Desoutter

Industrial Tools

A.D.U
(Advanced Drilling Units)

SETITEC

More Than Productivity

ADU - Setitec Line Advanced Drilling Units

This product range is dedicated to **drilling**, **reaming**, **spot facing** and **countersinking** operations with high requirements of quality, accuracy and repetability. Designed for the aerospace industry, performance is as well appreciated in the general industry for high-end applications. Its cutting edge technology and advanced technical capabilities makes one-shot drilling , reaming and countersinking operations possible and achieving perfect holes with the same motor and cutting tools, cutting down time and cycle time.

With **2100 Watt (2,8hp) of power, and with an unmatched power to weight ratio in a very compact tool**, they can be used on a wide variety of locking mechanism (drill jigs, locking on prehole...) with a wide variety of equipemnts (Concentric collets, 1/4" Turn / Bayonet, Template Feet, C-clamp...). This modular system offers you a great flexibility for holes **up to 25mm (2") diameter, with tolerances as tight as 0,02mm (0.0001")** in diameter

User Benefits

✈ Modular, accurate and innovative tool
Based on a Modular architecture, they've been designed to offer advanced performances (automatic cycle, on-board lubrication…) as well as tight tolerances (0,02mm (0.0001") tolerances).

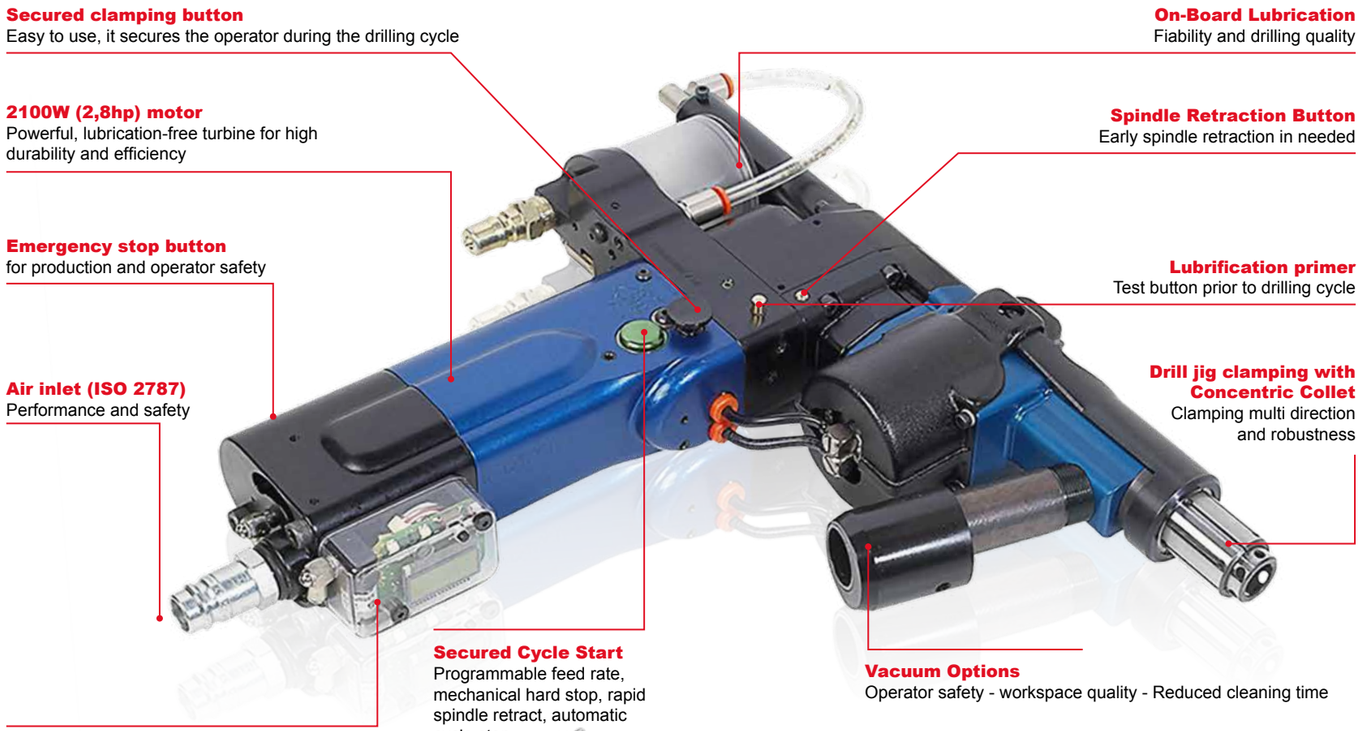
✈ Easy retrofit
They can easily be retrofitted should you modifiy your production station or decide to reaffect your tool to a different workstation.

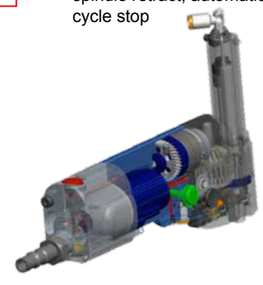
✈ Great ergonomy
Light and compact, they are easily positionned on the drill jigs. They are the right answer to your applications with limited accessibility.

✈ Low consumption and noise level
Powered by a highly performance pneumatic turbine, with highly reduced noise and consumption level.

✈ Best power to weight ration on the market
2100 Watts (2,8hp) for a weight of 1.5kg to 3.5kg (3.3lb to 7.7lb) (without equipment).

✈ Customized solution
Clamping options , angle or straight version, programmable cycle counter, on-board or external lubrication driven through the cutter, integrated micropeck.





Predefinition tool

Drilling, reaming, countersinking diameter. Material Stack

Existing cutting tool? Type of attachment, existing drawing?

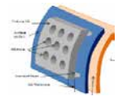
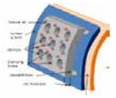
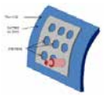
Definition of clamping mechanism, accessibility, formalize various technical requirements

Dedicated project management, with specific definition tooling
(Contact your Desoutter representative for assistance)

Clamping types

Positionning system on jig						
Concentric collet	1/4 turn Bayonet	Croco Clamp	Jack Clamp	Crowfoot	Template foot	Clocker
						

Positionning types

Drill jigs				
	Thick drill jigs	Thick jig with rail or screws	Thin jigs	Template jigs or No jig (pre-hole)
Concentric collet	✓			
1/4 turn Bayonet		✓		
Croco Clamp			✓	✓
Jack Clamp			✓	✓
Crowfoot		✓		
Template Foot			✓	✓

Concept

Range

Following the clamping on the drill jig or tool positionning, simply press the start button to launch your drilling cycle (rotational speed, feed rate, vibration mode, stroke, lubrication). Once the cycle is over, the cutting tool retracts at fast speed back to its original position, and the tool stops automatically. You can mechanically set-up the extreme positions of the cutting tool. The tools are equipped with a button to stop the cycle, a secured button to lock on the drill jig and a button to retract the spindle before the end of the defined stroke.

OPTIONS: programmable cycle counter, micropeck system, onboard or external lubrication

Rotation speed and feed rate

ST 1200

Spindle rotation speed (rpm) Droite	Angle	Feed rate Mm/tr
14054	11835	0,01
9713	8179	0,021
7770	6543	0,038
5550	4674	0,058
3514	2959	0,077
2811	2367	0,095
2428	2045	0,115
2008	1691	0,154
1943	1636	
1554	1309	
1388	1168	
1110	935	
878	740	
793	668	
703	592	
562	473	
502	423	
402	338	
287	242	
1388	1168	
1110	935	
878	740	
793	668	
703	592	
562	473	
502	423	
402	338	
287	242	

Precision of drilling and countersinking
0,02 mm

Power
2100 Watts

Weight (without equipment)
1,85 Kg

Stroke:
Unlimited

ST 2200

Spindle rotation speed (rpm) Droite	Angle	Feed rate Mm/tr
2919	2195	0,047
2560	1925	0,059
2017	1517	0,095
1770	1331	0,12
1614	1214	0,146
1416	1065	0,182
1216	915	0,2
1187	892	
949	714	
841	632	
730	549	
672	506	
640	481	
584	439	
512	385	
429	323	
343	258	
304	229	
243	183	
174	131	

Precision of drilling and countersinking
0,02 mm

Power
2100 Watts with high torque

Weight (without equipment)
3,2 Kg

Stroke:
Unlimited

Recommandations depending on diameters and material

Drilling/reaming diameters mm/inches	Aluminium or Composit	Titanium	Aluminium or Composit	Titanium
	Drilling		Drilling - Countersinking	
Up to 4,8 mm - 3/16"	ST 1200	ST 1200	ST 1200	ST 1200
Up to 12,7 mm - 1/2"				
Up to 14,3 mm - 9/16"		ST 2200	ST 2200	ST 2200
Up to 15,9 mm - 5/8"				
Up to 19,05 mm - 3/4"	ST 2200			
Up to 25,4 mm - 1"				

Watch the video

More on Setitec SETITEC

Contact your **Desoutter** representative for assistance in specifying your ADU.

Desoutter

October 2015 - Issue 1