INTERCHANGEABLE STEEL TYPES

FORBES & COMPANY LIMITED
FORBES BRADMA AUTOMATION

CONVENTIONAL MARKING SOLUTIONS

THE COMPANY

Bradma: Pioneering Marking & Traceability Solutions Since the 1960s

As a part of Forbes & Company Ltd., under the industrial and construction conglomerate - Shapoorji Pallonji Group, Bradma has been at the forefront of innovation in marking and traceability solutions for over six decades. Our expertise spans across diverse industries, including Automotive, Defence, Railways, Heavy Engineering, and Pharma.

With a legacy of continuous improvement, Bradma delivers end-to-end marking solutions from component to chassis marking in the Engineering & Automotive sectors. Bradma expanded its product portfolio into Traceability solution offerings for finished goods in the Renewable Energy components and Pharma industries. Our solutions are designed to evolve with industry needs, ensuring unmatched precision, reliability, and adaptability across a wide range of applications, including industrial 4.0 solutions.

Our latest offerings in the marking and traceability segment are peen marking and laser SPM's for industrial automation.

Mission
To build solutions in the field of machine building, marking traceability, industrial automation and Industry 4.0 and adding value to the customer's business while adhering to our core values.

Vision
To be a solution provider to the customers using latest technologies in the field of Marking & traceability, Industrial automation and Industry 4.0

Quality Policy
We commit ourselves to provide customer solutions by delivering innovative products in the field of marking traceability & industrial automation through continual improvement by active participation of our employees. We remain committed toward environment and statutory compliances.

WHY **MARK**

- Permanent Indentation
- Easy Identification
- Neat Marking Suggests Quality
- Accurate & Legible Part Nos. Model Nos. etc. Facilitate replacement and repairs.
- Clear Easy to Read Patent Numbers Protect against infringement.
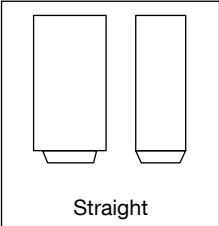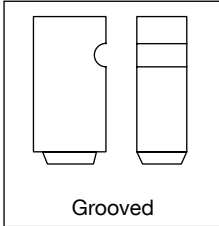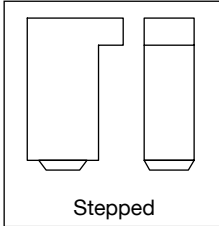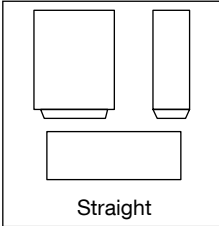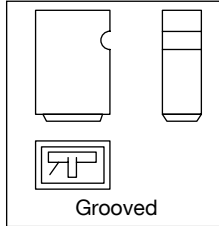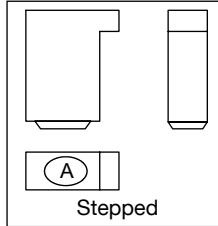- Advertise Trade Name

WHAT TO **MARK**

- Part Numbers Serial Numbers
- Size
- Model Identification
- Graduations
- Batch Number
- Material Code
- Inspector's Code
- Date Code
- Instructions to User
- Name Plate Details

METHODS OF MARKING

RECTANGULAR - BODY BASED

TYPES	STAMP MARKS (COMPOSITE TYPES)

Straight   Grooved   Stepped   Straight   Grooved   Stepped

- Hand Held Punches
- Stamp Marks
- Inter Changeable Steel Types
- Rotary Type Numerators

STEEL TYPES - RECTANGULAR BODY

Standrad   Grooved   Specials
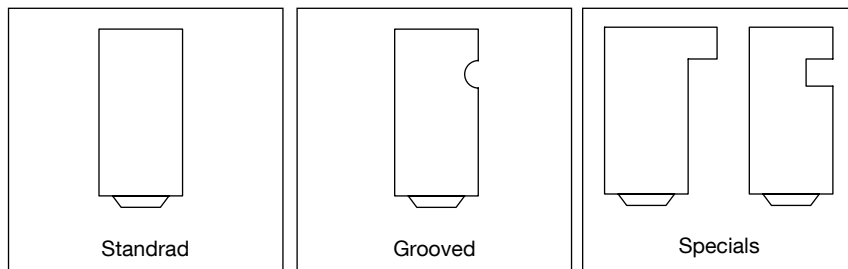
Inch Series
Sizes 1/16; 3/32; 1/8; 3/16, 1/4, 3/8

Metric Series
Sizes (mm) 1,2,3,4,5,6,8,10

Main Features
- Common Body Size 8x0.25
- Same Holder can be used for all types

GROOVED TYPES

Metric Series
Sizes 1,2,3,4,5,6,8,10

Label Marking
Sizes 1.6, 2, mm

Advantages
- Groove Prevents Types from falling out of Holder
- Heavy Marking on Castings
- Heavy Marking on Fogings
- Hot Bullet Markeing

Main Features
- Special L-Shaped Section
- No Restriction on Label Layout

METHODS OF MARKING

CODING SYSTEM

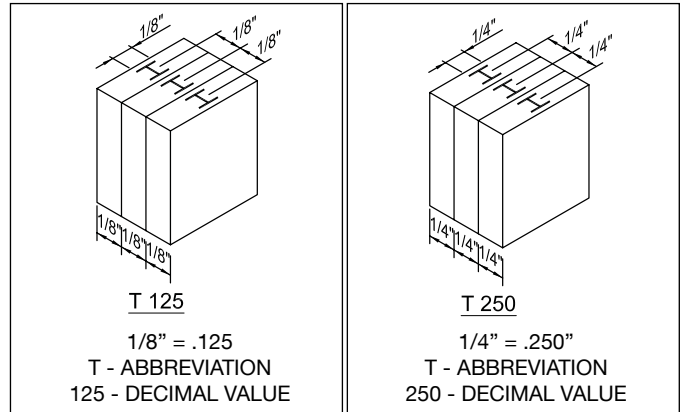| ABBREVIATIONS	
T - TYPES	1/16 = .062
S- SPACERS	3/32 = .093
B- BOX	1/6 = .125
H - HAND HOLDER	3/16 = .187
M - MACHINE HOLDER	1/4 = .250
R - REVERSETYPES	3/8 = .375

TYPES

T 125
1/8" = .125
T - ABBREVIATION
125 - DECIMAL VALUE

T 250
1/4" = .250"
T - ABBREVIATION
250 - DECIMAL VALUE

CODING SYSTEM

BOXES

1.112BH 187	3. 66BH 375
112 100 TYPES + 12 SPACERS	66 60 TYPES + 6 SPACERS
B ABBREVIATION FOR BOX	B ABBREVIATION FOR BOX
H ABBREVIATION FOR HOLDER	H ABBREVIATION FOR HOLDER
187 DECIMAL VALUE OF 3/16	375 DECIMAL VALUE OF 3/8

Set Code No.		Type Code No.	Holder Code No.
With Holder	With Holder		
112 BH 062	112 BH 062	T 062	125 H 750
112 BH 093	112 BH 093	T 093	250 H 1000
112 BH 125	112 BH 125	T 125	250 H 1250
112 BH 187	112 BH 187	T 187	312 H 1250
112 BH 250	112 BH 250	T 250	375 H 1500
66 BH 375	66 BH 375	T 375	625 H 2250

HAND STAMPING

HAND STAMPING

ROLL MARKING

Knurl Roll Marks A Flat Part

MACHINE STAMPING

Shank Style Die Stamps a Flat Part

ROLL MARKING

Flat Die Roll Marks A Round Part

Concave Shank Style Die Marks a Round Part

Hallow Round Part is Marked on a Stud Arbor

CHARACTER FACE

Sharp Face

Flat Face

Open Face

Round Face
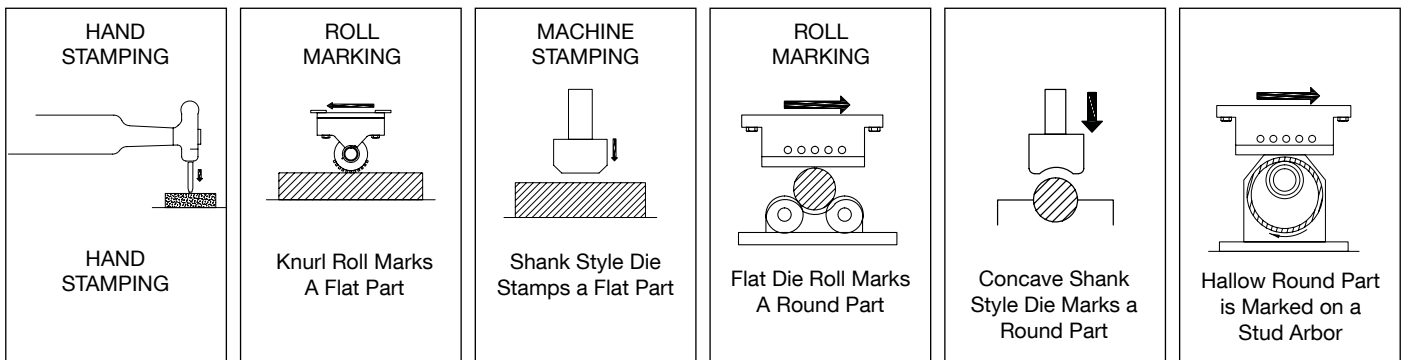
Dotted Face
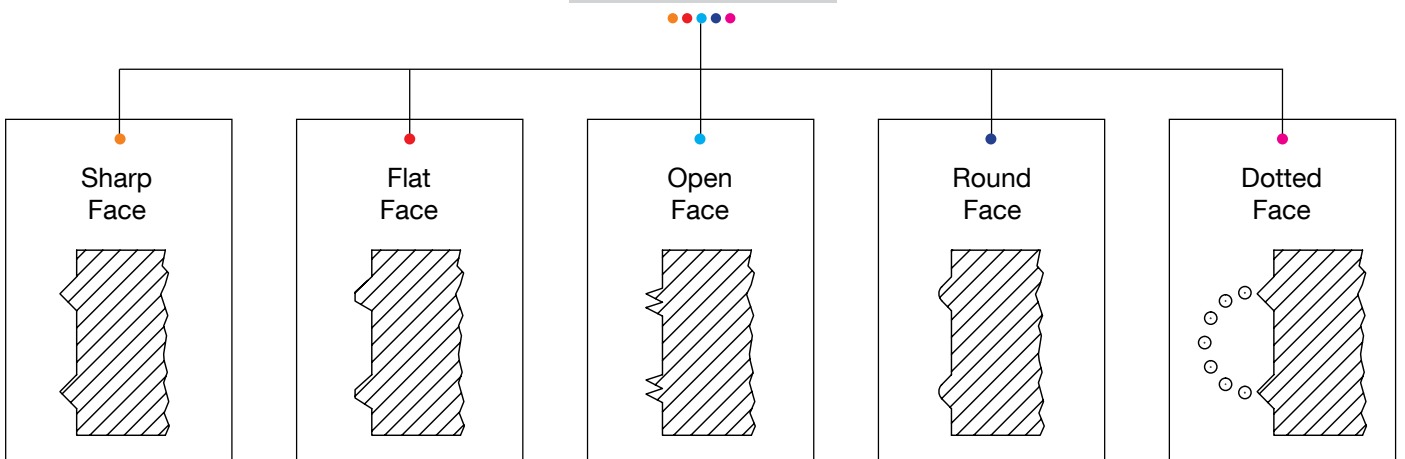
INTERCHANGEABLE STEEL TYPES (ISTs)

- Perfect for composing multi character data.
- Suitable for part numbering, batch & date coding on Steel, Aluminium, Brass, Plastic, Paper etc.
- IST is made from high quality tool steel, letters and numbers are formed by unique cold forming process.
- Sets are available with or without holder.

BATCH CODING

MARKET SEGMENT

Casting   Sheet Metal industry   Foundry   Pharma (Blister)   Lock Key Industry

STANDARD FOUNT SETS

Alpha-Numeric Set - With OR Without Holder

Bradma Type Code No.	Character Size D Mm	Type Size			Bradma Fount Set Code No.		Number of Types In Set	Number of Spacers Set	Bradma Hand Holder Code	Bradma Hand Holder Capacity
		A MM	B MM	C MM	With Hand Holder	Without Hand Holder				
T 010	1.00	1.00	8.00	25.00	112BH010	112B010	100	12	8 H 20	20
T 062	1.59 (1/16")	1.59	3.18	15.88	112BH062	112B062	100	12	125H750	12
T 020	2.00	2.00	8.00	25.00	112BH020	112B020	100	12	8 H 25	12
T 093	2.40 (3/32")	2.40	6.35	19.05	112BH093	112B093	100	12	250H1000	10
T 030	3.00	3.00	8.00	25.00	112BH030	112B030	100	12	8H25	8
T 125	3.18 (1/8")	3.18	6.35	19.05	112BH125	112B125	100	12	250H1250	10
T 040	4.00	4.00	8.00	25.00	112BH040	112B040	100	12	8H40	10
T 187	4.76 (3/16")	4.76	7.94	19.05	112BH187	112B187	100	12	312H1250	6
T 050	5.00	5.00	8.00	25.00	112BH050	112B050	100	12	8H40	8
T 060	6.00	6.00	8.00	25.00	112BH060	112B060	100	12	8H40	6
T 250*	6.35 (1/4")	6.35	9.53	19.05	112BH250	112B250	100	12	375H1500	6
T 080*	8.00	8.00	14.00	25.00	66BH080	66B080	60	6	14H60	7
T 375*	9.53(3/8")	9.53	15.88	25.40	66BH375	66B375	60	6	625H2250	6
T 100*	10.00	10.00	14.00	25.00	66BH100	66B100	60	6	14H60	6
T160*	16.00	12.00	20.00	30.00	-	-	-	-	-	-
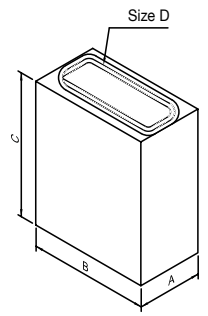
Items with codes marked as * are made to order

Size D

Number Set Without Holder

BRADMA TYPE CODE NO.	CHARACTER SIZE D MM	TYPE SIZE			BRADMA FOUNT SET CODE NO.	NUMBER OF TYPES IN SET	NUMBER OF SPACERS SET
		A MM	B MM	C MM			
T 062	1.59 (1/16")	1.59	3.18	15.88	56 BN 062	50	6
T 020	2.00	2.00	8.00	25.00	56 BN 020	50	6
T 093	2.40 (3/32)	2.40	6.35	19.05	56 BN 093	50	6
T 030	3.00	3.00	8.00	25.00	56 BN 030	50	6
T 125	3.18 (1/18")	3.18	6.35	19.05	56 BN 125	50	6

INTERCHANGEABLE STEEL TYPES (ISTs)

COMPOSITION OF 112 TYPES SET (FOR UPTO 6.35 OR 1/4")

A	A	A	B	B	C	C	D	D	E	E	E	E	F	F	G	G	H	H	I
I	I	J	J	K	K	L	L	L	M	M	N	N	N	O	O	O	P	P	Q
R	R	R	S	S	S	T	T	U	U	U	V	W	W	X	X	Y	Z	&	/
/	_	_	.	.	.	.	1	1	1	1	2	2	2	2	3	3	3	4	4
4	4	5	5	5	6	6	6	7	7	7	8	8	8	9	9	9	0	0	0
SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP	SP								

COMPOSITION OF 112 TYPES SET (FOR UPTO 6.35 OR 1/4")

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O
P	Q	R	S	T	U	V	W	X	Y	Z	1	1	1	2
2	2	3	3	3	4	4	4	5	5	5	6	6	6	7
7	7	8	8	8	9	9	9	0	0	0	/	_	.	.
SP	SP	SP	SP	SP	SP									

COMPOSITION OF 66 TYPES SET (FOR ABOVE 6.35 OR 1/4")

0	0	0	0	0	0	0	0	0	0	1
1	1	1	1	2	U	2	2	2	2	3
3	3	3	3	4	4	4	4	4	4	5
5	5	5	5	6	9	6	6	6	7	7
7	7	8	8	8	8	9	9	9	9	9
SP	SP	SP	SP	SP	SP	SP				

- Suitable for part numbering, batch & date Coding, etc. on Steels, Casting, Forgings, Aluminium, Brass, Plastics, Paper.
- Types made from High Quality Tool Steel
- Letters and Numbers formed by unique Cold forming process for longer tool life
- Dull Nickel plated for rust free longer shelf life.

- Bevel Angles, Character Depth & "Bradma" Calligraphy to maximize type life
- Sets are available with or without Holder.
- All dimensions are to very close tolerances, for the clearest uniform impression in perfect alignment

WHAT ARE INTERCHANGEABLE STEEL TYPES

- Steel Types which can be composed like Printer's Types.
- Made of Alloy Steel.
- Hardened and Tempered to give
  a) Toughness
  b) Wear Resistance

- Plated to Resist Rust.
- Character Accurately Positioned on Shank.
- Overall Length Controlled-Uniform Depth
- Can be easily Composed-Uniform Depth.
- Can be easily Composed in Holders Suitable for Hand or Machine Operation

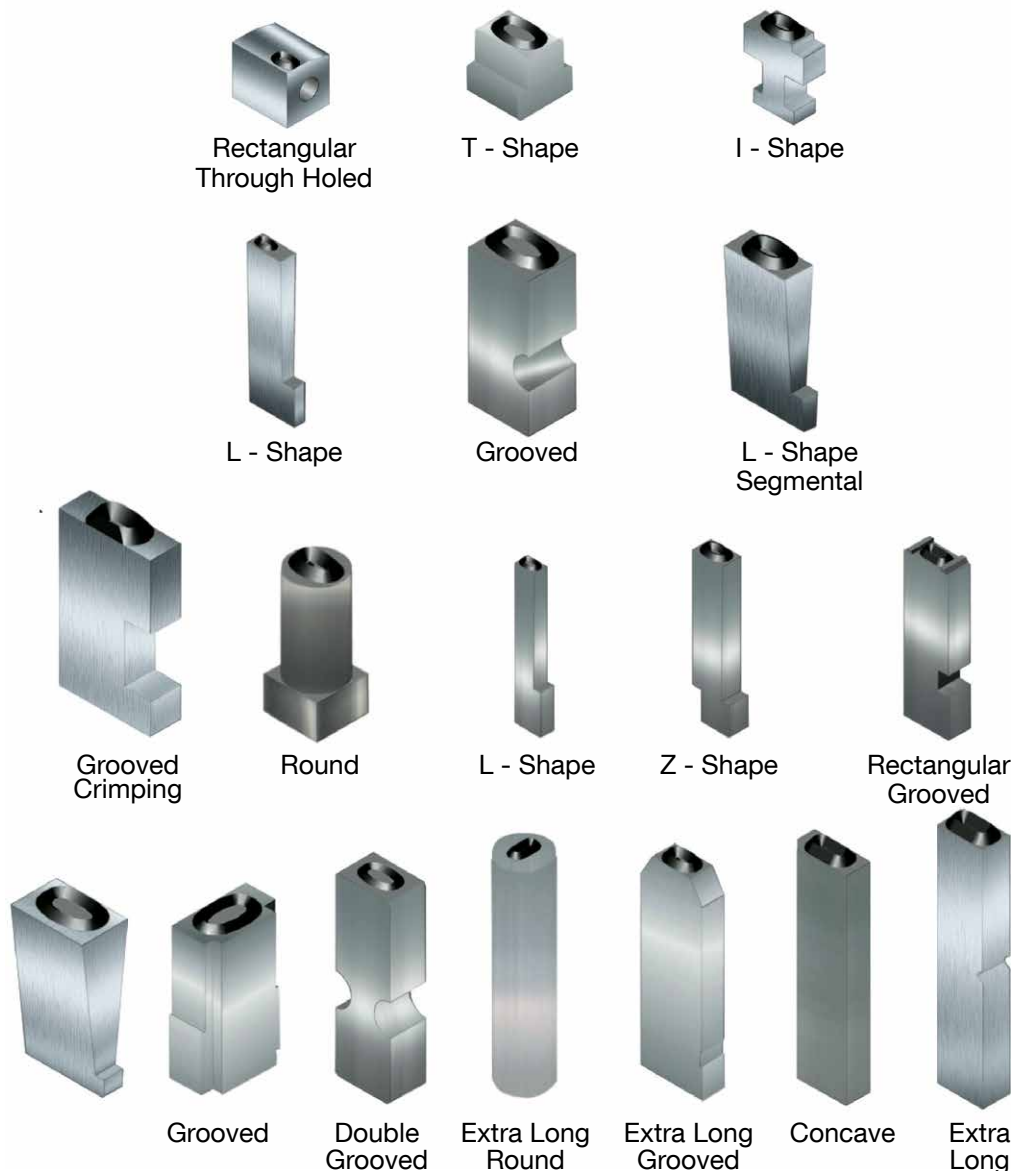# INTERCHANGEABLE STEEL TYPES (ISTs)

MARKING ELEMENTS (STEEL TYPES - RECTANGULAR BODY)

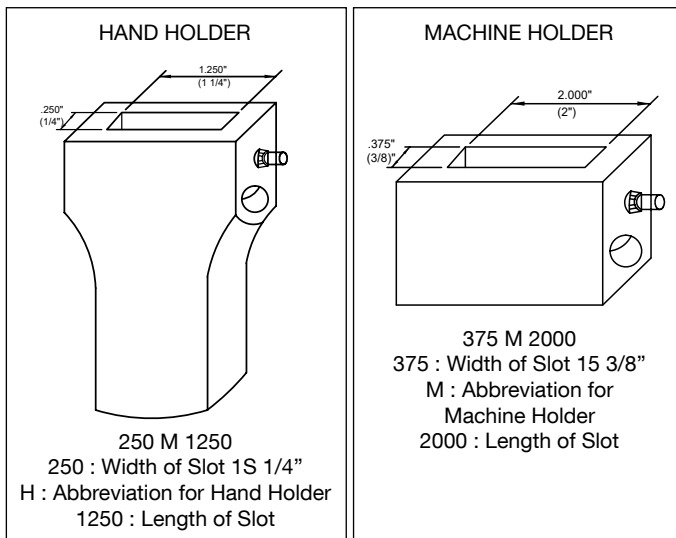Special Types - They can be developed if:

- Calligraphy & Character Sizes are from our Standard Range.
- Manufacture of Special Types is Compatible with our Type Forming Process.
- Volumes are sufficiently large.

BRADMA SPECIAL INTERCHANGEABLE TYPES

- Segmental, Radial, Grooved and Stepped Types for special applications
- Low Stress Types
- Concave or Convex Types
- Types with Special Calligraphy design
- Types for Hot Stamping applications
- Special Types for Blister Packing, Cartonators, Collapsible Tubes, Crimping, Sachets, Tetra packs etc.

Rectangular Through Holed   T - Shape   I - Shape

L - Shape   Grooved   L - Shape Segmental

Grooved Crimping   Round   L - Shape   Z - Shape   Rectangular Grooved

Grooved   Double Grooved   Extra Long Round   Extra Long Grooved   Concave   Extra Long

INTERCHANGEABLE STEEL TYPES (ISTs)

HAND HOLDER

MACHINE HOLDER

250 M 1250
250 : Width of Slot 1S 1/4"
H : Abbreviation for Hand Holder
1250 : Length of Slot

375 M 2000
375 : Width of Slot 15 3/8"
M : Abbreviation for Machine Holder
2000 : Length of Slot

HOLDER C. NO.	TYPE C. NO.	NO. OF LINES	CAPACITY PER LINE
125 BH 750	T062	1	12
250 H 2L 1000	T062	2	12
250 H 1000	T093	1	10
250 H 1000	T125	1	8
250 H 1250	T093	1	13
250 H 1250	T125	1	10
312 H 1250	T187	1	6
375 H 1500	T250	1	6
625 H 2250	T375	1	6

Hand Holder

Machine Holder

HOLDER CAPACITY - NUMBER OF TYPES (TYPE SIZE MM)

HAND HOLDER BRADMA CODE NO.	1.00	1.59 (1/6")	2.00	2.40 (3/32")	3.00	3.18 (1/8")	4.00	4.76 (3/16")	5.00	6.00	6.35 (1/4")	8.00	9.53 (3/8")	10.00
8 H 20	20		10		6		5							
8 H 25			12		8		6		5	4				
8 H 40					13		10		8	6				
14 H 60												7		6
125 H 750		12												
250 H 1000				10										
250 H 1250				13		10								
312 H 1250							6							
375 H 1500														
625 H 1500										6				
250 H 2L 1000		24*											6	

MACHINE HOLDER CAPACITY - NUMBER OF TYPES (TYPE SIZE MM)

MACHINE HOLDER BRADMA CODE NO.	1.00	1.59 (1/6")	2.00	2.40 (3/32")	3.00	3.18 (1/8")	4.00	4.76 (3/16")	5.00	6.00	6.35 (1/4")
8 M 20	20		10		6		5				
8 M 40	40		20		13		10		8	6	
8 M 60			30		20		15		12	10	
8 M 80					26		20		16	13	
125 M 1000		16									
125 M 2000		32									
250 M 1000				10		8					
250 M 2000				21		16		10			
250 M 3000				32		24					
312 M 3000											
375 M 2000											8
375 M 3000											12

§ SPECIAL 2-LINE, 3 LINE, 4 LINE & HOLDERS with Special Slot Sizes available on request.

SALIENT FEATURES OF BRADMA TYPE HOLDERS

➤ Designed for accurate Type location and Type alignment.

➤ Positive locking of Types.

➤ Enable Quick change of Type & high Interchangebility.

TYPE PUNCHES

DEEP MARKING

- Made from high quality, heat treated tool steel, finely balance with liberal overall shank size.

- Ensures deep, clear and legible stamped impression, safeguards against mushrooming, chipping and splitting of hammering end.

- Each punch is clearly marked with character designation and size.

MARKET SEGMENT

Casting   Die and Mould

HAND PUNCH SETS

CHARACTER SIZE mm	ALPHA SET A TO Z Bradma Code No.	NUMBER SET 0 TO Bradma Code No.
1.6	26HHP 062	9HHP 062
2	26HHP 020	9 HHP 020
2.4 (3/32")*	26HHP093*	9 HHP 093*
3	26HHP030	9 HHP 030
3.148 (1/8")*	26HHP125*	9 HHP125*
4	26HHP040	9 HHP040
5	26HHP050	9 HHP050
6	26HHP060	9 HHP060
6.35 (1/4")*	26HHP250*	9 HHP 250*
8	26HHP 080	9 HHP 080
9.53 (3/8")*	26HHP375*	9 HHP375*
10	26HHP100	9HHP100
12	26HHP120	9HHP120
12.7 (1/2")*	26HHP500*	9HHP500*
16*	26HHP160*	9HHP160*
20*	26HHP200*	9HHP200*

Alpha Set A-Z

Number Set 0-8

- Items marked as (*) are Made to Order

- Alpha Sets of 27HHP are also available on request for all the sizes with Character "&" included in the set.

MARKETING ELEMENTS

BRADMA DIE HARD HAND PUNCHES

- Made from high Quality, heat treated tool steel. Finely balance with liberal overall shank size.
- Ensures deep, clear and legible stamped impression, Safeguards against mushrooming, chipping and splitting of hammering hard.
- Each punch is clearly marked with character designation and size.

BRADMA SPECIAL HAND PUNCHES

- Low Stress hand Punches.
- Special Calligraphy on request.
- Extra Long hand punches.
- Convex/Concave faces.
- Reverse Alphabets & Numbers for forging and die casting dies and for rubber moulds.
- Hand punches with Logos.

HAND HELD PUNCHES

Bradma punches-what is plus?

- Use of tool steel, not plain carbon steel. Can mark on hard surfaces 35-38 Rc.
- Type formed characters uniformity
- Nickel plated for corrosion prevention.
- Will meet IS : 6864-1984 (1st revision) which is very rigorous.

ROTARY NUMERATORS

Hand Numerator

Size Developed - 2,3,4 & 5 mm
6 RTN2, 6RTN3, 6HN4, 5YHN5

HAND NUMERATOR
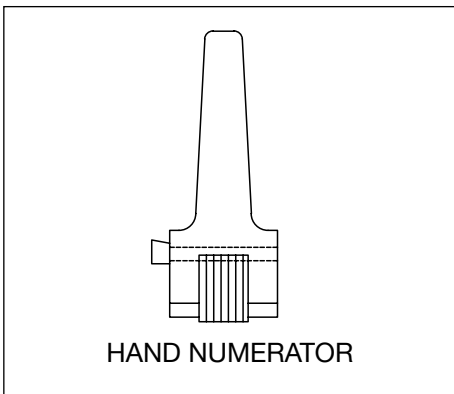
Wheel Configuration

- 0 to 9 Numerals
- Special Configuration Consisting of Alphas can be offered.

New improved Design is being introduced for 4 mm to 5 mm sizes.

- Each Wheel can be indexed separately without disturbing adjacent Wheels
- Indexing pin does not fall out
- Better Hand Grip
- Rugged Body

MACHINE NUMERATOR

COMPOSITE NUMERATOR

AUTOMATIC INDEXING NUMERATOR
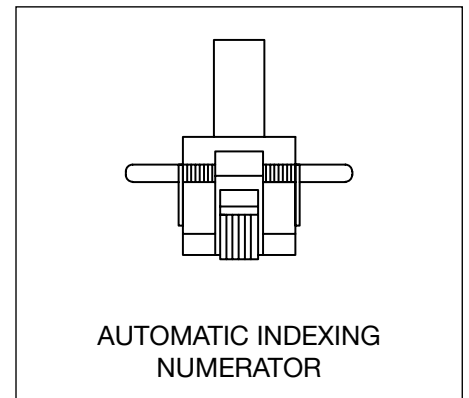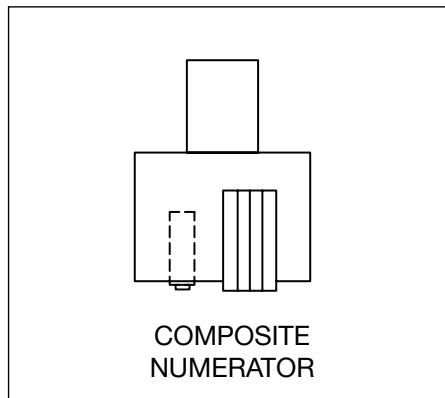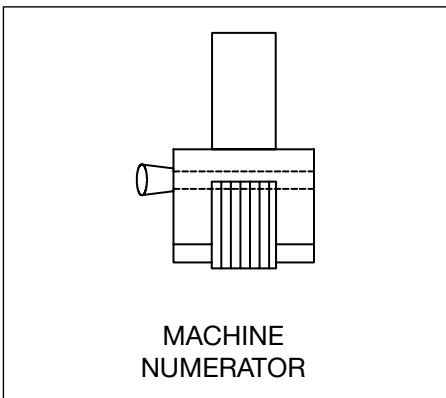
HAND HELD ROTARY TYPE NUMERATOR

PART NUMBER / BATCH NUMBER MARKING

MARKET SEGMENT

Sheet Metal industry DIE Casting Forging

Plastic Industry Lock and Key Battery Manufacturing

Appliances

PERFECT FOR PART NUMBERS OR CODE NUMBERS MAKING BY HAND STAMPING ON CASTING, STEEL, BRASS, ALUMINIUM.

SALIENT FEATURES OF BRADMA ROTARY TYPE NUMERATORS

> Each 'Marking wheel has 11 faces with 0 to 9 figures on 10 faces, and one face blank.

> Marking Wheel can be rotated to any desired position, then locked positively by a locking pin.

> Individual wheel release : One wheel can be released at a time, without disturbing set-up of other wheels (The locking pin can be pulled to release just that particular

SPECIAL ROTARY TYPE NUMERATORS

> Rotary Type Numerators with wheel combinations of Alpha-Numeric Wheels.

> Rotary Type Numerators with provisions to mark Logo / fixed Letters along with numbers.

> Special Numerators with Concave / convex wheels to Mark on Curved surfaces.

> Special wheels for Hot Stamping.

BRADMA RTN CODE NO. WITH HAND HOLDER	BRADMA RTN CODE NO. WITH MACHINE HOLDER	CHARACTER SIZE MM	CHARACTER SPACING MM	NO. OF WHEELS 0-9	MARKED LENGTH
6RTN 2	6RTN 2M	2	2	6	11.2
6RTN 3	6RTN 3M	3	3	6	16.8
6RTN 3	6RTN 4M	4	4	6	22.4
7RTN 4*	7RTN 4M*	4	4	7	26.4
5RTN 5*	5RTN 5M*	5	5	5	23.0
6RTN 5*	6RTN 5M*	5	5	6	28.0

AUTOMATIC ROTARY NUMERATOR

MARKET SEGMENT

Sheet Metal industry DIE Casting Forging

Plastic Industry Lock and Key Battery Manufacturing

Appliances

SERIAL NUMBER MARKING

SERIAL NUMBERS CAN BE MARKED ON METAL PARTS - IN A SIMPLE OPERATION. SPECIAL DESIGN ENSURES THAT NUMBERS ADVANCE ONE - AT - A TIME ACCURATELY AND AUTOMATICALLY.

SALIENT FEATURES OF BRADMA ROTARY TYPE NUMERATORS

- Wheels made from special Tool Steel
- Advancing cams machined into solid wheels
- Cam material as durable as stamping characters
- Extra wide unit wheel for longer life
- One - piece actuating pawl machined from solid bar
- Direct - reading characters to check set-up
- No rivetted assembly - easy to dismantle and clean by user
- Unique design of holding catch and springs

SPECIAL AUTOMATIC ROTARY NUMERATORS

- Automatic Rotary Numerators with more than 10 wheels
- Numerators with Alpha - Numeric and / or special wheel combination
- Concave / Convex Numerators for Curved Surfaces
- High Performance Numerators for longer life
- Composite Numerators with provision to mark Logo or Repeated fixed data along with serial numbers
- Numerators for marking at Red Hot temperature or Numerator with Heating arrangement
- Numerators with special Calligraphy

SAMPLE VARIETIES OF STAMP MARKS

IMPACT PRESS
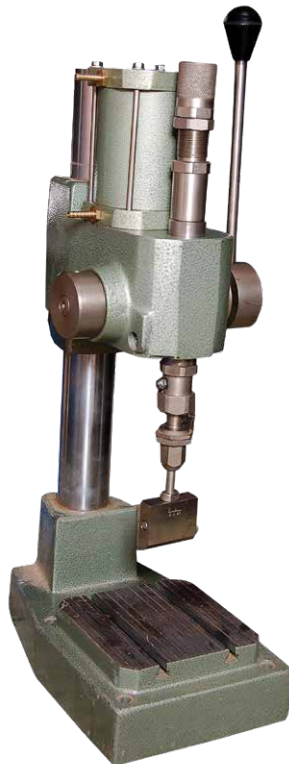
MARKET SEGMENT

Sheet Metal industry   Die and Mould   Casting

Lock and Key   Plastic Industry

- Easy - to - adjust impact force.
- Automatic compensation for different workpiece thickness (note: Airline Pressure is only compressing the spring - not for determining impact force).
- Highly versatile : Ideal for LIGHT ASSEMBLY WORK and for SHEET METAL WORK (Rivetting, flaring, Piercing, Shearing, Bending ..... plus many more operations).
- Can be used on high production lines.
- Lowest rejections - even in precision jobs.
- Far longer tool / die life !
- Adaptable for automation with approximate fixtures tools and dies.
- Tools with cylindrical shanks are clamped by a collet in tool-holder.
- Arm can be set and clamped at any height on the column.
- Fine-ground working table surface with T-slots for speedy fitting of work - holding fixtures.

Specifications

	IP28PN	IP28H
CAPACITY	2.5 T	2.8 T
DAYLIGHT	273 mm	273 mm
THROAT	140 mm	140 mm
TABLE SIZE	160 X 160 mm	160 X 160 mm
COLUMN	60 mm dia	60 mm dia
COLLET	10 mm	10 mm
AIR LINE PRESSURE	5 kg / sq cm	--
NETT WEIGHT	60 kg	55 kg

METAL LABEL MARKER

LABEL /
PLATE
MARKING

- Perfectly marks Aluminium, Brass, Steel labels and tags perfectly.
- Effective in marking into windows of pre-printed label.
- Made of rugged cast iron frame, specially hardened ground steel components.
- Ideal for wide range of label sizes.

MARKET SEGMENT

Label Marking
(All of material)

Name Plate
Marking

VIN Punching
Machine

BRADMA CODE	CHARACTER SIZE
LM 40/1.6	1.6 MM
LM 40/2	2 MM
LM40/3	3 MM
LM40/4	4 MM

Specifications

Leaf gauge for multi-line labels. This special leaf-gauge can be custom-built to your individual need. It enables speedy alignment of each lines before marking!.... After marking a line, a leaf is flipped for immediate setting to mark in the next line! Stops for 2-lines labels Specially for 2-line marking, there are two stops (supplied with machine) to enables faster, accurate automatic alignment of each line before marking.

METAL LABEL MARKER

Features
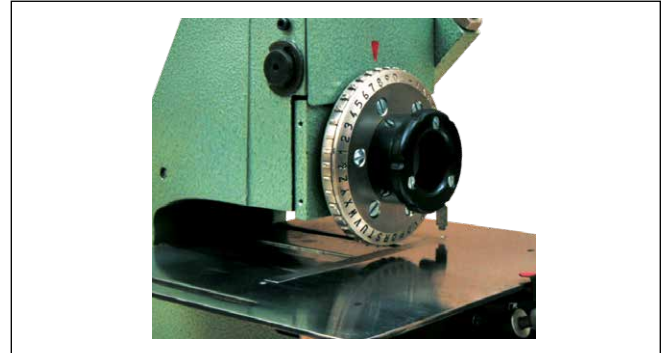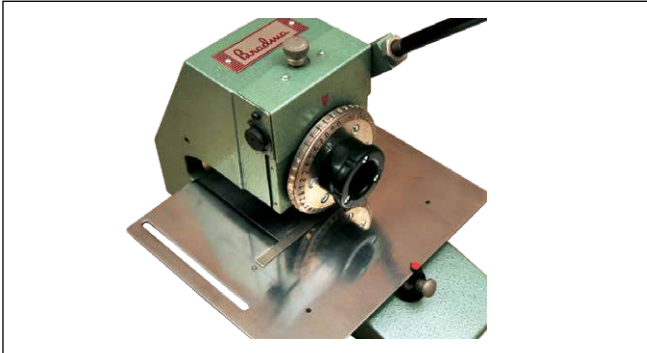
- MARKS WIDE RANGE OF LABELS/TAG Perfectly marks Aluminium, Brass, Steel....almost every metal (especially effective in marking into windows of pre-printed labels!)

- SHARP CLARITY SAYS 'HIGH QUALITY' All marked data is sharply clear and easy-to-read; accurately aligned, evenly spaced and uniformly deep.

- PRECISION ENGINEERED Has a rugged cast iron frame, specially hardened ground steel components and a unique dial wheel construction with interchangeable type inserts. Every feature is designed and engineered for long, trouble - free service.

- VERSATILITY ideal when a wide range of label sizes need marking, when marking data varies, and when short production runs are required.

- LOW COST TOO Remember, this Bradma Diehard Metal Label Marker is a HIGH PRECISION TOOL Which means virtually no label spoilage, virtually no rejections. Result: Marking cost is considerably lower that by tedious unrelable hand - stamping methods.

ENGINEERED FOR LONG LIFE AND LASTING PRECISION !
so easy to operate ! Takes just a few minutes on the machine to know to operate it!
BASIC 5-STEP OPERATION

1. Simply set for marking depth.
2. Locate label on marking table.
3. Rotate dial wheel to select the character to be marked.
4. Depress operating handle to mark label.
5. Release operating handle - and the table automatically advances the label to the next marking position.

Specifications

LABEL CAPACITY	upto 100 mm deep and 200 mm wide
LABEL THICKNESS	0.3 mm to 2.5 mm 10 mm minimum and 95 mm maximum from top edge of label
MARKING LIMITS	10 mm minimum and 95 mm maximum from top edge of label
TABLE SIZE	240 X 90 mm
TABLE TRAVEL	125 mm from right to left
CHARACTERS ON DIAL WHEEL	A thru' Z
DIAL WHEEL	0 thru' 9 . - / &
NETT WEIGHT	15 kg.

ROLL MARKING MACHINE

PIPE / ROD MARKING

- Ideal for marking cylindrical (Solid or Hollow) components of Steel, Aluminium, Brass etc.
- Low set up time, easy operation, high output rates, robust construction, low cost.
- Marking depth is precisely set by adjusting the vertical dovetail slide, which can then be locked at any position for repetitive work.
- Choice of Hydraulic, Pneumatic and hand held – to suit various marking requirement.

MARKET SEGMENT

Circular Jobs

Pipes and Fitting
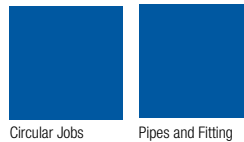
- Ideal for marking cylindrical (Solid or hollow) components of Steel, Aluminium, Brass, etc. using Bradma interchangeable Steel Types and marking Dies.
- Perfect for marking such specific components as drills, taps, engine valves, spark plugs, cutting tools, diamond tools, bushes, nozzles, sanitary fittings, hose end fittings, gas lighters and studs.
- Outstanding benefits : Low set -up time. Easy operation. High output rates. Robust construction low costs (uses standard tooling).

- The Steel Types or stamp marks are mounted in holder fixed to the machine carriage.
- A simple hand lever operates the carriage producing a uniform, legible marking.
- Marking depth is precisely set by adjusting the vertical dove-tail slide, which can't then be locked any position for repetitive work.
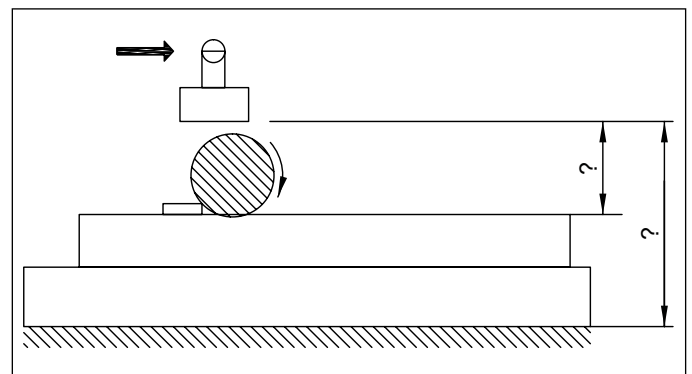
Note: The length of inscription, size of characters number of lines and depth of impression are interrelated and also depend on the hardness of the material being marked.

ACCESSORIES
Anvil, Roller Cradle, Stud Arbour, Type Holder.

ANVIL
Components to be marked can be placed either
on the Anvil
or directly on the Bed.

PRINCIPLE OF OPERATION

ROLL MARKING MACHINE

TYPE	CHARACTER SIZE MM	MARKING DIE TO ANVIL 'A'		MARKING DIE TO BED 'B'		MARKING DIE TO ANVIL 'A'		MARKING DIE TO 'B'	
		MAX. MM	MIN. MM	MAX. MM	MIN. MM	MAX. MM	MIN. MM	MAX. MM	MIN. MM
T010	1.00	34	0	69	29	84	50	119	79
T062	1.59 (1/16")	43	0	78	38	93	50	128	88
T020	2.00	34	0	69	29	84	50	119	79
T093	2.40 (3/32")	40	0	75	35	90	50	125	85
T030	3.00	34	0	69	29	84	50	119	79
T125	3.18 (1/18")	40	0	75	35	90	50	125	85
T040	4.00	34	0	69	29	84	50	119	79

Features
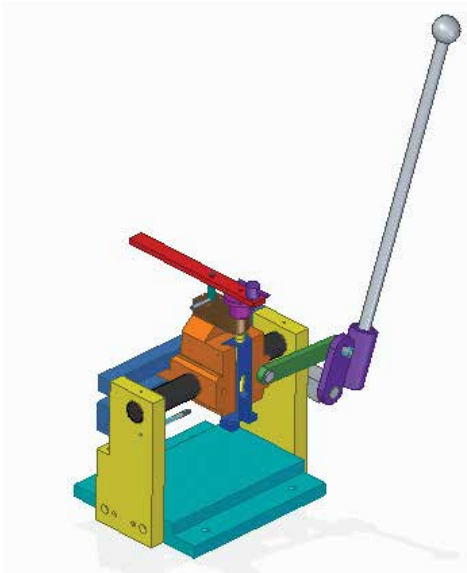
MARKING CAPACITY (IN MILD STEEL)	MODEL RH 10 — 1 Line of 3 mm Characters / 2 Lines of 1/16" Characters	MODEL RH 15 — 1 Line of 3mm Characters / 2 Lines of 1/16" Characters
DIE SLIDE STROKE	125 mm	125 mm
VERTICAL MOVEMENT	40 mm	40 mm
CAPACITY- BASE TO DIE FACE	69 mm	119 mm
HEIGHT	350 mm	400 mm
WIDTH	270 mm	270 mm
LENGTH	320 mm	320 mm
NETT WEIGHT	30 kg	33 Kg

Roller Cradles

> These support and position Solid, round components or thick-walled tubing for peripheral marking

> During the marking operation, the type holder or marking die rolls over the periphery of the component, causing it to rotate in the cradle.

Specifications

ROLLER CRADLE CODE NO.	MODEL RH 10 — USED FOR MARKING DIA. RANGING BETWEEN		MODEL RH 15 — USED FOR MARKING DIA. RANGING BETWEEN	
	MIN.	MAX.	MIN.	MAX.
RC 1	6 mm	20 mm	-	-
RC 2	12 mm	35 mm	-	-
RC 3	-	-	25 mm	55 mm
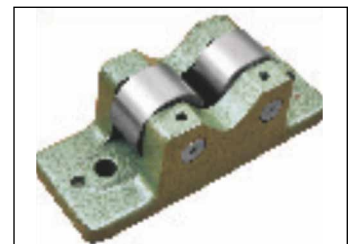
ROLL MARKING MACHINE

Stud Arbour

> This provides internal support to hollow, round components allowing them to rotate freely during marking.

> Generally, thin-walled components require close-fitting studs to avoid distortion due to marking: while thick-walled components do not necessarily require close-fitting studs.

> Hollow, round components with stepped outer diameters can also be marked with the Stud Arbour.

Type Holders

These guarantee accurate type position, positive locking and durability.

HOLDER CAPACITY - NUMBER OF TYPES (TYPE SIZE MM)

HOLDER CODE NO.	TYPE SIZE (mm)						
	1.00	1.59 (1/16")	2.00	2.40 (3/32")	3.00	3.18 (1/18")	4.00
8 R 10 20	20		10		6		5
8 R 10 40	40		20		13		10
R R 10 60			30		20		15
125 R 10 1000		16					
125 R 10 2000		32					
250 R 10 1000				10		8	
250 R 10 2000				20		16	
250 R 102 L 1000		*24					
250 R 102 L 2000		*56					

SPECIAL ODD SHAPED COMPONENTS ALSO CAN BE MARKED WITH RP - 50 OR RH - 200

PNEUMATIC MARKING MACHINE

RH30

RP50
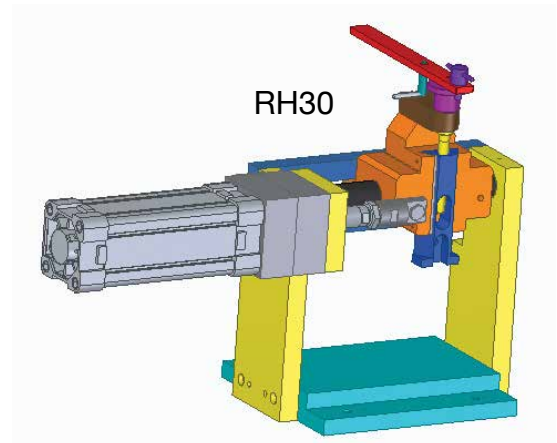
- Ideal for marking cylindrical (Solid or Hollow) components of Steel, Aluminium, Brass etc.

- Perfect for marking such specific components as drills, taps, engine valves, spark plugs, cutting tools, diamond tools, bushes, nozzles, sanitary fittings, hoses end fittings and studs.

- Low set -up time. Easy operation. High output rates. Robust construction.

- Bradma Interchangeable Steel Types or stamp marks can be mounted in holder fixed to the machine carriage.

- Hand/ Pneumatic/Hydraulic mechanisms operate the carriage producing a uniform, legible marking.

- Marking depth is precisely set by adjusting the vertical adjustable slide (for Pneumatic and Hydraulic machines only)

Roll Marking Machine model	Operation	Die Slide Stroke (mm)	Vertical Movement (mm)	Max Daylight (Table to Die mountingface) (mm)	Nominal Force (kg)	Powerpack motor	Overall Size (L X B X H) mm
RP30	Pneumatic	100	NA	125	200	NA	650 X 275 X 450
RP50	Pneumatic	75	15	300	500	NA	650 X 400 X 850
RP100	Pneumatic	60	20	350	500	NA	750 X 450 X 1500

PNEUMATIC AND HYDROLIC MARKING MACHINE

MODEL RH 200

Large OD Components Marking / Deep Marking

MARKET SEGMENT

More Torque   Pipes and Fitting

Features

- Easy to operate
- Automatic compensation for variation in workpiece diameters.
- Rigidly fabricated, reinforced steel frame.
- Stress relieved.
- Can mark round workpiece upto 200 mm diameter.
- Can mark flat workpiece upto 170 mm thickness.
- Open back permits marking of long bars.
- Serial numbers can be marked with automatic indexing.
- Can make upto 4 lines of 6 mm characters, or 8 lines of 3mm characters.
- Ample daylight permits extensive use of fixturing and tooling for almost all shapes and sizes of components.
- Electrically - controlled hydraulic operations: hydraulic cylinders operate table and marking die slide.
- Table pressure controls depth of mark : ensuring uniform depth.
- One master foot-pedal control for operating table and die slide cylinders in proper sequence.
- Specially designed cylinder fitted with hardened bearing.

Roll Marking Machine model	Operation	Die Slide Stroke (mm)	Vertical Movement (mm)	Max Daylight (Table to Die mountingface) (mm)	Nominal Force (kg)	Powerpack motor	Overall Size (L X B X H) mm
RH200	Hydraulic	75	10	150	2000	3HP/1450 RPM/440V/3Ph	1025 X 675 X 1500

PNEUMATIC AND HYDROLIC MARKING MACHINE

RH 200

Features

- Rigidly fabricated, reinforced, stress relieved steel frame.
- Can mark round workpiece upto 200 mm diameter.
- Open back permits marking of long bars.
- Ample daylight permits extensive use of fixturing and tooling for almost all shapes and sizes of components.
- Electrically controlled hydraulic operations: hydraulic cylinders operate table and marking die slide.
- Table pressure controls depth of mark : ensuring uniform depth.
- One master foot-pedal control for operating table and die slide cylinders in proper sequence.
- Specially designed double rod cylinder for die slide.

Specifications

- Die Slide Stroke = 75 mm
- Vertical Slide stroke = 10 mm
- Max Daylight (Table to Die mounting face) = 150 mm
- Power Pack motor = 3HP/1450 RPM/440V/3Ph
- Overall dimensions = 1025 mm X 675 mm X 1500 mm

RP 100

Features

- Auto feeding of parts from Bowl Feeder.
- Linear Feeder with singling arrangement.
- Automatic positioning in special cradle and marking
- Poka yoke for wrong orientation of component.
- Auto ejection of marked components in to out put Tray

Specifications

- Cycle time = 3 sec.
- Bowl feeder refilling time = 1 hour
- Die stroke = 60 mm
- Vertical Stroke = 20 mm

SPECIAL APPLICATIONS

KEYS TRACEABILITY SOLUTION

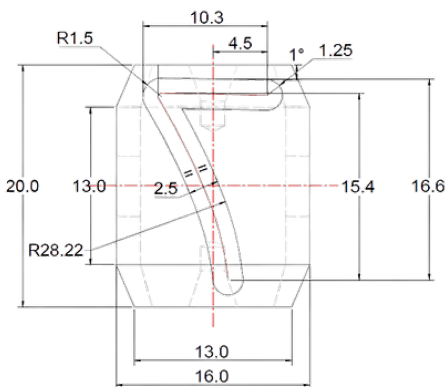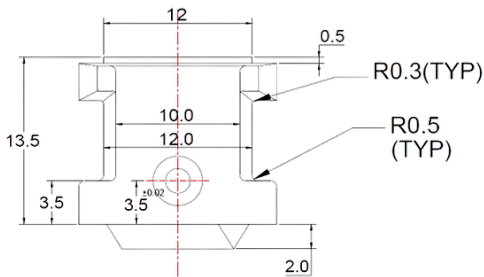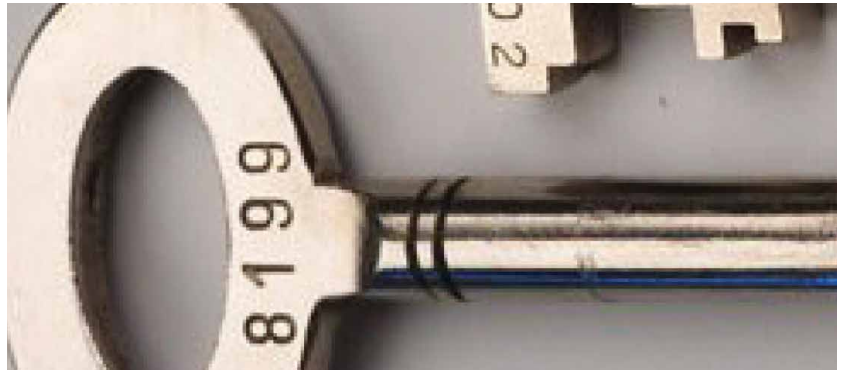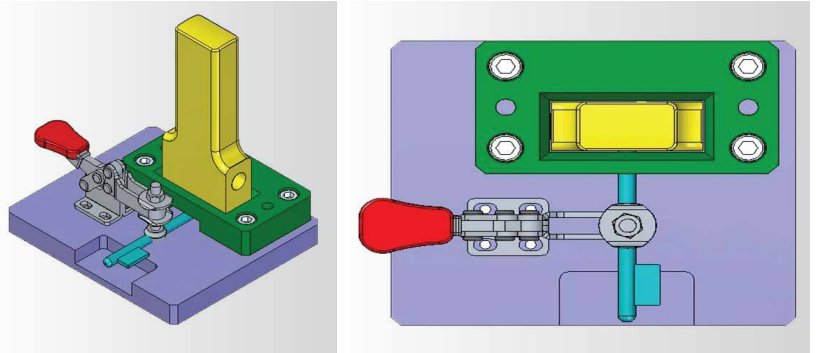### Application

Unique Combination number marking on keys and similar items.

Features

> Simple in Operation

> Economical solution

> Compatible with Standard IST and Holder

> 2mm Font size, Maximum 12 digits

> Any Unique number combination can be marked

Industry Applications

> Banks (Locker keys marking towards RBI mandate)
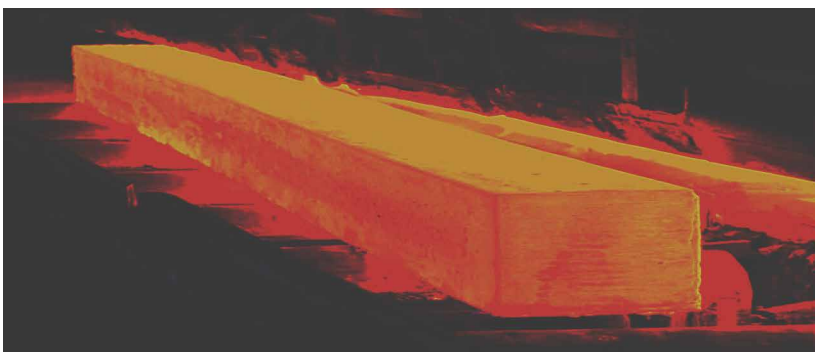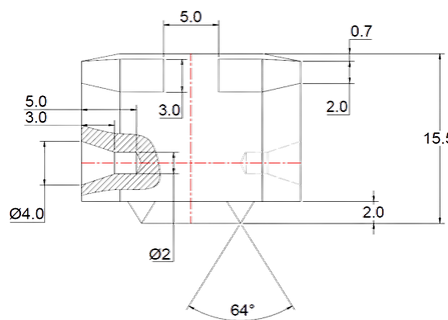
> Key manufacturers

HOT PUNCH

Application

Hot Billets
Hot Rolled Sections

Features

> Suitable for Surface Temperature Up To 900°C

> Special Punch Material Suitable for High Temperature

SPECIAL APPLICATIONS

CRIMP TYPE IST

Application

Suitable for product numbering, batch & date Coding, etc. on Toothpaste, Tablet strips, Sachets, Tetra packs etc.

Features

- Character Accurately Positioned on Shank
- Can be easily Composed in Holders Suitable for Hand or Machine Operation
- Plated to Resist Rust.
- Overall Length Controlled - Uniform Depth
- All dimensions are to very close tolerances, for the clearest uniform impression in perfect alignment

PARAMETERS FOR DESIGN

- Component Material
- Component Hardness (HRc)
- Punch Material required (Optional)
- Punch Hardness required (HRc) (Optional)
- Quantity required
- Type of Punch required (HHP/IST/Stamp Mark/Radius)
- Punching Data (Letters)
- Font Size (mm)
- Engraving depth required (mm)

- Blank Size (L X W X D) mm
- Dotted required ?
- Female Punch required ?
- Reverse Lettering required ?
- Any Logo required ? (If dxf file for logo is not given, drawing making delay may be possible)

Forbes & Company Limited

CORPORATE OFFICE
Forbes' Building, Charanjit Rai Marg,
Fort, Mumbai - 400 001, Maharashtra, India.
Telephone: +91 22 61358900

FACTORY
B-13, MIDC, Waluj,
Chhatrapati Sambhajinagar – 431133
Telephone: +91 240 2553421

For enquiry: sales@forbes.co.in I **For feedback:** feedback@forbes.co.in
Website: www.forbes.co.in

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