

DIN 976-1

Stud Bolt / Threaded Rod



Standard	DIN 976-1		
Product Type	Stud Bolt / Threaded Rod		
Material	Carbon Steel, Stainless Steel		
Property Class	4.8, 8.8 (ISO 898-1) · A2-70, A4-80 (ISO 3506-1)		
Surface Finish	Zinc Plated, Hot Dip Galvanized, Dacromet, Blackened, Phosphate, Plain, Passivated		
Size Range	M2 - M64	Length Range	50-3000 mm
Thread	ISO metric coarse pitch		

BASIS OF SPECIFICATION

WHICH STANDARD GOVERNS WHAT

Carbon steel / Alloy steel mechanical properties to	DIN EN ISO 898-1
Stainless steel mechanical properties to	DIN EN ISO 3506-1
Product grade	C
Dimensions edition	to be agreed
Thread length	to be agreed
Minimum usable thread length	to be agreed

MECHANICAL PROPERTIES

REQUIRED VALUES PER ISO 898-1

Class	Rm min.	Yield requirement	Elongation requirement	Hardness	Source
4.8	420 MPa	Rpf min. 340 MPa (not a test value)	Af min. 0.24	130 - 220 HV	ISO 898-1
8.8	800 MPa	Rp0.2 min. 640 MPa	A min. 12 %	250 - 320 HV	ISO 898-1 (d ≤ M16)
8.8	830 MPa	Rp0.2 min. 660 MPa	A min. 12 %	255 - 335 HV	ISO 898-1 (d > M16)

MECHANICAL PROPERTIES

REQUIRED VALUES PER ISO 3506-1

Class	Rm min.	Yield requirement	Elongation requirement	Hardness	Source
A2-70	700 MPa	Rp0.2 min. 450 MPa	0,4d mm	-	ISO 3506-1
A4-80	800 MPa	Rp0.2 min. 600 MPa	0,3d mm	-	ISO 3506-1

DIMENSIONAL DATA - SIZES WE SUPPLY

ALL DIMENSIONS PER THE STANDARD

d Diameter - mm	P Thread Pitch - mm	d Diameter - mm	P Thread Pitch - mm
M6	1	M20	2.5
M8	1.25	M24	3
M10	1.5	M30	3.5
M12	1.75	M36	4
M16	2		

FURTHER SIZES IN THIS STANDARD

ALL DIMENSIONS PER THE STANDARD

Not held in stock. Available to order; minimum order quantity applies.

d Diameter - mm	P Thread Pitch - mm	d Diameter - mm	P Thread Pitch - mm
M2	0.4	M33	3.5
M2.5	0.45	M39	4
M3	0.5	M42	4.5
M4	0.7	M45	4.5
M5	0.8	M48	5
M14	2	M52	5
M18	2.5	M56	5.5
M22	2.5	M60	5.5
M27	3	M64	6

MARKING
Steel — Required

What	The designation is written to DIN 962. The property class symbol itself comes from the material route: DIN EN ISO 898-1 for steel, DIN EN ISO 3506-1 for stainless, DIN EN 28839 (ISO 8839) for non-ferrous metals
Where	As specified in the material standard for that route
Sizes	All sizes
Clause	DIN 976-1, Clause 1, which states that this standard covers the characteristics of the studs and their designation (sowie deren Kennzeichnung)

Confirm the ordered property class before production.

INSPECTION DOCUMENTS WE CAN ISSUE

EN 10204 3.1 material certificate	Can be included when agreed in the order.
Dimensional inspection report	Can be provided for the agreed inspection scope.
Certificate of conformity	Can be issued against the confirmed order requirements.
Mechanical test report	Available when the required tests are agreed before production.
Chemical analysis report	Available when the material verification scope is agreed.
Coating inspection report	Can record the coating checks agreed for the order.

REFERENCES & NOTES

Note: Dimensional values follow the selected execution standard. Material properties and batch test results are included only when declared or supported by the applicable certificate or test report.