

## SMALLEY® SPIRAL RETAINING RINGS

SAE 1060-75 Carbon Steel

surface treatment:  
Oil dipped

Example of designation: FS-013



d1=shaft diameter  
d2=groove diameter  
d3=internal ring diameter  
S=thickness

Heavy duty series  
FS - for shafts  
for groove DIN  
471



| description | Price<br>Euro x100 | % Price Change |        | Package |
|-------------|--------------------|----------------|--------|---------|
| FS-019      | 88,00              | 1<br>+ 20%     | 2<br>- | 1000    |

| DESCRIPTION                  | GROOVE    | THRUST CAPACITY                                                                                                       |
|------------------------------|-----------|-----------------------------------------------------------------------------------------------------------------------|
| FS-019                       | d2        | ring shear<br>Newtons 18.941<br>(safety factor =3)                                                                    |
| d1 mm 19.00                  | mm 18.00  |                                                                                                                       |
|                              | Toll. d2  | groove yield<br>Newtons 4.702<br>(based on a groove material yield<br>strength of 310/mm and a safety factor<br>of 2) |
|                              | mm -0,110 |                                                                                                                       |
|                              | c         |                                                                                                                       |
|                              | mm 1.30   |                                                                                                                       |
|                              | Toll. c   |                                                                                                                       |
|                              | mm +0,140 |                                                                                                                       |
| RING IN THE UNSTRESSED STATE |           |                                                                                                                       |
| d3                           |           |                                                                                                                       |
| mm 17.81                     |           |                                                                                                                       |
| Toll. d3                     |           |                                                                                                                       |
| mm -0,33                     |           |                                                                                                                       |
| b                            |           |                                                                                                                       |
| mm 1.90                      |           |                                                                                                                       |
| Toll. b                      |           |                                                                                                                       |
| mm +/-0.10                   |           |                                                                                                                       |
| s                            |           |                                                                                                                       |
| mm 1.15                      |           |                                                                                                                       |
| Toll. s                      |           |                                                                                                                       |
| mm +/-0,05                   |           |                                                                                                                       |
| Weight Kg/1000               |           |                                                                                                                       |
| 0.96                         |           |                                                                                                                       |

Technical informations are indicative and can be updated.

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