



INDUSTRIAL GLASS CO.

ISO 9002:2008



ASTRA CUTTING, GRINDING & FINISHING

PRODUCT CATALOGUE



ISO 9002:2008
Quality Management System
Cert. No. K09128

ASTRA



Our Values

Professional excellence

We strive for the highest quality in our products and our service.

Integrity and fairness

We are transparent and reliable in our interactions with all our business partners.

Strategic partnerships

We work diligently to make our customers, our suppliers, and our employees our "strategic partners".

Creative innovation

We harness technological leadership, individual and company initiatives, and the will to change, to keep the organization moving forward.

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Company Profile

INDUSTRIAL GLASS CO. (IGC) Company Profile

INDUSTRIAL GLASS CO. (IGC) is founded in Navi Mumbai, India in the year 1984 and started its commercial production as Fibre Glass Reinforcement (FGDs) and catered domestic and international requirements of all Abrasive Companies in India abroad and subsequently as a forward integration in the year 2000 the company started its second unit in Navi Mumbai for the Manufacture of Abrasive wheels for all types of Engineering Industries such as foundries, Rolling steel mills, Investment Casting Units, Rly applications etc.

This structure allows serving the worldwide market with a complete range of abrasive products. Export activities in INDUSTRIAL GLASS CO. (IGC) have been restructured to meet the demands of its customers from different countries in five continents. All the abrasive products are available in locations from small machine shops to advanced manufacturing centers.

We take pride in developing and producing high-quality, high-performance products to meet the technological challenges of grinding conventional metals and today's sophisticated alloys.

INDUSTRIAL GLASS CO. (IGC) 5-Point Manufacturing & Operating Philosophy

1. Advanced in-house development and production

Our in-house R&D and engineering teams, supported by our laboratories and testing facilities, allow us to continually improve existing products and to develop high-precision solutions to meet exact customer specifications.

2. Efficient planning and scheduling

Our streamlined system for coordinating between the sales and production departments allows a quick turnaround - even for small or rush orders - and a fast response to unexpected schedule changes.

3. Ongoing, stringent quality control

Our manufacturing processes and maintenance of our production facilities comply with strict international quality, safety, and environmental standards.

4. On-time, error-free shipments

We work diligently to prevent delays and mistakes from the moment an order is placed until the day it is shipped.

5. "The best service in the world"

Our decades of industry leadership are based on a companywide commitment to exceptional customer service. Through this unconditional dedication, we have forged long standing partnerships with customers throughout the world.

Our attention to detail and commitment to excellence is reflected in our products:
They have earned a worldwide reputation for high quality, consistency, and cost-effectiveness.

An Industry Leader in Abrasive Products

INDUSTRIAL GLASS CO. (IGC) manufactures thousands of products for use in the railways, automotive, gas turbine, oil rig, construction, and other industries.

We don't say we invented the wheel, we just know how to make it better!

The Label

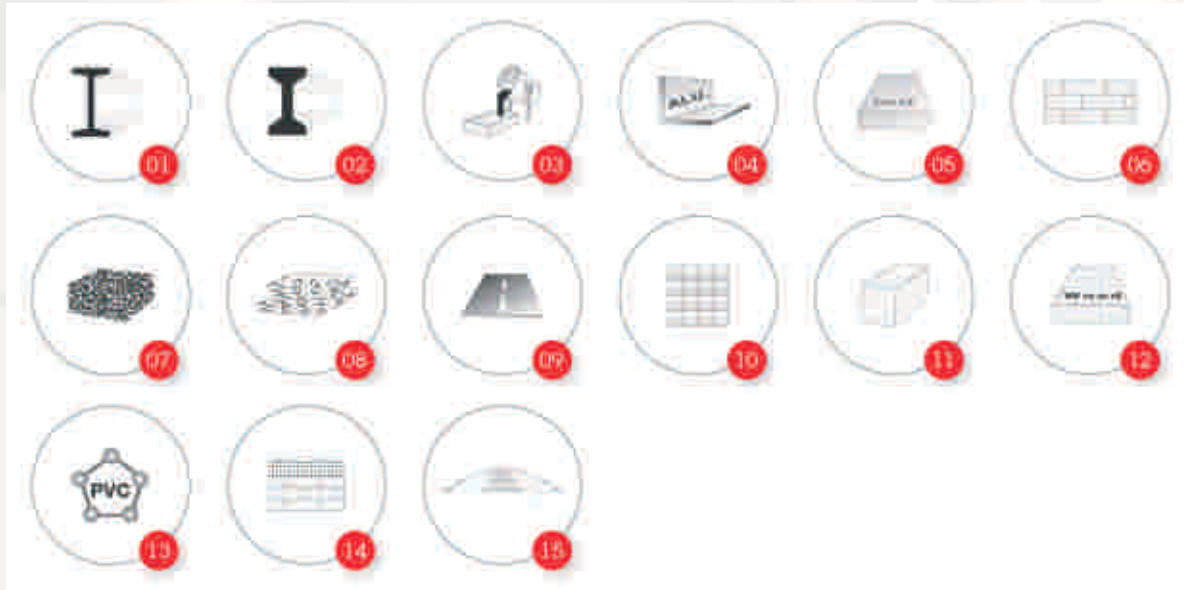


Abrasive Types

- | | |
|-----------|--|
| A | Aluminum Oxide: The most common of all grains, used for heavy-duty, general-purpose work |
| WA | White Aluminum Oxide: The high friability of this grain gives it the characteristic of fast and cool cutting
Used for light grinding of steel of all kinds, particularly stainless and tool steel |
| ZA | Zirconia Aluminum Oxide: For high-performance grinding and very long life
Excellent on ferrous metals, castings, and stainless steel |
| C | Silicon Carbide: For grinding masonry, concrete, stone, and non-ferrous metals |

General Information

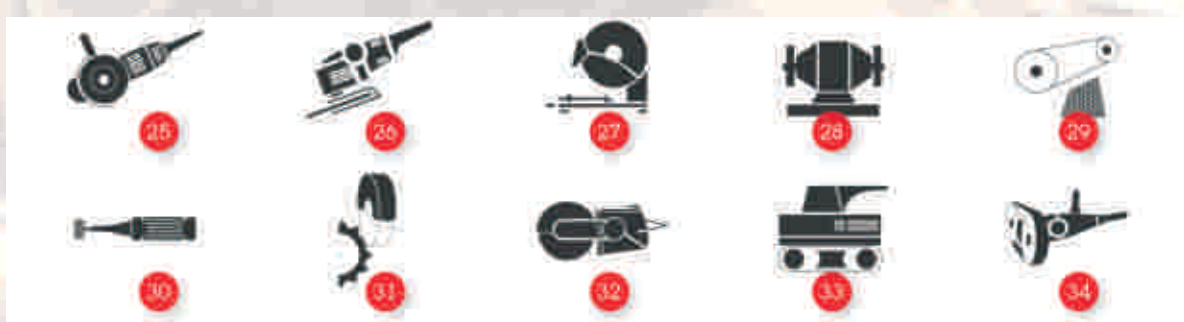
Application area Pictograms



Safety Signs

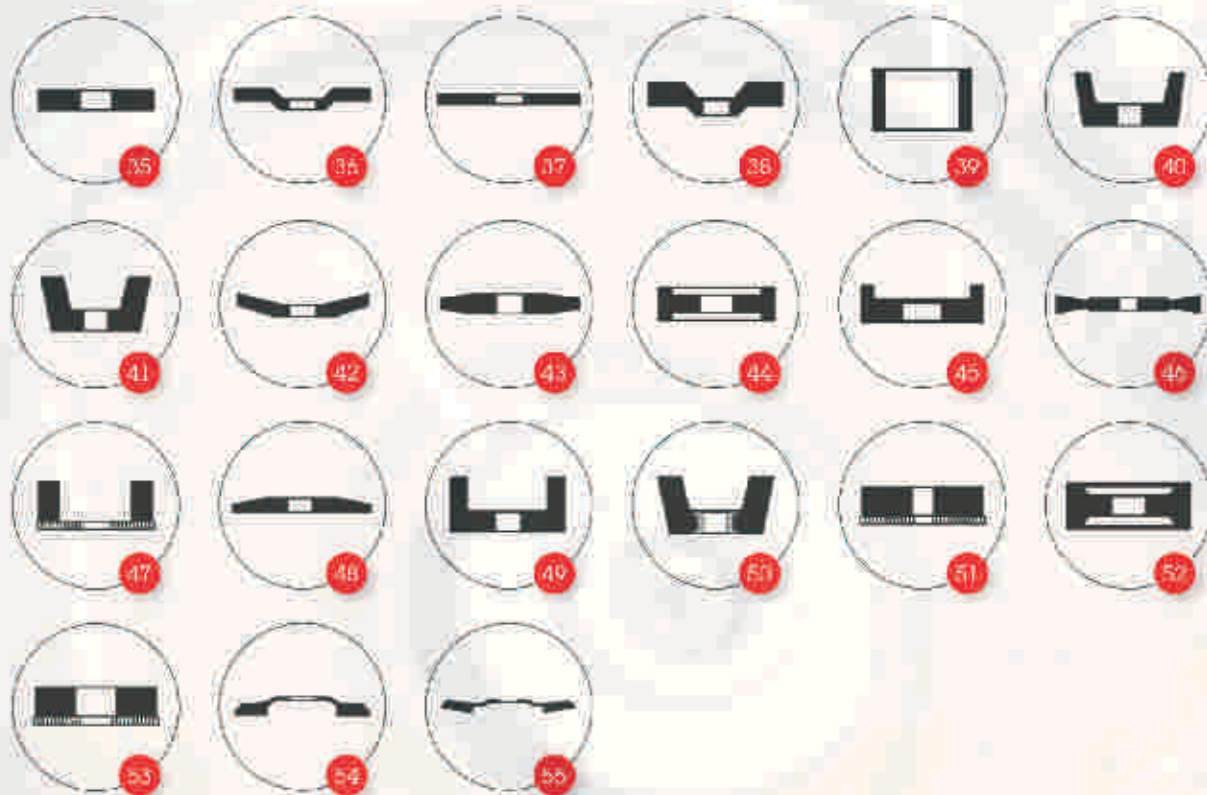


Tool Pictograms



General Information

Shapes of the wheels



Definition of the Pictograms

1 - Metal	20 - Grinding is permitted	40 - Type 2
2 - Hard Metal	21 - Suitable for Wet Grinding	41 - Type 11
3 - Cast Iron	22 - Read the Instructions	42 - Cup wheel
4 - Aluminum	23 - Do not use for side Grinding	43 - Type 12
5 - Stainless Steel	24 - Do not use with coolant	44 - Type 4
6 - Stone	25 - Do not use Damaged discs	45 - Type 7
7 - Granite	26 - Cutting with Portable Machine	46 - Type 5
8 - Marble	27 - Grinding with Portable Machine	47 - Type 21
9 - Asphalt	28 - Cutting with stationary Machine	48 - Type 37
10 - Ceramic	29 - Stationary Grinding Machine	49 - Type 3
11 - Abrasive	30 - Back stand	50 - Type 6
12 - Wood	31 - Portable Upright Grinding Machine	51 - Flaring Cup wheel with treaded Hole M14
13 - PVC	32 - Sharpening of tools	52 - Type 36
14 - Concrete	33 - Portable thermal Cutting Machine	53 - Type 7
15 - Rail	34 - Portable belt sander	54 - Type 25
16 - Wear Safety Gloves	35 - Belt sander	55 - Flap discs (Flat type)
17 - Use Ear Muffs	36 - Type 1	56 - Flap discs (Conical type)
18 - Wear Dust Mask	37 - Type 42	
19 - Wear Safety Glasses	38 - Type 41	
	39 - Type 27	

General Information

Diameter of wheel in mm.	15 m/s	20 m/s	25 m/s	30 m/s	35 m/s	45 m/s	60 m/s	80 m/s	100 m/s
65	4400	5900	7350	8800	10300	13200	17600	23500	29400
75	3825	5100	6380	7650	9000	11455	15300	20400	25500
80	3600	4800	6000	7200	8400	10700	14400	19000	24000
90	3185	4245	5300	6370	7430	9560	12750	17000	21200
100	2860	3800	4750	5700	6700	8600	11400	15250	19000
115	2500	3350	4150	5000	5800	7500	10000	13300	16600
125	2300	3050	3800	4600	5350	6900	9200	12200	15250
150	1900	2550	3200	3800	4500	5700	7600	10200	12700
175	1650	2200	2700	3300	4000	4900	6600	8800	11000
180	1600	2150	2650	3200	3720	4800	6400	8500	10600
200	1430	1900	2400	2860	3350	4300	5700	7600	9500
230	1250	1660	2075	2500	2900	3500	5000	6500	8300
250	1150	1525	1900	2300	2700	3450	4600	6100	7600
300	950	1270	1600	1900	2200	2900	3800	5100	6400
350	820	1100	1365	1640	1900	2450	3280	4400	5500
400	720	950	1200	1440	1670	2150	2880	3800	4750
450	640	850	1060	1280	1500	1900	2560	3400	4250
500	575	765	955	1150	1350	1720	2300	3050	3800
600	480	640	800	960	1100	1430	1920	2550	3200
750	380	510	640	760	900	1150	1520	2050	2550
900	320	425	530	640	750	950	1280	1700	2100
1000	285	380	475	570	670	860	1140	1530	1900

Grinding Wheel Quality

The quality of grinding wheel performance is related to the specific conditions of a given application, such as type of machine and composition of work piece, and is evaluated according to two criteria: G-Ratio and Efficiency.

1) G-Ratio or Grinding Ratio

In **grinding applications** this is the ratio of the weight of material removed to the loss of grinding Wheel weight over a given period of time.

This ratio is equivalent to the length of wheel life for a specific application.

In **cutting applications**, it is the ratio of the area of material cut to the area of the cut-off wheel lost. The higher the ratio, the more work the wheel will do.

	Grinding Applications	Cutting Applications
G-Ratio Calculation	$G = \frac{\text{Material removed (gr.)}}{\text{Wheel weight loss (gr.)}}$	$G = \frac{\text{Section area x no. of cuts (cm}^2\text{)}}{\text{Wheel area loss (cm}^2\text{)}}$

2) Efficiency

This indicates the rate of material removal (grams/min.) in grinding applications, or the total area of the material that has been cut in a given period of time (cm²/min.) in cutting applications.

	Grinding Applications	Cutting Applications
Efficiency Calculation	$E = \frac{\text{Material removed (gr.)}}{\text{Test period (min.)}}$	$Q = \frac{\text{Section area x no. of cuts (cm}^2\text{)}}{\text{Test period (min.)}}$

Cutting Discs

for Metal & Steel

A - Aluminum Oxide

Industrial Metal Cutting Disc with its cutting speed on all types of steel in industry gives you high performance and long product life.







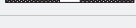
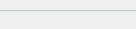
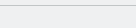
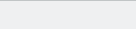





80 M/S

Thin Discs for Metal & Steel Cutting

Dimensions		Spec.	Type	R.P.M.	Quantity	
Inches	mm				Box	Master Box
4x3/64x5/8	100x1.0x16	A 80 RBF		15,300	80	320
4x1/16x5/8	100x1.6x16	A 46 RBF		15,300	70	280
4x5/64x5/8	100x2.0x16	A 46 RBF		15,300	60	240
4 1/2x3/64x7/8	115x1.0x22.23	A 80 RBF		13,300	80	320
4 1/2x1/16x7/8	115x1.6x22.23	A 60 RBF		13,300	70	280
4 1/2x5/64x7/8	115x2.0x22.23	A 46 RBF		13,300	60	240
5x3/64x7/8	125x1.0x22.23	A 80 RBF		12,250	80	
5x1/16x7/8	125x1.6x22.23	A 60 RBF		12,250	70	
5x5/64x7/8	125x2.0x22.23	A 46 RBF		12,250	60	
6x3/64x7/8	155x1.2x22.23	A 46 RBF		10,200	80	
6x1/16x7/8	155x1.6x22.23	A 46 RBF		10,200	80	
6x5/64x7/8	155x2.0x22.23	A 46 RBF		10,200	80	
7x1/16x7/8	180x1.6x22.23	A 60 RBF		8,500	70	
7x5/64x7/8	180x2.0x22.23	A 40 RBF		8,500	60	
9x5/64x7/8	230x2.0x22.23	A 30 RBF		6,650	60	

Cutting Discs

Metal & Steel Cutting





Dimensions		Spec.	Type	R.P.M.	Quantity	
Inches	mm				Box	Master Box
4x3/32x5/8	100x2.5x16	A 36 RBF		15,300	60	240
4x1/8x5/8	100x3.2x16	A 30 RBF		15,300	50	200
4 1/2x3/32x7/8	115x2.5x22.23	A 36 RBF		13,300	60	240
4 1/2x1/8x7/8	115x3.2x22.23	A 30 RBF		13,300	50	200
5x3/32x7/8	125x2.5x22.23	A 36 RBF		12,250	60	
5x1/8x7/8	125x3.2x22.23	A 30 RBF		12,250	50	
6x3/32x7/8	155x2.5x22.23	A 36 RBF		10,200	60	
6x1/8x7/8	155x3.2x22.23	A 30 RBF		10,200	50	
6x1/8x7/8	150x3.2x22.23	A 30 RBF		10,200	50	
7x3/32x7/8	180x2.5x22.23	A 36 RBF		8,500	60	
7x1/8x7/8	180x3.2x22.23	A 30 RBF		8,500	50	
9x3/32x7/8	230x2.5x22.23	A 36 RBF		6,650	60	
9x1/8x7/8	230x3.2x22.23	A 30 RBF		6,650	50	

3-in-1 Discs

Cutting, Grinding, & Finishing of Stainless and High Carbon Steels

Top performance in a single disc:

- Fast, high-quality cutting
- Great grinding and weld stock removal
- Excellent surface finishing
- Contaminant free: Fe-S-CI ≤ 0.1%, designed for use on stainless steel
- Additional fiberglass net provides extra strength and flexibility
- Ideal for a wide variety of metal and stainless steel applications: particularly recommended for cutting metal profiles and thin pipes, and removing weld slag
- Highly cost effective: Eliminate frequent disc changes; stock fewer discs
- Use instead of a flap disc for an excellent finish to the work piece surface

Dimensions		Spec.	Type	R.P.M.	Quantity	
Inches	mm				Box	Master Box
4 1/2x3/32x7/8	115x2.5x22.23	A 36 SBF		13,300	60	240
5x3/32x7/8	125x2.5x22.23	A 36 SBF		12,250	60	
7x1/8x7/8	180x3.2x22.23	A 30 SBF		8,500	50	
9x1/8x7/8	230x3.2x22.23	A 30 SBF		6,650	50	

Cutting Discs

for Stainless Steel

A - Aluminum Oxide

WA - White Aluminum Oxide

Designed for sharp, clean cutting action on stainless steel and other alloys.

Contaminant-free: Fe-S-Cl≤0.1%



Angle
Grinder


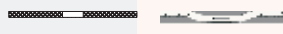


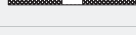
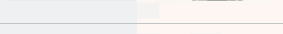
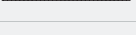
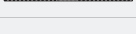

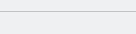
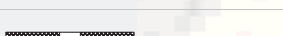
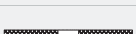
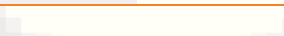
80 M/S

Thin Discs for Stainless Steel Cutting

Dimensions		Spec.	Type	R.P.M.	Quantity	
Inches	mm				Box	Master Box
4x3/64x5/8	100x1.0x16	AWA 80 SBF		15,300	80	320
4x1/16x5/8	100x1.6x16	AWA 80 SBF		15,300	70	280
4x5/64x5/8	100x2.0x16	AWA 46 SBF		15,300	60	240
4 1/2x3/64x7/8	115x1.0x22.23	AWA 80 SBF		13,300	80	320
4 1/2x1/16x7/8	115x1.6x22.23	AWA 80 SBF		13,300	70	280
4 1/2x5/64x7/8	115x2.0x22.23	AWA 46 SBF		13,300	60	240
5x3/64x7/8	125x1.0x22.23	AWA 80 SBF		12,250	80	
5x1/16x7/8	125x1.6x22.23	AWA 60 SBF		12,250	70	
5x5/64x7/8	125x2.0x22.23	AWA 46 SBF		12,250	60	
6x3/64x7/8	155x1.2x22.23	AWA 60 SBF		10,200	80	
6x1/16x7/8	155x1.6x22.23	AWA 80 SBF		10,200	70	
6x5/64x7/8	155x2.0x22.23	AWA 80 SBF		10,200	60	
7x1/16x7/8	180x1.6x22.23	AWA 80 SBF		8,500	70	
7x5/64x7/8	180x2.0x22.23	AWA 46 SBF		8,500	60	
9x5/64x7/8	230x2.0x22.23	AWA 46 SBF		6,650	60	

Cutting Discs

Stainless Steel Cutting

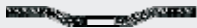
Dimensions		Spec.	Type	R.P.M.	Quantity	
Inches	mm				Box	Master Box
4x3/32x5/8	100x2.5x16	AWA 36 SBF		15,300	60	240
4x1/8x5/8	100x3.2x16	AWA 30 SBF		15,300	50	200
4 1/2x3/32x7/8	115x2.5x22.23	AWA 36 SBF		13,300	60	240
4 1/2x1/8x7/8	115x3.2x22.23	AWA 30 SBF		13,300	50	200
5x3/32x7/8	125x2.5x22.23	AWA 36 SBF		12,250	70	
5x1/8x7/8	125x3.2x22.23	AWA 30 SBF		12,250	50	
6x3/32x7/8	155x2.5x22.23	AWA 36 SBF		10,200	60	
6x1/8x7/8	155x3.2x22.23	AWA 30 SBF		10,200	50	
6x1/8x7/8	150x3.2x22.23	AWA 30 SBF		10,200	50	
7x3/32x7/8	180x2.5x22.23	AWA 36 SBF		8,500	60	
7x1/8x7/8	180x3.2x22.23	AWA 30 SBF		8,500	50	
9x3/32x7/8	230x2.5x22.23	AWA 36 SBF		6,650	60	
9x1/8x7/8	230x3.2x22.23	AWA 30 SBF		6,650	50	

Cutting Discs

for Metal & Steel




ZA - Zirconia Aluminum Oxide

For high-performance grinding and very long life.
Excellent on ferrous metals, castings, and stainless steel.



Angle
Grinder

80 M/S

Dimensions		Spec.	Type	R.P.M.	Quantity	
Inches	mm				Box	Master Box
4 1/2x1/8x7/8	115x3.2x22.23	ZA 30 TBF		13,300	60	200
7x1/8x7/8	180x3.2x22.23	ZA 30 TBF		8,500	50	
9x1/8x7/8	230x3.2x22.23	ZA 30 TBF		6,650	50	

Cutting Discs

Cutting Discs

for Aluminum

ALU - Specially Treated Aluminum Oxide

For cutting aluminum and non-ferrous metals.
Special assures non-loading.



Angle
Grinder

80 M/S

Dimensions		Spec.	Type	R.P.M.	Quantity	
Inches	mm				Box	Master Box
4 1/2 x 1 1/8 x 7/8	115 x 1.6 x 22.23	ALU 46 NBF			70	280
5 x 1 1/8 x 7/8	125 x 1.6 x 22.23	ALU 46 NBF			70	280

Cutting Discs

for Masonry

C - Silicon Carbide

For cutting masonry, concrete, stone, ceramics,
marble, and non-ferrous metals.



Angle
Grinder

80 M/S

Dimensions		Spec.	Type	R.P.M.	Quantity	
Inches	mm				Box	Master Box
4 x 1 1/8 x 5/8	100 x 3.0 x 16	C 30 RBF			70	280
4 1/2 x 1 1/8 x 7/8	115 x 3.2 x 22.23	C 30 RBF			50	200
5 x 1 1/8 x 7/8	125 x 3.2 x 22.23	C 30 RBF			50	
7 x 1 1/8 x 7/8	180 x 3.2 x 22.23	C 30 RBF			50	
9 x 1 1/8 x 7/8	230 x 3.2 x 22.23	C 30 RBF			50	

Chop Saw, Stationary Saw, High Speed Saw

Chop Saw Cutting Discs

Used on low-power, light-weight cutoff machines that are popular on building sites because they are portable and can take 12" / 305mm & 14" / 356 mm discs.

For general purpose metal and steel and applications – structural steel cross sections, pipes, and tubing.

SR - Single reinforced - For cutting small cross sections and tubing. Free cutting and burr free.

DR - Double reinforced - For cutting larger cross sections and tubing. Straight cuts for harder-to-cut materials.



Electric
Portable
Chop Saw

80 M/S

Metal & Steel Cutting | A - Aluminum Oxide

	Dimensions		Spec.	Type	R.P.M.	Quantity	
	Inches	mm				Box	Master Box
DR	12x7/64"x20mm	305x2.8x20	A 36 TBF		5,100	25	
DR	12x7/64x1	305x2.8x25.4	A 36 TBF		5,100	25	
SR	12x1/8x1	305x3.0x25.4	A 30 TBF		5,100	25	
DR	14x7/64x1	356x2.8x25.4	A 36 TBF		4,400	25	
SR	14x1/8x1	356x3.2x25.4	A 30 TBF		4,400	25	
DR	16x1/8x1	402x3.2x25.4	A 30 TBF		3,850	25	
SR	16x1/8x1	402x3.2x25.4	A 30 TBF		3,850	25	

Stainless Steel Cutting | A/WA – Aluminum /White Aluminum Oxide

	Dimensions		Spec.	Type	R.P.M.	Quantity	
	Inches	mm				Box	Master Box
DR	12x7/64x1	305x2.8x25.4	A/WA 36 SBF		5,100	25	
DR	14x7/64x1	356x2.8x25.4	A/WA 46 SBF		4,400	25	
SR	14x1/8x1	356x3.2x25.4	A/WA 30 SBF		4,400	25	
SR	16x1/8x1	402x3.2x25.4	A/WA 30 SBF		3,850	25	

Chop Saw, Stationary Saw, High Speed Saw

Stationary Saw Discs

A - Aluminum Oxide

For cutting structural steel, bar stock, tubing, and ferrous metals.

C - Silicon Carbide

For cutting masonry, concrete, stone, and non-ferrous metals.

For use on stationary machines.



Electric
Stationary
Saw

80 M/S

Metal & Steel Cutting | A - Aluminum Oxide

Dimensions		Spec.	Type	R.P.M.	Quantity	
Inches	mm				Box	Master Box
12x1/8x1	305x3.5x25.4	A 30 RBF		5,100	25	
14x1/8x1	356x3.5x25.4	A 30 RBF		4,400	25	
16x5/32x1	402x4.0x25.4	A 24 RBF		3,850	25	

Masonry, Concrete & Stone Cutting | C - Silicon Carbide

Dimensions		Spec.	Type	R.P.M.	Quantity	
Inches	mm				Box	Master Box
12x1/8x1	305x3.5x25.4	C 30 RBF		5,100	25	
14x1/8x1	356x3.5x25.4	C 30 RBF		4,400	25	
16x5/32x1	402x4.0x25.4	C 30 RBF		4,400	25	

Chop Saw, Stationary Saw, High Speed Saw

High Speed Cutting Discs

A - Aluminum Oxide

For cutting steel and all ferrous metals.

C - Silicon Carbide

For cutting stone, concrete, and brick.

These discs are designed for cutting structural steel, solids, pipes, and tubing.

For use on portable high-speed petrol/gas-driven saws.



High Speed
Petrol/Gas Saw

100 M/S

Metal & Steel Cutting | A - Aluminum Oxide

Dimensions		Spec.	Type	R.P.M.	Quantity	
Inches	mm				Box	Master Box
12x5/32"x20mm	305x4.0x20	A 24 RBF		6,400	25	
12x5/32x7/8	305x4.0x22.23	A 24 RBF		6,400	25	
12x5/32x1	305x4.0x25.4	A 24 RBF		6,400	25	
14x5/32"x20mm	356x4.0x20	A 24 RBF		5,500	25	
14x5/32x1	356x4.0x25.4	A 24 RBF		5,500	25	
16x5/32x1	402x4.5x25.4	A 24 RBF		4,800	25	

Masonry, Concrete & Stone Cutting | C - Silicon Carbide

Dimensions		Spec.	Type	R.P.M.	Quantity	
Inches	mm				Box	Master Box
12x5/32"x20mm	305x4.0x20	A 24 RBF		6,400	25	
12x5/32x7/8	305x4.0x22.23	A 24 RBF		6,400	25	
12x5/32x1	305x4.0x25.4	A 24 RBF		6,400	25	
14x5/32"x20mm	356x4.0x20	A 24 RBF		5,500	25	
14x5/32x1	356x4.0x25.4	A 24 RBF		5,500	25	

Cutting Disc for Rail Tracks

Track Slicer

Cutting Discs for Rail Tracks

A - Aluminum Oxide

The Turbo Track Slicer is a fully reinforced, quality rail-cutting disc

- Designed for fast, free cutting of all types of heavy-duty rail
- Maintains straight geometry of the cut
- Square, precise, and burr-free cutting
- Maximum productivity with high number of cuts per disc



High Speed
Petrol/Gas
Saw

100 M/S

Dimensions		Spec.	Type	R.P.M.	Quantity	
Inches	mm				Box	Master Box
12x5/32x1	305x4.0x25.4	A 24 SBF		6,400	25	
12x5/32x7/8	305x4.0x22.23	A 24 SBF		6,400	25	
14x5/32x1	356x4.0x25.4	A 24 SBF		5,500	25	
14x5/32x7/8	356x4.0x22.23	A 24 SBF		5,500	25	
16x5/32x1	402x4.0x25.4	A 24 SBF		4,800	25	

Grinding Discs

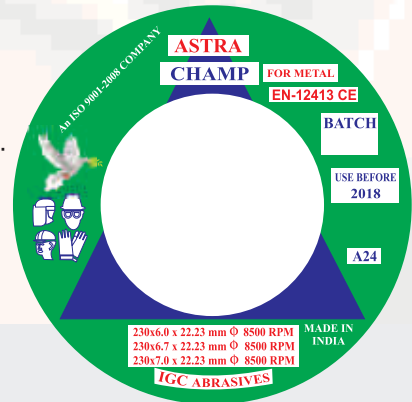
Grinding Discs

for Metal & Steel

A 24 RBF - Bond design offers excellent stock removal. Recommended for use on structural steel and welds.

A 24 TBF - High grain concentration, for tough grinding and notching.

A 30 RBF - New combination of grain and bond makes for an easier grind, higher efficiency, and longer life.



Angle
Grinder

80 M/S

Dimensions		Spec.	Type	R.P.M.	Quantity	
Inches	mm				Box	Master Box
4x1/4x5/8	100x6.5x16	A 24 RBF		15,300	20	80
4x1/4x5/8	100x6.5x16	A 30 RBF		15,300	20	80
4 1/2x3 1/16x7/8	115x5.0x22.23	A 24 RBF		13,300	40	120
4 1/2x1 1/4x7/8	115x6.5x22.23	A 24 RBF		13,300	20	80
4 1/2x1 1/4x7/8	115x6.5x22.23	A 30 RBF		13,300	20	80
5x3/16x7/8	125x5.0x22.23	A 30 TBF		12,250	35	
5x1/4x7/8	125x6.5x22.23	A 24 RBF		12,250	25	
6x3/16x7/8	150x5.0x22.23	A 30 TBF		10,200	35	
6x1/4x7/8	150x6.5x22.23	A 24 RBF		10,200	25	
7x3/16x7/8	180x5.0x22.23	A 24 TBF		8,500	35	
7x1/4x7/8	180x6.5x22.23	A 24 RBF		8,500	25	
7x1/4x7/8	180x6.5x22.23	A 30 RBF		8,500	25	
9x3/16x7/8	230x5.0x22.23	A 24 TBF		6,650	35	
9x1/4x7/8	230x6.5x22.23	A 24 RBF		6,650	25	
9x1/4x7/8	230x6.5x22.23	A 30 RBF		6,650	25	

Grinding Discs

Grinding Discs for Stainless Steel

A - Aluminum Oxide

WA - White Aluminum Oxide



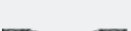
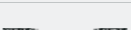

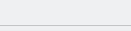
AWA 30/24 SBF bond is designed for fast stock removal on stainless steel and steel.

Contaminant-free: Fe-S-Cl≤0.1%



Angle
Grinder

80 M/S

Dimensions		Spec.	Type	R.P.M.	Quantity	
Inches	mm				Box	Master Box
4x1/4x5/8	100x6.5x16	AWA 30 SBF		15,300	20	80
4 1/2x1/4x7/8	115x6.5x22.23	AWA 30 SBF		13,300	20	80
5x1/4x7/8	125x6.5x22.23	AWA 24 SBF		12,250	25	
6x1/4x7/8	150x6.5x22.23	AWA 24 SBF		10,200	25	
7x1/4x7/8	180x6.5x22.23	AWA 24 SBF		8,500	25	
9x1/4x7/8	230x6.5x22.23	AWA 24 SBF		6,650	25	

Grinding Discs

Pipeline Discs

for Metal & Steel

A 24 TBF - Aluminum Oxide

For fast cutting and light grinding of ferrous metals

ZA 24 TBF - Zirconia Aluminum Oxide

High performance design for fast cutting and longer life.
Excellent cutting of ferrous metals and stainless steel

Depressed center disc (thickness 4mm: 1/8") engineered for cutting and light grinding, especially of pipeline root pass and welds



Angle
Grinder

80 M/S

Dimensions		Spec.	Type	R.P.M.	Quantity	
Inches	mm				Box	Master Box
4 1/2 x 1 7/8 x 7/8	115x4.0x22.23	A 24 TBF		13,300	40	160
4 1/2 x 1 7/8 x 7/8	115x4.0x22.23	ZA 24 TBF		13,300	40	160
5 x 1 7/8 x 7/8	125x4.0x22.23	A 24 TBF		12,250	40	
5 x 1 7/8 x 7/8	125x4.0x22.23	ZA 24 TBF		12,250	40	
6 x 1 7/8 x 7/8	150x4.0x22.23	A 24 TBF		10,200	40	
6 x 1 7/8 x 7/8	150x4.0x22.23	ZA 24 TBF		10,200	40	
7 x 1 7/8 x 7/8	180x4.0x22.23	A 24 TBF		8,500	40	
7 x 1 7/8 x 7/8	180x4.0x22.23	ZA 24 TBF		8,500	40	
9 x 1 7/8 x 7/8	230x4.0x22.23	A 24 TBF		6,650	40	
9 x 1 7/8 x 7/8	230x4.0x22.23	ZA 24 TBF		6,650	40	

Grinding Discs

Grinding Discs | Foundry Castings & Forgings for Metal & Steel

A/ZA 24 RBF í Aluminum/ Zirconia Aluminum Oxide

For use on nickel and super alloys

CA 24 RBF - Silicon Carbide

For use on titanium and super alloys

A 24 RBF - Aluminum Oxide





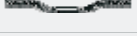

For use on nickel, super alloys and steel

- Rapid, aggressive grinding
- The work piece remains free of swarf and burn marks
- Especially high work capacity
- Highly cost-effective
- Designed for work on materials and applications specific to foundry and forging plants



Angle
Grinder

80 M/S

Dimensions		Spec.	Type	R.P.M.	Quantity	
Inches	mm				Box	Master Box
7x9/32x7/8	180x7.0x22.23	A/ZA 24 RBF		8,500	25	
7x9/32x7/8	180x7.0x22.23	CA 24 RBF		8,500	25	
7x9/32x7/8	180x7.0x22.23	A 24 RBF		8,500	25	
9x9/32x7/8	230x7.0x22.23	A/ZA 24 RBF		6,650	25	
9x9/32x7/8	230x7.0x22.23	CA 24 RBF		6,650	25	
9x9/32x7/8	230x7.0x22.23	A 24 RBF		6,650	25	

Grinding Discs

Grinding Discs

for Metal & Steel

ZA - Zirconia Aluminum Oxide

For high-performance grinding and very long life.
Excellent on ferrous metals, castings, and stainless steel



Angle
Grinder

80 M/S

Dimensions		Spec.	Type	R.P.M.	Quantity	
Inches	mm				Box	Master Box
4 1/2 x 3 1/16 x 7/8	115x5.0x22.23	ZA 24 TBF		13,300	35	140
4 1/2 x 1 1/4 x 7/8	115x6.5x22.23	ZA 24 TBF		13,300	25	100
5 x 3/16 x 7/8	125x5.0x22.23	ZA 24 TBF		12,250	35	
6 x 3/16 x 7/8	150x5.0x22.23	ZA 24 TBF		10,200	35	
7 x 3/16 x 7/8	180x5.0x22.23	ZA 24 TBF		8,500	35	
7 x 1/4 x 7/8	180x6.5x22.23	ZA 24 TBF		8,500	25	
9 x 3/16 x 7/8	230x5.0x22.23	ZA 24 TBF		6,650	35	
9 x 1/4 x 7/8	230x6.5x22.23	ZA 24 TBF		6,650	25	

Snagging Discs

Snagging Discs

for Metal & Steel

A - Aluminum Oxide

Snagging is a rough grinding application to remove unwanted metal. Since finish tolerances are not critical, coarse, durable wheels are used.



48 M/S

Dimensions		Spec.	Quantity	
Inches	mm		Box	Master Box
4x1/4x5/8	100x6.0x15.88	A 16 S3B		
4x1/2x5/8	100x13.0x15.88	A 16 S3B		
4x3/4x5/8	100x9.0x15.88	A 16 S3B		
6x1/2x5/8	150x13.0x15.88	A 16 S3B		
6x1x5/8	150x25.0x15.88	A 16 S3B		
8x1/2x5/8	200x13.0x15.88	A 16 S3B		
8x1x5/8	200x25.0x15.88	A 16 S3B		
10x1x1/8	250x25.0x31.75	A 16 S3B		
12x1 1/2x1 1/2	300x40.0x38.1	A 16 S3B		
14x2x2	350x50x50.8	A 16 S3B		
16x2x6	400x50x152.4	A 16 S3B		
16x2 1/2x6	400x65x152.4	A 16 S3B		
18x2 1/2x6	450x65x152.4	A 16 S3B		
20x3x8	500x75x203	A 16 S3B		

Safety Guide for the Use of Abrasive Wheels

Bonded abrasive products are breakable and shall therefore be handled with utmost care. The use of damaged, improperly mounted or improperly used abrasive products is dangerous and can cause serious injuries.

Delivery, Handling and Storage

- Abrasive products shall be handled and transported with care.
- Abrasive products shall be stored in such a manner that they are not subjected to mechanical damage and/or a high level of humidity.

Selection of the Abrasive Product

- Information on the label or the abrasive product, as well as restrictions of use, safety indications or any other instruction, shall be followed.
- Wheels used on any machine shall only be of a type for which the machine is designed.

Inspection

- Prior to mounting, all abrasive wheels shall be visually inspected. Wheels which show evidence of cracks, abusive handling or abusive storage must not be mounted.

Operating Speed

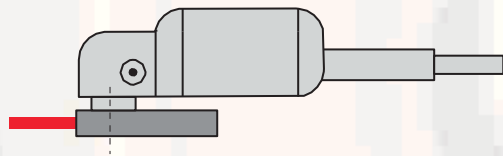
- Machine speed shall be set and measured to make sure that it does not exceed the maximum operating speed designated for the abrasive wheel (ILL. 1).

Mounting

- The mounting of abrasive wheels shall be carried out according to the instructions provided by both the wheel and the machine manufacturers.
- Mounting of abrasive products shall be carried out by a qualified trained person.
- Flanges and adaptors shall be checked for flatness of bearing surface. Sprung or Warped flanges or adaptors, or those which are not clean and free of burrs, must not be used.
- The spindle end nut shall be tightened only enough to drive the wheel and prevent slippage.
- All newly mounted wheels shall be run at operating speed for at least ten seconds before applying to work piece. No one shall stand in front of or in line with the wheel, and the maximum safe operating speed must not be exceeded.
- In the case of strong vibrations during the test run, the machine shall be stopped, the tightening nut released, the wheel remounted, and the machine restarted. If the strong vibrations persist, the wheel must not be used.
- Arbor hole size: Abrasive wheels shall fit freely but not loosely on the machine Spindle. The size of the arbor hole must not be altered to fit the spindle.

Mounting - cont.

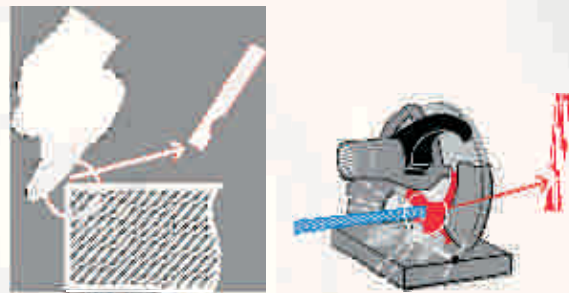
- At the completion of wheel mounting, a safety guard covering at least one half of the wheel shall be in place (ILL. 2). All safety guard fasteners shall be in place and properly tightened. Grinding wheels must not be operated on any machine which has had its safety guard removed.



1. Guard covers at least 1/2 of wheel

Operation

- Care shall be taken not to apply excessive pressure between the abrasive wheel and the work piece, and to prevent the machine from slowing noticeably or the work piece from becoming overheated.
- Grinding must not be performed on the side of the wheel (ILL. 4).



2. Don't grind on side of wheel

Personal Protection

- Safety goggles or safety spectacles shall be worn by all personnel exposed to grinding operations (ILL. 3).
- Where necessary, additional personal protective equipment shall be used, such as face protection, ear protection, respiratory devices, aprons, protective footwear, and protective gloves (ILL. 3).



3. Wear personal protective equipment

Stopping the Machine

- Before placing the hand-held grinding machine on the workbench or floor it shall be ensured that the abrasive wheel has come to a complete stop.

Application Guide

✓ = Recommended | ● = May be used

		Cutting											Grinding							
Application		Spec.	A 24 R	A 24 S	A 30 R	A 36 T/ A 36 S	A 46 T	ALU 36 N	ASL	WA 24 S	WA 30 S	WA 36 S	WA 46 S	ZA 24 T	C 24 R	A 24 R/A 30 R	ASL Razor	WA 24 R	ZA 24 R/ZA 30 R	C 24 R
Ferrous Metals	Angle Iron - General	✓	●	✓	✓	✓	✓	●	✓	●	●	●	●	✓		✓	✓	●	●	
	Iron / Steel Bar	✓	●	✓	✓	✓	✓	●	✓	●	●	●	●	✓		✓	✓	●	●	
	Metal Decking & Cable	●	✓	●	●	●	✓	✓	●	●	●	●	●	●		✓	●	●	●	
	Pipeline	✓	●	✓	✓	✓	✓	✓	✓	●	●	●	●	✓		✓	✓	●	●	
	Wall Studs	✓	●	✓	✓	✓	✓	✓	●	●	●	●	●	✓		✓	●	●	●	
	High Tensile Steel	✓	●	✓	✓	✓	✓	✓	✓	●	●	●	●	✓		✓	✓	●	✓	
	Stainless Steel Sheets	●	●	●	✓	✓	✓	✓	✓	✓	✓	✓	✓	●		●	✓	✓	●	
	Stainless Steel Bars	●	●	●	●	●	✓	✓	✓	✓	✓	✓	✓	●		●	✓	✓	●	
	Rails	●	✓						●							✓	●	✓	✓	
Castings	Cast Steel	●	●	●	●	●	●	●	●	●	●	●	●	✓		●	●	●	●	✓
	Grey Cast Iron	●	●	●	●	●	●	●	●	●	●	●	●	✓		●	●	●	●	✓
	Ductile Iron	●	●	●	●	●	●	●	●	●	●	●	●	✓		●	●	●	●	✓
Non-Ferrous Metals	Aluminum Alloys	●	●	●	●	●	✓	●	●	●	●	●	●	●		●			●	
	Copper	●	●	●	●	●	✓	●	●	●	●	●	●	●		●			●	
	Brass, Bronze	●	●	●	●	●	✓	●	●	●	●	●	●	✓		●			●	
	Titanium	●	●	●	●	●	●	●	●	●	●	●	●	✓		●			✓	
Masonry	Asphalt / Green Concrete													✓						✓
	Concrete													✓						✓
	Roof Tiles													✓						✓
	Slate													✓						✓
	Masonry													✓						✓
	Marble													✓						✓
	Paving Bricks													✓						✓
	Firing Bricks													✓						✓
	Solid Bricks													✓						✓
	Clay Pipe													✓						✓

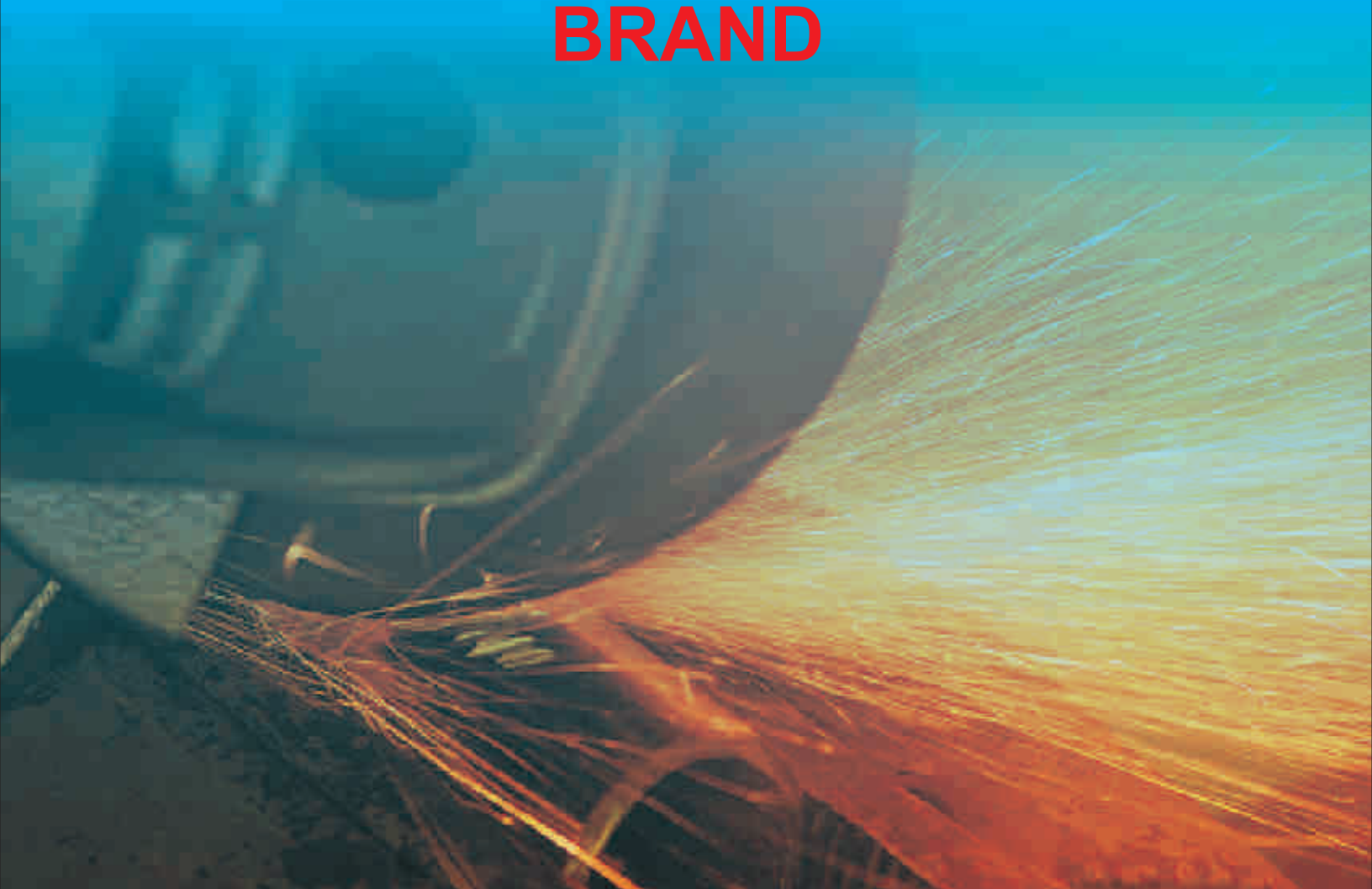


www.grindingwheelsindia.in
www.igcabrasives.com / www.grindingcutting.com



ASTRA

BRAND



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