

# **Mineral Processing Fixed Plant Catalogue**



## **What We Do**

From pit to port, we specialise in wear parts and services for the mineral processing industry that increase asset availability, reduce high risk tasks and maintenance costs. For example; chute and hopper design, rotable chute refurbishment and remote condition monitoring.



#### Registered Trademarks

All company names, logos, product names, and identifying marks used throughout this publication are the property of their respective trademark owners. They are used for descriptive purposes only and are protected by the relevant laws of the countries in which the trademarks are registered.



# We'll work with you to understand your operational challenges and provide the smartest solutions with:



#### **Experience and Expertise**

With over 100 years' experience in the foundry business and with world-class manufacturing facilities located globally, Bradken has the knowledge, expertise and capability to produce fully machined cast iron and steel products from a mass of 0.5 kg (1.1lbs) up to and over 25,000kg (65,000 lbs).



#### Safety

Bradken products provide comprehensive safety features to reduce risk during installation and maintenance.



#### **Reducing Costs and Increasing Productivity**

Bradken products have been designed and engineered to optimise operational performance and aim to provide our customers with lowered Total Cost of Ownership (TCO).



#### Innovation and Design

Leveraging our expertise and experience in wear materials with our innovative technical teams, Bradken can supply unique and tailored packages to deliver high performing solutions.



## **Support Services**

Global mining and resources companies partner with Bradken because they know we will leverage our extensive design, engineering and in-field support services to solve their specific operational challenges.



## **Local Sales and Support Networks**

Bradken's global sales and distribution networks supply the world's major mining and industrial regions.



#### **Sustainability and Environment**

Bradken is committed to reducing its impact on the environment through a comprehensive and targeted sustainability plan.



#### **Equal Opportunities**

We value diversity and inclusion in the workplace. We seek to recruit, develop and retain the most talented people from diverse cultures, perspectives, skills and experiences within our workforce.



## **Product Lines**

Bradken's broad range of products enables technically advanced wear solutions across all applications.



Vulcabrix® combines hard abrasion resistant ceramic tiles with an impact resistant and abrasion resistant rubber. Vulcabrix ceramic liners are designed for use in moderate impact applications and severely abrasive environments found in the mining and mineral processing industries.



Revolver® system allows all skirt liner maintenance to be performed outside the equipment. Liner maintenance no longer needs to be conducted in potentially unsafe environments like confined spaces inside chutes and hoppers. The liner can now be changed or adjusted from outside the equipment.



Duaplate® with over 50 years' experience in the manufacture of chromium carbide clad wear plate, Bradken is a global market leader in this field. With a selection of different grades, thicknesses and sheet sizes to best fit a solution for high impact or sliding abrasion in fixed or mobile equipment applications found in the mining and resource industry.



Duracast® is an abrasion and high impact resistant product. Duracast is a white iron, alloyed with chromium and other alloy elements, to provide a tough wear resistant material. Duracast is often cast into billets and liners and used extensively in the mining, and mineral processing industries, particularly in bulk handling situations.



AR Steel (Q&T) plate provides an economical solution to an abrasive and impact prone environment. Bradken's Abrasion Resistant Steel is easily fabricated and has many applications in the construction, mining and mineral processing industries.



**Duablock®** products utilise abrasion and impact resistant chrome white iron castings metallurgically bonded to a weldable mild steel backing plate. This union of materials allows improved mechanical properties and allows welding, studding or bolting.



**Epoxies** a complementary product which can be used for emergency repairs, gap filling or transition blending.

Bradken is a leading manufacturer of wear resistant products for the mining, construction and mineral processing industries.

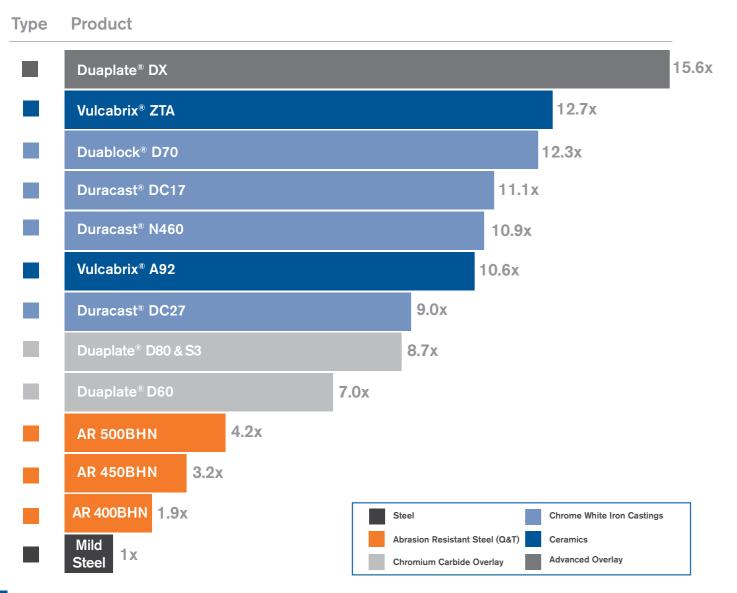
# **Laboratory Wear Comparison**

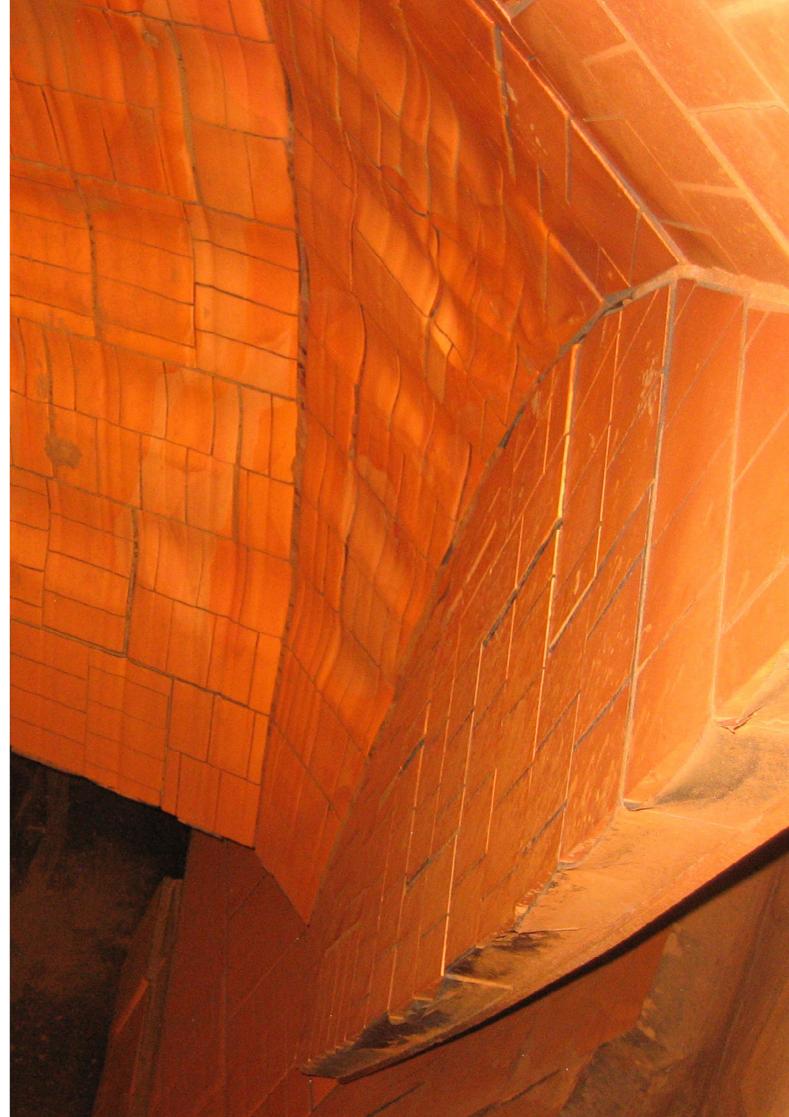
Bradken has always been considered at the forefront of supplying quality, abrasion resistant products to the market place.

Bradken strives to improve existing technologies and develop new products to provide maximum protection for fixed plant and mobile equipment against the effects of wear.

Our research and development has led to Bradken providing a range of products in Abrasion Resistant (Q&T) steel, chromium carbide overlay or cast white iron and ceramic based products. This versatile range allows Bradken to recommend the best material for any application.

## ASTM G65 Comparison of wear resistant materials to mild steel.





## **Vulcabrix®** Range

## Rubber Bonded Ceramic Range

The Vulcabrix range of liners combines very hard abrasion resistant ceramic tiles, with impact absorbing rubber, on to a steel backing plate.

Bradken offers a full range of products to suit all applications and budgets. custom sizes, shapes, optional edge protection and bevelling.

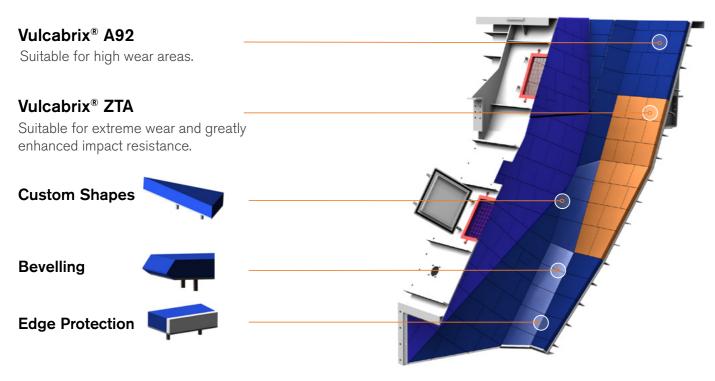
#### **Product Features:**

- Modular Liner
- Customised Liners System
- Maximum Resistance to Abrasion
- Reliable Adhesion Strength
- Impact Protection
- Edge Protection
- Noise Reduction

## **Supply Benefits:**

- State of the Art Manufacture
- Traceability
- 100% Control of Manufacture
- Reactive and Responsive
- Cost Effective
- Superior Quality

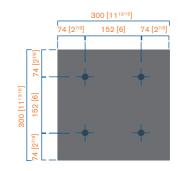
## **Vulcabrix® Range**



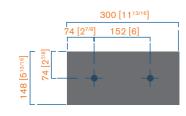
## **Vulcabrix® 300 Series**

Product with a mass over 25kg we recommend two people or mechanical lifting. M16x50lg studded liners to suit 152 hole centres, 300x300 liners.

| SIA Part No.     | Total<br>Thickness<br>(mm) | Useable<br>Thickness<br>(mm) | Grade | Mass (kg) |
|------------------|----------------------------|------------------------------|-------|-----------|
| S1A-M16S-VA37-25 | 37                         | 25                           | A92   | 12.9      |
| S1A-M16S-VZ37-25 | 31                         | 25                           | ZTA   | 14.3      |
| S1A-M16S-VA63-50 | 63                         | EO.                          | A92   | 21.8      |
| S1A-M16S-VZ63-50 | 03                         | 50                           | ZTA   | 24.1      |



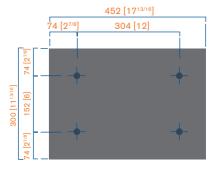
| R1 A Part No.      | Total<br>Thickness<br>(mm) | Useable<br>Thickness<br>(mm) | Grade | Mass (kg) |
|--------------------|----------------------------|------------------------------|-------|-----------|
| R1A-M16S-VA37-25   | 37                         | 25                           | A92   | 6.5       |
| R1A-M16S-VZ37-25   | 37                         | 25                           | ZTA   | 7.2       |
| R1A-M16S-VA63-50   | 60                         | 50                           | A92   | 10.9      |
| R1A-M16S-VZ63-50   | 63                         |                              | ZTA   | 12.1      |
| R1A-M16S-VA112-100 | 112                        | 100                          | A92   | 19.3      |
| R1A-M16S-VZ112-100 | 112                        | 100                          | ZTA   | 21.3      |



| R2B Part No.     | Total<br>Thickness<br>(mm) | Useable<br>Thickness<br>(mm) | Grade | Mass (kg) |
|------------------|----------------------------|------------------------------|-------|-----------|
| R2B-M16S-VA37-25 | 37                         | 25                           | A92   | 9.8       |
| R2B-M16S-VZ37-25 | 31                         | 20                           | ZTA   | 10.9      |
| R2B-M16S-VA63-50 | 63                         | 50                           | A92   | 16.5      |
| R2B-M16S-VZ63-50 | 03                         | 50                           | ZTA   | 18.3      |

|                           |          |           | 452 [1713/16] |   |
|---------------------------|----------|-----------|---------------|---|
|                           |          | 74 [27/8] | 304 [12]      |   |
|                           |          |           |               |   |
| 148 [5 <sup>13/16</sup> ] | 4 [27/8] |           |               |   |
| 3 [5]                     | 74       | _         |               | - |
| 4                         |          | '         |               | ' |
| L                         |          |           |               |   |

| R3B Part No.     | Total<br>Thickness<br>(mm) | Useable<br>Thickness<br>(mm) | Grade | Mass (kg) |
|------------------|----------------------------|------------------------------|-------|-----------|
| R3B-M16S-VA37-25 | 37                         | 25                           | A92   | 19.3      |
| R3B-M16S-VZ37-25 | 31                         | 25                           | ZTA   | 21.4      |
| R3B-M16S-VA63-50 | 63                         | 50                           | A92   | 32.7      |
| R3B-M16S-VZ63-50 | 03                         | 50                           | ZTA   | 36.2      |







Global mining and resources companies partner with Bradken because they know we will leverage our extensive design, engineering and in field support services to solve their specific operational challenges.

## **Duaplate® Range**

## Chromium Carbide Overlay Solution

Duaplate is a well established chromium carbide overlay plate, well known for its high abrasion and impact resistance. Duaplate is chromium carbide composite cladding that is fusion bonded to a backing material. The standard backing material for Duaplate is mild steel. The backing plate acts as a ductile base, which allows Duaplate to be formed and shaped without damage to the overlay material. The backing plate can also be used for structural support, allowing entire hoppers and chutes to be created using only Duaplate.

Duaplate® is available in four different grades to suit a range of operating conditions:

| Duaplate®         | D60 |
|-------------------|-----|
| <b>Duaplate</b> ® | D80 |
| <b>Duaplate</b> ® | S3  |
| <b>Duaplate</b> ® | DX  |

## **Duaplate® Finishes**

Duaplate comes in three different finishes to meet any condition.



#### **Duaplate® Standard**

Bradken's default premium quality finish.

Available in: Duaplate D60, Duaplate D80 and Duaplate S3



#### **Duaplate® Smooth**

The smooth finish reduces surface variation and improves flow characteristics.

Available in: Duaplate D60, Duaplate D80 and Duaplate DX



#### **Duaplate® Polished**

The "polished" surface finish will enhance flow characteristics of sticky ore. Polished further improves flow over Smooth. *Available in: All Grades* 



Suited for applications involving high abrasion and medium impact

#### Duaplate® D60

The D60 overlay material is an austenitic chromium carbide weld overlay that is based on AS2576-2355. The microstructure consists of primary  $\rm M_7C_3$  carbides in a carbide-austenite eutectic matrix. The high abrasion resistance is provided by the hard chromium carbides that protect the matrix from abrasive wear.

#### Used on:

- Bin and hopper liners
- Chute liners
- Main frame liners
- Slurry pipes and
- Sugar harvesting equipment



#### Duaplate® D80

The D80 overlay material is a complex chromium carbide weld overlay that is based on AS2576-2455. The microstructure of this material consists of primary  $\rm M_{7}C_{3}$  carbides in a complex carbide austenite matrix. The toughness of the material is improved by the formation of nodular complex carbides leading to a reduction in the size of acicular  $\rm M_{7}C_{3}$  type carbides and inter-carbide spacing.

#### Used on:

- Bin & hopper liners
- Chute liners
- Deflector plates
- Vibrating feeders
- Mobile equipment
- Grizzly bars



## Suited for applications involving high abrasion and high impact

## Duaplate® S3

Duaplate S3 is a chromium-tungsten carbide weld overlay, the manufacturing process of Duaplate, along with the microstructure and chemical composition, gives Duaplate S3 its superior properties. Duaplate S3 performs well in high abrasion and high impact wear applications. Large sheets or custom shapes of Duaplate S3 are available and can be formed into complex shapes.

#### Used on:

- Bin and hopper liners
- Chute liners
- Deflector plates



## **Duaplate® DX**

Duaplate DX is a special blend of carbides and borides in a highly refined overlay product. It's engineered micro structure increases hardness, toughness and abrasion resistance over conventional chromium carbide overlays

#### Used on:

- Vibrating feeders
- Mobile equipment
- Bin and hopper liners
- Chutes liners

## **Duaplate® Adaptability**

Duaplate is a premium quality product. It is manufactured under tightly controlled parameters within a quality management system.

## Forming and Fabrication

The standard backing material for Duaplate is mild steel. The backing plate acts as a ductile base, which allows Duaplate to be formed and shaped without damage to the overlay material. The backing plate can also be used for structural support, allowing entire hoppers and chutes to be created using only Duaplate. This enables a continuous wear-resistant surface to be produced regardless of the shape and complexity of the fabrication.

## Welding

The base material can be welded with standard mild steel or low hydrogen welding consumables with no pre-heating required. However, care should be taken to avoid contacting the overlay material.

## **Duaplate Polished**

Available in all grades and thicknesses, the "Polished" surface finish will enhance flow characteristics of sticky ore.

## **Cutting**

Plasma cutting is the recommended method for cutting Duaplate. It is preferable to cut Duaplate from the backing plate side to ensure a clean edge and to prevent carbide contami-

#### **Attachment Methods**

- Duaplate can be fabricated with studs welded to mild steel side of wear plate (M12, M16, M20 and M24)
- Duaplate can be fabricated with countersunk holes to suit bolts (M12, M16, M20 and M24)
- Duaplate can be supplied with holes ready cut for plug welding

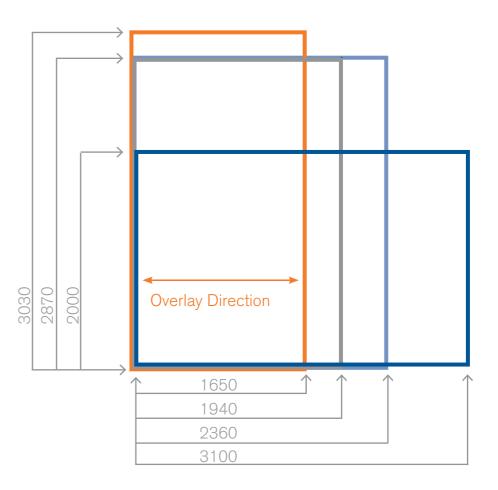
## **Duaplate® Sheet Sizing**

|            | N 1W                           | N : 15 1:                         |                          |              | Sheet Sizes |                                |
|------------|--------------------------------|-----------------------------------|--------------------------|--------------|-------------|--------------------------------|
| Plate Type | Nominal Wear<br>Thickness (mm) | Nominal Backing<br>Thickness (mm) | Estimate Mass<br>(kg/m²) | 1650 X 3030  | 3100 x 2100 | 1940 x 2870**<br>2360 x 2870** |
| 5 on 8     | 5                              | 8                                 | 102                      |              |             | DX                             |
| 7 on 8     | 7                              | 8                                 | 114                      |              |             | D60, D80                       |
| 8 on 8     | 8                              | 8                                 | 126                      |              |             | DX                             |
| 9 on 10    | 9                              | 10                                | 149                      |              |             | D60, D80                       |
| 12 on 10   | 12                             | 10                                | 173                      | D60, D80, S3 | D60, D80    |                                |
| 16 on 8    | 16                             | 8                                 | 189                      |              |             | DX                             |
| 20 on 10   | 20                             | 10                                | 236                      | D60, D80, S3 | D60, D80    |                                |
| 25 on 10   | 25                             | 10                                | 275                      | D60, D80, S3 | D60, D80    |                                |
| 36 on 10*  | 36                             | 10                                | 361                      | D80, S3      |             |                                |

<sup>\*36</sup> on 10 (D80 and S3) sheet size is 1600x3000

Please discuss any variation from standard with your local sales representative.

Non-standard sheets and plate types are made to order with a minimum quantity.





<sup>\*\*</sup>Available in smooth surface finish and Duaplate DX sizes



## **Duaplate® 300 Series Liners**

Products with a mass over 25kg we recommend two persons or mechanical lifting. M16x50lg studded liners to suit 152 hole centres, 300x300 liners

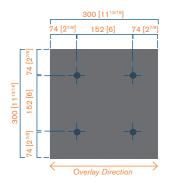
| SIA Part No.        | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Grade | Mass (kg) |
|---------------------|-------------------------|---------------------------|-------|-----------|
| S1A-M16S-DP07-06D60 | 13                      | 7                         | D60   | 9.5       |
| S1A-M16S-DP09-10D60 | 19                      | 9                         | D60   | 13.7      |
| S1A-M16S-DP09-10D80 | 19                      | 9                         | D80   | 13.7      |
| S1A-M16S-DP12-10D60 | 22                      | 12                        | D60   | 15.9      |
| S1A-M16S-DP12-10D80 | 22                      | 12                        | D80   | 15.9      |
| S1A-M16S-DP20-10D60 | 20                      | 00                        | D60   | 01.5      |
| S1A-M16S-DP20-10D80 | 30                      | 20                        | D80   | 21.5      |
| S1A-M16S-DP25-10D80 | 35                      | 25                        | D80   | 25.0      |
| S1A-M16S-DP36-10D80 | 46                      | 36                        | D80   | 32.8      |

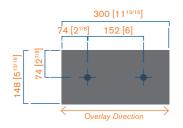
| R1AH Part No.        | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Grade | Mass (kg) |
|----------------------|-------------------------|---------------------------|-------|-----------|
| R1AH-M16S-DP07-06D60 | 13                      | 7                         | D60   | 4.7       |
| R1AH-M16S-DP09-10D60 | 19                      | 19 9                      |       | 6.8       |
| R1AH-M16S-DP09-10D80 | 19                      | 9                         | D80   | 0.0       |
| R1AH-M16S-DP12-10D60 | 22                      | 12                        | D60   | 7.8       |
| R1AH-M16S-DP12-10D80 | 22                      | 12                        | D80   | 7.0       |
| R1AH-M16S-DP20-10D60 | 30                      | 20                        | D60   | 10.6      |
| R1AH-M16S-DP20-10D80 | 30                      | 20                        | D80   | 10.6      |
| R1AH-M16S-DP25-10D80 | 35                      | 25                        | D80   | 12.4      |
| R1AH-M16S-DP36-10D80 | 46                      | 36                        | D80   | 16.2      |

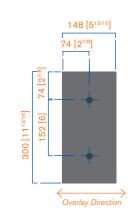
| R1AV Part No.        | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Grade | Mass (kg) |
|----------------------|-------------------------|---------------------------|-------|-----------|
| R1AV-M16S-DP07-06D60 | 13                      | 7                         | D60   | 4.7       |
| R1AV-M16S-DP09-10D60 | 19                      | 9                         | D60   | 6.8       |
| R1AV-M16S-DP09-10D80 | 19                      | 9                         | D80   | 0.0       |
| R1AV-M16S-DP12-10D60 | 22                      | 10                        | D60   | 7.0       |
| R1AV-M16S-DP12-10D80 | 22                      | 12                        | D80   | 7.8       |
| R1AV-M16S-DP20-10D60 | 20                      | 00                        | D60   | 10.0      |
| R1AV-M16S-DP20-10D80 | 30                      | 20                        | D80   | 10.6      |
| R1AV-M16S-DP25-10D80 | 35                      | 25                        | D80   | 12.4      |
| R1AV-M16S-DP36-10D80 | 46                      | 36                        | D80   | 16.2      |

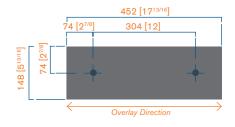
| R2BH Part No.        | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Grade | Mass (kg) |
|----------------------|-------------------------|---------------------------|-------|-----------|
| R2BH-M16S-DP07-06D60 | 13                      | 7                         | D60   | 7.0       |
| R2BH-M16S-DP09-10D60 | 10                      | 9                         | D60   | 10.1      |
| R2BH-M16S-DP09-10D80 | 19                      | 9                         | D80   | 10.1      |
| R2BH-M16S-DP12-10D60 | 22                      | 12                        | D60   | 11.7      |
| R2BH-M16S-DP12-10D80 | 22                      | 12                        | D80   | 11.7      |
| R2BH-M16S-DP20-10D60 | 30                      | 20                        | D60   | 15.9      |
| R2BH-M16S-DP20-10D80 | 30                      | 20                        | D80   | 10.9      |
| R2BH-M16S-DP25-10D80 | 35                      | 25                        | D80   | 18.5      |
| R2BH-M16S-DP36-10D80 | 46                      | 36                        | D80   | 24.3      |

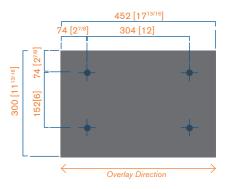
| R3BH Part No.        | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Grade | Mass (kg) |
|----------------------|-------------------------|---------------------------|-------|-----------|
| R3BH-M16S-DP07-06D60 | 13                      | 7                         | D60   | 14.2      |
| R3BH-M16S-DP09-10D60 | 19                      | 9                         | D60   | 20.5      |
| R3BH-M16S-DP09-10D80 | 19                      | 9                         | D80   | 20.5      |
| R3BH-M16S-DP12-10D60 | 22                      | 10                        | D60   | 23.7      |
| R3BH-M16S-DP12-10D80 | 22                      | 12                        | D80   | 23.7      |
| R3BH-M16S-DP20-10D60 | 20                      | 20                        | D60   | 32.3      |
| R3BH-M16S-DP20-10D80 | 30                      | 20                        | D80   | 32.3      |













## **Duaplate® 296 Series Liners**

Products with a mass over 25kg we recommend two persons or mechanical lifting. M16x50lg studded liners to suit 150 hole centres, 296x296 liners

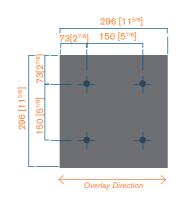
| S2A Part No.        | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Grade | Mass (kg) |
|---------------------|-------------------------|---------------------------|-------|-----------|
| S2A-M16S-DP07-06D60 | 13                      | 7                         | D60   | 9.5       |
| S2A-M16S-DP09-10D60 | 19 9                    |                           | D60   | 13.7      |
| S2A-M16S-DP09-10D80 |                         |                           | D80   | 13.7      |
| S2A-M16S-DP12-10D60 | 99                      | 10                        | D60   | 150       |
| S2A-M16S-DP12-10D80 | 22                      | 12                        | D80   | 15.9      |
| S2A-M16S-DP20-10D60 | 20                      | 00                        | D60   | 01.5      |
| S2A-M16S-DP20-10D80 | 30                      | 20                        |       | 21.5      |
| S2A-M16S-DP25-10D80 | 35                      | 25                        | D80   | 25.0      |
| S2A-M16S-DP36-10D80 | 46                      | 36                        | D80   | 32.8      |

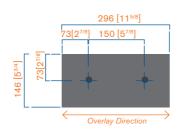
| R4AH Part No.        | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Grade | Mass (kg) |  |
|----------------------|-------------------------|---------------------------|-------|-----------|--|
| R4AH-M16S-DP07-06D60 | 13                      | 7                         | D60   | 4.7       |  |
| R4AH-M16S-DP09-10D60 | 50 D6                   |                           | D60   | 6.8       |  |
| R4AH-M16S-DP09-10D80 | 19                      | 9                         | D80   | 0.0       |  |
| R4AH-M16S-DP12-10D60 | 00                      | 10                        | D60   | 7.8       |  |
| R4AH-M16S-DP12-10D80 | 22                      | 22   12                   |       | 1.8       |  |
| R4AH-M16S-DP20-10D60 | 20                      | 00                        | D60   | 10.6      |  |
| R4AH-M16S-DP20-10D80 | 30                      | 20                        | D80   | 10.6      |  |
| R4AH-M16S-DP25-10D80 | 35                      | 25                        | D80   | 12.4      |  |
| R4AH-M16S-DP36-10D80 | 46                      | 36                        | D80   | 16.2      |  |

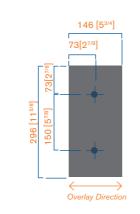
| R4AV Part No.        | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Grade | Mass (kg) |
|----------------------|-------------------------|---------------------------|-------|-----------|
| R4AV-M16S-DP07-06D60 | 13                      | 7                         | D60   | 4.7       |
| R4AV-M16S-DP09-10D60 | 10                      |                           | D60   | 0.0       |
| R4AV-M16S-DP09-10D80 | 19                      | 19 9                      |       | 6.8       |
| R4AV-M16S-DP12-10D60 | 99 19 -                 |                           | D60   | 7.0       |
| R4AV-M16S-DP12-10D80 | 22                      | 12                        | D80   | 7.8       |
| R4AV-M16S-DP20-10D60 | 30                      | 20                        | D60   | 10.6      |
| R4AV-M16S-DP20-10D80 | 30                      | 20                        | D80   | 10.0      |
| R4AV-M16S-DP25-10D80 | 35                      | 25                        | D80   | 12.4      |
| R4AV-M16S-DP36-10D80 | 46                      | 36                        | D80   | 16.2      |

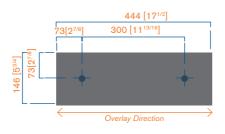
| R5BH Part No.        | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Grade | Mass (kg) |
|----------------------|-------------------------|---------------------------|-------|-----------|
| R5BH-M16S-DP07-06D60 | 13                      | 7                         | D60   | 7.0       |
| R5BH-M16S-DP09-10D60 | 19                      | 9                         | D60   | 10.1      |
| R5BH-M16S-DP09-10D80 | 19                      | 9                         | D80   | 10.1      |
| R5BH-M16S-DP12-10D60 | 00                      | 10                        | D60   | 11.7      |
| R5BH-M16S-DP12-10D80 | 22                      | 22   12                   |       | 11.7      |
| R5BH-M16S-DP20-10D60 | 30                      | 20                        | D60   | 15.9      |
| R5BH-M16S-DP20-10D80 | 30                      | 20                        | D80   | 10.9      |
| R5BH-M16S-DP25-10D80 | 35                      | 25                        | D80   | 18.5      |
| R5BH-M16S-DP36-10D80 | 46                      | 36                        | D80   | 24.3      |

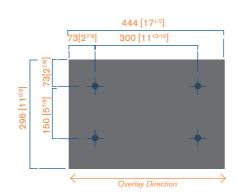
| R6BH Part No.        | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Grade | Mass (kg) |
|----------------------|-------------------------|---------------------------|-------|-----------|
| R6BH-M16S-DP07-06D60 | 13                      | 7                         | D60   | 14.2      |
| R6BH-M16S-DP09-10D60 | 10                      | 0                         | D60   | 20.5      |
| R6BH-M16S-DP09-10D80 | 19                      | 9                         | D80   |           |
| R6BH-M16S-DP12-10D60 | 99                      | 12                        | D60   | 23.7      |
| R6BH-M16S-DP12-10D80 | 22                      | 12                        | D80   | 23.7      |
| R6BH-M16S-DP20-10D60 | 30                      | 20                        | D60   | 32.3      |
| R6BH-M16S-DP20-10D80 | 30                      | 20                        | D80   | 32.3      |











## **Duaplate® 390 Series Liners**

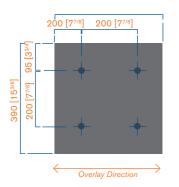
Products with a mass over 25kg we recommend two persons or mechanical lifting. M16x50lg studded liners to suit 200 hole centres, 390x390 liners

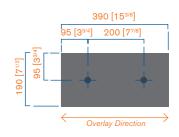
| S3A Part No.        | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Grade | Mass (kg) |
|---------------------|-------------------------|---------------------------|-------|-----------|
| S3A-M16S-DP07-06D60 | 13                      | 7                         | D60   | 15.5      |
| S3A-M16S-DP09-10D60 | 9                       | 10                        | D60   | 22.7      |
| S3A-M16S-DP09-10D80 | 9                       | 10                        | D80   | 22.7      |
| S3A-M16S-DP12-10D60 | 12                      | 10                        | D60   | 26.3      |
| S3A-M16S-DP12-10D80 | 12                      | 10                        | D80   | 20.5      |
| S3A-M16S-DP20-10D60 | 10                      | 10                        | D60   | 25.0      |
| S3A-M16S-DP20-10D80 | 12                      | 10                        | D80   | 35.8      |

| R7AH Part No.        | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Grade | Mass (kg) |  |
|----------------------|-------------------------|---------------------------|-------|-----------|--|
| R7AH-M16S-DP07-06D60 | 13                      | 7                         | D60   | 4.1       |  |
| R7AH-M16S-DP09-10D60 | 19                      | 9                         | D60   | E 0       |  |
| R7AH-M16S-DP09-10D80 | 19                      | 9                         | D80   | 5.3       |  |
| R7AH-M16S-DP12-10D60 | 00                      | 10                        | D60   | 7.0       |  |
| R7AH-M16S-DP12-10D80 | 22                      | 12                        | D80   | 7.0       |  |
| R7AH-M16S-DP20-10D60 | 30                      | 00                        | D60   | 11.7      |  |
| R7AH-M16S-DP20-10D80 | 30                      | 30 20                     |       | 11.7      |  |
| R7AH-M16S-DP25-10D80 | 35                      | 25                        | D80   | 14.6      |  |
| R7AH-M16S-DP36-10D80 | 46                      | 36                        | D80   | 21.0      |  |

| (mm) | Thickness (mm) | Grade | Mass (kg) |
|------|----------------|-------|-----------|
|      | 7              | D60   | 4.1       |
|      | 9              | D60   | 5.3       |
|      | 9              | D80   | 0.5       |
|      | 12             | D60   | 7.0       |
|      | 12             | D80   | 7.0       |
|      | 20             | D60   | 11.7      |
|      | 20             | D80   | 1 1.7     |
|      | 25             | D80   | 14.6      |
|      | 36             | D80   | 21.0      |

| R7AV Part No.        | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Grade | Mass (kg) |
|----------------------|-------------------------|---------------------------|-------|-----------|
| R7AV-M16S-DP07-06D60 | 13                      | 7                         | D60   | 4.1       |
| R7AV-M16S-DP09-10D60 | 19                      | 9                         | D60   | 5.3       |
| R7AV-M16S-DP09-10D80 | 19                      | 9                         | D80   | 0.3       |
| R7AV-M16S-DP12-10D60 | 22                      | 12                        | D60   | 7.0       |
| R7AV-M16S-DP12-10D80 | 22                      | 12                        | D80   | 7.0       |
| R7AV-M16S-DP20-10D60 | 30                      | 20                        | D60   | 11.7      |
| R7AV-M16S-DP20-10D80 | 30                      | 20                        | D80   | 11.7      |
| R7AV-M16S-DP25-10D80 | 35                      | 25                        | D80   | 14.6      |
| R7AV-M16S-DP36-10D80 | 46                      | 36                        | D80   | 21.0      |





|             | 190 [71/2]             |
|-------------|------------------------|
|             | 95 [3 <sup>3/4</sup> ] |
|             |                        |
|             | _                      |
|             | 95 [33/4               |
|             | 95                     |
| 390 [15³/8] | [9/2                   |
| 0<br>T      | 200 [77/8              |
| 30          | 50                     |
|             |                        |
|             |                        |
|             | $\longleftrightarrow$  |
|             | Overlay Direction      |
|             | Overlay Direction      |





## **AR Steel**

Bradken's AR Steel (Q&T) provides an economic alternative to other abrasion and impact resistant materials on the market.

Bradken's AR Steel is a heat-treated, quench and tempered (Q&T) steel designed for applications where high impact and moderate abrasion are the primary cause of failure.

## **Material Information**

Bradken's AR Steel (Q&T) is an abrasive resistant quench and tempered steel plate. The controlled chemistry and heat treatment provide a superior microstructure for an excellent combination of toughness and wear resistance. Bradken's AR Steel (Q&T) is available in a variety of sizes and thicknesses to suit a range of operating conditions.

| Grade | Hardness (Brinell) | Hardness (Vickers) |
|-------|--------------------|--------------------|
| 400   | 400                | 420                |
| 450   | 450                | 475                |
| 500   | 500                | 530                |



## **AR Steel Adaptability**

Abrasion Resistant steels can be adapted to suit custom applications through cutting, welding, machining and forming.

#### Welding

Bradken's AR Steel can be welded in accordance with AS1554.4. It is recommended that the plate should be preheated for all thicknesses. No post heating is required.

#### Forming and Fabrication

AR Steel can be pressed or rolled into curved liners or pipes. Their high strength properties also allow for fabrication into finished parts such as transfer chutes, deflectors or sample station parts e.g. cutters. It is also possible to machine AR steels to create complex shapes or countersink fasteners.

#### **Cutting**

Flame, plasma, laser, water-jet and machining are all viable forms of cutting AR Steels. The cutting method depends on the cutting parameters, accuracy and plate thickness.

#### **Attachment Methods**

AR Steel can be fabricated with welded studs in M16, M20 or M24.

Countersunk holes can also be machined to suit M16, M20 or M24 bolts.

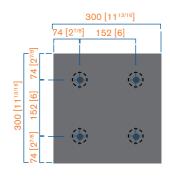
AR Steels can also be perimeter or plug welded in place

## AR Steel (Q&T) 300 Series

Products with a mass over 25kg we recommend two person or mechanical lifting.

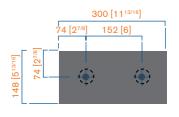
#### M16 Countersunk Bolts to suit 152 hole centres, 300x300 liners

| S1A Part No.      | Total<br>Thickness<br>(mm) | Useable<br>Thickness<br>(mm) | Grade | Mass (kg) |
|-------------------|----------------------------|------------------------------|-------|-----------|
| S1A-M16C-AR450-20 | 20                         | 14                           | 450   | 13.8      |
| S1A-M16C-AR500-20 | 20                         | 14                           | 500   | 10.0      |
| S1A-M16C-AR450-32 | 32                         | 26                           | 450   | 22.3      |
| S1A-M16C-AR500-32 | 32                         | 20                           | 500   | 22.3      |
| S1A-M16C-AR450-50 | 50                         | 44                           | 450   | 35.0      |
| S1A-M16C-AR500-50 | 50                         | 44                           | 500   | 30.0      |



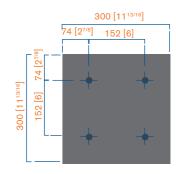
#### M16 Countersunk Bolts to suit 152 hole centres, 300x300 liners

| R1A Part No.      | Total<br>Thickness<br>(mm) | Useable<br>Thickness<br>(mm) | Grade | Mass (kg) |
|-------------------|----------------------------|------------------------------|-------|-----------|
| R1A-M16C-AR450-20 | 00                         | 14                           | 450   | 60        |
| R1A-M16C-AR500-20 | 20                         | 14                           | 500   | 6.8       |
| R1A-M16C-AR450-32 | 32                         | 26                           | 450   | 11.0      |
| R1A-M16C-AR500-32 | 32                         | 20                           | 500   | 11.0      |
| R1A-M16C-AR450-50 | F0                         | 44                           | 450   | 17.3      |
| R1A-M16C-AR500-50 | 50                         | 44                           | 500   | 17.3      |



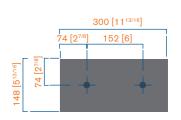
#### M16x50lg Studded to suit 152 hole centres, 300x300 liners

| S1A Part No.      | Total<br>Thickness<br>(mm) | Useable<br>Thickness<br>(mm) | Grade | Mass (kg) |
|-------------------|----------------------------|------------------------------|-------|-----------|
| S1A-M16S-AR450-20 | 00                         | 14                           | 450   | 13.8      |
| S1A-M16S-AR500-20 | 20                         | 14                           | 500   | 13.0      |
| S1A-M16S-AR450-32 | 32                         | 00                           | 450   | 00.0      |
| S1A-M16S-AR500-32 | 32                         | 26                           | 500   | 22.3      |



#### M16x50lg Studded to suit 152 hole centres, 300x300 liners

| R1A Part No.      | Total<br>Thickness<br>(mm) | Useable<br>Thickness<br>(mm) | Grade | Mass (kg) |
|-------------------|----------------------------|------------------------------|-------|-----------|
| R1A-M16S-AR450-20 | 00                         | 14                           | 450   | 6.8       |
| R1A-M16S-AR500-20 | 20                         | 14                           | 500   | 0.0       |
| R1A-M16S-AR450-32 | 32                         | 26                           | 450   | 11.0      |
| R1A-M16S-AR500-32 | 52                         | 20                           | 500   | 11.0      |







## **Duablock® Types**

Duablock is a composite material used in mining applications experiencing severe wear.

| Duablock® Wear Liners  |  | Studded and bolted wear liners for use in transfer chutes and hoppers.            |
|------------------------|--|---|
| Duablock® Wear Blocks  |  | Versatile range of blocks for use as wear liners, tumble bars and ledge liners.   |
| Duablock® Trap         |  | Studded rockbox liners for impact walls and transfer chutes.                      |
| Duablock® Nut          |  | For protection of nuts or bolt heads. Can be used as a washer or welded in place. |
| Duablock® Button       | 9-   | For localised protection of earth moving equipment and fixed plant.               |
| Duablock® Chokblock    | THE STATE OF THE S | A unique product that can be formed and welded onto flat and curved surfaces.     |
| Duablock® Microledge   |  | For installation into transfer chutes to create tumble bars and rock boxes.       |
| Duablock® Skirtliners  | 1.   | Heavy duty impact resistant conveyor skirt liners.                                |
| Duablock® Billets      |  | Heavy duty bolted liners used for rock box ledges.                                |
| Duablock® Skidblock    |  | For strategic protection of heavy earth moving equipment.                         |
| Duablock® Grizzly Caps | -  | For protection of ROM beams and grizzly bars.                                     |



## **Duablock® 300 Series**

Products with a mass over 25kg we recommend two people or mechanical lifting. Liners to suit 152 hole centres, 300x300 liners.

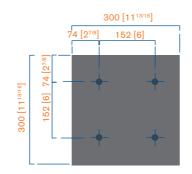
M16S Utilises M16 Studs

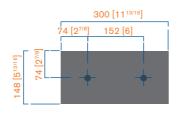
M20F Utilises M20 Oval Headed Bolts

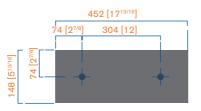
| S1A Part No.     | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Mass (kg) |
|------------------|-------------------------|---------------------------|-----------|
| S1A-M16S-DB14-06 | 20                      | 14                        | 14.5      |
| S1A-M16S-DB20-10 | 30                      | 20                        | 21.5      |
| S1A-M20F-DB22-10 | 32                      | 22                        | 22.3      |
| S1A-M16S-DB30-10 | 40                      | 30                        | 28.6      |
| S1A-M16F-DB30-10 | 40                      | 30                        | 27.9      |
| S1A-M20F-DB40-10 | 50                      | 40                        | 35.0      |

| R1A Part No.     | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Mass (kg) |
|------------------|-------------------------|---------------------------|-----------|
| R1A-M16S-DB20-10 | 30                      | 20                        | 10.6      |
| R1A-M20F-DB22-10 | 32                      | 22                        | 11.0      |
| R1A-M16S-DB24-8  | 32                      | 24                        | 11.0      |
| R1A-M16F-DB30-10 | 40                      | 30                        | 14.1      |
| R1A-M16S-DB30-10 | 40                      | 30                        | 14.1      |
| R1A-M20F-DB40-10 | 50                      | 40                        | 17.3      |

| R2B Part No.     | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Mass (kg) |
|------------------|-------------------------|---------------------------|-----------|
| R2B-M16S-BD40-10 | 50                      | 30                        | 26.4      |







150 [57/8]

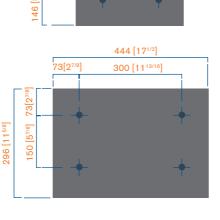
## **Duablock® 296 Series**

Products with a mass over 25kg we recommend two people or mechanical lifting. M16x50lg studded liners to suit 150 hole centres, 296x296 liners.

| S2A Part No.     | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Mass (kg) |
|------------------|-------------------------|---------------------------|-----------|
| S2A-M16S-DB20-10 | 30                      | 20                        | 21.0      |
| S2A-M16S-DB30-10 | 40                      | 30                        | 27.8      |

| R4A Part No.     | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Mass (kg) |
|------------------|-------------------------|---------------------------|-----------|
| R4A-M16S-DB20-10 | 30                      | 20                        | 10.3      |

| R6B Part No.        | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Mass (kg) |
|---------------------|-------------------------|---------------------------|-----------|
| R6B-M16S-DB30-10D70 | 40                      | 30                        | 41.8      |



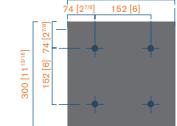
## **Duablock® Trap 300 Series**

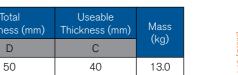
Products with a mass over 25kg we recommend two people or mechanical lifting. M16x50lg studded liners to suit 152 hole centres, 300x300 liners.

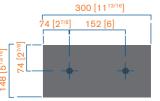
| S1A Part No.     | Total<br>Thickness (mm)<br>D | Useable<br>Thickness (mm) | Mass<br>(kg) |
|------------------|------------------------------|---------------------------|--------------|
| S1A-M16S-DT40-10 | 50                           | 40                        | 26.0         |

R1AH Part No.

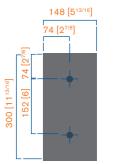
R1AH-M16S-DT40-10







| R1AV Part No.     | Total<br>Thickness [mm] | Useable<br>Thickness [mm]<br>C | Mass<br>[kg] |
|-------------------|-------------------------|--------------------------------|--------------|
| R1AV-M16S-DT40-10 | 50                      | 40                             | 13.0         |





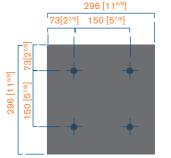
## Duablock® Trap 296 Series

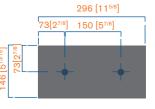
Products with a mass over 25kg we recommend two people or mechanical lifting. M16x50lg studded liners to suit 150 hole centres, 296x296 liners.

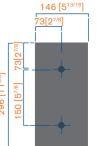
| S2A Part No.     | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Mass (kg) |
|------------------|-------------------------|---------------------------|-----------|
|                  | D                       | С                         |           |
| S2A-M16S-DT40-10 | 50                      | 40                        | 26.0      |

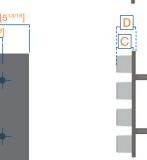
| R4AH Part No.     | Total<br>Thickness [mm] | Useable<br>Thickness [mm] | Mass [kg] |  |
|-------------------|-------------------------|---------------------------|-----------|--|
|                   | D                       | C                         |           |  |
| R4AH-M16S-DT40-10 | 50                      | 40                        | 13.0      |  |

| R4AV Part No.     | Total<br>Thickness (mm) | Useable<br>Thickness (mm) | Mass (kg) |  |
|-------------------|-------------------------|---------------------------|-----------|--|
|                   | D                       | С                         |           |  |
| R4AV-M16S-DT40-10 | 50                      | 40                        | 13.0      |  |









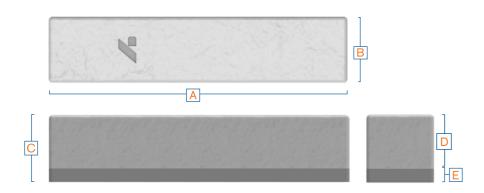


## **Duablock® Wear Block**

Please contact your local sales office for pricing and availability. Other sizes can be made on request.

Products with a mass over 25kg we recommend two person or mechanical lifting.

| Part No.         | Reference No.    | А   | В   | С   | D  | Е  | Mass (kg) |
|------------------|------------------|-----|-----|-----|----|----|-----------|
| DB200X25X25WBA   | BD200X25X25D70   | 200 | 25  | 25  | 15 | 10 | 1         |
| DB300X25X25WBA   | BD300X25X25D70   | 300 | 25  | 25  | 15 | 10 | 1.5       |
| DB75X50X32WBA    | BD75X50X32D70    | 75  | 50  | 32  | 22 | 10 | 1         |
| DB300X50X32WBA   | BD300X50X32D70   | 300 | 50  | 32  | 22 | 10 | 3.8       |
| DB152X75X38WBA   | BD152X75X38D70   | 152 | 75  | 38  | 28 | 10 | 3.5       |
| DB75X50X50WBA    | BD75X50X50D70    | 75  | 50  | 50  | 40 | 10 | 1.5       |
| DB90X50X50WBA    | BD90X50X50D70    | 90  | 50  | 50  | 40 | 10 | 1.8       |
| DB115X50X50WBA   | BD115X50X50D70   | 115 | 50  | 50  | 40 | 10 | 2.3       |
| DB120X50X50WBA   | BD120X50X50D70   | 120 | 50  | 50  | 40 | 10 | 2.4       |
| DB128X50X50WBA   | BD128X50X50D70   | 128 | 50  | 50  | 40 | 10 | 2.6       |
| DB150X50X50WBA   | BD150X50X50D70   | 150 | 50  | 50  | 40 | 10 | 3.0       |
| DB152X75X50WBA   | BD152X75X50D70   | 152 | 75  | 50  | 40 | 10 | 4.5       |
| DB190X50X50WBA   | BD190X50X50D70   | 190 | 50  | 50  | 40 | 10 | 3.8       |
| DB210X50X50WBA   | BD210X50X50D70   | 210 | 50  | 50  | 40 | 10 | 4.2       |
| DB215X50X50WBA   | BD215X50X50D70   | 215 | 50  | 50  | 40 | 10 | 4.3       |
| DB230X50X50WBA   | BD230X50X50D70   | 230 | 50  | 50  | 40 | 10 | 4.6       |
| DB294X50X50WBA   | BD294X50X50D70   | 294 | 50  | 50  | 40 | 10 | 5.8       |
| DB300X50X50WBA   | BD300X50X50D70   | 300 | 50  | 50  | 40 | 10 | 5.9       |
| DB432X50X50WBA   | BD432X50X50D70   | 432 | 50  | 50  | 40 | 10 | 8.5       |
| DB100X75X76WBA   | BD100X75X75D70   | 100 | 75  | 76  | 60 | 16 | 4.5       |
| DB150X75X76WBA   | BD150X75X75D70   | 150 | 75  | 76  | 60 | 16 | 6.8       |
| DB200X75X76WBA   | BD200X75X75D70   | 200 | 75  | 76  | 60 | 16 | 9.0       |
| DB250X75X76WBA   | BD250X75X75D70   | 250 | 75  | 76  | 60 | 16 | 11.2      |
| DB300X75X76WBA   | BD300X75X75D70   | 300 | 75  | 76  | 60 | 16 | 13.5      |
| DB340X75X76WBA   | BD340X75X75D70   | 340 | 75  | 76  | 60 | 16 | 15.3      |
| DB150X100X100WBA | BD150X100X100D70 | 150 | 100 | 100 | 80 | 20 | 11.8      |
| DB241X100X100WBA | BD241X100X100D70 | 241 | 100 | 100 | 80 | 20 | 19        |
| DB300X100X100WBA | BD300X100X100D70 | 300 | 100 | 100 | 80 | 20 | 23.6      |
| DB300X140X100WBA | BD300X140X100D70 | 300 | 140 | 100 | 80 | 20 | 33        |

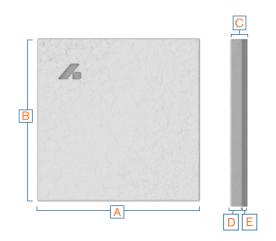


## **Duablock® Wear Liners**

Please contact your local sales office for pricing and availability. Other sizes can be made on request.

Products with a mass over 25kg we recommend two person or mechanical lifting.

| Part No.        | Reference No.   | А   | В   | С  | D  | Е  | Mass (kg) |
|-----------------|-----------------|-----|-----|----|----|----|-----------|
| DB354X354X30WBA | BD354X354X30D70 | 354 | 354 | 30 | 20 | 10 | 29.6      |
| DB430X210X30WBA | BD430X210X30D70 | 430 | 210 | 30 | 20 | 10 | 21.3      |
| DB400X366X30WBA | BD400X366X30D70 | 400 | 366 | 30 | 20 | 10 | 34.5      |
| DB294X254X30WBA | BD294X254X30D70 | 294 | 254 | 30 | 20 | 10 | 17.6      |
| DB296X296X30WBA | BD296X296X30D70 | 296 | 296 | 30 | 20 | 10 | 20.7      |
| DB296X146X30WBA | BD296X146X30D70 | 296 | 146 | 30 | 20 | 10 | 10.2      |
| DB452X300X30WBA | BD450X300X30D70 | 452 | 300 | 30 | 20 | 10 | 32        |
| DB300X300X30WBA | BD300X300X30D70 | 300 | 300 | 30 | 20 | 10 | 21.2      |
| DB300X148X30WBA | BD300X150X30D70 | 300 | 148 | 30 | 20 | 10 | 10.5      |
| DB100X100X50WBA | BD100X100X50D70 | 100 | 100 | 50 | 25 | 25 | 4         |
| DB436X240X40WBA | BD436X240X40D70 | 436 | 240 | 40 | 30 | 10 | 32.9      |
| DB300X300X40WBA | BD300x300x40D70 | 300 | 300 | 40 | 30 | 10 | 28.3      |
| DB300X148X40WBA | BD300x148x40D70 | 300 | 148 | 40 | 30 | 10 | 14        |
| DB296X296X40WBA | BD296X296X40D70 | 296 | 296 | 40 | 30 | 10 | 27.6      |
| DB300X138X40WBA | BD300X138X40D70 | 300 | 138 | 40 | 30 | 10 | 13        |
| DB446X296X40WBA | BD446X296X40D70 | 446 | 296 | 40 | 30 | 10 | 41.5      |
| DB300X200X40WBA | BD300X200X40D70 | 300 | 200 | 40 | 30 | 10 | 18.9      |
| DB241X100X58WBA | BD241X100X58D70 | 241 | 100 | 58 | 38 | 20 | 11        |
| DB150X100X58WBA | BD150X100X58D70 | 150 | 100 | 58 | 38 | 20 | 6.9       |
| DB452X148X50WBA | BD452X148X50D70 | 452 | 148 | 50 | 40 | 10 | 26.3      |
| DB436X240X50WBA | BD436X240X50D70 | 436 | 240 | 50 | 40 | 10 | 41.1      |
| DB300X300X50WBA | BD300X300X50D70 | 300 | 300 | 50 | 40 | 10 | 35.4      |
| DB300X148X50WBA | BD300X148X50D70 | 300 | 148 | 50 | 40 | 10 | 17.5      |
| DB300X138X50WBA | BD300X138X50D70 | 300 | 138 | 50 | 40 | 10 | 16.3      |
| DB300X200X50WBA | BD300X200X50D70 | 300 | 200 | 50 | 40 | 10 | 23.6      |





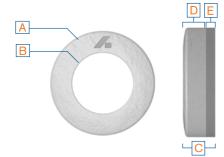
## **Duablock<sup>®</sup> Nut**

Please contact your local sales office for pricing and availability.

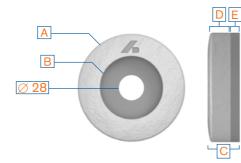
Other sizes can be made on request.

| Part No.       | Ref No.           | Туре | А   | В  | С  | D  | Е  | Mass (kg) |
|----------------|-------------------|------|-----|----|----|----|----|-----------|
| DB100X50X27NTA | BD100(50)X27D70   |      | 100 | 50 | 27 | 17 | 10 | 1.3       |
| DB100X70X35NTA | BD100(70)X35D70   | А    | 100 | 70 | 35 | 25 | 10 | 1.2       |
| DB130X80X27NTA | BD130(80)X27D70   |      | 130 | 80 | 27 | 17 | 10 | 1.8       |
| DB100X50X27NTB | -                 |      | 100 | 50 | 27 | 17 | 10 | 1.6       |
| DB100X70X35NTB | BD100(70)X35D70FB | В    | 100 | 70 | 35 | 25 | 10 | 2         |
| DB130X80X27NTB | -                 |      | 130 | 80 | 27 | 17 | 10 | 2.7       |

#### Type A



## Type B (Washer Type)

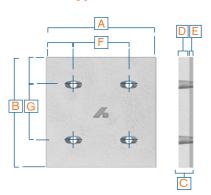


## **Duablock® Bolted Liners**

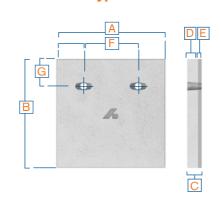
Please contact your local sales office for pricing and availability. Other sizes can be made on request.

| Part No.         | Ref No.               | Туре | А   | В   | С  | D  | Е  | F   | Ð   | Mass<br>(kg) | Fastener Type           |
|------------------|-----------------------|------|-----|-----|----|----|----|-----|-----|--------------|-------------------------|
| S1C-M16F-DB30-10 | BD300X300X40D70-2H    | В    |     | 300 | 40 | 30 | 10 |     | 150 | 29           | M16 OVAL HEAD BOLT (X2) |
| S1A-M16F-DB30-10 | BD300X300X40-2H152    | Α    |     | 300 | 40 | 30 | 10 |     | 152 | 29           | M16 OVAL HEAD BOLT (X4) |
| R1A-M16F-DB30-10 | BD300X148X40D70-2H    | В    |     | 148 | 40 | 30 | 10 |     | 74  | 14           | M16 OVAL HEAD BOLT (X2) |
| S1A-M16F-DB24-8  | BD300X148X32D70-2HM16 | В    |     | 148 | 32 | 24 | 8  |     | 74  | 12           | M16 OVAL HEAD BOLT (X2) |
| R1A-M16F-DB24-8  | BD300X300X32D70-2HM16 | Α    | 300 | 300 | 32 | 24 | 8  | 152 | 152 | 23           | M16 OVAL HEAD BOLT(X4)  |
| S1A-M20F-DB22-10 | BD300X300X32D70-4H    | Α    |     | 300 | 32 | 22 | 10 |     | 152 | 23           | M20 OVAL HEAD BOLT (X4) |
| R1A-M20F-DB22-10 | BD300X148X32D70-2H    | В    |     | 148 | 32 | 22 | 10 |     | 152 | 12           | M20 OVAL HEAD BOLT (X2) |
| DB300X200X32BLA  | BD300X200X32D70-2H    | В    |     | 200 | 32 | 22 | 10 |     | 74  | 16           | M20 OVAL HEAD BOLT (X2) |
| S1A-M20F-DB40-10 | BD300X300X50D70-4H    | Α    |     | 300 | 50 | 40 | 10 |     | 152 | 36           | M20 OVAL HEAD BOLT (X4) |
| R1A-M20F-DB40-10 | BD300X148X50D70-2H    | В    |     | 148 | 50 | 40 | 10 |     | 74  | 18           | M20 OVAL HEAD BOLT (X2) |

#### Type A



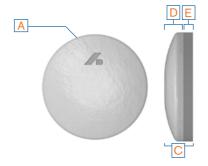
Type B



## **Duablock®** Button

Please contact your local sales office for pricing and availability. Other sizes can be made on request.

| Part No.        | Ref No.     | А   | В | С  | D  | Е  | Mass (kg) |
|-----------------|-------------|-----|---|----|----|----|-----------|
| DB90X90X32BTA   | BD90X32D70  | 90  | - | 32 | 20 | 12 | 1.6       |
| DB75X75X27BTA   | BD75X27D70  | 75  | - | 27 | 17 | 10 | 1         |
| DB115X115X32BTA | BD115X32D70 | 115 | - | 32 | 20 | 12 | 2.7       |
| DB150X150X41BTA | BD150X41D70 | 150 | - | 41 | 25 | 16 | 5.7       |
| DB90X90X56BTA   | BD90X56D70  | 90  | - | 56 | 46 | 10 | 2.8       |
| DB90X90X46BTA   | BD90X46D70  | 90  | - | 46 | 36 | 10 | 2.3       |

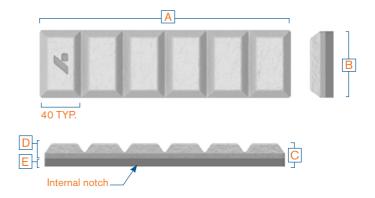


## **Duablock® Chokblock**

Please contact your local sales office for pricing and availability.

Other sizes can be made on request.

| Part No.        | Ref No.          | А   | В   | С  | D  | Е  | Mass (kg) |
|-----------------|------------------|-----|-----|----|----|----|-----------|
| DB240X40X23CBA  | BD240X40X23D70N  | 240 | 40  | 23 | 15 | 8  | 1.5       |
| DB240X50X23CBA  | BD240X50X23D70N  | 240 | 50  | 23 | 15 | 8  | 1.8       |
| DB240X65X23CBA  | BD240X65X23D70N  | 240 | 65  | 23 | 15 | 8  | 2.4       |
| DB240X90X29CBA  | BD240X90X29D70N  | 240 | 90  | 29 | 17 | 12 | 4.5       |
| DB240X130X29CBA | BD240X130X29D70N | 240 | 130 | 29 | 17 | 12 | 6.4       |
| DB240X25X23CBA  | BD240X25X23D70N  | 240 | 25  | 23 | 15 | 8  | 1.0       |





## **Duablock® Microledge**

Please contact your local sales office for pricing and availability.

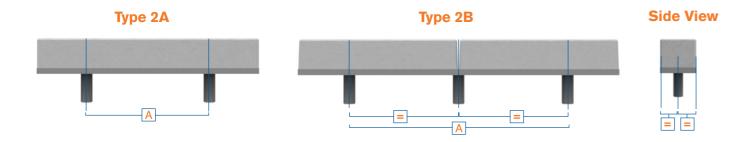
Other sizes can be made on request.

| Part No.        | Alternate Part No. | Туре | Block Size | Mount Type         | А   | Mass (kg) |
|-----------------|--------------------|------|------------|--------------------|-----|-----------|
| DB128X50X50ML1A | BD128X50X50D70BKT  | 1A   | 128X50X50  | 128X65X65X10 ANGLE | 68  | 3.8       |
| DB150X50X50ML1A | BD150X50X50D70BKT  | 1A   | 150X50X50  | 150X65X65X10 ANGLE | 90  | 4.4       |
| DB190X50X50ML1A | BD190X50X50D70BKT  | 1A   | 190X50X50  | 190X65X65X10 ANGLE | 130 | 5.6       |
| DB210X50X50ML1A | BD210X50X50D70BKT  | 1A   | 210X50X50  | 210X65X65X10 ANGLE | 150 | 6.1       |
| DB230X50X50ML1A | BD230X50X50D70BKT  | 1A   | 230X50X50  | 230X65X65X10 ANGLE | 170 | 6.7       |
| DB294X50X50ML1A | BD294X50X50D70BKT  | 1A   | 294X50X50  | 294X65X65X10 ANGLE | 234 | 8.7       |
| DB300X50X50ML1A | BD300X50X50D70BKT  | 1A   | 300X50X50  | 300X65X65X10 ANGLE | 240 | 8.8       |
| DB432X50X50ML1B | BD432X50X50D70BKT  | 1B   | 432X50X50  | 432X65X65X10 ANGLE | 372 | 12.7      |

**Side View** 

Type 1A Type 1B

| Part No.        | Alternate Part No.  | Туре | Block Size | Mount Type          | А   | Mass (kg) |
|-----------------|---------------------|------|------------|---------------------|-----|-----------|
| DB128X50X50ML2A | BD128X50X50D70STD2  | 2A   | 128X50X50  | M16X50mm STUDS (X2) | 68  | 3         |
| DB150X50X50ML2A | BD150X50X50XD70STD2 | 2A   | 150X50X50  | M16X50mm STUDS (X2) | 90  | 3         |
| DB190X50X50ML2A | BD190X50X50D70STD2  | 2A   | 190X50X50  | M16X50mm STUDS (X2) | 130 | 4         |
| DB210X50X50ML2A | BD210X50X50D70STD2  | 2A   | 210X50X50  | M16X50mm STUDS (X2) | 150 | 4         |
| DB230X50X50ML2A | BD230X50X50D70STD2  | 2A   | 230X50X50  | M16X50mm STUDS (X2) | 170 | 5         |
| DB294X50X50ML2A | BD294X50X50XD70STD2 | 2A   | 294X50X50  | M16X50mm STUDS (X2) | 234 | 6         |
| DB300X50X50ML2A | BD300X50X50XD70STD2 | 2A   | 300X50X50  | M16X50mm STUDS (X2) | 240 | 6         |
| DB432X50X50ML2A | BD432X50X50D70STD2  | 2A   | 432X50X50  | M16X50mm STUDS (X2) | 372 | 8         |
| DB432X50X50ML2B | BD432X50X50D70STD3  | 2B   | 432X50X50  | M16X50mm STUDS (X3) | 372 | 8         |

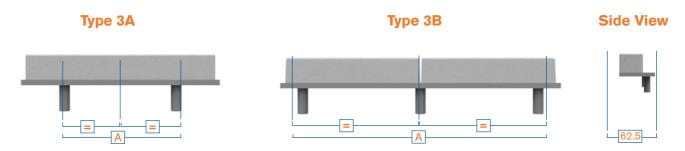


## **Duablock® Microledge**

Please contact your local sales office for pricing and availability.

Other sizes can be made on request.

| Part No.        | Alternative Part No.    | Туре | Block Size | Mount Type          | А   | Mass (kg) |
|-----------------|-------------------------|------|------------|---------------------|-----|-----------|
| DB128X50X50ML3A | BD128X50(75)X50D70STD2  | ЗА   | 128X50X50  | M16X50mm STUDS (X2) | 68  | 2.9       |
| DB150X50X50ML3A | BD150X50(75)X50D70STD2  | ЗА   | 150X50X50  | M16X50mm STUDS (X2) | 90  | 3.4       |
| DB190X50X50ML3A | BD190X50(75)X50D70STD2  | 3A   | 190X50X50  | M16X50mm STUDS (X2) | 130 | 4.3       |
| DB210X50X50ML3A | BD210X50(75)X50D70STD2  | ЗА   | 210X50X50  | M16X50mm STUDS (X2) | 150 | 4.8       |
| DB230X50X50ML3A | BD230X50(75)X50XD70STD2 | 3A   | 230X50X50  | M16X50mm STUDS (X2) | 170 | 5.2       |
| DB294X50X50ML3A | BD294X50(75)X50D70STD2  | ЗА   | 294X50X50  | M16X50mm STUDS (X2) | 234 | 6.6       |
| DB300X50X50ML3A | BD300X50(75)X50XD70STD2 | ЗА   | 300X50X50  | M16X50mm STUDS (X2) | 240 | 6.8       |
| DB432X50X50ML3A | BD432X50(75)X50D70STD2  | ЗА   | 432X50X50  | M16X50mm STUDS (X2) | 372 | 9.5       |
| DB432X50X50ML3B | BD432X50(75)X50D70STD3  | 3B   | 432X50X50  | M16X50mm STUDS (X3) | 372 | 9.6       |



| Part No.        | Alternate Part No. | Туре | Block Size | Mount Type      | А   | Mass (kg) |
|-----------------|--------------------|------|------------|-----------------|-----|-----------|
| DB115X50X50ML4A | BKD4447-115        | 4A   | 115X50X50  | 115X100X8 PLATE | 45  | 2.9       |
| DB150X50X50ML4A | BKD4447-150        | 4A   | 150X50X50  | 150X100X8 PLATE | 80  | 3.8       |
| DB210X50X50ML4A | BKD4447-210        | 4A   | 210X50X50  | 210X100X8 PLATE | 140 | 5.3       |
| DB300X50X50ML4A | BKD4447-300        | 4A   | 300X50X50  | 300X100X8 PLATE | 230 | 7.6       |
| DB432X50X50ML4B | BKD4447-432        | 4B   | 432X50X50  | 432X100X8 PLATE | 181 | 11        |

<sup>\*</sup>To suit a M16 Hex head bolt

Type 4B **Side View** Type 4A



## **Duablock® Skirtliners**

Please contact your local sales office for pricing and availability.

Other sizes and stud sizes can be made on request.

| Part No.            | Ref No.               | Туре   | Α   | В   | С  | D  | Е  | F   | G     | Mass (kg) |
|---------------------|-----------------------|--------|-----|-----|----|----|----|-----|-------|-----------|
| RSL-300x300x25-DB   | -                     | 1A-RSL | 300 | 300 | 25 | 15 | 10 | 152 | 150   | 15        |
| RSL-368x300x25-DB   | -                     | 1A-RSL | 350 | 300 | 25 | 15 | 10 | 152 | 175   | 18.8      |
| BD364X300X32D70STD2 | -                     | 1B-RSL | 364 | 300 | 32 | 24 | 8  | 152 | 182   | 25.1      |
| BD746X250X21STD2    | -                     | 1C     | 250 | 746 | 20 | 10 | 10 | 380 | 125   | 28.0      |
| BD496X250X20D70     | -                     | 1D     | 250 | 496 | 20 | 10 | 10 | 350 | 125   | 18.6      |
| BD504X250X20D70     | -                     | 1D     | 250 | 504 | 20 | 10 | 10 | 358 | 125   | 18.8      |
| RSL-368x300x42-DB   | -                     | 2A-RSL | 361 | 300 | 42 | 32 | 10 | 152 | 180.5 | 25.3      |
| DB300X296X32LSA     | BD300X300X32D70-2H    | 3A-RSL | 300 | 296 | 32 | 24 | 8  | 150 | 150   | 20.3      |
| DB392X296X32LSA     | BD392X298X32D70-2HM20 | 3A-RSL | 392 | 296 | 32 | 24 | 8  | 150 | 196   | 27.5      |
| DB200X452X32LSA     | BKD2974-10            | 4      | 200 | 452 | 32 | 22 | 10 | 304 | 74    | 22        |
| DB296X452X32LSA     | BKD2974-11            | 4      | 296 | 452 | 32 | 22 | 10 | 304 | 74    | 33        |

<sup>\*</sup> RSL indicates the liner is Revolver skirt liner system compatible

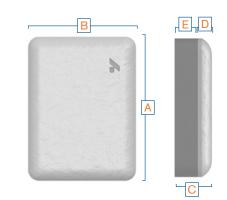
## Type 1A RSL Type 1B RSL Type 1C Type 2A RSL Type 3A RSL Type 1D Type 4 Type 3A RSL -F= 16

## **Duablock<sup>®</sup> Skidblock**

Please contact your local sales office for pricing and availability.

Products with a mass over 25kg we recommend two person or mechanical lifting.

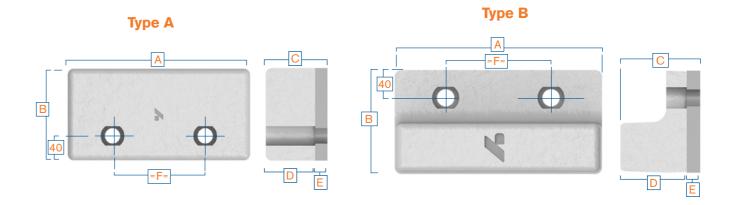
| Part No.        | Ref No.         | А   | В   | С  | D  | Е  | Mass<br>(kg) |
|-----------------|-----------------|-----|-----|----|----|----|--------------|
| DB250X150X32BSA | BD250X150X32D70 | 250 | 150 | 32 | 20 | 12 | 9            |
| DB250X250X32BSA | BD250X250X32D70 | 250 | 250 | 32 | 20 | 12 | 16           |
| DB200X150X32BSA | BD200X150X32D70 | 200 | 150 | 32 | 20 | 12 | 8            |
| DB200X150X45BSA | BD200X150X45D70 | 200 | 150 | 45 | 20 | 25 | 11           |
| DB250X150X45BSA | BD250X150X45D70 | 250 | 150 | 45 | 20 | 25 | 13           |
| DB250X250X45BSA | BD250X250X45D70 | 250 | 250 | 45 | 20 | 25 | 22           |
| DB250X250X75BSA | BD250X250X75D70 | 250 | 250 | 75 | 50 | 25 | 37           |
| DB200X150X75BSA | BD200X150X75D70 | 200 | 150 | 75 | 50 | 25 | 18           |
| DB250X150X75BSA | BD250X150X75D70 | 250 | 150 | 75 | 50 | 25 | 22           |



## **Duablock® Billets**

Products with a mass over 25kg we recomend two people or mechanical lifting. Bolt type: M20 Hex Head

| Part No.         | Ref No.              | Туре | Α   | В   | С   | D   | Е  | F   | Mass (kg) |
|------------------|----------------------|------|-----|-----|-----|-----|----|-----|-----------|
| DB299X150X100BLA | BD299X150X100D70-2H  |      | 299 |     |     |     |    | 152 | 33.3      |
| DB222X150X100BLA | BD222X150X100D70-2H  | A    | 222 |     | 100 | 80  |    | 76  | 24.4      |
| DB146X150X100BLA | BD146X150X100D70-2H  |      | 146 |     | 100 |     | 20 | 76  | 15.5      |
| DB70X150X100BLA  | BD70X150X100D70-1H   | ]    | 70  | 150 |     |     |    | -   | 7.5       |
| DB299X150X120BLB | BD299X150X120D70L-2H |      | 299 |     |     |     |    | 152 | 28.6      |
| DB222X150X120BLB | BD222X150X120D70L-2H | В    | 222 |     | 120 | 100 |    | 76  | 20.8      |
| DB146X150X120BLB | BD146X150X120D70L-2H | ]    | 146 |     |     |     |    | 76  | 13.4      |



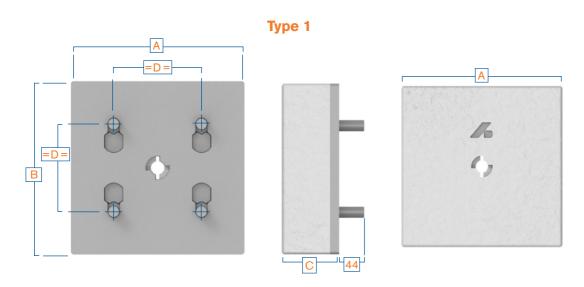


## **Duablock® HD Billets**

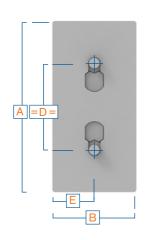
Products with a mass over 25kg we recomend two people or mechanical lifting. M20 PC8.8 fasteners included.

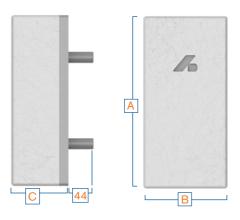
| Part No.         | Ref No.             | Туре                 | А   | В   | С  | D   | Е | Mass (kg) |
|------------------|---------------------|----------------------|-----|-----|----|-----|---|-----------|
| DB300X146X100JBA | BD300X146X100D70-2S |                      | 300 |     |    |     |   | 34        |
| DB270X146X100JBA | BD270X146X100D70-2S |                      | 270 |     |    | 152 |   | 31        |
| DB250X146X100JBA | BD250X146X100D70-2S | 2 250<br>190 146 100 |     | 73  | 29 |     |   |           |
| DB190X146X100JBA | BD190X146X100D70-2S |                      |     |     |    | 22  |   |           |
| DB170X146X100JBA | BD170X146X100D70-2S |                      | 170 |     |    | 76  |   | 20        |
| DB150X146X100JBA | BD150X146X100D70-2S | ]                    | 150 |     |    |     |   | 17        |
| DB300X300X100JBA | BD300X300X100D70-4S | 1                    | 300 | 300 |    | 152 | - | 71*       |

## Lifting tool available [BKD3475], contact your local sales representative for more details



Type 2



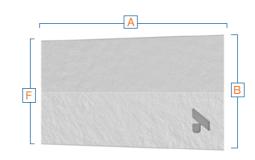




## **Duablock® Grizzly Cap**

Please contact your local sales office for pricing and availability.

| Part No.        | Ref No.              | А   | В   | F   | С   | D  | Е  | Mass (kg) |
|-----------------|----------------------|-----|-----|-----|-----|----|----|-----------|
| DB305X150X38GCA | BD305X150(141)X50D70 |     | 150 | 141 |     |    |    | 14        |
| DB305X141X38GCA | BD305X141(131)X50D70 | 7   | 141 | 131 |     |    |    | 13        |
| DB305X131X38GCA | BD305X131(122)X50D70 |     | 131 | 122 |     |    |    | 12        |
| DB305X122X38GCA | BD305X122(113)X50D70 | 7   | 122 | 113 |     |    |    | 11        |
| DB305X113X38GCA | BD305X113(103)X50D70 | 305 | 113 | 103 | 50  | 38 | 12 | 10        |
| DB305X103X38GCA | BD305X103(94)X50D70  | 7   | 103 | 94  |     |    |    | 10        |
| DB305X94X38GCA  | BD305X94(84)X50D70   | 7   | 94  | 84  |     |    |    | 9         |
| DB305X84X38GCA  | BD305X84(75)X50D70   | 7   | 84  | 75  |     |    |    | 8         |
|                 | •                    | •   | •   |     |     | •  | •  |           |
| DB300X190X38GCA | BD300X190(170)X50D70 |     | 190 | 170 |     |    |    | 17        |
| DB300X170X38GCA | BD300X170(150)X50D70 | 7   | 170 | 150 |     |    |    | 15        |
| DB300X150X38GCA | BD300X150(130)X50D70 | 300 | 150 | 130 | 50  | 38 | 12 | 13        |
| DB300X130X38GCA | BD300X130(110)X50D70 | 7   | 130 | 110 |     |    |    | 11        |
| DB300X110X38GCA | BD300X110(90)X50D70  | 7   | 110 | 90  |     |    |    | 10        |
|                 | -                    | •   | •   |     |     | •  | •  | -         |
| DB264X190X38GCA | BD264X190(180)X50D70 |     | 190 | 180 |     |    |    | 15        |
| DB264X180X38GCA | BD264X180(170)X50D70 | 7   | 180 | 170 |     |    |    | 14        |
| DB264X170X38GCA | BD264X170(160)X50D70 | 264 | 170 | 160 | 50  | 38 | 12 | 13        |
| DB264X160X38GCA | BD264X160(150)X50D70 |     | 160 | 150 |     |    |    | 12        |
| DB264X150X38GCA | BD264X150(140)X50D70 |     | 150 | 140 |     |    |    | 12        |
|                 |                      |     |     |     |     |    |    |           |
| DB328X100X40GCA | BD328X100(90)X50D70  |     | 100 | 90  |     |    |    | 10        |
| DB328X90X40GCA  | BD328X90(80)X50D70   | 7   | 90  | 80  |     |    |    | 9         |
| DB328X80X40GCA  | BD328X80(70)X50D70   | 328 | 80  | 70  | 50  | 40 | 10 | 8         |
| DB328X70X40GCA  | BD328X70(60)X50D70   | 7   | 70  | 60  |     |    |    | 7         |
| DB328X60X40GCA  | BD328X60(50)X50D70   |     | 60  | 50  |     |    |    | 8         |
|                 |                      | '   |     |     |     | '  |    |           |
| DB300X220X38GCA | BD300X220(212)X50D70 |     | 220 | 212 |     |    |    | 21        |
| DB300X212X38GCA | BD300X212(204)X50D70 | 7   | 212 | 204 |     |    |    | 20        |
| DB300X204X38GCA | BD300X204(196)X50D70 | 300 | 204 | 196 |     |    |    | 19        |
| DB300X196X38GCA | BD300X196(188)X50D70 | 7   | 196 | 188 |     |    |    | 18        |
| DB300X188X38GCA | BD300X188(180)X50D70 | 7   | 188 | 180 | F0  | 00 | 10 | 18        |
| DB280X180X38GCA | BD280X180(170)X50D70 |     | 180 | 170 | 50  | 38 | 12 | 16        |
| DB280X170X38GCA | BD280X170(160)X50D70 | 7   | 170 | 160 |     |    |    | 15        |
| DB280X160X38GCA | BD280X160(150)X50D70 | 280 | 160 | 150 |     |    |    | 14        |
| DB280X150X38GCA | BD280X150(140)X50D70 | 7   | 150 | 14  |     |    |    | 13        |
| DB280X140X38GCA | BD280X140(130)X50D70 | 7   | 140 | 130 |     |    |    | 12        |
|                 | •                    |     |     |     |     |    |    |           |
| DB295X145X44GCA | BD295X145(136)X64D70 |     | 145 | 136 |     |    |    | 13        |
| DB295X136X44GCA | BD295X136(128)X64D70 | 7   | 136 | 128 | 0.4 | ,, |    | 15        |
| DB295X127X44GCA | BD295X127(119)X64D70 | 295 | 127 | 119 | 64  | 44 | 20 | 16        |
| DB295X119X44GCA | BD295X119(110)X64D70 |     | 119 | 110 |     |    |    | 17        |
|                 |                      |     |     |     |     |    |    |           |
| DB200X105X38GCA | BD200X105X48D70      | 200 | 105 | -   |     |    |    | 5         |
| DB417X105X38GCA | BD417X105(99)X48D70  |     | 105 | 99  |     |    |    | 7         |
| DB417X99X38GCA  | BD417X99(93)X48D70   | 7   | 99  | 93  | 48  | 38 | 10 | 8         |
| DB417X82X38GCA  | BD417X92(86)X48D70   | 417 | 82  | 86  |     |    |    | 8         |
| DB417X86X38GCA  | BD417X86(80)X48D70   | 7   | 86  | 80  |     |    |    | 9         |
|                 |                      |     |     |     |     |    |    |           |









## **Duracast<sup>®</sup>**

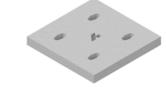
Duracast is a well-established white iron product alloyed with chromium and other elements to give significant abrasion and impact resistant properties.

The structure of Duracast is composed of iron and chromium carbides, fixed in a matrix. This structure allows Duracast to be utilised in abrasive and high impact conditions found throughout the mining and mineral processing industries.

Bradken Duracast products include billets and liner plates that can be made to the customers specification or supplied from our range of stock sizes. Bradken's Duracast products can be custom designed to meet any situation regardless of any size and shape concerns. Bradken can also supply cut and shaped liners to be strategically placed on fixed plant equipment so that a unique wear package can be created, maximising wear life. This makes Duracast the perfect material for chutes, drop boxes, bin and hopper liners.

Bradken primarily supplies cast billet and liner plates produced to the Duracast specifications. However, Bradken can produce billets and liner plates from the following alloys:

| <b>Duracast</b> ® | N460 |
|-------------------|------|
| <b>Duracast</b> ® | DC17 |
| Duracast®         | DC27 |



**Duracast® Liners** 



**Duracast® Billets** 



**Duracast® Nose Bars** 



**Duracast® Lip Liners** 



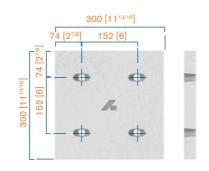
**Duracast® Skirt Liners** 



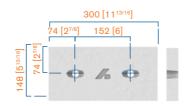
## **Duracast® 300 Series**

Products with a mass over 25kg we recommend two people or mechanical lifting

| S1A Part No.     | Ref No.               | Grade | Total<br>Thickness<br>(mm) | Useable<br>Thickness<br>(mm) | Mass<br>(kg) |
|------------------|-----------------------|-------|----------------------------|------------------------------|--------------|
| S1A-M20F-N460-32 | D012895, S6A, ML3, P1 | N460  |                            |                              |              |
| S1A-M22F-N460-32 | D01777, L18W          | N460  | 32                         | 26                           | 22.3         |
| S1A-M22F-DC17-32 | D02108, L18W CrMo     | DC17  |                            |                              |              |



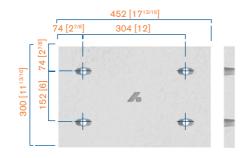
| R1A Part No.     | Ref No.                | Grade | Total<br>Thickness<br>(mm) | Useable<br>Thickness<br>(mm) | Mass<br>(kg) |
|------------------|------------------------|-------|----------------------------|------------------------------|--------------|
| R1A-M20F-N460-32 | D012896, ML1, S97-2 P2 | N460  |                            |                              |              |
| R1A-M22F-N460-32 | D01776, L6W            | N460  | 32                         | 26                           | 11.0         |
| R1A-M22F-DC17-32 | D02107, L6W CrMo       | DC17  |                            |                              |              |



| R2A Part No.     | Ref No.          | Grade | Total<br>Thickness<br>(mm) | Useable<br>Thickness<br>(mm) | Mass<br>(kg) |
|------------------|------------------|-------|----------------------------|------------------------------|--------------|
| R2A-M20F-N460-32 | D00360, S101, P4 | N460  |                            |                              |              |
| R2A-M22F-N460-32 | D01775, L4W      | N460  | 32                         | 26                           | 16.6         |
| R2A-M22F-DC17-32 | D02106, L4W CrMo | DC17  |                            |                              |              |



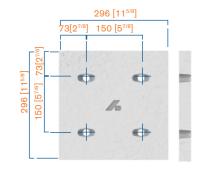
| R3B Part No.     | Ref No.              |      | Total<br>Thickness<br>(mm) | Useable<br>Thickness<br>(mm) | Mass<br>(kg) |
|------------------|----------------------|------|----------------------------|------------------------------|--------------|
| R3B-M20F-N460-32 | D05758, S1A, ML10,P6 | N460 |                            |                              |              |
| R3B-M22F-N460-32 | D01774, L3W          | N460 | 32                         | 26                           | 33.6         |
| R3B-M22F-DC17-32 | D02105, L3W CrMo     | DC17 | ]                          |                              |              |



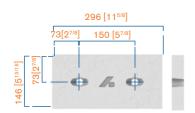
## **Duracast® 296 Series**

Products with a mass over 25kg we recommend two people or mechanical lifting.

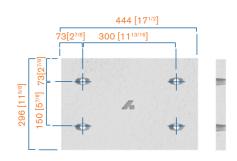
| S2A Part No.  |      | Ref No.    | Grade | Total<br>Thickness<br>(mm) | Useable<br>Thickness<br>(mm) | Mass<br>(kg) |
|---------------|------|------------|-------|----------------------------|------------------------------|--------------|
| S2A-M20F-N460 | 0-20 | D03779, L1 | N460  | 20                         | 14                           | 13.4         |
| S2A-M20F-N460 | 0-32 | D04066, N3 | N460  | 32                         | 26                           | 21.7         |



| R4A Part No.     | Ref No.    | Grade | Total<br>Thickness<br>(mm) | Useable<br>Thickness<br>(mm) | Mass<br>(kg) |
|------------------|------------|-------|----------------------------|------------------------------|--------------|
| R4A-M20F-N460-20 | D03787, L3 | N460  | 20                         | 14                           | 6.6          |
| R4A-M20F-N460-32 | D04064, N1 | N460  | 32                         | 26                           | 10.7         |



| R6A Part No.     | Ref No. | Grade | Total<br>Thickness<br>(mm) | Useable<br>Thickness<br>(mm) | Mass<br>(kg) |
|------------------|---------|-------|----------------------------|------------------------------|--------------|
| R6A-M20F-N460-20 | D010842 | N460  | 20                         | 14                           | 20.6         |





## **Duracast® Nose Bars**

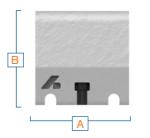
Products with a mass of 25kg we recommend two people or mechanical lifting.

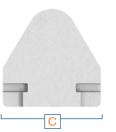
| Part No.   |        | Dimensio | ons    |          | Mass (kg) |
|------------|--------|----------|--------|----------|-----------|
|            | A (mm) | B (mm)   | C (mm) | Material |           |
| R200       | 200    | 200      | 200    | N460     | 46        |
| BN150-N460 | 150    | 170      | 229    | N460     | 27        |
| BN150-DC17 | 150    | 170      | 229    | DC17     | 27        |
| BKD1484*   | 240    | 180      | 250    | N460     | 67        |
| BKD1248    | 150    | 275      | 229    | N460     | 32        |

#### **R200**

To suit AS1110.1 M20 Hex Head Bolt



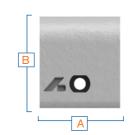


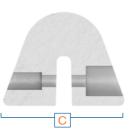


#### BN150-N460/BN150-DC17

To suit AS1110.1 M20 Hex Head Bolt



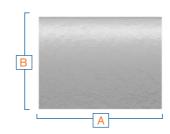


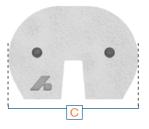


#### BKD148-

\*Lifting tool available, please contact Bradken for more information (REF. BKD3049)



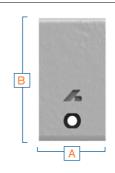




#### **BKD1248**

To suit AS1110.1 M20 Hex Head Bolt









## **Duracast® N460 Liners**

Please contact your local sales office for pricing and availability.

Other sizes and custom shape can be made on request.

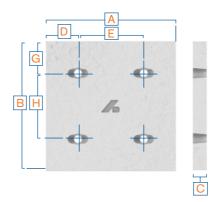
Liners can be cut to size on request.

Liner bolts are available on request.

Products with a mass over 25kg we recommend two person or mechanical lifting.

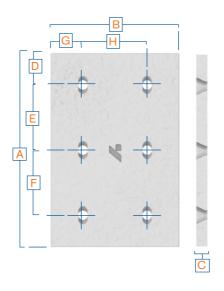
#### Cast holes to suit M16 oval headed liner bolts.

| Part No.        | Ref No.    | Dimensions (mm) |     |    |      |     |      |     | Mass |
|-----------------|------------|-----------------|-----|----|------|-----|------|-----|------|
| i ait ivo.      | itelino.   | А               | В   | С  | D    | Е   | G    | Н   | (Kg) |
| NH300X300X25-2H | BKD1160    | 298             | 298 | 25 | 149  | -   | 74   | 150 | 17   |
| NH300X150X25-2H | BKD1177    | 148             | 298 | 25 | 74   | -   | 74   | 150 | 9    |
| D04113          |            | 395             | 395 | 32 | 72.5 | 250 | 72.5 | 250 | 39   |
| BKD1054ITM1     | BKD1054-01 | 300             | 300 | 32 | 74   | 152 | 74   | 152 | 23   |
| BKD1054ITM2     | BKD1054-02 | 300             | 150 | 32 | 74   | 152 | 75   | -   | 11   |



#### Cast holes to suit M20 oval headed liner bolts.

| Deat No. | D-f N-  |     |     |    | Dimens | ions (mn | 1)    |       |     | Mass |
|----------|---------|-----|-----|----|--------|----------|-------|-------|-----|------|
| Part No. | Ref No. | А   | В   | С  | D      | Е        | F     | G     | Н   | (Kg) |
| D03779   | L1      | 296 | 296 | 20 | 73     | 150      | -     | 73    | 150 | 14   |
| D03786   | L2      | 196 | 296 | 20 | 98     | -        | -     | 73    | 150 | 9    |
| D03787   | L3      | 146 | 296 | 20 | 73     | -        | -     | 73    | 150 | 7    |
| D03792   | L5      | 96  | 296 | 20 | 48     | -        | -     | 73    | 150 | 5    |
| D03798   | L6      | 96  | 196 | 20 | 48     | -        | -     | 60.5  | 75  | 3    |
| D013134  |         | 296 | 296 | 20 | 73     | 150      | -     | 148   | -   | 14   |
| D013135  |         | 296 | 350 | 20 | 73     | 150      | -     | 50    | -   | 17   |
| BKD-1193 | BKD1193 | 148 | 298 | 25 | 74     | -        | -     | 74    | 150 | 9    |
| BKD-1194 | BKD1194 | 223 | 298 | 25 | 111.5  | -        | -     | 74    | 150 | 13   |
| BKD-1195 | BKD1195 | 298 | 298 | 25 | 149    | -        | -     | 74    | 150 | 17   |
| D04064   | N1      | 146 | 296 | 32 | 73     | -        | -     | 73    | 150 | 11   |
| D04065   | N2      | 196 | 296 | 32 | 98     | -        | -     | 73    | 150 | 15   |
| D04066   | N3      | 296 | 296 | 32 | 73     | 150      | -     | 73    | 150 | 22   |
| D04068   | N5      | 96  | 296 | 32 | 48     | -        | -     | 73    | 150 | 7    |
| D04069   | N6      | 96  | 196 | 32 | 48     | -        | -     | 60.5  | 75  | 5    |
| H02547   |         | 750 | 610 | 32 | 102.5  | 545      | -     | 102.5 | 405 | 115  |
| H02585   |         | 750 | 395 | 32 | 102.5  | 545      | -     | 102.5 | 190 | 75   |
| D02418   |         | 303 | 73  | 32 | 49     | 102.5    | 102.5 | 36.5  | -   | 6    |
| D02521   |         | 303 | 98  | 32 | 49     | 102.5    | 102.5 | 49    | -   | 8    |
| D02398   | MK-2    | 300 | 300 | 32 | 74     | 152      | -     | 150   | -   | 23   |
| D05758   | S1A     | 452 | 300 | 32 | 74     | 152      | 152   | 74    | 152 | 35   |
| D04793   | S6A     | 300 | 300 | 32 | 74     | 152      | -     | 74    | 152 | 23   |
| S97-2    |         | 300 | 148 | 32 | 74     | 152      | -     | 74    | -   | 11   |
| D012895  | ML3     | 300 | 300 | 32 | 74     | 152      | -     | 74    | 152 | 23   |
| D012896  | ML1     | 300 | 148 | 32 | 74     | 152      | -     | 74    | -   | 11   |

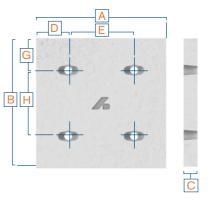


## **Duracast® N460 Liners**

Products with a mass over 25kg we recommend two person or mechanical lifting.

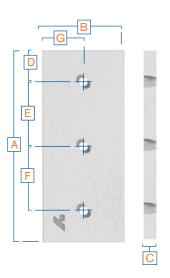
#### Cast holes to suit M22 oval headed liner bolts.

| Part No. | Ref No.  |     |     | Dime | ensions (n | nm) |    |     | Mass |
|----------|----------|-----|-----|------|------------|-----|----|-----|------|
| Taitivo. | IVELLIO. | А   | В   | С    | D          | Е   | G  | Н   | (kg) |
| L001-001 | L1       | 444 | 444 | 32   | 70         | 304 | 70 | 304 | 50   |
| D00244S  | L3       | 444 | 292 | 32   | 70         | 304 | 70 | 152 | 33   |
| D00249   | L4       | 444 | 140 | 32   | 70         | 304 | 70 | -   | 16   |
| D00240   | L18      | 292 | 292 | 32   | 70         | 152 | 70 | 152 | 22   |
| D00250   | L6       | 292 | 140 | 32   | 70         | 152 | 70 | -   | 10   |
| D00243S  | L2       | 216 | 444 | 32   | 70         |     | 70 | 304 | 24   |
| D01774   | L3W      | 452 | 300 | 32   | 74         | 304 | 74 | 152 | 34   |
| D01775   | L4W      | 452 | 148 | 32   | 74         | 304 | 74 | -   | 17   |
| D01777   | L18W     | 300 | 300 | 32   | 74         | 152 | 74 | 152 | 23   |
| D01776   | L6W      | 300 | 148 | 32   | 74         | 152 | 74 | -   | 11   |
| D02324   | L2W      | 224 | 452 | 32   | 74         |     | 74 | 304 | 25   |



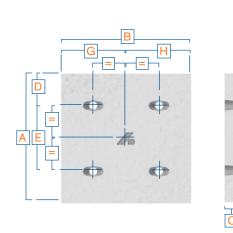
#### Cast holes to suit M20 oval headed liner bolts.

| David Na | DefNe   |     |     | Di | imension | s (mm) |     |     | Mass |
|----------|---------|-----|-----|----|----------|--------|-----|-----|------|
| Part No. | Ref No. | Α   | В   | С  | D        | Е      | F   | G   | (kg) |
| D00379   | S4      | 452 | 72  | 32 | 112      | 228    | -   | 36  | 9    |
| H00519   | S9      | 544 | 148 | 32 | 135      | 274    | -   | 74  | 21   |
| D00362   | S11     | 480 | 72  | 32 | 119      | 242    | -   | 36  | 9    |
| D00365   | S14     | 264 | 148 | 32 | 65       | 134    | -   | 74  | 10   |
| D00366   | S15     | 388 | 84  | 32 | 96       | 196    | -   | 42  | 9    |
| D00369   | S18     | 300 | 110 | 32 | 74       | 152    | -   | 55  | 9    |
| D00370   | S19     | 328 | 186 | 32 | 81       | 83     | 83  | 93  | 16   |
| H00511   | S20     | 632 | 186 | 32 | 104      | 212    | 212 | 93  | 30   |
| D00371   | S21     | 484 | 206 | 32 | 79       | 163    | 163 | 103 | 26   |
| D00372   | S22     | 364 | 116 | 32 | 90       | 184    | -   | 58  | 11   |
| D00520S  | S96     | 300 | 300 | 32 | 74       | 152    | -   | 150 | 23   |
| D00384S  | S97     | 300 | 148 | 32 | 74       | 152    | -   | 112 | 11   |
| D00385   | S98     | 300 | 224 | 32 | 74       | 152    | -   | 112 | 17   |
| D00386   | S99     | 452 | 300 | 32 | 112      | 228    | -   | 150 | 34   |
| D00360   | S101    | 452 | 148 | 32 | 112      | 228    | -   | 74  | 17   |



#### Cast holes to suit M20 oval headed liner bolts.

| Part No. | Ref  |     |     | Dim | nensions ( | mm) |    |     | Mass |  |  |  |  |  |
|----------|------|-----|-----|-----|------------|-----|----|-----|------|--|--|--|--|--|
| Part No. | No.  | Α   | В   | С   | D          | Е   | G  | Н   | (kg) |  |  |  |  |  |
| D00358   | S1   | 452 | 300 | 32  | 112        | 228 | 74 | 152 | 35   |  |  |  |  |  |
| D00381S  | S6   | 300 | 300 | 32  | 74         | 152 | 74 | 152 | 23   |  |  |  |  |  |
| D00518   | S7   | 404 | 300 | 32  | 100        | 204 | 74 | 152 | 32   |  |  |  |  |  |
| D00363   | S12  | 452 | 264 | 32  | 112        | 228 | 65 | 134 | 30   |  |  |  |  |  |
| D00509   | S13  | 376 | 264 | 32  | 93         | 190 | 65 | 134 | 25   |  |  |  |  |  |
| D00367   | S16  | 388 | 300 | 32  | 96         | 196 | 74 | 152 | 30   |  |  |  |  |  |
| H02481   | S100 | 544 | 300 | 32  | 135        | 274 | 74 | 152 | 41   |  |  |  |  |  |





## **Duracast® N460 Billets**

Other sizes can be made on request.

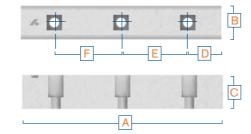
Liners can be cut to size on request.

Bolts available on request.

Products with a mass over 25kg we recommend two person or mechanical lifting.

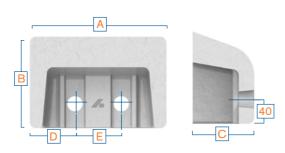
#### Bolt Type: AS1110.1 M20 Hex Head.

| Part No. | Part No. Ref No. | Dimensions (mm) |    |    |      |     |     | Dimensions (mm) |  |  |  |  | Mana (lun) |
|----------|------------------|-----------------|----|----|------|-----|-----|-----------------|--|--|--|--|------------|
| Part No. |                  | А               | В  | С  | D    | Е   | F   | Mass (kg)       |  |  |  |  |            |
| D00927S  | 12" Billet       | 305             |    |    |      |     | -   | 13              |  |  |  |  |            |
| D00926S  | 18" Billet       | 457             | 76 | 76 | 76.5 | 152 | 152 | 19              |  |  |  |  |            |



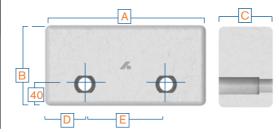
#### **Bolt Type: AS1110.1 M20 Hex Head.**

| Part No. | Ref No. |     | Dimensions (mm) |     |    |     |      |  |  |  |
|----------|---------|-----|-----------------|-----|----|-----|------|--|--|--|
| raitino. | Rei No. | А   | В               | С   | D  | Е   | (kg) |  |  |  |
| HB224    | DW3012S | 224 | 150             | 100 | 74 | 76  | 14   |  |  |  |
| HB300    | DW3011S | 300 | 150             | 100 | 14 | 152 | 18   |  |  |  |



#### Bolt Type: AS1110.1 M20 Hex Head.

| Part Number | Ref Number |     | Dim | ensions (ı | mm) |     | Mass (les) |
|-------------|------------|-----|-----|------------|-----|-----|------------|
| Part Number | Rei Number | А   | В   | С          | D   | Е   | Mass (kg)  |
| B300        | DW2874S    | 300 |     |            | 74  | 152 | 33         |
| B224        | DW2875S    | 224 |     |            | /4  |     | 25         |
| B185        | BKD4335    | 185 | 150 | 100        | 55  | 76  | 21         |
| B146        | D01771     | 146 |     | 0.5        |     | 17  |            |
| B70         | D01770     | 70  |     |            | 35  | -   | 8          |



## **Duracast® N460 Billets**

Liners can be cut to size on request.

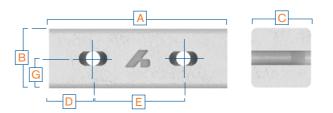
Other sizes can be made on request.

Bolts available on request.

Products with a mass over 25kg we recommend two person or mechanical lifting.

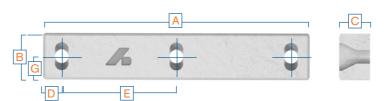
#### Cast holes to suit M22 oval headed liner bolt.

| Dord No.         | D-fN-  | Tues |     | D   | imensions (mn | n) |     |             | \\\\a\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ |
|------------------|--------|------|-----|-----|---------------|----|-----|-------------|--|
| Part No. Ref No. | Туре   | А    | В   | С   | D             | Е  | G   | Weight (kg) |  |
| WB1              | WB1    | 1    | 302 | 100 | 100           | 75 | 152 | EO.         | 22                                     |
| WB2              | D03536 |      | 454 | 100 | 100           | 75 | 304 | 50          | 34                                     |



#### Cast holes to suit M20 oval headed liner bolt.

| David Na | DefNe   | Tues |     | D  |    |    | \\/a:a:b.t (1.a) |      |             |
|----------|---------|------|-----|----|----|----|------------------|------|-------------|
| Part No. | Ref No. | Туре | А   | В  | С  | D  | Е                | G    | Weight (kg) |
| DW2971S  | B128    |      | 128 |    |    |    | 68               |      | 3           |
| DW29725  | B210    | 1    | 210 | 75 | 50 | 30 | 150              | 37.5 | 6           |
| DW29735  | B432    |      | 432 |    |    |    | 186              |      | 12          |





## **Duracast® N460 Skirtliners**

Liners can be cut to size on request.

Other sizes can be made on request.

Bolts available on request.

Products with a mass over 25kg we recommend two person or mechanical lifting.

#### Cast holes to suit oval headed liner bolt.

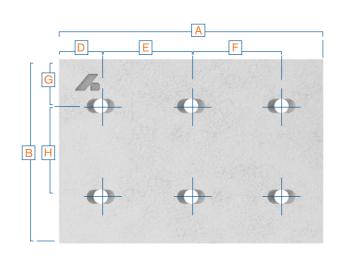
| Part No. | Ref No. | Bolt Type |     |     |    |       | Dimens | sion (mm | 1)    |     |      |       | Mass (kg) |
|----------|---------|-----------|-----|-----|----|-------|--------|----------|-------|-----|------|-------|-----------|
|          |         |           | А   | В   | С  | D     | Е      | F        | G     | Н   | I    | Jo    |           |
| D03775   |         | M16       | 495 | 220 | 32 | 122.5 | 250    | -        | 110   | -   | 25   | 55 T  | 26        |
| D04078   | L1S     | M20       | 296 | 296 | 20 | 73    | 150    | -        | 73    | 150 | 20   | 45 T  | 13        |
| D06369   | S6C     | M20       | 300 | 364 | 32 | 74    | 152    |          | 106   | 152 | 27   | 45 T  | 23        |
| D01608   | S96C    | M20       | 300 | 364 | 32 | 74    | 152    | -        | 182   | -   | 27   | 45 T  | 24        |
| D09819   | S96Cm-2 | M20       | 300 | 225 | 32 | 74    | 152    | -        | 43    | -   | 27   | 45 B  | 17        |
| D01324   | S98C    | M20       | 300 | 288 | 32 | 74    | 152    | -        | 144   | -   | 27   | 45 T  | 17        |
| D04067   | N4      | M20       | 296 | 296 | 32 | 73    | 150    | -        | 73    | 150 | 32   | 45 TW | 20        |
| D03307   |         | M22       | 496 | 260 | 25 | 123   | 250    | -        | 130   | -   | 12.5 | 45 T  | 25        |
| D04646   | 450S    | M22       | 444 | 309 | 32 | 72    | 150    | 150      | 154.5 | -   | 27   | 45 T  | 34        |
| D02872   | SL1W    | M22       | 452 | 296 | 32 | 74    | 304    | -        | 74    | -   | 16   | 45 B  | 33        |
| D06202   | SL18W   | M22       | 300 | 300 | 32 | 74    | 152    | -        | 60    | -   | 16   | 45 B  | 22        |
| D012961  | SL3W    | M22       | 300 | 224 | 32 | 74    | 152    | -        | 60    | -   | 16   | 45 B  | 17        |

Chamfer location -

B indicates bottom side.

T indicates both top and bottom sides.

W indicates chamfer is on the wear surface.





## **Duracast® N460 Lip Liners**

Cast holes to suit liner bolts M22.

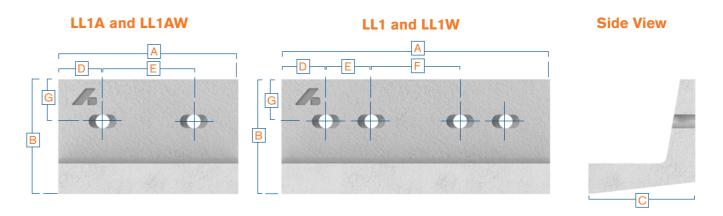
Liners can be cut to size on request.

Other sizes can be made on request.

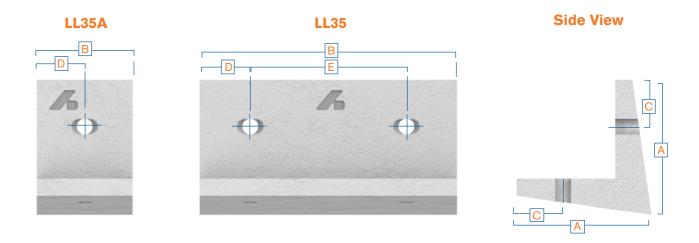
Bolts available on request.

Products with a mass over 25kg we recommend two person or mechanical lifting.

| Part No. | Ref No. |     | Dimensions (mm) |     |    |     |     |     |           |
|----------|---------|-----|-----------------|-----|----|-----|-----|-----|-----------|
|          |         | А   | В               | С   | D  | Е   | F   | G   | Mass (kg) |
| H03075   | LL1A    | 304 |                 |     | 76 | 152 | -   |     | 30        |
| H01779   | LL1AW   | 312 | 101             | 170 | 80 | 152 | -   | 71  | 30        |
| H03074   | LL1     | 444 | 191             | 178 | 70 | 76  | 152 | / 1 | 44        |
| H01778   | LL1W    | 452 |                 |     | 74 | 76  | 152 |     | 45        |



|          |         |     |     | Dimensions (mm) |    |     |           |
|----------|---------|-----|-----|-----------------|----|-----|-----------|
| Part No. | Ref No. | А   | В   | С               | D  | Е   | Mass (kg) |
| H02346   | LL35    | 197 | 444 | 70              | 70 | 304 | 48.3      |
| H01446   | LL35A   | 197 | 140 | 70              | 70 | -   | 15.3      |





## **Duracast® DC17 Skirtliners**

Liners can be cut to size on request.

Other sizes can be made on request.

Bolts available on request.

Products with a mass over 25kg we recommend two person or mechanical lifting.

#### Cast holes to suit M22 oval headed liner bolt.

| Part No. | Pof No    | Dimensions (mm) |     |    |    |     |    |    |      |      |  |
|----------|-----------|-----------------|-----|----|----|-----|----|----|------|------|--|
| Tait No. | itelino.  | А               | В   | С  | D  | Е   | G  | I  | Jo   | (kg) |  |
| D02870   | SL1CrMO   | 444             | 292 | 32 | 70 | 304 | 70 | 16 | 45 B | 32   |  |
| D02873S  | SL1WCrM0  | 452             | 296 | 32 | 74 | 304 | 74 | 16 | 45 B | 33   |  |
| SL18WCMI | SL18WCrMO | 300             | 300 | 32 | 74 | 152 | 60 | 16 | 45 B | 22   |  |
| SL3WCMI  | SL3WCrM0  | 300             | 224 | 32 | 74 | 152 | 60 | 16 | 45 B | 17   |  |

Top Side **Bottom Side** 

Chamfer location -

B indicates bottom side.

## **Duracast® DC17 Liners**

Liners can be cut to size on request.

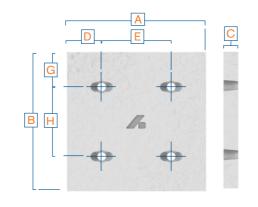
Other sizes can be made on request.

Bolts available on request.

Products with a mass over 25kg we recommend two person or mechanical lifting.

#### Cast holes to suit M22 oval headed liner bolt.

| Part No.  | Ref No.  |     |     | Dimer | nsions | (mm) |    |     | Mass |
|-----------|----------|-----|-----|-------|--------|------|----|-----|------|
| , are res |          | А   | В   | С     | D      | Е    | G  | Н   | (kg) |
| D01820    | L3CrMO   | 444 | 292 | 32    | 70     | 304  | 70 | 152 | 33   |
| D02785    | L4CrMO   | 444 | 140 | 32    | 70     | 304  | 70 | -   | 16   |
| D01969    | L18CrMO  | 292 | 292 | 32    | 70     | 152  | 70 | 152 | 22   |
| D02786    | L6CrMO   | 292 | 140 | 32    | 70     | 152  | 70 | -   | 10   |
| D02784    | L2CrMO   | 444 | 216 | 32    | 70     | 304  | 70 | -   | 24   |
| D02105    | L3WCrM0  | 452 | 300 | 32    | 74     | 304  | 74 | 152 | 34   |
| D02106    | L4WCrMO  | 452 | 148 | 32    | 74     | 304  | 74 | -   | 17   |
| D02108    | L18WCrMO | 300 | 300 | 32    | 74     | 152  | 74 | 152 | 23   |
| D02107    | L6WCrMO  | 300 | 148 | 32    | 74     | 152  | 74 | -   | 11   |
| D02083    | L2WCrMO  | 452 | 224 | 32    | 74     | 304  | 74 | -   | 26   |

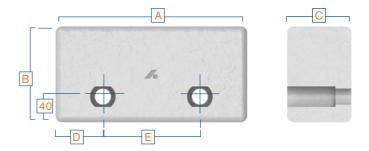


## **Duracast® DC17 Billets**

Products with a mass over 25kg we recommend two person or mechanical lifting.

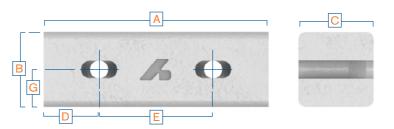
#### Bolt Type: AS1110.0 M20 Hex Head.

|           | Total             | Useable           |     |     | Dimensions (mm) | )  |     |           |
|-----------|-------------------|-------------------|-----|-----|-----------------|----|-----|-----------|
| Part No.  | Thickness<br>(mm) | Thickness<br>(mm) | А   | В   | С               | D  | Е   | Mass (kg) |
| B300-DC17 | 100               | 00                | 299 | 150 | 100             | 74 | 152 | 33.3      |
| B224-DC17 | 100               | 80                | 224 | 150 | 100             | 74 | 76  | 24.4      |



#### Cast holes to suit M22 oval headed liner bolt.

| Part No. |     |     | Dimension | ons (mm) |     |     | Mana (ka) |
|----------|-----|-----|-----------|----------|-----|-----|-----------|
| Part No. | А   | В   | С         | D        | E   | G   | Mass (kg) |
| WB1-DC17 | 302 | 100 | 100       | 75       | 152 | EQ. | 22        |
| WB2-DC17 | 454 | 100 | 100       | 75       | 304 | 50  | 34        |





## **Duracast® DC27 Billets**

Liners can be cut to size on request.

Other sizes can be made on request.

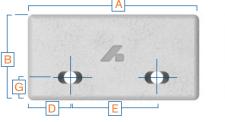
Bolts available on request.

Products with a mass over 25kg we recommend two person or mechanical lifting.

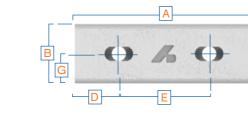
#### Cast holes to suit M20 oval headed liner bolt.

| Part No. | Ref No. | Tues |     | Dimensions (mm) |     |    |     |      |           |
|----------|---------|------|-----|-----------------|-----|----|-----|------|-----------|
| Part No. | Rei No. | Туре | А   | В               | С   | D  | Е   | G    | Mass (kg) |
| D02292   | -       | 1    | 275 | 150             | 100 | 66 | 143 | 40   | 32        |
| D0294S   | EBL9    | ] '  | 238 | 150             | 100 | 59 | 120 | 40   | 28        |
| D03189S  | EBL12   |      | 340 |                 |     | 70 | 200 |      | 15        |
| D0293S   | EBL8    | 2    | 292 | 75              | 75  | 72 | 148 | 37.5 | 13        |
| D02568S  | EBL11   | 2    | 200 | 75              | /5  | 50 | 100 | 37.5 | 9         |
| D03296S  | EBL10   | ]    | 150 | ]               |     | 40 | 70  |      | 7         |

#### Type 1







Type 2

## Safer, Faster and Easier.

**ChuteSafe™** 

**Liner Bolts** 

One-sided Installations & removal



**Suits all Bradken Liner Materials** 

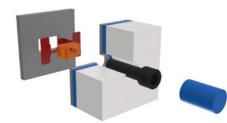
Reduced task labour requirements

Improved liner changeout safety

Bradken's Patented One-Sided Liner Attachment Solution is now available. ChuteSafeTM allows for fastening of liners from the wear side of bulk materials handling assets only - no external access is required. This reduces labor requirements during liner changeout, eliminates external scaffolding requirements and improves liner changeout safety by limiting working at heights and hotworks for fastener removal. Chutesafe is Ideal for areas where there is no physical access to the outside of the equipment or where extensive scaffold would be required.



**Duaplate® Liners and** ChuteSafe™ Bolt



**Ceramic Liners and** ChuteSafe™ Bolt

## **Liner Bolts**

Please contact your local sales office for pricing and availability.

| Ref No. | Product Description                                  |
|---------|--|
| S013054 | M16x75 Oval Headed Liner Bolt/ Nyloc Nut Flat Washer |
| S03777  | M16x75 Oval Headed Liner Bolt/ Hex Nut Flat Washer   |
| S05841  | M20x75 Oval Headed Liner Bolt/Nyloc Nut Flat Washer  |
| S011097 | M20x75 Oval Headed Liner Bolt Only                   |
| S013180 | M20x75 Hex Bolt/ Nyloc Nut Flat Washer               |
| S013136 | M20x90 Oval Headed Liner Bolt/Nyloc Nut Flat Washer  |
| S011098 | M20x100 Oval Headed Liner Bolt Only                  |
| S06344  | M22x75 Oval Headed Liner Bolt/Nyloc Nut Flat Washer  |
| S06345  | M22x95 Oval Headed Liner Bolt/Nyloc Nut Flat Washer  |

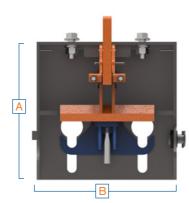


## **Revolver**® **Skirtliner System**

| Part No.            |     | Dimensions (mm) |     | Description         | Mana (ka) |
|---------------------|-----|-----------------|-----|---------------------|-----------|
| Faltino.            | А   | В               | С   | Description         | Mass (kg) |
| BKD1857-1           | 297 | 304             | 170 | Metric Frame        | 11.3      |
| RSL-368X300X32-NH4  | 368 |                 | 32  | Duracast N460 Liner | 22.1      |
| BD364X300X32D70STD2 | 364 | 300             | 32  | Duablock Liner      | 25.1      |
| RSL-368X300X42-DB   | 368 |                 | 42  | HD Duablock Liner   | 25.3      |

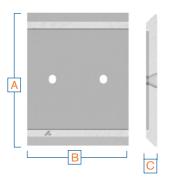
#### **BKD1857-1**



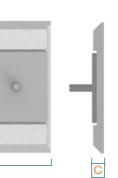


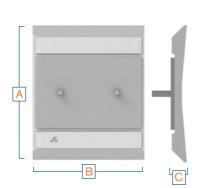


RSL-368X300X32-NH4





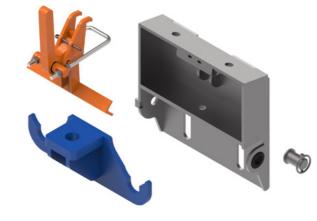




RSL-368X300X42-DB

**Spare Parts List** 

| Part No.     | Description      |
|--------------|------------------|
| BKD1857-MF   | Mainframe        |
| BKD1857-SC   | Skirt Clamp      |
| BKD1857-HA   | Height Adjuster  |
| BKD1857-MET  | Metric Fasteners |
| BKD1857-6-12 | Frame Pin        |



## **Epoxies**

A complementary product which can be used for emergency repairs, gap filling or transition blending.

We offer different grades for different applications so whether it's for a small gap or an ad-hock fast cure fix in a high wear area we will have the right product for you. Each grade of epoxy comes with a variety of ceramic particles giving exceptional wear characteristics.



#### **BK Wear105**

Ceramic filled putty compound for application in voids >5mm and for medium impact & sliding abrasion. Ideal as grout between and under wear liners.



#### **BK Fast605QS**

Fast cure version of the BK Wear105, ideal as an emergency repair compound and for builds greater than 3mm such as chute corners and liner grout.



## **BK Impact519**

Impact resistant epoxy compound that has a fibre reinforcement to improve impact performance. Ideal for builds greater than 5mm such as wearing compound, corners of chutes and grout.

| Part Number | Ероху        | Kit Size | Pot Life (25°C) | Cure Time (25°C) | Ultimate Cure time (25°C) |
|-------------|--------------|----------|-----------------|------------------|---------------------------|
| BK105-3KG   | BK Wear105   | 3 Kg     | 40 mins         | 4 hours          | 12 hours                  |
| BK105-7KG   |              | 7 Kg     |                 |                  |                           |
| BK519-7KG   | BK Impact519 | 7 Kg     | 25 mins         | 6 hours          |                           |
| BK519-14KG  |              | 14 Kg    |                 |                  |                           |
| BK605-3KG   | BK Fast605QS | 3 Kg     | 15 mins         | 1 hours          |                           |
| BK605-10KG  |              | 10 Kg    |                 |                  |                           |



# Contact Bradken globally to find a solution for your business.















