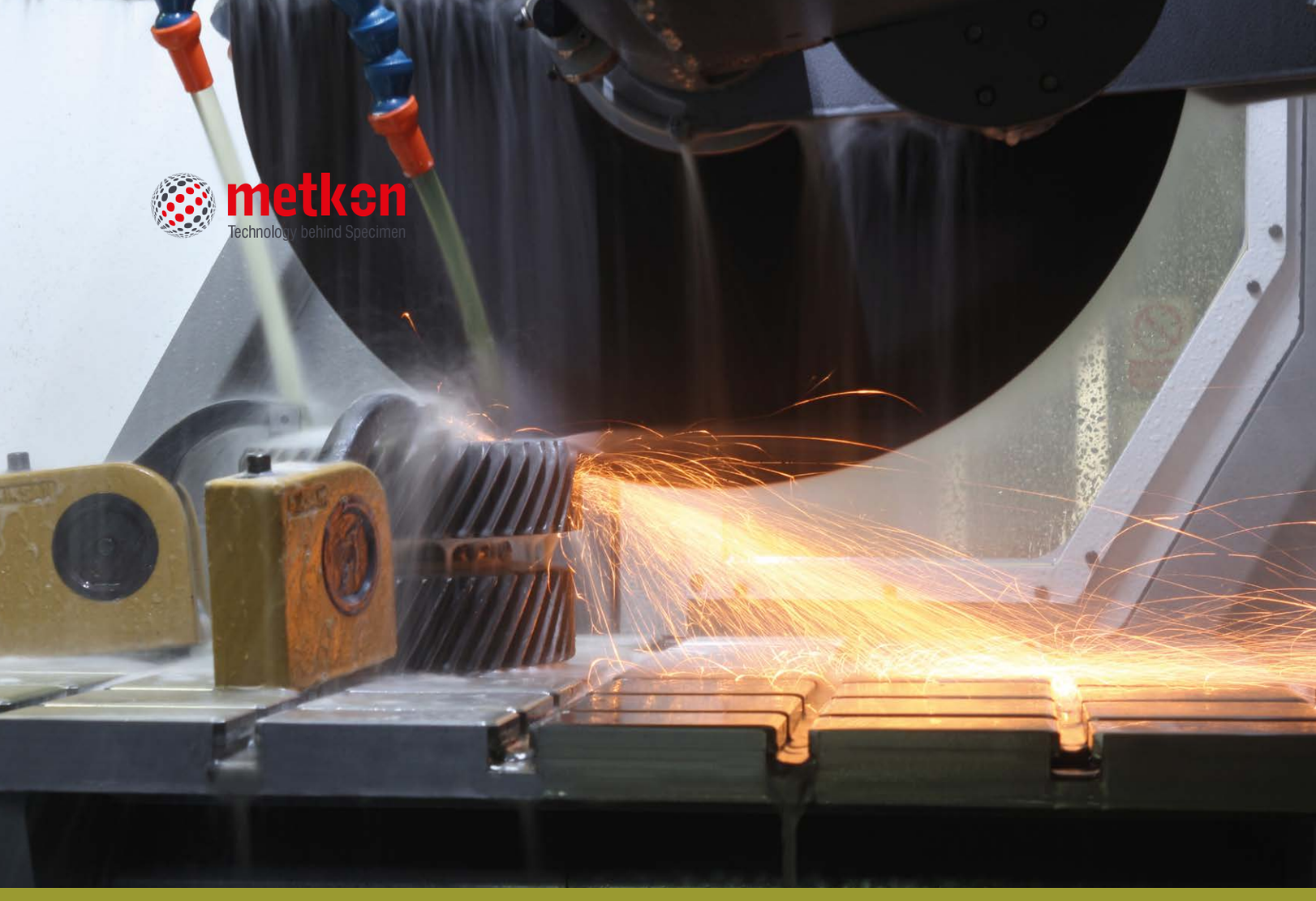

CONSUMABLES FOR CUTTING

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QUARTER CENTURY OF EXPERIENCE

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Technology behind Specimen

CONSUMABLES FOR CUTTING

Sample preparation starts with cutting and good cutting means a good start

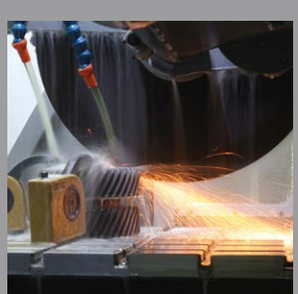
Selecting the right cut-off wheel ensures freedom from burn and distortion and is the best way to save time and consumables. Correct cutting produce specimens which are in perfect condition for the next preparation steps.

ABRASIVE CUT-OFF WHEELS

The most commonly used abrasives for the cutting of different materials are SiC and Al_2O_3

Silicon carbide is suitable for non-ferrous metals whereas aluminum oxide is preferred for ferrous metals. Hard wheels are used for cutting soft materials while soft wheels are recomended for cutting harder materials.

Metkon TRENO type wheels are used to obtain superior cut surfaces. Metkon CUTO series wheels are suitable for routine laboratory applications requiring a balance between wheel life and performance.



TRENO+ Plus

Series Abrasive Cut-off Wheels for use with METACUT & SERVOCUT

Order No	Code	Diameter mm.	Arbor mm.	Thickness mm.	Abrasive Type	Recommended for Cutting	Quantities Per Pack
19-019/S	TRENO-Ti	250	32	1.6	SiC	Titanium and Very Ductile Materials	10
19-020/S	TRENO-NF	250	32	1.6	SiC	Non-ferrous materials	10
19-021/S	TRENO-H	250	32	1.6	Al_2O_3	Soft Steels and ferrous materials <23 HRC	10
19-022/S	TRENO-M	250	32	1.6	Al_2O_3	Medium Hard Steels and ferrous materials >20-35 HRC<	10
19-023/S	TRENO-S	250	32	1.6	Al_2O_3	Hard Steels and ferrous materials >35-55 HRC	10
19-024/S	TRENO-SS	250	32	1.6	Al_2O_3	Very Hard Steels and ferrous materials >55-70 HRC	10
19-040/S	TRENO-NF	300	32	2	SiC	Non-ferrous materials	10
19-041/S	TRENO-H	300	32	2	Al_2O_3	Soft Steels and ferrous materials <23 HRC	10
19-042/S	TRENO-M	300	32	2	Al_2O_3	Medium Hard Steels and ferrous materials >20-35 HRC<	10
19-043/S	TRENO-S	300	32	2	Al_2O_3	Hard Steels and ferrous materials >35-55 HRC	10
19-044/S	TRENO-SS	300	32	2	Al_2O_3	Very Hard Steels and ferrous materials >55-70 HRC	10
19-060/S	TRENO-NF	350	32	2.5	SiC	Non-ferrous materials	10
19-062/S	TRENO-M	350	32	2.5	Al_2O_3	Medium Hard Steels and ferrous materials >20-35 HRC<	10
19-063/S	TRENO-S	350	32	2.5	Al_2O_3	Hard Steels and ferrous materials >35-55 HRC	10
19-064/S	TRENO-SS	350	32	2.5	Al_2O_3	Very Hard Steels and ferrous materials >55-70 HRC	10
19-070/S	TRENO-NF	400	32	3	SiC	Non-ferrous materials	10
19-072/S	TRENO-M	400	32	3	Al_2O_3	Medium Hard Steels and ferrous materials >20-35HRC<	10
19-073/S	TRENO-S	400	32	3	Al_2O_3	Hard Steels and ferrous materials >35-55 HRC	10
19-074/S	TRENO-SS	400	32	3	Al_2O_3	Very Hard Steels and ferrous materials >55-70 HRC	10
19-090/S	TRENO-NF	500	32	3.6	SiC	Non-ferrous materials	10
19-092/S	TRENO-M	500	32	3.6	Al_2O_3	Medium Hard Steels and ferrous materials >20-35 HRC<	10
19-093/S	TRENO-S	500	32	3.6	Al_2O_3	Hard Steels and ferrous materials >35-55 HRC	10
19-097/S	TRENO-M	600	32	5	Al_2O_3	Medium Hard Steels and ferrous materials > 20-35 HRC <	5
19-098/S	TRENO-S	600	32	5	Al_2O_3	Hard Steels and ferrous materials >35-55 HRC	5

TRENO-DUR

Extremely Long Life Abrasive Cut-off Wheels for use with METACUT & SERVOCUT

Order No	Code	Diameter mm.	Arbor mm.	Thickness mm.	Recommended for Cutting	Quantities Per Pack
19-026	TRENO-DUR	250	32	2	Extremely Low Consumption Rate with Optimum Surface Quality for High Volume Cutting Operations, Cut-Check Applications, etc...	10

TRENO-F

Fiber Reinforced Long Life & Durable Abrasive Cut-off Wheels for use with METACUT & SERVOCUT

Order No	Code	Diameter mm.	Arbor mm.	Thickness mm.	Recommended for Cutting	Quantities Per Pack
19-027	TRENO-F	250	32	2.0	Medium & Hard Steels, Fiber Reinforced	10
19-028	TRENO-F	300	32	2.2	Medium & Hard Steels, Fiber Reinforced	10

TRENO-T

Ultra Thin Abrasive Cut-off Wheels for use with METACUT & SERVOCUT

Order No	Code	Diameter mm.	Arbor mm.	Thickness mm.	Recommended for Cutting	Quantities Per Pack
19-031	TRENO-HT	250	32	1.0	Soft Steel and ferrous materials >20-35 HRC<	10
19-032	TRENO-MT	250	32	1.0	Medium Hard Steels and ferrous materials >38-58HRC<	10

CUTO

Series Abrasive Cut-off Wheels for use with METACUT & SERVOCUT

Order No	Code	Diameter mm.	Arbor mm.	Thickness mm.	Recommended for Cutting	Quantities Per Pack
19-022/A	CUTO-M	250	32	1.5	Medium Hard Steels and ferrous materials >23-50 HRC<	10
19-023/A	CUTO-S	250	32	1.5	Hard Steels and ferrous materials>50-60 HRC	10
19-042/A	CUTO-M	300	32	2	Medium Hard Steels and ferrous materials >23-50 HRC<	10
19-043/A	CUTO-S	300	32	2	Hard Steels and ferrous materials>50-60 HRC	10

TRENO-P

Abrasive Cutting Discs for use with MICRACUT Precision Cutters

Order No	Code	Diameter mm.	Arbor mm.	Thickness mm.	Recommended for Cutting	Quantities Per Pack
18-150/S	TRENO-HP	150	12.7	0.8	Non-ferrous materials & stainless steels	10
18-151/S	TRENO-MP	150	12.7	0.8	Medium Hard & hardened Steels & ferrous materials>35-55 HRC<	10
18-200/S	TRENO-HP	200	12.7	1	Non-ferrous materials & stainless steels	10
18-201/S	TRENO-MP	200	12.7	1	Medium Hard & hardened Steels & ferrous materials>35-55 HRC<	10

*All cut-off wheels are resin bonded.

DIAMOND CUT-OFF WHEELS

Metal bonded wheels are used for cutting brittle materials, such as ceramics or minerals, while resin bonded wheels are used for more ductile materials, such as sintered carbides or composites containing predominantly hard phases.

Several factors are important for choosing the appropriate wafering blade.These include: diamond concentration (low and high), diamond bond (metal plate), diamond size (fine or medium), blade diameter and blade thickness. The diamond concentration is important because it directly affects the load which is applied during cutting. For example, brittle materials such as ceramics require higher effective loads to section, whereas ductile materials such as metals require more cutting points.The result is that low concentration blades are recommended for sectioning hard brittle materials such as ceramics and high concentration blades are recommended for ductile materials containing a large fraction of metal or plastic.

DIMOS

Diamond Cutting Discs for use with SERVOCUT & METACUT

Order No	Diameter mm.	Bond	Arbor mm.	Thickness mm.	Diamond Layer's Dep. (X)mm.	Diamond Size/ Concentration	Grain Size: (Mesh)	Recommended for Cutting
19-250	254	Metal bonded	32	1.52	10	Coarse/High	60/80	For general usage
19-251	254	Resin bonded	32	1.52	6.35	Medium/High	100	For hard, delicate or brittle materials
19-300	305	Metal bonded	32	2.08	10	Coarse/High	60/80	For general usage
19-301	305	Resin bonded	32	1.65	6.35	Medium/High	100	For hard, delicate or brittle materials
19-400	406	Metal bonded	32	2.00	10	Coarse/High	60/80	For general usage
19-401	406	Resin bonded	32	2.41	6.35	Medium/High	100	For hard, delicate or brittle materials

DIMOS

Diamond Cutting Wheels for use with MICRACUT

Order No	Diameter mm.	Bond	Arbor mm.	Thickness mm.	Diamond Layer'sDep. (X)mm.	Diamond Size/ Concentration	Grain Size: (Mesh)	Recommended for Cutting
19-100	101.1	Metal bonded	12.7	0.35	4	Medium/High	150	• For general use with ferrous and non-ferrous alloys; copper, aluminium, metal matrix composites, PCB boards, thermal spray coatings and titanium alloy.
19-125	127	Metal bonded	12.7	0.4	4	Medium/High	150	• For general use with ferrous and non-ferrous alloys; copper, aluminium, metal matrix composites, PCB boards, thermal spray coatings and titanium alloy.
19-130	127	Metal bonded	12.7	0.4	4	Fine/Low	220	• For use with hard brittle materials structural ceramics, boron carbide, boron nitride and silicon carbide.
19-126	127	Resin bonded	12.7	0.5	5	Medium/High	150	• Hard, delicate materials or brittle materials(cannot be used at low speeds. High speed only 950 RPM's or higher.)
19-150	152	Metal bonded	12.7	0.5	4	Medium/High	150	• For general use with ferrous and non-ferrous alloys; copper, aluminium, metal matrix composites, PCB boards, thermal spray coatings and titanium alloy.
19-157	152	Metal bonded	12.7	0.5	4	Fine/Low	220	• For use with hard brittle materials structural ceramics, carbide, boron nitride and silicon carbide.
19-151	152	Resin bonded	12.7	0.5	5	Medium/High	150	• For hard, delicate materials or brittle materials (cannot be used at low speeds. High speed only 950 RPM's or higher.)
19-200	203	Metal bonded	12.7	0.81	5	Medium/High	150	• For general use with ferrous and non-ferrous alloys; copper, aluminium, metal matrix composites, PCB boards, thermal spray coatings and titanium alloy.
19-205	203	Metal bonded	12.7	0.81	5	Fine/High	220	• For use with hard brittle materials structural ceramics, carbide, boron nitride and silicon carbide
19-201	203	Resin bonded	12.7	0.88	5	Medium/High	150	• For hard, delicate materials or brittle materials (cannot be used at low speeds. High speed only 950 RPM's or higher.)

CBN

CBN Cutting Discs for use with MICRACUT

Order No	Diameter mm.	Bond	Arbor mm.	Thickness mm.	Diamond Layer's Dep. (X)mm.	Diamond Size/ Concentration	Grain Size: (Mesh)	Recommended for Cutting
19-127	125	Metal bonded	12.7	0.4	5	Medium/high	150	Hard metals, iron, steel, lead and titanium, ferrous materials
19-152	150	Metal bonded	12.7	0.5	5	Medium/high	150	Hard metals, iron, steel, lead and titanium, ferrous materials
19-202	200	Metal bonded	12.7	0.9	5	Medium/high	120	Hard metals, iron, steel, lead and titanium, ferrous materials

COOLING FLUIDS

Order No	Code	Description	Type	Quantity	For use with
19-902	METCOOL	Nature Friendly Soluble Oil	Water-based	5 lt.	METACUT & SERVOCUT
19-905	METCOOL II	Nature Friendly Soluble Oil	Water-based	1 lt.	MICRACUT 152/202
19-906	METCOOL NF	Nature Friendly Soluble Oil Perfect corrosion protection for reactive metals like copper, brass, cobalt, aluminum, tungsten carbide, etc...	Water-based	5 lt.	METACUT & SERVOCUT

*Recommended mix ratio is 3% Metcool to 97% water.

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METKON
Instruments Inc.

Demirtas Dumlupinar Organize Sanayi Bolgesi
Ali Osman Sonmez Cd. No: 14 Bursa

Tel : +90 224 261 18 40
Fax : +90 224 261 18 44

metkonsales@metkon.com
metkon.com

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