2009 SECOND EDITION

TRANSTECNO™

THE MODULAR GEARMOTOR

CATALOGO GENERALE
STOCK CATALOGUE

NEWS

Sezione serie CMB
CMB series section

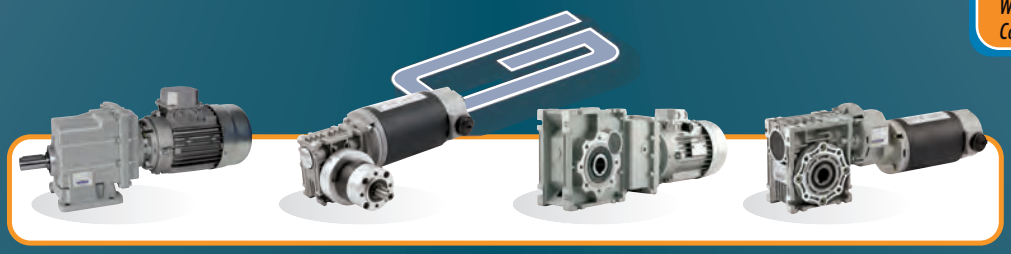
Nuova sezione serie CMP
CMP series new section

Sezione serie CMGV
CMGV series section

Sezione serie PHP
PHP series section

Rapporto 1/5 serie CM
1:5 ratio in CM series

Combinati
WMM26/040 - WMM26/050
WMM26/040 - WMM26/050
Combination gearboxes



THE COMPLETE PRODUCTION RANGE

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CMB RIDUTTORI AD ASSI ORTOGONALI
BEVEL HELICAL GEARBOXES

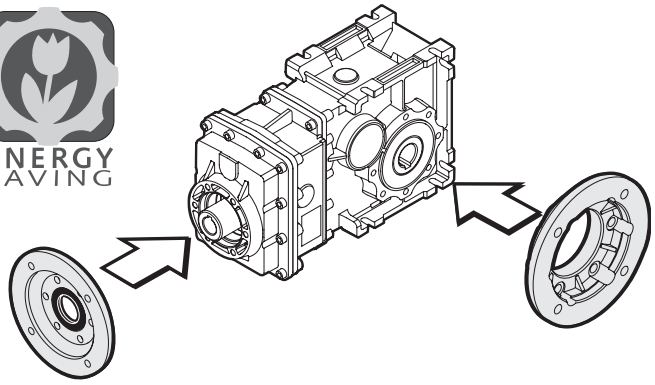
Caratteristiche tecniche

I riduttori ad ingranaggi ad assi ortogonali della serie CMB sono caratterizzati da un elevato grado di modularit : essi infatti sono stati realizzati con una carcassa completamente intercambiabile con quella dei riduttori a vite senza fine della serie CM.
Sono pertanto configurabili secondo le esigenze dell'applicazione con flangia di uscita, albero di uscita, braccio di reazione.
Caratteristiche comuni a tutta la serie:
- Carcassa e flangia PAM in pressofusione di alluminio
- Ingranaggi sempre rettificati
- Lubrificazione permanente

Technical characteristics

The high degree of modularity of CMB bevel helical gearbox allows it to be completely interchangeable with CM wormgearboxes.
It is possible to set up the version required using output flanges, output shafts and optional torque arms.
Common features of all CMB range are:
- Die-cast aluminum housing and input flanges
- Ground helical gears
- Permanent synthetic oil long-life lubrication

ENERGY SAVING



Designazione

Designation

RIDUTTORE / *GEARBOX*

CMB	63	3	9.81	U	P71	B5	O25
Tipo *Type*	Grandezza *Size*	Stadi *Stages*	Rapporto *Ratio*	Versione *Version*	IEC		Diam. albero cavo uscita *Output hollow shaft diameter*
CMB	63 90	3	vedi tabella *see tables*	U... FD... FS... FBD... FBS... FLD... FLS...	P63.. — P90..	B5 B14	vedi tabelle *see tables*

MOTORE / *MOTOR*

71B4	B5	230/400	50	T4
Grandezza *Size*	Forma costruttiva *Version*	Tensione *Voltage*	Frequenza *Frequency*	Pos. morsettiera *Terminal board position*
63.. — 112..	B5 B14	230/400	50	T1 T2 T3 T4

RIDUTTORE / *GEARBOX*

CMBIS	63	3	9.81	U	I16	O25
Tipo *Type*	Grandezza *Size*	Stadi *Stages*	Rapporto *Ratio*	Versione *Version*	Diam. Albero entrata *Input shaft diam.*	Diam. Albero cavo uscita *Output hollow shaft diameter*
CMBIS	63 90	3	vedi tabelle *see tables*	U... FD... FS... FBD... FBS... FLD... FLS...	vedi tabelle *see tables*	vedi tabelle *see tables*

Simbologia

Symbols

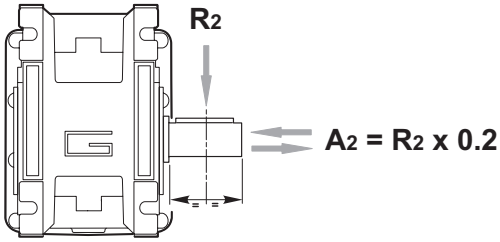
n_1	[min^{-1}]	Velocit in ingresso / *Input speed*
n_2	[min^{-1}]	Velocit in uscita / *Output speed*
i		Rapporto di riduzione / *Ratio*
P_1	[kW]	Potenza in entrata / *Input power*
M_n	[Nm]	Coppia nominale in uscita / *Nominal output torque*
sf		Fattore di servizio / *Service factor*
R_2	[N]	Carico radiale ammissibile in uscita / *Permitted output radial load*
A_2	[N]	Carico assiale ammissibile in uscita / *Permitted output axial load*

Lubrificazione / *Lubrication*

Tutti i riduttori CMB sono forniti completi di lubrificante sintetico viscosità 320, pertanto possono essere installati in qualunque posizione di montaggio e non necessitano di manutenzione.

Permanent synthetic oil long-life lubrication (viscosity grade 320) makes it possible to use CMB range in all mounting positions.

Carichi radiali / *Radial loads*



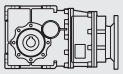
n_2 [min^{-1}]	R_2 [N]	
	CMB 633	CMB 903
200	2742	3986
170	2894	4208
140	3088	4489
100	3454	5022
90	3578	5202
60	4095	5954
40	4688	6816
30	5160	7502
20	5907	8588
15	6500	9500

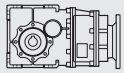
Dati tecnici / *Technical data* — n_1 1400 min^{-1}

	n_2 [min^{-1}]	M_2 [Nm]	P1 [kW]	i
CMB 633				
	213	150	3.6	6.58
	175	150	2.9	7.99
	143	150	2.4	9.81
	105	150	1.8	13.31
	88.6	200	2.0	15.81
	58.8	200	1.3	23.80
	45.5	200	1.0	30.80
	39.1	220	1.0	35.79
	36.0	250	1.0	38.88
	29.7	250	0.8	47.16
	24.2	250	0.7	57.93
	17.8	250	0.5	78.58
	15.0	250	0.4	93.33
	10.0	250	0.3	140.52
	7.7	250	0.2	181.81
	6.6	250	0.2	211.31

	n_2 [min^{-1}]	M_2 [Nm]	P1 [kW]	i
CMB 903				
	211	300	7.0	6.65
	175	300	5.8	8.00
	144	300	4.8	9.74
	125	300	4.2	11.21
	99.3	400	4.4	14.09
	62.5	400	2.8	22.40
	43.3	400	1.9	32.36
	37.3	450	1.9	37.58
	35.7	500	2.0	39.26
	29.6	500	1.7	47.25
	24.3	500	1.4	57.52
	21.2	500	1.2	66.17
	16.8	500	0.9	83.20
	10.6	500	0.6	132.23
	7.3	500	0.4	191.06
	6.3	500	0.4	221.88

Dati tecnici *Technical data*

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.12						
63A4 (1400 min^{-1})	213	5	29.6	6.58	**CMB633**	**B5**
	175	6	24.4	7.99		**B5**
	143	8	19.9	9.81		**B5**
	105	10	14.6	13.31		**B5**
	88.6	12	16.4	15.81		**B5**
	58.8	18	10.9	23.80		**B5**
	45.5	24	8.4	30.80		**B5**
	39.1	28	8.0	35.79		**B5**
	36.0	30	8.4	38.88		**B5**
	29.7	36	6.9	47.16		**B5**
	24.2	45	5.6	57.93		**B5**
	17.8	60	4.1	78.58		**B5**
	15.0	72	3.5	93.33		**B5**
	10.0	108	2.3	140.52		**B5**
	7.7	140	1.8	181.81		**B5**
	6.6	163	1.5	211.31		**B5**
0.18						
63B4 (1400 min^{-1})	213	8	19.7	6.58	**CMB633**	**B5**
	175	9	16.3	7.99		**B5**
	143	11	13.2	9.81		**B5**
	105	15	9.8	13.31		**B5**
	88.6	18	11.0	15.81		**B5**
	58.8	27	7.3	23.80		**B5**
	45.5	36	5.6	30.80		**B5**
	39.1	41	5.3	35.79		**B5**
	36.0	45	5.6	38.88		**B5**
	29.7	54	4.6	47.16		**B5**
	24.2	67	3.7	57.93		**B5**
	17.8	91	2.8	78.58		**B5**
	15.0	108	2.3	93.33		**B5**
	10.0	162	1.5	140.52		**B5**
	7.7	210	1.2	181.81		**B5**
	6.6	244	1.0	211.31		**B5**
0.25						
71A4 (1400 min^{-1})	213	11	14.2	6.58	**CMB633**	**B5/B14**
	175	13	11.7	7.99		**B5/B14**
	143	16	9.5	9.81		**B5/B14**
	105	21	7.0	13.31		**B5/B14**
	88.6	25	7.9	15.81		**B5/B14**
	58.8	38	5.2	23.80		**B5/B14**
	45.5	49	4.1	30.80		**B5/B14**
	39.1	57	3.8	35.79		**B5/B14**
	36.0	62	4.0	38.88		**B5/B14**
	29.7	76	3.3	47.16		**B5/B14**
	24.2	93	2.7	57.93		**B5/B14**
	17.8	126	2.0	78.58		**B5/B14**
	15.0	150	1.7	93.33		**B5/B14**
	10.0	225	1.1	140.52		**B5/B14**
	7.7	291	0.9	181.81		**B5/B14**
	10.6	212	2.4	132.23	**CMB903**	**B5**
	7.3	306	1.6	191.06		**B5**
	6.3	356	1.4	221.88		**B5**
0.37						
71B4 (1400 min^{-1})	213	16	9.6	6.58	**CMB633**	**B5/B14**
	175	19	7.9	7.99		**B5/B14**
	143	23	6.4	9.81		**B5/B14**
	105	32	4.8	13.31		**B5/B14**
	88.6	38	5.3	15.81		**B5/B14**
	58.8	56	3.5	23.80		**B5/B14**

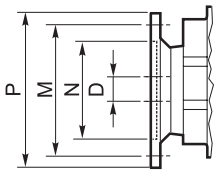
P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		IEC
0.37						
71B4 (1400 min^{-1})	45.5	73	2.7	30.80	**CMB633**	**B5/B14**
	39.1	85	2.6	35.79		**B5/B14**
	36.0	92	2.7	38.88		**B5/B14**
	29.7	112	2.2	47.16		**B5/B14**
	17.8	186	1.3	78.58		**B5/B14**
	15.0	221	1.1	93.33		**B5/B14**
	16.8	197	2.5	83.20	**CMB903**	**B5**
	10.6	314	1.6	132.23		**B5**
	7.3	453	1.1	191.06		**B5**
	6.3	526	0.9	221.88		**B5**
0.55						
80A4 (1400 min^{-1})	213	23	6.5	6.58	**CMB633**	**B5/B14**
	175	28	5.3	7.99		**B5/B14**
	143	35	4.3	9.81		**B5/B14**
	105	47	3.2	13.31		**B5/B14**
	88.6	56	3.6	15.81		**B5/B14**
	58.8	84	2.4	23.80		**B5/B14**
	45.5	109	1.8	30.80		**B5/B14**
	39.1	126	1.7	35.79		**B5/B14**
	36.0	137	1.8	38.88		**B5/B14**
	29.7	166	1.5	47.16		**B5/B14**
	24.2	204	1.2	57.93		**B5/B14**
	17.8	277	0.9	78.58		**B5/B14**
	21.2	233	2.1	66.17	**CMB903**	**B5/B14**
	16.8	293	1.7	83.20		**B5/B14**
	10.6	466	1.1	132.23		**B5/B14**
0.75						
80B4 (1400 min^{-1})	213	32	4.7	6.58	**CMB633**	**B5/B14**
	175	38	3.9	7.99		**B5/B14**
	143	47	3.2	9.81		**B5/B14**
	105	64	2.3	13.31		**B5/B14**
	88.6	76	2.6	15.81		**B5/B14**
	58.8	114	1.7	23.80		**B5/B14**
	45.5	148	1.4	30.80		**B5/B14**
	39.1	172	1.3	35.79		**B5/B14**
	36.0	187	1.3	38.88		**B5/B14**
	29.7	227	1.1	47.16		**B5/B14**
	24.2	279	0.9	57.93		**B5/B14**
	29.6	227	2.2	47.25	**CMB903**	**B5/B14**
	24.3	277	1.8	57.52		**B5/B14**
	21.2	318	1.6	66.17		**B5/B14**
	16.8	400	1.2	83.20		**B5/B14**
1.1						
90S4 (1400 min^{-1})	213	46	3.2	6.58	**CMB633**	**B5/B14**
	175	56	2.7	7.99		**B5/B14**
	143	69	2.2	9.81		**B5/B14**
	105	94	1.6	13.31		**B5/B14**
	88.6	112	1.8	15.81		**B5/B14**
	58.8	168	1.2	23.80		**B5/B14**
	62.5	158	2.5	22.40	**CMB903**	**B5/B14**
	43.3	228	1.8	32.36		**B5/B14**
	37.3	265	1.7	37.58		**B5/B14**
	35.7	277	1.8	39.26		**B5/B14**
	29.6	333	1.5	47.25		**B5/B14**
	24.3	406	1.2	57.52		**B5/B14**
	21.2	467	1.1	66.17		**B5/B14**
	16.8	587	0.9	83.20		**B5/B14**

Dati tecnici — *Technical data*

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		
1.5						
90L4 (1400 min^{-1})	213	63	2.4	6.58	**CMB633**	**B5/B14**
	175	77	2.0	7.99		**B5/B14**
	143	94	1.6	9.81		**B5/B14**
	105	128	1.2	13.31		**B5/B14**
	88.6	152	1.3	15.81		**B5/B14**
	58.8	229	0.9	23.80		**B5/B14**
	62.5	215	1.9	22.40	**CMB903**	**B5/B14**
	43.3	311	1.3	32.36		**B5/B14**
	37.3	361	1.2	37.58		**B5/B14**
	35.7	378	1.3	39.26		**B5/B14**
	29.6	454	1.1	47.25		**B5/B14**
	24.3	553	0.9	57.52		**B5/B14**
1.85						
90LB4 (1400 min^{-1})	213	78	1.9	6.58	**CMB633**	**B5/B14**
	175	95	1.6	7.99		**B5/B14**
	143	116	1.3	9.81		**B5/B14**
	105	158	1.0	13.31		**B5/B14**
	88.6	188	1.1	15.81		**B5/B14**
	125	133	2.3	11.21	**CMB903**	**B5/B14**
	99.3	167	2.4	14.09		**B5/B14**
	62.5	266	1.5	22.40		**B5/B14**
	43.3	384	1.0	32.36		**B5/B14**
	37.3	446	1.0	37.58		**B5/B14**
	35.7	466	1.1	39.26		**B5/B14**
	29.6	561	0.9	47.25		**B5/B14**

P_1 [kW]	n_2 [min^{-1}]	M_2 [Nm]	sf	i		
2.2						
100LA4 (1400 min^{-1})	211	94	3.2	6.65	**CMB903**	**B5/B14**
	175	113	2.7	8.00		**B5/B14**
	144	137	2.2	9.74		**B5/B14**
	125	158	1.9	11.21		**B5/B14**
	99.3	199	2.0	14.09		**B5/B14**
	62.5	316	1.3	22.40		**B5/B14**
	43.3	457	0.9	32.36		**B5/B14**
3.0						
100LB4 (1400 min^{-1})	211	128	2.3	6.65	**CMB903**	**B5/B14**
	175	154	1.9	8.00		**B5/B14**
	144	187	1.6	9.74		**B5/B14**
	125	216	1.4	11.21		**B5/B14**
	99.3	271	1.5	14.09		**B5/B14**
	62.5	431	0.9	22.40		**B5/B14**
4.0						
112M4 (1400 min^{-1})	211	171	1.8	6.65	**CMB903**	**B5/B14**
	175	205	1.5	8.00		**B5/B14**
	144	250	1.2	9.74		**B5/B14**
	125	287	1.0	11.21		**B5/B14**
	99.3	361	1.1	14.09		**B5/B14**
4.8						
112MS4 (1400 min^{-1})	211	205	1.5	6.65	**CMB903**	**B5/B14**
	175	246	1.2	8.00		**B5/B14**
	144	300	1.0	9.74		**B5/B14**

Motori applicabili — *IEC Motor adapters*



	IEC	N	M	P	D	i (rapporto / *ratio*)														
						6.58	7.99	9.81	13.31	15.81	23.80	30.80	35.79	38.88	47.16	57.93	78.58	93.33	140.52	181.81	211.31
CMB633	**90 B5**	130	165	200	24																
	90 B14	95	115	140																	
	80 B5	130	165	200	19																
	80 B14	80	100	120																	
	71 B5	110	130	160	14																
	71 B14	70	85	105																	
	63 B5	95	115	140	11																

	IEC	N	M	P	D	i														
						6.65	8.00	9.74	11.21	14.09	22.40	32.36	37.58	39.26	47.25	57.52	66.17	83.20	132.23	191.06	221.88
CMB903	**100/112B5**	180	215	250	28																
	100/112B14	110	130	160																	
	90 B5	130	165	200	24																
	90 B14	95	115	140																	
	80 B5	130	165	200	19																
	80 B14	80	100	120																	
	71 B5	110	130	160	14																

N.B.
Le aree evidenziate in grigio indicano l'applicabilità della corrispondente grandezza motore.
B/BS = Boccola di riduzione in acciaio

N.B.
Grey areas indicate motor inputs available on each size of unit.
***B/BS** = Metal shaft sleeve*

Dimensioni ***Dimensions***

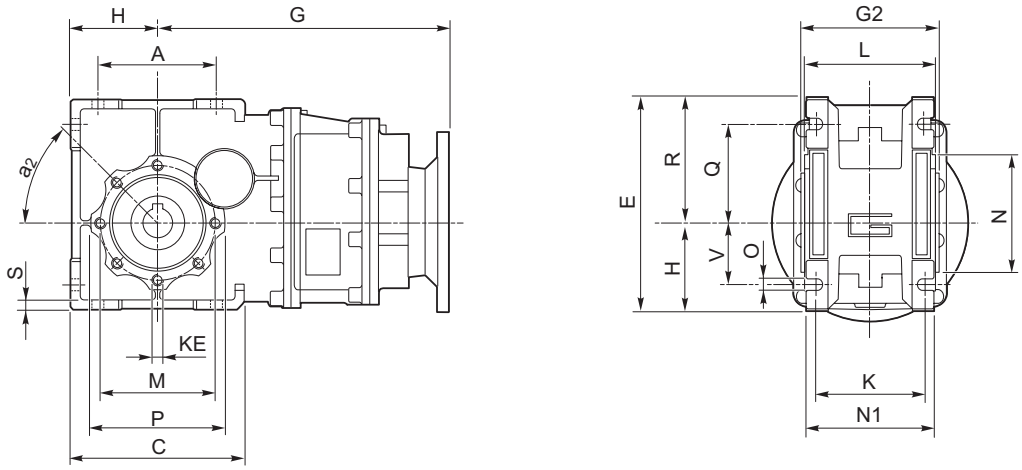
CMB CMBIS	A	C	E	G	H	K	KE	a_2	L	M	N f7	N1	O	P	Q	R	S	U	V	Peso / *Weight* [kg]
633	100	144	174	241	72	85	M8x15	45°	106	95	80	104	8.5	110	80	102	8	233	50	9.5
903	140	206	238	287	103	100	M10x20	45°	134	130	110	130	13	160	102	135	11	279.5	70	18.4

CMB CMBIS	Albero entrata *Input shaft*					Albero uscita cavo *Hollow output shaft*				
	D_1 j6	E_1	F_1	G_1	T_1	D_2 H8	F_2	G_2	b	t
633	16	40	5	M6	18	25	35	112	8	28.3
903	19	40	6	M6	21.5	35	45	140	10	38.3

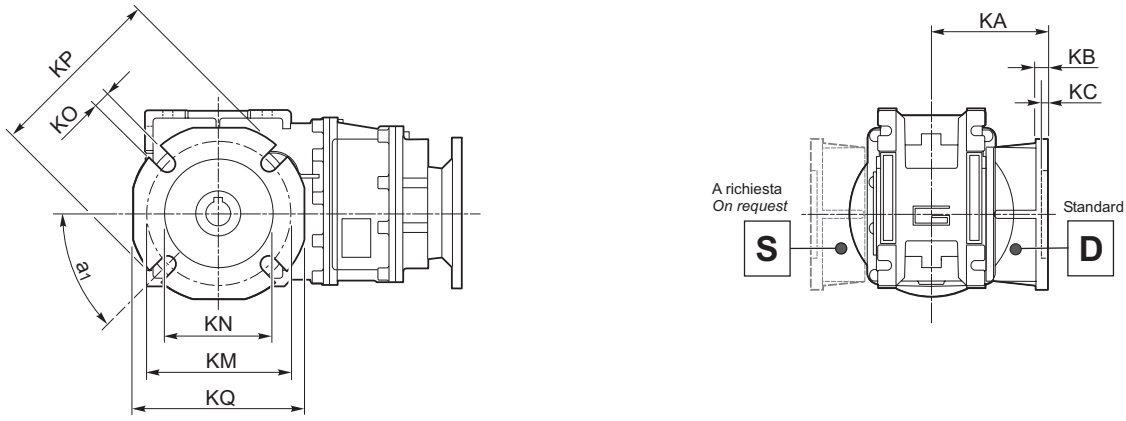
	Flange uscita / *Output flanges*																							
	F									**FL**									**FB**								
CMB CMBIS	a_1	KA	KB	KC	KM	KN H8	KO	KP	KQ	a_1	KA	KB	KC	KM	KN H8	KO	KP	KQ	a_1	KA	KB	KC	KM	KN H8	KO	KP
633	45°	82	10	6	150 - 160	115	11	180	142	45°	112	10	8	150 - 160	115	11	180	142	45°	98	11	5	165	130	11	200
903	45°	111	13	6	175 - 188	152	14	210	200	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—

CMB.. - CMBIS..

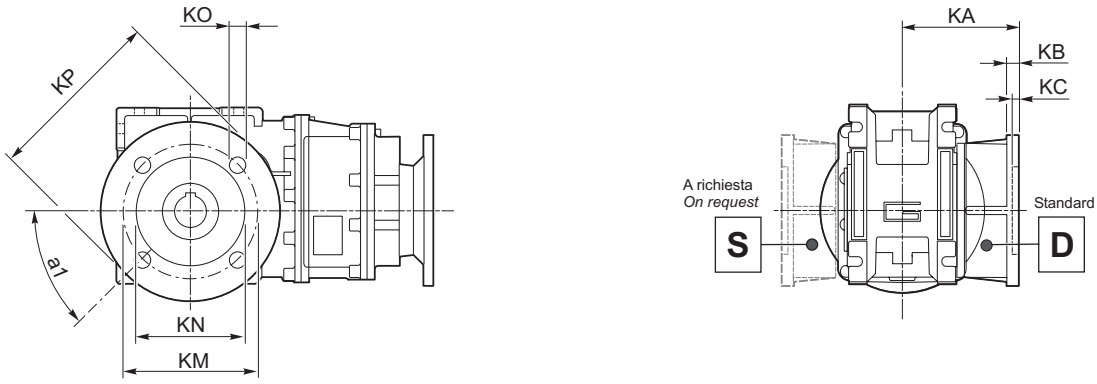
CMB..U



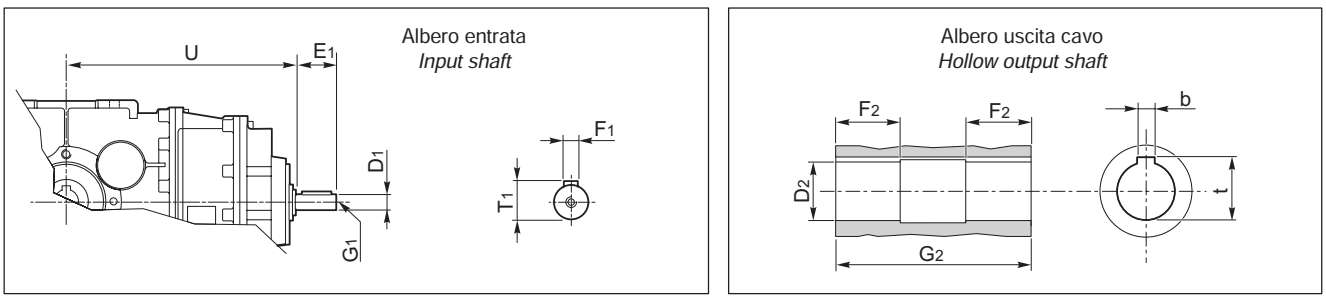
CMB..F
CMB..FL



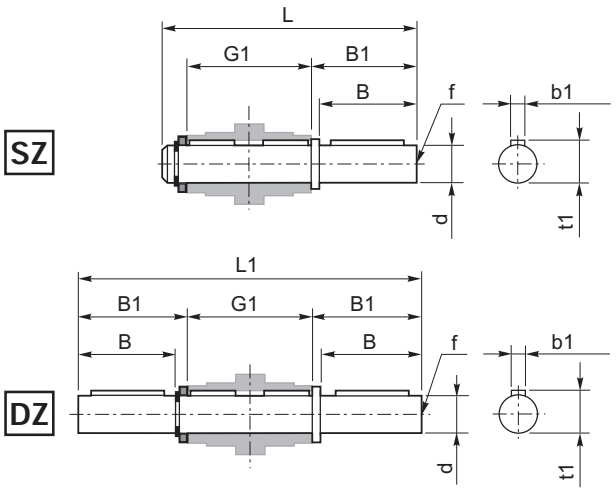
CMB..FB

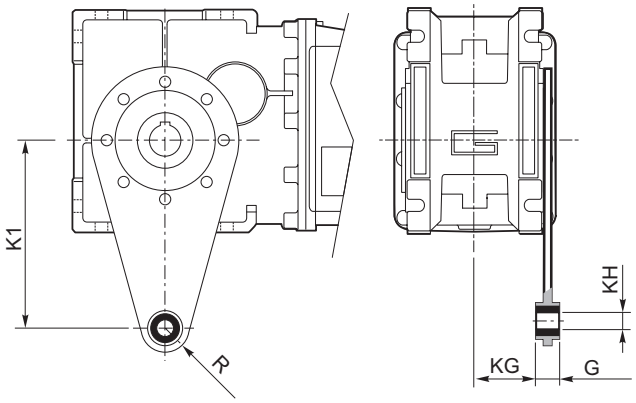


CMBIS..



Accessori / *Accessories*





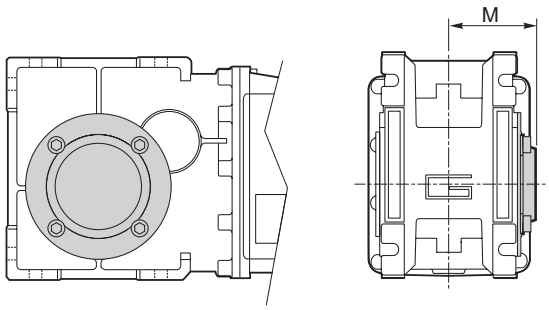
Albero lento / *Output shaft*

CMB CMBIS	d h6	B	B1	G1	L	L1	f	b1	t1
633	25	50	53.5	112	173	219	M10	8	28
903	35	80	84.5	140	234	309	M12	10	38

Braccio di reazione / *Torque arm*

CMB CMBIS	K1	G	KG	KH	R
633	150	14	47.5	10	18
903	200	25	56.5	20	30

Opzioni / *Options*



PC - Coperchio di protezione / *Plastic cover*

CMB CMBIS	M
633	73
903	94