

Kugeldruckschraube

mit Kopf

Halder

Werkstoff

siehe unten

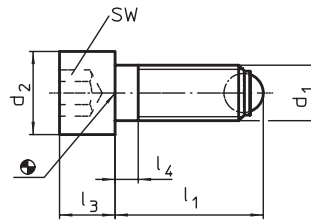


Bild 1

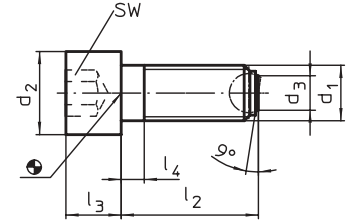


Bild 2

volle Kugel siehe Bild 1

| Stahl 12.9 | Nirosta | | | | | | | | Kugel | | Belastbarkeit bei stat. | ⊕ |
|-------------|-------------|------|-------|----|----|------|----|------|-------|----|-------------------------|-----|
| Bestell-Nr. | Bestell-Nr. | d1 | l1 | l2 | d2 | d3 | l3 | l4 | ø | SW | Belastung kN max. | g |
| T 32633 | T 34147 | M 6 | 20.8 | - | 10 | 3.2 | 6 | 3.0 | 4.0 | 5 | 9 | 6 |
| T 32634 | T 34148 | M 6 | 30.8 | - | 10 | 3.2 | 6 | 3.0 | 4.0 | 5 | 9 | 8 |
| T 32637 | T 34149 | M 6 | 40.8 | - | 10 | 3.2 | 6 | 16.0 | 4.0 | 5 | 9 | 10 |
| T 32639 | T 34150 | M 8 | 21.2 | - | 13 | 4.5 | 8 | 3.5 | 5.5 | 6 | 15 | 13 |
| T 32644 | T 34151 | M 8 | 36.2 | - | 13 | 4.5 | 8 | 3.5 | 5.5 | 6 | 15 | 17 |
| T 32653 | T 34152 | M 8 | 51.2 | - | 13 | 4.5 | 8 | 22.0 | 5.5 | 6 | 15 | 23 |
| T 32663 | T 34153 | M 10 | 26.7 | - | 16 | 6.0 | 10 | 4.5 | 7.0 | 8 | 20 | 25 |
| T 32669 | T 34154 | M 10 | 41.7 | - | 16 | 6.0 | 10 | 4.5 | 7.0 | 8 | 20 | 32 |
| T 32680 | T 34155 | M 10 | 61.7 | - | 16 | 6.0 | 10 | 28.0 | 7.0 | 8 | 20 | 45 |
| T 32682 | T 34156 | M 12 | 32.0 | - | 18 | 7.2 | 12 | 5.0 | 8.5 | 10 | 30 | 39 |
| T 32685 | T 34157 | M 12 | 52.0 | - | 18 | 7.2 | 12 | 5.0 | 8.5 | 10 | 30 | 54 |
| T 32687 | T 34158 | M 12 | 82.0 | - | 18 | 7.2 | 12 | 44.0 | 8.5 | 10 | 30 | 81 |
| T 32699 | T 34159 | M 16 | 43.3 | - | 24 | 10.7 | 16 | 6.0 | 12.0 | 14 | 60 | 96 |
| T 32700 | T 34160 | M 16 | 63.3 | - | 24 | 10.7 | 16 | 6.0 | 12.0 | 14 | 60 | 123 |
| T 32701 | T 34161 | M 16 | 83.3 | - | 24 | 10.7 | 16 | 36.0 | 12.0 | 14 | 60 | 156 |
| T 68957 | - | M 20 | 54.2 | - | 30 | 13.5 | 20 | 7.5 | 15.0 | 17 | 90 | 184 |
| T 68956 | - | M 20 | 84.2 | - | 30 | 13.5 | 20 | 28.0 | 15.0 | 17 | 90 | 251 |
| T 68958 | - | M 20 | 104.2 | - | 30 | 13.5 | 20 | 48.0 | 15.0 | 17 | 90 | 299 |
| T 68959 | - | M 24 | 64.7 | - | 36 | 15.8 | 24 | 9.0 | 18.0 | 19 | 120 | 326 |
| T 68960 | - | M 24 | 94.7 | - | 36 | 15.8 | 24 | 30.0 | 18.0 | 19 | 120 | 422 |
| T 60484 | - | M 24 | 124.7 | - | 36 | 15.8 | 24 | 60.0 | 18.0 | 19 | 120 | 529 |

abgeflachte Kugel, Auflagefläche plan siehe Bild 2

| | | | | | | | | | | | | |
|---------|---------|------|---|-------|----|------|----|------|------|----|-----|-----|
| T 32702 | T 63873 | M 6 | - | 20.0 | 10 | 3.2 | 6 | 3.0 | 4.0 | 5 | 9 | 6 |
| T 32703 | T 63874 | M 6 | - | 30.0 | 10 | 3.2 | 6 | 3.0 | 4.0 | 5 | 9 | 8 |
| T 32704 | T 63875 | M 6 | - | 40.0 | 10 | 3.2 | 6 | 16.0 | 4.0 | 5 | 9 | 10 |
| T 32705 | T 68966 | M 8 | - | 20.0 | 13 | 4.5 | 8 | 3.5 | 5.5 | 6 | 15 | 13 |
| T 32706 | T 68967 | M 8 | - | 35.0 | 13 | 4.5 | 8 | 3.5 | 5.5 | 6 | 15 | 17 |
| T 32707 | T 68968 | M 8 | - | 50.0 | 13 | 4.5 | 8 | 22.0 | 5.5 | 6 | 15 | 23 |
| T 32708 | T 68969 | M 10 | - | 25.0 | 16 | 6.0 | 10 | 4.5 | 7.0 | 8 | 20 | 25 |
| T 32709 | T 68970 | M 10 | - | 40.0 | 16 | 6.0 | 10 | 4.5 | 7.0 | 8 | 20 | 32 |
| T 32710 | T 68971 | M 10 | - | 60.0 | 16 | 6.0 | 10 | 28.0 | 7.0 | 8 | 20 | 45 |
| T 32711 | T 68972 | M 12 | - | 30.0 | 18 | 7.2 | 12 | 5.0 | 8.5 | 10 | 30 | 39 |
| T 32712 | T 68973 | M 12 | - | 50.0 | 18 | 7.2 | 12 | 5.0 | 8.5 | 10 | 30 | 54 |
| T 32713 | T 68974 | M 12 | - | 80.0 | 18 | 7.2 | 12 | 44.0 | 8.5 | 10 | 30 | 81 |
| T 32714 | T 68976 | M 16 | - | 40.0 | 24 | 10.7 | 16 | 6.0 | 12.0 | 14 | 60 | 96 |
| T 32715 | T 68977 | M 16 | - | 60.0 | 24 | 10.7 | 16 | 6.0 | 12.0 | 14 | 60 | 123 |
| T 32716 | T 68978 | M 16 | - | 80.0 | 24 | 10.7 | 16 | 36.0 | 12.0 | 14 | 60 | 156 |
| T 68961 | - | M 20 | - | 50.0 | 30 | 13.5 | 20 | 7.5 | 15.0 | 17 | 90 | 184 |
| T 45047 | - | M 20 | - | 80.0 | 30 | 13.5 | 20 | 28.0 | 15.0 | 17 | 90 | 251 |
| T 68962 | - | M 20 | - | 100.0 | 30 | 13.5 | 20 | 48.0 | 15.0 | 17 | 90 | 299 |
| T 68963 | - | M 24 | - | 60.0 | 36 | 15.8 | 24 | 9.0 | 18.0 | 19 | 120 | 326 |
| T 68964 | - | M 24 | - | 90.0 | 36 | 15.8 | 24 | 30.0 | 18.0 | 19 | 120 | 422 |
| T 68965 | - | M 24 | - | 120.0 | 36 | 15.8 | 24 | 60.0 | 18.0 | 19 | 120 | 529 |

Bemaßungen, wenn nicht anders angegeben in Millimeter (mm).

Kugeldruckschraube

mit Kopf

Halder

Werkstoff

siehe unten

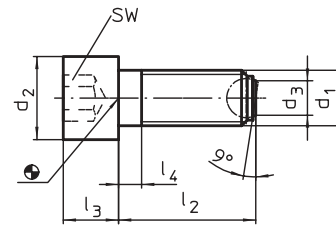


Bild 3

abgeflachte Kugel, Auflagefläche geriffelt siehe Bild 3

| Stahl 12.9 | | | | | | | Kugel | | Belastbarkeit bei stat. | ⚖ |
|-------------|------|------|----|------|----|------|-------|----|-------------------------|-----|
| Bestell-Nr. | d1 | l2 | d2 | d3 | l3 | l4 | ø | SW | Belastung kN max. | g |
| T 34138 | M 10 | 25.0 | 16 | 6.0 | 10 | 4.5 | 7.0 | 8 | 20 | 24 |
| T 34139 | M 10 | 40.0 | 16 | 6.0 | 10 | 4.5 | 7.0 | 8 | 20 | 31 |
| T 34140 | M 10 | 60.0 | 16 | 6.0 | 10 | 28.0 | 7.0 | 8 | 20 | 44 |
| T 34141 | M 12 | 30.0 | 18 | 7.2 | 12 | 5.0 | 8.5 | 10 | 30 | 38 |
| T 34142 | M 12 | 50.0 | 18 | 7.2 | 12 | 5.0 | 8.5 | 10 | 30 | 53 |
| T 34143 | M 12 | 80.0 | 18 | 7.2 | 12 | 44.0 | 8.5 | 10 | 30 | 80 |
| T 34144 | M 16 | 40.0 | 24 | 10.7 | 16 | 6.0 | 12.0 | 14 | 60 | 91 |
| T 34145 | M 16 | 60.0 | 24 | 10.7 | 16 | 6.0 | 12.0 | 14 | 60 | 117 |
| T 34146 | M 16 | 80.0 | 24 | 10.7 | 16 | 36.0 | 12.0 | 14 | 60 | 149 |

Bemaßungen, wenn nicht anders angegeben in Millimeter (mm).

Werkstoff:

Schraube: Güte 12.9 brüniert
Nirosta 1.4305

Kugel: Kugellagerstahl gehärtet
Nirosta gehärtet

Hinweis:

Zum Klemmen, Spannen oder Stützen von nicht parallelen Flächen.
Kugel gegen Verdrehen gesichert siehe Seite 100.

Sonderausführung auf Anfrage.

Gewindesicherung auf Anfrage, siehe Anhang - Technische Daten.

Kugeldruckschraube

ohne Kopf

Halder

Werkstoff

siehe unten

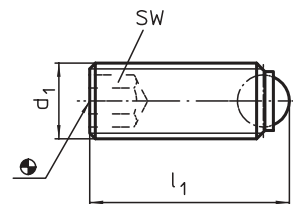


Bild 1

volle Kugel siehe Bild 1

| Stahl 12.9 | Nirosta | d1 | l1 | l2 | d3 | Kugel ø | SW | Belastbarkeit bei stat. Belastung kN max. | g |
|-------------|-------------|------|------|----|----|------------|------|--|-------|
| Bestell-Nr. | Bestell-Nr. | | | | | | | | |
| T 34162 | T 69002 | M 4 | 6.0 | - | - | 2.5 | 2.0 | - | 0.4 |
| T 68979 | T 69003 | M 4 | 8.0 | - | - | 2.5 | 2.0 | - | 0.6 |
| T 34163 | T 69004 | M 4 | 10.0 | - | - | 2.5 | 2.0 | - | 0.7 |
| T 68981 | T 69005 | M 4 | 12.0 | - | - | 2.5 | 2.0 | - | 0.8 |
| T 34164 | T 69006 | M 4 | 16.0 | - | - | 2.5 | 2.0 | - | 1.1 |
| T 32909 | T 32779 | M 5 | 8.0 | - | - | 3.0 | 2.5 | - | 0.8 |
| T 68982 | T 69007 | M 5 | 10.0 | - | - | 3.0 | 2.5 | - | 1.0 |
| T 32717 | T 32780 | M 5 | 12.0 | - | - | 3.0 | 2.5 | - | 1.3 |
| T 68983 | T 69008 | M 5 | 16.0 | - | - | 3.0 | 2.5 | - | 1.7 |
| T 32718 | T 32781 | M 5 | 20.0 | - | - | 3.0 | 2.5 | - | 2.3 |
| T 68984 | T 69009 | M 5 | 25.0 | - | - | 3.0 | 2.5 | - | 2.9 |
| T 32719 | T 32782 | M 6 | 10.8 | - | - | 4.0 | 3.0 | 9 | 1.5 |
| T 68985 | T 69010 | M 6 | 12.8 | - | - | 4.0 | 3.0 | 9 | 1.8 |
| T 32720 | T 32783 | M 6 | 16.8 | - | - | 4.0 | 3.0 | 9 | 2.4 |
| T 68986 | T 69011 | M 6 | 20.8 | - | - | 4.0 | 3.0 | 9 | 3.0 |
| T 32721 | T 32784 | M 6 | 25.8 | - | - | 4.0 | 3.0 | 9 | 3.9 |
| T 68987 | T 69012 | M 8 | 11.2 | - | - | 5.5 | 4.0 | 15 | 2.6 |
| T 32764 | T 32785 | M 8 | 13.2 | - | - | 5.5 | 4.0 | 15 | 3.2 |
| T 68988 | T 69013 | M 8 | 17.2 | - | - | 5.5 | 4.0 | 15 | 4.1 |
| T 32765 | T 32786 | M 8 | 21.2 | - | - | 5.5 | 4.0 | 15 | 5.7 |
| T 68989 | T 69014 | M 8 | 26.2 | - | - | 5.5 | 4.0 | 15 | 7.3 |
| T 32766 | T 32787 | M 8 | 31.2 | - | - | 5.5 | 4.0 | 15 | 8.9 |
| T 32767 | T 32788 | M 10 | 13.7 | - | - | 7.0 | 5.0 | 20 | 5.0 |
| T 32768 | T 32789 | M 10 | 17.7 | - | - | 7.0 | 5.0 | 20 | 6.8 |
| T 68990 | T 69015 | M 10 | 21.7 | - | - | 7.0 | 5.0 | 20 | 8.7 |
| T 32769 | T 32790 | M 10 | 26.7 | - | - | 7.0 | 5.0 | 20 | 11.2 |
| T 68991 | T 69016 | M 10 | 31.7 | - | - | 7.0 | 5.0 | 20 | 13.7 |
| T 32770 | T 32791 | M 10 | 36.7 | - | - | 7.0 | 5.0 | 20 | 16.2 |
| T 68992 | T 69017 | M 10 | 41.7 | - | - | 7.0 | 5.0 | 20 | 18.7 |
| T 32771 | T 32792 | M 12 | 18.0 | - | - | 8.5 | 6.0 | 30 | 10.0 |
| T 32772 | T 32793 | M 12 | 22.0 | - | - | 8.5 | 6.0 | 30 | 12.4 |
| T 68993 | T 69018 | M 12 | 27.0 | - | - | 8.5 | 6.0 | 30 | 15.0 |
| T 32773 | T 32794 | M 12 | 32.0 | - | - | 8.5 | 6.0 | 30 | 19.6 |
| T 32774 | T 32795 | M 12 | 42.0 | - | - | 8.5 | 6.0 | 30 | 28.5 |
| T 68994 | T 69019 | M 12 | 52.0 | - | - | 8.5 | 6.0 | 30 | 37.4 |
| T 32775 | T 32797 | M 16 | 23.3 | - | - | 12.0 | 8.0 | 60 | 22.0 |
| T 32776 | T 32798 | M 16 | 28.3 | - | - | 12.0 | 8.0 | 60 | 28.0 |
| T 32777 | T 32799 | M 16 | 38.3 | - | - | 12.0 | 8.0 | 60 | 41.0 |
| T 32778 | T 32800 | M 16 | 53.3 | - | - | 12.0 | 8.0 | 60 | 48.0 |
| T 67962 | - | M 20 | 34.2 | - | - | 15.0 | 10.0 | 90 | 54.0 |
| T 67961 | - | M 20 | 44.2 | - | - | 15.0 | 10.0 | 90 | 74.0 |
| T 68995 | - | M 20 | 54.2 | - | - | 15.0 | 10.0 | 90 | 94.0 |
| T 68996 | - | M 20 | 64.2 | - | - | 15.0 | 10.0 | 90 | 120.0 |
| T 68997 | - | M 24 | 39.7 | - | - | 18.0 | 12.0 | 120 | 90.0 |
| T 68998 | - | M 24 | 54.7 | - | - | 18.0 | 12.0 | 120 | 130.0 |
| T 68999 | - | M 24 | 84.7 | - | - | 18.0 | 12.0 | 120 | 235.0 |

Bemaßungen, wenn nicht anders angegeben in Millimeter (mm).

Kugeldruckschraube

ohne Kopf

Halder

Werkstoff

siehe unten

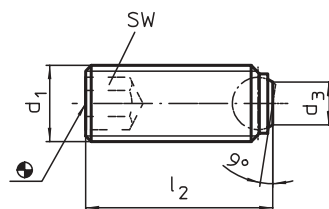


Bild 2

abgeflachte Kugel, Auflagefläche plan siehe Bild 2

| Stahl 12.9 | Nirosta | d1 | l1 | l2 | d3 | Kugel ø | SW | Belastbarkeit bei stat. Belastung kN max. | g |
|-------------|-------------|------|----|------|------|------------|------|--|-------|
| Bestell-Nr. | Bestell-Nr. | | | | | | | | |
| T 69020 | T 69047 | M 4 | - | 5.6 | 1.8 | 2.5 | 2.0 | - | 0.4 |
| T 69021 | T 69048 | M 4 | - | 7.6 | 1.8 | 2.5 | 2.0 | - | 0.6 |
| T 69022 | T 69049 | M 4 | - | 9.6 | 1.8 | 2.5 | 2.0 | - | 0.7 |
| T 69023 | T 69050 | M 4 | - | 11.6 | 1.8 | 2.5 | 2.0 | - | 0.8 |
| T 69024 | T 69051 | M 4 | - | 15.6 | 1.8 | 2.5 | 2.0 | - | 1.1 |
| T 69025 | T 69052 | M 5 | - | 7.5 | 2.2 | 3.0 | 2.5 | - | 0.8 |
| T 69026 | T 69053 | M 5 | - | 9.5 | 2.2 | 3.0 | 2.5 | - | 1.0 |
| T 69027 | T 69054 | M 5 | - | 11.5 | 2.2 | 3.0 | 2.5 | - | 1.3 |
| T 69028 | T 69055 | M 5 | - | 15.5 | 2.2 | 3.0 | 2.5 | - | 1.7 |
| T 69029 | T 69056 | M 5 | - | 19.5 | 2.2 | 3.0 | 2.5 | - | 2.3 |
| T 69030 | T 69057 | M 5 | - | 24.5 | 2.2 | 3.0 | 2.5 | - | 2.9 |
| T 32819 | T 32801 | M 6 | - | 10.0 | 3.2 | 4.0 | 3.0 | 9 | 1.5 |
| T 69031 | T 69058 | M 6 | - | 12.0 | 3.2 | 4.0 | 3.0 | 9 | 1.8 |
| T 32820 | T 32802 | M 6 | - | 16.0 | 3.2 | 4.0 | 3.0 | 9 | 2.4 |
| T 69032 | T 69059 | M 6 | - | 20.0 | 3.2 | 4.0 | 3.0 | 9 | 3.0 |
| T 32821 | T 32803 | M 6 | - | 25.0 | 3.2 | 4.0 | 3.0 | 9 | 3.9 |
| T 69033 | T 69060 | M 8 | - | 10.0 | 4.5 | 5.5 | 4.0 | 15 | 2.6 |
| T 32822 | T 32804 | M 8 | - | 12.0 | 4.5 | 5.5 | 4.0 | 15 | 3.2 |
| T 69034 | T 69061 | M 8 | - | 16.0 | 4.5 | 5.5 | 4.0 | 15 | 4.1 |
| T 32823 | T 32805 | M 8 | - | 20.0 | 4.5 | 5.5 | 4.0 | 15 | 5.7 |
| T 69035 | T 69062 | M 8 | - | 25.0 | 4.5 | 5.5 | 4.0 | 15 | 7.3 |
| T 32824 | T 32806 | M 8 | - | 30.0 | 4.5 | 5.5 | 4.0 | 15 | 8.9 |
| T 32825 | T 32807 | M 10 | - | 12.0 | 6.0 | 7.0 | 5.0 | 20 | 5.0 |
| T 32826 | T 32808 | M 10 | - | 16.0 | 6.0 | 7.0 | 5.0 | 20 | 6.8 |
| T 69036 | T 69063 | M 10 | - | 20.0 | 6.0 | 7.0 | 5.0 | 20 | 8.7 |
| T 32827 | T 32809 | M 10 | - | 25.0 | 6.0 | 7.0 | 5.0 | 20 | 11.2 |
| T 69037 | T 69064 | M 10 | - | 30.0 | 6.0 | 7.0 | 5.0 | 20 | 13.7 |
| T 32828 | T 32810 | M 10 | - | 35.0 | 6.0 | 7.0 | 5.0 | 20 | 16.2 |
| T 69038 | T 69065 | M 10 | - | 40.0 | 6.0 | 7.0 | 5.0 | 20 | 18.7 |
| T 32829 | T 32811 | M 12 | - | 16.0 | 7.2 | 8.5 | 6.0 | 30 | 10.0 |
| T 32830 | T 32812 | M 12 | - | 20.0 | 7.2 | 8.5 | 6.0 | 30 | 12.4 |
| T 69039 | T 69066 | M 12 | - | 25.0 | 7.2 | 8.5 | 6.0 | 30 | 15.0 |
| T 32831 | T 32813 | M 12 | - | 30.0 | 7.2 | 8.5 | 6.0 | 30 | 19.6 |
| T 32832 | T 32814 | M 12 | - | 40.0 | 7.2 | 8.5 | 6.0 | 30 | 28.5 |
| T 69040 | T 69067 | M 12 | - | 50.0 | 7.2 | 8.5 | 6.0 | 30 | 37.4 |
| T 32833 | T 32815 | M 16 | - | 20.0 | 10.7 | 12.0 | 8.0 | 60 | 22.0 |
| T 32834 | T 32816 | M 16 | - | 25.0 | 10.7 | 12.0 | 8.0 | 60 | 28.0 |
| T 32835 | T 32817 | M 16 | - | 35.0 | 10.7 | 12.0 | 8.0 | 60 | 41.0 |
| T 32836 | T 32818 | M 16 | - | 50.0 | 10.7 | 12.0 | 8.0 | 60 | 48.0 |
| T 69041 | - | M 20 | - | 30.0 | 13.5 | 15.0 | 10.0 | 90 | 54.0 |
| T 48092 | - | M 20 | - | 40.0 | 13.5 | 15.0 | 10.0 | 90 | 74.0 |
| T 69042 | - | M 20 | - | 50.0 | 13.5 | 15.0 | 10.0 | 90 | 94.0 |
| T 69043 | - | M 20 | - | 60.0 | 13.5 | 15.0 | 10.0 | 90 | 120.0 |
| T 69044 | - | M 24 | - | 35.0 | 15.8 | 18.0 | 12.0 | 120 | 90.0 |
| T 69045 | - | M 24 | - | 50.0 | 15.8 | 18.0 | 12.0 | 120 | 130.0 |
| T 69046 | - | M 24 | - | 80.0 | 15.8 | 18.0 | 12.0 | 120 | 235.0 |

Bemaßungen, wenn nicht anders angegeben in Millimeter (mm).

Kugeldruckschraube

ohne Kopf

Halder

Werkstoff

siehe unten

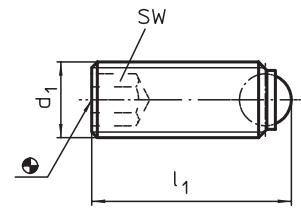


Bild 1

volle Kugel, aus Delrin siehe Bild 1

| Stahl 12.9 | | | | | Kugel | | Belastbarkeit bei stat. | ⚙ |
|-------------|------|------|----|----|-------|-----|-------------------------|------|
| Bestell-Nr. | d1 | l1 | l2 | d3 | ∅ | SW | Belastung kN max. | g |
| T 69454 | M 4 | 6.0 | - | - | 2.5 | 2.0 | - | 0.4 |
| T 69477 | M 4 | 8.0 | - | - | 2.5 | 2.0 | - | 0.6 |
| T 69478 | M 4 | 10.0 | - | - | 2.5 | 2.0 | - | 0.7 |
| T 69479 | M 4 | 12.0 | - | - | 2.5 | 2.0 | - | 0.8 |
| T 69480 | M 4 | 16.0 | - | - | 2.5 | 2.0 | - | 1.1 |
| T 69481 | M 5 | 8.0 | - | - | 3.0 | 2.5 | - | 0.8 |
| T 69482 | M 5 | 10.0 | - | - | 3.0 | 2.5 | - | 1.0 |
| T 69483 | M 5 | 12.0 | - | - | 3.0 | 2.5 | - | 1.3 |
| T 69484 | M 5 | 16.0 | - | - | 3.0 | 2.5 | - | 1.8 |
| T 69485 | M 5 | 20.0 | - | - | 3.0 | 2.5 | - | 2.3 |
| T 69486 | M 5 | 25.0 | - | - | 3.0 | 2.5 | - | 2.9 |
| T 69487 | M 6 | 10.8 | - | - | 4.0 | 3.0 | 9 | 1.5 |
| T 69488 | M 6 | 12.8 | - | - | 4.0 | 3.0 | 9 | 2.0 |
| T 69489 | M 6 | 16.8 | - | - | 4.0 | 3.0 | 9 | 2.4 |
| T 69490 | M 6 | 20.8 | - | - | 4.0 | 3.0 | 9 | 3.1 |
| T 69491 | M 6 | 25.8 | - | - | 4.0 | 3.0 | 9 | 3.9 |
| T 69492 | M 8 | 11.2 | - | - | 5.5 | 4.0 | 15 | 2.6 |
| T 69493 | M 8 | 13.2 | - | - | 5.5 | 4.0 | 15 | 3.2 |
| T 69494 | M 8 | 17.2 | - | - | 5.5 | 4.0 | 15 | 4.1 |
| T 69495 | M 8 | 21.2 | - | - | 5.5 | 4.0 | 15 | 5.7 |
| T 69496 | M 8 | 26.2 | - | - | 5.5 | 4.0 | 15 | 7.3 |
| T 69497 | M 8 | 31.2 | - | - | 5.5 | 4.0 | 15 | 8.9 |
| T 69498 | M 10 | 13.7 | - | - | 7.0 | 5.0 | 20 | 5.0 |
| T 69499 | M 10 | 17.7 | - | - | 7.0 | 5.0 | 20 | 6.8 |
| T 69500 | M 10 | 21.7 | - | - | 7.0 | 5.0 | 20 | 8.7 |
| T 69501 | M 10 | 26.7 | - | - | 7.0 | 5.0 | 20 | 11.2 |
| T 69502 | M 10 | 31.7 | - | - | 7.0 | 5.0 | 20 | 13.7 |
| T 69503 | M 10 | 36.7 | - | - | 7.0 | 5.0 | 20 | 16.2 |
| T 69504 | M 10 | 41.7 | - | - | 7.0 | 5.0 | 20 | 18.7 |
| T 69505 | M 12 | 18.0 | - | - | 8.5 | 6.0 | 30 | 10.0 |
| T 69506 | M 12 | 22.0 | - | - | 8.5 | 6.0 | 30 | 12.4 |
| T 69507 | M 12 | 27.0 | - | - | 8.5 | 6.0 | 30 | 16.9 |
| T 69508 | M 12 | 32.0 | - | - | 8.5 | 6.0 | 30 | 19.6 |
| T 69509 | M 12 | 42.0 | - | - | 8.5 | 6.0 | 30 | 28.5 |
| T 69510 | M 12 | 52.0 | - | - | 8.5 | 6.0 | 30 | 37.4 |

Bemaßungen, wenn nicht anders angegeben in Millimeter (mm).

Kugeldruckschraube

ohne Kopf

Halder

Werkstoff

siehe unten

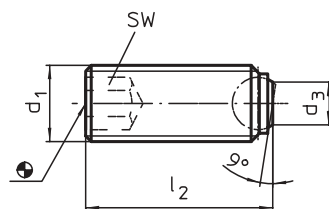


Bild 2

abgeflachte Kugel, Auflagefläche geriffelt siehe Bild 2

| Stahl 12.9 | d1 | l1 | l2 | d3 | Kugel ø | SW | Belastbarkeit bei stat. Belastung kN max. | g |
|-------------|------|----|------|------|------------|-----|--|------|
| Bestell-Nr. | | | | | | | | |
| T 69068 | M 10 | - | 12.0 | 6.0 | 7.0 | 5.0 | 20 | 5.0 |
| T 69069 | M 10 | - | 16.0 | 6.0 | 7.0 | 5.0 | 20 | 6.8 |
| T 69070 | M 10 | - | 20.0 | 6.0 | 7.0 | 5.0 | 20 | 8.7 |
| T 38814 | M 10 | - | 25.0 | 6.0 | 7.0 | 5.0 | 20 | 11.2 |
| T 69071 | M 10 | - | 30.0 | 6.0 | 7.0 | 5.0 | 20 | 13.7 |
| T 38447 | M 10 | - | 35.0 | 6.0 | 7.0 | 5.0 | 20 | 16.2 |
| T 69072 | M 10 | - | 40.0 | 6.0 | 7.0 | 5.0 | 20 | 18.7 |
| T 69073 | M 12 | - | 16.0 | 7.2 | 8.5 | 6.0 | 30 | 10.0 |
| T 46138 | M 12 | - | 20.0 | 7.2 | 8.5 | 6.0 | 30 | 12.4 |
| T 69074 | M 12 | - | 25.0 | 7.2 | 8.5 | 6.0 | 30 | 15.1 |
| T 69075 | M 12 | - | 30.0 | 7.2 | 8.5 | 6.0 | 30 | 19.6 |
| T 64572 | M 12 | - | 40.0 | 7.2 | 8.5 | 6.0 | 30 | 28.5 |
| T 69076 | M 12 | - | 50.0 | 7.2 | 8.5 | 6.0 | 30 | 37.4 |
| T 69077 | M 16 | - | 20.0 | 10.7 | 12.0 | 8.0 | 60 | 22.0 |
| T 69078 | M 16 | - | 25.0 | 10.7 | 12.0 | 8.0 | 60 | 28.0 |
| T 69079 | M 16 | - | 35.0 | 10.7 | 12.0 | 8.0 | 60 | 41.0 |
| T 64573 | M 16 | - | 50.0 | 10.7 | 12.0 | 8.0 | 60 | 48.0 |

Bemaßungen, wenn nicht anders angegeben in Millimeter (mm).

Werkstoff:

Schraube: Güte 12.9 brüniert
Nirosta 1.4305

Kugel: Kugellagerstahl gehärtet
Nirosta gehärtet
Delrin weiß (POM)

Hinweis:

Kugeldruckschrauben mit Delrin-Kugel sind für spröde, druckempfindliche Teile geeignet.

Zum Klemmen, Spannen oder Stützen von nicht parallelen Flächen.

Kugel gegen Verdrehen gesichert siehe Seite 100.

Sonderausführung auf Anfrage.

Gewindesicherung auf Anfrage, siehe Anhang - Technische Daten.

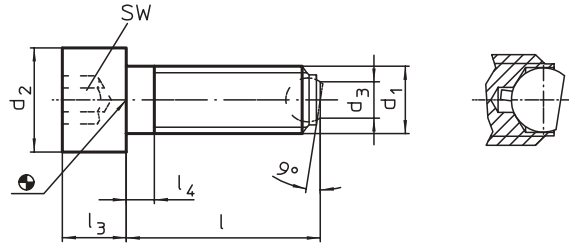
Kugeldruckschraube

Kugel verdrehgesichert

Halder

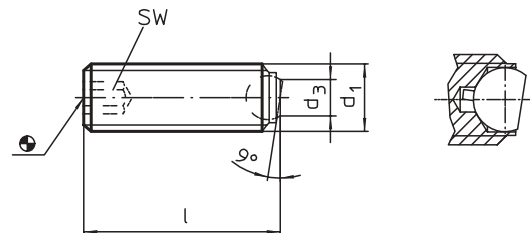
Werkstoff

Stahl



mit Kopf, abgeflachte Kugel

| plan | geriffelt | | | | | | | | | Belastbarkeit bei stat. Belastung kN max. | \bar{m} g |
|-------------|-------------|------|----|----|------|----|------|-------|----|---|----------------|
| Bestell-Nr. | Bestell-Nr. | d1 | l | d2 | d3 | l3 | l4 | Kugel | SW | | |
| T 68929 | - | M 8 | 20 | 13 | 4.5 | 8 | 3.5 | 5.5 | 6 | 9 | 13.5 |
| T 68930 | - | M 8 | 35 | 13 | 4.5 | 8 | 3.5 | 5.5 | 6 | 9 | 19.0 |
| T 68931 | - | M 8 | 50 | 13 | 4.5 | 8 | 22.0 | 5.5 | 6 | 9 | 25.0 |
| T 52233 | T 68940 | M 10 | 25 | 16 | 6.0 | 10 | 4.5 | 7.0 | 8 | 12 | 26.0 |
| T 68932 | T 68941 | M 10 | 40 | 16 | 6.0 | 10 | 4.5 | 7.0 | 8 | 12 | 34.0 |
| T 68933 | T 68942 | M 10 | 60 | 16 | 6.0 | 10 | 28.0 | 7.0 | 8 | 12 | 47.0 |
| T 68934 | T 68943 | M 12 | 30 | 18 | 7.2 | 12 | 5.0 | 8.5 | 10 | 18 | 40.0 |
| T 68935 | T 68944 | M 12 | 50 | 18 | 7.2 | 12 | 5.0 | 8.5 | 10 | 18 | 56.0 |
| T 68936 | T 68945 | M 12 | 80 | 18 | 7.2 | 12 | 44.0 | 8.5 | 10 | 18 | 83.0 |
| T 68937 | T 68946 | M 16 | 40 | 24 | 10.7 | 16 | 6.0 | 12.0 | 14 | 36 | 91.0 |
| T 68938 | T 68947 | M 16 | 60 | 24 | 10.7 | 16 | 6.0 | 12.0 | 14 | 36 | 122.0 |
| T 68939 | T 68948 | M 16 | 80 | 24 | 10.7 | 16 | 36.0 | 12.0 | 14 | 36 | 154.0 |



ohne Kopf, abgeflachte Kugel

| | | | | | | | | | | | |
|---------|---------|------|----|---|------|---|---|------|---|----|------|
| T 32380 | - | M 8 | 20 | - | 4.5 | - | - | 5.5 | 4 | 9 | 5.7 |
| T 68949 | - | M 8 | 25 | - | 4.5 | - | - | 5.5 | 4 | 9 | 7.2 |
| T 32396 | - | M 8 | 30 | - | 4.5 | - | - | 5.5 | 4 | 9 | 8.7 |
| T 32397 | T 34132 | M 10 | 25 | - | 6.0 | - | - | 7.0 | 5 | 12 | 11.2 |
| T 32398 | T 34133 | M 10 | 35 | - | 6.0 | - | - | 7.0 | 5 | 12 | 16.2 |
| T 68950 | T 68953 | M 10 | 40 | - | 6.0 | - | - | 7.0 | 5 | 12 | 18.7 |
| T 68951 | T 68954 | M 12 | 20 | - | 7.2 | - | - | 8.5 | 6 | 18 | 11.0 |
| T 32399 | T 34134 | M 12 | 30 | - | 7.2 | - | - | 8.5 | 6 | 18 | 19.6 |
| T 32400 | T 34135 | M 12 | 40 | - | 7.2 | - | - | 8.5 | 6 | 18 | 28.5 |
| T 68952 | T 68955 | M 12 | 50 | - | 7.2 | - | - | 8.5 | 6 | 18 | 37.5 |
| T 32401 | T 34136 | M 16 | 35 | - | 10.7 | - | - | 12.0 | 8 | 36 | 41.0 |
| T 32402 | T 34137 | M 16 | 50 | - | 10.7 | - | - | 12.0 | 8 | 36 | 48.0 |

Bemaßungen, wenn nicht anders angegeben in Millimeter (mm).

Werkstoff:

Schraube: Güte 12.9 phosphatiert Rote Markierung
Kugel: Kugellagerstahl gehärtet

Hinweis:

Zum Klemmen, Spannen oder Stützen von nicht parallelen Flächen.
Kugel ohne Verdrehesicherung siehe Seite 99.
Sonderausführung auf Anfrage.
Gewindesicherung auf Anfrage, siehe Anhang - Technische Daten.