

## RETAINING RINGS

**Material:** Spring steel

**Hardness:**  
45÷50 HRC 450÷520 HV

**SURFACE FINISHES**  
**Phosphated and oiled**  
**Blackened and oiled**  
Manufacturer's choice

**Example of designation:**  
ring type **SP 30**

**Outer edges sharp or rounded, to manufacturer's choice**



DIN 5417  
circlips for  
bearing type  
**SP** - for shafts



**d<sub>1</sub>**=shaft diameter  
**d<sub>2</sub>**=groove diameter  
**d<sub>3</sub>**=inner diameter in the unstressed state  
**s**=thickness

| d1     | Description | Price<br>euro /100 | % Price Change |   | Package |
|--------|-------------|--------------------|----------------|---|---------|
|        |             |                    | 1              | 2 |         |
| 100.00 | SP 100      | 160,00             | -              | - | 50      |

| RING           |        | GROOVE                     |       | SUPPLEMENTARY DATA                 |       |
|----------------|--------|----------------------------|-------|------------------------------------|-------|
| d1             | 100.00 | d2                         | 96.80 | FN (kN)                            | 82.5  |
| s              | 2.46   | tole d2                    | -0.50 | FR (kN)                            | 77.5  |
| tole s         | -0.1   | m                          | 2.70  | g                                  | 3.5   |
| d3             | 95.2   | Delta tole di m (solo x S) | 0.3   | FRg (kN)                           | 10.90 |
| tole d3        | 1.0    |                            |       | K (kN.mm)                          | 155.0 |
| e              | 5      |                            |       | n <sub>abl</sub> .x1000 (giri/min) | 2.000 |
| r              | 0.7    |                            |       |                                    |       |
| b ~            | 4.85   |                            |       |                                    |       |
| tole b         | -0.15  |                            |       |                                    |       |
| d4             | 106.5  |                            |       |                                    |       |
| weight kg/1000 | 29.200 |                            |       |                                    |       |

Technical informations are indicative and can be updated.

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