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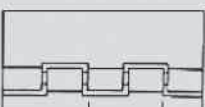



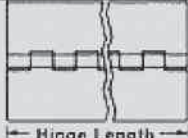



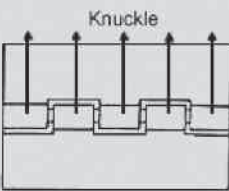


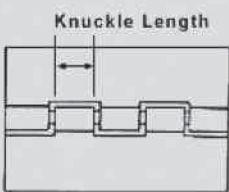



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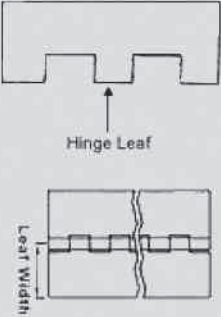

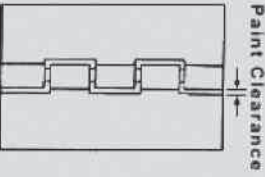

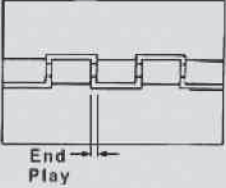

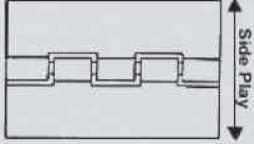
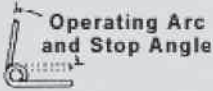
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TERMINOLOGY

	<p>Plain or Standard Assembly -leaves lay flat in the same plane in an open position</p>	 <p>Pitch -the dimension from a point on the knuckle to the same point on the next knuckle on the same leaf</p>
 <p>Reverse Assembly</p>  <p>Reverse Assembly closed view</p>	<p>Reverse Assembly - opposing leaves extend laterally from opposite sides of the pin -leaves will not close to a parallel position</p>	 <p>Swaging -forming one or both leaves, within the proximity of the pin toward or beyond the center of the pin (swaging slightly increases the width of a hinge)</p>
 <p>Hinge Length</p>  <p>Hinge Width</p>	<p>Hinge Length -the length of the hinge measured parallel to the pin</p> <p>Hinge Width -the overall dimension of the leaves measured perpendicular to, or across the pin.</p>	 <p>One Leaf Half Swaged -one leaf swaged one half the pin diameter</p>  <p>One Leaf Full Swaged -one leaf swaged equal to the pin diameter and both leaves parallel when in closed position</p>
 <p>Knuckle</p>  <p>Inside Knuckle Diameter (also called Pin Diameter)</p>  <p>Outside Knuckle Diameter</p>  <p>Knuckle Length</p>	<p>Knuckle -the hollow circular part at the joint of a hinge through which a pin is passed (other terms for this are loop, joint, node, curl, and barrel)</p> <p>Inside Knuckle Diameter (also called Pin Diameter)</p> <p>Outside Knuckle Diameter</p> <p>Knuckle Length -the nominal dimension of the knuckle measured parallel to the pin</p>	 <p>Both Leaves Half Swaged -both leaves swaged approx. one half the pin diameter with a minimum clearance between the leaves when parallel</p>  <p>Reverse Swaged -one leaf swaged to simulate reverse assembly -leaves will not close to a parallel position</p>  <p>Center Swaged -both leaves swaged by one half the pin diameter plus one half the material thickness so that both leaves are symmetrical on the center line -leaves will not close to a parallel position</p>

TERMINOLOGY

 <p>Leaf -the portion of a hinge extending laterally from the knuckle, which is curled around a pin</p> <p>Leaf Width -the dimension from the center of the pin to the outer edge of the leaf</p>		 <p>Offset -one or both leaves formed in the proximity of the pin clearance, away from the center of the pin -when both leaves are offset and in a closed and parallel position, the dimension between the leaves will be greater than the pin diameter (reduces the width)</p>	
 <p>Paint Clearance - the minimum dimension between the outer face of the knuckle and the opposing edge of the cutout, over the entire range of pivotal movement of the hinge</p>		 <p>Stop Hinge -a hinge manufactured to limit the travel of the leaves to a specified angle</p>	
 <p>End Play -the amount of axial movement between the leaves</p>		 <p>Stop Hinge, Outside -leaves will move from an open or flat position and stop at a specified angle</p>	
 <p>Side Play -the amount of movement of the leaves perpendicular to the pin (occurs when inside knuckle diameter is larger than the pin)</p>		 <p>Stop Hinge, Inside -leaves will open from a closed position, (leaves parallel to each other), and stop at a specified angle</p>	<p>QAL Stop Hinge -a stop hinge with the Quik-A-Line feature</p>

Quik-A-Line Hinges:

A continuous hinge manufactured with a weld guide feature.

Advantages:

- 1) Means of rapidly aligning the hinge to the stock for welding purposes.

Result: reduces labour costs

- 2) Means of preventing paint or finish loss from the barrel (joint) of the continuous hinge, which is the most observable part of the hinge when mounted.

Result: improves the appearance of the hinge

Available in the following sizes:

- 0.030" thick steel hinge with 0.090" steel pin (1/4" knuckles)
- 0.060" thick steel hinge with 0.125" steel pin (1" knuckles)

Pin Assembly for Continuous Hinges:

Types of pin retention include:

- a. staking
- b. press tightening
- c. welding the pin to end knuckles
- d. crimping end knuckles; and
- e. forming or folding pin ends (to facilitate removal)

MANUFACTURING CAPABILITY

These charts provide the material gauge, pin gauge and knuckle length combinations.
Customization includes:

cut to length	curl	pierce & countersink	extrude
slot	deburr	notch	emboss
form	electropolish	swage	clean
trim	plate	crimp	brush
stake	passivate	dib	shrink wrapping
powder coating (available)		anodizing (available)	labeling

LIGHT GAUGE PRODUCT

LEAF GAUGE	PIN				KNUCKLE			OPEN WIDTH
	0.060	0.080	0.090	0.100	1/4"	1/2"		
0.024"	X				X			3/4" to 4"
0.030"	X				X			3/4" to 4"
0.030"	X				X			5/8" to 7"
0.030"		X			X			3/4" to 4"
0.030"		X				X		3/4" to 4"
0.030"			X		X			3/4" to 4"
0.037"				X		X		3/4" to 6"
0.040"			X		X			1" to 4"
0.040"			X			X		3/4" to 4"
0.040"				X		X		3/4" to 6"

MEDIUM GAUGE PRODUCT

LEAF GAUGE	PIN			KNUCKLE				OPEN WIDTH
	0.125	0.187	0.250	1/2"	1"	1.91"	2"	
0.050"	X			X				1" to 5-1/2"
0.060"	X			X				1" to 8-1/4"
0.060"	X				X			3/4" to 6-1/2"
0.060"		X			X			3/4" to 8"
0.060"			X				X	1-1/2" to 8"
0.075"		X			X			3/4" to 8"
0.075"		X					X	1-1/4" to 8"
0.075"			X		X			1-1/2" to 16.6"
0.075"			X				X	1.384" to 8"
0.075"			X			X		1" to 8"

HEAVY GAUGE PRODUCT

LEAF GAUGE	PIN			KNUCKLE				OPEN WIDTH
	0.250	0.375"	0.500"	1"	1.91"	2"		
0.081"	X			X				1 -1/2" to 16.6"
0.081"	X					X		2" to 11"
0.090"	X			X				1-1/2" to 5-3/8"
0.090"	X					X		2" to 11"
0.105"	X				X			2" to 11"
0.120"	X					X		2" to 11"
0.120"		X				X		2" to 12"
0.180"			X			X		2.5" to 14"

MATERIALS

Other material specifications available on request.

PS - Carbon (Plain) Steel

- cold rolled steel (CRS), matte & semi-bright finish
- hot rolled, pickled & oil (HPRO)

SS - Stainless Steel

- type 304, 2B & BA finish
- type 316, 2B

AL – Aluminum

- 5052-H32
- utility grade 3003-H14

BRASS

COATED MATERIAL

- galvanized
- galvaneal
- satin coat

FINISHES

Automated in-house plating facilities providing low cost, fast delivery, superior quality
All plated finishes are ROHS compliant

NICKEL PLATING

NP - Nickel Plated (bright)
NS - Satin Nickel
NB - Black Nickel
PE - Pewter, (NB brushed)

BRASS PLATING

FB - Flash Brass (bright)
BS - Satin Brass
BA - Antique Brass

ZINC PLATING

ZP - Zinc Plated, bright
ZY - Zinc Plated, yellow trivalent chrome passivation
ZB - Zinc Plated, black trivalent chrome passivation

ELECTROBLACK PLATING

EB - Electroblack
EL - Electroblack Laquered

COPPER PLATING

SB - Statuary (Oil-Rubbed) Bronze
AB - Antique Bronze
Polished Copper

OTHER FINISHES

Powder Coating
E-Coating
Anodizing
Electropolishing / Passivating

- Electrochemical polishing of stainless steel
- Extremely smooth surface with near mirror finish
- Superior corrosion resistance

STANDARD TOLERANCES

(Tolerances identified on individual prints/drawings take precedence over these generalizations.)

LARSEN STANDARD COUNTERSINK FOR ANSI FH WOOD SCREWS - 82°						
SCREW SIZE	PIERCE DIA SECONDARY	PIERCE DIA PRESS CTSK	MEAN .0075" ABOVE FLUSH	TOP DIA. .015" ABOVE FLUSH	TOP DIA. FLUSH	PIERCE HOLES (NOT CTSK)
4	0.171	0.195	0.237	0.224	0.250	0.140
5	0.200	0.220	0.264	0.251	0.277	0.146
6	0.220	0.240	0.291	0.278	0.304	0.156
7	0.235	N/A	0.317	0.304	0.330	0.171
8	0.281	N/A	0.344	0.331	0.357	0.171
9	N/A	N/A	0.370	0.357	0.383	N/A
10	0.281	N/A	0.397	0.384	0.410	0.200
11	0.312	N/A	0.424	0.411	0.437	N/A
12	0.343	N/A	0.450	0.437	0.463	N/A
14	0.394	N/A	0.503	0.490	0.516	N/A
.125 Rivet	N/A	N/A	N/A	N/A	N/A	0.130
.187 Rivet	N/A	N/A	N/A	N/A	N/A	0.191

.005" CHANGE IN DEPTH/HEIGHT EQUALS .009" CHANGE IN CTSK DIA.

ANSI STANDARD COUNTERSINK FOR MACHINE SCREWS - 82°						
SCREW SIZE	PIERCE DIA SECONDARY	PIERCE DIA PRESS CTSK	MEAN .0075" ABOVE FLUSH	TOP DIA. .015" ABOVE FLUSH	TOP DIA. FLUSH	PIERCE HOLES (NOT CTSK)
4	0.171	0.195	0.212	0.199	0.225	0.140
5	0.200	0.220	0.239	0.226	0.252	0.146
6	0.220	0.240	0.266	0.253	0.279	0.156
7	0.235	N/A	0.292	0.279	0.305	0.171
8	0.281	N/A	0.319	0.306	0.332	0.171
9	N/A	N/A	0.345	0.332	0.358	N/A
10	0.281	N/A	0.372	0.359	0.385	0.200
12	0.343	N/A	0.425	0.412	0.438	N/A
14	0.394	N/A	0.478	0.465	0.491	N/A
1/4"	0.390	N/A	0.494	0.481	0.507	0.265
5/16"	0.500	N/A	0.650	0.637	0.663	N/A

EDGE OF LEAF TO HOLE CENTRE (x)		
HINGE WIDTH	GAUGE	x ±.015
0.75	.030	.134
1	.030 & .040	.187
1.062	.030	.219
1.062	.040 & up - Sec.	.187
1.062	.040 & up-Inline	.219
1.25	All	.250
1.5	All	.312
1.75	All	.375
2	<.120	.437
2	.120 & up	.312
2.375	All	.531
2.5	All	.578 ±.030
3	<.120	.687
3	.120 & up	.625
3.5	All	.719
4	All	.750

GAUGE TOLERANCES		
HRPO	GALVANIZED	ALL OTHER MATERIALS
.000/.051 = ±.005	.000/.023 = ±.003	.000/.014 = ±.001
.052/.071 = ±.006	.024/.044 = ±.004	.015/.019 = ±.002
.072/.098 = ±.007	.045/.062 = ±.005	.020/.039 = ±.003
.099/.187 = ±.008	.063/.077 = ±.006	.040/.057 = ±.004
.188/.249 = ±.009	.078/.107 = ±.008	.058/.098 = ±.005
	.108/.168 = ±.009	.099/.142 = ±.006
		>.142 To be determined

HOLES
Hole Dia. = ±.002
Slot Size = ±.003
Hole Centres ≤24" = ±.015
Hole Centres >24" = ±.030

COMMERCIAL ZINC SPECIFICATION
ASTM-B633, .2 mils minimum (.0002")

WIDTH TOLERANCES
≤2.500 (Light gauges) = ±.015
≤2.500 (≥.075/.250, <.179/.500) = ±.030
>2.500 = ±.030
All widths (≥.179/.500) = ±.060

RM SLIT WIDTH TOLERANCES
±.005 unless otherwise noted in part description

LENGTH TOLERANCES	
≤72" = ±.030, Except for:	P&C #4 or #5 = ±.060
	P&C #6 = ±.080
	P&C ≥36" = ±.060
	>72", <96" = ±.060
	≥96" (all gauges) = ±.094
	<96" (≥.179/.500) = ±.060

WIRE/ROD DIA. TOLERANCES
±.002, except for: .375 dia. aluminum = ±.005
.500 dia. steel = ±.003

CONTINUOUS HINGE WEIGHT CHART

(for carbon steel & stainless steel)

GAUGE	OPEN WIDTH	LENGTH	PIN DIAMETER	WEIGHT (LBS)	UNITS/CARTON
0.024"	3/4"	72"	0.060"	0.50	50
	1"	72"	0.060"	0.64	50
0.030"	3/4"	72"	0.060"	0.63	50
	1"	72"	0.060"	0.81	25
	1-1/16"	72"	0.080"	0.85	25
		72"	0.090"	0.85	50
	1-1/4"	72"	0.080"	0.94	25
		72"	0.090"	0.94	25
	1-1/2"	72"	0.080"	1.10	25
		72"	0.090"	1.10	25
0.037"	1"	72"	0.100"	1.18	25
	1-1/16"	72"	0.100"	1.25	25
	1-1/4"	72"	0.100"	1.47	25
	1-1/2"	72"	0.100"	1.69	25
	2"	72"	0.100"	2.20	20
0.040"	1-1/16"	72"	0.090"	1.25	25
		96"	0.090"	0.54	50
	1-1/4"	72"	0.090"	1.47	25
		96"	0.090"	0.70	50
	1-1/2"	72"	0.090"	1.69	25
		84"	0.090"	1.76	50
		96"	0.090"	2.00	50
	2"	72"	0.090"	2.19	20
		84"	0.090"	2.36	25
		96"	0.090"	2.65	25
0.050"	1-1/2"	72"	0.125"	1.84	20
	2"	72"	0.125"	2.36	10
0.060"	1-1/4"	72"	0.125"	2.25	20
	1-1/2"	72"	0.125"	2.57	20
		96"	0.125"	3.48	25
		72"	0.125"	3.38	10
	2"	72"	0.125"	3.38	10
		96"	0.125"	4.52	25
		72"	0.187"	3.82	10
	2-1/2"	72"	0.125"	3.82	10
		84"	0.125"	4.40	20
		96"	0.125"	5.10	20
	3"	72"	0.125"	4.25	10
		84"	0.125"	5.00	15
		96"	0.125"	5.80	20
		72"	0.187"	4.40	5
	4"	84"	0.187"	5.80	50
		72"	0.125"	6.00	5
0.064"	1 1/2"	72"	0.125"	0.96	25
	2"	72"	0.125"	1.16	25
	3"	72"	0.125"	1.30	20
		96"	0.125"	2.20	15
0.075"	2"	72"	0.250"	5.32	5
	2 1/2"	72"	0.250"	5.60	5
	3"	72"	0.250"	7.00	5
		96"	0.250"	8.40	50
	3 1/2"	72"	0.250"	7.20	5
0.125"	2 1/2"	84"	0.375"	12.60	25
	3"	84"	0.375"	13.80	25
	4"	84"	0.375"	39.50	25
	5"	84"	0.375"	20.00	25
0.180"	3"	96"	0.500"	27.00	25

HINGE DESIGN

Material Gauge _____	0.024"	0.030"	0.037"
	0.040"	0.050"	0.060"
	0.075"	0.081"	0.090"
	0.105"	0.120"	0.180"

Pin Diameter _____	0.060"	0.080"	0.090"
	0.100"	0.125"	0.187"
	0.250"	0.375"	0.500"

**See available gauge, pin, knuckle & width combinations on page 3*

Knuckle Length _____	1/4"	1/2"	1"	2"
-----------------------------	------	------	----	----

Material Type _____	Stainless Steel
	Plain Steel
	Aluminum
	Brass
	Galvanized

Pin Material _____	Stainless Steel
	Plain Steel
	Aluminum
	Brass
	Galvanized

Finish _____	NP - Nickel Plated	ZP - Zinc Plated, bright
	NS - Satin Nickel	ZY - Zinc Plated, yellow dichromate
	NB - Black Nickel	EB - Electroblack
	PE - Pewter (NB brushed)	EL - Electroblack Lacquered
	FB - Flash Brass	SB - Statuary Bronze
	BS - Satin Brass	AB - Antique Bronze
	BA - Antique Brass	Polished Copper
	BL - Black (pre-painted)	Anodize
	BR - Brown (pre-painted)	Electropolish/Passivate
	Powder Coat	E-Coat

Pin Movement _____	Free Swinging	Smooth Acting
	Snug/Tight	Friction

Pin Retention _____	Hand Removable	Staked Hand Removable
	Tap Removable	Staked Tap Removable
	Non-Removable	Staked Non-Removable

Length _____ inches

Open Width _____ inches (Equal Leaf)

Unequal Leaf

Left Leaf Width _____ inches (from centre of pin)

Right Leaf Width _____ inches (from centre of pin)

Requires Holes

Type of Hole Left Leaf:	_____	Pierce Pierce & Countersink Slot
Type of Hole Right Leaf:	_____	Pierce Pierce & Countersink Slot
Hole Spacing Centre to Centre (Left Leaf):	_____	inches
Hole Spacing Centre to Centre (Right Leaf):	_____	inches
Edge of Leaf to Hole Centre (Left Leaf):	_____	inches
Edge of Leaf to Hole Centre (Right Leaf):	_____	inches
End of Leaf to Hole Centre (Left Leaf):	_____	inches
End of Leaf to Hole Centre (Right Leaf):	_____	inches
Pierce Diameter (Left Leaf):	_____	inches
Pierce Diameter (Right Leaf):	_____	inches
P&C Screw Size (Left Leaf):	_____	4, 5, 6, 7, 8, 9, 10, 12, 14
P&C Screw Size (Right Leaf):	_____	
Slot Length (Left Leaf):	_____	inches
Slot Length (Right Leaf):	_____	inches
Slot Width (Left Leaf):	_____	inches
Slot Width (Right Leaf):	_____	inches
Slot Parallel to Barrel (Left Leaf): Yes or No		
Slot Parallel to Barrel (Right Leaf): Yes or No		

Requires Swages

Half Swage Left	Half Swage Right	Half Swage Both
Full Swage Left	Full Swage Right	Centre Swage Both
Reverse Swage Left	Reverse Swage Right	

Requires Forms

Please provide a drawing with form dimensions

Requests/Comments:



CERTIFICATE OF REGISTRATION

This is to certify that

LARSEN & SHAW LIMITED

P.O. Box 1420, 575 Durham Street West, Walkerton, Ontario N0G 2V0 Canada

operates a

Quality Management System

which complies with the requirements of

ISO 9001:2008

for the following scope of registration

The Registration covers the Quality Management System for the manufacture of continuous and butt hinges, furniture hardware and miscellaneous stampings.

Certificate No.: CERT-0065338
File No.: 000611
Issue Date: August 31, 2012

Original Certification Date: May 1, 1987
Current Certification Date: October 26, 2012
Certificate Expiry Date: October 25, 2015

Chris Jouppi
President,
QMI-SAI Canada Limited

Guillaume Gignac, ing.f
Vice President, Corporate Operations, Accreditation & Quality
QMI-SAI Canada Limited



ISO 9001



Travaux publics et
Services gouvernementaux
Canada

Public Works and
Government Services
Canada



Programme des
marchandises contrôlées
(PMC)

Controlled Goods
Program
(CGP)



Certificat

d'inscription accordé à

Certificate

of Registration issued to

Larsen and Shaw Ltd.

carrying on business as / exerçant ses activités sous le nom

Le présent certificat donne droit à la personne inscrite d'examiner
des marchandises contrôlées, d'en avoir en sa possession ou d'en
transférer, conformément à la Loi sur la production de défense
et au Règlement sur les marchandises contrôlées.



This certificate entitles the Registered Person to examine,
possess or transfer controlled goods in accordance
with the Defence Production Act and the
Controlled Goods Regulations.

N° d'inscription / Registration No. 23829
Entrée en vigueur / Issued 2009/04/07
Date d'expiration / Expires 2013/04/09

Émis par le ministre en vertu de la
Loi sur la production de défense
Issued by the Minister pursuant to
the Defence Production Act

Directeur/Director

Canada

CUSTOMS - TRADE PARTNERSHIP AGAINST TERRORISM



*In recognition of your commitment to partnership,
and in appreciation for joining with us to secure
the international supply chain and protect our country's security,*


U.S. Customs and Border Protection

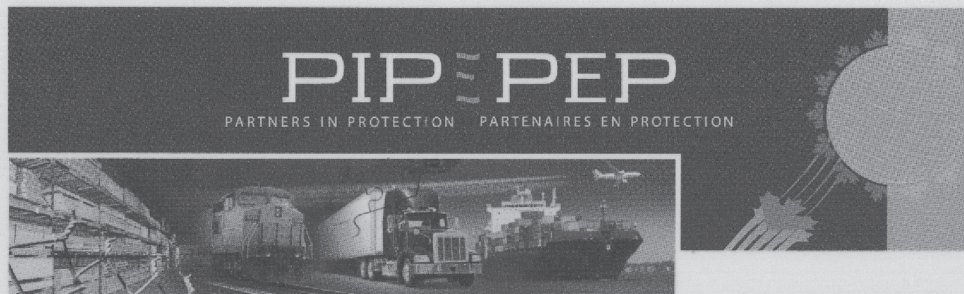
**Customs - Trade
Partnership Against Terrorism**

and to present this certificate to

Larsen & Shaw, Ltd.

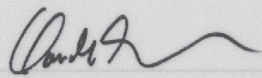
During the month of June *, 2005*
at Washington, D.C.


Commissioner





Larsen & Shaw Limited


A PARTNER CONTRIBUTING TO THE PROTECTION OF CANADIAN
SOCIETY AND THE FACILITATION OF LEGITIMATE TRADE


DIRECTOR, PROGRAM DEVELOPMENT
CANADA BORDER SERVICES AGENCY

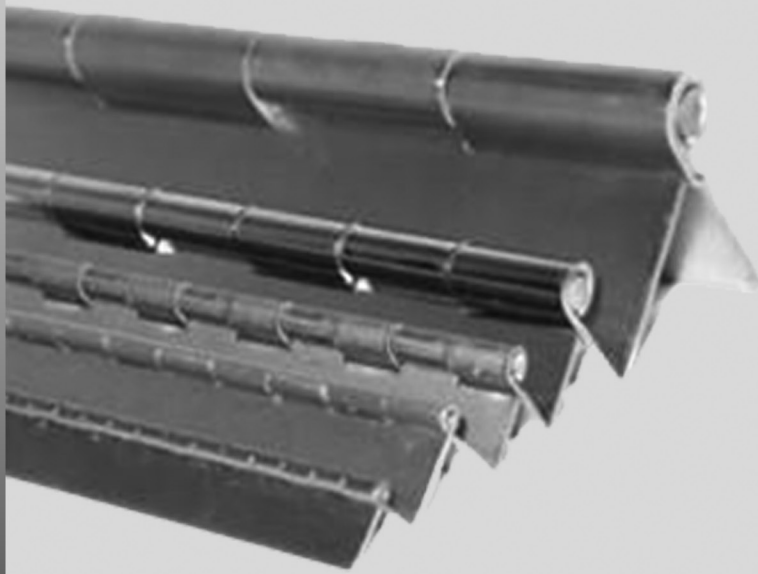
Membership number 10092

Date of certification 2008-12-12

 Canada Border
Services Agency
 Agence des services
frontaliers du Canada



STANDARD HINGE &



includes:

- continuous (piano) hinges
- butt hinges
- strap & tee hinges
- coiled hinge
- shrink-wrapped hinges
- other specialty hinges
- hardware

listed by:

- light gauge
- medium gauge
- heavy gauge

continuous hinge available in:

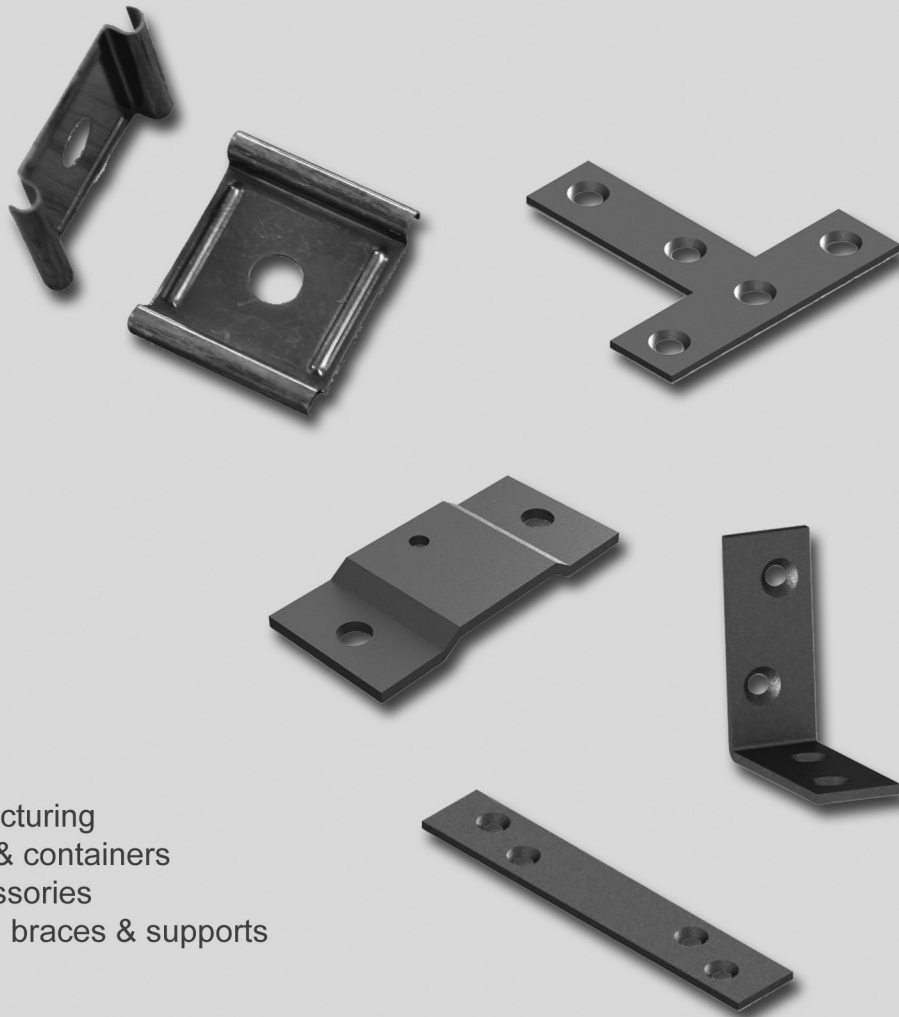
- 6 foot lengths
- equal leaves
- no holes
- countersunk holes
- flush pin, fixed in place
- leaves and pins of similar material



www.larsenhinge.com

(800) 265-3078

METAL STAMPINGS



includes:

- corner braces
- corner plates
- mending plates
- k.d. brackets

used for:

- furniture manufacturing
- stiffening doors & containers
- washroom accessories
- metal fabrication braces & supports



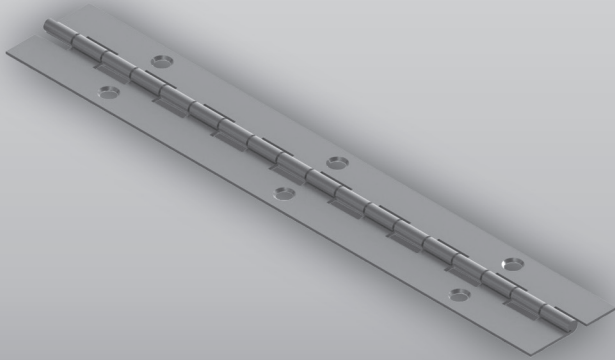
(800) 265-3078

www.larsenhinge.com

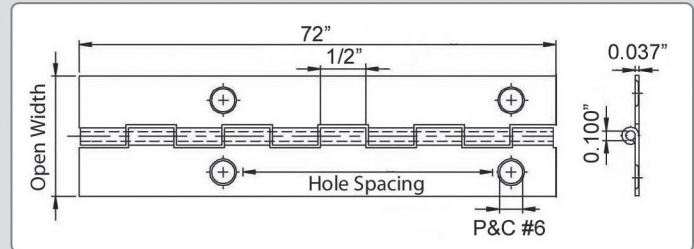
CONTINUOUS HINGES

LIGHT GAUGE

- type 304 stainless steel
- corrosion resistance
- longevity & aesthetics
- application example:
marine doors & lockers

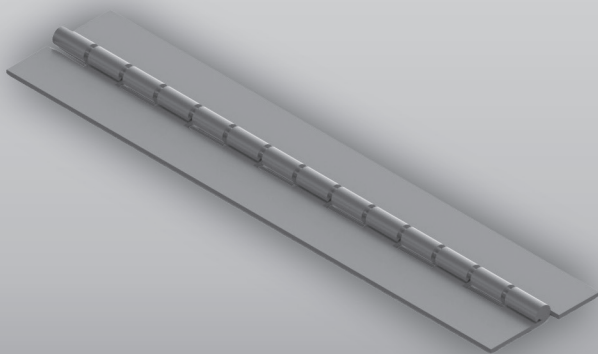


STAINLESS STEEL, with holes

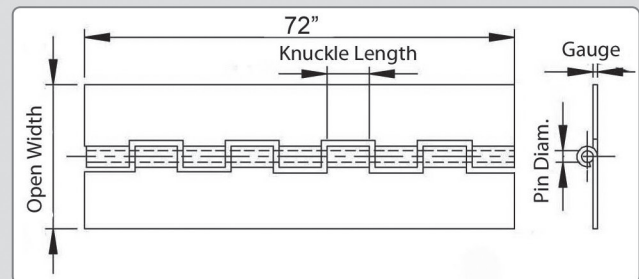


Ga.	Length	KL	Pin Diam.	P&C	Open Width		
					1 1/4"	1 1/2"	2"
0.037"	72"	1/2"	0.100"	2"C#6	*	*	*
	72"	1/2"	0.100"	3"C#6	*	*	*

- type 304 stainless steel
- corrosion resistance
- longevity & aesthetics
- application example:
washroom towel dispensers

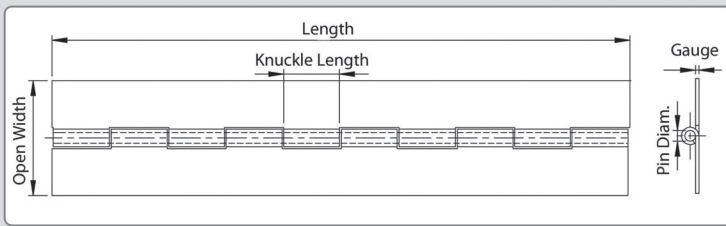


STAINLESS STEEL, no holes



Ga.	L	KL	Pin Diam.	Open Width					
				3/4"	1"	1 1/16"	1 1/4"	1 1/2"	2"
0.024"	72"	1/4"	0.060"	*	*				
0.030"	72"	1/4"	0.060"	*	*				
0.037"	72"	1/2"	0.100"		*	*	*	*	*

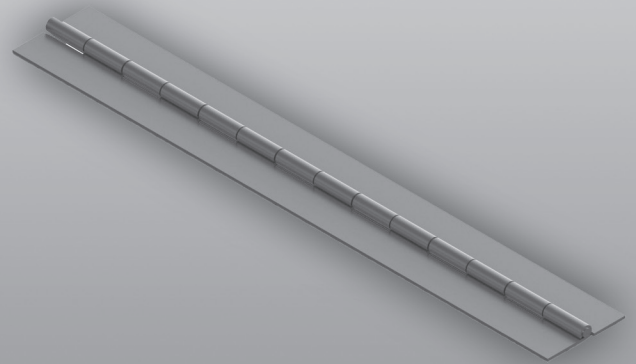
MEDIUM GAUGE



Ga.	L	KL	Pin Diam.	Open Width					
				1 1/4"	1 1/2"	2"	2 1/2"	3"	4"
0.050"	72"	1/2"	.125"		*	*			
0.060"	72"	1/2"	.125"	*	*	*	*	*	*
	96"	1/2"	.125"		*	*	*	*	
	72"	1"	.187"			*		*	
	84"	1"	.187"					*	
0.075"	72"	1"	.250"			*	*	*	
	96"	1"	.250"					*	

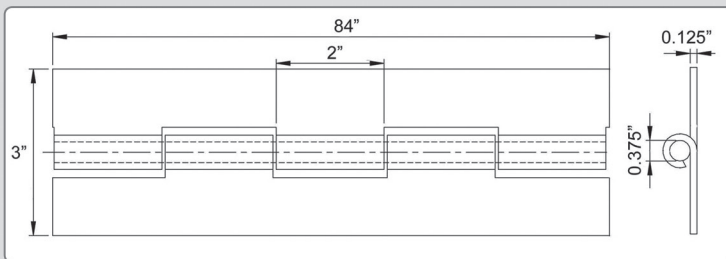
CONTINUOUS HINGES

- type 304 stainless steel
- corrosion resistance
- longevity & aesthetics
- application example:
emergency & transit vehicles



STAINLESS STEEL, no holes

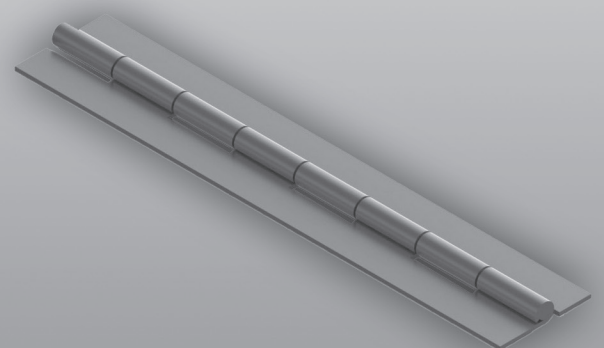
HEAVY GAUGE



Gauge	Length	Knuckle Length	Pin Diam.	Open Width
0.125"	84"	2"	0.375"	3.00"

CONTINUOUS HINGES

- type 304 stainless steel
- corrosion resistance
- longevity & aesthetics
- application example:
truck body doors

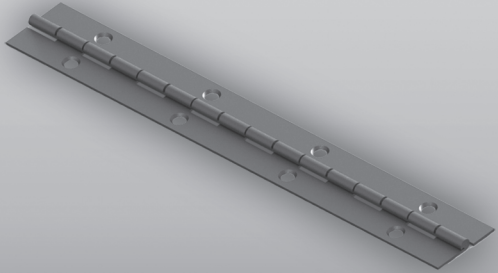


STAINLESS STEEL, no holes

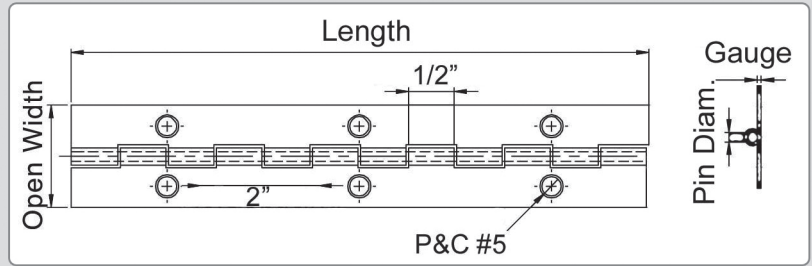
CONTINUOUS HINGES

LIGHT GAUGE

- strong and cost effective
- versatile for applications requiring plated or painted surfaces such as toolboxes & light metal enclosures

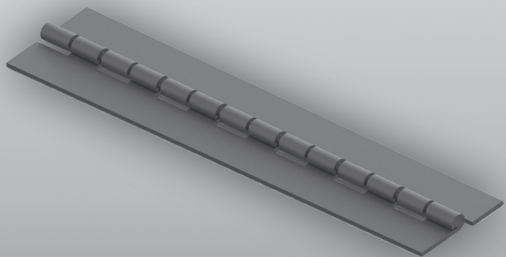


PLAIN STEEL, with holes

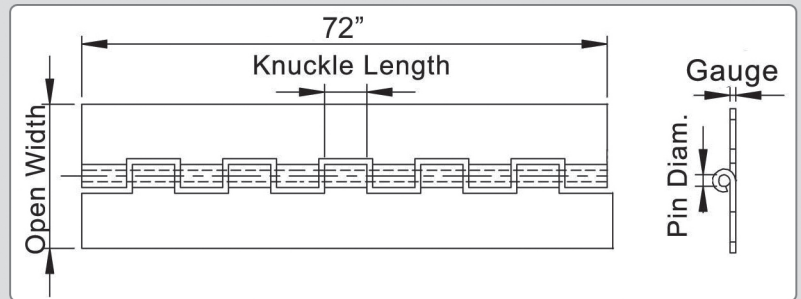


Gauge	L	KL	Pin Diam.	P&C	Open Width			
					1 1/16"	1 1/4"	1 1/2"	2"
0.040"	72"	1/2"	0.090"	2"C#5	*	*	*	*

- Quik-A-Line weld guide feature available for 0.030" gauge
- for spot weld applications with painted finishes such as HVAC & electrical enclosures

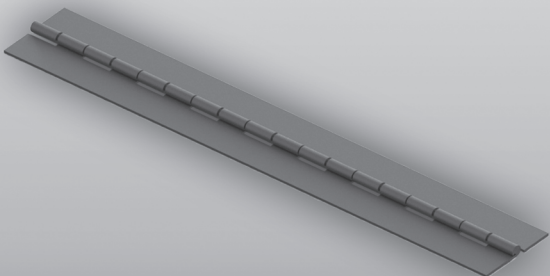


PLAIN STEEL, no holes

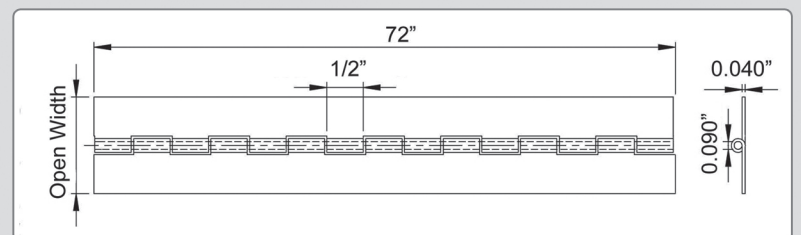


Ga.	L	KL	Pin Diam.	Open Width					
				3/4"	1"	1 1/16"	1 1/4"	1 1/2"	2"
0.030"	72"	1/4"	0.060"	*	*				
0.030"	72"	1/4"	0.090"			*	*	*	
0.040"	72"	1/2"	0.090"			*	*	*	*

- for lighter weight applications requiring the pin to have corrosion resistance, less wear and no squeak

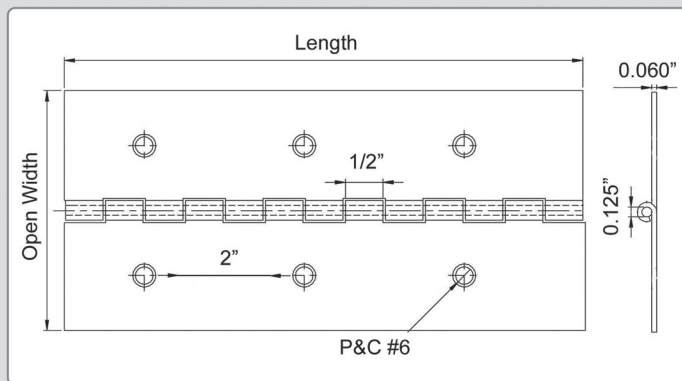


PLAIN STEEL, (brass pin) no holes



Gauge	Length	Knuckle Length	Pin Diam.	Open Width	
				1 1/4"	1 1/2"
0.040"	72"	1/2"	0.090"	*	*

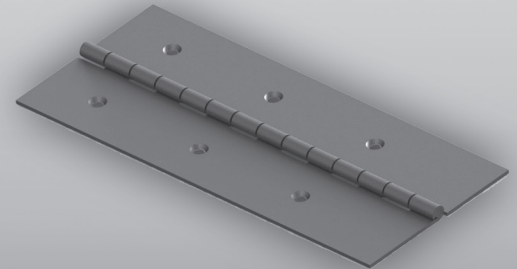
MEDIUM GAUGE



Gauge	Length	Knuckle Length	Pin Diam.	P&C	Open Width		
					1 1/2"	2"	3"
0.060"	72"	1/2"	0.125"	2"C#5	*	*	*

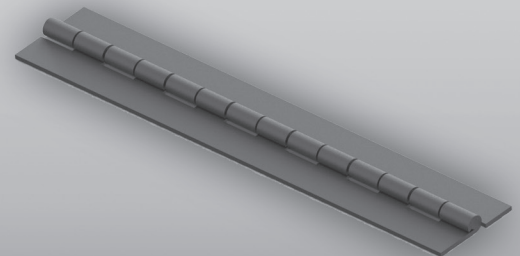
CONTINUOUS HINGES

- versatile with plated or painted finishes
- for applications using rivets, bolts or screws such as lockers & heavier metal enclosures



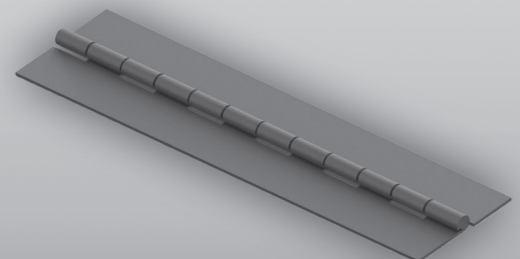
PLAIN STEEL, with holes

- Quik-A-Line weld guide feature on 0.060" gauge with 0.125" pin
- for weld on applications with painted finishes such as truck body doors

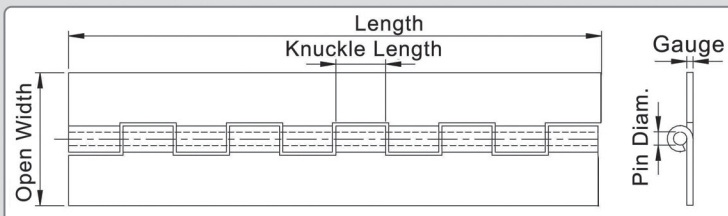


PLAIN STEEL, no holes

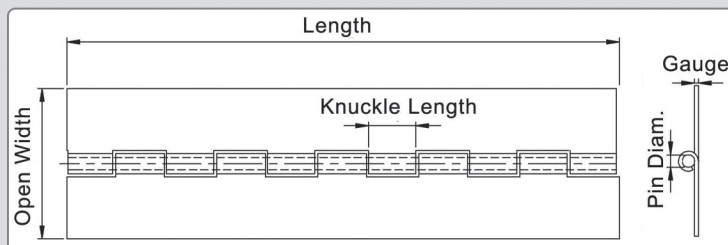
- for heavier duty applications requiring the pin to have corrosion resistance, less wear and no squeak



PLAIN STEEL, (brass pin) no holes



Ga.	L	KL	Pin Diam.	Open Width							
				1 1/4"	1 1/2"	2"	2 1/2"	3"	3 1/2"	4"	4 1/2"
0.050"	72"	1/2"	0.125"		*	*					
0.060"	72"	1/2"	0.125"	*	*	*	*	*			
	72"	1"	0.187"			*					
	96"	1/2"	0.125"		*	*		*			
0.075"	72"	1"	0.250"			*	*	*	*	*	*

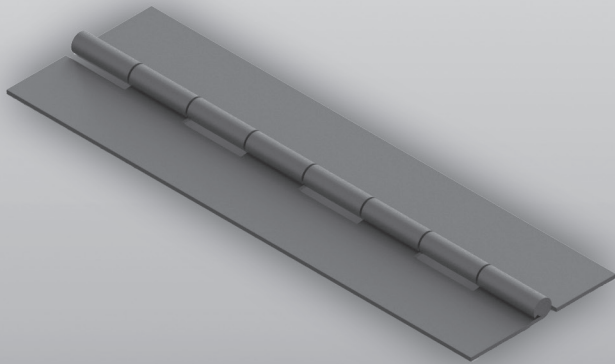


Gauge	Length	Knuckle Length	Pin Diam.	Open Width			
				1 1/2"	2"	2 1/2"	3"
0.060"	72"	1/2"	0.125"	*			
	72"	1"	0.187"		*		
0.075"	72"	1"	0.250"		*	*	*

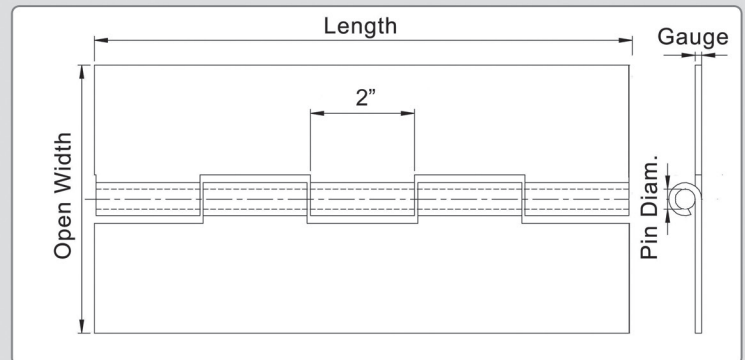
CONTINUOUS HINGES

HEAVY GAUGE

- for heavy duty weld on applications such as heavy equipment fabrication

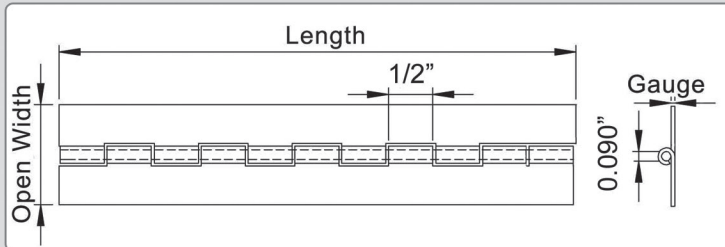


PLAIN STEEL, no holes



Gauge	Length	Knuckle Length	Pin Diam.	Open Width			
				2 1/2"	3"	4"	5"
0.125"	84"	2"	0.375"	*	*	*	*
0.180"	96"	2"	0.500"		*		

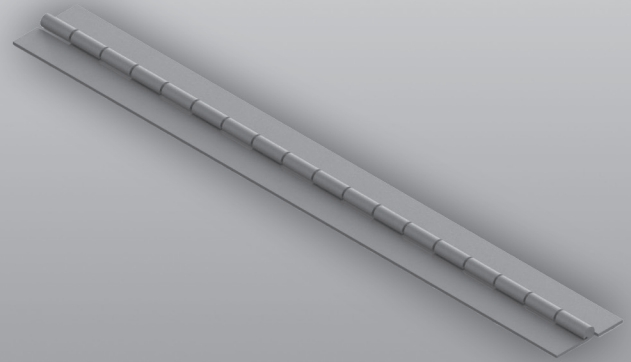
LIGHT GAUGE



Gauge	Length	Knuckle Length	Pin Diam.	Open Width			
				1 1/16"	1 1/4"	1 1/2"	2"
0.040"	72"	1/2"	0.090"	*	*	*	*
	96"	1/2"	0.090"	*	*	*	*

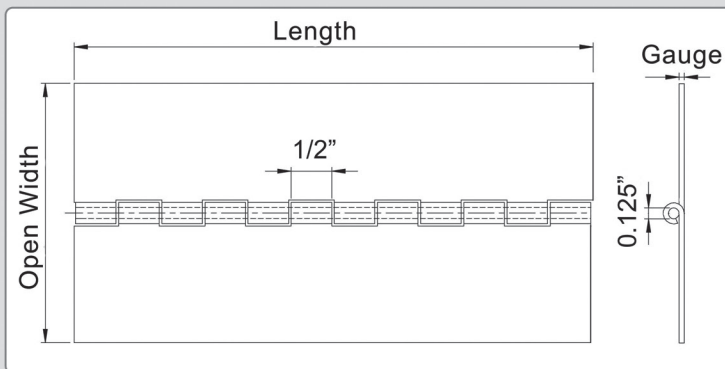
CONTINUOUS HINGES

- for light weight corrosion resistant applications such as truck boxes and marine lockers



ALUMINUM, no holes

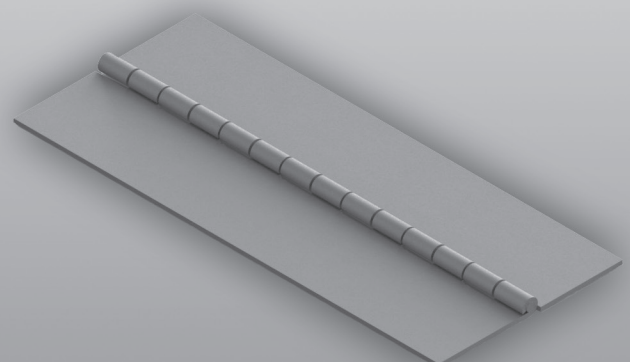
MEDIUM GAUGE



Gauge	Length	Knuckle Length	Pin Diam.	Open Width		
				1 1/2"	2"	3"
0.050"	72"	1/2"	0.125"	*	*	
0.064"	72"	1/2"	0.125"	*	*	*
	96"	1/2"	0.125"			*

CONTINUOUS HINGES

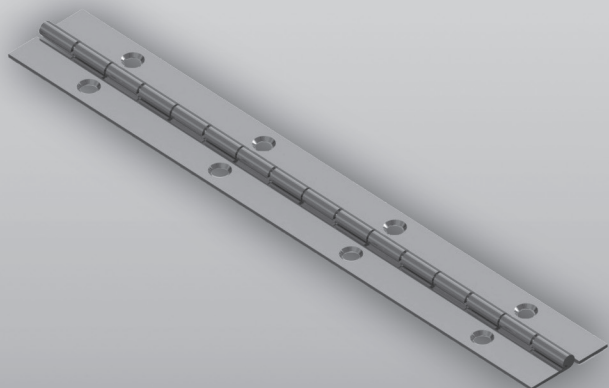
- for heavier duty corrosion resistant applications such as recreational vehicles and shower doors



ALUMINUM, no holes

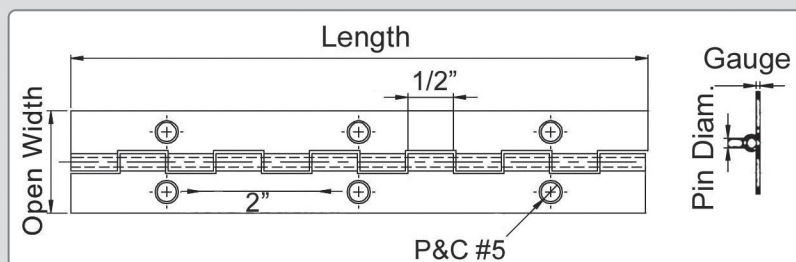
CONTINUOUS HINGES

- higher quality post plated finishes for corrosion resistant applications such as residential use furniture & cabinets



NICKEL, FLASH BRASS, & ZINC PLATED, with holes

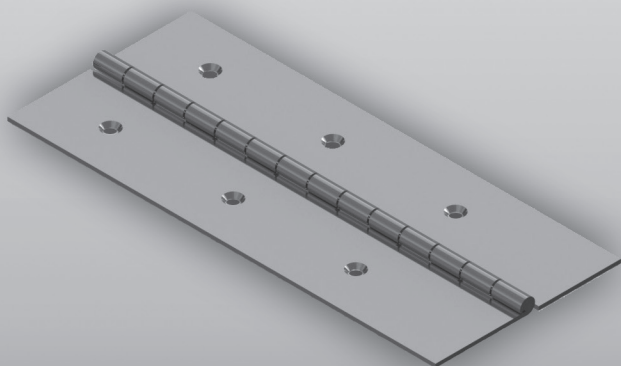
LIGHT GAUGE



Finish	Ga.	L	KL	P&C	Pin Diam.	Open Width			
						1 1/16"	1 1/4"	1 1/2"	2"
Nickel	0.030"	72"	1 1/2"	2"C#5	0.080"	*	*	*	
	0.040"	72"	1 1/2"	2"C#5	0.090"	*	*	*	*
		84"	1 1/2"	2"C#5	0.090"			*	*
		96"	1 1/2"	2"C#5	0.090"			*	*
Flash Brass	0.030"	72"	1 1/2"	2"C#5	0.080"	*	*	*	
	0.040"	72"	1 1/2"	2"C#5	0.090"	*	*	*	*
		84"	1 1/2"	2"C#5	0.090"			*	*
		96"	1 1/2"	2"C#5	0.090"			*	*
Zinc	0.030"	72"	1 1/2"	2"C#5	0.080"			*	
	0.040"	72"	1 1/2"	2"C#5	0.090"	*		*	

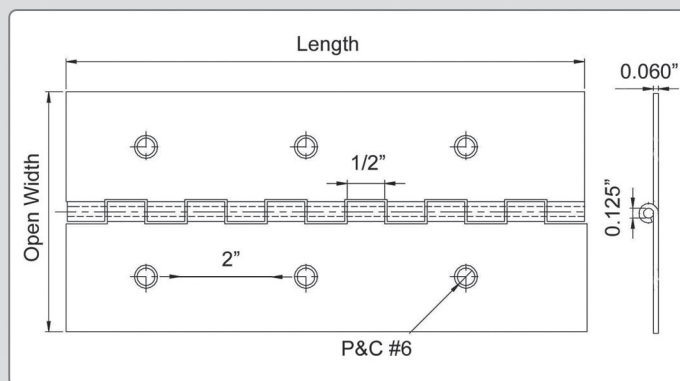
CONTINUOUS HINGES

- higher quality post plated finishes for corrosion resistant applications such as residential use furniture & cabinets



NICKEL & FLASH BRASS PLATED, with holes

MEDIUM GAUGE



Finish	Ga.	L	KL	P&C	Pin Diam.	Open Width			
						1 1/2"	2"	2 1/2"	3"
Nickel	0.060"	72"	1 1/2"	2"C#6	.125"	*	*	*	*
		84"	1 1/2"	2"C#6	.125"			*	*
		96"	1 1/2"	2"C#6	.125"			*	*
Flash Brass	0.060"	72"	1 1/2"	2"C#6	.125"	*	*		*
		84"	1 1/2"	2"C#6	.125"			*	*
		96"	1 1/2"	2"C#6	.125"			*	*

SHRINK-WRAPPED HINGES

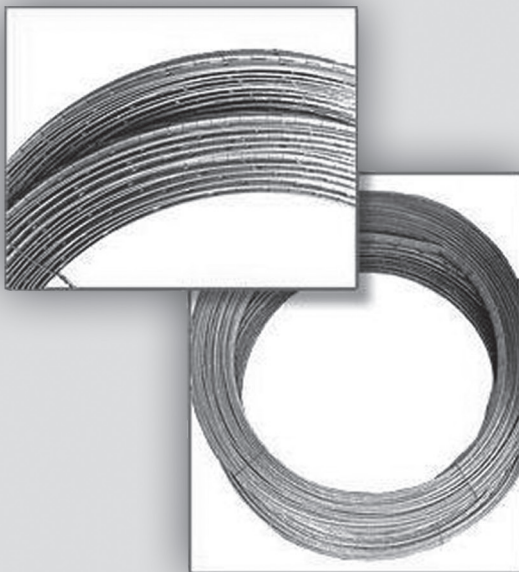


- Header & footer cards for retail displays
- Screw packs of #5 screws included
- For high volumes custom header & footer cards available

Ga.	Length	KL	Pin Diam.	P&C	Open Width			
					1 1/16"	1 1/4"	1 1/2"	2"
0.030"	24"	1/2"	0.080"	2"C#5	*	*	*	*
	30"				*	*	*	*
	36"				*	*	*	*
	48"				*	*	*	*
	72"				*	*	*	*

**NICKEL & FLASH BRASS,
with holes**

COILED HINGES



- Available in open width of 1/4" & 1/2"
- 100 ft coils weighing 17 lbs
- Leaves - 0.030" gauge
- Pins - 0.080" gauge
- Knuckle length - 1/2"
- Pierce & countersunk holes at 2" centres for #5 screws

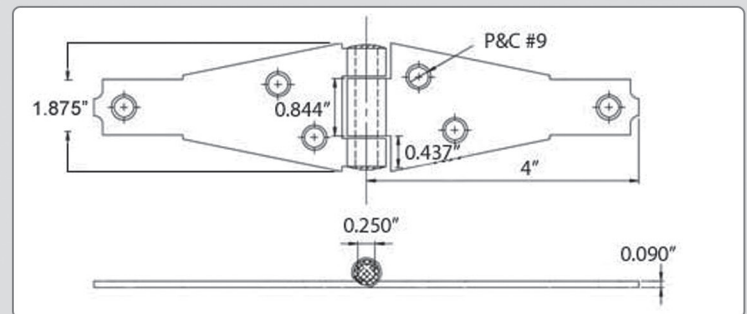
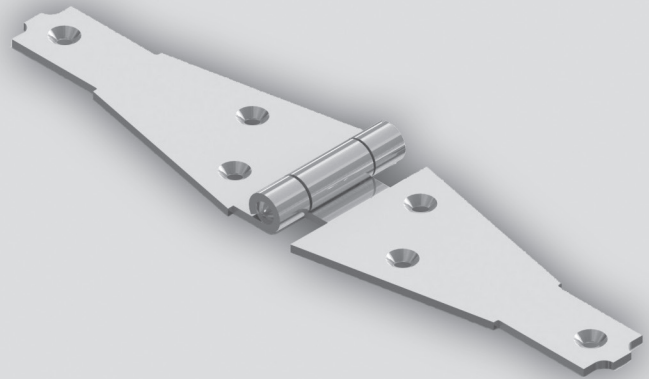
**PRE-PLATED NICKEL,
with holes**

STRAP HINGES

LIGHT GAUGE

- Leaf material: 0.090" plain steel
- Pin: zinc plated or brass
- Finish: zinc plated
- Weight: 0.29 lbs
- Heavy duty construction
- Spun pin ends
- Post plated in-house
- Holes for #9 screws

4" STRAP HINGE

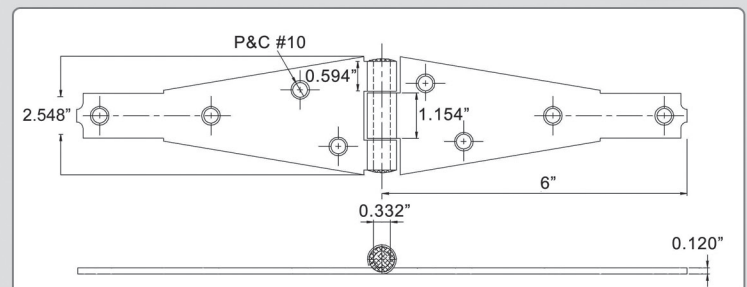
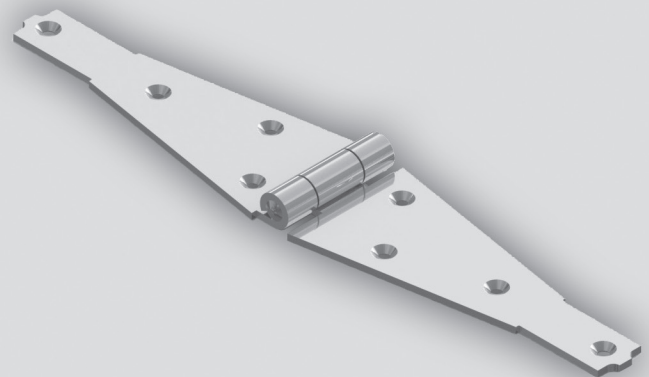


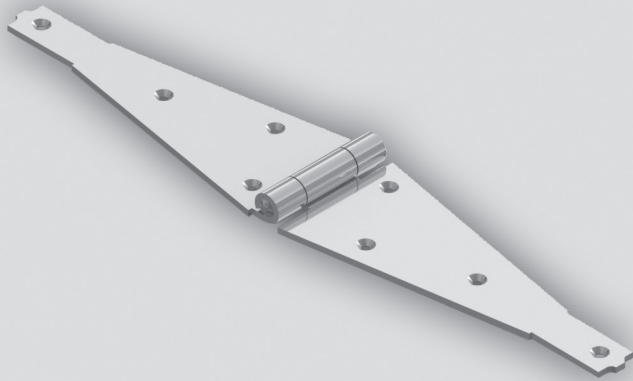
STRAP HINGES

MEDIUM GAUGE

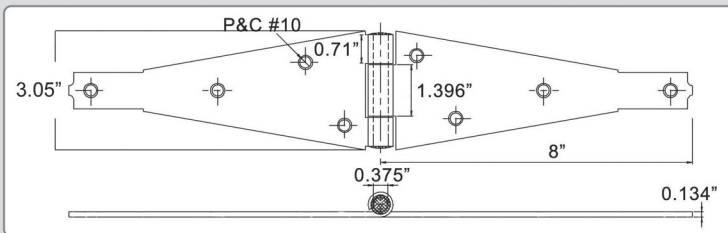
- Leaf material: 0.120" plain steel
- Pin: zinc plated or brass
- Finish: zinc plated
- Weight: 0.86 lbs
- Heavy duty construction
- Spun pin ends
- Post plated in-house
- Holes for #10 screws

6" STRAP HINGE

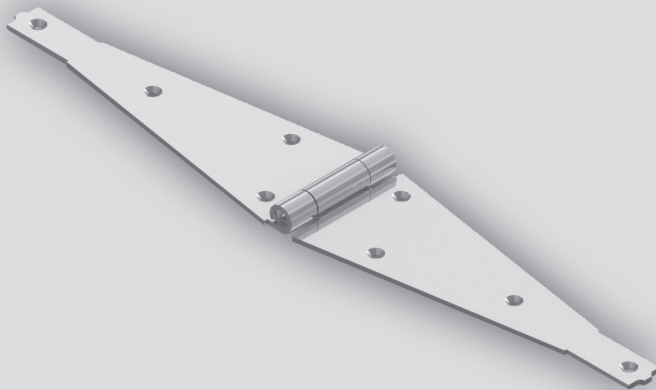




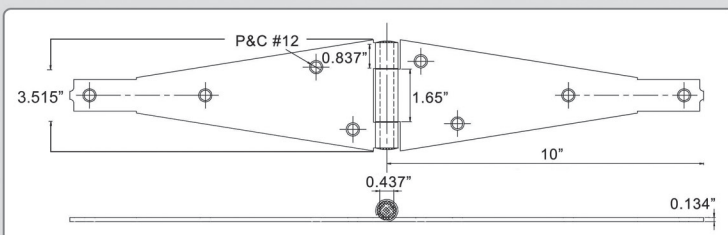
- Leaf material: 0.134" plain steel
- Pin: zinc plated or brass
- Finish: zinc plated
- Weight: 1.25 lbs
- Heavy duty construction
- Spun pin ends
- Post plated in-house
- Holes for #10 screws



8" STRAP HINGE



- Leaf material: 0.134" plain steel
- Pin: zinc plated or brass
- Finish: zinc plated
- Weight: 1.84 lbs
- Heavy duty construction
- Spun pin ends
- Post plated in-house
- Holes for #12 screws

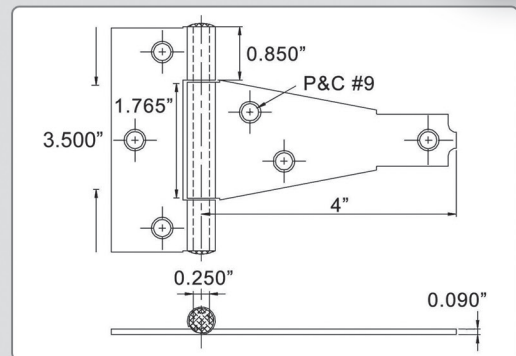
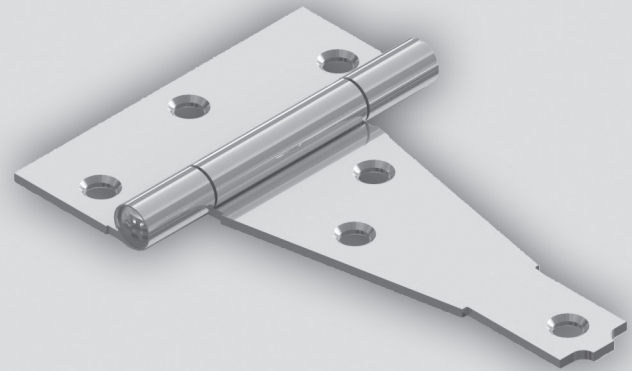


10" STRAP HINGE

TEE HINGES

LIGHT GAUGE

- Leaf material: 0.090" plain steel
- Pin: zinc plated or brass
- Finish: zinc plated
- Weight: 0.35 lbs
- Heavy duty construction
- Spun pin ends
- Post plated in-house
- Holes for #9 screws

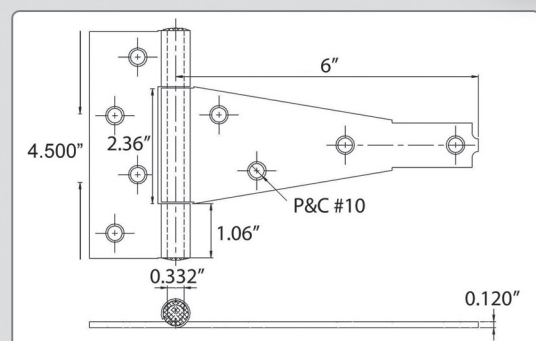
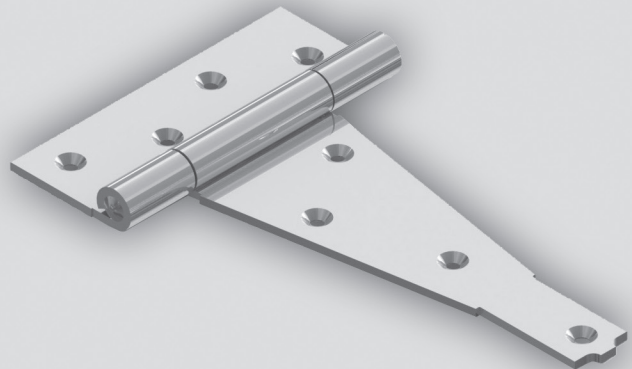


4" TEE HINGE

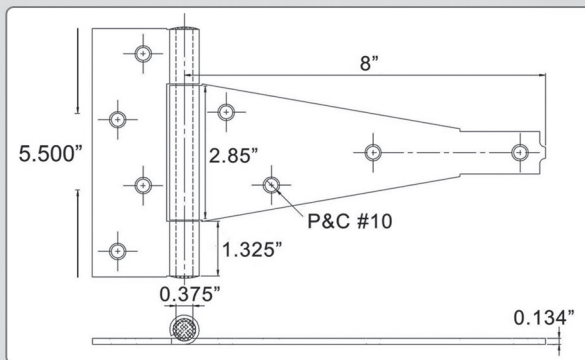
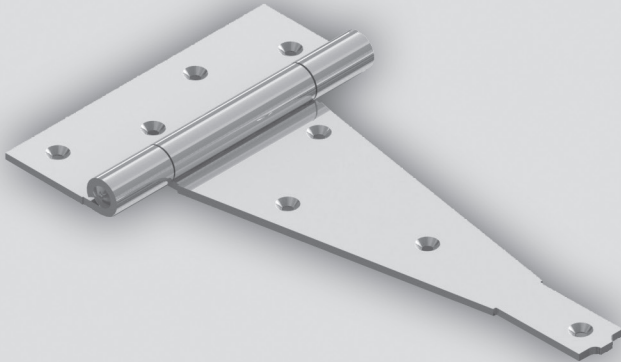
TEE HINGES

MEDIUM GAUGE

- Leaf material: 0.120" plain steel
- Pin: zinc plated or brass
- Finish: zinc plated
- Weight: 0.82 lbs
- Heavy duty construction
- Spun pin ends
- Post plated in-house
- Holes for #10 screws

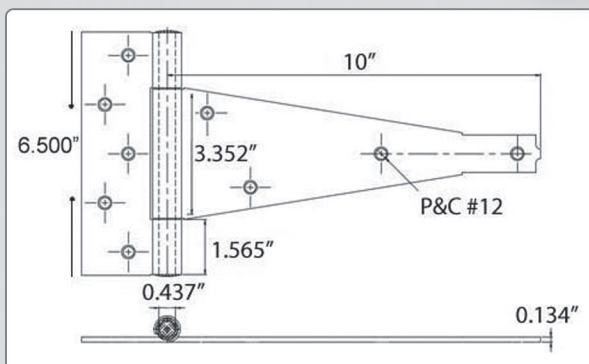
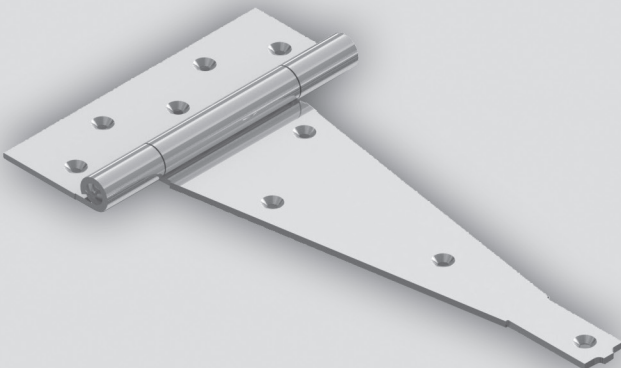


6" TEE HINGE



- Leaf material: 0.134" plain steel
- Pin: zinc plated or brass
- Finish: zinc plated
- Weight: 1.28 lbs
- Heavy duty construction
- Spun pin ends
- Post plated in-house
- Holes for #10 screws

8" TEE HINGE



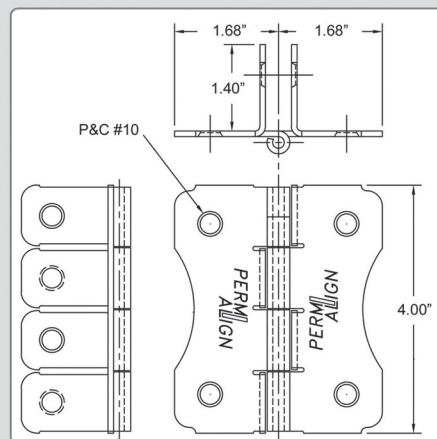
- Leaf material: 0.134" plain steel
- Pin: zinc plated or brass
- Finish: zinc plated
- Weight: 2.07 lbs
- Heavy duty construction
- Spun pin ends
- Post plated in-house
- Holes for #12 screws

10" TEE HINGE

PERMALIGN® HINGES

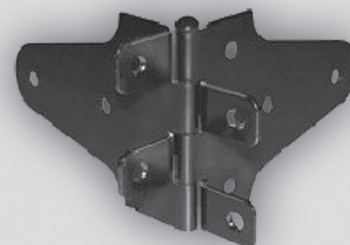
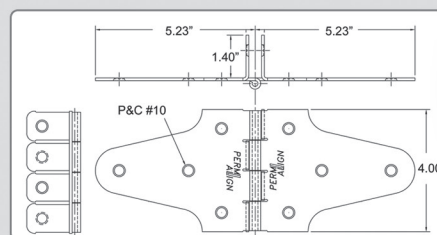
- Material: plain steel, 13 gauge
- Finish: black powder & zinc plated
- Weight: 0.52 lbs
- Extreme heavy duty applications
- Fastens to 2" x 4" or 2" x 6" material on two sides

211322B 22 BUTT HINGE



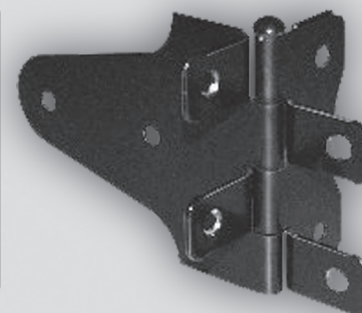
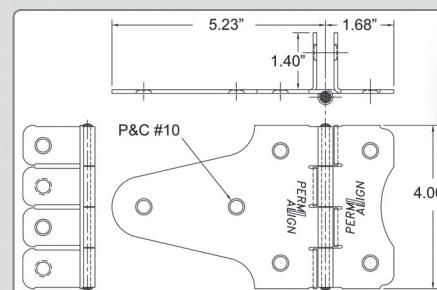
- Material: plain steel, 13 gauge
- Finish: black powder & zinc plated
- Weight: 0.87 lbs
- Extreme heavy duty applications
- Fastens to 2" x 4" or 2" x 6" material on two sides

211322S 22 STRAP HINGE

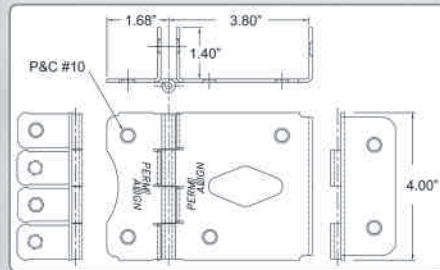
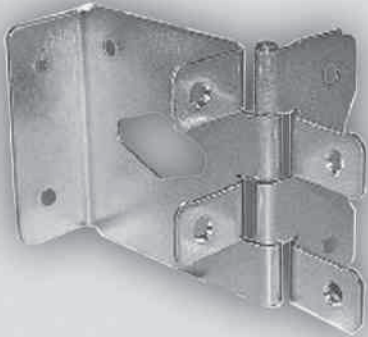


- Material: plain steel, 13 gauge
- Finish: black powder & zinc plated
- Weight: 0.70 lbs
- Extreme heavy duty applications
- Fastens to 2" x 4" or 2" x 6" material on two sides

211322T 22 TEE HINGE

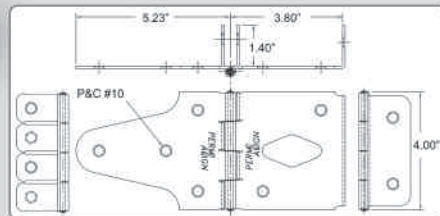
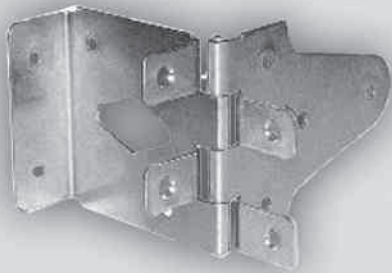


PERMALIGN® HINGES



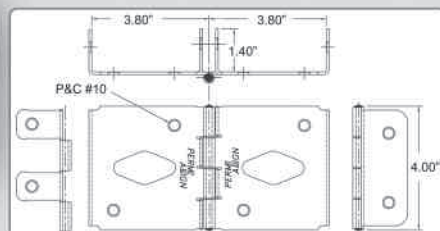
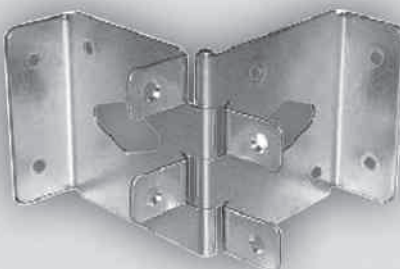
- Material: plain steel, 13 gauge
- Finish: black powder & zinc plated
- Weight: 0.85 lbs
- Extreme heavy duty applications
- Fastens to 4" x 4" post on 3 sides and to 2" x 4" or 2" x 6" material on 2 sides

211332B 32 BUTT HINGE



- Material: plain steel, 13 gauge
- Finish: black powder & zinc plated
- Weight: 1.00 lbs
- Extreme heavy duty applications
- Fastens to 4" x 4" post on 3 sides and to 2" x 4" or 2" x 6" material on 2 sides

211332S 32 STRAP HINGE

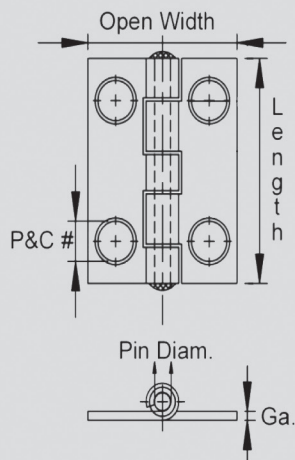


- Material: plain steel, 13 gauge
- Finish: black powder & zinc plated
- Weight: 1.12 lbs
- Extreme heavy duty applications
- Fastens to 2 posts on 3 sides

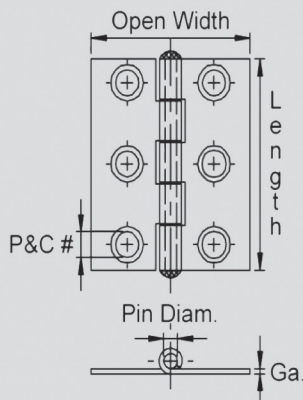
211333H 33 HINGE

***All PermaAlign® hinges can be made as a continuous hinge to any length in 4" increments

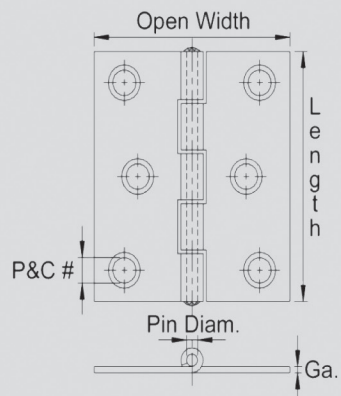
BUTT HINGES



GA.	LENGTH	OPEN WIDTH	PIN DIAM.	PIN TYPE	P&C #	STOP FEAT.③	PART #
0.040"	1"	0.75"	0.090"	Spun①	3		2119066
		1.00"	0.080"	Flush②	4		2119006
		1.00"	0.080"	Spun	4		2119005
	1 1/2"	0.75"	0.105"	Spun	5	*	2118S01
	1 1/4"	1.25"	0.105"	Spun	5		2119009
		1.375"	0.105"	Spun	5		2119050
		1.50"	0.105"	Spun	5		2119042
		1.75"	0.105"	Spun	5		2119035
	1 1/2"	1.43"	0.105"	Spun	5		2119014
		1.43"	0.105"	Spun	5	Swaged	2119030
	1 3/4"	1.00"	0.100"	Flush	6		1419B13
0.060"	1 1/2"	1.43"	0.105"	Spun	6		2116010
0.075"	2"	1.625"	0.125"	Spun	6		2115011



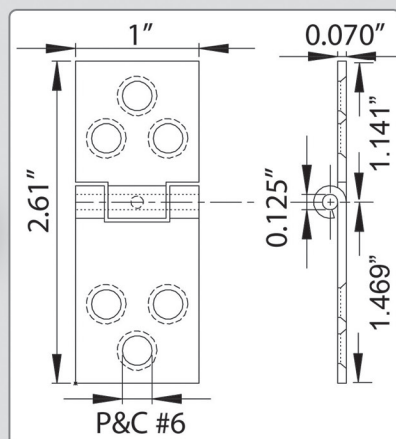
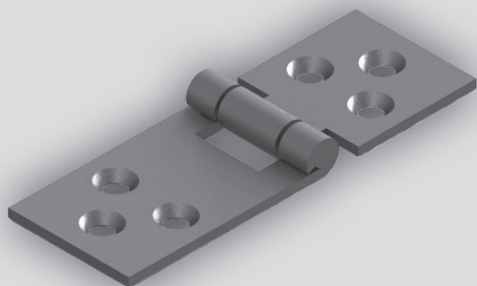
GA.	LENGTH	OPEN WIDTH	PIN DIAM.	PIN TYPE	P&C #	STOP FEAT.	PART #
0.040"	1.75"	1.375"	0.105"	Spun	5		2119016
	1.75"	1.56"	0.105"	Spun	5		2119017
0.050"	2.00"	1.375"	0.105"	Spun	5		2118003
		1.50"	0.105"	Spun	5	*	2118S28
		2.20"	0.105"	Spun	5	*	2118SXX
	2.50"	1.80"	0.105"	Spun	6		2118029



GA.	LENGTH	OPEN WIDTH	PIN DIAM.	PIN TYPE	P&C #	STOP FEAT.	PART #
0.050"	2.00"	1.75"	0.105"	Spun	5	*	2118SX3
		1.75"	0.105"	Spun	5		2118006
		2.00"	0.105"	Spun	5	*	2118S02
		2.25"	0.105"	Spun	5	*	2118SX4
		2.75"	0.105"	Spun	5		2118010

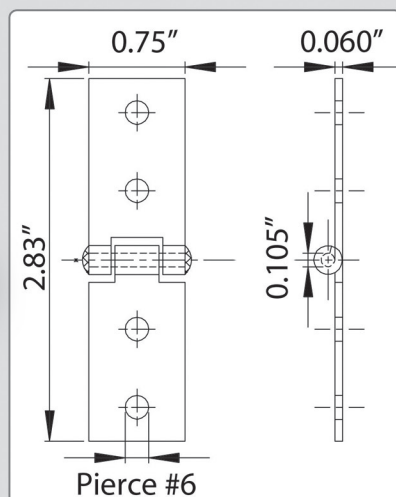
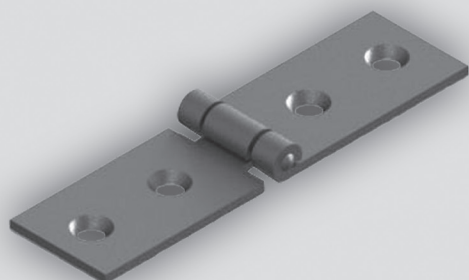
- ① Pin ends are spun, pin cannot be removed
- ② Pin ends are cut flush; pin can be removed with force
- ③ Stop angle: 100° – 125° ± 5°

BUTT HINGES



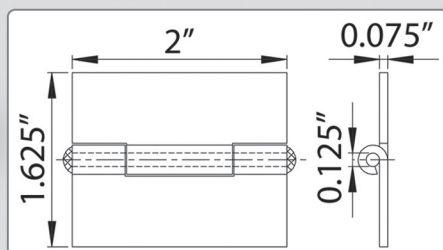
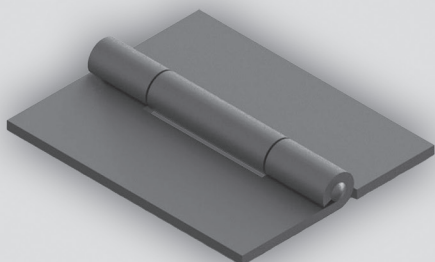
- Material: plain steel
- Weight: 0.062 lbs
- Pin type: flush
- Finish: plated & painted available
- Available with a swage (2115016)

2115015 BACK FLAP/TABLE BUTT HINGE, no swage



- Material: plain steel
- Weight: 0.042 lbs
- Pin type: spun
- Finish: plated & painted available

2116012 BACK FLAP/TABLE BUTT HINGE



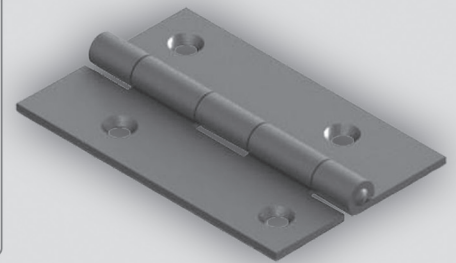
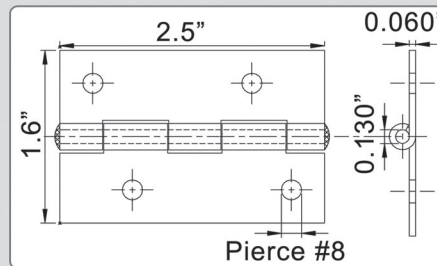
- Material: plain steel
- Weight: 0.090 lbs
- Pin type: spun
- Finish: plated & painted available

2115010 CABINET BUTT HINGE

BUTT HINGES

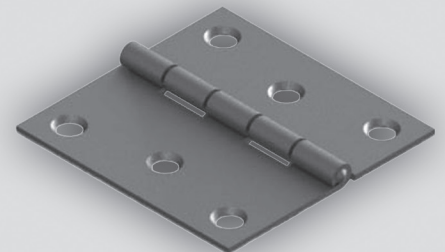
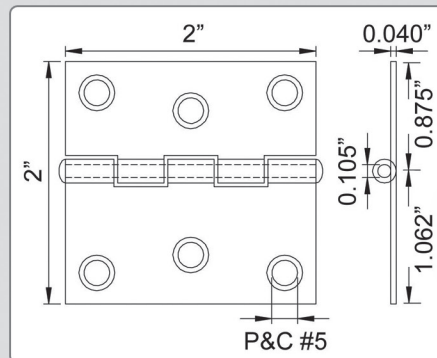
- Material: plain steel
- Weight: 0.087 lbs
- Pin type: spun
- Finish: plated & painted available

2117001 CABINET BUTT HINGE



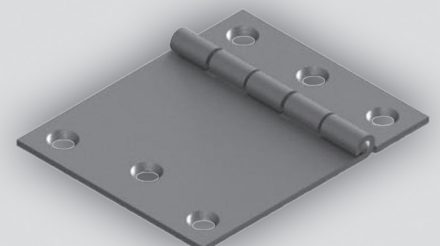
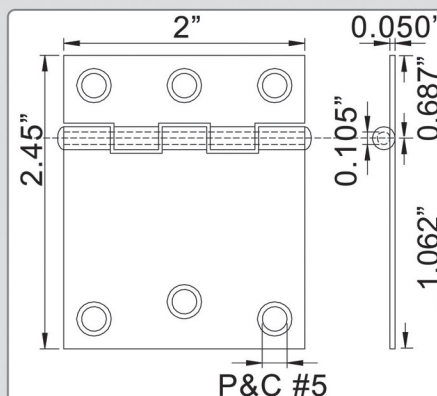
- Material: plain steel
- Weight: 0.055 lbs
- Pin type: spun
- Finish: plated & painted available

2118053 CABINET BUTT HINGE

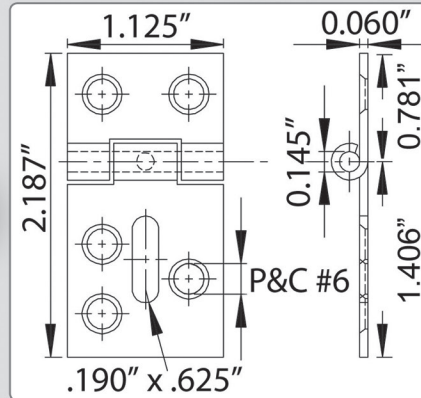
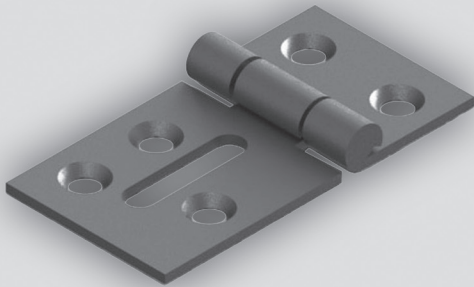


- Material: plain steel
- Weight: 0.051 lbs
- Pin type: spun
- Finish: plated & painted available

2119084 CABINET BUTT HINGE

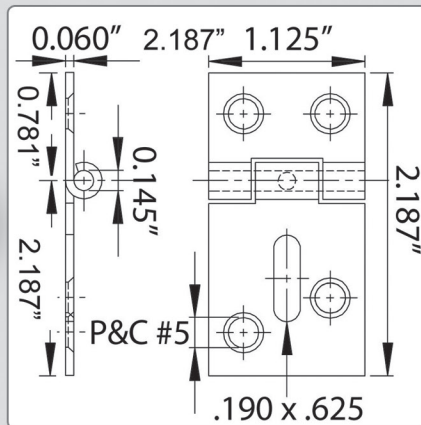
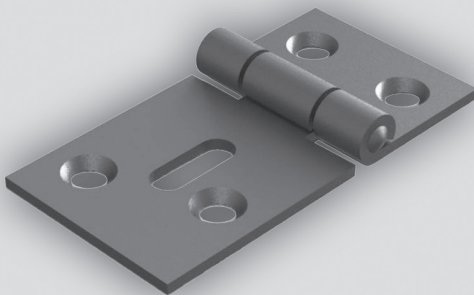


BUTT HINGES



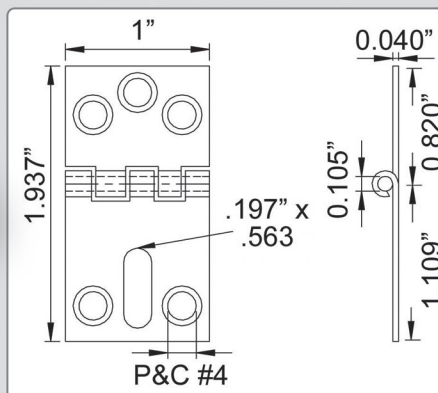
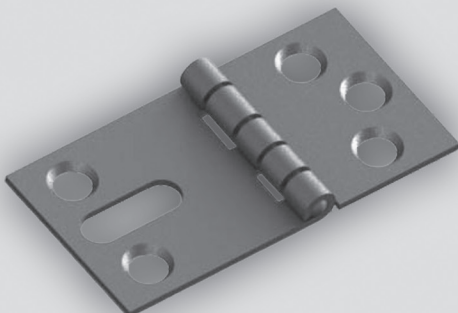
- Material: plain steel
- Weight: 0.051 lbs
- Pin type: flush
- Finish: plated & painted available

2116015 CASKET BUTT HINGE



- Material: plain steel
- Weight: 0.038 lbs
- Pin type: spun
- Finish: plated & painted available

2116016 CASKET BUTT HINGE



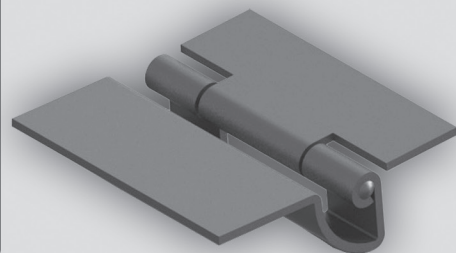
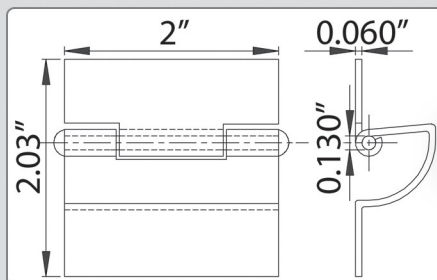
- Material: plain steel
- Weight: 0.026 lbs
- Pin type: spun
- Finish: plated & painted available

2119032 CASKET BUTT HINGE

BUTT HINGES

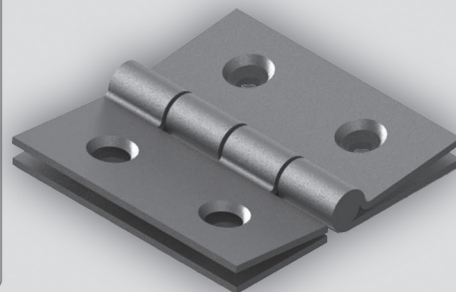
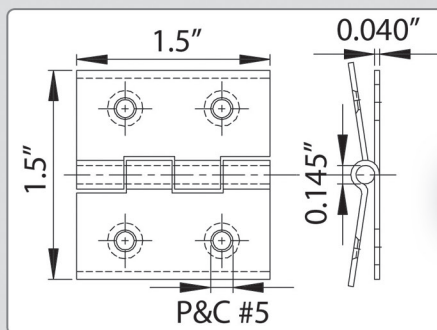
- Material: plain steel
- Weight: 0.120 lbs
- Pin type: flush
- Finish: plated & painted available

2116020 ELECTRICAL PANEL BOX HINGE, formed leaf



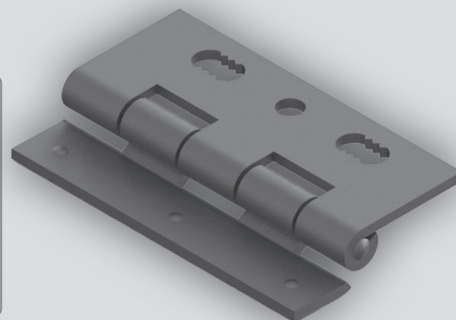
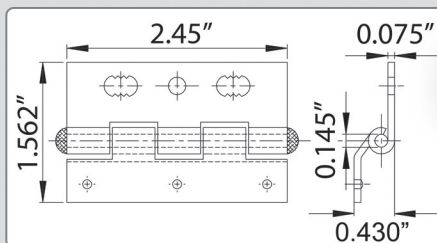
- Material: plain steel
- Weight: 0.056 lbs
- Pin type: flush
- Finish: plated & painted available

2119F01 FRICTION BUTT HINGE

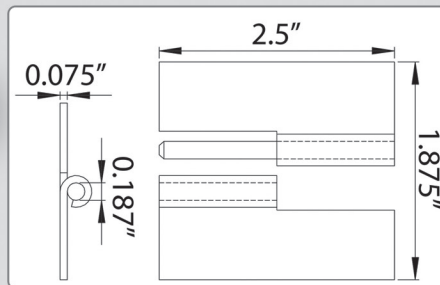
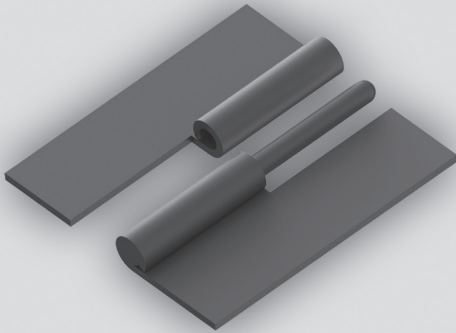


- Material: plain steel
- Weight: 0.130 lbs
- Pin type: spun
- Finish: plated & painted available
- Available with a 0.450" offset (2114005)

2114003 LOCKER BUTT HINGE, offset 0.430"

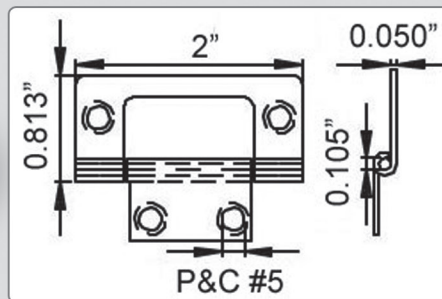
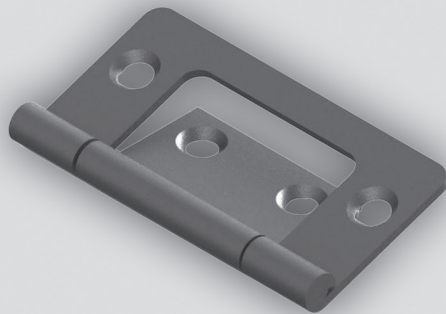


BUTT HINGES



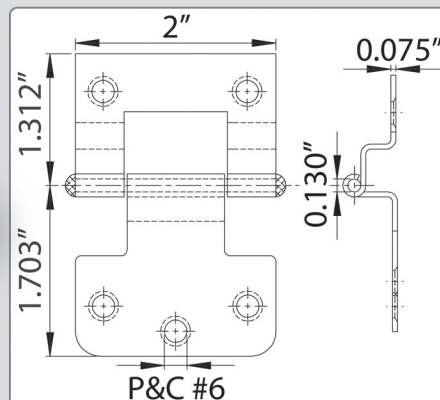
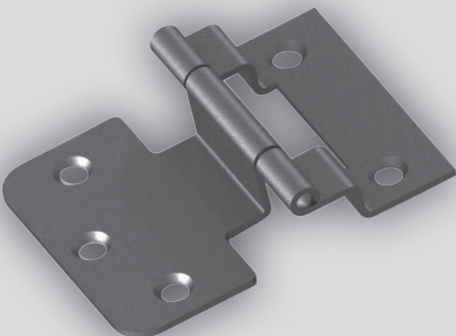
- Material: plain steel
- Weight: 0.150 lbs
- Pin type: flush
- Finish: plated & painted available
- Available in left hand (2114LJ1)

2114002 LOOSE JOINT BUTT HINGE, right hand



- Material: plain steel
- Weight: 0.038 lbs
- Pin type: flush
- Finish: plated & painted available

2118NM1 NON-MORTISE BUTT HINGE



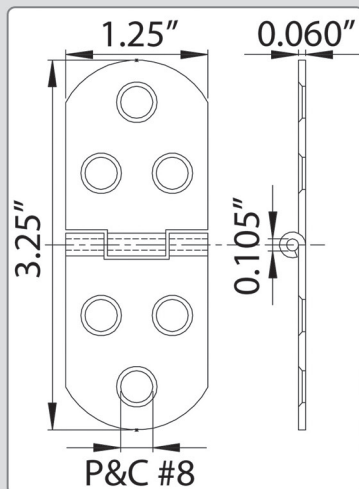
- Material: plain steel
- Weight: 0.089 lbs
- Pin type: spun
- Finish: plated & painted available

2118020 SEMI CONCEALED CABINET BUTT HINGE

BUTT HINGES

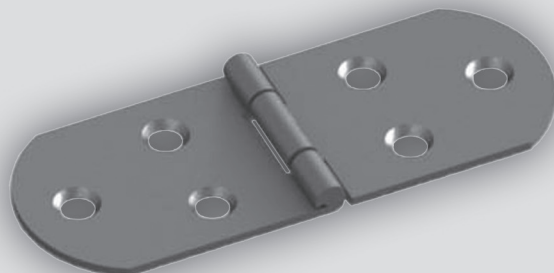
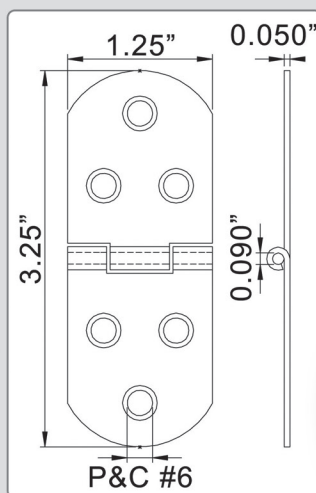
- Material: plain steel
- Weight: 0.065 lbs
- Pin type: flush
- Finish: plated & painted available

2116028 SEWING MACHINE BUTT HINGE



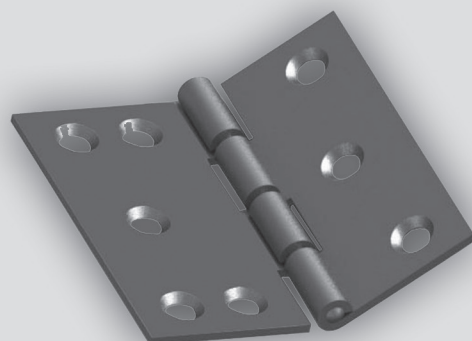
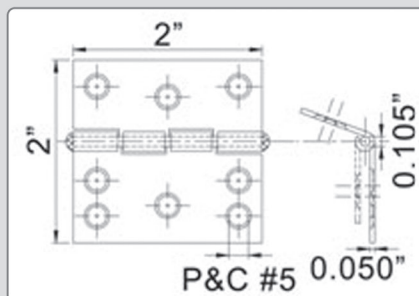
- Material: plain steel
- Weight: 0.058 lbs
- Finish: plated & painted available
- Available with flush pin (2118008)

2118007 SEWING MACHINE BUTT HINGE, bevelled pin



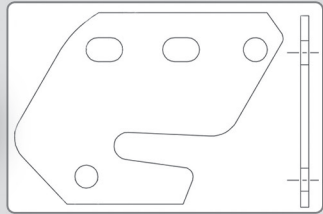
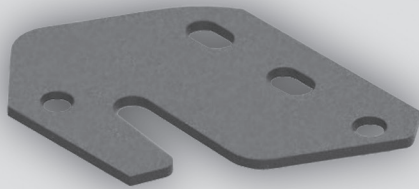
- Material: plain steel
- Weight: 0.059 lbs
- Pin type: spun
- Finish: plated & painted available
- Stop angle: 100° - 135° ± 5°

2118S15 STOP BUTT HINGE

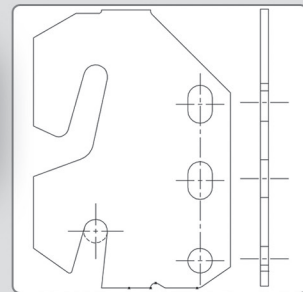
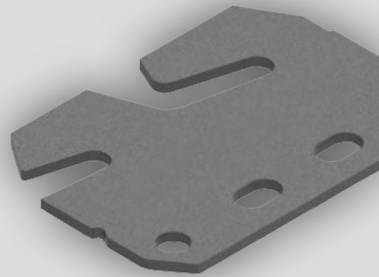


BED HOOKS

HARDWARE



3112002



3112000

Part #	Description	Length	Width	Gauge	Slot Length	Hole Diam.	Material
3112002	Single Bed Hook	3.5"	2.5"	0.105"	0.5"	0.313"	Plain Steel
3112000	Double Bed Hook	3.5"	2.5"	0.105"	0.5"	0.313"	Plain Steel

CORNER BRACES

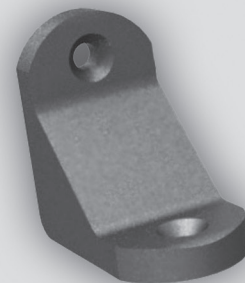
HARDWARE



6116023



6114031

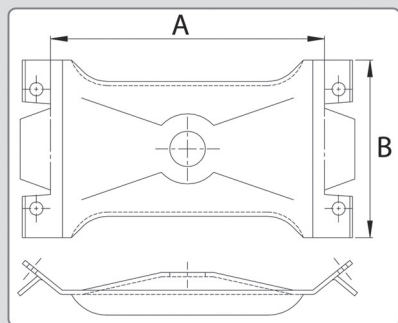


6119000

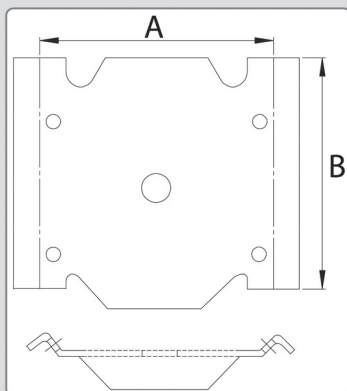
Part #	Arm Length	Width	Gauge	Hole Diam.	Material/Finish
6114015	0.7" – 1.562"	0.630"	0.075"	P&C #7	PS
6116023	0.75"	0.500"	0.060"	P&C #8	PS – Zinc Plated
6114005	0.75" – 1.063"	0.750"	0.075"	P&C #8	PS
6116114	1.00"	2.000"	0.060"	0.200"	PS – Zinc Plated
6112000	1.031"	0.625"	0.125"	P&C #7	PS – Zinc Plated
6116041	1.063"	0.500"	0.060"	P&C #8	PS
6114030	1.063"	0.625"	0.075"	P&C #7	PS – Zinc Plated
6111013	1.188"	0.625"	0.125"	P&C #7	PS – Zinc Plated
6119000	1.438"	0.750"	0.045"	P&C #6	PS
6114031	1.50"	0.625"	0.075"	P&C #6	PS – Zinc Plated
6114025	1.50"	0.750"	0.075"	P&C #10	PS
6112020	2.00"	0.625"	0.105"	P&C #7	PS – Zinc Plated
6112021	2.50"	0.625"	0.105"	P&C #8	PS – Zinc Plated
6112030	3.00"	0.750"	0.105"	P&C #8	PS – Zinc Plated
6112023	3.50"	0.750"	0.105"	P&C #8	PS – Zinc Plated
6112010	4.00"	0.875"	0.105"	P&C #10	PS – Zinc Plated
6108003	5.00"	1.000"	0.156"	P&C #10	PS – Zinc Plated
6107008	6.00"	1.125"	0.187"	P&C #12	PS – Zinc Plated
6107009	8.00"	1.125"	0.187"	P&C #12	PS – Zinc Plated

HARDWARE

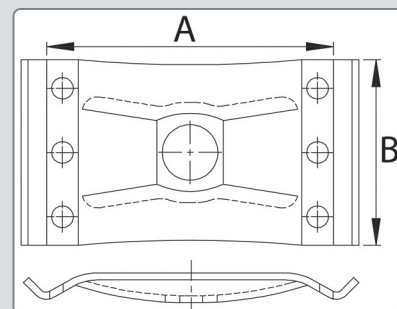
TABLE CORNER BRACES



6116021



6114001

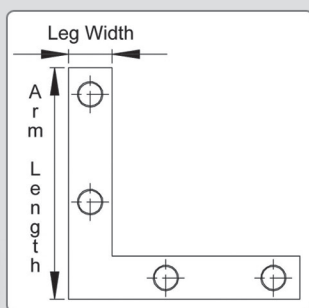
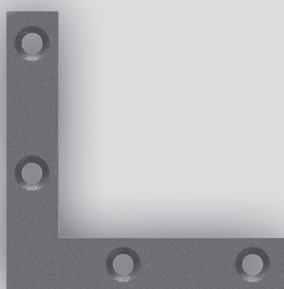


6116022

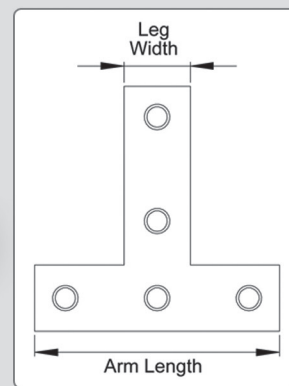
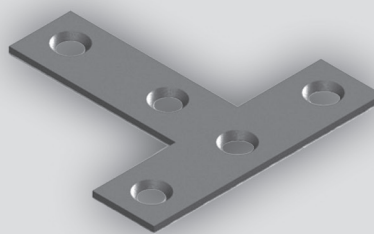
Part #	Dim. A	Dim. B	Gauge	Hole Diam.	Material
6116026	2.50"	1.000"	0.062"	5/32"	Plain Steel
6116020	2.50"	1.375"	0.062"	5/32"	Plain Steel
6116022	2.50"	1.625"	0.062"	5/32"	Plain Steel
6116011	2.50"	2.500"	0.062"	5/32"	Plain Steel
6114001	3.00"	2.750"	0.075"	5/32"	Plain Steel
6116012	4.125"	2.500"	0.062"	5/32"	Plain Steel
6116021	4.125"	2.500"	0.062"	5/32"	Plain Steel
6116010	4.25"	3.250"	0.062"	5/32"	Plain Steel

HARDWARE

CORNER/"T" PLATES



6116014



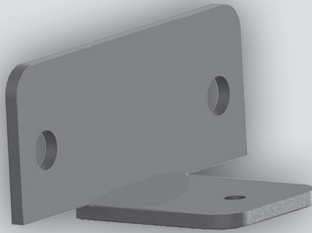
6116123

Part #	Each Arm	Leg Width	Ga.	P&C #	Material/ Finish
6116014	2.00"	0.375"	0.060"	5	PS – Zinc Plated
6116013	2.50"	0.50"	0.060"	6	PS – Zinc Plated
6114021	3.00"	0.50"	0.078"	6	PS – Zinc Plated
6113003	3.00"	0.50"	0.090"	6	PS – Zinc Plated
6114060	4.00"	0.75"	0.078"	8	PS – Zinc Plated

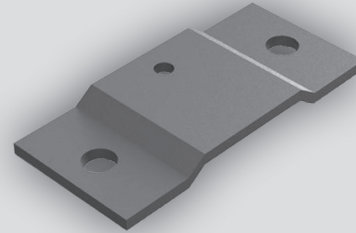
Part #	Each Arm	Leg Width	Ga.	P&C #	Material/ Finish
6116123	2.50"	0.675"	0.060"	8	PS – Zinc Plated
6114062	3.00"	0.75"	0.075"	8	PS – Zinc Plated
6114063	4.00"	0.875"	0.075"	8	PS – Zinc Plated
6113017	5.00"	1.00"	0.090"	9	PS – Zinc Plated

K.D. BRACKETS

HARDWARE



6116K12

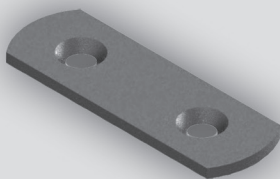


6116K11

Part #	Length	Width	Gauge	Description	Hole Diam.	Material/Finish
6116K12	1.625"	0.721"	0.060"	Male	0.170"	PS – Zinc Plated
6116K11	1.625"	0.750"	0.060"	Female	0.167"	PS – Zinc Plated

MENDING PLATES

HARDWARE



6116006



6112012

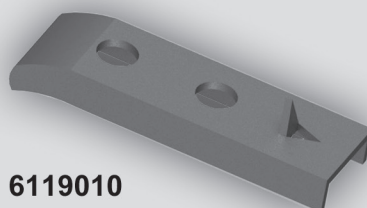


6114064

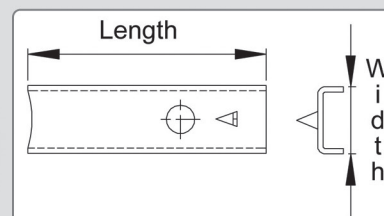
Part #	Length	Width	Gauge	P&C #	Material/Finish
6116006	1.500"	0.50"	0.060"	5	PS – Zinc Plated
6116045	1.063"	0.50"	0.060"	6	PS
6111010	1.375"	0.625"	0.125"	7	PS
6116005	2.125"	0.50"	0.060"	6	PS – Zinc Plated
6111005	2.500"	0.75"	0.120"	9	PS
6114016	3.000"	0.625"	0.075"	6	PS – Zinc Plated
6111007	3.375"	0.625"	0.120"	8	PS
6114064	3.590"	0.625"	0.075"	6	PS – Almond Powder Coat, White Powder Coat
6112011	4.000"	0.625"	0.105"	7	PS – Zinc Plated
6111031	4.125"	0.625"	0.120"	8	PS
6112012	5.000"	0.625"	0.105"	8	PS – Zinc Plated
6107007	8.000"	1.125"	0.187"	10	PS – Zinc Plated

TABLE TOP LEVELLERS

HARDWARE



6119010



Part #	Length	Width	Gauge	Hole Diam.	Material/Finish
6119010	1.75"	0.50"	0.040"	0.219"	PS

CUSTOM HINGE &

Our ability to customize hinge & metal stamped products, to your specifications, enables us to offer a wide variety of products serving many industry segments.

In this section we provide a few examples of products in the following industry sectors & applications:

- Agriculture/Construction Equipment
- Appliances, B.B.Q.'s, Fireplaces
- Doors/Windows
- Enclosures
- Heavy Gauge
- Lockers
- Office/Laboratory Furniture & Equipment
- Toolbox & Storage Compartments
- Trailers - Utility, R.V., Modular Homes
- Vehicle Doors & Accessories
- Washroom Products
- Wood & Metal Storage Cabinets

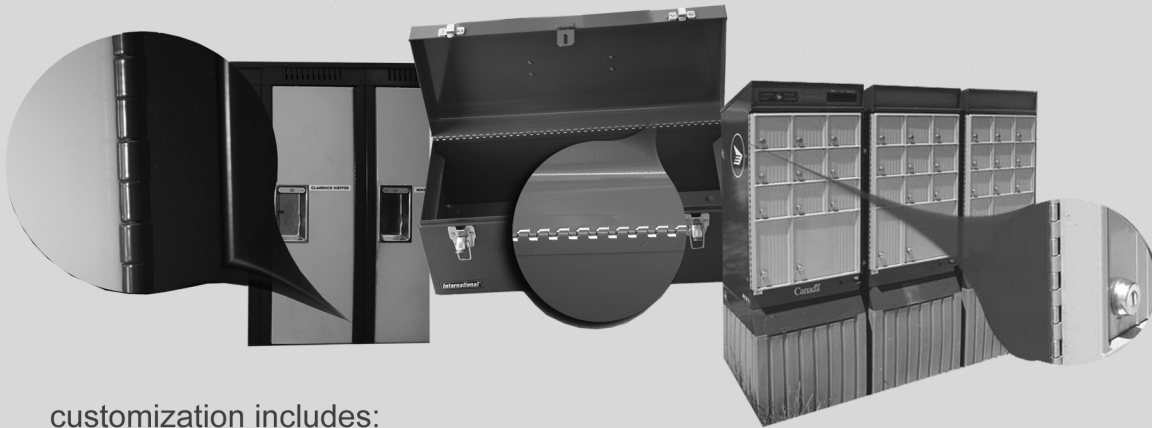



LARSEN & SHAW
the hinge people

www.larsenhinge.com

(800) 265-3078

METAL STAMPINGS



customization includes:

- material
- finish
- length
- gauge
- pin diameter
- knuckle length
- open width
 - equal leaves
 - unequal leaves
- pin requirements
 - staked, unstaked
 - retention - hand removable, tap removable, non removable, spun ends
 - movement - free swinging smooth acting, snug/tight, friction fit
- piercing or pierce & countersink
- in-line or staggered holes with non standard distance between holes
- non standard hole sizes
- slots & notches
- swaging
 - one leaf half or full swaged
 - two leafs half swaged
 - reverse swaged
- forming
- spring loaded



www.larsenhinge.com

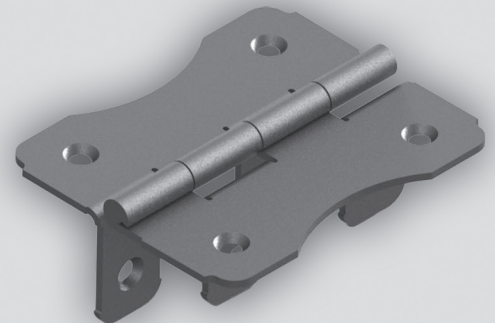
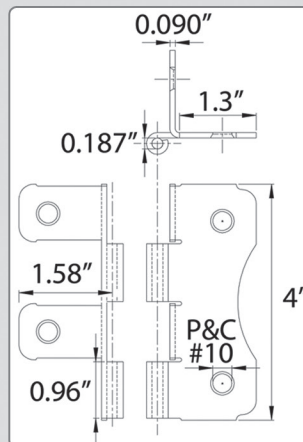
(800) 265-3078



butt application for:

- connecting 2" x 4" or 2" x 6" material in 2 planes
- storage sheds

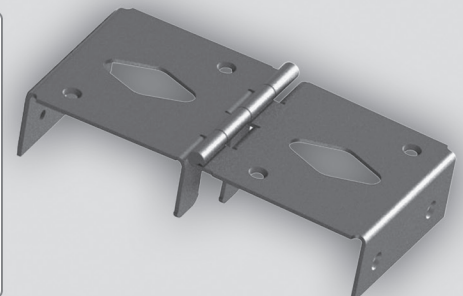
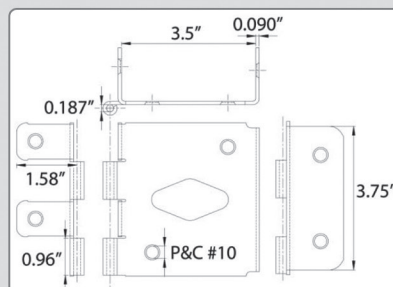
GATE HINGE

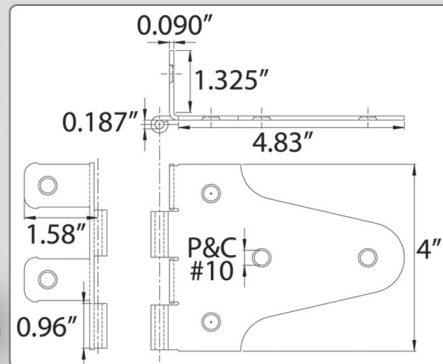
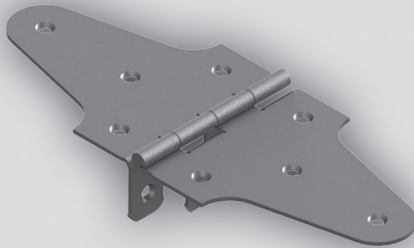


post application for:

- connecting 4" x 4" material in 3 planes
- fencing
- dock ramps

GATE HINGE

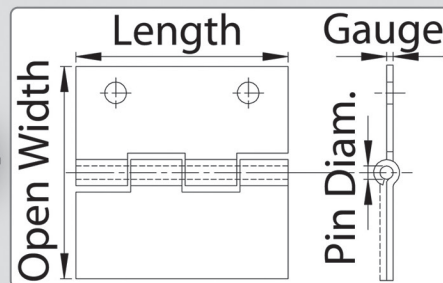
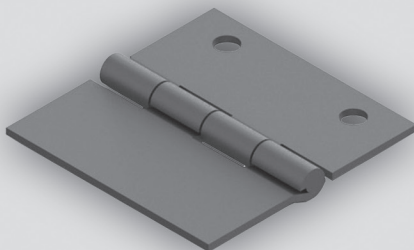




strap application for:

- connecting 2" x 4" or 2" x 6" material in 2 planes

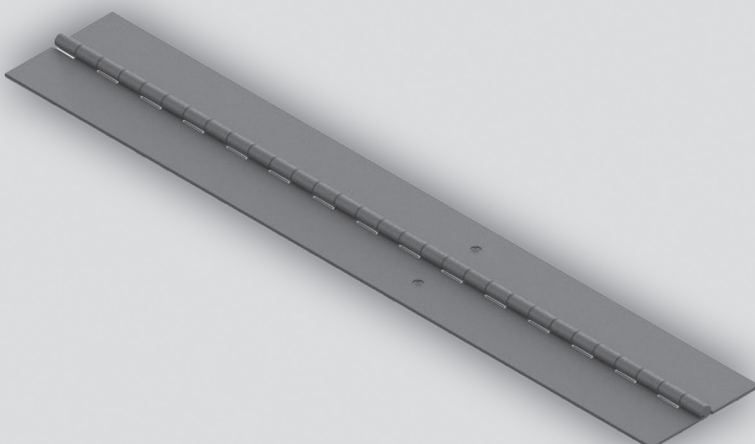
GATE HINGE



applications include:

- guarding
- small access panels

BUTT HINGE



applications include:

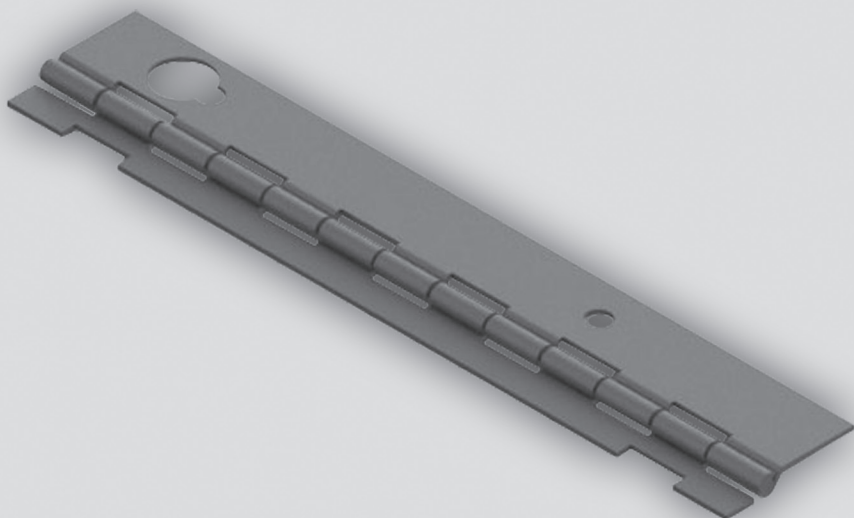
- heavier access panels
- compressors
- generators
- engine compartments

CONTINUOUS HINGE



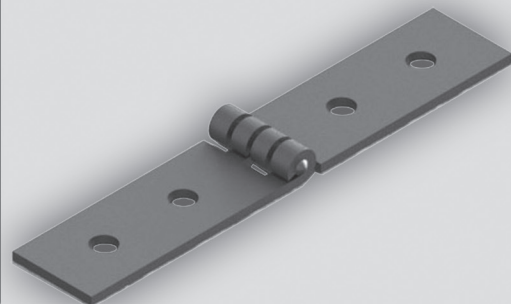
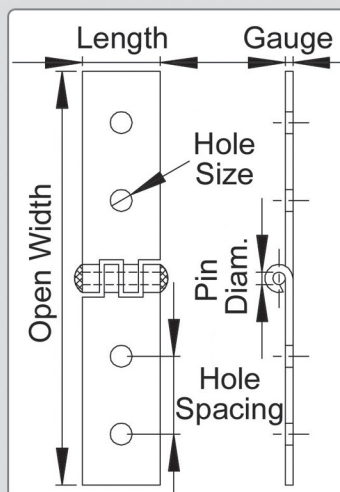
applications include:
- fireplace control access door

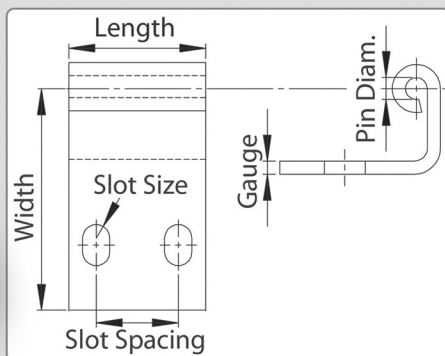
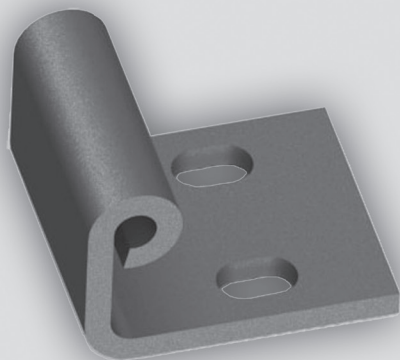
CONTINUOUS HINGE, pierced and notched



applications include:
- fireplace screens

BACK FLAP HINGE

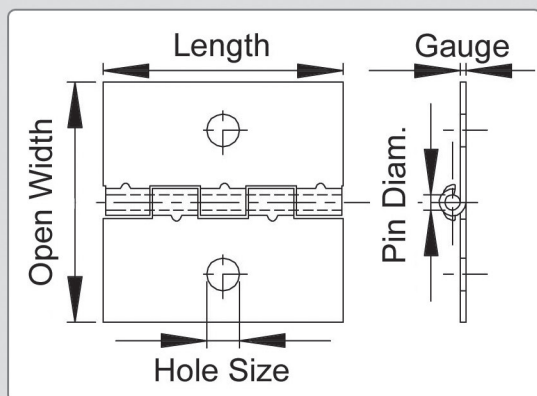




applications include:

- barbecue lids

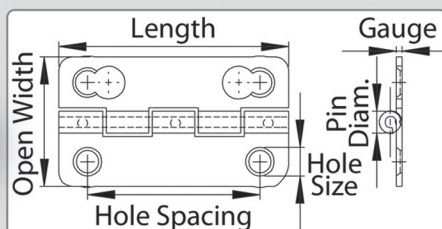
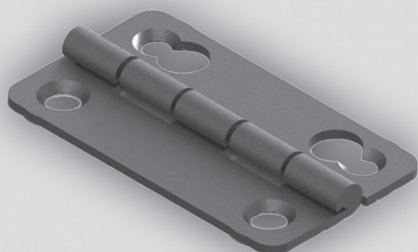
FORMED LEAF, with slots



applications include:

- access panels
- louvers

BUTT HINGE, with weld guides, Quik-A-Line



applications include:

- washer & dryer doors

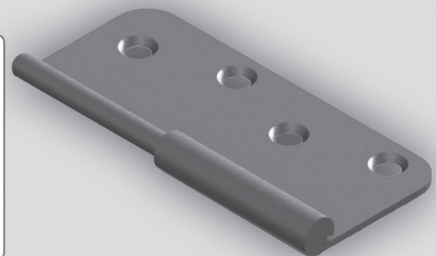
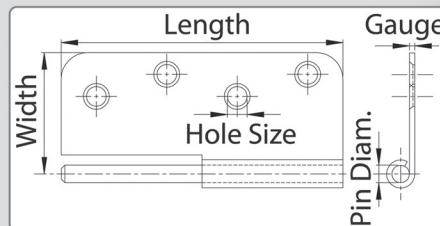
BUTT HINGE, with key holes



applications include:

- windows
- patio doors
- storm doors

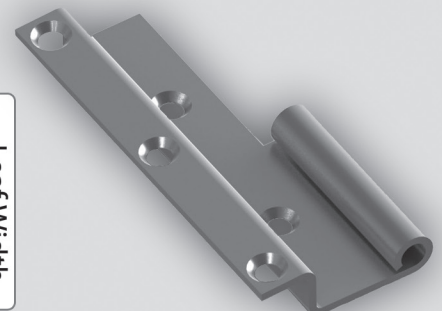
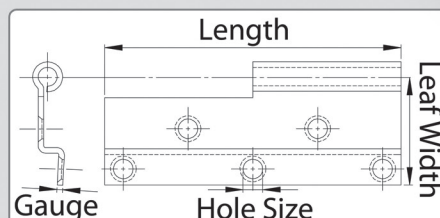
LIFT OFF HINGE, with radius corners

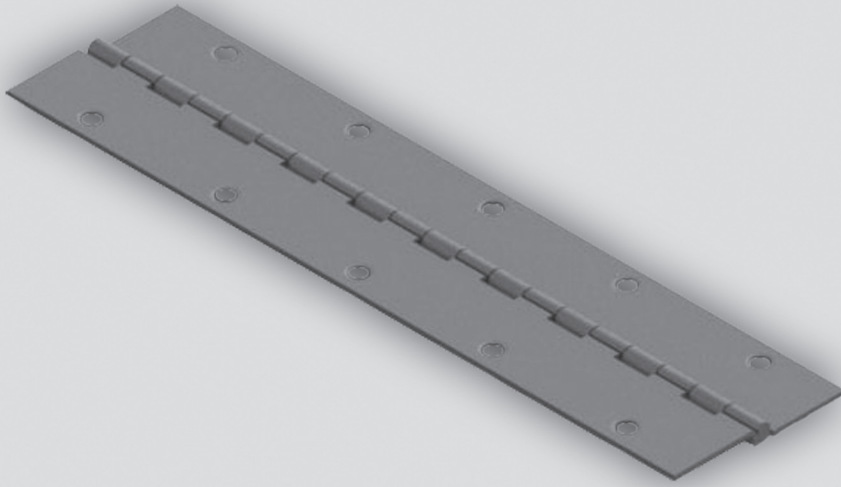


applications include:

- specialty windows
- storm & decorative shutters

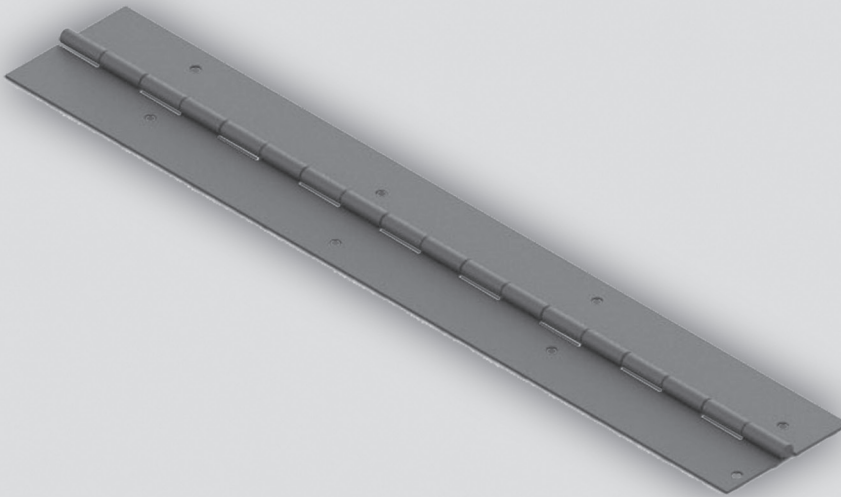
LIFT OFF HINGE, with double form





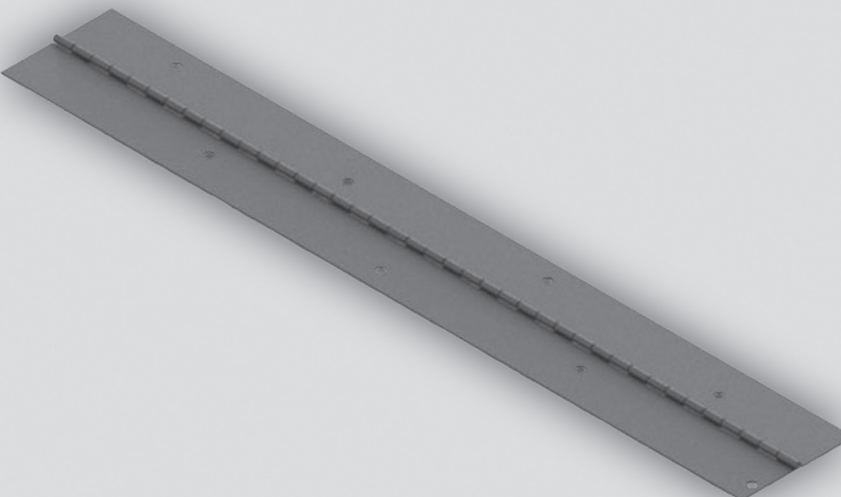
heavy duty commercial applications:
- laundry chutes

CONTINUOUS HINGE, with holes



applications include:
- lighter duty residential doors & cabinets

CONTINUOUS HINGE, with holes



applications include:
- hurricane & security shutters

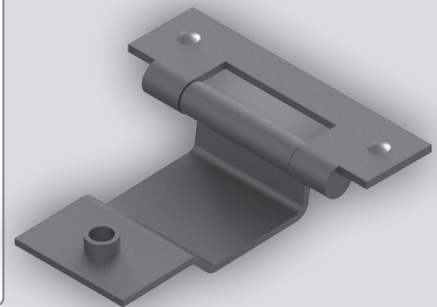
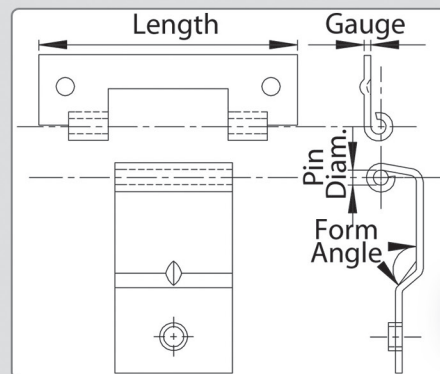
CONTINUOUS HINGE, with staggered holes



applications include:

- electrical panel doors
- transformer enclosures

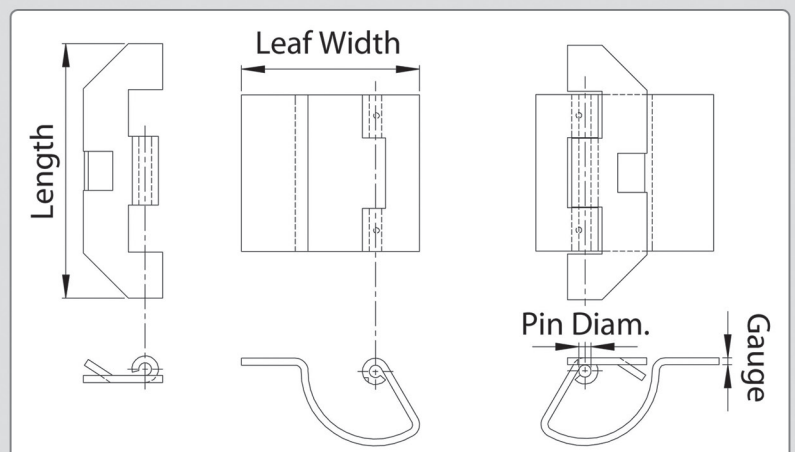
COMPLEX TEE HINGE



applications include:

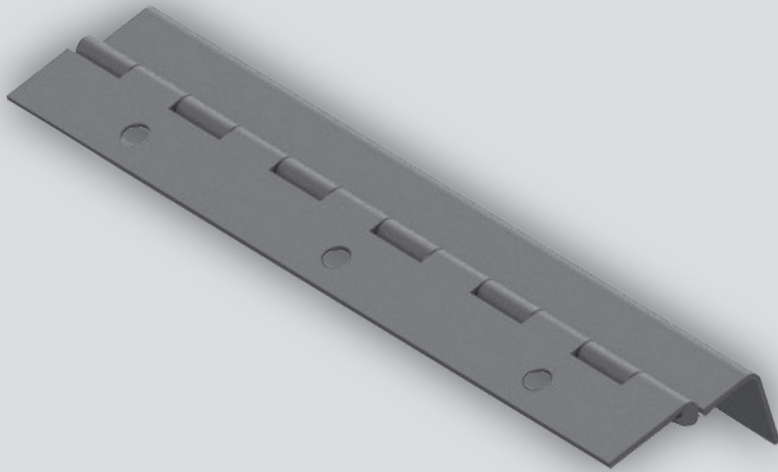
- fuse panels
- rooftop louvers & dampers

COMPLEX BUTT HINGE, with swing clear leaf



ENCLOSURES

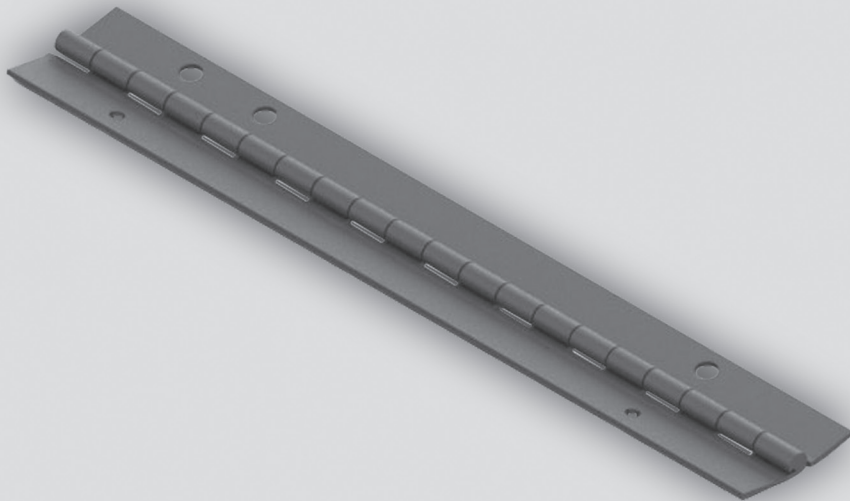
CUSTOM HINGES



applications include:

- overhead signs
- video games
- slot machines

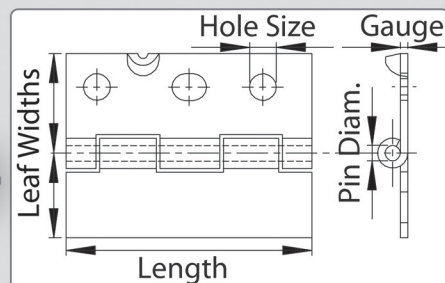
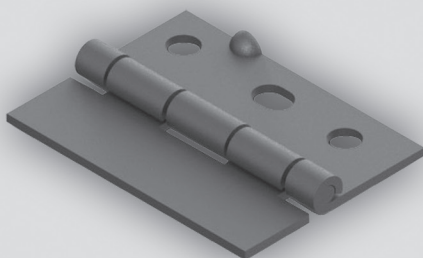
CONTINUOUS HINGE, with holes



applications include:

- mailbox enclosures
- waste containers
- newsstands

CONTINUOUS HINGE, with holes



applications include:

- signage
- HVAC equipment

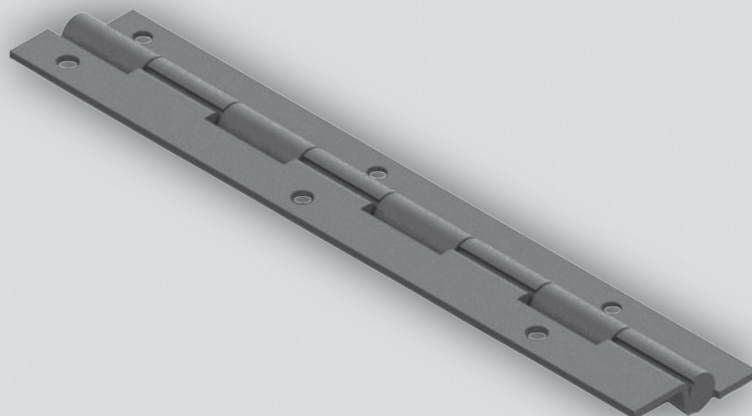
BUTT HINGE, with holes



applications include:

- material handling equipment
- construction equipment
- gun lockers

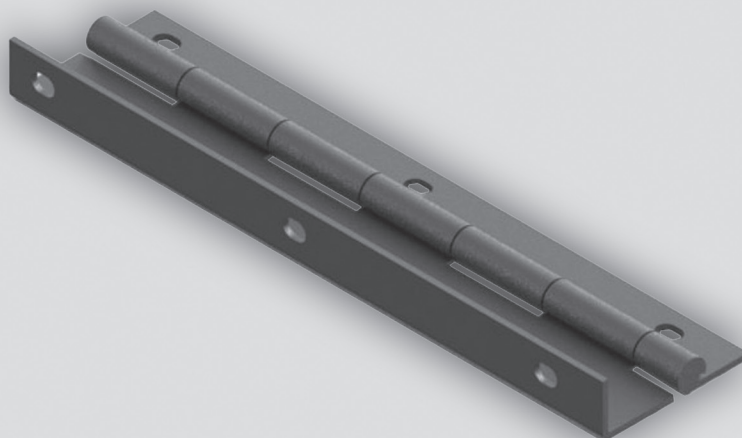
CONTINUOUS HINGE, reverse assembled



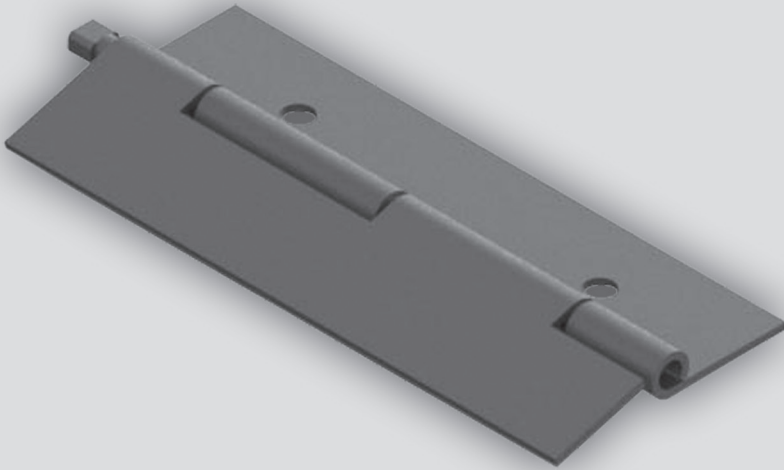
applications include:

- conveyors
- mining equipment
- equipment cases

CONTINUOUS HINGE, formed, pierced, slotted



HEAVY HINGE

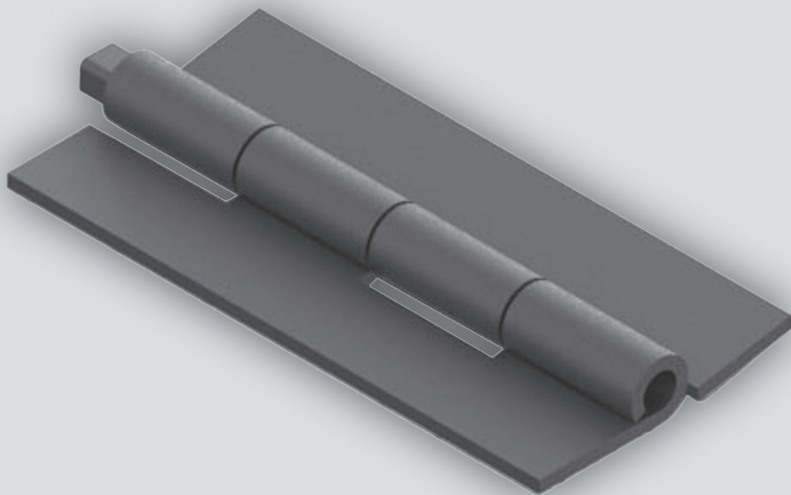


CUSTOM HINGES

applications include:

- heavy duty access panels

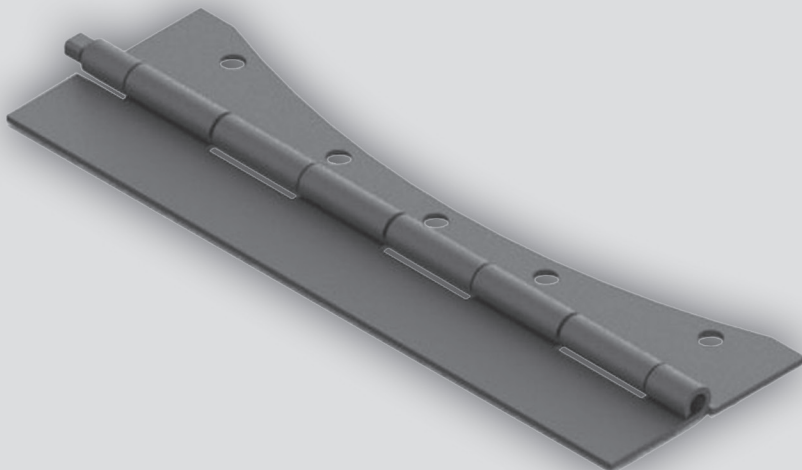
CONTINUOUS HINGE, reverse assembled



applications include:

- truck bodies
- truck boxes
- emergency vehicles

CONTINUOUS HINGE



applications include:

- military use
- ammunition cases

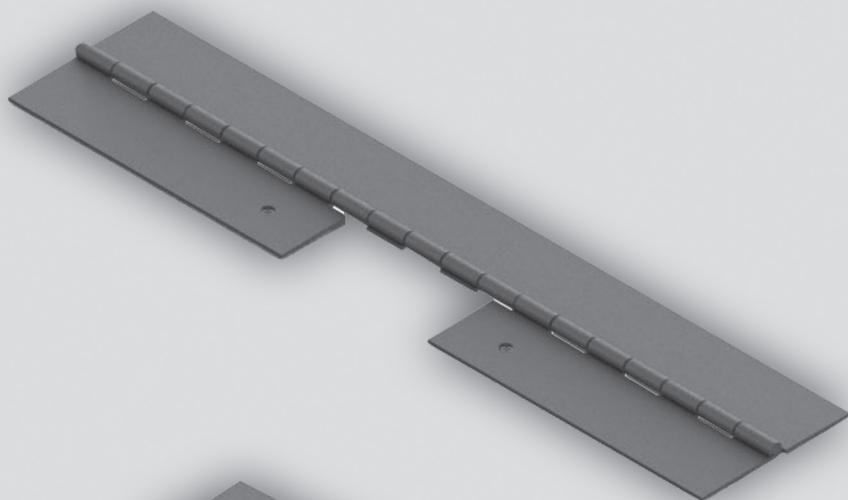
CONTINUOUS HINGE, with shape leaf



applications include:

- industrial use lockers
- fire extinguisher enclosures

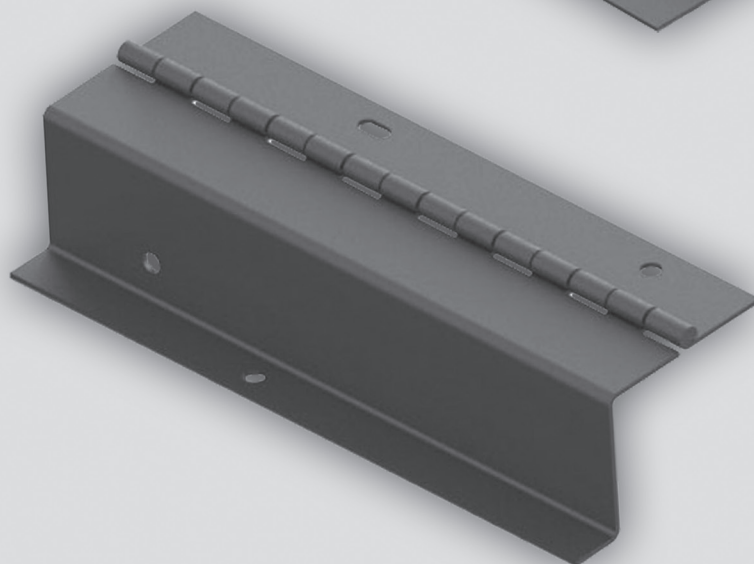
CONTINUOUS HINGE, with cut-out



applications include:

- industrial use lockers
- fire extinguisher enclosures

CONTINUOUS HINGE, with double form

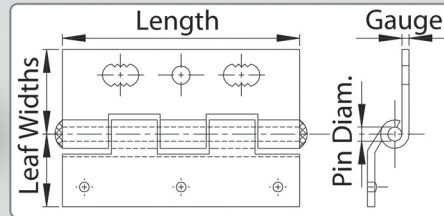
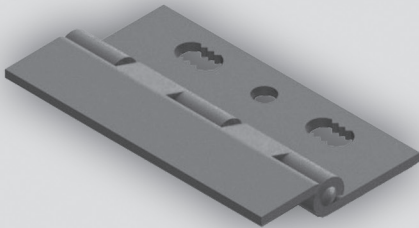


LOCKERS

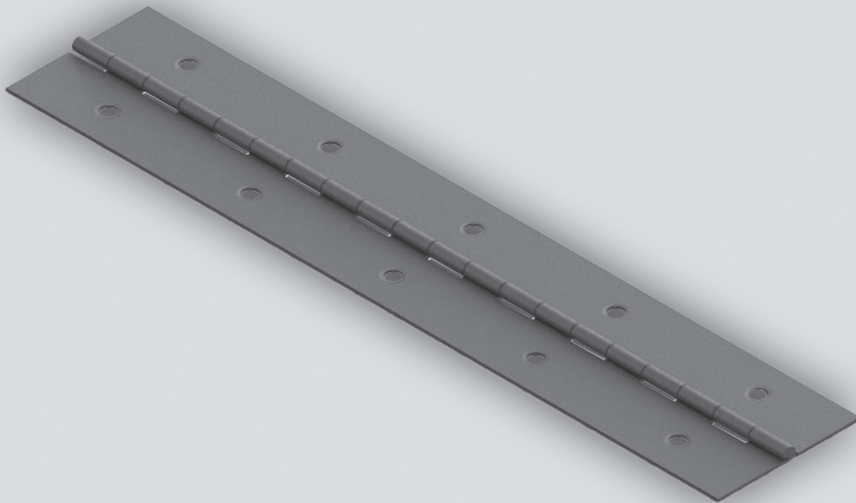
CUSTOM HINGES

applications include:

- variety of lockers



**BUTT HINGE, reverse
assembled w/ serrated holes**

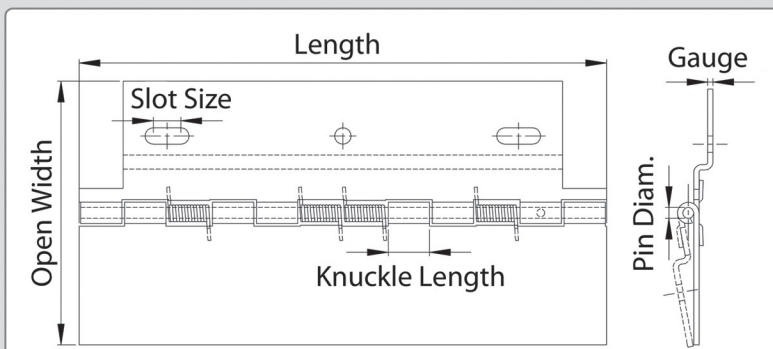


applications include:

- boat lockers
- storage compartments

**CONTINUOUS HINGE,
with holes**

applications where there is a requirement
to return the door to an open or closed
position



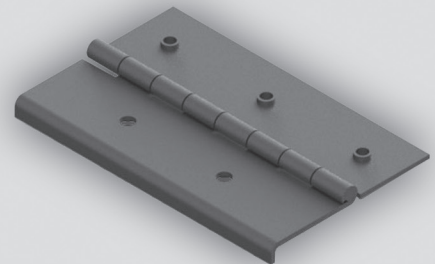
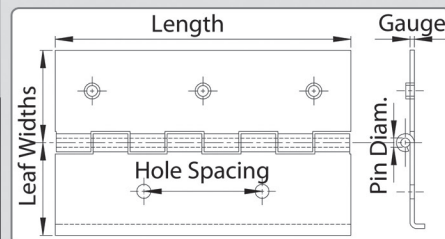
**SPRING HINGE, swage
with slots**



applications include:

- industrial use lockers
- fire extinguisher enclosures

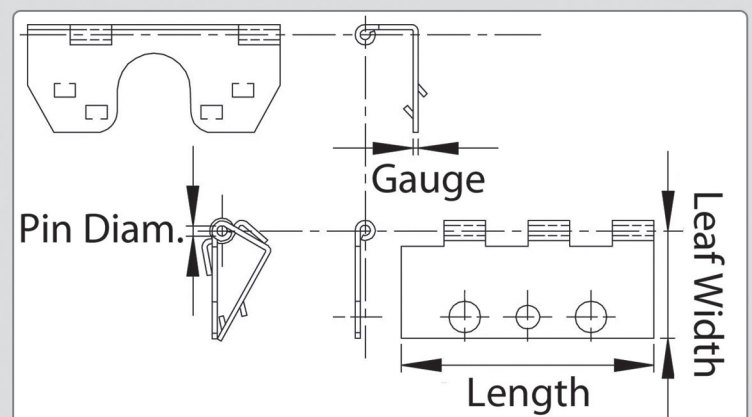
BUTT HINGE, formed with extruded holes

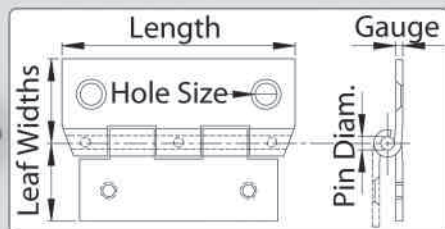
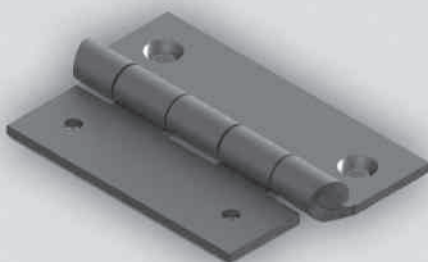


applications include:

- electrical access panels in wall dividers
- display units

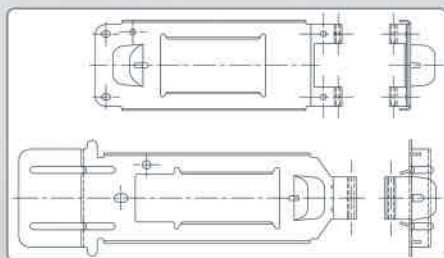
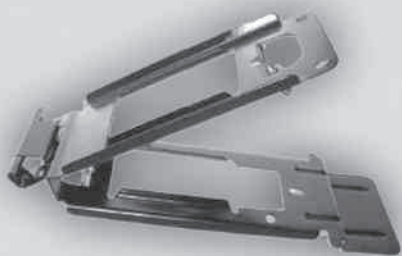
COMPLEX BUTT HINGE, with spring





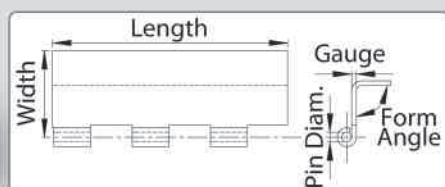
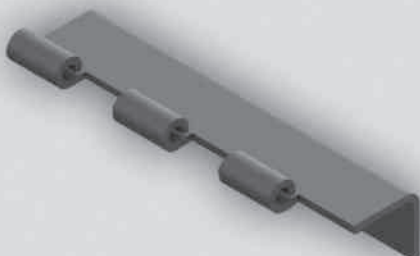
applications include:
- institutional doors & cabinets

BUTT HINGE, with hospital tip



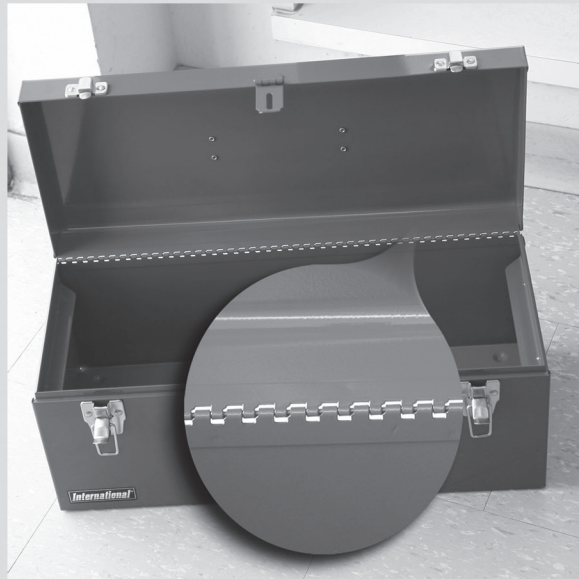
applications include:
- office partition access panels

FLAP HINGE, with cut-outs and slots



applications include:
- filing systems

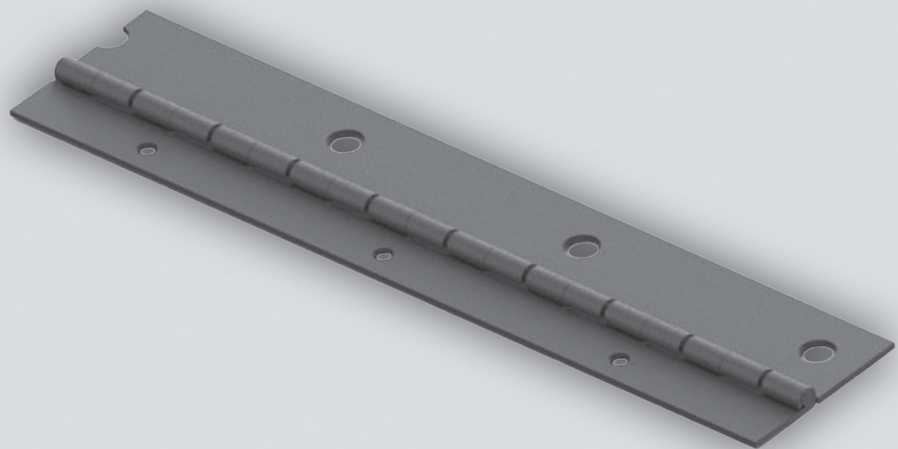
BUTT HINGE, leaf formed



applications include:

- garage organizers
- sample cases
- telecom enclosures

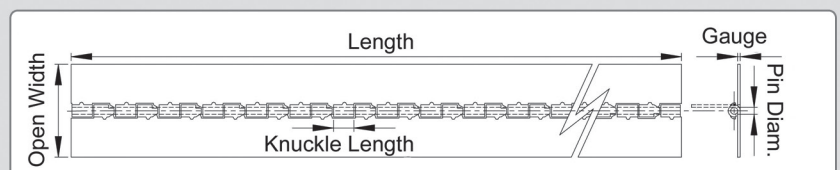
CONTINUOUS HINGE, with holes

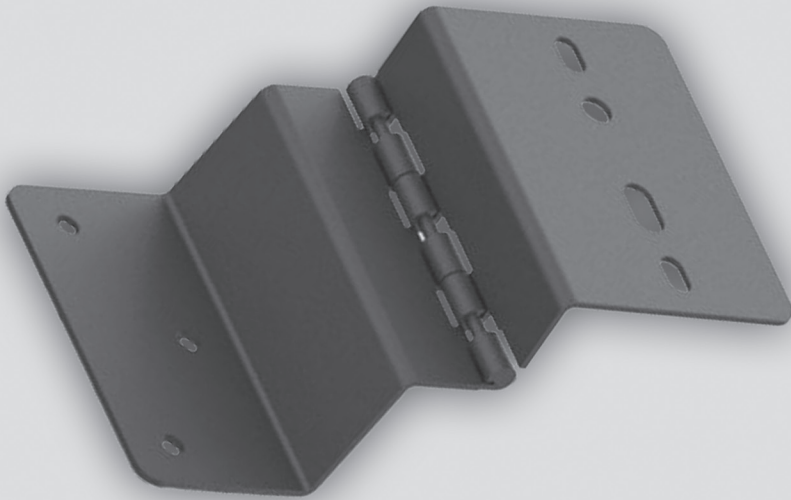


applications include:

- portable toolboxes
- tool storage cabinets
- first aid kits

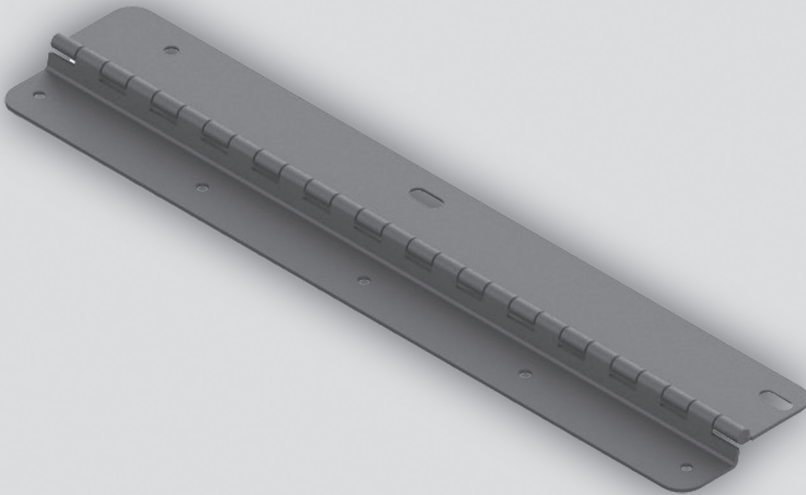
CONTINUOUS HINGE, with weld guide, Quik-A-Line





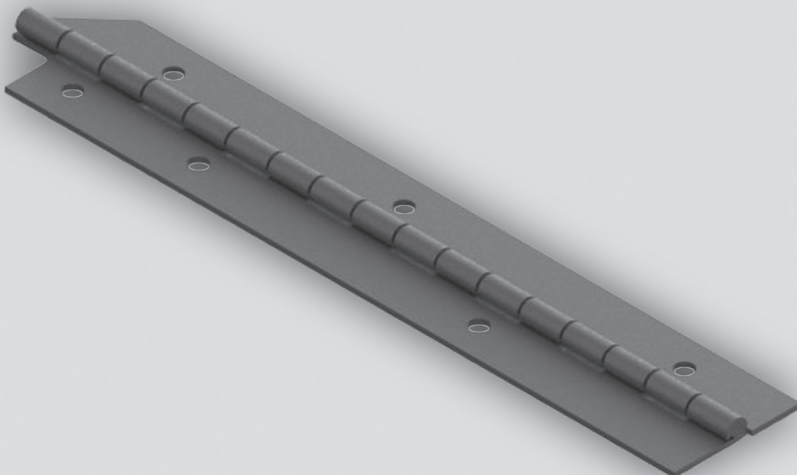
applications include:
- truck cab storage compartments

BUTT HINGE, with forms, holes and slots



applications include:
- truck body toolboxes & storage
compartments

CONTINUOUS HINGE, with holes, slots & radius corners



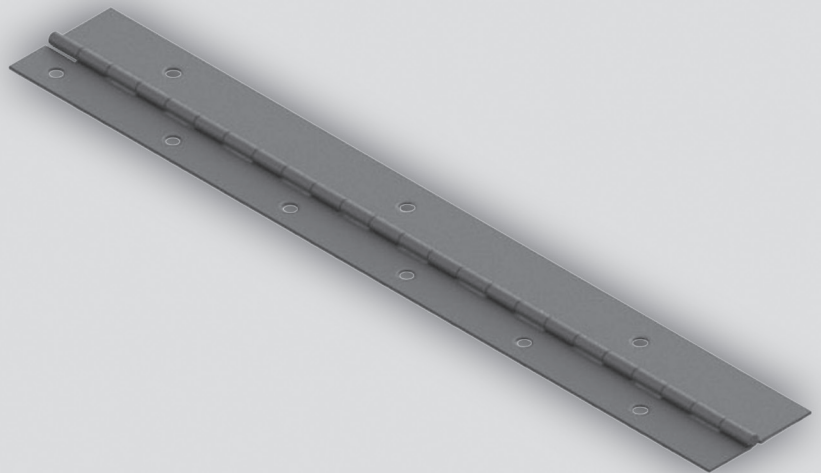
applications include:
- security cabinets
- postal boxes

CONTINUOUS HINGE, with notches



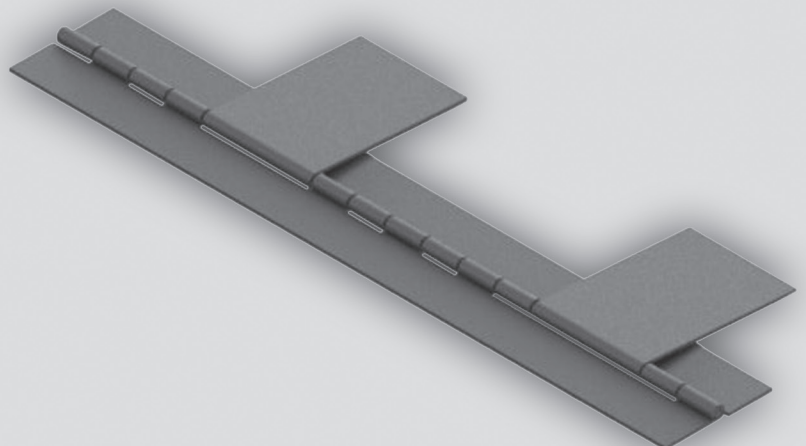
applications include:
- tailgates & ramps

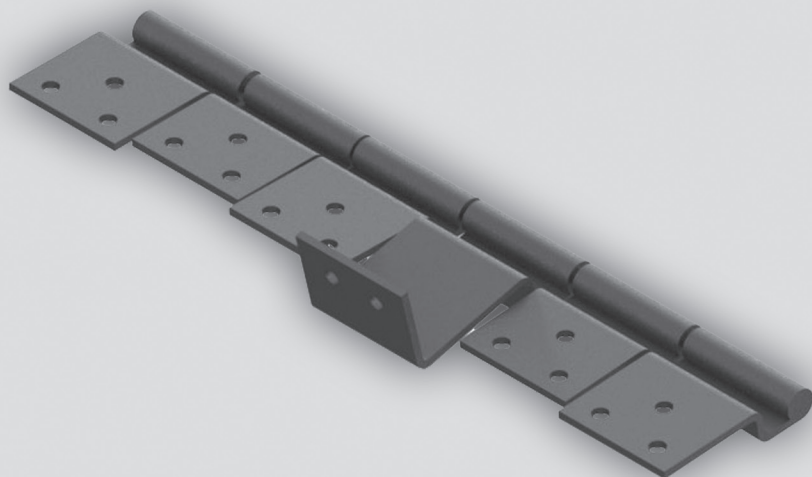
CONTINUOUS HINGE, with holes



applications include:
- multiple panel access doors
- electrical panels
- R.V. doors with screen & entrance
door on one hinge

CONTINUOUS HINGE, with flap inserts

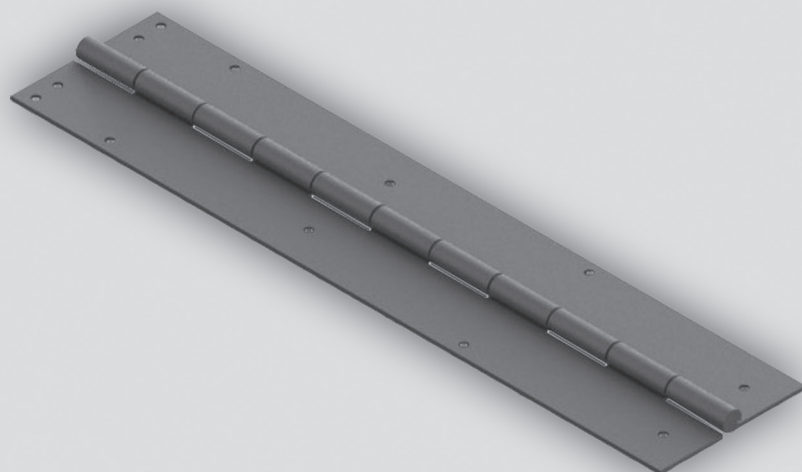




applications include:

- openings with multiple access doors or panels

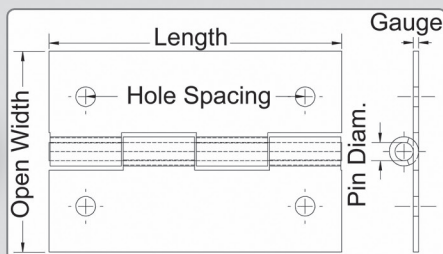
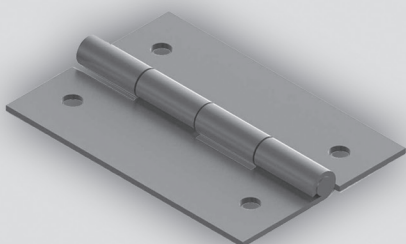
MULTI-LEAF CONTINUOUS HINGE



applications include:

- portable housing
- construction trailers

CONTINUOUS HINGE, with holes



applications include:

- tailgates & ramps
- side panels

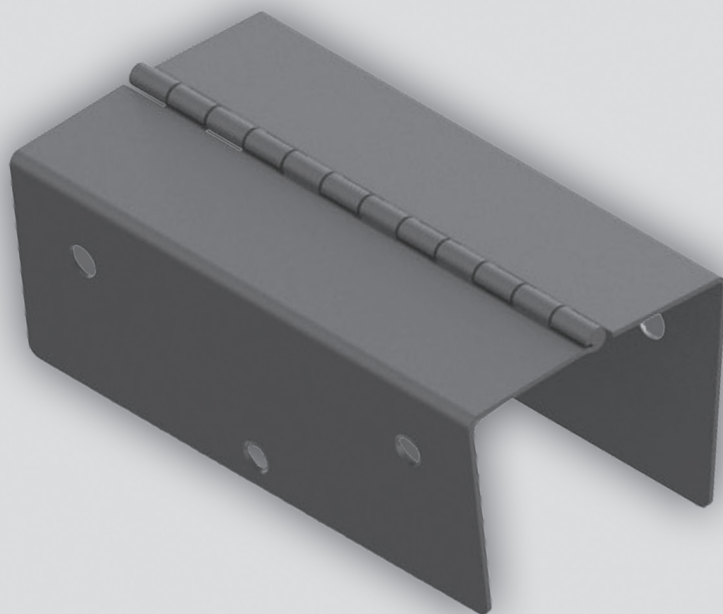
HEAVY BUTT HINGE



applications include:

- truck cab compartments
- under body toolboxes

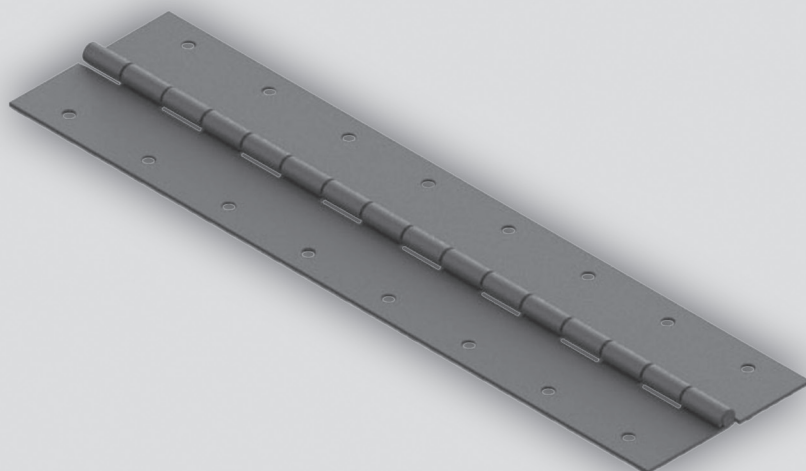
CONTINUOUS HINGE, formed with holes

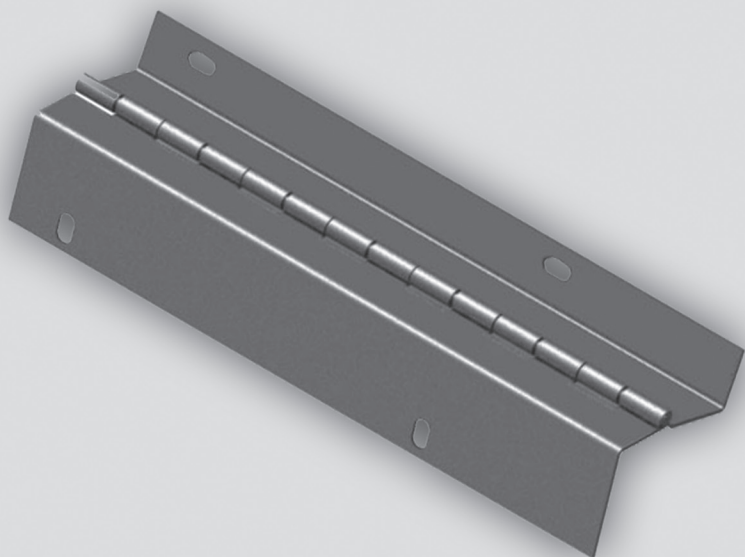


applications include:

- truck tonneau covers
- utility/service truck doors & compartments

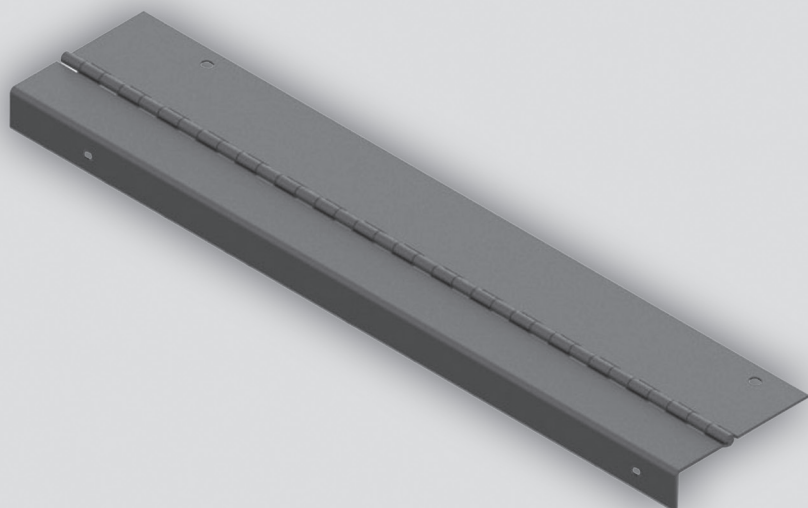
CONTINUOUS HINGE, with holes





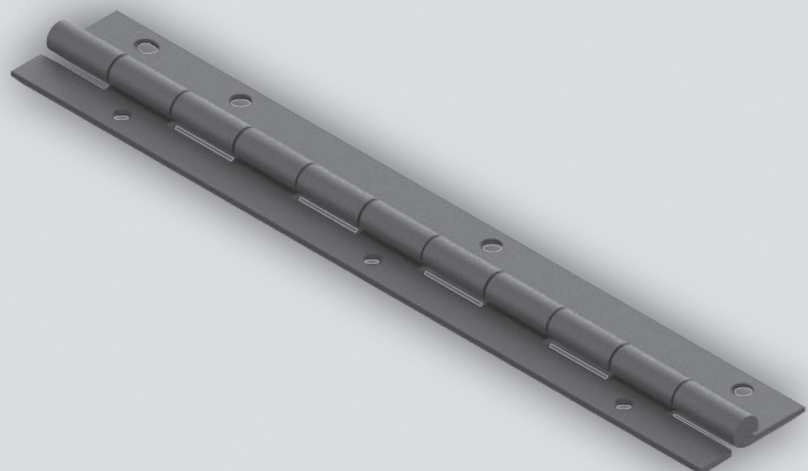
applications include:
- emergency vehicle cover panels

CONTINUOUS HINGE, with forms and slots



applications include:
- service truck body cover panels

CONTINUOUS HINGE, with forms and holes



applications include:
- rear & side truck body access doors

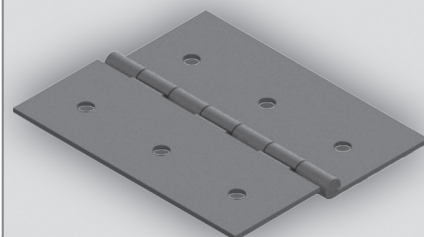
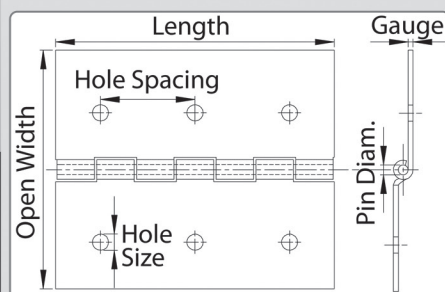
HEAVY CONTINUOUS HINGE, with holes



applications include:

- soap dispensers
- towel dispensers
- trash receptacles

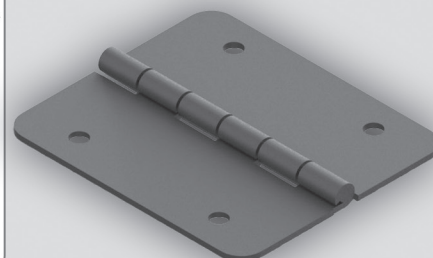
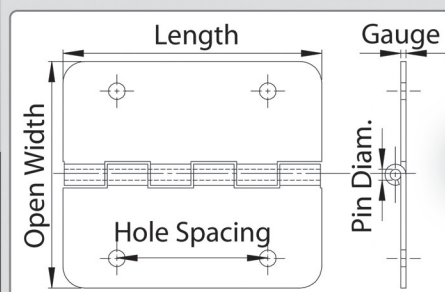
BUTT HINGE, with holes



applications include:

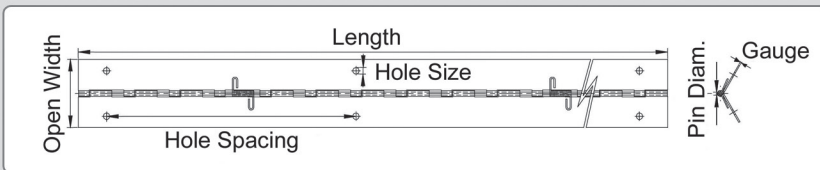
- soap dispensers
- towel dispensers
- first aid kits

BUTT HINGE, with holes and radius corners

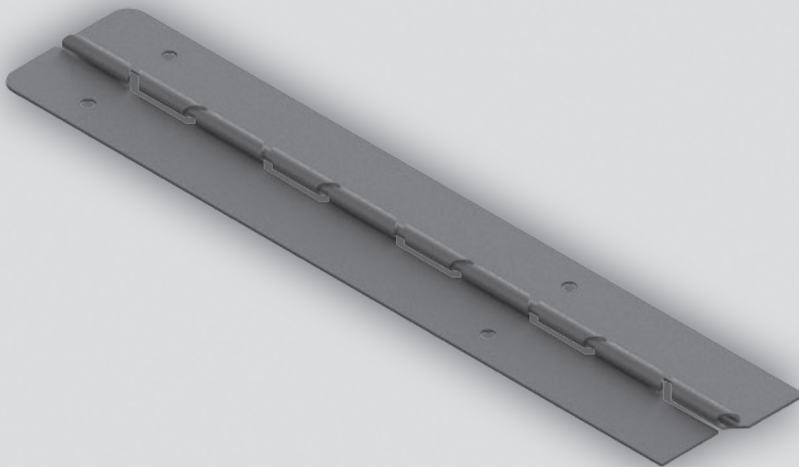


applications include:

- baby change tables
- waste container access doors



SPRING HINGE, with stop feature



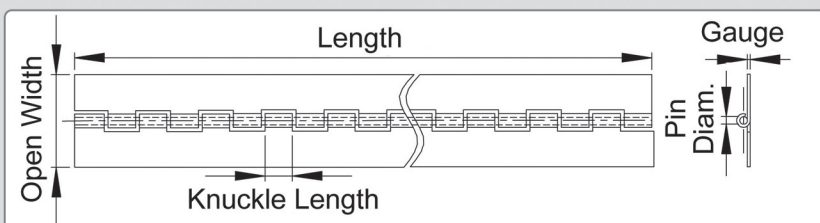
applications include:

- toilet partition doors

CONTINUOUS HINGE, w/ tapered knuckles for self-closing

applications include:

- waste containers
- dispensing units



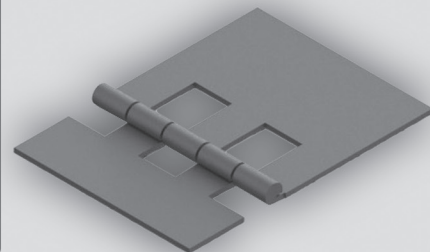
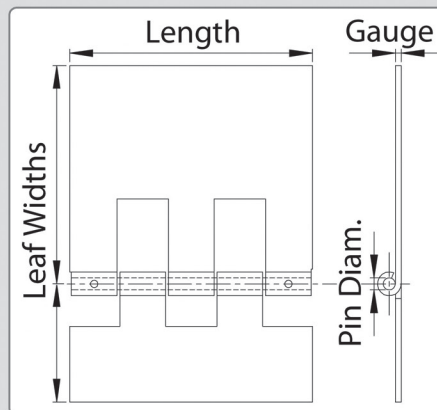
CONTINUOUS HINGE



applications include:

- file storage cabinets
- display boards
- sample cases

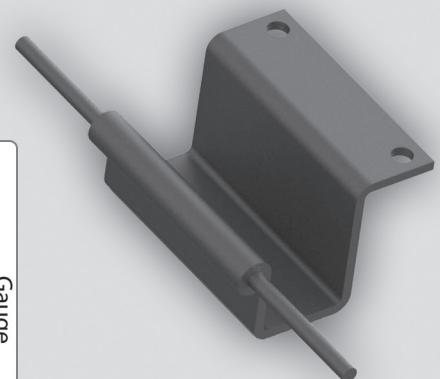
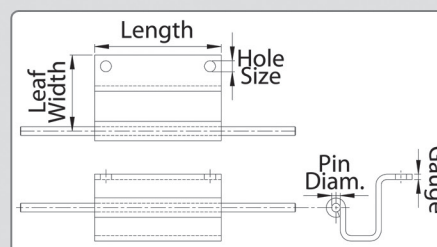
BUTT HINGE, with cut-outs



applications include:

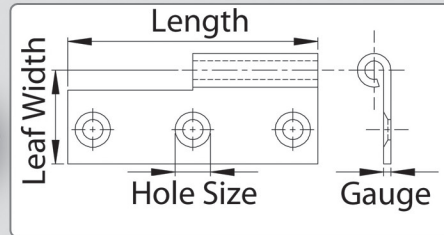
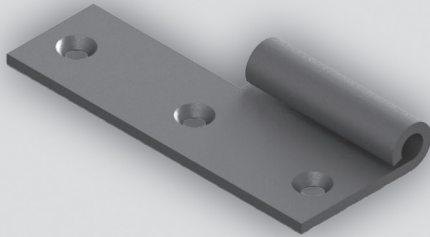
- alarm system
- security cabinets
- equipment cases

SPECIALTY HINGE, with multiple forms



applications include:

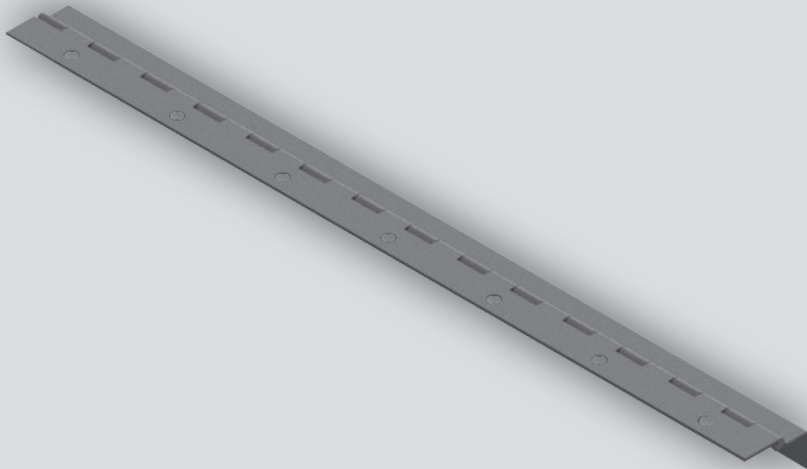
- HVAC cabinets



LIFT OFF HINGE

applications include:

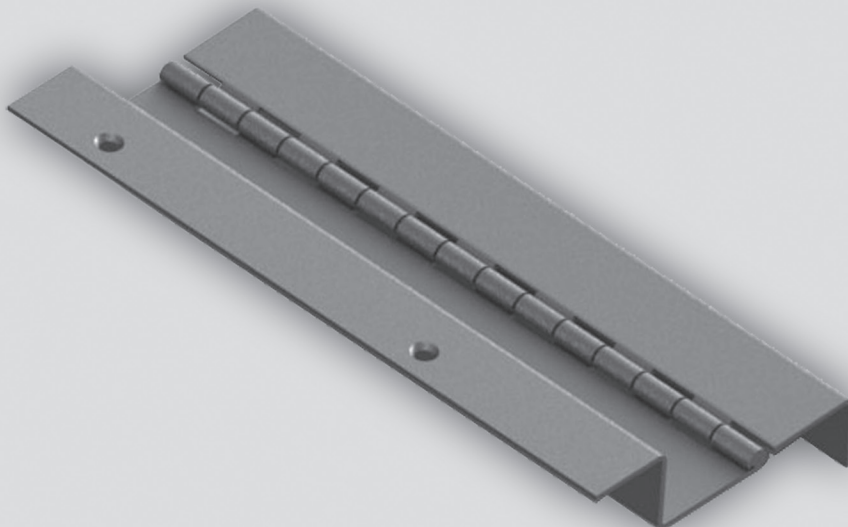
- traffic control system panels
- telecommunication enclosures



CONTINUOUS HINGE, reverse assembled with form

applications include:

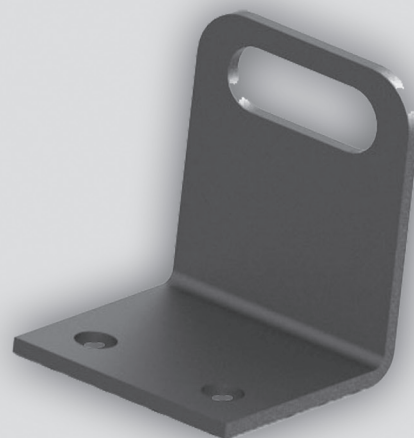
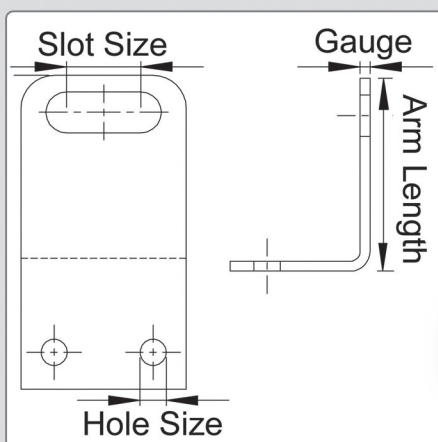
- wardrobe storage
- visual display boards



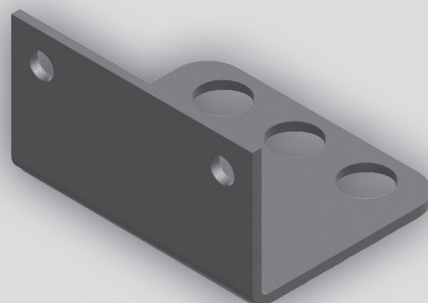
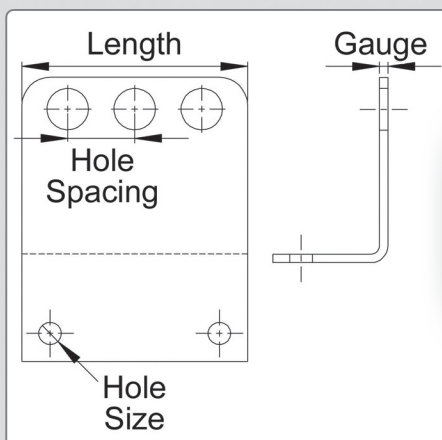
CONTINUOUS HINGE, with forms and holes

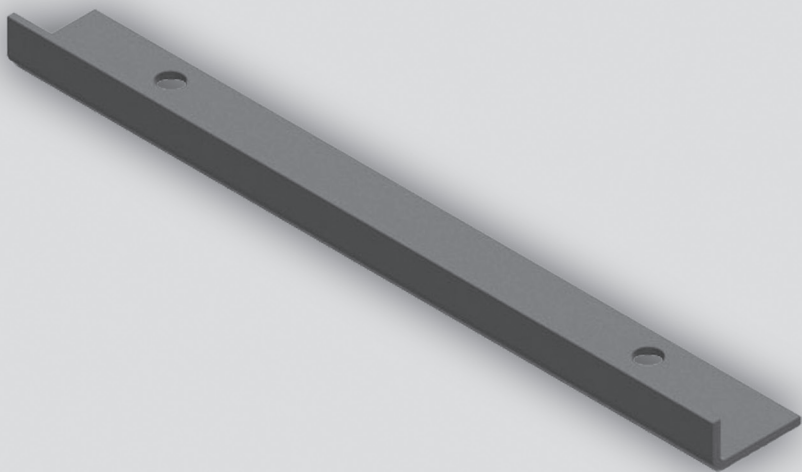


applications include:
- portable washrooms



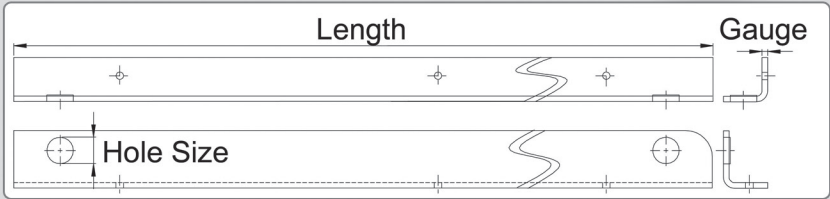
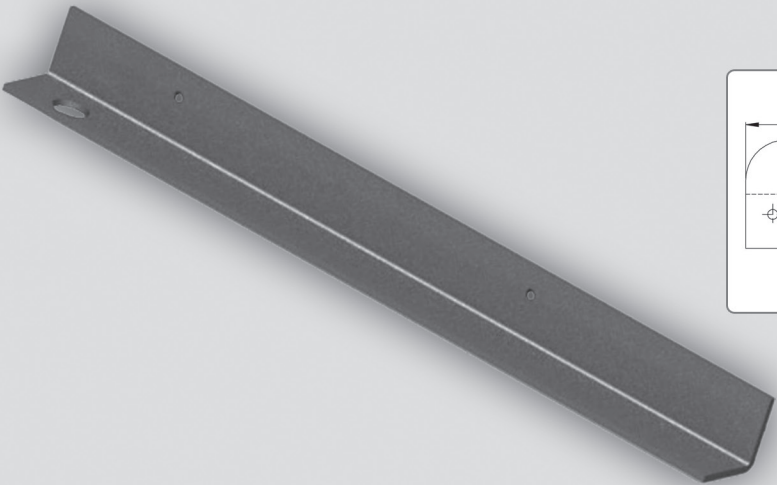
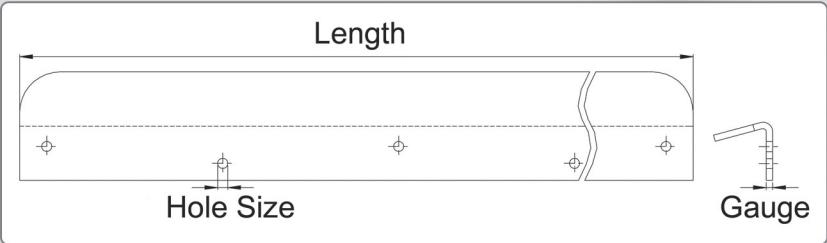
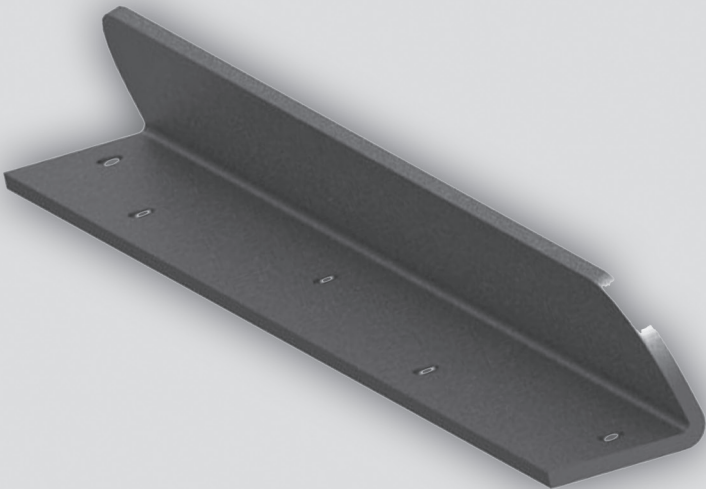
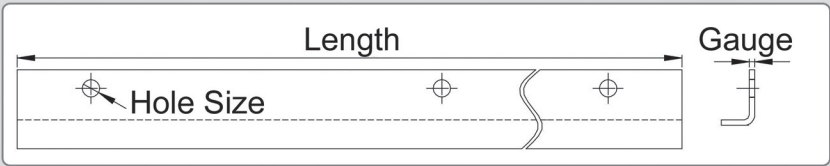
SUPPORT BRACKETS & LATCH PLATES





applications include:
- strengthening composite & wire
mesh enclosures

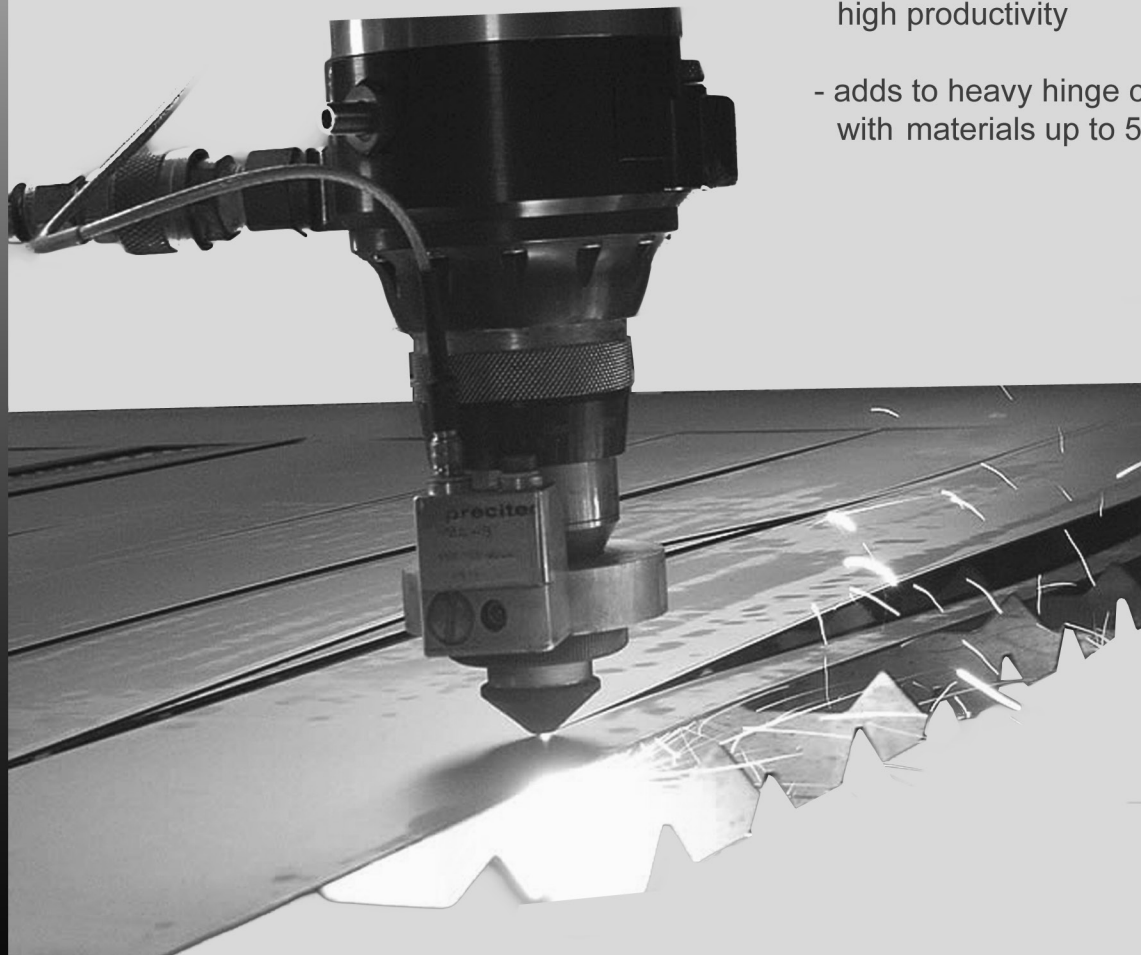
SUPPORT BRACKETS &
LATCH PLATES



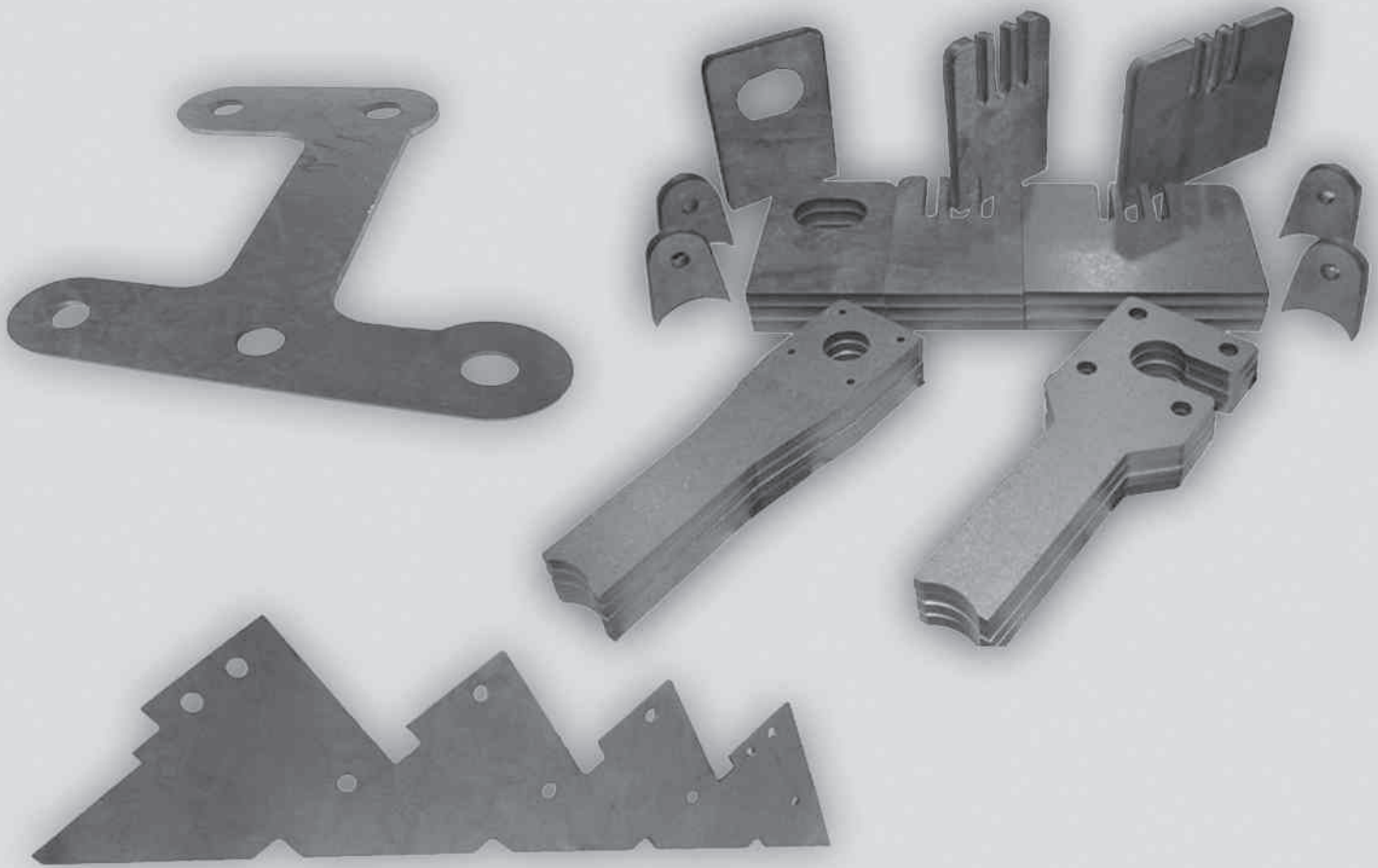
LASER CUT PRODUCTS AND COMPONENTS

Laser cutting:

- reduces the need for hard tooling for samples and small run quantity
- automated material handling for high productivity
- adds to heavy hinge capability with materials up to 5/8" thick

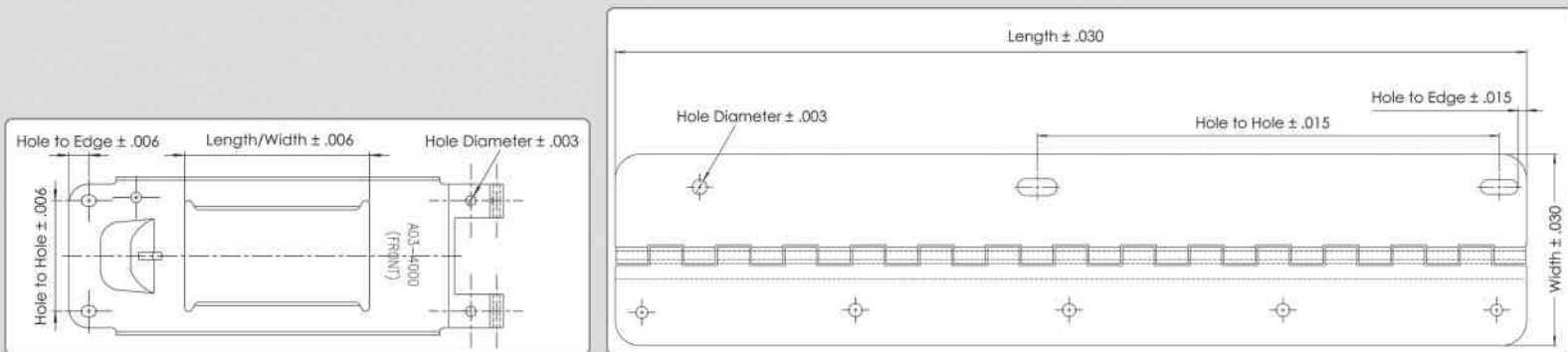


LASER CUT PRODUCTS



Tolerances

Tight dimensional tolerances can be met with only slight variation due to length and gauge of the products.



Materials and Gauges

Laser cutting capabilities include all metals and the gauges below.

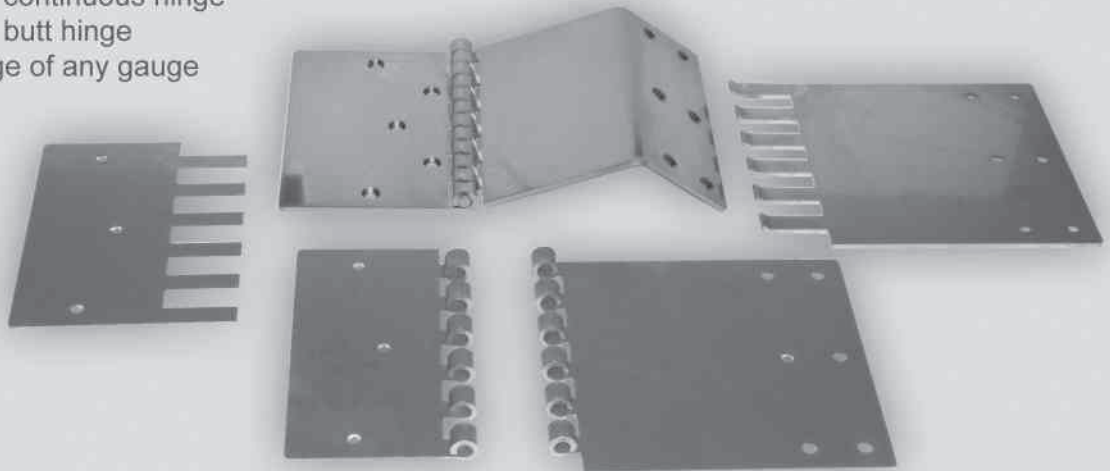
	24 ga.	22 ga.	20 ga.	18 ga.	16 ga.	14 ga.	13 ga.	12 ga.	11 ga.	10 ga.	9 ga.	7 ga.	6 ga.	1/4"	5/16"	3/8"	15/32	1/2"	Gauges up to
Carbon Steel	0.024"	0.030"	0.036"	0.048"	0.060"	0.075"	0.090	0.105"	0.120"	0.135"	0.150"	0.180"	0.194"	0.250"	0.313"	0.375"	0.472"	0.500"	0.750"
Stainless Steel	0.024"	0.030"	0.036"	0.048"	0.060"	0.075"	0.090	0.105"	0.120"	0.135"	0.150"	0.180"	0.194"	0.250"	0.313"	0.375"			
Galvanized	0.028"	0.034"	0.040"	0.052"	0.064"	0.079"	0.093	0.108"	0.123	0.138"	0.153	0.144"	0.162"	0.250"					
Copper	0.020"	0.025"	0.032"	0.040"	0.050"	0.064"	0.080"	0.093"		0.125"		0.156"	0.187"						
Brass	0.020"	0.025"	0.032"	0.040"	0.050"	0.064"	0.080"	0.093"	0.100"	0.125"		0.156"	0.188"						

LASER CUT COMPONENTS

These are laser cut parts with additional metal stamping processing to add forms, swages and other shaping.

Adding hinge knuckles and assembling with pins, produces:

- heavy gauge continuous hinge
- heavy gauge butt hinge
- specialty hinge of any gauge



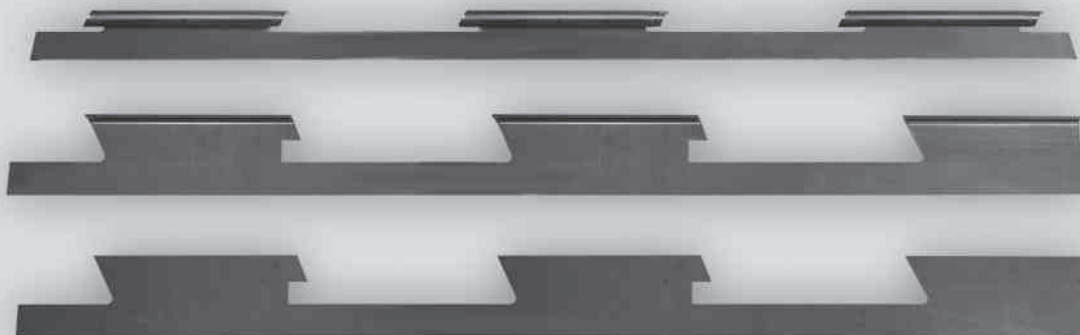
Heavy Hinge

Larsen & Shaw is tooled for industry standard gauge and pin combinations.

Leaf Gauge	0.090	0.105"	0.120"	0.135"	0.150"	0.180"	0.194"	0.250"
Pin Diameter								
0.188"	X		X					
0.250"	X	X	X					
0.312"		X	X					
0.375"		X	X	X	X	X	X	
0.500"						X	X	
0.625"								X

AVAILABLE: any gauge up to 0.625" with:

- any pin diameter; and
- any knuckle length





SALES TERMS AND CONDITIONS

Guarantee

Every Larsen & Shaw product has been carefully manufactured and is guaranteed to be free from defects in workmanship or materials. Our liability under all warranties, expressed or implied, shall be limited to the replacement of goods proven to be defective, but no claims for damage incurred or for work done thereon will be allowed. This is the only guarantee Larsen & Shaw makes. No other guarantee is authorized.

Sales Terms

Regular Terms are net 30 days after invoicing for customers who have established an acceptable credit rating with Larsen & Shaw. Larsen & Shaw requires most new customers to complete a credit application giving names of three current suppliers, as well as the name and address of their bank. If the credit information cannot be received in time to make the scheduled delivery date, then the method of payment will be either (a) cheque in advance or, (b) C.O.D.

Freight Terms

All shipments are F.O.B. (factory), Walkerton, Ontario.

Returns and Cancellations

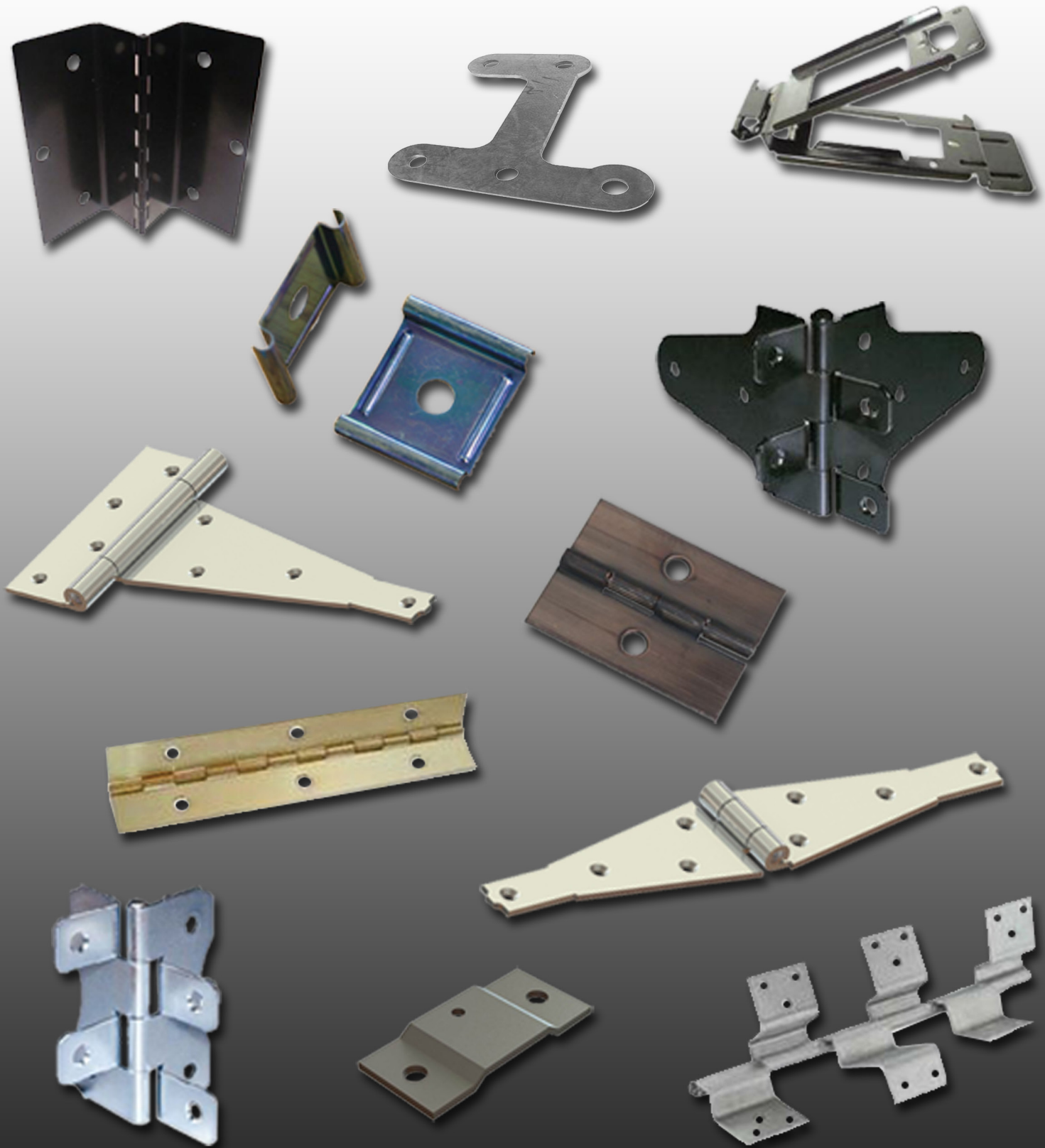
Re-stocking charges (10% of the invoice price and freight prepaid) will apply on all standard stocked goods accepted for return. Cancellation charges will apply on all cancelled orders, if (a) production has commenced, or (b) procurement commitments have been made. Goods are *not* to be returned without our written consent. We will *not accept* the return of items made to order.

QUALITY STANDARDS

Larsen & Shaw Limited is certified in accordance with the standard ISO 9001:2008 and utilizes Standard Quality Control procedures including Statistical Process Control (S.P.C.). For more information on our Quality Program please contact our Sales Department.



ISO 9001



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