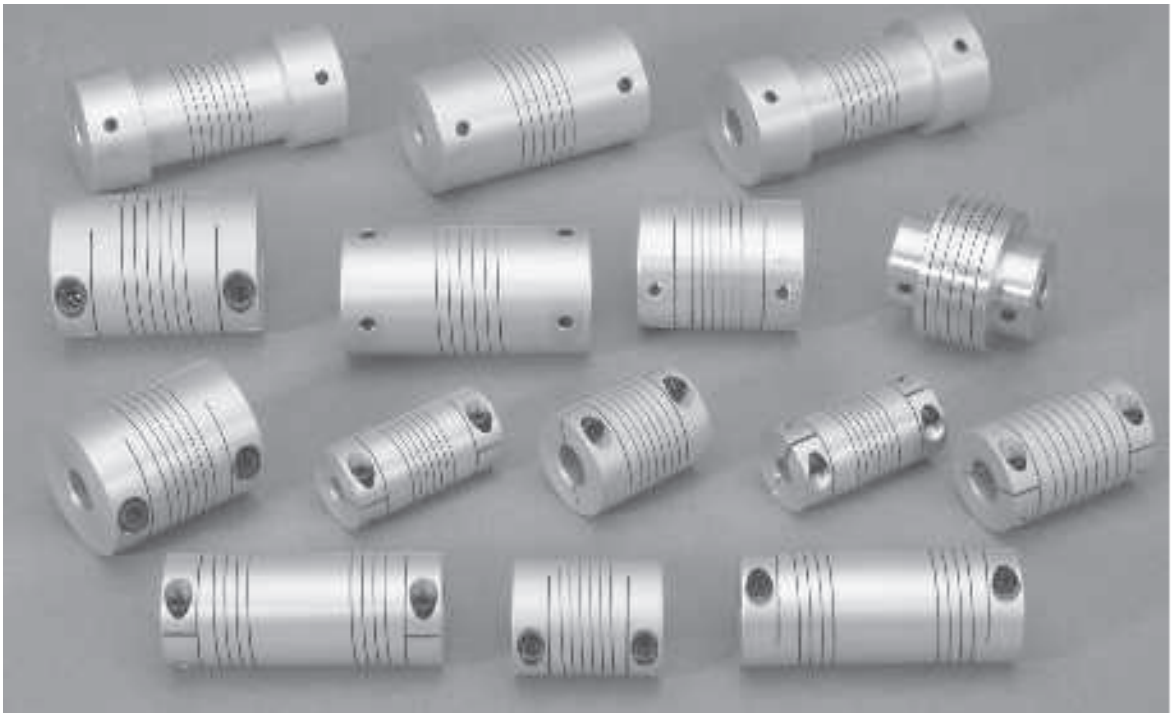
HELIFLEX COUPLINGS

TYPE
RSB/RCB
RSD/RCD



FEATURES

- One Piece Construction
- Aluminium Alloy - Anodized
- Angular Offset upto 5 Deg.
- Paraller Offset upto 0.6 mm
- No Backlash
- Constant Velocity Transmission
- Torsionally Rigid
- Set Screw & Hub Type Clamping

APPLICATION

- Shaft Encoder
- Tachogenerator
- Patentiometers & Variacs
- Stepper & Synchronous Motor
- Damper Drives
- Rotary Position Transmitter
- Material Handling System
- Testing & Measuring Instruments
- CNC
- SPM
- Steel Plants

High Precision measuring device encoders or achogenerators demand for flexible yet torsionally rigid coupling. Rathi Heliflex couplings guarantee Erroless transmission of measured angle position at the same time the coupling accommodates parallel and angular misalignment.
The heliflex is not a spring but a curved beam that transmits dynamic motion.

The HELIFLEX coupling is curved drum cut into a single homogenous piece of material. It transmits torque as compression or tension yet is laterally flexible and torsionally rigid.

Desing Factors for Heliflex Rotating Shaft Flexible Coupling:

The HELIFLEX coupling may operate at low or high speed.

Constant velocity and angular accuracy are assured as the driven hub turns the same as the driving hub.

Shaft misalignment is allowed without undue stress on the shafts and bearing.

Zero backlash in the HELIFLEX coupling.

No lubrication is required. No internal parts to wear or fatigue, the coupling may be used under extreme abrasive condition.

The HELIFLEX coupling is made from single piece of solid aluminium alloy; therfore light in weight and small in size. Self centering action takes place in a single piece of material. With this design there is no excess mass from reveting, welding or centrifugal extrusions.

The HELIFLEX coupling is generated from corrosion resistant material for use in common or corrosive atmosphere and may be subjected to high temperature allowing both axial expansion and torque capacity.

Each coupling is designed to compensate for the fatigue strength of the material, keep the stress to a minimum and maintain the maximum strength.

Data Required for selecting a Coupling

Speed. ☐ RPM

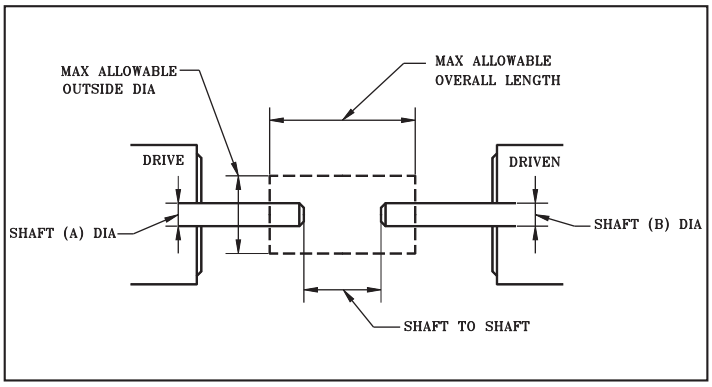
Reverse / Non reversing

Torque transmitted during operation ☐ Nm

Peak (Shock) loads ☐ Nm

Torsional rigidity ☐

Axial motion ☐



Temperature ☐ Corrosion ☐ Atmosphere ☐

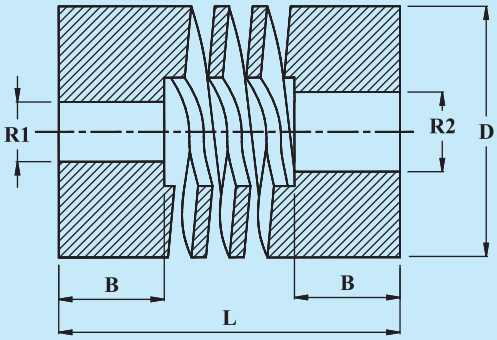
Misalignment ☐ Angular ☐ Parallel Offset ☐

Outside Diameter ☐ Overall length ☐

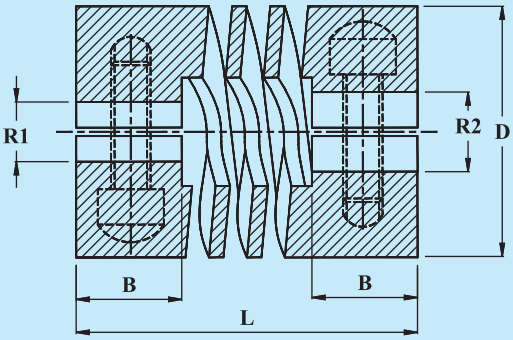
Shaft size Shaft (A) ☐ Shaft (B) ☐ Distance between two shaft ends ☐

Method of attachment : Integral clamp / Set screw / Other

Set Screw Fixing (With Relief) RSB



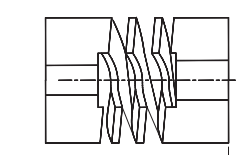
Clamping Fixing (With Relief) RCB



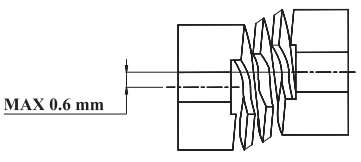
TECHNICAL DATA

Model	BORE DIAMETERS		'D' mm	'L' mm	'B' mm	Set Screw	Cap Screw	Angular Offset	Prallel Offset mm	MAX WORKING TORQUE IN Ncm
	Min R1 & R2 mm	Max R1 & R2 mm								RSB & RCB
RSB15	3	6	15	20	6	M 3	-	3 Deg	0.2 to 0.3	20 Ncm
RCB15							M 2.5			
RSB20	3	8	20	18,20,28	8	M 3		3 to 5 Deg	0.2 to 0.3	25 Ncm
RCB20							M 3			
RSB25	6	12	25	30,32,40	8	M 3		3 to 5 Deg	0.2 to 0.4	30 Ncm
RCB25							M 3			
RSB30	6	14	30	40	10	M 4		3 Deg	0.2 to 0.4	40 Ncm
RCB30							M 4			
RSB35	6	14	35	35&40	10	M 4		3 Deg	0.2 to 0.4	50 Ncm
RCB35							M 4			
RSB40	6	16	40	40	10	M 4		3 Deg	0.2 to 0.4	50 Ncm
RCB40							M 4			
RSB50	10	20	50	60	12	M 5		3 Deg	0.2 to 0.4	60 Ncm
RCB50							M 5			
RSB60	10	25	60	80	12	M 5		3 to 5 Deg	0.2 to 0.4	80 Ncm
RCB60							M 5			
RSB70	10	25	70	95	15	M 6		3 to 5 Deg	0.2 to 0.4	200 Ncm
RCB70							M 6			

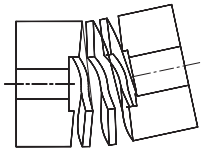
Maximum Deflections



AXIAL EXTENSION / COMPRESSION



PARALLEL MISALNGEMENT
UP TO 0.6 mm



ANGULAR MISALINGEMENT
UP TO 5°

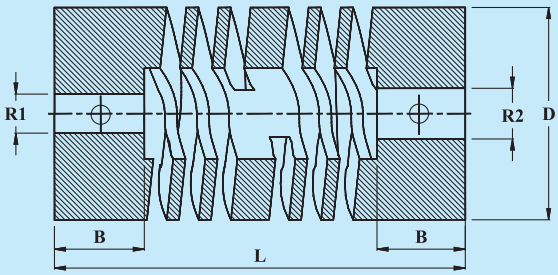
OPTIONS:

- Different Dia & Bore Sizes
- Torque Rating, Length & other Parameters can be varied to suit customers requirement.

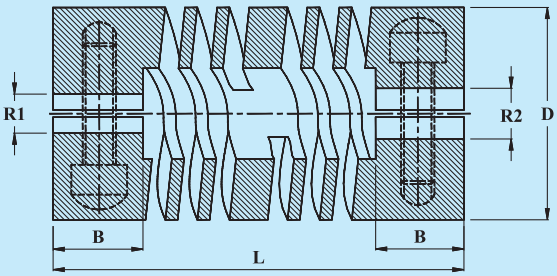
ORDERING INFORMATION:

- Type of Coupling
- Rated Torque
- Shaft Dia R1 & R2
- DBSE
- Coupling Length
- Max. Misalignment
- Method of Attachment

Set Screw Fixing (With Relief) RSD



Clamping Fixing (With Relief) RCD



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RCD15							M 2.5			
RSD20	3	8	20	32	8	M 3		3 to 5 Deg	0.2 to 0.3	25 Ncm
RCD20							M 3			
RSD25	6	12	25	40,60	8	M 3		3 to 5 Deg	0.2 to 0.4	30 Ncm
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RSD30	6	14	30	50	10	M 4		3 to 5 Deg	0.2 to 0.4	40 Ncm
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RSD35	6	14	35	50	10	M 4		3 to 5 Deg	0.2 to 0.4	50 Ncm
RCD35							M 4			
RSD40	6	16	40	60	10	M 4		3 to 5 Deg	0.2 to 0.4	50 Ncm
RCD40							M 4			
RSD50	10	20	50	60	12	M 5		3 to 5 Deg	0.2 to 0.6	60 Ncm
RCD50							M 5			
RSD60	10	25	60	80	12	M 5		3 to 5 Deg	0.2 to 0.6	80 Ncm
RCD60							M 5			
RSD70	10	25	70	95	15	M 6		3 to 5 Deg	0.2 to 0.6	200 Ncm
RCD70							M 6			

NOTES :

- Bore Tolerances to H7 Limit.
- Couplings can be supplied with finish bore and keyway.
- Smaller Min. Bores for R2 are available.
- Inch bore sizes available.
- Maximum torque rating for momentory loads only.
- Material of construction Aluminium alloy - Anodized.

OPTIONS:

- Different Dia & Bore Sizes
- Torque Rating, Length & other Parameters can be varied to suit customers requirement.

ISO 9001 BUREAU VERITAS Certification

UKAS QUALITY MANAGEMENT 008

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