

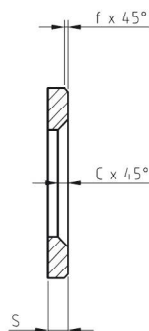
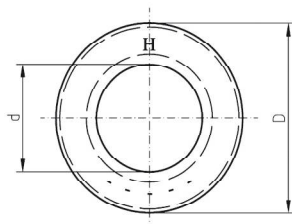
# RONDELLE PER BULLONERIA A SERRAGGIO CONTROLLATO



PLAIN WASHERS, CHAMFERED, HARDENED AND TEMPERED  
FOR HIGH-STRENGTH STRUCTURAL BOLTING

EN 14399-6

Materiale: Acciaio C45  
Durezza: HV 300-370  
Tolleranze e condizioni tecniche:  
EN 14399-6  
Finitura superficiale: Ossidate nere  
e zincate a caldo  
Siglatura: H - produttore dell'assieme  
NOTA: La siglatura viene effettuata  
sulla parte non bisellata  
NOTA: Sostituisce UNI 5714/DIN 6916



EN 14399-6

Material: Steel Ck45  
Hardness: HV 300-370  
Tolerances and technical conditions:  
EN 14399-6  
Surface finish: Black oxide  
and hot dip galvanized  
Marking: H - manufacturer of assembly  
NOTE: The marking is indented  
on the non chamfered side  
NOTE: Replace UNI 5714/DIN 6916

Misure in mm - Dimensions in mm

| Per Viti<br>For thread | d    | D   | s  | c   | f    | Peso/Mass<br>Kg/1000 | Grezzo<br>Plain | Zinc. fuoco<br>Hot dip<br>galvanized | Zincata<br>Zinplated |
|------------------------|------|-----|----|-----|------|----------------------|-----------------|--------------------------------------|----------------------|
| <b>M 12</b>            | 13   | 24  | 3  | 1,6 | 0,5  | 7,00                 |                 |                                      |                      |
| <b>M 14</b>            | 15   | 28  | 3  | 1,6 | 0,5  | 10,00                |                 |                                      |                      |
| <b>M 16</b>            | 17   | 30  | 4  | 1,6 | 0,75 | 14,60                |                 |                                      |                      |
| <b>M 18</b>            | 19   | 34  | 4  | 2   | 0,75 | 18,90                |                 |                                      |                      |
| <b>M 20</b>            | 21   | 37  | 4  | 2   | 0,75 | 19,60                |                 |                                      |                      |
| <b>M 22</b>            | 23   | 39  | 4  | 2   | 0,75 | 24,30                |                 |                                      |                      |
| <b>M 24</b>            | 25   | 44  | 4  | 2   | 0,75 | 30,60                |                 |                                      |                      |
| <b>M 27</b>            | 28   | 50  | 5  | 2,5 | 1    | 50,20                |                 |                                      |                      |
| <b>M 30</b>            | 31   | 56  | 5  | 2,5 | 1    | 63,00                |                 |                                      |                      |
| <b>M 33</b>            | 34   | 60  | 5  | 2,5 | 1    | 73,00                |                 |                                      |                      |
| <b>M 36</b>            | 37   | 66  | 6  | 2,5 | 1,25 | 115,00               |                 |                                      |                      |
| <b>M 39</b>            | 40,4 | 72  | 6  | 3   | 1,25 | 132,00               |                 |                                      |                      |
| <b>M 42</b>            | 43,4 | 78  | 8  | 3   | 1,5  | 203,00               |                 |                                      |                      |
| <b>M 45</b>            | 46,4 | 85  | 8  | 3   | 1,5  | 246,00               |                 |                                      |                      |
| <b>M 48</b>            | 50   | 92  | 8  | 3   | 1,5  | 290,00               |                 |                                      |                      |
| <b>M 56</b>            | 58   | 105 | 10 | 4   | 2    | 469,00               |                 |                                      |                      |

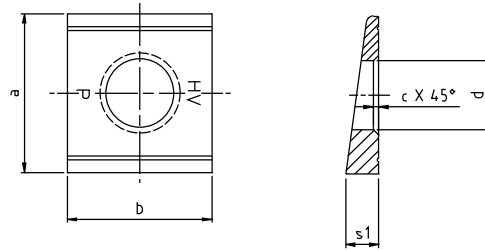
# PIASTRINE PER BULLONI AD ALTA RESISTENZA PER ALI DI PROFILATI UPN



SQUARE TAPER WASHERS FOR HIGH-STRENGTH STRUCTURAL BOLTING OF STEEL CHANNEL SECTIONS

## UNI 5716

Materiale: Acciaio C45  
 Durezza: HV 300-370  
 Tolleranze e condizioni tecniche:  
 UNI 5716 e UNI 6602 A  
 Finitura superficiale: Ossidate nere  
 Siglatura: HV - P



▽ 8 %

## DIN 6918

Material: Steel Ck45  
 Hardness: HV 300-370  
 Tolerances and technical conditions:  
 DIN 6918 and ISO 4759/3 A  
 Surface finish: Black oxide  
 Marking: HV - P

Misure in mm - Dimensions in mm

| Per Viti<br>For thread | d  | a  | b  | c   | s1  | Peso/Mass<br>Kg/1000 | Grezzo<br>Plain | Zinc. fuoco<br>Hot dip<br>galvanized | Zincata<br>Zinplated |
|------------------------|----|----|----|-----|-----|----------------------|-----------------|--------------------------------------|----------------------|
| <b>M 12</b>            | 13 | 30 | 26 | 1,6 | 4,9 | 18,30                |                 |                                      |                      |
| <b>M 14</b>            | 15 | 36 | 32 | 1,6 | 5,9 | 33,60                |                 |                                      |                      |
| <b>M 16</b>            | 17 | 36 | 32 | 1,6 | 5,9 | 31,70                |                 |                                      |                      |
| <b>M 18</b>            | 19 | 44 | 40 | 1,6 | 7   | 60,20                |                 |                                      |                      |
| <b>M 20</b>            | 21 | 44 | 40 | 2   | 7   | 57,10                |                 |                                      |                      |
| <b>M 22</b>            | 23 | 50 | 44 | 2   | 8   | 82,80                |                 |                                      |                      |
| <b>M 24</b>            | 25 | 56 | 56 | 2   | 8,5 | 129,00               |                 |                                      |                      |
| <b>M 27</b>            | 28 | 56 | 56 | 2,5 | 8,5 | 122,00               |                 |                                      |                      |
| <b>M 30</b>            | 31 | 62 | 62 | 2,5 | 9   | 156,00               |                 |                                      |                      |

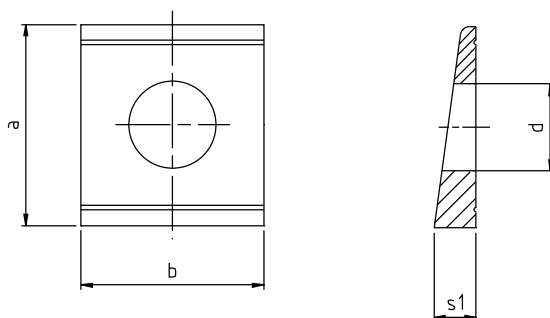
# PIASTRINE DI USO CORRENTE PER ALI DI PROFILATI UPN



SQUARE TAPER WASHERS FOR USE WITH CHANNEL SECTIONS

## UNI 6598

Materiale: Acciaio  
 Durezza: 100 - 250 HV  
 Tolleranze e condizioni tecniche:  
 UNI 6598 e UNI 6602 A  
 Finitura superficiale: Grezza



## DIN 434

Material: Steel  
 Hardness: 100 - 250 HV  
 Tolerances and technical conditions:  
 DIN 434  
 Surface finish: Plain

Misure in mm - Dimensions in mm

▽ 8 %

| Per Viti<br>For thread | d    | a  | b  | s1  | Peso/Mass<br>Kg/1000 | Grezzo<br>Plain | Zinc. fuoco<br>Hot dip<br>galvanized | Zincata<br>Zinplated |
|------------------------|------|----|----|-----|----------------------|-----------------|--------------------------------------|----------------------|
| <b>M 8</b>             | 9    | 22 | 22 | 3,8 | 9,57                 |                 |                                      |                      |
| <b>M 10</b>            | 11   | 22 | 22 | 3,8 | 8,85                 |                 |                                      |                      |
| <b>M 12</b>            | 13,5 | 30 | 26 | 4,9 | 18,40                |                 |                                      |                      |
| <b>M 14</b>            | 15,5 | 36 | 32 | 5,9 | 33,60                |                 |                                      |                      |
| <b>M 16</b>            | 17,5 | 36 | 32 | 5,9 | 31,80                |                 |                                      |                      |
| <b>M 18</b>            | 20   | 44 | 40 | 7   | 59,30                |                 |                                      |                      |
| <b>M 20</b>            | 22   | 44 | 40 | 7   | 56,90                |                 |                                      |                      |
| <b>M 22</b>            | 24   | 50 | 44 | 8   | 82,30                |                 |                                      |                      |
| <b>M 24</b>            | 26   | 56 | 56 | 8,5 | 128,00               |                 |                                      |                      |
| <b>M 27</b>            | 30   | 56 | 56 | 8,5 | 119,00               |                 |                                      |                      |
| <b>M 30</b>            | 33   | 62 | 62 | 9   | 153,00               |                 |                                      |                      |

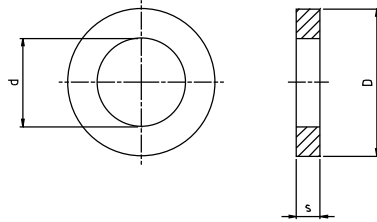
# RONDELLE PIANE PER CARPENTERIA LEGGERA

PLAIN WASHERS FOR STEEL CONSTRUCTIONS



DIN 7989/1

Material: Acciaio  
 Durezza: 100 - 250 HV  
 Tolleranze e condizioni tecniche:  
 DIN 7989/1 e UNI 6602 C  
 Finitura superficiale: Grezza



DIN 7989/1

Material: Steel  
 Hardness: 100 - 250 HV  
 Tolerances and technical conditions:  
 DIN 7989/1 and ISO 4759/3 C  
 Surface finish: Plain

Misure in mm - Dimensions in mm

| Per Viti<br>For thread | d    | D  | s | Peso/Mass<br>Kg/1000 | Grezzo<br>Plain | Zinc. fuoco<br>Hot dip<br>galvanized |
|------------------------|------|----|---|----------------------|-----------------|--------------------------------------|
| <b>M 12</b>            | 13,5 | 24 | 8 | 19,40                |                 |                                      |
| <b>M 14</b>            | 15,5 | 28 | 8 | 26,80                |                 |                                      |
| <b>M 16</b>            | 17,5 | 30 | 8 | 29,30                |                 |                                      |
| <b>M 18</b>            | 20   | 34 | 8 | 37,30                |                 |                                      |
| <b>M 20</b>            | 22   | 37 | 8 | 43,70                |                 |                                      |
| <b>M 22</b>            | 24   | 39 | 8 | 46,20                |                 |                                      |
| <b>M 24</b>            | 26   | 44 | 8 | 62,10                |                 |                                      |
| <b>M 27</b>            | 30   | 50 | 8 | 78,90                |                 |                                      |
| <b>M 30</b>            | 33   | 56 | 8 | 101,00               |                 |                                      |

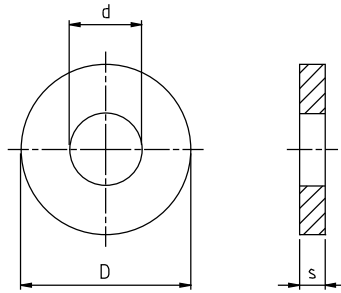
# RONDELLE PER DISPOSITIVI DI SERRAGGIO PESANTI



PLAIN WASHERS FOR BOLTS WITH HEAVY CLAMPING SLEEVES

## DIN 7349 - HV 100

Materiale: Acciaio  
 Durezza: 100 - 200 HV  
 Tolleranze e condizioni tecniche:  
 DIN 7349 e UNI 6602 A  
 Finitura superficiale: Grezza



## DIN 7349 - HV 100

Material: Steel  
 Hardness: 100 - 200 HV  
 Tolerances and technical conditions:  
 DIN 7349 and ISO 4759/3 A  
 Surface finish: Plain

Misure in mm - Dimensions in mm

| Per Viti<br>For thread | d    | D  | s   | Peso/Mass<br>Kg/1000 |
|------------------------|------|----|-----|----------------------|
| <b>M 3</b>             | 3,2  | 9  | 1   | 0,44                 |
| <b>M 4</b>             | 4,3  | 12 | 1,6 | 1,24                 |
| <b>M 5</b>             | 5,3  | 15 | 2   | 2,43                 |
| <b>M 6</b>             | 6,4  | 17 | 3   | 4,59                 |
| <b>M 8</b>             | 8,4  | 21 | 4   | 9,15                 |
| <b>M 10</b>            | 10,5 | 25 | 4   | 12,70                |
| <b>M 12</b>            | 13   | 30 | 6   | 27,10                |
| <b>M 14</b>            | 15   | 36 | 6   | 39,60                |
| <b>M 16</b>            | 17   | 40 | 6   | 48,50                |
| <b>M 18</b>            | 19   | 44 | 8   | 77,40                |
| <b>M 20</b>            | 21   | 44 | 8   | 73,40                |
| <b>M 22</b>            | 23   | 50 | 8   | 97,10                |
| <b>M 24</b>            | 25   | 50 | 10  | 116,00               |
| <b>M 27</b>            | 28   | 60 | 10  | 174,00               |
| <b>M 30</b>            | 31   | 68 | 10  | 226,00               |

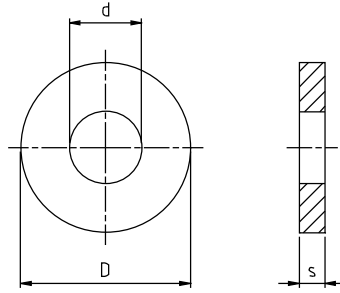
# RONDELLE PER DISPOSITIVI DI SERRAGGIO PESANTI



PLAIN WASHERS FOR BOLTS WITH HEAVY CLAMPING SLEEVES

DIN 7349 - HV 300

Material: Acciaio  
Durezza: 300-370 HV  
Tolleranze e condizioni tecniche:  
DIN 7349 e UNI 6602 A  
Finitura superficiale: Ossidate nere



DIN 7349 - HV 300

Material: Steel  
Hardness: 300-370 HV  
Tolerances and technical conditions:  
DIN 7349 and ISO 4759/3 A  
Surface finish: Black oxide

Misure in mm - Dimensions in mm

| Per Viti<br>For thread | d    | D  | s   | Peso/Mass<br>Kg/1000 |
|------------------------|------|----|-----|----------------------|
| <b>M 3</b>             | 3,2  | 9  | 1   | 0,44                 |
| <b>M 4</b>             | 4,3  | 12 | 1,6 | 1,24                 |
| <b>M 5</b>             | 5,3  | 15 | 2   | 2,43                 |
| <b>M 6</b>             | 6,4  | 17 | 3   | 4,59                 |
| <b>M 8</b>             | 8,4  | 21 | 4   | 9,15                 |
| <b>M 10</b>            | 10,5 | 25 | 4   | 12,70                |
| <b>M 12</b>            | 13   | 30 | 6   | 27,10                |
| <b>M 14</b>            | 15   | 36 | 6   | 39,60                |
| <b>M 16</b>            | 17   | 40 | 6   | 48,50                |
| <b>M 18</b>            | 19   | 44 | 8   | 77,40                |
| <b>M 20</b>            | 21   | 44 | 8   | 73,40                |
| <b>M 22</b>            | 23   | 50 | 8   | 97,10                |
| <b>M 24</b>            | 25   | 50 | 10  | 116,00               |
| <b>M 27</b>            | 28   | 60 | 10  | 174,00               |
| <b>M 30</b>            | 31   | 68 | 10  | 226,00               |

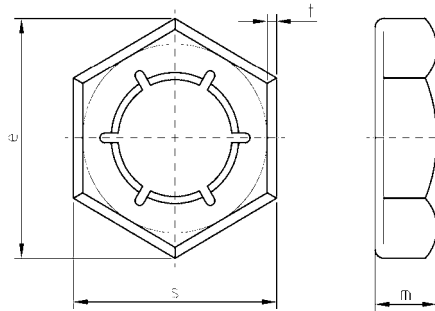
# CONTRODADI DI SICUREZZA PER FILETTATURA METRICA



SELF LOCKING COUNTER NUTS FOR METRIC THREAD

## UNI 8835 - Serie 1

Material: Acciaio C60 / C67  
Durezza: HV 350 - 425  
Tolleranze e condizioni tecniche:  
UNI 8835 - UNI 6602  
Finitura superficiale:  
Grezzo zincata  
e Zincata a Fuoco



## DIN 7967 - Series 1

Material: Steel C60 / C67  
Hardness: HV 350 - 425  
Tolerances and technical conditions:  
DIN 7967  
Surface finish: Plain, Zinc plated  
and Hot dip Galvanized

Misure in mm - Dimensions in mm

| Per Viti<br>For thread | s  | t   | e    | m   | Grezzo<br>Plain | Zincato<br>Zincplated | Zinc. a Fuoco<br>Hot Dip. Galv. |
|------------------------|----|-----|------|-----|-----------------|-----------------------|---------------------------------|
| <b>M 8</b>             | 13 | 0,5 | 15   | 3,5 |                 |                       |                                 |
| <b>M 10</b>            | 17 | 0,5 | 19,6 | 4   |                 |                       |                                 |
| <b>M 12</b>            | 19 | 0,6 | 21,9 | 4,5 |                 |                       |                                 |
| <b>M 14</b>            | 22 | 0,6 | 25,4 | 5   |                 |                       |                                 |
| <b>M 16</b>            | 24 | 0,7 | 27,7 | 5   |                 |                       |                                 |
| <b>M 18</b>            | 27 | 0,7 | 31,2 | 5,5 |                 |                       |                                 |
| <b>M 20</b>            | 30 | 0,8 | 34,6 | 6   |                 |                       |                                 |
| <b>M 22</b>            | 32 | 0,8 | 36,9 | 6   |                 |                       |                                 |
| <b>M 24</b>            | 36 | 0,9 | 41,6 | 7   |                 |                       |                                 |
| <b>M 27</b>            | 41 | 1,0 | 47,3 | 7   |                 |                       |                                 |
| <b>M 30</b>            | 46 | 1,1 | 53,1 | 8   |                 |                       |                                 |
| <b>M 33</b>            | 50 | 1,2 | 57,7 | 8   |                 |                       |                                 |
| <b>M 36</b>            | 55 | 1,3 | 63,5 | 9   |                 |                       |                                 |
| <b>M 39</b>            | 60 | 1,3 | 69,3 | 9   |                 |                       |                                 |