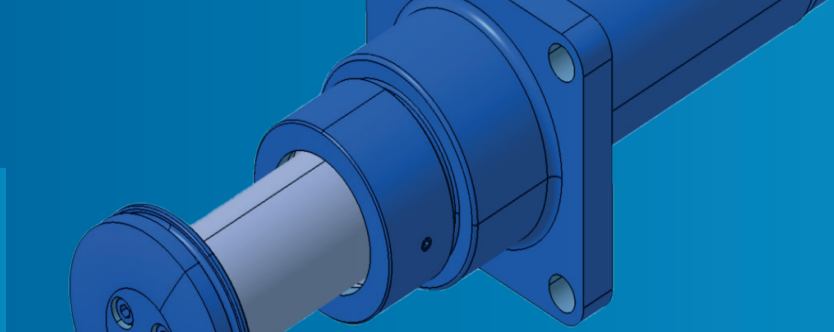
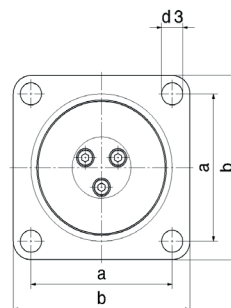
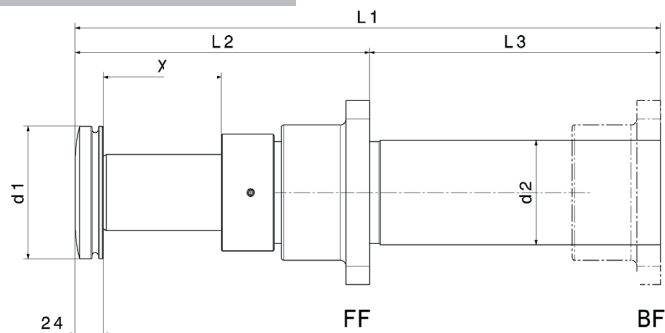


HYDRAULIC BUFFER TYPE SP



M 1501 486 E-EN-2021-11



FF = Front frame
Special mounting plate on request

BF = Back frame
up to max. 400 mm stroke

Impact Force [kN] of type

| Damping Capacity [kJ] | 65 | | | | | 80 | | | | | 100 | | | | | 125 | | | | | | | |
|-----------------------|-----------------|-----|------|------|------|------|-----|-----|------|------|------|------|-----|------|------|------|-----|-----|------|------|------|-----|-----|
| | X = Stroke [mm] | | | | | | | | | | | | | | | | | | | | | | |
| | 100 | 200 | 300 | 400 | 600 | 800 | 100 | 200 | 300 | 400 | 600 | 800 | 200 | 400 | 600 | 800 | 100 | 200 | 400 | 600 | 800 | | |
| 1 | 12 | 5,5 | 4 | 3 | 2 | 1,5 | 12 | 6 | 4 | 3 | 2 | 2 | 6 | 3 | 2 | 1 | 12 | 6 | 3 | 2 | 1,5 | | |
| 2,5 | 29 | 15 | 10 | 7 | 5 | 4 | 29 | 15 | 10 | 7 | 6 | 5 | 15 | 7 | 5 | 4 | 29 | 15 | 7 | 5 | 4 | | |
| 5 | 59 | 29 | 20 | 15 | 10 | 7 | 59 | 29 | 20 | 15 | 12 | 10 | 29 | 15 | 10 | 7 | 59 | 29 | 15 | 10 | 7 | | |
| 10 | 118 | 59 | 39 | 29 | 20 | 15 | 118 | 59 | 39 | 29 | 24 | 20 | 59 | 29 | 20 | 15 | 118 | 59 | 29 | 20 | 15 | | |
| 20 | | 118 | 78 | 59 | 39 | 29 | 235 | 118 | 78 | 59 | 47 | 39 | 118 | 59 | 39 | 29 | 235 | 118 | 59 | 39 | 29 | | |
| 30 | | 176 | 118 | 88 | 59 | 44 | 353 | 176 | 118 | 88 | 71 | 59 | 176 | 88 | 59 | 44 | 353 | 176 | 88 | 59 | 44 | | |
| 40 | | | 157 | 118 | 78 | 59 | | 235 | 157 | 118 | 94 | 78 | 235 | 118 | 78 | 59 | 471 | 235 | 118 | 78 | 59 | | |
| 50 | | | 196 | 147 | 118 | 74 | | 294 | 196 | 147 | 118 | 98 | 294 | 147 | 98 | 74 | 588 | 294 | 147 | 98 | 74 | | |
| 60 | | | | 176 | 156 | 88 | | 353 | 235 | 176 | 141 | 118 | 353 | 176 | 118 | 88 | | 353 | 176 | 118 | 88 | | |
| 80 | | | | | | 118 | | | | | | | | | | | | 471 | 235 | 157 | 118 | | |
| 100 | | | | | | | | | | | 294 | 235 | 196 | | | | | 588 | 294 | 196 | 147 | | |
| 150 | | | | | | | | | | | | | | | 441 | 294 | 221 | | | 441 | 294 | 221 | |
| 200 | | | | | | | | | | | | | | | | 392 | 294 | | | 588 | 392 | 294 | |
| 300 | | | | | | | | | | | | | | | | | | | | | 588 | 441 | |
| 350 | | | | | | | | | | | | | | | | | | | | | | 686 | 515 |
| 400 | | | | | | | | | | | | | | | | | | | | | | | 588 |
| 450 | | | | | | | | | | | | | | | | | | | | | | | 661 |
| max. End Force [kN] | 200 | 200 | 200 | 170 | 150 | 120 | 350 | 350 | 350 | 300 | 300 | 250 | 470 | 440 | 400 | 355 | 700 | 700 | 700 | 660 | 620 | | |
| L ₁ | 495 | 805 | 1100 | 1395 | 1890 | 2455 | 470 | 755 | 1035 | 1315 | 1600 | 1885 | 780 | 1350 | 1920 | 2490 | 482 | 745 | 1275 | 1775 | 2295 | | |
| L ₂ | 250 | 350 | 450 | 580 | 780 | 980 | 280 | 360 | 470 | 670 | 770 | 870 | 470 | 670 | 870 | 1070 | | 470 | 680 | 930 | 980 | | |
| L ₃ | 245 | 455 | 650 | 815 | 1110 | 1475 | 190 | 395 | 565 | 645 | 830 | 1015 | 310 | 680 | 1050 | 1420 | | 275 | 595 | 845 | 1315 | | |
| d ₁ | 108 | 108 | 108 | 108 | 108 | 108 | 128 | 128 | 128 | 128 | 128 | 128 | 148 | 148 | 148 | 148 | 163 | 163 | 163 | 163 | 163 | | |
| d ₂ *) | 85 | 85 | 85 | 85 | 85 | 85 | 105 | 105 | 105 | 105 | 105 | 105 | 125 | 125 | 125 | 125 | 150 | 150 | 150 | 150 | 150 | | |
| d ₃ | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 18 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | 26 | | |
| a | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 210 | 210 | 210 | 210 | 210 | 210 | 210 | 210 | 210 | | |
| b | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 150 | 270 | 270 | 270 | 270 | 270 | 270 | 270 | 270 | 270 | | |

*) Recommended minimum installation space d₄ + 5 mm

The specified final forces are already applied with a damping efficiency of 0.85

All dimensions in mm