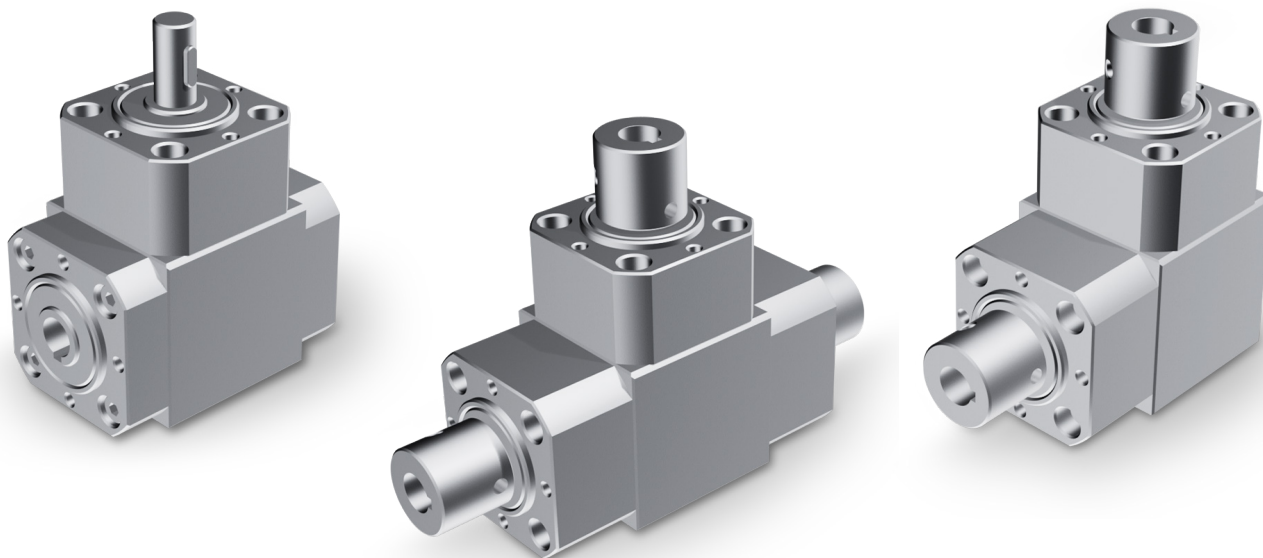




- Ideale per uso motorizzato in continuo, al massimo dell'efficienza e senza perdita di potenza.
- La configurazione dei componenti assicura una gestione costante dei carichi con funzionamento fluido e senza interruzioni.
- Lubrificazione a bagno d'olio per un nr. di giri superiore a 200 rpm; a grasso per un nr. di giri inferiore a 200 rpm.
- Rapporti di trasmissione disponibili: **1:1 - 1:2 - 2:1** (disponibile nelle versioni «A» - «B» - «C»); (**Tab. 3**).
- Corpo in alluminio, anodizzato; alberi in acciaio inox AISI 303.
- Coppia trasmissibile massima **14 Nm** (**Tab. 10**); carico radiale - carico assiale (**Tab. 11**).
- Modelli (**Tab. 1**):
 - Versione «A» con 2 uscite; peso 600 g.
 - Versione «B» con 3 uscite; peso 620 g.
 - Versione «C» (rotazione contraria) con 3 uscite; peso 630 g.
 - Versione «D» con 3 uscite, 2 ad albero cavo passante; peso 590 g.
- Alberi standard: **M** = maschio **Ø10CH3** / **F** = femmina **Ø10CH3** (**Tab. 9**).

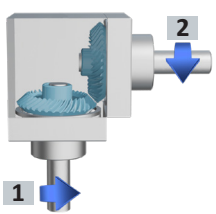
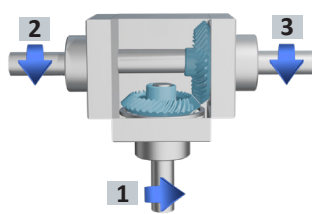
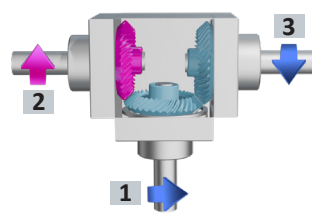
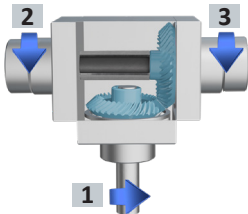
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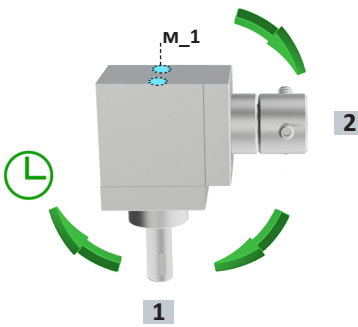
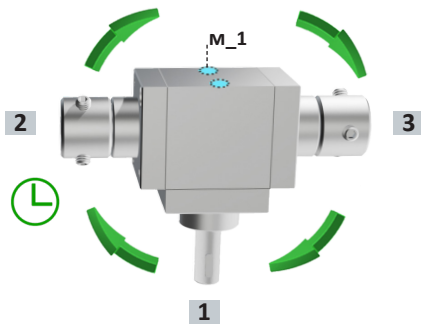
- Alberi: **M** = maschio **Ø14CH5** nelle versioni.
- Alberi: **F** = femmina **Ø14CH5** nelle versioni.
- Configurazioni personalizzate.

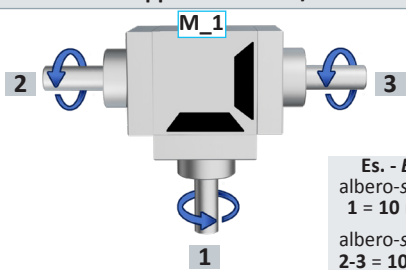
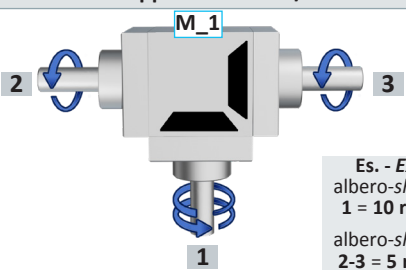
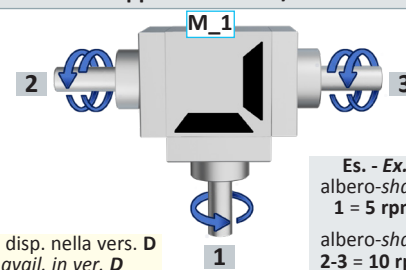
- *Ideal for continuous motorized use at maximum efficiency, without any loss of power.*
- *The component configuration ensures handling of constant loads with smooth, and uninterrupted operation.*
- *Oil bath lubrication for speeds above 200 rpm; grease lubrication for speeds below 200 rpm.*
- *Available transmission ratios: 1:1 - 1:2 - 2:1 (available in versions «A» - «B» - «C»); (**Tab. 3**).*
- *Aluminium case, anodised; AISI 303 stainless steel shafts.*
- *Max. transmissible torque 14 Nm (**Tab. 10**); radial load kg - axial load kg (**Tab. 11**).*
- *Models (**Tab. 1**):*
 - *Version «A» with 2 outputs; weight 600 g.*
 - *Version «B» with 3 outputs; weight 620 g.*
 - *Version «C» (opposite rotation) with 3 outputs; weight 630 g.*
 - *Version «D» with 3 outputs, 2 through hollow shafts; weight 590 g.*
- *Standard shafts: M = male Ø10CH3 / F = female Ø10CH3 (**Tab. 9**).*

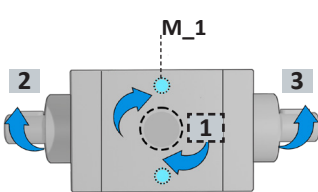
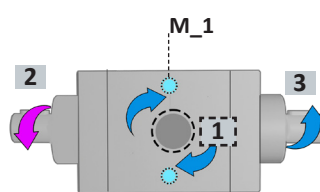
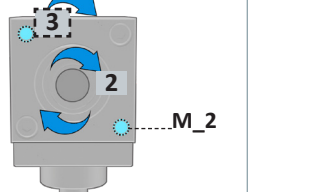
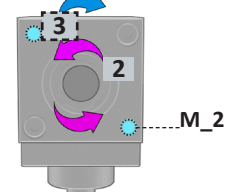
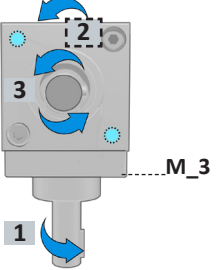
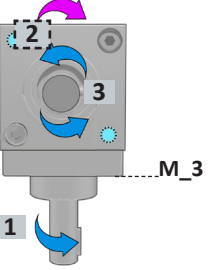
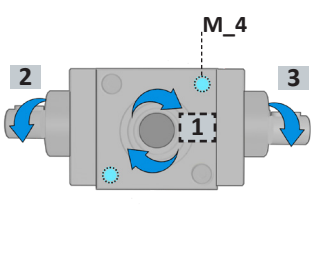
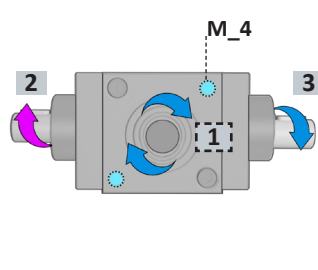
Available on request:

- *Shafts: M = male Ø14CH5 in versions.*
- *Shafts: F = female Ø14CH5 in versions.*
- *Custom configurations.*

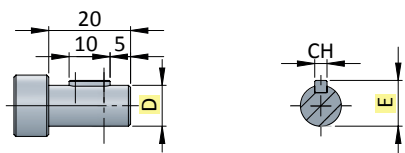
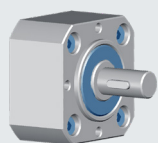
FORMA COSTRUTTIVA E SENSO DI ROTAZIONE - CONFIGURATION AND DIRECTION OF ROTATION				Tab. 1
«A»	«B»	«C»	«D»	
				
2 uscite, rotazione concorde 2 outputs, same rotation direction	3 uscite, rotazione concorde 3 outputs, same rotation direction	3 uscite, 1 con rotazione discorde 3 outputs, 1 with opposite rotation	3 uscite, 2 cave, rot. concorde 3 outputs, 2 hollow shafts, same rot.	

IDENTIFICAZIONE ALBERI E RIFERIMENTI - SHAFT IDENTIFICATION AND REFERENCES		Tab. 2
Esempio - Example	Esempio - Example	
		L'albero 1 è sempre raffigurato dalla parte opposta dei fori di fissaggio M_1, è il riferimento per: forma costruttiva, senso di rotazione e rapporto di trasmissione. Per convenzione l'albero 1, è rappresentato con rotazione in senso orario, gli altri seguono il senso orario. <i>Shaft 1 is always shown on the side opposite the M_1 fixing bores and is the reference for: configuration, direction of rotation, gear ratio. By convention, Shaft 1 is shown rotating clockwise, the others follow the clockwise direction.</i>

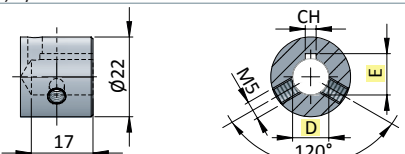
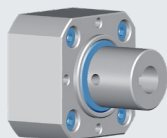
RAPPORTI DI TRASMISSIONE DISPONIBILI - AVAILABLE TRANSMISSION RATIOS			Tab. 3
Il rapporto fa riferimento all'albero 1, opposto ai fori M_1 - The ratio refers to shaft 1, opposite the M_1 fixing bores.			
Rapporto - Ratio 1/1	Rapporto - Ratio 1/2	Rapporto - Ratio 2/1	
 Es. - Ex. albero-shaft: 1 = 10 rpm albero-shaft: 2-3 = 10 rpm	 Es. - Ex. albero-shaft: 1 = 10 rpm albero-shaft: 2-3 = 5 rpm	 Es. - Ex. albero-shaft: 1 = 5 rpm albero-shaft: 2-3 = 10 rpm	non disp. nella vers. D not avail. in ver. D

POSIZIONI DI FISSAGGIO M_ - M_ FIXING POSITIONS				Tab. 4
L'albero 1 di riferimento, per convenzione, è rappresentato con rotazione oraria; il corpo viene ruotato di 90° rispetto alla posizione precedente. <i>Shaft 1 shaft 1 remains the reference and is conventionally shown rotating clockwise; the housing is rotated by 90° from the previous position.</i>				
M_1 = vista dall'alto - top view		M_2 = vista laterale destra - right side view		
0°	90°	90°	180°	
				
rotazione concorde - same rotation	rotazione discorde - opposite rotation	rotazione concorde - same rotation	rotazione discorde - opposite rotation	
+ 90° ↑		+ 90° ↓		
M_3 = vista laterale sinistra - left side view		M_4 = vista dal basso - bottom view		
270°	180°	180°	270°	
				
rotazione concorde - same rotation	rotazione discorde - opposite rotation	rotazione concorde - same rotation	rotazione discorde - opposite rotation	

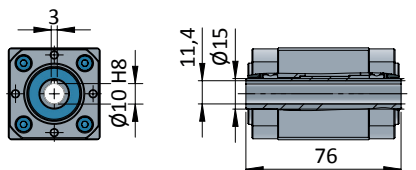
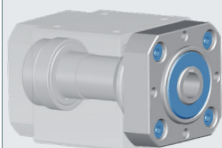
ALBERI DISPONIBILI - AVAILABLE SHAFTS



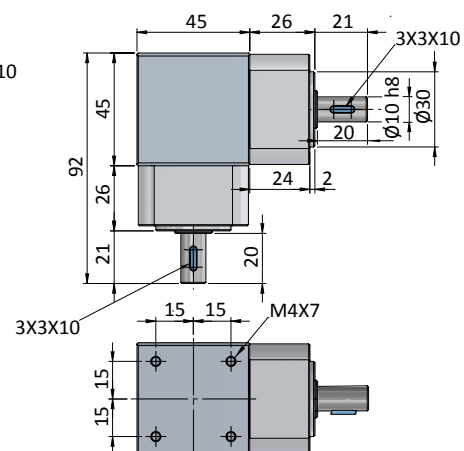
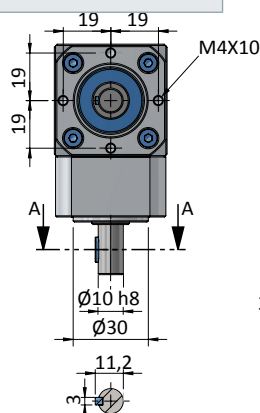
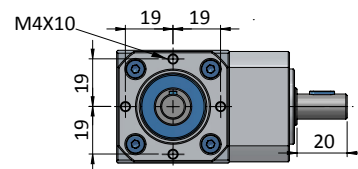
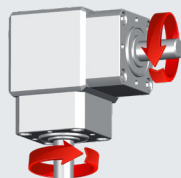
D = $\varnothing 10\text{h}8 \text{ CH}3 / \varnothing 14\text{h}8 \text{ CH}5$
E = 11,2 / 16



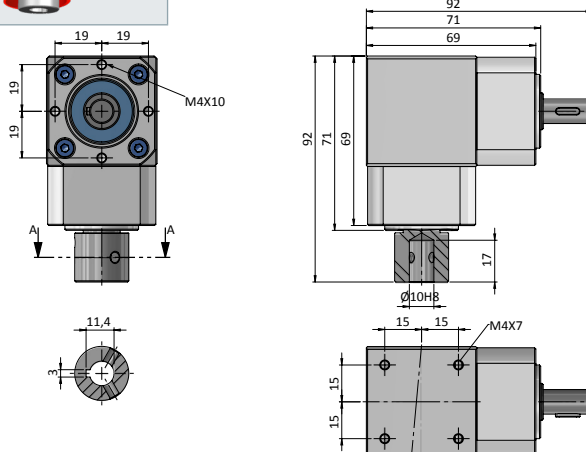
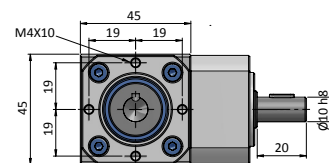
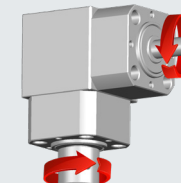
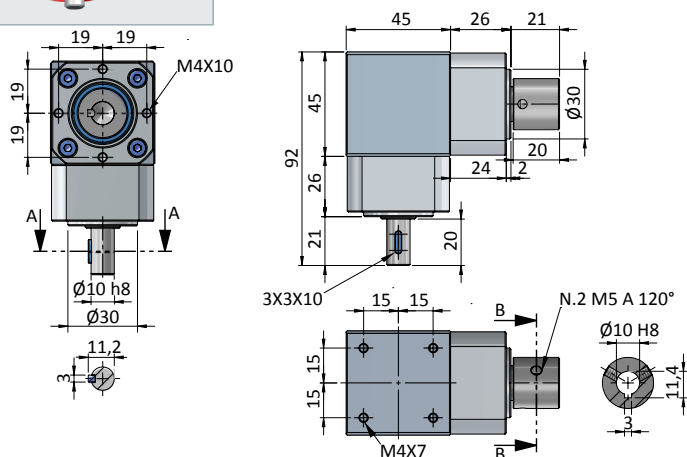
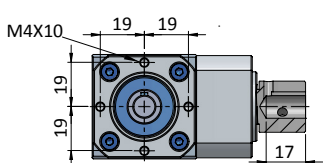
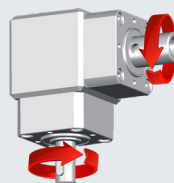
D = $\varnothing 10\text{h}8 \text{ CH}3 / \varnothing 14\text{h}8 \text{ CH}5$
E = 11,4 / 16,3



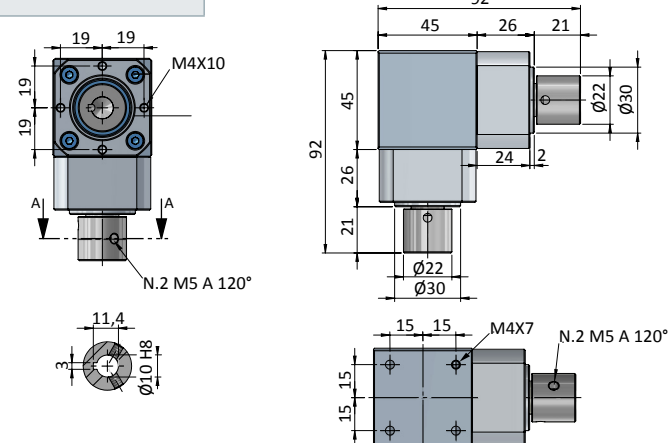
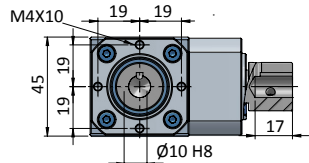
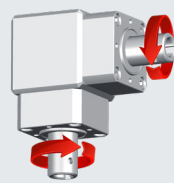
VERSIONE - VERSION «A» M-M



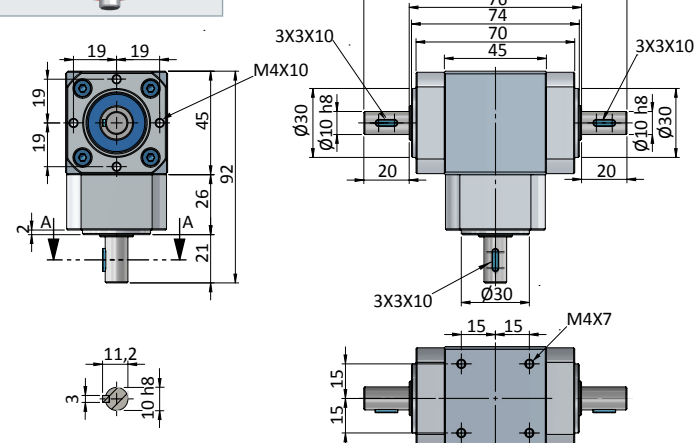
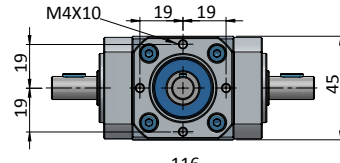
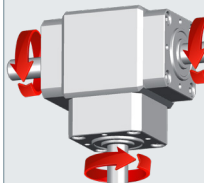
VERSIONE - VERSION «A» M-F



VERSIONE - VERSION «A» F-F



VERSIONE - VERSION «B» M-M-M



Technical drawing of a 3/2-way solenoid valve. The drawing includes a 3D isometric view and three 2D orthographic views (front, side, and top) with dimensions in millimeters.

Dimensions:

- Front View:**
 - Top width: 19 mm (twice)
 - Left height: 19 mm (twice)
 - Right height: 45 mm
 - Bottom height: 92 mm
 - Bottom flange diameter: $\varnothing 30$ mm
 - Bottom flange thickness: 2 mm
 - Bottom flange hole diameter: $\varnothing 10$ mm
 - Bottom flange hole position: 21 mm from center
 - Bottom flange hole position: 26 mm from center
- Side View:**
 - Top width: 116 mm
 - Top width: 76 mm
 - Top width: 70 mm
 - Top width: 45 mm
 - Top width: 2 mm (twice)
 - Top width: 20 mm (twice)
 - Top width: $\varnothing 22$ mm
 - Top width: $\varnothing 30$ mm
- Top View:**
 - Top width: 19 mm (twice)
 - Top width: 19 mm
 - Top width: 45 mm
 - Top width: 2 mm (twice)
 - Top width: 20 mm (twice)
 - Top width: $\varnothing 30$ mm
 - Top width: $\varnothing 10$ mm
 - Top width: $\varnothing 10$ mm
 - Top width: 11,4 mm
 - Top width: 3 mm
 - Top width: $\varnothing 10$ mm
 - Top width: $\varnothing 10$ mm

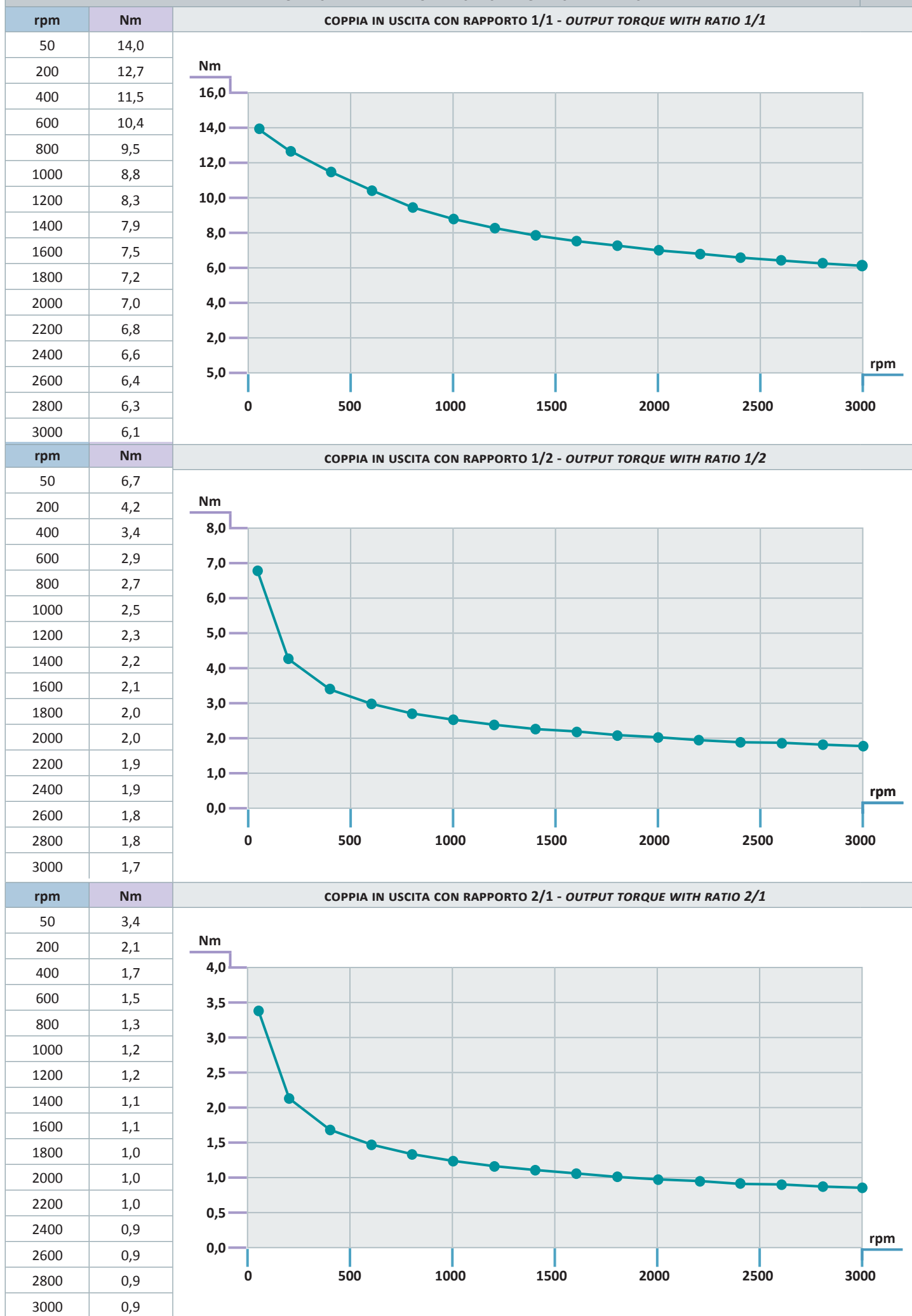
Labels:

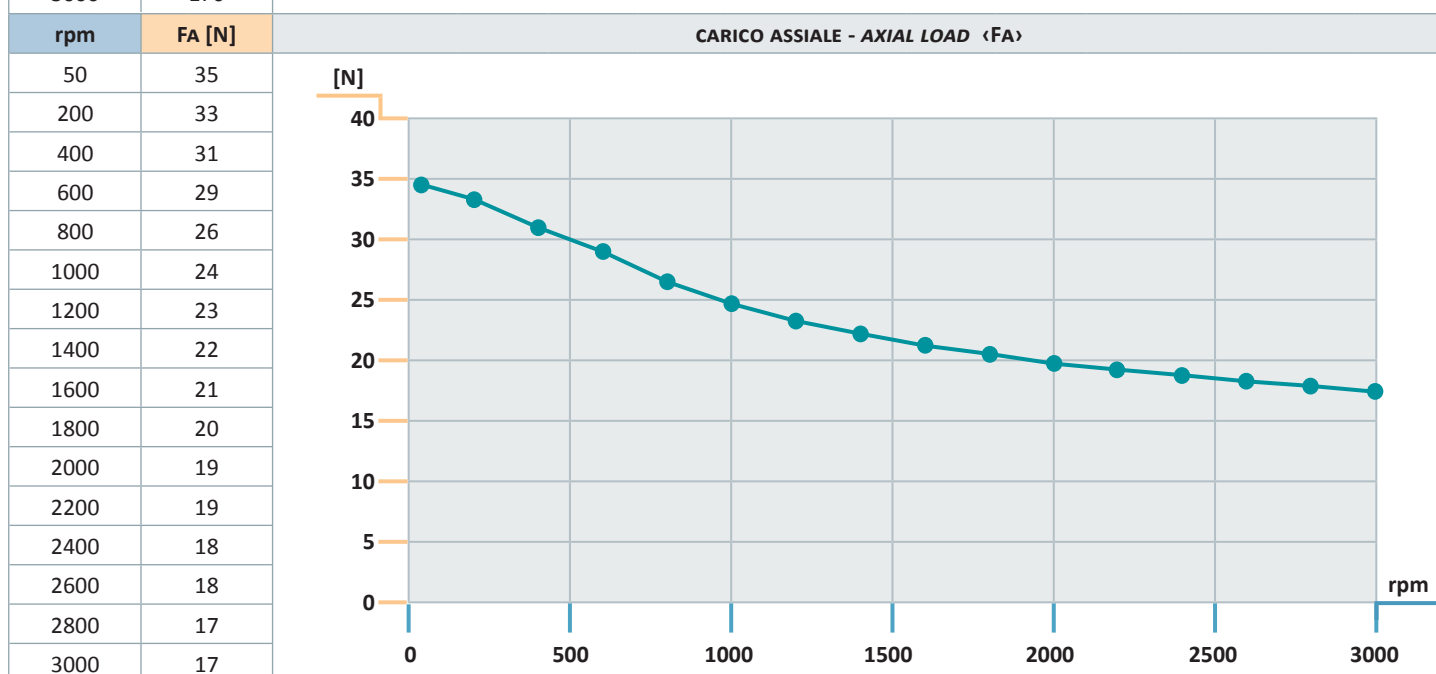
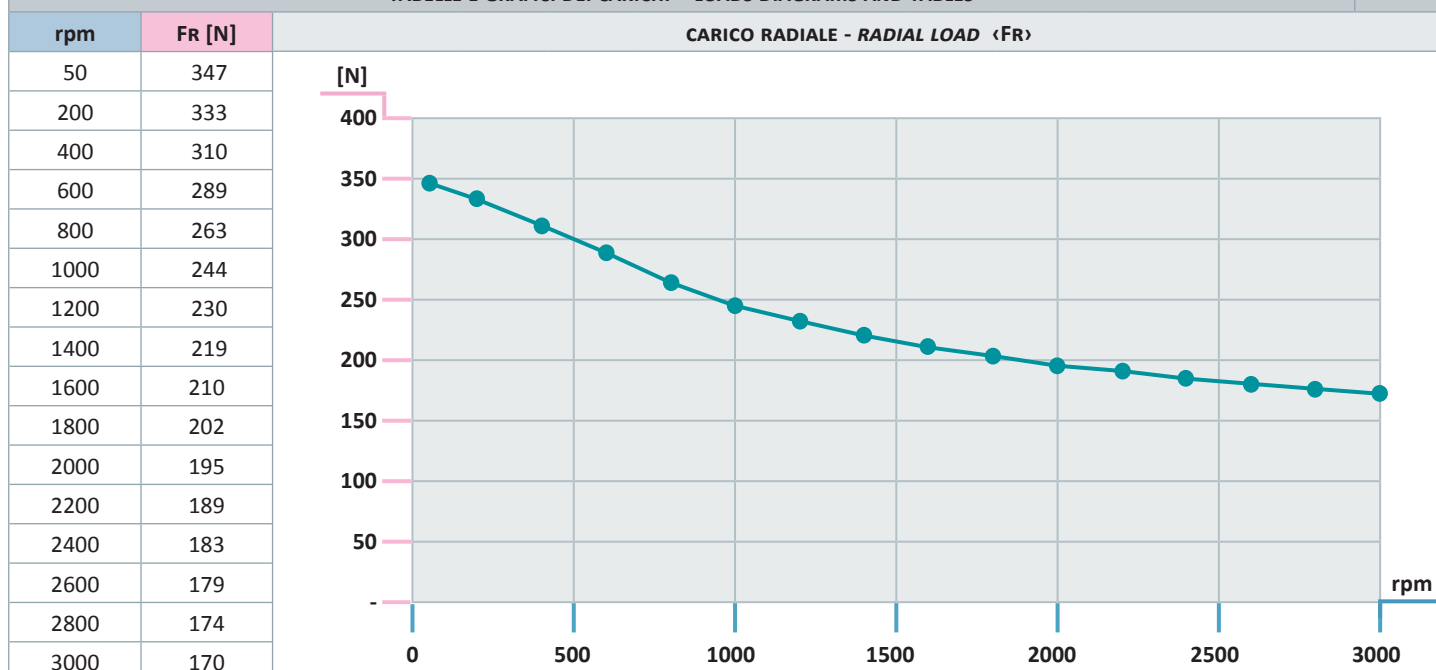
- M4X10 (Screw)
- 3X3X10 (Screw)
- M4X7 (Screw)

[illegible][illegible]

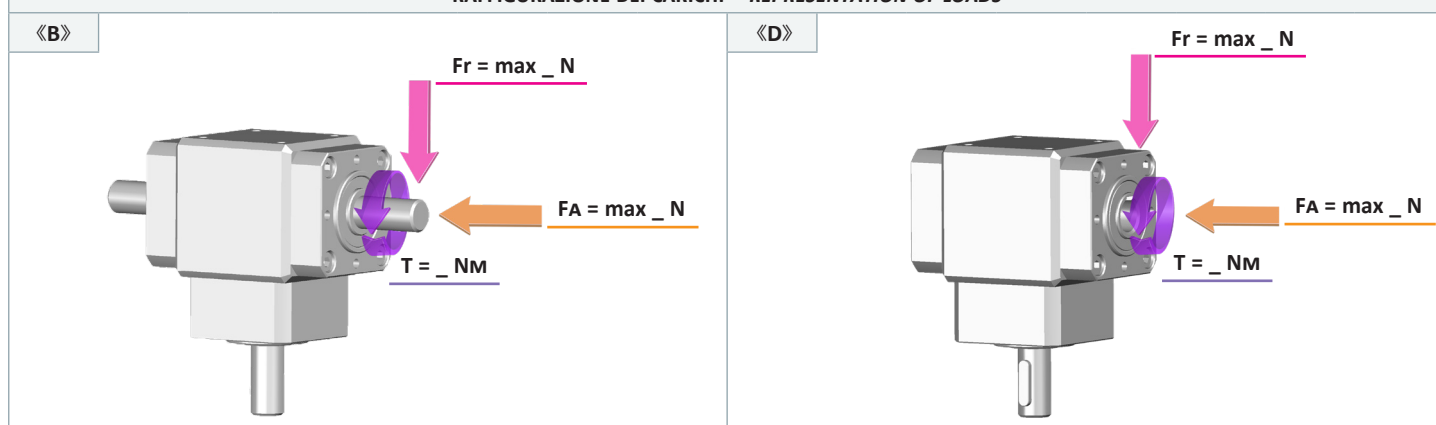
Technical drawing of a 3/2-way ball valve. The drawing includes a perspective view and three orthographic views (front, side, and top). Key dimensions and labels are as follows:

- Front View (Top):** Shows the valve body with a central port and four side ports. Dimensions include 19 mm for the side port diameter, 19 mm for the side port spacing, 3 mm for the side port depth, and 19 mm for the side port width. The central port is labeled M4X10 . The side ports are labeled Ø10 H8 .
- Side View (Right):** Shows the valve body with a central port and four side ports. Dimensions include 76 mm for the total width, 74 mm for the side port width, 70 mm for the side port spacing, 45 mm for the side port depth, 11.4 mm for the side port width, 45 mm for the side port height, 26 mm for the side port depth, 21 mm for the side port width, 2 mm for the side port height, 24 mm for the side port depth, and 2 mm for the side port height.
- Top View (Bottom):** Shows the valve body with a central port and four side ports. Dimensions include 11.4 mm for the side port width, 3 mm for the side port depth, and 19 mm for the side port width. The central port is labeled $\text{N.2 M5 A 120}^\circ$.
- Bottom View (Left):** Shows the valve body with a central port and four side ports. Dimensions include 15 mm for the side port width, 15 mm for the side port spacing, 15 mm for the side port depth, and 15 mm for the side port width. The side ports are labeled M4X7 .





RAFFIGURAZIONE DEI CARICHI - REPRESENTATION OF LOADS



- Il rendimento di trasmissione del rinvio è del 90%.

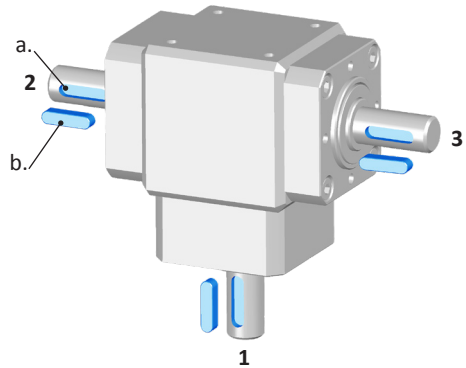
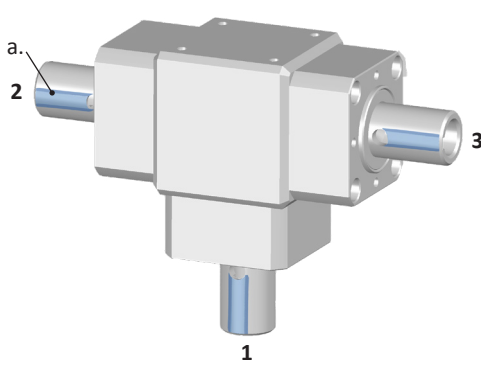
- I grafici rappresentano i carichi radiali e assiali massimi applicabili sull'albero del rinvio.

N.B. un carico radiale (es. tiro di cinghia) è applicabile solo sull'albero lungo delle versioni «B» e «D»; in caso contrario, prevedere un supporto.

- The transmission efficiency of the gearbox is 90%.

- The charts represent the maximum radial and axial loads applicable to the gearbox shaft.

Note: a radial load (ex. belt tension) can only be applied to the long shaft of the «B» and «D» versions; otherwise, a support must be provided.

rapporto - ratio	gradi - degrees °	«B»	«C»	
1/1	± 8,5°			
1/2	± 5,5°			
2/1	± 5,5°			
a. sede di chiave - keyway				
b. linguetta - key				

Le sedi di chiave sugli alberi non sono mai perfettamente in fase, ad eccezione degli alberi 2 e 3 nelle versioni «B» e «D».

The keyways on the shafts are never perfectly in phase, except for shaft 2 and 3 in versions «B» and «D».

INDICAZIONI PRATICHE	GUIDELINES
SCELTA DEL RINVIO	SELECTION OF THE GEARBOX
Per un corretto dimensionamento è necessario individuare: la potenza, il momento torcente e la velocità di rotazione. Consigliamo di consultare anche le tabelle e i dati tecnici riportati nelle "Informazioni generali" (pag. 4 - 7). Per abbreviazioni e sigle consultare il "glossario" (pag. 7).	For correct sizing it is necessary to identify: the power, the torque and the rotation speed. We advise to consult also the tables, and the technical data shown in the "General Information" (p. 4 - 7). For abbreviations and acronyms consult the "glossary" (p. 7)
INSTALLAZIONE	INSTALLATION
Assicurarsi del corretto allineamento degli assi per evitare sovraccarichi, surriscaldamenti e usura prematura dei cuscinetti. I rinvii, grazie alla loro forma costruttiva, possono essere installati in qualsiasi posizione.	Ensure proper alignment of the shafts to avoid overloading, overheating, and premature wear of the bearings. The gearboxes, thanks to their construction design, can be installed in any position.
MESSA IN FUNZIONE	START-UP
Dopo un breve test pre-consegna, il rinvio richiede alcune ore di rodaggio per raggiungere il massimo rendimento. Si consiglia un carico graduale fino al massimo entro 20-30 ore di funzionamento. Le temperature iniziali saranno più alte durante il rodaggio.	After a brief pre-delivery test, the gearbox requires several hours of running to reach maximum efficiency. A gradual increase in load is recommended, reaching full load within 20-30 hours of operation. Initial temperatures will be higher during the break-in period.
MANUTENZIONE PERIODICA	PERIODIC MAINTENANCE
I nostri rinvii sono esenti da manutenzione, è consigliato, tuttavia, controllare periodicamente eventuali perdite di lubrificante. La sostituzione del rinvio dipende dalle condizioni operative, con una durata stimata di 10.000 ore in condizioni normali.	Our gearboxes are maintenance-free; however, it is advisable to periodically check for any lubricant leaks. The replacement of the gearbox depends on operating conditions, with an estimated lifespan of 10,000 hours under normal conditions.
STOCCAGGIO	STORAGE
Durante lo stoccaggio in magazzino, proteggere i rinvii da polveri e ambienti corrosivi. Raccomandiamo di ruotare periodicamente i rinvii per assicurare un'adeguata lubrificazione delle parti interne e delle guarnizioni.	During warehouse storage, protect the gearboxes from dust and corrosive environments. We recommend periodically rotating the gearboxes to ensure proper lubrication of internal parts and seals.
GARANZIA	WARRANTY
La garanzia è valida solo se tutte le istruzioni indicate nel catalogo vengono rispettate.	The warranty is valid only if all instructions provided in the catalog are strictly followed.

ESEMPIO DI ORDINAZIONE - PART NR. CONFIGURATION

66/5UC

B

FØ10CH3

MØ10CH3

MØ10CH3

1/1

OIL

VERSIONE - VERSION (Tab. 1)

A - B - C - D

ALBERO 1 - SHAFT 1 (Tab. 9)

MØ10CH3 - FØ10CH3 (standard)

MØ14CH5 - FØ14CH5 (versione-version A - B - C - D)

ALBERO 2 - SHAFT 2 (Tab. 9)

MØ10CH3 - FØ10CH3 (standard)

MØ14CH5 - FØ14CH5 (versione-version A - B - C)

ALBERO 3 - SHAFT 3 (Tab. 9)

MØ10CH3 - FØ10CH3 (standard)

MØ14CH5 - FØ14CH5 (versione-version A - B - C)

RAPPORTI - RATIOS (Tab. 3)

1:1 - 1:2

2:1 (versione - version A - B - C)

LUBRIFICANTE - LUBRICANT

GREASE (a grasso, fino a 200 rpm - grease-filled up to 200 rpm)

OIL (a bagno d'olio oltre 200 rpm - oil-filled over 200 rpm)

opzione esclusiva - exclusive option

opzionale - optional