

INNOVATIVE SOLUTIONS FOR THE AUTOMOTIVE INDUSTRY



“Only the best”





Walter Surface Technologies

As a long standing leader in surface treatment technologies, Walter Surface Technologies has been providing high productivity abrasives, power tools, tooling, chemical tools and environmental solutions for the metal working industry. Founded in 1952, Walter is established in eight countries in North America, South America and Europe. With a focus on continuous design, improvement and development of new and innovative solutions, Walter increases productivity, safety and measurability for customers in the metal working industry.

Our purpose

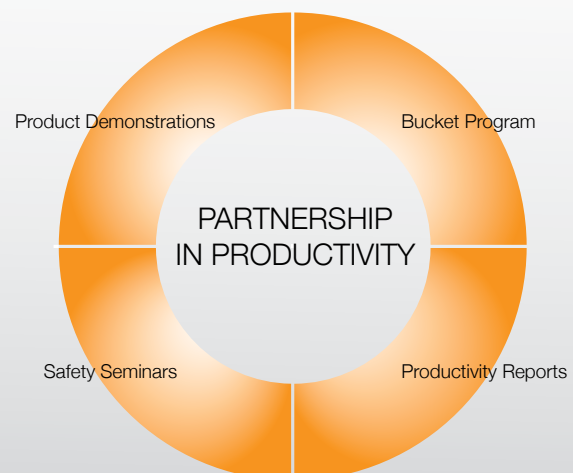
*To contribute to our customers' success
by helping them work better!*



Partnership in Productivity

Through its Partnership in Productivity Program, Walter implements processes and tools that help improve productivity, safety and measurability. We build long-term business relationships that ensure success.

Product Demonstrations, The Bucket Program, Productivity Reports and Safety Seminars, implemented by Walter in conjunction with our strategic distributors, are offered as a unified approach and a proven strategy to improve productivity and safety for end-users worldwide.



ZIPCUT™

Setting the industry standard for cut-off wheels

Recognized by name, ZIPCUT is the highest performance cut-off wheel on the market. Faster, cooler and free cutting, define your experience while using our ZIPCUT wheels. Heavily reinforced to ensure added safety, ZIPCUT is resilient, resisting twisting and bending, allowing for a true straight cut every time.



TYPE 1



Dia.	Thickness	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
4 1/2"	3/64" (.045")	7/8"	11-T 042	A-60-ZIP	13,300	25	400
5"	3/64" (.045")	7/8"	11-T 052	A-60-ZIP	12,200	25	400
6"	3/64" (.045")	7/8"	11-T 062	A-60-ZIP	10,200	25	200

Other sizes available

TYPE 27



Dia.	Thickness	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
4 1/2"	3/64" (.045")	7/8"	11-T 142	A-60-ZIP	13,300	25	400
5"	3/64" (.045")	7/8"	11-T 152	A-60-ZIP	12,200	25	400
6"	3/64" (.045")	7/8"	11-T 162	A-60-ZIP	10,200	25	200

Exclusive packaging!

ZIPCUT wheels are sold in a unique, practical and reusable plastic container that preserves its physical properties thereby enhancing performance and safety.



Longest life! The most cuts per wheel in the industry, guaranteed!

- ▶ Significantly more cuts than the competition*
- ▶ Lowest cost per cut in the industry
- ▶ Less friction and faster cutting

*According to comparative test measurements performed in a lab environment.



COMBO ZIP™

Thin, fast and safe cutting and deburring

Cut and light grind with the same wheel. COMBO ZIP is ideal for notching, root pass cleaning, chamfering, and much more. Only 5/64" thick, these tough cut-off wheels can bear the force of lateral pressure to allow users to light grind/deburr in the safest way possible.



TYPE 27



Dia.	Thickness	Arbor	Order No.	Grade	Max. RPM	Std. Pkg.	Std. Ctn.
4 1/2"	5/64" (.078")	7/8"	11-T 842	A-60-COMBO-ZIP	13,300	25	400
5"	5/64" (.078")	7/8"	11-T 852	A-60-COMBO-ZIP	12,200	25	400
6"	5/64" (.078")	7/8"	11-T 862	A-60-COMBO-ZIP	10,200	25	200

- ▶ Cutting and deburring combined for less wheel changeover and more productivity
- ▶ Reinforced like a grinding wheel for extra safety
- ▶ ZIP formulation guarantees fastest cutting time and long life
- ▶ Equipped with metal protective hub for extra strength, control and safety



- ▶ Extra thin for ultra precision cutting
- ▶ Clean cutting for less rework
- ▶ Unique mix of abrasive grains ensures cool cutting for less discoloration and warping
- ▶ Fe-free formulation – guaranteed not to contaminate stainless steel
- ▶ Perfect for plunge cutting applications

ZIP ONE™

High performance cut-off wheel for thin gage metal

The ZIP ONE, extra thin 1 mm cut-off wheel, is designed for precision cutting in thin gage metal (< 8 ga or 4 mm). Its long life will outlast any other comparable wheel!

Thanks to an innovative technology exclusive to Walter, ZIP ONE (1 mm, 1/32" thin) allows you to more accurately cut thin metal without creating burrs. With ZIP ONE, you can expect the same cool and fast cuts and long wheel life as you have grown to love with Walter ZIPCUT wheels.



TYPE 1

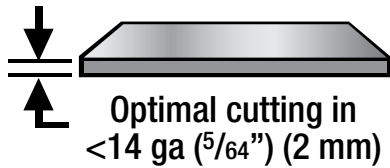
Dia.	Thickness	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
4 1/2"	1/32" (.035)	7/8"	11-T 542	ZA-60-ZIP	13,300	25	400
5"	1/32" (.035)	7/8"	11-T 552	ZA-60-ZIP	12,200	25	400



TYPE 27

Dia.	Thickness	Arbor	Order No.	Grade	Max. RPM	Std. Pkg.	Std. Ctn.
4 1/2"	1/32" (.032")	7/8"	11-T 642	ZA-60-ZIP	13,300	25	400
5"	1/32" (.032")	7/8"	11-T 652	ZA-60-ZIP	12,200	25	400

Recommended: 8 ga (3/16") (4 mm)



ZIP+™

For the toughest cutting applications

ZIP+ is used by our clients with some of the most demanding cutting applications. These clients include: metal fabricators, maintenance departments, sheet metal shops, welding shops, mechanical contractors, equipment manufacturers, automotive shops, etc. Time after time, they choose ZIP+ for their tough cutting projects.



TYPE 1



Dia.	Thickness	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
4 1/2"	1/16" (.062")	7/8"	11-T 242	A-46-ZIP	13,300	25	400
5"	1/16" (.062")	7/8"	11-T 252	A-46-ZIP	12,200	25	400
6"	1/16" (.062")	7/8"	11-T 262	A-46-ZIP	10,200	25	200

- ▶ Excellent performance for cutting material 1/8" and up

TYPE 27



Dia.	Thickness	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
4 1/2"	1/16" (.062")	7/8"	11-T 453	A-46-ZIP	13,300	25	400
5"	1/16" (.062")	7/8"	11-T 503	A-46-ZIP	12,200	25	400
6"	1/16" (.062")	7/8"	11-T 603	A-46-ZIP	10,200	25	200

- ▶ The type 27 is equipped with a metal hub cladding for extra strength, control and safety
- ▶ The preferred wheel for flush cutting in confined spaces

ZIP ALU™

Fast and free cutting of aluminum without clogging

Thin cut-off wheels specially formulated to cut a wide variety of aluminum, aluminum alloys and non-ferrous metals without clogging.



TYPE 1



Dia.	Thickness	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
3"	1/32"	3/8"	11-U 303	A-60-ZIP-ALU	25,470	25	200
4"	1/32"	3/8"	11-U 403	A-60-ZIP-ALU	19,100	25	200
4 1/2"	3/64" (.045")	7/8"	11-U 042	A-60-ZIP-ALU	13,300	25	400
5"	3/64" (.045")	7/8"	11-U 052	A-60-ZIP-ALU	12,200	25	400
6"	3/64" (.045")	7/8"	11-U 062	A-60-ZIP-ALU	10,200	25	200
7"	1/16" (.062")	7/8"	11-U 072	A-30-ZIP-ALU	8,600	25	100

For mandrels see page 6.

- ▶ Best wheel life and extra fast cutting in aluminum

TYPE 27



Dia.	Thickness	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
4 1/2"	3/64" (.045")	7/8"	11-U 142	A-60-ZIP-ALU	13,300	25	400
5"	3/64" (.045")	7/8"	11-U 152	A-60-ZIP-ALU	12,200	25	400
6"	3/64" (.045")	7/8"	11-U 162	A-60-ZIP-ALU	10,200	25	200
7"	1/16" (.062")	7/8"	11-U 172	A-30-ZIP-ALU	8,600	25	100





- ▶ Fast, cool and free cutting allowing the operator to work with minimal pressure for best control
- ▶ Excellent wheel life



Mounting accessories

FLUSH MANDRELS with 1/4" shaft

for wheel thickness up to 1/8"

Order No.

For 2" and 3" wheels, 1/4" and 3/8" arbor 11-L 007

For 2" wheels, 5/16" arbor 11-L 001

For 3" and 4" wheels, 1/4" arbor 11-L 006

For 3" and 4" wheels, 3/8" arbor 11-L 003

General purpose mandrels with 1/4" shaft

for wheel thickness up to 1/2"

Order No.

For 2" wheels, 3/8" arbor 11-L 008

For 2" wheels, 5/16" arbor 11-L 002

For 3" and 4" wheels, 3/8" arbor 11-L 004

With 5/16" shaft

For 3" and 4" wheels, 3/8" arbor 11-L 005

ZIP™

Performance cutting and grinding with straight shaft and die grinders

ZIP wheels are made of highly refined ingredients which will not contaminate stainless steel and ensure top performance butting.

For notching applications, it is recommended that you use $\geq 1/8"$, for grinding applications, $\geq 1/2"$ is recommended.

2" TYPE 1



Dia.	Thick.	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
2"	1/16"	5/16"	11-L 211	A-24-ZIP	30,600	25	200
2"	1/8"	5/16"	11-L 221	A-24-ZIP	30,600	25	200
2"	1/4"	5/16"	11-L 231	A-24-ZIP	30,600	25	200
2"	1/2"	5/16"	11-L 251	A-24-ZIP	30,600	25	200
2"	1/16"	3/8"	11-L 213	A-24-ZIP	30,600	25	200
2"	1/8"	3/8"	11-L 223	A-24-ZIP	30,600	25	200
2"	1/4"	3/8"	11-L 233	A-24-ZIP	30,600	25	200
2"	1/2"	3/8"	11-L 253	A-24-ZIP	30,600	25	200

3" TYPE 1



Dia.	Thick.	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
3"	1/32"	1/4"	11-L 302	A-60-ZIP	25,470	25	200
3"	1/16"	1/4"	11-L 312	A-24-ZIP	25,470	25	200
3"	1/8"	1/4"	11-L 322	A-24-ZIP	20,000	25	200
3"	1/32"	3/8"	11-L 303	A-60-ZIP	25,470	25	200
3"	1/16"	3/8"	11-L 313	A-24-ZIP	25,470	25	200
3"	1/8"	3/8"	11-L 323	A-24-ZIP	20,000	25	200
3"	1/4"	3/8"	11-L 333	A-24-ZIP	20,000	25	100
3"	1/2"	3/8"	11-L 353	A-24-ZIP	20,000	25	100

4" TYPE 1



Dia.	Thick.	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
4"	1/32"	3/8"	11-L 403	A-60-ZIP	19,100	25	200
4"	1/16"	3/8"	11-L 413	A-24-ZIP	19,100	25	200
4"	1/8"	3/8"	11-L 423	A-24-ZIP	15,300	25	200
4"	1/4"	3/8"	11-L 433	A-24-ZIP	15,300	25	100
4"	1/2"	3/8"	11-L 453	A-24-ZIP	15,300	25	100
4"	1/32"	5/8"	11-L 405	A-60-ZIP	19,100	25	200
4"	1/16"	5/8"	11-L 415	A-24-ZIP	19,100	25	200

3" and 4" TYPE 27



Dia.	Thick.	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
3"	1/32"	3/8"	11-L 308*	A-60-ZIP	25,470	25	200
4"	1/32"	3/8"	11-L 408**	A-60-ZIP	19,100	25	200

* Use with 1/4" mandrel 11-L 007

** Use with 1/4" mandrel 11-L 003

- ▶ Ideal for flush cutting
- ▶ Metal hub cladding for extra strength and safety

PORTACUT™

High speed cutting with gas and electric power saws

These premium wheels stand out as the most reliable cut-off wheels for all on-site cutting jobs. Reinforced for added safety and formulated for an optimal cutting speed and wheel life ratio, PORTACUT is the best choice.



TYPE 1



Dia.	Thick.	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
12"	1/8"	20 mm STIHL	11-A 121	A-24	6,300	10	50
12"	1/8"	7/8" PARTNER	11-A 122	A-24	6,300	10	50
12"	1/8"	1"	11-A 123	A-24	6,300	10	50
14"	1/8"	20 mm STIHL	11-A 141	A-24	5,400	10	30
14"	1/8"	7/8" PARTNER	11-A 142	A-24	5,400	10	30
14"	1/8"	1"	11-A 143	A-24	5,400	10	30

- ▶ General purpose cutting of steel and cast iron

TYPE 1



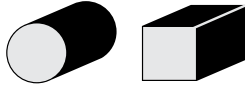
Dia.	Thick.	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
12"	1/8"	20 mm STIHL	11-D 121	C-24	6,300	10	50
12"	1/8"	7/8" PARTNER	11-D 122	C-24	6,300	10	50
12"	1/8"	1"	11-D 123	C-24	6,300	10	50
14"	1/8"	20 mm STIHL	11-D 141	C-24	5,400	10	30
14"	1/8"	7/8" PARTNER	11-D 142	C-24	5,400	10	30
14"	1/8"	1"	11-D 143	C-24	5,400	10	30

- ▶ Designed for cutting of concrete, concrete blocks, stone, asphalt, etc.
- ▶ General purpose cutting of reinforced concrete pipes, ductile iron, PVC and other plastic pipes





▶ Reinforced center



- ▶ The wheel of choice for solids and stainless tubes
- ▶ Optimised for use on low power chop saws—reduces load on machine and creates less burrs

▶ Double external reinforcement



- ▶ The wheel of choice for tubing and extrusions
- ▶ Even longer life than ever before for toughest applications

- ▶ Fast and free cutting in all types of aluminum and non-ferrous metals
- ▶ Unique formulation which guarantees no clogging

CHOPCUT™

Performance cutting with portable chop saws

These wheels have been specifically developed for use on portable abrasive chop saws. They put minimum load on the motor and are therefore easy on the operator as well as on the saw.

CHOPCUT

General purpose TYPE 1



Dia.	Thick.	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
12"	3/32"	1"	10-Q 123	A-30-HC+	5,100	10	50
14"	3/32"	1"	10-Q 143	A-30-HC+	4,400	10	50
16"	7/64"	1"	10-Q 163	A-30-HC+	3,800	10	50

CHOPCUT II

High performance TYPE 1

New and Improved



Dia.	Thick.	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
12"	3/32"	1"	10-P 123	A-30	5,100	10	50
14"	3/32"	1"	10-P 143	A-30	4,400	10	50
16"	7/64"	1"	10-P 163	A-30	3,800	10	30

CHOPCUT ALU

ALU TYPE 1



Dia.	Thick.	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
12"	3/32"	1"	10-L 123	A-30-ALU	5,100	10	50
14"	3/32"	1"	10-L 143	A-30-ALU	4,400	10	50



XCAVATOR™

Ultra High Removal Grinding

Introducing **XCAVATOR™**, the **newest** and most powerful member of Walter's innovative family of high performance grinding wheels. The **XCAVATOR™** delivers heavy-duty performance, the highest level of removal rate in steel and stainless steel and can confront some of the industry's toughest metals – including tungsten carbide, tempered steel, Inconel, Hardox, and Boron steel. **XCAVATOR™** is designed for the toughest grinding jobs for a range of industry metal fabrication shops such as Metal Fabrication, Steel Mills, Mining, Oil & Gas, and ship building. When the number one priority is high removal XCAVATOR is the wheel of choice.



1/4" TYPE 27



Dia.	Thick.	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
4 1/2"	1/4"	5/8"-11 SPIN-ON	08-P 450	A-16-P	13,300	20	80
4 1/2"	1/4"	7/8"	08-P 460	A-16-P	13,300	25	100
5"	1/4"	5/8"-11 SPIN-ON	08-P 500	A-16-P	12,200	20	80
5"	1/4"	7/8"	08-P 510	A-16-P	12,200	25	100
6"	1/4"	7/8"	08-P 600	A-16-P	10,200	25	100
7"	1/4"	7/8"	08-P 700	A-16-P	8,600	25	50
9"	1/4"	7/8"	08-P 900	A-16-P	6,600	25	50

- ▶ Xtra aggressive formulation for ultra high removal rate in steel , stainless and hard metals
- ▶ Patented manufacturing process prevents edge flakiness for longer life and more safety
- ▶ Optimal power transfer from operator to working surface
- ▶ Fe-Free formulation – Guaranteed not to contaminate stainless steel





- ▶ Fast and easy changeover of wheel for minimum downtime
- ▶ Perfectly centered wheel each and every time for best performance

- ▶ High performance wheels grind off metal faster
- ▶ Smooth grinding with an aggressive, controlled bite
- ▶ Extra long wheel life

1/4" HP™

For all day grinding with exceptional contact; hugs the grinding surface

Formulated for safety and high performance in a wide range of metal grinding operations. Made from the highest quality abrasive grain with greater hardness and wear resistance, they grind welds down fast and with less effort. Their breakthrough performance sets new standards for general purpose grinding of steel.

1/4" SPIN-ON

TYPE 27S



Dia.	Thick.	Arbor	Order No.	Grade	Max. RPM	Std. Pkg.	Std. Ctn.
5"	1/4"	5/8"-11	08-B 500	A-24-HPS	12,200	20	80

Always use 1/4" wheels with flange 30-B 057.

1/4" TYPE 27



Dia.	Thick.	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
4"	1/4"	3/8"	08-B 410	A-24-HPS	15,300	25	100
4"	1/4"	5/8"	08-B 400	A-24-HPS	15,300	25	100
4 1/2"	1/4"	7/8"	08-B 460	A-24-HPS	13,300	25	100
6"	1/4"	7/8"	08-B 600	A-24-HPS	10,200	25	100

ALLSTEEL™

Our most versatile grinding wheel

These grinding wheels are designed to deliver top performance when working on both steel and stainless steel. They incorporate the latest developments in grain and bonding technology to lower your grinding costs. Operator safety and comfort, fast removal rates and outstanding life are key features that will let you do more work in less time—guaranteed!

1/4" TYPE 27



Dia.	Thick.	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
4 1/2"	1/4"	7/8"	08-C 450	A-24-AS	13,300	25	100
5"	1/4"	7/8"	08-C 500	A-24-AS	12,200	25	100
6"	1/4"	7/8"	08-C 600	A-24-AS	10,200	25	100
7"	1/4"	7/8"	08-C 700	A-24-AS	8,600	25	50
9"	1/4"	7/8"	08-C 900	A-24-AS	6,600	25	50

- ▶ Fast removal rates and cool grinding action for entire life of wheel
- ▶ Excellent comfort and handling
- ▶ Heavily reinforced for absolute safety

ALU™

Performance grinding and cutting in soft metals

These wheels grind all types of aluminum and non-ferrous metals smoothly and at removal rates never thought possible. The specially impregnated bonding resists loading even when grinding very soft, pure aluminum. They do not contain any waxes or lubricants and do not contaminate the material worked on—ground surfaces are therefore clean and ready for welding without further clean-up.

1/4" TYPE 27



Dia.	Thick.	Arbor	Order No.	Grade	Max. RPM	Std. Pkg.	Std. Ctn.
4 1/2"	1/4"	7/8"	08-L 450	A-24-ALU	13,300	25	100
5"	1/4"	7/8"	08-L 500	A-24-ALU	12,200	25	100
6"	1/4"	7/8"	08-L 600	A-24-ALU	10,200	25	100



- ▶ Fast removal rate and long wheel life
- ▶ No clogging in any type of aluminum

CONCRETE™

High performance grinding and cutting

These wheels have multiple high strength reinforcement and a matched super tough bond for extra safety in tough grinding and cutting applications. They are made for fast material removal and smooth grinding and cutting of concrete, masonry, stone and similar building materials.

1/8" TYPE 27



Dia.	Thick.	Arbor	Order No.	Grade	Max. RPM	Std. Pkg.	Std. Ctn.
4 1/2"	1/8"	7/8"	08-D 452	C-24	13,300	25	200
5"	1/8"	7/8"	08-D 502	C-24	12,200	25	200
7"	1/8"	7/8"	08-D 702	C-24	8,600	25	100



- ▶ Fast and free cutting
- ▶ Formulated for cutting but may also be used for intermittent light grinding

1/4" TYPE 27

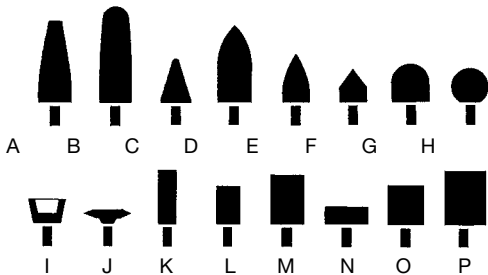


Dia.	Thick.	Arbor	Order No.	Grade	Max. RPM	Std. Pkg.	Std. Ctn.
4 1/2"	1/4"	7/8"	08-E 450	C-24	13,300	25	100
5"	1/4"	7/8"	08-E 500	C-24	12,200	25	100
7"	1/4"	7/8"	08-E 700	C-24	8,600	25	50

- ▶ Excellent control in demanding applications
- ▶ Extra hard silicon carbide grain for fast material removal and long wheel life
- ▶ Superior performance in hard facing and cast iron



- ▶ For fitting, shaping, enlarging holes and finishing work in confined spaces
- ▶ For use on die grinders, point grinders, flexible shaft machines, etc.



Accessories

Dressing stones

Dimensions	Order No.	Std pkg	Std Ctn
2 3/4" x 5/8" x 5/16"	12-D 900	1	10
4" x 1" x 1/2"	12-D 901	1	10



Mounted points

These points are made from the finest grades of abrasive grain. Their shafts are precisely centered and every point is dressed for perfect balance without run-out or vibration. 1/4" shaft.

Orange



Mild steel and cast iron

Illus. Dia.	Length	Order No.	Type	Max RPM*	Std. Pkg.	Std. Ctn.	
A	3/4"	2 1/2"	12-D 002	A-1	19,800	1	10
B	1"	2 3/4"	12-D 012	A-3	16,100	1	10
C	3/4"	1 1/8"	12-D 022	A-5	45,000	1	10
D	7/8"	2"	12-D 032	A-11	19,860	1	10
E	1 1/16"	1 1/4"	12-D 037	A-12	48,000	1	10
F	1 1/16"	7/8"	12-D 047	A-14	55,560	1	10
G	1"	1"	12-D 057	A-21	34,500	1	10
H	1"	1"	12-D 077	A-25	35,620	1	10
I	1"	5/8"	12-D 092	A-32	38,200	1	10
J	1 1/4"	1/4"	12-D 117	A-37	30,560	1	10
K	3/8"	1 1/4"	12-D 592	W-179	45,750	1	10
L	5/8"	1"	12-D 677	W-196	35,250	1	10
M	3/4"	1"	12-D 722	W-205	34,500	1	10
N	1"	3/8"	12-D 782	W-217	38,200	1	10
O	1"	1"	12-D 797	W-220	25,500	1	10
P	1"	2"	12-D 807	W-222	15,900	1	10

Pink



Tool and high tensile steel

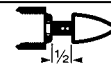
A	3/4"	2 1/2"	12-D 001	A-1	19,800	1	10
B	1"	2 3/4"	12-D 011	A-3	16,100	1	10
C	3/4"	1 1/8"	12-D 021	A-5	45,000	1	10
D	7/8"	2"	12-D 031	A-11	19,860	1	10
E	1 1/16"	1 1/4"	12-D 036	A-12	48,000	1	10
F	1 1/16"	7/8"	12-D 046	A-14	55,560	1	10
G	1"	1"	12-D 056	A-21	34,500	1	10
H	1"	1"	12-D 076	A-25	35,620	1	10
I	1"	5/8"	12-D 091	A-32	38,200	1	10
J	1 1/4"	1/4"	12-D 116	A-37	30,560	1	10
K	3/8"	1 1/4"	12-D 591	W-179	45,750	1	10
L	5/8"	1"	12-D 676	W-196	35,250	1	10
M	3/4"	1"	12-D 721	W-205	34,500	1	10
N	1"	3/8"	12-D 781	W-217	38,200	1	10
O	1"	1"	12-D 796	W-220	25,500	1	10
P	1"	2"	12-D 806	W-222	15,900	1	10

Brown



B	1"	2 3/4"	12-D 013	A-3	16,100	1	10
C	3/4"	1 1/8"	12-D 023	A-5	45,000	1	10
D	7/8"	2"	12-D 033	A-11	19,860	1	10
E	1 1/16"	1 1/4"	12-D 038	A-12	48,000	1	10
G	1"	1"	12-D 058	A-21	34,500	1	10
H	1"	1"	12-D 078	A-25	35,620	1	10
K	3/8"	1 1/4"	12-D 593	W-179	45,750	1	10
L	5/8"	1"	12-D 678	W-196	35,250	1	10
M	3/4"	1"	12-D 723	W-205	34,500	1	10
N	1"	3/8"	12-D 783	W-217	38,200	1	10
O	1"	1"	12-D 798	W-220	25,500	1	10

*Max. RPM listed are for 1/2" free shaft.



Bench grinding wheels

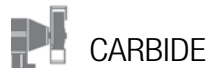
- ▶ For general purpose grinding work on bench and pedestal grinders
- ▶ All wheels are supplied with nested reducer bushings to fit on 1", 3/4", 5/8" and 1/2"-shafts

TYPE 1



Dia.	Thickness	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
6"	3/4"	1"	12-E 324	36 coarse	4,100	1	1
6"	3/4"	1"	12-E 325	46 medium	4,100	1	1
6"	3/4"	1"	12-E 328	80 fine	4,100	1	1
6"	1"	1"	12-E 344	36 coarse	4,100	1	1
6"	1"	1"	12-E 345	46 medium	4,100	1	1
6"	1"	1"	12-E 348	80 fine	4,100	1	1
7"	1"	1"	12-E 444	36 coarse	3,600	1	1
7"	1"	1"	12-E 447	60 fine	3,600	1	1
7"	1 1/4"	1"	12-E 454	36 coarse	3,600	1	1
7"	1 1/4"	1"	12-E 457	60 fine	3,600	1	1
8"	7/8"	1"	12-E 533	24 coarse	3,600	1	1
8"	7/8"	1"	12-E 537	60 fine	3,600	1	1
8"	1"	1"	12-E 543	24 coarse	3,600	1	1
8"	1"	1"	12-E 545	46 medium	3,600	1	1
8"	1"	1"	12-E 547	60 fine	3,600	1	1
8"	1 1/4"	1"	12-E 553	24 coarse	3,600	1	1
8"	1 1/4"	1"	12-E 557	60 fine	3,600	1	1
10"	1"	1"	12-E 643	24 coarse	2,500	1	1
10"	1"	1"	12-E 647	60 fine	2,500	1	1
10"	1 1/4"	1"	12-E 653	24 coarse	2,500	1	1
10"	1 1/4"	1"	12-E 657	60 fine	2,500	1	1

TYPE 1



Dia.	Thickness	Arbor	Order No.	Grade	Max RPM	Std. Pkg.	Std. Ctn.
6"	3/4"	1"	12-E 329	80 fine	4,100	1	1
7"	1"	1"	12-E 449	80 fine	3,600	1	1
7"	1 1/4"	1"	12-E 459	80 fine	3,600	1	1
8"	7/8"	1"	12-E 539	80 fine	3,600	1	1
8"	1"	1"	12-E 549	80 fine	3,600	1	1
8"	1 1/4"	1"	12-E 559	80 fine	3,600	1	1
10"	1"	1"	12-E 649	80 fine	2,500	1	1



Accessories

Reducer bushings

Order No.

Set 3/4" wide, from 1" to 3/4", 5/8" and 1/2" 12-E 006

Set 1" wide, from 1" to 3/4", 5/8" and 1/2" 12-E 007

Pair of bushings from 1" to 7/8" 12-E 008

Wheel dressers

Order No.

Standard type 12-E 001

Heavy-duty

12-E 002

Replacement wheels

Order No.

Set for 12-E 001 12-E 004

Set for 12-E 002 12-E 005

FLEXCUT™

Premium performance flexible grinding wheel

FLEXCUT, the leading flexible grinding wheel for over 25 years, is specially formulated to deliver superior performance on all ferrous and non-ferrous metals.



Dia.	Arbor	Grit	Order No.	Max RPM	Std. Pkg.	Std. Ctn.
3"	3/8"	A-36-X-FLEX	15-L 303*	20,400	25	200
3"	3/8"	A-60-X-FLEX	15-L 306*	20,400	25	200
SPIN-ON						
4 1/2"	5/8"-11	A-36-X-FLEX	15-L 453	13,300	25	200
4 1/2"	5/8"-11	A-60-X-FLEX	15-L 456	13,300	25	200
4 1/2"	5/8"-11	A-100-X-FLEX	15-L 460	13,300	25	200
5"	5/8"-11	A-36-X-FLEX	15-L 503	12,200	25	200
5"	5/8"-11	A-60-X-FLEX	15-L 506	12,200	25	200
5"	5/8"-11	A-100-X-FLEX	15-L 510	12,200	25	200
6"	5/8"-11	A-24-X-FLEX	15-L 602	10,200	25	200
6"	5/8"-11	A-36-X-FLEX	15-L 603	10,200	25	200
6"	5/8"-11	A-60-X-FLEX	15-L 606	10,200	25	200
7"	7/8"	A-24-X-FLEX	15-L 702	8,600	25	100
7"	7/8"	A-36-X-FLEX	15-L 703	8,600	25	100
7"	7/8"	A-60-X-FLEX	15-L 706	8,600	25	100
7"	7/8"	A-100-X-FLEX	15-L 710	8,600	25	100

*Use with 1/4" mandrel 11-L 007.

Always use SPIN-ON wheels with flange 30-B 017.



Dia.	Arbor	Grit	Order No.	Max RPM	Std. Pkg.	Std. Ctn.
4 1/2"	7/8"	A-36-X-FLEX	15-L 463	13,300	25	200
5"	7/8"	A-36-X-FLEX	15-L 513	12,200	25	200
5"	7/8"	A-60-X-FLEX	15-L 516	12,200	25	200



Deep Diamond-Cut™ pattern and optimized formulation offer:

- ▶ More flexibility
- ▶ Best handling on flat and curved surfaces
- ▶ Cooler grinding
- ▶ Better stock removal in all materials (steel, stainless steel, aluminum)



ENDURO-FLEX™

The longest life flap disc on the market

With ENDURO-FLEX endurance is a guarantee. Our one step finishing disc not only meets but surpasses the daily challenges presented by the metal fabricating and finishing industry. In comparative tests, ENDURO-FLEX outperforms the competition setting the standard with regard to total life and removal. An additional benefit is its ECO-TRIM backing which is an eco-friendly solution.

Take down welds and finish surfaces in one step; ENDURO-FLEX helps you cut time and costs. If the flap overhang is worn down to the backing, simply trim down the ECO-TRIM backing and your discs top performance is restored.

Be innovative. Be efficient. Reduce your waste stream. Choose ENDURO-FLEX!



* Based on average material removal in steel.

SPIN-ON



Dia.	Arbor	Grit	Order No.	Max RPM	Std. Pkg.	Std. Ctn.
4 1/2"	5/8"-11	40	06-B 454	13,300	10	40
4 1/2"	5/8"-11	60	06-B 456	13,300	10	40
4 1/2"	5/8"-11	80	06-B 458	13,300	10	40
4 1/2"	5/8"-11	120	06-B 462	13,300	10	40
5"	5/8"-11	40	06-B 504	12,200	10	40
5"	5/8"-11	60	06-B 506	12,200	10	40
5"	5/8"-11	80	06-B 508	12,200	10	40
5"	5/8"-11	120	06-B 512	12,200	10	40
6"	5/8"-11	40	06-B 604	10,200	10	40
6"	5/8"-11	60	06-B 606	10,200	10	40
6"	5/8"-11	80	06-B 608	10,200	10	40
6"	5/8"-11	120	06-B 612	10,200	10	40

Always use with flange 30-B 017.



Dia.	Arbor	Grit	Order No.	Max RPM	Std. Pkg.	Std. Ctn.
4 1/2"	7/8"	40	15-R 454	13,300	10	40
4 1/2"	7/8"	60	15-R 456	13,300	10	40
4 1/2"	7/8"	80	15-R 458	13,300	10	40
4 1/2"	7/8"	120	15-R 462	13,300	10	40
5"	7/8"	40	15-R 504	12,200	10	40
5"	7/8"	60	15-R 506	12,200	10	40
5"	7/8"	80	15-R 508	12,200	10	40
5"	7/8"	120	15-R 512	12,200	10	40
7"	7/8"	40	15-R 704	8,600	10	40
7"	7/8"	60	15-R 706	8,600	10	40
7"	7/8"	80	15-R 708	8,600	10	40
7"	7/8"	120	15-R 712	8,600	10	40

Always use with flange 30-B 017.



- ▶ Longest life flap disc on the market
- ▶ ECO-TRIM backing; easier to trim and environmentally friendly
- ▶ Remove welds and finish surfaces in one step
- ▶ Safer and cleaner trimming
- ▶ Quiet and vibration-free grinding
- ▶ Lightweight





ENDURO-FLEX Turbo™

The fastest cutting flap disc on the market

What does ENDURO-FLEX Turbo provide... The fastest weld removal and edge breaking in the industry!

ENDURO-FLEX Turbo demonstrates extremely fast cutting through a unique mixture of high content self-sharpening grains. Its built-in Cyclone Technology as well as a newly designed flap configuration allows it to perform with a cutting rate of a grit 36 with a finish of a grit 60.

- ▶ Extremely fast removal rate, up to 33 g/min.
- ▶ Cyclone™ Technology
- ▶ Exclusive flap configuration for ultra fast cutting
- ▶ Turbofan™ Cooling keeps the workpiece cooler for longer disc life
- ▶ Guaranteed cost savings!



Dia.	Arbor	Grade	Order No.	Max RPM	Std. Pkg.	Std. Ctn.
4 1/2"	5/8"-11	36/60	06-A 452	13,300	10	40
5"	5/8"-11	36/60	06-A 502	12,000	10	40
6"	5/8"-11	36/60	06-A 602	10,200	10	40

Always use with flange 30-B 017.

QUICK-STEP™ Metal finishing system

For all your surface finishing needs. Whether you are blending in welds, cleaning surfaces, refining and enhancing existing finishes or bringing out a mirror finish on stainless steel, steel, aluminum or any other ferrous metals, you can do it all with QUICK-STEP.



QUICK-STEP backing pads

Description	Order No. M14 nut	Order No. 5/8"-11 nut
For 4 1/2" discs, 4" pad		07-Q 044*
For 4 1/2" discs, 4 1/2" pad	07-Q 047	07-Q 049
For 5" discs, 5" pad		07-Q 054
For 6" discs, 6" pad	07-Q 062	07-Q 064
For 7" discs, 7" pad		07-Q 074

* QUICK-STEP flap discs and FX cleaning discs can be used with backing pad one diameter size below for more flexibility, to reach into corners and to use up worn discs.

QUICK-STEP MG backing pads

Description	Order No.
For 4 1/2" discs, 4 1/2" pad	07-Q 149

For maximum grip when working at high speeds, use this backing pad with the BLENDX surface conditioning discs.



- ▶ For bringing down and blending in light welds, for deburring, breaking edges and rounding corners
- ▶ They are aggressive, cool cutting and give a consistent uniform finish
- ▶ Abrasive flaps are secured onto a flexible backing making them ideal for working on curved surfaces

QUICK-STEP FLEX



Dia.	Grit	Order No.	Max RPM	Optimal RPM	Std. Pkg.	Std. Ctn.
4 1/2"	40	07-Q 454	11,000	8,000	10	40
4 1/2"	60	07-Q 456	11,000	8,000	10	40
4 1/2"	80	07-Q 458	11,000	8,000	10	40
4 1/2"	120	07-Q 462	11,000	8,000	10	40
5"	40	07-Q 504	10,000	7,300	10	40
5"	60	07-Q 506	10,000	7,300	10	40
5"	80	07-Q 508	10,000	7,300	10	40
5"	120	07-Q 512	10,000	7,300	10	40
6"	40	07-Q 604	8,600	6,500	10	40
6"	60	07-Q 606	8,600	6,500	10	40
6"	80	07-Q 608	8,600	6,500	10	40
6"	120	07-Q 612	8,600	6,500	10	40

QUICK-STEP XX™

The QUICK-STEP XX is the newest member of the QUICK-STEP family. The QUICK-STEP XX leverages our exclusive Cyclone™ Technology, a high-tech blend of abrasive grains, and combines it with a special cooling agent, allowing you to blend and finish more pieces and improve productivity. Paired with an interface pad, this sanding disc allows for more flexibility, making it ideal for curved surfaces.



Dia.	Grit	Order No.	Max. RPM	Optimal RPM	Std. Pkg.	Std. Ctn.
4 1/2"	120	15-V 412	13 300	7 000	25	250
4 1/2"	180	15-V 418	13 300	7 000	25	250
4 1/2"	240	15-V 424	13 300	7 000	25	250
5"	120	15-V 512	12 000	6 000	25	250
5"	180	15-V 518	12 000	6 000	25	250
5"	240	15-V 524	12 000	6 000	25	250
6"	120	15-V 612	10 200	5 000	25	250
6"	180	15-V 618	10 200	5 000	25	250
6"	240	15-V 624	10 200	5 000	25	250

QUICK-STEP Interface pads

	Order No.
4 1/2"	07-Q 045
5"	07-Q 050
6"	07-Q 060



- ▶ Ultra High Removal Rate – Twice as fast than Velcro or PSA (pressure sensitive adhesive) sanding discs
- ▶ Self-sharpening grain – Allowing consistent high cutting rate throughout lifetime
- ▶ Cooling agent – Ensuring cool cutting to prevent burning and distortion
- ▶ Extra strong cloth backing – Resistant to ripping when catching an edge unlike regular paper discs
- ▶ Extra long life – Over 6x the stock removal than regular sanding discs

QUICK-STEP BLENDEx surface conditioning discs



Dia.	Grit	Order No.	Max RPM	Optimal RPM	Std. Pkg.	Std. Ctn.
4 1/2"	X-TRA COARSE, brown	07-R 450	11,000		10	100
4 1/2"	COARSE, tan	07-R 452	11,000	4,000	10	100
4 1/2"	MEDIUM, maroon	07-R 453	11,000	to	10	100
4 1/2"	FINE, blue	07-R 454	11,000	6,500	10	100
4 1/2"	SUPER FINE, grey	07-R 455	11,000		10	100
5"	X-TRA COARSE, brown	07-R 500	11,000	3,000	10	100
5"	COARSE, tan	07-R 502	11,000	to	10	100
5"	MEDIUM, maroon	07-R 503	11,000	6,500	10	100
5"	FINE, blue	07-R 504	11,000		10	100
6"	X-TRA COARSE, brown	07-R 600	8,600	3,000	10	100
6"	COARSE, tan	07-R 602	8,600	to	10	100
6"	MEDIUM, maroon	07-R 603	8,600	6,500	10	100
6"	FINE, blue	07-R 604	8,600		10	100
7"	X-TRA COARSE, brown	07-R 700	6,800	2,500	10	100
7"	COARSE, tan	07-R 702	6,800	to	10	100
7"	MEDIUM, maroon	07-R 703	6,800	5,000	10	100
7"	FINE, blue	07-R 704	6,800		10	100



- X-TRA COARSE:** For blending
- COARSE:** For removing scratches
- MEDIUM:** For cleaning and eliminating superficial scratches
- FINE:** For fine striated finishes
- SUPER FINE:** Last step before decorative or polishing finishes



- ▶ Premium J-weight cloth backing for long life and flexibility
- ▶ Perfect for making strip belts for use with the Line-Mate system belt drive roller
- ▶ Ideal for use in maintenance shops, machine shops, manufacturing plants and more



- ▶ Woven backing is extra tough but tears straight for easy sizing
- ▶ Long life, cool cut



- ▶ Pads are washable and can be reused
- ▶ Replace steel wool with no rusting, splintering or contamination of the workpiece

COOLCUT™ shop rolls and sheets

COOLCUT cloth abrasives are made from fast cutting aluminum oxide abrasive grain that is resin bonded onto a high quality cotton cloth backing for cool, effective cutting and maximum resistance to wear. For general purpose sanding, light removal and deburring, surface cleaning and finishing.

Shop rolls



Width	Length	Grit	Order No.	Std. Pkg.	Std. Ctn.
1"	50 yards	60	14-C 106	1	10
1"	50 yards	80	14-C 108	1	10
1"	50 yards	100	14-C 110	1	10
1"	50 yards	120	14-C 112	1	10
1"	50 yards	180	14-C 118	1	10
1"	50 yards	240	14-C 124	1	10
1"	50 yards	320	14-C 132	1	10
1 1/2"	50 yards	60	14-C 206	1	10
1 1/2"	50 yards	80	14-C 208	1	10
1 1/2"	50 yards	100	14-C 210	1	10
1 1/2"	50 yards	120	14-C 212	1	10
1 1/2"	50 yards	180	14-C 218	1	10
1 1/2"	50 yards	240	14-C 224	1	10
1 1/2"	50 yards	320	14-C 232	1	10
2"	50 yards	60	14-C 306	1	10
2"	50 yards	80	14-C 308	1	10
2"	50 yards	100	14-C 310	1	10
2"	50 yards	120	14-C 312	1	10
2"	50 yards	180	14-C 318	1	10
2"	50 yards	240	14-C 324	1	10
2"	50 yards	320	14-C 332	1	10

Sheets



Dimensions	Grit	Order No.	Std. Pkg.	Std. Ctn.
9" x 11"	40	14-A 904	25	250
9" x 11"	60	14-A 906	25	250
9" x 11"	80	14-A 908	25	250
9" x 11"	100	14-A 910	25	250
9" x 11"	120	14-A 912	25	250
9" x 11"	180	14-A 918	25	250
9" x 11"	240	14-A 924	25	250
9" x 11"	320	14-A 932	25	250

BLENDEX™ hand finishing abrasives

Copper
Brass



Size	Order No.	Color	Type	Std. Pkg.
6" x 9"	07-A 100	Maroon	Blending	60
6" x 9"	07-A 200	Grey	Finishing/Polishing	60
6" x 9"	07-A 300	Tan	Heavy-duty	60
6" x 9"	07-A 400	Green	General purpose	60
6" x 9"	07-A 500	White	Cleaning	60

COOLCUT™ flap wheels

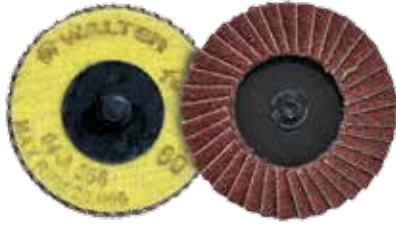
These flap wheels are made of the highest industrial quality abrasive cloth and have an optimal number of flaps that are securely bonded and balanced around the hub for a top quality finish. They are ideal for general purpose blending, shaping and deburring and will quickly give a consistent and uniform grained satin finish.

1/4" Shaft



Dia.	Width	Grit	Order No.	Max RPM	Optimal RPM	Std. Pkg.	Std. Ctn.
1"	3/8"	40	15-F 054	30,000	27,500	10	100
1"	3/8"	60	15-F 056	30,000	27,500	10	100
1"	3/8"	80	15-F 058	30,000	27,500	10	100
1"	3/8"	120	15-F 062	30,000	27,500	10	100
1"	1"	40	15-F 154	30,000	27,500	10	100
1"	1"	60	15-F 156	30,000	27,500	10	100
1"	1"	80	15-F 158	30,000	27,500	10	100
1"	1"	120	15-F 162	30,000	27,500	10	100
1 1/2"	3/8"	40	15-F 004	25,000	19,100	10	100
1 1/2"	3/8"	60	15-F 006	25,000	19,100	10	100
1 1/2"	3/8"	80	15-F 008	25,000	19,100	10	100
1 1/2"	3/8"	120	15-F 012	25,000	19,100	10	100
1 1/2"	1"	40	15-F 104	25,000	19,100	10	100
1 1/2"	1"	60	15-F 106	25,000	19,100	10	100
1 1/2"	1"	80	15-F 108	25,000	19,100	10	100
1 1/2"	1"	120	15-F 112	25,000	19,100	10	100
1 1/2"	1"	240	15-F 124	25,000	19,100	10	100
2"	3/8"	40	15-F 204	25,000	15,200	10	100
2"	3/8"	60	15-F 206	25,000	15,200	10	100
2"	3/8"	80	15-F 208	25,000	15,200	10	100
2"	3/8"	120	15-F 212	25,000	15,200	10	100
2"	1"	40	15-F 304	25,000	15,200	10	100
2"	1"	60	15-F 306	25,000	15,200	10	100
2"	1"	80	15-F 308	25,000	15,200	10	100
2"	1"	120	15-F 312	25,000	15,200	10	100
2"	1"	240	15-F 324	25,000	15,200	10	100
2 1/2"	1 1/2"	40	15-F 504	20,000	12,700	10	100
2 1/2"	1 1/2"	60	15-F 506	20,000	12,700	10	100
2 1/2"	1 1/2"	80	15-F 508	20,000	12,700	10	100
2 1/2"	1 1/2"	120	15-F 512	20,000	12,700	10	100
2 1/2"	1 1/2"	240	15-F 524	20,000	12,700	10	100
3"	1"	40	15-F 704	15,000	8,900	10	100
3"	1"	60	15-F 706	15,000	8,900	10	100
3"	1"	80	15-F 708	15,000	8,900	10	100
3"	1"	120	15-F 712	15,000	8,900	10	100
3"	1 1/2"	40	15-F 804	15,000	8,900	10	100
3"	1 1/2"	60	15-F 806	15,000	8,900	10	100
3"	1 1/2"	80	15-F 808	15,000	8,900	10	100
3"	1 1/2"	120	15-F 812	15,000	8,900	10	100
3"	1 1/2"	240	15-F 824	15,000	8,900	10	100
3"	2"	40	15-F 904	11,000	8,900	10	100
3"	2"	60	15-F 906	11,000	8,900	10	100
3"	2"	80	15-F 908	11,000	8,900	10	100
3"	2"	120	15-F 912	11,000	8,900	10	100





- ▶ Longest disc life and most consistent finish
- ▶ Very high removal rate
- ▶ One-step grinding and finishing



- ▶ Extra strong non-woven construction for removing oxide, scale and gaskets
- ▶ Cleans without damaging the surface
- ▶ Leaves no residue on the surface



- ▶ High metal removal rate
- ▶ Long life due to special formulation
- ▶ Unique construction for optimal heat dissipation and wear resistance

TWIST™ Quick-change metal surface finishing system

The quick-change TWIST system makes changing discs easy and fast, eliminating downtime and maximizing productivity.

TWIST flap discs



Dia.	Grit	Order No.	Max. RPM	Optimal RPM	Std. Pkg.	Std. Ctn.
2 1/2"	40	04-A 254	23,000	12,000	10	400
2 1/2"	60	04-A 256	23,000	12,000	10	400
2 1/2"	80	04-A 258	23,000	12,000	10	400
2 1/2"	120	04-A 262	23,000	12,000	10	400

Use with 2" backing pads

FX surface cleaning discs



Dia.	Order No.	Max. RPM	Optimal RPM	Std. Pkg.	Std. Ctn.
2"	04-L 200	30,000	12,000	10	400
3"	04-L 300	28,000	10,000	10	200

TWIST TOPCUT sanding discs



Dia.	Grit	Colour	Order No.	Max. RPM	Optimal RPM	Std. Pkg.	Std. Ctn.
2"	36	Black	04-D 203	30,000	15,000	50	2000
2"	50	Yellow	04-D 205	30,000	15,000	50	2000
2"	60	Blue	04-D 206	30,000	15,000	50	2000
2"	80	Orange	04-D 208	30,000	15,000	50	2000
2"	100	Green	04-D 210	30,000	15,000	50	2000
2"	120	Beige	04-D 212	30,000	15,000	50	2000
3"	36	Black	04-D 303	28,000	14,000	50	1000
3"	50	Yellow	04-D 305	28,000	14,000	50	1000
3"	60	Blue	04-D 306	28,000	14,000	50	1000
3"	80	Orange	04-D 308	28,000	14,000	50	1000
3"	100	Green	04-D 310	28,000	14,000	50	1000
3"	120	Beige	04-D 312	28,000	14,000	50	1000

COLOR CODED FOR EASY IDENTIFICATION



TWIST BLENDEX conditioning discs



Dia.	Grit	Color	Order No.	Max. RPM	Optimal RPM	Std. Pkg.	Std. Ctn.
2"	COARSE	Tan	04-G 202	30,000	15,000	25	1000
2"	MEDIUM	Maroon	04-G 203	30,000	15,000	25	1000
2"	FINE	Blue	04-G 204	30,000	15,000	25	1000
2"	SUPER FINE	Grey	04-G 205	30,000	15,000	25	1000
3"	COARSE	Tan	04-G 302	28,000	14,000	25	500
3"	MEDIUM	Maroon	04-G 303	28,000	14,000	25	500
3"	FINE	Blue	04-G 304	28,000	14,000	25	500
3"	SUPER FINE	Grey	04-G 305	28,000	14,000	25	500

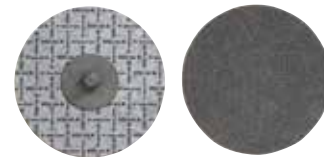


- COARSE:** For most heavy-duty applications
- MEDIUM:** For cleaning and removing surface imperfections
- FINE:** For producing a fine scratch pattern
- SUPER FINE:** Use as a last step before mirror finishing or to produce decorative finishes

TWIST BLENDEX U discs



Dia.	Grade	Order No.	Max RPM	Std. Pkg.	Std. Ctn.
3"	2SF	04-U 321	15,100	10	100
3"	6SF	04-U 322	15,100	10	100
3"	6AM	04-U 323	15,100	10	100



- ▶ Designed for deburring, cleaning, blending, finishing light welds and polishing hard to reach areas

TWIST felt discs



Dia.	Order No.	Max. RPM	Optimal RPM	Std. Pkg.	Std. Ctn.
2"	04-T 204	30,000	12,000	25	1000
3"	04-T 304	28,000	10,000	25	500

Use with polishing pastes.

- ▶ Designed for final cosmetic finishing
- ▶ 100% pure premium wool product



Accessories

TWIST backing pads

Dia.	Flexibility	Order No.	Max RPM	Std. Pkg.
2"	Medium	04-X 202	30,000	1
2"	Hard	04-X 203	30,000	1
3"	Medium	04-X 302	28,000	1
3"	Hard	04-X 303	28,000	1

Color code: Medium = orange
Hard = black



- ▶ Molded polyurethane construction
- ▶ Removable mandrel
- ▶ Surface design ensures uniform disc support

TWIST starter kits

2" assortment: Consists of 1 medium backing pad, 2 flap discs (1 ea. grits 40 and 80), 15 TOPCUT discs (3 ea. grits 36, 50, 60, 80 and 120), 12 BLENDEX discs (3 ea. coarse, medium, fine and super fine) and 1 FX disc.
Order No. 04-Z 992

3" assortment: Consists of 1 medium backing pad, 10 TOPCUT discs (2 each, grits 36, 50, 60, 80 and 120), 4 BLENDEX discs (1 each, coarse, medium, fine and super fine) and 1 FX disc.
Order No. 04-Z 993



Color coded hubs for easy identification

Hub color Wire type

- Orange** Made with premium carbon steel wire that is oil hardened and tempered for longest life and maximum brushing action.

- Blue** Made with stainless steel #304 wire to help prevent contamination and surface rusting of brushed stainless steel parts. Also may be used on aluminum and other non-ferrous metals.

Wire cup brushes

For angle grinders

Designed for high performance brushing of large flat surfaces. They are made from top quality oil hardened and tempered wire for maximum operator safety and fast brushing action. All cup brushes are equipped with threaded arbors for quick and easy mounting.



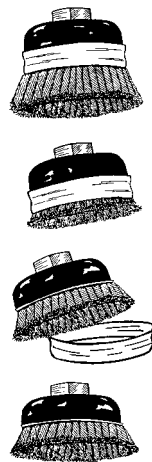
- ▶ Excellent for light surface cleaning, rust and paint removal, etc.



- ▶ Knot-twisted for heavy-duty brushing such as deburring, weld edge cleaning, removal of scale, spatter, heavy rust and corrosion, etc.



- ▶ Knot-twisted with safety supporting ring for heavy-duty brushing
- ▶ Safety supporting ring controls flaring to extend brush life. Once worn down to the ring, it can be removed to expose more wire for extra brush life



Crimped



Dia.	Arbor	Order No.	Wire	Max RPM	Std. Pkg.	Std. Ctn.
3"	5/8"-11	13-D 304	.0118"	12,000	1	10

Crimped



3"	5/8"-11	13-D 314	.0118"	12,000	1	10
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Knot-twisted



Dia.	Arbor	Order No.	Wire	Max RPM	Std. Pkg.	Std. Ctn.
3"	5/8"-11	13-F 354	.020"	12,000	1	10

Knot-twisted



3"	5/8"-11	13-F 314	.015"	12,000	1	10
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Knot-twisted with ring



Dia.	Arbor	Order No.	Wire	Thick.	Max RPM	Std. Pkg.	Std. Ctn.
3"	5/8"-11	13-G 314	.020"	1/2"	12,000	1	10

SAUCER-CUP brushes

For angle grinders

These brushes combine the advantages of both wire cup and wire wheel brushes. They feature a unique saucer cup shape (built-in working angle of 45°) which allows them to work in hard to reach areas.

- ▶ For surface cleaning such as removing paint, rust and corrosion
- ▶ Tightly knotted for maximum impact and long brush life



Crimped



Dia.	Arbor	Order No.	Wire	Thick.	Max RPM	Std. Pkg.	Std. Ctn.
4"	5/8"-11	13-H 454	.012"	1/2"	12,500	1	10



Knot-twisted



Dia.	Arbor	Order No.	Wire	Thick.	Max RPM	Std. Pkg.	Std. Ctn.
4"	5/8"-11	13-H 404	.015"	1/2"	20,000	1	10



Knot-twisted



Dia.	Arbor	Order No.	Wire	Max RPM	Std. Pkg.	Std. Ctn.
4"	5/8"-11	13-H 414	.015"	20,000	1	10



Choose the right wire brush for your application

POWER TOOL USED	TYPE OF BRUSH	COMPATIBLE GRINDER DIAMETER	WIRE CONSTRUCTION	APPLICATION	METAL
 Flat brushing	Wire cup brushes	3", 4", 5", 6"	Crimped	For surface cleaning, brushing and finishing of large flat surfaces.	● ●
			Knot-Twisted	For flat surface brushing and cleaning, rust and scale removal, weld and edge cleaning.	● ●
			Knot-Twisted with ring	Heavy-duty cleaning with ticker wire and safety supporting ring.	● ●
 Angle brushing	SAUCER-CUP brushes	4", 5", 6", 7"	Knot-Twisted	For weld cleaning and deburring in hard to reach places such as inside corners, edges and contours.	● ●
			Crimped	For cleaning wider root passes and rough surfaces. Can clean on both sides of a weld at the same time.	●
 Vertical brushing	Wire wheel brushes	4", 4 1/2", 5", 6 7/8"	Stringer Bead	For extra narrow cleaning, root passes on pipes, brushing in narrow grooves, etc.	● ●
			Knot-Twisted	For cleaning wider root passes as well as removing scale, spatter and corrosion.	● ●
 Vertical brushing	Wire wheel brushes	All bench grinders with suitable speed range	Crimped	For light deburring and similar cleaning jobs, to remove paint, rust, etc.	● ●
			Knot-Twisted	For heavy-duty applications such as removal of rust, corrosion and gasket.	● ●
 Vertical brushing	Mounted brushes	All die grinders with suitable speed range	Crimped	For cleaning hard to reach areas such as pipe interiors and confined spaces.	● ●
			Knot-Twisted	For heavy-duty applications such as removal of rust, corrosion and gasket.	● ●



- ▶ Crimped wire has optimal density for most effective brushing action
- ▶ For general surface cleaning and deburring applications

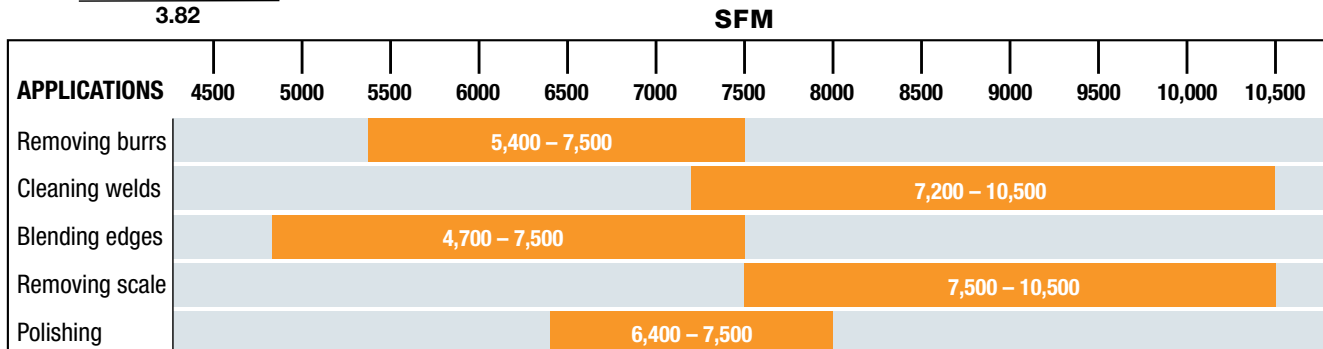
Accessory

Replacement set of bushings
Complete set **Order No. 13-B 015**



Choose the right speed for your application
TO CONVERT SURFACE FEET PER MINUTE (SFM) TO RPM:

$$\text{SFM} = \frac{\text{DIAMETER} \times \text{RPM}}{3.82}$$



Wire wheel brushes

For bench and pedestal grinders

These brushes are made from industrial quality wire perfectly balanced for smooth running and long life. They are most commonly used to remove paint, rust and corrosion, for light deburring and similar cleaning jobs.

Crimped



Dia.	Width	Arbor	Order No.	Tool steel wire	Max RPM	Std. Pkg.	Std. Ctn.
4"	3/4"	1/2"	13-B 040	.0118"	6,000	1	10
6"	3/4"	1 1/4"*	13-B 065	.0118"	6,000	1	10
6"	7/8"	1 1/4"*	13-B 060	.0118"	6,000	1	10
6"	1 1/8"	1 1/4" *	13-B 061	.0118"	6,000	1	10
7"	3/4"	1 1/4" *	13-B 075	.0118"	6,000	1	10
7"	7/8"	1 1/4" *	13-B 070	.0118"	6,000	1	10
8"	3/4"	1 1/4" *	13-B 085	.0118"	4,500	1	10
8"	1"	1 1/4" *	13-B 080	.0118"	4,500	1	10
10"	1"	1 1/4" *	13-B 100	.0118"	3,600	1	10

Crimped



Dia.	Width	Arbor	Order No.	Stainless steel wire	Max RPM	Std. Pkg.	Std. Ctn.
6"	3/4"	1 1/4" *	13-B 165	.0118"	6,000	1	10
6"	7/8"	1 1/4" *	13-B 160	.0118"	6,000	1	10
8"	3/4"	1 1/4" *	13-B 185	.0118"	4,500	1	10
8"	1"	1 1/4" *	13-B 180	.0118"	4,500	1	10

* All brushes with 1 1/4" arbor are equipped with a set of reducer bushings to fit the following shaft diameters: 1/2", 5/8", 3/4", 7/8" and 1".

Knot-twisted



Dia.	Width	Arbor	Order No.	Tool steel wire	Max RPM	Std. Pkg.	Std. Ctn.
6"	5/8"	1 1/4" **	13-B 260	.0118"	9,000	1	10
8"	5/8"	1 1/4" **	13-B 280	.0118"	8,500	1	10

** These brushes come with 1/2" reducer bushings.

Mounted wire brushes

For die grinders, 1/4" shaft. All brushes have color-coded hubs for easy identification.



Crimped



Type	Dia.	Width	Order No.	Tool steel wire	Max RPM	Std. Pkg.	Std. Ctn.
B	2"	5/8"	13-C 120	.0118"	25,000	1	10
B	3"	3/4"	13-C 125	.0118"	12,000	1	10
C	2 3/8"		13-C 018	.0118"	13,000	1	10

Knot-twisted



Type	Dia.	Width	Order No.	Tool steel wire	Max RPM	Std. Pkg.	Std. Ctn.
D	1 1/8"		13-C 020	.020"	25,000	1	10
F	3"	1/2"	13-C 270	.020"	25,000	1	10
G	4"	1/2"	13-C 370	.020"	12,000	1	10

Reversible knot-twisted



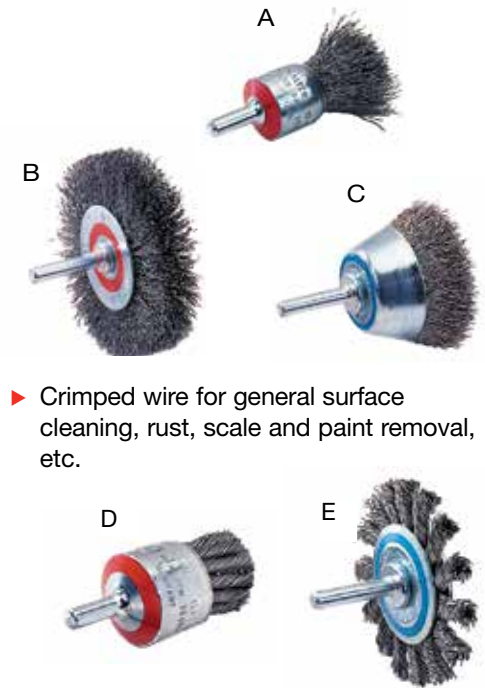
Type	Dia.	Width	Arbor	Order No.	Tool Steel Wire	Max RPM	Std. Pkg.	Std. Ctn.
E	3"	3/8"	3/8" - 1/2"	13-C 303	.0118"	25,000	1	10
E	4"	3/8"	1/2" - 5/8"	13-C 404	.0118"	20,000	1	10

Mandrels for double sided brushes, order no. 13-D 008 (for 13-C 303) and 13-D 009 (for 13-C 404).

Wire brush mandrels

Use these mandrels for reversible knot-twisted mounted brushes.

- To fit with 13-C 303 (3/8" X 1/4") 13-D 008
- To fit with 13-C 404 (1/2" X 1/4") 13-D 009



▶ Crimped wire for general surface cleaning, rust, scale and paint removal, etc.

▶ Knot-twisted wire for heavy-duty brushing such as deburring, removing heavy rust and corrosion, etc.



New



Walter Drill Bit Carrying Case

Walter is focused on continuous innovation which helps its customers work better. Presenting the new Walter drill bit carrying case, offering end-users a practical way to realistically work with a 29 piece set on the go!

- ▶ Made of shock-resistant, extra-thick polyethylene
- ▶ Refillable
- ▶ Protects drill bits from water, rust, oil and other contaminants
- ▶ Closed belt clip
- ▶ Quick-release belt clip

Available with drill bit set **Order no.:** 01-E 118



Tech tip!

For increased cutting efficiency and tool life, use COOLCUT solid stick lubricant
Order No.: 53-B 013

SST™ Quick shank 118° split point Jobber's length



High performance HSS drill bits

The proven original SST drill bit, made with a cobalt blend, is designed with an exclusive quick shank that ensures fast and secure tightening inside any keyed or keyless chucks. Ideal for cordless drills, allowing you to drill more holes per charge. Recommended for drilling any type of thin gage metal or sheet metal where a jobber's length bit is required. Ability to drill through multi-layers of metal quickly and easily.

- ▶ Unique shank design with six long flats
- ▶ Self-centering 118° split point geometry
- ▶ Special bronze SST surface treatment
- ▶ Back tapered body
- ▶ Heavy-duty HSS body construction

Fractional sizes

Drill Size	Flute Length	Overall Length	Order No.	Min. Pkg.	Std. Ctn.
1/16"	3/16"	1 3/16"	01-A 004	10	100
5/64"	1 5/16"	1 15/16"	01-A 005	10	100
3/32"	1 3/16"	2 1/4"	01-A 006	10	100
7/64"	1 5/16"	2 3/8"	01-A 007	10	100
1/8"	1 7/16"	2 9/16"	01-A 008	10	100
9/64"	1 9/16"	2 3/4"	01-A 009	10	100
5/32"	1 11/16"	2 15/16"	01-A 010	10	100
11/64"	1 7/8"	3 1/8"	01-A 011	10	100
3/16"	2 1/16"	3 3/8"	01-A 012	10	100
13/64"	2 1/16"	3 3/8"	01-A 013	10	100
7/32"	2 1/4"	3 11/16"	01-A 014	10	100
15/64"	2 1/4"	3 11/16"	01-A 015	10	100
1/4"	2 1/2"	4"	01-A 016	10	100
17/64"	2 11/16"	4 5/16"	01-A 017	10	100
9/32"	2 11/16"	4 5/16"	01-A 018	10	100
19/64"	2 15/16"	4 5/8"	01-A 019	10	100
5/16"	2 15/16"	4 5/8"	01-A 020	10	100
21/64"	2 15/16"	4 5/8"	01-A 021	10	100
11/32"	3 3/16"	4 15/16"	01-A 022	10	100
23/64"	3 3/16"	4 15/16"	01-A 023	10	100
3/8"	3 7/16"	5 1/4"	01-A 024	10	100
25/64"	3 7/16"	5 1/4"	01-A 025	5	50
13/32"	3 7/16"	5 1/4"	01-A 026	5	50
27/64"	3 11/16"	5 9/16"	01-A 027	5	50
7/16"	3 11/16"	5 9/16"	01-A 028	5	50
29/64"	3 11/16"	5 9/16"	01-A 029	5	50
15/32"	4"	5 15/16"	01-A 030	5	50
31/64"	4"	5 15/16"	01-A 031	5	50
1/2"	4"	5 15/16"	01-A 032	5	50

Packaged in reusable plastic boxes.

Sizes 11/64" and smaller have a round shank.

SST+™ Round shank

135° split point

Jobber's length



High performance HSS drill bits

Walter SST+ drill bits are made with a cobalt blend to drill even more holes faster in any type of material.

- ▶ Self-centering 135° split point geometry
- ▶ Special bronze SST surface treatment
- ▶ Heavy-duty fully ground body construction
- ▶ High flow flute design

Fractional sizes

Drill Size	Flute Length	Overall Length	Order No.	Min. Pkg.	Std. Ctn.
1/64"	3/16"	13/16"	01-A 501	10	100
1/32"	3/8"	1 3/16"	01-A 502	10	100
3/64"	5/8"	1 1/2"	01-A 503	10	100
1/16"	13/16"	1 11/16"	01-A 504	10	100
5/64"	15/16"	1 15/16"	01-A 505	10	100
3/32"	1 3/16"	2 1/4"	01-A 506	10	100
7/64"	1 5/16"	2 3/8"	01-A 507	10	100
1/8"	1 7/16"	2 9/16"	01-A 508	10	100
9/64"	1 9/16"	2 3/4"	01-A 509	10	100
5/32"	1 11/16"	2 15/16"	01-A 510	10	100
11/64"	1 7/8"	3 1/8"	01-A 511	10	100
3/16"	2 1/16"	3 3/8"	01-A 512	10	100
13/64"	2 1/16"	3 3/8"	01-A 513	10	100
7/32"	2 1/4"	3 11/16"	01-A 514	10	100
15/64"	2 1/4"	3 11/16"	01-A 515	10	100
1/4"	2 1/2"	4"	01-A 516	10	100
17/64"	2 11/16"	4 5/16"	01-A 517	10	100
9/32"	2 11/16"	4 5/16"	01-A 518	10	100
19/64"	2 15/16"	4 5/8"	01-A 519	10	100
5/16"	2 15/16"	4 5/8"	01-A 520	10	100
21/64"	2 15/16"	4 5/8"	01-A 521	10	100
11/32"	3 3/16"	4 15/16"	01-A 522	10	100
23/64"	3 3/16"	4 15/16"	01-A 523	10	100
3/8"	3 7/16"	5 1/4"	01-A 524	10	100
25/64"	3 7/16"	5 1/4"	01-A 525	5	50
13/32"	3 7/16"	5 1/4"	01-A 526	5	50
27/64"	3 11/16"	5 9/16"	01-A 527	5	50
7/16"	3 11/16"	5 9/16"	01-A 528	5	50
29/64"	3 11/16"	5 9/16"	01-A 529	5	50
15/32"	4"	5 15/16"	01-A 530	5	50
31/64"	4"	5 15/16"	01-A 531	5	50
1/2"	4"	5 15/16"	01-A 532	5	50

Packaged in reusable plastic packaging.
 Sizes 3/64" and smaller have a regular point.

Letter sizes

Drill Size	Flute Length	Overall Length	Order No.	Min. Pkg.	Std. Ctn.
F	2 1/2"	4"	01-C 506	10	100
I	2 3/4"	4 1/4"	01-C 509	10	100
Q	3"	4 5/8"	01-C 517	10	100
U	3 3/16"	4 15/16"	01-C 521	10	100

Packaged in reusable plastic packaging.



1/16" to 1/2" by 64ths
29 drill bits

Order No. 01-E 618



Tech tip!

For increased cutting efficiency and tool life, use COOLCUT solid stick lubricant
 Order No.: 53-B 013



SST+™ Round shank 135° split point Jobber's length



High performance HSS drill bits

Walter SST+ drill bits are made with a cobalt blend to drill even more holes faster in any type of material.

- ▶ Self-centering 135° split point geometry
- ▶ Special bronze SST surface treatment
- ▶ Heavy-duty fully ground body construction
- ▶ High flow flute design



1.00 mm to 13.00 mm
by 0.5 mm
25 drill bits

Order No. 01-E 625

Tech tip!

For increased cutting efficiency and tool life, use COOLCUT solid stick lubricant. Order No. 53-B 013

Metric sizes

Drill Size (mm)	Flute Length (mm)	Overall Length (mm)	Order No.	Min. Pkg.	Std. Ctn.
1.00	12	34	01-D 510	10	100
1.25	16	38	01-D 512	10	100
1.50	20	43	01-D 515	10	100
1.75	22	46	01-D 517	10	100
2.00	24	49	01-D 520	10	100
2.25	27	53	01-D 522	10	100
2.50	30	57	01-D 525	10	100
2.75	33	61	01-D 527	10	100
2.90	33	61	01-D 529	10	100
3.00	33	61	01-D 530	10	100
3.25	36	65	01-D 532	10	100
3.30	36	65	01-D 533	10	100
3.50	39	70	01-D 535	10	100
3.75	39	70	01-D 537	10	100
4.00	43	75	01-D 540	10	100
4.20	43	75	01-D 542	10	100
4.25	43	75	01-D 543	10	100
4.50	47	80	01-D 545	10	100
4.75	47	80	01-D 547	10	100
5.00	52	86	01-D 550	10	100
5.25	52	86	01-D 552	10	100
5.50	57	93	01-D 555	10	100
5.75	57	93	01-D 557	10	100
6.00	57	93	01-D 560	10	100
6.25	63	101	01-D 562	10	100
6.50	63	101	01-D 565	10	100
6.70	63	101	01-D 567	10	100
6.75	69	109	01-D 568	10	100

Drill Size (mm)	Flute Length (mm)	Overall Length (mm)	Order No.	Min. Pkg.	Std. Ctn.
7.00	69	109	01-D 570	10	100
7.25	69	109	01-D 572	10	100
7.50	69	109	01-D 575	10	100
7.75	75	117	01-D 577	10	100
8.00	75	117	01-D 580	10	100
8.25	75	117	01-D 582	10	100
8.50	75	117	01-D 585	10	100
8.75	81	125	01-D 587	10	100
9.00	81	125	01-D 590	10	100
9.25	81	125	01-D 592	10	100
9.50	81	125	01-D 595	10	100
9.75	87	133	01-D 597	5	100
10.00	87	133	01-D 600	5	50
10.20	87	133	01-D 602	5	50
10.25	87	133	01-D 603	5	50
10.50	87	133	01-D 605	5	50
10.75	94	142	01-D 607	5	50
11.00	94	142	01-D 610	5	50
11.25	94	142	01-D 612	5	50
11.50	94	142	01-D 615	5	50
11.75	101	151	01-D 617	5	50
12.00	101	151	01-D 620	5	50
12.25	101	151	01-D 622	5	50
12.50	101	151	01-D 625	5	50
12.75	101	151	01-D 627	5	50
13.00	101	151	01-D 630	5	50

Packaged in reusable plastic packaging.

SST+™ Round shank

135° split point

Double-ended stub length



High performance HSS drill bits

The most effective double-ended drill bit available that can allow you to drill hundreds of holes faster than any one else.

The state of the art cobalt blend provides these drill bits an incomparable lifespan that would make any black oxide competitors blush.

Even if you want to drill a hole into sheet metal, thin material, for automotive or aeronautical purposes, for a rivet hole or simply to double the life of your current stub length drill bit, the ultimate effectiveness is now offer to you on a silver plate.



Fractional sizes

Drill Size	Flute Length	Overall Length	Order No.	Min. Pkg.	Std. Ctn.
1/16"	23/64"	1 1/2"	01-K 004	10	100
5/64"	23/64"	1 1/2"	01-K 005	10	100
3/32"	25/64"	1 11/16"	01-K 006	10	100
7/64"	7/16"	1 13/16"	01-K 007	10	100
1/8"	15/32"	1 59/64"	01-K 008	10	100
9/64"	35/64"	2 3/64"	01-K 009	10	100
5/32"	35/64"	2 11/64"	01-K 010	10	100
11/64"	5/8"	2 9/32"	01-K 011	10	100
3/16"	11/16"	2 7/16"	01-K 012	10	100
13/64"	11/16"	2 7/16"	01-K 013	10	100
7/32"	3/4"	2 19/32"	01-K 014	10	100
15/64"	3/4"	2 19/32"	01-K 015	10	100
1/4"	53/64"	2 3/4"	01-K 016	10	100

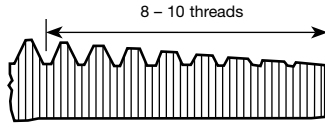
- ▶ Self-centering 135° split point geometry
- ▶ Special bronze SST surface and heat treatment
- ▶ Back tapered body
- ▶ Heavy-duty HSS body construction
- ▶ Split point on both sides for a double lifespan and quick exchange

Corresponding rivet sizes

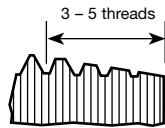
Drill Size	For Rivet Size	Flute Length	Overall Length	Order No.	Std. Pkg.	Std. Ctn.
F	1/4"	1 7/64"	4 1/64"	01-K 206	10	100
#1	7/32"	3/4"	2 19/32"	01-K 101	10	100
#10	3/16"	11/16"	2 7/16"	01-K 110	10	100
#20	5/32"	5/8"	2 9/32"	01-K 120	10	100
#30	1/8"	35/64"	2 3/64"	01-K 130	10	100
#40	3/32"	7/16"	1 13/16"	01-K 140	10	100
#51	1/16"	25/64"	1 11/16"	01-K 151	10	100



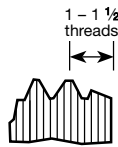
Taper



Plug



Bottoming



SST+ HSS™ hand taps

Made from premium quality high speed steel with ground threads, hardened and tempered for longest life in a variety of materials.

- ▶ Precision ground threads with eccentric relief for free cutting action
- ▶ Three and four flute design
- ▶ Available in three chamfer lengths for through or blind hole tapping
- ▶ Special bronze SST surface treatment

Machine screw and fractional sizes

Tap Size × Threads Per Inch	Drill Size	Taper	Order No. Plug	Order No. Bottoming	Min. Pkg.	Std. Ctn.
4-40 NC	#43	03-A 041	03-A 042	03-A 043	3	30
5-40 NC	#38	03-A 051	03-A 052	03-A 053	3	30
6-32 NC	#36	03-A 061	03-A 062	03-A 063	3	30
8-32 NC	#29	03-A 081	03-A 082	03-A 083	3	30
10-24 NC	#25	03-A 101	03-A 102	03-A 103	3	30
10-32 NF	#21	03-A 104	03-A 105	03-A 106	3	30
12-24 NC	#16	03-A 121	03-A 122	03-A 123	3	30
1/4"-20 NC	#7	03-B 041	03-B 042	03-B 043	3	30
1/4"-28 NF	#3	03-B 044	03-B 045	03-B 046	3	30
5/16"-18 NC	F	03-B 051	03-B 052	03-B 053	3	30
5/16"-24 NF	17/64"	03-B 054	03-B 055	03-B 056	3	30
3/8"-16 NC	5/16"	03-B 061	03-B 062	03-B 063	3	30
3/8"-24 NF	21/64"	03-B 064	03-B 065	03-B 066	3	30
7/16"-14 NC	U	03-B 071	03-B 072	03-B 073	3	30
7/16"-20 NF	25/64"	03-B 074	03-B 075	03-B 076	3	30
1/2"-13 NC	27/64"	03-B 081	03-B 082	03-B 083	3	30
1/2"-20 NF	29/64"	03-B 084	03-B 085	03-B 086	3	30
9/16"-12 NC	31/64"	03-B 091	03-B 092	03-B 093	1	10
9/16"-18 NF	33/64"	03-B 094	03-B 095	03-B 096	1	10
5/8"-11 NC	17/32"	03-B 101	03-B 102	03-B 103	1	10
5/8"-18 NF	37/64"	03-B 104	03-B 105	03-B 106	1	10
3/4"-10 NC	21/32"	03-B 121	03-B 122	03-B 123	1	10
3/4"-16 NF	11/16"	03-B 124	03-B 125	03-B 126	1	10
7/8"-9 NC	49/64"	03-B 141	03-B 142	03-B 143	1	10
7/8"-14 NF	13/16"	03-B 144	03-B 145	03-B 146	1	10
1"-8 NC	7/8"	03-B 161	03-B 162	03-B 163	1	10

Packaged in reusable plastic packaging.

TAPCUT™

Thread cutting lubricant

Specially formulated for thread cutting with taps and dies.

Description	Size		Order No.	MSDS	Std Pkg
	Metric	US Gal			
Squeeze bottle	350 ml	11.8 oz	53-A 103	L-115E	12
Liquid	5 L	1.3 gal	53-A 106	L-115E	1
Liquid	20 L	5.2 gal	53-A 107	L-115E	1

Accessories

Order No.	Description
53-L 113	Spout for 5 L pail
53-L 207	Spout for 20 L pail



Metric sizes

Order No. Tap Size × Pitch (mm)	Min. Taper	Std. Pkg.	Ctn.
3.0 × .50	03-D 031	3	30
4.0 × .70	03-D 041	3	30
5.0 × .80	03-D 051	3	30
6.0 × 1.00	03-D 061	3	30
8.0 × 1.25	03-D 081	3	30
10.0 × 1.50	03-D 101	3	30
12.0 × 1.75	03-D 121	3	30

Packaged in reusable plastic packaging.

Multi-Step™

Step drill bits titanium coated

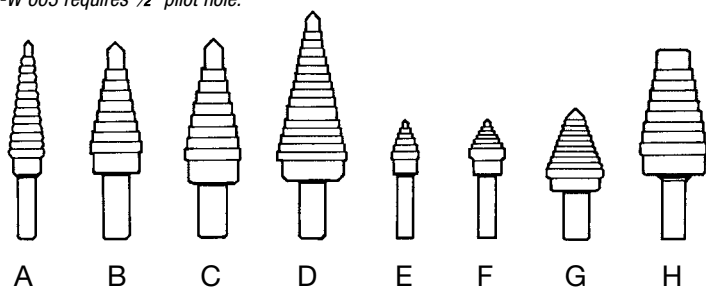
Multi-Step drill bits are the easiest and fastest way to cut or enlarge holes in sheet metal and other materials up to 1/8" thick.

- ▶ Special titanium coating increases bit hardness for better heat and wear resistance – lasts significantly longer than conventional step drills
- ▶ 2 wide cylindrical flutes eliminate chip build-up for faster drilling and to produce accurate holes without chattering



Illus. Description	Order No.	Shank Size (with 3 flats)	Min. Pkg.	Std. Ctn.
SPIRAL FLUTING				
A 13 steps from 1/8" to 1/2"	01-W 001	1/4"	1	10
B 9 steps from 1/4" to 3/4"	01-W 011	3/8"	1	10
C 12 steps from 3/16" to 7/8"	01-W 005	3/8"	1	10
D 1/4"-7/8"-1 1/8" hole diameters	01-W 012	3/8"	1	10
E 3/8" hole diameter	01-W 014	1/4"	1	10
F 1/2" hole diameter	01-W 016	1/4"	1	10
G 7/8" hole diameter	01-W 020	3/8"	1	10
H 8 steps from 9/16" to 1"*	01-W 003	3/8"	1	10
STRAIGHT FLUTING				
A 1/8" – 1/2" hole diameters	01-W 101	1/4"	1	10
B 1/4" – 3/4" hole diameters	01-W 111	3/8"	1	10
C 3/16" – 7/8" hole diameters	01-W 105	3/8"	1	10
D 1/4" – 1 1/8" hole diameters	01-W 112	3/8"	1	10

Packaged in reusable plastic packaging.
 *01-W 003 requires 1/2" pilot hole.



Step drill set

Contains the three Multi-Step bits needed for all hole sizes from 1/8" – 1 1/8".
 Bits included: A, C and D.

Order No. 01-W 951



Tech tip!

For increased cutting efficiency and tool life, use COOLCUT solid stick lubricant. Order No. 53-B 013



- ▶ Precise manufacturing – Burrs run perfectly true without vibration
- ▶ First grade tungsten carbide – For the toughest applications in a wide range of materials
- ▶ Exclusive tooth design – Guarantees maximum cutting performance
- ▶ Advanced flute geometry – Ensures maximum cutting capacity and chip evacuation from tip to bottom
- ▶ High strength brazed joint – Stringent manufacturing process guarantees no breakage

Carbide burr production set

Contains one of each of the following:
01-V 002, 006, 011, 015 and 018

Order No. 01-V 990



Carbide burrs

High performance

These new carbide burrs are made from the highest grade tungsten carbide and are manufactured with the highest degree of accuracy for perfect concentricity and balance. They offer fast material removal and longest life.

1/4" shank \varnothing , double cut

Burr Dia. x Length	Order No.	6" shank Order No.	Std. Pkg.	Std. Ctn.
Cylindrical (SA)				
1/4" x 5/8"	01-V 001	01-V 601	1	10
5/16" x 3/4"	01-V 037	—	1	10
3/8" x 3/4"	01-V 002	01-V 602	1	10
7/16" x 1"	01-V 038	—	1	10
1/2" x 1"	01-V 004	01-V 604	1	10
Cylindrical round nose (SC)				
1/4" x 5/8"	01-V 005	01-V 605	1	10
5/16" x 3/4"	01-V 039	—	1	10
3/8" x 3/4"	01-V 006	01-V 606	1	10
7/16" x 1"	01-V 040	—	1	10
1/2" x 1"	01-V 007	01-V 607	1	10
Ball (SD)				
1/4" x 7/32"	01-V 009	01-V 609	1	10
3/8" x 5/16"	01-V 010	01-V 610	1	10
1/2" x 7/16"	01-V 026	01-V 626	1	10
5/8" x 9/16"	01-V 011	—	1	10
Tapered (SG)				
1/4" x 5/8"	01-V 044	01-V 644	1	10
5/16" x 3/4"	01-V 045	—	1	10
3/8" x 3/4"	01-V 046	01-V 646	1	10
1/2" x 1"	01-V 013	01-V 613	1	10
Tree (SF)				
1/4" x 5/8"	01-V 041	01-V 641	1	10
5/16" x 5/8"	01-V 042	—	1	10
3/8" x 3/4"	01-V 014	01-V 614	1	10
7/16" x 1"	01-V 043	—	1	10
1/2" x 1"	01-V 015	01-V 615	1	10
Cone (SL)				
1/4" x 5/8"	01-V 017	—	1	10
5/16" x 7/8"	01-V 051	—	1	10
3/8" x 1 1/16"	01-V 031	01-V 631	1	10
5/8" x 3/16"	01-V 052	01-V 652	1	10
1/2" x 1 1/8"	01-V 032	—	1	10
Conical (SM)				
1/4" x 1/2"	01-V 047	—	1	10
1/4" x 3/4"	01-V 048	—	1	10
1/4" x 1"	01-V 049	—	1	10
3/8" x 5/8"	01-V 050	—	1	10
1/2" x 7/8"	01-V 018	—	1	10
Egg (SE)				
3/8" x 5/8"	01-V 027	—	1	10
1/2" x 7/8"	01-V 028	—	1	10
Flame (SH)				
5/16" x 3/4"	01-V 029	—	1	10
1/2" x 1 1/4"	01-V 030	—	1	10

1/4" shank \emptyset , non-ferrous, aluminum and soft metals

Shape	Burr Dia. x Length	Order No.	Std. Pkg.	Std. Ctn.
CYLINDRICAL (SA)	3/8" x 3/4"	01-V 003	1	10
CYLINDRICAL ROUND NOSE (SC)	1/2" x 1"	01-V 008	1	10
TREE (SF)	1/2" x 1"	01-V 016	1	10
CONE (SL)	3/8" x 1 1/4"	01-V 036	1	10

1/4" shank \emptyset , hard alloys

Shape	Burr Dia. x Length	Order No.	Std. Pkg.	Std. Ctn.
CYLINDRICAL ROUND NOSE (SC)	1/2" x 1"	01-V 033	1	10
TREE (SF)	1/2" x 1"	01-V 034	1	10
CONE (SL)	1/2" x 1 1/8"	01-V 035	1	10

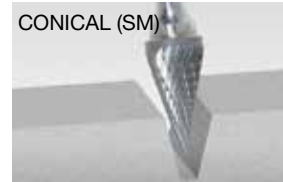
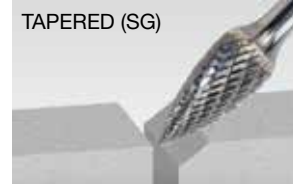
1/8" shank \emptyset , double cut

Shape	Burr Dia. x Length	Order No.	Std. Pkg.	Std. Ctn.
CYLINDRICAL (SA)	1/8" x 9/16"	01-V 020	1	10
BALL (SD)	1/8" x 1/8"	01-V 021	1	10
TREE (SF)	1/8" x 1/2"	01-V 022	1	10
TAPERED (SG)	1/8" x 1/2"	01-V 023	1	10
CONE (SL)	1/8" x 1/2"	01-V 024	1	10
CONICAL (SM)	1/8" x 7/16"	01-V 025	1	10

Burr diameter	Maximum cutting speed (RPM) for standard length burrs	Maximum cutting speed (RPM) for 6" long burrs
1/4"	70,000	35,000
5/16"	68,000	34,000
3/8"	66,000	33,000
7/16"	58,000	29,000
1/2"	50,000	25,000
5/8"	40,000	20,000

For safety reasons, never use the 6" tungsten carbide burrs below 20,000 RPM.

Material	Double cut	Non-ferrous	Material	Double cut	Non-ferrous
Aluminum	-	x	Plastics	x	-
Brass	x	x	Hard rubber	x	-
Bronze	x	-	Steel - 45-55Rc	x	-
Cast iron	x	-	Steel - 55-60Rc	x	-
Copper	-	x	Steel - Carbon	x	-
Carbon fiber	-	x	Steel - Nickel		
Fiberglass	x	-	Chrome	x	-
Inconel	x	-	Steel - Stainless	x	-
Magnesium	-	x	Steel - Weldments	x	-
Plastics	x	-	Titanium	x	-
Hard rubber	x	-	Zinc	-	x



Super 5 Grinder™ – 5"

The perfect intermediate size grinder

Any way you look at it, the Super 5 – grinder is the perfect intermediate size grinder. With its powerful 9.6 A motor, this grinder is the right choice for those tough jobs that require extra power from a lightweight tool. Put it to the test removing welds, breaking edges, cleaning-up shapes and profiles, cutting off angle iron; feel the difference for yourself.



Model	Order No.	Disc Dia.	RPM	Spindle Thread	Motor	Amps	Weight
6150	30-A 150	5"	10,000	5/8"-11	120V A.C./D.C.	9.6	4.2 lbs

STANDARD EQUIPMENT: 1 wheel guard (48-M 444), 1 side handle (32-B 027), 1 flange (30-B 057) and 1 QUICK nut (30-B 020).

OPTIONAL ACCESSORIES: Manual clamping nut (30-B 037), nut holder (30-B 023), pin key (48-Z 148) and Spin-On kit (30-B 024).

Big 6™ Grinder – 6"

Double the grinding output with half the weight

Never before has it been possible to pack so much power into a grinder this size. Extensive use of electronics combined with user-friendly ergonomics ensure that the Big 6 – Grinder will get even the toughest jobs done faster, safer and with maximum operator comfort. Pick one up today, feel its power, secure grip, greater flexibility and balance as you take down heavy welds, bevel, finish large surfaces, etc.



Model	Order No.	Disc dia.	RPM	Spindle thread	Motor	Amps	Weight
6260	30-A 260	6"	9,000	5/8"-11	120V A.C. only	12.2	4.4 lbs

STANDARD EQUIPMENT: 1 wheel guard 48-M 446, 1 side handle (32-B 027), 1 flange (30-B 057) and 1 QUICK nut (30-B 020).

OPTIONAL ACCESSORIES: Manual clamping nut (30-B 037), nut holder (30-B 023), pin key (48-Z 148) and SPIN-ON kit (30-B 024).

More protection

All Walter 4 1/2", 5" and 6" angle grinders are covered by our 24-month LONG-RUN warranty and exclusive SERVICEGUARD™ protection plan.

WARRANTY

LONG-RUN
SERVICEGUARD™
Protection Plan

24
MONTHS

Duron™ Grinders – 5" and 6"

State of the art, heavy-duty, long tail grinders

This class of industrial angle grinders have set a new standard in performance, safety and operator comfort. The extremely powerful motor delivers impressive torque to the spindle to get more work done faster, guaranteed. The compact and rugged construction will outperform and last longer in the most demanding grinding, bevelling, cutting, brushing and pipefitting applications.



Model	Order No.	Disc dia.	RPM	Spindle thread	Lock-on switch	Motor	Amps	Weight
6350	30-A 350	5"	10,000	5/8"-11	yes	120V A.C.	12	6.2 lbs
6352	30-A 352	5"	10,000	5/8"-11	no	120V A.C.	12	6.2 lbs
6360	30-A 360	6"	10,000	5/8"-11	yes	120V A.C.	12	6.2 lbs
6362	30-A 362	6"	10,000	5/8"-11	no	120V A.C.	12	6.2 lbs

STANDARD EQUIPMENT 6350 and 6352: 1 wheel guard (48-M 218), 1 side handle (32-B 015), 1 flange (30-B 057), 1 clamping nut (30-B 037) and 1 pin key (48-Z 148).

STANDARD EQUIPMENT 6360 and 6362: 1 wheel guard (48-M 215), 1 side handle (32-B 015), 1 flange (30-B 057), 1 clamping nut (30-B 037) and 1 pin key (48-Z 148).

OPTIONAL ACCESSORIES: Nut holder (30-B 023).

Clamping flanges

Clamping flange set to mount 9" cut-off wheels on 5/8"-11 spindles

Order No. 30-B 022



Clamping nuts

For grinders with 5/8"-11 spindle
M14 x 2.0 spindle

Order No. 30-B 037
Order No. 30-B 005



Quick release backing flange

For quick and easy removal of wheel

Order No. 30-B 057



Special heat resistant silicone ring for retention of the back flange to the spindle.
Package of 10.

Order No. 30-B 027



Flanges for flush mounting wheels

Less than 1/8" thick

For Walter grinders with:
5/8"-11 spindle

Order No. 30-B 017



M14 x 2.0 spindle
Quick nut 5/8"-11

Order No. 30-B 016
Order No. 30-B 020

Flush Mounting Set

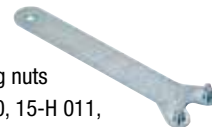
for other brands of grinders with:
5/8"-11 spindle (includes special flange and clamping nut)

Order No. 30-B 021



Pin keys

Pin key for clamping nuts
15-H 009, 15-H 010, 15-H 011,
15-H 012, 15-D 013 and 15-H 024
Order No. 15-H 021



For all other clamping nuts
Order No. 48-Z 148



Accessories for air grinders

Use these adaptors to convert accessories with 3/8"-11 arbors

To 3/8"-16 (male)
To 3/8"-24 (male)

Order No. 13-D 004
Order No. 13-D 005



Use these extensions to mount accessories

With 3/8"-24 on spindles with 3/8"-24 thread
With 3/8"-24 on spindles with 7/16"-20 thread
With 5/8"-11 on spindles with 1/2"-13 thread

Order No. 08-B 006
Order No. 08-B 005
Order No. 08-B 008



Clamping nut for use with above extension
3/8"-24 thread, to mount grinding wheels with 5/8" arbor

Order No. 08-B 007



Mounting flange to mount 4" type 27 grinding wheels on air grinders with 3/8"-24 spindle

Order No. 08-B 004



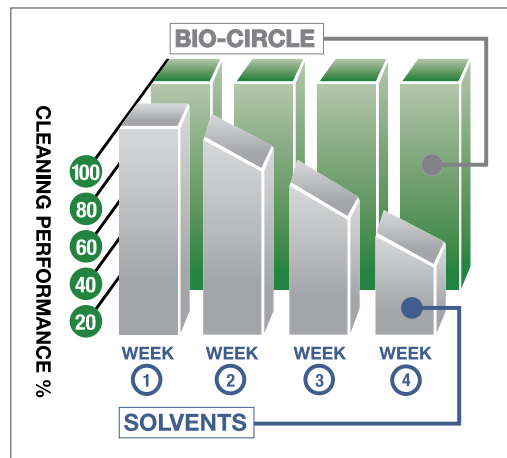


Your safest, most efficient alternative to toxic solvent parts washing

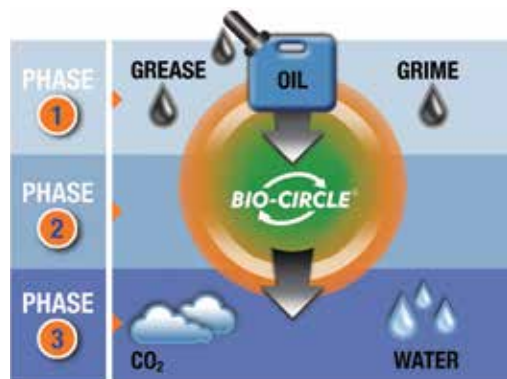
The BIO-CIRCLE parts cleaning system is a safe, efficient and sustainable solution for companies seeking cost-effective green cleaning technology. It eliminates hazardous chemical waste and is a proven alternative to traditional solvent cleaners, with thousands of industrial users having adopted this new method worldwide.

BIO-CIRCLE eliminates the need for frequent replenishment, monthly waste disposal and toxic material management challenges associated with solvent-based cleaning systems. Simply “top off” the solution periodically, to offset natural evaporation.

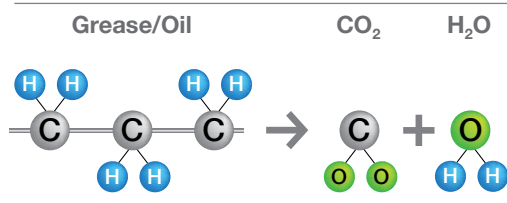
Each system is made from tough impact-resistant plastic and requires a 120 volt outlet with a ground fault adaptor.



Solvent-based cleaning strength is diminished week by week whereas BIO-CIRCLE keeps working!



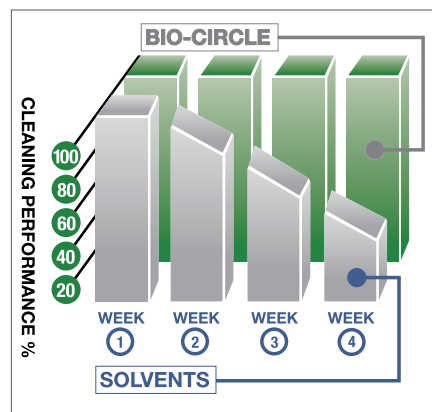
BIO-CIRCLE can “digest” oils and greases, leaving only water and carbon dioxide. No hazardous chemical waste is generated.



Bio-Circle™

Industrial parts washing liquids

Bio-Circle offers three distinct bio-remediating industrial parts washing liquids. All three are made of natural micro-organisms that break down oils and residues into water and carbon dioxide. These Bio-Circle liquids maintain their cleaning power over time, a clear advantage over solvents.



Solvent-based cleaning strength is diminished week by week whereas BIO-CIRCLE keeps working!

Bio-Circle L™

The right solution for any application!

Its fast and thorough cleaning performance has allowed Bio-Circle L to differentiate itself from many other natural cleaning solutions. Bio-Circle L is a non-solvent solution and is VOC-Free.

Description	Size		Order No.	MSDS	Std pkg
	Metric	US Gal			
Solution	20 L	5.2 gal	55-A 007	L-78E	1
Solution	208 L	55 gal	55-A 008	L-78E	1



Bio-Circle Ultra™

Heavy-duty cleaning liquid

Looking to remove the toughest contaminants... Bio-Circle Ultra is the perfect solution. Bio-Circle Ultra quickly removes: crude oil, bitumen, heavy grease, baked-on contaminants and more.

Description	Size		Order No.	MSDS	Std pkg
	Metric	US Gal			
Solution	20 L	5.2 gal	55-A 107	L-148E	1
Solution	208 L	55 gal	55-A 108	L-148E	1



Bio-Circle Aero™

Cleaning liquid designed for the aerospace industry

Aeronautics customers with stringent requirements specific to the industry choose Bio-Circle Aero liquid. **This liquid conforms to Boeing D6-17487 revision R, Douglas Aircraft company CSD No.1 (Type I), AMS 1526C, MIL-PRF-29602A.**

Description	Size		Order No.	MSDS	Std pkg
	Metric	US Gal			
Solution	20 L	5.2 gal	55-A 207	L-161E	1
Solution	208 L	55 gal	55-A 208	L-161E	1



For a full listing of the various approvals and certifications for Bio-Circle L, Bio-Circle Ultra and Bio-Circle Aero, please visit: www.bio-circle.com

Bio-Circle™

Industrial parts washers



MAXI™

Maximum cleaning power for a complete range of applications

The Bio-Circle Maxi is our most versatile system for a wide range of cleaning applications.

DIMENSIONS L x W x H	MAX TANK CAPACITY	LOAD CAPACITY
97 cm x 69 cm x 110 cm (38" x 27" x 43")	140 L (37 gal)	220 Kg (500 lbs)



COMPACT S™

Efficient size for your toughest cleaning jobs

The Bio-Circle Compact S is an ideal cleaning system for maintenance, repair and overhaul (MRO) and machine shops. A powerful addition to any industrial tool box.

DIMENSIONS L x W x H	MAX TANK CAPACITY	LOAD CAPACITY
90 cm x 60 cm x 112 cm (35" x 24" x 44")	120 L (31.7 gal)	100 Kg (220 lbs)



MINI™

For maximum mobility

Designed for light duty applications, the Bio-Circle Mini is mounted on wheels to allow for increased flexibility.

DIMENSIONS L x W x H	MAX TANK CAPACITY	LOAD CAPACITY
74 cm x 71 cm x 112 cm (29" x 28" x 44")	90 L (24 gal)	90 Kg (200 lbs)

DID YOU KNOW?

You can eliminate safety equipment with Bio-Circle parts cleaning systems. Heavy rubber gloves, ventilation systems and other protective equipment are unnecessary.



Nature Boost

Nature Boost is an innovative raw material derived from vegetable extracts exclusive to Bio-Circle Environmental Solutions. This unique ingredient dissolves oils, greases, inks, adhesives and paint. Nature Boost is non-flammable, VOC-free, non-toxic and bio-renewable. Expect greater performance with less environmental impact from products formulated with Nature Boost.



Advantages

- ◆ Ready to use formulation; can be diluted up to 5:1 with water
- ◆ Works well at room temperature
- ◆ Water-based
- ◆ Non-corrosive
- ◆ VOC-free
- ◆ Bio-degradable
- ◆ Solvent, phosphate and butyl free
- ◆ Micro-emulsion
- ◆ Strong dissolving/lifting power for removing heavy contaminants
- ◆ Compatible with Bio-Circle L (will not damage the living micro-organisms)

Applications

- ◆ Manual cleaning
- ◆ Industrial parts washing when paired with the Cleanbox Flow
- ◆ Immersion baths (Cleanbox Dip, large immersion vats)
- ◆ Pressure washing
- ◆ Ultrasonic baths

CB 100™

Natural water-based solvent

CB 100 is an all-natural water-based solvent. Through the powers of our exclusive Nature Boost technology, CB 100 boasts superior cleaning results when challenged with the removal of: heavy greases, anti-seize, burnt oil/fat, paint, food residues, pastes/solid lubricants, crude oil, graphite, proteins and many other common industrial contaminants. CB 100 is compatible with steel, stainless steel, aluminum and non-ferrous metals.



Description	Size		Order No.	MSDS	Std Pkg
	Metric	US Gal			
Sprayer	500 ml	16.9 oz	53-G 163	L-155E	12
Liquid	5 L	1.3 gal	53-G 166	L-155E	1
Liquid	20 L	5.2 gal	53-G 167	L-155E	1
Liquid	208 L	55 gal	53-G 168	L-155E	1

Colour: Clear

Cleanbox™ Flow mobile kit

Order No. 53-G 994



The Cleanbox Flow Mobile kit consists of a sink and flow through cleaning brush, a basin and pump, a cart for mobility and two 20 L of CB 100 Natural Industrial Cleaner and Degreaser. The Cleanbox Flow Mobile kit allows you to easily clean and degrease heavily contaminated parts anywhere within your work environment.

Includes:

- ◆ 2 x 20 L CB 100 (53-G 167)
- ◆ 1 x Cleanbox Flow (55-D 020)
- ◆ 1 x Cleanbox Flow 2-level cart (55-B 086)

Features

- ◆ Lower shelf can easily hold 2 X 20 L pails of CB 100
- ◆ Equipped with 4 casters (two with locking brakes)



Cleanbox Flow 2-level cart dimensions

Dimensions of the Cleanbox Flow sink: 600 x 400 x 150 mm

Dimensions of the Cleanbox Flow Bassin: 600 x 400 x 300 mm

Dimensions of the Cleanbox Flow Cover: 600 x 400 mm



Cleanbox™ Flow kit

Order no. 53-G 995

The Cleanbox Flow is an industrial parts washer designed for use on a counter, table or bench top. This base model is the most cost effective offering available within Bio-Circle family of industrial parts washing systems. The Cleanbox Flow comes equipped with: a sink and flow through cleaning brush, a basin and pump, and two 20 L of CB 100 natural cleaner and degreaser.

Includes:

- ◆ 2 x 20 L CB 100 (53-G 167)
- ◆ 1 x Cleanbox Flow (55-D 020)

Dimensions L x W x H

Cleanbox Flow sink: 61 cm x 45.7 cm x 90.8 mm

Cleanbox Flow bassin: 600 mm x 400 mm x 300 mm

Cleanbox Flow cover: 600 mm x 400 mm

Cleanbox™ Dip | *Pre-soaking applications*

Bio-Circle Environmental Solutions offers a pre-soaking solution for the very hardest to remove caked on contaminants; Cleanbox Dip paired with CB 100 natural industrial cleaner and degreaser.

The Cleanbox Dip is made of a robust plastic shell, a strainer and lid. When filled with CB 100, the Cleanbox Dip is ready to receive heavily contaminated industrial parts. Within hours, grease, sludge, caked on contaminants and even paint are removed effortlessly and ready for final cleaning in any Bio-Circle industrial parts washing system.

Cleanbox™ Dip Mobile kit

Order no. 53-G 992

Cleanbox Dip Mobile provides a complete kit to easily pre-soak industrial parts while ensuring worker efficiency; the Cleanbox Dip Mobile goes wherever you go.

Package includes:

- ◆ Cleanbox Dip (55-D 010)
- ◆ 3 x 20 L of CB 100 (53-G 167)
- ◆ Cleanbox dolly (55-B 083)



Cleanbox™ Dip kit

Order no. 53-G 993

For your every pre-soaking need, think Cleanbox Dip. This compact dipping container paired with CB 100 will alleviate the harshest contaminants from small to medium sized industrial parts.

Included with the Cleanbox Dip kit:

- ◆ Cleanbox (basin, strainer, lid: 55-D 010)
- ◆ 3 x 20 L of CB 100 Natural Industrial cleaner and degreaser (53-G 167)



Air Force AF-CLEAN™ kits

The environmental impact is drastically minimized by using compressed air as a propellant and by eliminating the need to dispose of empty aerosol cans. The reusable bottle is simply refilled over and over. The system is safe and simple to use.

Requires clean and dry compressed air (90-125 psi) to operate.



DID YOU KNOW?

That a 10L (2.6 gal) bag-in-box of AF-CLEAN replaces as many as 36 aerosol cans! This results in reduced storage, handling and disposal costs.

Air Force AF-CLEAN 10 L

Starter kit

Order no. 57-D 100K

The starting kit includes:

- ◆ 1 x pack of 10 microfiber cloths
- ◆ 2 x AF-Clean Refillable Sprayer
- ◆ 4 x 10 L Bag in Box AF-Clean
- ◆ 1 x AF-Clean Station
- ◆ 1 x CARE Service Fee



4x

2x

Air Force AF-CLEAN 208 L

Starter kit

Order no. 57-D 200K

The starting kit includes:

- ◆ 1 x pack of 10 microfiber cloths
- ◆ 6 x AF-Clean Refillable Sprayer
- ◆ 1 x 208 L AF-Clean Drum
- ◆ 1 x AF-Clean Station
- ◆ 1 x CARE Service Fee



1x

6x

*Air Force station remains the property of Walter Surface Technologies. A usage agreement will need to be signed between the customer and Walter upon purchase of any Air Force System.



UNO™ family of cleaners and degreasers

Bio-Circle Environmental Solutions provides the UNO family of cleaning and degreasing products, ideal for various MRO jobs conducted at room temperature

This family consists of:

- UNO S** Foaming, high strength cleaner
- UNO SF** Foamless, high strength cleaner
- UNO S PF** Foamless, high strength cleaner with additional corrosion protection
- UNO S V** Viscous formulation, high strength cleaner

Features

- ◆ Aqueous-based high strength degreaser
- ◆ Can be diluted up to 1:40 with water
- ◆ Delivers outstanding performance

Benefits

- ◆ Contains corrosion inhibitors to prevent flash rusting
- ◆ VOC-free, solvent-free, non-flammable, phosphate-free, biodegradable
- ◆ Excellent substitute for solvent-based cleaners

Value-added

- ◆ Create a healthier and safer work environment
- ◆ Reduce your chemical waste stream
- ◆ Lower operating costs



UNO S™

High strength cleaner and degreaser

Save time and money with UNO S and its Low Energy Surfactant (LES) technology which allows the product to achieve optimal results at ambient temperature. The foaming action of UNO S makes it ideal for manual cleaning.

Description	Size		Order No.	MSDS	Std Pkg
	Metric	US Gal			
Sprayer	500 ml	16.9 oz	53-G 033	L-143E	12
Liquid	5 L	1.3 gal	53-G 036	L-143E	1
Liquid	20 L	5.2 gal	53-G 037	L-143E	1
Liquid	208 L	55 gal	53-G 038	L-143E	1

Colour: Light pink



UNO SF™

Foamless formulation cleaner

For applications where foaming would interfere.

Description	Size		Order No.	MSDS	Std Pkg
	Metric	US Gal			
Sprayer	500 ml	16.9 oz	53-G 023	L-48E	12
Liquid	5 L	1.3 gal	53-G 016	L-48E	1
Liquid	20 L	5.2 gal	53-G 017	L-48E	1
Liquid	208 L	55 gal	53-G 018	L-48E	1

Colour: Light pink



STAR™ family of cleaners and degreasers for automated industrial parts washers

An excellent substitute to solvent-based cleaners!

Thanks to unique Low Energy Surfactant (LES) technology, save on energy and costs! These unique surfactants can clean and degrease effectively at lower temperatures, thus generating substantial energy savings. Lower the temperature of your automated industrial parts washers today!

NOTE: Dilution up to 1:200

STAR 200™



Concentrated alkaline cleaner and degreaser for cleaning iron, cast iron, steel and stainless steel in automated parts washing applications. STAR 200 exhibits excellent dissolving capabilities of oil, grease, lubricants and grime.



Description	Size		Order No.	MSDS	Std Pkg
	Metric	US Gal			
Liquid	20 L	5.2 gal	53-G 067	L-107E	1
Liquid	208 L	55 gal	53-G 068	L-107E	1

Colour: Clear

ALUSTAR 200™



Concentrated alkaline cleaner and degreaser for the cleaning of aluminum and other non-ferrous alloys in automated parts washing systems. ALUSTAR 200 is ideal for dissolving oil, grease, lubricants and grime.



Nonfood Compounds Program Listed (AB) (145452)



Description	Size		Order No.	MSDS	Std Pkg
	Metric	US Gal			
Liquid	20 L	5.2 gal	53-G 707	L-79E	1
Liquid	208 L	55 gal	53-G 708	L-79E	1

Colour: Clear

ALUSTAR 300™



Extra strength alkaline cleaner and degreaser for fast and efficient removal of the most persistent contaminants on aluminum, steel and stainless steel. Excellent for heavy-duty maintenance, repair and overhaul cleaning applications.



Nonfood Compounds Program Listed (AB) (145453)



Description	Size		Order No.	MSDS	Std Pkg
	Metric	US Gal			
Liquid	20 L	5.2 gal	53-G 757	L-106E	1
Liquid	208 L	55 gal	53-G 758	L-106E	1

Colour: Clear

Air Force AF-PL™

Industrial strength cleaner and degreaser

AF-PL offers the safety and cost-effectiveness of bulk packaging, it's a residue free and fast evaporating cleaner / degreaser that will effectively dissolve and remove grease, oil and grime. AF-PL is specially formulated for maximum compatibility with plastics and rubber-like compounds.

Features

- ◆ Free of chlorinated solvent, no rinsing and residue
- ◆ Removes grease, oil and dirt
- ◆ Safe on most plastics and rubber compounds
- ◆ Solvents penetrate and displace moisture

Description	Size		Order No.	MSDS	Std Pkg
	Metric	US Gal			
Liquid	20 L	5.2 gal	53-C 557	L-65E	1
Liquid	200 L	52.8 gal	53-C 558	L-65E	1
Accessories					Order No.
Spout for 20 L pail					53-L 207
Spout for 200 L drum					53-L 208
Replacement trigger sprayer bottle, 500 ml					53-L 311



Air Force AF-PL 20 L

Starter kit

Order no. 53-M 952

The starting kit includes:

- ◆ Use of Air Force PL station*
- ◆ 1 x 53-C 557 AF-PL 20 L
- ◆ 1 x 53-M 041 pail adaptor
- ◆ 1 x 53-M 101 pack of 6 refillable bottles
- ◆ 6 x 53-M 054 variable spray valve



6x

1x

Air Force AF-PL 200 L

Starter kit

Order no. 53-M 953

The starting kit includes:

- ◆ Use of Air Force PL station*
- ◆ 1 x 53-C 558 AF-PL 200 L
- ◆ 1 x 53-M 038 drum adaptor
- ◆ 1 x 53-M 025 safety valve
- ◆ 1 x 53-M 101 pack of 6 refillable bottles
- ◆ 6 x 53-M 054 variable spray valve



6x

1x

*Air Force PL station remains the property of Walter Surface Technologies. A usage agreement will need to be signed between the customer and Walter upon purchase on any Air Force System.



Description	Size		Order No.	MSDS	Std Pkg
	Metric	US Gal			
Liquid	1.5 L	50.7 oz	53-G 245	L-134E	1
Liquid	20 L	5.2 gal	53-G 247	L-134E	1
Liquid	208 L	55 gal	53-G 248	L-134E	1
Accessories			Order No.		
Chrome plated drum pump			53-L 116		
Spout for 208L drum			53-L 209		



Slap Shot

Description	Size		Order No.	MSDS	Std Pkg
	Metric	US Gal			
Aerosol	500 ml	16.9 oz	53-C 502	L-39E	12
Sprayer	500 ml	16.9 oz	53-C 503	L-40E	12
Liquid	5 L	1.3 gal	53-C 506	L-40E	1
Liquid	20 L	5.2 gal	53-C 507	L-40E	1
Liquid	200 L	52.8 gal	53-C 508	L-40E	1
Accessories			Order No.		
Spout for 20 L pail			53-L 207		
Spout for 200 L drum			53-L 208		
Replacement trigger sprayer bottle, 500 ml			53-L 311		

Slap Shot PL

Description	Size		Order No.	MSDS	Std Pkg
	Metric	US Gal			
Aerosol	400 ml	13.5 oz	53-C 552	L-64E	12



BIO-RUST™

Non-corrosive rust remover

BIO-RUST is a non-corrosive solution that eliminates rust on all ferrous alloys.

Benefits

- ◆ Removes rust without the need for brushing or using strong acids
- ◆ Non-corrosive rust remover
- ◆ Reacts only with iron oxide – does not damage parent material, non-ferrous alloys or plastic surfaces
- ◆ VOC-free, solvent-free, non-flammable, phosphate-free, biodegradable
- ◆ Not controlled under WHMIS
- ◆ Ready-to-use

SLAP SHOT™

Industrial parts cleaner and degreaser

This highly effective, residue-free and fast evaporating cleaner/degreaser dissolves and removes grease, oil and grime on contact.

Benefits

- ◆ Strong jet blasts away grease and grime
- ◆ Powerful to quickly and completely dissolve stubborn dirt and grease without leaving any residue
- ◆ Free of chlorinated solvent

Applications

- ◆ Removal of glue, paint, ink, resin and sealant residue
- ◆ Removal of plastic foil and wax-like protective coatings
- ◆ Cleaning of ferrous and non-ferrous metals

SLAP SHOT PL™

Cleaner and degreaser

Safe on plastics

Specially formulated for maximum compatibility with plastics and rubber-like compounds, this residue-free and fast evaporating cleaner/degreaser effectively dissolves and removes grease and oil.

Benefits

- ◆ Quick acting and fast evaporating without residue
- ◆ Free of chlorinated solvent

Applications

- ◆ Cleaning of metal parts in presence of plastic or gaskets
- ◆ Removal of glue, paint, ink, resin, sealant and flux residue
- ◆ Cleaning of electric components, instruments, lenses, glass, chains, gears, cables, etc.

POLY-LUBE™

Industrial multi-purpose lubricant

Ideal for the lubrication of metal parts, bits, dies, fasteners, bearings, valves, slides, tracks, pulleys, production equipment, parts in storage, and many more applications in the maintenance, repair and industrial purposes.

Benefits

- ◆ High performance multi-purpose lubricant
- ◆ Leaves an oily film
- ◆ Indoor corrosion protection
- ◆ Penetrates and displaces moisture

Features

- ◆ High Flash Point 76 °C (168 °F)
- ◆ Non-flammable propellant
- ◆ High grade formula



Description	Size		Order No.	MSDS	Std Pkg
	Metric	US Gal			
Aerosol	370 ml	12.5 oz	53-D 402	L-150E	12

DRY PRO™

Dry PTFE lubricant

DRY PRO is a multi-purpose, dry film lubricant. For a clean, lightweight lubrication and protection. Ideal to prevent friction and wear in sliding parts and light load equipment.



Benefits

- ◆ Contains PTFE for enhanced lubricity
- ◆ Produces a dry thin white no-drip, quick drying film
- ◆ Will not attract dust and dirt
- ◆ Convenient to use: for difficult to reach equipment and vertical surfaces
- ◆ Resistant to high temperatures
- ◆ Compatible with all materials: metal, wood, plastics, glass
- ◆ No silicone or chlorinated solvents

Applications

- ◆ Locking and sliding mechanisms
- ◆ Lubrication and protection where oils and greases cannot be used
- ◆ Ideal in dusty environments
- ◆ Great for cogs, locks, chains, doors and windows tracks
- ◆ Anti-seize
- ◆ Equipment assembly and disassembly
- ◆ Preventing buildups on metallic tools and surfaces
- ◆ Squeezing parts



Description	Size		Order No.	MSDS	Std Pkg
	Metric	US Gal			
Aerosol	400 ml	13.5 oz	53-D 502	L-151E	12



DESCRIPTION	SIZE		ORDER NO.	MSDS	STD PKG
	Metric	US Gal			
Aerosol	400 ml	13.5 oz	53-D 812	L-33E	12
Sprayer	500 ml	16.9 oz	53-D 813	L-45E	12
Liquid	5 L	1.3 gal	53-D 816	L-45E	1
Liquid	20 L	5.2 gal	53-D 817	L-45E	1

Accessories	Order no.
Replacement trigger sprayer bottle, 500 ml	53-L 331

DESCRIPTION	SIZE		ORDER NO.	MSDS	STD PKG
	Metric	US Gal			
Aerosol	400 ml	13.5 oz	53-D 892	L-08E	12
Sprayer	500 ml	16.9 oz	53-D 893	L-26E	12
Liquid	20 L	5.2 gal	53-D 897	L-26E	1

Accessories	Order No.
Replacement trigger sprayer bottle, 500 ml	53-L 332



DESCRIPTION	SIZE		ORDER NO.	MSDS	STD PKG
	Metric	US Gal			
Aerosol	400 ml	13.5 oz	53-D 852	L-43E	12
Paste	300 g	10.6 oz	53-D 854	L-44E	12

HANG-ON™

Adhesive lubricant

Highly adhesive and tenacious maintenance lubricant with superior lubrication under harsh conditions and over extended periods of time.



Benefits

- ◆ Penetrates fine clearances
- ◆ Leaves a tacky, clear, no-drip film
- ◆ Resists exposure to weather, salt water, mild chemicals and temperatures up to 200 °C (390 °F)
- ◆ Biodegradable
- ◆ Chlorinated solvent and silicone-free

Applications

- ◆ Lubrication and protection of: joints, sliding rails, hinges, forklifts and all mechanisms with moving parts

BOLT-OUT™

Penetrating lubricant

This heavy-duty, non-chlorinated formula penetrates and lubricates seized parts while inhibiting further rust in a wide range of temperatures.



Benefits

- ◆ Microscopic moly particles provide excellent lubricity
- ◆ Displaces moisture, silicone-free
- ◆ Effective from -20 °C to 250 °C (-4 °F to 482 °F)
- ◆ Inhibits further rust

Applications

- ◆ Disassembly of seized bolts, nuts, mechanisms, pins, bushings, etc.
- ◆ Loosening of hoists, pulley blocks, hinges

ROCK'N ROLL™

Ceramic anti-seize lubricant

This innovative, inert, non-toxic, metal-free white lubricant provides long-term protection against corrosion and prevents seizing of assemblies even under extreme conditions.



Benefits

- ◆ Non-hazardous, non-carbonizing, environmentally-safe
- ◆ Safe on all materials, long-lasting, water-resistant

Applications

- ◆ Very effective for operations at high temperatures, up to 1400 °C (2500 °F)
- ◆ All threaded components, bushings, press fits



Description	Size		Order No.	MSDS	Std Pkg
	Metric	US Gal			
Aerosol (gel)	312 g	11 oz	53-B 002	L-01E	12
Sprayer	500 ml	16.9 oz	53-B 004	L-09E	12
Paste	200 g	7 oz	53-B 023	L-52E	12
Solid stick	300 g	10.5 oz	53-B 013	L-22E	12
Squeeze bottle	350 ml	11.8 oz	53-B 003	L-09E	12
Liquid	5 L	1.3 gal	53-B 006	L-09E	1
Liquid	20 L	5.2 gal	53-B 007	L-09E	1
Liquid	208 L	55 gal	53-B 008	L-09E	1

Accessories	Order No.
Spout for 5 L pail	53-L 113
Spout for 20 L pail	53-L 207
Faucet for 208 L drum, 2"	53-L 209
Spout for 208 L drum, 3/4"	53-L 210

COOLCUT™

Metal cutting lubricant

High performance metal cutting lubricant stands up to pressure and heat to reduce tool wear, prevent tool breakage, increase production rates and improve surface finish.

Benefits

- ◆ Reduces friction and heat for longer tool life and better finish
- ◆ Allows increased feed rates and higher speeds to save time
- ◆ Contains no chlorinated waxes or chlorine

Applications

- ◆ For all machining operations: drilling, sawing, tapping, milling, reaming, broaching, nibbling and shearing
- ◆ Suitable for steel, stainless steel, tough alloys and all other ferrous and non-ferrous metals



Nonfood Compounds
Program Listed (H2)
(147193)



Description	Size		Order No.	MSDS	Std Pkg
	Metric	US Gal			
Aerosol	380 ml	12.8 oz	53-H 252	L-152	12



Description	Size		Order No.	MSDS	Std Pkg
	Metric	US Gal			
Aerosol	400 ml	11.5 oz	53-H 102	L-54E	12



Description	Size		Order No.	MSDS	Std Pkg
	Metric	US Gal			
Aerosol	400 ml	11.5 oz	53-H 152	L-95E	12

SHIELD PRO™

Heavy-duty industrial corrosion protection

Ideal for the corrosion protection of metal parts, for indoor and outdoor storage, outdoor equipment and tools, overseas storage and shipments, cables, chains, pulleys, pump and hose assemblies, and many more maintenance and repair applications.

Benefits

- ◆ Long-term indoor and outdoor corrosion protection
- ◆ Non-drying film
- ◆ Resists salt water

Features

- ◆ High Flash Point 30 °C (86 °F)
- ◆ Non-flammable propellant
- ◆ ASTM compliant

ZINC-100™



Bright galvanizing spray

A bright, long lasting corrosion protection spray, specially formulated for the touch-up and repair of hot galvanized parts in compliance with ASTM standards.

Benefits

- ◆ Bright metallic-like finish matches "hot dipped" look
- ◆ Contains elemental zinc
- ◆ Meets ASTM A-780 specifications
- ◆ Resists chemical and water attack, can be painted over

Applications

Manufacturing, repair and installation of:

- ◆ Outside structures, water and storage tanks, pipe work, food processing equipment

ZINC-200™



Cold galvanizing spray

High performance, fast drying, ASTM compliant spray offers the ultimate corrosion protection for ferrous metals even if the surface gets scratched.

Benefits

- ◆ Longest lasting corrosion protection in harsh environments
- ◆ Contains elemental zinc
- ◆ Excellent primer
- ◆ Meets ASTM A-780, MIL, DOD and USDA specifications

Applications

For touch-up and repair of:

- ◆ Fencing, scaffolding, playground and sports equipment, marine equipment, roofing, siding



SAFETY FIRST

Tips on the safest and most effective use of abrasives and power tools*

- ▶ Disconnect the power tool prior to changing abrasives.
- ▶ Inspect the abrasive for any sign of damage. Do not use if damaged.
- ▶ Check MAX. RPM on abrasive and check the spindle speed of the tool. Never run an abrasive faster than its MAX. RPM (or M.R.S. = Maximum Rated Speed).
- ▶ Mounting: Use only approved mounting hardware for the abrasive at hand. Above all, the clamping hardware must center the wheel securely and provide the required support to the abrasive.
- ▶ Abrasives must be used with safety guards in place as indicated on the label. Adjust guards to protect the operator.
- ▶ Always wear eye protection. Wear face, body, ear and dust inhalation protection as needed.
- ▶ Practice safe working methods: Secure the workpiece, hold the tool firmly, avoid cluttered and badly lit work areas.
- ▶ Ensure adequate protection of other workers in the vicinity.
- ▶ Do not use abrasives and tools over their rated capacity, follow manufacturer's instructions.
- ▶ Service power tools regularly and according to manufacturer's instructions to keep them in good working condition and maintain their performance. Do not use if damaged.

*Walter abrasives are designed for use as directed in all applicable safety codes, such as CSA, WHMIS, ANSI, OSHA and other regulatory bodies. Always work within these applicable rules and regulations.

SAFEST AND MOST EFFECTIVE WORK METHODS



GRINDING

Type 27 depressed center grinding wheels are designed to be used at a 15° to 20° working angle.



FLEXCUT

FLEXCUT flexible grinding wheels are best used with a working angle of 10° to 15°.



FLAP DISCS

Flap discs are designed to be used at a working angle of 4° to 10°. Never use flat.



SANDING DISCS

Fiber backed sanding discs work best at a working angle of 4° to 10°. They must be used on a full size flexible backing pad.



CUT-OFF WHEELS

Choose direction of cut to present the narrowest cross section of the material to the wheel. Cut large solids with a moderate rocking motion. Avoid twisting and bending of the wheel in the cut. Do not use a cut-off wheel for deburring unless otherwise specified.



FLAP WHEELS

Apply moderate working pressure when working with flap wheels – let the tips of the flaps do the work.



WIRE BRUSHES

Work with the face of a wire brush. Apply moderate working pressure to let the wire tips do the work and prevent excessive bending of the wire.

STORAGE TIPS FOR ABRASIVE PRODUCTS

- ▶ Keep abrasives in their original packaging, to protect them from water and excessive heat.
- ▶ Coated abrasives, such as fiber discs, flap discs and cloth belts perform best when stored in an area with 50% humidity at 22 °C (70 °F).

SAFETY SEMINAR

Walter offers free in-plant safety seminars to promote the safe use of abrasives. Reserve your safety seminar today by calling: **1-888-592-5837**.

WALTER Surface Technologies

Montreal

5977 Trans Canada Highway
Pointe-Claire, Quebec
H9R 1C1
Tel.: 514-630-2801
Toll free: 1 800-363-7368
Fax: 514-630-2825

Edmonton

18527 – 104 Avenue NW
Edmonton, Alberta
T5S 2V8
Tel.: 780-451-2053
Toll free: 1 866-435-1271
Fax: 780-453-1589

Toronto

151 Superior Blvd., Unit 12
Mississauga, Ontario
L5T 2L1
Tel.: 905-795-8555
Toll free: 1 888-821-9444
Fax: 905-795-8558

Vancouver

1-1595 Cliveden Ave. West,
Delta, British Columbia
V3M 6M2
Tel.: 604-540-4777
Toll free: 1 877-366-9258
Fax: 604-540-4778
Fax toll free: 1 877-329-9258



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