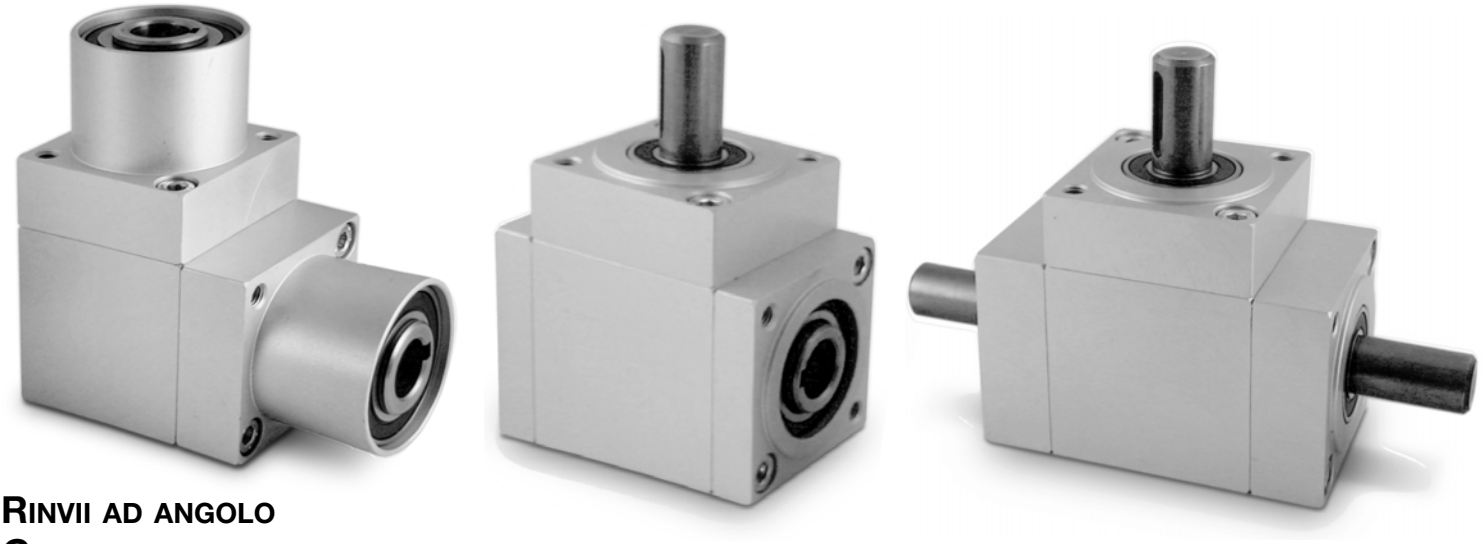
66/8



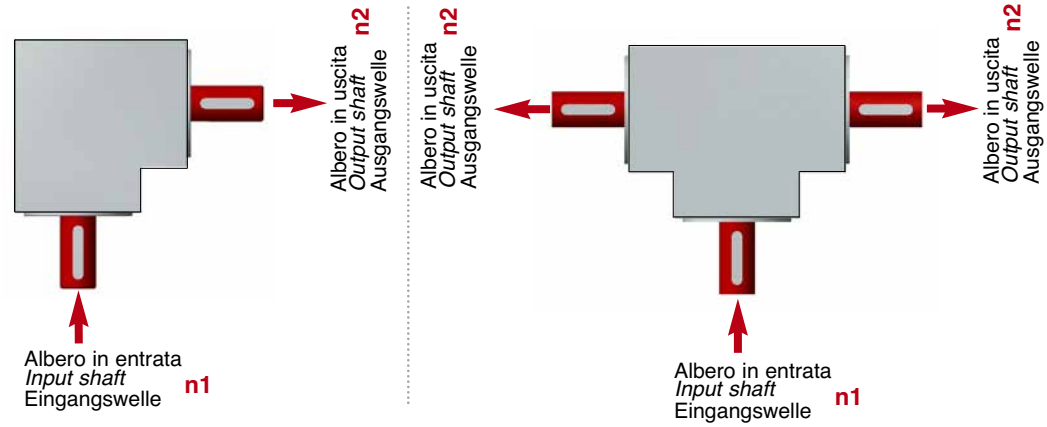
RINVII AD ANGOLO
GEARBOX
WINKELGETRIEBE

Sono rinvii ad angolo con ingranaggi conici adatti alla trasmissione di movimenti rotatori tra due alberi disposti perpendicolarmente.
- Sono realizzati nei rapporti di riduzione: 1:1 - 1:2 in riduzione (standard) - 2:1 in moltiplica (a richiesta sulle versioni A-B-C, non disponibile nella versione D).
- Ingranaggi conici in acciaio, cementati. Corpo in alluminio, anodizzato.
- Minimo il gioco angolare, minimo il gioco assiale.
- Alberi in acciaio ø20 con chiavetta. Il movimento é su cuscinetti a sfere.
- Tolleranze del gioco tra gli ingranaggi da 0,1' a 0,75'.

These angular transmissions with conics gears are suitable for the transmission of rotating motions between two shafts at right-angles.
- *Available with reduction ratios: 1:1 - 1:2 in reducing (standard) - 2:1 in multiplying (on request available in version A-B-C, not availabe in version D).*
- *Steel bevel gears are case-hardened. Aluminium case, anodised.*
- *Minimum angular backlash, minimum axial backlash.*
- *Steel shafts ø20 with spline. Movement on ball-bearings.*
- Gear play tolerance 0,1' - 0,75'.

Es handelt sich um Winkelvorgelege mit Kegelräder, geeignet für die Drehübertragungen zwischen senkrecht zur waagrecht geordnete Wellen.
- Es sind verschiedenen Untersetzungen lieferbar 1:1 - 1:2 in Reduktion (Standard) - 2:1 multipliziert (auf Anfrage in Version A-B-C, nicht lieferbar in Version D).
- Gehärtete Kegelradgtriebe. Druckgussgehäuse, eloxiert. Wellen aus Stahl.
- Minimales Winkelspiel- und Axialspiel.
- Wellen aus Stahl ø20mit Nut. Kugelgelagert.
- Spiel-Toleranzen zwischen Zahnräder von 0,1' zu 0,75'.

RAFFIGURAZIONE DEI RAPPORTI DI RIDUZIONE E MOLTIPLICA
REPRESENTATION OF REDUCTION AND MULTIPLYING RATIOS
DARSTELLUNG DES UNTERSETZUNG UND ÜBERSETZUNG



Esempio - *Example* - Beispiel

1:2 in riduzione - i*n reducing* - in Reduktion:

n1 = 1000 RPM
n2 = 500 RPM

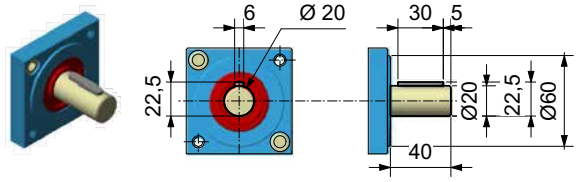
***2:1** in moltiplica - *in multiplying* - multipliziert:

n1 = 1000 RPM
n2 = 2000 RPM

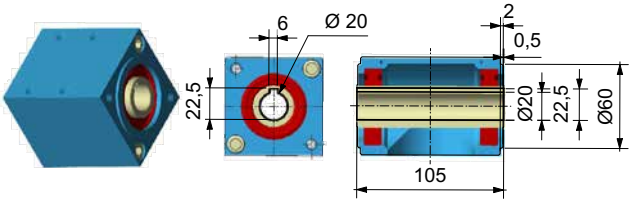
* a richiesta disponibile nella versione A-B-C; non disponibile nella versione D.
on request available in version A-B-C, not availabe in version D.
auf Anfrage in Version A-B-C, nicht lieferbar in Version D.

ALBERI DI ENTRATA E USCITA DISPONIBILI
AVAILABLE INPUT AND OUTPUT SHAFTS
ERHALTBARE EINGANGS- UND AUSGANGS-WELLEN

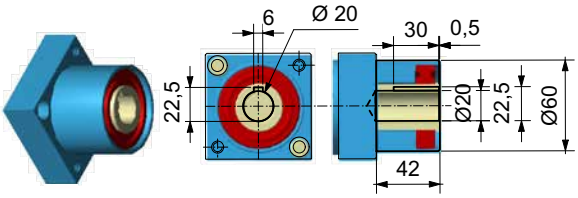
ALBERO MASCHIO
MALE SHAFT
VOLLWELLE mit Passfedernut inkl. Passfeder



ALBERO FEMMINA PASSANTE
FEMALE HOLLOW SHAFT
HOHLWELLE mit Passfedernut mit quadratischen Aussengehäuse

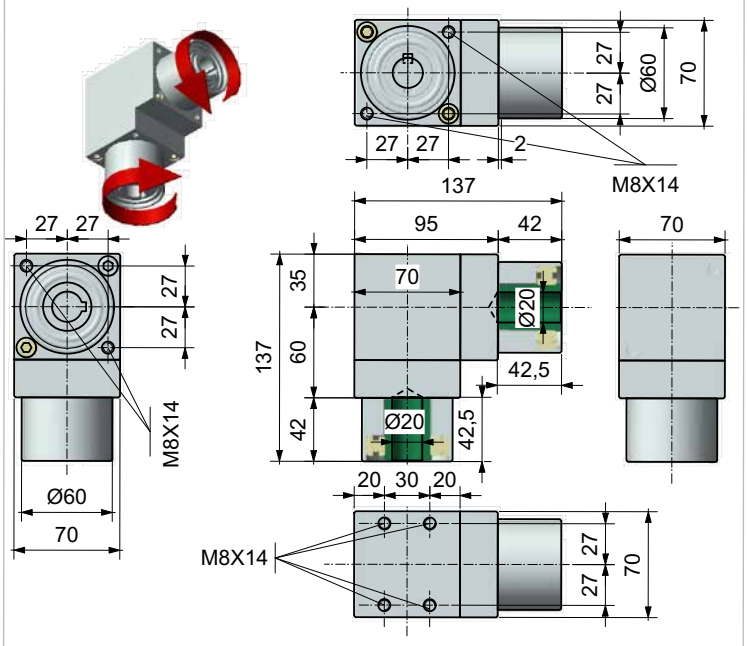


ALBERO FEMMINA CIECO
BLIND FEMALE SHAFT
HOHLWELLE mit Passfedernut mit rundem Aussengehäuse

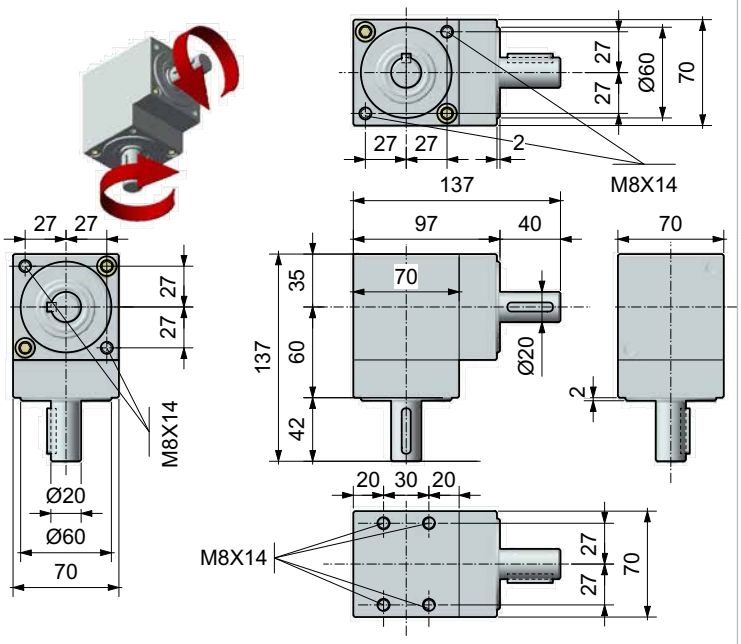


ESEMPI DI VERSIONE "A"
EXAMPLES OF VERSION "A"
BEISPIEL VON VERSION "A"

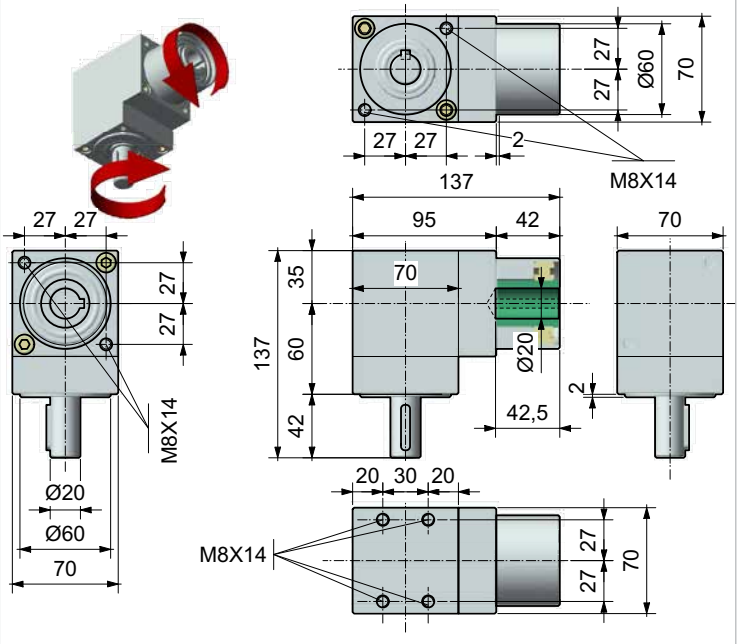
VERSIONE - *VERSION* "A" F-F



VERSIONE - *VERSION* "A" M-M

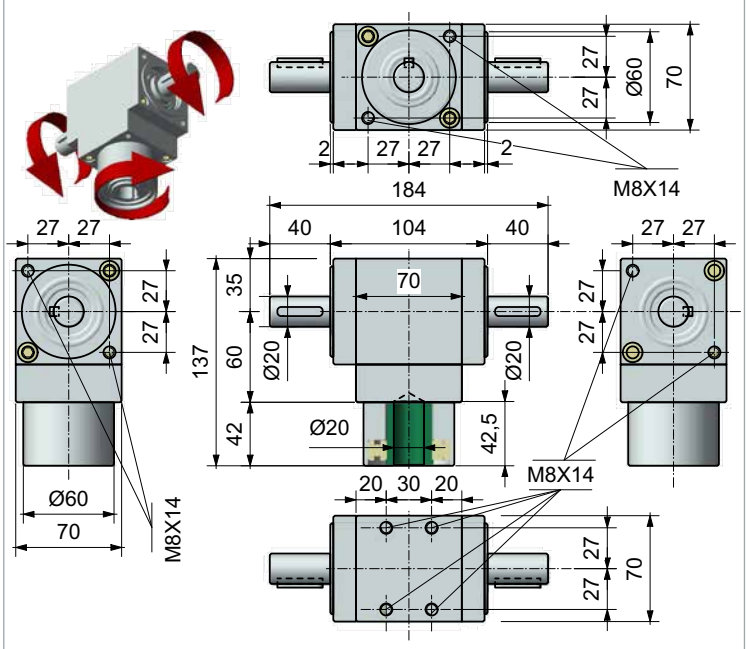


VERSIONE - *VERSION* "A" M-F

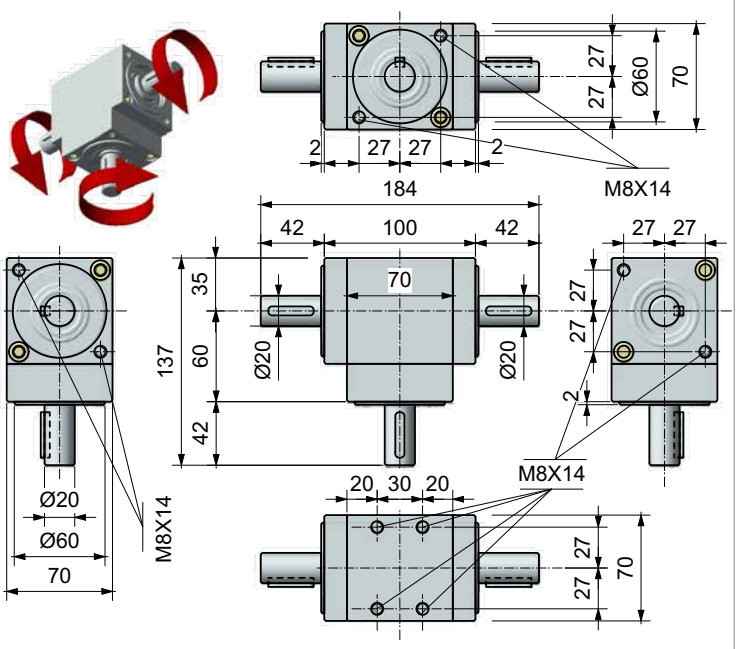


ESEMPI DI VERSIONE “B”
EXAMPLES OF VERSION “B”
BEISPIEL VON VERSION “B”

VERSIONE - *VERSION* “B” F-M-M

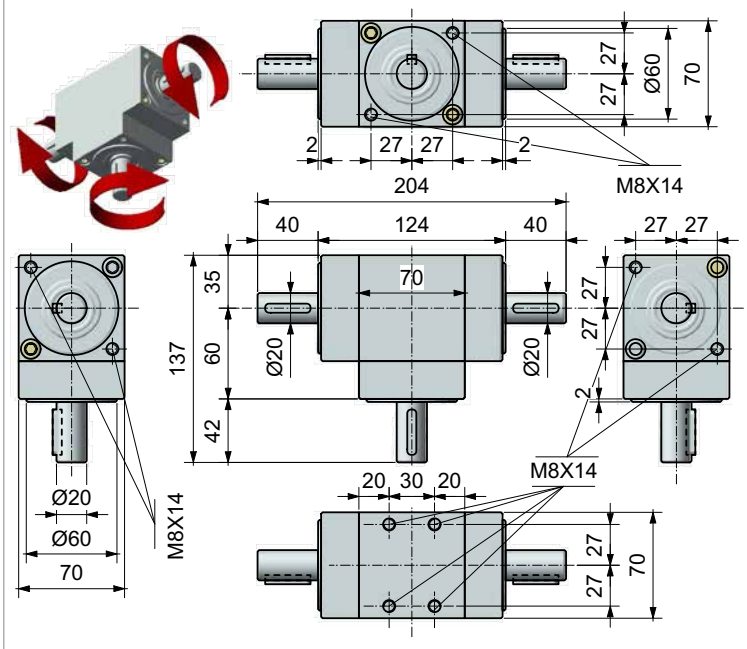


VERSIONE - *VERSION* “B” M-M-M

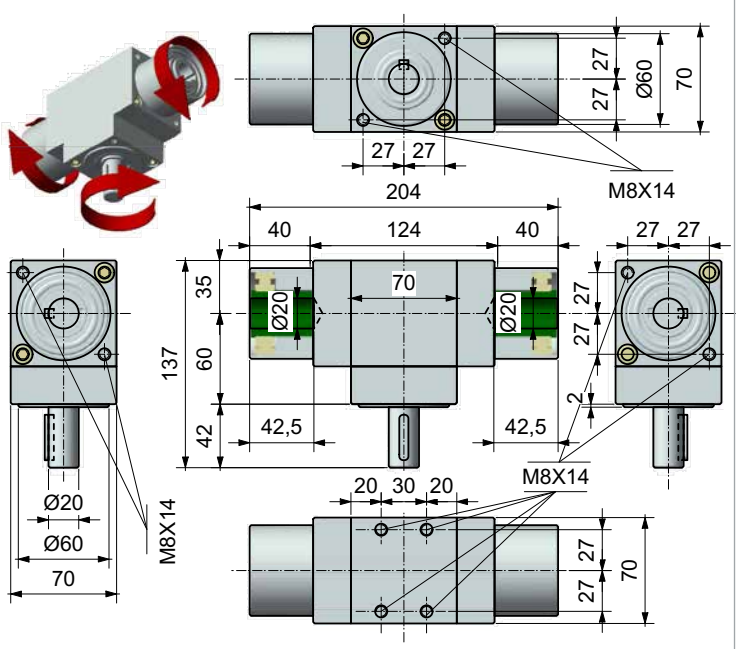


ESEMPI DI VERSIONE “C”
EXAMPLES OF VERSION “C”
BEISPIEL VON VERSION “C”

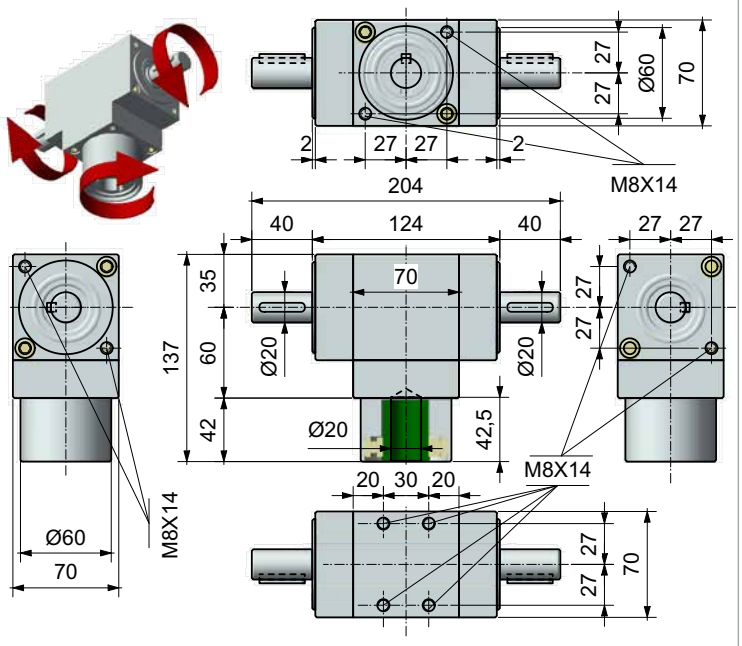
VERSIONE - *VERSION* “C” M-M-M



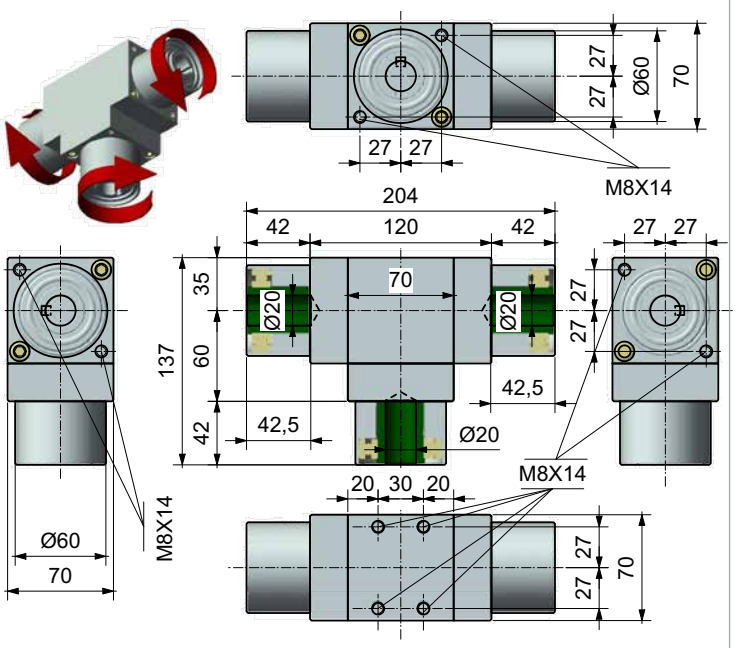
VERSIONE - *VERSION* “C” M-F-F



VERSIONE - *VERSION* "C" F-M-M

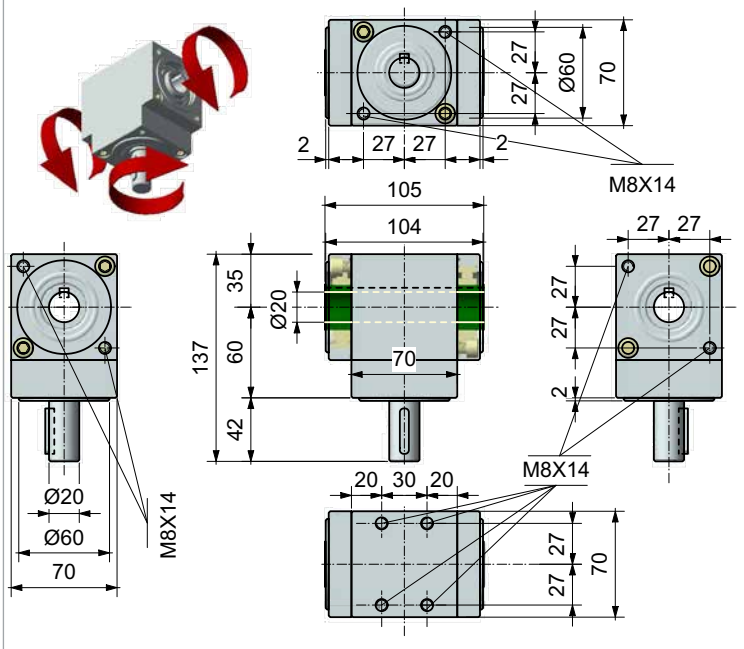


VERSIONE - *VERSION* "C" F-F-F

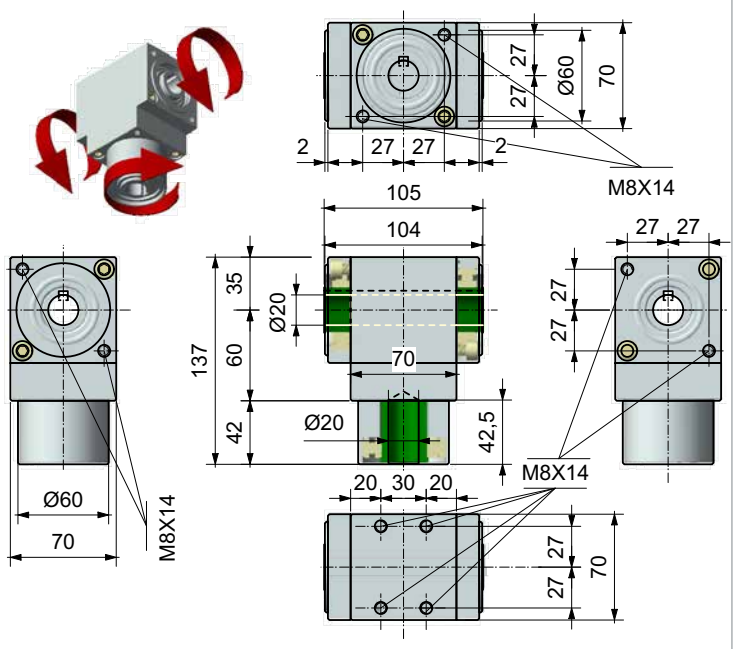


ESEMPI DI VERSIONE "D"
EXAMPLES OF VERSION "D"
BEISPIEL VON VERSION "D"

VERSIONE - *VERSION* "D" M-F-F



VERSIONE - *VERSION* "D" F-F-F



ESEMPIO DI ORDINAZIONE - *PART NR. CONFIGURATION* - BESTELLMUSTER:

66/8 — **A** — **M-F** — **1:1**

VERSIONE - *VERSION* **A - B- C - D**

ALBERI - *SHAFTS* - WELLEN **M - F - F**

RAPPORTI - *RATIOS* **1:1 - 1:2 - 2:1**

66/8 GRAFICI E TABELLE DI RENDIMENTO - E*FFICIENCY DIAGRAMS AND TABLES* - LEISTUNGSDIAGRAMME UND TABELLEN

CALCOLO DELLA DURATA DEL RINVIO - *GEARBOX LIFETIME CALCULATION* - KALKULIERUNG VON WINKELGETRIEB LEBENSDAUER

Durata Teorica Prevista*
*Theoretic Expected Life** = 10.000h x Fu
Angenommene Dauer*

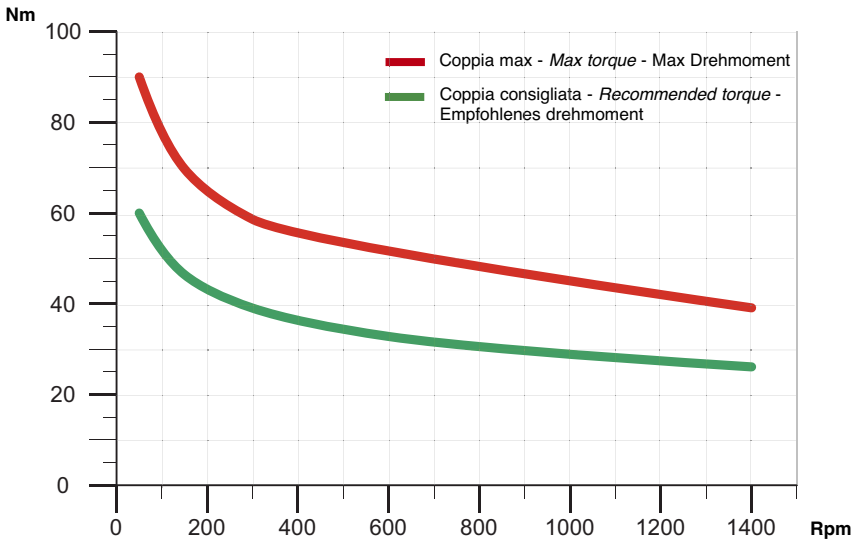
Coppia Consigliata (Nm)
Recommended torque (Nm)
Empfohlenes Drehmoment (Nm)
Fu = ----------
Coppia Applicata (Nm)
Applied torque (Nm)
Tatsächliches Drehmoment (Nm)

* La durata di 10.000h è intesa alle seguenti condizioni di funzionamento:
- Coppia applicata = coppia consigliata (vedi tabelle)
- Massimo 8 ore al giorno
- Temperatura di lavoro 20°
- Assenza di urti
** Coppia di uscita effettivamente applicata
*** Coppia massima applicabile

** The lifetime of 10.000h considers the following conditions:*
- Applied torque = advised torque (see tables)
- Maximum of 8 working hours per day
- Working temperature 20 °
- No shocks
*** Output torque actually applied*
**** Max torque applied*

Der theoritischen Einschaltdauer von 10.000 Stunden sind folgende Betriebsbedingungen zugrundegelegt:
- anliegendes Drehmoment = empfohlenes Drehmoment (siehe Tabelle)
- max. 8 Stunden pro Tag
- Arbeitstemperatur 20°C
- ohne Stoss-Belastung
** Tatsächliches Drehmoment
*** Max zulässiges Drehmoment

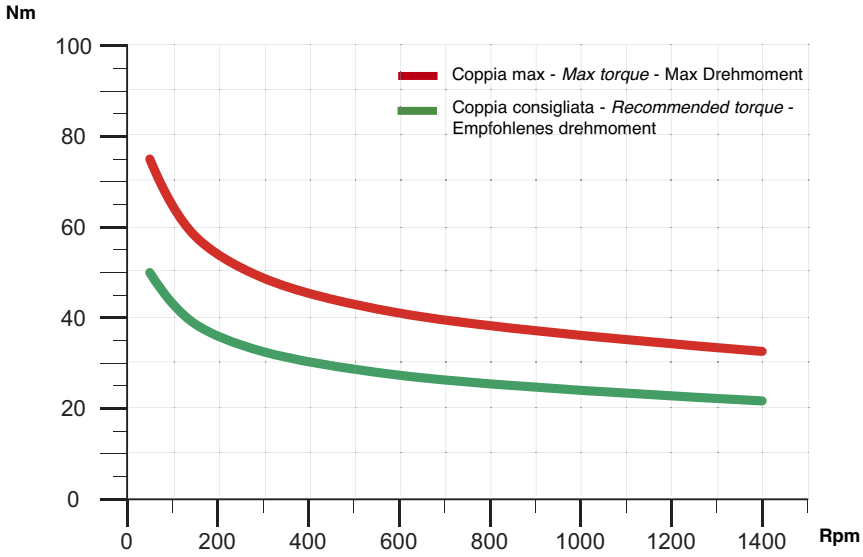
Coppia in uscita con rapporto 1:1 - *Output torque with ratio 1:1* - Drehmoment mit Übersetzung 1:1



Coppia max. * *Max torque* *Max Drehmoment* (Nm)**	**90**	**75,7**	**63,7**	**53,5**	**45**	**39,1**
Coppia consigliata *Recom. torque* *Empfohlenes Drehm.* (Nm)	**60**	**50,4**	**42,4**	**35,7**	**29,9**	**26,1**
Rpm	**50**	**100**	**200**	**400**	**800**	**1400**

Rendimento - *Efficiency* - Leistung = 90%

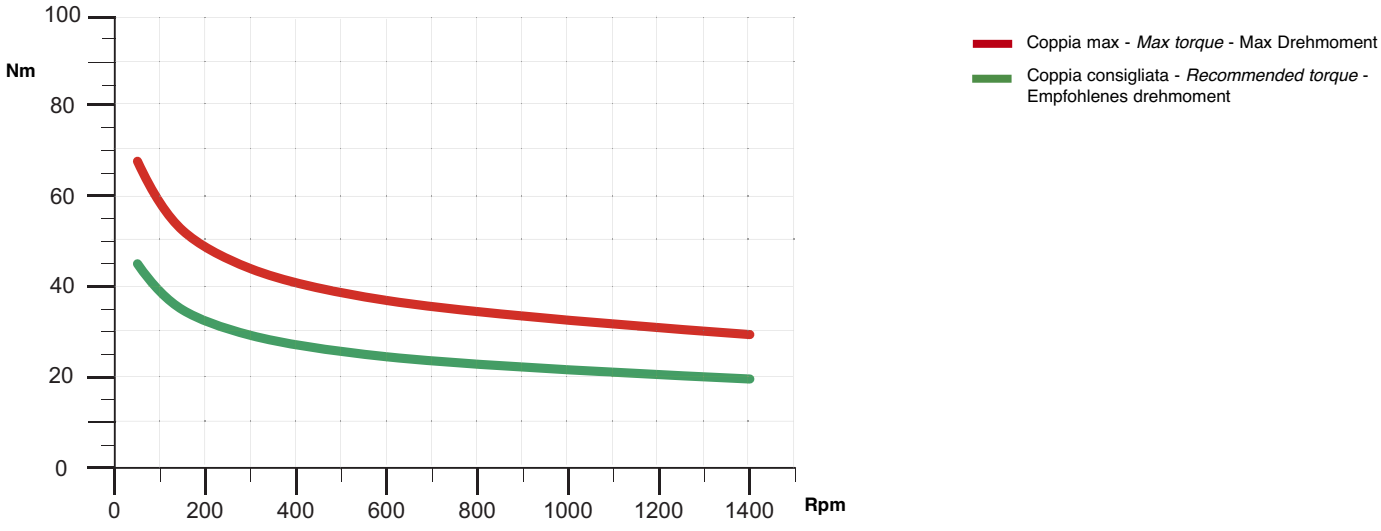
Coppia in uscita con rapporto 1:2 - *Output torque with ratio 1:2* - Drehmoment mit Übersetzung 1:2



Coppia max. *** ***Max torque*** ***Max Drehmoment*** **(Nm)**	**75**	**63**	**53**	**44,6**	**37,5**	**32,6**
Coppia consigliata ***Recom. torque*** ***Empfohlenes Drehm.*** **(Nm)**	**50**	**42**	**35,3**	**29,8**	**24,9**	**21,7**
Rpm	**50**	**100**	**200**	**400**	**800**	**1400**

Rendimento - *Efficiency* - Leistung = 90%

Coppia in uscita con rapporto 2:1 - *Output torque with ratio* 2:1 - Drehmoment mit Übersetzung 2:1



Coppia max. *** ***Max torque*** ***Max Drehmoment*** **(Nm)**	**33,8**	**28,4**	**23,9**	**20**	**16,9**	**14,7**
Coppia consigliata ***Recom. torque*** ***Empfohlenes Drehm.*** **(Nm)**	**22,5**	**18,9**	**15,9**	**13,3**	**11,2**	**9,8**
Rpm	**50**	**100**	**200**	**400**	**800**	**1400**

Rendimento - *Efficiency* - Leistung = 90%