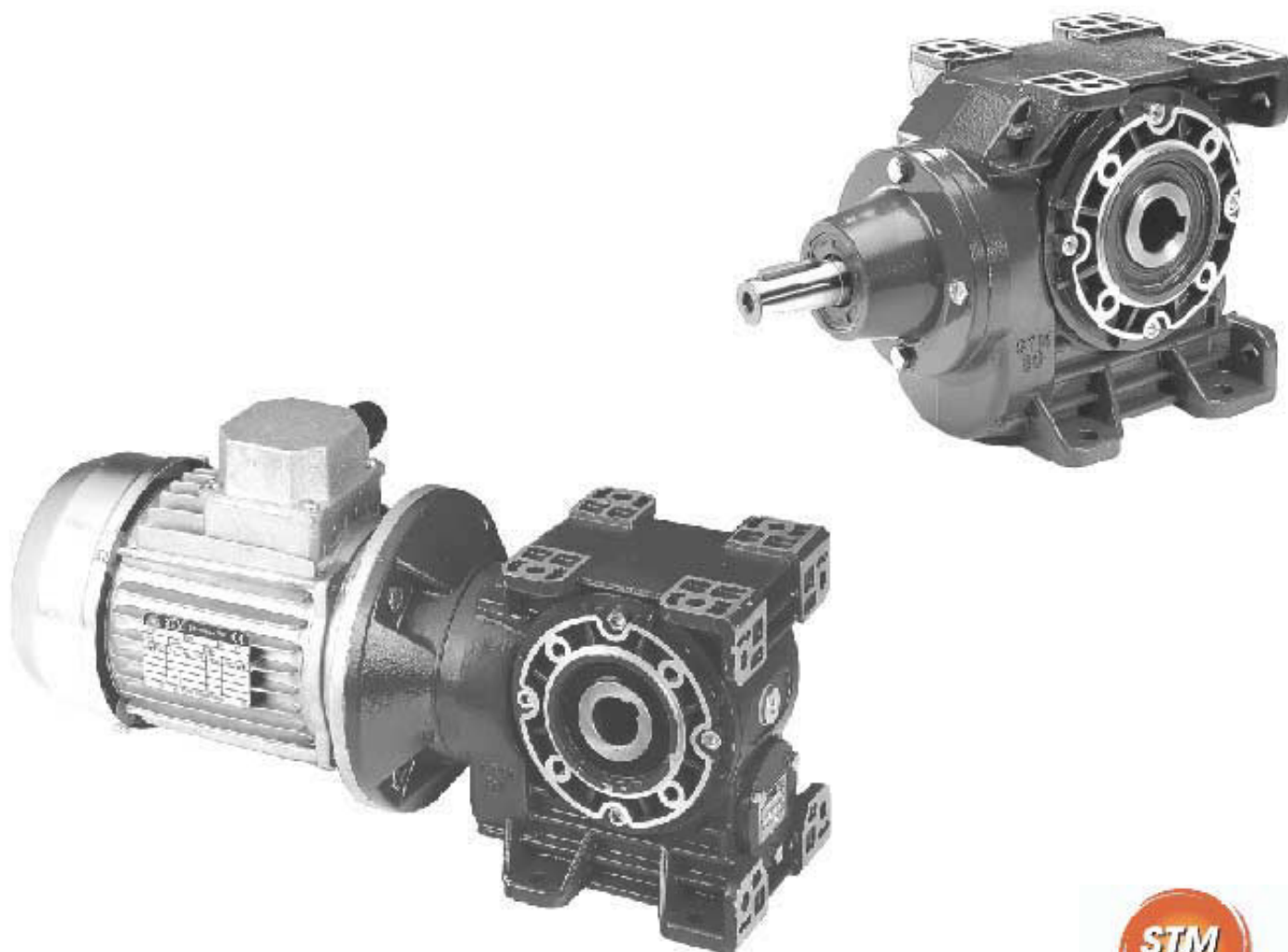


4.0 RIDUTTORIA A VITE SENZA FINE CON PRECOPPIA
HELICAL WORM GEARBOXES
STIRNRAD-SCHNECKENGETRIEBE

CR
CB

4.3	Versioni	Versions	Ausführungen	2
4.7	Prestazioni riduttori	Gearboxes performances	Leistungen der Getriebe	3
4.9	Dimensioni	Dimensions	Abmessungen	6
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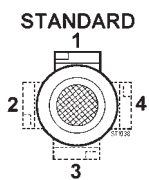
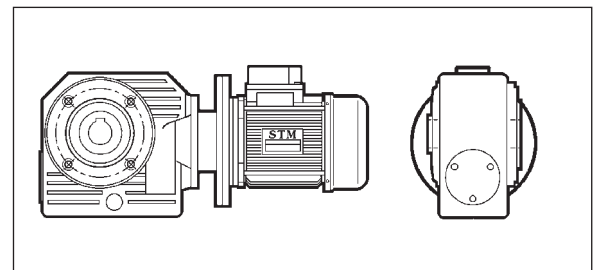
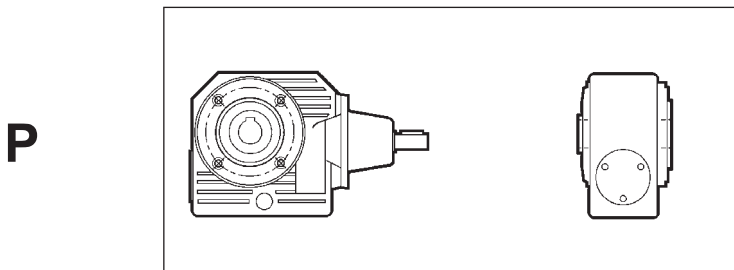
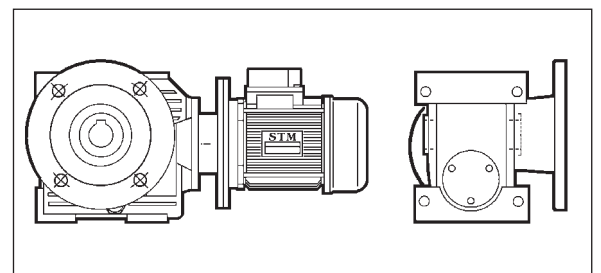
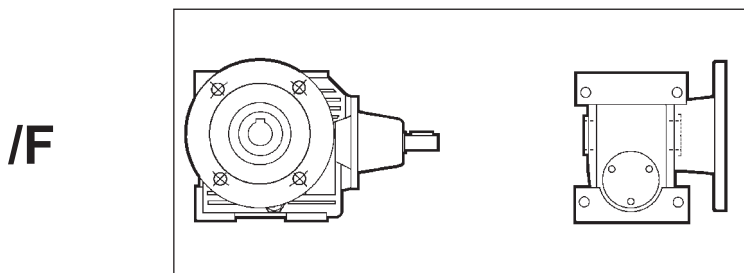
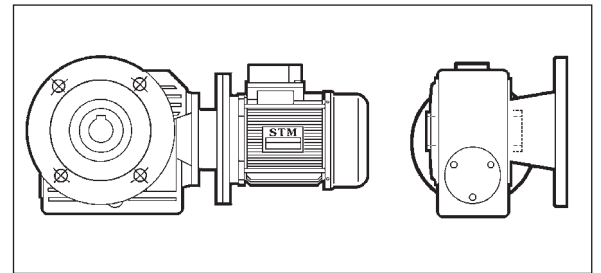
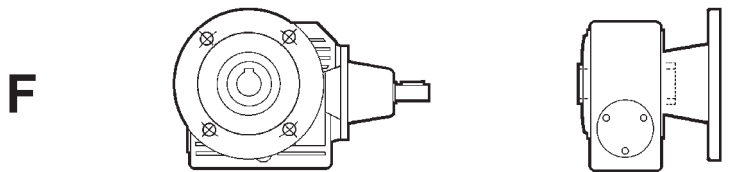
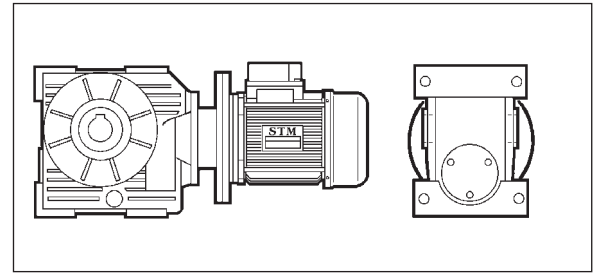
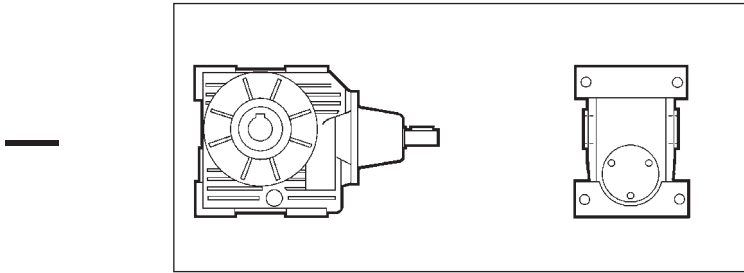
4.3 Versioni

4.3 Versions

4.3 Ausführungen

CR

CB



Posizione morsettieria
Terminal board position
Lage des Klemmenkastens

4.7 Prestazioni riduttori CR
4.7 CR gearboxes performances
4.7 Leistungen der CR-Getriebe
CR 40


3.5

ir	$i_1 \times i_2$	$n_1 = 2800 \text{ min}^{-1}$				$n_1 = 1400 \text{ min}^{-1}$				$n_1 = 900 \text{ min}^{-1}$				IEC
		n_2 min^{-1}	T_{2M} Nm	P kW	RD %	n_2 min^{-1}	T_{2M} Nm	P kW	RD %	n_2 min^{-1}	T_{2M} Nm	P kW	RD %	
44.3	2.9x15	63	49	0.44	74	32	59	0.27	72	20	59	0.17	72	63 - 56
50.5	3.4x15	55	49	0.39	74	28	59	0.24	72	18	60	0.17	68	
58.2	3.9x15	48	52	0.36	74	24	59	0.20	72	15	60	0.14	68	
68.0	4.5x15	41	52	0.31	74	21	59	0.17	72	13	60	0.12	68	
82.7	3.0x28	34	50	0.28	63	17	59	0.17	60	11	59	0.11	60	
108.7	3.9x28	26	52	0.23	62	13	59	0.13	60	8	60	0.09	55	
126.9	4.5x28	22	52	0.19	62	11	59	0.11	60	7	60	0.08	55	
165.1	3.4x49	17	43	0.15	52	8	50	0.09	48	5	60	0.08	43	
222.1	4.5x49	13	45	0.12	51	6	50	0.07	48	4	60	0.06	43	
295.2	3.0x100	9	30	0.07	40	5	31	0.04	37	3	34	0.03	37	
336.8	3.4x100	8	30	0.06	40	4	31	0.04	37	3	34	0.03	33	
388.2	3.9x100	7	30	0.06	40	4	31	0.03	37	2	34	0.02	33	
453	4.5x100	6	30	0.05	40	3	31	0.03	37	2	34	0.02	33	

CR 50


5

ir	$i_1 \times i_2$	$n_1 = 2800 \text{ min}^{-1}$				$n_1 = 1400 \text{ min}^{-1}$				$n_1 = 900 \text{ min}^{-1}$				IEC
		n_2 min^{-1}	T_{2M} Nm	P kW	RD %	n_2 min^{-1}	T_{2M} Nm	P kW	RD %	n_2 min^{-1}	T_{2M} Nm	P kW	RD %	
48.3	3.2x15	58	89	0.69	77	29	100	0.40	75	19	100	0.27	73	71 - 63 - 56
52.1	3.5x15	54	89	0.64	77	27	100	0.38	75	17	100	0.25	73	
61.0	4.1x15	46	94	0.58	77	23	100	0.32	75	15	100	0.21	73	
73.3	2.6x28	38	92	0.56	66	19	100	0.32	63	12	100	0.20	63	
90.2	3.2x28	31	92	0.46	66	16	100	0.26	63	10	100	0.18	58	
97.2	3.5x28	29	92	0.42	66	14	100	0.24	63	9	100	0.17	58	
113.9	4.1x28	25	97	0.39	65	12	100	0.20	63	8	100	0.14	58	
170.1	3.5x49	16	82	0.24	58	8	96	0.15	54	5	100	0.11	49	
199.3	4.1x49	14	86	0.22	57	7	96	0.13	54	5	100	0.10	49	
261.9	2.8x100	11	59	0.15	43	5	60	0.09	39	3	60	0.05	39	
347.0	3.5x100	8	59	0.11	43	4	60	0.06	39	3	60	0.05	34	
406.7	4.1x100	7	60	0.10	42	3	60	0.06	39	2	60	0.04	34	

CR 70


16

ir	$i_1 \times i_2$	$n_1 = 2800 \text{ min}^{-1}$				$n_1 = 1400 \text{ min}^{-1}$				$n_1 = 900 \text{ min}^{-1}$				IEC
		n_2 min^{-1}	T_{2M} Nm	P kW	RD %	n_2 min^{-1}	T_{2M} Nm	P kW	RD %	n_2 min^{-1}	T_{2M} Nm	P kW	RD %	
44.3	3.0x15	63	170	1.5	76	32	205	0.91	74	20	205	0.59	74	90 - 80 71 - 63
50.8	3.4x15	55	170	1.3	76	28	205	0.79	74	18	263	0.69	71	
59.1	3.9x15	47	181	1.3	76	24	205	0.68	74	15	263	0.59	71	
69.6	4.6x15	40	181	0.99	76	20	205	0.58	74	13	263	0.50	71	
82.6	3.0x28	34	170	0.90	67	17	202	0.57	63	11	254	0.46	63	
110.3	3.9x28	25	180	0.72	66	13	202	0.43	63	8	254	0.37	58	
130.0	4.6x28	22	180	0.61	66	11	202	0.36	63	7	254	0.32	58	
166.1	3.4x49	17	190	0.57	59	8	223	0.36	55	5	276	0.32	49	
227.5	4.6x49	12	200	0.45	57	6	223	0.26	55	4	276	0.23	49	
295.0	3.0x100	9	144	0.31	46	5	166	0.20	42	3	183	0.14	42	
338.9	3.4x100	8	144	0.27	46	4	166	0.17	42	3	183	0.14	36	
393.8	3.9x100	7	151	0.25	45	4	166	0.15	42	2	183	0.12	36	
446.3	4.6x100	6	151	0.21	45	3	166	0.12	42	2	183	0.10	36	



4.7 Prestazioni riduttori CR

4.7 CR gearboxes performances

4.7 Leistungen der CR-Getriebe

CR 85



36

ir	i ₁ Xi ₂	n ₁ = 2800 min ⁻¹				n ₁ = 1400 min ⁻¹				n ₁ = 900 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
43.0	2.9x15	65	333	2.9	77	33	403	1.83	75	21	403	1.2	75	90 - 80 71 - 63
51.3	3.4X15	55	333	2.5	77	27	403	1.54	75	18	460	1.2	72	
59.1	3.9X15	47	354	2.3	77	24	403	1.33	75	15	460	1.0	72	
69.0	4.6X15	41	354	1.9	77	20	403	1.14	75	13	460	0.88	72	
80.2	2.9X28	35	338	1.8	68	17	381	1.09	64	11	460	0.84	64	
110.4	3.9X28	25	338	1.3	67	13	381	0.79	64	8	460	0.68	58	
128.8	4.6X28	22	338	1.2	67	11	381	0.68	64	7	460	0.58	58	
167.6	3.4X49	17	329	0.95	61	8	387	0.59	57	5	460	0.51	51	
225.4	4.6X49	12	347	0.76	60	6	387	0.44	57	4	460	0.38	51	
286.4	2.9X100	10	243	0.51	49	5	281	0.33	43	3	327	0.25	43	
342.1	3.4X100	8	243	0.43	49	4	281	0.28	43	3	327	0.24	38	
394.1	3.9X100	7	255	0.40	47	4	281	0.24	43	2	327	0.20	38	
460.0	4.6X100	6	255	0.35	47	3	281	0.21	43	2	327	0.18	38	

CR 110



50

ir	i ₁ Xi ₂	n ₁ = 2800 min ⁻¹				n ₁ = 1400 min ⁻¹				n ₁ = 900 min ⁻¹				IEC
		n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	n ₂ min ⁻¹	T _{2M} Nm	P kW	RD %	
43.0	2.9x15	65	632	5.5	78	33	769	3.4	76	21	769	2.2	76	112 - 100 90 - 80
51.3	3.4X15	55	632	4.6	78	27	769	2.9	76	18	960	2.4	73	
59.1	3.9X15	47	674	4.3	78	24	769	2.5	76	15	960	2.1	73	
69.0	4.6X15	41	665	3.7	78	20	769	2.1	76	13	960	1.8	73	
80.2	2.9X28	35	705	3.4	71	17	796	2.2	68	11	960	1.7	68	
110.4	3.9X28	25	705	2.7	71	13	796	1.6	68	8	960	1.3	62	
128.8	4.6X28	22	667	2.3	71	11	796	1.3	68	7	960	1.1	62	
167.6	3.4X49	17	704	1.8	65	8	786	1.1	61	5	976	1.0	55	
225.4	4.6X49	12	503	1.4	64	6	786	0.84	61	4	976	0.74	55	
286.4	2.9X100	10	503	0.99	52	5	583	0.62	48	3	650	0.45	48	
342.1	3.4X100	8	515	0.83	52	4	583	0.52	48	3	650	0.44	41	
394.1	3.9X100	7	528	0.77	51	4	583	0.45	48	2	650	0.38	41	
460.0	4.6X100	6	528	0.66	51	3	583	0.39	48	2	650	0.32	41	

I pesi riportati sono indicativi e possono variare in funzione della versione del riduttore.

Listed weights are for reference only and can vary according to the gearbox version.

Die angegebenen Gewichte sind Richtwerte und können je nach Getriebeversion etwas variieren.

N.B. Per i riduttori evidenziati dal doppio bordo nella colonna delle potenze è necessario verificare lo scambio termico del riduttore (come nel par. 1.7). Per maggiori informazioni contattare l'ufficio tecnico STM.

NOTE. Please pay attention to the frame around the input power value: for this gearboxes it's important to check the thermal capacity (comp. chapter 1.7). For details please contact our technical department.

HINWEIS. Sind in den Tabellen Nennleistungen eingerahmt, so ist die thermische Leistungsgrenze der Getriebe zu beachten (s. S. 1.7). Für weitere Informationen wenden Sie sich bitte an unser technisches Büro.



Nella tab. 4.4 sono riportate le grandezze motore accoppiabili (IEC) unitamente alle dimensioni albero/flangia motore standard.

IEC motor dimensions that can be coupled are listed in table 4.4 as well as the dimensions of the standard motor shaft/flange.

In Tabelle 4.4 sind die kombinierbaren Motorgrößen (IEC) zusammen mit den Abmessungen Welle/Flansch Standardmotor aufgelistet

Tab. 4.4

	Possibili accoppiamenti con motori IEC Possible couplings with IEC motor Mögliche Verbindungen mit IEC-Motoren		
	IEC	ir	
		Tutti / All / Alle	
CB 40	63	11/140 (B5)	11/120 - 11/80
	56	9/120 (B5) - 9/80 (B14)	9/140
CB 50	71	14/160 (B5)	14/140
	63	11/140 (B5)	11/160
	56	9/120 (B5) - 9/80 • (B14)	9/160 - 9/140
CB 70	90	24/200 (B5)	
	80	19/200 (B5)	19/160
	71	14/160 (B5)	14/140
	63	11/140 (B5)	11/160

	Possibili accoppiamenti con motori IEC Possible couplings with IEC motor Mögliche Verbindungen mit IEC-Motoren		
	IEC	ir	
		Tutti / All / Alle	
CB 85	90	24/200 (B5)	24/160
	80	19/200 (B5)	
	71	14/160 (B5)	14/140
	63	11/160 (B5)	11/160
CB 110	112	28/250 (B5)	
	100	28/250 (B5)	
	90	24/200 (B5)	
	80	19/200 (B5)	

Legenda:

11/140 (B5)

11/120

11/140 : combinazioni albero/flangia standard (B5) : forma costruttiva motore IEC
11/120 : combinazioni albero/flangia a richiesta

Key:

11/140 (B5)

11/120

11/140 : standard shaft/flange combination (B5) : IEC motor constructive shape
11/120 : shaft/flange combinations upon request

Legende:

11/140 (B5)

11/120

11/140 : Standardkombinationen Welle/Flansch (B5) : Konstruktionsform IEC-Motor
11/120 : Sonderkombinationen Welle/Flansch

N.B.

La configurazione standard della flangia attacco motore prevede 4 fori a 45° (esempio x: vedi par. 4.3).

Per le flange contrassegnate con il simbolo (*) i fori per il fissaggio al motore sono disposti in croce (esempio +). Pertanto è opportuno valutare l'ingombro della morsettiera del motore che verrà installato in quanto essa verrà a trovarsi orientata a 45° rispetto agli assi. Per la scelta della posizione della morsettiera rispetto agli assi fare riferimento allo schema seguente (in cui la posizione 5 è quella standard):

Note.

The standard configuration for the 4 holes is 45° to the axles (like an x: see par. 4.3).

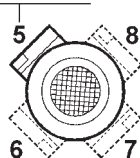
For the B14 flanges marked with (*) the holes to fit the motor are on the axles (like a +). Therefore we suggest to check the dimensions of the terminal board of the motor as it will be at 45° to the axles. Please, choose the terminal board position referring to the following sketch (in which N° 5 is the standard position):

HINWEIS.

In der Standardkonfiguration sind die 4 Flanschbohrungen im 45°-Winkel zu den Achsen angeordnet (wie ein x: siehe kapitel 4.3).

Bei B14-Flanschen, die mit (*) gekennzeichnet sind, sind die Bohrungen auf den Achsen angeordnet (wie ein +). Es sollte deshalb der Platzbedarf des Motorklemmenkastens beachtet werden, da er sich in 45°-Position zu den Achsen befinden wird. Die Lage des Klemmenkastens des Motors wählen Sie bitte anhand der folgenden Skizze (Pos.5 ist Standardposition):

STANDARD



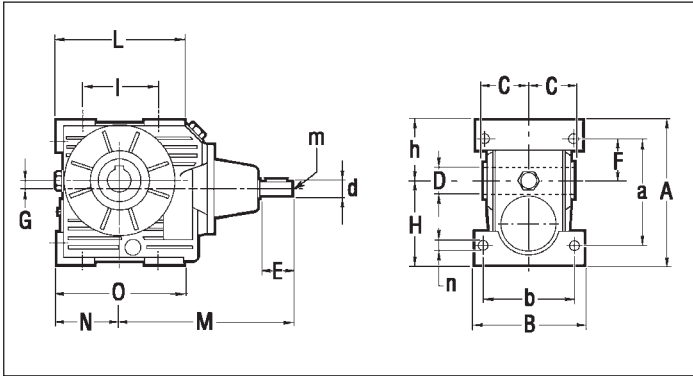


4.9 Dimensioni

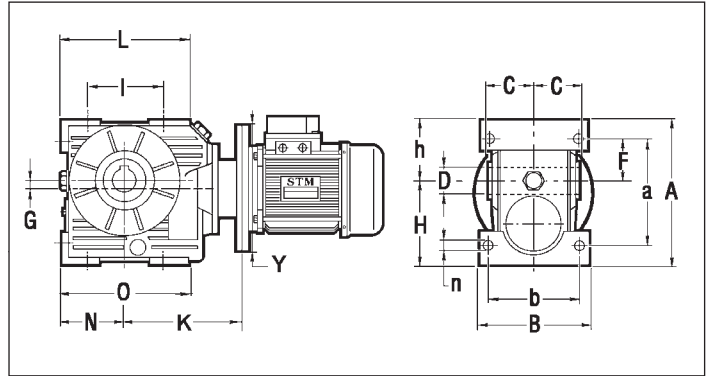
4.9 Dimensions

4.9 Abmessungen

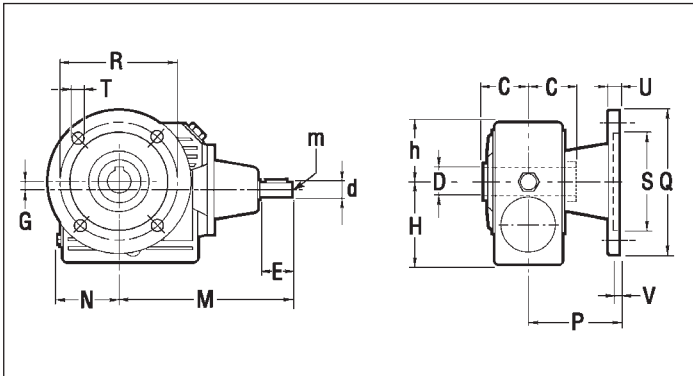
CR



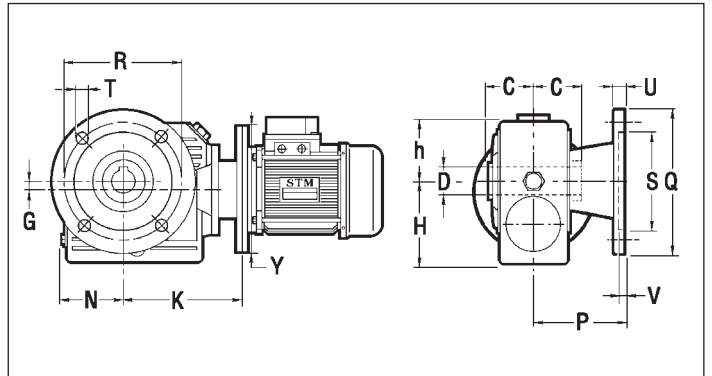
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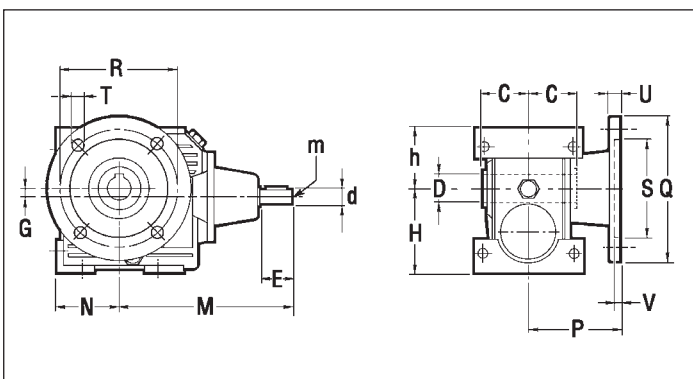
CRF



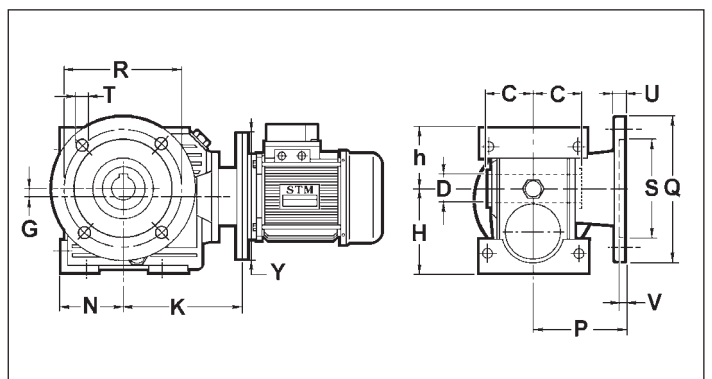
CBF



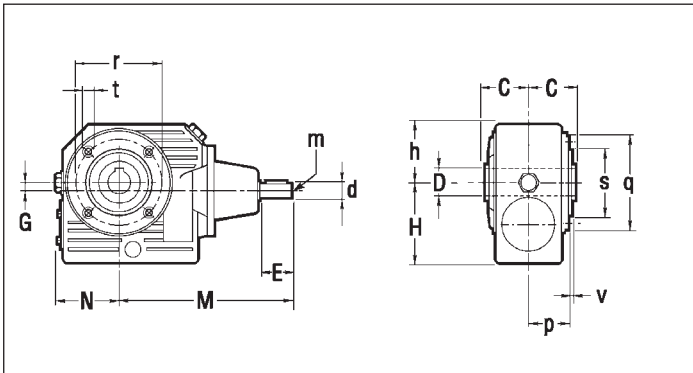
CR/F



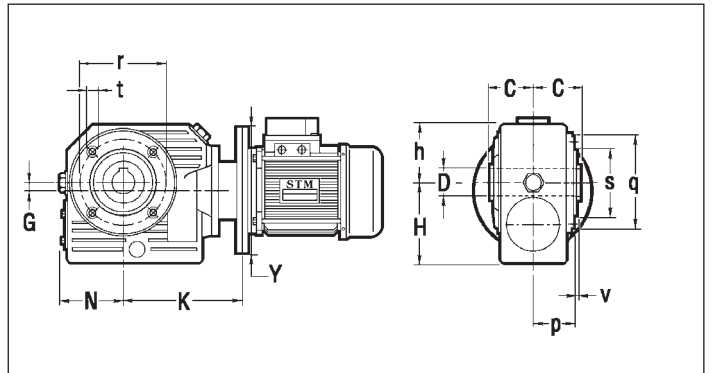
CB/F



CRP



CBP



4.9 Dimensioni

4.9 Dimensions

4.9 Abmessungen

CR CB	A	a	B	b	C	D H7	d J6	E	F	G	H	h	I	L	M	m	N	n	O
40	135	100	102	84	41	19 (18)	14	30	40	7	78	57	70	117	160	M6	59	7	117
50	166	120	120	99	49	24 (25)	19	40	46	9	97	69	85	130	183	M8	69	9	130
70	215	160	140	116	60	28	24	50	61	17.5	127	88	120	186	238	M8	93	11	193
85	252	188	170	140	61	32 (35)	28	60	74	29	145	107	140	221	273	M8	116	13	231
110	330	244	200	162	77.5	42	32	70	97	43	190	140	200	277	336	M10	142	14	282

CR CB	P	Q	R	S H8	T	U	V	p	q	r	s h8	t	v
40	82	140	115	95	8.5	9	5	38	95	83	60	M6	2
50	91.5	160	130	110	10	10	5	49	105	85	70	M8	2.5
70	111	200	165 ⁰ ₊₁₁	130	13	11	5	57	120	100	80	M8	5
85	100	200	165	130	13	12	5	56.5	144	130	110	M10	3.5
110	150	250	215	180	15	16	5	74	200	165	130	M12	3

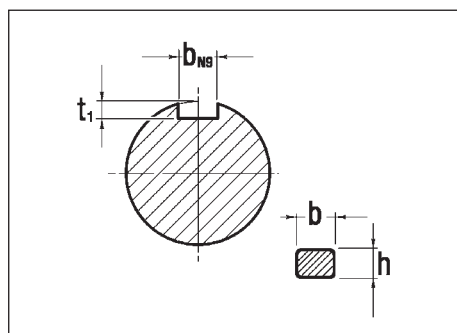
	CB									
	40		50		70		85		110	
	Y	K	Y	K	Y	K	Y	K	Y	K
B5	120	108	120	133	140	153	140	173	200	229
	140	108	140	133	160	153	160	173	250	239
	—	—	160	133	200	165	200	193	—	—

N.B.
Nelle grandezze 40, 50, 70 la versione FL viene ottenuta applicando una flangia modulare sulla flangia pendolare della versione PP.

NOTE.
In sizes 40, 50, 70 the FL version is obtained by applying a modular flange onto the shaft mounted flange on the PP version.

HINWEIS.
Bei den Größen 40, 50, 70 erhält man die FL-Version, indem ein Modulflansch an den Flansch mit Drehmomentstütze der PP-Version befestigt wird.

Linguette

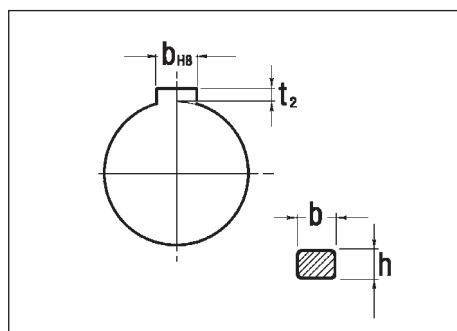


Keys

Albero entrata
Input shaft
Antriebswelle

d	b x h	t ₁
14	5 x 5	3.0 ^{+0.1} ₀
19	6 x 6	3.5
24	8 x 7	4.0
28	8 x 7	4.0 ^{+0.2} ₀
32	10 x 8	5.0

Federn



Albero uscita
Output shaft
Abtriebswelle

D	b x h	t ₂
19	6 x 6	2.8 ^{+0.1} ₀
24	8 x 7	3.3
28	8 x 7	3.3
32	10 x 8	3.3 ^{+0.2} ₀
42	12 x 8	3.3

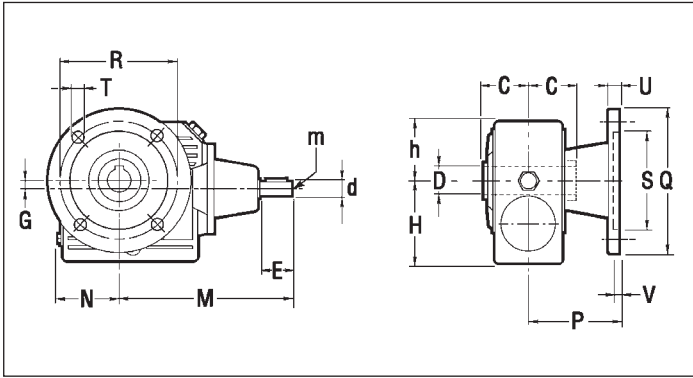


4.9 Dimensioni

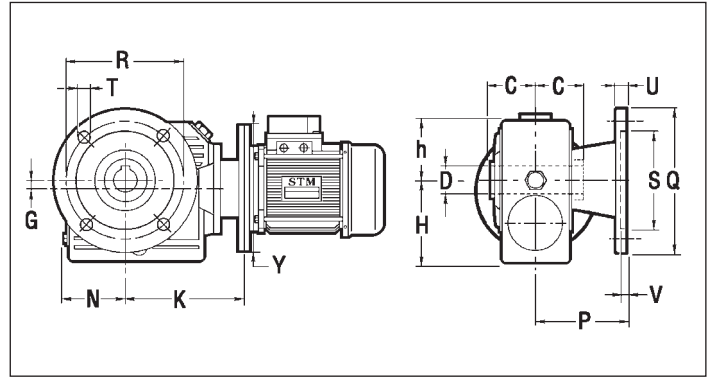
4.9 Dimensions

4.9 Abmessungen

CRF (F1, F2, F3)



CBF (F1, F2, F3)



	CR - CB													
	40		50			70			85			110		
	F1	F2	F1	F2	F3	F1°	F2°	F3	F1	F2	F3	F1	F2	F3
P	69	62	93	73	81	116	85	101	141	120	91	115	132	178
Q	106	120	125	125	140	175	175	160	200	210	160	200	270	270
R	87	100	90	100	115	150	150	130	165	176	130	165	230	230
S (H8)	60	80	70 ⁰ ₉	70	95	115	115	110	130	152	110	130	170	170
T	8.5	9	10.5	9	9	11	11	11	13	13	11.5	13	13.5	13.5
U	9	9	10	9	9	10	10	11	12	14	10	12	18	18
V	5	5	5	4	4	5	5	6	6	5	5	5	10	10

N.B.
Le versioni F1, F2 contrassegnate con il simbolo (°) sono ottenute applicando una flangia modulare sulla flangia pendolare della versione PP.

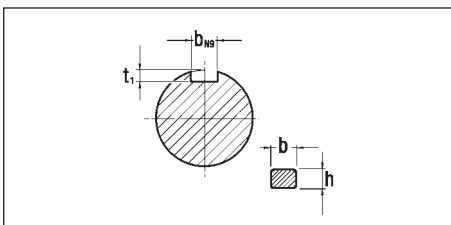
NOTE.
F1, F2 versions that are marked with (°) are obtained by applying a modular flange onto the shaft mounted flange on the PP version.

HINWEIS.
Die mit (°) gekennzeichneten Versionen F1, F2 erhält man, indem ein Modulflansch an den Flansch mit Drehmomentstütze der PP-Version befestigt wird.

CR CB	C	D H7	d J6	E	G	H	h	M	m	N
40	41	19 (18)	14	30	7	78	57	160	M6	59
50	49	24 (25)	19	40	9	97	69	183	M8	69
70	60	28	24	50	17.5	127	88	238	M8	93
85	61	32 (35)	28	60	29	145	107	273	M8	116
110	77.5	42	32	70	43	190	140	336	M10	142

	CB									
	40		50		70		85		110	
	Y	K	Y	K	Y	K	Y	K	Y	K
B5	120	108	120	134	140	153	140	173	200	229
	140	108	140	134	160	153	160	173	250	239
	—	—	160	134	200	165	200	193	—	—

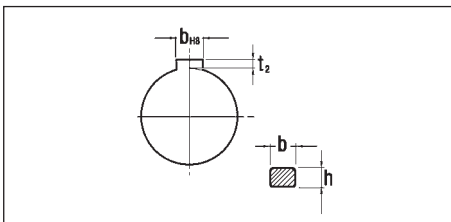
Linguette



Keys

Albero entrata
Input shaft
Antriebswelle

d	b x h	t ₁
14	5 x 5	3.0 ^{+0.1} ₀
19	6 x 6	3.5 ^{+0.1} ₀
24	8 x 7	4.0 ^{+0.2} ₀
28	8 x 7	4.0 ^{+0.2} ₀
32	10 x 8	5.0



Albero uscita
Output shaft
Abtriebswelle

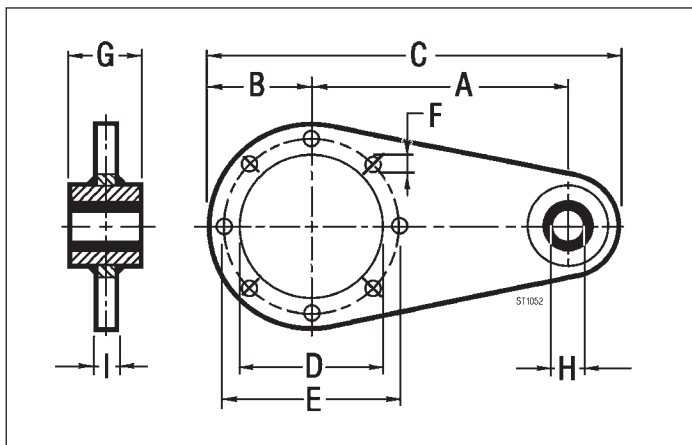
D	b x h	t ₂
19	6 x 6	2.8 ^{+0.1} ₀
24	8 x 7	3.3 ^{+0.2} ₀
28	8 x 7	3.3 ^{+0.2} ₀
32	10 x 8	3.3 ^{+0.2} ₀
42	12 x 8	3.3

4.10 Accessori
Braccio di reazione

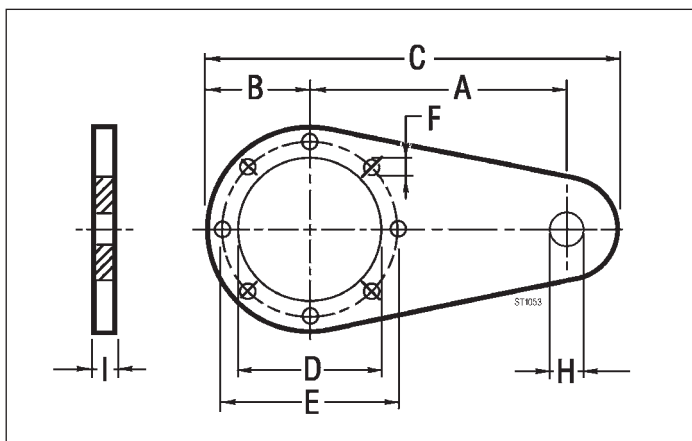
4.10 Accessories
Torque arm

4.10 Zubehör
Drehmomentstütze

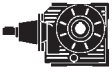
Con boccola VKL
With VKL bushing
Mit VKL-Buchse



Standard



	CR - CB				
	40	50	70	85	110
A	90	100	150	200	250
B	50	60	60	75	100
C	165	185	240	313	388
D	60	70	80	110	130
E	83	85	100	130	165
F	7	9	9	11	13
G	15	15	20	25	25
H	10	10	10	20	20
I	4	4	6	6	6



4.10 Accessori Alberi lenti

Tutti i riduttori a vite senza fine sono forniti con albero lento cavo.

A richiesta, possono essere forniti alberi lenti come indicato nei disegni dimensionali. Le dimensioni delle linguette sono conformi alle norme UNI 6604-69 (vedi par. 2.11).

4.10 Accessories Output shafts

All worm gearboxes are supplied with hollow output shaft.

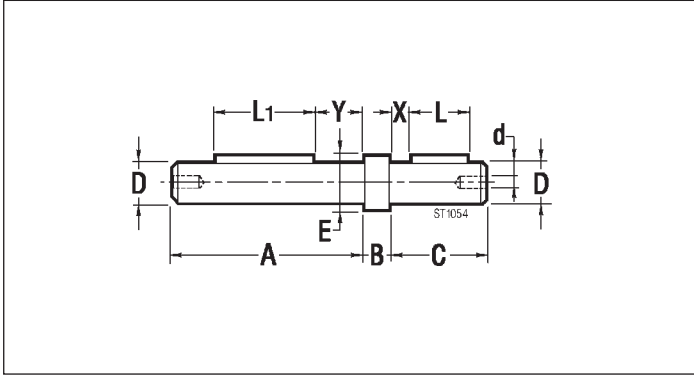
Output shafts as shown in the size drawings can be supplied upon request. Sizes of feathers comply with standards UNI 6604-69 (see chapter 2.11).

4.10 Zubehör Abtriebswellen

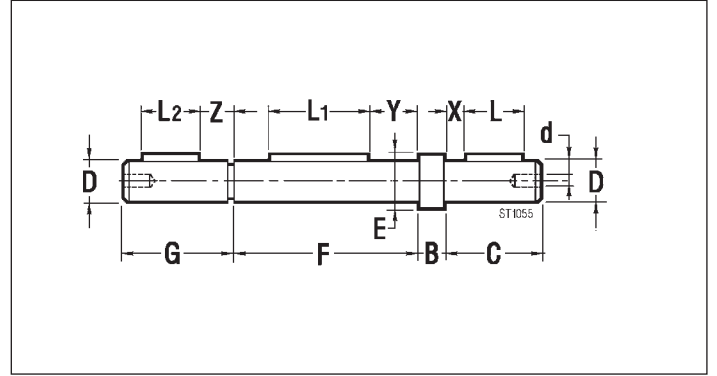
Alle Schneckengetriebe werden mit hohler Abtriebswelle geliefert.

Auf Anfrage können Abtriebswellen gemäß den Maßzeichnungen geliefert werden. Die Abmessungen der Federn entsprechen den Normen UNI 6604-69 (Kapitel 2.11).

Albero lento normale
Single output shaft
Einseitige Abtriebswelle



Albero lento bisporgente
Double output shaft
Beidseitige Abtriebswelle



	CR - CB				
	40	50	70	85	110
A	80	95	117	119	153
B	10	10	10	10	10
C	40	45	60	71	100
D_{g6}	19	24	28	32	42
d	M8	M8	M8	M10	M10
E	22	28	34	38	50
F	82	98	120	122	155
G	50	55	70	81	110
L	25	30	40	50	80
L1	40	50	60	70	80
L2	25	30	40	50	80
X	8	7.5	10	10	10
Y	21	24	30	26	37
Z	18	18	20	20	20