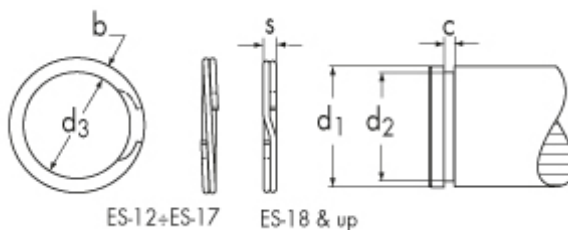


**SMALLEY® SPIRAL RETAINING RINGS**

**SAE 1070-90**  
**Carbon Steel**

surface treatment:  
**Oil dipped**

**Example of designation: ES-6**



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

Medium duty  
series  
**ES - for shafts**



| description  | Price<br>Euro x100 | % Price Change |   | Package |
|--------------|--------------------|----------------|---|---------|
|              |                    | 1              | 2 |         |
| <b>ES-30</b> | <b>57,00</b>       | + 20%          | - | 500     |

| DESCRIPTION                         | GROOVE          | THRUST CAPACITY                                                                                                      |
|-------------------------------------|-----------------|----------------------------------------------------------------------------------------------------------------------|
| ES-30                               | <b>d2</b>       | <b>ring shear</b> Newtons 34.640<br>(safety factor =3)                                                               |
| <b>d1 mm</b> 30.00                  | mm 28.25        |                                                                                                                      |
|                                     | <b>Toll. d2</b> | <b>groove yield</b> Newtons 12.860<br>(based on a groove material yield strength of 310/mm and a safety factor of 2) |
|                                     | mm +/-0,100     |                                                                                                                      |
| <b>RING IN THE UNSTRESSED STATE</b> | <b>c</b>        |                                                                                                                      |
| <b>d3</b>                           | mm 1.40         |                                                                                                                      |
| mm 27.92                            | <b>Toll. c</b>  |                                                                                                                      |
| <b>Toll. d3</b>                     | mm +/-0,100     |                                                                                                                      |
| mm -0,33                            |                 |                                                                                                                      |
| <b>b</b>                            |                 |                                                                                                                      |
| mm 2.64                             |                 |                                                                                                                      |
| <b>Toll. b</b>                      |                 |                                                                                                                      |
| mm +.05/-0,15                       |                 |                                                                                                                      |
| <b>s</b>                            |                 |                                                                                                                      |
| mm 1.27                             |                 |                                                                                                                      |
| <b>Toll. s</b>                      |                 |                                                                                                                      |
| mm +/-0,05                          |                 |                                                                                                                      |
| <b>Weight Kg/1000</b>               |                 |                                                                                                                      |
| 2.39                                |                 |                                                                                                                      |

Technical informations are indicative and can be updated.

Copyright Gandini Fasteners S.r.l. All rights reserved. No part of this web site may be reproduced in any form without express permission.

**GANDINI FASTENERS SRL** viale Pier Paolo Pasolini, 83 - 20099 Sesto S.Giovanni Milano Italy  
Tel. +39 02 241 047 250 Fax +39 02 241 047 74

Production and distribution  
of fasteners, fixing elements  
and mechanical parts  
machining

**GANDINI FASTENERS SRL**  
viale Pier Paolo Pasolini, 83  
Sesto San Giovanni Mi - Italy

**Sales department**  
250@gandini.it  
tel +39 02 241 047 250

**Administration**  
350@gandini.it  
tel +39 02 241 047 350