

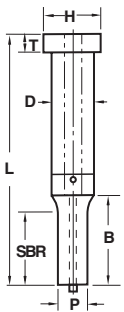


Inch / Metric
 Heavy Duty / Light Duty

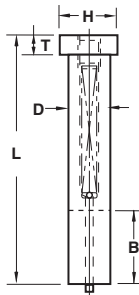
CUSTOMER: _____
 ORDERED BY: _____
 ADDRESS: _____
 CITY STATE ZIP

P.O.#: _____
 DATE: _____
 PHONE#: _____
 FAX#: _____

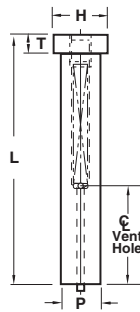
**JEKTOLE (J) OR
REGULAR (P)
PUNCH**



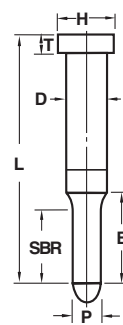
**JEKTOLE (JB) OR
REGULAR (PB)
PUNCH BLANK**



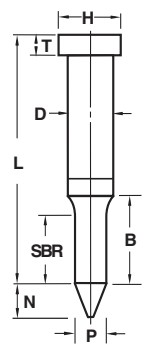
**JEKTOLE (YX) OR
REGULAR (UX)
STRAIGHT PUNCH**



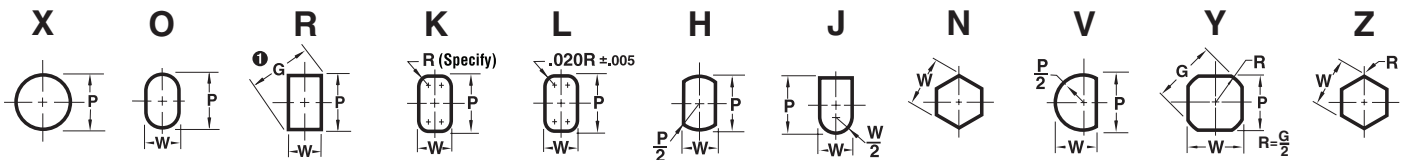
**REGULAR PILOT
(PT)**



**POSITIVE PICK-UP
PILOT (PA)**



STANDARD SHAPES



REFLECTED VIEW FOR PUNCHES / LAND END VIEW FOR DIE BUTTONS

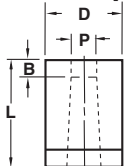
BODY DIMENSIONS

POINT DIMENSIONS

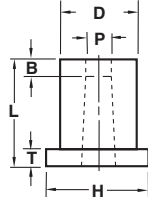
DET	QTY	MAT'L	D	H	T	B	SBR	L	EJECTOR	SHAPE	P	W	R	LOCATOR	NOTES

Punches & Dies Available In A2 - M2 - PS - PS4 - D2

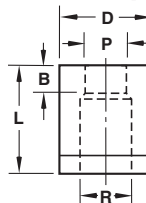
**TAPERED RELIEF
MATRIX (N)**



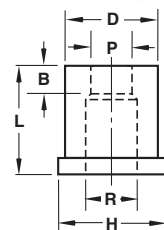
**TAPERED RELIEF
MATRIX (R)**



MATRIX (KD)



MATRIX (KH)



BODY DIMENSIONS

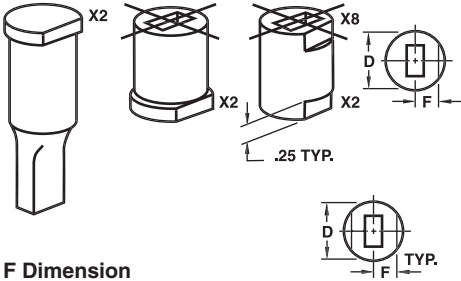
ID SHAPE DIMENSIONS

SLUG CONTROL

DET	QTY	MAT'L	D	H	T	L	TAPER C'BORE	SHAPE	P	W	R	B	LOCATOR	CLEARANCE	MATERIAL THICKNESS

Locking Devices—Flats vs. Dowel Slots

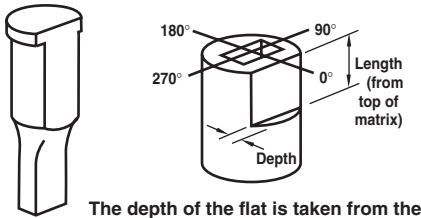
Flats



**F Dimension
(.5D on Headed Products)**

Headless Matrixes and Guides

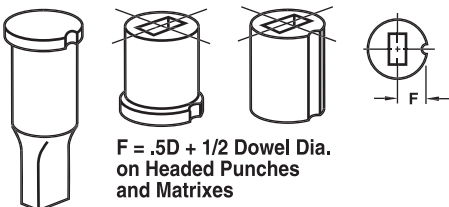
Body Dia.	18	25	31	37	43	50
F	.080	.110	.135	.165	.190	.220
Body Dia.	62	75	87	100	125	150
F	.270	.325	.380	.435	.540	.650
Body Dia.	175	200	225	250	275	
F	.775	.900	1.025	1.150	1.275	



Key Flats vs. Dowel Slots

Maximum hole dimensions in matrixes were designed with key flats in mind. There are instances where, if using a dowel slot, the dowel hole could break into the relief. For this reason, there are two ways to specify the location of the dowel. **X0** (standard/alternate location) and **X1** (custom location) are located .5D from centerline. However, when hole dimensions are approaching the high limit of "P," **X4** (standard/alternate location) or **X7** (custom location) may be specified. This relocates the dowel outward to assure no interference between the dowel and the relief hole. Note: When the matrix diameter is over .5000, the centerline dimension is .5D on all dowels.

Dowel Slots



**F = .5D + 1/2 Dowel Dia.
on Headed Punches
and Matrixes**

Standard and Alternate Locations

Definitions:

Standard Location is at 0°.

Alternate Location is 90°, 180°, or 270°.

Alternate Locations are available at no additional charge.

Single Flats: X2 & X8

Locking Devices	Punches	Matrixes
X2	Top	Bottom
X8	N/A	Top

Order Example:

X2 — 90°

Double Flats: X3

Locking Devices	Punches	Matrixes
X3	Top	Bottom

Order Example:

X3 — 90°

Second Flat is *always parallel* to the first flat.

Additional Flats

Code	Depth	Length
X81	.060	.500
X82	.060	.625
X83	.060	.750
X84	.060	Full Length
X85	.093	.500
X86	.093	.625
X87	.093	.750
X88	.093	Full Length
X89		Specify Dimensions

Dowel Slots: X0, X4, & X41

Locking Devices	Dowel Diameter
X0	.1250
X4	.1250
X41	.1875

Order Example:

X0 — 180°

F Dimension for Headless Matrixes Only

Body Diameter	25	31	37	43	50	62-275
X0	.1250	.1562	.1875	.2188	.2500	.5D
X4	.1625	.1875	.2125	.2375	.2625	.5D
X41	.1938	.2188	.2438	.2688	.2938	.5D

Custom Locations

Definitions:

Custom Location is *any angle other than*: 0°, 90°, 180°, or 270°.

Single Flats: X5 & X9

Locking Devices	Punches	Matrixes
X5	Top	Bottom
X9	N/A	Top

Order Example:

X5 — 135°

Double Flats: X6

Locking Devices	Punches	Matrixes
X6	Top	Bottom

Order Example:

X6 — 135°

Additional Flats

Code	Depth	Length
X91	.060	.500
X92	.060	.625
X93	.060	.750
X94	.060	Full Length
X95	.093	.500
X96	.093	.625
X97	.093	.750
X98	.093	Full Length
X99		Specify Dimensions

Dowel Slots: X1, X7, & X71

Locking Devices	Dowel Diameter
X1	.1250
X7	.1250
X71	.1875

Order Example:

X71 — 135°

F Dimension for Headless Matrixes Only

Body Diameter	25	31	37	43	50	62-275
X1	.1250	.1562	.1875	.2188	.2500	.5D
X7	.1625	.1875	.2125	.2375	.2625	.5D
X71	.1938	.2188	.2438	.2688	.2938	.5D