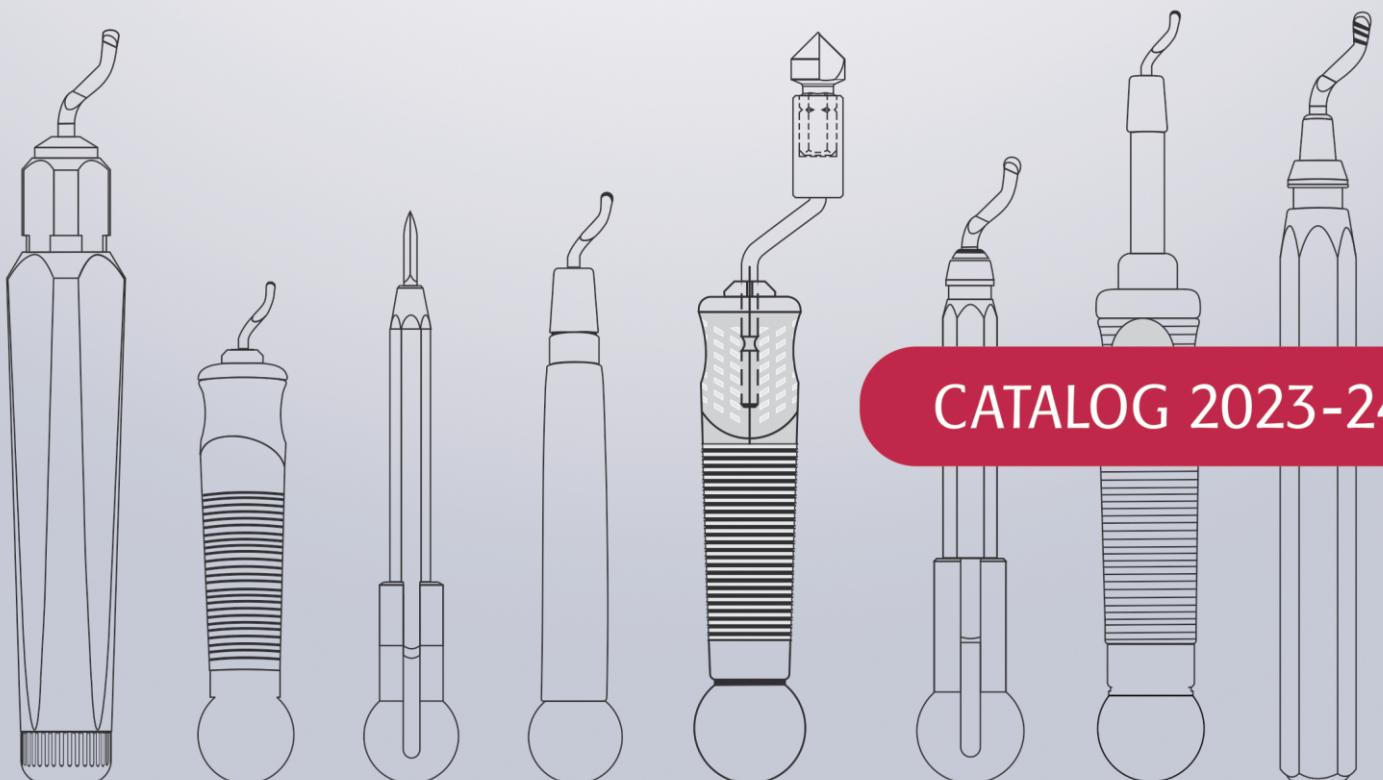




**cp gratex**

CUTTING EDGE

NEW SMART DEBURRING TOOLS

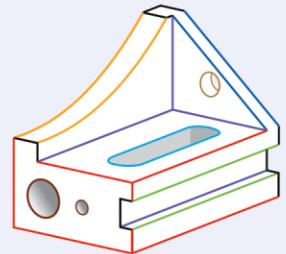


CATALOG 2023-24

## DEBURRING INFO

- Burrs are the unwanted portion of metal which remain at the edges of the components after machining
- Hand Deburring Tools offer Fast, Efficient & Economical solutions for removal of burrs. We offer wide variety of hand tools for Deburring of
- Tools / Blades of different shapes & Cutting Angles are suitable for different component materials such as Steel, Aluminium, Copper, Zinc, Brass, Cast iron, Stainless Steel, Alloy Steels, Variety of Plastics & 3D printed parts.

**Straight Edge**  
**Curved edge**  
**Inner Edge**  
**Slot / Key-way - Both edges**  
**Sheet / Rib - Both edges**  
**Holes**  
**Front & Back side of Hole**  
**Corners etc.**



TOOLS VARIETY	For Straight, Curved & Inner Edge	For Slot/Key Way, Sheet/Rib, Corners & Surface	For Holes Front, Back or both Sides
Light duty- 2.6mmØ	P-1 P-2 MP-1	V-4 S-12 KW-16	P-3
Heavy duty- 3.2mmØ	C-10 C-20 MC-10 MC-101 MC-15	V-2 SCR-3(75)	P-6 C-30 C-60
Extra Heavy duty- 6mmØ	R-10 (S) MR-10 R-15 (S) MR-15	F-104 CS-20	CS-30-3FLS

SELECTION GUIDANCE	Blades Type	To Deburr / Use	Direction of use	Blades Type	To Deburr / Use	Direction of use
<b>Blades / Tools to Deburr on:</b>	P-1, MP-1, C-10, MC-10, MC-70, R-10(S), MR-10	Material with Spiral Chips	↷	S-12, V-2, V-4	Sheet / Rib - single or Both sides	←
• Materials with Spiral Chips such as Steel, Aluminium, Copper, Zinc, Acrylic, Plastic & 3D printed parts	P-2, MP-2, C-20, MC-20, MC-40, MC-80	Material with Brittle Burr	↶ ↷	KW-9, KW-16	Key-way /Slot - Both sides	←
• Materials with Brittle burr such as Cast Iron, Brass, Soft Plastics & 3D printed parts	C-15, MC-15, R-15(S), MR-15	Stainless Steel	↷	SCR-3, SCR-8	Surface finishing / Scraping, Corner cleaning	↔
• Holes, Slots, Ribs, Sheets - one or 2 edges, Corners, Surfaces etc.	C-101, MC-101	Small hole & Fine edges	↷	SCR-6(2), HS-80, HS-120	Double ended scraper	↔
	P-3, P-6, C-30, C-60	Both side or back side of Sheet Metal Hole	↶ ↷	SCR-345, SCR-6(2)	Internal scraper	↔
	C-100, C-150 & Coated Blades	Hard Metals & for long life		0/1/2/3 Flute Countersinks	For Hole Deburring / Chamferring by Hand & on Machine	↷

Deburring Blades & Countersinks Tools are made of High Speed Steel - M2 or M35 grade material duly Heat treated.

### HIGHLIGHTS

MULTI-CUTTING DEBURRING  
+CUTS -COSTS  
cp gratex

**Existing Deburring Blades**

Effective Cutting Edge Portion

**New Multi-Cutting Edge Deburring Blades**

Effective Cutting Edge Portion Guides

**Step 1** Unlocking

Lid Sliding

**Step 2**

**PRECAUTIONS**

- Handle the Deburring Blades with utmost precaution and care.
- Blade edges and burrs are sharp and can cause injury.
- Wear safety goggles and gloves while Deburring!
- Do not try to bend the handle or blade.
- Do not regrind the blades.
- Keep away from children.

## DEBURRING TOOLS WITH HANDLE

All Replaceable Blades type

### LIGHT DUTY TOOLS WITH STD. BLADES

**ET-1 (38030)**



Metallic Handle with Soft Grip & Ball End cap with 2.6 Ø P-1 Blade  
L = 117, Handle Dia = 12, End Cap Dia = 18, Wt.= 53gms

**CG-1 (38114)**



Poly Acetal Body Handle with Soft Grip & Ball End Cap with  
2.6 Ø P-1 Blade. Spring Loaded Collet Action for Blade Holding.  
L = 114, Handle Dia = 19.8, End Cap Dia = 21.7, Wt.= 37gms

**DT-52-SD (34522)**



Poly Acetal Body T-SD Handle with Telescopic Holder DT(P) &  
Ball End Cap with 2 nos. 2.6 Ø P-1 & P-2 Blades. Collet Action ensures  
firm grip of Plain Surface holder which can be telescoped to reach at depth.  
L= 148 min, 213 max, Handle Dia =23.7, End Cap Dia = 24, Wt.= 94gms



### WITH MULTI-CUTTING EDGE BLADES

**MC-1 (38033)**



Metallic Handle with Soft Grip & Ball End cap with Multi-Cutting 2.6 Ø  
MP-1 Blade L = 117, Handle Dia = 12, End Cap Dia = 18, Wt.= 53gms

**MC-3 (38113)**



Poly Acetal Body Handle with Soft Grip & Ball End Cap with  
Multi-Cutting 2.6 Ø MP-1 Blade  
Spring Loaded Collet Action for Blade Holding.  
L = 114, Handle Dia = 19.8, End Cap Dia = 21.7, Wt.= 37gms

**DT-2P-MC (38215)**



Poly Acetal Body T-SD Handle with Telescopic Holder DT(P) &  
Ball End Cap with 2 nos. Multi-Cutting 2.6 Ø MP-1 & MP-2 Blades.  
Collet Action ensures firm grip of Plain Surface holder which can be  
telescoped to reach at depth.  
L= 148 min, 213 max, Handle Dia =23.7, End Cap Dia = 24, Wt.= 93gms

### HEAVY DUTY TOOLS WITH STD. BLADES

**ET-2 (38040)**



Metallic Handle with Soft Grip & Ball End cap with 3.2 Ø C-10 Blade  
L = 130, Handle Dia = 12, End Cap Dia = 18, Wt.= 58gms

**CG-2 (38124)**



Poly Acetal Body Handle with Soft Grip & Ball End Cap with 3.2 Ø  
C-10. Blade Spring Loaded Collet Action for Blade Holding.  
L = 122, Handle Dia = 19.8, End Cap Dia = 21.7, Wt.= 38.5gms

**DT-3(New) (33066)**



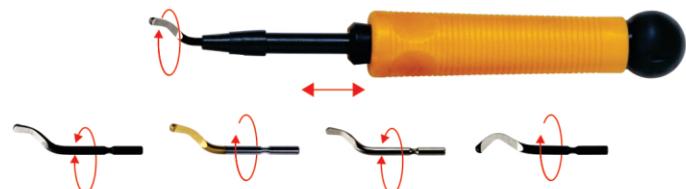
Classical Design Poly Acetal Handle with Ball catch lock for  
blade holding & Space for Blade Storage.  
Includes Handle 'D' with 3 nos. 3.2 Ø Blades - C-10, C-20 & C-15  
L = 145, Handle Dia = 23, End Cap Dia = 18, Wt.= 48gms

**DT-3 (M) - SD (34034)**



Poly Acetal Body D-SD Handle with Ball End Cap and  
Metallic Blade holder + Space for Blade Storage.  
Includes Handle with 3 nos. 3.2 Ø Blades - C-10, C-20 & C-15  
L = 143, Handle Dia = 23.7, End Cap Dia = 24, Wt.= 59gms

**DT-5-SD (34054)**



Poly Acetal Body T-SD Handle with Telescopic Holder DT(C) &  
Ball End Cap with 5 nos. 3.2 Ø Blades - C-10, C-20, C-30, C-15 & C-10(C).  
Collet Action ensures firm grip of Plain Surface holder which can be  
telescoped to reach at depth.  
L= 163 min. 230 max, Handle Dia = 23.7, End Cap Dia = 24, Wt.= 105gms

All Dimensions in mm.

## DEBURRING TOOLS WITH HANDLE

All Replaceable Blades type

### HEAVY DUTY TOOLS WITH MULTI-CUTTING EDGE BLADES

**MC-2 (38043)**



Metallic Handle with Soft Grip & Ball End cap with  
**Multi-Cutting** 3.2 Ø MC-10 Blade  
L = 131, Handle Dia = 12, End Cap Dia = 18, Wt.= 56gms

**MC-4 (38123)**



Poly Acetal Body Handle with Soft Grip & Ball End Cap with  
**Multi-Cutting** 3.2 Ø MC-10 Blade. Spring Loaded Collet Action for Blade Holding.  
L = 121.5, Handle Dia = 19.8, End Cap Dia = 21.7, Wt.= 38.5 gms

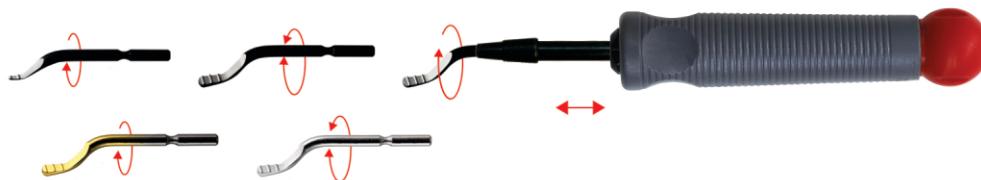
**DT-MC (38233)**



Poly Acetal Body D-SD Handle with Ball End Cap and Metallic Blade holder + Space for Blade Storage.  
Includes Handle with 3 nos. **Multi-Cutting** Edge 3.2 Ø Blades - MC-10, MC-20 & MC-101  
L = 142, Handle Dia = 23.7, End Cap Dia = 24, Wt.= 58.5gms



**DT-5-MC (38223)**



Poly Acetal Body T-SD Handle with Telescopic Holder DT(C) & Ball End Cap with 5 nos. **Multi-Cutting** Edge 3.2 Ø Blades - MC-10, MC-20, MC-101, MC-15 & MC-10(C).  
Collet Action ensures firm grip of Plain Surface holder which can be telescoped to reach at depth.  
L= 163 min. 230 max, Handle Dia = 23.7, End Cap Dia = 24 , Wt.= 105 gms



### EXTRA - HEAVY DUTY TOOLS

**RDT - SD (34064)**



Poly Acetal Body R-SD Handle with Ball End Cap,  
and Strong, Sturdy & Rugged 6 Ø R-10(S) Blade.  
L = 158, Handle Dia = 23.7, End Cap Dia = 24, Wt.= 62gms



**RDT - MC (38343)**



Poly Acetal Body R-SD Handle with Ball End Cap,  
and Strong, Sturdy & Rugged 2 nos. **Multi-Cutting** Edge 6 Ø  
Blades - MR-10 & MR-15. L = 158, Handle Dia = 23.7, End Cap Dia = 24, Wt.= 74gms

All Dimensions in mm.



## DEBURRING TOOLS WITH HANDLE

All Replaceable Blades type

### SHEET / RIB DEBURRER

#### SDT (34084)

Deburrer Set with Poly Acetal Body Handle & Protection Guard to deburr One or Both Edges of Sheets / Ribs of thickness upto 12mm.  
The width between the 2 Nos. Round blades mounted on the holder can be adjusted from 0.5 to 12mm.  
Long life tool with cutting edges on both sides of round blades.  
L = 158, Handle Dia = 23.7, End Cap Dia = 24, Wt.= 182gms



#### VDT-SD (34094)

'V' Shaped Sheet / Rib Deburrer includes PolyAcetal Body Handle T-SD with Unique Tool having 4 nos.  
'V' Cutting edges mounted on Telescopic Holder.  
2 Nos. 'V' Shaped edges cover width upto 12mm &  
2 Nos. cover width upto 4mm.  
L= 163.5 min. 226 max, Handle Dia = 23.7,  
End Cap Dia = 24, Wt.= 99.5gms



#### V-2-SD (34104)

Excellent control to Deburr using this Double Ended Tool mounted in a Poly Acetal Body Handle with Collet Action. The Tool has 'V' Cut on one side to deburr Sheet / Rib upto 4mm width & Round Edge on the other side to deburr Single Edge.  
L = 150, Handle Dia = 23.7,  
End Cap Dia = 24, Wt.= 69gms



### KEY-WAY / SLOT DEBURRER

#### KWS-SD (34074)

Poly Acetal Body Handle with Telescopic Holder to mount 2 nos. Key-Way Deburring Blades KW-16 & KW-9 from 2 ends of the Holder  
The Blades have 4 cutting edges on either side- 2 for Normal depth of Slot / Key-Way & 2 for the shallow depth.  
Width covered upto 9mm in KW-9 & 16mm in KW-16.  
L= 177 min. 235 max, Handle Dia=23.7,  
End Cap Dia=24, Wt.=105gms



All Dimensions in mm.

## DEBURRING BLADES

## STANDARD BLADES

All blades are **Laser Marked** for easy identification

Unless specified the Blades are made of HSS-M2 Grade material

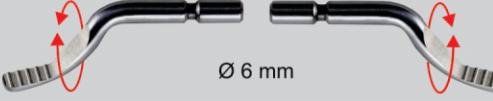
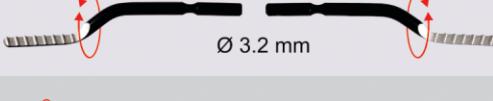
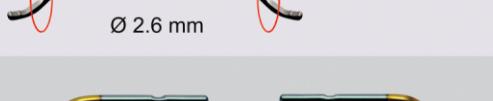
BLADES TYPE	BLADE VIEW	APPLICATIONS	PACK QUANTITY
P-1 (11010)	 Ø 2.6 mm	Universal Blade. For light duty & small component deburring of Steel, Al., Copper, Zinc, Plastics, etc.	10
P-2 (11020)	 Ø 2.6 mm	For small components of C.I. & Brass	10
P-3 (11030)	 Ø 2.6 mm	For both sides of sheet metal holes upto 6mm thickness.	10
P-6 (11060)	 Ø 2.6 mm	For backside deburring upto 15mm thickness.	5
Coated Blades	 Ø 2.6 mm	Titanium Nitride (TiN) coating on P-1, P-2 Blades for hard metal & longer life application.	10
C-10 (12100)	 Ø 3.2 mm	Universal Blade. For materials having spiral Chip such as Steel, Al., Copper, Zinc, Plastics, etc.	10
C-20 (12200)	 Ø 3.2 mm	For materials having brittle burr such as C.I. & Brass.	10
C-30 (12300)	 Ø 3.2 mm	For simultaneous deburring of inner & outer edges of sheet metal holes up to 10mm thickness.	10
C-35 (12350)	 Ø 3.2 mm	For straight edges on most materials.	10
C-15 (12151)	 Ø 3.2 mm	For stainless steel & hard plastic.	10
C-101 (12110)	 Ø 3.2 mm	For small holes from 1.5mm in Steel & Aluminium.	10
Coated Blades	 Ø 3.2 mm	Titanium Nitride (TiN) coating on C-10, C-20, & C-30 Blades for hard metal & longer life application.	10
C-60 (12600)	 Ø 3.2 mm	For backside deburring upto 20mm Thickness.	5
C-10 Carbide (12103)	 Ø 3.2 mm	Carbide Blade for Hardened Component	2
R-10(S) (13100)	 Ø 6 mm	Universal Blade for Extra Heavy Duty deburring application. For materials having spiral Chip such as Steel, Al., Copper, Zinc etc.	5
R-15(S) (13151)	 Ø 6 mm	For stainless steel application	5

HSS M35 grade Blades    C-100 = C-10 Blade in HSS M35 Grade    C-150 = C-15 Blade in HSS M35 Grade

## DEBURRING BLADES

## MULTI-CUTTING BLADES

All blades are **Laser Marked** for easy identification

BLADES TYPE	BOTH SIDE VIEW	Cutting Edge Segments	APPLICATIONS	PACK QUANTITY
MR-10 (23100)		4	Universal Blade for Extra Heavy duty deburring application. For materials having spiral Chips such as Steel, Al., Copper, Zinc etc.	5
MR-15 (23151)		5	For Stainless steel application.	5
MC-10 (22100)		3	Universal Blade for materials having spiral Chips such as Steel, Al., Copper, Zinc, Plastics etc.	10
MC-20 (22200)		3	For materials having brittle burr such as C.I. & Brass	10
MC-15 (22151)		3	For Stainless steel & hard plastic.	10
MC-101 (22110)		2	For Small holes from 1.5mm in Steel & Aluminium.	10
MC-40 (22400)		2	Special Blades for Hole Deburring of all Metals.	10
MC-70 (22700)		8	Long lasting Blade with 8 cutting edges for straight edge Deburring of Steel, Al, Cu, Zinc etc.	10
MC-80 (22800)		8	Long lasting Blade with 8 cutting edges for straight edge Deburring of C.I., Brass etc.	10
MP-1 (21010)		2	Universal Blade. For light duty & small components deburring of Steel, Al., Copper, Zinc, Plastics, etc.	10
MP-2 (21020)		2	For small components of C.I., Brass.	10
Coated Blades		2 to 5	Titanium Nitride (TiN) coating of all above blades for hard metal & longer life application	5/10

## SHEET / RIB DEBURRING BLADES

S-12 (26120)



Cutting edge along full circle and on 2 sides for long life.

V-2 (23020)



Double ended for both edges deburring up to 4mm from one side & single edge from another side.

V-4 (26040)



4 nos 'V' shaped edges  
2 nos for 1 to 12mm width &  
2 nos for 0 to 4mm width range

## KEY-WAY/ SLOT DEBURRING BLADES

Four Cutting Edges. 2 for std. depth of SLOT / KEY-WAY & 2 for SHALLOW DEPTH.

KW-9 (27090)



For width 0-9mm

KW-16(27160)



For width 0-16mm

## HANDLES AND HOLDERS

### D (New) Handle - Yellow / Black (53016)



Classical Design Poly Acetal Handle - Holds all 'C / MC' Blades  
L = 124mm, Handle Dia = 23mm, End Cap Dia = 18mm, Wt.= 39 gms

### D-SD Handle - Yellow / Black (54014), Grey/Red (54019)



Poly Acetal Body Handle with Ball End Cap - Holds all 'C / MC' Blades  
L = 121mm, Handle Dia. = 23.7mm, End Cap Dia. = 24mm  
Wt.= 51gms

### DT (C) Holder (62010)



Metallic holder - Holds all 'C / MC' Blades  
L = 107mm, Handle Dia. = 7.5mm, Wt.= 42gms

### R-SD Handle - Yellow / Black (54034), Grey/Red (54039)



Poly Acetal Body Handle with Ball End Cap - Holds all 'R / MR' Blades & SD-C, SD-P Holders  
L = 121mm, Handle Dia. = 23.7mm, End Cap Dia. = 24mm, Wt.= 51gms

### T-SD Handle - Yellow / Black (54024), Grey/Red (54029)



Poly Acetal Body Handle with Ball End Cap to hold all tools & telescopic holders of size range 6.5-7.5 mm  
L = 114 mm, Handle Dia = 23.7 mm, End Cap Dia. = 24 mm  
Wt.= 55 gms

### DT(P) Holder (62020)



Metallic holder - Holds all 'P / MP' Blades  
L = 98mm, Handle Dia. = 7.5mm, Wt.= 40gms

## CG HANDLE

### CG Handle - Yellow / Black (58054)



Poly Acetal Body Handle with Ball End Cap - Holds 3.2 mm Ø Scrapers  
L = 98mm, Handle Dia. = 19.8mm, End Cap Dia. = 21.7mm, Wt.= 36 gms

### CG-1 Handle - Red/Black (58033), Yellow/Black (58034)



Poly Acetal Body Handle with Ball End Cap - Holds all 'P / MP' Blades  
L = 98mm, Handle Dia. = 19.8mm, End Cap Dia. = 21.7mm, Wt.= 36 gms

### CG-2 Handle - Yellow/Black (58044), Red/Black (58043)



Poly Acetal Body Handle with Ball End Cap - Holds all 'C / MC' Blades  
L = 98mm, Handle Dia. = 19.8mm, End Cap Dia. = 21.7mm, Wt.= 36 gms

### ET-1 Handle - Yellow/Black (58014), Red/Black (58013)



Metallic Holder with soft grip & Ball End cap - Holds all 'P / MP' Blades  
L = 101mm, Handle Dia. = 12mm,  
End Cap Dia. = 18mm, Wt.= 53gms

### ET-2 Handle - Yellow/Black (58024), Red/Black (58023)



Metallic Holder with soft grip & Ball End cap - Holds all 'C / MC' Blades  
L = 110mm, Handle Dia. = 12mm, End Cap Dia. = 18mm  
Wt.= 54 gms

**Collet action ensures firm locking of plain surface holders**



## SCRAPER

For Surface finishing/Scarpa

**SCR-3 (72034)**



Triangular 3mm A/F HSS Scraper, fix mounted in 8mm Hex Al. powder coated handle. L = 142mm, Handle = 8mm Hex, Wt.=28gms.

**SCR-8-SD (74084)**



Triangular 8mm A/F HSS Scraper mounted in Poly Acetal Body (Yellow/Black) Handle with Ball End Cap. Replaceable type. L = 149mm Handle Dia = 23.7mm, End Cap Dia = 24mm, Wt.= 64gms.

**SCR-3 (75)-SD (74756)**



Triangular 3 mm A/F HSS Scraper of 75mm length mounted in CG (Yellow/Black) Poly Acetal Body Handle with Soft Grip & Ball End Cap. Spring Loaded Collet Action for sliding & fixing the scraper blade to reach deep. L = 119mm min. / 163mm max. Handle Dia = 19.8mm, End Cap Dia. = 21.7mm, Wt.= 40gms.

**Hollow Scraper HS-80 (78080)**



Double Ended Triangular Hollow Scraper of 4.2mm A/F mounted in 1/2" Al. Hex Handle with collet action for easy sliding & length adjustment L = 140mm min. / 175mm max. Handle Size = 1/2" Hex, Wt.= 44gms.

**SCR-8 (75084)**



Triangular 8mm A/F HSS Scraper mounted in 3/8" Hex Al. powder coated handle. Replaceable type. L = 132mm, Handle = 3/8" Hex Wt.= 40gms

**SCR-6(2)-SD (74064)**



Double ended Scraper mounted in a Poly Acetal Body T-SD (Yellow/Black) Handle with Collet Action. The tool has 6mm A/F Trangular Scraper on one side & Internal Scraper on the other side. L = 147mm Handle Dia = 23.7mm, End Cap Dia = 24mm, Wt.= 66gms.

**SCR-345-SD (74456)**



Triangular 3mm Internal HSS Scraper of 75mm length mounted in CG (Yellow/Black) Poly Acetal Body Handle with Soft Grip & Ball End Cap. Spring Loaded Collet Action for sliding & fixing the scraper blade to reach deep. L = 110mm min. / 163mm max. Handle Dia. = 19.8mm, End Cap Dia = 21.7mm, Wt.= 40gms.

**Hollow Scraper HS-120 (78120)**



Double Ended Triangular Hollow Scraper of 7.4mm A/F mounted in 14mm Al. Hex Handle with collet action for easy sliding & length adjustment L = 162mm min. / 214mm max. Handle Size = 14mm Hex, Wt.= 58gms.

## CERAMIC DEBURRING TOOLS

### Features & Applications

- Scraping of hard component edges.
- Deflashing of plastic components.
- Very long life of Ceramic Blade - cutting edge all along.
- Blade can be ground to suit the application

### SCRAPER BLADES

**SCR-3 (75)  
(72750)**



Triangular 3mm A/F Scraper 75mm length

**SCR-6 (2)Combo  
(74060)**



Double ended 6mm Triangular Scraper on one side & Internal Scraper on the other side

**SCR-345 (72450)**



Triangular 3mm Internal Scraper 75mm length

**SCR-8 Blade  
(75080)**



Triangular 8mm A/F Scraper

**Hollow Scraper 80 (76080)**



Double ended triangular Hollow scraper of 4.2mm



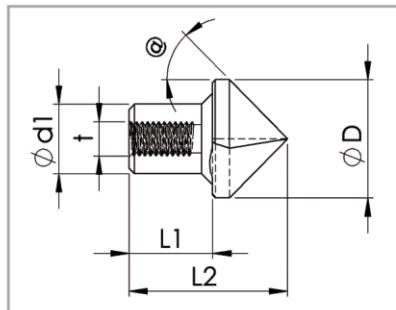
**Hollow Scraper 120 (76120)**



Double ended triangular Hollow scraper of 7.4mm

## COUNTERSINK TOOLS

### 2 FLUTE COUNTERSINKS



#### Two Flute Countersinks

Type	$d1^\circ$	t	$D^\circ$	$@^\circ$	L1	L2	Range
CS-12 (48120)	12.5	M6x1	12.5	45°	23	29.25	4 - 11
CS-20(48200)	12.2	M6x1	21	45°	15	29	4 - 19
CS-30(48300)	12.2	M6x1	31	45°	17.5	36.5	5 - 29

For hole Deburring & Chamferring.  
3 sizes upto 30mm for use by hand.  
And on m/c.

#### F Set (48210)

Includes : T-SD handle,  
CS-Long Telescopic Holder &  
CS-20 Cointersink

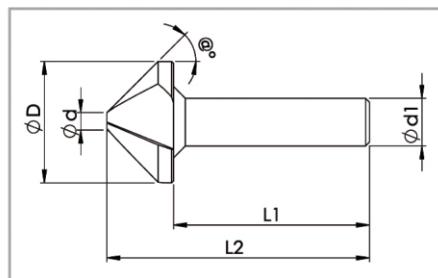


#### Countersink Set - Revolving (48032)

Includes : CS-20 Countersink  
with CS-Revolving Handle



### 3 FLUTE COUNTERSINKS



#### Three Flute Countersinks

Type	$d1^\circ$	$d^\circ$	$D^\circ$	$@^\circ$	L1	L2	Range
CS-12-3FLS (48130)	12.5	2	12.5	45°	50	55.25	3 - 11
CS-20-3FLS (48230)	12.2	5	21	45°	50	61	5 - 19
CS-30-3FLS (48330)	12.2	5	31	45°	50	67	5 - 29
CS-40-EFLS (48430)	12.2	5	40	45°	47	69.5	5 - 38

Long shank Three Flute countersinks upto size 40mm for use with m/cs. For hole / slot / corner / deburring / chamferring.

All dimensions in mm.

## COUNTERSINK TOOLS

### 0 FLUTE COUNTERSINKS

For Deburring / Countersinking at higher speed with no vibrations & chatter-free results.

Included angle 90°

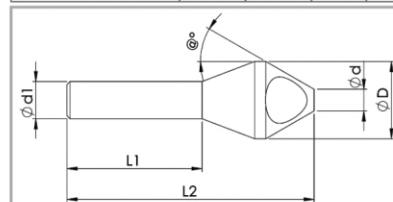


Included angle 60°

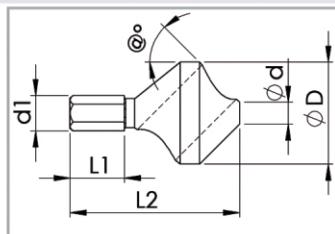


#### Zero Flute Countersinks

Type	$d_1$	$d^\circ$	$D^\circ$	$@^\circ$	L1	L2	Range
CZ-129(48129)	12.5	0	13	45°	49	55.5	2 - 10
CZ-126(48126)	12.5	2.6	13	30°	49	58	4 - 10
CZ-259(48259)	12	3	25	45°	43.5	75	4 - 22
CZ-256(48256)	12	7	25	30°	43.5	79.6	10 - 22



### 0 FLUTE COUNTERSINKS

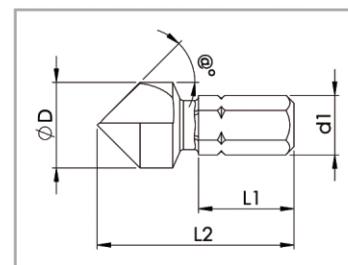


#### Zero Flute Hex Bit Countersinks

Type	$d_1^\circ$	$d^\circ$	$D^\circ$	$@^\circ$	L1	L2	Range
CZH - 289 (48289)	1/4" Hex	0	10.5	45°	11.2	27.5	2 - 8
CZH - 719 (48719)	1/4" Hex	4.5	21	45°	11.2	34.9	7 - 19

### 1 FLUTE COUNTERSINKS

Single Flute Countersinks give chatter-free / smooth results in hand use with crank holder or in a hand drill.



#### Single Flute Hex Bit Countersinks

Type	$d_1$	$D^\circ$	$@^\circ$	L1	L2	Range
F63 (48630)	1/4" Hex	6.35	45°	11.2	23.6	1 - 6
F104 (48104)	1/4" Hex	10.5	45°	11.2	23.6	2 - 10
F165 (48165)	1/4" Hex	16.5	45°	11.2	30.5	2 - 16

#### Hex Bit Countersink Set (48225)

Includes :  
CG-2 Handle, Crank Holder  
& F63, F104 & F165

#### Hex Bit Countersink Set (48225)



### HANDLES & HOLDERS For 2 Flute Countersink

#### CSH handle (46014)



#### CS - Short (62050)



#### CS - Long (62060)



#### Crank Holder (62092) - Hex Bit Countersink



#### CS - Revolving handle (48024)



#### CS - R Holder (62090) - Revolving



All dimensions in mm.

## SETS & KITS

### DT-1 (10) Set (86109)



10 pc. pack of Simple, Economical tool - Al. 8mm Hex Powder coated Handle with Pocket Clip & 3.2mm Ø C-10 Blade. The Blade cannot be replaced. Each Tool L = 140mm, Handle Size = 8mm Hex, Total Wt.= 220gms.

### DT-2 (5) Set (86059)

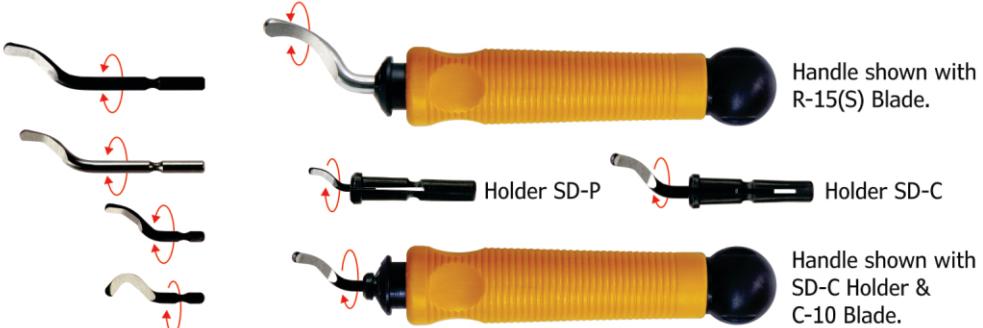


5 pc. pack of Al. 3/8" Hex Powder coated Handle with interchangeable 3.2mm Ø C-10 Blade. Each Tool L = 142mm, Handle Size = 3/8"Hex, Total Wt.= 154gms.

### 3-IN-1 SET Unique Set with 3 sizes of Deburring Blades viz. 'R'(6mm Ø), 'C'(3.2mm Ø), 'P'(2.6mm Ø)

#### DT-SD (3-in-1) Set (86319)

Includes R-SD (Yellow/Black) Handle, SD-C & SD-P Holder & 7 Blades  
 R-15(S), C-10, C-20, C-15, P-1, P-2 & P-3.  
 L = 155mm, Handle Dia.= 23.7mm,  
 End Cap Dia. = 24mm  
 Wt.= 76gms.



#### DT-SD-MC (3-in-1) Set (38523)

Includes R-SD (Grey/Red) Handle, SD-C & SD-P Holder & 6 nos. Multi-cutting Blades  
 MR-10, MC-10, MC-20, MC-101, MP-1 & MP-2.  
 L = 155mm, Handle Dia. = 23.7mm,  
 End Cap Dia. = 24mm, Wt.= 74gms.



## PROMO SETS



#### Promo Set 1 (84050)

**Includes :**  
 New 'D' Handle with 10 nos.  
 Deburring Blades - 5 nos.  
 each of C-10 & C-20  
 Size = 129 x 183 x 30mm  
 Wt. = 100gms



#### Promo Set 2 (84060)

**Includes :**  
 D-SD Handle with 10 nos.  
 Deburring Blades - 2 nos.  
 each of C-10, C-20, C-101 And 1 no.  
 each of C-30, C-15, C-35 & C-10©  
 Size = 129 x 183 x 30mm  
 Wt. = 105gms.



#### Promo Set 3 (88020)

**Includes :**  
 D-SD Handle with 10 nos.  
**Multi-Cutting** Edge Deburring  
 Blades - 2 nos. each of MC-10,  
 MC-20, MC-15, MC-101 & MC-40  
 Size = 129 x 183 x 30mm  
 Wt. = 105gms

## SETS & KITS



### DTK-5 Comprehensive Kit (86809)

#### Includes:-

T-SD (2 Nos.), DT Handles (2 Nos.),  
DT(P), VT &  
KW Holders,  
Scraper SCR-8,  
Countersink Tool - CS-20 & CS Holder,  
Deburring Blades P-1, P-2 (2 each)  
C-10 (5pcs), C-20, C-30, C-10 (Coated),  
C-15 & C-101 (1 each),  
Key-Way / Slot  
Deburring blades,  
KW-9 & KW-16,  
Sheet / Rib Deburring Blade V-4  
Pack Size = 254 x 190 x 56mm  
Wt.= 800gms.

### Universal Kit (86909)

#### Includes:-

5 Handles - D-SD, T-SD(2 Nos.), R-SD & SD-1,  
21 Nos. 3.2mmØ swivel blades - 5pcs. each of C-10, & C-20,  
2pcs. each of C-30, C-15, C-101, C-10(C),  
C-20(C), & 1pc. of C-60 blade,  
5 Nos. 6mmØ blades - 3pcs. of R-10(S)  
& 2pcs. of R-15(S),  
2 Nos. Scraper - SCR-3(75mm) & SCR-6(2) Combo,  
Sheet / Rib Deburring Tool V-2 & V-4 with Telescopic Holder VT,  
Key-way / Slot Deburrer KW-16 with Telescopic Holder KW,  
DT(C) Telescopic Holder for all 'C' Blades,  
CS-20 Countersink tool with CS - Long Telescopic Holder  
C-1 Ceramic Blade  
Pack Size = 240 x 270 x 56mm  
Wt.= 1276 gms.



### Multi-Cut Kit (88081)

#### Includes:-

1pc. each of Multi-Cutting tools  
MC-2, RDT-MC, DT-MC,  
Hollow Scraper 80,  
10pcs. Pack of 3.2mmØ blades  
containing 2pcs. each of MC-10,  
MC-20, MC-101 & 1pc. each of  
MC-15, MC-40, MC-10(C) &  
MC-20(C) and 5pcs. Pack of 6mm. Ø  
blades containing  
3pcs. of MR-10 & 2pcs. of MR-15  
Pack Size = 254 x 190 x 56mm  
Wt.= 738gms.

## HEX TOOLS SERIES

- Powder coated Al. Hex handles from 8mm (5/16") to 16mm (5/8") size
- Fix Mounted or Replaceable blade type
- Non-slip grip
- 8mm (5/16") & 9.5mm (3/8") Hex tools are with ball end protection cap
- Safe to use & carry
- Ball end cap protects both Deburring blade & scraper - Mount the cap over the blade for safe storage - When the tool is being used, mount the cap from the other end of the handle for nice grip in the palm

The Ball End Cap serves 2 purposes:-



### POCKET BURR - FIX MOUNTED TOOLS

#### HT 10 (31104)

Al. 8mm (5/16") Hex Handle with fix mounted C-10 Blade & Ball End Protection Cap. Pack of 5 pcs.  
Each tool L = 132mm, Handle Size = 8mm Hex,  
Ball End Dia = 21 mm, Wt.= 20gms for each tool. Total Wt. = 115gms



#### HT 101 (31114)

Al. 8mm (5/16") Hex Handle with fix mounted C-101 Blade & Ball End Protection Cap. Pack of 5 pcs.  
Each tool L = 128mm, Handle Size = 8mm Hex,  
Ball End Dia = 21mm, Wt.= 19.5gms for each tool. Total Wt. = 110gms



#### HTSCR3 (71404)

Al. 8mm (5/16") Hex Handle with fix mounted 3mm A/F triangular Scraper & Ball End Protection Cap. Pack of 5 pcs.  
Each tool L = 133mm, Handle Size = 8mm Hex,  
Ball End Dia = 21mm, Wt.= 19.5gms for each tool. Total Wt. = 110gms



#### HTSCR6 (71454)

Al. 9.5mm (3/8") Hex Handle with fix mounted 6mm A/F triangular Scraper & Ball End Protection Cap. Pack of 5 pcs.  
Each tool L = 141mm, Handle Size = 8 mm Hex, Ball End Dia = 21mm,  
Wt.= 19.5gms for each tool. Total Wt. = 150 gms



#### Pocket BuRR 4 pc. Set (31200)

4 pc. Set of Pocket BuRR HT10, HT101, HTSCR3 & HTSCR6 Tools in a Leather Wallet Size = 130 X 110 X 30  
Wt.=195gms



### POCKET BURR - REPLACEABLE BLADE TYPE TOOLS

#### POCKET BURR SET 1 (31211)

Al. 9.5mm (3/8") Hex Handle with Blade Holder to change blades + Ball End Protection Cap & 11 pcs. of 3.2mm Ø C-10 Blades.  
L = 129mm, Pouch Pack size = 130 x 195 x 25mm Wt. = 68gms.



#### POCKET BURR SET 2 (31221)

Al. 9.5mm (3/8") Hex Handle with Blade Holder to change blades + Ball End Protection Cap & 11 pcs. of 3.2mm Ø Multi-Cutting MC-10 Blades.  
L = 129mm, Pouch Pack size = 130 x 195 x 25mm Wt. = 68gms.



## HEX TOOLS SERIES

### POCKET BURR SET 3 (31111)

Al. 9.5mm (3/8") Hex Handle with Blade Holder to change blades + Ball End Protection Cap & 11 pcs. of 2.6mm Ø P-1 Blades.  
L = 129mm, Pouch Pack size = 130 x 195 x 25mm Wt. = 53gms.



### POCKET BURR SET 4 (31121)

Al. 9.5mm (3/8") Hex Handle with Blade Holder to change blades + Ball End Protection Cap & 11 pcs. of 2.6mm Ø Multi-Cutting MP-1 Blades.  
L = 129mm, Pouch Pack size = 130 x 195 x 25mm Wt. = 53gms.



### REPLACEABLE BLADE TYPE HEX TOOLS

#### DT-210 SET (31020)

Al. 9.5mm (3/8") Hex Handle with Blade Holder to change blades & 11 pcs. of 3.2mm Ø C-10 Blades. L=143mm,  
Pouch Packing size = 130 x 195 x 25mm Wt.=73gms.



#### C-BuRR SET 1 (Yellow) (31612)

Al. 12.7mm (1/2") Hex Handle with Blade Holder to change blades & 11 pcs. of 3.2mm Ø C-10 Blades.L = 149mm,  
Pouch Packing size = 130 x 195 x 25mm Wt.=96gms.



#### C-BuRR SET 2 (Red) (31622)

Al. 12.7mm (1/2") Hex Handle with Blade Holder to change blades & 11 pcs. of 3.2mm Ø Multi-Cutting MC-10 Blades.  
L =149mm, Pouch Packing size = 130 x 195 x 25mm Wt.=96 gms.



#### D(M) SET (Yellow) (31042)

Al. 16mm (5/8") Hex Handle with Blade Holder to change blades & 11 pcs. of 3.2mm Ø C-10 Blades. L =147mm,  
Pouch Packing size = 130 x 195 x 25mm, Wt.=96gms





**cp gratex**  
CUTTING EDGE

NEW SMART DEBURRING TOOLS





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