


## Performance of tools according to VDI/VDE 2647

<i>General information</i>		
<b>Testing date:</b>	March 2024	
<i>General information about tool</i>		
<b>Manufacturer:</b>	Desoutter	
<b>Machine type:</b>	CVI3 Tool	
<b>Model:</b>	EFD43-8	
<b>Part number:</b>	6151662040	
<b>Square:</b>	3/8	
<b>Maximum speed:</b>	2000 rpm	
<b>Minimal torque:</b>	1 Nm	0,7 ft,lb
<b>Nominal torque</b>	8 Nm	5,9 ft,lb
<b>Maximum torque:</b>	10 Nm	7,4 ft,lb
<b>Weight</b>	1,8 Kgs	3,97 lb
<b>Length</b>	372 mm	14,6 "
<b>Serial number:</b>	21A90539	
	21A90540	
	23B51523	
<i>Picture of tool</i>		
		



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### Tightening at torque

<i>Value for the duration of break between cycles</i>					
<b>30% soft:</b>	5		<b>30 % hard:</b>	5	
<b>80% soft:</b>	20		<b>80 % hard:</b>	20	
<b>100% soft:</b>	45		<b>100 % hard</b>	45	
<i>Number of tightenings for the test</i>					
<b>30 % of the torque range:</b>	100				
<b>80 % of the torque range:</b>	100				
<b>100 % of the torque range:</b>	100				
<i>Number of free speed</i>					
<b>All torque range:</b>	4				
<i>Torque test - test point specification</i>					
<i>Torque and torsion tested</i>					
<b>P1: 30 % of the torque range:</b>	3.1 N.m	<b>Soft:</b>	30°	<b>Hard:</b>	360°
<b>P2: 80 % of the torque range:</b>	6.6 N.m	<b>Soft:</b>	30°	<b>Hard:</b>	360°
<b>P3: 100 % of the torque range:</b>	8.0 N.m	<b>Soft:</b>	30°	<b>Hard:</b>	360°
<i>Revolutions per minute</i>					
<i>30 % of the torque range</i>					
Hard	<b>Rundown speed (Rpm):</b>	50 Rpm	<b>Downshift speed (Rpm):</b>	20 Rpm	
Soft	<b>Rundown speed (Rpm):</b>	50 Rpm	<b>Downshift speed (Rpm):</b>	20 Rpm	
<i>80 % of the torque range</i>					
Hard	<b>Rundown speed (Rpm):</b>	50 Rpm	<b>Downshift speed (Rpm):</b>	25 Rpm	
Soft	<b>Rundown speed (Rpm):</b>	50 Rpm	<b>Downshift speed (Rpm):</b>	25 Rpm	
<i>100 % of the torque range</i>					
Hard	<b>Rundown speed (Rpm):</b>	50 Rpm	<b>Downshift speed (Rpm):</b>	30 Rpm	
Soft	<b>Rundown speed (Rpm):</b>	50 Rpm	<b>Downshift speed (Rpm):</b>	30 Rpm	
<i>Torsion angle start moment (Angle threshold)</i>					
<b>30 % of the torque range:</b>	<b>Soft:</b>	1.55 Nm	<b>Hard:</b>	1.55 Nm	
<b>80 % of the torque range:</b>	<b>Soft:</b>	3.30 Nm	<b>Hard:</b>	3.30 Nm	
<b>100 % of the torque range:</b>	<b>Soft:</b>	4.00 Nm	<b>Hard:</b>	4.00 Nm	
<i>Downshift torque</i>					
<b>30 % of the torque range:</b>	<b>Soft:</b>	0.2 Nm	<b>Hard:</b>	0.2 Nm	
<b>80 % of the torque range:</b>	<b>Soft:</b>	0.5 Nm	<b>Hard:</b>	0.5 Nm	
<b>100 % of the torque range:</b>	<b>Soft:</b>	0.6 Nm	<b>Hard:</b>	0.6 Nm	
<i>Information for tightening with a battery tool</i>					
<i>Numbers of battery used for the tightening</i>					
<b>30 % of the torque range:</b>	<b>Soft:</b>	0	<b>Hard:</b>	0	
<b>80 % of the torque range:</b>	<b>Soft:</b>	0	<b>Hard:</b>	0	
<b>100 % of the torque range:</b>	<b>Soft:</b>	0	<b>Hard:</b>	0	
<i>Temperature maximum of tool at 80% of the torque range (360°)</i>					
<b>Angle head:</b>	<b>Start:</b>	20	<b>End:</b>	20	
<b>Motor:</b>	<b>Start:</b>	20	<b>End:</b>	20	
<b>Handle:</b>	<b>Start:</b>	20	<b>End:</b>	20	



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### Tightening at angle

<i>Value for the duration of break between cycles</i>			
40°	10		
180°	20		
<i>Number of tightening for the test</i>			
Tightening hard	100		
Tightening soft	100		
<i>Number of free speed</i>			
All tightening:	4		
<i>Rotation angle test - test points specification</i>			
<i>Rotation angle</i>			
Hard of 50 at 100% of tightening	40°		
Soft of 50 at 100% of tightening	180°		
<i>Revolutions per minute</i>			
<i>40 °</i>			
Rundown speed (Rpm):	50 Rpm		Downshift speed (Rpm): 20 Rpm
<i>180°</i>			
Rundown speed (Rpm):	50 Rpm		Downshift speed (Rpm): 24 Rpm
<i>Torsion angle start moment (Angle threshold)</i>			
40° (20% of torque range)	1.6 Nm		
180° (20% of the torque range)	1.6 Nm		
<i>Target torque</i>			
40° (60 % of the torque range)	4.8 Nm		
180° (80 % of the torque range)	6.4 Nm		
<i>Information for tightening with a battery tool</i>			
<i>Numbers of battery used for the tightening</i>			
40°			
180°			



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### Torque tightening test

Test point			30%		80%		100%	
Test torque			3.1 N.m		6.6 N.m		8 N.m	
Joints (of 50 at 100% of tightening)			hard (30°) (±5°)	soft (360°) (±15°)	hard (30°) (±5°)	soft (360°) (±15°)	hard (30°) (±5°)	soft (360°) (±15°)
Torque tolerance upper limit (Nm)			3.3	3.3	7.1	7.1	8.6	8.6
Torque tolerance lower limit (Nm)			2.9	2.9	6.1	6.1	7.4	7.4
Tolerance interval * (±)			7%	7%	7%	7%	7%	7%
Serial numbers	21A90539	Cm	3.26	3.04	5.83	6.03	5.95	6.72
		Cmk	3.08	2.98	5.04	5.54	5.05	6.18
	21A90540	Cm	3.41	3.78	3.33	5.78	4.11	5.66
		Cmk	3.14	3.31	2.81	4.54	3.50	4.57
	23B51523	Cm	5.63	5.71	7.00	10.34	6.90	10.64
		Cmk	5.35	5.25	6.48	9.75	6.10	9.41

Min Cm/Cmk	Cm	3.26	3.04	3.33	5.78	4.11	5.66
	Cmk	3.08	2.98	2.81	4.54	3.50	4.57

	Cm >2 *	Cmk >1,67 *	
Index Min Cm	3.04	/	Compliant
Index Min Cmk	/	2.81	Compliant

### Angle tightening test

			hard	soft
Angle tested (of 50 at 100% of tightening)			40°	180°
Target torque			4.8 N.m	6.4 N.m
Serial numbers	21A90539	IT (±) (torque)	1.6%	1.7%
		IT (±) (angle)	1.3 °	3.5 °
	21A90540	IT (±) (torque)	1.9%	2.5%
		IT (±) (angle)	1.7 °	3.6 °
	23B51523	IT (±) (torque)	1.5%	0.7%
		IT (±) (angle)	1.6 °	2.7 °

		hard 40°	soft 180°	hard 40°	soft 180°
Index IT (±) (torque)	Must be	< 7%*	< 7%*	Compliant	Compliant
	Max is	1.9%	2.5%		
Index IT (±) (angle)	Must be	Hard < 5° *	Soft < 15° *	Compliant	Compliant
	Max is	1.7 °	3.6 °		

**(\*) Informations for reference**