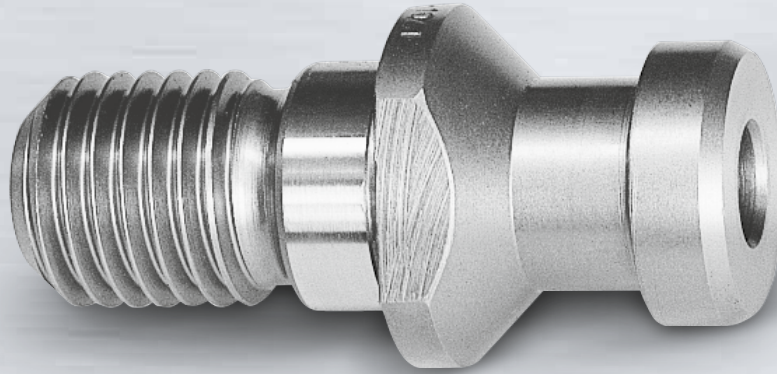


Anzugbolzen | Pull studs

AZB



Anwendung

Anzugbolzen sind zum Einschrauben in Steilkegelwerkzeugschäfte, Werkstückträger und Paletten bestimmt. In Verbindung mit SSK-Spannsätzen dienen sie zum Einziehen und Ausstoßen der vorgenannten Maschinenelemente.

Konstruktionsmerkmale

AZB-Anzugbolzen entsprechen in den Abmessungen, Oberflächengüten, Härte- und Festigkeitswerten den in den Normen DIN, ANSI, ISO, MAS und JIS festgelegten Werten.

Kurzzeichen

$F_{S \max}$ kN Spannkraft

Bestellbeispiel

AZB 40 DIN

Lieferumfang

Anzugbolzen nach Datenblatt

Anmerkung

Für maschinenspezifische Anwendungen stehen Sonderausführungen zur Verfügung.

Application

Pull studs are designed for screwing into steep taper tool shanks, workpiece holders and pallets. In conjunction with SSK grippers they are intended for drawing in and ejecting the above mentioned machine elements.

Design features

AZB pull studs correspond to the values prescribed in the DIN, ANSI, ISO, MAS and JIS standards with regards to their dimensions, surface quality, hardness and strength values.

Abbreviation

$F_{S \max}$ kN Clamping force

Ordering example

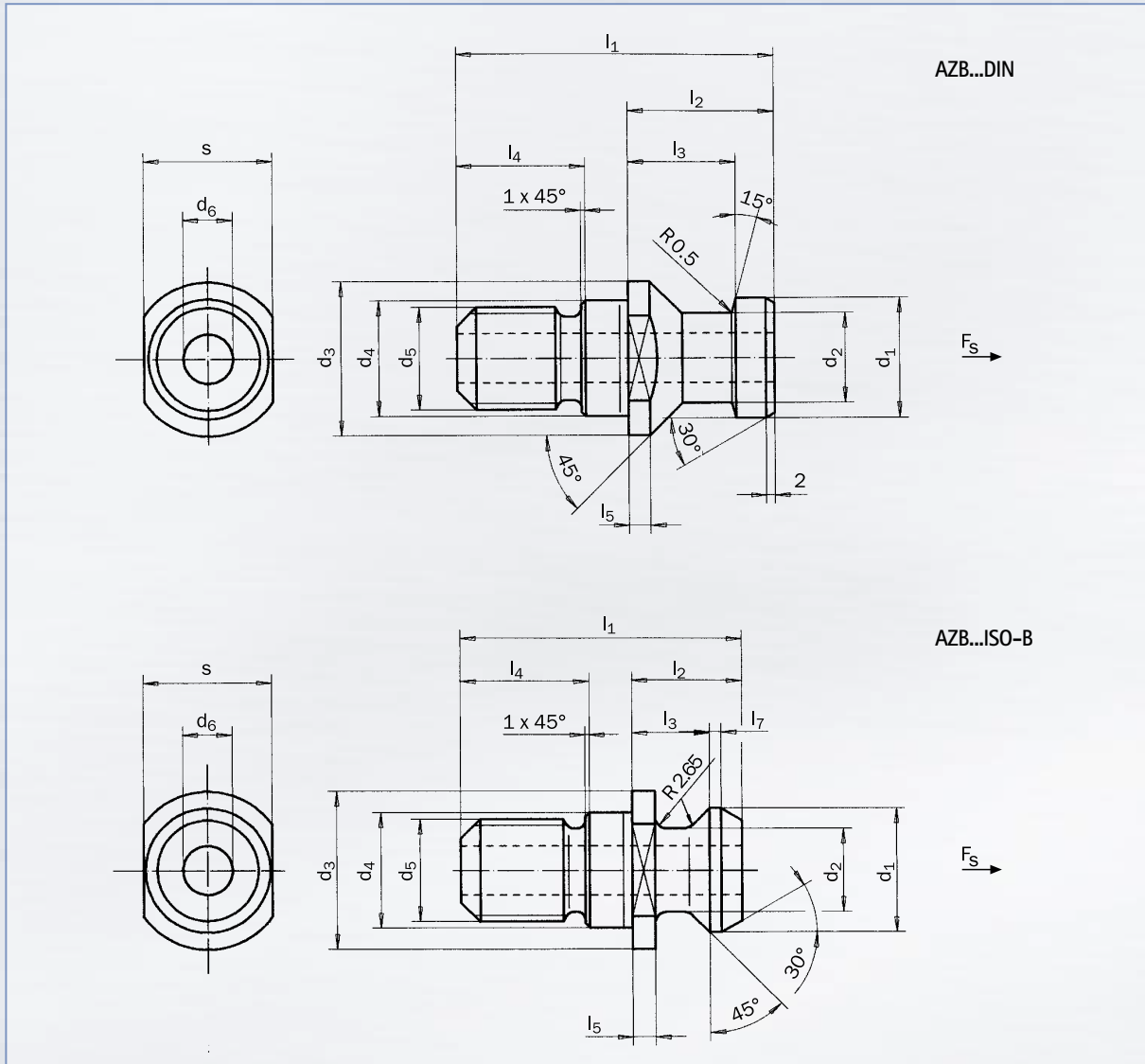
AZB 40 DIN

Delivery scope

Pull studs as per data sheet

Comment

Special designs are available for machine specific applications.



Technische Daten | Technical data

| TYP TYPE | d ₁ -0.1 | d ₂ -0.1 | d ₃ -0.2 | d ₄ g6 | d ₅ | d ₆ | l ₁ | l ₂ ±0.1 | l ₃ ±0.1 | l ₄ | l ₅ | S -0.1 | F _{Smax.} kN |
|--------------|------------------------|------------------------|------------------------|----------------------|----------------|----------------|----------------|------------------------|------------------------|----------------|----------------|-----------|--------------------------|
| AZB 30/1 DIN | 13 | 9 | 17 | 13 | M 12 | - | 44 | 24 | 19 | 15 | 4 | 14 | 10 |
| AZB 40 DIN | 19 | 14 | 23 | 17 | M 16 | 7,0 | 54 | 26 | 20 | 21 | 4 | 19 | 18 |
| AZB 45 DIN | 23 | 17 | 30 | 21 | M 20 | 9,5 | 65 | 30 | 23 | 27 | 5 | 24 | 25 |
| AZB 50 DIN | 28 | 21 | 36 | 25 | M 24 | 11,5 | 74 | 34 | 25 | 30 | 5 | 30 | 35 |
| AZB 60/1 DIN | 40 | 30 | 52 | 32 | M 30 | 14,0 | 90 | 40 | 30 | 37 | 6 | 46 | 70 |

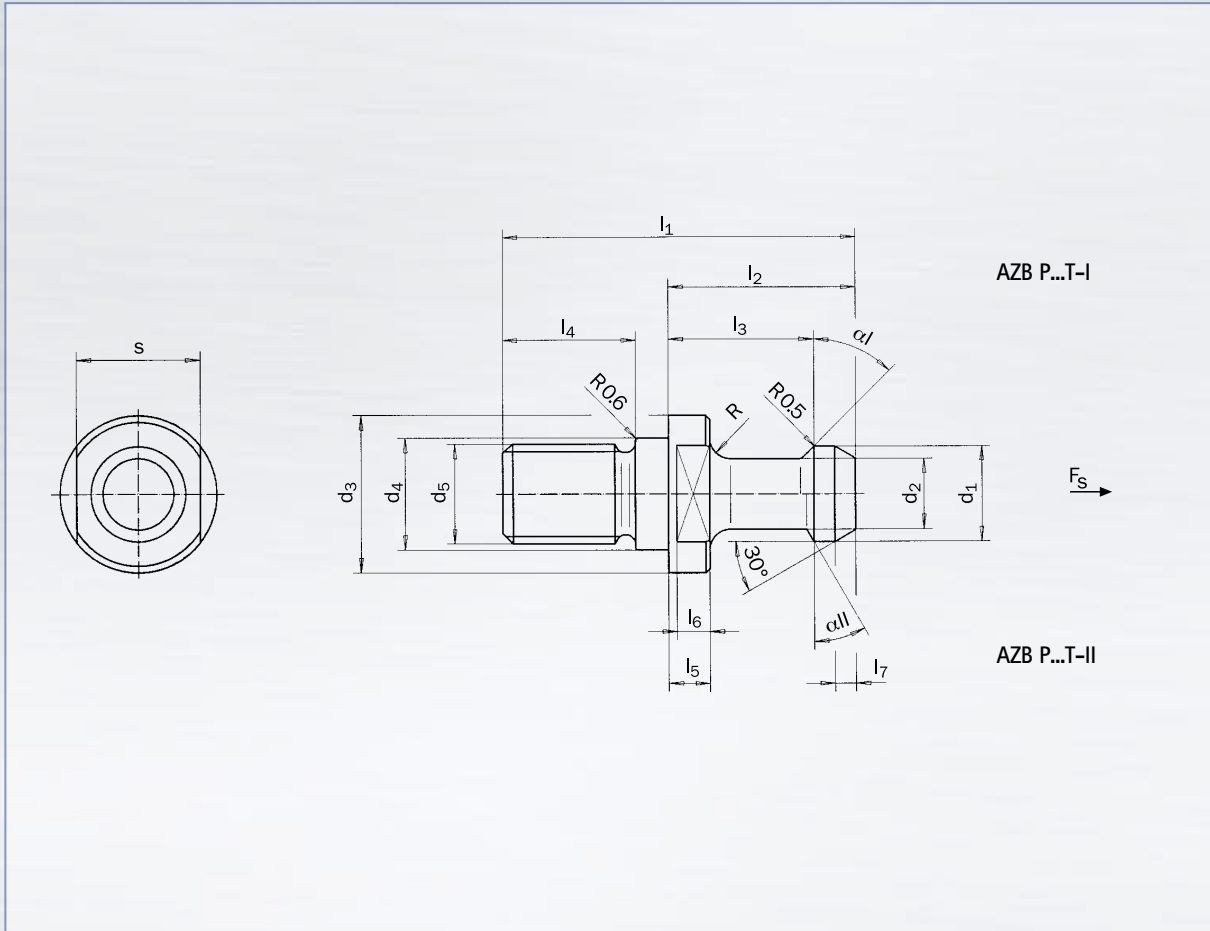
Technische Daten | Technical data

| TYP TYPE | d ₁ 0 -0.3 | d ₂ 0 -0.3 | d ₃ | d ₄ h6 | d ₅ | d ₆ | l ₁ | l ₂ 0 -0.3 | l ₃ 0 -0.3 | l ₄ | l ₅ 0 -0.5 | l ₇ 0 -0.5 | S | F _{Smax.} kN |
|----------------|-----------------------------|-----------------------------|----------------|----------------------|----------------|----------------|----------------|-----------------------------|-----------------------------|----------------|-----------------------------|-----------------------------|-----------|--------------------------|
| AZB 30 ISO-B | 13,35 | 9,30 | 17,0 - 0,5 | 13 | M 12 | 4,00 | 34,0 | 11,80 | 8,15 | 17,20 | 2,75 | 1,25 | 14 - 0,27 | 10 |
| AZB 40 ISO-B | 18,95 | 12,95 | 22,5 - 1,0 | 17 | M 16 | 7,35 | 44,5 | 16,40 | 11,15 | 21,10 | 3,25 | 1,75 | 18 - 0,33 | 18 |
| AZB 45 ISO-B | 24,05 | 16,30 | 30,0 - 1,0 | 21 | M 20 | 9,25 | 56,0 | 20,95 | 14,85 | 27,05 | 4,25 | 2,25 | 24 - 0,39 | 25 |
| AZB 50 ISO-B | 29,10 | 19,60 | 37,0 - 1,0 | 25 | M 24 | 11,55 | 65,5 | 25,55 | 17,95 | 29,95 | 5,25 | 2,75 | 30 - 0,65 | 35 |
| AZB 60/1 ISO-B | 37,25 | 24,95 | 50,0 - 2,0 | 32 | M 30 | 14,00 | 88,0 | 38,15 | 27,65 | 37,00 | 7,75 | 3,75 | 36 - 0,75 | 70 |



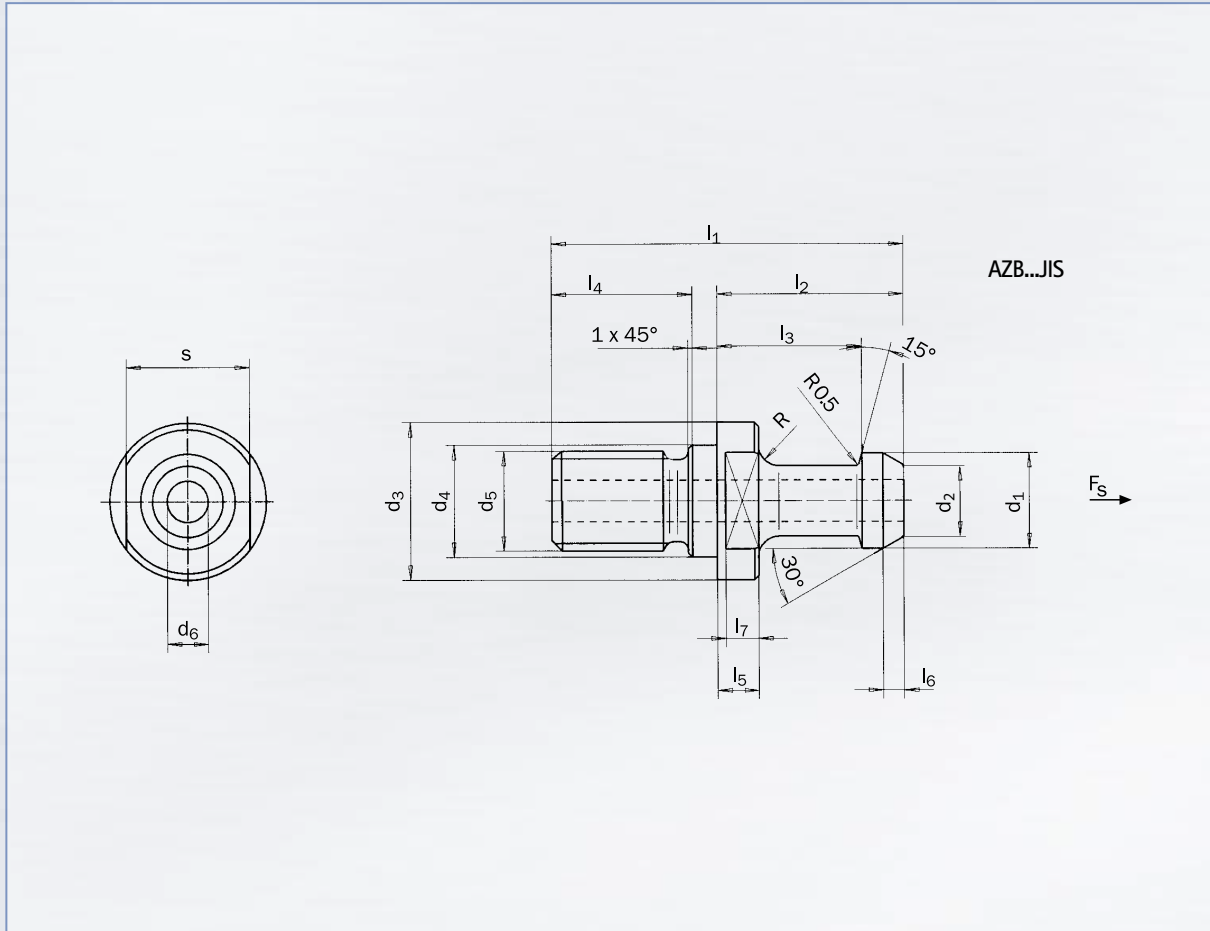
Anzugbolzen | Pull studs

AZB



Technische Daten | Technical data

| TYP TYPE | α $\pm 15'$ | d_1 -0.1 | d_2 -0.1 | d_3 -0.2 | d_4 h7 | d_5 | l_1 | l_2 -0.1 | l_3 -0.1 | l_4 | l_5 -0.1 | l_6 | l_7 | R | S -0.35 | $F_{S \max.}$ kN |
|---------------|-----------------------|---------------|---------------|---------------|-------------|-------|-------|---------------|---------------|-------|---------------|-------|-------|---|------------|---------------------|
| AZB P 30 T-I | 45° | 11 | 7,0 | 16,5 | 12,5 | M 12 | 43 | 23 | 18,0 | 16 | 5 | 3,5 | 2,5 | 2 | 13 | 10 |
| AZB P 30 T-II | 30° | 11 | 7,0 | 16,5 | 12,5 | M 12 | 43 | 23 | 18,0 | 16 | 5 | 3,5 | 2,5 | 2 | 13 | 10 |
| AZB P 35 T-I | 45° | 13 | 8,5 | 20,0 | 12,5 | M 12 | 48 | 28 | 22,5 | 16 | 5 | 3,5 | 2,5 | 2 | 17 | 12 |
| AZB P 35 T-II | 30° | 13 | 8,5 | 20,0 | 12,5 | M 12 | 48 | 28 | 22,5 | 16 | 5 | 3,5 | 2,5 | 2 | 17 | 12 |
| AZB P 40 T-I | 45° | 15 | 10,0 | 23,0 | 17,0 | M 16 | 60 | 35 | 28,0 | 20 | 6 | 4,0 | 4,0 | 3 | 19 | 18 |
| AZB P 40 T-II | 30° | 15 | 10,0 | 23,0 | 17,0 | M 16 | 60 | 35 | 28,0 | 20 | 6 | 4,0 | 4,0 | 3 | 19 | 18 |
| AZB P 45 T-I | 45° | 19 | 14,0 | 31,0 | 21,0 | M 20 | 70 | 40 | 31,0 | 24 | 8 | 6,0 | 5,0 | 4 | 24 | 25 |
| AZB P 45 T-II | 30° | 19 | 14,0 | 31,0 | 21,0 | M 20 | 70 | 40 | 31,0 | 24 | 8 | 6,0 | 5,0 | 4 | 24 | 25 |
| AZB P 50 T-I | 45° | 23 | 17,0 | 38,0 | 25,0 | M 24 | 85 | 45 | 35,0 | 32 | 10 | 8,0 | 5,0 | 5 | 30 | 35 |
| AZB P 50 T-II | 30° | 23 | 17,0 | 38,0 | 25,0 | M 24 | 85 | 45 | 35,0 | 32 | 10 | 8,0 | 5,0 | 5 | 30 | 35 |
| AZB P 55 T-I | 45° | 32 | 24,0 | 48,0 | 31,0 | M 30 | 115 | 65 | 53,0 | 40 | 14 | 11,0 | 7,0 | 5 | 41 | 50 |
| AZB P 55 T-II | 30° | 32 | 24,0 | 48,0 | 31,0 | M 30 | 115 | 65 | 53,0 | 40 | 14 | 11,0 | 7,0 | 5 | 41 | 50 |
| AZB P 60 T-I | 45° | 32 | 24,0 | 56,0 | 31,0 | M 30 | 115 | 65 | 53,0 | 40 | 14 | 11,0 | 7,0 | 5 | 46 | 70 |
| AZB P 60 T-II | 30° | 32 | 24,0 | 56,0 | 31,0 | M 30 | 115 | 65 | 53,0 | 40 | 14 | 11,0 | 7,0 | 5 | 46 | 70 |



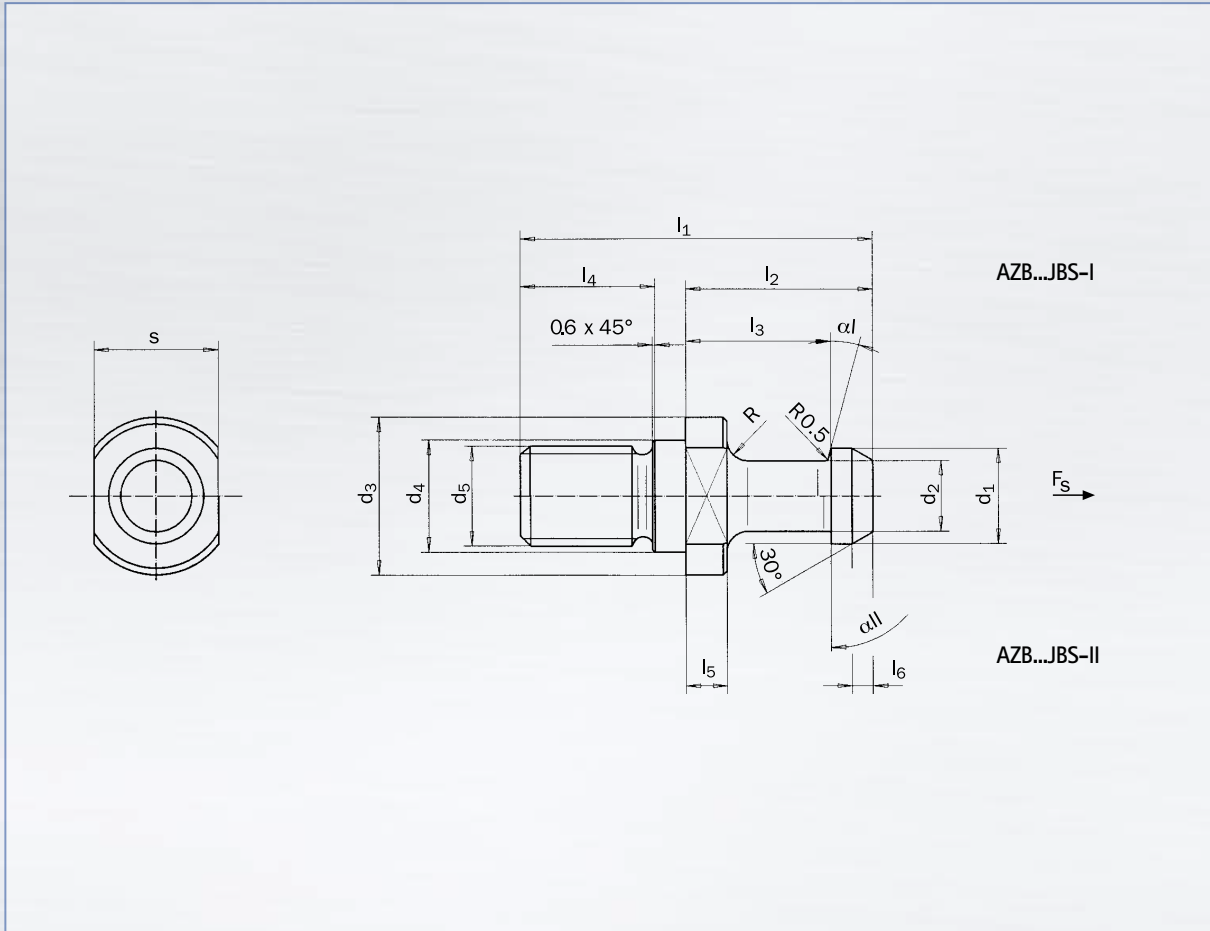
Technische Daten | Technical data

| TYP TYPE | d ₁ -0.1 | d ₂ -0.1 | d ₃ -0.2 | d ₄ h7 | d ₅ | d ₆ | l ₁ | l ₂ -0.1 | l ₃ -0.1 | l ₄ | l ₅ -0.1 | l ₆ | l ₇ | R | S -0.35 | F _{Smax.} kN |
|------------|------------------------|------------------------|------------------------|----------------------|----------------|----------------|----------------|------------------------|------------------------|----------------|------------------------|----------------|----------------|---|------------|--------------------------|
| AZB 30 JIS | 12 | 8 | 16,5 | 12,5 | M 12 | 4,0 | 43 | 23,4 | 18,4 | 15,6 | 5 | 2 | 3,5 | 2 | 13 | 10 |
| AZB 35 JIS | 15 | 11 | 20,0 | 12,5 | M 12 | 5,0 | 44 | 24,0 | 19,0 | 16,0 | 5 | 2 | 3,5 | 2 | 17 | 12 |
| AZB 40 JIS | 19 | 14 | 23,0 | 17,0 | M 16 | 7,0 | 54 | 29,0 | 23,0 | 20,0 | 7 | 3 | 5,0 | 3 | 19 | 18 |
| AZB 45 JIS | 23 | 17 | 31,0 | 21,0 | M 20 | 8,5 | 60 | 30,0 | 23,0 | 24,0 | 7 | 3 | 5,0 | 4 | 24 | 25 |
| AZB 50 JIS | 28 | 21 | 38,0 | 25,0 | M 24 | 10,0 | 74 | 34,0 | 25,0 | 32,0 | 7 | 4 | 5,0 | 5 | 30 | 35 |
| AZB 55 JIS | 36 | 27 | 48,0 | 31,0 | M 30 | 12,0 | 98 | 48,0 | 36,0 | 40,0 | 11 | 5 | 8,0 | 5 | 41 | 70 |
| AZB 60 JIS | 36 | 27 | 48,0 | 31,0 | M 30 | 12,0 | 98 | 48,0 | 36,0 | 40,0 | 11 | 5 | 8,0 | 5 | 41 | 70 |



Anzugbolzen | Pull studs

AZB



Technische Daten | Technical data

| TYP TYPE | α | $d_{-0.1}$ | $d_{-0.1}$ | $d_{-0.2}$ | $d_{-0.025}$ | d_5 | l_1 | $l_{-0.1}$ | $l_{-0.1}$ | l_4 | l_5 | l_6 | R | S -0.1 | $F_{S \max.}$ kN |
|---------------|----------|------------|------------|------------|--------------|-------|-------|------------|------------|-------|-------|-------|-----|-----------|---------------------|
| AZB 10 JBS-I | 15° | 6,0 | 4 | 8,5 | 5,5 | M 5 | 20 | 10,5 | 7,5 | 7,5 | 2,0 | 1,7 | 1,0 | 7 | 1,2 |
| AZB 10 JBS-II | 0° | 6,0 | 4 | 8,5 | 5,5 | M 5 | 20 | 10,5 | 7,5 | 7,5 | 2,0 | 1,7 | 1,0 | 7 | 1,2 |
| AZB 15 JBS-I | 15° | 7,0 | 5 | 10,0 | 7,0 | M 6 | 23 | 12,0 | 8,5 | 9,0 | 3,0 | 2,0 | 1,2 | 9 | 1,7 |
| AZB 15 JBS-II | 0° | 7,0 | 5 | 10,0 | 7,0 | M 6 | 23 | 12,0 | 8,5 | 9,0 | 3,0 | 2,0 | 1,2 | 9 | 1,7 |
| AZB 20 JBS-I | 15° | 8,5 | 6 | 11,0 | 7,0 | M 6 | 25 | 14,0 | 10,0 | 9,0 | 3,5 | 2,2 | 1,2 | 9 | 3,0 |
| AZB 20 JBS-II | 0° | 8,5 | 6 | 11,0 | 7,0 | M 6 | 25 | 14,0 | 10,0 | 9,0 | 3,5 | 2,2 | 1,2 | 9 | 3,0 |
| AZB 25 JBS-I | 15° | 10,0 | 7 | 12,0 | 9,0 | M 8 | 28 | 16,0 | 11,5 | 10,0 | 3,5 | 2,5 | 1,6 | 10 | 4,0 |
| AZB 25 JBS-II | 0° | 10,0 | 7 | 12,0 | 9,0 | M 8 | 28 | 16,0 | 11,5 | 10,0 | 3,5 | 2,5 | 1,6 | 10 | 4,0 |