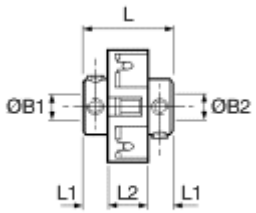
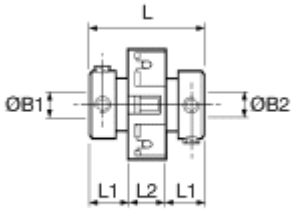
## UNI-LAT UNIVERSAL/LATERAL OFFSET COUPLERS

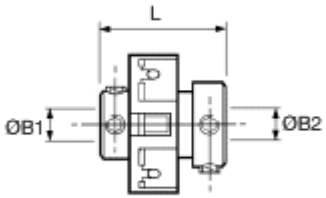
### Set screw hubs




Ref. 201
Small bores




Ref. 203
Large bores

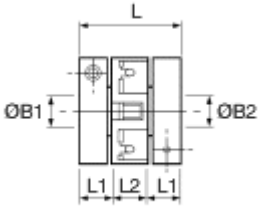



Ref. 221 (not listed in main table).
Combines large & small bores.
See explanatory note on facing page

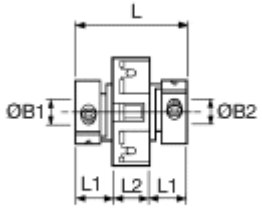
Coupler ref. 221

| Size | L |
|---|---|
| 18 | 16.7 |
| 27 | 22.3 |
| 34 | 28.0 |
| 41 | 33.3 |

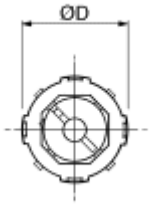
### Clamp hubs




Ref. 207
Collet hub & ring clamp

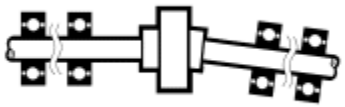



Ref. 205, 206
Integral leaf clamp

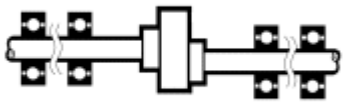



Typical

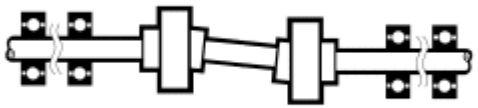
### Installation



right
Up to 10° angular offset, depending on type



right
Up to 1mm radial offset for extreme misalignments



wrong
Standard Uni-Lats cannot be used in pairs. Special versions are available for use in this mode. Please enquire.

## Service factors

(Uni-Lat & Oldham couplers)

Peak torque values apply to drives where there is no misalignment, and in the case of Oldham couplers, no misalignment or axial motion. Apply the service factors to the application torque as appropriate, eg.,

Application torque = 1 Nm
Service factor = 2
\ Adjusted torque = 2 Nm

Select a coupler where Peak Torque exceeds 2 Nm.
Note that factors apply to aggregate time on-load, not necessarily the hours the machine is switched on.

**HOW TO ORDER**

Combine the coupler ref in Main Table with BORE REFS in Standard Bores Table. Please identify both bores e.g.

**201.18.1819**

Coupler ref.
ØB1 ref.
ØB2 ref.

## MAIN TABLE - DIMENSIONS & ORDER CODES

| COUPLER SIZE | SET SCREW HUBS | CLAMP HUBS | 0D | L | L1 | L2 | OB1, OB2 MAX | FASTENERS | | | MOMENT OF INERTIA kgm² X 10-8 | kg x 10-³ |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | COUPLER REF | | | | | | | SCREW | TORQUE Nm | WRENCH mm | | |
| 18.0 | 201.18 | 207.18 ‡ 219 | 18.0 | 14.2 | 4.6 | 5.1 | 5.0 | M3 | 0.9 | 1.5 | 20.0 | 7.0 |
| | 203.18 | | 19.1 | 19.1 | 7.0 | | 6.4 | 4–40 | 2.3 | 2.0 | 55.0 | 11.0 |
| 27.0 | 201.27 | 207.27 ‡ 218 | 28.0 | 19.1 | 6.1 | 6.9 | 8.0 | M3 | 0.9 | 1.5 | 91.0 | 16.0 |
| | 203.27 | | | 25.4 | 9.3 | | 10.0 | M3 | 2.4 | 2.5 | 220.0 | 26.0 |
| 34.0 | 201.34 | 206.34 | 33.7 | 25.2 | 8.1 | 8.9 | 10.0 | M4 | 2.3 | 2.0 | 165.0 | 17.0 |
| | 203.34 | | | 30.7 | 10.9 | | 12.7 | | | | | |
| | | | | | | | 10.0 | 4–40 | 2.3 | | 183.0 | 20.0 |
| 41.0 | 201.41 | 205.41 | 41.4 | 28.4 | 8.6 | 11.2 | 12.7 | M4 | 2.3 | 2.0 | 476.0 | 30.0 |
| | 203.41 | | | 38.1 | 13.5 | | 16.0 | M5 | 4.6 | 2.5 | | |
| | | | | | | | 12.7 | M4 | 5.7 | 3.0 | 550.0 | 40.0 |

***Materials & Finishes***

***Hub sizes 18 & 27:***
Brass BS 2874 CZ121
Chromate & passivate finish

***Hub sizes 34 & 41:***
Al. Alloy 2011T8
Alocrom finish

***Fasteners:***
Alloy steel, black oiled

***Clamp rings (sizes 18 & 27):***
Al. Alloy 2011T8
Alocrom finish

***Torque rings, all sizes:***
Acetal (black)

***Temperature Range***
–20°C to +60°C

## PERFORMANCE

| Coupler Size | Peak torque | Max compensation | | Torsional | | Axial | | Static break torque |
|---|---|---|---|---|---|---|---|---|
| | | Angular | Radial | Rate | Stiffness | Max | Stiffness | |
| | Nm | ± deg | ± mm | deg / Nm | Nm / rad | loading ±N | N / mm | Nm |
| 18 | 0.3 | 2 | 0.2 | 2.3 | 25 | 19 | 155 | 0.9 |
| 27 | 1.7 | | 0.2 | 0.6 | 92 | 31 | 350 | 5.0 |
| 34 | 2.5 | | 0.25 | 0.4 | 146 | 34 | 300 | 7.5 |
| 41 | 3.5 | | 0.25 | 0.19 | 299 | 39 | 250 | 10.5 |

1. Length of supported thro' bore. Shafts must not penetrate beyond L1 when in operation.
2. Nominal distance between shafts inserted to L1.
3. Maximum recommended tightening torque.
4. Values apply with max bores.
5. ***Peak torque.*** Select a size where Peak Torque exceeds the application torque x service factor.
6. Couplers can provide up to 1mm radial and 10° angular compensation (5° for ref. 207) when required. Observe given values for maximum backlash-free life. Electrical isolation between shafts > 3kV for all models when offset £5°.
7. Values apply at 50% peak torque with no misalignment, measured shaft-to-shaft with largest standard bores.
8. Momentary values.
9. Couplers can be specified with keyways or 'D' bores. See page 4 for details.

**ǂ** ***Ref. 207 only.*** Insert both bore codes in place of **ǂ**.

## SERVICE FACTORS

| Nature of load | Factor |
|---|---|
| Uniform load | 1.5 |
| Non-uniform load | 2 |
| Shock load | 3 |
| Reversing shock load | 4 |

## STANDARD BORES

| Coupler size | ref. | 0B1, Ob2 +0.03/-0mm | | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | 3 | 3.175 | 4 | 4.763 | 5 | 6 | 6.350 | 7.938 | 8 | 9.525 | 10 | 12 | 12.700 | 17 | 15.875 | 16 |
| | 203.18 | ● | ● | ● | ● | ● | | | | | | | | | | | |
| 18 | 203.18 | | | | | | ● | ● | | | | | | | | | |
| | 203.18 | ● | ● | ● | ● | ● | ● | ● | | | | | | | | | |
| | 201.27 | ● | ● | ● | ● | ● | ● | ● | ● | ● | | | | | | | |
| 27 | 201.27 | | | | | | | | | | ● | ● | | | | | |
| | 201.27 | | | | | ● | ● | ● | | ● | ● | ● | | | | | |
| | 201.34 | | | | | | ● | ● | | ● | ● | ● | | | | | |
| 24 | 201.34 | | | | | | | | | | | | ● | ● | | | |
| | 201.34 | | | | | | ● | ● | ● | ● | ● | ● | | | | | |
| | 201.41 | | | | | | ● | ● | | ● | ● | ● | ● | ● | | | |
| 41 | 201.41 | | | | | | | | | | | | | | ● | ● | ● |
| | 201.41 | | | | | | ● | ● | | ● | ● | ● | ● | ● | | | |
| Bore ref. | | 14 | 16 | 18 | 19 | 20 | 22 | 24 | 27 | 28 | 31 | 32 | 35 | 36 | 38 | 41 | 42 |
| Corresponding bore adaptor | | | | | | 251 | | 253 | | *254<br>255 | | 257 | | 259 | | | 260 |

***Coupler ref. 221***
By specifying ref. 221 (not listed in tables, see diagram facing page) you can combine the bores coded for ref. 201 with those coded for ref. 203,

eg., 221.27.2432 specifies Size 27 with Ø6.35 x 10 bores.

Diameters for which a bore adaptor is shown can be adapted to smaller shaft sizes. See page 40 for details.
*Note that adaptor 254 is dedicated to coupler ref. 201.27. Use adaptor 255 for all other 8mm diameters.

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