



2018

Fork Facts



USA



QUALITY SYSTEM
ISO 9001

LEADING THE WORLD IN QUALITY LIFT TRUCK ATTACHMENTS, FORKS AND ACCESSORIES.

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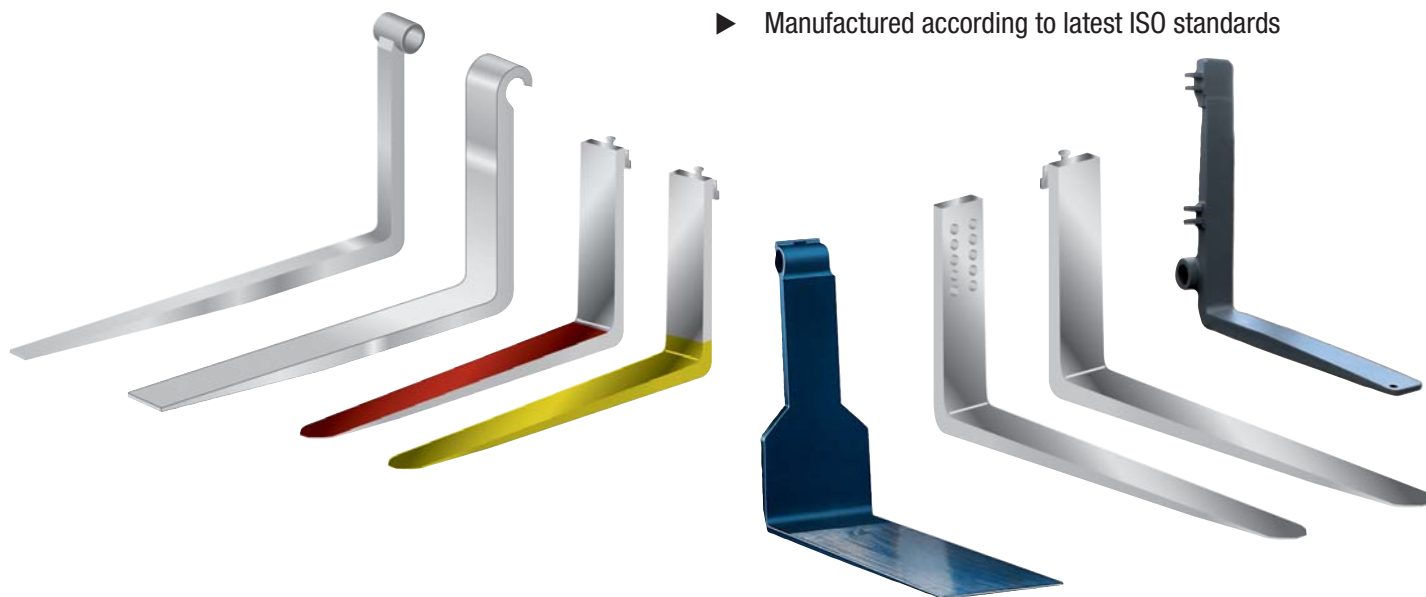
Eight North American locations provide forks when you need them.



Your Fork Experts...

GENUINE CASCADE FORKS

- ▶ Fastest lead times, highest quality steel
- ▶ Over 150 sizes available for immediate dispatch
- ▶ Custom designs in any size
- ▶ Manufactured according to latest ISO standards



DESCRIPTION

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Fork Material Cross-section capacity based on equivalent mounting.
Capacity for rotator and inverted forks deduct 15%. For dimensions not listed, consult Cascade.

Inch Dimensions		Capacity/Pair @ Load Center			Metric Dimensions		Capacity/Pair @ Load Center		
Thickness (in)	Width (in)	lbs. @ 24"	lbs. @ 36"	lbs. @ 48"	Thickness (mm)	Width (mm)	kgs. @ 600mm	kgs. @ 900mm	kgs. @ 1200mm
1.25	3	2,400	1,600	1,200	30	180	1,100	730	550
1.25	4	4,000	2,650	2,000	35	100	1,800	1,200	900
1.5	3	4,200	2,800	2,000	40	80	1,900	1,300	900
1.5	4	5,500	3,600	2,750	40	100	2,500	1,650	1,250
1.5	5	6,400	4,200	3,200	40	122	3,000	2,000	1,500
1.5	6	8,000	5,400	4,000	40	150	3,700	2,400	1,800
1.5	7	9,600	6,400	4,800	40	180	4,400	2,900	2,200
1.5	8	10,800	7,200	5,400	40	200	4,900	3,300	2,400
1.5	10	13,400	9,000	6,600	40	250	6,200	4,100	3,100
1.5	12	16,200	10,800	8,000	40	300	7,400	4,900	3,700
1.5	15	20,400	13,600	10,200	40	380	9,400	6,300	4,700
1.75	3	5,400	3,600	2,600	45	80	2,500	1,600	1,200
1.75	4	6,800	4,400	3,400	45	100	3,100	2,100	1,500
1.75	5	8,200	5,400	4,000	45	122	3,800	2,500	1,900
1.75	6	10,200	6,800	5,000	45	150	4,700	3,100	2,300
1.75	7	12,200	8,200	6,000	45	180	5,600	3,700	2,800
2	1.5	3,200	2,200	1,600	50	40	1,500	1,000	700
2	2	4,200	2,800	2,000	50	50	1,900	1,200	900
2	3	6,600	4,400	3,300	50	80	3,100	2,050	1,550
2	4	8,400	5,600	4,200	50	100	3,800	2,500	1,900
2	5	10,200	6,800	5,000	50	122	4,700	3,100	2,300
2	6	12,600	8,400	6,200	50	150	5,800	3,800	2,900
2	7	15,200	10,000	7,600	50	180	7,000	4,600	3,500
2	8	16,800	11,200	8,400	50	200	7,700	5,100	3,800
2	10	21,000	14,000	10,400	50	250	9,700	6,400	4,800
2	12	25,200	16,800	12,600	50	300	11,600	7,700	5,800
2	15	32,000	21,400	16,000	50	380	14,800	9,800	7,400
2	18	38,800	25,800	19,400	50	460	17,900	11,900	8,900
2.25	4	12,000	8,000	6,000	60	100	5,600	3,700	2,800
2.25	5	15,200	10,000	7,600	60	125	7,000	4,600	3,500
2.25	6	18,200	12,000	9,000	60	150	8,400	5,600	4,200
2.5	5	17,800	11,800	8,800	65	125	8,200	5,400	4,100
2.5	6	21,400	14,200	10,600	65	150	9,800	6,500	4,900
2.5	7	25,600	17,000	12,800	65	180	11,800	7,800	5,900
2.5	8	28,400	19,000	14,200	65	200	13,100	8,700	6,500
2.5	10	35,600	23,800	17,800	65	250	16,400	10,900	8,200
2.5	12	42,800	28,400	21,400	65	300	19,700	13,100	9,800
2.5	15	54,200	36,000	27,000	65	380	25,000	16,600	12,500
2.5	20	71,400	47,600	35,700	65	500	32,900	21,900	16,400
2.75	6	24,800	16,400	12,400	70	150	11,400	7,600	5,700
2.75	7	29,800	19,800	14,800	70	180	13,700	9,100	6,800
2.75	8	33,000	22,000	16,400	70	200	15,200	10,100	7,600



Fork Material

Cross-section capacity based on equivalent mounting.

Capacity for rotator and inverted forks deduct 15%. For dimensions not listed, consult Cascade.

Inch Dimensions		Capacity/Pair @ Load Center			Metric Dimensions		Capacity/Pair @ Load Center		
Thickness (in)	Width (in)	lbs. @ 24"	lbs. @ 36"	lbs. @ 48"	Thickness (mm)	Width (mm)	kgs. @ 600mm	kgs. @ 900mm	kgs. @ 1200mm
2.75	10	41,400	27,600	20,600	70	250	19,000	12,700	9,500
2.75	12	49,600	33,000	24,800	70	300	22,900	15,200	11,400
3	6	28,400	19,000	14,200	75	150	13,100	8,700	6,500
3	7	34,200	22,800	17,000	75	180	15,700	10,500	7,800
3	8	38,000	25,200	19,000	75	200	17,500	11,600	8,700
3	9	43,400	28,900	21,700	75	229	20,000	13,350	10,000
3	10	47,400	31,600	23,600	75	250	21,900	14,600	10,900
3	12	57,000	38,000	28,400	75	300	26,200	17,500	13,100
3.25	8	48,800	32,400	24,400	85	200	22,500	15,000	11,200
3.25	10	61,000	41,200	30,500	85	250	28,100	18,700	14,050
3.5	7	49,200	32,800	24,600	90	180	22,700	15,100	11,300
3.5	8	54,600	36,400	27,200	90	200	25,200	16,800	12,600
3.5	10	68,400	45,600	34,200	90	250	31,500	21,000	15,750
3.5	12	82,000	54,650	41,000	90	300	37,800	25,200	18,900
3.5	15	104,000	69,350	52,000	90	380	47,900	31,950	23,950
3.75	8	61,000	40,600	30,400	95	200	28,100	18,700	14,000
3.75	11.5	89,000	59,200	44,400	95	292	41,000	27,300	20,500
4	8	67,600	45,000	33,800	100	200	31,100	20,700	15,500
4	10	84,400	56,200	42,200	100	250	38,900	25,900	19,400
4	12	101,400	67,600	50,600	100	300	46,700	31,100	23,300
4	16	137,300	91,550	68,650	100	400	62,300	41,550	31,150
4.25	11	104,200	69,450	52,100	105	280	48,000	32,000	24,000
4.25	12	122,600	81,800	61,200	110	300	56,500	37,700	28,200
4.5	8	89,400	59,600	44,600	115	200	41,200	27,400	20,600
4.5	10	111,600	74,400	55,800	115	250	51,500	34,300	25,700
4.5	12	134,000	89,400	67,000	115	300	61,800	41,200	30,900
4.75	10	123,400	82,267	61,700	120	250	56,000	37,300	27,950
5	9	96,400	64,300	48,200	115	216	44,500	29,650	22,250
5	10	132,000	88,000	66,000	125	250	60,800	40,500	30,400
5	12	158,400	105,600	79,200	125	300	73,000	48,600	36,500
5.5	12	198,600	132,400	99,200	140	300	91,600	61,000	45,800
6	12	228,000	152,000	114,000	150	300	105,100	70,100	52,500
6	14	266,200	177,400	133,000	150	350	122,600	81,700	61,300
6	16	304,200	206,100	152,100	150	400	140,200	93,500	70,100

- All forks rated above have a minimum safety factor of 3:1 with static load.
- All ratings listed are per pair - Cascade forks are stamped per individual fork capacity as per ANSI/ITSDF B56.1-2012.
- Capacities for non-standard sizes and load centers can be obtained from Cascade Sales.

Lift Truck Forks Vocabulary:

3.1.0 FORK PARTS

3.1.1 BLADE

The horizontal portion of the fork upon which the load is supported.

3.1.2 HEEL

The radiused portion of the fork connecting the blade to the shank.

3.1.3 SHANK

The upright (vertical) portion of the fork to which the supporting hooks are fixed.

3.1.4 HOOKS (CLIPS, HANGERS)

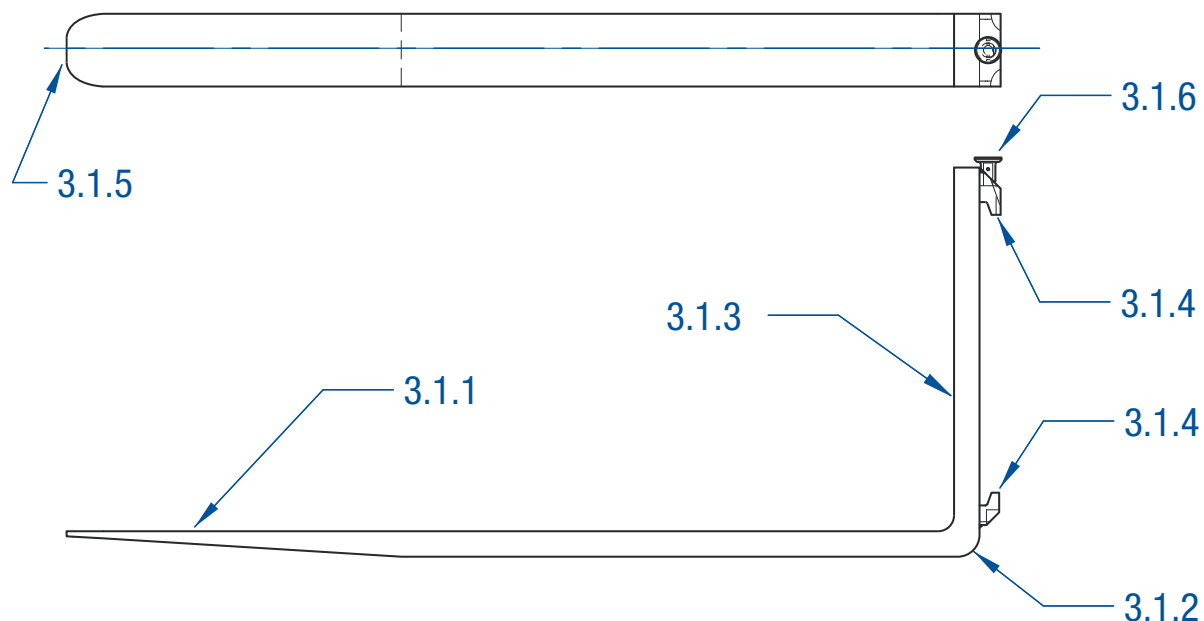
Lugs attached to the shank to support and retain the fork on the carriage. They may be made as non-integral hooks (attached to the shank) or as integral hooks (formed integrally with the shank).

3.1.5 TIP

The free end of the blade.

3.1.6 POSITIONING LOCK (PIN ASSEMBLY, LOCKING PIN)

Device for locating the fork on the fork carriage.



Lift Truck Forks Vocabulary:

3.2.0 FORK SURFACES

3.2.1 BLADE - UPPER FACE

The top surface of the blade on which the load is carried.

3.2.2 BLADE - BOTTOM FACE

The bottom surface of the blade, including the tapers.

3.2.3 SHANK - FRONT FACE

The front of the shank which contacts the load and from which the load center distance is measured.

3.2.4 FLANKS

The side surfaces of the blade and shank.

3.2.5 HOOK RETAINING FACE

The inclined faces of the top and the bottom hooks.

3.2.6 HOOK SUSPENSION FACE

The bottom horizontal face of the top hook in contact with the carriage or fork carrier.

3.2.7 TIP FLANKS (TOE FLANKS)

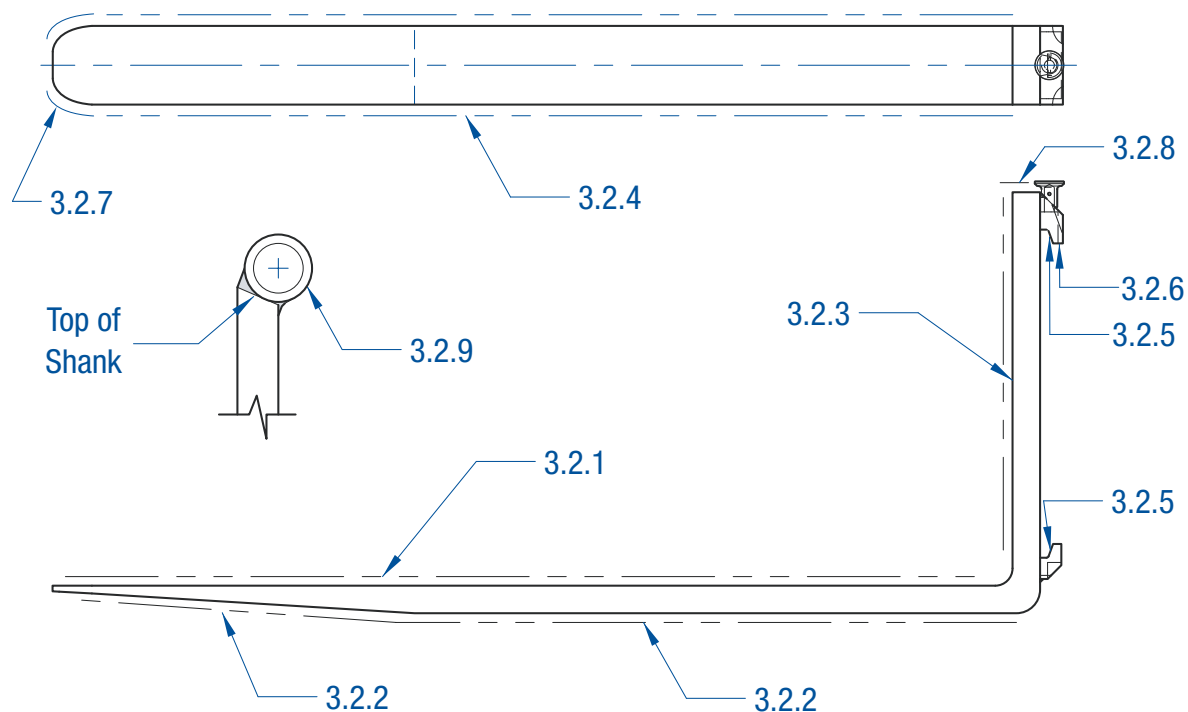
The tip of blade sides which are shaped to facilitate insertion of the fork (the tip shapes may take various forms).

3.2.8 SHANK TOP

The upper surface of the vertical (or shank).

3.2.9 TUBE

The tube used for mounting forks onto shaft-type carriages.



Lift Truck Forks Vocabulary:

3.3.0 FORK DIMENSIONS

T - THICKNESS

The thickness of the parallel portion of the blade or shank closest to the heel.

W - WIDTH

The width of the blade.

BH - BACK HEIGHT

The distance from the bottom of the blade to the top of the shank.

BL - BLADE LENGTH

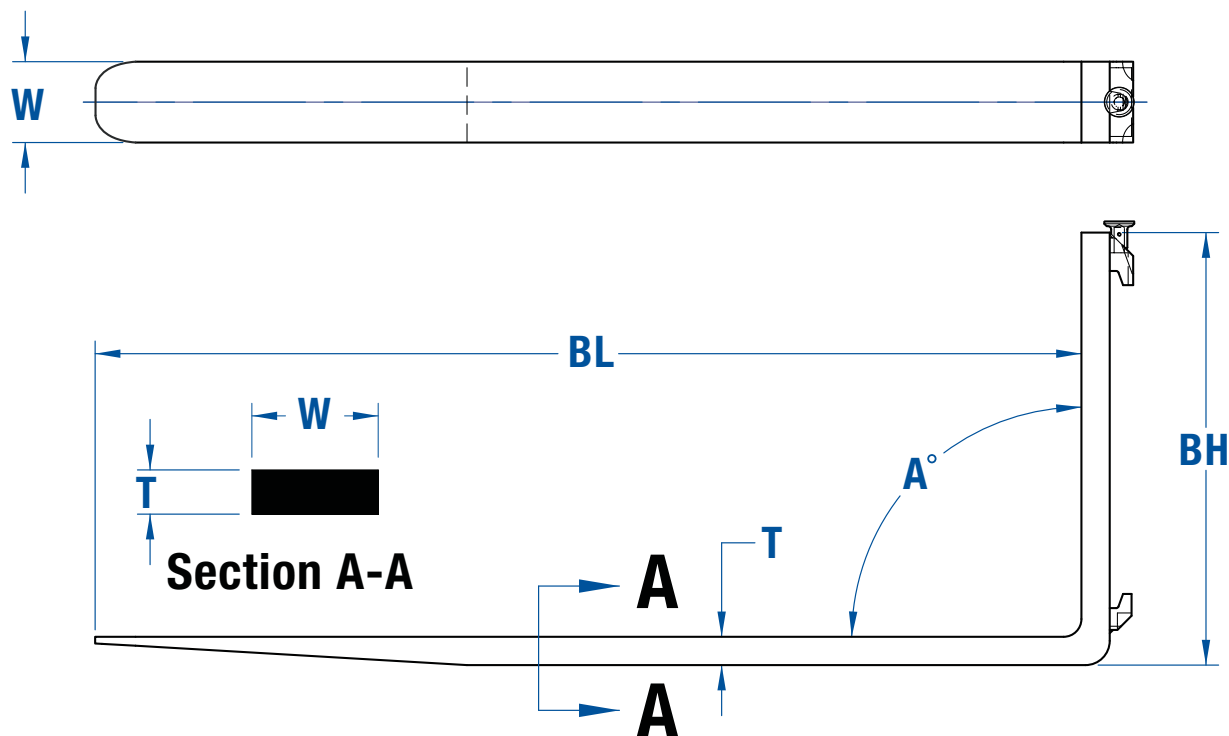
The length of the blade measured from the front of the shank to the extreme tip of the blade.

CROSS SECTION

The product of the width and thickness.

A - ANGLE

The angle from the upper face of the blade to the front face of the shank.



Cascade's Metric Program

Cascade has converted to metric cross sections. The actual size shipped will be the metric cross section and has no effect on the stated capacity. To convert metric to imperial, divide by the factor "25.4".

ITA Hook Fork Capacity

Capacity ratings for ITA Hook Forks are based on steel section size, hanger capacity and lift truck class.

Standard ITA Forks:

b:	Dealer Name:	Phone:																																															
h ₁ :	Contact Name:	Fax:																																															
h ₂ :	Email:																																																
T:																																																	
W:																																																	
BL:																																																	
BH:																																																	
Truck Make:	<table border="1"> <thead> <tr> <th>Mounting Class</th> <th colspan="2">Distance Between Hooks</th> <th colspan="2">Height of Carriage</th> <th colspan="2">Check Your Choice</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>h₂</td> <td>12.05"</td> <td>306mm</td> <td>b</td> <td>13.00"</td> <td>331mm</td> <td></td> </tr> <tr> <td>2</td> <td>h₂</td> <td>15.04"</td> <td>382mm</td> <td>b</td> <td>16.00"</td> <td>407mm</td> <td></td> </tr> <tr> <td>3</td> <td>h₂</td> <td>18.78"</td> <td>477mm</td> <td>b</td> <td>20.00"</td> <td>508mm</td> <td></td> </tr> <tr> <td>4</td> <td>h₂</td> <td>23.54"</td> <td>598mm</td> <td>b</td> <td>25.00"</td> <td>635mm</td> <td></td> </tr> <tr> <td>5</td> <td>h₂</td> <td>26.77"</td> <td>680mm</td> <td>b</td> <td>28.67"</td> <td>728mm</td> <td></td> </tr> </tbody> </table>		Mounting Class	Distance Between Hooks		Height of Carriage		Check Your Choice		1	h ₂	12.05"	306mm	b	13.00"	331mm		2	h ₂	15.04"	382mm	b	16.00"	407mm		3	h ₂	18.78"	477mm	b	20.00"	508mm		4	h ₂	23.54"	598mm	b	25.00"	635mm		5	h ₂	26.77"	680mm	b	28.67"	728mm	
Mounting Class			Distance Between Hooks		Height of Carriage		Check Your Choice																																										
1			h ₂	12.05"	306mm	b	13.00"	331mm																																									
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5	h ₂	26.77"	680mm	b	28.67"	728mm																																											
Truck Model:																																																	
Truck Capacity:																																																	
Fork Capacity/Pair:																																																	
Load Center:																																																	

NOTES:

① Provide all available stamping information, check both sides of shank.

- ▶ Standard tips and tapers will be supplied, unless specific dimensions are given. Non-standard requirements MAY be more expensive.
- ▶ Standard ITA hooks and fork sizes are matched independently. Forks will always be rated to the related truck class capacity in preference to the fork cross section size. Greater lifting capacity may be achieved by requesting our HEAVY DUTY hooks, which will incur increased cost and delivery time.
- ▶ **Contact Cascade fork CSC for fillable PDF version – 877 (227-2233)**

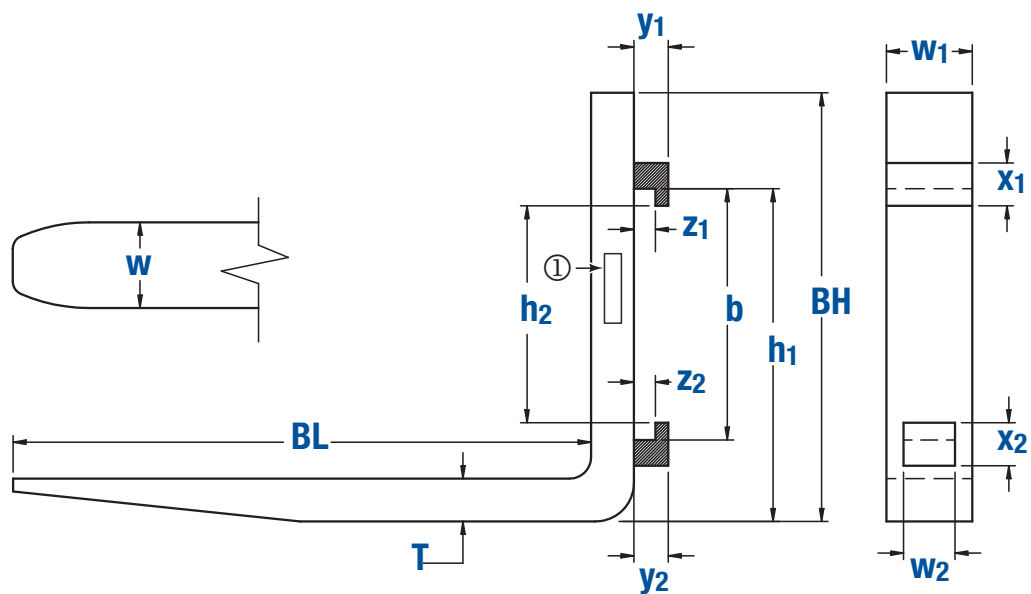
Forks to Fit Square Carriage Plates:

W:	Dealer Name:	Phone:
T:	Contact Name:	Fax:
BL:	Email:	
BH:		

b:
h ₁ :
h ₂ :

w1:
w2:
x1:
x2:
y1:
y2:
z1:
z2:

Truck Make:
Truck Model:
Truck Capacity:
Fork Capacity/Pair:
Load Center:



Pin Kit Required? ☐ Yes ☐ No

If no, it is the user's responsibility to provide an acceptable means of fork retention.

REF: ANSI/ITSDF B56.1, 7.27.1

NOTES:

① Provide all available stamping information, check both sides of shank.

- ▶ Standard tips and tapers will be supplied, unless specific dimensions are given. Non-standard requirements MAY be more expensive.
- ▶ Contact for fillable PDF

Shaft / Pin / Bar Type Forks:

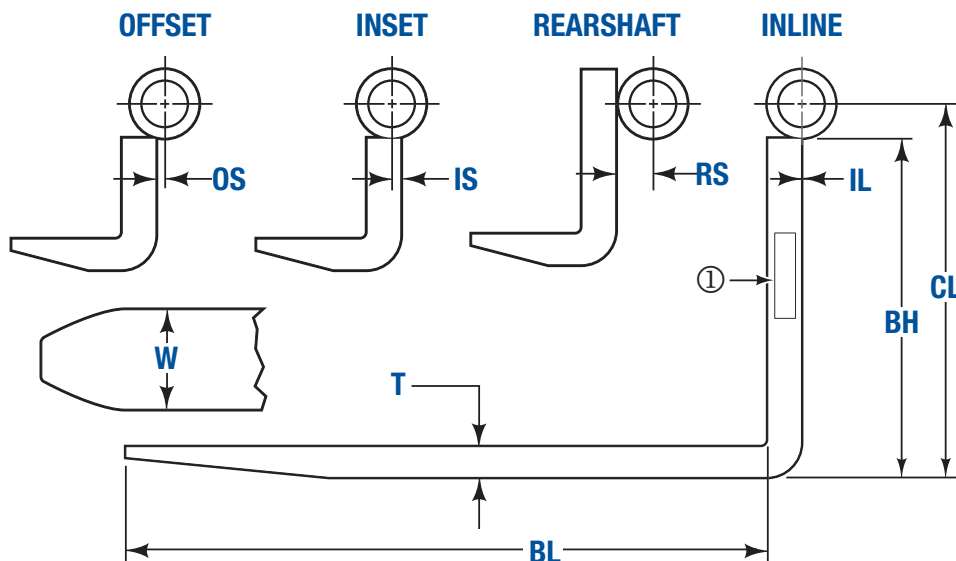
W:	Dealer Name:	Phone:
T:	Contact Name:	Fax:
BL:	Email:	

BH:
CL:

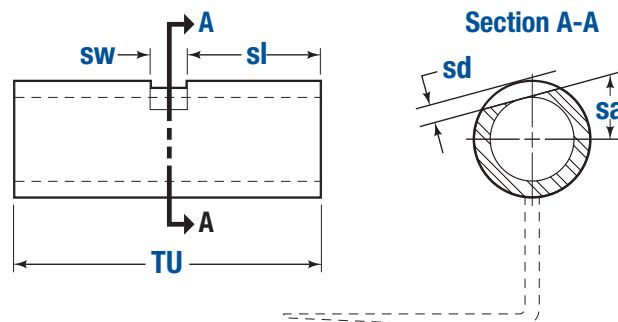
OS:	
IS:	
RS:	
IL:	0

Bar Pin Diameter:
Tube In Diameter:
Tube Out Diameter:
sa°:
sd:
sl:
SW:
TU:

Truck Make:
Truck Model:
Truck Capacity:
Load Center:
Fork Capacity/Pair:



Is Tube Slotted? ☐ Yes ☐ No
If yes, show dimensions (sa to TU).

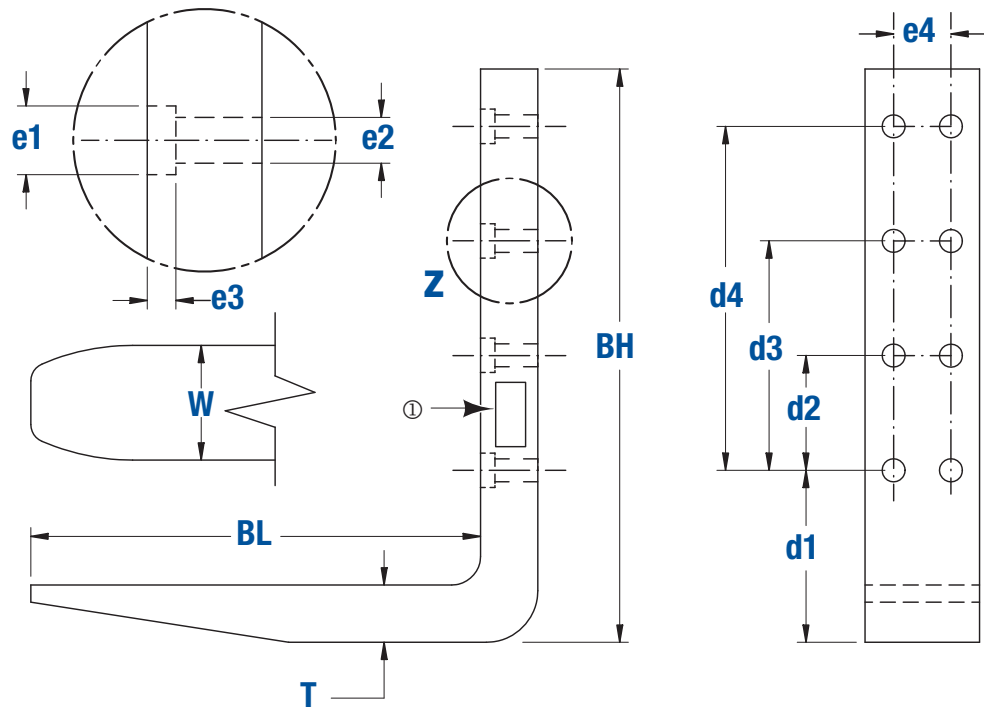
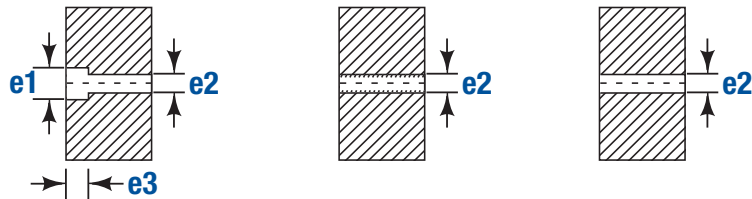


NOTES:

- ① Provide all available stamping information, check both sides of shank.
- ▶ Standard tips and tapers will be supplied, unless specific dimensions are given. Non-standard requirements MAY be more expensive.
- ▶ Tube ID will equal bar diameter plus acceptable tolerance.
- ▶ Tube OD: Excessively thin walls on the tube may require use of special tube material at extra cost. Consult Cascade.
- ▶ Contact for fillable PDF

Bolt-On Forks:

W:	Dealer Name:	Phone:
T:	Contact Name:	Fax:
BL:	Email:	
BH:		

DETAIL Z**Detail Z: 3 Bore/Hole type designs offered**☐ Counterbore☐ Drilled & Tapped☐ Clear

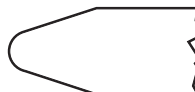
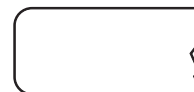
Thread size _____

Notes:

- ① Provide all available stamping information, check both sides of shank.
- ▶ Standard tips and tapers will be supplied, unless specific dimensions are given. Non-standard requirements MAY be more expensive.
- ▶ Contact for fillable PDF

Fork Tips:

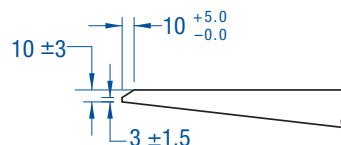
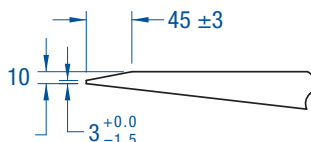
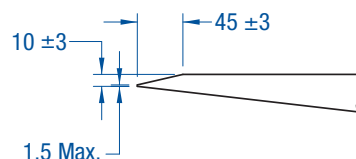
☐ No. 1

☐ No. 2

☐ No. 3


NOTES:

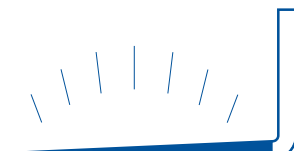
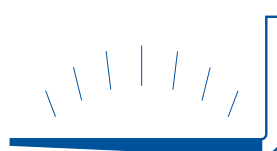
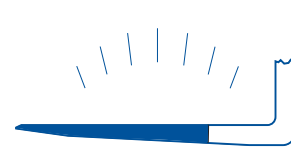
- ▶ No. 1 tip is standard on forks up to and including 7" (180mm) wide.
- ▶ No. 2 tip is standard on Block Handling Forks.
- ▶ No. 3 tip is standard on forks wider than 7" (180mm).

Bevel Options:


☐ Standard Taper,
No Bevel

☐ Standard Taper
Bevel

☐ Full Taper & Polish
with Top Bevel

☐ Chisel Tip

Note: Other bevels available. Consult Cascade.

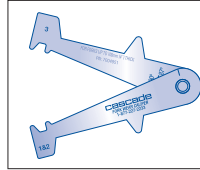
Tapers:


☐ Standard Taper

☐ Full Top
Taper & Polish

☐ Full Bottom
Taper & Polish

☐ Two-Stage
Taper & Polish

FORK INSPECTION ACCESSORIES:

One (1) Fork Inspection Kit is available free of charge. To order your kit: visit www.cascorp.com and go to "Americas" then "Order". To order more than one (1) inspection kit please contact the Cascade Fork Division at 877 CASCADE (227-2233).

Description	Part No.	List Price US\$
Caliper	7004851	N/C
Fork Inspection Safety Kit Includes fork arm wear caliper guide, inspection log and caliper.	6842299	\$26



Designed to indicate at a glance, when 10% of the original thickness of the fork blade has been removed by wear. If a fork is worn by 10% or more, it must be removed from service.

10% wear = 20% reduction in operation capacity.

► Visit cascorp.com for video instructions



IMPORTANT: The different forks and features shown in this catalog are informative only and are displayed as examples of some of the many features we can provide. The adding or removing of any of these features to an existing fork(s) can only be done by Cascade or an approved vendor.

When there are requirements for new features, Cascade Fork Engineering needs to be consulted to ensure that any additional work applied to the existing fork will not impede its intended capacity or render it unsafe.

Prior approval for any work on Cascade forks is required from Cascade.

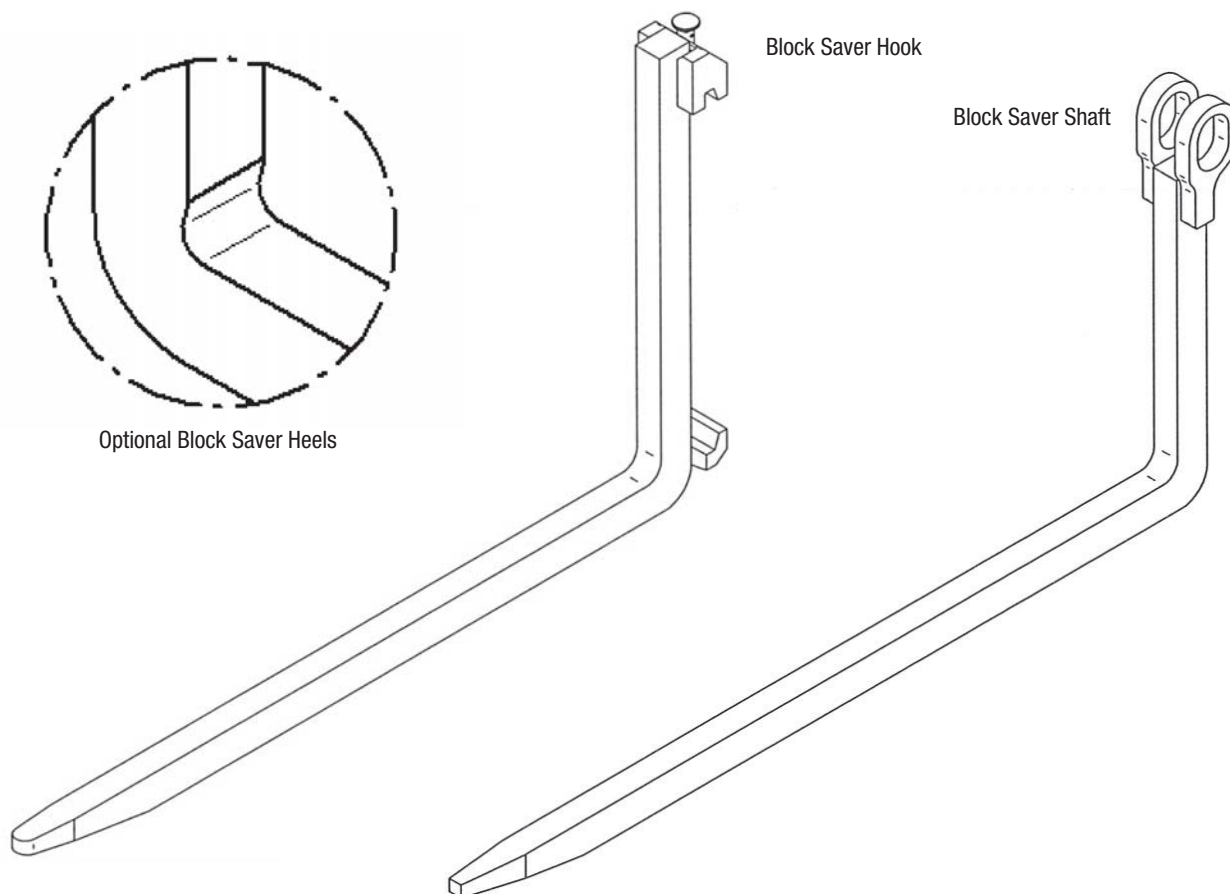
Please refer to the National Safety Standard: ANSI/ITSDF B56.1-2012, 6.2.16

The intention of the Fork Facts catalog and Forks Price List is to:

- Inform you of features Cascade provides for different fork applications.
- Assist you with technical data.
- Make you aware of the safety aspects related to forks.

BLOCK FORKS

Block Forks are used for lifting concrete or cement blocks in large numbers. They can be ordered in sets as required depending on the load-width, configuration and weight.

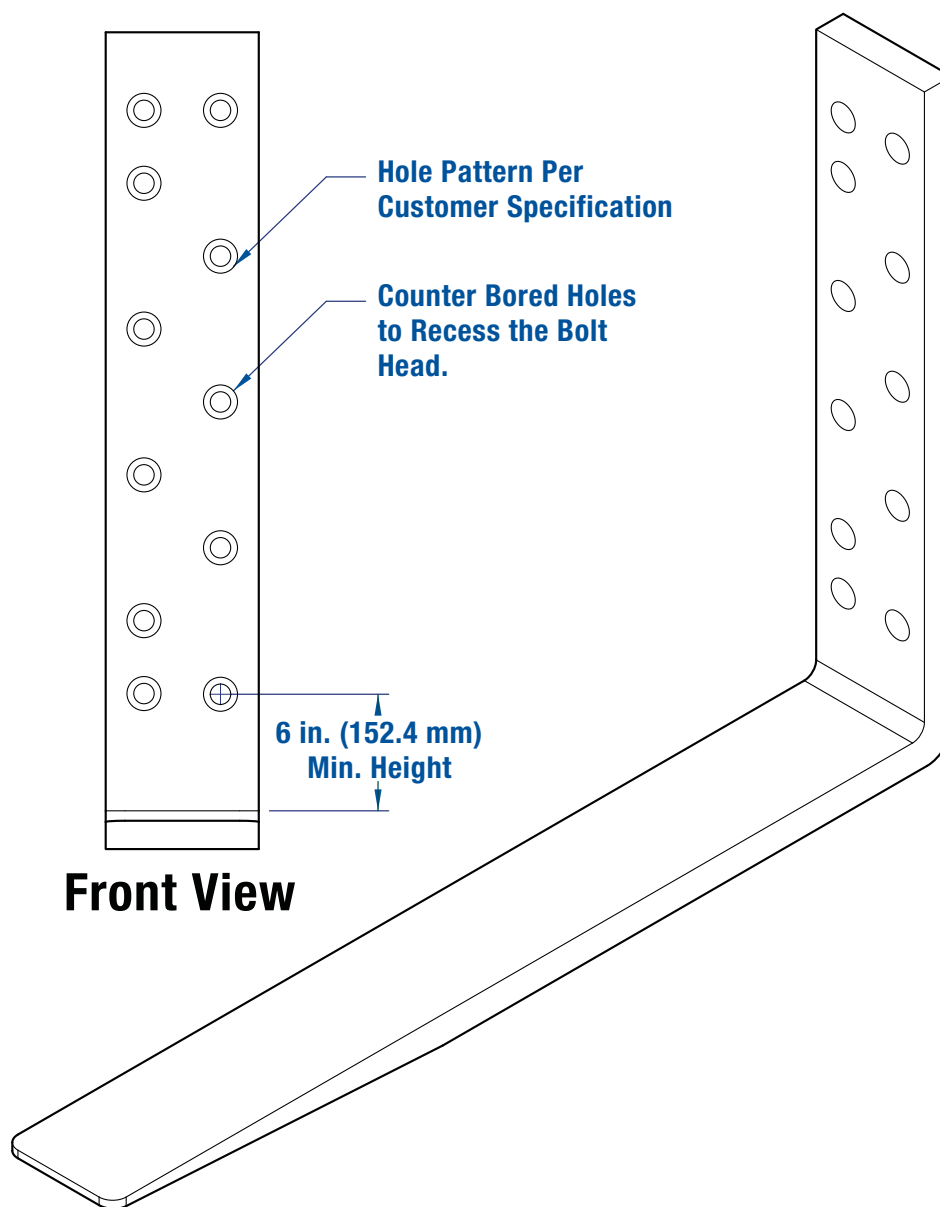


Features:

- ▶ The forged heel is enlarged (bent and upset manufacturing process) for maximum strength.
- ▶ The inside heel area can be ordered with an optional special "concave type" radius that will reduce damage to the edges of the product.
- ▶ Some applications may require our optional elongated tube (floating eye) so that when the load is being set down on an uneven surface, the forks first being relieved of the load can rise. This prevents damage to the product when the forks are withdrawn.
- ▶ Block handling forks can be ordered in any length required and are manufactured with tube, hook, or floating eye mountings.
- ▶ Typical section sizes used for block handling forks are 2"x 1.5"(T x W) and 2"x 2"(T x W). Special sizes are available upon request.

BOLT-ON FORKS

Bolt-On Forks are attached to the carriage (fork carrier) with bolts instead of hooks or a tube. This design greatly diminishes any movement of the forks when loaded or when the lift truck is in motion.

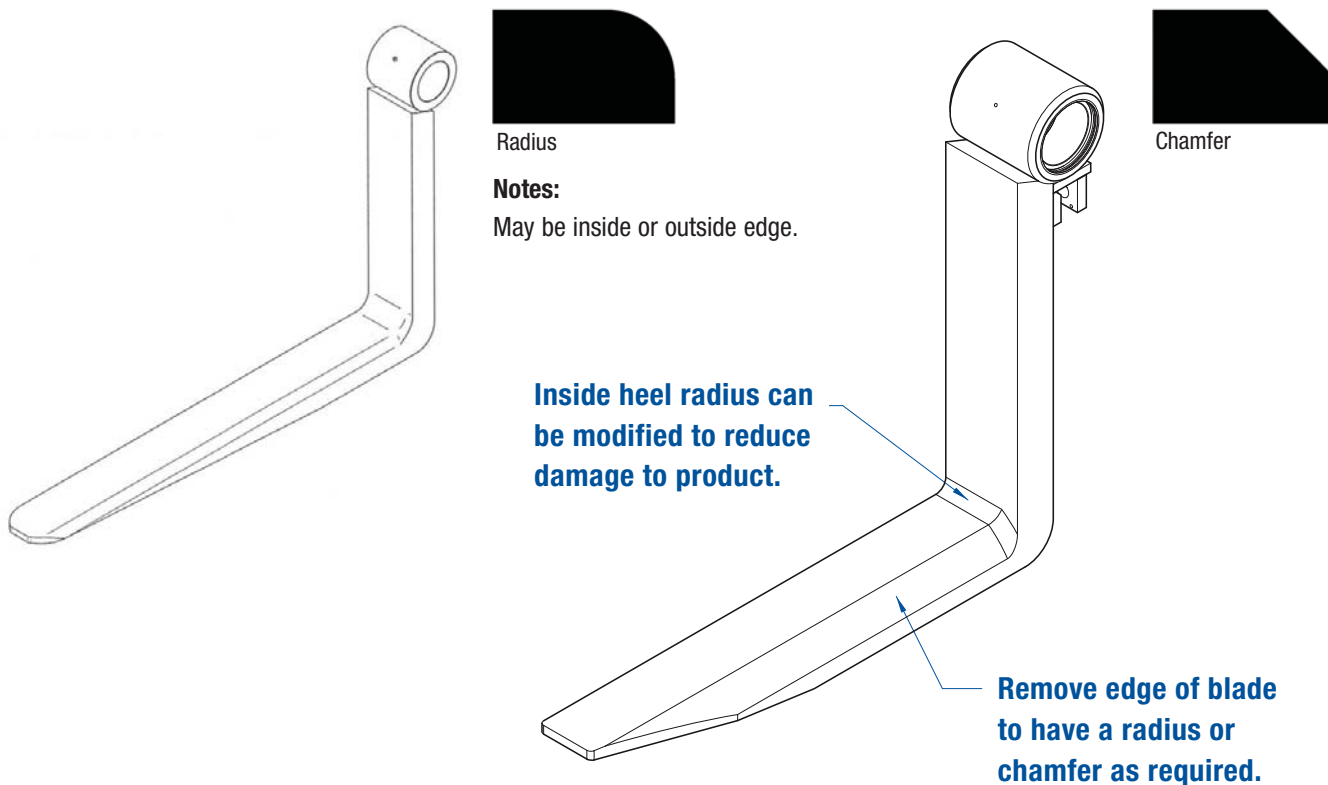


Features:

- ▶ Usually the fork is bolted all the way up the upright.
- ▶ In most instances, the bolt-on design reduces deflection in the upright of the fork, thus reducing the overall deflection.
- ▶ The forks can either be bolted on from the front or the back of the carrier.
- ▶ If bolted from the front, the holes will be counter-bored/sunk to alleviate projection of the bolt heads and damaging product.
- ▶ Obtaining the correct bolt-hole pattern for each set of forks is very important. If measuring the pattern on-site, it is important to first identify if the bolt pattern is inch or metric. Attachment make and model information is also helpful.
- ▶ Bolt holes should not be drilled on the outside heel radius. The start of a bolt-hole pattern should begin at a minimum of 6 in. (152.4mm) above the top of the blade.

COIL FORKS

Chamfered or Radiused Coil Forks are used to move steel coils, reels, etc when straddling the load is desired. Other products, such as concrete pipes, can also be moved with this type of fork.

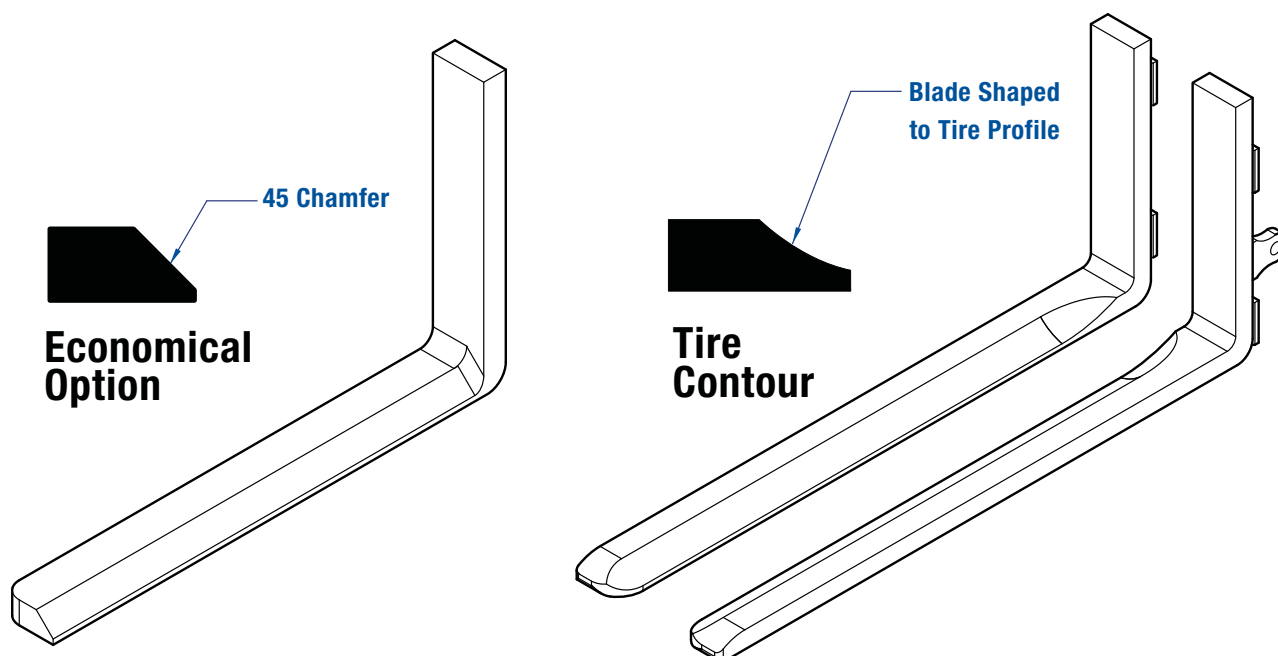


Features:

- ▶ A specific chamfer or radius size for the edge of the blades can be recommended.
- ▶ A custom radius can be applied if desired to reduce damage to the product.
- ▶ The top of the upright can also be rounded to reduce damage to the product.
- ▶ The chamfers/radiuses required to the edges of the blades will affect the lifting capacity of the forks. Consult with Cascade for details.

TIRE FORKS

Tire Forks are used for lifting tires of all sizes. The blade can be custom shaped (profiled) for the variety of sizes (radiuses) of tires on the market. If used in a tire recycling environment, there will be a variety of types and sizes of tires to be handled. Where damage to the load is not a priority, opt for a more economical option and order a similar fork with a 45° chamfer on the edge of the blade.

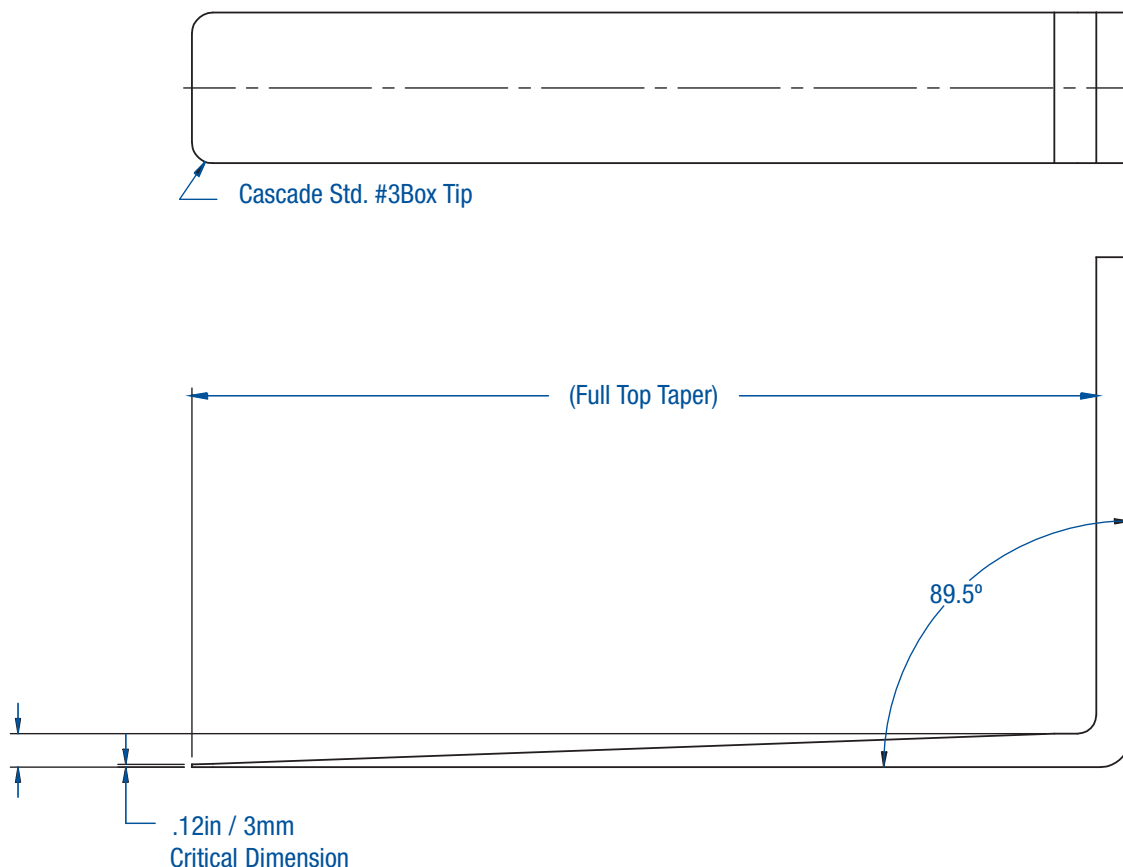


Features:

- ▶ The blades of the left and right hand fork have a special radius (as specified by the end-user) to the top inside edge of each blade. The edges of this radius are finished with soft, round edges to prevent damage to new product.
- ▶ These forks are usually fitted to the carriage fork carrier with bolts. The bolt pattern on the shank of each fork must match the carrier. The bolt pattern on each fork must be accurately obtained from the end-user in order to ensure that the blades match each other.

CORRUGATED FORKS (Box Tip)

Corrugated Forks are primarily used to wedge under and to lift corrugated sheets that are resting on the floor or similar flat surface where there is no skid or spacer separating it from this surface. They can also be used for other types of product and to separate a load (such as thin steel plate, etc.) that has no spacers in between the product. This allows for easy entry and reduced damage to the product.

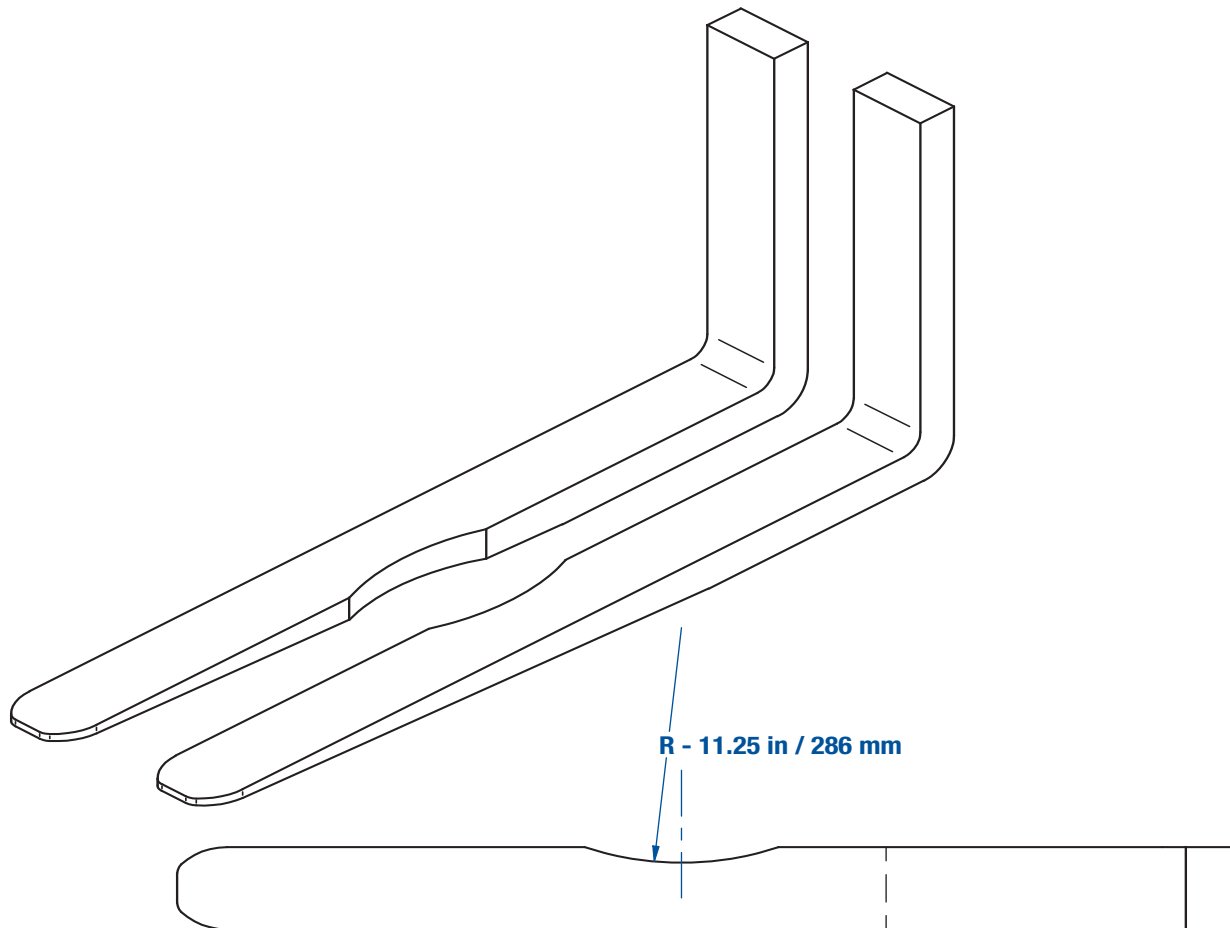


Features:

- ▶ The fork blade is reduced in thickness at the tip to a sharp edge. The blade is fully top tapered and polished thus providing a long, easy transition in the thickness. The outside edges of the tip are rounded, again to allow for ease of entry.
- ▶ This fork is also available with a full bottom taper, when the application requires it.
- ▶ Available in many different widths.

DRUM FORKS

Drum Forks are designed to be used for lifting one or two drums at one time. Usually these forks are used for moving the standard 45/55 Canadian/US gallon drum. Cascade can also provide forks for custom applications if the radius of the drum should differ.

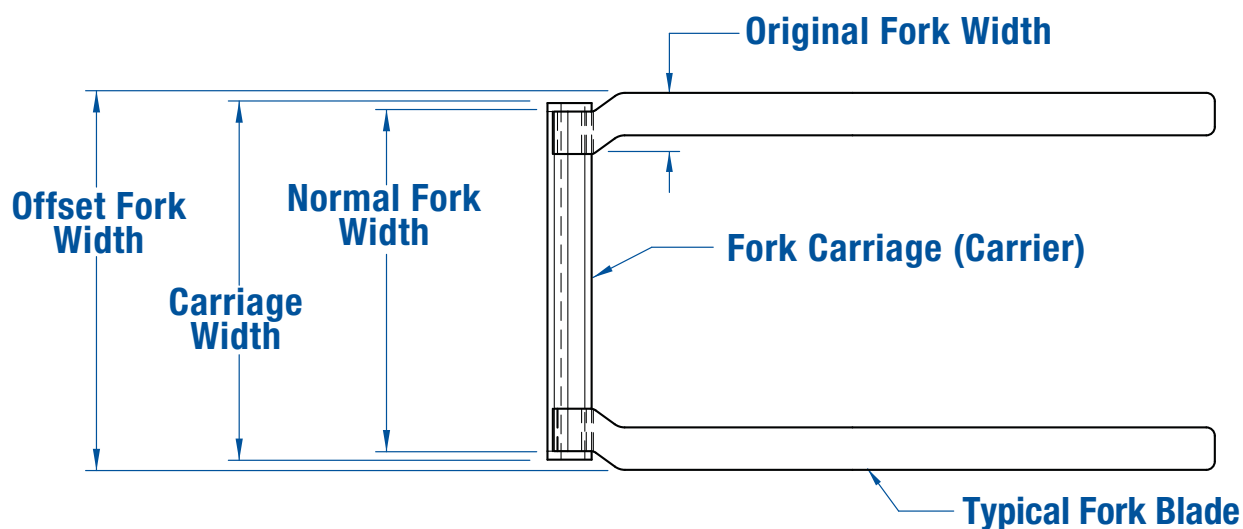


Features:

- ▶ The blades of each of the left and right hand fork have an arc cut-away on the inside edge of the blade to match the drum diameter that is required.
- ▶ Fork blades can be supplied with either one or two cut-outs.
- ▶ The same forks can also be used for lifting conventional loads, such as skids, giving you a dual purpose attachment.

OFFSET AND INSET FORKS

Offset Forks are designed primarily for the purpose of enabling the forks on the lift truck to be wider than the carriage. It is important to note that by doing this, the load capacity of the fork will need to be re-evaluated. Inset forks, which make the forks narrower than the carriage, can also be designed. Inset forks are usually required to fit around a vertical center support bar on the carriage. Consideration should be given to the load now being carried on the extreme edges of the forks. This can impose some twisting and some additional load on the edges of the hooks.

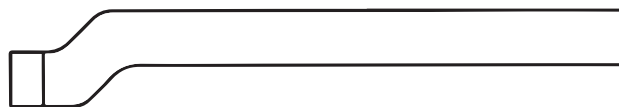


Features:

- ▶ When offset, the blades of the left and right hand extend further out than the upright portion of the fork. Custom specifications will dictate what the required dimensions will be.
- ▶ The opposite will apply to inset forks.

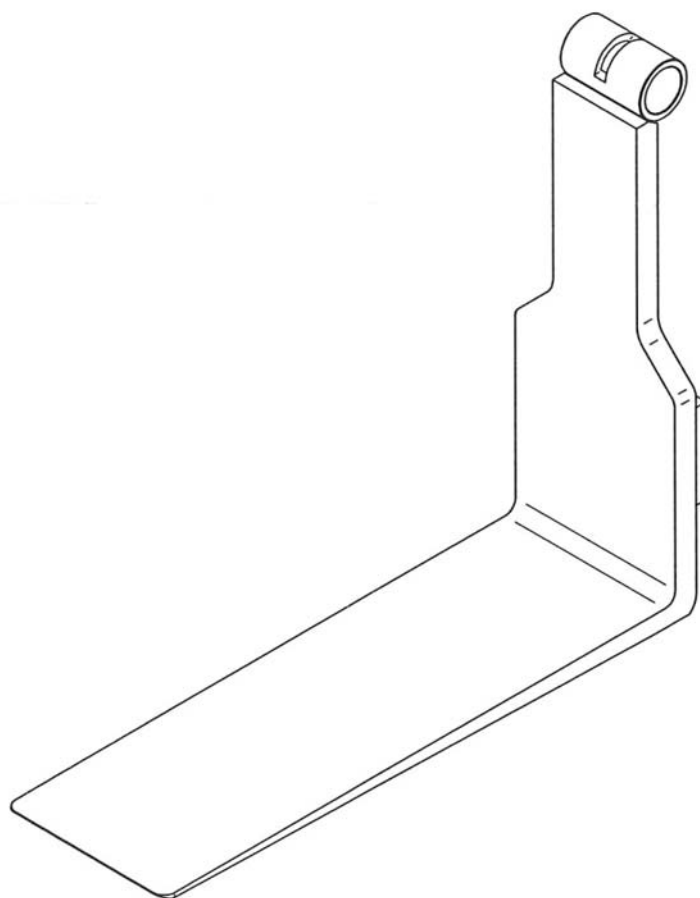


Inset Forks



PEEK-A-BOO (PAB) FORKS

Peek-a-Boo (PAB) Forks have been developed primarily to increase the visibility of the lift truck driver. This type of fork is usually wide, with a blade less than 50mm thick and used predominantly in the lumber industry. Reducing the shank width is possible because the stress exerted on the fork while lifting diminishes gradually as one progresses towards the top of the shank. All requests for PAB Forks should be confirmed with Cascade Fork Engineering, as the cut-out will be dependent on the load.

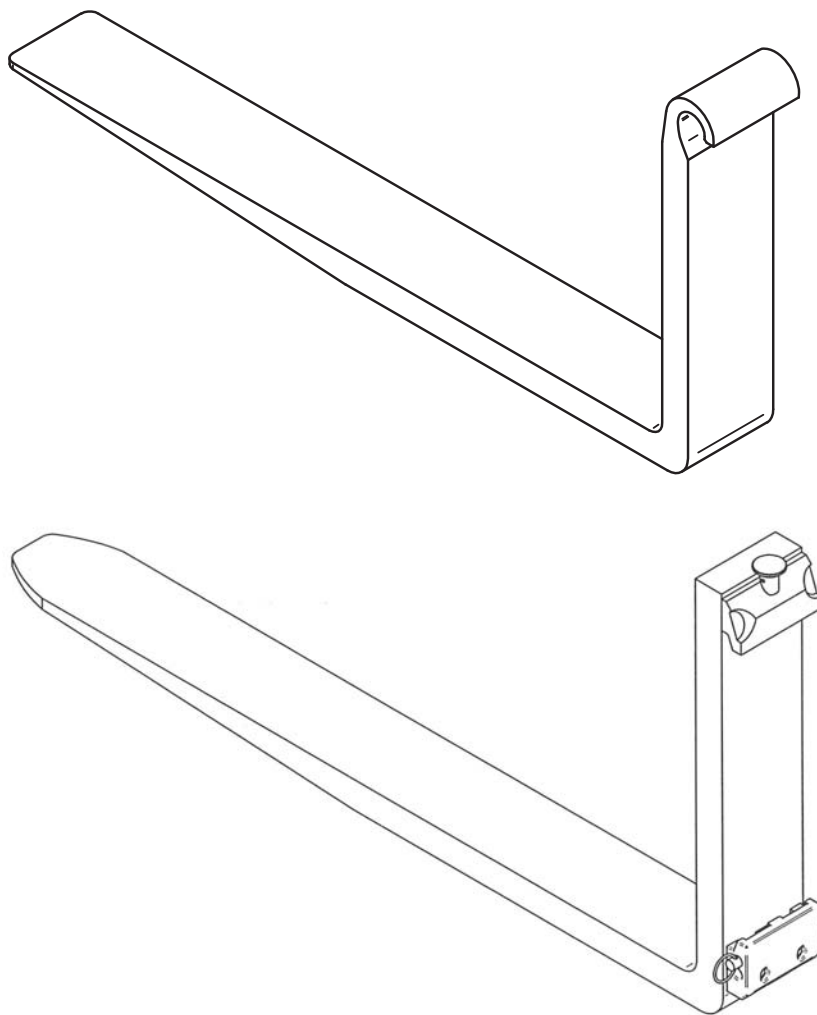


Features:

- ▶ PAB Forks can be custom ordered to fit either in a predetermined pocket with a wider tube for stability, or as per the end-users request.
- ▶ The lower part of the cut-away which forms the PAB Fork is not recommended to be less than 25mm above the top of the lower carriage bar.

QUICK DETACH (QD) FORKS

Quick Detach (QD) Forks are designed to be easily and quickly removed from the lift truck's carriage when required. The key feature is the upper hook which allows the fork to be removed without the need to remove the carriage/fork retaining bar, which would result in down time for the lift truck. This design is usually required for big forks that are difficult to handle due to their weight or for handling a different lifting tool for a different application (e.g. a Coil Ram). Quick interchangeability is a huge time and financial advantage.

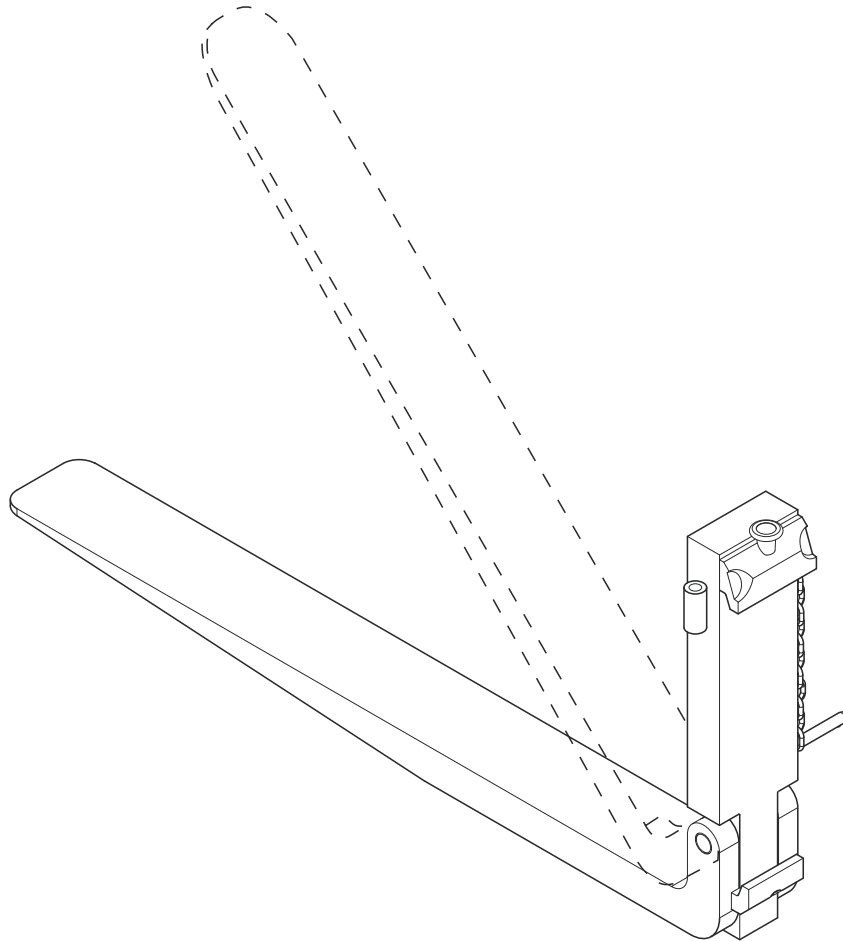


Features:

- ▶ Quick Detach Forks have an open style hook which could fit over either a round or square carriage bar.
- ▶ Depending on the surface the truck is working on (indoor surface or outdoor uneven surface), each fork may require a lower retaining fixture to prevent the fork from unintentionally disengaging.
- ▶ Owners and operators must ensure a safe and secured method and area for removing the forks. To prevent any accidents or injury, refer to ANSI/ITSDF B56.1-2012.
- ▶ Quick Detach Lower Hook also available.

FOLDING FORKS

Folding Forks are designed to fold at the heel on a pin, allowing the blade to be placed in a vertical position and secured with a chain. Folding Forks are often necessary when operating in a confined and restricted work environment and for lift trucks that are transported to different work sites on trailers.

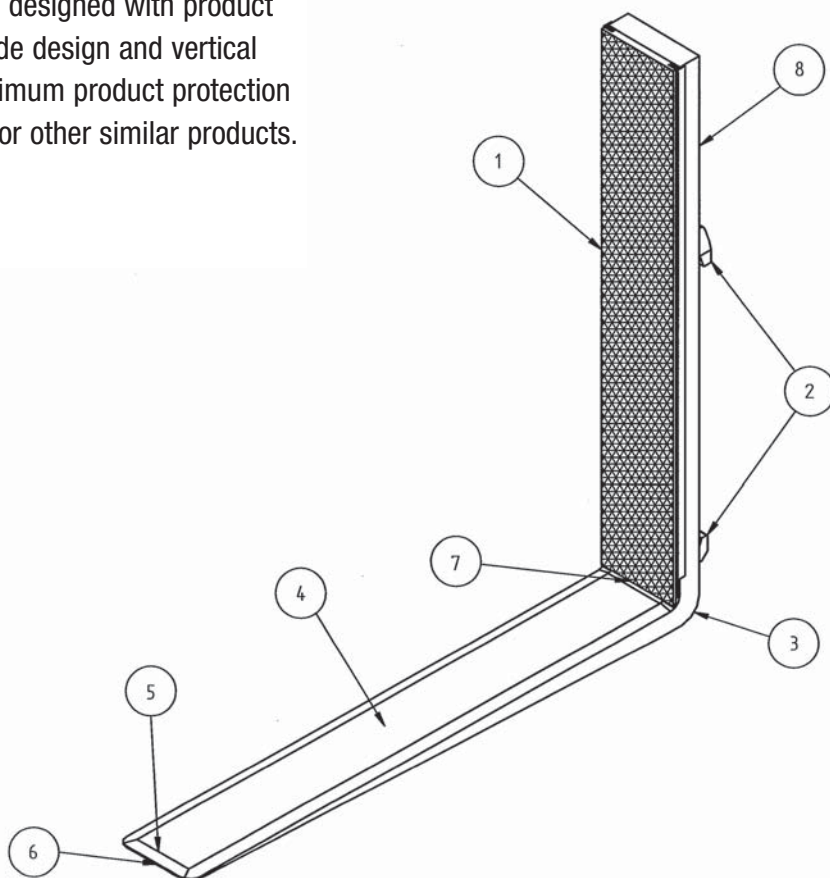


Features:

- ▶ Folding Forks consist of a blade, shank, pin and either a hook or shaft mount attachment.
- ▶ There is a chain attached to a pin that wraps around the blade. The chain locks into a pin retainer to ensure the blade is held in the vertical position.
- ▶ There are many variables to be considered when ordering a Folding Fork assembly, contact Cascade.

GYPSUM FORKS

Gypsum Forks have been specially designed with product protection in mind. The unique blade design and vertical protective upright provides the optimum product protection when handling gypsum wallboard or other similar products.

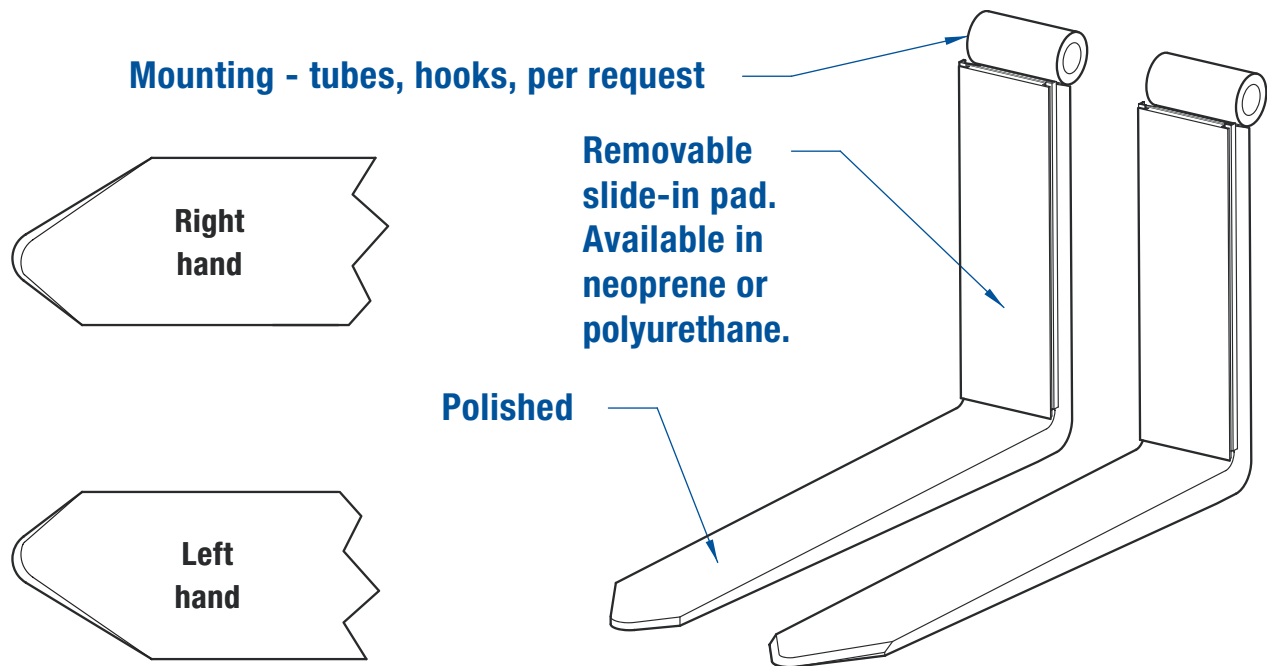


Features:

1. Cascade's slide in pad, either **polyurethane** or **neoprene**, is rated at 70 durometer. The hardness of the urethane pad is similar to that of an automobile tire. Replacement pads are available. The pads are impervious to grease and do not mark the sheet and are extremely durable. The 70 durometer pad is bonded to a steel plate for stability and rigidity. The slide-in feature of the pad makes replacement quick and simple, averting expensive down time.
2. Hook or shaft type mountings are available to suit your lift truck.
3. Bent and upset heel section.
4. The blade is polished and all sharp corners removed preventing damage to gypsum board.
5. There is a double-sided bevel at the tip for easy entry between gypsum sheets.
6. Fork widths are normally up to 12" (300mm).
7. Square corner-in heel prevents damage to edge of gypsum sheet.
8. High back support is available.

TIN PLATE FORKS

Tin plate forks are used to load can forming machines.

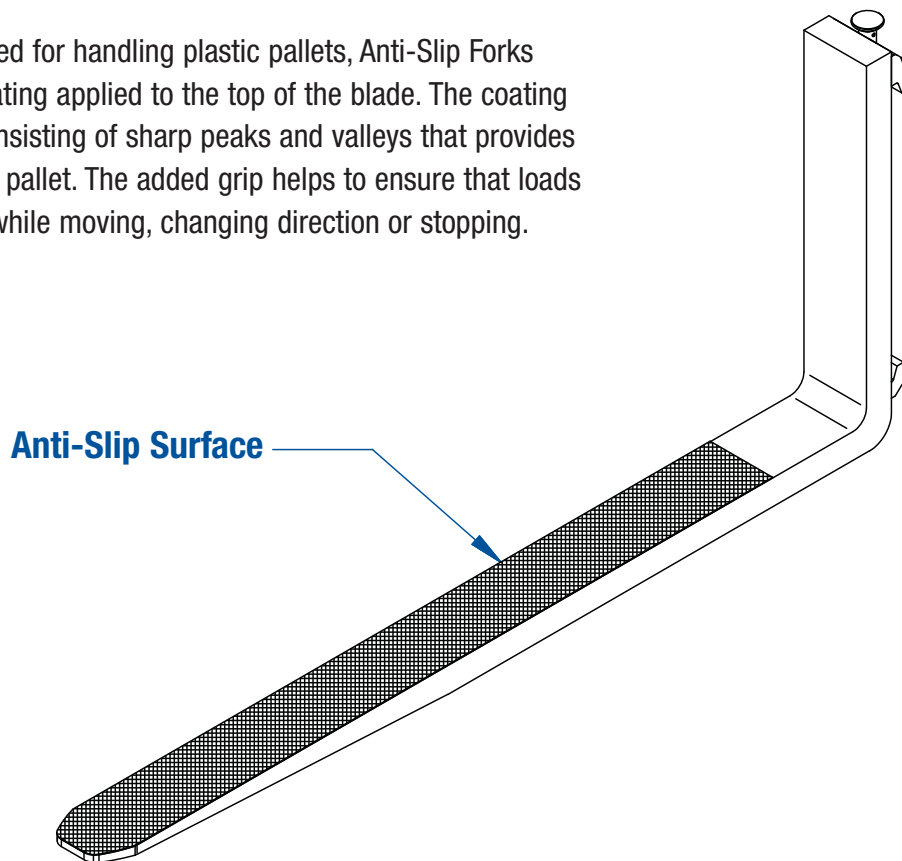


Features:

- ▶ The tapered and offset tips are designed for easier entry into small skids.
- ▶ The polyurethane backing is to protect the steel sheets from indentations, which could cause the forming machine to jam and stop. The slide-in polyurethane backing on the upright is removable and can also be supplied in neoprene.

ANTI-SLIP FORKS

Designed primarily to be used for handling plastic pallets, Anti-Slip Forks have a durable abrasive coating applied to the top of the blade. The coating is a hardened steel alloy consisting of sharp peaks and valleys that provides a jagged surface to grip the pallet. The added grip helps to ensure that loads remain safely on the forks while moving, changing direction or stopping.



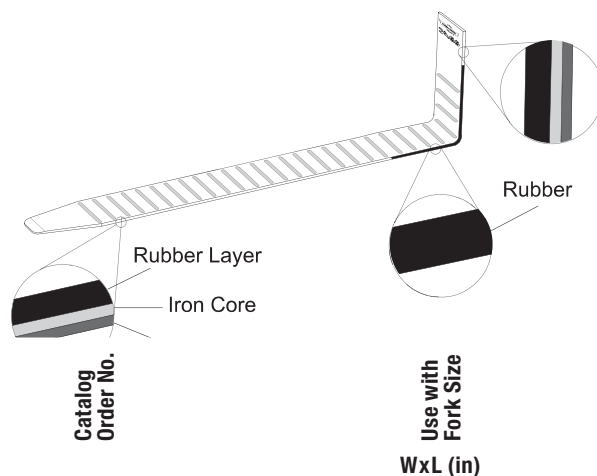
Features:

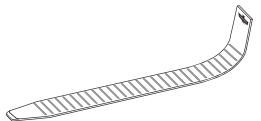
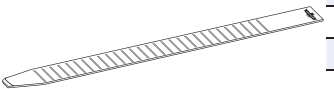
- ▶ Superior grip over regular forks.
- ▶ Hardened abrasive surface (55-63 Rockwell C).
- ▶ Coating adds minimal thickness to the fork.
- ▶ Uniform surface ensures minimal damage to pallets and product.
- ▶ Forks are also suitable for general applications including wooden pallets.

NOTE: While Anti-Slip Forks are mainly intended for handling plastic pallets, they may be used in alternate applications such as handling product in cold storage facilities, etc. They are not recommended for use when contacting other metal or hard surface loads.

DAGS - MAGNETIC FORK COVERS

Cascade DAGS - Magnetic Fork Covers are ideal for handling a wide variety of loads. Designed for use in any industrial sector where forks are used to lift products that could be damaged from contact with bare forks.

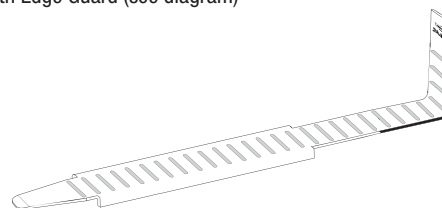
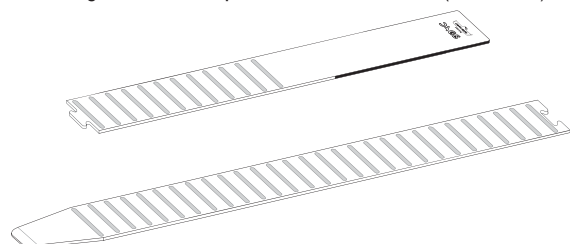


Covers Blade and Shank					
	6538417 ②	3.2" x 36-54"	1/4"	15.4	6.9
	6538260	4" x 42-48"	1/4"	11.9	5.3
	6538262	4" x 48-54"	1/4"	14.1	6.3
	6538264	5" x 42-48"	1/4"	15.4	6.9
	6538265	5" x 48-54"	1/4"	17.6	7.9
	6538412	6-8" x 42-48"	5/16"	19.4	8.7
	6538413	6-8" x 48-54"	5/16"	22.1	10.0
Covers Blade Only					
	6538263	4" x 55-63"	1/4"	15.0	6.8
	6538266	5" x 55-66.5"	1/4"	21.6	9.7
	6538267	5" x 70-81"	5/16"	25.1	11.3
	6538414	6" x 55-63"	5/16"	27.3	12.3
	6538415	6-8" x 70-81"	5/16"	31.8	14.4
	6538268 ①	5" x 86.5-88.5"	5/16"	50.7	22.9
	6538416 ①	6-8 x 86.5-100	5/16	63.1	28.6

① Provided in two pieces for extra long blades

② With Edge Guard (see diagram)

▶ Sold through the Parts Depot. Call 888-CASCADE (227-2233)



Features:

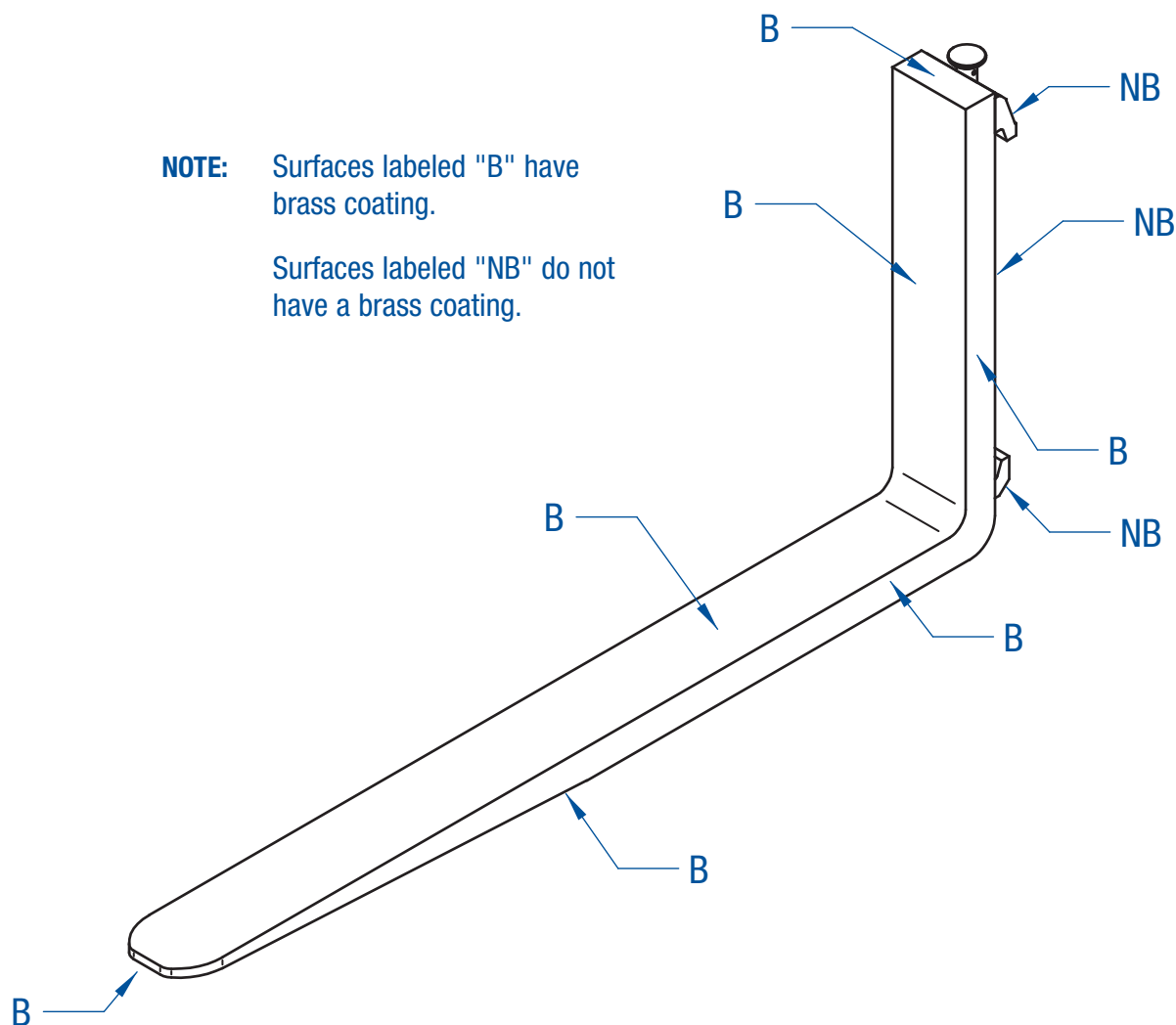
- ▶ Install or remove in seconds without any mechanical or electrical work.
- ▶ Securely sticks to forks.

- ▶ 70 durometer (shore A) black rubber upper layer, a metal inner core and a bottom magnetic layer is resistant to abrasions, atmospheric agents and oil.

Available through the Cascade Parts Depot: 888 CASCADE (227-2233)

SPARK RETARDANT BRASS CLAD FORKS

Spark Retardant Forks are used on lift trucks operating in hazardous locations. These include places such as chemical plants, grain elevators, mines, paint plants, munitions, arsenal manufacturing and storage facilities.



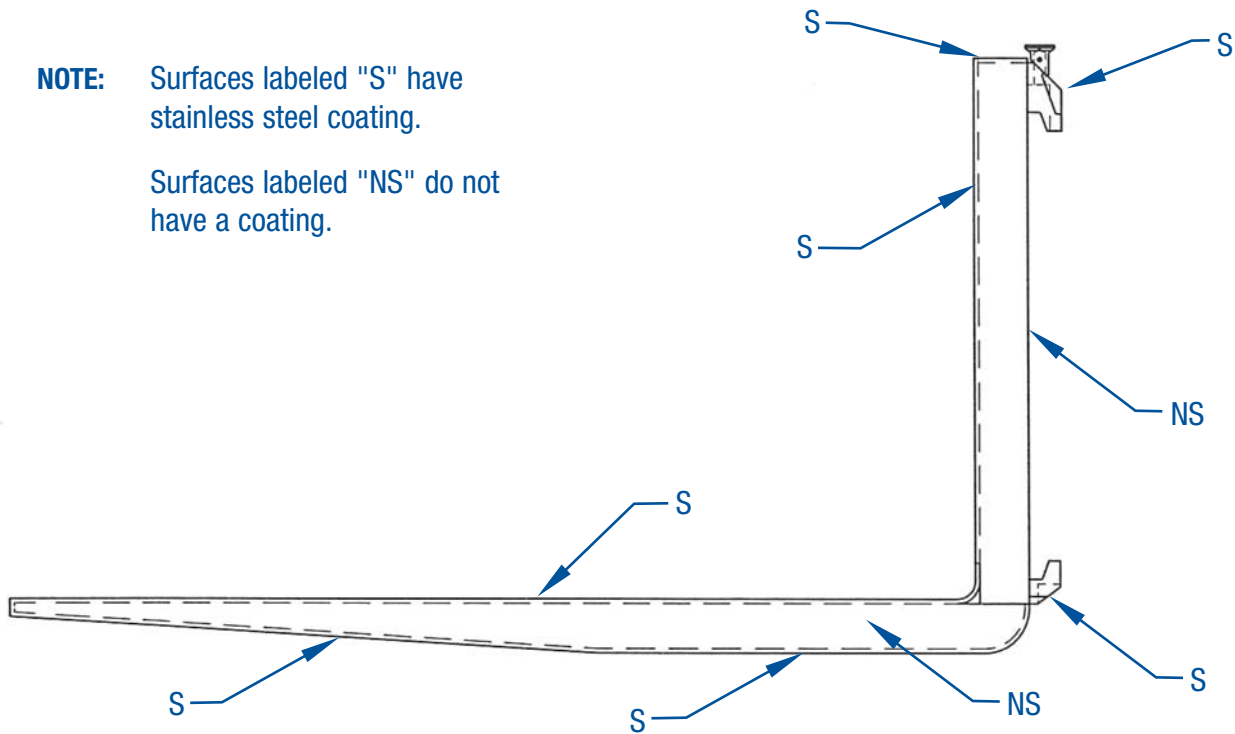
Features:

- The most popular Spark Retardant Fork is covered in brass that is 0.125" thick (except rear of upright and hooks) and brazed 100% along all seams.

STAINLESS STEEL CLAD FORKS

Stainless Steel Forks are most often used in food, pharmaceutical and chemical applications.

NOTE: Surfaces labeled "S" have stainless steel coating.
Surfaces labeled "NS" do not have a coating.



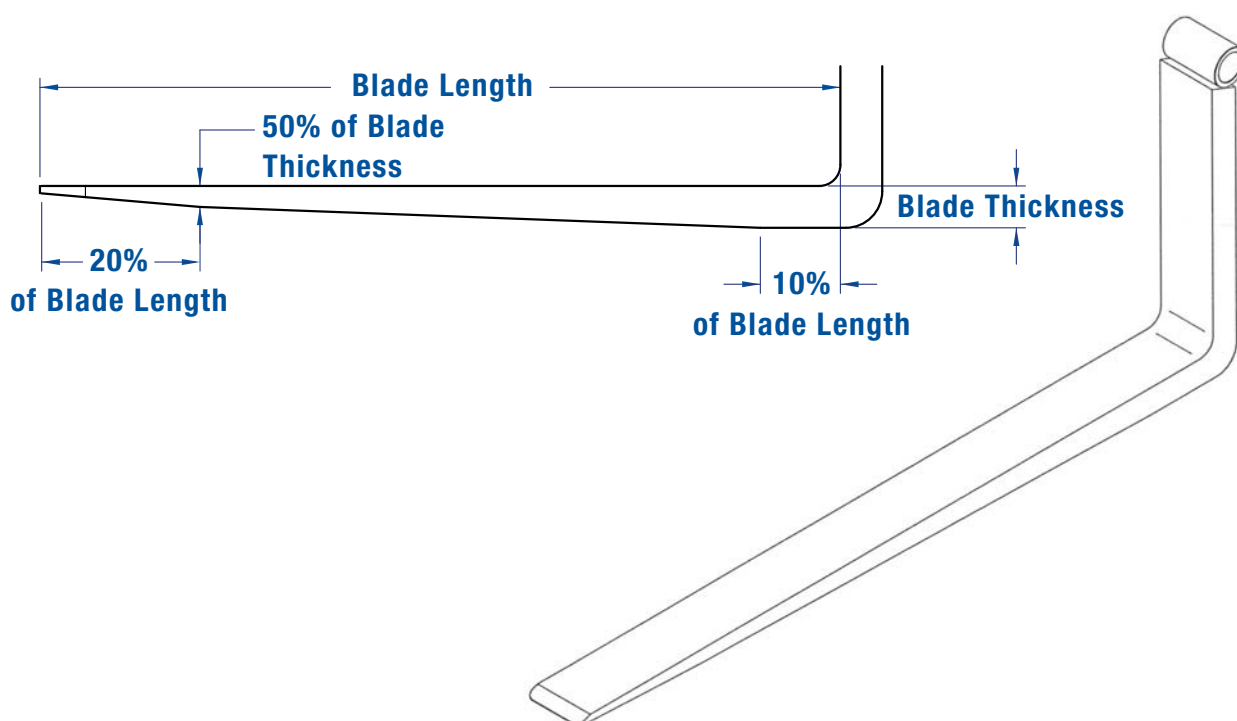
- ▶ Stainless steel clad forks are also available for the food industry though these are not spark retardant.
- ▶ Stainless steel cladding is 0.125" thick (except rear of upright hooks).

Features:

- ▶ Resistant to bacterial
- ▶ Resistant to corrosion
- ▶ Easy to clean

TWO-STAGE TAPER

The use of 2 in. x 4 in. (50mm x 100mm) timber spacers, designed to separate lumber stacks has diminished in size over the years. This has resulted in smaller spaces between the stacks. Designed for added stability when handling longer or double-deep stacks of lumber. Recommended on forks longer than 72 in. (1829mm).



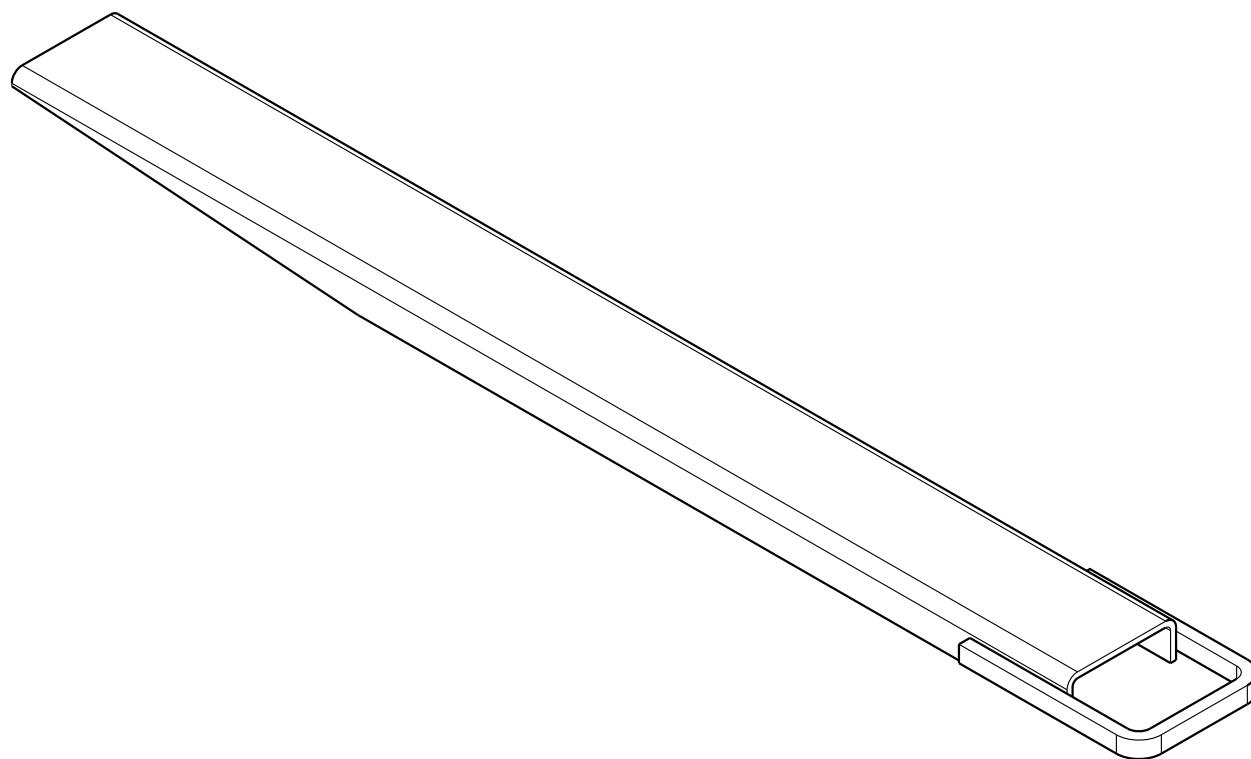
Features:

- ▶ A two-stage taper factored into the blade design.
- ▶ A shorter but more durable slim tip for easy entry into the stack.
- ▶ 10% of the blade near the inside of the heel is at full thickness, providing increased rigidity.
- ▶ 20% from the tip of the fork is 50% of the full thickness of the blade, thus reducing fork deflection.
- ▶ The top of the blade can be polished to reduce friction when engaging a load.

FORK EXTENSIONS

Fork Extensions are used to compliment a fork that is lifting a load longer than the fork. Extensions are designed for uniform loading. They should never be tip-loaded. The length of the Fork Extension must not be more than 1.5 x the length of the fork blade.

EG: Fork blade length @ 48" (1219 mm) = Extension length @ 72" (1829 mm)



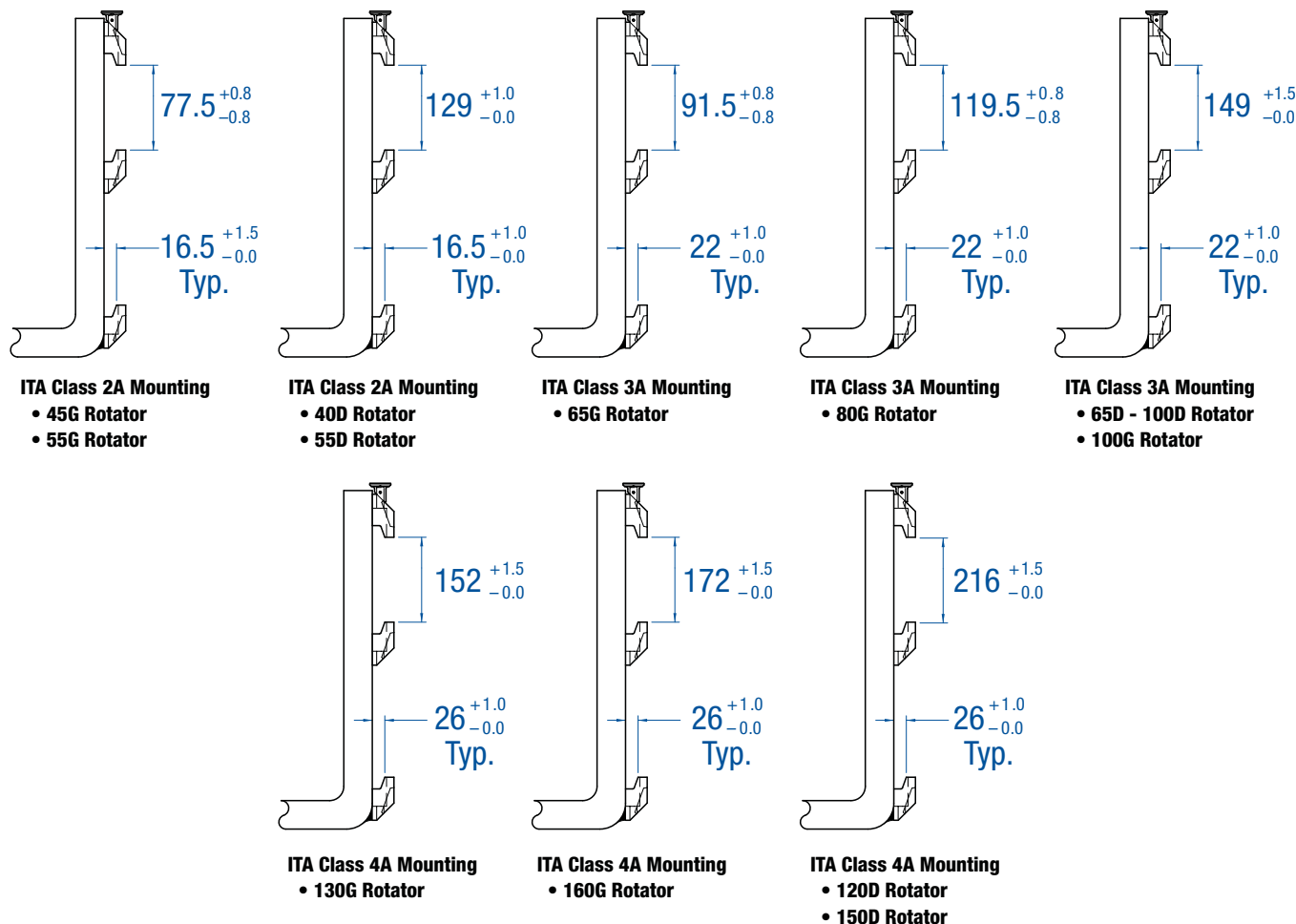
Features:

- ▶ Fork Extensions are readily available to fit 4 in. (100mm), 5 in. (122mm), 6 in. (150mm) and 7 in. (180mm) wide forks.
- ▶ Fork Extensions for the above widths can be acquired up to 96" (2438mm) long.
- ▶ Heavy-duty and special extensions are available upon request.
- ▶ Fork Extensions are intended to carry uniform loads no longer than the length of the extension.
- ▶ For non-uniform loads and/or loads longer than the length of the extension, consult Cascade.
- ▶ Fork Extensions are built in compliance with the ANSI/ITSDF Standard B56.1-2012.

For installation or removal, see Installation Instruction #6803992 located in the service literature section of our website at www.cascorp.com.

ROTATOR FORKS

Rotator Forks are attached to a rotator attachment which can invert the forks. Usually the forks fit into pockets in a bin that needs to be tilted or inverted to empty the contents.

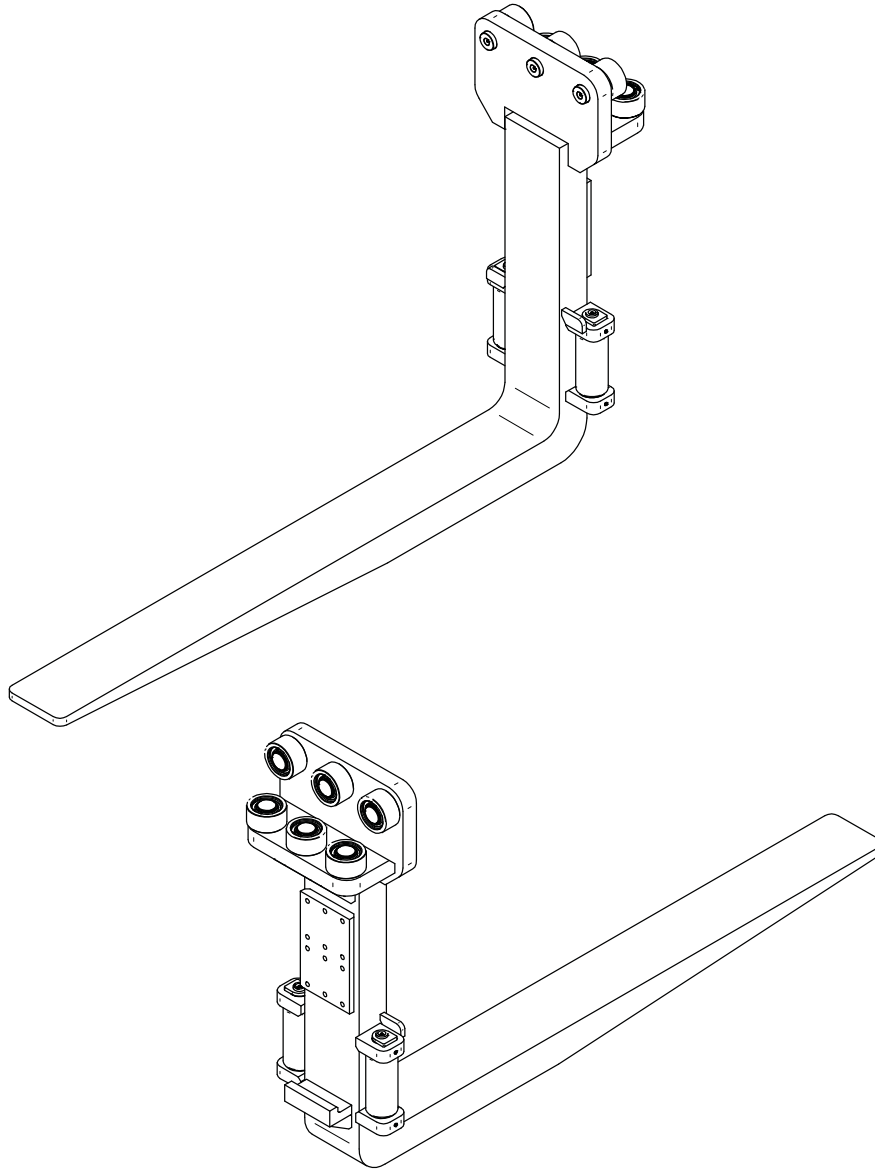


Features:

- ▶ Each fork has three hooks; one at the top, middle and bottom of the upright. The lower hook would be on top when inverted, therefore it requires the strength of an upper size hook.
- ▶ The middle hook is at a special spacing (different for each of Class 2, 3, & 4).
- ▶ The capacity is reduced by 15% to compensate for the fork when in the inverted position.

ROLLER FORKS

Roller Forks are primarily used on large lift trucks.

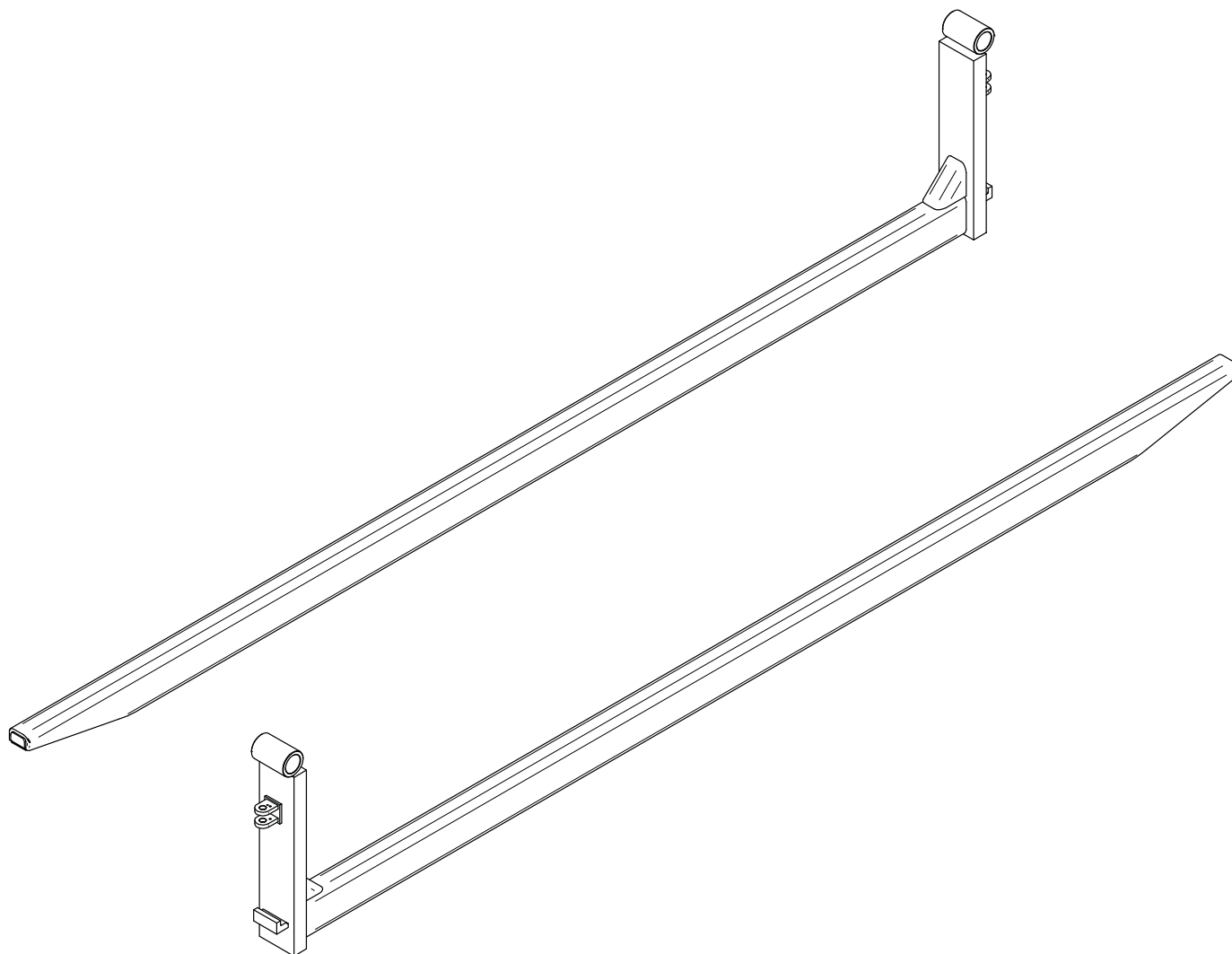


Features:

- ▶ Utilizes a roller guided mounting arrangement
- ▶ Ideal for port applications and other heavy duty lifting requirements

BOAT FORKS

Boat Forks are designed for lifting and lowering boats in marina applications.

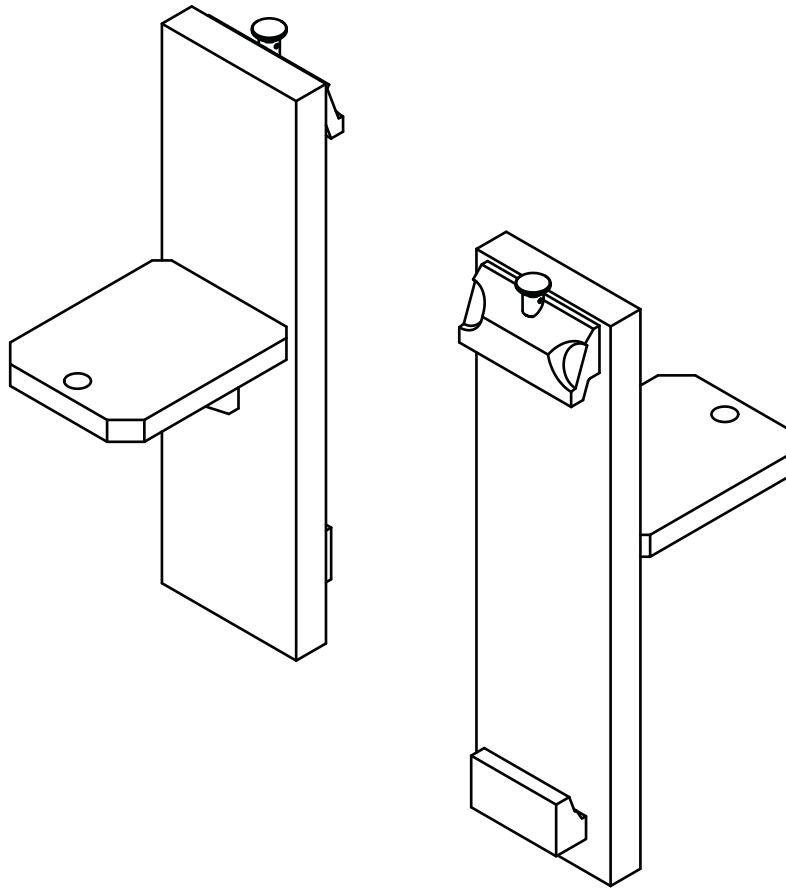


Features:

- ▶ Available in conventional or negative drop mounting
- ▶ Available for shaft mounting or ITA hook mounting
- ▶ Fork blades are covered in 1/2" Rubber for added load protection

TOW HITCH

Tow Hitches mount to standard ITA carriages.

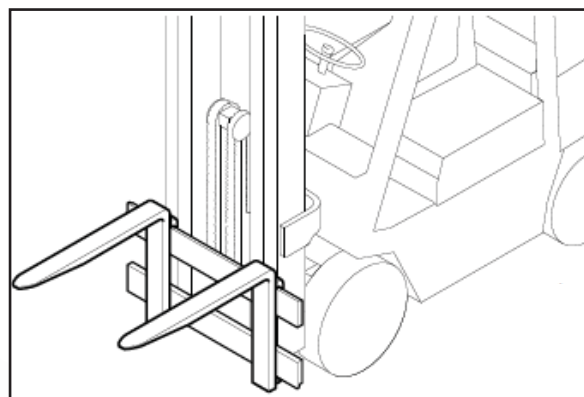
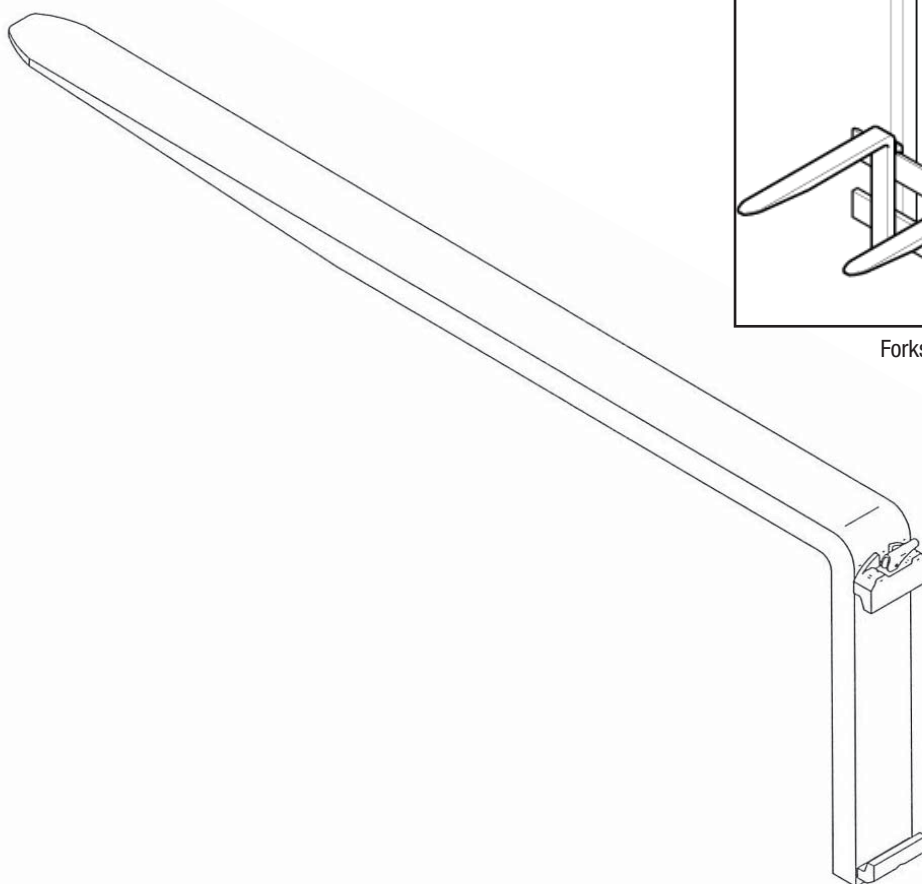


Features:

- ▶ Load bearing top and bottom mounting hooks
- ▶ Allows loads to be pushed or pulled
- ▶ Can be mounted without removing forks

INVERTED FORKS

Inverted Forks are permanently mounted (upside down) opposite the way we generally see forks attached to a lift truck and typically used for lifting bags or sacks that have loop or entry point above the product. Inverted Forks also extend the overall lifting height compared to regularly mounted forks on the same mast.



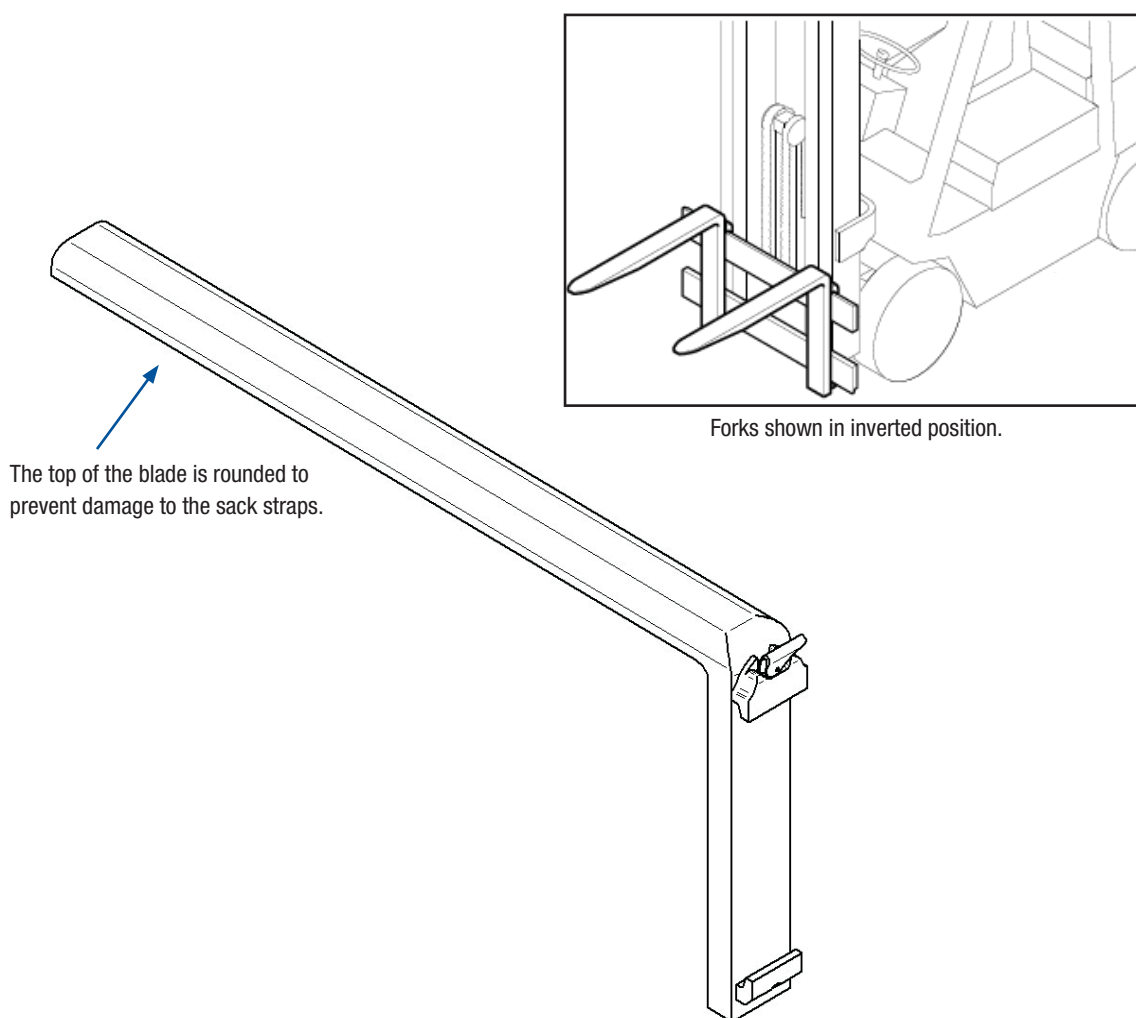
Forks shown in inverted position.

Features:

- ▶ Each fork has the blade oriented in the inverted position (what would normally be the bottom of the blade is now the top of the blade).
- ▶ The upper load bearing hook is fitted relative to the back die radius so that the hook is welded to the flat part of the shank.
- ▶ Due to the inverted orientation, the capacity rating of the fork is reduced by 15%.
- ▶ A load bearing upper hook may be requested in both mounting locations if the forks are also required to function in the normal position.
- ▶ Other mounting options, such as Shaft or Bolt-On, are available upon request.

INVERTED SUPER SACK FORKS

Inverted Forks are permanently mounted (upside down) opposite the way we generally see forks attached to a lift truck and typically used for lifting bags or sacks that have loop or entry point above the product. Inverted Forks also extend the overall lifting height compared to regularly mounted forks on the same mast.

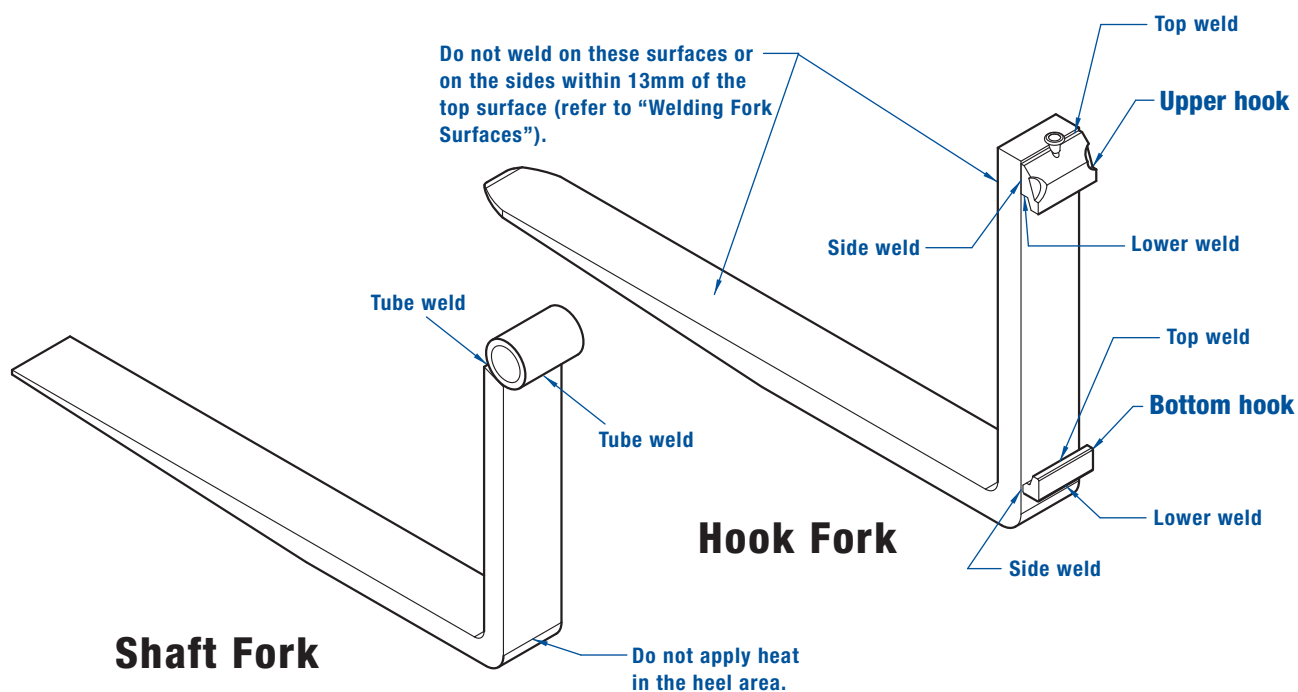


Features:

- ▶ Each fork has the blade oriented in the inverted position (what would normally be the bottom of the blade is now the top of the blade).
- ▶ The upper load bearing hook is fitted relative to the back die radius so that the hook is welded to the flat part of the shank.
- ▶ Due to the inverted orientation, the capacity rating of the fork is reduced by 15%.
- ▶ A load bearing upper hook may be requested in both mounting locations if the forks are also required to function in the normal position.
- ▶ Other mounting options, such as Shaft or Bolt-On, are available upon request.

MODIFICATIONS TO FORKS

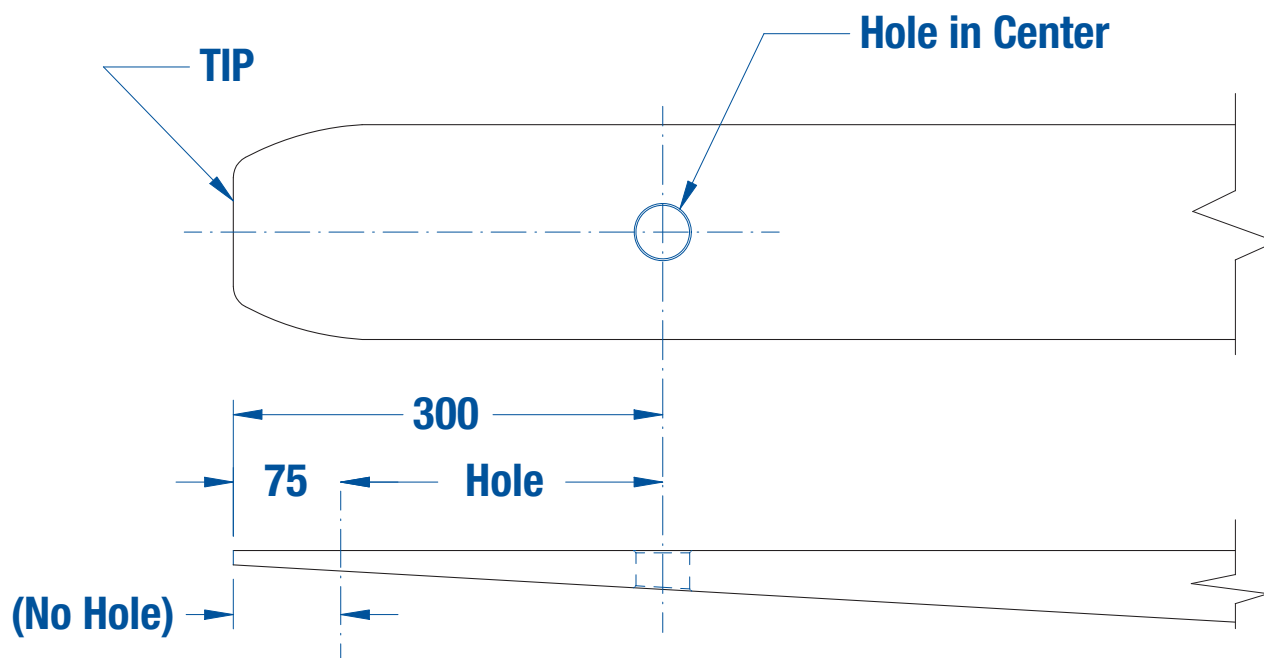
Modifications and additions shall not be approved by Cascade unless the changes are made by Cascade or an approved supplier.



NOTE: Refer to the diagram provided above for a complete understanding of the critical elements and locations on a fork. Refer to Welding Fork Surfaces (pg 47) for additional information.

HOLES IN FORK BLADES

Cascade can provide a drilled hole in the fork tip area. The hole size can be up to 25% of the blade width at the hole location. The top and bottom of the hole will be countersunk to remove all sharp edges.



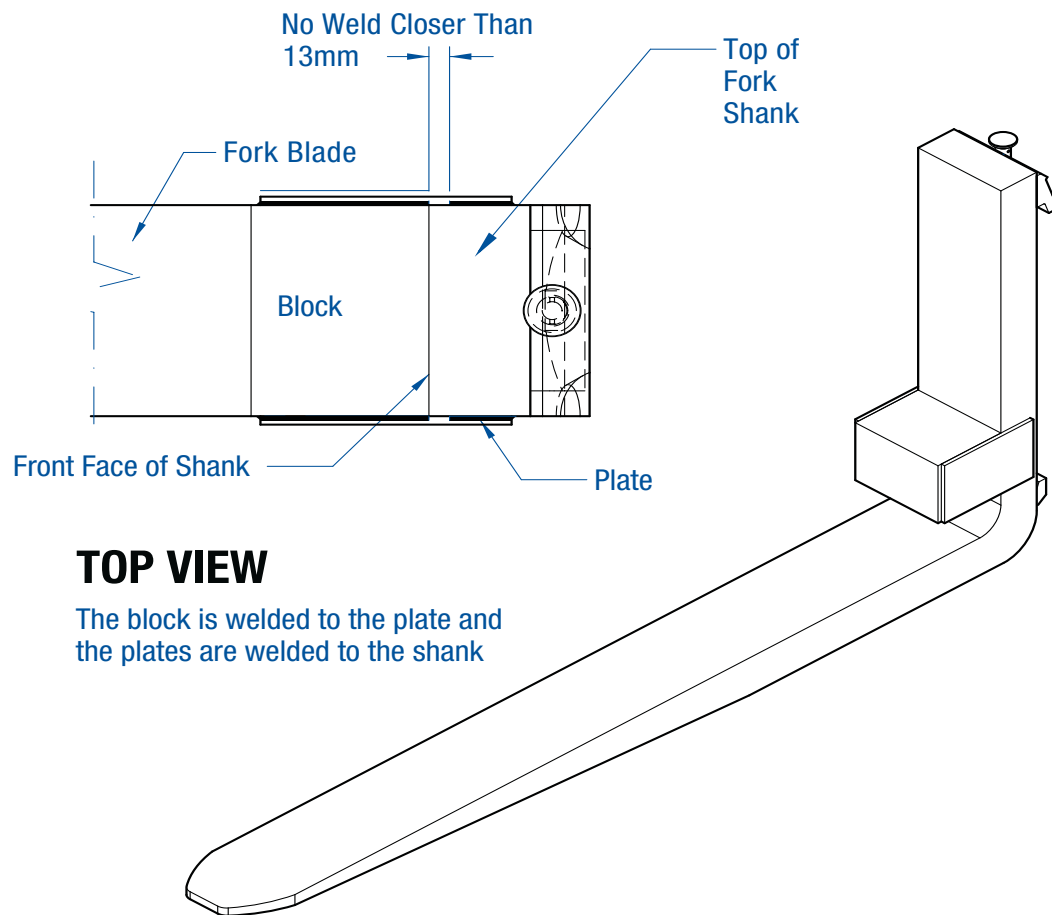
HOLE POSITION:
Between 75mm & 300mm max. from the tip

Features:

- ▶ The hole, or any lifting device in the hole, must not be used for pushing, pulling or side-loading, as a fork is an attachment that is designed for lifting and lowering only. Vehicles such as tractors are better suited for pushing and pulling applications.
- ▶ Tip loading or prying with the tip is prohibited.
- ▶ If you intend to have a hole feature added to an existing fork:
 - Please refer to the IMPORTANT NOTICE on page 24.
 - A new LOAD and LOAD CENTER must be established for this new lifting position when a hook or similar lifting device is suspended from the hole.

WELDING FORK SURFACES

Any welding on a fork can effect the fork properties negatively. The general rule is that there should be no welding on the top surface of the blade or the front face of the upright (as they are in tension). Any deviation from this rule must always be consulted with Cascade Fork Engineering so that the appropriate safety margins can be applied. There are a number of methods where applications can be adjusted to avoid welding in critical areas. For example this block is welded at the side rather than the front.



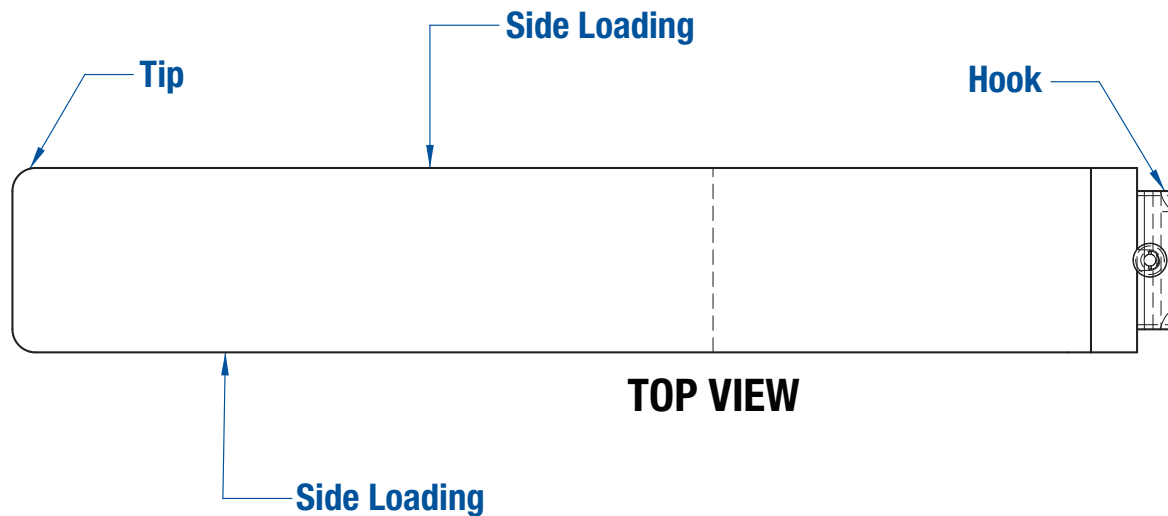
TOP VIEW

The block is welded to the plate and the plates are welded to the shank

NOTE: DO NOT WELD CLOSER THAN .5" (13mm) FROM THE SURFACES DESCRIBED ABOVE.
ALSO SEE: MODIFICATIONS TO FORKS.

SIDE LOADING

Forks must not be used for side loading unless specially designed for a particular application. In order to produce such a design, details of the load and load systems are required.



NOTE: Specially designed hooks or tubes may be required if a special design is requested.

LOST LOAD CENTER (Forks only, not attachments)

Lost Load Center describes the difference in distance between the fork thickness that was originally designed for the lift truck and the new thicker fork required.

FOR EXAMPLE:

Original fork = 40mm thick,...new fork = 50mm thick,...therefore the Lost Load Center is:

$$40 - 50 = -10$$

The minus sign indicates "lost" and the 10 shows the difference.

This information is given back to the OEM who will recalculate the load and load center of the lift truck, which will appear on the "capacity plate" of the truck.

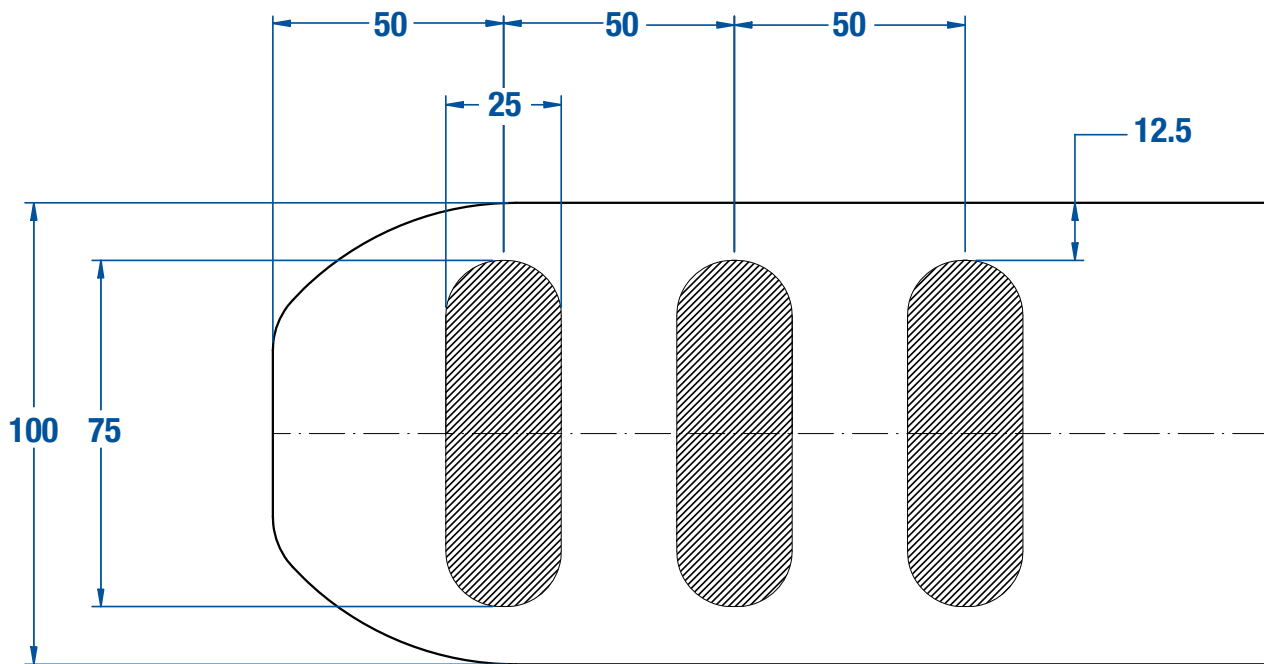
CLASS	ORIGINAL FORK	- NEW FORK	= LOST LOAD DISTANCE
2	40mm	-	
3	50mm	-	
4	65mm	-	

Features:

- ▶ Listed are the average fork thicknesses for standard ISO forks for Classes 2, 3 and 4. **Check specifications for the truck in question.**
- ▶ There are also other changes to a fork which can cause a "movement forward" resulting in a lost load. These changes must also be taken into consideration.
- ▶ **Consult Cascade Fork Engineering for all other inquiries.**

FORK TIP LOCATOR BARS

Available at the tips of forks, these recessed yellow bars are designed to increase visibility of the forks from above or below. These marks help the operator determine the exact position of their fork tips while entering or exiting the pallet. Increased fork tip visibility can result in faster, safer, damage-free handling.



Example Diagram

Features:

- ▶ Three recessed bars located on the bottom or the top of the fork blade.
- ▶ The length of the recessed bars are 25mm less than the width of the fork blade.
- ▶ Supplied with safety yellow paint.
- ▶ 1mm deep recessed bars.



1. **Prices**—Prices quoted are F.O.B. point of shipment, unless otherwise specified, are based upon our understanding of your requirements and specifications, and are subject to change or withdrawal without notice.
2. **Terms of Payment**—Unless otherwise specified, payment for all sales shall be due net 30 days, subject to credit approval at time of shipment. In the event Seller's Credit Department shall have any doubt as to Buyer's financial responsibility, Seller reserves the right to make shipments hereunder only upon receipt of cash payment prior to shipment or of satisfactory security for payment of the purchase price.
3. **Delivery**—Delivery dates set forth herein are approximate. Seller shall not be liable for any delay in or failure of delivery due to causes beyond its reasonable control, including without limitation, acts of God or public authority, including, without limiting the generality of the foregoing, acts or omissions of any custom or border officers, acts of the Buyer, fires, labor disturbances, floods, extreme weather conditions, accidents, war, insurrection or riot, civil or military authority, freight embargoes, failures of and delays by carriers, shortages of material or manufacturing facilities, or delays of a supplier or subcontractor due to causes beyond its control.
4. **Cancellations**—Cancellation of orders for standard product may require a restocking charge. Cancellation of special custom engineered products is subject to all costs incurred by Cascade including labor, materials, engineering and administrative costs.
5. **Taxes**—Sales taxes payable by Buyer, which are presently or may hereafter be imposed by any taxing authority, are not included in the quoted sale price; any direct or excise tax which may hereafter be imposed by any taxing authority upon the manufacture, sale or delivery of articles covered hereby, or any increase in rate of any such tax now in force, shall be added to the purchase price of such articles and shall be paid by the Buyer. If not collected at time of payment of sale price, Buyer will hold Seller harmless. On sales to United States customers only, quoted sale price includes both duty and brokerage fees, unless otherwise specified.
6. **Permissible Variations**—(a) Material shall be within the limits, conforming with standard practices in the industry by the Seller.
(b) Seller reserves the privilege of shipping overages or underages in accordance with Seller's standard practices.
7. **Default in Payment**—In case Buyer shall fail to make payments on any contract resulting herefrom or any other contract between Buyer and Seller in accordance with Seller's terms, the Seller may defer further shipments until such payments are made or may, at its option, cancel unshipped balance.
8. **Warranties**—All goods sold hereunder are warranted to be free from defects in material and workmanship, and/or to conform to applicable specifications, drawings, blueprints and/or samples set forth or described herein, if any, for a period of three years after date of shipment from Seller's plant (per Cascade Performance Warranty). This warranty does not extend to goods or part thereof which have been subjected to misuse (examples; excessive side and/or tip loading, single fork loading) and/or neglect, damaged by accident or otherwise where the damage is not directly due to a defect in material and workmanship, rendered defective by reason of improper installation or by the performance of repairs or alterations outside Seller's plant, except when performed under Seller's specific authorization. This warranty shall not apply to any goods or parts thereof furnished by Buyer or acquired from others at Buyer's request and/or to Buyer's specifications. This warranty extends only to articles owned by original purchase.

When claiming a breach of the above warranty, Buyer must notify Seller promptly in writing whereupon Seller will either examine the goods at their site or issue shipping instructions for return to Seller (transportation costs prepaid by Buyer). Claims not made in writing within 30 days after discovery of the alleged defect or failure to conform shall be deemed waived. When any goods are proved to be other than as warranted. **Seller's sole obligation under this warranty shall be to repair or replace the goods, at its option, without charge to Buyer, and to bear transportation costs (cheapest way) to and from Seller's plant, reimbursing Buyer for any such transportation costs incurred by it. No allowance shall be made for any labour, charges of buyer for replacement of parts, adjustments or repairs, or any other work, unless such charges are authorized in advance by seller.**

The above warranty comprises Seller's sole and entire warranty obligation and liability to buyer in connection with goods sold hereunder. All other warranties, express, statutory or implied, including without limitation warranties of merchantability and fitness for a particular purpose, are expressly excluded. Warranty and all other obligations of seller, either under these conditions of sale or at law shall cease upon buyer making any repairs, modifications, alterations or adaptations to purposes other than purpose for which product sold without the prior written consent of seller.

9. **Consequential Damages**—In no event shall Seller be liable for consequential damages arising out of a delay in or failure of delivery, defects in material and workmanship and/or failure of goods to conform to applicable specifications, drawings, blueprints, or samples set forth or described herein, if any, or a breach by Seller or any other terms or obligation of Seller under the contract resulting herefrom.



*Leading the world in quality
material handling products for lift trucks.*



Cascade Fork Sales: 877-227-2233



Engineered Fork Products – USA

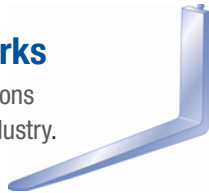
Cascade makes forks for lift trucks of all makes, models and sizes – at a price that helps keep you competitive.

Our comprehensive product line includes a full range of fork products for a wide cross-section of industrial and commercial applications including:

See worksheets on pages 15-19 to speed your order.

► Stainless Steel Clad Forks

For use in highly sanitary applications such as the food and beverage industry.



► Spark Retardant Forks

For hazardous locations and atmospheres.



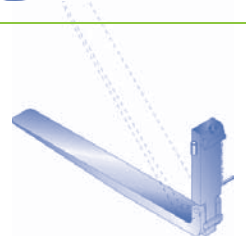
► Gypsum Forks

Provides optimum product protection when handling gypsum wallboard.



► Folding Forks

Enables lift trucks to maneuver in areas where movement is restricted (ie: elevators).



► Inverted Forks

To suit all pin type carriages.



► Fork Extensions

Used to extend the length of the fork blade when handling longer loads.



► Drum Forks

Fast material handling of barrels and drums.



► Lumber & Plywood Forks

Forged heel, single taper, double taper, with or without peek-a-boo backs.



► Block Forks

Allows secure handling of bricks and blocks.



► Coil Forks

Blade is contoured to handle coils. Capacity is reduced according to the size of the contour.



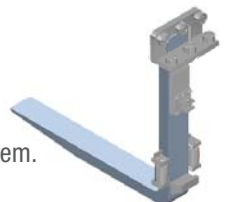
► Quick Detach (QD) Forks

Designed to be easily and quickly removed from the lift truck carriage.



► Roller Forks

The rollers (bearings) allow the forks to move smoothly and effortlessly, initiating less wear and stress on the hydraulic system.



Cascade has the world's largest database on fork specifications for non-current lift trucks. Call for information on forks for trucks manufactured in the last 50 years.



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