WAKEFIELD SOLUTIONS

ALVES UNIVERSAL JOINTS

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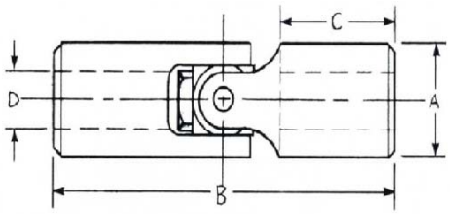
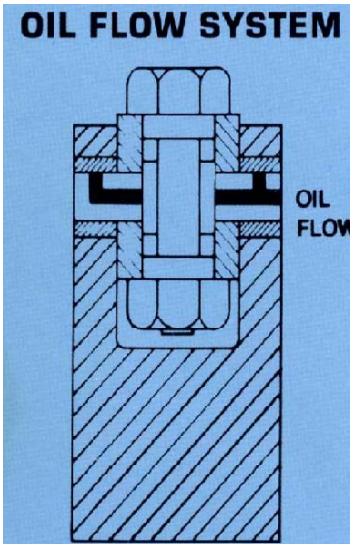
Alves Blue Block Universal Joints… *split block design makes the difference…*

Built Better and cost less… the ultimate products in motion linkage. All wear parts are heat treated for increased life. The *split block* design provides a positive lubrication reservoir for long life and low wear. The pins move resistance free within the bushings, while the bushings remained fixed with the yokes. Standard joints produced from high-grade alloy steel for extra durability and each part of the same joint is completely interchangeable. All parts are produced to extremely close tolerances, and fitted exactly to meet the most rigid backlash requirements. The Blue Block design is available in stainless steel, with keyways and with many custom configurations. Protective coverings are also available for use in contaminated atmospheres.





Single Joints		SPECIFICATIONS OF STANDARD JOINTS						
CAT NO SOLID HUBS	CAT NO BORED HUBS	A O.D. 0 -0.015	B LENGTH +- 1/32	D BORE 0.002 -0.001	D MAX BORE 0.002 -0.001	C HOLE DEPTH x	APPROX WEIGHT LBS	STATIC BREAKING TORQUE INCH/LBS
BS-375	BB-375	3/8	1-3/4	3/16	1/4	19/32	.09	150
BS-500	BB-500	1/2	2	1/4	3/8	19/32	.12	410
BS-625	BB-625	5/8	2-1/4	5/16	1/2	23/32	.25	890
ABOVE JOINTS DO NOT HAVE BEARINGS								
BS-750	BB-750	3/4	2-11/16	3/8	5/8	7/8	0.31	1,500
BS-875	BB-875	7/8	3	7/16	11/16	1	0.5	1,650
BS-1000	BB-1000	1	3-3/3	1/2	3/4	1-1/8	0.62	3,000
BS-1125	BB-1125	1-1/8	3-1/2	9/16	7/8	1-1/8	0.87	3,500
BS-1250	BB1520	1-1/4	3-3/4	5/8	1	1-1/8	1.13	5,400
BS-1500	BB-1500	1-1/2	4-1/4	3/4	1-1/8	1-1/8	1.75	8,800
BS-1750	BB-1750	1-3/4	5	7/8	1-1/4	1-7/16	2.93	14,500
BS-2000	BB-2000	2	6	1	1-1/2	1-13/16	4.5	22,000
BS-2500	BB-2500	2-1/2	7	1-1/4	1 3/4	1-7/8	7.25	31,500
BS3000	BB-3000	3	9	1-1/2	2	2-15/16	15.5	55,000
BS-4000	BB-4000	4	10-5/8	2	2-1/2	3-1/2	35.5	127,000
OUBLE U-JOINTS FOR MORE ANGULAR FLEXIBILITY AVAILABLE IN ABOVE SIZES								

Note how the unique construction of the split block forms a lubrication chamber.
The oil enters through the oil hole in one pin and into the reservoir. As the speed is increased, oil is thrown centrifugally to thoroughly lubricate each pin and bushing.

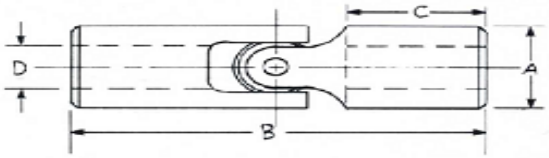
Repair Kits

Alves on site repair kits can be used to repair any size Blue Block U-Joint, Each kit contains (4) bushings, (3) solid bushing pins, (1) oilier bushing pin, (2) centering blocks, (1) nut and (1) bolt

Alves Solid Block Universal Joints

Standard pin and block type manufactured from high-grade alloy steel for extra durability, strength and long life. Ideal for angles up to 25 degrees and speeds to 1750 rpm. Available for greater angles and higher speeds; with heat-treated yokes and matched components for heavy-duty applications; and with round, hex, splined, or keyway bores. Also available in stainless steel alloys, bronze and other materials for corrosive, sanitation or similar applications.

Qualified to MIL-U-20625A, Other MIL Specs On Request



Single Joints		Specifications Of Standard Joints						
CAT NO SOLID HUBS	CAT NO BORED HUBS	A O.D. 0 -0.015	B LENGTH	D BORE 0.002 -0.001	D MAX BORE 0.002 -0.001	C HOLE DEPTH 0.03125	APPROX WEIGHT LBS	STATIC BREAKING TORQUE INCH/LBS
SS-375	SB-375	3/8	1-3/1	3/16	1/1	19/32	0.09	150
SS-500	SB-500	1/2	2	1/4	3/8	19/32	0.12	410
SS-625	SB-625	5/8	2-1/4	5/16	1/2	23/32	0.25	890
SS-750	SB-750	3/4	2-11/16	3/8	5/8	7/8	0.31	1,500
SS-875	SB-875	7/8	3	7/16	11/16	1	0.5	1,650
SS-1000	SB-1000	1	3-3/8	1/2	3/4	1-1/8	0.62	3,000
SS-1125	SB-1 25	1-1/8	3-1/2	9/16	7/8	1-1/8	0.87	3,500
SS-1250	SB-1250	1-1/4	3-3/4	5/8	1	1-1/8	1.13	5,400
SS-1500	SB-1500	1-1/2	4-1/4	3/4	1-1/8	1-1/8	1.75	8,800
SS-1750	SB-1750	1-3/4	5	7/8	1-1/4	1-7/16	2.93	14,500
SS-2000	SB-2000	2	6	1	1-1/2	1-13/16	4.5	22,000
SS-2500	SB-2500	2-1/2	7	1-1/4	1-3/4	1-7/8	7.25	31,500
SS-3000	SB-3000	3	9	1-1/2	2	2-15/16	15.5	55,000
SS-4000	SB-4000	4	10-5/8	2	2-1/2	3-1/2	35.5	127,000

DOUBLE U JOINTS FOR MORE ANGULAR FLEXIBILITY AVAILABLE IN BOTH SIZES

SHAFT TYPE

BUTT TYPE

Alves *"Double"* Universal Joints

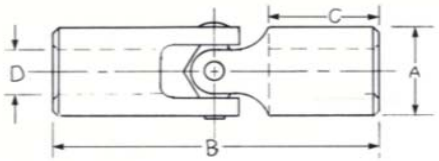
Connects two Blue Block, Hex Block or Solid Block Joints to compensate for shaft separation and parallel misalignment. Available with round hex, splined or keyway bores. Catalog numbers in table are for Blue Block style, Butt type. Consult factory for Hex and Solid Block styles, Shaft and Center Types, and for spring loaded assemblies, such as those used for multi-spindle drills.

SINGLE JOINTS		SPECIFICATIONS OF STANDARD JOINTS					
CAT NO SOLID HUBS	CAT NO BORED HUBS	A O.D. +.000 -0.015	B LENGTH + 1/32	D BORE +.002 -.001	DEPTH MAX BORE +.002	C HOLE DEPTH + 1/32	APPROX WEIGHT LBS
BS-375 -D	BB-375 -D	3/8	3-1/2	3/16	1/4	19/32	.13
BS-500 -D	BB-500 -D	1/2	4	1/4	3/8	19/32	.20
BS-625 -D	BB-625 -D	5/8	4-1/2	1/2	1/2	23/32	.40
ABOVE JOINTS DO NOT HAVE BEARINGS							
BS-750 -D	BB-750-D	3/4	5-3/8	3/8	5/8	7/8	.56
BS-875 -D	BB-875-D	7/8	6	7/16	11/16	1	.87
BS-1000-D	BB-1000-D	1	6-3/4	1/2	3/4	1-1/8	1.17
BS-1125-D	BB-1125-D	1-1/8	7	9/16	7/8	1-1/8	1.58
BS-1250D	BB-1250-D	1-1/4	7-1/2	5/8	1	1-1/8	2.07
BS-1500-D	BB-1500-D	1-1/2	8-1/2	3/4	1-1/8	1-1/8	3.25
BS-1750-D	BB-1750-D	1-3/4	10	7/8	1-1/4	1-7/16	5.43
BS-2000-D	BB-2000-D	2	12	1	1-1/2	1-13/16	8.00
BS-2500-D	BB-2500-D	2-1/2	14	1-1/4	1-0/4	1-7/8	14.45
BS-3000-D	BB-3000-D	3	18	1-1/22	2	2-15/16	28.50
BS-4000-D	BB-4000-D	4	21-1/4	2	2-1/2	3-1/2	63.00

Note: Both input and output speeds are near constant velocity.

CENTER SECTION TYPE

Alves Low Cost, Self Lubricating, Hex Block Universal Joint



SINGLE JOINTS				SPECIFICATIONS OF STANDARD				
CAT	CAT	A	B	D	D	C		
NO	NO	O.D	LENGTH	BORE	MAX BORE	HOLE	APPROX WEIGHT	
SOLID	BORED	0		0.002	0.002	DEPTH	IN LBS	
HUBS	HUBS	-0.015	+ 1/32	-0.001	-0.001	+ 1/32	*SOLID*	*BORED*
HS-625	HB-625	5/8	2-1/4	5/16	1/2	51/64	19	15
HS-750	HB-750	3/4	2-11/16	3/8	5/8	31/32	31	25
HS-875	HB-875	7/8	3	7/16	11-16	1- 5/64	46	32
HS-1000	HB-1000	1	3-3/8	1/2	3/4	1- 11/16	67	61
HS-1250	HB-1250	1-1/4	3-3/4	5/8	1	2- 1/4	1.17	90
DOUBLE U-JOINTS FOR MORE ANGULAR FLEXIBILITY AVAILABLE IN ABOVE SIZES								

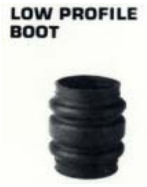
An inexpensive riveted joint, designed for low torque…manual, intermittent or light duty. Unique center block is produced from out own proprietary powdered metal formulation and sintering process. With its own self-contained oil supply the block not only acts as a carrying member for the cross-pins, but are also as a continuous lubricates bearing block. As a result, the Hex Block Joint lasts longer than other comparable units and is ideal for applications where oiling is required but impractical because of the universal joint location. Maximum operating angle on standard models is 35 degrees. Hex Block Joints can be special ordered for greater angles and other characteristics.

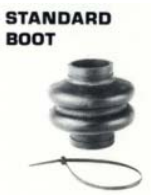
Alves Needle Bearing Universal Joints

SINGLE JOINTS				SPECIFICATIONS OF STANDARD JOINTS				
CAT	CAT	A	B	D	D	C		
NO	NO	O.D	LENGTH	BORE	MAX BORE	HOLE		APPROX
SOLID	BORED	0		0.002	0.002	DEPTH	SWING	WEIGHT
HUBS	HUBS	-0.015	+ 1/32	-0.001	-0.001	+ 1/32	DIA	LBS
BS-750-N	BB-750-N	3/4	2-1/4	5/16	1/2	51/64	7/8	15
BS-1000-N	BB-1000-N	1	2-11/16	3/8	5/8	31/32	1-1/8	25
BS-1250-N	BB-1250-N	1-1/4	3	7/16	11/16	1-5/64	1-1/8	32
BS-1500-N	BB-1500-N	1-1/2	3-3/8	1/2	3/4	1-13/64	1-1/8	61
BS-2000-N	BB-2000-N	2	3/4	5/8	1	1-7/32	1-13/16	90

These are the only repairable needle bearing joints on the market. Using the Alves Blue Block design, with modified and special hardened pins, and the highest quality pre-lubricated and sealed needle bearings in the hubs, they are easily repaired on site using the inexpensive special repair kit available from your local distributor, or from Alves direct. They are physically interchangeable with competing units and provide the precision and reliability required for demanding applications requiring speeds to 6,000 rpm and operating angles to 25 degrees. Greater angular operation can be achieved by utilizing a double universal joint.

Boot Kits





Protects joints from dirt and contaminants. Adds lubrication capacity, quickly and easily replaced in the field. Plastic straps standard. Stainless steel straps

BOOT NO.	U-Joint	Std. Boot
375- Boot	3/8	1-1/32
500- Boot	1/2	1-1/4
625- Boot	5/8	1-1/2
750- Boot	3/4	1-3/4
875- Boot	7/8	2
1000- Boot	1	2-9/32
1125- Boot	1-1/8	2-9/16
1250- Boot	1-1/4	2-7/8
1500- Boot	1-1/2	3-1/4
1750- Boot	1-3/4	3-5/8
2000- Boot	2	4-17/32
2500- Boot	2-1/2	
3000- Boot	3	
4000- Boot	4	