

U-Bolt Dimensions Chart

DN15-DN150: inside width, leg length, overall height and matching thread, with a pipe-OD reverse lookup table and per-configuration weight.

DN15–DN150 · DIN 3570 series geometry · catalog pairing · Pipe-OD reverse lookup · g per piece · kg / 1000 pcs · carbon steel 7.85 g/cm³

Pipe OD Reverse Lookup: Which U-Bolt Fits (all 11 sizes)

Sizing entry point: measure the actual pipe outside diameter, find that band in the left column, and the same row gives the inside width, leg length, overall height and matching thread for that pipe size; click the DN number to open that size. Pipe ODs follow the GB/T 1047 metric series. If the measured OD falls between two bands, or the pipe is inch (NPS), size to the next band up and confirm with the supplier.

Pipe OD (mm)	Nominal DN	Inside width A (mm)	Leg length (mm)	Overall height H (mm)	Matching thread	Rod diameters available
21.3	DN15	33	23	60	M6	M6
26.9	DN20	40	28	70	M6	M6 / M8
33.7	DN25	48	31	76	M6	M6 / M8 / M10
42.4	DN32	56	37	86	M8	M8 / M10
48.3	DN40	62	40	92	M8	M8 / M10 / M12
60.3	DN50	76	49	109	M10	M10 / M12 / M16
76.1	DN65	94	57	125	M10	M10 / M12 / M16
88.9	DN80	106	66	138	M12	M12 / M16 / M20
114.3	DN100	136	78	171	M12	M12 / M16 / M20
139.7	DN125	164	84	191	M16	M16 / M20
168.3	DN150	192	96	217	M20	M20

"Rod diameters available" lists every round bar diameter the catalog offers for that pipe-OD band; the default pairing is the lightest of them (tagged on each size page), and one step up suits heavy or vibrating duty. Bend type, thread length and the number of matching nuts and washers are confirmed by drawing or at inquiry.

DN15

21.3 mm OD · M6

Matching pipe OD (nominal DN)	21.3 mm (DN15)
Inside width A (mm)	33 mm
Leg length (mm)	23 mm
Overall height H (mm)	60 mm
Matching thread size	M6 (pitch P=1 mm) · Catalog pairing
Thread length (per leg)	20 mm
Rod diameters available	M6
Bend centreline length (mm)	61.26 mm
Developed length (mm)	107.3 mm

Thread pairing source tags: "Catalog pairing" means the value was extracted size by size from the spec_json of U-bolt SKUs in the product catalog (same source as the product pages; the extraction script ops/tools/gen-ubolt-dims.py can be re-run to verify). "Assumed" would mean the catalog has no SKU covering that pipe-OD band and a conventional pairing was assumed and flagged here. All 11 bands in this chart are catalog pairings; none is assumed.

DN15 Unit Weight by Configuration (per available rod diameter)

A U-bolt's unit weight moves with rod diameter and developed length together: developed length = 2 x leg length + bend centreline length (a semicircle of radius (inside width + rod diameter)/2), so the bend grows with the rod too and each step up in diameter adds weight faster than the square of the diameter alone.

Rod diameter	Bend centreline length (mm)	Developed length (mm)	Unit weight (g/pc) g / piece	Bulk (kg/1,000 pcs) kg / 1000 pcs
M6Default pairing	61.26	107.3	24	24

Unit weight = developed length x pi/4 x d^2 x 7.85 g/cm3 for carbon steel, rounded to avoid false precision (whole g below 100 g, 10 g steps below 1,000 g, 100 g steps above). Matching nuts and washers are counted separately; see the related charts at the foot of the page.

DN20

26.9 mm OD · M6

Matching pipe OD (nominal DN)	26.9 mm (DN20)
Inside width A (mm)	40 mm
Leg length (mm)	28 mm

Overall height H (mm)	70 mm
Matching thread size	M6 (pitch P=1 mm) · Catalog pairing
Thread length (per leg)	40 mm
Rod diameters available	M6 / M8
Bend centreline length (mm)	72.26 mm
Developed length (mm)	128.3 mm

Thread pairing source tags: "Catalog pairing" means the value was extracted size by size from the spec_json of U-bolt SKUs in the product catalog (same source as the product pages; the extraction script ops/tools/gen-ubolt-dims.py can be re-run to verify). "Assumed" would mean the catalog has no SKU covering that pipe-OD band and a conventional pairing was assumed and flagged here. All 11 bands in this chart are catalog pairings; none is assumed.

DN20 Unit Weight by Configuration (per available rod diameter)

A U-bolt's unit weight moves with rod diameter and developed length together: developed length = 2 x leg length + bend centreline length (a semicircle of radius (inside width + rod diameter)/2), so the bend grows with the rod too and each step up in diameter adds weight faster than the square of the diameter alone.

Rod diameter	Bend centreline length (mm)	Developed length (mm)	Unit weight (g/pc) g / piece	Bulk (kg/1,000 pcs) kg / 1000 pcs
M6Default pairing	72.26	128.3	28	28
M8	75.4	131.4	52	52

Unit weight = developed length x pi/4 x d^2 x 7.85 g/cm3 for carbon steel, rounded to avoid false precision (whole g below 100 g, 10 g steps below 1,000 g, 100 g steps above). Matching nuts and washers are counted separately; see the related charts at the foot of the page.

DN25

33.7 mm OD · M6

Matching pipe OD (nominal DN)	33.7 mm (DN25)
Inside width A (mm)	48 mm
Leg length (mm)	31 mm
Overall height H (mm)	76 mm
Matching thread size	M6 (pitch P=1 mm) · Catalog pairing
Thread length (per leg)	40 mm
Rod diameters available	M6 / M8 / M10
Bend centreline length (mm)	84.82 mm
Developed length (mm)	146.8 mm

Thread pairing source tags: "Catalog pairing" means the value was extracted size by size from the spec_json of U-bolt SKUs in the product catalog (same source as the product pages; the extraction script ops/tools/gen-ubolt-dims.py can be re-run to verify). "Assumed" would mean the catalog has no SKU covering that pipe-OD band and a conventional pairing was assumed and flagged here. All 11 bands in this chart are catalog pairings; none is assumed.

DN25 Unit Weight by Configuration (per available rod diameter)

A U-bolt's unit weight moves with rod diameter and developed length together: developed length = 2 x leg length + bend centreline length (a semicircle of radius (inside width + rod diameter)/2), so the bend grows with the rod too and each step up in diameter adds weight faster than the square of the diameter alone.

Rod diameter	Bend centreline length (mm)	Developed length (mm)	Unit weight (g/pc) g / piece	Bulk (kg/1,000 pcs) kg / 1000 pcs
M6Default pairing	84.82	146.8	33	33
M8	87.96	150	59	59
M10	91.11	153.1	94	94

Unit weight = developed length x pi/4 x d^2 x 7.85 g/cm3 for carbon steel, rounded to avoid false precision (whole g below 100 g, 10 g steps below 1,000 g, 100 g steps above). Matching nuts and washers are counted separately; see the related charts at the foot of the page.

DN32

42.4 mm OD · M8

Matching pipe OD (nominal DN)	42.4 mm (DN32)
Inside width A (mm)	56 mm
Leg length (mm)	37 mm
Overall height H (mm)	86 mm
Matching thread size	M8 (pitch P=1.25 mm) · Catalog pairing
Thread length (per leg)	50 mm
Rod diameters available	M8 / M10
Bend centreline length (mm)	100.5 mm
Developed length (mm)	174.5 mm

Thread pairing source tags: "Catalog pairing" means the value was extracted size by size from the spec_json of U-bolt SKUs in the product catalog (same source as the product pages; the extraction script ops/tools/gen-ubolt-dims.py can be re-run to verify). "Assumed" would mean the catalog has no SKU covering that pipe-OD band and a conventional pairing was assumed and flagged here. All 11 bands in this chart are catalog pairings; none is assumed.

DN32 Unit Weight by Configuration (per available rod diameter)

A U-bolt's unit weight moves with rod diameter and developed length together: developed length = 2 x leg length + bend centreline length (a semicircle of radius (inside width + rod diameter)/2), so the bend grows with the rod too and each step up in diameter adds weight faster than the square of the diameter alone.

Rod diameter	Bend centreline length (mm)	Developed length (mm)	Unit weight (g/pc) g / piece	Bulk (kg/1,000 pcs) kg / 1000 pcs
M8Default pairing	100.5	174.5	69	69
M10	103.7	177.7	110	110

Unit weight = developed length x pi/4 x d^2 x 7.85 g/cm3 for carbon steel, rounded to avoid false precision (whole g below 100 g, 10 g steps below 1,000 g, 100 g steps above). Matching nuts and washers are counted separately; see the related charts at the foot of the page.

DN40

48.3 mm OD · M8

Matching pipe OD (nominal DN)	48.3 mm (DN40)
Inside width A (mm)	62 mm
Leg length (mm)	40 mm
Overall height H (mm)	92 mm
Matching thread size	M8 (pitch P=1.25 mm) · Catalog pairing
Thread length (per leg)	50 mm
Rod diameters available	M8 / M10 / M12
Bend centreline length (mm)	110 mm
Developed length (mm)	190 mm

Thread pairing source tags: "Catalog pairing" means the value was extracted size by size from the spec_json of U-bolt SKUs in the product catalog (same source as the product pages; the extraction script ops/tools/gen-ubolt-dims.py can be re-run to verify). "Assumed" would mean the catalog has no SKU covering that pipe-OD band and a conventional pairing was assumed and flagged here. All 11 bands in this chart are catalog pairings; none is assumed.

DN40 Unit Weight by Configuration (per available rod diameter)

A U-bolt's unit weight moves with rod diameter and developed length together: developed length = 2 x leg length + bend centreline length (a semicircle of radius (inside width + rod diameter)/2), so the bend grows with the rod too and each step up in diameter adds weight faster than the square of the diameter alone.

Rod diameter	Bend centreline length (mm)	Developed length (mm)	Unit weight (g/pc) g / piece	Bulk (kg/1,000 pcs) kg / 1000 pcs
M8Default pairing	110	190	75	75
M10	113.1	193.1	120	120
M12	116.2	196.2	170	170

Unit weight = developed length x pi/4 x d^2 x 7.85 g/cm3 for carbon steel, rounded to avoid false precision (whole g below 100 g, 10 g steps below 1,000 g, 100 g steps above). Matching nuts and washers are counted separately; see the related charts at the foot of the page.

DN50

60.3 mm OD · M10

Matching pipe OD (nominal DN)	60.3 mm (DN50)
Inside width A (mm)	76 mm
Leg length (mm)	49 mm
Overall height H (mm)	109 mm
Matching thread size	M10 (pitch P=1.5 mm) · Catalog pairing
Thread length (per leg)	50 mm
Rod diameters available	M10 / M12 / M16
Bend centreline length (mm)	135.1 mm
Developed length (mm)	233.1 mm

Thread pairing source tags: "Catalog pairing" means the value was extracted size by size from the spec_json of U-bolt SKUs in the product catalog (same source as the product pages; the extraction script ops/tools/gen-ubolt-dims.py can be re-run to verify). "Assumed" would mean the catalog has no SKU covering that pipe-OD band and a conventional pairing was assumed and flagged here. All 11 bands in this chart are catalog pairings; none is assumed.

DN50 Unit Weight by Configuration (per available rod diameter)

A U-bolt's unit weight moves with rod diameter and developed length together: developed length = 2 x leg length + bend centreline length (a semicircle of radius (inside width + rod diameter)/2), so the bend grows with the rod too and each step up in diameter adds weight faster than the square of the diameter alone.

Rod diameter	Bend centreline length (mm)	Developed length (mm)	Unit weight (g/pc) g / piece	Bulk (kg/1,000 pcs) kg / 1000 pcs
M10Default pairing	135.1	233.1	140	140
M12	138.2	236.2	210	210
M16	144.5	242.5	380	380

Unit weight = developed length x pi/4 x d^2 x 7.85 g/cm3 for carbon steel, rounded to avoid false precision (whole g below 100 g, 10 g steps below 1,000 g, 100 g steps above). Matching nuts and washers are counted separately; see the related charts at the foot of the page.

DN65

76.1 mm OD · M10

Matching pipe OD (nominal DN)	76.1 mm (DN65)
Inside width A (mm)	94 mm
Leg length (mm)	57 mm
Overall height H (mm)	125 mm
Matching thread size	M10 (pitch P=1.5 mm) · Catalog pairing
Thread length (per leg)	50 mm
Rod diameters available	M10 / M12 / M16
Bend centreline length (mm)	163.4 mm
Developed length (mm)	277.4 mm

Thread pairing source tags: "Catalog pairing" means the value was extracted size by size from the spec_json of U-bolt SKUs in the product catalog (same source as the product pages; the extraction script ops/tools/gen-ubolt-dims.py can be re-run to verify). "Assumed" would mean the catalog has no SKU covering that pipe-OD band and a conventional pairing was assumed and flagged here. All 11 bands in this chart are catalog pairings; none is assumed.

DN65 Unit Weight by Configuration (per available rod diameter)

A U-bolt's unit weight moves with rod diameter and developed length together: developed length = 2 x leg length + bend centreline length (a semicircle of radius (inside width + rod diameter)/2), so the bend grows with the rod too and each step up in diameter adds weight faster than the square of the diameter alone.

Rod diameter	Bend centreline length (mm)	Developed length (mm)	Unit weight (g/pc) g / piece	Bulk (kg/1,000 pcs) kg / 1000 pcs
M10Default pairing	163.4	277.4	170	170
M12	166.5	280.5	250	250
M16	172.8	286.8	450	450

Unit weight = developed length x pi/4 x d^2 x 7.85 g/cm3 for carbon steel, rounded to avoid false precision (whole g below 100 g, 10 g steps below 1,000 g, 100 g steps above). Matching nuts and washers are counted separately; see the related charts at the foot of the page.

DN80

88.9 mm OD · M12

Matching pipe OD (nominal DN)	88.9 mm (DN80)
Inside width A (mm)	106 mm
Leg length (mm)	66 mm
Overall height H (mm)	138 mm
Matching thread size	M12 (pitch P=1.75 mm) · Catalog pairing
Thread length (per leg)	50 mm
Rod diameters available	M12 / M16 / M20
Bend centreline length (mm)	185.4 mm
Developed length (mm)	317.4 mm

Thread pairing source tags: "Catalog pairing" means the value was extracted size by size from the spec_json of U-bolt SKUs in the product catalog (same source as the product pages; the extraction script ops/tools/gen-ubolt-dims.py can be re-run to verify). "Assumed" would mean the catalog has no SKU covering that pipe-OD band and a conventional pairing was assumed and flagged here. All 11 bands in this chart are catalog pairings; none is assumed.

DN80 Unit Weight by Configuration (per available rod diameter)

A U-bolt's unit weight moves with rod diameter and developed length together: developed length = 2 x leg length + bend centreline length (a semicircle of radius (inside width + rod diameter)/2), so the bend grows with the rod too and each step up in diameter adds weight faster than the square of the diameter alone.

Rod diameter	Bend centreline length (mm)	Developed length (mm)	Unit weight (g/pc) g / piece	Bulk (kg/1,000 pcs) kg / 1000 pcs
M12Default pairing	185.4	317.4	280	280
M16	191.6	323.6	510	510
M20	197.9	329.9	810	810

Unit weight = developed length x pi/4 x d^2 x 7.85 g/cm3 for carbon steel, rounded to avoid false precision (whole g below 100 g, 10 g steps below 1,000 g, 100 g steps above). Matching nuts and washers are counted separately; see the related charts at the foot of the page.

DN100

114.3 mm OD · M12

Matching pipe OD (nominal DN)	114.3 mm (DN100)
Inside width A (mm)	136 mm
Leg length (mm)	78 mm
Overall height H (mm)	171 mm
Matching thread size	M12 (pitch P=1.75 mm) · Catalog pairing
Thread length (per leg)	60 mm
Rod diameters available	M12 / M16 / M20

Bend centreline length (mm)	232.5 mm
Developed length (mm)	388.5 mm

Thread pairing source tags: "Catalog pairing" means the value was extracted size by size from the spec_json of U-bolt SKUs in the product catalog (same source as the product pages; the extraction script ops/tools/gen-ubolt-dims.py can be re-run to verify). "Assumed" would mean the catalog has no SKU covering that pipe-OD band and a conventional pairing was assumed and flagged here. All 11 bands in this chart are catalog pairings; none is assumed.

DN100 Unit Weight by Configuration (per available rod diameter)

A U-bolt's unit weight moves with rod diameter and developed length together: developed length = 2 x leg length + bend centreline length (a semicircle of radius (inside width + rod diameter)/2), so the bend grows with the rod too and each step up in diameter adds weight faster than the square of the diameter alone.

Rod diameter	Bend centreline length (mm)	Developed length (mm)	Unit weight (g/pc) g / piece	Bulk (kg/1,000 pcs) kg / 1000 pcs
M12Default pairing	232.5	388.5	340	340
M16	238.8	394.8	620	620
M20	245	401	990	990

Unit weight = developed length x pi/4 x d^2 x 7.85 g/cm3 for carbon steel, rounded to avoid false precision (whole g below 100 g, 10 g steps below 1,000 g, 100 g steps above). Matching nuts and washers are counted separately; see the related charts at the foot of the page.

DN125

139.7 mm OD · M16

Matching pipe OD (nominal DN)	139.7 mm (DN125)
Inside width A (mm)	164 mm
Leg length (mm)	84 mm
Overall height H (mm)	191 mm
Matching thread size	M16 (pitch P=2 mm) · Catalog pairing
Thread length (per leg)	60 mm
Rod diameters available	M16 / M20
Bend centreline length (mm)	282.7 mm
Developed length (mm)	450.7 mm

Thread pairing source tags: "Catalog pairing" means the value was extracted size by size from the spec_json of U-bolt SKUs in the product catalog (same source as the product pages; the extraction script ops/tools/gen-ubolt-dims.py can be re-run to verify). "Assumed" would mean the catalog has no SKU covering that pipe-OD band and a conventional pairing was assumed and flagged here. All 11 bands in this chart are catalog pairings; none is assumed.

DN125 Unit Weight by Configuration (per available rod diameter)

A U-bolt's unit weight moves with rod diameter and developed length together: developed length = 2 x leg length + bend centreline length (a semicircle of radius (inside width + rod diameter)/2), so the bend grows with the rod too and each step up in diameter adds weight faster than the square of the diameter alone.

Rod diameter	Bend centreline length (mm)	Developed length (mm)	Unit weight (g/pc) g / piece	Bulk (kg/1,000 pcs) kg / 1000 pcs
M16Default pairing	282.7	450.7	710	710
M20	289	457	1100	1100

Unit weight = developed length x pi/4 x d^2 x 7.85 g/cm3 for carbon steel, rounded to avoid false precision (whole g below 100 g, 10 g steps below 1,000 g, 100 g steps above). Matching nuts and washers are counted separately; see the related charts at the foot of the page.

DN150

168.3 mm OD · M20

Matching pipe OD (nominal DN)	168.3 mm (DN150)
Inside width A (mm)	192 mm
Leg length (mm)	96 mm
Overall height H (mm)	217 mm
Matching thread size	M20 (pitch P=2.5 mm) · Catalog pairing
Thread length (per leg)	60 mm
Rod diameters available	M20
Bend centreline length (mm)	333 mm
Developed length (mm)	525 mm

Thread pairing source tags: "Catalog pairing" means the value was extracted size by size from the spec_json of U-bolt SKUs in the product catalog (same source as the product pages; the extraction script ops/tools/gen-ubolt-dims.py can be re-run to verify). "Assumed" would mean the catalog has no SKU covering that pipe-OD band and a conventional pairing was assumed and flagged here. All 11 bands in this chart are catalog pairings; none is assumed.

DN150 Unit Weight by Configuration (per available rod diameter)

A U-bolt's unit weight moves with rod diameter and developed length together: developed length = 2 x leg length + bend centreline length (a semicircle of radius (inside width + rod diameter)/2), so the bend grows with the rod too and each step up in diameter adds weight faster than the square of the diameter alone.

Rod diameter	Bend centreline length (mm)	Developed length (mm)	Unit weight (g/pc) g / piece	Bulk (kg/1,000 pcs) kg / 1000 pcs
M20Default pairing	333	525	1300	1300

Unit weight = developed length x pi/4 x d^2 x 7.85 g/cm3 for carbon steel, rounded to avoid false precision (whole g below 100 g, 10 g steps below 1,000 g, 100 g steps above). Matching nuts and washers are counted separately; see the related charts at the foot of the page.

Calculation Basis and Assumptions Disclosed

Dimensions come from fastenerCalc: inside width, leg length and overall height are mapped from UB_PIPES (DIN 3570 series geometry, same source as the product catalog SKUs); the matching thread size comes from UB_THREAD (extracted size by size from the live prd_sku.spec_json, see the source tag in the table above); pitches follow the GB/T 196 metric coarse table. Unit weights are all computed from geometry: developed length = 2 x leg length + bend centreline length, the bend taken as a semicircle on the centreline (radius = (inside width + rod diameter)/2), rod at nominal full diameter, 7.85 g/cm3 for carbon steel, base metal only, coating excluded. This developed-length convention matches the catalog spec_json developedLengthMm for every size.

Boundary: unit weights are theoretical geometry estimates for quotation, freight and packing budgets; actual weight varies with bend radius, thread accuracy and coating (hot-dip galvanizing roughly +4.5%), and trade settlement is against actual measurement. Inside width, leg length and overall height are catalog-modelled dimensions; square bends, extended legs, inch pipe (NPS) and special thread forms are made to drawing, and this chart is not an acceptance basis.

Rolled-thread allowance disclosed: the main table is computed at nominal full diameter (the same basis as the catalog unit_weight_g, so it reconciles row by row). The threaded portions of both legs are roll formed and lose a little material; applying the 0.97 rolled-thread allowance (THREAD_ROLL_ALLOWANCE) puts this size at roughly {rolled} g/pc, about {factor}% lower. Either basis can be used for batch costing; the main table stays unadjusted so it matches the catalog.

References

- Dimensions and matching thread extracted size by size from U-bolt SKU spec_json in the product catalog (DIN 3570 series, same source as product pages)
- GB/T 1047 nominal pipe size DN against the metric pipe outside-diameter series (National Public Service Platform for Standards Information) — https://openstd.samr.gov.cn/bzgk/gb/std?std_no=GB%2FT%201047-2019
- GB/T 196-2003 General Purpose Metric Screw Threads — Basic Dimensions, coarse pitches (same table as fastenerCalc.pitchOf) — https://openstd.samr.gov.cn/bzgk/gb/std?std_no=GB%2FT%20196-2003

Disclaimer: This table is engineering estimate data for selection, quotation and freight estimation reference only, not a design basis or acceptance standard.

Material Density Conversion

Table values are for carbon steel (7.85 g/cm3); other materials convert by density ratio: weight x factor (geometry unchanged).

Material	Density (g/cm3) g/cm³	Conversion Factor
Carbon Steel	7.85	×1.000
304 Stainless Steel	7.93	×1.010
316 Stainless Steel	7.98	×1.017
Brass	8.5	×1.083