

AXXAIR Orbital facing

AXXAIR
INNOVATIVE ORBITAL SOLUTIONS

Tube facing is used on thin tubes with a thickness of less than 3 mm. It consists in bringing into conformity the end of a tube or an accessory.

This conformity acts on three aspects:

the perpendicularity of the face of the tube -
the surface state of the face - potentially a length adjustment.

After the facing process, the face will be perpendicular to the axis of the tube, without burrs, with a low RA and the desired length.

Facing machines are used when the cutting process is not sufficiently precise for the application or when the cutting process generates burrs.

To give an exemple: abrasive cutting disc, band saw or tube cutter.



Tube with small diameters <math>< 25.4 \text{ mm}</math> are particularly concerned by the facing process. They are often cut with tube cutters or abrasive cutting machines. Generally speaking, tube must be faced before welding in order to obtain quality welds.

One category of tube is particularly concerned: electro-polished tube used in semiconductor or pharmaceutical industries.

It is forbidden to scratch the polished surface inside the tubes: the cuts are therefore only done with a cutting wheel. This process does not generate chips but only dust. The result of this cut is not exploitable without a facing operation which unrolls the chip towards the outside of the tube.

FLEXIBILITY, PRODUCTIVITY

Our facing machines operate on battery or corded for more flexibility TIALN blades, reversible with two cutting edges guarantee optimal lifetime of consumables.

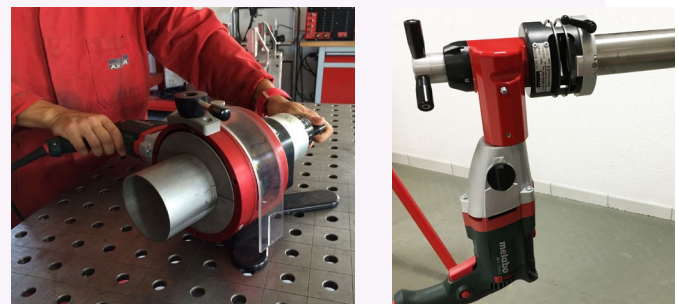
QUALITY

Facing creates a clean and bur-free surface without tube deformation: sharpness and accuracy guaranteed.

Thin tube are therefore ready for welding.

PORTABILITY

Our facing machines are lightweight and designed to be used on site as well as in the workshop.



Please do not hesitate to contact us for all enquiries relating to orbital facing technology.

We will be glad to share our know-how with you and find an adapted solution to your needs!

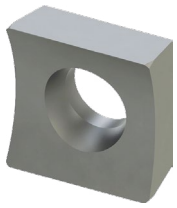


DC25 MA - DC65 MA

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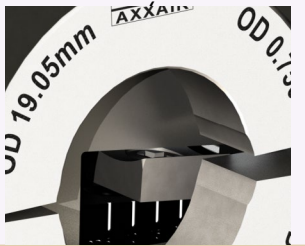
High quality blades

HSS TiAlN blade
Reversible,
two cutting edges



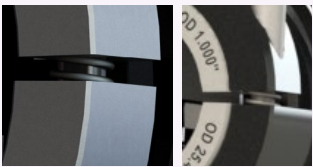
Clamping shells

Stainless steel
molded jaws



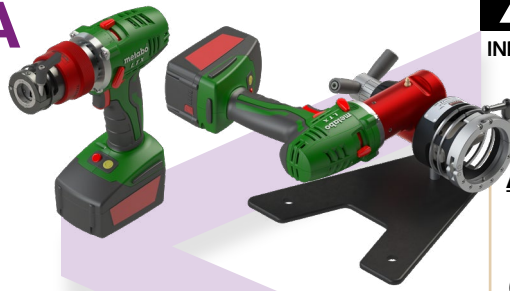
Easy adjustment

Indexable wrist and
wide opening with
spring



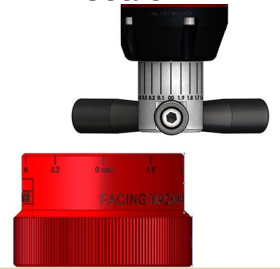
Brushless motor 18V

- 2 mechanical speeds + electric speed variator
- Special handy design
- Work without return shock
- Integrated work lamp
- Comes with two 5.2 AH battery, LiHD technology, maximum autonomy



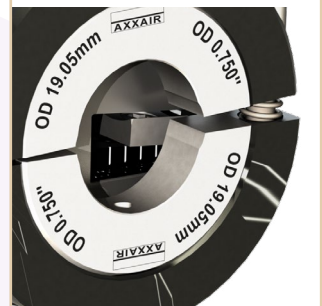
Accurate manual advance

Graduated vernier
scale



Easy set up of the tube

Large opening and
pivot clamping



Delivered in an anti-shock case

Water- and dustproof



Facing range

DC25-MA	ø3 - ø25.4 mm 0.1 - 1"
DC65-MA	ø3 - ø63.5 mm 0.1 - 2.5"



DC25 MA - DC65 MA

Technical characteristics:

Thickness < 3 mm (0,12") according to material

Burr-free tube squaring and edge breaking machine used after a band saw cut or on electro-polished tubes. Ideal tool to face a band saw cut before automatic welding

18 V Drill / Driver motor:

- 220-240 V ~ 50 / 60Hz or 100-120V ~ 60Hz
- High rotation torque
- Rugged reduction housing which allows heat dissipation and optimal durability
- Come with two 18V Li-Power, 5.2 Ah batteries and a fast battery charger
- 2 mechanical speeds + electric speed variator :

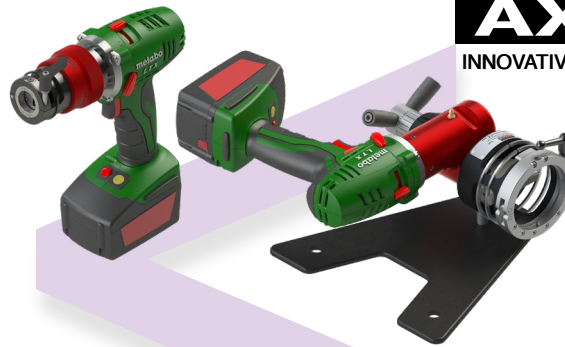
Speed 1 : 0-500 tr/min (rpm)

Speed 2 : 0-1700 tr/min (rpm)

All motors are supplied in their own individual cases, including the necessary tools

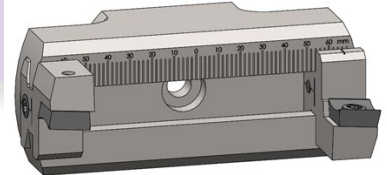
DC25

There are two mounting positions for the blade to cover the range of diameter.



DC65

Adjustment of the tool support by sliding: allows easy adjustment according to diameter and optimization of tool wear.



- 30° and 45° outside bevel possible with optional tool holder
- Facing and bevelling in one operation
- Possibility to use two tools simultaneously

DC65 : Flexible use



	Product Code	Facing machine for the following diameters (mm)	Net weight	Minimal straight length of tube	Dimensions (HxLxI in mm)
120 V Drill / Driver	DC25-MA1	Ø3 - Ø25.4 0.1 - 1"	2.5 kg	With standard jaws : 9mm (0.354") With micro-fit jaws : 5mm (0,196")	285 x 220 x 75
	DC65-MA1	Ø3 - Ø63.5 0.1 - 2.5"	5.5 kg	With standard jaws : 10mm (0,393")	140 x 325 x 250
230 V Drill / Driver	DC25-MA2	Ø3 - Ø25.4 0.1 - 1"	2.5 kg	With standard jaws : 9mm (0.354") With micro-fit jaws : 5mm (0,196")	285 x 220 x 75
	DC65-MA2	Ø3 - Ø63.5 0.1 - 2.5"	5.5 kg	With standard jaws : 10mm (0,393")	140 x 325 x 250



Join experience

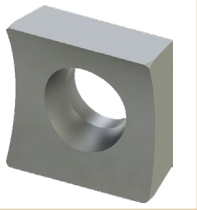


DC25 MS - DC65 MS

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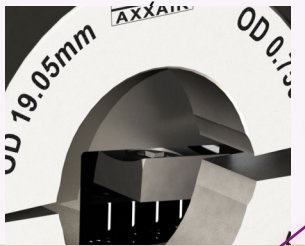
High quality blades

HSS TiAlN blade
Reversible,
two cutting edges



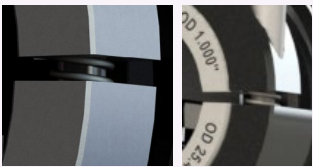
Clamping shells

Stainless steel
molded jaws



Easy adjustment

Indexable wrist and
wide opening with
spring



Mains motor, 1100 W

- 2 mechanical speeds + electric speed variator
- Special handy design
- Work without return shock
- Rugged reduction housing which allows heat dissipation and optimal durability

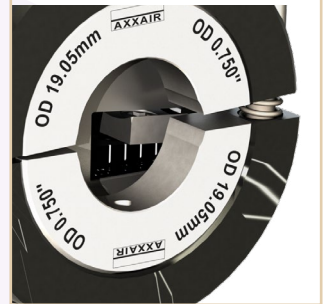
Accurate manual advance

Graduated vernier
scale



Easy set up of the tube

Large opening and
pivot clamping



Delivered in an anti-shock case

Water- and dustproof



Facing range

DC25-MS	ø3 - ø25.4 mm 0.1 - 1"
DC65-MS	ø3 - ø63.5 mm 0.1 - 2.5"

DC25 MS - DC65 MS

Technical characteristics:

Thickness < 3 mm (0,12") according to material

Burr-free tube squaring and edge breaking machine used after a band saw cut or on electro-polished tubes. Ideal tool to face a band saw cut before automatic welding

Mains motor 1100 W:

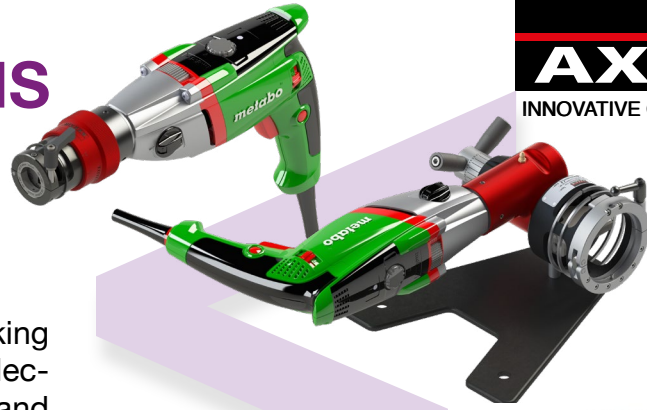
- 220-240 V ~ 50 / 60Hz or
- 100-120V ~ 60Hz
- High rotation torque
- Two speed gearbox with variable speed drive
- High quality speed controller
- Immobilizer protection
- Housing reducer in cast aluminium

- 2 mechanical speeds + electric speed variator :
- Speed 1 : 0-1000 tr/min (rpm)
- Speed 2 : 0-3100 tr/min (rpm)

All motors are supplied in their own individual cases, including the necessary tools

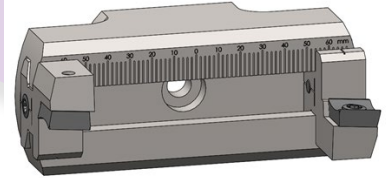
DC25

There are two mounting positions for the blade to cover the range of diameter.



DC65

Adjustment of the tool support by sliding: allows easy adjustment according to diameter and optimization of tool wear.



- 30° and 45° outside bevel possible with optional tool holder
- Facing and bevelling in one operation
- Possibility to use two tools simultaneously

DC65 : Flexible use



	Product Code	Facing machine for the following diameters (in mm)	Net weight	Minimal straight length of tube	Dimensions (HxLxI in mm)
1100W 120 V	DC25-MS1	Ø3 - Ø25.4 0.1 - 1"	2.5 kg	With standard jaws : 9mm (0.354") With micro-fit jaws : 5mm (0,196")	300x 370 x 76
Mains motor	DC65-MS1	Ø3 - Ø63.5 0.1 - 2.5"	5.5 kg	With standard jaws : 10mm (0,393")	132 x 345 x 340
1100W 230 V	DC25-MS2	Ø3 - Ø25.4 0.1 - 1"	2.5 kg	With standard jaws : 9mm (0.354") With micro-fit jaws : 5mm (0,196")	300x 370 x 76
Mains motor	DC65-MS2	Ø3 - Ø63.5 0.1 - 2.5"	5.5 kg	With standard jaws : 10mm (0,393")	132 x 345 x 340

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DC115-AM - 221-AM

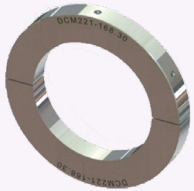
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Clamping shells

DC115 : Stainless steel clamping jaws

DC221 : Aluminium clamping jaws



Accurate manual advance

0.1 mm steps (0,0393")

30° and 45° outside bevel

possible with optional tool holder

Easy set up of of tube

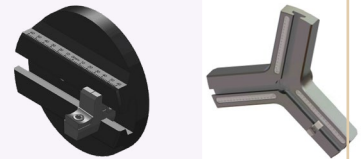
1 set of jaws for each diameter



Multi-tools

Possibility to use two (DC115) or three (DC221) tools simultaneously

Sliding adjustment of tool holder offers easy diameter change and optimal tip wearing



Delivered in a wooden box



1100 W motor

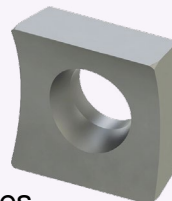
Motor mains 1100W with large speed range (2 gears)

Screw and wheel drive to optimize the speed range and eliminate vibrations

High quality blades

HSS TIALN blade.

Reversible, two cutting edges



Facing range

DC115 AM	ø12 - ø115 mm 0.5" - 4.5"
DC221 AM	ø50 - ø220 mm 2" - 8.5"

DC115-AM - 221-AM

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INNOVATIVE ORBITAL SOLUTIONS



Technical characteristics:

Thickness < 3 mm (0,12") according to material

Burr-free tube squaring and edge breaking machine used after a band saw cut or on electro-polished tubes. Ideal tool to face a band saw cut before automatic welding

- Accurate manual advance: 4/1000" (0,1 mm) step graduation
- Sliding adjustment of tool holder offers easy diameter change and optimal tip wearing
- 30° and 45° outside edge breaking possible with optional tool holder
- Squaring and edge breaking in one operation

- **Motor 1100W**, large speed range (2 gears): Screw and wheel drive to optimize the speed range and eliminate vibrations



All motors are supplied in their own individual cases, including the necessary tools

	Product Code	Facing machine for the following diameters (in mm)	Net weight	Minimal straight length of tube	Dimensions (HxLxI in mm)
120V Moteur 1100W	DC115-AM1	Ø12 - Ø115 0.5" - 4.5"	11 kg	28 mm 1.102"	219x314x462
	DC221-AM1	Ø50 - Ø220 2" - 8.5"	21 kg	39 mm 1.535"	327x425x540
230 V Moteur 1100W	DC 115-AM2	Ø12 - Ø115 0.5" - 4.5"	11 kg	28 mm 1.102"	219x314x462
	DC221- AM2	Ø50 - Ø220 2" - 8.5"	21 kg	39 mm 1.535"	327x425x540



Join **experience**



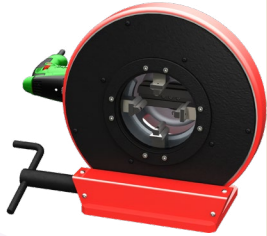
DC115-BM - 221-BM

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Stainless steel concentric jaws

DC115 : 4 Stainless steel concentric jaws

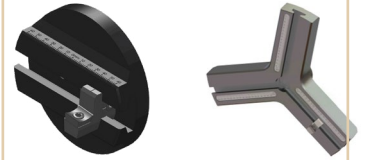
DC221 : 6 Stainless steel concentric jaws



Multi-tools

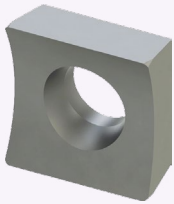
Possibility to use two (DC115) or three (DC221) tools simultaneously

Sliding adjustment of tool holder offers easy diameter change and optimal tip wearing



High quality blades

HSS TIALN blade
Reversible,
two cutting edges



30° and 45° outside bevel

possible with optional tool holder

Delivered in a wooden box



Accurate manual advance

0.1 mm steps

Bench mounting option



1100 W motor

Mains motor 1100W with large speed range (2 gears)
Screw and wheel drive to optimize the speed range and eliminate vibrations

Facing range

DC115 BM	ø12 - ø115 mm 0.5" - 4.5"
DC221 BM	ø50 - ø220 mm 2 - 8.5"



DC115-BM - 221-BM

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Technical characteristics:

Thickness < 3 mm (0,12") according to material

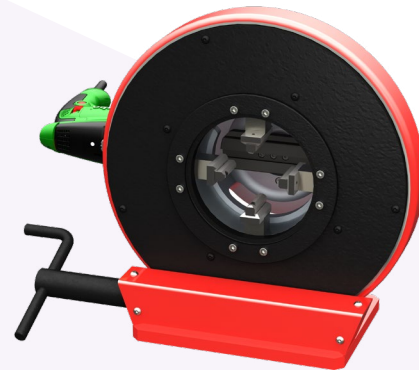
Burr-free tube squaring and edge breaking machine used after a band saw cut or on electro-polished tubes. Ideal tool to face a band saw cut before automatic welding

- Accurate manual advance: 4/1000" (0,1 mm) step graduation
- Sliding adjustment of tool holder offers easy diameter change and optimal tip wearing
- 30° and 45° outside bevel possible with optional tool holder
- Squaring and beveling in one operation
- Possibility to use two (DC115) or three (DC221) tools simultaneously
- Delivered in high quality protection case

All motors are supplied in their own individual cases, including the necessary tools



Wide range of use with stainless steel concentric clamping for all diameters



	Product Code	Facing machine for the following diameters (in mm)	Net weight	Minimal straight length of tube	Dimensions (HxLxI in mm)
120V Moteur 1100 W	DC115-BM1	Ø12 - Ø115 0.5" - 4.5"	37 kg	58 mm 2.283"	219x314x462
	DC221-BM1	Ø50 - Ø220 2" - 8.5"	55 kg	62 mm 2.440"	327x425x540
230 V Moteur 1100 W	DC 115-BM2	Ø12 - Ø115 0.5" - 4.5"	37 kg	58 mm 2.283"	219x314x462
	DC221- BM2	Ø50 - Ø220 2" - 8.5"	55 kg	62 mm 2.440"	327x425x540



Join **experience**



Orbital Facing - Accessories

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Our support benches help you to position and feed your tubes without the aid of stands.

The height-adjustable table helps you easily and precisely set the height of your machine, for facing the tubes placed on the support bench.

The additional tube support bench allows you to position your longest tubes in a stable manner on all benches.



Product Code	Description	Net Weight	Dimensions (in cm)
CCBSB-X1	Height-adjustable tube support bench	57 kg	184 x 95 x 51

Height-adjustable support bench, 1.5 m :

- stainless steel rollers
- height adjustment handle
- maximum load 350 kg uniformly distributed
- min tube ø: 5 mm
- max tube ø: 321 mm

DC25-MA	DC65-MA	DC25-MS	DC65-MS	DC115-AM	DC221-AM	✓DC115-BM	✓DC221-BM
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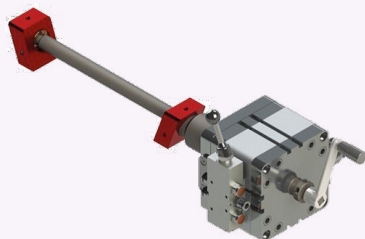


Product Code	Description	Net weight	Dimensions (in cm)
CCBSB-X2	Additional support bench	38 kg	150 x 95 x 51

Additional tube support bench, 1.5 m :

- stainless steel rollers
- maximum load 350 kg uniformly distributed
- min tube ø: 5 mm
- max tube ø: 321 mm

DC25-MA	DC65-MA	DC25-MS	DC65-MS	DC115-AM	DC221-AM	✓DC115-BM	✓DC221-BM
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Product Code	Description	Net weight	Dimensions (in cm)
CCSA21	Pneumatic clamping	8.2 kg	560 x 200 x 190

Pneumatic clamping for DC115-BM / DC221-BM

DC25-MA	DC65-MA	DC25-MS	DC65-MS	DC115AM	DC221AM	✓DC115BM	✓DC221BM
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Orbital Facing - Accessories

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Clamping jaws

Clamping jaws for orbital facing machines:

A set of jaws is necessary for each outside diameter of tube to be machined

For machine	Product Code	Diameter of the tube	
		mm	inch
DC25	DCM25-XX	3 mm à 25.4 mm	1/8" - 1"
DC65	DCM65-XX	3 mm à 63.5 mm	1/8" - 2.5"
DC115	DCM115-XXX	12 mm à 115 mm	1/2" - 4.5"
DC221	DCM221-XXX	50 mm à 220 mm	2" - 8.5"

✓ DC25-MA

✓ DC65-MA

✓ DC25-MS

✓ DC65-MS

✓ DC115-AM

✓ DC221-AM

DC115-BM

DC221-BM



Jaws for micro-fitting

Stainless steel micro-fitting jaws for DC25 ONLY

- Straight length : 4,3 mm mini

Product Code	Diameter of the tube	
	mm	inch
DCM25-MF03.18	3,18 mm	1/8 "
DCM25-MF06.00	6 mm	0.236"
DCM25-MF06.35	6.35mm	1/4 "
DCM25-MF08.00	8.00 mm	0.315 "
DCM25-MF10.00	10.00 mm	0.394 "
DCM25-MF12.00	12.00 mm	0.472 "
DCM25-MF12.70	12.7 mm	1/2 "

✓ DC25-MA

DC65-MS

✓ DC25-MA

DC65-MS

DC115-AM

DC221-AM

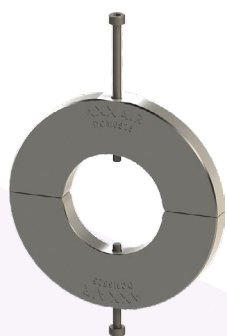
DC115-BM

DC221-BM

Orbital Facing - Accessories

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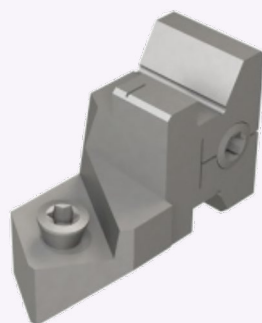
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Product Code	Description	Net weight	Dimensions (in mm)
DCM6525	Spacer	0.022 kg	Ø 76

Spacer for fitting DC25 jaws on a DC65

DC25-MA	✓ DC65-MA	DC25-MS	✓ DC65-MS	DC115-AM	DC221-AM	DC115-BM	DC221-BM
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Product Code	Description	Net weight	Dimensions (in mm)
DC65-P300	Tool holder for beveling	0.028 kg	22 x 13 x 28.5

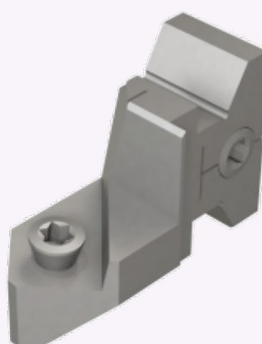
Tool holder for breaking the corner at 30° :

- Tool holders are supplied without blades
- Corner breaking is possible on the whole machine's range
- Possibility to face the tube and break the corner at the same time on the whole machines' ranges*

***exception for the DC65:**

- If facing and breaking corners at the same time: reduced range : 20 - 53 mm

DC25-MA	✓ DC65-MA	DC25-MS	✓ DC65-MS	✓ DC115-AM	✓ DC221-AM	✓ DC115-BM	✓ DC221-BM
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Product Code	Description	Net weight	Dimensions (in mm)
DC65-P450	Tool holder for beveling	0.026 kg	22 x 12.5 x 28.5

Tool holder for breaking the corner at 45° :

- Tool holders are supplied without blades
- Corner breaking is possible on the whole machine's range
- Possibility to face the tube and break the corner at the same time on the whole machines' ranges*

***exception for the DC65:**

- If facing and breaking corners at the same time: reduced range : 20 - 53 mm

DC25-MA	✓ DC65-MA	DC25-MS	✓ DC65-MS	✓ DC115-AM	✓ DC221-AM	✓ DC115-BM	✓ DC221-BM
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Orbital Facing - Consumables

AXXAIR
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In order to fit the different types of tubes, applications and your organization's requirements, AXXAIR offers two inserts for orbital facing. Each insert has been developed for a specific application.

All of our inserts are double sided with two cutting edges and get a TiALN treatment, which improve the insert steadiness. This treatment ensures excellent heat resistance.

PERFORMANCE

 HIGH
 PERFORMANCE

PERFORMANCE inserts for orbital facing

- Double sided inserts with two cutting edges, made of HSS-E, TiALN treatment
- Cutting angle adapted to high speed use or for hard materials

Product Code	Description	Net weight	Dimensions
DC-OUT1	Box of 10 inserts	0.028 kg	12.5 x 40 x 100 mm
DC-UOUT1	Single unit insert	0.002 kg	4 x 9.5 x 9.5 mm

✓ DC25-MA

✓ DC65-MA

✓ DC25-MS

✓ DC65-MS

✓ DC115-AM

✓ DC221-AM

✓ DC115-BM

✓ DC221-BM

NEW

HIGH PERFORMANCE inserts for orbital facing

- Double sided inserts with two cutting edges, made of HSS, TiALN treatment
- Special design with acute cutting angle for high-purity applications without burr

Product Code	Description	Net weight	Dimensions
DC-OUT3	Box of 10 inserts	0.03 kg	12.5 x 40 x 100 mm
DC-UOUT3	Single unit insert	0.003 kg	4.5 x 9.5 x 9.5 mm

✓ DC25-MA

✓ DC65-MA

✓ DC25-MS

✓ DC65-MS

✓ DC115-AM

✓ DC221-AM

✓ DC115-BM

✓ DC221-BM