

Cambia utensile

- Cambio rapido dell'attrezzatura sul robot.
- Adatto anche per canalizzazioni in depressione.
- Evita errori nelle connessioni pneumatiche ed elettriche.
- 4, 8, 10 o 12 connessioni pneumatiche.
- 15 connessioni elettriche.
- Le due parti (lato robot e lato pinza) sono fornite separatamente.
- Il lato robot QCX può anche tagliare l'aria compressa con una valvola di sicurezza.
- Il lato robot QCY taglia l'aria compressa automaticamente durante lo sganciamento.
- Dispositivo di bloccaggio LOQC opzionale.

Quick changer

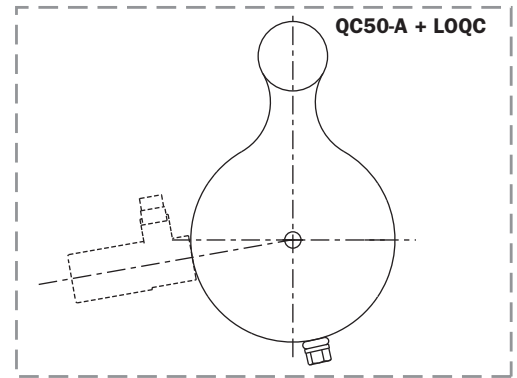
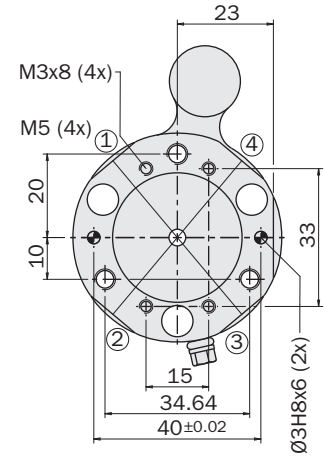
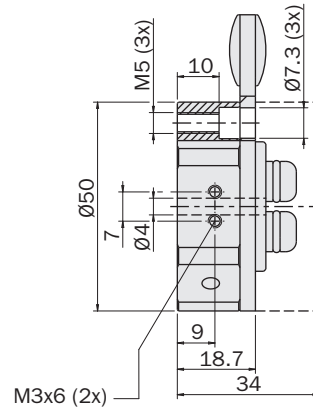
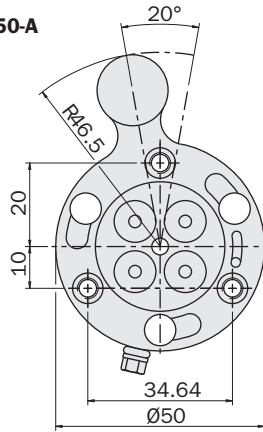
- Easy replacement of the EOAT on the robot.
- Suitable also with vacuum ports.
- Avoids mistakes in pneumatic and electrical connections.
- 4, 8, 10 or 12 pneumatic connections.
- 15 electrical connections.
- The two parts (robot side and gripper side) are supplied separately.
- The robot side QCX unit can also cut off the compressed air with a safety air valve.
- The robot side QCY unit cuts off the compressed air automatically during disengagement.
- Optional LOQC lock unit.



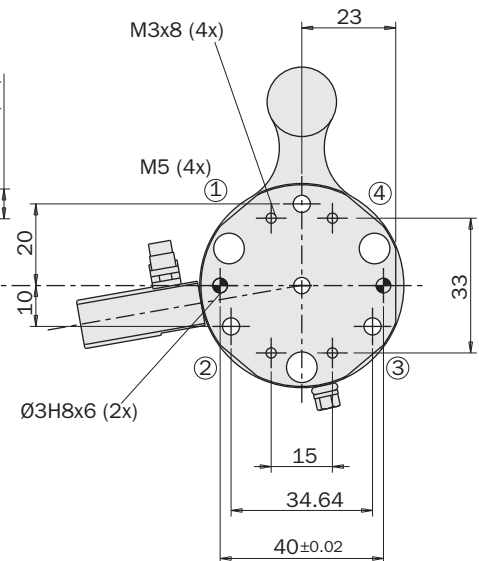
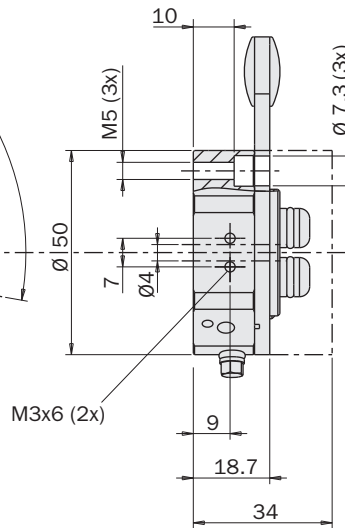
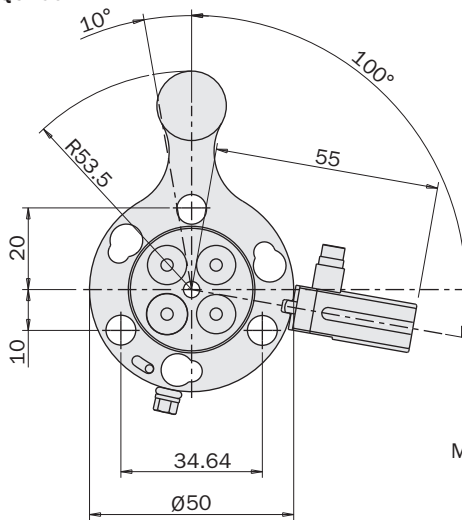
		50	90	150	160	200
Fluido Medium		Aria compressa a norma ISO 8573-1:2010 [7:4:4] Compressed air in compliance with ISO 8573-1:2010 [7:4:4]				
Pressione di esercizio Pressure range		-1 ÷ 6 bar				
Temperatura di esercizio Temperature range		5 ÷ 60 °C				
Cambia utensile lato robot Robot side quick changer	QC...-A	QC50-A (103 g)	QC90-A (318 g)	QC150-A (1123 g)	QC160-A (1200 g)	QC200-A (2640 g)
Cambia utensile lato robot con valvola di sicurezza Robot side quick changer with safety valve	QCX...-A	-	QCX90-A (595 g)	QCX150-A (2200 g)	QCX160-A (2200 g)	QCX200-A (4900 g)
Cambia utensile lato robot con valvola automatica Robot side quick changer with automatic valve	QCY...-A	QCY50-A (133 g)	QCY90-A (350 g)	QCY150-A (1180 g)	-	QCY200-A (2700 g)
Cambia utensile lato pinza universale Universal gripper side quick changer	QC...-B	QC50-B (65 g)	QC90-B (227 g)	QC150-B (827 g)	QC160-B (900 g)	QC200-B (1890 g)
Cambia utensile lato pinza con flangia Quick changer on gripper side, with flange	QCP...-B	QCP50-B (110 g)	QCP90-B (315 g)	QCP150-B (1090 g)	QCP160-B (1150 g)	QCP200-B (2400 g)
Cambia utensile lato pinza, specifico per QCY Gripper side quick changer, specific for QCY	QCY...-B	-	-	QCY150-B (862 g)	-	QCY200-B (1875 g)

Dimensioni (mm)
Dimensions (mm)

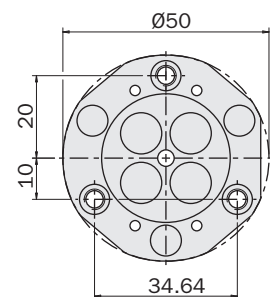
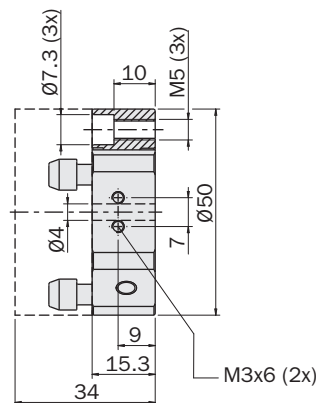
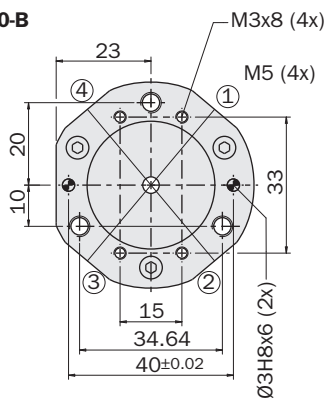
QC50-A

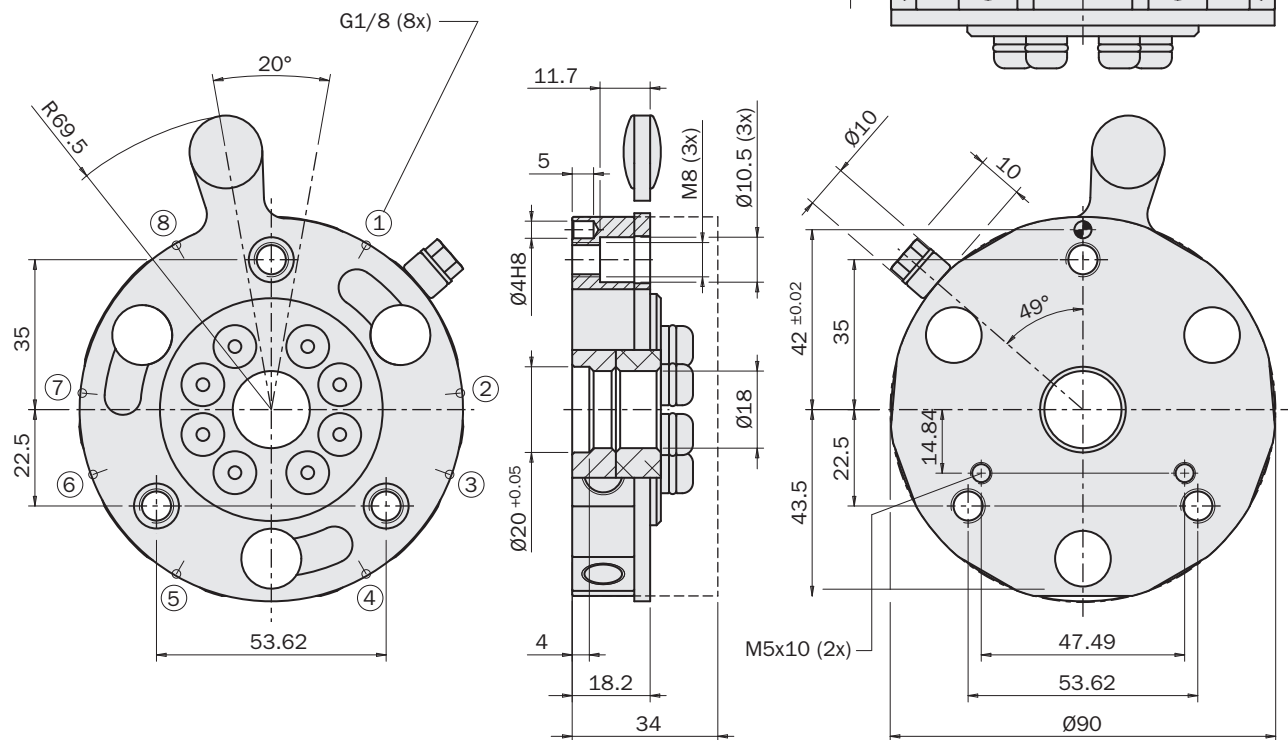
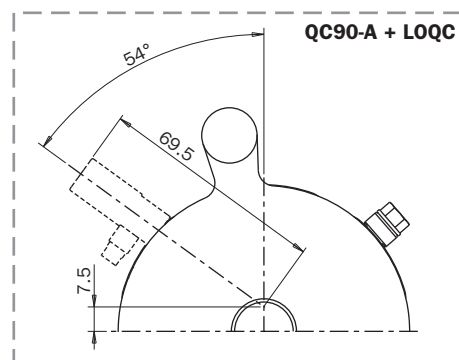
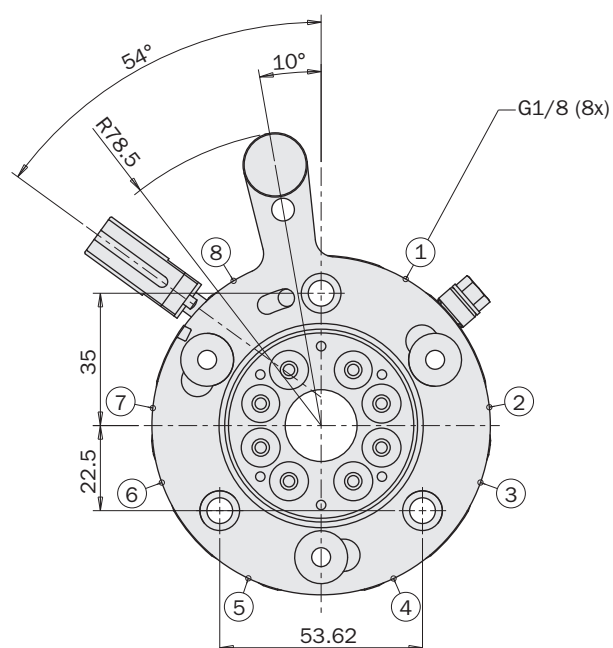
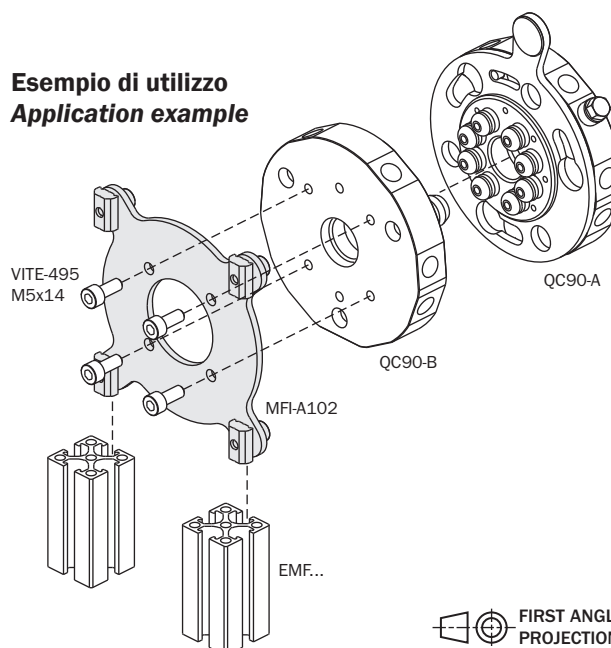


QCY50-A



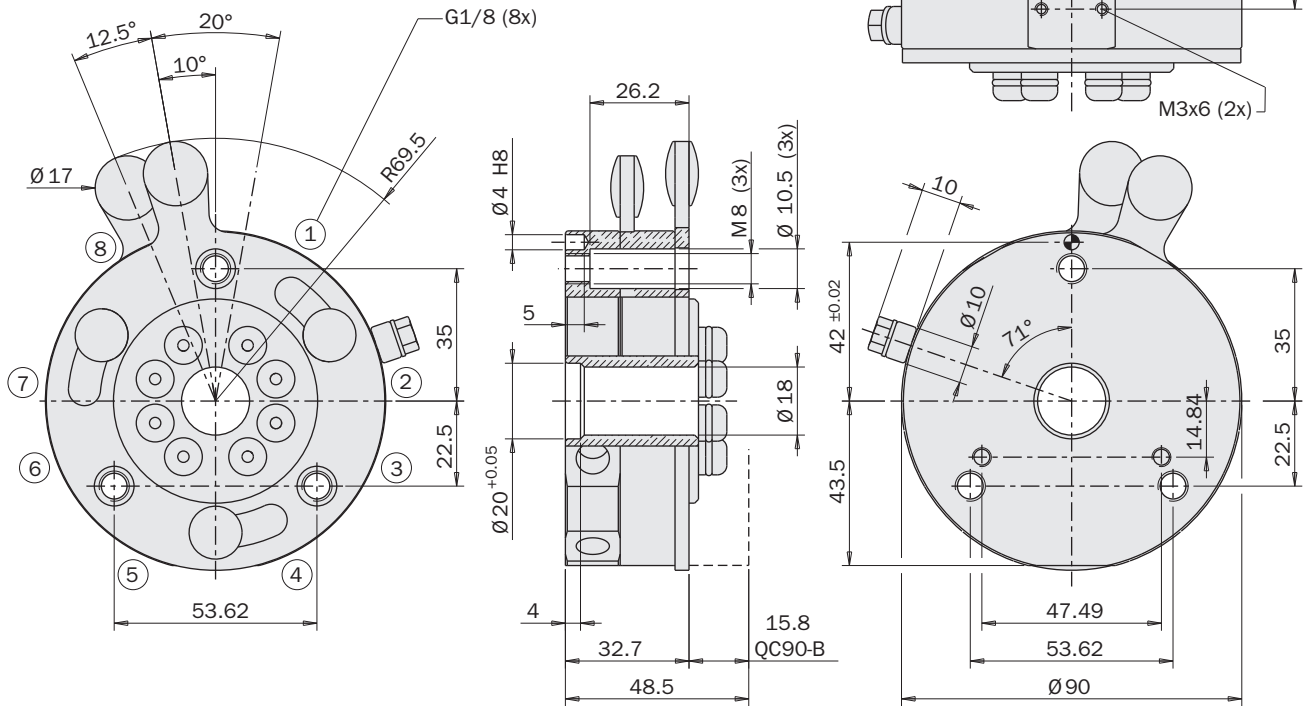
QC50-B



Dimensioni (mm)
Dimensions (mm)**QC90-A**FIRST ANGLE
PROJECTION**QCY90-A****Esempio di utilizzo**
Application exampleFIRST ANGLE
PROJECTION

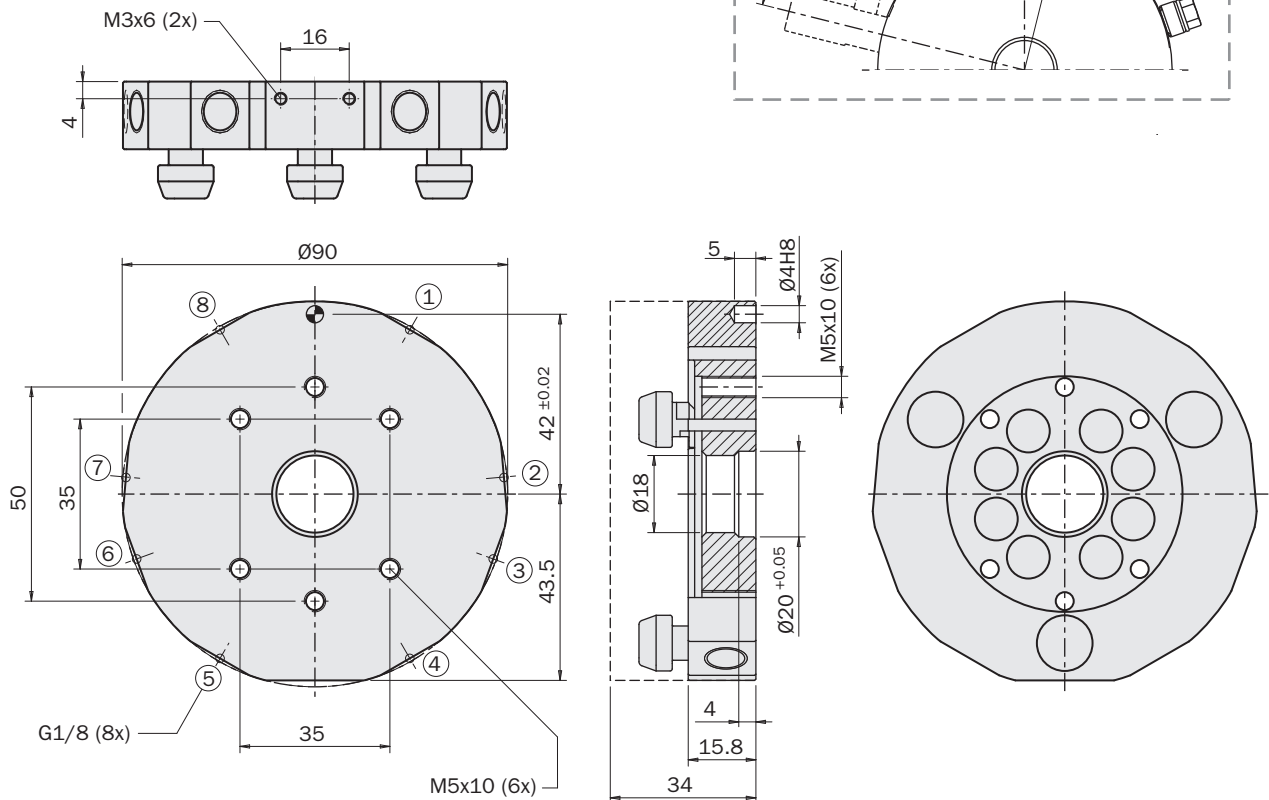
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Dimensions (mm)

QCX90-A



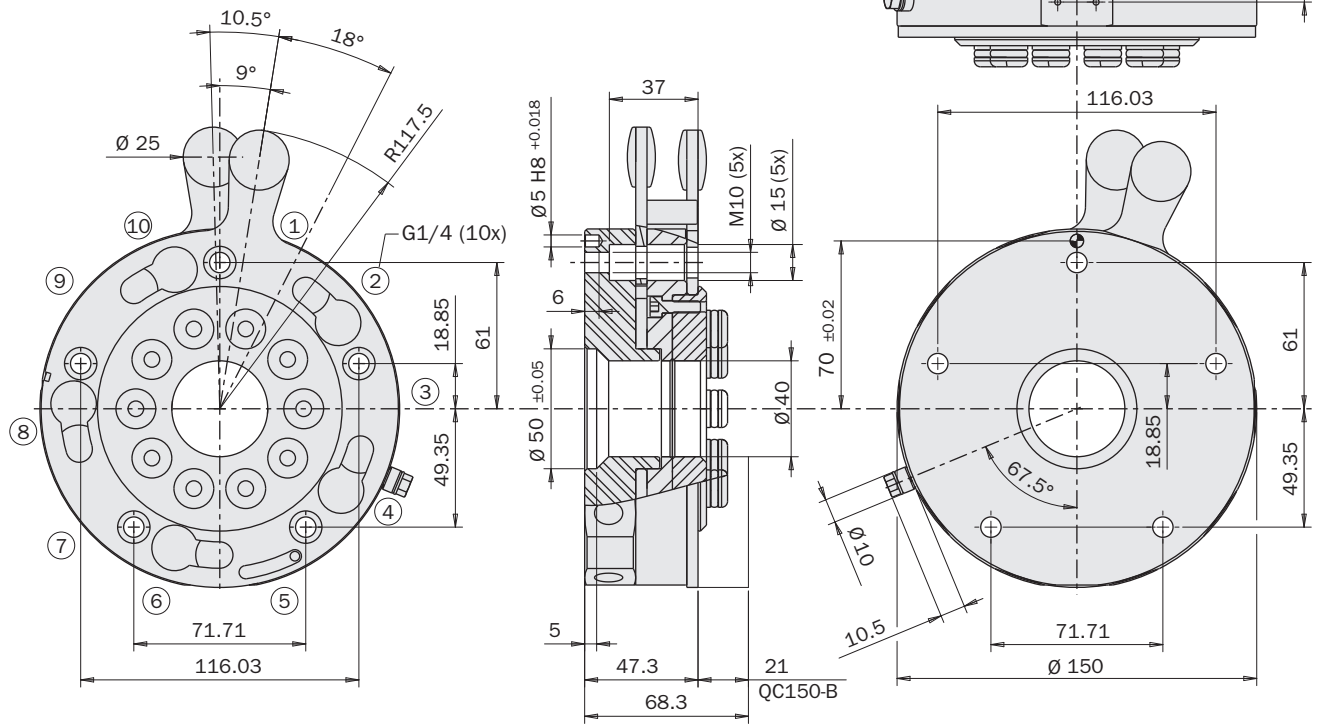
FIRST ANGLE
PROJECTION

QC90-B

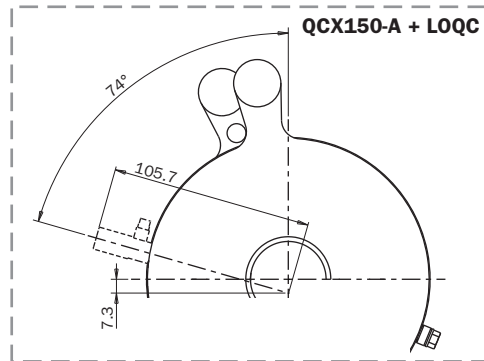


Dimensioni (mm)
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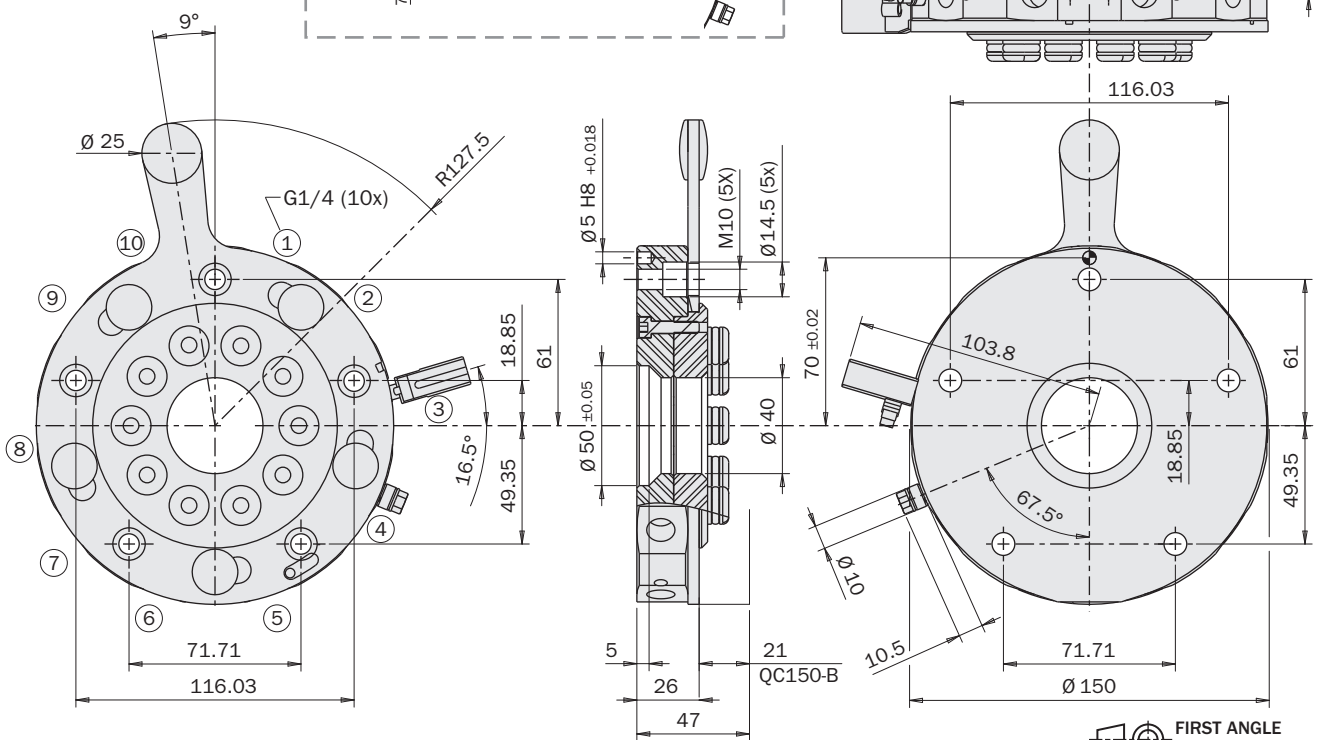
QCX150-A



QCX150-A + L0QC



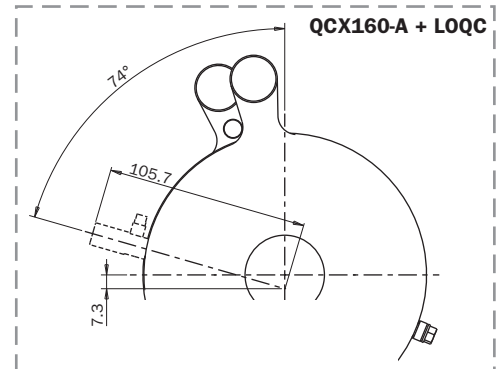
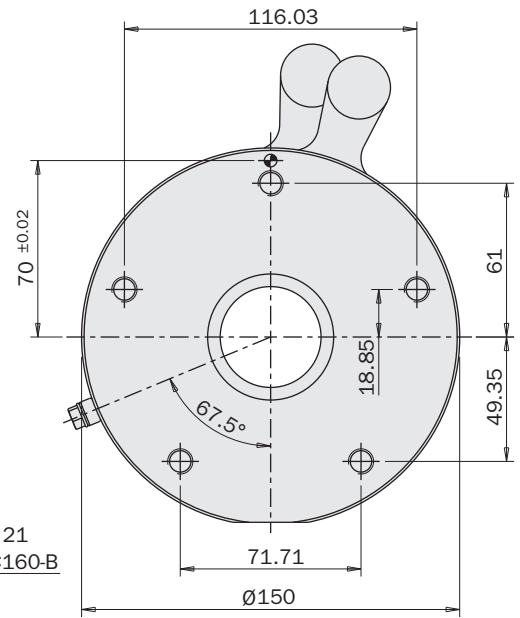
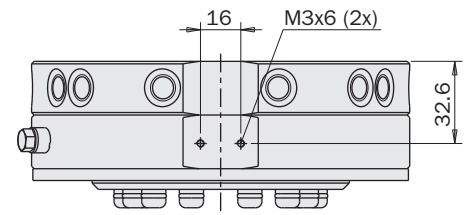
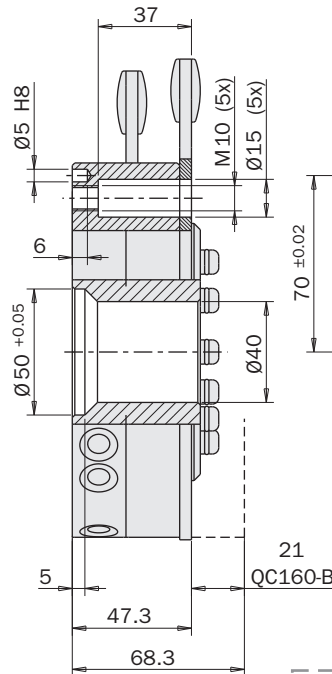
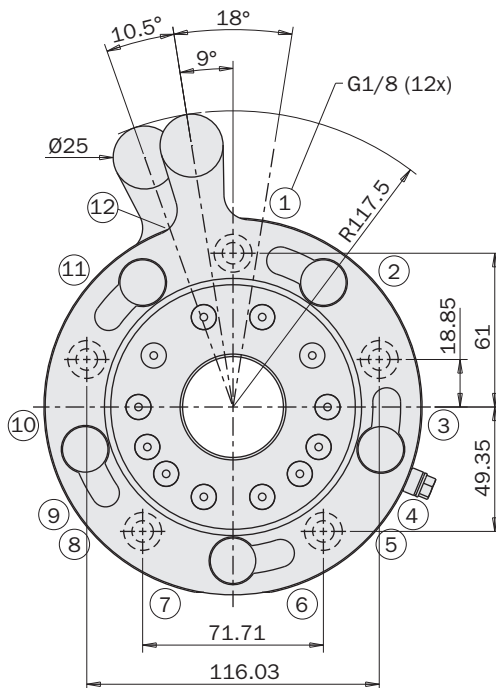
QCY150-A



FIRST ANGLE
PROJECTION

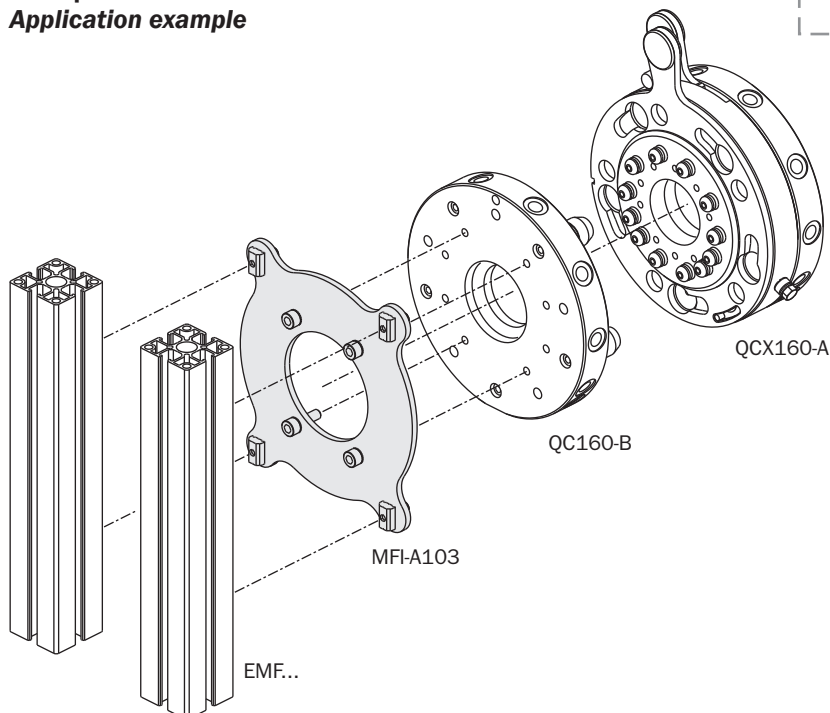
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Dimensions (mm)

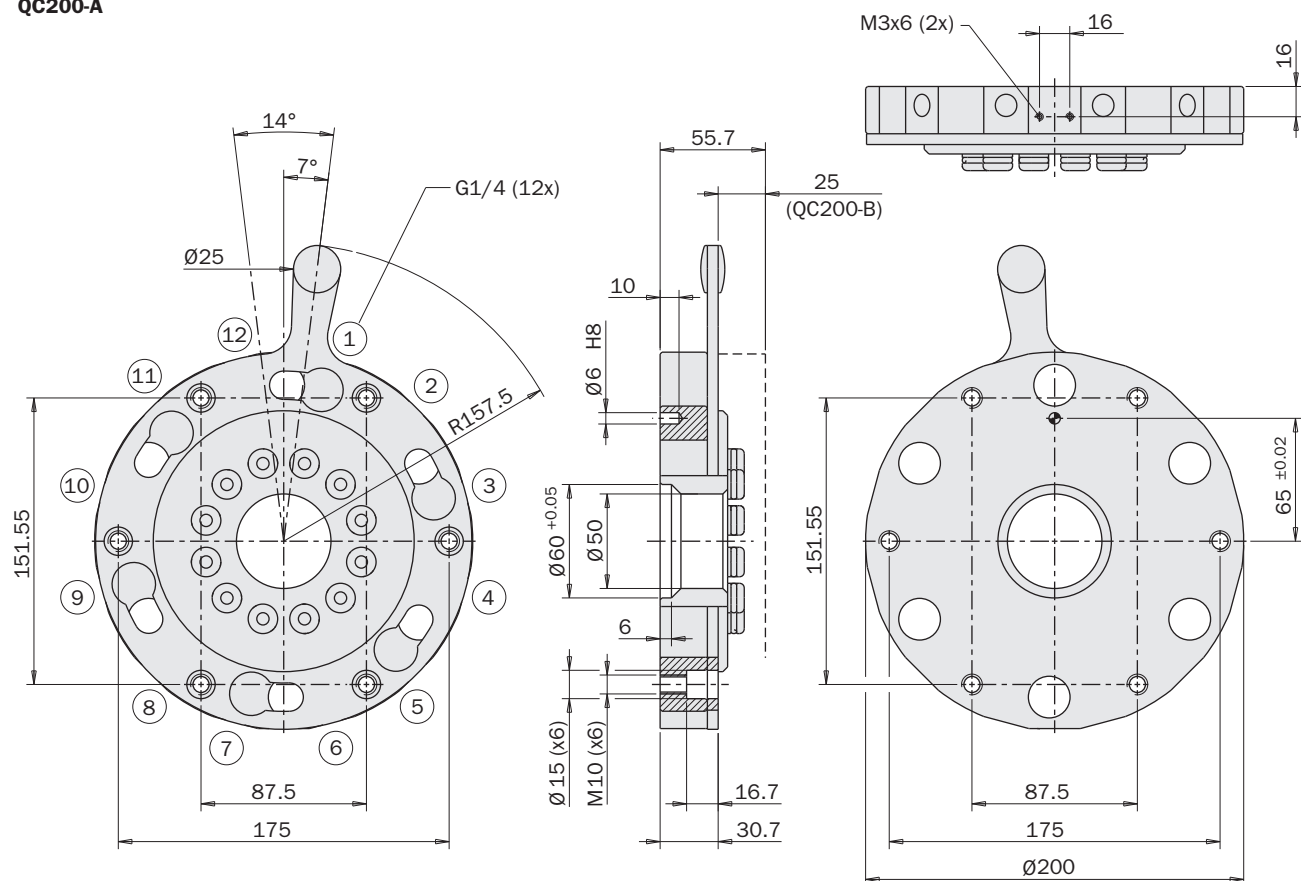
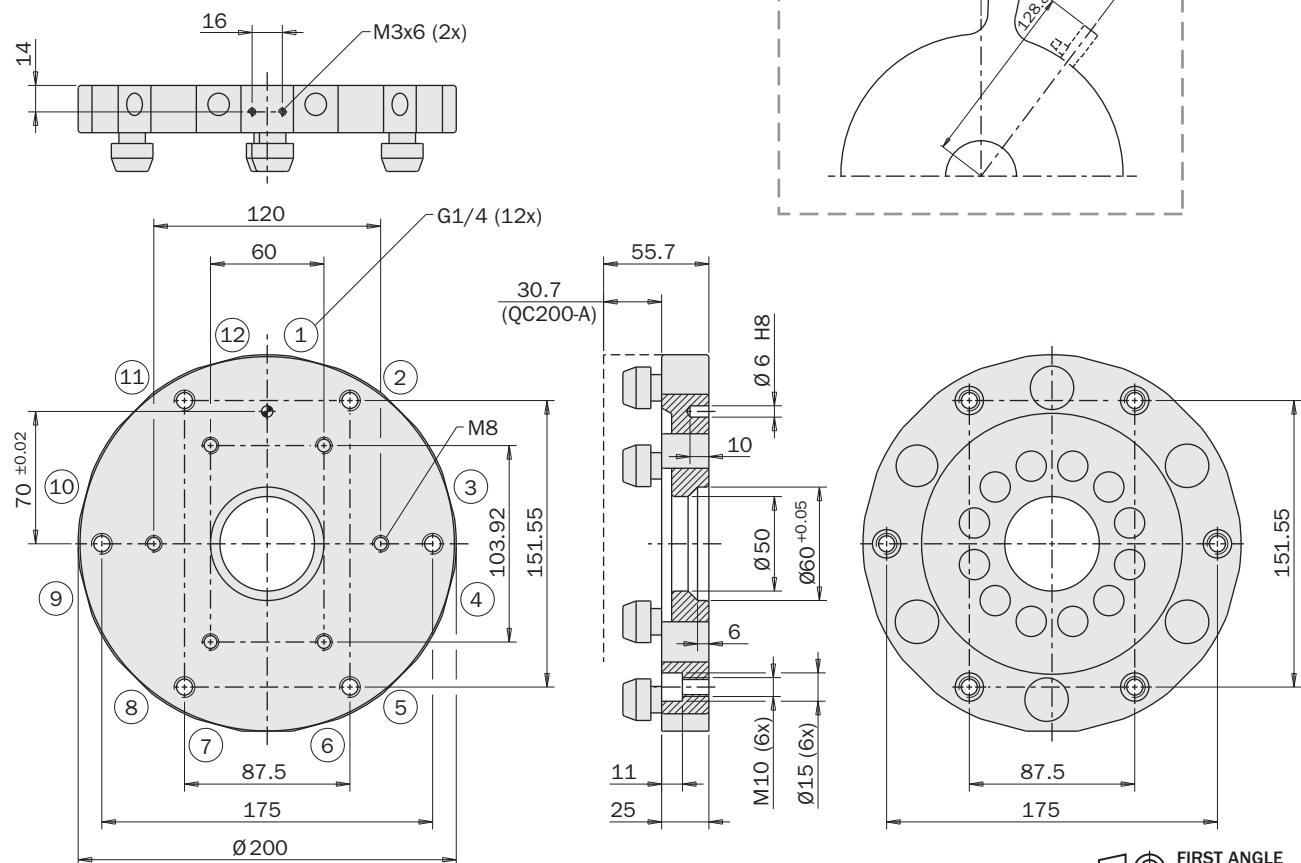
QCX160-A



Esempio di utilizzo

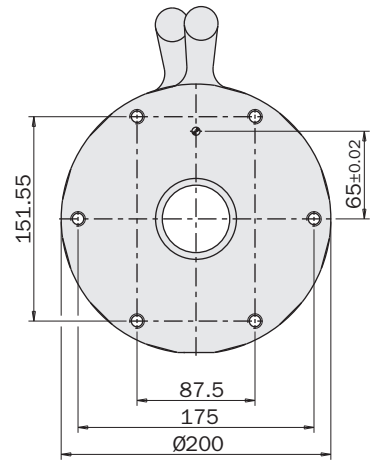
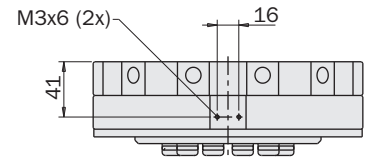
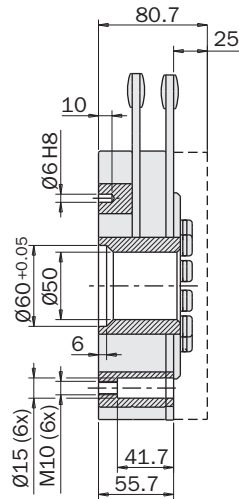
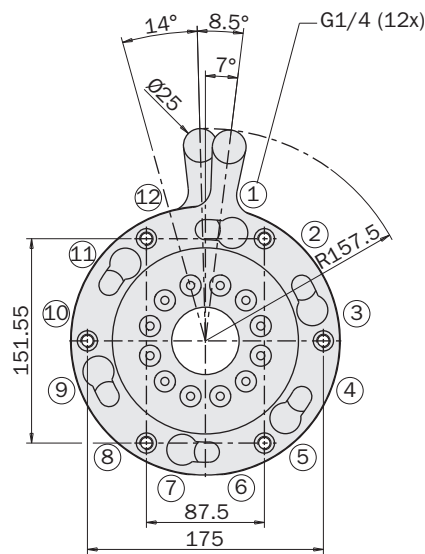
Application example



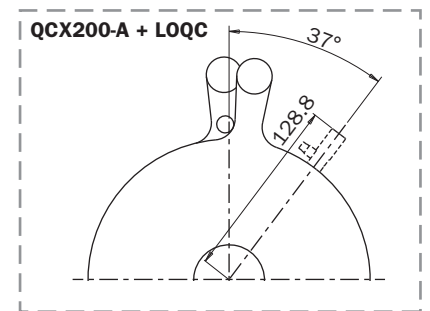
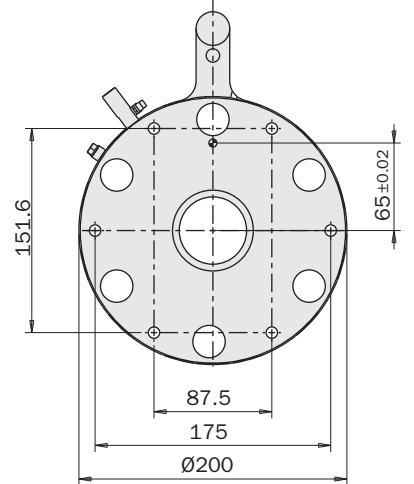
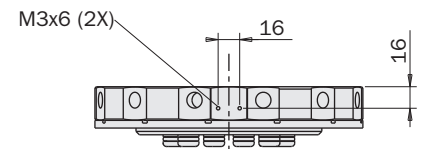
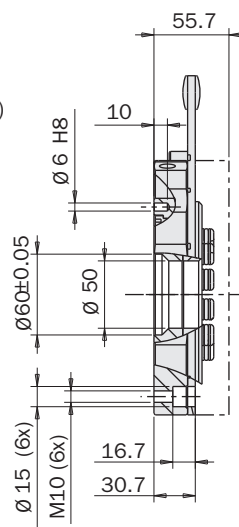
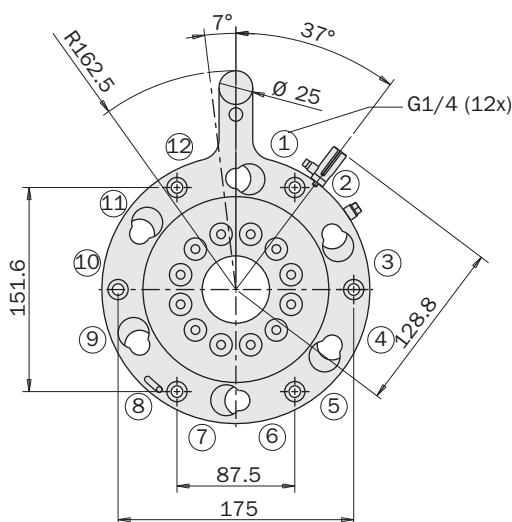
Dimensioni (mm)
Dimensions (mm)**QC200-A****QC200-B / QCY200-B**FIRST ANGLE
PROJECTION

Dimensioni (mm)
Dimensions (mm)

QCX200-A



QCY200-A

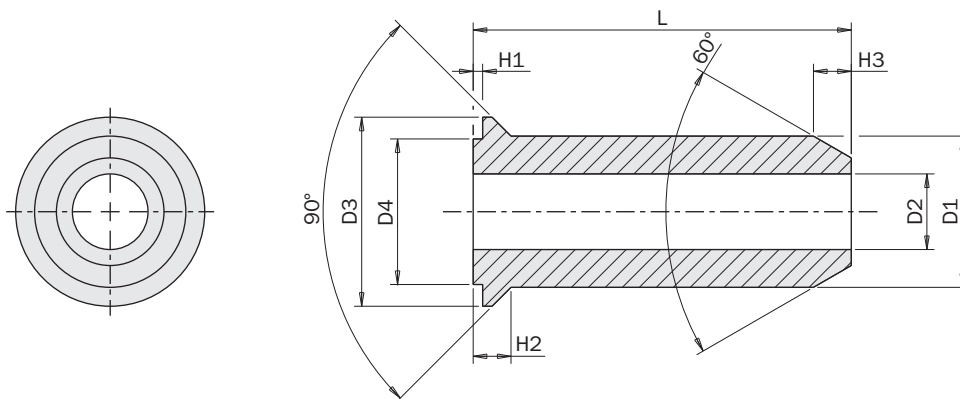


Spina di centraggio

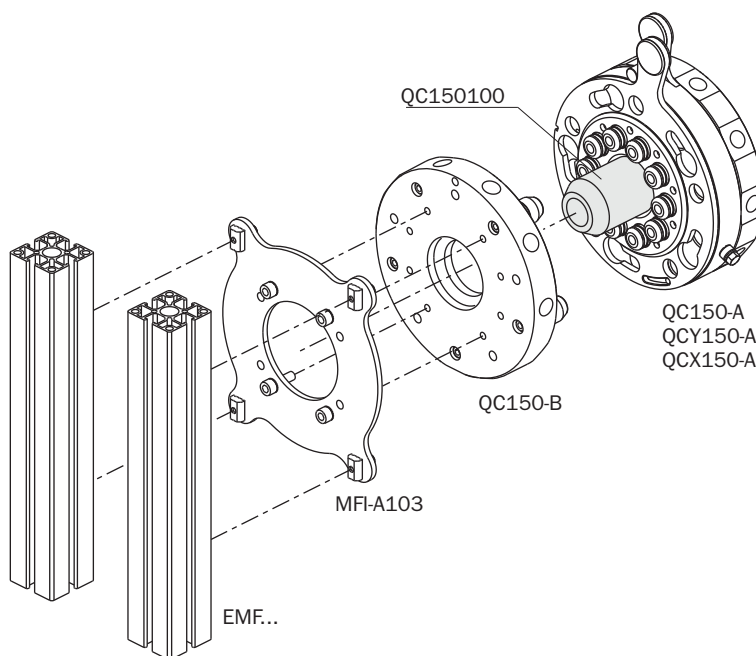
- Da posizionare sul lato robot.
- Aiuta il centraggio manuale di EOAT pesanti.

Centering pin

- To be positioned on the robot side.
- It helps the manual centering of heavy EOATs.

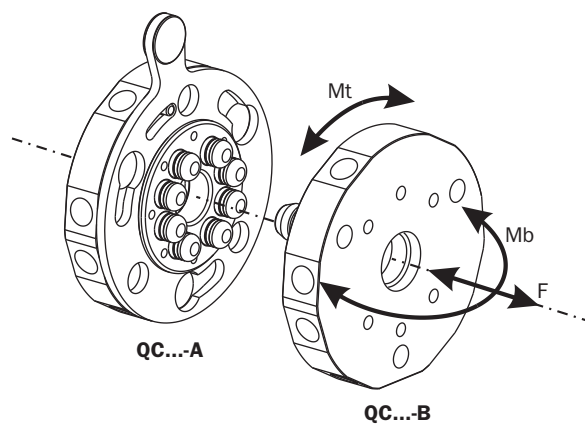


	QC9065	QC150100	QC200120
L	65	100	120
H1	2	2.5	3
H2	5	10	11
H3	5	10	15
D1	Ø18	Ø40	Ø50
D2	Ø8	Ø20	Ø25
D3	Ø20	Ø50	Ø60
D4	Ø14	Ø38.5	Ø43.5

**Carichi di sicurezza****Safety loads**

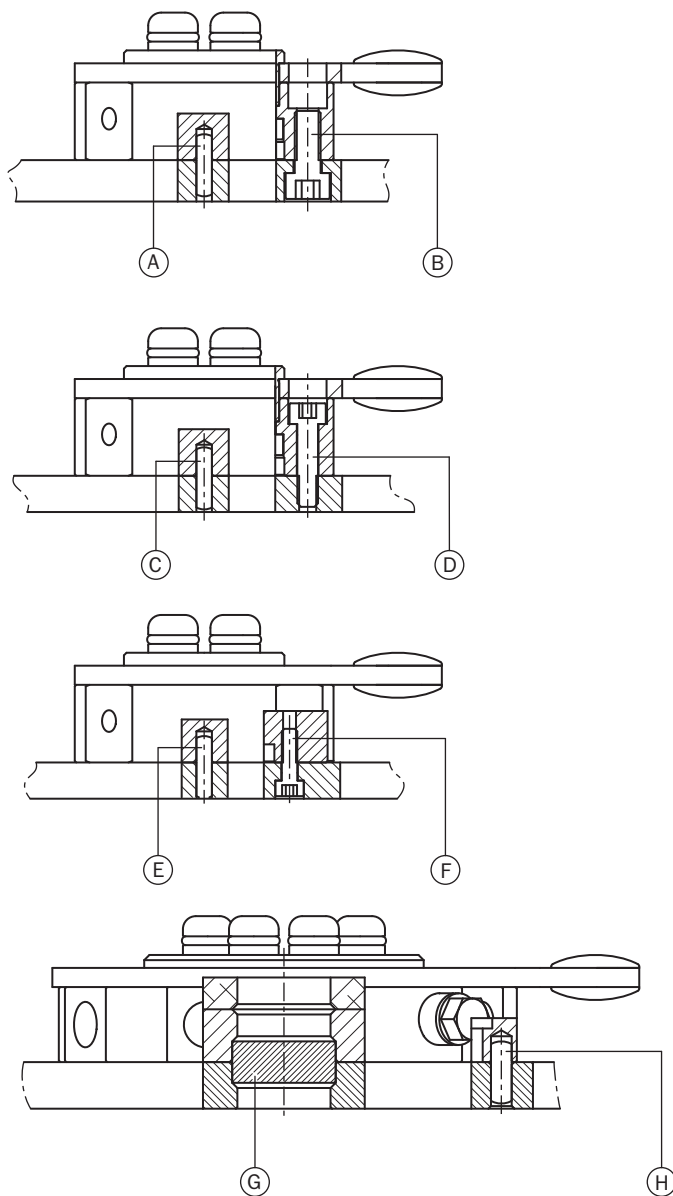
	QC50	QC90	QC150	QC160	QC200
F	350 N	1400 N	3000 N	3000 N	9000 N
Mt	30 Nm	180 Nm	600 Nm	600 Nm	2000 Nm
Mb	15 Nm	100 Nm	350 Nm	350 Nm	1350 Nm
m (*)	5 kg	20 kg	50 kg	50 kg	150 kg

(*)
Massimo carico raccomandato
Maximum recommended load



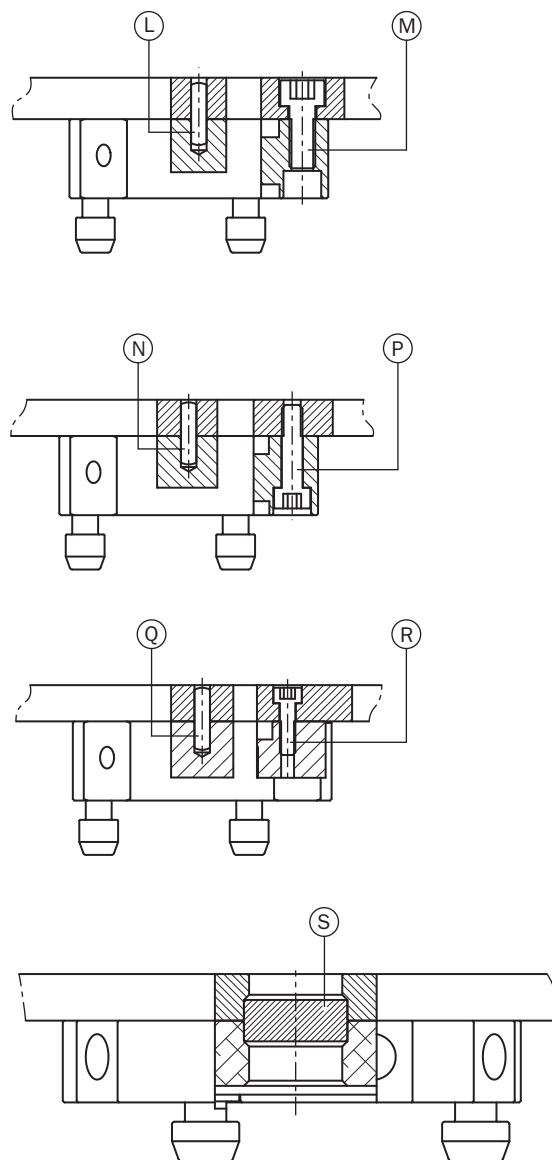
Fissaggio

Lato robot
Robot side



Fastening

Lato pinza
Gripper side



	QC50-A QCY50-A	QC90-A QCX90-A QCY90-A	QC150-A QCX150-A QCY150-A	QC160-A QCX160-A	QC200-A QCX200-A QCY200-A
A	Ø3 (2x)	-	-	-	-
B	M5 (3x)	M8 (3x)	M10 (5x)	M10 (5x)	M10 (6x)
C	Ø3 (2x)	-	-	-	-
D	M4 (3x)	M6 (3x)	M8 (5x)	M8 (5x)	M8 (6x)
E	Ø3 (2x)	-	-	-	-
F	M3 (4x)	M5 (2x)	-	-	-
G	-	Ø20	Ø50	Ø50	Ø60
H	-	Ø4 (1x)	Ø5 (1x)	-	Ø6 (1x)

	QC50-B	QC90-B	QC150-B QCY150-B	QC160-B	QC200-B QCY200-B
L	Ø3 (2x)	-	-	-	Ø6 (1x)
M	M5 (3x)	-	M8 (5x)	M8 (5x)	M10 (6x)
N	Ø3 (2x)	-	-	-	-
P	M4 (3x)	-	M6 (5x)	M6 (5x)	M8 (6x)
Q	Ø3 (2x)	-	-	-	-
R	M3 (4x)	M5 (6x)	M6 (8x)	M6 (8x)	M8 (6x)
S	-	Ø20	Ø50	Ø50	Ø60

QCX**Cambia utensile lato robot con valvola di sicurezza**

QCX è equipaggiato con una valvola dell'aria integrata, che chiude automaticamente il flusso di aria compressa (o il vuoto) prima che il sistema sia completamente sganciato (4).

Non è possibile aprire il flusso d'aria, se la flangia non è agganciata (1).

La maniglia rossa sconnette la flangia, ma inoltre muove la maniglia blu tramite la spina nera, che chiude l'aria (2).

Quando il sistema è agganciato il flusso d'aria può essere controllato (on/off) con la maniglia blu (3).

Questa valvola a rubinetto rotante risolve tutti i problemi delle valvole di non ritorno a sfera: l'elevata forza di spinta necessaria per l'aggancio ed i movimenti incontrollati degli attuatori durante lo sganciamento.

QCX è perfettamente compatibile con QC...-B ed ha gli stessi fissaggi di QC...-A, ma con uno spessore maggiore.

QCX**Robot side quick changer with safety valve**

QCX is equipped with an integrated air valve, which automatically closes the compressed air (or vacuum) flow before the system is completely disengaged (4).

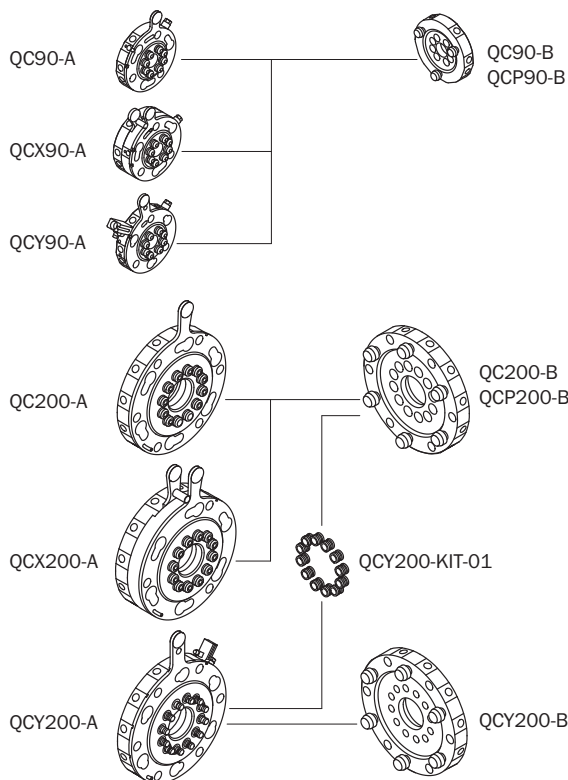
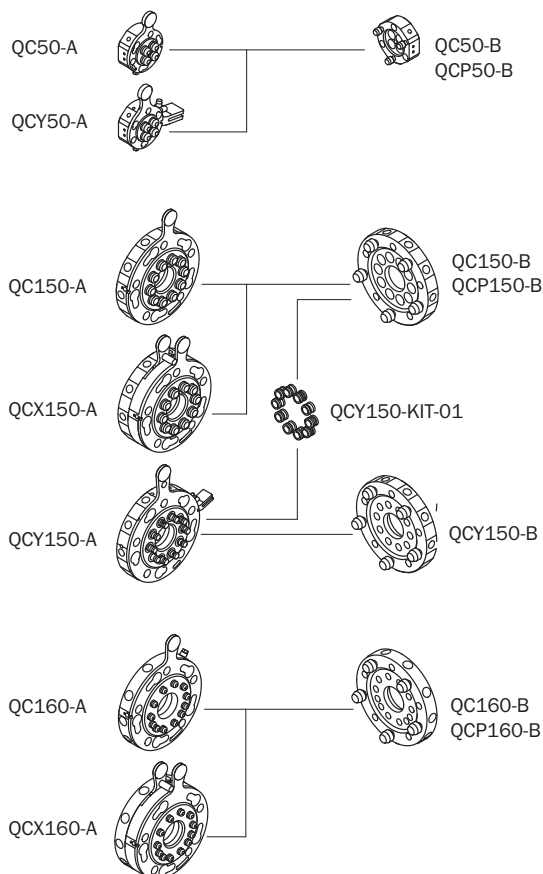
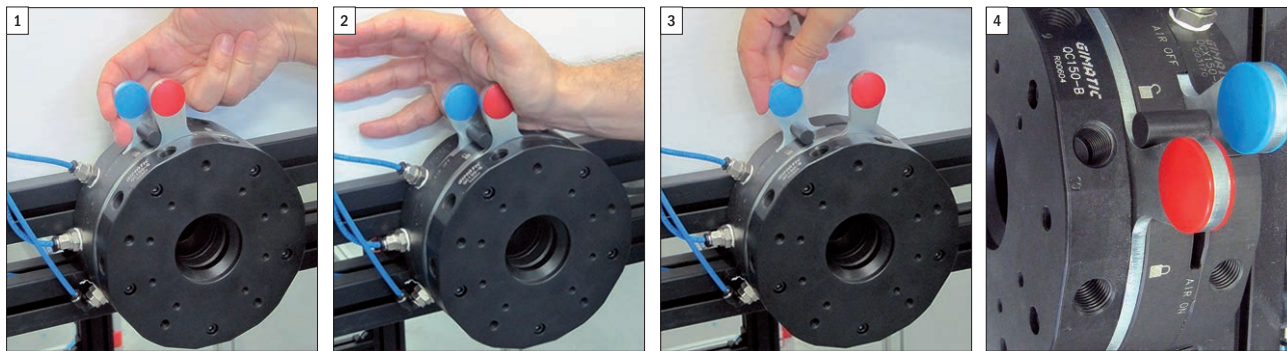
It is not possible to open the air flow, if the flange is not engaged (1).

The red handle disengages the flange, but also move the blue handle by the black pin which closes the air (2).

When engaged the air flow can be controlled (on/off) by the blue handle (3).

This rotating tap valve solves all the problems of ball valve systems: the high pushing force necessary for engaging and the uncontrolled movements of the actuators when disengaging.

QCX perfectly fit with QC...-B and it has the same mounting pattern of a QC...-A, but with a larger thickness.



QCY

Cambia utensile lato robot con valvola automatica

QCY è equipaggiato con una valvola dell'aria integrata che chiude automaticamente il flusso dell'aria compressa (o il vuoto) prima che il sistema sia completamente sganciato.

Anche l'apertura del flusso di aria compressa (o del vuoto) è automatica e successiva al completo agganciamento.

Quindi a differenza del QCX una sola maniglia è sufficiente.

Questo riduce le dimensioni del QCY che è intercambiabile con il QC...-A e compatibile con il QC...-B.

Anche questa valvola è a rubinetto rotante e quindi non richiede una forza di spinta elevata per l'aggancio e non causa movimenti incontrollati durante lo sganciamento. Un circuito di sfiato mette in comunicazione con l'atmosfera gli utensili pneumatici a bordo del QC...-B prima che lo sganciamento sia completato.

QCY

Robot side quick changer with automatic valve

The QCY features a built-in air valve, which automatically cuts off the compressed air flow (or vacuum) before the system is completely disengaged.

The opening of the compressed air flow (or vacuum) is also automatic and follows the complete engagement.

Therefore, unlike the QCX, a single handle is sufficient.

This reduces the dimensions of the QCY which is interchangeable with the QC...-A and compatible with the QC...-B.

Also this valve is with rotating tap and therefore does not require a high pushing force for the engagement and does not cause uncontrolled movements during the disengagement. An exhaust circuit connects the pneumatic tools on the QC...-B with the external atmosphere before the disengagement is completed.

QCY-KIT

Il KIT di trasformazione permette di rendere compatibili i modelli QC150-B e QC200-B con i nuovi cambia utensile QCY150-A e QCY200-A.

ATTENZIONE: il QC...-B non sarà più compatibile con i modelli QC...-A e QCX...-A dopo aver assemblato il KIT di trasformazione.

QCY-KIT

The transformation KIT makes the QC150-B and QC200-B models compatible with the new QCY150-A and QCY200-A quick changers.

ATTENTION: the QC...-B will no longer be compatible with the QC...-A and QCX...-A models after assembling the transformation KIT.

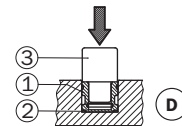
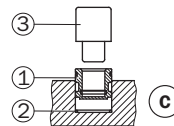
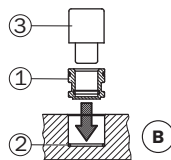
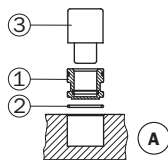
QCY...-A	QC...-B	KIT
QCY150-A	QC150-B, QCP150-B	QCY150-KIT-01
QCY200-A	QC200-B, QCP200-B	QCY200-KIT-01

Procedura di assemblaggio:

- Posizionare l'EOAT su una superficie che ne assicuri la stabilità.
- Pulire i fori del QC...-B dalla presenza di eventuale grasso.
- Introdurre gli o-ring (2) presenti nel KIT in ognuno dei fori del QC...-B, accertandosi che siano inseriti a fondo (come da Fig. B).
- Introdurre la boccola di riduzione (1) con il lato aperto rivolto verso l'alto sul foro del QC...-B (come da Fig. C).
- Posizionare la spina di inserimento (3) presente nel KIT nella boccola di riduzione.
- Mediante una mazzetta in plastica, inserire la boccola nel QC...-B facendo attenzione a mantenerla perpendicolare durante l'operazione (come da Fig. D). Una porzione eccedente di o-ring potrebbe essere tagliata durante l'operazione.
- Controllare che la boccola di riduzione (1) sia inserita fino in battuta: non deve sporgere rispetto al piano del QC...-B.
- Ripetere le operazioni precedenti per assemblare le altre boccole di riduzione nei fori rimanenti del QC...-B.

Assembly procedure:

- Place the EOAT on a surface that ensures its stability.
- Clean the holes of the QC...-B from the presence of any grease.
- Introduce the o-rings (2) present in the KIT into each hole of the QC...-B, making sure that they are inserted fully (as shown in the Pic. B).
- Insert the reduction bushing (1) with the open side facing up on the hole of the QC...-B (as shown in the Pic. C).
- Place the insertion pin (3) in the KIT into the reduction bushing.
- Using a plastic hammer, insert the bushing into the QC...-B taking care to keep it perpendicular during the operation (as shown in the Pic. D). An excess portion of the o-ring could be cut off during the operation.
- Make sure that the reduction bushing (1) is in contact with the bottom of the hole: it must not protrude from the plane of the QC...-B.
- Repeat the previous steps to assemble the other reduction bushings in the remaining holes of the QC...-B.



QCP

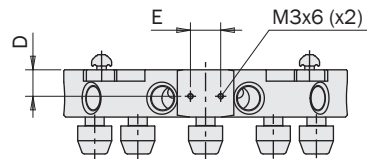
Cambia utensile lato pinza con flangia integrata

- L'interfaccia per le travi in alluminio è integrata.
- Peso ridotto.
- Gioco ridotto.
- Stesse dimensioni.

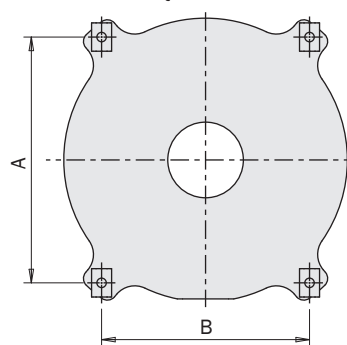
QCP

Gripper side quick changer with integrated flange

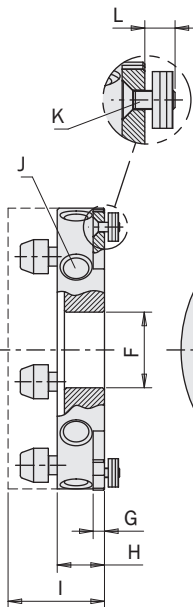
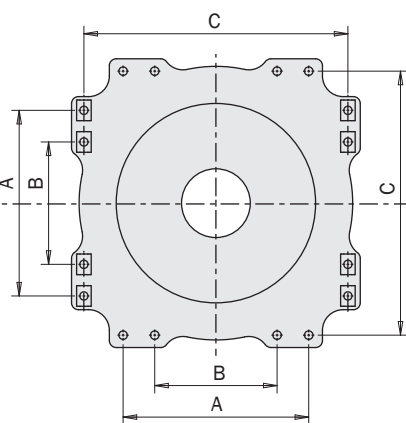
- The interface for the aluminum beams is integrated.
- Reduced weight.
- Reduced backlash.
- Same dimensions.



QCP50-B
QCP90-B
QCP150-B
QCP160-B



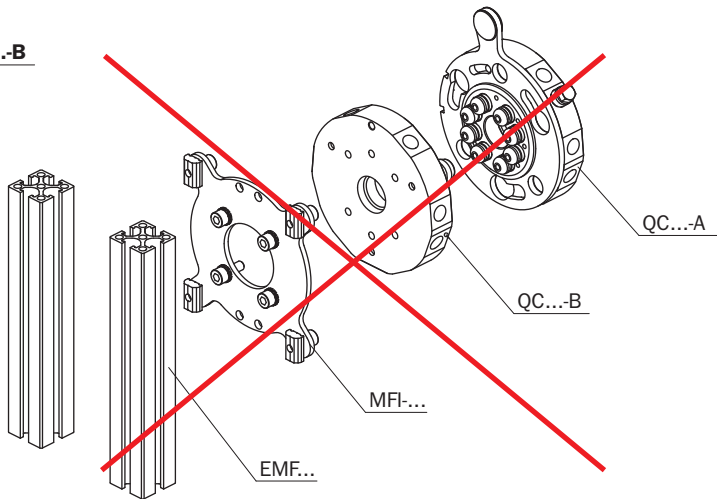
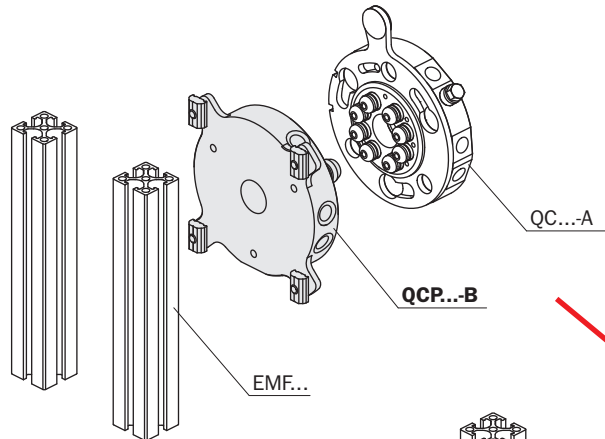
QCP200-B



QCP90-B



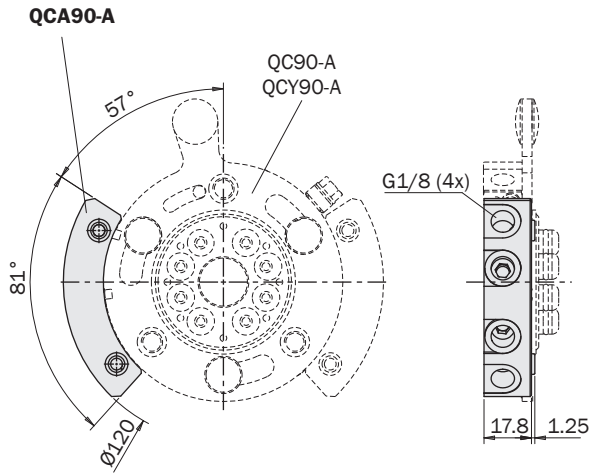
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	Peso Weight
QCP50-B	50	32	-	13	7	Ø4	4	19.3	38	M5 (x4)	M4 (x4)	7.4	Ø50	Ø71.5	110 g
QCP90-B	76	76	-	7	16	Ø18	4	18.8	37	G1/8 (x8)	M5 (x4)	7.4	Ø90	Ø99.5	315 g
QCP150-B	130	110	-	14	16	Ø40	6	25	51	G1/4 (x10)	M5 (x4)	7.4	Ø150	Ø183	1092 g
QCP160-B	130	110	-	14	16	Ø40	6	25	51	G1/8 (x12)	M5 (x4)	7.4	Ø150	Ø183	1150 g
QCP200-B	135	89	192	22	16	Ø50	8	33	64	G1/4 (x12)	M6 (x16)	7.4	Ø200	Ø257	2400 g



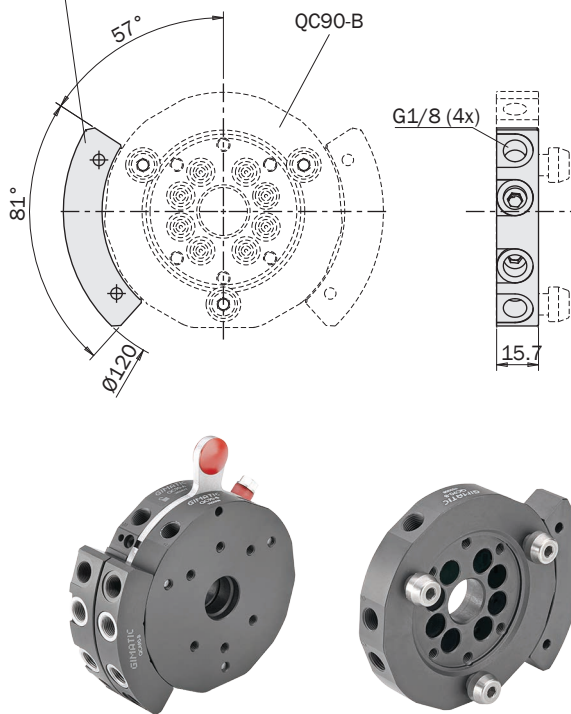
QCA

Canali dell'aria aggiuntivi

- Accessori per aggiungere 2 o 4 canali dell'aria.
- Le due parti (lato robot e lato pinza) sono fornite separatamente.
- Lo stesso accessorio può essere usato sul lato destro o sul lato sinistro.
- Adatti per il vuoto e per l'aria compressa.
- Due canali con portata elevata per ogni accessorio.



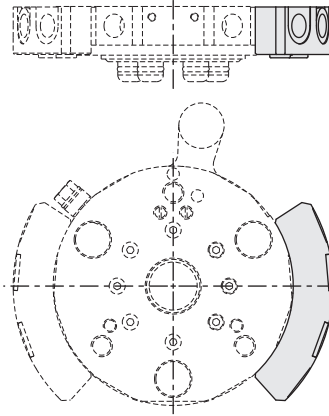
QCA90-B



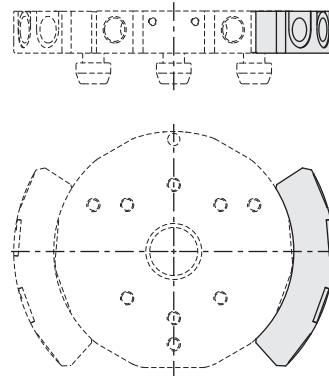
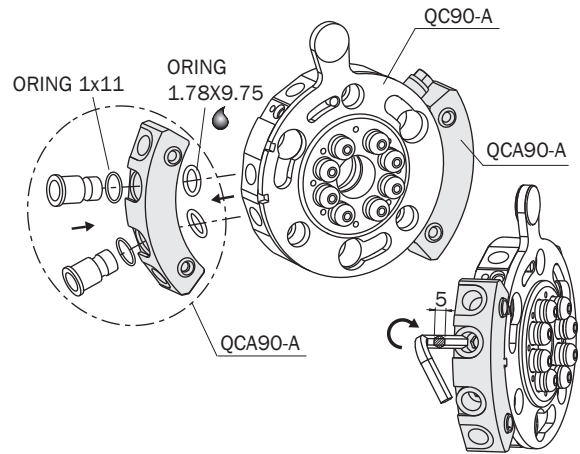
QCA

Additional air ports

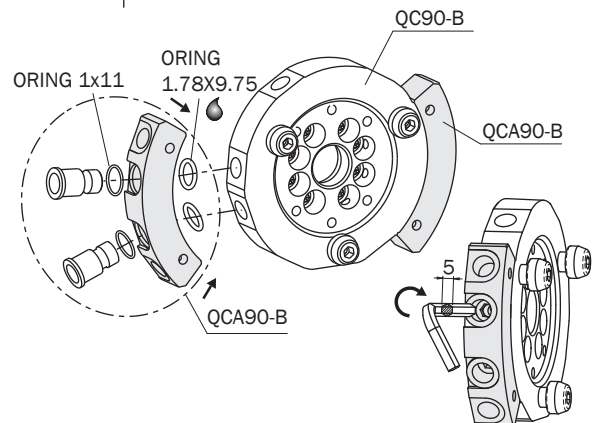
- Accessories for adding 2 or 4 extra air ports.
- The two parts (robot side and gripper side) are supplied separately.
- The accessory can be used on the left or on the right side.
- Suitable for vacuum and compressed air.
- Two high-flow air ports for each accessory.



	QCA90-A
Peso Weight	53 g



	QCA90-B
Peso Weight	53 g



LOQC

Unità di blocco per cambia utensili QC

- Accessorio opzionale adatto per QC50-A, QC90-A, QC150-A, QC160-A, QC200-A, QCX90-A, QCX150-A, QCX160-A, QCX200-A.
- Di serie su QCY50-A, QCY90-A, QCY150-A, QCY200-A.
- Evita la caduta accidentale dell'EOAT.
- Sicurezza meccanica: blocca la maniglia del cambia utensile, solo se correttamente agganciata (1).
- Sicurezza elettrica: emette un segnale elettrico, solo quando è bloccata (2). Questo segnale darà il consenso per il movimento del robot. In caso di aggancio non corretto, o di un urto distruttivo sul LOQC, o di un guasto elettrico del sensore, il segnale cessa ed il robot si ferma.
- Sensore magnetico (tipo SS) (3) o induttivo (tipo SI) (4) fornito a parte.

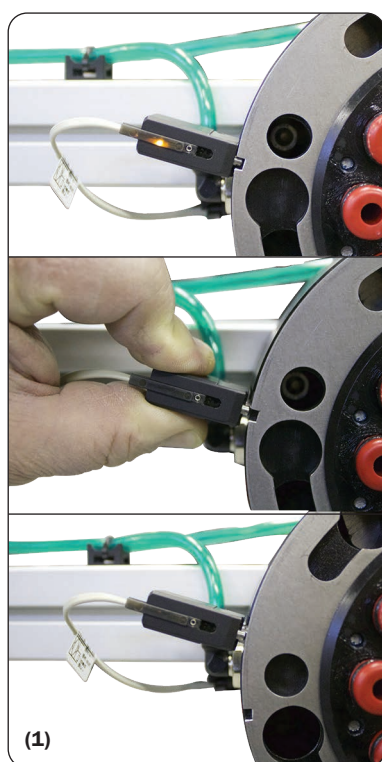
LOQC

Lock unit for QC quick changers

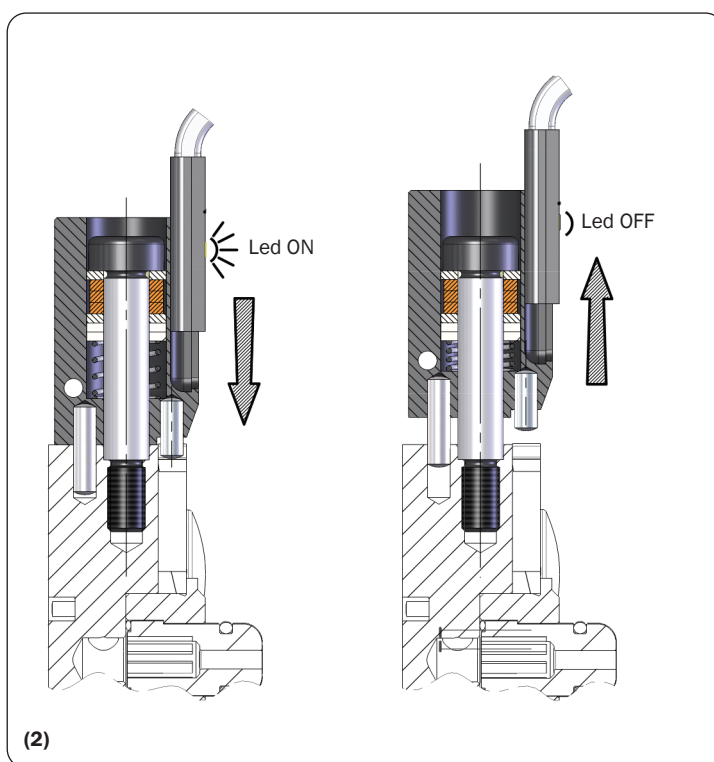
- Option suitable for QC50-A, QC90-A, QC150-A, QC160-A, QC200-A, QCX90-A, QCX150-A, QCX160-A, QCX200-A.
- Standard on QCY50-A, QCY90-A, QCY150-A, QCY200-A.
- It prevents accidental falling of the EOAT.
- Mechanical safety: it locks the handle of the quick changer, only when correctly engaged (1).
- Electrical safety: it emits an electric signal, only when locked (2). This signal will give the consent to the movement of the robot. In the case of incorrect engagement, or destructive impact on the LOQC, or electrical fault of the sensor, the signal drops out and the robot stops.
- Magnetic (SS type) (3) or inductive (SI type) (4) sensor supplied a part.

LOQC

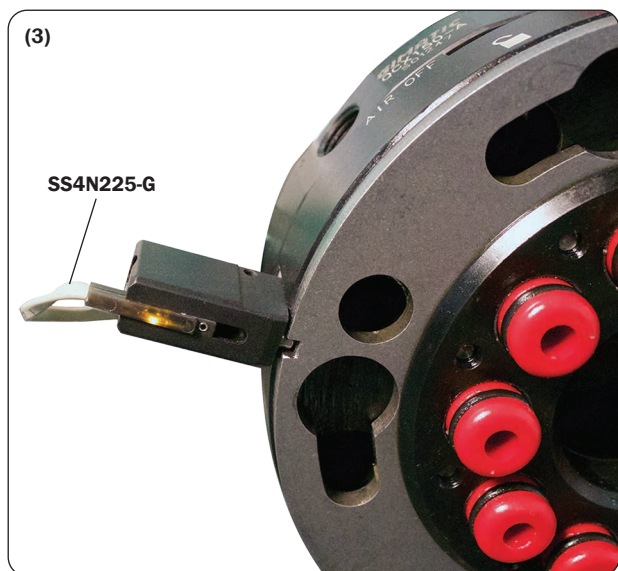
Peso	20 g
Weight	



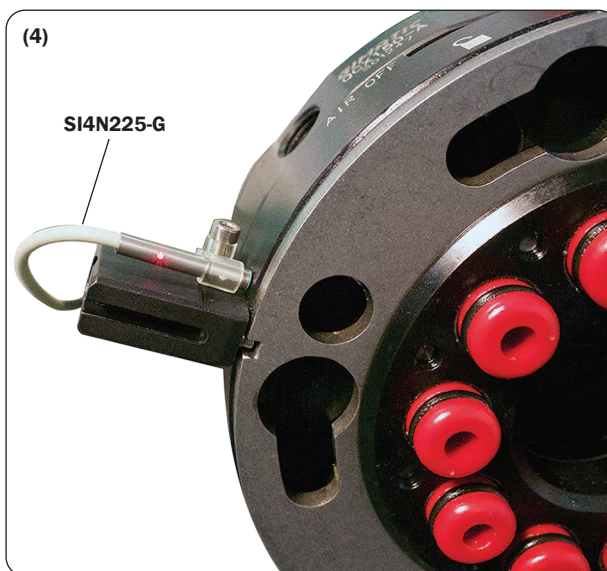
(1)



(2)



(3)



(4)

SI4N225-G

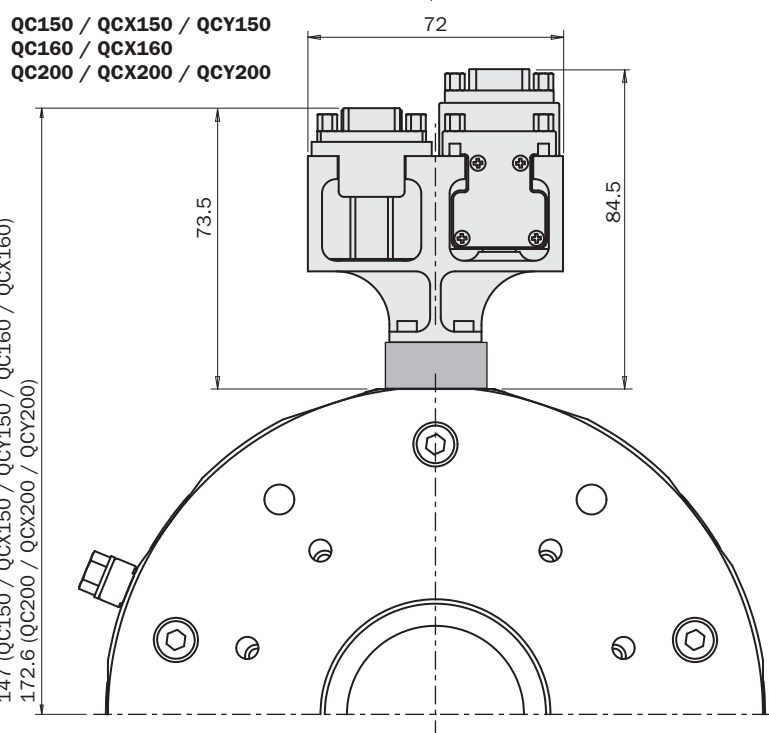
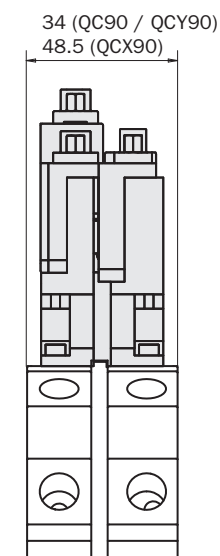
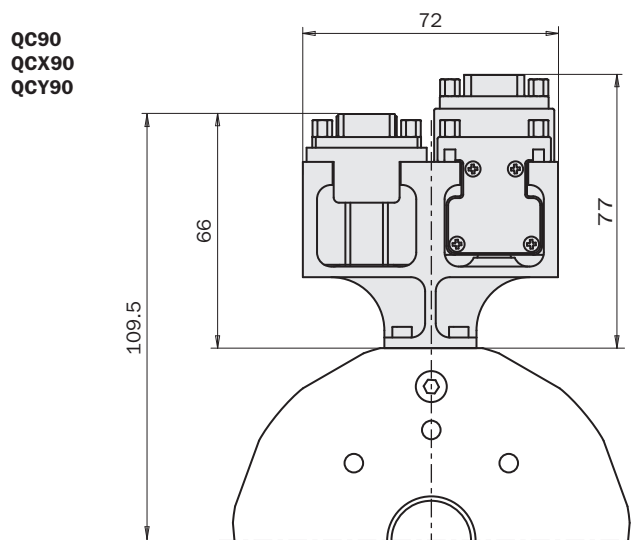
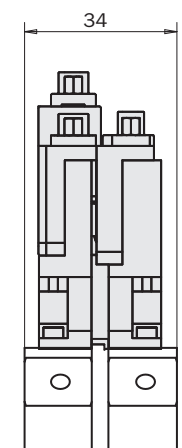
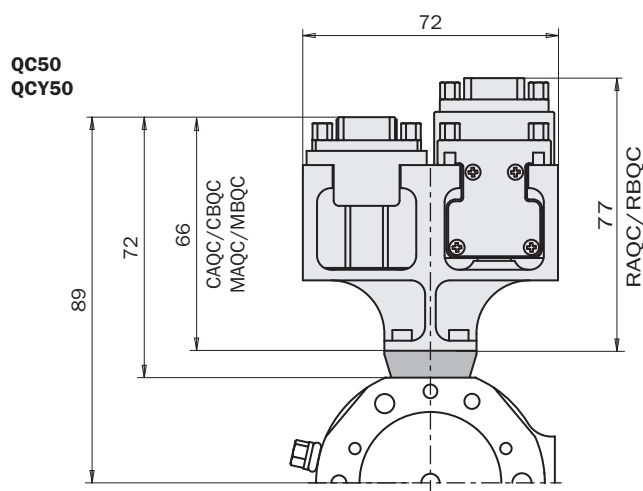
SS4N225-G

Staffa

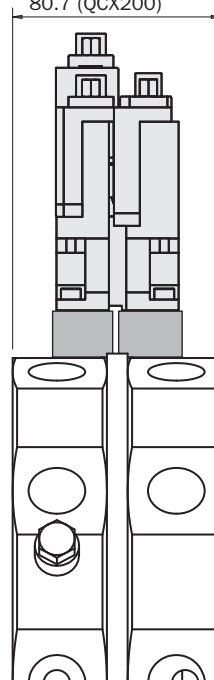
CQC-012 (lato robot).
CQC-013 (lato pinza).

Mounting bracket

CQC-012 (robot side).
CQC-013 (gripper side).



47 (QC150 / QCY150 / QC160)
68.3 (QCX150 / QCX160)
55.7 (QC200 / QCY200)
80.7 (QCX200)

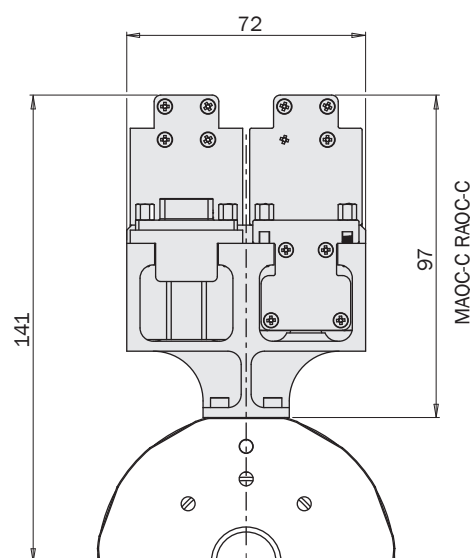
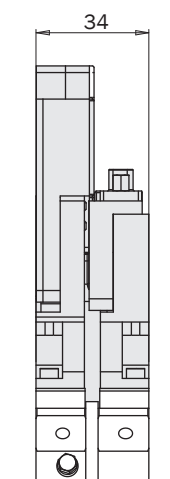
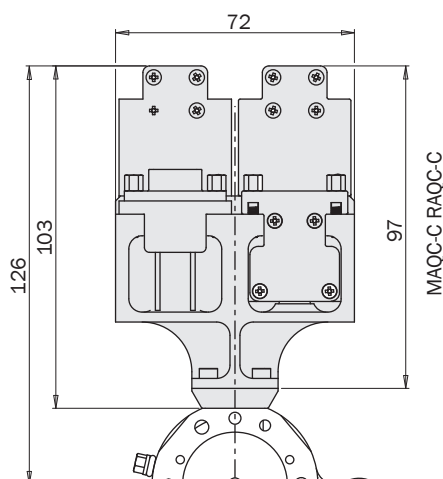


Staffa

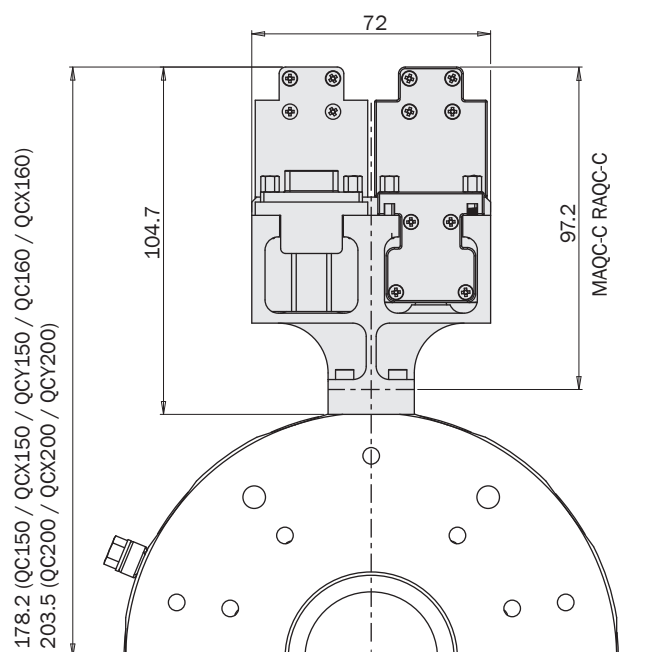
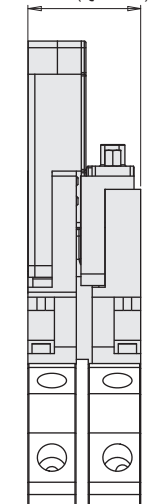
CQC-017 (lato robot).
CQC-013 (lato pinza).

Mounting bracket

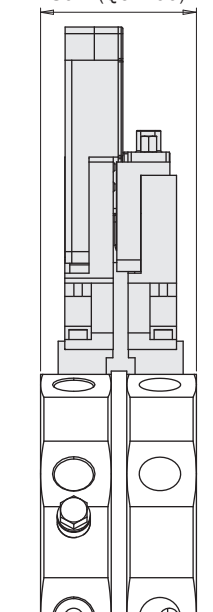
CQC-017 (robot side).
CQC-013 (gripper side).



34 (QC90 / QCY90)
48.5 (QCX90)



47 (QC150 - QCY150 / QC160)
68.3 (QCX150 / QCX160)
55.7 (QC200 / QCY200)
80.7 (QCX200)

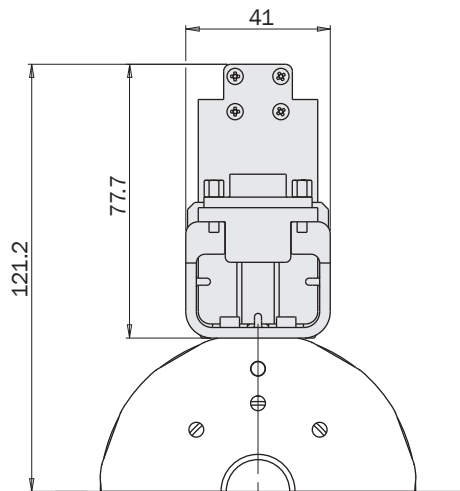
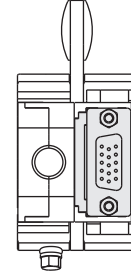
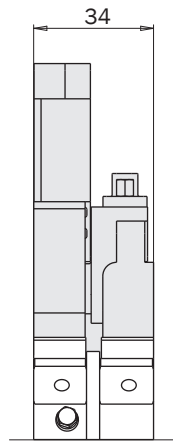
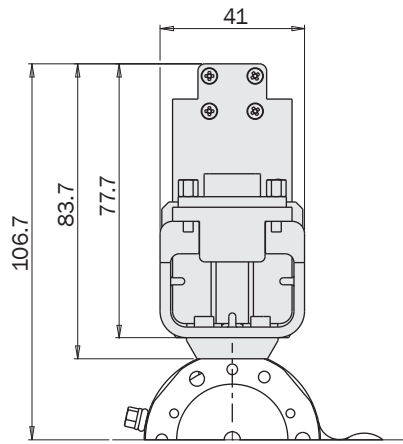


Staffa

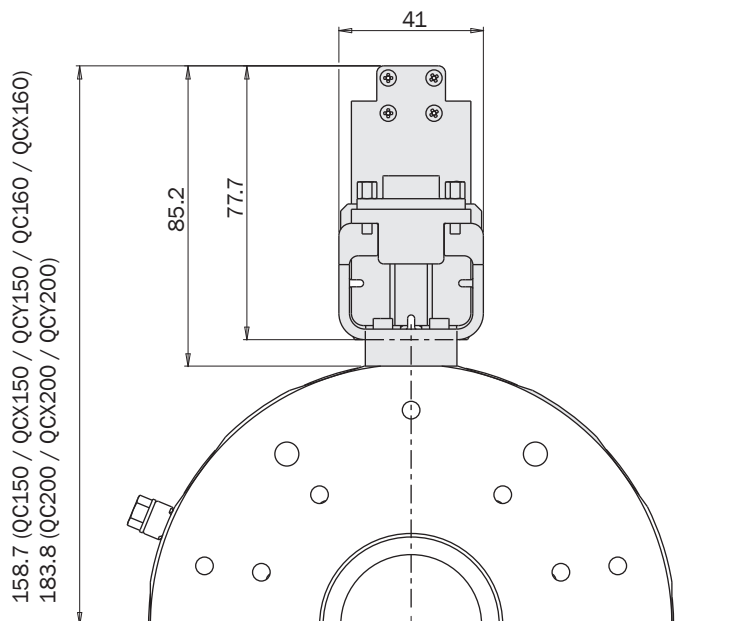
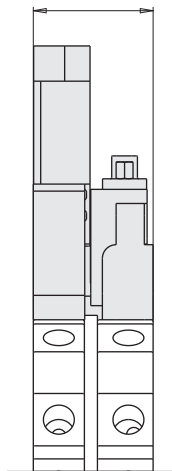
CQC-019 (lato robot).
CQC-013 (lato pinza).

Mounting bracket

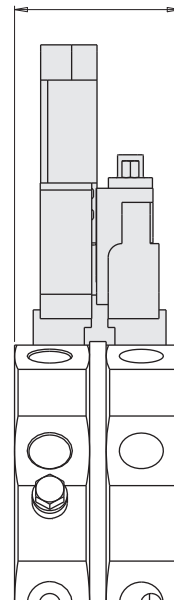
CQC-019 (robot side).
CQC-013 (gripper side).



34 (QC90 / QCY90)
48.5 (QCX90)



47 (QC150 / QCY150 / QC160)
68.3 (QCX150 / QCX160)
55.7 (QC200 / QCY200)
80.7 (QCX200)



AQC

Attuatore pneumatico per cambia utensile QC

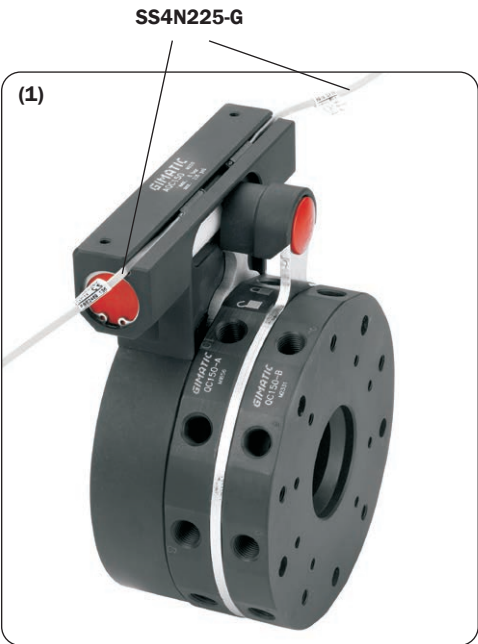
- Aiuta l'operatore in fase di rimozione manuale, quando l'accesso alla maniglia è reso difficile dall'ingombro dell'EOAT.
- Sensori opzionali tipo SS-G per la posizione del pistone (1) e sensori opzionali tipo SI4 per la prossimità del lato pinza QC...-B (2).
- Compatibile con QC90-A e QC150-A senza LOQC (3).

AQC

Pneumatic actuator for quick changer QC

- It assists in the manual operator removal process of large sized EOAT which can sometimes limit access to QC Lock Lever.
- Optional sensors series SS-G to detect the piston position (1) and optional sensors series SI4 to detect the proximity of the QC...-B gripper side (2).
- Compatible with QC90-A and QC150-A without LOQC (3).

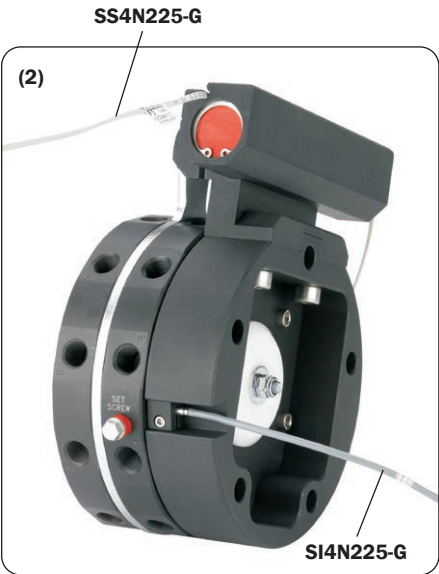
	AQC90	AQC150
Peso Weight	560 g	1480 g



AQC90

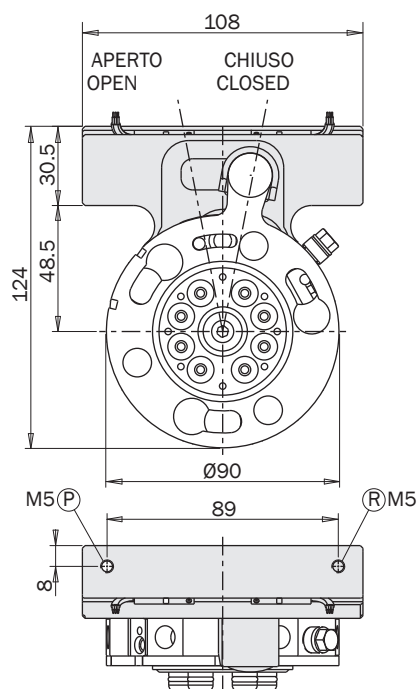
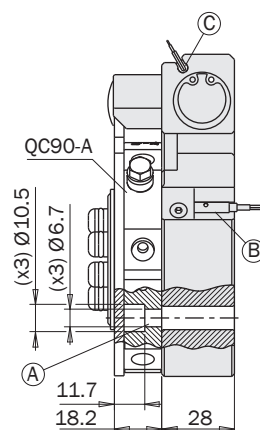
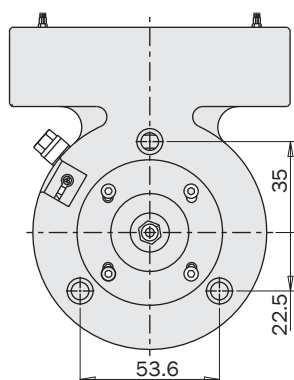


AQC150



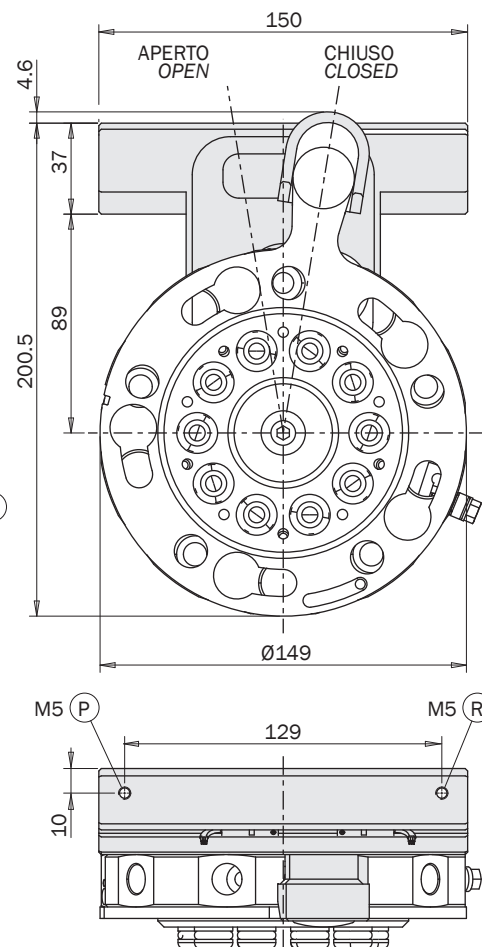
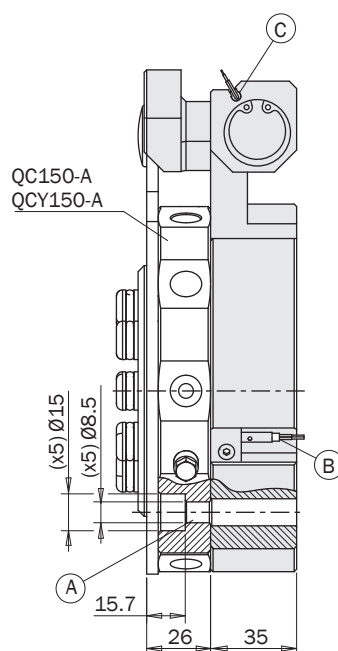
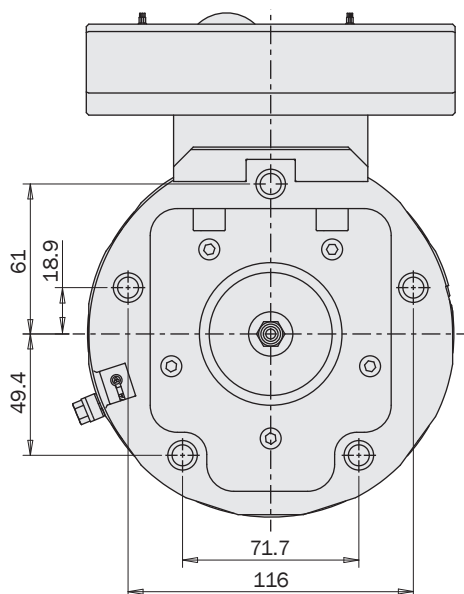
Dimensioni (mm) Dimensions (mm)

AQC90



- (A) Foro passante per il fissaggio sul polso del robot
Through hole for fastening to the robot wrist
- (B) Sensore induttivo presenza QC...-B
Inductive sensor for QC...-B presence detection
- (C) Sede per sensori serie SS
Slot for SS series sensors

AQC150



- (P) Ingresso aria compressa: CHIUSO
Compressed air connection: CLOSED
- (R) Ingresso aria compressa: APERTO
Compressed air connection: OPEN

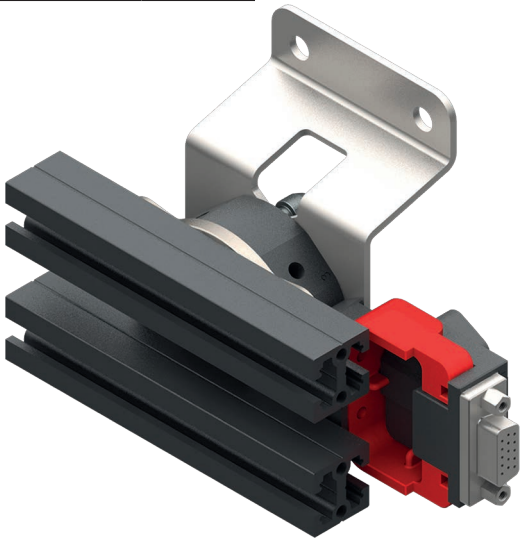


Magazzino per QC50-B

QC50-B Storage

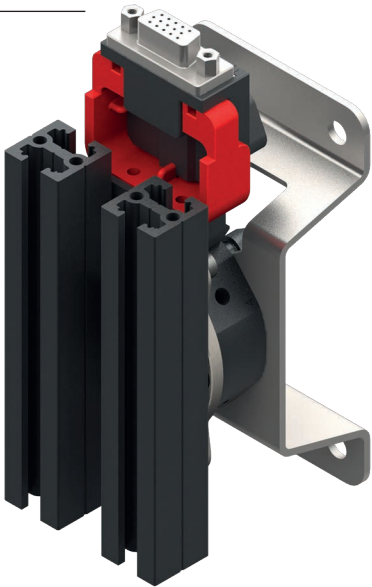
QC50-H

Peso	122 g
Weight	

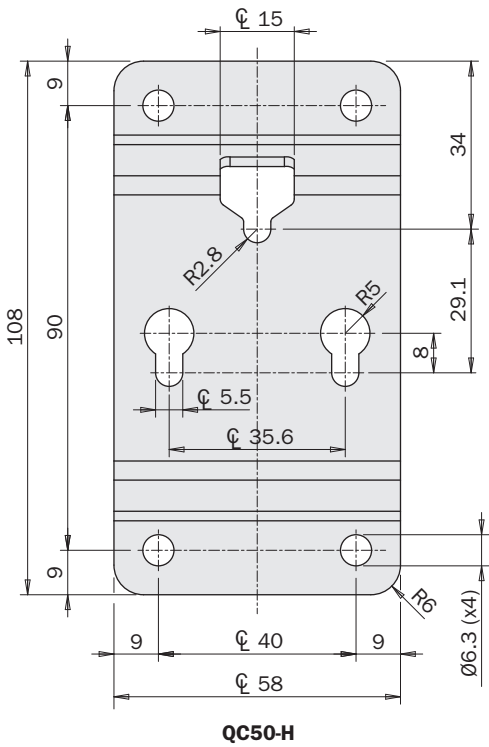


QC50-V

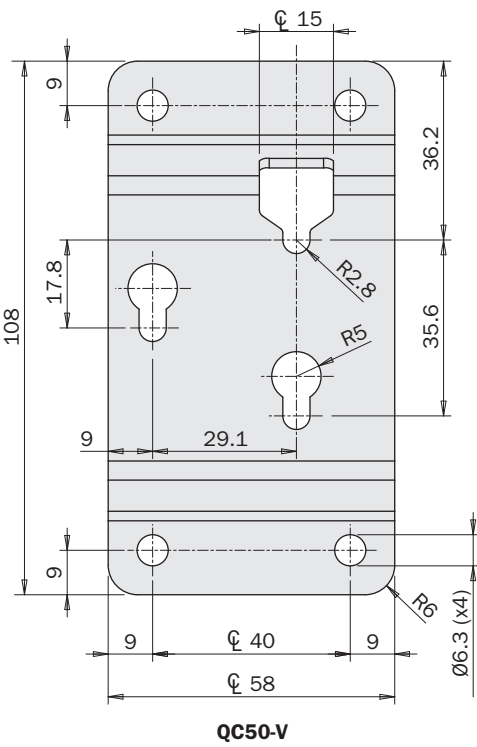
Peso	122 g
Weight	



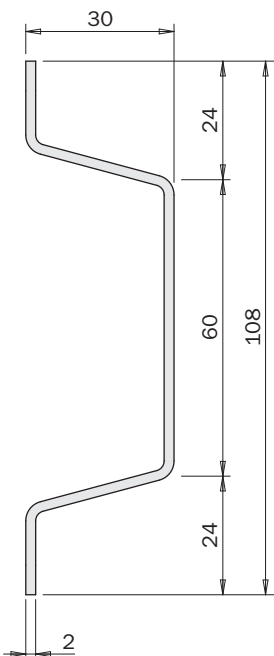
Dimensioni (mm)
Dimensions (mm)



QC50-H

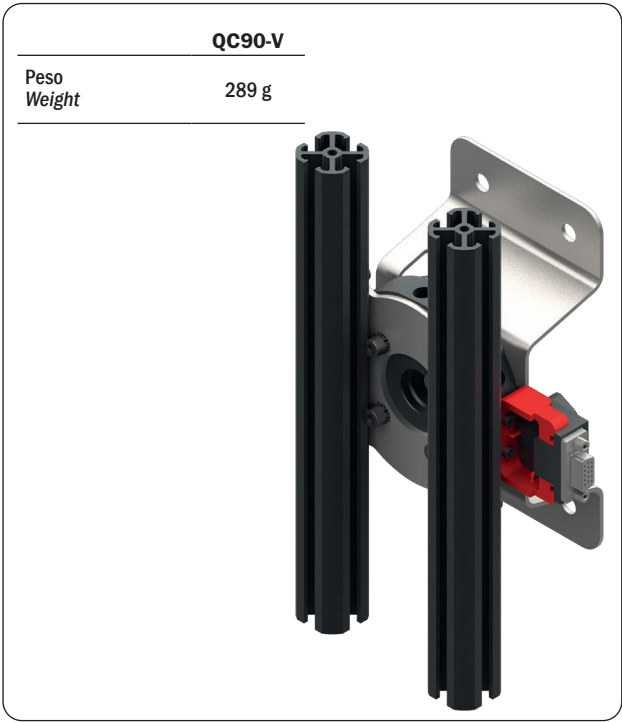
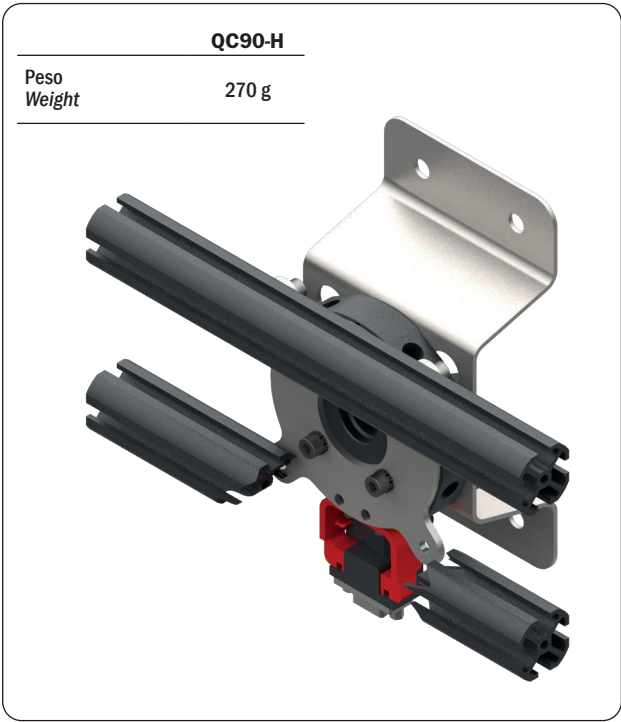


QC50-V

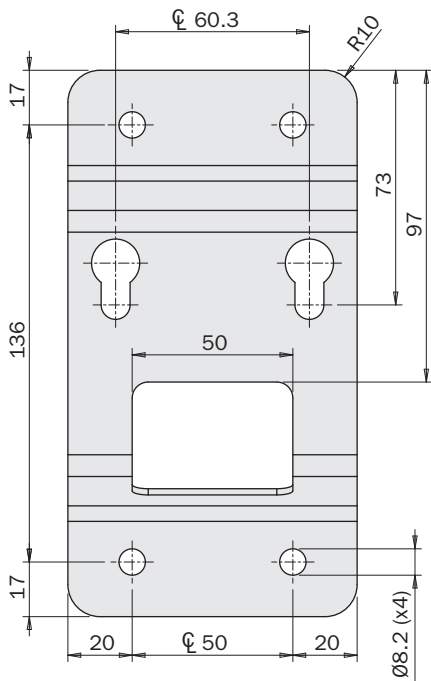


Magazzino per QC90-B

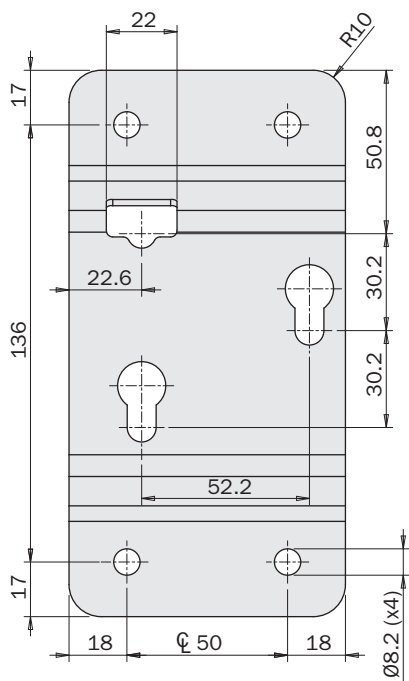
QC90-B Storage



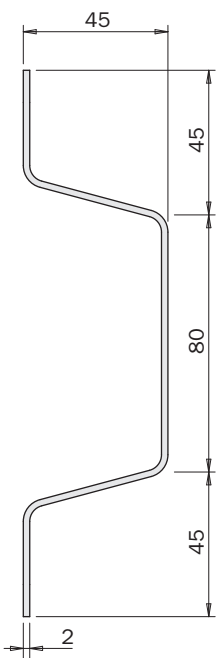
Dimensioni (mm)
Dimensions (mm)



QC90-H



QC90-V

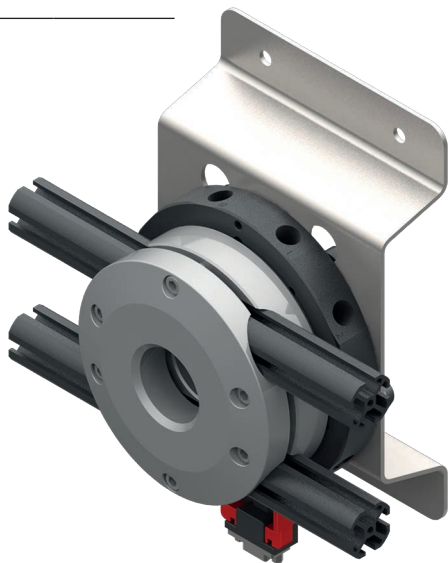


Magazzino per QC150-B/QC160-B

QC150-B/QC160-B Storage

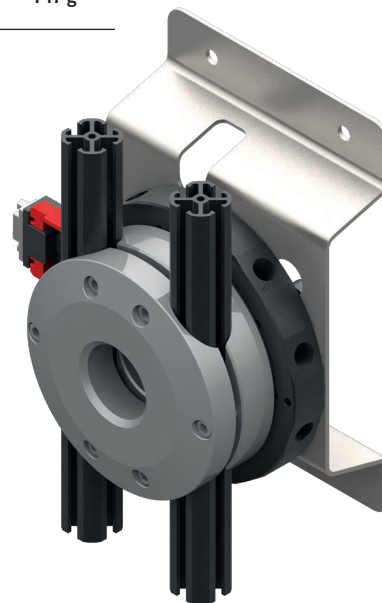
QC150-H

Peso
Weight 752 g

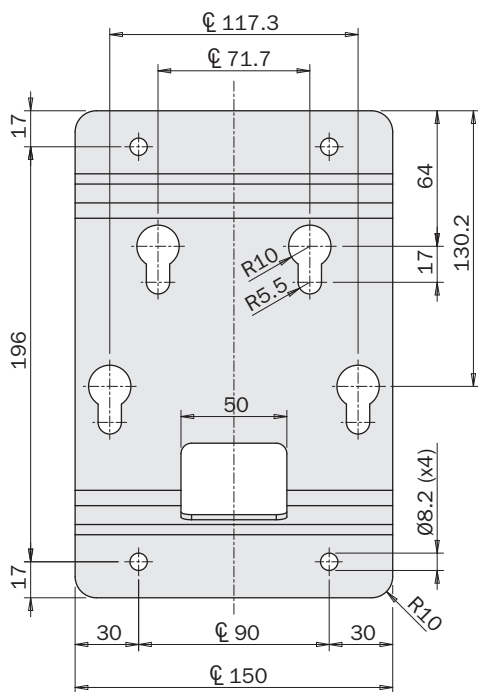


QC150-V

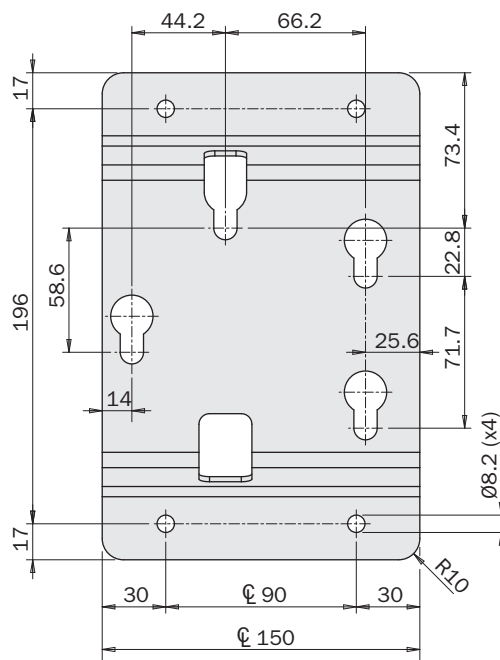
Peso
Weight 747 g



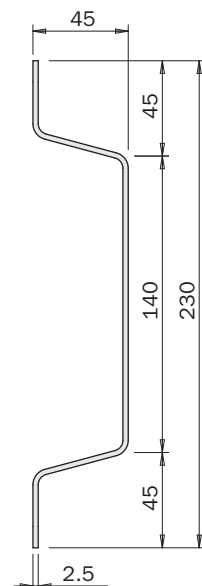
Dimensioni (mm) Dimensions (mm)



QC150-H

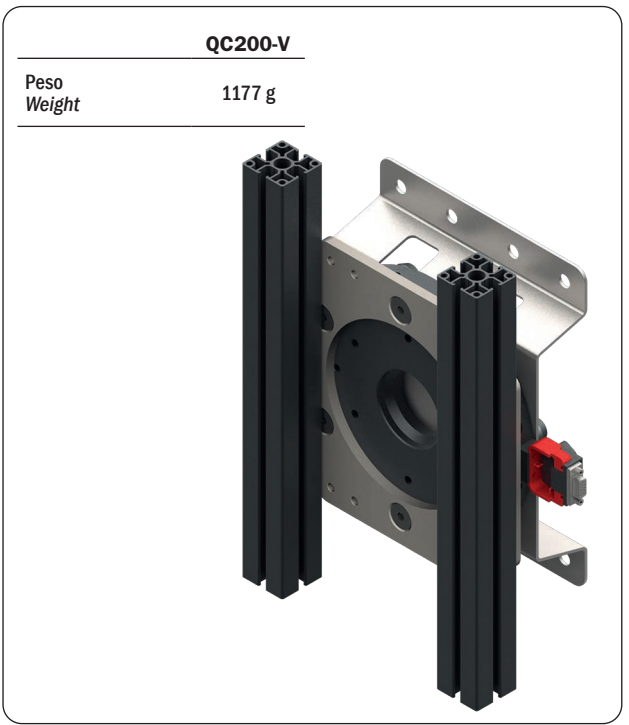
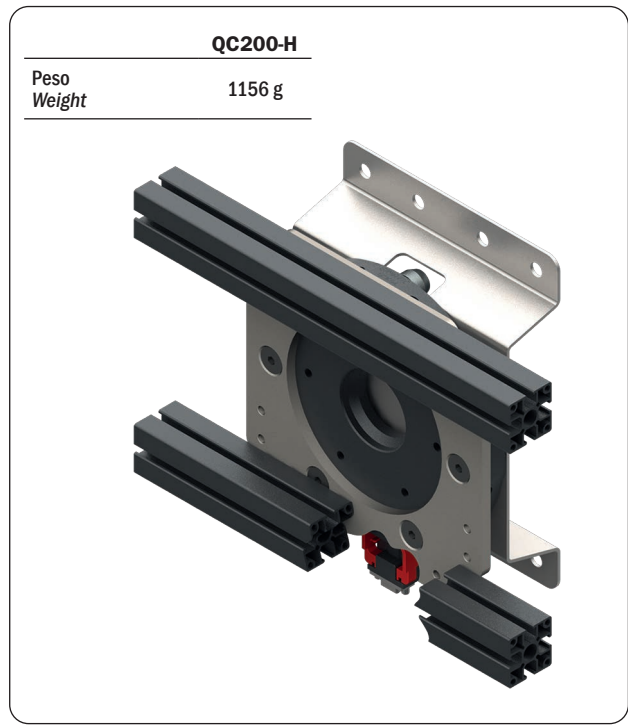


QC150-V



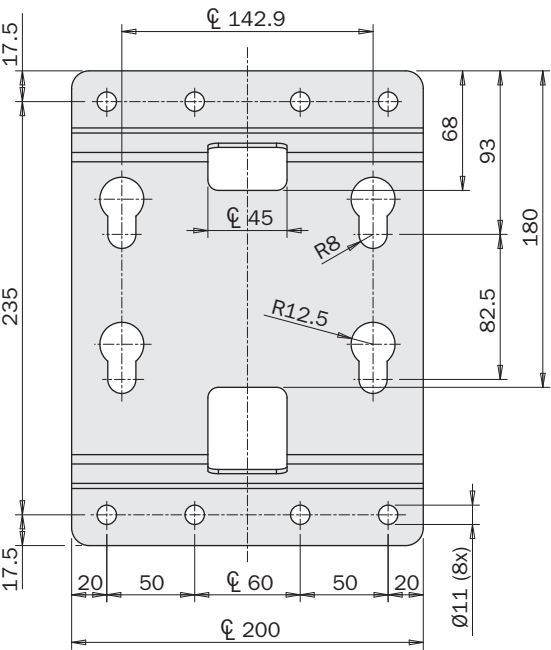
Magazzino per QC200-B

QC200-B Storage

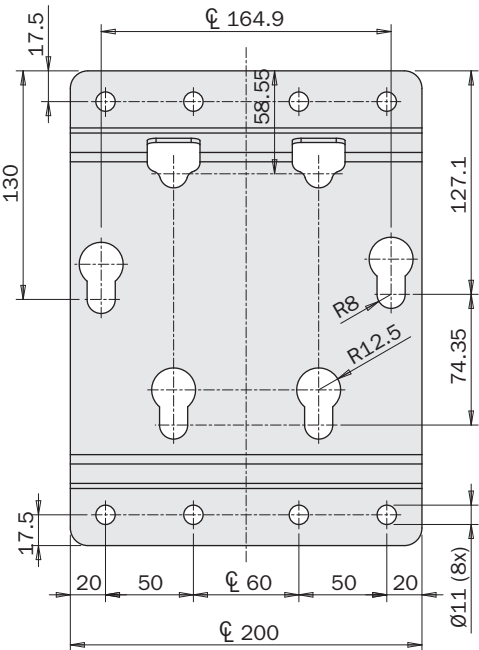


Dimensioni (mm)
Dimensions (mm)

FIRST ANGLE
PROJECTION



QC200-H



QC200-V

