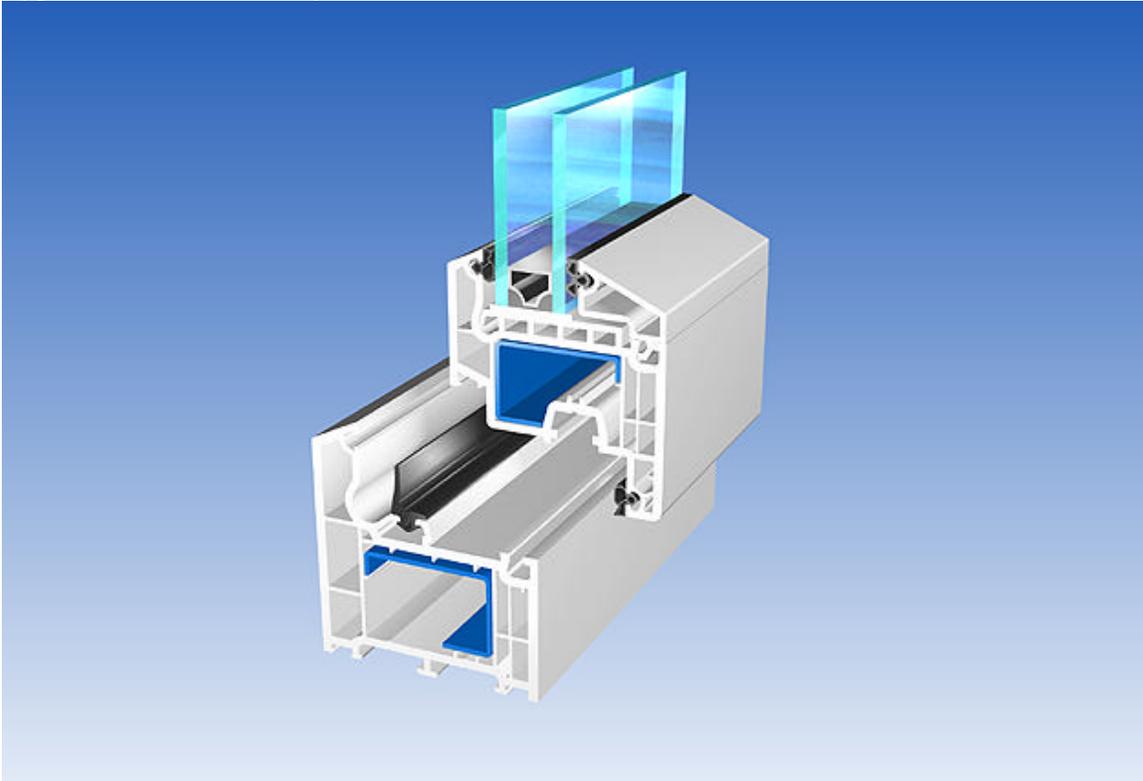


The MD window system was designed in Germany to address the following concerns in the building industry:

1. Thermal Insulation: The goal was to have an affordable window system with an U-Value of less than 0.3. Our standard and double glazed windows have a value of 0.28.
2. Noise Insulation: By using different glazing laminates, we can offer noise control levels from 32 dB for standard glazing to 42 dB with A 3 glazing and 52 dB with our B 1 glazing.
3. Security: With a combination of steel-reinforced extrusions, multi-point locking mechanism and different laminated glazing, we can fabricate windows and doors to specific certified security levels, from burglar proof (A 3) to bullet resistant levels (C 3).

Typical section of MD system



The following two tables show specifications of the most used security levels, the “burglarproof level” A 3 and the high impact B 1 level.

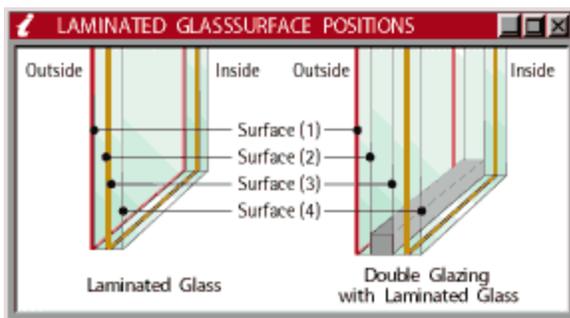
A 3: U-Value 0.28 Noise Control Value 42 dB, weight of glazing 61 pounds/sq.m

B 1: U-Value 0.28 Noise Control Value 52 dB, weight of glazing 97 pounds/sq.m

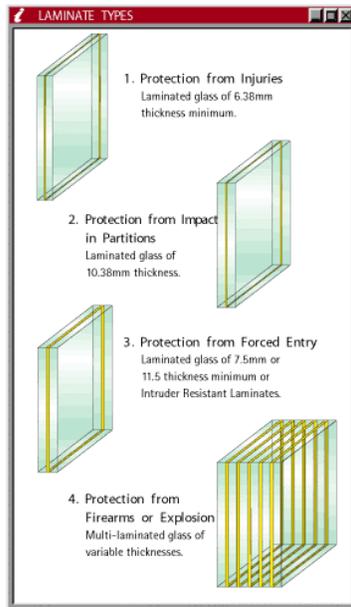
| Contracrime Level A | Class of Resistance | Glazing Single Pane Insulated | CC Type | Thickness of glass inch/mm | Weight pounds per sq. yard |
|--|---------------------|-------------------------------|-----------|----------------------------|----------------------------|
| Single family residences, multi family dwellings in low risk areas | A 1 | Single | A 1,15 | 0,34 / 8,5 | 38 |
| | | Insulated | A 1,25 WS | 0,89 / 22,5 | 57 |
| Secluded homes | A 2 | Single | A 2,15 | 0,35 / 9 | 40 |
| | | Insulated | A 2,25 WS | 0,91 / 23 | 59 |
| Secluded homes in high risk areas Vacation and weekend homes | A 3 | Single | A 3,15 | 0,37 / 9,5 | 42 |
| | | Insulated | A 3,25 WS | 0,93 / 23,5 | 61 |
| All high risk residences | DH 4 | Single | DH 4,15 | 0,43 / 11 | 42 |
| | | Insulated | DH 4,25 | 0,97 / 24,5 | 61 |

| Contracrime Level B | Class of Resistance | Glazing Single Pane Insulated | CC Type | Thickness of glass inch/mm | Weight pounds per sq. yard |
|---|---------------------|-------------------------------|-----------|----------------------------|----------------------------|
| Exclusive Homes, Parts of Shopping Malls, Photo and Video stores, Drug Stores | B 1 | Single | B 1,14 | 0,71 / 18 | 79 |
| | | Insulated | B 1,23 WS | 1,26 / 32 | 97 |
| Museums, Art Galleries, Psychiatric Institutions, Abortion Clinics | B 2 | Single | B 2,15 | 0,95 / 24 | 102 |
| | | Insulated | B 2,26 WS | 1,5 / 38 | 121 |
| Data Centers, Jewelers, Energy Plants, Prisons, Banks | B 3 | Single | B 3,19 | 1,1 / 27 | 108 |
| | | Insulated | B 3,31 WS | 1,62 / 41 | 126 |

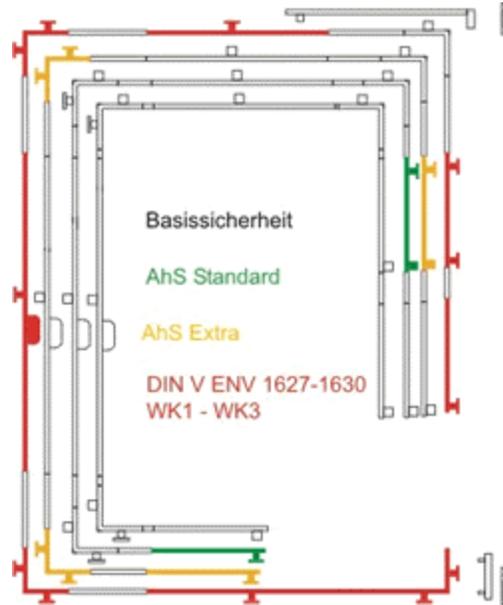
The right side picture shows a typical A 3 glazing



Different lamination levels



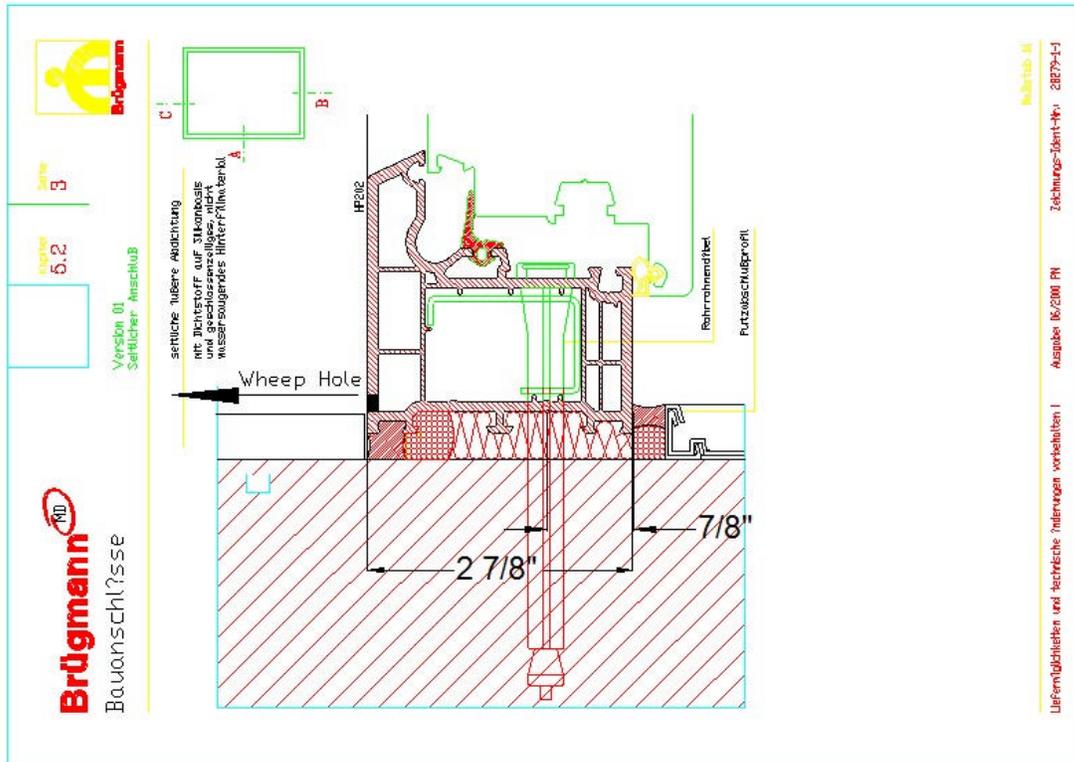
All of our security levels incorporate a minimum of 7 cam locks per opening (red)



The MD window and door system uses exclusively Tilt & Turn opening mechanism: A 90-degree turn of the handle opens the window like a casement, for easy egress/regress and also for easy cleaning. Another turn of 90 degree will tilt the window inside on top. This allows for superior ventilation while still providing a measure of security and also keeping rain out.



Typical installation detail: Note the hardened steel bolts used to mount the frame to the substrate. After installation, all units are also completely sealed with high-grade Polyurethane Foam, thus maintaining a solid thermal & sound barrier.



For more information, please visit our website at: www.swissshade.com

Or call us for a catalog at: 520 822 1982 Fax: 520 822 1649