

MISUMI PRESS DIE STANDARD COMPONENTS CATALOG

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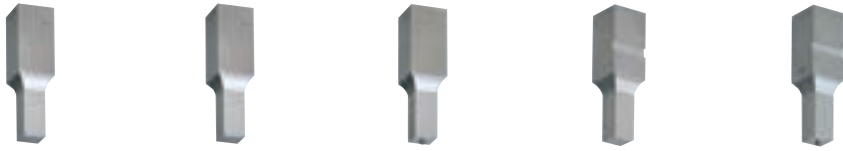


BUTTON DIES, CONFIGURABLE SIZE TYPE Headed type Straight type	SCRAP RETENTION BUTTON DIES, CONFIGURABLE SIZE TYPE Headed type Straight type	BUTTON DIES —Dowel slot type—	SCRAP RETENTION BUTTON DIES —Dowel slot type—
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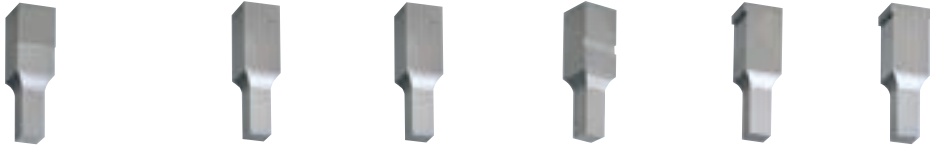


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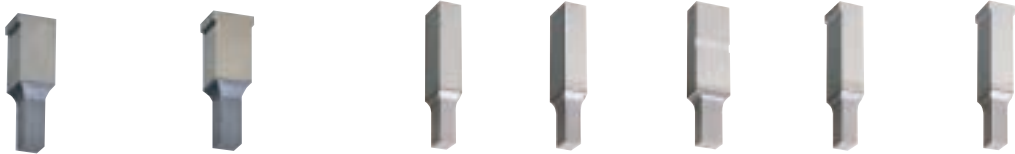
BLOCK PUNCHES



Product name Catalog No.	BLOCK PUNCHES	BLOCK PUNCHES —Tapped—	JECTOR BLOCK PUNCHES —Tapped—	BLOCK PUNCHES —With key groove—	JECTOR BLOCK PUNCHES —With key groove—
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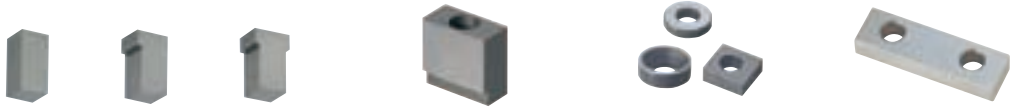
STRAIGHT PUNCHES —Straight type— —Tapped— —With key groove— —Single flange type— —Double flanges type—					JECTOR STRAIGHT PUNCHES —Tapped— —With key groove— —Single flange type— —Double flanges type—				
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PUNCHES &
DIES**



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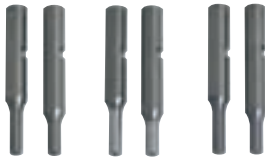
CARBIDE PUNCHES WITH KEY GROOVES
 —Normal— —Lapping— —TiCN coating—

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CARBIDE PUNCHES WITH KEY GROOVES —Minus d tolerance—
 —Normal— —Lapping— —TiCN coating—

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CARBIDE PUNCHES WITH KEY GROOVES AND AIR HOLES —Minus d tolerance—
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CARBIDE STRAIGHT PUNCHES
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CARBIDE STRAIGHT PILOT PUNCHES
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CARBIDE STRAIGHT PILOT PUNCHES WITH KEY GROOVES
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CARBIDE STRAIGHT PILOT PUNCHES FOR FIXING TO STRIPPER PLATES —Tip R and taper combined type, minus head tolerance—
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CARBIDE STRAIGHT PILOT PUNCHES FOR FIXING TO STRIPPER PLATES —Tip R and taper combined type, minus head tolerance—
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CARBIDE STRAIGHT PILOT PUNCHES FOR FIXING TO STRIPPER PLATES —Tip R and taper combined type, minus head tolerance—
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MOVABLE CARBIDE PILOT PUNCHES
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MOVABLE CARBIDE PILOT PUNCHES
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SCRAP RETENTION CARBIDE ANGULAR BUTTON DIES

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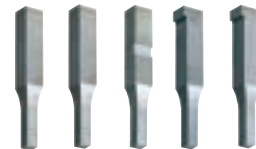
CARBIDE BLOCK PUNCHES
 ZP□_BL ZP□_ML ZP□_KL ZP□_FL ZP□_WL

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CARBIDE BLOCK PUNCHES WITH AIR HOLES
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CARBIDE BLOCK PUNCHES —Configurable size type—
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CARBIDE PUNCHES WITH KEY GROOVES AND AIR HOLES
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CARBIDE PUNCHES WITH KEY GROOVES AND AIR HOLES
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CARBIDE PILOT PUNCHES



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CARBIDE PILOT PUNCHES FOR FIXING TO STRIPPER PLATES
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CARBIDE BUTTON DIES



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Catalog No.

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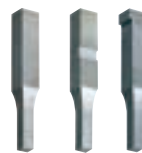
CARBIDE STRAIGHT PUNCHES
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CARBIDE STRAIGHT PUNCHES WITH AIR HOLES
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CARBIDE BLOCK PUNCH TIP BLANKS
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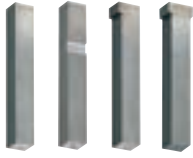


CARBIDE BLOCK PUNCH BLANKS
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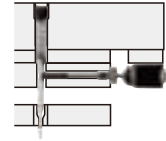
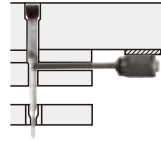
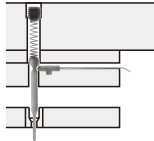


**CARBIDE
BLOCK DIES**



CARBIDE BLOCK PUNCH BLANKS WITH AIR HOLES ZJB ZJK ZJF ZJW	CARBIDE BLOCKS Z	Product name Catalog No.	CARBIDE BLOCK DIES —Straight, single flange type—
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**COMPONENTS
FOR MISFEED
SENSORS**



Product name Catalog No.	CONTACT TYPE MISFEED SENSORS MFSF	CONTACT TYPE MISFEED SENSOR UNITS MFL SMA□	MICROSWITCH MISFEED SENSOR UNITS —Groove feed type—	MICROSWITCH MISFEED SENSOR UNITS —Hole feed type—
Page	528	529	531	533

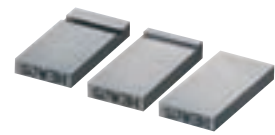
**PUNCHES & DIES
FOR FORMING**



Product name Catalog No.	BURRING PUNCHES SPM T-SPM SJM	BURRING PUNCHES SPMB□ L-SPMB□	BURRING PUNCHES —Half-made, tip R type—	BURRING PUNCHES —Half-made, tapered tip type—	BURRING DIE UNITS BDU
Page	541	542	543	545	547



Product name Catalog No.	DRAWING PUNCHES —Dicoat® treatment-TiCN coating-HW coating—	JECTOR DRAWING PUNCHES —Normal-Lapping—	JECTOR DRAWING PUNCHES —Dicoat® treatment-TiCN coating—	DRAWING DIES —Steel—	KNOCKOUT PINS KOP
Page	561	563	565	567	568



Product name Catalog No.	ENGRAVING PUNCHES KMCP KMCPW KMCPWF	DIE CHECK BUTTONS DCBA DCBAW	ENGRAVING BLOCK PUNCHES HCP HCF HCM	ENGRAVING BLOCK PUNCHES HCP□M HCF□M HCM□M
Page	575	576	577	578



Product name Catalog No.	SHORT BENDING AND CHAMFERING PUNCHES & DIES —Fixed size type—	CHAMFERING PUNCHES & DIES —Configurable size type—	BENDING DIES —Fixing-bolt type—	RIB PUNCHES RA□P RB□P	HEIGHT ADJUSTMENT UNITS FOR CAMBER CORRECTION CAUA CAUN
Page	585	587	589	590	591



SCRAP RETENTION
CARBIDE BLOCK DIES

519



CARBIDE BLOCK DIES
—Configurable size type—

521



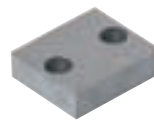
SCRAP RETENTION
CARBIDE BLOCK DIES (CONFIGURABLE SIZE)

522



CARBIDE BLOCK DIE BLANKS
WBLDB WBLDBF

523



CARBIDE BLOCK DIE BLANKS
ZD ZDA ZD□B ZD□C

524-525



PHOTOELECTRIC MISFEED SENSOR UNITS
MFG MGA□

535



BRACKETS FOR SENSORS
SNB SNB-D

537



BRACKETS FOR SENSORS
SNBA SNBA-D

537



MISFEED SENSOR UNITS
OKJS

538



BURRING PUNCHES
—Scrapless type—

549



EMBOSSING PUNCHES
—SR-Stepped SR-Stepped taper types—

551



KNOCKOUT PINS FOR EMBOSSING PUNCHES
BMPS BMP

552



CHAMFERING PUNCHES
Shoulder-Key flat-Tapped types

553-555



DRAWING PUNCHES
—Normal-Lapping—

559



DRAWING DIES
—Carbide—

569



DRAWING DIES

571



ENGRAVING PUNCHES
—R-L type— —Configurable type—

573



ENGRAVING PUNCHES FOR SLANTED SURFACES
TCPTS□M TCPTL□M

574



SHIMS
TCIM TCIMT DCIM-DCIMT

574-576



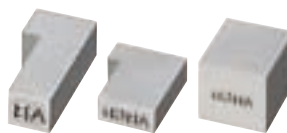
ENGRAVING BLOCK PUNCHES
OCP□M

579



ENGRAVING BLOCK PUNCHES
BCP□M

579



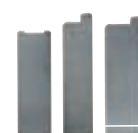
PRECISION ENGRAVING BLOCK PUNCHES
VCF VCM

580



ENGRAVING RETAINERS
HCFPH HCFS

581



BENDING AND CHAMFERING PUNCHES & DIES
—Fixed size type—

583



GENERAL PURPOSE SCRAP CUTTERS
SCL-SCT

592

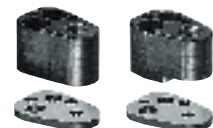
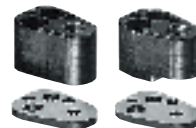
MISUMI PRESS DIE STANDARD COMPONENTS CATALOG

CONTENTS ⑧

SPECIAL SHAPED PUNCHES & DIES



Product name Catalog No.	SPECIAL SHAPED PUNCHES	SPECIAL SHAPED PUNCH GUIDE BUSHINGS & BUTTON DIES	SPECIAL SHAPED BLOCK DIES
Page	597 ~ 606	607	609



END RETAINER SETS FOR NC MACHINING —25mm thick type— —Space-saving, single bolt type for punches with locating dowel holes—	END RETAINER SETS FOR EDGE-MATCHING MACHINING —25mm thick type— —Space-saving, single bolt type for punches with locating dowel holes—	END RETAINER SETS FOR NC MACHINING DP—A□ DP—F□	END RETAINER SETS FOR EDGE-MATCHING MACHINING CP—A□ CP—F□
619	620	621	622



SQUARE RETAINER SETS SR—□□ SA—□□	RETAINER BACKING PLATES BPC	SELECT RETAINER SETS —Compact air type—	SELECT RETAINER SETS —Standard air type—
627	628	631	632



BUSHINGS FOR PUNCH HOLE POSITION ADJUSTMENT PCWB	URETHANE FALL-STOPPER UNITS PQSP USPP USQP	URETHANE STRIPPERS FOR FALL-OUT PREVENTION UNITS US	PROTECTION RINGS FOR URETHANE STRIPPERS USR	URETHANE STRIPPERS TUS USN
639	640	641	641	643 644



BALL-LOCK EJECTOR PUNCHES —With wrench flat— —Light load type— —Heavy load type—	BALL-LOCK PUNCH BLANKS —Economy type— —Light load type— —Heavy load type—	BALL-LOCK PUNCH BLANKS —With wrench flat— —Light load type— —Heavy load type—	BALL-LOCK BUTTON DIES ELD□ LD□
653 654	655	656	657

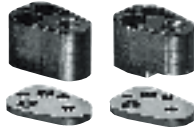


COMPONENTS

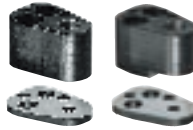
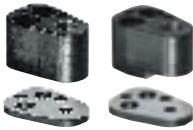


BALL-LOCK RETAINERS —Light load, space saving, single fixing-bolt type—	SPECIAL RETAINER SETS For ball-lock punches	Product name Catalog No.	STRAIGHT DOWEL PINS MS	STRAIGHT DOWEL PINS —High precision type— MSV
664	667	Page	671	671

RETAINERS



Product name	HEAVY DUTY END RETAINER SETS FOR HIGH-TENSILE STEEL	HEAVY DUTY END RETAINER SETS FOR HIGH-TENSILE STEEL	HEAVY DUTY SQUARE RETAINER SETS FOR HIGH-TENSILE STEEL
Catalog No.	HDP-A□ HDP-F□	—For heavy-load punches—	HSR-□□ HSA-□□
Page	616	617	618



END RETAINER SETS FOR NC MACHINING —For heavy-load punches—	END RETAINER SETS FOR EDGE-MATCHING MACHINING —For heavy-load punches—	END RETAINER SETS FOR NC MACHINING —25mm thick type— —Triangle type—	END RETAINER SETS FOR NC MACHINING —32mm thick type— —Triangle type—
623	624	625	626



SELECT RETAINER SETS —Standard manual type—	SELECT RETAINER SETS —Air type for heavy load—	SPECIAL RETAINER SETS —Fixed size type—	SPECIAL RETAINER SETS —Configurable size type—
633	634	635	637

BALL-LOCK PUNCHES & DIES/RETAINERS



Product name	BALL-LOCK PUNCHES —Economy type—	BALL-LOCK JECTOR PUNCHES —Economy type—	BALL-LOCK PUNCHES —With wrench flat—
Catalog No.	Light load type Heavy load type	—Light load type— —Heavy load type—	—Light load type— —Heavy load type—
Page	647	648	649 650 651 652



BALL-LOCK RETAINERS —Compact type— —Light load type—	BALL-LOCK RETAINERS —Triangle type— —Light load type—	BALL-LOCK RETAINERS —Triangle type— —Light load type—	BALL-LOCK RETAINERS —Triangle type— —Light load type—
659	660	661	662 663



TAPPED DOWEL PINS —Precision type— MSTP	TAPPED DOWEL PINS —p6 m6— MST MSTM	TAPPED AND TAPERED DOWEL PINS MIT	STRAIGHT DOWEL PINS —h7— MSSH	TAPPED STRAIGHT DOWEL PINS —h7— MSTH
671	672	672	672	672

MISUMI PRESS DIE STANDARD COMPONENTS CATALOG

CONTENTS 9



DOWEL PINS (ECONOMY PACKS)		SPRING PLUGS FOR PREVENTING DOWEL PIN FALL-OUT		STEPPED DOWEL PINS		DOWEL PIN EXTRACTORS			LOCATING DOWEL RINGS		DOWEL BUSHINGS DOWEL BUSHING BLANKS	
100PACK—MSTH	200PACK—MSTH	SWA	SWAL	MSFW	MSFWM	KNHN	KNHN—B	KNHN—M	DAS	DASP	KNLB	KNLBB
673		673		674		674			675		676	



WASHERS / SPACERS										FREE WASHERS		—Tapped—		—Counterbore type—		SCREW PLUGS FOR LOOSENING PREVENTION		SCREW PLUGS				
K	W	T	R	J	SW	SRW	WSS	SRW	WSS	MSRB	LRB	SBW	FWSS	FWSK	FWMS	FWMK	FWZS	FWZK	LMSW	MSW	MSWA	MSWZ
683					684					685			685		685		686		687			



STRIPPER BOLTS, FEMALE THREADS					STRIPPER BOLTS, Bushing type			STRIPPER BOLTS, Bushing type		—Thick type—		STRIPPER PRESSURE PINS		STRIPPER PRESSURE PINS		
SBT	SBTN	SBTC	SBTCN	SBTL	SBTLN	SBTK	SBTKN	SBTH	SBRH	SBJH	SB	SBWH	HSP	HSPH	HSPPH	PWP
693					695			696		697		697				



—TAPPED—			STROKE END BLOCKS			—SQUARE, Hardened type—			CHAINS FOR END BLOCKS			AIR JET COOLERS FOR DIES								
SBVM			SBS			SBN			SEC			SBVK			RSC			PAJC		
702			703			704			704			705								



PRECISION MULTIPURPOSE PLATES		SPARE PUNCH BOXES		MAGNETS		
UTPB	UTPL	PBX100Y	PBX150Y	MG	MGN	HX
709		710		711		



CLEANING AGENT		DIE CONTACT INSPECTION AGENT (SHINMYOTAN)		
6PACK—METACL		N—RED	SP—RED	
714		714		



HEXAGON SOCKET HEAD CAP SCREWS	BOX SALES OF HEXAGON SOCKET HEAD CAP SCREWS	HEXAGON SOCKET HEAD CAP SCREWS	HEXAGON SOCKET HEAD CAP SCREWS	SPRING WASHERS	LOW HEAD AND ULTRA-LOW HEAD HEXAGON SOCKET HEAD CAP SCREWS	WORD-LOCK LOOSENING PREVENTION WASHERS					
CB	BOX—CB	LB	SCB	FB	FBJ	CBW	CBS	CBSST	CBSS	NLDP	NLDP—B
677	678	679	680	680	681	682					



—Short type—	—Through hole type—	—Short type with through hole—	STRIPPER BOLTS, MALE THREADS	STRIPPER BOLTS, MALE THREADS	—Precision L dimension type—	STROKE EXTENSION RETAINERS FOR STRIPPER BOLTS				
MSWS	MSWAS	MSWZS	MSWH	MSWZH	MSWSH	MSWZSH	MSB	SMSB	MSBL	MSBE
687			688				691		692	692



STRIPPER PRESSURE PINS	LIFTING COLLARS	ADJUSTMENT PINS	PRESSURE PINS	STROKE END BLOCKS							
SBKP	SBKS	SBKT	SBK	PIN	PIN—N	PINH	PINH—N	PRPS	PRP	SBV	SBVH
698	698	699	700	701							



TUBE COUPLINGS	FLUORORESIN TUBES	AIR TUBES	ADJUSTMENT HOSES	SPACER LAYER PLATES	SHIM TAPE				
MCPTK	PUTF-PUTFL	M—UB	HOSAJ	LHP	LHP—H	LHP—SET	FGSM	FGSMW	FGSML
706	706	706	706	707	708				



MAGNETS	DIE NAME STICKERS	DIE ADHESIVE	STICK TYPE				
HXH	HXU	HXMB	KNS	LOC638	LOC243	LOC268	LOC248
712	713	714	714				

COMPONENTS FOR GUIDE LIFTERS



Product name	GUIDE LIFTER SETS	SPACERS	GUIDE LIFTERS	FOR HEAVY LOAD	GUIDE LIFTERS
Catalog No.	GLS	GLP	GLS	GL	GL—Spring hole type—
Page	719	720	721	721	722

MISUMI PRESS DIE STANDARD COMPONENTS CATALOG

CONTENTS 10



LIFTER PINS — Spring hole type — LPAH	LIFTER PINS — SPRING HOLE TYPE WITH PILOT PUNCH RELIEF HOLE — LHAH	BLOCK GUIDE LIFTERS — Detachable type — GLB	BLOCK GUIDE LIFTERS — Fixing-key type — GLBK	GUIDE LIFTERS — Air hole type — GLJS
722	722	724	724	725



LIFTER PIN SETS LSH LHH	LIFTER PINS — Precision type — LHHV	BLOCK LIFTERS — Fixed size, fixing-key type — BLL-□ BLH-□ BLLF-□	SPRING PLUNGERS PJ□-NPJ□
729	730	731	733

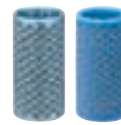


SPRING PLUNGERS WITH FLANGES FPJ FPJH	BALL PLUNGERS WITH FLANGES FBPJS FBPJ	BALL BUTTONS BBT	BALL PLUNGERS BP□-BS□-NB□-NBPW- NBS□	KNOCKOUT PINS KDP
736	736	736	737	738

STRIPPER GUIDE PINS & BUSHINGS



Product name Catalog No.	STRIPPER GUIDE PINS — Headed type — SGPH SGOH		STRIPPER GUIDE PINS — Straight type — SGPN SGON		STRIPPER GUIDE PINS — Detachable type — SGPR SGOR		SGPW
Page	749		750		751		752



— Copper alloy — SG CZ SG FZ	— Sintered alloy — SG BM SG HM	STRIPPER GUIDE BUSHINGS — Integrated ball cage type — SG BB SG BL SG BF			STRIPPER GUIDE BUSHINGS — For ball cage — SG BW SG BS SG BH		BALL CAGES MBSH MBJH	SPRINGS BSWP
757		758			759		760	760



PRECISION STRIPPER GUIDE PINS VG PH VG PN VG PS	— Detachable type — VG PR	PRECISION STRIPPER GUIDE BUSHINGS — Steel — VG BL VG BH VG BZ VG HZ	— Copper alloy — VG SF VG BF VG CZ VG FZ		— Sintered alloy — VG BM VG HM
767	768	769	769	770	770



LIFTER PINS WITH AIR HOLES
LJS

725



BLOCK LIFTER SETS
BLS

726



BLOCK LIFTERS — Detachable type —
BLR

726



LIFTER PIN SETS
LPS LP LPH LPSH

727



LIFTER PINS — Resin type —
JLP

728



WRENCHES FOR PLUNGERS
PJG BPJG

733-737



SPRING PLUNGERS — Sus type —
PJ□W-PJ□K

734



SPRING PLUNGERS FOR SLANTED SURFACES
PJHZ

734



SPRING PLUNGERS
PJLS PJFW PJLR PJHR

735



WRENCHES FOR HEX PINS
PJRW

735



PUSHING PINS
JP JPW JPWH

738



MATERIAL GUIDE UNITS — Standard type —
ZGUA

739



MATERIAL GUIDE UNITS
SUK-A SUK-B

741



MATERIAL GUIDE PLATES AND SPACER BLOCKS
SBM SBA SSB

743



FITTING GUIDES
FGK

744



HIGH-RIGIDITY STRIPPER GUIDE PINS STOPPERS FOR BALL CAGES, Fixed type
SGPWS SGPWH

753



CLAMPS FOR STRIPPER GUIDE PINS
SSTK

754



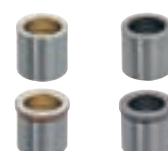
CLAMPS FOR STRIPPER GUIDE PINS
FCLP

754-776



STRIPPER GUIDE BUSHINGS — Steel —
SGBA SGBH SGBL

755



— Copper alloy — — Steel —
SGSF SGBF SGBZ SGHZ

756



3 μm range STRIPPER GUIDE PINS
TGPH TGNP

762



— Detachable type —
TGPR

762



3 μm range STRIPPER GUIDE BUSHINGS — Steel —
TGBL TGBT TGBZ TGHZ

763



— Copper alloy —
TGSF TGBF TGCZ TGFZ

763



— Sintered alloy —
TGBM TGHM

764



PRECISION CARBIDE STRIPPER GUIDE PINS
WVGPH WVGPN WVGPS

766



HIGH-RIGIDITY ROLLER STRIPPER GUIDE PIN SETS
RSGPW

773



— Single roller type —
RSGPS

774



ROLLER CAGES
RBJ

775



ROLLER STOPPERS, Fixed type
RSTKH

775



SPRINGS
RSWP

775

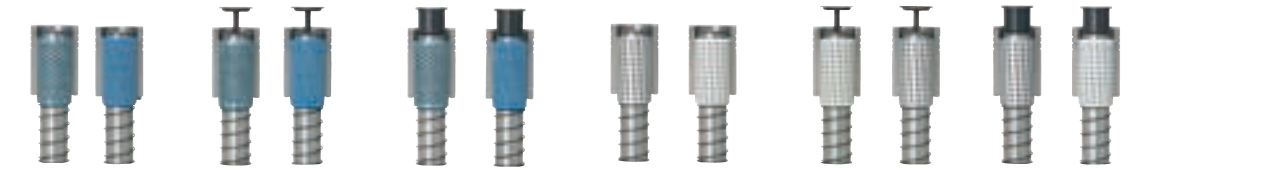
MISUMI PRESS DIE STANDARD COMPONENTS CATALOG

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GUIDE POSTS & BUSHINGS FOR DIE SETS



Product name Catalog No.	ROLLER GUIDE POST SETS FOR DIE SETS RGLB RGLS RGKL	ROLLER CAGES RBJ	MOVABLE STOPPERS RSTM	FIXED STOPPERS RSTK	SPRINGS RSWP	RINGS FOR PREVENTING CAGE LIFTING RWR
Page	783	785	785	785	786	786



BALL GUIDE POST SETS FOR HIGH-RIGIDITY DIE SETS —Press-fit POST type—	PBSH GBSH	PMSH GMSH	PKSH GKSH	PB	GB	PM	GM	PK	GK
Page	789					789			



GUIDE POSTS FOR DIE SETS —Long type, configurable full length—	MRP BRPM BRPK	MSP BSPM BSPK	BALL GUIDE BUSHINGS FOR DIE SETS	MBB LBB	—Long type, configurable full length—	LBB	BALL GUIDE BUSHINGS FOR DIE SETS —Detachable type—	RBB	BALL GUIDE BUSHINGS FOR LOWER DIE SETS	LBSB
Page	797		799		799		800		801	



RINGS FOR PREVENTING CAGE LIFTING RWB	PLAIN GUIDE BUSHINGS FOR DIE SETS MDB LDB LFB LDBZ LFBZ	SHANKS FOR DIE SETS MSK MSKS MSKTP	DIE ADHESIVE LOC638
Page	804	805	808



BALL GUIDE POST SETS —Movable stopper—	MYA MYAP	MYJ MYJP	BALL GUIDE POST SETS	MYAK MYKP	—Fixed stopper—	MYJK MJKP
Page	817		819		819	



GUIDE HOLDERS MGH MGHP	PLAIN GUIDE BUSHINGS MGB MGBP	OIL-FREE GUIDE BUSHINGS MGBZ MGBZP	BALL GUIDE BUSHINGS MAB MABP	MBSH	BALL CAGES MBJH MBS MBJ	STOPPERS STMY
Page	826	826	827	827		828



BALL GUIDE POST SETS FOR HIGH-RIGIDITY DIE SETS —Detachable POST type—						BALL GUIDE POST SETS FOR DIE SETS —Detachable POST type—					
RBSH	QBSH	RMSH	QMSH	RKSH	QKSH	RB	QB	RM	QM	RK	QK
787						787					



RD	RF	RZ	RFZ	PD	PF	PZ	PFZ	MRP	BRPM	BRPK	MSP	BSPM	BSPK
791						793				795			



SPRINGS SWPB	BALL CAGES FOR DIE SETS MBSH MBJH MBS MBJ	MOVABLE STOPPERS STM	FIXED STOPPERS STK	SPRINGS SWP SWPL
801	802	803	803	803

HOLDER GUIDE POST SETS



Product name Catalog No.	PLAIN GUIDE POST SETS MY MYP	OIL-FREE GUIDE POST SETS MYZ MYZP	INTEGRATED TYPE PLAIN GUIDE POST SETS —Oil type— N—MYP	INTEGRATED TYPE PLAIN GUIDE POST SETS —Oil-free type— N—MYZP
Page	813	813	815	815



INTEGRATED TYPE PLAIN GUIDE POSTS N—MGP	BUSHINGS FOR INTEGRATED TYPE PLAIN GUIDE POST SETS N—MGBP N—MGBZP	GUIDE POST SETS WITH OIL GROOVES MGOH MGOHP	GUIDE POSTS MGP
821	822	823	825



WASHERS FOR PREVENTING DOWEL PIN FALL-OUT MW	SPRINGS SWMY	OIL-FREE GUIDE POST SETS GPZE GPZ	OIL-FREE GUIDE BUSHINGS GBZE GBZ	SPACERS FOR HOLDER GUIDE POSTS MGBPS MABPS MGHPS
828	828	829	830	831

MISUMI PRESS DIE STANDARD COMPONENTS CATALOG

CONTENTS 12



SPACERS FOR HOLDER GUIDE POSTS
MGSPS MGLPS

833



STROKE END BLOCKS
CEB CSB EBS EBW

835



STROKE END BLOCKS —Flat type—
CEB CSB EBYS EBAS

837



CHAINS FOR END BLOCKS
RSC

838



STROKE END BLOCKS
GEB DSEB

847



LOCKING END BLOCKS FOR GUIDE BUSHINGS
KEB

848



BALL GUIDE POST SETS
PKHL PKHLU PKH PKH—U

850



DISTANCE GUIDE RINGS
HKD

852



PAD KEEPERS
KEPN

857



—With oil grooves—
KEPNZ

857



PAD GUIDE BLOCKS
PGWN

858



SPOOL RETAINERS —Counterbore type—
CSRZ

864



BLANK HOLDER STOPPER BOLTS
CBH

864



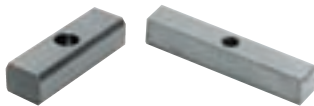
RETAINER PINS
CSPST CSPWT CSPS CSPW P—CSPS P—CSPW CSPSP CSPWP

865



STOPPERS FOR RETAINER PINS
SPP CSPT CST—N

866



LOCATING KEYS
LK

870



BACKUP KEYS
BUKE

870



WASHERS FOR DIE FASTENING
KWN

871



WASHERS FOR OBLONG HOLES
WSS

871



SCRAP BREAKERS FOR CAM PIERCE DIES
CPSBR

871



PLATE LIFTER PINS
LCP

876



LIFTER PLATE STOPPERS
BSE BST

876



SPARE PUNCH BOXES
PBX100Y PBX150Y

877



HOLE REPAIR SCREWS
MM MM—B

878

GUIDING COMPONENTS FOR AUTOMOBILE DIES



Product name	GUIDE POSTS	OIL-FREE GUIDE BUSHINGS	OIL-FREE GUIDE BUSHINGS WITH FLANGES	GUIDE POSTS	LOCKING STOPPERS FOR GUIDE POSTS
Catalog No.	GPM	GBF GBW	HGBF	GPOB	GPSB
Page	845	845	845	846	846



OIL-FREE HEEL GUIDE PLATES	OIL-FREE HEEL GUIDE PLATES			HEEL GUIDE PLATES WITH OIL GROOVES		
OGG OGP OGPZ	GWZ	GWAZ	GWBZ	GW	GWA	GWB
853	855			856		

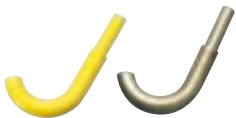
COMPONENTS FOR AUTOMOBILE DIES



Product name	SPOOL RETAINERS	STROKE ADJUSTMENT COLLARS FOR SPOOL RETAINERS	URETHANE WASHERS FOR SPOOL RETAINERS	SPOOL RETAINERS — Thick type —	SPOOL RETAINERS — Large flange type —
Catalog No.	CSR	CSRE	CSRUR	CSRH CSRT	CSRTA CSRTB
Page	861	862	862	863	863



ROUND DISTANCE PLATES	SQUARE DISTANCE PLATES	SHIMS FOR DISTANCE PLATES	STROKE END BLOCKS
DTPM DTPME DTPY DTPYE	DTPK DTPB	DTPMS DTPKS	DEB
867	867	868	869



AIR VENTS FOR DRAWING DIES	ANGLE STAYS	CUSHION PINS	LIFTER CUSHION PINS	BUSHINGS FOR LIFTER CUSHION PINS
WUR5 WAV5	UAS	RCUP MCUP HCUP LCUP	DTCA DTCE	TGF TGW
872	872	873 874	875	875



HINGE PINS	HINGE PIN KEYS	TENSION SPRING PINS	TENSION SPRINGS	TENSION SPRINGS	TENSION SPRING RINGS
CLKGH	HK	SSPO WSP0	AW□	AWK	BSR
879	879	879	880	880	880

MISUMI PRESS DIE STANDARD COMPONENTS CATALOG

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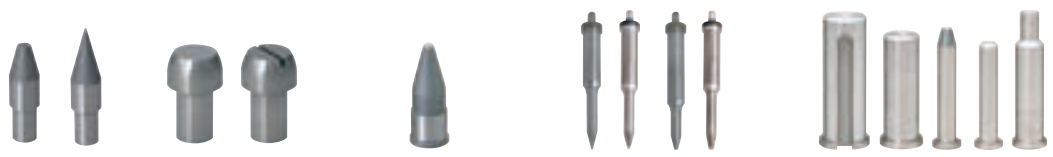
LOCATING COMPONENTS FOR AUTOMOBILE DIES



Product name Catalog No.	PANEL INPUT DETECTORS —Linear type— PLGL PLGR	PANEL INPUT DETECTORS PACO□-□ PACO□N-□	ROUGH GUIDES RG	ROUGH GUIDES RG-R RG-L	NEST GUIDES —Upper die relief type— NGUA NGUBR NGUBL NGUBRN NGUBLN
Page	883	885	886	887	



—Economy type— ENSTA ENSTC ENSTD	(WITH MOUNTING PLATES, CONFIGURABLE LENGTH) —Reinforced economy type— NGNX ENSX	NEST GUIDES —Configurable guide shape type— NGW NGWK NGWS	NEST GUIDE BLANKS —Long type— NBBCL
891	892	893	895



LOCATING PILOT PINS SKSTH SFSSTH	LOCATING PILOT PINS PST PSTM	LOCATING PILOT PINS RFP	PILOT PUNCHES —Configurable type— RTP T-RTP RTPE T-RTPE	LOCATING PINS FOR SETUP DIKPA DIKPB IKPDA IKPDB IKPC IKPE
899	900	900	901	902



PRE-HOLDING PUSH PIN SETS —With lock mechanism— PALZS PALZU PALZP	PRE-HOLDING PUSH PIN SETS —Air type— PAEAS PAEAU	PUSHING PIN SETS PSPH PSH	PUSH-OUT PINS POP HPOP	DRAWING JECTOR PINS DHPA	COVERS FOR DRAWING JECTOR PINS DHPF100
909	910	911	912	912	912



SQUARE SKID BRACKETS STB STB-N STBY STBY-N	ROUND SKID BRACKETS MRTB MRTB-N MRTBY MRTBY-N	SKID BRACKETS WITH SLIDE ADJUSTMENT FUNCTION SCTB SCTBY
917	917	918



MATERIAL GUIDE ROLLER SETS GDRA	MATERIAL LIFTERS SRL	MATERIAL FEED LIFTER UNITS ZORW□□	SHEET LIFTERS SLCES	SHEET LIFTERS SLC	SHEET LIFTERS SLCE
924	925	925	926	926	926



NEST GUIDES —Reinforced type—
NGNA NGNBR NGNBL

—Economy type—
ENSTB ENSTR ENSTL

NEST GUIDES —No pilot hole for dowel, guide R type—
NGGA NGGC NGGBR NGGBL

(WITH MOUNTING PLATES, CONFIGURABLE SHAPE) —Reinforced type—
NGNBA NGNBC

888

888

889

890



NEST GUIDE BLANKS
NBB NBBC

NEST GUIDE MOUNTING PLATES
TEA TEB TEC TEE TEL

NEST GUIDES —Surface support type—
NSTFA NSTFB

LOCATING PILOT PINS
SLTL SLPS

LOCATING PILOT PINS
SNST SDST SDKL

895

895

896

897

898



LOCATION PINS
TLPA TLPB TLPC

LOCATION PINS
LPU LPL DLPA

MAGNET LIFTER PINS
MLP

PRE-HOLDING PUSH PIN SETS —Standard type—
PAPZ PAPZU

—Economy type—
PAEZS PAEZU

—Long stroke type—
PAP PAPG

903

903

904

905

907

908



SPRING PLUNGERS
PJ

SPRING PLUNGERS
PJLR PJHR

WRENCHES FOR HEX PINS
PJRW

SPRING PLUNGERS FOR SLANTED SURFACES
PJHZ

MAGNETS
MG

MAGNETS
MGN

MAGNETS
HX

MAGNETS
HXH

MAGNETS
HXU

MAGNETS
HXMB

913

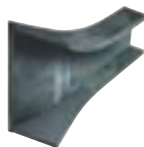
914

914

914

915

CONVEYANCE
COMPONENTS FOR
AUTOMOBILE DIES



Product name
Catalog No.

COILED MATERIAL GUIDES
CILG

MATERIAL GUIDES
MCG MCGN MCGE

MATERIAL GUIDE ROLLER SETS
GDRT GDRTW GDRTT

MATERIAL GUIDE ROLLER SETS
EGDR EGDRW EGDRT

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921

922

923

924



LIFTER UNITS
LTH CLTH

AIR CYLINDERS
LTHCT LTHCS

LIFTING PADS
VCH VCHT

AIR TUBE ONE-TOUCH COUPLINGS
M-PC M-POC

AIR TUBE ONE-TOUCH COUPLINGS
M-PL M-POL

927

929

930

931

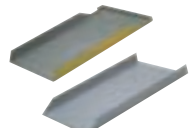
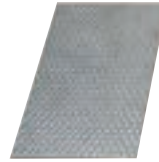
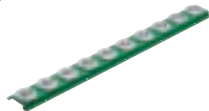
931

MISUMI PRESS DIE STANDARD COMPONENTS CATALOG

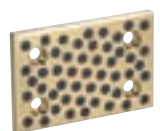
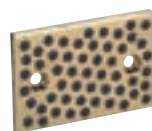
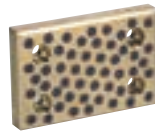
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AIR TUBES M-UB	SPECIAL TUBE CUTTERS M-TCN	AIR TUBE BRACKETS DAHK-A DAHK-B DAHK-C DAHK-D DAHK-E	TUBING TERMINALS TAHK-A TAHK-B TAHK-C TAHK-D	AIR MANIFOLDS DMFDA DMFDB
932	932	933	933	934



ROLLER CARRIERS CORO	BALL CARRIERS GORO	BALL CARRIERS GORON	EMBOSSED SHOOTER PLATES EBSP	SCRAP SHOOTERS SRST□
939	939	939	940	941



OIL-FREE WEAR PLATES —Cast 20 mm type, 4 holes—	OIL-FREE WEAR PLATES —Copper alloy 20 mm type, 2 holes—	OIL-FREE WEAR PLATES —Copper alloy 20 mm type, 4 holes—	OIL-FREE WEAR PLATES —Copper alloy 10 mm type, 2 holes—	OIL-FREE WEAR PLATES —Copper alloy 10 mm type, 4 holes—
945	946	946	947	947

COMPONENTS FOR CAMS



Product name	CAM SLIDE PLATES CSLA	CAM SIDE PLATES CSLP	CAM UPPER PLATES CUPF CUPW	CAM SIDE BLOCKS CSBL
Catalog No.				
Page	953	953	954	954



CAM POSITIVE RETURN FOLLOWERS CKF	CAM POSITIVE RETURN BLOCKS CKB	CAM STOPPERS CCS	SILENCER URETHANES CCUC CCUR
958	958	959	960

COIL SPRINGS



Product name	COIL SPRINGS						
Catalog No.	SWY	SWU	SWR	SWS	SWC	SWF	SWL
Page	967	968	969	971	973	975	977

MISGRIPPING SENSOR UNITS —Lightweight type— MGUG□ MGUC□ MGUE□ MGUL□	MISGRIPPING SENSOR UNITS —High-rigidity type— MGUA□ MGU□	JUNCTION BOXES WITH TERMINAL BLOCKS JBX160 JBX100	HOOKS FOR TRANSPORT DEVICES DVJ	CURL CORD HOOKS DKLH
935	936	937	938	938

CHAINS FOR SCRAP SHOOTERS SRT SRTN	CHAINS, GENERAL PURPOSE CN	CHAIN JOINTS JT	OIL-FREE WEAR PLATES —Cast 20 mm type, 2 holes—
942	942	942	945
Product name Catalog No.			Page

SHIMS FOR OIL-FREE WEAR PLATES SMP	COMPACT OIL-FREE WEAR PLATES —Copper alloy 10mm type—	OIL-FREE THIN WEAR PLATES —Copper alloy 5mm type—
948	949	950

CAM STROKE PLATES —30° type— CS30W CS30F	—15° type— CS15W CS15F	CAM BOTTOM GUIDE PLATES CBG	CAM BOTTOM SLIDE PLATES CBP
955	956	957	957





CAM RETURN UNITS CUKI CUKS CUKA	SPRING GUIDE UNITS CUK	WASHERS CUP CUR
961	963	964





SWM	SWH	SWB	COIL SPRINGS SWG	SWZ	SWV	SWX
979	981	983	985	987	990	989


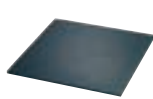



MISUMI PRESS DIE STANDARD COMPONENTS CATALOG





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ROUND WIRE COIL SPRINGS WY-WR-WF-WL-WT-WM-WH-WB	ROUND WIRE COIL SPRINGS —Inner diameter standard type— NWL-NWM-WP	WASHERS FOR COIL SPRINGS SSWA-SSWB-SSWC	SPRING GUIDE UNITS CUK	SPRING GUIDE PINS SGA
993 ~ 1000	1001	1002	1003	1005

			
—Plates for GSZ— HM FM	—Standard type— GSX	—Plates for gsx— AM	—Short type— GSC
1014	1015	1016	1017

			URETHANE SPRINGS	
—ISO/CNOMO standard type— GSK	—Plates for gse— FFC FC	—Slow return type— GSSR		Product name Catalog No.
1021	1022	1023	Page	1029

				
URETHANES WITH COUNTERBORE AZ AZX	URETHANE SHEETS UT UTH	URETHANE DIE PADS UD UDH	ECONOMY URETHANES AE-LAE-CE-AEX-CEX	URETHANE FOAM (POROUS) FOR HIGH-DEFLECTION USE PA PLA
1034	1035	1036	1037-1038	1039

COMPONENTS FOR LIFTING AND DIE STORING					
	Product name Catalog No.	LIFTING BARS HLFB	LIFTING EYE BOLTS CHI	CAST-IN LIFTING BOLTS CSN	HOOKS —Bolt type— CHN
	Page	1048	1049	1049	1050

				
CAST-IN HOOKS —Large head type— CHFL	T-SHAPED BOLTS TB	DIE FIXING PLATES DKP DKPL	HOLDING PIPES FOR TRANSPORT DYP □	DIE STORAGE BUSHINGS KPB
1054	1054	1055	1055	1056



SPRING GUIDE RETAINERS
SGC

1006



SPRING UNIT FLANGES
WUNT

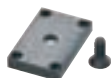
1007

GAS SPRINGS



—HIGH ALLOWABLE ECCENTRICITY AND HIGH SPEED TYPE—
GSZ

1013



—Plates for gsc—
BM

1017



—Heavy load mini type—
MGSC

1018



—Mini type—
MGSA H F

1019



—Threaded type—
MGSB

1020



SQUARE URETHANES FOR HEAVY LOADS
QX

1030



URETHANE STOCK BLOCKS
EST·ESBT·ESU·ESUB·S·SU

1030



URETHANES FOR HEAVY LOADS
A

1031



URETHANE STOCK BLOCKS
E EL

1032



URETHANES FOR HEAVY LOADS
LA·C AX·CX

1033



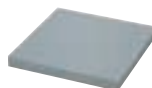
LOW REPULSION URETHANES
AN·LAN·CNN ANX·CNX

1040



LOW REPULSION URETHANES WITH COUNTERBORE
AZN AZNX

1041



LOW REPULSION URETHANE SHEETS
UTN

1042



LOW REPULSION URETHANE DIE PADS
UDN

1042



HOOKS —Large head bolt type—
CHNL

1050



HOOKS —Plate type—
CHP

1051



HOOKS —Large head plate type—
CHPL

1052



LIFTING HOOKS, —Insert type—
CHU

1053



CAST-IN HOOKS
CHF

1054



URETHANE STOCK BLOCK SETS
PHBT PHBTN PHUB PHUBN

1057



STROKE END PIPES
PH PHN

1059



URETHANE STOCK BLOCKS
EST ESBT ESU ESUB

1060



URETHANE ABSORBERS
DUSA

1060



URETHANE PADS
DURP

1060

MISUMI PRESS DIE STANDARD COMPONENTS CATALOG

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INSPECTION JIGS & FIXTURES



PRECISION CARBIDE LIMIT GAUGES
VGSA VGWA



PRECISION LARGE-DIAMETER CARBIDE LIMIT GAUGES
VGSB VGWB



LIMIT GAUGES
SGSA SGWA

Product name Catalog No.	PRECISION CARBIDE LIMIT GAUGES VGSA VGWA	PRECISION LARGE-DIAMETER CARBIDE LIMIT GAUGES VGSB VGWB	LIMIT GAUGES SGSA SGWA
Page	1063	1064	1065



PLUG GAUGES FOR CHECKING FIXTURES
BGU·BGUH

BGOPH

BGUPH

REFERENCE PINS FOR CHECKING FIXTURES
BGTDSh·BGTA·BGTAH·BGTD·BGTDH

TAPERED REFERENCE PINS FOR CHECKING FIXTURES
BGMA BGMD

1069	1070	1071	1072
------	------	------	------



MARKING PINS FOR CHECKING FIXTURES
BGK BGKS

LOCATING BARS FOR TAPPING POSITIONS
BGM

SHIM PLATES FOR INSPECTION FIXTURES — Round type —
KGSPM

SHIM PLATES FOR INSPECTION FIXTURES — Square type —
KGSP

1075	1075	1076	1076
------	------	------	------

PRODUCTS DATA

- MOUNTING METHODS OF PUNCHES AND DIES
- CHARACTERISTICS OF PUNCHING TOOLS
- SHAPES AND DIMENSIONS OF PUNCHES & DIES
- CALCULATION OF PUNCH STRENGTH
- DURABILITY OF PUNCHES
- DICOAT[®] PUNCHES
- **QUALITY IMPROVEMENT** IMPROVED COATING PUNCHES
- COATING PUNCHES — TiCN —

- WPC[®] TREATMENT AND HW COATING PUNCHES
- PUNCHES FOR HEAVY LOAD, TAPERED HEAD PUNCHES
- CONDITIONS UNDER WHICH FRACTURE, BREAKAGE, AND ABNORMAL WEAR ARE LIKELY TO OCCUR
- CARBIDE TOOL MATERIALS FOR WEAR RESISTANCE
- SELECTION OF BUTTON DIES
- SCRAP RETENTION DIES
- NON-CLOGGING BUTTON DIES & SCRAP VACUUM UNITS
- NOTES ON ASSEMBLING STRIPPER GUIDES

PRODUCTS DATA

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BUSINESS INFORMATION

- CANCELLATION POLICY / RETURNING PRODUCTS
- WORLD NETWORK

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PRECISION CARBIDE PIN GAUGES
VGOA

PRECISION LARGE-DIAMETER CARBIDE PIN GAUGES
VGOB

BGO · BGOH · BGOQ · BGOQTH

PLUG GAUGES FOR CHECKING FIXTURES
BGOEH · BGOEH

BGO · BGOH

1066

1066

1067

1068

1069



BUSHINGS FOR INSPECTION FIXTURES
JBA JBAM JBH JBHM

BUSHINGS FOR INSPECTION FIXTURES
KJBS KJBST

BUSHINGS FOR INSPECTION FIXTURES
KJBSC KJBSTK

BUSHINGS FOR INSPECTION FIXTURES
KJBSC KJBSTC

1073

1073

1074

1074



SHIM PLATES FOR INSPECTION FIXTURES — Square type with hole —
KGZ

1076

TECHNICAL DATA

- INTERNATIONAL SYSTEM OF UNITS (SI)
- HARDENING AND HARDNESS TESTS
- CONVERSION TABLE OF HARDNESS
- SURFACE ROUGHNESS
- METHODS OF INDICATING PRODUCT SURFACES IN DRAWINGS
- SURFACE ROUGHNESS BY DIFFERENT MACHINING METHODS
- INDICATIONS OF GEOMETRICAL TOLERANCE ON DRAWINGS
- BASIS OF SELECTION FOR FITS

- DIMENSIONAL TOLERANCES AND FITS
- TOLERANCES OF REGULARLY USED HOLE FITS
- TOLERANCES OF REGULARLY USED SHAFT FITS
- GENERAL DIMENSIONAL TOLERANCES FOR PARTS FORMED BY PRESS WORKING FROM SHEET METAL AND SHEAR FROM METAL PLATES
- STANDARD MACHINING TOLERANCES
- HEXAGON SOCKET HEAD CAP SCREWS
- TABLE OF HOLE SIZES BEFORE THREADING
- PROPER BOLT AXIAL TIGHTENING FORCE / TORQUE

- STRENGTH OF BOLTS, SCREW PLUGS, AND DOWEL PINS
- CALCULATION OF CUBIC VOLUME AND MATERIAL PHYSICAL PROPERTIES
- CALCULATION OF AREA, CENTER OF GRAVITY, AND GEOMETRICAL MOMENT OF INERTIA
- CONVERSION CHART OF TRIGONOMETRICAL FUNCTIONS
- COMPARISON OF MATERIAL JIS AND RELATED OVERSEAS STANDARDS (1)
- COMPARISON OF MATERIAL JIS AND RELATED OVERSEAS STANDARDS (2)
- COMPARISON OF DIE STEEL BY MANUFACTURERS
- HARDNESS OF PRIMARY STEEL MATERIALS AND THE CORRESPONDING TOOLS

TECHNICAL DATA

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- CATALOG NO. INDEX
- PRODUCT NAME INDEX
- TERMS AND CONDITIONS OF SALE

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●Guide of Alterations	37
●MISUMI'S Environmental Awareness And RoHS Compliancy	38

HOW TO USE CATALOG

— GUIDE TO MARKS —

Mark	Meaning	Notes · Description examples
	Material	M SKH51
	Hardness	H 58~60HRC
	Surface Treatment	S Black Oxide
	Accessories	A MS6-25
	Tolerance	T $\begin{matrix} +0.005 \\ 0 \end{matrix}$
	Notes :	P/2 ≤ KC < H/2
	Not Applicable	Indicates that specific sizes or items are not applicable for alteration. D3 to 8 (D3 to 8: Not applicable) Also used to indicate specifications that cannot be ordered.
	Refer to Catalog page	P.234
	Conditions and their results. A ...B means	$L \begin{matrix} +0.02 \\ 0 \end{matrix}$ ($L > 200 \dots L \begin{matrix} +0.05 \\ 0 \end{matrix}$) This example signifies that the standard tolerance of length L [0 to +0.02] changes to [0 to +0.05] when L is over 200.
	Unit No.	Number applied to each part of the product that includes two parts or more.

Mark	Meaning	Notes · Description examples						
	RoHS Compliance Products	The product does not contain the six (6) Restricted Substances of RoHS Directive of EU more than the threshold value or the value of the applicable exemption. (Our RoHS mark does not show whether the product is 'CE compliant' or not.)						
	Example of order code	Order <table border="1"><tr><td>Catalog No.</td><td>—</td><td>L</td></tr><tr><td>MS 6</td><td>—</td><td>50</td></tr></table>	Catalog No.	—	L	MS 6	—	50
Catalog No.	—	L						
MS 6	—	50						
	Days to Ship	Days to Ship Quotation						
	Price	P Price						
	Example	ex Example						
	Alteration	Alteration can be ordered without drawings.						
	Quotation	Send us RFQ by Fax, E-mail or Online Quotation/Order which is available on MISUMI Website.						

HOW TO USE CATALOG

Product name

Catalog No.

Material, etc.

Photograph

Drawing

Specification table

How to order

Usage example

PUNCHES WITH LOCATING DOWEL HOLES — FINISHED FOR RETAINERS —

Type **Shank diameter D** **Material** **Catalog No.** **Type** **Tip shape** **Tip length** **With dwell hole**

With locating dowel hole **Dowel pin** **Dm5** **Equivalent to SKD11 60~63HRC** **SP** **S** **L** **X** **-C**

RoHS

The tip shape can be selected from **Tip shape A~G** in the figure below.

Tip length (B) X > L > S

Tip shape A **Tip shape D** **Tip shape R** **Tip shape E** **Tip shape G**

$R \leq 0.2$
 $P \geq W$
 $R = 0$ can be selected.
 $K = \sqrt{P^2 + W^2}$

$R \leq 0.2$
 $P \geq W$
 $0.15 \leq R < \frac{W}{2}$
 $K = \sqrt{(P-2R)^2 + (W-2R)^2 + 2R}$

$R \leq 0.2$
 $P > W$

$R \leq 0.2$
 $P > W$

Catalog No.	Type	D	L	0.01mm increments										B	H							
				A	D	E	G	R	R													
				min.		P max.		P.Kmax.		P.Wmin.												
S	SPAS-C	10	40	50	60	70	80	90	100	110	120	130	140	150	3.00	9.99	9.97	2.50	13	13		
	SPDS-C	16	40	50	60	70	80	90	100	110	120	130	140	150	6.00	12.99	12.97	3.00			16	16
	SPRS-C	20	40	50	60	70	80	90	100	110	120	130	140	150	10.00	15.99	15.97	4.00			19	19
	SPES-C	25	40	50	60	70	80	90	100	110	120	130	140	150	18.00	24.99	24.97	6.00			23	23
	SPGS-C	32	40	50	60	70	80	90	100	110	120	130	140	150	28.00	31.99	31.97	7.00			28	28
L	SPAL-C	10	50	60	70	80	90	100	110	120	130	140	150	3.00	9.99	9.97	2.50	19	13			
	SPDL-C	16	50	60	70	80	90	100	110	120	130	140	150	6.00	12.99	12.97	3.00			16	16	
	SPRL-C	20	50	60	70	80	90	100	110	120	130	140	150	10.00	15.99	15.97	4.00			19	19	
	SPEL-C	25	50	60	70	80	90	100	110	120	130	140	150	18.00	24.99	24.97	6.00			23	23	
	SPGL-C	32	50	60	70	80	90	100	110	120	130	140	150	28.00	31.99	31.97	7.00			28	28	
X	SPAX-C	10	70	80	90	100	110	120	130	140	150	6.00	12.99	12.97	3.00	40	13					
	SPDX-C	16	70	80	90	100	110	120	130	140	150	10.00	15.99	15.97	4.00			13	13			
	SPRX-C	25	70	80	90	100	110	120	130	140	150	18.00	24.99	24.97	6.00			16	16			
	SPEX-C	32	70	80	90	100	110	120	130	140	150	28.00	31.99	31.97	7.00			19	19			
	SPGX-C	45	70	80	90	100	110	120	130	140	150	35.00	44.99	44.97	9.00			23	23			

- L (40): D10 → 25 → B=8 If full length is (40) and D dimension is 10 → 25, tip length is 8mm in all cases.
D32 → 45 → B=6 If full length is (40) and D dimension is 32 → 45, tip length is 6mm in all cases.
- L (50) → B=13 If full length is (50), tip length is 13mm in all cases.
- A: P > D - 0.03 → ε=0 If P > D - 0.03 for a round punch, D = 0.01 (press-in lead) is not included.
- R R E G: P-K > D - 0.05 → ε=0 If P-K > D - 0.05 for a shaped punch, D = 0.01 (press-in lead) is not included.

Order **Catalog No.** - **L** - **P** - **W** - **R (R only)**
 SPAS-C 25 - 100 - P18.05

Example ■ Uses of punches with locating dowel holes
 This type of punch is mainly used with dies for parts such as automobile bodies, in combination with a retainer that holds the punch. Rather than indirect positioning using the retainer dowel hole, these punches can be positioned directly using the dowel hole machined on the punch axis, improving die accuracy. These punches are particularly effective when used for die machining with NC machines. This type of punch can be also used with dies for the external panels of electrical appliances, either in combination with a retainer, or attached to the punch plate of an ordinary progressive die.



Punch tip shear angle alterations	1F	2F	3F	4F	5F	6F	7F

Days to Ship **Quotation**

Alterations **Catalog No.** - L(LC) - P(PC) - W(WC) - R - (BC-HC-TC, etc.)

SPAS - C 25 - LC95 - P18.05 - BC30

Days to Ship

Alteration

Select alterations with the codes.
 P.37

Index

Price

To know the latest product price, send us RFQ by Fax, E-mail or online quotation request which is available on MISUMI site.

Alteration	Code	(A)	D R E G	1Code
Alterations to tip	PC	Tip dimension change PC _{max} - PC _{min} 0.01 mm increments (if combined with PKC, 0.001 mm increments can be selected.)	Tip dimension change PC _{max} - PC _{min} 0.01 mm increments Cannot be used for tip X.	
	WC	Tip length change 2 ≤ BC ≤ Bmax 0.1 mm increments Full length L must be at least 25 mm longer than tip length BC.	Tip length change 2 ≤ BC ≤ Bmax 0.1 mm increments Full length L must be at least 30mm longer than tip length BC.	
	SC	Lapping of tip P dimension tolerance and increment are the same. P cannot be selected for the tip shape GC corners.		
	PRC	Rounding of tip side edge 0.3 ≤ PRC ≤ 1 0.1 mm increments PRC ≤ (P - 0.2) / 2 Cannot be combined with PCC-SC.		
	PCC	Chamfering to tip side edge 0.3 ≤ PCC ≤ 1 0.1 mm increments PCC ≤ (P - 0.2) / 2 Cannot be combined with PRC-SC.		
	GC	20° ≤ GC < 90° 1° increments Tip length B _{max} + 2 L = PCC × tan(90° - GC) If combined with SC, tip edges are rounded. Cannot be combined with LKC-LKZ-PRC-PCC.		
Alterations to full length	PKC	Tip tolerance change P - W ± 0.01 → +0.005 0 P dimension can be selected ± 0.01 mm increments.)	Tip tolerance change P - W ± 0.01 → +0.01 0	
	LC	Full length change 25 + B (BC) ≤ LC < L 0.1 mm increments If difference between full length and tip length is 25mm or less, tip length is adjusted to (Full length - 25mm). (If combined with LKC-LKZ, 0.01 mm increments can be selected.)	Full length change 30 + B (BC) ≤ LC < L 0.1 mm increments If difference between full length and tip length is 30mm or less, tip length is adjusted to (Full length - 30mm).	
	LKZ	Full length tolerance change L + 0.3 0 → +0.05 0 Full length tolerance change L + 0.3 0 → +0.01 0 Cannot be used for D > 25.		
Alterations to head	KC	Addition of single key flat to head Key flat position: 90° change 1° increments		
	WKC	Addition of double key flats in parallel Double key flats in parallel Can be combined with KC.		

Alteration	Code	(A)	D R E G	1Code
Alterations to head	KFC	Double key flats at 0° and a selected angle 1° increments Cannot be combined with KC-WKC.	Double key flats at 0° and a selected angle 1° increments Cannot be combined with KC-WKC.	
	NKC	No key flat		
	HC	Head diameter change D ≤ HC < H 0.1 mm increments		
	TC	Head thickness change 2 ≤ TC < 5 0.1 mm increments Full length L is shortened by (5 - TC). If combined with LC, full length is equal to LC.		
	TCC	Chamfering of head This improves the strength of the punch head. P.1097 0.5 ≤ TCC ≤ (H - D) / 2 Cannot be combined with SRC.		
	SRC	Modification of head for use with select retainers (SLS) Details P.629 Can be used for D10 - 32.		
Alterations to shank	UC	Modification for urethane stripper (USN) installation Code U L L Applicable USN UC40 37 L ≥ 80 USN40 UC50 47 L ≥ 90 USN50 P-Kmax = D - 1.1 Details P.630 Can be used for L ≥ 80 or L ≥ 90. Can be used for D10 - 32.		
	TPC	Dowel pin change MSG-25 that comes with the product is changed to MSTP-25 (tapped type). Cannot be used for D38-45.		
	NDC	No press-in lead ε ≥ 3 → ε = 0		

Price **Quotation**

How to find the product

- To find the Product Shape, Catalog No., Production Time, and the detail page,
- Use the picture index. P.1
 - Use the Catalog No. Index to find the product by its catalog number. P.1149
 - Use the Product Name Index to find the products by its product name. P.1174

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About the JIS notation

RoHS

MSW MSWS (Short type)

MSWA MSWAS (Break through type)

MSWZ MSWZS (Washer type)

MSWS S45C
 S45C
 34 ~ 43HRC
 Fe₃O₄ (Black oxide)
 ● JIS B 0207/Grade 2

MSWA S45C
 S45C
 34 ~ 43HRC
 Fe₃O₄ (Black oxide)
 (JIS B 0207/Grade 2)

MSWZ S45C
 S45C
 33 ~ 38HRC
 Fe₃O₄ (Black oxide)
 (JIS B 0207/Grade 2)

In the case that JIS standards are indicated on certain location of the product page, please note that this is only for product reference and is not an indication that the product is conforming to the JIS standards

GUIDE OF ALTERATIONS—Optional Modification Service—

Alterations

Alterations can be ordered without drawings

- Our Alteration Service enables you to select additional features and tolerances. You can easily order the alteration by just adding the desired alteration code to the end of the part number. You don't need to fax a complicated drawing.

Example of alterations (Shoulder punches)



Alteration	Code	A	D R E G	1Code																													
Alterations to tip	PC WC	Tip dimension change $PC \geq \frac{P_{min}}{2}$ 0.01 mm increments (If combined with PKC, 0.001 mm increments can be selected.)	Tip dimension change $PC \geq \frac{P_{min}}{2}$ WC $\geq \frac{W_{min}}{2}$ 0.01 mm increments Cannot be used for tip X.																														
		<table border="1"> <tr> <td>P(PC)</td> <td>B(max)</td> <td>P(PC)·W(WC)</td> <td>B(max)</td> </tr> <tr> <td>0.500~0.799</td> <td>10</td> <td>0.80~1.49</td> <td>8</td> </tr> <tr> <td>0.800~0.999</td> <td>13</td> <td>1.50~1.99</td> <td>13</td> </tr> <tr> <td>1.000~1.999</td> <td>20</td> <td>2.00~3.49</td> <td>19</td> </tr> <tr> <td>2.000~3.999</td> <td>35</td> <td>3.50~4.99</td> <td>25</td> </tr> <tr> <td>4.000~4.999</td> <td>45</td> <td>5.00~</td> <td>30</td> </tr> <tr> <td>5.000~5.999</td> <td>50</td> <td></td> <td></td> </tr> <tr> <td>6.000~</td> <td>60</td> <td></td> <td></td> </tr> </table>	P(PC)		B(max)	P(PC)·W(WC)	B(max)	0.500~0.799	10	0.80~1.49	8	0.800~0.999	13	1.50~1.99	13	1.000~1.999	20	2.00~3.49	19	2.000~3.999	35	3.50~4.99	25	4.000~4.999	45	5.00~	30	5.000~5.999	50			6.000~	60
	P(PC)	B(max)	P(PC)·W(WC)	B(max)																													
	0.500~0.799	10	0.80~1.49	8																													
	0.800~0.999	13	1.50~1.99	13																													
	1.000~1.999	20	2.00~3.49	19																													
	2.000~3.999	35	3.50~4.99	25																													
4.000~4.999	45	5.00~	30																														
5.000~5.999	50																																
6.000~	60																																
BC	Tip length change $2 \leq BC \leq B_{max}$ 0.1 mm increments Full length L must be at least 25 mm longer than tip length BC.	Tip length change $2 \leq BC \leq B_{max}$ 0.1 mm increments Full length L must be at least 30 mm longer than tip length BC.																															
PRC	Rounding of tip side edge $0.3 \leq PRC \leq 1$ 0.1 mm increments PRC $\leq (P-0.2)/2$ Cannot be combined with PCC·GC.																																
PCC	Chamfering to tip side edge $0.3 \leq PCC \leq 1$ 0.1 mm increments PCC $\leq (P-0.2)/2$ Cannot be combined with PRC·GC.																																
GC	$20 \leq GC < 90^\circ$ 1° increments Tip length B ≥ 2 $f = P/2 \times \tan(90^\circ - GC^\circ)$ Cannot be used for P < 1.0. Cannot be combined with LKC·LKZ·LCT·LMT·PRC·PCC.																																
PKC	Tip tolerance change $P + 0.01 \rightarrow +0.005$ 0 0 (P dimension can be selected in 0.001 mm increments.)	Tip tolerance change $P \cdot W \pm 0.01 \rightarrow +0.01$ 0	Quotation																														
Alterations to full length	LC	Full length change $25 + B(BC) \leq LC < L$ 0.1 mm increments If difference between full length and tip length is 25 mm or less, tip length is adjusted to (Full length - 25 mm). (If combined with LKC·LKZ, 0.01 mm increments can be selected.)		Full length change $30 + B(BC) \leq LC < L$ 0.1 mm increments If difference between full length and tip length is 30 mm or less, tip length is adjusted to (Full length - 30 mm).																													
	LCT	Changes to head thickness tolerance and full length are processed using a single code. The allowable range of change, increment, ordering process, and notes (☉) are the same as for LC.		Full length tolerance change $L + 0.3 \rightarrow +0.1$ 0 0																													
	LMT	Changes to head thickness tolerance and full length are processed using a single code. The allowable range of change, increment, ordering process, and notes (☉) are the same as for LC.		Full length tolerance change $L + 0.3 \rightarrow +0.1$ 0 0																													
	LKC	Full length tolerance change $L + 0.3 \rightarrow +0.05$ 0																															
	LKZ	Full length tolerance change $L + 0.3 \rightarrow +0.01$ 0																															

Alteration	Code	A	D R E G	1Code
Alterations to head	KC	Addition of single key flat to head	Key flat at 90° position change 1° increments	
	WKC	Addition of double key flats in parallel	Double key flats in parallel Can be combined with KC.	
	KFC	Double key flats at 0° and a selected angle 1° increments Cannot be combined with KC·WKC.	Double key flats at 0° and a selected angle 1° increments Cannot be combined with KC·WKC.	
	NKC	No key flat		
	HC	Head diameter change $D \leq HC < H$ 0.1 mm increments		
	TC	Head thickness change $2 \leq TC < 5$ 0.1 mm increments (If combined with TKC·TKM·LCT·LMT, 0.01 mm increments can be selected.) Full length L is shortened by (5-TC). If combined with LCL/LCT/LMT, full length remains as specified.		
	TKC	Head thickness tolerance change $T + 0.3 \rightarrow +0.02$ 0		Quotation
	TKM	Head thickness tolerance change $T + 0.3 \rightarrow 0$ 0		
	TCC	Chamfering of head This improves the strength of the punch head. ☉ P.1097 0.1 mm increments $0.5 \leq TCC \leq (H-D)/2$ If H ≤ 5 , then TCC is 0.5. Cannot be combined with SRC.		
	RC	Head thickness is machined to a tolerance of -0.04~0 relative to the retainer surface. Cannot be used for $D \geq +0.005$ types.		
SRC	Modification of head for use with select retainers (SLS) For details, refer to P.673. ☉ Can be used for D10~25. Cannot be used for $D \geq +0.005$ types.			
Alterations to shank	SKC	Single key flat on shank D R E G $\frac{D}{2} - 0.5 - 0.01$ • D3~6 P $\leq D - 1.2$ W $\leq D - 1.2$ (Machining width 0.5) • D8~ P $\leq D - 2.2$ W $\leq D - 2.2$ (Machining width 1) Cannot be combined with KC·WKC·KFC.		
	UC	Modification for urethane stripper (USN) installation For details, ☉ P.630 ☉ Can be used for D10~25.		
	NDC	No press-in lead $l \geq 3 \rightarrow l = 0$		

MISUMI'S ENVIRONMENTAL AWARENESS AND RoHS COMPLIANCY

Green Procurement

MISUMI has formulated Green Procurement Guidelines to observe the legal restrictions, and other requirements concerning environmental chemicals, and to help build up a recycling society. By preparing Green Procurement Guidelines and continuously striving to improve our environmental preservation and environmental chemicals management activities, we seek to eliminate environmental chemicals from our products. We ask our customers and business partners for their cooperation with these efforts.

Please refer to our website for details regarding the MISUMI Green Procurement Guidelines.
http://www.misumi.co.jp/about_e/environment/green/index.html

What is RoHS?

Official Name : Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment

RoHS is the directive to speculate and restrict the use of certain hazardous substances in electrical and electronic equipments. It aims to minimize the hazards on environment and health through the life cycles of products from production to disposal.

RoHS Restricted Substances (Compliant with EU Directive came into force on 1 July 2006)

Substances		Purpose of use of the substance	Threshold value
1	Cadmium and its compounds	Cadmium contained in alloys with zinc content (brass, zinc, die cast, lead-free solder, etc.), plating, plastic, rubber, coating, etc.	Less than 100 ppm
		Exemption Cadmium and its compounds in electrical contacts	-
2	Lead and its compounds	Lead contained in all types of alloys, solder, all items other than the following exemptions	Less than 1,000 ppm
		Exemption Lead which is alloyed with steel	3,500 ppm or less
		Exemption Lead which is alloyed with aluminum	4,000 ppm or less
		Exemption Lead which is alloyed with copper	40,000 ppm or less
		Exemption Lead used in solders which contains more than or equal to 85% of lead	-
3	Mercury and its compounds	Mercury contained in all items aside from small fluorescent light bulbs and straight-tube fluorescent light bulbs	Less than 1,000 ppm
4	Hexavalent chromium and its compounds	All Hexavalent chromium in chromate treatment, plating, coating, etc.. Chromium metal and chrome in metal alloys are exempted	Less than 1,000 ppm
5	Polybrominated biphenyls (PBBs)	Flame retardant	Less than 1,000 ppm
6	Polybrominated diphenylethers (PBDEs)	Flame retardant	Less than 1,000 ppm

*Threshold value is, whether consciously or not, the maximum concentration value set for each homogeneous material which cannot be mechanically disjoined into different materials.