

ARTICOLO DISTRIBUITO DA



Articoli Tecnici Trasmissioni Industriali

Via F.lli Cervi n°3
20063 CERNUSCO SUL NAVIGLIO
Tel .02-92106954 - 6 LINEE R.A.
Fax.02-92107261
E-mail info@atti.it
Sito: www.atti.it



- *MOTORI ASINCRONI*
- *MOTORI IN C.C.*
- *MOTORI A MAGNETI PERMANENTI*
- *MOTORI PASSO PASSO*
- *MOTORI BRUSHLESS*
- *MOTORIDUTTORI*
- *MOTOVARIATORI*
- *MARTINETTI*
- *ATTUATORI*
- *RINVII ANGOLARI*
- *LIMITATORI DI COPPIA*
- *PULEGGE A GOLE*
- *PULEGGE DENTATE*
- *PULEGGE CON BUSSOLE TAPER LOCK*
- *PULEGGE VARIABILI*
- *CINGHIE TRAPEZOIDALI*
- *CINGHIE DENTATE*
- *CINGHIE PER VARIATORI*
- *CATENE VARIE*
- *PIGNONI PER CATENE*
- *INGRANAGGI A MODULO*
- *CREMAGLIERE*
- *COPPIE CONICHE*
- *GIUNTI VARI*
- *SUPPORTI AUTOALLINEANTI*
- *SLITTE VARIE*
- *SLITTE MOTORIZZABILI*
- *RUOTE*
- *CALETTATORI*
- *MANIGLIERIA ELESA*
- *VITI T.P.N. E RELATIVE CHIOCCIOLE*
- *VITI A RICIRCOLAZIONE DI SFERE*
- *AZIONAMENTI BRUSHLESS, IN C.C. A TRANSISTOR, MOSFET, SCR, ECC.*
- *INVERTERS - SOFT START*
- *ENCODERS*
- *RIGHE OTTICHE*
- *ELETTROMAGNETI*
- *VISUALIZZATORI - POSIZIONATORI*
- *INTERPOLATORI - MISURATORI - TACHIMETRI - VOLMETRI - TEMPORIMETRI*
- *P L C E LOGICHE PROGRAMMABILI CON RELATIVA PROGRAMMAZIONE PERSONALIZZATA*
- *QUADRI ELETTRICI*
- *RULLI E RELATIVI COMPONENTI*
- *ASPIRATORI E VENTILATORI*
- *PROFILATI IN ALLUMINIO*
- *ADESIVI INDUSTRIALI*
- *SISTEMI DI LUBRIFICAZIONE CENTRALIZZATA*

Realizzazione di trasportatori e macchine speciali con profilati di alluminio



INGRANAGGI CILINDRICI

SPUR GEARS
STIRNRÄDER
ENGRENAGES CYLINDRIQUES
ENGRANAJES CILÍNDRICOS



SERIE NORMALE (N)

SPUR GEARS with lateral hub Pressure angle 20° in nylon 6÷30% GF
 STIRNRÄDER mit seitlicher Nabe Eingriffswinkel 20° aus Nylon 6÷30% GF
 ROUES DENTÉES cylindriques avec moyeu latéral angle de pression 20° en nylon 6÷30% FV
 RUEDAS DENTADAS cilíndricas con cubo lateral Angulo de presión 20° de nylon 6÷30% FV

NORMAL SERIES (N)
 NORMALE SERIE (N)
 SERIE NORMALE (N)
 SERIE NORMAL (N)

RUOTE DENTATE cilindriche con mozzo laterale

Angolo di pressione 20° in nylon 6÷30% FV

Z	M 1				M 1.5				M 2				M 2.5				M 3				M 4									
	COD	A	B	D	E	COD	A	B	D	E	COD	A	B	D	E	COD	A	B	D	E	COD	A	B	D	E	COD	A	B	D	E
12	CL01012N	14	12	9	4	CL15012N	21	18	14	5	CL02012N	28	24	18	8	CL25012N	35	30	22	8	CL03012N	42	36	25	12	CL04012N	56	48		20
13	CL01013N	15	13	10	4	CL15013N	22.5	19.5	16	5	CL02013N	30	26	18	8	CL25013N	37.5	32.5	22	8	CL03013N	45	39	28	12	CL04013N	60	52		20
14	CL01014N	16	14	10	4	CL15014N	24	21	16	5	CL02014N	32	28	20	8	CL25014N	40	35	22	8	CL03014N	48	42	30	12	CL04014N	64	56	50	20
15	CL01015N	17	15	10	4	CL15015N	25.5	22.5	18	5	CL02015N	34	30	22	8	CL25015N	42.5	37.5	30	10	CL03015N	51	45	30	12	CL04015N	68	60	50	20
16	CL01016N	18	16	13	5	CL15016N	27	24	18	5	CL02016N	36	32	25	8	CL25016N	45	40	30	10	CL03016N	54	48	35	12	CL04016N	72	64	50	20
17	CL01017N	19	17	14	5	CL15017N	28.5	25.5	18	5	CL02017N	38	34	25	8	CL25017N	47.5	42.5	30	10	CL03017N	57	51	40	12	CL04017N	76	68	50	20
18	CL01018N	20	18	14	5	CL15018N	30	27	18	5	CL02018N	40	36	30	10	CL25018N	50	45	35	10	CL03018N	60	54	40	12	CL04018N	80	72	50	20
19	CL01019N	21	19	16	5	CL15019N	31.5	28.5	25	8	CL02019N	42	38	30	10	CL25019N	52.5	47.5	35	10	CL03019N	63	57	40	12	CL04019N	84	76	60	20
20	CL01020N	22	20	16	5	CL15020N	33	30	25	8	CL02020N	44	40	30	10	CL25020N	55	50	35	10	CL03020N	66	60	45	12	CL04020N	88	80	60	20
21	CL01021N	23	21	18	6	CL15021N	34.5	31.5	25	8	CL02021N	46	42	30	10	CL25021N	57.5	52.5	35	16	CL03021N	69	63	45	12					
22	CL01022N	24	22	18	6	CL15022N	36	33	28	8	CL02022N	48	44	30	10	CL25022N	60	55	40	16	CL03022N	72	66	45	16					
23	CL01023N	25	23	18	6	CL15023N	37.5	34.5	28	8	CL02023N	50	46	35	10	CL25023N	62.5	57.5	40	16	CL03023N	75	69	45	16					
24	CL01024N	26	24	20	6	CL15024N	39	36	28	8	CL02024N	52	48	35	10	CL25024N	65	60	40	16	CL03024N	78	72	45	16					
25	CL01025N	27	25	20	6	CL15025N	40.5	37.5	30	8	CL02025N	54	50	35	10	CL25025N	67.5	62.5	40	16	CL03025N	81	75	45	16					
26	CL01026N	28	26	22	6	CL15026N	42	39	30	8	CL02026N	56	52	40	14	CL25026N	70	65	40	16	CL03026N	84	78	45	16					
27	CL01027N	29	27	22	6	CL15027N	43.5	40.5	30	8	CL02027N	58	54	40	14	CL25027N	72.5	67.5	40	16	CL03027N	87	81	45	16					
28	CL01028N	30	28	22	6	CL15028N	45	42	30	8	CL02028N	60	56	40	14	CL25028N	75	70	40	16	CL03028N	90	84	50	16					
29	CL01029N	31	29	25	6	CL15029N	46.5	43.5	30	8	CL02029N	62	58	40	14	CL25029N	77.5	72.5	45	16	CL03029N	93	87	50	16					
30	CL01030N	32	30	25	6	CL15030N	48	45	35	12	CL02030N	64	60	40	14	CL25030N	80	75	45	16	CL03030N	96	90	50	16					
31	CL01031N	33	31	25	6	CL15031N	49.5	46.5	35	12	CL02031N	66	62	40	14	CL25031N	82.5	77.5	45	16	CL03031N	99	93	50	16					
32	CL01032N	34	32	25	6	CL15032N	51	48	35	12	CL02032N	68	64	45	16	CL25032N	85	80	50	16	CL03032N	102	96	50	16					
33	CL01033N	35	33	25	6	CL15033N	52.5	49.5	35	12	CL02033N	70	66	45	16	CL25033N	87.5	82.5	50	16	CL03033N	105	99	50	16					
34	CL01034N	36	34	30	8	CL15034N	54	51	35	12	CL02034N	72	68	45	16	CL25034N	90	85	50	16	CL03034N	108	102	50	16					
35	CL01035N	37	35	30	8	CL15035N	55.5	52.5	35	12	CL02035N	74	70	45	16	CL25035N	92.5	87.5	50	16	CL03035N	111	105	60	20					
36	CL01036N	38	36	30	8	CL15036N	57	54	35	16	CL02036N	76	72	50	16	CL25036N	95	90	50	20	CL03036N	114	108	60	20					
37	CL01037N	39	37	30	8	CL15037N	58.5	55.5	35	16	CL02037N	78	74	50	16	CL25037N	97.5	92.5	50	20	CL03037N	117	111	60	20					
38	CL01038N	40	38	30	8	CL15038N	60	57	35	16	CL02038N	80	76	50	16	CL25038N	100	95	50	20	CL03038N	120	114	60	20					
39	CL01039N	41	39	30	8	CL15039N	61.5	58.5	40	16	CL02039N	82	78	50	16	CL25039N	102.5	97.5	50	20	CL03039N	123	117	60	20					
40	CL01040N	42	40	30	8	CL15040N	63	60	40	16	CL02040N	84	80	50	16	CL25040N	105	100	50	20	CL03040N	126	120	60	20					
41	CL01041N	43	41	30	8	CL15041N	64.5	61.5	40	16	CL02041N	86	82	60	16	CL25041N	107.5	102.5	60	20	CL03041N	129	123	60	20					
42	CL01042N	44	42	35	10	CL15042N	66	63	45	16	CL02042N	88	84	60	16	CL25042N	110	105	60	20	CL03042N	132	126	60	20					
43	CL01043N	45	43	35	10	CL15043N	67.5	64.5	45	16	CL02043N	90	86	60	16	CL25043N	112.5	107.5	60	20	CL03043N	135	129	60	20					
44	CL01044N	46	44	35	10	CL15044N	69	66	45	16	CL02044N	92	88	60	16	CL25044N	115	110	60	20	CL03044N	138	132	60	20					
45	CL01045N	47	45	35	10	CL15045N	70.5	67.5	45	16	CL02045N	94	90	60	16	CL25045N	117.5	112.5	60	20	CL03045N	141	135	60	20					
46	CL01046N	48	46	35	10	CL15046N	72	69	45	16	CL02046N	96	92	60	16	CL25046N	120	115	60	20	CL03046N	144	138	60	20					
47	CL01047N	49	47	35	10	CL15047N	73.5	70.5	45	16	CL02047N	98	94	60	16	CL25047N	122.5	117.5	60	20	CL03047N	147	141	60	20					
48	CL01048N	50	48	35	10	CL15048N	75	72	45	16	CL02048N	100	96	60	16	CL25048N	125	120	60	20	CL03048N	150	144	60	20					

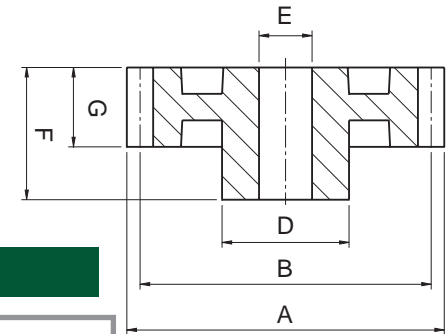
SERIE NORMALE (N)

RUOTE DENTATE cilindriche con mozzo laterale

Angolo di pressione 20° in nylon 6÷30% FV

SPUR GEARS with lateral hub Pressure angle 20° in nylon 6÷30% GF
 STIRNRÄDER mit seitlicher Nabe Eingriffswinkel 20° aus Nylon 6÷30% GF
 ROUES DENTÉES cylindriques avec moyeu latéral angle de pression 20° en nylon 6÷30% FV
 RUEDAS DENTADAS cilíndricas con cubo lateral Angulo de presión 20° de nylon 6÷30% FV

NORMAL SERIES (N)
 NORMALE SERIE (N)
 SERIE NORMALE (N)
 SERIE NORMAL (N)



Z	M 1				M 1.5				M 2				M 2.5				M 3								
	COD	A	B	D	E	COD	A	B	D	E	COD	A	B	D	E	COD	A	B	D	E	COD	A	B	D	E
49	CL01049N	51	49	35	10	CL15049N	76.5	73.5	45	16	CL02049N	102	98	60	16	CL25049N	127.5	122.5	60	20	CL03049N	153	147	60	20
50	CL01050N	52	50	35	10	CL15050N	78	75	45	16	CL02050N	104	100	60	20	CL25050N	130	125	60	20	CL03050N	156	150	60	20
51	CL01051N	53	51	35	10	CL15051N	79.5	76.5	50	20	CL02051N	106	102	60	20	CL25051N	132.5	127.5	60	20	CL03051N	159	153	60	20
52	CL01052N	54	52	35	14	CL15052N	81	78	50	20	CL02052N	108	104	60	20	CL25052N	135	130	60	20	CL03052N	162	156	60	20
53	CL01053N	55	53	35	14	CL15053N	82.5	79.5	50	20	CL02053N	110	106	60	20	CL25053N	137.5	132.5	60	20	CL03053N	165	159	60	20
54	CL01054N	56	54	35	14	CL15054N	84	81	50	20	CL02054N	112	108	60	20	CL25054N	140	135	60	20	CL03054N	168	162	60	20
55	CL01055N	57	55	35	14	CL15055N	85.5	82.5	50	20	CL02055N	114	110	60	20	CL25055N	142.5	137.5	60	20	CL03055N	171	165	60	20
56	CL01056N	58	56	35	14	CL15056N	87	84	50	20	CL02056N	116	112	60	20	CL25056N	145	140	60	20	CL03056N	174	168	60	20
57	CL01057N	59	57	35	14	CL15057N	88.5	85.5	50	20	CL02057N	118	114	60	20	CL25057N	147.5	142.5	60	20	CL03057N	177	171	60	20
58	CL01058N	60	58	35	14	CL15058N	90	87	50	20	CL02058N	120	116	60	20	CL25058N	150	145	60	20	CL03058N	180	174	60	20
59	CL01059N	61	59	40	14	CL15059N	91.5	88.5	50	20	CL02059N	122	118	60	20	CL25059N	152.5	147.5	60	20	CL03059N	183	177	60	20
60	CL01060N	62	60	40	14	CL15060N	93	90	60	20	CL02060N	124	120	60	20	CL25060N	155	150	60	20	CL03060N	186	180	60	25
61	CL01061N	63	61	40	14	CL15061N	94.5	91.5	60	20	CL02061N	126	122	60	20	CL25061N	157.5	152.5	60	25	CL03061N	189	183	60	25
62	CL01062N	64	62	40	14	CL15062N	96	93	60	20	CL02062N	128	124	60	20	CL25062N	160	155	60	25	CL03062N	192	186	60	25
63	CL01063N	65	63	40	14	CL15063N	97.5	94.5	60	20	CL02063N	130	126	60	20	CL25063N	162.5	157.5	60	25	CL03063N	195	189	60	25
64	CL01064N	66	64	40	14	CL15064N	99	96	60	20	CL02064N	132	128	60	20	CL25064N	165	160	60	25	CL03064N	198	192	60	25
65	CL01065N	67	65	40	20	CL15065N	100.5	97.5	60	20	CL02065N	134	130	60	20	CL25065N	167.5	162.5	60	25	CL03065N	201	195	60	25
66	CL01066N	68	66	40	20	CL15066N	102	99	60	20	CL02066N	136	132	60	20	CL25066N	170	165	60	25	CL03066N	204	198	60	25
67	CL01067N	69	67	40	20	CL15067N	103.5	100.5	60	20	CL02067N	138	134	60	20	CL25067N	172.5	167.5	60	25	CL03067N	207	201	60	25
68	CL01068N	70	68	40	20	CL15068N	105	102	60	20	CL02068N	140	136	60	20	CL25068N	175	170	60	25	CL03068N	210	204	60	25
69	CL01069N	71	69	40	20	CL15069N	106.5	103.5	60	20	CL02069N	142	138	60	20	CL25069N	177.5	172.5	60	20	CL03069N	213	207	60	25
70	CL01070N	72	70	40	20	CL15070N	108	105	60	20	CL02070N	144	140	60	20	CL25070N	180	175	60	25	CL03070N	216	210	60	25
71	CL01071N	73	71	40	20	CL15071N	109.5	106.5	60	20	CL02071N	146	142	60	20	CL25071N	182.5	177.5	60	20	CL03071N	219	213	60	25
72	CL01072N	74	72	40	20	CL15072N	111	108	60	20	CL02072N	148	144	60	20	CL25072N	185	180	60	25	CL03072N	222	216	60	25
73	CL01073N	75	73	40	20	CL15073N	112.5	109.5	60	20	CL02073N	150	146	60	20	CL25073N	187.5	182.5	60	20	CL03073N	225	219	60	25
74	CL01074N	76	74	40	20	CL15074N	114	111	60	20	CL02074N	152	148	60	20	CL25074N	190	185	60	25	CL03074N	228	222	60	25
75	CL01075N	77	75	50	20	CL15075N	115.5	112.5	60	20	CL02075N	154	150	60	20	CL25075N	192.5	187.5	60	20	CL03075N	231	225	60	25
76	CL01076N	78	76	50	20	CL15076N	117	114	60	20	CL02076N	156	152	60	20	CL25076N	195	190	60	25	CL03076N	234	228	60	25
77	CL01077N	79	77	50	20	CL15077N	118.5	115.5	60	20	CL02077N	158	154	60	20	CL25077N	197.5	192.5	60	25	CL03077N	237	231	60	25
78	CL01078N	80	78	40	20	CL15078N	120	117	60	20	CL02078N	160	156	60	20	CL25078N	200	195	60	25	CL03078N	240	234	60	25

MODULO	G	F
0,5	8	16
1	15	25
1,5	17	30
2	20	35
2,5	25	40
3	30	45
4	40	60

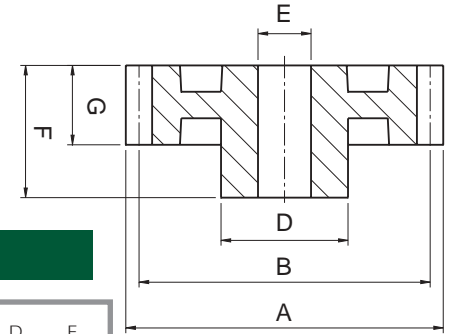
SERIE NORMALE (N)

SPUR GEARS with lateral hub Pressure angle 20° in nylon 6÷30% GF
 STIRNRÄDER mit seitlicher Nabe Eingriffswinkel 20° aus Nylon 6÷30% GF
 ROUES DENTÉES cylindriques avec moyeu latéral angle de pression 20° en nylon 6÷30% FV
 RUEDAS DENTADAS cilíndricas con cubo lateral Angulo de presión 20° de nylon 6÷30% FV

NORMAL SERIES (N)
 NORMALE SERIE (N)
 SERIE NORMALE (N)
 SERIE NORMAL (N)

RUOTE DENTATE cilindriche con mozzo laterale

Angolo di pressione 20° in nylon 6÷30% FV



Z	M 1					M 1.5					M 2					M 2.5					M 3										
	COD	A	B	D	E	COD	A	B	D	E	COD	A	B	D	E	COD	A	B	D	E	COD	A	B	D	E	COD	A	B	D	E	
79	CL01079N	81	79	40	20	CL15079N	121,5	118,5	60	20	CL02079N	162	158	60	20	CL25079N	202,5	197,5	60	25	CL03079N	243	237	60	25						
80	CL01080N	82	80	50	20	CL15080N	123	120	60	20	CL02080N	164	160	60	20	CL25080N	205	200	60	25	CL03080N	246	240	60	25						
81	CL01081N	83	81	40	20	CL15081N	124,5	121,5	60	20	CL02081N	166	162	60	20	CL25081N	207,5	202,5	60	25	CL03081N	249	243	60	25						
82	CL01082N	84	82	50	20	CL15082N	126	133	60	20	CL02082N	168	164	60	20	CL25082N	210	205	60	25	CL03082N	252	246	60	25						
83	CL01083N	85	83	40	20	CL15083N	127,5	124,5	50	20	CL02083N	170	166	60	20	CL25083N	215,5	207,5	60	25	CL03083N	255	249	60	25						
84	CL01084N	86	84	40	20	CL15084N	129	126	50	20	CL02084N	172	168	60	20	CL25084N	215	210	60	25	CL03084N	258	252	60	25						
85	CL01085N	87	85	50	20	CL15085N	130,5	127,5	60	20	CL02085N	174	170	60	20	CL25085N	217,5	212,5	60	25	CL03085N	261	255	60	25						
86	CL01086N	88	86	50	20	CL15086N	132	129	60	20	CL02086N	176	172	60	20	CL25086N	220	215	60	25	CL03086N	264	258	60	25						
87	CL01087N	89	87	40	20	CL15087N	133,5	130,5	60	20	CL02087N	178	174	60	20	CL25087N	222,5	217,5	60	25	CL03087N	267	271	60	25						
88	CL01088N	90	88	50	20	CL15088N	135	132	60	20	CL02088N	180	176	60	20	CL25088N	225	220	60	25	CL03088N	270	264	60	25						
89	CL01089N	91	89	40	20	CL15089N	136,5	133,5	60	20	CL02089N	182	178	60	20	CL25089N	227,5	222,5	60	25	CL03089N	273	267	60	25						
90	CL01090N	92	90	50	20	CL15090N	138	135	60	20	CL02090N	184	180	60	20	CL25090N	230	225	60	25	CL03090N	276	270	60	25						
91	CL01091N	93	91	50	20	CL15091N	139,5	136,5	60	20	CL02091N	186	182	60	20	CL25091N	232,5	227,5	60	25	CL03091N	279	273	60	25						
92	CL01092N	94	92	50	20	CL15092N	141	138	60	20	CL02092N	188	184	60	20	CL25092N	235	230	60	25	CL03092N	282	276	60	25						
93	CL01093N	95	93	50	20	CL15093N	142,5	139,5	60	20	CL02093N	190	186	60	20	CL25093N	237,5	232,5	60	25	CL03093N	285	279	60	25						
94	CL01094N	96	94	50	20	CL15094N	144	141	60	20	CL02094N	192	188	60	20	CL25094N	240	235	60	25	CL03094N	288	282	60	25						
95	CL01095N	97	95	50	20	CL15095N	145,5	142,5	60	20	CL02095N	194	190	60	20	CL25095N	242,5	237,5	60	25	CL03095N	291	285	60	25						
96	CL01096N	98	96	50	20	CL15096N	147	144	60	20	CL02096N	196	192	60	20	CL25096N	245	240	60	25	CL03096N	294	288	60	25						
97	CL01097N	99	97	50	20	CL15097N	148,5	145,5	60	20	CL02097N	198	194	60	20	CL25097N	247,5	242,5	60	25	CL03097N	297	291	60	25						
98	CL01098N	100	98	50	20	CL15098N	150	147	60	20	CL02098N	200	196	60	20	CL25098N	250	245	60	25	CL03098N	300	294	60	25						
99	CL01099N	101	99	50	20	CL15099N	151,5	148,5	60	20	CL02099N	202	198	60	20	CL25099N	252,5	247,5	60	25	CL03099N	303	297	60	25						
100	CL01100N	102	100	50	20	CL150100N	153	150	60	25	CL02100N	204	200	60	25	CL25100N	255	250	60	25	CL03100N	306	300	60	25						
104	CL01104N	106	104	50	20	CL150104N	159	156	60	25	CL02104N	212	208	60	25																
110	CL01110N	112	110	50	20	CL150110N	168	165	60	25	CL02105N	214	210	60	25																
120	CL01120N	122	120	50	20	CL150120N	183	180	60	25	CL02110N	224	220	60	25																
138	CL01138N	140	138	50	20	CL150138N	210	207	60	25	CL02112N	226	224	60	25																
150	CL01150N	152	150	50	20	CL150150N	228	225	60	25	CL02120N	244	240	60	25																
160	CL01160N	162	160	60	25	CL150160N	243	240	60	25	CL02126N	254	252	60	25																
200	CL01200N	202	200	60	25	CL150200N	303	300	60	25	CL02138N	280	276	60	25																
											CL02150N	304	300	60	25																
											CL02160N	324	320	60	25																
											CL02200N	404	400	60	25																

M 0,5				
COD	A	B	D	E
CL05030N	16,00	15,00	10	-
CL05055N	28,50	27,50	20	4
CL05070N	36,00	35,00	20	4

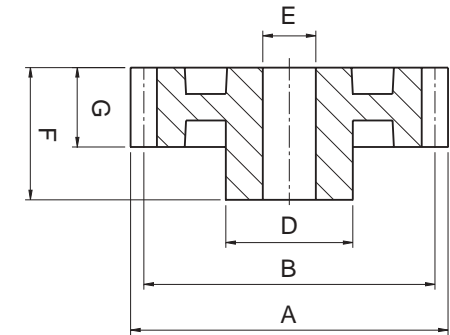
SERIE LEGGERA (L)

RUOTE DENTATE cilindriche con mozzo laterale

Angolo di pressione 20° in nylon 6÷30% FV

SPUR GEARS with lateral hub Pressure angle 20° in nylon 6÷30% GF
 STIRNRÄDER mit seitlicher Nabe Eingriffswinkel 20° aus Nylon 6÷30% GF
 ROUES DENTÉES cylindriques avec moyeu lateral angle de pression 20° en nylon 6÷30% FV
 RUEDAS DENTADAS cilíndricas con cubo lateral Angulo de presión 20° de nylon 6÷30% FV

LIGHT SERIES (L)
 LEICHTE SERIE (L)
 SERIE LEGERE (L)
 SERIE LIGERA (L)



M 1

M 1.5

Z	COD	A	B	D	E	COD	A	B	D	E
12	CL01012L	14	12	9	-	CL15012L	21	18	14	5
13	CL01013L	15	13	10	4	CL15013L	22.5	19.5	14	5
14	CL01014L	16	14	10	4	CL15014L	24	21	14	5
15	CL01015L	17	15	10	4	CL15015L	25.5	22.5	18	6
16	CL01016L	18	16	10	4	CL15016L	27	24	18	6
17	CL01017L	19	17	14	5	CL15017L	28.5	25.5	18	6
18	CL01018L	20	18	14	5	CL15018L	30	27	20	6
19	CL01019L	21	19	18	5	CL15019L	31.5	28.5	20	6
20	CL01020L	22	20	16	5	CL15020L	33	30	20	6
21	CL01021L	23	21	18	5	CL15021L	34.5	31.5	20	6
22	CL01022L	24	22	18	6	CL15022L	36	33	20	6
23	CL01023L	25	23	18	6	CL15023L	37.5	34.5	20	6
24	CL01024L	26	24	18	6	CL15024L	39	36	20	6
25	CL01025L	27	25	20	6	CL15025L	40.5	37.5	20	6
26	CL01026L	28	26	20	6	CL15026L	42	39	20	6
27	CL01027L	29	27	20	6	CL15027L	43.5	40.5	20	6
28	CL01028L	30	28	22	8	CL15028L	45	42	20	6
29	CL01029L	31	29	22	8	CL15029L	46.5	43.5	20	6
30	CL01030L	32	30	25	8	CL15030L	48	45	30	10
31	CL01031L	33	31	25	8	CL15031L	49.5	46.5	30	10
32	CL01032L	34	32	25	8	CL15032L	51	48	30	10
33	CL01033L	35	33	28	8	CL15033L	52.5	49.5	30	10
34	CL01034L	36	34	25	8	CL15034L	54	51	30	10
35	CL01035L	37	35	25	8	CL15035L	55.5	52.5	30	10
36	CL01036L	38	36	25	8	CL15036L	57	54	30	10
37	CL01037L	39	37	25	8	CL15037L	58.5	55.5	30	10
38	CL01038L	40	38	25	8	CL15038L	60	57	30	10
39	CL01039L	41	39	25	8	CL15039L	61.5	58.5	30	10
40	CL01040L	42	40	25	8	CL15040L	63	60	40	16
41	CL01041L	43	41	25	8	CL15041L	64.5	61.5	40	16
42	CL01042L	44	42	25	8	CL15042L	66	63	40	16
43	CL01043L	45	43	25	8	CL15043L	67.5	64.5	40	16
44	CL01044L	46	44	25	8	CL15044L	69	66	40	16
45	CL01045L	47	45	35	8	CL15045L	70.5	69.5	40	16
46	CL01046L	48	46	35	8	CL15046L	72	69	40	16
47	CL01047L	49	47	35	8	CL15047L	73.5	70.5	40	16
48	CL01048L	50	48	35	8	CL15048L	75	72	40	16

M 1

M 1.5

Z	COD	A	B	D	E	COD	A	B	D	E
49	CL01049L	51	49	35	8	CL15049L	76.5	73.5	40	16
50	CL01050L	52	50	35	8	CL15050L	78	75	50	16
51	CL01051L	53	51	35	8	CL15051L	79.5	76.5	50	20
52	CL01052L	54	52	35	8	CL15052L	81	78	50	20
53	CL01053L	55	53	35	8	CL15053L	82.5	79.5	50	20
54	CL01054L	56	54	35	8	CL15054L	84	81	50	20
55	CL01055L	57	55	40	10	CL15055L	85.5	82.5	50	20
56	CL01056L	58	56	40	10	CL15056L	87	84	60	20
57	CL01057L	59	57	40	10	CL15057L	88.5	85.5	60	20
58	CL01058L	60	58	40	14	CL15058L	90	87	60	20
59	CL01059L	61	59	40	14	CL15059L	91.5	88.5	60	20
60	CL01060L	62	60	40	14	CL15060L	93	90	60	20
61	CL01061L	63	61	40	14	CL15061L	94.5	91.5	60	20
62	CL01062L	64	62	40	14	CL15062L	96	93	60	20
63	CL01063L	65	63	40	14	CL15063L	97.5	94.5	60	20
64	CL01064L	66	64	40	14	CL15064L	99	96	60	20
65	CL01065L	67	65	40	14	CL15065L	100.5	97.5	60	20
67	CL01067L	69	67	40	14	CL15067L	103.5	100.5	60	20
70	CL01070L	72	70	40	14	CL15070L	108	105	60	20
72	CL01072L	74	72	40	14	CL15072L	111	108	60	20
75	CL01075L	77	75	40	14	CL15075L	115.5	112.5	60	20
76	CL01076L	78	76	40	14	CL15076L	117	114	60	20
77	CL01077L	79	77	40	14	CL15077L	118.5	115.5	60	20
80	CL01080L	82	80	40	20	CL15080L	123	120	60	20
82	CL01082L	84	82	40	20	CL15082L	126	123	60	25
85	CL01085L	87	85	40	20	CL15085L	130.5	127.5	60	25
86	CL01086L	88	86	40	20	CL15086L	132	129	60	25
88	CL01088L	90	88	40	20	CL15088L	135	132	60	25
90	CL01090L	92	90	50	20	CL15090L	138	135	60	25
95	CL01095L	97	95	50	20	CL15095L	145.5	142.5	60	25
100	CL01100L	102	100	50	20	CL15100L	153	150	60	25
101	CL01101L	103	101	50	20	CL15101L	154.5	151.5	60	25
104	CL01104L	106	104	50	20	CL15104L	159	156	60	25
110	CL01110L	112	110	50	20	CL15110L	168	165	60	25
120	CL01120L	122	120	60	25	CL15120L	183	180	60	25
138	CL01138L	140	138	60	25	CL15138L	210	207	60	25
150	CL01150L	152	150	60	25	CL15150L	228	225	60	25
160	CL01160L	162	160	60	25	CL15160L	243	240	60	25
200	CL01200L	202	200	60	25	CL15200L	303	300	60	25

MODULO	G	F
1	8	16
1,5	10	20