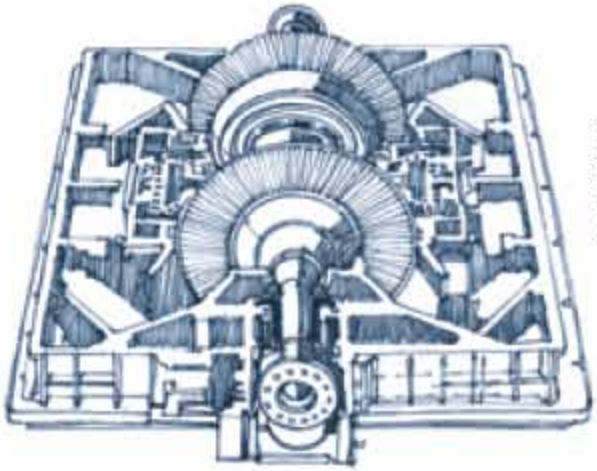
EUROFLEX

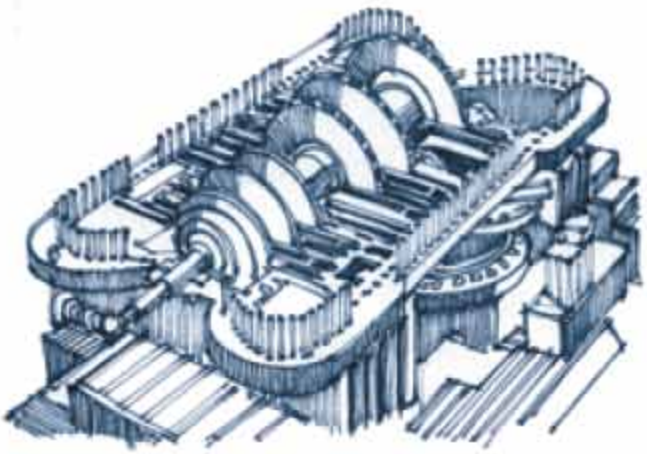

VMC 400
VF0

Contents

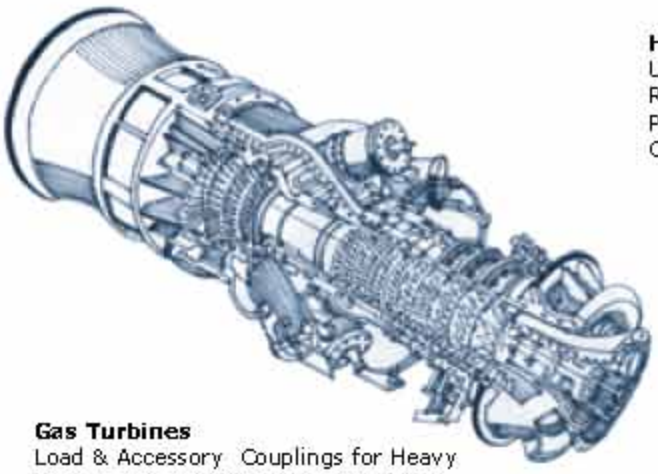


Steam Turbines
For Captive power & Mechanical Drive applications; Experience for ratings up to 38,500 KW and speeds of 15,600 RPM

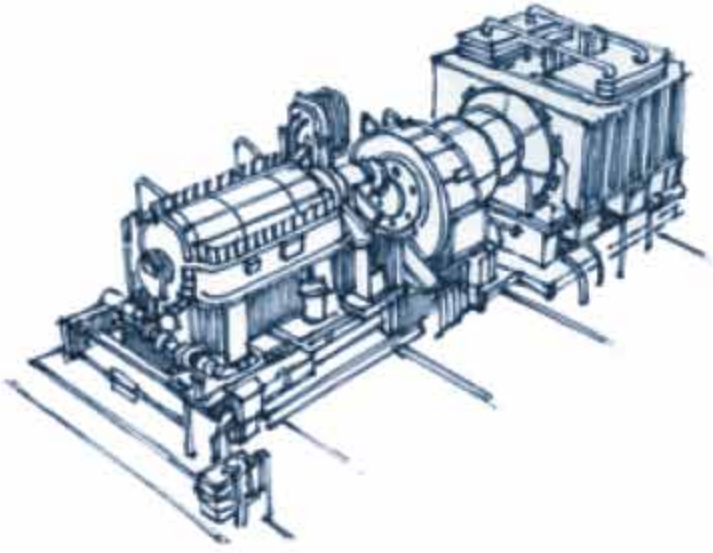
High Performance Disc Couplings for Turbomachinery



High speed Turbo Compressors
Urea – Ammonia plants : Air, Syn Gas, Refrigeration & CO2
Refinery : Main Air, Wet Gas and Hydrogen recycle gas
Petro Chemical : Ethylene and Methanol service
Others : Gas Pipe Line, LPG Extraction, Offshore Gas lift.



Gas Turbines
Load & Accessory Couplings for Heavy duty, Land and Marine including aero derivative gas turbines.
Experience on ratings up to 51,500 KW .



High Pressure Pumps
Boiler Feed , Condensate and Circulating water pumps of Utility Power Plants.
Experience for ratings up to 10,500 KW and speeds of 6600 RPM.

The Company

The company is a joint venture with **Euroflex** Transmissions Limited of the U.K., specializing in the field of design, manufacture and marketing of High Performance Flexible Disc Couplings for applications in Gas Turbines, Steam Turbines, Turbo Compressors, Boiler Feed Pumps, etc.,

To this field of High Performance Couplings we bring over four decades of experience, in providing innovative solutions to highly specialized markets which demand the best in engineering excellence.

The manufacturing facility in Hyderabad, India, coupled with the ISO 9001 certification, bears testimony to our continued commitment to quality and reliability, as designers and manufacturers of these couplings for high power and high speed applications.

Euroflex couplings are designed and manufactured to provide reliability, long life and high performance, demanded by businesses today and expected by Euroflex customers.

Continuous investment in design has helped us stay at the forefront of Coupling Technology.

Manufacturing excellence at **Euroflex** is achieved through a combination of latest machine tool technology and a highly skilled workforce.

A capability to perform under severe conditions of misalignment, three dimensional thermal shifts, variations in torque and speed, are the hallmarks of the **Euroflex** Coupling.

Through engineering excellence, we ensure customer satisfaction.

DET NORSKE VERITAS

MANAGEMENT SYSTEM CERTIFICATE

EUROFLEX TRANSMISSIONS (INDIA) PVT. LIMITED

DESIGN AND MANUFACTURE OF FLEXIBLE DISC COUPLINGS

Flexible Coupling - An overview

In many engineering situations, there arises the need to couple two items of rotating machinery, to enable the transmission of power from one to the other. Example Motor – Pump, Turbine – Alternator, Gas Turbine – Compressor etc.

In an ideal situation, it would be possible to simply couple the two machines directly. Unfortunately this simple solution is rarely practical.

In practice, the two rotating machines can:

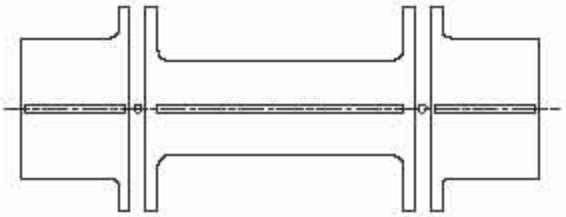
Firstly - be only positioned and aligned, within finite limits.

Secondly – during operation the thermal expansions could cause differential shaft / casing growths.

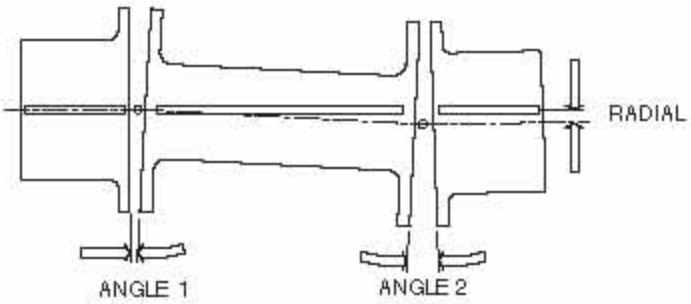
Finally – Vibrations and efflux of time lead to settling of foundations, leading to unavoidable misalignments.

Hence, the only acceptable way in which torque can be transmitted from one rotating machine to another, while catering to misalignments, is by introducing a **FLEXIBLE COUPLING.**

A flexible coupling has, thus become a critical equipment, which joins two rotating shafts, permitting transmission of the desired power at the rated speed, while catering to the misalignments inherent in the equipment train, while ensuring that the bearings in the rotating machinery are not damaged, on account of the imposed or transmitted forces.



IDEAL ALIGNMENT



PRACTICAL ALIGNMENT

The Euroflex coupling

The **Euroflex** coupling is of the laminated metallic disc type, transmitting torque in pure tension between the driving and driven bolts, on a common pitch circle diameter.

The coupling consists of the following three principal set of components:

Hubs, Adapters and Spacers:	Forged Alloy Steels duly heat-treated.
Flexible elements:	Cold rolled AISI 301.
Connecting fasteners:	High strength Alloy Steels

Euroflex Coupling - How does it work

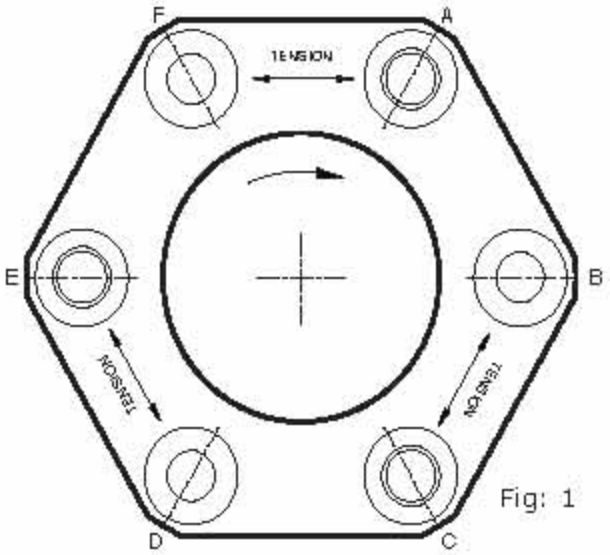


Fig: 1

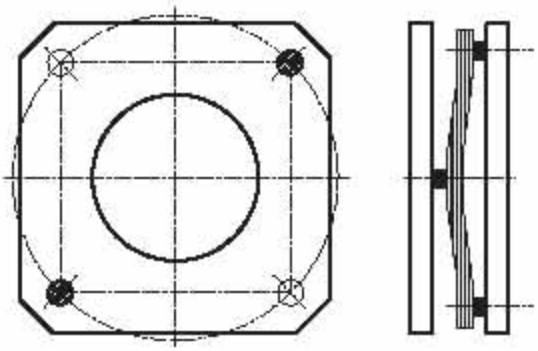


Fig: 2

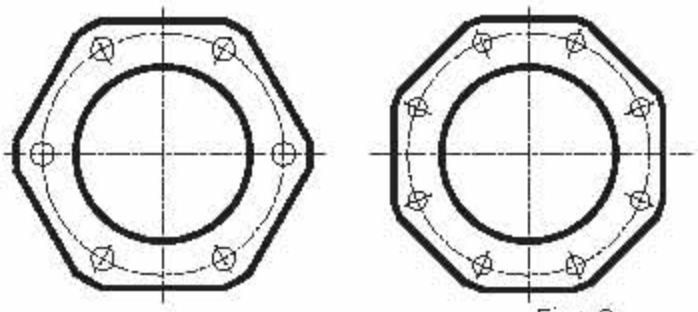


Fig: 3

1. Principle of Torque Transmission:

The **Euroflex** coupling is torsionally stiff with zero backlash and torque is transmitted through pure tension in the flexing elements. Fig:1 shows holes A, C & E in the flexing elements, bolted to the driving machine flange, whilst holes B, D & F are fastened to either the spacer or the driven machine flange.

Torque is transmitted from C to B, A to F and E to D.

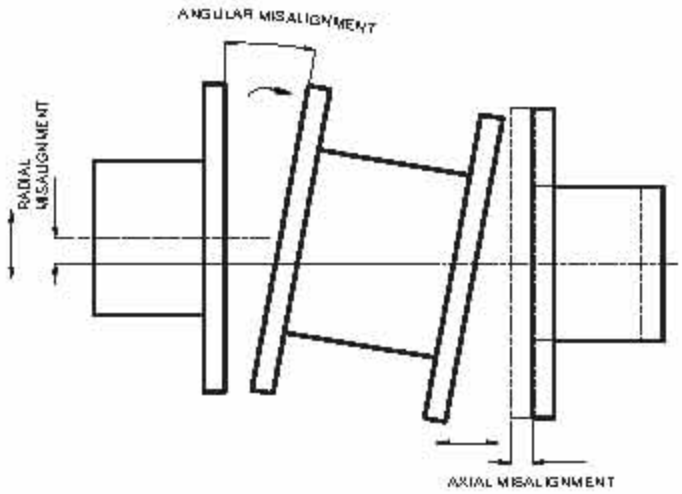
Flexibility is achieved when the flexing elements bend between the drive and driven bolts as shown in Fig:2.

The principal reasons why the **Euroflex** coupling outperforms others in its class is on account of the two fundamental design principles adopted by us. It is this design feature of the flexible element which enables the **Euroflex** couplings to offer smaller diameters, for a given torque, than, would otherwise have been possible.

a) Flexing Element Design:

In the **Euroflex** design, the flexible elements have a polygonal outer profile with a circular central hole, Fig:3. The design ensures that, all the forces in the flexible elements are purely tensile and also provides for the maximum material at the points of bending, leading to very low bending stresses, while permitting high misalignment capacity.

The flexing elements are precision manufactured discs assembled with washers and bushes to form a unitized pack and are designed for an infinite life when operating within the misalignment capabilities of the coupling.



b) Coupling Bolt:

The coupling bolts in the **Euroflex** design are manufactured out of high tensile steel and are adequately sized to transmit torque through friction rather than by shear. The bolts are preloaded to achieve requisite bolt extension thereby inducing a large tensile load in the bolts, which is adequate to prevent both bending of the bolts as well as slip between the flexing elements. The prevention of slip is very important to avoid the flexing elements from fretting.

2. Misalignment Capability

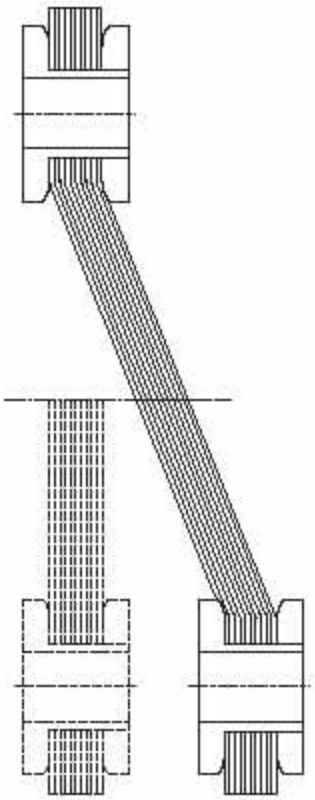
Axial misalignment is the variation in axial distance between the shafts of the driving and driven machinery.

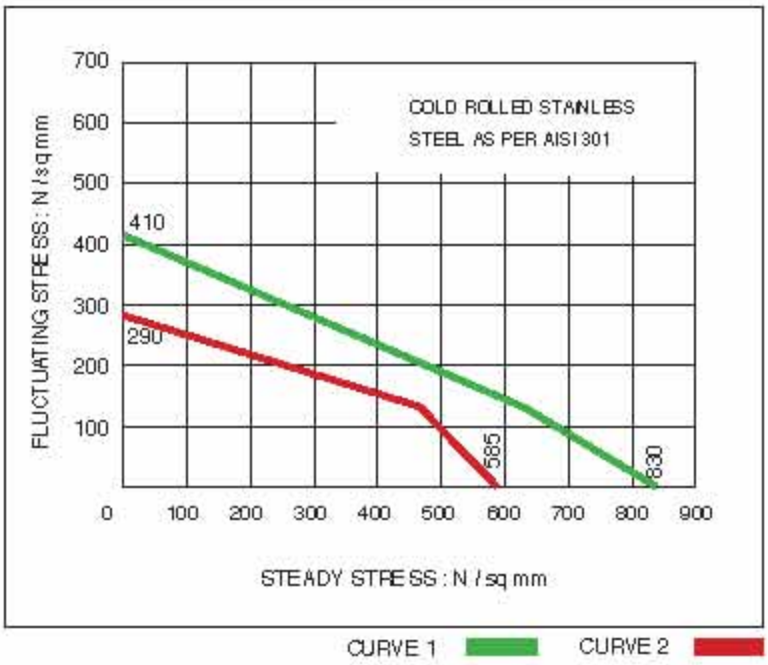
Angular misalignment is the effective angle between the two shaft centerlines and is usually quantified by measuring the angle between the shaft centerlines when extended to intersect. If the shafts are flanged, it is simply the enclosed angle between them when brought to a position of contact.

Radial or Parallel misalignment is the transverse distance between the two shaft centerlines and is quantified by measuring the radial distance between the centerline of one shaft if it were to be extended to overlap the other.

Misalignment Capability of the Euroflex coupling:

Misalignments arise in all rotating machinery due to temperature variations, bearing wear, foundation settling etc.





The **Euroflex** couplings are designed to accept Axial, angular and radial misalignments and the degree of misalignment is limited by the imposed stresses in the flexing element.

The axial misalignment imposes a tensile bending stress in the flexing element, which is depicted by the bending of the beam between the anchor points (see figure), while angular or radial misalignment introduces a bending in the span of the flexing element.

Thus, the permitted amount of axial and radial misalignments is dependent on the number of bolts and geometry of the flexing element.

Axial and Parallel misalignments are inversely related, in other words, when one increases, the other decreases. Further this misalignment capability is determined by assessing the combined steady and fluctuating stresses experienced by the flexible elements.

The hallmark of the **Euroflex** design is the expertise to accurately determine the cyclical stresses under all conditions of coupling operations. A proof of the same is the unmatched 1° angular misalignment capability that the **Euroflex** coupling offers on 4 Bolt designs.

These stresses for the entire range of operating conditions are plotted on the modified Goodman Diagram, for evaluating the fatigue life of the flexible element material.

Curve 1 is a plot of the fatigue data generated by the life cycle testing of the flexing element material (AISI 301) which shows an infinite life at a bending stress of 410 N/mm² (10^{11} Cycles).

The **Euroflex** design criteria ensures that the imposed bending stresses do not exceed 290 N/mm² and all continuous and short term conditions must necessarily have a plotted operating point falling within the area under Curve-2. Thus any point within this area has a minimum cyclic factor of safety of 2.0.

Advantages of the Euroflex Coupling

The design criteria employed by *Euroflex* ensures the couplings have:

1. The optimum size for a given torque rating with an efficient power to weight ratio.
2. A high torque transmitting capability.
3. Low axial thrust with the highest misalignment capability in couplings of its class.
4. Low life time maintenance cost and an extremely high level of reliability.
5. Factory assembled disc packs ensure optimum quality, performance and keeps installation time to a minimum.

Characteristics of Euroflex Coupling:

No lubrication & Zero Maintenance:
The **Euroflex** Coupling is a dry coupling not requiring any lubrication. The coupling also has no relative moving parts and maintenance is reduced to a periodic visual inspection, during any convenient shut down.

Low end Thrust and Bending Moment:
When compared to gear couplings the end thrust and bending moments in **Euroflex** Couplings are considerably lesser and more importantly they are smoothly applied.

High Torsional rigidity:
Euroflex Couplings are torsionally rigid with zero backlash.

High Temperature Operations:
The absence of lubrication and usage of special materials make **Euroflex** Couplings suitable for high temperature operations.

Electrical Insulation:
Insulating materials are employed where necessary, to prevent the flow of eddy currents, which would otherwise cause bearing damage in the accompanying rotary machinery.

High Torque capacity with low weight:
Euroflex can offer a wide range of couplings to meet all possible torque requirements and by using light and high strength alloys for components, reductions in weight can be achieved.

Good dynamic balance:
Residual unbalance of the **Euroflex** coupling is kept to the minimum by closely controlling the concentricity of the coupling parts.

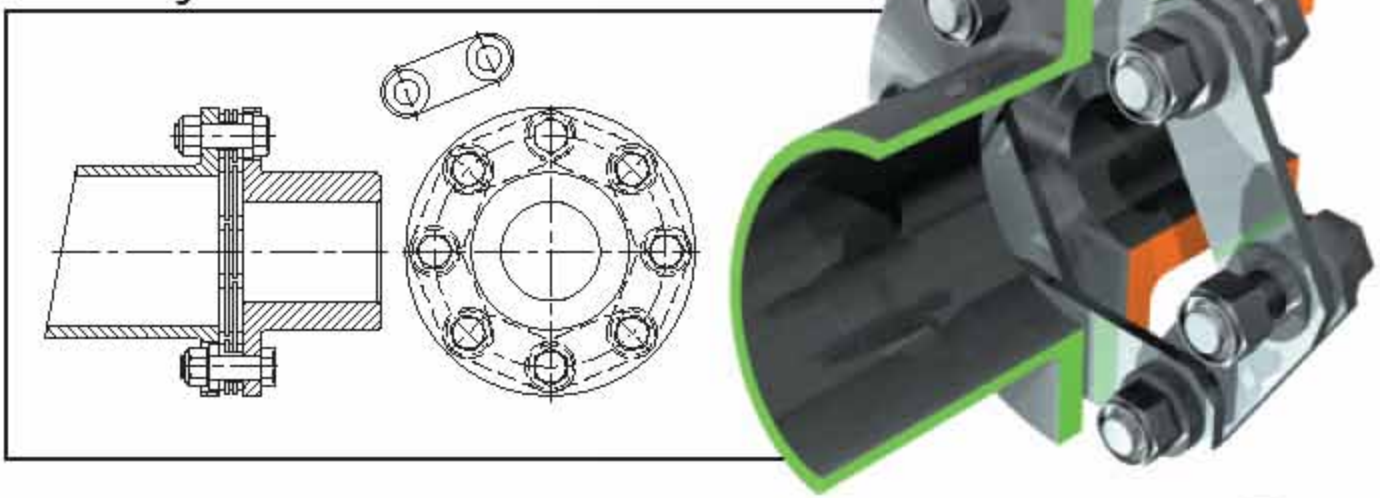
Compliance to International Standards:
Euroflex Couplings conform to most international standards including API 671 - 3rd ed.

Emergency Drive Features:
All **Euroflex** Couplings have inbuilt emergency drive features to ensure torque transmission under exceptionally high overloads and consequent flexing element failure.

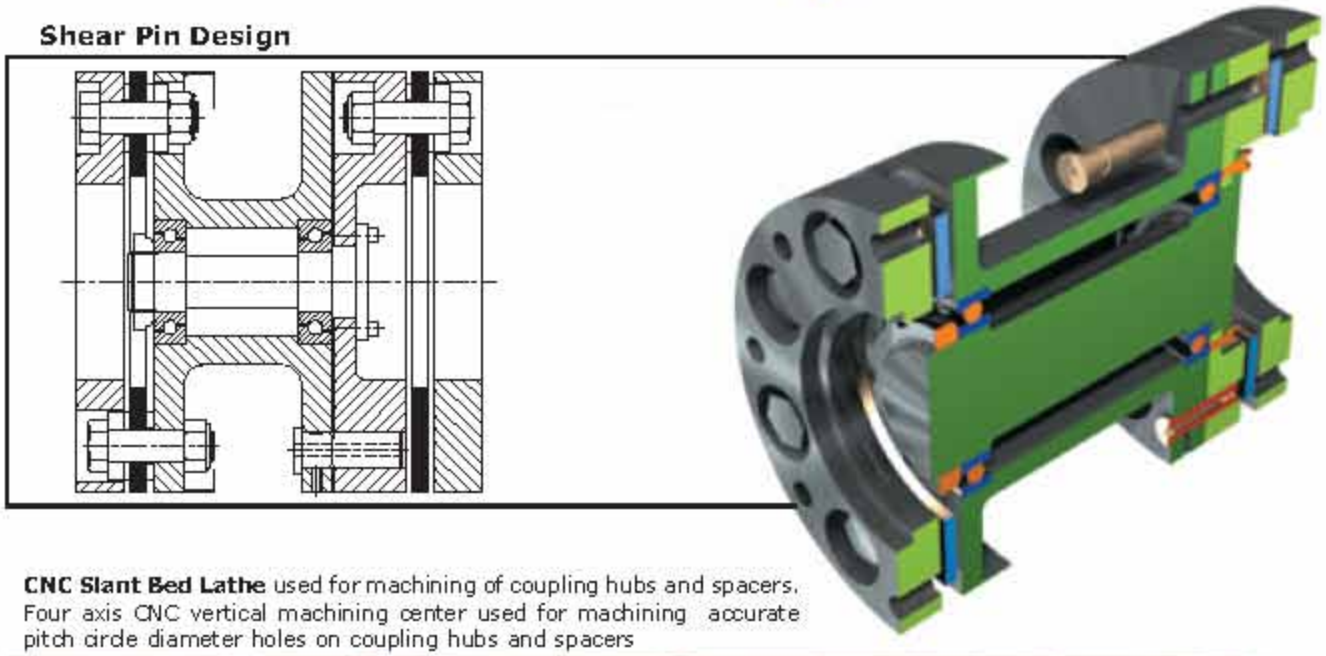
Torque Limiting Feature:
Shear Pins can be provided in **Euroflex** Coupling for meeting torque limiting applications.

Variations to Design

Link Design



Shear Pin Design



CNC Slant Bed Lathe used for machining of coupling hubs and spacers. Four axis CNC vertical machining center used for machining accurate pitch circle diameter holes on coupling hubs and spacers

Euroflex Coupling Range

FOUR BOLT DESIGN:

Angular misalignment: 1 Degree

Sub groups: 4GBL Range for low power versions
4GBH Range for high power versions

Applications: For Low Power and Medium Speed.
Standard designs upto 15.6 KN-Mtrs.

SIX BOLT DESIGN:

Angular misalignment: 0.75 Degree

Sub groups: 6GBL Range for medium power versions
6GBH Range for high power versions

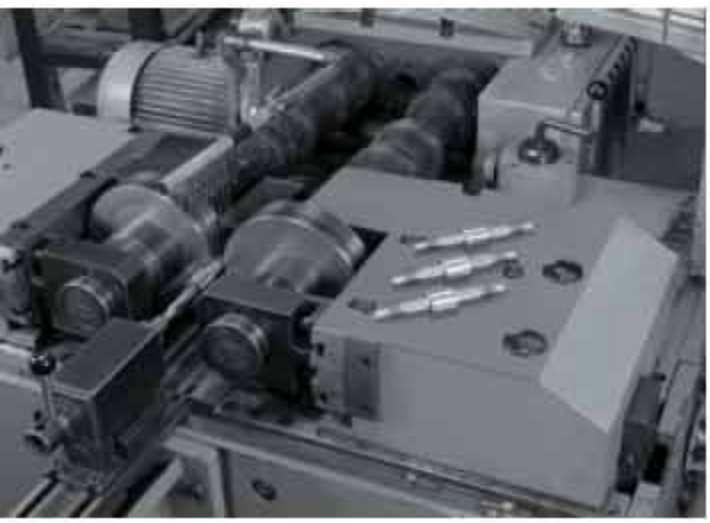
Applications: Medium to High Power and High Speeds.
Standard designs upto 204.4 KN-Mtrs

EIGHT BOLT DESIGN:

Angular misalignment: 0.50 Degree

Sub Groups: 8GBL Range for low power versions
8GBH Range for high power versions

Applications: High Power and High Speeds.
Standard designs upto 290.7 KN-Mtrs



TEN BOLT DESIGN:

Angular misalignment: 0.375 Degree

Sub groups: 10GBH Range for high power versions

Applications: High Power and High Speeds.
Standard designs upto 374 KN-Mtrs

HIGH PERFORMANCE COUPLINGS: GH SERIES

Sub groups: Reduced End Moment Series
Transmission Unit Series

Applications: High speed turbo machinery conforming to API 671 - 3rd ed.
Ratings upto 279.43 KN-Mtrs

Frequently Asked Questions

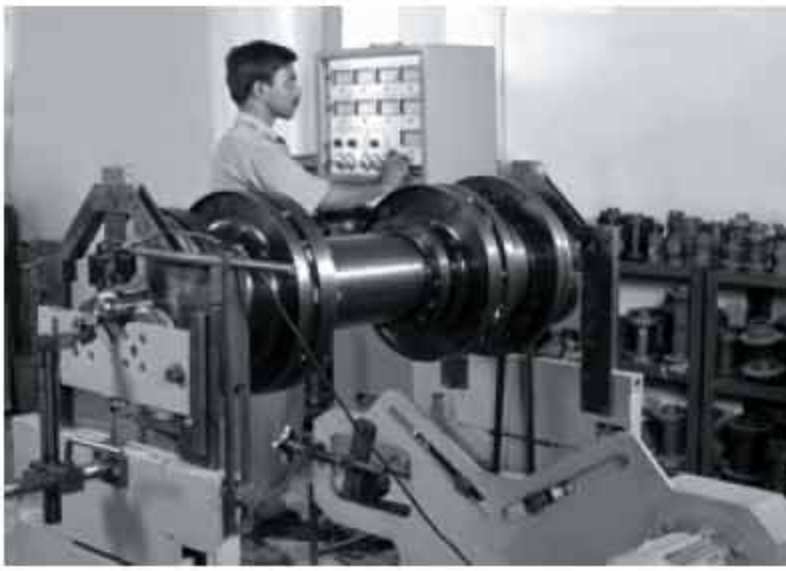
1. What is Dynamic Balancing?

Excessive vibrations in any rotating machinery, can cause unacceptable levels of noise and more importantly, substantially reduce the life of the shaft bearings. One of the important causes of these vibrations can be attributed to shafts of the rotating machinery, couplings etc. being out of balance. The unbalance is caused by an effective displacement of the mass centerline from the true axis due to some mass eccentricity.

The procedure of reducing the out-of-balance forces that cause vibrations in rotating machinery is called **Balancing.** In the process of which, weights are either added or removed such that, the effective mass centerline approaches the true axis. Balancing thus understood can be either Static or Dynamic.

Static balancing is the process adopted for low speed machines, wherein the unit is placed in low friction bearings and rotated momentarily, allowing it, to come to a stand still. In this process it will be observed, that the unit will settle with the heaviest portion stopping at the bottom. Material is then removed from this point and the process is repeated till no obvious heavy point exists.

Dynamic balancing is the process adopted for high speed machines, wherein the unit is placed on a purpose built balancing machine, which has its bearings connected to sensors, which detect the heavy point in relation to the datum of the unit. This increases the sensitivity and hence the accuracy of the balancing process.



Dynamic balancing as described above, can be either single plane or multiple planes. Single plane balancing is used, if the unit is very short in length vis a vis its diameter. However for longer units the unbalance at two planes is independently identified and corrected.

EUROFLEX PRACTICE: All **Euroflex** couplings are dynamically balanced in two planes as per appropriate grade of ISO 1940 and or API 671, by adhering to the following procedure:

a. **Hubs, Spacers and Adapters:** They are first dynamically balanced in two planes and the residual unbalance is corrected by removal of weights. For the purpose of mounting on the balancing machine, custom built balancing mandrels are used.

b. **Other components of the coupling:** are weight-matched and grouped into sets with the weight differential kept to less than 0.1 gm between components. So that, they can be assembled randomly without effecting unit balance.

c. **Assembly balance:** The Coupling assembly is then balanced as a unit for removal of all residual unbalance. The unit is then match marked along the length, so that field engineers can get a repeatability of balance. For meeting needs of field balancing, trim balance holes are provided on all couplings. Compliance is also offered to API 671 3rd edition.

2. Is it necessary to balance couplings at its operating speed ?

The **Euroflex** Disc Couplings operate well below their lateral critical or whirl speeds and hence are considered as rigid bodies which are stable with regard to the speed of operation, hence there is no necessity for the dynamic balancing operation to be carried out, at the unit's operating speed .

Further the any balance grade, for example, be it Q0.6 or 4W/N, both of which, consider operational speed in the computation of actual permitted unbalance, will balance out at a speed much below the operational speed, and will result in the same final level of balance.

3. While a Turbine rotor needs balancing at operating speed, why does the coupling, not need balancing at operating speed?

A turbine rotor is classified as a flexible body, since it is designed to generally operate at speeds higher than its critical speed. Consequently any machine which is to operate at higher than its critical speed, may demonstrate characteristics different from those displayed by it below its critical speed.

Hence to avoid out of balance situations, at the operating speed it is necessary to balance such units like turbine rotors at their operating speed.

In the case of couplings, as was explained in the earlier question, the design ensures that the critical speed of the coupling would always be far higher than the operating speed of the unit to which it is coupled. Hence it would never pass through its critical speed, thus eliminating the need for balancing it at its operating speed.

4. What are the advantages of the *Euroflex* flexible disc coupling vis a vis a Gear Coupling?

The **Euroflex** Coupling has the following advantages over the gear coupling:

1.The **Euroflex** Disc coupling is of the dry type, not requiring any lubrication and / or maintenance. Hence the entire lubrication system is eliminated, contributing to lower system costs.
2.The **Euroflex** Disc coupling do not have any relative moving parts, hence there is no wear and tear, consequently the useful life is in excess of 1,50,000 hours.
3.The **Euroflex** Disc coupling offer both a higher power to weight ratio and misalignment capacity.
4.Unlike in a gear coupling, in the **Euroflex** Disc coupling, the misalignment capacity does not reduce with increase in speeds.

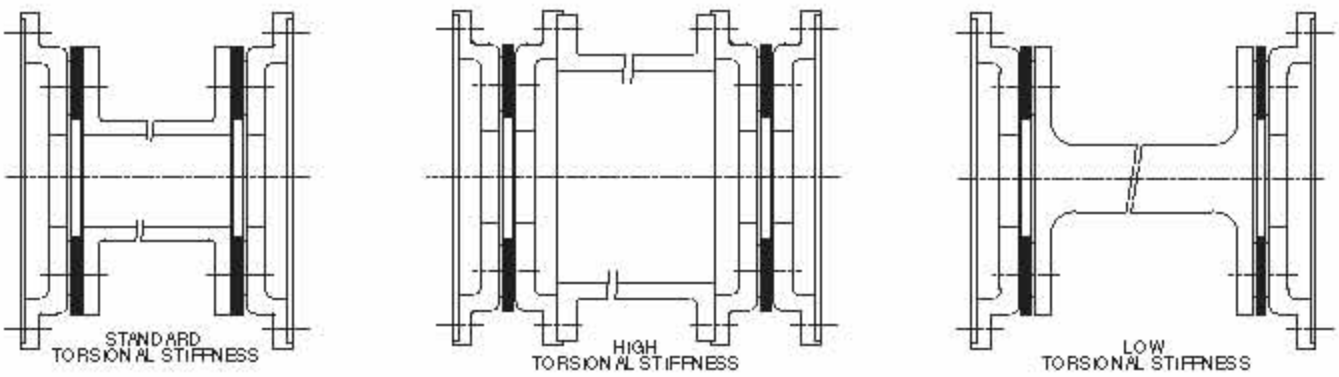
The **Euroflex** Disc coupling generate lower axial thrusts hence smaller sized thrust bearings are adequate, resulting in savings.

5. Can the torsional stiffness of the Euroflex disc coupling be varied to suit the results of torsional analysis of the turbo machinery train?

Torsional analysis of a rotating equipment train, is performed to rule out the possibility of resonance within the equipment's running range. Generally the results of such an analysis, require some modification, in the design of the coupling to accommodate the corrective factors, since alteration to the main equipment are difficult.

Even though **Euroflex** couplings are by nature torsionally rigid, they do exhibit some small level of torsional flexibility, by virtue of the physical modulus of the material of construction. Consequently it is possible to vary the torsional stiffness of the coupling by modifying the spacer tube to adjust the overall stiffness and remove the resonance from the problem zones.

Torsional stiffness is generally increased by using larger diameter spacer, with increased wall thickness, while lowering of torsional stiffness calls for using close to solid spacer.



6. Is it necessary to limit the end float of *Euroflex* Disc coupling?

If a rotating equipment has its shafts located in thrust bearings, there is no reason for a coupling to have any form of limited end float. If however, one of the machines has no axial location for the rotor and the float of the rotor is purely limited by the end stops in the machine, then it may be necessary, to consider

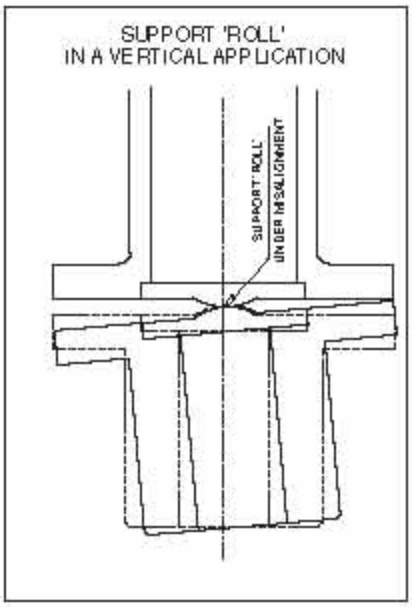
some form of end float limitation in the coupling, to prevent the rotor hitting or running against its own end stops.

It is in this situation, that the **Euroflex** Disc coupling offers a very good advantage. The flexing elements in the **Euroflex** Coupling behave as springs having a non linear characteristic, consequently any axial movement of the rotor is restrained by a force of increasing magnitude.

Under normal running conditions, the rotor will tend to run at its magnetic center and any attempt to move it from its natural position will induce an axial restoring force, increasing non-linearly, in proportion to the axial movement.

In view of the above inherent design advantage of the **Euroflex** Disc coupling, there is no need, under normal circumstances, to provide for end float limits in the coupling, however should the need arise, many field proven design options of end float are possible.

7. Can an Euroflex coupling be used in Vertical operation?



Euroflex disc couplings can be used in vertical operations and generally do not require a support. Even though a disc coupling when suspended in vertical mode will experience sag of the spacer section directly proportional to the stiffness of the two flexing elements taken in parallel. The degree of this sag will vary with the coupling size, design, length and weight of the spacer section. However since the axial stiffness of the disc coupling increases with speed, the level of sag will consequently reduce as the unit begins to operate. The **Euroflex** coupling design takes into consideration the resulting stresses caused by the imposed sag.

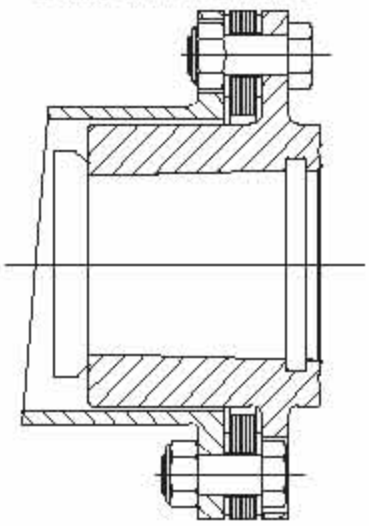
However if the spacer section is too long or heavy and there is a need for a support to be introduced, then the **Euroflex** design practice, is to provide spherical buttons as in the fig. shown. These buttons are placed at the central point of the flexing element, to ensure that any angular misalignment causes rolling of the surface and not rubbing.

8.What is windage and how to reduce it?

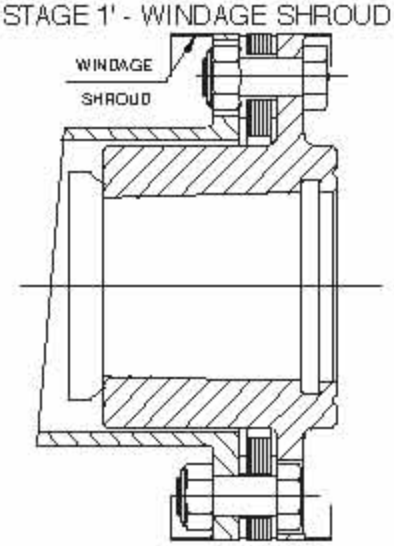
Windage is resistance that atmospheric air provides to any rotating body. Since all couplings for safety reasons need to necessarily have coupling guards, it is very important that the coupling guards are properly designed to reduce windage and its related problems like temperature rise, high frequency sound, oil sucking from bearings etc.

Apart from the benefits which are derived from proper design of the guards, the **Euroflex** design recognises the importance of windage related problems and offers certain design solutions on the coupling itself for windage reduction. The figures shown below show the design changes adopted in the form of introducing shrouding and windage plates on high speed couplings.

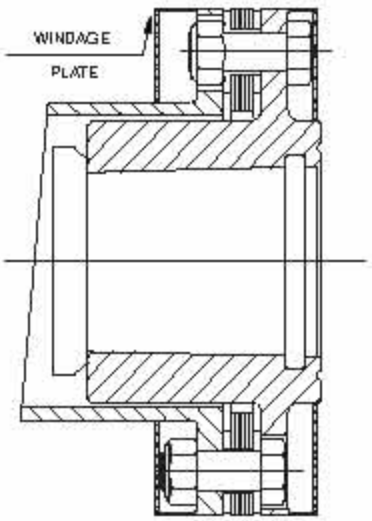
'STANDARD' FLANGES



'STAGE 1' - WINDAGE SHROUD



'STAGE 2' - WINDAGE PLATE



The design modifications given above generally meet most requirements. Should the need arise, **Euroflex** also offers streamlined designs, which not only offers a smooth surface to the unit, but also eliminates the rapid changes in the coupling profile and hence introduces the best possible laminar air flow around the coupling.

9. What is the typical Quality Plan used in the manufacture of Euroflex Couplings?

A typical Quality Plan followed by **Euroflex** is as follows and the same is offered to the customer at the stage of ordering, for his review and comments. Based on the final Quality Plan agreed between the Customer and **Euroflex**, the manufacturing operations are conducted.

Component	Operation	Type of check	% Check	Standard	Acceptance Norm	Agency
Adaptors Hub	Chemical Mechanical NDT Machining	Chemical Mechanical U.T. Dim. Insp.	100% 100% 100% 100%	BS 970 BS 970 ASTM A 388 Approved Drawing	BS 970 BS 970 PARA 10 Drawing	
Spacer	Chemical Mechanical NDT Machining	Chemical Mechanical U.T. Dim. Insp.	100% 100% 100% 100%	BS 970 BS 970 ASTM A 388 Approved Drawing	BS 970 BS 970 PARA 10 Drawing	
Coupling bolts & Lock Nuts	Chemical Mechanical NDT Machining	Chemical Mechanical U.T. Dim. Insp.	100% 100% 100% 100%	BS 970 BS 970 ASTM A 388 Approved Drawing	BS 970 BS 970 PARA 10 Drawing	
Element bush & Washers	Chemical NDT Machining	Chemical U.T. Dim. Insp.	100% 100% 100%	BS 970 ASTM A 388 Approved Drawing	BS 970 PARA 10 Drawing	
Coupling Assembly	Inspection Dynamic bal.	Dimensions Unbalance	100%	Approved Drawing		

10. Can torque limiting feature be provided in the Euroflex Coupling?.

Torque limiting features can be provided in **Euroflex Couplings** by employing shear pins designed for shearing at particular over load levels.

The couplings employing shear pins are designed with a bearing arrangement in the central spacer to prevent spacer oscillation after shear pin breakage. The shear pin arrangement ensures that pin replacements are fast and easy. Refer to the figure on Page 13 for details of the arrangement.

Euroflex Coupling Selection Procedure

Service Factors:
Service Factors are a means of classifying different equipments and applications into various load classifications. Due to variations in application of equipment, service factors are used to adjust equipment ratings to accommodate for variable loading conditions.

Load Classification	**Service Factor**
1. Loads varying very slightly: E.g.: (Centrifugal pumps, Compressors.)	1.0
2. Torque loading varies during operation of equipment E.g.: (Turbines, Compressors)	1.5
3. Torque loading varies during operation with frequent start and stop cycles: E.g.: (Reciprocating machinery)	2.0
4. For shock loading and substantial torque variations: E.g.:(Reciprocating m/c.)	2.5 to 3.0
5. For special and critical applications:	Consult **Euroflex**

Coupling selection procedure:

The following procedure can be used to select the **Euroflex** couplings for most applications, however, for specialised applications, such as those conforming to API 671 - 3rd ed. It is recommended that **Euroflex** be consulted.

1. Calculate

a) Coupling Torque (KW/1000 RPM) = Power(KW) X 1000 / RPM

b) Determine an appropriate service factor from the above table to be used based on the drive and driven machinery and operating conditions, and then apply the said service factor to the above rating.

c) Select a coupling model with equivalent or higher rating from the coupling data sheets.

d) Having made the preliminary selection, check suitability for:

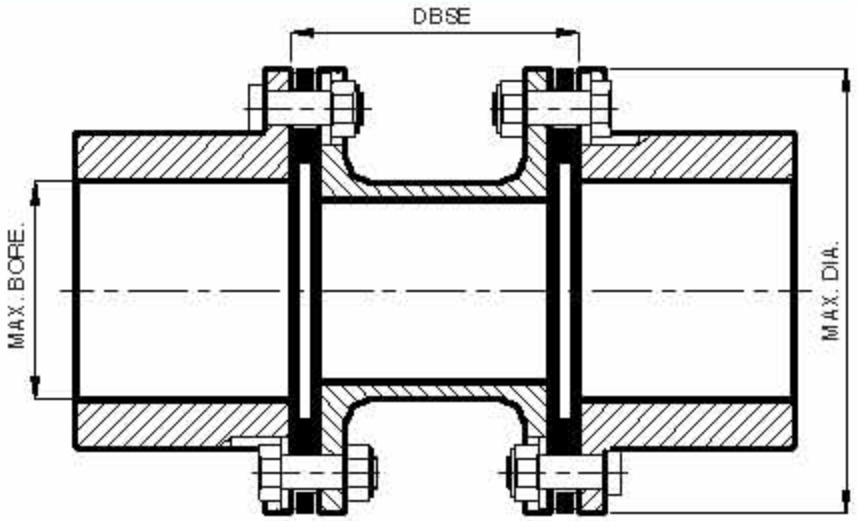
i) maximum permissible speed
ii) maximum bore suits the shafts to be employed
iii) axial deflection capability
iv) torsional stiffness suitability

e) Consult **Euroflex** for all critical applications.

Euroflex recommendations on coupling models:

Load characteristics	**Applications**	**Series**	**Euroflex models**
1. Low power and speeds	Pumps, Motors, Gear Boxes	Standard	GBL,GBH series.
2. Medium power and speeds	Pumps, Steam & Gas Turbine	Adaptor	GBH series
3. High power and speeds	Turbo Compressors	Reduced End Moment	GH series

STANDARD COUPLING SERIES — 4 GBL MODEL

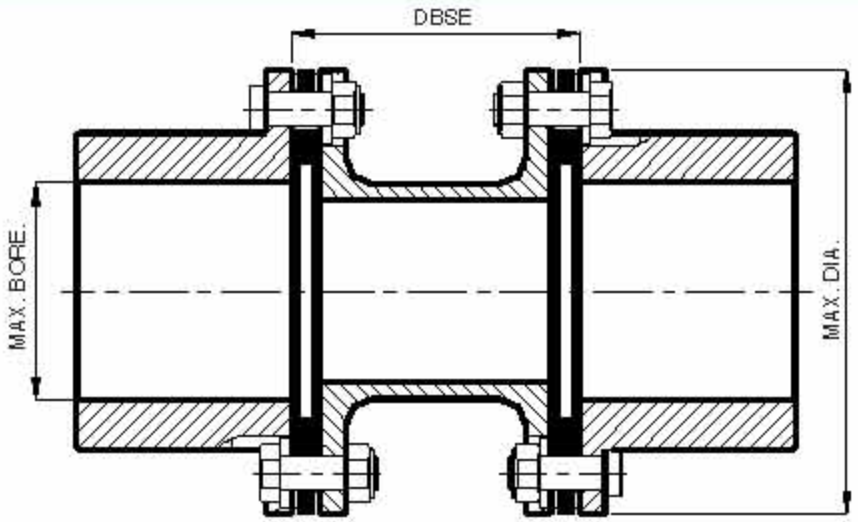


1. Couplings can be selected using a service factor of 1.0 , for applications involving no variations in torque transmission. Consider a higher service factor for applications involving reversal or variation in torque.
2. Peak torque ratings or Momentary Overloads to be considered at 2.0 X continuous rating.
3. A 50 milli second transient torque rating for the coupling is 3.4 X continuous rating.
4. Weight, Moment of Inertia and Torsional stiffness data indicated for the coupling assembly are for a spacer length applicable at the "Minimum DBSE" of respective models.

Contact **Euroflex** for special adaptations / optimized design for a given application

	Torque								Weight (Kgs)		Moment of Inertia (Kgm^2)		Torsional Stiffness $x10^6$ Kgm/Rad		Misalignment Capacity			
MODEL	KW/ 1000 RPM	CONT. (KNM)	PEAK (KNM)	SCT (KNM)	MAX SPEED RPM	MIN DBSE mm	MAX BORE mm	MAX DIA mm	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	AXIAL (mm)	ANGULAR (Degree)	RADIAL (mm)	AXIAL THRUST (N)
50	6	0.06	0.11	0.20	40000	70	25	65	0.74	0.016	3.3E-04	4.1E-06	0.003	0.041	2.2	1	1.11	65
60	13	0.01	0.02	0.04	31000	80	30	78	1.18	0.02	0.001	6.8E-06	0.001	0.069	2.8	1	1.27	70
70	19	0.18	0.36	0.67	32000	80	36	94	2.14	0.03	0.002	1.3E-05	0.008	0.130	3.4	1	1.25	90
80	28	0.26	0.52	0.96	25000	100	42	110	3.58	0.03	0.004	2.2E-05	0.012	0.228	3.9	1	1.58	95
100	55	0.52	1.04	1.92	18000	100	52	131	6.51	0.04	0.012	4.7E-05	0.024	0.484	4.9	1	1.55	130
120	97	0.92	1.84	3.40	15000	110	66	157	11.06	0.05	0.029	9.3E-05	0.044	0.949	5.9	1	1.71	190
140	155	1.46	2.92	5.40	13000	120	76	186	17.62	0.06	0.065	1.6E-04	0.070	1.595	6.8	1	1.87	195
160	238	2.24	4.48	8.29	12000	130	84	211	27.48	0.09	0.128	2.8E-04	0.108	2.869	7.9	1	2.00	215
180	345	3.25	6.50	12.03	10000	150	95	235	38.82	0.11	0.226	4.4E-04	0.152	4.455	8.8	1	2.32	250
200	482	4.54	9.08	16.80	9000	160	116	260	48.37	0.14	0.363	6.9E-04	0.229	7.051	9.8	1	2.48	280
220	649	6.12	12.24	22.64	8500	170	118	284	69.35	0.17	0.599	1.1E-03	0.306	11.056	10.8	1	2.60	315

STANDARD COUPLING SERIES — 6 GBL MODEL

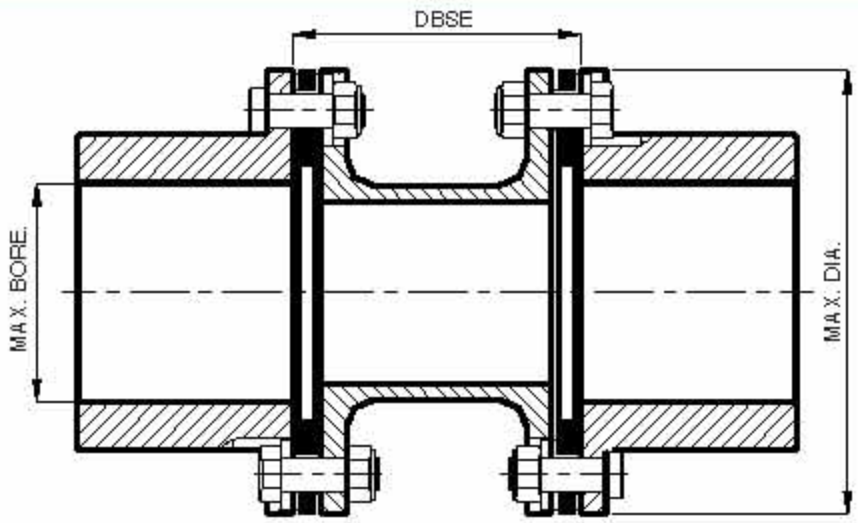


1. Couplings can be selected using a service factor of 1.0 , for applications involving no variations in torque transmission. Consider a higher service factor for applications involving reversal or variation in torque.
2. Peak torque ratings or Momentary Overloads to be considered at 2.0 X continuous rating.
3. A 50 milli second transient torque rating for the coupling is 3.4 X continuous rating.
4. Weight, Moment of Inertia and Torsional stiffness data indicated for the coupling assembly are for a spacer length applicable at the "Minimum DBSE" of respective models.

Contact **Euroflex** for special adaptations / optimized design for a given application

	Torque								Weight (Kgs)		Moment of Inertia (Kgm²)		Torsional Stiffness x10⁶ Kgm/Rad		Misalignment Capacity			
MODEL	KW 1000 RPM	CONT. (KNM)	PEAK (KNM)	SCT (KNM)	MAX SPEED RPM	MIN DBSE mm	MAX BORE mm	MAX DIA mm	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	COUPLING ASSEMBLY	EXTRA PER 10mm SPACER	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	AXIAL (mm)	ANGULAR (Degree)	RADIAL (mm)	AXIAL THRUST (N)
80	49	0.47	0.94	1.74	31500	100	44	103	3.25	0.038	0.004	2.6E-05	0.01	0.26	2.4	0.75	1.11	220
100	102	0.97	1.94	3.60	24300	100	55	128	6.11	0.062	0.01	6.8E-05	0.03	0.69	3.2	0.75	1.09	225
120	174	1.66	3.33	6.16	20000	110	67	151	10.34	0.084	0.03	1.4E-04	0.06	1.48	3.9	0.75	1.20	280
140	275	2.63	5.25	9.71	16600	120	78	175	16.36	0.112	0.06	2.7E-04	0.10	2.76	4.5	0.75	1.32	325
160	423	4.04	8.08	14.94	15000	130	90	200	24.75	0.150	0.11	4.8E-04	0.16	4.86	5.3	0.75	1.41	405
180	616	5.88	11.76	21.76	13600	150	102	225	35.45	0.200	0.21	7.7E-04	0.23	7.80	5.9	0.75	1.64	500
200	860	8.22	16.43	30.40	12000	160	113	250	48.42	0.251	0.36	1.2E-03	0.32	12.15	6.7	0.75	1.75	570
220	1162	11.10	22.19	41.06	11000	170	124	272	62.72	0.303	0.54	1.8E-03	0.44	18.34	7.5	0.75	1.84	625
240	1527	14.58	29.17	53.96	10000	190	134	298	81.65	0.367	0.83	2.6E-03	0.57	26.18	8.3	0.75	2.07	695
270	2207	21.07	42.15	77.97	9000	200	152	340	119.69	0.500	1.56	4.0E-03	0.83	40.84	9.5	0.75	2.17	750
300	2956	28.23	56.46	104.46	8000	220	169	378	163.73	0.606	2.64	5.9E-03	1.14	60.47	10.3	0.75	2.36	840
315	3805	36.34	72.67	134.44	8000	220	176	396	192.43	0.757	3.42	8.0E-03	1.40	81.54	10.8	0.75	2.46	915

STANDARD COUPLING SERIES — 8 GBL MODEL

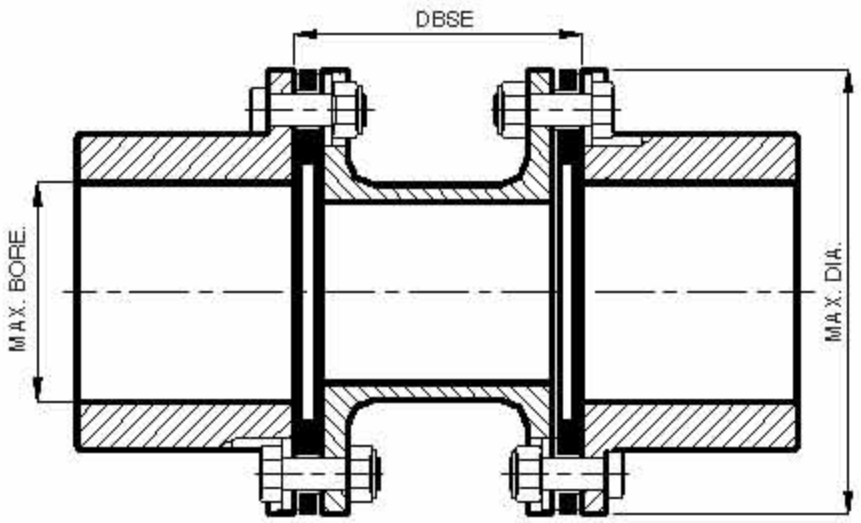


1. Couplings can be selected using a service factor of 1.0 , for applications involving no variations in torque transmission. Consider a higher service factor for applications involving reversal or variation in torque.
2. Peak torque ratings or Momentary Overloads to be considered at 2.0 X continuous rating.
3. A 50 milli second transient torque rating for the coupling is 3.4 X continuous rating.
4. Weight, Moment of Inertia and Torsional stiffness data indicated for the coupling assembly are for a spacer length applicable at the "Minimum DBSE" of respective models.

Contact **Euroflex** for special adaptations / optimized design for a given application

	Torque								Weight (Kgs)		Moment of Inertia (Kgm²)		Torsional Stiffness x10⁶ Kgm/Rad		Misalignment Capacity			
MODEL	KW/ 1000 RPM	CONT. (KNM)	PEAK (KNM)	SCT (KNM)	MAX SPEED RPM	MIN DBSE mm	MAX BORE mm	MAX DIA mm	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	AXIAL (mm)	ANGULAR (Degree)	RADIAL (mm)	AXIAL THRUST (N)
80	72	0.68	1.37	2.53	26000	100	44	103	3.4	0.06	0.004	3.8E-05	0.02	0.38	1.3	0.5	0.79	460
100	148	1.41	2.82	5.22	20000	100	55	128	6.4	0.10	0.01	9.9E-05	0.05	1.01	2.0	0.5	0.77	495
120	253	2.42	4.83	8.94	16500	110	67	151	10.8	0.13	0.03	2.1E-04	0.08	2.14	2.5	0.5	0.85	540
140	399	3.81	7.63	14.11	13500	120	78	175	17.0	0.17	0.06	3.9E-04	0.14	4.01	2.9	0.5	0.94	600
160	614	5.86	11.73	21.69	12500	130	90	200	25.6	0.23	0.12	6.9E-04	0.22	7.06	3.4	0.5	1.00	660
180	894	8.54	17.08	31.60	11000	150	102	225	36.8	0.31	0.21	1.1E-03	0.31	11.33	4.0	0.5	1.16	780
200	1249	11.93	23.86	44.14	10500	160	113	250	50.2	0.39	0.36	1.7E-03	0.43	17.64	4.5	0.5	1.24	890
220	1687	16.11	32.23	59.62	9500	170	124	272	65.0	0.47	0.55	2.6E-03	0.59	26.63	5.0	0.5	1.30	975
240	2217	21.18	42.35	78.35	8500	190	134	298	84.8	0.57	0.86	3.7E-03	0.76	38.02	5.6	0.5	1.47	1050
270	3204	30.60	61.20	113.22	7500	200	152	340	124.3	0.78	1.60	5.8E-03	1.11	59.30	6.5	0.5	1.54	1200
300	4292	40.99	81.99	151.67	7000	220	169	378	169.2	0.95	2.70	8.6E-03	1.52	87.81	7.1	0.5	1.67	1375
315	5525	52.76	105.52	195.21	6600	230	176	396	195.3	0.91	3.47	9.3E-03	1.73	94.71	7.4	0.5	1.75	1650
330	7168	68.46	136.92	253.29	6000	250	183	425	239.3	1.26	4.73	1.2E-02	2.04	122.90	7.7	0.5	1.91	1725
360	8994	85.90	171.79	317.82	5600	270	200	461	303.0	1.38	7.13	1.7E-02	2.65	171.72	8.2	0.5	2.04	1920

STANDARD COUPLING SERIES — 4 GBH MODEL

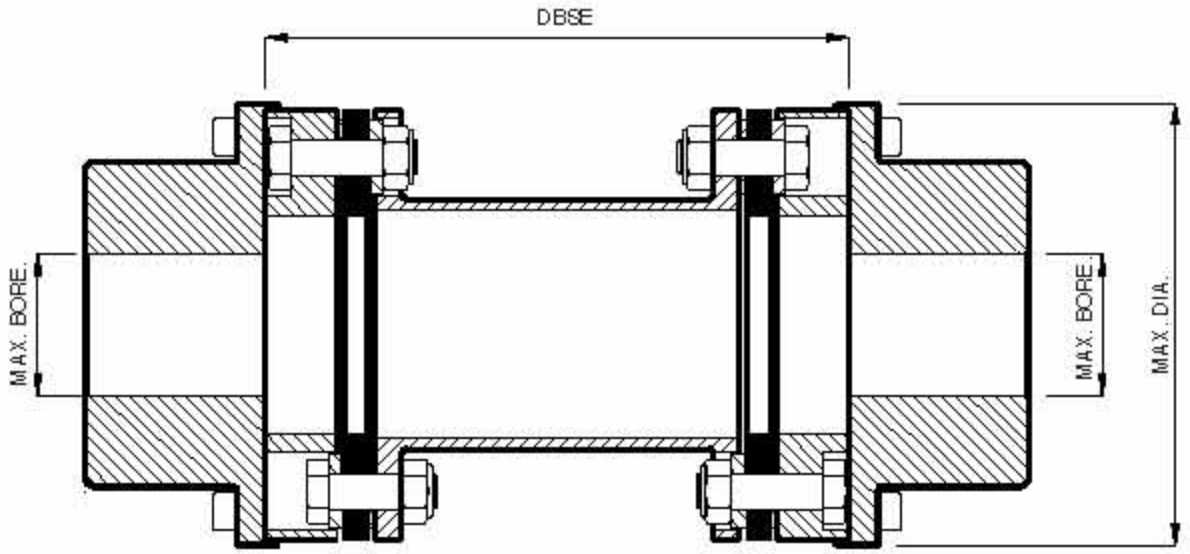


1. Couplings can be selected using a service factor of 1.0 , for applications involving no variations in torque transmission. Consider a higher service factor for applications involving reversal or variation in torque.
2. Peak torque ratings or Momentary Overloads to be considered at 2.0 X continuous rating.
3. A 50 milli second transient torque rating for the coupling is 3.4 X continuous rating.
4. Weight, Moment of Inertia and Torsional stiffness data indicated for the coupling assembly are for a spacer length applicable at the "Minimum DBSE" of respective models.

Contact **Euroflex** for special adaptations / optimized design for a given application

	Torque								Weight (Kgs)		Moment of Inertia (Kgm²)		Torsional Stiffness x10⁶ Kgm/Rad		Misalignment Capacity			
MODEL	KW/ 1000 RPM	CONT. (KNM)	PEAK (KNM)	SCT (KNM)	MAX SPEED RPM	MIN DBSE mm	MAX BORE mm	MAX DIA mm	COUPLING ASSEMBLY	EXTRA PER 10mm SPACER	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	AXIAL (mm)	ANGULAR (Degree)	RADIAL (mm)	AXIAL THRUST (N)
50	7	0.06	0.12	0.21	40000	70	25	65	0.7	0.02	3.E-04	4.1E-06	3.E-03	0.04	2.2	1	1.11	75
60	16	0.15	0.30	0.53	31000	80	30	78	1.2	0.02	8.E-04	6.8E-06	5.E-03	0.07	2.8	1	1.25	90
70	22	0.21	0.42	0.74	32000	80	36	94	2.2	0.03	2.E-03	1.3E-05	9.E-03	0.13	3.4	1	1.25	100
80	35	0.33	0.66	1.16	25000	100	42	110	3.6	0.03	4.E-03	2.2E-05	1.E-02	0.23	3.9	1	1.57	120
100	68	0.64	1.28	2.24	18000	100	52	131	6.7	0.04	1.E-02	4.7E-05	0.03	0.48	4.9	1	1.53	160
120	119	1.12	2.24	3.92	15000	110	65	157	11.4	0.06	3.E-02	1.1E-04	0.05	1.12	5.9	1	1.68	170
140	194	1.83	3.66	6.41	13000	120	76	186	18.4	0.09	0.07	2.1E-04	0.09	2.17	6.8	1	1.83	235
160	297	2.80	5.60	9.80	12000	130	84	211	28.6	0.11	0.13	3.7E-04	0.13	3.73	7.9	1	1.96	275
180	426	4.02	8.04	14.07	10000	150	95	235	40.2	0.14	0.23	5.5E-04	0.18	5.60	8.8	1	2.28	375
200	592	5.58	11.16	19.53	9000	160	116	260	50.4	0.17	0.38	8.5E-04	0.27	8.63	9.8	1	2.42	420
220	789	7.43	14.86	26.01	8500	170	118	284	72.0	0.21	0.62	1.3E-03	0.36	13.26	10.8	1	2.54	465

ADAPTOR SERIES TRANSMISSION UNIT — 6GBH-MODEL

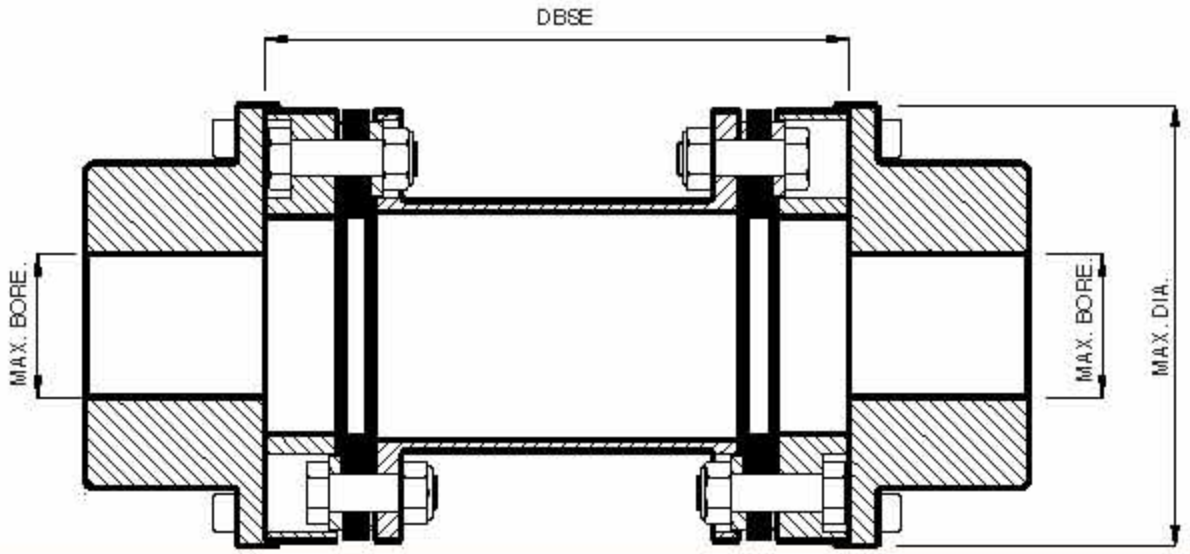


1. Couplings can be selected using a service factor of 1.0 , for applications involving no variations in torque transmission. Consider a higher service factor for applications involving reversal or variation in torque.
2. Peak torque ratings or Momentary Overloads to be considered at 2.0 X continuous rating.
3. A 50 milli second transient torque rating for the coupling is 3.4 X continuous rating.
4. Weight, Moment of Inertia and Torsional stiffness data indicated for the coupling assembly are for a spacer length applicable at the "Minimum DBSE" of respective models.

Contact **Euroflex** for special adaptations / optimized design for a given application

	Torque								Weight (Kgs)		Moment of Inertia (Kgm²)		Torsional Stiffness x10⁶ Kgm/Rad		Misalignment Capacity			
MODEL	KW/ 1000 RPM	CONT. (KNM)	PEAK (KNM)	SCT (KNM)	MAX SPEED RPM	MIN DBSE mm	MAX BORE mm	MAX DIA mm	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	AXIAL (mm)	ANGULAR (Degree)	RADIAL (mm)	AXIAL THRUST (N)
80	71	0.68	1.35	2.37	31500	125	57	107	6.2	0.06	0.01	3.7 E-05	0.02	0.38	2.4	0.75	1.11	250
100	146	1.40	2.80	4.89	24300	131	70	132	11.4	0.09	0.02	9.8 E-05	0.05	1.00	3.2	0.75	1.08	330
120	251	2.39	4.79	8.37	20000	146	86	155	19.3	0.13	0.06	2.1 E-04	0.10	2.12	3.9	0.75	1.19	400
140	395	3.77	7.55	13.21	16500	162	98	179	29.5	0.17	0.12	3.9 E-04	0.16	3.97	4.5	0.75	1.29	475
160	608	5.80	11.61	20.32	15000	177	111	204	42.7	0.23	0.23	6.9 E-04	0.25	6.99	5.3	0.75	1.38	550
180	885	8.46	16.91	29.59	13500	204	128	229	64.0	0.31	0.45	1.1 E-03	0.36	11.21	5.9	0.75	1.61	695
200	1237	11.81	23.62	41.34	12000	219	136	254	82.4	0.38	0.69	1.7 E-03	0.49	17.47	6.7	0.75	1.91	740
220	1670	15.95	31.91	55.83	11000	234	151	276	108.5	0.46	1.10	2.6 E-03	0.69	26.36	7.5	0.75	1.79	785
240	2195	20.96	41.93	73.37	10000	259	169	302	146.4	0.56	1.80	3.7 E-03	0.91	37.63	8.3	0.75	2.02	900
270	3172	30.29	60.59	106.03	9000	277	190	344	213.2	0.77	3.31	5.8 E-03	1.32	58.71	9.5	0.75	2.12	1090
300	4249	40.58	81.16	142.04	8000	306	207	382	285.1	0.93	5.40	8.5 E-03	1.77	86.93	10.3	0.75	2.30	1225
315	5469	52.23	104.46	182.81	8000	324	220	400	343.5	1.19	7.18	1.2 E-02	2.24	117.21	10.8	0.75	2.39	1350
330	7097	67.77	135.54	237.20	7500	353	240	429	455.9	1.74	10.72	1.5 E-02	2.83	152.08	11.2	0.75	2.62	1470
360	8904	85.04	170.07	297.63	7000	381	251	466	546.3	1.85	14.94	2.1 E-02	3.50	212.51	12.1	0.75	2.80	1560

ADAPTOR SERIES TRANSMISSION UNIT — 8 GBH-MODEL

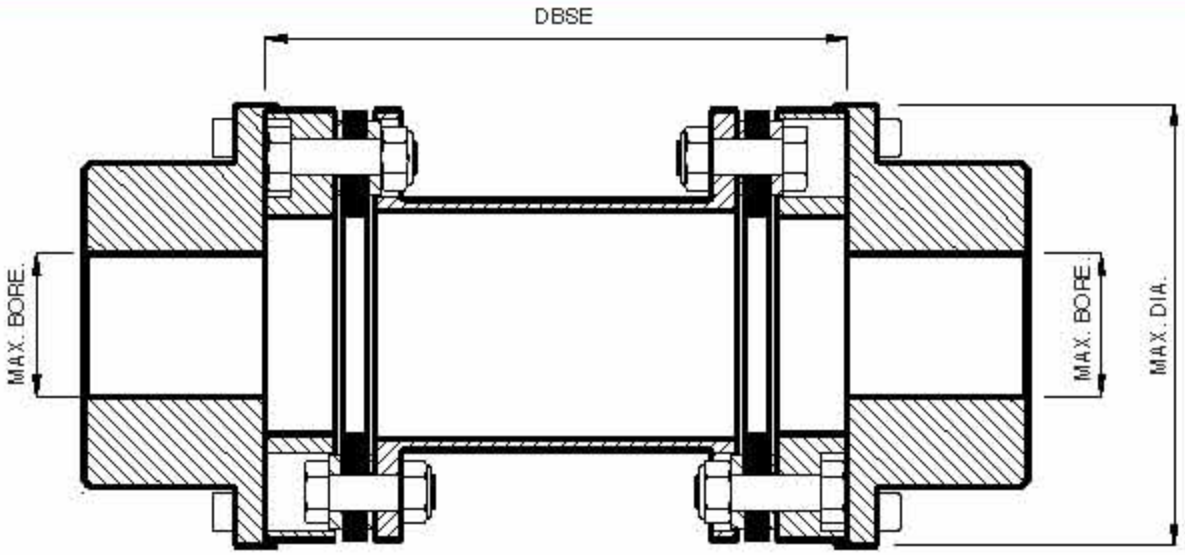


1. Couplings can be selected using a service factor of 1.0 , for applications involving no variations in torque transmission. Consider a higher service factor for applications involving reversal or variation in torque.
2. Peak torque ratings or Momentary Overloads to be considered at 2.0 X continuous rating.
3. A 50 milli second transient torque rating for the coupling is 3.4 X continuous rating.
4. Weight, Moment of Inertia and Torsional stiffness data indicated for the coupling assembly are for a spacer length applicable at the "Minimum DBSE" of respective models.

Contact **Euroflex** for special adaptations / optimized design for a given application

	Torque								Weight (Kgs)		Moment of Inertia (Kgm^2)		Torsional Stiffness $x10^6$ Kgm/Rad		Misalignment Capacity			
MODEL	KW 1000 RPM	CONT. (KNM)	PEAK (KNM)	SCT (KNM)	MAX SPEED RPM	MIN DBSE mm	MAX BORE mm	MAX DIA mm	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	COUPLING ASSEMBLY	EXTRA PER 10mm SPACER	COUPLING ASSEMBLY	EXTRA PER 10mm SPACER	AXIAL (mm)	ANGULAR (Degree)	RADIAL (mm)	AXIAL THRUST (N)
80	101	0.96	1.92	3.37	31500	125	57	107	6.6	0.09	0.01	5.3E-05	0.03	0.54	1.3	0.5	0.78	600
100	208	1.99	3.98	6.96	24300	131	70	132	12.1	0.15	0.03	1.4E-04	0.07	1.42	2.0	0.5	0.77	620
120	366	3.40	6.81	11.91	20000	146	86	155	20.2	0.20	0.06	3.0E-04	0.14	3.02	2.5	0.5	0.84	695
140	562	5.37	10.74	18.79	16500	162	98	179	30.8	0.26	0.13	5.5E-04	0.22	5.64	2.9	0.5	0.92	810
160	865	8.26	16.51	28.90	15000	177	111	204	44.6	0.35	0.24	9.8E-04	0.34	9.94	3.4	0.5	0.98	960
180	1259	12.03	24.05	42.10	13500	204	128	229	67.1	0.48	0.46	1.6E-03	0.49	15.95	4.0	0.5	1.14	1080
200	1759	16.80	33.60	58.80	12000	219	136	254	86.5	0.61	0.71	2.4E-03	0.66	24.85	4.5	0.5	1.21	1305
220	2376	22.69	45.38	79.42	11000	234	151	276	113.6	0.72	1.13	3.7E-03	0.92	37.49	5.0	0.5	1.27	1400
240	3122	29.82	59.64	104.37	10000	259	169	302	153.4	0.88	1.84	5.3E-03	1.23	53.53	5.6	0.5	1.43	1560
270	4512	43.09	86.18	150.81	9000	277	190	344	224.7	1.27	3.38	8.2E-03	1.78	83.51	6.5	0.5	1.50	1695
300	6044	57.72	115.45	202.04	8000	306	207	382	299.4	1.53	5.51	1.2E-02	2.38	123.65	7.1	0.5	1.63	1880
315	7780	74.29	148.59	260.03	8000	324	220	400	349.8	1.42	7.26	1.3E-02	2.80	133.37	7.4	0.5	1.69	2170
330	10094	96.40	192.80	337.40	7500	353	240	429	470.5	2.26	10.83	1.7E-02	3.53	173.06	7.7	0.5	1.85	2440
360	12666	120.96	241.91	423.35	7000	381	251	466	559.4	2.29	15.11	2.4E-02	4.35	241.82	8.2	0.5	1.98	2680
390	16848	160.90	321.80	563.15	6500	408	271	504	715.8	2.95	22.49	3.4E-02	5.74	347.93	9.0	0.5	2.09	2800
420	19958	190.59	381.19	667.08	6000	426	295	538	876.4	3.10	32.20	4.3E-02	7.14	443.25	9.6	0.5	2.16	3080
450	23418	223.65	447.29	782.76	5500	455	311	572	1032.7	3.15	43.44	5.6E-02	8.45	585.74	10.3	0.5	2.30	3360
490	30235	288.74	577.49	1010.6	5000	461	343	618	1287.3	3.66	64.10	7.9E-02	11.10	801.09	11.4	0.5	2.39	3610

ADAPTOR SERIES TRANSMISSION UNIT — 10 GBH-MODEL

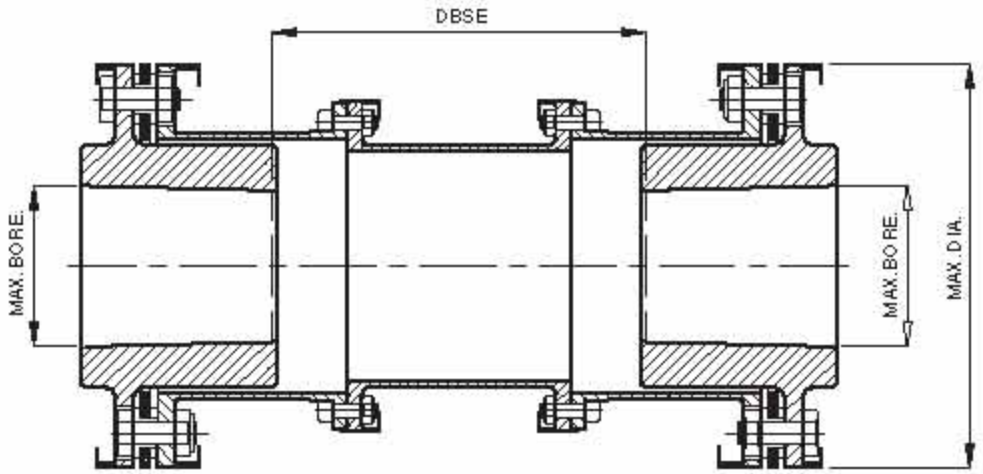


1. Couplings can be selected using a service factor of 1.0 , for applications involving no variations in torque transmission. Consider a higher service factor for applications involving reversal or variation in torque.
2. Peak torque ratings or Momentary Overloads to be considered at 2.0 X continuous rating.
3. A 50 milli second transient torque rating for the coupling is 3.4 X continuous rating.
4. Weight, Moment of Inertia and Torsional stiffness data indicated for the coupling assembly are for a spacer length applicable at the "Minimum DBSE" of respective models.

Contact **Euroflex** for special adaptations / optimized design for a given application

	Torque								Weight (Kgs)		Moment of Inertia (Kgm²)		Torsional Stiffness x10⁶ Kgm/Rad		Misalignment Capacity			
MODEL	KW/ 1000 RPM	CONT. (KNM)	PEAK (KNM)	SCT (KNM)	MAX SPEED RPM	MIN DBSE mm	MAX BORE mm	MAX DIA mm	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	AXIAL (mm)	ANGULAR (Degree)	RADIAL (mm)	AXIAL THRUST (N)
120	459	4.38	8.76	15.33	23000	157	86	155	20.3	0.21	0.06	3.1E-04	0.16	3.11	1.7	0.38	0.59	1280
140	723	6.91	13.82	24.18	18500	174	98	179	30.9	0.27	0.13	5.7E-04	0.25	5.81	2.0	0.38	0.65	1375
160	1112	10.62	21.25	37.18	17000	189	111	204	44.8	0.37	0.24	1.0E-03	0.38	10.23	2.3	0.38	0.69	1490
180	1621	15.48	30.95	54.17	15500	214	128	229	67.5	0.50	0.46	1.6E-03	0.56	16.42	2.7	0.38	0.80	1670
200	2264	21.62	43.23	75.66	14000	229	136	254	87.1	0.63	0.71	2.5E-03	0.75	25.58	3.1	0.38	0.86	1910
220	3057	29.20	58.40	102.19	13000	247	151	276	114.4	0.75	1.13	3.8E-03	1.04	38.60	3.5	0.38	0.90	2110
240	4018	38.37	76.74	134.30	12000	276	169	302	154.3	0.92	1.85	5.4E-03	1.39	55.11	4.0	0.38	1.01	2205
270	5806	55.45	110.89	194.06	11000	303	190	344	226.2	1.34	3.39	8.4E-03	2.02	85.96	4.5	0.38	1.06	2640
300	7778	74.28	148.56	259.97	10000	331	207	382	302.1	1.61	5.54	1.2E-02	2.70	127.28	5.0	0.38	1.15	2830
315	10010	95.60	191.20	334.60	10000	341	220	400	371.2	2.21	7.39	1.7E-02	3.37	171.62	5.1	0.38	1.20	3440
330	12989	124.04	248.09	434.16	9500	368	240	429	469.5	2.20	10.86	1.7E-02	3.89	171.30	5.3	0.38	1.31	3690
360	16298	155.64	311.29	544.75	8000	405	251	466	558.7	2.25	15.15	2.3E-02	4.79	239.36	5.8	0.38	1.40	4030
390	21680	207.04	414.08	724.65	7500	290	271	504	711.5	2.89	22.36	3.4E-02	6.19	344.39	6.3	0.38	1.51	4240
420	25681	245.25	490.50	858.38	7000	300	295	538	872.6	3.05	32.15	4.3E-02	7.85	438.74	6.8	0.38	1.54	4780
450	30134	287.78	575.56	1007.23	6000	320	311	572	1027.3	3.10	43.24	5.5E-02	9.26	559.98	7.3	0.38	1.65	5150
490	37334	356.54	713.07	1247.88	5500	320	343	618	1299.7	3.39	66.63	7.5E-02	12.46	760.90	8.0	0.38	1.62	5500

GH SERIES — REDUCED END MOMENT DESIGN

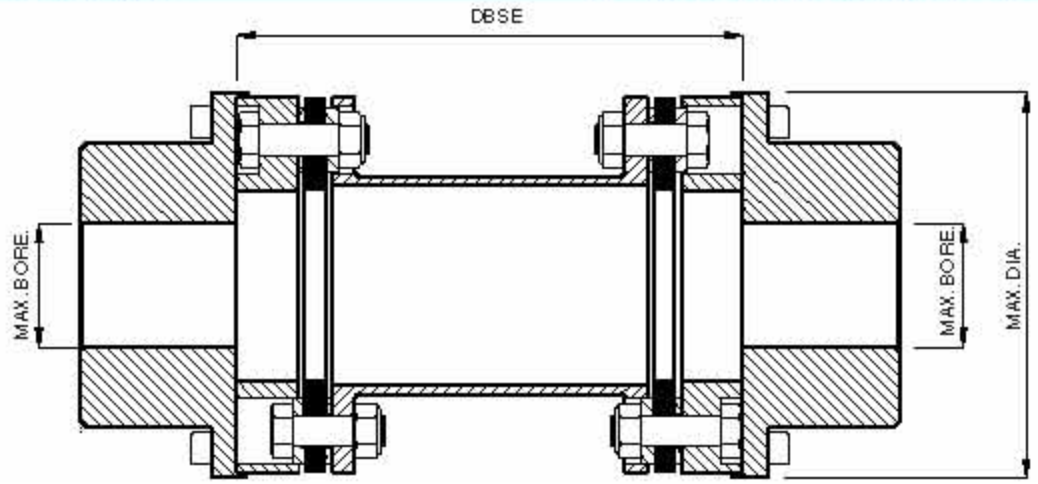


1. Coupling ratings as per the definitions of API 671 - 3rd. ed.
2. A minimum Service factor of 1.5 to be considered while selecting the couplings of GH series.
3. Peak torque rating of the couplings is 1.35 X continuous rating.
4. Transient torque rating (50 milliseconds) for the coupling is 1.9 X continuous rating.
5. Weight, Moment of Inertia and Torsional stiffness data indicated for the coupling assembly are for a spacer length applicable at the "Minimum DBSE" of respective models.

Contact **Euroflex** for special adaptations / optimized design for a given application.

	Torque								Weight (Kgs)		Moment of Inertia (Kgm²)		Torsional Stiffness x10⁶ Kgm/Rad		Misalignment Capacity			
MODEL	KW 1000 RPM	CONT. (KNM)	PEAK (KNM)	SCT (KNM)	MAX SPEED RPM	MIN DBSE mm	MAX BORE mm	MAX DIA mm	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	AXIAL (mm)	ANGULAR (Degree)	RADIAL (mm)	AXIAL THRUST (N)
6 GH SERIES																		
80	145	1.38	1.9	2.6	25000	100	31	103	3.3	0.05	0.004	3.2 E-05	0.02	0.32	1.9	0.5	1.2	340
100	314	3.00	4.1	5.7	19000	100	40	128	6.4	0.08	0.012	8.3 E-05	0.04	0.85	2.9	0.5	1.3	440
120	568	5.42	7.3	10.3	16000	110	49	151	10.6	0.11	0.03	1.8 E-04	0.07	1.81	3.5	0.5	1.5	575
140	898	8.58	11.6	16.3	13000	120	57	175	16.8	0.14	0.06	3.3 E-04	0.12	3.37	4.1	0.5	1.6	670
160	1373	13.11	17.7	24.9	12000	130	66	200	25.2	0.19	0.12	5.8 E-04	0.19	5.94	4.6	0.5	1.8	805
180	1956	19.06	25.7	36.2	10500	150	75	225	36.4	0.25	0.22	9.4 E-04	0.27	9.54	5.2	0.5	2.1	925
200	2793	26.67	36.0	50.7	10000	160	84	250	49.9	0.32	0.37	1.5 E-03	0.39	14.86	5.8	0.5	2.3	975
220	3761	35.92	48.5	68.2	9000	170	93	272	65.2	0.38	0.58	2.2 E-03	0.54	22.42	6.4	0.5	2.4	1210
240	4731	45.18	61.0	85.8	8000	190	102	298	85.4	0.46	0.91	3.1 E-03	0.69	32.01	7.0	0.5	2.7	1250
270	6875	65.66	88.6	124.8	7500	200	115	340	125.0	0.63	1.71	4.9 E-03	0.99	49.93	7.9	0.5	3.0	1330
300	9663	91.33	123.3	173.5	6500	220	128	378	173.3	0.77	2.91	7.3 E-03	1.35	73.93	8.8	0.5	3.2	1485
315	10042	95.90	129.5	182.2	6300	230	137	396	212.4	0.96	3.90	9.8 E-03	1.72	99.68	9.2	0.5	3.4	1865
330	12892	123.12	166.2	233.9	6200	250	138	425	267.6	1.18	5.47	1.1 E-02	1.93	116.40	9.5	0.5	3.5	1955
360	15586	152.67	206.1	290.1	5800	270	151	461	335.3	1.35	8.18	1.7 E-02	2.56	168.68	10.2	0.5	3.8	2050
8 GH SERIES																		
80	206	1.97	2.66	3.74	25000	100	32	103	3.3	0.07	0.003	4.3 E-05	0.02	0.44	1.4	0.375	0.8	650
100	424	4.05	5.47	7.70	19000	100	43	128	6.4	0.11	0.01	1.1 E-04	0.05	1.15	1.9	0.375	0.9	720
120	807	7.71	10.41	14.65	16000	110	53	151	10.7	0.15	0.02	2.4 E-04	0.10	2.45	2.3	0.375	1.1	940
140	1277	12.20	16.47	23.18	13000	120	62	175	16.7	0.20	0.05	4.5 E-04	0.16	4.55	2.7	0.375	1.2	1160
160	1951	18.63	25.15	35.40	12000	130	73	200	24.9	0.26	0.11	8.0 E-04	0.25	8.19	3.1	0.375	1.4	1380
180	2839	27.11	36.60	51.51	10500	150	82	225	36.2	0.34	0.19	1.3 E-03	0.36	13.27	3.5	0.375	1.6	1500
200	3973	37.94	51.22	72.09	10000	160	93	250	50.0	0.43	0.33	2.0 E-03	0.51	20.82	3.9	0.375	1.7	1610
220	5350	51.09	68.97	97.07	9000	170	102	272	65.4	0.51	0.52	3.1 E-03	0.71	31.39	4.2	0.375	1.9	1890
240	6730	64.27	86.76	122.11	8000	190	113	298	85.9	0.60	0.81	4.3 E-03	0.90	43.97	4.6	0.375	2.1	2020
270	9779	93.39	126.08	177.44	7500	200	127	340	124.2	0.76	1.49	6.5 E-03	1.25	66.06	5.1	0.375	2.3	2500
300	13604	129.92	175.39	246.85	6500	220	146	378	176.2	0.96	2.60	1.0 E-02	1.74	101.75	5.8	0.375	2.6	2570
315	14283	136.40	184.14	259.16	6300	230	151	396	212.9	1.20	3.45	1.4 E-02	2.23	138.04	6.1	0.375	2.6	3000
330	18337	175.12	236.41	332.73	6200	250	156	425	270.3	1.67	4.79	1.8 E-02	2.74	181.41	6.2	0.375	2.7	3530
360	22738	217.15	293.15	412.59	5800	270	170	461	338.7	1.85	7.17	2.5 E-02	3.49	250.68	6.9	0.375	3.0	3620
10 GH SERIES																		
120	1039	9.92	13.39	18.85	16000	110	52	151	10.9	0.18	0.03	2.8 E-04	0.117	2.85	1.5	0.25	0.7	1450
140	1644	15.70	21.20	29.83	13000	120	64	175	17.3	0.24	0.06	5.2 E-04	0.186	5.33	1.8	0.25	0.8	1710
160	2511	23.98	32.37	45.56	12000	130	74	200	26.1	0.33	0.11	9.2 E-04	0.293	9.39	2.1	0.25	0.9	2000
180	3653	34.89	47.10	66.29	10500	150	84	225	38.7	0.44	0.20	1.5 E-03	0.415	15.07	2.3	0.25	1.1	2300
200	5111	48.81	65.89	92.74	10000	160	96	250	53.7	0.56	0.35	2.3 E-03	0.581	23.48	2.6	0.25	1.2	2610
220	6884	65.74	88.75	124.91	9000	170	105	272	70.3	0.67	0.55	3.5 E-03	0.808	36.43	2.9	0.25	1.3	2960
240	8660	82.70	111.65	157.13	8000	190	115	298	93.0	0.81	0.86	5.0 E-03	1.045	50.58	3.1	0.25	1.4	3100
270	12583	120.17	162.23	228.32	7500	200	131	340	139.1	1.16	1.59	7.7 E-03	1.488	78.50	3.5	0.25	1.5	3610
300	17505	167.17	225.68	317.62	6500	220	146	378	190.8	1.40	2.72	1.1 E-02	2.033	116.83	3.9	0.25	1.7	3960
315	18380	175.53	236.97	333.51	6300	230	152	396	220.3	1.51	3.52	1.4 E-02	2.373	138.59	4.3	0.25	1.7	4780
330	23596	225.34	304.21	428.15	6200	250	157	425	307.6	2.56	4.50	1.8 E-02	2.906	180.35	4.3	0.25	1.8	5000
360	29260	279.43	377.23	530.92	5800	270	173	461	365.4	2.48	7.37	2.5 E-02	3.739	252.01	4.7	0.25	2.0	5410

GH SERIES — TRANSMISION UNIT DESIGN



1. Coupling ratings as per the definitions of API 671 - 3rd. ed.
2. A minimum Service factor of 1.5 to be considered while selecting the couplings of GH series.
3. Peak torque rating of the couplings is 1.35 X continuous rating.
4. Transient torque rating (50 milliseconds) for the coupling is 1.9 X continuous rating.
5. Weight, Moment of Inertia and Torsional stiffness data indicated for the coupling assembly are for a spacer length applicable at the "Minimum DBSE" of respective models.

Contact **Euroflex** for special adaptations / optimized design for a given application.

	Torque								Weight (Kgs)		Moment of Inertia (Kgm^2)		Torsional Stiffness $x10^6$ Kgm/Rad		Misalignment Capacity			
MODEL	KW 1000 RPM	CONT. (KNM)	PEAK (KNM)	SCT (KNM)	MAX SPEED RPM	MIN DBSE mm	MAX BORE mm	MAX DIA mm	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	COUPLING ASSEMBLY	EXTRA PER 10 mm SPACER	AXIAL (mm)	ANGULAR (Degree)	RADIAL (mm)	AXIAL THRUST (N)
6 GH - SERIES																		
80	145	1.38	1.86	2.62	25000	125	55	130	6.0	0.04	0.01	2.7E-05	0.02	0.28	1.9	0.5	0.78	340
100	314	3.00	4.05	5.70	19000	130	70	155	11.2	0.07	0.03	7.2E-05	0.05	0.74	2.9	0.5	0.76	440
120	568	5.42	7.32	10.30	16000	145	85	180	19.0	0.09	0.06	1.5E-04	0.10	1.57	3.5	0.5	0.83	575
140	886	8.58	11.58	16.30	13000	160	100	210	29.0	0.12	0.13	2.9E-04	0.16	2.92	4.1	0.5	0.91	670
160	1373	13.11	17.70	24.91	12000	180	110	235	42.1	0.16	0.24	5.1E-04	0.25	5.15	4.6	0.5	0.97	805
180	1996	19.06	25.73	36.21	10500	200	130	265	63.0	0.21	0.46	8.1E-04	0.36	8.26	5.2	0.5	1.13	925
200	2793	26.67	36.00	50.67	10000	220	135	300	81.1	0.27	0.70	1.3E-03	0.49	12.87	5.8	0.5	1.20	975
220	3761	35.92	48.49	68.25	9000	235	150	320	106.8	0.32	1.12	1.9E-03	0.69	19.43	6.4	0.5	1.25	1210
240	4731	45.18	60.99	85.84	8000	250	170	350	144.1	0.39	1.83	2.7E-03	0.90	27.74	7.0	0.5	1.41	1250
270	6875	65.66	88.64	124.75	7500	280	190	400	209.6	0.53	3.37	4.2E-03	1.32	43.27	7.9	0.5	1.48	1300
300	9663	91.33	123.30	173.53	6500	310	210	440	280.3	0.65	5.50	6.3E-03	1.78	64.07	8.8	0.5	1.61	1485
315	10042	95.90	129.47	182.21	6300	330	220	460	336.5	0.81	7.32	8.5E-03	2.26	86.39	9.2	0.5	1.67	1865
330	12892	123.12	166.21	233.93	6200	360	240	500	441.6	1.12	10.92	1.1E-02	2.82	112.08	9.5	0.5	1.82	1965
360	15698	152.67	206.10	290.07	5800	380	250	530	530.9	1.23	15.20	1.5E-02	3.50	156.63	10.2	0.5	1.96	2050
8 GH - SERIES																		
80	206	1.97	2.66	3.74	25000	125	55	130	6.3	0.07	0.01	4.1E-05	0.03	0.42	1.4	0.375	0.55	650
100	424	4.05	5.47	7.70	19000	130	70	155	11.6	0.11	0.03	1.1E-04	0.07	1.10	1.9	0.375	0.54	720
120	807	7.71	10.41	14.65	16000	145	85	180	19.6	0.14	0.06	2.3E-04	0.14	2.36	2.3	0.375	0.59	940
140	1277	12.20	16.47	23.18	13000	160	100	210	30.0	0.19	0.13	4.3E-04	0.22	4.39	2.7	0.375	0.64	1160
160	1951	18.63	25.15	35.40	12000	180	110	235	43.1	0.25	0.24	7.8E-04	0.34	7.90	3.1	0.375	0.68	1380
180	2839	27.11	36.60	51.51	10500	200	130	265	64.4	0.33	0.45	1.3E-03	0.50	12.80	3.5	0.375	0.80	1500
200	3973	37.94	51.22	72.09	10000	220	135	300	82.7	0.41	0.70	2.0E-03	0.68	20.08	3.9	0.375	0.84	1610
220	5350	51.09	68.97	97.07	9000	235	150	320	108.8	0.49	1.11	3.0E-03	0.95	30.27	4.2	0.375	0.89	1850
240	6730	64.27	86.76	122.11	8000	250	170	350	146.7	0.59	1.82	4.3E-03	1.26	43.33	4.6	0.375	1.00	2020
270	9779	93.39	126.08	177.44	7500	280	190	400	212.6	0.80	3.35	6.7E-03	1.84	68.60	5.1	0.375	1.04	2500
300	13604	129.92	175.39	246.85	6500	310	210	440	283.1	0.96	5.45	1.0E-02	2.47	101.75	5.8	0.375	1.13	2570
315	14283	136.40	184.14	259.16	6300	330	220	460	341.2	1.20	7.28	1.4E-02	3.11	138.04	6.1	0.375	1.18	3000
330	18337	175.12	236.41	332.73	6200	360	240	500	449.2	1.67	10.85	1.8E-02	3.92	181.41	6.2	0.375	1.29	3530
360	22738	217.15	293.15	412.59	5800	380	250	530	540.9	1.85	15.12	2.5E-02	4.79	250.68	6.9	0.375	1.38	3620
10 GH - SERIES																		
120	1039	9.9	13.4	18.8	16000	145	85	180	20.2	0.18	0.06	2.8E-04	0.16	2.9	1.5	0.25	0.39	1450
140	1644	15.7	21.2	29.8	13000	160	100	210	30.8	0.24	0.13	5.2E-04	0.26	5.3	1.8	0.25	0.43	1710
160	2511	24.0	32.4	45.6	12000	180	110	235	44.5	0.33	0.24	9.2E-04	0.40	9.4	2.1	0.25	0.46	2000
180	3653	34.9	47.1	66.3	10500	200	130	265	67.0	0.44	0.46	1.5E-03	0.58	15.1	2.3	0.25	0.53	2300
200	5111	48.8	65.9	92.7	10000	220	135	300	86.4	0.56	0.71	2.3E-03	0.78	23.5	2.6	0.25	0.56	2610
220	6884	65.7	88.7	124.9	9000	235	150	320	113.6	0.67	1.14	3.5E-03	1.09	35.4	2.9	0.25	0.59	2960
240	8660	82.7	111.6	157.1	8000	250	170	350	153.1	0.81	1.86	5.0E-03	1.45	50.6	3.1	0.25	0.67	3100
270	12583	120.2	162.2	228.3	7500	280	190	400	223.7	1.16	3.41	7.7E-03	2.12	78.9	3.5	0.25	0.69	3610
300	17505	167.2	225.7	317.6	6500	310	210	440	298.9	1.40	5.57	1.1E-02	2.83	116.8	3.9	0.25	0.76	3960
315	18380	175.5	237.0	333.5	6300	330	220	460	366.3	1.51	7.38	1.4E-02	3.40	139.0	4.3	0.25	0.78	4780
330	23696	226.3	304.2	428.1	6200	360	240	500	482.8	2.56	10.99	1.8E-02	4.26	180.3	4.3	0.25	0.86	5000
360	29260	279.4	377.2	530.9	5800	380	250	530	568.8	2.48	15.32	2.5E-02	5.21	252.0	4.7	0.25	0.92	5410

Installation and Allignment Instructions

Initial Assembly and Centering:

It is very important that couplings are correctly installed and aligned accurately within practical limits, so that maximum performance and an extended service life is achieved.

With all **Euroflex** couplings, the installation and alignment procedures for the specific coupling are given. However the general principles of alignment are discussed below:

1. Mount the respective coupling hubs on the drive and driven machinery shafts, such that the hub face is flush with the shaft ends.

2. Maintain the distance between the two shaft ends as indicated in the coupling assembly drawing. Unless otherwise stated in the specific coupling installation instruction, the following limits should be used when measuring the distance between flange faces.

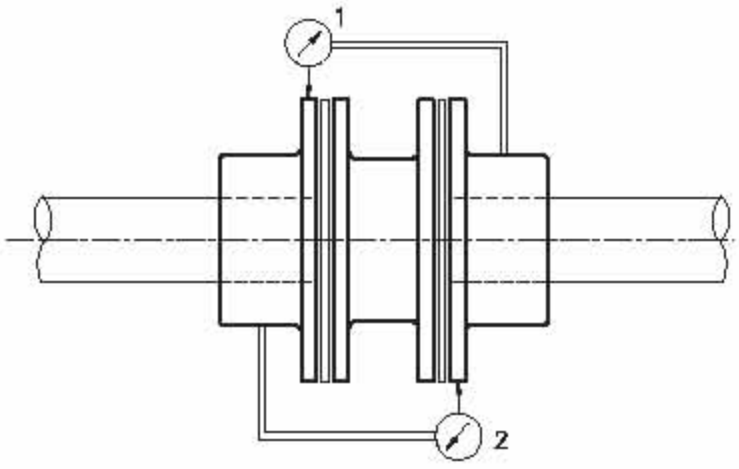
4 bolt couplings-	±0.50 mm
6 bolt couplings-	±0.40 mm
8 bolt couplings and over	± 0.25 mm

Where no specific limits on allowable misalignment are indicated for initial installation, the following can be applied as a guideline.

a. Axial misalignment: 10% of coupling maximum limit.
b. Radial misalignment: 20% of coupling maximum limit.

3. An initial and rough radial alignment should be made by laying a straight edge across the flanges of the two hubs.

4. For final alignment, attach two dial gauges as shown in Fig. Align the equipment within the max. TIR of 0.05 mm.



5. Tighten all fasteners to required torque limits.

6. Final check is to be done with several rotations to ensure that the TIR is within 0.05 mm .

Other products

Special Fasteners for High Temperature
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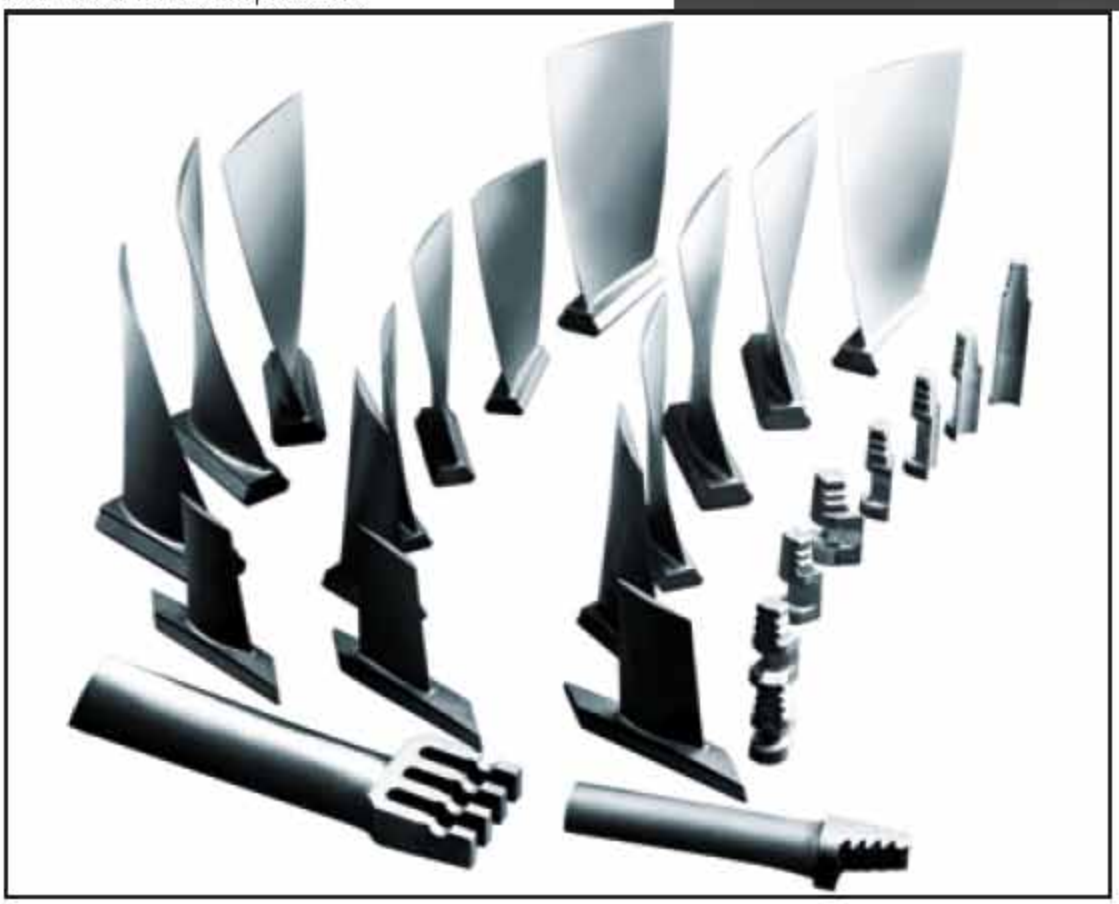

Euroflex

Flexible Couplings

Euroflex Transmissions (India) Pvt. Limited