



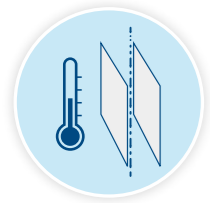
## FOCUS ON



**Design ottimizzato e utilizzo di componenti premium brand per garantire standard di qualità elevata**  
**Optimized design and premium brand components to ensure high quality standards**



**Manutenzione semplificata: layout ottimizzato per interventi e sostituzioni in macchina**  
**Easy maintenance: optimized layout for machine interventions and replacements**



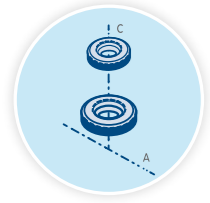
**Corpo testa e corpo mandrino in ghisa sferoidale per massimizzare rigidità e smorzamento durante le lavorazioni e design "termo-simmetrico" per limitare le dilatazioni termiche**  
**Head and spindle body in spheroidal cast iron to maximize stiffness and damping during machining and "thermo-symmetrical" design to limit thermal variation dimensions**



**Doppio cuscinetto e doppio freno su asse A per incrementare la rigidità, la coppia frenante e le reazioni simmetriche della testa**  
**Double bearing and double brake on A-axis to increase the stiffness, the braking torque and the head symmetrical reactions**



**Freni idraulici ad alta coppia di bloccaggio e rigidità**  
**Hydraulic brakes with high locking torque and stiffness**

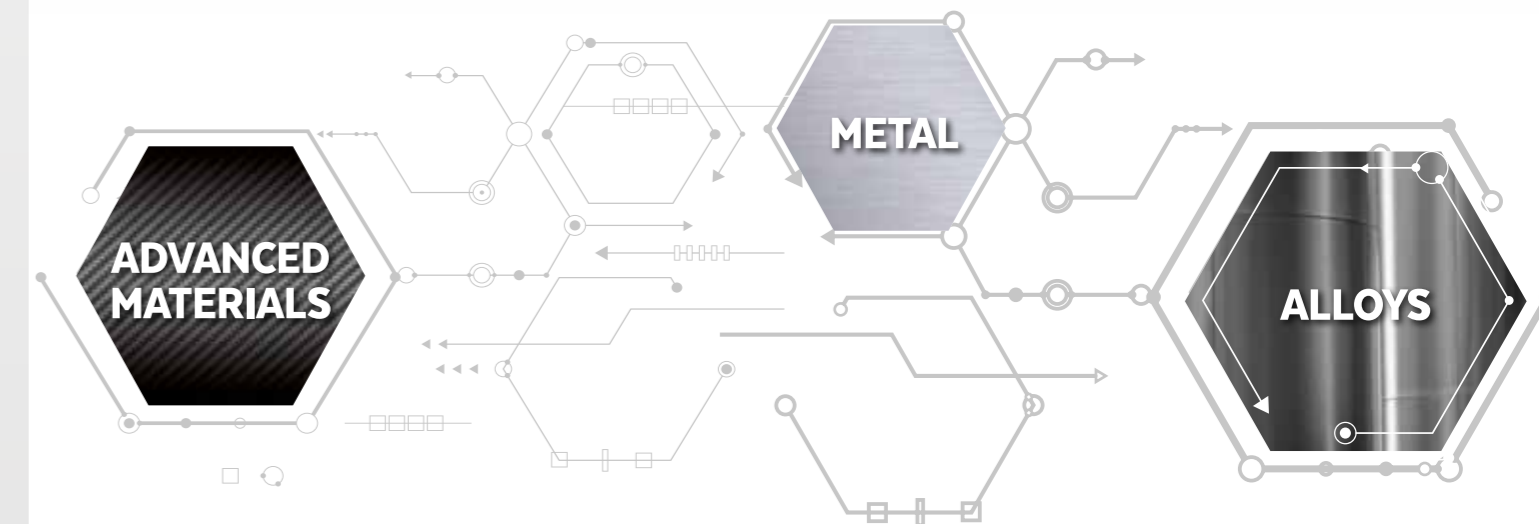


**Configurabilità del cuscinetto di contro-supporto asse C per incrementare la rigidità in base alle esigenze di lavorazione**  
**C-axis double bearings configurability to increase stiffness according to machining needs**

**HITECO**  
 HIGH TECHNOLOGY COMPONENTS

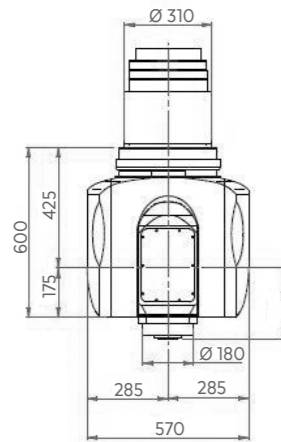


**GAMMA METAL**  
**METAL RANGE**



**HITECO**  
 HIGH TECHNOLOGY COMPONENTS

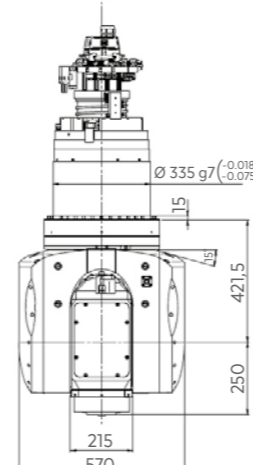
# TILT G



SPECIFICHE TECNICHE / TECHNICAL SPECIFICATIONS	ASSE A / A AXIS	ASSE C / C AXIS
Motore asse / Axis motor	Direct drive	Direct drive
Coppia nominale / Rated torque	504 Nm	533 Nm
Coppia di picco / Peak torque	988 Nm	935 Nm
Max velocità rotazione / Max axes speed	30000°/'	
Sistema di misura / Measuring system	Incremental encoder	Incremental encoder
Accuratezza scala / Accuracy of graduation	±2,5 arcsec	±2,5 arcsec
Azionamento freno / Type of clamping	Hydraulic	Hydraulic
Coppia di bloccaggio / Clamping torque	3000 Nm	3000 Nm
Max rotazione asse / Max axis rotation	±120°	±360°
Diametro di calettamento - testa / Head fitting diameter	ø 310	
Diametro di calettamento - mandrino / Spindle fitting diameter	ø 180	
Peso / Weight	500 kg	

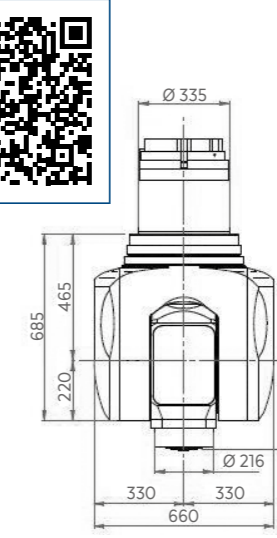
# TILT G PLUS

Rigidezza +35%  
Stiffness +35%



SPECIFICHE TECNICHE / TECHNICAL SPECIFICATIONS	ASSE A / A AXIS	ASSE C / C AXIS
Motore asse / Axis motor	Direct drive	Direct drive
Coppia nominale / Rated torque	533 Nm	<b>787 Nm</b>
Coppia di picco / Peak torque	935 Nm	<b>1560 Nm</b>
Max velocità rotazione / Max axes speed	30000°/'	
Sistema di misura / Measuring system	Incremental encoder	Incremental encoder
Accuratezza scala / Accuracy of graduation	±2,5 arcsec	<b>±2 arcsec</b>
Azionamento freno / Type of clamping	Hydraulic	Hydraulic
Coppia di bloccaggio / Clamping torque	3000 Nm	<b>4000 Nm</b>
Max rotazione asse / Max axis rotation	±120°	±360°
Diametro di calettamento - testa / Head fitting diameter	ø 335	
Diametro di calettamento - mandrino / Spindle fitting diameter	ø 180	
Peso / Weight	600 kg	
Controssuporto / Additional bearings	yes	

# TILT M



SPECIFICHE TECNICHE / TECHNICAL SPECIFICATIONS	ASSE A / A AXIS	ASSE C / C AXIS
Motore asse / Axis motor	Direct drive	Direct drive
Coppia nominale / Rated torque	830 Nm	787 Nm
Coppia di picco / Peak torque	1472 Nm	1560 Nm
Max velocità rotazione / Max axes speed	30000°/'	
Sistema di misura / Measuring system	Incremental encoder	Incremental encoder
Accuratezza scala / Accuracy of graduation	±2 arcsec	±2 arcsec
Azionamento freno / Type of clamping	Hydraulic	Hydraulic
Coppia di bloccaggio / Clamping torque	4000 Nm	4000 Nm
Max rotazione asse / Max axis rotation	±110°	±360°
Diametro di calettamento - testa / Head fitting diameter	ø 335	
Diametro di calettamento - mandrino / Spindle fitting diameter	ø 210 (ø 180)	
Peso / Weight	800 kg	
Controssuporto / Additional bearings	yes	

## MX 34-63A

### SPECIFICHE TECNICHE / TECHNICAL SPECIFICATIONS

S1-S6 kW 42-53	S1-S6 Nm 34-43 @12.000 rpm	rpm 24.000 (28.000 opt.)	kg 70
Ø 180	Mot SYNCHRONOUS		

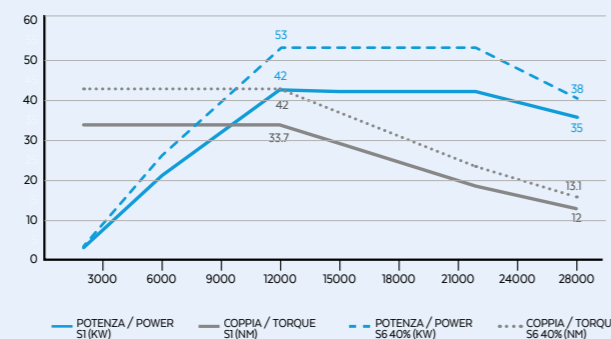
### EQUIPAGGIAMENTO / EQUIPMENT

- HSK 63A
- Liquid cooling
- Double effect hydraulic cylinder
- Ceramic ball bearings
- Grease lubrication
- Labyrinth with air seal
- Sensors s1, s2, s5
- Encoder TVpp
- Ball bearings oil lubrication (28.000 rpm)
- Rotary joint (80 bar)
- Automatic tool change (A.T.C.)
- External tool cooling

### OPZIONALI / OPTIONS

- Bearings temperature sensor
- Axial shaft displacement sensor
- Temperature, vibration and speed monitoring
- Ball bearings oil lubrication (28.000 rpm)

### PRESTAZIONI / PERFORMANCES



## MX 67-63A

### SPECIFICHE TECNICHE / TECHNICAL SPECIFICATIONS

S1-S6 kW 42-52	S1-S6 Nm 67-83 @6.000 rpm	rpm 24.000	kg 70
Ø 180	Mot SYNCHRONOUS		

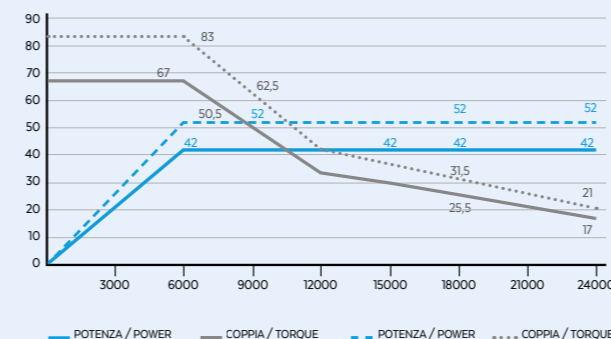
### EQUIPAGGIAMENTO / EQUIPMENT

- HSK 63A
- Liquid cooling
- Double effect hydraulic cylinder
- Ceramic ball bearings
- Grease lubrication
- Labyrinth with air seal
- Sensors s1, s2, s5
- Encoder TVpp
- Ball bearings oil lubrication (24.000 rpm)
- Rotary joint (80 bar)
- Automatic tool change (A.T.C.)
- External tool cooling

### OPZIONALI / OPTIONS

- Bearings temperature sensor
- Axial shaft displacement sensor
- Temperature, vibration and speed monitoring
- Ball bearings oil lubrication (24.000 rpm)

### PRESTAZIONI / PERFORMANCES



## MX 67-63A

### SPECIFICHE TECNICHE / TECHNICAL SPECIFICATIONS

S1-S6 kW 42-52	S1-S6 Nm 67-83 @6.000 rpm	rpm 24.000	kg 70
Ø 180	Mot SYNCHRONOUS		

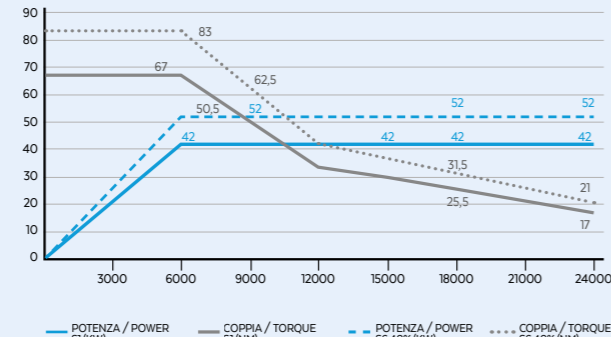
### EQUIPAGGIAMENTO / EQUIPMENT

- HSK 63A
- Liquid cooling
- Double effect hydraulic cylinder
- Ceramic ball bearings
- Grease lubrication
- Labyrinth with air seal
- Sensors s1, s2, s5
- Encoder TVpp
- Ball bearings oil lubrication (24.000 rpm)
- Rotary joint (80 bar)
- Automatic tool change (A.T.C.)
- External tool cooling

### OPZIONALI / OPTIONS

- Bearings temperature sensor
- Axial shaft displacement sensor
- Temperature, vibration and speed monitoring
- Ball bearings oil lubrication (24.000 rpm)

### PRESTAZIONI / PERFORMANCES



## MX 95-63A

### SPECIFICHE TECNICHE / TECHNICAL SPECIFICATIONS

S1-S6 kW 30-34,5	S1-S6 Nm 95-109,3 @3000 rpm	rpm 24.000	kg 75
Ø 180	Mot SYNCHRONOUS		

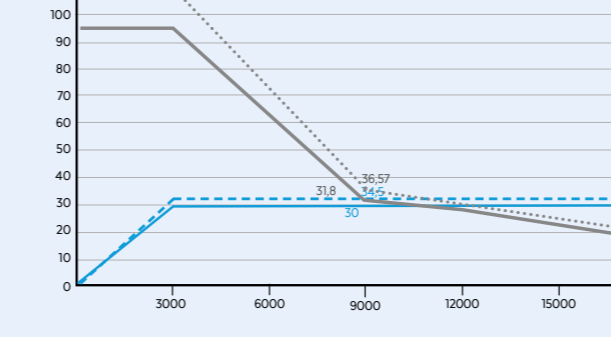
### EQUIPAGGIAMENTO / EQUIPMENT

- HSK 63A
- Liquid cooling
- Double effect hydraulic cylinder
- Ceramic ball bearings
- Grease lubrication
- Labyrinth with air seal
- Sensors s1, s2, s5
- Encoder TVpp
- Ball bearings oil lubrication (24.000 rpm)
- Rotary joint (80 bar)
- Automatic tool change (A.T.C.)
- External tool cooling

### OPZIONALI / OPTIONS

- Bearings temperature sensor
- Axial shaft displacement sensor
- Temperature, vibration and speed monitoring
- Ball bearings oil lubrication (24.000 rpm)

### PRESTAZIONI / PERFORMANCES



## MX 200-100A

### SPECIFICHE TECNICHE / TECHNICAL SPECIFICATIONS

S1-S6 kW 63-69	S1-S6 Nm 200-220 @3000 rpm	rpm 12.000 (15.000 opt.)	kg 110
Ø 210	Mot SYNCHRONOUS		

### EQUIPAGGIAMENTO / EQUIPMENT

- HSK 100A
- Liquid cooling
- Double effect hydraulic cylinder
- Ceramic ball bearings
- Grease lubrication
- Labyrinth with air seal
- Sensors s1, s2, s5
- Encoder TVpp
- Ball bearings oil lubrication (15.000 rpm)
- Rotary joint (80 bar)
- Automatic tool change (A.T.C.)
- External tool cooling

### OPZIONALI / OPTIONS

- Bearings temperature sensor
- Axial shaft displacement sensor
- Temperature, vibration and speed monitoring
- Ball bearings oil lubrication (15.000 rpm)

### PRESTAZIONI / PERFORMANCES

