SYSTEM CERTIFICATION
ISO 9001
SGS
Certificated since 1999

ATEX

Total Quality

ECOLOGICAL TECHNOLOGY

GUMMI

Flexible Coupling

for High Torque Applications and Transmissions

Type BR

Flexible Couplings for High Torque Transmissions

Using only the best raw materials, Gummi has developed a flexible coupling for High Torque Applications and Transmissions. The type BR Flexible Couplings are more compact in design and efficiency, yet have similar dimensions of the rigid and semi-rigid couplings. They can transmit a torque value between 4.000 Nm and 150.000 Nm, while keeping their capacity to absorb the shaft misalignments, vibrations, and torque fluctuations. The coupling protects and increases the working lift of the rest of the working components within the applications as well. The type BR coupling do not require lubrication, minimizing the corrective and preventative maintenance to the coupling. Coupling inspection can also be performed without any tyoe of disassembly as well. All Gummi products are backed by our standard warranty, and are manufactured unter the ISO 9001 Quality Management System.

The Flexible Couplings Gummi may be requested with ATEX certification under European Directive 94/9/CE (ATEX 95) Ex II 2GD c 120°C(T4)X

Engine drive service factor :

In case that engine has four or more cylinders, must be added 1,0 to the Service Factor selected in table II. For engines with more than 6 cylinders add 0,5 to the Service Factor selected in table II. For engines with less than 4 cylinders contact Gummi.

GENERAL INDUSTRY

Table I

AGITATORS	
Vertical and Horizontal Screw Propeller, Paddle	1.00
GARGE HAUL PULLER	2.00
BLOWERS	
Centrifugal	1.00
Lobe or Vane	1.25
CAR DUMPERS	2.50
CAR PULLERS	1.50
CLARIFIER OR CLASSIFIER	1.00
COMPRESSORS	
Centrifugal	1.00
Rotary, Lobe or Vane	2.00
Rotary, Screw	1.75
Reciprocating	
Direct Connected	Refer to factory
Without Flywhees	Refer to factory
* With Flyweel and Gear between Compressor and Prime Mover	
1 cylinder, single acting	4.00
1 cylinder, double acting	3.50
2 cylinders, single acting	3.50
2 cylinders, double acting	3.00
3 cylinder, single acting	3.00
3 cylinder, double acting	2.00
4 cylinders, single acting	1.75
4 cylinders, double acting	1.75
CONVERYORS	
Apron, Assembly, Belt, Chain	
Flight, Screw	1.00
Bucket	1.25
Live Roll, Shaker and Reciprocating	3.00
CRANES AND HOIST	
Main Hoist	2.00
Skip Hoist	1.75
Slope	1.50
Bridge, Travel or Trolley	1.75
DYNAMOMETER ELEVATORS	
Bucket, Centrifugal Discharge	2.00
Freight	▲
Gravity Discharge	1.25
Passenger	▲
ESCALATORS	1.00
EXCITER, GENERATOR	1.00
EXTRUDER, PLASTIC	1.50
FANS	
Centrifugal	1.00
Cooling Tower	2.00
Forced Draft - Across the Line start	1.50
Forced Draft Motor Driven thru fluid or electric slip clutch	1.00
Gas Recirculating	1.50
Induced Draft with damper control or blade cleaner	1.25
Indiced Draft without controls	2.00
FEEDERS	
Apron, Belt, Disc, Screw	1.00
Reprocating	2.50
GENERATORS	
Even Load	1.00
Hoist or Railway Service	1.50
Welder Load	2.00
HAMMERMILL	1.75
LAUNDRY WASHER OR TUMBLER	2.00
LINE SHAFTS	
Any Processing Machinery	1.50
MACHINE TOOLS	
Auxiliary Drive	1.00
Bending Roll, Notching Press, Punch Press, Planer, Plate Reversing	1.75
Main Drive	1.50
Traverse Drive	1.00
MAN LIFTS	▲
METAL FORMING MACHINES	
Draw Brench Carriage andMain Drive	2.00
Extruder	2.00
Forming Machine and Forming Mills	2.00
Slitters	1.00
Wire Drawing or Flattening	2.00
Wire Winder	1.50
Corlers and Uncorlers	1.50
MIXERS (see Agitators)	
Concrete	1.75
Muller	1.50
PRESS, PRINTIN	1.50
PUG MILL	1.75
PULVERIZERS	
Hammermill	1.75
Hog	2.00
Roller	1.50
PUMPS	
Centrifugal	
Constant speed	1.00
Frequent speed changers under load	1.25
Descaling, with accumulators	1.50
Gear, Rotary, or Vane	1.50
Reciprocating	
1 cylinder, single acting	2.50
1 cylinder, double acting	2.00
2 cylinders, single acting	2.00
2 cylinders, double acting	1.75
3 or more cylinders	1.50
SCRENS	
Air Washing	1.00
Grizzly	2.00
Rotary Coal or Sand	1.50
Vibrating	2.50
Water	1.00
STEERING GEAR	1.00
STOKER	1.00
TUMBLING BARREL	1.75
WINCH, MANEUVERING	
Dredge, Marine	1.50
WINDLASS	1.50
WOODWORKING MACHINERY	1.00

APPLICATION BY INDUSTRY

AGGREGATE PROCESSING, CEMENT, MINING KILNS, TUBE, ROD AND BALL MILLS	
Director or on L.S. schaft of Reducer, with final drive:	
Machined Spur Gears	2.50
Single Helical or Herringbone Gears	2.00
Conveyors, Feeders, Screens,	1.00
Elevators	See General Listing
Crushers, Ore or Stone	2.50
Dryer, Rotary	1.75
Grizzly	2.00
Hammermill or Hog	1.75
Tumbling Mill or Barrel	1.75
BREWING AND DISTILLING	
Bottle and Can Filling Machines	1.00
Brew Kettle	1.00
Cookers, Continuous Duty	1.25
Lauter Tub	1.50
Mash Tub	1.25
Scale Hopper, Frequent Peaks	1.75
CLAY WORKING INDUSTRY	
Brick Press, Briquette Machine, Clay Working Machine, Pug Mill	1.75
DREGES	
Cable Reel	1.75
Conveyors	1.50
Cutter Head, Jig Drive	2.00
Maneuvering Winch	1.50
Pumps (uniform load)	1.50
Screen Drive, Stacker	1.75
Utility Winch	1.50
FOOD INDUSTRY	
Beet Slicer	1.75
Bottling, Can Filling Machine	1.00
Cereal Cooker	1.25
Dough Mixer, Meat Grinder	1.75
LUMBER	
Band Resaw	1.50
Circular Resaw, Cut off	1.75
Edger, Head Rig, Hog	2.00
Grang Saw (Reciproacting)	Refer to Factory
Log Haul	2.00
Planer	1.75
Rolls, Non-Reversing	1.50
Rolls, Reversing	2.00
Sawdust Conveyor	1.25
Slab Conveyor	1.75
Sorting Table	1.50
Trimmer	1.75
METAL ROLLING MILL AUXILIARIES	
Coilers (up or down) Cold Mills only	1.50
Coilers (up or down) Hot Mills only	2.00
Coke Plants	
Door Opener	2.00
Pusher or Larry Car Traction Drive	3.50
Pusher Ram Drive	2.50
Cold Mills	
Strip Mills	Refer to factory
Temper	Refer to factory
Cooling Beds	1.50
Drawbench	2.00
Feed Rolls - Blooming Mill	3.50
Furnace Pushers	2.00
Hot and Cold Saws	2.00
Hot Mills	
Edger Drivers	Refer to factory
Reversing Blooming or Slabbing Mills	Refer to factory
Strip or Sheet Mills	Refer to factory
Ingot Cars	2.50
Manipulators	3.50
Merchant Mills	Refer to factory
Mill Tables	
Hot Bed or Transfer non-reversing	2.00
Roughing Breakdown Mills	4.00
Runout, non-reversing, non-plugging	2.50
Runuot, reversing	4.00
Reel Drives	1.75
Rod Mills	Refer to factory
Screwdown	1.50
Seamless Tube Mills	
Kickout	2.00
Piercer	3.00
Reeler	2.50
Thrust Black	2.50
Tube Conveyor Rolls	2.00
Sideguards	2.00
Skelp Mills	Refer to factory
Slitters, Steel Mill only	1.75
Soaking Pit Cover Drives	
Lift	1.50
Travel	2.50
Straighteners	2.00
Unscrammblers (Billet Bundle Busters)	2.00
Wire Drawing Machinery	2.00
OIL INDUSTRY	
Chiller	1.25
Oilwell Pumping (not over 150% peak torque)	2.00
Paraffin Filter Press	1.50
Rotary Kiln	2.00
PAPAR MILLS	
Barker Auxiliary, Hydraulic	2.25
Barker, Mechanical	2.25
Barking Drum	
L.S. shaft of reducer with final drive - Helical or Herringbone Gear	2.00
Machined Spur Gear	2.50
Cast Tooth Spur Gear	3.00
Beater & Pilper	1.75
Bleachers, Coaters	1.00
Calender & Super Calender	2.00
Chipper	3.00
Converting Machine	1.50
Couch	1.75
Cutter, Felt Whipper	2.00
Cylinder, Dryer	1.75
Felt Strtcher	1.25
Fourdrinier	1.75
Jordan	2.00
Log Haul	2.00
Line Shaft	1.50
Press	2.00
Pulp Grinder	2.00
Reel, Rwinder, Winder	1.50
Stock Chest, Washer, Thickener	1.50
Suction Roll	1.75
RUBBER INDUSTRY	
Calender	2.00
Craker, Plasticator	2.50
Extruder	1.75
Intensive or Banbury Mixer	2.50
Mixing Mill, Refiner or Sheeter	
One or two in line	2.50
Three or four in line	2.00
Five or more in line	1.75
Tire Building Machine	2.50
Tire & Tube Press Opener (Peak Torque)	1.00
Tuber, Strainer, Pelletizer	1.75
Warming Mill	
Oner or two Mills in line	2.00
Three or more Mills in line	1.75
Washer	2.50
SEWAGE DISPOSAL EQUIPMENT	
Bar Screen, Chemical Feeders, Collectors, Dewatering Screen, Grit Collector	1.00
SUGAR INDUSTRY	
Cane Carrier & Leveler	1.75
Cane Knife & Crusher	2.00
Mill Stands, Turbine Driven with all helical or herringbone gears	1.50
Electric Drive or Steam Engine Drive with Helical Herringbone, or Spur Gears with any Prime Mover	1.75
TEXTILE INDUSTRY	
Batcher	1.25
Calender, Card Machine	1.50
Cloth Finishing Machine	1.50
Dry Can, Loom	1.50
Dyeing Machinery	1.25
Knitting Machine	Refer to factory
Mangle, Napper, Soaper	1.25
Spinner, Tenter Frame, Winder	1.50

● For motor driven reducers with resilient high speed and low speed shaft coupling, refer to Table II A. For motors with brakes, select the coupling based on the higher of the two torque ratings.
* For balanced opposed design, divide number of cylinders by two and use abova table for reciprocating compresors.

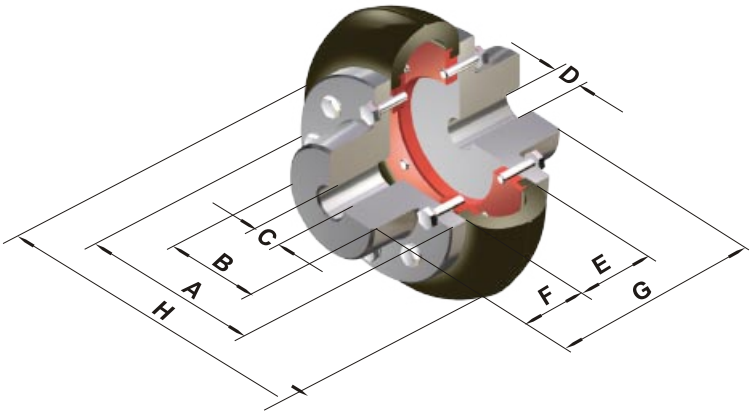
Selection of the coupling using the nominal torque (tn)

Use one of de the following formula in relation to the power unit" y poner las 3 formulas:

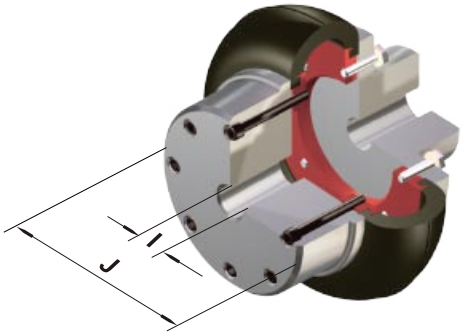
$$Tn: \frac{7062 \times HP \times FS}{RPM} \qquad Tn: \frac{7162 \times CV \times FS}{RPM} \qquad Tn: \frac{9550 \times KW \times FS}{RPM}$$

The following information is required to select the right flexible coupling Power motor KW, CV, o HP, speed RPM, shafts diameter , service factor according to table I.

With 2 normal hubs (drawing 1)



With 1 normal hub and 1 integral hub (drawing 2)



A Ø Flange of the Hub

B - Ø Body of the Hub

C - Ø max. bore

D - Ø min bore

E - Width of the Flexible Element

F - Length of the Hub

G - Length of the Flexible Element

H - Ø Flexible Element

I - Ø max. bore

J - Ø of the Hub

Tabla II

NORMAL HUB *drawing 1*												INTEGRAL *draw 2* HUB		SCREWS	
MODEL	Nominal Torque Nm	KW x 100 rpm	Weight (Kg.) (1)	A	B	C Max	D Min	E	F	G	H	I Máx	J	Nr	L- Cab. hex.
BR-100	4080	42,52	27.00	218	116	85	30	90	80	250	302	100	180	28	12 x 1,75 x 45
BR-110	8090	84,32	36.00	235	138	100	40	90	80	250	330	125	198	32	12 x 1,75 x 45
BR-150	15040	156,71	99.00	297	195	140	45	120	130	380	403	170	270	36	16 x 2 x 60
BR-160	20410	212,68	99.50	297	195	140	45	120	130	380	403	170	270	36	16 x 2 x 60
BR-180	29250	304,80	128.00	350	220	165	50	140	150	440	470	200	316	40	16 x 2 x 60
BR-220	35090	365,67	210.00	436	276	200	120	185	180	545	550	250	380	40	20 x 2,75 x 75
BR-230	80210	836,00	215.00	436	276	200	120	185	180	545	550	250	380	40	20 x 2,75 x 75
BR-320	150400	1567,16	520.00	535	390	300	100	236	275	786	740	300	475	64	20 x 2,75 x 75

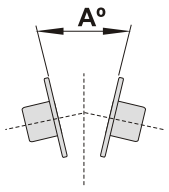
Assembly Instructions

In the initial assembly, the hubs must be aligned and left with a gap between both hubs equal to the distance “E” indicated on the table.

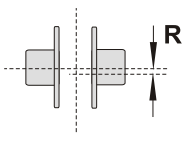
A and R are maximum tolerances.

MODELS	E (mm)	+ tol (mm)	ANGULAR (°)	RADIAL (mm)	TORQUE (Nm)	
					Cross	Circular
BR-100	90	1	1	1	35	45
BR-110	90	2	1	1	30	40
BR-150	120	2	1.5	1.5	35	40
BR-160	120	4	1.5	2	35	40
BR-180	140	4	2	2.5	60	60
BR-220	185	4	2	2.5	60	60
BR-230	185	5	3	2.5	60	60
BR-320	236	5	3	2.5	140	210

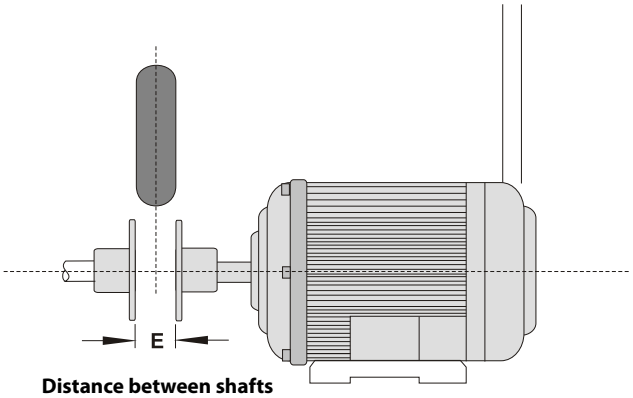
“For a precise adjustment, use a torque wrench and tighten according to the toque values shown in the table. For the adjustment and tightening of If the larger sized hubs, a torque wrench is required.”



Angular misalignment



Radial misalignment



Distance between shafts

The information displayed in this catalog is subject to modifications without warning.

Hazardous Environments (BE)

The elastomeric compound used within Gummi's rubber elements generally provides good resistance to chemical products and aggressive agents. In the cases where the coupling will be continuously operating Hazardous environments, the application of a special coating on to the rubber element is recommended.
When ordering, please indicate what agents and conditions will be encountered and on what frequency.

Steam	○○
Acid	○○
Oil	○
Ethanol Glycerin	○○○
Outdoors - extreme heat or cold	○○

○ Low ○○ Medium ○○○ High

In the last few years, Gummi has bacome a consultant to various companies that invest in preventative maintenance and technical development in order to optimize theis cost in high performance applications.

Due to the importance of these applications and faced with the challenge to satisfy the request of these customers, Gummi continues to develop new and exclusive technologies that apply to High Torque applications.

As a result, we have designed couplings with the following performance characteristics:

- High Capacity to transmit torque.
- Compact Designs*.
- Protection to increase working life of primary and secondary machine components and parts.

* In the same side of flexible coupling, we get until 5 times the nominal torque.

**As with our standard line of flexible couplings,
Gummi continues to develop our newest coupling models and
compounds that increase the ability to transmit power by 25%.**

Gummi, Total Quality.