

UNIVERSAL JOINT

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'D' TYPE

A standard industrial type universal joint with pin and block design, the 'D' type is ideal for applications with up to 25° angular misalignment and speeds up to 1750 RPM. It is available unassembled with no bore, or assembled with a std bore. Boot retaining grooves are standard.

'HD' TYPE

The 'HD' Type is a high quality universal joint made to exacting tolerances, perfect for your toughest high angle, high RPM applications. Precision machining, hardened yokes and matched fitting of all components means that it normally provides at least twice the life of a standard industrial type universal joint. It is available unassembled with no bore, or assembled with a std bore. Boot retaining grooves are standard.

| Part No. | Max Bore & Key | Max Bore No Key | Normal Maximum Speed (RPM) |
|----------|-------------------|--------------------|-------------------------------------|
| D/HD-1 | - | 6.4 | 1750 |
| D/HD-2 | - | 9.7 | 1750 |
| D/HD-3 | 6.4 | 12.7 | 1750 |
| D/HD-4 | 11.2 | 15.7 | 1750 |
| D/HD-5 | 12.7 | 17.5 | 1750 |
| D/HD-6 | 14.2 | 19.1 | 1750 |
| D/HD-7 | 15.7 | 22.4 | 1750 |
| D/HD-8 | 19.1 | 25.4 | 1750 |
| D/HD10 | 22.2 | 28.4 | 1750 |
| D/HD11 | 25.4 | 31.8 | 1750 |
| D/HD12 | 30.2 | 38.1 | 1750 |
| D/HD13 | 39.0 | 44.5 | 1750 |
| D/HD14 | 48.0 | 50.8 | 1750 |
| D/HD15 | 63.5 | 63.5 | 1750 |

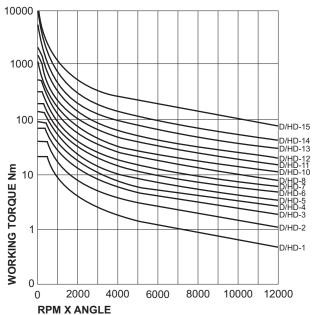
NOTE: These universals are available with no bore (solid) unassembled and std bore assembled.

| | | Bore | | | | |
|----------|------|-------|--------|-------|-------|------|
| Part No. | | Max | Max | А | В | С |
| | Std | & Key | No Key | | | |
| D/HD-1 | 4.8 | - | 6.4 | 9.7 | 44.5 | 14.2 |
| D/HD-2 | 6.4 | - | 9.7 | 12.7 | 50.8 | 15.7 |
| D/HD-3 | 7.9 | 6.4 | 12.7 | 15.7 | 57.2 | 17.3 |
| D/HD-4 | 9.7 | 11.2 | 15.7 | 19.1 | 68.1 | 22.4 |
| D/HD-5 | 11.2 | 12.7 | 17.5 | 22.4 | 76.2 | 22.4 |
| D/HD-6 | 12.7 | 14.2 | 19.1 | 25.4 | 85.9 | 25.4 |
| D/HD-7 | 14.2 | 15.7 | 22.4 | 28.4 | 88.9 | 25.4 |
| D/HD-8 | 15.7 | 19.1 | 25.4 | 31.8 | 95.3 | 26.9 |
| D/HD10 | 19.1 | 22.2 | 28.4 | 38.1 | 108.0 | 30.0 |
| D/HD11 | 22.4 | 25.4 | 31.8 | 44.5 | 127.0 | 35.1 |
| D/HD12 | 25.4 | 30.2 | 38.1 | 50.8 | 138.2 | 38.1 |
| D/HD13 | 31.8 | 39.0 | 44.5 | 63.5 | 177.8 | 50.8 |
| D/HD14 | 38.1 | 48.0 | 50.8 | 76.2 | 230.1 | 69.9 |
| D/HD15 | 50.8 | 63.5 | 63.5 | 101.6 | 269.7 | 76.2 |

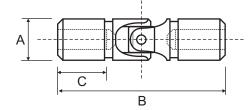
Standard bore sizes are in inches

PERFORMANCE DATA





DIMENSIONAL DATA



Steps in Selecting a Universal Joint Step 1 Multiply RPM by the working angle

Step 2 Determine the nominal torque of your application in Nm

- Step 3 Multiply the calculated torque by the desired service factor
- **Step 4** Refer to the running curves that apply to the desired U-Joint. D and HD. The required universal joint size can be determined by establishing the point of intersection of the RPM X Working angle figure on the horizontal scale and the service factor torque on the vertical scale. Size is stated against the curve





UNIVERSAL JOINT NEEDLE BEARING

NEEDLE BEARING TYPE

Designed with high quality, pre-lubricated and sealed needle bearings, this universal joint provides the reliability necessary for speeds up to 6000 RPM, and operating angles up to 25°

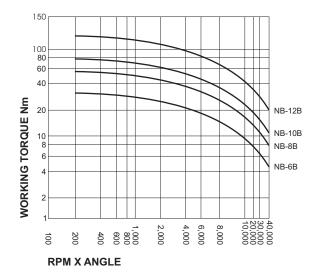
Needle bearing universal joints also ensure the precision required for robotics, instrumentation, control equipment, and many other demanding applications. It is available assembled with both no bore or with a std bore. Boot retaining grooves are standard.

| Part No. | Max Bore & Key | Max Bore No Key | Normal Maximum Speed (RPM) |
|----------|-------------------|--------------------|-------------------------------------|
| NB-6 | 14.2 | 19.1 | 6000 |
| NB-8 | 19.1 | 25.4 | 6000 |
| NB10 | 22.4 | 28.4 | 6000 |
| NB12 | 30.2 | 38.1 | 6000 |

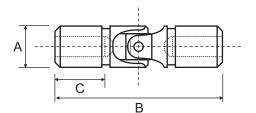
NOTE: These universals are available with no bore (solid) assembled and std bore assembled.

PERFORMANCE DATA





DIMENSIONAL DATA



| | | Bore | | | | |
|----------|------|-------|--------|------|-------|------|
| Part No. | | Max | Max | А | В | С |
| | Std | & Key | No Key | | | |
| NB-6 | 12.7 | 14.2 | 19.1 | 25.4 | 85.9 | 25.4 |
| NB-8 | 15.7 | 19.1 | 25.4 | 31.8 | 95.3 | 26.9 |
| NB10 | 19.1 | 22.4 | 28.4 | 38.1 | 108.0 | 31.8 |
| NB12 | 25.4 | 30.2 | 38.1 | 50.8 | 138.2 | 41.1 |

Standard bore sizes are in inches

Steps in Selecting a Universal Joint

Step 1 Multiply RPM by the working angleStep 2 Determine the nominal torque of your application in Nm

- Step 3 Multiply the calculated torque by the desired service factor
- **Step 4** Refer to the running curves that apply to the desired U-Joint. NB. The required universal joint size can be determined by establishing the point of intersection of the RPM X Working angle figure on the horizontal scale and the service factor torque on the vertical scale. Size is stated against the curve immediately above this point.

