

ISO MOULD

AIM™ Quick Change Injection Mould System

Comparability by uniform standards, flexibility by quick change

The AIM (Axxicon ISO Manufactured) Quick Change Mold, used within the polymer industry, is a flexible test mold system designed to comply exactly with the internationally accepted ISO standards which are also used by CAMPUS® — the plastics database.

The AIM Quick Change Mold is a multi-functional injection mold with interchangeable inserts, used on conventional injection molding machines and capable of producing plastic specimen for quality specimen tests according to international standards.

These types of specimen tests are commonly used to determine the material key properties such as tensile strength, Izod and Charpy impact strength, hardness, flammability, shrinkage and gloss/colour matching.

The modular AIM™ Quick Change Mould System consists of a mould base, a mirror plate and as many product forming inserts as you require. The quick change mould system can be designed for tool temperatures up to 100 °C, up to 140 °C or up to 250 °C!

Many customers still require tests in accordance with ASTM, BS, JIS, SAC or other standards. We accommodate them too, by providing inserts for any standard required. Besides standard inserts we also supply customised inserts and inserts for special applications like hybrid technology / overmoulding and injection compression. The AIM™ Quick Change Mould Systems XL and XXL are specially designed for moulding larger parts or creating even more flexibility!

Features / Equipment:

- Standardised design
- In accordance with ISO specifications
- Flexibility by quick change: changing of product forming inserts in seconds
- Horizontal change of inserts and mirror plates for increased convenience
- Compatible with regular injection moulding machines
- Extremely reliable
- Approved by CAMPUS®



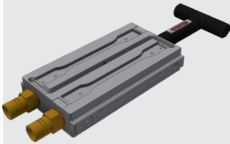
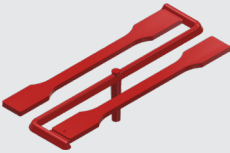
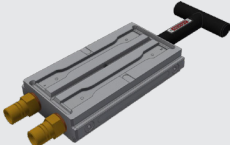
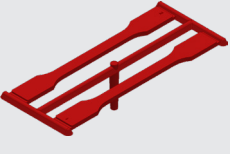
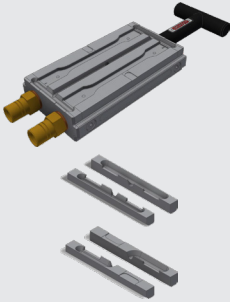
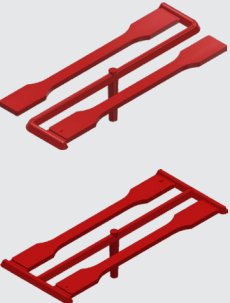
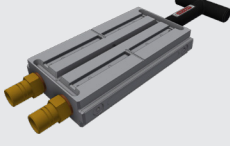

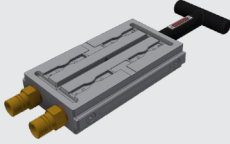
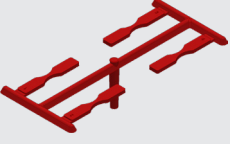
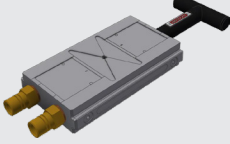
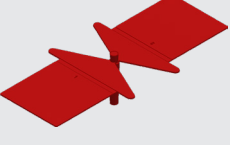
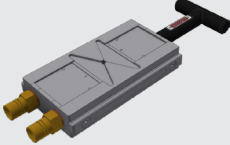

AIM-Prospekt



AIM Standard Movie



Type of inserts standard / special:

Type	Standards / Application	Description	Dimension [mm] *)	Design Insert*)	Design Specimen
ISO A	<ul style="list-style-type: none"> DIN EN ISO 527-2, 1A ISO 3167, Type A ISO 20753, Type A1 ISO 899-1:2017-09 ISO 2039-1:2001-12 	Gate according ISO 294-1 (2017), Z-runner, Surface polished: Standard N2 Cr-Steel, HRc: 50-52, Draft 1° Clamping force: +/- 36 T at 500 bar Volume: 30,58 cm ³ Surface: 72,67 cm ²	170x20/10x4		
ISO A with weldline	<ul style="list-style-type: none"> DIN EN ISO 527-2, 1A ISO 3167, Type A ISO 20753, Type A1 ISO 899-1:2017-09 ISO 2039-1:2001-12 	Gate according ISO 294-1 (2017), Double-T-runner Surface polished: Standard N2 Cr-Steel, HRc: 50-52, Draft 1° Clamping force: +/- 39 T at 500 bar Volume: 33,12 cm ³ Surface: 78,76 cm ²	170x20/10x4		
ISO A with / without weldline	<ul style="list-style-type: none"> DIN EN ISO 527-2, 1A ISO 3167, Type A ISO 20753, Type A1 ISO 899-1:2017-09 ISO 2039-1:2001-12 	Gate according ISO 294-1 (2017), Z-runner, Double-T-runner Surface polished: Standard N2 Cr-Steel, HRc: 50-52, Draft 1° Clamping force: +/- 36/39 T at 500 bar Volume: 30,58 / 33,12 cm ³ Surface: 72,67 / 78,76 cm ²	170x20/10x4		
ISO B	<ul style="list-style-type: none"> DIN EN ISO 178 DIN EN ISO 899-2 DIN EN ISO 604 ISO 179-1+2 DIN EN ISO 180 DIN EN ISO 8256 ISO 75-1+2 DIN EN ISO 306 ISO 22088-3 ISO 1183-1+2 ISO 4589-2 	Gate according ISO 294-1 (2017), Double-T-runner Surface polished: Standard N2 Cr-Steel, HRc: 50-52, Draft 1° Clamping force: +/-33 T at 500 bar Volume: 29,63 cm ³ Surface: 66,10 cm ²	80x10x4		
ISO C	<ul style="list-style-type: none"> DIN EN ISO 8256 	Gate according ISO 294-2 (2019), Double-T-runner Surface polished: Standard N2 Cr-Steel, HRc: 50-52, Draft 1° Clamping force: +/- 25 T at 500 bar Volume: 18,73 cm ³ Surface: 49,29 cm ²	60x10x3		
ISO D11 (ex D1)	<ul style="list-style-type: none"> ISO 6721-2 DIN EN ISO 29753 	Gate according ISO 294-3 (2020), Double fangate runner Surface polished: Standard N1 Cr-Steel, HRc: 50-52, Draft 1° Clamping force: +/- 54 T at 500 bar Volume: 12,71 cm ³ Surface: 108,5 cm ²	60x60x1		
ISO D12 (ex D2)	<ul style="list-style-type: none"> ISO 6603-1/-2 ISO 294-4 ISO 4892-2 DIN EN ISO 29753 	Gate according ISO 294-3 (2020), Double fangate runner Surface polished: Standard N1, Cr-Steel, HRc: 50-52 Draft 1° Clamping force: +/- 54 T at 500 bar Volume: 12,73 cm ³ Surface: 108,71 cm ²	60x60x2		

Type	Standards / Application	Description	Dimension [mm] *)	Design Insert*)	Design Specimen
ISO F (old)	<ul style="list-style-type: none"> Determination of anisotropy 	Gate according Axxicon-Desing, Double-Film-runner Surface polished: Standard N1, Cr-Steel, HRc: 50-52, Draft 1° Clamping force: +/- 77 T at 500 bar Volume: 33,96 cm ³ Surface: 152,72 cm ²	88x80x2		
ISO F (234)	<ul style="list-style-type: none"> Determination of anisotropy 	Gate according ISO 294-1 (2017), Double-Film-runner Surface polished: Standard N1, Cr-Steel, HRc: 50-52, Draft 1° Clamping force: +/- 83 T at 500 bar Volume: 38,93 cm ³ Surface: 166,20 cm ²	90x80x2		
ISO F (271)	<ul style="list-style-type: none"> Determination of anisotropy 	Gate according ISO 294-1 (2017), Film-runner Surface polished: Standard N1, Cr-Steel, HRc: 50-52, Draft 1° Clamping force: +/- 55 T at 500 bar Volume: 25,84 cm ³ Surface: 108,42 cm ²	120x80x2		
ISO 527-2, Type 5A	<ul style="list-style-type: none"> ISO 527-2 	Gate according ISO 294-1 (2017), Z-runner Surface polished: Standard N2, Cr-Steel, HRc: 50-52, Draft 1° Clamping force: +/- 15 T at 500 bar Volume: 9,64 cm ³ Surface: 28,87 cm ²	75x12.5/4 x2		
ISO 527-2, Type 1BA	<ul style="list-style-type: none"> ISO 527-2 	Gate according ISO 294-1 (2017), Z-runner Surface polished: Standard N2, Cr-Steel, HRc: 50-52, Draft 1° Clamping force: +/- 12,5 T at 500 bar Volume: 8,80 cm ³ Surface: 25,02 cm ²	75x10/5x2		
Plaque 50 x 50 x 6 mm	<ul style="list-style-type: none"> ASTM D2240 (Shore) ISO 868 (Shore) ISO 7619-1 (Shore) Various 	Gate according Axxicon Design Surface polished: Standard N1, Cr-Steel, HRc: 50-52, Draft 10° Clamping force: +/-37 T at 500 bar Volume: 44,20 cm ³ Surface: 74,27 cm ²	50x50x6		
Disc	<ul style="list-style-type: none"> Various 	Gate according Axxicon Design Surface polished: Standard N1, Cr-Steel, HRc: 50-52, Draft 10° Clamping force: +/-59,4 T at 500 bar Volume: 37,05 cm ³ Surface: 118,78 cm ²	Ø85x3		
Spiral flow (2 / 3 mm)	<ul style="list-style-type: none"> Determination of the flow path to assess the flow behaviour of materials 	Gate according Axxicon - Design Surface polished: Standard N2, Cr-Steel, HRc: 50-52, Draft 10° Clamping force: +/-35/37 T at 500 bar Volume: 15,48/22,66 cm ³ Surface: 69,97/74,27 cm ²	1150x5x2(3)		

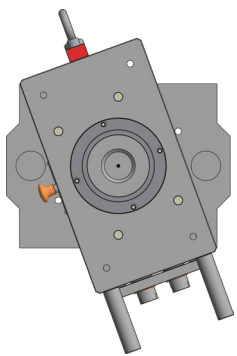
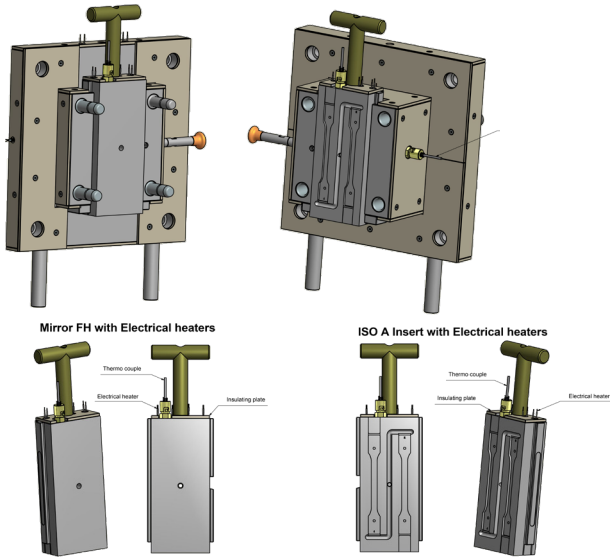
Type	Application	Description	Dimension [mm] *)	Design Insert	Design Specimen
ASTM D256 Izod (3,2 / 6,4)	• ASTM D256	Gate according ASTM D3641-15, Double-T-runner Surface polished: Standard N2, Cr-Steel, HRc: 50-52, Draft 1° Clamping force: +/- 31 T at 500 bar Volume: 22,66/33,63 cm ³ Surface: 61,22 cm ²	63,5x12,7x3,2 63,5x12,7x6,4		
ASTM D6110 Charpy (3,2 / 6,4)	• ASTM D6110	Gate according ASTM D3641-15, Z-runner Surface polished: Standard N2, Cr-Steel, HRc: 50-52, Draft 1° Clamping force: +/-27,1 T at 500 bar Volume: 20,12 / 30,95 cm ³ Surface: 54,22 / 54,27 cm ²	127x12,7x3,2 127x12,7x6,4		
ASTM D638 Type I (3,2)	• ASTM D638	Gate according ASTM D3641-15, Z-runner Surface polished: Standard N2, Cr-Steel, HRc: 50-52, Draft 1° Clamping force: +/-38,1 T at 500 bar Volume: 27,4 cm ³ Surface: 76,14 cm ²	165x13x3,2		
ASTM D638 Type IV (3,2)	• ASTM D638	Gate according ASTM D3641-15, Z-runner Surface polished: Standard N2, Cr-Steel, HRc: 50-52, Draft 1° Clamping force: +/-25,1 T at 500 bar Volume: 17,82 cm ³ Surface: 50,21 cm ²	115x19/6x3,2		
ASTM D648 (3,2) = ASTM D790 (3,2) ASTM D648 (6,4)	• ASTM D648 • ASTM D790	Gate according ASTM D3641-15, Z-runner Surface polished: Standard N2, Cr-Steel, HRc: 50-52, Draft 1° Clamping force: +/-27,1 T at 500 bar Volume: 20,12/30,94 cm ³ Surface: 54,22 cm ²	127x12,7x3,2 127x12,7x6,4		
UL94 (1,5 / 3,0 mm)	• UL94	Gate according ASTM D3641-15, Z-runner Surface polished: Standard N2, Cr-Steel, HRc: 50-52, Draft 1° Clamping force: +/-27 T at 500 bar Volume: 14,39 / 19,71 cm ³ Surface: 53,65 / 53,8 cm ²	125x13x1,5 125x13x3		
UL 94 (0,75 mm)	• UL94	Gate according Axxicon Design Surface polished: Standard N2, Cr-Steel, HRc: 50-52, Draft 1° Clamping force: +/-22 at 500 bar Volume: 7,7 cm ³ Surface: 44,1 cm ²	127x13x0,75		
Farbmusterplatten	• visual inspection	Gate according Axxicon Design Surface polished: Standard N1, Cr-Steel, HRc: 50-52, Draft 10° Clamping force: +/-54,3 T at 500 bar Volume: 24,9 cm ³ Surface: 108,71 cm ²	90x55x2		

Type	Application	Description	Dimension [mm] *)	Design Insert	Design Specimen
Colour plaque / step chip plaque	<ul style="list-style-type: none"> visual inspection optical tests 	Gate according Axxicon Design Surface polished: Standard N1, Cr-Steel, HRc: 50-52, Draft 10° Clamping force: +/-55 T at 500 bar Volume: 25,17 cm³ Surface: 109,95 cm²	90x55x(2+1,2,3)		
Step chip plaque	<ul style="list-style-type: none"> visual inspection optical tests 	Gate according Axxicon Design Surface polished: Standard N1, Cr-Steel, HRc: 50-52, Draft 10° Clamping force: +/-55 T at 500 bar Volume: 25,19 cm³ Surface: 109,95 cm²	90x55x(1,2,3)		
*)	<ul style="list-style-type: none"> all dimensions can also be customised on request (L / W / D) all inserts can optionally be finished with a surfacen treatment or a coating the cavities of the plaques can be provided with a texture, an eroded (VDI) or a matt surface, a logo or, if desired, with a chain hole All inserts can be equipped with a runner switch or a runner block if required. 				

Other possible special designs of inserts/mirrors (example constructions):

Type	Application	Description	Design Insert / Mirror
Colour plaque	<ul style="list-style-type: none"> visual inspection optical tests 	Cavity with 8 different inserts / Surface with various textures / VDI-Codes; Insert 234 or 271 mm, enlarged mirror plate is needed	
Colour plaque	<ul style="list-style-type: none"> visual inspection optical tests 	Cavity with big plaque, Surface with various textures / VDI-Codes; Insert 234 or 271 mm, enlarged mirror plate is needed	
Small circular plaques	<ul style="list-style-type: none"> mechanical tests 	Cavity with 4 small circular plaques, Surface polished, Standard N1 Insert Standard (196 mm)	
Step plaque	<ul style="list-style-type: none"> various 	XXL-insert with 2 cavities and multigating	
2K-moulding Overmoulding	<ul style="list-style-type: none"> various Delamination tests 	Standard- or enlarged insert with modified mirror plate, with vacuum if needed	
Injection Compression	<ul style="list-style-type: none"> various 	Standard- or enlarged insert with modified mirror plate, with vacuum	

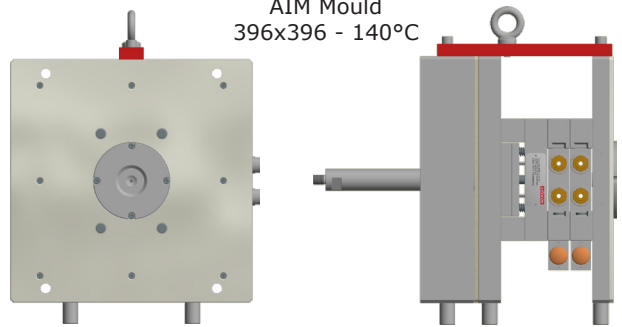
Electrically heated AIM-Mould



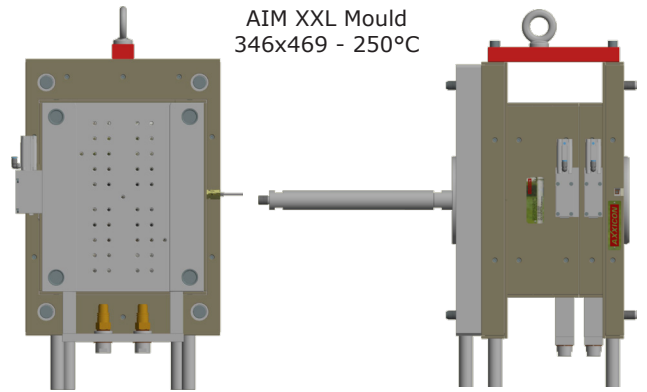
Special solution for limited installation conditions:

AIM Mould mounted on a 2 tie bar 25 To-injection moulding machine

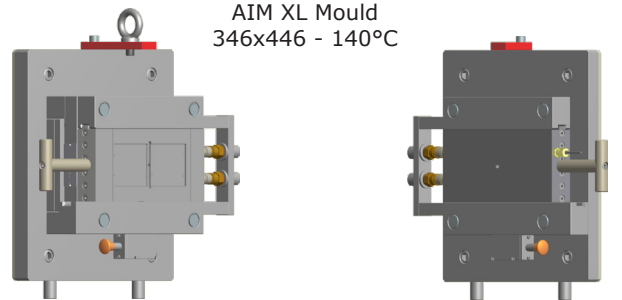
AIM Mould
396x396 - 140°C



AIM XXL Mould
346x469 - 250°C



AIM XL Mould
346x446 - 140°C



Technical data:

	AIM™ - XS	AIM™ - Standard	AIM™ - XL	AIM™ - XXL
Design	horizontal	horizontal / vertical	horizontal / vertical	vertical
Mould Dimension				
Height Euromap / SPI [mm]	156	346 / 296	446	496
Depth Euromap / SPI [mm]	156	223	261	261
Width Euromap / SPI [mm]	140	296 / 296	396	346
Temperature range [°C]	140	100 / 140 / 250	100 / 140 / 250	100 / 140 / 250
Weight [kg]	19	90 / 85	165	200
Mirror plate / insert Dimension				
Width [mm]	65	100 / 120	140	183
Length [mm]	126	196 / 234 / 271	296	346
Thickness [mm]	25	38 / 50	50	60
Weight [kg]	1,6 / 1,5	5 ... 11	15	22
Mounting requirements				
Platen size Euromap / SPI [mm]	156 x 156	346 x 296 / 296 x 296	446 x 396	496 x 346
Mould height [mm]	140	223	261	261
Hole pattern Euromap / SPI (v/h) [mm]	60 x 140	280 x 140/210 / 250-254 x 250-254	350 x 280	420 x 280
Bolt size machine [mm]	M10	M12 / M16	M16	M20
Connection cooling / heating	Water / Oil	Water / Oil / Electrically	Water / Oil / Electrically	Water / Oil / Electrically