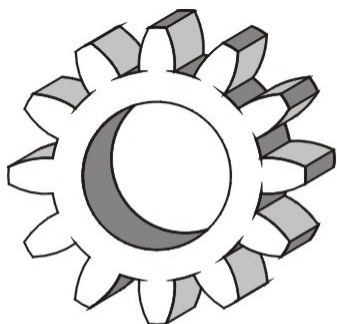


DYSTRYBUTOR



TECHNICAL

GRZEGORZ TĘGOS

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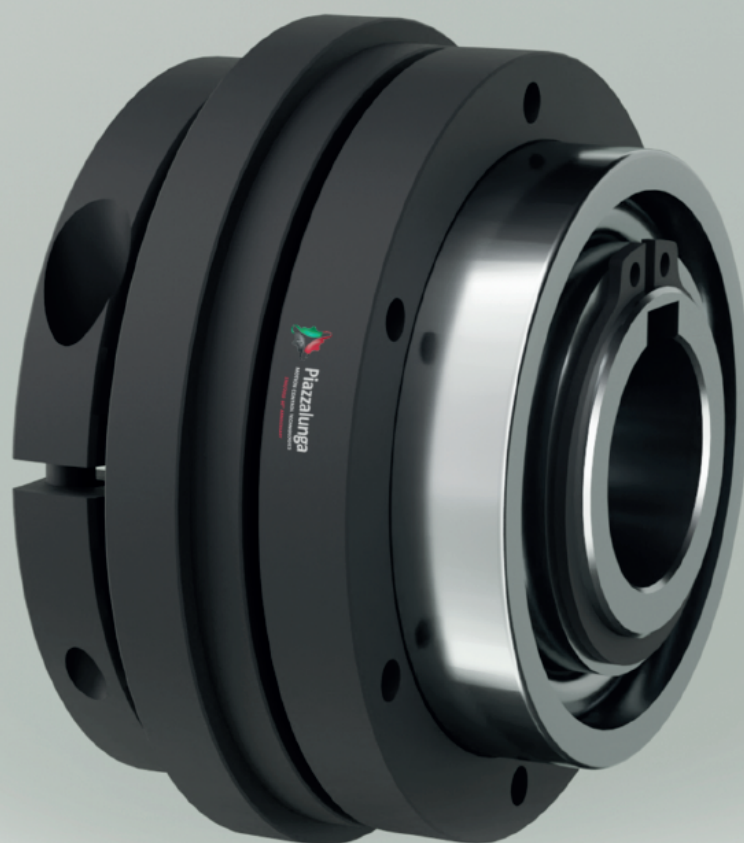
Sprzęgła przeciążeniowe
kulkowe dodatkowo
ułożyskowane LSG



Piazzalunga

LIMITATORI

TORQUE
LIMITERS



Piazzalunga
MOTION CONTROL TECHNOLOGIES



LSG series torque limiter without angular play

- No angular play
- Standard version with re-engagement at equidistant phase or at 360°
- No maintenance needed
- Available only with finished bore
- Immediate response
- Simple precise balanced ring nut adjustment of the torque.

ON REQUEST

- In stainless steel for use in alimentary or pharmaceutical plant
- With interface flange for the more common index drives
- Complete with transmission part (crown, pulley, gear)
- With customised re-engagement (30°, 45°, 60°...)
- With microswitch or proximity switch for automatic stop on overloading



LSG/P positive versionPage 19



LSG/N negative version, immediate disengagement.....Page 20



LSG/GS/LK with star coupling and external shrink disc.Page 21



LSG/GS/MX with star coupling, clamp locking.....Page 21



LSG/GF with bellow expansion joint.....Page 23

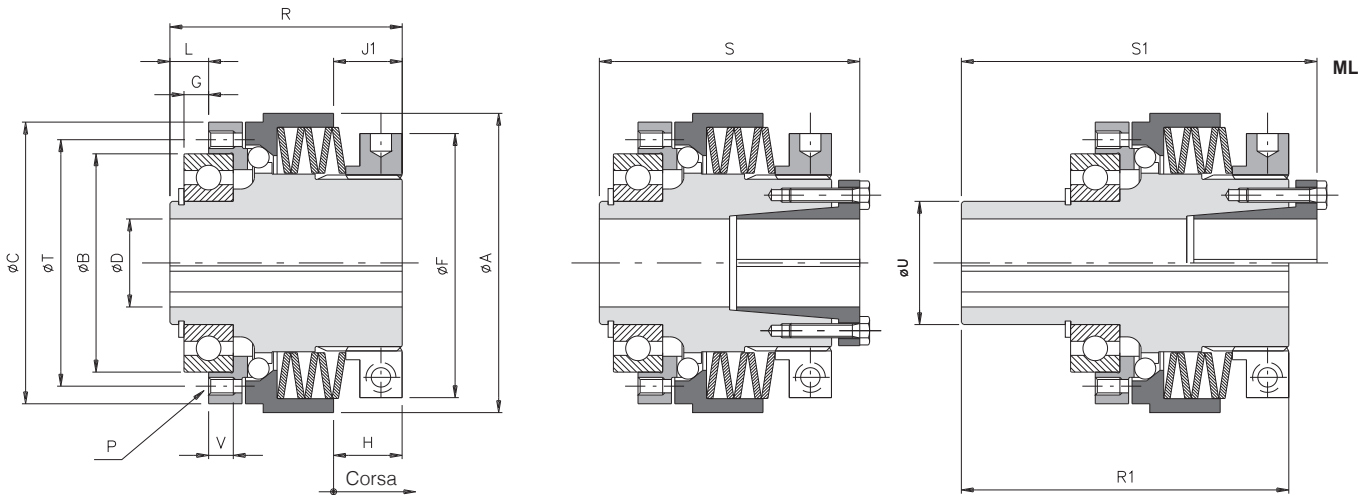
TRANSMITTABLE TORQUES

ID	Transmittable torques [Nm] in relation to the configuration of the springs								
	Positive version (P)					Negative version (N)			
	A5S1P)00	A6S1P)00	A7S1P)000	A5M1P)00	A5G1P)00	A1N)	A2N)	A3N)	A4N)
040		2 - 10				0,6 - 1,5	1,5 - 3	2,7 - 5	
047			6 - 14	12 - 23		2 - 5	4 - 9	7 - 15	
063	5 - 20			11 - 40	20 - 75	5 - 14	12 - 28	24 - 50	
080	12 - 35				30 - 105	9 - 28	18 - 60	40 - 100	
096				35 - 115	50 - 200	20 - 45	42 - 95		85 - 200
116				70 - 290	110 - 415	35 - 100	75 - 200		195 - 415
138					315 - 750	75 - 190	140 - 345		245 - 720

LSG/P series positive model



- Without angular play
- Maximum simplicity in calibration using standard method
- Wide range of torque adjustment
- Immediate response
- Available in the version with extended hub for assembly of thick parts: .../ML.
- Torque range: 1.5 - 750 Nm; maximum bore: $\varnothing 50$ mm



TECHNICAL DATA

ID	MT [Nm]	A	B h5	C	D H7 Max	F	* G	L	J1	P	R	R1	S	S1	T	U h6	V	On request						
																		B h5	C	G	L	P	T	V
040	2 - 10	44	30	40	12	38	2	4,5	12	6xM3	36	-	40,5	-	35	-	5	-	-	-	-	-	-	
047	6 - 23	50	37	47	17	42	2	5	14,5	6xM3	44	-	49,5	-	42	-	5	-	-	-	-	-	-	
063	5 - 75	70	42	65	20	63	4	7	18	6xM5	56,5	81,5	63,5	88,5	48	30	7	47	-	5	8	8xM4	56	6
080	12 - 105	85	62	80	25	75	7	11	19,5	6xM5	66	98	74	106	70	35	7	-	-	-	-	8xM5	71	-
096	35 - 200	100	75	96	35*	82	9	14	20	6xM6	77,5	118,5	85,5	126,5	89	45	9	-	95	-	-	8xM6	85	-
116	40 - 415	115	90	115	42	104	8	14	16,5	6xM8	82	133	91	142	105	55	12	-	110	10	16	8xM6	100	10
138	75 - 750	139,5	100	138	50	128	6,5	14,5	18	6xM10	96	151	107	162	125	65	14	-	130	10	18	8xM8	116	11

data not binding

TECHNICAL DATA

ID	Stroke [mm]	Locking assemblies		Inertia [Kgm ²]			Rpm Max	Kg			
		Screws	Tightening torque [Nm]	Flange side	Nut side			keyway		locking assemblies	
					keyway	locking assemblies		ML	ML	ML	ML
040	0,8	6xM3	1,5	0,000009	0,000043	0,000045	4000	0,3	-	0,3	-
047	1	6xM3	1,5	0,000015	0,00007	0,00008	4000	0,5	-	0,5	-
063	1,1	6xM4	3	0,00008	0,00033	0,00034	4000	1,1	1,2	1,1	1,2
080	1,3	8xM4	3	0,00029	0,00091	0,00094	3000	1,8	1,9	1,9	2,0
096	1,5	10xM4	3	0,00068	0,00213	0,00221	2500	3,2	3,5	3,4	3,7
116	2	8xM5	5	0,00129	0,00352	0,00372	2000	4,2	4,6	4,6	5,0
138	2,2	8xM6	7,5	0,00315	0,00853	0,00902	1200	7,5	8,1	8,1	8,7

data not binding

NOTES

D H7*: maximum diameter finished bore with deep keyway in accordance with UNI 7510.

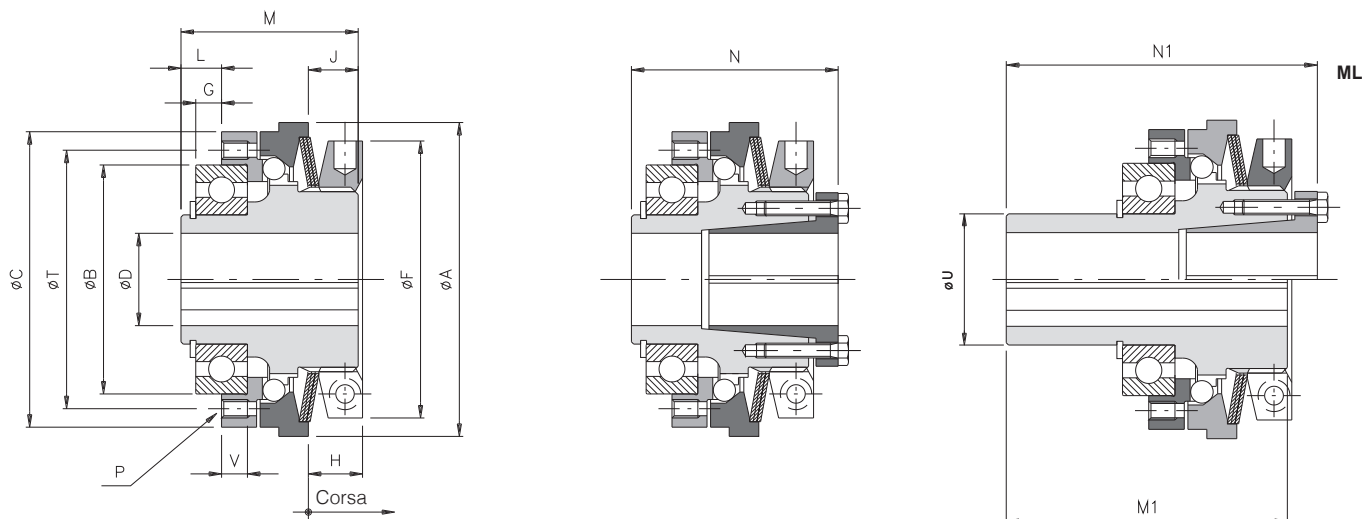
G*: assembly tolerance +0.1.

Technical characteristics: the weights refer to the torque limiter (.../P) pilot bore; the inertia values refer to the torque limiter (.../P) maximum bore.



LSG/N series negative model series

- Without angular play with compact dimensions
- Instantaneous reduction of transmission torque at the moment of overload
- Absence of residual torque after disengagement
- Immediate high sensitivity response
- Available in the version with extended hub for assembly of thick parts: .../ML.
- Torque range: 0.7 - 720 Nm; maximum bore $\phi 50$ mm



TECHNICAL DATA

ID	MT [Nm]	A	B h5	C	D H7 Max	F	G	L	J	P	M	M1	N	N1	T	U h6	V	On request						
																		B h5	C	G	L	P	T	V
040	0,6 - 5	44	30	40	12	38	2	4,5	7	6xM3	24	-	28,5	-	35	-	5	-	-	-	-	-	-	-
047	2 - 15	50	37	47	17	42	2	5	8,5	6xM3	29	-	34,5	-	42	-	5	-	-	-	-	-	-	-
063	5 - 50	70	42	65	20	62	4	7	12	6xM5	40	65	47	72	48	30	7	47	-	5	8	8xM4	56	6
080	9 - 100	85	62	80	25	75	7	11	13,5	6xM5	48	80	56	88	70	35	7	-	-	-	-	8xM5	71	-
096	20 - 200	100	75	96	35*	82	9	14	16	6xM6	59	100	67	108	89	45	9	-	95	-	-	8xM6	85	-
116	35 - 415	115	90	115	42	97	8	14	17	6xM8	64	115	73	124	105	55	12	-	110	10	16	8xM6	100	10
138	75 - 720	135	100	138	50	117	6,5	14,5	20,5	6xM10	75	130	86	141	125	65	14	-	130	10	18	8xM8	116	11

data not binding

TECHNICAL DATA

ID	Stroke [mm]	Locking assembly		Inertia [Kgm ²]			Rpm max	Kg			
		Screws	Tightening torque [Nm]	Flange side	Nud side			keyway		locking assemblies	
					keyway	locking assemblies			ML		ML
040	0,8	6xM3	1,5	0,00009	0,00002	0,00002	4000	0,2	-	0,2	-
047	1	6xM3	1,5	0,00015	0,00004	0,00004	4000	0,4	-	0,4	-
063	1,1	6xM4	3	0,00008	0,00027	0,00028	4000	0,9	1,0	0,9	1,0
080	1,3	8xM4	3	0,00029	0,00068	0,00071	3000	1,5	1,6	1,6	1,7
096	1,5	10xM4	3	0,00068	0,00151	0,00158	2500	2,8	3,0	3,0	3,2
116	2	8xM5	5	0,00129	0,00262	0,00282	2000	3,7	4,1	4,1	4,7
138	2,2	8xM6	7,5	0,00315	0,00633	0,00682	1200	6,7	7,3	7,3	7,9

data not binding

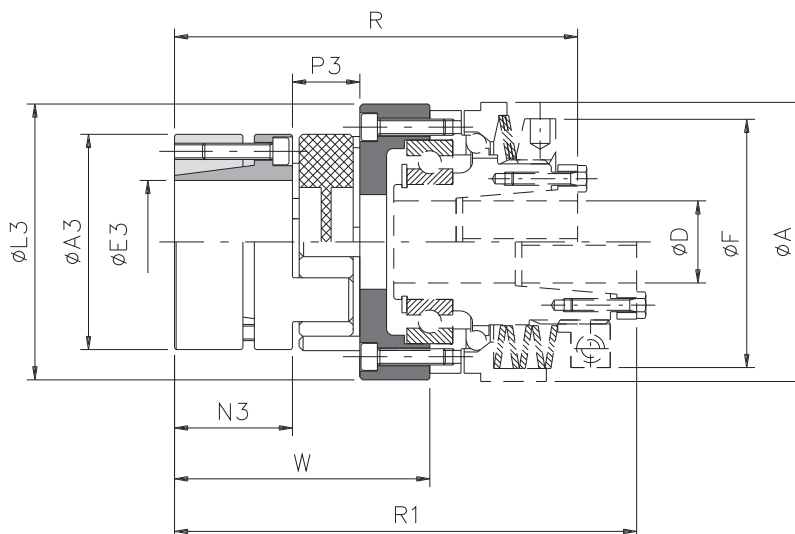
NOTES

D H7*: maximum diameter finished bore with deep keyway in accordance with UNI 7510.

G*: assembly tolerance +0.1.

Technical characteristics: the weights refer to the torque limiter (.../P) pilot bore; the inertia values refer to the torque limiter (.../P) maximum bore.

LSG/GS/LK series model with star coupling and external shrink disc



TECHNICAL DATA

ID	MT [Nm]		A4	E3 H7 max	L3	N3	P3	A		D H7	F		W	R	R1
	Nom	Max						Positive	Negative		Max	Positive			
047	17	34	40	20	49	25	16	50		17	42		53	82,5	117
063	60	120	55	28	65	30	18	70		20	63	62	63	102	118,5
080	160	320	65	38	84	35	20	85		25	75		74,5	119,5	137,5
096	325	650	80	48	102	45	24	100		35	82		93	146	164
116	450	900	95	55	122	50	26	115		42	104	97	100	159	177
138	525	1050	105	62	143	56	28	139,5	135	50	128	117	110,5	182	203

data not binding

TECHNICAL DATA

ID	Clamp hub		Misalignments			Rigidity			Inertia coupling side [Kgm ²]	Rpm max	Kg
	Screws	Tightening torque screw [Nm]	Angular α [°]	Axial X [mm]	Radial K [mm]	Torsional [Nm/rad·10 ³]	Axial [mm]	Radial [mm]			
047	6xM4	3	0° 54'	1,2	0,06	980	2300	2000	0,00013	4000	0,4
063	4xM5	6	0° 54'	1,4	0,10	2350	6300	2620	0,00040	4000	0,7
080	8xM5	6	0° 54'	1,5	0,11	3620	10900	3490	0,00107	3000	1,7
096	8xM6	10	0° 54'	1,8	0,12	7850	21850	4650	0,00296	2500	1,9
116	4xM8	35	0° 54'	2,0	0,14	18600	47500	5760	0,00559	2000	3,2
138	4xM8	35	0° 54'	2,1	0,16	20400	50600	6400	0,01213	1200	5,8

data not binding

TORQUES TRANSMISSIBLE WITH EXTERNAL CONICAL SHRINK DISC

ID	Transmission torque [Nm] according to the Ø finished bore [mm]																								
	10	11	14	15	16	17	18	19	20	22	24	25	28	30	32	35	38	40	42	45	48	50	55	60	
047	48	53	67	72	77	81	86	91	96																
063				77	82	88	93	98	103	113	124	129	144												
080							186	196	206	227	247	258	289	309	330	361	392								
096									291	320	349	364	408	437	466	510	553	582	612	655	699				
116													345	584	623	681	740	779	818	876	934	973	1071		
138																681	740	779	818	876	934	973	1071	1168	

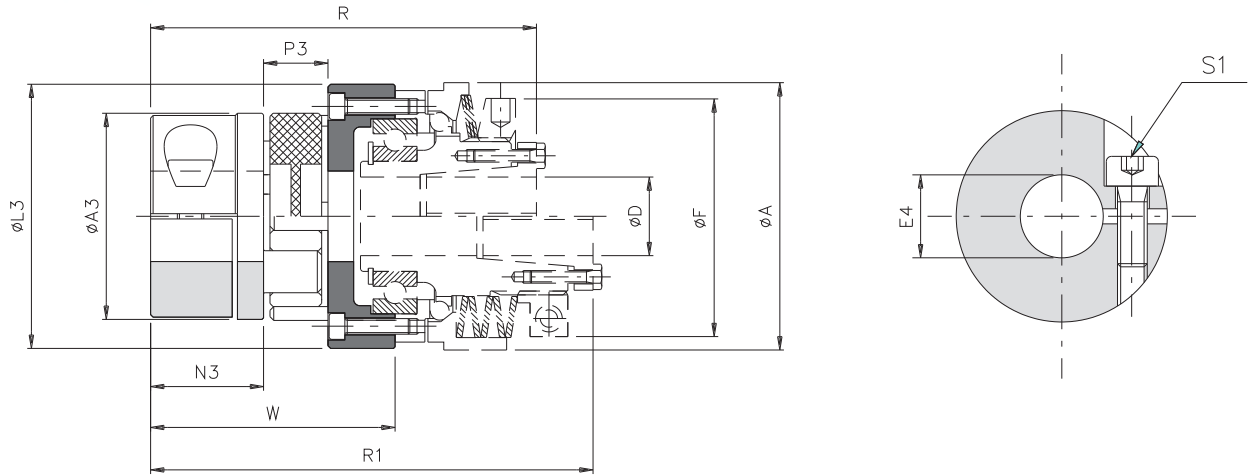
NOTES

Technical characteristics: the data given refers only to the application (GAS/CCE with SG star red 98 Shore-A), for the torque limiter data see pages 21-22.

Technical characteristics: the weights refer only to the application (GAS/CCE) pilot bore; the inertia values refer only to the application (GAS/CCE) maximum bore.



LSG/GS/MX series model with star coupling and type B clamp locking



TECHNICAL DATA

ID	MT [Nm]		A4	E3 H7 max	L3	N3	P3	A		D H7 Max	F		W	R	R1
	Nom	Max						Positive	Negative		Positive	Negative			
047	17	34	40	20	49	25	16	50		17	42		53	82,5	117
063	60	120	55	30	65	30	18	70		20	63	62	63	102	118,5
080	160	320	65	35	84	35	20	85		25	75		74,5	119,5	137,5
096	325	650	80	45	102	45	24	100		35	82		93	146	164
116	450	900	95	50	122	50	26	115		42	104	97	100	159	177
138	525	1050	105	60	143	56	28	139,5	135	50	128	117	110,5	182	203

data not binding

TECHNICAL DATA

ID	Clamp hub		Misalignments			Rigidity			Inertia coupling side [Kgm ²]	Rpm max	Kg
	Screws	Tightening torque screw [Nm]	Angular α [°]	Axial X [mm]	Radial K [mm]	Torsional [Nm/rad·10 ³]	Axial [mm]	Radial [mm]			
047	M5	8,7	0° 54'	1,2	0,06	980	2300	2000	0,00013	4000	0,4
063	M6	15	0° 54'	1,4	0,10	2350	6300	2620	0,00040	4000	0,7
080	M8	36	0° 54'	1,5	0,11	3620	10900	3490	0,00107	3000	1,7
096	M8	36	0° 54'	1,8	0,12	7850	21850	4650	0,00296	2500	1,9
116	M10	70	0° 54'	2,0	0,14	18600	47500	5760	0,00559	2000	3,2
138	M12	121	0° 54'	2,1	0,16	20400	50600	6400	0,01213	1200	5,8

data not binding

TORQUES TRANSMISSIBLE WITH CLAMP LOCKING

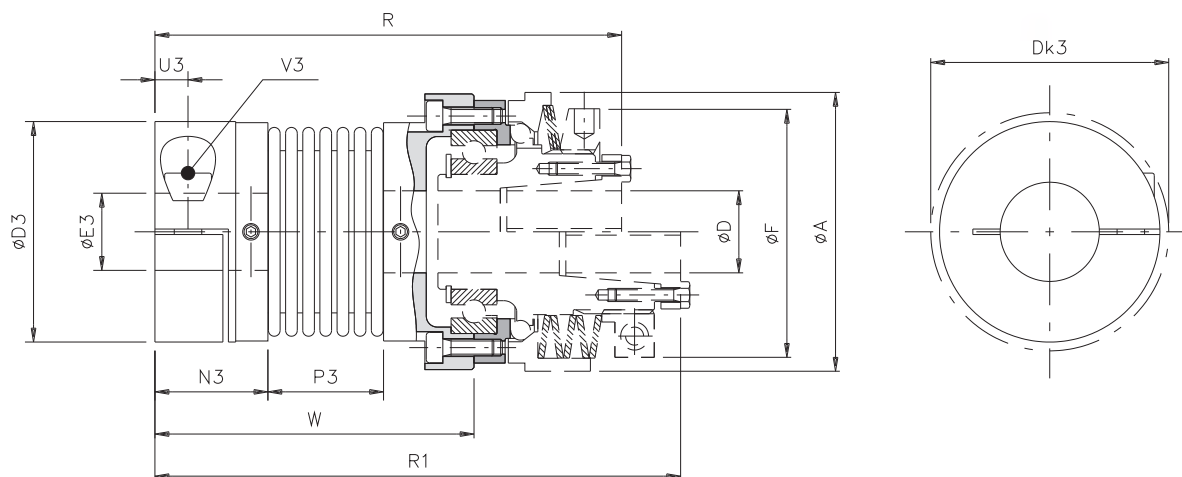
ID	Transmission torque [Nm] according to the ø finished bore [mm]																							
	10	11	12	14	15	16	18	19	20	22	24	25	28	30	32	35	38	40	42	45	48	50	55	60
047	38	39	40	42	43	44	46	47	48															
063			67	70	71	72	75	76	77	79	82	83	87	89										
080							140	142	144	148	153	155	161	165	170	176								
096									170	174	178	180	186	191	195	201	208	212	216	223				
116												266	275	280	286	294	302	307	313	321	329	335		
138																461	473	481	489	501	513	521	541	561

NOTES

Technical characteristics: the data given refers only to the application (GAS/SG with SG star red 98 Shore-A), for the data of the torque limiter see pages 21-22.

Technical characteristics: the weights refer only to the application (GAS/SG) pilot bore; the inertia values refer only to the application (GAS/SG) maximum bore.

LSG/GF series model with bellow expansion joint



TECHNICAL DATA

ID	D3	Dk3	E3 H7		N3	P3	U3	A	F	D	R	R1	W
			min	max.									
040	34	36	5	16	17	16,5	4,5	44	38	12	72	84	48
047	40	44	8	20	20,5	21	5,5	50	42	17	87,5	102,5	58
063	55	58	10	30	22,5	27	6,5	70	62	20	109	125,5	68,5
080	65	73	14	38	26	32	8	85	75	25	126	144	81
096	83	89	14	45	31	41	9,5	100	82	35	156	174,5	102

data not binding

TECHNICAL DATA

ID	MT [Nm]		Kg	Inertia [Kgm ²]	Rpm max	Grubscrews	Screws V3	Tightening torque		Misalignments			Rigidity		
	Nom	Max						grubscr. [Nm]	screws [Nm]	angular α [°]	axial X [mm]	radial K [mm]	torsional R _T [Nm/rad·10 ³]	axial R _A [N/mm]	radial R _R [N/mm]
040	5	10	0,07	0,000024	4000	M3	M4	0,8	2,9	1° 30'	±0,5	0,20	3,050	30	92
047	15	30	0,14	0,000050	4000	M3	M5	0,8	6	1° 30'	±0,6	0,20	7,000	45	129
063	35	70	0,29	0,000229	4000	M4	M6	2	10	2°	±0,8	0,25	16,300	69	160
080	65	130	0,45	0,000622	3000	M4	M8	2	25	2°	±0,8	0,25	33,000	74	227
096	150	300	0,93	0,000834	2500	M4	M10	2	49	2°	±1,0	0,30	64,100	87	480

data not binding

TORQUES TRANSMISSIBLE WITH CLAMP LOCKING

ID	Transmission torque [Nm] according to the ø finished bore [mm]																							
	5	6	7	8	9	10	11	12	14	15	16	18	19	20	24	25	28	30	32	35	38	40	42	45
040	5	6	7	8	9	10	11	12	14	15	16													
047				13	14	16	18	19	22	24	25	29	30	32										
063							25	27	32	34	36	41	43	45	54	57	63	68						
080												75	79	83	100	104	116	124	133	145	158			
096														132	158	165	183	198	211	231	248	263	277	295

NOTES

Technical characteristics: the data given refers only to the application (LSG/GF), for the data of the torque limiter see pages 21-22.

Technical characteristics: the weights refer only to the application (LSG/GF) pilot bore; the inertia values refer only to the application maximum bore.