

# MERIT

Your Supplier for  
Aerospace and Turbine  
**Specialty Abrasive  
Applications**



[www.meritabrasives.com](http://www.meritabrasives.com)

**See New Merit Blaze**  
Next-Generation Ceramic Product!

# PowerLock Discs

## Ultra Ceramic Plus PowerLock Quick-Change Discs

These premium discs have a supersize coat with a grinding aid that dissipates the heat and allows for less part burning and longer disc life. This product is excellent on:

- Maintenance and repair of aerospace parts containing stainless, inconel, nickel alloys, monel or titanium
- Turbine blades, structural machine parts, i.e. panels, wing ribs, thrust reverse fan compressors
- Blending parting lines on cast turbine blades
- Removal of machine blemishes and mill marks on airframe parts



DIAMETER	GRIT	TYPE I	TYPE II	TYPE III
9/16"	36	08834163000	08834163315	
	60	08834163005	08834163318	
	120	08834163017	08834163320	
1"	36	08834163028	08834163374	08834163398
	60	08834163042	08834162240	08834163402
	120	08834163112	08834163379	08834163404
2"	36	08834163119	08834163118	08834160449
	60	08834163231	08834163551	08834163412
	120	08834168651	08834163382	08834168657
3"	36	08834163238	08834163383	08834160458
	60	08834163266	08834163386	08834163415
	120	08834168652	08834168655	08834168658

MANY ADDITIONAL SIZES ARE AVAILABLE; ASK YOUR MERIT SALES REPRESENTATIVE FOR DETAILS.  
USE 9/16" DIAMETER DISC TO DEBURR AND POLISH IN TIGHT AREAS INACCESSIBLE TO OTHER TOOLS.

## Zirconia Alumina Plus PowerLock Quick-Change Discs

These quality discs also have a supersize coat with a grinding aid that resists heat generation and minimizes burning. The product aggressively grinds exotic alloys used on a variety of airframe and engine components:

- Fan/compressor structures and cases
- Turbine, combustor and sandwich structures
- Rings, ducts and LPT cases
- Doors and bulkheads



DIAMETER	GRIT	TYPE I	TYPE II	TYPE III
2"	36	08834167023	08834167065	08834167107
	40	08834167024	08834167066	08834167108
	60	08834167026	08834167068	08834167110
3"	36	08834167030	08834167072	08834167114
	40	08834167031	08834167073	08834167115
	60	08834167033	08834167075	08834167117

MANY ADDITIONAL SIZES ARE AVAILABLE; ASK YOUR MERIT SALES REPRESENTATIVE FOR DETAILS.

### PowerLock Discs Come in a Choice of Three Safe, Easy-to-Use Fasteners

**Type I** is a snap-on/snap-off system, which enables you to change discs quickly and safely, reducing downtime and operating expenses (equivalent to Norton's TP fastener)

**Type II** features a turn-on/turn-off style fastener (equivalent to Standard Abrasives' Soc-Att® locking system or Norton's TS fastener)

**Type III** features a roll-on/roll-off style fastener (equivalent to 3M® Roloc™ fastening system or Norton's TR fastener)



Type I



Type II



Type III

# PowerLock Discs

## Silicon Carbide PowerLock Quick-Change Discs

Sharp silicon carbide abrasive provides high initial cut and penetration for nonferrous materials. Primarily used for:

- Titanium aircraft and engine parts where aluminum oxide could cause contamination
- Aluminum airframes and engine components
- Composites
- Finishing of turbine blades and graphite aircraft parts



DIAMETER	GRIT	TYPE I	TYPE II	TYPE III
1-1/2"	60	08834162206	08834160894	08834163863
	80	08834162207	08834160895	69957391364
	120	08834162209	08834160685	69957391366
2"	60	08834162168	08834165254	08834164163
	80	08834162169	08834165255	08834166155
	120	08834162171	08834165257	08834164837
3"	60	08834162187	08834165269	08834164850
	80	08834162188	08834165270	08834166159
	120	08834162190	08834165272	08834166160

MANY ADDITIONAL SIZES AND GRITS ARE AVAILABLE, ASK YOUR MERIT SALES REPRESENTATIVE FOR DETAILS.

## PowerLock Quick-Change Holders



DISC DIA.	MAX RPM	TYPE I	TYPE II	TYPE III
9/16"	40,000	66261054013	66261054014	
1"	40,000	08834164002	08834164651	08834164037
1-1/2"	30,000	08834164003	08834164146	08834161174
2"	30,000	08834164004	08834164198	08834164922
3"	20,000	08834164005	08834164113	08834164949

CONTACT YOUR MERIT SALES REPRESENTATIVE FOR A COMPLETE LIST OF QUICK-CHANGE DISC BACK-UP PADS.

# PowerFlex Flap Discs

## Mini PowerFlex Type 27 Flap Discs

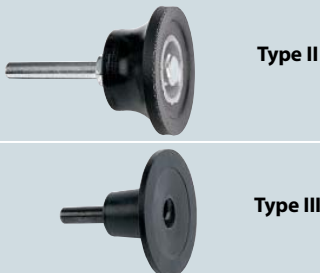
These durable, flat-surfaced, zirconia alumina flap discs run cooler for longer disc life and better cut rates – grinding and finishing in one step.

- Aggressive weld removal on flat aircraft structures while maintaining a consistent finish
- Edge breaking airframes



DIAMETER	GRIT	TYPE II	TYPE III
2"	36	08834195020	08834194550
	40	08834195021	08834194551
	60	08834195022	08834194552
	80	08834195023	08834194553
	120	08834195024	08834194554
3"	36	08831495035	08834194563
	40	08834195036	08834194564
	60	08834195037	08834194565
	80	08834195038	08834194566
	120	08834195039	08834194567
Holder		08834168539	08834160172

## PowerLock Quick-Change Holders



# Grind-O-Flex Flap Wheels

## Mandrel-Mounted Micro-Mini Grind-O-Flex Flap Wheels

Our smallest aluminum oxide flap wheels are available in 3/8" to 1-3/16" diameters and are mounted onto 1/8" steel shanks. They are made with J-weight resin bond material for flexibility and are ideal for small, and hard-to-reach applications, such as:

- ID grinding of holes, radii and grooves as small as 1/2", found in airframe tubing and numerous other aircraft and engine components
- Light deburring, fast polishing and finishing of landing gear, etc.



DIAMETER X W X SHANK	GRIT	PART #
3/8 x 3/8 x 1/8	60	08834137470
	80	08834137471
	120	08834137472
5/8 x 5/8 x 1/8	60	08834137480
	80	08834137481
	120	08834137482
1-3/16 x 3/16 x 1/8	60	08834167508
	80	08834167501
	120	08834137502

MANY ADDITIONAL SIZES ARE AVAILABLE; ASK YOUR MERIT SALES REPRESENTATIVE FOR DETAILS.

## High Performance Mini Grind-O-Flex Flap Wheels

These durable aluminum oxide, more aggressive miniature flap wheels are designed to grind and polish intricate surfaces. They are more aggressive and durable. The quick-change feature allows you to quickly spin the wheel on and off with no special tools. Also available in silicon carbide abrasive.

- ID and OD blending, finishing, and cleaning of aircraft tubing, landing gear components, cylinders and pistons
- Removing flash, parting lines and machine tool marks on aircraft structures, rings, cases, fans, compressors and spars
- Edge breaking of similar components
- Blending and finishing exhaust nozzles, fan and inlet cowls, etc.



DIA X W	GRIT	QUICK-CHANGE 1/4"-20 THD	MANDREL-MOUNTED 1/4" SHANK
1 x 1	60	08834131008	08834137310
	80	08834131009	08834137311
	120	08834131010	08834137312
2 x 1	60	08834133015	08834137370
	80	08834133016	08834137371
	120	08834133017	08834137372
3 x 1	60	08834135015	08834137450
	80	08834135016	08834137451
	120	08834135017	08834137252
QC-4 Adapter		08834137001	

MANY ADDITIONAL SIZES ARE AVAILABLE; ASK YOUR MERIT SALES REPRESENTATIVE FOR DETAILS.



QC-4 - 1/4"-20 THD Quick-change adapter with 1/4" Shank

## Mandrel-Mounted, Interleaf Flap Wheels

Interleaf flap wheels consist of alternating flaps of aluminum oxide cloth and medium grit Abrasotex (non-woven) material (in a one-to-one ratio) – creating softer, very flexible flap wheels – making them the choice for:

- Removing heavy oxidation prior to painting or plating of aircraft spars or aircraft components
- Producing a linear scratch pattern and a final finish on ferrous and nonferrous aircraft parts and equipment



DIA X W X 1/4" SHANK	GRIT	PART #
2 x 1 x 1/4"	60	08834138122
	80	08834138123
	120	08834144457
3 x 2 x 1/4"	60	08834131338
	80	08834138116
	120	08834144460

MANY ADDITIONAL SIZES ARE AVAILABLE; ASK YOUR MERIT SALES REPRESENTATIVE FOR DETAILS.

## Abrasotex Non-Woven Flap Wheels

As these are softer and more conformable than conventional coated abrasive flap wheels, non-woven flap wheels excel on uneven or irregular surfaces (as well as flat surfaces) to:

- Produce uniform finishes on aluminum, brass, and stainless steel
- Clean threaded parts
- De-gloss plastic parts
- Remove oxide



**NEW!**

DIA X W X 1/4" SHANK	GRIT	PART #
2 x 1 x 1/4"	MED	66261189992
	VFN	69957399202
3 x 1 x 1/4"	MED	08834131921
	VFN	66261189993
3 x 1-3/4 x 1/4"	MED	66261026075
	VFN	66261189994



## Merit Blaze and Silicon Carbide Cartridge and Spiral Rolls

With their next-generation ceramic grain, grinding aid, improved resin bond system, and X-weight cotton backing, Blaze cartridge and spiral rolls outperform all competitive ceramic, zirconia and aluminum oxide specialty products in today's markets – cutting cooler and lasting longer on stainless steel, cobalt, inconel, titanium, and other hard-to-grind materials. Sharp, durable silicon carbide rolls excel in nonferrous applications. Use these resin bond rolls for:

- Removing machine tool marks, parting line and flash on engine components
- Edge breaking on structural components: spars, panels, fan compressor structure vanes
- Deburring and finishing turbine vanes, complex air foils and landing gear structures
- Burr removal and chamfering aircraft tubing and small radii



## Overlap Slotted Discs

These aluminum oxide resin bond discs are secured in the center with a metal, threaded eyelet for quick changes. The 2-set configuration cuts on the inward motion. The 4-set (back-to-back) configuration allows the operator to cut both on the inward and outward motion.

- Deburring and polishing small holes, cylinder walls and radii on engine components, structural component tubing and landing gear structures
- Light chamfering can also be achieved when ID polishing and finishing



## Cross Pads

Merit aluminum oxide, resin bond, cross pads are constructed in multi-layered strips in a criss-cross design, secured in the center with a threaded, fast-change metal grommet. The criss-cross pattern allows operators to see the work zone while:

- Deburring, polishing, and blending radii of aircraft tubing
- Deburring the back side of a blind hole such as complex welds
- Polishing the close-tolerance, small radii and channels of turbine structures



## Grinding and Blending on Titanium with Cartridge Rolls

- Lasted 60% longer than competitive aluminum oxide
- Removed mismatch 10% faster
- Operators found "Merit Blaze was more aggressive and blended mismatch easier"

Also available – Merit Blaze Overlap Slotted Discs, Square Pads and Cross Pads. Last 50% to 300% longer than any product currently available.

Ask to test Merit Blaze Specialties on your most difficult-to-grind materials. See why Blaze is the product of choice for premium performance and lowest overall grinding cost.

D X L X A. H.	GRIT	BLAZE PART #	S/C PART #
<b>Cartridge Rolls</b>			
1/4" x 1-1/2" x 1/8"	60	66261194384	08834183274
	80	66261194394	08834182359
	120	66261194397	08834189131
3/8" x 1-1/2" x 1/8"	60	66261194392	08834181309
	80	66261194395	08834180710
	120	66261194398	66261042229
1/2" x 1-1/2" x 1/8"	60	66261194393	08834189233
	80	66261194396	08834180712
	120	66261194399	66261086969
<b>Spiral Rolls – Full Taper</b>			
3/8" x 1-1/2" x 1/8"	60	66261194481	08834189901
	80	66261194490	08834189904
	120	66261194491	66261046936
1/2" x 1-1/2" x 1/8"	60	66261194484	66261185977
	80	66261194492	08834183460
	120	66261194495	08834183448
M-9 mandrel*			08834181209

\* 2-3/4" OVERALL LENGTH, 1/4" DIAMETER  
ADDITIONAL SIZES OF THESE AND ALUMINUM OXIDE CARTRIDGE ROLLS ARE ALSO AVAILABLE; ASK YOUR MERIT SALES REPRESENTATIVE FOR DETAILS.

DIAMETER	EYELET	GRIT	A/O PART #
1-1/2"	8-32	80	08834184079
2-set		120	08834186035
2"	8-32	80	08834184076
2-set		100	08834184145
Mandrel MM-32-4*			08834183163

\* 3" OVERALL LENGTH, THREAD SIZE 8-32  
MANY ADDITIONAL SIZES ARE AVAILABLE; ASK YOUR MERIT SALES REPRESENTATIVE FOR DETAILS.

L X W X PLY	EYELET	GRIT	A/O PART #
1-1/2 x 1-1/2 x 1/2	8-32	80	08834184465
8 Ply		120	08834182148
2 x 2 x 1/2	8-32	80	08834184194
8 Ply		120	08834184285
Mandrel MM-32-4*			08834183163
Extended Mandrel MM-32-4-4**			08834121680

\* 3" OVERALL LENGTH, THREAD SIZE 8-32  
\*\* 4" OVERALL LENGTH, THREAD SIZE 8-32  
MANY ADDITIONAL SIZES ARE AVAILABLE; ASK YOUR MERIT SALES REPRESENTATIVE FOR DETAILS.



# Abrasotex Non-Woven Products

## Abrasotex High-Strength Cross Buffs

Merit Cross Buffs offer a unique design with durable non-woven construction for longer life and cool running when:

- Removing oxidation and prepping surfaces, prior to coating aircraft parts
- ID grinding



DIA X W	PLY	EYELET	GRADE	PART #
1-1/2 x 1/2	3	8-32	Medium	08834189308
			VF	08834189307

MANY ADDITIONAL SIZES ARE AVAILABLE; ASK YOUR MERIT SALES REPRESENTATIVE FOR DETAILS.

## Abrasotex PowerLock High-Strength Buffing Discs

Tough, yet conformable, these discs are smear-proof and resist tearing on burrs and sharp edges.

- Removing heavy oxidation on the surface of aircraft structures and engine components
- Edge deburring on aircraft aluminum extrusions
- Blending machine and tool marks, and mismatches on all structural and engine components
- Surface prep prior to coating



DIAMETER	GRADE	TYPE III
2"	VF	08834163987
	M	08834164064
3"	VF	08834163559
	M	08834164065

MANY ADDITIONAL SIZES ARE AVAILABLE; ASK YOUR MERIT SALES REPRESENTATIVE FOR DETAILS.



## Abrasotex Surface Preparation PowerLock Discs

Merit's Surface Preparation Discs are made with a thick layer of abrasive grain bonded to a reinforced, non-woven nylon backing, making them more rigid and aggressive. They smooth uneven edges while holding tolerances on structural components:

- Aluminum panels, bulkheads, spars and wing ribs
- Engine components, turbine vanes, turbine structures, fan and inlet cowls



DIAMETER	GRADE	TYPE III
2"	VF	08834166318
	M	08834166290
	C	08834166289
3"	VF	08834166323
	M	08834166291
	C	08834166322

MANY ADDITIONAL SIZES ARE AVAILABLE; ASK YOUR MERIT SALES REPRESENTATIVE FOR DETAILS.



## Abrasotex Button-Mounted Unitized Wheels

These wheels offer the strength and flexibility of a wheel – with a quick-change fastener. Ideal for:

- Blending and removal of minor scratches and pits on fan and turbine blades
- General cleaning and polishing of metals, prior to coating on structural components, spars, panels and struts
- Removing discoloration and resins on aircraft components, i.e. panels, fan casings and compressors



DIAMETER	SPEC	TYPE III
2 x 1/4	2AM	66261054183
	2SF	66261054182
3 x 1/4	2AM	66261054193
	2SF	66261047153

MANY ADDITIONAL SIZES ARE AVAILABLE; ASK YOUR MERIT SALES REPRESENTATIVE FOR DETAILS.



To put Merit abrasives to work for you, call your local Merit distributor or visit our website at [www.meritabrasives.com](http://www.meritabrasives.com) to view our online catalog and learn about our latest products and applications. Need the name and number of a distributor? Contact the Customer Service numbers below.

# MERIT

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