Custom Application Product Guide
Special “AED” Products

We use the acronym “AED” for Application Engineered Design. When a standard unit will not perform in a particular application, a special unit can be designed and built based on the specific requirements to satisfactorily perform the job. In some cases it may be as simple as modifying the arms on a standard unit, while most other applications require a complete custom unit designed solely for the application.

Over the years we have been involved in numerous special applications ranging from handling tires to fully automated pallet transfer systems. Cascade is committed to providing solutions for any material handling application. This booklet captures a majority of the custom products we have designed and produced for special applications worldwide.

Please feel free to contact us with any special requests.
<table>
<thead>
<tr>
<th>PRODUCT</th>
<th>SECTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anode Handlers</td>
<td>1</td>
</tr>
<tr>
<td>Bale Clamps</td>
<td>2</td>
</tr>
<tr>
<td>Bin Dumpers</td>
<td>3</td>
</tr>
<tr>
<td>Block Handling</td>
<td>4</td>
</tr>
<tr>
<td>Broke Clamps</td>
<td>5</td>
</tr>
<tr>
<td>Buckets</td>
<td>6</td>
</tr>
<tr>
<td>Concrete Structure Handlers</td>
<td>7</td>
</tr>
<tr>
<td>Drum Handling</td>
<td>8</td>
</tr>
<tr>
<td>Fixed Fork Spreaders</td>
<td>9</td>
</tr>
<tr>
<td>Foam Handling</td>
<td>10</td>
</tr>
<tr>
<td>Forging Clamps</td>
<td>11</td>
</tr>
<tr>
<td>Fork Positioners</td>
<td>12</td>
</tr>
<tr>
<td>Forward Dumpers</td>
<td>13</td>
</tr>
<tr>
<td>Furnace Chargers</td>
<td>14</td>
</tr>
<tr>
<td>Glass Panel Handlers</td>
<td>15</td>
</tr>
<tr>
<td>Grapple Arm Clamps</td>
<td>16</td>
</tr>
<tr>
<td>Inverta-Push</td>
<td>17</td>
</tr>
<tr>
<td>Load Extenders</td>
<td>18</td>
</tr>
<tr>
<td>Load Stabilizers</td>
<td>19</td>
</tr>
<tr>
<td>Load Transfer Systems</td>
<td>20</td>
</tr>
<tr>
<td>Marble Slab Handlers</td>
<td>21</td>
</tr>
<tr>
<td>Pipe/Pole Hold Down</td>
<td>22</td>
</tr>
<tr>
<td>Load Pusher</td>
<td>23</td>
</tr>
<tr>
<td>Roll Clamps</td>
<td>24</td>
</tr>
<tr>
<td>Roll Scoop</td>
<td>25</td>
</tr>
<tr>
<td>Rotators</td>
<td>26</td>
</tr>
<tr>
<td>Special Applications</td>
<td>27</td>
</tr>
<tr>
<td>Stationary Load Inverters</td>
<td>28</td>
</tr>
<tr>
<td>Stationary Mast Stands</td>
<td>29</td>
</tr>
<tr>
<td>Tire Handling</td>
<td>30</td>
</tr>
<tr>
<td>Train Wheel Handling</td>
<td>31</td>
</tr>
<tr>
<td>Turnafork Clamps</td>
<td>32</td>
</tr>
<tr>
<td>Turnaload Clamps</td>
<td>33</td>
</tr>
<tr>
<td>Upending Clamps</td>
<td>34</td>
</tr>
<tr>
<td>Wine/Wooden Barrel Handling</td>
<td>35</td>
</tr>
</tbody>
</table>
Anode Handler

Specially designed units to handle a variety of shapes and sizes.

CFS 90° Rotation

55C-AED-61981
Special Clamp Arm Frame
to grab post of Anode

Insulated Arm "Lexan"
Anode Handler

50D-AED-SP
- Arms with 360° continuous Rotating Pads
- Round Pads with Spikes to handle Anode

180° Forward Tipping Clamp
with Flat Pads
Bale Clamps

70D-PBS
High Profile Bale Arms
48" High x 24" Deep

BCB/BCR/BCS

35D-BCB
Folding Arm Clamp

140D - PBS
Integral Arms
No Mounting

200D - PBS
Bolt-On Arms

Custom Application Products Guide
35D-BCR-60809
Two Bale Clamps mounted on 360° Rotating Base
used as a Bale Separator

35D-BCB / BCS
Bale Clamp with Folding Arms
Special designed Arms are easily folded inwards by pulling a pin at base
Bale Clamps

Bale Arms (Bat Wings)

Bale Arm Extension Rear

Various Arm Designs are available to handle different size Bales.

140D- Centre Arm (Removable)

Bale Arm Extension Rear

220D-PBS
Bin Dumpers

- Hydraulic Hold Down mounts in between Forks.
- Arm design retains Bin by locking the Bin wall.

50D-RBD-SP
- 360° Rotation
- Lower Adjustable Forks
- Top Arm opens / closes to handle various size Bin heights & widths
Forward Drum Dumper  
Specially designed to handle Scrap Bins.

Special Hold Down Pad folds down over Bin. Pad has mesh with sliding Door. Required by customer.
Bin Dumpers

Rotator with Hold Down & Fixed Side Fork

Hold Down Arm Offset

Rotator with custom Fork Assemblies and Hydraulic Hold Down Arm. Designed to empty Bins with Funnel Top.
40D-RBD-SP
Rotating Bin Dumper designed specially for the Produce Industry to handle Bins of various Vegetables and Fruits
Block Handling

BDS
Double Block Handler
IV False Carriage III Front

BDS
Double Block Handler
With Integral Mounting

BSS
Single Block Handler

BSS
With Integral Mounting

Custom Application Products Guide
Block Handling

Single Block Handler
Adjustable Forks Hydraulic

70D-CFS
Fork Clamp
with slip-on Rubber Face
Pads to handle Concrete
Bricks and Pavers.

Double wide Block Handler with
Roller design for easy maintenance.
Broke Clamps

BPR - Broke Clamp
Revolving

Broke Clamp with Forward & Backward Tilt

BPV - Broke Clamp
with Kicker Arm

Special Dual Grapple Arm Design

Vertical Broke Clamp

Broke Clamp with Pusher

Custom Application Products Guide
Broke Clamps

50C-BPV Broke Clamp with Vertical Opening Arm

50C-BPC Broke Clamp to handle "Broke" Paper in Printing Facilities

Forward Tilting Broke Clamp
Buckets

Rotating Bucket

ITA Mounted Bucket with Grapple.
Grapple Arms offer Load Securing feature

FHB - Fork Mounted
Buckets are custom made to width and tilt angle required. Available as Carriage mount or Fork mounted.

- Custom design Bucket with special tilt angle ITA mounted bucket

CHB - Comes with Forward and Backward Tilt

ITA Mounted Bucket with Grapple
Concrete Structure Handlers

Fork Clamp with Slip-On "Brick Pads" for handling Cub of Bricks

200D-CFS-SP Fork Clamp with Slip-On Free Swivel Pads

MCR Concrete Pipe Handler
Concrete Structure Handlers

70D-MCR

300D-MCR

140D-MCR

Flat Arms for Square Concrete Structures

Curved Pads Slip-On with locking pin to handle Round Structures

300D-MCR

200D-MCR

Custom Application Products Guide 7.2
Drum Handling

50D-DTR-SP
- 360° Rotation
- Special Arms with Articulating Pads to handle Various Diameter Bins

Articulating Drum Arms

FDD-180° Forward Drum Dumper

CFB c/w Articulating Slip On Pads

Rotator with special Arms to handle large waste bins. Arms designed to fit into side pockets.

Custom Application Products Guide
35D-DTR-61531
- 360° Rotation
- Special large radius Arms
- Adjustable Hold Down

35D-DTR-SP to handle Two Drum Hinged Pads to Hand Various Diameters

35D-FDD-13A
Forward Drum Dumper
Fixed Fork Spreadsers

- Fixed Fork Spreadsers are designed to stabilize wide loads.
- Must be used in conjunction with Truck Forks.
- Each Unit is designed to fit a specific Truck Carriage.

100C-FFS-120
Designed to fit on ITA Class Hook Carriage

120C-FFS-216
Extra Wide Unit

100C-FFS
Special unit with Load Hold Down to handle stack of Steel Strips

150C-FFS
Designed to fit Shaft Type Carriage
Fixed Fork Spreaders

- FFS on 50D Clamp
- FFS on “C” Fork Positioner with Hold Down
- ITA Mounting FFS with Hold Down
Foam Handling

FMB - Foam Block

35D - With special tubular designed Arms to handle Foam

15D-FMS-SP
Forging Clamps

30D-FRG

90D-FRG

90D-FRG

150D-FRG

300D-FRG

300D-FRG-61858
Fork Positioners

40C-FPS-SP

100C-FPB

200D-FPS
Fork Positioner c/w Pin Mounting

150J-IFS
Fork Positioner Integral Mounting

60V-FPS

100V-FPS

120V-FPS

150V-FPB

V-Series S/S Frame
**Fork Positioners**

"C" Spreader Hold Down
Designed to handle stack of Steel plates

"C" Fork Positioner Hold Down
Designed to handle stack of Steel plates

Frame Handler c/w Vertical Fork Adjustment
Designed to handle Truck Frames

"D" Fork Positioner
"C" Fork Positioner

"C" ITA Poles

"C" Bob Cat Mounting
Forward Dumpers

120° Bin & Drum

35D-CCS
90° Forward Tipping

120° - Multiple Design

180° - 24 x 48 Flat Pad

35D-FDD - Bin Dumper
Furnace Chargers

BAC - 30
Furnace Chargers

"Chrysler on Yale"

No Bucket

"Chrysler on Clark"

Custom Application Products Guide
70D-MCR SP • Glass Handler
Glass Adjustable Foot
Grapple Arm Clamps

CBC - 30

Bale Grapple

70C-GRP-63881
Grapple Arm Clamps

50C-GRP

100C-GRP-62715

Scrap Grapple
The Inverta Push is a very unique attachment that can clamp, rotate, sideshift, push, pull and stabilize loads.
Each unit is custom designed to suit a specific application.
Inverta Push

Custom Application Products Guide
Load Extenders

30-CLX-26

45-CLX

50-CLX-26
Load Stabilizers

25D - On Crown 90° Forward

60-LSB c/w Articulating Pad

50C-LSB Transformer

Hold Down on Single Double
Load Stabilizers

Hold Down Folding Fork

120C-LSB-61125
Automated Pallet Dispenser Unit
Automated Pallet Dispenser Unit

Load Transfer Station
Load Transfer Systems

Pallet Replacement System
220” Long x 50.25” Wide

Semi Automated Pallet Transfer

40A-LTS
Load Transfer Station
for 40” W x 48” L Pallet
Stationary Stand with Load Push
Designed to push load from Pallet to Pallet.
Stand with Power Pack and single function controls.
Marble Slab Handlers

70D-MCB
Marble Handler
Non Traversing

70D-MHT
Double Stacked / Finished Marble

Marble Handler
S/S Cross Face of Carriage

Traversing

21.1 Custom Application Products Guide
Marble Slab Handlers

165D-MHB
Special design to pick up complete load
Pipe/Pole Hold Down

Specially designed clamping arms mounted on top of carriage. The arms fold down on the pipe/poles to secure and prevent load from rolling off or tipping sideways. When not required, the arm assembly pivots to the full vertical position so the truck can be utilized for typical loads. The hold down arm assembly consists of two sections, the main arm and the inner pad. Two hydraulic functions are required to operate the arm assembly. First function activates the main arm up and down. The second function is required to activate the inner pad which provides the clamping. This arm design offers the most versatility for handling various diameters and lengths. This type of attachment can be offered in a few different ways. As with all special application designed units, detailed load information is required to determine the features for each attachment.

1. Complete Carriage with Hold Down Arms
   - Integral mounting for increased capacity.
   - Designed for trucks 8,000 lbs to 36,000 lbs Capacity
   - Sideshifting frame and hydraulic fork positioning available.
2. Weld-On Hold Down Arms

- The hold down arm assembly only can be offered for field installation. Welding instructions are provided based on truck carriage details.
3. **Hang-On Hold Down Arms**

- The hold down arm assembly only can be offered for field installation as a hang-on to fit ITA hook type or shaft type carriages.
4. Single Function Pivot Arm Design
   - This design offers a single function hold down arm with a pivoting bar to hold down load.
5. Grapple Type Arm Design

- This design offers a single function hold down arm to retain and secure load.
Load Pusher

Pusher with Vertical Broke Clamp

Pusher & Single/Double

Bean Bag Pusher

Pusher Side Stabilizer

Custom Application Products Guide 23.2
Roll Clamps

Load / Roll Tower Clamp

60F - TCS

80F - TCS

25F

Custom Application Products Guide
Single Tower- Adjustable Top Arm

100F-RCQ 4 Roll

Non Rotating Split
Roll Clamps

25F-TCS
Tower Roll Clamp

45F-RCP
Single Paper Roll Clamp

50D-RTR-36/41
2-Roll Clamp Rotating

25D - RCS

60F-TCS
Tower Roll Clamp
Roll Clamps

- 150F - RCP
- 25F - RCQ
- Portable Roll Slitter
- 66D - RTR
- 100F - RCQ
- Portable Roll Slitter
- 80D - RTR
- 100F - RCQ
- Roll Scoop
- 80D - UKD
- 100F - RCQ
- Roll Guard
Roll Scoop

Rotator with Side Arm
Walkie Modified to handle Roll in bilge position
Rotators

120D-RRB-61472
Rotator with special QD Hook Style Mounting

Rotator with Visibility Hole

Rotator with Side Stabilizer Fork
Side Stabilizer Fork is available as a Folding or Fixed Design
Special Applications

Fork Clamp with special Forks to handle Gypsum Slip on Poly Backs are required to protect Gypsum sheets.

Mandrel Clamp

Drop Bottom Box Dumper
Special Applications

35D - Panel "Siemens"

200D - Car Handler

Bread Tray Handler
Special Applications

100C-SLP-60024
Slope Piler Carriage with 10° of total side tilt.

155C-SLU-61122
Slue Carriage with 6° of total in / out tilt

Special Attachment solely designed for handling Tobacco.
55C-SPC-63696 - Snow Plow Attachment. Also available as a Fork Pocket Mounting. Various widths & design

Special Lifting Blade Attachment for handling Appliances with “Folded Cap” packaging.
Stationary Load Inverters

SLI with PLC & Photo Eyes

SLI - Standard

SLI 140D Design, PLC & Adjustable Side Arm

Custom Application Products Guide
Stationary Load Inverters

SLI with Pusher

SLI Pallet Retention
Pallet Retention Mechanism retains Top Pallet when load is inverted.
Stationary Load Inverters

“Floor Loading” design allows loading and unloading using Hand Pallet Jack

SLI - Adjustable Side Arm

Custom Application Products Guide
Most Stationary Load Inverters are custom designed. Many features are available such as:

- Fully Automated Controls
- Safety Photo Eyes
- Pallet Retainers
- and Adjustable Pressure Settings
Stationary Mast Stands

29.1

Custom Application Products Guide
Stationary Mast Stands

Stationary Pusher

c/w Rotating Drum Arms
Tire Handling

50D-TSH-SP
Tire Stack Handler

Designed to clamp down and stabilize stack of Tires for Load Trailers or Containers

50D-BCR-SP
Tire Clamp

45F - RCP
c/w Spray
Metal Pads

30.1
Custom Application Products Guide
Tire Handling

- 70D-TIR-62772 90° Tire Handler
- 50D-TIR-61357 90° Tire Handler
- 140D-TIR-63897 90° Tire Handler

Slip On Tire Handlers
Dedicated Tire Handlers are available for capacities ranging from 6,600 lbs to 33,000 lbs.

Tire and Rim combinations
Train Wheel Handling

80 - TWH

100C - TWH
Slip-On to Shaft Fork

50D-CFB-61211
Various designs available to wheel only, wheel axle assembly or complete drive wheel assembly.
Turnforks with hydraulically actuated Arms offer the ability to position the Arms in any angle from horizontal to vertical.
70D-HTS is the Heavy Duty version Turnafork. Custom designed Arms to handle various loads such as large Tires.
Most Turnaloads are designed to handle a specific load. Various Arms and features can be incorporated for any application.
70D-TAL Double Turnaload with Side Stabilizer

Designed to handle separate loads side by side

TAL c/w "C"-Pusher
Turnaload Clamps

50D-TAL-SP
Designed with Articulating Arm
for handling scrap bales at recycling yard

35D-TAL-62431
Designed for handling sheets of laminate ranging from 1/16" thick to 16" Thick
Turnaload Clamps

Turnaload Side/Stabilizer

Turnaload c/w Retaining Lips

Custom Application Products Guide 33.4
Turnaload Clamps

Turnaload c/w One Fixed Arm

Handling stack chairs
Upending Clamps

50D-FBB-SP

Upending Roll Clamp

77F-RUP-63593

C6 Upending Roll Clamp
Upending Clamps

50D-MCU-62638

15D Appliance

15D-CCU-63258

Custom Application Products Guide
Upending Clamps

Special unit that clamps, rotates and 90° forward tipping action. Also has special long arms with articulating pads for handling unique load.
Wine/Wooden Barrel Handling

Offers a unique method of handling wine barrels. Cradle arm assembly pivots 180° and traverses sideways.
WBH-T004
Wine Barrel Handler
with Top Grab Arm