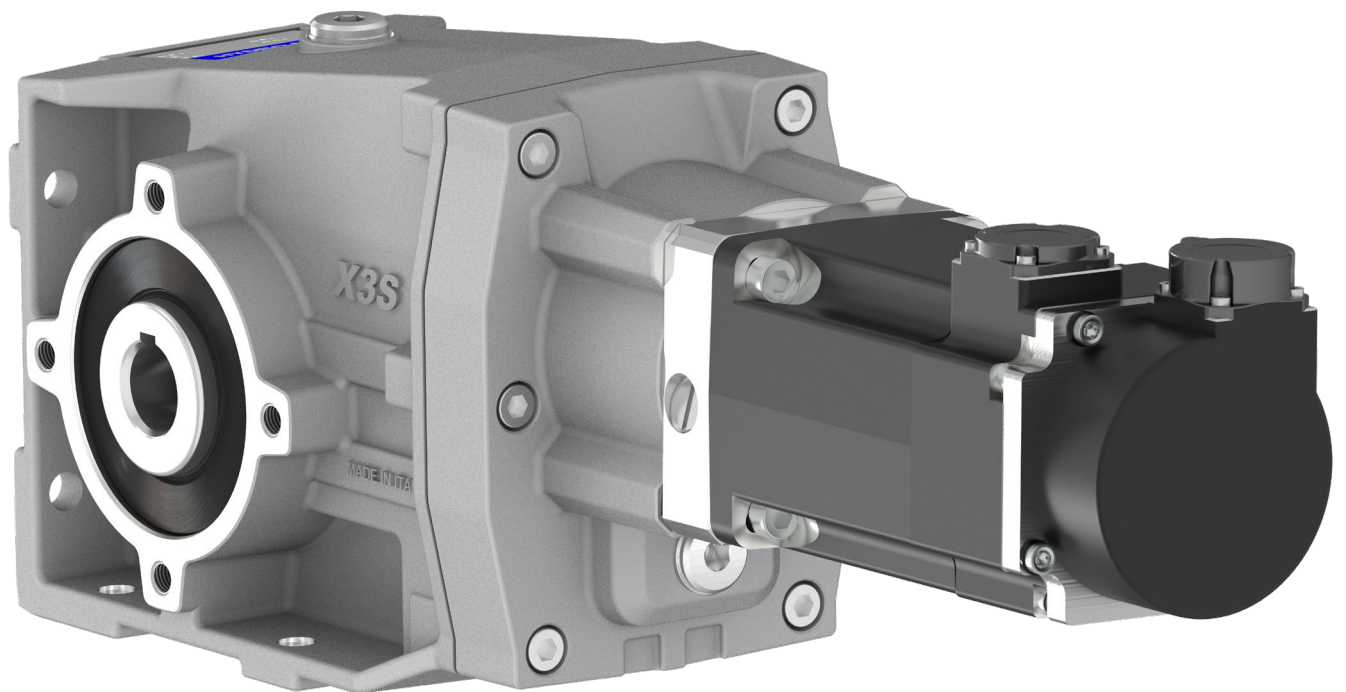


BRUSHLESS-TECH



Edition 2024

UNIQUE FEATURES

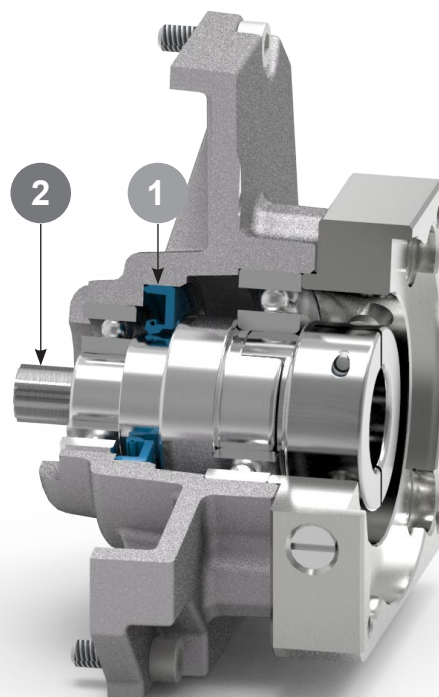
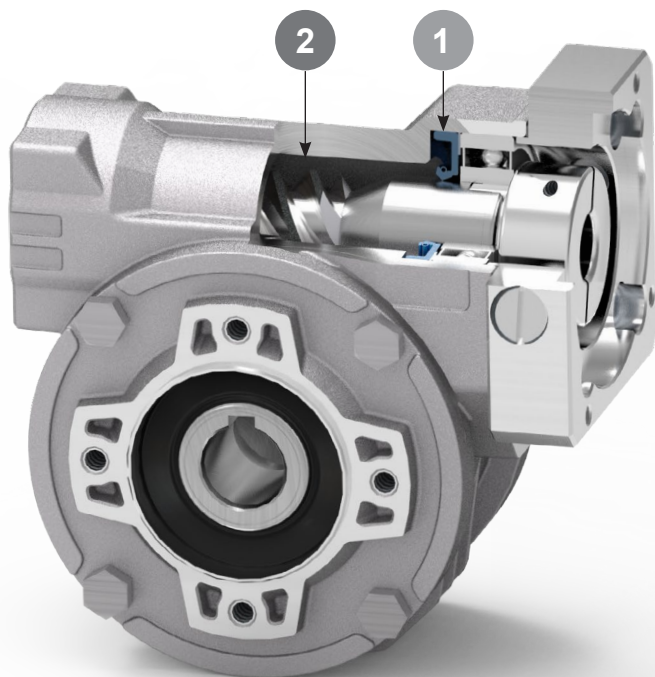
Special input shaft design with internal seal for Brushless applications.

Design speciale dell'albero di entrata con guarnizione interna per applicazioni Brushless.

1 Quality oil seals.
Anelli di tenuta di qualità.

2 All grounded gears.
Tutti gli ingranaggi rettificati.

On request FKM oil seals.
A richiesta anelli di tenuta FKM.



All couplings on stock.
Giunti disponibili a magazzino.



Flanges available for quantity.
Drawings available to download on the web site for a quick production of small quantity.
Flange disponibili per quantità.
Disegni scaricabili dal sito web per una rapida produzione di piccole quantità.

BRUSHLESS FLANGES FOR



Rightangle-Gear

Worm gearboxes
Riduttori a vite senza fine

Page **B-1**



Square-Gear

Square worm gearboxes
Riduttori a vite senza fine quadrati

Page **B-2**



Square-Gear

Square worm gearboxes
Riduttori a vite senza fine quadrati

Page **B-3**



Coaxial-Gear

Aluminum in-line gearboxes
Riduttori coassiali in alluminio

Page **B-4**



Compact-Gear

Aluminum shaft mounted gearboxes
Riduttori ad assi paralleli in alluminio

Page **B-5**



Compact-Gear

Cast iron shaft mounted gearboxes
Riduttori ad assi paralleli in ghisa

Page **B-6**



Cube-Gear

Parallel shaft gearboxes
Riduttori ad assi paralleli

Page **B-7**



Angletech-Gear

Aluminum Helical bevel gearboxes
Riduttori a coppia conica in alluminio

Page **B-8**



Angletech-Gear

Cast Iron Helical bevel gearboxes
Riduttori a coppia conica in ghisa

Page **B-9**



Available kit

Reduction bushing, coupling, flanges.
Bussola di riduzione, giunto, flange.

Page **B-10**



Important notes of selection

Page **B11÷B13**



Instructions

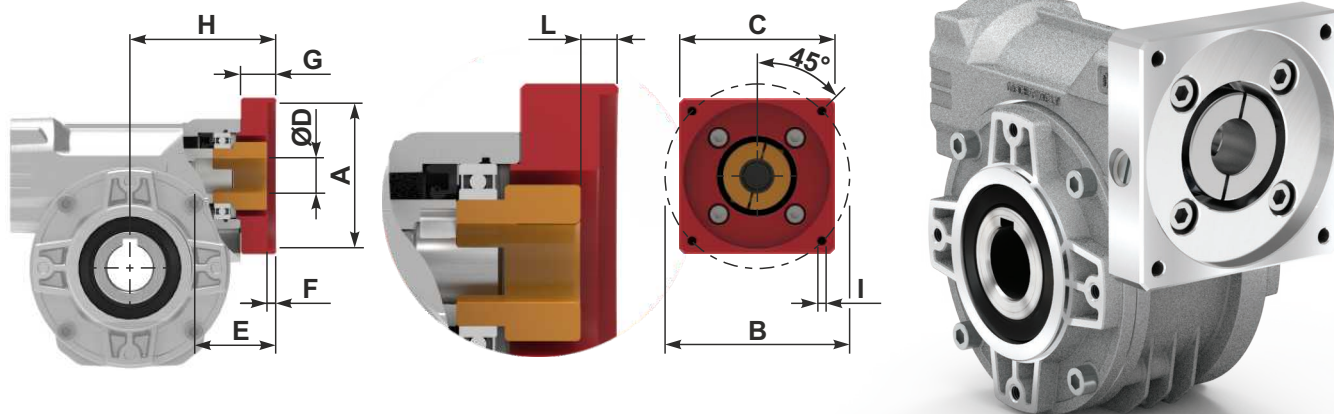
Instructions for assembly of motor
Istruzioni per il montaggio del motore

Page **B15, B16**

WORM GEARBOXES

Flanges for servomotors - Flange per servomotori

Rightangle-Gear

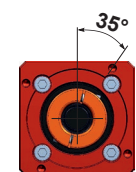


Type	Catalog Flange Code	Input Flanges Kit Code	Bushing Kit Code	Coupling Kit Code	Motor shaft Ø	A	B	C	ØD	E	F	G	L	I	H
030 21Nm	BA	K0304071	KBR09/14G	K0305190L	Ø9	40	63	58	Ø14	30	4	20	4.7	M5x12	68
	BC	K0304072	KBR11/14G	K0305190L	Ø11	60	75	70	Ø14	30	4.5	20	4.7	M5x12	68
	BB	K0304073	-	K0305190L	Ø14	50	70	60	Ø14	32	4.5	28.5	13.2	M5x12	76.5
045 41Nm	BC	K0504072	KBR11/14G	KC355190L	Ø11	60	75	70	Ø14	44	4.5	23	9	M5x12	79
	BB	K0504073	-	KC355190L	Ø14	50	70	70	Ø14	44	4.5	23	9	M5x12	79
	BE	K0504074	-	KC355190L	Ø14	80	100	85	Ø14	44	4.5	23	9	M6x12	79
	BB	K0504075	-	KC355190L	Ø14	95	115	100	Ø14	44	4.5	23	9	M8x12	79
	BE	K0504074	-	KC355190L	Ø14	70	90	80	Ø14	44	4.5	23	9	M6x12	79
050 72Nm	BC	K0504072	KBR11/19G	K0505190L	Ø11	60	75	70	Ø19	48	4.5	23	9	M5x12	83.5
	BC	K0504072	KBR14/19G	K0505190L	Ø14	60	75	70	Ø19	48	4.5	23	9	M5x12	83.5
	BB	K0504073	KBR14/19G	K0505190L	Ø14	50	70	70	Ø19	48	4.5	23	9	M5x12	83.5
	BE	K0504074	KBR14/19G	K0505190L	Ø14	80	100	85	Ø19	48	4.5	23	9	M6x12	83.5
	BF	K0504075	-	K0505190L	Ø19	95	115	100	Ø19	48	4.5	23	9	M8x12	83.5
	BD	K0504078	-	K0505190L	Ø19	70	90	80	Ø19	48	4.5	23	9	M6x12	83.5
063 147Nm 63A 191Nm	BC	K0634072	KBR14/22G	KC405190L	Ø14	60	75	90	Ø22	58	4.5	25	9	M5x12	104.5
	BB	K0634073	KBR14/22G	KC405190L	Ø14	50	70	80	Ø22	58	4.5	25	9	M5x12	104.5
	BE	K0634074	KBR14/22G	KC405190L	Ø14	80	100	85	Ø22	58	4.5	25	9	M6x12	104.5
	BF	K0634075	KBR19/22G	KC405190L	Ø19	95	115	100	Ø22	58	4.5	25	9	M8x12	104.5
	BG	K0634076	-	KC405190L	Ø22	110	145	130	Ø22	63	4.5	30	14	M8x14	109.5
	BD	K0634078	KBR19/22G	KC405190L	Ø19	70	90	90	Ø22	58	4.5	25	9	M6x12	104.5
085 347Nm	BF	K0854075	KBR19/24G	KC505190L	Ø19	95	115	100	Ø24	60	4.5	26	9.5	M8x14	124.5
	BG	K0854076	KBR22/24G	KC505190L	Ø22	110	145	130	Ø24	64	5	30	13.5	M8x14	128.5
	BH	K0854077	-	KC505190L	Ø24	130	165	140	Ø24	60	5	26	9.5	M8x14	124.5
	BD	K0854078	KBR19/24G	KC505190L	Ø19	70	90	95	Ø24	60	4.5	26	9.5	M6x14	124.5

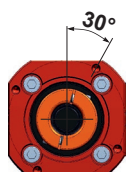


Supplied with reduction bushing
Fornito con bussola di riduzione

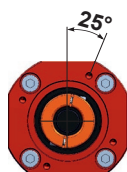
Coupling / Giunto



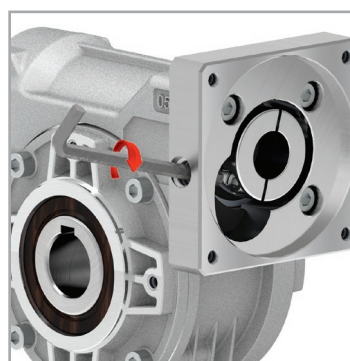
K0504072
Fixing holes shifted by 35°
Fori fissaggio motore ruotati a 35°



K0504073
K0634078
Fixing holes shifted by 30°
Fori fissaggio motore ruotati a 30°



K0634072
K0634073
Fixing holes shifted by 25°
Fori fissaggio motore ruotati a 25°

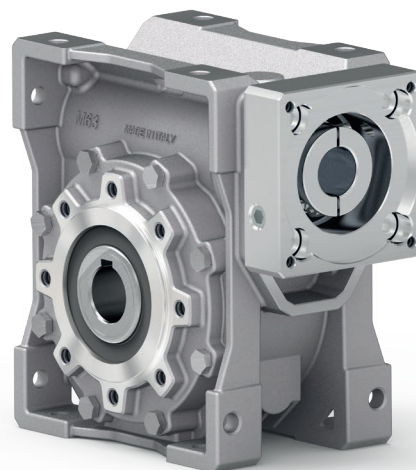
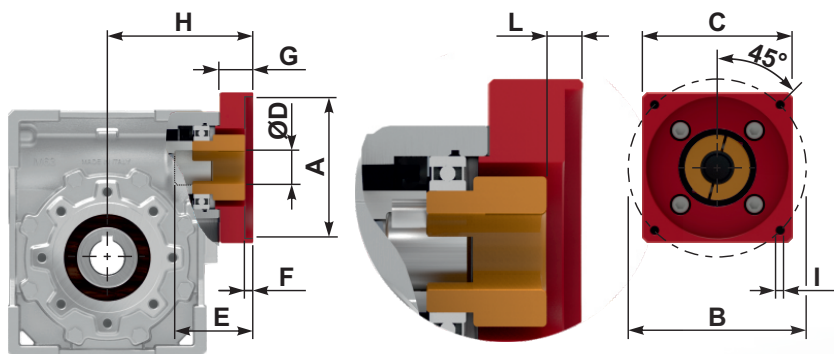


Coupling tightening
Serraggio del giunto

WORM GEARBOXES

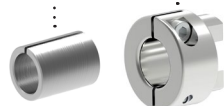
Flanges for servomotors - Flange per servomotori

M-Square-Gear



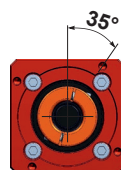
Type	Catalog Flange Code	Input Flanges Kit Code	Bushing Kit Code	Coupling Kit Code	Motor shaft Ø	A	B	C	ØD	E	F	G	L	I	H
M30 21Nm	BA	K0304071	KBR09/14G	K0305190L	Ø9	40	63	58	Ø14	30	4	20	4.7	M5x12	68
	BC	K0304072	KBR11/14G	K0305190L	Ø11	60	75	70	Ø14	30	4.5	20	4.7	M5x12	68
	BB	K0304073	-	K0305190L	Ø14	50	70	60	Ø14	32	4.5	28.5	13.2	M5x12	76.5
M45 41Nm	BC	K0504072	KBR11/14G	KC355190L	Ø11	60	75	70	Ø14	44	4.5	23	9	M5x12	85
	BB	K0504073	-	KC355190L	Ø14	50	70	70	Ø14	44	4.5	23	9	M5x12	85
	BE	K0504074	-	KC355190L	Ø14	80	100	85	Ø14	44	4.5	23	9	M6x12	85
	BF	K0504075	-	KC355190L	Ø14	95	115	100	Ø14	44	4.5	23	9	M8x12	85
	BD	K0504078	-	KC355190L	Ø14	70	90	80	Ø14	44	4.5	23	9	M6x12	85
M50 72Nm	BC	K0504072	KBR11/19G	K0505190L	Ø11	60	75	70	Ø19	48	4.5	23	9	M5x12	88.5
	BC	K0504072	KBR14/19G	K0505190L	Ø14	60	75	70	Ø19	48	4.5	23	9	M5x12	88.5
	BB	K0504073	KBR14/19G	K0505190L	Ø14	50	70	70	Ø19	48	4.5	23	9	M5x12	88.5
	BE	K0504074	KBR14/19G	K0505190L	Ø14	80	100	85	Ø19	48	4.5	23	9	M6x12	88.5
	BF	K0504075	-	K0505190L	Ø19	95	115	100	Ø19	48	4.5	23	9	M8x12	88.5
	BD	K0504078	-	K0505190L	Ø19	70	90	80	Ø19	48	4.5	23	9	M6x12	88.5
M63 147Nm	BC	K0634072	KBR14/22G	KC405190L	Ø14	60	75	90	Ø22	58	4.5	25	9	M5x12	105.5
	BB	K0634073	KBR14/22G	KC405190L	Ø14	50	70	80	Ø22	58	4.5	25	9	M5x12	105.5
	BE	K0634074	KBR14/22G	KC405190L	Ø14	80	100	85	Ø22	58	4.5	25	9	M6x12	105.5
	BF	K0634075	KBR19/22G	KC405190L	Ø19	95	115	100	Ø22	58	4.5	25	9	M8x12	105.5
	BG	K0634076	-	KC405190L	Ø22	110	145	130	Ø22	63	4.5	30	14	M8x14	105.5
	BD	K0634078	KBR19/22G	KC405190L	Ø19	70	90	90	Ø22	58	4.5	25	9	M6x12	105.5
M75 270Nm	BF	K0854075	KBR19/24G	KC505190L	Ø19	95	115	100	Ø24	60	4.5	26	9.5	M8x14	122
	BG	K0854076	KBR22/24G	KC505190L	Ø22	110	145	130	Ø24	64	5	30	13.5	M8x14	126
	BH	K0854077	-	KC505190L	Ø24	130	165	140	Ø24	60	5	26	9.5	M8x14	122
	BD	K0854078	KBR19/24G	KC505190L	Ø19	70	90	95	Ø24	60	4.5	26	9.5	M6x14	122
M85 347Nm	BF	K0854075	KBR19/24G	KC505190L	Ø19	95	115	100	Ø24	60	4.5	26	9.5	M8x14	124.5
	BG	K0854076	KBR22/24G	KC505190L	Ø22	110	145	130	Ø24	64	5	30	13.5	M8x14	128.5
	BH	K0854077	-	KC505190L	Ø24	130	165	140	Ø24	60	5	26	9.5	M8x14	124.5
	BD	K0854078	KBR19/24G	KC505190L	Ø19	70	90	95	Ø24	60	4.5	26	9.5	M6x14	124.5

Supplied with reduction bushing
Fornito con bussola di riduzione



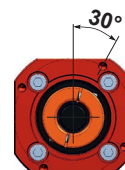
Coupling / Giunto

Coupling
Giunto



K0504072

Fixing holes
shifted by 35°
Fori fissaggio
motore ruotati a 35°



K0504073
K0634078

Fixing holes
shifted by 30°
Fori fissaggio
motore ruotati a 30°



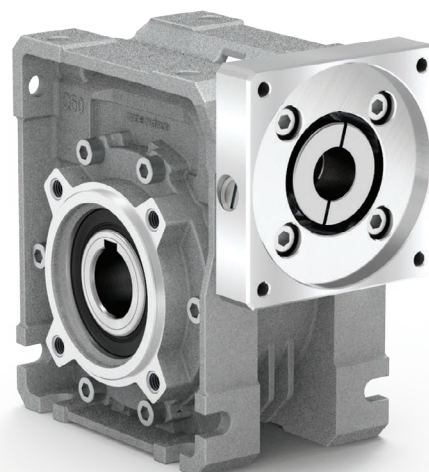
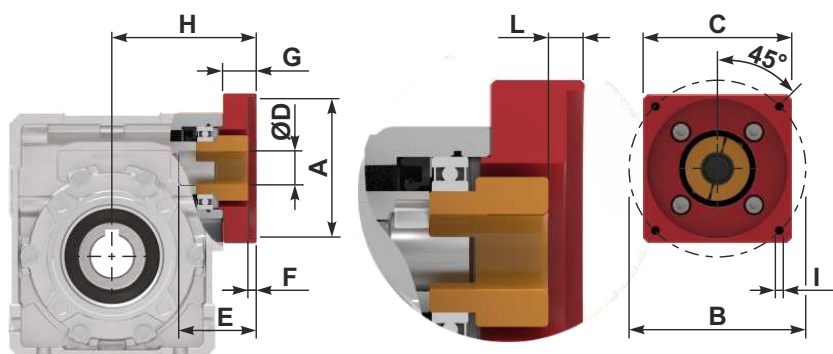
K0634072
K0634073

Fixing holes
shifted by 25°
Fori fissaggio
motore ruotati a 25°

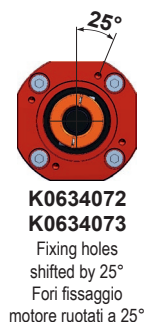
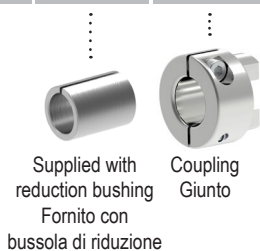
WORM GEARBOXES

Flanges for servomotors - Flange per servomotori

Q-Square-Gear



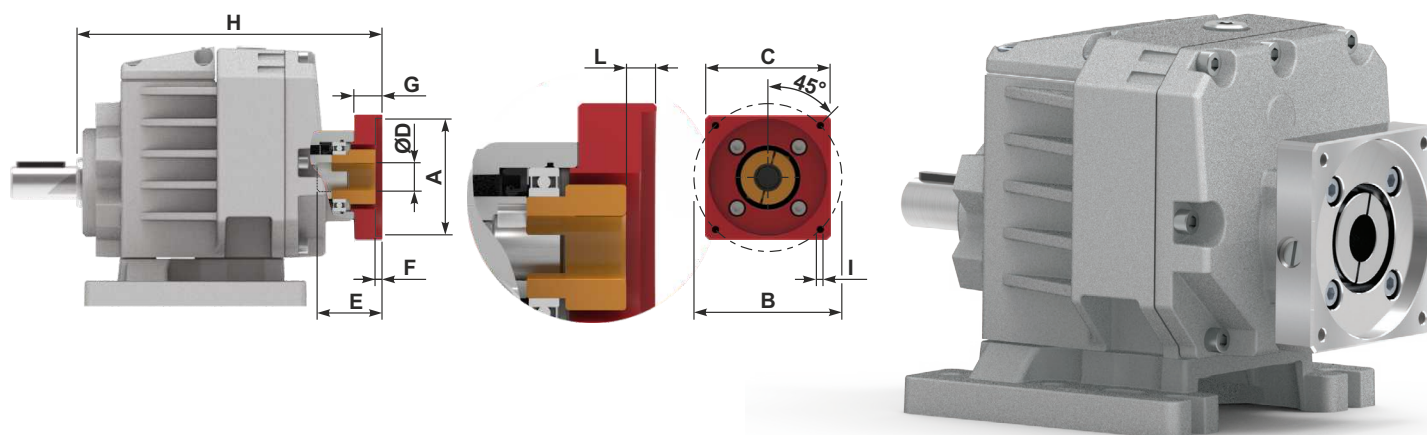
Type	Catalog Flange Code	Input Flanges Kit Code	Input Flanges Kit Code	Bushing Kit Code	Coupling Kit Code	Motor shaft Ø	A	B	C	ØD	E	F	G	L	I	H
Q63 147Nm	BC	K0634072	K0634072	KBR14/22G	KC405190L	Ø14	60	75	90	Ø22	58	4.5	25	9	M5x12	104.5
	BB	K0634073	K0634073	KBR14/22G	KC405190L	Ø14	50	70	80	Ø22	58	4.5	25	9	M5x12	104.5
	BE	K0634074	K0634074	KBR14/22G	KC405190L	Ø14	80	100	85	Ø22	58	4.5	25	9	M6x12	104.5
	BF	K0634075	K0634075	KBR19/22G	KC405190L	Ø19	95	115	100	Ø22	58	4.5	25	9	M8x12	104.5
	BG	K0634076	K0634076	-	KC405190L	Ø22	110	145	130	Ø22	63	4.5	30	14	M8x14	109.5
	BD	K0634078	K0634078	KBR19/22G	KC405190L	Ø19	70	90	90	Ø22	58	4.5	25	9	M6x12	104.5
Q75 270Nm	BF	K0854075	K0854075	KBR19/24G	KC505190L	Ø19	95	115	100	Ø24	60	4.5	26	9.5	M8x14	122
	BG	K0854076	K0854076	KBR22/24G	KC505190L	Ø22	110	145	130	Ø24	64	5	30	13.5	M8x14	126
	BH	K0854077	K0854077	-	KC505190L	Ø24	130	165	140	Ø24	60	5	26	9.5	M8x14	122
	BD	K0854078	K0854078	KBR19/24G	KC505190L	Ø19	70	90	95	Ø24	60	4.5	26	9.5	M6x14	122
Q85 347Nm	BF	K0854075	K0854075	KBR19/24G	KC505190L	Ø19	95	115	100	Ø24	60	4.5	26	9.5	M8x14	124.5
	BG	K0854076	K0854076	KBR22/24G	KC505190L	Ø22	110	145	130	Ø24	64	5	30	13.5	M8x14	128.5
	BH	K0854077	K0854077	-	KC505190L	Ø24	130	165	140	Ø24	60	5	26	9.5	M8x14	124.5
	BD	K0854078	K0854078	KBR19/24G	KC505190L	Ø19	70	90	95	Ø24	60	4.5	26	9.5	M6x14	124.5



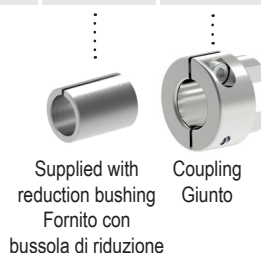
COAXIAL GEARBOXES

Flanges for servomotors - Flange per servomotori

Aluminum Coaxial-Gear

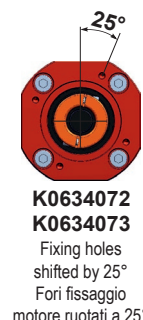
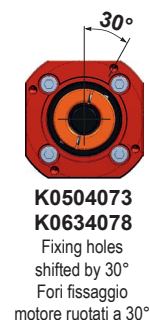
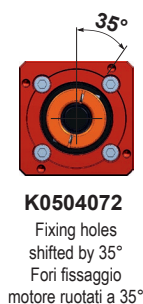
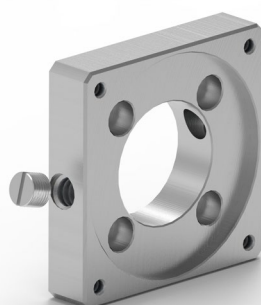


Type	Catalog Flange Code	Input Flanges Kit Code	Bushing Kit Code	Coupling Kit Code	Motor shaft Ø	A	B	C	ØD	E	F	G	L	I	H		
413A 175Nm	BC	K0504072	KBR11/14G	KC355190L	Ø11	60	75	70	Ø14	38	4.5	23	9	M5x12	190.5		
	BC	K0504072	-	KC355190L	Ø14	60	75	70	Ø14	38	4.5	23	9	M5x12	190.5		
	BB	K0504073	-	KC355190L	Ø14	50	70	70	Ø14	38	4.5	23	9	M5x12	190.5		
	BE	K0504074	-	KC355190L	Ø14	80	100	85	Ø14	38	4.5	23	9	M6x12	190.5		
	BB	K0504073	-	KC355190L	Ø14	50	70	70	Ø14	38	4.5	23	9	M5x12	190.5		
	BE	K0504074	-	KC355190L	Ø14	80	100	85	Ø14	38	4.5	23	9	M6x12	190.5		
412A 175Nm 513A 360Nm 613A 530Nm	BC	K0634072	KBR14/22G	KC405190L	Ø14	60	75	90	Ø22	55.5	4.5	25	9	M5x12	412A 186.5	513A 243	613A 260
	BB	K0634073	KBR14/22G	KC405190L	Ø14	50	70	80	Ø22	55.5	4.5	25	9	M5x12	186.5	243	260
	BE	K0634074	KBR14/22G	KC405190L	Ø14	80	100	85	Ø22	55.5	4.5	25	9	M6x12	186.5	243	260
	BF	K0634075	KBR19/22G	KC405190L	Ø19	95	115	100	Ø22	55.5	4.5	25	9	M8x12	186.5	243	260
	BG	K0634076	-	KC405190L	Ø22	110	145	130	Ø22	60.5	4.5	30	14	M8x14	191.5	248	265
	BD	K0634078	KBR19/22G	KC405190L	Ø19	70	90	90	Ø22	55.5	4.5	25	9	M6x12	186.5	243	260
512A 360Nm 612A 530Nm	BF	K0854075	KBR19/24G	KC505190L	Ø19	95	115	100	Ø24	58	4.5	26	9.5	M8x14	512A 235.5	612A 252	
	BG	K0854076	KBR22/24G	KC505190L	Ø22	110	145	130	Ø24	62	5	30	13.5	M8x14	239.5	256	
	BH	K0854077	-	KC505190L	Ø24	130	165	140	Ø24	58	5	26	9.5	M8x14	235.5	252	
	BD	K0854078	KBR19/24G	KC505190L	Ø19	70	90	95	Ø24	58	4.5	26	9.5	M6x14	235.5	252	



Flanges for servomotors

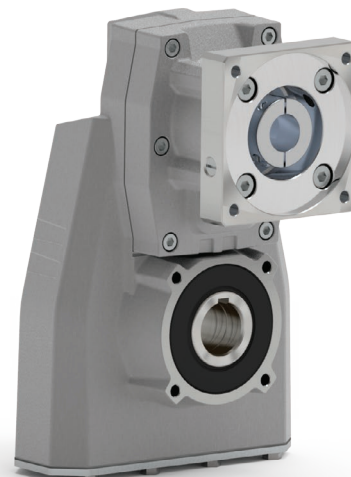
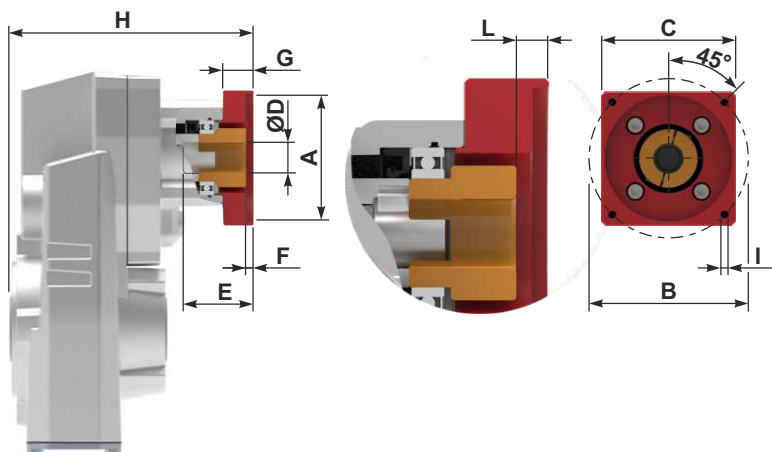
Flange per servomotori



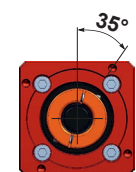
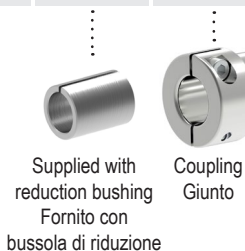
SHAFT MOUNTED GEARBOXES

Flanges for servomotors - Flange per servomotori

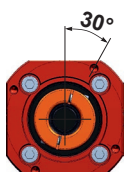
Aluminum **Compact-Gear**



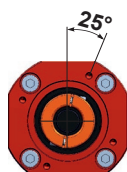
Type	Catalog Flange Code	Input Flanges Kit Code	Bushing Kit Code	Coupling Kit Code	Motor shaft Ø	A	B	C	ØD	E	F	G	L	I	H		
FA33 150Nm	BC	K0504072	KBR11/14G	KC355190L	Ø11	60	75	70	Ø14	38	4.5	23	9	M5x12	FA33		
	BC	K0504072	-	KC355190L	Ø14	60	75	70	Ø14	38	4.5	23	9	M5x12	180	180	180
	BB	K0504073	-	KC355190L	Ø14	50	70	70	Ø14	38	4.5	23	9	M5x12	180	180	180
	BE	K0504074	-	KC355190L	Ø14	80	100	85	Ø14	38	4.5	23	9	M6x12	180	180	180
FA32 150Nm	BC	K0634072	KBR14/22G	KC405190L	Ø14	60	75	90	Ø22	55.5	4.5	25	9	M5x12	FA32		
	BB	K0634073	KBR14/22G	KC405190L	Ø14	50	70	80	Ø22	55.5	4.5	25	9	M5x12	174.5	174.5	244
	BE	K0634074	KBR14/22G	KC405190L	Ø14	80	100	85	Ø22	55.5	4.5	25	9	M6x12	174.5	174.5	244
	BF	K0634075	KBR19/22G	KC405190L	Ø19	95	115	100	Ø22	55.5	4.5	25	9	M8x12	174.5	174.5	244
FA42 320Nm	BE	K0634074	KBR14/22G	KC405190L	Ø14	80	100	85	Ø22	55.5	4.5	25	9	M6x12	174.5	174.5	244
	BF	K0634075	KBR19/22G	KC405190L	Ø19	95	115	100	Ø22	55.5	4.5	25	9	M8x12	174.5	174.5	244
FA53 490Nm	BG	K0634076	-	KC405190L	Ø22	110	145	130	Ø22	60.5	4.5	30	14	M8x14	179.5	179.5	249
	BD	K0634078	KBR19/22G	KC405190L	Ø19	70	90	90	Ø22	55.5	4.5	25	9	M6x12	174.5	174.5	244
FA52 490Nm	BF	K0854075	KBR19/24G	KC505190L	Ø19	95	115	100	Ø24	58	4.5	26	9.5	M8x14	FA52		
	BG	K0854076	KBR22/24G	KC505190L	Ø22	110	145	130	Ø24	62	5	30	13.5	M8x14	235	239	235
	BH	K0854077	-	KC505190L	Ø24	130	165	140	Ø24	58	5	26	9.5	M8x14	235	235	235
	BD	K0854078	KBR19/24G	KC505190L	Ø19	70	90	95	Ø24	58	4.5	26	9.5	M6x14	235	235	235



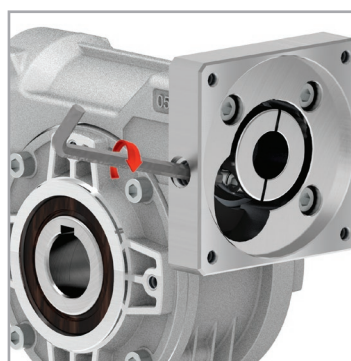
K0504072
Fixing holes shifted by 35°
Fori fissaggio motore ruotati a 35°



K0634073
Fixing holes shifted by 30°
Fori fissaggio motore ruotati a 30°



K0634072
Fixing holes shifted by 25°
Fori fissaggio motore ruotati a 25°

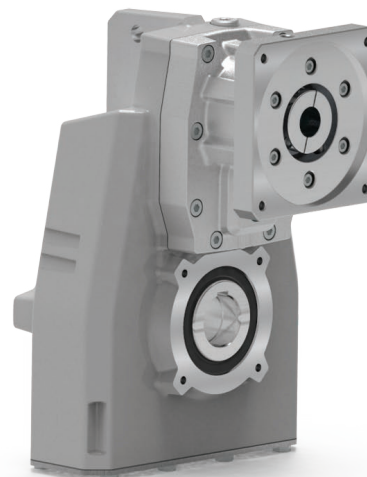
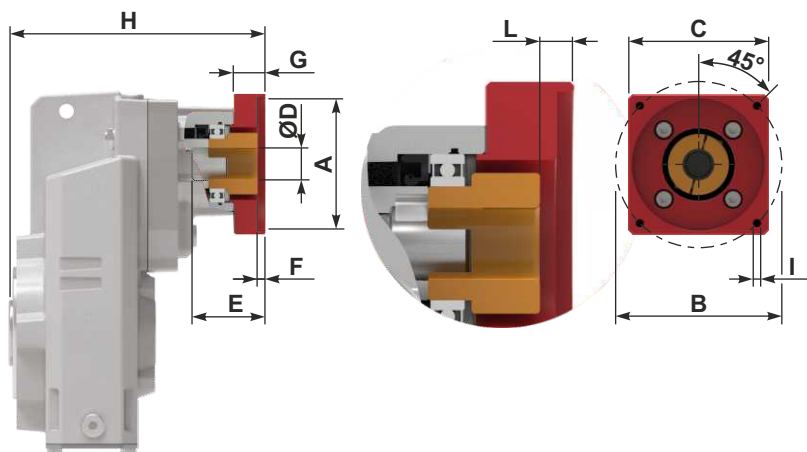


Coupling tightening
Serraggio del giunto

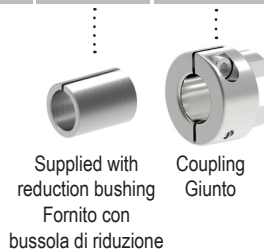
SHAFT MOUNTED GEARBOXES

Flanges for servomotors - Flange per servomotori

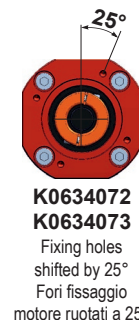
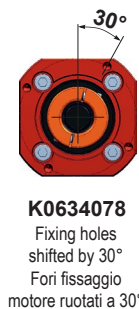
Cast Iron **Compact-Gear**



Type	Catalog Flange Code	Input Flanges Kit Code	Bushing Kit Code	Coupling Kit Code	Motor shaft Ø	A	B	C	ØD	E	F	G	L	I	H	
FC63 675Nm	BC	K0634072	KBR14/22G	KC405190L	Ø14	60	75	90	Ø22	51.5	4.5	21	9	M5x12	FC63 244	FC73 255.5
	BB	K0634073	KBR14/22G	KC405190L	Ø14	50	70	80	Ø22	51.5	4.5	21	9	M5x12	244	255.5
	BE	K0634074	KBR14/22G	KC405190L	Ø14	80	100	85	Ø22	51.5	4.5	21	9	M6x12	244	255.5
FC73 900Nm	BF	K0634075	KBR19/22G	KC405190L	Ø19	95	115	100	Ø22	51.5	4.5	21	9	M8x12	244	255.5
	BG	K0634076	-	KC405190L	Ø22	110	145	130	Ø22	56.5	4.5	26	14	M8x14	249	260.5
	BD	K0634078	KBR19/22G	KC405190L	Ø19	70	90	90	Ø22	51.5	4.5	21	9	M6x12	244	255.5
FC62 675Nm	BF	K0854075	KBR19/24G	KC505190L	Ø19	95	115	100	Ø24	54	4.5	22	9.5	M8x14	FC62 235	FC72 246.5
	BG	K0854076	KBR22/24G	KC505190L	Ø22	110	145	130	Ø24	58	5	26	13.5	M8x14	239	251.5
FC72 900Nm	BH	K0854077	-	KC505190L	Ø24	130	165	140	Ø24	54	5	22	9.5	M8x14	235	246.5
	BD	K0854078	KBR19/24G	KC505190L	Ø19	70	90	95	Ø24	54	4.5	22	9.5	M6x14	235	246.5



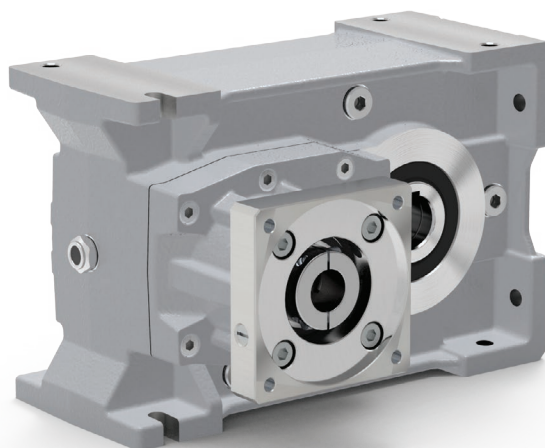
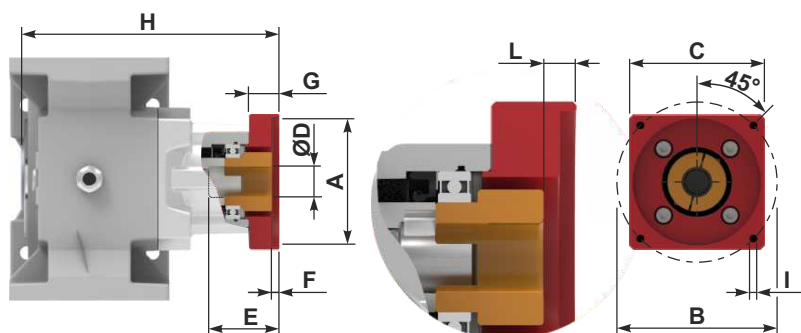
Reduction
Bushing
Bussola di
riduzione



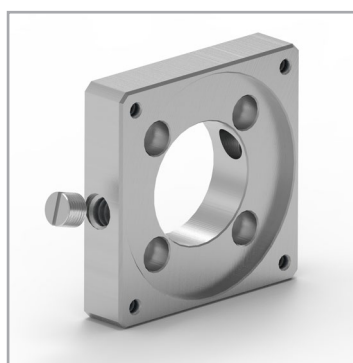
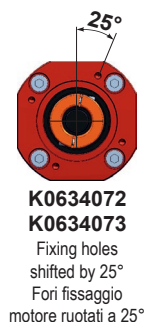
PARALLEL SHAFT GEARBOXES

Flanges for servomotors - Flange per servomotori

Cast Iron **Cube-Gear**



Type	Catalog Flange Code	Input Flanges Kit Code	Bushing Kit Code	Coupling Kit Code	Motor shaft Ø	A	B	C	ØD	E	F	G	L	I	H	
H63C 675Nm	BC	K0634072	KBR14/22G	KC405190L	Ø14	60	75	90	Ø22	55.5	4.5	25	9	M5x12	H63C 244	H73C 255.5
	BB	K0634073	KBR14/22G	KC405190L	Ø14	50	70	80	Ø22	55.5	4.5	25	9	M5x12	244	255.5
	BE	K0634074	KBR14/22G	KC405190L	Ø14	80	100	85	Ø22	55.5	4.5	25	9	M6x12	244	255.5
H73C 900Nm	BF	K0634075	KBR19/22G	KC405190L	Ø19	95	115	100	Ø22	55.5	4.5	25	9	M8x12	244	255.5
	BG	K0634076	-	KC405190L	Ø22	110	145	130	Ø22	60.5	4.5	30	14	M8x14	249	260.5
	BD	K0634078	KBR19/22G	KC405190L	Ø19	70	90	90	Ø22	55.5	4.5	25	9	M6x12	244	255.5
H62C 675Nm	BF	K0854075	KBR19/24G	KC505190L	Ø19	95	115	100	Ø24	58	4.5	26	22	M8x14	H62C 235	H72C 246.5
	BG	K0854076	KBR22/24G	KC505190L	Ø22	110	145	130	Ø24	62	5	30	26	M8x14	239	250.5
H72C 900Nm	BH	K0854077	-	KC505190L	Ø24	130	165	140	Ø24	58	5	26	22	M8x14	235	246.5
	BD	K0854078	KBR19/24G	KC505190L	Ø19	70	90	95	Ø24	58	4.5	26	22	M6x14	235	246.5

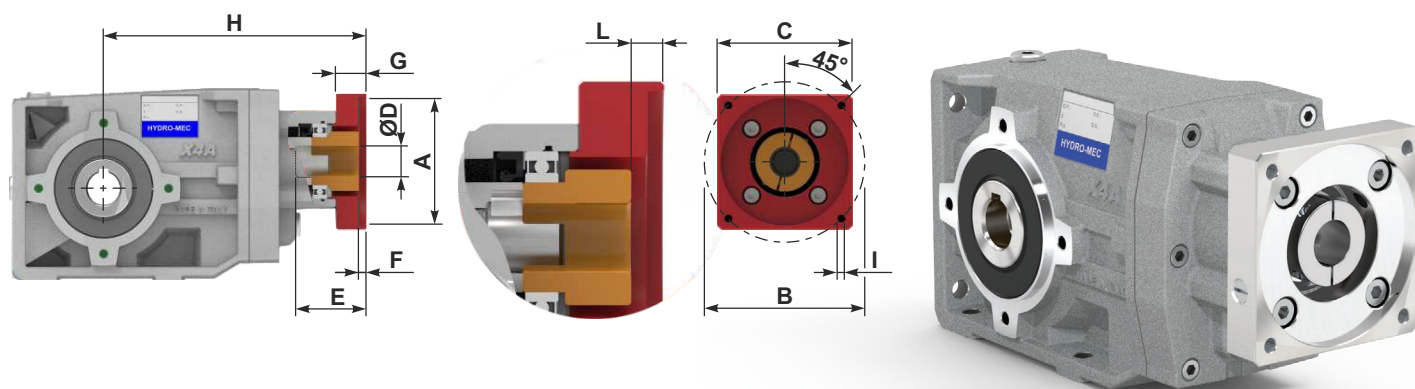


Flanges for servomotors
Flange per servomotori

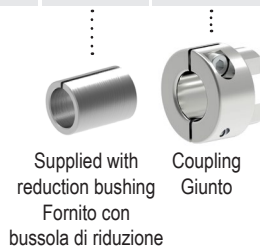
HELICAL BEVEL GEARBOXES

Flanges for servomotors - Flange per servomotori

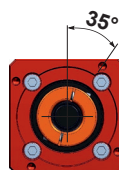
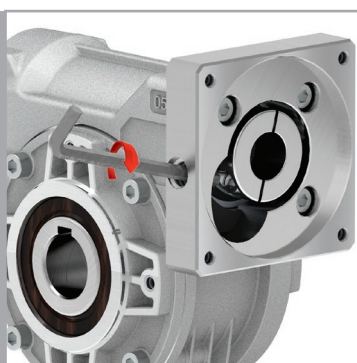
Aluminum Angletech-Gear



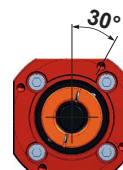
Type	Catalog Flange Code	Input Flanges Kit Code	Bushing Kit Code	Coupling Kit Code	Motor shaft $\varnothing$	A	B	C	$\varnothing D$	E	F	G	L	I	H			
															X22S	X33S	X43A	
X22S 50Nm	BC	K0504072	KBR11/14G	KC355190L	$\varnothing 11$	60	75	70	$\varnothing 14$	38	4.5	23	9	M5x12	159.5	194.5	210	
X33S 100Nm	BC	K0504072	-	KC355190L	$\varnothing 14$	60	75	70	$\varnothing 14$	38	4.5	23	9	M5x12	159.5	194.5	210	
X43A 160Nm	BB	K0504073	-	KC355190L	$\varnothing 14$	50	70	70	$\varnothing 14$	38	4.5	23	9	M5x12	159.5	194.5	210	
	BE	K0504074	-	KC355190L	$\varnothing 14$	80	100	85	$\varnothing 14$	38	4.5	23	9	M6x12	159.5	194.5	210	
															X32S	X42A	X53A	X63A
X32S 90Nm	BC	K0634072	KBR14/22G	KC405190L	$\varnothing 14$	60	75	90	$\varnothing 22$	55.5	4.5	25	9	M5x12	189	204.5	251	270
X42A 150Nm	BB	K0634073	KBR14/22G	KC405190L	$\varnothing 14$	50	70	80	$\varnothing 22$	55.5	4.5	25	9	M5x12	189	204.5	251	270
X53A 250Nm	BE	K0634074	KBR14/22G	KC405190L	$\varnothing 14$	80	100	85	$\varnothing 22$	55.5	4.5	25	9	M6x12	189	204.5	251	270
X63A 410Nm	BF	K0634075	KBR19/22G	KC405190L	$\varnothing 19$	95	115	100	$\varnothing 22$	55.5	4.5	25	9	M8x12	189	204.5	251	270
	BG	K0634076	-	KC405190L	$\varnothing 22$	110	145	130	$\varnothing 22$	60.5	4.5	30	14	M8x14	194	209.5	256	275
	BD	K0634078	KBR19/22G	KC405190L	$\varnothing 19$	70	90	90	$\varnothing 22$	55.5	4.5	25	9	M6x12	189	204.5	251	270
															X52A	X62A		
X52A 250Nm	BF	K0854075	KBR19/24G	KC505190L	$\varnothing 19$	95	115	100	$\varnothing 24$	58	4.5	26	9.5	M8x14	242		261	
	BG	K0854076	KBR22/24G	KC505190L	$\varnothing 22$	110	145	130	$\varnothing 24$	62	5	30	13.5	M8x14	246		265	
X62A 410Nm	BH	K0854077	-	KC505190L	$\varnothing 24$	130	165	140	$\varnothing 24$	58	5	26	9.5	M8x14	242		261	
	BD	K0854078	KBR19/24G	KC505190L	$\varnothing 19$	70	90	95	$\varnothing 24$	58	4.5	26	9.5	M6x14	242		261	



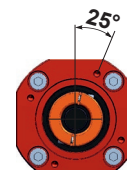
Coupling
tightening
Serraggio
del giunto



K0504072
Fixing holes
shifted by 35°
Fori fissaggio
motore ruotati a 35°



K0504073
K0634078
Fixing holes
shifted by 30°
Fori fissaggio
motore ruotati a 30°

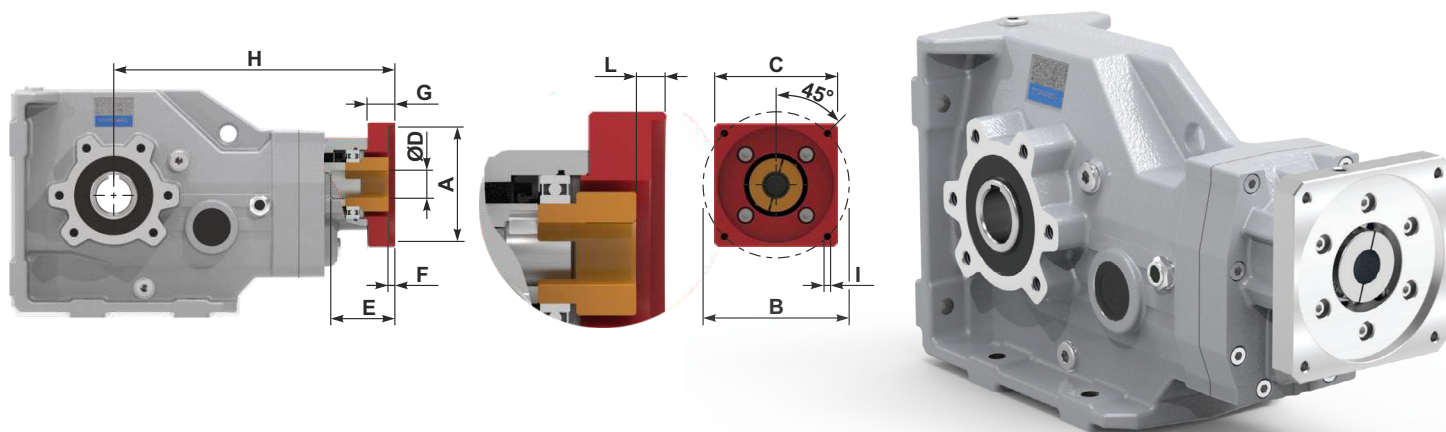


K0634072
K0634073
Fixing holes
shifted by 25°
Fori fissaggio
motore ruotati a 25°

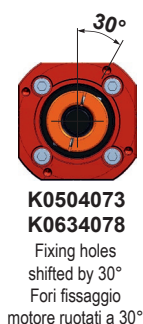
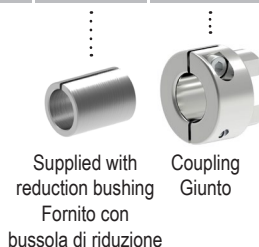
HELICAL BEVEL GEARBOXES

Flanges for servomotors - Flange per servomotori

Cast Iron Angletech-Gear



Type	Catalog Flange Code	Input Flanges Kit Code	Bushing Kit Code	Coupling Kit Code	Motor shaft Ø	A	B	C	ØD	E	F	G	L	I	H			
X74C 100Nm	BC	K0634072	KBR14/22G	KC405190L	Ø14	60	75	90	Ø22	55.5	4.5	25	9	M5x12	X74C	X84C	114C	134C
X84C 160Nm	BB	K0634073	KBR14/22G	KC405190L	Ø14	50	70	80	Ø22	55.5	4.5	25	9	M6x12	316	333	257.5	268
114C 250Nm	BE	K0634074	KBR14/22G	KC405190L	Ø14	80	100	85	Ø22	55.5	4.5	25	9	M6x12	316	333	257.5	268
134C 410Nm	BF	K0634075	KBR19/22G	KC405190L	Ø19	95	115	100	Ø22	55.5	4.5	25	9	M8x12	316	333	257.5	268
	BG	K0634076	-	KC405190L	Ø22	110	145	130	Ø22	60.5	4.5	30	14	M8x14	321	338	262.5	273
	BD	K0634078	KBR19/22G	KC405190L	Ø19	70	90	90	Ø22	55.5	4.5	25	9	M6x12	316	333	257.5	268
X73C 90Nm	BF	K0854075	KBR19/24G	KC505190L	Ø19	95	115	100	Ø24	58	4.5	26	9.5	M8x14	X73C	X83C	113C	133C
X83C 150Nm	BG	K0854076	KBR22/24G	KC505190L	Ø22	110	145	130	Ø24	62	5	30	13.5	M8x14	307	324	244.5	259
113C 250Nm	BH	K0854077	-	KC505190L	Ø24	130	165	140	Ø24	58	5	26	9.5	M8x14	311	328	248.5	263
133C 410Nm	BD	K0854078	KBR19/24G	KC505190L	Ø19	70	90	95	Ø24	58	5	26	9.5	M6x14	307	324	248.5	259



Coupling
Giunto

Available kits

Kit disponibili

Reduction bushings

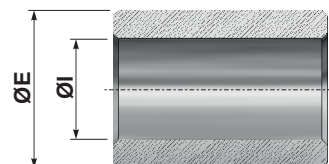
Bussole di riduzione



Reduction bushing dimensions

Dimensioni bussola di riduzione

ØI	ØE	Code
Ø9	Ø14	KBR09/14G
Ø11	Ø14	KBR11/14G
Ø11	Ø19	KBR11/19G
Ø14	Ø19	KBR14/19G
Ø14	Ø22	KBR14/22G
Ø19	Ø22	KBR19/22G
Ø19	Ø24	KBR19/24G
Ø22	Ø24	KBR22/24G



Couplings

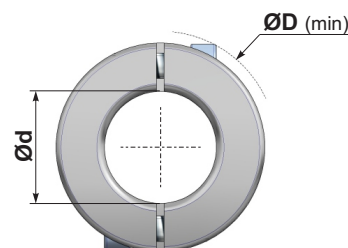
Giunti



Coupling dimensions

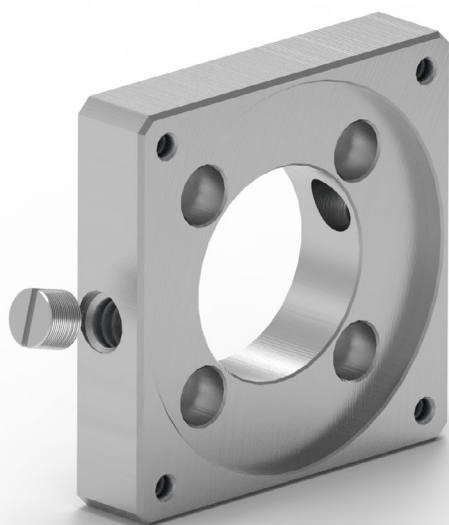
Dimensioni giunto

Ød	ØD (min)	Code
Ø9	Ø34	K0305190L
Ø14	Ø40	KC355190L
Ø19	Ø42	K0505190L
Ø22	Ø48	KC405190L
Ø24	Ø57	KC505190L



Flanges for servomotor

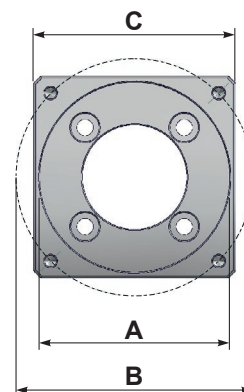
Flange per servomotore



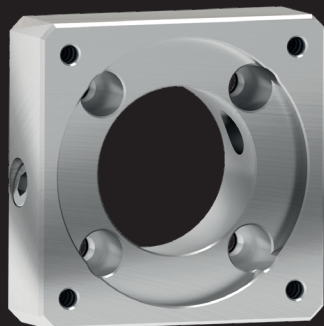
Flange dimensions

Dimensioni flangia

Code Kit flange	A	B	C
K0304071	40	63	58
K0304072	60	75	70
K0304073	50	70	60
K0504072	60	75	70
K0504073	50	70	70
K0504074	80	100	85
K0504075	95	115	100
K0504078	70	90	80
K0634072	60	75	90
K0634073	50	70	80
K0634074	80	100	85
K0634075	95	115	100
K0634076	110	145	130
K0634078	70	90	90
K0854075	95	115	100
K0854076	110	145	130
K0854077	130	165	140
K0854078	70	90	95



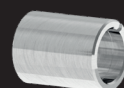
BRUSHLESS-TECH



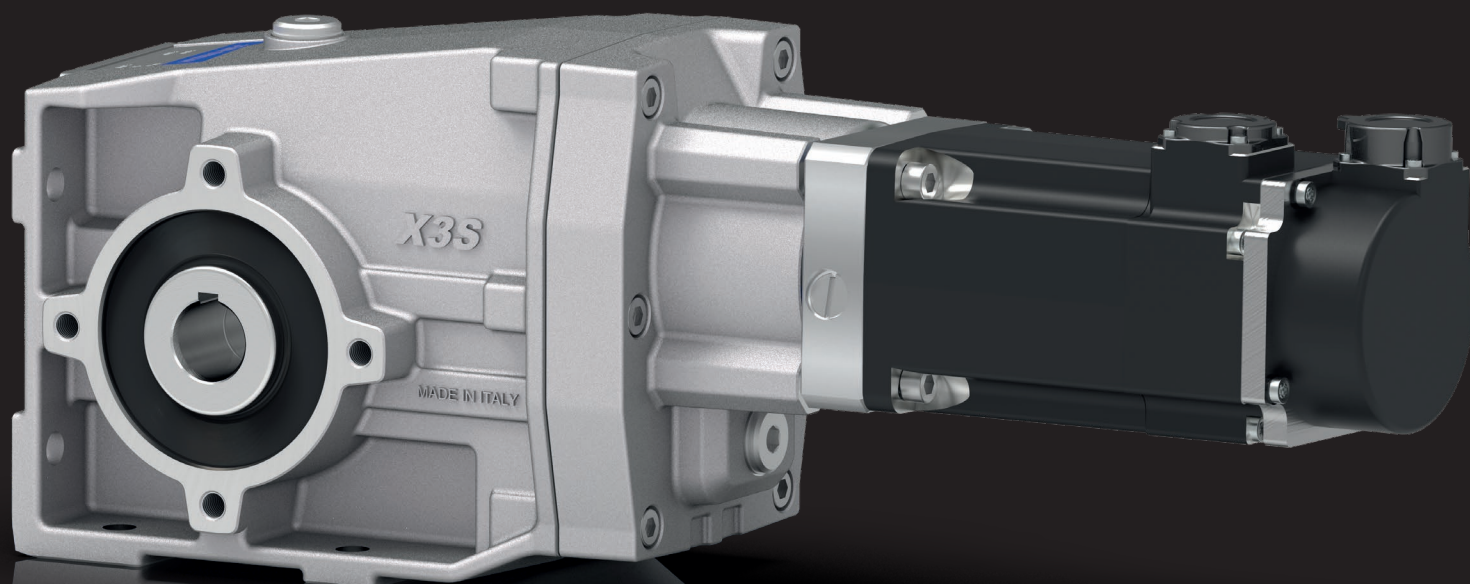
Flange for servomotor
Flange per servomotore



Coupling
Giunto



Reduction bushing
Bussola di riduzione



HYDRO · MEC

HIGH EFFICIENCY GEARBOXES

Selecting a gearbox with brushless motor

Selezione di un riduttore con motore brushless

Several factors should be considered before selecting the appropriate gearbox for :

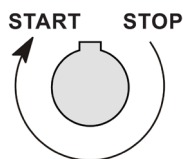
Diversi fattori devono essere considerati prima di selezionare il riduttore appropriato per:

1 motor speeds from 0 to 1500 rpm, you can use the rating in our Hydro-Mec general catalog.

Velocità del motore da 0 a 1500 giri/min, vedere la selezione nel nostro catalogo generale Hydro-Mec.

2 Applications having frequent starts and stops.

Applicazioni con avviamenti e arresti frequenti.



3 Quick inversion of rotation.

Veloci inversioni di rotazione.

030

Rightangle - Gear

21Nm

Rating - Aluminum

WORM GEARBOXES



QUICK SELECTION / Selezione veloce

input speed (n_i) = 1400 min⁻¹

Output speed n ₂ [min ⁻¹]	Ratio i	Motor power P [kW]	Output torque M ₂ [Nm]	Service factor f.s.	Nominal power P [kW]	Nominal torque M ₂ [Nm]	Available B5 motor flanges		Available B14 motor flanges		Dynamic efficiency	Tooth Module [mm]	Ratio code
							-A	-B	-O	-P			
							56	63	56	63			
280	5	0.18	5	3.3	0.60	17	B		B-C		82	1.26	09
200	7	0.18	7	2.4	0.44	17	B		B-C		80	1.44	01
140	10	0.18	10	1.8	0.32	17	B		B-C		78	1.44	02
93	15	0.18	13	1.4	0.25	19	B		B-C		73	1.44	03
70	20	0.18	17	1.1	0.20	19	B		B-C		70	1.09	04
47	30	0.12	15	1.4	0.17	21	B		B-C		62	1.44	05
35	40	0.12	19	1.1	0.13	20	B		B-C		57	1.09	06
23	61	0.09	19	1.1	0.10	20	B		B-C		50	0.72	07
17.5	80	0.06	16	1.0	0.06	16	B		B-C		48	0.56	08
14	100	0.06*	16	0.5	0.03	8	B		B-C		40	0.45	10

Motor Flanges Available

Flange Motore Disponibile

B) Supplied with Reduction Bushing

Forcing con Buscetta di Riduzione

Available on Request without reduction bushing

Disponibile a Richiesta senza Buscetta di Riduzione

C) Motor Flange Holes Position

Posizione Fori Flangia Motore

* Power higher than the maximum one which can be supported by the gearbox. Select according to the torque M₂.
 Potenza superiore a quella massima sopportabile dal riduttore. Selezionare in base al momento torcente M₂.

EN Unit 030 is supplied with synthetic oil, providing "long life" lubrication. For mounting position V5-V6 please contact us.

See table 1 for lubrication and recommended quantity.

LUBRICATION 030 Oil Quantity 0.03 Lt.

SHELL Omala S4 WE 320

ENI Tellum VSF 320

Service factor - Worm gears / Fattore di servizio - Ingranaggi a vite senza fine

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

Service factor - Gears / Fattore di servizio - Ingranaggi

Type of load and starts per hour Tipo di carico e avviamenti per ora		Oper. hours per day Ore di funz. giorn.		
		3 h	10 h	24 h
Continuous or intermittent appl. with start / hour Applicazione cont. o interm. con n.ro operazioni/ora	Uniform / Uniforme	0.8	1	1.25
	Moderate / Moderato	1	1.25	1.5
	Heavy / Forte	1.25	1.5	1.75
Intermittent application with start / hour Applicazione intermittente con n.ro operazioni/ora	Uniform / Uniforme	1	1.25	1.5
	Moderate / Moderato	1.25	1.5	1.75
	Heavy / Forte	1.5	1.75	2.15

Add a second service factor for:

Aggiungere un secondo fattore di servizio per:

4 Motor speeds from 1500 to 3000 rpm: Consider a reduction of the nominal torque M_{2R} of 20%.

Velocità del motore da 1500 a 3000 giri/min: Considerare una riduzione della coppia nominale M_{2R} del 20%.

5 Motor with speeds over 3000rpm please contact us.

Velocità del motore oltre 3000 giri/min, contattateci.

Special options on request on the gearbox

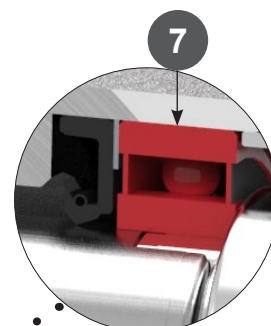
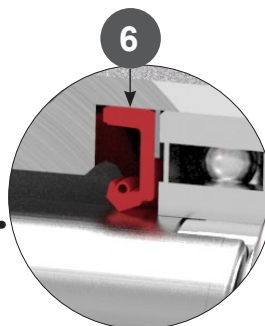
Opzioni speciali a richiesta sul riduttore

6 ON REQUEST for speeds above 2000 rpm FKM oil seal are used on coupling configuration.

A RICHIESTA per velocità al di sopra di 2000 giri/min in ingresso sul giunto usare anello di tenuta in FKM.

7 With high speed C3 bearings are suggested.

Con alte velocità si consigliano cuscinetti con gioco C3.



Lubrication for mounting position

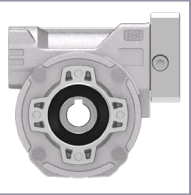
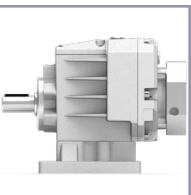
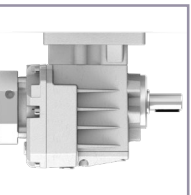
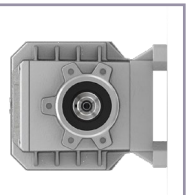
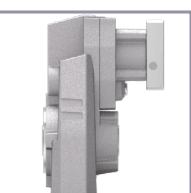
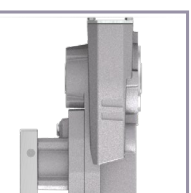
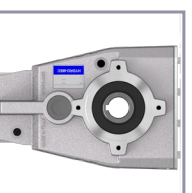
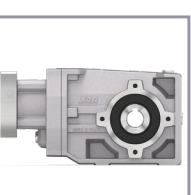
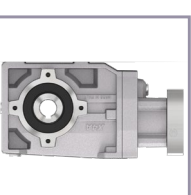
Lubrificazione per posizione di montaggio

Suggested mounting position are as follows

Le posizioni di montaggio suggerite sono le seguenti

With high input speeds above 2000 rpm Oil breather plugs are suggested as internal pressure can rise. In some critical cases the oil quantity that are indicated in our website on the lubrication pages, may need to reduced. So please contact us.

Con velocità di ingresso elevate superiori a 2000 giri/min si consiglia l'uso di tappi di sfiato olio poiché la pressione interna può aumentare. In alcuni casi critici potrebbe essere necessario ridurre la quantità di olio indicata nel nostro sito relativa alla lubrificazione. Quindi per favore contattaci.

WORM GEARBOXES	B3 	B8 	B6 	B7 
COAXIAL GEARBOXES	B3 	B8 	B6 	B7 
SHAFT MOUNTED GEARBOXES	H1 	H2 	H4 	H3 
HELICAL BEVEL GEARBOXES	B3 	B8 	B6 	B7 

SUGGESTED POSITION

Lubrication for mounting position

Lubrificazione per posizione di montaggio

Vertical positions are critical

Le posizioni verticali sono critiche

These position required 2Z or 2RS bearings.

Queste posizioni richiedono l'utilizzo di cuscinetti 2Z o 2RS.

V6/H6

**MOST
CRITICAL**

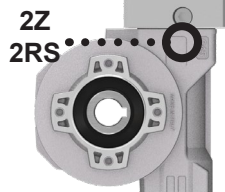
Continuous duty with high start and stop is not suggested. In this condition the correct functioning of lower oil seal becomes critical.

Il servizio continuo con avvi e arresti frequenti non è consigliato.

In questa condizione il corretto funzionamento dell'anello di tenuta inferiore diventa critico.

WORM
GEARBOXES

V5



V6

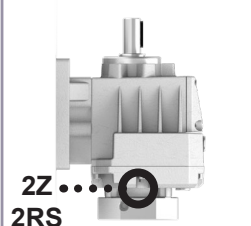


COAXIAL
GEARBOXES

V5

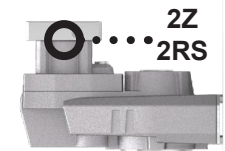


V6

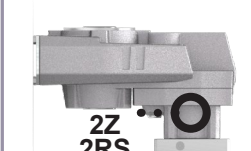


SHAFT MOUNTED
GEARBOXES

H5

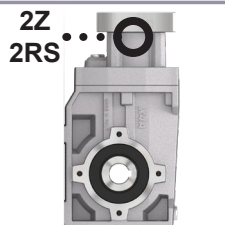


H6

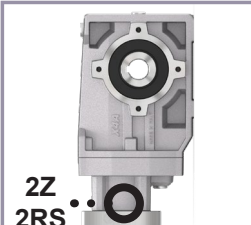


HELICAL BEVEL
GEARBOXES

V5



V6

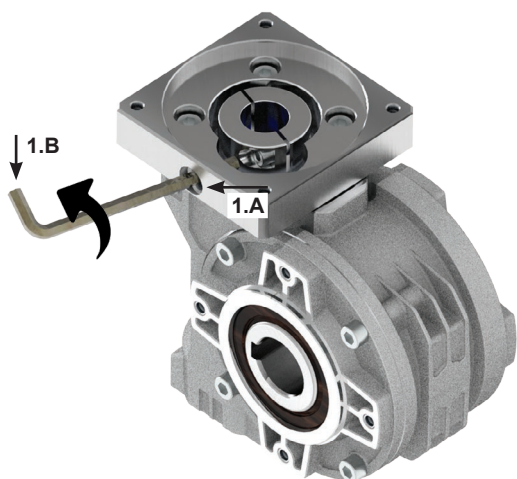


**MOST CRITICAL
V6**

Instructions for motor assembly

Istruzioni per il montaggio del motore

1



Remove the protection screws on the input flange.

Rimuovere le viti di protezione sulla flangia motore.

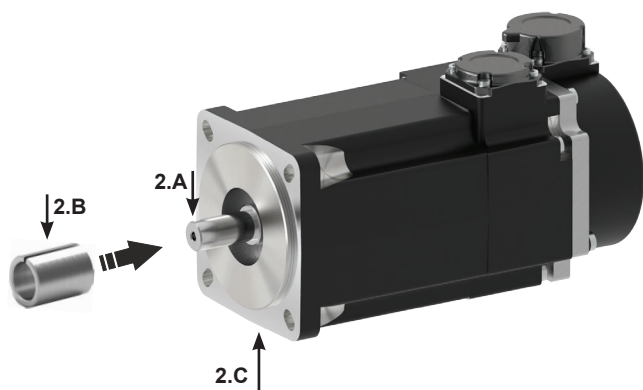


Loosen the fastening screws of the coupling.

Allentare le viti di serraggio del giunto.



2



Motor shaft without key.

Albero motore senza linguetta.

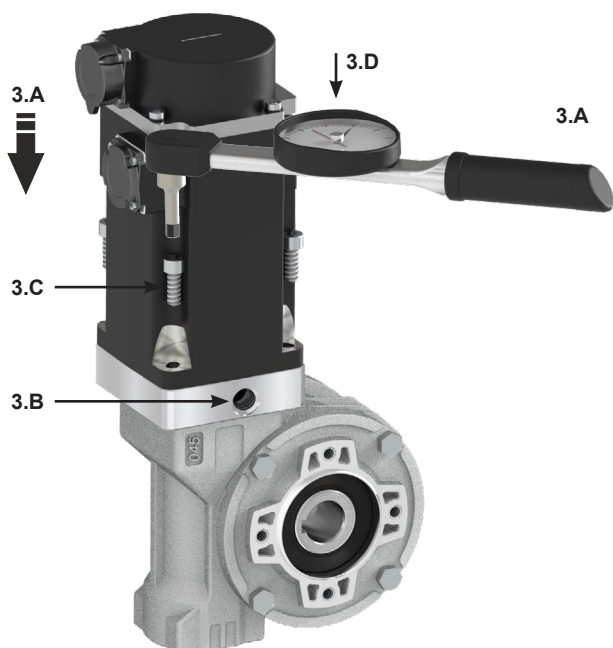


Only if used with reduction bushing. Mount the reduction bushing with the rubber hammer.

Se prevista la bussola di riduzione. Utilizzare un martello di gomma per il montaggio.



3



Before mounting the motor, check aligned the screw is with the hole on the input motor flange.

Prima di montare il motore, assicurarsi che le viti del giunto sia allineata con il foro sulla flangia riduttore.



For fixing the motor, apply anti-loosening paste on screw thread, employ Arexons 52A70 strong thread lock or similar.

Per il fissaggio del motore, applicare un prodotto anti-svitamento sui filetti delle viti, utilizzare un frena filetto forte tipo Arexons 52A70 o similare.



Tighten the screws according to table torque values. Recommended the class screws 8.8.

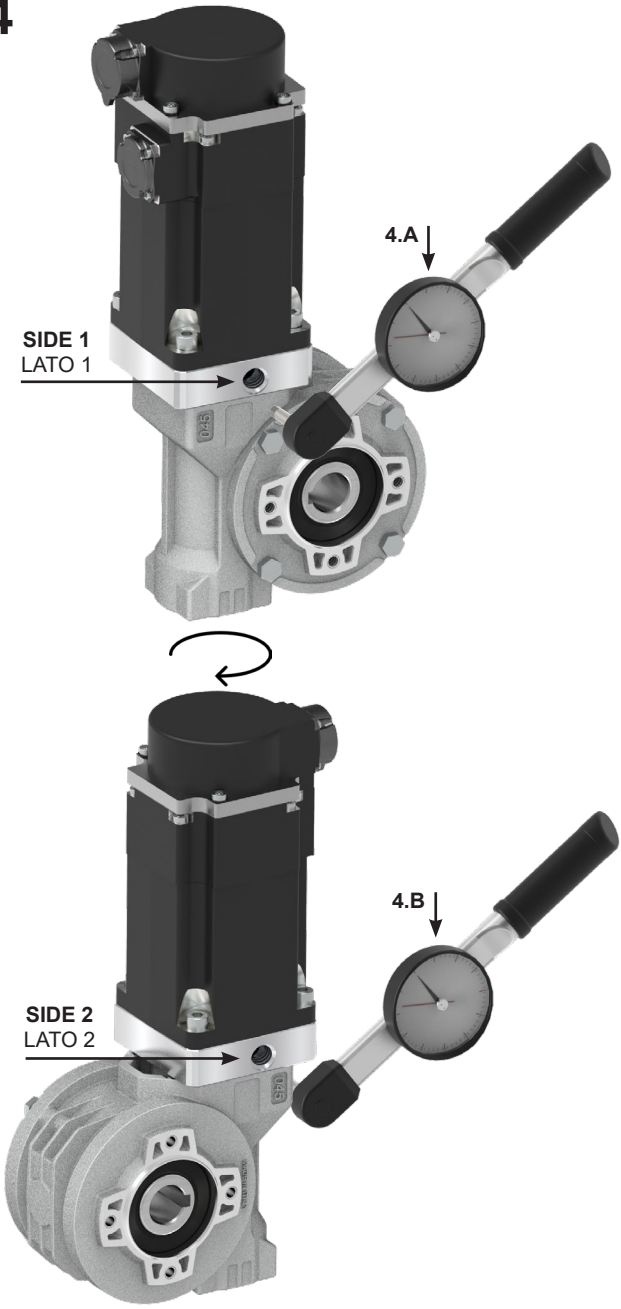
Serrare le viti in base ai valori in tabella. Consigliato le viti di classe 8.8.

Screw Vite	TS [Nm]
M4	3
M5	6
M6	10
M8	25
M10	45

Instructions for motor assembly

Istruzioni per il montaggio del motore

4



4.A

Tighten the screws (SC) according to the torque (TS) reported in the table.

(SC) Socked-head screw (Allen screw), class screws 8.8 .

Stringere le viti (SC) del giunto in base alla coppia di serraggio (TS) riportata nella tabella.

(SC) Vite a testa cilindrica esagono incassato (Brogola), classe 8.8 .

Coupling kit code	SC	TS [Nm]
K0305190L	M4x14	3.5
KC355190L	M4x14	3.5
K0505190L	M5x16	6
KC405190L	M5x16	6
KC505190L	M6x20	10



4.B

First tighten on side 1 and side 2, repeat the tightening a second round on both sides.

Stringere una prima volta sul lato 1 e sul lato 2, ripetere il serraggio una seconda volta su entrambi i lati.



CHECK

Exceeding the torque to fix the locking bolt can damage the coupling.

Il superamento della coppia di serraggio della vite di bloccaggio può danneggiare il dispositivo di accoppiamento



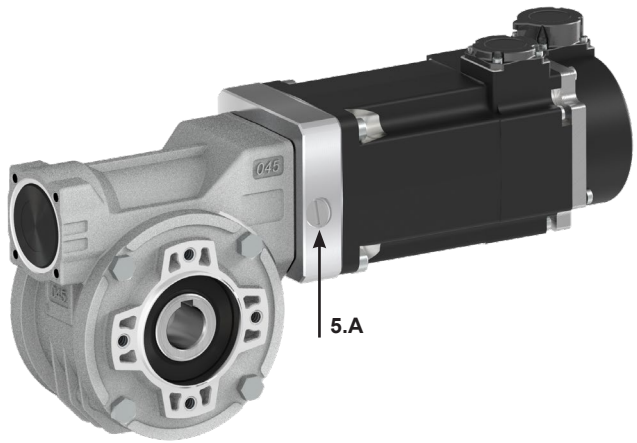
CHECK

5.A

Reset the protection screws.

Riposizionare le viti di protezione.

5



HYDRO • MEC

HIGH EFFICIENCY GEARBOXES

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