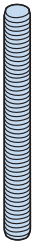


# HALFEN MONTAGETECHNIK

## Gewindestangen, Sechskantschrauben, Verbindungsmuffen, Ringmuttern

### GWS

Gewindestangen  
DIN 976-1

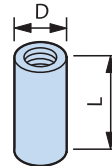


| GV                                  | A4                      | Länge | F <sub>Rd</sub> | zul. F |
|-------------------------------------|-------------------------|-------|-----------------|--------|
| galv. verzinkt<br>FK 4.6<br>Gewinde | Edelstahl A4<br>Gewinde | [mm]  | Ⓛ [kN]          | [kN]   |
| M6                                  | M6                      | 1000  | 3,1             | 2,2    |
| M8                                  | M8                      | 1000  | 5,6             | 4,0    |
| M10                                 | M10                     | 1000  | 9,0             | 6,4    |
| M12                                 | M12                     | 1000  | 13,0            | 9,3    |
| M16                                 | M16                     | 1000  | 24,2            | 17,3   |
| M20                                 | M20                     | 1000  | 37,8            | 27,0   |
| M24                                 | -                       | 1000  | 54,3            | 38,8   |

Bestellbeispiel: GWS - M12 × 1000 - GV

### VBM

Verbindungs-  
muffen, rund

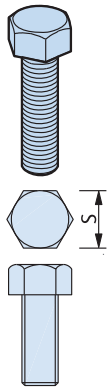


| GV                        | A4                      | D     | L    | F <sub>Rd</sub> | zul. F |
|---------------------------|-------------------------|-------|------|-----------------|--------|
| galv. verzinkt<br>Gewinde | Edelstahl A4<br>Gewinde | [mm]  | [mm] | Ⓛ [kN]          | [kN]   |
| M6                        | M6                      | 10/10 | 15   | 3,1             | 2,2    |
| M8                        | M8                      | 12/14 | 20   | 5,6             | 4,0    |
| M10                       | M10                     | 13/16 | 25   | 9,0             | 6,4    |
| M12                       | M12                     | 16/20 | 30   | 13,0            | 9,3    |
| M16                       | M16                     | 21/25 | 40   | 24,2            | 17,3   |
| M20                       | M20                     | 26/32 | 50   | 37,8            | 27,0   |

Bestellbeispiel: VBM - A4 - M16

### HSK

Sechskant-  
schrauben  
DIN EN ISO 4017/  
DIN 933  
(ohne Mutter)

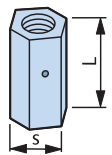


Sechskantschrauben  
werden in Kombi-  
nation mit HALFEN  
Gewindeplatten  
verwendet

| GV 8.8                                 | A4                        | S        | S           |
|--|---------------------------|----------|-------------|
| galv. verzinkt,<br>FK 8.8<br>Abmessung | Edelstahl A4<br>Abmessung | DIN [mm] | EN ISO [mm] |
| M 6 x 12                               |                           | 10       | 10          |
| M 6 x 25                               |                           |          |             |
| M 8 x 25                               | M 8 x 25                  | 13       | 13          |
| M 8 x 40                               |                           |          |             |
| M 10 x 20                              |                           |          |             |
| M 10 x 30                              | M 10 x 30                 |          |             |
| M 10 x 45                              | M 10 x 45                 | 17       | 16          |
| M 10 x 60                              |                           |          |             |
| M 10 x 70                              |                           |          |             |
| M 12 x 22                              |                           |          |             |
| M 12 x 25                              | M 12 x 25                 |          |             |
| M 12 x 30                              | M 12 x 30                 |          |             |
| M 12 x 40                              | M 12 x 40                 | 19       | 18          |
| M 12 x 50                              |                           |          |             |
| M 12 x 60                              | M 12 x 60                 |          |             |
| M 12 x 80                              | M 12 x 80                 |          |             |
| M 12 x 90                              |                           |          |             |
| M 16 x 40                              | M 16 x 40                 |          |             |
| M 16 x 60                              | M 16 x 60                 | 24       | 24          |
| M 16 x 90                              | M 16 x 90                 |          |             |

### SKM

Sechskant - Ver-  
bindungs-  
muffen mit Sichtloch

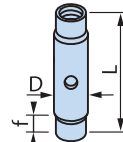


| FV                    | A4                      | S    | L    | F <sub>Rd</sub> | zul. F |
|-----------------------|-------------------------|------|------|-----------------|--------|
| feuerverz.<br>Gewinde | Edelstahl A4<br>Gewinde | [mm] | [mm] | Ⓛ [kN]          | [kN]   |
| M10                   | M10                     | 13   | 40   | 9,0             | 6,4    |
| M12                   | M12                     | 17   | 40   | 13,0            | 9,3    |
| M16                   | M16                     | 22   | 50   | 24,2            | 17,3   |

Bestellbeispiel: SKM - FV - M12

### SPH

Spannhülsen  
mit Rechts-/  
Links-  
gewinde



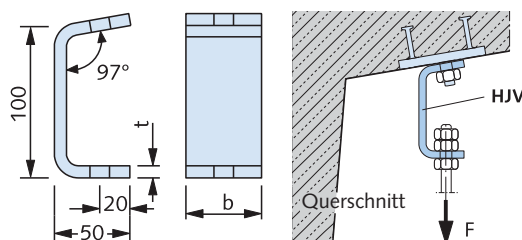
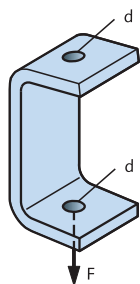
f = min. Einschraubtiefe  
M12 ≅ 10mm  
M16 ≅ 13 mm

| A4  | A4  | D                  | D                  |
|---|---|--------------------|--------------------|
| Edelstahl A4<br>Gewinde M12<br>× Länge L [mm] | Edelstahl A4<br>Gewinde M16<br>× Länge L [mm] | für<br>M12<br>[mm] | für<br>M16<br>[mm] |
| M 12 × 60                                     | M 16 × 60                                     | 16                 | 22                 |
| M 12 × 75                                     | M 16 × 75                                     | 16                 | 22                 |
| M 12 × 95                                     | M 16 × 95                                     | 16                 | 22                 |
| M 12 × 115                                    | M 16 × 115                                    | 16                 | 22                 |
| M 12 × 135                                    | M 16 × 135                                    | 16                 | 22                 |
| zul. F = 5 kN<br>F <sub>Rd</sub> = 7 kN       | zul. F = 10 kN<br>F <sub>Rd</sub> = 14 kN     |                    |                    |

Bestellbeispiel: SPH - A4 - M12 x 75

### HJV

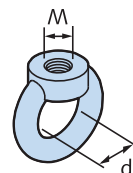
Justierver-  
binder



| FV                | A4                | t    | b    | d    | max. F <sub>Ed</sub> | zul. F |
|-------------------|-------------------|------|------|------|----------------------|--------|
| feuerverz.<br>Typ | Edelst. A4<br>Typ | [mm] | [mm] | [mm] | Ⓛ [kN]               | [kN]   |
| 1                 | 1                 | 6    | 40   | 13   | 2,1                  | 1,5    |
| 2                 | 2                 | 8    | 50   | 17   | 4,6                  | 3,3    |
| 3                 | 3                 | 10   | 50   | 17   | 7,0                  | 5      |

### RM

Ringmutter  
DIN 582  
Ausgabe 2003-8



| GV                            | d    | F <sub>Rd</sub> | zul. F |
|-------------------------------|------|-----------------|--------|
| C 15E, galv. verz.<br>Gewinde | [mm] | Ⓛ [kN]          | [kN]   |
| M8                            | 20   | 2,0             | 1,4    |
| M10                           | 25   | 3,2             | 2,3    |
| M12                           | 30   | 4,8             | 3,4    |
| M16                           | 35   | 9,8             | 7,0    |
| M20                           | 40   | 16,8            | 12,0   |

Bestellbeispiel: RM - GV - M12

- ① Empfohlener Bemessungswert der Beanspruchbarkeit bei zentrischem Zug
- ② Empfohlener Bemessungswert der Einwirkung