



**Reliability and accuracy.
Fiam guarantee in every
tightening operation.**

**Air angle nutrunners
A...RSA1, A...RYA, AD...RA1, AG...RA, 50C**

- Torque range: from 2,5 up to 145 Nm
- Automatic air shut-off

Fiam

PEOPLE AND SOLUTIONS

Air angle nutrunners

A...RSA1, A...RYA, AD...RA1, AG...RA, 50C

Tightening in presence of limited space and where access is difficult.

Particularly suitable for motorvehicle industry and household appliances, angle nutrunners with 90° angle head and flat transmission are indispensable when space is limited and where access is difficult, such as up against walls, close to metal sections and profiled beams, etc.

Main features are:

- **robust angle heads to guarantee long lifetime**
- **high torque accuracy**
- **great attention to ergonomics.**

Moreover the new 50C models permit to tighten torques up to 145 Nm and to solve with very high precision heavy tightening operations, as for example the assembly of convector heaters, hydraulic pumps with great dimensions or in the MVI industry.



Be demanding

Reliability

Long lifetime of the components thanks to careful design and to quality of the productive process which results in less maintenance and repair costs

The **torque control system** (with instant automatic air shut-off) considerably **improves the repeatability of torque** on all types of joints thanks to its **dynamic absorption** system of the kinetic energy generated by rotation

The inner kinematic parts guarantee **constant performances and long tool life**

Robust control top, obtained by mechanic working, guarantees high resistance to hits and long lifetime

These nutrunners are in compliance with **ISO 9000** environments

High tightening precision of the new 50C nutrunners: CM/CMK values are extremely high; therefore these two new models can be used where **great tightening accuracy is required** also with high torques, particularly in the motorvehicle fields

The **angle heads** of the new 50C nutrunners are **extremely compact** to tighten where access is difficult. They are designed and built with **innovative materials** to ensure high wear resistance (and therefore they need less maintenance)



AG40RA

Cm= indicator of the machine (nutrunner) repeatability during operation

CmK= indicator of the machine (nutrunner) accuracy during operation

When the indicator refers to a nutrunner, the repeatability represents the nutrunner capability to generate the same torque value in every cycle, while the accuracy represents the nutrunner capability to respect the pre-set torque value.

Don't be satisfied with the maximum

Productivity

Considerable increase of the efficiency of the tightening cycle thanks to innovative systems

The **torque control system** (with instant automatic air shut-off) **improves the quality of the tightening process**, and consequently that of the **finished product**

The torque control system **reduces the need to perform quality controls at the end of assembly**

The high performance of the air motor and the kinematic chain supply **optimum tightening speeds, reducing the time/cycle**

The cycle end acoustic signal emitted by the tightening torque control system advises the operator of the end of tightening: so he can **pass on to the next tightening cycle more rapidly**

The new 50C models offer an excellent ratio **between speed and expressed torque** guaranteeing an accurate precision



Perfection is
in your hands

Ergonomics

Optimization of the tool performances in regard to ergonomics and operator safety

The AD...RA1,50C and AG models have a **rotating cursor** for the adjustment of the clutch, practical, easy and safe with a comfortable "stroke-end click"

The **longer ergonomic start lever**, permits a more comfortable and easy grip nearly all along the length of the nutrunner to guarantee the operator's comfort

The torque control system reduces the reaction to the operator's hand. Thanks to the careful study of the internal gears, **the vibration levels are below 2,5 m/s²**

The **antislip varnishing**, which is a feature of the start lever of AD and AG nutrunners, makes it more comfortable and longer lasting



Effective built-in silencing system: these nutrunners are extremely noiseless and are equipped with a controlled spread of the exhaust air

The new 50C models are particularly versatile and handy thanks to the ideal **weight to power ratio**

The new 50C models are **among the most compact tools on the market** thanks to the very good **dimensions ratio** (length/diameter/head dimension)



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 of the nutrunners

Naturally
innovative

Ecology

Innovative systems designed paying even more attention with respect to environment and of its safeguard

All the components are **easy to dispose of** because they are built **using recyclable materials**; therefore they do not represent any danger for environmental pollution

The technological design of the air motor, besides **reducing the consumption of compressed air** permits to improve the performances also at low air feed pressure. Particularly the new 50C models have the **lowest consumptions among the corresponding range of product of our competitors**

All Fiam products are supplied with **eco-friendly packaging**

The possibility of using non lubricated air **eliminates the emission of oil fog** into the environment



Rotating cursor for the adjustment of the clutch



Ergonomic start lever

Type of nutrunner		Grip	Tightening torque on soft joint		Idle speed	Starting system	Reversibility	Weight		Air consumption		Noise level *	Vibrations
Model	Code		Type	Min Nm				Max in lb	Kg	lb	l/s		
A6RSA1	114893924	Flat	3,5 ÷ 11,5	30,975 ÷ 101,775	600			1,700	3,74	9	F 1/4"	82	< 2,5
A10RYA	116300012	Flat	12 ÷ 33	106,2 ÷ 292,05	250			2,750	6,05	9	F 14 mm	82	< 2,5
AD6RA1	114893986	90°	2,5 ÷ 6	22,125 ÷ 53,1	1150			1,200	2,64	10	M 3/8"	77	< 2,5
AD9RA1	114893989	90°	2,5 ÷ 9	22,125 ÷ 79,65	900			1,200	2,64	10	M 3/8"	77	< 2,5
AD14RA1	114893994	90°	3 ÷ 14	26,55 ÷ 123,9	600			1,400	3,08	10	M 3/8"	77	< 2,5
AD26RA1	114893996	90°	11,5 ÷ 26	101,775 ÷ 230,1	350			1,450	3,19	10	M 3/8"	77	< 2,5
AG40RA	114893975	90°	18 ÷ 40	159,3 ÷ 354	400			2,050	4,51	13	M 3/8"	80	< 2,5
AG60RA	114893980	90°	29 ÷ 60	256,65 ÷ 531	300			2,300	5,06	13	M 1/2"	80	< 2,5
50C95A90	112694400	90°	43 ÷ 95	380,55 ÷ 840,75	200			2,700	5,94	15	M 1/2"	81	< 2,5
50C145A90	112694401	90°	68 ÷ 145	601,8 ÷ 1283,25	120			3,400	7,48	15	M 1/2"	81	< 2,5

Legend



Reversibility: all models are suitable for tightening and untightening operations. The A10RYA model is reversed by using either the bottom hexagonal drive (right-hand rotation) or top hexagonal drive (left-hand rotation). The 50C models can be reversed by sliding the ring nut placed below the start lever.

- The figures shown are measured at a pressure of 6,3 bar (ISO 2787), the recommended operating pressure.
- The tightening torque values have been measured in accordance with ISO 5393 standard.
- Noise level has been measured in accordance with ISO 3744 and ISO 15744 standards.
- * Additional factor: 3 dBA spread in method and production (ISO 15744).
- Vibrations level have been measured in accordance with ISO 8662-1 and ISO 8662-7 standard.
- Accessory drive: female hexagonal drive 1/4", 6,35 mm (ISO 1173), female hexagonal 14 mm, male square drive (ISO 1174-1).
- The code number must be used when ordering.

The data given in the table are indicative and can be changed without prior notice. The torque values are purely indicative and may be influenced by the softness of the type of joint, by the type and length of the screw, by the pressure and quantity of air supply, and by the type of accessory used. The values indicated for noise and vibration levels were obtained in the laboratory, performing tests that comply with the standards stated, but alone are not sufficient for calculating risks. Values measured in the single work places may be higher than those stated. The values of actual exposure and consequent risks are specific and depend on the operator's method of work, the type of work piece and the work place, as well as the operator's time of exposure and his physical conditions. Fiam cannot be held responsible for any consequences deriving from the use of the information in the table when evaluating risks in the work place over which Fiam has no control. For all further details, please apply to the Fiam Technical Consultancy Service.

Lever start

Other technical features

Models	Air inlet	Recommended hose bore
AD...RA1, A6RSA1, A10RYA	1/4" gas	Ø 8 mm
50C	1/4" NPT	Ø 8 mm
AG40RA, AG60RA	1/4" gas	Ø 10 mm

The angle air nutrunners are designed for use with lubricated and unlubricated compressed air

Standard equipment (supplied with the tool)

- Clutch adjustment key
- Hanging ring (except 50C)
- Use and maintenance manual
- Eco-friendly packaging

Accessories available upon request

- Bits, sockets, conveyors, adaptors for inserts, exhaust air conveyors, and other accessories. Please see the "Fiam Accessories" catalogue n.78
- Cartesian arms for ergonomic tightening operations: they eliminate any fatigue in operator's hands and arms. See 'Accessories for ergonomic workplaces' catalogue (nr.79)
- Reaction bar (only for 50C): for mod. 50C145A90 cod. 681041024 for mod. 50C95A90 cod. 681041025
- Swivelling bail ring for models AD, AG, 50C: it is designed to keep the tool always in a horizontal position, perfectly balanced and swivelling allowing a considerable reduction in fatigue during tightening operations. For model AD... code 681011060; for model AG... code 681011055; for models 50C... code 681011100

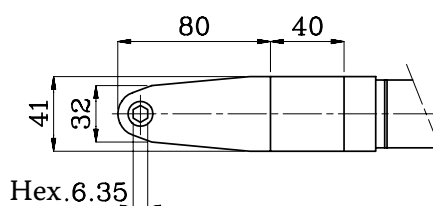
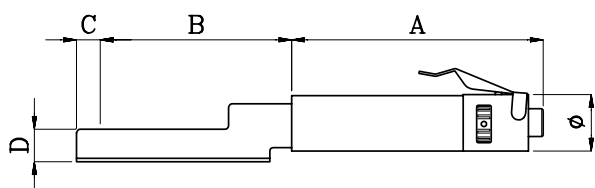


Models available upon request

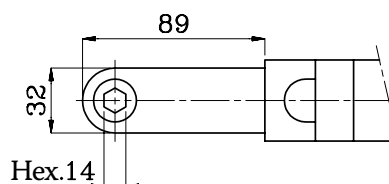
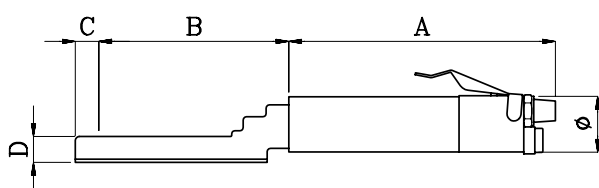
- Models A6RSA1 and A10RYA with **hexagonal head different to the standard** (for A6RSA1 max hex. 7 mm, for A10RYA max hex. 15 mm): to order add the size of the hexagonal required after the code (A6RSA1 → A6RSA1/7; A10RYA → A10RYA/13). The non-standard hexagonal heads are normally used without accessories
- All models (except AD6RA, 1AD9RA1, AG40RA and AG60RA) are available with a **female hexagonal drive for inserts (BITS)**; when ordering, add BITS at the end of the code (e.g. AD26RA1 → AD26RA1- BITS)
- Air angle nutrunners with **built-in torque transducer**
- Models for **torques higher than 145 Nm**. Please apply to the Fiam Technical Consultancy Service

Dimensions (mm)

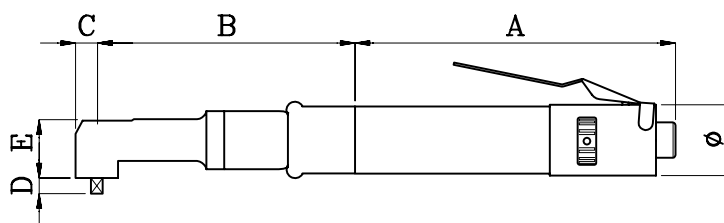
Model	A	B	C	D	Ø
A6RSA1	295	108	12	18	40



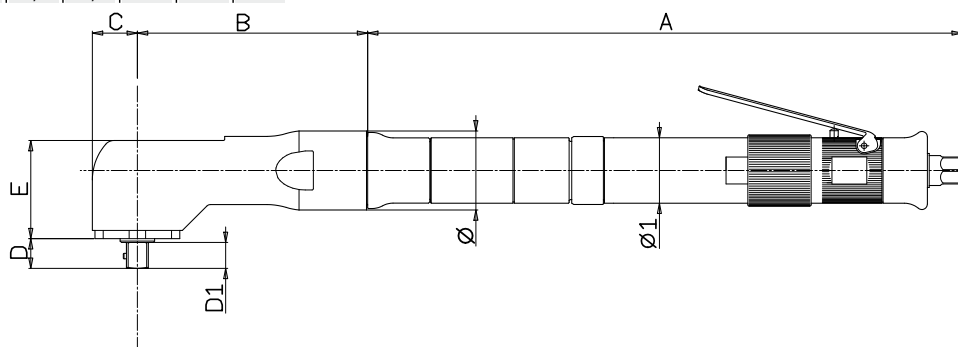
Model	A	B	C	D	Ø
A10RYA	370	134	16	18	46



Models	A	B	C	D	E	Ø
AD6RA1	195	97	12,5	12	30	40
AD9RA1	195	97	12,5	12	30	40
AD14RA1	195	125	14	12	34,5	40
AD26RA1	180	137	14	12	34,5	40
AG40RA	240	163	16	12	40	40
AG60RA	240	178	20	16,5	45,5	40



Models	A	B	C	D	D1	E	Ø	Ø1
50C95A90	347	130	22	17,5	15,5	50	44	38
50C145A90	376	132	26	17,5	15,5	60	46	38



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