## ULLRCHALUMINIUM



## Extrusions

## EDITION 16

## The Ullrich Aluminium Extrusion Process

Extrusion Production is by far the most complex and dedicated phase in the process of providing our extruded profiles. It requires the specific technology, technical skills and experience gained from our decades long history as a family owned company to achieve this.

The extensive process moves from the creation of specific Steel Dies (matrices), whose design is entrusted to expert technicians, assisted by the most modern means of CAD two-dimensional and three-dimensional shape designs. During the extrusion process the suitably preheated Aluminium Billets are pushed under pressure by the ram of our press through the designed Die, this then transforms the extrusion into long profiled lengths by one of our three presses which vary in power, from 2000 to 2500 tons.

Ullrich Aluminium has the production capacity to supply small, medium and large profiles up to 15.4 metres in length, and 10 kg per metre in weight. The extrusion is produced in compliance to the working tolerances of the AS/NZS 1866 Standard. That ensures the assembly of finished components and facilitates the obtainment of quality certification of the final product.

After their extrusion, the profiled sections are subjected to Straightening (stretching), a process that brings profiles within the required lineal tolerances. Then once cut to the required length they are transferred into special ageing ovens for the tempering process, which achieves their optimal tensile strengths. The packing stations are the final phase in the production line, where the profiles are packed and protected in preparation for the subsequent stages of storage, transport or delivery to destination.

Ullrich Aluminium constantly strives to offer its customers valuable assistance, aimed at optimising an outcome in which to achieve the best possible design, processing and execution times for the profiles. We also strive to provide a positive response to different needs of a technical or aesthetic nature.

Our in-house developed production control system makes it possible to track the requests submitted by the customer and to monitor the progress of the project during the production process. This tracking can be beneficial for our numerous Australian, New Zealand and Export clients.

When you need Extruded Aluminium Products think of Ullrich Aluminium as your first stop for assistance on your journey forward. Our 46 facilities in all major cities and regions of Australia and New Zealand will be pleased to provide you with a quality of service experience.

Kind Regards

Gilbert Ullrich
CEO

# ULLRICH ALUMINIUM EXTRUSION CATALOGUE 

## EDITION I 6

## A COMPREHENSIVE CATALOGUE <br> OF ALUMINIUM EXTRUSIONS

FROM THE ULLEXCO DIVISION OF
ULLRICH ALUMINIUM COMPANY LTD,
A 100\% NEW ZEALAND OWNED AND
OPERATED COMPANY
"Ullexco will meet all customer requirements
to ISO 900 I and is committed to achieving
continual improvement across all aspects of our quality management system."


GilbertW Ullrich
CEO
2018

Ullrich Aluminium Company Ltd
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| Acknowledgments |  |
| Every effort has been made to ensure accuracy |  |
| and the most up-to-date information in the |  |
| compilation of this catalogue. However, Ullich |  |
| Aluminium Company Ltd does not accept |  |

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| UA 6965 | I-24 | UA 7252 | 16-1 | UA 7420 | 1-17 | UA 7788 | 12-8 |
| AUS/UA 6969 | 18-4 | UA 7253 | 16-2 | UA 7425 | 12-2 | UA 7803 | 1-14 |
| AUS/UA 6970 | 18-4 | UA 7254 | 16-2 | UA 7430 | 1-17 | UA 7827 | 8-3 |
| AUS/UA 6971 | 18-4 | UA 7255 | 16-2 | UA 7433 | 1-7 | UA 7828 | 8-4 |
| UA 6975 | 14-1 | UA 7256 | 16-3 | UA 7435 | 1-17 | UA 7829 | 8-2 |
| UA 7007 | 9-2 | UA 7257 | 16-3 | UA 7440 | 1-17 | UA 7837 | 14-2 |
| UA 7007 | 9-4 | UA 7258 | 16-1 | UA 7446 | 13-6 | UA 7840 | 16-3 |
| UA 7008 | 9-2 | UA 7259 | 16-1 | UA 7447 | 13-6 | UA 7868 | 14-1 |
| UA 7008 | 9-4 | UA 7260 | 16-1 | UA 7450 | 1-17 | UA 7891 | 5-4 |
| UA 7023 | 13-7 | UA 7261 | 16-1 | UA 7452 | 12-4 | UA 7892 | 5-4 |
| UA 7024 | 13-7 | UA 7262 | 16-1 | UA 7454 | I-II | UA 7893 | I-12 |
| UA 7025 | 16-9 | UA 7263 | 16-1 | UA 7461 | 12-4 | UA 7893 | 5-4 |
| UA 7069 | I-24 | UA 7264 | 16-3 | UA 7524 | 1-13 | UA 7894 | 1-7 |
| UA 7070 | 17-1 | UA 7265 | 16-3 | UA 7525 | 1-9 | AUS 8005 | 1-15 |
| UA 7071 | 17-1 | UA 7266 | 16-3 | UA 7558 | 15-1 | AUS 8006 | I-5 |
| UA 7072 | 5-3 | UA 7267 | 16-1 | UA 7559 | 15-1 | AUS 8007 | 1-9 |
| UA 7085 | 21-2 | UA 7268 | 16-1 | UA 7560 | 15-1 | AUS 8029 | 12-5 |
| UA 7086 | 21-1 | UA 7268 | 16-3 | UA 7561 | 15-1 | AUS 8030 | 1-9 |
| UA 7087 | 21-1 | UA 7269 | 16-1 | UA 7562 | 15-1 | AUS 8031 | 1-17 |
| UA 7088 | $21-1$ | UA 7269 | 16-3 | UA 7563 | 15-1 | AUS 8049 | I-II |
| UA 7089 | 21-1 | UA 7270 | 16-3 | UA 7564 | 15-I | AUS 8109 | 1-25 |
| UA 7090 | $21-1$ | UA 7271 | 16-3 | UA 7565 | 15-1 | AUS 8109 | 20-7 |
| UA 7091 | 21-1 | UA 7272 | 16-3 | UA 7566 | 15-2 | AUS 8110 | 20-7 |
| UA 7092 | 21-1 | UA 7273 | 16-1 | UA 7567 | 15-2 | AUS 8111 | 20-7 |
| UA 7092 | 21-6 | UA 7274 | 16-2 | UA 7568 | 15-2 | AUS 8117 | 1-6 |
| UA 7094 | 14-4 | UA 7275 | 16-2 | UA 7569 | 15-2 | AUS 8163 | 1-14 |
| UA 7095 | 14-4 | UA 7276 | 16-4 | UA 7570 | 15-2 | AUS 8169 | I-25 |
|  |  | UA 7277 | 16-4 | UA 7571 | 15-2 | AUS 8179 | I-24 |
|  |  | UA 7278 | 16-4 | UA 7572 | 15-2 | AUS 8196 | 1-23 |
|  | IIAGRAMS ACTUAL SIZE UNLES THERWISE INDICATED. AGRAMS ARE SCHEMATIC ONL SPECIFICATION OAD = OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY | UA 7279 | 16-4 | UA 7573 | 15-2 | AUS 8214 | 21-4 |





```
EQUAL ANGLE
UNEQUAL ANGLE
CHANNEL
SQUARE HOLLOW
RECTANGULAR HOLLOW
EXTRUDED ROUND TUBE
DRAWN ROUNDTUBE
SOLID ROUND
SOLID SQUARE
SOLID HEXAGON
SOLID FREE MACHINING ROD
MACHINING FLAT BAR
FLAT BAR
TEE
HALF ROUND
COPE MOULD
ZED
I BEAM
TOP HAT
```


$R=$ Radiused corner


DIAGRAMS ACTUAL SIZE UNIESS
OTHERWISE NDICATED

| DIE No. | A | B | C | D RI | R2 | R3 | kg/m | P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UA 2071 | 10.00 |  | 1.60 |  |  |  | 0.080 | 40 |
| UA 1090 | 12.00 |  | 1.60 |  |  |  | 0.097 | 48 |
| UA 1097 | 12.00 |  | 3.00 |  |  |  | 0.170 | 48 |
| UA 1091 | 15.00 |  | 1.60 |  |  |  | 0.123 | 60 |
| UA 1092 | 20.00 |  | 1.60 |  |  |  | 0.166 | 80 |
| UA IIOI | 20.00 |  | 3.00 |  |  |  | 0.299 | 80 |
| UA 5505 | 22.00 |  | 1.60 |  |  |  | 0.183 | 88 |
| UA 1094 | 25.00 |  | 1.60 |  |  |  | 0.210 | 100 |
| UA II 03 | 25.00 |  | 3.00 |  |  |  | 0.382 | 100 |
| UA III3 | 25.00 |  | 4.50 |  |  |  | 0.555 | 100 |
| UA II 21 | 25.00 |  | 6.00 |  |  |  | 0.715 | 100 |
| UA 1096 | 30.00 |  | 1.60 |  |  |  | 0.253 | 120 |
| UA II 05 | 30.00 |  | 3.00 |  |  |  | 0.463 | 120 |
| UA 1612 | 30.00 |  | 4.50 |  |  |  | 0.677 | 120 |
| UA 1532 | 30.00 |  | 6.00 |  |  |  | 0.875 | 120 |
| UA 2503 | 30.00 |  | 6.00 | 3.00 | 1.50 | F | 0.850 | 113 |
| AUS 6496 | 32.00 |  | 1.60 |  |  |  | 0.269 | 128 |
| UA 5854 | 32.00 |  | 3.00 | 0.50 | 0.50 | 0.50 | 0.494 | 127 |
| AUS 8942 | 35.00 |  | 2.00 |  |  |  | 0.367 | 140 |
| UA 2812 | 35.00 |  | 4.50 |  |  |  | 0.799 | 140 |
| UA 6877 | 38.00 |  | 1.45 |  |  |  | 0.291 | 152 |
| UA 1613 | 38.10 |  | 4.75 |  |  |  | 0.919 | 152 |
| UA 1099 | 40.00 |  | 1.60 |  |  |  | 0.340 | 160 |
| UA II 07 | 40.00 |  | 3.00 |  |  |  | 0.626 | 160 |
| AUS 8447 | 40.00 |  | 4.00 |  |  |  | 0.821 | 160 |
| UA III4 | 40.00 |  | 4.50 |  |  |  | 0.920 | 160 |
| UA II 22 | 40.00 |  | 6.00 |  |  |  | 1.203 | 160 |
| UA 2502 | 40.00 |  | 6.00 | 3.00 | 1.50 | F | 1.178 | 153 |
| UA 1100 | 50.00 |  | 1.60 |  |  |  | 0.426 | 200 |
| UA 2714 | 50.00 |  | 2.00 |  |  |  | 0.531 | 200 |
| UA IIIO | 50.00 |  | 3.00 |  |  |  | 0.785 | 200 |
| UA 5279 | 50.00 |  | 4.00 | 0.50 | 0.50 | 0.50 | 1.036 | 199 |
| UA III6 | 50.00 |  | 4.50 |  |  |  | 1.160 | 200 |
| UA II 23 | 50.00 |  | 6.00 |  |  |  | 1.523 | 200 |
| UA 3089 | 50.00 |  | 6.00 | 0.50 | 6.00 | 0.50 | 1.543 | 197 |
| UA II29 | 50.00 |  | 9.00 |  |  |  | 2.219 | 200 |
| AUS 8965 | 50.08 |  | 6.35 |  | 6.10 |  | 1.654 | 200 |
| AUS 6495 | 60.00 |  | 3.00 | 0.50 | 0.50 | 0.50 | 0.947 | 239 |
| UA 171] | 60.00 |  | 6.00 |  |  |  | 1.853 | 240 |
| UA II24 | 65.00 |  | 6.00 |  |  |  | 2.016 | 260 |
| UA 2167 | 75.00 |  | 3.00 |  |  |  | 1.195 | 300 |
| UA 1526 | 75.00 |  | 4.50 |  |  |  | 1.768 | 300 |
| UA II 26 | 75.00 |  | 6.00 |  |  |  | 2.341 | 300 |
| UA 1527 | 75.00 |  | 9.00 |  |  |  | 3.426 | 300 |
| AUS 8953 | 76.20 |  | 6.35 |  | 7.62 |  | 2.537 | 301 |


| DIE No. | A | B | C | D RI | R2 | R3 | $\mathbf{k g} / \mathbf{m}$ | P |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| AUS 890I | 76.20 |  | 9.52 | 0.50 | 7.60 |  | 3.705 | 301 |
| UA I7I2 | 80.00 |  | 6.00 |  |  |  | 2.504 | 320 |
| UA II27 | 90.00 |  | 6.00 |  |  |  | 2.829 | 360 |
| UA III8 | 100.00 |  | 6.00 |  |  |  | 3.143 | 400 |
| AUS IO58I | 100.00 |  | 10.00 | 0.80 | 0.50 | 0.80 | 5.128 | 399 |
| AUS 834I | 150.00 |  | 6.00 |  | 6.00 |  | 4.783 | 597 |


$R=$ Radiused corner

$R=$ Radiused corner


DIAGRAMS ACTUAL SIZE UNLESS
DIAGRAMS ACTUAL SIZE
OTHERWISE INDICATED.

| DIE No. | A | B | C | D RI | R2 | R3 | kg/m | P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UA 1533 | 19.05 | 9.53 | 1.59 |  |  |  | 0.116 | 57 |
| UA 1731 | 20.00 | 12.00 | 1.60 |  |  |  | 0.131 | 64 |
| UA 1102 | 22.00 | 12.00 | 3.00 |  |  |  | 0.252 | 68 |
| UA 5504 | 22.00 | 18.00 | 1.60 |  |  |  | 0.166 | 80 |
| UA 1534 | 22.23 | 9.53 | 1.59 |  |  |  | 0.130 | 64 |
| UA 1093 | 25.00 | 12.00 | 1.60 |  |  |  | 0.153 | 74 |
| UA 1535 | 25.00 | 12.00 | 3.00 |  |  |  | 0.276 | 74 |
| UA 1857 | 25.00 | 19.00 | 1.20 |  |  |  | 0.138 | 88 |
| UA 1732 | 25.00 | 20.00 | 1.60 |  |  |  | 0.187 | 90 |
| UA 1529 | 25.00 | 20.00 | 3.00 |  |  |  | 0.340 | 90 |
| UA 3339 | 30.00 | 12.00 | 4.50 | 0.50 |  | 0.50 | 0.455 | 83 |
| UA 1530 | 30.00 | 20.00 | 1.60 |  |  |  | 0.209 | 100 |
| UA I 104 | 30.00 | 20.00 | 3.00 |  |  |  | 0.382 | 100 |
| UA 1095 | 30.00 | 25.00 | 1.60 |  |  |  | 0.231 | 110 |
| UA 1531 | 30.00 | 25.00 | 2.50 |  |  |  | 0.354 | 110 |
| UA 2943 | 32.00 | 20.00 | 1.60 |  |  |  | 0.218 | 104 |
| UA 5910 | 32.00 | 25.00 | 3.00 |  |  |  | 0.437 | 114 |
| UA 1524 | 38.00 | 25.00 | 3.00 |  |  |  | 0.488 | 126 |
| UA 1651 | 40.00 | 12.00 | 1.60 |  |  |  | 0.218 | 104 |
| UA 4556 | 40.00 | 12.00 | 3.00 |  |  |  | 0.397 | 104 |
| UA 1098 | 40.00 | 20.00 | 1.60 |  |  |  | 0.253 | 120 |
| UA 4493 | 40.00 | 20.00 | 3.00 |  |  |  | 0.461 | 120 |
| UA 2295 | 40.00 | 20.00 | 4.00 | 0.50 |  | 0.50 | 0.604 | 119 |
| UA 1068 | 40.00 | 25.00 | 1.60 |  |  |  | 0.275 | 130 |
| UA I 106 | 40.00 | 25.00 | 3.00 |  |  |  | 0.504 | 130 |
| UA 2599 | 42.00 | 25.00 | 2.00 |  |  |  | 0.351 | 134 |
| UA 1926 | 50.00 | 20.00 | 1.60 |  |  |  | 0.295 | 140 |
| UA I 108 | 50.00 | 20.00 | 3.00 |  |  |  | 0.544 | 140 |
| UA 2848 | 50.00 | 25.00 | 1.60 |  |  |  | 0.318 | 150 |
| UA I 109 | 50.00 | 25.00 | 3.00 |  |  |  | 0.585 | 150 |
| UA 1974 | 50.00 | 30.00 | 1.60 |  |  |  | 0.340 | 160 |
| UA III5 | 50.00 | 40.00 | 4.50 |  |  |  | 1.042 | 180 |
| UA 2378 | 60.00 | 30.00 | 6.00 |  |  |  | 1.361 | 180 |
| UA 3031 | 60.00 | 30.00 | 6.00 | 3.00 | 1.50 | F | 1.336 | 173 |
| UA IIII | 65.00 | 25.00 | 3.00 |  |  |  | 0.707 | 180 |
| UA 2776 | 70.00 | 25.00 | 2.00 |  |  |  | 0.504 | 190 |
| UA 5938 | 70.00 | 40.00 | 1.60 |  |  |  | 0.468 | 220 |
| UA III2 | 75.00 | 25.00 | 3.00 |  |  |  | 0.788 | 200 |
| UA 3785 | 75.00 | 25.00 | 6.00 | 0.50 |  | 0.50 | 1.522 | 199 |
| UA 3504 | 75.00 | 30.00 | 4.50 | 0.50 |  | 0.50 | 1.220 | 209 |
| UA 1525 | 75.00 | 50.00 | 3.00 |  |  |  | 0.988 | 250 |
| UA 1117 | 75.00 | 50.00 | 4.50 |  |  |  | 1.469 | 250 |
| UA II 25 | 75.00 | 50.00 | 6.00 |  |  |  | 1.935 | 250 |
| AUS 8952 | 76.20 | 50.80 | 6.35 |  | 6.86 |  | 2.095 | 251 |
| AUS 10440 | 80.00 | 20.00 | 3.00 |  |  |  | 0.785 | 199 |
| UA 3100 | 85.00 | 20.00 | 3.00 |  |  |  | 0.826 | 210 |


| DIE No. | A | B | C | D RI | R2 | R3 | kg/m | P |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UA 1614 | 90.00 | 60.00 | 6.00 |  |  |  | 2.341 | 300 | $\longleftarrow$ A |
| UA 1615 | 90.00 | 65.00 | 6.00 |  |  |  | 2.422 | 310 |  |
| UA 4688 | 100.00 | 25.00 | 2.00 |  |  |  | 0.664 | 250 |  |
| UA 3870 | 100.00 | 25.00 | 3.00 |  |  |  | 0.988 | 250 | B |
| UA 2078 | 100.00 | 50.00 | 2.00 |  |  |  | 0.802 | 300 | $\downarrow$ R2 |
| UA 2048 | 100.00 | 50.00 | 3.00 |  |  |  | 1.195 | 300 | $\rightarrow \mathrm{C}$ |
| UA 2805 | 100.00 | 50.00 | 4.50 |  |  |  | 1.774 | 300 |  |
| UA III9 | 100.00 | 50.00 | 6.00 |  |  |  | 2.333 | 300 |  |
| UA 3537 | 100.00 | 75.00 | 6.00 | 11.00 | 5.00 | F | 2.661 | 338 | $\mathrm{R}=$ Radiused corner |
| UA 3861 | 100.00 | 75.00 | 8.00 | 0.50 |  | 0.50 | 3.606 | 347 |  |
| UA 1528 | 100.00 | 75.00 | 12.00 |  |  |  | 5.281 | 350 |  |
| UA 5335 | 115.00 | 75.00 | 9.00 |  |  |  | 4.398 | 380 |  |
| UA 2984 | 125.00 | 40.00 | 6.00 |  |  |  | 2.585 | 330 |  |
| UA 4589 | 130.00 | 54.00 | 2.00 |  |  |  | 0.983 | 368 |  |
| UA 6468 | 150.00 | 75.00 | 3.00 | 0.50 | 0.50 | 0.50 | 1.798 | 449 |  |
| UA II 20 | 150.00 | 75.00 | 6.00 |  |  |  | 3.548 | 450 |  |
| UA II 28 | 150.00 | 75.00 | 9.00 |  |  |  | 5.268 | 450 |  |
| AUS 10146 | 150.00 | 100.00 | 3.00 | 0.50 | 0.50 | 0.50 | 2.000 | 499 |  |
| AUS 8254 | 200.00 | 40.00 | 3.50 |  |  |  | 2.235 | 480 |  |



$R=$ Radiused corner

DIAGRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY AND NOT INTENDED AS SPECIFICATION DRAWINGS.
OAD $=$ OVERAII DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY

| DIE No. | A | B | C | D | RI | R2 | R3 | kg/m | P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UA 3768 | 9.50 | 13.00 | 2.40 | 1.60 |  |  |  | 0.153 | 66 |
| UA II30 | 10.00 | 10.00 | 1.60 | 1.60 |  |  |  | 0.116 | 57 |
| UA 1374 | 10.00 | 15.00 | 1.60 | 1.50 |  |  |  | 0.151 | 76 |
| UA 1713 | 12.00 | 12.00 | 1.60 | 1.60 |  |  |  | 0.142 | 68 |
| UA II34 | 12.00 | 12.00 | 2.50 | 2.50 |  |  |  | 0.210 | 67 |
| UA II3I | 12.00 | 18.00 | 1.60 | 1.60 |  |  |  | 0.193 | 92 |
| UA 4077 | 12.00 | 20.00 | 2.50 | 2.50 |  |  |  | 0.317 | 99 |
| UA 1383 | 12.50 | 9.00 | 1.30 | 1.30 |  |  |  | 0.093 | 58 |
| UA 1384 | 12.50 | 13.00 | 1.30 | 1.20 |  |  |  | 0.120 | 74 |
| UA 1609 | 14.50 | 14.50 | 1.35 | 1.35 |  |  |  | 0.149 | 85 |
| UA 2803 | 15.10 | 18.10 | 1.80 | 1.80 | 0.90 |  | F | 0.230 | 97 |
| UA 1616 | 16.00 | 8.00 | 1.60 | 1.60 |  |  |  | 0.124 | 61 |
| UA II32 | 16.00 | 11.00 | 1.60 | 1.60 |  |  |  | 0.151 | 72 |
| UA 3614 | 16.20 | 16.20 | 1.60 | 1.60 |  |  |  | 0.196 | 94 |
| UA II37 | 17.00 | 12.00 | 3.00 | 3.00 |  |  |  | 0.284 | 76 |
| UA 1560 | 17.46 | 31.75 | 2.54 | 2.54 |  |  |  | 0.520 | 157 |
| UA 3228 | 18.00 | 22.00 | 2.00 | 2.00 | 1.00 |  |  | 0.312 | 119 |
| UA 1568 | 19.05 | 19.05 | 2.50 | 2.50 |  |  |  | 0.353 | 109 |
| AUS 6733 | 20.00 | 16.00 | 1.60 | 1.60 |  |  |  | 0.210 | 100 |
| UA 7400 | 20.00 | 18.20 | 1.50 | 1.50 |  |  |  | 0.216 | 109 |
| AUS 8006 | 20.00 | 20.00 | 1.60 | 1.60 |  |  |  | 0.245 | 116 |
| UA 1617 | 20.00 | 20.00 | 3.00 | 3.00 |  |  |  | 0.439 | 114 |
| UA 1567 | 22.00 | 12.00 | 1.50 | 1.50 |  |  |  | 0.174 | 89 |
| UA II38 | 22.00 | 22.00 | 3.00 | 3.00 |  |  |  | 0.487 | 126 |
| UA 1561 | 22.23 | 12.70 | 1.588 | 1.588 |  |  |  | 0.190 | 92 |
| UA 1806 | 24.00 | 13.00 | 1.20 | 1.20 | 1.70 | 0.50 |  | 0.152 | 96 |
| UA 3482 | 25.00 | 12.00 | 3.00 | 3.00 |  |  |  | 0.348 | 92 |
| UA 2947 | 25.00 | 20.00 | 1.60 | 1.60 |  |  |  | 0.268 | 126 |
| UA II39 | 25.00 | 22.00 | 3.00 | 3.00 |  |  |  | 0.512 | 132 |
| UA 1573 | 25.00 | 25.00 | 1.40 | 1.40 |  |  |  | 0.273 | 148 |
| UA II33 | 25.00 | 25.00 | 1.60 | 1.60 |  |  |  | 0.310 | 146 |
| UA II40 | 25.00 | 25.00 | 3.00 | 3.00 |  |  |  | 0.561 | 144 |
| UA 5214 | 25.00 | 27.00 | 8.00 | 6.00 | 0.50 |  | 0.50 | 1.155 | 141 |
| AUS 8943 | 25.00 | 40.00 | 3.00 | 3.00 |  |  |  | 0.801 | 203 |
| UA 3227 | 25.00 | 50.00 | 2.00 | 2.00 |  |  |  | 0.653 | 246 |
| UA 1654 | 25.00 | 50.00 | 3.00 | 3.00 |  |  |  | 0.967 | 244 |
| UA 2959 | 29.80 | 50.00 | 2.20 | 2.20 | 0.50 | 0.50 | 0.50 | 0.747 | 254 |
| UA 5756 | 30.00 | 15.00 | 2.00 | 2.00 |  |  |  | 0.302 | 115 |
| UA 1141 | 30.00 | 25.00 | 3.00 | 3.00 |  |  |  | 0.601 | 154 |
| UA 3226 | 30.00 | 50.00 | 2.00 | 2.00 |  |  |  | 0.680 | 256 |
| UA 2244 | 32.00 | 20.00 | 3.00 | 3.00 |  |  |  | 0.534 | 137 |
| AUS 5907 | 32.00 | 25.00 | 3.00 | 3.00 |  |  |  | 0.615 | 157 |
| UA 5540 | 32.00 | 30.00 | 3.00 | 1.50 |  |  |  | 0.478 | 178 |
| UA II42 | 40.00 | 12.00 | 3.00 | 3.00 |  |  |  | 0.471 | 122 |
| UA 3615 | 40.00 | 16.50 | 1.50 | 1.50 |  |  |  | 0.265 | 143 |
| UA II43 | 40.00 | 20.00 | 3.00 | 3.00 |  |  |  | 0.601 | 154 |


| DIE No. | A | B | C | D | RI | R2 | R3 | kg/m | P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UA 1655 | 40.00 | 25.00 | 3.00 | 3.00 |  |  |  | 0.680 | 174 |
| AUS 8944 | 40.00 | 40.00 | 3.00 | 3.00 |  |  |  | 0.923 | 233 |
| AUS 8117 | 40.00 | 100.00 | 6.00 | 6.00 | 1.00 | 6.00 | 1.00 | 3.732 | 461 |
| AUS 8223 | 41.00 | 26.00 | 1.50 | 1.50 |  |  |  | 0.364 | 183 |
| AUS 6907 | 43.20 | 25.40 | 1.60 | 1.60 |  |  | F | 0.391 | 184 |
| UA II44 | 45.00 | 25.00 | 3.00 | 3.00 |  |  |  | 0.723 | 184 |
| UA 1043 | 47.00 | 17.00 | 1.50 | 1.40 |  |  | F | 0.307 | 158 |
| UA II 45 | 50.00 | 25.00 | 3.00 | 3.00 |  |  |  | 0.764 | 194 |
| UA 3061 | 50.00 | 25.00 | 6.00 | 6.00 |  |  |  | 1.425 | 188 |
| AUS 6494 | 50.00 | 50.00 | 3.00 | 3.00 | 0.50 | 0.50 | 0.50 | 1.166 | 293 |
| UA 1562 | 50.80 | 34.92 | 3.175 | 3.175 |  |  |  | 0.980 | 235 |
| AUS 6621 | 53.00 | 25.00 | 1.50 | 1.50 | 0.50 | 0.50 | 0.50 | 0.404 | 202 |
| UA 6878 | 55.00 | 25.00 | 1.45 | 1.45 |  |  |  | 0.399 | 207 |
| UA 3839 | 55.00 | 25.00 | 3.00 | 2.00 |  |  | F | 0.680 | 203 |
| UA I 148 | 57.00 | 30.00 | 4.00 | 4.00 |  |  |  | 1.181 | 226 |
| UA 6929 | 60.00 | 25.00 | 3.00 | 3.00 |  |  |  | 0.842 | 213 |
| UA 1563 | 63.50 | 31.75 | 4.763 | 4.763 |  |  |  | 1.510 | 244 |
| UA 2169 | 70.00 | 30.00 | 2.50 | 2.50 |  | 1.00 |  | 0.848 | 254 |
| UA 1671 | 75.00 | 25.00 | 3.00 | 3.00 |  |  |  | 0.964 | 244 |
| UA 1862 | 75.00 | 40.00 | 3.00 | 3.00 |  |  |  | 1.207 | 304 |
| UA II 47 | 75.00 | 40.00 | 4.50 | 4.50 |  |  |  | 1.774 | 301 |
| UA 5251 | 75.00 | 40.00 | 6.00 | 6.00 | 0.50 | 0.50 | 0.50 | 2.316 | 297 |
| UA II 49 | 75.00 | 40.00 | 6.00 | 8.00 |  |  |  | 2.693 | 298 |
| UA 1565 | 75.00 | 50.00 | 4.50 | 4.50 |  |  |  | 2.017 | 341 |
| UA 1656 | 75.00 | 50.00 | 6.00 | 6.00 |  |  |  | 2.650 | 338 |
| UA 1564 | 76.20 | 19.05 | 3.18 | 3.18 |  |  |  | 0.930 | 222 |
| UA 5303 | 76.20 | 38.10 | 6.35 | 7.92 |  | 7.62 |  | 2.731 | 285 |
| UA 2948 | 80.00 | 25.00 | 3.00 | 3.00 |  |  |  | 1.008 | 254 |
| AUS 5908 | 80.00 | 40.00 | 3.00 | 3.00 |  |  |  | 1.247 | 313 |
| UA 3506 | 80.00 | 40.00 | 4.00 | 4.00 |  |  |  | 1.641 | 312 |
| UA 3206 | 87.60 | 45.00 | 4.50 | 4.50 |  |  |  | 2.048 | 346 |
| UA II 50 | 90.00 | 40.00 | 6.00 | 8.00 |  |  |  | 2.937 | 328 |
| UA 7409 | 99.00 | 25.00 | 2.00 | 2.00 | 0.50 | 0.50 | 0.50 | 0.782 | 292 |
| UA II35 | 100.00 | 25.00 | 3.00 | 3.00 |  |  |  | 1.170 | 294 |
| UA 7171 | 100.00 | 38.00 | 3.00 | 3.00 |  |  |  | 1.376 | 345 |
| UA 1136 | 100.00 | 40.00 | 3.00 | 3.00 |  |  |  | 1.414 | 354 |
| UA 3130 | 100.00 | 50.00 | 3.00 | 3.00 |  |  |  | 1.571 | 394 |
| UA II 46 | 100.00 | 50.00 | 4.50 | 4.50 |  |  |  | 2.320 | 391 |
| UA 1566 | 100.00 | 50.00 | 6.00 | 6.00 |  |  |  | 3.056 | 388 |
| UA 1652 | 100.00 | 50.00 | 6.00 | 8.00 |  |  |  | 3.534 | 388 |
| UA 2464 | 100.00 | 50.00 | 6.00 | 8.00 | 8.00 | 6.00 |  | 3.488 | 376 |
| UA 5723 | 101.60 | 50.80 | 6.35 | 7.90 | 0.50 | 0.50 | 0.50 | 3.638 | 392 |
| AUS 8596 | 101.60 | 50.80 | 6.35 | 7.90 | 0.50 | 9.00 | 0.50 | 3.731 | 385 |
| AUS 5901 | 102.00 | 100.00 | 5.00 | 5.00 |  | 3.00 |  | 3.952 | 591 |


$R=$ Radiused corner


$R=$ Radiused corner

| DIE No. | A | B | C | D | RI | R2 | R3 | kg/m | P |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| AUS 8704 | 103.50 | 40.00 | 3.00 | 3.00 | $I .00$ |  | $I .00$ | $I .434$ | 359 |
| UA 7433 | $I I I .00$ | 27.00 | 2.00 | 2.00 |  |  |  | 0.869 | 325 |
| AUS 6458 | $I 17.00$ | 25.40 | 2.50 | 1.50 |  | 1.25 | $F$ | 0.976 | 328 |
| UA 2804 | 120.00 | 65.00 | 12.00 | 12.00 | 0.50 | 0.50 | 0.50 | 7.349 | 475 |
| UA 5302 | 125.00 | 50.00 | 4.00 | 8.00 | 2.00 | 2.00 | 2.00 | 3.328 | 436 |
| UA 5058 | 125.00 | 50.00 | 6.00 | 8.00 | 0.50 | 0.50 | 0.50 | 3.925 | 437 |
| AUS 8289 | 127.00 | 63.50 | 6.35 | 9.53 | 10.67 |  | 5.250 | 486 |  |
| AUS 6665 | 132.00 | 91.00 | 10.00 | 10.00 | 10.00 | 10.00 | BEV | 7.916 | 588 |
| UA 5187 | 140.00 | 55.00 | 6.00 | 8.00 | 0.50 | 5.00 | 0.50 | 4.413 | 483 |
| UA 7894 | 142.00 | 75.00 | 6.00 | 6.00 | 0.50 | 0.50 | 0.50 | 4.535 | $57 I$ |
| UA 1653 | 150.00 | 75.00 | 6.00 | 8.00 |  |  |  | 5.410 | 588 |
| UA 5099 | 160.00 | 60.00 | 6.00 | 9.00 | 0.50 | 3.00 | 0.50 | 5.226 | 545 |
| AUS 6666 | 180.00 | 102.00 | 10.00 | 10.00 | 10.00 | 10.00 | BEV | 9.806 | 728 |



$R=$ Radiused corner

| DIE No. | A | B | C | D R I | R2 | R3 | kg/m | P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UA 4662 | 40.00 | 3.00 |  | 3.00 | 2.00 |  | 1.187 | 155 |
| UA 2808 | 40.00 | 4.00 |  |  |  |  | 1.561 | 160 |
| UA 6249 | 40.00 | 4.00 |  | 3.00 |  |  | 1.534 | 155 |
| UA 2466 | 40.00 | 5.00 |  | 2.50 |  |  | 1.876 | 156 |
| UA 1049 | 45.00 | 2.00 |  |  |  |  | 0.929 | 180 |
| AUS 8007 | 50.00 | 1.60 |  |  |  |  | 0.836 | 200 |
| UA I208 | 50.00 | 1.60 |  | 1.00 |  |  | 0.834 | 199 |
| AUS 6462 | 50.00 | 1.60 |  | 6.30 | 4.70 |  | 0.796 | 190 |
| UA 2949 | 50.00 | 2.00 |  |  |  |  | 1.037 | 200 |
| AUS 8480 | 50.00 | 2.00 |  | 3.00 | 1.00 |  | 1.018 | 195 |
| UA 3298 | 50.00 | 2.00 |  | 4.00 | 2.00 |  | 1.009 | 194 |
| UA 5461 | 50.00 | 2.00 |  | 6.00 | 4.00 |  | 0.990 | 190 |
| UA 1214 | 50.00 | 3.00 |  |  |  |  | 1.523 | 200 |
| UA 4663 | 50.00 | 3.00 |  | 3.00 | 3.00 |  | 1.523 | 195 |
| UA 3178 | 50.00 | 3.00 |  | 4.00 | 1.00 |  | 1.488 | 194 |
| AUS 8457 | 50.00 | 3.00 |  | 5.00 | 2.00 |  | 1.474 | 192 |
| UA 2809 | 50.00 | 4.00 |  |  |  |  | 1.994 | 200 |
| AUS 8814 | 50.00 | 5.00 |  | 3.00 |  |  | 2.410 | 195 |
| UA 3068 | 50.00 | 5.00 |  | 4.00 | 4.00 |  | 2.439 | 194 |
| UA 5299 | 50.80 | 3.20 |  | 3.00 | 3.00 |  | 1.645 | 199 |
| UA 3346 | 60.00 | 3.00 |  |  |  |  | 1.847 | 240 |
| UA 4076 | 63.20 | 6.30 |  | 0.50 | 0.50 |  | 3.871 | 252 |
| UA 4664 | 65.00 | 3.00 |  | 5.00 | 5.00 |  | 2.009 | 252 |
| UA 1215 | 75.00 | 3.00 |  |  |  |  | 2.341 | 300 |
| UA 4832 | 75.00 | 3.00 |  | 4.45 | 6.30 |  | 2.379 | 293 |
| UA 7416 | 75.00 | 3.50 |  | 4.50 | 3.50 |  | 2.684 | 293 |
| UA 1547 | 75.00 | 4.50 |  |  |  |  | 3.696 | 300 |
| UA 6933 | 75.00 | 5.00 |  | 6.00 | 1.00 |  | 3.699 | 290 |
| UA 4075 | 76.00 | 6.30 |  | 0.50 | 0.50 |  | 4.742 | 304 |
| AUS 8030 | 76.20 | 6.35 |  | 15.90 | 9.55 |  | 4.416 | 278 |
| AUS 8741 | 90.00 | 3.00 |  | 3.00 | 1.00 |  | 2.800 | 355 |
| AUS 4483 | 100.00 | 3.00 |  | 10.00 | 7.00 |  | 3.025 | 383 |
| UA 1213 | 100.00 | 3.00 |  |  |  |  | 3.143 | 400 |
| UA 3350 | 100.00 | 3.50 |  | 5.00 | 1.50 |  | 3.595 | 392 |
| UA 4627 | 100.00 | 4.00 |  | 4.60 |  |  | 4.099 | 393 |
| UA 3825 | 100.00 | 4.50 |  |  |  |  | 4.641 | 400 |
| UA 4302 | 100.00 | 5.00 |  | 0.50 | 0.50 |  | 5.130 | 400 |
| UA 5721 | 100.00 | 6.00 |  | 12.00 | 6.00 |  | 5.841 | 380 |
| UA 7525 | 150.00 | 3.00 |  | 3.00 | 1.60 |  | 4.748 | 595 |

## $\begin{array}{llllllllll}\text { DIE No. A } & \text { B } & \text { C } & \text { D }\end{array}$


$R=$ Radiused corner

$R=$ Radiused corner


DIAGRAMS ACTUAL SIZE UNIESS

| DIE No. | A | B | C D | RI | R2 | R3 | kg/m | P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UA 7454 | 30.00 | 10.00 | 1.60 |  |  |  | 0.318 | 80 |
| UA 2696 | 30.00 | 20.00 | 1.40 v grooved | 2.00 | 1.00 |  | 0.349 | 98 |
| AUS 4088 | 35.00 | 25.00 | 1.40 | 3.00 | 1.60 |  | 0.418 | 115 |
| AUS 6626 | 38.00 | 25.00 | 1.50 | 3.00 | 1.50 |  | 0.470 | 121 |
| UA 498I | 38.00 | 25.00 | 1.60 | 1.00 |  |  | 0.514 | 125 |
| UA 6148 | 38.00 | 25.00 | 1.80 | 2.50 | 0.70 |  | 0.564 | 122 |
| UA 3619 | 38.00 | 25.00 | 2.00 | 1.00 |  |  | 0.635 | 125 |
| UA 5051 | 40.00 | 14.90 | 3.00 | 2.50 | 0.50 |  | 0.778 | 106 |
| UA 1988 | 40.00 | 20.00 | 1.60 |  |  |  | 0.491 | 120 |
| UA 5489 | 40.00 | 20.00 | 1.60 | 1.80 |  |  | 0.483 | 117 |
| AUS 8905 | 40.00 | 20.00 | 2.00 | 2.00 | 0.50 |  | 0.596 | 117 |
| UA 28II | 40.00 | 20.00 | 3.00 |  |  |  | 0.875 | 120 |
| UA 336I | 40.00 | 25.00 | 1.60 |  |  |  | 0.534 | 130 |
| UA 1979 | 40.00 | 25.00 | 2.00 |  |  |  | 0.659 | 130 |
| AUS 5718 | 40.00 | 25.00 | 2.50 | 0.50 | 0.50 |  | 0.810 | 130 |
| UA 2944 | 40.00 | 25.00 | 3.00 |  |  |  | 0.959 | 130 |
| UA 2806 | 40.00 | 30.00 | 2.50 |  |  |  | 0.877 | 140 |
| UA 6451 | 44.00 | 22.00 | 3.00 | 5.00 | 2.00 |  | 0.923 | 124 |
| UA 5361 | 45.00 | 30.00 | 2.00 | 3.00 | 1.00 |  | 0.748 | 145 |
| UA 4806 | 46.50 | 25.40 | 1.60 | 1.00 | 0.80 |  | 0.593 | 143 |
| UA 4772 | 50.00 | 25.00 | 1.60 | 1.60 |  |  | 0.614 | 148 |
| UA II97 | 50.00 | 25.00 | 2.50 |  |  |  | 0.948 | 150 |
| UA 5909 | 50.00 | 25.00 | 2.50 | 3.00 | 0.50 |  | 0.925 | 145 |
| UA 2945 | 50.00 | 25.00 | 3.00 |  |  |  | 1.122 | 150 |
| UA 4635 | 50.00 | 25.00 | 3.00 | 4.00 | 1.00 |  | 1.083 | 144 |
| UA 3067 | 50.00 | 25.00 | 5.00 | 4.00 | 4.00 |  | 1.762 | 144 |
| UA 2654 | 50.00 | 30.00 | 2.00 |  |  |  | 0.824 | 160 |
| UA 2461 | 50.00 | 38.00 | 2.00 | 3.00 | 1.00 |  | 0.889 | 171 |
| UA 2767 | 50.00 | 40.00 | 2.00 | 6.00 | 6.40 |  | 0.940 | 170 |
| UA 1200 | 50.00 | 40.00 | 3.00 |  |  |  | 1.361 | 180 |
| UA 472I | 50.00 | 40.00 | 3.00 | 10.00 | 7.00 |  | 1.243 | 163 |
| UA 2810 | 50.00 | 40.00 | 4.00 |  |  |  | 1.771 | 180 |
| AUS 10004 | 51.20 | 11.50 | 1.50 | 2.00 |  |  | 0.474 | 122 |
| UA 3066 | 60.00 | 25.00 | 5.00 | 4.00 | 4.00 |  | 2.033 | 164 |
| UA 3069 | 60.00 | 35.00 | 5.00 | 4.00 | 4.00 |  | 2.295 | 184 |
| UA 3344 | 60.00 | 40.00 | 3.00 |  |  |  | 1.523 | 200 |
| AUS 10085 | 62.00 | 50.00 | 1.60 | 0.50 |  |  | 0.940 | 224 |
| AUS 6506 | 65.00 | 16.00 | 1.20 | 3.00 | 1.80 |  | 0.496 | 157 |
| AUS 6507 | 65.00 | 16.00 | 1.40 | 3.00 | 1.60 |  | 0.576 | 157 |
| UA 3786 | 65.00 | 30.00 | 2.50 |  |  |  | 1.215 | 190 |
| UA 5169 | 65.00 | 50.00 | 2.50 | 4.00 | 1.50 |  | 1.453 | 224 |
| UA 2486 | 65.00 | 50.00 | 3.00 | 0.50 | 1.00 |  | 1.770 | 230 |
| AUS 8049 | 70.00 | 30.00 | 3.00 | 1.40 |  |  | 1.519 | 198 |
| UA 4849 | 75.00 | 25.00 | 1.60 |  |  |  | 0.836 | 200 |
| UA 7177 | 75.00 | 25.00 | 2.20 | 1.00 |  |  | 1.133 | 199 |


| DIE No. | A | B | C | D | RI | R2 | R3 | kg/m |
| :--- | ---: | ---: | ---: | :--- | :--- | :--- | :--- | :--- | P


$R=$ Radiused corner


$R=$ Radiused corner

| DIE No. | A | B | C | D | RI | R2 | R3 | kg/m |
| ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | P

DIAGRAMS ACTUAL SIZE UNLESS
OTHERWISE INDICATED.
DIAGRAMS ARE SCHEMATIC ONLY
AND NOT INTENDED AS
SPECFICATION DRAWING
OAD $=$ OVERALL DIMENSIONS
$\mathbf{P}=$ EXT PERIPHERY
© Uulrichaluminum coltd

| DIE No. | A | B | C | D RI | R2 | R3 | kg/m | P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UA 1924 | 6.35 | 1.42 |  |  |  |  | 0.059 | 20 |
| UA 1542 | 7.94 | 1.42 |  |  |  |  | 0.079 | 25 |
| UA 1966 | 9.53 | 0.90 |  |  |  |  | 0.066 | 30 |
| UA 1737 | 9.53 | 1.20 |  |  |  |  | 0.085 | 30 |
| UA 1229 | 9.53 | 1.45 |  |  |  |  | 0.099 | 30 |
| UA 1927 | 9.53 | 1.60 |  |  |  |  | 0.108 | 30 |
| UA 2028 | 12.70 | 0.90 |  |  |  |  | 0.090 | 40 |
| UA 3464 | 12.70 | 1.20 |  |  |  |  | 0.115 | 40 |
| UA 1230 | 12.70 | 1.45 |  |  |  |  | 0.138 | 40 |
| UA 4153 | 12.70 | 2.20 |  |  |  |  | 0.196 | 40 |
| UA 5105 | 15.50 | 1.42 |  |  |  |  | 0.170 | 49 |
| UA 2815 | 15.85 | 1.50 |  |  |  |  | 0.183 | 50 |
| UA 3141 | 15.88 | 1.22 |  |  |  |  | 0.152 | 50 |
| UA 1231 | 15.90 | 1.45 |  |  |  |  | 0.178 | 50 |
| UA 2001 | 16.00 | 1.20 |  |  |  |  | 0.151 | 51 |
| UA 2722 | 16.00 | 1.60 |  |  |  |  | 0.196 | 51 |
| UA 1657 | 16.00 | 2.50 |  |  |  |  | 0.287 | 51 |
| UA 1916 | 19.05 | 1.22 |  |  |  |  | 0.184 | 60 |
| AUS 8163 | 19.05 | 1.60 |  |  |  |  | 0.237 | 60 |
| UA 1928 | 19.05 | 2.00 |  |  |  |  | 0.289 | 60 |
| UA 1232 | 19.10 | 1.45 |  |  |  |  | 0.218 | 60 |
| UA 1225 | 20.00 | 1.20 |  |  |  |  | 0.192 | 63 |
| UA 1968 | 20.00 | 1.60 |  |  |  |  | 0.251 | 63 |
| UA 7803 | 20.00 | 2.00 |  |  |  |  | 0.305 | 63 |
| UA 4121 | 20.00 | 3.00 |  |  |  |  | 0.433 | 63 |
| UA 3538 | 21.00 | 3.50 |  |  |  |  | 0.520 | 66 |
| UA 2740 | 21.00 | 4.00 |  |  |  |  | 0.579 | 66 |
| UA 1226 | 22.00 | 1.20 |  |  |  |  | 0.213 | 70 |
| UA 1233 | 22.20 | 1.45 |  |  |  |  | 0.256 | 70 |
| UA 6432 | 22.50 | 2.00 |  |  |  |  | 0.348 | 71 |
| UA 2783 | 24.00 | 1.50 |  |  |  |  | 0.287 | 76 |
| UA 1227 | 25.00 | 1.20 |  |  |  |  | 0.243 | 79 |
| UA 1969 | 25.00 | 1.60 |  |  |  |  | 0.318 | 79 |
| UA 1245 | 25.00 | 2.00 |  |  |  |  | 0.392 | 79 |
| UA 1248 | 25.00 | 3.00 |  |  |  |  | 0.562 | 79 |
| UA 2027 | 25.40 | 1.20 |  |  |  |  | 0.246 | 80 |
| UA 1234 | 25.40 | 1.45 |  |  |  |  | 0.296 | 80 |
| UA 3942 | 25.40 | 2.00 |  |  |  |  | 0.397 | 80 |
| UA 5840 | 25.40 | 3.00 |  |  |  |  | 0.570 | 80 |
| UA 4870 | 26.50 | 1.40 |  |  |  |  | 0.298 | 84 |
| UA 1235 | 28.58 | 1.45 |  |  |  |  | 0.335 | 90 |
| UA 2220 | 29.00 | 1.70 |  |  |  |  | 0.395 | 92 |
| UA 1243 | 30.00 | 1.60 |  |  |  |  | 0.387 | 95 |
| UA 1249 | 30.00 | 3.00 |  |  |  |  | 0.690 | 95 |
| UA 3453 | 31.00 | 3.00 |  |  |  |  | 0.713 | 98 |




DIAGRAMS ACTUAL SIZE UNLESS

| DIE No. | A | B | C | D | RI | R2 | R3 | kg/m | P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UA 1769 | 50.80 | 2.64 |  |  |  |  |  | 1.078 | 160 |
| UA 4544 | 52.00 | 14.00 |  |  |  |  |  | 4.513 | 164 |
| UA 5171 | 57.20 | 2.00 |  |  |  |  |  | 0.936 | 180 |
| UA 4579 | 57.64 | 1.85 |  |  |  |  |  | 0.875 | 182 |
| AUS 3569 | 60.00 | 2.00 |  |  |  |  |  | 0.984 | 189 |
| AUS 8909 | 60.00 | 3.00 |  |  |  |  |  | 1.450 | 189 |
| UA 5939 | 60.00 | 4.00 |  |  |  |  |  | 1.900 | 189 |
| AUS 10474 | 60.00 | 4.50 |  |  |  |  |  | 2.118 | 189 |
| AUS 5940 | 60.00 | 5.00 |  |  |  |  |  | 2.333 | 189 |
| UA 4580 | 60.94 | 1.85 |  |  |  |  |  | 0.927 | 192 |
| UA 4478 | 61.50 | 13.75 |  |  |  |  |  | 5.569 | 300 |
| UA 5172 | 63.50 | 2.00 |  |  |  |  |  | 1.043 | 200 |
| AUS 5199 | 63.50 | 3.00 |  |  |  |  |  | 1.540 | 200 |
| AUS 6523 | 63.50 | 3.25 |  |  |  |  |  | 1.661 | 200 |
| UA 2666 | 63.50 | 4.50 |  |  |  |  |  | 2.260 | 200 |
| UA 1538 | 63.50 | 6.35 |  |  |  |  |  | 3.078 | 200 |
| UA 5180 | 63.50 | 10.00 |  |  |  |  |  | 4.538 | 200 |
| UA 1244 | 65.00 | 1.60 |  |  |  |  |  | 0.864 | 205 |
| UA 1252 | 65.00 | 3.00 |  |  |  |  |  | 1.584 | 205 |
| UA 4708 | 65.00 | 3.50 |  |  |  |  |  | 1.826 | 205 |
| UA 1073 | 65.00 | 5.00 |  |  |  |  |  | 2.554 | 205 |
| UA 1228 | 75.00 | 1.20 |  |  |  |  |  | 0.754 | 236 |
| UA 1658 | 75.00 | 1.60 |  |  |  |  |  | 1.000 | 236 |
| UA 1253 | 75.00 | 3.00 |  |  |  |  |  | 1.839 | 236 |
| UA 2665 | 75.00 | 4.50 |  |  |  |  |  | 2.701 | 236 |
| UA 4826 | 75.00 | 6.00 |  |  |  |  |  | 3.512 | 236 |
| AUS 5246 | 75.60 | 1.70 |  |  |  |  |  | 1.066 | 238 |
| AUS 5200 | 75.80 | 2.90 |  |  |  |  |  | 1.793 | 239 |
| UA 5170 | 76.20 | 2.00 |  |  |  |  |  | 1.259 | 240 |
| AUS 5989 | 76.20 | 2.55 |  |  |  |  |  | 1.593 | 240 |
| AUS 8896 | 76.20 | 3.50 |  |  |  |  |  | 2.158 | 240 |
| AUS 6522 | 76.20 | 4.75 |  |  |  |  |  | 2.879 | 240 |
| UA 4727 | 76.20 | 8.10 |  |  |  |  |  | 4.679 | 240 |
| UA 2772 | 80.00 | 2.00 |  |  |  |  |  | 1.328 | 252 |
| AUS 6492 | 80.00 | 3.00 |  |  |  |  |  | 1.959 | 252 |
| UA 5165 | 80.00 | 8.00 |  |  |  |  |  | 4.886 | 252 |
| UA 6292 | 80.00 | 16.00 |  |  |  |  |  | 8.686 | 252 |
| AUS 8465 | 80.30 | 2.30 |  |  |  |  |  | 1.522 | 253 |
| UA 1680 | 86.00 | 3.00 |  |  |  |  |  | 2.112 | 271 |
| UA 5818 | 86.20 | 4.50 |  |  |  |  |  | 3.119 | 271 |
| UA 1254 | 90.00 | 3.00 |  |  |  |  |  | 2.222 | 283 |
| UA 1540 | 100.00 | 1.60 |  |  |  |  |  | 1.340 | 315 |
| UA 3216 | 100.00 | 2.00 |  |  |  |  |  | 1.663 | 315 |
| UA 1247 | 100.00 | 3.00 |  |  |  |  |  | 2.477 | 315 |
| UA 1255 | 100.00 | 6.00 |  |  |  |  |  | 4.784 | 315 |




| DIE No. | A | B | C | D | RI | R2 | R3 | kg/m | P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UA 5064 | 100.00 | 12.00 |  |  |  |  |  | 8.957 | 315 |
| UA 2245 | 100.00 | 24.50 |  |  |  |  |  | 15.362 | 315 |
| UA 3723 | 101.60 | 1.20 |  |  |  |  |  | 1.022 | 320 |
| UA 6709 | 101.60 | 2.00 |  |  |  |  |  | 1.690 | 320 |
| AUS 6524 | 101.60 | 6.35 |  |  |  |  |  | 5.130 | 320 |
| UA 4780 | 114.30 | 6.35 |  |  |  |  |  | 5.814 | 360 |
| UA 1659 | 125.00 | 3.00 |  |  |  |  |  | 3.116 | 393 |
| UA 3724 | 127.00 | 1.60 |  |  |  |  |  | 1.702 | 399 |
| AUS 5268 | 127.00 | 4.00 |  |  |  |  |  | 4.173 | 399 |
| UA 5444 | 127.00 | 8.00 |  |  |  |  |  | 8.075 | 399 |
| UA 5945 | 127.00 | 19.05 |  |  |  |  |  | 17.443 | 399 |
| AUS 8031 | 127.30 | 4.10 |  |  |  |  |  | 4.183 | 400 |
| UA 3722 | 150.00 | 3.20 |  |  |  |  |  | 3.985 | 472 |
| UA 6084 | 152.40 | 5.00 |  |  |  |  |  | 6.251 | 479 |
| UA 7223 | 152.40 | 15.87 |  |  |  |  |  | 18.384 | 479 |
| UA 4789 | 162.00 | 4.00 |  |  |  |  |  | 5.361 | 509 |
| UA 7102 | 177.80 | 6.35 |  |  |  |  |  | 9.235 | 559 |
| UA 7103 | 177.80 | 25.40 |  |  |  |  |  | 32.835 | 559 |
| UA 7104 | 203.20 | 3.18 |  |  |  |  |  | 5.395 | 639 |
| UA 3822 | 203.20 | 6.35 |  |  |  |  |  | 10.603 | 639 |
| UA 7787 | 250.00 | 6.00 |  |  |  |  |  | 12.418 | 786 |

## DRAWN ROUND TUBE



| UA 7320 | 9.53 | 1.42 | 0.098 | 30 |
| :--- | ---: | ---: | :--- | ---: |
| UA 7330 | 12.70 | 1.42 | 0.136 | 40 |
| UA 7340 | 15.88 | 1.42 | 0.174 | 50 |
| UA 7350 | 19.05 | 1.42 | 0.212 | 60 |
| UA 7360 | 22.23 | 1.42 | 0.251 | 70 |
| UA 7370 | 25.40 | 1.42 | 0.289 | 80 |
| UA 7380 | 28.58 | 1.42 | 0.327 | 90 |
| UA 7390 | 31.75 | 1.42 | 0.365 | 100 |
| UA 7410 | 34.93 | 1.42 | 0.404 | 110 |
| UA 7420 | 38.10 | 1.42 | 0.442 | 120 |
| UA 7430 | 41.28 | 1.42 | 0.480 | 130 |
| UA 7435 | 44.45 | 1.42 | 0.518 | 140 |
| UA 7440 | 47.63 | 1.42 | 0.557 | 150 |
| UA 7450 | 50.80 | 1.42 | 0.595 | 160 |


| DIE No. | A | B | C | D | RI | R2 | R3 | kg/m | P |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SOLID ROUND |  |  |  |  |  |  |  |  |  |  |
| UA 1271 | 4.76 |  |  |  |  |  |  | 0.048 | 15 | $\longleftarrow$ A |
| UA 1270 | 6.35 |  |  |  |  |  |  | 0.086 | 20 |  |
| UA 1269 | 7.94 |  |  |  |  |  |  | 0.134 | 25 |  |
| UA 1258 | 9.50 |  |  |  |  |  |  | 0.192 | 30 |  |
| AUS 10614 | 12.00 |  |  |  |  |  |  | 0.305 | 38 |  |
| UA 1259 | 12.70 |  |  |  |  |  |  | 0.343 | 40 |  |
| UA 3321 | 14.50 |  |  |  |  |  |  | 0.446 | 46 |  |
| UA 1260 | 15.88 |  |  |  |  |  |  | 0.535 | 50 |  |
| UA 3939 | 18.00 |  |  |  |  |  |  | 0.687 | 57 |  |
| UA 1261 | 19.05 |  |  |  |  |  |  | 0.772 | 60 | Weight of Billet |
| UA 2038 | 20.00 |  |  |  |  |  |  | 0.848 | 63 | Billet, 178 mm diameter |
| AUS 8867 | 25.00 |  |  |  |  |  |  | 1.325 | 79 | 0.0 |
| UA 1262 | 25.40 |  |  |  |  |  |  | 1.373 | 80 | Billet, 202 mm diameter |
| UA 6759 | 28.00 |  |  |  |  |  |  | 1.663 | 88 | $1 \mathrm{~mm}=0.0875 \mathrm{Kg}$ |
| AUS 10467 | 28.58 |  |  |  |  |  |  | 1.732 | 90 |  |
| UA 1263 | 31.75 |  |  |  |  |  |  | 2.146 | 100 |  |
| UA 1264 | 38.10 |  |  |  |  |  |  | 3.090 | 120 |  |
| UA 2995 | 44.40 |  |  |  |  |  |  | 4.196 | 140 |  |
| AUS 8474 | 50.00 |  |  |  |  |  |  | 5.301 | 158 |  |
| UA 1265 | 50.80 |  |  |  |  |  |  | 5.493 | 160 |  |
| UA 1266 | 63.50 |  |  |  |  |  |  | 8.582 | 200 |  |
| UA 1267 | 76.20 |  |  |  |  |  |  | 12.359 | 240 |  |
| UA 1868 | 88.90 |  |  |  |  |  |  | 16.759 | 280 |  |
| UA 1257 | 100.00 |  |  |  |  |  |  | 21.284 | 315 |  |
| UA 1268 | 101.60 |  |  |  |  |  |  | 21.971 | 320 |  |
| UA 7173 | 127.00 |  |  |  |  |  |  | 34.203 | 399 |  |
| UA 7174 | 152.40 |  |  |  |  |  |  | 49.252 | 479 |  |
| UA 7175 | 177.80 |  |  |  |  |  |  | 67.037 | 559 |  |
| UA 7176 | 203.20 |  |  |  |  |  |  | 87.559 | 639 |  |
| UA 7339 | 228.60 |  |  |  |  |  |  | 110.817 | 719 |  |



| DIE No. | A | B | C | D | RI | R2 | R3 | kg/m | P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| SOLID SQUARE |  |  |  |  |  |  |  |  |  |
| UA 1279 | 6.35 |  |  |  |  |  |  | 0.109 | 25 |
| UA 1272 | 9.50 |  |  |  |  |  |  | 0.244 | 38 |
| UA 1273 | 12.70 |  |  |  |  |  |  | 0.437 | 51 |
| UA 1274 | 19.05 |  |  |  |  |  |  | 0.983 | 76 |
| UA 1275 | 25.40 |  |  |  |  |  |  | 1.748 | 102 |
| UA 1276 | 31.75 |  |  |  |  |  |  | 2.732 | 127 |
| UA 1277 | 38.10 |  |  |  |  |  |  | 3.934 | 152 |
| UA 1278 | 50.80 |  |  |  |  |  |  | 6.993 | 203 |



## SOLID HEXAGON

UA 1607 II.II
0.290

39


Free Machining Rod
In lengths up to 3600 mm
diagrams actual size unless
DIAGRAMS ACTUAL SIZE

## MACHINING FLAT BAR 606I-T65II

| DIE No. | A | B | C | D RI | R2 | R3 | kg/m | P |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UA 6934 | 50.80 | 19.05 |  | 0.40 |  |  | 2.613 | 139 |  |
| UA 6935 | 50.80 | 25.40 |  | 0.40 |  |  | 3.483 | 152 | $-\left.A \longrightarrow\right\|_{\downarrow}$ |
| UA 6936 | 63.50 | 31.75 |  | 0.40 |  |  | 5.443 | 190 | $\frac{\downarrow}{B}$ |
| UA 6937 | 76.20 | 38.10 |  | 0.40 |  |  | 7.838 | 228 |  |
| UA 6939 | 76.20 | 50.80 |  | 0.40 |  |  | 10.451 | 254 |  |
| UA 6943 | 76.20 | 63.50 |  | 0.40 |  |  | 13.064 | 279 |  |
| UA 6938 | 101.60 | 38.10 |  | 0.40 |  |  | 10.451 | 279 |  |
| UA 6941 | 101.60 | 50.80 |  | 0.40 |  |  | 13.935 | 305 | $\mathrm{R}=$ Radiused corner |
| UA 6944 | 101.60 | 76.20 |  | 0.40 |  |  | 20.903 | 355 | Machining Flat Bar |
| UA 6945 | 114.30 | 76.20 |  | 0.40 |  |  | 23.516 | 381 | In lengths up to 3658mm |
| UA 6946 | 127.00 | 76.20 |  | 0.40 |  |  | 26.129 | 406 |  |
| UA 6948 | 127.00 | 101.60 |  | 0.40 |  |  | 34.838 | 457 |  |
| UA 6942 | 152.40 | 50.80 |  | 0.40 |  |  | 20.903 | 406 |  |
| UA 6947 | 152.40 | 76.20 |  | 0.40 |  |  | 31.354 | 457 |  |
| UA 6949 | 152.40 | 101.60 |  | 0.40 |  |  | 41.806 | 508 |  |

[^0]Ullrichaluminum co lt



$R=$ Radiused corner

DIAGRAMS ACTUAL SIZE UNIESS OTHERWISE INDICATED.

| DIE No. | A | B | C | D RI | R2 R3 | kg/m | P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UA II65 | 10.00 | 2.30 |  |  |  | 0.062 | 25 |
| UA 7106 | 11.70 | 2.20 |  |  |  | 0.069 | 28 |
| UA 2029 | 12.00 | 1.60 |  |  |  | 0.052 | 27 |
| UA I I 70 | 12.00 | 3.00 |  |  |  | 0.097 | 30 |
| UA 1921 | 12.00 | 3.00 |  | F |  | 0.092 | 28 |
| UA II79 | 12.00 | 4.50 |  |  |  | 0.146 | 33 |
| UA 1551 | 12.00 | 6.00 |  |  |  | 0.195 | 36 |
| UA II7I | 16.00 | 3.00 |  |  |  | 0.130 | 38 |
| UA 1004 | 19.00 | 4.50 |  | F |  | 0.220 | 44 |
| UA 1508 | 19.05 | 2.64 |  | 1.32 |  | 0.132 | 42 |
| UA II5I | 20.00 | 1.60 |  |  |  | 0.087 | 43 |
| UA I I 72 | 20.00 | 3.00 |  |  |  | 0.162 | 46 |
| UA 2626 | 20.00 | 4.00 |  |  |  | 0.217 | 48 |
| UA I 180 | 20.00 | 4.50 |  |  |  | 0.244 | 49 |
| UA II 88 | 20.00 | 6.00 |  |  |  | 0.324 | 52 |
| UA I I 52 | 25.00 | 1.60 |  |  |  | 0.108 | 53 |
| UA 1173 | 25.00 | 3.00 |  |  |  | 0.203 | 56 |
| AUS 8577 | 25.00 | 4.00 |  |  |  | 0.270 | 58 |
| UA 1181 | 25.00 | 4.50 |  |  |  | 0.305 | 59 |
| UA 3153 | 25.00 | 5.00 |  |  |  | 0.337 | 60 |
| UA II89 | 25.00 | 6.00 |  |  |  | 0.406 | 62 |
| UA II 53 | 25.00 | 10.00 |  |  |  | 0.677 | 70 |
| UA 5790 | 25.00 | 10.00 |  | F |  | 0.617 | 62 |
| UA II 59 | 25.00 | 12.00 |  |  |  | 0.813 | 74 |
| UA 2085 | 25.00 | 15.00 |  | F |  | 0.882 | 68 |
| UA II74 | 30.00 | 3.00 |  |  |  | 0.244 | 66 |
| UA 2684 | 30.00 | 3.00 |  | F |  | 0.239 | 64 |
| UA 1552 | 30.00 | 4.50 |  |  |  | 0.364 | 69 |
| UA I 190 | 30.00 | 6.00 |  |  |  | 0.488 | 72 |
| UA 2296 | 30.00 | 15.00 |  | 1.00 |  | 1.213 | 89 |
| UA 1558 | 31.75 | 4.50 |  |  |  | 0.387 | 72 |
| UA 2937 | 32.00 | 3.00 |  |  |  | 0.268 | 70 |
| AUS 2939 | 32.00 | 6.00 |  |  |  | 0.520 | 76 |
| UA 4225 | 36.00 | 6.00 |  |  |  | 0.583 | 84 |
| UA 3154 | 38.00 | 4.50 |  |  |  | 0.461 | 85 |
| UA 1175 | 40.00 | 3.00 |  |  |  | 0.325 | 86 |
| AUS 6493 | 40.00 | 4.00 |  | 0.50 |  | 0.431 | 88 |
| UA I 182 | 40.00 | 4.50 |  |  |  | 0.488 | 89 |
| UA II91 | 40.00 | 6.00 |  |  |  | 0.650 | 92 |
| UA II 54 | 40.00 | 10.00 |  |  |  | 1.084 | 100 |
| UA I 160 | 40.00 | 12.00 |  |  |  | 1.301 | 104 |
| UA II 64 | 40.00 | 16.00 |  |  |  | 1.734 | 112 |
| UA II76 | 45.00 | 3.00 |  |  |  | 0.366 | 96 |
| UA 1553 | 45.00 | 6.00 |  |  |  | 0.731 | 102 |
| AUS 1042I | 50.00 | 2.00 |  |  |  | 0.270 | 104 |



$R=$ Radiused corner

| DIE No. | A | B | C | D | RI | R2 | R3 | kg/m | P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UA 7107 | 80.00 | 15.00 |  |  | 0.50 |  |  | 3.239 | 190 |
| UA 6750 | 80.00 | 16.00 |  |  | 2.00 |  |  | 3.447 | 189 |
| UA 6748 | 80.00 | 20.00 |  |  | 2.00 |  |  | 4.311 | 197 |
| UA 6749 | 80.00 | 25.00 |  |  | 2.00 |  |  | 5.391 | 207 |
| UA 2724 | 95.00 | 19.10 |  |  |  |  |  | 4.917 | 228 |
| UA 2009 | 100.00 | 2.50 |  |  |  |  |  | 0.675 | 205 |
| UA II 69 | 100.00 | 3.00 |  |  |  |  |  | 0.810 | 206 |
| UA 3369 | 100.00 | 4.00 |  |  |  |  |  | 1.079 | 208 |
| UA I 186 | 100.00 | 6.00 |  |  |  |  |  | 1.620 | 212 |
| UA 6821 | 100.00 | 8.00 |  |  | 0.50 |  |  | 2.159 | 216 |
| UA 1555 | 100.00 | 10.00 |  |  |  |  |  | 2.710 | 220 |
| UA 1157 | 100.00 | 12.00 |  |  |  |  |  | 3.252 | 224 |
| UA 6168 | 100.00 | 15.00 |  |  | 0.50 |  |  | 4.049 | 230 |
| AUS 8196 | 100.00 | 16.00 |  |  |  |  |  | 4.320 | 232 |
| UA 1166 | 100.00 | 25.00 |  |  |  |  |  | 6.775 | 250 |
| UA 1185 | 100.00 | 50.00 |  |  |  |  |  | 13.550 | 300 |
| UA 5462 | 115.00 | 6.00 |  |  |  |  |  | 1.863 | 242 |
| UA I 187 | 125.00 | 6.00 |  |  |  |  |  | 2.032 | 262 |
| UA 2733 | 125.00 | 10.00 |  |  |  |  |  | 3.387 | 270 |
| UA 1556 | 125.00 | 12.00 |  |  |  |  |  | 4.065 | 274 |
| UA 6169 | 125.00 | 15.00 |  |  | 0.50 |  |  | 5.092 | 280 |
| UA 2249 | 127.00 | 38.10 |  |  |  |  |  | 13.064 | 330 |
| UA 5282 | 130.00 | 12.00 |  |  | 0.50 |  |  | 4.211 | 284 |
| AUS 5922 | 136.00 | 5.00 |  |  | F |  |  | 1.822 | 278 |
| AUS 10048 | 140.00 | 10.00 |  |  | 0.50 |  |  | 3.779 | 300 |
| UA 3479 | 150.00 | 3.00 |  |  |  |  |  | 1.215 | 306 |
| UA 6668 | 150.00 | 5.00 |  |  | 0.50 |  |  | 2.024 | 310 |
| UA 1557 | 150.00 | 6.00 |  |  |  |  |  | 2.439 | 312 |
| UA 7134 | 150.00 | 8.00 |  |  | 0.50 |  |  | 3.239 | 316 |
| UA 7133 | 150.00 | 10.00 |  |  | 0.50 |  |  | 4.049 | 320 |
| UA II58 | 150.00 | 12.00 |  |  |  |  |  | 4.878 | 324 |
| UA 2941 | 160.00 | 6.00 |  |  |  |  |  | 2.592 | 332 |
| UA 3408 | 160.00 | 10.00 |  |  | 0.50 |  |  | 4.319 | 340 |
| AUS 8826 | 160.00 | 12.00 |  |  | 0.50 |  |  | 5.183 | 344 |
| AUS 1023I | 200.00 | 6.00 |  |  | 0.50 |  |  | 3.239 | 412 |
| UA 4430 | 200.00 | 10.00 |  |  |  |  |  | 5.399 | 420 |


| DIE No. | A | B | C | D | RI | R2 | R3 | kg/m | P |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UA 1216 | 20.00 | 20.00 | 1.60 | 1.60 |  |  |  | 0.167 | 80 |
| UA 1217 | 20.00 | 20.00 | 3.00 | 3.00 |  |  |  | 0.301 | 80 |
| UA 1543 | 22.22 | 12.70 | 3.17 | 3.17 |  |  |  | 0.272 | 70 |
| UA 1987 | 25.00 | 25.00 | 1.60 | 1.60 |  |  |  | 0.210 | 100 |
| UA 1218 | 25.00 | 25.00 | 3.00 | 3.00 |  |  |  | 0.382 | 100 |
| UA 1967 | 25.00 | 38.00 | 1.20 | 1.20 |  |  |  | 0.201 | 126 |
| UA 4224 | 28.00 | 50.00 | 4.00 | 4.00 |  | 3.00 |  | 0.809 | 153 |
| UA 2830 | 30.00 | 22.00 | 2.00 | 2.00 |  |  |  | 0.271 | 104 |
| UA 5278 | 35.00 | 50.00 | 3.00 | 3.00 |  | 5.00 |  | 0.692 | 165 |
| UA 1544 | 38.10 | 19.05 | 1.59 | 1.59 |  |  |  | 0.238 | 115 |
| AUS 8179 | 40.00 | 7.50 | 1.50 | 1.50 |  |  |  | 0.186 | 95 |
| UA 1219 | 40.00 | 40.00 | 3.00 | 3.00 |  |  |  | 0.626 | 160 |
| UA 1545 | 40.00 | 40.00 | 4.50 | 4.50 |  |  |  | 0.917 | 160 |
| UA 3071 | 40.00 | 40.00 | 6.00 | 6.00 |  |  |  | 1.198 | 160 |
| UA 3003 | 40.00 | 50.00 | 6.00 | 6.00 | 2.00 | 6.00 | 2.00 | 1.394 | 170 |
| UA 1344 | 44.50 | 25.50 | 2.50 | 2.50 | F |  | F | 0.452 | 137 |
| UA 4485 | 45.00 | 100.00 | 8.00 | 4.00 |  | 4.00 |  | 1.983 | 286 |
| AUS 8927 | 50.00 | 7.50 | 1.60 | 1.60 |  |  |  | 0.241 | 115 |
| UA 3059 | 50.00 | 50.00 | 2.00 | 2.00 |  |  |  | 0.529 | 200 |
| UA 1958 | 50.00 | 50.00 | 3.00 | 3.00 |  |  |  | 0.788 | 199 |
| UA 6260 | 50.00 | 50.00 | 4.00 | 4.00 |  | 4.00 | 0.50 | 1.054 | 196 |
| UA 1220 | 50.00 | 50.00 | 6.00 | 6.00 |  |  |  | 1.528 | 200 |
| UA 7069 | 50.00 | 60.00 | 5.10 | 5.00 |  | 3.00 |  | 1.432 | 215 |
| UA 5277 | 50.00 | 60.00 | 6.00 | 4.00 |  | 5.00 |  | 1.421 | 215 |
| UA 3004 | 50.00 | 75.00 | 6.00 | 6.00 | 2.00 | 6.00 | 2.00 | 1.956 | 240 |
| UA 6723 | 50.00 | 75.00 | 8.00 | 8.00 | 1.00 | 5.00 | 1.00 | 2.553 | 244 |
| UA 4517 | 50.00 | 100.00 | 6.00 | 6.00 |  |  |  | 2.332 | 299 |
| UA 6173 | 50.00 | 130.00 | 6.00 | 6.00 | 1.00 | 4.00 | 1.00 | 2.834 | 354 |
| UA 3005 | 50.00 | 150.00 | 8.00 | 8.00 | 2.00 | 6.00 | 2.00 | 4.175 | 390 |
| UA 4998 | 60.00 | 60.00 | 6.00 | 6.00 |  |  |  | 1.846 | 239 |
| UA 2787 | 60.00 | 60.00 | 6.00 | 6.00 |  | 5.00 |  | 1.882 | 235 |
| UA 6722 | 60.00 | 60.00 | 8.00 | 8.00 | 1.00 | 5.00 | 1.00 | 2.445 | 234 |
| UA 6965 | 60.00 | 100.00 | 6.00 | 6.00 | 0.50 | 3.00 | 0.50 | 2.504 | 317 |
| UA 5238 | 65.00 | 100.00 | 8.00 | 8.00 | 0.50 | 4.00 | 0.50 | 3.409 | 326 |
| UA 2437 | 70.00 | 40.00 | 4.00 | 4.00 | 3.50 | 1.00 | 1.00 | 1.135 | 215 |
| UA 1714 | 75.00 | 75.00 | 4.50 | 4.50 |  | 2.00 |  | 1.772 | 299 |
| UA 5844 | 80.00 | 139.00 | 8.00 | 5.00 |  | 6.00 |  | 3.537 | 432 |
| UA 4234 | 100.00 | 100.00 | 4.76 | 4.76 |  |  |  | 2.509 | 399 |
| AUS 5843 | 100.00 | 180.00 | 10.00 | 6.00 |  | 10.00 |  | 5.569 | 551 |
| AUS 10300 | 60.00 | 70.00 | 10.00 | 10.00 | 0.50 | 6.00 | 0.50 | 3.281 | 254 |


$R=$ Radiused corner

```
Please Note:
REFERTO SECTION I7-I FOR ADDITIONAL SPECIALISED TEES
```



| DIE No. | $A$ | $B$ | $C$ | $D$ | $R 1$ | $R 2$ | $R 3$ | $k g / m$ | $P$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |



## COPE MOULD



| UA I50I | 18.50 | 18.50 | 0.181 | 68 |
| :--- | :--- | ---: | :--- | :--- |
| UA I500 | 23.80 | 8.26 | 0.149 | 59 |
| UA I499 | 34.43 | 14.53 | 0.346 | 88 |

## ZED

| AUS $\mathbf{8 1 6 9}$ | 11.50 | 21.50 | 36.00 | 1.50 в Leg 2.00 |  | 0.294 | 134 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| UA 1221 | 16.00 | 20.00 | 25.00 | 1.60 |  | 0.251 | 119 |
| UA 2983 | 18.50 | 20.00 | 15.00 | 1.50 |  | 0.267 | 104 |
| UA 6725 | 19.00 | 19.00 | 25.40 | 2.00 | 3.00 | 0.327 | 118 |
| UA 1222 | 20.00 | 20.00 | 25.00 | 3.00 |  | 0.480 | 124 |
| AUS 8109 | 20.00 | 21.60 | 25.50 | 1.60 |  | 0.276 | 131 |
| AUS 10135 | 21.00 | 31.75 | 40.00 | 2.00 |  | 0.479 | 181 |
| UA 1639 | 25.00 | 19.00 | 17.00 | 1.60 |  | 0.250 | 118 |
| UA 1223 | 25.00 | 25.00 | 30.00 | 3.00 |  | 0.602 | 154 |
| UA 1487 | 31.80 | 31.80 | 152.40 | 3.00 |  | 1.701 | 426 |
| UA 5813 | 40.00 | 48.00 | 55.00 | 6.00 |  | 2.122 | 273 |



| I BEAM |  |  |  |  |  |  |  |  |
| ---: | ---: | ---: | ---: | :--- | :--- | :--- | :--- | :--- |
| UA II96 | 40.00 | 40.00 | 3.00 | 3.00 |  |  | 0.927 | 234 |
| UA II95 | 45.00 | 50.00 | 2.50 | 2.50 |  |  | 0.915 | 275 |
| UA I493 | 69.90 | 102.00 | 3.43 | $5.54+2.96$ LP | 3.00 |  | 3.083 | 490 |
| AUS I00 I6 | 80.00 | 117.90 | 6.00 | 8.00 | 1.00 | 2.50 | 5.117 | 537 |
| AUS 88I7 | 100.00 | 107.00 | 6.00 | 6.00 | 6.00 | 4.861 | 590 |  |
| UA 4389 | 100.00 | 150.00 | 7.10 | 9.50 | 11.10 |  | 7.926 | 665 |

$R=$ Radiused corner


| DIE No. | A | B | C | D | RI | R2 | R3 | kg/m | P |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| TOP HAT |  |  |  |  |  |  |  |  |  |  |
| UA 1280 | 50.00 | 25.00 | 16.00 | 1.50 |  |  |  | 0.321 | 160 | $R \\| \leftarrow B \rightarrow$ |
| UA 1281 | 57.00 | 24.00 | 28.00 | 2.30 |  |  |  | 0.675 | 221 | $\uparrow$ |
| UA 6724 | 60.00 | 25.00 | 22.00 | 2.40 |  |  |  | 0.642 | 202 | R2 $\quad \mathrm{D} \rightarrow \leftarrow \mathrm{C}$ |
| UA 1569 | 60.00 | 30.00 | 30.00 | 2.50 |  |  |  | 0.776 | 234 |  |
| UA 5047 | 63.50 | 31.75 | 31.75 | 3.00 | 3.00 | 3.00 |  | 0.990 | 240 |  |
| UA 1283 | 65.00 | 30.00 | 30.00 | 2.50 |  |  |  | 0.810 | 244 | $\square \longrightarrow$ |
| UA 2510 | 68.00 | 38.00 | 57.00 | 3.00 |  |  |  | 1.425 | 357 |  |
| UA 1620 | 70.00 | 38.00 | 45.00 | 3.00 |  |  |  | 1.247 | 314 | $\mathrm{R}=$ Radiused corner |
| UA 1621 | 75.00 | 32.00 | 45.00 | 3.00 |  |  |  | 1.288 | 324 |  |
| UA 3575 | 100.00 | 60.00 | 29.00 | 5.00 | 2.00 | 2.00 |  | 1.997 | 299 |  |
| UA 3813 | 110.00 | 58.00 | 50.00 | 4.00 |  |  |  | 2.181 | 411 |  |
| UA 1284 | 110.00 | 66.00 | 28.00 | 3.00 |  |  |  | 1.300 | 325 |  |
| UA 1282 | 125.00 | 62.00 | 30.00 | 3.00 |  |  |  | 1.455 | 363 |  |
| UA 7628 | 134.00 | 60.00 | 100.00 | 3.00 | 0.50 | 0.50 |  | 2.656 | 660 |  |

DIE No

UA 1474
JOINTER
UA 1502 CHANNEL
UA 1503 CHANNEL
UA 1504 CHANNEL
UA 1505 CHANNEL
UA 1506 CHANNEL
UA 1512 COVING
UA 1517 INTERNALANGLE
UA 1518 EXTERNALANGLE
UA 1523 CHANNEL
UA 1915 SCOTIA
UA 1948 INTERNAL ANGLE
UA 1993 SLIDING DOOR CHANNEL
UA 1994 SLIDING DOOR CHANNEL
UA 2166 CHANNEL CAP
UA 249I COVING
UA 2526 CHANNEL
UA 2527 EXTERNALANGLE
UA 2563 COVING
UA 2622 CHANNEL
UA 2675 EXTERNAL ANGLE
UA 2728 CHANNEL
UA 2799 CHANNEL
UA 2800 CHANNEL
UA 2801 CHANNEL
UA 2895 CHANNEL
UA $3204 \quad 100 \mathrm{~mm}$ DOOR REBATED
UA 3205 DOOR CHANNEL
UA $3229 \quad 50 \mathrm{~mm}$ DOOR REBATED
UA $3230 \quad 75 \mathrm{~mm}$ DOOR REBATED
UA 3714 DOOR CHANNEL
UA 3812 CHANNEL
UA 3830 EXTERNAL ANGLE
UA 3836 CHANNEL
UA 3837 CHANNEL
UA 3838 CHANNEL
UA 4254 CHANNEL
UA 4255 CHANNEL
AUS 5895 CHANNEL
AUS 5896 CHANNEL
AUS 5897 CHANNEL
AUS 5898 CHANNEL
AUS 5899 COVING
AUS 5900 CHANNEL
UA 5938 ANGLE
AUS 6435 COLD ROOM
AUS 6457 RUB RAIL
AUS 6460 CHANNEL
AUS 6616 PREFAB INT CORNER
AUS 6617 CHANNEL
AUS 6620 PREFAB DOOR CHANNEL
AUS 6622 PREFAB DOOR STOP
AUS 6663 PREFAB DOOR FRAME
AUS 6829 COLD ROOM

DIE No DESCRIPTION

UA 6877 ANGLE
UA 6878 CHANNEL
UA 6879 DOOR FRAME
UA 6880 DOOR FRAME
UA 7172 COVING
AUS 8940 COVING
AUS 8974 ANGLE

UA 1502
CHANNEL
$\mathrm{kg} / \mathrm{m} 0.54 \mathrm{I} \quad$ P 253
OAD $53.2 \times 45 \times 1.6$
UA 1503
CHANNEL
$\mathrm{kg} / \mathrm{m} 0.650$ P 303
OAD $78.2 \times 45 \times 1.6$
UA 1504
CHANNEL
$\mathrm{kg} / \mathrm{m} 0.758$ P 353
OAD $103.2 \times 45 \times 1.6$
UA 2622
CHANNEL
kg/m 0.769 P 358
OAD $105.7 \times 45 \times 1.6$
UA 2799
CHANNEL
kg/m 0.509 P 254
OAD $54 \times 45 \times 1.5$
UA 2800
CHANNEL
$\mathrm{kg} / \mathrm{m} 0.610$ P 304
OAD $79 \times 45 \times 1.5$

## UA 2801

CHANNEL
$\mathrm{kg} / \mathrm{m} 0.712$ P 354
OAD $104 \times 45 \times 1.5$
UA 4254
CHANNEL
kg/m 0.545 P 206
OAD $55 \times 25 \times 2.0$
UA 4255
CHANNEL
$\mathrm{kg} / \mathrm{m} 1.295$ P 326
OAD $106 \times 30 \times 3.0$
UA 6878
CHANNEL
kg/m 0.399 P 207
OAD $55 \times 25 \times 1.45$


DIAGRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY
AND NOT INTENDED AS SPECIFICATION DRAWINGS. OAD $=$ OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY

UA 2622


UA 1504


## UA 4255



UA 2801



UA 1518


UA I474
JOINTER
$\mathrm{kg} / \mathrm{m} 0.235 \quad \mathrm{P} 142$
OAD $35 \times 10.5$
UA 1512
COVING
kg/m 1.119 P 312
OAD $93 \times 93$
UA 1517
INTERNAL ANGLE $\mathrm{kg} / \mathrm{m} 0.423$ P 197
OAD $50 \times 50$
UA 1518
EXTERNAL ANGLE
kg/m 0.431 P 199
OAD $50 \times 50$

## UA 1915

SCOTIA
kg/m 0.643 P 266
OAD $60.5 \times 48$
UA 1948
INTERNAL ANGLE
$\mathrm{kg} / \mathrm{m} 0.314$ P 155
OAD $40 \times 40$

## UA 2491

COVING
kg/m 0.940 P 344
OAD $91.5 \times 91.5$

## UA 2527

EXTERNAL ANGLE $\mathrm{kg} / \mathrm{m} 0.326 \mathrm{P} 161$
OAD $40 \times 40$

## UA 2563

COVING
$\mathrm{kg} / \mathrm{m} 0.274 \quad$ P 127
OAD $37.95 \times 37.95$
UA 2675
EXTERNAL ANGLE
$\mathrm{kg} / \mathrm{m} 0.510 \quad$ P 239
OAD $70 \times 50$

## UA 3830

EXTERNAL ANGLE
kg/m 0.516 P 220
OAD $70 \times 40$
UA 7172
COVING
kg/m 0.804 P 259
OAD $73.5 \times 73.5$

[^1]$\qquad$


## UA 1505

CHANNEL
$\mathrm{kg} / \mathrm{m} 0.411 \quad$ P 192
OAD $48.2 \times 25 \times 1.6$
UA 1506
CHANNEL
kg/m 1.164 P 331
OAD $118.4 \times 25$
UA 1523
CHANNEL
kg/m 1.549 P 429
OAD $168 \times 25$
UA 1993
SLIDING DOOR CHANNEL kg/m 2.507 P 452
OAD $97 \times 50$

## UA 1994

SLIDING DOOR CHANNEL kg/m 1.123 P 340
OAD $75 \times 55.3$
UA 2526
CHANNEL
$\mathrm{kg} / \mathrm{m} 0.938$ P 279
OAD $92.2 \times 25.4$
UA 2728
CHANNEL
$\mathrm{kg} / \mathrm{m} 0.616$ P 203
OAD $54.8 \times 25$

UA 3714
DOOR CHANNEL
$\mathrm{kg} / \mathrm{m} 1.045 \quad$ P 314
OAD $110 \times 25$

## UA 1523



## UA 3714




UA 1506
4 UA 2526

UA 1505


UA 1994

UA 1993

DIAGRAMS ACTUAL SIZE UNLESS
OTHERWISE INDICATED.
DIAGRAMS ARE SCHEMATIC ONLY
AND NOT INTENDED AS
SPECIFICATION DRAWINGS.
OAD = OVERALL DIMENSIONS
$\mathbf{P}=$ EXT PERIPHERY
ULLRICH

UA 3836


## UA 5938

INFILLS SOLD SEPARATELY


UA 2166
CHANNEL CAP
kg/m 0.467 P 229
OAD $46.5 \times 40$

UA 2895
CHANNEL
$\mathrm{kg} / \mathrm{m} 0.495 \quad \mathrm{P} 215$
OAD $53 \times 28$

UA 3836
CHANNEL
kg/m 1.600 P 430
OAD $168.5 \times 25$
UA 3837
CHANNEL
kg/m l.191 P 330
OAD $118.7 \times 25$
UA 3838
CHANNEL
kg/m 0.99| P 280
OAD $93.4 \times 25$

## UA 5938

ANGLE
kg/m 0.468 P 220
OAD $70 \times 40$

## UA 6877

ANGLE
$\mathrm{kg} / \mathrm{m} 0.29|\quad \mathrm{P}| 52$
OAD $38 \times 38$

## UA 6879

DOOR FRAME
kg/m 0.882 P 298
OAD $66 \times 47.3$ Infill 40404

## UA 6880

DOOR FRAME
kg/m 1.002 P 324
OAD $80.3 \times 47.3$ Infill 40404


## UA 3812

CHANNEL
kg/m 0.36। P 205
OAD $54 \times 24.9$

AUS 5895
CHANNEL
$\mathrm{kg} / \mathrm{m} 0.755 \quad$ P 354
OAD $103 \times 38$

AUS 5896
CHANNEL
kg/m 0.647 P 304
OAD $78 \times 38$

AUS 5897
CHANNEL
kg/m 0.976 P 277
OAD $92.1 \times 25.4$

AUS 5898
CHANNEL
kg/m 1.634 P 430
OAD $168.3 \times 25.4$
AUS 5899
COVING
$\mathrm{kg} / \mathrm{m} 0.255 \quad \mathrm{P} 121$ OAD $35 \times 35$

AUS 5900
CHANNEL
kg/m 0.325 P 204
OAD $53.2 \times 25$
AUS 6457
RUB RAIL
$\mathrm{kg} / \mathrm{m} 0.692$ P 320
OAD $112 \times 18.6$

AUS 6460
CHANNEL
kg/m 0.506 P 229
OAD $55.8 \times 30$

AUS 6617
CHANNEL
$\mathrm{kg} / \mathrm{m} 0.538 \quad$ P 252
OAD $78.2 \times 25$


DIAGRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED. dIAGRAMS ARE SCHEMATIC ONLY AND NOT INTENDED AS SPECIFICATION DRAWINGS.
OAD $=$ OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY

AUS 5898


AUS 6457


UA 3205


UA 3229

50mm DOOR REBATED kg/m 0.85। P 276 OAD $63 \times 52$ Infill 910।

## UA 3230

75 mm DOOR REBATED
kg/m 1.240 P 394
OAD $80.8 \times 52$ Infill $9|0|$



UA 3204

AUS 6616
PREFAB INT CORNER
$\mathrm{kg} / \mathrm{m} 0.276$ P 160
OAD $41.85 \times 41.85$
AUS 6620
PREFAB DOOR CHANNEL
$\mathrm{kg} / \mathrm{m} 0.440 \quad$ P 220
OAD $53 \times 38$
AUS 6622
PREFAB DOOR STOP
$\mathrm{kg} / \mathrm{m} 0.552$ P 261
OAD $53.2 \times 47.5$
AUS 6663
PREFAB DOOR FRAME kg/m 0.537 P 25 I
OAD $53.5 \times 37$
AUS 6435
COLD ROOM
kg/m 1.446 P 422
OAD $112.3 \times 70$
AUS 6829
COLD ROOM
kg/m 1.607 P 253
OAD $90 \times 16$
AUS 8940
COVING
$\mathrm{kg} / \mathrm{m} 0.456 \quad$ P 183
OAD $50 \times 50$
AUS 8974
ANGLE
$\mathrm{kg} / \mathrm{m} 0.316 \quad$ P 160
OAD $40 \times 40$


DIAGRAMS ACTUAL SIZE UNLESS
OTHERWISE INDICATED. OTHERWISE INDICATED.
DIAGRAMS ARE SCHEMATIC AIAGRAMS ARE SCHEMATIC ONLY
AND NOT INTENDED AS SPECIFICATION DRAWINGS OAD = OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY

## DIE No <br> DESCRIPTION

UA 1357 INDUSTRIAL STEP
UA 1426 HERZIMTHRESHOLD
UA 1488 THRESHOLD
UA 1489 THRESHOLD
UA 1490 THRESHOLD
UA 2580 THRESHOLD
UA 2955 THRESHOLD

UA 1357
INDUSTRIAL STEP kg/m I. 448 P 286
OAD $96 \times 22$

UA 1426
HERZIMTHRESHOLD
kg/m 0.819 P 215
OAD $89.5 \times 9$ Infill 12

## UA 1488

THRESHOLD
$\mathrm{kg} / \mathrm{m} 1.888 \quad$ P 370
OAD $169 \times 14.68$
UA 1489
THRESHOLD
kg/m 1.022 P 229
OAD $101.6 \times 13.08$

## UA 1490

THRESHOLD
$\mathrm{kg} / \mathrm{m} 0.892$ P 18 l
OAD $76.2 \times 12.7$

## UA 2580

THRESHOLD
$\mathrm{kg} / \mathrm{m} 0.702 \quad$ P 146
OAD $60 \times 12.7$

UA 2955
THRESHOLD
$\mathrm{kg} / \mathrm{m} 0.973$ P 192
OAD $76.2 \times 18.7$

UA 2580


UA 1490


UA 2955


UA 1489


UA 1357


UA 1426


DIAGRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED.

## DIE No

DESCRIPTION

UA 1432 NOSING Serrated
UA 1433 NOSING Serrated
UA 1434 NOSING Serrated
UA 1435 ANGLE Serrated
UA 1436 NOSING Castellated
UA 1437 CARPET EDGE
UA 1439 FLOORING BAR
UA 1440 CASTELLATED FLAT
UA 144 I SERRATED FLAT
UA 1442 ANGLE Serrated
UA 1491 VINYL FLOOR COPE
UA 1495 NOSING Double Round
UA 1496 NOSING Double Square
UA 1497 NOSING Single Round
UA 1498 NOSING Single Square
UA 1574 CARPET COPE
UA 1575 FLOORING EDGE
UA 1576 FLOORING BAR
UA 1577 FLOORING BAR
UA 2197 NOSING Serrated
UA 2323 FORMICA TRIM
UA 4227 NOSING Single Round
UA 4228 NOSING Single Square
UA 4403 NOSING Serrated
UA 5672 TILE EDGE
UA 5673 TILE BULLNOSE

UA 1432
NOSING Heavy Serrated kg/m 0.419 P I54
OAD $49.86 \times 27$

## UA 1433

NOSING Round Serrated kg/m 0.228 P 126
OAD $33.13 \times 29.5$

## UA 1434

NOSING Light Serrated
$\mathrm{kg} / \mathrm{m} 0.175$ P 92
OAD $35.5 \times 15$

UA 1435
ANGLE Serrated
$\mathrm{kg} / \mathrm{m} 0.204$ P 93
OAD $26.42 \times 19$

UA 1436
NOSING Castellated
$\mathrm{kg} / \mathrm{m} 0.466$ P I 52
OAD $57.5 \times 16$

UA 1437
CARPET EDGE Serrated $\mathrm{kg} / \mathrm{m} 0.122$ P 64
OAD $26.5 \times 9$

## UA 1442

ANGLE Serrated $\mathrm{kg} / \mathrm{m} 0.143$ P 85
OAD $20 \times 20$

UA 2197
NOSING Serrated
$\mathrm{kg} / \mathrm{m} 0.506$ P 230
OAD $70 \times 40$
UA 4403
NOSING Serrated kg/m 0.540 P 147
OAD $58 \times 15.3$


DIAGRAMS ACTUAL SIZE UNLESS
OTHERWSE INDICATED. DIAGRAMS ARE SCHEMATC ONLY AND NOT INTENDED AS SPECIFICATION DRAWINGS.
OAD $=$ OVERALI DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY

- ullrich aluminum co ltd

UA 1442
UA 1435


UA 4403

UA 1437

## UA 1434

UA 1436


UA 2197
UA 1433



UA I495
NOSING Double Round $\mathrm{kg} / \mathrm{m} 0.558 \quad$ P 235
OAD $87.6 \times 28$
UA 1496
NOSING Double Square kg/m 0.566 P 234
OAD $87.6 \times 28$
UA 1497
NOSING Single Round $\mathrm{kg} / \mathrm{m} 0.388 \mathrm{P} 164$ OAD $55.2 \times 28$

## UA 1498

NOSING Single Square $\mathrm{kg} / \mathrm{m} 0.378$ P 160
OAD $52.2 \times 28$
UA 4227
NOSING Single Round $\mathrm{kg} / \mathrm{m} 0.437$ P 180
OAD $63.7 \times 28$
UA 4228
NOSING Single Square $\mathrm{kg} / \mathrm{m} 0.428$ P 176
OAD $60.7 \times 28$

## NOSING INFILLS

Designs Available WALKSAFE - SMOOTH AQUADEK - TREADED Width 27 mm \& 42 mm Various Colours

DIAGRAMS ACTUAL SIZE UNLESS
DIAGRAMS ACTUAL SIZE UN
OTHERWISE INDICATED.
OTHERWISE INDICATED.
DIAGRAMS ARE SCHEMATIC DIAGRAMS ARE ECHEMATIC
AND NOT INTENDED AS AND NOT INTENDEDAS OAD $=$ OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY
ULLRICH


UA 1497


UA 1498


UA 4228


UA 1496


## WALKSAFE

## AQUADEK

AQUADEK
TOPVIEW

## INFILLS SOLD SEPARATELY

## DIE No

DESCRIPTION

| UA 1318 | TOE RAIL |
| :--- | :--- |
| UA 1415 | TOE RAIL Prepunched |
| UA 1416 | PERSPEX JOINTER |
| UA 1418 | PERSPEX UPRIGHT |
| UA 1419 | PERSPEX CAP |
| UA 1420 | PERSPEX PILLAR CAP |
| UA 1421 | PERSPEX CAP |
| UA 1422 | FIBREGLASS CAP |
| UA 1423 | SAILTRACK |
| UA 1424 | SAILTRACK |
| UA 1425 | SAILTRACK |
| UA 1519 | TOE RAIL Prepunched |
| UA 1520 | TOE RAIL Prepunched |
| UA 1640 | GUNNEL |
| UA 2687 | GUNNEL RAIL |
| UA 2785 | PERSPEX CAP |
| UA 2875 | KEEL |
| UA 2907 | BOAT GUNNEL |
| UA 2972 | BOAT RIB |
| UA 3079 | GUNNEL |
| UA 3147 | GUNNEL RAIL |
| UA 3212 | KEEL |
| UA 3213 | KEEL |
| UA 3418 | SAILTRACK |
| UA 3747 | HULL PLANING STRIP |
| UA 3811 | KEEL |
| UA 3943 | GUNNEL |
| UA 4903 | GUNNEL RAIL |
| UA 5179 | HATCH SECTION |
| UA 5236 | GUNNEL |
| UA 5237 | PERSPEX CAP |
| UA 5283 | BOAT RIB |
| UA 5889 | DECK CAPPING |
| UA 6770 | HATCH SECTION |
| UA 6771 | HATCH SECTION |
| UA 7072 | GUNNEL |
| UA 7177 | LIPPED CHANNEL |
| UA 7891 | DOOR JAMB |
| UA 7892 | DOOR FRAME |
| UA 7893 | DOOR TRANSOM |
| AUS 10120 | KEEL |
| AUS $1012 I$ | KEEL |
| AUS 10122 | KEEL |
| AUS 10123 | KEEL |
| AUS 10124 | GUNNEL RAIL |
| TRANSOM DOUBLE CHANNEL |  |
| US |  |

[^2]UA 1318
TOE RAIL
$\mathrm{kg} / \mathrm{m} 0.220 \mathrm{P} 81$
OAD $22.22 \times 19.6$

UA 1415
TOE RAIL Prepunched
kg/m 1.130 P 219
OAD $65 \times 50.5$

UA 1519
TOE RAIL Prepunched kg/m 2.194 P 235
OAD $69.82 \times 55.54$

## UA 1520

TOE RAIL Prepunched $\mathrm{kg} / \mathrm{m} 1.158$ P 210
OAD $57.1 \times 50.19$
UA 2875
KEEL
kg/m 1.65 I P 269
OAD $77.6 \times 32.2$

UA 2972
BOAT RIB
$\mathrm{kg} / \mathrm{m} 1.397 \mathrm{P} 183$
OAD $76.2 \times 19$
UA 3212
KEEL
kg/m 1.009 P 135
OAD $38.7 \times 29.55$
UA 3213
KEEL
kg/m 2.105 P 214
OAD $64.3 \times 45$

UA 3747
HULL PLANING STRIP $\mathrm{kg} / \mathrm{m} 0.526 \quad$ P 79
OAD $30 \times 12$

## UA 38II

KEEL
kg/m 1.169 P I57
OAD $40 \times 30$
UA 5283
BOAT RIB
kg/m $1.69 \mid$ P 228
OAD $98.7 \times 18.9$


DIAGRAMS ACTUAL SIZE UNLESS OTHERWIS INDICATED. DIAGRAMS ARE SCHEMATIC ONLY AND NOT INTENDED AS SPECIFCATION DRAWINGS. OAD = OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY


UA 7177


UA 1422


UA 1421


UA 3418

UA 1420

UA 1416

UA 1418

UA 1419


UA 5237


UA 2785

UA 1416
PERSPEX JOINTER
$\mathrm{kg} / \mathrm{m} 0.119$ P 50
OAD $17 \times 6$

## UA 1418

PERSPEX UPRIGHT
kg/m 0.434 P 129
OAD $25.5 \times 18$

## UA 1419

5 mm PERSPEX CAP $\mathrm{kg} / \mathrm{m} 0.538$ P II7 OAD $25.5 \times 14$

## UA 1420

5 mm PERSPEX PILLAR CAP
$\mathrm{kg} / \mathrm{m} 0.564$ P 139
OAD $25.5 \times 14$
UA 1421
5 mm PERSPEX CAP $\mathrm{kg} / \mathrm{m} 0.393$ P 99
OAD $22 \times 12$

## UA 1422

5mm FIBREGLASS CAP $\mathrm{kg} / \mathrm{m} 0.133$ P 70
OAD $12 \times 9$

## UA 1423

SAIL TRACK
kg/m 0.712 P 183
OAD $52 \times 21$
UA 1424
SAILTRACK
$\mathrm{kg} / \mathrm{m} 0.478 \quad \mathrm{P} 124$
OAD $32 \times 12$

## UA 1425

SAILTRACK
$\mathrm{kg} / \mathrm{m} 0.213 \quad$ P 85
OAD $22 \times 8$

## UA 2785

5.4mm PERSPEX CAP $\mathrm{kg} / \mathrm{m} 0.372$ P 99
OAD $22 \times 12$

UA 3418
SAILTRACK
$\mathrm{kg} / \mathrm{m} 0.458 \quad$ P 130
OAD $31 \times 17.13$
UA 5237
5 mm PERSPEX CAP
$\mathrm{kg} / \mathrm{m} 0.175$ P 67
OAD $12.7 \times 9.4$
UA 7177
SAIL TRACK
$\mathrm{kg} / \mathrm{m}$ I. 7 I 7 P I88
OAD $50 \times 20$

DIAGRAMS ACTUAL SIIE UNIESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY AND NOT INTENDED AS SPECIFICATION DRAWINGS. OAD $=$ OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY


UA 1640
4mm GUNNEL
$\mathrm{kg} / \mathrm{m} 0.857$ P 167
OAD $38 \times 32$

UA 2687
GUNNEL RAIL
$\mathrm{kg} / \mathrm{m} 0.758 \quad \mathrm{P} 198$
OAD $47 \times 32$

## UA 2907

GUNNEL RAIL
kg/m 1.107 P 260
OAD $89.88 \times 16$

## UA 3079

4-5-4mm GUNNEL kg/m I.ll0 P 194
OAD $50 \times 35$
UA 3147
GUNNEL RAIL
kg/m 0.83 I P 263
OAD $65 \times 40$
UA 3943
5 mm GUNNEL
kg/m $1.571 \quad$ P 243
OAD $60 \times 45$

UA 4903
GUNNEL RAIL
kg/m 1.109 P 222
OAD $42.2 \times 38$
Takes 19 mm Timber Fillet ( NOT AVAILABLE AT ULLRICH )

## UA 5236

5-6-5mm GUNNEL kg/m 1.706 P 240
OAD $60 \times 45$

UA 7072
6 mm GUNNEL
kg/m 2.322 P 298
OAD $75 \times 55$


DIAGRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY AND Not intended as SPECIFCATION DRAWINGS OAD $=$ OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY

UA 1640


UA 3079


UA 3943


UA 7072

UA 5236

UA 2907



AUS IOI20
KEEL
kg/m 0.652 P 122
OAD $41.06 \times 14.72$

AUS IOI2I
KEEL
$\mathrm{kg} / \mathrm{m} 1.538$ P 186
OAD $42.23 \times 27.26$

AUS 10122
KEEL
kg/m 0.674 P 124
OAD $25.8 \times 21.5$
AUS IOI 23
KEEL
kg/m 1.02 I P 156
OAD $35 \times 27.55$
AUS 10124
GUNNEL RAIL
kg/m 1.156 P 263
OAD $89.87 \times 16$
AUS IOI27
TRANSOM DBL CHANNEL
$\mathrm{kg} / \mathrm{m} 1.732 \quad$ P 427
OAD $100 \times 31.5$

[^3]
## DIE No DESCRIPTION

| UA 1406 | DBL SIDED AWNING RAIL |
| :--- | :--- |
| UA 1407 | AWNING DRIP RAIL |
| UA 1408 | LIGHT AWNING RAIL |
| UA 1409 | DRIP RAIL |
| UA 1410 | DRIP RAIL |
| UA 141 I | LIGHT BUS DRIP RAIL |
| UA 1412 | DRIP RAIL |
| UA 1413 | HEAVY BUS DRIP RAIL |
| UA 1414 | DRIP RAIL |
| UA 1417 | RUB RAIL |
| UA 1426 | HERZIM THRESHOLD |
| UA 1427 | RUB RAIL |
| UA 1428 | RUB RAIL |
| UA 1429 | RUB RAIL |
| UA 1430 | RUB RAIL |
| UA 143 I | RUB RAIL |
| UA 1483 | RUB RAIL |
| UA 1605 | RUB RAIL |
| UA 1606 | RUB RAIL |
| UA 1608 | STD AWNING RAIL |
| UA 1875 | BUFFER RAIL |
| UA 2218 | BUS RUB RAIL |
| UA 2359 | BUS RUB RAIL |
| UA 2583 | RUB RAIL |
| UA 2584 | RUB RAIL |
| AUS 5287 | FLANGED SAILTRACK |
| UA 6074 | DBL SIDED RAIL |
| UA 6553 | FLANGED AWNING RAIL |
| AUS 8362 | DBL ROPE RAIL |
| AUS 10054 | SAILTRACK |
| AUS 10247 | SAILTRACK |

UA 1406
DBL SIDED AWNING RAIL $\mathrm{kg} / \mathrm{m} 0.335 \mathrm{P}\| \|$
OAD $32 \times 13.91$ ID $1 / \mathrm{mm}$
UA 1407
AWNING DRIP RAIL
$\mathrm{kg} / \mathrm{m} 0.506 \mathrm{P}$ I 4 I
OAD $37.93 \times 13.4$ ID I Imm
UA 1408
LIGHT AWNING RAIL
$\mathrm{kg} / \mathrm{m} 0.22 \quad$ P 104
OAD $30.1 \times 13.15$ ID 11.2 mm
UA 1409
DRIP RAIL
$\mathrm{kg} / \mathrm{m} 0.303 \quad$ P 72
OAD $19 \times 14$
UA 1410
DRIP RAIL
$\mathrm{kg} / \mathrm{m} 0.357$ P 82
OAD $22 \times 16$

## UA I4II

LIGHT BUS DRIP RAIL
$\mathrm{kg} / \mathrm{m} 0.256 \quad$ P 98
OAD $25.5 \times 16.5$

## UA 1412

DRIP RAIL
kg/m 0.13। P 59
OAD $16 \times 10$

## UA 1413

HEAVY BUS DRIP RAIL
$\mathrm{kg} / \mathrm{m} 0.431$ P 100
OAD $24 \times 22$
UA 1414
DRIP RAIL
$\mathrm{kg} / \mathrm{m} 0.146 \quad$ P 74
OAD $21.5 \times 12.5$

## UA 1608

STD AWNING RAIL
kg/m $0.221 \quad$ P 96
OAD $28 \times 12.8$ ID 12.8 mm
AUS 5287
FLANGED SAILTRACK
kg/m 0.297 P 133
OAD $45 \times 11.61 \quad$ ID 10 mm

## UA 6074

DBL SIDED RAIL kg/m 3.032 P 28I
OAD $62.7 \times 36.4$


DIAGRAMS ACTUAL SIZE UNLLESS
OTHERWISE INDICATED
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AND NOT INTENDED AS
SPECFICATION DRAWING
OAD $=$ OVERALL DIMENSIONS
$\mathbf{P}=$ EXT PERIPHERY


AUS 10054


AUS 8362


## UA 6553

FLANGED AWNING RAIL $\mathrm{kg} / \mathrm{m} 0.496 \mathrm{P} 192$
OAD $64.8 \times 15.95$ ID 13 mm
AUS 8362
DBL ROPE RAIL
kg/m 0.272 P 130
OAD $27.5 \times 12.2$ ID 9.4 mm
AUS 10054
SAILTRACK
$\mathrm{kg} / \mathrm{m} 0.194$ P 97
OAD $28.5 \times 11.25$ ID 9.2 mm

AUS 5287


AUS 10247

UA 6074


AUS 10247
SAILTRACK
kg/m $0.639 \quad$ P 135
OAD $46.7 \times 13.2$ ID 9.6 mm

## UA 1605



UA 1428


UA 1429


UA 1430


UA 1427


UA 1606

UA 1483


## UA 1417



UA 1417
RUB RAIL 31.6 mm
kg/m 0.27। P 104
OAD $33 \times 12$ Infill 5206
ENDCAPS available:
Code BOAHHENDCAPS

UA 1427
RUB RAIL 32mm
kg/m 0.126 P 89
OAD $32 \times 4.5$ Infill \|। Serrated

## UA 1428

RUB RAIL 17 mm
kg/m 0.106 P 47
OAD $17 \times 5$ Infill 12

UA 1429
RUB RAIL 25 mm
$\mathrm{kg} / \mathrm{m} 0.169$ P 67
OAD $25 \times 5$ Infill 12

## UA 1430

RUB RAIL 31 mm
$\mathrm{kg} / \mathrm{m} 0.120 \quad$ P 82
OAD $31 \times 4 \operatorname{lnfill} 12$

UA 1431
RUB RAIL 40 mm
$\mathrm{kg} / \mathrm{m} 0.291 \mathrm{P} \mid 31$
OAD $40 \times 9$ Infills III,I।2
ENDCAPS available:
Code BOAENDCAP/40

UA 1483
RUB RAIL 25.2 mm
$\mathrm{kg} / \mathrm{m} 0.220 \quad$ P 76
OAD $27 \times 7 \operatorname{lnfill} 12$

UA 1605
RUB RAIL 13 mm
$\mathrm{kg} / \mathrm{m} 0.077$ P 40
OAD $13 \times 4.5$ Infill \| \| Serrated

## UA 1606

RUB RAIL I I.4mm
$\mathrm{kg} / \mathrm{m} 0.088 \quad$ P 44
OAD $13 \times 7$ Infill II Serrated

## INFILLS SOLD SEPARATELY

UA 1426
HERZIMTHRESHOLD 89.5 mm
kg/m 0.819 P 215
OAD $89.5 \times 9$ Infill 12

## UA 1875

BUFFER RAIL 30 mm
$\mathrm{kg} / \mathrm{m} 0.427 \mathrm{P} \mid 18$
OAD $30 \times 15$ Infill 5205

## UA 2218

BUS RUB RAIL 58mm Cover $\mathrm{kg} / \mathrm{m} 0.402 \quad$ P 144 OAD $43.5 \times 1$ I. 5 Infill 5246
ENDCAPS available:
Code TRABUSENDCAP

UA 2359
BUS RUB RAIL 50 mm
$\mathrm{kg} / \mathrm{m} 0.235$ P 146
OAD $50 \times 10$ Infill 4870
UA 2583
RUB RAIL 59.3mm
$\mathrm{kg} / \mathrm{m} 0.398$ P 172
OAD $59.3 \times 10.47$ Infill 37

## UA 2584

RUB RAIL 97.8 mm
$\mathrm{kg} / \mathrm{m} 0.615$ P 276
OAD $97.8 \times 9.9$ Infill II।

UA 2359


UA 2218


UA 1875


UA 1426


DIE No

UA 1393
UA 1395
UA 1396
UA 1397
UA 1398
UA 1399
UA 1400
UA 1402
UA 1403
UA 1404
UA 1405
UA 1486
UA 1494
UA 1509
UA 1510
UA 1511
UA 1573 ROLLER GLIDE CHANNEL
UA 158I TRUCK SIDE BOARD
UA 1583 CANT RAIL
UA 1584 TRUCK SIDE RAIL
UA 2424 SHUTTER CONNECTOR
UA 2426 ROLLER SHUTTER
UA 2463 CHANNEL
UA 2741 CANT RAIL
UA 3328 COAMING RAIL
UA 3493 DECKING
AUS 4141 DECKING
UA 4394 CHASSIS RUNNER CAP
UA 4395 CHASSIS RUNNER
UA 4626 GRATE Punched
UA 47 II TOP HAT
UA 5006 COAMING RAIL
UA 5183 SIDE BOARD
AUS 5250 TRUCK FLAP RUNNER
UA 5275 SUB FRAME
UA 5814 TIPPER SUB FRAME
UA 5972 BUS SECTION
UA 6034 BUS SECTION
UA 6153 SIDE RAIL
AUS 6244 RUB RAIL
UA 6388 SIDE RAIL
UA 6567 SIDE RAIL
UA 66II DECKING
UA 6784 P-SECTION
UA 6892 CHANNEL

DIE No DESCRIPTION

AUS 8600 RUNNING BOARD STEP
AUS 8644 SIDE BOARD
AUS 8816 TRUCK ANGLE
AUS 8848 MOUNTING BLOCK
AUS 8849 FRAME WALL
AUS 8850 FRAME SECTION
AUS IOOI5 TRUCK DECK
AUS 10283 CORNER CANT RAIL
AUS 10369 DECK MIDDLE PLANK
AUS 10370 DECK STARTER PLANK
AUS 1037 REAR COAMING
AUS I0372 SIDE COAMING

UA 1398
EASYDEK COAMING RAIL
kg/m 1.243 P 250
OAD $63 \times 33.5$ fits 1399
UA 1400
SIDE RAIL
kg/m 1.670 P 490
OAD $102 \times 61$
UA 1486
COAMING RAIL
kg/m $2.432 \quad$ P 419
OAD $98.3 \times 60.3$
UA 3328
COAMING RAIL
kg/m 1.81। P 452
OAD $98 \times 65$
UA 3493
DECKING
$\mathrm{kg} / \mathrm{m} 1.667 \mathrm{P} 491$
OAD $130 \times 66.5$
UA 66II
DECKING
kg/m 1.971 P611
OAD $229.2 \times 26$


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UA 4626


UA 1405


UA I397


UA 1494
TRAY SIDE CAP
kg/m 1.202 P 287
OAD $34.93 \times 63.5$

UA 1581
TRUCK SIDE BOARD kg/m 2.172 P 647
OAD $225 \times 25$
UA 1584
TRUCK SIDE RAIL kg/m $1.521 \quad$ P 455
OAD $136 \times 50$
AUS 5250
TRUCK FLAP RUNNER
kg/m 2.066 P 435
OAD $75.1 \times 50.5$
AUS 6244
RUB RAIL
kg/m 1.440 P 405
OAD $145.2 \times 14$

AUS 6244


UA 1584
UA 1581



UA 1396
CANT RAIL
kg/m 1.966 P 558
OAD $152.5 \times 79.4$
Cast Corner UCI396
UA 1509
CANT with Drip Rail kg/m 2.40। P646
OAD $153.97 \times 136.62$

UA 15II
CANT RAIL
kg/m 0.629 P 208
OAD $73.28 \times 56.55$

UA 1583
CANT with Drip Rail
$\mathrm{kg} / \mathrm{m} 1.615$ P 479
OAD $109.33 \times 90$

UA 274I
CANT RAIL
kg/m 1.806 P 451
OAD $106 \times 106$

## UA 6388

SIDE RAIL
kg/m 1.022 P 243
OAD $101.43 \times 45.34$
AUS 8816
TRUCK ANGLE kg/m 1.567 P 393 OAD $100 \times 100$


UA 2463
CHANNEL
kg/m 3.056 P 336
OAD $100 \times 50$
UA 5006
COAMING RAIL
kg/m 7.173 P914
OAD $215.9 \times 119.4$
UA 5275
SUB FRAME
kg/m 13.85। P 807
OAD $232.6 \times 152.4$


UA 2463

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UA 5814
TIPPER SUB FRAME
kg/m 9.596 P 555
OAD $179 \times 106$

UA 6892
CHANNEL
kg/m 3.777 P 544
OAD $100 \times 75$

## UA 5814

## UA 6892



AUS 10369
DECK MIDDLE PLANK
kg/m 1.936 P 636
OAD $192.85 \times 40$

AUS 10370
DECK STARTER PLANK
kg/m 1.789 P 607
OAD $154.45 \times 70.8$
AUS 10371
REAR COAMING
kg/m 1.120 P 274
OAD $69 \times 39$

AUS 10372
SIDE COAMING
kg/m 1.603 P 329
OAD $101 \times 31.25$



AUS 4141
DECKING
$\mathrm{kg} / \mathrm{m} 1.617 \mathrm{P} 571$
OAD $171.6 \times 32$

AUS 10015
TRUCK DECK
kg/m 1.645 P 478
OAD $145 \times 66.5$
AUS 10283
CORNER CANT RAIL
kg/m 2.315 P 454
OAD $118.9 \times 118.9$

IAGRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ON AND NOT INTENDED AS OAD = OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY


| DIE No | DESCRIPTION |
| :---: | :---: |
| UA 1623 | 1.6 mm CAPPING |
| UA 1624 | 1.6 mm JOINTER |
| UA 1451 | 3mm CAPPING |
| UA 1452 | 3 mm JOINTER |
| UA 1453 | 3 mm INT CORNER |
| UA 1454 | 3 mm EXT CORNER |
| UA 3871 | 4.5mm AQUAPANEL CAP |
| UA 3872 | 4.5 mm AQUAPANEL JOINTER |
| UA 3874 | 4.5mm AQUAPANEL INT JOINTER |
| UA 3873 | 4.5mm AQUAPANEL EXT JOINTER |
| UA 3875 | 4.5 mm AQUAPANEL SCOTIA |
| UA 1455 | 5mm CAPPING |
| UA 1456 | 5 mm JOINTER |
| UA 1457 | 5 mm INT CORNER |
| UA 1458 | 5mm EXT CORNER |
| UA 1461 | 6.5 mm CAPPING |
| UA 1460 | 6.5 mm JOINTER |
| UA 1622 | 6.5 mm INT CORNER |
| UA 1459 | 6.5 mm EXT CORNER |
| UA 4405 | 10 mm CAPPING |
| UA 4406 | 10 mm JOINTER |
| UA 4408 | 10 mm INT CORNER |
| UA 4407 | 10 mm EXT CORNER |
| UA 3467 | 12 mm JOINTER OFFSET |
| UA 4412 | 13 mm CAPPING |
| UA 7829 | 13 mm JOINTER |
| UA 7827 | 13 mm INT CORNER |
| UA 7828 | 13 mm EXT CORNER |
| UA 4413 | 13 mm JOINTER |
| UA 4414 | 13 mm SERRATED CAP |
| UA 4409 | 13 mm SERRATED JOINTER |
| UA 441I | 13 mm SERRATED INT CORNER |
| UA 4410 | 13 mm SERRATED EXT CORNER |
| UA 1627 | 14.5 mm CAPPING |
| UA 1628 | 14.5 mm JOINTER |
| UA 2669 | 16 mm JOINTER |
| UA 3894 | 16 mm JOINTER |
| UA 3403 | 18 mm CAPPING |
| UA 1629 | 18.5 mm JOINTER |
| AUS 8954 | 19 mm CAPPING |
| UA 1922 | 20mm CAPPING |
| UA 3404 | 22mm CAPPING |
| UA 6887 | 23mm EXT CORNER |
| UA 1472 | VARIABLE JOINTER |
| UA 1473 | PARTITION JOINTER |



UA 1623
1.6 mm CAPPING $\mathrm{kg} / \mathrm{m} 0.083 \quad$ P 54
OAD $18 \times 4.6$

UA 145
3 mm CAPPING $\mathrm{kg} / \mathrm{m} 0.088 \quad$ P 68 OAD $21 \times 6$

## UA 387

4.5 mm AQUAPANEL CAP $\mathrm{kg} / \mathrm{m} 0.115 \quad$ P 70
OAD $19 \times 7.4$
UA 1455
5 mm CAPPING
$\mathrm{kg} / \mathrm{m} 0.094 \mathrm{P} 71$
OAD $21 \times 8$

## UA 1461

6.5 mm CAPPING kg/m 0.099 P 75
OAD $21 \times 9.5$

## UA 4405

10 mm CAPPING $\mathrm{kg} / \mathrm{m} 0.117 \mathrm{P} 89$
OAD $23 \times 13.4$

## UA 4412

13 mm CAPPING $\mathrm{kg} / \mathrm{m} 0.150$ P 95
OAD $21.2 \times 16.8$

## UA 4414

13 mm SERRATED CAP $\mathrm{kg} / \mathrm{m} 0.224$ P 125
OAD $33 \times 17.78$

## UA 1627

14.5 mm CAPPING
$\mathrm{kg} / \mathrm{m} 0.153$ P 96
OAD $21.2 \times 18$
UA 3403
18 mm CAPPING
$\mathrm{kg} / \mathrm{m} 0.163$ PI03
OAD $21.2 \times 20.8$
AUS 8954
19 mm CAPPING
$\mathrm{kg} / \mathrm{m} 0.680 \mathrm{PI} 73$
OAD $40 \times 25$


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UA 1922
20mm CAPPING $\mathrm{kg} / \mathrm{m} 0.172$ P 109 OAD $23.8 \times 21.2$

## UA 3404

22mm CAPPING
$\mathrm{kg} / \mathrm{m} 0.176 \mathrm{P}\| \|$
OAD $24.8 \times 21.2$


## UA 1453

3 mm INT CORNER
$\mathrm{kg} / \mathrm{m} 0.143$ P 108
OAD $23 \times 17.5$

UA 3874
4.5 mm INT AQUAPANEL
$\mathrm{kg} / \mathrm{m} 0.215 \quad \mathrm{P} \mid 34$
OAD $24.1 \times 24.1$

UA 1457


UA 1622


5 mm INT CORNER
kg/m 0.147 P III
OAD $23.5 \times 18$

UA 1622
6.5 mm INT CORNER
$\mathrm{kg} / \mathrm{m} 0.172$ P IIO
OAD $24 \times 19$

## UA 4408

10 mm INT CORNER
$\mathrm{kg} / \mathrm{m} 0.224 \mathrm{P} 161$
OAD $31.5 \times 23.5$

UA 7827
I 3mm INT CORNER
$\mathrm{kg} / \mathrm{m} 0.464$ P 228
OAD $48 \times 38.5$

UA 44 II
| 3mm INT SERRATED
$\mathrm{kg} / \mathrm{m} 0.453$ P 230
OAD $48 \times 38.5$


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## UA 1454

3mm EXT CORNER
$\mathrm{kg} / \mathrm{m} 0.129 \quad$ P 97
OAD $19 \times 16.6$
UA 3873
4.5 mm EXT AQUAPANEL
$\mathrm{kg} / \mathrm{m} 0.216 \quad$ P 138
OAD $19.05 \times 18.5$

## UA 1458

5mm EXT CORNER
$\mathrm{kg} / \mathrm{m} 0.140$ P 105
OAD $19 \times 18.8$
UA 1459
6.5 mm EXT CORNER
$\mathrm{kg} / \mathrm{m} 0.148 \mathrm{P} 108$
OAD $20.35 \times 18.9$

## UA 4407

10 mm EXT CORNER
$\mathrm{kg} / \mathrm{m} 0.246 \quad$ P 178
OAD $30.3 \times 29$

## UA 7828

13 mm EXT CORNER
kg/m 0.465 P 229
OAD $42.9 \times 38.7$

## UA 44I0

I 3mm EXT SERRATED
kg/m 0.437 P 232
OAD $42.18 \times 38.70$

## UA 6887

23mm EXT CORNER
kg/m 1.64 I P 329
OAD $69.2 \times 69.2$

| DIE No | DESCRIPTION |
| :---: | :---: |
| UA 1310 | WOOLPILE DOOR STOP |
| UA 1374 | SECURAMESH CHANNEL |
| UA 1375 | SECURAMESH FIX FRAME |
| UA 1376 | SECURAMESH FIX FRAME |
| UA 1377 | DOOR FRAME |
| UA 1379 | STAKE |
| UA 1387 | MESH WINDOW FRAME |
| UA 1609 | ADJUSTER CHANNEL |
| UA 1649 | SEC JAMB FIX |
| UA 1738 | DOOR FRAME |
| UA 1864 | STAKE |
| UA 1942 | SLIDING TRACK |
| UA 1943 | SLIDING TRACK |
| UA 2506 | WINDOW FRAME |
| UA 2985 | JAMB EXTENSION |
| UA 3592 | MESH WINDOW FRAME |
| UA 3614 | ADJUSTER CHANNEL |
| UA 3929 | JOINTER |
| UA 4077 | SECURAMESH CHANNEL |
| UA 4110 | DOOR TRACK |
| UA 41II | TRACK FRAME |
| UA 4112 | DOOR FRAME |
| AUS 4314 | STAKE |
| UA 5563 | STAKE |
| UA 5632 | JAMB EXTENSION |
| UA 5655 | DOOR FRAME |
| UA 5971 | STAKE |
| AUS 6463 | STAKE |
| AUS 6487 | ADAPTOR |
| AUS 6518 | WINDOW FRAME |
| AUS 6546 | DOOR FRAME |
| AUS 6547 | WINDOW FRAME |
| UA 6836 | DOORTRACK |
| UA 7007 | SECURITY JOINTER |
| UA 7008 | SECURITY FRAME |
| UA 7710 | SEC DOUBLE SLIDING TRACK |
| UA 7715 | SEC DOUBLE DOOR CATCH |
| UA 8370 | STAKE |
| AUS 10031 | SECURITY SCREEN FRAME |
| AUS 10039 | DOOR FRAME |
| UA 10061 | ULLTRASAFE DOOR FRAME |
| UA 10062 | ULLTRASAFE DOOR BEAD |
| UA 10063 | ULLTRASAFE WINDOW FRAME |
| UA 10064 | ULLTRASAFE WINDOW BEAD |
| AUS 10065 | DOOR FRAME |

UA 1374
SECURAMESH CHANNEL kg/m $0.151 \quad$ P 76
OAD $15 \times 10$
UA 1375
SECURAMESH FIX FRAME $\mathrm{kg} / \mathrm{m} 0.269$ P 142
OAD $38 \times 10$
UA 1376
SECURAMESH FIX FRAME $\mathrm{kg} / \mathrm{m} 0.257$ P 129
OAD $28 \times 10.9$
UA 1377
DOOR FRAME
$\mathrm{kg} / \mathrm{m} 0.715 \quad$ P 240
OAD $72 \times 20$
UA 1387
MESH WINDOW FRAME $\mathrm{kg} / \mathrm{m} 0.283 \quad \mathrm{P} 126$
OAD $33.5 \times 10.5$

## UA 1609

ADJUSTER CHANNEL
$\mathrm{kg} / \mathrm{m} 0.149$ P 85
OAD $14.5 \times 14.5$

## UA 1738

DOOR FRAME
$\mathrm{kg} / \mathrm{m} 0.58 \mathrm{I} \quad$ P 237
OAD $69.5 \times 20$
UA 2985
JAMB EXTENSION
kg/m 1.011 P 353
OAD $97 \times 32$

## UA 3614

ADJUSTER CHANNEL
$\mathrm{kg} / \mathrm{m} 0.196$ P 94
OAD $16.2 \times 16.2$
UA 3929
JOINTER
$\mathrm{kg} / \mathrm{m} 0.301 \quad$ P 182
OAD $40 \times 10$
UA 4077
SECURAMESH CHANNEL $\mathrm{kg} / \mathrm{m} 0.317$ P 99
OAD $20 \times 12$
UA 4112
DOOR FRAME
kg/m 0.68। P 233
OAD $74.1 \times 20$


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UA 1377


UA 41 12


UA 1376


UA 1375


## UA 5655

DOOR FRAME
$\mathrm{kg} / \mathrm{m} 0.763$ P 230
OAD $71.6 \times 19$

UA 5632
JAMB EXTENSION
kg/m 1.050 P 318
OAD $79 \times 32$

UA 5655


UA 1738


UA 1374


UA 4077


UA 1387


UA 2985
UA 5632





UA 1942
SEC SLIDING TRACK
$\mathrm{kg} / \mathrm{m} 0.773$ P 298
OAD $41.5 \times 41$
UA 1943
SEC SLIDING TRACK
$\mathrm{kg} / \mathrm{m} 0.468 \quad P 212$
OAD $32 \times 31$

## UA 4IIO

DOORTRACK
$\mathrm{kg} / \mathrm{m} 0.349$ P 155
OAD $25 \times 22.5$

## UA 4III

TRACK FRAME
kg/m 0.537 P 265
OAD $33 \times 32$
UA 6836
DOORTRACK
$\mathrm{kg} / \mathrm{m} 0.477 \quad$ P 216
OAD $33 \times 32$

## UA 7710

SEC DOUBLE SLIDING TRACK
$\mathrm{kg} / \mathrm{m} 1.373$ P 465
OAD $82.3 \times 41$
UA 7715
SEC DOUBLE DOOR CATCH $\mathrm{kg} / \mathrm{m} 0.103$ P 58
OAD $21.8 \times 8$


## AUS 6546



AUS 6547


AUS 10039


AUS 10031


AUS 4314



## UA 5563

STAKE fits 10061
kg/m 3.802 P 537
OAD $74.9 \times 74.9$

UA 8370
STAKE fits 10063
kg/m 2.490 P 173
OAD $44.45 \times 44.45$
UA 10061
ULLTRASAFE DOOR FRAME kg/m 0.829 P 270
OAD $79.9 \times 19$

UA 10062
ULLTRASAFE DOOR BEAD $\mathrm{kg} / \mathrm{m} 0.231 \quad$ P 83
OAD $26.95 \times 8.78$
UA 10063
ULLTRASAFE WINDOW FRAME $\mathrm{kg} / \mathrm{m} 0.424 \quad \mathrm{P} 144$
OAD $43.8 \times 11$

## UA 10064

ULLTRASAFE WINDOW BEAD $\mathrm{kg} / \mathrm{m} 0.189 \quad$ P 77 OAD $26.95 \times 5.23$

UA 10061


UA 10062


UA 10063
UA 10064


ULTRA HIGH BOND TAPE
Code: 2045-0 12

## FABRICATION GUIDE



Note:To comply with AS5039 the door must be manufactured as shown.

## BLACK PLASTIC INTERNAL BEAD CORNERS



DIAGRAMS ACTUAL SIZE UNLLESS
OTHERWISE INDICATED.


## COMMERCIAL APPLICATIONS

For security doors, windows and partitions in workplaces, storage areas and public buildings, where intrusion of insects is detrimental to comfort and hygiene and where natural airflow is desirable:

Kitchens and food preparation areas Garden restaurants, patio bars and cafés
Hotel and motel dining and accommodation rooms
Factory cafeterias
Hospitals and medical facilities
Food processing plants and storage areas
Food retail outlets
Roll curtains for tent manufacturing (fibreglass mesh)

## DOMESTIC APPLICATIONS

All dwelling apertures or partitions where intrusion of insects is detrimental to living comfort and hygiene, and where natural airflow is desirable:

Main entrances
Kitchens
Dining rooms
Living rooms and bedrooms
Breeze-ways
Conservatories
Summer houses
Covered decks and patios
Pergola walls


MATERIALS
Aluminium

Black painted
Silver treated

ROLLWIDTHS
810 mm
910 mm
1070 mm
1220 mm
1520 mm
1830 mm

| Fibreglass | Black | 810 mm | $18 \times 16 \mathrm{TPI} \times 0.01 \mathrm{I}^{\prime \prime}$ |
| :--- | :--- | :--- | :--- |
|  | Grey | 910 mm |  |
|  | 1070 mm |  |  |
|  | 1220 mm |  |  |
|  | 1520 mm |  |  |
|  | 1830 mm |  |  |


| Stainless steel $\quad$ Natural | 910 mm |
| :--- | ---: |
|  |  |
|  |  |
|  | 220 mm |

## ROLL LENGTHS

Standard 30-metre rolls, individually wrapped.
Other roll lengths may be available on request


DIE No DESCRIPTION

| UA 1054 | WINDOW FRAME |
| :--- | :--- |
| UA 1355 | II.8mm BOTTOM CHANNEL |
| UA 1379 | STAKING ANGLE |
| UA 1380 | HANDLE |
| UA 138 I | VISION RAIL |
| UA 1382 | VISION RAIL |
| UA 1383 | IOmm BOTTOM CHANNEL |
| UA 1384 | IOmm TOP CHANNEL |
| UA 1385 | DOOR FRAME |
| UA 1386 | WINDOW FRAME |
| UA 1388 | DOOR FRAME |
| UA 1389 | WINDOW SECTION |
| UA 1513 | STAKING ANGLE |
| UA 1609 | II.8mm TOP CHANNEL |
| UA 1610 | WINDOW FRAME |
| UA 1611 | DOOR FRAME |
| UA 3512 | VISION RAIL |
| AUS 5492 | PATIO POST |
| AUS 5493 | PATIO HOLDER |
| AUS 5494 | PATIO CORNER POST |
| UA 5526 | SLIDING DOOR CHANNEL |
| UA 5534 | DOUBLE BOTTOMTRACK |
| UA 5537 | DOUBLE TOPTRACK |
| UA 5633 | STAKING ANGLE |
| UA 5634 | VISION RAIL |
| UA 5635 | STAKING ANGLE |
| UA 5636 | DOOR FRAME |
| UA 5637 | WINDOW SECTION |
| UA 5638 | WINDOW SECTION |
| UA 5699 | WINDOW TRACK |
| UA 6246 | WINDOW FRAME |
| AUS 6520 | PATIO POST |
| AUS 10558 | DOOR FRAME |

UA 1054
WINDOW FRAME
kg/m 0.33I P 124
OAD $34 \times 21$

## UA 1385



UA 1386


UA 1389


UA 1355
11.8 mm BOTTOM CHANNEL ( old ) $\mathrm{kg} / \mathrm{m} 0.136$ P 67

UA 1610


UA 1611


UA 1388
$\square$

## UA 1379

STAKE ( gold ) fits I 385, I 386
$\mathrm{kg} / \mathrm{m} 2.227$ P 264
OAD $50 \times 50$

UA 1054


UA 1609


UA 5637


UA 1355


UA 5638


UA 1389
WINDOW SECTION kg/m 0.234 P 76

UA 1379


UA 1513


WINDOW FRAME
$\mathrm{kg} / \mathrm{m} 0.235$ P 77
OAD $21.1 \times 10.3$

## UA 16 II

DOOR FRAME
$\mathrm{kg} / \mathrm{m} 0.367 \mathrm{P}\| \|$
OAD $37.4 \times 10.3$

## UA 5636

DOOR FRAME
$\mathrm{kg} / \mathrm{m} 0.499$ P 142
OAD $40 \times 17$


DIAGRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY
AND NOT INTENDED AS AND NNT INTENDED AS
SPECFICATION DRAWING OAD = OVERALL DIMENSIONS
$\mathbf{P}=$ EXT PERIPHERY

## UA 5637

WINDOW SECTION
kg/m 0.25 I P 96
OAD $25 \times 11$

## UA 5638

WINDOW SECTION
$\mathrm{kg} / \mathrm{m} 0.256$ P 103
OAD $27.6 \times 11$

## CORNER STAKE - PLASTIC

Fits I 388, 161 |
Code: FLYSTAKE


UA 5534


UA 5537


AUS 10558


UA 5699


## UA 5633

UA 5635


CORNER STAKE - PLASTIC


UA 1380
HANDLE
$\mathrm{kg} / \mathrm{m} 0.139 \mathrm{P} 86$
OAD $24 \times 18.5$

## UA 1383

10 mm BOTTOM CHANNEL
$\mathrm{kg} / \mathrm{m} 0.093$ P 58
OAD $12.5 \times 9$

## UA 1384

10 mm TOP CHANNEL
$\mathrm{kg} / \mathrm{m} 0.120 \quad$ P 74
OAD $13 \times 12.5$

## UA 5526

SLIDING DOOR CHANNEL $\mathrm{kg} / \mathrm{m} 0.468 \quad$ P 200
OAD $30.15 \times 26.1$
UA 5534
DOUBLE BOTTOMTRACK fits 1610
$\mathrm{kg} / \mathrm{m} 0.297$ P 145
OAD $27.7 \times 24.5$
UA 5537
DOUBLETOPTRACK fits 1610
kg/m 0.373 P 177
OAD $32 \times 27.7$

## UA 5633

STAKE ( yellow) fits 5636
kg/m 1.725 P 352
OAD $50 \times 50$

## UA 5635

STAKE ( brown ) fits 5637
STAKE ( purple) fits 5638
kg/m I. 256 PI86
OAD $45 \times 45$

UA 5699
WINDOW TRACK
kg/m 0.209 P 99
OAD $24 \times 16$
UA 6246
WINDOW FRAME
$\mathrm{kg} / \mathrm{m} 0.231 \quad \mathrm{P} 88$
OAD $25 \times 11$
AUS 10558
DOOR FRAME
$\mathrm{kg} / \mathrm{m} 0.547$ P 177
OAD $56.05 \times 19.8$

[^4]

UA 1381
VISION RAIL
kg/m 0.730 P 320
OAD $120.3 \times 11.5$
UA 1382
VISION RAIL
kg/m $0.361 \quad$ P 200
OAD $60 \times 11.4$
UA 3512
VISION RAIL
$\mathrm{kg} / \mathrm{m} 0.64 \mathrm{I}$ P 300
OAD $113 \times 11$
AUS 5492
PATIO POST
kg/m 0.499 P 23I
OAD $50 \times 25$
AUS 5493
PATIO HOLDER
$\mathrm{kg} / \mathrm{m} 0.225 \quad$ P 84
OAD $22.5 \times 10.3$

AUS 5494
PATIO CORNER POST
kg/m 0.86। P 262
OAD $50 \times 50$
UA 5634
VISION RAIL
$\mathrm{kg} / \mathrm{m} 0.568$ P 250
OAD $90 \times 11.5$

AUS 6520
PATIO POST
$\mathrm{kg} / \mathrm{m} 0.904$ P 28 l
OAD $50 \times 50$

DIAGRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY AND NOT INTENDED AS SPECFICATION DRAMNGS OAD = OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY

oulrichaluminum colto

## DIE No DESCRIPTION

UA 1632 HEATSINK
UA 1633 HEATSINK
UA 1634 HEATSINK
UA 1635 HEATSINK
UA 2109 HEATSINK
UA 2238 HEATSINK
AUS 2284 HEATSINK
UA 265I HEATSINK
UA 2880 HEATSINK
UA 2960 HEATSINK
UA 3133 HEATSINK
UA 3295 HEATSINK
UA 4173 HEATSINK
UA 4248 HEATSINK
UA 4305 HEATSINK
AUS 432 HEATSINK
UA 4574 HEATSINK
UA 4718 HEATSINK
UA 4956 HEATSINK
UA 4979 HEATSINK

UA 1632
HEATSINK
kg/m 2.905 P 1093
OAD $108 \times 58$

UA 1633
HEATSINK
kg/m 3.455 P II 30
OAD $134 \times 60.5$

UA 1634
HEATSINK
kg/m 3.317 P 789
OAD $103 \times 44.5$

## UA 1635

HEATSINK
kg/m 1.821 P 542
OAD $114.3 \times 25.4$

UA 2238
HEATSINK
$\mathrm{kg} / \mathrm{m} 3.166$ P 806
OAD $135 \times 22.8$



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SPECIFCATION DRAWINGS OAD = OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY


AUS 2284
HEATSINK kg/m 8.006 P I734
OAD $150 \times 48$
UA 2960
HEATSINK
kg/m 2.086 P 702
OAD $100 \times 40$

UA 3295
HEATSINK
kg/m 6.95। P 1385
OAD $150 \times 40$
UA 4248
HEATSINK kg/m 6.968 P 1242
OAD $127 \times 47$

DIAGRAMS ACTUAL SIZE UNLLESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY AND Not intended as OAD = OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY


UA 4248



UA 2880


UA 2880
HEATSINK
kg/m 3.017 P 1062
OAD $133.5 \times 60.5$

UA 4574
HEATSINK
kg/m 2.594 P 722
OAD 74.I $\times 61.65$

UA 4956
HEATSINK
kg/m 4.47I P 820
OAD $80 \times 53.5$
UA 4979
HEATSINK
kg/m 4.509 P 1166
OAD $100 \times 48$

UA 4305
HEATSINK
kg/m $4.38 \mathrm{I} \quad$ P919
OAD $165 \times 55$

AUS 4321
HEATSINK
kg/m 8.675 P 1292
OAD $200 \times 75$


| DIE No | DESCRIPTION | DIE No | DESCRIPTION |
| :---: | :---: | :---: | :---: |
| UA 1063 | FRAME | AUS 5800 | BEAD |
| UA 1064 | FRAME | AUS 5801 | MULLION |
| UA 1065 | BLADE | AUS 5802 | HEAD JAMB |
| UA 1089 | BLADE | AUS 5803 | SILL |
| UA 1368 | BLADE | AUS 5804 | HEAD ADAPTOR |
| UA 1572 | BLADE | AUS 5805 | BEAD |
| UA 1661 | BLADE | UA 6401 | BLADE |
| UA 1902 | BLADE | UA 6430 | 65mm 2-PIECE SQUARE |
| UA 1903 | FRAME | AUS 6445 | 120 mm SNAP IN |
| UA 1904 | FRAME | AUS 6446 | 120 mm HEAD |
| UA 1913 | FRAME | AUS 6447 | 120 mm JAMB |
| UA 2879 | BLADE | AUS 6448 | 120 mm JAMB |
| UA 2885 | FRAME | AUS 6449 | 50mm FRAME No. 2 |
| UA 3101 | BLADE | AUS 6450 | 50mm FRAME No.l |
| UA 3102 | BLADE | AUS 6485 | MULLION |
| UA 3164 | BLADE | AUS 6488 | SCREEN STAND OUT |
| UA 3414 | BLADE | UA 6526 | BLADE |
| UA 3431 | FRAME | UA 6758 | BLADE |
| UA 3442 | WEATHER BAR | UA 6856 | BLADE PANEL |
| UA 3653 | BLADE | UA 6860 | BLADE |
| UA 4085 | BLADE | UA 6876 | BLADE |
| UA 4133 | CHANNEL | UA 7198 | BLADE |
| UA 4134 | CHANNEL LID | UA 7425 | BLADE |
| UA 4202 | JOINTER | UA 7452 | BLADE |
| UA 4203 | SILL WEATHER BAR | UA 7461 | BRACKET |
| UA 4204 | HEAD WEATHER BAR | UA 7613 | BLADE PANEL |
| UA 4205 | EXTENSION | UA 7694 | BLADE PANEL |
| UA 4206 | FINNED JOINTER | UA 7773 | BLADE PANEL |
| UA 4230 | TORSION BAR | UA 7774 | BLADE CHANNEL |
| UA 4231 | BLADE | UA 7788 | BLADE PANEL |
| UA 4609 | BLADE | AUS 8029 | BLADE |
| UA 5018 | BLADE | AUS 8422 | LOUVRE CHANNEL |
| UA 5022 | FIXED BLADE | AUS 10018 | BLADE |
| UA 5032 | BRACKET | AUS 10102 | BLADE |
| UA 5033 | SUN BLADE | AUS 10523 | BRACKET |
| UA 5234 | STORM LOUVRE |  |  |
| UA 5354 | BLADE |  |  |
| UA 5355 | BRACKET |  |  |
| UA 5442 | FRAME |  |  |
| UA 5535 | MULLION CLIP |  |  |
| UA 5536 | MULLION |  |  |
| UA 5545 | BLADE |  |  |
| UA 5546 | FIXED BLADE |  |  |
| UA 5626 | BLADE |  |  |
| UA 5768 | BLADE |  |  |



UA 1063
FRAME
kg/m $0.363 \quad$ P 176
OAD $40 \times 33.6$

## UA 1064

FRAME
$\mathrm{kg} / \mathrm{m} 0.225 \mathrm{P} 122$
OAD $34.8 \times 21.8$
UA 1065
37 mm BLADE
$\mathrm{kg} / \mathrm{m} 0.209 \mathrm{P} \mid 10$
OAD $37 \times 18$

## UA 1368

38mm BLADE fits 2885
$\mathrm{kg} / \mathrm{m} 0.5 \mathrm{IO} \quad$ P 200
OAD $72 \times 38$
UA 1572
BLADE fits 4635
$\mathrm{kg} / \mathrm{m} 0.440 \quad$ P 165
OAD $62.3 \times 43.5$

## UA 1661

31.8mm BLADE fits 1655
kg/m 0.446 P 192
OAD $32 \times 71$

## UA 1902

28.8 mm BLADE kg/m 0.183 P 105
OAD $28.8 \times 20.5$
UA 1903
FRAME
kg/m 0.394 P 145
OAD $36 \times 22$
UA 1904
FRAME
kg/m 0.189 P93
OAD $28.6 \times 14.3$
UA 1913
42mm FRAME
$\mathrm{kg} / \mathrm{m} 0.467 \mathrm{P} \mid 74$
OAD $47 \times 30$

## UA 2885

38 mm FRAME
$\mathrm{kg} / \mathrm{m} 0.296 \mathrm{P} 197$
OAD $40 \times 30$

UA 3164
54 mm BLADE
kg/m 0.810 P 303
OAD $109.6 \times 54$


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$\mathbf{P}=$ EXT PERIPHERY
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NOTE: Not all products are available ex-stock, check with your local branch for advice on availability.

UA 1089
38mm BLADE fits 2885
$\mathrm{kg} / \mathrm{m} 0.522$ P 261
OAD $78 \times 38$
UA 3101
69mm BLADE fits 1671
kg/m 0.961 P 390
OAD $126.5 \times 69$

UA 3102
94mm BLADE fits I I 35
$\mathrm{kg} / \mathrm{m} 1.256$ P 460
OAD $151 \times 94$
UA 3414
81 mm BLADE
$\mathrm{kg} / \mathrm{m} 0.949$ P 352
OAD $95 \times 8$ I
UA 7425
73.8 mm BLADE
$\mathrm{kg} / \mathrm{m} 1.061 \quad$ P 389
OAD $110 \times 73.8$

UA 3414


UA 5354
BLADE
kg/m 1.536 P 232
OAD $110 \times 22.55$
Box Cavity takes 1273
Cast End Cap UCI989
UA 5355
BRACKET fits 5354, 6758
$\mathrm{kg} / \mathrm{m} 0.585 \mathrm{P} \mid 78$
OAD $64 \times 22$

## UA 6430

$65 \times 65 \mathrm{~mm} 2$-PIECE SQUARE $\mathrm{kg} / \mathrm{m} 1.257$ P 349
OAD $65 \times 61.15$
UA 6526
BLADE
$\mathrm{kg} / \mathrm{m} 0.808$ P 186
OAD $89.8 \times 12$

## UA 6758

BLADE
kg/m 2.412 P 373
OAD $180 \times 30$
Box Cavity takes 1273
Cast End Cap UCI500
UA 6860
BLADE
kg/m 1.315 P 249
OAD $120 \times 18$

UA 6876
BLADE
kg/m 1.588 P 307
OAD $150 \times 18$


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UA 6860


UA 6876


UA 5355


UA 5354


UA 6758


UA 6430

Self Mating
Overall $65 \times 65 \mathrm{~mm}$ Square


UA 5032
BRACKET
kg/m 1.556 P 334
OAD $73.57 \times 60$
UA 5033
SUN BLADE
$\mathrm{kg} / \mathrm{m} 0.932$ P 359
OAD $100 \times 73.25$
AUS 8029
BLADE
$\mathrm{kg} / \mathrm{m} 0.942 \mathrm{P} 21 \mathrm{l}$
OAD $100 \times 20.4$
AUS 8422
LOUVRE CHANNEL
$\mathrm{kg} / \mathrm{m} 0.348$ P 156
OAD $38.7 \times 20.3$
AUS 10018
BLADE
$\mathrm{kg} / \mathrm{m} 1.543 \quad$ P 313
OAD $150 \times 29$
AUS 10523
BRACKET fits 10018
kg/m 4.165 P 438
OAD $122 \times 76.75$

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AUS 8029


AUS 8422
AUS I 0523


AUS



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NB: CUSTOMERS ARE TO CONFIRM THAT THEIR BLADE HOLDERS WILL SUIT THE DIMENSIONS OF OUR ULLRICH LOUVRE bLADES BEFORE ORDERING. NO RESPONSIBILITY WILL BE TAKEN FOR THE SUPPLY OF ANY INCORRECT BLADES.

UA 3431
FRAME
kg/m 1.328 P 311
OAD $110 \times 20$
UA 3442
WEATHER BAR
$\mathrm{kg} / \mathrm{m} 0.437$ P 220
OAD $48.74 \times 41.49$
UA 5234
STORM LOUVRE
$\mathrm{kg} / \mathrm{m} 0.769$ P 328
OAD $80 \times 59$
UA 5442
FRAME
$\mathrm{kg} / \mathrm{m} 1.114$ P518
OAD $111.4 \times 61$
UA 5535
MULLION CLIP kg/m 0.399 P 174 OAD $60 \times 6.25$

UA 5536
MULLION
kg/m 0.724 P 307
OAD $60 \times 28.5$

UA 5535


UA 3442



UA 5234


DIAGRAMS ACTUAL SIZE UNLESS
OTHERWISE INDICATED.
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[^5]

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AUS 6445
120 mm SNAP IN kg/m 0.159 P 100 OAD $19 \times 16.3$

AUS 6446
120 mm HEAD
$\mathrm{kg} / \mathrm{m} 1.406 \mathrm{P} 671$
OAD $120 \times 84$
AUS 6447
120 mm JAMB
$\mathrm{kg} / \mathrm{m} 1.093$ P 532
OAD $120 \times 54$
AUS 6448
120 mm JAMB kg/m 1.389 P 661
OAD $120 \times 84$
AUS 6449
50mm FRAME No. 2 $\mathrm{kg} / \mathrm{m} 0.923$ P 440
OAD $84 \times 50$
AUS 6450
50mm FRAME No. 1
$\mathrm{kg} / \mathrm{m} 0.624$ P 316
OAD $50 \times 47.05$


DIAGRAMS ACTUAL SIZE UNLESS OTHERWSE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY AND NOT INTENDED AS APECIFCATION DRAWING OAD = OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY
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Edition 16-2018


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## DIE No

## DESCRIPTION

UA 1037 EASY DUCT LID
UA 1038 EASY DUCT BASE

UA 1039 EASY DUCT BASE
UA 1040 CAVITY DUCT BASE
UA I04I DUCT DIVIDER
UA 1042 DUCT LID
UA 1043 DUCT BASE CHANNEL
UA 1593 DUCT LID
UA 1594 DUCT CHANNEL
UA 1595 DUCT CHANNEL
UA 1596 DUCT CHANNEL
UA 1597 DUCT CHANNEL
UA 1598 DUCT CHANNEL
UA 1600 DUCT CHANNEL
UA 1854 DUCT LID
UA 1867 DUCT LID
UA 1925 DUCT CHANNEL
UA 2046 DUCT CHANNEL
UA 2047 DUCT LID
UA 2530 DUCT BASE
UA 2531 DUCT LID
UA 4476 DUCT CHANNEL
UA 5045 DUCT CHANNEL
UA 5336 DUCT LID
UA 5337 DUCT LID
UA 5346 DUCT LID
UA 5917 DOUBLE DUCT CHANNEL
UA 5918 DOUBLE DUCT LID
UA 5928 DUCT LID
UA 6214 DUCT CHANNEL
UA 6382 DUCT CHANNEL
UA 7023 DUCT CHANNEL
UA 7024 DUCT LID
UA 7702 DUCT CHANNEL
UA 7446 DUCT CHANNEL
UA 7447 DUCT LID
UA 7778 DOUBLE DUCT CHANNEL

## UA 1037

EASY DUCT LID ( 2C, 3C )
$\mathrm{kg} / \mathrm{m} 0.868$ P 329
OAD $136 \times 10$

## UA 1038

EASY DUCT BASE ( 2C )
kg/m 1.449 P 559
OAD $|36 \times 4|$

## UA 1039

EASY DUCT BASE ( 3C )
kg/m I. 668 P 645
OAD $136 \times 41$

## UA 1040

CAVITY DUCT BASE
kg/m 0.949 P 432
OAD $84 \times 44$

## UA 1041

DUCT DIVIDER
$\mathrm{kg} / \mathrm{m} 0.400$ P 196
OAD $46 \times 22$

## UA 1042

DUCT LID
kg/m 0.412 P 207
OAD $62.5 \times 19$

## UA 1043

DUCT BASE CHANNEL
$\mathrm{kg} / \mathrm{m} 0.307$ P 158
OAD $47 \times 17$

## UA 2530

DUCT BASE
$\mathrm{kg} / \mathrm{m} 1.457$ P 612
OAD $120 \times 45.2$

## UA 253I

DUCT LID
$\mathrm{kg} / \mathrm{m} 0.58 \mathrm{I} \quad$ P 354
OAD $120 \times 30$



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UA 1593

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UA 5346
DUCT LID
kg/m 0.442 P 169
OAD $77.9 \times 7.5$

UA 5917
DOUBLE DUCT CHANNEL
kg/m 1.963 P 710
OAD $151 \times 59$
UA 5918
DOUBLE DUCT LID
$\mathrm{kg} / \mathrm{m} 0.402$ P 154
OAD $70.5 \times 7.5$
UA 6214
DOUBLE DUCT CHANNEL
kg/m 2.632 P 910
OAD $180 \times 60$
UA 6382
DUCT CHANNEL
kg/ml.413 P5II
OAD $80 \times 80$




UA 2046
DUCT CHANNEL (KMP26)
kg/m 1.802 P 586
OAD $120 \times 62$
UA 2047
DUCT LID (KMP26)
kg/m 0.639 P 259
OAD $120 \times 5.6$
UA 5928
DUCT LID (KMP20)
kg/m 1.046 P 310
OAD $143 \times 7.13$
UA 7702
DUCT CHANNEL (KMP20) kg/m 2.506 P 745
OAD $143 \times 79.3$


DIAGRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY AND NOT INTENDED AS
SPECFICATION DRAWINGS OAD $=$ OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY


## UA 5918

DOUBLE DUCT LID
$\mathrm{kg} / \mathrm{m} 0.402 \quad$ P 154
OAD $70.5 \times 7.5$

## UA 7446

DUCT CHANNEL
$\mathrm{kg} / \mathrm{m} 1.655 \quad$ P 613
OAD $108.1 \times 80$
UA 7447
DUCT LID
$\mathrm{kg} / \mathrm{m} 0.421 \quad$ P 162
OAD $74.45 \times 7.5$
UA 7778
DOUBLE DUCT CHANNEL kg/m 3.335 P 993
OAD $163 \times 105.9$

## CAT 6A COMPLIANT

(Fibre Optic Cables)

UA 5918

## UA 7778

UA 5918

DIAGRAMS ACTUAL SIZE UNLESS THERWISE INDICATED
AND NOT INTENDED AS SPECIFCATION DRAWING OAD = OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY

UA 4476
DUCT CHANNEL (KPL05)
kg/m 3.169 P 855
OAD $153.67 \times 108.96$

UA 5928
DUCT LID (KPL05 )
kg/m 1.046 P 310
OAD $143 \times 7.13$

UA $\mathbf{7 0 2 3}$
DUCT CHANNEL (KMP25 )
kg/m 3.329 P 734
OAD $180 \times 80$
UA 7024
DUCT LID (KMP25 )
kg/m I. 283 P 382
OAD $180 \times 7.2$


DIE No DESCRIPTION

UA 4528 STANDARD BOARD
UA 4532 WINDOW FLASHING
UA 4533 HEAD FLASHING
UA 4535 LOCATOR CLIP
UA 4862 BOARD STARTER
UA 4863 VERTICAL BOARD STARTER
UA 4917 TEE BOARD
UA 5059 TRADITIONAL BOARD
UA 5104 FULL CORRUGATE BOARD
UA 5831 SOFFIT CLIP BASE
UA 5832 SOFFIT 65 mm CLIP TOP
UA 5833 SOFFIT 30mm CLIP TOP
UA 6323 SCALLOPED JOINTERTOP
UA 63242 PIECE JOINTER BASE
AUS 6478 SHADOLINE FLAT BOARD
UA 6608 FEMALE SCALLOPED CORNER
UA 6609 MALE SCALLOPED CORNER
UA 6975 SHADOLINE BOARD
UA 7094 FEMALE FLAT CORNER
UA 7095 MALE FLAT CORNER
UA 7096 FLAT JOINTERTOP
UA 7401 INFINITY BOARD
UA 7726 SHADO 100 BOARD
UA 7837 FIN BOARD
UA 7868 SHADO 140 BOARD

UA 4528 UlltraClad STANDARD BOARD kg/m 1.003 P 501 OAD $190.5 \times 15$

UA 6975 UlltraClad SHADOLINE BOARD kg/m 1.167 P 562
OAD $205 \times 15$
Can be fitted VERTICALLY

UA 7401 UlltraClad
INFINITY BOARD kg/m 1.159 P 546
OAD $205 \times 15$
Can be fitted VERTICALLY
UA 7726 UlltraClad
SHADO 100 BOARD
kg/m 1.303 P 629
OAD $205.16 \times 15$
Can be fitted VERTICALLY
UA 7868 UlltraClad
SHADO 140 BOARD
$\mathrm{kg} / \mathrm{m} 1.274$ P 614
OAD $205.16 \times 15$
Can be fitted VERTICALLY


ALUMINIUM VERMIN STRIP OAD $120 \times 20$
Length 2400 mm
Square holes $5 \times 5 \mathrm{~mm}$
Code: ALVERMIN2.4


DIAGRAMS ACTUAL SIZE UNLESS
OTHERWISE INDICATED.
DIAGRAMS ARE SCHEMATIC ONLY
AND NOT INTENDED AS
OAD $=$ OVERALL DIMENSIONS
$\mathbf{P}=$ EXT PERIPHERY


IAGRAMS ACTUAL SIZE UN

UA 4532 UlltraClad
WINDOW FLASHING
$\mathrm{kg} / \mathrm{m} 0.420 \quad$ P 214
OAD $65 \times 18.5$
UA 4533 UlltraClad
HEAD FLASHING $\mathrm{kg} / \mathrm{m} 0.497 \quad$ P 249
OAD $78.77 \times 37.33$
UA 4535 UlltraClad
LOCATOR CLIP
With Screws (Bags 100 )
$\mathrm{kg} / \mathrm{m} 0.198$ P 105
OAD $35.8 \times 13.9$
UA 4862 UlltraClad
BOARD STARTER $\mathrm{kg} / \mathrm{m} 0.448 \quad$ P 228
OAD $94.5 \times 15$
UA 4863 UlltraClad
VERTICAL BOARD STARTER
$\mathrm{kg} / \mathrm{m} 0.554$ P 280
OAD $95 \times 18.5$
UA 583 I UlltraClad
SOFFIT CLIP BASE
$\mathrm{kg} / \mathrm{m} 0.416 \mathrm{P} 198$
OAD $70 \times 15$
UA 5832 UlltraClad
SOFFIT 65 mm CLIPTOP
$\mathrm{kg} / \mathrm{m} 0.367$ P 189
OAD $65 \times 14$
UA 5833 UlltraClad
SOFFIT 30mm CLIPTOP
$\mathrm{kg} / \mathrm{m} 0.215 \quad \mathrm{P} \| 19$
OAD $30 \times 14$
UA 7584 UlltraClad
JAMB / SILL CLIP
$\mathrm{kg} / \mathrm{m} 0.600 \quad$ P 222
OAD $75 \times 18.5$


DIAGRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY AND NOT INTENDED AS
SPECIFICATION DRAWING OAD = OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY

UA 5832


UA 7584
UA 5831


UA 4863
UA 4533

UA 4532

CORNER STAKE - PLASTIC


Fits 7584
Code: CLADSTAKECNR



UA 6323 UlltraClad SCALLOPED JOINTERTOP kg/m 0.338 P 184 OAD $63 \times 13.9$

UA 6324 UlltraClad 2 PIECE JOINTER BASE kg/m 0.536 P 269 OAD $100 \times 17$

AUS 6478 UlltraClad
SHADOLINE FLAT BOARD kg/m 1.207 P 599 OAD $205 \times 15$

UA 6608 UlltraClad FEMALE SCALLOPED CORNER kg/m 0.680 P 355 OAD $70.1 \times 70.1$

UA 6609 UlltraClad MALE SCALLOPED CORNER kg/m 0.594 P 300
OAD $71.3 \times 71.3$
UA 7094 UlltraClad FEMALE FLAT CORNER $\mathrm{kg} / \mathrm{m} 0.465 \quad \mathrm{P} 257$
OAD $45 \times 45$
UA 7095 UlltraClad
MALE FLAT CORNER
$\mathrm{kg} / \mathrm{m} 0.266 \mathrm{P} 147$
OAD $32.81 \times 32.81$
UA 7096 UlltraClad
FLAT JOINTER TOP kg/m 0.338 P 184
OAD $63 \times 13.9$

| DIE No | DESCRIPTION | DIE No | DESCRIPTION |
| :---: | :---: | :---: | :---: |
| T2 SHOP FRONT |  | GENERAL SHOP FRONT |  |
| UA 7558 | SILL TRAY BASE | UA 1293 | FLASHING |
| UA 7559 | SILLTRAY | UA 1294 | CORNER POST |
| UA 7560 | HEAD / JAMB | UA 1298 | FLASHING |
| UA 7561 | FLAT SUPPORT INFILL | UA 1309 | DOOR HANDLE |
| UA 7562 | GLAZING ADAPTOR | AUS 8606 | MULLION |
| UA 7563 | POCKET FILLER | AUS 8607 | FLUSH INFILL |
| UA 7564 | GLAZING ADAPTOR |  |  |
| UA 7565 | SINGLE GLAZE ADAPTOR |  |  |
| UA 7566 | SILL / TRANSOM | COMMER | AL DOOR |
| UA 7567 | CLOSER COVER |  |  |
| UA 7568 | EXTENDED TRANSOM / SILL | UA 1070 | TOP RAIL |
| UA 7569 | SLOPED GLAZING BEAD | UA 1300 | HiNGE STILE |
| UA 7570 | SLOPED GLAZING BEAD | UA 1301 | WOOLPILE STILE |
| UA 7571 | SINGLE GLAZING BEAD | UA 1302 | PLAIN STILE |
| UA 7572 | DOOR ADAPTOR | UA 1303 | GLAZING BEAD |
| UA 7573 | 40mm DOOR ADAPTOR | UA 1304 | VISION RAIL CAP |
| UA 7581 | GLAZING BEAD | UA 1305 | TOP TRACK |
|  |  | UA 1306 | BOTTOM RAIL |
|  |  | UA 1307 | BOTTOM TRACK |
| 75mm SHOP FRONT |  | UA 1308 | VISION RAIL |
|  |  | UA 1310 | WOOLPILE DOOR STOP |
| UA 1285 | MULLION | UA 2369 | STILE GUIDE |
| UA 1286 | MULLION | UA 2370 | STILE |
| UA 1287 | GLAZING BEAD | UA 3922 | GLAZING BEAD |
| UA 1288 | MULLION | UA 4175 | STILE |
| UA 1289 | SILLTRANSOM | UA 4576 | STILE |
| UA 1290 | MULLION | UA 4577 | HiNGE STILE |
| UA 1291 | GLAZING INFILL | UA 4907 | HINGE STILE |
| UA 1292 | FLUSH INFILL | UA 4908 | LOCK STILE |
| UA 1333 | POCKET FILLER | UA 4909 | TOP RAIL |
|  |  | UA 4910 | MID RAIL |
|  |  | UA 4911 | BOTTOM RAIL |
| 100 mm SHOP FRONT |  |  |  |
| UA 1291 | GLAZING INFILL |  |  |
| UA 1292 | FLUSH INFILL |  |  |
| UA 1295 | MULLION |  |  |
| UA 1296 | GLAZING BEAD |  |  |
| UA 1297 | SILLTRANSOM |  |  |
| UA 1299 | MULLION |  |  |
| UA 1333 | POCKET FILLER |  |  |
| UA 3088 | PLAIN MULLION |  |  |
| UA 3920 | GLAZING INFILL |  |  |
| UA 3921 | GLAZING BEAD |  |  |
| UA 3923 | MULLION |  |  |
| UA 3996 | MULLION |  |  |
| UA 4837 | POCKET FILLER |  |  |
| UA 4864 | POCKET FILLER |  |  |



UA 7558
SILL TRAY BASE
$\mathrm{kg} / \mathrm{m} 0.617$ P 281
OAD $104.1 \times 29.8$
UA 7559
SILL TRAY
kg/m 1.225 P 454
OAD $119.6 \times 60.4$
UA 7560
HEAD / JAMB
$\mathrm{kg} / \mathrm{m} 1.528$ P 571
OAD $100 \times 50$

UA 7561
FLAT SUPPORT INFILL
$\mathrm{kg} / \mathrm{m} 0.792$ P 283
OAD $89 \times 23.2$

## UA 7562

GLAZING ADAPTOR $\mathrm{kg} / \mathrm{m} 0.640$ P 301
OAD $89 \times 23.2$

## UA 7563

POCKET FILLER $\mathrm{kg} / \mathrm{m} 0.144 \quad$ P 98
OAD $33.8 \times 7.75$
UA 7564
GLAZING ADAPTOR $\mathrm{kg} / \mathrm{m} 0.867$ P 416
OAD $100 \times 30.2$
UA 7565
SINGLE GLAZE ADAPTOR $\mathrm{kg} / \mathrm{m} 0.270$ P 158 OAD $25 \times 16.5$

UA 7561


UA 7565


UA 7563


## UA 7559

## UA 7558

IAGRAMS ACIUAL SLZE UNLESS
OTHERWSE INIICATED.
DAGRAMS ARE SCHEMATIC ONLI DIAGRAMS ARE SCHEMATIC ONL
AND NOT INTENDED AS AND NOTINTENDEAAS
SPECIFICATON DRAWINGS. OAD $=$ OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY



UA 1285
MULLION
kg/m $1.380 \quad$ P 499
OAD $76.2 \times 44.5$

UA 1286
MULLION
kg/m 1.779 P 313
OAD $76.2 \times 44.5$

UA 1287
GLAZING BEAD
kg/m 0.239 P 147
OAD $30.8 \times 18.5$

UA 1288
MULLION
kg/m 1.483 P 242
OAD $76.2 \times 44.5$

## UA 1289

SILLTRANSOM kg/m 1.136 P 414 OAD $76.2 \times 44.5$

UA 1290
MULLION
$\mathrm{kg} / \mathrm{m} 1.074$ P 388
OAD $76.2 \times 44.5$
UA 1291
GLAZING INFILL $\mathrm{kg} / \mathrm{m} 0.719 \quad$ P 268 OAD $60.2 \times 20.5$

UA 1292
FLUSH INFILL
$\mathrm{kg} / \mathrm{m} 0.454$ P 169
OAD $60.2 \times 6.7$

UA 1333
POCKET FILLER
$\mathrm{kg} / \mathrm{m} 0.121 \quad \mathrm{P} 78$ OAD $16.5 \times 12$


DIAGRAMS ACTUAL SIZE UNLIESS OTHERWISE INDICATED DIAGRAMS ARE SCHEMATIC ONLY AND NOT INTENDED AS ANECIFICATION DRAWING OAD = OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY



## UA 1292

FLUSH INFILL
$\mathrm{kg} / \mathrm{m} 0.454$ P 169
OAD $60.2 \times 6.7$

UA I296
GLAZING BEAD
kg/m 0.357 P 195
OAD $54.55 \times 18.5$

UA 1297
SILLTRANSOM
kg/m $1.650 \quad$ P 515
OAD $100 \times 44.5$

UA 3920
GLAZING INFILL $\mathrm{kg} / \mathrm{m} 0.710 \quad$ P 261 OAD $60.2 \times 20.5$

## UA 3921

GLAZING BEAD kg/m 0.34। P 189 OAD $53.25 \times 18.5$


UA 3923
MULLION
kg/m 1.645 P 586
OAD $100 \times 44.5$
UA 4837
POCKET FILLER
If Anodised
$\mathrm{kg} / \mathrm{m} 0.141 \quad$ P 87
OAD $21.6 \times 11.7$

UA 4864
POCKET FILLER
If Powdercoated $\mathrm{kg} / \mathrm{m} 0.142 \mathrm{P} 88$ OAD $21.6 \times 12$

UA 1293

UA 1298

AUS 8607


UA 1294

UA 1309

UA 1293
FLASHING kg/m 0.567 P 257
OAD $95 \times 33.5$

UA 1294
CORNER POST
kg/m 1.720 P 602
OAD $76 \times 76$

UA 1298
FLASHING
kg/m 0.676 P 308
OAD $120 \times 33.5$

UA 1309
DOOR HANDLE
kg/m 1.817 P 331
OAD $89.6 \times 49.8$
AUS 8606
MULLION
kg/m 1.283 P 462
OAD $101.6 \times 44$

AUS 8607
FLUSH INFILL
$\mathrm{kg} / \mathrm{m} 0.532 \quad \mathrm{P} 221$
OAD $79.6 \times 6.9$

UA 1070
TOP RAIL kg/m 1.420 P 254
OAD $60 \times 42$

UA 1300
HINGE STILE
kg/m 1.132 P 219
OAD $51 \times 44$

UA 1301
WOOLPILE STILE
kg/m 1.161 P 222
OAD $51 \times 44$
UA 1302
PLAIN STILE
$\mathrm{kg} / \mathrm{m} 1.112$ P 217
OAD $51 \times 44$
UA 1303
GLAZING BEAD
$\mathrm{kg} / \mathrm{m} 0.167 \mathrm{P} 98$
OAD $14.8 \times 13.6$
UA 1304
VISION RAIL CAP $\mathrm{kg} / \mathrm{m} 0.447$ P I 58 OAD $42 \times 15$

UA 1305
TOPTRACK
kg/m 1.002 P 339
OAD $63 \times 43$
UA 1306
BOTTOM RAIL
kg/m 1.919 P 383
OAD $100 \times 42$
Takes Door Roller TRUKEG9407IO

## UA 1308

VISION RAIL
kg/m 1.849 P 315
OAD $92 \times 42$
UA 1310
WOOLPILE DOOR STOP $\mathrm{kg} / \mathrm{m} 0.145 \quad$ P 75 OAD $18 \times 13$

dagrams actual size unless OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY AND Not intended as SPECIFICATION DRAWINGS.
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UA 1303
GLAZING BEAD $\mathrm{kg} / \mathrm{m} 0.167 \mathrm{P} 98$ OAD $14.8 \times 14$

UA 1307
BOTTOMTRACK kg/m 0.536 P 139 OAD $35 \times 13$

UA 2369
STILE GUIDE
$\mathrm{kg} / \mathrm{m} 0.141 \quad$ P 79
OAD $26.5 \times 5.5$
UA 2370
STILE
kg/m 1.302 P 261
OAD $51 \times 44$
UA 4175
STILE
kg/m 1.397 P 275
OAD $58 \times 44$

UA 4576
STILE
kg/m 1.896 P 349
OAD $95 \times 44$
UA 4577
HINGE STILE
kg/m 1.678 P 300
OAD $95 \times 44$
UA 4907
HINGE STILE
kg/m 1.494 P 294
OAD $68 \times 44$

## UA 4908

LOCK STILE
kg/m 1.578 P 342
OAD $68 \times 44$


UA 3922
GLAZING BEAD $\mathrm{kg} / \mathrm{m} 0.157$ P 93
OAD $14.8 \times 12$
UA 4909
TOP RAIL
kg/m 1.436 P 288
OAD $74.1 \times 42$
UA 4910
MID RAIL
kg/m 1.925 P 360
OAD $114 \times 42$

## UA 49II

BOTTOM RAIL
kg/m 1.830 P 408
OAD $112 \times 42$
Takes Door Roller
TRUKEG9407IO


DIAGRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONIY AND NOT INTENDED AS
SPECIFICATON DRAWINGS OAD $=$ OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY

DIE No
DESCRIPTION

DESIGNER PARTITIONING SYSTEM

UA 7250
UA 725 I
UA $7252 \quad 13 \mathrm{~mm}$ GIB RECESSED STARTER
UA 7253 13mm GIB HEAD STARTER
UA 7254 RECESSED STARTER CAP
UA 7255
UA 7256
UA 7257
UA 7258
UA 7259
UA 7260
UA 7261
UA 7262
UA 7263
UA 7264 ADJUSTABLE DOOR STOP
UA 7265 DOOR STOP CAP
UA 7266 DOOR STOP CAP
UA 7267 GLAZING BASE
UA 7268 GLAZING BEAD
UA 7269 GLAZING BEAD
UA 7270 GLAZING BASE
UA 727I GLAZING BEAD
UA 7272 GLAZING BEAD
UA 7273 RECESSED GLAZING MULLION CAP
UA 7274 I3mm GIB RECESSED STARTER
UA 7275 RECESSED GLAZING MULLION CAP
UA 7276 DOOR TOP RAIL
UA 7277 SLIDING DOOR BOTTOM RAIL
UA 7278 GLAZING BEAD
UA 7279 GLAZING BEAD
UA 7280 DOOR SIDE RAIL
UA 728I SLIDE CAP
UA 7282 SLIDE INFILL - WOOLPILE
UA 7283 SLIDE INFILL - SIDE WOOLPILE
UA 7284 SLIDING DOOR TOP CHANNEL
UA 7285 DOOR SIDE CHANNEL
UA 7286 BOTTOM DOOR TRACK
UA 7287 DOOR CENTRE MULLION
UA 7742 104mm RECESSED GLAZING MULLION POST
UA 7743 132mm RECESSED GLAZING MULLION POST
UA 7785 RECESSED DOOR STARTER CAP
UA 7840 OFFSET GLAZING BASE

## DIE No DESCRIPTION

## DESIGNER 1000 PARTITIONING SYSTEM

UA 1034 GLAZING BAR BASE
UA 1035 GLAZING BEAD
UA 1046 DOOR PILLAR POST
UA 1047 PILLAR POST JAMB
UA 1181 FLAT BAR ( Skirting)
UA 1313 DOUBLE GLAZING CAP
UA 1314 DOUBLE GLAZING BASE
UA 1315 DOOR JAMB CAP
UA 1316 DOOR JAMB
UA $1672 \quad 26 \mathrm{~mm}$ HEAD STARTER
UA 1788 DOOR JAMB
UA $1934 \quad 13 \mathrm{~mm}$ GIB LINING CAP
UA 2062 DOOR JAMB
UA 2400 GLAZING BAR MULLION
UA 3209 GLAZING BEAD
UA 4362 I 3 mm GIB HEAD STARTER
UA $4363 \quad 13 \mathrm{~mm}$ STARTER CAP
UA $4364 \quad 13 \mathrm{~mm}$ STARTER CAP
UA 654213 mm GIB HEAD STARTER

## TOILET PARTITION SYSTEM

UA 1573 WALL MOUNT
UA 5949 18mm CAPPING
UA $6453 \quad 18 \mathrm{~mm}$ JOINTER
UA $6454 \quad 18 \mathrm{~mm}$ DOOR STOP CAP
UA 6455 18mm CORNER
UA 7025 I Imm INSERT
© Ullrichaluminum colto

UA 7250
I 3mm GIB HEAD STARTER
For 63.5 mm Steel Stud
$\mathrm{kg} / \mathrm{m} 0.93 \mid \quad \mathrm{P} 515$
OAD $104 \times 37.3$
UA 725 I
RECESSED STARTER CAP
kg/m 0.660 P 347
OAD $104 \times 26$

## UA 7252

| 3 mm GIB RECESSED STARTER
For 63.5 mm Steel Stud
$\mathrm{kg} / \mathrm{m} 1.210 \mathrm{P} 617$
OAD $104 \times 37.3$
UA 7258
STARTER FLUSH CAP
If Powdercoated
$\mathrm{kg} / \mathrm{m} 0.203$ P 126
OAD $27.3 \times 18.8$

## UA 7259

40mm DOOR STOP
If Powdercoated $\mathrm{kg} / \mathrm{m} 0.303 \mathrm{P} \mid 56$
OAD $29.14 \times 27.3$


## UA 7260

50mm DOOR STOP
If Powdercoated
kg/m 0.303 P | 56
OAD $29.14 \times 27.3$
UA 7261
STARTER FLUSH CAP
If Anodised
$\mathrm{kg} / \mathrm{m} 0.210$ P 127
OAD $27.6 \times 18.75$

## UA 7262

40mm DOOR STOP
If Anodised
kg/m 0.309 P 156
OAD $29.09 \times 27.6$
UA 7263
50 mm DOOR STOP
If Anodised
kg/m 0.309 P 156
OAD $29.09 \times 27.6$

## UA 7267

GLAZING BASE
$\mathrm{kg} / \mathrm{m} 0.730$ P 373
OAD $104 \times 26$

## UA 7268

GLAZING BEAD
If Powdercoated
$\mathrm{kg} / \mathrm{m} 0.324 \mathrm{P} \mid 84$
OAD $40 \times 24.35$


DIAGRAMS ACTUAL SIZE UNLESS OTHERWIE INDICATED. DIAGRAMS ARE SCHEMATIC ONL
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## UA 7269

GLAZING BEAD
If Anodised
kg/m 0.327 P 186
OAD $40 \times 24.35$

UA 7273
RECESSED GLAZING MULLION CAP
$\mathrm{kg} / \mathrm{m} 0.898$ P 464
OAD $104 \times 32.8$


DIAGRAMS ACTUAL SIZE UN OTHERWISE INDICATED. IAGRAMS ARE SCHEMATC ONL
AND NOT INTENDED AS SPECIFCATION DRAWINGS oad = OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY


UA 7256
16 mm GIB HEAD STARTER
For 92 mm Steel Stud
kg/m 1.048 P 581
OAD $138 \times 37.3$

UA 7257
RECESSED STARTER CAP $\mathrm{kg} / \mathrm{m} 0.798$ P 415
OAD $138 \times 26$

UA 7264
ADJUSTABLE DOOR STOP kg/m $0.56|\mathrm{P}| 32$
OAD $35 \times 15$

UA 7265
DOOR STOP CAP
If Powdercoated $\mathrm{kg} / \mathrm{m} 0.145 \mathrm{P} 98$ OAD $28 \times 11.1$

## UA 7266

DOOR STOP CAP
IfAnodised
$\mathrm{kg} / \mathrm{m} 0.147$ P 98
OAD $28.3 \times 11.06$
UA 7268
GLAZING BEAD
If Powdercoated
$\mathrm{kg} / \mathrm{m} 0.324$ P 184
OAD $40 \times 24.35$

UA 7269
GLAZING BEAD
If Anodised
$\mathrm{kg} / \mathrm{m} 0.327$ P 186
OAD $40 \times 24.35$

UA 7270
GLAZING BASE $\mathrm{kg} / \mathrm{m} 0.836$ P 429 OAD $132 \times 26$


UA 7271
GLAZING BEAD If Powdercoated $\mathrm{kg} / \mathrm{m} 0.373$ P 212
OAD $54 \times 24.35$

## UA 7272

GLAZING BEAD
If Anodised
$\mathrm{kg} / \mathrm{m} 0.376$ P 214
OAD $54 \times 24.35$


## UA 7284

SLIDING DOORTOP GUIDE $\mathrm{kg} / \mathrm{m} 0.723$ P 285
OAD $50 \times 40$

## UA 7285

DOOR SIDE CHANNEL $\mathrm{kg} / \mathrm{m} 0.561$ P 225
OAD $50 \times 25$

UA 7840
OFFSET GLAZING BASE
kg/m 0.858 P 428
OAD $132 \times 26$


UA 7278
or
UA 7279



UA 7742
104mm RECESSED
GLAZING MULLION POST
kg/m 2.310 P 490
OAD $104 \times 66.73$
UA 7743
132 mm RECESSED
GLAZING MULLION POST
kg/m 2.854 P 602
OAD $132 \times 94.73$




TAPERED FLUSH HINGE Anodised Silver Code: HFSAT


PARTITION GUSSET Mitre Corner, Vertical Code: PARTGUSS22.5 PKT 50


STEEL TRACK STUD $63.5 \times .55 \times 3000 \mathrm{~mm}$



SPLICE PLATE
Butt Joint Code: PARTSPLICE23

PKT 50

HEADSTARTER RESTRAINT BRACKET

STUD $63.5 \times .55 \times 2400 \mathrm{~mm}$ STUD $63.5 \times .55 \times 2700 \mathrm{~mm}$ STUD $63.5 \times .55 \times 3000 \mathrm{~mm}$ STUD $63.5 \times .55 \times 3300 \mathrm{~mm}$ STUD $63.5 \times .75 \times 3600 \mathrm{~mm}$


Code: PARTSTARTERBRKT BOX 20


STEEL STUD
STUD $92 \times .55 \times 3000 \mathrm{~mm}$ STUD $92 \times .55 \times 3600 \mathrm{~mm}$ STUD $92 \times .55 \times 4200 \mathrm{~mm}$



STEEL TRACK
STUD $92 \times 0.55 \times 3000 \mathrm{~mm}$


UA II8I
FLAT BAR ( Skirting )
kg/m 0.305 P 59
OAD $25 \times 4.5$
UA 1315
DOOR JAMB CAP
$\mathrm{kg} / \mathrm{m} 0.100$ P 73
OAD $13.8 \times 11.8$

UA 1316
DOOR JAMB - 40mm Door kg/m 0.904 P 317
OAD $47 \times 39$

## UA 1672

26mm HEAD STARTER For 63.5 mm Steel Stud $\mathrm{kg} / \mathrm{m} 1.131 \quad$ P 538 OAD $129 \times 34.6$

## UA 1788

DOOR JAMB - 40mm Door kg/m 0.67I P 234
OAD $48 \times 27.8$

## UA 1934

13 mm GIB LINING CAP $\mathrm{kg} / \mathrm{m} 0.353$ P 176
OAD $35.8 \times 20$

## UA 2062

DOOR JAMB - 45mm Door kg/m 0.690 P 243
OAD $53 \times 27$

## UA 4362

13 mm GIB HEAD STARTER
For 63.5 mm Steel Stud $\mathrm{kg} / \mathrm{m} 0.863$ P 492
OAD $104 \times 37.3$

## UA 4363

13 mm STARTER CAP
If Powdercoated
$\mathrm{kg} / \mathrm{m} 0.389 \quad$ P 225
OAD $96.8 \times 8.14$

## UA 4364

13 mm STARTER CAP
If Anodised
kg/m 0.391 P 227
OAD $97.6 \times 8.14$

## UA 6542

13 mm GIB HEAD STARTER For 63.5 mm Steel Stud Negative Detail $\mathrm{kg} / \mathrm{m} 0.973$ P 553
OAD $104 \times 49.3$


UA 1315


UA 1934

UA 1672


UA 6542




UA 1314



UA 1034
GLAZING BAR BASE
kg/m 0.533 P 210
OAD $44 \times 26$

UA 1035
GLAZING BEAD
If Powdercoated
$\mathrm{kg} / \mathrm{m} 0.175$ P 120
OAD $21 \times 14.5$
UA 1046
DOOR PILLAR POST
kg/m 1.072 P 288
OAD $65 \times 44$
UA 1047
PILLAR POST JAMB - 40mm Door kg/m 0.354 P 138
OAD $47 \times 14$
UA 1313
DOUBLE GLAZING CAP
kg/m 0.253 P I 36
OAD $48.8 \times 9.2$

UA 1314
DOUBLE GLAZING BASE
kg/m 1.092 P 435
OAD I06×25.5 Infill 466
UA 2400
GLAZING BAR MULLION kg/m 0.786 P 295
OAD $45 \times 44$
UA 3209
GLAZING BEAD
If Anodised
$\mathrm{kg} / \mathrm{m} 0.178 \mathrm{P} 121$
OAD $21 \times 14.5$

P = EXT PERIPHR

UA 1573
WALL MOUNT
$\mathrm{kg} / \mathrm{m} 0.273 \quad$ P 148
OAD $25 \times 25$

## UA 5949

18 mm CAPPING
$\mathrm{kg} / \mathrm{m} 0.235 \mathrm{P} \mid 19$
OAD $21.6 \times 20$

## UA 6453

I 8mm JOINTER
$\mathrm{kg} / \mathrm{m} 0.389 \quad \mathrm{P} 194$
OAD $38.5 \times 21.6$

## UA 6454

18 mm DOOR STOP CAP $\mathrm{kg} / \mathrm{m} 0.304$ P 153
OAD $35 \times 23$. 1

## UA 6455

18 mm CORNER
$\mathrm{kg} / \mathrm{m} 0.591 \quad$ P 225
OAD $40.1 \times 40.1$
UA 7025
11 mm INSERT
$\mathrm{kg} / \mathrm{m} 0.222 \quad$ P 107
OAD $21.6 \times 13.6$

UA 1573


UA 6453


UA 6455


ALUMINIUM FLAT BUTT HINGE
75 mm SATIN FINISH
Code: HA3S

UA 5949

UA 7025

UA 6454


UC 1914 PARTITION FOOT
PLATFORM HEIGHT: 150 mm


SURFACE MOUNT INDICATOR BOLT SET Code: $1 \mid 46$ |

DIE No
UA 1006
UA 1292
UA 1340
UA 1341
UA 1342
UA 1343
UA 1345
UA 1346
UA 1347
UA 1348
UA 1350
UA 1351
UA 1352
UA 1353
UA 1354
UA 1356
UA 1359
UA 1363
UA 1369
UA 1370
UA 1390
UA 1391
UA 1392
UA 1492
UA 1643
UA 1663
UA 1678
UA 1679
UA 1941
UA 1950
UA 1951
UA 1952
UA 2000
UA 2039
UA 2086
UA 2154
UA 2163
UA 2221
UA 2229
UA 225 I
UA 2462
UA 2482
UA 2483
UA 2516
UA 2589
UA 2667
UA 2759
UA 2852
UA 2899
UA 2906
UA 2996
UA 3006
UA 3016
UA 3151
UA 3219
UA 3266
UA 3267
UA 3268

## DESCRIPTION

## LADDER RUNG

FLUSH INFILL
LT7 DOOR CAP
SLIDING DOORTRACK
3 mm SPLITTEE
SLIDING DOORTEE
DOORTEE
TICKET HOLDER
TICKET HOLDER
TICKET HOLDER
CURTAINTRACK
CURTAINTRACK
GLASS SILL
GLASS TRACK Top GLASSTRACK Base
GLASS JOINTER
PICTURE FRAME
CUPBOARD PULL
HINGE
HINGE
STAKE ANGLE
SHOWER FRAME
SHOWER FRAME
SCALLOP MOULD
DRAWER PULL
F-SECTION
SHELF BRACKET
SHELF BRACKET
SKIRTING
DRAWER PULL
COLONIAL BEAD
COLONIAL BEAD
PICTURE FRAME
PICTURE FRAME
FLASHING
DOORTRACK
WORKSPACE POST
DOORTRACK
DOORTRACK
51 mm FLUTED COLUMN
TICKET HOLDER
TICKET HOLDER
TICKET HOLDER
CUSTOMWOOD INSERT
SHELF BRACKET Melteca
LADDER RUNG
LIPPED CHANNEL
SLATWALL INSERT
PLANK - DECK EXTENSION
DIN RAIL
LADDER RUNG
AWNING FRAME
4mm SPLIT TEE
ANGLE
CAPPING
HANGING FILE RAIL
ROLLER BLIND BAR
ROLLER BLIND BAR

DIE No
UA 3465
UA 3703
UA 3753
UA 3769
AUS 4048
UA 4130
UA 4353
UA 4382
UA 4473
UA 4587
UA 4588
UA 4592
UA 4650
UA 4651
UA 4779
UA 4980
AUS 5324
UA 5402
AUS 5570
UA 5641
AUS 5652
UA 5973
UA 601I
UA 6012
AUS 6272
UA 6341
AUS 6357
AUS 6427
AUS 6428

UA 7070 BULB TEE
UA 707I BULBTEE
UA 7237 RULER
UA 7713 DIN RAIL
AUS 8222 SILLTRACK
AUS 8288 STRUT CHANNEL
AUS 8582 SLAT SECTION

AUS 10052 F-BAR
AUS 10079 POST-I
AUS 10080 POST 2
AUS 1008I
AUS 10082
AUS 10134
AUS 10136
AUS 10180
AUS 10247
AUS 10274
AUS 10309
AUS 10413
AUS 10553
$164^{\circ}$ HONEYCOMB JOINER
UA $6430 \quad 65 \times 65 \mathrm{~mm} 2$-PIECE SQUARE
UA 6861 MIRROR MOUNT BASE
UA 6862 MIRROR MOUNT TOP

AUS 8446 LETTERBOX SECTION
AUS 10049 22mm GRATING END CAP
AUS 10050 22mm GRATING JOINER
AUS 1005 I 32mm GRATING JOINER

## DESCRIPTION

TOE BOARD
TRACK
F-SECTION
SLIDING DOOR TEE
FRAME
GLASS CHANNEL
SHELF BRACKET
CONCRETE SCREED
BENCH SEAT TOP
SKIRTING
SKIRTING
PLANK
STAIR STRINGER
STAIR TREAD
HEX NUT
P-SECTION
19 mm CHANNEL
DROP SIDE HINGE
RIBBEDTUBE
PLANK
13 mm CHANNEL
ROLLER BLIND BAR
GLASS BLOCK FRAME
GLASS BLOCK LAYER
TOP TRACK
OFFSETTEE
RACK FRAME
$106^{\circ}$ HONEYCOMB JOINER
$90^{\circ}$ HONEYCOMB JOINER

22 mm GRATING JOINER
32 mm GRATING JOINER

POST-I RADIUS
POST-2 RADIUS
STRUT CHANNEL
H-SECTION
CORNER POST
SAILTRACK
CEILINGT-BAR
SQR POST
TOP TRACK
100 mm HALF ROUND


UA 1341
SLIDING DOORTRACK kg/m 0.083 P 37
OAD $12 \times 7$
UA 1342
3mm SPLIT TEE
$\mathrm{kg} / \mathrm{m} 1.035$ P 226
OAD $57 \times 32$
UA 1343
SLIDING DOORTEE
k/gm 0.173 P66
OAD $20.3 \times 13.5$
UA 1345
DOORTEE
$\mathrm{kg} / \mathrm{m} 0.146 \mathrm{P} 65$
OAD $15.8 \times 19$
UA 2154
DOORTRACK
$\mathrm{kg} / \mathrm{m} 0.143 \quad$ P 48
OAD $19 \times 6$

UA 2229
DOORTRACK
$\mathrm{kg} / \mathrm{m} 0.241 \quad$ P 95
OAD $25 \times 22.8$

## UA 3016

4 mm SPLIT TEE
k/gm 1.039 P 226
OAD $57 \times 32$
UA 3769
SLIDING DOORTEE
$\mathrm{k} / \mathrm{gm} 0.364$ P 80
OAD $25.4 \times 15.9$
UA 6341
OFFSETTEE
k/gm 2.429 P 31I
OAD $100 \times 56$

## UA 7070

BULB TEE
k/gm $1.447 \quad$ P 214
OAD $70 \times 40$
UA 7071
BULBTEE
$\mathrm{k} / \mathrm{gm} 1.086 \mathrm{P} \mid 85$
OAD $60 \times 35$
AUS 10274
CEILINGT-BAR
$\mathrm{k} / \mathrm{gm} 0.252$ P 144
OAD $36 \times 36$


UA 1343
UA 3769


UA 1341


UA 1345


## UA 7070

UA 6341


## INFILLS SOLD SEPARATELY

UA 2899
PLANK - DECK EXTENSION
kg/m 2.039 P 419
OAD $122.8 \times 50$

UA 4592
PLANK
kg/m 3.447 P 657
OAD $228 \times 50$ Infill 113
UA 5402
DROP SIDE HINGE
$\mathrm{kg} / \mathrm{m} 1.828$ P 221
OAD $90 \times 28$
AUS 10553
100 mm HALF ROUND
$\mathrm{k} / \mathrm{gm} 1.234 \mathrm{P} 311$
OAD $100 \times 50$

DIAGRAMS ACTUAL SIZE UN OTHERWISE INDICATED.
 AND NOT INTENDED AS
SPECIFCATION DRAWING OAD = OVERAIL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY

UA 1350
CURTAIN TRACKTop Fix $\mathrm{kg} / \mathrm{m} 0.082$ P 54
OAD $14.5 \times 5.8$
UA 135 I
CURTAINTRACK Side Fix $\mathrm{kg} / \mathrm{m} 0.125 \mathrm{P} 81$
OAD $17 \times 12$
UA 1359
PICTURE FRAME
$\mathrm{kg} / \mathrm{m} 0.28 \mathrm{I} \quad \mathrm{P} 143$
OAD $22.02 \times 22.95$

## UA 2000

PICTURE FRAME
$\mathrm{kg} / \mathrm{m} 0.144$ P 86
OAD $16.3 \times 13.1$

## UA 2039

PICTURE FRAME
$\mathrm{kg} / \mathrm{m} 0.164$ P 103
OAD $20.5 \times 12.5$
UA 2221
DOORTRACK
$\mathrm{kg} / \mathrm{m} 0.378 \quad$ P 178
OAD $30 \times 25$

## UA 2759

LIPPED CHANNEL
$\mathrm{kg} / \mathrm{m} 0.345$ P 106
OAD $25 \times 12.5$
UA 2906
DIN RAIL
kg/m 0.353 P 141
OAD $35.5 \times 13$
UA 3006
AWNING FRAME
kg/m 0.38। P 127
OAD $23 \times 23$
UA 3703
TRACK
kg/m 0.116 P81
OAD $19.1 \times 9.3$

UA 4130


UA 2906


UA 7713


UA 2221


## UA 6862

MIRROR MOUNTTOP
kg/m 0.166 P 83
OAD $27.03 \times 12.3$

UA 7713
DIN RAIL
kg/m 0.38। P 141
OAD $35.2 \times 13.1$


Qu EXI PERIPHERY

## UA 6861

MIRROR MOUNT BASE
Takes stake 1379 ( red )
$\mathrm{kg} / \mathrm{m} 0.218 \mathrm{P} \mid 16$
OAD $25 \times 10.5$

UA 1350
UA 1351

## PLASTIC CURTAIN GLIDES

Available for: UA I 350, UA I 35 I
Code: CURGLIDESW CURENDSW

UA 2759


UA 6861
UA 6862


MIRROR MOUNT PLASTIC END CAPS
Available
Code:WIO4


UA 1292
FLUSH INFILL
kg/m 0.454 P 169
OAD $60.2 \times 6.7$
UA 1340
LT7 DOOR CAP
$\mathrm{kg} / \mathrm{m} 0.508$ P 254
OAD $65.5 \times 43$

## UA 2163

WORKSPACE POST kg/m 2.309 P 463
OAD $51 \times 45$

## UA 4980

P - SECTION
$\mathrm{kg} / \mathrm{m} 0.793 \quad \mathrm{P} 228$
OAD $76 \times 38$

## UA 6011

GLASS BLOCK FRAME kg/m 0.917 P 428 OAD $80 \times 40$

## UA 6012

GLASS BLOCK LAYER kg/m $0.459 \quad$ P 192
OAD $68.15 \times 6.6$
AUS 6272
TOP TRACK
kg/m 2. 156 P 357
OAD $94.8 \times 50.8$

## UA 7237

RULER
$\mathrm{kg} / \mathrm{m} 0.507$ P 128
OAD $47.5 \times 12.5$
AUS 10413
TOP TRACK
kg/m 1.468 P 295
OAD $72.5 \times 40$

UA 1292


UA 2163


UA 7237
UA 1340


AUS 6272


UA 1006


UA 2667


UA 2483
UA 1348
UA 1347


UA 2462


UA 2996
UA 225 I


UA 1390


UA 2996
LADDER RUNG $\mathrm{kg} / \mathrm{m} 0.406$ P 96 OAD $27.7 \times 25.7$

UA I39I


UA 2667
LADDER RUNG $\mathrm{kg} / \mathrm{m} 0.356$ P 100 OAD $28 \times 28$

UA 1392


UA 2483
22 mm TICKET HOLDER $\mathrm{kg} / \mathrm{m} 0.110 \quad$ P 71 OAD $25 \times 4.7$

UA 2482


UA 1006
LADDER RUNG $\mathrm{kg} / \mathrm{m} 0.368 \quad$ P 96
OAD $28 \times 28$
UA 1346
28 mm TICKET HOLDER
$\mathrm{kg} / \mathrm{m} 0.172$ P 84
OAD $32 \times 9$

## UA 1347

19mm TICKET HOLDER kg/m 0.069 P 53
OAD $21 \times 3$

## UA 1348

29mm TICKET HOLDER kg/m 0.113 P76
OAD $32 \times 3$

## UA 1369

HINGE
$\mathrm{kg} / \mathrm{m} 0.590$ P 115
OAD $49.2 \times 14.5$
UA 1370
HINGE
$\mathrm{kg} / \mathrm{m} 0.607$ P II 8
OAD $49.2 \times 14.5$

## UA 1390

STAKE ANGLE fits 139 |
$\mathrm{kg} / \mathrm{m} 1.317$ P 223
OAD $35 \times 35$

## UA 1391

SHOWERSCREEN FRAME kg/m 0.34। P 107
OAD $30.5 \times 10.5$

## UA 1392

SHOWERSCREEN FRAME kg/m 0.430 P 136
OAD $25.5 \times 25.5$

## UA 225

51 mm FLUTED COLUMN
$\mathrm{kg} / \mathrm{m} 0.622 \mathrm{P} \mid 59$
OAD 5I $\times 5$ I

## UA 2462

50mm TICKET HOLDER
kg/m 0.762 P 265
OAD $52 \times 48$
UA 2482
35 mm TICKET HOLDER
$\mathrm{kg} / \mathrm{m} 0.154$ P 97
OAD $38.2 \times 4.7$
DIAGRAMS ACTUAL SIZE UNLLESS
OTHERWISE INDICATED.
DIAGRAMS ARE SCHEMATIC ONLY
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SPECIICATION DRAWINGS.
OAD = OVERAIL DIMENSIONS
$\mathbf{P}=$ EXT PERIPHERY
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UA 1941
SKIRTING
kg/m $0.440 \quad$ P 219
OAD $100 \times 4.2$ Infill II
UA 3151
ANGLE
kg/m 2.307 P 437
OAD $185 \times 40$
UA 3267
BLINDS ROLLER
$\mathrm{kg} / \mathrm{m} 0.564$ P 156
OAD $40.7 \times 40.35$
UA 3268
BLINDS ROLLER
$\mathrm{kg} / \mathrm{m} 0.444$ P 119
OAD $33 \times 32.8$

## UA 3465

TOE BOARD
$\mathrm{kg} / \mathrm{m} 1.821$ P 351
OAD $150 \times 13$
UA 4587
SKIRTING
$\mathrm{kg} / \mathrm{m} 0.414 \mathrm{P} 194$
OAD $80 \times 5.2$ Infill 12

## UA 4588

SKIRTING
$\mathrm{kg} / \mathrm{m} 0.630 \quad$ P 294
OAD $130 \times 5.2$ Infill 12

## UA 5973

ROLLER BLIND BAR
$\mathrm{kg} / \mathrm{m} 0.498 \quad$ P 143
OAD $39.8 \times 39.8$

UA 3465


UA 1941

UA 4587


UA 4588
UA 315I


UA 3268

DIAGRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY AND NOT INTENDED AS SPECIFCATION DRAWINGS.


UA 1663
7.9 mm F SECTION $\mathrm{kg} / \mathrm{m} 0.302$ P 100
OAD $23.8 \times 15$
UA 1678
16 mm SHELF BRACKET kg/m 0.859 P 251
OAD $60 \times 50$ Infill 4386

## UA 1679

6 mm SHELF BRACKET $\mathrm{kg} / \mathrm{m} 0.505$ P 197 OAD $50 \times 35$ Infill 4386

## UA 2086

FLASHING
$\mathrm{kg} / \mathrm{m} 0.225 \mathrm{P} 141$
OAD $40 \times 38$

## UA 2589

17 mm SHELF BRACKET Melteca kg/m 0.86। P 252
OAD $61 \times 50$ Infill 4386

## UA 3266

HANGING FILE RAIL $\mathrm{kg} / \mathrm{m} 0.389$ P 188
OAD $32 \times 30$
UA 3753
16 mm F - SECTION
$\mathrm{kg} / \mathrm{m} 0.426 \mathrm{P} \mid 34$
OAD $30 \times 20$

## UA 4353

18 mm SHELF BRACKET
$\mathrm{kg} / \mathrm{m} 3.312 \quad$ P 454
OAD $136 \times 102.59$

## UA 4779

HEX NUT
$\mathrm{kg} / \mathrm{m} 0.540$ P 59
OAD $19.48 \times 17$
AUS 5324
19 mm CHANNEL $\mathrm{kg} / \mathrm{m} 0.531 \quad$ P 198 OAD $38 \times 24.5$

## AUS 5652

13 mm CHANNEL $\mathrm{kg} / \mathrm{m} 0.376$ P 167
OAD $32 \times 19$

diagrams actual size unless OTHERWSE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY DIAGRAMS ARE SCHEMATIC
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SPECIFITIONDA SNECIFCATON DRALINGS.
OAD = OVERALL DMENSION $\mathbf{P}=$ EXT PERIPHERY


AUS 8288


STRUT CHANNEL NUT Code: SCN

## AUS 10050

22mm GRATING JOINER
$\mathrm{kg} / \mathrm{m} 0.798 \quad$ P 209
OAD $43 \times 28.8$
AUS 10051
32mm GRATING JOINER
kg/m 0.800 P 23I
OAD $43 \times 38.55$
AUS 10052
F - BAR
$\mathrm{kg} / \mathrm{m} 0.7 \mathrm{I} 3 \quad$ P 194
OAD $76.5 \times 15$
AUS IOI34
STRUT CHANNEL $\mathrm{kg} / \mathrm{m} 0.829$ P 208
OAD $41.3 \times 25$
AUS IOI36
H - SECTION
kg/m 0.412 P 207
OAD $50.7 \times 28.8$
AUS 10309
SQR POST Int Diam 42.4mm
kg/m 1.694 P 211
OAD $53.8 \times 53.8$

AUS 6427
$106^{\circ} \mathrm{HONEYCOMB}$ JOINER
kg/m $2.660 \quad$ P 409
OAD $69.59 \times 67.63$

AUS 6428
$90^{\circ} \mathrm{HONEYCOMB}$ JOINER
kg/m 1.426 P 352
OAD $50 \times 50$
AUS 6429
$164^{\circ} \mathrm{HONEYCOMB}$ JOINER
kg/m 1.371 P 303
OAD $68.53 \times 31.01$

AUS 8582
SLAT SECTION
kg/m 0.353 P 209
OAD $65 \times 13$
AUS 10079
POST- I
kg/m 1.469 P 356
OAD $90 \times 50$
AUS 10080
POST-2
kg/m 1.253 P 278
OAD $70 \times 50$

DIAGRAMS ACTUAL SIZE UNLESSS
OTHERWISE INDICATED.
DIAGRAMS ARE SCHEMATIC ONL AND NOT INTENDED AS OAD = OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY


IIAGRAMS ACTUAL SIZE UN

## DIE No DESCRIPTION

## WARDROBE - CAVITY

UA 1820 DOOR STILE
UA 1821 DOORTOP RAIL
UA 1822 DOOR BOTTOM RAIL
UA 1824 DOUBLETRACK
UA 1825 DOOR JAMB
UA 1848 COAT HANGER RAIL
UA 2590 DOUBLE HEAD
UA 2987 SLIDING DOORTRACK
UA 2988 SLIDING DOOR PELMET
UA 2999 TRIPLETRACK
UA 3000 TRIPLE HEAD
UA 3002 SINGLE HEAD
UA 3096 SINGLE DOOR TRACK
UA 3097 DOUBLE DOORTRACK
UA 3098 PELMET
UA 5147 DOORTRACK
UA 5I48 HANDLE CAP
UA 5149 HANDLE CAP
UA 5150 CAVITY JAMB
UA 7329 COAT HANGER RAIL

## VEE GLIDE

UA 2027 HANGER RAIL
UA 2943 ANGLE
AUS/UA 6556 SHELF BRACKET
AUS/UA 6950 CHANNEL JAMB
AUS/UA 6951 COVER JAMB
AUS/UA 6952 RETURN JAMB
AUs/UA 6953 DOUBLE HEAD
AUS/UA 6954 DOUBLE SILL
AUS/UA 6955 TRIPLE HEAD
AUS/UA 6956 TRIPLE SILL
AUs/UA 6957 SASH RAIL
AUS/UA 6958 GRIP STILE
AUS/UA 6959 LIPPED STILE
AUS/UA 6969 LIPPED SASH RAIL
AUS/UA 6970 OVAL HANGER RAIL
AUs/UA 697I TRIM CHANNEL
AUS/UA 8560 CHANNEL JAMB
AUS/UA 8767 BOTTOM DOORTRACK

UA 1820
DOOR STILE
$\mathrm{kg} / \mathrm{m} 0.510 \quad$ P 176
OAD $31 \times 24.5$

UA 1821
DOORTOP RAIL
kg/m 0.35। P 167
OAD $22 \times 20$
UA 1822
DOOR BOTTOM RAIL
kg/m 0.663 P 315
OAD $55 \times 22$
UA 1824
DOUBLE TRACK
kg/m 0.549 P 261
OAD $61 \times 22$
UA 1825
DOOR JAMB
$\mathrm{kg} / \mathrm{m} 0.494 \quad$ P 247
OAD $65 \times 33.5$

UA 1848
COAT HANGER RAIL $\mathrm{kg} / \mathrm{m} 0.553$ P 277 OAD $57 \times 52.5$

## UA 2590

DOUBLE HEAD
$\mathrm{kg} / \mathrm{m} 0.846$ P 403
OAD $68.6 \times 37$

## UA 2999

TRIPLE TRACK
$\mathrm{kg} / \mathrm{m} 0.819$ P 388
OAD $102.1 \times 22$

UA 3000
TRIPLE HEAD
kg/m 1.296 P 563
OAD $102.1 \times 37$

UA 3002
SINGLE HEAD
$\mathrm{kg} / \mathrm{m} 0.566$ P 272
OAD $52.3 \times 35.1$


DIAGRAMS ACTUAL SIZE UNLESS


## UA 1821



UA 1820

UA 1848

UA 1822


UA 1825



AUs/UA 6950
CHANNEL JAMB
kg/m 0.554 P 313
OAD $126 \times 16$
AUS/UA 695
COVER JAMB
$\mathrm{kg} / \mathrm{m} 0.510 \quad$ P 269
OAD $85.5 \times 34.5$
AUS/UA 6952
RETURN JAMB
kg/m 0.716 P 389
OAD $126.5 \times 34$

## AUS/UA 6953

DOUBLE HEAD
$\mathrm{kg} / \mathrm{m} 0.702$ P 397
OAD $81.6 \times 40$

AUS/UA 6954
DOUBLE SILL
kg/m 0.592 P 277
OAD $82.1 \times 25.2$
AUS/UA 6955
TRIPLE HEAD
kg/m 1.247 P 634
OAD $122.5 \times 50$
AUS/UA 6956
TRIPLE SILL
$\mathrm{kg} / \mathrm{m} 0.898 \quad$ P 419
OAD $122.3 \times 25.2$




AUS/UA 6950

## AUS/UA 6952

DIAGRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY AND NOT INTENDED AS SPECIFCATION DRAWINGS.
OAD $=$ OVERALL DMENSIONS

AUS/UA 6556


AUS/UA 697


UA 2943


AUS/UA 6959


AUS/UA 6957


AUS/UA 6969


## AUs/UA 8560

$\square$

## ACCESSORIES:

## WVG300 DOOR ROLLER

Code: WARDVGBEARING

## WVGI00 HEAD GUIDE

Code: WARDVGGUIDEWHPR

## WVGI30WH OVAL RAIL BRACKET

Code: WARDVGOVALBKTWH

## WA200CL 4mm GLAZING CHANNEL

Code: WARDVGGLASSFR

## WVG200 STILE BUFFER STRIP

Code: WARDVGBUFFERFR
AUS/UA 8767


UA 2027


AUS/UA 6970


AUS/UA 6958


dIAGRAMS ACTUAL SIZE UNLESS
OTHERWISE INDICATED.
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SPECIFICATION DRAWING
OAD = OVERALL DIMENSIONS
$\mathbf{P}=$ EXT PERIPHERY


TRACK AND PELMET SOLD AS INDIVIDUAL LENGTHS ONLY

BOXED SET OF COMPONENTS INCLUDES
2 CARRIAGES
2 END STOPS
1 BOTTOM GUIDE SET
1 SPANNER AND CLIP
SCREWS
OPTIONAL FIXING BRACKET EACH


ullrichaluminum col

## DIE No

DESCRIPTION

UA 1310 DRAFT EXCLUDER
UA 1349
UA 1438 DRAFT EXCLUDER

UA 1521
THRESHOLD

UA 1522 DOOR SEAL BOTTOM

UA 1310
DRAFT EXCLUDER
$\mathrm{kg} / \mathrm{m} 0.145 \quad$ P 75
OAD $18 \times 13$
UA 1349
DRAFT EXCLUDER
$\mathrm{kg} / \mathrm{m} 0.123 \quad$ P 72
OAD $22 \times 7.5$

UA 1438
THRESHOLD
$\mathrm{kg} / \mathrm{m} 0.530 \quad$ P 239
OAD $70 \times 9$ Infills 4 |26, I I |
UA 1521
DOOR SEALTOP
$\mathrm{kg} / \mathrm{m} 0.197 \mathrm{P} 8 \mathrm{I}$
OAD $30.5 \times 19$

UA 1522
DOOR SEAL BOTTOM
kg/m 0.290 PII7
OAD $44.4 \times 15$


DIAGRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATC ONLY AND NOT INTENDED AS SPECIFICATION DRAWING OAD $=$ OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY

## INFILLS SOLD SEPARATELY

## DIE No <br> DESCRIPTION

SIGN FRAME

UA $1332 \quad 10 \mathrm{~mm}$ SIGN FRAME
UA $1366 \quad 6 \mathrm{~mm}$ SIGN FRAME
UA 1367 6mm SIGN FRAME
UA 1809 7mm SIGN FRAME
UA 19975 mm SIGN FRAME
UA 29827 mm SIGN FRAME
UA 3989 7mm SIGN FRAME
UA $3990 \quad 7 \mathrm{~mm}$ SIGN FRAME
UA 5948 3mm SIGN FRAME
UA 5966 6mm SIGN FRAME
AUS $8449 \quad 5 \mathrm{~mm}$ SIGN FRAME
AUS $8450 \quad 5 \mathrm{~mm}$ SIGN FRAME
AUS 8864 SIGN FRAME

## STREET SIGN

| UA 2032 | POST - BLADE HOLDER |
| :--- | :--- |
| UA 2033 | STREET SIGN BLADE |
| UA 2080 | STREET SIGN BLADE |
| UA 2115 | SIGN BLADE EXTRA |
| UA 2386 | 9mm POST ATTACHMENT |
| UA 3796 | STREET SIGN BLADE |
| UA 5430 | STREET SIGN BLADE |
| UA 5819 | STREET SIGN BLADE |
| AUS 6490 | BACKING CHANNEL |
| AUS 10229 | SIGN BLADE |
| AUS 10230 | SIGN BLADE |

SIGN PANEL

| UA 1513 | STAKE |
| :---: | :---: |
| UA 1642 | SQUARE HOLLOW |
| UA 5633 | STAKE |
| UA 6596 | 4mm SIGN PANEL CAP |
| UA 6597 | 4mm SIGN PANEL JOINTER |
| UA 6598 | 4mm SIGN PANEL INT/EXT CORNER |
| UA 6599 | 4mm SIGN PANEL FRAME |
| UA 6694 | 4mm SIGN PANELTEE CHANNEL |
| UA 6695 | 4 mm SIGN PANEL ANGLE CHANNEL |
| UA 6696 | 4mm SIGN PANEL BOX FRAME |
| AUS 8109 | SIGN PANEL ZED |
| AUS 8110 | SIGN PANEL ZED |
| AUS 8111 | SIGN PANEL ZED |



UA 1809
7 mm SIGN FRAME kg/m 2.383 P 701
OAD $200 \times 20$

UA 1997
5mm SIGN FRAME kg/m 2.171 P627 OAD $180 \times 25$

UA 2982
7 mm SIGN FRAME $\mathrm{kg} / \mathrm{m} 2.388$ P 632 OAD $200 \times 25$

UA 5966
6 mm SIGN FRAME kg/m 1.116 P601 OAD $160.6 \times 27.25$



## SIGN FRAME CORNER

(POLYPROPYLENE)
Fits UA 5966
Code: ULL 5966


UA 1332


UA 3990


UA 5948


UA 1332
10 mm SIGN FRAME
kg/m 1.479 P 559
OAD $170 \times 25$
UA 1366
6 mm SIGN FRAME
$\mathrm{kg} / \mathrm{m} 1.118 \quad$ P 412
OAD $102 \times 25$
UA 1367
6 mm SIGN FRAME $\mathrm{kg} / \mathrm{m} 1.443$ P 508
OAD $150 \times 25$
UA 3989
7 mm SIGN FRAME $\mathrm{kg} / \mathrm{m} 1.144$ P 427
OAD $100 \times 25$
UA 3990
7 mm SIGN FRAME $\mathrm{kg} / \mathrm{m} 1.522$ P 567
OAD $170 \times 25$
UA 5948
3mm SIGN FRAME
$\mathrm{kg} / \mathrm{m} 0.743$ P 366
OAD $52 \times 23$

UA 5430
STREET SIGN BLADE
kg/m 1.852 P 519
OAD $207.2 \times 28$
UA 5819
STREET SIGN BLADE kg/m 2.021 P 569
OAD $232.2 \times 28$
dIAGRAMS ACTUAL SIZE UNIESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY AND NOT INTENDED AS SPECIFICATION DRAWING OAD = OVERALLDIMENSIONS


AUS 6490
BACKING CHANNEL
kg/m 0.698 P 185
OAD $28.5 \times 25.5$
AUS 8449
5 mm SIGN FRAME kg/m 1.412 P 528 OAD $150 \times 20$

AUS 8450
5mm SIGN FRAME kg/m 2.360 P 672 OAD $200 \times 21$

AUS 8864
SIGN FRAME
kg/m 0.986 P 427
OAD $133.2 \times 19$
AUS 10229
SIGN BLADE
kg/m 1.962 P 448
OAD $199.45 \times 19.05$
AUS 10230
SIGN BLADE
$\mathrm{kg} / \mathrm{m} 1.665$ P 348
OAD $149.45 \times 19.05$


DIAGRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONL AND NOT INTENDED AS SPECIFICATION DRAWINGS.
OAD $=$ OVERALI DIMENSIO $\mathbf{P}=$ EXT PERIPHERY
ULLRICH

## UA 6596

UA 6597


UA 6598


## UA 6694

## UA 6599



UA 1513

UA 1642


UCI999 CAST BOX CORNER
Fits UA 6696


UA 1513
STAKE ( green ) fits 6694, 6695
kg/m 1.416 P 196
OAD $50 \times 50$

UA 1642
SQUARE HOLLOW
$\mathrm{kg} / \mathrm{m} 0.313$ P 102
OAD $25.4 \times 25.4$

## UA 5633

STAKE ( yellow ) fits 6599
$\mathrm{kg} / \mathrm{m} 1.725$ P 352
OAD $50 \times 49.5$

## UA 6596

4mm SIGN PANEL CAP
$\mathrm{kg} / \mathrm{m} 0.100$ P 55
OAD $15 \times 7.2$

## UA 6597

4mm SIGN PANEL JOINTER
$\mathrm{kg} / \mathrm{m} 0.165 \quad$ P91
OAD $25 \times 7.5$

## UA 6598

4mm SIGN PANEL INT/EXT CORNER
$\mathrm{kg} / \mathrm{m} 0.198$ P 103
OAD $18.95 \times 18.75$

## UA 6599

4 mm SIGN PANEL FRAME
$\mathrm{kg} / \mathrm{m} 0.471 \quad \mathrm{P} 121$
OAD $32 \times 19.7$

## UA 6694

4 mm SIGN PANEL TEE CHANNEL
$\mathrm{kg} / \mathrm{m} 0.342$ P 134
OAD $34.3 \times 23.1$

## UA 6695

4 mm SIGN PANEL ANGLE CHANNEL
$\mathrm{kg} / \mathrm{m} 0.293$ P I I 0
OAD $23.1 \times 22.3$

## UA 6696

4mm SIGN PANEL BOX FRAME
$\mathrm{kg} / \mathrm{m} 1.226 \quad$ P 429
OAD $65.8 \times 65.8$

DIAGRAMS ACTUAL SIZE UNLESS
OTHERWISE INDICATED.
AND NOT INTENDED AS
AND NOTINIENDED AS
OAD = OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY
Q ULlRICH Aluminum colto


Edition 16-2018

AUS 8109
SIGN PANEL ZED
$\mathrm{kg} / \mathrm{m} 0.276 \mathrm{P} \mid 31$
OAD $40 \times 25.5$
AUS 8110
SIGN PANEL ZED
kg/m 0.275 P 129
OAD $40 \times 23.9$

AUS 81II
SIGN PANEL ZED
kg/m $0.361 \quad$ P 171
OAD $60 \times 25.5$

DIAGRAMS ACTUAL SZZ UNLESS OTHERWISE INDICATED.
DIAGRAMS ARE SCHEMATIC ONII AND NOT INTENDED AS OAD = OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY © Ullrich aluminium co lto

DIE No DESCRIPTION

## BALUSTRADE

UA 1280
UA 1333
UA 1988
UA 2096 HANDRAIL CHANNEL
UA 2097
UA 2098
UA 2099
UA 2102
UA 2103
UA 2131
UA 2132
UA 2164
UA 2487
UA 3347
UA 3348 HIGHWAY HANDRAIL
UA 3349 RAILING
UA 3595 FLUSH CAP
UA 3596 HANDRAIL
UA 3597 BALUSTER
UA 3616 RAIL CHANNEL
UA 3617 GLAZING INSERT
UA 4007 POST
UA 4134 CHANNEL LID
AUS 4729 HANDRAIL
UA 4737 HANDRAIL
AUS 5115 HANDRAIL
AUS 5566 POST BASE
UA 6395 CHANNEL
AUS 6461 RAILING
AUS 6500 GLAZING POST
AUS 6501 GLAZING POST
AUS 6502 GLAZING POST CAP
UA 6585 POST
UA 7085 POST
UA 7086 GLAZING INSERT
UA 7087 FLUSH CAP
UA 7088 GLAZING BAR
UA 7089 GLAZING BEAD
UA 7090 HANDRAIL
UA 709I FIXING BLOCK
UA 7092 RAIL CHANNEL
AUS 8214 HANDRAIL
AUS 8233 HANDRAIL
AUS I0353 LADY WAIST HANDRAIL
AUS 10354 CIRCLE HANDRAIL
UA $10414 \quad 20 \mathrm{~mm}$ BALUSTER INFILL
UA $10415 \quad 100 \mathrm{~mm}$ BALUSTER SPACER
UA 10422 FEMALE HINGE
UA 10422 MALE HINGE
UA 10423 HEAVY DUTY RAIL
UA 10424 FLUSH INFILL
UA 10444 POST SPIGOT

DIE No DESCRIPTION

FENCING

UA 1212
UA 1225
UA 1855 FENCE SLAT
UA 2131 RAIL CHANNEL
UA 2132 RAIL INSERT
UA 2820 FENCE RAIL LID
UA 282I RAILING
UA 2822 FENCE RAIL
UA 3178 POST / RAIL
UA 3616 RAIL CHANNEL
UA 5489 RHS RAILING
UA 5949 18mm CAPPING
UA 6393 FENCE SLAT
UA 6394 FENCE SLAT
UA $6397 \quad$ IOmm SLAT INSERT
AUS 6506 FENCE SLAT I.2mm
AUS 6507 FENCE SLAT 1.4 mm
UA 6856 FENCE PANEL
UA 6857 TONGUE \& GROOVE PLANK
UA 6859 SLIDING GATE TRACK
UA 7092 RAIL CHANNEL
UA 7613 FENCE PANEL
UA 7654 FENCE RAIL CHANNEL
UA 7655 FENCE RAIL LID
UA 7656 FENCE PAILING
UA 7657 FENCE PAILING
UA 7694 FENCE PANEL
AUS 10615 SLAT CHANNEL
AUS 10616 SLAT INFILL Punched

UA $\mathbf{I} 280$
TOP RAIL STIFFENER kg/m 0.32I P 160
OAD $50 \times 16$
UA 1333
POCKET CAP
$\mathrm{kg} / \mathrm{m} 0.121 \quad \mathrm{P} 78$
OAD $16.5 \times 12$
UA 1988
RHS RAILING
kg/m 0.49। P 120
OAD $40 \times 20$

## UA 3595

FLUSH CAP
$\mathrm{kg} / \mathrm{m} 0.165$ P 92
OAD $35.85 \times 5.5$

## UA 3616

RAIL CHANNEL
kg/m 0.536 P 183
OAD $40 \times 25$
UA 3617
GLAZING INSERT
$\mathrm{kg} / \mathrm{m} 0.313 \quad \mathrm{P} 172$
OAD $35.85 \times 20$
UA 7086
GLAZING INSERT
kg/m 0.44। P 236
OAD $58.5 \times 24.5$
UA 7087
FLUSH CAP
kg/m 0.299 P 136
OAD $58.5 \times 5.47$

## UA 7088

GLAZING BAR
$\mathrm{kg} / \mathrm{m} 0.415 \quad$ P 211
OAD $40 \times 25$

## UA 7089

GLAZING BEAD
$\mathrm{kg} / \mathrm{m} 0.182 \mathrm{P} \mid 13$
OAD $18.7 \times 12.9$

## UA 7090

HANDRAIL
$\mathrm{kg} / \mathrm{m} 0.964 \quad$ P 310
OAD $65 \times 39$
Cast End Cap UCI50 I


DIAGRAMS ACTUAL SIZE UNLESS
OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY AND NOT INTENDED AS SPECIFICATION DRAWINGS OAD = OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY
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UA 3595


## UA 10414

20mm BALUSTER INFILL
$\mathrm{kg} / \mathrm{m} 0.333$ P I73
OAD $35.85 \times 20$

UA 10423
HEAVY DUTY RAIL
kg/m 0.697 P 263
OAD $45 \times 40$

UA 10424
FLUSH INFILL
kg/m 0.186 P 102
OAD $40 \times 5.85$


UA 2096
HANDRAIL CHANNEL kg/m 0.392 P 187 OAD $38 \times 25.4$

## UA 2097

CHANNEL LID $\mathrm{kg} / \mathrm{m} 0.161 \quad$ P 82 OAD $35 \times 4$

## UA 2098

HANDRAIL
$\mathrm{kg} / \mathrm{m} 0.543$ P 233
OAD $50 \times 40.95$
Cast End Cap UCI987

## UA 2099

GLAZING CHANNEL kg/m 0.555 P 265
OAD $38 \times 25.4$

## UA 2102

GLAZING BAR
$\mathrm{kg} / \mathrm{m} 0.373$ P 189
OAD $34.75 \times 24.5$

## UA 2103

GLAZING BEAD kg/m 0.121 P86
OAD $15 \times 11.58$

## UA 2487

POST
kg/m I. 482 P 140
OAD $35 \times 35$
UA 3347
HANDRAIL BASE kg/m 1.144 P 275 OAD $113.22 \times 10$

## UA 3348

HIGHWAY HANDRAIL
kg/m 1.729 P 428
OAD $120 \times 50$
UA 3349
RAILING fits 3347
kg/m 0.636 P II 6
OAD $50 \times 25$

## UA 4134

CHANNEL LID
$\mathrm{kg} / \mathrm{m} 0.163$ P 94
OAD $40.75 \times 3.5$
UA 6395
CHANNEL
kg/m 0.250 P 136
OAD $40.75 \times 14.7$


DIAGRAMS ACTUAL SIZE UNI ESS OTHERWISE INDICATED dIAGRAMS ARE SCHEMATIC ONLY AND NOT INTENDED AS SPECIFICATION DRAWING OAD $=$ OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY



UA 10422
FEMALE HINGE
kg/m 4.828 P 637
OAD $150.4 \times 11.6$

## UA 10422

MALE HINGE
kg/m 4.828 P 637
OAD $150 \times 6$

[^6]

AUS 4729
HANDRAIL
kg/m 1.126 P433
OAD $70 \times 43$
AUS 5115
HANDRAIL
$\mathrm{kg} / \mathrm{m} 0.517 \quad$ P 234
OAD $57 \times 34$
AUS 5566
POST BASE
kg/m $11.49 \mid$ P 460
OAD $110.3 \times 110$

AUS 6461
RAILING
$\mathrm{kg} / \mathrm{m} 0.776 \quad$ P 192
OAD $75 \times 16$

AUS 6500
GLAZING POST
kg/m 1.718 P 259
OAD $50 \times 50$

AUS 6501
GLAZING POST
kg/m 2.000 P 329
OAD $50 \times 50$
AUS 6502
GLAZING POST CAP
$\mathrm{kg} / \mathrm{m} 0.168 \mathrm{P} 88$
AUS 6461


AUS 8214


AUS 8233


UA 1212
POST / RAIL
$\mathrm{kg} / \mathrm{m} 0.807$ P I 56
OAD $40 \times 40$

## UA 3178

POST / RAIL $\mathrm{kg} / \mathrm{m} 1.488 \quad \mathrm{P} 194$ OAD $50 \times 50$

## UA 5949

18 mm CAPPING
$\mathrm{kg} / \mathrm{m} 0.235 \quad$ P।I 9
OAD $21.6 \times 20$

## UA 6856

FENCE PANEL
kg/m $1.161 \quad$ P 259
OAD $115 \times 17$

## UA 6857

TONGUE \& GROOVE PLANK
kg/m 1.099 P 330
OAD $106.8 \times 17$

## UA 7613

FENCE PANEL
$\mathrm{kg} / \mathrm{m} 0.647$ P 149
OAD $60 \times 17$

## UA 7654

FENCE RAIL CHANNEL
$\mathrm{kg} / \mathrm{m} 0.546 \mathrm{P} \mid 8 \mathrm{l}$
OAD $40 \times 20$
UA 7655
FENCE RAIL LID
$\mathrm{kg} / \mathrm{m} 0.170$ P 84
OAD $33.19 \times 5.2$

## UA 7656

FENCE PAILING
$\mathrm{kg} / \mathrm{m} 0.301 \quad$ P 77
OAD $20 \times 20$

## UA 7657

FENCE PAILING kg/m 0.25। P 63
OAD $20 \times 20$

## UA 7694

FENCE PANEL kg/m 1.253 P 279
OAD $125 \times 17$


DIAGRAMS ACTUAL SIZE UNLESS
OTHERWISE INDICATED DIAGRAMS ARE SCHEMATIC ONLY AIAGRAMS ARE ECHEMAIC
AND NOT INTENDED AS ANECLICCATION DRAWING OAD = OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY


## AUS 6506

FENCE SLAT 1.2 mm $\mathrm{kg} / \mathrm{m} 0.496 \mathrm{P} 157$
OAD $65 \times 16$
AUS 6507
FENCE SLAT 1.4 mm
$\mathrm{kg} / \mathrm{m} 0.576$ P 157
OAD $65 \times 16$
AUS 10615
SLAT CHANNEL
$\mathrm{kg} / \mathrm{m} 0.276$ P 164
OAD $28 \times 27$
AUS 10616
SLAT INFILL Punched
$\mathrm{kg} / \mathrm{m} 0.250 \mathrm{P} \mid 5 \mathrm{I}$
OAD $24.6 \times 23.8$
Punched for AUS 6506, 6507

AUS 10616


AUS 6506


AUS 10615


AUS 6507


FENCE STYLES


F6



UC 1981
Fence Post Base Full


UC 1982
Fence Post Base 3/4


UC 1963
I/2 Modular Bracket


UC I948A
Gate Hinge Round Hole
-


UC 1983
Fence Post Base I/2


UC 1942
Modular Bracket


UC 1947
Gate Hinge Slotted

FENCE PANELS
Box rail
$40 \mathrm{~mm} \times 20 \mathrm{~mm}$ $40 \mathrm{~mm} \times 40 \mathrm{~mm}$
Uprights 20 mm tube
Length Any up to 2.5 m
Height Any up to 1.8 m
Caps Spear / Football / Button

## FENCE POSTS

Box post $50 \mathrm{~mm} \times 50 \mathrm{~mm}$
Over $1.2 \mathrm{~m} \mathrm{75mm} \times 75 \mathrm{~mm}$
Gate post $100 \mathrm{~mm} \times 100 \mathrm{~mm}$
Capping Flat Cap

## FIXINGS

Brackets Standard module Masonry module Flexi module
Posts Post foot

## GATES

Custom fabricated in the colour and decorative design of your choice.

## CAPS

A range of decorative cappings for fences and gates is available.


## UAF 05

Button Top


UC I943, I944, I 940 Fence Cap
$50 \mathrm{~mm}, 75 \mathrm{~mm}, 100 \mathrm{~mm}$


UC 1948
Small Gate Hinge Blank


## DIE No <br> DESCRIPTION

UA 1371 FRAME 20 mm
UA 1372 FLANGED FRAME 20 mm
UA 1641 FLANGED FRAME 25 mm
UA 1642 FRAME 25 mm

UA 1371
FRAME 20 mm
$\mathrm{kg} / \mathrm{m} 0.283 \quad \mathrm{P} 76$
OAD $19 \times 19$

UA 1372
FLANGED FRAME 20 mm
$\mathrm{kg} / \mathrm{m} 0.318 \quad$ P 93
OAD $27.5 \times 19$
UA 1641
FLANGED FRAME 25 mm $\mathrm{kg} / \mathrm{m} 0.343$ P II 4
OAD $31.9 \times 25.4$

## UA 1642

FRAME 25 mm
$\mathrm{kg} / \mathrm{m} 0.313 \quad$ P 102
OAD $25.4 \times 25.4$

## Description

The Ullrich Modular Design System uses a tube-andjointer construction for DIY shelving, storage, desking and display.
Using a rubber mallet, the system can be assembled in minutes, ready for shelving and panelling of your choice.

The finished units are sturdy yet lightweight, can be disassembled for storage or transit, and can be rearranged or extended for changing circumstances.

Your choice of 20 mm or 25 mm profile can be powder-coated in your choice of colour. Jointer components are standardly available in black or white.

See the Modular Design System brochure for more details.


DIAGRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY AND NOT INTENDED AS
SPECIFCATION DRAWING OAD = OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY

2 WAY CORNER JOINTER


3 WAY T SHAPE JOINTER


4 WAY X SHAPE JOINTER


UA 1641


UA 1642


UA 1371


UA 1372


3 WAYY SHAPE CORNER JOINTER


4 WAY Y SHAPE JOINTER


5 WAY JOINTER


6 WAY JOINTER


CASTOR


END CAP


MOUNTING BRACKET



## Preliminary planning

To simplify planning and assembly, minimise the number of different tube lengths for your construction to as few as possible.

Only four standard tube lengths are needed as the basis for many different types of construction.

In assembly, these modules conform to accepted ergonomic work-height standards for desks and benches, and generally cater for typical dimensions of home appliances, computers, office files and books.

Here, jointed selections of shorter modules combine in many different ways to equal the lengths of jointed longer tube modules. This offers multi-strata design flexibility, vertically and horizontally, to customise storage or workspace for maximum efficiency and economy, while ensuring even finished widths and heights in the assembled unit no matter how varied the internal construction.

This facilitates customised construction, for example, various sized filing compartments above or below a wider desktop, or construction of shelves of various widths, depths and heights to suit different sizes of books, displays or audio-video appliances in a wall unit.

Vertical panelling and hinged or sliding doors can be incorporated into any Modular Design System construction.

## A multitude of designs from only four tube lengths (example)



## How the tube modules work together for furniture that fits

One 875 mm module (with any two jointers) is equal to:

One 650 mm module and one 200 mm module (with any three jointers)


Two 425 mm modules (with any three jointers)

One 425 mm module and two 200 mm modules (with any four jointers)


Four 200 mm modules (with any five jointers)

Modular construction offers flush-fitting furniture with multiple storage options


## DIE No DESCRIPTION

UA 2246
UA 2247
UA 2435
解

UA 2436
PALLET DECK
PALLET BEARER
PALLET DECK

UA 2246
PALLET BEARER ( Cargon )
kg/m $5.461 \quad$ P 620
OAD $127 \times 85$

UA 2247
PALLET DECK ( Cargon )
kg/m 2.844 P 704
OAD $200 \times 25$

UA 2435
PALLET BEARER
kg/m 2.918 P 435
OAD $150 \times 60$
UA 2436
PALLET DECK
kg/m 1.348 P 214
OAD $85 \times 25$


## DIE No DESCRIPTION

## STORM SHUTTER

UA 1055 WEDGE PIN
UA 1056 TOP CHANNEL
UA 1057 BOTTOM CHANNEL

## ACCORDION STORM SHUTTER

UA 2916 STRIKE
UA 2917 LOCK
UA 2918 GUIDE
UA 2919 CHANNEL
UA 2920 WHEEL GUIDE
UA 2921 SHUTTER SLAT
UA 2922 SHUTTER END

UA 1055
WEDGE PIN
$\mathrm{kg} / \mathrm{m} 3.410 \mathrm{P} 221$
OAD $95 \times 22$

UA 1056
TOP CHANNEL
kg/m 0.81। P 315
OAD $70 \times 49$

UA 1057
BOTTOM CHANNEL
kg/m 0.626 P 244
OAD $8 \mathrm{I} \times 32$
ASSEMBLY DETAILS
Refer: 24-3

## UA 1055



UA 1056


UA 1057



UA 2919


UA 2921

UA 2916


UA 2917


## UA 2916

STRIKE
kg/m 0.899 P 423
OAD $89.72 \times 53.65$

UA 2917
LOCK
kg/m 1.040 P 489
OAD $\| 4.33 \times 55.4$

## UA 2918

GUIDE
kg/m 0.806 P 400
OAD $80 \times 40$

UA 2919
CHANNEL
kg/m 0.606 P 302
OAD $83.3 \times 41.5$

UA 2920
WHEEL GUIDE
$\mathrm{kg} / \mathrm{m} 0.752$ P 360
OAD $80 \times 34.5$

UA 2921
SHUTTER SLAT
$\mathrm{kg} / \mathrm{m} 0.512$ P 255
OAD $104.37 \times 12.37$

## UA 2922

SHUTTER END $\mathrm{kg} / \mathrm{m} 0.44 \mathrm{I} \quad$ P 214 OAD $69.29 \times 29.49$

## ASSEMBLY DETAILS

Refer: 24-3



Above from top
Storm Shutter UA 1057 prepunching detail
Accordion Storm Shutter

dIAgRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED. DIAGRAMS ARE SCHEMATIC ONLY AND Not INTENDED AS OAD = OVERALL DIMENSIONS $\mathbf{P}=$ EXT PERIPHERY

## STORM SHUTTER

ASSEMBLY: side view, scale I:2


EXTRUSIONTERMINOLOGY<br>PROPERTIES OF ALUMINIUM<br>COMPARATIVE CHARACTERISTICS AND APPLICATIONS<br>TOLERANCES AND MECHANICAL PROPERTY LIMITS THE STORY OF ALUMINIUM CONVERSIONTO COMPLETION HANDLING AND STORAGE TREATMENTS AND SURFACE FINISHES CLEANING ALUMINIUM SURFACES THE EXTRUSION PROCESS LINEAR CONVERSIONTABLES

## Standard shape <br> Exclusive shape

Standard
Non-standard
Section drawings
Visible face
External periphery

Total periphery

Factor

Circumscribing circle
Thickness ratio

Rod

Bar

Solid shape

Hollow shape

## Semi-hollow shape



## I. Weight

The specific gravity of aluminium is 2.7 , about one-third that of iron (7.9) and copper (8.9). The weight to strength ratio of aluminium makes it an ideal construction material for the transport industry - air, sea, road and rail - where its light weight contributes to energy saving, increased load capacity and speed. Aluminium is also used in large-scale construction of high-rise buildings, power transmission cables and towers.

## 2. Corrosion resistance

When aluminium is exposed to air, a thin oxidised film forms on the surface, which helps to protect the metal from further corrosion. Anodising treatment enhances corrosion resistance, and is used in building construction, joinery, household appliances and utensils.

## 3. Machinability

Aluminium can be easily fabricated into cast or forged shapes, foil, sheet, rod, tube and wire. It also displays excellent machinability and plasticity in bending, cutting and drawing. Aluminium is considered to be the best material for complex-sectioned hollow extrusion.

## 4. Strength

The tensile strength of pure aluminium is not high, but depending upon the alloy or temper, a strength of up to $60 \mathrm{~kg} / \mathrm{mm}^{2}$ can be achieved. You can choose the alloy with the most suitable strength characteristics you need according to your application. Some alloys are stronger than ordinary steel or even equal to special (alloy and treated) steels in tensile strength. While steel becomes brittle at low temperatures, aluminium increases in tensile strength. Because of its low modulus of elasticity, aluminium absorbs impact, and is used in potentially high-impact applications such as automobile bumpers.

## 5. Expansion

Aluminium extrusions have a comparatively high coefficient of expansion which is 0.000023 mm per mm length of extrusion per ${ }^{\circ} \mathrm{C}$. A length of aluminium extrusion 6 m long will expand over 4 mm when the temperature rises $30^{\circ} \mathrm{C}$. When designing, especially building design, provison should be made for expansion and contraction caused by temperature changes. Thermal expansion is particularly important where aluminium extrusions are used with other materials having different expansion rates.

## 6. Surface enhancement

Aluminium can be thermoset powdercoated or electrochemically anodised surfacetreated for enhanced protection and appearance. A wide range of colours are available. Aluminium is thus widely used for interior and exterior cladding of buildings and vehicles, and the fabrication of household and commercial appliances.

## 7. Electrical conduction

The electrical conductivity of aluminium is approximately $60 \%$ of copper yet about onethird the weight. Aluminium is a very economical material as an electrical conductor and is widely used in power-transmission cables, bases of electric bulbs and other electrical applications.

## 8. Heat conduction

Aluminium is about three times as thermo-conductive as steel. It is used for cooking utensils, air-conditioners, industrial heat exchangers, automobile engine parts and solar energy collectors.

## 9. Magnetic sensitivity

Aluminium is non-magnetic and is used where the use of magnetic metals would be detrimental to equipment performance, such as in the construction of compasses, parabolic antennae, computer disks and other magnetically driven applications.

## 10. Reflectivity

The surface of uncoated aluminium is highly reflective of light, radiant heat and electronic waves - the purer the metal, the more so. This feature is utilised in mirrors and reflectors for stoves, infrared dryers, lighting equipment, light-wave-guides and in building temperature control.

## I I. Recyclability

Owing to its low melting temperature, aluminium is economically recyclable, requiring only about $3.5 \%$ of the energy required for smelting. Use of recycled aluminium has benefits for all concerned with conservation of energy and natural resources.

Alloy Characteristics

1350 Commercially pure, very ductile in extruded condition. Excellent resistance to corrosion. Excellent electrical conductivity

6060 Suitable for intricate sections of light and medium strength. Forms well in T4 temper. High corrosion resistance, good surface finish, anodises well

6106 Light structural alloy. Designed to provide optimum mechanical properties, complexity of shape, minimum section thickness and good surface finish. Good corrosion resistance, weldability and formability

6005A Medium structural alloy. Good extrusion characteristics with good surface finish.

626 I Special purpose structural alloy. Good surface finish and corrosion resistance. Good formability in T4 temper. Good weldability.

6082 Recommended alloy for structural purposes. Good strength and general corrosion resistance. Good weldability.

## Available Forms Applications

## Simple shapes Mouldings, lightly stressed and

 decorative assemblies in architecture and transport, chemical, food and brewing equipment, heat exchangersAll shapes, tubing and rod

Thinner structural shapes, rod, bar and tubing

Structural shapes of all types, rod, bar and tube, offered in T5 temper

Structural shapes of all types, rod, bar and tube, offered in T 6 temper

Medium structural applications, where surface finish is important. Marine, Transport applications

Structural applications where surface finish is important. Marine, Transport applications Structural shapes of all types, rod, bar and tube, offered in T6 temper

Vehicles, bridges, roof trusses and general structural applications

201 Free machining alloy of medium strength, giving fragmented chips. Not suitable for anodising or welding.

Automatic lathe products, suitable for high speed repetitive machining


DIAGRAMS ACTUAL SIZE UNLLESS

## Description of Tempers

F Extrusions as fabricated
O Extrusions annealed
TI Cooled from elevated temperature then naturally aged
T4 Solution heat treated then naturally aged
T5 Cooled from elevated temperature then artificially aged
T6 Solution heat treated then artificially aged

## EXTRUSIONTOLERANCES

Applicable manufacturing tolerances are those set out by the Aluminium Development Council of Australia Ltd (ADCA ) in Aluminium Standards, Data and Design: Wrought Products ( First Edition 1994). Invariably, tolerances for an individual geometric shape are subject to negotiation and agreement between extruder and customer. Under this provision, the function of the shape in its specific application is given priority consideration. All manufacturing tolerances are subject to review from time to time.

Dimension tolerances (rounded down')

Cross- sectional
ADCA
Tolerance
mm
mm

| Up to 3 | 0.15 |
| :--- | :--- |
| 3 to 6 | 0.18 |
| 6 to 12 | 0.20 |
| 12 to 20 | 0.23 |
| 20 to 25 | 0.25 |
| 25 to 40 | 0.31 |
| 40 to 50 | 0.36 |
| 50 to 100 | 0.61 |
| 100 to 150 | 0.86 |
| 150 to 200 | 1.12 |
| 200 to 250 | 1.37 |

I. Dimensional tolerances are rounded down to the nearest 0.05 mm because all calipers used to measure metal dimensions are almost universally graduated at intervals of 0.05 mm
2. Metal dimensions refer to solid metal dimensions or any measurement unbroken by a gap or void. For tolerances across gaps or voids refer to ADCA Standards.

USEFUL FORMULAE
Nominal mass ( $\mathrm{kg} / \mathrm{m}^{2}$ ) of Extruded Aluminium:

Calculate cross-section area
( $\mathrm{mm}^{2}$ ) and multiply by 0.00271

## Factor

(Difficulty of Extrusion Factor)

Calculate the perimeter of the section ( for hollow sections, both outside and inside perimeters ) and divide the result by the nominal mass ( $\mathrm{kg} / \mathrm{m}$ ) of the section.

## Weight of Billet

Billet, 178 mm diameter $1 \mathrm{~mm}=0.0666 \mathrm{Kg}$

Billet, 202mm diameter $1 \mathrm{~mm}=0.0875 \mathrm{Kg}$

MECHANICAL PROPERTY LIMITS - EXTRUDED PRODUCTS

| Alloy - Temper | Thickness' ( mm ) |  | Tensile Strength ( MPa ) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Over | Up to | Ultimate minimum | Yield minimum | Elongation ${ }^{23}$ $\% \mathrm{~min}$ in 50 mm or 5.65邓-A |
| $1350-\mathrm{HI} \mathrm{I}_{2}$ |  | All | 60 |  | 23 |
| 6060 -T5 |  | 12.0 | 150 | 110 | 8 |
|  | 12.0 | 25.0 | 145 | 105 | 6 |
| 6106-T6 |  | 10.0 | 235 | 210 | 8 |
|  | 10.0 | 25.0 | 205 | 170 | 8 |
|  | 25.0 | 150.0 | 185 | 160 | 10 |
| 6005A -T5 |  | All | 260 | 240 | 8 |
| 6261-T6 |  | All | 295 | 255 | 7 |
| 6082 -T6 |  | 20.0 | 295 | 255 | 7 |
|  | 20.0 | 150.0 | 310 | 270 | 7 |

I. The thickness of the cross-section or wall thickness from which the tension specimen is taken determines the applicable mechanical properties.
2. For material of such dimensions that a standard test specimen cannot be taken, or for material thinner than 1.6 mm the test for elongation is not required.
3. $\mathrm{A}=$ specimen cross-sectional area.
4. These yield strengths are not determined nor guaranteed unless specifically requested.

Source: Aluminium Standards, Data and Design: Wrought Products (ADCA First Edition1994)


## DISCOVERY AND DEVELOPMENT

The art of pottery making was developed in northern Iraq about 5300 BC . The clay used for making the best pottery consisted largely of a hydrated silicate of aluminium. Certain other aluminium compounds known as alums were widely used by the Egyptians and Babylonians a early as 2000 BC in vegetable dyes, various chemical processes and for medicinal purposes. It was generally known as metal of clay and for thousands of years could not be separated by any known method from its link with other elements. As relatively late as 1782 the French chemist, Lavoisier, said it was the oxide of an unknown metal.

Aluminium, as we understand it, was isolated early in the 19th century, and is in historical terms a relatively recently discovered metal. Lavoisier's opinion was repeated by Sir Humphrey Davy in 1808 . He gave it the more scientific sounding name aluminum ( pron: aloominum ). His spelling is still used in North America but elsewhere in the world the spelling aluminium, following the suggestion of Henri Sainte-Clair Deville, is used. In 1809 Davy fused iron in contact with alumina in an electric arc to produce an iron-aluminium alloy. For a split second, before it joined with the iron, aluminium existed in its free metallic state for perhaps the first time since our planet was formed. In 1825 H C Oerstedt, a Dane, produced a tiny sample of aluminium in the laboratory by chemical means.

Twenty years later the German scientist, Frederick Wohler, produced aluminium lumps as big as pinheads. In 1854 Sainte-Clair Deville had made improvements to Wohler's method and produced aluminium globules the size of marbles. He was encouraged by Napoleon III to produce aluminium commercially and at the Paris exhibition in 1855 aluminium bars were exhibited next to the crown jewels. It was not until 3 I years later however, that an economical way of commercial production was discovered.

On 23 February 1886, a 22-year-old American, Charles Martin Hall worked out the basic electrolytic process still in use today. Hall had begun his experiments while still a student at Oberlin College, Ohio. He achieved his success, after graduation, with home-made apparatus in the family woodshed. He separated aluminium from the oxygen with which it is chemically combined in nature by passing an electric current through a solution of cryolite and alumina.

Almost simultaneously, Paul LT Heroult arrived at the same process in France, although he did not initially recognise its importance in his work in development of aluminium as an alloy-only material. In 1888 the German chemist Karl Joseph Bayer was issued a German patent for an improved process for making Bayer aluminium oxide ( alumina ).The foundation of the aluminium age was complete. The Bayer, Hall and Heroult processes freed our planet's most plentiful and versatile structural element for widespread use.

## ORIGINS

Aluminium is a metallic element that comes from the ore bauxite. Aluminium is one of about 100 basic elements out of which the physical universe is built. In other words, it was created billions of years ago when the whirling clouds of hydrogen under constant pressure with electro-magnetic forces collided to form new elements. When Earth's mass cooled, aluminium mixed with water and oxygen to form the original matter from which bauxite is made. Bauxite is named after Les Baux, France, where it was discovered in 1821 .

Converted to aluminium by modern processes, it becomes a light metal which can be given great strength by alloying with other metals. It is inherently corrosion-resistant, conducts heat and electricity, yet can be processed to reflect light and radiant energy. Aluminium is classified non-toxic. It is non-magnetic. It can be formed by all known metalworking processes. Its intrinsic properties make it able to be used in many circumstances where other materials would not be considered.

DIAGRAMS ACTUAL SIZE UNLESS

## HOW ALUMINIUM IS MADE

Bauxite is mined by various processes. Once mined it is finely crushed for refining and recovery of alumina, the base from which aluminium is made. The separation of the alumina from bauxite is a complicated process. This involves the use of a caustic soda solution heated under pressure to dissolve the alumina. Impurities are filtered out of the solution in the form of a mud-like material. The filtered solution is cooled and alumina is recovered by precipitation in a hydrate form. The resulting fine crystals are heated in long, revolving kilns to drive off the water of crystallisation.

The product is alumina in a white powder form. Aluminium metal is produced in large steel shells lined with carbon. These shells are known in the industry as pots and are arranged in long rows called pot lines. Alumina is mixed with cryolite in the pots and large quantities of electricity are introduced to reduce the alumina into aluminium and oxygen. The process is continuous and molten metal is siphoned from the pots at regular intervals.

## HOW ALUMINIUM ISTURNED INTO PRODUCTS

Once aluminium is produced it can be made into forms ready for manufacturers to convert into finished products. Industries requiring aluminium may specify from a range of alloys and their metal can be supplied in the form of ingots, extruded shapes, rod, tube, bar, sheet, plate and foil.

One of the best known forms of aluminium is sheet, which has many applications. The process starts with special alloy ingots. These are pre-heated to rolling temperature, then fed into a hot mill with the ingot being passed back and forth through the mill. The process results in plate, with thinner sheet being formed by further passes between rolls under extreme pressure. It becomes longer and thinner in the direction in which the plate or sheet is moving.

Perhaps the most remarkable of all sheet forms is foil, which is aluminium metal that has been rolled very thin so that it is pliable yet strong. Aluminium foil is widely used in kitchens and food packaging.

Aluminium extrusions have been used commercially for many years. The process involves a heated billet being pushed under extreme pressure through a die, the metal taking the shape of the holes in the die. Extrusions are mostly used to reduce the weight or number of parts in an assembly, or to achieve shapes that cannot be produced satisfactorily any other way.

## THE USES OF ALUMINIUM

The characteristics of aluminium combine to make aluminium a most versatile material for a host of applications.

| Window frames | Kitchen utensils | Vehicle engines | Tanks and piping |
| :--- | :--- | :--- | :--- |
| Door frames | Kitchen whiteware | Aircraft engines | Tubing and ducting |
| Joinery fittings | Laundry whiteware | Outboard motors | Reflector panelling |
| Roofing | Air conditioners | Motor mowers | Armature windings |
| Gutters | Tubular furniture | Airframes and skins | Wiring and cabling |
| Spouting | Electrical fittings | Vehicle trim | Treadplate |
| Wall cladding | Light fittings | Truck canopies | Wall framing |
| Foil insulation | Household appliances | Coach bodies | Office furniture |
| Roller doors | Food containers | Railcar bodies | Office equipment |
| Insect screens | Wrapping foil | Caravan bodies | Decorative ceilings |
| Venetian blinds | Cans and closures | Boat hulls and trim | High-rise mullions |
| Awnings, louvres | Computer parts | Transport containers | Sign frames, panels |
| Fencing | Sports equipment | TV receiver aerials | Partition systems |
| Balustrading | Leisure furniture | Flag Poles | Security grills |



Aluminium is one of the easiest materials to keep in good condition. It has a high natural resistance to corrosive conditions normally encountered during shipment and storage, and a little care will maintain its original appearance for a long time. Generally, guard against conditions that may cause surface abrasion or water stains. Suppliers make every effort to pack aluminium so that traffic marks or rub marks do not occur during shipment and so that it remains dry. All incoming shipments should be inspected promptly however, since suppliers generally have a time limit in which damage claims will be honoured.

## TRAFFIC MARKS

Appearance: Scratches, surface abrasions, or a condition resembling cinders embedded in the metal. They result from mechanical abrasion and subsequent oxidation of the abraded areas, which is unsightly and has a detrimental effect on finishing operations.

Prevention and treatment: Suppliers usually pack metal so that it is not subjected to undue flexing or twisting and so that the units within a package do not rub against each other. Products subject to such damage are usually packed on skids or in timber boxes. Paper or cardboard may be used for cushioning thin or soft metal. Steel strapping is used to reinforce skids and boxes and to bind wrapped bundles. In storage, do not place aluminium with other metals. Use wood-faced shelving, racks and bins. Store away from caustics, nitrates, phosphates and acids. Use older stock first.

## WATER STAINS

Appearance: Non-metallic, usually whitish, perhaps iridescent depending upon the alloy or degree of oxidation. Caused by the entrapment of moisture between adjacent surfaces of closely-packed material. Purer aluminium alloys are more resistant to water stain, usually more pronounced on alloys with high magnesium content. It is a superficial condition and the mechanical properties of the metal are not affected.

Prevention and treatment: If a shipment of metal arrives in wet condition, dry thoroughly before storing - evaporate moisture in air or dry air currents. When the moisture is removed shortly after the metal becomes wet, no stain will result. If stain has occurred, and the moisture causing it is not removed, the stain will develop further. Once dry, store the metal away from such obvious water sources as steam and water pipes, and reasonably away from open doors and windows.

Condensation is perhaps the most troublesome cause of water stains. In severe cases, it may also cause surface deterioration which may only become apparent when the metal is later etched and anodised. Prevent it by avoiding conditions where airborne moisture increases enough to carry the dew point above the metal temperature. Ensure that a sudden fall in temperature or increase in humidity does not occur in storage areas. Aluminium packed in original boxes should never be left in the open, because greater variations in outdoor temperature and humidity increase the possibility of condensation. Even if the package is wrapped in water-resistant paper, the impossibility of obtaining a perfect seal makes outdoor storage highly undesirable. So-called waterproof packages are designed solely for the protection of the metal during shipment and are not meant to withstand extended exposure to the weather.

Try to store cold metal in a dry storage area until its temperature has increased substantially before bringing it into a heated areas with higher humidity. Place new shipments in temporary storage where their temperature is raised slowly to that of the permanent storage room.

Where water stains have occurred, the degree of staining may be judged fairly accurately by the relative roughness of the stained area. If the surface is fairly smooth overall, the stain is superficial, and its appearance can be improved by mechanical or chemical treatments. Scratch-brushing or the use of steel wool and oil is effective in removing water stain. If a chemical dip without undue etching is preferred, an aqueous solution containing $10 \%$ by volume of sulphuric acid and $3 \%$ by weight of chromic acid at about $10^{\circ} \mathrm{C}$ may be used.

## ANODISING

The capacity of aluminium to respond to anodising, the most familiar of finishes, makes aluminium a most important metal in a fundamental way. The fact that aluminium can accept this attractive, durable and tough-wearing finish makes it possible to exploit its strength and lightness in a large number of applications, particularly in building construction.

Anodising is essentially an induced thickening of the natural protective oxide film on the metal's surface. It converts the surface of the parent metal, not a 'coating' in the usual sense. Unless severely deformed or stressed by excessive thermal movement, the anodic film will not chip, peel or crack. With conventional sulphuric acid anodising, anodised alloys produce a clear, hard and extremely corrosion-resistant film capable of being coloured. The functional and decorative potential this offers is widely used in applications ranging from building components to domestic cookware. Varying the conventional electrolyte composition, combined with process variables, produces anodic finishes with distinctive functional properties. Thus, very hard anodic films are developed for abrasion-resistant surfaces on gears, pistons, bearings and similar components.

Anodic films can be coloured in many ways. Conventional sulphuric acid films are microscopically porous and organic or inorganic dyes and pigments may be sealed in the film. Very durable coloured films used for exposed environments are usually produced integrally and permanently with the evolution of the anodic layer. Whether anodising is clear or coloured, it is important that designers understand its essential nature. Inevitably, the anodic film reproduces the physical nature of the original metal surface. This means that any mechanical finish applied previously to the surface will be evident, and the characteristics of different metal forms will persist.Thus, extruded and sheet metal, if colouranodised to the same specification and placed together, will show an apparent colour difference due solely to minor but characteristic differences in surface profile peculiar to their individual mill processes.

The basic anodising process consists of a suitable chemical pre-cleaning dip, followed by etching in a caustic soda base solution, anodising electrolytically in sulphuric acid or other solution and finally sealing to reduce porosity. The finished anodised surface is in fact an inert, and therefore protective, film of aluminium oxide. The thickness of the aluminiumoxide anodising is varied by processing time to suit its application. The following guide quotes minimum figures, film thickness being checked on a batch basis by electronic means.

| I2 micron: | Common Standard for internal and outdoor applications where <br> cleaning is frequently required. |
| :--- | :--- |
| $\mathbf{1 5}$ micron: | General architectural requirement. |
| $\mathbf{2 5}$ micron: | Heavy duty external architectural or marine applications where <br> little deterioration can be tolerated. |

Colour finishes are checked for accuracy against standards, and tested for leaching by immersion in a boiling $0.1 \%$ borax solution.

## THERMOSET POWDERCOATING

The application of thermoset powdercoatings on aluminium has increased dramatically. The wide variety of powder types now available in the process allow the engineer or architect to specify powdercoating for a wide variety of applications with confidence. Polyester thermosetting powder is the most commonly specified product because of its excellent resistance to natural weathering, a high degree of chalk resistance and colour fastness, high levels of mechanical properties and good chemical and corrosion resistance.

Standard colour ranges provide ample choice but colour-matching to specific colours can be achieved on request. After a cleaning process, the surface is chromate-converted to enhance corrosion resistance and optimise adhesion of the thermosetting.


Aluminium is a proven construction material for buildings, vehicles, appliances and products, both as a framing and cladding material. In the building industry, it is by far the most common material used for window and door joinery, curtain walls and shop fronts. It is widely used in every aspect of the transport, leisure, boating and household appliance industries. Its selection is based on many criteria - one being its ease of fabrication to provide visual appeal and easy maintenance.

Aluminium has natural beauty and lustre of its own, yet its surface can be treated in various ways to protect and enhance its appearance, which can be maintained with regular, lowmaintenance attention.

The surface of fabricated aluminium, whether untreated, anodised or coated, can be spoiled by improper care. Here, we briefly summarise the methods of maintaining good appearance of aluminium surfaces after installation. Usually this care is no more than periodic cleaning, as in eg: window glass. Anodising treatment will substantially enhance appearance, render the surface more resistant to various forms of attack and facilitate cleaning and maintenance.

The Architectural Aluminium Fabricators' Association of New Zealand has published a guide which deals with all aspects of design and use, care and maintenance. Here we only briefly highlight the cleaning aspect since it applies to so many users of architectural aluminium products.

Grime which causes deterioration cannot be prevented from settling on exposed surfaces. If cleaned reasonably frequently then the mildest methods of washing will produce satisfactory results. There are many ways to clean aluminium, from using plain water to harsh abrasives. The type of cleaning that should be used is governed by the finish, degree of soiling, and the size, shape and location of the surface to be cleaned. The mildest method possible should be used, particularly for aluminium which has been anodised.

With anodised aluminium, surface deterioration occurs as a result of grime deposition and contaminated moisture attack. In coastal environments it is caused by airborne chlorides, in industrial or urban environments by sulphur compounds. Grime deposits absorb contaminated moisture like a sponge, assisting attack on the film, which cannot be restored without removal. Cleaning frequency depends on accessibility and environmental severity. In rural areas, cleaning may be needed only every six months. In industrial and marine environments, cleaning is recommended at least every three months, preferably monthly.

The following cleaning materials and procedures are listed in order from mild to harsh. The mildest treatment should be tried on a small area and if not satisfactory only then should the next be examined:
I. Plain water
2. Water with mild soap or detergent
3. Solvents, eg: kerosene, turpentine, white spirit.
4. Non-etching chemical cleaner
5. Wax-based polish
6. Abrasive wax
7. Abrasives

After applying cleaning agents, the surface should be washed down thoroughly and dried with a clean cloth to prevent streaking. There should be no concentration of cleaning agents at the bottom edges of the aluminium. If using proprietary cleaning solutions, manufacturers' recommendations should be obtained and followed carefully.

If abrasives are used, the appearance of the aluminium finish may be altered. If there is a grain in the finish, cleaning action should always be with the grain. If the condition of the surface indicates the use of abrasive or etching materials, it is advisable to consult a cleaning specialist. If all other methods fail it may be necessary to resort to heavy-duty cleaning. This involves cleaning methods using strong etching chemicals or coarser abrasives.

## Profiles in one process



Typical preliminary processes for more complex extrusions



## CONVERSION BASICS

| Linear |  |
| :--- | :--- |
| I inch | 25.4 mm |
| I foot | 0.3048 m |
| I mm | 0.0394 inches |
| I m | 3.28 feet |
| Area |  |
| I sq inch | 645 sq mm |
| I sq foot | 0.0929 sq m |
| I sq mm | 0.00 I 55 sq in |
| I sq m | 10.84 sq ft |
| Volume |  |
| I cubic inch | 16387 cu mm |
| I cu mm | 0.00006 I cu in |
| Force |  |
| I lb per sq ft | 4.45 Newtons |
| I Newton | 0.225 lbs per ft |
| Stress |  |
| I lb per sq in | 0.00689 MPa |
| I MPa | I 45 lbs per sq in |



DIAGRAMS ACTUAL SIZE UNLESS OTHERWISE INDICATED.

| inches | mm | inches | mm |
| :---: | :---: | :---: | :---: |
| 1 1/32 | 26.1938 | $31 / 32$ | 76.9938 |
| 1 1/16 | 26.9875 | $31 / 16$ | 77.7875 |
| 1 3/32 | 27.7813 | $33 / 32$ | 78.5813 |
| $11 / 8$ | 28.5750 | $31 / 8$ | 79.3750 |
| 1 5/32 | 29.3688 | $35 / 32$ | 80.1688 |
| 1 3/16 | 30.1625 | 3 3/16 | 80.9625 |
| $17 / 32$ | 30.9563 | $37 / 32$ | 81.7563 |
| 1 1/4 | 31.7500 | $31 / 4$ | 82.5500 |
| 19/32 | 32.5438 | 3 9/32 | 83.3438 |
| 1 5/16 | 33.3375 | $35 / 16$ | 84.1375 |
| \| 11/32 | 34.1313 | $311 / 32$ | 84.9313 |
| $13 / 8$ | 34.9250 | $33 / 8$ | 85.7250 |
| 1 13/32 | 35.7188 | $313 / 32$ | 86.5188 |
| $17 / 16$ | 36.5125 | $37 / 16$ | 87.3125 |
| \| 15/32 | 37.3063 | $315 / 32$ | 88.1063 |
| I I/2 | 38.1000 | $31 / 2$ | 88.9000 |
| 1 17/32 | 38.8938 | $317 / 32$ | 89.6938 |
| 19/16 | 39.6875 | $39 / 16$ | 90.4875 |
| 1 19/3 | 40.4813 | $319 / 32$ | 91.2813 |
| 1 5/8 | 41.2750 | 3 5/8 | 92.0750 |
| \| $21 / 32$ | 42.0688 | $321 / 32$ | 92.8688 |
| 1 11/16 | 42.8625 | $311 / 16$ | 93.6625 |
| \| 23/32 | 43.6563 | $323 / 32$ | 94.4563 |
| $13 / 4$ | 44.4500 | $33 / 4$ | 95.2500 |
| I 25/32 | 45.2438 | 3 25/32 | 96.0438 |
| 1 13/16 | 46.0375 | $313 / 16$ | 96.8375 |
| 1 27/32 | 46.8313 | 3 27/32 | 97.6313 |
| $17 / 8$ | 47.6250 | $37 / 8$ | 98.4250 |
| 1 29/32 | 48.4188 | 3 29/32 | 99.2188 |
| 1 15/16 | 49.2125 | $315 / 16$ | 100.0120 |
| \| 31/32 | 50.0063 | 3 31/32 | 100.8060 |
| 2 inches | 50.8000 | 4 inches | 101.6000 |
| $21 / 32$ | 51.5938 | $41 / 32$ | 102.3940 |
| $21 / 16$ | 52.3875 | $41 / 16$ | 103.1880 |
| $23 / 32$ | 53.1813 | $43 / 32$ | 103.9810 |
| $21 / 8$ | 53.9750 | $41 / 8$ | 104.7750 |
| $25 / 32$ | 54.7688 | $45 / 32$ | 105.5690 |
| $23 / 16$ | 55.5625 | $43 / 16$ | 106.3620 |
| $27 / 32$ | 56.3563 | $47 / 32$ | 107.1560 |
| $21 / 4$ | 57.1500 | $41 / 4$ | 107.9500 |
| $29 / 32$ | 57.9438 | $49 / 32$ | 108.7440 |
| $25 / 16$ | 58.7375 | $45 / 16$ | 109.5380 |
| $211 / 32$ | 59.5313 | $411 / 32$ | 110.3310 |
| $23 / 8$ | 60.3250 | $43 / 8$ | 111.1250 |
| $213 / 32$ | 61.1188 | $413 / 32$ | 111.9190 |
| $27 / 16$ | 61.9125 | 4 7/16 | 112.7120 |
| $215 / 32$ | 62.7063 | $415 / 32$ | 113.5060 |
| $21 / 2$ | 63.5000 | $41 / 2$ | 114.3000 |
| 2 17/32 | 64.2938 | 4 17/32 | 115.0940 |
| $29 / 16$ | 65.0875 | $49 / 16$ | 115.8880 |
| 2 19/32 | 65.8813 | 4 19/32 | 116.6810 |
| 2 5/8 | 66.6750 | 4 5/8 | 117.4750 |
| 2 21/32 | 67.4688 | 4 21/32 | 118.2690 |
| $211 / 16$ | 68.2625 | $411 / 16$ | 119.0620 |
| $223 / 32$ | 69.0563 | 4 23/32 | 119.8560 |
| $23 / 4$ | 69.8500 | $43 / 4$ | 120.6500 |
| $225 / 32$ | 70.6438 | 4 25/32 | 121.4440 |
| $213 / 16$ | 71.4375 | 4 13/16 | 122.2380 |
| 2 27/32 | 72.2313 | $427 / 32$ | 123.0310 |
| $27 / 8$ | 73.0250 | $47 / 8$ | 123.8250 |
| 2 29/32 | 73.8188 | 4 29/32 | 124.6190 |
| $215 / 16$ | 74.6125 | 4 15/16 | 125.4120 |
| $231 / 32$ | 75.4063 | 4 31/32 | 126.2060 |
| 3 inches | 76.2000 | 5 inches | 27.0000 |

inches mm

| $51 / 32$ | 127.794 |
| :--- | :--- | :--- |
| $51 / 16$ | 128.588 |
| $53 / 32$ | 129.381 |
| $51 / 8$ | 130.175 |
| $55 / 32$ | 130.969 |
| $53 / 16$ | 131.762 |
| $57 / 32$ | 132.556 |
| $51 / 4$ | 133.350 |
| $59 / 32$ | 134.144 |
| $55 / 16$ | 134.938 |
| $511 / 32$ | 135.731 |
| $53 / 8$ | 136.525 |
| $513 / 32$ | 137.319 |
| $57 / 16$ | 138.112 |


| 5 | $15 / 32$ | 138.906 |
| :--- | :--- | :--- |

$\begin{array}{ll}5 & 1 / 2 \\ 5 & 139.700\end{array}$
$\begin{array}{lll}5 & 17 / 32 & 140.494\end{array}$
$\begin{array}{lll}59 / 16 & 141.288\end{array}$
5 19/32 |42.08|
$\begin{array}{ll}5 \text { 5/8 } & 142.875\end{array}$
$521 / 32 \quad 143.669$
$\begin{array}{lll}511 / 16 & 144.462\end{array}$
5 23/32 145.256
$\begin{array}{lll}53 / 4 & 146.050\end{array}$
5 25/32 146.844
$\begin{array}{lll}513 / 16 & 147.638\end{array}$
5 27/32 148.431
$57 / 8 \quad 149.225$
$\begin{array}{lll}5 & 29 / 32 \quad 150.019\end{array}$
5 15/16 | 50.812
5 3I/32 |5I.606
6 inches 152.400
6 I/16 I53.988
6 I/8 $\quad 155.575$
$63 / 16 \quad 157.162$
$61 / 4 \quad 158.750$
$65 / 16 \quad 160.338$
$63 / 8 \quad 161.925$
$67 / 16 \quad 163.512$
$61 / 2 \quad 165.100$
$69 / 16 \quad 166.688$
$65 / 8 \quad 168.275$
$611 / 16 \quad 169.862$
$63 / 4 \quad 171.450$
$613 / 16 \quad 173.038$
$67 / 8 \quad 174.625$
$615 / 16 \quad 176.212$
7 inches 177.800
7 I/16 179.388
$71 / 8 \quad 180.975$
$73 / 16 \quad 182.562$
7 I/4 I84.150
7 5/16 185.738
$\begin{array}{ll}73 / 8 & 187.325\end{array}$
$77 / 16 \quad 188.912$
$71 / 2 \quad 190.500$
$79 / 16 \quad 192.088$
$75 / 8 \quad 193.675$
$711 / 16 \quad 195.262$
$73 / 4 \quad 196.850$
$713 / 16 \quad 198.438$
$77 / 8 \quad 200.025$
$715 / 16 \quad 201.612$
8 inches 203.200

| inches | m |  | ins | mm | $f t$ | ins | mm | feet | mm |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| $81 / 16$ | 204.788 | 1 | 1 | 330.200 | 65 | 5 | 1955.80 | 31 | 9448.80 |
| $81 / 8$ | 206.375 | 1 | 2 | 355.600 | 66 | 6 | 1981.20 | 32 | 9753.60 |
| $83 / 16$ | 207.962 | 1 | 3 | 381.000 | 67 | 7 | 2006.60 | 33 | 10,058.4 |
| $81 / 4$ | 209.550 | 1 | 4 | 406.400 | 68 | 8 | 2032.00 | 34 | 10,363.2 |
| 8 5/16 | 211.138 | I | 5 | 431.800 | 6 | 9 | 2057.40 | 35 | 10,668.0 |
| $83 / 8$ | 212.725 | 1 | 6 | 457.200 |  | 10 | 2082.80 | 36 | 10,972.8 |
| $87 / 16$ | 214.312 | 1 | 7 | 482.600 |  | 1 | 2108.20 | 37 | 11,277.6 |
| 8 1/2 | 215.900 | 1 | 8 | 508.000 | 7 | 0 | 2133.60 | 38 | 11,582.4 |
| $89 / 16$ | 217.488 | 1 | 9 | 533.400 | 7 | 1 | 2159.00 | 39 | 11,887.2 |
| $85 / 8$ | 219.075 | 1 | 10 | 558.800 | 72 | 2 | 2184.40 | 40 | 12,192.0 |
| 811/16 | 220.662 | 1 | 11 | 584.200 | 7 | 3 | 2209.80 | 41 | 12,496.8 |
| $83 / 4$ | 222.250 | 2 | 0 | 609.600 | 7 | 4 | 2235.20 | 42 | 12,801.6 |
| $813 / 16$ | 223.838 | 2 | 1 | 635.000 | 7 | 5 | 2260.60 | 43 | 13,106.4 |
| $87 / 8$ | 225.425 | 2 | 2 | 660.400 | 7 | 6 | 2286.00 | 44 | 13,4\|1.2 |
| 815/16 | 227.012 | 2 | 3 | 685.800 | 7 | 7 | 2311.40 | 45 | 13,716.0 |
| 9 inches | 228.600 | 2 | 4 | 711.200 | 78 | 8 | 2336.80 | 46 | 14,020.8 |
| $91 / 16$ | 230.188 | 2 | 5 | 736.600 | 79 | 9 | 2362.20 | 47 | 14,325.6 |
| $91 / 8$ | 231.775 | 2 | 6 | 762.000 |  | 0 | 2387.60 | 48 | 14,630.4 |
| 9 3/16 | 233.362 | 2 | 7 | 787.400 |  | 1 | 2413.00 | 49 | 14,935.2 |
| $91 / 4$ | 234.950 | 2 | 8 | 812.800 | 8 | 0 | 2438.40 | 50 | 15,420.0 |
| 9 5/16 | 236.538 | 2 | 9 | 838.200 | 8 | 1 | 2463.80 | 51 | 15,544.8 |
| $93 / 8$ | 238.125 | 2 | 10 | 863.600 | 82 | 2 | 2489.20 | 52 | 15,849.6 |
| $97 / 16$ | 239.712 | 2 | 11 | 889.000 | 8 | 3 | 2514.60 | 53 | 16,154.4 |
| $91 / 2$ | 241.300 | 3 | 0 | 914.400 | 84 | 4 | 2540.00 | 54 | 16,459.2 |
| $99 / 16$ | 242.888 | 3 | 1 | 939.800 | 85 | 5 | 2565.40 | 55 | 16,764.0 |
| 9 5/8 | 244.475 | 3 | 2 | 965.200 | 86 | 6 | 2590.80 | 56 | 17,068.8 |
| $911 / 16$ | 246.062 | 3 | 3 | 990.600 | 87 | 7 | 2616.20 | 57 | 17,373.6 |
| $93 / 4$ | 247.650 | 3 | 4 | 1016.00 | 88 | 8 | 2641.60 | 58 | 17,678.4 |
| $913 / 16$ | 249.238 | 3 | 5 | 1041.40 | 8 | 9 | 2667.00 | 59 | 17,983.2 |
| $97 / 8$ | 250.825 | 3 | 6 | 1066.80 |  | 10 | 2692.40 | 60 | 18,288.0 |
| $915 / 16$ | 252.412 | 3 | 7 | 1092.20 |  | 1 | 2717.80 | 61 | 18,592.8 |
| 10 inches | 254.000 | 3 | 8 | 1117.60 | 9 | 0 | 2743.20 | 62 | 18,897.6 |
| $101 / 16$ | 255.588 | 3 | 9 | 1143.00 | 9 | 1 | 2768.60 | 63 | 19,202.4 |
| $101 / 8$ | 257.175 | 3 | 10 | 1168.40 | 9 | 2 | 2794.00 | 64 | 19,507.2 |
| $103 / 16$ | 258.762 | 3 | 11 | 1193.80 | 9 | 3 | 2819.40 | 65 | 19,812.0 |
| $101 / 4$ | 260.350 | 4 | 0 | 1219.20 | 9 | 4 | 2844.80 | 66 | 20,116.8 |
| 10 5/16 | 261.938 | 4 | 1 | 1244.60 | 9 | 5 | 2870.20 | 67 | 20,421.6 |
| $103 / 8$ | 263.525 | 4 | 2 | 1270.00 | 9 | 6 | 2895.60 | 68 | 20,726.4 |
| $107 / 16$ | 265.112 | 4 | 3 | 1295.40 | 97 | 7 | 2921.00 | 69 | 21,031.2 |
| 10 1/2 | 266.700 | 4 | 4 | 1320.80 | 8 | 8 | 2946.40 | 70 | 21,336.0 |
| $109 / 16$ | 268.288 | 4 | 5 | 1346.20 | 9 | 9 | 2971.80 | 71 | 21,640.8 |
| $105 / 8$ | 269.875 | 4 | 6 | 1371.60 |  | 10 | 2997.20 | 72 | 21,945.6 |
| $1011 / 16$ | 271.462 | 4 | 7 | 1397.00 | 91 |  | 3022.60 | 73 | 22,250.4 |
| $103 / 4$ | 273.050 | 4 | 8 | 1422.40 | 10 | 0 | 3048.00 | 74 | 22,555.2 |
| 10 13/16 | 274.638 | 4 | 9 | 1447.80 | 11 | 0 | 3352.80 | 75 | 22,860.0 |
| $107 / 8$ | 276.225 | 4 | 10 | 1473.20 | 12 | 0 | 3657.60 | 76 | 23,164.8 |
| $1015 / 16$ | 277.812 | 4 | 11 | 1498.60 | 13 | 0 | 3962.40 | 77 | 23,469.6 |
| 11 inches | 279.400 | 5 | 0 | 1524.00 | 14 | 0 | 4267.20 | 78 | 23,774.4 |
| 11 1/16 | 280.988 | 5 | 1 | 1549.40 | 15 | 0 | 4572.00 | 79 | 24,079.2 |
| $111 / 8$ | 282.575 | 5 | 2 | 1574.80 | 16 | 0 | 4876.80 | 80 | 24,384.0 |
| 11 3/16 | 284.162 | 5 | 3 | 1600.20 | 17 | 0 | 5181.60 | 81 | 24,688.8 |
| 11 1/4 | 285.750 | 5 | 4 | 1625.60 | 18 | 0 | 5486.40 | 82 | 24,993.6 |
| II 5/16 | 287.338 | 5 | 5 | 1651.00 | 19 | 0 | 5791. 20 | 83 | 25,298.4 |
| $113 / 8$ | 288.925 | 5 | 6 | 1676.40 | 20 | 0 | 6096.00 | 84 | 25,603.2 |
| $117 / 16$ | 290.512 | 5 | 7 | 1701.80 | 21 | 0 | 6400.80 | 85 | 25,908.0 |
| $111 / 2$ | 292.100 | 5 | 8 | 1727.20 | 22 | 0 | 6705.60 | 86 | 26,212.8 |
| $119 / 16$ | 293.688 | 5 | 9 | 1752.60 | 23 | 0 | 7010.40 | 87 | 26,517.6 |
| $115 / 8$ | 295.275 | 5 | 10 | 1778.00 | 24 | 0 | 7315.20 | 88 | 26,822.4 |
| 11 11/16 | 296.862 | 5 | 11 | 1803.40 | 25 | 0 | 7620.00 | 89 | 27,127.2 |
| 11 3/4 | 298.450 | 6 | 0 | 1828.80 | 26 | 0 | 7924.80 | 90 | 27,432.0 |
| 11 13/16 | 300.038 | 6 | 1 | 1854.20 | 27 | 0 | 8229.60 | 91 | 27,736.8 |
| $117 / 8$ | 301.625 | 6 | 2 | 1879.60 | 28 | 0 | 8534.40 | 92 | 28,041.6 |
| 11 15/16 | 303.212 | 6 | 3 | 1905.00 | 29 | 0 | 8839.20 | 93 | 28,346.4 |
| 12 inches | 304.800 | 6 | 4 | 1930.40 | 30 | 0 | 9144.00 | 94 | 28,65I.2 |





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