



The satisfactory operation and the useful working life of flexible toothed couplings depends on the correct selection of the couplings, as well as on the compatibility of the operating conditions with the performance provided by the coupling. It is essential therefore, to highlight the limiting performance of the couplings and to clarify the actions of the external loads that are exerted on the corresponding couplings.

The basic design ensures that all the couplings are capable of compensating a static angular or assembly misalignment equal to 1 degree and this is ensured by the minimum construction tolerance between the teeth.

The dynamic angular or operating misalignment must never be greater than 0.5 degrees, even if the recommended values should not be greater than 0.25 degrees.

The declared nominal torque values and the maximum rotating speeds indicated refer to an angular or composite misalignment that does not exceed 1/12 of a degree (5 prime divisions).

The 'exceptional' torque values that can be supported as a transient and during the acceleration phases must not be exerted for more than 10-15 seconds and must not occur for more than 5 events/hour.

Fatigue durations are calculated for a conventional limit of 50 million cycles, considering two load cycles for each revolution of the coupling.

Misalignments exceeding 1/8 degrees (7.5 prime divisions) penalise by decreasing the nominal torque and the maximum rotating speed declared for the individual couplings.

The performance of the coupling in terms of torque, limiting speed and useful working life will decrease or increase compared with the declared values in the case of operating conditions that differ from the conditions specified above or for "fixed-term" durations.

The design data has been tested for the purpose of ensuring a reasonable safety margin. The declared performance therefore, is to be understood as valid for a Service Factor equal to 1.

Use of the prescribed lubricants and compliance with the recommended restore time intervals represent the preconditions to achieve the performance as described

in the catalogue. The CHIARAVALLI GROUP SpA Technical Department is available to advise users in selecting the type of coupling most appropriate for the actual operating conditions and to make recommendations in relation to special operating conditions.

### TECHNICAL DATA

COUPLING TYPE	Power Factor		Torque		Power transmitted in Kw				r.p.m. max	r.p.m. recommended limit	max radial misalignment mm	mass kg	J kg cm <sup>2</sup>
	Kw normal	Kw except.	Nm normal	Nm except.	at r.p.m.								
					750 normal	1000 normal	1500 normal	3000 normal					
<b>GFA 25</b>	0,061	0,157	600	1.524	45	61	91	183	6.000	5.000	0,20	1,36	8,68
<b>GFA 32</b>	0,103	0,259	1.000	2.520	77	103	154	309	5.000	4.000	0,26	2,51	25,10
<b>GFA 40</b>	0,128	0,322	1.250	3.125	96	128	192	384	4.200	3.000	0,32	3,55	44,82
<b>GFA 56</b>	0,257	0,639	2.500	6.200	192	257	385	-	3.500	2.200	0,37	6,15	132,60
<b>GFA 63</b>	0,412	0,985	4.000	9.260	309	412	618	-	3.000	1.600	0,40	9,91	278,20
<b>GFA 80</b>	0,773	1,855	7.500	18.000	579	773	-	-	2.600	1.200	0,48	16,20	558,6
<b>GFA 100</b>	1,236	2,937	12.000	28.500	927	-	-	-	1.400	700	0,65	23,00	1.044,50
<b>GFA 125</b>	2,431	5,795	23.600	56.250	1.823	-	-	-	950	460	0,70	49,15	3.650
<b>GFA 155</b>	4,121	9,273	40.000	90.000	3.090	-	-	-	700	350	0,80	91,30	9.982

**N.B.** Class G 2.5 dynamic balancing in compliance with ISO 1940 is recommended for actual operating speeds that exceed 3,600 r.p.m. Couplings can operate with a parallel misalignment value that is double the suggested value and assembly with a misalignment value that is four times greater than the suggested value in exceptional cases.

CAD drawings available on our site

(1) Referred to the normal coupling complete with maximum bore without keyway.

Quantity, availability and prices





**STEEL SLEEVE**

INTERPRETATION CODES

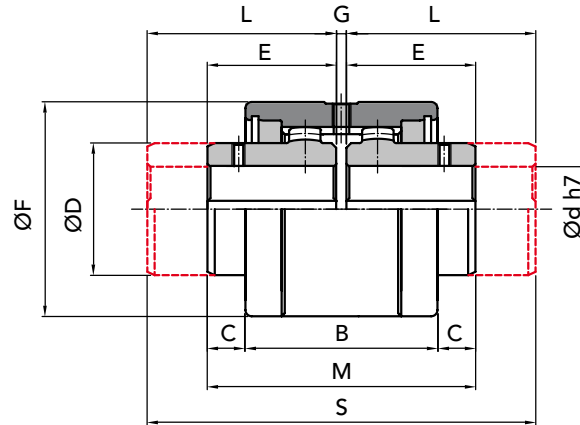
EXAMPLE

**GFA 25-NN** with 2 normal hubs

**GFA 25-NL** with 1 normal hubs  
and 1 long hub

**GFA 25-LL** with 2 long hubs

The characteristic size of the coupling is defined by the maximum diameter bore.



**PART NUMBERS FOR COMPLETE COUPLING**

**PART NUMBERS FOR SIMPLE COMPONENTS**

COUPLING TYPE	P. NUMBER GFA NN	P. NUMBER GFA NL	P. NUMBER GFA LL	SLEEVE	HUB NORMAL	HUB LONG	COMPONENTS to assembled coupling
GFA 25	00202502	00202500	00202504	00202510	00202520	00202540	00202560
GFA 32	00203202	00203200	00203204	00203210	00203220	00203240	00203260
GFA 40	00204002	00204000	00204004	00204010	00204020	00204040	00204060
GFA 56	00205602	00205600	00205604	00205610	00205620	00205640	00205660
GFA 63	00206302	00206300	00206304	00206310	00206320	00206340	00206360
GFA 80	00208002	00208000	00208004	00208010	00208020	00208040	00208060
GFA 100	00210002	00210000	00210004	00210010	00210020	00210040	00210060
GFA 125	00212502	00212500	00212504	00212510	00212520	00212540	00212560
GFA 155	00215502	00215502	00215504	00215510	00215520	00215540	00215560

**MEASUREMENTS - WEIGHTS**

COUPLING TYPE	Ø bore nom.	Ød available holes with H7 tolerance		measures in mm									Kg		
		ON REQUEST		normal series						long series			sleeve	HUB normal	HUB long
		min	max	B	C	ØD	E	ØF	G	M	L	S			
GFA 25	-	25	28	61	12	42	41	68	3	85	60	123	0,72	0,48	0,69
GFA 32	-	32	38	73	13,5	55	48,5	85	3	100	80	163	1,14	0,99	1,58
GFA 40	-	40	48	82	16,5	64	56	95	3	115	80	163	1,68	1,49	2,10
GFA 56	-	56	60	97	21,5	80	68	120	4	140	100	204	2,86	2,96	4,22
GFA 63	-	63	70	108	22,5	100	74,5	140	4	153	119,5	243	3,75	4,90	7,67
GFA 80	-	80	90	125	22,5	125	82,5	175	5	170	140	285	5,58	8,72	14,26
GFA 100	-	100	110	148	34	150	105	198	6	216	174,5	355	6,63	15,76	25,40
GFA 125*	40	125	140	214	39	190	140	245	8	288	207,5	423	17,70	32,60	49,50
GFA 155*	40	155	175	240	64	240	180	300	10	370	245	498	28,30	65,50	91,40

\* Row material quenched steel 39NiCrMo3



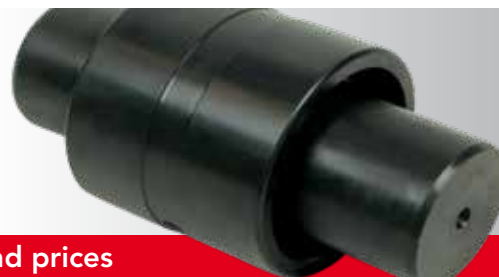
**On request:** we execute machining for finish bore and keyway.

**IMPORTANT**

The GFA couplings can be ordered complete or for single items.

CAD drawings available on our site

Quantity, availability and prices



FLEXIBLE TOOTHED COUPLINGS WITH DUAL CURVATURE "GIFLEX®" SERIES GFA with STEEL SLEEVE

