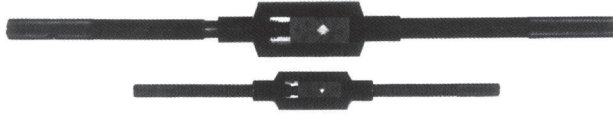


ADJUSTABLE TAP & REAMER WRENCH



**DUCTILE BODY
STEEL HANDLE**

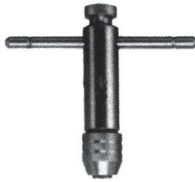
**DIE-CASTING BODY
STEEL HANDLE**

High Class Standard Class

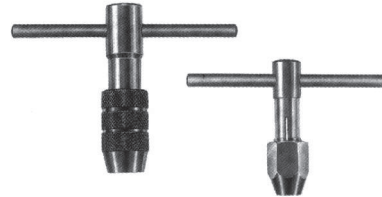
IMPA	Capital No.	Capacity (Size)		Nominal Size	Length	Net Weight
		Hand Taps	Pipe Taps			
633401	0	1/16" - 1/4"		1/4"	7"	100g
633402	4	1/16" - 3/8"	1/8"	3/8"	9	150g
633403	5	3/16" - 1/2"	1/8" - 1/4"	1/2	11	250g
633404	6	1/4" - 3/4"	1/8" - 3/8"	3/4"	15	500g
633405	7	3/8" - 1"	1/8" - 3/4"	1"	19	1000g
633406	7 1/2	5/8" - 1 1/4"	1/4" - 1 1/8"	1 1/4	31	3600g
633407	8	3/4" - 1 1/2"	3/8" - 1 1/4"	1 1/2	40	5650g
633408	10	7/8" - 2"	1" - 2"	2	45	5980g
633409	22	1" - 2 3/4"	1" - 2 1/2"	2 3/4"	50	6540g
633410	24	1 3/4" - 4"	2" - 3 1/2"	4	75	11250g

TAP HOLDER

With 2 jaw of hardened and tempered steel all chrome plated finish or black finish for "Heavy Duty Operation"



Ratchet Type

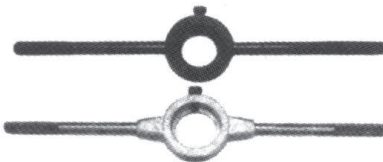


Spring Type

Capital No.	Capacity (Size) Hand Types	(Size) No. Dia of inch	Capacity Size M/M Taps	Weight
R1	1/8" - 3/8"	3/8"	M3 - M10	220g
R2	7/32" - 1/2"	1/2"	M5 - M12	300g

IMPA	Capital No.	Capacity (Size) Hand Types	(Size) No. Dia of inch	Capacity Size M/M Taps	Weight
633411	S1	1/16" - 3/16"	3/16"	M1 - M5	80g
633412	S2	5/32" - 1/4"	1/4"	M3 - M6	110g
633413	S3	3/16" - 3/8"	3/8"	M5 - M10	200g
633414	S4	1/4" - 1/2"	1/2"	M6 - M12	320g

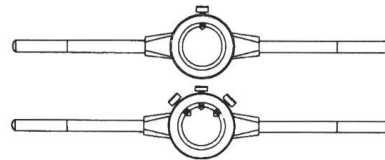
STOCK FOR ROUND DIES



Steel



Die-casting body steel handle



Type A



Type B

IMPA	No.	Outside diameter of Round Dies		Length			Net Weight
				Steel	Die-casting body steel handle	Cast iron body steel handle	
633421	S-1950	5/8	(15.8mm)	7 9/32 (185mm)	7 15/32(190mm) } Die Casting Handle ⌀8 55/64(255) ⌀7 23/84(187)		100g
633422	S-1951	13/16	(20mm)	7 9/32 (185mm)			100g
633423	S-1952	1	(25mm)	7 9/32 (185mm)			100g
633424	S-1955	1 1/2	(38mm)	12 13/64 (310mm)	12 (305mm)	12 (305mm)	370g
633425	S-1958	2	(50mm)	15 3/4 (400mm)	14 9/16 (375mm)	15 23/64 (390mm)	700g
633426	S-1959	2 1/4	(57mm)			18 1/2 (470mm)	1200g
633427	S-1960	2 1/2	(63mm)			21 1/16 (535mm)	1400g
633428	S-1961	2 3/4	(70mm)			21 29/64 (545mm)	1600g
633429	S-1962	3	(75mm)			21 27/32 (555mm)	1800g
633430	S-1963	4	(100mm)			35 27/64 (900mm)	4000g
633432	S-1964	5	(127mm)			49 7/32 (1250mm)	7500g
633433	S-1965	1 5/8	(42mm)			16 (400mm)	600g
633435	S-1954	1 5/16	(33mm)			12 (305mm)	210g

CUTTING TOOLS

BRAZED TOOL

10



IMPA	WIDIA	Style 211.41	10
		Shank Size	Ordering No
633001A	211 41 100	1010	10 - 10
633001	211 41 112	1212	10 - 12
633002	211 41 116	1610	10 - 16
633003	211 41 120	2012	10 - 20
633004	211 41 125	2516	10 - 25

35



IMPA	WIDIA	DIN 4975	35
		Shank Size	Ordering No
632729	210 75 616	1610	35 - 2
632730	210 75 620	2012	35 - 3
632731	210 75 625	2516	35 - 4
632732	210 75 632	3220	35 - 5
632733	210 75 640	4025	35 - 6

31



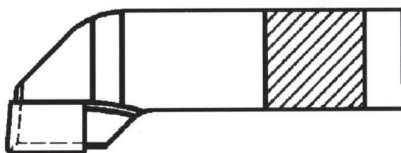
IMPA	WIDIA	ISO 1	31 RH	LH 32	IMPA	WIDIA
		Shank Size	Ordering No			
632701A	210 71 110	1010	31 - 0	32 - 0		210 71 210
632701	210 71 112	1212	31 - 1	32 - 1	632707	210 71 212
632702	210 71 116	1616	31 - 2	32 - 2	632708	210 71 216
632703	210 71 120	2020	31 - 3	32 - 3	632709	210 71 220
632704	210 71 125	2525	31 - 4	32 - 4	632710	210 71 225
632705	210 71 132	3232	31 - 5	32 - 5	632711	210 71 232

36

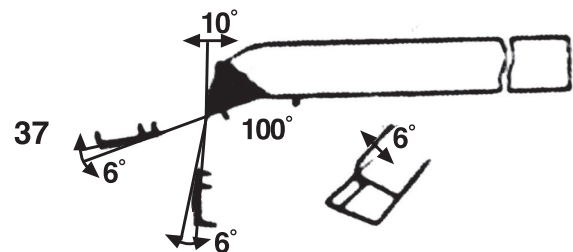


IMPA	WIDIA	Style 211.61	36
		Shank Size	Ordering No
632734	211 61 510	1010	36 - 0
632735	211 61 512	1212	36 - 1
632736	211 61 516	1616	36 - 2
632737	211 61 520	2020	36 - 3
632738	211 61 525	2525	36 - 4
632739	211 61 532	3232	36 - 5

33



IMPA	WIDIA	ISO 6	33 RH	LH 34	IMPA	WIDIA
		Shank Size	Ordering No			
632713A	210 80 110	1010	33 - 0	34 - 0	632720	210 80 210
632713	210 80 112	1212	33 - 1	34 - 1	632721	210 80 212
632714	210 80 116	1616	33 - 2	34 - 2	632722	210 80 216
632715	210 80 120	2020	33 - 3	34 - 3	632723	210 80 220
632716	210 80 125	2525	33 - 4	34 - 4	632724	210 80 225
632717	210 80 132	3232	33 - 5	34 - 5	632725	210 80 232
632718	210 80 140	4010	33 - 6	34 - 6	632726	210 80 240
632719	210 80 150	5050				210 80 250



IMPA	Shank Size	37 RH	LH 38	IMPA	Shank Size
		Ordering No			
632741	12 x 12	37-1	38-1	632747	12 x 12
632742	16 x 16	37-2	38-2	632748	16 x 16
632743	20 x 20	37-2	38-3	632749	20 x 20
632744	25 x 25	37-4	38-4	632750	25 x 25

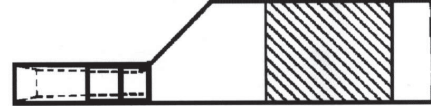
BRAZED TOOL

39



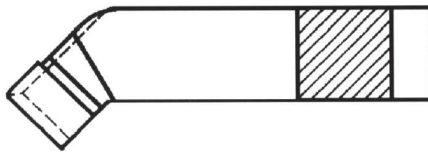
IMPA	WIDIA	Style 211.71	39 RH	LH 40	IMPA	WIDIA
		Shank Size	Ordering No			
632753	211 71 110	1010	39 - 0	40 - 0	632760	211 71 210
632754	211 71 112	1212	39 - 1	40 - 1	632761	211 71 212
632755	211 71 116	1616	39 - 2	40 - 2	632762	211 71 216
632756	211 71 120	2020	39 - 3	40 - 3	632763	211 71 220
632757	211 71 125	2525	39 - 4	40 - 4	632764	211 71 225

43



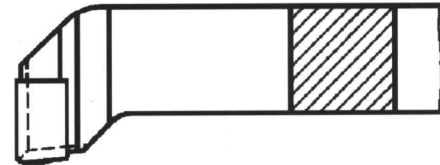
IMPA	WIDIA	ISO 7	43 RH	LH 43	WIDIA
		Shank Size	Ordering No		
632779	210 81 312	1208	43 - 1	43L - 1	210 81 412
632780	210 81 316	1610	43 - 2	43L - 2	210 81 416
632781	210 81 320	2012	43 - 3	43L - 3	210 81 420
632782	210 81 325	2516	43 - 4	43L - 4	210 81 425
632783	210 81 332	3220	43 - 5	43L - 5	210 81 432

41



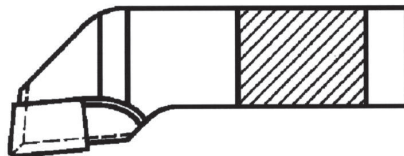
IMPA	WIDIA	ISO 2	41 RH	LH 42	IMPA	WIDIA
		Shank Size	Ordering No			
632767A	210 72 110	1010	41 - 0	42 - 0		210 72 210
632767	210 72 112	1212	41 - 1	42 - 1	632773	210 72 212
632768	210 72 116	1616	41 - 2	42 - 2	632774	210 72 216
632769	210 72 120	2020	41 - 3	42 - 3	632775	210 72 220
632770	210 72 125	2525	41 - 4	42 - 4	632776	210 72 225
632771	210 72 132	3232	41 - 5	42 - 5	632777	210 72 232

47



IMPA	WIDIA	ISO 5	47 RH	LH 48	IMPA	WIDIA
		Shank Size	Ordering No			
632794	210 77 112	1212	47 - 1	48 - 1	632798	210 77 212
632795	210 77 116	1610	47 - 2	48 - 2	632799	210 77 216
632796	210 77 120	2020	47 - 3	48 - 3	632801	210 77 220
632797	210 77 125	2525	47 - 4	48 - 4	632802	210 77 225
	210 77 132	3232				210 77 232
	210 77 140	4040				210 77 240
	210 77 150	5050				210 77 250

45



IMPA	WIDIA	ISO 3	45 RH	LH 46	IMPA	WIDIA
		Shank Size	Ordering No			
632785	210 78 312	1212	45 - 1	46 - 1	632790	210 78 412
632786	210 78 316	1610	45 - 2	46 - 2	632791	210 78 416
622787	210 78 320	2012	45 - 3	46 - 3	632792	210 78 420
632788	210 78 325	2516	45 - 4	46 - 4	632793	210 78 425
	210 78 332	3220				210 78 432
	210 78 340	4025				210 78 440
	210 78 350	5032				210 78 450

49

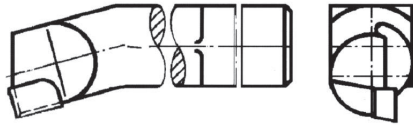


IMPA	WIDIA	Style 211.11	49 RH	LH 50	IMPA	WIDIA
		Shank Size	Ordering No			
632803	211 11 112	1212	49 - 1	50 - 1	632807	211 11 212
632804	211 11 116	1616	49 - 2	50 - 2	632808	211 11 216
632805	211 11 120	2020	49 - 3	50 - 3	632809	211 11 220
632806	211 11 125	2525	49 - 4	50 - 4	632810	211 11 225

CUTTING TOOLS

BRAZED TOOL

51



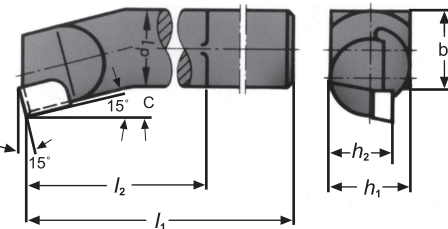
IMPA	WIDIA	DIN 4973 Shank Size	51 RH Ordering No	LH 52	IMPA	WIDIA
	210 73 510	10	51 - 0	52 - 0		210 73 610
632811	210 73 512	12	51 - 1	52 - 1	632815	210 73 612
632812	210 73 516	16	51 - 2	52 - 2	632816	210 73 616
632813	210 73 520	20	51 - 3	52 - 3	632817	210 73 620
632814	210 73 525	25	51 - 4	52 - 4	632818	210 73 625

65



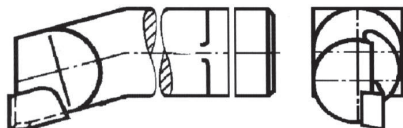
IMPA	WIDIA	ISO 4 Shank Size	65 Ordering No.
	210 76 510	1010	65 - 10
	210 76 512	1012	65 - 12
633119	210 76 516	1616	65 - 16
633120	210 76 520	2020	65 - 20
633121	210 76 525	2525	65 - 25
633122	210 76 532	3232	65 - 32

40



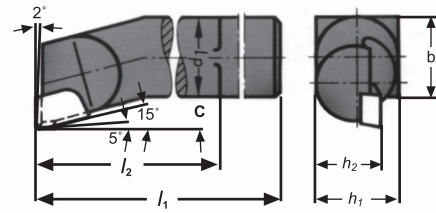
IMPA	WIDIA	ISO 8
633051	211 73 512	40 - 12
633052	211 73 516	40 - 16
633053	211 73 520	40 - 20
633054	211 73 525	40 - 25

41



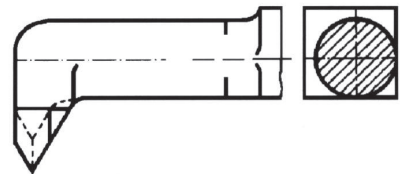
IMPA	WIDIA	DIN 4974 / ISO 9 Shank Size	41 Ordering No
	210 74 510	1010	41 - 10
633056	210 74 512	1212	41 - 12
633057	210 74 516	1616	41 - 16
633058	210 74 520	2020	41 - 20
633059	210 74 525	2525	41 - 25
633060	210 74 532	3232	41 - 32

42



IMPA	WIDIA	ISO 9
633061	211 74 512	42 - 12
633062	211 74 516	42 - 16
633063	211 74 520	42 - 20
633064	211 74 525	42 - 25

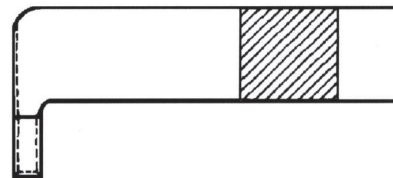
52



52

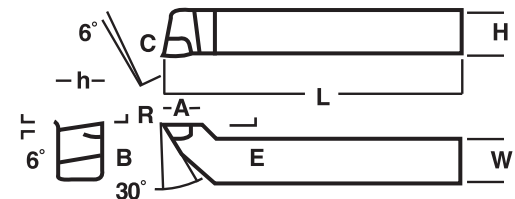
IMPA	WIDIA	Style 211,21 Shank Size	52 Ordering No
613070	211 21 510	1010	52 - 10
613071	211 21 512	1212	52 - 12
613072	211 21 516	1615	52 - 16
613073	211 21 520	2020	52 - 20
613074	211 21 525	2525	52 - 25

63



IMPA	WIDIA	Style 211,31 Shank Size	63 RH Ordering No	LH 63	IMPA	WIDIA
	211 31 110R	1010	63R - 10	63L - 10		211 31 210L
633101	211 31 112R	1212	63R - 12	63L - 12	633107	211 31 212L
633102	211 31 116R	1616	63R - 16	63L - 16	633108	211 31 216L
633103	211 31 120R	2020	63R - 20	63L - 20	633109	211 31 220L
633104	211 31 125R	2525	63R - 25	63L - 25	633110	211 31 225L

91



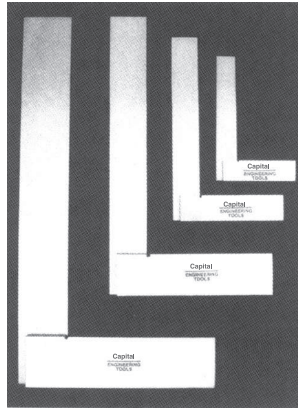
IMPA	Shank Size	ISO
632819	20 x 20	91 - 1
632820	25 x 25	91 - 2
632822	20 x 20	92 - 1
632823	25 x 25	92 - 2

ENGINEER'S PRECISION TOOLS

STEEL SQUARES

A grade squares - ACC BS 939 Grade II for squareness tolerance

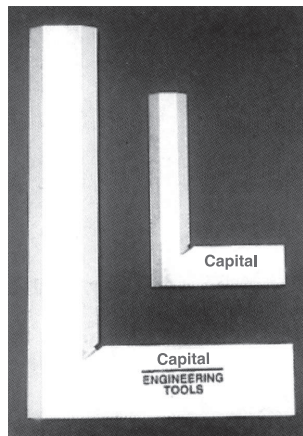
- Blade made from finest quality hardened spring steel
- Beam and blade ground for straightness & parallelism
- Squares have accurate right angles on inside & outside



IMPA	Art. Nr.	Blade Length For inner edge of beam to the end of the blade		Accuracy Limit for squareness	
		In	mm	mm	Microns
650966	SS/A/2	2	50	0.010	10
650967	SS/A/3	3	75	0.010	10
650968	SS/A/4	4	100	0.015	15
650970	SS/A/6	6	150	0.015	15
650971	SS/A/8	8	200	0.015	15
	SS/A/9	9	225	0.020	20
650972	SS/A/10	10	250	0.020	20
650973	SS/A/12	12	300	0.025	25
	SS/A/18	18	450	0.040	40
650976	SS/A/24	24	600	0.050	50
650977	SS/A/30	30	750	0.06	60
650978	SS/A/40	40	1000	0.07	70

STEEL SQUARES - BEVELLED EDGE

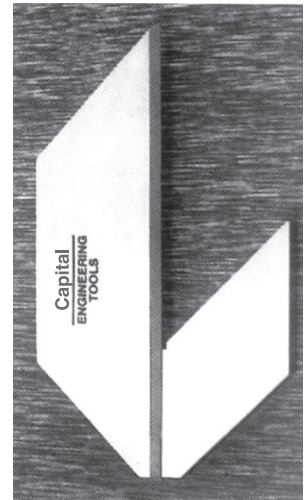
- Acc to BS 939 AA grade specifications
- Made from EN-31 steel hardened from 52-55 HRC
- Single piece construction
- Accurate right angles both on inside and outside
- Blade is bevelled on both the edges
- Used as a reference for squareness testing
- Sizes: 1" (25mm), 2" (50mm), 3" (75mm), 4" (100mm), 6" (150mm)



CENTRE SQUARES

- Made from tool quality alloy steel
- Blade hardened and tempered
- Designed for fast and accurate location of the centre of the face of a round bar or disc within the sizes mentioned
- As useful square for machinist's and tool makers

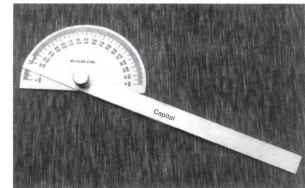
Art Nr.	Work Diameter	
	In	mm
CS/1	1 1/2	38
CS/2	3	75



DEGREE PROTRACTOR

- Graduate from 0° to 180° in opposite directions
- Adjustable arm set with knurled thumb nut
- Polished finish

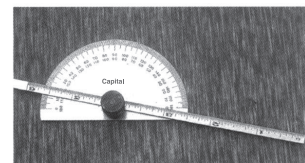
Art Nr.	Range	
	In	mm
DP/6	3 3/8 x 6	85 x 15



DEPTH GAUGE WITH PROTRACTOR

- Graduate from 0° to 180° in both directions
- The blade is adjustable throughout the length
- The blade is adjustable angularly to any desired angle for use as a protractor and also lengthwise when used as a depth gauge

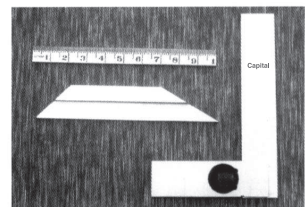
Art Nr.	Length	
	In	mm
PDG/6	6	150



ADJUSTABLE STEEL SQUARE

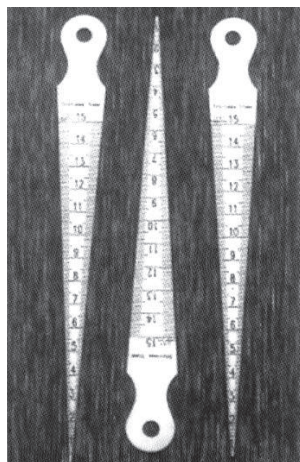
- Working faces are hardened and ground
- Stock can be set and locked in any position by an easy to operate knurled nut
- Very useful to check squareness in places where conventional squares cannot be used
- Supplied with two blades and a rule

Art Nr.	Blade Size	
	In	mm
AS/4	4	100



BORE GAUGE/ TAPER GAUGE

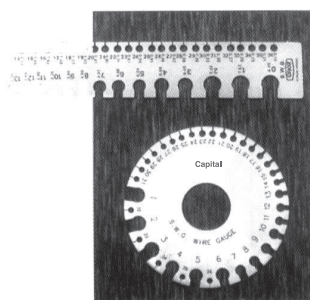
- For measuring of cylindrical bores
- Made from stainless steel
- Matt finish
- Graduations engraved for permanent use



Art Nr.	Range mm
BG/1-15	1 to 15

WIRE GAUGE - RECTANGULAR & ROUND

- Made from hardened steel
- Permanently deep etched graduations
- All gauges are surface ground
- Matt or bright finish
- Graduations in British and metric systems

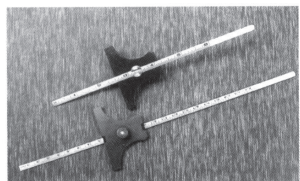


IMPA	Art Nr.	Type
650641	WG-R-6	Rectangular
650642	WG-RD-3	Round

DEPTH GAUGE

- Case hardened body
- Locking nut for fixing body at any distance
- Fitted with a narrow steel rule graduated on both sides, one side with metric and the other with imperial graduations
- Top and bottom locating faces are accurately ground so that body can be reversed on the rule for use in confined spaces.

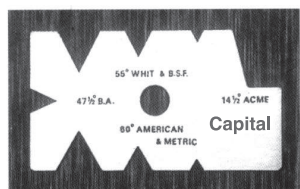
IMPA	Art Nr.	Blade Size	
		In	mm
650536	DG/6	6	150
650537	DG/8	8	200
	DG/9	9	225
650539	DG/12	12	300



SCREW CUTTING GAUGE

- Made from stainless steel in satin chrome finish
- Deep etched graduations
- All gauges are surface ground
- Accurate thread profiles 47 1/2° British Association and 14 1/2° Acme, 55° Whitworth and BSF, 60° American and metric

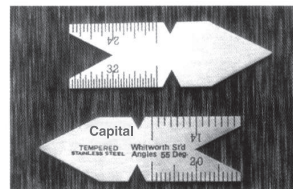
IMPA	Art Nr.	Specifications
650623/4	SCG-4714	47 1/2° and 14 1/2°



CENTRE GAUGE

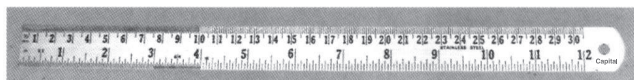
- Very handy gauge for grinding and setting thread cutting tools
- Made from stainless steel in satin chrome finish
- Permanently deep etched graduations
- Useful scale to find number of threads per inch by means of graduations in 14ths, 20ths, 24ths and 32nds of an inch
- Edge profile ground

IMPA	Art Nr.	Specifications
650631	CG-55	55° (Whitworth or English Standard)
650632	CG-60	60° (American National or US Standards)



STEEL RULES

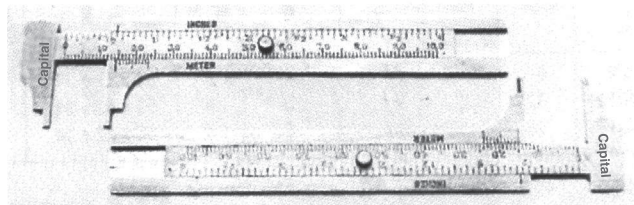
- Made from stainless steel
- Available in combined metric and imperial, and metric only sizes
- Graduated in 1/2mm and millimeters on the metric side. On imperial side graduations are in 1/16th, 1/32nd and 1/64ths.



IMPA	Art. Nr. Imperial & White combined	Art. Nr. Metric only	Length		Width	Thickness
			In	mm	mm	mm
650801	SR/6	SR/150	6	150	15	0.5
650802	SR/12	SR/300	12	300	25	0.5
	SR/18	SR/450	18	450	30	1.0
650803	SR/24	SR/600	24	600	30	1.0
650804	SR/40	SR/1000	40	1000	35	1.5
	SR/48	SR/1200	48	1200	35	1.5
650805	SR/60	SR/1500	60	1500	38	1.5
650806	SR/72	SR/2000	72	2000	45	1.5

BRASS CALIPER

- Caliper made from brass
- With metric and imperial graduations



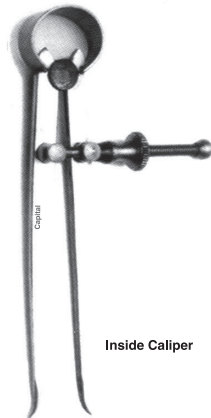
IMPA	Art Nr.	Length
650531	BC/ORD-75	80
650501	BC/ORD-100	115

SPRING CALIPERS AND DIVIDERS

- Made from carbon steel
- Polished finish
- Heat treated points
- Quick adjusting spring nut for quick and positive adjustments

Inside Caliper

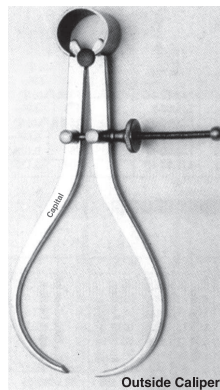
IMPA	Art Nr.	Size	
		In	mm
	ID/3	3	75
650171	ID/4	4	100
650173	ID/6	6	150
650174	ID/8	8	200
650175	ID/10	10	250
650176	ID/12	12	300



Inside Caliper

Outside Caliper

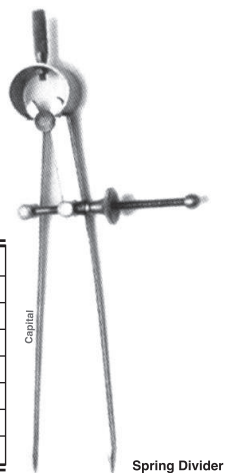
IMPA	Art Nr.	Size	
		In	mm
	OD/3	3	75
650121	OD/4	4	100
650123	OD/6	6	150
650124	OD/8	8	200
650125	OD/10	10	250
650126	OD/12	12	300



Outside Caliper

Spring Divider

IMPA	Art Nr.	Size	
		In	mm
650231	DD/3	3	75
650232	DD/4	4	100
650234	DD/6	6	150
650235	DD/8	8	200
650236	DD/10	10	250
650237	DD/12	12	300



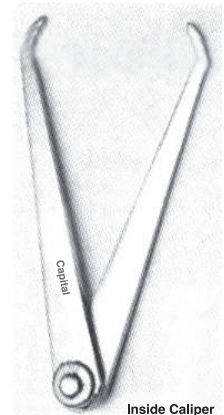
Spring Divider

FIRM JOINT CALIPERS

- Made from fine quality steel
- Tapered legs shaped to suit the purpose
- Legs are held together with a large head nut and screw with washer interposed between contacting faces to provide firm friction joint which is rigid and without play
- Nominal size is the distance between the centre of the nut to the point of the leg
- Nominal size is also the effective capacity

Inside Caliper

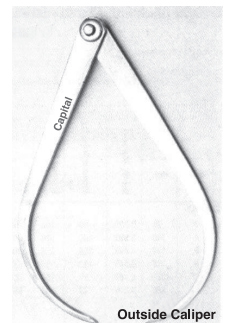
IMPA	Art Nr.	Size / Capacity	
		In	mm
650151	FJS/ID-4	4	100
650152	FJS/ID-5	5	125
650153	FJS/ID-6	6	150
650154	FJS/ID-8	8	200
650155	FJS/ID-10	10	250
650156	FJS/ID-12	12	300
650157/8	FJS/ID-15	15	375
650159	FJS/ID-18	18	450
650160	FJS/ID-24	24	600
650161	FJS/ID-36	36	900
650162	FJS/ID-48	48	1200



Inside Caliper

Outside Caliper

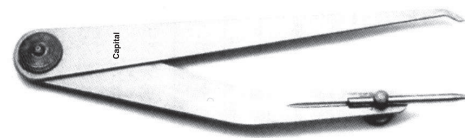
IMPA	Art Nr.	Size / Capacity	
		In	mm
650101	FJS/OD-4	4	100
650102	FJS/OD-5	5	125
650103	FJS/OD-6	6	150
650104	FJS/OD-8	8	200
650105	FJS/OD-10	10	250
650106	FJS/OD-12	12	300
650107/8	FJS/OD-15	15	375
650109	FJS/OD-18	18	450
650110	FJS/OD-24	24	600
650111	FJS/OD-36	36	900
650112	FJS/OD-48	48	1200



Outside Caliper

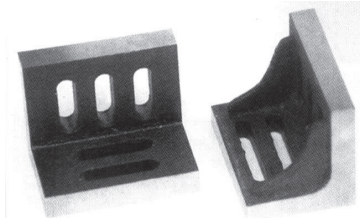
JENNY CALIPER

- Made from carbon steel with firm friction joint
- Adjustable hardened point
- Size 6"
- Art Nr. JC/6



ANGLE PLATES - SLOTTED

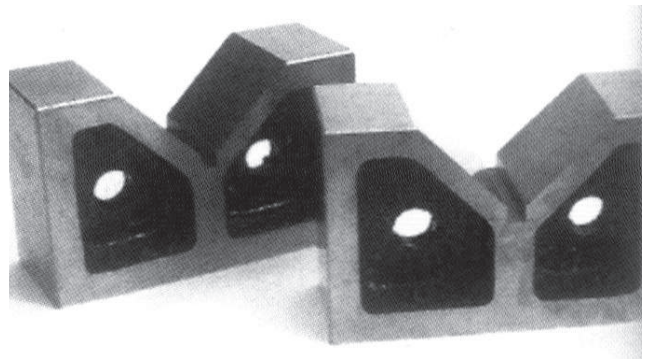
- Made from closed grained cast iron seasoned against distortion
- Accuracy: Flatness and squareness to within 0.002" per 6"
- Slots are milled for uniform size
- Available on
 - a) Webbed end:
 - Machined on outside surfaces and edges
 - b) Open end:
 - Machined all over except slots



Art Nr.	Length mm	Height mm	Width mm
Webbed End			
WE/3	89	75	62
WE/6	150	125	112
WE/8	200	150	125
WE/10	250	200	150
WE/12	300	225	200
Open End			
OE/3	89	75	62
OE/6	150	125	112
OE/8	200	150	125
OE/10	250	200	150
OS/12	300	225	200

V-BLOCKS

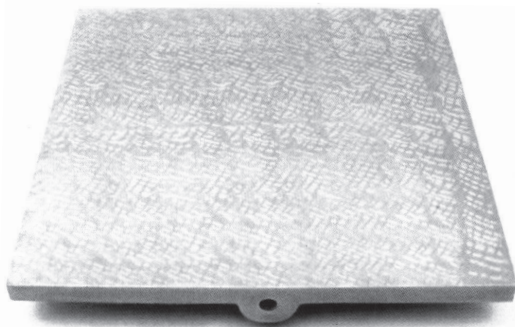
- Manufactured from high quality casting properly seasoned against distortion
- Accurately machined square parallel
- Matched pairs are numbered
- 90° Vee is accurately centered



IMPA	Art Nr.	A-Block mm	B-Block mm	C-Block mm	D-Thickness mm
651056	VB/C-3	75	45	60	33
651057	VB/C-4	100	56	65	40
651058	VB/C-5	125	62	78	50
651059	VB/C-6	150	78	88	62
651061	VB/C-8	200	113	140	100
	VB/C-10	250	125	165	125
	VB/C-12	300	128	200	150

SURFACE PLATES

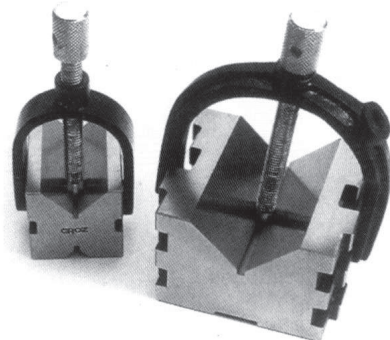
- Made from high quality closed grained cast iron, stress relieved against distortion
- Precisely finished by planning and hand scraping
- Surface accuracy 0.04 - 0.1mm



IMPA	Art Nr.	Length mm	Width mm	Height mm	Net Weight Kg (each)
651021	SFP/200-200-50	200	200	50	6.000
651023	SFP/250-250-50	250	250	50	8.000
651025	SFP/300-300-55	300	300	55	13.750
651027	SFP/400-400-55	400	400	55	28.500
651029	SFP/450-350-85	450	350	85	32.000
651030	SFP/450-450-85	450	450	85	37.500
651032	SFP/500-500-90	500	500	90	39.000
651034	SFP/600-600-90	600	600	90	72.500

V-BLOCKS AND CLAMPS - TOOL MAKERS

- V-Block properly heat treated and stabilised
- Precisely machined and ground to close tolerances
- Two blocks and two clamps (one pair) are supplied in one set



IMPA	Art Nr.	Length mm	Width mm	Height mm	Clamping Capacity
	VB/T-30	40	32	32	25
651051	VB/T-35	50	37	37	37
	VB/T-45	45	40	36	32
	VB/T-60	60	40	50	30
	VB/T-70	70	45	40	37
651052	VB/T-75	75	55	55	40
	VB/T-80	80	65	65	50
	VB/T-100	100	75	75	75

ENGINEER'S PRECISION TOOLS

SURFACE MARKING BLOCK - V-GROOVE

- Hardened steel base is ground and polished
- V-groove in base for cylindrical work
- Fine adjustment of spindle to any angle above or below base
- Front groove to allow spindle to be set above or below the base, enabling scriber to act as a depth gauge and a height gauge
- Two gauge pins in base for linear work



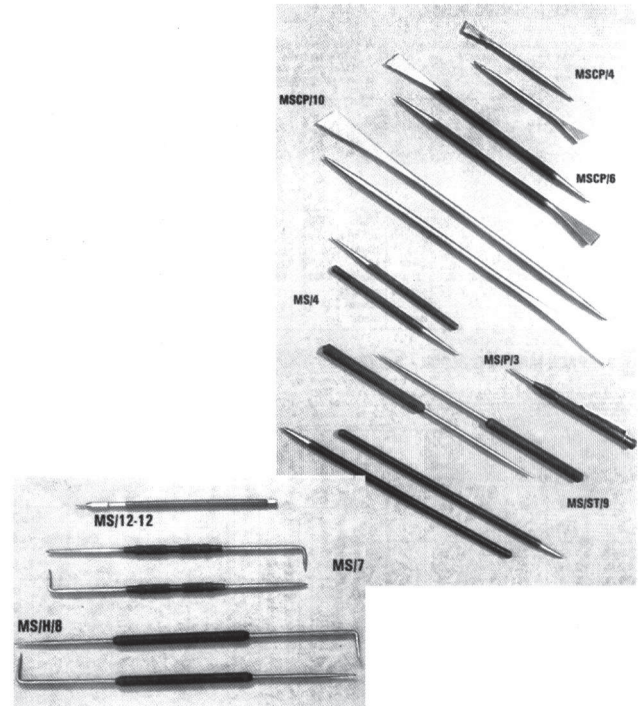
IMPA	Art Nr.	Base Dimensions mm	Spindle Length	
			In	mm
651111	SG/4-7	55 x 40 x 20	7" with extra 4" spindle	175mm with extra 100mm spindle
651114	SG/9-12	80 x 63x x25	12" with extra 9" spindle	300mm with extra 225mm spindle

SURFACE MARKING BLOCK - ROUND

- Round base made from close grained cast iron
- Very handy for simple marking operations

IMPA	Art Nr.	Diameter of base	Height of base	Length of rod	
		mm	mm	In	mm
651104	SG/RD-12	70	25	12	300
651106	SG/RD-16	70	25	16	400
651108	SG/RD-20	90	30	20	500

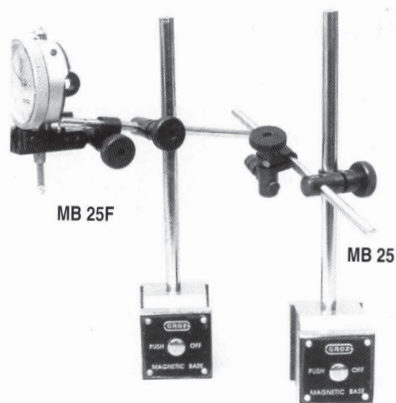
SCRIBERS



IMPA	Art Nr.	Length mm	Specifications	Applications
	MSCP/4	100	Pointed at one end & knife edge at opposite end	Marking & Scoring
	MSCP/6	170	Knurled body, pointed at one end and knife edge at opposite end	Marking & Scoring
	MSCP/10	250	Pointed at one end and knife edge at opposite end	Marking & Scoring
	MS/4	114	Single ended light duty scriber with knurled body	General marking jobs
	MS/ST/9	175	Single ended heavy duty	General marking jobs
	MS/8	190	Single ended scriber with knurled body	Marking & Scoring
	MS/12-12	150	Scriber with 12 interchangeable Alloy Steel Pins	Marking & Scoring
	MS/P/3	89	Scriber with hardened steel reversible point	Light marking in confined spaces
613265	MS/7	190	Double end scriber with knurled body	Marking & Scoring
613266	MS/H/8	230	Double ended scriber heavy duty, with knurled body	Heavy marking jobs in confined spaces, grooves etc.

MAGNETIC BASE - MEDIUM

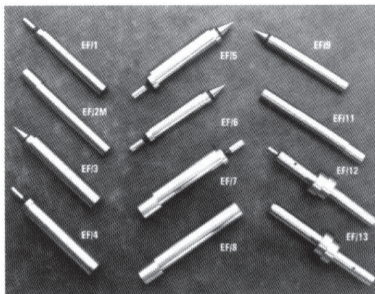
- Centre post for rigid mounting of dial indicator
- Easy push ON / OFF button
- Four ground surfaces to grip including V slot surface
- The base and two sides have magnetic pull
- Available with or without fine adjustment
- Magnetic pull 20 Kg.(approx.)



IMPA	Art Nr.	Overall Height mm	Base Dimensions mm
651426	MB25	240	48 x 48 x 41
651427	MB25F	240	48 x 48 x 41

EDGE FINDERS & CENTRE FINDERS

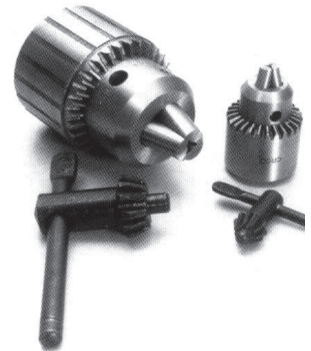
- Edge and centre finders are hardened all over and ground on all working surfaces. The edge finder works equally well on round or straight surfaces
- The centre finder will pick up crosslines to machine drill or bore holes to a layout
- The combination edge and centre finder is a handy tool as one instrument serves both purposes



Art Nr.	Tip Diameter mm	Shank Diameter mm	Type
EF/1	-	9	Edge Finder
EF/2M	10	-	Edge Finder - Metric
EF/3	-	12	Centre Finder
EF/4	5	12	Edge Finder
EF/5	5	12	Combination Edge and Centre Finder
EF/6	5	12	Combination Edge and Centre Finder
EF/7	5	12	Double Edge Finder
EF/8	12	12	Plain Ddge Finder
EF/9	-	9	Centre Finder
EF/11	-	9	Stepped Shank Edge Finder
EF/12	4	10	Edge Finder - Metric
EF/13	10	-	Edge Finder - Metric

DRILL CHUCKS

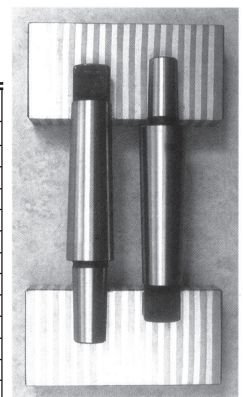
- Key operated guided jaw type
- Body made from special steel
- Sleeves made from special steel, heat treated and internally ground on 3 diameters
- Jaws also made from special steel, heat treated and toughened
- Screw rings hardened and ground
- Key hardened and blacked
- Available in threaded or tapered models
- Spare keys available



IMPA	Art Nr. Drill Chuck with key	Chuck Capacity	Chuck Mount /Mounting Threads	Overall Length Jaw Closed	Body Length Jaws Open	Body Dia
				mm	mm	
632334	DCK/20/0-6-5	0-6.5	IJT	53	41	31
	DCK/23/0-6-5	0-6.5	3.8-24	53	41	31
	DCK/33/1-5-10	1.5-10	3.8-24	62	50	37
	DCK/34/1-5-10	1.5-10	1.2-20	62	50	37
632337	DCK/31/1-5-10	1.5-10	2JT	80	83	48
	DCK/32/1-5-10	1.5-10	1.2-20	80	64	48
	DCK/42/1-5-13	1.5-13	1.2-20	79	64	48
	DCK/41/1-5-13	1.5-13	5.8-16	89	70	52
632338	DCK/40/0-13	0-13	6JT	89	70	52
	DCK/54/3-16	3-16	1.2-20	88	72	55
632340	DCK/52/3-16	3-16	3JT	87	78	62
	DCK/53/3-16	3-16	5.8-16	97	78	62
632341	DCK/61/5-20	5-20	3JT	107	87	66
	DCK/63/5-20	5-20	5.8-16	107	87	66
	DCK/62/5-20	5-20	3.4-16	107	87	66
632342	DCK/8.2/5-25	5.25	5JT	142	102	80

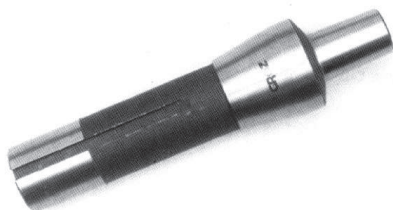
DRILL CHUCK ARBORS - TAPER SHANK

- Manufactured from tool steel
- Precision hardened and ground



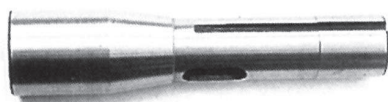
IMPA	Art Nr.	Shank Mount	Chuck Mount
632376	GAT-11	MT 1	1 JT
632377	GAT-12	MT 1	2 JT
632378	GAT-13	MT 1	3 JT
	GAT-133	MT 1	33 JT
	GAT-16	MT 1	6 JT
632378	GAT-21	MT 2	1 JT
632380	GAT-22	MT 2	2 JT
632384	GAT-23	MT 2	3 JT
	GAT-24	MT 2	4 JT
	GAT-25	MT 2	5 JT
	GAT-26	MT 2	6 JT
	GAT-233	MT 2	33 JT
	GAT-31	MT 3	1 JT
632381	GAT-32	MT 3	2 JT
632385	GAT-33	MT 3	3 JT
632387	GAT-34	MT 3	4 JT
	GAT-35	MT 3	5 JT
	GAT-36	MT 3	6 JT
	GAT-333	MT 3	33 JT
	GAT-42	MT 4	2 JT
632386	GAT-43	MT 4	3 JT
632388	GAT-44	MT 4	4 JT
632389	GAT-45	MT 4	5 JT
	GAT-46	MT 4	6 JT
	GAT-52	MT 5	2 JT
	GAT-53	MT 5	3 JT
	GAT-54	MT 5	4 JT

R-8 ARBORS FOR DRILL CHUCKS



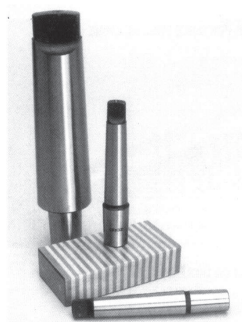
Art Nr.	Arbor Nr.	To fit Drill Chuck with Female Taper
DCA/R/1	R8-1	1
DCA/R/2	R8-2	2
DCA/R/3	R8-3	3
DCA/R/33	R8-33	33
DCA/R/6	R8-6	6
DCA/R/4	R8-4	4

PRECISION R - 8 DRILL SLEEVE



Art Nr.	Taper Reduction
TSA/R8-2	R8 to MT2
TSA/R8-3	R8 to MT3

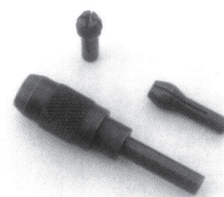
DRILL CHUCK ARBORS - DIN 238



Art Nr.	Arbor Nr.	To fit Drill Chuck with Female Taper
G-10/M1	B10	MT1
G-10/M2		MT1
G-12/M1	B12	MT1
G-12/M2		MT2
G-12/M3		MT3
G-16/M1	B16	MT1
G-16/M2		MT2
G-16/M3		MT3
G-16/M4		MT4
G-18/M1		MT1
G-18/M2	B18	MT2
G-18/M3		MT3
G-18/M4		MT4
G-22/M1	B22	MT1
G-22/M2		MT2
G-22/M3		MT3
G-22/M4		MT4
G-24/M3	B24	MT1
G-24/M4		MT2
G-24/M5		MT3

PIN CHUCK - SET

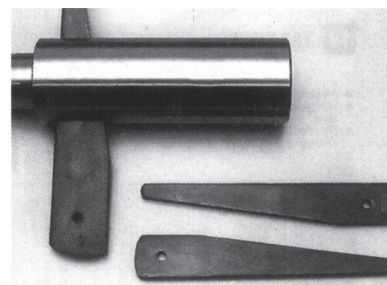
- For holding small drills in a drilling machine
- 3 interchangeable hardened collets
- Trueness - within 5 microns



Art Nr.	Collect Capacity	
	In	mm
PCH/1-3	0 to 1/32	0 to 0.75
	1/32 to 1/16	0.75 to 1.5
	1/16 to 3/32	1.5 to 2.5

DRILL DRIFT KEY

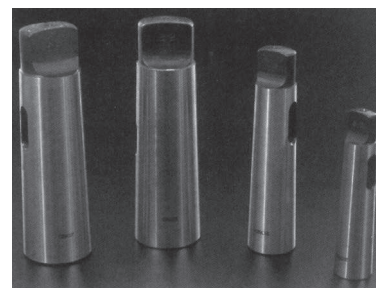
- Acc DIN 317
- For quickly removing taper shank drill or reamers from sleeves or sockets
- Hardened and ground
- Black oxidised finish



IMPA	Art Nr.	Fits following Sleeves & Sockets
632391	DK/1-2	MT1 & MT2
632392	DK/0-3	MT3
632393	DK/0-4	MT4
632594	DK/5-6	MT5 & MT6

DRILL SLEEVES

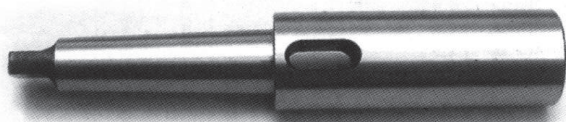
- A-Grade - Acc DIN 2185
Made from carbon steel hardened and ground - internally and externally
- Workshop Grade Made from carbon steel, hardened and ground externally. Reamed internally



IMPA	Art Nr. Workshop Grade	Morse Taper		Overall Length (mm)
		Outside	Inside	
632351	DSW/2-1	MT2	MT1	92
632352	DSW/3-1	MT3	MT1	99
	DSW/4-1	MT4	MT1	124
632353	DSW/3-2	MT3	MT2	112
632354	DSW/4-2	MT4	MT2	124
	DSW/5-2	MT5	MT2	156
632355	DSW/4-3	MT4	MT3	140
632356	DSW/5-3	MT5	MT3	156
632357	DSW/6-3	MT6	MT3	218
632358	DSW/5-4	MT5	MT4	171
632359	DSW/6-4	MT6	MT4	218
632360	DSW/6-5	MT6	MT5	218

EXTENSION SOCKETS

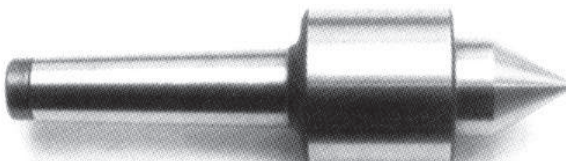
- Hardened and ground internally and externally



IMPA	Art Nr. Workshop Grade	Morse Taper Nr.		Overall Length(mm)
		Outside	Inside	
632361	ESA/1-1	1	1	145
632362	ESA/2-1	2	1	160
632364	ESA/3-1	3	1	175
632363	ESA/2-2	2	2	175
632365	ESA/3-2	3	2	175
632367	ESA/4-2	4	2	194
632366	ESA/3-3	3	3	215
632368	ESA/4-3	4	3	240
632369	ESA/4-4	4	4	265
632370	ESA/5-3	5	3	268
632371	ESA/5-4	5	4	300
632372	ESA/5-5	5	5	335
632373	ESA/6-4	6	4	355
632374	ESA/6-5	6	5	390
	ESA/1-2	1	2	160
	ESA/2-3	2	3	175
	ESA/3-4	3	4	240
	ESA/4-5	4	5	300
	ESA/5-6	5	6	390

PRECISION LIVE CENTRE

- Hardened and ground with 60° point
- Double row angular contact ball and a single row deep groove ball bearing for axial load and centrifugal
- Hardness 60 to 63 HRC
- Cocentricity point .002"
- Speed capacity up to 2000 R.P.M



IMPA	Art Nr.	Morse Taper	Body Diameter		Diameter of Point		Length of Point	
			In	mm	In	mm	In	mm
632431	HDLC/3N	MT2	1 5/8	40	15/16	24	1 3/32	28
632432	HDLC/3N	MT3	1 7/8	47	1 1/2	38	1 7/16	36
632433	HDLC/4N	MT4	2 3/16	55	1 11/16	44	1 11/16	43
632434	HDLC/5N	MT5	2 3/4	70	2 1/8	55	2	51

BEVEL PIPE CENTRE

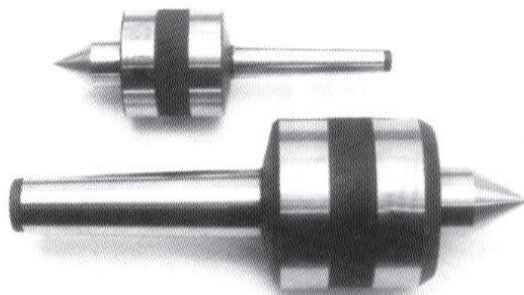
- HRC 52°
- Concentricity: 0.005mm
- Roundness: 0.005mm



IMPA	SIZE A:
632441	MT2 x 2", 3", 4"
632442	MT3 x 2", 3", 4", 5", 6"
632444	MT4 x 3", 4", 5", 6", 8", 10"
632446	MT5 x 4", 5", 6", 8", 10", 12"
	SIZE B:
	MT2 x 2.44", 2.48", 4"
632443	MT3 x 2.95", 3.07", 4.13", 4.21"
632445	MT4 x 4.92", 5.04", 5.09"
632447	MT5 x 5.83", 5.91", 6.61"

HEAVY DUTY LIVE CENTRE - REVOLVING CENTRE

- To adjustable needle roller bearings carry all radial loads
- Heavy duty thrust ball bearing takes all axial thrust
- Built-in oil seal protects bearings from the ingress of coolant, dirt or swarf
- Even at high speeds very low heat is generated
- Bearing pre-loaded to avoid starting shock loads

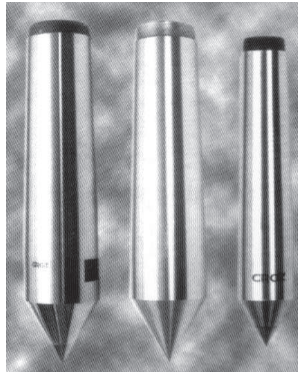


IMPA	Art Nr.	Morse Taper	Diameter of Point		Body diameter		Overall Length	
			In	mm	In	mm	In	mm
632421	HDLC/1	MT1	11/16	18	1 9/16	40	4 13/16	120
632422	HDLC/2	MT2	27/32	21	2	50	6	150
632423	HDLC/3	MT3	15/16	24	2 3/8	60	7	175
632424	HDLC/4	MT4	1 1/8	28	2 1/2	62	7 1/2	190
632425	HDLC/5	MT5	1 1/2	36	3	75	9 1/2	241
632426	HDLC/6	MT6	2 1/4	56	4	100	12 3/4	324

ENGINEER'S PRECISION TOOLS

LATHE CENTRES (DEAD CENTRES)

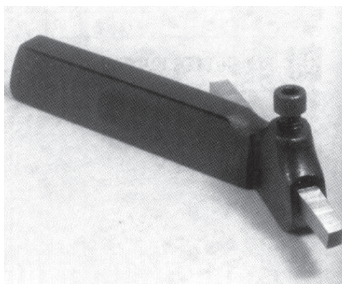
- Morse tapered dead centres
- 60° point angle
- Hardened and ground



IMPA	Art Nr.	Morse Taper	Overall Length	
			In	mm
Carbide Tipped				
	DCT/1	MT1	3 3/16	81
	DCT/2	MT2	3 15/16	100
	DCT/3	MT3	5	125
	DCT/4	MT4	6 5/16	160
	DCT/5	MT5	8	200
HSS Tipped				
632402	DCTH/1	MT1	3 3/16	81
632403	DCTH/2	MT2	4	100
632404	DCTH/3	MT3	5	125
632405	DCTH/4	MT4	6 5/16	160
632416	DCTH/5	MT5	7	200
Carbon Steel				
632412	DCC/1	MT1	3 3/16	81
632413	DCC/2	MT2	4	100
632414	DCC/3	MT3	5	125
632415	DCC/4	MT4	6 5/16	160
632416	DCC/5	MT5	8	200

TURNING TOOL HOLDERS - AMERICAN PATTERN

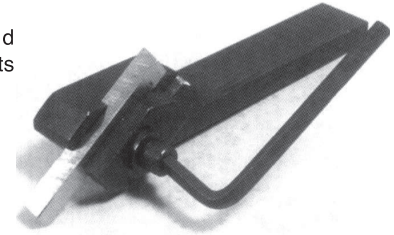
- Made from special steel
- Cutter bit hole assures proper seating of tool bits, which reduces breakages
- Supplied without tool bit



IMPA	Art Nr. Straight	Art. Nr. Left	Art. Nr. Right	Holder Size	Tool Bit Size	For Lathes Approx Swing
	TH-4S	TH-3L	TH-3R	5/16" x 3/4" x 4 1/2"	3/16"	7 to 10
633201	TH-4S	TH-4L	TH-4R	3/8" x 7/8" x 5"	1/4"	10 to 12
	TH-5S	TH-5L	TH-5R	1/2" x 1 1/8" x 6"	5/16"	14 to 16
633202	TH-6S	TH-6L	TH-6R	5/8" x 1 3/8" x 7"	3/8"	16 to 18
	TH-7S	TH-7L	TH-7R	3/4" x 1 5/8" x 8"	7/16"	18 to 20
633203	TH-8S	TH-8L	TH-8R	7/8" x 1 3/4" x 9"	1/2"	24 to 36

TURNING TOOL HOLDERS

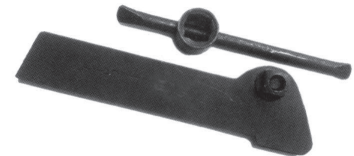
- Made from special steel accurately machined
- Supplied without tool bits
- Allen key provided



IMPA	Art Nr.	Capacity to hold square tool bit		Length of Point		Shape
		In	mm	In	mm	
633231	TBH/3-4/S	3/16 to 1/4	4.76 x 6.35	5	127	Straight
	TBH/3-4/L	3/16 to 1/4	4.76 x 6.35	5	127	Left
	TBH/3-4/R	3/16 to 1/4	4.76 x 6.35	5	127	Right
633232	TBH/1-16/S	1/4 to 5/16	6.35 x 7.93	5 1/2	140	Straight
	TBH/1-16/L	1/4 to 5/16	6.35 x 7.93	5 1/2	140	Left
	TBH/1-16/R	1/4 to 5/16	6.35 x 7.93	5 1/2	140	Right
633233	TBH/5-8/S	5/16 to 3/8	7.93 x 9.52	6	152	Straight
	TBH/5-8/L	5/16 to 3/8	7.93 x 9.52	6	152	Left
	TBH/5-8/R	5/16 to 3/8	7.93 x 9.52	6	152	Right
633234	TBH/3-2/S	3/8 to 1/2	9.52 x 12.7	8	203	Straight
	TBH/3-2/L	3/8 to 1/2	9.52 x 12.7	8	203	Left
	TBH/3-2/R	3/8 to 1/2	9.52 x 12.7	8	203	Right

CUT OFF TOOL HOLDERS

- Available with straight, right hand or left hand shank
- Positive locking device ensures rapid and powerful clamping of the blade
- Supplied without blades



IMPA	Art Nr.	Shank Size	Blade Size
Straight			
	CT/0S	7.93 x 14.28 x 93.4	1.58 x 7.93
633216	CT/1S	7.93 x 19 x 114	2.38 x 12.7
633217	CT/2S	9 x 22 x 127	2.38 x 15.87
633218	CT/3S	13 x 28 x 152	3.17 x 19.05
	CT/4S	16 x 35 x 178	3.16 x 22.22
633219	CT/5S	19 x 41 x 203	4.76 x 25.4
Left			
	CT/0L	7.93 x 14.28 x 93.4	1.58 x 7.93
	CT/1L	7.93 x 19 x 114	2.38 x 12.7
	CT/2L	9 x 22 x 127	2.38 x 15.87
	CT/3L	13 x 28 x 152	3.17 x 19.05
	CT/4L	16 x 35 x 178	3.16 x 22.22
	CT/5L	19 x 41 x 203	4.76 x 24.4
Right			
	CT/0R	7.93 x 14.28 x 93.4	1.58 x 7.93
	CT/1R	7.93 x 19 x 114	2.38 x 12.7
	CT/2R	9 x 22 x 127	2.38 x 15.87
	CT/3R	13 x 28 x 152	3.17 x 19.05
	CT/4R	16 x 35 x 178	3.16 x 22.22
	CT/5R	19 x 41 x 203	4.76 x 25.4

BORING BARS

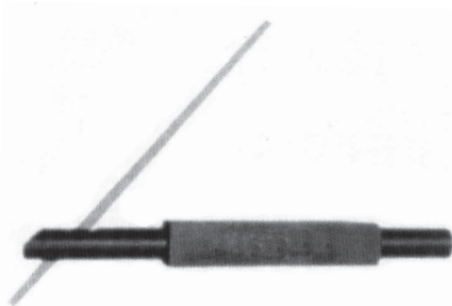
- Double ended boring bars
- Hole to accept standard high speed steel or carbide tool bits held in place with allen screws
- Black oxidised finish
- Supplied without tool bits



IMPA	Art Nr.	Shank Dia In	Length In	Bit Size
	BBR/3-8-6/SQ	3/8	6	1/8" Square
633231	BBR/1-2/9/3-16	1/2	9	3/16" Square
633232	BBR/1-2/9/1-4	1/2	9	1/4" Square
633233	BBR/15-16-12	15/16	12	5/16" Square
633234	BBR/1-1-4-16	1 1/4	16	1/2" Square

BBR/5: Set of 5 Bars 3/8", 5/8", 3/4" and 1" diameter on a wooden stand.

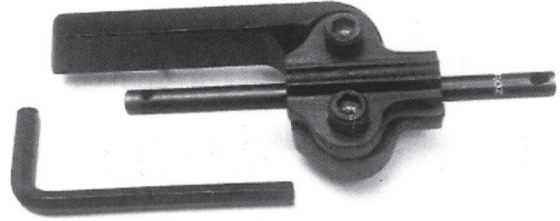
BORING BARS WITH HOLDERS



IMPA	Art Nr.	Bar Length	Bar Dia Dia	Holder Length	Square Size	Bit Size	
		mm	mm	mm	mm	In	mm
	BB/1-8	114	9.52	57	12	1/8	3
633221	BB/3-16	133	11.11	63	15	3/16	4
633222	BB/1-4	171	14.28	76	20	1/4	6
633223	BB/5-16	235	19.05	95	25	5/16	8
633224	BB/3-8	292	22	114	32	3/8	9
	BB/1-2	370	30.5	130	37	1/2	12

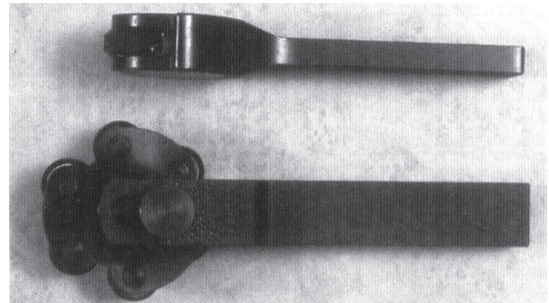
HEAVY DUTY BORING TOOL HOLDER

- For heavy duty boring where extra big and long collar is necessary to support the bar
- Holder machined and hardened
- Bars not supplied with holder but available at extra cost
- Allen bolts for extra tightness
- Supplied with one allen wrench



Art. Nr.	Holder Size In	Square Tool Bit Size In	Boring Bar Dia In	For Lathes Approx Swing
BTH/1-2	5/16 x 3/4 x 4 7/8	3/16	1/2	6 to 8
BTH/9-16	3/8 x 7/8 x 5 3/8	3/16	9/16	9 to 10
BTH/3-4	1/2 x 1 1/8 x 6 1/8	1/4	3/4	11 to 14
BTH/15-16	5/8 x 1 3/8 x 7 7/16	5/16	15/16	14 to 16

KNURLING TOOL HOLDER



6-KNURLS

- Revolving head complete with 3 pairs of high speed steel knurls
- Knurls can be brought into use by simply turning the head to the required position
- Designed to resist severe strains

IMPA	Art Nr.	Size of Holder mm	Knurl Dimension mm
633246	KT/6-1	190 x 35 x 16	19 x 9.52 x 6.35
633245	KT/6-2	165 x 28 x 13	19 x 9.52 x 6.35
633244	KT/6-3	142 x 22 x 10	16 x 8 x 5.55

2-KNURLS

- Pivoted head is self adjusting to work
- Provides maximum knurling load support
- Complete with one pair of high speed steel knurls

IMPA	Art Nr.	Size of Holder mm	Knurl Dimension mm
633243	KT/2-1	190 x 35 x 16	19 x 9.52 x 6.35
633242	KT/2-2	165 x 28 x 13	19 x 9.52 x 6.35
633241	KT/2-3	142 x 22 x 10	16 x 8 x 5.55

KNURLING TOOL HOLDER - 1 KNURL

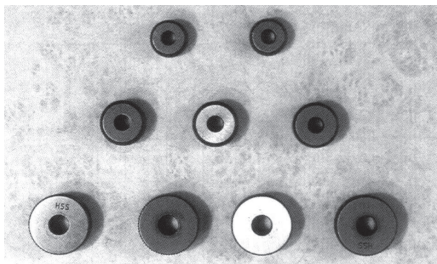
- With one high speed steel knurl



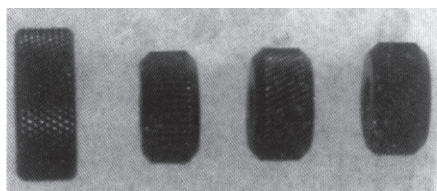
Art Nr.	Shank Size	Knurl Size
KT/0-1	100 x 13 x 13	19 x 6.35 x 6.35
KT/0-2	150 x 16 x 16	20 x 8 x 6
KT/0-3	100 x 19 x 13	19 x 9.5 x 6.35

KNURLS - HIGH SPEED STEEL 63.29

- Knurls are individually hob cut to obtain sharp and perfectly formed teeth
- Heat treated and tempered
- Available in diamond or straight line pattern in coarse medium or fine finish
- Suitable for all standard makes of knurling tools



Knurl Size	Pitch TPI	Dia	Standard Face Width	Hole Diameter	Thickness
5/8"	14, 21, 33	5/8"	3/16" or 9/32"	7/32"	5/16"
5/8" SP	14, 21, 33	5/8"	3/16"	1/4"	5/16"
3/4"	14, 21, 33	3/4"	1/4" or 11/32"	1/4"	3/8"
3/4" SP	14, 21, 33	3/4"	7/32"	1/4"	1/4"
1"	14, 21, 33	1"	11/32"	5/16"	3/8"
20mm	0.6, 1, 1.5mm	20mm	7mm	6mm	8mm



Knurl Size	ART Nr.				ART Nr.				ART Nr.			
	Left Medium	Right Medium	Straight Medium	Diamond Medium	Left Fine	Right Fine	Straight Fine	Diamond Fine	Left Coarse	Right Coarse	Straight Coarse	Diamond Coarse
5/8"	K58/ML	K58/MR	K58/MS	K58/MD	K58/FL	K58/FR	K58/FS	K58/FD	K58/CL	K58/CR	K58/CS	K58/CD
3/4"	K34/ML	K34/MR	K34/MS	K34/MD	K34/FL	K34/FR	K34/FS	K34/FD	K34/CL	K34/CR	K34/CS	K34/CD
1"	K01/ML	K01/MR	K01/MS	K01/MD	K01/FL	K01/FR	K01/FS	K01/FD	K01/CL	K01/CR	K01/CS	K01/CD
20mm	K20/ML	K20/MR	K20/MS	K20/MD	K20/FL	K20/FR	K20/FS	K20/FD	K20/CL	K20/CR	K20/CS	K20/CD

LATHE CARRIERS (LATHE DOGS)

- Manufactured from malleable iron
- With square head screws
- Available in straight tail or bent tail patterns

IMPA	Art Nr. Straight Tail	Capacity	
		In	mm
	LC/S/1-4	1/4	6
	LC/S/3-8	3/8	10
632301	LC/S/1-2	1/2	13
632302	LC/S/3-4	3/4	20
632303	LC/S/0-1	1	25
632304	LC/S/1-1-4	1 1/4	30
632305	LC/S/1-1-2	1 1/2	40
632307	LC/S/0-2	2	50
632608	LC/S/2-1-2	2 1/2	63
632309	LC/S/0-3	3	75
632310	LC/S/3-1-2	3 1/2	90
632311	LC/S/0-4	4	100
632312	LC/S/0-5	5	125
632313	LC/S/0-6	6	150



Straight

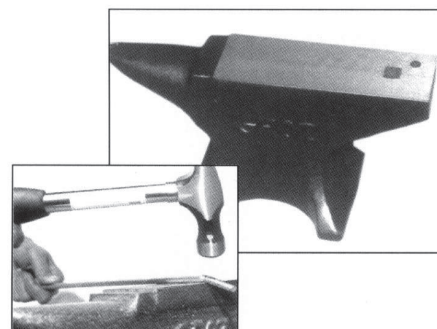
IMPA	Art Nr. Bent Tail	Capacity	
		In	mm
	LC/B/1-4	1/4	6
	LC/B/3-8	3/8	10
632316	LC/B/1-2	1/2	13
632317	LC/B/3-4	3/4	20
632318	LC/B/0-1	1	25
632319	LC/B/1-1-4	1 1/4	30
632320	LC/B/1-1-2	1 1/2	40
632322	LC/B/0-2	2	50
632623	LC/B/2-1-2	2 1/2	63
632324	LC/B/0-3	3	75
632325	LC/B/3-1-2	3 1/2	90
632326	LC/B/0-4	4	100
632327	LC/B/0-5	5	125
632328	LC/B/0-6	6	150



Bent

CAST STEEL ANVIL

- Made from cast steel
- Anvil face is finished smooth and provided with pritchel and hardly hole
- Indispensable item in general workshops



IMPA	Art Nr.	Size (Kg)
	AVL/CS-5	5
613165	AVL/CS-10	10
613166	AVL/CS-15	15
613185	AVL/CS-20	20
613186	AVL/CS-30	30
613187	AVL/CS-40	40
613188	AVL/CS-50	50
613189	AVL/CS-60	60
613190	AVL/CS-75	75
613191	AVL/CS-80	80

WHEEL DRESSERS

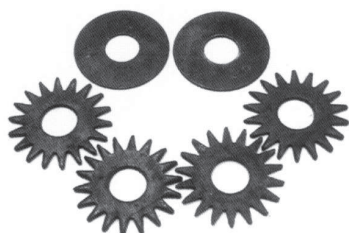
- Handles made from malleable iron
- Accurately machined finish
- For cleaning, shaping and sharpening grinding wheels



IMPA	Art Nr.	Size	Dresser Wheel		Dresser Size		Cutter Dia	
			In	mm	In	mm	In	mm
614706	WD/00	0	20	500	10 3/4	275	1 1/4	30
	WD/01	1	30	750	11 1/2	290	1 1/2	38
	WD/02	2	Large Size	Large Size	16 1/4	410	2 1/2	62

WHEEL DRESSER CUTTER

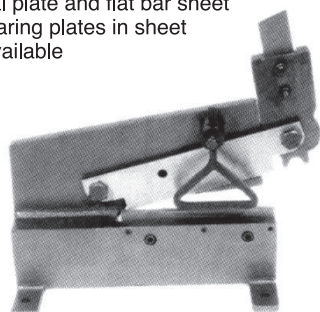
- Cutters made from mild steel
- Cast hardened and polished



IMPA	Art Nr.	Cutter Dia	
		In	mm
614707	WDC/00	1 1/4	30
	WDC/01	1 1/2	38
	WDC/02	2 1/2	62

HAND SHEAR MACHINE

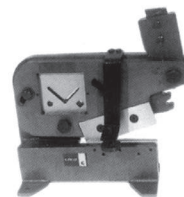
- Steel plate frame of welded construction
- Blade made from high grade tool steel
- For cutting metal plate and flat bar sheet
- Suitable for shearing plates in sheet
- Spare blades available



IMPA	Art Nr.	Length of Blade		Cutting Capacity		Length of Machine Body		Height of Machine Body	
		In	mm	In	mm	In	mm	In	mm
611960	HS/6	6	150	3 x 25	2	13	330	11	280
611961	HS/8	8	200	4 x 40	3	15 1/2	390.5	12	304
611962	HS/10	10	250	5 x 50	3	18 1/2	470	13 1/2	340.5
611963	HS/12	12	300	5 x 50	3	21 1/4	540	13 7/8	350

COMBINATION ROD & FLAT CUTTER

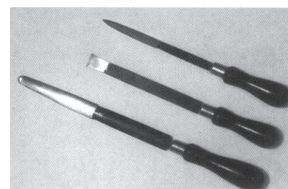
- Steel plate frame of welded construction
- For cutting rods and flats
- Blade made from high grade tool steel
- Cuts squares and rounds up to 12" (12mm) flats 1/4" (6mm) and sheets 5/32"mm
- Spare blades available



Art Nr.	Length of Body		Height of Body Including Lever		Body Thickness	
	In	mm	In	mm	In	mm
CRF/1-2	17 1/2	445	16	400	7/8	22

ENGINEER'S SCRAPERS

- High grade carbon steel blade hardened and tempered
- Available in flat, half round and triangular shapes
- Polished wooden handle



IMPA	Art Nr.	Length		Type
		In	mm	
613225	ES/F-4	4	100	Flat
613220	ES/HR-4	4	100	Half Round
613230	ES/T-4	4	100	Triangular
613226	ES/F-6	6	150	Flat
613221	ES/HR-6	6	150	Half Round
613231	ES/T-6	6	150	Triangular
613227	ES/F-8	8	200	Flat
613222	ES/HR-8	8	200	Half Round
613232	ES/T-8	8	200	Triangular

PAINT SCARPERS

- Hardened and tempered carbon steel blade
- Useful for stripping and scarping old paint
- Available in different styles - triangular for flat surfaces and oval for concave mouldings and grooves



IMPA	Art Nr.	Type
613250	PS/T-60	Triangular
	PS/T-80	Triangular
	PS/O-70	Oval

PAINT MIXER

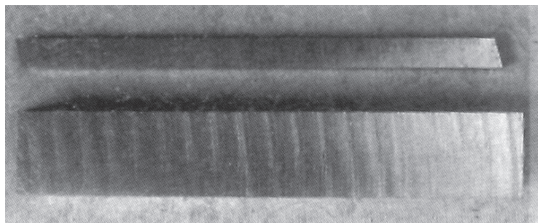
- Handy tool for mixing paint to exact consistency
- Fluted construction
- Epoxy coated for protection against corrosion



Art Nr.	Dia of Mixing Wheel (mm)
PMX/60	60
PMX/80	80

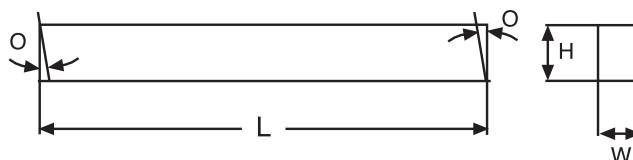
SQUARE TOOL BITS

- Made from high speed steel
- Available in two grades
 - Grade A** - High Speed Steel with 5% Cobalt. Combination of HSS and Cobalt gives optimum hardness and toughness making it especially suitable for use on tougher and heavy duty applications
 - Grade B** - High Speed Steel only



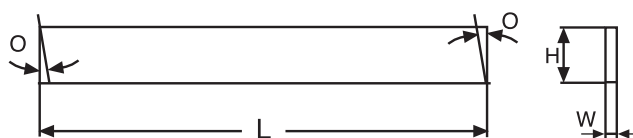
IMPA	Art Nr. Grade A	Art Nr. Grade B	Square Size	Length
	TB/0-1	TB/H/0-1	3/32"	2 1/2"
	TB/0-2	TB/H/0-2	3/32"	3"
	TB/0-3	TB/H/0-3	1/8"	3"
	TB/0-4	TB/H/0-4	1/8"	4"
	TB/0-5	TB/H/0-5	5/32"	3"
	TB/0-6	TB/H/0-6	5/32"	4"
632601	TB/0-7	TB/H/0-7	3/16	2"
632609	TB/0-8	TB/H/0-8	3/16	3"
	TB/0-9	TB/H/0-9	3/16	6"
632602	TB/0-10	TB/H/0-10	1/4"	2 1/2"
	TB/0-11	TB/H/0-11	1/4"	3"
	TB/0-12	TB/H/0-12	1/4"	4"
632610	TB/0-13	TB/H/0-13	1/4"	6"
	TB/0-14	TB/H/0-14	1/4"	8"
632671	TB/0-15	TB/H/0-15	1/4"	12"
632603	TB/0-16	TB/H/0-16	5/16"	3"
	TB/0-17	TB/H/0-17	5/16"	4"
632611	TB/0-18	TB/H/0-18	5/16"	6"
	TB/0-19	TB/H/0-19	5/16"	8"
632672	TB/0-20	TB/H/0-20	5/16"	12"
632604	TB/0-21	TB/H/0-21	3/8"	3"
	TB/0-22	TB/H/0-22	3/8"	4"
632612	TB/0-23	TB/H/0-23	3/8"	6"
	TB/0-24	TB/H/0-24	3/8"	8"
632673	TB/0-25	TB/H/0-25	3/8"	12"
	TB/0-26	TB/H/0-26	1/2"	3"
632605	TB/0-27	TB/H/0-27	1/2"	4"
632613	TB/0-28	TB/H/0-28	1/2"	6"
	TB/0-29	TB/H/0-29	1/2"	8"
632674	TB/0-30	TB/H/0-30	1/2"	12"
632606	TB/0-31	TB/H/0-31	5/8"	5"
	TB/0-32	TB/H/0-32	5/8"	6"
	TB/0-33	TB/H/0-33	5/8"	8"
632675	TB/0-34	TB/H/0-34	5/8"	12"
632607	TB/0-35	TB/H/0-35	3/4"	6"
	TB/0-36	TB/H/0-36	3/4"	8"
632676	TB/0-37	TB/H/0-37	3/4"	12"
632608	TB/0-38	TB/H/0-38	1"	8"
	TB/0-39	TB/H/0-39	1/8"	2 1/2"
	TB/0-40	TB/H/0-40	3/16"	2 1/2"
	TB/0-41	TB/H/0-41	1/4"	2 1/2"
	TB/0-42	TB/H/0-42	5/16"	2 1/2"
	TB/0-43	TB/H/0-43	1/8"	1 1/4"
	TB/0-44	TB/H/0-44	3/16"	1 1/4"
	TB/0-45	TB/H/0-45	1/4"	1 1/4"
	TB/0-46	TB/H/0-46	5/16"	1 1/4"
	TB/0-47	TB/H/0-47	3/4"	5"
	TB/0-48	TB/H/0-48	1"	7"

RECTANGULAR FLAT TOOL BITS



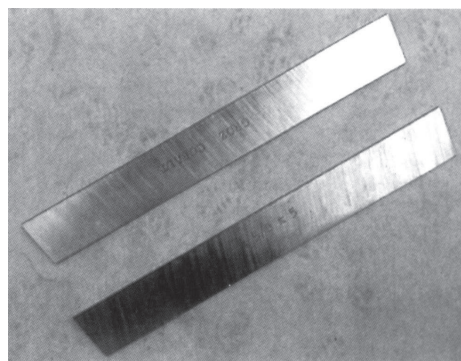
IMPA	Art Nr.	Size- W x H x L (mm)
632616	RFT-6-10	6 x 10 x 150
632617	RFT-6-12	6 x 12 x 150
632618	RFT-8-12	8 x 12 x 150
632619	RFT-8-16	8 x 16 x 150
632620	RFT-10-12	10 x 12 x 150
632621	RFT-10-16	10 x 16 x 150

RECTANGULAR PLATE TOOL BITS



IMPA	Art Nr.	Size- W x H x L (mm)
632631	RPT-3-12	3 x 12 x 150
632632	RPT-3-16	3 x 16 x 150
632633	RPT-4-16	4 x 16 x 150
632634	RPT-4-19	4 x 19 x 150
632635	RPT-5-19	5 x 19 x 150

CUT OFF BLADES



IMPA	Art Nr.	Size	
		In	mm
	COB/0-1	1/16 x 5/16 x 3 1/2	1.58 x 7.93 x 88
632651	COB/0-2	3/32 x 1/2 x 4	2.38 x 12.7 x 101
632652	COB/0-3	3/32 x 5/8 x 5	2.38 x 15.88 x 127
632653	COB/0-4	1/8 x 3/4 x 6	3.18 x 19.05 x 152
	COB/0-5	1/8 x 7/8 x 6	3.18 x 22.23 x 152
632654	COB/0-6	3/16 x 1 x 6	4.76 x 25.4 x 152

AUTOMATIC CENTRE PUNCH - LIGHT DUTY

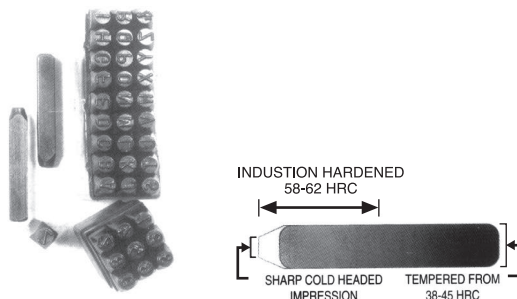
- Used for marking light dotting to heavy punching without having to use a hammer
- Pressure can be varied from 5 lbs to approximately 30 lbs by rotating knurled head
- Length of the punch: 5" (125mm)



Art Nr.	Finish
ACP/1 B	Black Powder Coated
ACP/1 C	Chrome Plated

STEEL STAMPS - LETTERS AND NUMBERS

- Made from high quality tested carbon steel
- Special material and double induction hardening give very high quality of stamping
- Head is tempered to prevent chipping while hammering
- Tough hardened body provides toughness and extra strength
- Packed in attractive plastic containers



IMPA	Art Nr.	Art Nr. (Reverse Type)	Stamp Specification	Stamp	
				In	mm
Numbers (9pc set) 0-8 ; 6 & 9 are interchangeable					
	NP/1	NP/R-1	0, 1, 2, 3, 4, 5, 6, 7, 8	1/16	1
633117	NP/2	NP/R-2	0, 1, 2, 3, 4, 5, 6, 7, 8	3/32	2
633119	NP/3	NP/R-3	0, 1, 2, 3, 4, 5, 6, 7, 8	1/8	3
633120	NP/4	NP/R-4	0, 1, 2, 3, 4, 5, 6, 7, 8	5/32	4
633121	NP/5	NP/R-5	0, 1, 2, 3, 4, 5, 6, 7, 8	3/16	5
633122	NP/6	NP/R-6	0, 1, 2, 3, 4, 5, 6, 7, 8	1/4	6
633123	NP/8	NP/R-8	0, 1, 2, 3, 4, 5, 6, 7, 8	5/16	8
633124	NP/10	NP/R-10	0, 1, 2, 3, 4, 5, 6, 7, 8	3/8	10
633125	NP/12	NP/R-12	0, 1, 2, 3, 4, 5, 6, 7, 8	1/2	12
Letters (27pc set) A to Z, &					
	LP/1	LP/R-1	A to Z, &	1/16	1
613102	LP/2	LP/R-2	A to Z, &	3/32	2
613104	LP/3	LP/R-3	A to Z, &	1/8	3
613105	LP/4	LP/R-4	A to Z, &	5/32	4
613106	LP/5	LP/R-5	A to Z, &	3/16	5
613107	LP/6	LP/R-6	A to Z, &	1/4	6
613108	LP/8	LP/R-8	A to Z, &	5/16	8
613109	LP/10	LP/R-10	A to Z, &	3/8	10
613110	LP/12	NLP/R-12	A to Z, &	1/2	12

HOLLOW (LEATHER) PUNCHES / BELL PUNCHES

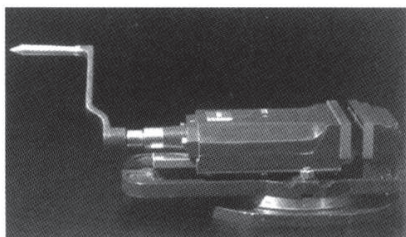
- Made from carbon steel
- Induction hardened and tempered for long life
- Precisely ground edge
- Specially designed squeezed cutting tip prevents jamming of leather inside punch
- Blue enamelled finish
- Sizes 26mm onwards have forged (bell type) construction



IMPA	Art Nr.	Hole Diameter	
		In	mm
	HPL/2	3/32	2
613001	HPL/3	1/8	3
613002	HPL/4	5/32	4
613003	HPL/5	3/16	5
613004	HPL/6	1/4	6
613005	HPL/7	9/32	7
613006	HPL/8	5/16	8
613007	HPL/9	23/64	9
613008	HPL/10	3/8	10
613009	HPL/11	7/16	11
613010	HPL/12	1/2	12
613011	HPL/13	17/32	13
613012	HPL/14	9/16	14
613013	HPL/15	19/32	15
613014	HPL/16	5/8	16
613015	HPL/17	11/16	17
613016	HPL/18	23/32	18
613017	HPL/19	3/4	19
613018	HPL/20	13/16	20
613019	HPL/21	27/32	21
613020	HPL/22	-	22
613021	HPL/23	29/32	23
613022	HPL/24	15/16	24
613023	HPL/25	1	25
613024	HPL/26	1 1/64	26
613025	HPL/27	1 1/16	27
613026	HPL/28	1 3/32	28
613027	HPL/29	1 1/8	29
613028	HPL/30	1 3/16	30
613029	HPL/31	-	31
613030	HPL/32	1 1/4	32
613031	HPL/33	1 5/16	33
613032	HPL/34	-	34
613033	HPL/35	1 3/8	35
613034	HPL/36	1 13/32	36
613035	HPL/37	-	37
613036	HPL/38	1 1/2	38
613037	HPL/39	-	39
613038	HPL/40	1 9/16	40
613039	HPL/41	1 5/8	41
613040	HPL/42	-	42
613041	HPL/43	1 11/16	43
613042	HPL/44	-	44
613043	HPL/45	-	45
613044	HPL/46	1 13/16	46
613045	HPL/47	-	47
613046	HPL/48	1 7/8	48
613047	HPL/49	1 15/16	49
613048	HPL/50	2	50

MILLING MACHINE VICE (BRIDGEPORT) - ECONOMY

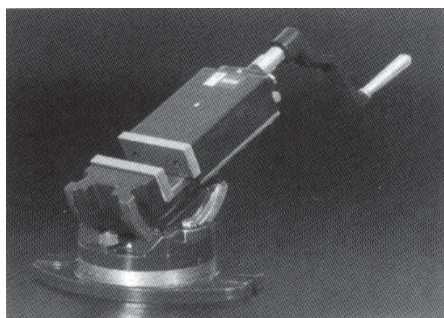
- Manufactured from close grained cast iron
- Jaw plates hardened of jaws: 50 to 60 HRC
- Totally enclosed screw
- A big heavy gun metal nut for longer life and greater gripping power
- Two indexes 180° apart



Art Nr.	Jaw Depth		Jaw Width		Maximum Opening	
	In	mm	In	mm	In	mm
MMV/B/4	1 13/16	45	4	100	4	100
MMV/B/6	2 7/16	60	6	150	6 3/4	170
MMV/B/8	2 1/2	63	8	200	8	200

ANGULAR MACHINE VICE - ECONOMY

- All main parts are made from high tensile close grained cast iron
- Carbon steel hardened jaws are precision ground for interchangeability
- Hardness of jaws: 50 to 60 HRC
- Sliding surfaces are precision ground
- The swivel base is precisely graduated into 360° in the horizontal plane and 90° in the vertical plane enabling to hold work in any compound angle
- Handle made from malleable iron to withstand shock and hammering impacts
- Gun metal nut
- The vice is provided with positive locking arrangement without being twisted



Art Nr.	Jaw Depth		Jaw Width		Maximum Opening	
	In	mm	In	mm	In	mm
AMV/4	4	100	4 1/8	105	1 3/4	45
AMV/6	6	150	6 1/8	155	2 1/4	56
AMV/8	8	200	7 7/8	200	2 1/2	60

HAND VICE - SPRING TYPE

- Body made from high graded cast iron
- Can be firmly tightened by hand with a fitted screw
- Very convenient vice for holding small jobs



IMPA	Art Nr.	Overall Length	
		In	mm
613751	HV/ 75	3	75
613752	HV/100	4	100
613753	HV/125	5	125

TOOL MAKERS PARALLEL CLAMPS

- Made from hardened steel
- Clamps include spring clip and retaining ring



Art Nr.	Jaw Opening		Jaw Length	
	In	mm	In	mm
PC/1	1 1/4	30	2	50
PC/2	1 3/4	44	2 1/2	60
PC/3	2 1/4	56	3	75
PC/4	2 3/4	70	4	100
PC/5	3 1/2	88	5	125
PC/6	5 1/4	125	6	150
PC/8	6 1/4	150	8	200

PIN VICES

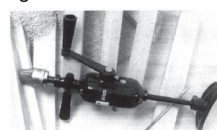
- Useful for holding small stock or taps, drills, files, reamers and scribers
- Special collet design ensures good grip



IMPA	Art Nr.	Capacity	Overall Length	
			In	mm
613503	PV/1	0 to 1	3	75
613504	PV/2	.75 to 1.5	3 1/2	90
613505/6	PV/3	1.5 to 3	3 3/4	95
613517	PV/4	3 to 4.5	4 1/8	105
	PV/1-4	A set of above four pcs packed in Plastic Pouch		

BREAST DRILL

- Two speed drill
- Die cast
- Totally enclosed straight cut gears
- 3 jaw precision chuck
- Detachable driving and side handles



IMPA	Art Nr.	Capacity	
		In	mm
613531	BD/12	1/2	12

NON-SPARKLING SAFETY TOOLS

- High quality non-sparkling safety tools
- ISO9001: certificate of registration
- UKAS certificate of conformity of product
- Past properties' testing (100%)

Sockets

102



Socket Accessories

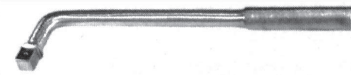
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118



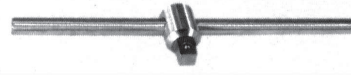
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122



117



123



Adjustable Wrench

125

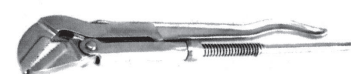


Pipe Wrench

287



128



288



252



130



Chain Wrench

289



129



Single Open Wrench

140



Combination Wrench

135



Double Open Wrench

145



Double Ring Wrench

151



Single Ring Wrench

157



Single Ring Striking Wrench

160



Single Open Slogging Wrench

141



F Type Valve Wrench

174



Hook Wrench

174



Combination Piler

140



Round Nose Piler

257



HAND TOOLS

Slip-Joint Plier

245



Diagonal Cutter

248



Long Nose Plier

253



Fat Nose Plier

250



Hand Shear

244



Sissors

304



Drum Opener

178



Ratchet Wrench

182



Pipe Cutter

305



Allen Key

166



Square Shovel

198



Chain Block

308



Chipping Hammer

190



Testing Hammer

192



Ball Pin Hammer

187



Claw Hammer

185



Sledge Hammer

191



Heavy Duty Axe

196



Heavy Duty Knife

202



Paint Scraper

204A



Long Handle Scraper

206



L-Scraper

207



Triangle Scraper

299



Heavy Duty Crowbar

240



“Plus” Screwdriver

261



“Minus” Screwdriver

260



“Offset” Screwdriver

259



Socket Set 32 pc

101

