

# SOFT SEAL FLOATING BALL VALVE

## 软密封浮动球阀



Soft seal floating ball valve

## 软密封浮动球阀

科化  
KEHUA

### 执行标准

设计标准: API6D, API 608, GB/T 19672, GB/T 12237  
长度标准: API 6D, ASME B16.10, GB/T 19672, GB/T 12221  
法兰标准: ASME B16.5, HG/T 20592, GB/T 9113  
焊接端: ASME B16.25, ASME B16.34, GB/T 12224  
试验标准: API 6D, API 598, GB/T 19672, GB/T 26480 GB/T 13927, GB/T 9092

### 产品参数

主体材质: 碳钢、不锈钢、合金钢  
公称通径: DN8~ DN200  
压力范围: Class150~Class2500  
工作温度:  $-20^{\circ}\text{C}$ ~ $250^{\circ}\text{C}$   
驱动方式: 手动、蜗轮、电动、气动、液动  
应用范围: 可应用于自来水、污水、建筑、食品、电力、医药、冶金、轻纺、能源等流体管线上作切断或调节以及节流使用。

### 用途

浮动球阀适用于Class150~Class1500、PN16~PN100的各种管路上，用于截断或接通管路中的介质，选用不同的材质，可分别适用于水、蒸汽、油品、液化气、天然气、煤气、硝酸、醋酸、氧化性介质、尿素等多种介质。驱动方式为手动、蜗轮蜗杆传动、气动或电动。浮动球阀一般采用法兰连接，也可采用对焊连接。

### 驱动装置安装平台的设置

科化公司的浮动球阀均设置了安装驱动装置的支架平台，通过驱动装置支架，可以方便的安装蜗轮蜗杆传动装置、气动装置或电动装置。

### 防静电结构

根据用户要求，球阀可以设有防静电结构。采用弹簧钢球（或柱塞）静电引出装置，使球体与阀体之间直接形成静电通道（对于 $\text{DN} \leq 25$ 的球阀）或通过阀杆使球体与阀体之间形成静电通道（对于 $\text{DN} \geq 32$ 的球阀）。从而可将球体与阀座开关过程中摩擦产生的静电通过阀体引到大地，防止静电火花可能引起的火灾或爆炸等危险。

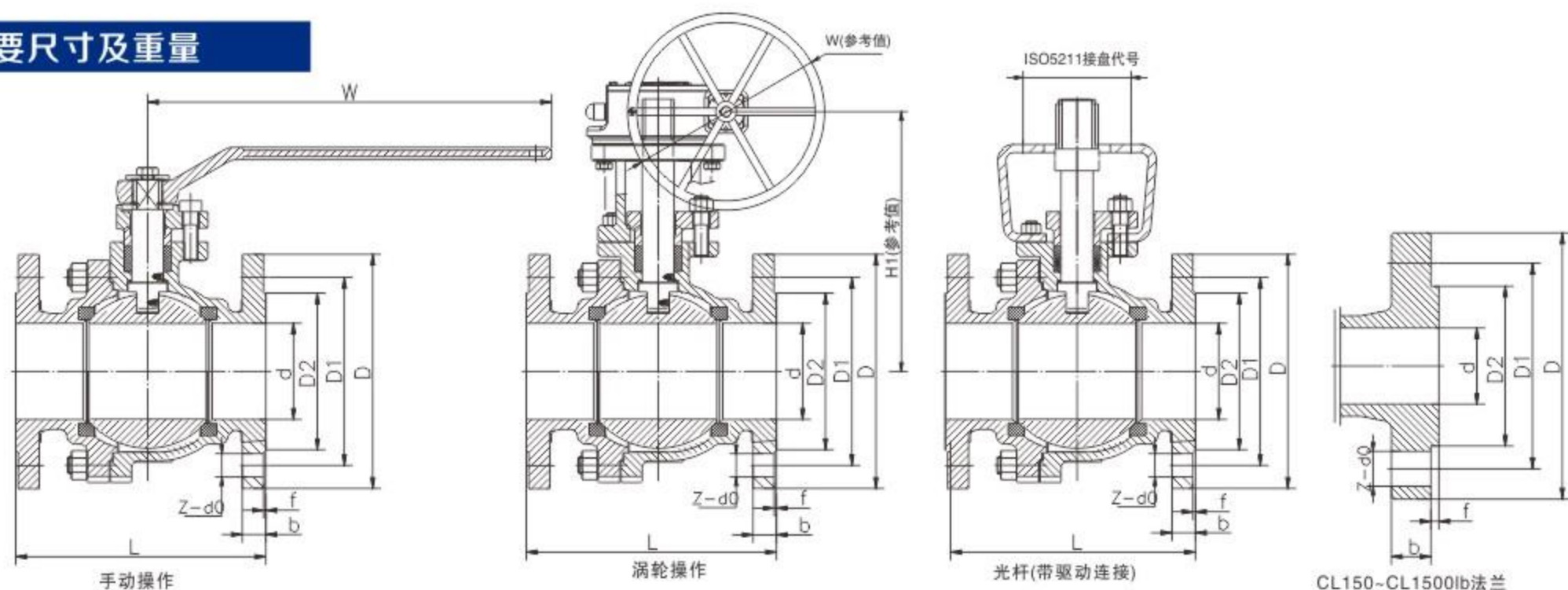
### 防火结构设计

在阀门的使用现场发生火灾时，当聚四氟乙烯等非金属材料制作的阀座密封圈、阀杆上密封垫、阀杆密封填料以及中法兰密封垫片在高温下分解或破坏后，科化球阀能够借助于特别设计的金属对金属辅助密封结构，有效地控制阀门的内漏和外漏。对于用户有防火要求的浮动球阀，科化公司的防火设计均符合API607、API6FA等标准规范的要求。

# 软密封浮动球阀

# 软密封浮动球阀

## 主要尺寸及重量



| 公称压力      | 公称尺寸     |       | 尺寸(mm) |     |     |     |       |       |      |      |        |      |     |     |     | 重量<br>(kg) |     |   |
|-----------|----------|-------|--------|-----|-----|-----|-------|-------|------|------|--------|------|-----|-----|-----|------------|-----|---|
|           |          |       | L      |     | d   | D   | D1    | D2    | b    | f    | Z-φ do | W    |     | H   |     |            |     |   |
|           | DN       | NPS   | RF     | RTJ |     |     |       |       |      |      |        | 手动   | 蜗轮  | 手动  | 蜗轮  | 手动         | 蜗轮  |   |
| Class150  | 15       | 1/2   | 108    | 119 | 13  | 90  | 60.3  | 34.9  | 8.0  | 2    | 4-16   | 140  | -   | 85  | -   | 3          | -   |   |
|           | 20       | 3/4   | 117    | 130 | 19  | 100 | 69.9  | 42.9  | 8.9  | 2    | 4-16   | 140  | -   | 90  | -   | 4          | -   |   |
|           | 25       | 1     | 127    | 140 | 25  | 110 | 79.4  | 50.8  | 9.6  | 2    | 4-16   | 150  | -   | 99  | -   | 5          | -   |   |
|           | 32       | 1 1/4 | 140    | 153 | 32  | 115 | 88.9  | 63.5  | 11.2 | 2    | 4-16   | 180  | -   | 105 | -   | 7          | -   |   |
|           | 40       | 1 1/2 | 165    | 178 | 38  | 125 | 98.4  | 73.0  | 12.7 | 2    | 4-16   | 200  | -   | 126 | -   | 8          | -   |   |
|           | 50       | 2     | 178    | 191 | 49  | 150 | 120.7 | 92.1  | 14.3 | 2    | 4-19   | 250  | -   | 140 | -   | 12         | -   |   |
|           | 65       | 2 1/2 | 190    | 203 | 62  | 180 | 139.7 | 104.8 | 15.9 | 2    | 4-19   | 300  | -   | 165 | -   | 18         | -   |   |
|           | 80       | 3     | 203    | 216 | 74  | 190 | 152.4 | 127.0 | 17.5 | 2    | 4-19   | 350  | -   | 178 | -   | 24         | -   |   |
|           | 100      | 4     | 229    | 242 | 100 | 230 | 190.5 | 157.2 | 22.3 | 2    | 8-19   | 500  | 305 | 230 | 380 | 38         | 53  |   |
|           | 125      | 5     | 356    | 369 | 125 | 255 | 215.9 | 185.7 | 22.3 | 2    | 8-22   | 800  | 305 | 280 | 405 | 60         | 79  |   |
|           | 150      | 6     | 394    | 407 | 150 | 280 | 241.3 | 215.9 | 23.9 | 2    | 8-22   | 800  | 305 | 310 | 460 | 82         | 102 |   |
|           | 200      | 8     | 457    | 470 | 201 | 345 | 298.5 | 269.9 | 27.0 | 2    | 8-22   | 1000 | 305 | 350 | 550 | 145        | 185 |   |
| Class300  | 250      | 10    | 533    | 546 | 252 | 405 | 362   | 323.8 | 28.6 | 2    | 12-25  | -    | 400 | -   | 706 | -          | 280 |   |
|           | 15       | 1/2   | 140    | 151 | 13  | 95  | 66.7  | 34.9  | 12.7 | 2    | 4-16   | 140  | -   | 85  | -   | 3          | -   |   |
|           | 20       | 3/4   | 152    | 165 | 19  | 115 | 82.6  | 42.9  | 14.3 | 2    | 4-19   | 140  | -   | 90  | -   | 5          | -   |   |
|           | 25       | 1     | 165    | 178 | 25  | 125 | 88.9  | 50.8  | 15.9 | 2    | 4-19   | 150  | -   | 99  | -   | 6          | -   |   |
|           | 32       | 1 1/4 | 178    | 191 | 32  | 135 | 98.4  | 63.5  | 17.5 | 2    | 4-19   | 180  | -   | 105 | -   | 8          | -   |   |
|           | 40       | 1 1/2 | 190    | 203 | 38  | 155 | 114.3 | 73.0  | 19.1 | 2    | 4-22   | 200  | -   | 126 | -   | 11         | -   |   |
|           | 50       | 2     | 216    | 232 | 49  | 165 | 127.0 | 92.1  | 20.7 | 2    | 8-19   | 250  | -   | 142 | -   | 16         | -   |   |
|           | 65       | 2 1/2 | 241    | 257 | 62  | 190 | 149.2 | 104.8 | 23.9 | 2    | 8-22   | 300  | -   | 165 | -   | 24         | -   |   |
|           | 80       | 3     | 283    | 299 | 74  | 210 | 168.3 | 127.0 | 27.0 | 2    | 8-22   | 350  | -   | 178 | 330 | 34         | 52  |   |
|           | 100      | 4     | 305    | 321 | 100 | 255 | 200.0 | 157.2 | 30.2 | 2    | 8-22   | 500  | 305 | 230 | 380 | 56         | 76  |   |
|           | 125      | 5     | 381    | 397 | 125 | 280 | 235.0 | 185.7 | 33.4 | 2    | 8-22   | 800  | 305 | 280 | 420 | 86         | 124 |   |
|           | 150      | 6     | 403    | 419 | 150 | 320 | 269.9 | 215.9 | 35.0 | 2    | 12-22  | 800  | 305 | 310 | 480 | 125        | 163 |   |
| Class600  | 200      | 8     | 502    | 518 | 201 | 380 | 330.2 | 269.9 | 39.7 | 2    | 12-26  | 1000 | 305 | 350 | 560 | 222        | 267 |   |
|           | 15       | 1/2   | 165    | 164 | 13  | 95  | 66.7  | 34.9  | 14.3 | 7    | 4-16   | 140  | -   | 79  | -   | 5          | -   |   |
|           | 20       | 3/4   | 190    | 190 | 19  | 115 | 82.6  | 42.9  | 15.9 | 7    | 4-19   | 140  | -   | 83  | -   | 7          | -   |   |
|           | 25       | 1     | 216    | 216 | 25  | 125 | 88.9  | 50.8  | 17.5 | 7    | 4-19   | 200  | -   | 114 | -   | 9          | -   |   |
|           | 32       | 1 1/4 | 229    | 229 | 32  | 135 | 98.4  | 63.5  | 20.7 | 7    | 4-19   | 200  | -   | 120 | -   | 13         | -   |   |
|           | 40       | 1 1/2 | 241    | 241 | 38  | 155 | 114.3 | 73.0  | 22.3 | 7    | 4-22   | 250  | -   | 125 | -   | 17         | -   |   |
|           | 50       | 2     | 292    | 295 | 49  | 165 | 127.0 | 92.1  | 25.4 | 7    | 8-19   | 300  | -   | 156 | -   | 25         | -   |   |
|           | 65       | 2 1/2 | 330    | 333 | 62  | 190 | 149.2 | 104.8 | 28.6 | 7    | 8-22   | 350  | -   | 172 | -   | 42         | -   |   |
|           | 80       | 3     | 356    | 359 | 74  | 210 | 168.3 | 127.0 | 31.8 | 7    | 8-22   | 500  | 305 | 220 | 370 | 56         | 76  |   |
|           | 100      | 4     | 432    | 435 | 100 | 275 | 215.9 | 157.2 | 38.1 | 7    | 8-26   | 650  | 305 | 250 | 400 | 85         | 123 |   |
|           | Class900 | 15    | 1/2    | 216 | 216 | 13  | 120   | 82.6  | 34.9 | 22.3 | 7      | 4-22 | 150 | -   | 98  | -          | 9   | - |
|           |          | 20    | 3/4    | 229 | 229 | 19  | 130   | 88.9  | 42.9 | 25.4 | 7      | 4-22 | 150 | -   | 105 | -          | 13  | - |
| 25        |          | 1     | 254    | 254 | 25  | 150 | 101.6 | 50.8  | 28.6 | 7    | 4-26   | 200  | -   | 110 | -   | 16         | -   |   |
| 32        |          | 1 1/4 | 279    | 279 | 32  | 160 | 111.1 | 63.5  | 28.6 | 7    | 4-26   | 250  | -   | 120 | -   | 24         | -   |   |
| 40        |          | 1 1/2 | 305    | 305 | 38  | 180 | 123.8 | 73.0  | 31.8 | 7    | 4-29   | 250  | -   | 125 | -   | 31         | -   |   |
| Class1500 | 50       | 2     | 368    | 371 | 49  | 215 | 165.1 | 92.1  | 38.1 | 7    | 8-26   | 350  | -   | 160 | -   | 45         | -   |   |
|           | 15       | 1/2   | 216    | 216 | 13  | 120 | 82.6  | 34.9  | 22.3 | 7    | 4-22   | 182  | -   | 98  | -   | 10         | -   |   |
|           | 20       | 3/4   | 229    | 229 | 19  | 130 | 88.9  | 42.9  | 25.4 | 7    | 4-22   | 200  | -   | 105 | -   | 14         | -   |   |
|           | 25       | 1     | 254    | 254 | 25  | 150 | 101.6 | 50.8  | 28.6 | 7    | 4-26   | 250  | -   | 110 | -   | 17         | -   |   |
|           | 32       | 1 1/4 | 279    | 279 | 32  | 160 | 111.1 | 63.5  | 28.6 | 7    | 4-26   | 300  | -   | 120 | -   | 25         | -   |   |
|           | 40       | 1 1/2 | 305    | 305 | 38  | 180 | 123.8 | 73.0  | 31.8 | 7    | 4-29   | 350  | -   | 130 | -   | 33         | -   |   |
|           | 50       | 2     | 368    | 371 | 49  | 215 | 165.1 | 92.1  | 38.1 | 7    | 8-26   | 500  | -   | 160 | -   | 48         | -   |   |

| 公称压力  | 公称尺寸<br>DN | 尺寸(mm) |     |     |     |     |     |    |       |        |     |     |     |     | 重量<br>(kg) |     |
|-------|------------|--------|-----|-----|-----|-----|-----|----|-------|--------|-----|-----|-----|-----|------------|-----|
|       |            | L      | d   | D   | D1  | D2  | D3  | b  | f     | Z-φ do | W   |     | H   |     |            |     |
|       |            |        |     |     |     |     |     |    |       |        | 手动  | 蜗轮  | 手动  | 蜗轮  | 手动         | 蜗轮  |
| PN16  | 15         | 130    | 13  | 95  | 65  | 45  | -   | 16 | 2     | 4-14   | 140 | -   | 85  | -   | 3          | -   |
|       | 20         | 130    | 19  | 105 | 75  | 58  | -   | 18 | 2     | 4-14   | 140 | -   | 90  | -   | 4          | -   |
|       | 25         | 140    | 25  | 115 | 85  | 68  | -   | 18 | 2     | 4-14   | 150 | -   | 99  | -   | 5          | -   |
|       | 32         | 165    | 32  | 140 | 100 | 78  | -   | 18 | 2     | 4-18   | 180 | -   | 105 | -   | 7          | -   |
|       | 40         | 165    | 38  | 150 | 110 | 88  | -   | 18 | 3     | 4-18   | 200 | -   | 126 | -   | 8          | -   |
|       | 50         | 203    | 49  | 165 | 125 | 102 | -   | 18 | 3     | 4-18   | 250 | -   | 140 | -   | 12         | -   |
|       | 65         | 222    | 62  | 185 | 145 | 122 | -   | 18 | 3     | 8-18   | 300 | -   | 165 | -   | 17         | -   |
|       | 80         | 241    | 74  | 200 | 160 | 138 | -   | 20 | 3     | 8-18   | 350 | -   | 178 | -   | 23         | -   |
|       | 100        | 305    | 100 | 220 | 180 | 158 | -   | 20 | 3     | 8-18   | 500 | 305 | 230 | 380 | 35         | 53  |
|       | 125        | 356    | 125 | 250 | 210 | 188 | -   | 22 | 3     | 8-18   | 800 | 305 | 280 | 405 | 52         | 79  |
|       | 150        | 394    | 150 | 285 | 240 | 212 | -   | 22 | 3     | 8-22   | 800 | 305 | 310 | 460 | 76         | 102 |
| 200   | 457        | 201    | 340 | 295 | 268 | -   | 24  | 3  | 12-22 | 1000   | 305 | 350 | 550 | 134 | 185        |     |
| PN25  | 15         | 130    | 13  | 95  | 65  | 45  | -   | 16 | 2     | 4-14   | 140 | -   | 85  | -   | 3          | -   |
|       | 20         | 130    | 19  | 105 | 75  | 58  | -   | 18 | 2     | 4-14   | 140 | -   | 90  | -   | 4          | -   |
|       | 25         | 140    | 25  | 115 | 85  | 68  | -   | 18 | 2     | 4-14   | 150 | -   | 99  | -   | 5          | -   |
|       | 32         | 165    | 32  | 140 | 100 | 78  | -   | 18 | 2     | 4-18   | 180 | -   | 105 | -   | 7          | -   |
|       | 40         | 165    | 38  | 150 | 110 | 88  | -   | 18 | 3     | 4-18   | 200 | -   | 126 | -   | 9          | -   |
|       | 50         | 203    | 49  | 165 | 125 | 102 | -   | 20 | 3     | 4-18   | 250 | -   | 140 | -   | 12         | -   |
|       | 65         | 222    | 62  | 185 | 145 | 122 | -   | 22 | 3     | 8-18   | 300 | -   | 165 | -   | 19         | -   |
|       | 80         | 241    | 74  | 200 | 160 | 138 | -   | 24 | 3     | 8-18   | 350 | -   | 178 | -   | 23         | -   |
|       | 100        | 305    | 100 | 235 | 190 | 162 | -   | 24 | 3     | 8-22   | 500 | 305 | 230 | 380 | 45         | 53  |
|       | 125        | 356    | 125 | 270 | 220 | 188 | -   | 26 | 3     | 8-26   | 800 | 305 | 280 | 405 | 67         | 79  |
|       | 150        | 394    | 150 | 300 | 250 | 218 | -   | 28 | 3     | 8-26   | 800 | 305 | 310 | 460 | 95         | 102 |
| 200   | 457        | 201    | 360 | 310 | 278 | -   | 30  | 3  | 12-26 | 1000   | 305 | 350 | 550 | 170 | 185        |     |
| PN40  | 15         | 140    | 13  | 95  | 65  | 45  | 40  | 16 | 2     | 4-14   | 140 | -   | 85  | -   | 3          | -   |
|       | 20         | 152    | 19  | 105 | 75  | 58  | 51  | 18 | 2     | 4-14   | 140 | -   | 90  | -   | 4          | -   |
|       | 25         | 165    | 25  | 115 | 85  | 68  | 58  | 18 | 2     | 4-14   | 150 | -   | 99  | -   | 5          | -   |
|       | 32         | 178    | 32  | 140 | 100 | 78  | 66  | 18 | 2     | 4-18   | 180 | -   | 105 | -   | 8          | -   |
|       | 40         | 190    | 38  | 150 | 110 | 88  | 76  | 18 | 3     | 4-18   | 200 | -   | 126 | -   | 11         | -   |
|       | 50         | 216    | 49  | 165 | 125 | 102 | 88  | 20 | 3     | 4-18   | 250 | -   | 142 | -   | 15         | -   |
|       | 65         | 241    | 62  | 185 | 145 | 122 | 110 | 22 | 3     | 8-18   | 300 | -   | 165 | -   | 20         | -   |
|       | 80         | 283    | 74  | 200 | 160 | 138 | 121 | 24 | 3     | 8-18   | 350 | 305 | 178 | 330 | 29         | 47  |
|       | 100        | 305    | 100 | 235 | 190 | 162 | 150 | 24 | 3     | 8-22   | 500 | 305 | 230 | 380 | 48         | 68  |
|       | 125        | 381    | 125 | 270 | 220 | 188 | 176 | 26 | 3     | 8-26   | 800 | 305 | 280 | 420 | 68         | 88  |
|       | 150        | 403    | 150 | 300 | 250 | 218 | 204 | 28 | 3     | 8-26   | 800 | 305 | 310 | 480 | 98         | 136 |
| 200   | 502        | 201    | 375 | 320 | 285 | 260 | 34  | 3  | 12-30 | 1000   | 400 | 350 | 560 | 178 | 223        |     |
| PN63  | 15         | 165    | 13  | 105 | 75  | 45  | 40  | 18 | 2     | 4-14   | 140 | -   | 79  | -   | 5          | -   |
|       | 20         | 191    | 19  | 130 | 90  | 58  | 51  | 20 | 2     | 4-18   | 140 | -   | 83  | -   | 7          | -   |
|       | 25         | 216    | 25  | 140 | 100 | 68  | 58  | 22 | 2     | 4-18   | 200 | -   | 114 | -   | 9          | -   |
|       | 32         | 229    | 32  | 155 | 110 | 78  | 66  | 24 | 2     | 4-23   | 200 | -   | 120 | -   | 13         | -   |
|       | 40         | 241    | 38  | 170 | 125 | 88  | 76  | 24 | 3     | 4-23   | 250 | -   | 125 | -   | 14         | -   |
|       | 50         | 292    | 49  | 180 | 135 | 102 | 88  | 26 | 3     | 4-23   | 300 | -   | 156 | -   | 25         | -   |
|       | 65         | 330    | 62  | 205 | 160 | 122 | 110 | 28 | 3     | 8-23   | 350 | -   | 172 | -   | 42         | -   |
|       | 80         | 356    | 74  | 215 | 170 | 138 | 121 | 30 | 3     | 8-23   | 500 | 305 | 220 | 390 | 56         | 76  |
| PN100 | 15         | 165    | 13  | 105 | 75  | 55  | 40  | 20 | 2     | 4-14   | 140 | -   | 79  | -   | 5          | -   |
|       | 20         | 190    | 19  | 125 | 90  | 68  | 51  | 22 | 2     | 4-18   | 140 | -   | 83  | -   | 7          | -   |
|       | 25         | 216    | 25  | 135 | 100 | 78  | 58  | 24 | 2     | 4-18   | 200 | -   | 114 | -   | 9          | -   |
|       | 32         | 229    | 32  | 150 | 110 | 82  | 66  | 26 | 2     | 4-22   | 200 | -   | 120 | -   | 13         | -   |
|       | 40         | 241    | 38  | 165 | 125 | 95  | 76  | 28 | 3     | 4-22   | 250 | -   | 125 | -   | 17         | -   |
|       | 50         | 292    | 49  | 195 | 145 | 112 | 88  | 26 | 3     | 4-22   | 300 | -   | 156 | -   | 25         | -   |
|       | 65         | 330    | 62  | 220 | 170 | 138 | 110 | 26 | 3     | 8-22   | 350 | -   | 172 | -   | 42         | -   |
|       | 80         | 356    | 74  | 230 | 180 | 148 | 121 | 28 | 3     | 8-22   | 500 | 305 | 220 | 390 | 56         | 76  |
| 100   | 432        | 100    | 265 | 210 | 172 | 150 | 30  | 3  | 8-26  | 650    | 305 | 250 | 440 | 85  | 123        |     |