



hales[®]



**2025
PLASTIC TOOLING
COMPONENTS**



MOULD BASES

■ Mould Base Specifications	6
■ Mould Bases JIS Standard	7
■ Mould Bases – Custom	37
■ Mould Bases – Special Requests	38

EJECTOR PINS

■ Ejector Pins – JIS Stepped Nitrided Metric	39
■ Ejector Pins – JIS Straight Nitrided Metric	40
■ Ejector Pins – JIS Oversize Nitrided Metric	41
■ Ejector Pins – JIS Soft Core Metric	42
■ Ejector Sleeves – JIS Metric	43
■ Ejector Blades – JIS Metric	44
■ Ejector Pins – JIS Through Hardened	45
■ Ejector Pins – DIN Through Hardened	46
■ Ejector Pins – Stepped Imperial	47
■ Ejector Pins – Straight Imperial	48
■ Ejector Pins – Oversize Stepped Imperial	49
■ Ejector Pins – Oversize Straight Imperial	49
■ Core Pins – Imperial	50
■ Ejector Sleeves – Imperial	51

ALIGNMENT

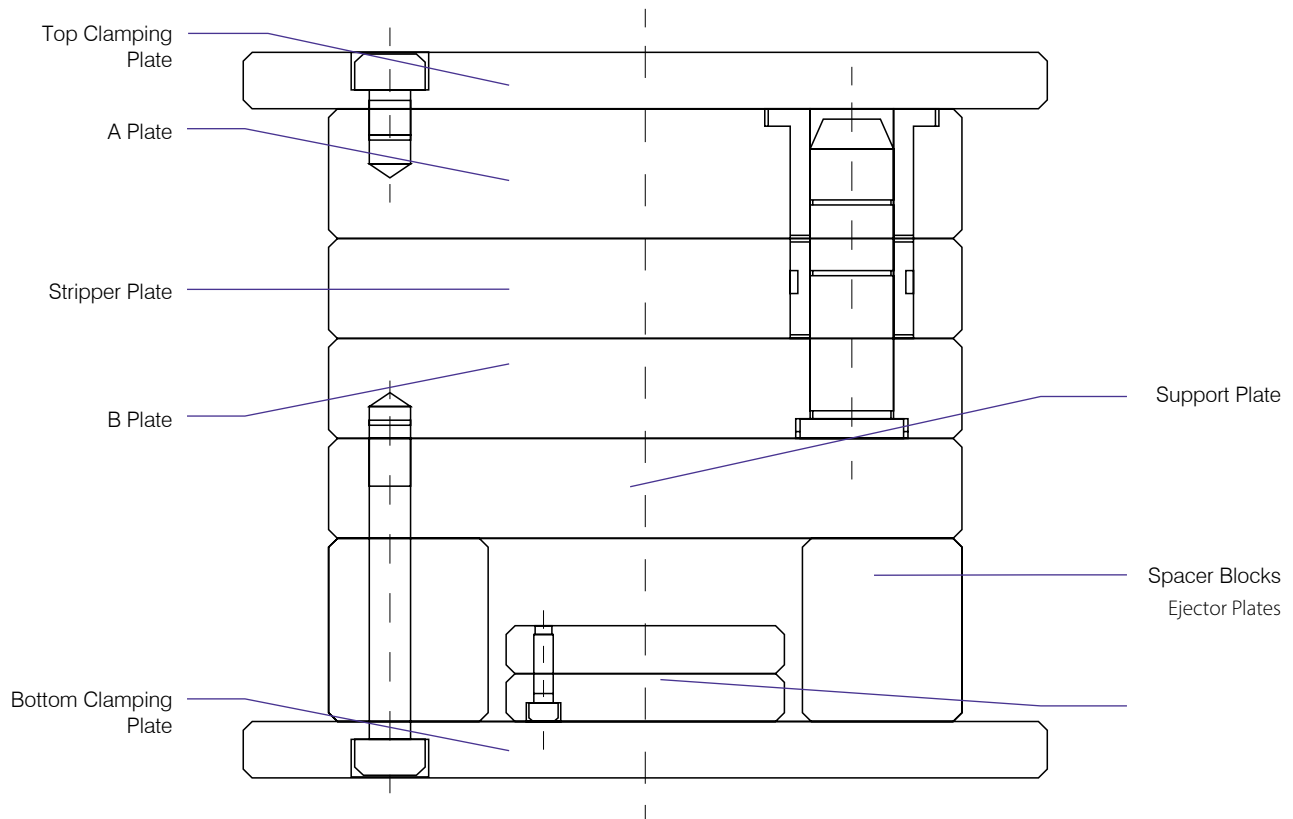
■ Stepped Guide Pins – Metric	52
■ Leader Pins – Metric	53
■ Guide Bushes – Metric	54
■ Bronze Bushes – Metric	55
■ Regent Pins and Bushes – Metric	56
■ Inch Pins and Bushes – Imperial	56
■ Stepped Guide Pins – Imperial	57
■ Guide Bushes – Imperial	62
■ Tapered Interlock Set	63
■ Side Locks	64
■ Guide Bar	66
■ Block Sets	67
■ Ejection Bush – Guided Bronze	68
■ Ejector Bush – Graphite	68
■ Angle Pins	69

MOULD ACTIONS & ACCESSORIES

■ Ejector Couplers	70
■ Air Ejector Coupler	71
■ FasTie Coupler & Stud	72
■ Parting Locks	73
■ Sprung Cores	74
■ Flexible Cores	75
■ Ejectors – Tulip & Double	76
■ Vacuumjet System	78
■ Hydraulic Cylinders	79
■ Plate Accelerators	80
■ Slide Retainers	81
■ Modular Retainers	84
■ Latch Locks	85
■ Air Poppets & Valves	87
■ Moulding Date Inserts	89
■ Date Stamps	90
■ Mould Identification Inserts	91
■ Recycle Inserts	92
■ Sprue Bushes	93
■ Sprues – Finished	93
■ Location Rings	93
■ Insulation Sheet	94
■ Sintered Vents	94
■ Tunnel Gate Inserts	95

HOT RUNNER SYSTEMS

■ System Selection Guides	96
■ Nozzles	102
■ Valve Gates	105
■ Manifold Systems	109
■ Tips	111
■ Nozzle Heaters	112
■ Rear Heaters	113
■ Heater Covers	115
■ Nozzle Heaters Sleeved	116
■ Heater Caps	117
■ Thermocouples	118
■ Bush Nuts	118
■ Sprue Nuts	119
■ Open Nuts	120
■ Spare Parts Range	122
■ Spare Parts Range – Manifolds	123



All standard mould bases 600mm x 600mm and over have lifting holes.
For non standard mould base quotes please refer to last page for size specification template.

Plate Type	Material	Thickness Tolerance	Length Tolerance	Width Tolerance
Top Clamping Plate	SC50	+0.5/0	+0.3/+0.1	+0.4/+0.1
A Plate	2311 or equivalent	+0.5/0	+1./+0.3	+1.0/+0.3
Stripper Plate (C Type)	2311 or equivalent	+0.5/0	+0.3/+0.1	+0.4/+0.1
B Plate	2311 or equivalent	+0.5/0	+1./+0.3	+1.0/+0.3
Support Plate	SC50	+0.5/0	+0.3/+0.1	+0.4/+0.1
Spacer Blocks	SC50 ++0.17/+0.15 (c) 30-40 series +0/-10 (b) above 300mm	(a) 300mm or less (b) 25 series = +/-0.8 (d) 45 series plus =+0/-1.2	+0.3/+0.1 +0.17/+0.13	(a) 15-20 series = +0/-0.5
Ejector Plates	SC50	+0.5/0	+0.3/+0.1	+0.4/+0.1
Bottom Clamping Plate	SC50	+0.5/0	+0.3/+0.1	+0.4/+0.1

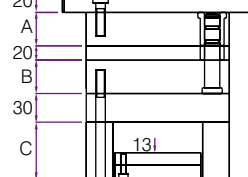
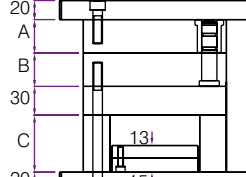
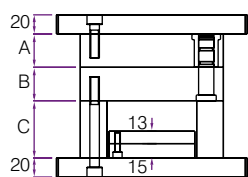
For safety reasons, some assembled mould bases now come with lifting holes.
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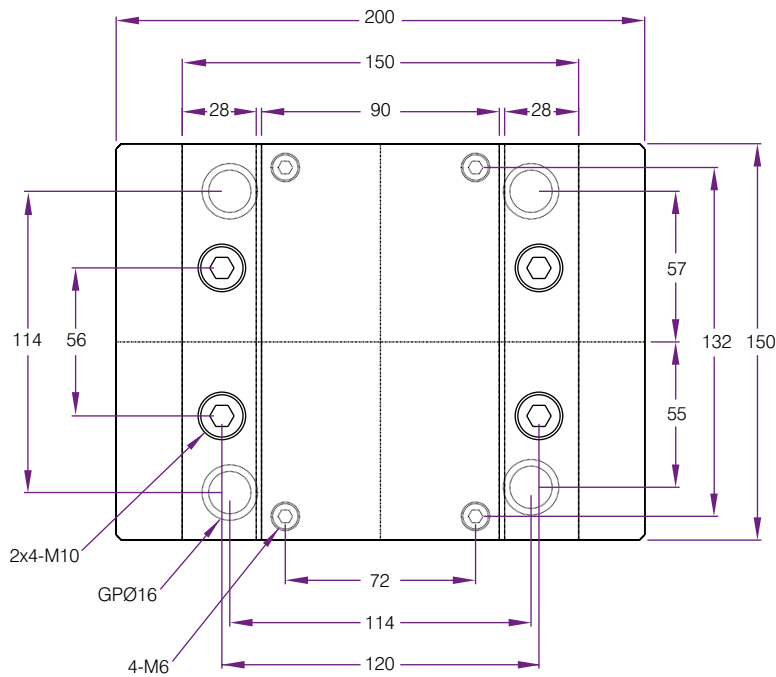
A Type

B Type

C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
25	25	60	
25	30	60	
25	35	60	◆
25	40	60	
25	50	70	
25	60	80	
30	25	60	
30	30	60	◆
30	35	60	
30	40	60	
30	50	70	
30	60	80	
35	25	60	
35	30	60	◆
35	35	60	
35	40	60	
35	50	70	◆
35	60	80	
40	25	60	
40	30	60	
40	35	60	
40	40	60	◆
40	50	70	
40	60	80	
50	25	60	
50	35	60	
50	40	60	
50	50	70	◆
50	60	80	
60	25	60	
60	30	60	
60	35	60	
60	40	60	
60	50	70	
60	60	80	◆
70	40	60	
70	50	70	
70	60	80	
70	70	80	◆
100	100	100	◆



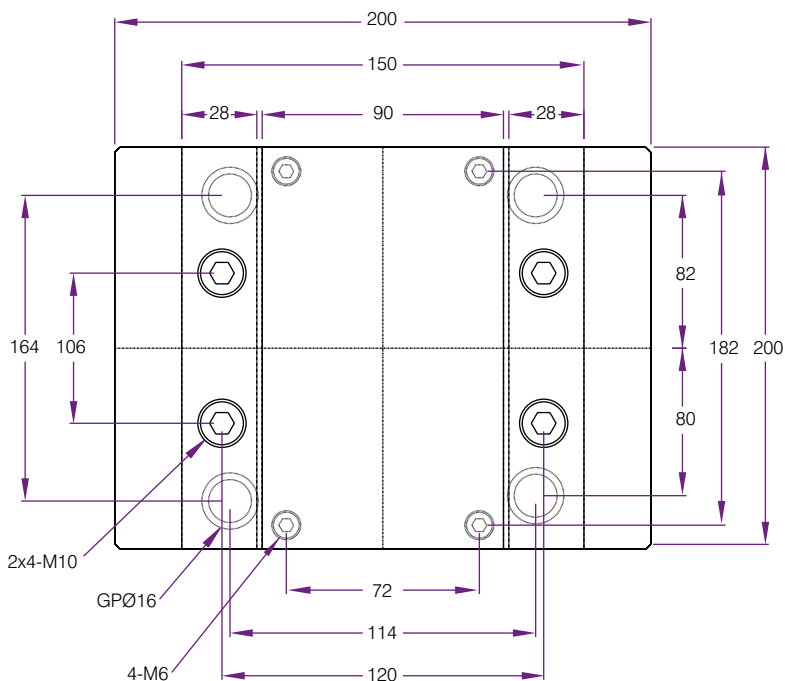
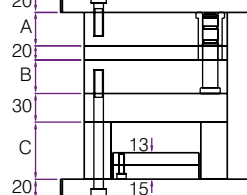
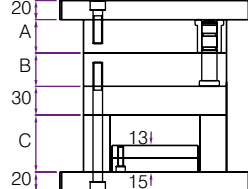
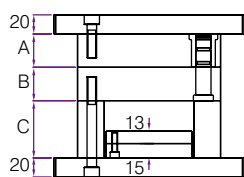
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A Type

B Type

C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
25	25	60	
25	30	60	
25	35	60	
25	40	60	
25	50	70	
25	60	80	
30	25	60	
30	30	60	◆
30	35	60	
30	40	60	
30	50	70	
30	60	80	
35	25	60	
35	30	60	
35	35	60	◆
35	40	60	
35	50	70	◆
35	60	80	
40	25	60	
40	30	60	
40	35	60	
40	40	60	◆
40	50	70	
40	60	80	◆
50	25	60	
50	35	60	
50	40	60	
50	50	70	◆
50	60	80	
50	80	90	◆
60	25	60	
60	30	60	
60	35	60	
60	40	60	
60	50	70	
60	60	80	◆
70	40	60	
70	50	70	
70	60	80	
70	70	80	◆
80	80	100	◆
80	100	120	◆

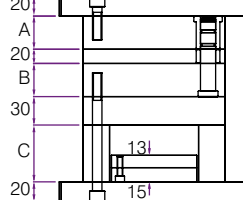
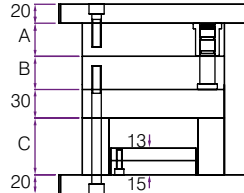
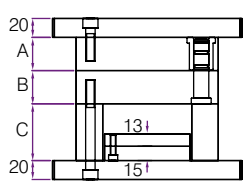
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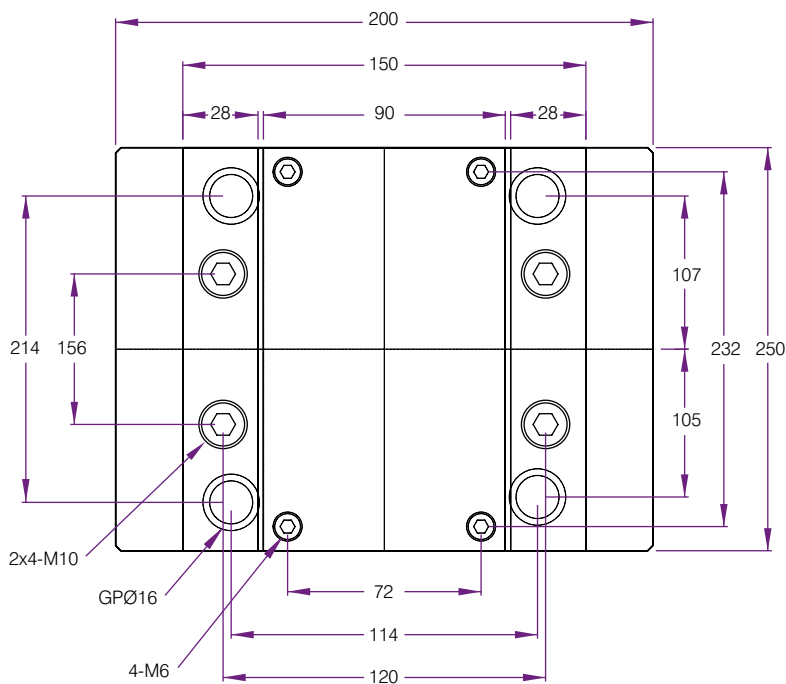
A Type

B Type

C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
25	25	60	
25	30	60	
25	35	60	
25	40	60	
25	50	70	
25	60	80	
30	25	60	
30	30	60	◆
30	35	60	
30	40	60	
30	50	70	
30	60	80	
35	25	50	
35	30	60	
35	35	60	◆
35	40	60	
35	50	70	
35	60	80	
40	25	60	
40	30	60	
40	35	60	
40	40	60	
40	50	70	
40	60	80	
50	35	60	
50	35	60	
50	40	60	
50	50	70	
50	60	80	
60	30	60	
60	35	60	
60	40	60	
60	50	70	
60	60	80	
70	40	60	
70	50	70	
70	60	80	
70	70	80	



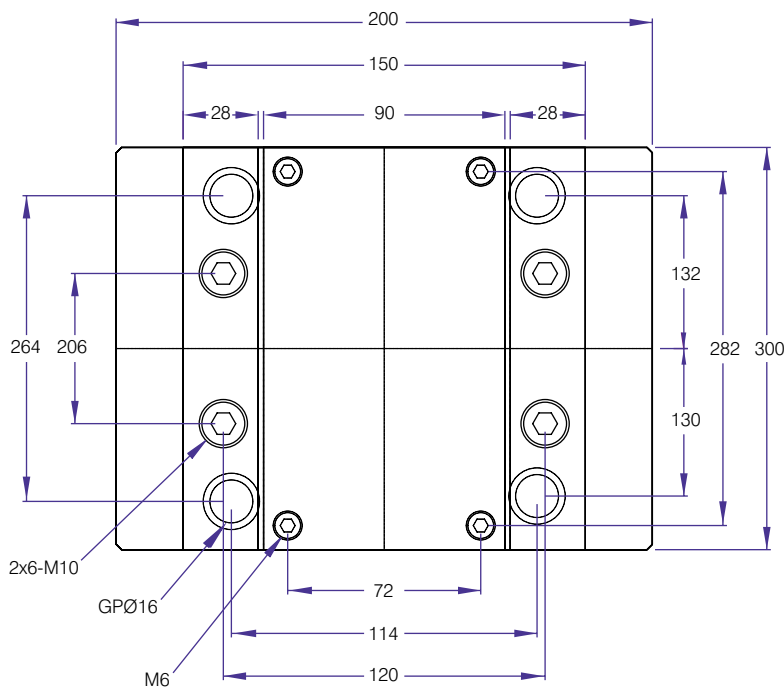
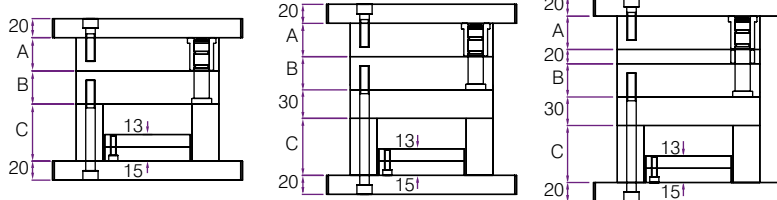
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A Type

B Type

C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
25	25	60	
25	30	60	
25	35	60	
25	40	60	
25	50	70	
25	60	80	
30	25	60	
30	30	60	
30	35	60	
30	40	60	
30	50	80	
30	60	80	
35	25	60	
35	30	60	
35	35	60	
35	40	60	
35	50	80	
35	60	80	
40	25	60	
40	30	60	
40	35	60	
40	40	60	
40	50	70	
40	60	80	
50	25	60	
50	35	60	
50	35	60	
50	40	60	
50	50	70	◆
50	60	80	
60	25	60	
60	30	60	
60	35	60	
60	40	60	
60	50	70	
60	60	80	
70	40	60	
70	50	70	
70	60	80	
70	70	80	

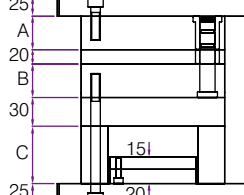
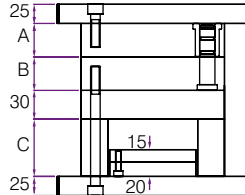
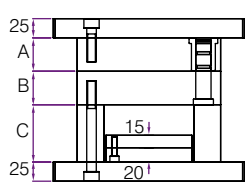
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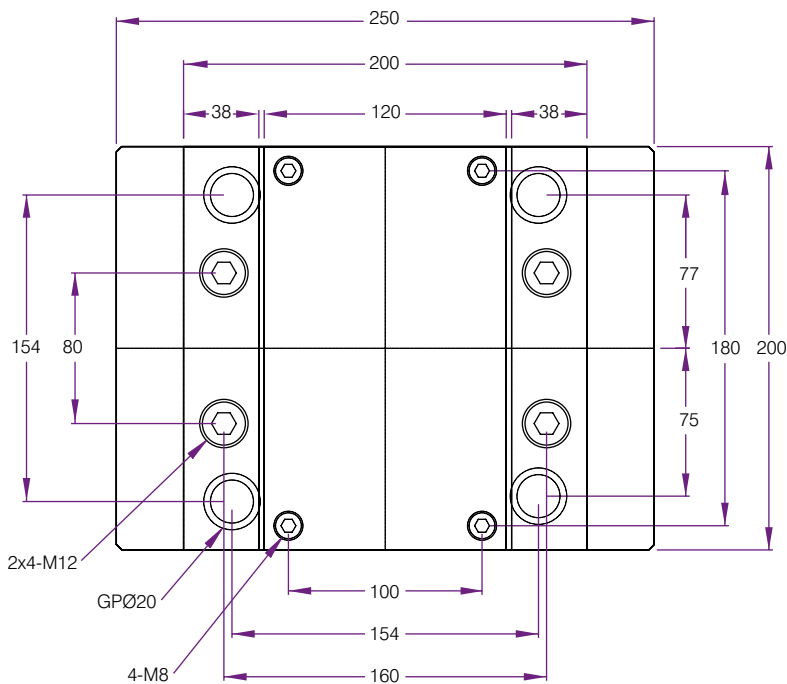
A Type

B Type

C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
25	25	70	
25	30	70	
25	35	70	
25	40	70	
25	50	70	◆
25	60	70	
30	25	70	
30	30	70	◆
30	40	70	
30	50	80	
30	60	80	
35	25	70	
35	30	70	
35	35	70	◆
35	40	70	
35	50	70	◆
35	60	80	
40	25	70	
40	30	70	
40	35	70	
40	40	70	◆
40	50	80	
40	60	80	
50	25	70	
50	35	70	
50	35	70	
50	40	70	
50	50	70	◆
50	50	80	
50	60	80	
60	25	70	
60	30	70	
60	35	70	
60	40	70	
60	50	80	
60	60	80	◆
70	40	70	
70	50	80	
70	60	80	
70	70	80	◆
70	80	100	
80	40	70	
80	50	80	
80	60	80	
80	70	80	
80	80	100	◆



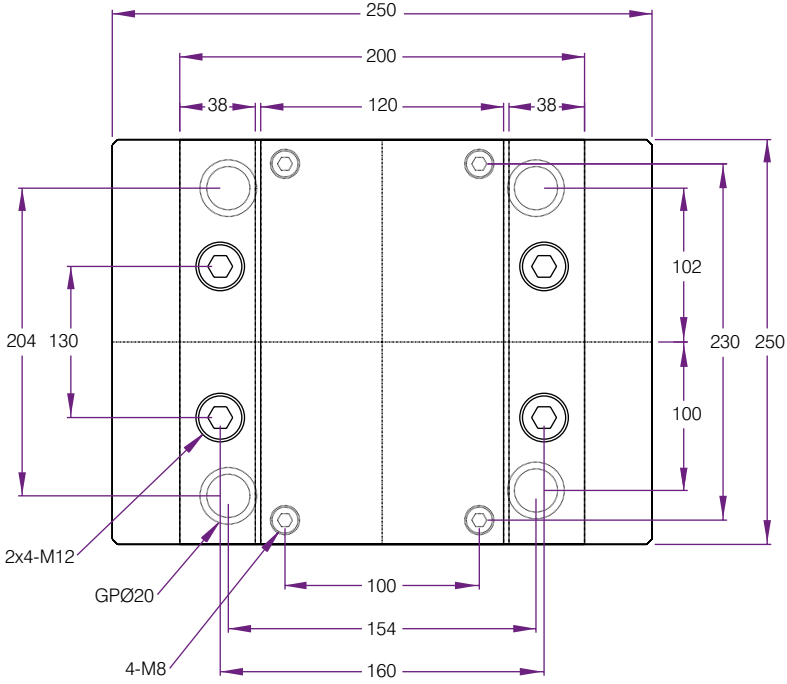
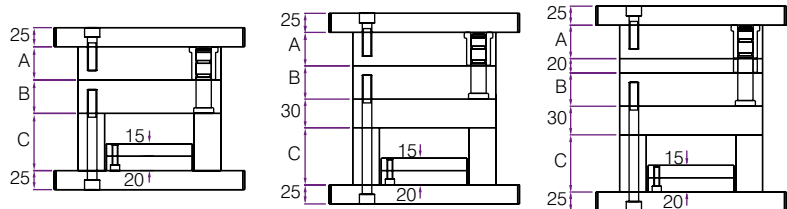
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A Type

B Type

C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
25	25	70	
25	30	50	
25	35	70	
25	40	60	
25	50	70	
25	60	70	
30	25	50	
30	30	70	
30	35	60	
30	40	60	
30	50	70	
30	60	70	
35	25	70	
35	30	50	
35	35	70	◆
35	40	60	
35	50	70	◆
35	60	80	
40	25	70	
40	30	70	
40	35	70	
40	40	70	◆
40	50	70	
40	60	70	
50	35	70	
50	35	60	
50	40	60	
50	50	70	◆
50	70	80	◆
60	25	50	
60	30	50	
60	35	70	
60	40	60	
60	50	70	
60	60	80	◆
60	80	80	◆
70	40	70	
70	50	70	
70	60	80	
70	70	80	◆
70	80	90	
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80	40	70	
80	50	70	
80	60	70	
80	70	90	
80	80	100	◆
100	100	120	

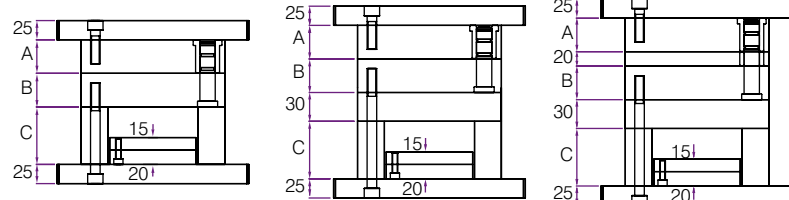
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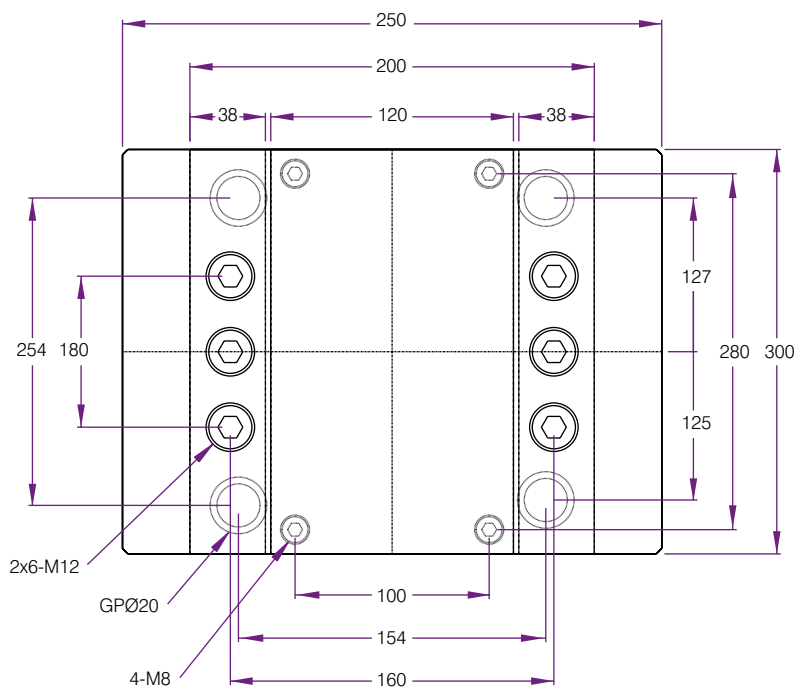
A Type

B Type

C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
25	35	70	
25	40	70	
25	50	80	
35	25	70	
35	35	70	◆
35	40	70	
35	50	80	
35	60	80	
35	70	80	
35	80	100	
40	40	70	◆
40	50	80	
40	60	80	
40	70	80	
40	80	100	
50	35	70	
50	40	70	
50	50	70	◆
50	60	80	
50	80	100	
60	35	70	
60	50	80	
60	60	80	◆
60	70	80	
60	80	100	
70	40	70	
70	50	80	
70	60	80	
70	70	80	
70	80	100	
80	40	70	
80	50	80	
80	60	80	
80	70	80	
80	80	100	



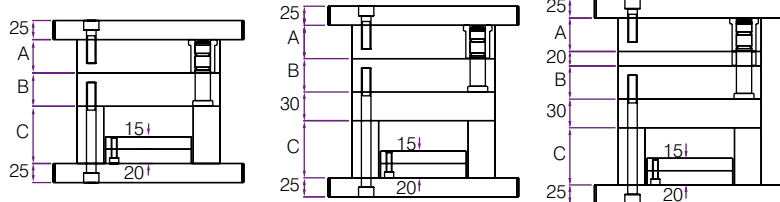
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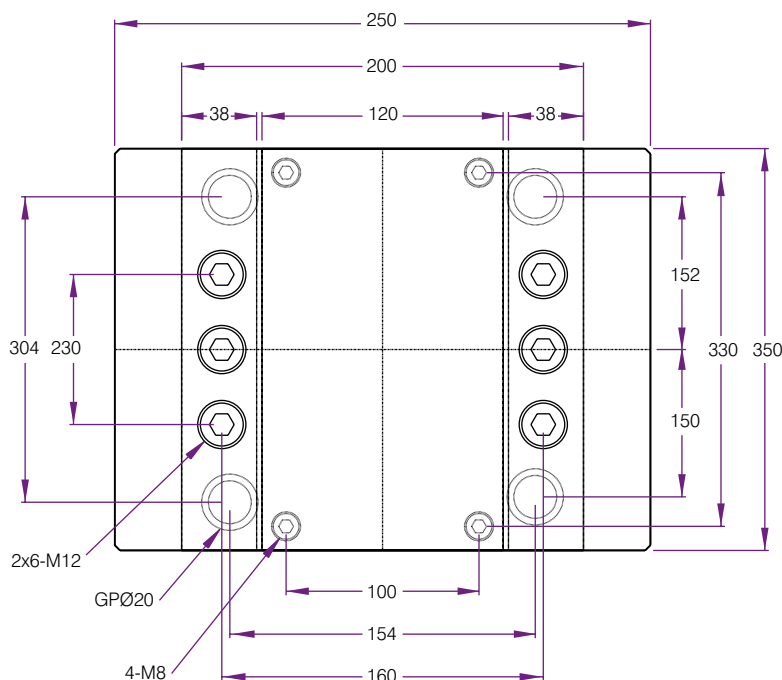
A Type

B Type

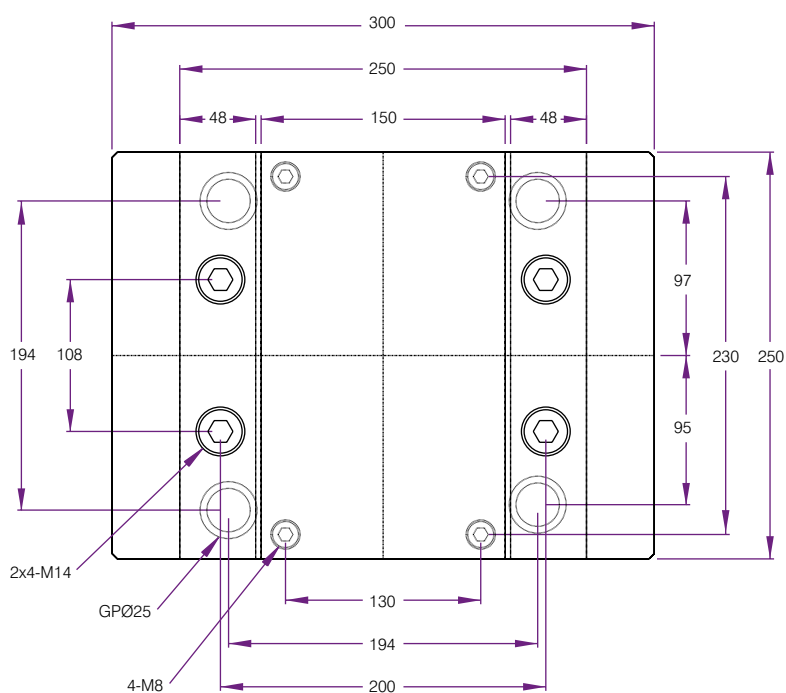
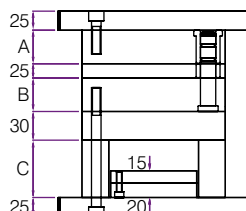
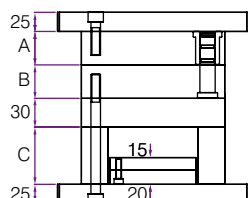
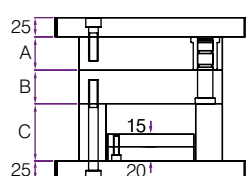
C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
25	35	70	
25	40	70	
25	50	80	
25	60	80	
25	70	80	
35	35	70	
35	40	70	
35	50	80	
35	60	80	
35	70	80	
35	80	100	
40	25	70	
40	40	70	◆
40	50	70	
40	60	80	
40	70	80	
40	80	100	
50	35	70	
50	40	70	
50	50	80	
50	70	80	
50	80	100	
60	40	70	
60	50	80	
60	60	80	◆
60	80	100	
70	35	70	
70	40	70	
70	50	80	
70	60	80	
70	70	80	
70	70	100	◆
80	40	70	
80	50	80	
80	60	80	
80	70	80	
80	80	100	◆



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A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
25	35	80	
25	40	80	
25	50	80	
25	60	80	
30	50	80	◆
35	35	80	
35	40	80	
35	50	80	◆
35	60	80	
35	70	90	
35	80	110	
35	100	110	
40	40	80	◆
40	50	80	
40	60	80	◆
40	70	90	
40	80	110	
50	25	80	
50	35	80	
50	40	80	
50	50	80	◆
50	60	80	
50	70	90	
50	80	110	
50	100	110	
60	35	60	
60	50	80	
60	60	80	◆
60	70	90	
60	80	100	◆
60	100	110	
70	40	80	
70	50	80	
70	60	80	
70	70	90	◆
70	80	110	
70	100	110	
80	40	80	
80	50	80	
80	60	80	
80	70	90	
80	80	90	
80	80	110	◆

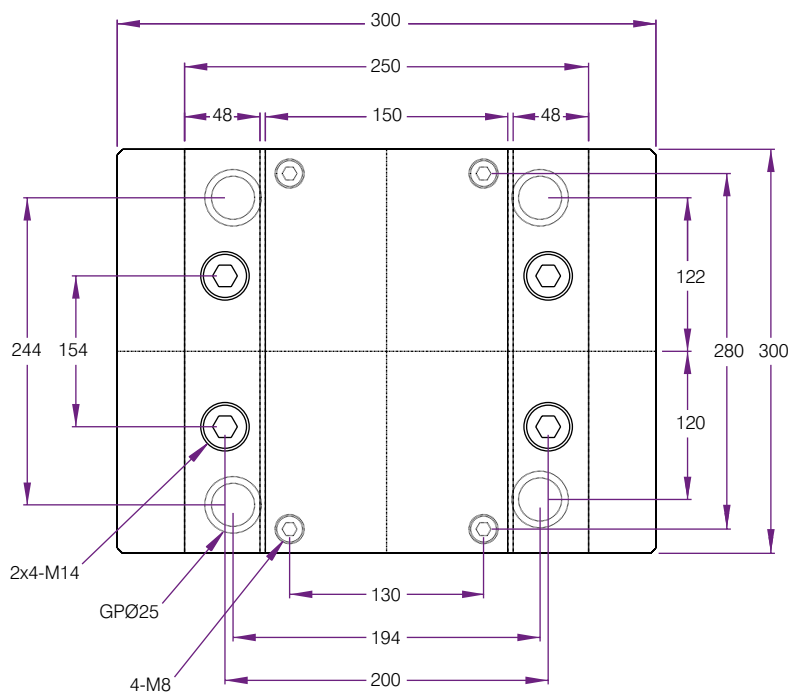
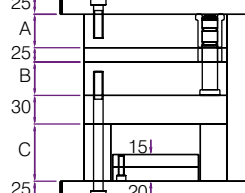
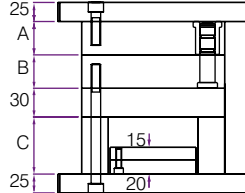
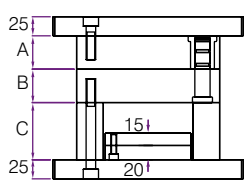
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A Type

B Type

C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
30	50	80	
35	35	80	
35	50	80	
35	60	80	
35	70	90	
35	80	110	
35	100	110	
40	35	80	
40	40	70	◆
40	50	80	
40	60	80	
40	70	90	
40	80	110	
40	100	110	
50	35	80	
50	40	80	
50	50	80	◆
50	60	80	
50	70	90	
50	80	110	
50	80	110	
60	35	80	
60	50	80	
60	60	80	◆
60	70	90	
60	80	110	
60	80	90	
70	60	80	
70	70	90	◆
70	80	110	
70	100	110	
80	40	80	
80	60	80	
80	60	80	
80	80	100	◆
80	100	110	
100	35	80	
100	40	80	
100	50	80	
100	60	80	
100	70	90	
100	80	110	
100	100	110	

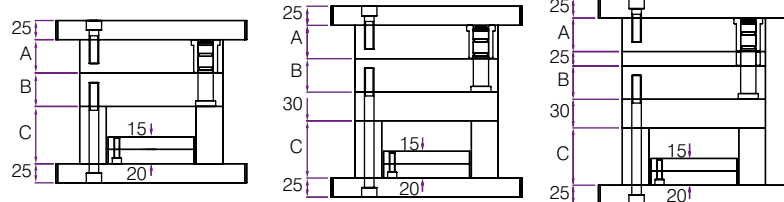
For safety reasons, some assembled mould bases now come with lifting holes.
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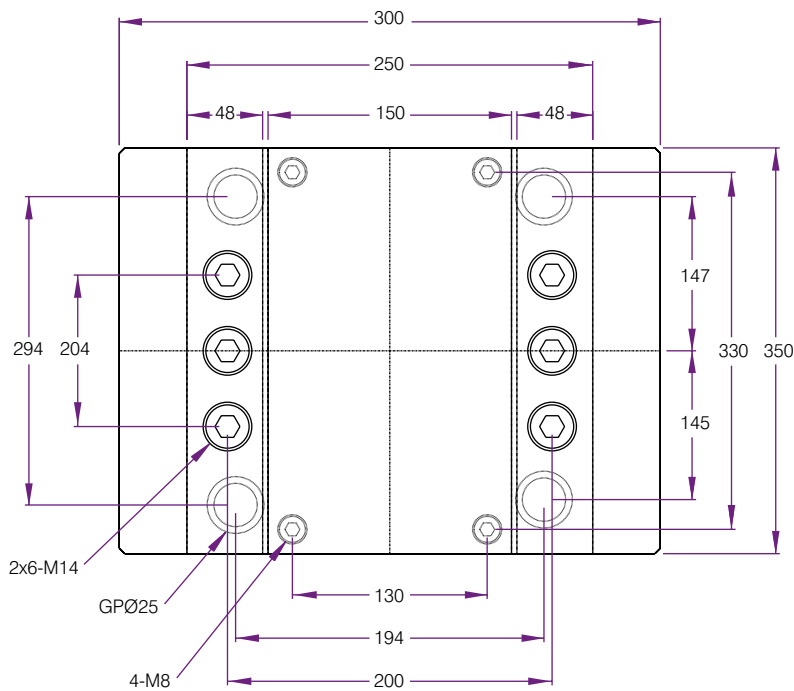
A Type

B Type

C Type



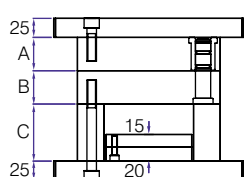
A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
35	35	80	
35	40	80	
35	50	80	
35	60	80	
35	70	90	
35	80	90	
35	100	110	
40	35	80	◆
40	40	80	
40	50	80	
40	60	80	
40	70	90	
40	80	90	
40	100	110	
50	35	80	
50	40	80	
50	50	80	
50	60	80	
50	80	110	
50	100	110	
60	35	80	
60	40	80	
60	50	80	
60	60	80	◆
60	70	90	
60	80	80	
60	100	110	
70	35	80	
70	40	80	
70	50	80	
70	60	80	
70	80	80	
70	100	110	
80	35	80	
80	40	80	
80	50	80	
80	60	80	
80	70	90	
80	80	110	
80	100	110	
100	35	80	
100	40	80	
100	50	80	
100	60	80	
100	70	90	
100	80	80	
100	100	110	



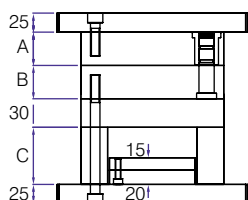
For safety reasons, some assembled mould bases now come with lifting holes.
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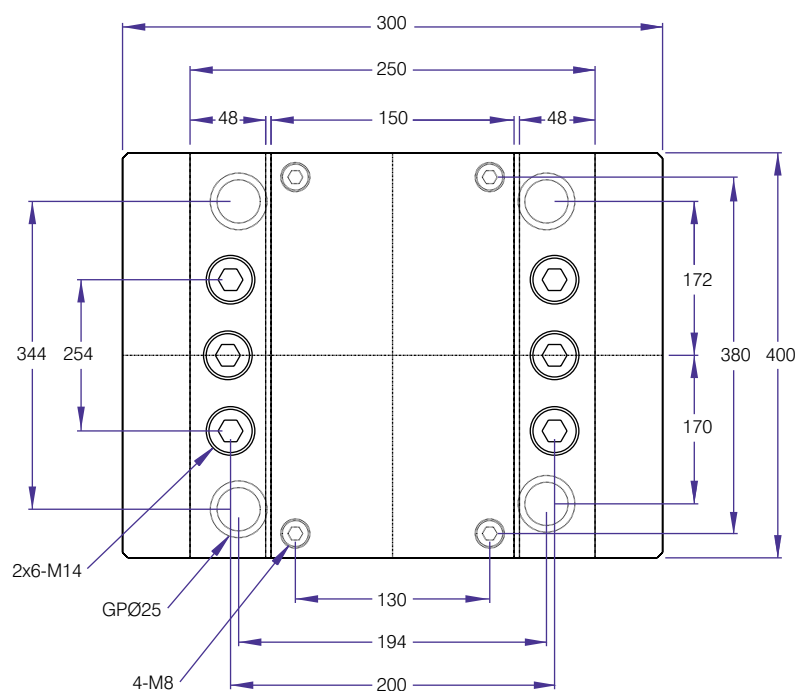
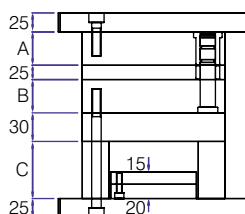
A Type



B Type



C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
35	35	80	
35	40	80	
35	50	80	
35	60	80	
35	70	90	
35	80	110	
35	100	110	
40	35	80	
40	40	80	◆
40	50	80	
40	60	80	
40	70	90	
40	80	110	
40	100	110	
50	35	80	
50	40	80	
50	50	80	
50	60	80	
50	70	90	
50	80	80	◆
50	100	110	
60	35	80	
40	40	80	
60	50	80	
60	60	80	◆
60	70	90	
60	80	110	
60	100	110	
70	35	80	
70	40	80	
70	50	80	
70	60	80	
70	70	90	
70	80	110	
70	100	110	
80	35	80	
80	40	80	
80	50	80	
80	60	80	
80	70	90	
80	80	100	◆
80	100	110	
80	120	110	
100	40	80	
100	50	80	
100	60	80	
100	70	90	
100	80	110	
100	100	110	
100	120	140	◆

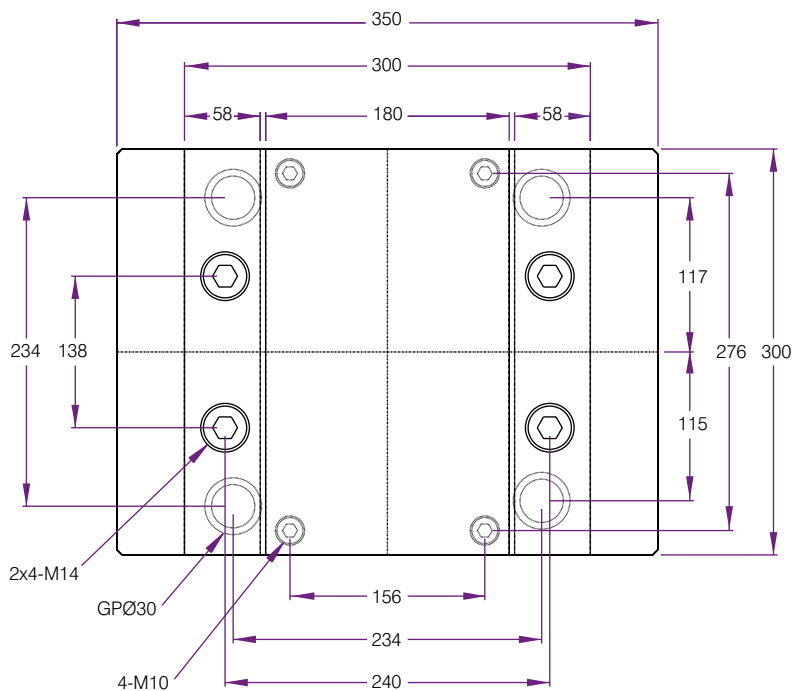
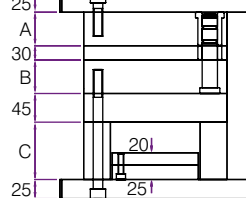
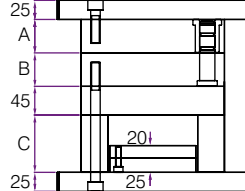
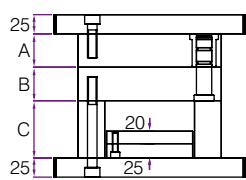
For safety reasons, some assembled mould bases now come with lifting holes.
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A Type

B Type

C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
35	35	90	
35	40	90	
35	50	90	
35	60	90	
35	70	90	
35	80	100	
35	100	120	
40	35	90	
40	40	90	
40	50	90	
40	60	90	
40	70	90	
40	80	100	
40	100	120	
50	35	90	
50	40	90	
50	50	80	◆
50	60	90	
50	70	90	◆
50	80	100	
50	100	120	
60	35	90	
60	40	90	
60	50	90	
60	60	90	◆
60	70	90	
60	80	100	
60	100	120	
70	35	90	
70	40	90	
70	50	90	
70	60	90	
70	70	90	◆
70	80	100	
70	100	120	
80	35	90	
80	40	90	
80	50	90	
80	60	90	
80	70	90	
80	80	100	◆
80	100	120	
100	35	90	
100	40	90	
100	50	90	
100	60	90	
100	70	90	
100	80	100	
100	100	120	

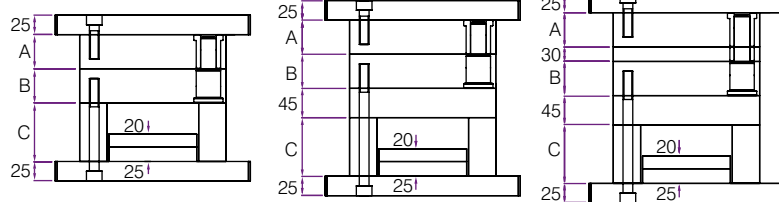
For safety reasons, some assembled mould bases now come with lifting holes.
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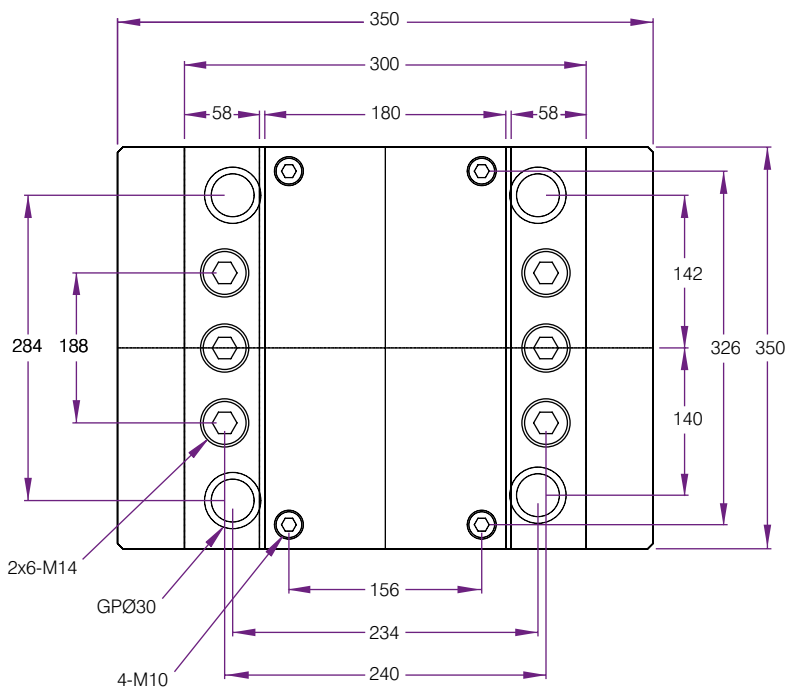
A Type

B Type

C Type



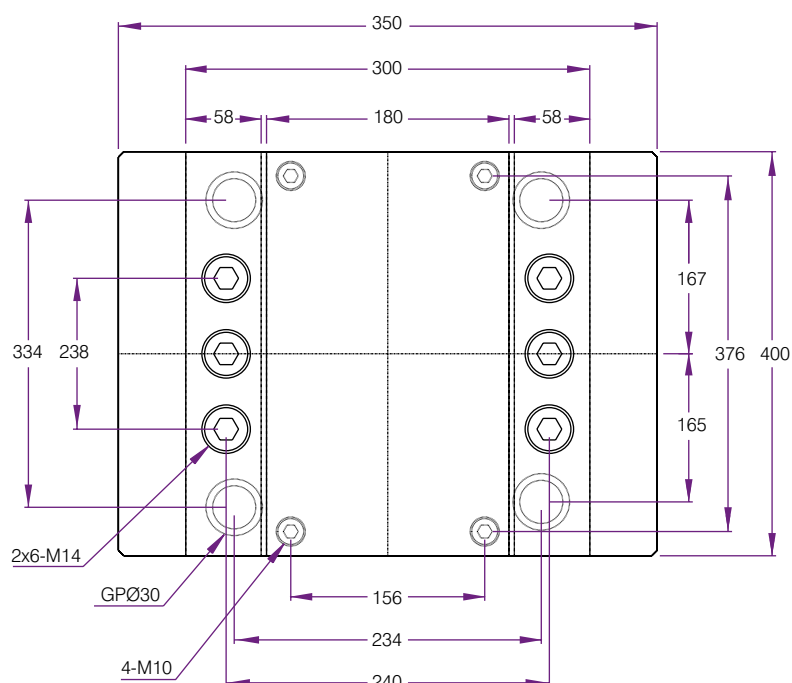
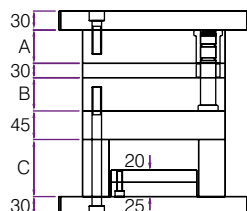
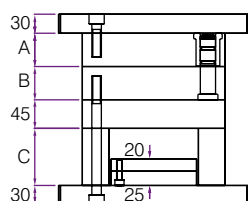
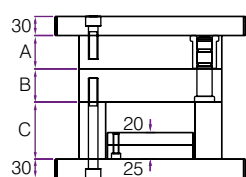
A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
35	35	90	
35	40	90	
35	50	90	
35	60	90	
35	70	90	
35	80	100	
35	100	120	
40	35	90	
40	40	90	
40	50	90	
40	60	90	
40	70	90	
40	80	100	
40	100	120	
50	35	90	
50	40	90	
50	50	70	◆
50	60	90	
50	70	90	
50	80	100	
50	100	120	
60	35	90	
60	40	90	
60	50	90	
60	60	90	◆
60	70	90	
60	80	100	
60	100	120	
70	35	90	
70	40	90	
70	50	90	
70	60	90	
70	70	90	
70	80	100	
70	100	120	
80	35	90	
80	40	90	
80	50	90	
80	60	90	
80	70	90	
80	80	100	◆
80	100	120	
100	35	90	
100	40	90	
100	50	90	
100	60	90	
100	70	90	
100	80	100	
100	100	120	◆
120	120	140	◆



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C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
35	35	90	
35	40	90	
35	50	90	
35	60	90	
35	70	90	
35	80	100	
35	100	120	
40	35	90	
40	40	90	
40	50	90	
40	60	90	
40	70	90	
40	80	100	
40	100	120	
50	35	90	
50	40	90	
50	50	90	
50	60	90	
50	70	90	
50	80	100	
50	100	120	
60	35	90	
60	40	90	
60	50	90	
60	60	90	◆
60	70	90	
60	80	100	
60	100	120	
70	35	90	
70	40	90	
70	50	90	
70	60	90	
70	70	90	
70	80	100	
70	100	120	
80	35	90	
80	40	90	
80	50	90	
80	60	90	
80	70	90	
80	80	100	◆
80	100	120	
100	35	90	
100	40	90	
100	50	90	
100	60	90	
100	70	90	
100	80	100	
100	100	120	◆

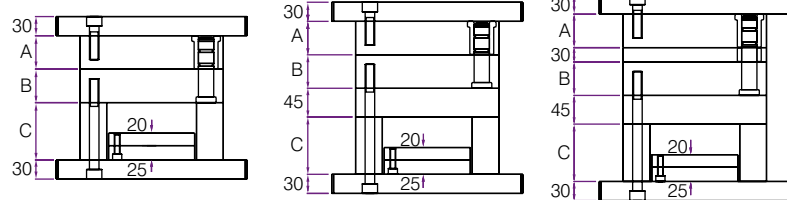
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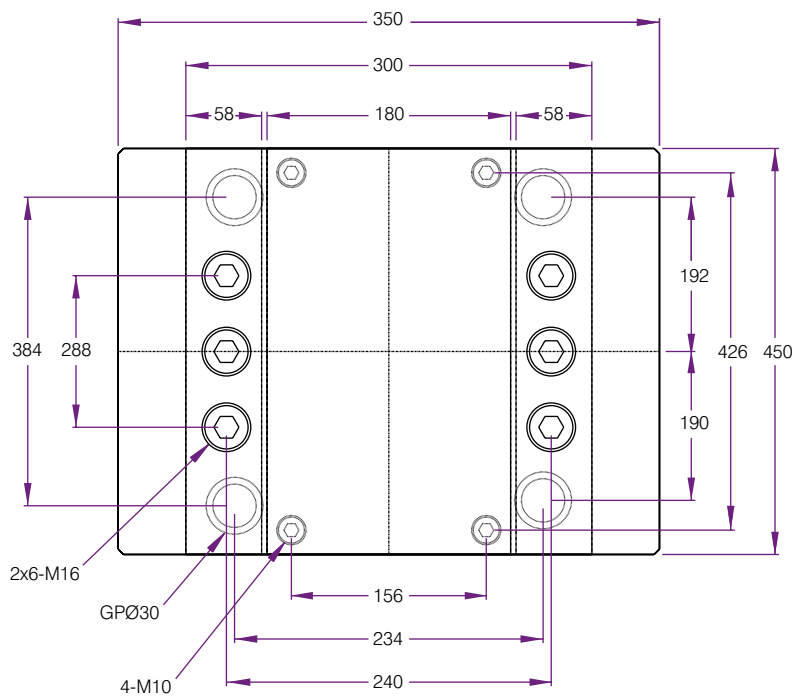
A Type

B Type

C Type



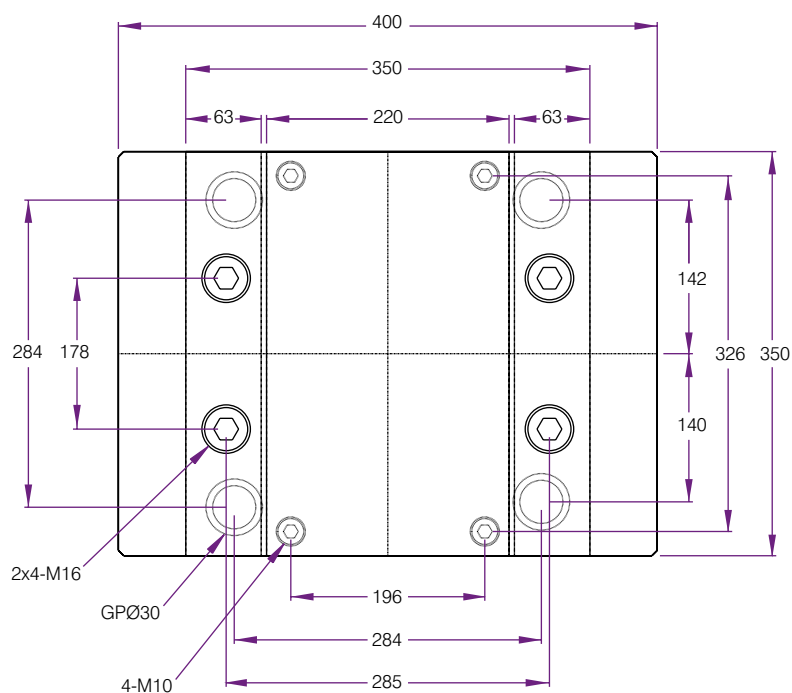
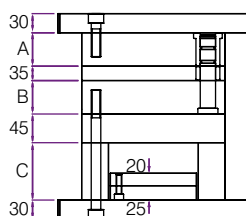
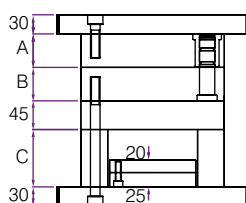
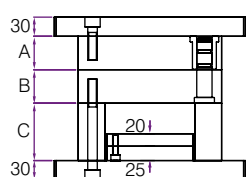
A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
35	35	90	
35	40	90	
35	50	90	
35	60	90	
35	70	90	
35	80	100	
35	100	120	
40	35	90	
40	40	90	
40	50	90	
40	60	90	
40	70	90	
40	80	100	
40	100	120	
50	35	90	
50	40	90	
50	50	90	◆
50	60	90	
50	70	90	
50	80	100	
50	100	120	
60	35	90	
60	40	90	
60	50	90	
60	60	90	◆
60	70	90	
60	80	100	◆
60	100	120	
70	35	90	
70	40	90	
70	50	90	
70	60	90	
70	70	90	◆
70	80	100	
70	100	120	
80	35	90	
80	40	90	
80	50	90	
80	60	90	
80	70	90	
80	80	100	
80	100	120	
100	35	90	
100	40	90	
100	50	90	
100	60	90	
100	70	90	
100	80	100	◆
100	100	120	◆



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C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
40	40	100	
40	50	100	
40	60	100	
40	70	100	
40	80	100	
40	100	130	
50	40	100	
50	50	100	◆
50	60	100	
50	70	100	
50	80	100	
50	100	130	
60	40	100	
60	50	100	
60	60	100	◆
60	70	100	
60	80	100	
60	100	130	
70	40	100	
70	50	100	
70	60	100	
70	70	100	
70	80	100	
70	100	130	
80	40	100	
80	50	100	
80	60	100	
80	70	100	
80	80	100	
80	100	120	◆
80	120	150	◆
100	40	100	
100	50	100	
100	60	100	
100	70	100	
100	80	100	
100	100	120	◆

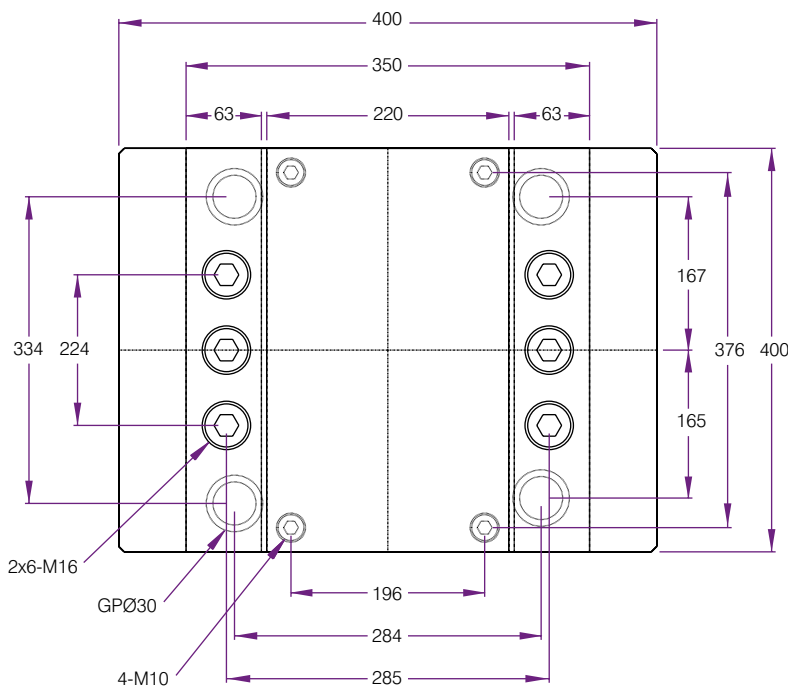
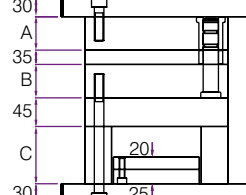
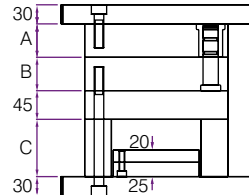
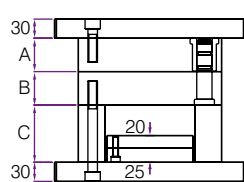
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A Type

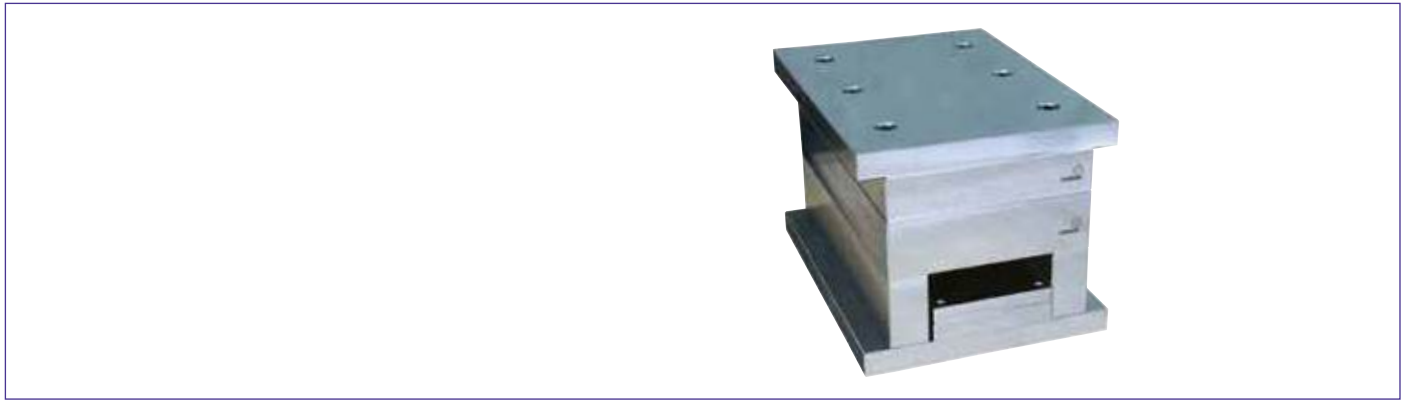
B Type

C Type

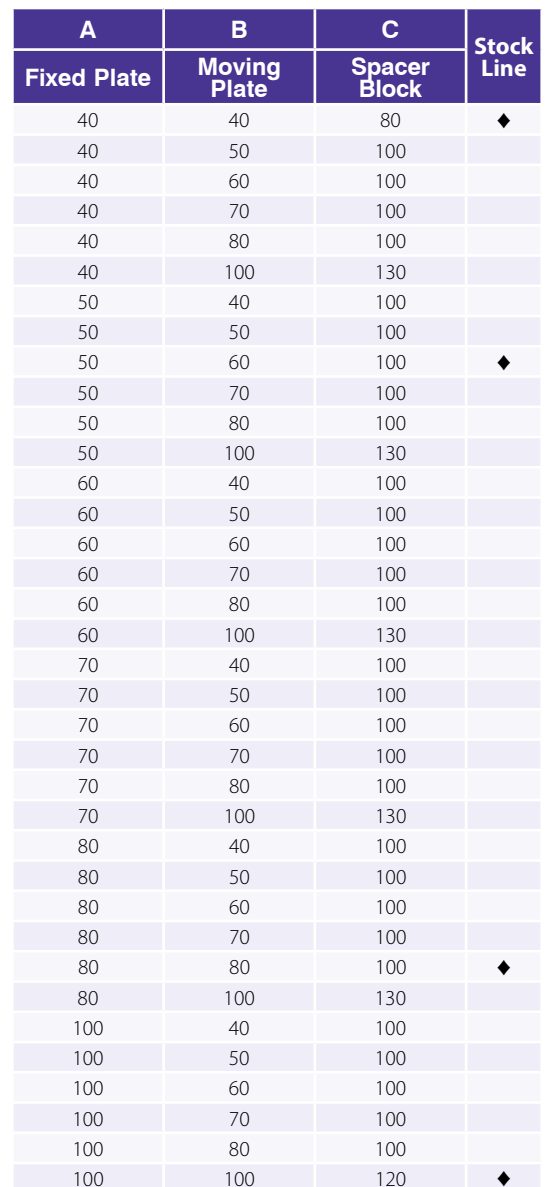
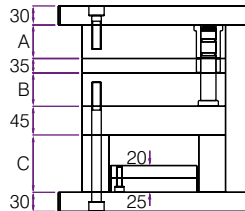


A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
40	40	100	
40	50	100	
40	60	100	
40	70	100	
40	80	100	
40	100	130	
50	40	100	
50	50	100	◆
50	60	100	◆
50	70	100	
50	80	100	
50	100	130	
60	40	100	
60	50	100	
60	60	100	◆
60	70	100	
60	80	100	
60	100	130	
70	40	100	
70	50	100	
70	60	100	
70	70	100	◆
70	80	100	
70	100	130	
80	40	100	
80	50	100	
80	60	100	
80	70	100	
80	80	100	◆
80	100	120	◆
100	40	100	
100	50	100	
100	60	100	
100	70	100	
100	80	100	
100	100	120	◆

For safety reasons, some assembled mould bases now come with lifting holes.
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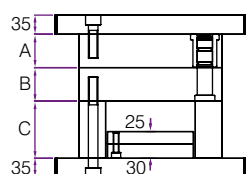
C Type



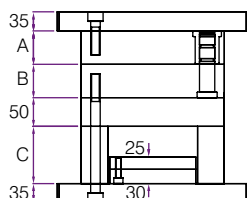
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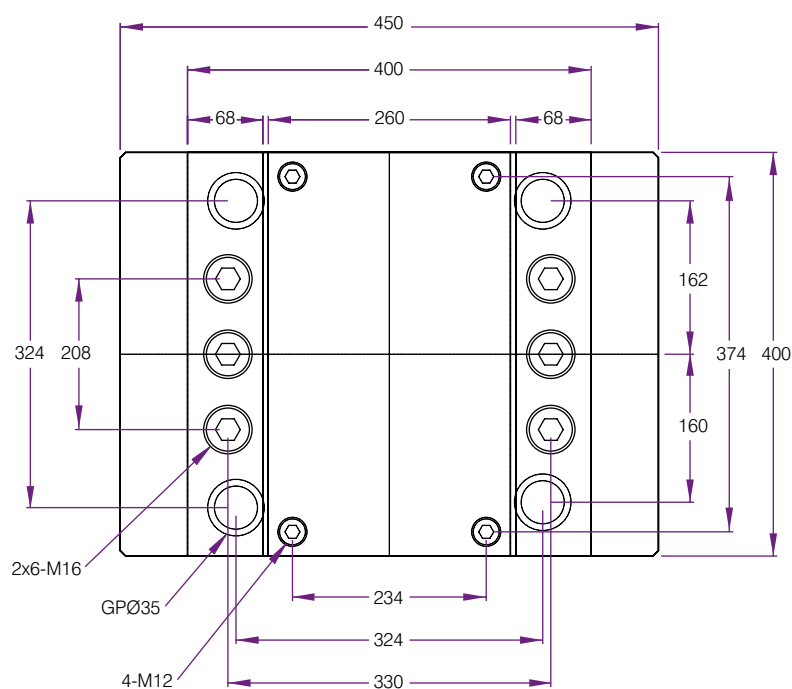
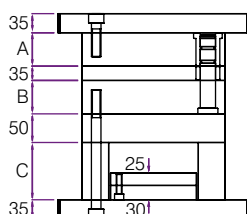
A Type



B Type



C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
40	40	120	
40	50	120	
40	60	120	
40	70	120	
40	80	120	
40	100	120	
50	40	120	
50	50	120	◆
50	60	120	
50	70	120	
50	80	120	
50	100	120	
60	40	120	
60	50	120	
60	60	120	◆
60	70	120	
60	80	120	
60	100	120	
70	40	120	
70	50	120	
70	60	120	
70	70	120	◆
70	80	120	
70	100	120	
80	40	120	
80	50	120	
80	60	120	
80	70	120	
80	80	120	◆
80	100	120	◆
90	90	120	◆
100	40	120	
100	50	120	
100	60	120	
100	70	120	
100	80	120	
100	100	120	◆

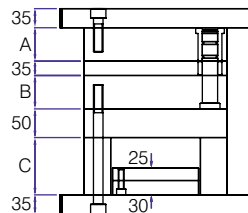
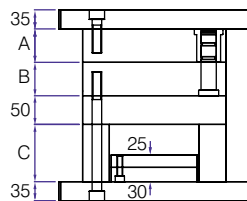
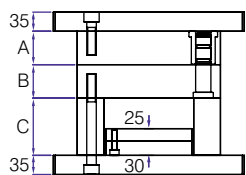
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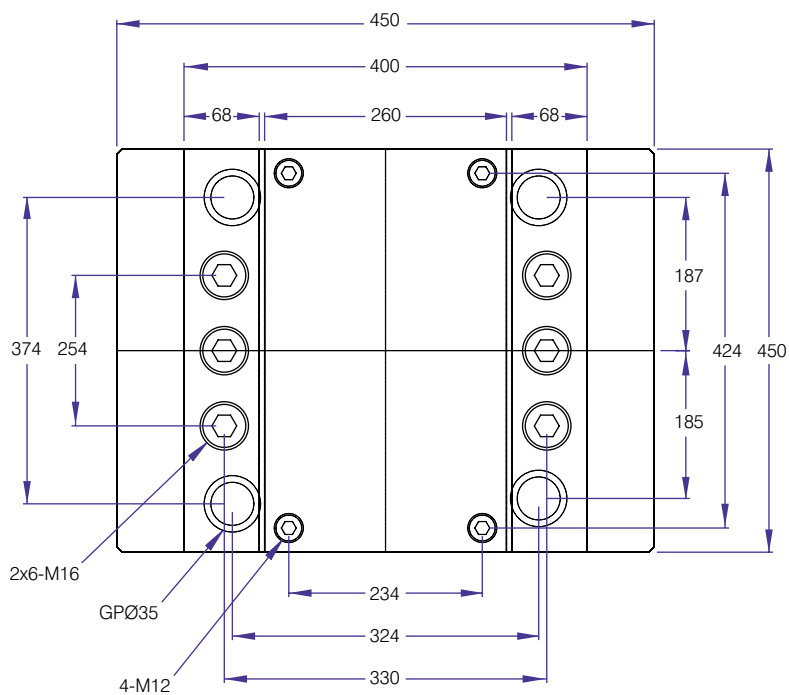
A Type

B Type

C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
40	40	120	
40	50	120	
40	60	120	
40	70	120	
40	80	120	
40	100	120	
50	40	120	
50	50	120	
50	60	120	
50	70	120	
50	80	120	
50	100	120	
60	40	120	
60	50	120	
60	60	120	
60	70	120	
60	80	120	
60	100	120	
70	40	120	
70	50	120	
70	60	120	
70	70	120	
70	80	120	
70	100	120	
80	40	120	
80	50	120	
80	60	120	
80	70	120	
80	80	120	
80	100	120	◆
100	40	120	
100	50	120	
100	60	120	
100	70	120	
100	80	120	
100	100	120	◆
100	120	140	
120	120	120	◆



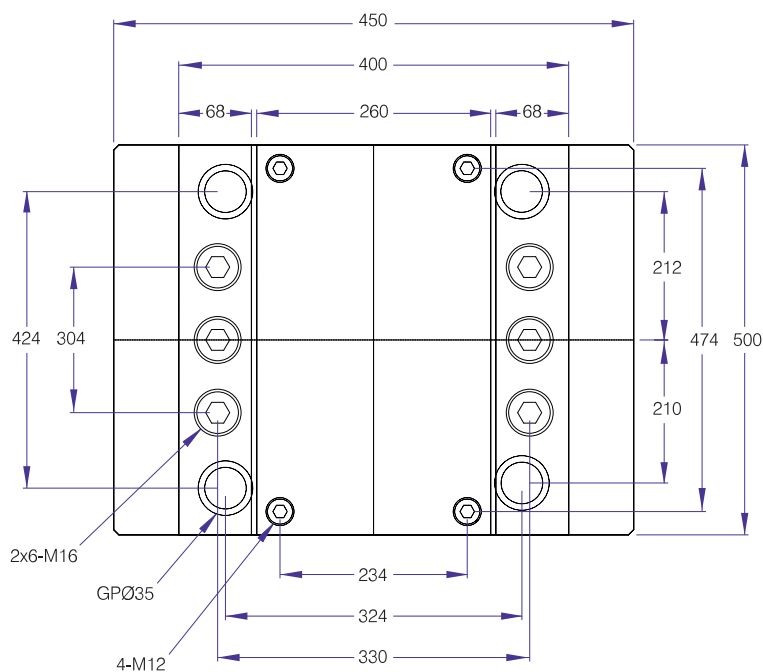
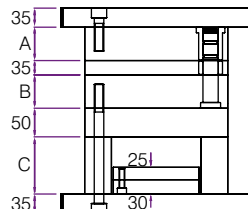
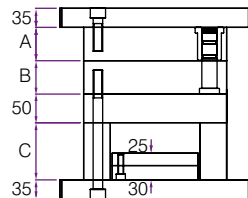
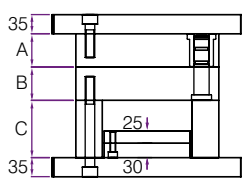
For safety reasons, some assembled mould bases now come with lifting holes.
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A Type

B Type

C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
40	40	120	
40	50	120	
40	60	120	
40	70	120	
40	80	120	
40	100	120	
50	40	120	
50	50	120	
50	60	120	
50	70	120	
50	80	120	
50	100	120	
60	40	120	
60	50	120	
60	60	120	
60	70	120	
60	80	120	
60	100	120	
70	40	120	
70	50	120	
70	60	120	
70	70	120	◆
70	80	120	
70	100	120	◆
80	40	120	
80	50	120	
80	60	120	
80	70	120	
80	80	120	◆
80	90	120	◆
100	40	120	
100	50	120	
100	60	120	
100	70	120	
100	80	120	
100	100	120	◆
100	120	140	◆
120	120	140	◆

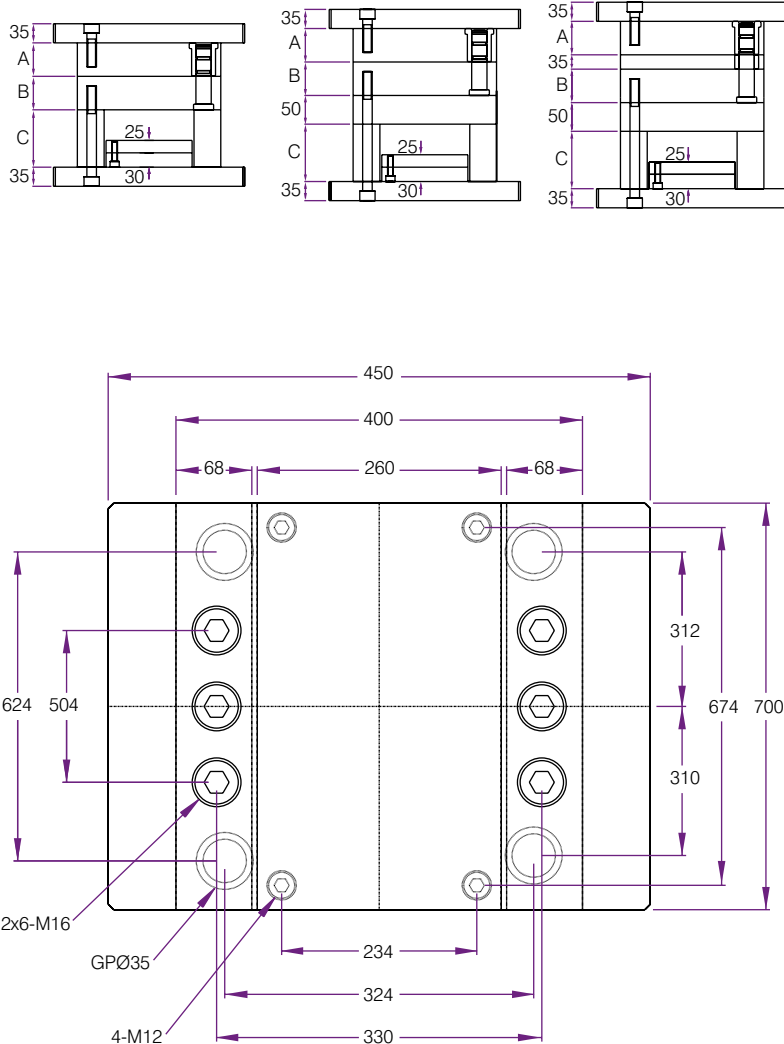
For safety reasons, some assembled mould bases now come with lifting holes.
Please enquire with your sales person before confirming your order.



A Type

B Type

C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
40	40	120	
40	50	120	
40	60	120	
40	70	120	
40	80	120	
40	100	120	
50	40	120	
50	50	120	
50	60	120	
50	70	120	
50	80	120	
50	100	120	
60	40	120	
60	50	120	
60	60	80	
60	70	120	
60	80	120	
60	100	120	
70	40	120	
70	50	120	
70	60	120	
70	70	120	
70	80	120	
70	100	120	
80	40	120	
80	50	120	
80	60	120	
80	70	120	
80	80	120	◆
80	100	120	
100	40	120	
100	50	120	
100	60	120	
100	70	120	
100	80	120	
100	100	120	◆

For safety reasons, some assembled mould bases now come with lifting holes.
Please enquire with your sales person before confirming your order.

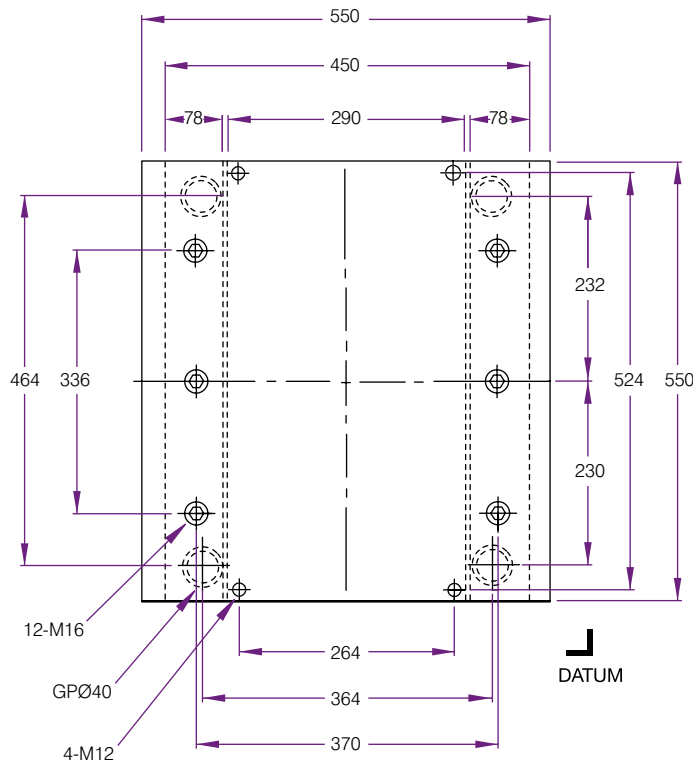
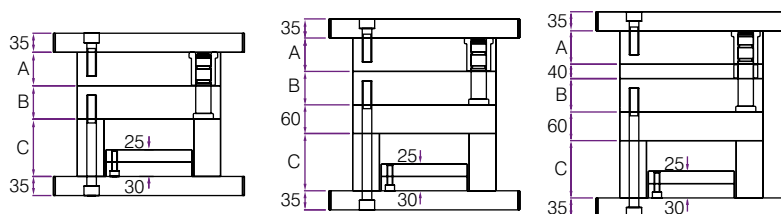




A Type

B Type

C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
50	50	120	
50	60	120	
50	70	120	
50	80	120	
50	100	140	
60	50	120	
60	60	120	
60	70	120	
60	80	120	
60	100	140	
70	50	120	
70	60	120	
70	70	120	
70	80	120	
70	100	140	
80	50	120	
80	60	120	
80	70	120	
80	80	100	◆
80	100	140	
100	50	120	
100	60	120	
100	70	120	
100	80	120	
100	100	140	

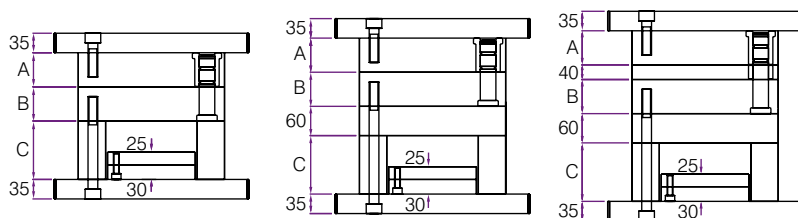
For safety reasons, some assembled mould bases now come with lifting holes.
Please enquire with your sales person before confirming your order.



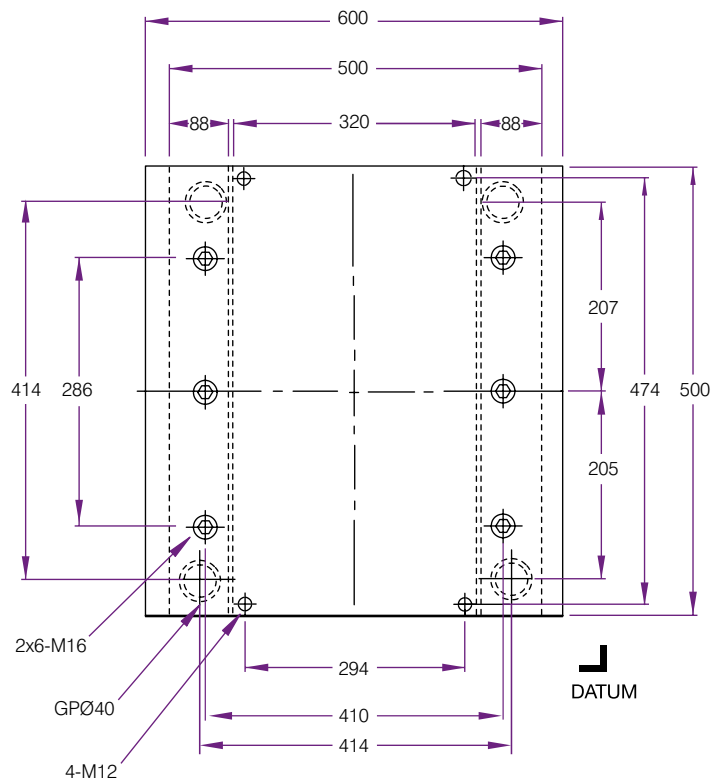
A Type

B Type

C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
50	40	120	
50	50	120	
50	60	120	
50	70	120	
50	80	120	
50	100	140	
60	50	120	
60	60	120	
60	70	120	
60	80	120	
60	100	140	
70	50	120	
70	60	120	
70	70	120	
70	80	120	
70	100	140	
80	50	120	
80	60	120	
80	70	120	
80	80	120	◆
80	100	140	
100	50	120	
100	60	120	
100	70	120	
100	80	120	
100	100	140	◆
120	120	140	◆



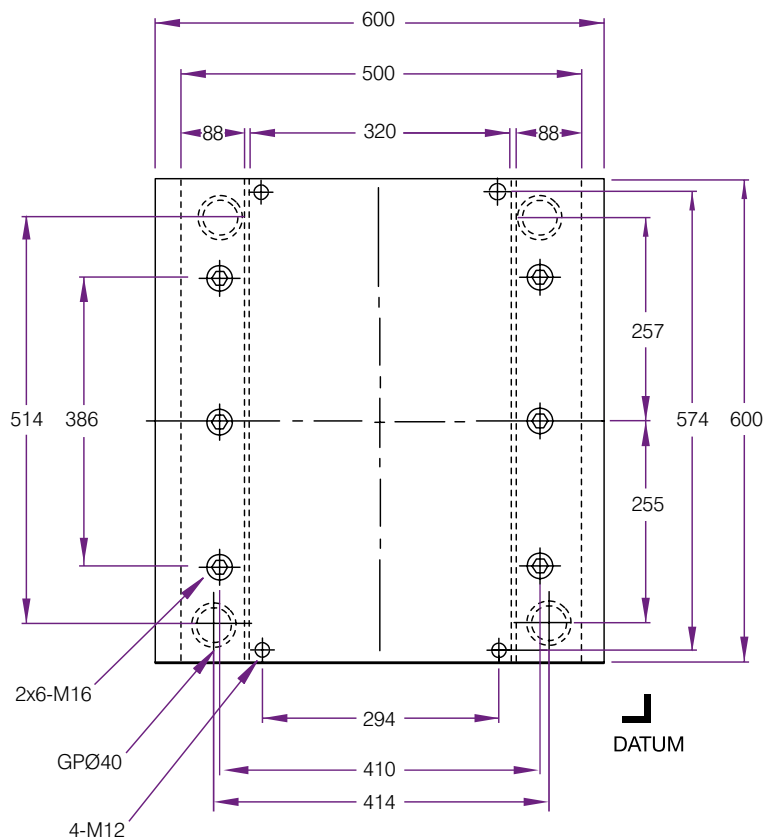
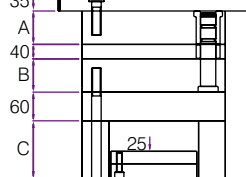
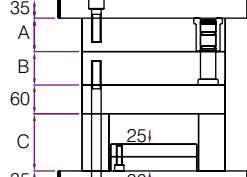
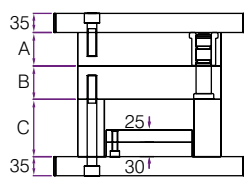
For safety reasons, some assembled mould bases now come with lifting holes.
Please enquire with your sales person before confirming your order.



A Type

B Type

C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
50	50	120	
50	60	120	
50	70	120	
50	80	120	
50	100	140	
60	50	120	
60	60	120	
60	70	120	
60	80	120	
60	100	140	
70	50	120	
70	60	120	
70	70	120	
70	80	120	
70	100	140	
80	50	120	
80	60	120	
80	70	120	
80	80	120	◆
80	100	140	
100	50	120	
100	60	120	
100	70	120	
100	80	120	
100	100	140	◆
120	120	140	◆

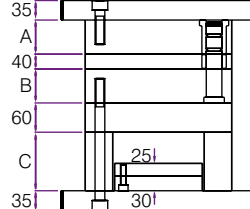
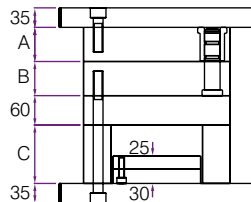
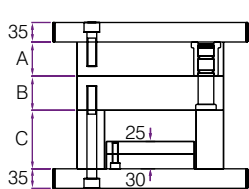
For safety reasons, some assembled mould bases now come with lifting holes.
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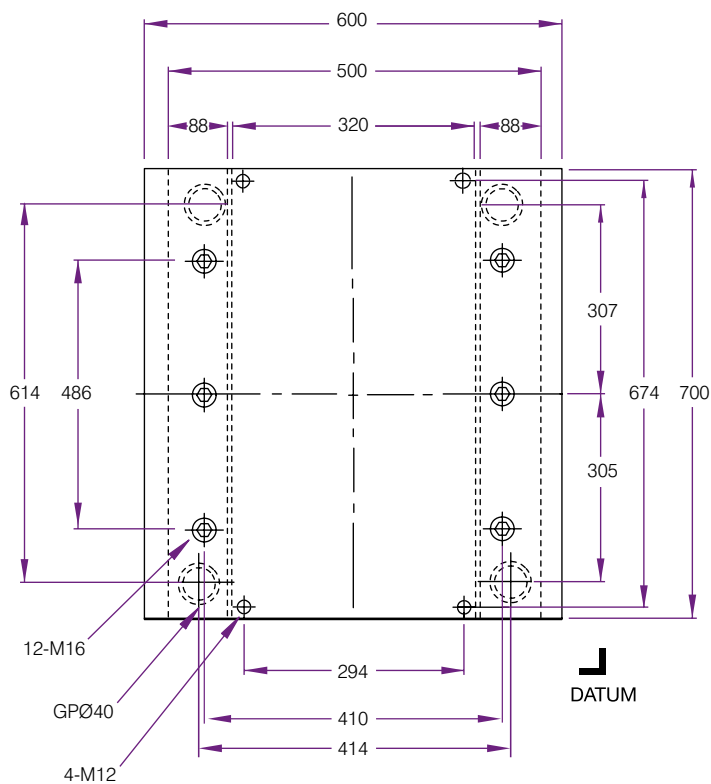
A Type

B Type

C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
50	50	120	
50	60	120	
50	70	120	
50	80	120	
50	100	140	
60	50	120	
60	60	120	
60	70	120	
60	80	120	
60	100	140	
70	50	120	
70	60	120	
70	70	120	
70	80	120	
70	100	140	
80	50	120	
80	60	120	
80	70	120	
80	80	120	
80	100	140	
100	50	120	
100	60	120	
100	70	120	
100	80	120	
100	100	140	
120	120	140	◆



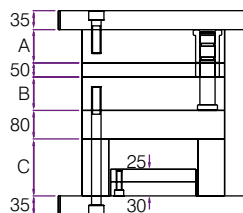
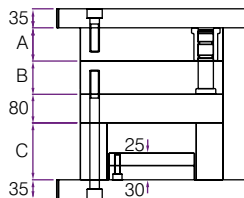
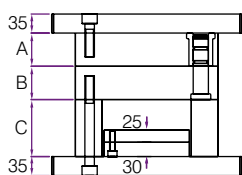
For safety reasons, some assembled mould bases now come with lifting holes.
Please enquire with your sales person before confirming your order.



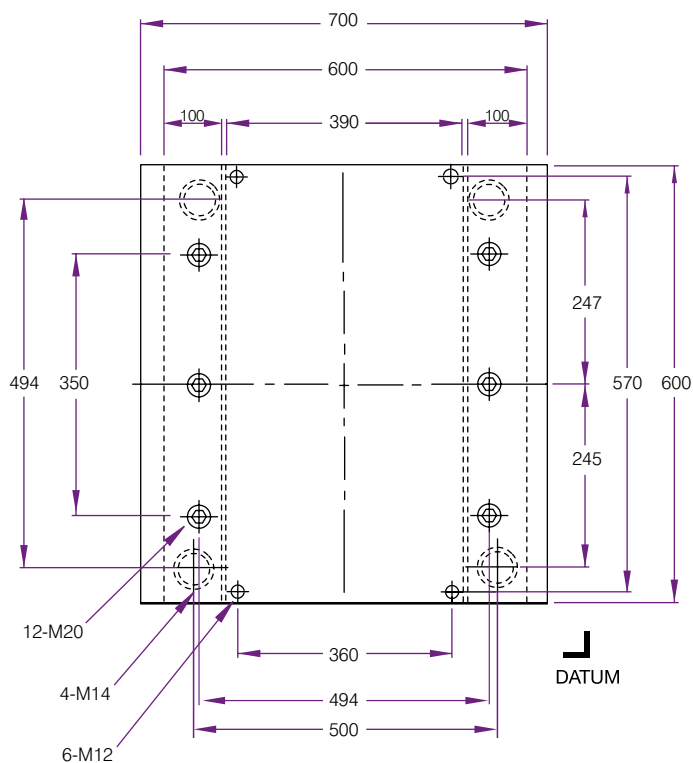
A Type

B Type

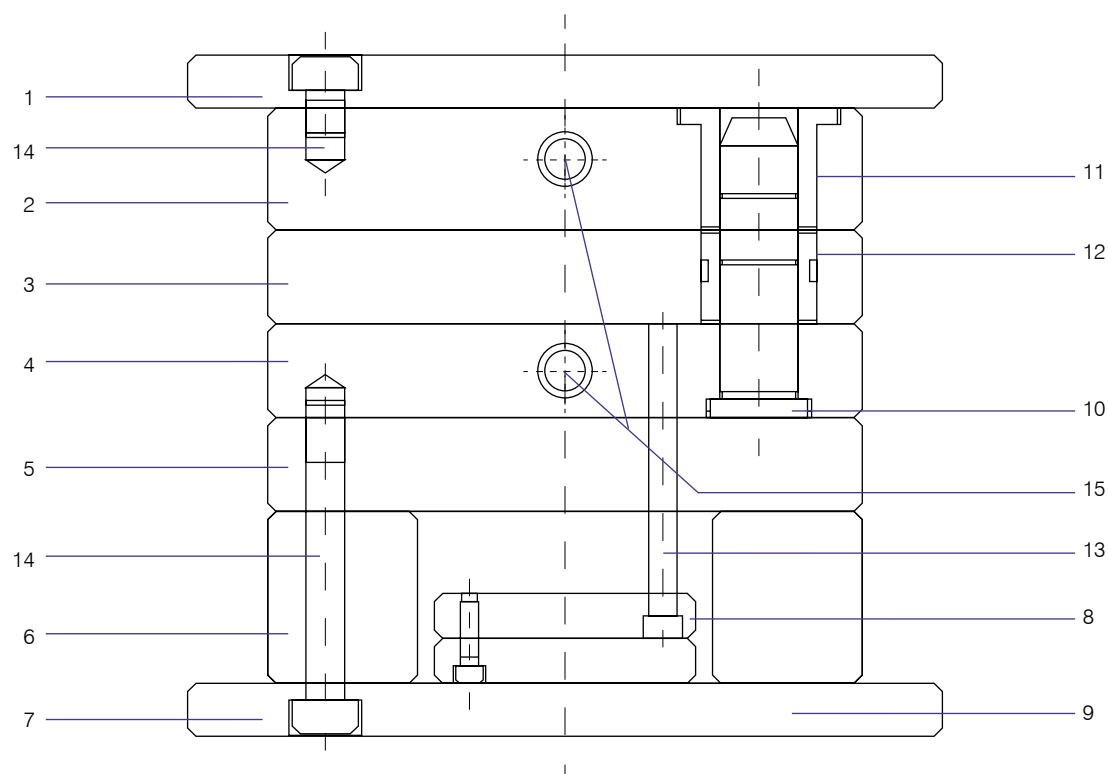
C Type



A	B	C	Stock Line
Fixed Plate	Moving Plate	Spacer Block	
50	50	120	
50	60	120	
50	70	120	
50	80	120	
50	100	140	
60	50	120	
60	60	120	
60	70	120	
60	80	120	
60	100	140	
70	50	120	
70	60	120	
70	70	120	
70	80	120	
70	100	140	
80	50	120	
80	60	120	
80	70	120	
80	80	120	
80	100	140	
100	50	120	
100	60	120	
100	70	120	
100	80	120	
100	100	140	
120	120	140	◆



For safety reasons, some assembled mould bases now come with lifting holes.
Please enquire with your sales person before confirming your order.

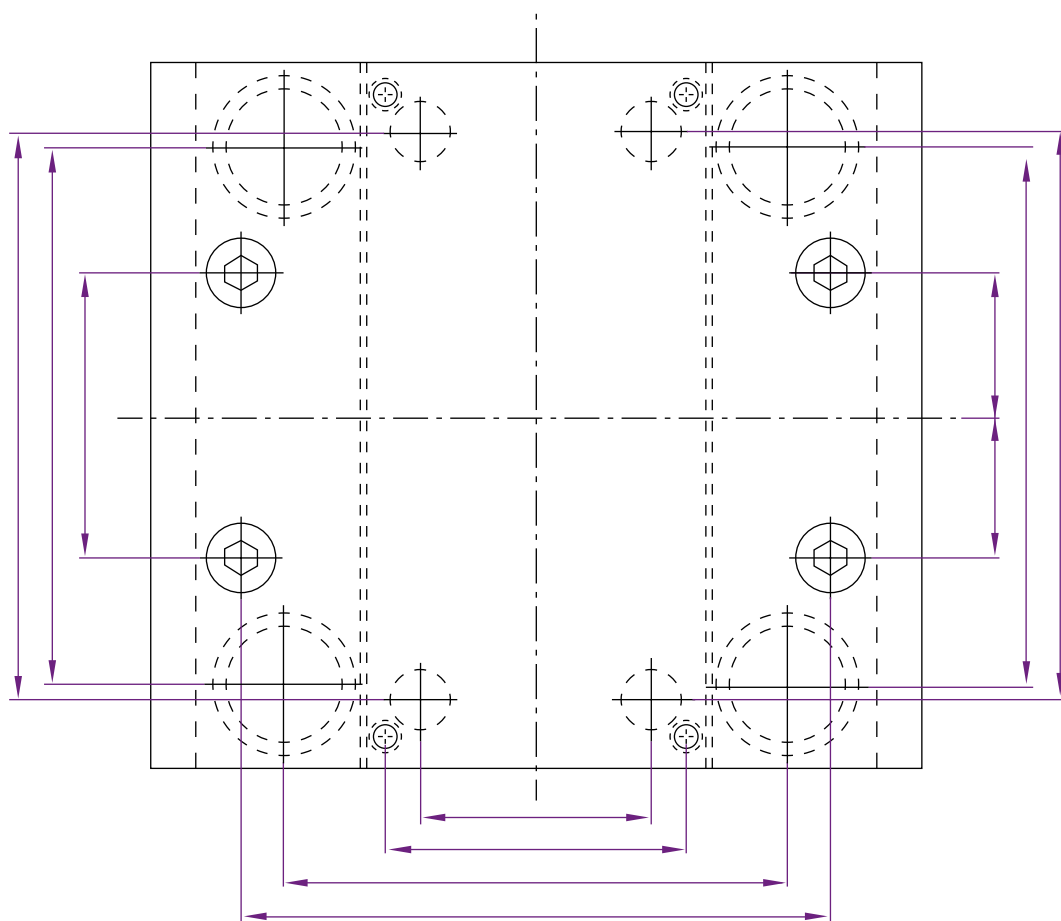


-- If you require a machined mould base, please send CAD file --

Item No.	Description	Material JIS	Size Width x Length x Height or Diameter
1	Top Clamping Plate		
2	Cavity Plate (A)		
3	Stripper Plate		
4	Core Plate (B)		
5	Support Plate (SO)		
6	Rails		
7	Bottom Clamping Plate		
8	Ejector Retainer Plate (A)		
9	Ejector Plate (B)		
10	Guide Pin		
11	Guide Bush (A)		
12	Guide Bush (B)		
13	Return Pin		
14	Socket Head Cap Screw		
15	Lifting Hole		

For safety reasons, some assembled mould bases now come with lifting holes.
Please enquire with your sales person before confirming order.

Special Requests



Pockets, waterways and special machining available.

For safety reasons, some assembled mould bases now come with lifting holes.
Please enquire with your sales person before confirming your order.



Material: H13

Hardness:

Core = 40-44RC

Surface = 70-72RC

D	S	Product Code			
		L100	L 125	L150	L 250
1.0	10		NEJ01125-10		
1.0	12	NEJ01100-12		NEJ01150-12	
1.0	25	NEJ01100-25		NEJ01150-25	
1.0	50	NEJ01100-50		NEJ01150-50	NEJ01250-50
1.2	10		NEJ012125-10		
1.2	12				
1.2	25	NEJ012100-25		NEJ012150-25	
1.2	50			NEJ012150-50	NEJ012250-50
1.5	10		NEJ015125-10		
1.5	12	NEJ015100-12		NEJ015150-12	
1.5	25	NEJ015100-25		NEJ015150-25	
1.5	50			NEJ015150-50	NEJ015250-50
2.0	10		NEJ02125-10		
2.0	12	NEJ02100-12		NEJ02150-12	
2.0	25	NEJ02100-25		NEJ02150-25	
2.0	50			NEJ02150-50	NEJ02250-50
2.5	10		NEJ025125-10		
2.5	12	NEJ025100-12			
2.5	25	NEJ025100-25		NEJ025150-25	
2.5	50			NEJ025150-50	NEJ025250-50



Material: H13

Hardness:

Core = 40-45RC

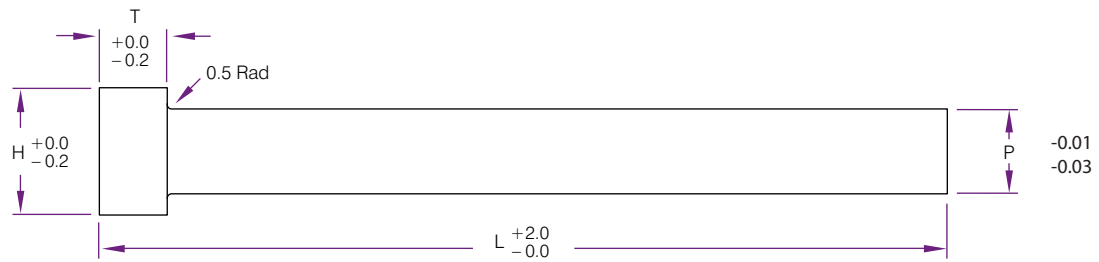
Surface = 70-72RC

Special sizes to order.

P Tolerance

1-12	-0.01 / -0.02
14-25	-0.01 / -0.03

P	H	T	Product Code										
			L 100	L 150	L 200	L 250	L 300	L 350	L 400	L 450	L 650	L 800	L1000
1.0	6	4	NEJ01100	NEJ01150									
1.2	6			NEJ012150									
1.5	6	4	NEJ015100	NEJ015150		NEJ015250							
2.0	6	4	NEJ02100	NEJ02150		NEJ02250							
2.5	6	4	NEJ025100	NEJ025150	NEJ025200	NEJ025250							
3.0	6	4	NEJ03100	NEJ03150	NEJ03200	NEJ03250	NEJ03300	NEJ03350	NEJ03400	NEJ03400			
3.5	7	4	NEJ035100	NEJ035150	NEJ035200	NEJ03250							
4.0	8	6	NEJ04100	NEJ04150	NEJ04200	NEJ04250	NEJ04300	NEJ04350	NEJ04400	NEJ04450			
4.5	8	6		NEJ045150		NEJ045250							
5.0	9	6	NEJ05100	NEJ05150	NEJ05200	NEJ05250	NEJ05300	NEJ05350	NEJ05400	NEJ05450			
5.5	10	6		NEJ055150		NEJ055250							
6.0	10	6	NEJ06100	NEJ06150	NEJ06200	NEJ06250	NEJ06300	NEJ06350	NEJ06400	NEJ06450	NEJ06650	NEJ08800	
6.5	10	6	NEJ065100	NEJ065150		NEJ065250	NEJ065300		NEJ065400				
7.0	11	6	NEJ07100	NEJ07150	NEJ07200	NEJ07250	NEJ07300	NEJ07350	NEJ07400	NEJ07450	NEJ07650		
7.5	13	8			NEJ075200								
8.0	13	8	NEJ08100	NEJ08150	NEJ08200	NEJ08250	NEJ08300	NEJ08350	NEJ08400	NEJ08450	NEJ08650	NEJ08800	NEJ081000
8.5	14	8		NEJ085150			NEJ08300						
10.0	15	8	NEJ10100	NEJ10150	NEJ10200	NEJ10250	NEJ10300	NEJ10350	NEJ10400	NEJ10450	NEJ10650	NEJ10800	NEJ101000
12.0	17	8	NEJ12100	NEJ12150	NEJ12200	NEJ12250	NEJ12300	NEJ12350	NEJ12400	NEJ12450	NEJ12650	NEJ10800	NEJ121000
14.0	19	8	NEJ14100	NEJ14150		NEJ14250	NEJ14300	NEJ14350	NEJ14400	NEJ14450	NEJ14650		
15.0	20	8	NEJ15100	NEJ15150		NEJ15250				NEJ15450			
16.0	21	8	NEJ16100	NEJ16150	NEJ16200	NEJ16250	NEJ16300	NEJ16350	NEJ16400	NEJ16450	NEJ16650	NEJ16800	NEJ161000
18.0	23	8	NEJ18100	NEJ18150		NEJ18250		NEJ18350		NEJ18450	NEJ18650		
20.0	25	8		NEJ20150		NEJ20250		NEJ20350		NEJ20450	NEJ20650	NEJ20800	NEJ201000
25.0	30	8		NEJO25150		NEJ25250		NEJ25350		NEJ25450	NEJ25650	NEJ25800	



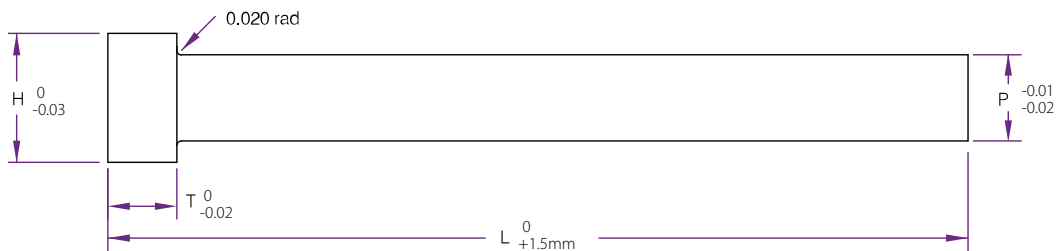
Material: H13

Hardness:

Core = 40-45RC

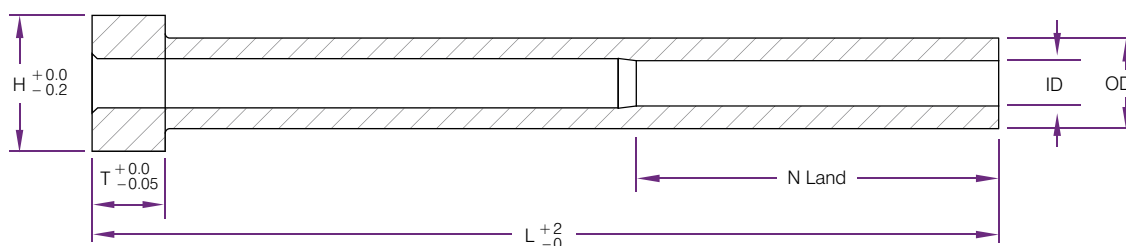
Surface = 70-72RC

P PD	H HD	T HT	Product Code	
			L150	L 250
2.1	6	4	NEJ021150	
3.1	7	4		NEJ031250
4.1	8	6	NEJ041150	NEJ041250
5.1	8	6		NEJ051250
6.1	10	6		NEJ061250
8.1	13	8		NEJ081250
10.1	15	8		NEJ101250



Material: H13
Hardness:
Core = 40-45RC

P	H	T	Product Code	
			150	250
3	6	4	SEJ03150	SEJ03250
4	8	6	SEJ04150	SEJ04250
5	9	6	SEJ05150	SEJ05250
6	10	6	SEJ06150	SEJ06250
7	11	6	SEJ07150	SEJ07250
8	13	8	SEJ08150	SEJ08250
10	15	8	SEJ10150	SEJ10250
12	17	8	SEJ12150	SEJ12250
14	19	8		SEJ14250
15	20	8	SEJ15150	SEJ15250
16	21	8		SEJ16250
18	23	8		SEJ18250
20	25	8		SEJ20250

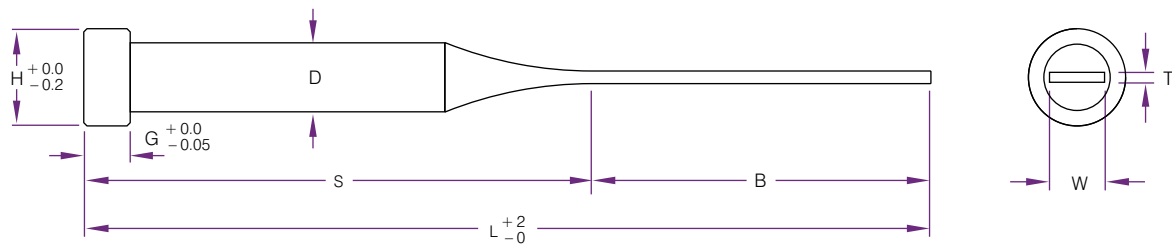


Material: H13
 Hardness:
 ID = 40RC
 Surface = 70RC
 Special sizes to order.

Tolerances

ID 1.5-3mm	-0 +.010	OD 4-5mm	-.010 -.020
ID 3.5-5mm	+0 +.012	OD 6-8mm	-.015 -.025
ID 5.5-10mm	+0 +.015	OD 10-15mm	-.020 -.030

ID	OD	H	T	Product Code									L325	L350
				L 100	L 125	L 150	L 175	L 200	L 225	L 250	L 275	L 300		
				N=40		N=50		N=60		N=70				
2.0	4	8	6	MS204100	MS204125	MS204150								
2.0	5	9	6	MS205100	MS205125	MS205150	MS205175	MS205200						
2.0	6	10	6	MS206100	MS206125	MS206150	MS206175	MS206200						
2.5	5	9	6	MS2505100	MS2505125	MS2505150	MS2505175	MS2505200	MS2505225					
2.5	6	10	6	MS2506100	MS2506125	MS2506150	MS2506175	MS2506200	MS2506225	MS2506250				
3.0	5	9	6	MS305100	MS305125	MS305150	MS305175	MS305200						
3.0	6	10	6	MS306100	MS306125	MS306150	MS306175	MS306200	MS306225	MS306200				
3.0	7	11	6	MS307100	MS307125	MS307150	MS307175	MS307200	MS307225	MS307250	MS307275			
3.5	6	10	6	MS3506100	MS3506125	MS3506150	MS3506175	MS3506200	MS3506225	MS3506250				
3.5	7	11	6	MS3507100	MS3507125	MS3507150	MS3507175	MS3507200	MS3507225	MS3507250			MS3507325	
4.0	6	10	6	MS406100	MS406125	MS406150	MS406175	MS406200						
4.0	7	11	6	MS407100	MS407125	MS407150	MS407175	MS407200	MS407225	MS407250	MS407275	MS407300		
4.0	8	13	8	MS408100	MS408125	MS408150	MS408175	MS408200	MS408225	MS408250	MS408275	MS408300		
4.5	7	11	6	MS4507100	MS4507125	MS4507150	MS4507175	MS4507200	MS4507225	MS4507250				
4.5	8	13	8	MS4508100	MS4508125	MS4508150	MS4508175	MS4508200	MS4508225	MS4508250				
5.0	8	13	8	MS508100	MS508125	MS508150	MS508175	MS508200	MS508225	MS508250	MS508275	MS508300	MS508325	MS508350
5.0	10	15	8	MS510100	MS510125	MS510150	MS510175	MS510200						
5.5	8	13	8	MS5508100	MS5508125	MS5508150								
6.0	10	15	8	MS610100	MS610125	MS610150	MS610175	MS610200	MS610225	MS610250	MS610275	MS610300		MS610350
6.5	10	15	8	MS6510100	MS6510125	MS6510150	MS6510175	MS6510200	MS6510225	MS6510250				
6.5	12	17	8	MS6512100		MS6512150		MS6512200		MS6512250				
8.0	12	17	8	MS812100	MS812125	MS812150	MS812175	MS812200	MS812225	MS812250	MS812275	MS812300		MS812350
10	15	20	8	MS1015100	MS1015125	MS1015150		MS1015200		MS1015250				



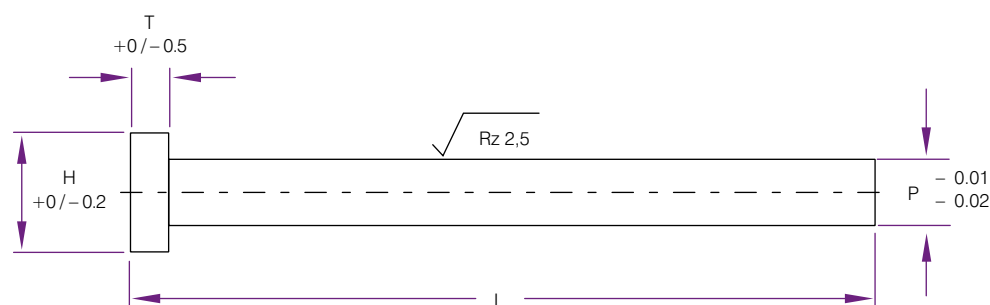
Material: H13

Special sizes to Order

Please fill in Special Order Form

Product Code	T	W	D	L	S	B	G	H
MEB14100	1	4	5	100	40	60	6	9
MEB14125	1	4	5	125	50	75	6	9
MEB14150	1	4	5	150	60	90	6	9
MEB14175	1	4	5	175	70	105	6	9
MEB14200	1	4	5	200	80	120	6	9
MEB125125	1.2	5	6	125	50	75	6	10
MEB125150	1.2	5	6	150	60	90	6	10
MEB125175	1.2	5	6	175	70	105	6	10
MEB125200	1.2	5	6	200	80	120	6	10
MEB126125	1.2	6	7	125	50	75	6	11
MEB126150	1.2	6	7	150	60	90	6	11
MEB126175	1.2	6	7	175	70	105	6	11
MEB126200	1.2	6	7	200	80	120	6	11
MEB128125	1.2	8	10	125	50	75	8	15
MEB128150	1.2	8	10	150	60	90	8	15
MEB128175	1.2	8	10	175	70	105	8	15
MEB128200	1.2	8	10	200	80	120	8	15
MEB155125	1.5	5	6	125	50	75	6	10
MEB155150	1.5	5	6	150	60	90	6	10
MEB155175	1.5	5	6	175	70	105	6	10
MEB155200	1.5	5	6	200	80	170	6	10

Product Code	T	W	D	L	S	B	G	H
MEB156125	1.5	6	7	125	50	75	6	11
MEB156150	1.5	6	7	150	60	90	6	11
MEB156175	1.5	6	7	175	70	105	6	11
MEB156200	1.5	6	7	200	80	120	6	11
MEB158125	1.5	8	10	125	50	75	8	15
MEB158150	1.5	8	10	150	60	90	8	15
MEB158175	1.5	8	10	175	70	105	8	15
MEB158200	1.5	8	10	200	80	120	8	15
MEB26100	2	6	7	100	40	60	6	11
MEB26125	2	6	7	125	50	75	6	11
MEB26150	2	6	7	150	60	90	6	11
MEB26200	2	6	7	200	80	120	6	11
MEB28100	2	8	10	100	40	60	8	15
MEB28125	2	8	10	125	50	75	8	15
MEB28150	2	8	10	150	60	90	8	15
MEB28175	2	8	10	175	70	105	8	15
MEB28200	2	8	10	200	80	120	8	15
MEB210125	2	10	12	125	50	75	8	17
MEB210150	2	10	12	150	60	90	8	17
MEB210175	2	10	12	175	70	105	8	17
MEB210200	2	10	12	200	80	120	8	17



Hardness:

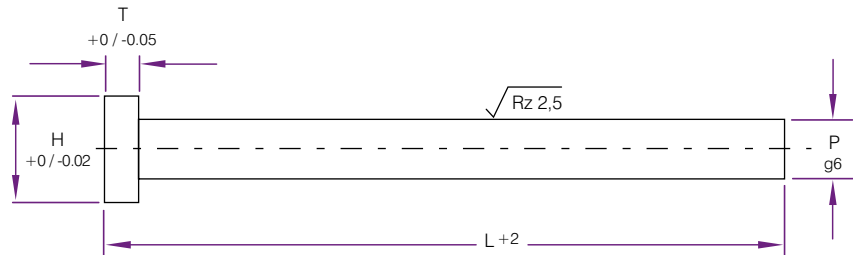
Head = HRC45+/- 5

Shaft = HRC60+/-2 Through Hardened

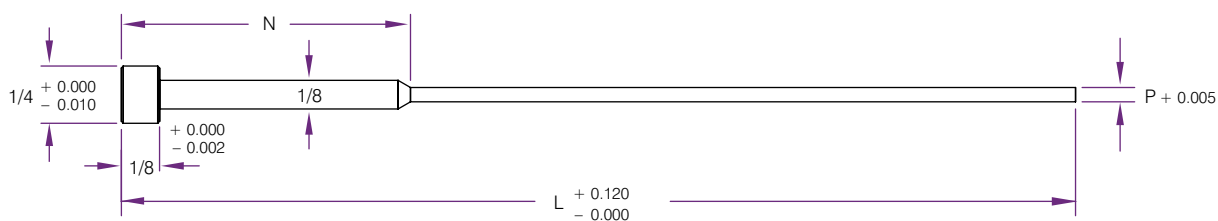
P	H	T	Product Code										
			L 100	L 150	L 200	L 250	L 300	L 350	L 400	L 500	L 600	L 700	L 800
1.0	6	4	HEJ010100	HEJ010150	HEJ010200	HEJ010250	HEJ010300						
1.5	6	4	HEJ015100	HEJ015150	HEJ015200	HEJ015250	HEJ015300						
2.0	6	4	HEJ020100	HEJ020150	HEJ020200	HEJ020250	HEJ020300	HEJ020350					
2.5	6	4	HEJ025100	HEJ025150	HEJ025200	HEJ025250	HEJ025300	HEJ025350					
3.0	6	4	HEJ030100	HEJ030150	HEJ030200	HEJ030250	HEJ030300	HEJ030350	HEJ030400				
3.5	7	4	HEJ035100	HEJ035150	HEJ035200	HEJ035250	HEJ035300	HEJ035350					
4.0	8	6	HEJ040100	HEJ040150	HEJ040200	HEJ040250	HEJ040300	HEJ040350					
4.5	9	6	HEJ045100	HEJ045150	HEJ045200	HEJ045250	HEJ045300	HEJ045350					
5.0	9	6	HEJ50100	HEJ50150	HEJ50200	HEJ50250	HEJ50300	HEJ50350	HEJ50400				
5.5	10	6	HEJ55100	HEJ55150	HEJ55200	HEJ55250	HEJ55300	HEJ55350	HEJ55400				
6.0	10	6	HEJ60100	HEJ60150	HEJ60200	HEJ60250	HEJ60300	HEJ60350	HEJ60400	HEJ60500			
6.5	11	6	HEJ65100	HEJ65150	HEJ65200	HEJ65250	HEJ65300	HEJ65350	HEJ65400	HEJ65500			
7.0	11	6	HEJ70100	HEJ70150	HEJ70200	HEJ70250	HEJ70300	HEJ70350	HEJ70400	HEJ70500			
7.5	13	8	HEJ75100	HEJ75150	HEJ75200	HEJ75250	HEJ75300	HEJ75350	HEJ75400	HEJ75500			
8.0	13	8	HEJ80100	HEJ80150	HEJ80200	HEJ80250	HEJ80300	HEJ80350	HEJ80400	HEJ80500	HEJ80600		
8.5	14	8	HEJ85100	HEJ85150	HEJ85200	HEJ85250	HEJ85300	HEJ85350	HEJ85400	HEJ85500	HEJ85600		
9.0	14	8	HEJ90100	HEJ90150	HEJ90200	HEJ90250	HEJ90300	HEJ90350	HEJ90400	HEJ90500	HEJ90600		
10.0	15	8	HEJ100100	HEJ100150	HEJ100200	HEJ100250	HEJ100300	HEJ100350	HEJ100400	HEJ100500	HEJ100600	HEJ100700	HEJ100800
10.5	15	8		HEJ105150	HEJ105200	HEJ105250	HEJ105300						
11.0	17	8		HEJ110150	HEJ110200	HEJ110250	HEJ110300						
12.0	17	8	HEJ120100	HEJ120150	HEJ120200	HEJ120250	HEJ120300	HEJ120350	HEJ120400	HEJ120500	HEJ120600	HEJ120700	HEJ120800
12.5	18	8	HEJ125100	HEJ125150	HEJ125200	HEJ125250							
13.0	18	8	HEJ130125	HEJ130150		HEJ130250							
14.0	19	8	HEJ140100	HEJ140150	HEJ140200	HEJ140250	HEJ140300	HEJ140350	HEJ140400	HEJ140500	HEJ140600	HEJ140700	HEJ140800
15.0	20	8	HEJ150100			HEJ150250	HEJ150300						
16.0	21	8	HEJ160100	HEJ160150	HEJ160200	HEJ160250	HEJ160300	HEJ160350	HEJ160400	HEJ160500	HEJ160600	HEJ160700	HEJ160800
20.0	25	8	HEJ200100	HEJ200150	HEJ200200	HEJ200250	HEJ200300	HEJ200350	HEJ200400	HEJ200500	HEJ200600	HEJ200700	HEJ200800
25.0	30	8	HEJ250100	HEJ250150	HEJ250200	HEJ250250	HEJ250300	HEJ250350	HEJ250400	HEJ250500	HEJ250600	HEJ250700	HEJ250800



Standard: DIN1530-AH / ISO6751
 Material: 1.2067 Hardened Steel
 Hardness:
 Head = HRC45+/-5
 Core = HRC60+/-2 Through Hardened



P	H	T	Product Code											
			L40	L60	L80	L 100	L 125	L 160	L 200	L 250	L 315	L 400	L 500	L630
1.0	2.5	1.2				HED010100		HED010160						
1.2	2.5	1.2				HED012100								
1.5	3	1.5	HED015040			HED015100	HED015125	HED15160	HED015200	HED015250				
1.6	3	1.5	HED016040	HED016060	HED016080	HED016100		HED16160						
2.0	4	2	HED020040	HED020060	HED020080	HED020100	HED020125	HED020160	HED020200	HED020250	HED020315			
2.2	4	2				HED022100	HED022125	HED022160	HED022200	HED022250	HED022315			
2.5	5	2				HED025100	HED025125	HED025160	HED025200	HED025250	HED025315			
2.7	5	2				HED027100	HED027125	HED027160	HED027200	HED027250	HED027315			
3.0	6	3				HED030100	HED030125	HED030160	HED030200	HED030250	HED030315	HED030400		
3.2	6	3				HED032100	HED032125	HED032160	HED032200	HED032250	HED032315	HED032400		
3.5	7	3				HED035100	HED035125	HED035160	HED035200	HED035250	HED035315	HED035400		
3.7	7	3				HED037100	HED037125	HED037160	HED037200	HED037250	HED037315	HED037400		
4.0	8	3		HED040060	HED040080	HED040100	HED040125	HED040160	HED040200	HED040250	HED040315	HED040400	HED040500	
4.2	8	3				HED042100	HED042125	HED042160	HED042200	HED042250	HED042 315	HED042400	HED042500	
4.5	8	3				HED045100	HED045125	HED045160	HED045200	HED045250	HED045315	HED045400	HED045500	
5.0	10	3			HED050080	HED050100	HED050125	HED050160	HED050200	HED050250	HED050315	HED050400	HED050500	
5.2	10	3				HED052100	HED052125	HED052160	HED052200	HED052250	HED052315	HED052400	HED052500	
5.5	10	3				HED055100	HED055125	HED055160	HED055200	HED055250	HED055315	HED055400	HED055500	
6.0	12	5	HED060040	HED060060		HED060100	HED060125	HED060160	HED060200	HED060250	HED060315	HED060400	HED060500	HED060630
6.2	12	5				HED062100	HED062125	HED062160	HED062200	HED062250	HED062315	HED062400	HED062500	HED062630
6.5	12	5				HED065100	HED065125	HED065160	HED065200	HED065250	HED065315	HED065400	HED065500	HED065630
7.0	12	5				HED070100	HED070125	HED070160	HED070200	HED070250	HED070315	HED070400	HED070500	HED070630
7.5	12	5				HED075100	HED075125	HED075160	HED075200	HED075250	HED075315	HED075400	HED075500	HED075630
8.0	14	5		HED080060		HED080100	HED080125	HED080160	HED080200	HED080250	HED080315	HED080400	HED080500	HED080630
8.2	14	5				HED082100	HED082125	HED082160	HED082200	HED082250	HED082315	HED082400	HED082500	HED082630
8.5	14	5				HED085100	HED085125	HED085160	HED085200	HED085250	HED085315	HED085400	HED085500	HED085630
9.0	14	5				HED090100	HED090125	HED090160	HED090200	HED090250	HED090315	HED090400	HED090500	HED090630
10.0	16	5				HED100100	HED100125	HED100160	HED100200	HED100250	HED100315	HED100400	HED100500	HED100630
10.2	16	5				HED102100	HED102125	HED102160	HED102200	HED102250	HED102315	HED102400	HED102500	HED102630
10.5	16	5				HED105100	HED105125	HED105160	HED105200	HED105250	HED105315	HED105400	HED105500	HED105630
11.0	16	5				HED110100	HED110125	HED110160	HED110200	HED110250	HED110315	HED110400	HED110500	HED110630
12.0	20	7				HED120100	HED120125	HED120160	HED120200	HED120250	HED120315	HED120400	HED120500	HED120630
12.2	20	7				HED122100	HED122125	HED122160	HED122200	HED122250	HED122315	HED122400	HED122500	HED122630
12.5	20	7				HED125100	HED125125	HED125160	HED125200	HED125250	HED125315	HED125400	HED125500	HED125630
13.0	20	7								HED130250				
14.0	22	7				HED14100	HED14125	HED14160	HED14200	HED14250	HED14315	HED14400	HED14500	HED14630
16.0	22	7				HED16100	HED16125	HED16160	HED16200	HED16250	HED16315	HED16400	HED16500	HED16630
18.0	24	7				HED18100	HED18125	HED18160	HED18200	HED18250	HED18315	HED18400	HED18500	HED18630
20.0	26	8				HED20100	HED20125	HED20160	HED20200	HED20250	HED20315	HED20400	HED20500	HED20630
25.0	32	10						HED25160	HED25200	HED25250	HED25315	HED25400	HED25500	HED25630
32.0	40	10						HED32160	HED32200	HED32250	HED32315	HED32400	HED32500	HED32630



Material: H13

Hardness:

Core = 40-45RC

Surface = 70-72RC

P	N	Product Code	
		L 6"	L 10"
3/64	1/2	E0306 - 1/2	E0310 - 1/2
1/16	1/2	E0406 - 1/2	E0310 - 1/2
5/64	1/2	E0506 - 1/2	E0310 - 1/2
3/32	1/2	E0606 - 1/2	E0310 - 1/2
7/64	1/2	E0706 - 1/2	E0310 - 1/2
3/64	1	E0306 - 1	
1/16	1	E0406 - 1	
5/64	1	E0506 - 1	
3/32	1	E0606 - 1	
7/64	1	E0706 - 1	
3/64	2	E0306 - 2	E0310 - 2
1/16	2	E0406 - 2	E0410 - 2
5/64	2	E0506 - 2	E0510 - 2
3/32	2	E0606 - 2	E0610 - 2
7/64	2	E0706 - 2	E0710 - 2



Material: H13

Hardness:

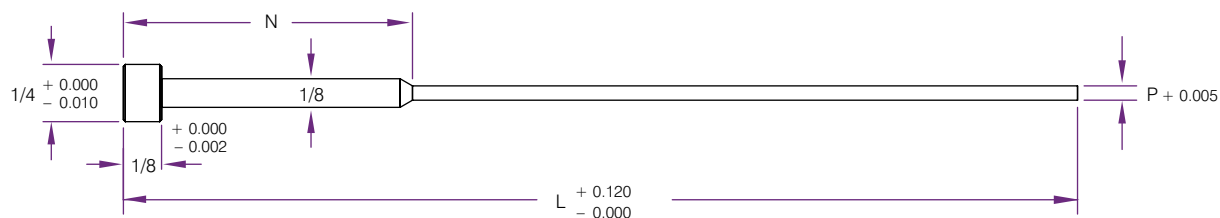
Core = 40-45RC

Surface = 70-72RC

P Tolerance

3/64-23/64	-0.0003	3/8-1"	+0.000
	-0.0008		-0.001

P	H	T	Product Code				
			L 6"	L 10"	L 14"	L 18"	L 25"
3/64	1/4	1/8	EO306				
1/16	1/4	1/8	EO406				
5/64	1/4	1/8	EO506				
3/32	1/4	1/8	EO606	EO610			
7/64	1/4	1/8	EO706	EO710			
1/8	1/4	1/8	EO806	EO810	EO814		
9/64	1/4	1/8		EO910	EO914		
5/32	9/32	5/32	E1006	E1010	E1014	E1018	
11/64	11/32	3/16		E1110	E1114		
3/16	3/8	3/16	E1206	E1210	E1214	E1218	E1225
13/64	3/8	3/16		E1310			
7/32	13/32	3/16		E1410	E1414		
1/4	7/16	3/16	E1606	E1610	E1614	E1618	E1625
17/64	7/16	1/4		E1710	E1714		E1725
9/32	7/16	1/4	E1806	E1810	E1814	E1818	E1825
19/64	1/2	1/4		E1910	E1914		
5/16	1/2	1/4	E2006	E2010	E2014	E2018	E2025
21/64	9/16	1/4		E2110	E2114		
11/32	9/16	1/4	E2206	E2210	E2214		E2225
23/64	5/8	1/4		E2310	E2314		
3/8	5/8	1/4	E2406	E2410	E2414	E2418	E2425
13/32	11/16	1/4	E2606	E2610	E2614	E2618	E2625
7/16	11/16	1/4	E2706	E2710	E2714	E2718	E2725
15/32	3/4	1/4		E3010	E3014	E3018	
1/2	3/4	1/4	E3206	E3210	E3214	E3218	E3225
9/16	13/16	1/4	E3606	E3610	E3614	E3618	
5/8	7/8	1/4	E4006	E4010	E4014	E4018	E4025
11/16	15/16	1/4		E4210			
3/4	1"	1/4	E4806	E4810	E4814	E4818	E4825
7/8	1 1/8"	1/4	E5606	E5610	E5614	E5618	
1"	1 1/4"	1/4	E6406	E6410	E6414	E6418	E6425



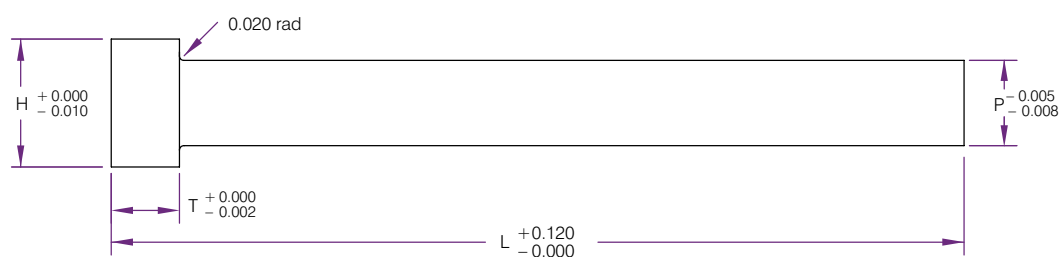
Material: H13
 Hardness:
 Core = 40-45RC
 Surface = 70-72RC

Product Code	P	N	L
EO310 - 1/20S	3/64	1/2	10
EO310 - 20S	3/64	2	10
EO510 - 1/20S	5/64	1/2	10
EO510 - 20S	5/64	2	10
EO610 - 1/20S	3/32	1/2	10
EO610 - 20S	3/32	2	10
EO710 - 20S	7/64	2	10

Ejector Pins - Oversize Straight Imperial

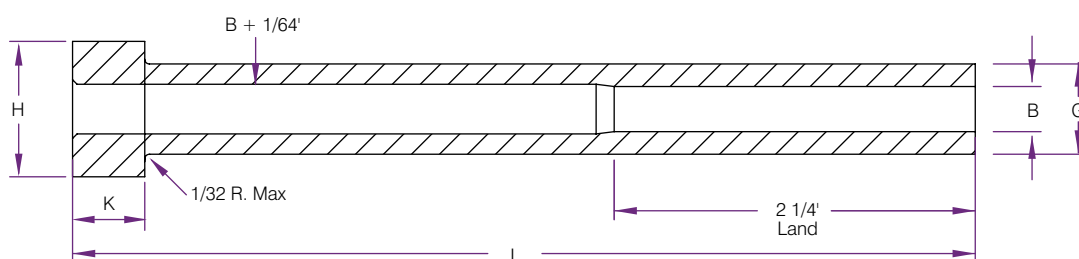


Product Code	P	H	T	L
EO810 - OS	1/8	1/4	1/8	10
E1010 - OS	5/32	9/32	5/32	10
E1210 - OS	3/16	3/8	3/16	10
E1610 - OS	1/4	7/16	3/16	10
E2010 - OS	5/16	1/2	1/4	10
EO810 - OS	1/8	5/8	1/4	10
E2810 - OS	7/16	11/16	1/4	10
E3210 - OS	1/2	3/4	1/4	10



Material: H13
Hardness: 40-45RC

P	H	T	Product Code		
			L 6"	L 10"	L 14"
1/8	1/4	1/8	ES0406	ES0410	
5/32	9/32	5/32	ES0506	ES0510	
3/16	3/8	3/16		ES1210	
7/32	13/32	3/16		ES1410	
1/4	7/16	3/16		ES1610	
9/32	7/16	1/4		ES1810	
5/16	1/2	1/4		ES2010	
3/8	5/8	1/4	ES2406	ES2410	ES2414
7/16	11/16	1/4	ES2806	ES2810	ES2814
1/2	3/4	1/4	ES3206	ES3210	ES3214
9/16	13/16	1/4	ES3606		
5/8	7/8	1/4	ES4006	ES4010	ES4014
3/4	1	1/4	ES4806	ES4810	ES4814



Material: H13

Hardness:

Core = 40-45RC

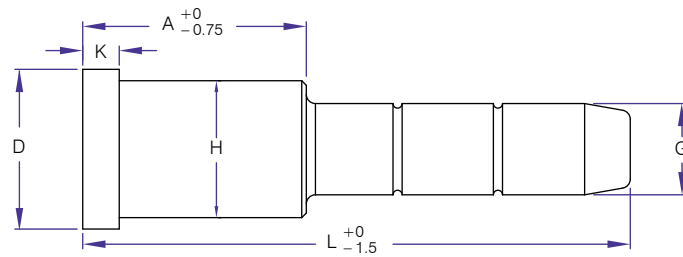
Surface = 70-72RC

ISO6 and ISO8 have a 1 3/4 land.

Tolerances

Head Diameter (H)	-.000 +.010
Head Thickness (K)	-.000 +.002
Sleeve Diameter (G)	-.000 +.001
Sleeve ID (B)	+.0005 -.0000
Length (L)	+.12 -.00

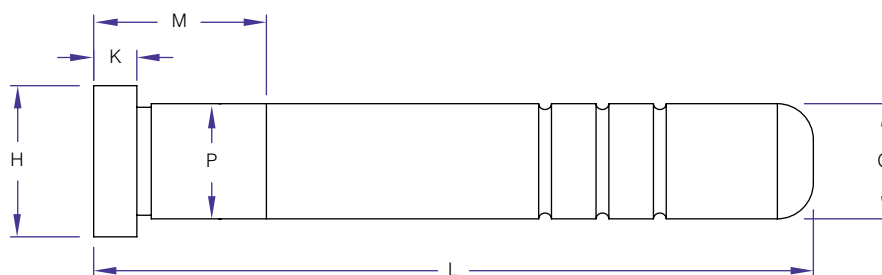
B ID	G OD	H O	K Head Thickness	Product Code									
				L 3"	L 4"	L 5"	L 6"	L 7"	L 8"	L 9"	L 10"	L 11"	L 12"
3/32	3/16	3/8	3/16	ISO603	ISO604	ISO605	ISO606	ISO607					
1/8	7/32	13/32	3/16	ISO803	ISO804	ISO805	ISO806	ISO807					
5/32	1/4	7/16	3/16		IS1004	IS1005	IS1006	IS1007	IS1008	IS1009	IS1010		
3/16	5/16	1/2	1/4		IS1204	IS1205	IS1206	IS1207	IS1208	IS1209	IS1210	IS1211	IS1212
7/32	11/32	9/16	1/4		IS1404	IS1405	IS1406	IS1407	IS1408	IS1409	IS1410		
1/4	3/8	5/8	1/4	IS1603	IS1604	IS1605	IS1606	IS1607	IS1608	IS1609	IS1610	IS1611	IS1612
5/16	7/16	11/16	1/4		IS2004	IS2005	IS2006	IS2007	IS2008	IS2009	IS2010	IS2011	IS2012
3/8	1/2	3/4	1/4		IS2404	IS2405	IS2406	IS2407	IS2408	IS2409	IS2410	IS2411	IS2412
7/16	5/8	7/8	1/4		IS2804	IS2805	IS2806	IS2807	IS2808	IS2809	IS2810	IS2811	IS2812
1/2	11/16	15/16	1/4		IS3204	IS3205	IS3206	IS3207	IS3208	IS3209	IS3210	IS3211	IS3212
9/16	3/4	1"	1/4		IS3604	IS3605	IS3606	IS3607	IS3608	IS3609	IS3610	IS3611	IS3612
5/8	7/8	1 1/8	1/4		IS4004	IS4005	IS4006	IS4007	IS4008	IS4009	IS4010	IS4011	IS4012
3/4	1"	1 1/4	1/4		IS4804	IS4805	IS4806	IS4807	IS4808	IS4809	IS4810	IS4811	IS4812



General Dimensions

G	H	D	K
16F7	25K6	30	6
20F7	30K6	35	8
25F7	35K6	40	8
30F7	42K7	47	10

Product Code	G	A	L	Product Code	G	A	L	Product Code	G	A	L	Product Code	G	A	L
MP162460	16	24	60	MP2044100	20	44	100	MP2544120	25	44	120	MP3044200	30	44	200
MP162480	16	24	80	MP2044120	20	44	120	MP2544140	25	44	140	MP3049120	30	49	120
MP1624100	16	24	100	MP2044140	20	44	140	MP2544160	25	44	160	MP3049140	30	49	140
MP1624200	16	24	200	MP2044160	20	44	160	MP2544180	25	44	180	MP3049160	30	49	160
MP162960	16	29	60	MP2044180	20	44	180	MP254980	25	49	80	MP3049200	30	49	200
MP162980	16	29	80	MP204980	20	49	80	MP2549100	25	49	100	MP3049220	30	49	220
MP1629100	16	29	100	MP2049100	20	49	100	MP2549120	25	49	120	MP3059120	30	59	120
MP1629120	16	29	120	MP2049120	20	49	120	MP2549140	25	49	140	MP3059140	30	59	140
MP1629140	16	29	140	MP2049140	20	49	140	MP2549160	25	49	160	MP3059160	30	59	160
MP163460	16	34	60	MP2049160	20	49	160	MP2549180	25	49	180	MP3059200	30	59	200
MP163480	16	34	80	MP2049180	20	49	180	MP2559100	25	59	100	MP3059220	30	59	220
MP1634100	16	34	100	MP2059100	20	59	100	MP2559120	25	59	120	MP3069120	30	69	120
MP1634120	16	34	120	MP2059120	20	59	120	MP2559140	25	59	140	MP3069140	30	69	140
MP1634140	16	34	140	MP2059140	20	59	140	MP2559160	25	59	160	MP3069160	30	69	160
MP163960	16	39	60	MP2059160	20	59	160	MP2559180	25	59	180	MP3069200	30	69	200
MP163980	16	39	80	MP2059180	20	59	180	MP2569120	25	69	120	MP3069220	30	69	220
MP1639100	16	39	100	MP2069120	20	69	120	MP2569140	25	69	140	MP3079120	30	79	120
MP1639120	16	39	120	MP2069140	20	69	140	MP2569160	25	69	160	MP3079140	30	79	140
MP1639140	16	39	140	MP2069160	20	69	160	MP2569180	25	69	180	MP3079160	30	79	160
MP164460	16	44	60	MP2069180	20	69	180	MP2579140	25	79	140	MP3079160	30	79	160
MP164480	16	44	80	MP2079140	20	79	140	MP2579160	25	79	160	MP3079200	30	79	200
MP1644100	16	44	100	MP2079160	20	79	160	MP2579180	25	79	180	MP3079220	30	79	220
MP1644120	16	44	120	MP2079180	20	79	180	MP3044120	30	44	120				
MP1644140	16	44	140	MP254480	25	44	80	MP3044140	30	44	140				
MP204480	20	44	80	MP2544100	25	44	100	MP3044160	30	44	160				



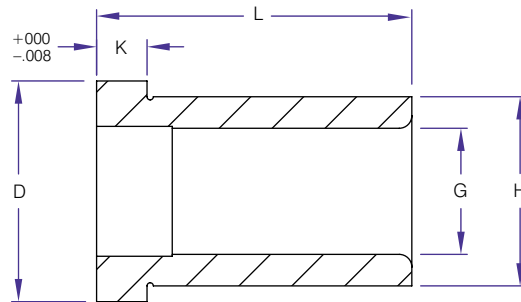
Material: SAE52100
Induction Hardened
Hardness: 60+/-2RC

General Dimensions				
Nom Dia	H	K	P	M
16	21	6	K6	50-90=19, 100-200=24, 220-240=34
20	25	6	K6	50-100=19, 120-140=24, 160-240=34
25	30	8	K6	50-120=24, 140=29, 160-300=34
30	35	8	K6	70-80=24, 90-160=29, 180-2000=39, 220-300=49
35	40	8	K6	90-120=29, 140-240=49, 260-300=59
40	45	10	K7	100-160=35, 180-300=45
50	56	12	K7	140-400=45, 450-500=80

L +0 +1.5	Product Code							
	G16	G20	G25	G30	G35	G40	G50	G60
30				ML3030				
50	ML1650	ML2050	ML2550					
60	ML1660	ML2060	ML2560					
70	ML1670	ML2070	ML2570	ML3070				
80	ML1680	ML2080	ML2580	ML3080				
90	ML1690	ML2090	ML2590	ML3090	ML3590			
100	ML16100	ML20100	ML25100	ML30100	ML35100	ML40100		
120	ML16120	ML20120	ML25120	ML30120	ML35120	ML40120		
140	ML16140	ML20140	ML25140	ML30140	ML35140	ML40140	ML50140	
160	ML16160	ML20160	ML25160	ML30160	ML35160	ML40160	ML50160	
180	ML16180	ML20180	ML25180	ML30180	ML35180	ML40180	ML50180	
200	ML16200	ML20200	ML25200	ML30200	ML35200	ML40200	ML50200	
220	ML16220	ML20220	ML25220	ML30220	ML35220		ML50220	
240	ML16240	ML20240	ML25240	ML30240	ML35240	ML40240	ML50240	
260			ML25260	ML30260	ML35260	ML40260	ML50260	
280			ML25280	ML30280	ML35280	ML40280	ML50280	
300			ML25300	ML30300	ML35300	ML40300	ML50300	
350						ML40350	ML50350	
400						ML40400	ML50400	ML60400
450							ML50450	
500							ML50500	

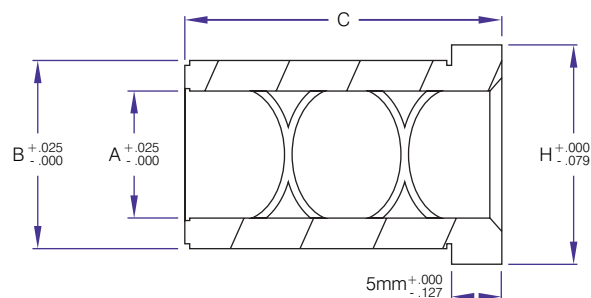


Material: SUJ2
Hardness: 60-2RC



G	H	Tolerance	D	K
16	25	+0.021	30	6
20	30	+0.008	35	8
25	35	+0.025 +0.009	40	8
30	42	+0.018	47	10
35	48	+0.002	53	10
40	55	+0.021	60	10
50	70	+0.002	76	12

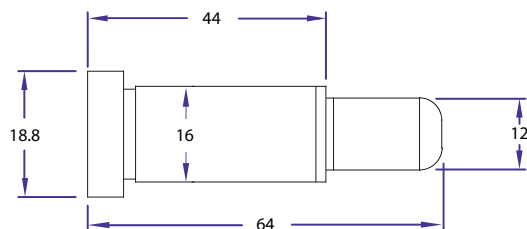
L +0 -1.5	Product Code							
	G 16	G 20	G 25	G 30	G 35	G 40	G 50	G60
20	MB1620	MB2020	MB2520	MB3020	MB3520			
25	MB1625	MB2025	MB2525	MB3025	MB3525			
30	MB1630	MB2030	MB2530	MB3030	MB3530			
35	MB1635	MB2035	MB2535	MB3035	MB3535	MB4035		
40	MB1640	MB2040	MB2540	MB3040	MB3540	MB4040		
45	MB1645	MB2045	MB2545	MB3045	MB3545	MB4045		
50	MB1650	MB2050	MB2550	MB3050	MB3550	MB4050	MB5050	
55		MB2055	MB2555	MB3055				
60	MB1660	MB2060	MB2560	MB3060	MB3560	MB4060	MB5060	
65		MB2065	MB2565	MB3065				
70		MB2070	MB2570	MB3070	MB3570	MB4070	MB5070	
80		MB2080	MB2580	MB3080	MB3580	MB4080	MB5080	
90		MB2090	MB2590	MB3090	MB3590	MB4090	MB5090	
100		MB20100	MB25100	MB30100	MB35100	MB40100	MB50100	MB60100
110		MB20110	MB25110	MB30110	MB35110	MB40110	MB50110	
120		MB20120	MB25120	MB30120	MB35120	MB40120	MB50120	MB60120
130			MB25130	MB30130	MB35130	MB40130	MB50130	
140				MB30140	MB35140	MB40140	MB50140	
150				MB30150	MB35150	MB40150	MB50150	MB60150



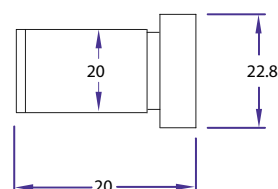
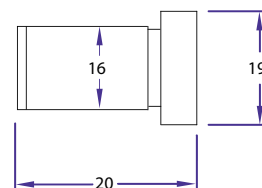
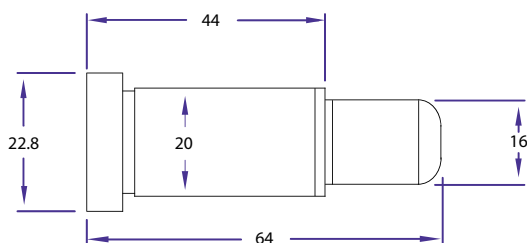
Product Code	A	B	C	D
LBBM2025	20	25	26	28
LBBM2030	20	30	26	28
LBBM2040	20	40	26	28
LBBM2050	20	50	26	28
LBBM2080	20	80	26	28
LBBM20100	20	100	26	28
LBBM2530	25	30	32	35
LBBM2540	25	40	32	35
LBBM2550	25	50	32	35
LBBM2565	25	65	32	35
LBBM2580	25	80	32	35
LBBM25100	25	100	32	35
LBBM3025	30	25	38	41
LBBM3030	30	30	38	41
LBBM3040	30	40	38	41
LBBM3050	30	50	38	41
LBBM3065	30	65	38	41
LBBM3080	30	80	38	41
LBBM30100	30	100	38	41
LBBM30120	30	120	38	41
LBBM30140	30	140	38	41
LBBM30150	30	150	38	41
LBBM4040	40	40	50	53
LBBM4050	40	50	50	53
LBBM4065	40	65	50	53
LBBM4080	40	80	50	53
LBBM40100	40	100	50	53
LBBM40120	40	120	50	53
LBBM40150	40	150	50	53
LBBM5030	50	30	60	63
LBBM5050	50	50	60	63
LBBM5065	50	65	60	63
LBBM5080	50	80	60	63
LBBM50100	50	100	60	63
LBBM60100	60	100	70	73

Product Code	Product Title	G Tolerance	H Tolerance	L Dimension
REGENTPIN-M12	M12-44-64 Regent Pin	0/-0.015	0.01/0	0/-1.5
REGENTBUSH-M12	M12-20 Regent Bush	0/-0.015	0.01/-0	0/-1.5
REGENTPIN-M15	M15-44-64 Regent Pin	0/-0.015	0.01/-0	0/-1.5
REGENTBUSH-M15	M15-20 Regent Bush	0/-0.015	0.01/-0	0/-1.5

Regent Pin & Bush M12



Regent Pin & Bush M16

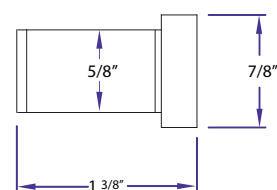
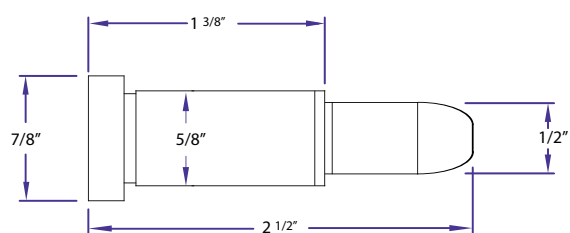


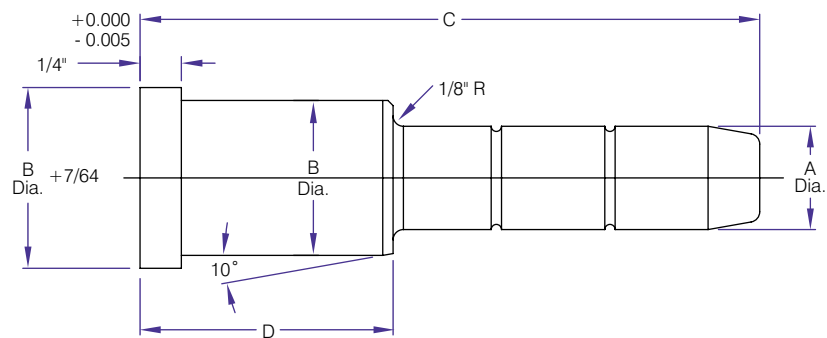
Inch Pins and Bushes - Imperial

Product Code	Product Title	L Dimension
GP028	GP25 Guide Pillar	2 1/2"
GB42	GB42 Guide Bush	1 3/8"



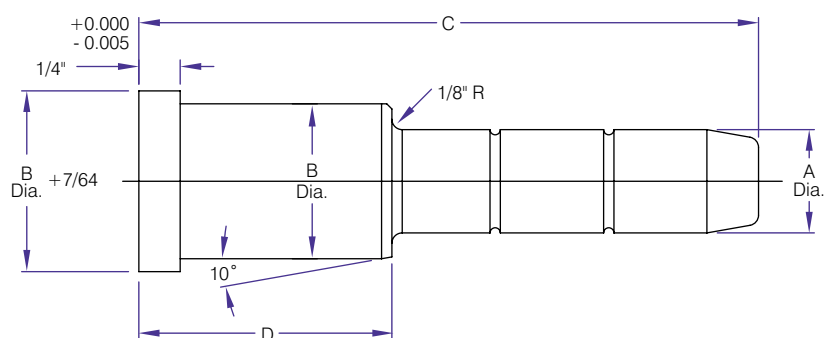
Inch Pin & Bush





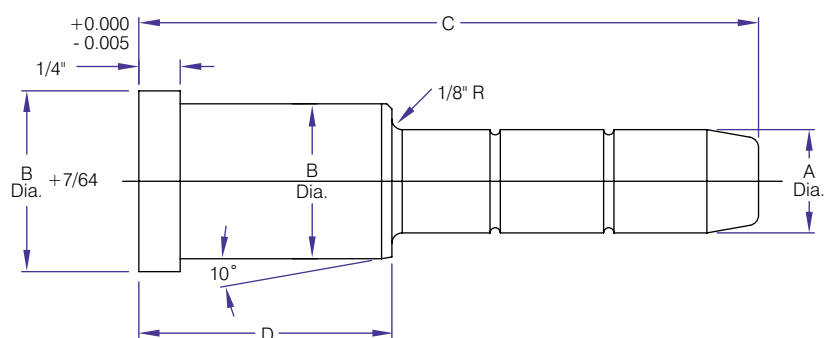
A Nominal: 1/2" B Nominal: 5/8"				
Product Code	A Tolerance	B Tolerance	Dimensions	
			C	D
GP002	.4995"	.6264"	2 3/4"	1 1/2"
GP000	.4990"	.6257"	3 1/4"	7/8"
GP004			3 1/4"	1 1/2"
GP006			3 3/4"	2 7/16"
GP001			4 1/4"	1 3/8"
GP028			2 1/4"	1.375"

A Nominal: 5/8" B Nominal: 7/8"						
Product Code	A Tolerance	B Tolerance	Dimensions			
			C	D	M	R
GP162			2 1/2"	7/8"		
GP165			2 1/2"	1 3/8"		
GP163			3"	7/8"		
GP166			3"	1 3/8"		
GP169			3"	1 7/8"		
GP164	.6244"	.8763"	3 1/2"	7/8"		
GP167			3 1/2"	1 3/8"	63/64"	3/32"
GP190	.6237"	.8758"	3 1/2"	1 7/8"		
GP193			3 1/2"	2 3/8"		
GP168			4"	1 3/8"		
GP191			4"	1 7/8"		
GP194			4"	2 3/8"		
GP192			4 1/2"	1 7/8"		
GP195			4 1/2"	2 3/8"		
GP196			5"	2 3/8"		



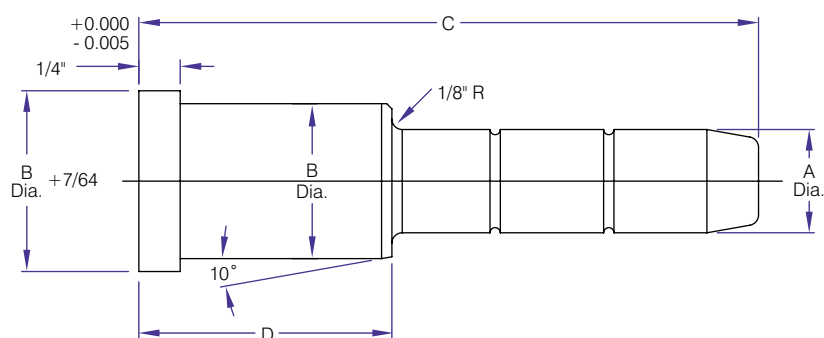
A Nominal: 3/4" B Nominal: 1"				
Product Code	A Tolerance	B Tolerance	Dimensions	
			C	D
GP012			2 5/8"	1 3/8"
GP003			2 7/8"	7/8"
GP009			2 7/8"	1 1/8"
GP010	.7495"	1.0008"	2 7/8"	1 1/2"
GP005			3 1/2"	7/8"
GP011	.7483"	1.0016"	3 1/4"	1 1/8"
GP017			3 1/4"	1 3/8"
GP014			3 3/8"	2"
GP007			3 3/4"	7/8"
GP013			3 3/4"	1 3/8"
GP065			3 3/4"	1 1/2"
GP023			3 3/4"	1 7/8"
GP016			4 1/8"	1 1/2"
GP019			4 1/4"	1 3/8"
GP060			4 1/4"	1 7/8"
GP066			4 1/4"	2"

A Nominal: 3/4" B Nominal: 1"				
Product Code	A Tolerance	B Tolerance	Dimensions	
			C	D
GP024			4 1/4"	2 3/8"
GP062			4 3/4"	7/8"
GP025			4 3/4"	1 7/8"
GP061			4 3/4"	2 3/8"
GP018		1.008	4 7/8"	2"
GP015			5 1/4"	1 1/8"
GP063		1.0016	5 1/4"	1 3/8"
GP026			5 1/4"	2 3/8"
GP020			6"	1 3/8"
GP021			6"	1 7/8"
GP064			6 1/4"	2 3/8"
GP 50			7 1/8"	1 3/4"
GP022			7 1/2"	2 3/8"
GP053			8 5/8"	1 3/4"
GP056			10 1/8"	1 3/4"
GP059			11 5/8"	1 3/4"



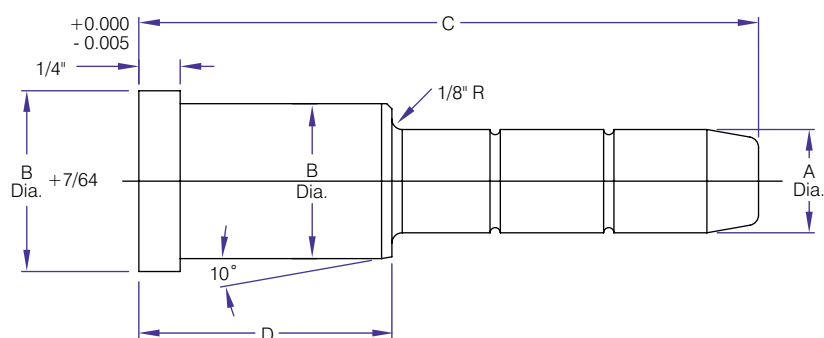
A Nominal: 7/8" B Nominal: 1 1/4"				
Product Code	A Tolerance	B Tolerance	Dimensions	
			C	D
GP071			2 3/4"	7/8"
GP074			2 3/4"	1 3/8"
GP084			3 1/4"	7/8"
GP072	.874"	1.252"	3 1/4"	1 1/8"
GP085	.873"	1.251"	3 1/4"	1 3/8"
GP086			3 3/4"	7/8"
GP087			3 3/4"	1 3/8"
GP088			3 3/4"	1 7/8"
GP073			4 1/4"	1 1/8"
GP100			4 1/4"	1 7/8"
GP081			4 1/2"	2 3/8"
GP101			4 3/4"	7/8"
GP075			4 3/4"	1 3/8"

A Nominal: 7/8" B Nominal: 1 1/4"				
Product Code	A Tolerance	B Tolerance	Dimensions	
			C	D
GP077			4 3/4"	1 7/8"
GP089			5 1/4"	2 3/8"
GP076			5 3/4"	1 3/8"
GP078		1.251	5 3/4"	1 7/8"
GP082		1.252	6"	2 7/8"
GP102			6 1/4"	2 3/8"
GP079			6 1/2"	1 3/8"
GP090			7 5/8"	1 3/4"
GP080			8"	1 3/8"
GP093			9 1/8"	1 3/4"
GP083			9 1/2"	3 3/8"
GP096			10 5/8"	1 3/4"
GP099			12 1/8"	1 3/4"



A B Nominal: 1"				
Product Code	A Tolerance	B Tolerance	Dimensions	
			C	D
GP116	.998"	1.376	3"	7/8"
GP123	.999"	1.377	3 1/4"	1 3/8"
GP125			3 3/4"	1 7/8"
GP117			4"	7/8"
GP118			4"	1 3/8"
GP127			4 1/4"	1 7/8"
GP158			4 1/4"	2"
GP126			4 3/8"	2 1/4"
GP120			4 1/2"	1 3/8"
GP119			4 1/2"	2 3/8"
GP130			4 7/8"	2 1/4"
GP129			5 1/4"	1 7/8"
GP128			5 3/8"	2 3/4"
GP121			5 1/2"	1 3/8"
GP136			5 1/2"	2 3/8"
GP142			5 1/2"	2 7/8"
GP143			6"	2 7/8"
GP139			6"	3 3/4"
GP138			6 1/4"	1 7/8"

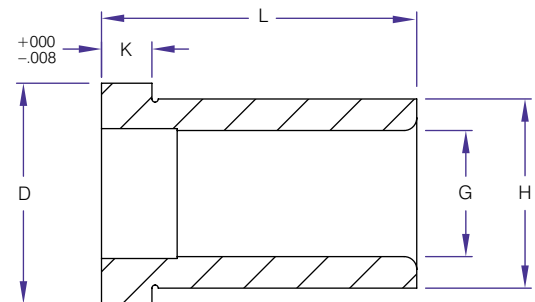
A B Nominal: 1"				
Product Code	A Tolerance	B Tolerance	Dimensions	
			C	D
GP131			6 3/8"	3"
GP122			6 1/2"	1 3/8"
GP141			6 1/2"	2 3/8"
GP144			6 1/2"	2 7/8"
GP159			6 1/2"	3 7/8"
GP156			6 3/4"	1 7/8"
GP137			7"	2 3/4"
GP157			7 1/4"	2 3/8"
GP155			7 1/4"	2 7/8"
GP124			7 1/2"	2 1/2"
GP132			8"	1 3/8"
GP134			8"	2 3/4"
GP140			9 1/4"	1 3/8"
GP133			10"	1 3/8"
GP145			10"	2 1/4"
GP135			10"	2 3/4"
GP148			11 1/2"	2 1/4"
GP151			13"	2 1/4"



A Nominal: 1 1/4" B Nominal: 1 3/4"				
Product Code	A Tolerance	B Tolerance	Dimensions	
			C	D
GP043			4 3/4"	1 7/8"
GP032			5 1/2"	1 3/8"
GP044			5 3/4"	1 7/8"
GP046			5 3/4"	2 3/8"
GP041			6 3/8"	2 3/4"
GP035			6 3/8"	3"
GP042			6 3/8"	3 3/4"
GP033			6 1/2"	1 3/8"
GP047	1.248"	1.751"	6 3/4"	2 3/8"
GP038			7 3/8"	2 3/4"
GP036			7 3/8"	3 3/4"
GP048			7 3/8"	4"
GP034			7 1/2"	1 3/8"
GP031			7 5/8"	4 7/8"
GP037			8"	2 3/4"
GP039			9"	2 3/4"
GP049			9 1/4"	1 7/8"
GP040			9 3/8"	4 3/4"

A Nominal: 1 1/2" B Nominal: 2"				
Product Code	A Tolerance	B Tolerance	Dimensions	
			C	D
GP200	1.499"	2.002"	6 1/2"	3"
	1.498"	2.001"		

A Nominal: 1 3/4" B Nominal: 2 1/4"				
Product Code	A Tolerance	B Tolerance	Dimensions	
			C	D
GP300	1.749"	2.252"	8"	4"
GP310	1.748"	2.251"	9"	4"
GP320			10"	4"



A Nominal: 1/2" B Nominal: 5/8"			
Product Code	G Tolerance	H Tolerance	L Dimension
GB40	.5007"	.6264"	7/8"
GB41	.5002"	.6257"	1 1/8"
GB42			1 3/8"

G Nominal: 5/8" H Nominal: 7/8"			
Product Code	G Tolerance	H Tolerance	L Dimension
GB25	.6257"	.8763"	7/8"
GB26			1 3/8"
GB27	.6250"	.8758"	1 7/8"
GB28			2 3/8"

G Nominal: 3/4" H Nominal: 1"			
Product Code	G Tolerance	H Tolerance	L Dimension
GB34			5/8"
GB03			7/8"
GB02	.7510	1.0016	1 1/4"
GB35	.7503	1.0009	1 3/8"
GB04			1 1/2"
GB05			1 1/2"
GB31			1 7/8"
GB32			2 1/8"
GB33			2 3/8"
GB36			2 5/8"

G Nominal: 7/8" H Nominal: 1 1/4"			
Product Code	G Tolerance	H Tolerance	L Dimension
GB 7			5/8"
GB71			7/8"
GB72	.8761"	1.252"	1 3/8"
GB73	.8753"	1.251"	1 7/8"
GB74			2 1/8"
GB75			2 3/8"
GB76			2 7/8"

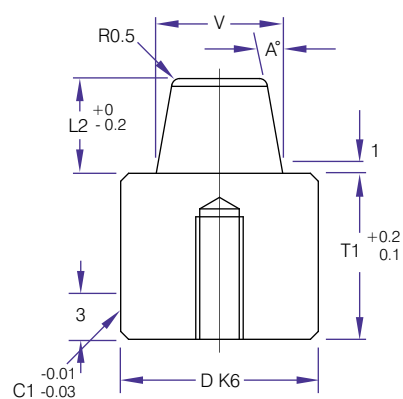
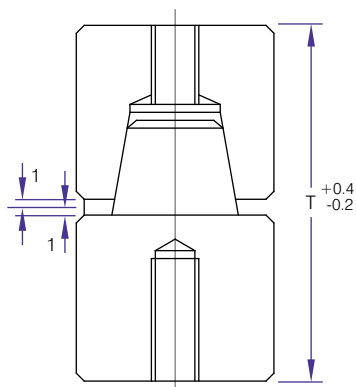
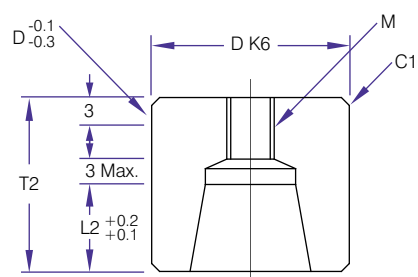
A Nominal: 1" B Nominal: 1 3/8"			
Product Code	G Tolerance	H Tolerance	L Dimension
GB44			7/8"
GB07			1 1/8"
GB45	1.0012"	1.377"	1 3/8"
GB06	1.0003"	1.376"	1 1/2"
GB09			1 7/8"
GB10			2 1/4"
GB11			2 3/8"
GB12			2 1/2"
GB08			2 7/8"
GB13			3 1/2"

G Nominal: 1 1/4" H Nominal: 1 3/4"			
Product Code	G Tolerance	H Tolerance	L Dimension
GB20			7/8"
GB21			1 3/8"
GB 2	1.2513"	1.752"	1 7/8"
GB19	1.2503"	1.751"	2 5/8"
GB18			2 7/8"
GB15			3 3/8"
GB23			3 5/8"
GB14			3 7/8"
GB17			4 3/8"
GB16			4 3/4"

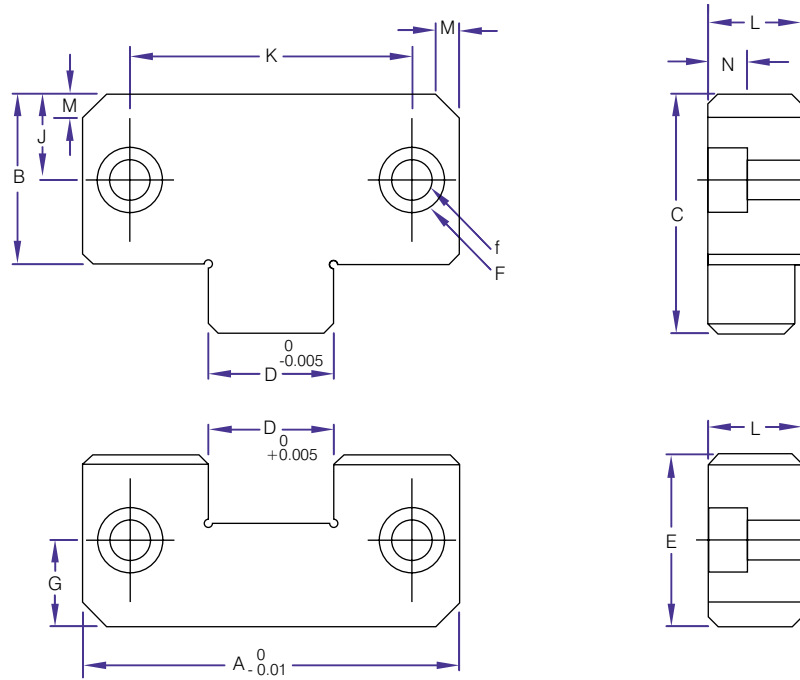
G Nominal: 1 1/2" H Nominal: 2"			
Product Code	G Tolerance	H Tolerance	L Dimension
GB100	1.5014"	2.002"	3 3/4"
	1.5003"	2.001"	



Material: SUJ2
HRC: 55-60



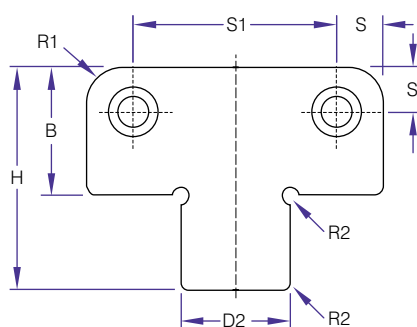
Product Code	D k6		T	T1 . T2	MxL	A	V	L1	L2
TLP-16	16	+0.012 +0.001	30	14	M5x10		10	5	6
TLP-20	20	+0.015 +0.002	40	19	M6x12		13	8	9
TLP-25	25	+0.015 +0.002	50	24	M8x16	5°	16	11	12
TLP-30	30	+0.015 +0.002	60	29	M10x20		20	14	15
TLP-32	32	+0.018 +0.002	60	29	M10x20		20	14	15



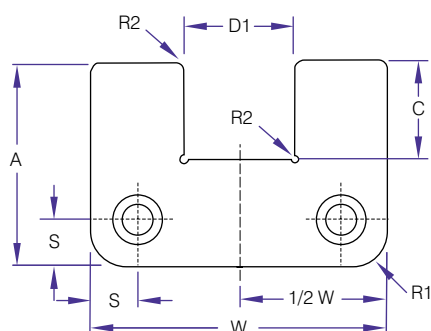
Product Code	A	B	C	D	E	F	f	G	J	K	L	M	N
GPL038	38	22	30	12	22	10.5	6.5	7	7	22	13	5	8
GPL050	50	21.5	30	17	21.5	10.5	6.5	11	11	34	16	5	8
GPL075	75	36	50	25	36	16.5	10.5	18	18	50	19	8	12
GPL100	100	45	65	35	45	16.5	10.5	22	22	70	19	10	12
GPL125	125	45	65	45	45	16.5	10.5	22	22	84	25	10	12



Male: YK30
54~56HRC
Black Oxide Finish

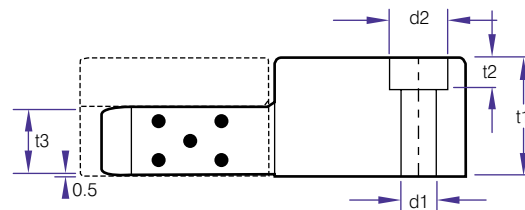
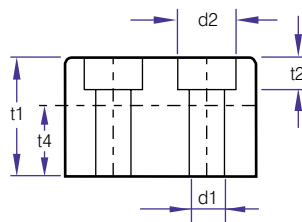
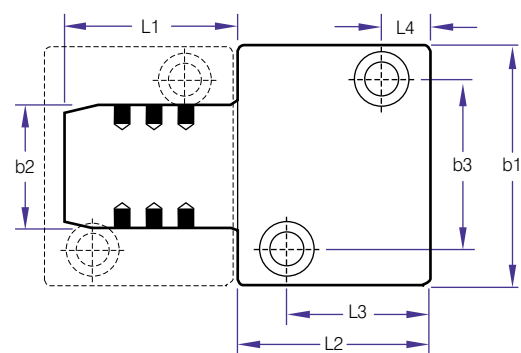
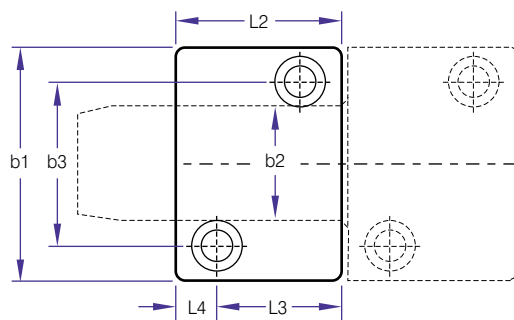


Female: SKD11(D2)
58~62HRC
Titanium Nitride Coated



METRIC STANDARD

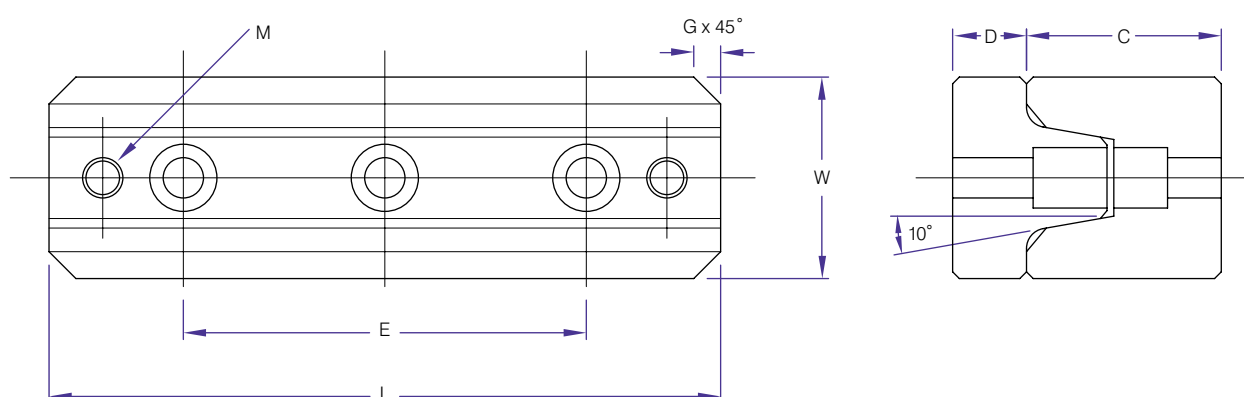
Product Code	W +.00 -.05	T +.00 -.05	A +.00 -.05	B +.00 -.05	C +.00 -.05	D .002/.005 Clearance Per Side	H +0.0 -0.1	R Pocket Radius	S1	S	SHCS
CSLM50	16	50	21.5	21.5	12	17	43	5	34	11	M6-1.0 x 18
CSLM75	19	75	36	36	17	25	72	5	50	18	M10-1.5 x 20
CSLM100	19	100	45	45	23	35	90	5	70	22	M10-1.5 x 20
CSLM125	25	125	45	45	23	35	90	5	84	22	M10-1.5 x 25



Product Code	b2 g5	L1	t4	t3	t2	t1	d2	d1	L4	L3	L2 -0.5 -0.7	B3	B1
HSBR2025	20	25	14	13	6.8	22	11	6.6	7	19	27	31	45
HSBR2532	25	32	15	14	6.8	25	11	6.6	9	27	36	35	50
HSBR3240	32	40	20	19	9.0	32	15	9.0	11	35	46	45	63



Material: S50C
HRC 52-56

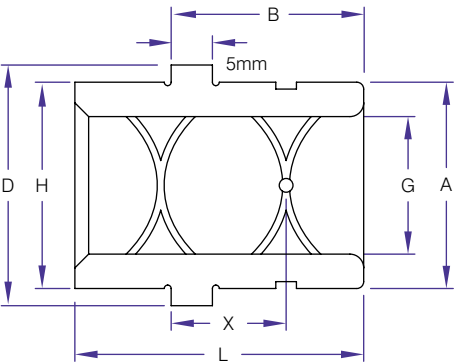


METRIC

Product Code	Description	E	L	W	D	C	G	M
HBS050	50mm Tapered Block Set	36	50	25	8	17.5	5	M5
HBS100	100mm Tapered Block Set	60	100	30	10	22	4	M6
HBS150	150mm Tapered Block Set	100	150	40	13	25	5	M8

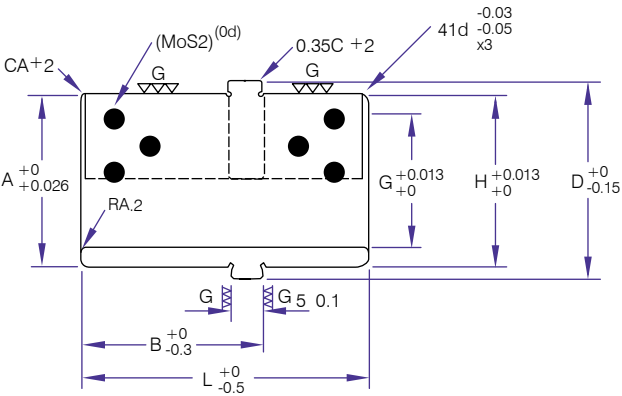
IMPERIAL

Product Code	Description	E	L	W	D	C	G	M
HBS2	2" Tapered Block Set	36	50.29	25.36	7.92	17.53	5.08	3/16"-24
HBS4	4" Tapered Block Set	63.5	101.09	31.71	9.53	22.1	5.08	1/4"-20
HBS6	6" Tapered Block Set	101.6	151.89	38.06	12.7	25.4	5.08	3/8"-16



Product Code	G +.013 -.000	H +.013 -.000	A +.000 -.026	D +.000 -.13	L +.000 -.8	B +.000 -.4	X
EJM20	20	26	26	28	37	25	15
EJM25	25	32	32	35	45	29	16
EJM30	30	38	38	41	45	29	16

Ejector Bush - Graphite



Product Code	G	H	A	D	L	B	RA	CA	(ød)
EGM20	20	26	26	28	37	25	1.25	0.5	4
EGM25	25	32	32	35	45	29	1.5	0.6	5
EGM30	30	38	38	41	45	29	2.0	0.7	5



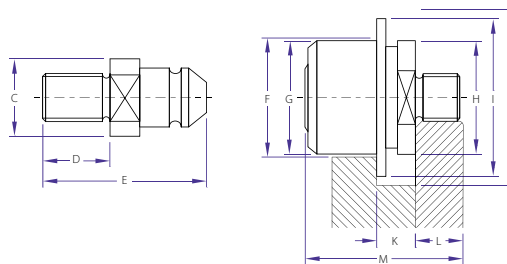
Material SAE52100

Hardness 60+2RC

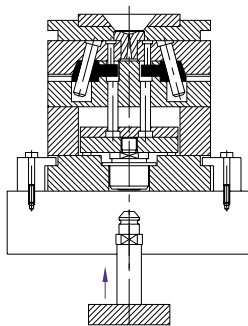
Induction Heat Treated

*Tolerance on the "P" Dimensions is -.5 mm

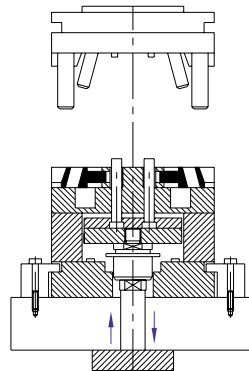
Product Code	P	L	N	T	H	D
MAP12140	12	140	33	10	17	+0.12 +0.01
MAP16100	16	100	28	12	21	
MAP16120	16	120	28	12	21	
MAP16140	16	140	33	12	21	
MAP16160	16	160	33	12	21	
MAP16180	16	180	38	12	21	
MAP20120	20	120	32	15	25	
MAP20140	20	140	37	15	25	
MAP20160	20	160	37	15	25	
MAP20200	20	200	42	15	25	
MAP20220	20	220	42	15	25	
MAP25160	25	160	52	15	30	
MAP25180	25	180	52	15	30	
MAP25200	25	200	52	15	30	
MAP25260	25	260	57	15	30	
MAP30200	30	200	50	20	35	
MAP30260	30	260	60	20	35	
MAP30300	30	300	60	20	35	



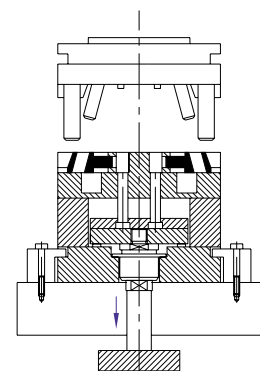
Mould Closed
Material Injected



Mould Open-Coupler
Engages & Pushes Forward



Coupler and Bars Pull
Back the Ejector Plate



COUPLER

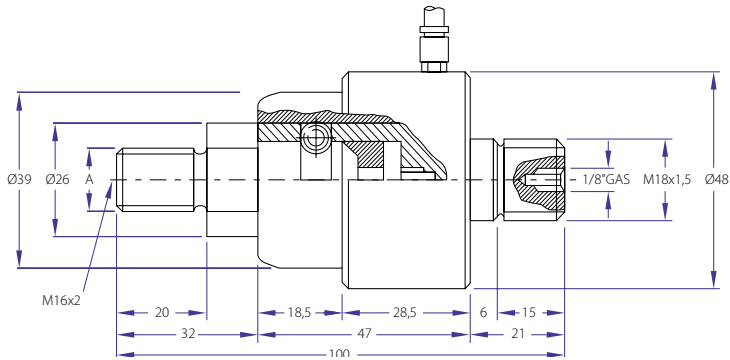
Product Code	Thread	F	G	H	I	J	K	L	M
302M12COUP	12x1.75	34	32	32	40	43	9	15	42.55
402M16COUP	16x1.5	40	38	38.1	48	50.6	13	15.24	52
402M162COUP	16x2	40	38	38.1	48	50.6	13	15.24	52
402M20COUP	20x1.5	40	38	38.1	48	50.6	13	15.24	52
412M16COUP	16x1.5	58	56	52	65	70	17	18	68

BARB

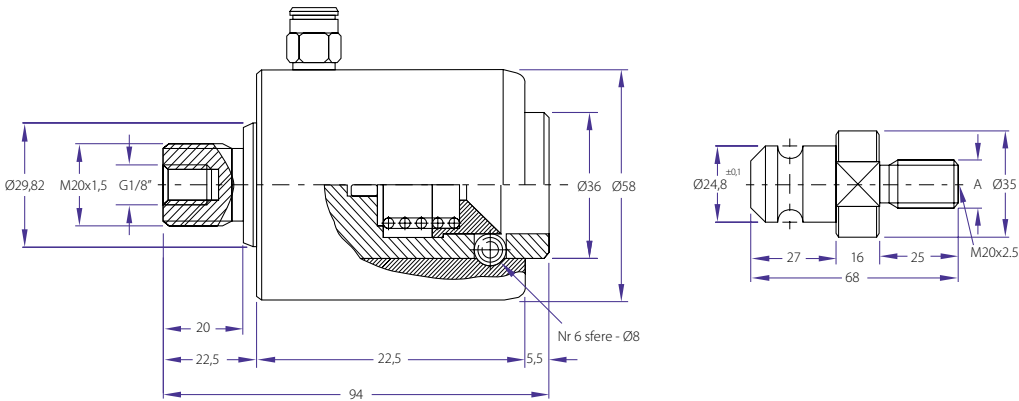
Product Code	Thread	C	D	E	Pulling Force
301M12BARB	12x1.75	22.8	20	45.5	1500Kg
401M16BARB	16x2	25.8	20	55	2400Kg
401M20BARB	20x2.5	25.8	20	55	2400Kg
411M16BARB	16x2	35	35	68	3200Kg



Standard Coupler



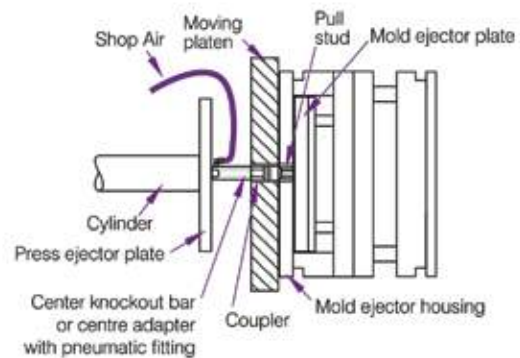
Large Coupler



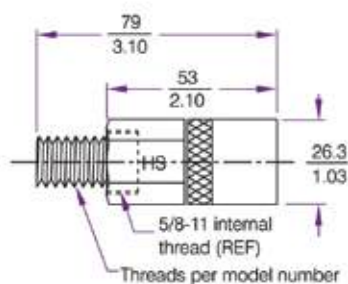
Product Code	Description
QKAC18	Standard Coupler
QKAC20	Large Coupler



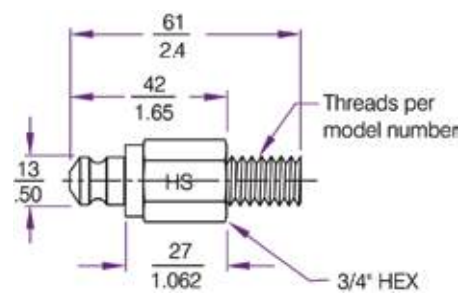
FasTie Quick-Connect Ejector System “tie-in” the mould ejector plate to the press ejection system. A pneumatically-operated piston inside the coupler releases the pull stud from the press ejection system to reduce set-up and change-out times.



High Strength FasTie Couplers

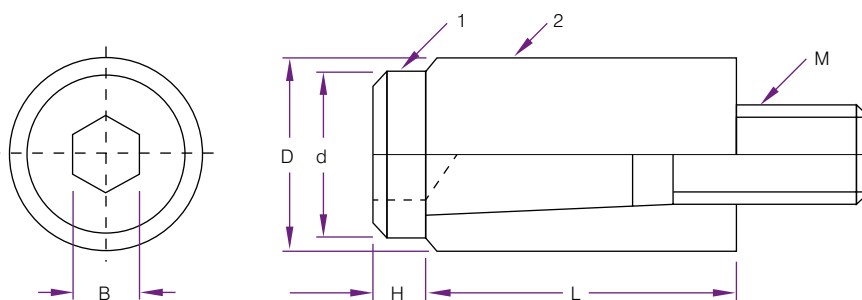


High Strength FasTie Stud



Product Code	Thread Size
FTFHS-50	1/2-13
FTFHS-63	5/8-11
FTFHS-M12	M12 x 1.75
FTFHS-M16	M16 x 2

Product Code	Thread Size
FTMHS-38	3/8-16
FTMHS-50	1/2-13
FTMHS-63	5/8-11
FTMHS-M12	M12 x 1.75
FTMHS-M16	M16 x 2
FTMHS-M20	M20 x 2.5

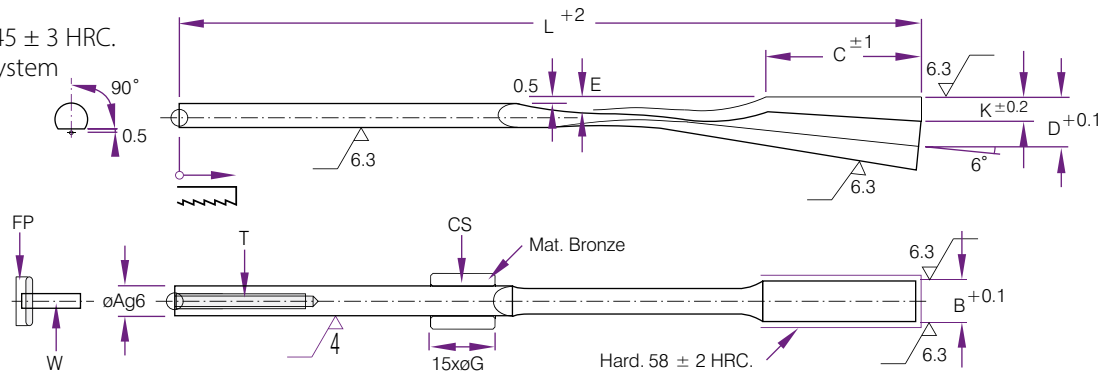


1. Use sloping screw to adjust mould plate and parting locks, then turn 90 degrees.
2. Easy to assemble and disassemble, and cost efficient.
3. Can also be installed into small, medium size, and 2-sectional injecting metal pipes, or can be installed on sliding bases.
4. Mould weight < 100kg, using 4 pcs of 12 Ø
Mould weight < 500kg, using 4 pcs of 16 Ø
Mould weight < 1,000kg, using 4 pcs of 20 Ø
Mould weight > 1,000kg using at least 6 pcs.
5. Insert parting locks into die mould about 3cm, then using H7 reamer to process mould hole within +0.1mm range.
6. Do not add any oil on parting locks, doing so will reduce the friction.

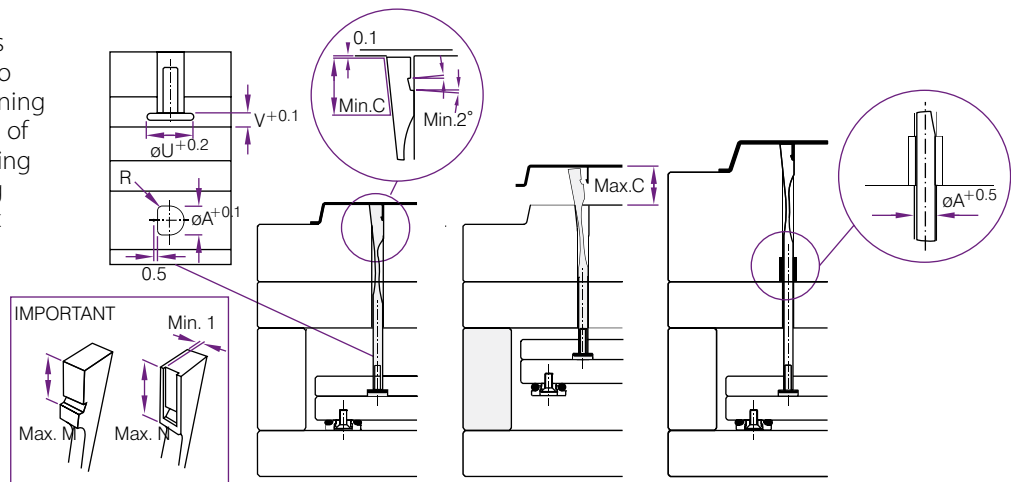
Product Code	D	d	H	L	M	B
GPLA10	10	8.5	3	18	M5	4
GPLA12	12	11	3.5	20	M6	5
GPLA13	13	11	3.5	20	M6	5
GPLA16	16	14	4	25	M8	6
GPLA20	20	16	5	30	M10	8



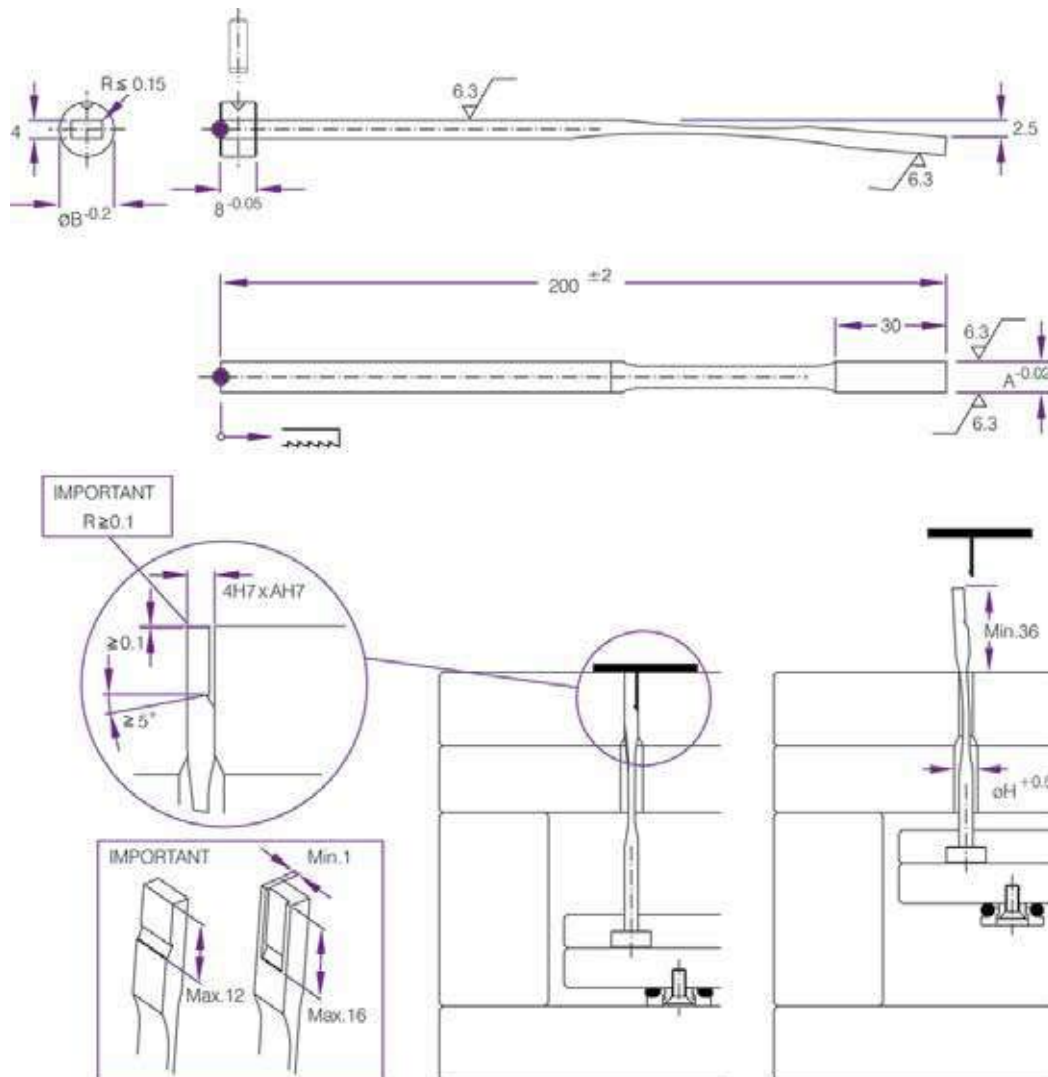
Mat.:1.8159
Hardened 45 ± 3 HRC.
Patented System



Minimum space required for installation, only needs the space of an ejector. No milling, grinding or hardening other than the machining of detail needed. All machining is made 90° to the parting line. No need for complex mechanical systems.



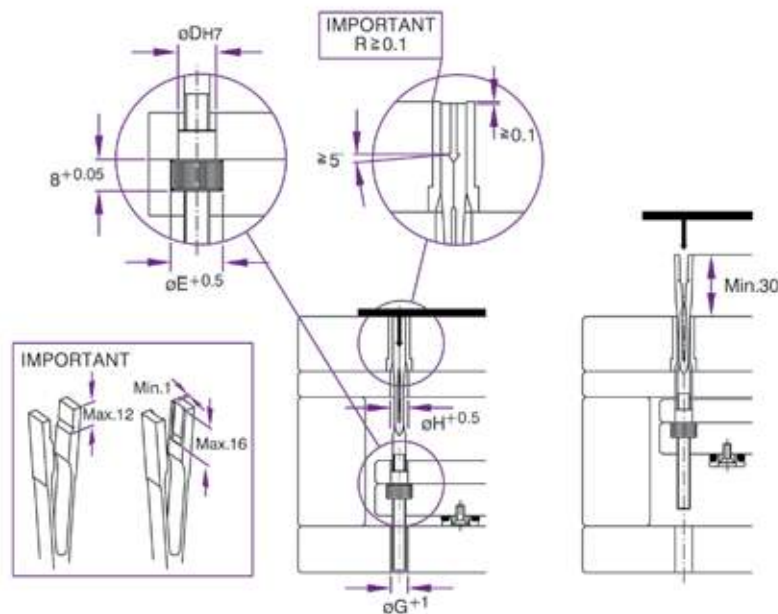
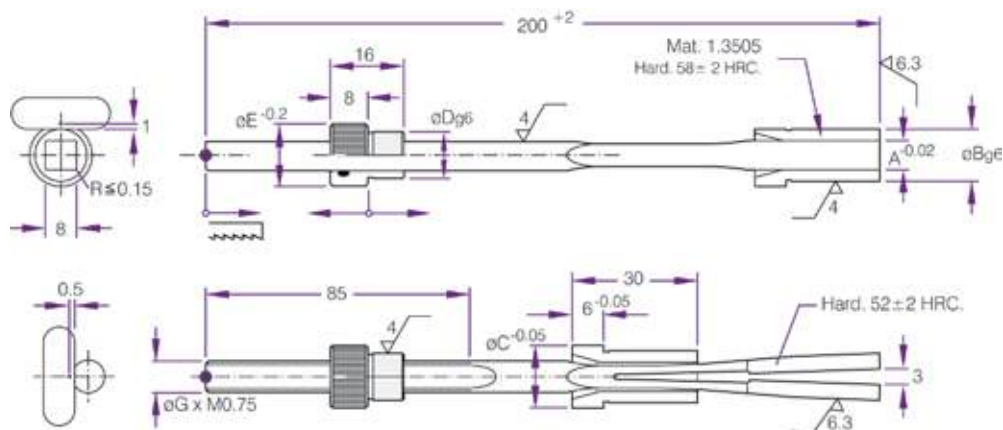
Product Code	A	B	C	D	E	G	K	L	M	N	R	T	U	V	W	CS
PW.060622	6	6.2	22	9	3.5		3.5	125	16	18	1.25	M4x36	12	5	M4x16 (DIN7991)	
PW.060630	6	6.2	30	10	3.5	12	4.5	175	20	26	1.25	M4x36	12	5	M4x16 (DIN7991)	•
PW.060822	6	8.2	22	9	3.5		3.5	125	16	18	1.25	M4x36	12	5	M4x16 (DIN7991)	
PW.060830	6	8.2	30	10	3.5	12	4.5	175	20	26	1.25	M4x36	12	5	M4x16 (DIN7991)	•
PW.080825	8	8.2	25	11.5	4.5		4.5	140	18	21	2	M5x36	14	6	M5x16 (DIN7984)	
PW.081025	8	10.2	25	11.5	4.5		4.5	140	18	21	2	M5x36	14	6	M5x16 (DIN7984)	
PW.081030	8	10.2	30	11.2	4.5	12	4.5	175	20	26	2	M5x36	14	6	M5x16 (DIN7984)	•
PW.081225	8	12.2	25	11.5	4.5		4.5	140	18	21	2	M5x36	14	6	M5x16 (DIN7984)	
PW.081230	8	12.2	30	11.2	4.5	12	4.5	175	20	26	2	M5x36	14	6	M5x16 (DIN7984)	•
PW.101430	10	14.2	30	13.6	5.5	16	5.5	175	20	26	2.5	M6x36	18	8	M6x16 (DIN7984)	•
PW.101630	10	16.2	30	13.6	5.5	16	5.5	175	20	26	2.5	M6x36	18	8	M6x16 (DIN7984)	•
PW.101830	10	18.2	30	13.6	5.5	16	5.5	175	20	26	2.5	M6x36	18	8	M6x16 (DIN7984)	•



Mat.: 1.2101
Hardened 45 ± 3 HRC.
Patented System

Minimum space required for installation, only needs the space of an ejector. No milling, grinding or hardening other than the machining of detail needed. All drilling is 90° to the parting line. Available with and without Balinit C[®] coating.

Product Code	A	B	H	Ballnit C [®]	Hardness
PF.064200	6	12	7	◆	52 ± 2 HRC.
PF.0642WB	6	12	7		58 ± 2 HRC.
PF.084200	8	14	9	◆	52 ± 2 HRC.
PF.0842WB	8	14	9		58 ± 2 HRC.
PF.104200	10	16	11	◆	52 ± 2 HRC.
PF.1042WB	10	16	11		58 ± 2 HRC.
PF.124200	12	18	13	◆	52 ± 2 HRC.
PF.1242WB	12	18	13		58 ± 2 HRC.

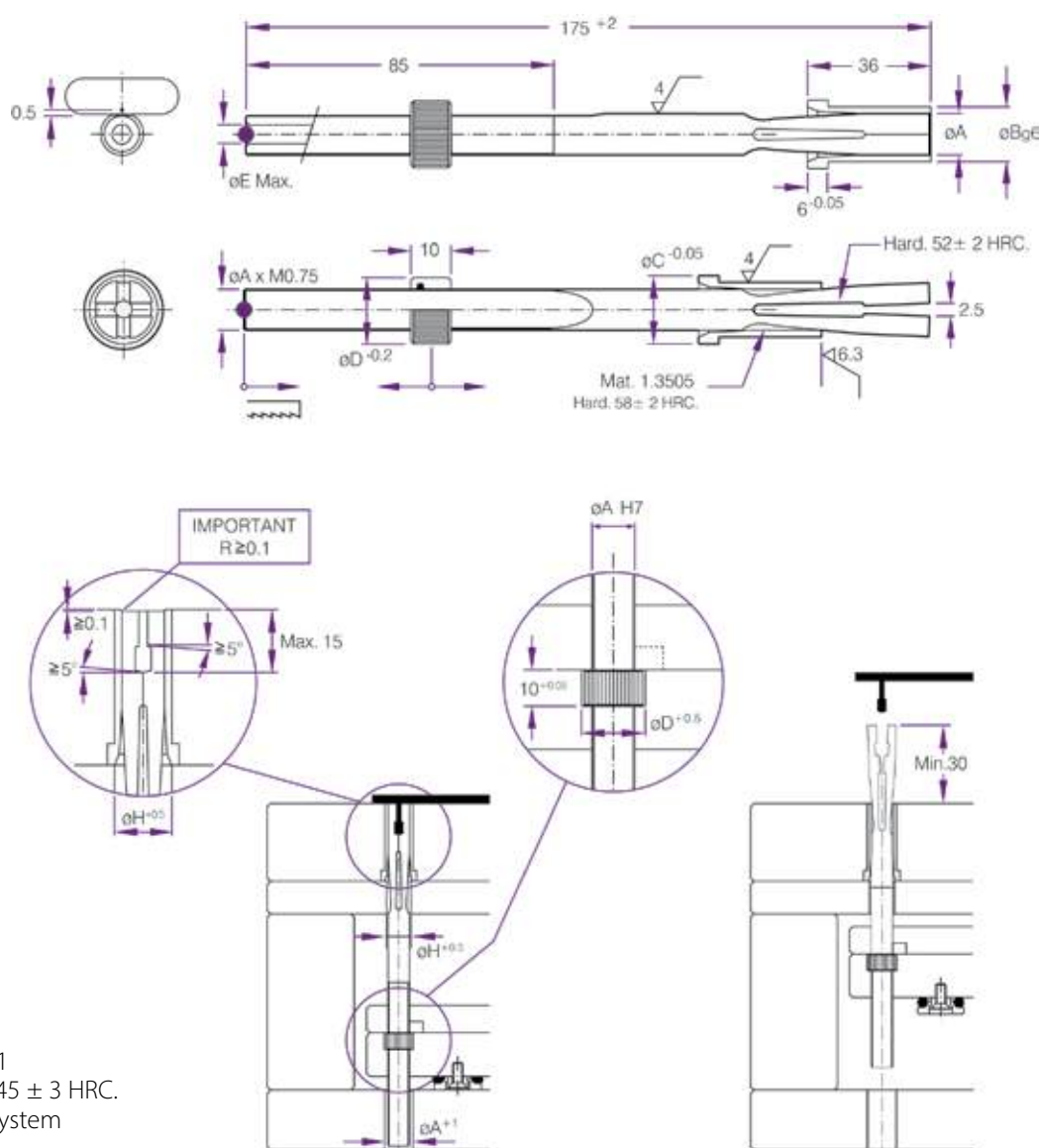


Mat.: 1.2101
Hardened 45 ± 3 HRC.
Patented System

Two separate movements in one component.
Simple and easy to install. Minimum space
required for installation, only needs the space
of an ejector. No milling, grinding or hardening
other than the machining of detail needed. No
need for complex mechanical systems.

Special lengths of 275 and 350mm upon request.

Product Code	A	B	C	D	E	G	H
ED.068200	6	12	14	10	14	6	10
ED.088200	8	14	16	12	16	8	12
ED.108200	10	16	18	14	18	8	14
ED.128200	12	16	18	16	20	8	15



Mat.: 1.2101
Hardened $45 \pm 3 \text{ HRC}$.
Patented System

Four separate movements in one component.
Minimum space required for installation, only
needs the space of an ejector. No milling,
grinding or hardening other than the machining
of detail needed. Cylindrical machining and
made 90° regarding the parting line.

Special lengths of 250 and 325mm upon request

Product Code	A	B	C	D	E	H
EE.060175	6	10	12	12	-	9
EE.082175	8	12	14	14	2	11
EE.103175	10	14	16	16	3	13
EE.124175	12	16	18	18	4	15

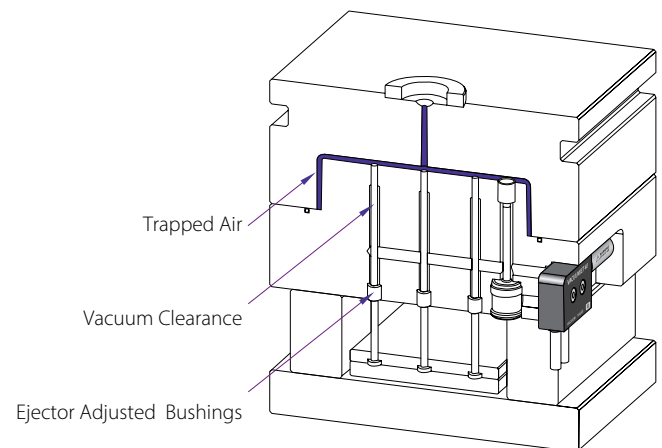


Mould Closed

With the mould closed, air is trapped inside the cavity. If injection starts, the air will be cornered, heated and compressed by the plastic, producing poor quality plastic parts. We have to create a Vacuum!

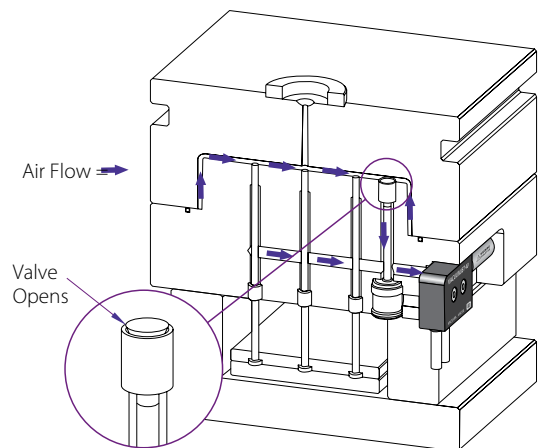
Creating Vacuum In The Cavity

To optimize the injection process we have to take out the air from the cavity. There are several methods to accomplish this, but in all of them it is the injected plastic that pushes out the air. With VACUUMJET, when it is activated prior to the injection, a valve is opened and vacuums the air, therefore, leaving the cavity prepared for the injection.



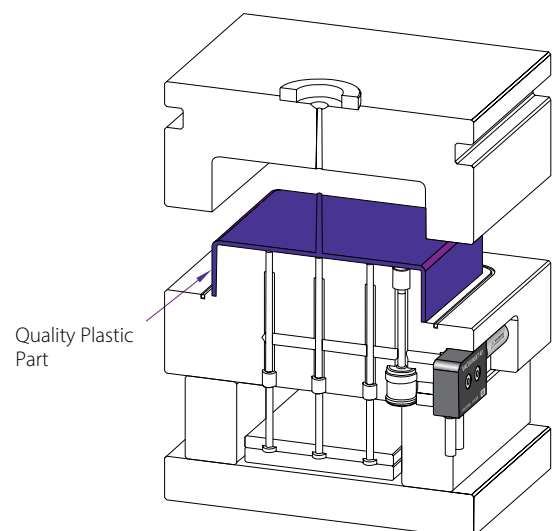
Injection Starts

The Vacuumjet continues sucking the air during all the injection process, to guarantee the maximum ease of the plastics fluidity, therefore reducing the pressure needed.



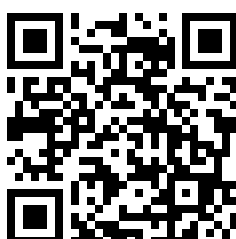
Ejection Process

When the injection is finished, the Vacuumjet stops, and as with all the moulds, the plastic is cooled and the part is ejected...but with the Vacuumjet system, we obtain greater quality plastic part, with at least the same injection, if not faster, and without altering the optimal injection parameters.



For more information about the Vacuumjet product, head to the Cumsa Website: www.cumsa.com

Scan this QR code:





V250CE Compact Block Hydraulic Cylinder

The V250CE cylinders have been specially designed for being extremely compact and for applying the integrated end stroke magnetic switches. Furthermore their construction permits a high standardization with consequent lower price and immediate delivery time. Available bores: from 25 to 100 mm. Strokes 20, 50 and 80 mm. Depending on the bore. These cylinders are ideal for short stroke slides and cores on plastic injection moulds. The use for heavy duties is not recommended.

Technical Features:

- Max. working pressure: up to 250 bar (3625 PSI)
- Bore Size: 25 to 100 mm
- Rod Size: 18 to 45 mm
- Max. working temperature :
 - Magnetic version: 80°C - 176°F
 - Non-Magnetic version: 100°C - 212°F
- Stroke : 20, 50 and 80 mm (according to the bore size)



V215CR Tie Rod Hydraulic Cylinder

The cylinders of V215CR range are built according to ISO 6020/2 Compact Norms and they are changeable with other similar cylinders (with reserve; personally verify all dimensions) This model permits a wide range of applications with the best compromise between quality and price where not particular requirements about pressure, temperature, dimensions are requested. Till bore 160 magnetic switches can be applied (with a proper version).

Technical Features:

- Max. working pressure: up to 215 bar (3117 PSI)
- Bore Size: 25 to 200 mm
- Rod Size: 12 to 140 mm
- Max. working temperature :
 - Magnetic version: 80°C - 176°F
 - Non-Magnetic version: 120°C - 248°F
- Stroke: 20 and 1500 mm (according to the bore size)

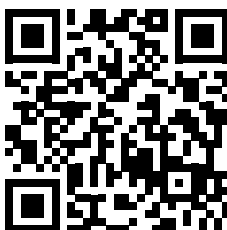


V260CF Self-Locking Rod Hydraulic Cylinder

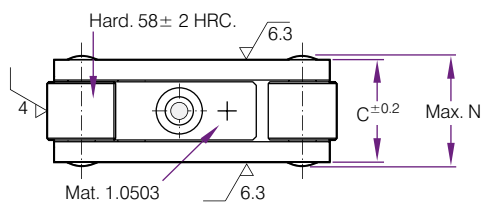
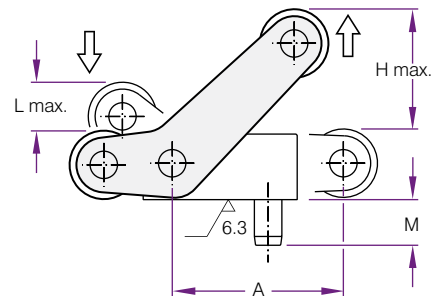
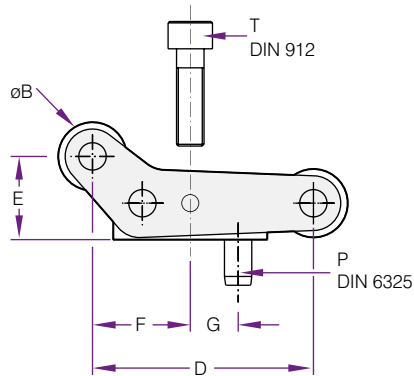
The V260CF are double-acting hydraulic cylinders with a mechanical locking system of the rod in the end stroke position (extended rod), which permits to contrast very high opposite thrusts. Such a solution is widely applicable in the field of plastic injection and die-casting moulds, in order to stand the injection pressure on large moulding surfaces. The rod is hydraulically unlocked automatically when the piston comes back. WARNING: For a correct functioning the cylinder it's necessary to complete all the times the total available cylinder stroke, both forward and backward, in order to assuring the locking on one side and to avoid hammer-effects on piston-rod screw on the other side. For a firm locking it is necessary to keep the oil in pressure, when pushing, at a minimum of 120 bar-1740 PSI.- Pay great attention to the traction force, which is considerably lower than the thrust.

Technical Features:

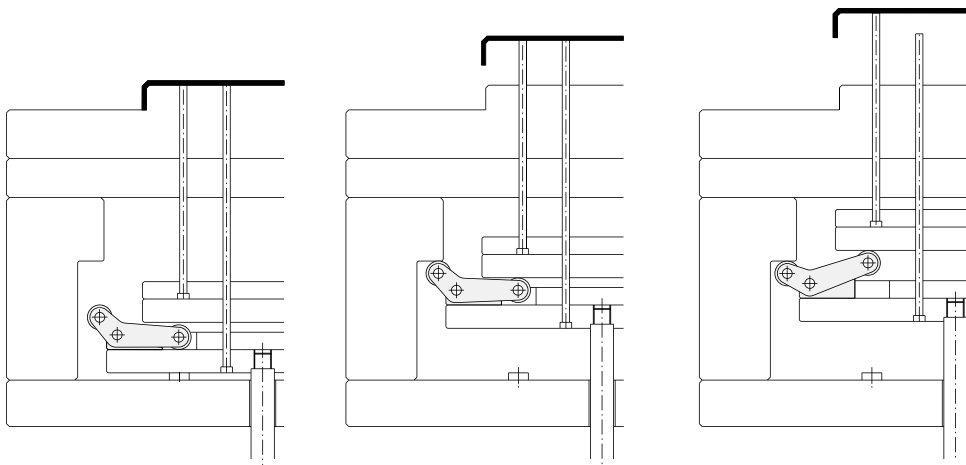
- Max. working pressure: up to 260 bar (3770 PSI)
- Bore Size: 30 to 84 mm
- Rod Size: 20 to 60 mm
- Max. working temperature :
 - Magnetic version: 80°C - 176°F
 - Non-Magnetic version: 160°C - 320°F
- Stroke: 30 and 150 mm (according to the bore size)



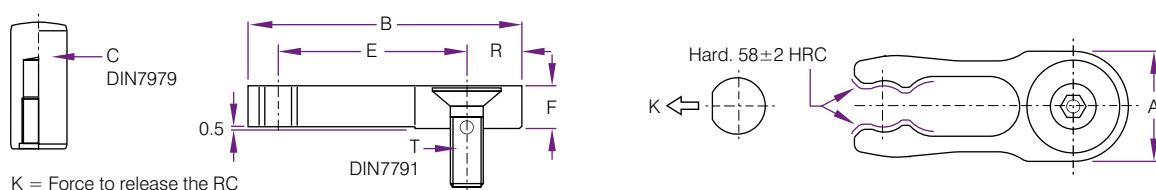
**Scan the QR code for more information about
VEGA Hydraulic Cylinders**



Simple mechanical double ejection system.
Minimum space required for installation.
Avoids complex systems like others currently
available in the market. Offers a standard
solution to the moulder.



Product Code	A	B	C	D	E	F	G	H max.	L max.	M	N	P	T	Max. Force
EP.200813	20	8	13.2	25.8	9.4	11.4	6	13.6	5.5	5	15	Ø2.5 x10	M3x12	75 kg.
EP.251016	25	10	16	32.3	11.8	14.3	7	17	6.8	6	18.5	Ø3 x12	M4x16	125 kg
EP.371522	37.5	15	22	48.5	17.7	21.5	10.5	25.5	10.2	8	25	Ø4 x16	M6x25	250 kg
EP.502030	50	20	30	64.6	23.6	28.6	14	34	13.6	10	34	Ø5 x20	M8x30	500 kg



Slide Retainers

Mat.: 1.8159

Hardened 45 ± 3 HRC. Patented System

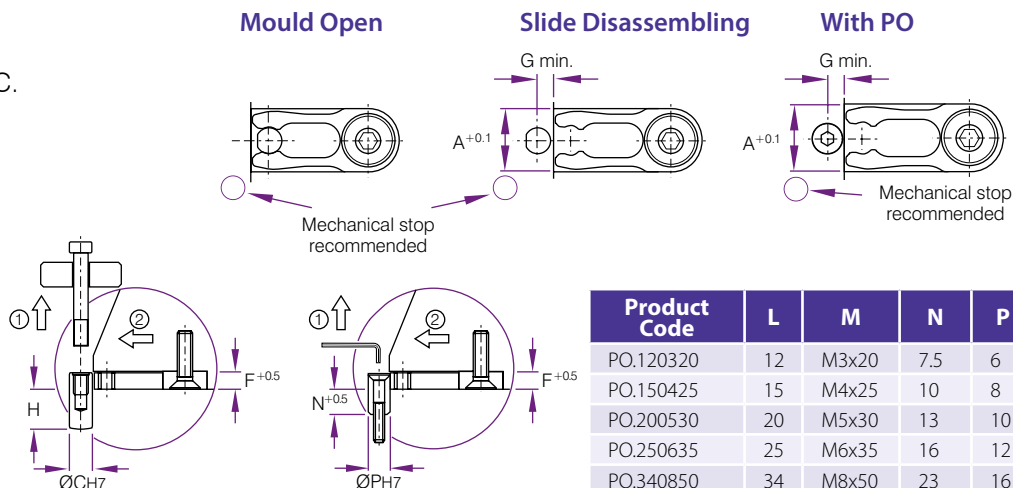
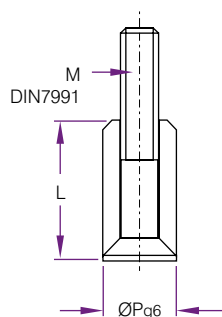
Less machining for installation compared to similar products on the market.
Minimum space required for installation.
Reduces costs in tool downtime.
Offers a standard solution to the moulder.

Product Code	A	B	C	E	F	G	H	K	R	T
RC.123006	12	30	6x20	21	5	4	16	5 kg	6	M5x16
RC.164008	16	40	8x20	28	6	5	15	7 kg	8	M6x25
RC.205010	20	50	10x24	34	8	6	17	14 kg	10	M8x30
RC.246012	24	60	12x32	42	10	7	23	21 kg	12	M10x40
RC.328012	32	80	16x40	56	12	9	27	28 kg	16	M12x50
RC.328016	32	80	16x40	56	16	9	25	38 kg	16	M12x50

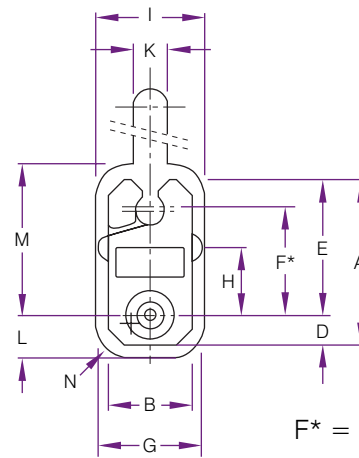
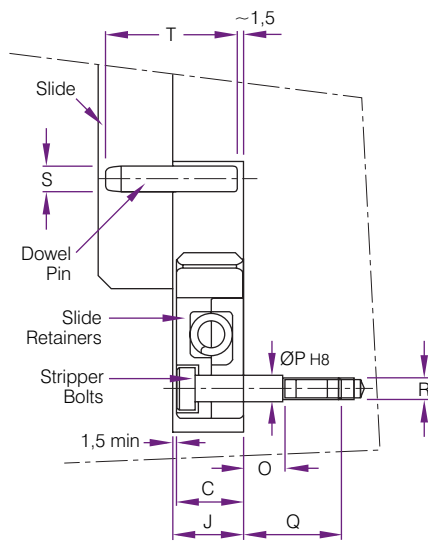


Optional Dowel Pins

Mat.: 1.3505

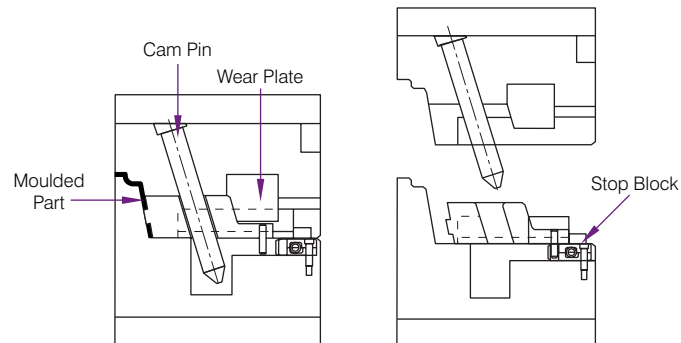
Hardened 60 ± 2 HRC.

Product Code	L	M	N	P
PO.120320	12	M3x20	7.5	6
PO.150425	15	M4x25	10	8
PO.200530	20	M5x30	13	10
PO.250635	25	M6x35	16	12
PO.340850	34	M8x50	23	16



F* = critical quote to respect

The slide retainers are mechanical components that allow the stop and the perfect positioning of mechanical trolley used to free the undercut.



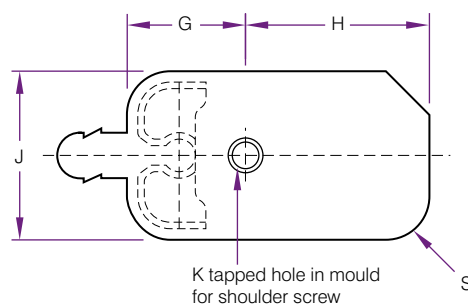
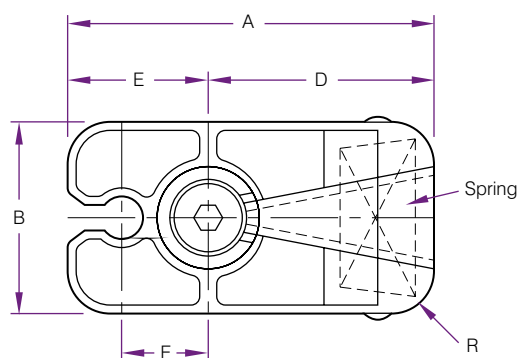
a* = max. slide weight

b* = stripper bolt

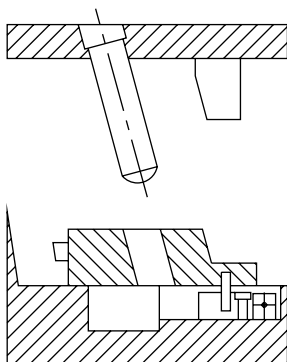
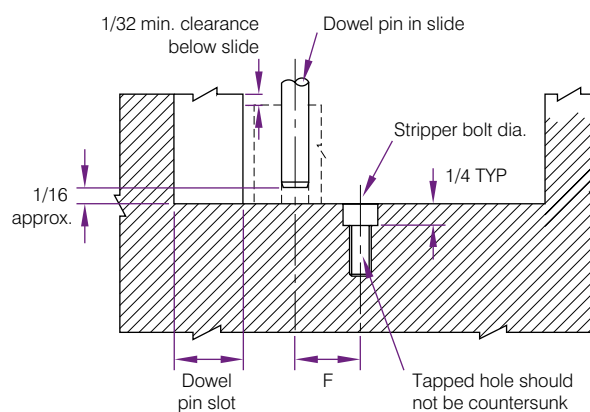
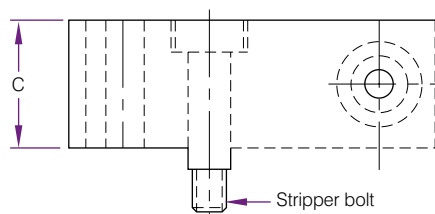
c* = max. opening force in Nm

CAM SLIDE										a*	b*	
Product Code	A	B	C	D	E	F	G	H	I	Newton	Ref.	c*
OESR0001	38	19	16	7	31,5	24,89	24,0	15,5	25,5	150	SB5x20	10
OESR0002	54	32	20	11	43,0	34,93	36,5	22,5	38,0	250	SB6x25	15
OESR0003	86	45	30	19	67,0	53,98	49,5	40,0	51,0	500	SB8x40	20

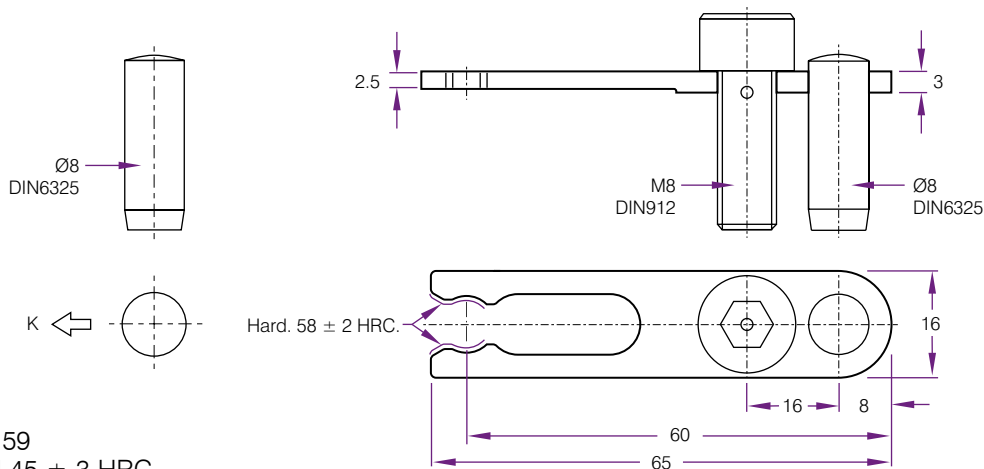
RETAINER SEAT IN MOULD										Dowel Pin	
Product Code	J min	K	L	M	N	O	P	Q	R	S	T
OESR0001	17,5	8	10,0	34,5	8	8,5	6	20	M5	6	32
OESR0002	21,5	10	14,5	46,0	10	10,5	8	25	M6	8	40
OESR0003	31,5	12	22,5	70,0	12	17,0	10	35	M8	10	60



Typical Slide Retainer Application

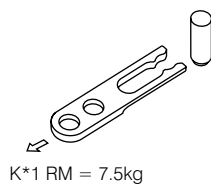


DIMENSIONS							R	Stop	Stop	Max Slide					
Product Code	A	B	C	D	E	F	Rad	Pin	Pin L	Weight	G	H	J	K	S
MRT - 10M	38	19	16	22	16	9.15	5	6	30	10kg	19	26	25	5x8.8x10	8
MRT - 20M	54	32	20	33	21	12.70	6	8	40	20kg	24	36	38	6x1.0x12	10
MRT - 40M	86	45	30	53	33	20.30	10	10	60	40kg	36	56	51	8x1.25x14	13

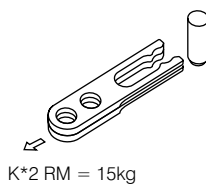


Mat.: 1.8159
Hardened 45 ± 3 HRC.
Patented System

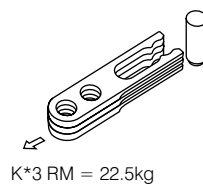
No pocket machining required as needed with other similar products on the market. Minimum space required for installation. Reduces costs compared to conventional mechanisms. Offers a standard solution to the moulder.



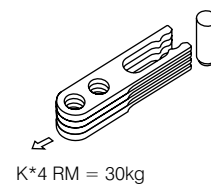
K*1 RM = 7.5kg



K*2 RM = 15kg

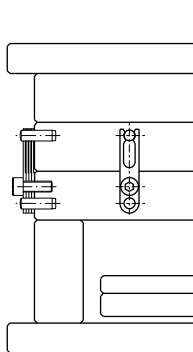


K*3 RM = 22.5kg

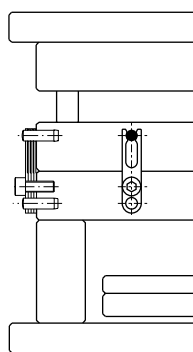


K*4 RM = 30kg

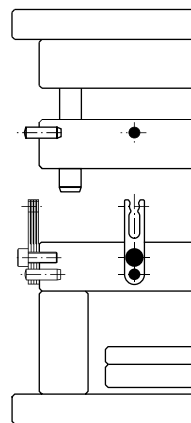
IMPORTANT
K = Approximate resistance value that can be obtained by grouping clips



Closed Mould



1st Opening

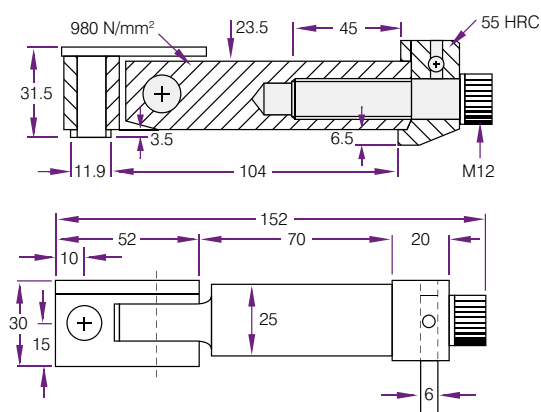


2nd Opening

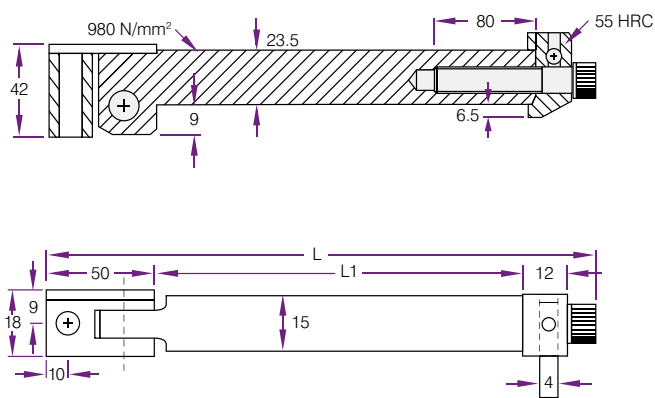
Product Code	K
RM.651608	7.5 Kg.



Latch

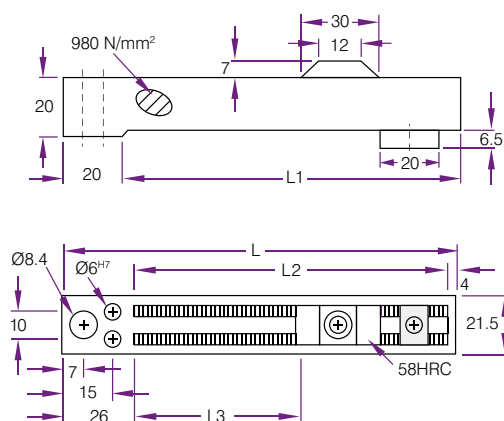


Type	Series
1	ZH 90/1



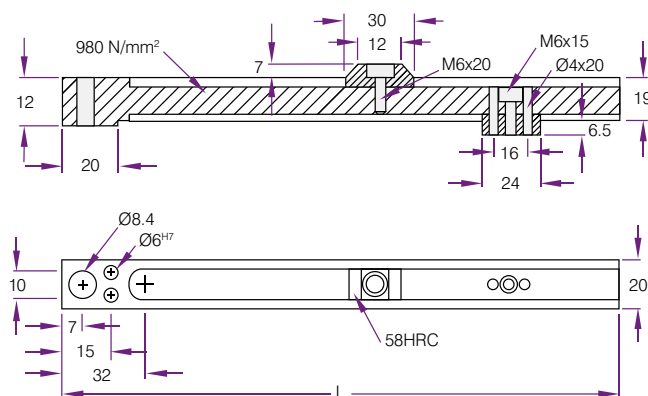
Type	Series	L	L1
2	ZH 90/2	252	170
3	ZH 90/3	302	220
4	ZH 90/4	352	270
1 BIS	ZH 90/1 BIS	172	90

Adjustable Cam



Type	Series	L	L1	L2	L3 MAX
01	ZH 90/01	140	120	110	60
02	ZH 90/02	204	184	174	124
06	ZH 90/06	250	230	220	170

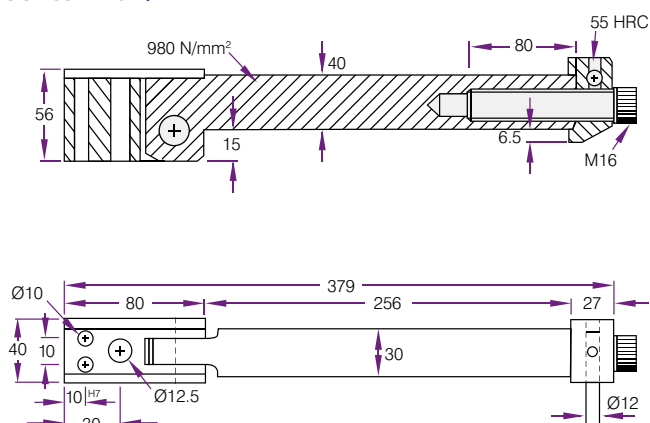
Fixed Cam



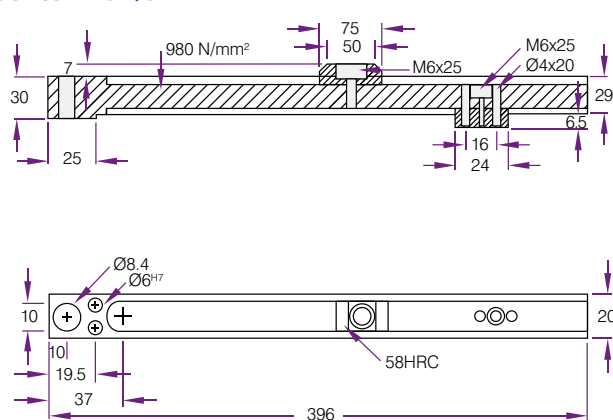
Type	Series	L
03	ZH 90/03	200
04	ZH 90/04	250
05	ZH 90/05	300



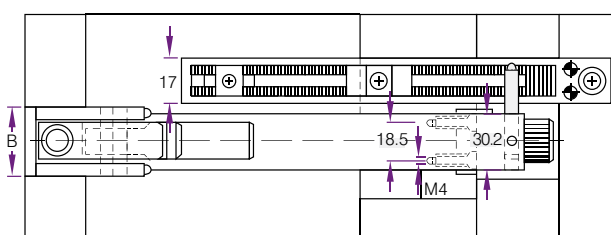
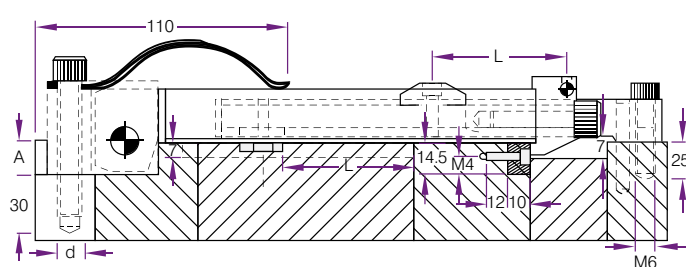
Series ZH 91/A



Series ZH 91/B



Standard Sets



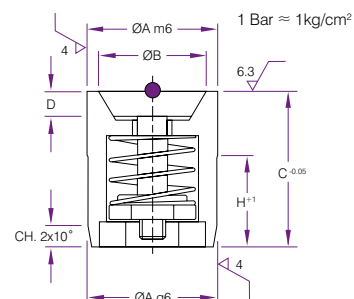
Type	Fixed Sets	
Box 200 FIX	Qty 2	ZH 90/2
	Qty 2	ZH 90/03
Box 250 FIX	Qty 2	ZH 90/3
	Qty 2	ZH 90/04
Box 300 FIX	Qty 2	ZH 90/4
	Qty 2	ZH 90/05
Box 400 FIX	Qty 2	ZH 90/A
	Qty 2	ZH 90/B

Type	Adjustable Sets	
Box 140 R	Qty 2	ZH 90/1
	Qty 2	ZH 90/01
Box 200 R	Qty 2	ZH 90/2
	Qty 2	ZH 90/02
Box 250 R	Qty 2	ZH 90/3
	Qty 2	ZH 90/6
Box 140 R	Qty 2	ZH 90/1 BIS
	Qty 2	ZH 90/01



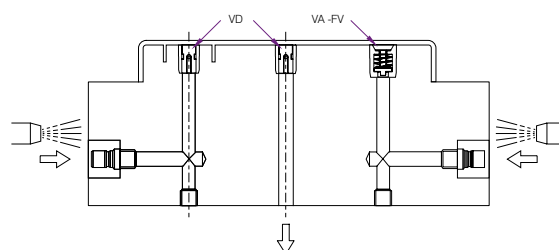
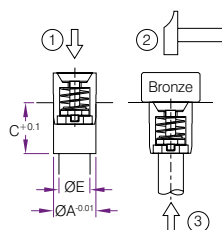
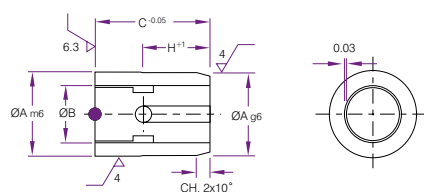
Material: INOX. 1.4034
 Hardened 51 ± 3 HRC.
 Working pressure: 1.5-6 BARS.

Helps part ejection with air.



Product Code	A	B	C	D	E	H
VA050412	5	3	12	1.5	4	7
VA065212	6	5.2	12	1.5	4	7
VA086512	8	6.5	12	1.5	4	7
VA100812	10	8	12	2	8	7
VA121012	12	10	12	2.5	10	7
VA161320	16	13	20	3	12	12
VA201720	20	17	20	3.5	16	12

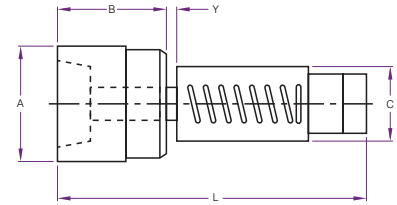
Valve - Double



Product Code	A	B	C	E	H
VD080512	8	5	12	4	7
VD100612	10	6	12	5	7
VD120812	12	8	12	7	7
VD161020	16	10	20	9	12

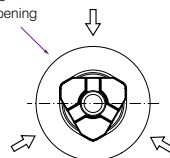
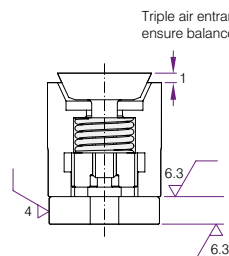
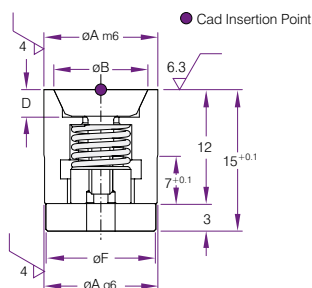


High Pressure Air Valve
Stainless spring designed for fast cycles
Max temperature 130°C

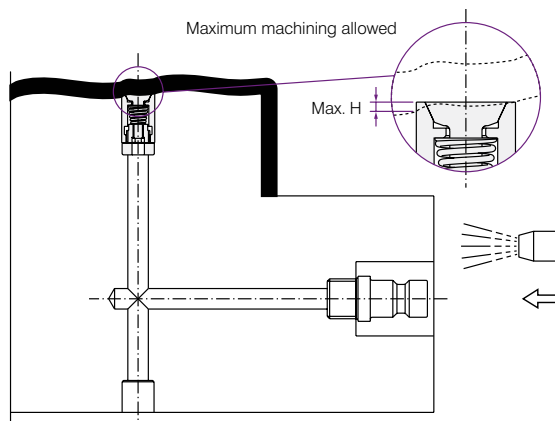
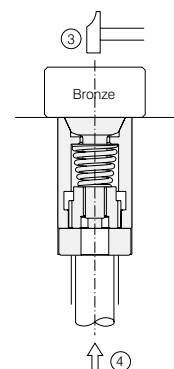
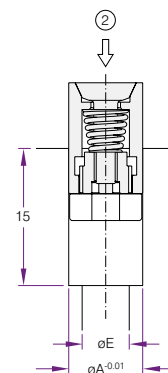
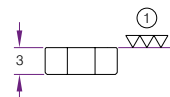
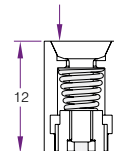


Product Code	A	B	C	L	Y
OIVA01N	8	11	6	24	1,0
OIVA02N	12	18	8	34	1,0
OIVA03N	18	22	12	45,5	1,0

Air Valve - High Pressure



Maximum Injection Pressure: 2.500 Kgs/cm²



Product Code	A	B	D	E	F	H
VH.086515	8	6.6	2	5	7.8	0.75
VH.121015	12	9.9	2.9	5	11.8	1



Materials: Stainless Steel

Hardness: 50-55 HRC.

Outer Insert



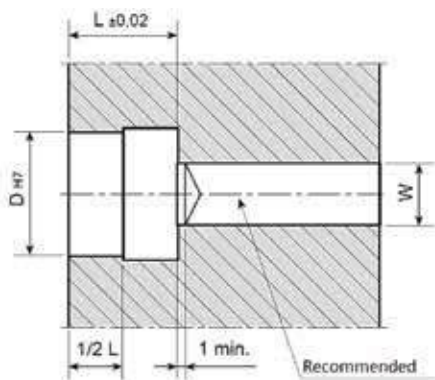
Inner Insert



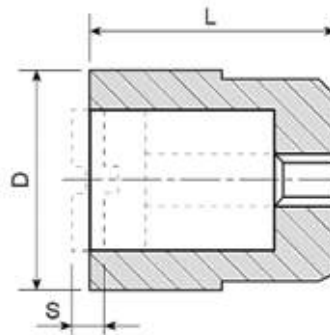
ØD	Month	Year	Day	Blank
4	CCM04	CCA0420AA	CCG04*	CCN04
5	CCM05	CCA0520AA	CCG05*	CCN05
6	CCM06	CCA0620AA	CCG06	CCN06
8	CCM08	CCA0820AA	CCG08	CCN08
10	CCM10	CCA1020AA	CCG10	CCN10
12	CCM12	CCA1220AA	CCG12	CCN12
16	CCM16	CCA1620AA	CCG16	CCN16
20	CCM20	CCA2020AA	CCG20	CCN20

ØD	Year + Arrow	Arrow
4	ICA0420AA	ICN04
5	ICA0620AA**	ICN06**
6	ICA0620AA	ICN06
8	ICA0820AA	ICN08
10	ICA1020AA	ICN10
12	ICA1220AA	ICN12
16	ICA1620AA	ICN16
20	ICA2020AA	ICN20

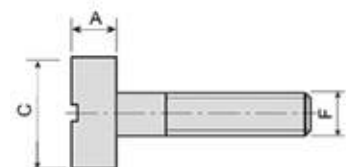
Installation



Outer Insert



Inner Insert

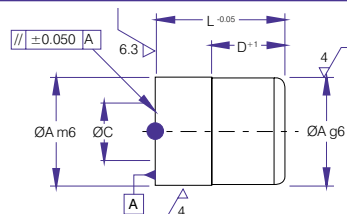


ØD	L	S	ØW	A	ØC	F
4	8***	0.25	1.4	2	2.2	M1X0.25
5	8	0.20	2	2	3.1	M1.6X0.2
6	8	0.20	2	2	3.1	M1.6X0.2
8	10	0.25	3	2.5	4.4	M2.3X0.25
10	12	0.35	3	3	5.2	M2.5X0.35
12	14	0.35	4	3	6.2	M3X0.35
16	14	0.35	5	3.5	8.2	M4X0.35
20	16	0.35	5	4.5	11	M4X0.35

* CCG04 & CCG05 have numbers only.

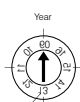
** Inner insert dia.6 valid also for outer insert dia. 5.

*** Special date stamps with D=4mm and L=5mm and inner insert with C=2.1 available on request.



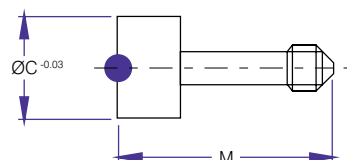
Materials: INOX. 1.4034
Hardness: 51 ± 3 HRC.
Max. working temp 150°C Patented System

Inner insert is always at the same level as the body of the date stamp. Wide range of diameters. Only a H7 pocket required for assembly. No downtime when changing inserts. Internal mechanism guarantees secure replacement of inserts.



12 Months	12 Month + Year	Year	Blank	A	C	D	E	L	N
FA0422SF	FA042212-...	FA042204-...	FA042200	4	2.2	6	3.5	12	4
FA0530SF	FA053012-...	FA053004-...	FA053000	5	3	6	3.5	12	4
FA0632SF	FA063212-...	FA063205-...	FA063200	6	3.2	12	4	20	5
FA0847SF	FA084712-...	FA084705-...	FA084700	8	4.7	12	6	20	5
FA1057SF	FA105712-...	FA105706-...	FA105700	10	5.7	12	8	20	6
FA1267SF	FA126712-...	FA126708-...	FA126700	12	6.7	12	10	20	8
FA1687SF	FA168712-...	FA168710-...	FA168700	16	8.7	12	12	20	10
FA2007SF	FA200712-...	FA200710-...	FA200700	20	10.7	12	14	20	10

Date Stamp Inserts

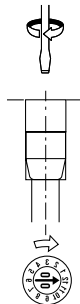
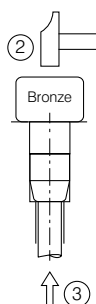
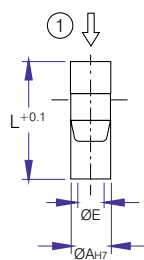
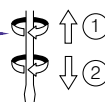


Material: INOX. 1.4034
Hardness: 51 ± 3 HRC.

Year + Arrow



IMPORTANT
When replacing the insert, be sure to tighten until hearing the engagement "click".



Arrow Only



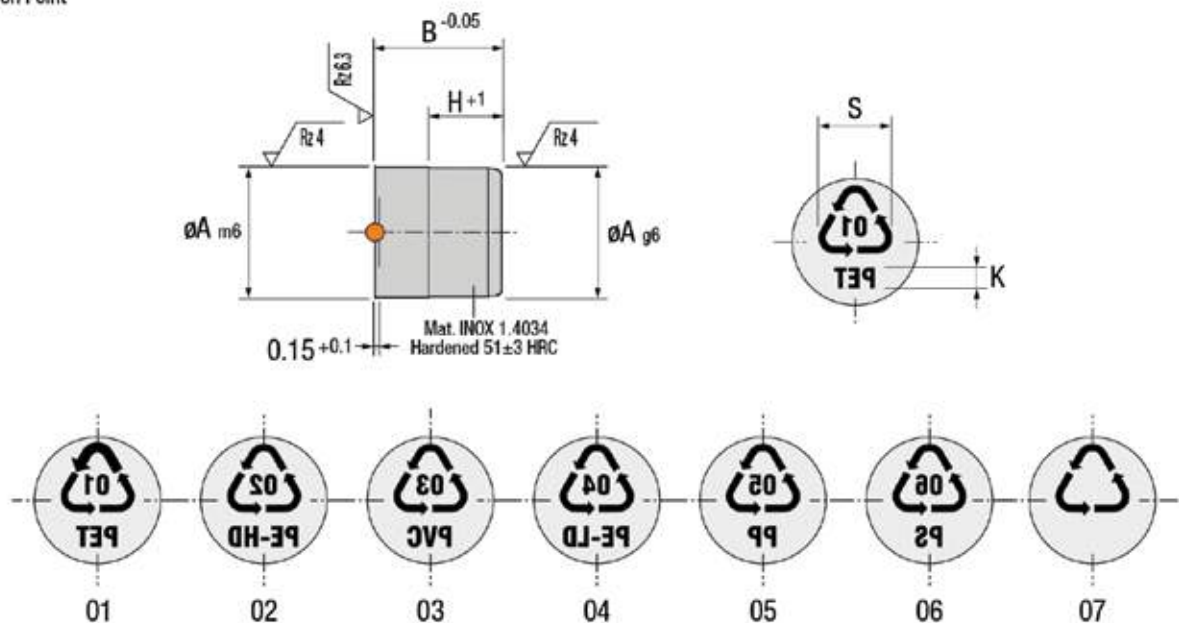
Year and Arrow		
Product Code	C	M
IA2275 ..	2.2	7.5
IA3075 ..	3	7.5
IA3217 ..	3.2	17
IA4717 ..	4.7	17
IA5717 ..	5.7	17
IA6717 ..	6.7	17
IA8717 ..	8.7	17
IA1007 ..	10.7	17
Arrow Only		
Product Code	C	M
IA2275SF	2.2	7.5
IA3075SF	3	7.5
IA3217SF	3.2	17
IA4717SF	4.7	17
IA5717SF	5.7	17
IA6717SF	6.7	17
IA8717SF	8.7	17
IA1007SF	10.7	17

12 Month. + Yr	Blank	A	B	C	E	N
FD080512-..	FD080500	8	5.5	3	6	5
FD120812-..	FD120800	12	8	4	10	6
FD161012-..	FD161000	16	10.5	5.3	12	10



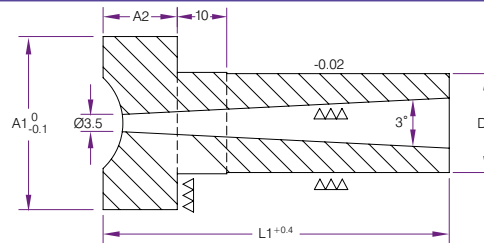
Materials: INOX. 1.4034
Hardness: 51 ± HRC.
Assembly is from the front of the mould

● Cad Insertion Point



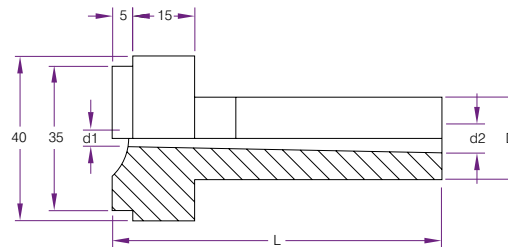
Product Code	A	B	E	H	K	S
IR1012-**-	10	12	8	7	1.5	5.6
IR1212-**-	12	12	10	7	1.8	6.8
IR1616-**-	16	16	12	9	2.4	9
IR2016-**-	20	16	16	9	3.2	11.5

**Indicate model number after the product code



Product Code	A1	D1	L1	A2	Radius
CS6	25	16	60	15	3/4
CS8	25	16	80	15	3/4
BM6	35	20	60	15	3/4
BM7	35	20	70	15	3/4
BM8	35	20	80	15	3/4
BM9	35	20	90	15	3/4
BM10	35	20	100	15	3/4

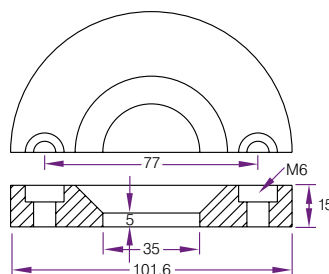
Sprues - Finished



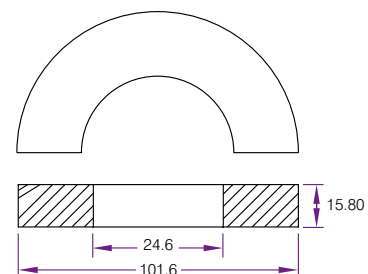
Material: S45C

Product Code	D	L	d1	d2	Radius
SB166	16	60	3.5	5.6	3/4
SB168	16	80	3.5	6.5	3/4
SB206	20	60	3.5	5.6	3/4
SB208	20	80	4	7	3/4
SB201	20	100	4	10	3/4

Location Rings



Finished Location Ring



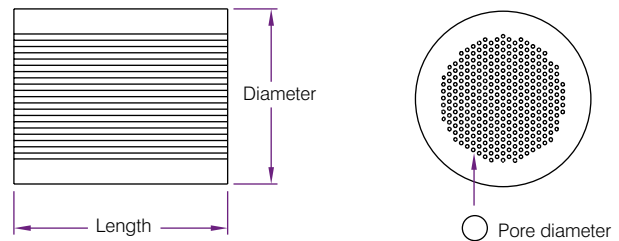
Blank Location Ring

Product Code	Description	Material
LRF	Finished Location Ring	S45C
LRB	Blank Location Ring	S45C



Blowmould, Diecast and Vacuum Casting

Pore Diameter: 0.30mm

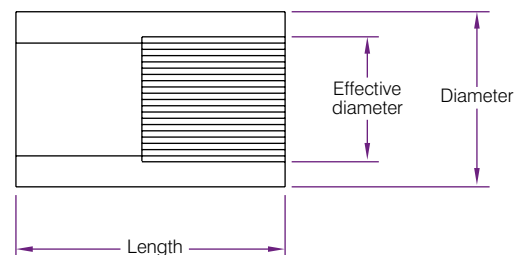


For Blow Moulding, Diecasting Or Vacuum Casting

Product Code	30510	30610	30615	30810	30815	31010	31015	31210	31215	31415
Diameter	5	6	6	8	8	10	10	12	12	14
Number of Pores	89	89	89	200	200	340	340	340	340	550
Length	10	10	15	10	15	10	15	10	15	15

Plastic Injection Moulding

Pore Diameter: 0.03 ~ 0.10mm



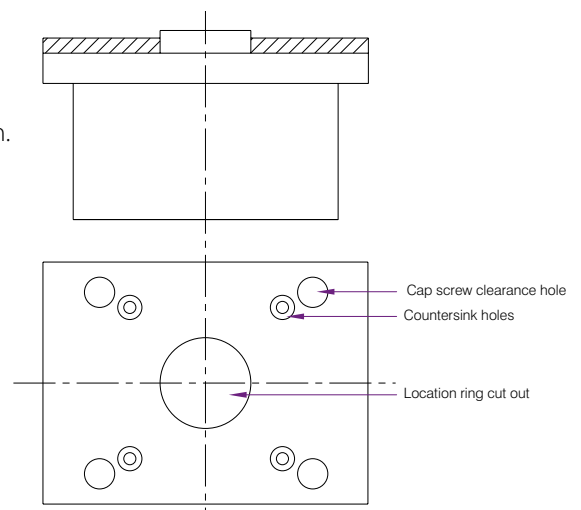
For Plastic Injection Moulding

Product Code	SV030410	SV030610	SV030810	SV031010	SV050610	SV050810	SV051010	SV100810	SV101010
Outer Diameter	4	6	8	10	6	8	10	8	10
Effective Diameter	2.5	2.5	2.5	2.5	3.5	3.5	3.5	5.5	5.5
Number of Pores	880	880	880	880	880	880	880	880	880
Length	10	10	10	10	10	10	10	10	10

Insulation Sheet



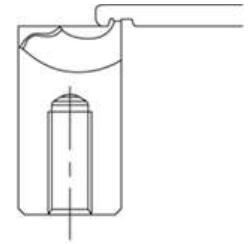
- Machined to suit your application.
- Polyester glass laminate.
- Low thermal conductivity continuous to 220C.
- Standard sheet also available.
- 0.8-50mm thick available.





Standard Tunnel Gate Inserts Version S1 - With Machining Allowance

- With machining allowance on upper surface
- Available in round (TGR) and square (TGS) versions
- Available in 2 degrees of hardness (40 HRC/ 60 HRC)
- Highly wear-resistant hot worked steel M2 (1.3343)

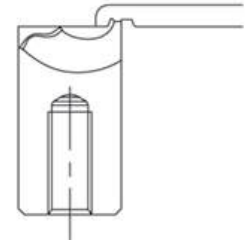


Tunnel Gate Insert - Version S2



Standard Tunnel Gate Inserts Version S2 - With Vestige

- For flat parting surfaces, including vestige with integrated cutting edge
- Available in round (TGR) and square (TGS) versions
- Available in 2 degrees of hardness (40HRC/ 60 HRC)
- Highly wear-resistant hot worked steel M2 (1.3343)

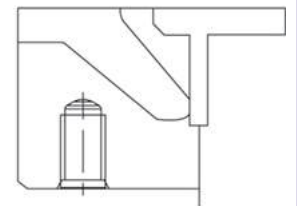


Tunnel Gate Insert - Version TPS



Straight Standard Sub-Gate Inserts Version TPS - For Side Gating

- Straight standard sub-gate for side gating
- Integrated dead-end recess reduces loss of pressure and shear stress
- Highly wear resistant hot working steel M2 (1.3343) - 54+2 HRC

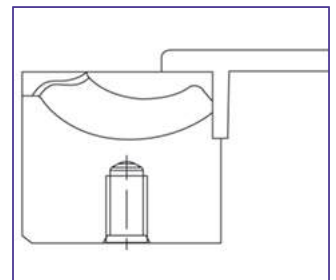


Tunnel Gate Insert - Version SGC



Contourable Tunnel Gate Inserts Version SGC - For Side Gating

- Curved tunnel permits gating deep inside the part
- Integrated dead-end recess reduces loss of pressure and shear stress.
- Highly wear-resistant hot worked steel M2 (1.3343) -54+2HRC

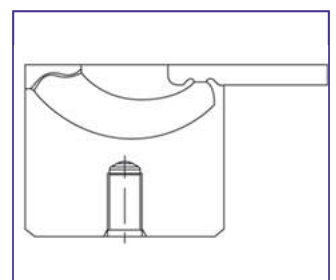


Tunnel Gate Insert - Version TGC



Contourable Tunnel Gate Inserts Version TGC - With Machining Allowance

- With machining allowance on upper surface
- Available in round (TGR) and square (TGS) versions
- Available in 2 degrees of hardness (40 HRC/ 60 HRC)
- Highly wear-resistant hot worked steel M2 (1.3343)



Nozzle Range and Series Options

Key	Suitability
✓	Available / Suitable
⊙	Application dependant
✗	Not available / Not suitable

Nozzle Range			Nozzle Series					Valve Gate	Front Loading	Single Nozzle
			09	13	16	19	27			
MX		Front loading heater for Manifold Only Close cavity pitching	✓	✓	✓	✓	✗	✓	✓	✗
BX		Cost effective solution Robust heater design Single & manifold application	✗	✓	✓	✓	✓	✓	✗	⊙
SX		Dedicated single nozzle solution Two heaters for optimum control	✗	✓	✓	✓	✓	✗	✗	✓

mastip[™]
hot runner solutions

Enquire with our technical advisor to ensure correct nozzle choice

Tip and Nut Options

Key	Tip Suitability
✓	Available
★★★★	Highest rating
×	Not Available

1 Not Available in X13

3 Not Available in SX Series

2 Not Available in X27

4 Not Available in H5

TIPS		Grades			Nut Style			Features			Plastic (Refer to page 22)		
		G1	G2	G5	ONT	BN / BE V1B / V2B	SN/V1S SX/(Y)CN SL	Gate Quality	Flow Rate	Flow Marks	Easy	Medium	Difficult
Thermal Gate	TT Multi Hole Torpedo Tip	✓	✓	✓				★★★★	★★	★★	★★★★	★★★★	★★★★
	TT+5 Extended Torpedo Tip	✓	✓	×		×	×	★★★★	★★	★★	★★★★	★★	×
	TT+10 Extended Torpedo Tip	✓	✓	×		×	×	★★★★	★	★★	★★★★	★	×
	IT Single Hole Torpedo Tip	✓	✓	✓				★★★★	★★	★★★	★★★★	★★★★	★★★★
	IT+5 Extended Torpedo Tip	✓	✓	×		×	×	★★★★	★★	★★★	★★★★	★★	×
	IT+10 Extended Torpedo Tip	✓	✓	×		×	×	★★★★	★	★★★	★★★★	★	×
	OT Open Tip	✓	×	✓				★★	★★★★	★★★★	★★★★	★★★★	★
	Y No Tip	×	×	×	×	×		★	★★★★	★★★★	★★★★	★★★★	★★★★
	Multi-Gate (A) Axial Tip	✓	×	×		×	×	★★★★	★★	★★	★★★★	×	×
Valve Gate	Multi-Gate (S) Side Tip	✓	×	×		×	×	★★	★★	★★	★★★★	×	×
	TV Torpedo Tip	✓	×	×				★★★★	★★★★	★★	★★★★	★★★★	★
	OV Open Tip	✓	×	✓				★★★★	★★★★	★★★	★★★★	★★★★	★
	GV Guided Tip	×	×	✓			×	★★★★	★★★★	★★★	★★★★	★★★★	★
	YV No Tip	×	×	×	×			★★★★	★★★★	★★★	★★★★	★★★★	★

Enquire with our technical advisor to ensure correct nozzle choice

Typical Flow Length Ratios (L/t)

Material	Wall Section							
	2.0	1.5	1.0	0.8	0.7	0.6	0.5	0.4
ABS	170	96	43	27	21	15	11	7
CA	150	84	38	24	18	14	9	6
EVA	175	98	44	28	21	16	11	7
SAN	120	68	30	19	15	11	8	5
PA	150	84	38	24	18	14	9	6
PC	100	56	25	16	12	9	6	4
HDPE	225	127	56	36	28	20	14	9
LDPE	275	155	69	44	34	25	17	11
PMMA	130	73	33	21	16	12	8	5
POM	150	84	38	24	18	14	9	6
PP	250	141	63	40	31	23	16	10
UPVC	100	56	25	16	12	9	6	4

All flow lengths greater than this must be considered thin wall and the nozzle series selected accordingly.

Nozzle Flow Rates

Use the table below to select the correct nozzle series based on the flow rate required and the material category.
If the material is a blend material (for example Medium-Difficult or Easy-Medium) always select the higher category to ensure the part can be filled.

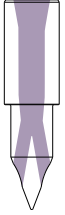
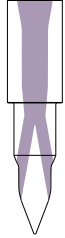
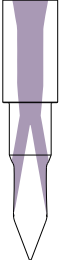
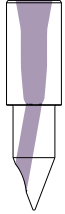
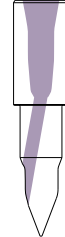
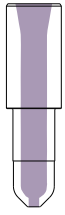
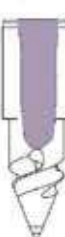
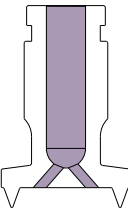
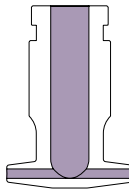
Nozzle Series	Material Specifications			Material Category ²		
				Easy	Medium	Difficult
09	Thermal Gate Flow Rate	g/s	¹	15	7	3
	Shot Weight	g	¹	0.5 - 15	0.5 - 10	0.5 - 5
13	Thermal Gate Flow Rate	g/s	¹	30	15	5
	Valve Gate Flow Rate	g/s	¹	25	12	—
	Shot Weight	g	¹	0.5 - 45	0.5 - 30	0.5 - 15
16	Thermal Gate Flow Rate	g/s	¹	125	65	25
	Valve Gate Flow Rate	g/s	¹	95	50	20
	Shot Weight	g	¹	1 - 200	1 - 125	1 - 60
19	Thermal Gate Flow Rate	g/s	¹	300	150	60
	Valve Gate Flow Rate	g/s	¹	225	110	45
	Shot Weight	g	¹	2 - 625	2 - 300	2 - 150
27	Thermal Gate Flow Rate	g/s	¹	600	300	125
	Valve Gate Flow Rate	g/s	¹	420	210	90
	Shot Weight	g	¹	10 - 2000	10 - 1200	10 - 800

¹ Additives, flow length and thin wall sections all reduce the effective flow rate and shot weight.
To counter the reduced flow rate and shot weight select one nozzle series larger.

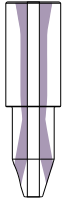
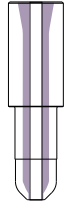
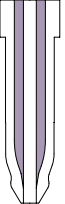
Enquire with our technical advisor to ensure correct nozzle choice

Tip Styles

Thermal Gate Tip Styles

Multi Hole Torpedo Tip (TT)	Extended Torpedo Tip (TT+5)	Extended Torpedo Tip (TT+10)
		
Single Hole Torpedo Tip (IT)	Extended Single Hole Torpedo Tip (IT +5)	Extended Single Hole Torpedo Tip (IT +10)
		
Open Tip (OT)	Spiral Tip (ST)	
		
Multi-Gate Axial Tip (A)	Multi-Gate Side Tip (S)	
		

Valve Gate Tip Styles

Torpedo Tip (TV)	Open Tip (OV)
	
Guided Tip (GV)	
	

Tip Grades

Tips are manufactured in various grades designed for different applications and wear resistance.

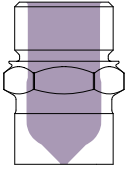
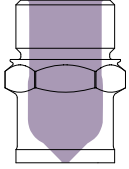
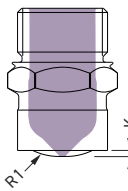
Tip Grade	Recommended use	Manufactured Material	Tip Style Options
G1	Default grade suitable for easy materials	Beryllium Copper with Nickel coating	TT, IT, OT, TV, OV
G2	Long life tip suitable for easy unfilled materials	Beryllium Copper tipped with Steel, Nickel coating	TT, IT
G5	Long life tip suitable for difficult and abrasive materials	Carbide/Hard liner	TT, IT, OT, OV, GV

Enquire with our technical advisor to ensure correct nozzle choice

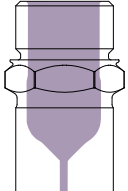
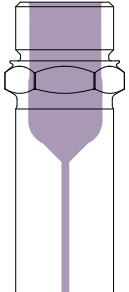
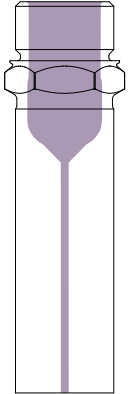
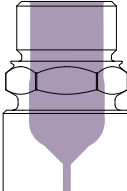
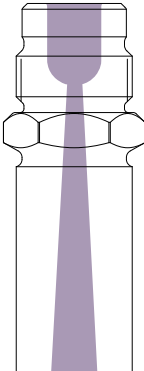
Nut Options

Key	Value
✓	Yes
✗	No
Witness	Nut will leave a circular witness mark on part
Modify	Nut may require modification to suit application

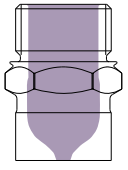
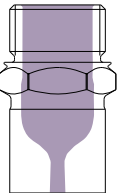
Thermal Gate Nut Types

Bush Nut Full Contact (BE)		Bush Nut (BN)		Dome Nut (BD)	
Witness	✓	Witness	✓	Witness	✓
Modify	✓	Modify	✗	Modify	✓
					

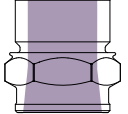
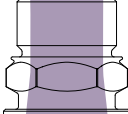
For a Dome Nut supply R1 and K dimensions at time of order.

Sprue Nut +5 (SN)		Sprue Nut +20 (SX)		Sprue Nut +35 (SL)		Retro Sprue Nut (SN-R)		YCN Nut (YCN)	
Witness	✓	Witness	✓	Witness	✓	Witness	✓	Witness	✓
Modify	✓	Modify	✓	Modify	✓	Modify	✓	Modify	✓
									

Valve Gate Nut Types

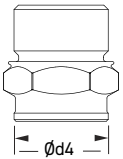
Valve Bush Nut (V1B ¹ /V2B ²)		Valve Sprue Nut (V1S ¹)	
Witness	✓	Witness	✓
Modify	✓	Modify	✓
			

Thermal Gate and Valve Gate Nut Types

Open Nut (ONT)		Retro Nut (ONT-R)	
Witness	✗	Witness	✗
Modify	✗	Modify	✓
			

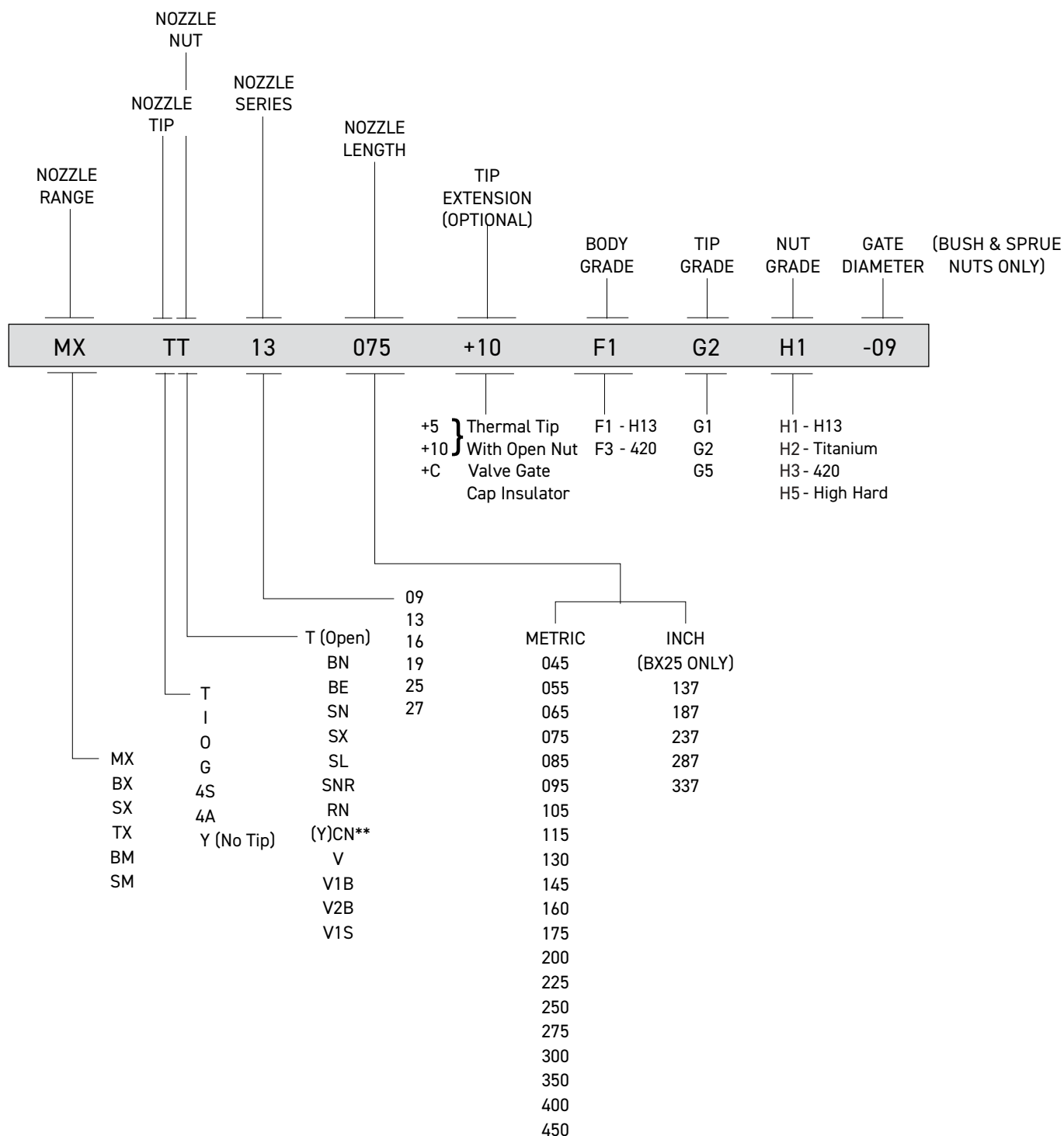
Notes:

- 1 Conical Gate
2 Cylindrical Gate

	Series	Standard Nut Ød4	Retro Nut Ød4*
	09	7	-
	13	10	13.1
	16	12	16.1
	19	15	19.1
	27	23	27.1

* Finish to suit cavity d4 -0.015mm to +/-0.005mm

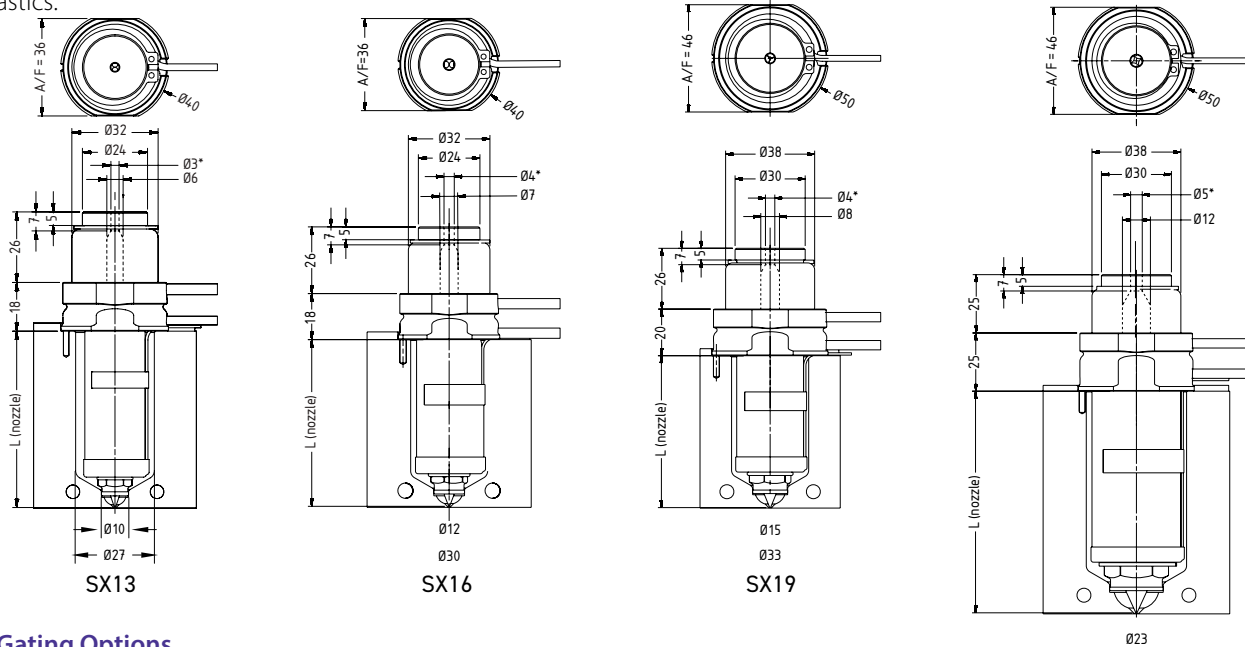
Nozzle Assembly Order Code for X-Range Series



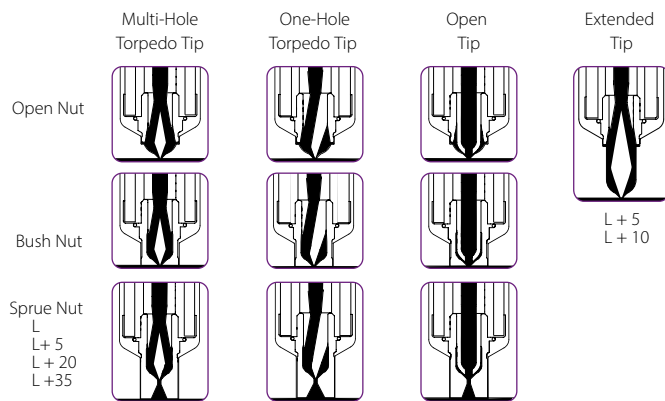
Enquire with our technical advisor to ensure correct nozzle choice



With two heaters the SX nozzle is perfectly suited for all single nozzle applications. Independently controlled heater zones provide uniform temperature distribution along the length of the nozzle, making it ideal to process difficult plastics.



Gating Options



SX27

SX Nozzle Body Lengths**																
L =	45	55	65	75	85	95	105	115	130	145	160	175	200	225	250	275
Series 13	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1*	F1*		
	F3	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*		
Series 16	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1*	F1*	F1*	
	F3	F3	F3	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*	
Series 19	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1*	F1*	F1*	F1*
	F3*	F3	F3	F3	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*
Series 27				F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1
				F3	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*

* Length available on request

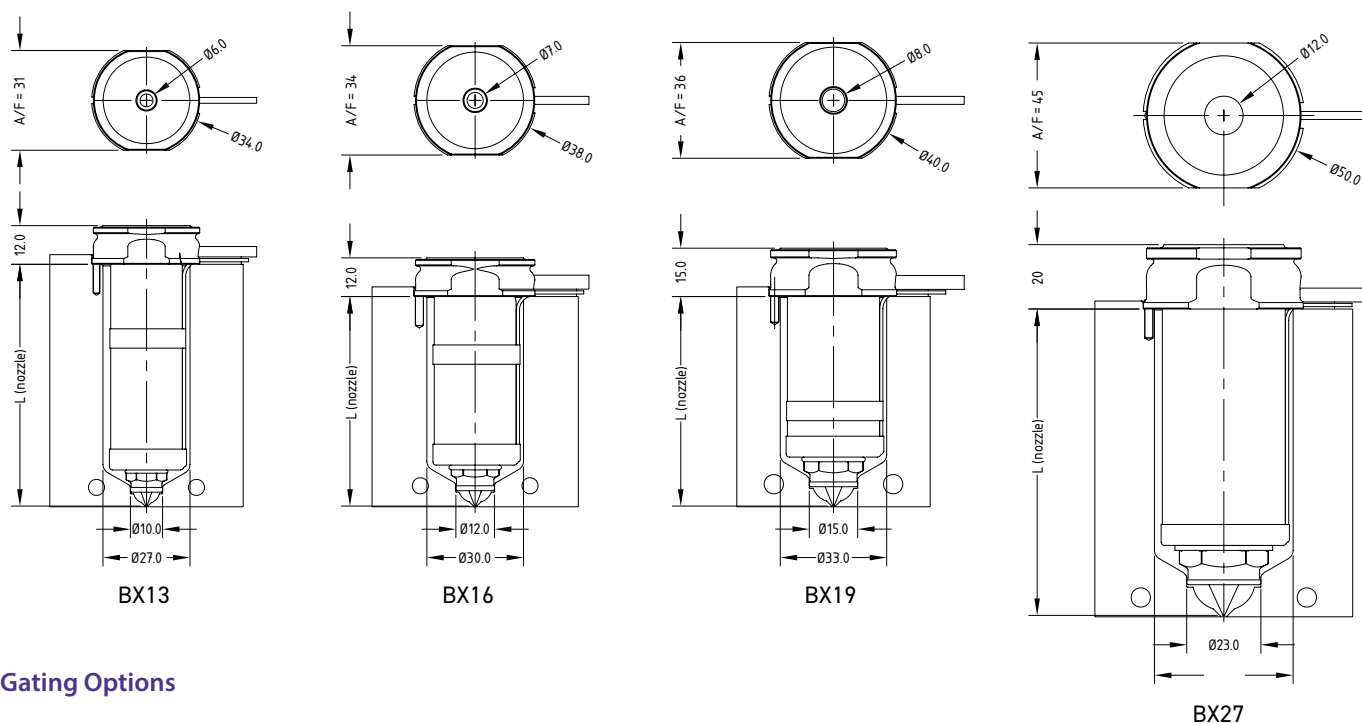
**Custom lengths available on request

Available in H13 and 420 steel

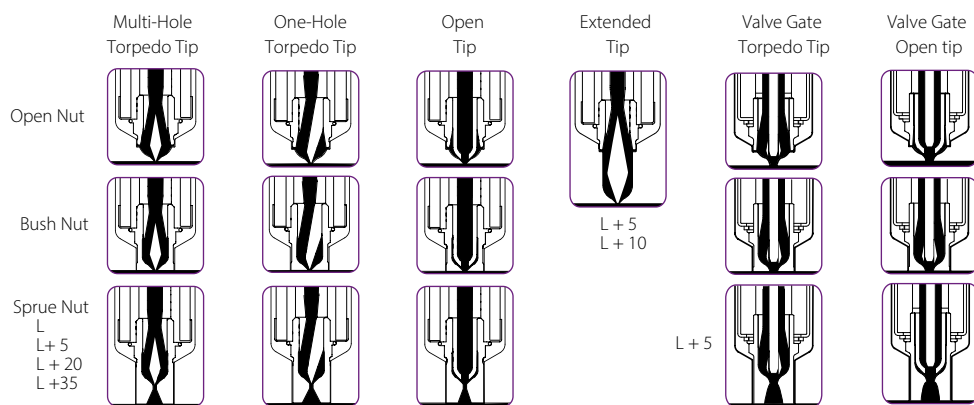
To suit machine nozzle, machine orifice and radius



BX nozzle is designed to provide a cost sensitive solution to single & multi-cavity applications.



Gating Options



BX Nozzle Body Lengths**																
L =	45	55	65	75	85	95	105	115	130	145	160	175	200	225	250	275
Series 13	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	-	-	-	-
	F3*	F3*	F3	F3	F3*	F3	F3*	F3*	F3*	F3*	F3*	F3*	-	-	-	-
Series 16	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	-	-	-	-
	F3*	F3*	F3	F3	F3*	F3	F3*	F3	F3*	F3*	F3*	F3*	-	-	-	-
Series 19	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	-	-	-	-
	F3*	F3*	F3*	F3	F3*	F3	F3*	F3	F3*	F3*	F3*	F3*	-	-	-	-
Series 27	-	-	-	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1
	-	-	-	F3	F3*	F3	F3*	F3	F3*	F3*	F3*	F3*	F3*	F3*	F3*	F3*

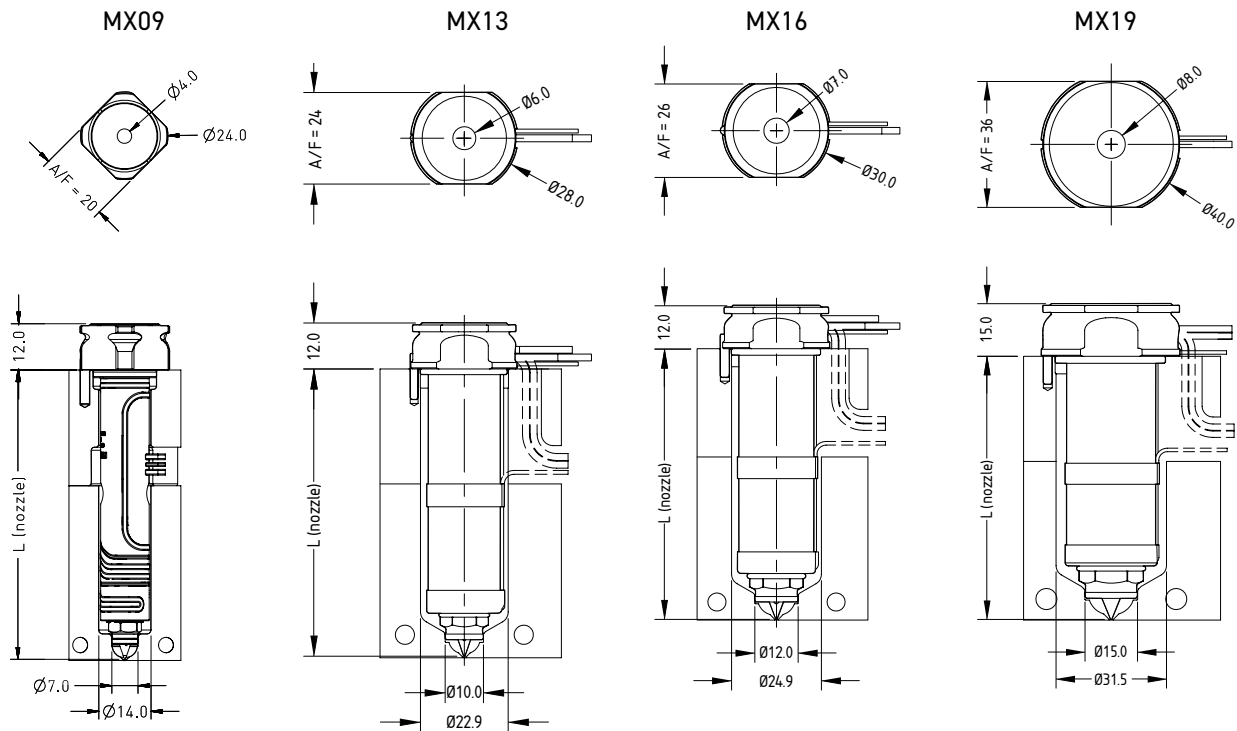
* Length available on request

**Custom lengths available on request

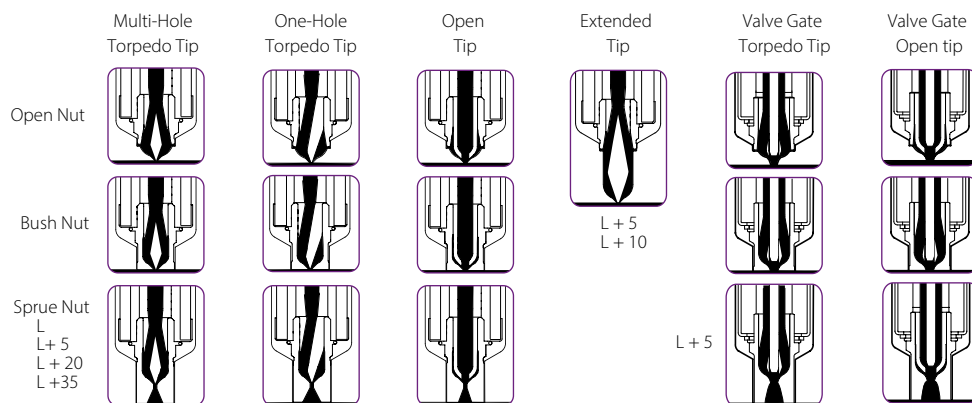
Available in H13 and 420 steel



Low moulding temperature and pressure, excellent temperature consistency and front loading capabilities, that's the Mastip MX nozzle, specifically designed for multi cavity manifold systems and hot halves. The MX nozzle is suited for small to medium applications in all types of markets. It is able to process a wide range of plastics, from the easy ethylenes to tough engineering resins.



Gating Options



MX Nozzle Body Lengths**

L =	45	55	65	75	85	95	105	115	130	145	160	175
Series 09	-	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1
Series 13	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1
	F3*	F3*	F3*	F3	F3	F3	F3*	F3*	F3*	F3*	F3*	F3*
Series 16	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1
	F3*	F3*	F3	F3	F3	F3	F3	F3	F3*	F3*	F3*	F3*
Series 19	-	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1	F1
	-	F3*	F3*	F3	F3	F3	F3	F3	F3*	F3*	F3*	F3*

* Length available on request

**Custom lengths available on request.

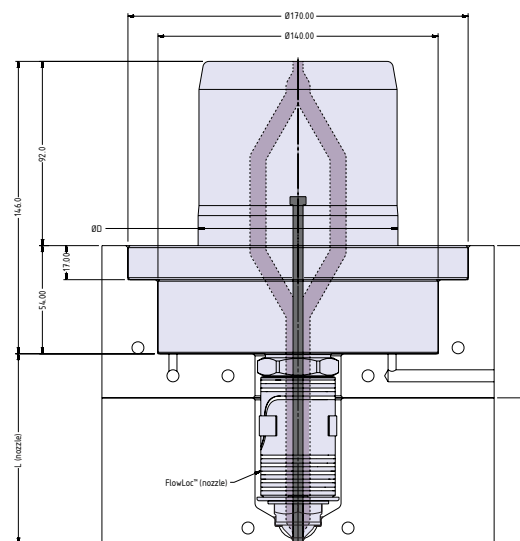
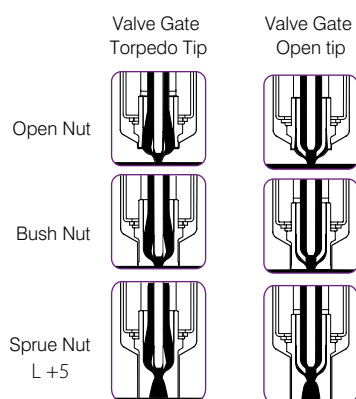
Available in H13 and 420 steel



Sporting an extremely compact design, the VeriShot™ system greatly reduces mould height requirements as it doubles as a locating ring housing the mechanics. This ensures perfect alignment between mould and machine platens. VeriShot™ is compatible with TX16, TX19 and TX27 FlowLoc™ nozzles, which screw directly into the lower manifold providing a secure, leak-proof solution.

- Stainless Steel construction for maximum service life
- Location ring can be sized to your requirement

Gating Options

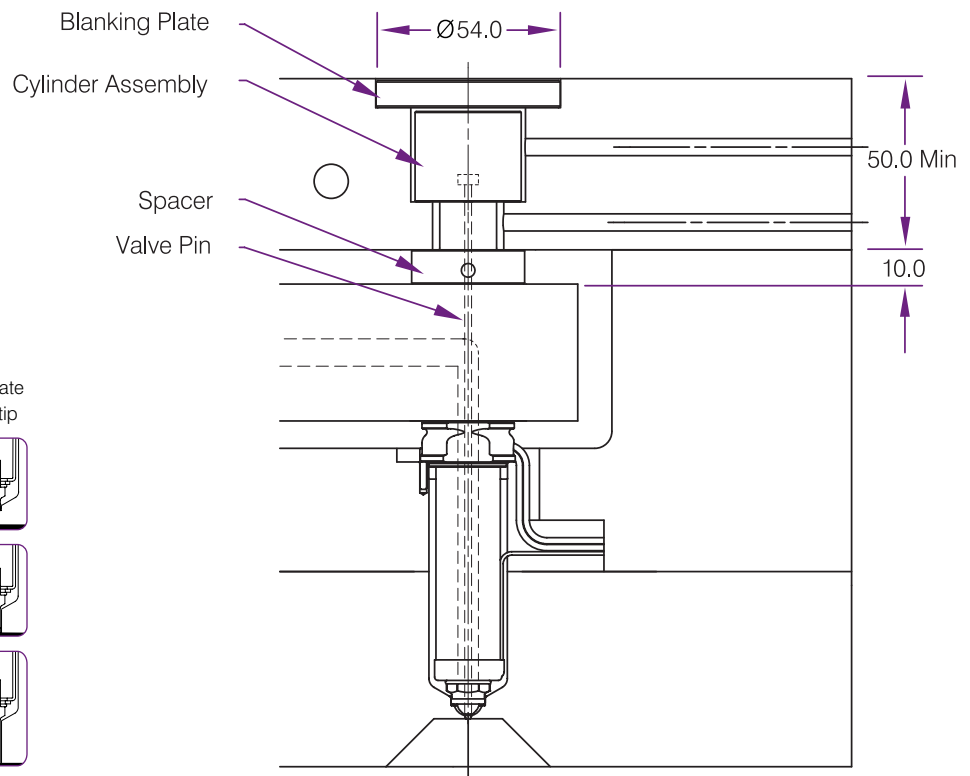


FlowLoc Nozzle Compatibility

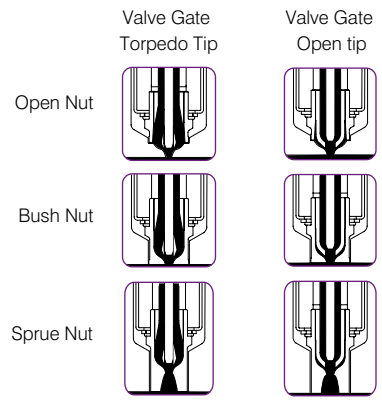
	16 Series	19 Series	27 Series
L	75	75	75
	85	85	85
	95	95	95
	105	105	105
	115	115	115
	130	130	130
	145	145	145
	160	160	160
	175	175	175
	200	200	200
	—	225	225
	—	250	250
	—	275	275
	—	300	300
	—	—	350
	—	—	400
	—	—	450

Valve Gate Assembly

	16 Series	19 Series	27 Series
Model	SVG	SVG	SVG
Actuation Type	Pneumatic	Pneumatic	Pneumatic
Pin Size	2.5	3.0	5.0
Stroke	10	10	10



Gating Options

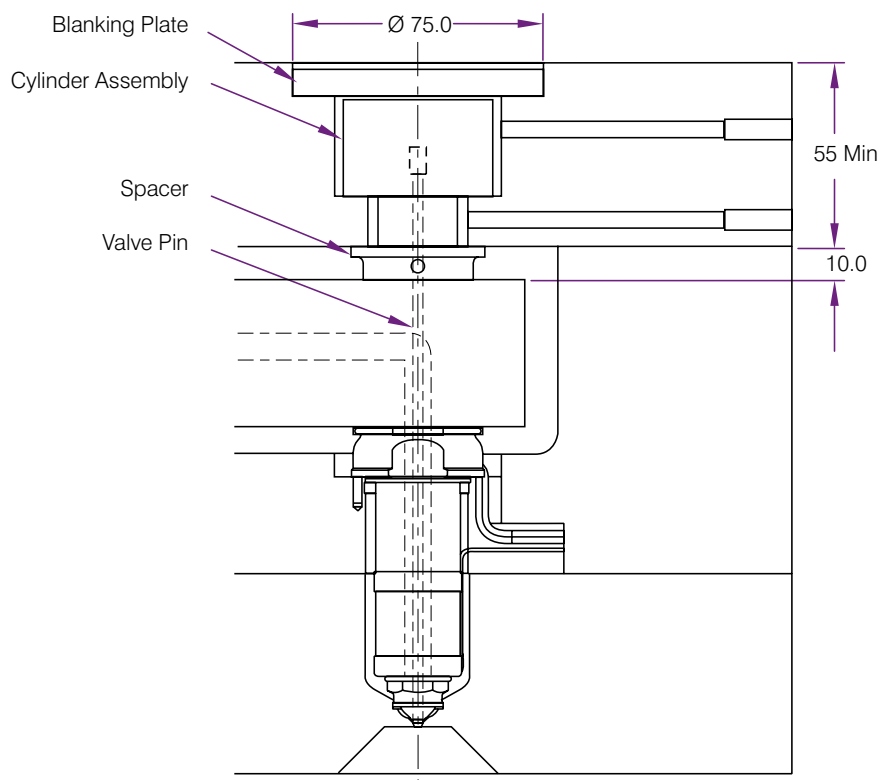
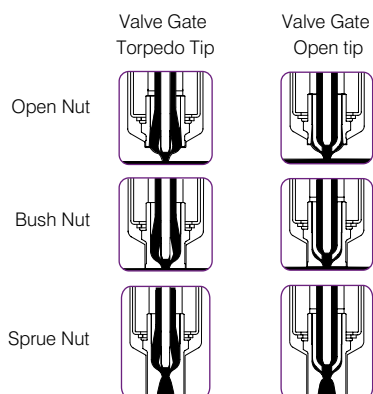


MVG25 Nozzle Compatibility			
Description	Nozzle	Nozzle Length	Supplied Pin Size
MVG25-P1 Headed Pin	MX13	45 - 175	Ø2.0
	BX13	45 - 225	
	MX16	45 - 175	Ø2.5
	BX16	45 - 250	

MGV25 Spares		
Description	Code	System
16 Series Piston Seal Kit	MVG25SEALS (80-000-101)	
13 Series Valve Pin & Seal Set		Specify System Number
16 Series Valve Pin & Seal Set		Specify System Number



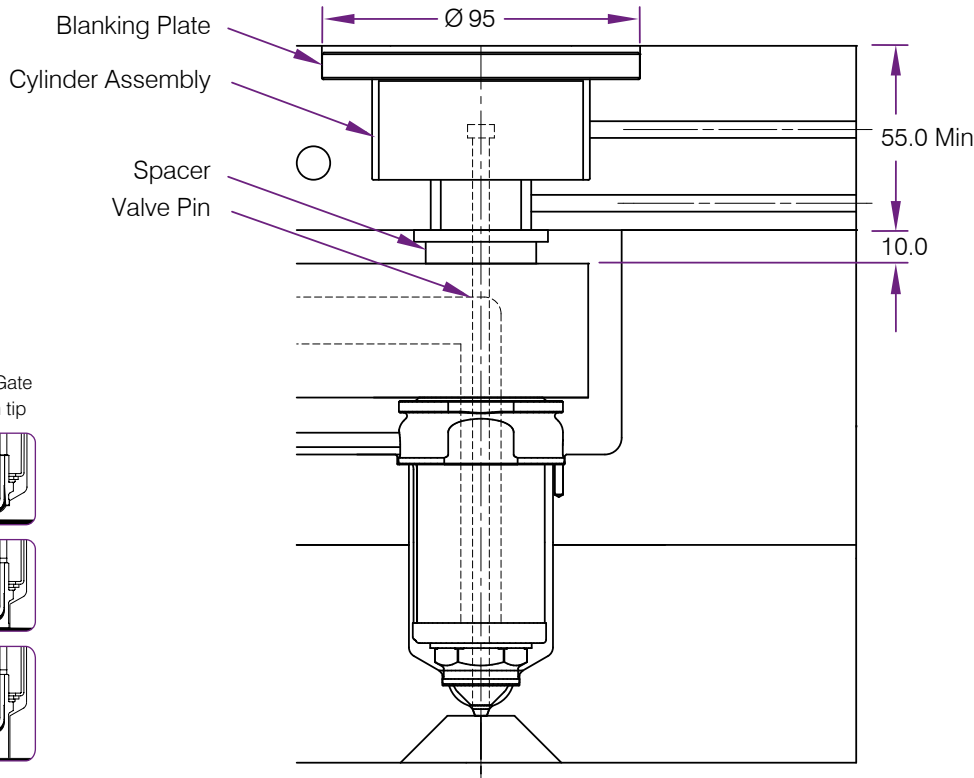
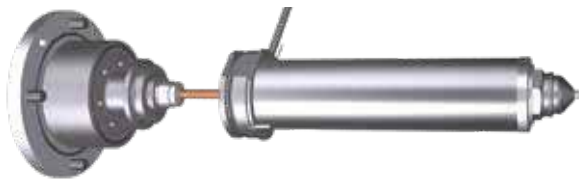
Gating Options



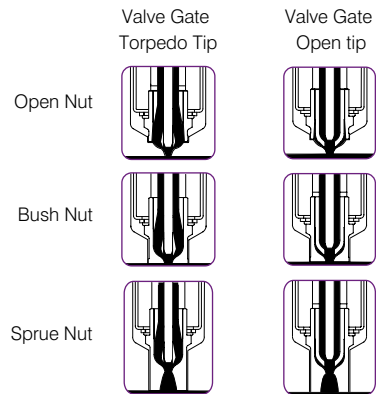
MVG40 Nozzle Compatibility			
Description	Nozzle	Nozzle Length	Supplied Pin Size
MGV40-P1 Headed Pin or Threaded	MX13	45 - 175	Ø2.0
	BX13	45 - 225	
	MX16	45 - 175	Ø2.5
	BX16	45 - 250	
	MX19	45 - 175	Ø3.0
	BX19	45 - 300	
	BX27	75 - 450	Ø5.0

MGV40 Spares		
Description	Code	System
16 Series Piston Seal Kit	MVG40SEALS (80-000-100)	
13 Series Valve Pin & Seal Set		Specify System Number
16 Series Valve Pin & Seal Set		Specify System Number
19 Series Valve Pin & Seal Set		Specify System Number
27 Series Valve Pin & Seal Set		Specify System Number

* 13 Series available in open nut and open tip only



Gating Options



MVG55 Nozzle Compatibility			
Description	Nozzle	Nozzle Length	Supplied Pin Size
MVG55-P1 Headed Pin	BX27	75 - 450	Ø5.0

MGV55 Spares		
Description	Code	System
Piston Seal Kit	MVG55SEALS (80-000-102)	
27 Series Valve Pin & Seal Set		Specify System Number

mastip™
hot runner solutions



Manifold systems to suit all your moulding requirements

Mastip's experienced teams can design and manufacture manifold systems to suit all your moulding requirements. All Mastip manifolds are designed to deliver a uniform melt to each nozzle, ensuring cavity-to-cavity consistency. This is achieved through natural balancing of the flow channels and ensuring constant temperature profiles are maintained across the manifold block. Small cavity or high cavity systems, simple single level or complex multi-level stack systems, thermal gate or valve gate systems, Mastip can provide you with a Manifold system to meet your requirements in standard high quality mould base steel or stainless steel plates.

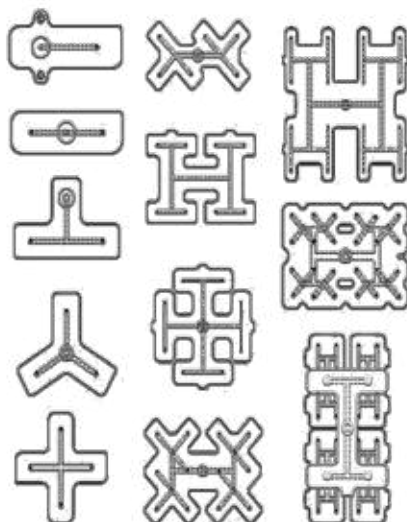
Scan this QR code to go to website for further information:



Standard Layouts, Exceptional Results

Mastip has an extensive range of standard or customized manifold designs that ensure cavity-to-cavity consistency through the normal or theological balancing of flow channels.

Each manifold incorporates durable, high quality components that deliver fast cycle times, precise gate control and superior quality parts.



Durable, Long-lasting Components

All manifolds are equipped with superior components including pressed-in heaters, ceramic connectors and high quality mould base or stainless steel plates, enabling them to perform under the most demanding applications and conditions.

Mastip's manifold range is further complimented by the industry leading X-Range nozzles and the extensive range of tip and nut combinations to deliver high performing, durable solutions able to meet the demands of the most abrasive and difficult to mould resins.



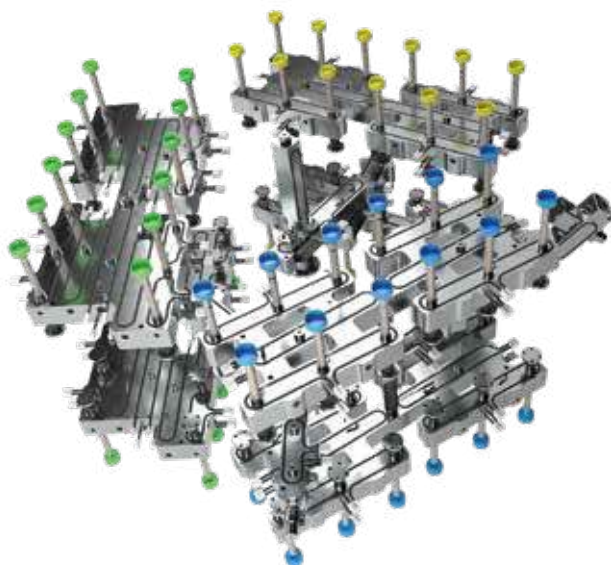
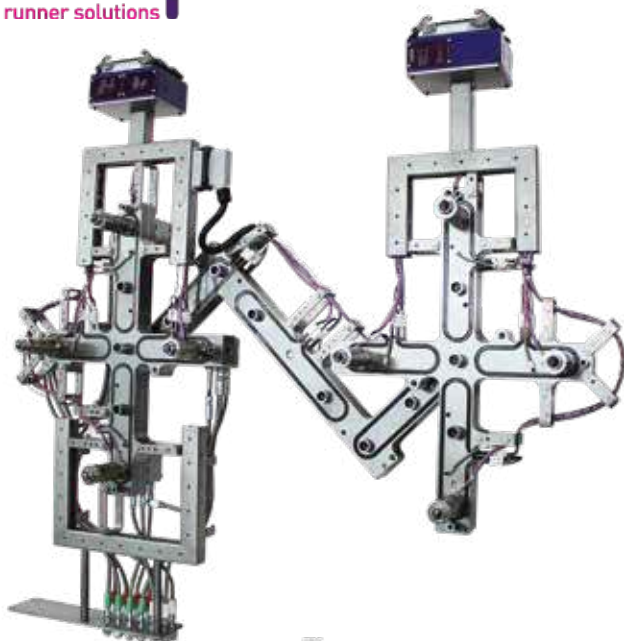
Designed, Manufactured and Tested

Every manifold goes through extensive design and analysis to ensure the following:

- optimised melt delivery
- improved production efficiencies
- perfect cavity-to-cavity filling
- excellent gate quality



mastip™
hot runner solutions



Ready ▶ Set ▶ Inject

Following on from the ground breaking success of Mastip's Nexus Thermal Gate we are proud to introduce the **Nexus Valve Gate with Cylix actuation.**

Mastip's next generation Nexus™ Systems are delivered Pre-Assembled and Pre-Wired as a complete turn-key solution for quick and simple installation.

Both the Nexus Thermal Gate and the Nexus Valve Gate Systems incorporate the advanced leak protection of FlowLoc™ Technology.

Scan this QR code for further information



Simple to Technically Advanced Multi-Material Systems

Mastip has extensive experience in supplying solutions for multi-material and multi-colour applications. Whether it is over moulding soft grips or different colours on single part, Mastip has the technology and technical expertise to develop the right multi-material hot runner solution for your needs. From simple high cavity plastic packaging to technically advanced components such as structural and engineering parts for the automotive industry, incorporating Mastip's multi-material systems into your mould can simplify your production, deliver quality parts and save you time and money on your product assembly.

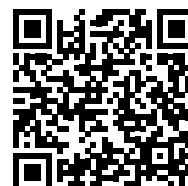
Scan this QR code for further information.



High Cavity Single Or Multi-Level Systems

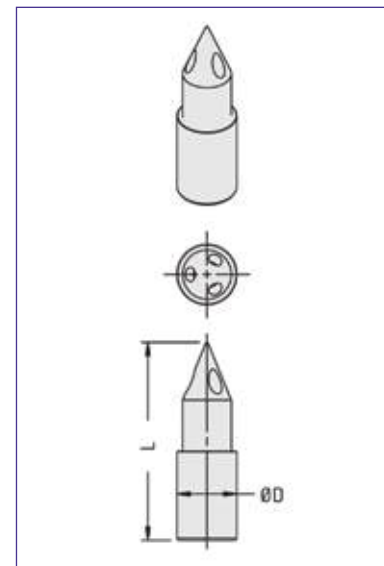
Mastip's expert teams can design and manufacture high cavity single or multi-level systems, with thermal or valve gates. Our systems are designed and manufactured to the highest level of quality, delivering a uniform melt to each nozzle, ensuring cavity-to-cavity consistency. This is achieved through natural balancing of the flow channels and ensuring constant temperature profiles are maintained across the manifold block. Mastip can provide you with a Manifold system to meet your requirements in standard high quality mould base steel or stainless steel plates.

Scan this QR code for further information:



Grade G1, G2

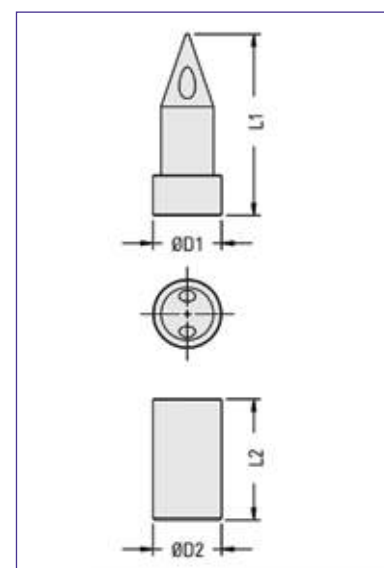
Product Code G1	Product Code G2	Dimensions mm	
		L	D
X13TTG1	X13TTG2	37.5	8.5
X13TT+5G1	X13TT+5G2	42.5	
X13TT+10G1	X13TT+10G2	47.5	
X16TTG1	X16TTG2	40	10.5
X16TT+5G1	X16TT+5G2	45	
X16TT+10G1	X16TT+10G2	50	
X19TTG1	X19TTG2	44.5	13.5
X19TT+5G1	X19TT+5G2	49.5	
X19TT+10G1	X19TT+10G2	54.5	
X27TTG1	X27TTG2	59	20
X27TT+10G1	X27TT+10G2	69	



Tips Torpedo & Extended - X Range Multi Hole

Grade G5

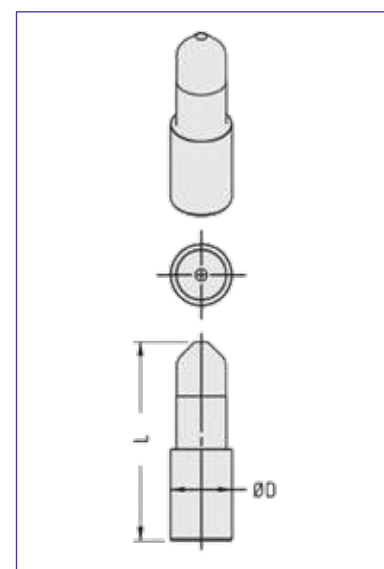
Product Code	Packer Code	Dimensions mm			
		L1	D1	L2	D2
X13TTG5	55-011-813	22.5	8.5	15	8.5
X16TTG5	55-011-816	25	10.5	15	10.5
X19TTG5	55-011-819	29.5	13.5	15	13.5
X27TTG5	55-011-827	41	20	18	20

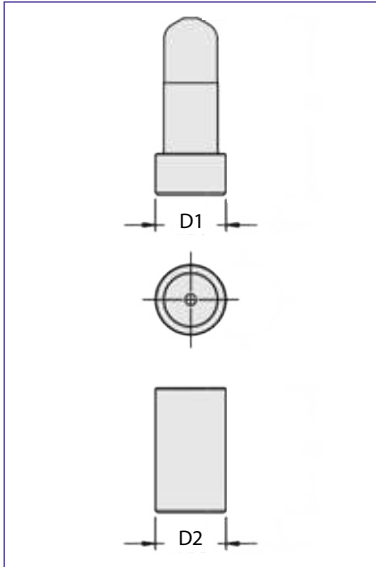


Tips Open - X Range

Grade G1

Product Code	Dimensions mm	
	L	D
X13OTG1	36.5	8.5
X16OTG1	38.7	10.5
X19OTG1	43.3	13.5
X27OTG1	57.4	20

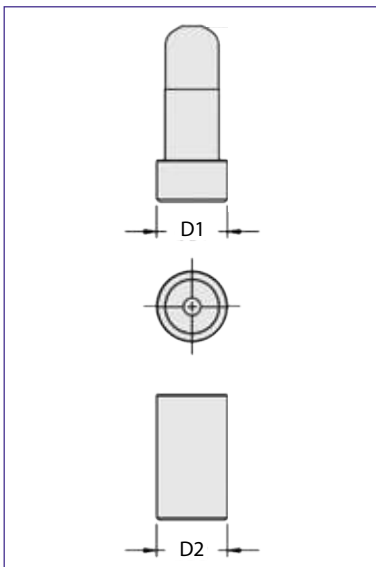




Grade G5

Product Code		
	D1	D2
X13OTG5	8.5	8.5
X16OTG5	10.5	10.5
X19OTG5	13.5	13.5
X27OTG5	20	20

Tips Open Valve - X Range Guided*

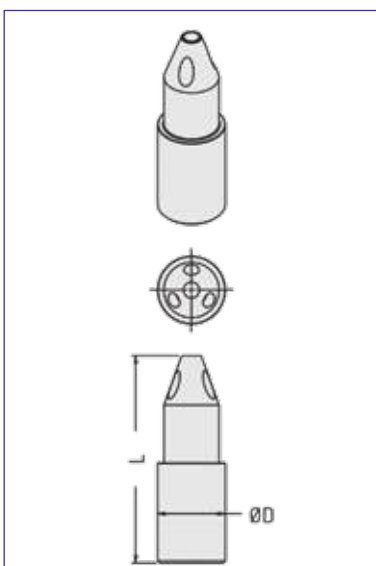


Grade G5

Product Code	Packer Code		
		D1	D2
X13GVG5	55-011-813	8.5	8.5
X16GVG5	55-011-816	10.5	10.5
X19GVGS	55-011-539	17.5	17.5
X27GVGS	55-011-136	20	20

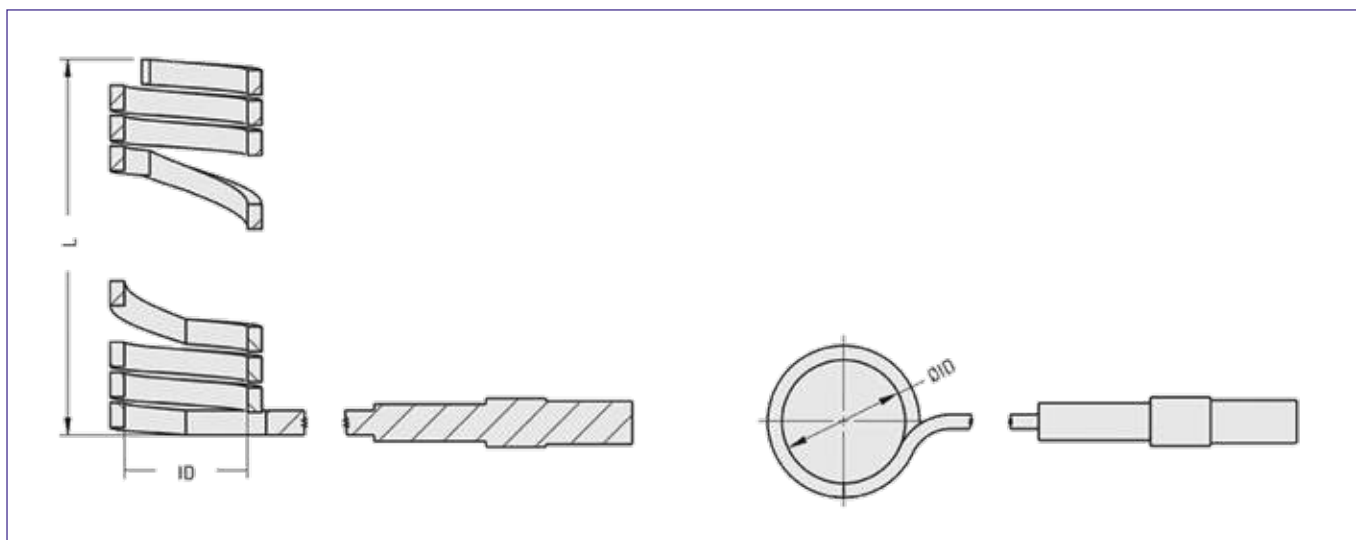
* Available with added Pin Guide if required

Tips Torpedo Valve - X Range



Grade G1

Product Code	Dimensions mm	
	L	D
X16TVG1	37.2	10.5
X19TVG1	41.3	13.5
X27TVG1	55	20



Nozzle Heaters - X Range Series 13

Product Code	Dimensions mm	
	L	ID
X13045H	39	16.1
X13055H	49	
X13065H	59	
X13075H	69	
X13095H	89	
X13115H	109	
X13145H	139	
X13175H	169	

Nozzle Heaters - X Range Series 16

Product Code	Dimensions mm	
	L	ID
X16045H	36	18.1
X16055H	46	
X16065H	56	
X16075H	66	
X16095H	86	
X16115H	106	
X16130H*	121	
X16145H	136	
X16175H	166	

Product Code	Dimensions mm	
	L	ID
X19055H	45	21.5
X19065H	55	
X19075H	65	
X19195H	85	
X19115H	105	
X19130H*	120	
X19145H	135	
X19175H	165	

Nozzle Heaters - X Range Series 27

Product Code	Dimensions mm	
	L	ID
X27075H	60	30.3
X27095H	80	
X27115H	100	
X27145H	130	
X27175H	160	
X27225H	210	
X27275H	260	

Rear Heaters - SX Range

Product Code	Nozzle Series
SX24H	SX13, SX16
SX30H	SX19, SX27

Product Code	Dimensions mm	
	L	ID
X13045HC	39	20.4
X13055HC	49	
X13065HC	59	
X13075HC	69	
X13095HC	89	
X13115HC	109	
X13145HC	139	
X13175HC	169	

Heater Covers - BX & SX Range Series 16

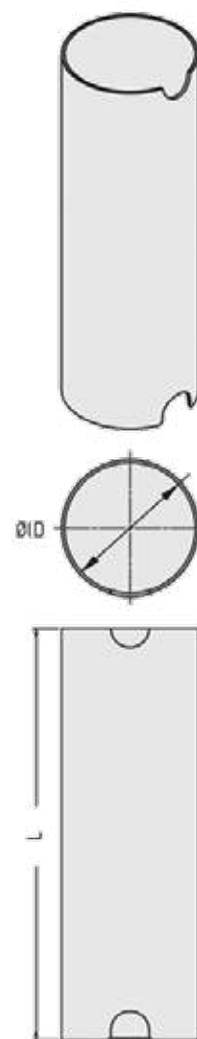
Product Code	Dimensions mm	
	L	ID
X16045HC	36	24
X16055HC	46	
X16065HC	56	
X16075HC	66	
X16095HC	86	
X16115HC	106	
X16130HC*	121	
X16145HC	136	
X16175HC	166	

Heater Covers - BX & SX Range Series 19

Product Code	Dimensions mm	
	L	ID
X19055HC	46	27.2
X19065HC	56	
X19075HC	66	
X19095HC	86	
X19115HC	106	
X19130HC*	121	
X19145HC	136	
X19175HC	166	

Heater Covers - BX & SX Range Series 27

Product Code	Dimensions mm	
	L	ID
X27075HC	62	36.3
X27095HC	82	
X27115HC	102	
X27145HC	132	
X27175HC	162	
X27225HC	212	
X27275HC	262	



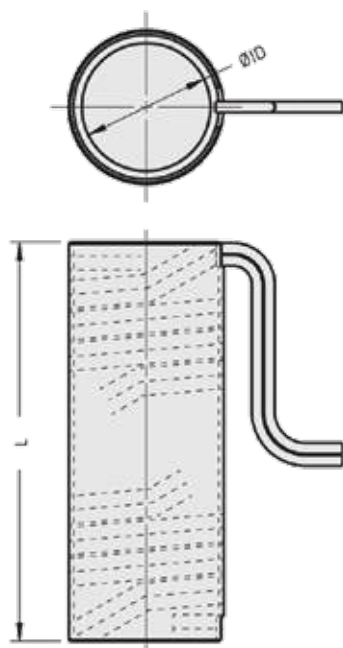
Product Code	Dimensions mm	
	L	ID
MX13045HFS	39	14.6
MX13055HFS	49	
MX13065HFS	59	
MX13075HFS	69	
MX13095HFS	89	
MX13115HFS	109	
MX13130HFS	124	
MX13145HFS	139	
MX13175HFS	169	

Nozzle Heaters Sleeved - MX Series 16

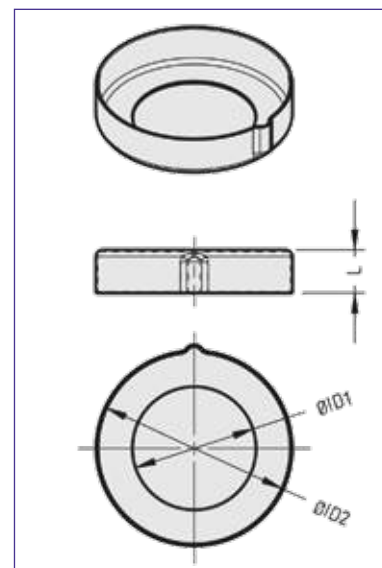
Product Code	Dimensions mm	
	L	ID
MX16045HFS	37	16.6
MX16055HFS	47	
MX16065HFS	57	
MX16075HFS	67	
MX16095HFS	87	
MX16115HFS	107	
MX16130HFS	122	
MX16145HFS	137	
MX16175HFS	167	

Nozzle Heaters Sleeved - MX Series 19

Product Code	Dimensions mm	
	L	ID
MX19055HFS	46	21.1
MX19065HFS	56	
MX19075HFS	66	
MX19095HFS	86	
MX19115HFS	106	
MX19130HFS	121	
MX19145HFS	136	
MX19175HFS	166	

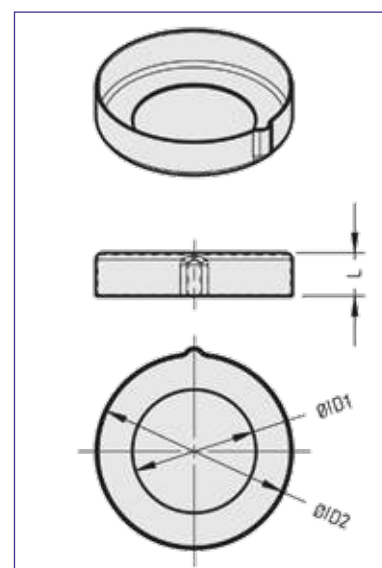


Product Code	Dimensions mm		
	L	ID1	ID2
X13CAP	6.5	12.7	22.4
X16CAP	6.5	14.9	25.6
X19CAP	6.5	18.5	28.8
X27CAP	6.5	27.7	38.3



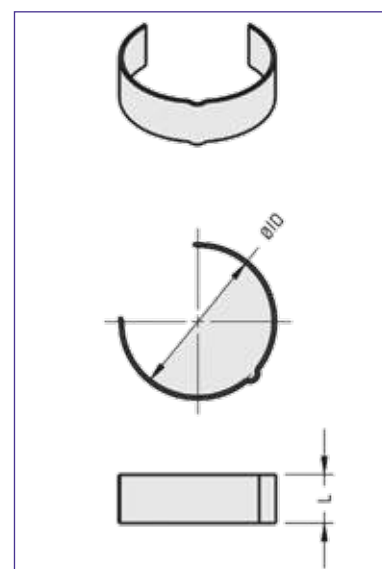
Heater Caps - MX Range

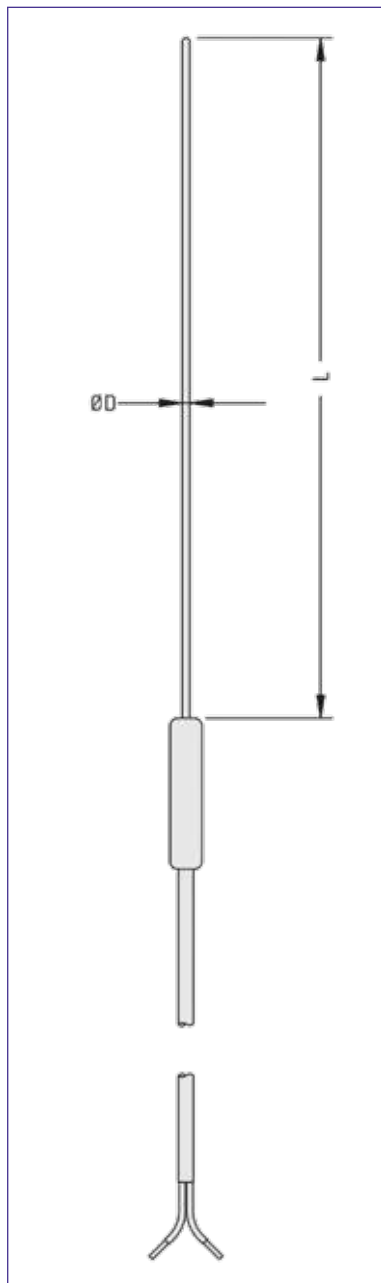
Product Code	Dimensions mm		
	L	ID1	ID2
MX13CAP	6	12.7	19
MX16CAP	6	14.9	21
MX19CAP	6	18.5	25.6



Thermocouple Clips - X Range

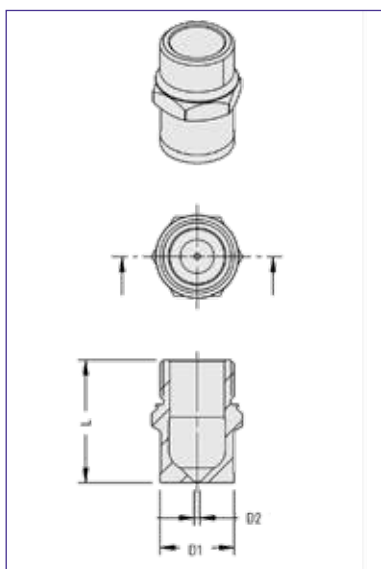
Product Code	Series	Dimensions mm	
		L	ID
MX13CLIP	MX13	6	18.5
MX16CLIP X13CLIP	MX16 BX/SX13	6	20.3
MX19CLIP X16CLIP X19CLIP	MX19 BX/SX16 BX/SX19	8	24.7
X27CLIP	BX/SX27	10	37





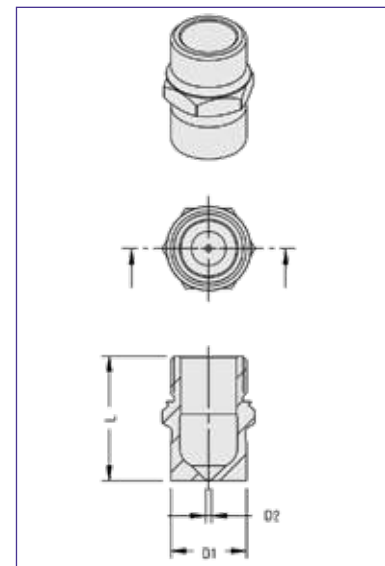
Product Code	Dimensions mm	
	L	D
XTCG1X060	60	1
XTCG1X090	90	
XTCG1X120	120	
XTCG1X150	150	
XTCG1X180	180	
XTCG1X200	200	
XTCG1X225	225	
XTCG1X250	250	
XTCG1X275	275	
XTCG1X300	300	
XTCG1X325	325	
XTCG1X375	375	
XTCG1X400	400	
XTCG1X450	450	
XTCG1X500	500	
XTCG1X550	550	
XTCG1X600	600	1.5
XTCG1X650	650	
XTCG1X700	700	
MASMT7515TC	75	
MASMT15015TC	150	
MASMT25015TC	250	
MASMT30015TC	300	
MASMT35015TC	350	

Bush Nut (BN) - X Range H1 Standard



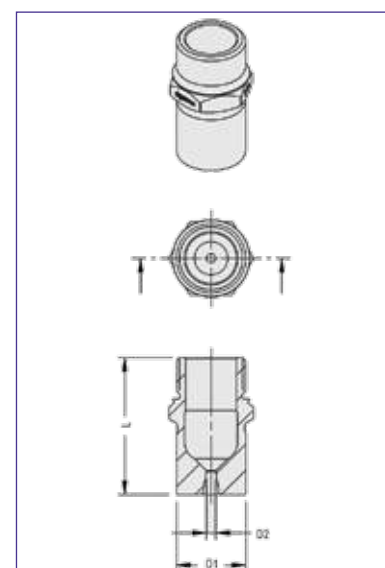
Product Code	Dimensions mm		
	L	D1	D2
X13BN	17.7	10	0.9
X16BN	20.2	12	1
X19BN	24.7	15	1.2
X27BN	34.2	23	2

Product Code	Dimensions mm		
	L	D1	D2
X13BE	17.7	10	0.9
X16BE	20.2	12	1
X19BE	24.7	15	1.2
X27BE	34.2	23	2



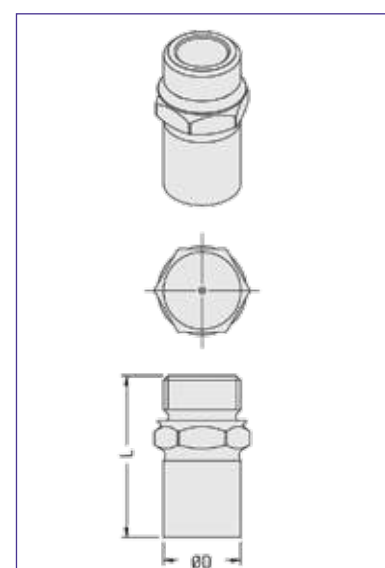
Sprue Nut Extended 5mm (SN) - X Range H1 Standard

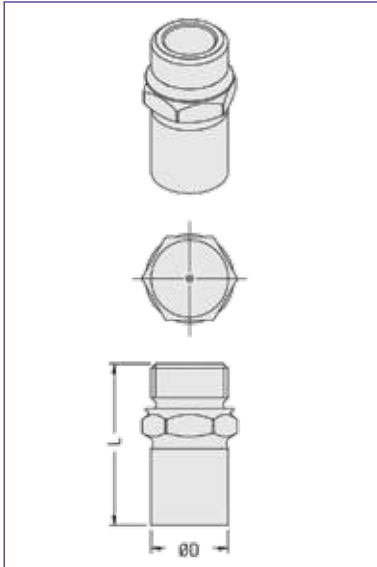
Product Code	Series	Dimensions mm		
		L	D1	D2
X13SN	13	22.7	10	0.9
X16SN	16	25.2	12	1
X19SN	19	29.7	15	1.2
X27SN	27	39.2	23	2



Sprue Nut Extended 20mm (SX) - X Range

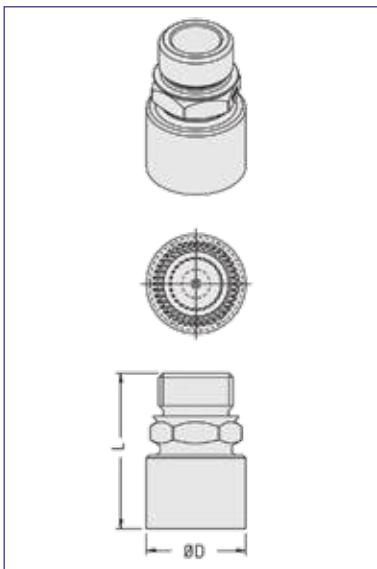
Product Code	Series	Dimensions mm	
		L	D1
X13SX	13	37.7	10
X16SX	16	40.2	12
X19SX	19	44.7	15





Product Code	Series	Dimensions mm	
		L	D1
X13SL	13	52.7	10
X16SL	16	55.2	12
X19SL	19	59.7	15
X19SL	27	69.2	23

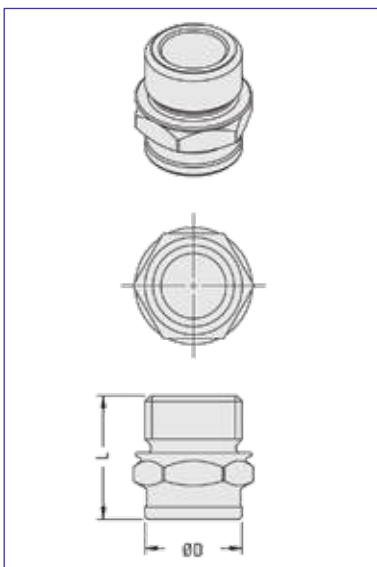
Sprue Nut Extended 5mm (SN-R) - X Range Retro



Product Code	Series	Dimensions mm	
		L	D*
X13SN-R	13	22.7	13.1
X16SN-R	16	25.2	16.1
X19SN-R	19	29.7	19.1
X27SN-R	27	39.2	27.1

* ØD to be finished by customer or contact us to supply ready to use

Open Nut Ground (ONT) - X Range



Product Code	Series	Dimensions mm	
		L	D
X13ONT	13	13.2	10
X16ONT	16	15.2	12
X19ONT	19	18.5	15
X27ONT	27	24.5	23

Product Code	Series	Dimensions mm	
		L	D
X13ONT-R	13	13.2	13.1
X16ONT-R	16	15.2	16.1
X19ONT-R	19	18.5	19.1
X27ONT-R	27	24.5	27.1



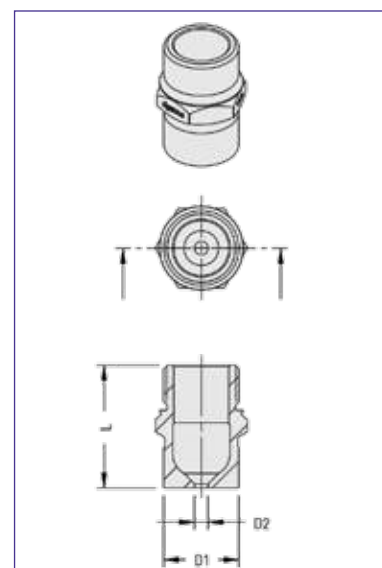
Bush Nut (BN) - BX25 Series

Product Code	Dimensions mm (inch)	
	L	D
X25BN	24.7 (0.97")	25.4 (1")



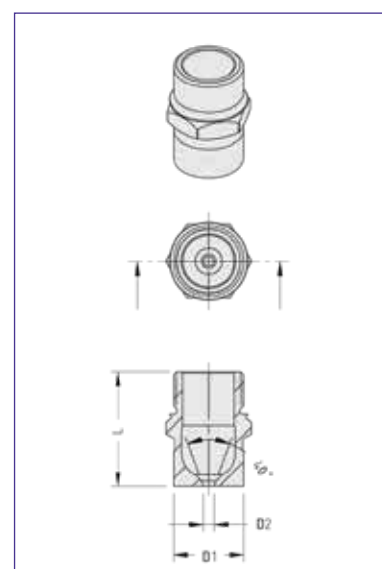
Bush Nut (VBE) - Valve Cylindrical Gate X Range H5

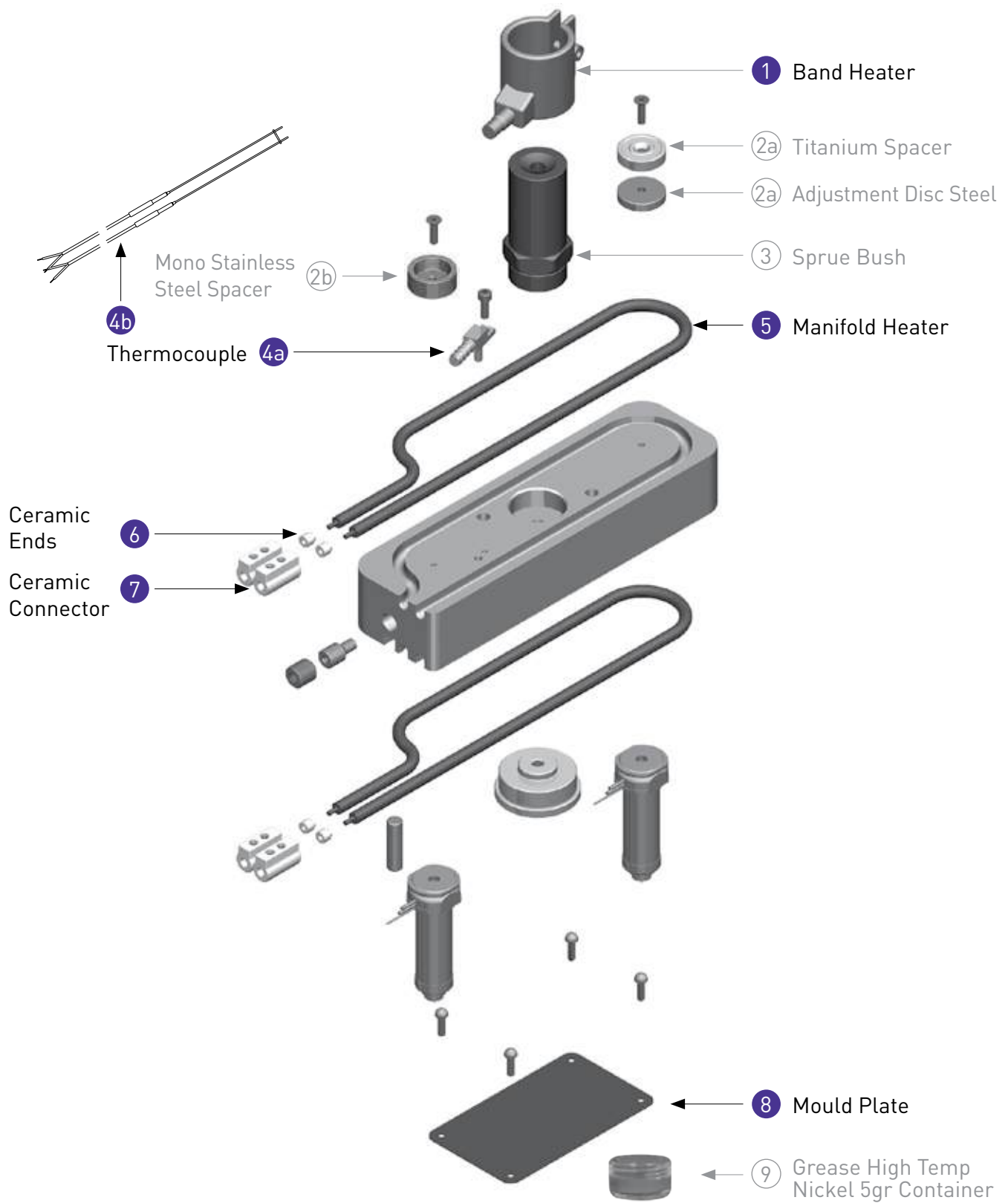
Product Code	Dimensions mm		
	L	D1	D2
55-010-472	20.0	12	2.2
55-010-473	24.5	15	2.7
55-010-474	34.0	23	4.6



Bush Nut (VBE) - Valve Conical Gate X Range H1 Standard

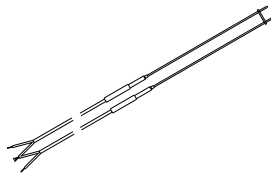
Product Code	Dimensions mm		
	L	D1	D2
X16VBE	20.0	12	1.8
X19VBE	24.5	15	2.2
X27VBE	34.0	23	3.5





1		1		1		1	
	*		*		*		*
Band Heater Ø30 x 20mm		Band Heater Ø30 x 30mm		Band Heater Ø30 x 40mm		Band Heater Ø30 x 60mm	
MASMANBHTC30/20		MASMANBHTC30/30		MASMANBHTC30/40		MASMANBHTC30/60	

*Built in J-Type thermocouple.

4a		4b	
	**		
Thermocouple		Hot Half Thermocouple	
Submit System Number		Submit System Number	
MASTE7003		39-850-000	

**J-Type thermocouple. K Type available on request.

5		6	
Manifold Heater		Ceramic Ends	
Submit System Number		TUBCERAMIC	

7		8	
Ceramic Connector		Mould Plate	
MASCC		Submit System Number	
		51-001-020	



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