Lightangle-Gears™

B - Catalogue

HYDRO-MEC

Worm gear speed reducers
Riduttori a vite senza fine

0.12÷4.0 Kw / 15÷850 Nm

Cat.:**VSF-B-2005**

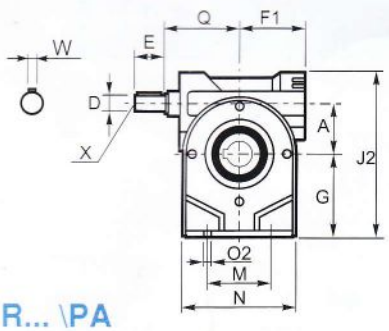
Selezione / Selection

Flange motore disponibili / Available motor flanges

$n_1 = 1400\ min^{-1}$

Tipo Type	n_2 [min^{-1}]	i	P_{1M} [kW]	M_{2M} [Nm]	f.s.	B5 A	B5 B	B5 C	B5 D	B5 E	B5 F	B14 O	B14 P	B14 Q	B14 R	B14 T	B14 U	RD	Tipo Type
						56	63	71	80	90	100 112	56	63	71	80	90	100 112		
030	280	5	0.18	5	3.2														030
	200	7	0.18	7	2.3	B						B-C						80	
	140	10	0.18	10	1.7	B						B-C						78	
	93	15	0.18	13	1.3	B						B-C						73	
	70	20	0.18	17	1.0	B						B-C						70	
	47	30	0.12	15	1.3	B						B-C						62	
	35	40	0.12	19	1.0	B						B-C						57	
	23	61	0.09	19	1.0	B						B-C						50	
	17.5	80	0.09	16	1.0	B						B-C						48	
045	200	7	0.37	14	2.1		B					B-C	B-C					80	045
	140	10	0.37	20	1.5		B					B-C	B-C					79	
	100	14	0.37	27	1.1		B					B-C	B-C					77	
	67	21	0.37	36	1.1		B					B-C	B-C					67	
	50	28	0.25	31	1.3		B					B-C	B-C					65	
	38	37	0.25	40	1.0		B					B-C	B-C					63	
	30	46	0.25	46	0.8		B					B-C	B-C					59	
	23	60	0.18	41	0.9		B					B-C	B-C					56	
	20	70	0.12	31	0.9		B					B-C	B-C					54	
	13.7	102	0.09*	28	<0.8		B					B-C	B-C					49	
050	200	7	0.75	29	1.8		B	B					B-C	B				82	050
	140	10	0.75	41	1.4		B	B					B-C	B				80	
	100	14	0.75	57	1.1		B	B					B-C	B				79	
	78	18	0.55	51	1.2		B	B					B-C	B				75	
	54	26	0.55	67	0.9		B	B					B-C	B				69	
	39	36	0.37	63	1.1		B					B-C	B-C					69	
	33	43	0.37	72	0.9		B					B-C	B-C					66	
	23	60	0.25	59	1.0		B					B-C	B-C					58	
	21	68	0.25	66	0.8		B					B-C	B-C					57	
	17.5	80	0.18	53	1.0		B					B-C	B-C					54	
	14.0	100	0.12	41	1.2		B					B-C	B-C					50	
063	200	7	1.8	71	1.7			B	B					B-C	B-C			83	063
	140	10	1.8	99	1.3			B	B					B-C	B-C			81	
	93	15	1.5	121	1.1			B	B					B-C	B-C			79	
	74	19	1.1	111	1.2			B	B					B-C	B-C			78	
	58	24	1.1	135	1.0			B	B					B-C	B-C			75	
	47	30	1.1	167	0.8			B	B					B-C	B-C			74	
	39	36	0.75	125	1.1			B	B					B-C	B-C			68	
	31	45	0.55	111	1.2		B	B						B-C	C			66	
	21	67	0.55	151	0.8		B	B						B-C	C			60	
	17.5	80	0.37	115	1.0		B	B						B-C	C			57	
	14.9	94	0.37	123	0.8		B	B						B-C	C			52	
63A	200	7	1.8	71	2.2			B	B					B-C	B-C			83	63A
	140	10	1.8	99	1.7			B	B					B-C	B-C			81	
	93	15	1.5	121	1.4			B	B					B-C	B-C			79	
	74	19	1.5	152	1.1			B	B					B-C	B-C			78	
	58	24	1.5	184	1.0			B	B					B-C	B-C			75	
	47	30	1.5	227	0.8			B	B					B-C	B-C			74	
	39	36	1.1	184	1.0			B	B					B-C	B-C			68	
	31	45	0.75	152	1.1		B	B						B-C	C			66	
	21	67	0.55	151	1.0		B	B						B-C	C			60	
	17.5	80	0.37	115	1.3		B	B						B-C	C			57	
	14.9	94	0.37	123	1.0		B	B						B-C	C			52	
085	200	7	4.0	168	1.5				B	B					B	B		88	085
	140	10	4.0	218	1.2				B	B					B	B		80	
	100	14	3.0	223	1.3				B	B					B	B		78	
	70	20	2.2	237	1.2				B	B					B	B		79	
	64	22	2.2	258	1.1				B	B					B	B		78	
	50	28	2.2	315	1.0				B	B					B	B		75	
	37	38	1.5	276	1.2			B	B						B			71	
	30	46	1.5	320	1.0			B	B						B			68	
	27	52	1.1	258	1.1			B	B						B			66	
	21	67	1.1	327	0.8			B	B						B			65	
	18.9	74	0.75	220	1.2			B	B						B			58	
	14.6	96	0.55	191	1.2			B	B						B			53	
110	200	7	4.0	168	2.7				B	B					B	B		88	110
	140	10	4.0	235	2.1				B	B					B	B		86	
	88	16	4.0	262	1.8				B	B					B	B		82	
	70	20	4.0	447	1.2				B	B					B	B		82	
	61	23	3.0	377	1.3				B	B					B	B		80	
	47	30	3.0	467	1.3				B	B					B	B		76	
	37	38	3.0	583	1.0				B	B					B	B		75	
	31	45	2.2	493	1.2				B	B					B	B		73	
	26	53	2.2	557	1.1				B	B					B	B		70	
	22	64	1.5	452	1.1			B	B						B			69	
	16.7	84	1.1	410	1.1			B	B						B			65	
	14.1	99	1.1	446	1.0			B	B						B			60	

Dimensioni / Dimensions



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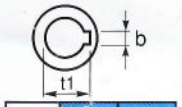
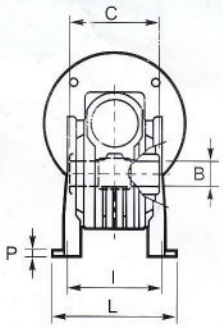
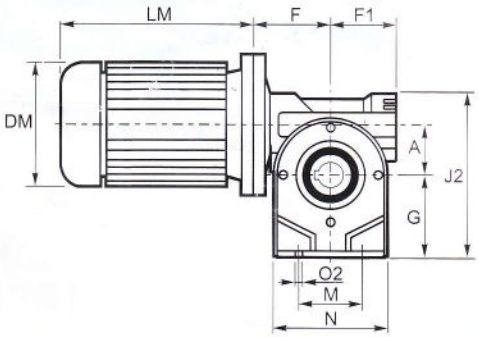


	b	t1
030	5	16.3
045	6	20.8
050	8	28.3
063	8	28.3
63A	8	31.3
085	10	38.3
110	12	45.3





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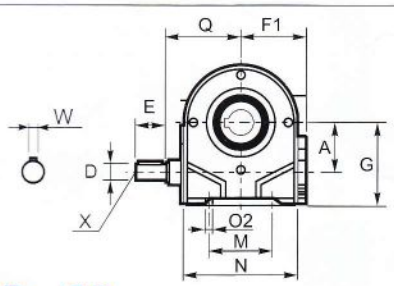

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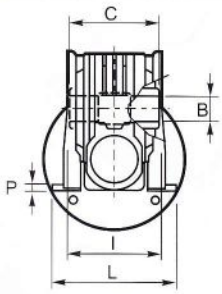

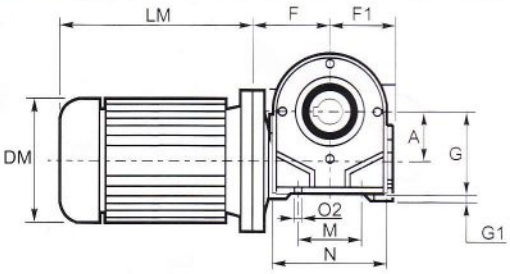

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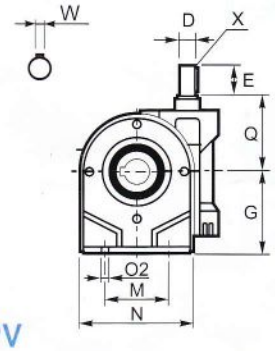

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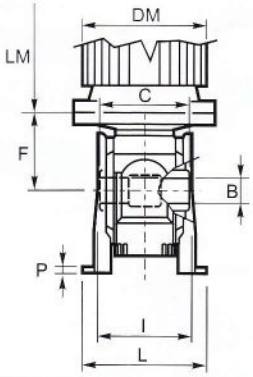

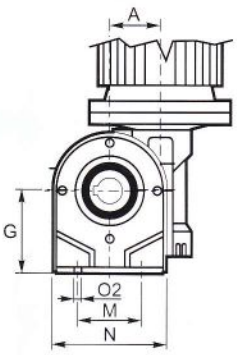

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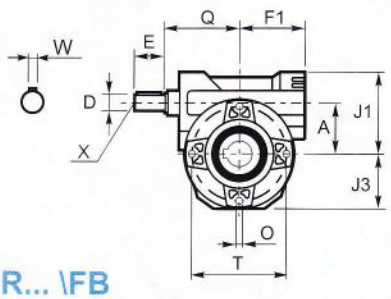

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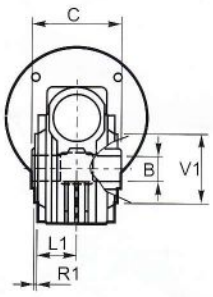
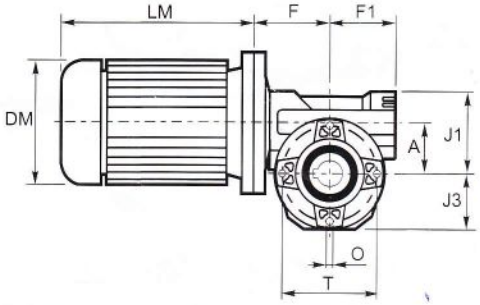
O*
030 045 050
063 63A 110
085





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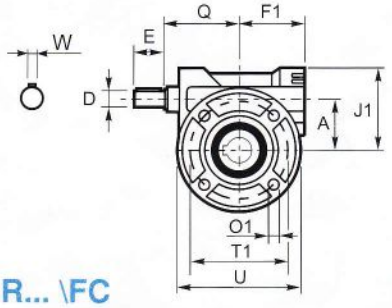

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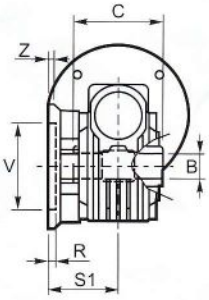

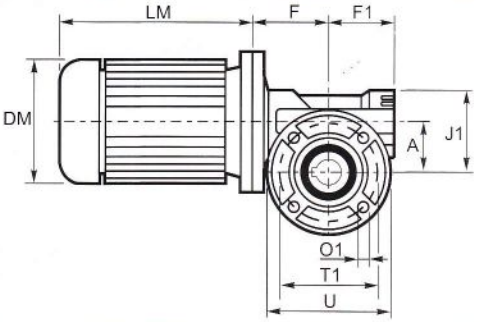

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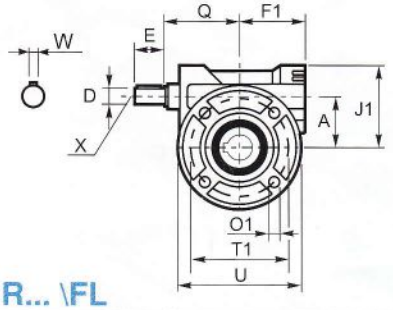

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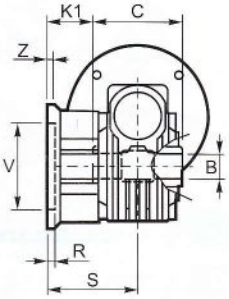

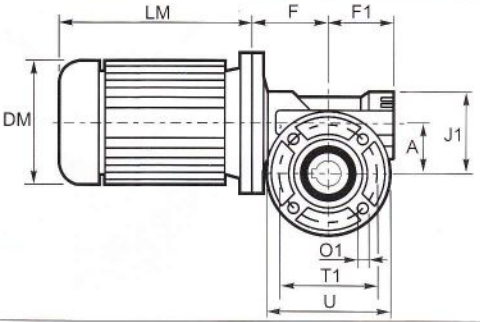

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Dimensioni / Dimensions

	030	045	050	063	63A	085	110
A	30	45	50	63	63	85	110
B	14	18	25	25	28	35	42
C	55	65	81	120	120	135	155
D	9	11	16	18	18	25	25
E	20	30	30	45	45	50	50
F Max	62.5	74	81.5	99.5	99.5	124	144
F1	46	55	65	79	79	98	118
G	55	72	82	100	115	142	170
I	65 - 66	80 - 81	98 - 100	110 - 111	115	145	180
J	94	121	138.5	170	170	236.5	266
J1	51	72	81	100	100	138	163
J2	106	144	163	200	215	280	333
J3	39	49	54.5	70	70	94.5	116
L	87	100	123	144	142	182	224
L1	30	35	38	45	45	64	74
M	50	50 - 52	63 - 65	95	120	140	200
N	78	98	113	133	156	180	240
O	4 - M6x9	4 - M6x14	4 - M6x9	8 - M8x17	8 - M8x17	4 - M10x18	8 - M12x30
O1	8.5 7	8.5	10.5	10.5	13	13	13
O2	6.5	10.5	10.5	10.5	11	10.5	13
P	3	3	3.5	4	12	5	22
Q	58	68	74.5	93	93	112	131.5
R	6	9	9	7	7	5	11
R1	2	2	3	5	5	3.5	3.5
S (FL)	55.5 —	90.5	114.5	116	111	148.5	179.5
S1 (FC)	— 50.5	60.5	85	86	85	108	131.5
T	65	65	94	90	90	130	165
T1	87 68	87	90	150	165	176	230
U	110 80	110	123	175	200	205	270
V	60 +0.05 50 +0.05	60 +0.05 +0.15	70 +0.15 +0.20	115 +0.15 +0.20	130 +0.15 +0.20	152 +0.06 +0	170 +0.5
V1	50	50	68	75	75	110	130
W	3	4	5	6	6	8	8
X	—	—	M6	M6	M6	M8	M8
Z	6	9	12	13	13	16	16.5
Kg (FB)	1	2.4	3	6	6	11	35

LUBRIFICAZIONE

I riduttori tipo **030 ÷ 085** sono forniti con lubrificazione permanente ad olio sintetico per le posizioni di montaggio B3- B6- B7- B8 e non richiedono alcuna manutenzione.
Per le posizioni di montaggio V5- V6 contattare la nostra ditta.
Il riduttore 110 e' fornito senza lubrificante e va riempito fino a livello.

LUBRICATION

Units **030** to **085** are supplied with synthetic oil providing "long life" lubrication for mounting positions B3-B6-B7-B8 and maintenance is not necessary.
For V5-V6 please contact us.
The type 110 is supplied without lubrication and must be filled up to on level.

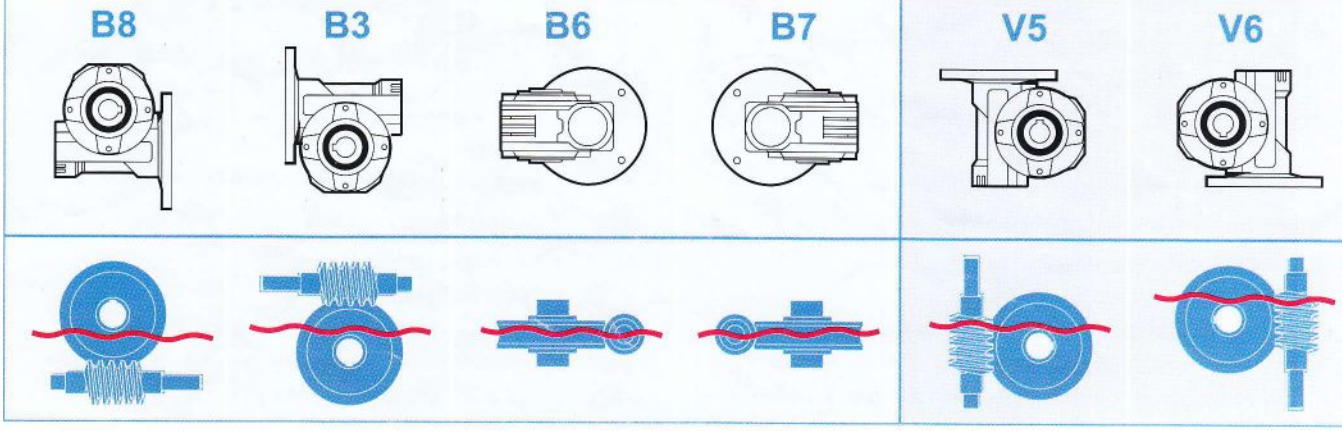
	AGIP	KLUBER	SHELL	MOBIL	ESSO
030 ÷ 110	Tellium VSF 320	Syntheso D220 EP	Tivela Oil WB	Glygoyl 30 SHC 630	—

	030	045	050	063	63A	085	110 *
Q.tà / Q.ty (Lt.)	0.06	0.09	0.18	0.40	0.40	1.2	2.0/1.5

*** Vedi tappo di livello OLIO / See oil level plug**

Posizioni di montaggio standard/ Standard mounting positions

Consigliato per utilizzi a intermittenza / Suggested for intermittent uses.

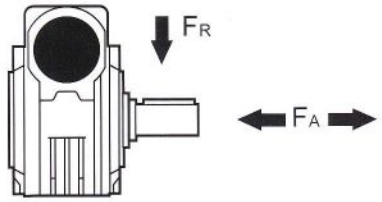


Fattore di servizio / Service factor

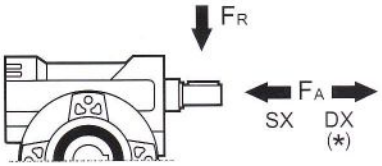
f.s.					
Tipo di carico e avviamenti per ora Type of load and starts per hour			Ore di funz. giorn. Oper. hours per day		
			<2 h	2 - 8 h	8 - 16 h
Applicazione cont. o interm. con n.ro operazioni/ora Continuous or intermittent appl. with start/hour	10	Uniforme / Uniform	0.9	1	1.25
		Moderato / Moderate	1	1.25	1.5
		Forte / Heavy	1.25	1.5	1.75
Applicazione intermittente con n.ro operazioni/ora Intermittent application with start/hour	> 10	Uniforme / Uniform	1.25	1.5	1.75
		Moderato / Moderate	1.5	1.75	2
		Forte / Heavy	1.75	2	2.25

Carichi radiali e assiali / Radial and axial loads

n_2 [min^{-1}]	030		045		050		063/63A		085		110	
	F_A [N]	F_R [N]	F_A [N]	F_R [N]	F_A [N]	F_R [N]	F_A [N]	F_R [N]	F_A [N]	F_R [N]	F_A [N]	F_R [N]
200	120	600	180	900	240	1200	360	1800	500	2500	600	2900
150	140	700	200	1000	280	1400	400	2000	580	2900	700	3300
100	160	800	220	1100	300	1500	460	2300	600	3000	750	3600
75	180	900	240	1200	340	1700	500	2500	700	3500	800	4000
50	200	1000	260	1400	380	1900	600	3000	800	4000	920	4600
25	250	1250	300	1800	480	2500	700	3800	1000	5000	1200	6000
15	280	1400	400	2000	560	2800	800	4000	1160	5800	1400	7000



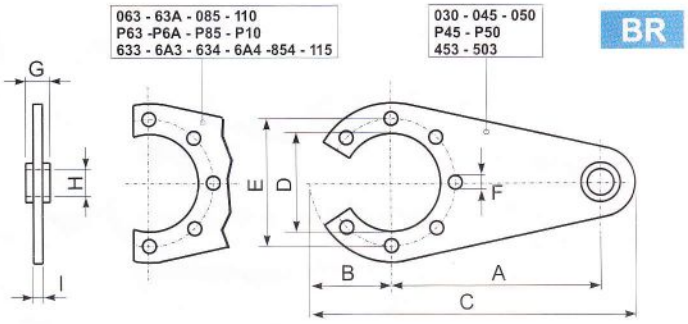
n_1 [min^{-1}]	030		045		050		063/63A		085		110	
	F_A [N]	F_R [N]	F_A [N]	F_R [N]	F_A [N]	F_R [N]	F_A [N]	F_R [N]	F_A [N]	F_R [N]	F_A [N]	F_R [N]
1400	20	100	42	210	76	380	90	450	160	809	228	1140



Non sono consentiti forti carichi con direzione DX
Strong axial loads in the DX direction are not allowed

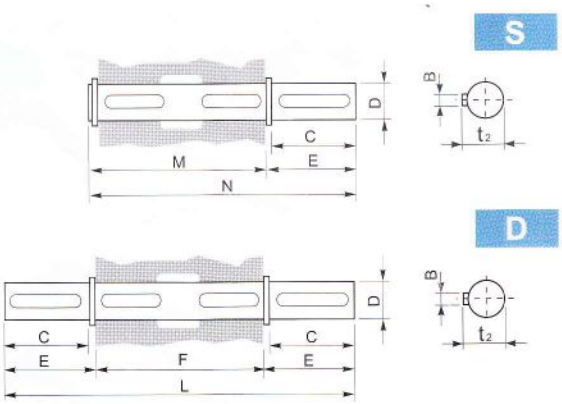
Braccio di reazione / Reaction arm

	A	B	C	D	E	F	G	H	I
030	100	40	158	50	65	7	4	8	4
045	100	45	158	50	65	7	4	8	4
050	100	55	173	68	94	7	4	8	4
063	150	55	235	75	90	9	20	10	6
63A	150	55	235	75	90	9	20	20	6
085	200	80	320	110	130	11	25	20	6
110	250	100	391	130	165	13	25	20	6



Albero lento con sporgenza
Single and double output shaft

	B	C	D $^{-0.005}_{-0.020}$	E	F	L	M	N	t_2
030	5	25	14	35.5	55	126	61	95	16.3
045	6	32	18	43	65	151	70	113	20.8
050	8	52	25	60	81	200	88	146	28.3
063	8	60	25	63	120	246.4	127	190	28.3
63A	8	60	28	63	120	247	126	191	31.3
085	10	60	35	73.5	135	282	140	214	38.3
110	12	75	42	96.5	155	348	163.5	260	45.3



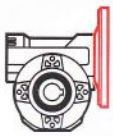
P_{1M} [KW] = potenza in entrata (n_1=1400 min^{-1})
n_2 [min^{-1}] = giri in uscita (n_1=1400 min^{-1})
M_{2M} [Nm] = Coppia trasmessa in uscita
= flange disponibili
B = montaggio con boccola di riduzione
B = disponibile anche senza boccola
C = posizione fori flangia/ basetta motore

P_{1M} [KW] = input power (n_1=1400 min^{-1})
n_2 [min^{-1}] = output speed (n_1=1400 min^{-1})
M_{2M} [Nm] = trasmitted output torque
= motor flange available
B = connection by means of reduction bush
B = available without reduction bushes
C = motor flange/ terminal box position

Codifica / How to order

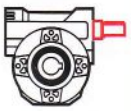
P	045	PA	10	C	Ø	Q	71 (B5/B14)	B3

Tipo - Type



P

B



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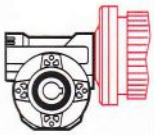


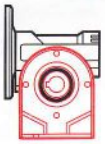
M

Grandezza Size

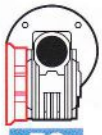
030
045
050
063
63A
085
110

Montaggio Mounting

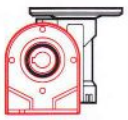
FB



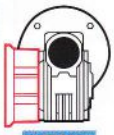
PA



FC

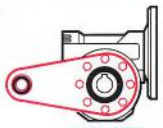


PV



FL
F1
F2
F3
F4

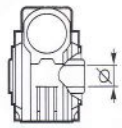
PB



BR

Rapporto Ratio

Mozzo corona Hub



C

STANDARD

030 ⇨ ø14
045 ⇨ ø18
050 ⇨ ø25
063 ⇨ ø25
63A ⇨ ø28
085 ⇨ ø35
110 ⇨ ø42

I

Mozzo in acciaio inox
Stainless steel hub

Serie speciale/ Special series

S

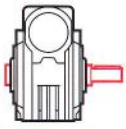
045 ⇨ ø19
050 ⇨ ø24

X

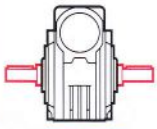
Mozzo in acciaio inox
Stainless steel hub

Albero lento Output shaft

Ø

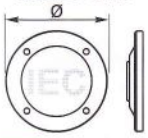


S



D

Grandezza motore Motor size



M Senza Flangia Without Flange

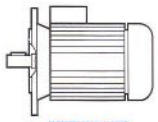
B5

A	⇨	56 (ø 120)
B	⇨	63 (ø 140)
C	⇨	71 (ø 160)
D	⇨	80 (ø 200)
E	⇨	90 (ø 200)
F	⇨	100-112 (ø 250)
G	⇨	132 (ø 300)

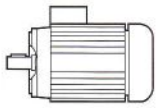
B14

O	⇨	56 (ø 80)
P	⇨	63 (ø 90)
Q	⇨	71 (ø 105)
R	⇨	80 (ø 120)
T	⇨	90 (ø 140)
U	⇨	100-112 (ø 160)

Grandezza mot. Motor size



B5



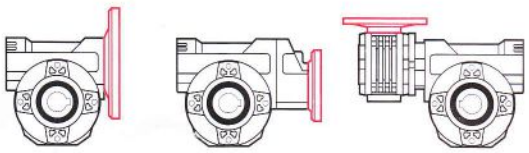
B14

Posizione di Montaggio Mounting Position

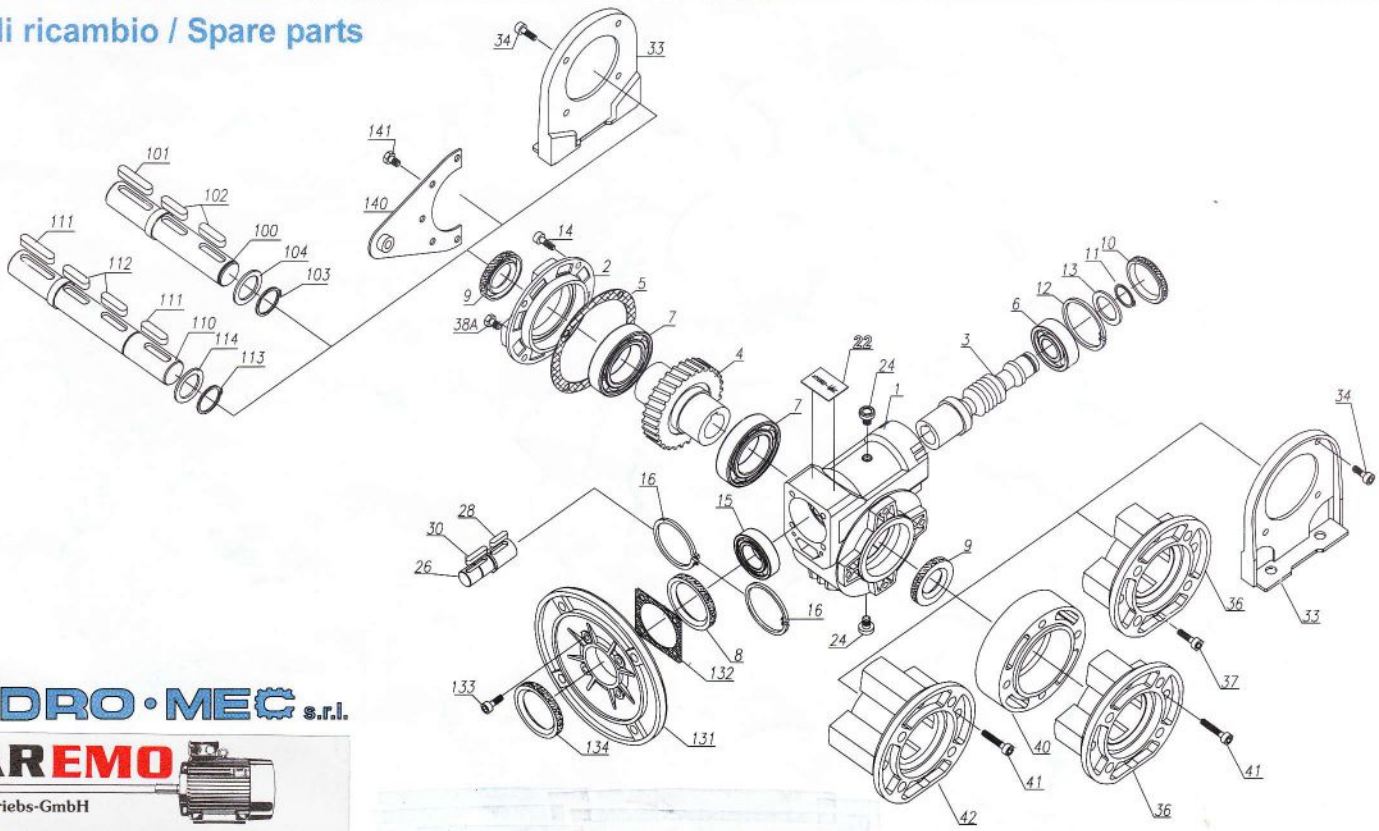
*** Indicare nell'ordine se con motore a 2 poli / Specify in the order 2 poles motors.**

Sono disponibili alberi cavi, fissaggio piedi e flange di uscita con misure differenti da quelle riportate in questo catalogo. Inoltre disponiamo di riduttori con precoppia e combinati. Richiedeteci il catalogo completo. Codice cat.: ***VSF-BS-2005/1***

Hollow shaft, feet and output flange are also available in different dimensions than those shown on the catalogue. We also have available worm gearboxes with primary reductio and combined worm gearboxes. Please ask us for the complite catalogue. Catalogue code: ***VSF-BS-2005/1***



Parti di ricambio / Spare parts



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