

ACCESSORIES

BALANCERS - BALANCING ARMS
AUXILIARY GRIPS
TELESCOPIC REACTION ARMS
CARTESIAN ARMS

Accessories for ergonomic workplace

- Balancers - Balancing arms
- Auxiliary grips
- Telescopic reaction arms
- Cartesian arms

Fiam®
PEOPLE AND SOLUTIONS

Be demanding

Don't be satisfied
with the maximum

Perfection is
in your hands

Naturally
innovative

FIAM ACCESSORIES. A VALUABLE CHOICE

Fiam accessories represent a 'valuable choice' because they are designed and built to guarantee **long life, great reliability and the best performances** of the air and electric tools.

These advantages results in less maintenance and repair costs and a considerable increase of the **efficiency of the productive cycles**.

Alike all Fiam solutions, accessories **respect ergonomic criterias and maximum operator's safety**; they are designed with great attention to **environment safeguard**.

Available in customized version based on the customer's requirements, they are able to satisfy every customer's need.

Selection of tool, accessory and compliance with correct way of use are the factors that highly contribute in warranting "job quality"; by means of an ergonomic workplace design: an essential base of worker health, productivity and finished product quality.

FIAM SERVICE: ALWAYS CLOSE TO ITS CUSTOMER

Fiam, together with its solutions, offers a wide range of **services in order to optimize, in terms of safety and ergonomics, the productive processes of its customers**: from the choice of the tools and the accessories to the suggestions about correct operator's posture and the correct use of ergonomic tools.

For all further details, please apply to Fiam Technical Consultancy Service.



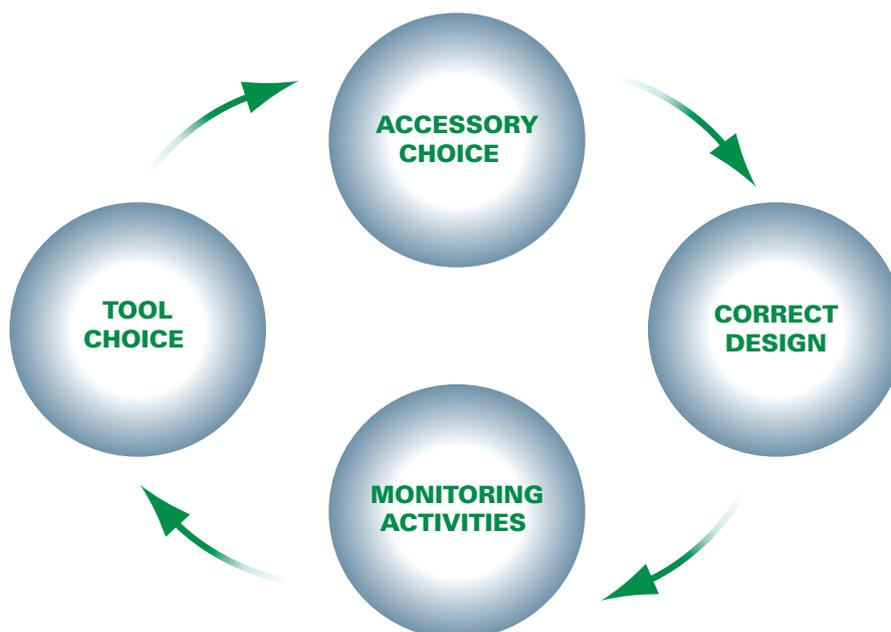
Ergotech project
Having full knowledge of the ergonomics needs and of the safety of the operator, Fiam optimizes the performances of its tools and offers consulting and qualified training for the correct use

Accessories for ergonomic workplaces

In order to improve productivity and product quality safeguarding operator health, it is strategically important to design the **workplace in a ergonomic and rational way**. To do that, parts to be **assembled and tools to be used must be easy to collect and handle**.

Many factors have to be considered in order to design an ergonomic workplace, namely:

- **Using last generation tools** which phase out from the beginning operator's risk factors. They have to be identified in accordance with junction type, fastener type, operator's position at workplace (sitting or standing)
- **Use of accessories** that, according to their combination, **can solve specific logistic and productive needs**. Accessories need to be specified according to tool type, type and dimensions of workplace, type and dimensions of workpiece.
- **Accurate design of workplace which has to consider ideal geometry and encumbrances in order to improve operator's comfort**, reducing his fatigue. As an example you have to consider the application and operator's position (if vertical, horizontal)
- **Check how tools and accessories are used by the operators**. Monitoring activities are often essential aiming to optimize productivity while avoiding risky situations for the operators.

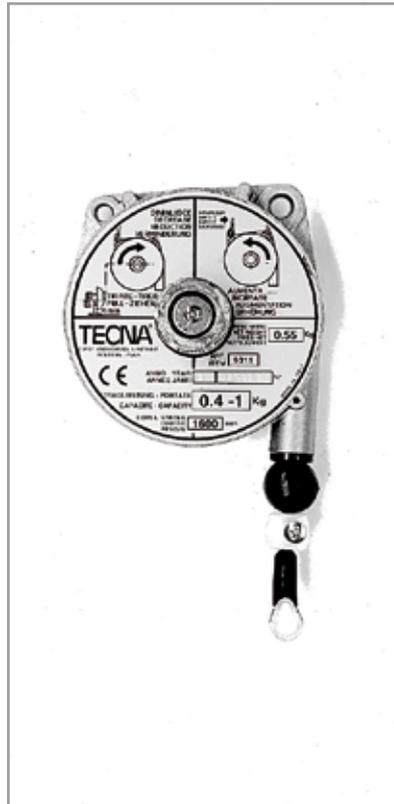


BALANCER

This suspension device for tools allows the operators:

- **working safely** (tools and accessories suspended in a bad way may hit the operator) **and comfortably**, eliminating any effort to lift the tool
- **keeping a good wrist position**

The system guarantees at the same time the **maximum care of the tool and higher productivity**



Capacity Kg	Cable length	
min - max	mm	Code
0,4 ÷ 1	1600	690011160
1 ÷ 2	1600	690021160
2 ÷ 4	2000	690041200
4 ÷ 6	2000	690061200
6 ÷ 8	2000	690081200
8 ÷ 10	2500	690101250



ERGONOMIC NOTE

To improve balancers effectiveness it is wise to select them based on tools weight, furthermore their force has to be properly adjusted.

BALANCER WITH BUILT-IN SUPPLY

Indicated to **support and to feed at the same time** air tools.

The balancer is **provided with a hose that can be connected to the main air feed** so that the tool is directly supplied.



Capacity Kg	Cable length	Male coupling	
min - max	mm	Type	Code
1,2 ÷ 2,5	1350	1/4" gas	691021202



ERGONOMIC NOTE

Due to its characteristics this suspension device optimizes workplace logistically, eliminating encumbrances of air hoses.

AUXILIARY GRIP

When carrying out **more than one assembly cycle** or when the **torques are higher than 4Nm** (straight tools) or **than 10 Nm** (pistol tools), it is recommended to use an auxiliary grip which permits a reduction of the **torque reaction dividing work load on both hands** (EN 792-6 standard). For more information please contact **Fiam Technical Consultancy Service**.



ERGONOMIC NOTE

The reaction on operator's hand (torque reaction) causes:

- Rapid changes of wrist position
- Excessive force use
- Gesture quickness

These factors can generate overload muscles and tendons.

ø internal (mm)	For screwdriver series	Code
36	CSE...P, CDE...P	681041200
40	26C	681041240
43	CY...P	681041011
46	CY...	681041002



TOOL HOLSTER

Practical holster **to be fixed to the work bench** in order to house **pistol tools**.

This indispensable adjustable accessory **manufactured in a sturdy resin, avoids** damage to the tools by guaranteeing a **longer life** in time. The holster is also è **extremely versatile** since inside it has a removable adapter so that it can be used for a large number of tools.



ERGONOMIC NOTE

The tool holster, fixed to the work bench, permits a fast and immediate tool's hold and avoids excessive movements of the arms reducing the fatigue.

Moreover it avoids the curve of the supply hoses which could compromise the perfect tool's functionality.

Model	Ø tool - mm	Code
FP-43-24	from 32 up to 42,5	681010100

BA20 BALANCING ARM – up to 20Nm

This balancing arm can be used with air and electric screwdrivers, drills, tappers, riveting machines, etc. with **diameters varying from 25 to 50 mm** and with a **maximum of 20 Nm tightening torque**.

The BA20 balancing arm ensures **very high precision work** since the tool is kept perfectly perpendicular to the piece being assembled: therefore it avoids any accidental **damages** to the materials for a **higher quality of the finished product**.

Work can also be carried out horizontally or on two axes at the same time, simply by choosing the specific adapter.

The arm with standard springs **can support up to 2 kg. weight**; to support a weight up to 2.5 kg., the standard springs must be replaced with the reinforced ones.





ERGONOMIC NOTE

These mechanical devices eliminate torque reaction on operator's hand, eliminate the force required to support the tool, eliminate the vibrations, allow the maintenance of a good wrist position, permit to change the hold using both hands.

Model	Code
BA20 balancing arm	692031009

Standard equipment
<ul style="list-style-type: none"> Reinforced spring code 692059010 Bench base plate Eco-friendly packaging

Technical features	
Max. work range	850 mm
Min. work range	520 mm
Max. torque	20 Nm
Max. load (with standard springs)	2 kg
Max. load (with reinforced springs)	2,5 kg
Max. rotation angle	360°
Ø max. tool	from 25 to 50 mm

Adapters for BA20 available upon request (to be ordered separately)

• Adapters to work on the vertical axis

Adapter	Code	Ø internal adjustable mm
AD 25/40	692059008	25÷40
AD 40/50	692059009	40÷50



• Adapter to work on the horizontal axis

Adapter	Code	Ø internal mm
AD 36	692059014	36



• Adapter to work on two axis

Adapter	Code	Ø internal mm
AD 36/2AX	692059015	36



For adapters with different diameter, please contact Fiam Technical Consultancy Service

BA50 BALANCING ARM – up to 50Nm

This balancing arm can be used with screwdrivers (air and electric), drills, tappers, riveting machines, etc. with **diameters varying from 25 to 50 mm and with a maximum of 50 Nm tightening torque.**

This system guarantees **extreme working precision** because the tool is kept perfectly perpendicular to the piece being assembled: therefore it avoids any accidental **damages** to the materials for a **higher quality of the assembled product.**

The BA50 balancing arm with standard springs **can support from 0,7 to 2kg weight**; if it is necessary to fit a heavier tool (weighing up to a maximum of 4 Kg.) special reinforced springs are available upon request.





NOTE ERGONOMIC

These mechanical devices eliminate the reaction on wrist-hand-shoulder system of the operator, eliminate the force required to support the tool, eliminate the vibrations, allow the maintenance of a good wrist position, permit to change the hold using both hands.

Model	Code
BA50 balancing arm	692031008

Technical features	
Max. work range	1000 mm
Min. work range	630 mm
Max. torque	50 Nm
Max. load (with standard springs)	2 kg
Max. load (with reinforced springs)	4 kg
Max. rotation angle	360°
Ø max. tool	50 mm

Standard equipment (supplied with balancing arm)

- Adjustable adapter
- Bench base plate
- Eco-friendly packaging

Accessories available upon request

- To support tools of up to 4 Kg. max. it is necessary to order 2 reinforced springs (cod. 692059022)

For balancing arm that must support torque of more than 50 Nm or weights of more than 4 Kg., please contact **Fiam Technical Consultancy Service**

BT TELESCOPIC REACTION ARMS IN CARBON FIBRE

These armstands can be used **with every type of tool** (screwdrivers/nutrunners, drills, tappers) since **extremely resistant to any mechanical stress** thus guaranteeing reliability and long life span, thanks to accurate manufacturing process and to their innovative materials. They are equipped with **3 telescopic elements** and **double terminal coupling** to guarantee high handiness and manouvability. They can be **easily installed** on existing workplaces on ceiling or wall using a simple plate with reduced dimensions.



NOTE ERGONOMIC

They eliminate reaction on operator's hand: BT telescopic reaction arms reduce torque reaction on operator's hand.

Telescopic reaction arm		Max torque	Max work range	Min work range	Ø max tool
Model	Code	Nm	mm	mm	mm
Telescopic arm BT 12	692071120	12	1125	515	25 - 46
Telescopic arm BT 12 L	692071121	12	1700	650	25 - 46
Telescopic arm BT 25	692071250	25	1150	540	25 - 46
Telescopic arm BT 25 L	692071251	25	1700	670	25 - 46
Telescopic arm BT 40	692071400	40	1350	635	25 - 46

Standard equipment (supplied with arm)

- 3 kits of screws with different lengths to install tools with different diameter from 25 up to 46 mm
- Eco-friendly packaging
- Use and maintenance manual

- **Wide Operating Area**
- **Wide rotation of the tool around its axis**



BC CARTESIAN ARMS

New solution for ergonomic workplace entirely **designed and manufactured by Fiam**; it can be used with **every type of tool** with diameter up to 50 mm and weight up to 7 Kg thanks to universal clamp.

Column of vertical and horizontal axis has been made of **tempered and chrome steel** for longer lifespan while their movements **running on ball recirculating runners** guarantee smoothness, handiness and accuracy.

New **geometries** allow **solidity, stability** and **flexibility** both in **extension** over its entire height and in **the rotation at 360°**. All these operations take place without arm swings.

Other advantages in terms of **handiness** for operator are the possibility to **adjust the horizontal axis** to favour the return of tool at initial position and its **easy position adjustment** in **continuous mode**: this is made without disassembling components, by loosening and re-tightening screws in the new position.

For further information, contact the **Fiam Technical Consultancy Service**.



ERGONOMIC NOTE

These new efficacious mechanical devices permit operations requiring the use of screwdrivers, tappers and drills to be ergonomic thus significantly reducing operator effort since:

- they eliminate any counterblow action on the operators hands;
- they eliminate the need for force in holding the tool;
- they drastically reduce or eliminate vibrations;
- they allow the maintenance of a good wrist position.

BC CARTESIAN ARMS

Wide operating area



Rotation at 360°



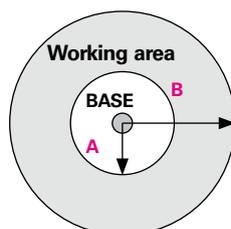
Lateral extension up to 775 mm



Technical features

Max. working radius	775 mm
Min. working radius	120 mm
Max. torque	40 Nm
Max. load	1 - 7 kg
Max. angle of rotation	360°
Min./Max. tool diameter	32-50 mm
Vertical stroke	850 mm
Horizontal stroke	320 mm
Max. height	1100 mm
Max. width	550 mm
Packaging weight	2.2 kg

Cartesian arm		Max torque	Max. working radius (B)	Min. working radius (A)	Max. tool diameter	Weight
Model	Code	Nm	mm	mm	mm	kg
Cartesian arm BC12	692031020	12	775	180	32 - 50	8,5
Cartesian arm BC25	692031021	25	770	175	32 - 50	9,5
Cartesian arm BC40	692031022	40	770	120	32 - 50	17,5
Cartesian arm BC40/7	692031023	40	770	120	32 - 50	17,5



A = Min. working radius
B = Max. working radius

Standard equipment (supplied with the arm)

- 2 balancers
- Protective cover
- Instructions for assembly and use
- Eco-friendly packaging

Accessories available upon request

- Models for tools weighing more than 7 Kg.: for further information, contact the Fiam Technical Consultancy Service.

Double balancer supplied with

Two balancers are available to **support the tool** (weight up to 7 Kg.) and other hanging elements (models for heavier tools are available upon request)

Sturdy vertical column

Its increased diameter **avoids any swings**

Ball recirculating runners

Vertical and horizontal movements **running on ball recirculating runners** to guarantee smoothness, handiness and accuracy

Protective cover

It **avoids operator's hands injuries** in case of accidental movements

Robust structure

Column of vertical and horizontal axis made of **tempered and chrome steel** for longer lifespan

Base plate

Stable drilled base plate designed to **prevent swinging risk**

Return of the tool

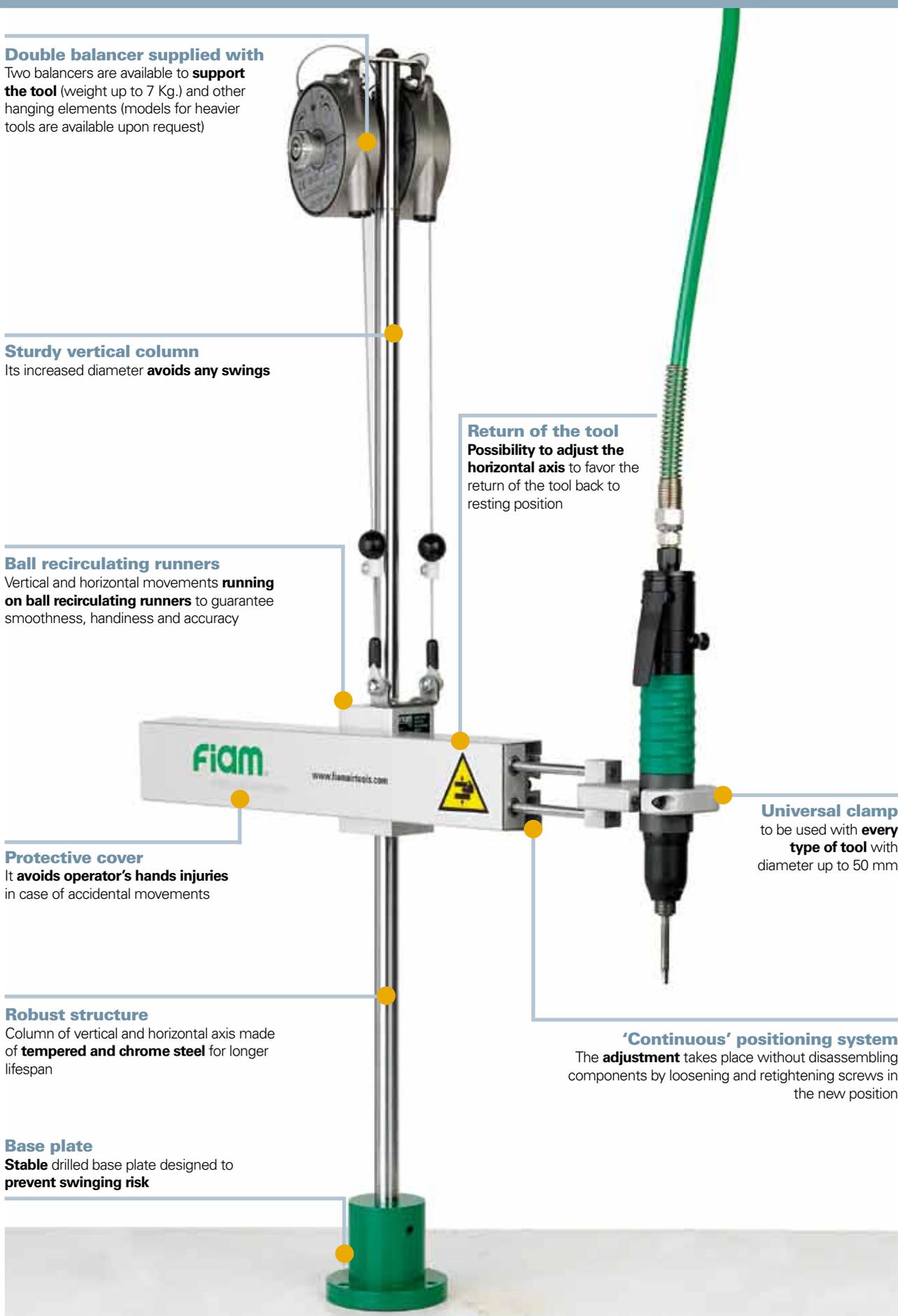
Possibility to adjust the horizontal axis to favor the return of the tool back to resting position

Universal clamp

to be used with **every type of tool** with diameter up to 50 mm

'Continuous' positioning system

The **adjustment** takes place without disassembling components by loosening and retightening screws in the new position



GETTING ACQUAINTED WITH SAFETY



Ask immediately

- the **CD-ROM** intended for work station designers as well as and field managers
- the **BOOKLET WORKERS**

To be used when carrying out training courses as foreseen by the European Norm