

Taegutec Solid End Mill Line

# DRILL-MILL

**Drilling and Milling Capable** 









### Taegutec Solid End Mill Line

# **KEY POINT**

#### TaeguTec has introduced milling and drilling capable SDM end mills and MXDM heads

TaeguTec's SDM end mills and MXDM heads are high-efficiency machining tools designed for both general milling and drilling operations. Their wide flute design ensures **smooth chip evacuation**, **even at drilling depths of 1xD**. Additionally, the tapered core's reinforced rigidity and optimal helix angle ensure **smooth cutting and stable machining without performance degradation during milling operations**. Furthermore, this new line quickly transitions from drilling to milling at the drilling depth, improving productivity by reducing the number of machining passes.

#### **Features**

- Capable of milling immediately following drilling
- Drilling is possible at feed rates comparable to standard drills
- Excellent performance on general carbon steel, alloy steel as well as stainless steel
- Optimized flute design for smooth chip evacuation during drilling
- Tapered core with reinforced rigidity suited to various milling operations
- Unequal helix angle design for smooth and stable cutting performance
- Helix-type internal coolant for excellent chip evacuation (Solid end mill type only)

Drilling and general milling capable drill-mill product lines new



MXDM MAXI-RUSH type



**SDM** Solid end mill type

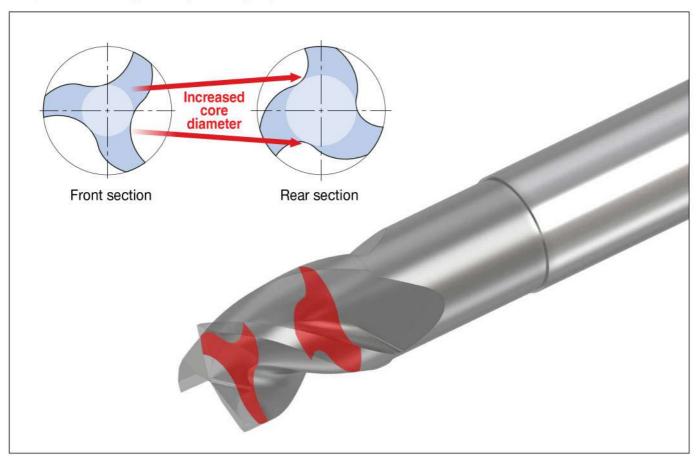




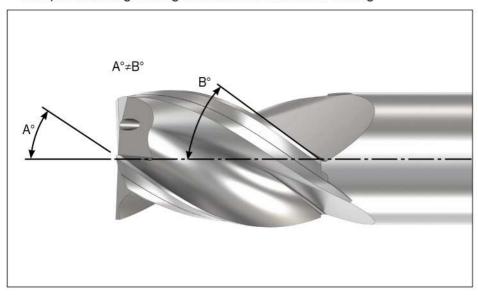


# Taegutec Solid End Mill Line

- Widened flute design adapted to drilling operations
- Tapered core design for improved rigidity



■ Unequal helix angle design for smooth and stable cutting



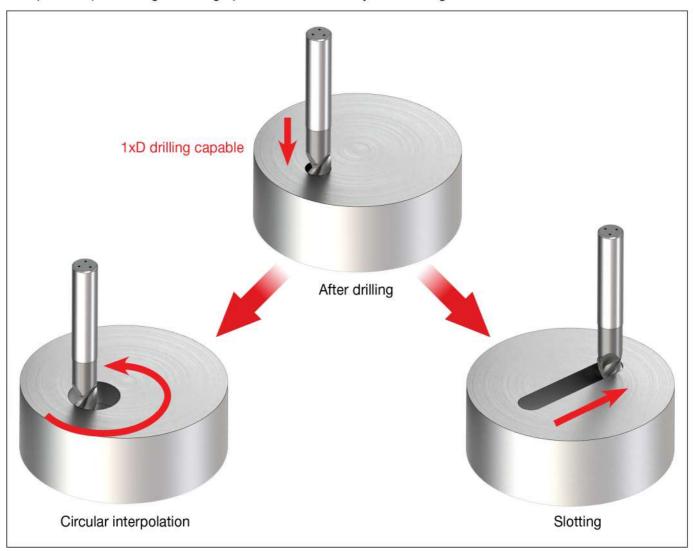






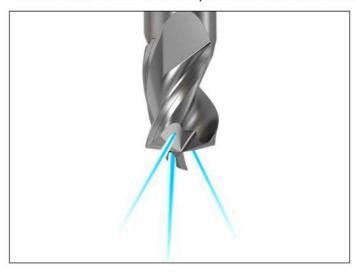
### Taegutec Solid End Mill Line

■ Capable of performing all milling operations immediately after drilling



■ Internal coolant-capable for smooth chip evacuation during drilling (Solid end mill type only)

Note: MAXI-RUSH heads require external coolant during drilling operations









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#### **Drilling range**

- Drilling is possible at feed rates comparable to standard drills
  - SDM end mill

ISO	Cutting	Diameter	ameter Feed (mm/rev)								
	speeds (m/min)	(D)	Range	0.05	0.10	0.15	0.20	0.25	0.30		
	60-120	Ø10	0.10-0.25			#					
Р		Ø12	0.10-0.25								
100		Ø16	0.12-0.30						Ī		
		Ø20	0.12-0.35								
		Ø10	0.05-0.15								
	40.00	Ø12	0.05-0.15								
М	40-60	Ø16	0.06-0.20								
		Ø20	0.06-0.20								

#### - MXDM heads

ISO	Cutting speeds	Diameter	Feed (mm/rev)								
	(m/min)	(D)	Range	0.05	0.10	0.15	0.20	0.25	0.30		
	60-120	Ø10	0.10-0.15								
		Ø12	0.10-0.20								
P		Ø16	0.12-0.25								
		Ø20	0.12-0.30								







### Taegutec Solid End Mill Line

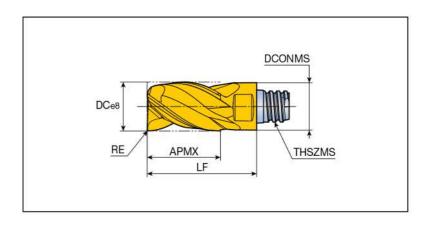
# **MXDM**



3 flute, drill-mill heads







Designation	Feed	Dimension (mm)							
Designation	(mm/tooth)	DC	RE	APMX	LF	THSZMS	DCONMS	TT5523	
MXDM 100L15R02-03S06	0.025-0.08	10	0.2	15	22	S06	9.7	•	
120L18R02-03S08	0.025-0.10	12	0.2	18	27	S08	11.7	•	
160L24R02-03S10	0.03-0.12	16	0.2	24	33.5	S10	15.3	•	
200L30R02-03S12	0.04-0.16	20	0.2	30	41	S12	18.45	•	

•: Standard items

### **SDM**



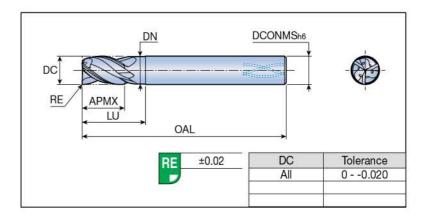
3 flute, drill-mills











Designation	Feed	Dimension (mm)								Grade
Designation	(mm/tooth)	DC	RE	OAL	APMX	LU	DN	DCONMS	hole	TT5525
SDM 3100X15X72R0.2	0.025-0.08	10	0.2	72	15	30	9.6	10	•	•
3120X18X83R0.2	0.025-0.10	12	0.2	83	18	36	11.7	12	•	•
3160X24X92R0.2	0.03-0.12	16	0.2	92	24	40	15.3	16	•	•
3200X30X110R0.2	0.04-0.16	20	0.2	110	30	55	18.3	20	•	•

•: Standard items







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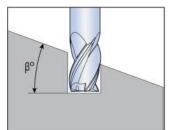
# **Recommended Cutting Conditions**

Machining data for SDM end mills and MXDM heads



#### Drilling

ISO		Cutting speeds (m/min)	Feed (mm/rev) by diameter									
	Material			SE	M		MXDM					
			Ø10	Ø12	Ø16	Ø20	Ø10	Ø12	Ø16	Ø20		
P	Carbon steel and Alloy steel	60-120	0.10-0.25	0.10-0.25	0.12-0.30	0.12-0.35	0.10-0.15	0.10-0.20	0.12-0.25	0.12-0.30		
M	Stainless steel	40-60	0.05-0.15	0.05-0.15	0.06-0.20	0.06-0.20	120	5 <b>=</b> 0	1/2	2		



- ▶ Drilling depth: Max. 1xD (diameter)
- ▶ When machining with a slope (β) lower than 30°, apply 40-60% feed
- ▶ When machining with a slope (β) higher than 30°, apply 20-40% feed, 60-80% cutting speed



#### Shouldering

ISO		Cutting		Feed (mm/too					
	Material	speeds		SDM &	ap	ae			
		(m/min)	Ø10	Ø12	Ø16	Ø20			
	Carbon steel and	80-150	0.03-0.08	0.035-0.10	0.05-0.12	0.05-0.16	Max. 1xD	Max. 0.5xD	
-	Alloy steel				0.05-0.12	0.05-0.16	Max. 1.5xD	Max. 0.2xD	
	Ctainless stool	50 100	0.00.000	0.03-0.07	0.005.000	004011	Max. 1xD	Max. 0.3xD	
M	Stainless steel	50-100	0.03-0.06		0.035-0.09	0.04-0.11	Max. 1.5xD	Max. 0.1xD	

- ▶ ap: Axial direction DOC
- ▶ ae: Radial direction DOC



#### Slotting

ISO		Cutting									
	Material	speeds		SDM & MXDM							
		(m/min)	Ø10	Ø12	Ø16	Ø20					
P	Carbon steel and Alloy steel	50-100	0.03-0.06	0.03-0.06	0.04-0.10	0.045-0.12	Max. 1xD				
M	Stainless steel	40-80	0.025-0.04	0.025-0.04	0.03-0.06	0.04-0.08	Max. 1xD				

- ▶ Reinforced MXSSD shanks are recommended for MXDM heads
- ▶ ap: Axial direction DOC





# CONTACT US





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