

Permalex®



Metal Squeegee Ordering Guide



**TRANSITION
AUTOMATION**

Introduction

Permalex™ Edge Metal Squeegees are a premium brand of metal squeegee used for SMT and Microelectronics printing applications. This leading product incorporates many customer needs such as long service life, improved printing quality, ease of use and ease of ordering.



Permalex Edge Squeegees directly support your lead-free process by assuring maximum print quality despite the reduced wetting and joining performance of lead-free materials.

Furthermore, the long life of Permalex blades reduces wasteful material maintenance and down-time cycles.

Simplicity, Durability, Visability and Precision all come together at Transition Automation, Inc. and the result is this outstanding line of products available to enhance your electronics manufacturing.

Your satisfaction is guaranteed by our extensive product experience, our no-questions-asked 30-day guarantee, and easy phone/fax/internet access to expert customer service.

At Transition Automation, Inc. Permalex squeegees are our only business. You gain outstanding value through our singular focus on being the best squeegee innovator and manufacturer in the industry.

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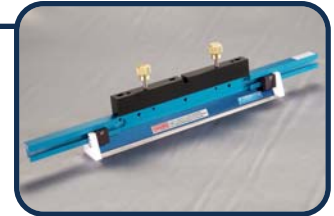
Basis for superior results lies with this Infused lubricant technology



3-4

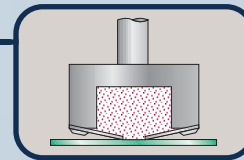
HOLDERS AND BLADES

Permalex Universal Holders w/Blades Select by Machine Manufacturer



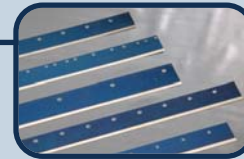
OTHER CHOICES

Permalex-Pro Blades for Closed Head Printing



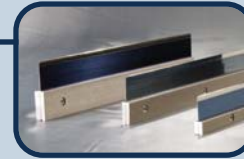
DEK9
MPM5

Permalex Blades to Match OEM Holders



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Maximize Your Micro-Electronics Printing Results

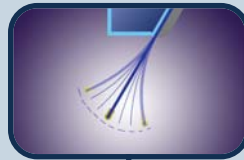
Transition's patented Universal Holder design gives you outstanding functionality, ergonomics and choices that enable you to achieve greater performance and profitability on your SMT line.

A. Lightweight, low profile holders reduce paste sticking and handling damage



A

B. Spring steel base metal assures many thousands of flexures without failure



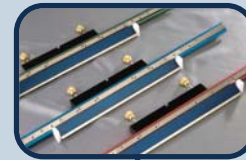
B

C. Accurate blade referencing insures your setup quality



C

D. Color choice add visual ergonomics and helps you segregate materials



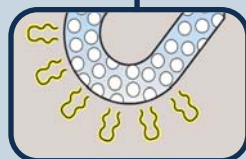
D

E. Permanent product ID helps you to track and repeat your high quality processes



E

F. The Permalex Infused Teflon Edge reduces friction and wear – keeping your squeegees and stencils in top condition



F

G. Adjust blade thickness and/or angle easily with product codes for intrusive paste in hole or other special applications

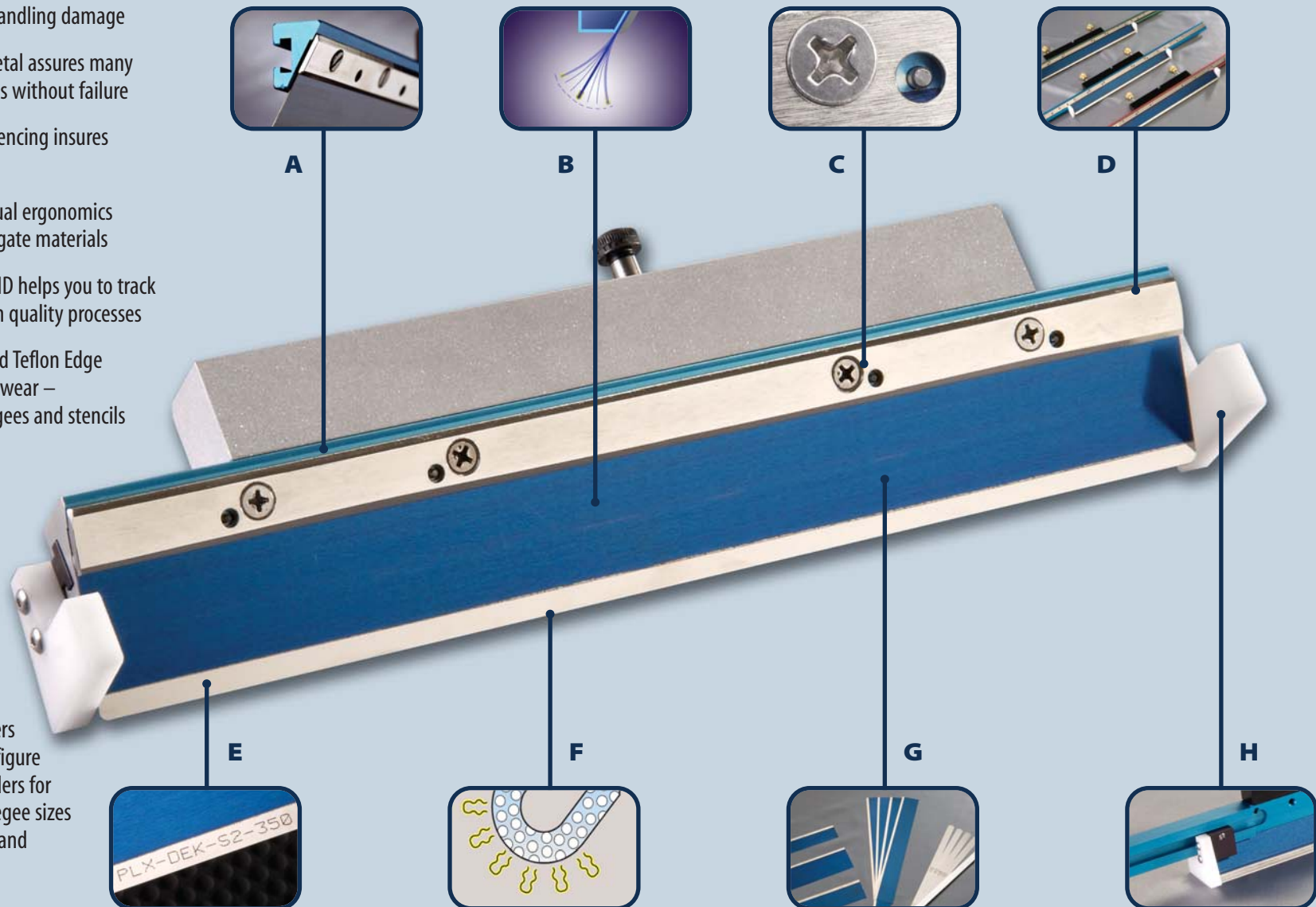


G

H. Sliding paste retainers enable you to reconfigure these advanced holders for smaller/larger squeegee sizes saving time, money and storage space



H

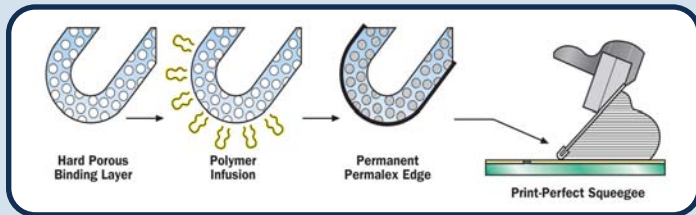


PERMALEX

Your electronics production process, your end products and your people are valuable resources. Many leading companies worldwide choose Permalex brand squeegees to maximize these investments and avoid costly machine down-time, lost product quality, and "consumable" purchase cycles.

Permalex squeegees maximize results by way of three key factors:

Blade Technology For Long Duty Cycles

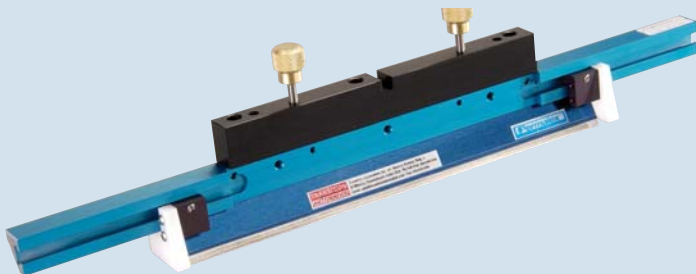


Permalex is a multi-step metallurgical bonding process that produces a smooth, durable metal squeegee with a hard, low-friction edge designed to prevent stencil wear. Permalex Edge Metal Squeegees contain a unique base alloy and our special Permalex coating to provide superior performance.



Tempered Spring Steel Alloy assures many thousands of flexures while maintaining original shape, unlike softer etched blades made from stencil material.

Holder Technology Light Weight and Strong



Patented Holders

The lightweight design eliminates most handling dents and dings; unique reference window insures accurate blade installation.

Options

Add Codes Shown to End of Any Catalog Part No.

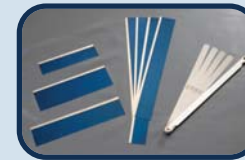
CODES and Descripton



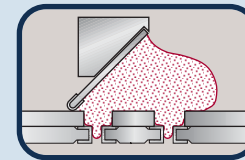
-RED, -GREEN, -SILVER:
Add these codes to any universal squeegee holder asseby or hand squeegee used to segregate materials / lines.



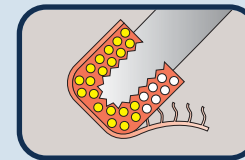
-WH: Use this code to have the proprietary Permalex coating applied to the entire squeegee blade. Prevents corrosion – but may shorten blade life.



-0.006, -0.007, -0.008, -0.012:
Add this code to change the blade thickness from the standard 0.010; thinner for more delicate printing, thicker for faster and tougher printing.



-A45, -A__: Add this code to specify a different angle between the squeegee blade and the stencil. Normal angle is 60 degrees (no code). For example, if you add -A45, the squeegee will be set to form a 45 degree angle with the stencil.

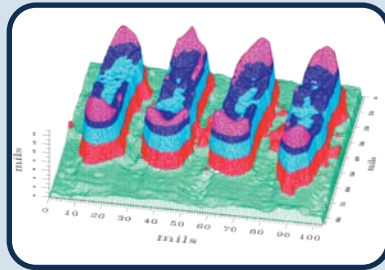
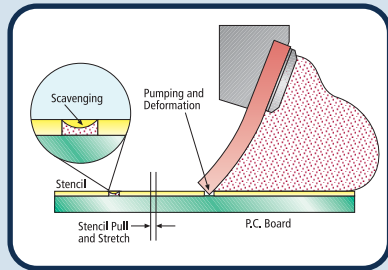


-SE "Sharp Egde": Add this code for more delicate printing and better wiping. Normal 4mil radius of standard Permalex is reduced to approximately 2 mils. Note: For blade thickness <0.010 Sharp Edge is standard.

ADVANTAGES

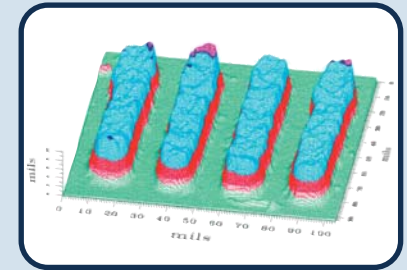
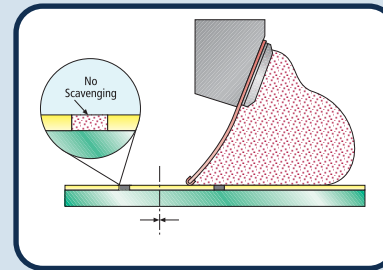
Advantages Over Rubber Squeegees

Rubber vs. Metal



The diagram above shows the details of solder pad deposits made with a standard polymer squeegee. The diagram clearly shows uneven, dog-bone solder deposits resulting from scooping and scavenging. *Courtesy of Intergraph Corporation.*

Better Results with Permalex



Permalex Edge Metal Squeegees eliminate pumping and scavenging, improving solder paste deposit quality. The smooth, lubricated edge reduces stencil pulling and stretching, improving pad registration and stencil life.

Benefits Over Other Metal Squeegees

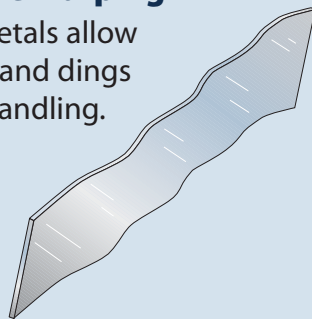
Fatigue Bending

Blades made with soft etched stainless steel or nickel are prone to bending.



Fatigue Warping

Soft metals allow bends and dings from handling.



Cracking and Chipping

Other plated blades exhibit cracks and flakes.

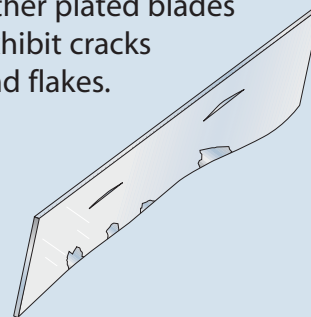
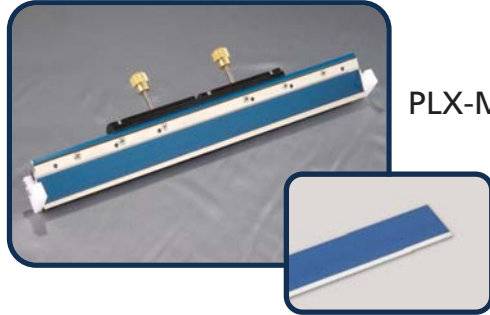


Photo shows crack in a nickel blade undetectable to the eye.

Speedline, MPM, Quad-SMTech

Printer Model

UP-100
UP-200
UP-500
UP-1500
AccuFlex
AccuPrint
SMTech
SigmaPrint
MicroFlex
Momentum
Reprint



Part No. Price Code

PLX-MPM-UP1.5K-xx*-PR D

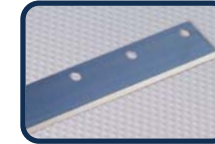
PLX-MPM-S2-xx E

*xx denotes Length: Replace xx with the length of squeegee desired, in mm or inches.

Replace Original OEM Blades

Part No. – Code F

PLX-OEM-MPM15K-34-150
PLX-OEM-MPM15K-34-220
PLX-OEM-MPM15K-34-260
PLX-OEM-MPM15K-34-300
PLX-OEM-MPM15K-34-330
PLX-OEM-MPM15K-34-360
PLX-OEM-MPM15K-34-420
PLX-OEM-MPM15K-34-430
PLX-OEM-MPM15K-34-460
PLX-OEM-MPM15K-34-520
PLX-OEM-MPM15K-34-607



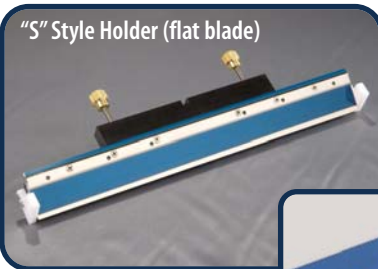
Printer Model

UP-2000
SPM-2000

S-Style

Two Choices

F-Style



Part No. Price Code

PLX-MPM-UP2.0K-xx-PR D

Replacement blade,
also fits OEM holder

PLX-MPM-S2-xx E



PLX-MPM-F-xx-PR D

PLX-MPM-F2-xx F

Replacement blade, also fits OEM holder

Available Options

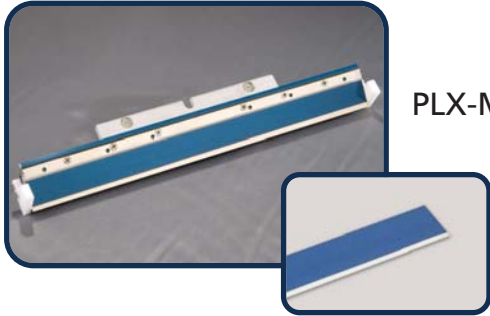
(Add Codes to Part Numbers in Combination)

- **A45**: Change Angle to 45°
(achieved by 15 degree bend in blade)
- **RED, – GREEN, – SILVER**: Change Holder Color (standard is blue)
- **0.008, – 0.012**: Change Blade Thickness
- **WH**: Whole Blade Permallex
(prevents corrosion on spring steel)
- **CH (YYY)**: Cut Holder to YYY Dimension
(longer than blade (xx) dimension so holder can hold longer blade.)
- **SE**: Sharp Edge

Speedline, MPM, Quad-SMTech

Printer Model

UP-3000
UP-2000 w/
"Pro" Head
AP20, 25, 27
AP Hie



Part No. Price Code

PLX-MPM-UP3.0K-xx*-PR D

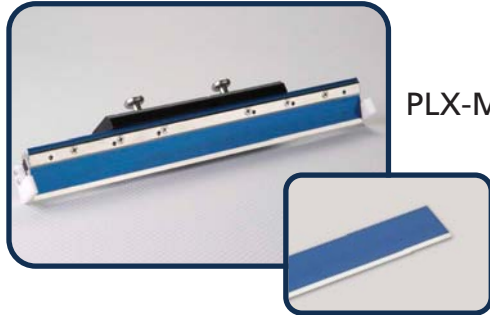
PLX-MPM-S2-xx E

*xx denotes Length: Replace xx with the length of squeegee desired, in mm or inches.

Replacement blade, also fits OEM holder

Printer Model

Acella



Part No. Price Code

PLX-MPM-UP4.0K-xx-PR D

PLX-MPM-S2-xx E

Replacement blade, also fits OEM holder

Part No. Price Code

PLX-PRO-MPM-01A-8 E

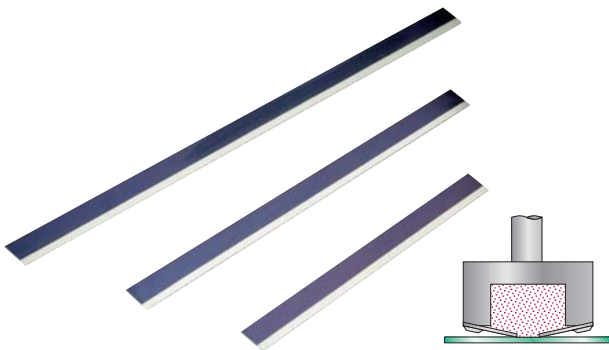
PLX-PRO-MPM-01A-10 E

PLX-PRO-MPM-01A-12 E

PLX-PRO-MPM-01A-14 E

PLX-PRO-MPM-01A-16 E

Actual length is 1" longer than part number length.



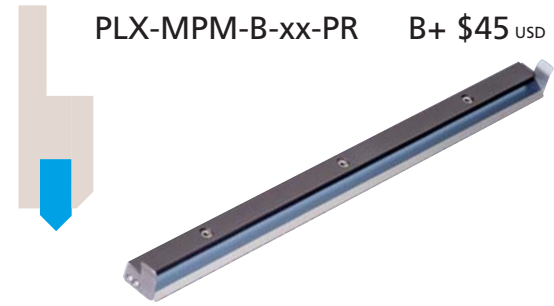
Printer Model

AP-20
AP-25
AP-27
SP-20
Juki/Zevatech 220

For Models that
Use Rubber
Squeegee Holders

Part No. Price Code

PLX-MPM-B-xx-PR B+ \$45 USD



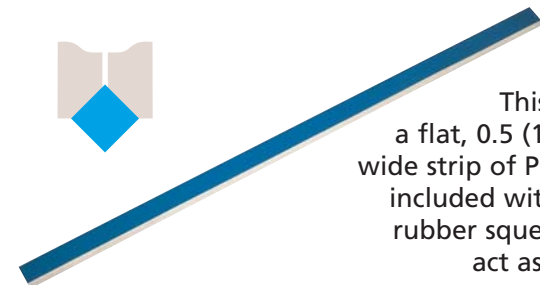
Printer Model

SP200
SP1500
SP2000
SP2400

For Models that
Use Rubber
Squeegee Holders

Part No. Price Code

PLX-MPM-A-xx E

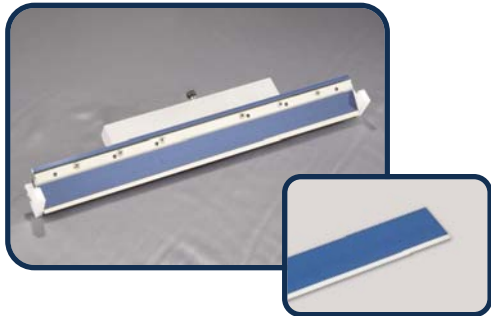


This item is
a flat, 0.5 (12.2mm)
wide strip of Permalex
included with a soft
rubber squeegee to
act as a shim.

Panasonic, Create, KME

Printer Model

SP10P-M
 SP20P-M
 SP22P-M
 SP28
 SP28P-D (H)
 SP60
 SP60P-M
 SP80



Part No. Price Code

PLX-PAN-T-xx*-PR D

PLX-PAN-T2-xx E

*xx denotes Length: Replace xx with the length of squeegee desired, in mm or inches.

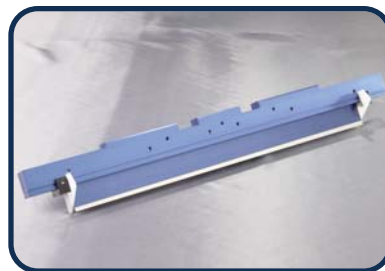
Available Options

(Add Codes to Part Numbers in Combination)

- **A45**: Change Angle to 45°
(achieved by 15 degree bend in blade)
- **RED, - GREEN, - SILVER**: Change Holder Color (standard is blue)
- **0.008, - 0.012**: Change Blade Thickness
- **WH**: Whole Blade Permalex
(prevents corrosion on spring steel)
- **CH (YYY)**: Cut Holder to YYY Dimension
(longer than blade (xx) dimension so holder can hold longer blade.)
- **SE**: Sharp Edge

Printer Model

SPP
 SPPA
 SPPD
 SPPG1
 SPPG3
 SPPV



Part No.

Price Code

PLX-PAN-

SPP
SPPA
SPPD
SPPG1
SPPV

 -

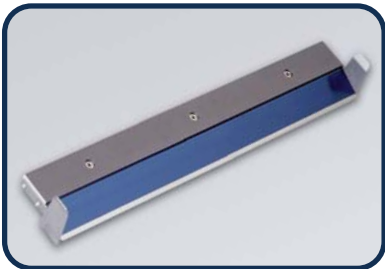
M
LL
XL

 -xx-PR D

PLX-PAN-R2-xx E

Panasonic, Create, KME

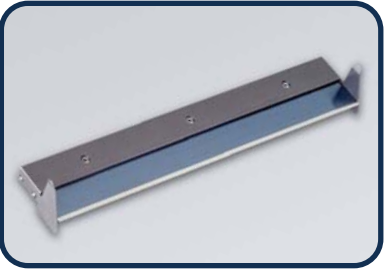
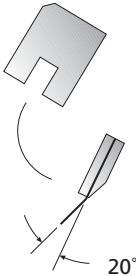
For Rubber Squeegee Holders



Part No. Price Code

PLX-PAN-A-xx*-PR B + \$45 USD

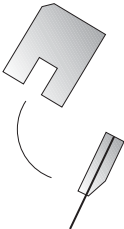
riveted shim assembly



Part No. Price Code

PLX-PAN-E-xx-PR B + \$45 USD

riveted shim assembly



*xx denotes Length: Replace xx with the length of squeegee desired, in mm or inches.

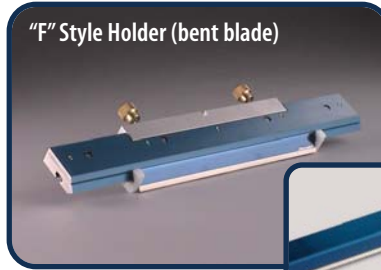
Printer Model

265 (All Models)
260
248
Galaxy
LT
ELA
Horizon
Infinity
Europa

S-Style

Two Choices

F-Style



Part No. Price Code

PLX-DEK-S-xx*-PR D

PLX-DEK-S2-xx E

Part No. Price Code

PLX-DEK-F-xx-PR D

PLX-DEK-F2-xx F

*xx denotes Length: Replace xx with the length of squeegee desired, in mm or inches.

Pro-Flow Systems



Part No. Price Code

PLX-PRO-DEK-01A-300 F

PLX-PRO-DEK-01A-350 F

PLX-PRO-DEK-01A-400 F

PLX-PRO-DEK-01A-450 F

PLX-PRO-DEK-01A-500 F

Actual blade length is 50mm longer than the part number length.

Replace Original OEM Blades

Part No. – Code F

PLX-OEM-DEK-30-170
PLX-OEM-DEK-30-193
PLX-OEM-DEK-30-200
PLX-OEM-DEK-30-250
PLX-OEM-DEK-30-300
PLX-OEM-DEK-30-350
PLX-OEM-DEK-30-400
PLX-OEM-DEK-30-440
PLX-OEM-DEK-30-483
PLX-OEM-DEK-30-510
PLX-OEM-DEK-30-535
PLX-OEM-DEK-30-580
PLX-OEM-DEK-30-610



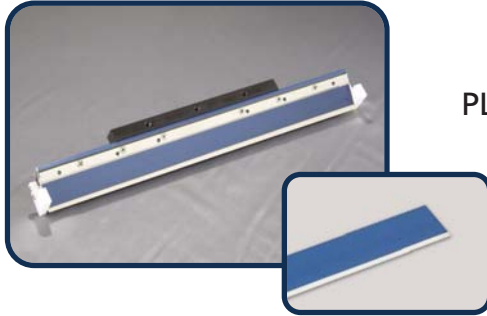
Available Options

(Add Codes to Part Numbers in Combination)

- **A45**: Change Angle to 45°
(achieved by 15 degree bend in blade)
- **RED, – GREEN, – SILVER**: Change Holder Color (standard is blue)
- **0.008, – 0.012**: Change Blade Thickness
- **WH**: Whole Blade Permalex
(prevents corrosion on spring steel)
- **CH (YYY)**: Cut Holder to YYY Dimension
(longer than blade (xx) dimension so holder can hold longer blade.)
- **SE**: Sharp Edge

Printer Model

EKRA
X-SERIES
E4
E5
E6
MAT-S55A
MATS40



Part No.

Price Code

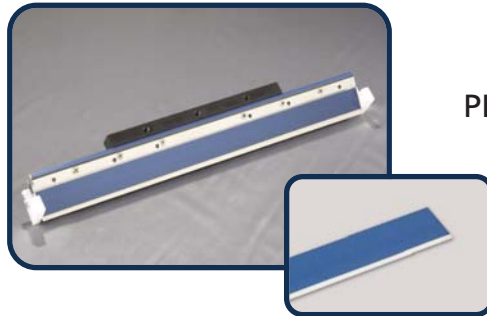
PLX-EKR-S-xx*-PR D

PLX-EKR-S2-xx E

*xx denotes Length: Replace xx with the length of squeegee desired, in mm or inches.

Printer Model

EKRA
E2



Part No.

Price Code

PLX-EKR-T-xx-PR D

PLX-EKR-T2-xx E

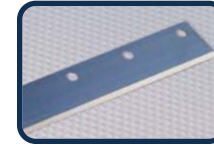


New Low Profile

Replace Original OEM Blades

Part No. – Code F

PLX-OEM-EKR-33-180
PLX-OEM-EKR-33-200
PLX-OEM-EKR-33-210
PLX-OEM-EKR-33-220
PLX-OEM-EKR-33-250
PLX-OEM-EKR-33-260
PLX-OEM-EKR-33-270
PLX-OEM-EKR-33-300
PLX-OEM-EKR-33-350
PLX-OEM-EKR-33-370
PLX-OEM-EKR-33-400
PLX-OEM-EKR-33-430
PLX-OEM-EKR-33-450
PLX-OEM-EKR-33-600



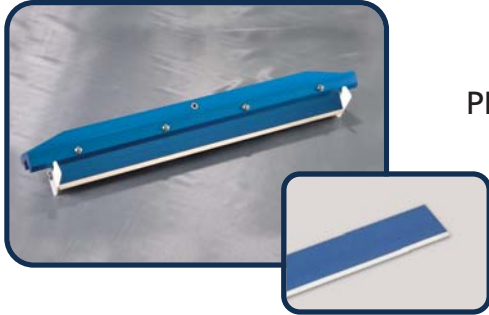
Available Options

(Add Codes to Part Numbers in Combination)

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(achieved by 15 degree bend in blade)
- **RED, – GREEN, – SILVER**: Change Holder Color (standard is blue)
- **0.008, – 0.012**: Change Blade Thickness
- **WH**: Whole Blade Permalex
(prevents corrosion on spring steel)
- **CH (YYY)**: Cut Holder to YYY Dimension
(longer than blade (xx) dimension so holder can hold longer blade.)
- **SE**: Sharp Edge

Printer Model

GSP Series
 GP-341
 GSP-I
 GSP-II
 GSP-III
 GP-641
 GP-551
 GSP-IV
 GP-641
 GP-551



Part No. Price Code

PLX-FUJ-K-xx*-PR D

PLX-FUJ-K2-xx E

*xx denotes Length: Replace xx with the length of squeegee desired, in mm or inches.

Printer Model

GP-551 E
 GP-641 E



Part No. Price Code

PLX-FUJ-J-xx B

Bonded Straight Blade Assembly

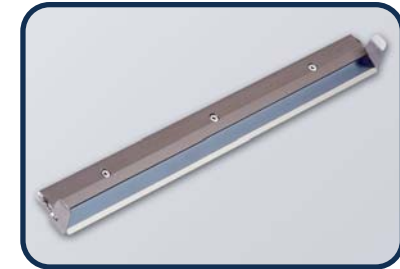
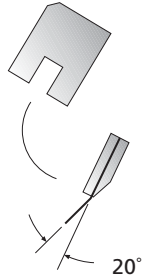
For Hermetically Sealed Head Assemblies

For Rubber Squeegee Holders

Part No. Price Code

PLX-FUJ-A-xx-PR A + \$45 USD

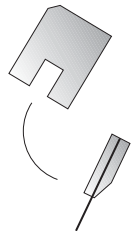
riveted shim assembly



Part No. Price Code

PLX-FUJ-E-xx-PR A + \$45 USD

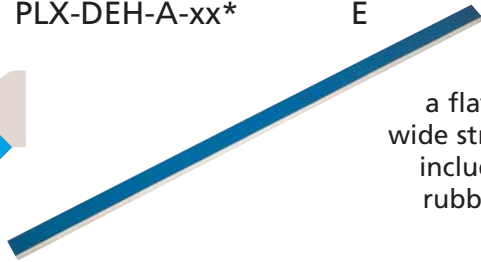
riveted shim assembly



For Models that Use Rubber Squeegee Holders

Part No. **Price Code**

PLX-DEH-A-xx* E



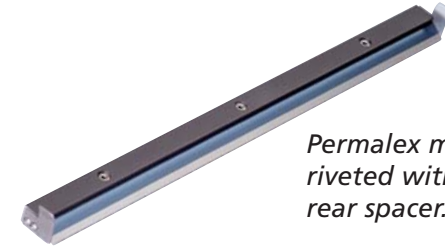
This item is a flat, 0.5 (12.2mm) wide strip of Permalex included with a soft rubber squeegee to act as a shim.

*xx denotes Length: Replace xx with the length of squeegee desired, in mm or inches.

For Models that Use Rubber Squeegee Holders

Printer Model **Part No.** **Price Code**

MK-MARK II PLX-DEH-B-xx-PR B+ \$45 USD



Permalex metal blade, riveted with front and rear spacer.

Minami

Printer Model

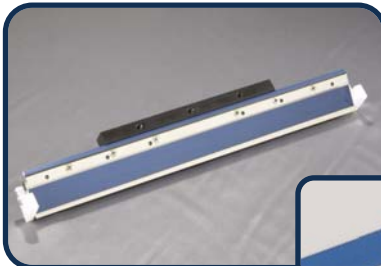
MK 878 SV
MK 880 SV
MK 868 SV
MK 838 SV
MK 831 SV



Part No. **Price Code**

PLX-MIN-A-xx-PR D

PLX-MIN-A2-xx E



PLX-MIN-B-xx-PR D

PLX-MIN-B2-xx E

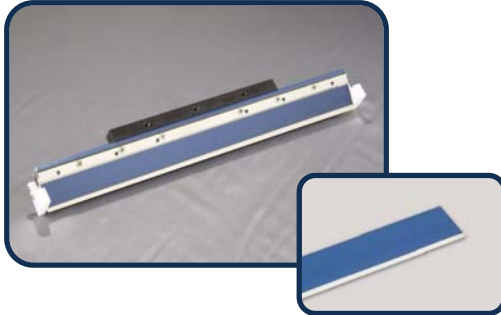
Available Options

(Add Codes to Part Numbers in Combination)

- **A45**: Change Angle to 45° (achieved by 15 degree bend in blade)
- **0.008, - 0.012**: Change Blade Thickness
- **WH**: Whole Blade Permalex (prevents corrosion on spring steel)
- **CH (YYY)**: Cut Holder to YYY Dimension (longer than blade (xx) dimension so holder can hold longer blade.)
- **SE**: Sharp Edge

Printer Model

NP-04M
NP-04LP
HG610
TPM1100



Part No. **Price Code**

PLX-HIT-A-xx*-PR D

PLX-HIT-A2-xx E

*xx denotes Length: Replace xx with the length of squeegee desired, in mm or inches.

Available Options

(Add Codes to Part Numbers in Combination)

- **A45**: Change Angle to 45°
(achieved by 15 degree bend in blade)
- **0.008**, - **0.012**: Change Blade Thickness
- **WH**: Whole Blade Permalex
(prevents corrosion on spring steel)
- **CH (YYY)**: Cut Holder to YYY Dimension
(longer than blade (xx) dimension so holder can hold longer blade.)
- **SE**: Sharp Edge

APS, Elite, Surface Mount Techniques

Printer Model

APS
SPR-40
SPR-45
Elite
5000
6000

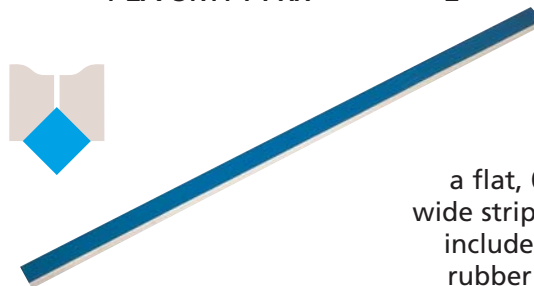
Surface Mount Techniques

Opti-Print Series
Solderprint Series
BAM Series

For Models that Use Rubber Squeegee Holders

Part No. **Price Code**

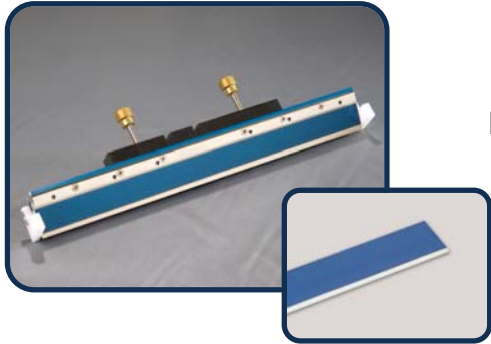
PLX-SMT-A-xx* E



This item is a flat, 0.5 (12.2mm) wide strip of Permalex included with a soft rubber squeegee to act as a shim.

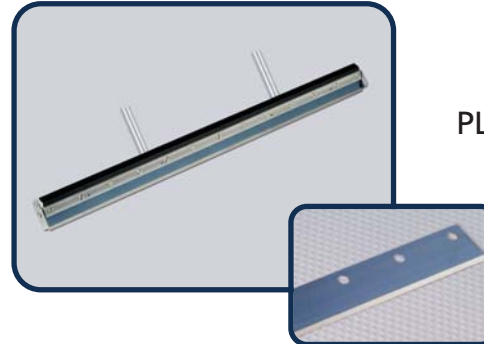
PrinTEK

Printer Model
PrinTEK II



Part No.	Price Code
PLX-TRA-C-xx-PR	D + \$45 USD
PLX-TRA-C2-xx	F

Printer Model
PrinTEK I (Semi-Automatic)



Part No.	Price Code
PLX-TRA-B-xx-PR	D + \$45 USD
PLX-TRA-A2-xx	F

*xx denotes Length: Replace xx with the length of squeegee desired, in mm or inches.

TDK

For Models that Use Rubber Squeegee Holders

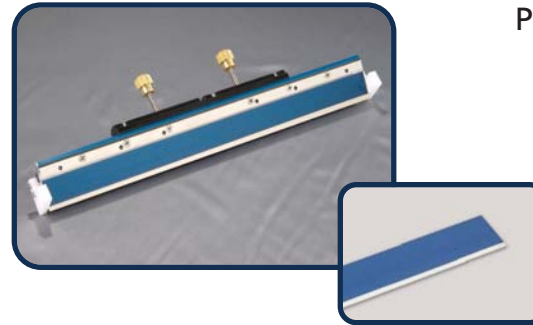


Part No.	Price Code
PLX-TDK-A-xx-PR	C+ \$45 USD

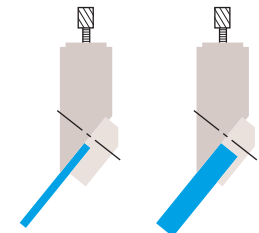


riveted shim assembly

Printer Model
VP-4



Part No.	Price Code
PLX-TDK-S-xx-PR	D
PLX-TDK-S2-xx	E



HTI

Printer Model

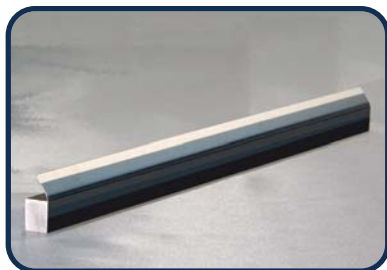
HT-1
HT-2
HT-3
HT-7
3AV

Part No.

PLX-HTI-B-xx*

Price Code

B



Front Flush Blade with Bend bonded to Shim to match 5-sided Polymer Squeegee

*xx denotes Length: Replace xx with the length of squeegee desired, in mm or inches.

Speedprint Europlacer

Printer Model

AVI Series
SP-100
SP-200

Replace Original OEM Blades

Part No. – Code F

PLX-OEM-SPT-40-130
PLX-OEM-SPT-40-140
PLX-OEM-SPT-40-170
PLX-OEM-SPT-40-220
PLX-OEM-SPT-40-270
PLX-OEM-SPT-40-320
PLX-OEM-SPT-40-370
PLX-OEM-SPT-40-390
PLX-OEM-SPT-40-450
PLX-OEM-SPT-40-490



Motoprint/Uniprint

Replace Original OEM Blades

Part No. – Code F

PLX-OEM-MOT-26-130
PLX-OEM-MOT-26-180
PLX-OEM-MOT-26-220
PLX-OEM-MOT-26-260
PLX-OEM-MOT-26-300
PLX-OEM-MOT-26-400

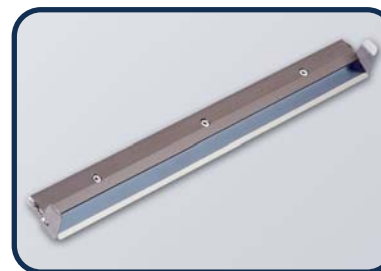


Yamaha/Tenyru

Part No.

Price Code

PLX-YAM-A-170 A
PLX-YAM-A-200 A
PLX-YAM-A-230 A
PLX-YAM-A-xx A



Printer Model

YMK880II
YMK 280
YVP-XG
TSP-200

Paste Retainers Not Available

Juki

Printer Model
KS1710



Part No.

PLX-OEM-JUK-35-430
PLX-OEM-JUK-35-xx

Price Code

F
F

Sanyo

For Models that Use Rubber Squeegee Holders

Part No.	Price Code
PLX-SAN-B-xx-PR	B+ \$45 _{USD}



Part No.	Price Code
----------	------------

PLX-SAN-A-xx-PR	A+ \$45 _{USD}
-----------------	------------------------



Milara

Printer Model

TP 2929
ST 2929
MT 2020
STAV
STW-1
MTW-1



Part No.	Price Code
PLX-MIL-S2-xx	E

Kistech

Printer Model

KT300



Part No	Price Code
---------	------------

PLX-OEM-KIS-38-270	F
PLX-OEM-KIS-38-370	F
PLX-OEM-KIS-38-400	F
PLX-OEM-KIS-38-425	F
PLX-OEM-KIS-38-xx	F

Autotronik

Printer Model

BS 1300
BS 1400



Part No.	Price Code
PLX-OEM-AUT-30-xx	F

Essemtec

Printer Model

SP002
SP003
SP200AV
SP600
SP900



Part No.	Price Code
----------	------------

PLX-OEM-ESS-20-xx	E
PLX-OEM-ESS-25-xx	E

AMI

For Models that Use Rubber Squeegee Holders

Printer Model

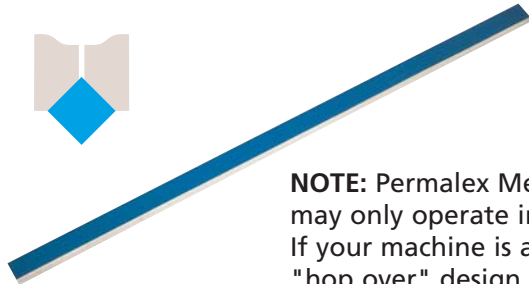
C.W. Price
Aremco
Presco

Part No.

PLX-SMT-A-xx*
(No Rubber)

Price Code

E



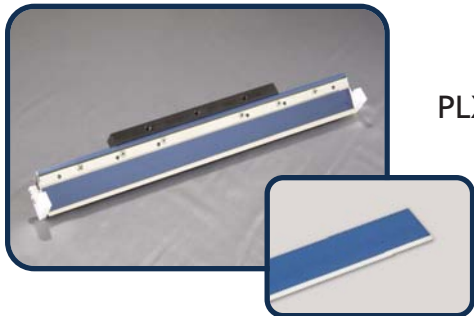
NOTE: Permalex Metal Squeegees may only operate in one direction. If your machine is a single squeegee "hop over" design, then one direction of print must be disabled.

*xx denotes Length: Replace xx with the length of squeegee desired, in mm or inches.

Exerra

Printer Model

eP20
eP23
eP25
eP30
eP35



Part No.

PLX-EXE-S-xx-PR

Price Code

D

PLX-EXE-S2-xx

E

Misc Printers

Printer

Model

Micro-Tec

MT-80SP, MT-320,
MT-550, MT-750, MT-1100

Mechatronic

S10, S40, D40

Desen

DSP-1008, DSP-XP

VM Star

1000

SJ Innotech

HP520, HP620

Sony

SI-P750, SI-P950

GKG

G1, G2, G3, K Series

Schmid

S84-GF

Folungwin

Win-5, FL-AVP737,
FL-AVP816

Koma/Genitec

KP440Va, KP100

Singking

SKVP-318, SKP-818,
SKP-828, SKP-838

Suneast

G2

Multicomponents

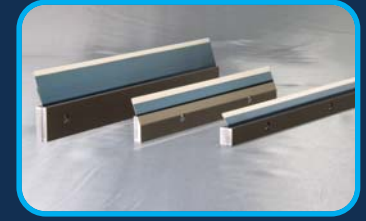
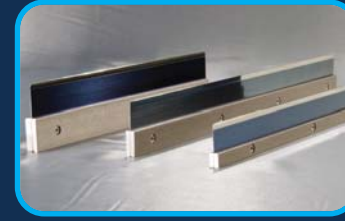
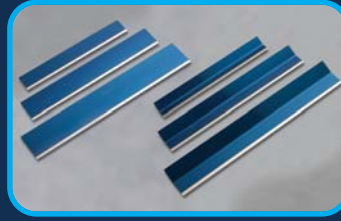
MC-400

Contact us for part numbers and pricing.

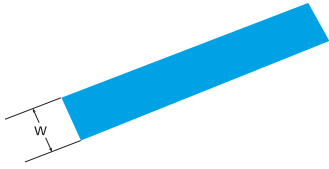
Custom Ordering

Make Your Own Custom Squeegee

(All Dimensions in Millimeters)



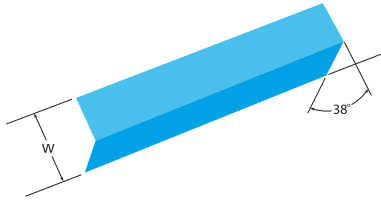
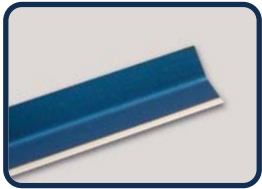
A. Flat Blade



Part No. **Price Code**

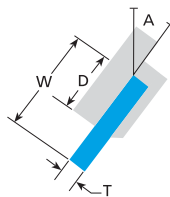
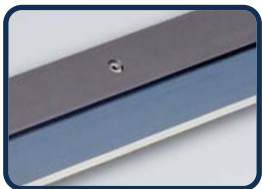
PLX-STK-A-[W]-xx E
 For example: W = 32mm,
 Length = 350mm
 Part Number: PLX-STK-A-32-350

B. Blade w/ Bend



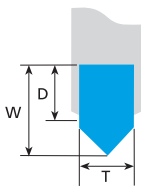
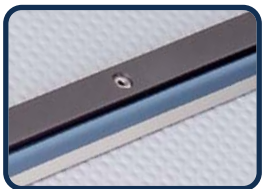
PLX-STK-B-[W]-xx F
 For example: W = 20mm,
 Length = 240mm
 Part Number: PLX-STK-B-20-240
 Normal Angle on this style is: 38°.
 For other angles, add code:
 -A_ _ and specify angle.

C. Shimmed Blade



PLX-A-[W] [Tx10]-xx A
 For example: W=40mm,
 T=6mm, Length = 400mm
 Part Number: PLX-A4060-400

D. Shimmed Blade w/Bend



PLX-B-[W] [Tx10]-xx B
 For example: W=20, T=10,
 Length = 200mm
 Part Number: PLX-B20100-200
 Normal Angle on this style is: 38 °.
 =For other angles, add code:
 -A_ _ and specify angle.

Available Options

(Add Codes to Part Numbers in Combination)

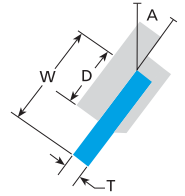
- **A45**: Change Angle to 45°
(achieved by 15 degree bend in blade)
- **RED, - GREEN, - SILVER**: Change Holder Color (standard is blue)
- **0.008, - 0.012**: Change Blade Thickness
- **WH**: Whole Blade Permalex
(prevents corrosion on spring steel)
- **CH (YYY)**: Cut Holder to YYY Dimension
(longer than blade (xx) dimension so holder can hold longer blade.
- **SE**: Sharp Edge

Custom Squeegee Specification Form

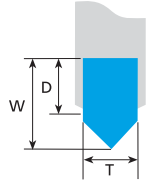
Printer Manufacturer and Model Number _____

Overall Length of Squeegee (xx) _____ mm

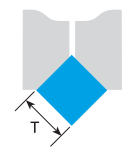
Please circle the type of squeegee you have and provide dimensions (in mm) listed:



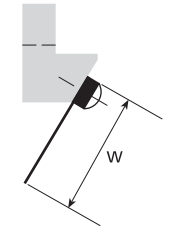
W = _____ mm
 D = _____ mm
 T = _____ mm
 W = _____ mm



W = _____ mm
 D = _____ mm
 T = _____ mm



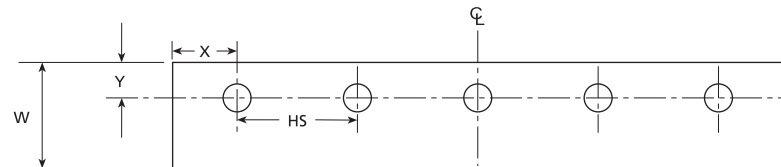
T = _____ mm



W = _____ mm

If there are holes in your squeegee, please provide the following information (in mm):

X = _____ mm
 Y = _____ mm
 HS = _____ mm

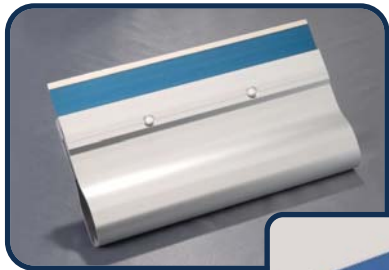


Centerline on Hole? Y _____ N _____ Number of Holes _____ Diameter of Holes _____ mm

Price Code: Call for Price and Part Number

Please complete on web site: www.transitionautomation/order.html

Handhelds



Part No.	Price Code
PLX-HAN-A-xx includes handle and blade	F
PLX-HAN-A2-xx	E
PLX-Holder	\$75 _{USD}

Available Options

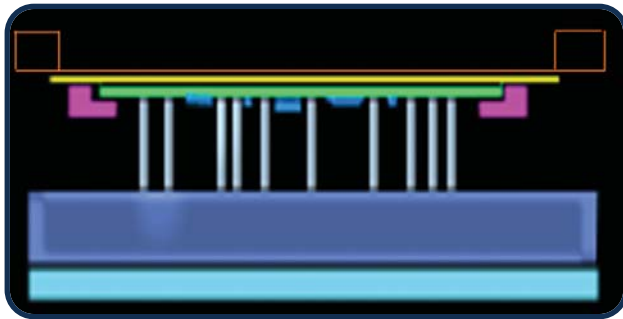
(Add Codes to Part Numbers in Combination)

- **A45:** Change Angle to 45°
(achieved by 15 degree bend in blade)
- **RED, - GREEN, - SILVER:** Change Holder Color (standard is blue)
- **0.008, - 0.012:** Change Blade Thickness
- **WH:** Whole Blade Permalex
(prevents corrosion on spring steel)
- **CH (YYY):** Cut Holder to YYY Dimension
(longer than blade (xx) dimension so holder can hold longer blade.)
- **SE:** Sharp Edge

Guidelines for High Quality SMT Printing

A Be sure stencil specs are suitable for your pitch

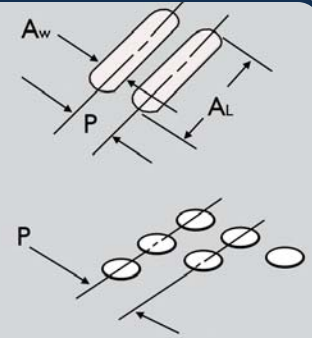
B Check that your squeegee, stencil and pboard "stack" are parallel and rigid as possible



C Set squeegee pressure for a "clean wipe": Start at a low squeegee pressure force and adjust UP until a clean wipe is achieved; Add 10% more for variations.

Stencil Aperature and Thickness Suggestions:

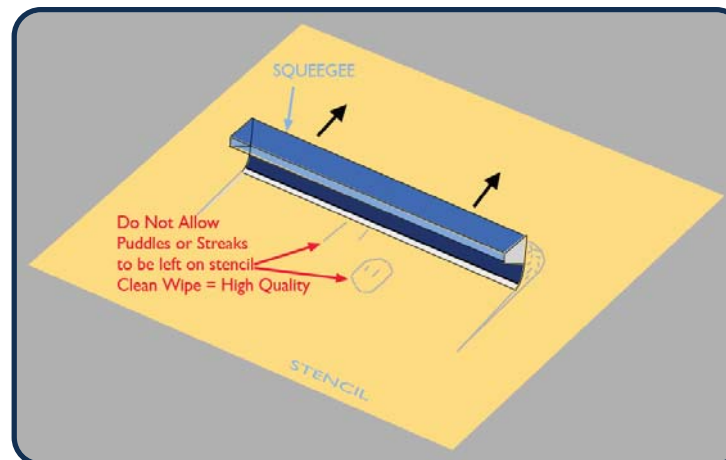
	Aperature Size	Stencil Thickness
For Course Pitch, 0.050 inch and larger:	$A_w = 1/2 P$ AL = Land Pad	8-6 mils
For FinePitch, 0.025 inch to 0.016 inch	$A_w = 1/2 P$ AL = Land Pad	6-5 mils
For FinePitch, 0.015 inch and smaller	$A_w = 1/2 P$ AL = Land Pad	5-4 mils



A_w = Aperature Width
 A_L = Aperature Length
 P = Pitch

Notes:

1. For Rectangular Shaped Stencil Aperatures...*Adjust the length of the pad to fine tune solder joint volume, but hold the width dimension to 1/2 the pitch to maintain good printing.*
2. For Round Shaped Aperatures ... maintain a web thickness between pads which is no smaller than 30 % of pad diameter



Squeegee Inspection and Performance

A Be sure that your metal squeegees are straight and parallel, and free of nicks, dents or jagged edges. Do not use rubber squeegees - they deform and wear out quickly. Use only metal squeegees.

B **Squeegee Life:** Normal life-span of a metal squeegee depends on speed of printing, care when handling, quality of board support, and amount of pressure and force applied to squeegees during printing. Normally Permalex Edge squeegee will operate for well beyond 200,000 print cycles, and exceed 8 months of continuous use on an SMT line.

For high-quality Permalex squeegees, inspect edge by running a sharp edge (like a small screwdriver or razor knife) along the edge. There should be no nicks or dings or abnormalities which cause the sliding knife edge to jam or chatter while sliding.

C **Rust and Corrosion Prevention:** Permalex Edge Metal Squeegees are manufactured with an exceptional tempered spring steel which assured many hundreds of thousands of flexures. It's a great material for the application however it also is susceptible to corrosion.

To prevent corrosion:

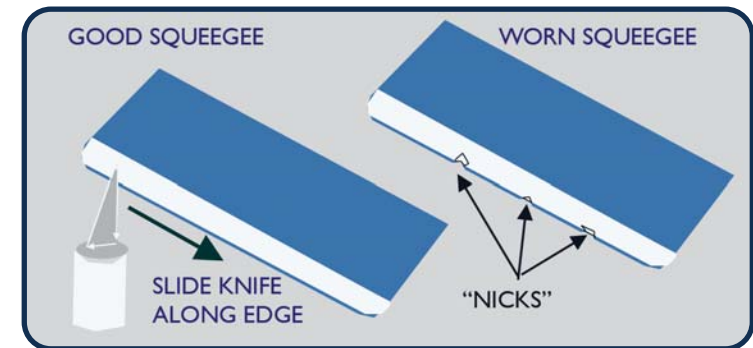
- 1) Avoid handling the Permalex squeegees with bare hands. Oil and salts from hands can accelerate corrosion.
- 2) Keep squeegees clean and dry and inside their storage tubes when not in use.
- 3) For maximum protection, or to reduce, clean and protect squeegees that show rust: apply a thin film of oil to the blades and wipe excess off before placing squeegees in storage.



Good Squeegee



Reject Squeegee



Transition Automation, Inc. was founded in 1988 to provide new stencil printing technology that meets the engineering and operational challenges of the SMT market:

Accuracy: Transition Automation has pioneered the use of Permalex® edge metal squeegees for exceptional accuracy at 20 mil pitch and below. Our customers' results speak for themselves.

Satisfaction: The company is firmly committed to 100% customer satisfaction. All Transition Automation products are sold with a 30-day money back guarantee.

We are proud of the contributions we have already made to our customers' quality improvement programs, and we look forward to serving you in the near future.



Transition Automation's state-of-the-art manufacturing facility in North Billerica, Massachusetts.

**TRANSITION
AUTOMATION**

101 Billerica Avenue, Bldg. 5, North Billerica, MA 01862, U.S.A.
800-648-3338 (U.S.A. only), 978-670-5500 • FAX: 978-670-2300
E-Mail: sales@SMTexperts.com • WEB SITE: www.permalex.com

www.permalex.com