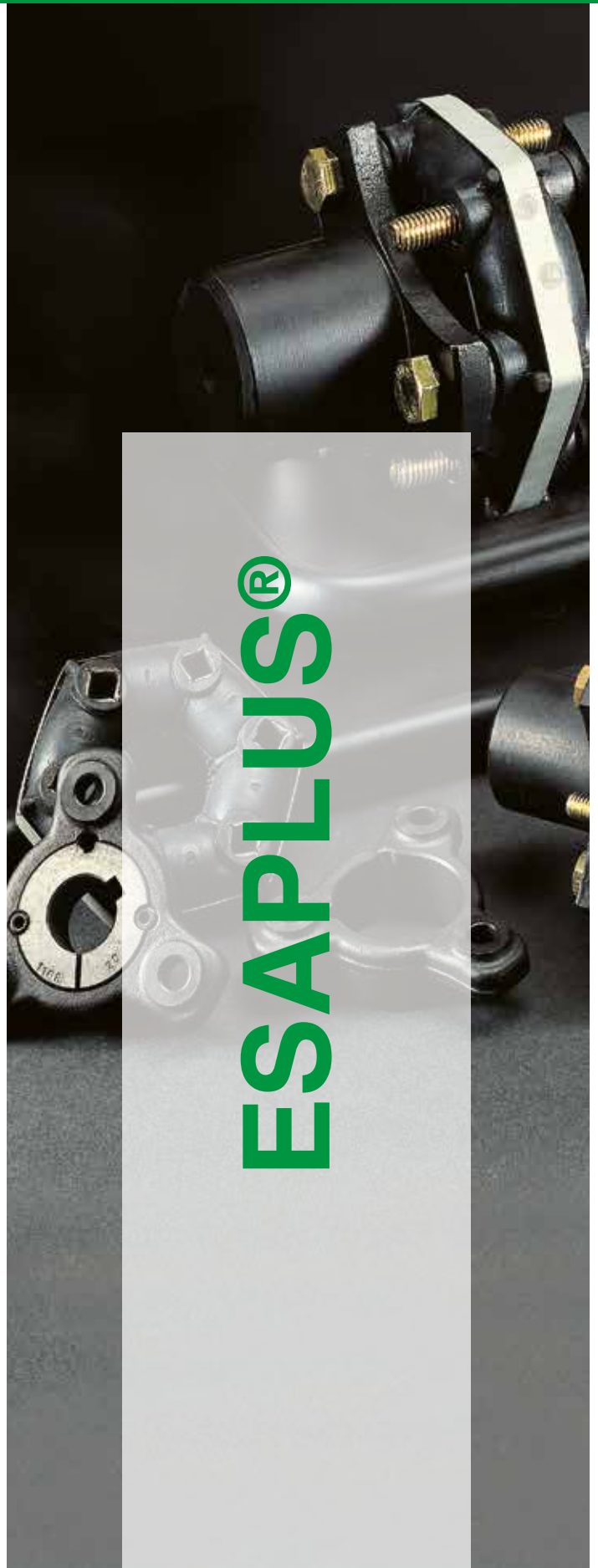


ESAPLUS® ELASTIC COUPLINGS



DRIVE
SOLUTIONS



ESAPLUS®

ESAPLUS® elastic couplings

Description

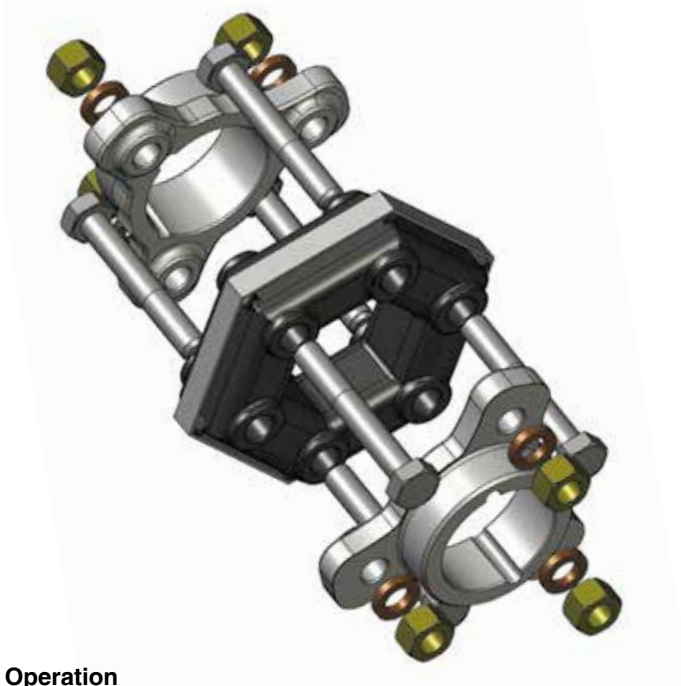
ESAPLUS® couplings are made of:

- one elastic element made of pre-compressed, natural rubber, reinforced with steel to be fitted with fixing screws and a metallic band (to be removed after mounting);
- two metallic hubs made of forged steel (size 120 produced in cast iron).

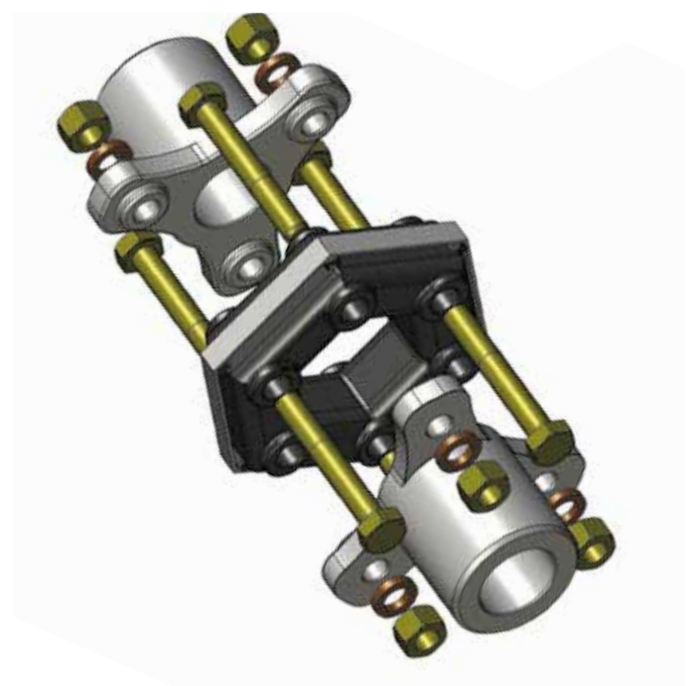
They are produced:

- for mounting with SER-SIT® taper bushing from size 4 to 25;
- solid hub from size 35 to 120.

GJB4 - GJB25



GJ4 - GJ120



Operation

The ESAPLUS® joint is a joint with exceptional elastic properties.

It allows in fact:

- a very effective attenuation of cyclic irregularities and torque peaks;
- a great safety of use and a very good resistance to alternating deformations, thanks to prestressing;
- possibility of accepting misalignment values that are difficult to find in other couplings. This avoids the need for the precise alignment of the machines to be coupled.

It is recommended that the metal band cerclage of the elastic element be removed after the application and tightening of the screws to the hubs.

Coding

Codification of the ESAPLUS® couplings is:

- GJ complete coupling solid hub
- GJM hub
- AJ elastic element
- GJMKIT mounting screws

The following number, expressed in daNm, identifies the nominal transmittable torque.

E.g.: GJ4 = complete joint (2 hubs + 1 elastic element) with nominal transmittable torque of 40 Nm.

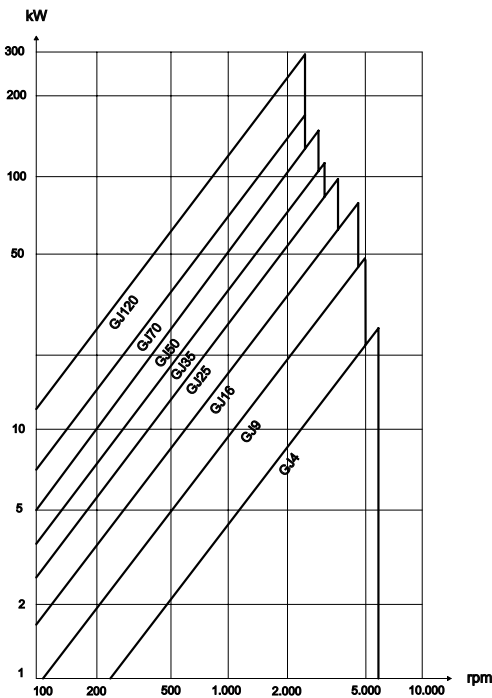
Hub	GJM 16	Elastic element	AJ 16	KIT	GJM16KIT
GJM: ESAPLUS® solid hub GJMB: ESAPLUS® for mounting SER-SIT® taper bushing		AJ: elastic element Size		ESAPLUS® mounting screws	
Size					

Technical Data

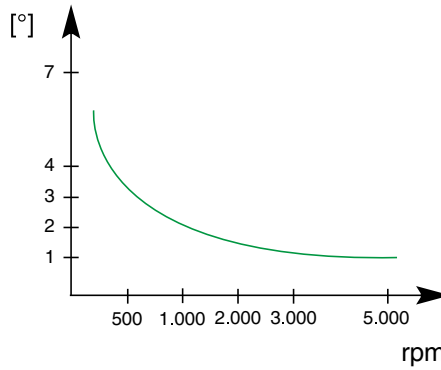
Size	T _{KN} [Nm]	T _{Kmax} [Nm]	φ [°]	n _{max} [rpm]	Number of screws	Screws/Type
GJ4	40	120	8	6.000	6	M8 x 50
GJ9	90	270	8	5.000	6	M10 x 65
GJ16	160	480	8	4.500	6	M12 x 80
GJ25	250	750	7	3.500	6	M14 x 90
GJ35	350	1050	7	3.000	6	M18 x 100
GJ50	500	1500	7	2.800	6	M20 x 115
GJ70	700	2100	8	2.400	6	M20 x 115
GJ120	1200	3600	6,5	2.400	8	M20 x 150

T _{KN}	Coupling nominal torque	Nm
T _{Kmax}	Coupling maximum torque	Nm
φ	Torsion angle	°
n _{max}	Maximum rpm	rpm

Power Rating

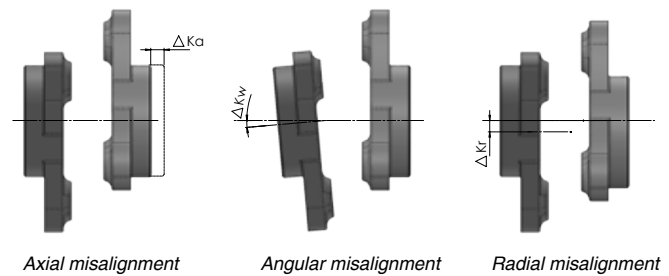


Angular Misalignment



Radial Misalignment

Nominal torque [Nm]	Radial misalignment 1.500 giri/min [mm]
40	0,7
90	0,9
160	1,4
250	1,5
350	1,8
500	2
700	2,1
1200	2,4



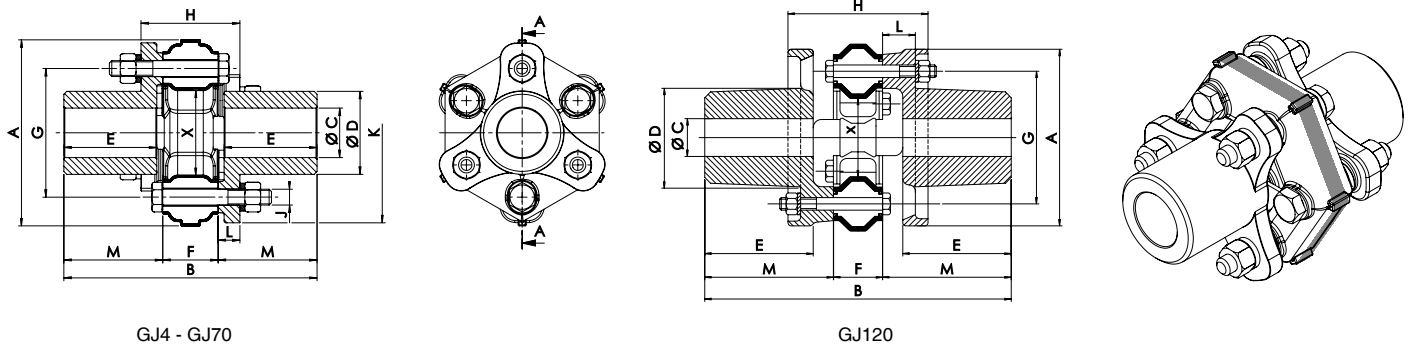
Mounting

The precompression, for the initial mounting, is achieved by securing the metallic band around the elastic element (all elements are supplied with metallic band of precompression). To mount the coupling, tighten the three screws not adjacent to the bores of the elastic element to the three arms of one hub and the three remaining bores of the elastic element to the other hub. Tighten the screws with the torques indicated in the table. Cut the metallic band when coupling is mounted.

Size	Tightening torque Ms [Nm]
GJ4	21
GJ9	41
GJ16	72
GJ25	113
GJ35	240
GJ50	350
GJ70	350
GJ120	350



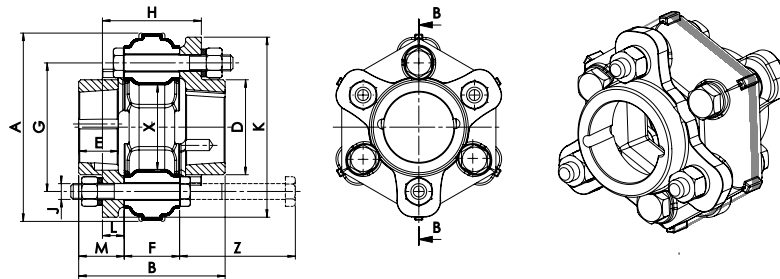
Technical features of ESAPLUS® elastic coupling - solid hub



Size	C		A [mm]	B [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	J [mm]	K [mm]	L [mm]	M [mm]	X [mm]	W [kg]
	min. [mm]	max. [mm]													
GJ4	-	30	91	128	42	47	28	65	50	8	87	11	50	23	2
GJ9	-	40	117	172	56	66	32	85	60	10	113	14	70	35	3
GJ16	-	48	142	196	68	70	46	100	80	12	135	17	75	40	5
GJ25	-	60	181	247	90	93	51	132	93	14	172	21	98	63	12
GJ35	-	70	202	284	105	109	54	150	96	18	196	21	115	68	18
GJ50	-	75	232	322	115	124	62	170	108	20	225	23	130	75	25
GJ70	-	80	263	346	122	133	68	190	116	20	246	24	139	82	32
GJ120*	60	100	280	486	156	172	78	210	222	20	-	52	204	110	57

* = 8 lobes execution

Technical features of ESAPLUS® elastic coupling - for mounting SER-SIT® taper bushing



Size	SER-SIT® taper bushing	A [mm]	B [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H [mm]	J [mm]	K [mm]	L [mm]	M [mm]	X [mm]	W [mm]	Z [mm]
GJB4	1108	91	74	48	20	28	65	54	8	91	11	23	23	0,8	65
GJB9	1210	117	90	60	25	32	85	65	10	121	14	29	35	1,6	75
GJB16	1610	142	106	70	25	46	100	81	12	140	17	30	40	2,7	90
GJB25	2012	181	121	95	30	51	132	91	14	177	21	35	63	5	100

SER-SIT® taper bushing	Diameter of the bore										Length [mm]	Diameter max.	Screws				Ms [Nm]
	No.	withworth	Length [mm]	Sets screws wrench type													
1108	[mm]	11 12 14 15 16 17 18 19 20 22 24 25 26 27 28*	22,3	38	2	1/4	13	M3	5,5								
	[pollici]	3/8 1/2 5/8 3/4 7/8 1 1 1/8*															
1210	[mm]	11 12 14 15 16 18 19 20 22 24 25 26 28 30 32	25,4	47	2	3/8	16	M5	20								
	[pollici]	1/2 5/8 3/4 7/8 1 1 1/8 1 1/4															
1610	[mm]	12 14 15 16 18 19 20 22 24 25 26 28 30 32 35 38 40 42	25,4	57	2	3/8	16	M5	20								
	[pollici]	3/8 1/2 5/8 3/4 7/8 1 1 1/8 1 1/4 1 3/8 1 1/2 1 5/8															
2012	[mm]	14 15 16 18 19 20 22 24 25 26 28 30 32 35 38 40 42 45 48 50	31,8	70	2	7/16	22	M5	20								
	[pollici]	5/8 3/4 7/8 1 1 1/8 1 1/4 1 3/8 1 1/2 1 5/8 1 3/4 1 7/8 2															

Taper bushing having bore diameters in bold type are made in steel instead of cast iron.

* = reduced keyway