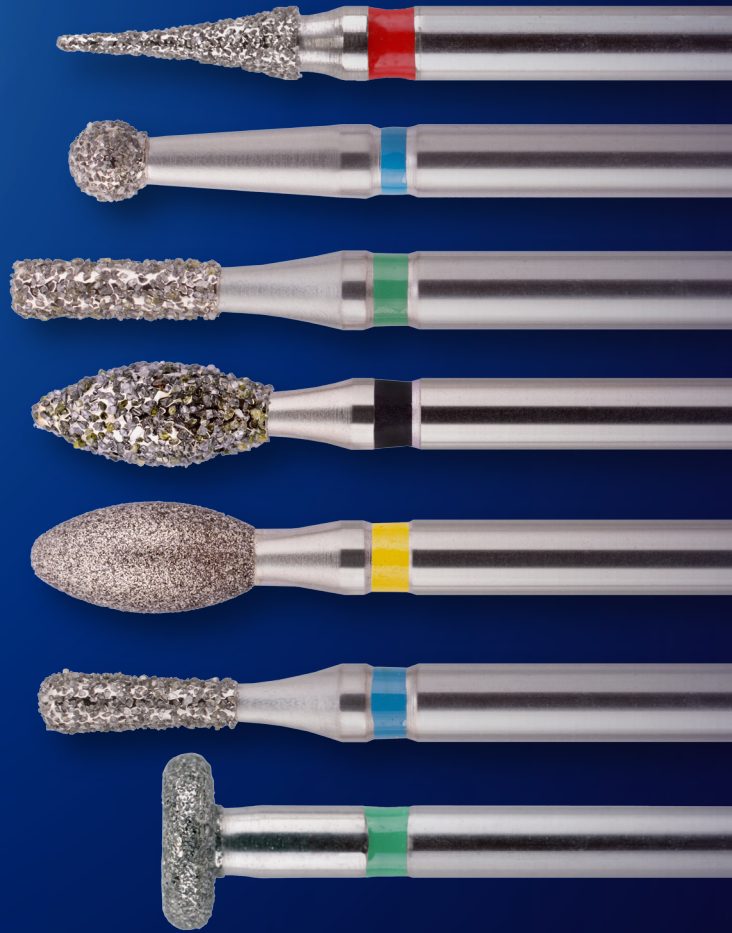


MARK3[®]



BLUE STREAK















WHERE PRECISION MEETS PERFECTION

DIAMOND BURS CATALOG
& REFERENCE GUIDE









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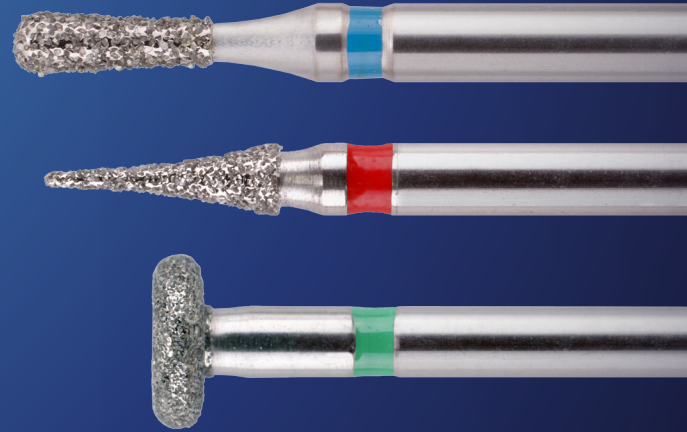
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BLUE STREAK

WHERE PRECISION MEETS PERFECTION

Dental Rotary Instruments FG Diamonds

Introducing Blue Streak Diamond Burs from MARK3 – the ultimate tool for dental professionals seeking superior performance and exceptional results. Crafted with precision and designed for durability, these diamond burs are the pinnacle of cutting-edge dental technology. Blue Streak Diamond Burs from MARK3 are manufactured to provide fast, precise cutting.

20% MORE DIAMOND EXPOSURE COMPARED TO OTHER BRANDS

MARK3[®]

Vs

Others



60% Diamond Exposure

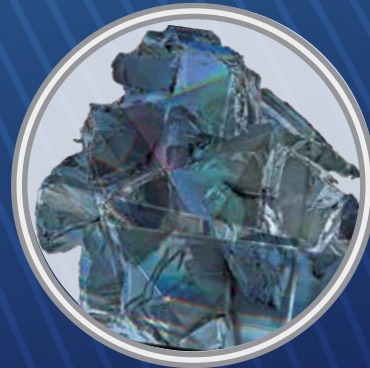
40% Diamond Exposure

FEATURES:

- ✓ Enhanced bonding
- ✓ Each diamond crystal is exposed to a greater extent
- ✓ Diamond coating uniformity

BENEFITS:

- ✓ Long-lasting performance
- ✓ The cooler & faster way to cut & grind
- ✓ Higher diamond exposure results in lower clogging process



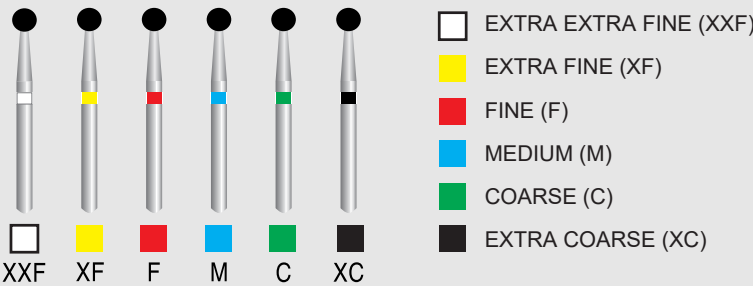
BLUE STREAK

DIAMOND BURS USER GUIDE

MARK3 Blue Streak Diamond Burs are designed to function smoothly in the dental clinic and laboratory. For effective cutting and prevention of breakage during use, raw materials are carefully selected to ensure the maximum cutting tip hardness and neck strength.

Among the wide variety of shapes of Blue Streak Diamond Burs provided by MARK3, the burs are designed to perform a wide range of cutting, shaping, finishing, and deburring tasks, as well as to remove old fillings, cavity and crown procedures.

COLOR-CODED STRIPES INDICATE GRIT



XXF XF F M C XC

EXTRA EXTRA FINE (XXF)
EXTRA FINE (XF)
FINE (F)
MEDIUM (M)
COARSE (C)
EXTRA COARSE (XC)

INSTRUMENT REORDER CODING

954 - **023** **C**

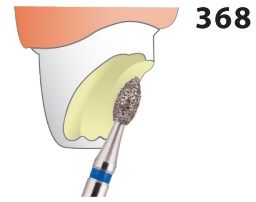
Diamond Shape Head Diameter (mm) Grit

368 | FOOTBALL



Head Diameter 1/10mm	016	023
Head Length mm	3.2	5.0
Extra Fine		368-023XF
Fine	368-016F	368-023F
Medium	368-016M	368-023M
Coarse	368-016C	368-023C
Extra Coarse		368-023XC

FOOTBALL



Crown Preparation
Contouring & Finishing
Occlusal Contouring

379 | EGG



Head Diameter 1/10mm	018	023
Head Length mm	3.4	4.5
Extra Fine		379-023XF
Fine	379-018F	379-023F
Medium	379-018M	379-023M
Coarse		379-023C

EGG



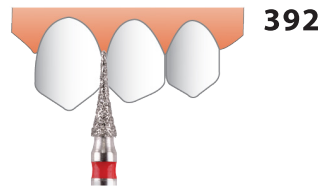
Crown Preparation
Contouring & Finishing
Occlusal Contouring

392 | INTERDENTAL



Head Diameter 1/10mm	016
Head Length mm	5.0
Extra Fine	392-016XF
Fine	392-016F

INTERDENTAL



Crown Preparation
Surface Finishing

**652S | GROSS REDUCTION
CYLINDER SHORT**



Head Diameter 1/10mm	018
Head Length mm	7.6
Extra Coarse	652S-018XC

**GROSS REDUCTION CYLINDER SHORT
AND GROSS REDUCTION TAPER SHORT**



652S
655S

Crown Preparation

**655S | GROSS REDUCTION
TAPER SHORT**



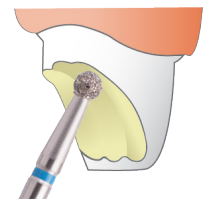
Head Diameter 1/10mm	018
Head Length mm	8.2
Extra Coarse	655S-018XC

801 | ROUND



Head Diameter 1/10mm	012	014	016	018
Head Length mm	1.2	1.4	1.6	1.8
Fine				801-018F
Medium	801-012M	801-014M	801-016M	801-018M
Coarse	801-012C	801-014C	801-016C	801-018C

ROUND



801

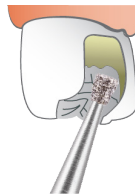
Crown Preparation

805S | INVERTED CONE SHORT HEAD



Head Diameter 1/10mm	012	016
Head Length mm	1.5	1.5
Coarse	805S-012C	805S-016C

**INVERTED CONE
805**



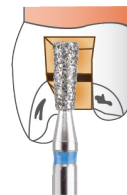
Removal of Old Fillings
Cavity Preparation

807 | INVERTED CONE



Head Diameter 1/10mm	016	018
Head Length mm	4.0	4.0
Medium	807-016M	807-018M

**INVERTED CONE
807**



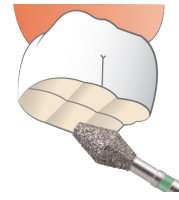
Cavity Preparation
Occlusal Contouring

811 | BARREL



Head Diameter 1/10mm	033	037
Head Length mm	5.5	7.0
Coarse	811-033C	811-037C
Extra Coarse		811-037XC

BARREL



811

Crown Preparation
Occlusal Contouring
Contouring & Finishing

830L | INVERTED CONE PEAR LONG



Head Diameter 1/10mm	012
Head Length mm	4.0
Medium	830L-012M

INVERTED CONE



830L

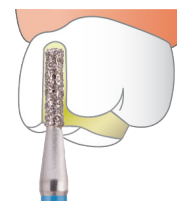
Cavity Preparation
Occlusal Contouring

835 | FLAT END CYLINDER



Head Diameter 1/10mm	010	012	016
Head Length mm	4.0	4.0	4.0
Medium	835-010M		
Coarse	835-010C	835-012C	835-016C

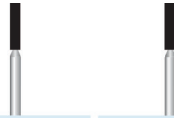
FLAT END CYLINDER



835
836
837

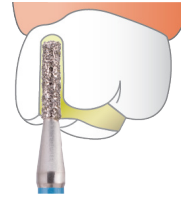
Cavity Preparation
Removal of Old Fillings
Crown Preparation
Inlay/Onlay Preparation

836 | FLAT END CYLINDER



Head Diameter 1/10mm	012	014
Head Length mm	6.0	6.0
Coarse	836-012C	836-014C

FLAT END CYLINDER



835
836
837

Cavity Preparation
Removal of Old Fillings
Crown Preparation
Inlay/Onlay Preparation

837 | FLAT END CYLINDER



Head Diameter 1/10mm	012	014	016
Head Length mm	8.0	8.0	8.0
Medium	837-012M	837-014M	837-016M
Coarse	837-012C	837-014C	837-016C

845KRS | ROUND EDGE TAPER SHORT



Head Diameter 1/10mm	019	026
Head Length mm	4.0	4.0
Fine		845KRS-026F
Medium		845KRS-026M
Coarse	845KRS-019C	845KRS-026C

847KRS | ROUND EDGE TAPER SHORT



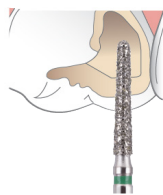
Head Diameter 1/10mm	017
Head Length mm	8.0
Coarse	847KRS-017C

846KR | ROUND EDGE TAPER



Head Diameter 1/10mm	016
Head Length mm	6.0
Medium	846KR-016M

ROUND EDGE TAPER



846KR
847KR

Cavity Preparation
Inlay/Onlay Preparation

847KR | ROUND EDGE TAPER



Head Diameter 1/10mm	016
Head Length mm	8.0
Medium	847KR-016M
Coarse	847KR-016C

847 | FLAT END TAPER



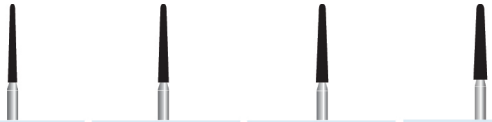
Head Diameter 1/10mm	010	014	016	018
Head Length mm	8.0	8.0	8.0	8.0
Medium			847-016M	
Coarse	847-010C	847-014C	847-016C	847-018C

848 | FLAT END TAPER



Head Diameter 1/10mm	012	016	018
Head Length mm	10.0	10.0	10.0
Medium		848-016M	
Coarse	848-012C	848-016C	848-018C
Extra Coarse			848-018XC

850 | ROUND END TAPER



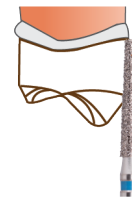
Head Diameter 1/10mm	012	014	016	018
Head Length mm	10.0	10.0	10.0	10.0
Fine			850-016F	
Coarse	850-012C	850-014C	850-016C	850-018C

855 | ROUND END TAPER



Head Diameter 1/10mm	012	016	018
Head Length mm	6.0	6.0	10.0
Fine	855-012F		
Medium	855-012M	855-016M	
Coarse	855-012C	855-016C	855-018C
Extra Coarse		855-016XC	

ROUND END TAPER



850
855
856

Removal of Old Fillings
Cavity Preparation
Laminate Preparation

855S | ROUND END TAPER SHORT



Head Diameter 1/10mm	017	018	018
Head Length mm	6.0	6.0	10.0
Extra Fine	855S-017XF		
Fine	855S-017F		
Coarse			855S-018C
Extra Coarse		855S-018XC	

856 | ROUND END TAPER



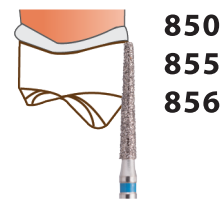
Head Diameter 1/10mm	012	014	016	018	025
Head Length mm	8.0	8.0	8.0	8.0	8.0
Fine			856-016F	856-018F	
Medium			856-016M		
Coarse	856-012C	856-014C	856-016C	856-018C	856-025C
Extra Coarse			856-016XC	856-018XC	

856L | ROUND END TAPER LONG



Head Diameter 1/10mm	016	018
Head Length mm	9.0	9.0
Coarse	856L-016C	856L-018C

ROUND END TAPER



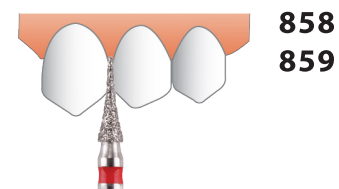
Removal of Old Fillings
Cavity Preparation
Laminate Preparation

858 | POINTED CONE



Head Diameter 1/10mm	014	016
Head Length mm	8.0	8.0
Extra Fine	858-014XF	
Medium	858-014M	858-016M
Coarse	858-014C	

POINTED CONE



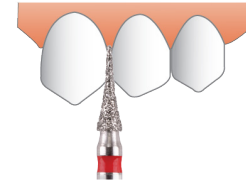
Crown Preparation
Surface Finishing

859 | POINTED CONE



Head Diameter 1/10mm	010	012	014	016
Head Length mm	10.0	10.0	10.0	10.0
Extra Fine			859-014XF	859-016XF
Fine	859-010F		859-014F	859-016F
Medium	859-010M			
Coarse		859-012C	859-014C	859-016C

POINTED CONE



Crown Preparation Surface Finishing

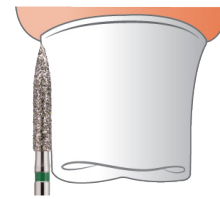
858
859

862 | FLAME



Head Diameter 1/10mm	010	012	014
Head Length mm	8.0	8.0	8.0
Extra Fine	862-010XF	862-012XF	
Fine	862-010F	862-012F	862-014F
Medium		862-012M	
Coarse	862-010C	862-012C	862-014C

FLAME



Crown Preparation Inlay/Onlay Preparation

862
863

863 | FLAME



Head Diameter 1/10mm	012	018
Head Length mm	10.0	10.0
Fine	863-012F	
Medium	863-012M	
Coarse	863-012C	863-018C

878 | TORPEDO



Head Diameter 1/10mm	012	014
Head Length mm	8.0	8.0
Medium	878-012M	
Coarse	878-012C	878-014C

878K | GINGIVAL CURETTAGE



Head Diameter 1/10mm	014	016	018
Head Length mm	8.0	8.0	8.0
Coarse	878K-014C	878K-016C	878K-018C

GINGIVAL CURETTAGE

878K



Cavity Preparation
Crown Preparation

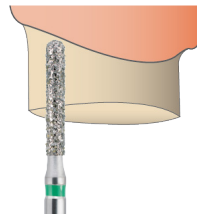
881 | ROUND END CYLINDER



Head Diameter 1/10mm	014
Head Length mm	8.0
Coarse	881-014C

ROUND END CYLINDER

881



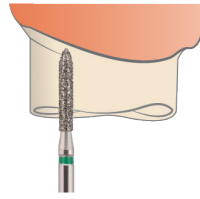
Removal of Old Fillings
Cavity Preparation
Crown Preparation
Ceramic Restorations
Inlay/Onlay Preparation

885 | BEVELED CYLINDER



Head Diameter 1/10mm	012
Head Length mm	8.0
Medium	885-012M
Coarse	885-012C

BEVELED CYLINDER



885
886

Removal of Old Fillings
Crown Preparation

886 | BEVELED CYLINDER



Head Diameter 1/10mm	012	016
Head Length mm	10.0	10.0
Medium	886-012M	
Coarse	886-012C	886-016C

909S | WHEEL ROUNDED RIM SHORT



Head Diameter 1/10mm	040
Head Length mm	1.3
Coarse	909S-040C

Cross Reference FG Diamonds

MARK3 BlueStreak	Grit	Brasseler USA	Henry Schein	Neo Diamonds	Premier Two Striper	Sirona Midwest
Barrel						
811-033	C	017277U0	1125128	2133C	230C	471060
811-037	C	017278U0	1126242	2137C	234C	471061
811-037	XC	012925U0	1126243	-	-	471063
Beveled Cylinder						
885-012	C	004899U0	-	1812.8C	251.8C	471352
885-012	M	004578U0	1125281	1812.8M	-	-
886-012	C	-	9007406	1812.10C	250.9C	-
886-012	M	012181U0	1125282	-	-	-
886-016	C	004901U0	1125284	-	-	-
Egg						
379-018	F	017165U0	1125118	1908F	-	471423
379-018	M	004092U0	1125175	1908M	-	471424
379-023	C	013889U0	1125123	1900C	287.4C	471428
379-023	F	004967U0	1125121	1900F	287.4	471400
379-023	M	004093U0	1125122	1900M	-	471427
379-023	XF	005258U0	1125296	3900VF	-	471399
Flame						
862-010	C	-	9007330	1510.8C	-	-
862-010	F	011994U0	9007331	1510.8F	-	471262
862-012	C	004878U0	9007334	1512.8C	261.8C	471271
862-012	F	005053U0	9007335	1512.8F	-	471263
862-012	M	004520U0	1125259	1512.8M	-	471267
862-012	XF	005374U0	-	3512.8VF	-	471260
862-014	C	004879U0	9007339	-	260.8C	471272
862-014	F	015568U0	-	-	-	471264
862-014	XF	-	1125260	-	-	-
863-012	C	004883U0	1125168	1512.10C	-	471518
863-012	F	005056U0	-	9007347	1512.10F	471519
863-012	M	004529U0	1125262	1512.10M	797.11M	-
863-018	C	-	1125265	-	-	-

Cross Reference FG Diamonds

MARK3 BlueStreak	Grit	Brasseler USA	Henry Schein	Neo Diamonds	Premier Two Striper	Sirona Midwest
Flat End Cylinder						
835-010	C	004809U0	9007137	0710C	513.4C	-
835-010	M	004345U0	1125219	0710M	513.4M	-
835-012	C	004810U0	1125222	0712C	514.3C	-
835-016	C	-	-	-	-	-
836-012	C	004813U0	1125132	-	514.5C	471075
836-014	C	004814U0	1125224	-	520.4C	471076
837-012	C	004818U0	9007157	0712.7C	515.7C	471089
837-012	M	004368U0	9007159	-	-	471086
837-014	C	004819U0	9007161	-	515.8C	471090
837-014	M	004369U0	1125225	-	-	471087
837-016	C	004820U0	9007164	0716.8C	516.7C	471091
837-016	M	004370U0	1125226	-	-	471088
Flat End Taper						
847-010	C	-	9007183	-	-	-
847-014	C	004836U0	9007188	0914.8C	702.8C	471128
847-016	C	004837U0	1125138	0916.8C	722.8C	471129
847-016	M	004418U0	1125232	0916.8M	-	471125
847-018	C	004838U0	9007194	0918.8C	703.8C	471130
848-012	C	-	9007201	-	721.10C	-
848-016	C	004842U0	9007204	0916.10C	722.10C	471158
848-016	M	004425U0	1125234	0916.10M	722.10M	471154
848-018	C	004843U0	1125236	0918.10C	700.11C	471159
848-018	XC	-	9007211	-	-	471165
Football						
368-016	C	-	471411	1916C	292.3	471411
368-016	F	004959U0	9007042	1916F	292.3	471409
368-016	M	-	9007043	-	292.3	-
368-023	C	004768U0	1125108	1923C	285.5C	471417
368-023	F	004960U0	1125105	1923F	285.5F	471415
368-023	M	004085U0	1125106	1923M	285.5M	471416

Cross Reference FG Diamonds

MARK3 BlueStreak	Grit	Brasseler USA	Henry Schein	Neo Diamonds	Premier Two Striper	Sirona Midwest
Football						
368-023	XC	015169U0	1125109	-	285.5SC	471418
368-023	XF	005256U0	1125104	3923VF	285.5XF	471414
Gingival Curettage						471325
878K-014	C	005316U0	9007373	1714.8C	764.8C	471326
878K-016	C	005317U0	9007376	1716.8C	253.8C	471327
878K-018	C	005318U0	9007379	1718.8C	-	
Gross Reduction Cylinder Short						
652S-018	XC	-	-	-	-	-
Gross Reduction Taper Short						
655S-018	XC	-	-	2218C	ST.8	383911
Interdental						
392-016	F	004969U0	1125125	1416F	203.5F	471448
392-016	XF	005281U0	-	-	-	471447
Inverted Cone						
805S-012	C	004793U0	9007108	-	310.1C	471050
805S-016	C	-	1045899	0316C	315.1.75C	-
807-016	M	004236U0	1125207	-	-	-
807-018	M	004236U0	-	-	-	-
Inverted Cone Pear Long						
830L-012	M	-	-	-	-	-
Pointed Cone						
858-014	C	004868U0	9007291	1314.8C	207.7C	471253
858-014	M	004495U0	9007293	-	-	471251
858-014	XF	005372U0	-	3314.8VF	-	471249
858-016	M	004496U0	1125247	-	-	471252
859-010	F	005046U0	1125165	-	797.11F	-
859-010	M	004499U0	1125250	-	79.11M	-
859-012	C	-	9007299	1312.11C	-	-
859-014	C	-	9007303	1314.10C	608.9C	-

Cross Reference FG Diamonds

MARK3 BlueStreak	Grit	Brasseler USA	Henry Schein	Neo Diamonds	Premier Two Striper	Sirona Midwest
Pointed Cone						
859-014	F	-	1125166	1314.10F	-	-
859-014	XF	-	1125240	3314.10VF	-	-
859-016	C	-	9007307	-	262.10C	-
859-016	F	-	9007308	-	-	-
859-016	XF	-	1125241	-	-	-
Round						
801-012	C	004781U0	9007078	-	115C	471019
801-012	M	004161U0	1125178	0112M	-	-
801-014	C	004782U0	1125185	-	-	471020
801-014	M	004162U0	1125179	-	-	471011
801-016	C	004783U0	1125126	0116C	120C	471021
801-016	M	004163U0	1125181	0116M	-	471012
801-018	C	004784U0	9007087	0118C	125C	471022
801-018	F	-	9007088	-	125F	471003
801-018	M	004164U0	1125182	0118M	-	471013
Round Edge Taper						
846KR-016	M	014883U0	-	-	-	471116
847KR-016	C	015167U0	1125137	0816.8C	722.8KRC	471145
847KR-016	M	014888U0	9007197	-	-	471144
Round Edge Taper Short						
845KRS-019	C	-	-	0818.4C	-	-
845KRS-026	C	-	-	-	-	-
845KRS-026	F	-	-	-	-	-
845KRS-026	M	015512U0	-	-	-	-
847KRS-017	C	-	-	-	-	-
Round End Cylinder						
881-014	C	012155U0	1125098	1214.8C	550.8C	-
Round End Taper						
850-012	C	-	1125139	1112.10C	781.10C	-
850-014	C	004850U0	1125140	1114.10C	781.10C	471174

Cross Reference FG Diamonds

MARK3 BlueStreak	Grit	Brasseler USA	Henry Schein	Neo Diamonds	Premier Two Striper	Sirona Midwest
Round End Taper						
850-016	C	004851U0	1125141	1116.10C	782.10C	471175
850-016	F	015979U0	9007229	-	782.10F	471168
850-018	C	004852U0	115238	-	770.10C	471176
855-012	C	-	9007241	-	781.6C	471191
855-012	F	-	-	-	-	-
855-012	M	004478U0	-	-	-	471189
855-016	C	-	1125243	1116.6C	783.6C	471195
855-016	M	-	1125242	-	-	-
855-016	XC	5024772U0	912765	-	-	471193
856-012	C	004862U0	1125144	1112.7C	781.8C	471207
856-014	C	004863U0	1125148	1114.8C	782.6C	471208
856-016	C	004864U0	1125152	1116.8C	782.8C	471209
856-016	F	005041U0	1125150	1116.8F	782.8F	471198
856-016	M	004488U0	1125151	1116.8M	-	471204
856-016	XC	004745U0	1125153	-	-	471215
856-018	C	004865U0	1125155	1118.7C	770.8C	471210
856-018	F	001734U0	1125154	1118.7F	767.8F	471199
856-018	XC	004746U0	1125156	-	-	471216
856-025	C	004866U0	-	-	790.8C	471212
856L-016	C	005304U0	1125159	-	770.9C	471241
856L-018	C	005305U0	1125161	1118.9C	770.10C	471242
Round End Taper Short						
855S-017	F	-	-	-	-	-
855S-017	XF	-	-	-	-	-
855S-018	C	-	-	-	767.7C	-
855S-018	XC	-	-	-	-	471194
Torpedo						
878-012	C	004890U0	1125169	1800.8C	511.8C	471307
878-012	M	004560U0	1125267	-	-	471304
878-014	C	004891U0	1125269	1804.8C	244.10C	471308
Wheel Rounded Rim Short						
909S-040C	C	004906U0	1125171	-	862C	471383



ZIRCONIA

Dental Rotary Instruments

Blue Streak Zirconia are improved specialty diamonds engineered for precise adjustments and cutting through Lithium Disilicate and Zirconia crowns. Blue Streak Zirconia Diamonds provide greater cutting speed and superior longevity while producing minimal heat.

BLUE STREAK

ZIRCONIA ASSORTED PACK

WHERE PRECISION MEETS PERFECTION



5
BURS

ASSORTED
PACK

(1) ROUND END CYLINDER

(1) POINTED CONE


(1) ROUND END TAPER

(1) EGG

(1) ROUND

ZIRCONIA


801 | ROUND



Head Diameter 1/10mm	022
Head Length mm	2.2

801-022Z


856 | ROUND END TAPER



Head Diameter 1/10mm	016
Head Length mm	9.0

856-016Z


379 | EGG



Head Diameter 1/10mm	023
Head Length mm	4.5

379-023Z


859 | POINTED CONE



Head Diameter 1/10mm	010
Head Length mm	11.5

859-010Z

881 | ROUND END CYLINDER

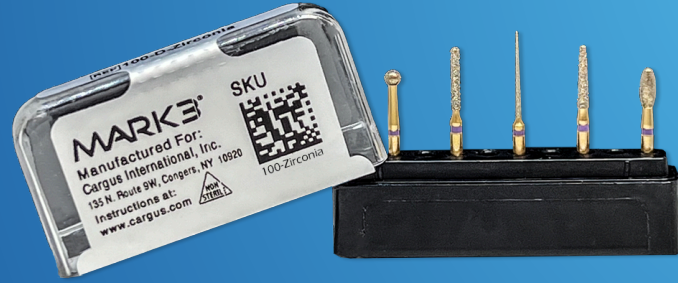


Head Diameter 1/10mm	012
Head Length mm	8.0

881-012Z

BLUE STREAK Zirconia Diamond Burs
are only available in an assorted pack. They are NOT sold separately.

- **Blue Streak Zirconia**
Assorted Diamond Burs
5 Burs Per Box



- **Blue Streak FG Diamonds**
5 Burs Per Pack

- **Blue Streak Diamond Bur Sample Wallet**
Assorted FG and Zirconia Diamond Burs
132 Burs Per Wallet



MARK3 Blue Streak Diamond Dental Burs Instructions for Use for *Non-Sterile* - Diamond Dental Burs

Description

MARK3 Blue Streak Diamond Dental Burs are manufactured from stainless steel coated with Diamond

The burs are provided sterile or non-sterile 

SCOPE

These instructions are applicable to the cleaning of the Diamond Dental Burs prior to initial use, and there after every subsequent re-use. Diamond Dental Burs are supplied mechanically clean, but NOT sterile.

INDICATIONS FOR USE

MARK3 Blue Streak diamond burs can be used for a wide variety of restorative procedures including but not limited to: removal of caries or old restorations, preparation of cavities for restoration, finishing of restorations, preparation of crowns, orthodontic device procedure and any other dental operation. The bur pattern to be selected for specific application. For best product performance, always match the bur to the task to be performed.

CONTRAINDICATIONS For the use of MARK3 Blue Streak Diamond burs is contraindicated on any patient who is allergic to any of the components of the product.

- a) Used burs shall be considered as contaminated and as such, appropriate precautions shall be taken during re-processing and disposal. Suitable eye protection, gloves and a mask should be worn when re-processing.
- b) In the event of burs being returned to MARK3, please ensure any contaminated and/or potentially contaminated burs have been effectively cleaned, and are appropriately packaged for return.

STORAGE (pre-use): Store in a dry and clean environment at ambient temperature.

CLINICAL PRECAUTIONS AND WARNINGS:

Read carefully:

- a) The device is to be used as per the following instructions by physician or licensed practitioner.
- b) Carefully read package labels to ensure use of the appropriate device. Failure to do so may cause procedural delays or patient or user injury.
- c) Failure to follow these instructions may cause the following: preparation site damage, injury to the patient or user, or possible aspiration or swallowing of the diamond burs.
- d) Clean and sterilize the burs supplied in a non-sterile condition in accordance with the directions below before first use and before each reuse to avoid any risk of contamination.
- e) Always wear gloves when handling contaminated instruments.
- f) Protect patient's eyes and vulnerable tissues when using these diamond burs.
- g) Clinicians should wear eye protection and facemask when using diamond burs.
- h) Surgical masks shall be worn to avoid inhalation of aerosol and/or dust generated during the procedure.
- i) Ensure the bur is fully seated and gripped in the handpiece collet to. Failure to follow these instructions may cause preparation site damage, injury to the patient or user, or possible aspiration or swallowing of the burs.

- j) Prior to use inspect the bur for broken and/or damaged flutes, discard any potentially defective burs. Do not use worn- out or dull devices.
- k) Maintain handpieces in good working condition to ensure maximum effectiveness of the device. Failure to properly maintain handpieces may lead to procedural delays or injury of the patient or user, aspiration or swallowing of the device or damage to the preparation site due to vibration of a worn chuck or turbine.
- l) Discard any damaged diamond burs immediately.
- m) Do not use rusted burs.
- m) Read carefully the labels on the bur package.
- n) Before use, run the handpiece to check for any abnormalities including overheating.
- p) Do not apply excessive pressure on the bur as this could cause undesirable heat and/or may cause the bur to fail.
- q) Move the bur continuously when in use to avoid localized heating and/or damage to the bur. Undesirable heat generation can cause patient discomfort, tooth or tissue necrosis, or patient burns.
- r) Avoid removing the bur at too sharp angle to avoid leverage and breakage which could cause patient or user injury.
- s) Never force a bur into a handpiece as this could cause damage to the handpiece collet which could result in procedural delays.
- t) Never exceed the maximum speeds as shown in the table as this may generate undesirable heat.
- u) When using short burs (up to 20 mm in length) make certain the head/diamonds do not come in contact with the chucking mechanism
- v) Pediatric **Mini-Diamonds** Burs (short) should be used with mini handpiece intended for use with short shank burs and normal burs up to 20 mm in length

The bur pattern selected will be chosen to cut a specific material in a specific application. The following table gives guidance and **provides recommended RPM**

Instrument head diameter 1/10 mm	Maximum permissible speed (RPM)	Recommended operational speed (RPM)
007 - 010	450,000	100,000 - 220,000
011 - 014	450,000	70,000 - 220,000
015 - 018	450,000	55,000 - 160,000
019 - 023	300,000	40,000 - 120,000
024- 027	160,000	35,000 - 110,000
028 - 031	140,000	30,000 - 95,000
032 - 040	120,000	25,000 - 75,000
041 - 054	95,000	15,000 - 60,000
055 - 070	60,000	12,000 - 40,000
080 - 100	45,000	10,000 - 20,000

REPROCESSING INSTRUCTIONS FOR DIAMOND DENTAL BURS

SCOPE

The reprocessing instructions detailed below apply only to reusable burs. Burs shall be reprocessed prior to being reused.

LIMITATIONS OF RE-USE

Reprocessing will have little effect on MARK3's Blue Streak dental burs. The end of bur's life is determined by wear and damage in use and the burs should be inspected for defects during the preliminary cleaning process.

Delay between use and reprocessing must be kept to a minimum to avoid contaminants drying, thereby making cleaning more difficult. Therefore, keep the unclean burs immersed in the cleaning/disinfecting agent in accordance with manufacturer instructions, but in any event, do not exceed 12 hours. Prolonged storage in disinfectant solutions may result in corrosion and should therefore be avoided. Caution: Do not leave burs immersed in disinfectants that have a fixative action (such as aldehyde-based products) unless the burs have been thoroughly cleaned first.

WARNINGS

Used burs should be considered as being contaminated and appropriate handling precautions should be taken during reprocessing. Gloves, eye protection and a mask should be worn. Other measures may be required if there are specific infection or cross-contamination risks from the patient. Used burs are also considered as bio-hazard and need to be discarded as bio-hazard waste unless reprocessing procedures has been done according the instructions.

PREPARATION FOR CLEANING	There are no special requirements unless local infection controls require the use of a disinfectant immediately after use, in which case the selected disinfectant must be validated by the user for cleaning dental burs shall be used and the manufacturer's instructions followed.
MANUAL CLEANING, DRYING AND INSPECTION PROCEDURE	<p>If manual cleaning is implemented, the burs should be cleaned in a sink reserved for the purpose.</p> <p>Pre-clean under running water with a brush directly after use.</p> <ol style="list-style-type: none"> 1) Rinse the burs under running cold water and, keeping them immersed, brush thoroughly away from the body using a neutral cleaning or cleaning/disinfecting agent labeled for use on dental burs or other similar types of reusable medical instruments, following the agent manufacturer's instructions. 2) Care should be taken to avoid spreading contaminants by spraying or splashing during the brushing process. 3) Wire brushes must be used with caution, as brass particles may result in galvanic corrosion and steel particles may cause discoloration of stainless steel. 4) After cleaning, inspect the burs, with the aid of magnification if necessary, to ensure that all contamination has been removed. Repeat the cleaning process if necessary. 5) Dry the burs using paper toweling or dry heat not exceeding 140°C. 6) Inspect the burs, with the aid of magnification if necessary and discard any damaged or corroded instruments. <p>Note: surface contamination on the burs must be removed prior to automatic reprocessing</p>
AUTOMATED CLEANING	<p>PRE-CLEANING –</p> <ol style="list-style-type: none"> 1) Prepare a 0.1% neutral/mild pH enzymatic detergent, according to manufacturer's instructions. (in the lowest recommended concentrations). 2) Rinse the bur under running tap water for at least one (1) min. 3) Soak burs immediately into detergent solution, for two (2) minutes.

	<ol style="list-style-type: none"> 4) Scrub the burs under running water with soft nylon brush to remove any remaining blood or debris for at least one (1) minute. 5) Place the burs on a clean cloth to avoid any contact between them during the next cleaning procedure <p>AUTOMATED CLEANING PROCEDURE - Place the burs in the washer in a suitable small parts tray or on the load carrier such that all surfaces of the instruments will be cleaned and disinfected.</p> <ol style="list-style-type: none"> 1) Run the automatic wash cycle – Short cycle parameters 2) Two (2) Minutes prewash at 30±5°C (86±41°F) with tap water. 3) Two (2) Minutes prewash at 30±5°C (86±41°F) with tap water. 4) Ten (10) Minutes main wash with natural pH detergent and tap water at 25±5°C (110±41°F). 5) One (1) Minute rinse with tap water at 30°C (86°F) 6) Ten (10) Minutes distilled water rinse at 30°C (86°F) 7) Twenty (20) Minutes air drying phase at high temperature of 100°C (414°F) <p>** MARK3 validated the cleaning process with short automatic wash cycle. Any cleansing and disinfecting agents used must be compatible with dental burs; otherwise accelerated corrosion or other damage may occur. The washer disinfectant and the cleaning agent manufacturers' instructions must be followed.</p> <p>POST AUTOMATED CLEANING PROCEDURE –</p> <ol style="list-style-type: none"> 1) Remove the instruments at the end of the washer programme. 2) Check that the load is dry and, if necessary, dry with medical compressed air. 3) Visually inspect the burs for cleanliness. If contamination is still visible, reclean the burs again manually. 4) Subsequently, the recleaned burs must be reprocessed again automatically before sterilization 5) All instruments must be inspected visually for cleanliness, integrity and functionality, if necessary, by using an illuminated magnifying glass 6) All instruments are to be checked for damage and wear. Damaged medical devices may no longer be used and must be sorted out
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STERILIZATION - USING STEAM

SCOPE

These sterilization instructions are applicable to burs initially provided as non-sterile that are being reused. No sterilization before first use is required for burs labeled 'Sterile'.

PACKAGING FOR STERILIZATION	<p>If using an autoclave with a pre-vacuum cycle, pack the burs in appropriate instrument trays or pouches validated for steam sterilization.</p> <p>If using an autoclave without a pre-vacuum cycle, the burs should not be packed or wrapped but should be contained in appropriate bur stands with perforated lids.</p>
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	<p>NOTE: Local legislation for sterilization may require that burs are wrapped in pouches for processing in either type of autoclave.</p>								
STERILIZATION	<p>Follow the autoclave manufacturer’s instructions to sterilize the burs. In particular, care must be taken not to exceed the maximum recommended load for the autoclave.</p> <p>MARK3 has validated steam sterilization in an autoclave without a pre-vacuum cycle (gravity displacement type) for a holding time of 3 minutes minimum and six minutes maximum at a temperature of 134 °C and drying time of 30 Min.</p> <p>The holding time is the minimum time for which the minimum temperature is sustained.</p> <ol style="list-style-type: none"> 1) Place the packaged products in the sterilization chamber 2) Start the programme <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>Cycle duration minutes minimum (Min.)</th> <th>Cycle duration minutes maximum (Min.)</th> <th>Cycle temperature (°C)</th> <th>Drying time (Min.)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">6</td> <td style="text-align: center;">134 °C</td> <td style="text-align: center;">30</td> </tr> </tbody> </table> <ol style="list-style-type: none"> 3) Remove the burs at the end of the programme and allow to cool down 4) check the packaging for possible damage and screening effects 5) Faulted packaging must be inspected as being non-sterile. The instruments must be repacked and re-sterilized. <p>NOTE: Local infection control practice may recommend a different combination of holding time and temperature</p>	Cycle duration minutes minimum (Min.)	Cycle duration minutes maximum (Min.)	Cycle temperature (°C)	Drying time (Min.)	3	6	134 °C	30
Cycle duration minutes minimum (Min.)	Cycle duration minutes maximum (Min.)	Cycle temperature (°C)	Drying time (Min.)						
3	6	134 °C	30						
STORAGE	<p>The burs should be stored in the sterilization container (bur stand or pouch) until required.</p> <p>Containers or pouches must be dried before opening to avoid recontamination of the contents with water.</p> <p>Storage should be in dry, clean conditions and at ambient temperature</p>								

VALIDATION OF CLEANING AND STEAM STERILIZATION

The above detailed processes *have been validated* as being capable of preparing MARK3’s Blue Streak dental burs for reuse. It remains the responsibility of the reprocessor to ensure that the reprocessing as actually performed, using the equipment, materials and personnel in the reprocessing facility, achieve the required results. Any deviation from these instructions should be properly evaluated for effectiveness and potential adverse results.



MARK3[®]

New York, USA