

BELDEN universal

Custom + Engineered + Precision



AS 9100D

UNIVERSAL JOINTS & DRIVE SHAFTS

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THE HISTORY OF BELDEN UNIVERSAL

The history of Belden Universal leads us back to Cicero, IL, 1939, when three Italian immigrant brothers opened a precision machine shop. In 1968, Belden Tools, Inc. was established and began manufacturing high quality, precision universal joints for a variety of applications, creating a primary focus for the company. In 1997, Perry Sainati drew upon his entrepreneurial roots and his uncanny instinct for new opportunities and spun off Belden's precision coupling division; resulting in an all-new, independent enterprise, Belden Universal. Since that time, Perry has completely re-imagined the division, transforming it from a small unit that made universal joints and drive shafts for the machine building industry into a corporate enterprise that now produces highly special, one-of-a-kind universal joints for dozens of industries, ranging from aerospace and medical technology to food processing, robotics, energy and auto racing.

As a result of Perry Sainati's visionary leadership and the company's progressive and innovative approaches to manufacturing, Belden Universal today is the nation's #1 manufacturer of specialty universal joints, with customers throughout the globe.



PERRY SAINATI, PRESIDENT

"Our goal is to build upon the overall competitive advantage we've established and to serve the unique need of each customer, regardless the industry and markets in which they operate."



CUSTOMERS CHOOSE US FOR OUR UNIQUE TECHNOLOGIES, CERTIFICATIONS & DESIGN EXPERTISE

Belden Universal is a leading manufacturer of high-quality special-purpose universal joints and drive-shaft assemblies made to customers' exact specifications. Our unique design-engineering and machining capabilities make us a cut above the rest among universal joint manufacturers. We practice Total Quality Management throughout our manufacturing processes, ensuring that the end product exceeds our customers' expectations.

- Innovative Design Solutions
- Award Winning Production Team
- Highly Skilled Application Specialists
- Advanced Manufacturing Technologies
- Extensive In-House Testing Capabilities
- Stringent Quality Management Standards

BELDEN
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CAPABILITIES

ADVANCED MANUFACTURING CAPABILITIES

Belden continually invests in the latest in automation technologies. The company utilizes multiple automatic Computer Numerical Control (CNC) machines and Coordinate Measuring Machines (CMM) that perform manufacturing and inspection processes without human intervention. Additionally, Belden owns a “closed loop manufacturing cell” that combines the functions of both a CNC and CMM machine, further reducing the chance for human errors and delivering shorter cycle times and faster production. Our capabilities include:

- Multi-Axis CNC Machining Centers
- Closed Loop Manufacturing Cell
- Automated Riveting Process
- Digitized Inspection Records
- Automated Measuring Equipment
- Static Torque Test Cell
- R & D Project Team
- Endurance Test Cell

SATISFYING HIGH QUALITY STANDARDS

Belden is AS9100D certified, the highest of global standards for quality assurance in the Aircraft, Space and Defense (AS&D) industry. Belden is rightfully proud of this major qualification that is rare amongst competitors and makes Belden high-in-demand among universal joint manufacturers. In a recent project for an aerospace customer, Belden not only exceeded custom-design expectations for a highly-complex system but also satisfied exceptionally stringent quality specifications.



Belden Quality Standards

- AS 9100D



Belden Certification Capabilities

- Lot Traceability / Part Serialization
- AS9102 FAIR

Product Compliance Capabilities

- RoHS2
- REACH
- DFARS

SPECIALTY UNIVERSAL JOINTS & DRIVE SHAFTS

TRAILBLAZING APPLICATIONS

Belden is in the forefront of undertaking custom product development for special applications. These projects usually pose great challenges, such as the design and production of miniature precision joints for surgical robotics; or wearable robotic exoskeletons that provide powered hip and knee motion to individuals with Spinal Cord Injury (SCI) enabling them to stand upright and walk.



DRIVE SHAFT ASSEMBLIES

Drive shafts, also called articulated shafts, include two universal joints. The simplest type of drive shaft contains a joint at each end. The configuration is essentially an extended double joint for overcoming distances and offsets between the drive and the driven load. Drive shafts also provide a solution for bridging angular misalignment.

- Spring-Loaded, Quick Change Shafts
- Telescoping Drive Shafts
- Quick-Release Hub Feature
- Fail-Safe Stop Solution



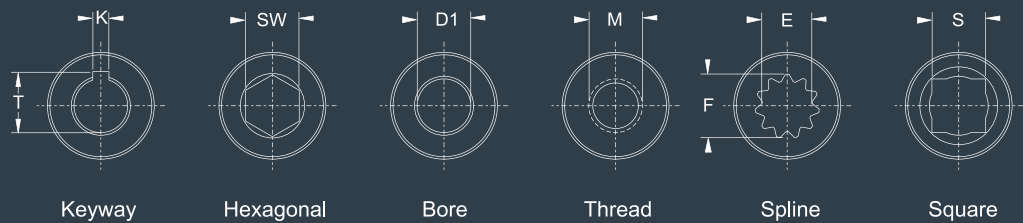
CHARACTERISTICS OF A BELDEN UNIVERSAL JOINT

The Belden universal joint has become recognized as the most precise and reliable joint on the global market today. Our components satisfy a broad spectrum of system requirements and should be first thought when engineers are faced with the complex challenges of today's dynamic manufacturing industry.



- Sophisticated Design Options
- Maximum Strength-to-Weight Ratios
- Minimal Torsional Backlash
- Extensive Testing Capabilities
- Ultimate Durability Under Harsh Conditions
- Sustained Precision at High RPM and Extended Use
- Large Selection of Sizes - 0.315" [8mm] to 8.0" [203mm] Outside Diameter
- Wide Array of Materials and Coatings

Hub ends available with several standard bore configurations (Plain bore, Bore + Keyway, Hex bore, Square bore). Pin holes and tapped holes for setscrew also available on request.



MATERIALS & FINISHES

RAISING THE STANDARD

Most of Belden's standard heavy duty alloy yokes are manufactured from AISI 1144 steel, selectively hardened. Other materials may be used depending on size and/or series. Standard heavy duty alloy blocks and pins are typically manufactured from hardened AISI 8620 steel for increased strength, durability, and better performance than other industrial-grade models.

Standard stainless steel yokes are manufactured from Type 303 stainless steel; blocks and pins from hardened Type 416 stainless to prevent premature galling and wear and for increased strength, durability, and better performance than other industrial-grade models. Other materials available upon request.

All components are manufactured to close tolerances and selectively heat treated where applicable.

SPECIAL APPLICATIONS - UNIQUE MATERIALS

We use a wide array of special materials in our custom solutions - delivering increased strength, improved wear, corrosion resistance and other qualities:

- > AISI 303, 304, 316L, 416, 420, 17-4, 15-5 Stainless Steel;
- > Aluminum, Bronze & Brass Alloys;
- > Duplex Stainless Steel (e.g. S32760);
- > Super Alloys such as Inconel;
- > Titanium and others.

PLATING & SURFACE TREATMENT OPTIONS

Components can be finished with a variety of coatings and treatments for corrosion and wear resistance, such as: Cadmium; Nickel; Zinc; Black Oxide; Electro Polishing, Dry-Film Lubrication & Others.

BASIC UNIVERSAL JOINT TYPES

HEAVY DUTY & HIGH-STRENGTH UNIVERSAL JOINTS

Suitable for a variety of standard applications. They feature friction-bearing (pin & block) design. Our High-Strength joints are suitable for high-torque applications and for accommodating larger shaft diameters.

LEVELER-STRENGTH UNIVERSAL JOINTS

Designed for extreme torque applications, with enhanced mechanical properties and manufacturing processes that increase the strength and extend the operating life of the joints.

NEEDLE-BEARING UNIVERSAL JOINTS

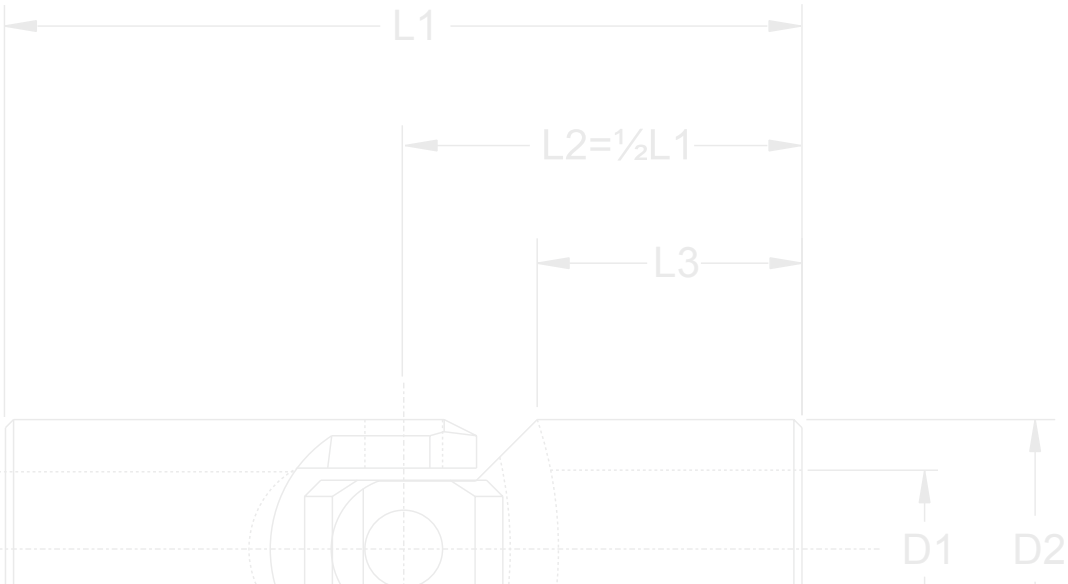
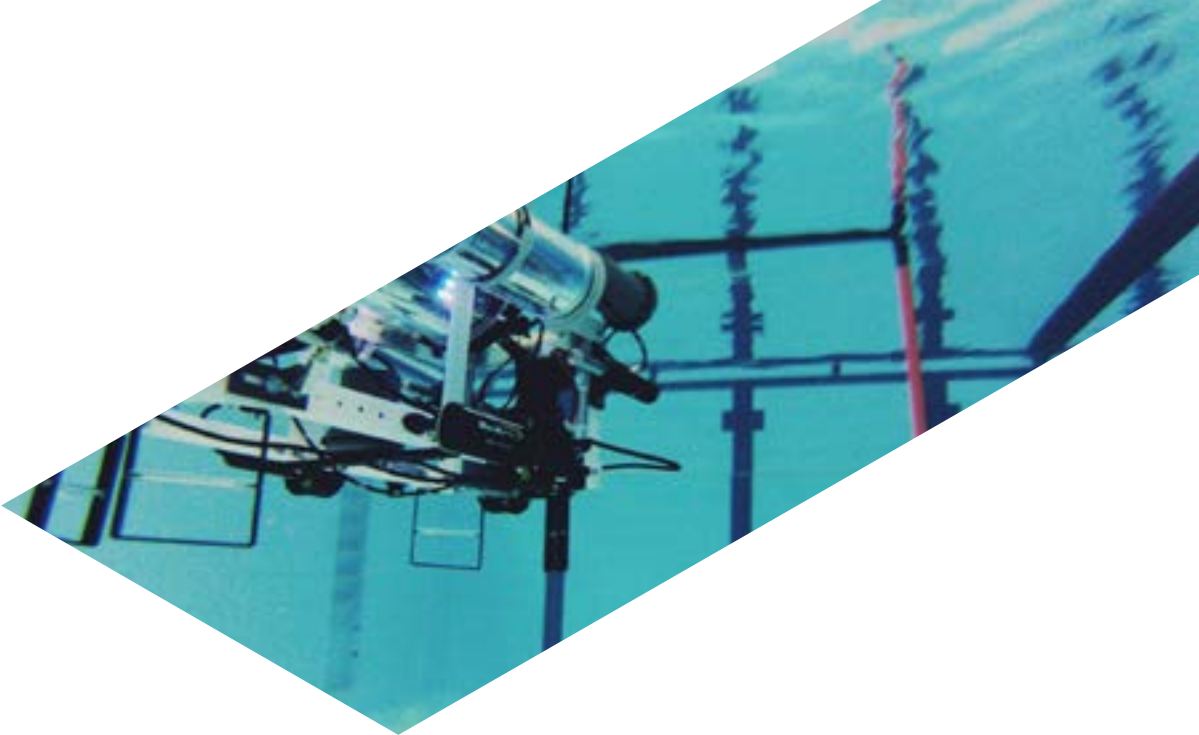
High-precision universal joints with rigid axial stiffness that maintain minimal play and backlash over extended periods of time. Superior lifetime at continuous duty cycles and high RPM.

MILITARY-STANDARD (MIL-SPEC) UNIVERSAL JOINTS

A line of joints designed according to military specifications for dimensions, strength and other features like plating and boot covers. Belden's mil-spec joints meet or exceed MIL-DTL-6193 specifications. Belden carries QPL approved mil-spec joints.

STAINLESS STEEL UNIVERSAL JOINTS

High-quality joints for special applications with high strength requirements and corrosive, sterile or sanitary environments.



INDUSTRIES

From metal working to aircraft or surgical equipment, our components can be found in a broad spectrum of industrial settings. They deliver high performance and durability to ensure flawless operation under any condition.

We understand that each application presents its unique challenges. Our extensive design and manufacturing expertise spans across a variety of industries:

- Aerospace Systems
- Automation Equipment
- Drilling and Tapping
- Food Processing
- Industrial Machinery
- Marine Applications
- Medical Equipment
- Metal Processing
- Military Equipment
- Motion Control
- Offshore & Land Energy
- Packaging Machinery
- Printing Processes
- Pump Systems
- Specialty Vehicles
- Woodworking & more



HEAVY DUTY SINGLE UNIVERSAL JOINTS

The Belden single pin & block universal joint is manufactured from high-grade alloy steel for increased durability and better performance than standard industrial-grade models. All components are heat treated, precision machined and ground to close tolerances. The Heavy Duty universal joint provides exceptional service life in the most demanding applications. All joints are available with or without a lubricant retaining boot.



Boot grooves are standard.
Parts without grooves available upon request.

- Features
- High grade-alloy steel
 - Maximum operating angles up to 45°
(Special design options with higher angles may be available)
 - Wide selection of hub configurations & finishes

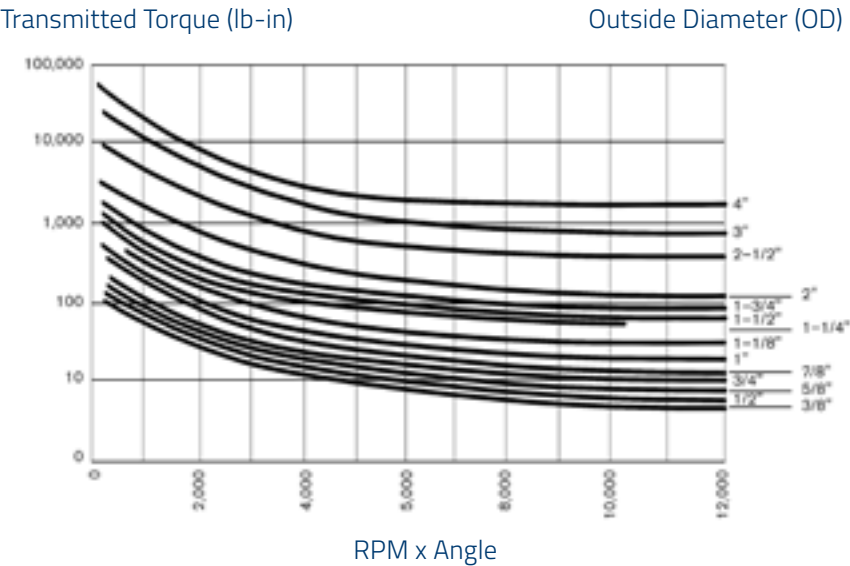
Torque Values by Outside Diameter

Nominal OD (in)	Max. Operating Torque Lb-in [N-m]	Ultimate Torque Lb-in [N-m]
3/8"	20 [2.3]	100 [11]
1/2"	70 [7.9]	350 [39]
5/8"	135 [15]	675 [76]
3/4"	250 [28]	1250 [141]
7/8"	350 [39]	1750 [197]
1"	450 [50]	2250 [254]
1-1/8"	650 [73]	3250 [367]

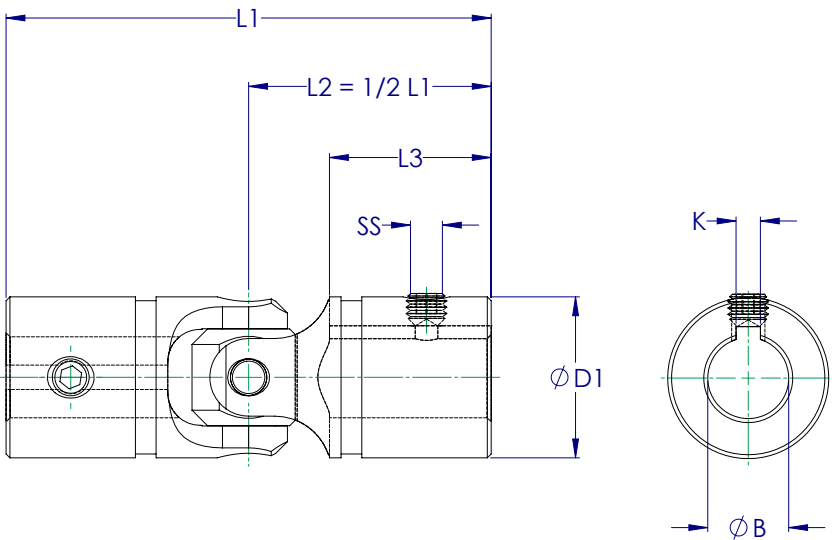
Nominal OD (in)	Max. Operating Torque Lb-in [N-m]	Ultimate Torque Lb-in [N-m]
1-1/4"	1040 [117]	5200 [587]
1-1/2"	2000 [226]	10000 [1129]
1-3/4"	2900 [327]	14500 [1638]
2"	4300 [485]	21500 [2429]
2.5"	6400 [723]	32000 [3615]
3"	11000 [1242]	55000 [6214]
4"	22000 [2485]	110000 [12429]

Performance Curve for Pin + Block Universal Joints

The chart is a guideline. Please consult Belden with your specific application.



HEAVY DUTY SINGLE UNIVERSAL JOINTS



- Legend
- ØD1: Outside Diameter
 - ØB: Bore (Inside) Diameter
 - L1: Overall Length
 - L2: Yoke Length
 - L3: Hub Length / Bore Depth
 - K: Keyway
 - SS: Setscrew

Standard operating angle 45°. Special design solutions with higher angles may be available upon request.

Part Number	ØD1 Nominal (in)	ØD1 in [mm]	ØB in [mm]	L1 in [mm]	L2 in [mm]	L3 in [mm]	K [in]	SS
UJ-HD375x00	3/8"	0.370 [9.40]	n/a	1.750 [44.5]	0.875 [22.2]	0.67 [17.0]	n/a	n/a
UJ-HD375x00 KIT	3/8"	0.370 [9.40]	n/a	1.750 [44.5]	0.875 [22.2]	0.67 [17.0]	n/a	n/a
UJ-HD375x188	3/8"	0.370 [9.40]	0.1875 [4.763]	1.750 [44.5]	0.875 [22.2]	0.67 [17.0]	n/a	n/a
UJ-HD375x188-1SS	3/8"	0.370 [9.40]	0.1875 [4.763]	1.750 [44.5]	0.875 [22.2]	0.67 [17.0]	n/a	Yes
UJ-HD500x00	1/2"	0.495 [12.57]	n/a	2.000 [50.8]	1.000 [25.4]	0.74 [18.8]	n/a	n/a
UJ-HD500x00 KIT	1/2"	0.495 [12.57]	n/a	2.000 [50.8]	1.000 [25.4]	0.74 [18.8]	n/a	n/a
UJ-HD500x250	1/2"	0.495 [12.57]	0.2500 [6.350]	2.000 [50.8]	1.000 [25.4]	0.74 [18.8]	n/a	n/a
UJ-HD500x250-1SS	1/2"	0.495 [12.57]	0.2500 [6.350]	2.000 [50.8]	1.000 [25.4]	0.74 [18.8]	n/a	Yes
UJ-HD625x00	5/8"	0.620 [15.75]	n/a	2.250 [57.2]	1.125 [28.6]	0.82 [20.9]	n/a	n/a
UJ-HD625x00 KIT	5/8"	0.620 [15.75]	n/a	2.250 [57.2]	1.125 [28.6]	0.82 [20.9]	n/a	n/a
UJ-HD625x313	5/8"	0.620 [15.75]	0.3125 [7.938]	2.250 [57.2]	1.125 [28.6]	0.82 [20.9]	n/a	n/a
UJ-HD625x313K	5/8"	0.620 [15.75]	0.3125 [7.938]	2.250 [57.2]	1.125 [28.6]	0.82 [20.9]	3/32 x 3/64	Yes
UJ-HD750x00	3/4"	0.745 [18.92]	n/a	2.688 [68.3]	1.344 [34.1]	0.95 [24.1]	n/a	n/a
UJ-HD750x00 KIT	3/4"	0.745 [18.92]	n/a	2.688 [68.3]	1.344 [34.1]	0.95 [24.1]	n/a	n/a
UJ-HD750x375	3/4"	0.745 [18.92]	0.3750 [9.525]	2.688 [68.3]	1.344 [34.1]	0.95 [24.1]	n/a	n/a
UJ-HD750x375K	3/4"	0.745 [18.92]	0.3750 [9.525]	2.688 [68.3]	1.344 [34.1]	0.95 [24.1]	3/32 x 3/64	Yes
UJ-HD875x00	7/8"	0.870 [22.10]	n/a	3.000 [76.2]	1.500 [38.1]	1.03 [26.2]	n/a	n/a
UJ-HD875x00 KIT	7/8"	0.870 [22.10]	n/a	3.000 [76.2]	1.500 [38.1]	1.03 [26.2]	n/a	n/a
UJ-HD875x438	7/8"	0.870 [22.10]	0.4375 [11.113]	3.000 [76.2]	1.500 [38.1]	1.03 [26.2]	n/a	n/a
UJ-HD875x438K	7/8"	0.870 [22.10]	0.4375 [11.113]	3.000 [76.2]	1.500 [38.1]	1.03 [26.2]	3/32 x 3/64	Yes
UJ-HD1000x00	1"	0.995 [25.27]	n/a	3.375 [85.7]	1.688 [42.9]	1.19 [30.2]	n/a	n/a
UJ-HD1000x00 KIT	1"	0.995 [25.27]	n/a	3.375 [85.7]	1.688 [42.9]	1.19 [30.2]	n/a	n/a
UJ-HD1000x500	1"	0.995 [25.27]	0.5000 [12.700]	3.375 [85.7]	1.688 [42.9]	1.19 [30.2]	n/a	n/a
UJ-HD1000x500K	1"	0.995 [25.27]	0.5000 [12.700]	3.375 [85.7]	1.688 [42.9]	1.19 [30.2]	1/8 x 1/16	Yes
UJ-HD1125x00	1-1/8"	1.120 [28.45]	n/a	3.500 [88.9]	1.750 [44.5]	1.20 [30.4]	n/a	n/a
UJ-HD1125x00 KIT	1-1/8"	1.120 [28.45]	n/a	3.500 [88.9]	1.750 [44.5]	1.20 [30.4]	n/a	n/a
UJ-HD1125x563	1-1/8"	1.120 [28.45]	0.5625 [14.288]	3.500 [88.9]	1.750 [44.5]	1.20 [30.4]	n/a	n/a
UJ-HD1125x563K	1-1/8"	1.120 [28.45]	0.5625 [14.288]	3.500 [88.9]	1.750 [44.5]	1.20 [30.4]	1/8 x 1/16	Yes

[Metric values shown for reference only.] See page 25 for stainless versions.

HEAVY DUTY SINGLE UNIVERSAL JOINTS (CONTINUED)

Standard operating angle 45°. Special design solutions with higher angles may be available upon request.

Part Number	ØD1 Nominal	ØD1 in [mm]	ØB in [mm]	L1 in [mm]	L2 in [mm]	L3 in [mm]	K [in]	SS
UJ-HD1250x00	1-1/4"	1.245 [31.62]	n/a	3.750 [95.3]	1.875 [47.6]	1.25 [31.8]	n/a	n/a
UJ-HD1250x00 KIT	1-1/4"	1.245 [31.62]	n/a	3.750 [95.3]	1.875 [47.6]	1.25 [31.8]	n/a	n/a
UJ-HD1250x625	1-1/4"	1.245 [31.62]	0.6250 [15.875]	3.750 [95.3]	1.875 [47.6]	1.25 [31.8]	n/a	n/a
UJ-HD1250x625K	1-1/4"	1.245 [31.62]	0.6250 [15.875]	3.750 [95.3]	1.875 [47.6]	1.25 [31.8]	3/16 x 3/32	Yes
UJ-HD1500x00	1-1/2"	1.495 [37.97]	n/a	4.250 [108.0]	2.125 [54.0]	1.40 [35.6]	n/a	n/a
UJ-HD1500x00 KIT	1-1/2"	1.495 [37.97]	n/a	4.250 [108.0]	2.125 [54.0]	1.40 [35.6]	n/a	n/a
UJ-HD1500x750	1-1/2"	1.495 [37.97]	0.7500 [19.050]	4.250 [108.0]	2.125 [54.0]	1.40 [35.6]	n/a	n/a
UJ-HD1500x750K	1-1/2"	1.495 [37.97]	0.7500 [19.050]	4.250 [108.0]	2.125 [54.0]	1.40 [35.6]	3/16 x 3/32	Yes
UJ-HD1750x00	1-3/4"	1.745 [44.32]	n/a	5.000 [127.0]	2.500 [63.5]	1.61 [40.9]	n/a	n/a
UJ-HD1750x00 KIT	1-3/4"	1.745 [44.32]	n/a	5.000 [127.0]	2.500 [63.5]	1.61 [40.9]	n/a	n/a
UJ-HD1750x875	1-3/4"	1.745 [44.32]	0.8750 [22.225]	5.000 [127.0]	2.500 [63.5]	1.61 [40.9]	n/a	n/a
UJ-HD1750x875K	1-3/4"	1.745 [44.32]	0.8750 [22.225]	5.000 [127.0]	2.500 [63.5]	1.61 [40.9]	3/16 x 3/32	Yes
UJ-HD2000x00	2"	1.995 [50.67]	n/a	5.500 [139.7]	2.750 [69.9]	1.70 [43.2]	n/a	n/a
UJ-HD2000x00 KIT	2"	1.995 [50.67]	n/a	5.500 [139.7]	2.750 [69.9]	1.70 [43.2]	n/a	n/a
UJ-HD2000x1000	2"	1.995 [50.67]	1.0000 [25.400]	5.500 [139.7]	2.750 [69.9]	1.70 [43.2]	n/a	n/a
UJ-HD2000x1000K	2"	1.995 [50.67]	1.0000 [25.400]	5.500 [139.7]	2.750 [69.9]	1.70 [43.2]	1/4 x 1/8	Yes
UJ-HD2500x00	2.5"	2.495 [63.37]	n/a	7.000 [177.8]	3.500 [88.9]	2.09 [53.1]	n/a	n/a
UJ-HD2500x00 KIT	2.5"	2.495 [63.37]	n/a	7.000 [177.8]	3.500 [88.9]	2.09 [53.1]	n/a	n/a
UJ-HD2500x1250	2.5"	2.495 [63.37]	1.2500 [31.750]	7.000 [177.8]	3.500 [88.9]	2.09 [53.1]	n/a	n/a
UJ-HD2500x1250K	2.5"	2.495 [63.37]	1.2500 [31.750]	7.000 [177.8]	3.500 [88.9]	2.09 [53.1]	1/4 x 1/8	Yes
UJ-HD3000x00	3"	2.995 [76.07]	n/a	9.250 [235.0]	4.625 [117.5]	3.00 [76.2]	n/a	n/a
UJ-HD3000x00 KIT	3"	2.995 [76.07]	n/a	9.250 [235.0]	4.625 [117.5]	3.00 [76.2]	n/a	n/a
UJ-HD3000x1500	3"	2.995 [76.07]	1.5000 [38.100]	9.250 [235.0]	4.625 [117.5]	3.00 [76.2]	n/a	n/a
UJ-HD3000x1500K	3"	2.995 [76.07]	1.5000 [38.100]	9.250 [235.0]	4.625 [117.5]	3.00 [76.2]	3/8 x 3/16	Yes
UJ-HD4000x00	4"	3.995 [101.47]	n/a	10.625 [269.9]	5.313 [134.94]	3.25 [82.6]	n/a	n/a
UJ-HD4000x00 KIT	4"	3.995 [101.47]	n/a	10.625 [269.9]	5.313 [134.94]	3.25 [82.6]	n/a	n/a
UJ-HD4000x2000	4"	3.995 [101.47]	2.0000 [50.800]	10.625 [269.9]	5.313 [134.94]	3.25 [82.6]	n/a	n/a
UJ-HD4000x2000K	4"	3.995 [101.47]	2.0000 [50.800]	10. 625 [269.9]	5.313 [134.94]	3.25 [82.6]	1/2 x 1/4	Yes

[Metric values shown for reference only.] See page 25 for stainless versions.



HEAVY DUTY DOUBLE UNIVERSAL JOINTS

The Belden double universal joint provides the same reliability and service life as the single universal joint with a maximum combined working angle of 90°. Double universal joints provide accurate positioning and flexibility under higher operating angles. Belden double universal joints are available in a wide variety of materials and finishes. Lubricant retaining boots are recommended for operation in corrosive environments.



Features

- High-grade alloy steel
- Standard operating angles up to 90° (45° per joint)
- Special design solutions with higher angles may also be available
- Uniform speed ratio between driving and driven shafts (with parallel output shafts)

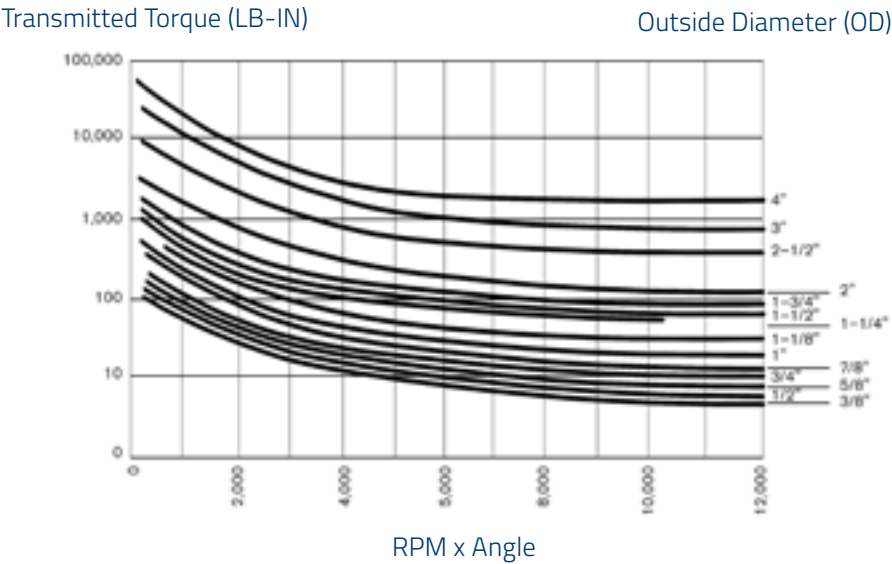
Torque Values by Outside Diameter

Nominal OD (in)	Max. Operating Torque Lb-in [N-m]	Ultimate Torque Lb-in [N-m]
3/8"	18 [2.0]	90 [10]
1/2"	63 [7.1]	315 [35]
5/8"	122 [13]	610 [68]
3/4"	225 [25]	1125 [127]
7/8"	315 [35]	1575 [178]
1"	405 [45]	2025 [228]
1-1/8"	585 [66]	2925 [330]

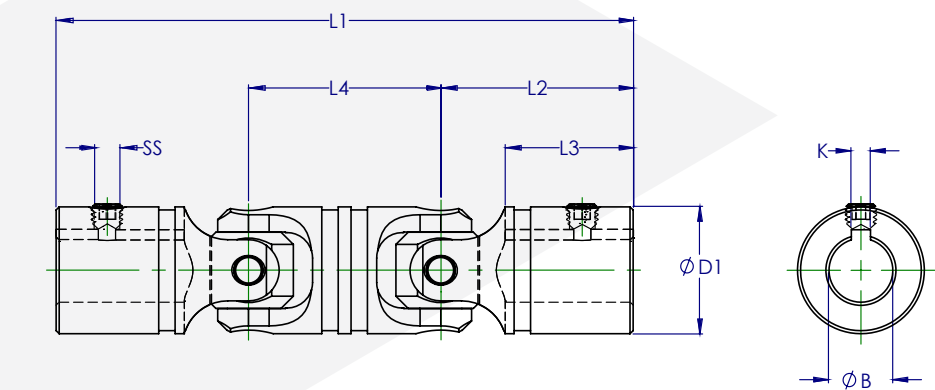
Nominal OD (in)	Max. Operating Torque Lb-in [N-m]	Ultimate Torque Lb-in [N-m]
1-1/4"	940 [106]	4700 [531]
1-1/2"	1800 [203]	9000 [1016]
1-3/4"	2610 [294]	13050 [1474]
2"	3870 [437]	19350 [2186]
2.5"	5760 [650]	28800 [3254]
3"	9900 [1118]	49500 [5593]
4"	19800 [2237]	99000 [11186]

Performance Curve for Pin + Block Universal Joints

The chart is a guideline. Please consult Belden with your specific application.



HEAVY DUTY DOUBLE UNIVERSAL JOINTS



- Legend
- ØD1: Outside Diameter
 - ØB: Bore (Inside) Diameter
 - L1: Overall Length
 - L2: Yoke Length
 - L3: Hub Length / Bore Depth
 - L4: Center Yoke Length
 - K: Keyway

Standard operating angle 90° i.e. 45° / u-joint. Special design solutions with higher angles may be available upon request.

Part Number	ØD1 Nominal (in)	ØD1 in [mm]	ØB in [mm]	L1 in [mm]	L2 in [mm]	L3 in [mm]	L4 In [mm]	K [in]	SS
DUJ-HD375x00	3/8"	0.370 [9.40]	n/a	2.44 [62.0]	0.875 [22.2]	0.67 [17.0]	0.688 [17.46]	n/a	n/a
DUJ-HD375x00 KIT	3/8"	0.370 [9.40]	n/a	2.44 [62.0]	0.875 [22.2]	0.67 [17.0]	0.688 [17.46]	n/a	n/a
DUJ-HD375x188	3/8"	0.370 [9.40]	0.1875 [4.763]	2.44 [62.0]	0.875 [22.2]	0.67 [17.0]	0.688 [17.46]	n/a	n/a
DUJ-HD375x188-1SS	3/8"	0.370 [9.40]	0.1875 [4.763]	2.44 [62.0]	0.875 [22.2]	0.67 [17.0]	0.688 [17.46]	n/a	Yes
DUJ-HD500x00	1/2"	0.495 [12.57]	n/a	2.81 [71.4]	1.000 [25.4]	0.74 [18.8]	0.813 [20.64]	n/a	n/a
DUJ-HD500x00 KIT	1/2"	0.495 [12.57]	n/a	2.81 [71.4]	1.000 [25.4]	0.74 [18.8]	0.813 [20.64]	n/a	n/a
DUJ-HD500x250	1/2"	0.495 [12.57]	0.2500 [6.350]	2.81 [71.4]	1.000 [25.4]	0.74 [18.8]	0.813 [20.64]	n/a	n/a
DUJ-HD500x250-1SS	1/2"	0.495 [12.57]	0.2500 [6.350]	2.81 [71.4]	1.000 [25.4]	0.74 [18.8]	0.813 [20.64]	n/a	Yes
DUJ-HD625x00	5/8"	0.620 [15.75]	n/a	3.25 [82.6]	1.125 [28.6]	0.82 [20.9]	1.000 [25.40]	n/a	n/a
DUJ-HD625x00 KIT	5/8"	0.620 [15.75]	n/a	3.25 [82.6]	1.125 [28.6]	0.82 [20.9]	1.000 [25.40]	n/a	n/a
DUJ-HD625x313	5/8"	0.620 [15.75]	0.3125 [7.938]	3.25 [82.6]	1.125 [28.6]	0.82 [20.9]	1.000 [25.40]	n/a	n/a
DUJ-HD625x313K	5/8"	0.620 [15.75]	0.3125 [7.938]	3.25 [82.6]	1.125 [28.6]	0.82 [20.9]	1.000 [25.40]	3/32 x 3/64	Yes
DUJ-HD750x00	3/4"	0.745 [18.92]	n/a	3.81 [96.9]	1.344 [34.1]	0.95 [24.1]	1.125 [28.58]	n/a	n/a
DUJ-HD750x00 KIT	3/4"	0.745 [18.92]	n/a	3.81 [96.9]	1.344 [34.1]	0.95 [24.1]	1.125 [28.58]	n/a	n/a
DUJ-HD750x375	3/4"	0.745 [18.92]	0.3750 [9.525]	3.81 [96.9]	1.344 [34.1]	0.95 [24.1]	1.125 [28.58]	n/a	n/a
DUJ-HD750x375K	3/4"	0.745 [18.92]	0.3750 [9.525]	3.81 [96.9]	1.344 [34.1]	0.95 [24.1]	1.125 [28.58]	3/32 x 3/64	Yes
DUJ-HD875x00	7/8"	0.870 [22.10]	n/a	4.37 [111.1]	1.500 [38.1]	1.03 [26.2]	1.375 [34.93]	n/a	n/a
DUJ-HD875x00 KIT	7/8"	0.870 [22.10]	n/a	4.37 [111.1]	1.500 [38.1]	1.03 [26.2]	1.375 [34.93]	n/a	n/a
DUJ-HD875x438	7/8"	0.870 [22.10]	0.4375 [11.113]	4.37 [111.1]	1.500 [38.1]	1.03 [26.2]	1.375 [34.93]	n/a	n/a
DUJ-HD875x438K	7/8"	0.870 [22.10]	0.4375 [11.113]	4.37 [111.1]	1.500 [38.1]	1.03 [26.2]	1.375 [34.93]	3/32 x 3/64	Yes
DUJ-HD1000x00	1"	0.995 [25.27]	n/a	4.87 [123.8]	1.688 [42.9]	1.19 [30.2]	1.500 [38.10]	n/a	n/a
DUJ-HD1000x00 KIT	1"	0.995 [25.27]	n/a	4.87 [123.8]	1.688 [42.9]	1.19 [30.2]	1.500 [38.10]	n/a	n/a
DUJ-HD1000x500	1"	0.995 [25.27]	0.5000 [12.700]	4.87 [123.8]	1.688 [42.9]	1.19 [30.2]	1.500 [38.10]	n/a	n/a
DUJ-HD1000x500K	1"	0.995 [25.27]	0.5000 [12.700]	4.87 [123.8]	1.688 [42.9]	1.19 [30.2]	1.500 [38.10]	1/8 x 1/16	Yes
DUJ-HD1125x00	1-1/8"	1.120 [28.45]	n/a	5.12 [130.2]	1.750 [44.5]	1.20 [30.4]	1.625 [41.28]	n/a	n/a
DUJ-HD1125x00 KIT	1-1/8"	1.120 [28.45]	n/a	5.12 [130.2]	1.750 [44.5]	1.20 [30.4]	1.625 [41.28]	n/a	n/a
DUJ-HD1125x563	1-1/8"	1.120 [28.45]	0.5625 [14.288]	5.12 [130.2]	1.750 [44.5]	1.20 [30.4]	1.625 [41.28]	n/a	n/a
DUJ-HD1125x563K	1-1/8"	1.120 [28.45]	0.5625 [14.288]	5.12 [130.2]	1.750 [44.5]	1.20 [30.4]	1.625 [41.28]	1/8 x 1/16	Yes
DUJ-HD1250x00	1-1/4"	1.245 [31.62]	n/a	5.62 [142.9]	1.875 [47.6]	1.25 [31.8]	1.875 [47.63]	n/a	n/a
DUJ-HD1250x00 KIT	1-1/4"	1.245 [31.62]	n/a	5.62 [142.9]	1.875 [47.6]	1.25 [31.8]	1.875 [47.63]	n/a	n/a
DUJ-HD1250x625	1-1/4"	1.245 [31.62]	0.6250 [15.875]	5.62 [142.9]	1.875 [47.6]	1.25 [31.8]	1.875 [47.63]	n/a	n/a
DUJ-HD1250x625K	1-1/4"	1.245 [31.62]	0.6250 [15.875]	5.62 [142.9]	1.875 [47.6]	1.25 [31.8]	1.875 [47.63]	3/16 x 3/32	Yes

[Metric values shown for reference only.] See page 28 for stainless versions.

HEAVY DUTY DOUBLE UNIVERSAL JOINTS (CONTINUED)

Standard operating angle 90° i.e. 45° / u-joint. Special design solutions with higher angles may be available upon request.

Part Number	ØD1 Nominal (in)	ØD1 in [mm]	ØB in [mm]	L1 in [mm]	L2 in [mm]	L3 in [mm]	L4 In [mm]	K [in]	SS
DUJ-HD1500x00	1-1/2"	1.495 [37.97]	n/a	6.56 [166.7]	2.125 [54.0]	1.40 [35.6]	2.313 [58.74]	n/a	n/a
DUJ-HD1500x00 KIT	1-1/2"	1.495 [37.97]	n/a	6.56 [166.7]	2.125 [54.0]	1.40 [35.6]	2.313 [58.74]	n/a	n/a
DUJ-HD1500x750	1-1/2"	1.495 [37.97]	0.7500 [19.050]	6.56 [166.7]	2.125 [54.0]	1.40 [35.6]	2.313 [58.74]	n/a	n/a
DUJ-HD1500x750K	1-1/2"	1.495 [37.97]	0.7500 [19.050]	6.56 [166.7]	2.125 [54.0]	1.40 [35.6]	2.313 [58.74]	3/16 x 3/32	Yes
DUJ-HD1750x00	1-3/4"	1.745 [44.32]	n/a	7.75 [196.9]	2.500 [63.5]	1.61 [40.9]	2.750 [69.85]	n/a	n/a
DUJ-HD1750x00 KIT	1-3/4"	1.745 [44.32]	n/a	7.75 [196.9]	2.500 [63.5]	1.61 [40.9]	2.750 [69.85]	n/a	n/a
DUJ-HD1750x875	1-3/4"	1.745 [44.32]	0.8750 [22.225]	7.75 [196.9]	2.500 [63.5]	1.61 [40.9]	2.750 [69.85]	n/a	n/a
DUJ-HD1750x875K	1-3/4"	1.745 [44.32]	0.8750 [22.225]	7.75 [196.9]	2.500 [63.5]	1.61 [40.9]	2.750 [69.85]	3/16 x 3/32	Yes
DUJ-HD2000x00	2"	1.995 [50.67]	n/a	8.68 [220.7]	2.750 [69.9]	1.70 [43.2]	3.188 [81.0]	n/a	n/a
DUJ-HD2000x00 KIT	2"	1.995 [50.67]	n/a	8.68 [220.7]	2.750 [69.9]	1.70 [43.2]	3.188 [81.0]	n/a	n/a
DUJ-HD2000x1000	2"	1.995 [50.67]	1.0000 [25.400]	8.68 [220.7]	2.750 [69.9]	1.70 [43.2]	3.188 [81.0]	n/a	n/a
DUJ-HD2000x1000K	2"	1.995 [50.67]	1.0000 [25.400]	8.68 [220.7]	2.750 [69.9]	1.70 [43.2]	3.188 [81.0]	1/4 x 1/8	Yes
DUJ-HD2500x00	2.5"	2.495 [63.37]	n/a	11.06 [281.0]	3.500 [88.9]	2.09 [53.1]	4.063 [103.2]	n/a	n/a
DUJ-HD2500x00KIT	2.5"	2.495 [63.37]	n/a	11.06 [281.0]	3.500 [88.9]	2.09 [53.1]	4.063 [103.2]	n/a	n/a
DUJ-HD2500x1250	2.5"	2.495 [63.37]	1.2500 [31.750]	11.06 [281.0]	3.500 [88.9]	2.09 [53.1]	4.063 [103.2]	n/a	n/a
DUJ-HD2500x1250K	2.5"	2.495 [63.37]	1.2500 [31.750]	11.06 [281.0]	3.500 [88.9]	2.09 [53.1]	4.063 [103.2]	1/4 x 1/8	Yes
DUJ-HD3000x00	3"	2.995 [76.07]	n/a	14.06 [357.2]	4.625 [117.5]	3.00 [76.2]	4.813 [122.22]	n/a	n/a
DUJ-HD3000x00 KIT	3"	2.995 [76.07]	n/a	14.06 [357.2]	4.625 [117.5]	3.00 [76.2]	4.813 [122.22]	n/a	n/a
DUJ-HD3000x1500	3"	2.995 [76.07]	1.5000 [38.100]	14.06 [357.2]	4.625 [117.5]	3.00 [76.2]	4.813 [122.22]	n/a	n/a
DUJ-HD3000x1500K	3"	2.995 [76.07]	1.5000 [38.100]	14.06 [357.2]	4.625 [117.5]	3.00 [76.2]	4.813 [122.22]	3/8 x 3/16	Yes
DUJ-HD4000x00	4"	3.995 [101.47]	n/a	17.00 [431.8]	5.313 [134.9]	3.25 [82.6]	6.375 [161.9]	n/a	n/a
DUJ-HD4000x00 KIT	4"	3.995 [101.47]	n/a	17.00 [431.8]	5.313 [134.9]	3.25 [82.6]	6.375 [161.9]	n/a	n/a
DUJ-HD4000x2000	4"	3.995 [101.47]	2.0000 [50.800]	17.00 [431.8]	5.313 [134.9]	3.25 [82.6]	6.375 [161.9]	n/a	n/a
DUJ-HD4000x2000K	4"	3.995 [101.47]	2.0000 [50.800]	17.00 [431.8]	5.313 [134.9]	3.25 [82.6]	6.375 [161.9]	1/2 x 1/4	Yes

[Metric values shown for reference only.] See page 28 for stainless versions.

(continued)

HIGH STRENGTH SINGLE UNIVERSAL JOINTS

Belden’s High Strength universal joints are recommended for high-torque applications. They are suitable for accommodating larger shaft diameters. These friction-bearing joints are constructed with short & long pin design and a rivet or capscrew. This has the advantage of using pins of equal diameters for both axes, making the joint stronger. High Strength universal joints provide exceptional service life for the most demanding applications.



Boot grooves are standard.
Parts without grooves available upon request.

Features

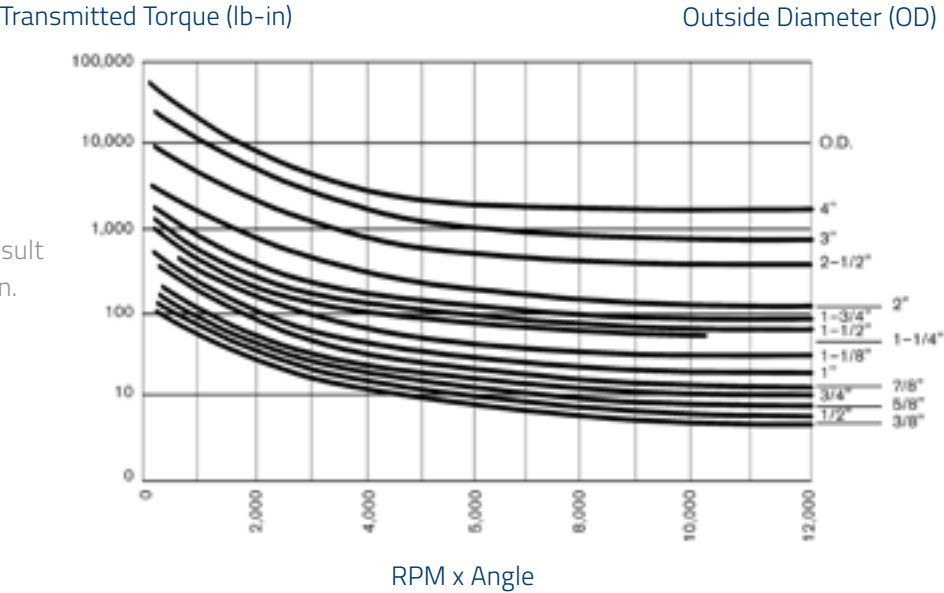
- Suitable for high-torque applications
- Friction (plain) bearing construction
- Made from high grade alloy steel
- Short pin/long pin design with rivet or capscrew
- Hardened & ground yoke ears, block & pins

Torque Values by Outside Diameter

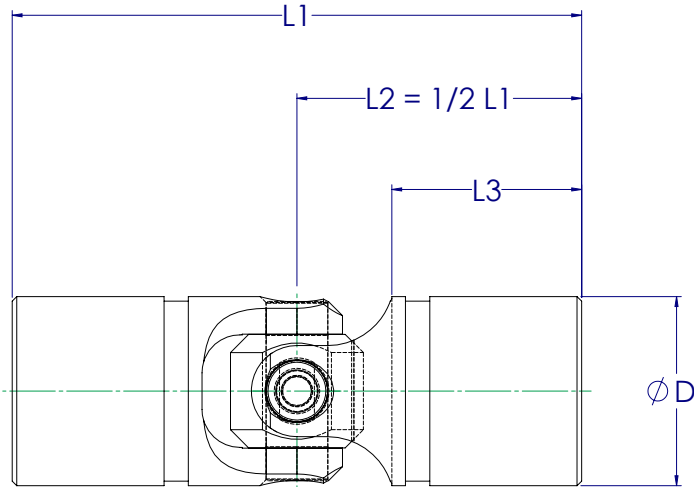
Nominal OD (in)	Max. Operating Torque Lb-in [N-m]	Ultimate Torque Lb-in [N-m]	Nominal OD (in)	Max. Operating Torque Lb-in [N-m]	Ultimate Torque Lb-in [N-m]
1/2"	95 [10.7]	475 [53.7]	1-1/4"	1360 [153.7]	6800 [768.2]
5/8"	190 [21.5]	950 [107.3]	1-1/2"	2500 [282.5]	12500 [1412.1]
3/4"	350 [39.5]	1750 [197.7]	1-3/4"	3200 [361.6]	16000 [1807.8]
7/8"	500 [56.5]	2500 [282.4]	2"	5200 [587.5]	26000 [2937.6]
1"	900 [101.7]	4500 [508.4]	2.5"	6400 [723.1]	32000 [3615.5]
1-1/8"	1100 [124.3]	5500 [621.5]	3"	11000 [1242.8]	55000 [6214.2]

Performance Curve for Pin + Block Universal Joints

The chart is a guideline. Please consult Belden with your specific application.



HIGH STRENGTH SINGLE UNIVERSAL JOINTS (CONTINUED)



Legend

- ØD1: Outside Diameter
- L1: Overall Length
- L2: Yoke Length
- L3: Hub Length / Bore Depth

High Strength Joints (standard operating angle 45°) *Parts shown as solid. Bored and keyed versions also available.*

Part Number	ØD1 Nominal (in)	ØD1 in [mm]	L1 in [mm]	L2 in [mm]	L3 in [mm]
UJ-HS500x00	1/2"	0.495 [12.57]	2.00 [50.8]	1.000 [25.4]	0.74 [18.7]
UJ-HS625x00	5/8"	0.620 [15.75]	2.25 [57.2]	1.125 [28.6]	0.81 [20.6]
UJ-HS750x00	3/4"	0.745 [18.92]	2.69 [68.3]	1.344 [34.1]	0.95 [24.1]
UJ-HS875x00	7/8"	0.870 [22.10]	3.00 [76.2]	1.500 [38.1]	1.03 [26.2]
UJ-HS1000x00	1"	0.995 [25.27]	3.38 [85.7]	1.688 [42.9]	1.19 [30.2]
UJ-HS1125x00	1-1/8"	1.120 [28.45]	3.50 [88.9]	1.750 [44.5]	1.20 [30.4]
UJ-HS1250x00	1-1/4"	1.245 [31.62]	3.75 [95.3]	1.875 [47.6]	1.25 [31.8]
UJ-HS1500x00	1-1/2"	1.495 [37.97]	5.25 [133.4]	2.625 [66.9]	1.90 [48.3]
UJ-HS1750x00	1-3/4"	1.745 [44.32]	6.25 [158.8]	3.125 [79.4]	2.23 [56.7]
UJ-HS2000x00	2"	1.995 [50.67]	6.00 [152.4]	3.000 [76.2]	1.95 [49.5]
UJ-HS2500x00	2-1/2"	2.495 [63.37]	8.50 [215.9]	4.250 [108.0]	2.84 [72.6]
UJ-HS3000x00	3"	2.995 [76.07]	9.25 [235.0]	4.625 [117.5]	3.00 [76.2]

[Metric values shown for reference only.]

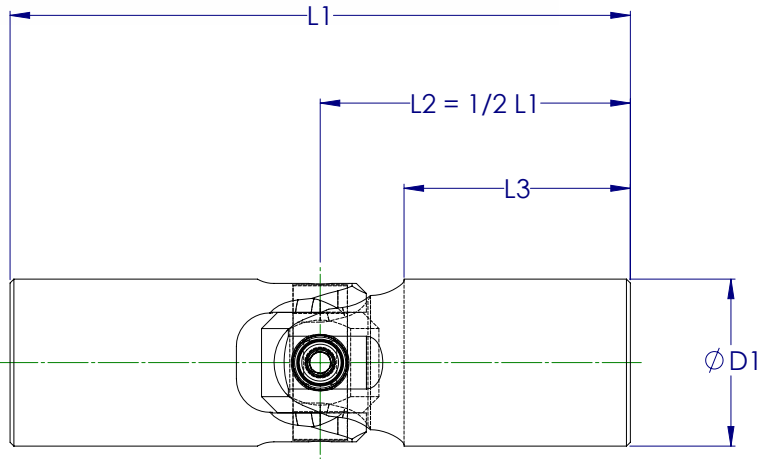
LEVELER STRENGTH UNIVERSAL JOINTS

Belden’s Leveler-Strength universal joints are sepcifically designed for extreme torque applications, such as metal processing. They are developed with enhanced mechanical properties and manufacturing processes that increase the strength and extend the operating life of the joints.



Features

- Designed for extreme torque applications
- Hardened & ground yoke ears, pins & blocks
- Reinforced yoke profile
- Manufactured from high-grade alloy steel
- Dry-film lubricant coating on select contact surfaces



Legend

- ØD1: Outside Diameter
- L1: Overall Length
- L2: Yoke Length
- L3: Hub Length

Part Nr.	ØD1 Nominal (in)	ØD1 in [mm]	L1 in [mm]	L2 in [mm]	L3 in [mm]	Max. Operating Torque Lb-in [N-m]	Ultimate Torque Lb-in [N-m]	Max. Operating Angle
UJ-LV750	3/4"	0.745 [18.92]	3.187 [80.9]	1.594 [40.5]	1.20 [30.5]	420 [47.5]	2100 [237.3]	30°
UJ-LV875	7/8"	0.870 [22.10]	3.000 [76.2]	1.500 [38.1]	1.04 [26.5]	600 [68.0]	3000 [339]	30°
UJ-LV1000	1"	0.995 [25.3]	4.250 [108.0]	2.125 [54.0]	1.62 [41.1]	1080 [122.0]	5400 [610.2]	30°
UJ-LV1125	1-1/8"	1.120 [28.45]	4.500 [114.3]	2.250 [57.2]	1.71 [43.40]	1100 [124]	5500 [621]	30°
UJ-LV1250	1-1/4"	1.245 [31.6]	4.625 [117.5]	2.313 [58.7]	1.69 [42.9]	1320 [149.2]	6600 [745.8]	30°
UJ-LV1500	1-1/2"	1.495 [38.0]	5.500 [139.7]	2.750 [69.9]	1.97 [50.0]	3000 [339.0]	15000 [1694.9]	30°
UJ-LV1750	1-3/4"	1.745 [44.3]	6.250 [158.8]	3.125 [79.4]	2.23 [56.6]	3500 [395.5]	17500 [1977.4]	30°
UJ-LV2000	2"	1.995 [50.6]	6.000 [152.4]	3.000 [76.2]	1.97 [50.0]	5600 [632.7]	28000 [3163.8]	30°
UJ-LV2500*	2-1/2"	2.495 [63.3]	8.500 [215.9]	4.250 [108.0]	3.00 [76.2]	10000 [1129.9]	50000 [5649.7]	25°
UJ-LV3000*	3"	2.995 [76.1]	9.250 [235.0]	4.625 [117.5]	3.00 [76.2]	14000 [1581.8]	70000 [7909.6]	25°
UJ-LV3500*	3-1/2"	3.495 [88.8]	10.750 [273.1]	5.375 [136.5]	3.63 [92.1]	20000 [2259.7]	100000 [11299.4]	25°
UJ-LV4000*	4"	3.995 [101.5]	13.250 [336.6]	6.625 [168.3]	4.50 [114.3]	28000 [3163.6]	140000 [15819.2]	20°
UJ-LV5000*	5"	5.000 [127.0]	15.000 [381.0]	7.500 [190.5]	5.13 [130.2]	44000 [4972.0]	220000 [24858.8]	20°

[Metric values shown for reference only.] Bored and keyed versions available upon request.

STAINLESS STEEL SINGLE UNIVERSAL JOINTS

The standard stainless steel joint is made from AISI 303 and AISI 416 stainless steel. The joint yokes are 303 and the pins & blocks are hardened 416 stainless steel to provide higher strength and improved wear resistance. Components can be made from other grades of stainless steel to meet the customer’s exact application specifications.



Features

- Corrosion resistance
- Standard operating angles up to 45°
- Lubricant-retaining boot covers can be added for environmental protection

Boot grooves are standard.
Parts without grooves available upon request.

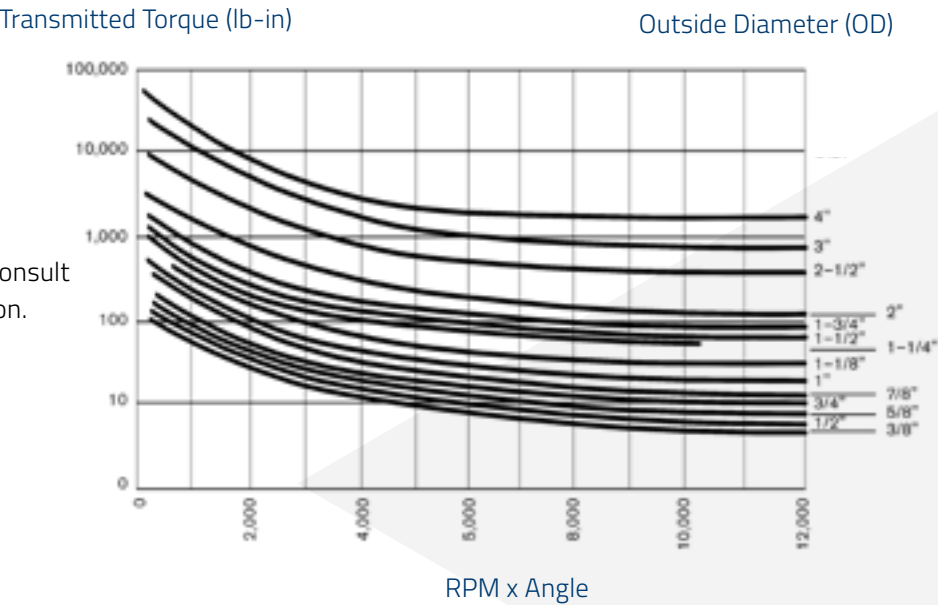
Torque Values by Outside Diameter

Nominal OD (in)	Max. Operating Torque Lb-in [N-m]	Ultimate Torque Lb-in [N-m]
3/8"	15 [1.7]	75 [8.5]
1/2"	48 [5.4]	240 [27]
5/8"	95 [10]	475 [53]
3/4"	175 [19]	875 [98]
7/8"	250 [28]	1260 [142]
1"	315 [35]	1575 [178]
1-1/8"	450 [50]	2250 [254]

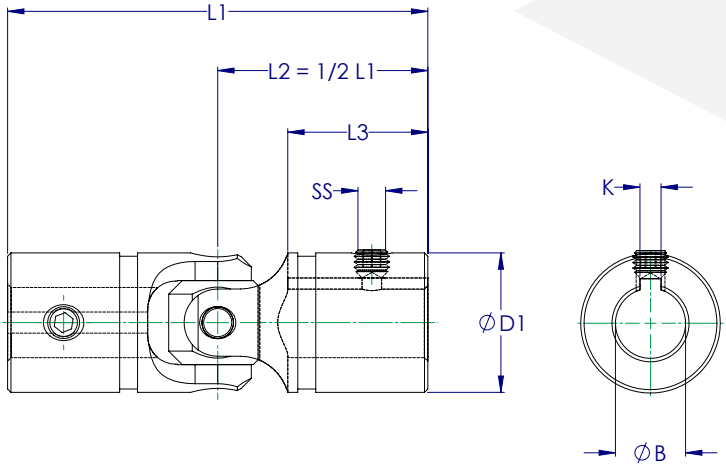
Nominal OD (in)	Max. Operating Torque Lb-in [N-m]	Ultimate Torque Lb-in [N-m]
1-1/4"	680 [76]	3400 [384]
1-1/2"	1450 [163]	7250 [819]
1-3/4"	2100 [237]	10500 [1186]
2"	3120 [352]	15600 [1762]
2.5"	4650 [525]	23250 [2627]
3"	8000 [904]	40000 [4519]
4"	16000 [1807]	80000 [9039]

Performance Curve for
Pin + Block Universal Joints

The chart is a guideline. Please consult Belden with your specific application.



STAINLESS STEEL SINGLE UNIVERSAL JOINTS



Legend

- ØD1: Outside Diameter
- ØB: Bore (Inside) Diameter
- L1: Overall Length
- L2: Yoke Length
- L3: Hub Length / Bore Depth
- K: Keyway
- SS: Setscrew

Standard operating angle 45°. Special design solutions with higher angles may be available upon request.

Part Number	ØD1 Nominal (in)	ØD1 in [mm]	ØB in [mm]	L1 in [mm]	L2 in [mm]	L3 in [mm]	K [in]	SS
UJ-SS375x00	3/8"	0.370 [9.40]	n/a	1.750 [44.5]	0.875 [22.2]	0.67 [17.0]	n/a	n/a
UJ-SS375x00 KIT	3/8"	0.370 [9.40]	n/a	1.750 [44.5]	0.875 [22.2]	0.67 [17.0]	n/a	n/a
UJ-SS375x188	3/8"	0.370 [9.40]	0.1875 [4.763]	1.750 [44.5]	0.875 [22.2]	0.67 [17.0]	n/a	n/a
UJ-SS375x188-1SS	3/8"	0.370 [9.40]	0.1875 [4.763]	1.750 [44.5]	0.875 [22.2]	0.67 [17.0]	n/a	Yes
UJ-SS500x00	1/2"	0.495 [12.57]	n/a	2.000 [50.8]	1.000 [25.4]	0.74 [18.8]	n/a	n/a
UJ-SS500x00 KIT	1/2"	0.495 [12.57]	n/a	2.000 [50.8]	1.000 [25.4]	0.74 [18.8]	n/a	n/a
UJ-SS500x250	1/2"	0.495 [12.57]	0.2500 [6.350]	2.000 [50.8]	1.000 [25.4]	0.74 [18.8]	n/a	n/a
UJ-SS500x250-1SS	1/2"	0.495 [12.57]	0.2500 [6.350]	2.000 [50.8]	1.000 [25.4]	0.74 [18.8]	n/a	Yes
UJ-SS625x00	5/8"	0.620 [15.75]	n/a	2.250 [57.2]	1.125 [28.6]	0.82 [20.9]	n/a	n/a
UJ-SS625x00 KIT	5/8"	0.620 [15.75]	n/a	2.250 [57.2]	1.125 [28.6]	0.82 [20.9]	n/a	n/a
UJ-SS625x313	5/8"	0.620 [15.75]	0.3125 [7.938]	2.250 [57.2]	1.125 [28.6]	0.82 [20.9]	n/a	n/a
UJ-SS625x313K	5/8"	0.620 [15.75]	0.3125 [7.938]	2.250 [57.2]	1.125 [28.6]	0.82 [20.9]	3/32 x 3/64	Yes
UJ-SS750x00	3/4"	0.745 [18.92]	n/a	2.688 [68.3]	1.345 [34.2]	0.95 [24.1]	n/a	n/a
UJ-SS750x00 KIT	3/4"	0.745 [18.92]	n/a	2.688 [68.3]	1.345 [34.2]	0.95 [24.1]	n/a	n/a
UJ-SS750x375	3/4"	0.745 [18.92]	0.3750 [9.525]	2.688 [68.3]	1.345 [34.2]	0.95 [24.1]	n/a	n/a
UJ-SS750x375K	3/4"	0.745 [18.92]	0.3750 [9.525]	2.688 [68.3]	1.345 [34.2]	0.95 [24.1]	3/32 x 3/64	Yes
UJ-SS875x00	7/8"	0.870 [22.10]	n/a	3.000 [76.2]	1.500 [38.1]	1.03 [26.2]	n/a	n/a
UJ-SS875x00 KIT	7/8"	0.870 [22.10]	n/a	3.000 [76.2]	1.500 [38.1]	1.03 [26.2]	n/a	n/a
UJ-SS875x438	7/8"	0.870 [22.10]	0.4375 [11.113]	3.000 [76.2]	1.500 [38.1]	1.03 [26.2]	n/a	n/a
UJ-SS875x438K	7/8"	0.870 [22.10]	0.4375 [11.113]	3.000 [76.2]	1.500 [38.1]	1.03 [26.2]	3/32 x 3/64	Yes
UJ-SS1000x00	1"	0.995 [25.27]	n/a	3.375 [85.7]	1.690 [42.9]	1.19 [30.2]	n/a	n/a
UJ-SS1000x00 KIT	1"	0.995 [25.27]	n/a	3.375 [85.7]	1.690 [42.9]	1.19 [30.2]	n/a	n/a
UJ-SS1000x500	1"	0.995 [25.27]	0.5000 [12.700]	3.375 [85.7]	1.690 [42.9]	1.19 [30.2]	n/a	n/a
UJ-SS1000x500K	1"	0.995 [25.27]	0.5000 [12.700]	3.375 [85.7]	1.690 [42.9]	1.19 [30.2]	1/8 x 1/16	Yes
UJ-SS1125x00	1-1/8"	1.120 [28.45]	n/a	3.500 [88.9]	1.750 [44.5]	1.20 [30.5]	n/a	n/a
UJ-SS1125x00 KIT	1-1/8"	1.120 [28.45]	n/a	3.500 [88.9]	1.750 [44.5]	1.20 [30.5]	n/a	n/a
UJ-SS1125x563	1-1/8"	1.120 [28.45]	0.5625 [14.288]	3.500 [88.9]	1.750 [44.5]	1.20 [30.5]	n/a	n/a
UJ-SS1125x563K	1-1/8"	1.120 [28.45]	0.5625 [14.288]	3.500 [88.9]	1.750 [44.5]	1.20 [30.5]	1/8 x 1/16	Yes
UJ-SS1250x00	1-1/4"	1.245 [31.62]	n/a	3.750 [95.3]	1.875 [47.6]	1.25 [31.8]	n/a	n/a
UJ-SS1250x00 KIT	1-1/4"	1.245 [31.62]	n/a	3.750 [95.3]	1.875 [47.6]	1.25 [31.8]	n/a	n/a
UJ-SS1250x625	1-1/4"	1.245 [31.62]	0.6250 [15.875]	3.750 [95.3]	1.875 [47.6]	1.25 [31.8]	n/a	n/a
UJ-SS1250x625K	1-1/4"	1.245 [31.62]	0.6250 [15.875]	3.750 [95.3]	1.875 [47.6]	1.25 [31.8]	3/16 x 3/32	Yes

[Metric values shown for reference only.]

STAINLESS STEEL SINGLE UNIVERSAL JOINTS

Standard operating angle 45°. Special design solutions with higher angles may be available upon request.

Part Number	ØD1 Nominal (in)	ØD1 in [mm]	ØB in [mm]	L1 in [mm]	L2 in [mm]	L3 in [mm]	K [in]	SS
UJ-SS1500x00	1-1/2"	1.495 [37.97]	n/a	4.250 [108.0]	2.125 [54.0]	1.40 [35.6]	n/a	n/a
UJ-SS1500x00 KIT	1-1/2"	1.495 [37.97]	n/a	4.250 [108.0]	2.125 [54.0]	1.40 [35.6]	n/a	n/a
UJ-SS1500x750	1-1/2"	1.495 [37.97]	0.7500 [19.050]	4.250 [108.0]	2.125 [54.0]	1.40 [35.6]	n/a	n/a
UJ-SS1500x750K	1-1/2"	1.495 [37.97]	0.7500 [19.050]	4.250 [108.0]	2.125 [54.0]	1.40 [35.6]	3/16 x 3/32	Yes
UJ-SS1750x00	1-3/4"	1.745 [44.32]	n/a	5.000 [127.0]	2.500 [63.5]	1.61 [40.9]	n/a	n/a
UJ-SS1750x00 KIT	1-3/4"	1.745 [44.32]	n/a	5.000 [127.0]	2.500 [63.5]	1.61 [40.9]	n/a	n/a
UJ-SS1750x875	1-3/4"	1.745 [44.32]	0.8750 [22.225]	5.000 [127.0]	2.500 [63.5]	1.61 [40.9]	n/a	n/a
UJ-SS1750x875K	1-3/4"	1.745 [44.32]	0.8750 [22.225]	5.000 [127.0]	2.500 [63.5]	1.61 [40.9]	3/16 x 3/32	Yes
UJ-SS2000x00	2"	1.995 [50.67]	n/a	5.500 [139.7]	2.750 [69.9]	1.70 [43.2]	n/a	n/a
UJ-SS2000x00 KIT	2"	1.995 [50.67]	n/a	5.500 [139.7]	2.750 [69.9]	1.70 [43.2]	n/a	n/a
UJ-SS2000x1000	2"	1.995 [50.67]	1.0000 [25.400]	5.500 [139.7]	2.750 [69.9]	1.70 [43.2]	n/a	n/a
UJ-SS2000x1000K	2"	1.995 [50.67]	1.0000 [25.400]	5.500 [139.7]	2.750 [69.9]	1.70 [43.2]	1/4 x 1/8	Yes
UJ-SS2500x00	2.5"	2.495 [63.37]	n/a	7.000 [177.8]	3.500 [88.9]	2.09 [53.1]	n/a	n/a
UJ-SS2500x00 KIT	2.5"	2.495 [63.37]	n/a	7.000 [177.8]	3.500 [88.9]	2.09 [53.1]	n/a	n/a
UJ-SS2500x1250	2.5"	2.495 [63.37]	1.2500 [31.750]	7.000 [177.8]	3.500 [88.9]	2.09 [53.1]	n/a	n/a
UJ-SS2500x1250K	2.5"	2.495 [63.37]	1.2500 [31.750]	7.000 [177.8]	3.500 [88.9]	2.09 [53.1]	1/4 x 1/8	Yes
UJ-SS3000x00	3"	2.995 [76.07]	n/a	9.250 [235.0]	4.625 [117.5]	3.00 [76.2]	n/a	n/a
UJ-SS3000x00 KIT	3"	2.995 [76.07]	n/a	9.250 [235.0]	4.625 [117.5]	3.00 [76.2]	n/a	n/a
UJ-SS3000x1500	3"	2.995 [76.07]	1.5000 [38.100]	9.250 [235.0]	4.625 [117.5]	3.00 [76.2]	n/a	n/a
UJ-SS3000x1500K	3"	2.995 [76.07]	1.5000 [38.100]	9.250 [235.0]	4.625 [117.5]	3.00 [76.2]	3/8 x 3/16	Yes
UJ-SS4000x00	4"	3.995 [101.47]	n/a	10.625 [269.9]	5.313 [134.9]	3.25 [82.6]	n/a	n/a
UJ-SS4000x00 KIT	4"	3.995 [101.47]	n/a	10.625 [269.9]	5.313 [134.9]	3.25 [82.6]	n/a	n/a
UJ-SS4000x2000	4"	3.995 [101.47]	2.0000 [50.800]	10.625 [269.9]	5.313 [134.9]	3.25 [82.6]	n/a	n/a
UJ-SS4000x2000K	4"	3.995 [101.47]	2.0000 [50.800]	10.625 [269.9]	5.313 [134.9]	3.25 [82.6]	1/2 x 1/4	Yes

[Metric values shown for reference only.]



STAINLESS STEEL DOUBLE UNIVERSAL JOINTS

Belden’s stainless steel double universal joints provide the same reliability and service life as the single universal joints, with a maximum combined working angle of 90°. Double universal joints provide accurate positioning and flexibility under higher operating angles. The joint yokes are 303 and the pins & blocks are hardened 416 stainless steel to provide higher strength and improved wear resistance. Components can be made from other grades of stainless steel.



Boot grooves are standard.
Parts without grooves available upon request.

Features

- Corrosion resistance
- Standard operating angles up to 90° (45° per joint)
- Can be booted for further environmental protection

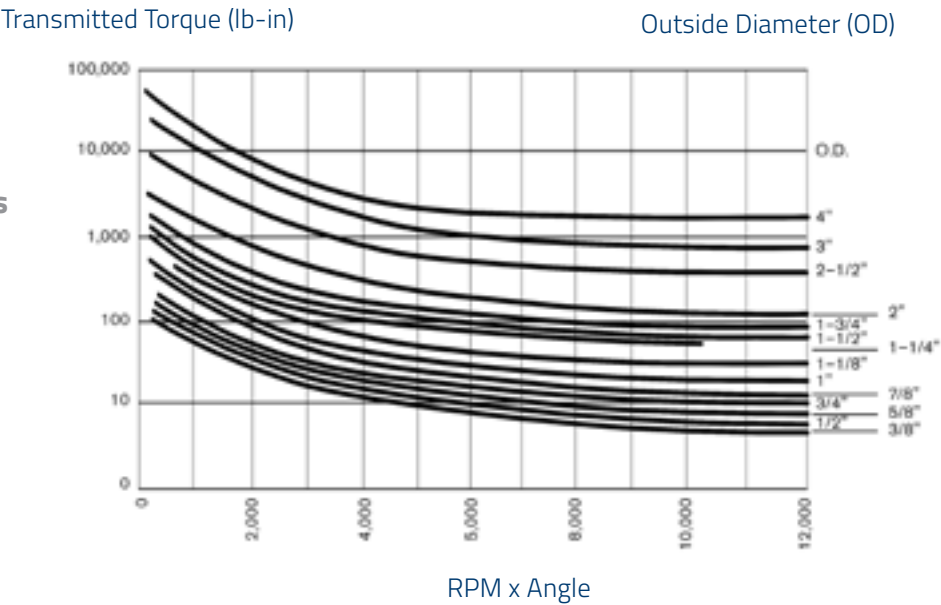
Torque Values by Outside Diameter

Nominal OD (in)	Max. Operating Torque Lb-in [N-m]	Ultimate Torque Lb-in [N-m]
3/8"	14 [1.6]	70 [7.9]
1/2"	43 [4.9]	215 [24]
5/8"	86 [9.7]	430 [48]
3/4"	158 [17]	790 [89]
7/8"	225 [25]	1125 [127]
1"	284 [32]	1420 [160]
1-1/8"	405 [45]	2025 [228]

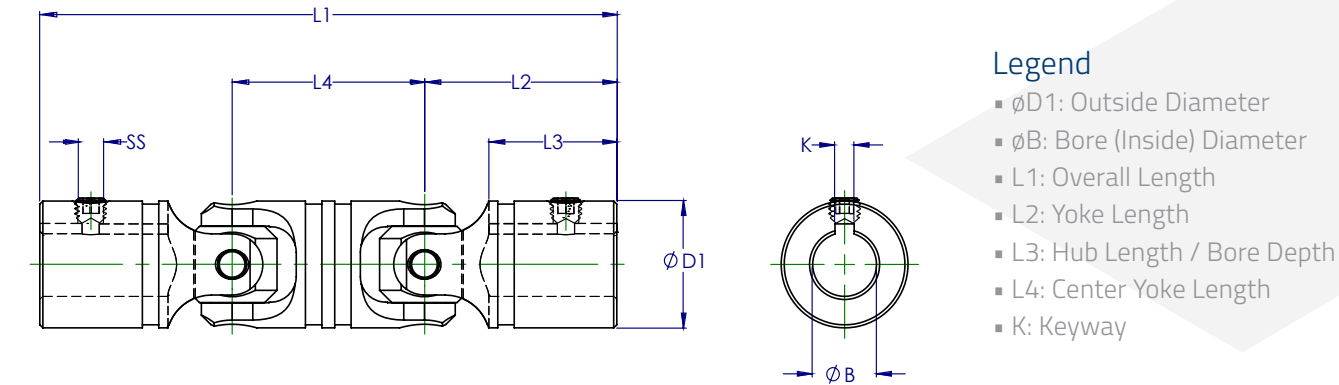
Nominal OD (in)	Max. Operating Torque Lb-in [N-m]	Ultimate Torque Lb-in [N-m]
1-1/4"	612 [69]	3060 [345]
1-1/2"	1305 [147]	6525 [737]
1-3/4"	1890 [213]	9450 [1067]
2"	2808 [317]	14040 [1586]
2.5"	4185 [472]	20925 [2364]
3"	7200 [813]	36000 [4067]
4"	14400 [1627]	72000 [8135]

Performance Curve for Pin + Block Universal Joints

The chart is a guideline. Please consult Belden with your specific application.



STAINLESS STEEL DOUBLE UNIVERSAL JOINTS (CONTINUED)



Standard operating angle 90° i.e. 45° / u-joint. Special design solutions with higher angles may be available upon request.

Part Number	ØD1 Nominal (in)	ØD1 in [mm]	ØB in [mm]	L1 in [mm]	L2 in [mm]	L3 in [mm]	L4 in [mm]	K [in]	SS
DUJ-SS375x00	3/8"	0.370 [9.40]	n/a	2.44 [62.0]	0.875 [22.2]	0.67 [17.0]	0.688 [17.46]	n/a	n/a
DUJ-SS375x00 KIT	3/8"	0.370 [9.40]	n/a	2.44 [62.0]	0.875 [22.2]	0.67 [17.0]	0.688 [17.46]	n/a	n/a
DUJ-SS375x188	3/8"	0.370 [9.40]	0.1875 [4.763]	2.44 [62.0]	0.875 [22.2]	0.67 [17.0]	0.688 [17.46]	n/a	n/a
DUJ-SS375x188-1SS	3/8"	0.370 [9.40]	0.1875 [4.763]	2.44 [62.0]	0.875 [22.2]	0.67 [17.0]	0.688 [17.46]	n/a	Yes
DUJ-SS500x00	1/2"	0.495 [12.57]	n/a	2.81 [71.4]	1.000 [25.4]	0.74 [18.8]	0.813 [20.64]	n/a	n/a
DUJ-SS500x00 KIT	1/2"	0.495 [12.57]	n/a	2.81 [71.4]	1.000 [25.4]	0.74 [18.8]	0.813 [20.64]	n/a	n/a
DUJ-SS500x250	1/2"	0.495 [12.57]	0.2500 [6.350]	2.81 [71.4]	1.000 [25.4]	0.74 [18.8]	0.813 [20.64]	n/a	n/a
DUJ-SS500x250-1SS	1/2"	0.495 [12.57]	0.2500 [6.350]	2.81 [71.4]	1.000 [25.4]	0.74 [18.8]	0.813 [20.64]	n/a	Yes
DUJ-SS625x00	5/8"	0.620 [15.75]	n/a	3.25 [82.6]	1.125 [28.6]	0.82 [20.9]	1.000 [25.40]	n/a	n/a
DUJ-SS625x00 KIT	5/8"	0.620 [15.75]	n/a	3.25 [82.6]	1.125 [28.6]	0.82 [20.9]	1.000 [25.40]	n/a	n/a
DUJ-SS625x313	5/8"	0.620 [15.75]	0.3125 [7.938]	3.25 [82.6]	1.125 [28.6]	0.82 [20.9]	1.000 [25.40]	n/a	n/a
DUJ-SS625x313K	5/8"	0.620 [15.75]	0.3125 [7.938]	3.25 [82.6]	1.125 [28.6]	0.82 [20.9]	1.000 [25.40]	3/32 x 3/64	Yes
DUJ-SS750x00	3/4"	0.745 [18.92]	n/a	3.81 [96.8]	1.343 [34.1]	0.95 [24.1]	1.125 [28.58]	n/a	n/a
DUJ-SS750x00 KIT	3/4"	0.745 [18.92]	n/a	3.81 [96.8]	1.343 [34.1]	0.95 [24.1]	1.125 [28.58]	n/a	n/a
DUJ-SS750x375	3/4"	0.745 [18.92]	0.3750 [9.525]	3.81 [96.8]	1.343 [34.1]	0.95 [24.1]	1.125 [28.58]	n/a	n/a
DUJ-SS750x375K	3/4"	0.745 [18.92]	0.3750 [9.525]	3.81 [96.8]	1.343 [34.1]	0.95 [24.1]	1.125 [28.58]	3/32 x 3/64	Yes
DUJ-SS875x00	7/8"	0.870 [22.10]	n/a	4.38 [111.1]	1.500 [38.1]	1.03 [26.2]	1.375 [34.93]	n/a	n/a
DUJ-SS875x00 KIT	7/8"	0.870 [22.10]	n/a	4.38 [111.1]	1.500 [38.1]	1.03 [26.2]	1.375 [34.93]	n/a	n/a
DUJ-SS875x438	7/8"	0.870 [22.10]	0.4375 [11.113]	4.38 [111.1]	1.500 [38.1]	1.03 [26.2]	1.375 [34.93]	n/a	n/a
DUJ-SS875x438K	7/8"	0.870 [22.10]	0.4375 [11.113]	4.38 [111.1]	1.500 [38.1]	1.03 [26.2]	1.375 [34.93]	3/32 x 3/64	Yes
DUJ-SS1000x00	1"	0.995 [25.27]	n/a	4.88 [123.8]	1.688 [42.9]	1.19 [30.2]	1.500 [38.10]	n/a	n/a
DUJ-SS1000x00 KIT	1"	0.995 [25.27]	n/a	4.88 [123.8]	1.688 [42.9]	1.19 [30.2]	1.500 [38.10]	n/a	n/a
DUJ-SS1000x500	1"	0.995 [25.27]	0.5000 [12.700]	4.88 [123.8]	1.688 [42.9]	1.19 [30.2]	1.500 [38.10]	n/a	n/a
DUJ-SS1000x500K	1"	0.995 [25.27]	0.5000 [12.700]	4.88 [123.8]	1.688 [42.9]	1.19 [30.2]	1.500 [38.10]	1/8 x 1/16	Yes
DUJ-SS1125x00	1-1/8"	1.120 [28.45]	n/a	5.13 [130.2]	1.750 [44.5]	1.20 [30.5]	1.625 [41.28]	n/a	n/a
DUJ-SS1125x00 KIT	1-1/8"	1.120 [28.45]	n/a	5.13 [130.2]	1.750 [44.5]	1.20 [30.5]	1.625 [41.28]	n/a	n/a
DUJ-SS1125x563	1-1/8"	1.120 [28.45]	0.5625 [14.288]	5.13 [130.2]	1.750 [44.5]	1.20 [30.5]	1.625 [41.28]	n/a	n/a
DUJ-SS1125x563K	1-1/8"	1.120 [28.45]	0.5625 [14.288]	5.13 [130.2]	1.750 [44.5]	1.20 [30.5]	1.625 [41.28]	1/8 x 1/16	Yes
DUJ-SS1250x00	1-1/4"	1.245 [31.62]	n/a	5.63 [142.9]	1.875 [47.63]	1.25 [31.8]	1.875 [47.63]	n/a	n/a
DUJ-SS1250x00 KIT	1-1/4"	1.245 [31.62]	n/a	5.63 [142.9]	1.875 [47.63]	1.25 [31.8]	1.875 [47.63]	n/a	n/a
DUJ-SS1250x625	1-1/4"	1.245 [31.62]	0.6250 [15.875]	5.63 [142.9]	1.875 [47.63]	1.25 [31.8]	1.875 [47.63]	n/a	n/a
DUJ-SS1250x625K	1-1/4"	1.245 [31.62]	0.6250 [15.875]	5.63 [142.9]	1.875 [47.63]	1.25 [31.8]	1.875 [47.63]	3/16 x 3/32	Yes

[Metric values shown for reference only.]

(continued)

STAINLESS STEEL DOUBLE UNIVERSAL JOINTS (CONTINUED)

Standard operating angle 90° i.e. 45° / u-joint. Special design solutions with higher angles may be available upon request.

Part Number	ØD1 Nominal (in)	ØD1 in [mm]	ØB in [mm]	L1 in [mm]	L2 in [mm]	L3 in [mm]	L4 in [mm]	K [in]	SS
DUJ-SS1500x00	1-1/2"	1.495 [37.97]	n/a	6.56 [166.7]	2.126 [54.0]	1.40 [35.6]	2.313 [58.74]	n/a	n/a
DUJ-SS1500x00 KIT	1-1/2"	1.495 [37.97]	n/a	6.56 [166.7]	2.126 [54.0]	1.40 [35.6]	2.313 [58.74]	n/a	n/a
DUJ-SS1500x750	1-1/2"	1.495 [37.97]	0.7500 [19.050]	6.56 [166.7]	2.126 [54.0]	1.40 [35.6]	2.313 [58.74]	n/a	n/a
DUJ-SS1500x750K	1-1/2"	1.495 [37.97]	0.7500 [19.050]	6.56 [166.7]	2.126 [54.0]	1.40 [35.6]	2.313 [58.74]	3/16 x 3/32	Yes
DUJ-SS1750x00	1-3/4"	1.745 [44.32]	n/a	7.75 [196.9]	2.500 [63.5]	1.61 [40.9]	2.750 [69.85]	n/a	n/a
DUJ-SS1750x00 KIT	1-3/4"	1.745 [44.32]	n/a	7.75 [196.9]	2.500 [63.5]	1.61 [40.9]	2.750 [69.85]	n/a	n/a
DUJ-SS1750x875	1-3/4"	1.745 [44.32]	0.8750 [22.225]	7.75 [196.9]	2.500 [63.5]	1.61 [40.9]	2.750 [69.85]	n/a	n/a
DUJ-SS1750x875K	1-3/4"	1.745 [44.32]	0.8750 [22.225]	7.75 [196.9]	2.500 [63.5]	1.61 [40.9]	2.750 [69.85]	3/16 x 3/32	Yes
DUJ-SS2000x00	2"	1.995 [50.67]	n/a	8.69 [220.7]	2.750 [69.85]	1.70 [43.2]	3.188 [81.0]	n/a	n/a
DUJ-SS2000x00 KIT	2"	1.995 [50.67]	n/a	8.69 [220.7]	2.750 [69.85]	1.70 [43.2]	3.188 [81.0]	n/a	n/a
DUJ-SS2000x1000	2"	1.995 [50.67]	1.0000 [25.400]	8.69 [220.7]	2.750 [69.85]	1.70 [43.2]	3.188 [81.0]	n/a	n/a
DUJ-SS2000x1000K	2"	1.995 [50.67]	1.0000 [25.400]	8.69 [220.7]	2.750 [69.85]	1.70 [43.2]	3.188 [81.0]	1/4 x 1/8	Yes
DUJ-SS2500x00	2.5"	2.495 [63.37]	n/a	11.06 [281.0]	3.500 [88.9]	2.09 [53.1]	4.063 [103.2]	n/a	n/a
DUJ-SS2500x00 KIT	2.5"	2.495 [63.37]	n/a	11.06 [281.0]	3.500 [88.9]	2.09 [53.1]	4.063 [103.2]	n/a	n/a
DUJ-SS2500x1250	2.5"	2.495 [63.37]	1.2500 [31.750]	11.06 [281.0]	3.500 [88.9]	2.09 [53.1]	4.063 [103.2]	n/a	n/a
DUJ-SS2500x1250K	2.5"	2.495 [63.37]	1.2500 [31.750]	11.06 [281.0]	3.500 [88.9]	2.09 [53.1]	4.063 [103.2]	1/4 x 1/8	Yes
DUJ-SS3000x00	3"	2.995 [76.07]	n/a	14.06 [357.19]	4.625 [117.5]	3.00 [76.2]	4.813 [122.22]	n/a	n/a
DUJ-SS3000x00 KIT	3"	2.995 [76.07]	n/a	14.06 [357.19]	4.625 [117.5]	3.00 [76.2]	4.813 [122.22]	n/a	n/a
DUJ-SS3000x1500	3"	2.995 [76.07]	1.5000 [38.100]	14.06 [357.19]	4.625 [117.5]	3.00 [76.2]	4.813 [122.22]	n/a	n/a
DUJ-SS3000x1500K	3"	2.995 [76.07]	1.5000 [38.100]	14.06 [357.19]	4.625 [117.5]	3.00 [76.2]	4.813 [122.22]	3/8 x 3/16	Yes
DUJ-SS4000x00	4"	3.995 [101.47]	n/a	17.00 [431.8]	5.313 [134.94]	3.25 [82.6]	6.375 [161.9]	n/a	n/a
DUJ-SS4000x00 KIT	4"	3.995 [101.47]	n/a	17.00 [431.8]	5.313 [134.94]	3.25 [82.6]	6.375 [161.9]	n/a	n/a
DUJ-SS4000x2000	4"	3.995 [101.47]	2.0000 [50.800]	17.00 [431.8]	5.313 [134.94]	3.25 [82.6]	6.375 [161.9]	n/a	n/a
DUJ-SS4000x2000K	4"	3.995 [101.47]	2.0000 [50.800]	17.00 [431.8]	5.313 [134.94]	3.25 [82.6]	6.375 [161.9]	1/2 x 1/4	Yes

[Metric values shown for reference only.]



NEEDLE BEARING UNIVERSAL JOINTS

The needle bearing universal joint is fitted with pre-lubricated needle bearings. Needle bearing universal joints are designed to maintain lower backlash for critical positioning required by robotics and instrumentation and are excellent for continuous operation applications. The joint can operate at a higher Angle x RPM factor than pin & block (aka ‘fiction-bearing’) universal joints.



Boot grooves are standard.
Parts without grooves available upon request.

Features

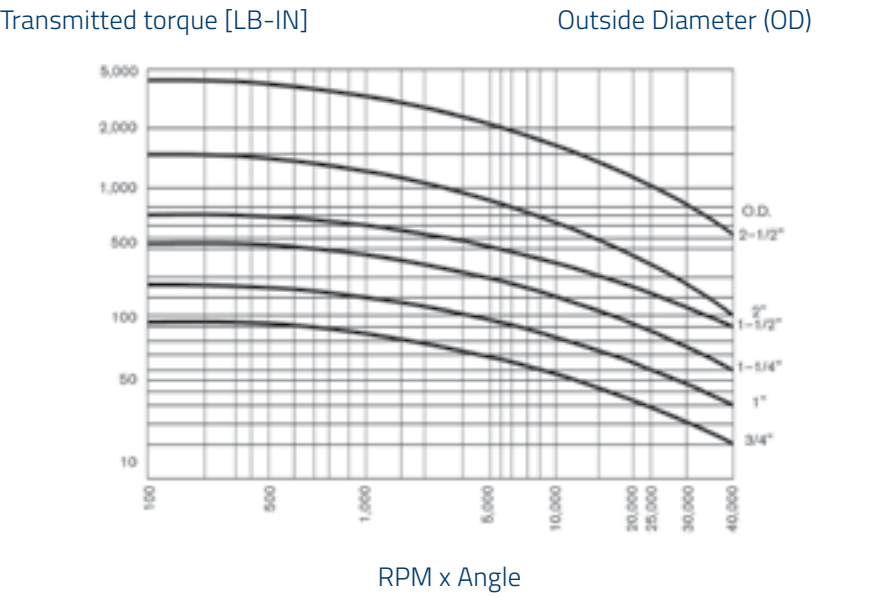
- Suitable for continuous operation at high speeds and angles
- Maintains low torsional backlash
- Pin & block - needle bearing design also available
- High-grade alloy steel yokes

Torque Values by Outside Diameter

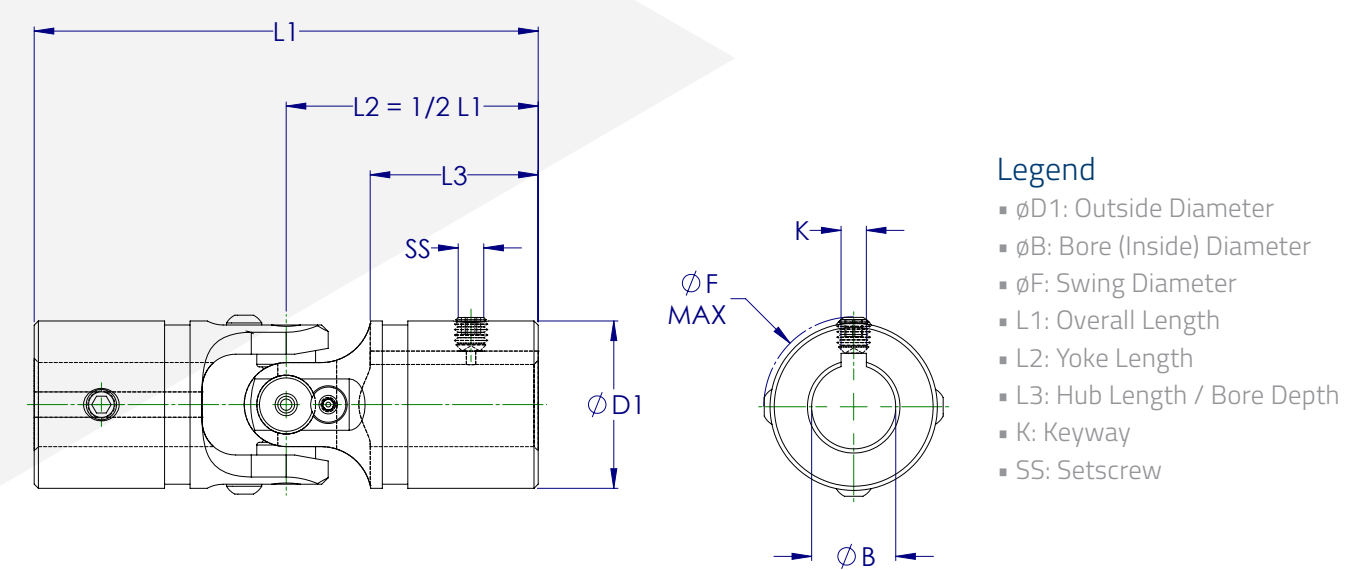
Nominal OD (in)	Dynamic Torque Rating	
	10° & 250 RPM Lb-in [N-m]	45° & 250 RPM Lb-in [N-m]
3/4"	30 [3.4]	18 [2.0]
1"	121 [13.7]	74 [8.4]
1-1/4"	260 [29.4]	159 [18.0]
1-1/2"	572 [64.6]	350 [39.5]
2"	1269 [143.4]	776 [87.7]

Performance Curve for Needle Bearing Universal Joints

This chart is a guideline. Please consult Belden for your specific application.



NEEDLE BEARING UNIVERSAL JOINTS - UNBOOTED



Standard operating angle for unbooted joints is 45°. Special design solutions with higher angles may be available upon request.

Unbooted Alloy Needle Bearing Universal Joints

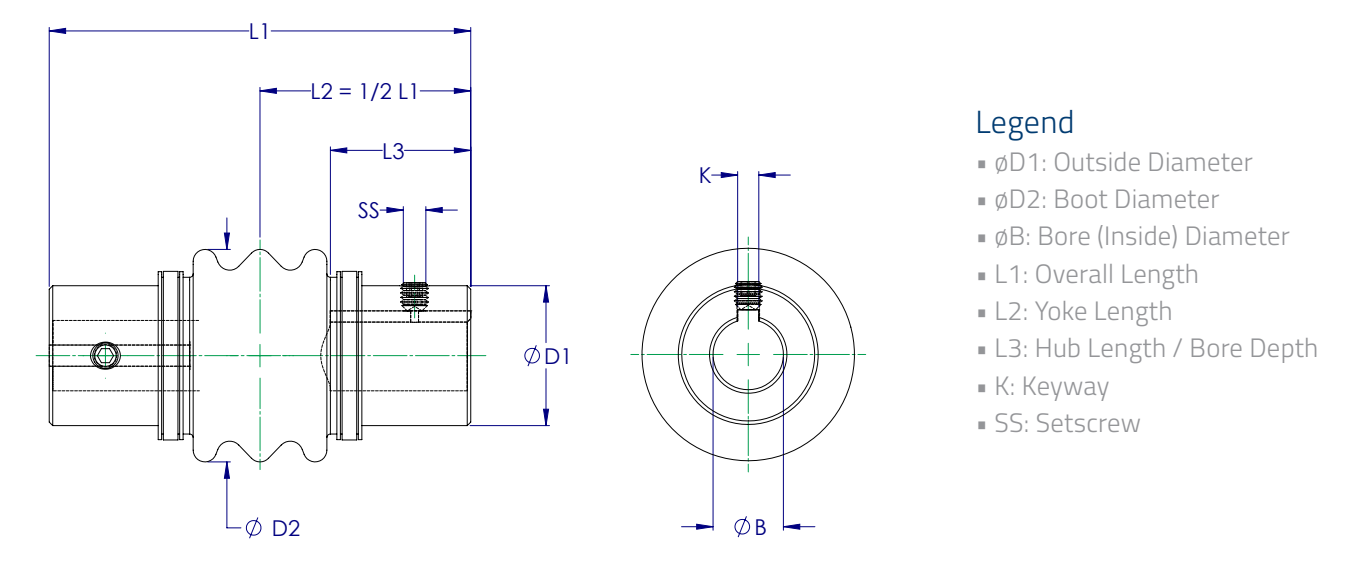
Part Number	ØD1 Nominal (in)	ØD1 in [mm]	ØF	ØB in [mm]	L1 in [mm]	L2 in [mm]	L3 in [mm]	K [in]	SS
UJ-NB750x375	3/4"	0.745 [18.92]	0.79 [20.1]	0.3750 [9.525]	2.688 [68.3]	1.344 [34.1]	0.95 [24.1]	n/a	n/a
UJ-NB750x375K	3/4"	0.745 [18.92]	0.79 [20.1]	0.3750 [9.525]	2.688 [68.3]	1.344 [34.1]	0.95 [24.1]	3/32 x 3/64	Yes
UJ-NB1000x500	1"	0.995 [25.27]	1.08 [27.4]	0.5000 [12.700]	3.375 [85.7]	1.688 [42.9]	1.19 [30.2]	n/a	n/a
UJ-NB1000x500K	1"	0.995 [25.27]	1.08 [27.4]	0.5000 [12.700]	3.375 [85.7]	1.688 [42.9]	1.19 [30.2]	1/8 x 1/16	Yes
UJ-NB1250x625	1-1/4"	1.245 [31.62]	1.34 [34.0]	0.6250 [15.875]	3.750 [95.3]	1.875 [47.6]	1.25 [31.8]	n/a	n/a
UJ-NB1250x625K	1-1/4"	1.245 [31.62]	1.34 [34.0]	0.6250 [15.875]	3.750 [95.3]	1.875 [47.6]	1.25 [31.8]	3/16 x 3/32	Yes
UJ-NB1500x750	1-1/2"	1.495 [37.97]	1.63 [41.4]	0.7500 [19.050]	4.250 [108.0]	2.125 [54.0]	1.38 [34.9]	n/a	n/a
UJ-NB1500x750K	1-1/2"	1.495 [37.97]	1.63 [41.4]	0.7500 [19.050]	4.250 [108.0]	2.125 [54.0]	1.38 [34.9]	3/16 x 3/32	Yes
UJ-NB2000x1000	2"	1.995 [50.67]	2.11 [53.5]	1.0000 [25.400]	5.500 [139.7]	2.750 [69.9]	1.70 [43.2]	n/a	n/a
UJ-NB2000x1000K	2"	1.995 [50.67]	2.11 [53.5]	1.0000 [25.400]	5.500 [139.7]	2.750 [69.9]	1.70 [43.2]	1/4 x 1/8	Yes

Unbooted Stainless Steel Needle Bearing Universal Joints

Part Number	ØD1 Nominal (in)	ØD1 in [mm]	ØF	ØB in [mm]	L1 in [mm]	L2 in [mm]	L3 in [mm]	K [in]	SS
SS-UJ-NB750x375	3/4"	0.745 [18.92]	0.79 [20.1]	0.3750 [9.525]	2.688 [68.3]	1.344 [34.1]	0.95 [24.1]	n/a	n/a
SS-UJ-NB750x375K	3/4"	0.745 [18.92]	0.79 [20.1]	0.3750 [9.525]	2.688 [68.3]	1.344 [34.1]	0.95 [24.1]	3/32 x 3/64	Yes
SS-UJ-NB1000x500	1"	0.995 [25.27]	1.08 [27.4]	0.5000 [12.700]	3.375 [85.7]	1.688 [42.9]	1.19 [30.2]	n/a	n/a
SS-UJ-NB1000x500K	1"	0.995 [25.27]	1.08 [27.4]	0.5000 [12.700]	3.375 [85.7]	1.688 [42.9]	1.19 [30.2]	1/8 x 1/16	Yes
SS-UJ-NB1250x625	1-1/4"	1.245 [31.62]	1.34 [34.0]	0.6250 [15.875]	3.750 [95.3]	1.875 [47.6]	1.25 [31.8]	n/a	n/a
SS-UJ-NB1250x625K	1-1/4"	1.245 [31.62]	1.34 [34.0]	0.6250 [15.875]	3.750 [95.3]	1.875 [47.6]	1.25 [31.8]	3/16 x 3/32	Yes
SS-UJ-NB1500x750	1-1/2"	1.495 [37.97]	1.63 [41.4]	0.7500 [19.050]	4.250 [108.0]	2.125 [54.0]	1.38 [34.9]	n/a	n/a
SS-UJ-NB1500x750K	1-1/2"	1.495 [37.97]	1.63 [41.4]	0.7500 [19.050]	4.250 [108.0]	2.125 [54.0]	1.38 [34.9]	3/16 x 3/32	Yes
SS-UJ-NB2000x1000	2"	1.995 [50.67]	2.11 [53.5]	1.0000 [25.400]	5.500 [139.7]	2.750 [69.9]	1.70 [43.2]	n/a	n/a
SS-UJ-NB2000x1000K	2"	1.995 [50.67]	2.11 [53.5]	1.0000 [25.400]	5.500 [139.7]	2.750 [69.9]	1.70 [43.2]	1/4 x 1/8	Yes

Yokes and fasteners stainless steel. [Metric values shown for reference only.]

NEEDLE BEARING UNIVERSAL JOINTS - BOOTED



Booted Alloy Needle Bearing Universal Joints

Part Number	ØD1 Nominal (in)	ØD1 in [mm]	ØD2 in [mm]	ØB in [mm]	L1 in [mm]	L2 in [mm]	L3 in [mm]	K [in]	SS
NB-UJ750x3/8KB	3/4"	0.745 [18.92]	1.38 [35.1]	0.3750 [9.525]	2.688 [68.3]	1.344 [34.1]	0.95 [24.1]	3/32 x 3/64	Yes
NB-UJ1000x1/2KB	1"	0.995 [25.27]	1.53 [38.9]	0.5000 [12.700]	3.375 [85.7]	1.688 [42.9]	1.19 [30.2]	1/8 x 1/16	Yes
NB-UJ1250x5/8KB	1-1/4"	1.245 [31.62]	1.88 [47.8]	0.6250 [15.875]	3.750 [95.3]	1.875 [47.6]	1.25 [31.8]	3/16 x 3/32	Yes
NB-UJ1500x3/4KB	1-1/2"	1.495 [37.97]	2.25 [57.2]	0.7500 [19.050]	4.250 [108.0]	2.125 [54.0]	1.38 [34.9]	3/16 x 3/32	Yes
NB-UJ2000x1KB	2"	1.995 [50.67]	2.69 [68.3]	1.0000 [25.400]	5.500 [139.7]	2.750 [69.9]	1.70 [43.2]	1/4 x 1/8	Yes

Booted Stainless Steel Needle Bearing Universal Joints

Part Number	ØD1 Nominal (in)	ØD1 in [mm]	ØD2 in [mm]	ØB in [mm]	L1 in [mm]	L2 in [mm]	L3 in [mm]	K [in]	SS
SS-NBUJ750x3/8KB	3/4"	0.745 [18.92]	1.38 [35.1]	0.3750 [9.525]	2.688 [68.3]	1.344 [34.1]	0.95 [24.1]	3/32 x 3/64	Yes
SS-NBUJ100x1/2KB	1"	0.995 [25.27]	1.53 [38.9]	0.5000 [12.700]	3.375 [85.7]	1.688 [42.9]	1.19 [30.2]	1/8 x 1/16	Yes
SS-NBUJ125x5/8KB	1-1/4"	1.245 [31.62]	1.88 [47.8]	0.6250 [15.875]	3.750 [95.3]	1.875 [47.6]	1.25 [31.8]	3/16 x 3/32	Yes
SS-NB-UJ1500x3/4KB	1-1/2"	1.495 [37.97]	2.25 [57.2]	0.7500 [19.050]	4.250 [108.0]	2.125 [54.0]	1.38 [34.9]	3/16 x 3/32	Yes
SS-NBUJ2000x1KB	2"	1.995 [50.67]	2.69 [68.3]	1.0000 [25.400]	5.500 [139.7]	2.750 [69.9]	1.70 [43.2]	1/4 x 1/8	Yes

Yokes and fasteners stainless steel. [Metric values shown for reference only.]

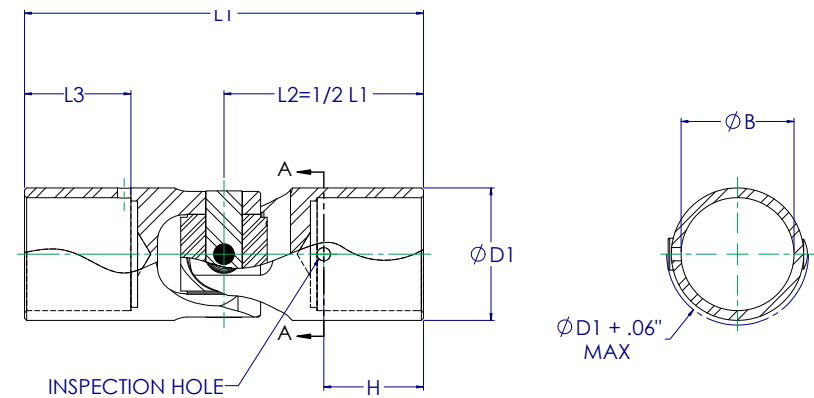
MILITARY STANDARD JOINT - MS20270 LIGHT DUTY SERIES

Belden military standard universal joints are precisely designed and manufactured for a variety of applications. These include specifications where low deflection rates, high strength-to-weight ratios and long service life are essential.



Features

- Designed with blind bores
- No boot covers
- Regular re-lubrication required
- Cadmium plating (Zinc plating optional)
- Meets or exceeds military specifications MIL-DTL-6193



Legend

- ØD1: Outside Diameter
- ØB: Bore (Inside) Diameter
- L1: Overall Length
- L2: Yoke Length
- L3: Bore Depth
- H: Inspection Hole Location

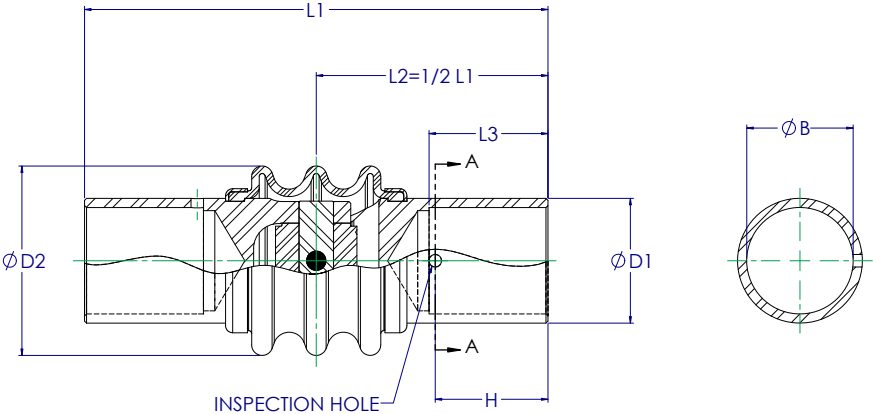
MILITARY STANDARD JOINT - MS20271 HEAVY DUTY SERIES

Belden’s complete universal joint line includes a full range of military certified and continually tested universal joints used in auto racing/gear change linkage, defense vehicles as well as aerospace applications.



Features

- Designed with blind bores
- Grease-filled protective boot covers
- Cadmium plating (Zinc plating optional)
- Meets or exceeds military specifications MIL-DTL-6193



Legend

- ØD1: Outside Diameter
- ØD2: Boot Diameter
- ØB: Bore (Inside) Diameter
- L1: Overall Length
- L2: Yoke Length
- L3: Bore Depth
- H: Inspection Hole Location

MS20270 Series (maximum operating angle 30°)

Part Number	ØD1 Nominal (in)	ØD1 +0.000 [+0.00] - 0.002 [- 0.05] in [mm]	L1 Overall Length in [mm]	L3 +0.031 [+0.79] - 0.000 [- 0.00] in [mm]	ØB +0.004 [+0.10] - 0.001 [- 0.03] in [mm]	H Inspection Hole Location in [mm]	Weight Maximum lb [kg]
MS20270B6	3/8"	0.372 [9.45]	1.750 [44.45]	0.375 [9.53]	0.250 [6.35]	0.312 [7.92]	0.035 [0.02]
MS20270B8	1/2"	0.495 [12.57]	1.875 [47.63]	0.500 [12.70]	0.375 [9.53]	0.437 [11.10]	0.065 [0.03]
MS20270B10	5/8"	0.620 [15.75]	2.187 [55.55]	0.625 [15.88]	0.500 [12.70]	0.562 [14.27]	0.095 [0.04]
MS20270B12	3/4"	0.745 [18.92]	2.500 [63.50]	0.750 [19.05]	0.625 [15.88]	0.687 [17.45]	0.160 [0.07]
MS20270B14	7/8"	0.870 [22.10]	3.000 [76.20]	0.937 [23.80]	0.750 [19.05]	0.875 [22.23]	0.220 [0.10]
MS20270B16	1"	0.995 [25.27]	3.375 [85.73]	0.937 [23.80]	0.812 [20.62]	0.875 [22.23]	0.385 [0.17]
MS20270B20	1-1/4"	1.245 [31.62]	3.750 [95.25]	1.000 [25.40]	1.062 [26.97]	0.937 [23.80]	0.630 [0.29]
MS20270B24	1-1/2"	1.495 [37.97]	4.500 [114.30]	1.125 [28.58]	1.250 [31.75]	1.062 [26.97]	1.200 [0.54]

MS20271 Series (maximum operating angle 30°)

Part Number	ØD1 Nominal (in)	ØD1 +0.000 [+0.00] - 0.002 [- 0.05] in [mm]	L1 Overall Length in [mm]	L3 +0.031 [+0.79] - 0.000 [- 0.00] in [mm]	ØB +0.004 [+0.10] - 0.001 [- 0.03] in [mm]	H Inspection Hole Location in [mm]	Weight Maximum lb [kg]
MS20271B6	3/8"	0.372 [9.45]	2.000 [50.80]	0.500 [12.70]	0.250 [6.35]	0.437 [11.10]	0.07 [0.03]
MS20271B8	1/2"	0.495 [12.57]	2.312 [58.72]	0.625 [15.88]	0.375 [9.53]	0.562 [14.27]	0.09 [0.04]
MS20271B10	5/8"	0.620 [15.75]	2.750 [69.85]	0.750 [19.05]	0.500 [12.70]	0.687 [17.45]	0.18 [0.08]
MS20271B12	3/4"	0.745 [18.92]	3.187 [80.95]	0.875 [22.23]	0.625 [15.88]	0.812 [20.62]	0.24 [0.11]
MS20271B14	7/8"	0.870 [22.10]	3.625 [92.08]	1.000 [25.40]	0.750 [19.05]	0.937 [23.80]	0.35 [0.16]
MS20271B16	1"	0.995 [25.27]	4.062 [103.17]	1.125 [28.58]	0.812 [20.62]	1.062 [26.97]	0.55 [0.25]
MS20271B20	1-1/4"	1.245 [31.62]	4.625 [117.48]	1.187 [30.15]	1.062 [26.97]	1.125 [28.58]	0.90 [0.41]
MS20271B24	1-1/2"	1.495 [37.97]	5.250 [133.35]	1.312 [33.32]	1.250 [31.75]	1.250 [31.75]	1.50 [0.68]

Part Number	Test Angle	Torsional Play Data		Axial Tension & Compression (± 2%) lbf [N]	Static Torque (± 2%) lb-in [Nm]	Oper. Angle	Endurance Test Data		
		Test Torque (± 2%) lb-in [Nm]	Limit Degrees (± 2%)				Endurance Torque Load	RPM	Run Time Hours
MS20270B6	0	4 [0.45]	1.00	200 [890]	175 [20]	15	26 [3]	120	2
MS20270B8	0	4 [0.45]	0.80	200 [890]	250 [28]	15	38 [4]	120	2
MS20270B10	0	4 [0.45]	0.64	300 [1334]	500 [56]	15	75 [8]	120	2
MS20270B12	0	4 [0.45]	0.53	400 [1779]	1000 [113]	15	150 [17]	120	2
MS20270B14	0	8 [0.90]	0.46	500 [2224]	1750 [198]	15	262 [30]	120	2
MS20270B16	0	8 [0.90]	0.40	600 [2669]	2500 [282]	15	375 [42]	120	2
MS20270B20	0	8 [0.90]	0.32	800 [3559]	5000 [565]	15	750 [85]	120	2
MS20270B24	0	8 [0.90]	0.27	1100 [4893]	7500 [847]	15	1125 [127]	120	2

Part Number	Test Angle	Torsional Play Data		Axial Tension & Compression (± 2%) lbf [N]	Static Torque (± 2%) lb-in [Nm]	Oper. Angle	Endurance Test Data		
		Test Torque (± 2%) lb-in [Nm]	Limit Degrees (± 2%)				Endurance Torque Load	RPM	Run Time Hours
MS20271B6	0	4 [0.45]	0.83	500 [2224]	200 [23]	15	30 [3]	120	5
MS20271B8	0	4 [0.45]	0.62	1000 [4448]	600 [68]	15	90 [10]	120	5
MS20271B10	0	4 [0.45]	0.50	1500 [6672]	1080 [122]	15	162 [18]	120	5
MS20271B12	0	4 [0.45]	0.42	2000 [8896]	1900 [215]	15	285 [32]	120	5
MS20271B14	0	8 [0.90]	0.36	3500 [15569]	3000 [339]	15	450 [51]	120	5
MS20271B16	0	8 [0.90]	0.32	5000 [22241]	4700 [531]	15	705 [80]	120	5
MS20271B20	0	8 [0.90]	0.24	7000 [31138]	9500 [1073]	15	1425 [161]	120	5
MS20271B24	0	8 [0.90]	0.20	9000 [40034]	14500 [1638]	15	2175 [246]	120	5

[Metric values shown for reference only]

[Metric values shown for reference only]

METRIC UNIVERSAL JOINTS

Belden’s metric universal joints are manufactured with metric bore sizes. They are available as high-grade alloy steel or AISI 303 stainless. Belden’s metric joints provide exceptional service life for the most demanding applications. All joints are available with or without a lubricant retaining boot.

Metric Alloy Steel Universal Joints



Boot grooves are standard.
Parts without grooves available upon request.

Features

- High grade-alloy steel
- Standard operating angles up to 45°
(Special design solutions with higher angles may also be available)
- Wide selection of hub configurations & finishes

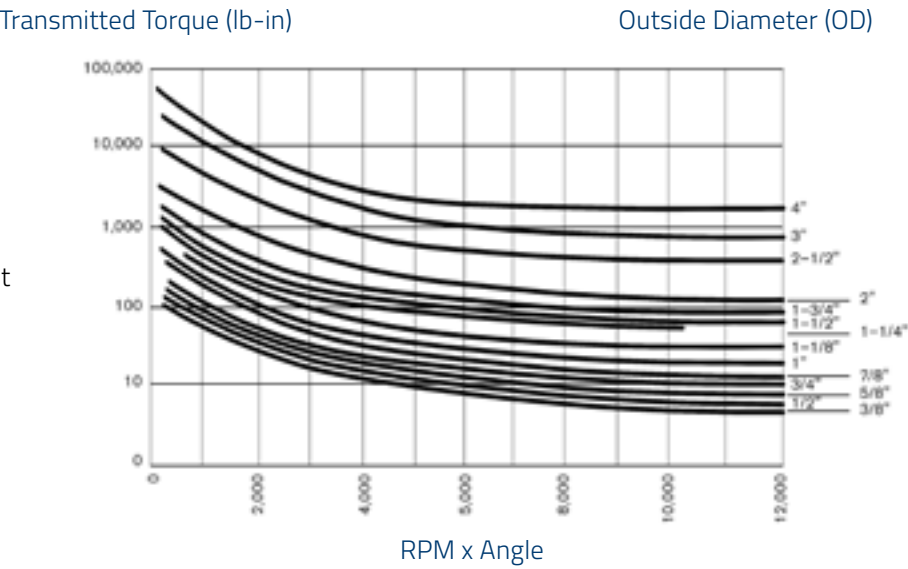
Torque Values by Outside Diameter

Nominal OD (in)	Max. Operating Torque Lb-in [N-m]	Ultimate Torque Lb-in [N-m]
3/8"	20 [2.3]	100 [11]
1/2"	70 [7.9]	350 [39]
5/8"	135 [15]	675 [76]
3/4"	250 [28]	1250 [141]
7/8"	350 [39]	1750 [197]
1"	450 [50]	2250 [254]
1-1/8"	650 [73]	3250 [367]

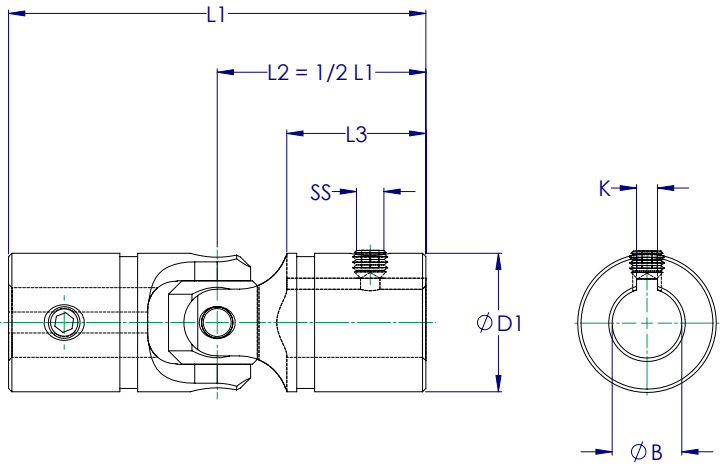
Nominal OD (in)	Max. Operating Torque Lb-in [N-m]	Ultimate Torque Lb-in [N-m]
1-1/4"	1040 [117]	5200 [587]
1-1/2"	2000 [226]	10000 [1129]
1-3/4"	2900 [327]	14500 [1638]
2"	4300 [485]	21500 [2429]
2.5"	6400 [723]	32000 [3615]
3"	11000 [1242]	55000 [6214]
4"	22000 [2485]	110000 [12429]

Performance Curve for Pin + Block Universal Joints

The chart is a guideline. Please consult Belden with your specific application.



Metric Alloy Steel Universal Joints



Legend

- ØD1: Outside Diameter
- ØB: Bore (Inside) Diameter
- L1: Overall Length
- L2: Yoke Length
- L3: Hub Length / Bore Depth
- K: Keyway
- SS: Setscrew

Standard operating angle 45°. Special design solutions with higher angles may be available upon request.

Part Number	ØD1 Nominal (In)	ØD1 In [mm]	ØB In [mm]	L1 In [mm]	L2 In [mm]	L3 In [mm]	K [In]	K [mm]
UJ-HD375x05	3/8"	0.370 [9.40]	0.1969 [5.000]	1.575 [40.0]	0.787 [20.0]	0.58 [14.8]	n/a	n/a
UJ-HD500x06	1/2"	0.495 [12.57]	0.2362 [6.000]	1.575 [40.0]	0.787 [20.0]	0.52 [13.3]	n/a	n/a
UJ-HD625x08	5/8"	0.620 [15.75]	0.3150 [8.000]	1.575 [40.0]	0.787 [20.0]	0.49 [12.3]	n/a	n/a
UJ-HD625x08K	5/8"	0.620 [15.75]	0.3150 [8.000]	1.575 [40.0]	0.787 [20.0]	0.49 [12.3]	0.079x0.354	2x9
UJ-HD750x10	3/4"	0.745 [18.92]	0.3937 [10.000]	1.772 [45.0]	0.886 [22.5]	0.49 [12.5]	n/a	n/a
UJ-HD750x10K	3/4"	0.745 [18.92]	0.3937 [10.000]	1.772 [45.0]	0.886 [22.5]	0.49 [12.5]	0.118x0.449	3x11.4
UJ-HD875x10	7/8"	0.870 [22.10]	0.3937 [10.000]	1.969 [50.0]	0.984 [25.0]	0.52 [13.1]	n/a	n/a
UJ-HD875x10K	7/8"	0.870 [22.10]	0.3937 [10.000]	1.959 [50.0]	0.984 [25.0]	0.52 [13.1]	0.118x0.449	3x11.4
UJ-HD875x12	7/8"	0.870 [22.10]	0.4724 [12.000]	1.969 [50.0]	0.984 [25.0]	0.52 [13.1]	n/a	n/a
UJ-HD875x12K	7/8"	0.870 [22.10]	0.4724 [12.000]	1.959 [50.0]	0.984 [25.0]	0.52 [13.1]	0.157x0.543	4x13.8
UJ-HD1000x12	1"	0.995 [25.27]	0.4724 [12.000]	1.969 [50.0]	0.984 [25.0]	0.48 [12.3]	n/a	n/a
UJ-HD1000x12K	1"	0.995 [25.27]	0.4724 [12.000]	1.969 [50.0]	0.984 [25.0]	0.48 [12.3]	0.157x0.543	4x13.8
UJ-HD1125x14	1-1/8"	1.120 [28.45]	0.5512 [14.000]	2.205 [56.0]	1.102 [28.0]	0.55 [14.0]	n/a	n/a
UJ-HD1125x14K	1-1/8"	1.120 [28.45]	0.5512 [14.000]	2.205 [56.0]	1.102 [28.0]	0.55 [14.0]	0.197x0.642	5x16.3
UJ-HD1250x16	1-1/4"	1.245 [31.62]	0.6299 [16.000]	2.559 [65.0]	1.280 [32.5]	0.65 [16.6]	n/a	n/a
UJ-HD1250x16K	1-1/4"	1.245 [31.62]	0.6299 [16.000]	2.559 [65.0]	1.280 [32.5]	0.65 [16.6]	0.197x0.720	5x18.3
UJ-HD1500x18	1-1/2"	1.495 [37.97]	0.7087 [18.000]	2.835 [72.0]	1.417 [36.0]	0.69 [17.6]	n/a	n/a
UJ-HD1500x18K	1-1/2"	1.495 [37.97]	0.7087 [18.000]	2.835 [72.0]	1.417 [36.0]	0.69 [17.6]	0.236x0.819	6x20.8
UJ-HD1500x20	1-1/2"	1.495 [37.97]	0.7874 [20.000]	3.228 [82.0]	1.614 [41.0]	0.89 [22.6]	n/a	n/a
UJ-HD1500x20K	1-1/2"	1.495 [37.97]	0.7874 [20.000]	3.228 [82.0]	1.614 [41.0]	0.89 [22.6]	0.236x0.898	6x22.8
UJ-HD1750x22	1-3/4"	1.745 [44.32]	0.8661 [22.000]	3.740 [95.0]	1.870 [47.5]	0.98 [24.8]	n/a	n/a
UJ-HD1750x22K	1-3/4"	1.745 [44.32]	0.8661 [22.000]	3.740 [95.0]	1.870 [47.5]	0.98 [24.8]	0.236x0.976	6x24.8
UJ-HD2000x25	2"	1.995 [50.67]	0.9843 [25.000]	4.252 [108.0]	2.126 [54.0]	1.07 [27.3]	n/a	n/a
UJ-HD2000x25K	2"	1.995 [50.67]	0.9843 [25.000]	4.252 [108.0]	2.126 [54.0]	1.07 [27.3]	0.315x1.114	8x28.3
UJ-HD2000x30	2"	1.995 [50.67]	1.1811 [30.000]	4.803 [122.0]	2.402 [61.0]	1.35 [34.3]	n/a	n/a
UJ-HD2000x30K	2"	1.995 [50.67]	1.1811 [30.000]	4.803 [122.0]	2.402 [61.0]	1.35 [34.3]	0.315x1.311	8x33.3
UJ-HD2500x30-122	2-1/2"	2.495 [63.37]	1.1811 [30.000]	4.803 [122.0]	2.402 [61.0]	0.99 [25.1]	n/a	n/a
UJ-HD2500x30K-122	2-1/2"	2.495 [63.37]	1.1811 [30.000]	4.803 [122.0]	2.402 [61.0]	0.99 [25.1]	0.315x1.311	n/a
UJ-HD2500x30-140	2-1/2"	2.495 [63.37]	1.1811 [30.000]	5.512 [140.0]	2.756 [70.0]	1.34 [34.1]	n/a	n/a
UJ-HD2500x30K-140	2-1/2"	2.495 [63.37]	1.1811 [30.000]	5.512 [140.0]	2.756 [70.0]	1.34 [34.1]	0.315x1.311	8x33.3
UJ-HD2500x35-122	2-1/2"	2.495 [63.37]	1.3780 [35.000]	4.803 [122.0]	2.402 [61.0]	0.99 [25.1]	n/a	n/a
UJ-HD2500x35K-122	2-1/2"	2.495 [63.37]	1.3780 [35.000]	4.803 [122.0]	2.402 [61.0]	0.99 [25.1]	0.394x1.508	n/a
UJ-HD2500x35-140	2-1/2"	2.495 [63.37]	1.3780 [35.000]	5.512 [140.0]	2.756 [70.0]	1.34 [34.1]	n/a	n/a
UJ-HD2500x35K-140	2-1/2"	2.495 [63.37]	1.3780 [35.000]	5.512 [140.0]	2.756 [70.0]	1.34 [34.1]	0.394x1.508	10x38.3

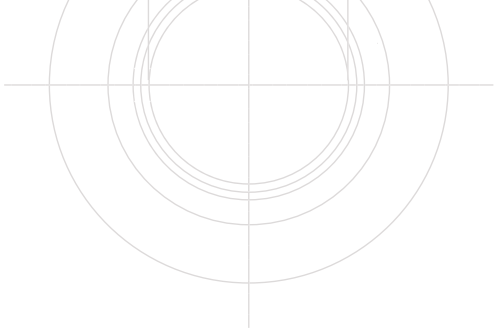
Metric Stainless Steel Universal Joints



Boot grooves are standard.
Parts without grooves available upon request.

Features

- Metric bore sizes
- Corrosion resistance
- AISI 303 yokes
- AISI 416 pins & blocks
- Standard operating angles up to 45°
- Can be outfitted with lubricant-retaining boots

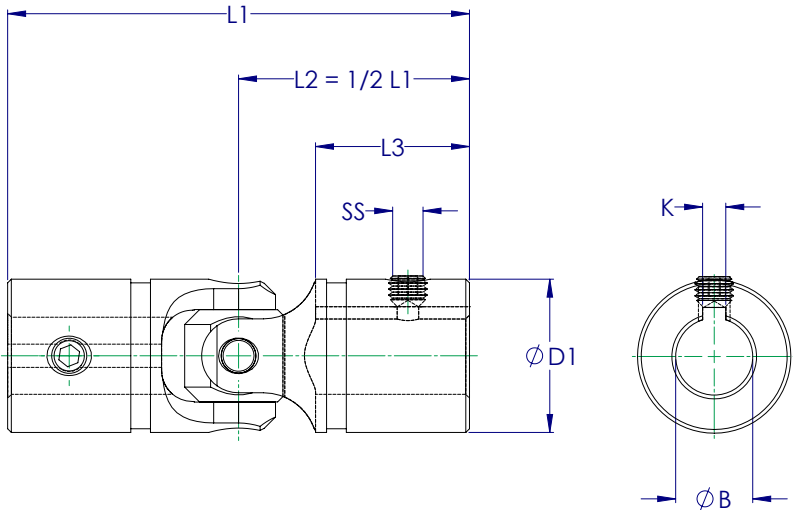


Torque Values by Outside Diameter

Nominal OD (in)	Max. Operating Torque Lb-in [N-m]	Ultimate Torque Lb-in [N-m]
3/8"	15 [1.7]	75 [8.5]
1/2"	48 [5.4]	240 [27]
5/8"	95 [10]	475 [53]
3/4"	175 [19]	875 [98]
7/8"	250 [28]	1260 [142]
1"	315 [35]	1575 [178]
1-1/8"	450 [50]	2250 [254]

Nominal OD (in)	Max. Operating Torque Lb-in [N-m]	Ultimate Torque Lb-in [N-m]
1-1/4"	680 [76]	3400 [384]
1-1/2"	1450 [163]	7250 [819]
1-3/4"	2100 [237]	10500 [1186]
2"	3120 [352]	15600 [1762]
2.5"	4650 [525]	23250 [2627]
3"	8000 [904]	40000 [4519]
4"	16000 [1807]	80000 [9039]

Metric Stainless Steel Universal Joints



Legend

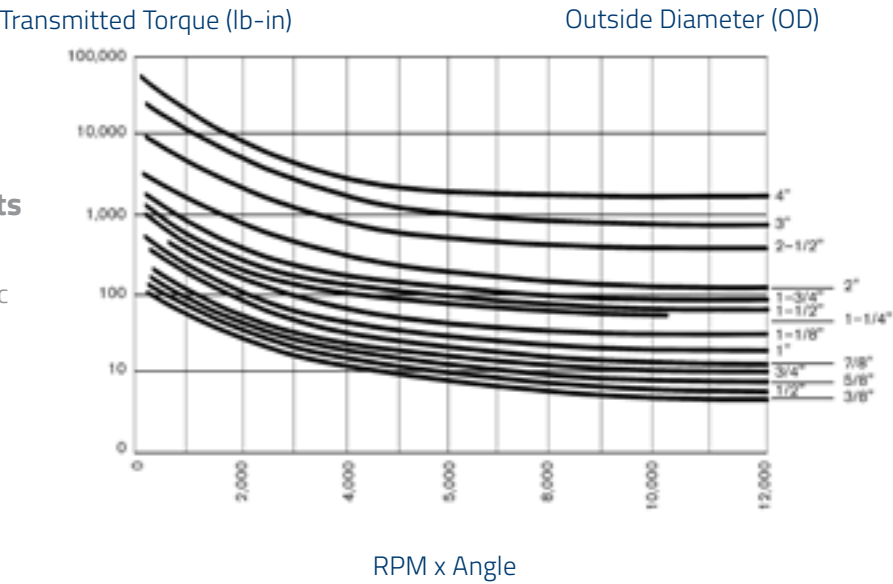
- ØD1: Outside Diameter
- ØB: Bore (Inside) Diameter
- L1: Overall Length
- L2: Yoke Length
- L3: Hub Length / Bore Depth
- K: Keyway
- SS: Setscrew

Standard operating angle 45°. Special design solutions with higher angles may be available upon request.

Part Number	ØD1 Nominal (In)	ØD1 In [mm]	ØB In [mm]	L1 In [mm]	L2 In [mm]	L3 In [mm]	K [mm]	K [in]
UJ-SS375x05	3/8"	0.370 [9.40]	0.1969 [5.000]	1.750 [44.5]	0.875 [22.23]	0.66 [16.8]	n/a	n/a
UJ-SS500x06	1/2"	0.495 [12.57]	0.2362 [6.000]	2.000 [50.80]	1.000 [25.4]	0.72 [18.3]	n/a	n/a
UJ-SS625x08	5/8"	0.620 [15.75]	0.3150 [8.000]	2.250 [57.15]	1.125 [28.56]	0.82 [20.9]	n/a	n/a
UJ-SS625x08K	5/8"	0.620 [15.75]	0.3150 [8.000]	2.250 [57.15]	1.125 [28.56]	0.82 [20.9]	0.079x0.354	2x9
UJ-SS750x10	3/4"	0.745 [18.92]	0.3937 [10.000]	3.000 [76.2]	1.500 [38.10]	1.10 [28.0]	n/a	n/a
UJ-SS750x10K	3/4"	0.745 [18.92]	0.3937 [10.000]	3.000 [76.2]	1.500 [38.10]	1.10 [28.0]	0.118x0.449	3x11.4
UJ-SS875x10	7/8"	0.870 [22.10]	0.3937 [10.000]	3.000 [76.20]	1.500 [38.10]	1.03 [26.2]	n/a	n/a
UJ-SS875x10K	7/8"	0.870 [22.10]	0.3937 [10.000]	3.000 [76.20]	1.500 [38.10]	1.03 [26.2]	0.118x0.449	3x11.4
UJ-SS875x12	7/8"	0.870 [22.10]	0.4724 [12.000]	3.000 [76.20]	1.500 [38.10]	1.03 [26.2]	n/a	n/a
UJ-SS875x12K	7/8"	0.870 [22.10]	0.4724 [12.000]	3.000 [76.20]	1.500 [38.10]	1.03 [26.2]	0.157x0.543	4x13.8
UJ-SS1000x12	1"	0.995 [25.27]	0.4724 [12.000]	3.375 [85.73]	1.688 [42.86]	1.19 [30.2]	n/a	n/a
UJ-SS1000x12K	1"	0.995 [25.27]	0.4724 [12.000]	3.375 [85.73]	1.688 [42.86]	1.19 [30.2]	0.157x0.543	4x13.8
UJ-SS1125x14	1-1/8"	1.120 [28.45]	0.5512 [14.000]	3.500 [88.90]	1.750 [44.45]	1.20 [30.4]	n/a	n/a
UJ-SS1125x14K	1-1/8"	1.120 [28.45]	0.5512 [14.000]	3.500 [88.90]	1.750 [44.45]	1.20 [30.4]	0.197x0.642	5x16.3
UJ-SS1250x16	1-1/4"	1.245 [31.62]	0.6299 [16.000]	3.750 [95.25]	1.875 [47.63]	1.25 [31.8]	n/a	n/a
UJ-SS1250x16K	1-1/4"	1.245 [31.62]	0.6299 [16.000]	3.750 [95.25]	1.875 [47.63]	1.25 [31.8]	0.197x0.642	5x16.3
UJ-SS1500x18	1-1/2"	1.495 [37.97]	0.7087 [18.000]	4.250 [107.95]	2.125 [53.98]	1.40 [35.6]	n/a	n/a
UJ-SS1500x18K	1-1/2"	1.495 [37.97]	0.7087 [18.000]	4.250 [107.95]	2.125 [53.98]	1.40 [35.6]	0.236x0.819	6x20.8
UJ-SS1500x20	1-1/2"	1.495 [37.97]	0.7874 [20.000]	4.250 [107.95]	2.125 [53.98]	1.40 [35.6]	n/a	n/a
UJ-SS1500x20K	1-1/2"	1.495 [37.97]	0.7874 [20.000]	4.250 [107.95]	2.125 [53.98]	1.40 [35.6]	0.236x0.898	6x22.8
UJ-SS1750x22	1-3/4"	1.745 [44.32]	0.8661 [22.000]	5.000 [127.0]	2.500 [63.5]	1.61 [40.8]	n/a	n/a
UJ-SS1750x22K	1-3/4"	1.745 [44.32]	0.8661 [22.000]	5.000 [127.0]	2.500 [63.5]	1.61 [40.8]	0.236x0.936	6x24.8
UJ-SS2000x25	2"	1.995 [50.67]	0.9843 [25.000]	5.500 [139.70]	2.750 [69.85]	1.70 [43.2]	n/a	n/a
UJ-SS2000x25K	2"	1.995 [50.67]	0.9843 [25.000]	5.500 [139.70]	2.750 [69.85]	1.70 [43.2]	0.315x1.114	8x28.3
UJ-SS2000x30	2"	1.995 [50.67]	1.1811 [30.000]	5.500 [139.70]	2.750 [69.85]	1.70 [43.2]	n/a	n/a
UJ-SS2000x30K	2"	1.995 [50.67]	1.1811 [30.000]	5.500 [139.70]	2.750 [69.85]	1.70 [43.2]	0.315x1.311	8x33.3
UJ-SS2500x30	2-1/2"	2.495 [63.37]	1.1811 [30.000]	7.000 [177.8]	3.500 [88.9]	2.09 [53.1]	n/a	n/a
UJ-SS2500x30K	2-1/2"	2.495 [63.37]	1.1811 [30.000]	7.000 [177.8]	3.500 [88.9]	2.09 [53.1]	0.315x1.311	8x33.3
UJ-SS2500x35	2-1/2"	2.495 [63.37]	1.3780 [35.000]	7.000 [177.8]	3.500 [88.9]	2.09 [53.1]	n/a	n/a
UJ-SS2500x35K	2-1/2"	2.495 [63.37]	1.3780 [35.000]	7.000 [177.8]	3.500 [88.9]	2.09 [53.1]	0.394x1.508	10x38.3

Performance Curve for Pin + Block Universal Joints

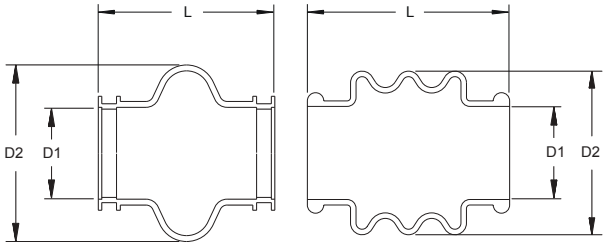
The chart is a guideline. Please consult Belden with your specific application.



UNIVERSAL JOINT BOOT COVERS

If a universal joint assembly operates in an atmosphere that is polluted with chips, dirt, acids and/or other abrasives, it is highly recommended that boots be specified on the original assembly. Boots play an important role in protecting and keeping the joints fully lubricated and prolonging the useful life of the assembly.

- Added protection in adverse conditions
- Increases lifetime of the joint when filled with a lubricant



Boot Covers (-LP indicating low profile version)

Part No.	U-Joint O.D. in	øD1 in [mm]	øD2 in [mm]	L in [mm]	Number of Bellows	Material
625 BOOT-CR	5/8"	0.63 [15.9]	1.09 [27.7]	1.03 [26.2]	Single	Neoprene
750 BOOT-CR	3/4"	0.75 [19.1]	1.38 [35.1]	1.25 [31.8]	Single	Neoprene
375 BOOT	3/8"	0.38 [9.5]	0.72 [18.4]	0.88 [22.2]	Double	Nitrile
500 BOOT	1/2"	0.50 [12.7]	0.95 [24.2]	0.88 [22.2]	Double	Nitrile
625 BOOT	5/8"	0.63 [15.9]	1.13 [28.6]	1.03 [26.2]	Single	Nitrile
750 BOOT	3/4"	0.75 [19.1]	1.38 [35.1]	1.25 [31.8]	Single	Nitrile
875 BOOT	7/8"	0.88 [22.2]	1.50 [38.1]	1.38 [35.0]	Single	Nitrile
1000 BOOT	1"	1.00 [25.4]	1.50 [38.1]	1.50 [38.1]	Triple	Nitrile
1125 BOOT	1-1/8"	1.13 [28.6]	1.75 [44.5]	1.63 [41.4]	Triple	Nitrile
1250 BOOT	1-1/4"	1.25 [31.8]	1.88 [47.8]	2.09 [53.2]	Triple	Nitrile
1250 BOOT-LP	1-1/4"	1.25 [31.8]	1.50 [38.1]	2.00 [50.8]	None	Nitrile
1500 BOOT	1-1/2"	1.50 [38.1]	2.25 [57.2]	2.06 [52.4]	Triple	Nitrile
1500 BOOT-LP	1-1/2"	1.50 [38.1]	1.75 [44.5]	2.75 [70.0]	None	Nitrile
1750 BOOT	1-3/4"	1.75 [44.5]	2.69 [68.3]	2.63 [66.8]	Triple	Nitrile
1750 BOOT-LP	1-3/4"	1.75 [44.5]	2.00 [50.8]	3.50 [89.0]	None	Nitrile
2000 BOOT	2"	1.75 [44.5]	2.69 [68.3]	3.00 [76.2]	Triple	Nitrile
2000 BOOT-LP	2"	2.00 [50.8]	2.25 [57.2]	4.00 [101.6]	None	Nitrile
2500 BOOT	2-1/2"	2.50 [63.5]	3.50 [88.9]	4.00 [101.6]	Multiple	Nitrile
2500 BOOT-LP	2-1/2"	2.50 [63.5]	2.75 [70.0]	4.63 [117.5]	None	Nitrile
3000 BOOT	3"	3.00 [76.2]	4.25 [108.0]	4.63 [117.5]	Triple	Nitrile
3000 BOOT-LP	3"	3.00 [76.2]	3.25 [82.6]	5.50 [139.7]	None	Nitrile
375 BOOT-SL	3/8"	0.38 [9.5]	0.72 [18.4]	0.88 [22.2]	Double	Silicone
500 BOOT-SL	1/2"	0.50 [12.7]	0.95 [24.2]	0.88 [22.2]	Double	Silicone
625 BOOT-SL	5/8"	0.63 [15.9]	1.13 [28.6]	1.03 [26.2]	Single	Silicone
750 BOOT-SL	3/4"	0.75 [19.1]	1.38 [35.1]	1.25 [31.8]	Single	Silicone
875 BOOT-SL	7/8"	0.88 [22.2]	1.50 [38.1]	1.38 [35.0]	Single	Silicone
1000 BOOT-SL	1"	1.00 [25.4]	1.50 [38.1]	1.50 [38.1]	Triple	Silicone
1250 BOOT-SL	1-1/4"	1.25 [31.8]	1.88 [47.8]	2.09 [53.2]	Triple	Silicone
1500 BOOT-SL	1-1/2"	1.50 [38.1]	2.25 [57.2]	2.06 [52.4]	Triple	Silicone
625 BOOT-VT	5/8"	0.63 [15.9]	1.13 [28.6]	1.03 [26.2]	Single	Viton
750 BOOT-VT	3/4"	0.75 [19.1]	1.38 [35.1]	1.25 [31.8]	Single	Viton
1000 BOOT-VT	1"	1.00 [25.4]	1.50 [38.1]	1.50 [38.1]	Triple	Viton
1250 BOOT-VT	1-1/4"	1.25 [31.8]	1.88 [47.8]	2.09 [53.2]	Triple	Viton

Boot Material Information

Nitrile (standard) Also known as Buna-N, has excellent resistance to petroleum-based oils and fuels, silicone greases, hydraulic fluids, water and alcohol. It possesses high tensile strength and high abrasion resistance. Silicone boots are recommended for high temperature applications.

Silicone (-SL) Resistant to high, dry heat and fungus. Odorless, tasteless and non-toxic. High resistance to the aging effects of sunlight and ozone.

Neoprene (-CR) was developed as an oil-resistant substitute for natural rubber. It features moderate resistance to petroleum oils and good resistance to ozone, sunlight, and oxygen aging. It has good resilience and is highly resistant to Freon® and Ammonia.

Viton (-VT) combines high temperature toughness with wide chemical agent compatibility. Excellent resistance to petroleum products and solvents.

EPDM (-EPDM) has excellent ozone and chemical resistance. Effective resistance to steam up to 400 degrees Fahrenheit, hot water, silicone oils and greases, diluted acids and alkalies, alcohols and automotive break fluids.

REQUEST FOR QUOTATIONS FORM

BORE SIZE AND CONFIGURATION LEFT END

MALE _____ FEMALE _____

PLAIN

KEYWAY

HEXAGONAL

SQUARE

THREADED

SPLINE

DOUBLE UNIVERSAL JOINT
(TELESCOPING VERSION SHOWN)

MAXIMUM _____ MINIMUM _____

EXTENDED _____ RETRACTED _____

DISTANCE BETWEEN DRIVING + DRIVEN SHAFT
PLEASE SPECIFY CENTER CONNECTION

SINGLE UNIVERSAL JOINT

BOOTS SHOWN FOR REFERENCE, BUT ARE OPTIONAL.

BORE SIZE AND CONFIGURATION RIGHT END

MALE _____ FEMALE _____

PLAIN

KEYWAY

HEXAGONAL

SQUARE

THREADED

SPLINE

Joint to be used for:

Nature of operation:

Continuous:☐ Intermittent: ☐

Operating temperature:

Maximum: Minimum: Average:

Operating environment:

Abrasive: ☐ Corrosive: ☐ Clean: ☐ Other:

Actual horsepower:

Torque: RPM:

Angle of operation:

Maximum: Minimum: Average:

Center connection:

Axially free:☐ Axially free w. retaining ring:☐ W. spring + retaining ring:☐

Boots:

Booted: ☐ Unbooted: ☐

Material:

Alloy: ☐ Stainless: ☐ Other:

Finish:

Cadmium: ☐ Nickel: ☐ Zinc: ☐ Black Oxide:☐ Other:

Quantity:

Name:

Company:

Address:

City:

State:

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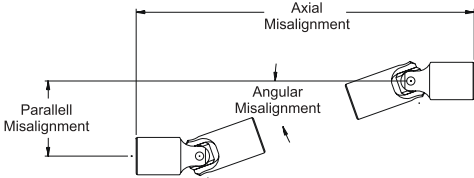
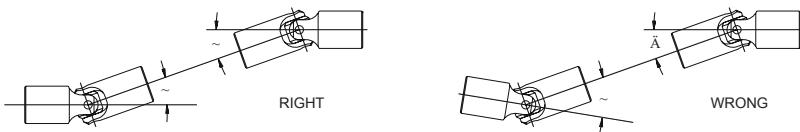
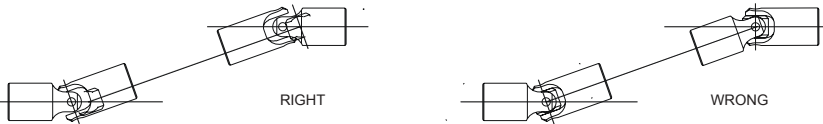
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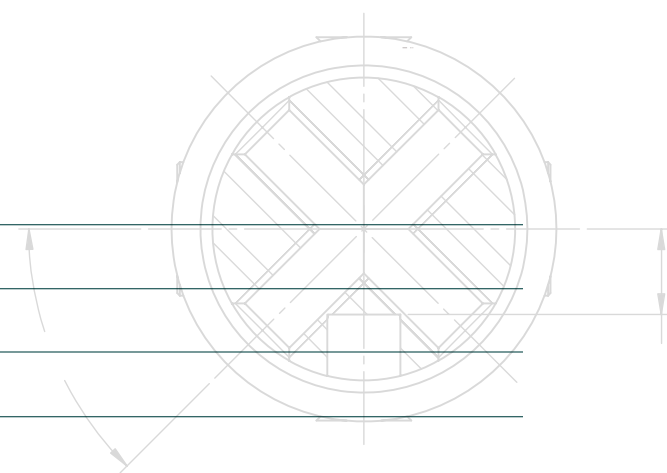
E-mail:

Please fax your request to (708)344-0245 or email to info@beldenuniversal.com. Thank you!

TERMINOLOGY

Universal Joint	A mechanical device that can transmit torque and/or rotary motion from one shaft to another at fixed or varying angles of intersection of the shaft's axis.										
Pin and Block Universal Joint	Also known as the Cardan or Hooke joint, the pin and block is the simplest unit available. It allows for a more positive transmission of rotating power or torque than conventional flexible couplings.										
Cross and Bearing Universal Joint	A forged cross with a needle bearing connection provides minimal backlash and precise positioning without compromising torque capacity.										
Needle Bearing Universal Joint	Needle bearings are installed at the pin ends to reduce backlash and increase precision and RPM capability.										
Torque	<p>Torque is the force that causes rotation. Operating torque is the amount of torque that is transmitted during normal operation. Torque is commonly expressed in pound inches (lbf-in), pound-feet (lbf-ft), or Newton-meters (Nm).</p> $T \text{ [lbf-in]} = \frac{\text{Power [HP]} \times 63024}{\text{RPM}} \quad T \text{ [Nm]} = \frac{\text{Power [kW]} \times 9550}{\text{RPM}}$										
Axial, Parallel & Angular Misalignment	<p>Axial misalignment is the amount of axial movement (end play) between the shafts, which is typically caused by motor vibration. Parallel misalignment is the offset between driving and driven shaft. Angular misalignment is the angle at which the shafts intersect.</p> 										
Torsional Stiffness	<p>Torsional stiffness is the degree of resistance against twist. It is commonly expressed in pound-inch/radian (lbf-in/rad) or Newton-meter/radian (Nm/rad).</p> <p>8.85075 Pound Inch/Radian (lbf-in/rad) = 1 Newton-meter/Radian (Nm/rad).</p> <p>0.01745 Pound Inch/Degree (lbf-in/Grad) = 1 Pound Inch/Radian (lbf-in/rad).</p>										
Zero Backlash	Zero backlash refers to the amount of radial play within a coupling assembly.										
Duty Cycle	The load on a universal joint is either intermittent or continuous. Under most operating conditions, a joint's intermittent load capacity is greater than its continuous load capacity.										
Unit Conversion	<table border="0"> <tr> <td>1 lbf-in = 0.11299 Nm</td> <td>1 lbf-ft = 1.35582 Nm</td> </tr> <tr> <td>1 Nm = 8.85075 lbf-in</td> <td>1 Nm = 0.73756 lbf-ft</td> </tr> <tr> <td>1 HP = 0.7457 kW</td> <td>1 kW = 1.341 HP</td> </tr> <tr> <td>1 Inch = 25.4 mm</td> <td>1 mm = 0.0394 Inch</td> </tr> <tr> <td>1 lbf = 0.4536 kg</td> <td>1 kg = 2.2046 lbf</td> </tr> </table>	1 lbf-in = 0.11299 Nm	1 lbf-ft = 1.35582 Nm	1 Nm = 8.85075 lbf-in	1 Nm = 0.73756 lbf-ft	1 HP = 0.7457 kW	1 kW = 1.341 HP	1 Inch = 25.4 mm	1 mm = 0.0394 Inch	1 lbf = 0.4536 kg	1 kg = 2.2046 lbf
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Constant Velocity	<p>In order to achieve constant velocity operation, driving & driven shaft are required to be aligned parallel.</p> 										
Yoke Orientation	<p>When creating a double joint by connecting two single joints with a shaft, the yokes of the inbound joints are required to be aligned as shown below.</p> 										

NOTES





Custom + Engineered + Precision

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